element

**ELEMENT MATERIALS TECHNOLOGY**
(formerly PCTEST)
7185 Oakland Mills Road, Columbia, MD 21046 USA
Tel. +1.410.290.6652 / Fax +1.410.381.1520
http://www.element.com

# RF EXPOSURE PART 1 TEST REPORT

**Applicant Name:**
Samsung Electronics Co., Ltd.
129, Samsung-ro, Maetan dong,
Yeongtong-gu, Suwon-si
Gyeonggi-do, 16677, Korea

**Date of Testing:**
06/09/2025 – 07/07/2025
**Test Site/Location:**
Element, Columbia, MD, USA
**Document Serial No.:**
1M2505130050-17.A3L (Rev2)

**FCC ID:** **A3LSMX736B**

**APPLICANT:** **SAMSUNG ELECTRONICS CO., LTD.**

**DUT Type:** Portable Computing Device
**Application Type:** Certification
**FCC Rule Part(s):** CFR §2.1093
**Model(s):** SM-X736B

| Equipment Class | Band & Mode | Tx Frequency | SAR 1g Laptop (W/kg) | SAR 1g Tablet (W/kg) |
|---|---|---|---|---|
| PCB | GSM/GPRS/EDGE 850 | 824.20 - 848.80 MHz | 0.14 | 0.70 |
| PCB | GSM/GPRS/EDGE 1900 | 1850.20 - 1909.80 MHz | <0.1 | 0.57 |
| PCB | UMTS 850 | 826.40 - 846.60 MHz | 0.12 | 0.75 |
| PCB | UMTS 1750 | 1712.4 - 1752.6 MHz | 0.12 | 0.59 |
| PCB | UMTS 1900 | 1852.4 - 1907.6 MHz | 0.12 | 0.64 |
| PCB | LTE Band 12 | 699.7 - 715.3 MHz | 0.13 | 0.68 |
| PCB | LTE Band 17 | 706.5 - 713.5 MHz | N/A | N/A |
| PCB | LTE Band 13 | 779.5 - 784.5 MHz | 0.12 | 0.74 |
| PCB | LTE Band 26 | 814.7 - 848.3 MHz | 0.12 | 0.71 |
| PCB | LTE Band 5 | 824.7 - 848.3 MHz | N/A | N/A |
| PCB | LTE Band 66 | 1710.7 - 1779.3 MHz | **0.23** | 0.64 |
| PCB | LTE Band 4 | 1710.7 - 1754.3 MHz | N/A | N/A |
| PCB | LTE Band 25 | 1850.7 - 1914.3 MHz | 0.10 | 0.67 |
| PCB | LTE Band 2 | 1850.7 - 1909.3 MHz | N/A | N/A |
| PCB | LTE Band 41 | 2498.5 - 2687.5 MHz | 0.11 | 0.74 |
| PCB | NR Band n5 | 826.5 - 846.5 MHz | 0.14 | 0.89 |
| PCB | NR Band n66 | 1712.5 - 1777.5 MHz | 0.17 | 0.70 |
| PCB | NR Band n25 | 1852.5 - 1912.5 MHz | 0.16 | 0.68 |
| PCB | NR Band n2 | 1852.5 - 1907.5 MHz | N/A | N/A |
| PCB | NR Band n41 | 2501.01 - 2685 MHz | <0.1 | **1.00** |
| PCB | NR Band n77 | 3455.01 - 3544.98 MHz; 3705 - 3975 MHz | <0.1 | 0.90 |
| DTS | 2.4 GHz WiFi | 2412 - 2472 MHz | **0.33** | **0.91** |
| NII | 5 GHz WiFi | U-NII-1: 5180 - 5240 MHz<br>U-NII-2A: 5260 - 5320 MHz<br>U-NII-2C: 5500 - 5720 MHz<br>U-NII-3: 5745 - 5825 MHz<br>U-NII-4: 5845 - 5885 MHz | **0.22** | **1.00** |
| 6CD | 6 GHz WiFi | U-NII-5: 5935 - 6415 MHz<br>U-NII-6: 6435 - 6515 MHz<br>U-NII-7: 6535 - 6875 MHz<br>U-NII-8: 6895 - 7115 MHz | **<0.1** | **0.39** |
| DSS | 2.4 GHz Bluetooth | 2402 - 2480 MHz | **0.13** | **0.32** |
| **Simultaneous SAR per KDB 690783 D01v01r03:** | | | 0.99 | **1.59** |

| Equipment Class | Band & Mode | Tx Frequency | APD (W/m^2) 1g Laptop | APD (W/m^2) 1g Tablet | Reported PD (W/m^2) |
|---|---|---|---|---|---|
| 6CD | 6 GHz WiFi | U-NII-5: 5935 - 6415 MHz<br>U-NII-6: 6435 - 6515 MHz<br>U-NII-7: 6535 - 6875 MHz<br>U-NII-8: 6895 - 7115 MHz | 0.46 | 1.89 | 2.36 |

| Overall SAR Summary | | | |
|---|---|---|---|
| RF Exposure Position | Laptop | Tablet | Simultaneous Transmission |
| SAR (W/kg) | 0.33 | 1 | 1.59 |
| Distance (mm) | 0 | 0 | N/A |

Note: This revised Test Report supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.9 of this report; for North American frequency bands only.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

RJ Ortanez
Executive Vice President

The SAR Tick is an initiative of the Mobile & Wireless Forum (MWF). While a product may be considered eligible, use of the SAR Tick logo requires an agreement with the MWF. Further details can be obtained by emailing: sartick@mwfai.info.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact **CT.INFO@ELEMENT.COM**.

# TABLE OF CONTENTS


2 DEVICE UNDER TEST ....4

3 LTE AND NR INFORMATION .... 20

4 INTRODUCTION .... 22

5 DOSIMETRIC ASSESSMENT .... 23

6 TEST CONFIGURATION POSITIONS .... 24

7 RF EXPOSURE LIMITS .... 26

8 FCC MEASUREMENT PROCEDURES .... 28

9 RF CONDUCTED POWERS .... 33

10 SYSTEM VERIFICATION .... 76

11 SAR DATA SUMMARY .... 81

12 POWER DENSITY DATA SUMMARY .... 106

13 SAR MEASUREMENT VARIABILITY .... 107

14 ADDITIONAL TESTING PER FCC GUIDANCE .... 108

15 EQUIPMENT LIST .... 110

16 MEASUREMENT UNCERTAINTIES .... 111

17 CONCLUSION .... 114

18 REFERENCES .... 115

APPENDIX A: SAR TEST PLOTS
APPENDIX B: SAR DIPOLE VERIFICATION PLOTS
APPENDIX C: PROBE AND DIPOLE CALIBRATION CERTIFICATES
APPENDIX D: SAR TISSUE SPECIFICATIONS
APPENDIX E: MULTI-TX AND ANTENNA SAR CONSIDERATIONS
APPENDIX F: POWER REDUCTION VERIFICATION
APPENDIX G: SAR SYSTEM VALIDATION
APPENDIX H: LTE AND NR LOWER BANDWIDTH RF CONDUCTED POWERS
APPENDIX I: IEEE 802.11ax RU SAR EXCLUSION
APPENDIX J: DUT ANTENNA DIAGRAM AND SAR TEST SETUP PHOTOGRAPHS





Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 1 TEST LABORATORY INFORMATION

## 1.1 Introduction

This test report for device subject to testing at an accredited testing laboratory has been generated by the testing laboratory that tested the device. Detailed location and accredited information regarding the testing laboratories are provided below.

## 1.2 Test Laboratories Information

### 1.2.1 Testing Laboratory 1

| | | |
|---|---|---|
| **Test Firm Name** | ELEMENT MATERIALS TECHNOLOGY WASHINGTON DC LLC | |
| **Test Lab Location** | 7185 Oakland Mills Road, Columbia, MD 21046, United States<br>Tel. +1.410.290.6652 / Fax +1.410.381.1520 | |
| **Accreditation Info.** | Designation Number (FCC): | US1113 |
| | Lab Code. (ISED): | 2451B |
| | CAB Identifier (NIST): | US0110 |
| | ISO/IEC 17025 (A2LA): | CERT #2041.01 |
| | ilac-MRA ACCREDITED CERT #2041.01 | |
| **Measurement System No.** | C, E, H, J, L, N, R, S | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 2 DEVICE UNDER TEST

## 2.1 Device Overview

| Band & Mode | Operating Modes | Tx Frequency |
|---|---|---|
| GSM/GPRS/EDGE 850 | Data | 824.20 - 848.80 MHz |
| GSM/GPRS/EDGE 1900 | Data | 1850.20 - 1909.80 MHz |
| UMTS 850 | Data | 826.40 - 846.60 MHz |
| UMTS 1750 | Data | 1712.4 - 1752.6 MHz |
| UMTS 1900 | Data | 1852.4 - 1907.6 MHz |
| LTE Band 12 | Data | 699.7 - 715.3 MHz |
| LTE Band 17 | Data | 706.5 - 713.5 MHz |
| LTE Band 13 | Data | 779.5 - 784.5 MHz |
| LTE Band 26 | Data | 814.7 - 848.3 MHz |
| LTE Band 5 | Data | 824.7 - 848.3 MHz |
| LTE Band 66 | Data | 1710.7 - 1779.3 MHz |
| LTE Band 4 | Data | 1710.7 - 1754.3 MHz |
| LTE Band 25 | Data | 1850.7 - 1914.3 MHz |
| LTE Band 2 | Data | 1850.7 - 1909.3 MHz |
| LTE Band 41 | Data | 2498.5 - 2687.5 MHz |
| NR Band n5 | Data | 826.5 - 846.5 MHz |
| NR Band n66 | Data | 1712.5 - 1777.5 MHz |
| NR Band n25 | Data | 1852.5 - 1912.5 MHz |
| NR Band n2 | Data | 1852.5 - 1907.5 MHz |
| NR Band n41 | Data | 2501.01 - 2685 MHz |
| NR Band n77 | Data | 3455.01 - 3544.98 MHz;<br>3705 - 3975 MHz |
| 2.4 GHz WIFI | Data | 2412 - 2472 MHz |
| 5 GHz WIFI | Data | U-NII-1: 5180 - 5240 MHz<br>U-NII-2A: 5260 - 5320 MHz<br>U-NII-2C: 5500 - 5720 MHz<br>U-NII-3: 5745 - 5825 MHz<br>U-NII-4: 5845 - 5885 MHz |
| 6 GHz WIFI | Data | U-NII-5: 5935 - 6415 MHz<br>U-NII-6: 6435 - 6515 MHz<br>U-NII-7: 6535 - 6875 MHz<br>U-NII-8: 6895 - 7115 MHz |
| 2.4 GHz Bluetooth | Data | 2402 - 2480 MHz |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 2.2 Time-Averaging Algorithm for RF Exposure Compliance

This Device is enabled with Mediatek's TAS TA-SAR Gen2 feature for WWAN modes technologies. These features perform time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Refer to Compliance Summary document for detailed description of TAS feature (report SN could be found in Section 2.9 – Bibliography).

Note that WLAN, and Bluetooth operations are not enabled with TAS.

The TAS algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit (i.e., Plimit for WWAN sub-6), for each characterized technology and band. Characterization is achieved by determining Plimit for WWAN sub- 6 that corresponds to the exposure design targets after accounting for all device design related uncertainties, i.e., SAR_design_target (<FCC SAR Limit) for sub-6 radio. The SAR characterization is denoted as SAR char in this report (see RF Exposure Part 0 Test Report, report SN could be found in Section 1.4 - Bibliography).

TAS allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Final Plimit settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Exposure Condition Index ECI for MediaTek). Note that the device uncertainty for sub-6GHz WWAN is 1.0dB for this EUT.

| Exposure Scenario | | | Maximum Tune-Up Output Power* | Free | Grip Sensor #1 | Grip Sensor #2 | Grip Sensor #3 | Grip Sensor #4 | Grip Sensor #5 |
|---|---|---|---|---|---|---|---|---|---|
| Averaging Volume | | | | 1g | 1g | 1g | 1g | 1g | 1g |
| Spacing | | | | 0, 11, 19 mm | 0mm | 0mm | 0mm | 0mm | 0mm |
| ECI | | | | 0 | 1 | 2 | 3 | 4 | 5 |
| Technology/Band | Antenna | Antenna Group | $P_{max}$ | $P_{limit}$ | $P_{limit}$ | $P_{limit}$ | $P_{limit}$ | $P_{limit}$ | $P_{limit}$ |
| GSM 850 | M1 | AG0 | 25.3 | 27.8 | N/A | 12.8 | N/A | N/A | N/A |
| GSM 1900 | M1 | AG0 | 22.3 | 27.8 | N/A | 11.8 | 18.3 | N/A | N/A |
| UMTS 850 | M1 | AG0 | 24.0 | 26.2 | N/A | 13.0 | N/A | N/A | N/A |
| UMTS 1750 | M1 | AG0 | 24.0 | 27.7 | N/A | 12.5 | 19.0 | N/A | N/A |
| UMTS 1900 | M1 | AG0 | 24.0 | 28.3 | N/A | 12.0 | 19.0 | N/A | N/A |
| LTE Band 12/17 | M1 | AG0 | 24.0 | 28.6 | N/A | 15.0 | N/A | N/A | N/A |
| LTE Band 13 | M1 | AG0 | 24.0 | 27.1 | N/A | 16.0 | N/A | N/A | N/A |
| LTE Band 26/5 | M1 | AG0 | 24.0 | 26.3 | N/A | 13.0 | N/A | N/A | N/A |
| LTE Band 66/4 | M1 | AG0 | 24.0 | 27.2 | N/A | 13.0 | 18.0 | N/A | N/A |
| LTE Band 66 | S3 | AG1 | 23.0 | 11.5 | 11.5 | 11.5 | 11.5 | 11.5 | 11.5 |
| LTE Band 25/2 | M1 | AG0 | 24.0 | 28.5 | N/A | 12.0 | 19.0 | N/A | N/A |
| LTE Band 41 PC3 | M1 | AG0 | 22.0 | 26.1 | N/A | 10.5 | 15.0 | N/A | N/A |
| LTE Band 41 PC2 | M1 | AG0 | 22.4 | 26.1 | N/A | 10.5 | 15.0 | N/A | N/A |
| NR Band n5 | M1 | AG0 | 24.0 | 25.4 | N/A | 13.0 | N/A | N/A | N/A |
| NR Band n66 | M1 | AG0 | 24.0 | 26.8 | N/A | 13.0 | 18.0 | N/A | N/A |
| NR Band n25/n2 | M1 | AG0 | 24.0 | 28.2 | N/A | 12.0 | 19.0 | N/A | N/A |
| NR Band n41 PC3 | M1 | AG0 | 24.0 | 18.0 | N/A | 11.0 | 15.0 | N/A | N/A |
| NR Band n41 PC3 | S3 | AG1 | 18.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| NR Band n41 PC3 | S2 | AG1 | 20.5 | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 |
| NR Band n41 PC3 | S1 | AG1 | 22.0 | 16.5 | N/A | N/A | N/A | N/A | 11.0 |
| NR Band n77 PC3 | S4 | AG1 | 24.0 | 18.0 | N/A | N/A | N/A | 8.0 | N/A |
| NR Band n77 PC3 | M4 | AG0 | 20.0 | 13.0 | N/A | N/A | 7.0 | N/A | N/A |
| NR Band n77 PC3 | S2 | AG1 | 22.0 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| NR Band n77 PC3 | S3 | AG1 | 22.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| NR Band n77 PC2 | S4 | AG1 | 27.0 | 18.0 | N/A | N/A | N/A | 8.0 | N/A |
| NR Band n77 PC2 | M4 | AG0 | 20.0 | 13.0 | N/A | N/A | 7.0 | N/A | N/A |
| NR Band n77 PC2 | S2 | AG1 | 22.0 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| NR Band n77 PC2 | S3 | AG1 | 22.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |

*Maximum tune up output power $P_{max}$ is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power + 1dB device design uncertainty.

The maximum time-averaged output power (dBm) for any WWAN sub-6 technology, band, and ECI is the minimum of ("Plimit " and "Maximum tune up output power Pmax") + 1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D04v06.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 2.3 Power Reduction for SAR

This device uses a power reduction mechanism for SAR compliance. The power reduction mechanism is activated when the device is used in close proximity to the user's body. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device. Detailed descriptions of the power reduction mechanism are included in the operational description.

This device uses an independent fixed level power reduction mechanism for WLAN/BT operations when 5G NR is active. Detailed descriptions of the power reduction mechanism are included in the operational description.




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact **CT.INFO@ELEMENT.COM**.

## 2.4 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D04v01.

Note: Targets for 802.11ax RU operations can be found in 802.11ax RU SAR Exclusion Appendix.

### 2.4.1 Licensed Output Power

| GSM/GPRS/EDGE 850 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Antenna M1 | | | | | | | | | | |
| Power Level | | Voice (in dBm) | Data - Burst Average GMSK (in dBm) | | | | Data - Burst Average 8-PSK (in dBm) | | | |
| | | 1 TX Slot | 1 TX Slots | 2 TX Slots | 3 TX Slots | 4 TX Slots | 1 TX Slots | 2 TX Slots | 3 TX Slots | 4 TX Slots |
| Pmax | Max Allowed Power | 33.5 | 33.5 | 32.5 | 30.5 | 29.5 | 27.0 | 26.0 | 24.0 | 23.0 |
| | Nominal | 32.5 | 32.5 | 31.5 | 29.5 | 28.5 | 26.0 | 25.0 | 23.0 | 22.0 |
| ECI = 0 (Free) | Max Allowed Power | 33.5 | 33.5 | 32.5 | 30.5 | 29.5 | 27.0 | 26.0 | 24.0 | 23.0 |
| | Nominal | 32.5 | 32.5 | 31.5 | 29.5 | 28.5 | 26.0 | 25.0 | 23.0 | 22.0 |
| ECI = 2 (Grip Sensor #2) | Max Allowed Power | 23.0 | 23.0 | 20.0 | 18.2 | 17.0 | 22.0 | 18.5 | 16.5 | 14.5 |
| | Nominal | 22.0 | 22.0 | 19.0 | 17.2 | 16.0 | 21.0 | 17.5 | 15.5 | 13.5 |
| GSM/GPRS/EDGE 1900 | | | | | | | | | | |
| Antenna M1 | | | | | | | | | | |
| Power Level | | Voice (in dBm) | Data - Burst Average GMSK (in dBm) | | | | Data - Burst Average 8-PSK (in dBm) | | | |
| | | 1 TX Slot | 1 TX Slots | 2 TX Slots | 3 TX Slots | 4 TX Slots | 1 TX Slots | 2 TX Slots | 3 TX Slots | 4 TX Slots |
| Pmax | Max Allowed Power | 30.5 | 30.5 | 29.5 | 27.5 | 26.5 | 26.0 | 25.0 | 23.0 | 22.0 |
| | Nominal | 29.5 | 29.5 | 28.5 | 26.5 | 25.5 | 25.0 | 24.0 | 22.0 | 21.0 |
| ECI = 0 (Free) | Max Allowed Power | 30.5 | 30.5 | 29.5 | 27.5 | 26.5 | 26.0 | 25.0 | 23.0 | 22.0 |
| | Nominal | 29.5 | 29.5 | 28.5 | 26.5 | 25.5 | 25.0 | 24.0 | 22.0 | 21.0 |
| ECI = 2 (Grip Sensor #2) | Max Allowed Power | 22.0 | 22.0 | 19.0 | 17.2 | 16.0 | 20.5 | 17.0 | 15.0 | 14.0 |
| | Nominal | 21.0 | 21.0 | 18.0 | 16.2 | 15.0 | 19.5 | 16.0 | 14.0 | 13.0 |
| ECI = 3 (Grip Sensor #3) | Max Allowed Power | 28.5 | 28.5 | 25.5 | 23.7 | 22.5 | 26.0 | 25.0 | 23.0 | 22.0 |
| | Nominal | 27.5 | 27.5 | 24.5 | 22.7 | 21.5 | 25.0 | 24.0 | 22.0 | 21.0 |

For GSM, the above powers listed are GSM burst average values.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

| UMTS Band 5 (850 MHz) | | | | | |
|---|---|---|---|---|---|
| **Antenna M1** | | | | | |
| Power Level | | Modulated Average Output Power | | | |
| | | 3GPP WCDMA Rel 99 | 3GPP HSDPA Rel 5 | 3GPP HSUPA Rel 6 | 3GPP DC-HSDPA Rel 8 |
| Pmax | Max Allowed Power | 25.0 | 24.0 | 23.0 | 24.0 |
| | Nominal | 24.0 | 23.0 | 22.0 | 23.0 |
| ECI = 0 (Free) | Max Allowed Power | 25.0 | 24.0 | 23.0 | 24.0 |
| | Nominal | 24.0 | 23.0 | 22.0 | 23.0 |
| ECI = 2 (Grip Sensor #2) | Max Allowed Power | 14.0 | 14.0 | 14.0 | 14.0 |
| | Nominal | 13.0 | 13.0 | 13.0 | 13.0 |
| **UMTS Band 4 (1750 MHz)** | | | | | |
| **Antenna M1** | | | | | |
| Power Level | | Modulated Average Output Power | | | |
| | | 3GPP WCDMA Rel 99 | 3GPP HSDPA Rel 5 | 3GPP HSUPA Rel 6 | 3GPP DC-HSDPA Rel 8 |
| Pmax | Max Allowed Power | 25.0 | 24.0 | 23.0 | 24.0 |
| | Nominal | 24.0 | 23.0 | 22.0 | 23.0 |
| ECI = 0 (Free) | Max Allowed Power | 25.0 | 24.0 | 23.0 | 24.0 |
| | Nominal | 24.0 | 23.0 | 22.0 | 23.0 |
| ECI = 2 (Grip Sensor #2) | Max Allowed Power | 13.5 | 13.5 | 13.5 | 13.5 |
| | Nominal | 12.5 | 12.5 | 12.5 | 12.5 |
| ECI = 3 (Grip Sensor #3) | Max Allowed Power | 20.0 | 19.0 | 18.0 | 19.0 |
| | Nominal | 19.0 | 18.0 | 17.0 | 18.0 |
| **UMTS Band 2 (1900 MHz)** | | | | | |
| **Antenna M1** | | | | | |
| Power Level | | Modulated Average Output Power | | | |
| | | 3GPP WCDMA Rel 99 | 3GPP HSDPA Rel 5 | 3GPP HSUPA Rel 6 | 3GPP DC-HSDPA Rel 8 |
| Pmax | Max Allowed Power | 25.0 | 24.0 | 23.0 | 24.0 |
| | Nominal | 24.0 | 23.0 | 22.0 | 23.0 |
| ECI = 0 (Free) | Max Allowed Power | 25.0 | 24.0 | 23.0 | 24.0 |
| | Nominal | 24.0 | 23.0 | 22.0 | 23.0 |
| ECI = 2 (Grip Sensor #2) | Max Allowed Power | 13.0 | 13.0 | 13.0 | 13.0 |
| | Nominal | 12.0 | 12.0 | 12.0 | 12.0 |
| ECI = 3 (Grip Sensor #3) | Max Allowed Power | 20.0 | 19.0 | 18.0 | 19.0 |
| | Nominal | 19.0 | 18.0 | 17.0 | 18.0 |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

| Mode / Band | Antenna | | Modulated Average Output Power (in dBm) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Pmax | ECI = 0 (Free) | ECI = 1 (Grip Sensor #1) | ECI = 2 (Grip Sensor #2) | ECI = 3 (Grip Sensor #3) | ECI = 4 (Grip Sensor #4) | ECI = 5 (Grip Sensor #5) |
| LTE Band 12/17 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 16.0 | N/A | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 15.0 | N/A | N/A | N/A |
| LTE Band 13 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 17.0 | N/A | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 16.0 | N/A | N/A | N/A |
| LTE Band 26/5 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 14.0 | N/A | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 13.0 | N/A | N/A | N/A |
| LTE Band 66/4 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 14.0 | 19.0 | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 13.0 | 18.0 | N/A | N/A |
| LTE Band 66 | S3 | Max Allowed Power | 24.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| | | Nominal | 23.0 | 11.5 | 11.5 | 11.5 | 11.5 | 11.5 | 11.5 |
| LTE Band 25/2 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 13.0 | 20.0 | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 12.0 | 19.0 | N/A | N/A |
| LTE Band 41 PC3 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 13.5 | 18.0 | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 12.5 | 17.0 | N/A | N/A |
| LTE Band 41 PC2 | M1 | Max Allowed Power | 27.0 | 27.0 | N/A | 15.1 | 19.6 | N/A | N/A |
| | | Nominal | 26.0 | 26.0 | N/A | 14.1 | 18.6 | N/A | N/A |

For LTE TDD, the above powers listed are TDD burst average values.

| Mode / Band | Antenna | | Modulated Average Output Power (in dBm) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Pmax | ECI = 0 (Free) | ECI = 1 (Grip Sensor #1) | ECI = 2 (Grip Sensor #2) | ECI = 3 (Grip Sensor #3) | ECI = 4 (Grip Sensor #4) | ECI = 5 (Grip Sensor #5) |
| NR Band n5 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 14.0 | N/A | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 13.0 | N/A | N/A | N/A |
| NR Band n66 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 14.0 | 19.0 | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 13.0 | 18.0 | N/A | N/A |
| NR Band n25/n2 | M1 | Max Allowed Power | 25.0 | 25.0 | N/A | 13.0 | 20.0 | N/A | N/A |
| | | Nominal | 24.0 | 24.0 | N/A | 12.0 | 19.0 | N/A | N/A |
| NR Band n41 PC3 | M1 | Max Allowed Power | 25.0 | 19.0 | N/A | 12.0 | 16.0 | N/A | N/A |
| | | Nominal | 24.0 | 18.0 | N/A | 11.0 | 15.0 | N/A | N/A |
| NR Band n41 PC3 | S3 | Max Allowed Power | 19.5 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| | | Nominal | 18.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| NR Band n41 PC3 | S2 | Max Allowed Power | 21.5 | 11.5 | 11.5 | 11.5 | 11.5 | 11.5 | 11.5 |
| | | Nominal | 20.5 | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 |
| NR Band n41 PC3 | S1 | Max Allowed Power | 23.0 | 17.5 | N/A | N/A | N/A | N/A | 12.0 |
| | | Nominal | 22.0 | 16.5 | N/A | N/A | N/A | N/A | 11.0 |
| NR Band n77 PC3 | S4 | Max Allowed Power | 25.0 | 19.0 | N/A | N/A | N/A | 9.0 | N/A |
| | | Nominal | 24.0 | 18.0 | N/A | N/A | N/A | 8.0 | N/A |
| NR Band n77 PC3 | M4 | Max Allowed Power | 21.0 | 14.0 | N/A | N/A | 8.0 | N/A | N/A |
| | | Nominal | 20.0 | 13.0 | N/A | N/A | 7.0 | N/A | N/A |
| NR Band n77 PC3 | S2 | Max Allowed Power | 23.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| | | Nominal | 22.0 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| NR Band n77 PC3 | S3 | Max Allowed Power | 23.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 |
| | | Nominal | 22.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| NR Band n77 PC2 | S4 | Max Allowed Power | 28.0 | 19.0 | N/A | N/A | N/A | 9.0 | N/A |
| | | Nominal | 27.0 | 18.0 | N/A | N/A | N/A | 8.0 | N/A |
| NR Band n77 PC2 | M4 | Max Allowed Power | 21.0 | 14.0 | N/A | N/A | 8.0 | N/A | N/A |
| | | Nominal | 20.0 | 13.0 | N/A | N/A | 7.0 | N/A | N/A |
| NR Band n77 PC2 | S2 | Max Allowed Power | 23.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| | | Nominal | 22.0 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| NR Band n77 PC2 | S3 | Max Allowed Power | 23.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 |
| | | Nominal | 22.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |

For NR TDD, the above powers listed are TDD burst average and framed average values



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 2.4.2 2.4 GHz SISO/MIMO WLAN Output Power

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D04v01.

Note: Targets for 802.11ax RU operations can be found in 802.11ax RU SAR Exclusion Appendix.

The table below is applicable in the following conditions:

- Maximum Power

| Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SISO | | | | | | | | SISO | | | | | | | | SISO in MIMO | | | | | | | | | | | |
| | Antenna WIFI 0 | | | | | | | | Antenna WIFI 1 | | | | | | | | MIMO | | | | | | | | | | | |
| | b | | g | | n | | ax (SU) | | b | | g | | n | | ax (SU) | | b (CDD + STBC) | | g (CDD + STBC) | | n (CDD + STBC, SDM) | | ax (SU) (CDD + STBC, SDM) | | | | | |
| Maximum / Nominal Power | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | | |
| 2.4 GHz WLAN | 19.0 | 18.0 | 18.0 | 17.0 | 18.0 | 17.0 | 15.0 | 14.0 | 19.0 | 18.0 | 18.0 | 17.0 | 18.0 | 17.0 | 15.0 | 14.0 | 19.0 | 18.0 | 18.0 | 17.0 | 18.0 | 17.0 | 15.0 | 14.0 | | | | |
| | | | ch. 1: 15.0 | 14.0 | ch. 1: 15.0 | 14.0 | | | | | ch. 1: 15.0 | 14.0 | ch. 1: 15.0 | 14.0 | | | | | ch. 1: 15.0 | 14.0 | ch. 1: 15.0 | 14.0 | | | | | | |
| | | | ch. 10: 17.0 | 16.0 | ch. 10: 17.0 | 16.0 | | | | | ch. 10: 17.0 | 16.0 | ch. 10: 17.0 | 16.0 | | | | | ch. 10: 17.0 | 16.0 | ch. 10: 17.0 | 16.0 | | | | | | |
| | | | ch. 11: 15.0 | 14.0 | ch. 11: 15.0 | 14.0 | | | | | ch. 11: 15.0 | 14.0 | ch. 11: 15.0 | 14.0 | | | | | ch. 11: 15.0 | 14.0 | ch. 11: 15.0 | 14.0 | | | | | | |
| | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | | | | |
| | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | | | | |

The table below is applicable in the following conditions:

- Grip sensor Active

| Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SISO | | | | | | | | SISO | | | | | | | | SISO in MIMO | | | | | | | | | | | |
| | Antenna WIFI 0 | | | | | | | | Antenna WIFI 1 | | | | | | | | MIMO | | | | | | | | | | | |
| | b | | g | | n | | ax (SU) | | b | | g | | n | | ax (SU) | | b (CDD + STBC) | | g (CDD + STBC) | | n (CDD + STBC, SDM) | | ax (SU) (CDD + STBC, SDM) | | | | | |
| Maximum / Nominal Power | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | | |
| 2.4 GHz WLAN | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | 12.5 | 11.5 | | | | |
| | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | | | | |
| | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | | | | |

The table below is applicable in the following conditions:

- Simultaneous conditions with 5/6 GHz WLAN and/or 5G FR1

| Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SISO | | | | | | | | SISO | | | | | | | | SISO in MIMO | | | | | | | | | | | |
| | Antenna WIFI 0 | | | | | | | | Antenna WIFI 1 | | | | | | | | MIMO | | | | | | | | | | | |
| | b | | g | | n | | ax (SU) | | b | | g | | n | | ax (SU) | | b (CDD + STBC) | | g (CDD + STBC) | | n (CDD + STBC, SDM) | | ax (SU) (CDD + STBC, SDM) | | | | | |
| Maximum / Nominal Power | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | | |
| 2.4 GHz WLAN | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | 9.0 | 8.0 | | | | |
| | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | ch. 12: 3.0 | 2.0 | | | | |
| | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | ch. 13: 0.0 | -1.0 | | | | |

### 2.4.3 5 GHz SISO/MIMO WLAN Output Power

The table below is applicable in the following conditions:

- Maximum Power

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO | | | | | | | | SISO | | | | | | | | SISO in MIMO | | | | | | | | | | | |
| | | Antenna WIFI 0 | | | | | | | | Antenna WIFI 1 | | | | | | | | MIMO | | | | | | | | | | | |
| | | a | | n | | ac | | ax (SU) | | a | | n | | ac | | ax (SU) | | a (CDD + STBC) | | n (CDD + STBC, SDM) | | ac (CDD + STBC, SDM) | | ax (SU) (CDD + STBC, SDM) | | | | | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | | | | |
| 5 GHz WIFI (20MHz BW) | UNII-1 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | | | | |
| | UNII-2A | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | | | | |
| | UNII-2C | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | | | | |
| | UNII-3 | 15.0 | 14.0 | 15.0 | 14.0 | 15.0 | 14.0 | 11.0 | 10.0 | 15.0 | 14.0 | 15.0 | 14.0 | 15.0 | 14.0 | 11.0 | 10.0 | 15.0 | 14.0 | 15.0 | 14.0 | 15.0 | 14.0 | 11.0 | 10.0 | | | | |
| | UNII-4 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | 18.0 | 17.0 | 18.0 | 17.0 | 18.0 | 17.0 | 11.0 | 10.0 | | | | |
| 5 GHz WIFI (40MHz BW) | UNII-1 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | | |
| | | | | ch. 38: 15.0 | 14.0 | ch. 38: 15.0 | 14.0 | | | | | ch. 38: 15.0 | 14.0 | ch. 38: 15.0 | 14.0 | | | | | ch. 38: 15.0 | 14.0 | ch. 38: 15.0 | 14.0 | | | | | | |
| | UNII-2A | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | | |
| | | | | ch. 62: 15.0 | 14.0 | ch. 62: 15.0 | 14.0 | | | | | ch. 62: 15.0 | 14.0 | ch. 62: 15.0 | 14.0 | | | | | ch. 62: 15.0 | 14.0 | ch. 62: 15.0 | 14.0 | | | | | | |
| | UNII-2C | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | | |
| | UNII-3 | | | 15.0 | 14.0 | 15.0 | 14.0 | 11.0 | 10.0 | | | 15.0 | 14.0 | 15.0 | 14.0 | 11.0 | 10.0 | | | 15.0 | 14.0 | 15.0 | 14.0 | 11.0 | 10.0 | | | | |
| | UNII-4 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | 17.0 | 16.0 | 17.0 | 16.0 | 11.0 | 10.0 | | | | |
| 5 GHz WIFI (80MHz BW) | UNII-1 | | | | | 13.5 | 12.5 | 11.0 | 10.0 | | | | | 13.5 | 12.5 | 11.0 | 10.0 | | | | | 13.5 | 12.5 | 11.0 | 10.0 | | | | |
| | UNII-2A | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | |
| | UNII-2C | | | | | 16.0 | 15.0 | 11.0 | 10.0 | | | | | 16.0 | 15.0 | 11.0 | 10.0 | | | | | 16.0 | 15.0 | 11.0 | 10.0 | | | | |
| | UNII-3 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | |
| | UNII-4 | | | | | 16.0 | 15.0 | 11.0 | 10.0 | | | | | 16.0 | 15.0 | 11.0 | 10.0 | | | | | 16.0 | 15.0 | 11.0 | 10.0 | | | | |
| 5 GHz WIFI (160MHz BW) | UNII-1/2A | | | | | 11.0 | 10.0 | 11.0 | 10.0 | | | | | 11.0 | 10.0 | 11.0 | 10.0 | | | | | 11.0 | 10.0 | 11.0 | 10.0 | | | | |
| | UNII-2C | | | | | 14.0 | 13.0 | 11.0 | 10.0 | | | | | 14.0 | 13.0 | 11.0 | 10.0 | | | | | 14.0 | 13.0 | 11.0 | 10.0 | | | | |
| | UNII-3/4 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | | 15.0 | 14.0 | 11.0 | 10.0 | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

The table below is applicable in the following conditions:

- Grip sensor Active

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO | | | | | | | | SISO | | | | | | | | SISO in MIMO | | | | | | | |
| | | Antenna WIFI 0 | | | | | | | | Antenna WIFI 1 | | | | | | | | MIMO | | | | | | | |
| | | a | | n | | ac | | ax (SU) | | a | | n | | ac | | ax (SU) | | n (CDD + STBC) | | n (CDD + STBC, SDM) | | ac (CDD + STBC, SDM) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 5 GHz WIFI (20MHz BW) | UNII-1 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2A | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2C | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-3 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-4 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| 5 GHz WIFI (40MHz BW) | UNII-1 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2A | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2C | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-3 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-4 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | | | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| 5 GHz WIFI (80MHz BW) | UNII-1 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2A | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2C | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-3 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-4 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| 5 GHz WIFI (160MHz BW) | UNII-1/2A | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-2C | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |
| | UNII-3/4 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 | | | | | 8.0 | 7.0 | 8.0 | 7.0 |

The table below is applicable in the following conditions:

- Simultaneous conditions with 2.4 GHz WLAN and/or 5G FR1
- Simultaneous conditions with 2.4 GHz Bluetooth

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO | | | | | | | | SISO | | | | | | | | SISO in MIMO | | | | | | | |
| | | Antenna WIFI 0 | | | | | | | | Antenna WIFI 1 | | | | | | | | MIMO | | | | | | | |
| | | a | | n | | ac | | ax (SU) | | a | | n | | ac | | ax (SU) | | a (CDD + STBC) | | n (CDD + STBC, SDM) | | ac (CDD + STBC, SDM) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 5 GHz WIFI (20MHz BW) | UNII-1 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2A | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2C | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-3 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-4 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| 5 GHz WIFI (40MHz BW) | UNII-1 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2A | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2C | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-3 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-4 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 | | | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 4.0 |
| 5 GHz WIFI (80MHz BW) | UNII-1 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2A | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2C | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-3 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-4 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| 5 GHz WIFI (160MHz BW) | UNII-1/2A | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-2C | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |
| | UNII-3/4 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 | | | | | 5.0 | 4.0 | 5.0 | 4.0 |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 2.4.4 6 GHz SISO/MIMO WLAN Output Power

The table below is applicable in the following conditions:

- Maximum Power

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO Antenna WIFI 0 | | | | SISO Antenna WIFI 1 | | | | SISO in MIMO MIMO | | | |
| | | a | | ax (SU) | | a | | ax (SU) | | a (CDD + STBC) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 6 GHz WIFI (20MHz BW) - SP | UNII-5 | 10.0 | 9.0 | 10.0<br>ch. 93: 8.0 | 9.0<br>7.0 | 10.0 | 9.0 | 10.0<br>ch. 93: 8.0 | 9.0<br>7.0 | 10.0 | 9.0 | 10.0<br>ch. 93: 8.0 | 9.0<br>7.0 |
| | UNII-7 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 |
| 6 GHz WIFI (40MHz BW) - SP | UNII-5 | | | 12.5 | 11.5 | | | 12.5 | 11.5 | | | 12.5 | 11.5 |
| | UNII-7 | | | 13.5 | 12.5 | | | 13.5 | 12.5 | | | 13.5 | 12.5 |
| 6 GHz WIFI (80MHz BW) - SP | UNII-5 | | | 14.0 | 13.0 | | | 14.0 | 13.0 | | | 14.0 | 13.0 |
| | UNII-7 | | | 14.0 | 13.0 | | | 14.0 | 13.0 | | | 14.0 | 13.0 |
| 6 GHz WIFI (160MHz BW) - SP | UNII-5 | | | 13.0 | 12.0 | | | 13.0 | 12.0 | | | 13.0 | 12.0 |
| | UNII-7 | | | 13.0 | 12.0 | | | 13.0 | 12.0 | | | 13.0 | 12.0 |

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO Antenna WIFI 0 | | | | SISO Antenna WIFI 1 | | | | SISO in MIMO MIMO | | | |
| | | a | | ax (SU) | | a | | ax (SU) | | a (CDD + STBC) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 6 GHz WIFI (20MHz BW) - LPI | UNII-5 | 10.0 | 9.0 | 10.0<br>ch. 93: 8.0 | 9.0<br>7.0 | 10.0 | 9.0 | 10.0<br>ch. 93: 8.0 | 9.0<br>7.0 | 10.0 | 9.0 | 10.0<br>ch. 93: 8.0 | 9.0<br>7.0 |
| | UNII-6 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 |
| | UNII-7 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 |
| | UNII-8 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 | 10.0 | 9.0 | 11.0 | 10.0 |
| 6 GHz WIFI (40MHz BW) - LPI | UNII-5 | | | 12.5 | 11.5 | | | 12.5 | 11.5 | | | 12.5 | 11.5 |
| | UNII-6 | | | 13.5 | 12.5 | | | 13.5 | 12.5 | | | 13.5 | 12.5 |
| | UNII-7 | | | 13.5 | 12.5 | | | 13.5 | 12.5 | | | 13.5 | 12.5 |
| | UNII-8 | | | 13.5 | 12.5 | | | 13.5 | 12.5 | | | 13.5 | 12.5 |
| 6 GHz WIFI (80MHz BW) - LPI | UNII-5 | | | 14.0 | 13.0 | | | 14.0 | 13.0 | | | 14.0 | 13.0 |
| | UNII-6 | | | 14.0 | 13.0 | | | 14.0 | 13.0 | | | 14.0 | 13.0 |
| | UNII-7 | | | 14.0 | 13.0 | | | 14.0 | 13.0 | | | 14.0 | 13.0 |
| | UNII-8 | | | 14.0 | 13.0 | | | 14.0 | 13.0 | | | 14.0 | 13.0 |
| 6 GHz WIFI (160MHz BW) - LPI | UNII-5 | | | 13.0 | 12.0 | | | 13.0 | 12.0 | | | 13.0 | 12.0 |
| | UNII-6 | | | 13.0 | 12.0 | | | 13.0 | 12.0 | | | 13.0 | 12.0 |
| | UNII-7 | | | 13.0 | 12.0 | | | 13.0 | 12.0 | | | 13.0 | 12.0 |
| | UNII-8 | | | 13.0 | 12.0 | | | 13.0 | 12.0 | | | 13.0 | 12.0 |

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO Antenna WIFI 0 | | | | SISO Antenna WIFI 1 | | | | SISO in MIMO MIMO | | | |
| | | a | | ax (SU) | | a | | ax (SU) | | a (CDD + STBC) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 6 GHz WIFI (20MHz BW) - VLP | UNII-5 | 10.0 | 9.0 | 6.0 | 5.0 | 10.0 | 9.0 | 6.0 | 5.0 | 10.0 | 9.0 | 6.0 | 5.0 |
| | UNII-7 | 10.0 | 9.0 | 7.0 | 6.0 | 10.0 | 9.0 | 7.0 | 6.0 | 10.0 | 9.0 | 7.0 | 6.0 |
| 6 GHz WIFI (40MHz BW) - VLP | UNII-5 | | | 8.5 | 7.5 | | | 8.5 | 7.5 | | | 8.5 | 7.5 |
| | UNII-7 | | | 9.5 | 8.5 | | | 9.5 | 8.5 | | | 9.5 | 8.5 |
| 6 GHz WIFI (80MHz BW) - VLP | UNII-5 | | | 11.0 | 10.0 | | | 11.0 | 10.0 | | | 11.0 | 10.0 |
| | UNII-7 | | | 11.0 | 10.0 | | | 11.0 | 10.0 | | | 11.0 | 10.0 |
| 6 GHz WIFI (160MHz BW) - VLP | UNII-5 | | | 11.0 | 10.0 | | | 11.0 | 10.0 | | | 11.0 | 10.0 |
| | UNII-7 | | | 11.0 | 10.0 | | | 11.0 | 10.0 | | | 11.0 | 10.0 |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

The table below is applicable in the following conditions:

- Grip Sensor Active
- Simultaneous conditions with 2.4 GHz WLAN and/or 5G FR1
- Simultaneous conditions with 2.4 GHz Bluetooth

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO Antenna WIFI 0 | | | | SISO Antenna WIFI 1 | | | | SISO in MIMO MIMO | | | |
| | | a | | ax (SU) | | a | | ax (SU) | | a (CDD + STBC) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 6 GHz WIFI (20MHz BW) - SP | UNII-5 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| | UNII-7 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| 6 GHz WIFI (40MHz BW) - SP | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| 6 GHz WIFI (80MHz BW) - SP | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| 6 GHz WIFI (160MHz BW) - SP | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO Antenna WIFI 0 | | | | SISO Antenna WIFI 1 | | | | SISO in MIMO MIMO | | | |
| | | a | | ax (SU) | | a | | ax (SU) | | a (CDD + STBC) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 6 GHz WIFI (20MHz BW) - LPI | UNII-5 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| | UNII-6 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| | UNII-7 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| | UNII-8 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| 6 GHz WIFI (40MHz BW) - LPI | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-6 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-8 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| 6 GHz WIFI (80MHz BW) - LPI | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-6 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-8 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| 6 GHz WIFI (160MHz BW) - LPI | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-6 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-8 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |

| Mode | Band | IEEE 802.11 Modulated Output Power (in dBm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SISO Antenna WIFI 0 | | | | SISO Antenna WIFI 1 | | | | SISO in MIMO MIMO | | | |
| | | a | | ax (SU) | | a | | ax (SU) | | a (CDD + STBC) | | ax (SU) (CDD + STBC, SDM) | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. | Max | Nom. |
| 6 GHz WIFI (20MHz BW) - VLP | UNII-5 | 7.0 | 6.0 | 6.0 | 5.0 | 7.0 | 6.0 | 6.0 | 5.0 | 7.0 | 6.0 | 6.0 | 5.0 |
| | UNII-7 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 |
| 6 GHz WIFI (40MHz BW) - VLP | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| 6 GHz WIFI (80MHz BW) - VLP | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| 6 GHz WIFI (160MHz BW) - VLP | UNII-5 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |
| | UNII-7 | | | 7.0 | 6.0 | | | 7.0 | 6.0 | | | 7.0 | 6.0 |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 2.4.5 2.4 GHz Bluetooth Output Power

The table below is applicable in the following conditions:

- Maximum

| Mode | Data Rate | Modulated Output Power (in dBm) | | | |
|---|---|---|---|---|---|
| | | SISO | | | |
| | | Antenna WIFI 0 | | Antenna WIFI 1 | |
| Maximum / Nominal Power | | Max | Nom. | Max | Nom. |
| Bluetooth | 1Mbps | 15.5 | 14.5 | 15.5 | 14.5 |
| Bluetooth EDR | 2Mbps | 15.5 | 14.5 | 15.5 | 14.5 |
| Bluetooth EDR | 3Mbps | 15.5 | 14.5 | 15.5 | 14.5 |
| Bluetooth LE | 1Mbps | 15.0 | 14.0 | 15.0 | 14.0 |
| Bluetooth LE | 2Mbps | 15.0 | 14.0 | 15.0 | 14.0 |
| Bluetooth LE | 125kbps | 15.0 | 14.0 | 15.0 | 14.0 |
| Bluetooth LE | 500kbps | 15.0 | 14.0 | 15.0 | 14.0 |

The table below is applicable in the following conditions:

- Grip Sensor Active
- Simultaneous conditions with 2.4/5/6 GHz WLAN and/or 5G FR1

| Mode | Data Rate | Frequency | Modulated Output Power (in dBm) | | | |
|---|---|---|---|---|---|---|
| | | | SISO | | | |
| | | | Antenna WIFI 0 | | Antenna WIFI 1 | |
| Maximum / Nominal Power | | | Max | Nom. | Max | Nom. |
| Bluetooth | 1Mbps | 2402 | 9.0 | 8.0 | 9.0 | 8.0 |
| | | 2440 | 10.5 | 9.5 | | |
| | | 2480 | 9.5 | 8.5 | | |
| Bluetooth EDR | 2Mbps | 2402 | 9.0 | 8.0 | 9.0 | 8.0 |
| | | 2440 | 10.5 | 9.5 | | |
| | | 2480 | 9.5 | 8.5 | | |
| Bluetooth EDR | 3Mbps | 2402 | 9.0 | 8.0 | 9.0 | 8.0 |
| | | 2440 | 10.5 | 9.5 | | |
| | | 2480 | 9.5 | 8.5 | | |
| Bluetooth LE | 1Mbps | 2402 | 9.0 | 8.0 | 9.0 | 8.0 |
| | | 2440 | | | | |
| | | 2480 | | | | |
| Bluetooth LE | 2Mbps | 2402 | 9.0 | 8.0 | 9.0 | 8.0 |
| | | 2440 | | | | |
| | | 2480 | | | | |
| Bluetooth LE | 125kbps | 2402 | 9.5 | 8.5 | 9.0 | 8.0 |
| | | 2440 | 10.5 | 9.5 | | |
| | | 2480 | | | | |
| Bluetooth LE | 500kbps | 2402 | 9.5 | 8.5 | 9.0 | 8.0 |
| | | 2440 | 10.5 | 9.5 | | |
| | | 2480 | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 2.5 DUT Antenna Locations

The overall dimensions of this device is > 200 mm. A diagram showing the location of the device antennas can be found in the DUT Antenna Diagram and SAR Test Setup Photographs Appendix. Exact dimensions and separation distances are shown in the Technical Descriptions in the FCC filings.

**Table 2-1**
**Device Edges/Sides for SAR Testing Tablet Mode**

| Antenna | Back | Front | Top | Bottom | Right | Left |
|---|---|---|---|---|---|---|
| M1 | Yes | No | Yes | Yes | Yes | Yes |
| M4 | Yes | No | Yes | Yes | Yes | Yes |
| S1 | Yes | No | Yes | Yes | Yes | Yes |
| S2 | Yes | No | Yes | Yes | Yes | Yes |
| S3 | Yes | No | Yes | Yes | Yes | Yes |
| S4 | Yes | No | Yes | Yes | Yes | Yes |
| WIFI 0 | Yes | No | Yes | Yes | Yes | Yes |
| WIFI 1 | Yes | No | Yes | Yes | Yes | Yes |

**Table 2-2**
**Device Edges/Sides for SAR Testing Laptop Mode**

| Antenna | Back | Front | Top | Bottom | Right | Left |
|---|---|---|---|---|---|---|
| M1 | No | No | No | Yes | No | No |
| M4 | No | No | No | Yes | No | No |
| S1 | No | No | No | Yes | No | No |
| S2 | No | No | No | Yes | No | No |
| S3 | No | No | No | Yes | No | No |
| S4 | No | No | No | Yes | No | No |
| WIFI 0 | No | No | No | Yes | No | No |
| WIFI 1 | No | No | No | Yes | No | No |

Note: Note: Per FCC KDB Publication 616217 D04v01r01, particular edges were not required to be evaluated for SAR based on the SAR exclusion threshold in KDB 447498 D04v01. Additional edges may have been evaluated for simultaneous transmission analysis.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 2.6 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D04v01, transmitters are considered to be operating simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D04v01 4.3.2 procedures.

**Table 2-3**
**Simultaneous Transmission Scenarios**

| No. | Capable Transmit Configuration | Tablet/Laptop | Notes |
|---|---|---|---|
| 1 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 1 | Yes^ | ^ Bluetooth Tethering is considered |
| 2 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 1 + 6 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 3 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 1 + 5 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 4 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 0 | Yes^ | ^ Bluetooth Tethering is considered |
| 5 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 0 + 6 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 6 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 0 + 5 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 7 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO | Yes | |
| 8 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO | Yes | |
| 9 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz WLAN MIMO | Yes | |
| 10 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 5 GHz WLAN MIMO | Yes | |
| 11 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 6 GHz WLAN MIMO | Yes | |
| 12 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 0 + 2.4 GHz WLAN WIFI 1 + 5 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 13 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 0 + 2.4 GHz WLAN WIFI 1 + 6 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 14 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz Bluetooth WIFI 0 + 2.4 GHz WLAN WIFI 1 | Yes^ | ^ Bluetooth Tethering is considered |
| 15 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 2.4 GHz WLAN SISO | Yes | |
| 16 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 5 GHz WLAN SISO | Yes | |
| 17 | GPRS/EDGE/UMTS/LTE/NR/(LTE + NR) + 6 GHz WLAN SISO | Yes | |
| 18 | LTE + NR | Yes | |
| 19 | 2.4 GHz Bluetooth WIFI 1 + 6 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 20 | 2.4 GHz Bluetooth WIFI 1 + 5 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 21 | 2.4 GHz Bluetooth WIFI 0 + 6 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 22 | 2.4 GHz Bluetooth WIFI 0 + 5 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 23 | 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO | Yes | |
| 24 | 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO | Yes | |
| 25 | 2.4 GHz WLAN MIMO | Yes | |
| 26 | 5 GHz WLAN MIMO | Yes | |
| 27 | 6 GHz WLAN MIMO | Yes | |
| 28 | 2.4 GHz Bluetooth WIFI 0 + 2.4 GHz WLAN WIFI 1 + 5 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 29 | 2.4 GHz Bluetooth WIFI 0 + 2.4 GHz WLAN WIFI 1 + 6 GHz WLAN MIMO | Yes^ | ^ Bluetooth Tethering is considered |
| 30 | 2.4 GHz Bluetooth WIFI 0 + 2.4 GHz WLAN WIFI 1 | Yes^ | ^ Bluetooth Tethering is considered |

1. This device supports 2x2 MIMO Tx for WLAN 802.11b/a/g/n/ac/ax. 802.11b/a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM.
2. This device supports Bluetooth Tethering.
3. 2.4 GHz WLAN Antenna WIFI 0 and 2.4 GHz Bluetooth Ant WIFI 0 share the same antenna path and cannot transmit simultaneously
4. please update the bottom section to:



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

5. This device does not support full CA features on 3GPP Release 17. It supports carrier aggregation, downlink MIMO features as shown in the RF Conducted Powers section of this report. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 17 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, eMBMS, Wifi Offloading, Cross-Carrier Scheduling, Enhanced SC-FDMA.
6. 2.4 GHz WLAN Antenna WIFI 1 and 2.4 GHz Bluetooth Ant WIFI 1 share the same antenna path and cannot transmit simultaneously.
7. 5 GHz WLAN and 6 GHz WLAN share the same antenna path and cannot transmit simultaneously.
8. LTE + 5G NR FR1 Scenarios are limited to EN-DC combinations with anchor bands as shown in the NR FR1 checklist.

## 2.7 Miscellaneous SAR Test Considerations

**(A) WIFI/BT**

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

This device supports IEEE 802.11ac with the following features:

a) Up to 160 MHz Bandwidth only
b) No aggregate channel configurations
c) 2 Tx antenna output
d) 256 QAM is supported
e) TDWR and Band gap channels are supported

This device supports IEEE 802.11ax with the following features:

a) Up to 160 MHz Bandwidth only for 5/6 GHz
b) Up to 40 MHz Bandwidth only for 2.4 GHz
c) 2 Tx antenna output
d) Up to 1024 QAM is supported
e) TDWR and Band gap channels are supported for 5/6 GHz
f) MU-MIMO UL Operations are not supported

Per April 2019 TCB Workshop Notes and FCC guidance, SAR testing for 802.11ax/be follows initial test configuration procedures of KDB 248227, with 802.11ax/be considered a higher order 802.11 mode. Therefore, SAR tests were not required for 802.11ax/be RU/MRU based on the maximum allowed output powers of OFDM modes and the reported SAR values. Per FCC Guidance, maximum conducted powers were performed for each RU/MRU size to demonstrate that the output powers would not be higher than the other OFDM 802.11 modes. Please see EMC test reports 1M2505130050-10.A3L, 1M2505130050-12.A3L, 1M2505130050-14.A3L, and 1M2505130050-19.A3L for 802.11ax/be RU/MRU output powers.

This device supports channel 1-13 for 2.4 GHz WLAN. However, because channel 12/13 targets are not higher than those of channels 1-11, channels 1, 6, and 11 were considered for SAR testing per FCC KDB 248227 D01V02r02.

When U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factors. FCC KDB 648474 and FCC KDB 248227 were followed for test positions, distances, and modes. Per TCB workshop October 2020 notes, 5 channels were tested. Absorbed power density (APD) using a 4cm2 averaging area is reported based on SAR measurements. Incident power density is evaluated at 2mm ensuring that the resolution is sufficient such that integrated power density (iPD) between d=2mm and d=λ/5mm is ≥ -1dB per equipment manufacturer guidance. Power density results are scaled up for uncertainty above 30%.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**(B) Licensed Transmitter(s)**

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

This device supports downlink 4x4 MIMO operations for some LTE Bands. Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

This device supports LTE/NR capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE/NR Band falls completely within an LTE/NR band with a larger transmission frequency range, both LTE/NR bands have the same target power (or the band with the larger transmission frequency range has a higher target power), and both LTE/NR bands share the same transmission path and signal characteristics, SAR was only assessed for the band with the larger transmission frequency range.

This device supports both Power Class 2 (PC2) and Power Class 3 (PC3) for LTE Band 41. Per May 2017 TCB Workshop Notes, SAR tests were performed with Power Class 3 (given the specific UL/DL limitations for Power Class 2). Additionally, SAR testing for the power class 2 condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly (See Section 12)

NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR FR1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.

Per MTK guidance, SRS was tested with modulated signal. DFT-s-OFDM QPSK was used as the lowest order modulation and RB Size/Offset was selected to resemble continuous wave signal.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 2.8 Guidance Applied

- EEE 1528-2013
- FCC KDB Publication 941225 D01v03r01, D05v02r05, D05Av01r02, D06v02r01 (2G/3G/4G and Hotspot)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D04v01 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- October 2013 TCB Workshop Notes (GPRS Testing Considerations)
- May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO, LTE Band 41 Power Class 2/3)
- November 2017, April 2018, October 2018 TCB Workshop Notes (LTE Carrier Aggregation)
- April 2019 TCB Workshop Notes (IEEE 802.11ax)
- FCC KDB 648474 D04 (Accessories)
- FCC KDB Publication 616217 D04v01r02 (Tablet/Laptop, Proximity Sensor)
- IEC 62479:2010
- IEC/IEEE 63195-1:2022
- SPEAG DASY6 Application Note (Interim Procedures for Devices Operating at 6-10 GHz) (Nov 2021)

## 2.9 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units. The serial numbers used for each test are indicated alongside the results in Section 11.

## 2.10 Bibliography

| Report Type | Report Serial Number |
|---|---|
| RF Exposure Part 2 Test Report | TESA2507000530EN |
| RF Exposure Compliance Summary Report | 1M2505130050-21.A3L |
| RF Exposure Part 0 Test Report | 1M2505130050-23.A3L |
| PD Evaluation Report (Part 0) | |
| Near Field PD Report (Part 1) | 1M2505130050-22.A3L |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 3 LTE AND NR INFORMATION

| LTE Information | | | | | |
|---|---|---|---|---|---|
| Form Factor | Tablet | | | | |
| Frequency Range of each LTE transmission band | LTE Band 12: 699.7 - 715.3 MHz | | | | |
| | LTE Band 17: 706.5 - 713.5 MHz | | | | |
| | LTE Band 13: 779.5 - 784.5 MHz | | | | |
| | LTE Band 26: 814.7 - 848.3 MHz | | | | |
| | LTE Band 5: 824.7 - 848.3 MHz | | | | |
| | LTE Band 66: 1710.7 - 1779.3 MHz | | | | |
| | LTE Band 4: 1710.7 - 1754.3 MHz | | | | |
| | LTE Band 25: 1850.7 - 1914.3 MHz | | | | |
| | LTE Band 2: 1850.7 - 1909.3 MHz | | | | |
| | LTE Band 41: 2498.5 - 2687.5 MHz | | | | |
| Channel Bandwidths | LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz | | | | |
| | LTE Band 17: 5 MHz, 10 MHz | | | | |
| | LTE Band 13: 5 MHz, 10 MHz | | | | |
| | LTE Band 26: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz | | | | |
| | LTE Band 5: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz | | | | |
| | LTE Band 66: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | |
| | LTE Band 4: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | |
| | LTE Band 25: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | |
| | LTE Band 2: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | |
| | LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | |
| Channel Numbers and Frequencies (MHz) | Low | Low-Mid | Mid | Mid-High | High |
| LTE Band 12: 1.4 MHz | 699.7 (23017) | | 707.5 (23095) | 715.3 (23173) | |
| LTE Band 12: 3 MHz | 700.5 (23025) | | 707.5 (23095) | 714.5 (23165) | |
| LTE Band 12: 5 MHz | 701.5 (23035) | | 707.5 (23095) | 713.5 (23155) | |
| LTE Band 12: 10 MHz | 704 (23060) | | 707.5 (23095) | 711 (23130) | |
| LTE Band 17: 5 MHz | 706.5 (23755) | | 710 (23790) | 713.5 (23825) | |
| LTE Band 17: 10 MHz | 709 (23780) | | 710 (23790) | 711 (23800) | |
| LTE Band 13: 5 MHz | 779.5 (23205) | | 782 (23230) | 784.5 (23255) | |
| LTE Band 13: 10 MHz | (N/A) | | 782 (23230) | (N/A) | |
| LTE Band 26: 1.4 MHz | 814.7 (26697) | | 831.5 (26865) | 848.3 (27033) | |
| LTE Band 26: 3 MHz | 815.5 (26705) | | 831.5 (26865) | 847.5 (27025) | |
| LTE Band 26: 5 MHz | 816.5 (26715) | | 831.5 (26865) | 846.5 (27015) | |
| LTE Band 26: 10 MHz | 819 (26740) | | 831.5 (26865) | 844 (26990) | |
| LTE Band 26: 15 MHz | 821.5 (26765) | | 831.5 (26865) | 841.5 (26965) | |
| LTE Band 5: 1.4 MHz | 824.7 (20407) | | 836.5 (20525) | 848.3 (20643) | |
| LTE Band 5: 3 MHz | 825.5 (20415) | | 836.5 (20525) | 847.5 (20635) | |
| LTE Band 5: 5 MHz | 826.5 (20425) | | 836.5 (20525) | 846.5 (20625) | |
| LTE Band 5: 10 MHz | 829 (20450) | | 836.5 (20525) | 844 (20600) | |
| LTE Band 66: 1.4 MHz | 1710.7 (131979) | | 1745 (132322) | 1779.3 (132665) | |
| LTE Band 66: 3 MHz | 1711.5 (131987) | | 1745 (132322) | 1778.5 (132657) | |
| LTE Band 66: 5 MHz | 1712.5 (131997) | | 1745 (132322) | 1777.5 (132647) | |
| LTE Band 66: 10 MHz | 1715 (132022) | | 1745 (132322) | 1775 (132622) | |
| LTE Band 66: 15 MHz | 1717.5 (132047) | | 1745 (132322) | 1772.5 (132597) | |
| LTE Band 66: 20 MHz | 1720 (132072) | | 1745 (132322) | 1770 (132572) | |
| LTE Band 4: 1.4 MHz | 1710.7 (19957) | | 1732.5 (20175) | 1754.3 (20393) | |
| LTE Band 4: 3 MHz | 1711.5 (19965) | | 1732.5 (20175) | 1753.5 (20385) | |
| LTE Band 4: 5 MHz | 1712.5 (19975) | | 1732.5 (20175) | 1752.5 (20375) | |
| LTE Band 4: 10 MHz | 1715 (20000) | | 1732.5 (20175) | 1750 (20350) | |
| LTE Band 4: 15 MHz | 1717.5 (20025) | | 1732.5 (20175) | 1747.5 (20325) | |
| LTE Band 4: 20 MHz | 1720 (20050) | | 1732.5 (20175) | 1745 (20300) | |
| LTE Band 25: 1.4 MHz | 1850.7 (26047) | | 1882.5 (26365) | 1914.3 (26683) | |
| LTE Band 25: 3 MHz | 1851.5 (26055) | | 1882.5 (26365) | 1913.5 (26675) | |
| LTE Band 25: 5 MHz | 1852.5 (26065) | | 1882.5 (26365) | 1912.5 (26665) | |
| LTE Band 25: 10 MHz | 1855 (26090) | | 1882.5 (26365) | 1910 (26640) | |
| LTE Band 25: 15 MHz | 1857.5 (26115) | | 1882.5 (26365) | 1907.5 (26615) | |
| LTE Band 25: 20 MHz | 1860 (26140) | | 1882.5 (26365) | 1905 (26590) | |
| LTE Band 2: 1.4 MHz | 1850.7 (18607) | | 1880 (18900) | 1909.3 (19193) | |
| LTE Band 2: 3 MHz | 1851.5 (18615) | | 1880 (18900) | 1908.5 (19185) | |
| LTE Band 2: 5 MHz | 1852.5 (18625) | | 1880 (18900) | 1907.5 (19175) | |
| LTE Band 2: 10 MHz | 1855 (18650) | | 1880 (18900) | 1905 (19150) | |
| LTE Band 2: 15 MHz | 1857.5 (18675) | | 1880 (18900) | 1902.5 (19125) | |
| LTE Band 2: 20 MHz | 1860 (18700) | | 1880 (18900) | 1900 (19100) | |
| LTE Band 41: 5 MHz | 2506 (39750) | 2549.5 (40185) | 2593 (40620) | 2636.5 (41055) | 2680 (41490) |
| LTE Band 41: 10 MHz | 2506 (39750) | 2549.5 (40185) | 2593 (40620) | 2636.5 (41055) | 2680 (41490) |
| LTE Band 41: 15 MHz | 2506 (39750) | 2549.5 (40185) | 2593 (40620) | 2636.5 (41055) | 2680 (41490) |
| LTE Band 41: 20 MHz | 2506 (39750) | 2549.5 (40185) | 2593 (40620) | 2636.5 (41055) | 2680 (41490) |
| UE Category | UL UE Cat 18 , DL UE Cat 19 | | | | |
| Modulations Supported in UL | QPSK, 16QAM, 64QAM, 256QAM | | | | |
| LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided) | YES | | | | |
| A-MPR (Additional MPR) disabled for SAR Testing? | YES | | | | |
| LTE Carrier Aggregation Possible Combinations | The technical description includes all the possible carrier aggregation combinations | | | | |
| LTE Additional Information | This device does not support full CA features on 3GPP Release 17. It supports carrier aggregation, downlink MIMO features as shown in the RF Conducted Powers section of this report. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 17 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, eMBMS, Wifi Offloading, Cross-Carrier Scheduling, Enhanced SC-FDMA. | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

| NR Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| Form Factor | Tablet | | | | | | |
| Frequency Range of each NR transmission band | NR Band n5: 826.5 - 846.5 MHz | | | | | | |
| | NR Band n66: 1712.5 - 1777.5 MHz | | | | | | |
| | NR Band n25: 1852.5 - 1912.5 MHz | | | | | | |
| | NR Band n2: 1852.5 - 1907.5 MHz | | | | | | |
| | NR Band n41: 2501.01 - 2685 MHz | | | | | | |
| | NR Band n77: 3455.01 - 3544.98 MHz; 3705 - 3975 MHz | | | | | | |
| Channel Bandwidths | NR Band n5: 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | | | |
| | NR Band n66: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, Yes | | | | | | |
| | NR Band n25: 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | | | |
| | NR Band n2: 5 MHz, 10 MHz, 15 MHz, 20 MHz | | | | | | |
| | NR Band n41: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz | | | | | | |
| | NR Band n77: 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz | | | | | | |
| Channel Numbers and Frequencies (MHz) | | | | | | | |
| NR Band n5: 5 MHz | 826.5 (165300) | | 836.5 (167300) | | | 846.5 (169300) | |
| NR Band n5: 10 MHz | 829 (165800) | | 836.5 (167300) | | | 844 (168800) | |
| NR Band n5: 15 MHz | 831.5 (166300) | | 836.5 (167300) | | | 841.5 (168300) | |
| NR Band n5: 20 MHz | 834 (166800) | | 836.5 (167300) | | | 839 (167800) | |
| NR Band n66: 5 MHz | 1712.5 (342500) | | 1745 (349000) | | | 1777.5 (355500) | |
| NR Band n66: 10 MHz | 1715 (343000) | | 1745 (349000) | | | 1775 (355000) | |
| NR Band n66: 15 MHz | 1717.5 (343500) | | 1745 (349000) | | | 1772.5 (354500) | |
| NR Band n66: 20 MHz | 1720 (344000) | | 1745 (349000) | | | 1770 (354000) | |
| NR Band n66: 25 MHz | 1722.5 (344500) | | 1745 (349000) | | | 1767.5 (353500) | |
| NR Band n66: 30 MHz | 1725 (345000) | | 1745 (349000) | | | 1765 (353000) | |
| NR Band n66: 40 MHz | 1730 (346000) | | 1745 (349000) | | | 1760 (352000) | |
| NR Band n25: 5 MHz | 1852.5 (370500) | | 1882.5 (376500) | | | 1912.5 (382500) | |
| NR Band n25: 10 MHz | 1855 (371000) | | 1882.5 (376500) | | | 1910 (382000) | |
| NR Band n25: 15 MHz | 1857.5 (371500) | | 1882.5 (376500) | | | 1907.5 (381500) | |
| NR Band n25: 20 MHz | 1860 (372000) | | 1882.5 (376500) | | | 1905 (381000) | |
| NR Band n2: 5 MHz | 1852.5 (370500) | | 1880 (376000) | | | 1907.5 (381500) | |
| NR Band n2: 10 MHz | 1855 (371000) | | 1880 (376000) | | | 1905 (381000) | |
| NR Band n2: 15 MHz | 1857.5 (371500) | | 1880 (376000) | | | 1902.5 (380500) | |
| NR Band n2: 20 MHz | 1860 (372000) | | 1880 (376000) | | | 1900 (380000) | |
| NR Band n41: 10 MHz | 2501.01 (500202) | 2547 (509400) | 2592.99 (518598) | | | 2639.01 (527802) | 2685 (537000) |
| NR Band n41: 15 MHz | 2503.5 (500700) | 2548.26 (509652) | 2592.99 (518598) | | | 2637.75 (527550) | 2682.51 (536502) |
| NR Band n41: 20 MHz | 2506.02 (501204) | 2549.49 (509898) | 2592.99 (518598) | | | 2636.49 (527298) | 2679.99 (535998) |
| NR Band n41: 30 MHz | 2511 (502200) | 2552.01 (510402) | 2592.99 (518598) | | | 2634 (526800) | 2674.98 (534996) |
| NR Band n41: 40 MHz | 2616.01 (523202) | 2567.34 (513468) | (N/A) | | | 2618.67 (523734) | 2670 (534000) |
| NR Band n41: 50 MHz | 2521.02 (504204) | | 2592.99 (518598) | | | 2664.99 (532998) | |
| NR Band n41: 60 MHz | 2526 (505200) | | 2592.99 (518598) | | | 2659.98 (531996) | |
| NR Band n41: 70 MHz | 2531.01 (506202) | | (N/A) | | | 2655 (531000) | |
| NR Band n41: 80 MHz | 2536.02 (507204) | | (N/A) | | | 2649.99 (529998) | |
| NR Band n41: 90 MHz | 2541 (508200) | | (N/A) | | | 2644.98 (528996) | |
| NR Band n41: 100 MHz | 2546.01 (509202) | | 2592.99 (518598) | | | 2640 (528000) | |
| NR Band n77 DoD: 10 MHz | 3455.01 (630334) | | 3500.01 (633334) | | | 3544.98 (636332) | |
| NR Band n77 DoD: 15 MHz | 3457.5 (630500) | | 3500.01 (633334) | | | 3542.49 (636166) | |
| NR Band n77 DoD: 20 MHz | 3460.02 (630668) | | 3500.01 (633334) | | | 3540 (636000) | |
| NR Band n77 DoD: 25 MHz | 3462.51 (630834) | | 3500.01 (633334) | | | 3537.48 (635832) | |
| NR Band n77 DoD: 30 MHz | 3465 (631000) | | 3500.01 (633334) | | | 3534.99 (635666) | |
| NR Band n77 DoD: 40 MHz | 3470.01 (631334) | | (N/A) | | | 3529.98 (635332) | |
| NR Band n77 DoD: 50 MHz | 3475.02 (631668) | | (N/A) | | | 3525 (635000) | |
| NR Band n77 DoD: 60 MHz | (N/A) | | 3500.01 (633334) | | | (N/A) | |
| NR Band n77 DoD: 70 MHz | (N/A) | | 3500.01 (633334) | | | (N/A) | |
| NR Band n77 DoD: 80 MHz | (N/A) | | 3500.01 (633334) | | | (N/A) | |
| NR Band n77 DoD: 90 MHz | (N/A) | | 3500.01 (633334) | | | (N/A) | |
| NR Band n77 DoD: 100 MHz | (N/A) | | 3500.01 (633334) | | | (N/A) | |
| NR Band n77: 10 MHz | 3705 (647000) | 3759 (650600) | 3813 (654200) | (N/A) | 3867 (657800) | 3921 (661400) | 3975 (665000) |
| NR Band n77: 15 MHz | 3707.52 (647168) | 3760.5 (650700) | 3813.51 (654234) | (N/A) | 3866.49 (657766) | 3919.5 (661300) | 3972.48 (664832) |
| NR Band n77: 20 MHz | 3710.01 (647334) | 3762 (650800) | 3813.99 (654266) | (N/A) | 3866.01 (657734) | 3918 (661200) | 3969.99 (664666) |
| NR Band n77: 25 MHz | 3712.5 (647500) | 3763.5 (650900) | 3814.5 (654300) | (N/A) | 3865.5 (657700) | 3916.5 (661100) | 3967.5 (664500) |
| NR Band n77: 30 MHz | 3715.02 (647668) | 3765 (651000) | 3815.01 (654334) | (N/A) | 3864.99 (657666) | 3915 (661000) | 3964.98 (664332) |
| NR Band n77: 40 MHz | 3720 (648000) | 3768 (651200) | 3816 (654400) | (N/A) | 3864 (657600) | 3912 (660800) | 3960 (664000) |
| NR Band n77: 50 MHz | 3725.01 (648334) | 3782.49 (652166) | (N/A) | 3840 (656000) | (N/A) | 3897.51 (659834) | 3954.99 (663666) |
| NR Band n77: 60 MHz | 3730.02 (648668) | 3803.34 (653556) | (N/A) | (N/A) | (N/A) | 3876.66 (658444) | 3949.98 (663332) |
| NR Band n77: 70 MHz | 3735 (649000) | 3804.99 (653666) | (N/A) | (N/A) | (N/A) | 3875.01 (658334) | 3945 (663000) |
| NR Band n77: 80 MHz | 3740.01 (649334) | (N/A) | 3840 (656000) | | | (N/A) | 3939.99 (662666) |
| NR Band n77: 90 MHz | 3745.02 (649668) | (N/A) | 3840 (656000) | | | (N/A) | 3934.98 (662332) |
| NR Band n77: 100 MHz | 3750 (650000) | (N/A) | (N/A) | | | (N/A) | 3930 (662000) |
| SCS for NR Band n5, n66, n25, n2 | 15 kHz | | | | | | |
| SCS for NR Band n41, n77 | 30 kHz | | | | | | |
| Modulations Supported in UL | DFT-s-OFDM: π/BPSK, QPSK, 16QAM, 64QAM, 256QAM<br>CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM | | | | | | |
| A-MPR (Additional MPR) disabled for SAR Testing? | YES | | | | | | |
| EN-DC and NR Carrier Aggregation Possible Combinations | The technical description includes all the possible carrier aggregation combinations | | | | | | |
| LTE Anchor Bands for NR Band n5 | 2/66 | | | | | | |
| LTE Anchor Bands for NR Band n66 | 5/12/13 | | | | | | |
| LTE Anchor Bands for NR Band n25 | 12/13 | | | | | | |
| LTE Anchor Bands for NR Band n2 | 5/12/13 | | | | | | |
| LTE Anchor Bands for NR Band n41 | 12/66 | | | | | | |
| LTE Anchor Bands for NR Band n77 | 2/5/12/13/25/66 | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 4 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

## 4.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 4-1).

**Equation 4-1**
**SAR Mathematical Equation**

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right) = \frac{d}{dt}\left(\frac{dU}{\rho dv}\right)$$

**SAR is expressed in units of Watts per Kilogram (W/kg).**

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

σ = conductivity of the tissue-simulating material (S/m)
ρ = mass density of the tissue-simulating material (kg/m$^3$)
E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 5 DOSIMETRIC ASSESSMENT

## 5.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

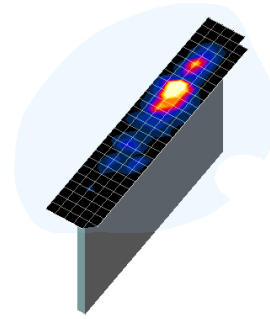


**Figure 5-1**
**Sample SAR Area Scan**

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 5-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 5-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):

   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 5-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).

   b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

**Table 5-1**
**Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04***

| Frequency | Maximum Area Scan Resolution (mm) ($\Delta x_{area}$, $\Delta y_{area}$) | Maximum Zoom Scan Resolution (mm) ($\Delta x_{zoom}$, $\Delta y_{zoom}$) | Maximum Zoom Scan Spatial Resolution (mm) | | | Minimum Zoom Scan Volume (mm) (x,y,z) |
|---|---|---|---|---|---|---|
| | | | Uniform Grid | Graded Grid | | |
| | | | $\Delta z_{zoom}(n)$ | $\Delta z_{zoom}(1)$* | $\Delta z_{zoom}(n>1)$* | |
| ≤ 2 GHz | ≤ 15 | ≤ 8 | ≤ 5 | ≤ 4 | ≤ 1.5*$\Delta z_{zoom}(n-1)$ | ≥ 30 |
| 2-3 GHz | ≤ 12 | ≤ 5 | ≤ 5 | ≤ 4 | ≤ 1.5*$\Delta z_{zoom}(n-1)$ | ≥ 30 |
| 3-4 GHz | ≤ 12 | ≤ 5 | ≤ 4 | ≤ 3 | ≤ 1.5*$\Delta z_{zoom}(n-1)$ | ≥ 28 |
| 4-5 GHz | ≤ 10 | ≤ 4 | ≤ 3 | ≤ 2.5 | ≤ 1.5*$\Delta z_{zoom}(n-1)$ | ≥ 25 |
| 5-6 GHz | ≤ 10 | ≤ 4 | ≤ 2 | ≤ 2 | ≤ 1.5*$\Delta z_{zoom}(n-1)$ | ≥ 22 |

*Also compliant to IEEE 1528-2013 Table 6



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 6 TEST CONFIGURATION POSITIONS

## 6.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02.

## 6.2 SAR Testing per KDB Publication 616217 D04v01r02

Per FCC KDB Publication 616217 D04v01r02, for devices containing a keyboard, SAR is required for the bottom surface. Per FCC KDB Publication 616217 D04v01r02, for devices with overall dimensions >200mm, the back surface and edges of the device should be tested for SAR compliance with the device touching the phantom. The SAR Exclusion Threshold in KDB 447498 D04v01 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom. Please see the exact antenna locations shown in the Technical Descriptions document.

## 6.3 Proximity Sensor Considerations

This device uses a power reduction mechanism to reduce output powers in certain use conditions when the device is used close the user's body.

When the device's antenna is within a certain distance of the user, the sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a nonreduced output power level. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional test positions. Sensor triggering distance summary data is included in the Power Reduction Verification Appendix.

The sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the sensor entirely covers the antennas.

## 6.4 SAR Evaluation with Detachable Keyboard

The DUT supports an aftermarket detachable keyboard accessory. SAR testing was conducted in accordance with FCC KDB 616217 D04 and 47 CFR §2.1093, covering both standalone tablet mode and the keyboard-attached (360° folded) configuration.

The device was fully tested in standalone mode at 0 mm and trigger-based separation distances across all five surfaces. Based on these results, the worst-case SAR surface was identified for each band and configuration. To assess RF exposure in the keyboard-attached condition, SAR was re-evaluated at the worst-case surface determined during standalone testing.

All measured SAR values in the keyboard-attached configuration were found to be lower than those recorded in standalone mode. The test methodology relied on engineering judgment supported by the device's RF structural design and measured SAR data, and is consistent with SAR reduction principles outlined in IEEE 1528-2013 Annex I.4.2 and FCC KDB 648474 D04 Section 8. The evaluation considered the passive nature of the keyboard, which does not contain any active RF circuitry, and the increased overall device thickness resulting from the keyboard attachment, which provides additional separation from the user. The antennas are fixed within the



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

display section and are physically decoupled from the keyboard, minimizing interaction. The overall design and structural asymmetry reduce RF coupling and limit the likelihood of any shift in the worst-case SAR location due to the keyboard.

Based on these considerations, no further SAR testing was required for other surfaces when the keyboard was attached.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact **CT.INFO@ELEMENT.COM**.

# 7 RF EXPOSURE LIMITS

## 7.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

## 7.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**Table 7-1**
**SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6**

| HUMAN EXPOSURE LIMITS | | |
|---|---|---|
| | UNCONTROLLED ENVIRONMENT *General Population* (W/kg) or (mW/g) | CONTROLLED ENVIRONMENT *Occupational* (W/kg) or (mW/g) |
| **Peak Spatial Average SAR** Head | 1.6 | 8.0 |
| **Whole Body SAR** | 0.08 | 0.4 |
| **Peak Spatial Average SAR** Hands, Feet, Ankle, Wrists, etc. | 4.0 | 20 |

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 7.3 RF Exposure Limits for Frequencies above 6 GHz

Per §1.1310 (d)(3), the MPE limits are applied for frequencies above 6 GHz. Power Density is expressed in units of W/m$^2$ or mW/cm$^2$.

Peak Spatially Averaged Power Density was evaluated over a circular area of 4 cm$^2$ per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes.

**Table 7-2**
**Human Exposure Limits Specified in FCC 47 CFR §1.1310**

| **Human Exposure to Radiofrequency (RF) Radiation Limits** | | |
|---|---|---|
| **Frequency Range** [MHz] | **Power Density** [mW/cm$^2$] | **Average Time** [Minutes] |
| (A) Limits For Occupational / Controlled Environments | | |
| 1,500 – 100,000 | 5.0 | 6 |
| (B) Limits For General Population / Uncontrolled Environments | | |
| 1,500 – 100,000 | 1.0 | 30 |

Note: 1.0 mW/cm$^2$ is 10 W/m$^2$



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 8 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

## 8.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D04v01, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as *reported* SAR. The highest *reported* SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

## 8.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

## 8.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

## 8.4 SAR Measurement Conditions for UMTS

### 8.4.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 8.4.2 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all “1s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or $DPDCH_n$, for the highest reported SAR configuration in 12.2 kbps RMC.

### 8.4.3 SAR Measurements with Rel 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

### 8.4.4 SAR Measurements with Rel 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

### 8.4.5 SAR Measurement Conditions for DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

## 8.5 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

### 8.5.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

### 8.5.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 8.5.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

### 8.5.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
   i. The required channel and offset combination with the highest maximum output power is required for SAR.
   ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
   iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

### 8.5.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

### 8.5.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for downlink only carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 8.6 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

### 8.6.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

### 8.6.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

### 8.6.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification. Unless band gap channels are permanently disabled, SAR must be considered for these channels. Each band is tested independently according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

### 8.6.4 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n/ax OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 8.6.5 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per April 2019 TCB Workshop and FCC guidance, 802.11ax/be was considered the highest order 802.11 mode. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

### 8.6.6 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 8.6.5). When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

### 8.6.7 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg, no additional SAR tests for the subsequent test configurations are required. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

### 8.6.8 MIMO SAR considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D04v01 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 9 RF CONDUCTED POWERS

## 9.1 GSM Conducted Powers

**Table 9-1**
**Measured $P_{max}$ for ECI = 0 (Free) for GSM 850 & GSM 1900 Ant M1**

| Maximum Burst-Averaged Output Power | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Voice* | *GPRS/EDGE Data (GMSK)* | | | | *EDGE Data (8-PSK)* | | | |
| **Band** | **Channel** | **GSM [dBm] CS (1 Slot)** | **GPRS [dBm] 1 Tx Slot** | **GPRS [dBm] 2 Tx Slot** | **GPRS [dBm] 3 Tx Slot** | **GPRS [dBm] 4 Tx Slot** | **EDGE [dBm] 1 Tx Slot** | **EDGE [dBm] 2 Tx Slot** | **EDGE [dBm] 3 Tx Slot** | **EDGE [dBm] 4 Tx Slot** |
| **GSM 850** | 128 | 32.28 | 32.37 | 31.41 | 29.28 | **27.92** | 26.17 | 24.99 | 22.79 | 21.48 |
| | 190 | 32.28 | 32.33 | 31.30 | 29.23 | **27.89** | 26.19 | 25.00 | 22.80 | 21.49 |
| | 251 | 32.22 | 32.26 | 31.25 | 29.19 | **27.88** | 26.28 | 25.12 | 22.86 | 21.58 |
| **GSM 1900** | 512 | 29.71 | 29.72 | 28.73 | 26.63 | **25.38** | 25.22 | 24.14 | 21.90 | 20.65 |
| | 661 | 29.51 | 29.50 | 28.51 | 26.42 | **25.17** | 25.15 | 24.00 | 21.80 | 20.36 |
| | 810 | 29.37 | 29.35 | 28.38 | 26.33 | **25.06** | 24.88 | 23.82 | 21.62 | 20.13 |
| **Calculated Maximum Frame-Averaged Output Power** | | | | | | | | | | |
| | | *Voice* | *GPRS/EDGE Data (GMSK)* | | | | *EDGE Data (8-PSK)* | | | |
| **Band** | **Channel** | **GSM [dBm] CS (1 Slot)** | **GPRS [dBm] 1 Tx Slot** | **GPRS [dBm] 2 Tx Slot** | **GPRS [dBm] 3 Tx Slot** | **GPRS [dBm] 4 Tx Slot** | **EDGE [dBm] 1 Tx Slot** | **EDGE [dBm] 2 Tx Slot** | **EDGE [dBm] 3 Tx Slot** | **EDGE [dBm] 4 Tx Slot** |
| **GSM 850** | 128 | 23.08 | 23.17 | 25.22 | 24.85 | **24.74** | 16.97 | 18.80 | 18.36 | 18.30 |
| | 190 | 23.08 | 23.13 | 25.11 | 24.80 | **24.71** | 16.99 | 18.81 | 18.37 | 18.31 |
| | 251 | 23.02 | 23.06 | 25.06 | 24.76 | **24.70** | 17.08 | 18.93 | 18.43 | 18.40 |
| **GSM 1900** | 512 | 20.51 | 20.52 | 22.54 | 22.20 | **22.20** | 16.02 | 17.95 | 17.47 | 17.47 |
| | 661 | 20.31 | 20.30 | 22.32 | 21.99 | **21.99** | 15.95 | 17.81 | 17.37 | 17.18 |
| | 810 | 20.17 | 20.15 | 22.19 | 21.90 | **21.88** | 15.68 | 17.63 | 17.19 | 16.95 |
| **GSM 850** | **Frame Avg.Targets:** | 23.30 | 23.30 | 25.31 | 25.07 | **25.32** | 16.80 | 18.81 | 18.57 | 18.82 |
| **GSM 1900** | | 20.30 | 20.30 | 22.31 | 22.07 | **22.32** | 15.80 | 17.81 | 17.57 | 17.82 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-2**
**Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2) for GSM 850 & GSM 1900 Ant M1**

| Maximum Burst-Averaged Output Power | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Voice* | *GPRS/EDGE Data (GMSK)* | | | | *EDGE Data (8-PSK)* | | | |
| **Band** | **Channel** | **GSM [dBm] CS (1 Slot)** | **GPRS [dBm] 1 Tx Slot** | **GPRS [dBm] 2 Tx Slot** | **GPRS [dBm] 3 Tx Slot** | **GPRS [dBm] 4 Tx Slot** | **EDGE [dBm] 1 Tx Slot** | **EDGE [dBm] 2 Tx Slot** | **EDGE [dBm] 3 Tx Slot** | **EDGE [dBm] 4 Tx Slot** |
| **GSM 850** | 128 | 21.88 | 21.92 | 18.74 | 16.89 | **15.48** | 20.78 | 17.60 | 15.44 | 13.63 |
| | 190 | 21.89 | 21.91 | 18.81 | 16.99 | **15.59** | 20.41 | 17.32 | 15.26 | 13.59 |
| | 251 | 21.95 | 21.95 | 18.90 | 17.04 | **15.71** | 20.52 | 17.18 | 15.23 | 13.78 |
| **GSM 1900** | 512 | 21.08 | 21.06 | 17.84 | 16.01 | **14.59** | 19.58 | 16.36 | 14.22 | 12.72 |
| | 661 | 20.92 | 20.91 | 17.72 | 15.90 | **14.50** | 19.45 | 16.22 | 14.10 | 12.61 |
| | 810 | 20.86 | 20.86 | 17.65 | 15.79 | **14.46** | 19.26 | 16.05 | 13.95 | 12.44 |
| **Calculated Maximum Frame-Averaged Output Power** | | | | | | | | | | |
| | | *Voice* | *GPRS/EDGE Data (GMSK)* | | | | *EDGE Data (8-PSK)* | | | |
| **Band** | **Channel** | **GSM [dBm] CS (1 Slot)** | **GPRS [dBm] 1 Tx Slot** | **GPRS [dBm] 2 Tx Slot** | **GPRS [dBm] 3 Tx Slot** | **GPRS [dBm] 4 Tx Slot** | **EDGE [dBm] 1 Tx Slot** | **EDGE [dBm] 2 Tx Slot** | **EDGE [dBm] 3 Tx Slot** | **EDGE [dBm] 4 Tx Slot** |
| **GSM 850** | 128 | 12.68 | 12.72 | 12.55 | 12.46 | **12.30** | 11.58 | 11.41 | 11.01 | 10.45 |
| | 190 | 12.69 | 12.71 | 12.62 | 12.56 | **12.41** | 11.21 | 11.13 | 10.83 | 10.41 |
| | 251 | 12.75 | 12.75 | 12.71 | 12.61 | **12.53** | 11.32 | 10.99 | 10.80 | 10.60 |
| **GSM 1900** | 512 | 11.88 | 11.86 | 11.65 | 11.58 | **11.41** | 10.38 | 10.17 | 9.79 | 9.54 |
| | 661 | 11.72 | 11.71 | 11.53 | 11.47 | **11.32** | 10.25 | 10.03 | 9.67 | 9.43 |
| | 810 | 11.66 | 11.66 | 11.46 | 11.36 | **11.28** | 10.06 | 9.86 | 9.52 | 9.26 |
| **GSM 850** | **Frame Avg.Targets:** | 12.80 | 12.80 | 12.81 | 12.77 | **12.82** | 11.80 | 11.31 | 11.07 | 10.32 |
| **GSM 1900** | | 11.80 | 11.80 | 11.81 | 11.77 | **11.82** | 10.30 | 9.81 | 9.57 | 9.82 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-3**
**Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3) for GSM 1900 Ant M1**

| Maximum Burst-Averaged Output Power | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Voice* | *GPRS/EDGE Data (GMSK)* | | | | *EDGE Data (8-PSK)* | | | |
| **Band** | **Channel** | **GSM [dBm] CS (1 Slot)** | **GPRS [dBm] 1 Tx Slot** | **GPRS [dBm] 2 Tx Slot** | **GPRS [dBm] 3 Tx Slot** | **GPRS [dBm] 4 Tx Slot** | **EDGE [dBm] 1 Tx Slot** | **EDGE [dBm] 2 Tx Slot** | **EDGE [dBm] 3 Tx Slot** | **EDGE [dBm] 4 Tx Slot** |
| **GSM 1900** | 512 | 27.13 | 27.17 | 24.01 | 22.22 | **20.82** | 25.77 | 23.62 | 21.85 | 20.38 |
| | 661 | 27.01 | 27.01 | 23.90 | 22.16 | **20.76** | 25.63 | 23.61 | 21.83 | 20.25 |
| | 810 | 27.00 | 27.00 | 23.85 | 22.03 | **20.66** | 25.24 | 23.29 | 21.27 | 20.01 |
| **Calculated Maximum Frame-Averaged Output Power** | | | | | | | | | | |
| | | *Voice* | *GPRS/EDGE Data (GMSK)* | | | | *EDGE Data (8-PSK)* | | | |
| **Band** | **Channel** | **GSM [dBm] CS (1 Slot)** | **GPRS [dBm] 1 Tx Slot** | **GPRS [dBm] 2 Tx Slot** | **GPRS [dBm] 3 Tx Slot** | **GPRS [dBm] 4 Tx Slot** | **EDGE [dBm] 1 Tx Slot** | **EDGE [dBm] 2 Tx Slot** | **EDGE [dBm] 3 Tx Slot** | **EDGE [dBm] 4 Tx Slot** |
| **GSM 1900** | 512 | 17.93 | 17.97 | 17.82 | 17.79 | **17.64** | 16.57 | 17.43 | 17.42 | 17.20 |
| | 661 | 17.81 | 17.81 | 17.71 | 17.73 | **17.58** | 16.43 | 17.42 | 17.40 | 17.07 |
| | 810 | 17.80 | 17.80 | 17.66 | 17.60 | **17.48** | 16.04 | 17.10 | 16.84 | 16.83 |
| **GSM 1900** | **Frame Avg.Targets:** | 18.30 | 18.30 | 18.31 | 18.27 | **18.32** | 17.30 | 16.81 | 16.57 | 16.82 |

Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. GPRS/EDGE (GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.
3. EDGE (8-PSK) output powers were measured with MCS7 on the base station simulator. MCS7 coding scheme was used to measure the output powers for EDGE since investigation has shown that choosing MCS7 coding scheme will ensure 8-PSK modulation. It has been shown that MCS levels that produce 8-PSK modulation do not have an impact on output power.

**GSM Class:** B
**GPRS Multislot class:** 12 (Max 4 Tx uplink slots)
**EDGE Multislot class:** 12 (Max 4 Tx uplink slots)
**DTM Multislot Class:** N/A

**Figure 9-1**
**Power Measurement Setup**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 9.2 UMTS Conducted Powers

**Table 9-4**
**Measured $P_{max}$ for ECI = 0 (Free) for UMTS 850 & UMTS 1700 & UMTS 1900 Ant M1**

| 3GPP Release Version | Mode | 3GPP 34.121 Subtest | Cellular Band [dBm] | | | AWS Band [dBm] | | | PCS Band [dBm] | | | MPR [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 4132 | 4183 | 4233 | 1312 | 1412 | 1513 | 9262 | 9400 | 9538 | |
| 99 | WCDMA | 12.2 kbps RMC | **23.58** | 23.36 | 23.22 | 23.19 | 23.22 | **23.69** | 23.79 | 23.63 | **23.81** | - |
| 99 | | 12.2 kbps AMR | 23.41 | 23.36 | 23.25 | 23.22 | 23.25 | 23.73 | 23.82 | 23.65 | 23.84 | - |
| 6 | HSDPA | Subtest 1 | 22.39 | 22.37 | 22.24 | 22.18 | 22.24 | 22.71 | 22.80 | 22.64 | 22.81 | 1 |
| 6 | | Subtest 2 | 22.40 | 22.37 | 22.24 | 22.17 | 22.24 | 22.69 | 22.78 | 22.61 | 22.77 | 1 |
| 6 | | Subtest 3 | 21.96 | 21.92 | 21.77 | 21.73 | 21.77 | 22.24 | 22.31 | 22.16 | 22.34 | 1.5 |
| 6 | | Subtest 4 | 21.92 | 21.89 | 21.74 | 21.70 | 21.73 | 22.20 | 22.29 | 22.13 | 22.29 | 1.5 |
| 6 | HSUPA | Subtest 1 | 19.89 | 19.87 | 19.72 | 19.58 | 19.67 | 19.90 | 19.98 | 19.90 | 19.96 | 3 |
| 6 | | Subtest 2 | 19.87 | 19.85 | 19.72 | 19.70 | 19.65 | 19.93 | 19.97 | 19.91 | 19.94 | 3 |
| 6 | | Subtest 3 | 19.75 | 19.87 | 19.69 | 19.44 | 19.43 | 19.75 | 19.96 | 19.85 | 19.89 | 2 |
| 6 | | Subtest 4 | 19.13 | 19.09 | 18.96 | 18.87 | 18.89 | 19.32 | 19.49 | 19.33 | 19.40 | 3.5 |
| 6 | | Subtest 5 | 20.57 | 20.57 | 20.44 | 20.02 | 20.01 | 20.47 | 20.56 | 20.40 | 20.46 | 2 |
| 8 | DC-HSDPA | Subtest 1 | 22.40 | 22.37 | 22.23 | 22.18 | 22.20 | 22.66 | 22.79 | 22.62 | 22.80 | 1 |
| 8 | | Subtest 2 | 22.39 | 22.35 | 22.24 | 22.17 | 22.23 | 22.67 | 22.79 | 22.62 | 22.77 | 1 |
| 8 | | Subtest 3 | 21.89 | 21.85 | 21.72 | 21.64 | 21.69 | 22.12 | 22.25 | 22.10 | 22.26 | 1.5 |
| 8 | | Subtest 4 | 21.91 | 21.86 | 21.72 | 21.66 | 21.70 | 22.15 | 22.25 | 22.13 | 22.23 | 1.5 |

**Table 9-5**
**Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2) for UMTS 850 & UMTS 1700 & UMTS 1900 Ant M1**

| 3GPP Release Version | Mode | 3GPP 34.121 Subtest | Cellular Band [dBm] | | | AWS Band [dBm] | | | PCS Band [dBm] | | | 3GPP MPR [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 4132 | 4183 | 4233 | 1312 | 1412 | 1513 | 9262 | 9400 | 9538 | |
| 99 | WCDMA | 12.2 kbps RMC | **13.09** | 13.05 | 12.96 | 12.31 | 12.33 | **12.80** | 12.00 | 11.86 | **12.01** | - |
| 99 | | 12.2 kbps AMR | 13.11 | 13.09 | 13.00 | 12.34 | 12.36 | 12.82 | 12.03 | 11.90 | 12.04 | - |
| 6 | HSDPA | Subtest 1 | 13.12 | 13.09 | 12.98 | 12.34 | 12.38 | 12.84 | 12.03 | 11.89 | 12.04 | 0 |
| 6 | | Subtest 2 | 13.12 | 13.09 | 12.97 | 12.32 | 12.36 | 12.82 | 12.03 | 11.87 | 12.01 | 0 |
| 6 | | Subtest 3 | 13.19 | 13.15 | 13.01 | 12.39 | 12.42 | 12.87 | 12.08 | 11.93 | 12.06 | 0 |
| 6 | | Subtest 4 | 13.14 | 13.11 | 12.98 | 12.34 | 12.39 | 12.84 | 12.06 | 11.91 | 12.03 | 0 |
| 6 | HSUPA | Subtest 1 | 13.12 | 13.11 | 12.98 | 12.32 | 12.53 | 12.83 | 11.92 | 11.78 | 11.91 | 0 |
| 6 | | Subtest 2 | 13.22 | 13.18 | 13.09 | 12.41 | 12.44 | 12.93 | 12.02 | 11.86 | 11.98 | 0 |
| 6 | | Subtest 3 | 13.23 | 13.21 | 13.15 | 12.48 | 12.49 | 12.96 | 12.07 | 11.92 | 12.06 | 0 |
| 6 | | Subtest 4 | 13.24 | 13.22 | 13.07 | 12.46 | 12.48 | 12.95 | 12.05 | 11.90 | 12.01 | 0 |
| 6 | | Subtest 5 | 13.20 | 13.19 | 13.05 | 12.42 | 12.25 | 12.92 | 12.06 | 11.91 | 12.03 | 0 |
| 8 | DC-HSDPA | Subtest 1 | 13.20 | 13.19 | 13.07 | 12.54 | 12.58 | 13.04 | 12.15 | 12.00 | 12.16 | 0 |
| 8 | | Subtest 2 | 13.22 | 13.19 | 13.06 | 12.53 | 12.58 | 13.04 | 12.16 | 11.98 | 12.12 | 0 |
| 8 | | Subtest 3 | 13.22 | 13.15 | 13.04 | 12.53 | 12.58 | 13.03 | 12.13 | 12.00 | 12.13 | 0 |
| 8 | | Subtest 4 | 13.22 | 13.14 | 13.04 | 12.52 | 12.54 | 13.05 | 12.12 | 11.95 | 12.10 | 0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-6**
**Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3) for UMTS 1700 & UMTS 1900 Ant M1**

| 3GPP Release Version | Mode | 3GPP 34.121 Subtest | AWS Band [dBm] | | | PCS Band [dBm] | | | 3GPP MPR [dB] |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1312 | 1412 | 1513 | 9262 | 9400 | 9538 | |
| 99 | WCDMA | 12.2 kbps RMC | 18.85 | 18.90 | **19.01** | **19.29** | 19.22 | 19.12 | - |
| 99 | | 12.2 kbps AMR | 18.79 | 18.83 | 18.90 | 19.17 | 19.13 | 19.00 | - |
| 6 | HSDPA | Subtest 1 | 18.42 | 18.53 | 18.48 | 18.55 | 18.54 | 18.52 | 0 |
| 6 | | Subtest 2 | 18.55 | 18.57 | 18.51 | 18.50 | 18.61 | 18.53 | 0 |
| 6 | | Subtest 3 | 18.53 | 18.55 | 18.43 | 18.59 | 18.57 | 18.53 | 0 |
| 6 | | Subtest 4 | 18.62 | 18.55 | 18.49 | 18.61 | 18.63 | 18.57 | 0 |
| 6 | HSUPA | Subtest 1 | 17.91 | 17.98 | 17.85 | 17.77 | 17.78 | 17.84 | 0 |
| 6 | | Subtest 2 | 17.95 | 17.95 | 17.88 | 17.88 | 17.82 | 17.89 | 0 |
| 6 | | Subtest 3 | 17.82 | 17.86 | 17.84 | 17.86 | 17.83 | 17.85 | 0 |
| 6 | | Subtest 4 | 17.80 | 17.89 | 17.83 | 17.84 | 17.86 | 17.84 | 0 |
| 6 | | Subtest 5 | 17.89 | 17.85 | 17.86 | 17.83 | 17.82 | 17.88 | 0 |
| 8 | DC-HSDPA | Subtest 1 | 18.18 | 18.22 | 18.25 | 18.64 | 18.61 | 18.55 | 0 |
| 8 | | Subtest 2 | 18.27 | 18.28 | 18.23 | 18.60 | 18.63 | 18.62 | 0 |
| 8 | | Subtest 3 | 18.19 | 18.20 | 18.18 | 18.57 | 18.61 | 18.54 | 0 |
| 8 | | Subtest 4 | 18.21 | 18.19 | 18.12 | 18.55 | 18.52 | 18.57 | 0 |

DC-HSDPA considerations

- 3GPP Specification 34.121-1 Release 8 Ver 8.10.0 was used for DC-HSDPA guidance
- H-Set 12 (QPSK) was confirmed to be used during DC-HSDPA measurements
- The DUT supports UE category 24 for HSDPA

**Figure 9-2**
**Power Measurement Setup**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 9.3 LTE Conducted Powers

Note: Per FCC KDB Publication 941225 D05v02r05, LTE SAR for the lower bandwidths was not required for testing since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg. Lower bandwidth conducted powers for all LTE bands can be found in the LTE and NR Lower Bandwidth Conducted Power Appendix.

Note: Some bands do not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

### 9.3.1 LTE Band 12

**Table 9-7**
**LTE Band 12 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| LTE Band 12 10 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Mid Channel 23095 (707.5 MHz) Conducted Power [dBm] | MPR Allowed per 3GPP [dB] | MPR [dB] |
| QPSK | 1 | 0 | 24.21 | 0 | 0 |
| | 1 | 25 | **24.24** | | 0 |
| | 1 | 49 | 24.14 | | 0 |
| | 25 | 0 | **23.20** | 0-1 | 1 |
| | 25 | 12 | 23.18 | | 1 |
| | 25 | 25 | 23.12 | | 1 |
| | 50 | 0 | 23.19 | | 1 |
| 16QAM | 1 | 0 | 23.64 | 0-1 | 1 |
| | 1 | 25 | 23.56 | | 1 |
| | 1 | 49 | 23.39 | | 1 |
| | 25 | 0 | 22.20 | 0-2 | 2 |
| | 25 | 12 | 22.13 | | 2 |
| | 25 | 25 | 22.14 | | 2 |
| | 50 | 0 | 22.14 | | 2 |
| 64QAM | 1 | 0 | 22.36 | 0-2 | 2 |
| | 1 | 25 | 22.23 | | 2 |
| | 1 | 49 | 22.38 | | 2 |
| | 25 | 0 | 21.18 | 0-3 | 3 |
| | 25 | 12 | 21.12 | | 3 |
| | 25 | 25 | 21.11 | | 3 |
| | 50 | 0 | 21.13 | | 3 |
| 256QAM | 1 | 0 | 19.34 | 0-5 | 5 |
| | 1 | 25 | 19.17 | | 5 |
| | 1 | 49 | 19.19 | | 5 |
| | 25 | 0 | 19.13 | | 5 |
| | 25 | 12 | 19.10 | | 5 |
| | 25 | 25 | 19.08 | | 5 |
| | 50 | 0 | 19.10 | | 5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-8**
**LTE Band 12 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| LTE Band 12 10 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Mid Channel 23095 (707.5 MHz) Conducted Power [dBm] | MPR Allowed per 3GPP [dB] | MPR [dB] |
| QPSK | 1 | 0 | **15.19** | 0 | 0 |
| | 1 | 25 | 15.10 | | 0 |
| | 1 | 49 | 15.07 | | 0 |
| | 25 | 0 | **15.14** | 0-1 | 0 |
| | 25 | 12 | 15.13 | | 0 |
| | 25 | 25 | 15.05 | | 0 |
| | 50 | 0 | 15.09 | | 0 |
| 16QAM | 1 | 0 | 15.36 | 0-1 | 0 |
| | 1 | 25 | 15.37 | | 0 |
| | 1 | 49 | 15.34 | | 0 |
| | 25 | 0 | 15.14 | 0-2 | 0 |
| | 25 | 12 | 15.12 | | 0 |
| | 25 | 25 | 15.03 | | 0 |
| | 50 | 0 | 15.09 | | 0 |
| 64QAM | 1 | 0 | 15.40 | 0-2 | 0 |
| | 1 | 25 | 15.12 | | 0 |
| | 1 | 49 | 15.25 | | 0 |
| | 25 | 0 | 15.10 | 0-3 | 0 |
| | 25 | 12 | 15.10 | | 0 |
| | 25 | 25 | 15.06 | | 0 |
| | 50 | 0 | 15.09 | | 0 |
| 256QAM | 1 | 0 | 15.28 | 0-5 | 0 |
| | 1 | 25 | 15.16 | | 0 |
| | 1 | 49 | 15.18 | | 0 |
| | 25 | 0 | 15.10 | | 0 |
| | 25 | 12 | 15.06 | | 0 |
| | 25 | 25 | 15.04 | | 0 |
| | 50 | 0 | 15.08 | | 0 |

## 9.3.1 LTE Band 13

**Table 9-9**
**LTE Band 13 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| LTE Band 13 10 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Mid Channel 23230 (782.0 MHz) Conducted Power [dBm] | MPR Allowed per 3GPP [dB] | MPR [dB] |
| QPSK | 1 | 0 | 23.77 | 0 | 0 |
| | 1 | 25 | **23.80** | | 0 |
| | 1 | 49 | 23.70 | | 0 |
| | 25 | 0 | 22.78 | 0-1 | 1 |
| | 25 | 12 | **22.79** | | 1 |
| | 25 | 25 | 22.77 | | 1 |
| | 50 | 0 | 22.75 | | 1 |
| 16QAM | 1 | 0 | 22.93 | 0-1 | 1 |
| | 1 | 25 | 23.09 | | 1 |
| | 1 | 49 | 23.02 | | 1 |
| | 25 | 0 | 21.75 | 0-2 | 2 |
| | 25 | 12 | 21.76 | | 2 |
| | 25 | 25 | 21.73 | | 2 |
| | 50 | 0 | 21.76 | | 2 |
| 64QAM | 1 | 0 | 21.99 | 0-2 | 2 |
| | 1 | 25 | 21.84 | | 2 |
| | 1 | 49 | 21.85 | | 2 |
| | 25 | 0 | 20.73 | 0-3 | 3 |
| | 25 | 12 | 20.74 | | 3 |
| | 25 | 25 | 20.71 | | 3 |
| | 50 | 0 | 20.75 | | 3 |
| 256QAM | 1 | 0 | 18.87 | 0-5 | 5 |
| | 1 | 25 | 18.88 | | 5 |
| | 1 | 49 | 18.90 | | 5 |
| | 25 | 0 | 18.74 | | 5 |
| | 25 | 12 | 18.72 | | 5 |
| | 25 | 25 | 18.77 | | 5 |
| | 50 | 0 | 18.70 | | 5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-10**
**LTE Band 13 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| LTE Band 13<br>10 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Mid Channel<br>23230<br>(782.0 MHz)<br>Conducted Power [dBm] | MPR Allowed per 3GPP [dB] | MPR [dB] |
| QPSK | 1 | 0 | **16.43** | 0 | 0 |
| | 1 | 25 | 16.34 | | 0 |
| | 1 | 49 | 16.27 | | 0 |
| | 25 | 0 | **16.38** | 0-1 | 0 |
| | 25 | 12 | 16.32 | | 0 |
| | 25 | 25 | 16.33 | | 0 |
| | 50 | 0 | 16.37 | | 0 |
| 16QAM | 1 | 0 | 16.83 | 0-1 | 0 |
| | 1 | 25 | 16.85 | | 0 |
| | 1 | 49 | 16.62 | | 0 |
| | 25 | 0 | 16.31 | 0-2 | 0 |
| | 25 | 12 | 16.35 | | 0 |
| | 25 | 25 | 16.30 | | 0 |
| | 50 | 0 | 16.32 | | 0 |
| 64QAM | 1 | 0 | 16.58 | 0-2 | 0 |
| | 1 | 25 | 16.58 | | 0 |
| | 1 | 49 | 16.53 | | 0 |
| | 25 | 0 | 16.30 | 0-3 | 0 |
| | 25 | 12 | 16.29 | | 0 |
| | 25 | 25 | 16.28 | | 0 |
| | 50 | 0 | 16.31 | | 0 |
| 256QAM | 1 | 0 | 16.55 | 0-5 | 0 |
| | 1 | 25 | 16.39 | | 0 |
| | 1 | 49 | 16.36 | | 0 |
| | 25 | 0 | 16.36 | | 0 |
| | 25 | 12 | 16.33 | | 0 |
| | 25 | 25 | 16.30 | | 0 |
| | 50 | 0 | 16.33 | | 0 |

## 9.3.1 LTE Band 26

**Table 9-11**
**LTE Band 26 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| LTE Band 26 (Cell)<br>15 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Mid Channel<br>26865<br>(831.5 MHz)<br>Conducted Power [dBm] | MPR Allowed per 3GPP [dB] | MPR [dB] |
| QPSK | 1 | 0 | **23.73** | 0 | 0 |
| | 1 | 36 | 23.72 | | 0 |
| | 1 | 74 | 23.52 | | 0 |
| | 36 | 0 | **22.67** | 0-1 | 1 |
| | 36 | 18 | 22.59 | | 1 |
| | 36 | 37 | 22.50 | | 1 |
| | 75 | 0 | 22.64 | | 1 |
| 16QAM | 1 | 0 | 23.10 | 0-1 | 1 |
| | 1 | 36 | 22.96 | | 1 |
| | 1 | 74 | 22.81 | | 1 |
| | 36 | 0 | 21.70 | 0-2 | 2 |
| | 36 | 18 | 21.60 | | 2 |
| | 36 | 37 | 21.51 | | 2 |
| | 75 | 0 | 21.63 | | 2 |
| 64QAM | 1 | 0 | 22.03 | 0-2 | 2 |
| | 1 | 36 | 21.72 | | 2 |
| | 1 | 74 | 21.70 | | 2 |
| | 36 | 0 | 20.71 | 0-3 | 3 |
| | 36 | 18 | 20.64 | | 3 |
| | 36 | 37 | 20.54 | | 3 |
| | 75 | 0 | 20.62 | | 3 |
| 256QAM | 1 | 0 | 18.83 | 0-5 | 5 |
| | 1 | 36 | 18.69 | | 5 |
| | 1 | 74 | 18.65 | | 5 |
| | 36 | 0 | 18.68 | | 5 |
| | 36 | 18 | 18.61 | | 5 |
| | 36 | 37 | 18.63 | | 5 |
| | 75 | 0 | 18.67 | | 5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-12**
**LTE Band 26 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| LTE Band 26 (Cell) 15 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Mid Channel 26865 (831.5 MHz) Conducted Power [dBm] | MPR Allowed per 3GPP [dB] | MPR [dB] |
| QPSK | 1 | 0 | **13.74** | 0 | 0 |
| | 1 | 36 | 13.57 | | 0 |
| | 1 | 74 | 13.52 | | 0 |
| | 36 | 0 | **13.63** | 0-1 | 0 |
| | 36 | 18 | 13.55 | | 0 |
| | 36 | 37 | 13.53 | | 0 |
| | 75 | 0 | 13.62 | | 0 |
| 16QAM | 1 | 0 | 13.94 | 0-1 | 0 |
| | 1 | 36 | 13.78 | | 0 |
| | 1 | 74 | 13.79 | | 0 |
| | 36 | 0 | 13.64 | 0-2 | 0 |
| | 36 | 18 | 13.56 | | 0 |
| | 36 | 37 | 13.53 | | 0 |
| | 75 | 0 | 13.61 | | 0 |
| 64QAM | 1 | 0 | 13.89 | 0-2 | 0 |
| | 1 | 36 | 13.75 | | 0 |
| | 1 | 74 | 13.62 | | 0 |
| | 36 | 0 | 13.65 | 0-3 | 0 |
| | 36 | 18 | 13.59 | | 0 |
| | 36 | 37 | 13.61 | | 0 |
| | 75 | 0 | 13.60 | | 0 |
| 256QAM | 1 | 0 | 13.82 | 0-5 | 0 |
| | 1 | 36 | 13.69 | | 0 |
| | 1 | 74 | 13.66 | | 0 |
| | 36 | 0 | 13.63 | | 0 |
| | 36 | 18 | 13.57 | | 0 |
| | 36 | 37 | 13.53 | | 0 |
| | 75 | 0 | 13.64 | | 0 |

## 9.3.2 LTE Band 66

**Table 9-13**
**LTE Band 66 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| LTE Band 66 (AWS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 132072 (1720.0 MHz) | Mid Channel 132322 (1745.0 MHz) | High Channel 132572 (1770.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 23.48 | 23.82 | 23.95 | 0 | 0 |
| | 1 | 50 | 23.64 | 23.96 | 23.94 | | 0 |
| | 1 | 99 | 23.79 | 24.06 | **24.07** | | 0 |
| | 50 | 0 | 22.57 | 22.91 | 22.96 | 0-1 | 1 |
| | 50 | 25 | 22.62 | 22.94 | 22.96 | | 1 |
| | 50 | 50 | 22.72 | 22.97 | **22.99** | | 1 |
| | 100 | 0 | 22.65 | 22.97 | 22.98 | | 1 |
| 16QAM | 1 | 0 | 22.84 | 23.19 | 23.30 | 0-1 | 1 |
| | 1 | 50 | 22.86 | 23.31 | 23.27 | | 1 |
| | 1 | 99 | 23.09 | 23.44 | 23.43 | | 1 |
| | 50 | 0 | 21.74 | 22.10 | 22.15 | 0-2 | 2 |
| | 50 | 25 | 21.84 | 22.13 | 22.17 | | 2 |
| | 50 | 50 | 21.95 | 22.16 | 22.19 | | 2 |
| | 100 | 0 | 21.85 | 22.15 | 22.15 | | 2 |
| 64QAM | 1 | 0 | 21.82 | 22.19 | 22.23 | 0-2 | 2 |
| | 1 | 50 | 21.96 | 22.33 | 22.29 | | 2 |
| | 1 | 99 | 22.16 | 22.41 | 22.49 | | 2 |
| | 50 | 0 | 20.77 | 21.08 | 21.15 | 0-3 | 3 |
| | 50 | 25 | 20.82 | 21.13 | 21.15 | | 3 |
| | 50 | 50 | 20.95 | 21.14 | 21.17 | | 3 |
| | 100 | 0 | 20.84 | 21.13 | 21.13 | | 3 |
| 256QAM | 1 | 0 | 18.75 | 19.06 | 19.15 | 0-5 | 5 |
| | 1 | 50 | 18.85 | 19.23 | 19.24 | | 5 |
| | 1 | 99 | 19.03 | 19.35 | 19.32 | | 5 |
| | 50 | 0 | 18.74 | 19.05 | 19.13 | | 5 |
| | 50 | 25 | 18.79 | 19.10 | 19.14 | | 5 |
| | 50 | 50 | 18.92 | 19.13 | 19.12 | | 5 |
| | 100 | 0 | 18.84 | 19.10 | 19.14 | | 5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-14
## LTE Band 66 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)

| LTE Band 66 (AWS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 132072 (1720.0 MHz) | Mid Channel 132322 (1745.0 MHz) | High Channel 132572 (1770.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 12.55 | 12.75 | 12.93 | 0 | 0 |
| | 1 | 50 | 12.61 | 12.84 | 12.92 | | 0 |
| | 1 | 99 | 12.78 | 13.00 | **13.05** | | 0 |
| | 50 | 0 | 12.63 | 12.83 | 12.95 | 0-1 | 0 |
| | 50 | 25 | 12.64 | 12.84 | 12.97 | | 0 |
| | 50 | 50 | 12.72 | 12.91 | **13.03** | | 0 |
| | 100 | 0 | 12.65 | 12.88 | 12.97 | | 0 |
| 16QAM | 1 | 0 | 12.97 | 12.97 | 13.38 | 0-1 | 0 |
| | 1 | 50 | 12.93 | 13.25 | 13.23 | | 0 |
| | 1 | 99 | 13.08 | 13.34 | 13.46 | | 0 |
| | 50 | 0 | 12.65 | 12.87 | 13.00 | 0-2 | 0 |
| | 50 | 25 | 12.64 | 12.86 | 12.98 | | 0 |
| | 50 | 50 | 12.75 | 12.93 | 13.05 | | 0 |
| | 100 | 0 | 12.71 | 12.89 | 13.00 | | 0 |
| 64QAM | 1 | 0 | 12.70 | 13.04 | 13.24 | 0-2 | 0 |
| | 1 | 50 | 12.81 | 13.12 | 13.17 | | 0 |
| | 1 | 99 | 12.99 | 13.26 | 13.32 | | 0 |
| | 50 | 0 | 12.64 | 12.86 | 12.94 | 0-3 | 0 |
| | 50 | 25 | 12.66 | 12.89 | 12.99 | | 0 |
| | 50 | 50 | 12.74 | 12.94 | 13.07 | | 0 |
| | 100 | 0 | 12.69 | 12.88 | 13.00 | | 0 |
| 256QAM | 1 | 0 | 12.66 | 12.90 | 13.07 | 0-5 | 0 |
| | 1 | 50 | 12.77 | 12.96 | 13.02 | | 0 |
| | 1 | 99 | 12.86 | 13.14 | 13.26 | | 0 |
| | 50 | 0 | 12.64 | 12.85 | 12.98 | | 0 |
| | 50 | 25 | 12.65 | 12.85 | 13.00 | | 0 |
| | 50 | 50 | 12.77 | 12.93 | 13.05 | | 0 |
| | 100 | 0 | 12.67 | 12.86 | 13.01 | | 0 |

## Table 9-15
## LTE Band 66 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)

| LTE Band 66 (AWS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 132072 (1720.0 MHz) | Mid Channel 132322 (1745.0 MHz) | High Channel 132572 (1770.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 17.90 | 18.14 | 18.27 | 0 | 0 |
| | 1 | 50 | 17.92 | 18.18 | 18.27 | | 0 |
| | 1 | 99 | 18.16 | 18.33 | **18.45** | | 0 |
| | 50 | 0 | 17.96 | 18.16 | 18.29 | 0-1 | 0 |
| | 50 | 25 | 17.97 | 18.16 | 18.31 | | 0 |
| | 50 | 50 | 18.07 | 18.21 | **18.35** | | 0 |
| | 100 | 0 | 17.98 | 18.21 | 18.34 | | 0 |
| 16QAM | 1 | 0 | 18.22 | 18.35 | 18.62 | 0-1 | 0 |
| | 1 | 50 | 18.24 | 18.53 | 18.53 | | 0 |
| | 1 | 99 | 18.54 | 18.71 | 18.93 | | 0 |
| | 50 | 0 | 17.95 | 18.17 | 18.29 | 0-2 | 0 |
| | 50 | 25 | 17.97 | 18.18 | 18.33 | | 0 |
| | 50 | 50 | 18.10 | 18.25 | 18.37 | | 0 |
| | 100 | 0 | 18.01 | 18.24 | 18.33 | | 0 |
| 64QAM | 1 | 0 | 18.14 | 18.32 | 18.53 | 0-2 | 0 |
| | 1 | 50 | 18.05 | 18.39 | 18.48 | | 0 |
| | 1 | 99 | 18.35 | 18.54 | 18.70 | | 0 |
| | 50 | 0 | 17.99 | 18.18 | 18.32 | 0-3 | 0 |
| | 50 | 25 | 17.99 | 18.19 | 18.32 | | 0 |
| | 50 | 50 | 18.09 | 18.25 | 18.38 | | 0 |
| | 100 | 0 | 18.01 | 18.22 | 18.34 | | 0 |
| 256QAM | 1 | 0 | 18.02 | 18.28 | 18.45 | 0-5 | 0 |
| | 1 | 50 | 18.08 | 18.29 | 18.30 | | 0 |
| | 1 | 99 | 18.24 | 18.48 | 18.55 | | 0 |
| | 50 | 0 | 17.97 | 18.21 | 18.29 | | 0 |
| | 50 | 25 | 17.99 | 18.20 | 18.31 | | 0 |
| | 50 | 50 | 18.07 | 18.25 | 18.36 | | 0 |
| | 100 | 0 | 18.03 | 18.21 | 18.34 | | 0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-16
## LTE Band 66 Ant S3 Measured $P_{limit}$ for all ECI

| LTE Band 66 (AWS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 132072 (1720.0 MHz) | Mid Channel 132322 (1745.0 MHz) | High Channel 132572 (1770.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 11.11 | 11.31 | 11.59 | 0 | 0 |
| | 1 | 50 | 11.08 | 11.41 | 11.69 | | 0 |
| | 1 | 99 | 11.33 | 11.57 | **11.96** | | 0 |
| | 50 | 0 | 11.14 | 11.42 | 11.68 | 0-1 | 0 |
| | 50 | 25 | 11.19 | 11.46 | 11.70 | | 0 |
| | 50 | 50 | 11.23 | 11.51 | **11.93** | | 0 |
| | 100 | 0 | 11.17 | 11.45 | 11.70 | | 0 |
| 16QAM | 1 | 0 | 11.46 | 11.61 | 11.99 | 0-1 | 0 |
| | 1 | 50 | 11.37 | 11.70 | 11.99 | | 0 |
| | 1 | 99 | 11.67 | 11.98 | 12.16 | | 0 |
| | 50 | 0 | 11.14 | 11.41 | 11.69 | 0-2 | 0 |
| | 50 | 25 | 11.17 | 11.48 | 11.71 | | 0 |
| | 50 | 50 | 11.26 | 11.50 | 11.75 | | 0 |
| | 100 | 0 | 11.17 | 11.46 | 11.73 | | 0 |
| 64QAM | 1 | 0 | 11.35 | 11.49 | 11.80 | 0-2 | 0 |
| | 1 | 50 | 11.28 | 11.55 | 11.82 | | 0 |
| | 1 | 99 | 11.53 | 11.75 | 11.98 | | 0 |
| | 50 | 0 | 11.13 | 11.39 | 11.69 | 0-3 | 0 |
| | 50 | 25 | 11.20 | 11.49 | 11.75 | | 0 |
| | 50 | 50 | 11.25 | 11.52 | 11.75 | | 0 |
| | 100 | 0 | 11.17 | 11.46 | 11.72 | | 0 |
| 256QAM | 1 | 0 | 11.24 | 11.48 | 11.74 | 0-5 | 0 |
| | 1 | 50 | 11.21 | 11.57 | 11.78 | | 0 |
| | 1 | 99 | 11.46 | 11.65 | 11.91 | | 0 |
| | 50 | 0 | 11.12 | 11.40 | 11.71 | | 0 |
| | 50 | 25 | 11.16 | 11.47 | 11.73 | | 0 |
| | 50 | 50 | 11.21 | 11.51 | 11.76 | | 0 |
| | 100 | 0 | 11.16 | 11.46 | 11.71 | | 0 |

### 9.3.3 LTE Band 25

## Table 9-17
## LTE Band 25 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)

| LTE Band 25 (PCS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 26140 (1860.0 MHz) | Mid Channel 26365 (1882.5 MHz) | High Channel 26590 (1905.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 23.85 | **23.95** | 23.85 | 0 | 0 |
| | 1 | 50 | 23.78 | 23.90 | 23.81 | | 0 |
| | 1 | 99 | 23.92 | 23.91 | 23.78 | | 0 |
| | 50 | 0 | 22.86 | **22.96** | 22.87 | 0-1 | 1 |
| | 50 | 25 | 22.89 | 22.95 | 22.84 | | 1 |
| | 50 | 50 | 22.88 | 22.91 | 22.79 | | 1 |
| | 100 | 0 | 22.88 | 22.92 | 22.88 | | 1 |
| 16QAM | 1 | 0 | 23.17 | 23.23 | 23.18 | 0-1 | 1 |
| | 1 | 50 | 23.04 | 23.27 | 23.16 | | 1 |
| | 1 | 99 | 23.21 | 23.23 | 23.15 | | 1 |
| | 50 | 0 | 21.99 | 22.11 | 22.08 | 0-2 | 2 |
| | 50 | 25 | 22.02 | 22.14 | 22.03 | | 2 |
| | 50 | 50 | 22.05 | 22.14 | 22.03 | | 2 |
| | 100 | 0 | 22.04 | 22.15 | 22.05 | | 2 |
| 64QAM | 1 | 0 | 22.20 | 22.28 | 22.22 | 0-2 | 2 |
| | 1 | 50 | 22.12 | 22.38 | 22.15 | | 2 |
| | 1 | 99 | 22.27 | 22.40 | 22.22 | | 2 |
| | 50 | 0 | 20.99 | 21.13 | 21.07 | 0-3 | 3 |
| | 50 | 25 | 21.03 | 21.14 | 21.04 | | 3 |
| | 50 | 50 | 21.05 | 21.12 | 21.02 | | 3 |
| | 100 | 0 | 21.04 | 21.13 | 21.07 | | 3 |
| 256QAM | 1 | 0 | 18.98 | 19.16 | 19.17 | 0-5 | 5 |
| | 1 | 50 | 19.06 | 19.23 | 19.02 | | 5 |
| | 1 | 99 | 19.16 | 19.18 | 19.22 | | 5 |
| | 50 | 0 | 18.97 | 19.11 | 19.05 | | 5 |
| | 50 | 25 | 19.02 | 19.14 | 19.00 | | 5 |
| | 50 | 50 | 19.03 | 19.12 | 19.02 | | 5 |
| | 100 | 0 | 19.02 | 19.10 | 19.01 | | 5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-18
## LTE Band 25 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)

| LTE Band 25 (PCS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 26140 (1860.0 MHz) | Mid Channel 26365 (1882.5 MHz) | High Channel 26590 (1905.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 11.98 | 12.09 | 12.12 | 0 | 0 |
| | 1 | 50 | 12.01 | 12.08 | 12.06 | | 0 |
| | 1 | 99 | 12.10 | **12.13** | 12.05 | | 0 |
| | 50 | 0 | 12.02 | **12.14** | 12.10 | 0-1 | 0 |
| | 50 | 25 | 12.07 | 12.13 | 12.08 | | 0 |
| | 50 | 50 | 12.08 | 12.12 | 12.04 | | 0 |
| | 100 | 0 | 12.07 | 12.10 | 12.07 | | 0 |
| 16QAM | 1 | 0 | 12.21 | 12.54 | 12.32 | 0-1 | 0 |
| | 1 | 50 | 12.30 | 12.52 | 12.43 | | 0 |
| | 1 | 99 | 12.47 | 12.48 | 12.47 | | 0 |
| | 50 | 0 | 12.02 | 12.13 | 12.09 | 0-2 | 0 |
| | 50 | 25 | 12.08 | 12.13 | 12.09 | | 0 |
| | 50 | 50 | 12.08 | 12.13 | 12.10 | | 0 |
| | 100 | 0 | 12.09 | 12.16 | 12.07 | | 0 |
| 64QAM | 1 | 0 | 12.24 | 12.29 | 12.38 | 0-2 | 0 |
| | 1 | 50 | 12.18 | 12.30 | 12.28 | | 0 |
| | 1 | 99 | 12.29 | 12.34 | 12.28 | | 0 |
| | 50 | 0 | 12.02 | 12.15 | 12.12 | 0-3 | 0 |
| | 50 | 25 | 12.08 | 12.12 | 12.08 | | 0 |
| | 50 | 50 | 12.08 | 12.13 | 12.08 | | 0 |
| | 100 | 0 | 12.08 | 12.16 | 12.10 | | 0 |
| 256QAM | 1 | 0 | 12.12 | 12.25 | 12.22 | 0-5 | 0 |
| | 1 | 50 | 12.14 | 12.24 | 12.13 | | 0 |
| | 1 | 99 | 12.26 | 12.18 | 12.22 | | 0 |
| | 50 | 0 | 12.05 | 12.13 | 12.11 | | 0 |
| | 50 | 25 | 12.09 | 12.12 | 12.08 | | 0 |
| | 50 | 50 | 12.11 | 12.14 | 12.07 | | 0 |
| | 100 | 0 | 12.08 | 12.12 | 12.11 | | 0 |

## Table 9-19
## LTE Band 25 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)

| LTE Band 25 (PCS) 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 26140 (1860.0 MHz) | Mid Channel 26365 (1882.5 MHz) | High Channel 26590 (1905.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | |
| QPSK | 1 | 0 | 19.39 | 19.44 | 19.31 | 0 | 0 |
| | 1 | 50 | 19.29 | 19.41 | 19.17 | | 0 |
| | 1 | 99 | **19.45** | 19.37 | 19.32 | | 0 |
| | 50 | 0 | 19.35 | 19.36 | 19.22 | 0-1 | 0 |
| | 50 | 25 | 19.33 | 19.33 | 19.22 | | 0 |
| | 50 | 50 | **19.38** | 19.37 | 19.24 | | 0 |
| | 100 | 0 | 19.36 | 19.35 | 19.26 | | 0 |
| 16QAM | 1 | 0 | 19.72 | 19.75 | 19.47 | 0-1 | 0 |
| | 1 | 50 | 19.67 | 19.56 | 19.52 | | 0 |
| | 1 | 99 | 19.70 | 19.62 | 19.59 | | 0 |
| | 50 | 0 | 19.35 | 19.42 | 19.28 | 0-2 | 0 |
| | 50 | 25 | 19.36 | 19.36 | 19.20 | | 0 |
| | 50 | 50 | 19.38 | 19.36 | 19.25 | | 0 |
| | 100 | 0 | 19.36 | 19.38 | 19.26 | | 0 |
| 64QAM | 1 | 0 | 19.50 | 19.63 | 19.44 | 0-2 | 0 |
| | 1 | 50 | 19.51 | 19.56 | 19.41 | | 0 |
| | 1 | 99 | 19.68 | 19.58 | 19.50 | | 0 |
| | 50 | 0 | 19.35 | 19.43 | 19.25 | 0-3 | 0 |
| | 50 | 25 | 19.37 | 19.34 | 19.21 | | 0 |
| | 50 | 50 | 19.39 | 19.38 | 19.24 | | 0 |
| | 100 | 0 | 19.37 | 19.38 | 19.29 | | 0 |
| 256QAM | 1 | 0 | 19.54 | 19.52 | 19.40 | 0-5 | 0 |
| | 1 | 50 | 19.46 | 19.47 | 19.33 | | 0 |
| | 1 | 99 | 19.56 | 19.52 | 19.55 | | 0 |
| | 50 | 0 | 19.34 | 19.43 | 19.25 | | 0 |
| | 50 | 25 | 19.36 | 19.34 | 19.19 | | 0 |
| | 50 | 50 | 19.39 | 19.37 | 19.23 | | 0 |
| | 100 | 0 | 19.40 | 19.37 | 19.26 | | 0 |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 9.3.1 LTE Band 41

**Table 9-20**
**LTE Band 41 PC3 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| LTE Band 41 20 MHz Bandwidth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 39750 (2506.0 MHz) | Low-Mid Channel 40185 (2549.5 MHz) | Mid Channel 40620 (2593.0 MHz) | Mid-High Channel 41055 (2636.5 MHz) | High Channel 41490 (2680.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | | | |
| QPSK | 1 | 0 | **24.08** | 23.97 | 24.03 | 23.94 | 23.34 | 0 | 0 |
| | 1 | 50 | 23.94 | 23.97 | 23.95 | 23.81 | 23.18 | | 0 |
| | 1 | 99 | 23.94 | 24.06 | 23.94 | 23.69 | 23.15 | | 0 |
| | 50 | 0 | **23.02** | 23.01 | 22.96 | 22.89 | 22.26 | 0-1 | 1 |
| | 50 | 25 | 23.00 | 23.01 | 22.96 | 22.84 | 22.20 | | 1 |
| | 50 | 50 | 22.96 | 23.01 | 22.95 | 22.76 | 22.19 | | 1 |
| | 100 | 0 | 22.99 | 23.01 | 22.93 | 22.83 | 22.22 | | 1 |
| 16QAM | 1 | 0 | 23.17 | 23.05 | 23.13 | 22.93 | 22.49 | 0-1 | 1 |
| | 1 | 50 | 23.04 | 23.07 | 22.98 | 22.86 | 22.35 | | 1 |
| | 1 | 99 | 23.00 | 23.05 | 22.93 | 22.78 | 22.30 | | 1 |
| | 50 | 0 | 22.03 | 22.03 | 21.98 | 21.90 | 21.29 | 0-2 | 2 |
| | 50 | 25 | 22.04 | 22.06 | 21.94 | 21.84 | 21.24 | | 2 |
| | 50 | 50 | 22.00 | 22.05 | 21.95 | 21.77 | 21.23 | | 2 |
| | 100 | 0 | 22.04 | 22.07 | 21.97 | 21.87 | 21.27 | | 2 |
| 64QAM | 1 | 0 | 21.76 | 21.67 | 21.66 | 21.59 | 20.99 | 0-2 | 2 |
| | 1 | 50 | 21.64 | 21.69 | 21.63 | 21.49 | 20.91 | | 2 |
| | 1 | 99 | 21.62 | 21.72 | 21.58 | 21.35 | 20.84 | | 2 |
| | 50 | 0 | 21.04 | 21.07 | 21.03 | 20.91 | 20.31 | 0-3 | 3 |
| | 50 | 25 | 21.03 | 21.09 | 20.99 | 20.86 | 20.26 | | 3 |
| | 50 | 50 | 21.00 | 21.06 | 20.96 | 20.83 | 20.26 | | 3 |
| | 100 | 0 | 20.99 | 21.06 | 20.95 | 20.81 | 20.28 | | 3 |
| 256QAM | 1 | 0 | 19.02 | 18.97 | 18.94 | 18.83 | 18.26 | 0-5 | 5 |
| | 1 | 50 | 18.85 | 18.91 | 18.82 | 18.65 | 18.06 | | 5 |
| | 1 | 99 | 18.87 | 18.95 | 18.84 | 18.63 | 18.14 | | 5 |
| | 50 | 0 | 19.17 | 19.21 | 19.12 | 19.02 | 18.40 | | 5 |
| | 50 | 25 | 19.15 | 19.17 | 19.07 | 18.93 | 18.35 | | 5 |
| | 50 | 50 | 19.12 | 19.17 | 19.07 | 18.90 | 18.37 | | 5 |
| | 100 | 0 | 19.10 | 19.13 | 19.03 | 18.91 | 18.34 | | 5 |

**Table 9-21**
**LTE Band 41 PC2 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| LTE Band 41 20 MHz Bandwidth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 39750 (2506.0 MHz) | Low-Mid Channel 40185 (2549.5 MHz) | Mid Channel 40620 (2593.0 MHz) | Mid-High Channel 41055 (2636.5 MHz) | High Channel 41490 (2680.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | | | |
| QPSK | 1 | 0 | **26.21** | 26.11 | 26.14 | 26.02 | 25.41 | 0 | 0 |
| | 1 | 50 | 26.03 | 26.08 | 26.04 | 25.83 | 25.23 | | 0 |
| | 1 | 99 | 26.04 | 26.20 | 26.05 | 25.80 | 25.24 | | 0 |
| | 50 | 0 | **25.14** | 25.09 | 25.02 | 24.92 | 24.30 | 0-1 | 1 |
| | 50 | 25 | 25.12 | 25.10 | 25.00 | 24.84 | 24.25 | | 1 |
| | 50 | 50 | 25.06 | 25.12 | 24.99 | 24.78 | 24.23 | | 1 |
| | 100 | 0 | 25.13 | 25.12 | 25.00 | 24.86 | 24.27 | | 1 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-22
## LTE Band 41 PC3 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)

| LTE Band 41 20 MHz Bandwidth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 39750 (2506.0 MHz) | Low-Mid Channel 40185 (2549.5 MHz) | Mid Channel 40620 (2593.0 MHz) | Mid-High Channel 41055 (2636.5 MHz) | High Channel 41490 (2680.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | | | |
| QPSK | 1 | 0 | **12.01** | 11.87 | 12.00 | 11.60 | 11.66 | 0 | 0 |
| | 1 | 50 | 11.96 | 11.84 | 11.80 | 11.55 | 11.52 | | 0 |
| | 1 | 99 | 11.88 | 11.88 | 11.72 | 11.56 | 11.50 | | 0 |
| | 50 | 0 | **12.01** | 11.88 | 11.90 | 11.63 | 11.65 | 0-1 | 0 |
| | 50 | 25 | 12.00 | 11.88 | 11.83 | 11.59 | 11.60 | | 0 |
| | 50 | 50 | 11.95 | 11.88 | 11.78 | 11.60 | 11.56 | | 0 |
| | 100 | 0 | 12.00 | 11.88 | 11.84 | 11.62 | 11.61 | | 0 |
| 16QAM | 1 | 0 | 12.13 | 12.02 | 12.12 | 11.73 | 11.59 | 0-1 | 0 |
| | 1 | 50 | 12.09 | 11.94 | 11.95 | 11.68 | 11.46 | | 0 |
| | 1 | 99 | 12.01 | 12.02 | 11.85 | 11.70 | 11.42 | | 0 |
| | 50 | 0 | 12.02 | 11.92 | 11.94 | 11.65 | 11.49 | 0-2 | 0 |
| | 50 | 25 | 12.04 | 11.91 | 11.87 | 11.63 | 11.43 | | 0 |
| | 50 | 50 | 12.00 | 11.93 | 11.82 | 11.65 | 11.38 | | 0 |
| | 100 | 0 | 12.05 | 11.95 | 11.88 | 11.68 | 11.45 | | 0 |
| 64QAM | 1 | 0 | 11.74 | 11.58 | 11.70 | 11.31 | 11.20 | 0-2 | 0 |
| | 1 | 50 | 11.69 | 11.58 | 11.53 | 11.29 | 11.04 | | 0 |
| | 1 | 99 | 11.63 | 11.59 | 11.44 | 11.30 | 11.01 | | 0 |
| | 50 | 0 | 12.06 | 11.97 | 11.97 | 11.71 | 11.52 | 0-3 | 0 |
| | 50 | 25 | 12.07 | 11.95 | 11.89 | 11.68 | 11.47 | | 0 |
| | 50 | 50 | 12.03 | 11.96 | 11.84 | 11.68 | 11.41 | | 0 |
| | 100 | 0 | 12.05 | 11.94 | 11.87 | 11.67 | 11.44 | | 0 |
| 256QAM | 1 | 0 | 11.87 | 11.74 | 11.86 | 11.50 | 11.36 | 0-5 | 0 |
| | 1 | 50 | 11.86 | 11.71 | 11.67 | 11.45 | 11.23 | | 0 |
| | 1 | 99 | 11.81 | 11.75 | 11.60 | 11.48 | 11.23 | | 0 |
| | 50 | 0 | 12.08 | 11.99 | 11.98 | 11.72 | 11.53 | | 0 |
| | 50 | 25 | 12.09 | 11.97 | 11.90 | 11.69 | 11.47 | | 0 |
| | 50 | 50 | 12.05 | 11.98 | 11.85 | 11.69 | 11.43 | | 0 |
| | 100 | 0 | 12.04 | 11.94 | 11.86 | 11.67 | 11.45 | | 0 |

## Table 9-23
## LTE Band 41 PC2 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)

| LTE Band 41 20 MHz Bandwidth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 39750 (2506.0 MHz) | Low-Mid Channel 40185 (2549.5 MHz) | Mid Channel 40620 (2593.0 MHz) | Mid-High Channel 41055 (2636.5 MHz) | High Channel 41490 (2680.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | | | |
| QPSK | 1 | 0 | 14.01 | 13.86 | 13.99 | 13.62 | 13.47 | 0 | 0 |
| | 1 | 50 | 13.90 | 13.83 | 13.82 | 13.56 | 13.32 | | 0 |
| | 1 | 99 | 13.84 | 13.89 | 13.71 | 13.58 | 13.29 | | 0 |
| | 50 | 0 | 13.93 | 13.82 | 13.83 | 13.47 | 13.36 | 0-1 | 0 |
| | 50 | 25 | 13.92 | 13.80 | 13.76 | 13.51 | 13.32 | | 0 |
| | 50 | 50 | 13.89 | 13.81 | 13.71 | 13.54 | 13.29 | | 0 |
| | 100 | 0 | 13.92 | 13.82 | 13.78 | 13.56 | 13.34 | | 0 |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-24
## LTE Band 41 PC3 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)

| LTE Band 41 20 MHz Bandwidth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 39750 (2506.0 MHz) | Low-Mid Channel 40185 (2549.5 MHz) | Mid Channel 40620 (2593.0 MHz) | Mid-High Channel 41055 (2636.5 MHz) | High Channel 41490 (2680.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | | | |
| QPSK | 1 | 0 | **17.45** | 17.33 | 17.41 | 17.33 | 17.43 | 0 | 0 |
| | 1 | 50 | 17.29 | 17.32 | 17.32 | 17.32 | 17.31 | | 0 |
| | 1 | 99 | 17.31 | 17.41 | 17.37 | 17.44 | 17.40 | | 0 |
| | 50 | 0 | **17.45** | 17.29 | 17.30 | 17.34 | 17.41 | 0-1 | 0 |
| | 50 | 25 | 17.32 | 17.29 | 17.26 | 17.31 | 17.40 | | 0 |
| | 50 | 50 | 17.31 | 17.25 | 17.33 | 17.29 | 17.39 | | 0 |
| | 100 | 0 | 17.34 | 17.33 | 17.32 | 17.30 | 17.25 | | 0 |
| 16QAM | 1 | 0 | 17.18 | 17.15 | 17.20 | 17.25 | 17.19 | 0-1 | 0 |
| | 1 | 50 | 17.21 | 17.20 | 17.12 | 17.26 | 17.25 | | 0 |
| | 1 | 99 | 17.25 | 17.21 | 17.13 | 17.21 | 17.24 | | 0 |
| | 50 | 0 | 17.35 | 17.22 | 17.32 | 17.35 | 17.33 | 0-2 | 0 |
| | 50 | 25 | 17.32 | 17.31 | 17.29 | 17.40 | 17.34 | | 0 |
| | 50 | 50 | 17.37 | 17.35 | 17.36 | 17.41 | 17.34 | | 0 |
| | 100 | 0 | 17.37 | 17.34 | 17.38 | 17.35 | 17.34 | | 0 |
| 64QAM | 1 | 0 | 17.15 | 17.11 | 17.10 | 17.21 | 17.19 | 0-2 | 0 |
| | 1 | 50 | 17.22 | 17.08 | 17.05 | 17.22 | 17.29 | | 0 |
| | 1 | 99 | 17.15 | 17.21 | 17.06 | 17.31 | 17.24 | | 0 |
| | 50 | 0 | 17.35 | 17.15 | 17.35 | 17.15 | 17.35 | 0-3 | 0 |
| | 50 | 25 | 17.35 | 17.26 | 17.29 | 17.27 | 17.30 | | 0 |
| | 50 | 50 | 17.36 | 17.30 | 17.37 | 17.39 | 17.31 | | 0 |
| | 100 | 0 | 17.34 | 17.41 | 17.35 | 17.30 | 17.31 | | 0 |
| 256QAM | 1 | 0 | 17.25 | 17.20 | 17.26 | 17.15 | 17.21 | 0-5 | 0 |
| | 1 | 50 | 17.11 | 17.17 | 17.14 | 17.11 | 17.22 | | 0 |
| | 1 | 99 | 17.25 | 17.15 | 17.21 | 17.08 | 17.21 | | 0 |
| | 50 | 0 | 17.31 | 17.25 | 17.41 | 17.25 | 17.37 | | 0 |
| | 50 | 25 | 17.32 | 17.35 | 17.36 | 17.32 | 17.35 | | 0 |
| | 50 | 50 | 17.32 | 17.36 | 17.47 | 17.29 | 17.40 | | 0 |
| | 100 | 0 | 17.32 | 17.35 | 17.32 | 17.37 | 17.41 | | 0 |

## Table 9-25
## LTE Band 41 PC2 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)

| LTE Band 41 20 MHz Bandwidth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Modulation | RB Size | RB Offset | Low Channel 39750 (2506.0 MHz) | Low-Mid Channel 40185 (2549.5 MHz) | Mid Channel 40620 (2593.0 MHz) | Mid-High Channel 41055 (2636.5 MHz) | High Channel 41490 (2680.0 MHz) | MPR Allowed per 3GPP [dB] | MPR [dB] |
| | | | Conducted Power [dBm] | | | | | | |
| QPSK | 1 | 0 | **19.39** | 19.14 | 19.18 | 19.12 | 19.31 | 0 | 0 |
| | 1 | 50 | 19.33 | 19.12 | 19.13 | 19.10 | 19.18 | | 0 |
| | 1 | 99 | 19.31 | 19.29 | 19.14 | 19.13 | 19.20 | | 0 |
| | 50 | 0 | 19.29 | 19.13 | 19.06 | 19.07 | 19.26 | 0-1 | 0 |
| | 50 | 25 | 19.30 | 19.07 | 19.01 | 19.08 | 19.18 | | 0 |
| | 50 | 50 | **19.35** | 19.15 | 19.03 | 19.06 | 19.16 | | 0 |
| | 100 | 0 | 19.30 | 19.09 | 19.11 | 19.06 | 19.20 | | 0 |

**Figure 9-3**
**Power Measurement Setup**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 9.4 NR Conducted Powers

Per October 2020 TCB Workshop Guidance, NR FR1 SAR evaluations are being generally based on adapting the existing LTE SAR procedures (FCC KDB Publication 941225 D05v02r05). Therefore, NR SAR for the lower bandwidths was not required for testing based on the measured output power and the reported NR SAR for the highest bandwidth. Lower bandwidth conducted powers for all NR bands can be found in LTE and NR Lower Bandwidth RF Conducted Powers Appendix.

Note: Some bands do not support non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

### 9.4.1 NR Band n5

**Table 9-26**
**NR Band n5 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| NR Band n5 20 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 167300 (836.5 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | **23.40** | 0 | 0.0 |
| | 1 | 53 | 23.35 | | 0.0 |
| | 1 | 104 | 23.13 | | 0.0 |
| | 50 | 0 | 22.60 | 0-1 | 1.0 |
| | 50 | 28 | **23.47** | 0 | 0.0 |
| | 50 | 56 | 22.49 | 0-1 | 1.0 |
| | 100 | 0 | 22.52 | | 1.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 22.67 | 0-1 | 1.0 |
| CP-OFDM QPSK | 1 | 1 | 21.94 | 0-1.5 | 1.5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-27**
**NR Band n5 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| NR Band n5 20 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 167300 (836.5 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 12.05 | 0 | 0.0 |
| | 1 | 53 | 12.12 | | 0.0 |
| | 1 | 104 | **12.13** | | 0.0 |
| | 50 | 0 | 12.22 | 0-1 | 0.0 |
| | 50 | 28 | 12.22 | 0 | 0.0 |
| | 50 | 56 | **12.32** | 0-1 | 0.0 |
| | 100 | 0 | 12.12 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 12.27 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 12.05 | 0-1.5 | 0.0 |

### 9.4.1 NR Band n66

**Table 9-28**
**NR Band n66 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| NR Band n66 40 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 349000 (1745 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 23.77 | 0 | 0.0 |
| | 1 | 108 | **24.21** | | 0.0 |
| | 1 | 214 | 24.20 | | 0.0 |
| | 108 | 0 | 23.10 | 0-1 | 1.0 |
| | 108 | 54 | **24.20** | 0 | 0.0 |
| | 108 | 108 | 23.26 | 0-1 | 1.0 |
| | 216 | 0 | 23.18 | | 1.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 22.85 | 0-1 | 1.0 |
| CP-OFDM QPSK | 1 | 1 | 22.13 | 0-1.5 | 1.5 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-29**
**NR Band n66 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| NR Band n66 40 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 349000 (1745 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 12.78 | 0 | 0.0 |
| | 1 | 108 | **13.26** | | 0.0 |
| | 1 | 214 | 13.24 | | 0.0 |
| | 108 | 0 | 13.15 | 0-1 | 0.0 |
| | 108 | 54 | **13.31** | 0 | 0.0 |
| | 108 | 108 | 13.28 | 0-1 | 0.0 |
| | 216 | 0 | 13.25 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 12.99 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 12.78 | 0-1.5 | 0.0 |

**Table 9-30**
**NR Band n66 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)**

| NR Band n66 40 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 349000 (1745 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 17.39 | 0 | 0.0 |
| | 1 | 108 | **17.73** | | 0.0 |
| | 1 | 214 | 17.69 | | 0.0 |
| | 108 | 0 | 17.70 | 0-1 | 0.0 |
| | 108 | 54 | **17.76** | 0 | 0.0 |
| | 108 | 108 | 17.75 | 0-1 | 0.0 |
| | 216 | 0 | 17.71 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 17.57 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 17.34 | 0-1.5 | 0.0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 9.4.1 NR Band n25

**Table 9-31**
**NR Band n25 Ant M1 Measured $P_{max}$ for ECI = 0 (Free)**

| NR Band n25 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Channel | | | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 372000 (1860 MHz) | 376500 (1882.5 MHz) | 381000 (1905 MHz) | | |
| | | | Conducted Power [dBm] | | | | |
| DFT-s-OFDM QPSK | 1 | 1 | 23.26 | 23.41 | **23.47** | 0 | 0.0 |
| | 1 | 53 | 23.26 | 23.42 | 23.45 | | 0.0 |
| | 1 | 104 | 23.37 | 23.39 | 23.41 | | 0.0 |
| | 50 | 0 | 22.36 | 22.47 | 22.56 | 0-1 | 1.0 |
| | 50 | 28 | 23.41 | 23.50 | **23.54** | 0 | 0.0 |
| | 50 | 56 | 22.41 | 22.46 | 22.50 | 0-1 | 1.0 |
| | 100 | 0 | 22.41 | 22.48 | 22.52 | | 1.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 22.32 | 22.42 | 22.58 | 0-1 | 1.0 |
| CP-OFDM QPSK | 1 | 1 | 21.61 | 21.77 | 21.91 | 0-1.5 | 1.5 |

**Table 9-32**
**NR Band n25 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| NR Band n25 20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Channel | | | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 372000 (1860 MHz) | 376500 (1882.5 MHz) | 381000 (1905 MHz) | | |
| | | | Conducted Power [dBm] | | | | |
| DFT-s-OFDM QPSK | 1 | 1 | 12.33 | 12.51 | 12.47 | 0 | 0.0 |
| | 1 | 53 | 12.42 | 12.51 | 12.43 | | 0.0 |
| | 1 | 104 | **12.62** | 12.43 | 12.40 | | 0.0 |
| | 50 | 0 | 12.52 | 12.60 | 12.57 | 0-1 | 0.0 |
| | 50 | 28 | 12.58 | 12.60 | 12.55 | 0 | 0.0 |
| | 50 | 56 | **12.63** | 12.58 | 12.53 | 0-1 | 0.0 |
| | 100 | 0 | 12.61 | 12.60 | 12.60 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 12.55 | 12.73 | 12.67 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 12.33 | 12.51 | 12.43 | 0-1.5 | 0.0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-33**
**NR Band n25 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)**

| NR Band n25<br>20 MHz Bandwidth | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Channel | | | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 372000 (1860 MHz) | 376500 (1882.5 MHz) | 381000 (1905 MHz) | | |
| | | | Conducted Power [dBm] | | | | |
| DFT-s-OFDM QPSK | 1 | 1 | 18.46 | 18.50 | 18.49 | 0 | 0.0 |
| | 1 | 53 | 18.42 | 18.45 | 18.37 | | 0.0 |
| | 1 | 104 | **18.53** | 18.43 | 18.47 | | 0.0 |
| | 50 | 0 | 18.47 | 18.51 | 18.47 | 0-1 | 0.0 |
| | 50 | 28 | 18.47 | 18.44 | 18.42 | 0 | 0.0 |
| | 50 | 56 | **18.52** | 18.47 | 18.43 | 0-1 | 0.0 |
| | 100 | 0 | 18.49 | 18.51 | 18.47 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 18.52 | 18.58 | 18.54 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 18.40 | 18.35 | 18.35 | 0-1.5 | 0.0 |

### 9.4.1 NR Band n41

**Table 9-34**
**NR Band n41 Ant M1 Measured $P_{limit}$ for ECI = 0 (Free)**

| NR Band n41<br>100 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 518598 (2592.99 MHz) | | |
| | | | Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 18.06 | 0 | 0.0 |
| | 1 | 137 | **18.72** | | 0.0 |
| | 1 | 271 | 18.29 | | 0.0 |
| | 135 | 0 | 18.36 | 0-1 | 0.0 |
| | 135 | 69 | **18.73** | 0 | 0.0 |
| | 135 | 138 | 18.67 | 0-1 | 0.0 |
| | 270 | 0 | 18.54 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 18.33 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 18.21 | 0-1.5 | 0.0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-35**
**NR Band n41 Ant M1 Measured $P_{limit}$ for ECI = 2 (Grip Sensor #2)**

| NR Band n41 100 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 518598 (2592.99 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 11.20 | 0 | 0.0 |
| | 1 | 137 | **11.98** | | 0.0 |
| | 1 | 271 | 11.53 | | 0.0 |
| | 135 | 0 | 11.46 | 0-1 | 0.0 |
| | 135 | 69 | **11.93** | 0 | 0.0 |
| | 135 | 138 | 11.86 | 0-1 | 0.0 |
| | 270 | 0 | 11.84 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 11.45 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 11.97 | 0-1.5 | 0.0 |

**Table 9-36**
**NR Band n41 Ant M1 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)**

| NR Band n41 100 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 518598 (2592.99 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 15.32 | 0 | 0.0 |
| | 1 | 137 | **15.95** | | 0.0 |
| | 1 | 271 | 15.41 | | 0.0 |
| | 135 | 0 | 15.43 | 0-1 | 0.0 |
| | 135 | 69 | **15.88** | 0 | 0.0 |
| | 135 | 138 | 15.81 | 0-1 | 0.0 |
| | 270 | 0 | 15.64 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 15.22 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 15.60 | 0-1.5 | 0.0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-37**
**NR Band n41 Ant S3, S2 Measured $P_{limit}$ for all ECI**

| NR Band n41 100 MHz Bandwidth | |
|---|---|
| | Channel |
| Antenna | 518598 (2592.99 MHz) |
| | Conducted Power [dBm] |
| SRS #2 Ant S3 | 6.05 |
| SRS #3 Ant S2 | 10.62 |

**Table 9-38**
**NR Band n41 Ant S1 Measured $P_{limit}$ for ECI = 0 (Free)**

| NR Band n41 100 MHz Bandwidth | |
|---|---|
| | Channel |
| Antenna | 518598 (2592.99 MHz) |
| | Conducted Power [dBm] |
| SRS #4 Ant S1 | 16.85 |

**Table 9-39**
**NR Band n41 Ant S1 Measured $P_{limit}$ for ECI = 5 (Grip Sensor #5)**

| NR Band n41 100 MHz Bandwidth | |
|---|---|
| | Channel |
| Antenna | 518598 (2592.99 MHz) |
| | Conducted Power [dBm] |
| SRS #4 Ant S1 | 11.34 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### 9.4.1 NR Band n77

**Table 9-40**
**NR Band n77 DoD Ant S4 Measured $P_{limit}$ for ECI = 0 (Free)**

| NR Band n77 DoD 100 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 633334 (3500.01 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | **18.66** | 0 | 0.0 |
| | 1 | 137 | 18.54 | | 0.0 |
| | 1 | 271 | 17.87 | | 0.0 |
| | 135 | 0 | 18.00 | 0-1 | 0.0 |
| | 135 | 69 | **18.46** | 0 | 0.0 |
| | 135 | 138 | 17.67 | 0-1 | 0.0 |
| | 270 | 0 | 17.73 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 18.43 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 18.21 | 0-1.5 | 0.0 |

**Table 9-41**
**NR Band n77 Ant S4 Measured $P_{limit}$ for ECI = 0 (Free)**

| NR Band n77 100 MHz Bandwidth | | | | | | |
|---|---|---|---|---|---|---|
| | | | Channel | | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 650000 (3750 MHz) | 662000 (3930 MHz) | | |
| | | | Conducted Power [dBm] | | | |
| DFT-s-OFDM QPSK | 1 | 1 | 18.02 | 18.02 | 0 | 0.0 |
| | 1 | 137 | 18.13 | 18.06 | | 0.0 |
| | 1 | 271 | **18.35** | 18.09 | | 0.0 |
| | 135 | 0 | 17.71 | 17.21 | 0-1 | 0.0 |
| | 135 | 69 | **18.32** | 18.06 | 0 | 0.0 |
| | 135 | 138 | 17.45 | 17.13 | 0-1 | 0.0 |
| | 270 | 0 | 17.41 | 17.37 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 17.46 | 17.16 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 17.41 | 17.32 | 0-1.5 | 0.0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-42**
**NR Band n77 DoD Ant S4 Measured $P_{limit}$ for ECI = 4 (Grip Sensor #4)**

| NR Band n77 DoD 100 MHz Bandwidth | | | | | |
|---|---|---|---|---|---|
| | | | Channel | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 633334 (3500.01 MHz) Conducted Power [dBm] | | |
| DFT-s-OFDM QPSK | 1 | 1 | 8.16 | 0 | 0.0 |
| | 1 | 137 | **8.49** | | 0.0 |
| | 1 | 271 | 8.20 | | 0.0 |
| | 135 | 0 | 7.99 | 0-1 | 0.0 |
| | 135 | 69 | **8.45** | 0 | 0.0 |
| | 135 | 138 | 8.43 | 0-1 | 0.0 |
| | 270 | 0 | 8.40 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 7.52 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 7.70 | 0-1.5 | 0.0 |

**Table 9-43**
**NR Band n77 Ant S4 Measured $P_{limit}$ for ECI = 4 (Grip Sensor #4)**

| NR Band n77 100 MHz Bandwidth | | | | | | |
|---|---|---|---|---|---|---|
| | | | Channel | | MPR Allowed per 3GPP [dB] | MPR [dB] |
| Modulation | RB Size | RB Offset | 650000 (3750 MHz) | 662000 (3930 MHz) | | |
| | | | Conducted Power [dBm] | | | |
| DFT-s-OFDM QPSK | 1 | 1 | 8.31 | **8.93** | 0 | 0.0 |
| | 1 | 137 | 8.54 | 8.91 | | 0.0 |
| | 1 | 271 | 8.80 | 8.76 | | 0.0 |
| | 135 | 0 | 8.42 | 8.84 | 0-1 | 0.0 |
| | 135 | 69 | 8.57 | **8.91** | 0 | 0.0 |
| | 135 | 138 | 8.60 | 8.83 | 0-1 | 0.0 |
| | 270 | 0 | 8.49 | 8.80 | | 0.0 |
| DFT-s-OFDM 16QAM | 1 | 1 | 8.42 | 8.99 | 0-1 | 0.0 |
| CP-OFDM QPSK | 1 | 1 | 8.28 | 8.89 | 0-1.5 | 0.0 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-44**
**NR Band n77 DoD Ant M4 Measured $P_{limit}$ for ECI = 0 (Free)**

| NR Band n77 DoD 100 MHz Bandwidth | |
|---|---|
| | Channel |
| Antenna | 633334 (3500.01 MHz) |
| | Conducted Power [dBm] |
| SRS #2 Ant M4 | **12.20** |

**Table 9-45**
**NR Band n77 Ant M4 Measured $P_{limit}$ for ECI = 0 (Free)**

| NR Band n77 100 MHz Bandwidth | | |
|---|---|---|
| | Channel | |
| Antenna | 650000 (3750 MHz) | 662000 (3930 MHz) |
| | Conducted Power [dBm] | |
| SRS #2 Ant M4 | 12.85 | **13.75** |

**Table 9-46**
**NR Band n77 DoD Ant M4 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)**

| NR Band n77 DoD 100 MHz Bandwidth | |
|---|---|
| | Channel |
| Antenna | 633334 (3500.01 MHz) |
| | Conducted Power [dBm] |
| SRS #2 Ant M4 | **6.25** |

**Table 9-47**
**NR Band n77 Ant M4 Measured $P_{limit}$ for ECI = 3 (Grip Sensor #3)**

| NR Band n77 100 MHz Bandwidth | | |
|---|---|---|
| | Channel | |
| Antenna | 650000 (3750 MHz) | 662000 (3930 MHz) |
| | Conducted Power [dBm] | |
| SRS #2 Ant M4 | 6.12 | **7.81** |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-48**
**NR Band n77 DoD Ant S2, S3 Measured $P_{limit}$ for all ECI**

| NR Band n77 DoD 100 MHz Bandwidth | |
|---|---|
| | Channel |
| Antenna | 633334 (3500.01 MHz) |
| | Conducted Power [dBm] |
| SRS #3 Ant S2 | **7.08** |
| SRS #4 Ant S3 | **7.90** |

**Table 9-49**
**NR Band n77 Ant S2, S3 Measured $P_{limit}$ for all ECI**

| NR Band n77 100 MHz Bandwidth | | |
|---|---|---|
| | Channel | |
| Antenna | 650000 (3750 MHz) | 662000 (3930 MHz) |
| | Conducted Power [dBm] | |
| SRS #3 Ant S2 | 7.62 | **8.19** |
| SRS #4 Ant S3 | 8.45 | **8.72** |

**Figure 9-4**
**Power Measurement Setup – NR Online**

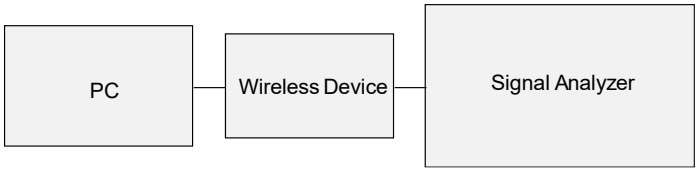



**Figure 9-5**
**Power Measurement Setup – NR FTM**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 9.5 WLAN Conducted Powers

**Table 9-50**
**2.4 GHz WLAN Maximum Average RF Power – Antenna WIFI 0**

| 2.4GHz WIFI (20MHz 802.11b SISO WIFI0) | | | |
|---|---|---|---|
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 18.36 |
| 2437 | 6 | | 18.11 |
| 2462 | 11 | | 18.67 |
| **2.4GHz WIFI (20MHz 802.11g SISO WIFI0)** | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 14.33 |
| 2417 | 2 | | 17.35 |
| 2437 | 6 | | 17.36 |
| 2452 | 9 | | 17.15 |
| 2457 | 10 | | 16.39 |
| 2462 | 11 | | 14.90 |
| **2.4GHz WIFI (20MHz 802.11n SISO WIFI0)** | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 14.72 |
| 2417 | 2 | | 17.15 |
| 2437 | 6 | | 17.26 |
| 2452 | 9 | | 17.30 |
| 2457 | 10 | | 16.35 |
| 2462 | 11 | | 14.42 |
| **2.4GHz WIFI (20MHz 802.11ax SISO WIFI0)** | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 14.97 |
| 2437 | 6 | | 14.82 |
| 2462 | 11 | | 14.70 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-51**
**2.4 GHz WLAN Reduced Average RF Power with Grip Sensor Active – Antenna WIFI 0**

| 2.4GHz WIFI (20MHz 802.11b SISO WIFI 0) | | | |
|---|---|---|---|
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 12.16 |
| 2437 | 6 | | 12.05 |
| 2462 | 11 | | 12.29 |
| 2.4GHz WIFI (20MHz 802.11g SISO WIFI 0) | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 11.66 |
| 2437 | 6 | | 11.71 |
| 2462 | 11 | | 11.88 |
| 2.4GHz WIFI (20MHz 802.11n SISO WIFI 0) | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 11.94 |
| 2437 | 6 | | 11.85 |
| 2462 | 11 | | 11.95 |
| 2.4GHz WIFI (20MHz 802.11ax SISO WIFI 0) | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 11.85 |
| 2437 | 6 | | 11.83 |
| 2462 | 11 | | 12.08 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-52**
**2.4 GHz WLAN Reduced Average RF Power with 5/6 GHz WLAN Active and/or 5G FR1 – Antenna WIFI 0**

| 2.4GHz WIFI (20MHz 802.11b SISO WIFI 0) | | | |
|---|---|---|---|
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 8.36 |
| 2437 | 6 | | 8.01 |
| 2462 | 11 | | 8.55 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact **CT.INFO@ELEMENT.COM**.

**Table 9-53**
**2.4 GHz WLAN Maximum Average RF Power – Antenna WIFI 1**

| 2.4GHz WIFI (20MHz 802.11b SISO WIFI1) | | | |
|---|---|---|---|
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 18.23 |
| 2437 | 6 | | 18.87 |
| 2462 | 11 | | 18.65 |
| **2.4GHz WIFI (20MHz 802.11g SISO WIFI1)** | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 14.38 |
| 2417 | 2 | | 17.78 |
| 2437 | 6 | | 17.90 |
| 2452 | 9 | | 17.60 |
| 2457 | 10 | | 16.20 |
| 2462 | 11 | | 14.65 |
| **2.4GHz WIFI (20MHz 802.11n SISO WIFI1)** | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 14.05 |
| 2417 | 2 | | 17.70 |
| 2437 | 6 | | 17.83 |
| 2452 | 9 | | 17.55 |
| 2457 | 10 | | 16.15 |
| 2462 | 11 | | 14.58 |
| **2.4GHz WIFI (20MHz 802.11ax SISO WIFI1)** | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 14.53 |
| 2437 | 6 | | 14.99 |
| 2462 | 11 | | 14.85 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact **CT.INFO@ELEMENT.COM**.

**Table 9-54**
**2.4 GHz WLAN Reduced Average RF Power with Grip Sensor Active – Antenna WIFI 1**

| 2.4GHz WIFI (20MHz 802.11b SISO WIFI 1) | | | |
|---|---|---|---|
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 12.30 |
| 2437 | 6 | | 12.37 |
| 2462 | 11 | | 12.21 |
| 2.4GHz WIFI (20MHz 802.11g SISO WIFI 1) | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 12.40 |
| 2437 | 6 | | 12.30 |
| 2462 | 11 | | 12.47 |
| 2.4GHz WIFI (20MHz 802.11n SISO WIFI 1) | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 12.12 |
| 2437 | 6 | | 12.20 |
| 2462 | 11 | | 12.48 |
| 2.4GHz WIFI (20MHz 802.11ax SISO WIFI 1) | | | |
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 12.42 |
| 2437 | 6 | | 12.47 |
| 2462 | 11 | | 12.45 |

**Table 9-55**
**2.4 GHz WLAN Reduced Average RF Power with 5/6 GHz WLAN Active and/or 5G FR1 – Antenna WIFI 1**

| 2.4GHz WIFI (20MHz 802.11b SISO WIFI 1) | | | |
|---|---|---|---|
| Freq. [MHz] | Channel | Detector | Conducted Power [dBm] |
| 2412 | 1 | Average | 8.27 |
| 2437 | 6 | | 8.89 |
| 2462 | 11 | | 8.86 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-56**
**2.4 GHz WLAN Maximum Average RF Power – MIMO**

| 2.4GHz WIFI (20MHz 802.11b MIMO) | | | | | |
|---|---|---|---|---|---|
| Freq [MHz] | Channel | Detector | Conducted Power [dBm] | | |
| | | | WIFI0 | WIFI1 | MIMO |
| 2412 | 1 | Average | 18.33 | 18.24 | 21.30 |
| 2437 | 6 | | 18.06 | 18.84 | 21.48 |
| 2462 | 11 | | 18.54 | 18.57 | 21.57 |

**Table 9-57**
**2.4 GHz WLAN Reduced Average RF Power with Grip Sensor Active – MIMO**

| 2.4GHz WIFI (20MHz 802.11b MIMO) | | | | | |
|---|---|---|---|---|---|
| Freq [MHz] | Channel | Detector | Conducted Power [dBm] | | |
| | | | WIFI 0 | WIFI 1 | MIMO |
| 2412 | 1 | Average | 12.01 | 12.39 | 15.21 |
| 2437 | 6 | | 11.61 | 12.43 | 15.05 |
| 2462 | 11 | | 12.12 | 12.49 | 15.32 |

**Table 9-58**
**2.4 GHz WLAN Reduced Average RF Power with 5/6 GHz WLAN Active – MIMO**

| 2.4GHz WIFI (20MHz 802.11b MIMO) | | | | | |
|---|---|---|---|---|---|
| Freq [MHz] | Channel | Detector | Conducted Power [dBm] | | |
| | | | WIFI 0 | WIFI 1 | MIMO |
| 2412 | 1 | Average | 8.60 | 8.22 | 11.42 |
| 2437 | 6 | | 8.00 | 8.90 | 11.48 |
| 2462 | 11 | | 8.60 | 8.87 | 11.75 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-59
## 5 GHz WLAN Maximum Average RF Power – Antenna WIFI 0

| 5GHz WIFI (20MHz 802.11a SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 17.02 |
| | 5200 | 40 | 17.27 |
| | 5220 | 44 | 17.34 |
| | 5240 | 48 | 17.35 |
| UNII-2A | 5260 | 52 | 17.77 |
| | 5280 | 56 | 17.71 |
| | 5300 | 60 | 17.86 |
| | 5320 | 64 | 17.99 |
| UNII-2C | 5500 | 100 | 17.78 |
| | 5600 | 120 | 17.23 |
| | 5620 | 124 | 17.21 |
| | 5720 | 144 | 17.96 |
| UNII-4 | 5845 | 169 | 17.88 |
| | 5865 | 173 | 17.68 |
| | 5885 | 177 | 17.45 |

| 5GHz WIFI (20MHz 802.11n SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 17.67 |
| | 5200 | 40 | 17.77 |
| | 5220 | 44 | 17.93 |
| | 5240 | 48 | 17.56 |
| UNII-2A | 5260 | 52 | 17.49 |
| | 5280 | 56 | 17.56 |
| | 5300 | 60 | 17.91 |
| | 5320 | 64 | 17.31 |
| UNII-2C | 5500 | 100 | 17.89 |
| | 5600 | 120 | 17.48 |
| | 5620 | 124 | 17.39 |
| | 5720 | 144 | 17.62 |
| UNII-4 | 5845 | 169 | 17.55 |
| | 5865 | 173 | 17.53 |
| | 5885 | 177 | 17.47 |

| 5GHz WIFI (20MHz 802.11ac SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 17.59 |
| | 5200 | 40 | 17.68 |
| | 5220 | 44 | 17.88 |
| | 5240 | 48 | 17.54 |
| UNII-2A | 5260 | 52 | 17.80 |
| | 5280 | 56 | 17.89 |
| | 5300 | 60 | 17.93 |
| | 5320 | 64 | 17.77 |
| UNII-2C | 5500 | 100 | 17.95 |
| | 5600 | 120 | 17.52 |
| | 5620 | 124 | 17.42 |
| | 5720 | 144 | 17.61 |
| UNII-4 | 5845 | 169 | 17.52 |
| | 5865 | 173 | 17.45 |
| | 5885 | 177 | 17.51 |

| 5GHz WIFI (20MHz 802.11ax SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 10.43 |
| | 5200 | 40 | 10.83 |
| | 5220 | 44 | 10.53 |
| | 5240 | 48 | 10.74 |
| UNII-2A | 5260 | 52 | 10.92 |
| | 5280 | 56 | 10.44 |
| | 5300 | 60 | 10.50 |
| | 5320 | 64 | 10.54 |
| UNII-2C | 5500 | 100 | 10.55 |
| | 5620 | 124 | 10.51 |
| | 5640 | 128 | 10.48 |
| | 5720 | 144 | 10.61 |
| UNII-4 | 5845 | 169 | 10.59 |
| | 5865 | 173 | 10.52 |
| | 5885 | 177 | 10.52 |

| 5GHz WIFI (80MHz 802.11ac SISO WIFI0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-3 | 5775 | 155 | 14.80 |

| 5GHz WIFI (80MHz 802.11ax SISO WIFI0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-3 | 5775 | 155 | 10.88 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-60**
**5 GHz WLAN Reduced Average RF Power with Grip Sensor Active – Antenna WIFI 0**

| 5GHz WIFI (80MHz 802.11ac SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5210 | 42 | 7.31 |
| UNII-2A | 5290 | 58 | 7.75 |
| UNII-2C | 5530 | 106 | 7.34 |
| | 5610 | 122 | 7.47 |
| | 5690 | 138 | 7.95 |
| UNII-3 | 5775 | 155 | 7.68 |
| UNII-4 | 5885 | 171 | 7.91 |

**Table 9-61**
**5 GHz WLAN Reduced Average RF Power with 2.4 GHz WLAN/BT and/or 5G FR1 Active – Antenna WIFI 0**

| 5GHz WIFI (80MHz 802.11ac SISO WIFI0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5210 | 42 | 4.14 |
| UNII-2A | 5290 | 58 | 4.37 |
| UNII-2C | 5530 | 106 | 4.84 |
| | 5610 | 122 | 4.59 |
| | 5690 | 138 | 4.85 |
| UNII-3 | 5775 | 155 | 4.80 |
| UNII-4 | 5885 | 171 | 4.99 |
| 5GHz WIFI (80MHz 802.11ax SISO WIFI0) | | | |
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5210 | 42 | 4.28 |
| UNII-2A | 5290 | 58 | 4.88 |
| UNII-2C | 5530 | 106 | 4.90 |
| | 5610 | 122 | 4.50 |
| | 5690 | 138 | 4.80 |
| UNII-3 | 5775 | 155 | 4.75 |
| UNII-4 | 5885 | 171 | 4.85 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 9-62
## 5 GHz WLAN Maximum Average RF Power – Antenna WIFI 1

| 5GHz WIFI (20MHz 802.11a SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 17.45 |
| | 5200 | 40 | 17.20 |
| | 5220 | 44 | 17.48 |
| | 5240 | 48 | 17.75 |
| UNII-2A | 5260 | 52 | 17.34 |
| | 5280 | 56 | 17.26 |
| | 5300 | 60 | 17.50 |
| | 5320 | 64 | 17.39 |
| UNII-2C | 5500 | 100 | 17.82 |
| | 5600 | 120 | 17.39 |
| | 5620 | 124 | 17.63 |
| | 5720 | 144 | 17.62 |
| UNII-4 | 5845 | 169 | 17.36 |
| | 5865 | 173 | 17.26 |
| | 5885 | 177 | 17.42 |

| 5GHz WIFI (20MHz 802.11n SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 17.67 |
| | 5200 | 40 | 17.95 |
| | 5220 | 44 | 17.27 |
| | 5240 | 48 | 17.52 |
| UNII-2A | 5260 | 52 | 17.74 |
| | 5280 | 56 | 17.69 |
| | 5300 | 60 | 17.50 |
| | 5320 | 64 | 17.48 |
| UNII-2C | 5500 | 100 | 17.48 |
| | 5600 | 120 | 17.56 |
| | 5620 | 124 | 17.66 |
| | 5720 | 144 | 17.43 |
| UNII-4 | 5845 | 169 | 17.55 |
| | 5865 | 173 | 17.66 |
| | 5885 | 177 | 17.72 |

| 5GHz WIFI (20MHz 802.11ac SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 17.91 |
| | 5200 | 40 | 17.92 |
| | 5220 | 44 | 17.56 |
| | 5240 | 48 | 17.52 |
| UNII-2A | 5260 | 52 | 17.71 |
| | 5280 | 56 | 17.71 |
| | 5300 | 60 | 17.47 |
| | 5320 | 64 | 17.78 |
| UNII-2C | 5500 | 100 | 17.53 |
| | 5600 | 120 | 17.81 |
| | 5620 | 124 | 17.86 |
| | 5720 | 144 | 17.41 |
| UNII-4 | 5845 | 169 | 17.49 |
| | 5865 | 173 | 17.67 |
| | 5885 | 177 | 17.69 |

| 5GHz WIFI (20MHz 802.11ax SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5180 | 36 | 10.72 |
| | 5200 | 40 | 10.57 |
| | 5220 | 44 | 10.84 |
| | 5240 | 48 | 10.85 |
| UNII-2A | 5260 | 52 | 10.74 |
| | 5280 | 56 | 10.76 |
| | 5300 | 60 | 10.59 |
| | 5320 | 64 | 10.61 |
| UNII-2C | 5500 | 100 | 10.45 |
| | 5600 | 120 | 10.58 |
| | 5620 | 124 | 10.61 |
| | 5720 | 144 | 10.41 |
| UNII-4 | 5845 | 169 | 10.68 |
| | 5865 | 173 | 10.56 |
| | 5885 | 177 | 10.63 |

| 5GHz WIFI (80MHz 802.11ac SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-3 | 5775 | 155 | 14.82 |

| 5GHz WIFI (80MHz 802.11ax SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-3 | 5775 | 155 | 10.80 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-63**
**5 GHz WLAN Reduced Average RF Power with Grip Sensor Active – Antenna WIFI 1**

| 5GHz WIFI (80MHz 802.11ac SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5210 | 42 | 7.49 |
| UNII-2A | 5290 | 58 | 7.27 |
| UNII-2C | 5530 | 106 | 7.42 |
| | 5610 | 122 | 7.92 |
| | 5690 | 138 | 7.56 |
| UNII-3 | 5775 | 155 | 7.40 |
| UNII-4 | 5885 | 171 | 7.12 |

**Table 9-64**
**5GHz WLAN Reduced Average RF Power with 2.4 GHz WLAN/BT and/or 5G FR1 Active – Antenna WIFI 1**

| 5GHz WIFI (80MHz 802.11ac SISO WIFI1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5210 | 42 | 4.69 |
| UNII-2A | 5290 | 58 | 4.40 |
| UNII-2C | 5530 | 106 | 4.40 |
| | 5610 | 122 | 4.60 |
| | 5690 | 138 | 4.58 |
| UNII-3 | 5775 | 155 | 4.99 |
| UNII-4 | 5885 | 171 | 4.63 |
| 5GHz WIFI (80MHz 802.11ax SISO WIFI1) | | | |
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-1 | 5210 | 42 | 4.86 |
| UNII-2A | 5290 | 58 | 4.80 |
| UNII-2C | 5530 | 106 | 4.85 |
| | 5610 | 122 | 4.67 |
| | 5690 | 138 | 4.98 |
| UNII-3 | 5775 | 155 | 4.66 |
| UNII-4 | 5885 | 171 | 4.80 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-65**
**5 GHz WLAN Maximum Average RF Power – MIMO**

| 5GHz WIFI (20MHz 802.11a MIMO) | | | | | |
|---|---|---|---|---|---|
| Band | Freq [MHz] | Channel | Avg. Conducted Powers [dBm] | | |
| | | | WIFI 0 | WIFI 1 | MIMO |
| UNII-1 | 5180 | 36 | 17.07 | 17.35 | 20.22 |
| | 5200 | 40 | 17.15 | 17.04 | 20.11 |
| | 5220 | 44 | 17.26 | 17.55 | 20.42 |
| | 5240 | 48 | 17.36 | 17.61 | 20.50 |
| UNII-2A | 5260 | 52 | 17.96 | 17.38 | 20.69 |
| | 5280 | 56 | 17.82 | 17.62 | 20.73 |
| | 5300 | 60 | 17.97 | 17.67 | 20.83 |
| | 5320 | 64 | 17.90 | 17.51 | 20.72 |
| UNII-2C | 5500 | 100 | 17.94 | 17.80 | 20.88 |
| | 5600 | 120 | 17.52 | 17.66 | 20.60 |
| | 5620 | 124 | 17.38 | 17.75 | 20.58 |
| | 5720 | 144 | 17.99 | 17.70 | 20.86 |
| UNII-4 | 5845 | 169 | 17.90 | 17.43 | 20.68 |
| | 5865 | 173 | 17.92 | 17.63 | 20.79 |
| | 5885 | 177 | 17.73 | 17.49 | 20.62 |
| 5GHz WIFI (80MHz 802.11ac MIMO) | | | | | |
| Band | Freq [MHz] | Channel | Avg. Conducted Powers [dBm] | | |
| | | | ANT1 | ANT2 | MIMO |
| UNII-3 | 5775 | 155 | 14.80 | 14.83 | 17.83 |

**Table 9-66**
**5 GHz WLAN Reduced Average RF Power with Grip Sensor Active – MIMO**

| 5GHz WIFI (80MHz 802.11ac MIMO) | | | | | |
|---|---|---|---|---|---|
| Band | Freq [MHz] | Channel | Avg. Conducted Powers [dBm] | | |
| | | | ANT1 | ANT2 | MIMO |
| UNII-1 | 5210 | 42 | 7.37 | 7.51 | 10.45 |
| UNII-2A | 5290 | 58 | 7.81 | 7.05 | 10.46 |
| UNII-2C | 5530 | 106 | 7.40 | 7.62 | 10.52 |
| | 5610 | 122 | 7.56 | 7.97 | 10.78 |
| | 5690 | 138 | 7.98 | 7.89 | 10.95 |
| UNII-3 | 5775 | 155 | 7.71 | 7.41 | 10.57 |
| UNII-4 | 5885 | 171 | 7.66 | 7.11 | 10.40 |

**Table 9-67**
**5 GHz WLAN Reduced Average RF Power with 2.4 GHz WLAN/BT and/or 5G FR1 Active – MIMO**

| 5GHz WIFI (80MHz 802.11ac MIMO) | | | | | |
|---|---|---|---|---|---|
| Band | Freq [MHz] | Channel | Avg. Conducted Powers [dBm] | | |
| | | | ANT1 | ANT2 | MIMO |
| UNII-1 | 5210 | 42 | 4.18 | 4.63 | 7.42 |
| UNII-2A | 5290 | 58 | 4.52 | 4.50 | 7.52 |
| UNII-2C | 5530 | 106 | 4.88 | 4.64 | 7.77 |
| | 5610 | 122 | 4.00 | 4.56 | 7.30 |
| | 5690 | 138 | 4.88 | 4.99 | 7.95 |
| UNII-3 | 5775 | 155 | 4.36 | 4.95 | 7.68 |
| UNII-4 | 5885 | 171 | 4.68 | 4.80 | 7.75 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-68**
**6 GHz WLAN Maximum Average RF Power – Antenna WIFI 0**

| 6GHz WIFI (80MHz 802.11ax SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-5 | 5985 | 7 | 13.06 |
| | 6305 | 71 | 13.30 |
| UNII-6 | 6465 | 103 | 13.19 |
| UNII-7 | 6705 | 151 | 13.43 |
| UNII-8 | 7025 | 215 | 13.36 |

**Table 9-69**
**6 GHz WLAN Reduced Average RF Power with Grip Sensor Active, 2.4 GHz WLAN/BT and/or 5G FR1 Active – Antenna WIFI 0**

| 6GHz WIFI (160MHz 802.11ax SISO WIFI 0) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-5 | 6025 | 15 | 6.66 |
| | 6345 | 79 | 6.23 |
| UNII-6 | 6505 | 111 | 6.74 |
| UNII-7 | 6665 | 143 | 6.52 |
| UNII-8 | 6985 | 207 | 6.77 |

**Table 9-70**
**6 GHz WLAN Maximum Average RF Power – Antenna WIFI 1**

| 6GHz WIFI (80MHz 802.11ax SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-5 | 5985 | 7 | 13.77 |
| | 6305 | 71 | 13.45 |
| UNII-6 | 6465 | 103 | 13.50 |
| UNII-7 | 6705 | 151 | 13.99 |
| UNII-8 | 7025 | 215 | 13.10 |

**Table 9-71**
**6 GHz WLAN Reduced Average RF Power with Grip Sensor Active, 2.4 GHz WLAN/BT and/or 5G FR1 Active – Antenna WIFI 1**

| 6GHz WIFI (160MHz 802.11ax SISO WIFI 1) | | | |
|---|---|---|---|
| Band | Freq. [MHz] | Channel | Avg. Conducted Power [dBm] |
| UNII-5 | 6025 | 15 | 6.39 |
| | 6345 | 79 | 6.76 |
| UNII-6 | 6505 | 111 | 6.61 |
| UNII-7 | 6665 | 143 | 6.13 |
| UNII-8 | 6985 | 207 | 6.11 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-72**
**6 GHz WLAN Maximum Average RF Power – MIMO**

| 6GHz WIFI (80MHz 802.11ax MIMO) | | | | | |
|---|---|---|---|---|---|
| Band | Freq [MHz] | Channel | Avg. Conducted Powers [dBm] | | |
| | | | WIFI 0 | WIFI 1 | MIMO |
| UNII-5 | 5985 | 7 | 13.37 | 13.60 | 16.50 |
| | 6305 | 71 | 13.43 | 13.56 | 16.51 |
| UNII-6 | 6465 | 103 | 13.69 | 12.80 | 16.28 |
| UNII-7 | 6705 | 151 | 13.96 | 13.60 | 16.79 |
| UNII-8 | 7025 | 215 | 13.40 | 13.08 | 16.25 |

**Table 9-73**
**6 GHz WLAN Reduced Average RF Power with Grip Sensor Active, 2.4 GHz WLAN/BT and/or 5G FR1 Active – MIMO**

| 6GHz WIFI (160MHz 802.11ax MIMO) | | | | | |
|---|---|---|---|---|---|
| Band | Freq [MHz] | Channel | Avg. Conducted Powers [dBm] | | |
| | | | WIFI 0 | WIFI 1 | MIMO |
| UNII-5 | 6025 | 15 | 6.85 | 6.50 | 9.69 |
| | 6345 | 79 | 6.20 | 6.88 | 9.56 |
| UNII-6 | 6505 | 111 | 6.79 | 6.68 | 9.75 |
| UNII-7 | 6665 | 143 | 6.58 | 6.16 | 9.39 |
| UNII-8 | 6985 | 207 | 6.52 | 6.26 | 9.40 |

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

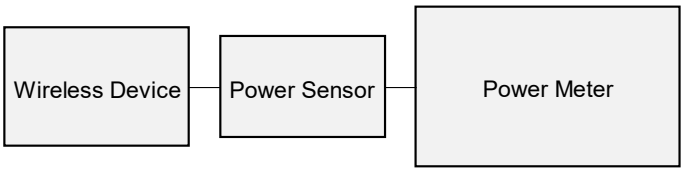



**Figure 9-6**
**Power Measurement Setup**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 9.6 Bluetooth Conducted Powers

**Table 9-74**
**Bluetooth Maximum Average RF Power – Antenna WIFI 0**

| Frequency [MHz] | Data Rate [Mbps] | Channel No. | Avg Conducted Power | |
|---|---|---|---|---|
| | | | [dBm] | [mW] |
| 2402 | 1.0 | 0 | 14.56 | 28.594 |
| 2441 | 1.0 | 39 | 14.12 | 25.806 |
| 2480 | 1.0 | 78 | 13.91 | 24.587 |
| 2402 | 2.0 | 0 | 14.17 | 26.122 |
| 2441 | 2.0 | 39 | 13.85 | 24.266 |
| 2480 | 2.0 | 78 | 14.00 | 25.119 |
| 2402 | 3.0 | 0 | 14.29 | 26.862 |
| 2441 | 3.0 | 39 | 13.97 | 24.972 |
| 2480 | 3.0 | 78 | 14.10 | 25.693 |

**Table 9-75**
**Bluetooth Reduced Average RF Power with Grip Sensor Active, 2.4/5/6 GHz WLAN and/or 5G FR1 Active – Antenna WIFI 0**

| Frequency [MHz] | Data Rate [Mbps] | Channel No. | Avg Conducted Power | |
|---|---|---|---|---|
| | | | [dBm] | [mW] |
| 2402 | 1.0 | 0 | 8.19 | 6.592 |
| 2441 | 1.0 | 39 | 9.52 | 8.954 |
| 2480 | 1.0 | 78 | 8.98 | 7.907 |
| 2402 | 2.0 | 0 | 8.40 | 6.918 |
| 2441 | 2.0 | 39 | 9.63 | 9.183 |
| 2480 | 2.0 | 78 | 9.18 | 8.279 |
| 2402 | 3.0 | 0 | 8.39 | 6.902 |
| 2441 | 3.0 | 39 | 9.64 | 9.204 |
| 2480 | 3.0 | 78 | 9.17 | 8.260 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 9-76**
**Bluetooth Maximum Average RF Power – Antenna WIFI 1**

| Frequency [MHz] | Data Rate [Mbps] | Channel No. | Avg Conducted Power | |
|---|---|---|---|---|
| | | | [dBm] | [mW] |
| 2402 | 1.0 | 0 | 14.32 | 27.040 |
| 2441 | 1.0 | 39 | 14.10 | 25.704 |
| 2480 | 1.0 | 78 | 14.00 | 25.119 |
| 2402 | 2.0 | 0 | 14.21 | 26.363 |
| 2441 | 2.0 | 39 | 14.06 | 25.468 |
| 2480 | 2.0 | 78 | 13.35 | 21.627 |
| 2402 | 3.0 | 0 | 14.34 | 27.164 |
| 2441 | 3.0 | 39 | 14.16 | 26.062 |
| 2480 | 3.0 | 78 | 13.48 | 22.284 |

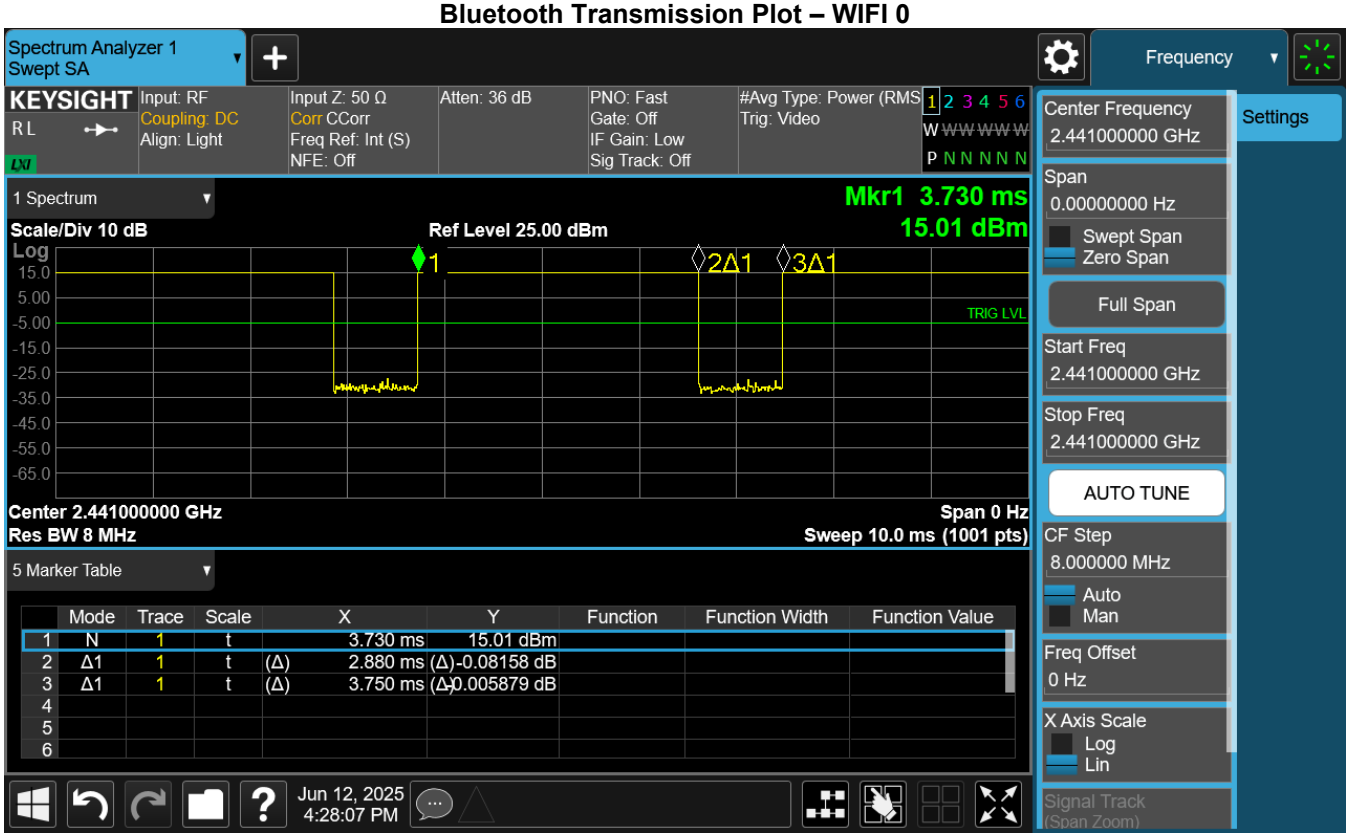
**Table 9-77**
**Bluetooth Reduced Average RF Power with Grip Sensor Active, 2.4/5/6 GHz WLAN and/or 5G FR1 Active – Antenna WIFI 1**

| Frequency [MHz] | Data Rate [Mbps] | Channel No. | Avg Conducted Power | |
|---|---|---|---|---|
| | | | [dBm] | [mW] |
| 2402 | 1.0 | 0 | 7.03 | 5.047 |
| 2441 | 1.0 | 39 | 7.55 | 5.689 |
| 2480 | 1.0 | 78 | 7.02 | 5.035 |
| 2402 | 2.0 | 0 | 7.18 | 5.224 |
| 2441 | 2.0 | 39 | 7.65 | 5.821 |
| 2480 | 2.0 | 78 | 7.18 | 5.224 |
| 2402 | 3.0 | 0 | 7.17 | 5.212 |
| 2441 | 3.0 | 39 | 7.68 | 5.861 |
| 2480 | 3.0 | 78 | 7.19 | 5.236 |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Figure 9-7**
**Bluetooth Transmission Plot – WIFI 0**



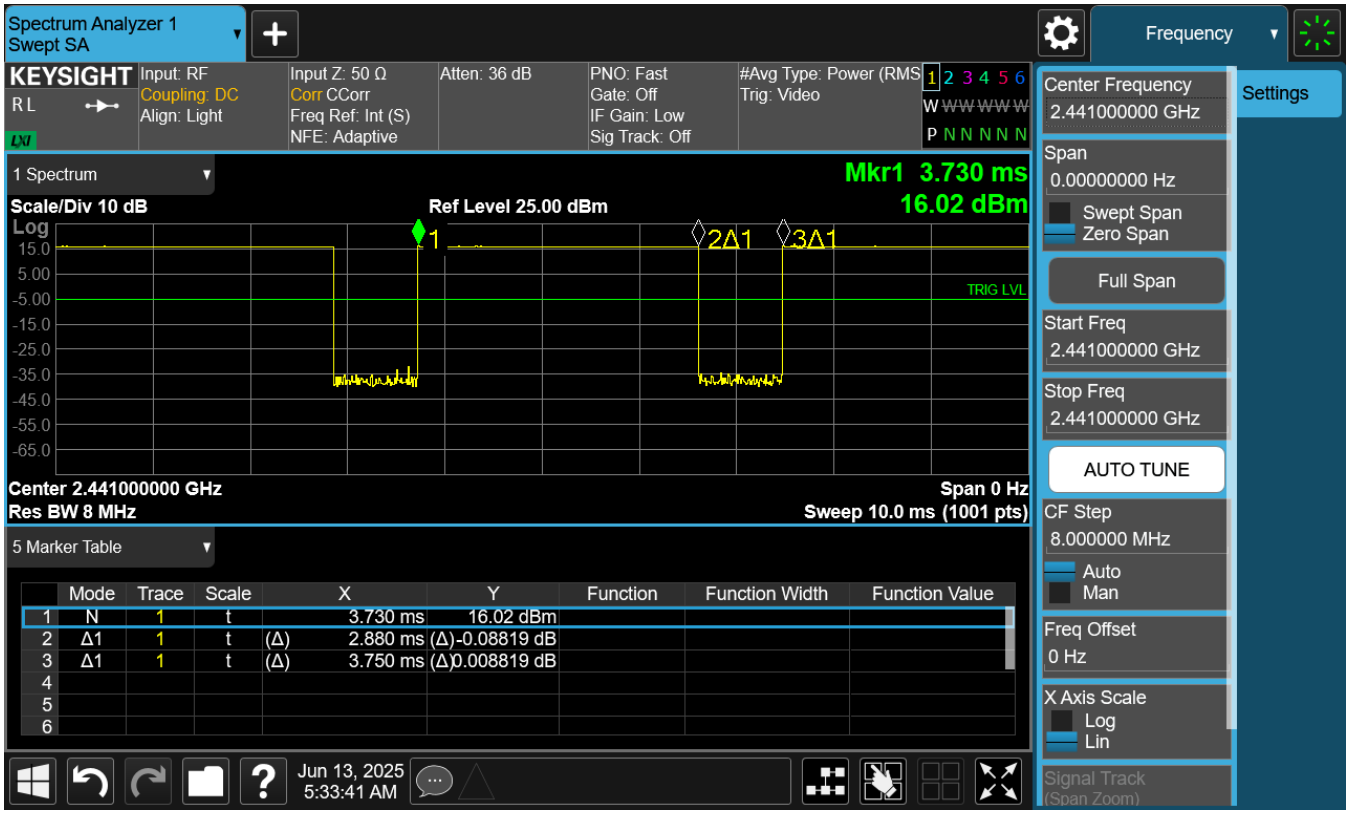

**Equation 9-1**
**Bluetooth WIFI 0 Duty Cycle Calculation**

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.880\ ms}{3.750\ ms} * 100\% = 76.8\%$$



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Figure 9-8**
**Bluetooth Transmission Plot – WIFI 1**




**Equation 9-2**
**Bluetooth Antenna WIFI 1 Duty Cycle Calculation**

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.880\ ms}{3.750\ ms} * 100\% = 76.8\%$$

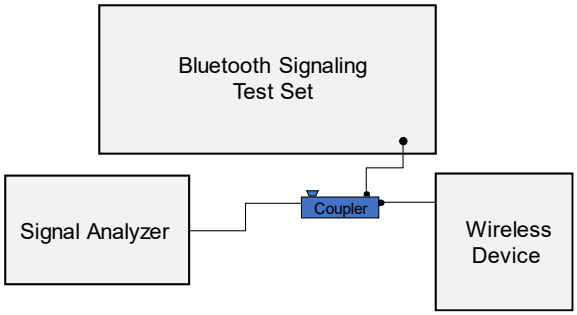



**Figure 9-9**
**Power Measurement Setup**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 10 SYSTEM VERIFICATION

## 10.1 Tissue Verification

**Table 10-1**
**Measured Head Tissue Properties**

| Calibrated for Tests Performed on: | Tissue Type | Tissue Temp During Calibration (˚C) | Measured Frequency (MHz) | Measured Conductivity, σ (S/m) | Measured Dielectric Constant, ε | TARGET Conductivity, σ (S/m) | TARGET Dielectric Constant, ε | % dev σ | % dev ε |
|---|---|---|---|---|---|---|---|---|---|
| 06/09/2025 | 750 Head | 24.2 | 680 | 0.865 | 41.883 | 0.888 | 42.305 | -2.59% | -1.00% |
| | | | 695 | 0.870 | 41.856 | 0.889 | 42.227 | -2.14% | -0.88% |
| | | | 710 | 0.874 | 41.820 | 0.890 | 42.149 | -1.80% | -0.78% |
| | | | 725 | 0.879 | 41.776 | 0.891 | 42.071 | -1.35% | -0.70% |
| | | | 750 | 0.887 | 41.689 | 0.894 | 41.942 | -0.78% | -0.60% |
| | | | 770 | 0.893 | 41.637 | 0.895 | 41.838 | -0.22% | -0.48% |
| | | | 785 | 0.898 | 41.608 | 0.896 | 41.760 | 0.22% | -0.36% |
| | | | 800 | 0.903 | 41.581 | 0.897 | 41.682 | 0.67% | -0.24% |
| 06/11/2025 | 750 Head | 24.2 | 680 | 0.869 | 41.810 | 0.888 | 42.305 | -2.14% | -1.17% |
| | | | 695 | 0.873 | 41.780 | 0.889 | 42.227 | -1.80% | -1.06% |
| | | | 710 | 0.877 | 41.748 | 0.890 | 42.149 | -1.46% | -0.95% |
| | | | 725 | 0.882 | 41.700 | 0.891 | 42.071 | -1.01% | -0.88% |
| | | | 750 | 0.890 | 41.614 | 0.894 | 41.942 | -0.45% | -0.78% |
| | | | 770 | 0.896 | 41.566 | 0.895 | 41.838 | 0.11% | -0.65% |
| | | | 785 | 0.901 | 41.539 | 0.896 | 41.760 | 0.56% | -0.53% |
| | | | 800 | 0.906 | 41.515 | 0.897 | 41.682 | 1.00% | -0.40% |
| 06/17/2025 | 750 Head | 21.6 | 680 | 0.866 | 41.979 | 0.888 | 42.305 | -2.48% | -0.77% |
| | | | 695 | 0.870 | 41.934 | 0.889 | 42.227 | -2.14% | -0.69% |
| | | | 710 | 0.875 | 41.900 | 0.890 | 42.149 | -1.69% | -0.59% |
| | | | 725 | 0.881 | 41.863 | 0.891 | 42.071 | -1.12% | -0.49% |
| | | | 750 | 0.890 | 41.780 | 0.894 | 41.942 | -0.45% | -0.39% |
| | | | 770 | 0.896 | 41.702 | 0.895 | 41.838 | 0.11% | -0.33% |
| | | | 785 | 0.901 | 41.663 | 0.896 | 41.760 | 0.56% | -0.23% |
| | | | 800 | 0.907 | 41.624 | 0.897 | 41.682 | 1.11% | -0.14% |
| 06/09/2025 | 835 Head | 24.2 | 815 | 0.908 | 41.548 | 0.898 | 41.594 | 1.11% | -0.11% |
| | | | 820 | 0.909 | 41.535 | 0.899 | 41.578 | 1.11% | -0.10% |
| | | | 835 | 0.914 | 41.482 | 0.900 | 41.500 | 1.56% | -0.04% |
| | | | 850 | 0.919 | 41.436 | 0.916 | 41.500 | 0.33% | -0.15% |
| 06/11/2025 | 835 Head | 24.2 | 815 | 0.911 | 41.478 | 0.898 | 41.594 | 1.45% | -0.28% |
| | | | 820 | 0.912 | 41.464 | 0.899 | 41.578 | 1.45% | -0.27% |
| | | | 835 | 0.916 | 41.413 | 0.900 | 41.500 | 1.78% | -0.21% |
| | | | 850 | 0.921 | 41.364 | 0.916 | 41.500 | 0.55% | -0.33% |
| 06/15/2025 | 835 Head | 22.5 | 815 | 0.931 | 41.996 | 0.898 | 41.594 | 3.67% | 0.97% |
| | | | 820 | 0.932 | 41.982 | 0.899 | 41.578 | 3.67% | 0.97% |
| | | | 835 | 0.937 | 41.920 | 0.900 | 41.500 | 4.11% | 1.01% |
| | | | 850 | 0.941 | 41.858 | 0.916 | 41.500 | 2.73% | 0.86% |
| 06/17/2025 | 835 Head | 21.6 | 815 | 0.912 | 41.586 | 0.898 | 41.594 | 1.56% | -0.02% |
| | | | 820 | 0.913 | 41.572 | 0.899 | 41.578 | 1.56% | -0.01% |
| | | | 835 | 0.918 | 41.524 | 0.900 | 41.500 | 2.00% | 0.06% |
| | | | 850 | 0.924 | 41.465 | 0.916 | 41.500 | 0.87% | -0.08% |
| 06/15/2025 | 1750 Head | 22.0 | 1700 | 1.308 | 39.526 | 1.343 | 40.145 | -2.61% | -1.54% |
| | | | 1705 | 1.310 | 39.519 | 1.345 | 40.141 | -2.60% | -1.55% |
| | | | 1710 | 1.313 | 39.511 | 1.348 | 40.136 | -2.60% | -1.56% |
| | | | 1720 | 1.318 | 39.498 | 1.354 | 40.126 | -2.66% | -1.57% |
| | | | 1745 | 1.333 | 39.475 | 1.368 | 40.087 | -2.56% | -1.53% |
| | | | 1750 | 1.337 | 39.473 | 1.371 | 40.079 | -2.48% | -1.51% |
| | | | 1770 | 1.349 | 39.461 | 1.383 | 40.047 | -2.46% | -1.46% |
| | | | 1790 | 1.360 | 39.440 | 1.394 | 40.016 | -2.44% | -1.44% |
| 06/15/2025 | 1750 Head | 20.3 | 1700 | 1.300 | 39.651 | 1.343 | 40.145 | -3.20% | -1.23% |
| | | | 1705 | 1.302 | 39.644 | 1.345 | 40.141 | -3.20% | -1.24% |
| | | | 1710 | 1.305 | 39.636 | 1.348 | 40.136 | -3.19% | -1.25% |
| | | | 1720 | 1.310 | 39.623 | 1.354 | 40.126 | -3.25% | -1.25% |
| | | | 1745 | 1.326 | 39.602 | 1.368 | 40.087 | -3.07% | -1.21% |
| | | | 1750 | 1.330 | 39.600 | 1.371 | 40.079 | -2.99% | -1.20% |
| | | | 1770 | 1.342 | 39.586 | 1.383 | 40.047 | -2.96% | -1.15% |
| | | | 1790 | 1.352 | 39.560 | 1.394 | 40.016 | -3.01% | -1.14% |
| 06/17/2025 | 1750 Head | 20.3 | 1700 | 1.312 | 40.055 | 1.343 | 40.145 | -2.31% | -0.22% |
| | | | 1705 | 1.314 | 40.045 | 1.345 | 40.141 | -2.30% | -0.24% |
| | | | 1710 | 1.317 | 40.035 | 1.348 | 40.136 | -2.30% | -0.25% |
| | | | 1720 | 1.322 | 40.016 | 1.354 | 40.126 | -2.36% | -0.27% |
| | | | 1745 | 1.337 | 39.969 | 1.368 | 40.087 | -2.27% | -0.29% |
| | | | 1750 | 1.341 | 39.960 | 1.371 | 40.079 | -2.19% | -0.30% |
| | | | 1770 | 1.353 | 39.929 | 1.383 | 40.047 | -2.17% | -0.29% |
| | | | 1790 | 1.364 | 39.897 | 1.394 | 40.016 | -2.15% | -0.30% |
| 06/24/2025 | 1750 Head | 20.4 | 1700 | 1.311 | 39.069 | 1.343 | 40.145 | -2.38% | -2.68% |
| | | | 1705 | 1.314 | 39.061 | 1.345 | 40.141 | -2.30% | -2.69% |
| | | | 1710 | 1.317 | 39.053 | 1.348 | 40.136 | -2.30% | -2.70% |
| | | | 1720 | 1.323 | 39.037 | 1.354 | 40.126 | -2.29% | -2.71% |
| | | | 1745 | 1.337 | 38.995 | 1.368 | 40.087 | -2.27% | -2.72% |
| | | | 1750 | 1.340 | 38.987 | 1.371 | 40.079 | -2.26% | -2.72% |
| | | | 1770 | 1.353 | 38.947 | 1.383 | 40.047 | -2.17% | -2.75% |
| | | | 1790 | 1.365 | 38.904 | 1.394 | 40.016 | -2.08% | -2.78% |
| 06/11/2025 | 1900 Head | 21.7 | 1850 | 1.408 | 41.231 | 1.400 | 40.000 | 0.57% | 3.08% |
| | | | 1860 | 1.415 | 41.221 | 1.400 | 40.000 | 1.07% | 3.05% |
| | | | 1880 | 1.425 | 41.198 | 1.400 | 40.000 | 1.79% | 3.00% |
| | | | 1900 | 1.434 | 41.168 | 1.400 | 40.000 | 2.43% | 2.92% |
| | | | 1905 | 1.436 | 41.158 | 1.400 | 40.000 | 2.57% | 2.90% |
| | | | 1910 | 1.438 | 41.147 | 1.400 | 40.000 | 2.71% | 2.87% |
| | | | 1920 | 1.443 | 41.128 | 1.400 | 40.000 | 3.07% | 2.82% |
| 06/17/2025 | 1900 Head | 20.3 | 1850 | 1.399 | 39.784 | 1.400 | 40.000 | -0.07% | -0.54% |
| | | | 1860 | 1.404 | 39.768 | 1.400 | 40.000 | 0.29% | -0.58% |
| | | | 1880 | 1.416 | 39.741 | 1.400 | 40.000 | 1.14% | -0.65% |
| | | | 1900 | 1.427 | 39.715 | 1.400 | 40.000 | 1.93% | -0.71% |
| | | | 1905 | 1.429 | 39.708 | 1.400 | 40.000 | 2.07% | -0.73% |
| | | | 1910 | 1.432 | 39.703 | 1.400 | 40.000 | 2.29% | -0.74% |
| | | | 1920 | 1.438 | 39.694 | 1.400 | 40.000 | 2.71% | -0.76% |
| 06/24/2025 | 1900 Head | 20.4 | 1850 | 1.399 | 38.788 | 1.400 | 40.000 | -0.07% | -3.03% |
| | | | 1860 | 1.405 | 38.770 | 1.400 | 40.000 | 0.36% | -3.07% |
| | | | 1880 | 1.417 | 38.735 | 1.400 | 40.000 | 1.21% | -3.16% |
| | | | 1900 | 1.428 | 38.708 | 1.400 | 40.000 | 2.00% | -3.23% |
| | | | 1905 | 1.431 | 38.702 | 1.400 | 40.000 | 2.21% | -3.25% |
| | | | 1910 | 1.434 | 38.695 | 1.400 | 40.000 | 2.43% | -3.26% |
| | | | 1920 | 1.440 | 38.681 | 1.400 | 40.000 | 2.86% | -3.30% |
| 06/27/2025 | 1900 Head | 20.0 | 1850 | 1.383 | 38.583 | 1.400 | 40.000 | -1.21% | -3.54% |
| | | | 1860 | 1.390 | 38.575 | 1.400 | 40.000 | -0.71% | -3.56% |
| | | | 1880 | 1.403 | 38.564 | 1.400 | 40.000 | 0.21% | -3.59% |
| | | | 1900 | 1.415 | 38.530 | 1.400 | 40.000 | 1.07% | -3.68% |
| | | | 1905 | 1.419 | 38.521 | 1.400 | 40.000 | 1.36% | -3.70% |
| | | | 1910 | 1.422 | 38.511 | 1.400 | 40.000 | 1.57% | -3.72% |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# Table 10-2
# Measured Head Tissue Properties

| Calibrated for Tests Performed on: | Tissue Type | Tissue Temp During Calibration (°C) | Measured Frequency (MHz) | Measured Conductivity, σ (S/m) | Measured Dielectric Constant, ε | TARGET Conductivity, σ (S/m) | TARGET Dielectric Constant, ε | % dev σ | % dev ε |
|---|---|---|---|---|---|---|---|---|---|
| 06/18/2025 | 2450 Head | 20.0 | 2300 | 1.721 | 39.313 | 1.670 | 39.500 | 3.65% | -0.47% |
| | | | 2310 | 1.738 | 39.296 | 1.679 | 39.480 | 3.51% | -0.47% |
| | | | 2320 | 1.746 | 39.285 | 1.687 | 39.460 | 3.50% | -0.44% |
| | | | 2400 | 1.810 | 39.152 | 1.756 | 39.289 | 3.08% | -0.35% |
| | | | 2450 | 1.846 | 39.071 | 1.800 | 39.200 | 2.56% | -0.33% |
| | | | 2480 | 1.869 | 39.031 | 1.833 | 39.162 | 1.96% | -0.33% |
| | | | 2500 | 1.884 | 39.001 | 1.855 | 39.136 | 1.56% | -0.34% |
| | | | 2510 | 1.893 | 38.983 | 1.866 | 39.123 | 1.45% | -0.36% |
| | | | 2535 | 1.914 | 38.934 | 1.893 | 39.092 | 1.11% | -0.40% |
| | | | 2550 | 1.926 | 38.905 | 1.909 | 39.073 | 0.89% | -0.43% |
| | | | 2560 | 1.934 | 38.892 | 1.920 | 39.060 | 0.73% | -0.43% |
| | | | 2600 | 1.965 | 38.820 | 1.964 | 39.009 | 0.05% | -0.48% |
| | | | 2650 | 2.005 | 38.733 | 2.018 | 38.945 | -0.64% | -0.54% |
| | | | 2680 | 2.029 | 38.675 | 2.051 | 38.907 | -1.07% | -0.60% |
| | | | 2700 | 2.045 | 38.636 | 2.073 | 38.882 | -1.35% | -0.63% |
| 06/19/2025 | 2450 Head | 20.3 | 2300 | 1.722 | 39.864 | 1.670 | 39.500 | 3.11% | 0.92% |
| | | | 2310 | 1.729 | 39.848 | 1.679 | 39.480 | 2.98% | 0.93% |
| | | | 2320 | 1.736 | 39.830 | 1.687 | 39.460 | 2.90% | 0.94% |
| | | | 2400 | 1.798 | 39.719 | 1.756 | 39.289 | 2.39% | 1.09% |
| | | | 2450 | 1.835 | 39.636 | 1.800 | 39.200 | 1.94% | 1.11% |
| | | | 2480 | 1.858 | 39.589 | 1.833 | 39.162 | 1.36% | 1.09% |
| | | | 2500 | 1.876 | 39.558 | 1.855 | 39.136 | 1.13% | 1.08% |
| | | | 2510 | 1.885 | 39.545 | 1.866 | 39.123 | 1.02% | 1.08% |
| | | | 2535 | 1.905 | 39.510 | 1.893 | 39.092 | 0.63% | 1.07% |
| | | | 2550 | 1.915 | 39.490 | 1.909 | 39.073 | 0.31% | 1.07% |
| | | | 2560 | 1.923 | 39.475 | 1.920 | 39.060 | 0.16% | 1.06% |
| | | | 2600 | 1.959 | 39.403 | 1.964 | 39.009 | -0.25% | 1.01% |
| | | | 2650 | 2.002 | 39.319 | 2.018 | 38.945 | -0.79% | 0.96% |
| | | | 2680 | 2.026 | 39.265 | 2.051 | 38.907 | -1.22% | 0.92% |
| | | | 2700 | 2.043 | 39.224 | 2.073 | 38.882 | -1.45% | 0.88% |
| 06/25/2025 | 2450 Head | 19.9 | 2300 | 1.672 | 38.016 | 1.670 | 39.500 | 0.12% | -3.76% |
| | | | 2310 | 1.679 | 37.998 | 1.679 | 39.480 | 0.00% | -3.75% |
| | | | 2320 | 1.687 | 37.982 | 1.687 | 39.460 | 0.00% | -3.75% |
| | | | 2400 | 1.746 | 37.842 | 1.756 | 39.289 | -0.57% | -3.68% |
| | | | 2450 | 1.782 | 37.763 | 1.800 | 39.200 | -1.00% | -3.67% |
| | | | 2480 | 1.804 | 37.708 | 1.833 | 39.162 | -1.58% | -3.71% |
| | | | 2500 | 1.819 | 37.675 | 1.855 | 39.136 | -1.94% | -3.73% |
| | | | 2510 | 1.828 | 37.661 | 1.866 | 39.123 | -2.04% | -3.74% |
| | | | 2535 | 1.847 | 37.625 | 1.893 | 39.092 | -2.43% | -3.75% |
| | | | 2550 | 1.859 | 37.600 | 1.909 | 39.073 | -2.62% | -3.77% |
| | | | 2560 | 1.867 | 37.583 | 1.920 | 39.060 | -2.76% | -3.78% |
| | | | 2600 | 1.898 | 37.523 | 1.964 | 39.009 | -3.36% | -3.81% |
| | | | 2650 | 1.938 | 37.422 | 2.018 | 38.945 | -3.96% | -3.91% |
| | | | 2680 | 1.962 | 37.374 | 2.051 | 38.907 | -4.34% | -3.94% |
| | | | 2700 | 1.976 | 37.352 | 2.073 | 38.882 | -4.68% | -3.93% |
| 06/25/2025 | 2450 Head | 21.1 | 2300 | 1.675 | 40.496 | 1.670 | 39.500 | 0.30% | 2.52% |
| | | | 2310 | 1.683 | 40.488 | 1.679 | 39.480 | 0.24% | 2.55% |
| | | | 2320 | 1.690 | 40.476 | 1.687 | 39.460 | 0.18% | 2.57% |
| | | | 2400 | 1.750 | 40.346 | 1.756 | 39.289 | -0.34% | 2.69% |
| | | | 2450 | 1.784 | 40.257 | 1.800 | 39.200 | -0.89% | 2.70% |
| | | | 2480 | 1.809 | 40.213 | 1.833 | 39.162 | -1.31% | 2.68% |
| | | | 2500 | 1.825 | 40.198 | 1.855 | 39.136 | -1.62% | 2.71% |
| | | | 2510 | 1.832 | 40.188 | 1.866 | 39.123 | -1.82% | 2.72% |
| | | | 2535 | 1.850 | 40.136 | 1.893 | 39.092 | -2.27% | 2.67% |
| | | | 2550 | 1.863 | 40.103 | 1.909 | 39.073 | -2.41% | 2.64% |
| | | | 2560 | 1.872 | 40.086 | 1.920 | 39.060 | -2.50% | 2.63% |
| | | | 2600 | 1.904 | 40.050 | 1.964 | 39.009 | -3.05% | 2.67% |
| | | | 2650 | 1.942 | 39.930 | 2.018 | 38.945 | -3.77% | 2.53% |
| | | | 2680 | 1.969 | 39.900 | 2.051 | 38.907 | -4.00% | 2.55% |
| | | | 2700 | 1.983 | 39.886 | 2.073 | 38.882 | -4.34% | 2.58% |
| 07/01/2025 | 2450 Head | 20.6 | 2300 | 1.682 | 38.528 | 1.670 | 39.500 | 0.72% | -2.46% |
| | | | 2310 | 1.689 | 38.512 | 1.679 | 39.480 | 0.60% | -2.45% |
| | | | 2320 | 1.696 | 38.495 | 1.687 | 39.460 | 0.53% | -2.45% |
| | | | 2400 | 1.757 | 38.396 | 1.756 | 39.289 | 0.06% | -2.27% |
| | | | 2450 | 1.794 | 38.301 | 1.800 | 39.200 | -0.33% | -2.29% |
| | | | 2480 | 1.817 | 38.258 | 1.833 | 39.162 | -0.87% | -2.31% |
| | | | 2500 | 1.831 | 38.225 | 1.855 | 39.136 | -1.29% | -2.33% |
| | | | 2510 | 1.839 | 38.208 | 1.866 | 39.123 | -1.45% | -2.34% |
| | | | 2535 | 1.857 | 38.157 | 1.893 | 39.092 | -1.90% | -2.39% |
| | | | 2550 | 1.869 | 38.129 | 1.909 | 39.073 | -2.10% | -2.42% |
| | | | 2560 | 1.877 | 38.111 | 1.920 | 39.060 | -2.24% | -2.43% |
| | | | 2600 | 1.907 | 38.052 | 1.964 | 39.009 | -2.90% | -2.45% |
| | | | 2650 | 1.945 | 37.957 | 2.018 | 38.945 | -3.62% | -2.54% |
| | | | 2680 | 1.970 | 37.915 | 2.051 | 38.907 | -3.95% | -2.55% |
| | | | 2700 | 1.984 | 37.886 | 2.073 | 38.882 | -4.29% | -2.56% |
| 07/02/2025 | 2450 Head | 21.0 | 2300 | 1.665 | 40.848 | 1.670 | 39.500 | -0.30% | 3.41% |
| | | | 2310 | 1.672 | 40.823 | 1.679 | 39.480 | -0.42% | 3.40% |
| | | | 2320 | 1.681 | 40.805 | 1.687 | 39.460 | -0.36% | 3.41% |
| | | | 2400 | 1.740 | 40.705 | 1.756 | 39.289 | -0.91% | 3.60% |
| | | | 2450 | 1.782 | 40.649 | 1.800 | 39.200 | -1.00% | 3.70% |
| | | | 2480 | 1.803 | 40.597 | 1.833 | 39.162 | -1.64% | 3.66% |
| | | | 2500 | 1.818 | 40.546 | 1.855 | 39.136 | -1.99% | 3.60% |
| | | | 2510 | 1.827 | 40.530 | 1.866 | 39.123 | -2.09% | 3.60% |
| | | | 2535 | 1.850 | 40.505 | 1.893 | 39.092 | -2.27% | 3.61% |
| | | | 2550 | 1.863 | 40.489 | 1.909 | 39.073 | -2.41% | 3.62% |
| | | | 2560 | 1.870 | 40.473 | 1.920 | 39.060 | -2.60% | 3.62% |
| | | | 2600 | 1.900 | 40.394 | 1.964 | 39.009 | -3.26% | 3.55% |
| | | | 2650 | 1.944 | 40.336 | 2.018 | 38.945 | -3.67% | 3.57% |
| | | | 2680 | 1.965 | 40.270 | 2.051 | 38.907 | -4.19% | 3.50% |
| | | | 2700 | 1.981 | 40.229 | 2.073 | 38.882 | -4.44% | 3.46% |
| 07/07/2025 | 2450 Head | 21.8 | 2300 | 1.649 | 40.931 | 1.670 | 39.500 | -1.26% | 3.62% |
| | | | 2310 | 1.652 | 40.900 | 1.679 | 39.480 | -1.61% | 3.60% |
| | | | 2320 | 1.660 | 40.866 | 1.687 | 39.460 | -1.60% | 3.56% |
| | | | 2400 | 1.724 | 40.791 | 1.756 | 39.289 | -1.82% | 3.82% |
| | | | 2450 | 1.773 | 40.677 | 1.800 | 39.200 | -1.50% | 3.77% |
| | | | 2480 | 1.799 | 40.671 | 1.833 | 39.162 | -1.85% | 3.85% |
| | | | 2500 | 1.801 | 40.661 | 1.855 | 39.136 | -2.91% | 3.90% |
| | | | 2510 | 1.804 | 40.645 | 1.866 | 39.123 | -3.32% | 3.89% |
| | | | 2535 | 1.826 | 40.573 | 1.893 | 39.092 | -3.54% | 3.79% |
| | | | 2550 | 1.849 | 40.532 | 1.909 | 39.073 | -3.14% | 3.73% |
| | | | 2560 | 1.862 | 40.517 | 1.920 | 39.060 | -3.02% | 3.73% |
| | | | 2600 | 1.883 | 40.505 | 1.964 | 39.009 | -4.12% | 3.84% |
| | | | 2650 | 1.925 | 40.376 | 2.018 | 38.945 | -4.61% | 3.67% |
| | | | 2680 | 1.960 | 40.340 | 2.051 | 38.907 | -4.44% | 3.68% |
| 06/30/2025 | 3600 Head | 19.0 | 3300 | 2.591 | 38.984 | 2.708 | 38.157 | -4.32% | 2.17% |
| | | | 3350 | 2.637 | 38.911 | 2.759 | 38.100 | -4.42% | 2.13% |
| | | | 3450 | 2.729 | 38.726 | 2.861 | 37.986 | -4.61% | 1.95% |
| | | | 3500 | 2.776 | 38.632 | 2.913 | 37.929 | -4.70% | 1.85% |
| | | | 3550 | 2.823 | 38.552 | 2.964 | 37.871 | -4.76% | 1.80% |
| | | | 3560 | 2.833 | 38.531 | 2.974 | 37.860 | -4.74% | 1.77% |
| | | | 3600 | 2.872 | 38.427 | 3.015 | 37.814 | -4.74% | 1.62% |
| | | | 3650 | 2.922 | 38.353 | 3.066 | 37.757 | -4.70% | 1.58% |
| | | | 3690 | 2.959 | 38.274 | 3.107 | 37.711 | -4.76% | 1.49% |
| | | | 3700 | 2.971 | 38.269 | 3.117 | 37.700 | -4.68% | 1.51% |
| | | | 3750 | 3.021 | 38.201 | 3.169 | 37.643 | -4.67% | 1.48% |
| | | | 3900 | 3.172 | 37.930 | 3.323 | 37.471 | -4.54% | 1.22% |
| | | | 3930 | 3.209 | 37.894 | 3.353 | 37.437 | -4.29% | 1.22% |
| | | | 4100 | 3.384 | 37.583 | 3.528 | 37.243 | -4.08% | 0.91% |
| | | | 4150 | 3.440 | 37.509 | 3.579 | 37.186 | -3.88% | 0.87% |
| 07/07/2025 | 3600 Head | 19.0 | 3300 | 2.599 | 39.691 | 2.708 | 38.157 | -4.03% | 4.02% |
| | | | 3350 | 2.648 | 39.602 | 2.759 | 38.100 | -4.02% | 3.94% |
| | | | 3450 | 2.745 | 39.398 | 2.861 | 37.986 | -4.05% | 3.72% |
| | | | 3500 | 2.793 | 39.311 | 2.913 | 37.929 | -4.12% | 3.64% |
| | | | 3550 | 2.842 | 39.208 | 2.964 | 37.871 | -4.12% | 3.53% |
| | | | 3560 | 2.853 | 39.200 | 2.974 | 37.860 | -4.07% | 3.54% |
| | | | 3600 | 2.893 | 39.151 | 3.015 | 37.814 | -4.05% | 3.54% |
| | | | 3650 | 2.941 | 39.057 | 3.066 | 37.757 | -4.08% | 3.44% |
| | | | 3690 | 2.984 | 38.969 | 3.107 | 37.711 | -3.96% | 3.34% |
| | | | 3700 | 2.992 | 38.960 | 3.117 | 37.700 | -4.01% | 3.34% |
| | | | 3750 | 3.044 | 38.864 | 3.169 | 37.643 | -3.94% | 3.24% |
| | | | 3900 | 3.198 | 38.626 | 3.323 | 37.471 | -3.76% | 3.08% |
| | | | 3930 | 3.234 | 38.529 | 3.353 | 37.437 | -3.55% | 2.92% |
| | | | 4100 | 3.419 | 38.250 | 3.528 | 37.243 | -3.09% | 2.70% |
| | | | 4150 | 3.477 | 38.191 | 3.579 | 37.186 | -2.85% | 2.70% |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 10-3
## Measured Head Tissue Properties

| Calibrated for Tests Performed on: | Tissue Type | Tissue Temp During Calibration (°C) | Measured Frequency (MHz) | Measured Conductivity, σ (S/m) | Measured Dielectric Constant, ε | TARGET Conductivity, σ (S/m) | TARGET Dielectric Constant, ε | % dev σ | % dev ε |
|---|---|---|---|---|---|---|---|---|---|
| 06/15/2025 | S200-5800 Head | 21.5 | 5150 | 4.413 | 35.789 | 4.658 | 36.050 | -4.23% | -0.72% |
| | | | 5160 | 4.420 | 35.772 | 4.618 | 36.040 | -4.29% | -0.74% |
| | | | 5170 | 4.433 | 35.754 | 4.629 | 36.030 | -4.23% | -0.77% |
| | | | 5180 | 4.449 | 35.739 | 4.635 | 36.039 | -4.01% | -0.78% |
| | | | 5190 | 4.463 | 35.701 | 4.645 | 35.998 | -3.88% | -0.83% |
| | | | 5200 | 4.479 | 35.681 | 4.655 | 35.986 | -3.78% | -0.85% |
| | | | 5210 | 4.495 | 35.664 | 4.666 | 35.975 | -3.77% | -0.85% |
| | | | 5220 | 4.504 | 35.659 | 4.676 | 35.963 | -3.68% | -0.85% |
| | | | 5240 | 4.522 | 35.632 | 4.696 | 35.940 | -3.71% | -0.85% |
| | | | 5250 | 4.524 | 35.621 | 4.706 | 35.929 | -3.87% | -0.86% |
| | | | 5260 | 4.528 | 35.614 | 4.717 | 35.917 | -4.05% | -0.84% |
| | | | 5270 | 4.534 | 35.604 | 4.727 | 35.906 | -4.08% | -0.84% |
| | | | 5280 | 4.549 | 35.590 | 4.737 | 35.894 | -3.97% | -0.87% |
| | | | 5290 | 4.563 | 35.539 | 4.748 | 35.883 | -3.90% | -0.98% |
| | | | 5300 | 4.580 | 35.510 | 4.758 | 35.871 | -3.74% | -1.01% |
| | | | 5310 | 4.599 | 35.497 | 4.768 | 35.860 | -3.54% | -1.01% |
| | | | 5320 | 4.617 | 35.487 | 4.779 | 35.849 | -3.37% | -1.01% |
| | | | 5330 | 4.794 | 35.178 | 4.983 | 35.643 | -3.41% | -1.32% |
| | | | 5510 | 4.813 | 35.146 | 4.973 | 35.632 | -3.22% | -1.36% |
| | | | 5520 | 4.828 | 35.137 | 4.983 | 35.630 | -3.11% | -1.38% |
| | | | 5530 | 4.844 | 35.140 | 4.994 | 35.639 | -3.05% | -1.32% |
| | | | 5540 | 4.854 | 35.133 | 5.004 | 35.597 | -3.00% | -1.30% |
| | | | 5550 | 4.859 | 35.110 | 5.014 | 35.586 | -3.09% | -1.33% |
| | | | 5560 | 4.861 | 35.087 | 5.024 | 35.574 | -3.24% | -1.37% |
| | | | 5580 | 4.879 | 35.059 | 5.045 | 35.551 | -3.29% | -1.38% |
| | | | 5600 | 4.910 | 35.010 | 5.065 | 35.529 | -3.08% | -1.44% |
| | | | 5610 | 4.926 | 34.995 | 5.076 | 35.518 | -2.96% | -1.47% |
| | | | 5620 | 4.943 | 34.986 | 5.086 | 35.506 | -2.81% | -1.46% |
| | | | 5640 | 4.972 | 34.947 | 5.106 | 35.483 | -2.62% | -1.51% |
| | | | 5660 | 4.980 | 34.919 | 5.127 | 35.460 | -2.87% | -1.53% |
| | | | 5670 | 4.986 | 34.909 | 5.137 | 35.449 | -2.94% | -1.52% |
| | | | 5680 | 4.988 | 34.901 | 5.147 | 35.437 | -2.99% | -1.54% |
| | | | 5690 | 5.009 | 34.867 | 5.158 | 35.426 | -2.89% | -1.58% |
| | | | 5700 | 5.020 | 34.837 | 5.168 | 35.414 | -2.88% | -1.57% |
| | | | 5710 | 5.034 | 34.802 | 5.178 | 35.403 | -2.78% | -1.65% |
| | | | 5720 | 5.054 | 34.833 | 5.188 | 35.391 | -2.58% | -1.58% |
| | | | 5745 | 5.064 | 34.770 | 5.214 | 35.363 | -2.49% | -1.68% |
| | | | 5750 | 5.068 | 34.766 | 5.219 | 35.357 | -2.31% | -1.67% |
| | | | 5755 | 5.094 | 34.760 | 5.224 | 35.351 | -2.46% | -1.67% |
| | | | 5765 | 5.105 | 34.746 | 5.234 | 35.340 | -2.46% | -1.68% |
| | | | 5775 | 5.115 | 34.731 | 5.245 | 35.329 | -2.48% | -1.69% |
| | | | 5785 | 5.119 | 34.720 | 5.255 | 35.317 | -2.59% | -1.66% |
| | | | 5795 | 5.135 | 34.708 | 5.265 | 35.305 | -2.55% | -1.64% |
| | | | 5805 | 5.137 | 34.715 | 5.275 | 35.294 | -2.63% | -1.65% |
| | | | 5825 | 5.171 | 34.643 | 5.296 | 35.271 | -2.38% | -1.78% |
| | | | 5835 | 5.184 | 34.613 | 5.305 | 35.230 | -2.28% | -1.75% |
| | | | 5845 | 5.198 | 34.600 | 5.315 | 35.210 | -2.20% | -1.73% |
| | | | 5850 | 5.207 | 34.593 | 5.320 | 35.200 | -2.12% | -1.72% |
| | | | 5865 | 5.215 | 34.590 | 5.335 | 35.197 | -2.07% | -1.72% |
| | | | 5875 | 5.233 | 34.564 | 5.347 | 35.183 | -2.13% | -1.78% |
| | | | 5885 | 5.238 | 34.559 | 5.357 | 35.177 | -2.28% | -1.76% |
| | | | 5905 | 5.265 | 34.530 | 5.379 | 35.163 | -2.31% | -1.80% |
| 07/01/2025 | S200-5800 Head | 20.9 | 5150 | 4.568 | 37.638 | 4.658 | 36.050 | -2.07% | 4.04% |
| | | | 5160 | 4.582 | 37.514 | 4.618 | 36.040 | -0.78% | 4.09% |
| | | | 5170 | 4.597 | 37.524 | 4.629 | 36.030 | -0.69% | 4.15% |
| | | | 5180 | 4.606 | 37.536 | 4.635 | 36.039 | -0.63% | 4.21% |
| | | | 5190 | 4.611 | 37.538 | 4.645 | 35.998 | -0.69% | 4.19% |
| | | | 5200 | 4.622 | 37.474 | 4.655 | 35.986 | -0.71% | 4.13% |
| | | | 5210 | 4.632 | 37.444 | 4.666 | 35.975 | -0.72% | 4.08% |
| | | | 5220 | 4.643 | 37.417 | 4.676 | 35.963 | -0.68% | 4.04% |
| | | | 5240 | 4.679 | 37.352 | 4.696 | 35.940 | -0.38% | 3.95% |
| | | | 5250 | 4.694 | 37.360 | 4.706 | 35.929 | -0.25% | 3.98% |
| | | | 5260 | 4.705 | 37.364 | 4.717 | 35.917 | -0.25% | 4.03% |
| | | | 5270 | 4.713 | 37.356 | 4.727 | 35.906 | -0.30% | 4.04% |
| | | | 5280 | 4.721 | 37.349 | 4.737 | 35.894 | -0.34% | 4.05% |
| | | | 5290 | 4.728 | 37.338 | 4.748 | 35.883 | -0.46% | 4.05% |
| | | | 5300 | 4.735 | 37.312 | 4.758 | 35.871 | -0.46% | 4.02% |
| | | | 5310 | 4.743 | 37.288 | 4.768 | 35.860 | -0.55% | 3.92% |
| | | | 5320 | 4.752 | 37.224 | 4.779 | 35.849 | -0.46% | 3.94% |
| | | | 5500 | 4.954 | 35.690 | 4.983 | 35.643 | -0.18% | 3.85% |
| | | | 5510 | 4.968 | 35.675 | 4.973 | 35.632 | -0.10% | 3.49% |
| | | | 5520 | 4.989 | 35.665 | 4.983 | 35.630 | 0.12% | 3.50% |
| | | | 5530 | 5.005 | 35.646 | 4.994 | 35.639 | 0.28% | 3.48% |
| | | | 5540 | 5.021 | 35.638 | 5.004 | 35.597 | 0.34% | 3.45% |
| | | | 5550 | 5.029 | 35.617 | 5.014 | 35.586 | 0.33% | 3.45% |
| | | | 5560 | 5.038 | 35.597 | 5.024 | 35.574 | 0.24% | 3.44% |
| | | | 5580 | 5.063 | 35.562 | 5.045 | 35.551 | 0.36% | 3.41% |
| | | | 5600 | 5.090 | 35.522 | 5.065 | 35.529 | 0.49% | 3.35% |
| | | | 5610 | 5.109 | 35.505 | 5.076 | 35.518 | 0.65% | 3.31% |
| | | | 5620 | 5.130 | 35.500 | 5.086 | 35.506 | 0.87% | 3.31% |
| | | | 5640 | 5.154 | 35.454 | 5.106 | 35.483 | 0.94% | 3.30% |
| | | | 5660 | 5.157 | 35.421 | 5.127 | 35.460 | 0.58% | 3.27% |
| | | | 5670 | 5.178 | 35.404 | 5.137 | 35.449 | 0.80% | 3.25% |
| | | | 5680 | 5.192 | 35.391 | 5.147 | 35.437 | 0.87% | 3.23% |
| | | | 5690 | 5.208 | 35.353 | 5.158 | 35.426 | 0.93% | 3.18% |
| | | | 5700 | 5.222 | 35.334 | 5.168 | 35.414 | 1.04% | 3.18% |
| | | | 5710 | 5.233 | 35.320 | 5.178 | 35.403 | 1.06% | 3.17% |
| | | | 5720 | 5.242 | 35.322 | 5.188 | 35.391 | 1.04% | 3.20% |
| | | | 5745 | 5.262 | 35.320 | 5.214 | 35.363 | 0.92% | 3.23% |
| | | | 5750 | 5.267 | 35.488 | 5.219 | 35.357 | 0.92% | 3.20% |
| | | | 5755 | 5.272 | 35.474 | 5.224 | 35.351 | 0.92% | 3.18% |
| | | | 5765 | 5.282 | 35.441 | 5.234 | 35.340 | 0.92% | 3.12% |
| | | | 5775 | 5.297 | 35.407 | 5.245 | 35.329 | 0.99% | 3.02% |
| | | | 5785 | 5.311 | 35.381 | 5.255 | 35.317 | 1.10% | 3.01% |
| | | | 5795 | 5.328 | 35.365 | 5.265 | 35.305 | 1.20% | 3.00% |
| | | | 5805 | 5.339 | 35.335 | 5.275 | 35.294 | 1.21% | 3.01% |
| | | | 5825 | 5.354 | 35.349 | 5.296 | 35.271 | 1.10% | 3.08% |
| | | | 5835 | 5.365 | 35.341 | 5.305 | 35.230 | 1.13% | 3.05% |
| | | | 5845 | 5.373 | 35.320 | 5.315 | 35.210 | 1.09% | 3.05% |
| | | | 5850 | 5.378 | 35.307 | 5.320 | 35.200 | 1.09% | 3.14% |
| | | | 5865 | 5.383 | 35.289 | 5.335 | 35.197 | 1.03% | 3.10% |
| | | | 5875 | 5.402 | 35.221 | 5.347 | 35.183 | 1.03% | 2.98% |
| | | | 5885 | 5.419 | 35.200 | 5.357 | 35.177 | 1.16% | 2.91% |
| | | | 5905 | 5.456 | 35.172 | 5.379 | 35.163 | 1.42% | 2.87% |
| 06/15/2025 | 6000 Head | 21.9 | 5925 | 5.363 | 34.533 | 5.411 | 35.143 | -2.00% | -1.74% |
| | | | 5970 | 5.352 | 34.489 | 5.448 | 35.120 | -1.70% | -1.80% |
| | | | 5985 | 5.364 | 34.440 | 5.464 | 35.110 | -1.83% | -1.77% |
| | | | 6000 | 5.378 | 34.418 | 5.480 | 35.100 | -1.84% | -1.94% |
| | | | 6025 | 5.425 | 34.322 | 5.510 | 35.070 | -1.36% | -2.13% |
| | | | 6065 | 5.491 | 34.417 | 5.557 | 35.022 | -1.19% | -1.73% |
| | | | 6075 | 5.484 | 34.397 | 5.569 | 35.010 | -1.53% | -1.75% |
| | | | 6085 | 5.488 | 34.328 | 5.580 | 34.998 | -1.65% | -1.91% |
| | | | 6185 | 5.653 | 34.148 | 5.698 | 34.878 | -1.67% | -2.08% |
| | | | 6275 | 5.758 | 34.017 | 5.805 | 34.770 | -1.19% | -2.17% |
| | | | 6285 | 5.757 | 33.960 | 5.816 | 34.758 | -1.38% | -2.32% |
| | | | 6305 | 5.747 | 33.870 | 5.840 | 34.734 | -1.58% | -2.49% |
| | | | 6345 | 5.829 | 33.819 | 5.887 | 34.696 | -0.99% | -2.50% |
| | | | 6475 | 5.953 | 33.690 | 6.041 | 34.530 | -1.42% | -2.43% |
| | | | 6485 | 5.961 | 33.679 | 6.052 | 34.518 | -1.50% | -2.42% |
| | | | 6500 | 5.968 | 33.590 | 6.070 | 34.500 | -1.68% | -2.72% |
| | | | 6505 | 5.972 | 33.531 | 6.076 | 34.494 | -1.71% | -2.79% |
| | | | 6545 | 6.088 | 33.455 | 6.122 | 34.446 | -1.08% | -2.88% |
| | | | 6665 | 6.199 | 33.314 | 6.265 | 34.302 | -1.05% | -2.88% |
| | | | 6675 | 6.201 | 33.305 | 6.273 | 34.290 | -1.15% | -2.73% |
| | | | 6685 | 6.214 | 33.333 | 6.285 | 34.278 | -1.12% | -2.70% |
| | | | 6715 | 6.265 | 33.195 | 6.319 | 34.242 | -1.49% | -3.26% |
| | | | 6785 | 6.334 | 33.147 | 6.400 | 34.158 | -1.03% | -2.96% |
| | | | 6825 | 6.385 | 32.927 | 6.447 | 34.110 | -1.35% | -3.47% |
| | | | 6985 | 6.579 | 32.783 | 6.630 | 33.918 | -0.81% | -3.35% |
| | | | 6995 | 6.577 | 32.731 | 6.644 | 33.906 | -1.01% | -3.47% |
| | | | 7000 | 6.588 | 32.721 | 6.650 | 33.900 | -1.22% | -3.48% |
| | | | 7005 | 6.597 | 32.691 | 6.656 | 33.894 | -1.46% | -3.55% |
| | | | 7025 | 6.663 | 32.538 | 6.680 | 33.870 | -1.68% | -3.79% |
| 06/22/2025 | 6000 Head | 19.9 | 5925 | 5.531 | 36.049 | 5.411 | 35.143 | 2.22% | 2.58% |
| | | | 5970 | 5.571 | 35.926 | 5.448 | 35.120 | 2.26% | 2.29% |
| | | | 5985 | 5.591 | 35.885 | 5.464 | 35.110 | 2.32% | 2.21% |
| | | | 6000 | 5.591 | 35.856 | 5.480 | 35.100 | 2.02% | 2.28% |
| | | | 6025 | 5.596 | 35.860 | 5.510 | 35.070 | 1.56% | 2.31% |
| | | | 6065 | 5.654 | 35.715 | 5.557 | 35.022 | 1.75% | 1.98% |
| | | | 6075 | 5.661 | 35.671 | 5.569 | 35.010 | 1.61% | 1.89% |
| | | | 6085 | 5.702 | 35.641 | 5.580 | 34.998 | 2.19% | 1.84% |
| | | | 6185 | 5.864 | 35.482 | 5.698 | 34.878 | 2.94% | 1.73% |
| | | | 6275 | 5.964 | 35.313 | 5.805 | 34.770 | 2.74% | 1.56% |
| | | | 6285 | 5.975 | 35.294 | 5.816 | 34.758 | 2.72% | 1.54% |
| | | | 6305 | 5.987 | 35.248 | 5.840 | 34.734 | 2.52% | 1.52% |
| | | | 6345 | 6.028 | 35.210 | 5.887 | 34.696 | 2.40% | 1.51% |
| | | | 6475 | 6.204 | 34.880 | 6.041 | 34.530 | 2.70% | 1.04% |
| | | | 6485 | 6.213 | 34.860 | 6.052 | 34.518 | 2.64% | 1.03% |
| | | | 6500 | 6.218 | 34.806 | 6.070 | 34.500 | 2.46% | 0.95% |
| | | | 6505 | 6.223 | 34.787 | 6.076 | 34.494 | 2.42% | 0.82% |
| | | | 6545 | 6.281 | 34.750 | 6.122 | 34.446 | 2.57% | 0.85% |
| | | | 6665 | 6.444 | 34.532 | 6.265 | 34.302 | 2.86% | 0.67% |
| | | | 6675 | 6.462 | 34.537 | 6.273 | 34.290 | 2.91% | 0.78% |
| | | | 6685 | 6.472 | 34.579 | 6.285 | 34.278 | 2.98% | 0.88% |
| | | | 6715 | 6.495 | 34.511 | 6.319 | 34.242 | 2.63% | 0.78% |
| | | | 6785 | 6.578 | 34.403 | 6.400 | 34.158 | 2.78% | 0.69% |
| | | | 6825 | 6.593 | 34.350 | 6.447 | 34.110 | 1.85% | 0.70% |
| | | | 6985 | 6.804 | 33.934 | 6.633 | 33.918 | 2.58% | 0.11% |
| | | | 6995 | 6.793 | 33.937 | 6.644 | 33.906 | 2.24% | 0.09% |
| | | | 7000 | 6.782 | 33.905 | 6.650 | 33.900 | 1.98% | 0.01% |
| | | | 7005 | 6.774 | 33.881 | 6.656 | 33.894 | 1.77% | -0.04% |
| | | | 7025 | 6.773 | 33.758 | 6.680 | 33.870 | 1.42% | -0.27% |

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2. The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 10.2 Test System Verification

Prior to SAR assessment, the system is verified to ±10% of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in the SAR System Validation Appendix.

**Table 10-4**
**System Verification Results**

| System Verification TARGET & MEASURED | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAR System | Tissue Frequency (MHz) | Tissue Type | Date | Amb. Temp. (C) | Liquid Temp. (C) | Input Power (W) | Source SN | Probe SN | DAE | Measured SAR 1g (W/kg) | 1W Target SAR 1g (W/kg) | 1W Normalized SAR 1g (W/kg) | Deviation 1g (%) | Measured SAR 10g (W/kg) | 1W Target SAR 10g (W/kg) | 1W Normalized SAR 10g (W/kg) | Deviation 10g (%) | Measured 4cm2 APD (W/m2) | 1W Target 4cm2 APD (W/m2) | 1W Normalized 4cm2 APD (W/m2) | Deviation 4cm2 APD (%) |
| C | 750 | HEAD | 06/09/2025 | 22.6 | 23.5 | 0.20 | 1054 | 7713 | 1530 | 1.84 | 8.68 | 9.20 | 5.99% | 1.23 | 5.61 | 6.15 | 9.63% | N/A | N/A | N/A | N/A |
| C | 750 | HEAD | 06/11/2025 | 22.6 | 23.4 | 0.20 | 1054 | 7713 | 1530 | 1.66 | 8.68 | 8.30 | -4.38% | 1.09 | 5.61 | 5.45 | -2.85% | N/A | N/A | N/A | N/A |
| J | 750 | HEAD | 06/17/2025 | 24.1 | 21.8 | 0.20 | 1054 | 7406 | 1677 | 1.64 | 8.68 | 8.20 | -5.53% | 1.08 | 5.61 | 5.40 | -3.74% | N/A | N/A | N/A | N/A |
| C | 835 | HEAD | 06/09/2025 | 22.6 | 23.5 | 0.20 | 4d133 | 7713 | 1530 | 2.06 | 9.94 | 10.30 | 3.62% | 1.35 | 6.49 | 6.75 | 4.01% | N/A | N/A | N/A | N/A |
| C | 835 | HEAD | 06/11/2025 | 22.6 | 23.4 | 0.20 | 4d133 | 7713 | 1530 | 1.94 | 9.94 | 9.70 | -2.41% | 1.25 | 6.49 | 6.25 | -3.70% | N/A | N/A | N/A | N/A |
| J | 835 | HEAD | 06/15/2025 | 23.5 | 22.5 | 0.20 | 4d133 | 7406 | 1677 | 1.97 | 9.94 | 9.85 | -0.91% | 1.28 | 6.49 | 6.40 | -1.39% | N/A | N/A | N/A | N/A |
| J | 835 | HEAD | 06/17/2025 | 24.1 | 21.8 | 0.20 | 4d133 | 7406 | 1677 | 2.08 | 9.94 | 10.40 | 4.63% | 1.35 | 6.49 | 6.75 | 4.01% | N/A | N/A | N/A | N/A |
| H | 1750 | HEAD | 06/15/2025 | 23.2 | 22.0 | 0.10 | 1150 | 7417 | 665 | 3.61 | 36.40 | 36.10 | -0.82% | 1.95 | 19.40 | 19.50 | 0.52% | N/A | N/A | N/A | N/A |
| L | 1750 | HEAD | 06/15/2025 | 21.1 | 20.3 | 0.10 | 1150 | 7659 | 1272 | 3.79 | 36.40 | 37.90 | 4.12% | 2.02 | 19.40 | 20.20 | 4.12% | N/A | N/A | N/A | N/A |
| L | 1750 | HEAD | 06/17/2025 | 20.7 | 20.3 | 0.10 | 1148 | 7659 | 1272 | 3.81 | 36.90 | 38.10 | 3.25% | 2.02 | 19.60 | 20.20 | 3.06% | N/A | N/A | N/A | N/A |
| L | 1750 | HEAD | 06/24/2025 | 20.8 | 20.4 | 0.10 | 1148 | 7659 | 1272 | 3.95 | 36.90 | 39.50 | 7.05% | 2.10 | 19.60 | 21.00 | 7.14% | N/A | N/A | N/A | N/A |
| L | 1900 | HEAD | 06/11/2025 | 21.6 | 21.7 | 0.10 | 5d148 | 7659 | 1272 | 4.15 | 39.60 | 41.50 | 4.80% | 2.19 | 20.90 | 21.90 | 4.78% | N/A | N/A | N/A | N/A |
| L | 1900 | HEAD | 06/17/2025 | 20.7 | 20.3 | 0.10 | 5d080 | 7659 | 1272 | 4.33 | 39.60 | 43.30 | 9.34% | 2.24 | 20.70 | 22.40 | 8.21% | N/A | N/A | N/A | N/A |
| L | 1900 | HEAD | 06/24/2025 | 20.8 | 20.4 | 0.10 | 5d080 | 7659 | 1272 | 4.08 | 39.60 | 40.80 | 3.03% | 2.11 | 20.70 | 21.10 | 1.93% | N/A | N/A | N/A | N/A |
| L | 1900 | HEAD | 06/27/2025 | 21.3 | 20.0 | 0.10 | 5d080 | 7659 | 1272 | 4.31 | 39.60 | 43.10 | 8.84% | 2.23 | 20.70 | 22.30 | 7.73% | N/A | N/A | N/A | N/A |
| N | 2450 | HEAD | 06/18/2025 | 19.7 | 20.0 | 0.10 | 797 | 7410 | 1213 | 5.55 | 52.00 | 55.50 | 6.73% | 2.58 | 24.40 | 25.80 | 5.74% | N/A | N/A | N/A | N/A |
| H | 2450 | HEAD | 06/19/2025 | 20.3 | 20.3 | 0.10 | 719 | 7417 | 665 | 5.38 | 52.20 | 53.80 | 3.07% | 2.50 | 24.60 | 25.00 | 1.63% | N/A | N/A | N/A | N/A |
| N | 2450 | HEAD | 06/25/2025 | 20.7 | 19.9 | 0.10 | 981 | 7410 | 1213 | 4.96 | 51.80 | 49.60 | -4.25% | 2.30 | 24.30 | 23.00 | -5.35% | N/A | N/A | N/A | N/A |
| N | 2450 | HEAD | 07/01/2025 | 21.3 | 20.6 | 0.10 | 981 | 7410 | 1213 | 5.36 | 51.80 | 53.60 | 3.47% | 2.50 | 24.30 | 25.00 | 2.88% | N/A | N/A | N/A | N/A |
| C | 2450 | HEAD | 07/02/2025 | 24.0 | 22.5 | 0.10 | 981 | 7713 | 1530 | 4.82 | 51.80 | 48.20 | -6.95% | 2.27 | 24.30 | 22.70 | -6.58% | N/A | N/A | N/A | N/A |
| N | 2450 | HEAD | 07/07/2025 | 23.9 | 21.3 | 0.10 | 981 | 7410 | 1213 | 5.33 | 51.80 | 53.30 | 2.90% | 2.48 | 24.30 | 24.80 | 2.06% | N/A | N/A | N/A | N/A |
| H | 2600 | HEAD | 06/19/2025 | 20.3 | 20.3 | 0.10 | 1071 | 7417 | 665 | 5.17 | 56.50 | 51.70 | -8.50% | 2.36 | 25.40 | 23.60 | -7.09% | N/A | N/A | N/A | N/A |
| C | 2600 | HEAD | 06/25/2025 | 23.6 | 21.1 | 0.10 | 1004 | 7713 | 1530 | 5.37 | 56.30 | 53.70 | -4.62% | 2.46 | 25.20 | 24.60 | -2.38% | N/A | N/A | N/A | N/A |
| C | 2600 | HEAD | 07/02/2025 | 24.0 | 22.5 | 0.10 | 1004 | 7713 | 1530 | 5.22 | 56.30 | 52.20 | -7.28% | 2.40 | 25.20 | 24.00 | -4.76% | N/A | N/A | N/A | N/A |
| E | 3500 | HEAD | 06/30/2025 | 21.6 | 20.0 | 0.10 | 1097 | 7660 | 1678 | 6.74 | 65.40 | 67.40 | 3.06% | 2.60 | 24.70 | 26.00 | 5.26% | N/A | N/A | N/A | N/A |
| E | 3500 | HEAD | 07/07/2025 | 22.3 | 20.5 | 0.10 | 1097 | 7660 | 1678 | 6.78 | 65.40 | 67.80 | 3.67% | 2.64 | 24.70 | 26.40 | 6.88% | N/A | N/A | N/A | N/A |
| E | 3700 | HEAD | 06/30/2025 | 21.6 | 20.0 | 0.10 | 1067 | 7660 | 1678 | 6.73 | 66.90 | 67.30 | 0.60% | 2.52 | 24.30 | 25.20 | 3.70% | N/A | N/A | N/A | N/A |
| E | 3700 | HEAD | 07/07/2025 | 22.3 | 20.5 | 0.10 | 1067 | 7660 | 1678 | 6.67 | 66.90 | 66.70 | -0.30% | 2.52 | 24.30 | 25.20 | 3.70% | N/A | N/A | N/A | N/A |
| E | 3900 | HEAD | 06/30/2025 | 21.6 | 20.0 | 0.10 | 1056 | 7660 | 1678 | 7.26 | 68.20 | 72.60 | 6.45% | 2.58 | 23.80 | 25.80 | 8.40% | N/A | N/A | N/A | N/A |
| E | 3900 | HEAD | 07/07/2025 | 22.3 | 20.5 | 0.10 | 1056 | 7660 | 1678 | 7.24 | 68.20 | 72.40 | 6.16% | 2.58 | 23.80 | 25.80 | 8.40% | N/A | N/A | N/A | N/A |
| S | 5250 | HEAD | 06/15/2025 | 22.0 | 22.0 | 0.05 | 1057 | 7803 | 1583 | 3.68 | 79.40 | 73.60 | -7.30% | 1.10 | 22.70 | 22.00 | -3.08% | N/A | N/A | N/A | N/A |
| S | 5250 | HEAD | 07/01/2025 | 21.0 | 20.9 | 0.05 | 1057 | 7661 | 1558 | 3.74 | 79.40 | 74.80 | -5.79% | 1.08 | 22.70 | 21.60 | -4.85% | N/A | N/A | N/A | N/A |
| S | 5600 | HEAD | 06/15/2025 | 22.0 | 22.0 | 0.05 | 1057 | 7803 | 1583 | 3.93 | 82.80 | 78.60 | -5.07% | 1.17 | 23.60 | 23.40 | -0.85% | N/A | N/A | N/A | N/A |
| S | 5600 | HEAD | 07/01/2025 | 21.0 | 20.9 | 0.05 | 1057 | 7661 | 1558 | 4.04 | 82.80 | 80.80 | -2.42% | 1.16 | 23.60 | 23.20 | -1.69% | N/A | N/A | N/A | N/A |
| S | 5750 | HEAD | 06/15/2025 | 22.0 | 22.0 | 0.05 | 1057 | 7803 | 1583 | 3.91 | 79.80 | 78.20 | -2.01% | 1.16 | 22.70 | 23.20 | 2.20% | N/A | N/A | N/A | N/A |
| S | 5750 | HEAD | 07/01/2025 | 21.0 | 20.9 | 0.05 | 1057 | 7661 | 1558 | 3.77 | 79.80 | 75.40 | -5.51% | 1.08 | 22.70 | 21.60 | -4.85% | N/A | N/A | N/A | N/A |
| S | 5850 | HEAD | 06/15/2025 | 22.0 | 22.0 | 0.05 | 1057 | 7803 | 1583 | 3.95 | 81.50 | 79.00 | -3.07% | 1.16 | 23.00 | 23.20 | 0.87% | N/A | N/A | N/A | N/A |
| S | 5850 | HEAD | 07/01/2025 | 21.0 | 20.9 | 0.05 | 1057 | 7661 | 1558 | 3.99 | 81.50 | 79.80 | -2.09% | 1.13 | 23.00 | 22.60 | -1.74% | N/A | N/A | N/A | N/A |
| R | 6500 | HEAD | 06/15/2025 | 22.0 | 21.9 | 0.03 | 1018 | 7570 | 1638 | 7.56 | 292.00 | 302.40 | 3.56% | 1.39 | 53.90 | 55.60 | 3.15% | 33.60 | 1310.00 | 1344.00 | 2.60% |
| R | 6500 | HEAD | 06/22/2025 | 21.1 | 19.9 | 0.03 | 1018 | 7570 | 1638 | 7.40 | 292.00 | 296.00 | 1.37% | 1.36 | 53.90 | 54.40 | 0.93% | 32.90 | 1310.00 | 1316.00 | 0.46% |

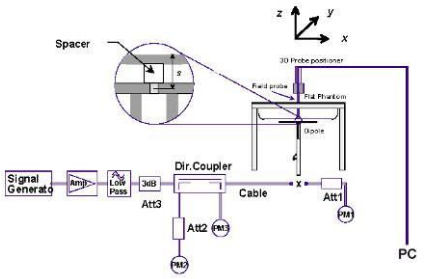



**Figure 10-1**
**System Verification Setup Diagram**

**Figure 10-2**
**System Verification Setup Photo**




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 10.3 Power Density Test System Verification

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user's manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG's mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check.

The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provided by the manufacturer, per November 2017 TCBC Workshop Notes.

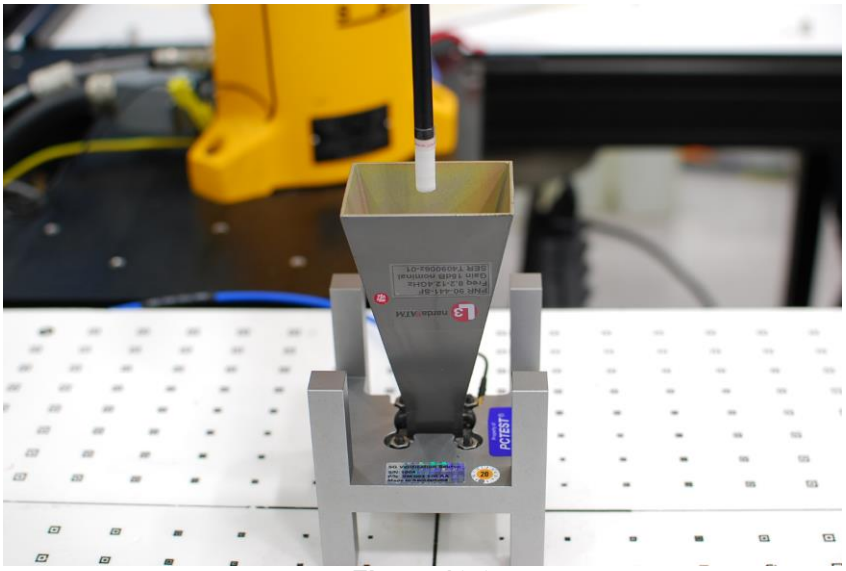


**Figure 10-3**
**System Verification Setup Photo**

**Table 10-5**
**10 GHz Verifications**

| System Verification | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System | Frequency (GHz) | Date | Source S/N | Probe S/N | Prad (mW) | Normal psPD (W/m² over 4 cm²) | | Deviation (dB) | Total psPD (W/m² over 4 cm²) | | Deviation (dB) |
| | | | | | | Measured | Target | | Measured | Target | |
| Q | 10 | 06/14/2025 | 1002 | 9389 | 93.3 | 49.40 | 53.80 | -0.37 | 50.00 | 54.00 | -0.33 |
| Q | 10 | 06/30/2025 | 1002 | 9389 | 93.3 | 48.90 | 53.80 | -0.41 | 49.10 | 54.00 | -0.41 |

Note: A **10 mm distance spacing** was used from the reference horn antenna aperture to the probe element.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 11 SAR DATA SUMMARY

## 11.1 GSM 850 Standalone SAR

### Table 11-1
### GSM 850 Tablet ECI=0 | Plot A1

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | 0.02 | 824.20 | 128 | 29.5 | 27.92 | Back | 19 | N/A | 0.269 | 1.439 | 0.387 | 0.242 | | 30.4 |
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | 0.00 | 824.20 | 128 | 29.5 | 27.92 | Top | 19 | N/A | 0.488 | 1.439 | 0.702 | 0.439 | Plot | 27.8 |
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | -0.03 | 824.20 | 128 | 29.5 | 27.92 | Top | 19 | Keyboard | 0.488 | 1.439 | 0.702 | 0.439 | | 27.8 |
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | 0.05 | 824.20 | 128 | 29.5 | 27.92 | Bottom | 0 | N/A | 0.082 | 1.439 | 0.118 | 0.074 | | 35.6 |
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | 0.06 | 824.20 | 128 | 29.5 | 27.92 | Right | 0 | N/A | 0.154 | 1.439 | 0.222 | 0.139 | | 32.8 |
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | 0.00 | 824.20 | 128 | 29.5 | 27.92 | Left | 0 | N/A | 0.369 | 1.439 | 0.531 | 0.332 | | 29.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-2
### GSM 850 Tablet ECI=2

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | 0.01 | 848.80 | 251 | 17.0 | 15.71 | Back | 0 | 0.152 | 1.346 | 0.205 | 0.128 | | 20.7 |
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | -0.01 | 848.80 | 251 | 17.0 | 15.71 | Top | 0 | 0.380 | 1.346 | 0.511 | 0.319 | | 16.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

### Table 11-3
### GSM 850 Laptop ECI=0 | Plot A2

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | GPRS 850 | GPRS 4 Tx Slots | M1 | 1049M | 1:2.076 | -0.17 | 824.20 | 128 | 29.5 | 27.92 | Bottom | 0 | 0.098 | 1.439 | 0.141 | 0.088 | Plot | 34.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## 11.2 GSM 1900 Standalone SAR

### Table 11-4
### GSM 1900 Tablet ECI=0

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 1000M | 1:2.076 | 0.05 | 1850.20 | 512 | 26.5 | 25.38 | Back | 19 | 0.153 | 1.294 | 0.198 | 0.124 | | 30.3 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 1000M | 1:2.076 | 0.04 | 1850.20 | 512 | 26.5 | 25.38 | Top | 19 | 0.270 | 1.294 | 0.349 | 0.218 | | 27.8 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 1000M | 1:2.076 | 0.01 | 1850.20 | 512 | 26.5 | 25.38 | Bottom | 0 | 0.032 | 1.294 | 0.041 | 0.026 | | 37.1 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 1000M | 1:2.076 | -0.03 | 1850.20 | 512 | 26.5 | 25.38 | Right | 11 | 0.096 | 1.294 | 0.124 | 0.078 | | 32.3 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 1000M | 1:2.076 | 0.11 | 1850.20 | 512 | 26.5 | 25.38 | Left | 0 | 0.187 | 1.294 | 0.242 | 0.151 | | 29.4 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

### Table 11-5
### GSM 1900 Tablet ECI=2 (ECI=3 for Right Edge)| Plot A3

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | -0.06 | 1850.20 | 512 | 16.0 | 14.59 | Back | 0 | N/A | 0.236 | 1.384 | 0.327 | 0.204 | | 17.6 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | -0.02 | 1850.20 | 512 | 16.0 | 14.59 | Top | 0 | N/A | 0.415 | 1.384 | 0.574 | 0.359 | Plot | 15.2 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | -0.02 | 1850.20 | 512 | 16.0 | 14.59 | Top | 0 | Keyboard | 0.305 | 1.384 | 0.422 | 0.264 | | 16.5 |
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | -0.04 | 1850.20 | 512 | 22.5 | 20.82 | Right | 0 | N/A | 0.262 | 1.472 | 0.386 | 0.241 | | 23.4 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### Table 11-6
### GSM 1900 Laptop ECI=0 | Plot A4

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | GPRS 1900 | GPRS 4 Tx Slots | M1 | 0971M | 1:2.076 | -0.14 | 1850.20 | 512 | 26.5 | 25.38 | Bottom | 0 | 0.067 | 1.294 | 0.087 | 0.054 | Plot | 33.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## 11.3 UMTS 850 Standalone SAR

### Table 11-7
### UMTS 850 Tablet ECI=0

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] | Overall Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | 0.00 | 826.40 | 4132 | 25.0 | 23.58 | Back | 19 | 0.360 | 1.387 | 0.499 | 0.312 | | 28.0 | 26.4 |
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | -0.03 | 826.40 | 4132 | 25.0 | 23.58 | Top | 19 | 0.515 | 1.387 | 0.714 | 0.446 | | 26.4 | |
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | 0.13 | 826.40 | 4132 | 25.0 | 23.58 | Bottom | 0 | 0.065 | 1.387 | 0.090 | 0.056 | | 35.4 | |
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | 0.01 | 826.40 | 4132 | 25.0 | 23.58 | Right | 0 | 0.190 | 1.387 | 0.264 | 0.165 | | 30.7 | |
| Body | UMTS 850 | RMC | M1 | 0971M | 1:1 | 0.00 | 826.40 | 4132 | 25.0 | 23.58 | Left | 0 | 0.449 | 1.387 | 0.623 | 0.389 | | 27.0 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-8
### UMTS 850 Tablet ECI=2 | Plot A5

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] | Overall Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | -0.01 | 826.40 | 4132 | 14.0 | 13.09 | Back | 0 | N/A | 0.359 | 1.233 | 0.443 | 0.277 | | 17.5 | 15.2 |
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | -0.01 | 826.40 | 4132 | 14.0 | 13.09 | Top | 0 | N/A | 0.604 | 1.233 | 0.745 | 0.466 | Plot | 15.2 | |
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | 0.00 | 826.40 | 4132 | 14.0 | 13.09 | Top | 0 | Keyboard | 0.524 | 1.233 | 0.646 | 0.404 | | 15.8 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

### Table 11-9
### UMTS 850 Laptop ECI=0 | Plot A6

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 850 | RMC | M1 | 1049M | 1:1 | -0.10 | 826.40 | 4132 | 25.0 | 23.38 | Bottom | 0 | 0.080 | 1.452 | 0.116 | 0.073 | Plot | 34.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## 11.4 UMTS 1750 Standalone SAR

### Table 11-10
### UMTS 1750 Tablet ECI=0

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | 0.00 | 1752.60 | 1513 | 25.0 | 23.69 | Back | 19 | 0.212 | 1.352 | 0.287 | 0.179 | | 30.4 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | 0.00 | 1752.60 | 1513 | 25.0 | 23.69 | Top | 19 | 0.389 | 1.352 | 0.526 | 0.329 | | 27.7 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | 0.12 | 1752.60 | 1513 | 25.0 | 23.69 | Bottom | 0 | 0.015 | 1.352 | 0.020 | 0.013 | | 41.9 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | 0.05 | 1752.60 | 1513 | 25.0 | 23.69 | Right | 11 | 0.116 | 1.352 | 0.157 | 0.098 | | 33.0 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | -0.03 | 1752.60 | 1513 | 25.0 | 23.69 | Left | 0 | 0.264 | 1.352 | 0.357 | 0.223 | | 29.4 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-11
## UMTS 1750 Tablet ECI=2 (ECI=3 for Right Edge) | Plot A7

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | -0.02 | 1752.60 | 1513 | 13.5 | 12.80 | Back | 0 | N/A | 0.356 | 1.175 | 0.418 | 0.261 | | 17.2 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | -0.01 | 1752.60 | 1513 | 13.5 | 12.80 | Top | 0 | N/A | 0.503 | 1.175 | 0.591 | 0.369 | Plot | 15.7 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | -0.01 | 1752.60 | 1513 | 13.5 | 12.80 | Top | 0 | Keyboard | 0.385 | 1.175 | 0.452 | 0.283 | | 16.9 |
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | 0.02 | 1752.60 | 1513 | 20.0 | 19.01 | Right | 0 | N/A | 0.320 | 1.256 | 0.402 | 0.251 | | 23.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-12
## UMTS 1750 Laptop ECI=0 | Plot A8

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 1750 | RMC | M1 | 0971M | 1:1 | -0.13 | 1752.60 | 1513 | 25.0 | 23.69 | Bottom | 0 | 0.088 | 1.352 | 0.119 | 0.074 | Plot | 34.2 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## 11.5 UMTS 1900 Standalone SAR

## Table 11-13
## UMTS 1900 Tablet ECI=0

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | -0.01 | 1907.60 | 9538 | 25.0 | 23.81 | Back | 19 | 0.197 | 1.315 | 0.259 | 0.162 | | 30.8 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | -0.01 | 1907.60 | 9538 | 25.0 | 23.81 | Top | 19 | 0.353 | 1.315 | 0.464 | 0.290 | | 28.3 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | 0.04 | 1907.60 | 9538 | 25.0 | 23.81 | Bottom | 0 | 0.010 | 1.315 | 0.013 | 0.008 | | 43.8 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | -0.01 | 1907.60 | 9538 | 25.0 | 23.81 | Right | 11 | 0.120 | 1.315 | 0.158 | 0.099 | | 33.0 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | -0.03 | 1907.60 | 9538 | 25.0 | 23.81 | Left | 0 | 0.301 | 1.315 | 0.396 | 0.248 | | 29.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-14
## UMTS 1900 Tablet ECI=2 (ECI=3 for Right Edge) | Plot A9

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | 0.02 | 1907.60 | 9538 | 13.0 | 12.01 | Back | 0 | N/A | 0.192 | 1.256 | 0.241 | 0.151 | | 19.1 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | -0.05 | 1907.60 | 9538 | 13.0 | 12.01 | Top | 0 | N/A | 0.509 | 1.256 | 0.639 | 0.399 | Plot | 14.9 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | -0.01 | 1907.60 | 9538 | 13.0 | 12.01 | Top | 0 | Keyboard | 0.348 | 1.256 | 0.437 | 0.273 | | 16.5 |
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | 0.02 | 1852.40 | 9262 | 20.0 | 19.29 | Right | 0 | N/A | 0.310 | 1.178 | 0.365 | 0.228 | | 24.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-15
## UMTS 1900 Laptop ECI=0 | Plot A10

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | UMTS 1900 | RMC | M1 | 0971M | 1:1 | 0.08 | 1907.60 | 9538 | 25.0 | 23.81 | Bottom | 0 | 0.089 | 1.315 | 0.117 | 0.073 | Plot | 34.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 11.6 LTE Band 12 Standalone SAR

### Table 11-16
### LTE Band 12 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 12 | 10 | QPSK | M1 | 18887 | 1:1 | -0.05 | 707.50 | 23095 | 0.0 | 25.0 | 24.24 | 1 | 25 | Back | 19 | 0.327 | 1.191 | 0.389 | 0.243 | | 29.0 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 18887 | 1:1 | 0.00 | 707.50 | 23095 | 1.0 | 24.0 | 23.20 | 25 | 0 | Back | 19 | 0.255 | 1.202 | 0.307 | 0.192 | | 29.1 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 26849 | 1:1 | 0.00 | 707.50 | 23095 | 0.0 | 25.0 | 24.24 | 1 | 25 | Top | 19 | 0.356 | 1.191 | 0.424 | 0.265 | | 28.7 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 26849 | 1:1 | -0.06 | 707.50 | 23095 | 1.0 | 24.0 | 23.20 | 25 | 0 | Top | 19 | 0.286 | 1.202 | 0.344 | 0.215 | | 28.6 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 26849 | 1:1 | 0.08 | 707.50 | 23095 | 0.0 | 25.0 | 24.24 | 1 | 25 | Bottom | 0 | 0.053 | 1.191 | 0.063 | 0.039 | | 36.9 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 26849 | 1:1 | 0.17 | 707.50 | 23095 | 1.0 | 24.0 | 23.20 | 25 | 0 | Bottom | 0 | 0.048 | 1.202 | 0.058 | 0.036 | | 36.3 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 26849 | 1:1 | -0.04 | 707.50 | 23095 | 0.0 | 25.0 | 24.24 | 1 | 25 | Right | 0 | 0.216 | 1.191 | 0.257 | 0.161 | | 30.8 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 26849 | 1:1 | 0.06 | 707.50 | 23095 | 1.0 | 24.0 | 23.20 | 25 | 0 | Right | 0 | 0.176 | 1.202 | 0.212 | 0.133 | | 30.7 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | 0.03 | 707.50 | 23095 | 0.0 | 25.0 | 24.24 | 1 | 25 | Left | 0 | 0.201 | 1.191 | 0.239 | 0.149 | | 31.2 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | -0.09 | 707.50 | 23095 | 1.0 | 24.0 | 23.20 | 25 | 0 | Left | 0 | 0.174 | 1.202 | 0.209 | 0.131 | | 30.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-17
### LTE Band 12 Tablet ECI=2 | Plot A11

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | -0.05 | 707.50 | 23095 | 0.0 | 16.0 | 15.19 | 1 | 0 | Back | 0 | N/A | 0.413 | 1.205 | 0.498 | 0.311 | | 19.0 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | 0.03 | 707.50 | 23095 | 0.0 | 16.0 | 15.14 | 25 | 0 | Back | 0 | N/A | 0.420 | 1.219 | 0.512 | 0.320 | | 18.9 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | 0.00 | 707.50 | 23095 | 0.0 | 16.0 | 15.19 | 1 | 0 | Top | 0 | N/A | 0.568 | 1.205 | 0.684 | 0.428 | Plot | 17.6 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | 0.00 | 707.50 | 23095 | 0.0 | 16.0 | 15.19 | 1 | 0 | Top | 0 | Keyboard | 0.484 | 1.205 | 0.583 | 0.364 | | 18.3 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | 0.01 | 707.50 | 23095 | 0.0 | 16.0 | 15.14 | 25 | 0 | Top | 0 | N/A | 0.557 | 1.219 | 0.679 | 0.424 | | 17.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-18
### LTE Band 12 Laptop ECI=0 | Plot A12

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | 0.14 | 707.50 | 23095 | 0.0 | 25.0 | 24.24 | 1 | 25 | Bottom | 0 | 0.111 | 1.191 | 0.132 | 0.083 | Plot | 33.7 |
| Body | LTE Band 12 | 10 | QPSK | M1 | 1049M | 1:1 | -0.05 | 707.50 | 23095 | 1.0 | 24.0 | 23.20 | 25 | 0 | Bottom | 0 | 0.088 | 1.202 | 0.106 | 0.066 | | 33.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## 11.7 LTE Band 13 Standalone SAR

### Table 11-19
### LTE Band 13 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 13 | 10 | QPSK | M1 | 18887 | 1:1 | -0.02 | 782.00 | 23230 | 0.0 | 25.0 | 23.80 | 1 | 25 | Back | 19 | 0.393 | 1.318 | 0.518 | 0.324 | | 27.8 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 18887 | 1:1 | -0.01 | 782.00 | 23230 | 1.0 | 24.0 | 22.79 | 25 | 12 | Back | 19 | 0.303 | 1.321 | 0.400 | 0.250 | | 27.9 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 26849 | 1:1 | 0.00 | 782.00 | 23230 | 0.0 | 25.0 | 23.80 | 1 | 25 | Top | 19 | 0.462 | 1.318 | 0.609 | 0.381 | | 27.1 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 26849 | 1:1 | 0.01 | 782.00 | 23230 | 1.0 | 24.0 | 22.79 | 25 | 12 | Top | 19 | 0.361 | 1.321 | 0.477 | 0.298 | | 27.2 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 26849 | 1:1 | 0.01 | 782.00 | 23230 | 0.0 | 25.0 | 23.80 | 1 | 25 | Bottom | 0 | 0.079 | 1.318 | 0.104 | 0.065 | | 34.8 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 26849 | 1:1 | 0.02 | 782.00 | 23230 | 1.0 | 24.0 | 22.79 | 25 | 12 | Bottom | 0 | 0.051 | 1.321 | 0.067 | 0.042 | | 35.7 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 26849 | 1:1 | -0.02 | 782.00 | 23230 | 0.0 | 25.0 | 23.80 | 1 | 25 | Right | 0 | 0.190 | 1.318 | 0.250 | 0.156 | | 31.0 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 26849 | 1:1 | -0.08 | 782.00 | 23230 | 1.0 | 24.0 | 22.79 | 25 | 12 | Right | 0 | 0.155 | 1.321 | 0.205 | 0.128 | | 30.8 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.05 | 782.00 | 23230 | 0.0 | 25.0 | 23.80 | 1 | 25 | Left | 0 | 0.204 | 1.318 | 0.269 | 0.168 | | 30.7 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.05 | 782.00 | 23230 | 1.0 | 24.0 | 22.79 | 25 | 12 | Left | 0 | 0.163 | 1.321 | 0.215 | 0.134 | | 30.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-20
### LTE Band 13 Tablet ECI=2 | Plot A13

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.01 | 782.00 | 23230 | 0.0 | 17.0 | 16.43 | 1 | 0 | Back | 0 | N/A | 0.557 | 1.140 | 0.635 | 0.397 | | 18.9 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.02 | 782.00 | 23230 | 0.0 | 17.0 | 16.38 | 25 | 0 | Back | 0 | N/A | 0.549 | 1.153 | 0.633 | 0.396 | | 18.9 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | -0.01 | 782.00 | 23230 | 0.0 | 17.0 | 16.43 | 1 | 0 | Top | 0 | Keyboard | 0.619 | 1.140 | 0.706 | 0.441 | | 18.5 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.02 | 782.00 | 23230 | 0.0 | 17.0 | 16.43 | 1 | 0 | Top | 0 | N/A | 0.651 | 1.140 | 0.742 | 0.464 | Plot | 18.2 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | -0.01 | 782.00 | 23230 | 0.0 | 17.0 | 16.38 | 25 | 0 | Top | 0 | N/A | 0.590 | 1.153 | 0.680 | 0.425 | | 18.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

### Table 11-21
### LTE Band 13 Laptop ECI=0 | Plot A14

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.03 | 782.00 | 23230 | 0.0 | 25.0 | 23.80 | 1 | 25 | Bottom | 0 | 0.092 | 1.318 | 0.121 | 0.076 | Plot | 34.1 |
| Body | LTE Band 13 | 10 | QPSK | M1 | 1049M | 1:1 | 0.04 | 782.00 | 23230 | 1.0 | 24.0 | 22.79 | 25 | 12 | Bottom | 0 | 0.076 | 1.321 | 0.100 | 0.063 | | 33.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## 11.8 LTE Band 26 (Cell) Standalone SAR

### Table 11-22
### LTE Band 26 Tablet ECI=0 | Plot A15

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.01 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Back | 19 | N/A | 0.362 | 1.340 | 0.485 | 0.303 | | 28.1 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.02 | 831.50 | 26865 | 1.0 | 24.0 | 22.67 | 36 | 0 | Back | 19 | N/A | 0.288 | 1.358 | 0.391 | 0.244 | | 28.0 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.01 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Top | 19 | N/A | 0.526 | 1.340 | 0.705 | 0.441 | Plot | 26.5 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.00 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Top | 19 | Keyboard | 0.518 | 1.340 | 0.694 | 0.434 | | 26.5 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.01 | 831.50 | 26865 | 1.0 | 24.0 | 22.67 | 36 | 0 | Top | 19 | N/A | 0.430 | 1.358 | 0.584 | 0.365 | | 26.3 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.09 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Bottom | 0 | N/A | 0.081 | 1.340 | 0.109 | 0.068 | | 34.6 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.19 | 831.50 | 26865 | 1.0 | 24.0 | 22.67 | 36 | 0 | Bottom | 0 | N/A | 0.071 | 1.358 | 0.096 | 0.060 | | 34.1 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.04 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Right | 0 | N/A | 0.201 | 1.340 | 0.269 | 0.168 | | 30.6 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.01 | 831.50 | 26865 | 1.0 | 24.0 | 22.67 | 36 | 0 | Right | 0 | N/A | 0.155 | 1.358 | 0.210 | 0.131 | | 30.7 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.10 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Left | 0 | N/A | 0.238 | 1.340 | 0.319 | 0.199 | | 29.9 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.02 | 831.50 | 26865 | 1.0 | 24.0 | 22.67 | 36 | 0 | Left | 0 | N/A | 0.203 | 1.358 | 0.276 | 0.173 | | 29.5 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-23
### LTE Band 26 Tablet ECI=2

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.05 | 831.50 | 26865 | 0.0 | 14.0 | 13.74 | 1 | 0 | Back | 0 | 0.269 | 1.062 | 0.286 | 0.179 | | 19.4 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.06 | 831.50 | 26865 | 0.0 | 14.0 | 13.63 | 36 | 0 | Back | 0 | 0.273 | 1.089 | 0.297 | 0.186 | | 19.2 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.00 | 831.50 | 26865 | 0.0 | 14.0 | 13.74 | 1 | 0 | Top | 0 | 0.487 | 1.062 | 0.517 | 0.323 | | 16.8 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.01 | 831.50 | 26865 | 0.0 | 14.0 | 13.63 | 36 | 0 | Top | 0 | 0.487 | 1.089 | 0.530 | 0.331 | | 16.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-24
### LTE Band 26 Laptop ECI=0 | Plot A16

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | 0.00 | 831.50 | 26865 | 0.0 | 25.0 | 23.73 | 1 | 0 | Bottom | 0 | 0.086 | 1.340 | 0.115 | 0.072 | Plot | 34.3 |
| Body | LTE Band 26 | 15 | QPSK | M1 | 1049M | 1:1 | -0.01 | 831.50 | 26865 | 1.0 | 24.0 | 22.67 | 36 | 0 | Bottom | 0 | 0.077 | 1.358 | 0.105 | 0.066 | | 33.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## 11.9 LTE Band 66 (AWS) Standalone SAR

### Table 11-25
### LTE Band 66 Ant M1 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | 0.00 | 1770.00 | 132572 | 0.0 | 25.0 | 24.07 | 1 | 99 | Back | 19 | 0.284 | 1.239 | 0.352 | 0.220 | | 29.5 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | -0.01 | 1770.00 | 132572 | 1.0 | 24.0 | 22.99 | 50 | 50 | Back | 19 | 0.244 | 1.262 | 0.308 | 0.193 | | 29.1 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | 0.00 | 1770.00 | 132572 | 0.0 | 25.0 | 24.07 | 1 | 99 | Top | 19 | 0.467 | 1.239 | 0.579 | 0.362 | | 27.3 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | -0.02 | 1770.00 | 132572 | 1.0 | 24.0 | 22.99 | 50 | 50 | Top | 19 | 0.372 | 1.262 | 0.469 | 0.293 | | 27.2 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | 0.05 | 1770.00 | 132572 | 0.0 | 25.0 | 24.07 | 1 | 99 | Bottom | 0 | 0.019 | 1.239 | 0.024 | 0.015 | | 41.2 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | 0.07 | 1770.00 | 132572 | 1.0 | 24.0 | 22.99 | 50 | 50 | Bottom | 0 | 0.015 | 1.262 | 0.019 | 0.012 | | 41.2 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | -0.01 | 1770.00 | 132572 | 0.0 | 25.0 | 24.07 | 1 | 99 | Right | 11 | 0.137 | 1.239 | 0.170 | 0.106 | | 32.7 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | -0.03 | 1770.00 | 132572 | 1.0 | 24.0 | 22.99 | 50 | 50 | Right | 11 | 0.114 | 1.262 | 0.144 | 0.090 | | 32.4 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | 0.00 | 1770.00 | 132572 | 0.0 | 25.0 | 24.07 | 1 | 99 | Left | 0 | 0.208 | 1.239 | 0.258 | 0.161 | | 30.8 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 26930 | 1:1 | -0.02 | 1770.00 | 132572 | 1.0 | 24.0 | 22.99 | 50 | 50 | Left | 0 | 0.182 | 1.262 | 0.230 | 0.144 | | 30.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-26
## LTE Band 66 Ant M1 Tablet ECI=2 (ECI=3 for Right Edge)

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 66 | 20 | QPSK | M1 | 0980M | 1:1 | -0.11 | 1770.00 | 132572 | 0.0 | 14.0 | 13.05 | 1 | 99 | Back | 0 | N/A | 0.221 | 1.245 | 0.275 | 0.172 | | 19.6 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0980M | 1:1 | -0.04 | 1770.00 | 132572 | 0.0 | 14.0 | 13.03 | 50 | 50 | Back | 0 | N/A | 0.219 | 1.250 | 0.274 | 0.171 | | 19.6 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0980M | 1:1 | -0.01 | 1770.00 | 132572 | 0.0 | 14.0 | 13.05 | 1 | 99 | Top | 0 | N/A | 0.507 | 1.245 | 0.631 | 0.394 | | 15.9 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0971M | 1:1 | -0.05 | 1770.00 | 132572 | 0.0 | 14.0 | 13.05 | 1 | 99 | Top | 0 | Keyboard | 0.352 | 1.245 | 0.438 | 0.274 | | 17.5 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0980M | 1:1 | -0.12 | 1770.00 | 132572 | 0.0 | 14.0 | 13.03 | 50 | 50 | Top | 0 | N/A | 0.500 | 1.250 | 0.625 | 0.391 | | 16.0 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0971M | 1:1 | 0.01 | 1770.00 | 132572 | 0.0 | 19.0 | 18.45 | 1 | 99 | Right | 0 | N/A | 0.275 | 1.135 | 0.312 | 0.195 | | 24.0 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0971M | 1:1 | 0.00 | 1770.00 | 132572 | 0.0 | 19.0 | 18.35 | 50 | 50 | Right | 0 | N/A | 0.270 | 1.161 | 0.313 | 0.196 | | 24.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

## Table 11-27
## LTE Band 66 Ant S3 Tablet ECI=1/2/3/4/5 | Plot A17

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | -0.03 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Back | 0 | N/A | 0.569 | 1.132 | 0.644 | 0.403 | Plot | 14.4 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 0980M | 1:1 | 0.02 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Back | 0 | Keyboard | 0.091 | 1.132 | 0.103 | 0.064 | | 22.3 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | -0.02 | 1770.00 | 132572 | 0.0 | 12.5 | 11.93 | 50 | 50 | Back | 0 | N/A | 0.558 | 1.140 | 0.636 | 0.398 | | 14.4 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.07 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Top | 0 | N/A | 0.001 | 1.132 | 0.001 | 0.001 | | 41.9 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.02 | 1770.00 | 132572 | 0.0 | 12.5 | 11.93 | 50 | 50 | Top | 0 | N/A | 0.000 | 1.140 | 0.000 | 0.000 | | 51.9 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.01 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Bottom | 0 | N/A | 0.398 | 1.132 | 0.451 | 0.282 | | 15.9 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.00 | 1770.00 | 132572 | 0.0 | 12.5 | 11.93 | 50 | 50 | Bottom | 0 | N/A | 0.409 | 1.140 | 0.466 | 0.291 | | 15.8 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.07 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Right | 0 | N/A | 0.018 | 1.132 | 0.020 | 0.013 | | 29.4 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.03 | 1770.00 | 132572 | 0.0 | 12.5 | 11.93 | 50 | 50 | Right | 0 | N/A | 0.018 | 1.140 | 0.021 | 0.013 | | 29.3 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | 0.08 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Left | 0 | N/A | 0.033 | 1.132 | 0.037 | 0.023 | | 26.7 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 1028M | 1:1 | -0.04 | 1770.00 | 132572 | 0.0 | 12.5 | 11.93 | 50 | 50 | Left | 0 | N/A | 0.031 | 1.140 | 0.035 | 0.022 | | 27.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

## Table 11-28
## LTE Band 66 Ant M1 Laptop ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 66 | 20 | QPSK | M1 | 0971M | 1:1 | 0.03 | 1770.00 | 132572 | 0.0 | 25.0 | 24.07 | 1 | 99 | Bottom | 0 | 0.113 | 1.239 | 0.140 | 0.088 | | 33.5 |
| Body | LTE Band 66 | 20 | QPSK | M1 | 0971M | 1:1 | -0.14 | 1770.00 | 132572 | 1.0 | 24.0 | 22.99 | 50 | 50 | Bottom | 0 | 0.077 | 1.262 | 0.097 | 0.061 | | 34.1 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

## Table 11-29
## LTE Band 66 Ant S3 Laptop ECI=2 | Plot A18

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 66 | 20 | QPSK | S3 | 0980M | 1:1 | -0.11 | 1770.00 | 132572 | 0.0 | 12.5 | 11.96 | 1 | 99 | Bottom | 0 | 0.200 | 1.132 | 0.226 | 0.141 | Plot | 18.9 |
| Body | LTE Band 66 | 20 | QPSK | S3 | 0980M | 1:1 | -0.09 | 1770.00 | 132572 | 0.0 | 12.5 | 11.93 | 50 | 50 | Bottom | 0 | 0.134 | 1.140 | 0.153 | 0.096 | | 20.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

# 11.10 LTE Band 25 (PCS) Standalone SAR

## Table 11-30
## LTE Band 25 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | 0.06 | 1882.50 | 26365 | 0.0 | 25.0 | 23.95 | 1 | 0 | Back | 19 | 0.220 | 1.274 | 0.280 | 0.175 | | 30.5 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | 0.03 | 1882.50 | 26365 | 1.0 | 24.0 | 22.96 | 50 | 0 | Back | 19 | 0.182 | 1.271 | 0.231 | 0.144 | | 30.3 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | 0.03 | 1882.50 | 26365 | 0.0 | 25.0 | 23.95 | 1 | 0 | Top | 19 | 0.336 | 1.274 | 0.428 | 0.268 | | 28.6 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | -0.07 | 1882.50 | 26365 | 1.0 | 24.0 | 22.96 | 50 | 0 | Top | 19 | 0.276 | 1.271 | 0.351 | 0.219 | | 28.5 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | -0.12 | 1882.50 | 26365 | 0.0 | 25.0 | 23.95 | 1 | 0 | Bottom | 0 | 0.043 | 1.274 | 0.055 | 0.034 | | 37.6 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | 0.07 | 1882.50 | 26365 | 1.0 | 24.0 | 22.96 | 50 | 0 | Bottom | 0 | 0.026 | 1.271 | 0.033 | 0.021 | | 38.8 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | -0.17 | 1882.50 | 26365 | 0.0 | 25.0 | 23.95 | 1 | 0 | Right | 11 | 0.106 | 1.274 | 0.135 | 0.084 | | 33.6 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | -0.10 | 1882.50 | 26365 | 1.0 | 24.0 | 22.96 | 50 | 0 | Right | 11 | 0.087 | 1.271 | 0.111 | 0.069 | | 33.5 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | -0.04 | 1882.50 | 26365 | 0.0 | 25.0 | 23.95 | 1 | 0 | Left | 0 | 0.288 | 1.274 | 0.367 | 0.229 | | 29.3 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 26930 | 1:1 | 0.02 | 1882.50 | 26365 | 1.0 | 24.0 | 22.96 | 50 | 0 | Left | 0 | 0.234 | 1.271 | 0.297 | 0.186 | | 29.2 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-31
## LTE Band 25 Tablet ECI=2 (ECI=3 for Right Edge) | Plot A19

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 25 | 20 | QPSK | M1 | 0980M | 1:1 | -0.03 | 1882.50 | 26365 | 0.0 | 13.0 | 12.13 | 1 | 99 | Back | 0 | N/A | 0.146 | 1.222 | 0.178 | 0.111 | | 20.4 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0980M | 1:1 | -0.07 | 1882.50 | 26365 | 0.0 | 13.0 | 12.14 | 50 | 0 | Back | 0 | N/A | 0.148 | 1.219 | 0.180 | 0.113 | | 20.4 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0980M | 1:1 | -0.04 | 1882.50 | 26365 | 0.0 | 13.0 | 12.13 | 1 | 99 | Top | 0 | N/A | 0.525 | 1.222 | 0.642 | 0.401 | | 14.9 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0980M | 1:1 | -0.09 | 1882.50 | 26365 | 0.0 | 13.0 | 12.14 | 50 | 0 | Top | 0 | N/A | 0.553 | 1.219 | 0.674 | 0.421 | Plot | 14.7 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.02 | 1882.50 | 26365 | 0.0 | 13.0 | 12.14 | 50 | 0 | Top | 0 | Keyboard | 0.351 | 1.219 | 0.428 | 0.268 | | 16.6 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.03 | 1860.00 | 26140 | 0.0 | 20.0 | 19.45 | 1 | 99 | Right | 0 | N/A | 0.245 | 1.135 | 0.278 | 0.174 | | 25.5 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.02 | 1860.00 | 26140 | 0.0 | 20.0 | 19.38 | 50 | 50 | Right | 0 | N/A | 0.249 | 1.153 | 0.287 | 0.179 | | 25.4 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | | |

## Table 11-32
## LTE Band 25 Laptop ECI=0 | Plot A20

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.02 | 1882.50 | 26365 | 0.0 | 25.0 | 23.95 | 1 | 0 | Bottom | 0 | 0.082 | 1.274 | 0.104 | 0.065 | Plot | 34.8 |
| Body | LTE Band 25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.10 | 1882.50 | 26365 | 1.0 | 24.0 | 22.96 | 50 | 0 | Bottom | 0 | 0.065 | 1.271 | 0.083 | 0.052 | | 34.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

# 11.11 LTE Band 41 Standalone SAR

## Table 11-33
## LTE Band 41 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | 0.04 | 2506.00 | 39750 | 0.0 | 25.0 | 24.08 | 1 | 0 | Back | 19 | 0.186 | 1.236 | 0.230 | 0.144 | | 29.4 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | -0.01 | 2506.00 | 39750 | 1.0 | 24.0 | 23.02 | 50 | 0 | Back | 19 | 0.155 | 1.253 | 0.194 | 0.121 | | 29.1 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | -0.02 | 2506.00 | 39750 | 0.0 | 25.0 | 24.08 | 1 | 0 | Top | 19 | 0.364 | 1.236 | 0.450 | 0.281 | | 26.4 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:2.31 | -0.01 | 2506.00 | 39750 | 0.0 | 27.0 | 26.21 | 1 | 0 | Top | 19 | 0.371 | 1.199 | 0.445 | 0.278 | | 26.8 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | -0.01 | 2506.00 | 39750 | 1.0 | 24.0 | 23.02 | 50 | 0 | Top | 19 | 0.308 | 1.253 | 0.386 | 0.241 | | 26.1 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | 0.01 | 2506.00 | 39750 | 0.0 | 25.0 | 24.08 | 1 | 0 | Bottom | 0 | 0.027 | 1.236 | 0.033 | 0.021 | | 37.7 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | -0.15 | 2506.00 | 39750 | 1.0 | 24.0 | 23.02 | 50 | 0 | Bottom | 0 | 0.022 | 1.253 | 0.028 | 0.018 | | 37.6 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | 0.01 | 2506.00 | 39750 | 0.0 | 25.0 | 24.08 | 1 | 0 | Right | 11 | 0.086 | 1.236 | 0.106 | 0.066 | | 32.7 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | 0.05 | 2506.00 | 39750 | 1.0 | 24.0 | 23.02 | 50 | 0 | Right | 11 | 0.057 | 1.253 | 0.071 | 0.044 | | 33.4 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | 0.01 | 2506.00 | 39750 | 0.0 | 25.0 | 24.08 | 1 | 0 | Left | 0 | 0.200 | 1.236 | 0.247 | 0.154 | | 29.0 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1045M | 1:1.58 | 0.01 | 2506.00 | 39750 | 1.0 | 24.0 | 23.02 | 50 | 0 | Left | 0 | 0.167 | 1.253 | 0.209 | 0.131 | | 28.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

Note: Green entry represents HPUE measurement

## Table 11-34
## LTE Band 41 Tablet ECI=2 (ECI=3 for Right Edge) | Plot A21

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] | Overall Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.02 | 2506.00 | 39750 | 0.0 | 13.5 | 12.01 | 1 | 0 | Back | 0 | N/A | 0.303 | 1.409 | 0.427 | 0.267 | | 15.2 | 12.8 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.02 | 2506.00 | 39750 | 0.0 | 13.5 | 12.01 | 50 | 0 | Back | 0 | N/A | 0.303 | 1.409 | 0.427 | 0.267 | | 15.2 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | -0.06 | 2506.00 | 39750 | 0.0 | 13.5 | 12.01 | 1 | 0 | Top | 0 | N/A | 0.481 | 1.409 | 0.678 | 0.424 | | 13.2 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | -0.01 | 2549.50 | 40185 | 0.0 | 13.5 | 11.88 | 1 | 99 | Top | 0 | N/A | 0.421 | 1.452 | 0.611 | 0.382 | | 13.6 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | -0.02 | 2593.00 | 40620 | 0.0 | 13.5 | 12.00 | 1 | 0 | Top | 0 | N/A | 0.420 | 1.413 | 0.593 | 0.371 | | 13.7 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.00 | 2636.50 | 41055 | 0.0 | 13.5 | 11.60 | 1 | 0 | Top | 0 | N/A | 0.441 | 1.549 | 0.683 | 0.427 | | 13.1 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.02 | 2680.00 | 41490 | 0.0 | 13.5 | 11.66 | 1 | 0 | Top | 0 | N/A | 0.461 | 1.528 | 0.704 | 0.440 | | 13.0 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.00 | 2506.00 | 39750 | 0.0 | 13.5 | 12.01 | 50 | 0 | Top | 0 | N/A | 0.484 | 1.409 | 0.682 | 0.426 | Plot | 13.1 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.01 | 2549.50 | 40185 | 0.0 | 13.5 | 11.88 | 50 | 0 | Top | 0 | N/A | 0.467 | 1.452 | 0.678 | 0.424 | | 13.2 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | -0.02 | 2593.00 | 40620 | 0.0 | 13.5 | 11.90 | 50 | 0 | Top | 0 | N/A | 0.424 | 1.445 | 0.613 | 0.383 | | 13.6 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.02 | 2636.50 | 41055 | 0.0 | 13.5 | 11.63 | 50 | 0 | Top | 0 | N/A | 0.482 | 1.538 | 0.741 | 0.463 | | 12.8 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.01 | 2636.50 | 41055 | 0.0 | 13.5 | 11.63 | 50 | 0 | Top | 0 | Keyboard | 0.320 | 1.538 | 0.492 | 0.308 | | 14.5 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:2.31 | -0.01 | 2636.50 | 41055 | 0.0 | 15.1 | 13.47 | 50 | 0 | Top | 0 | N/A | 0.457 | 1.455 | 0.665 | 0.416 | | 13.2 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:2.31 | -0.08 | 2636.50 | 41055 | 0.0 | 15.1 | 13.47 | 50 | 0 | Top | 0 | Keyboard | 0.320 | 1.455 | 0.466 | 0.291 | | 14.7 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | -0.02 | 2680.00 | 41490 | 0.0 | 13.5 | 11.65 | 50 | 0 | Top | 0 | N/A | 0.450 | 1.531 | 0.689 | 0.431 | | 13.1 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.08 | 2506.00 | 39750 | 0.0 | 18.0 | 17.45 | 1 | 0 | Right | 0 | N/A | 0.087 | 1.135 | 0.099 | 0.062 | | 26.0 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:1.58 | 0.00 | 2506.00 | 39750 | 0.0 | 18.0 | 17.45 | 50 | 0 | Right | 0 | N/A | 0.088 | 1.135 | 0.100 | 0.063 | | 26.0 | |
| Body | LTE Band 41 | 20 | QPSK | M1 | 0980M | 1:2.31 | 0.00 | 2506.00 | 39750 | 0.0 | 19.6 | 19.29 | 50 | 0 | Right | 0 | N/A | 0.088 | 1.074 | 0.095 | 0.059 | | 26.2 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | | |

Note: Green entry represents HPUE measurement

## Table 11-35
## LTE Band 41 Laptop ECI=0 | Plot A22

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | LTE Band 41 | 20 | QPSK | M1 | 1049M | 1:1.58 | 0.11 | 2506.00 | 39750 | 0.0 | 25.0 | 24.08 | 1 | 0 | Bottom | 0 | 0.085 | 1.236 | 0.105 | 0.066 | | 32.8 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1049M | 1:2.31 | 0.03 | 2506.00 | 39750 | 0.0 | 27.0 | 26.21 | 1 | 0 | Bottom | 0 | 0.086 | 1.199 | 0.103 | 0.064 | Plot | 33.2 |
| Body | LTE Band 41 | 20 | QPSK | M1 | 1049M | 1:1.58 | 0.06 | 2506.00 | 39750 | 1.0 | 24.0 | 23.02 | 50 | 0 | Bottom | 0 | 0.081 | 1.253 | 0.101 | 0.063 | | 31.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

Note: Green entry represents HPUE measurement



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 11.12 NR Band n5 Standalone SAR

### Table 11-36
### NR Band n5 Tablet ECI=0 | Plot A23

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.00 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Back | 19 | N/A | 0.321 | 1.445 | 0.464 | 0.290 | | 28.3 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | -0.02 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 50 | 28 | Back | 19 | N/A | 0.341 | 1.422 | 0.485 | 0.303 | | 28.1 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.03 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Top | 19 | N/A | 0.617 | 1.445 | 0.892 | 0.558 | Plot | 25.4 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.01 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Top | 19 | Keyboard | 0.532 | 1.445 | 0.769 | 0.481 | | 26.1 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.01 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 50 | 28 | Top | 19 | N/A | 0.585 | 1.422 | 0.832 | 0.520 | | 25.7 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.00 | 836.50 | 167300 | DFT-s-OFDM | 1.0 | 24.0 | 22.52 | 100 | 0 | Top | 19 | N/A | 0.458 | 1.406 | 0.644 | 0.403 | | 25.9 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | -0.06 | 836.50 | 167300 | CP-OFDM | 1.5 | 23.5 | 21.94 | 1 | 1 | Top | 19 | N/A | 0.422 | 1.432 | 0.604 | 0.378 | | 25.6 |
| Body | NR Band n5 | 20 | QPSK | M1 | 0149M | 1:1 | 0.06 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Bottom | 0 | N/A | 0.038 | 1.445 | 0.055 | 0.034 | | 37.6 |
| Body | NR Band n5 | 20 | QPSK | M1 | 0149m | 1:1 | 0.06 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 50 | 28 | Bottom | 0 | N/A | 0.030 | 1.422 | 0.043 | 0.027 | | 38.6 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.09 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Right | 0 | N/A | 0.154 | 1.445 | 0.223 | 0.139 | | 31.5 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | -0.02 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 50 | 28 | Right | 0 | N/A | 0.160 | 1.422 | 0.228 | 0.143 | | 31.4 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.01 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Left | 0 | N/A | 0.467 | 1.445 | 0.675 | 0.422 | | 26.7 |
| Body | NR Band n5 | 20 | QPSK | M1 | 0971M | 1:1 | 0.08 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 50 | 28 | Left | 0 | N/A | 0.423 | 1.422 | 0.602 | 0.376 | | 27.2 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

### Table 11-37
### NR Band n5 Tablet ECI=2

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.00 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 14.0 | 12.13 | 1 | 104 | Back | 0 | 0.323 | 1.538 | 0.497 | 0.311 | | 17.0 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | -0.01 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 14.0 | 12.32 | 50 | 56 | Back | 0 | 0.329 | 1.472 | 0.484 | 0.303 | | 17.1 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | -0.01 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 14.0 | 12.13 | 1 | 104 | Top | 0 | 0.482 | 1.538 | 0.741 | 0.463 | | 15.2 |
| Body | NR Band n5 | 20 | QPSK | M1 | 1049M | 1:1 | 0.00 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 14.0 | 12.32 | 50 | 56 | Top | 0 | 0.469 | 1.472 | 0.690 | 0.431 | | 15.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-38
### NR Band n5 Laptop ECI=0 | Plot A24

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n5 | 20 | QPSK | M1 | 0149M | 1:1 | -0.05 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.40 | 1 | 1 | Bottom | 0 | 0.081 | 1.445 | 0.117 | 0.073 | | 34.3 |
| Body | NR Band n5 | 20 | QPSK | M1 | 0149M | 1:1 | 0.04 | 836.50 | 167300 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 50 | 28 | Bottom | 0 | 0.096 | 1.422 | 0.137 | 0.086 | plot | 33.6 |
| Body | NR Band n5 | 20 | QPSK | M1 | 0149M | 1:1 | -0.08 | 836.50 | 167300 | CP-OFDM | 1.5 | 23.5 | 21.94 | 1 | 1 | Bottom | 0 | 0.027 | 1.432 | 0.039 | 0.024 | | 37.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## 11.13 NR Band n66 Standalone SAR

### Table 11-39
### NR Band n66 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | 0.01 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.21 | 1 | 108 | Back | 19 | 0.293 | 1.199 | 0.351 | 0.219 | | 29.5 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.03 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.20 | 108 | 54 | Back | 19 | 0.295 | 1.202 | 0.355 | 0.222 | | 29.5 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.03 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.21 | 1 | 108 | Top | 19 | 0.434 | 1.199 | 0.520 | 0.325 | | 27.8 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.06 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.20 | 108 | 54 | Top | 19 | 0.438 | 1.202 | 0.526 | 0.329 | | 27.7 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.01 | 1745.00 | 349000 | CP-OFDM | 1.5 | 23.5 | 22.13 | 1 | 1 | Top | 19 | 0.337 | 1.371 | 0.462 | 0.289 | | 26.8 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | 0.05 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.21 | 1 | 108 | Bottom | 0 | 0.068 | 1.199 | 0.082 | 0.051 | | 35.8 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.02 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.20 | 108 | 54 | Bottom | 0 | 0.077 | 1.202 | 0.093 | 0.058 | | 35.3 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | 0.05 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.21 | 1 | 108 | Right | 11 | 0.102 | 1.199 | 0.122 | 0.076 | | 34.1 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | 0.01 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.20 | 108 | 54 | Right | 11 | 0.101 | 1.202 | 0.121 | 0.076 | | 34.1 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.04 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.21 | 1 | 108 | Left | 0 | 0.218 | 1.199 | 0.261 | 0.163 | | 30.8 |
| Body | NR Band n66 | 40 | QPSK | M1 | 19166 | 1:1 | -0.02 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.20 | 108 | 54 | Left | 0 | 0.217 | 1.202 | 0.261 | 0.163 | | 30.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-40
### NR Band n66 Tablet ECI=2 (ECI=3 for Right Edge) | Plot A25

| sure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n66 | 40 | QPSK | M1 | 0980M | 1:1 | 0.01 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 14.0 | 13.26 | 1 | 108 | Back | 0 | N/A | 0.329 | 1.186 | 0.390 | 0.244 | | 18.0 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0980M | 1:1 | 0.01 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 14.0 | 13.31 | 108 | 54 | Back | 0 | N/A | 0.344 | 1.172 | 0.403 | 0.252 | | 17.9 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0980M | 1:1 | 0.11 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 14.0 | 13.26 | 1 | 108 | Top | 0 | N/A | 0.457 | 1.186 | 0.542 | 0.339 | | 16.6 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0980M | 1:1 | -0.02 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 14.0 | 13.31 | 108 | 54 | Top | 0 | N/A | 0.466 | 1.172 | 0.546 | 0.341 | | 16.6 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | -0.01 | 1745.00 | 349000 | CP-OFDM | 0.0 | 14.0 | 12.78 | 1 | 1 | Top | 0 | N/A | 0.526 | 1.324 | 0.696 | 0.435 | plot | 15.5 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | 0.11 | 1745.00 | 349000 | CP-OFDM | 0.0 | 14.0 | 12.78 | 1 | 1 | Top | 0 | KEYBOARD | 0.373 | 1.324 | 0.494 | 0.309 | | 17.0 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | -0.03 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 19.0 | 17.73 | 1 | 108 | Right | 0 | N/A | 0.220 | 1.340 | 0.295 | 0.184 | | 24.3 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | 0.01 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 19.0 | 17.76 | 108 | 54 | Right | 0 | N/A | 0.229 | 1.330 | 0.305 | 0.191 | | 24.1 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-41
## NR Band n66 Laptop ECI=0 | Plot A26

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | 0.06 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.21 | 1 | 108 | Bottom | 0 | 0.141 | 1.199 | 0.169 | 0.106 | Plot | 32.7 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | 0.04 | 1745.00 | 349000 | DFT-s-OFDM | 0.0 | 25.0 | 24.20 | 108 | 54 | Bottom | 0 | 0.107 | 1.202 | 0.129 | 0.081 | | 33.9 |
| Body | NR Band n66 | 40 | QPSK | M1 | 0971M | 1:1 | -0.03 | 1745.00 | 349000 | CP-OFDM | 1.5 | 23.5 | 22.13 | 1 | 1 | Bottom | 0 | 0.055 | 1.371 | 0.075 | 0.047 | | 34.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

## 11.14 NR Band n25 Standalone SAR

## Table 11-42
## NR Band n25 Tablet ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.00 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 1 | 1 | Back | 19 | 0.216 | 1.422 | 0.307 | 0.192 | | 30.1 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.03 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.54 | 50 | 28 | Back | 19 | 0.220 | 1.400 | 0.308 | 0.193 | | 30.1 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.14 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 1 | 1 | Top | 19 | 0.295 | 1.422 | 0.419 | 0.262 | | 28.7 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.03 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.54 | 50 | 28 | Top | 19 | 0.293 | 1.400 | 0.410 | 0.256 | | 28.8 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.01 | 1905.00 | 381000 | CP-OFDM | 1.5 | 23.5 | 21.91 | 1 | 1 | Top | 19 | 0.233 | 1.442 | 0.336 | 0.210 | | 28.2 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.19 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 1 | 1 | Bottom | 0 | 0.038 | 1.422 | 0.054 | 0.034 | | 37.6 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.03 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.54 | 50 | 28 | Bottom | 0 | 0.028 | 1.400 | 0.039 | 0.024 | | 39.0 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.01 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 1 | 1 | Right | 11 | 0.106 | 1.422 | 0.151 | 0.094 | | 33.2 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.00 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.54 | 50 | 28 | Right | 11 | 0.101 | 1.400 | 0.141 | 0.088 | | 33.4 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.05 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 1 | 1 | Left | 0 | 0.288 | 1.422 | 0.410 | 0.256 | | 28.8 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.04 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.54 | 50 | 28 | Left | 0 | 0.280 | 1.400 | 0.392 | 0.245 | | 29.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

## Table 11-43
## NR Band n25 Tablet ECI=2 (ECI=3 for Right Edge) | Plot A27

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n25 | 20 | QPSK | M1 | 0980M | 1:1 | 0.05 | 1860.00 | 372000 | DFT-s-OFDM | 0.0 | 13.0 | 12.62 | 1 | 104 | Back | 0 | N/A | 0.212 | 1.091 | 0.231 | 0.144 | | 19.3 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0980M | 1:1 | 0.01 | 1860.00 | 372000 | DFT-s-OFDM | 0.0 | 13.0 | 12.63 | 50 | 56 | Back | 0 | N/A | 0.204 | 1.089 | 0.222 | 0.139 | | 19.5 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0980M | 1:1 | 0.14 | 1860.00 | 372000 | DFT-s-OFDM | 0.0 | 13.0 | 12.62 | 1 | 104 | Top | 0 | N/A | 0.470 | 1.091 | 0.513 | 0.321 | | 15.8 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0980M | 1:1 | -0.02 | 1860.00 | 372000 | DFT-s-OFDM | 0.0 | 13.0 | 12.63 | 50 | 56 | Top | 0 | N/A | 0.486 | 1.089 | 0.529 | 0.331 | | 15.7 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.03 | 1882.50 | 376500 | CP-OFDM | 0.0 | 13.0 | 12.51 | 1 | 1 | Top | 0 | KEYBOARD | 0.321 | 1.119 | 0.359 | 0.224 | | 17.4 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0980M | 1:1 | -0.05 | 1882.50 | 376500 | CP-OFDM | 0.0 | 13.0 | 12.51 | 1 | 1 | Top | 0 | N/A | 0.607 | 1.119 | 0.679 | 0.424 | Plot | 14.6 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.07 | 1860.00 | 372000 | DFT-s-OFDM | 0.0 | 20.0 | 18.53 | 1 | 104 | Right | 0 | N/A | 0.249 | 1.403 | 0.349 | 0.218 | | 24.5 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.04 | 1860.00 | 372000 | DFT-s-OFDM | 0.0 | 20.0 | 18.52 | 50 | 56 | Right | 0 | N/A | 0.247 | 1.406 | 0.347 | 0.217 | | 24.5 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

## Table 11-44
## NR Band n25 Laptop ECI=0 | Plot A28

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.02 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.47 | 1 | 1 | Bottom | 0 | 0.110 | 1.422 | 0.156 | 0.098 | | 33.0 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | -0.18 | 1905.00 | 381000 | DFT-s-OFDM | 0.0 | 25.0 | 23.54 | 50 | 28 | Bottom | 0 | 0.114 | 1.400 | 0.160 | 0.100 | Plot | 32.9 |
| Body | NR Band n25 | 20 | QPSK | M1 | 0971M | 1:1 | 0.01 | 1905.00 | 381000 | CP-OFDM | 1.5 | 23.5 | 21.91 | 1 | 1 | Bottom | 0 | 0.076 | 1.442 | 0.110 | 0.069 | | 33.1 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

## 11.15 NR Band n41 Standalone SAR

## Table 11-45
## NR Band n41 Ant M1 Tablet ECI = 0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | -0.02 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.72 | 1 | 137 | Back | 19 | 0.109 | 1.067 | 0.116 | 0.073 | | 28.3 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | -0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.73 | 135 | 69 | Back | 19 | 0.106 | 1.064 | 0.113 | 0.071 | | 28.4 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | -0.03 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.72 | 1 | 137 | Top | 19 | 0.222 | 1.067 | 0.237 | 0.148 | | 25.2 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.04 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.73 | 135 | 69 | Top | 19 | 0.222 | 1.064 | 0.236 | 0.148 | | 25.2 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.03 | 2592.99 | 518598 | CP-OFDM | 0.0 | 19.0 | 18.21 | 1 | 1 | Top | 19 | 0.195 | 1.199 | 0.234 | 0.146 | | 25.3 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.72 | 1 | 137 | Bottom | 0 | 0.002 | 1.067 | 0.002 | 0.001 | | 45.7 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.05 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.73 | 135 | 69 | Bottom | 0 | 0.008 | 1.064 | 0.009 | 0.006 | | 39.6 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.13 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.72 | 1 | 137 | Right | 11 | 0.052 | 1.067 | 0.055 | 0.034 | | 31.5 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | -0.03 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.73 | 135 | 69 | Right | 11 | 0.052 | 1.064 | 0.055 | 0.034 | | 31.5 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.02 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.72 | 1 | 137 | Left | 0 | 0.139 | 1.067 | 0.148 | 0.093 | | 27.2 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.11 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.73 | 135 | 69 | Left | 0 | 0.152 | 1.064 | 0.162 | 0.101 | | 26.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-46
## NR Band n41 Ant M1 Tablet ECI=2 (ECI=3 for Right Edge)| Plot A29

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | 0.00 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 12.0 | 11.98 | 1 | 137 | Back | 0 | N/A | 0.600 | 1.005 | 0.603 | 0.377 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | 0.00 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 12.0 | 11.93 | 135 | 69 | Back | 0 | N/A | 0.617 | 1.016 | 0.627 | 0.392 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | -0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 12.0 | 11.84 | 270 | 0 | Back | 0 | N/A | 0.593 | 1.038 | 0.616 | 0.385 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | 0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 12.0 | 11.98 | 1 | 137 | Top | 0 | N/A | 0.858 | 1.005 | 0.862 | 0.539 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | -0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 12.0 | 11.93 | 135 | 69 | Top | 0 | N/A | 0.845 | 1.016 | 0.859 | 0.537 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | 0.02 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 12.0 | 11.84 | 270 | 0 | Top | 0 | N/A | 0.858 | 1.038 | 0.891 | 0.557 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | -0.06 | 2592.99 | 518598 | CP-OFDM | 0.0 | 12.0 | 11.97 | 1 | 1 | Top | 0 | N/A | 0.881 | 1.007 | 0.887 | 0.554 | Plot |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | -0.02 | 2592.99 | 518598 | CP-OFDM | 0.0 | 12.0 | 11.97 | 1 | 1 | Top | 0 | Keyboard | 0.667 | 1.007 | 0.672 | 0.420 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1000M | 1:1 | -0.16 | 2592.99 | 518598 | CP-OFDM | 0.0 | 12.0 | 11.97 | 1 | 1 | Top | 0 | N/A | 0.823 | 1.007 | 0.829 | 0.518 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.09 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 16.0 | 15.95 | 1 | 137 | Right | 0 | N/A | 0.139 | 1.012 | 0.141 | 0.088 | |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | -0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 16.0 | 15.88 | 135 | 69 | Right | 0 | N/A | 0.138 | 1.028 | 0.142 | 0.089 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

Note: Blue entry represents variability measurement

## Table 11-47
## NR Band n41 Ant M1 Laptop ECI=0 | Plot A30

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.05 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.72 | 1 | 137 | Bottom | 0 | 0.044 | 1.067 | 0.047 | 0.029 | | 32.2 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | 0.01 | 2592.99 | 518598 | DFT-s-OFDM | 0.0 | 19.0 | 18.73 | 135 | 69 | Bottom | 0 | 0.043 | 1.064 | 0.046 | 0.029 | | 32.3 |
| Body | NR Band n41 | 100 | QPSK | M1 | 1497M | 1:1 | -0.13 | 2592.99 | 518598 | CP-OFDM | 0.0 | 19.0 | 18.21 | 1 | 1 | Bottom | 0 | 0.054 | 1.199 | 0.065 | 0.041 | Plot | 30.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

## Table 11-48
## NR Band n41 Ant S1 Tablet ECI = 0

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.04 | 2592.99 | 518598 | CW/SRS | 17.5 | 16.85 | Back | 19 | 0.040 | 1.161 | 0.046 | 0.029 | | 30.8 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.08 | 2592.99 | 518598 | CW/SRS | 17.5 | 16.85 | Top | 0 | 0.000 | 1.161 | 0.000 | 0.000 | | 56.8 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.06 | 2592.99 | 518598 | CW/SRS | 17.5 | 16.85 | Bottom | 19 | 0.047 | 1.161 | 0.055 | 0.034 | | 30.1 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.06 | 2592.99 | 518598 | CW/SRS | 17.5 | 16.85 | Right | 0 | 0.000 | 1.161 | 0.000 | 0.000 | | 56.8 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.06 | 2592.99 | 518598 | CW/SRS | 17.5 | 16.85 | Left | 11 | 0.009 | 1.161 | 0.010 | 0.006 | | 37.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

## Table 11-49
## NR Band n41 Ant S1 Tablet ECI=5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.02 | 2592.99 | 518598 | CW/SRS | 12.0 | 11.34 | Back | 0 | N/A | 0.029 | 1.164 | 0.034 | 0.021 | | 26.7 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | -0.02 | 2592.99 | 518598 | CW/SRS | 12.0 | 11.34 | Bottom | 0 | N/A | 0.173 | 1.164 | 0.201 | 0.126 | | 18.9 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.00 | 2592.99 | 518598 | CW/SRS | 12.0 | 11.34 | Left | 0 | N/A | 0.299 | 1.164 | 0.348 | 0.218 | | 16.5 |
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.07 | 2592.99 | 518598 | CW/SRS | 12.0 | 11.34 | Left | 0 | Keyboard | 0.106 | 1.164 | 0.123 | 0.077 | | 21.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

## Table 11-50
## NR Band n41 Ant S1 Laptop ECI = 0

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S1 | 1058M | 1:1 | 0.04 | 2592.99 | 518598 | CW/SRS | 17.5 | 16.85 | Bottom | 11 | 0.003 | 1.161 | 0.003 | 0.002 | | 42.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

## Table 11-51
## NR Band n41 Ant S1 Laptop ECI=5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S1 | 1497M | 1:1 | 0.05 | 2592.99 | 518598 | CW/SRS | 12.0 | 11.34 | Bottom | 0 | 0.016 | 1.164 | 0.019 | 0.012 | | 29.2 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-52
## NR Band n41 Ant S2 Tablet ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | -0.04 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Back | 0 | N/A | 0.589 | 1.225 | 0.722 | 0.451 | | 12.9 |
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | 0.02 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Top | 0 | N/A | 0.000 | 1.225 | 0.000 | 0.000 | | 50.6 |
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | 0.01 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Bottom | 0 | N/A | 0.815 | 1.225 | 0.998 | 0.624 | | 11.5 |
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | -0.03 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Bottom | 0 | Keyboard | 0.385 | 1.225 | 0.472 | 0.295 | | 14.7 |
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | 0.04 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Right | 0 | N/A | 0.000 | 1.225 | 0.000 | 0.000 | | 50.6 |
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | 0.04 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Left | 0 | N/A | 0.000 | 1.225 | 0.000 | 0.000 | | 50.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-53
## NR Band n41 Ant S2 Laptop ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S2 | 1497M | 1:1 | 0.05 | 2592.99 | 518598 | CW/SRS | 11.5 | 10.62 | Bottom | 0 | 0.000 | 1.225 | 0.000 | 0.000 | | 50.6 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-54
## NR Band n41 Ant S3 Tablet ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.06 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Back | 0 | N/A | 0.304 | 1.245 | 0.378 | 0.236 | | 11.2 |
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.15 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Back | 0 | Keyboard | 0.023 | 1.245 | 0.029 | 0.018 | | 22.4 |
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.04 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Top | 0 | N/A | 0.000 | 1.245 | 0.000 | 0.000 | | 46.0 |
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.20 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Bottom | 0 | N/A | 0.236 | 1.245 | 0.294 | 0.184 | | 12.3 |
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.08 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Right | 0 | N/A | 0.007 | 1.245 | 0.009 | 0.006 | | 27.5 |
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.21 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Left | 0 | N/A | 0.070 | 1.245 | 0.087 | 0.054 | | 17.5 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-55
## NR Band n41 Ant S3 Laptop ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n41 | 100 | S3 | 1497M | 1:1 | 0.04 | 2592.99 | 518598 | CW/SRS | 7.0 | 6.05 | Bottom | 0 | 0.000 | 1.245 | 0.000 | 0.000 | | 46.0 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## 11.16 NR Band n77 Standalone SAR

## Table 11-56
## NR Band n77 Ant S4 Tablet ECI = 0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.06 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.35 | 1 | 271 | Back | 19 | 0.099 | 1.161 | 0.115 | 0.072 | | 28.3 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.03 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.32 | 135 | 69 | Back | 19 | 0.111 | 1.169 | 0.130 | 0.081 | | 27.8 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.20 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.35 | 1 | 271 | Top | 0 | 0.069 | 1.161 | 0.080 | 0.050 | | 29.9 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.06 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.32 | 135 | 69 | Top | 0 | 0.068 | 1.169 | 0.079 | 0.049 | | 29.9 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.21 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.35 | 1 | 271 | Bottom | 19 | 0.058 | 1.161 | 0.067 | 0.042 | | 30.7 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.01 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.32 | 135 | 69 | Bottom | 19 | 0.052 | 1.169 | 0.061 | 0.038 | | 31.1 |
| Body | NR Band n77 DoD | 100 | QPSK | S4 | 1049M | 1:1 | -0.03 | 3500.01 | 633334 | DFT-s-OFDM | 0.0 | 19.0 | 18.66 | 1 | 1 | Right | 11 | 0.574 | 1.081 | 0.620 | 0.388 | | 21.0 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.00 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.35 | 1 | 271 | Right | 11 | 0.514 | 1.161 | 0.597 | 0.373 | | 21.2 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.03 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 19.0 | 18.09 | 1 | 271 | Right | 11 | 0.503 | 1.233 | 0.620 | 0.388 | | 21.0 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.03 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.32 | 135 | 69 | Right | 11 | 0.566 | 1.169 | 0.662 | 0.414 | | 20.7 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.03 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 19.0 | 18.06 | 135 | 69 | Right | 11 | 0.469 | 1.242 | 0.582 | 0.364 | | 21.3 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.02 | 3750.00 | 650000 | CP-OFDM | 0.0 | 19.0 | 17.41 | 1 | 1 | Right | 11 | 0.485 | 1.442 | 0.699 | 0.437 | | 20.5 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.04 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.35 | 1 | 271 | Left | 0 | 0.021 | 1.161 | 0.024 | 0.015 | | 35.1 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.01 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.32 | 135 | 69 | Left | 0 | 0.018 | 1.169 | 0.021 | 0.013 | | 35.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-57
## NR Band n77 Ant S4 Tablet ECI=4 | Plot A31

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.04 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 9.0 | 8.80 | 1 | 271 | Back | 0 | 0.622 | 1.047 | 0.651 | 0.407 | | 10.8 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.03 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.93 | 1 | 1 | Back | 0 | 0.648 | 1.016 | 0.658 | 0.411 | | 10.8 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.03 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 9.0 | 8.60 | 135 | 138 | Back | 0 | 0.626 | 1.096 | 0.686 | 0.429 | | 10.6 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.01 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.91 | 135 | 69 | Back | 0 | 0.619 | 1.021 | 0.632 | 0.395 | | 10.9 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.02 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.93 | 1 | 1 | Bottom | 0 | 0.195 | 1.016 | 0.198 | 0.124 | | 16.0 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.02 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.91 | 135 | 69 | Bottom | 0 | 0.198 | 1.021 | 0.202 | 0.126 | | 15.9 |
| Body | NR Band n77 DoD | 100 | QPSK | S4 | 1049M | 1:1 | -0.14 | 3500.01 | 633334 | DFT-s-OFDM | 0.0 | 9.0 | 8.49 | 1 | 137 | Right | 0 | 0.539 | 1.125 | 0.606 | 0.379 | | 11.1 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.00 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 9.0 | 8.80 | 1 | 271 | Right | 0 | 0.696 | 1.047 | 0.729 | 0.456 | | 10.3 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.00 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.93 | 1 | 1 | Right | 0 | 0.779 | 1.016 | 0.791 | 0.494 | | 10.0 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.00 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 9.0 | 8.60 | 135 | 138 | Right | 0 | 0.703 | 1.096 | 0.770 | 0.481 | | 10.1 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | 0.00 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.91 | 135 | 69 | Right | 0 | 0.843 | 1.021 | 0.861 | 0.538 | | 9.6 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.09 | 3930.00 | 662000 | DFT-s-OFDM | 0.0 | 9.0 | 8.80 | 270 | 0 | Right | 0 | 0.857 | 1.047 | 0.897 | 0.561 | Plot | 9.4 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1049M | 1:1 | -0.04 | 3930.00 | 662000 | CP-OFDM | 0.0 | 9.0 | 8.89 | 1 | 1 | Right | 0 | 0.777 | 1.026 | 0.797 | 0.498 | | 9.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-58
## NR Band n77 Ant S4 Laptop ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | MPR [dB] | Max Allowed Power [dBm] | Conducted Power [dBm] | RB Size | RB Offset | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 DoD | 100 | QPSK | S4 | 1476M | 1:1 | 0.02 | 3500.01 | 633334 | DFT-s-OFDM | 0.0 | 19.0 | 18.66 | 1 | 1 | Bottom | 0 | 0.003 | 1.081 | 0.003 | 0.002 | | 43.8 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1476M | 1:1 | 0.09 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.35 | 1 | 271 | Bottom | 0 | 0.003 | 1.161 | 0.003 | 0.002 | | 43.5 |
| Body | NR Band n77 | 100 | QPSK | S4 | 1476M | 1:1 | 0.02 | 3750.00 | 650000 | DFT-s-OFDM | 0.0 | 19.0 | 18.32 | 135 | 69 | Bottom | 0 | 0.000 | 1.169 | 0.000 | 0.000 | | 58.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-59
## NR Band n77 Ant M4 Tablet ECI = 0

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | 0.04 | 3930.00 | 662000 | CW/SRS | 14.0 | 13.75 | Back | 19 | 0.018 | 1.059 | 0.019 | 0.012 | | 31.1 |
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | 0.07 | 3930.00 | 662000 | CW/SRS | 14.0 | 13.75 | Top | 19 | 0.007 | 1.059 | 0.007 | 0.004 | | 35.2 |
| Body | NR Band n77 | 100 | M4 | 1476M | 1:1 | 0.09 | 3930.00 | 662000 | CW/SRS | 14.0 | 13.75 | Bottom | 0 | 0.001 | 1.059 | 0.001 | 0.001 | | 43.7 |
| Body | NR Band n77 DoD | 100 | M4 | 1476M | 1:1 | 0.09 | 3500.01 | 633334 | CW/SRS | 14.0 | 12.20 | Right | 11 | 0.022 | 1.514 | 0.033 | 0.021 | | 28.7 |
| Body | NR Band n77 | 100 | M4 | 1467M | 1:1 | -0.15 | 3930.00 | 662000 | CW/SRS | 14.0 | 13.75 | Right | 11 | 0.074 | 1.059 | 0.078 | 0.049 | | 25.0 |
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | 0.05 | 3930.00 | 662000 | CW/SRS | 14.0 | 13.75 | Left | 0 | 0.000 | 1.059 | 0.000 | 0.000 | | 53.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-60
## NR Band n77 Ant M4 Tablet ECI=3

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | 0.04 | 3930.00 | 662000 | CW/SRS | 8.0 | 7.81 | Back | 0 | N/A | 0.132 | 1.045 | 0.138 | 0.086 | | 16.6 |
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | -0.06 | 3930.00 | 662000 | CW/SRS | 8.0 | 7.81 | Top | 0 | N/A | 0.076 | 1.045 | 0.079 | 0.049 | | 19.0 |
| Body | NR Band n77 DoD | 100 | M4 | 1497M | 1:1 | 0.02 | 3500.01 | 633334 | CW/SRS | 8.0 | 6.25 | Right | 0 | N/A | 0.195 | 1.496 | 0.292 | 0.183 | | 13.3 |
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | 0.06 | 3750.00 | 650000 | CW/SRS | 8.0 | 6.12 | Right | 0 | N/A | 0.317 | 1.542 | 0.489 | 0.306 | | 11.1 |
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | -0.02 | 3930.00 | 662000 | CW/SRS | 8.0 | 7.81 | Right | 0 | N/A | 0.613 | 1.045 | 0.641 | 0.401 | | 9.9 |
| Body | NR Band n77 | 100 | M4 | 1497M | 1:1 | -0.09 | 3930.00 | 662000 | CW/SRS | 8.0 | 7.81 | Right | 0 | Keyboard | 0.316 | 1.045 | 0.330 | 0.206 | | 12.8 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-61
## NR Band n77 Ant M4 Laptop ECI=0

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 DoD | 100 | M4 | 1476M | 1:1 | 0.02 | 3500.01 | 633334 | CW/SRS | 14.0 | 12.20 | Bottom | 0 | 0.000 | 1.514 | 0.000 | 0.000 | | 52.2 |
| Body | NR Band n77 | 100 | M4 | 1476M | 1:1 | 0.09 | 3930.00 | 662000 | CW/SRS | 14.0 | 13.75 | Bottom | 0 | 0.000 | 1.059 | 0.000 | 0.000 | | 53.7 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-62
## NR Band n77 Ant S2 Tablet ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] | Overall Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 DoD | 100 | S2 | 1497M | 1:1 | 0.03 | 3500.01 | 633334 | CW/SRS | 8.5 | 7.08 | Back | 0 | 0.431 | 1.387 | 0.598 | 0.374 | | 10.7 | 9.8 |
| Body | NR Band n77 | 100 | S2 | 1497M | 1:1 | 0.06 | 3750.00 | 650000 | CW/SRS | 8.5 | 7.62 | Back | 0 | 0.461 | 1.225 | 0.565 | 0.353 | | 10.9 | |
| Body | NR Band n77 | 100 | S2 | 1497M | 1:1 | 0.04 | 3930.00 | 662000 | CW/SRS | 8.5 | 8.19 | Back | 0 | 0.676 | 1.074 | 0.726 | 0.454 | | 9.8 | |
| Body | NR Band n77 | 100 | S2 | 1497M | 1:1 | 0.02 | 3930.00 | 662000 | CW/SRS | 8.5 | 8.19 | Top | 0 | 0.000 | 1.074 | 0.000 | 0.000 | | 48.1 | |
| Body | NR Band n77 | 100 | S2 | 1497M | 1:1 | 0.00 | 3930.00 | 662000 | CW/SRS | 8.5 | 8.19 | Bottom | 0 | 0.339 | 1.074 | 0.364 | 0.228 | | 12.8 | |
| Body | NR Band n77 | 100 | S2 | 1497M | 1:1 | 0.00 | 3930.00 | 662000 | CW/SRS | 8.5 | 8.19 | Right | 0 | 0.156 | 1.074 | 0.168 | 0.105 | | 16.2 | |
| Body | NR Band n77 | 100 | S2 | 1497M | 1:1 | 0.04 | 3930.00 | 662000 | CW/SRS | 8.5 | 8.19 | Left | 0 | 0.001 | 1.074 | 0.001 | 0.001 | | 38.1 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-63
## NR Band n77 Ant S2 Laptop ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 DoD | 100 | S2 | 1476M | 1:1 | 0.02 | 3500.01 | 633334 | CW/SRS | 8.5 | 7.08 | Bottom | 0 | 0.000 | 1.387 | 0.000 | 0.000 | | 47.0 |
| Body | NR Band n77 | 100 | S2 | 1476M | 1:1 | 0.05 | 3930.00 | 662000 | CW/SRS | 8.5 | 8.19 | Bottom | 0 | 0.000 | 1.074 | 0.000 | 0.000 | | 48.1 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-64
## NR Band n77 Ant S3 Tablet ECI=0/1/2/3/4/5

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 DoD | 100 | S3 | 1497M | 1:1 | 0.02 | 3500.01 | 633334 | CW/SRS | 9.5 | 7.90 | Back | 0 | N/A | 0.425 | 1.445 | 0.614 | 0.384 | | 11.6 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | -0.10 | 3750.00 | 650000 | CW/SRS | 9.5 | 8.45 | Back | 0 | Keyboard | 0.054 | 1.274 | 0.069 | 0.043 | | 21.1 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | 0.02 | 3750.00 | 650000 | CW/SRS | 9.5 | 8.45 | Back | 0 | N/A | 0.445 | 1.274 | 0.567 | 0.354 | | 11.9 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | 0.01 | 3930.00 | 662000 | CW/SRS | 9.5 | 8.72 | Back | 0 | N/A | 0.391 | 1.197 | 0.468 | 0.293 | | 12.7 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | 0.05 | 3930.00 | 662000 | CW/SRS | 9.5 | 8.72 | Top | 0 | N/A | 0.000 | 1.197 | 0.000 | 0.000 | | 48.7 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | 0.05 | 3930.00 | 662000 | CW/SRS | 9.5 | 8.72 | Bottom | 0 | N/A | 0.184 | 1.197 | 0.220 | 0.138 | | 16.0 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | 0.12 | 3930.00 | 662000 | CW/SRS | 9.5 | 8.72 | Right | 0 | N/A | 0.000 | 1.197 | 0.000 | 0.000 | | 48.7 |
| Body | NR Band n77 | 100 | S3 | 1497M | 1:1 | -0.05 | 3930.00 | 662000 | CW/SRS | 9.5 | 8.72 | Left | 0 | N/A | 0.189 | 1.197 | 0.226 | 0.141 | | 15.9 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-65
## NR Band n77 Ant S3 Laptop ECI=0/1/2/3/4/5 | Plot A32

| Exposure | Band / Mode | Bandwidth [MHz] | Ant. | Serial Number | Duty Cycle | Power Drift [dB] | Frequency [MHz] | Channel # | Waveform | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # | Plimit [dBm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | NR Band n77 DoD | 100 | S3 | 1049M | 1:1 | 0.03 | 3500.01 | 633334 | CW/SRS | 9.5 | 7.90 | Bottom | 0 | 0.011 | 1.445 | 0.016 | 0.010 | | 27.4 |
| Body | NR Band n77 | 100 | S3 | 1049M | 1:1 | 0.05 | 3930.00 | 662000 | CW/SRS | 9.5 | 8.72 | Bottom | 0 | 0.043 | 1.197 | 0.051 | 0.032 | Plot | 22.3 |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## 11.17 2.4 GHz WLAN SISO Standalone SAR

### Table 11-66
### 2.4 GHz WLAN Ant WIFI 0 Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1021M | 97.90 | -0.10 | 2462.00 | 11 | 1.0 | 19.0 | 18.67 | Back | 19 | 0.079 | 1.079 | 1.021 | 0.087 | 0.054 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1021M | 97.90 | 0.02 | 2462.00 | 11 | 1.0 | 19.0 | 18.67 | Top | 19 | 0.056 | 1.079 | 1.021 | 0.062 | 0.039 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1021M | 97.90 | 0.02 | 2462.00 | 11 | 1.0 | 19.0 | 18.67 | Bottom | 0 | 0.044 | 1.079 | 1.021 | 0.048 | 0.030 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1021M | 97.90 | 0.08 | 2462.00 | 11 | 1.0 | 19.0 | 18.67 | Right | 0 | 0.000 | 1.079 | 1.021 | 0.000 | 0.000 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1021M | 97.90 | -0.08 | 2462.00 | 11 | 1.0 | 19.0 | 18.67 | Left | 11 | 0.199 | 1.079 | 1.021 | 0.219 | 0.137 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

### Table 11-67
### 2.4 GHz WLAN Ant WIFI 0 Tablet with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1058M | 97.90 | 0.01 | 2412.00 | 1 | 1.0 | 12.5 | 12.16 | Back | 0 | N/A | 0.734 | 1.081 | 1.021 | 0.810 | 0.506 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1058M | 97.90 | 0.01 | 2437.00 | 6 | 1.0 | 12.5 | 12.05 | Back | 0 | N/A | 0.722 | 1.109 | 1.021 | 0.818 | 0.511 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1058M | 97.90 | 0.07 | 2462.00 | 11 | 1.0 | 12.5 | 12.29 | Back | 0 | N/A | 0.741 | 1.050 | 1.021 | 0.794 | 0.496 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1058M | 97.90 | 0.06 | 2462.00 | 11 | 1.0 | 12.5 | 12.29 | Top | 0 | N/A | 0.272 | 1.050 | 1.021 | 0.292 | 0.183 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1026M | 97.90 | -0.01 | 2412.00 | 1 | 1.0 | 12.5 | 12.16 | Left | 0 | N/A | 0.809 | 1.081 | 1.021 | 0.893 | 0.558 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1058M | 97.90 | -0.01 | 2437.00 | 6 | 1.0 | 12.5 | 12.05 | Left | 0 | N/A | 0.764 | 1.109 | 1.021 | 0.865 | 0.541 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1026M | 97.90 | -0.03 | 2462.00 | 11 | 1.0 | 12.5 | 12.29 | Left | 0 | N/A | 0.835 | 1.050 | 1.021 | 0.895 | 0.559 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1026M | 97.90 | 0.10 | 2462.00 | 11 | 1.0 | 12.5 | 12.29 | Left | 0 | Keyboard | 0.368 | 1.050 | 1.021 | 0.395 | 0.247 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

### Table 11-68
### 2.4 GHz WLAN Ant WIFI 0 Laptop Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1058M | 97.90 | -0.09 | 2462.00 | 11 | 1.0 | 19.0 | 18.67 | Bottom | 11 | 0.196 | 1.079 | 1.021 | 0.216 | 0.135 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

### Table 11-69
### 2.4 GHz WLAN Ant WIFI 0 Laptop with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 0 | 1041M | 97.90 | -0.04 | 2462.00 | 11 | 1.0 | 12.5 | 12.29 | Bottom | 0 | 0.309 | 1.050 | 1.021 | 0.331 | 0.207 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

### Table 11-70
### 2.4 GHz WLAN Ant WIFI 1 Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1021M | 97.90 | 0.09 | 2437.00 | 6 | 1.0 | 19.0 | 18.87 | Back | 19 | 0.070 | 1.030 | 1.021 | 0.074 | 0.046 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1021M | 97.90 | -0.11 | 2437.00 | 6 | 1.0 | 19.0 | 18.87 | Top | 19 | 0.059 | 1.030 | 1.021 | 0.062 | 0.039 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1021M | 97.90 | 0.08 | 2437.00 | 6 | 1.0 | 19.0 | 18.87 | Bottom | 0 | 0.073 | 1.030 | 1.021 | 0.077 | 0.048 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1021M | 97.90 | 0.00 | 2437.00 | 6 | 1.0 | 19.0 | 18.87 | Right | 11 | 0.247 | 1.030 | 1.021 | 0.260 | 0.163 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1021M | 97.90 | 0.06 | 2437.00 | 6 | 1.0 | 19.0 | 18.87 | Left | 0 | 0.003 | 1.030 | 1.021 | 0.003 | 0.002 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-71
## 2.4 GHz WLAN Ant WIFI 1 Tablet with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1058M | 97.90 | -0.11 | 2437.00 | 6 | 1.0 | 12.5 | 12.37 | Back | 0 | N/A | 0.486 | 1.030 | 1.021 | 0.511 | 0.319 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1058M | 97.90 | -0.02 | 2437.00 | 6 | 1.0 | 12.5 | 12.37 | Top | 0 | N/A | 0.279 | 1.030 | 1.021 | 0.293 | 0.183 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1026M | 97.90 | -0.21 | 2412.00 | 1 | 1.0 | 12.5 | 12.30 | Right | 0 | N/A | 0.836 | 1.047 | 1.021 | 0.894 | 0.559 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1026M | 97.90 | -0.02 | 2437.00 | 6 | 1.0 | 12.5 | 12.37 | Right | 0 | Keyboard | 0.641 | 1.030 | 1.021 | 0.674 | 0.421 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1026M | 97.90 | -0.17 | 2437.00 | 6 | 1.0 | 12.5 | 12.37 | Right | 0 | N/A | 0.862 | 1.030 | 1.021 | 0.907 | 0.567 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1026M | 97.90 | -0.18 | 2462.00 | 11 | 1.0 | 12.5 | 12.21 | Right | 0 | N/A | 0.749 | 1.069 | 1.021 | 0.817 | 0.511 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-72
## 2.4 GHz WLAN Ant WIFI 1 Tablet with 5 GHz WLAN Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1041M | 97.90 | 0.01 | 2437.00 | 6 | 1.0 | 9.0 | 8.89 | Back | 0 | 0.240 | 1.026 | 1.021 | 0.251 | 0.157 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1041M | 97.90 | -0.02 | 2437.00 | 6 | 1.0 | 9.0 | 8.89 | Right | 0 | 0.422 | 1.026 | 1.021 | 0.442 | 0.276 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-73
## 2.4 GHz WLAN Ant WIFI 1 Laptop

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | WIFI 1 | 1021M | 97.90 | 0.04 | 2437.00 | 6 | 1.0 | 19.0 | 18.87 | Bottom | 0 | 0.004 | 1.030 | 1.021 | 0.004 | 0.003 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

# 11.18 2.4 GHz WLAN MIMO Standalone SAR

## Table 11-74
## 2.4 GHz WLAN MIMO Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 1 | 1021M | 99.11 | 0.01 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Back | 19 | 0.072 | 1.112 | 1.009 | 0.081 | 0.051 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 2 | 1021M | 99.11 | 0.17 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Back | 19 | 0.056 | 1.112 | 1.009 | 0.063 | 0.039 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1021M | 99.11 | -0.13 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Top | 19 | 0.094 | 1.112 | 1.009 | 0.105 | 0.066 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1021M | 99.11 | -0.07 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Bottom | 0 | 0.072 | 1.112 | 1.009 | 0.081 | 0.051 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1021M | 99.11 | 0.08 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Right | 11 | 0.252 | 1.112 | 1.009 | 0.283 | 0.177 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1021M | 99.11 | -0.02 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Left | 11 | 0.194 | 1.112 | 1.009 | 0.218 | 0.136 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

Note: To achieve the 22 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 19 dBm.

## Table 11-75
## 2.4 GHz WLAN MIMO Tablet with Grip Sensor Active | Plot A33

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 1 | 1035M | 99.11 | -0.02 | 2412.00 | 1 | 1.0 | 12.5 | 12.01 | 12.5 | 12.39 | Back | 0 | N/A | 0.737 | 1.119 | 1.009 | 0.832 | 0.520 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 1 | 1035M | 99.11 | 0.00 | 2437.00 | 6 | 1.0 | 12.5 | 11.61 | 12.5 | 12.43 | Back | 0 | N/A | 0.599 | 1.227 | 1.009 | 0.742 | 0.464 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 1 | 1058M | 99.11 | 0.07 | 2462.00 | 11 | 1.0 | 12.5 | 12.12 | 12.5 | 12.49 | Back | 0 | N/A | 0.765 | 1.091 | 1.009 | 0.842 | 0.526 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 2 | 1058M | 99.11 | 0.03 | 2462.00 | 11 | 1.0 | 12.5 | 12.12 | 12.5 | 12.49 | Back | 0 | N/A | 0.470 | 1.091 | 1.009 | 0.517 | 0.323 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | -0.05 | 2462.00 | 11 | 1.0 | 12.5 | 12.12 | 12.5 | 12.49 | Top | 0 | N/A | 0.307 | 1.091 | 1.009 | 0.338 | 0.211 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | 0.10 | 2412.00 | 1 | 1.0 | 12.5 | 12.01 | 12.5 | 12.39 | Right | 0 | N/A | 0.903 | 1.119 | 1.009 | 1.020 | 0.638 | Plot |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | 0.00 | 2412.00 | 1 | 1.0 | 12.5 | 12.01 | 12.5 | 12.39 | Right | 0 | Keyboard | 0.634 | 1.119 | 1.009 | 0.716 | 0.448 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | 0.03 | 2412.00 | 1 | 1.0 | 12.5 | 12.01 | 12.5 | 12.39 | Right | 0 | N/A | 0.799 | 1.119 | 1.009 | 0.902 | 0.565 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | -0.12 | 2437.00 | 6 | 1.0 | 12.5 | 11.61 | 12.5 | 12.43 | Right | 0 | N/A | 0.782 | 1.227 | 1.009 | 0.968 | 0.605 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | -0.18 | 2462.00 | 11 | 1.0 | 12.5 | 12.12 | 12.5 | 12.49 | Right | 0 | N/A | 0.838 | 1.091 | 1.009 | 0.922 | 0.576 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | 0.09 | 2412.00 | 1 | 1.0 | 12.5 | 12.01 | 12.5 | 12.39 | Left | 0 | N/A | 0.778 | 1.119 | 1.009 | 0.878 | 0.549 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | -0.08 | 2437.00 | 6 | 1.0 | 12.5 | 11.61 | 12.5 | 12.43 | Left | 0 | N/A | 0.660 | 1.227 | 1.009 | 0.817 | 0.511 | |
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1026M | 99.11 | 0.03 | 2462.00 | 11 | 1.0 | 12.5 | 12.12 | 12.5 | 12.49 | Left | 0 | N/A | 0.821 | 1.091 | 1.009 | 0.904 | 0.565 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: Blue entry represents variability measurement

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

## Table 11-76
## 2.4 GHz WLAN MIMO Tablet with 5/6 GHz WLAN Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | N/A | 1041M | 99.11 | 0.00 | 2462.00 | 11 | 1.0 | 9.0 | 8.60 | 9.0 | 8.87 | Right | 0 | 0.430 | 1.096 | 1.009 | 0.476 | 0.298 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

Note: To achieve the 12 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 9 dBm.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-77
## 2.4 GHz WLAN MIMO Laptop Max power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 1058M | 99.11 | 0.03 | 2462.00 | 11 | 1.0 | 19.0 | 18.54 | 19.0 | 18.57 | Bottom | 11 | 0.224 | 1.112 | 1.009 | 0.251 | 0.157 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

Note: To achieve the 22 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 19 dBm.

## Table 11-78
## 2.4 GHz WLAN MIMO Laptop with Grip Sensor Active | Plot A34

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz WIFI/ IEEE 802.11b | 22 | DSSS | MIMO | 1041M | 99.11 | 0.01 | 2462.00 | 11 | 1.0 | 12.5 | 12.12 | 12.5 | 12.49 | Bottom | 0 | 0.314 | 1.091 | 1.009 | 0.346 | 0.216 | Plot |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

# 11.19 5 GHz WLAN SISO Standalone SAR

## Table 11-79
## 5 GHz WLAN Ant WIFI 0 Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5320.00 | 64 | U-NII-2A | 6.0 | 18.0 | 17.99 | Back | 19 | 0.077 | 1.002 | 1.026 | 0.079 | 0.049 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5720.00 | 144 | U-NII-2C | 6.0 | 18.0 | 17.96 | Back | 19 | 0.090 | 1.009 | 1.026 | 0.093 | 0.058 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.07 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.80 | Back | 19 | 0.098 | 1.047 | 1.017 | 0.104 | 0.065 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5845.00 | 169 | U-NII-4 | 6.0 | 18.0 | 17.88 | Back | 19 | 0.090 | 1.028 | 1.026 | 0.095 | 0.059 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.06 | 5320.00 | 64 | U-NII-2A | 6.0 | 18.0 | 17.99 | Top | 19 | 0.062 | 1.002 | 1.026 | 0.064 | 0.040 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5720.00 | 144 | U-NII-2C | 6.0 | 18.0 | 17.96 | Top | 19 | 0.084 | 1.009 | 1.026 | 0.087 | 0.054 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.01 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.80 | Top | 19 | 0.070 | 1.047 | 1.017 | 0.075 | 0.047 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5845.00 | 169 | U-NII-4 | 6.0 | 18.0 | 17.88 | Top | 19 | 0.069 | 1.028 | 1.026 | 0.073 | 0.046 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5320.00 | 64 | U-NII-2A | 6.0 | 18.0 | 17.99 | Bottom | 0 | 0.052 | 1.002 | 1.026 | 0.053 | 0.033 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.06 | 5720.00 | 144 | U-NII-2C | 6.0 | 18.0 | 17.96 | Bottom | 0 | 0.060 | 1.009 | 1.026 | 0.062 | 0.039 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.04 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.80 | Bottom | 0 | 0.039 | 1.047 | 1.017 | 0.042 | 0.026 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5845.00 | 169 | U-NII-4 | 6.0 | 18.0 | 17.88 | Bottom | 0 | 0.054 | 1.028 | 1.026 | 0.057 | 0.036 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.08 | 5320.00 | 64 | U-NII-2A | 6.0 | 18.0 | 17.99 | Right | 0 | 0.004 | 1.002 | 1.026 | 0.004 | 0.003 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5720.00 | 144 | U-NII-2C | 6.0 | 18.0 | 17.96 | Right | 0 | 0.002 | 1.009 | 1.026 | 0.002 | 0.001 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.01 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.80 | Right | 0 | 0.002 | 1.047 | 1.017 | 0.002 | 0.001 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.01 | 5845.00 | 169 | U-NII-4 | 6.0 | 18.0 | 17.88 | Right | 0 | 0.005 | 1.028 | 1.026 | 0.005 | 0.003 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.05 | 5320.00 | 64 | U-NII-2A | 6.0 | 18.0 | 17.99 | Left | 11 | 0.341 | 1.002 | 1.026 | 0.351 | 0.219 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | 0.17 | 5720.00 | 144 | U-NII-2C | 6.0 | 18.0 | 17.96 | Left | 11 | 0.483 | 1.009 | 1.026 | 0.500 | 0.313 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.04 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.80 | Left | 11 | 0.468 | 1.047 | 1.017 | 0.498 | 0.311 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1035M | 97.48 | -0.11 | 5845.00 | 169 | U-NII-4 | 6.0 | 18.0 | 17.88 | Left | 11 | 0.477 | 1.028 | 1.026 | 0.503 | 0.314 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

## Table 11-80
## 5 GHz WLAN Ant WIFI 0 Tablet with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.06 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.75 | Back | 0 | N/A | 0.495 | 1.059 | 1.017 | 0.533 | 0.333 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.03 | 5690.00 | 138 | U-NII-2C | 29.3 | 8.0 | 7.95 | Back | 0 | N/A | 0.707 | 1.012 | 1.017 | 0.728 | 0.455 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.08 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.68 | Back | 0 | N/A | 0.678 | 1.076 | 1.017 | 0.742 | 0.464 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | -0.10 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.91 | Back | 0 | N/A | 0.830 | 1.021 | 1.017 | 0.862 | 0.539 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.08 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.91 | Back | 0 | Keyboard | 0.017 | 1.021 | 1.017 | 0.018 | 0.011 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1026M | 98.36 | 0.08 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.91 | Back | 0 | N/A | 0.804 | 1.021 | 1.017 | 0.835 | 0.522 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.08 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.75 | Top | 0 | N/A | 0.069 | 1.059 | 1.017 | 0.074 | 0.046 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.08 | 5690.00 | 138 | U-NII-2C | 29.3 | 8.0 | 7.95 | Top | 0 | N/A | 0.069 | 1.012 | 1.017 | 0.071 | 0.044 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.06 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.68 | Top | 0 | N/A | 0.050 | 1.076 | 1.017 | 0.055 | 0.034 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.05 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.91 | Top | 0 | N/A | 0.057 | 1.021 | 1.017 | 0.059 | 0.037 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.06 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.75 | Left | 0 | N/A | 0.390 | 1.059 | 1.017 | 0.420 | 0.263 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.07 | 5530.00 | 106 | U-NII-2C | 29.3 | 8.0 | 7.34 | Left | 0 | N/A | 0.634 | 1.164 | 1.017 | 0.751 | 0.469 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.02 | 5610.00 | 122 | U-NII-2C | 29.3 | 8.0 | 7.47 | Left | 0 | N/A | 0.627 | 1.130 | 1.017 | 0.721 | 0.451 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.04 | 5690.00 | 138 | U-NII-2C | 29.3 | 8.0 | 7.95 | Left | 0 | N/A | 0.823 | 1.012 | 1.017 | 0.847 | 0.529 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.08 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.68 | Left | 0 | N/A | 0.550 | 1.076 | 1.017 | 0.602 | 0.376 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1035M | 98.36 | 0.01 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.91 | Left | 0 | N/A | 0.661 | 1.021 | 1.017 | 0.686 | 0.429 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

Note: Blue entry represents variability measurement

## Table 11-81
## 5 GHz WLAN Ant WIFI 0 Laptop Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1026M | 97.48 | -0.10 | 5320.00 | 64 | U-NII-2A | 6.0 | 18.0 | 17.99 | Bottom | 11 | 0.110 | 1.002 | 1.026 | 0.113 | 0.071 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1026M | 97.48 | -0.08 | 5720.00 | 144 | U-NII-2C | 6.0 | 18.0 | 17.96 | Bottom | 11 | 0.092 | 1.009 | 1.026 | 0.095 | 0.059 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1026M | 98.36 | -0.04 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.80 | Bottom | 11 | 0.105 | 1.047 | 1.017 | 0.112 | 0.070 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 0 | 1026M | 97.48 | -0.10 | 5845.00 | 169 | U-NII-4 | 6.0 | 18.0 | 17.88 | Bottom | 11 | 0.190 | 1.028 | 1.026 | 0.200 | 0.125 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-82
## 5 GHz WLAN Ant WIFI 0 Laptop with Grip Sensor Active | Plot A36

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1021M | 98.36 | -0.03 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.75 | Bottom | 0 | 0.060 | 1.059 | 1.017 | 0.065 | 0.041 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1021M | 98.36 | 0.00 | 5690.00 | 138 | U-NII-2C | 29.3 | 8.0 | 7.95 | Bottom | 0 | 0.105 | 1.012 | 1.017 | 0.108 | 0.068 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1021M | 98.36 | 0.10 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.68 | Bottom | 0 | 0.177 | 1.076 | 1.017 | 0.194 | 0.121 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 0 | 1021M | 98.36 | -0.15 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.91 | Bottom | 0 | 0.213 | 1.021 | 1.017 | 0.221 | 0.138 | Plot |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-83
## 5 GHz WLAN Ant WIFI 1 Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.06 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.50 | Back | 19 | 0.078 | 1.122 | 1.026 | 0.090 | 0.056 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1305M | 97.48 | 0.01 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.82 | Back | 19 | 0.093 | 1.042 | 1.026 | 0.099 | 0.062 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.01 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.82 | Back | 19 | 0.081 | 1.042 | 1.017 | 0.086 | 0.054 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.09 | 5885.00 | 177 | U-NII-4 | 6.0 | 18.0 | 17.42 | Back | 19 | 0.063 | 1.143 | 1.026 | 0.074 | 0.046 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.06 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.50 | Top | 19 | 0.115 | 1.122 | 1.026 | 0.132 | 0.083 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1305M | 97.48 | 0.20 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.82 | Top | 19 | 0.102 | 1.042 | 1.026 | 0.109 | 0.068 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.04 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.82 | Top | 19 | 0.083 | 1.042 | 1.017 | 0.088 | 0.055 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.06 | 5885.00 | 177 | U-NII-4 | 6.0 | 18.0 | 17.42 | Top | 19 | 0.086 | 1.143 | 1.026 | 0.101 | 0.063 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.01 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.50 | Bottom | 0 | 0.084 | 1.122 | 1.026 | 0.097 | 0.061 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1305M | 97.48 | 0.07 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.82 | Bottom | 0 | 0.103 | 1.042 | 1.026 | 0.110 | 0.069 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.09 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.82 | Bottom | 0 | 0.099 | 1.042 | 1.017 | 0.105 | 0.066 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.01 | 5885.00 | 177 | U-NII-4 | 6.0 | 18.0 | 17.42 | Bottom | 0 | 0.097 | 1.143 | 1.026 | 0.114 | 0.071 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1497M | 97.48 | -0.06 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.50 | Right | 11 | 0.489 | 1.122 | 1.026 | 0.563 | 0.352 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1497M | 97.48 | 0.01 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.82 | Right | 11 | 0.654 | 1.042 | 1.026 | 0.699 | 0.437 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | -0.02 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.82 | Right | 11 | 0.535 | 1.042 | 1.017 | 0.567 | 0.354 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1497M | 97.48 | 0.04 | 5885.00 | 177 | U-NII-4 | 6.0 | 18.0 | 17.42 | Right | 11 | 0.523 | 1.143 | 1.026 | 0.613 | 0.383 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.01 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.50 | Left | 0 | 0.050 | 1.122 | 1.026 | 0.058 | 0.036 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1305M | 97.48 | 0.08 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.82 | Left | 0 | 0.041 | 1.042 | 1.026 | 0.044 | 0.028 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.01 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.82 | Left | 0 | 0.107 | 1.042 | 1.017 | 0.113 | 0.071 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1035M | 97.48 | 0.01 | 5885.00 | 177 | U-NII-4 | 6.0 | 18.0 | 17.42 | Left | 0 | 0.051 | 1.143 | 1.026 | 0.060 | 0.038 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-84
## 5 GHz WLAN Ant WIFI 1 Tablet with Grip Sensor Active | Plot A35

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.06 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.27 | Back | 0 | N/A | 0.349 | 1.183 | 1.017 | 0.420 | 0.263 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.02 | 5610.00 | 122 | U-NII-2C | 29.3 | 8.0 | 7.92 | Back | 0 | N/A | 0.545 | 1.019 | 1.017 | 0.565 | 0.353 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.05 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.40 | Back | 0 | N/A | 0.390 | 1.148 | 1.017 | 0.455 | 0.284 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.01 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.12 | Back | 0 | N/A | 0.352 | 1.225 | 1.017 | 0.439 | 0.274 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.09 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.27 | Top | 0 | N/A | 0.156 | 1.183 | 1.017 | 0.188 | 0.118 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.06 | 5610.00 | 122 | U-NII-2C | 29.3 | 8.0 | 7.92 | Top | 0 | N/A | 0.155 | 1.019 | 1.017 | 0.161 | 0.101 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.07 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.40 | Top | 0 | N/A | 0.054 | 1.148 | 1.017 | 0.063 | 0.039 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.01 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.12 | Top | 0 | N/A | 0.043 | 1.225 | 1.017 | 0.054 | 0.034 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | -0.04 | 5290.00 | 58 | U-NII-2A | 29.3 | 8.0 | 7.27 | Right | 0 | N/A | 0.623 | 1.183 | 1.017 | 0.750 | 0.469 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.02 | 5530.00 | 106 | U-NII-2C | 29.3 | 8.0 | 7.42 | Right | 0 | N/A | 0.856 | 1.143 | 1.017 | 0.995 | 0.622 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.02 | 5610.00 | 122 | U-NII-2C | 29.3 | 8.0 | 7.92 | Right | 0 | N/A | 0.965 | 1.019 | 1.017 | 1.000 | 0.625 | Plot |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.00 | 5610.00 | 122 | U-NII-2C | 29.3 | 8.0 | 7.92 | Right | 0 | Keyboard | 0.462 | 1.019 | 1.017 | 0.479 | 0.299 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.12 | 5610.00 | 122 | U-NII-2C | 29.3 | 8.0 | 7.92 | Right | 0 | N/A | 0.930 | 1.019 | 1.017 | 0.964 | 0.603 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.05 | 5690.00 | 138 | U-NII-2C | 29.3 | 8.0 | 7.56 | Right | 0 | N/A | 0.776 | 1.107 | 1.017 | 0.874 | 0.546 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.05 | 5775.00 | 155 | U-NII-3 | 29.3 | 8.0 | 7.40 | Right | 0 | N/A | 0.534 | 1.148 | 1.017 | 0.623 | 0.389 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | 0.08 | 5855.00 | 171 | U-NII-4 | 29.3 | 8.0 | 7.12 | Right | 0 | N/A | 0.470 | 1.225 | 1.017 | 0.586 | 0.366 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: Blue entry represents variability measurement

## Table 11-85
## 5 GHz WLAN Ant WIFI 1 Tablet with 2.4 GHz WLAN Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1026M | 98.36 | 0.09 | 5290.00 | 58 | U-NII-2A | 29.3 | 5.0 | 4.40 | Right | 0 | 0.303 | 1.148 | 1.017 | 0.354 | 0.221 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1035M | 98.36 | -0.10 | 5610.00 | 122 | U-NII-2C | 29.3 | 5.0 | 4.60 | Right | 0 | 0.398 | 1.096 | 1.017 | 0.444 | 0.278 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1026M | 98.36 | 0.03 | 5775.00 | 155 | U-NII-3 | 29.3 | 5.0 | 4.99 | Right | 0 | 0.285 | 1.002 | 1.017 | 0.290 | 0.181 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1026M | 98.36 | -0.01 | 5855.00 | 171 | U-NII-4 | 29.3 | 5.0 | 4.63 | Right | 0 | 0.223 | 1.089 | 1.017 | 0.247 | 0.154 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-86
## 5 GHz WLAN Ant WIFI 1 Laptop

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1026M | 97.48 | 0.02 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.50 | Bottom | 0 | 0.020 | 1.122 | 1.026 | 0.023 | 0.014 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1026M | 97.48 | 0.01 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.82 | Bottom | 0 | 0.023 | 1.042 | 1.026 | 0.025 | 0.016 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | WIFI 1 | 1026M | 98.36 | 0.05 | 5775.00 | 155 | U-NII-3 | 29.3 | 15.0 | 14.82 | Bottom | 0 | 0.016 | 1.042 | 1.017 | 0.017 | 0.011 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | WIFI 1 | 1026M | 97.48 | 0.07 | 5885.00 | 177 | U-NII-4 | 6.0 | 18.0 | 17.42 | Bottom | 0 | 0.009 | 1.143 | 1.026 | 0.011 | 0.007 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 11.20 5 GHz WLAN MIMO Standalone SAR

## Table 11-87
## 5 GHz WLAN MIMO Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1 | 1021M | 98.35 | 0.04 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Back | 19 | N/A | 0.053 | 1.079 | 1.017 | 0.058 | 0.036 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 2 | 1021M | 98.35 | 0.09 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Back | 19 | N/A | 0.060 | 1.079 | 1.017 | 0.066 | 0.041 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1 | 1021M | 98.35 | 0.01 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Back | 19 | N/A | 0.125 | 1.047 | 1.017 | 0.133 | 0.083 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 2 | 1021M | 98.35 | 0.01 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Back | 19 | N/A | 0.084 | 1.047 | 1.017 | 0.089 | 0.056 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1035M | 98.57 | 0.01 | 5775.00 | 155 | U-NII-3 | 58.5 | 15.0 | 14.80 | 15.0 | 14.83 | Back | 19 | N/A | 0.087 | 1.047 | 1.015 | 0.092 | 0.058 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1035M | 98.57 | 0.09 | 5775.00 | 155 | U-NII-3 | 58.5 | 15.0 | 14.80 | 15.0 | 14.83 | Back | 19 | N/A | 0.072 | 1.047 | 1.015 | 0.077 | 0.048 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1 | 1035M | 98.35 | 0.01 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Back | 19 | N/A | 0.097 | 1.089 | 1.017 | 0.107 | 0.067 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 2 | 1035M | 98.35 | 0.07 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Back | 19 | N/A | 0.057 | 1.089 | 1.017 | 0.063 | 0.039 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.07 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Top | 19 | N/A | 0.121 | 1.079 | 1.017 | 0.133 | 0.083 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.03 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Top | 19 | N/A | 0.116 | 1.047 | 1.017 | 0.124 | 0.078 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.05 | 5775.00 | 155 | U-NII-3 | 58.5 | 15.0 | 14.80 | 15.0 | 14.83 | Top | 19 | N/A | 0.088 | 1.047 | 1.015 | 0.094 | 0.059 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.06 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Top | 19 | N/A | 0.080 | 1.089 | 1.017 | 0.089 | 0.056 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.02 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Bottom | 0 | N/A | 0.101 | 1.079 | 1.017 | 0.111 | 0.069 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.03 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Bottom | 0 | N/A | 0.108 | 1.047 | 1.017 | 0.115 | 0.072 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.06 | 5775.00 | 155 | U-NII-3 | 58.5 | 15.0 | 14.80 | 15.0 | 14.83 | Bottom | 0 | N/A | 0.083 | 1.047 | 1.015 | 0.088 | 0.055 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.01 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Bottom | 0 | N/A | 0.077 | 1.089 | 1.017 | 0.085 | 0.053 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1497M | 98.35 | 0.01 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Right | 11 | N/A | 0.521 | 1.079 | 1.017 | 0.572 | 0.358 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1497M | 98.35 | -0.10 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Right | 11 | N/A | 0.682 | 1.047 | 1.017 | 0.726 | 0.454 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1026M | 98.35 | 0.07 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Right | 11 | Keyboard | 0.507 | 1.047 | 1.017 | 0.540 | 0.338 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | 0.05 | 5775.00 | 155 | U-NII-3 | 58.5 | 15.0 | 14.80 | 15.0 | 14.83 | Right | 11 | N/A | 0.562 | 1.047 | 1.015 | 0.597 | 0.373 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1497M | 98.35 | -0.07 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Right | 11 | N/A | 0.540 | 1.089 | 1.017 | 0.598 | 0.374 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.03 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Left | 11 | N/A | 0.247 | 1.079 | 1.017 | 0.271 | 0.169 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.03 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Left | 11 | N/A | 0.354 | 1.047 | 1.017 | 0.377 | 0.236 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.02 | 5775.00 | 155 | U-NII-3 | 58.5 | 15.0 | 14.80 | 15.0 | 14.83 | Left | 11 | N/A | 0.323 | 1.047 | 1.015 | 0.343 | 0.214 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | N/A | 1035M | 98.35 | 0.02 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Left | 11 | N/A | 0.414 | 1.089 | 1.017 | 0.459 | 0.287 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: To achieve the 21 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18 dBm.

## Table 11-88
## 5 GHz WLAN MIMO Tablet with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1035M | 98.57 | 0.09 | 5290.00 | 58 | U-NII-2A | 58.5 | 8.0 | 7.81 | 8.0 | 7.05 | Back | 0 | 0.494 | 1.245 | 1.015 | 0.624 | 0.390 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1035M | 98.57 | 0.03 | 5290.00 | 58 | U-NII-2A | 58.5 | 8.0 | 7.81 | 8.0 | 7.05 | Back | 0 | 0.339 | 1.245 | 1.015 | 0.428 | 0.268 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1035M | 98.57 | 0.09 | 5690.00 | 138 | U-NII-2C | 58.5 | 8.0 | 7.98 | 8.0 | 7.89 | Back | 0 | 0.743 | 1.026 | 1.015 | 0.774 | 0.484 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1035M | 98.57 | 0.04 | 5690.00 | 138 | U-NII-2C | 58.5 | 8.0 | 7.98 | 8.0 | 7.89 | Back | 0 | 0.556 | 1.026 | 1.015 | 0.579 | 0.362 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1035M | 98.57 | 0.05 | 5775.00 | 155 | U-NII-3 | 58.5 | 8.0 | 7.71 | 8.0 | 7.41 | Back | 0 | 0.500 | 1.146 | 1.015 | 0.582 | 0.364 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1035M | 98.57 | 0.05 | 5775.00 | 155 | U-NII-3 | 58.5 | 8.0 | 7.71 | 8.0 | 7.41 | Back | 0 | 0.382 | 1.146 | 1.015 | 0.444 | 0.278 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1035M | 98.57 | 0.09 | 5855.00 | 171 | U-NII-4 | 58.5 | 8.0 | 7.66 | 8.0 | 7.11 | Back | 0 | 0.340 | 1.227 | 1.015 | 0.423 | 0.264 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1035M | 98.57 | 0.05 | 5855.00 | 171 | U-NII-4 | 58.5 | 8.0 | 7.66 | 8.0 | 7.11 | Back | 0 | 0.280 | 1.227 | 1.015 | 0.349 | 0.218 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.06 | 5290.00 | 58 | U-NII-2A | 58.5 | 8.0 | 7.81 | 8.0 | 7.05 | Top | 0 | 0.145 | 1.245 | 1.015 | 0.183 | 0.114 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.01 | 5690.00 | 138 | U-NII-2C | 58.5 | 8.0 | 7.98 | 8.0 | 7.89 | Top | 0 | 0.111 | 1.026 | 1.015 | 0.116 | 0.073 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.01 | 5775.00 | 155 | U-NII-3 | 58.5 | 8.0 | 7.71 | 8.0 | 7.41 | Top | 0 | 0.078 | 1.146 | 1.015 | 0.091 | 0.057 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.07 | 5855.00 | 171 | U-NII-4 | 58.5 | 8.0 | 7.66 | 8.0 | 7.11 | Top | 0 | 0.043 | 1.227 | 1.015 | 0.054 | 0.034 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | 0.08 | 5290.00 | 58 | U-NII-2A | 58.5 | 8.0 | 7.81 | 8.0 | 7.05 | Right | 0 | 0.507 | 1.245 | 1.015 | 0.641 | 0.401 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | -0.08 | 5690.00 | 138 | U-NII-2C | 58.5 | 8.0 | 7.98 | 8.0 | 7.89 | Right | 0 | 0.537 | 1.026 | 1.015 | 0.559 | 0.349 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.03 | 5775.00 | 155 | U-NII-3 | 58.5 | 8.0 | 7.71 | 8.0 | 7.41 | Right | 0 | 0.562 | 1.146 | 1.015 | 0.654 | 0.409 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1035M | 98.57 | 0.06 | 5855.00 | 171 | U-NII-4 | 58.5 | 8.0 | 7.66 | 8.0 | 7.11 | Right | 0 | 0.482 | 1.227 | 1.015 | 0.600 | 0.375 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | -0.18 | 5290.00 | 58 | U-NII-2A | 58.5 | 8.0 | 7.81 | 8.0 | 7.05 | Left | 0 | 0.151 | 1.245 | 1.015 | 0.191 | 0.119 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | 0.05 | 5690.00 | 138 | U-NII-2C | 58.5 | 8.0 | 7.98 | 8.0 | 7.89 | Left | 0 | 0.220 | 1.026 | 1.015 | 0.229 | 0.143 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | -0.01 | 5775.00 | 155 | U-NII-3 | 58.5 | 8.0 | 7.71 | 8.0 | 7.41 | Left | 0 | 0.313 | 1.146 | 1.015 | 0.364 | 0.228 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1497M | 98.57 | 0.06 | 5855.00 | 171 | U-NII-4 | 58.5 | 8.0 | 7.66 | 8.0 | 7.11 | Left | 0 | 0.515 | 1.227 | 1.015 | 0.641 | 0.401 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: To achieve the 11 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 8 dBm.

## Table 11-89
## 5 GHz WLAN MIMO Tablet with 2.4 GHz WLAN Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1026M | 98.57 | 0.08 | 5290.00 | 58 | U-NII-2A | 58.5 | 5.0 | 4.52 | 5.0 | 4.50 | Back | 0 | 0.065 | 1.122 | 1.015 | 0.074 | 0.046 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1026M | 98.57 | 0.07 | 5290.00 | 58 | U-NII-2A | 58.5 | 5.0 | 4.52 | 5.0 | 4.50 | Back | 0 | 0.174 | 1.122 | 1.015 | 0.198 | 0.124 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1037M | 98.57 | -0.06 | 5690.00 | 138 | U-NII-2C | 58.5 | 5.0 | 4.88 | 5.0 | 4.99 | Back | 0 | 0.101 | 1.028 | 1.015 | 0.105 | 0.066 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1037M | 98.57 | -0.05 | 5690.00 | 138 | U-NII-2C | 58.5 | 5.0 | 4.88 | 5.0 | 4.99 | Back | 0 | 0.251 | 1.028 | 1.015 | 0.262 | 0.164 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1026M | 98.57 | 0.03 | 5775.00 | 155 | U-NII-3 | 58.5 | 5.0 | 4.36 | 5.0 | 4.95 | Back | 0 | 0.076 | 1.159 | 1.015 | 0.089 | 0.056 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1026M | 98.57 | -0.02 | 5775.00 | 155 | U-NII-3 | 58.5 | 5.0 | 4.36 | 5.0 | 4.95 | Back | 0 | 0.206 | 1.159 | 1.015 | 0.242 | 0.151 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1 | 1026M | 98.57 | 0.02 | 5855.00 | 171 | U-NII-4 | 58.5 | 5.0 | 4.68 | 5.0 | 4.80 | Back | 0 | 0.201 | 1.076 | 1.015 | 0.220 | 0.138 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 2 | 1026M | 98.57 | -0.03 | 5855.00 | 171 | U-NII-4 | 58.5 | 5.0 | 4.68 | 5.0 | 4.80 | Back | 0 | 0.172 | 1.076 | 1.015 | 0.188 | 0.118 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | -0.01 | 5290.00 | 58 | U-NII-2A | 58.5 | 5.0 | 4.52 | 5.0 | 4.50 | Right | 0 | 0.348 | 1.122 | 1.015 | 0.396 | 0.248 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1037M | 98.57 | 0.02 | 5690.00 | 138 | U-NII-2C | 58.5 | 5.0 | 4.88 | 5.0 | 4.99 | Right | 0 | 0.308 | 1.028 | 1.015 | 0.321 | 0.201 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | -0.05 | 5775.00 | 155 | U-NII-3 | 58.5 | 5.0 | 4.36 | 5.0 | 4.95 | Right | 0 | 0.235 | 1.159 | 1.015 | 0.276 | 0.173 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | -0.08 | 5855.00 | 171 | U-NII-4 | 58.5 | 5.0 | 4.68 | 5.0 | 4.80 | Right | 0 | 0.247 | 1.076 | 1.015 | 0.270 | 0.169 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | -0.01 | 5290.00 | 58 | U-NII-2A | 58.5 | 5.0 | 4.52 | 5.0 | 4.50 | Left | 0 | 0.140 | 1.122 | 1.015 | 0.159 | 0.099 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | 0.03 | 5690.00 | 138 | U-NII-2C | 58.5 | 5.0 | 4.88 | 5.0 | 4.99 | Left | 0 | 0.276 | 1.028 | 1.015 | 0.288 | 0.180 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | 0.02 | 5775.00 | 155 | U-NII-3 | 58.5 | 5.0 | 4.36 | 5.0 | 4.95 | Left | 0 | 0.286 | 1.159 | 1.015 | 0.336 | 0.210 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | N/A | 1026M | 98.57 | -0.15 | 5855.00 | 171 | U-NII-4 | 58.5 | 5.0 | 4.68 | 5.0 | 4.80 | Left | 0 | 0.326 | 1.076 | 1.015 | 0.356 | 0.223 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: To achieve the 8 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 5 dBm.

## Table 11-90
## 5 GHz WLAN MIMO Laptop Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1026M | 98.35 | 0.21 | 5300.00 | 60 | U-NII-2A | 6.0 | 18.0 | 17.97 | 18.0 | 17.67 | Bottom | 11 | 0.110 | 1.079 | 1.017 | 0.121 | 0.076 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1026M | 98.35 | 0.05 | 5500.00 | 100 | U-NII-2C | 6.0 | 18.0 | 17.94 | 18.0 | 17.80 | Bottom | 11 | 0.168 | 1.047 | 1.017 | 0.179 | 0.112 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1026M | 98.35 | 0.01 | 5785.00 | 157 | U-NII-3 | 6.0 | 18.0 | 17.98 | 18.0 | 17.72 | Bottom | 11 | 0.116 | 1.067 | 1.017 | 0.126 | 0.079 | |
| Body | 5 GHz WIFI/ IEEE 802.11a | 20 | OFDM | MIMO | 1026M | 98.35 | -0.06 | 5865.00 | 173 | U-NII-4 | 6.0 | 18.0 | 17.92 | 18.0 | 17.63 | Bottom | 11 | 0.213 | 1.089 | 1.017 | 0.236 | 0.148 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: To achieve the 21 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18 dBm.




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-91
## 5 GHz WLAN MIMO Laptop with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | U-NII band | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1021M | 98.57 | 0.19 | 5290.00 | 58 | U-NII-2A | 58.5 | 8.0 | 7.81 | 8.0 | 7.05 | Bottom | 0 | 0.052 | 1.245 | 1.015 | 0.066 | 0.041 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1021M | 98.57 | 0.03 | 5690.00 | 138 | U-NII-2C | 58.5 | 8.0 | 7.98 | 8.0 | 7.89 | Bottom | 0 | 0.105 | 1.026 | 1.015 | 0.109 | 0.068 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1021M | 98.57 | -0.05 | 5775.00 | 155 | U-NII-3 | 58.5 | 8.0 | 7.71 | 8.0 | 7.41 | Bottom | 0 | 0.157 | 1.146 | 1.015 | 0.183 | 0.114 | |
| Body | 5 GHz WIFI/ IEEE 802.11ac | 80 | OFDM | MIMO | 1021M | 98.57 | 0.05 | 5855.00 | 171 | U-NII-4 | 58.5 | 8.0 | 7.66 | 8.0 | 7.11 | Bottom | 0 | 0.192 | 1.227 | 1.015 | 0.239 | 0.149 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

Note: To achieve the 11 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 8 dBm.

# 11.21 6 GHz SISO Standalone SAR and APD

## Table 11-92
## 6 GHz WLAN Ant WIFI 0 Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | -0.18 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Back | 19 | 0.024 | 1.242 | 1.023 | 0.030 | 0.019 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.07 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Back | 19 | 0.014 | 1.140 | 1.023 | 0.016 | 0.010 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Top | 19 | 0.025 | 1.242 | 1.023 | 0.032 | 0.020 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.04 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Top | 19 | 0.027 | 1.140 | 1.023 | 0.031 | 0.019 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.01 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Bottom | 0 | 0.009 | 1.242 | 1.023 | 0.011 | 0.007 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.09 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Bottom | 0 | 0.000 | 1.140 | 1.023 | 0.000 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Right | 0 | 0.000 | 1.242 | 1.023 | 0.000 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.04 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Right | 0 | 0.000 | 1.140 | 1.023 | 0.000 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.02 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Left | 11 | 0.047 | 1.242 | 1.023 | 0.060 | 0.038 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.06 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Left | 11 | 0.018 | 1.140 | 1.023 | 0.021 | 0.013 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | -0.18 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Back | 19 | 0.167 | 1.242 | 1.023 | 0.212 | 0.011 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.07 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Back | 19 | 0.110 | 1.140 | 1.023 | 0.128 | 0.006 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Top | 19 | 0.167 | 1.242 | 1.023 | 0.212 | 0.011 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.04 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Top | 19 | 0.223 | 1.140 | 1.023 | 0.260 | 0.013 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.01 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Bottom | 0 | 0.002 | 1.242 | 1.023 | 0.003 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.09 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Bottom | 0 | 0.004 | 1.140 | 1.023 | 0.005 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Right | 0 | 0.000 | 1.242 | 1.023 | 0.000 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.04 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Right | 0 | 0.004 | 1.140 | 1.023 | 0.005 | 0.000 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.02 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Left | 11 | 0.283 | 1.242 | 1.023 | 0.360 | 0.018 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.06 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Left | 11 | 0.159 | 1.140 | 1.023 | 0.185 | 0.009 | |

## Table 11-93
## 6 GHz WLAN Ant WIFI 0 Tablet with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.12 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Back | 0 | N/A | 0.192 | 1.081 | 1.022 | 0.212 | 0.133 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.06 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Back | 0 | N/A | 0.153 | 1.054 | 1.022 | 0.165 | 0.103 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.07 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Top | 0 | N/A | 0.010 | 1.081 | 1.022 | 0.011 | 0.007 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.05 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Top | 0 | N/A | 0.044 | 1.054 | 1.022 | 0.047 | 0.029 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.05 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Left | 0 | N/A | 0.281 | 1.081 | 1.022 | 0.310 | 0.194 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.05 | 6345.00 | 79 | 68.1 | 7.0 | 6.23 | Left | 0 | N/A | 0.321 | 1.194 | 1.022 | 0.392 | 0.245 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.02 | 6345.00 | 79 | 68.1 | 7.0 | 6.23 | Left | 0 | Keyboard | 0.106 | 1.194 | 1.022 | 0.129 | 0.081 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.01 | 6505.00 | 111 | 68.1 | 7.0 | 6.74 | Left | 0 | N/A | 0.265 | 1.062 | 1.022 | 0.288 | 0.180 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.04 | 6665.00 | 143 | 68.1 | 7.0 | 6.52 | Left | 0 | N/A | 0.169 | 1.117 | 1.022 | 0.193 | 0.121 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.04 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Left | 0 | N/A | 0.018 | 1.054 | 1.022 | 0.019 | 0.012 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.12 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Back | 0 | N/A | 0.946 | 1.081 | 1.022 | 1.045 | 0.052 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.06 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Back | 0 | N/A | 0.717 | 1.054 | 1.022 | 0.772 | 0.039 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.07 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Top | 0 | N/A | 0.081 | 1.081 | 1.022 | 0.089 | 0.004 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.05 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Top | 0 | N/A | 0.176 | 1.054 | 1.022 | 0.190 | 0.010 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.05 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Left | 0 | N/A | 1.380 | 1.081 | 1.022 | 1.525 | 0.076 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.05 | 6345.00 | 79 | 68.1 | 7.0 | 6.23 | Left | 0 | N/A | 1.550 | 1.194 | 1.022 | 1.891 | 0.095 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.02 | 6345.00 | 79 | 68.1 | 7.0 | 6.23 | Left | 0 | Keyboard | 0.588 | 1.194 | 1.022 | 0.718 | 0.036 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.01 | 6505.00 | 111 | 68.1 | 7.0 | 6.74 | Left | 0 | N/A | 1.280 | 1.062 | 1.022 | 1.389 | 0.069 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.04 | 6665.00 | 143 | 68.1 | 7.0 | 6.52 | Left | 0 | N/A | 0.790 | 1.117 | 1.022 | 0.902 | 0.045 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.04 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Left | 0 | N/A | 0.087 | 1.054 | 1.022 | 0.094 | 0.005 | |

## Table 11-94
## 6 GHz WLAN Ant WIFI 0 Laptop Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Bottom | 11 | 0.039 | 1.242 | 1.023 | 0.050 | 0.031 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.02 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Bottom | 11 | 0.037 | 1.140 | 1.023 | 0.043 | 0.027 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.06 | Bottom | 11 | 0.261 | 1.242 | 1.023 | 0.332 | 0.017 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 0 | 1058M | 97.74 | 0.02 | 6705.00 | 151 | 34.0 | 14.0 | 13.43 | Bottom | 11 | 0.282 | 1.140 | 1.023 | 0.329 | 0.016 | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-95
## 6 GHz WLAN Ant WIFI 0 Laptop with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.07 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Bottom | 0 | 0.050 | 1.081 | 1.022 | 0.055 | 0.034 | |
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.04 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Bottom | 0 | 0.004 | 1.054 | 1.022 | 0.004 | 0.003 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.07 | 6025.00 | 15 | 68.1 | 7.0 | 6.66 | Bottom | 0 | 0.311 | 1.081 | 1.022 | 0.344 | 0.017 | |
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 0 | 1058M | 97.81 | 0.04 | 6985.00 | 207 | 68.1 | 7.0 | 6.77 | Bottom | 0 | 0.023 | 1.054 | 1.022 | 0.025 | 0.001 | |

## Table 11-96
## 6 GHz WLAN Ant WIFI 1 Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.08 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Back | 19 | 0.049 | 1.054 | 1.018 | 0.053 | 0.033 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.07 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Back | 19 | 0.047 | 1.002 | 1.018 | 0.048 | 0.030 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.06 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Top | 19 | 0.054 | 1.054 | 1.018 | 0.058 | 0.036 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | -0.16 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Top | 19 | 0.043 | 1.002 | 1.018 | 0.044 | 0.028 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.01 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Bottom | 0 | 0.043 | 1.054 | 1.018 | 0.046 | 0.029 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.06 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Bottom | 0 | 0.025 | 1.002 | 1.018 | 0.026 | 0.016 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.08 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Right | 11 | 0.112 | 1.054 | 1.018 | 0.120 | 0.075 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.13 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Right | 11 | 0.165 | 1.002 | 1.018 | 0.168 | 0.105 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Left | 0 | 0.030 | 1.054 | 1.018 | 0.032 | 0.020 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.02 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Left | 0 | 0.004 | 1.002 | 1.018 | 0.004 | 0.003 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.08 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Back | 19 | 0.431 | 1.054 | 1.018 | 0.462 | 0.023 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.07 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Back | 19 | 0.408 | 1.002 | 1.018 | 0.416 | 0.021 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.06 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Top | 19 | 0.480 | 1.054 | 1.018 | 0.515 | 0.026 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | -0.16 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Top | 19 | 0.402 | 1.002 | 1.018 | 0.410 | 0.021 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.01 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Bottom | 0 | 0.310 | 1.054 | 1.018 | 0.333 | 0.017 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.06 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Bottom | 0 | 0.218 | 1.002 | 1.018 | 0.222 | 0.011 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.08 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Right | 11 | 0.907 | 1.054 | 1.018 | 0.973 | 0.049 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.13 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Right | 11 | 1.410 | 1.002 | 1.018 | 1.438 | 0.072 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.03 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Left | 0 | 0.053 | 1.054 | 1.018 | 0.057 | 0.003 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.02 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Left | 0 | 0.019 | 1.002 | 1.018 | 0.019 | 0.001 | |

## Table 11-97
## 6 GHz WLAN Ant WIFI 1 Tablet with Grip Sensor Active

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.06 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Back | 0 | N/A | 0.194 | 1.151 | 1.027 | 0.229 | 0.143 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.07 | 6345.00 | 79 | 68.1 | 7.0 | 6.76 | Back | 0 | N/A | 0.230 | 1.057 | 1.027 | 0.250 | 0.156 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.06 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Top | 0 | N/A | 0.029 | 1.151 | 1.027 | 0.034 | 0.021 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.17 | 6345.00 | 79 | 68.1 | 7.0 | 6.76 | Top | 0 | N/A | 0.018 | 1.057 | 1.027 | 0.020 | 0.013 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.04 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Right | 0 | N/A | 0.282 | 1.151 | 1.027 | 0.333 | 0.208 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.14 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Right | 0 | Keyboard | 0.171 | 1.151 | 1.027 | 0.202 | 0.126 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.05 | 6345.00 | 79 | 68.1 | 7.0 | 6.76 | Right | 0 | N/A | 0.226 | 1.057 | 1.027 | 0.245 | 0.153 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | -0.05 | 6505.00 | 111 | 68.1 | 7.0 | 6.61 | Right | 0 | N/A | 0.137 | 1.094 | 1.027 | 0.154 | 0.096 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.01 | 6665.00 | 143 | 68.1 | 7.0 | 6.13 | Right | 0 | N/A | 0.060 | 1.222 | 1.027 | 0.075 | 0.047 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.04 | 6985.00 | 207 | 68.1 | 7.0 | 6.11 | Right | 0 | N/A | 0.043 | 1.227 | 1.027 | 0.054 | 0.034 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.06 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Back | 0 | N/A | 1.120 | 1.151 | 1.027 | 1.324 | 0.066 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.07 | 6345.00 | 79 | 68.1 | 7.0 | 6.76 | Back | 0 | N/A | 1.200 | 1.057 | 1.027 | 1.303 | 0.065 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.06 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Top | 0 | N/A | 0.191 | 1.151 | 1.027 | 0.226 | 0.011 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.17 | 6345.00 | 79 | 68.1 | 7.0 | 6.76 | Top | 0 | N/A | 0.117 | 1.057 | 1.027 | 0.127 | 0.006 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.04 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Right | 0 | N/A | 1.540 | 1.151 | 1.027 | 1.820 | 0.091 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.14 | 6025.00 | 15 | 68.1 | 7.0 | 6.39 | Right | 0 | Keyboard | 1.010 | 1.151 | 1.027 | 1.194 | 0.060 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.05 | 6345.00 | 79 | 68.1 | 7.0 | 6.76 | Right | 0 | N/A | 1.230 | 1.057 | 1.027 | 1.335 | 0.067 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | -0.05 | 6505.00 | 111 | 68.1 | 7.0 | 6.61 | Right | 0 | N/A | 0.755 | 1.094 | 1.027 | 0.848 | 0.042 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.01 | 6665.00 | 143 | 68.1 | 7.0 | 6.13 | Right | 0 | N/A | 0.333 | 1.222 | 1.027 | 0.418 | 0.021 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | WIFI 1 | 1058M | 97.33 | 0.04 | 6985.00 | 207 | 68.1 | 7.0 | 6.11 | Right | 0 | N/A | 0.208 | 1.227 | 1.027 | 0.262 | 0.013 | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-98
## 6 GHz WLAN Ant WIFI 1 Laptop

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.04 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Bottom | 0 | 0.004 | 1.054 | 1.018 | 0.004 | 0.003 | |
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.05 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Bottom | 0 | 0.006 | 1.002 | 1.018 | 0.006 | 0.004 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.04 | 5985.00 | 7 | 34.0 | 14.0 | 13.77 | Bottom | 0 | 0.000 | 1.054 | 1.018 | 0.000 | 0.000 | |
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | WIFI 1 | 1058M | 98.24 | 0.05 | 6705.00 | 151 | 34.0 | 14.0 | 13.99 | Bottom | 0 | 0.051 | 1.002 | 1.018 | 0.052 | 0.003 | |

# 11.22 6 GHz MIMO Standalone SAR and APD

## Table 11-99
## 6 GHz WLAN MIMO Tablet Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 2 | 1058M | 98.36 | 0.01 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Back | 19 | 0.055 | 1.156 | 1.017 | 0.065 | 0.041 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1 | 1058M | 98.36 | 0.07 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Back | 19 | 0.029 | 1.156 | 1.017 | 0.034 | 0.021 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 2 | 1058M | 98.36 | 0.02 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Back | 19 | 0.090 | 1.096 | 1.017 | 0.100 | 0.063 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1 | 1058M | 98.36 | 0.08 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Back | 19 | 0.065 | 1.096 | 1.017 | 0.072 | 0.045 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.06 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Top | 19 | 0.056 | 1.156 | 1.017 | 0.066 | 0.041 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.01 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Top | 19 | 0.058 | 1.096 | 1.017 | 0.065 | 0.041 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.01 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Bottom | 0 | 0.053 | 1.156 | 1.017 | 0.062 | 0.039 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.03 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Bottom | 0 | 0.022 | 1.096 | 1.017 | 0.025 | 0.016 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.05 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Right | 11 | 0.172 | 1.156 | 1.017 | 0.202 | 0.126 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.01 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Right | 11 | 0.041 | 1.096 | 1.017 | 0.046 | 0.029 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.08 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Left | 11 | 0.141 | 1.156 | 1.017 | 0.166 | 0.104 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.21 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Left | 11 | 0.131 | 1.096 | 1.017 | 0.146 | 0.091 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

Note: To achieve the 17 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14 dBm.

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 2 | 1058M | 98.36 | 0.01 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Back | 19 | 0.492 | 1.156 | 1.017 | 0.578 | 0.029 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1 | 1058M | 98.36 | 0.07 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Back | 19 | 0.203 | 1.156 | 1.017 | 0.239 | 0.012 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 2 | 1058M | 98.36 | 0.02 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Back | 19 | 0.783 | 1.096 | 1.017 | 0.873 | 0.044 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1 | 1058M | 98.36 | 0.08 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Back | 19 | 0.519 | 1.096 | 1.017 | 0.578 | 0.029 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.06 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Top | 19 | 0.464 | 1.156 | 1.017 | 0.546 | 0.027 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.01 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Top | 19 | 0.511 | 1.096 | 1.017 | 0.570 | 0.029 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.01 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Bottom | 0 | 0.344 | 1.156 | 1.017 | 0.404 | 0.020 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.03 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Bottom | 0 | 0.169 | 1.096 | 1.017 | 0.188 | 0.009 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.05 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Right | 11 | 1.430 | 1.156 | 1.017 | 1.681 | 0.084 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.01 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Right | 11 | 0.377 | 1.096 | 1.017 | 0.420 | 0.021 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.08 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Left | 11 | 1.100 | 1.156 | 1.017 | 1.293 | 0.065 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | N/A | 1058M | 98.36 | 0.21 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Left | 11 | 1.030 | 1.096 | 1.017 | 1.148 | 0.057 | |

## Table 11-100
## 6 GHz WLAN MIMO Tablet with Grip Sensor Active | Plot A37

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1 | 1058M | 98.41 | 0.04 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Back | 0 | N/A | 0.172 | 1.122 | 1.016 | 0.196 | 0.123 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 2 | 1058M | 98.41 | 0.08 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Back | 0 | N/A | 0.122 | 1.122 | 1.016 | 0.139 | 0.087 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 2 | 1058M | 98.41 | 0.07 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Back | 0 | N/A | 0.217 | 1.076 | 1.016 | 0.237 | 0.148 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1 | 1058M | 98.41 | 0.01 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Back | 0 | N/A | 0.190 | 1.076 | 1.016 | 0.208 | 0.130 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.03 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Top | 0 | N/A | 0.020 | 1.122 | 1.016 | 0.023 | 0.014 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.06 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Top | 0 | N/A | 0.017 | 1.076 | 1.016 | 0.019 | 0.012 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.05 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Right | 0 | N/A | 0.247 | 1.122 | 1.016 | 0.282 | 0.176 | Plot |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.01 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Right | 0 | Keyboard | 0.176 | 1.122 | 1.016 | 0.201 | 0.126 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.06 | 6345.00 | 79 | 136.1 | 7.0 | 6.20 | 7.0 | 6.88 | Right | 0 | N/A | 0.218 | 1.202 | 1.016 | 0.266 | 0.166 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.07 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Right | 0 | N/A | 0.147 | 1.076 | 1.016 | 0.161 | 0.101 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.08 | 6665.00 | 143 | 136.1 | 7.0 | 6.58 | 7.0 | 6.16 | Right | 0 | N/A | 0.053 | 1.213 | 1.016 | 0.065 | 0.041 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.06 | 6985.00 | 207 | 136.1 | 7.0 | 6.52 | 7.0 | 6.26 | Right | 0 | N/A | 0.041 | 1.186 | 1.016 | 0.049 | 0.031 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.09 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Left | 0 | N/A | 0.203 | 1.122 | 1.016 | 0.231 | 0.144 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.03 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Left | 0 | N/A | 0.244 | 1.076 | 1.016 | 0.267 | 0.167 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

Note: To achieve the 10 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 7 dBm.

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Peak Number | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1 | 1058M | 98.41 | 0.04 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Back | 0 | N/A | 1.010 | 1.122 | 1.016 | 1.151 | 0.058 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 2 | 1058M | 98.41 | 0.08 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Back | 0 | N/A | 0.694 | 1.122 | 1.016 | 0.791 | 0.040 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 2 | 1058M | 98.41 | 0.07 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Back | 0 | N/A | 1.130 | 1.076 | 1.016 | 1.235 | 0.062 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1 | 1058M | 98.41 | 0.01 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Back | 0 | N/A | 0.911 | 1.076 | 1.016 | 0.996 | 0.050 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.03 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Top | 0 | N/A | 0.129 | 1.122 | 1.016 | 0.147 | 0.007 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.06 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Top | 0 | N/A | 0.071 | 1.076 | 1.016 | 0.078 | 0.004 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.05 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Right | 0 | N/A | 1.320 | 1.122 | 1.016 | 1.505 | 0.075 | Plot |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.01 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Right | 0 | Keyboard | 1.060 | 1.122 | 1.016 | 1.208 | 0.060 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.06 | 6345.00 | 79 | 136.1 | 7.0 | 6.20 | 7.0 | 6.88 | Right | 0 | N/A | 1.230 | 1.202 | 1.016 | 1.502 | 0.075 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.07 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Right | 0 | N/A | 0.831 | 1.076 | 1.016 | 0.908 | 0.045 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.08 | 6665.00 | 143 | 136.1 | 7.0 | 6.58 | 7.0 | 6.16 | Right | 0 | N/A | 0.322 | 1.213 | 1.016 | 0.397 | 0.020 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.06 | 6985.00 | 207 | 136.1 | 7.0 | 6.52 | 7.0 | 6.26 | Right | 0 | N/A | 0.212 | 1.186 | 1.016 | 0.255 | 0.013 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.09 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Left | 0 | N/A | 1.100 | 1.122 | 1.016 | 1.254 | 0.063 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | N/A | 1058M | 98.41 | 0.03 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Left | 0 | N/A | 1.220 | 1.076 | 1.016 | 1.334 | 0.067 | |

Note: To achieve the 10 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 7 dBm.




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-101
## 6 GHz WLAN MIMO Laptop Max Power

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1058M | 98.36 | 0.01 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Bottom | 11 | 0.051 | 1.156 | 1.017 | 0.060 | 0.038 | |
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1058M | 98.36 | 0.09 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Bottom | 11 | 0.051 | 1.096 | 1.017 | 0.057 | 0.036 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

Note: To achieve the 17 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14 dBm.

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1058M | 98.36 | 0.01 | 5985.00 | 7 | 68.1 | 14.0 | 13.37 | 14.0 | 13.60 | Bottom | 11 | 0.351 | 1.156 | 1.017 | 0.413 | 0.021 | |
| Laptop | 6 GHz WIFI/ IEEE 802.11ax | 80 | OFDM | MIMO | 1058M | 98.36 | 0.09 | 6705.00 | 151 | 68.1 | 14.0 | 13.96 | 14.0 | 13.60 | Bottom | 11 | 0.411 | 1.096 | 1.017 | 0.458 | 0.023 | |

Note: To achieve the 17 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14 dBm.

## Table 11-102
## 6 GHz WLAN MIMO Laptop with Grip Sensor Active | Plot A38

| Exposure | Band / Mode | Bandwidth [MHz] | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1058M | 98.41 | 0.05 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Bottom | 0 | 0.055 | 1.122 | 1.016 | 0.063 | 0.039 | Plot |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1058M | 98.41 | -0.03 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Bottom | 0 | 0.052 | 1.076 | 1.016 | 0.057 | 0.036 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

Note: To achieve the 10 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 7 dBm.

| Exposure | Band/ Mode | Bandwidth [MHz] | Service/ Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Max Allowed Power (2nd ant) [dBm] | Conducted Power (2nd ant) [dBm] | Test Position | Spacing [mm] | Measured APD [W/m² (4cm²)] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported APD [W/m² (4cm²)] | APD Exposure Ratio | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1058M | 98.41 | 0.05 | 6025.00 | 15 | 136.1 | 7.0 | 6.85 | 7.0 | 6.50 | Bottom | 0 | 0.336 | 1.122 | 1.016 | 0.383 | 0.019 | |
| Body | 6 GHz WIFI/ IEEE 802.11ax | 160 | OFDM | MIMO | 1058M | 98.41 | -0.03 | 6505.00 | 111 | 136.1 | 7.0 | 6.79 | 7.0 | 6.68 | Bottom | 0 | 0.329 | 1.076 | 1.016 | 0.360 | 0.018 | |

Note: To achieve the 10 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 7 dBm.

# 11.23 Bluetooth SISO Standalone SAR

## Table 11-103
## Bluetooth Ant WIFI 0 Tablet Max Power

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.05 | 2402.00 | 0 | 1 | 15.5 | 14.56 | Back | 19 | 0.000 | 1.241 | 1.016 | 0.000 | 0.000 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | -0.07 | 2402.00 | 0 | 1 | 15.5 | 14.56 | Top | 19 | 0.000 | 1.241 | 1.016 | 0.000 | 0.000 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.01 | 2402.00 | 0 | 1 | 15.5 | 14.56 | Bottom | 0 | 0.000 | 1.241 | 1.016 | 0.000 | 0.000 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.01 | 2402.00 | 0 | 1 | 15.5 | 14.56 | Right | 0 | 0.000 | 1.241 | 1.016 | 0.000 | 0.000 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.00 | 2402.00 | 0 | 1 | 15.5 | 14.56 | Left | 11 | 0.011 | 1.241 | 1.016 | 0.014 | 0.009 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |

## Table 11-104
## Bluetooth Ant WIFI 0 Tablet with Grip Sensor Active | Plot A39

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.15 | 2441.00 | 39 | 1 | 10.5 | 9.52 | Back | 0 | N/A | 0.121 | 1.253 | 1.016 | 0.154 | 0.096 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.04 | 2441.00 | 39 | 1 | 10.5 | 9.52 | Top | 0 | N/A | 0.108 | 1.253 | 1.016 | 0.137 | 0.086 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.02 | 2441.00 | 39 | 1 | 10.5 | 9.52 | Left | 0 | N/A | 0.248 | 1.253 | 1.016 | 0.316 | 0.198 | Plot |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | -0.14 | 2441.00 | 39 | 1 | 10.5 | 9.52 | Left | 0 | Keyboard | 0.109 | 1.253 | 1.016 | 0.139 | 0.087 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | | |

## Table 11-105
## Bluetooth Ant WIFI 0 Laptop Max Power

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1058M | 76.80 | -0.04 | 2402.00 | 0 | 1 | 15.5 | 14.56 | Bottom | 11 | 0.069 | 1.241 | 1.016 | 0.087 | 0.054 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population | | | | | | | | | | | | Body 1.6 W/kg (mW/g) averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## Table 11-106
## Bluetooth Ant WIFI 0 Laptop with Grip Sensor Active | Plot A40

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 0 | 1041M | 76.80 | 0.08 | 2441.00 | 39 | 1 | 10.5 | 9.52 | Bottom | 0 | 0.102 | 1.253 | 1.016 | 0.130 | 0.081 | Plot |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-107
## Bluetooth Ant WIFI 1 Tablet Max Power

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.07 | 2402.00 | 0 | 1 | 15.5 | 14.32 | Back | 19 | 0.010 | 1.312 | 1.016 | 0.013 | 0.008 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.06 | 2402.00 | 0 | 1 | 15.5 | 14.32 | Top | 19 | 0.000 | 1.312 | 1.016 | 0.000 | 0.000 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.05 | 2402.00 | 0 | 1 | 15.5 | 14.32 | Bottom | 0 | 0.000 | 1.312 | 1.016 | 0.000 | 0.000 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.06 | 2402.00 | 0 | 1 | 15.5 | 14.32 | Right | 11 | 0.058 | 1.312 | 1.016 | 0.077 | 0.048 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.01 | 2402.00 | 0 | 1 | 15.5 | 14.32 | Left | 0 | 0.000 | 1.312 | 1.016 | 0.000 | 0.000 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |

## Table 11-108
## Bluetooth Ant WIFI 1 Tablet with Grip Sensor Active

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Add'l Info | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.05 | 2441.00 | 39 | 1 | 9.0 | 7.55 | Back | 0 | N/A | 0.082 | 1.396 | 1.016 | 0.116 | 0.073 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.06 | 2441.00 | 39 | 1 | 9.0 | 7.55 | Top | 0 | N/A | 0.036 | 1.396 | 1.016 | 0.051 | 0.032 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | -0.11 | 2441.00 | 39 | 1 | 9.0 | 7.55 | Right | 0 | N/A | 0.189 | 1.396 | 1.016 | 0.268 | 0.168 | |
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.02 | 2441.00 | 39 | 1 | 9.0 | 7.55 | Right | 0 | Keyboard | 0.167 | 1.396 | 1.016 | 0.237 | 0.148 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | |

## Table 11-109
## Bluetooth Ant WIFI 1 Laptop

| Exposure | Band / Mode | Service / Modulation | Ant. | Serial Number | Duty Cycle [%] | Power Drift [dB] | Frequency [MHz] | Channel # | Data Rate [Mbps] | Max Allowed Power [dBm] | Conducted Power [dBm] | Test Position | Spacing [mm] | Measured 1g SAR [W/kg] | Power Scaling Factor | Duty Cycle Scaling Factor | Reported 1g SAR [W/kg] | Exposure Ratio (1g SAR) | Plot # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Body | 2.4 GHz Bluetooth | FHSS | WIFI 1 | 1041M | 76.80 | 0.07 | 2402.00 | 0 | 1 | 15.5 | 14.32 | Bottom | 0 | 0.000 | 1.312 | 1.016 | 0.000 | 0.000 | |
| ANSI/IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | | | | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

## SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Publication 447498 D04v01, and FCC KDB Publication 616217 D04v01r02.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04v01.
6. FCC KDB Publication 616217 D04v01r02 Section 4.3, SAR tests are required for the back surface and edges of the tablet with the tablet touching the phantom. The SAR Exclusion Threshold in FCC KDB 447498 D04v01 was applied to determine SAR test exclusion for adjacent edge configurations.
7. Per FCC KDB 616217 D04, SAR is evaluated for the bottom surface of a keyboard when it is attached to the DUT in laptop configuration.
8. Per FCC KDB 648474 D04, highest reported SAR tablet configuration for a transmission band on an antenna was additionally evaluated with keyboard accessory attached and folded back at 360˚
9. The orange highlights throughout the report represent the highest scaled SAR per Equipment Class.
10. Peak number 1 and 2 correspond to WIFI 0 and WIFI 1 of DUT respectively

UMTS Notes:

11. UMTS mode was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
12. Per FCC KDB Publication 447498 D04v01, if the reported (scaled) SAR measured at the highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s).

LTE Notes:

1. LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 8.5.4.
2. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
3. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
4. Per FCC KDB Publication 447498 D04v01, when the reported LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations, testing at the other channels was required for such test configurations.
5. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.
6. Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.
7. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions. Please see Section 14 for linearity results.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

NR Notes:

1. NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR FR1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report (Serial Number can be found in the bibliography).
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. Per FCC KDB Publication 447498 D04v01, when the reported NR Band n77 C-Band SAR measured at the highest output power channel in a given a test configuration was > 0.4 W/kg for 1g evaluations and > 1 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
7. Per FCC KDB Publication 447498 D04v01, when the reported NR Band n41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations and > 1 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
8. Per MTK guidance, SRS was tested with modulated signal. DFT-s-OFDM QPSK was used as the lowest order modulation and RB Size/Offset was selected to resemble continuous wave signal.

WLAN Notes:

1. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n/ax/be) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 8.6.4 for more information.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 8.6.5 for more information.
3. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D04v01 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see the Simultaneous Numerical Calculations Appendix for complete analysis.
4. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.
6. Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factors. Per October 2020 TCB Workshop notes, 5 channels were tested.

Bluetooth Notes

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 78% transmission duty factor for Bluetooth. See RF Conducted Power Section for the time domain plot and calculation for the duty factor of the device.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 12 POWER DENSITY DATA SUMMARY

## 12.1 6 GHz WIFI Power Density Results

**Table 10-1**
**6 GHz WLAN IPD -Tablet | Plot A41**

| MEASUREMENT RESULTS | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Channel | Mode | Service | Bandwidth (MHz) | Maximum Allowed Power (Ant 1) [dBm] | Conducted Power (Ant 1) [dBm] | Maximum Allowed Power (Ant 2) [dBm] | Conducted Power (Ant 2) [dBm] | Power Drift (dB) | Spacing (mm) | Antenna Config. | DUT Serial Number | Data Rate (Mbps) | Side | Duty Cycle (%) | Grid Step (λ) | iPD (W/m²) | Scaling Factor for Measurement Uncertainty per IEC 62479 | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Normal psPD (W/m²) | Scaled Normal psPD (W/m²) | Total psPD (W/m²) | Scaled Total psPD (W/m²) | Plot # |
| 6345.00 | 79 | 802.11ax | OFDM | 160 | 7.00 | 6.23 | N/A | N/A | -0.18 | 2 | WIFI 0 | 1021M | 68.1 | Left | 97.81 | 0.05 | - | 1.554 | 1.194 | 1.022 | 0.385 | 0.730 | 0.510 | 0.967 | |
| 6025.00 | 15 | 802.11ax | OFDM | 160 | N/A | N/A | 7.00 | 6.39 | 0.18 | 2 | WIFI 1 | 1021M | 68.1 | Right | 97.33 | 0.05 | - | 1.554 | 1.151 | 1.027 | 0.434 | 0.797 | 0.505 | 0.928 | |
| 6025.00 | 15 | 802.11ax | OFDM | 160 | 7.00 | 6.85 | 7.00 | 6.50 | -0.16 | 2 | MIMO | 1021M | 136.1 | Right | 98.41 | 0.05 | 0.618 | 1.554 | 1.122 | 1.016 | 0.771 | 1.366 | 0.925 | 1.639 | Plot |
| 6025.00 | 15 | 802.11ax | OFDM | 160 | 7.00 | 6.85 | 7.00 | 6.50 | 0.17 | 9.95 | MIMO | 1021M | 136.1 | Right | 98.41 | 0.125 | 0.257 | 1.554 | 1.122 | 1.016 | 0.269 | 0.477 | 0.296 | 0.524 | |
| 47 CFR §1.1310 - SAFETY LIMIT<br>Spatial Average<br>Uncontrolled Exposure / General Population | | | | | | | | | | | | Power Density<br>10 W/m²<br>averaged over 4 cm² | | | | | | | | | | | | |

**Table 10-2**
**6 GHz WLAN IPD – Laptop | Plot A42**

| MEASUREMENT RESULTS | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Channel | Mode | Service | Bandwidth (MHz) | Maximum Allowed Power (Ant 1) [dBm] | Conducted Power (Ant 1) [dBm] | Maximum Allowed Power (Ant 2) [dBm] | Conducted Power (Ant 2) [dBm] | Power Drift (dB) | Spacing (mm) | Antenna Config. | DUT Serial Number | Data Rate (Mbps) | Side | Duty Cycle (%) | Grid Step (λ) | iPD (W/m²) | Scaling Factor for Measurement Uncertainty per IEC 62479 | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Normal psPD (W/m²) | Scaled Normal psPD (W/m²) | Total psPD (W/m²) | Scaled Total psPD (W/m²) | Plot # |
| 6985.00 | 207 | 802.11ax | OFDM | 160 | 7.00 | 6.77 | N/A | N/A | -0.18 | 2 | WIFI 0 | 1021M | 68.1 | Bottom | 97.81 | 0.05 | - | 1.554 | 1.054 | 1.022 | 0.477 | 0.798 | 0.642 | 1.075 | |
| 6025.00 | 15 | 802.11ax | OFDM | 160 | 7.00 | 6.85 | 7.00 | 6.50 | 0.10 | 2 | MIMO | 1021M | 136.1 | Bottom | 98.41 | 0.05 | 3.940 | 1.554 | 1.122 | 1.016 | 1.320 | 2.338 | 1.330 | 2.356 | Plot |
| 6025.00 | 15 | 802.11ax | OFDM | 160 | 7.00 | 6.85 | 7.00 | 6.50 | -0.15 | 9.95 | MIMO | 1021M | 136.1 | Bottom | 98.41 | 0.125 | 3.190 | 1.554 | 1.122 | 1.016 | 1.190 | 2.108 | 1.230 | 2.179 | |
| 47 CFR §1.1310 - SAFETY LIMIT<br>Spatial Average<br>Uncontrolled Exposure / General Population | | | | | | | | | | | | Power Density<br>10 W/m²<br>averaged over 4 cm² | | | | | | | | | | | | |

### Power Density General Notes

1. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
2. Batteries are fully charged at the beginning of the measurements. The DUT was connected to a wall charger for some measurements due to the test duration. It was confirmed that the charger plugged into this DUT did not impact the near-field PD test results.
3. Power density was calculated by repeated E-field measurements on two measurement planes separated by λ/4.
4. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
5. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.68 dB (85.4%) was used to determine the psPD measurement scaling factor.
6. Per equipment manufacturer guidance, power density was measured at d=2mm and d=λ/5mm using the same grid size and grid step size for some frequencies and surfaces. The integrated Power Density (iPD) was calculated based on these measurements. Since iPD ratio between the two distances is ≥ -1dB, the grid step was sufficient for determining compliance at d=2mm.
7. PTP-PR algorithm was used during psPD measurement and calculations.
8. PD results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04.
9. Peak number 1 and 2 correspond to WIFI 0 and WIFI 1 of DUT respectively
10. PD testing was conducted using the same worst-case position and configuration as identified in the SAR evaluation, in accordance with the October 2022 TCB Workshop guidance and FCC KDB Publication 388624 D02.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 13 SAR MEASUREMENT VARIABILITY

## 13.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

**Table 13-1**
**Body SAR Measurement Variability Results**

| BODY VARIABILITY RESULTS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Band | FREQUENCY | | Mode | Service | Side | Spacing | Antenna Config | Measured SAR (1g) | 1st Repeated SAR (1g) | Ratio | 2nd Repeated SAR (1g) | Ratio | 3rd Repeated SAR (1g) | Ratio |
| | MHz | Ch. | | | | | | (W/kg) | (W/kg) | | (W/kg) | | (W/kg) | |
| 2450 | 2462.00 | 1 | 2.4 GHz WIFI/IEEE 802.11b, 20 MHz Bandwidth | DSSS | Right | 0.00 | MIMO | 0.903 | 0.801 | 1.13 | N/A | N/A | N/A | N/A |
| 2600 | 2592.99 | 518598 | NR Band n41, 100 MHz Bandwidth | CP-OFDM, 1 RB 1 RB Offset | Top | 0.00 | M1 | 0.881 | 0.823 | 1.07 | N/A | N/A | N/A | N/A |
| 5600 | 5610.00 | 122 | 5 GHz WIFI/IEEE 802.11ac, 80 MHz Bandwidth | OFDM | Right | 0.00 | WIFI 1 | 0.965 | 0.930 | 1.04 | N/A | N/A | N/A | N/A |
| 5825 | 5855.00 | 171 | 5 GHz WIFI/IEEE 802.11ac, 80 MHz Bandwidth | OFDM | Back | 0.00 | WIFI 0 | 0.830 | 0.804 | 1.03 | N/A | N/A | N/A | N/A |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram | | | | | | | | | |

## 13.2 Measurement Uncertainty

The measured SAR was <1.5 W/kg for 1g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 14 ADDITIONAL TESTING PER FCC GUIDANCE

## 14.1 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition. The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear.
Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

**Table 14-1**
**LTE Band 41 Body Linearity Data - Laptop**

| | LTE Band 41 PC3 | LTE Band 41 PC2 |
|---|---|---|
| Maximum Allowed Output Power (dBm) | 25.0 | 27.0 |
| Measured Output Power (dBm) | 24.08 | 26.21 |
| Measured SAR (W/kg) | 0.085 | 0.086 |
| Measured Power (mW) | 255.86 | 417.83 |
| Duty Cycle | 63.3% | 43.3% |
| Frame Averaged Output Power (mW) | 161.96 | 180.92 |
| % deviation from expected linearity | | -9.43% |

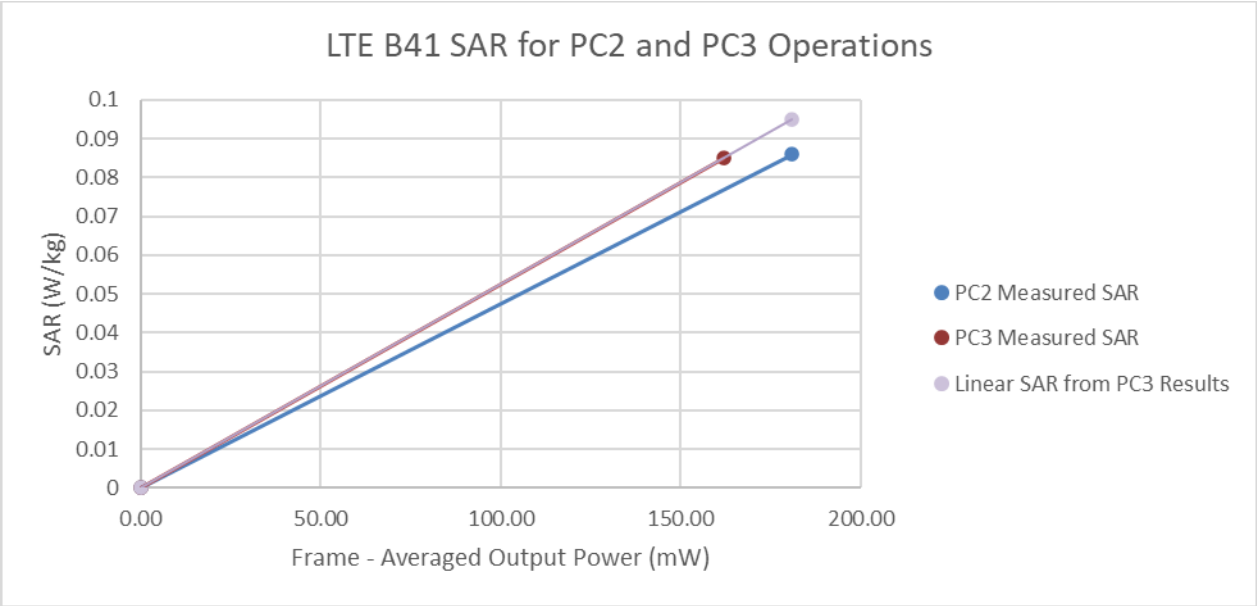



**Figure 14-1**
**LTE Band 41 Body Linearity – Laptop**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

**Table 14-2**
**LTE Band 41 Body Linearity Data - Tablet**

| | LTE Band 41 PC3 | LTE Band 41 PC2 |
|---|---|---|
| Maximum Allowed Output Power (dBm) | 13.50 | 15.10 |
| Measured Output Power (dBm) | 11.63 | 13.47 |
| Measured SAR (W/kg) | 0.482 | 0.457 |
| Measured Power (mW) | 14.55 | 22.23 |
| Duty Cycle | 63.3% | 43.3% |
| Frame Averaged Output Power (mW) | 9.21 | 9.63 |
| % deviation from expected linearity | | -9.26% |

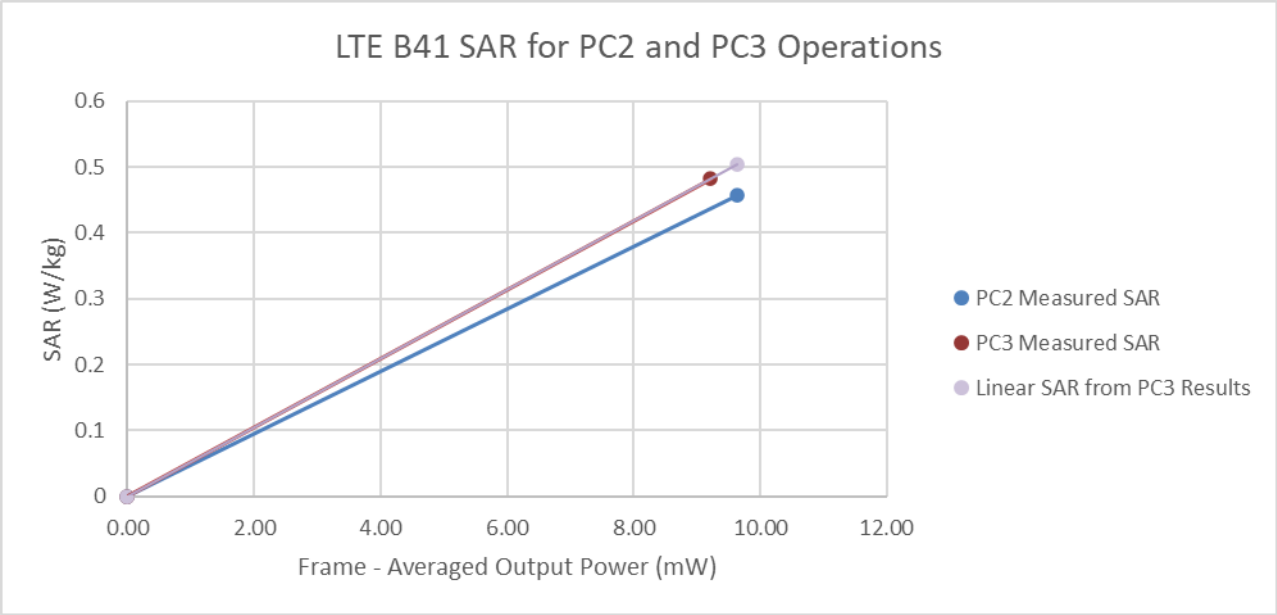



**Figure 14-2**
**LTE Band 41 Body Linearity - Tablet**



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 15 EQUIPMENT LIST

| Manufacturer | Model | Description | Cal Date | Cal Interval | Cal Due | Serial Number |
|---|---|---|---|---|---|---|
| Agilent | E4404B | Spectrum Analyzer | N/A | N/A | N/A | MY45113242 |
| Agilent | E4438C | ESG Vector Signal Generator | 10/23/2024 | Annual | 10/23/2025 | MY45093852 |
| Agilent | E4438C | ESG Vector Signal Generator | 11/15/2024 | Annual | 11/15/2025 | MY45092078 |
| Agilent | N5182A | MXG Vector Signal Generator | 7/9/2024 | Annual | 7/9/2025 | MY48180366 |
| Agilent | N5182A | MXG Vector Signal Generator | 12/5/2024 | Annual | 12/5/2025 | US46240505 |
| Agilent | 8753ES | S-Parameter Vector Network Analyzer | 1/6/2025 | Annual | 1/6/2026 | MY40001472 |
| Agilent | 8753ES | S-Parameter Vector Network Analyzer | 9/25/2024 | Annual | 9/25/2025 | MY40003841 |
| Agilent | E5515C | Wireless Communications Test Set | CBT | N/A | CBT | GB46310798 |
| Agilent | E5515C | Wireless Communications Test Set | CBT | N/A | CBT | GB41450275 |
| Agilent | N4010A | Wireless Connectivity Test Set | N/A | N/A | N/A | GB46170464 |
| Amplifier Research | 15S1G6 | Amplifier | CBT | N/A | CBT | 433973 |
| Amplifier Research | 15S1G6 | Amplifier | CBT | N/A | CBT | 433974 |
| Amplifier Research | 150A100C | Amplifier | CBT | N/A | CBT | 350132 |
| Anritsu | ML2496A | Power Meter | 7/15/2024 | Annual | 7/15/2025 | 1138001 |
| Anritsu | ML2496A | Power Meter | 2/10/2025 | Annual | 2/10/2026 | 1351001 |
| Anritsu | MA2411B | Pulse Power Sensor | 9/5/2024 | Annual | 9/5/2025 | 1726262 |
| Anritsu | MA2411B | Pulse Power Sensor | 10/21/2024 | Annual | 10/21/2025 | 1027293 |
| Anritsu | MA24106A | USB Power Sensor | 7/10/2024 | Annual | 7/10/2025 | 1827530 |
| Anritsu | MA24106A | USB Power Sensor | 5/29/2025 | Annual | 5/29/2026 | 1344554 |
| Control Company | 4052 | Long Stem Thermometer | 2/27/2024 | Biennial | 2/27/2026 | 240174346 |
| Control Company | 4052 | Long Stem Thermometer | 2/27/2024 | Biennial | 2/27/2026 | 240171096 |
| Control Company | 4052 | Long Stem Thermometer | 2/27/2024 | Biennial | 2/27/2026 | 240171059 |
| Control Company | 4040 | Therm./ Clock/ Humidity Monitor | 4/15/2024 | Biennial | 4/15/2026 | 240310280 |
| Control Company | 4040 | Therm./ Clock/ Humidity Monitor | 10/15/2024 | Biennial | 10/15/2026 | 240763503 |
| Control Company | 4040 | Therm./ Clock/ Humidity Monitor | 4/15/2024 | Biennial | 4/15/2026 | 240310282 |
| Keysight Technologies | N9020A | MXA Signal Analyzer | 7/8/2024 | Annual | 7/8/2025 | MY48010233 |
| Agilent | N9020A | MXA Signal Analyzer | 7/11/2024 | Annual | 7/11/2025 | MY50200571 |
| MCL | BW-N6W5+ | 6dB Attenuator | CBT | N/A | CBT | 1139 |
| Mini-Circuits | VLF-6000+ | Low Pass Filter DC to 6000 MHz | CBT | N/A | CBT | N/A |
| Mini-Circuits | VLF-6000+ | Low Pass Filter DC to 6000 MHz | 7/10/2024 | Annual | 7/10/2025 | 31634 |
| Mini-Circuits | BW-N20W5+ | DC to 18 GHz Precision Fixed 20 dB Attenuator | CBT | N/A | CBT | N/A |
| Mini-Circuits | NLP-2950+ | Low Pass Filter DC to 2700 MHz | CBT | N/A | CBT | N/A |
| Mini-Circuits | BW-N20W5 | Power Attenuator | CBT | N/A | CBT | 1226 |
| Mini-Circuits | ZUDC10-83-S+ | Directional Coupler | CBT | N/A | CBT | 2050 |
| Narda | 4772-3 | Attenuator (3dB) | CBT | N/A | CBT | 9406 |
| Narda | BW-S3W2 | Attenuator (3dB) | CBT | N/A | CBT | 120 |
| Seekonk | NC-100 | Torque Wrench | CBT | N/A | CBT | 22217 |
| Seekonk | NC-100 | Torque Wrench | 4/2/2024 | Biennial | 4/2/2026 | 1262 |
| SPEAG | DAK-3.5 | Dielectric Assessment Kit | 11/5/2024 | Annual | 11/5/2025 | 1277 |
| SPEAG | DAKS-3.5 | Portable Dielectric Assessment Kit | 8/7/2024 | Annual | 8/7/2025 | 1041 |
| SPEAG | MAIA | Modulation and Audio Interference Analyzer | N/A | N/A | N/A | 1237 |
| SPEAG | MAIA | Modulation and Audio Interference Analyzer | N/A | N/A | N/A | 1331 |
| SPEAG | MAIA | Modulation and Audio Interference Analyzer | N/A | N/A | N/A | 1390 |
| SPEAG | DAK-12 | Dielectric Assessment Kit (4MHz - 3GHz) | 3/10/2025 | Annual | 3/10/2026 | 1102 |
| SPEAG | D835V2 | 835 MHz SAR Dipole | 3/11/2024 | Biennial | 3/11/2026 | 719 |
| SPEAG | D1900V2 | 1900 MHz SAR Dipole | 8/8/2022 | Triennial | 8/8/2025 | 5d080 |
| SPEAG | D1750V2 | 1750 MHz SAR Dipole | 11/7/2024 | Annual | 11/7/2025 | 1150 |
| SPEAG | D1750V2 | 1750 MHz SAR Dipole | 1/13/2025 | Annual | 1/13/2026 | 1148 |
| SPEAG | D750V2 | 750 MHz SAR Dipole | 3/4/2025 | Annual | 3/4/2026 | 1054 |
| SPEAG | D1900V2 | 1900 MHz SAR Dipole | 2/7/2025 | Annual | 2/7/2026 | 5d148 |
| SPEAG | D2450V2 | 2450 MHz SAR Dipole | 8/7/2024 | Annual | 8/7/2025 | 719 |
| SPEAG | D2450V2 | 2450 MHz SAR Dipole | 11/7/2024 | Annual | 11/7/2025 | 981 |
| SPEAG | D2450V2 | 2450 MHz SAR Dipole | 11/15/2022 | Triennial | 11/15/2025 | 797 |
| SPEAG | D2600V2 | 2600 MHz SAR Dipole | 11/2/2022 | Triennial | 11/2/2025 | 1071 |
| SPEAG | D2600V2 | 2600 MHz SAR Dipole | 4/8/2024 | Biennial | 4/8/2026 | 1004 |
| SPEAG | D3500V2 | 3500 MHz SAR Dipole | 1/10/2023 | Triennial | 1/10/2026 | 1097 |
| SPEAG | D3700V2 | 3700 MHz SAR Dipole | 1/13/2023 | Triennial | 1/13/2026 | 1067 |
| SPEAG | D3900V2 | 3900 MHz SAR Dipole | 10/19/2023 | Biennial | 10/19/2025 | 1056 |
| SPEAG | 5G Verification Source 10GHz | 10GHz System Verification Antenna | 3/4/2025 | Annual | 3/4/2026 | 1002 |
| SPEAG | D5GHzV2 | 5 GHz SAR Dipole | 2/21/2024 | Biennial | 2/21/2026 | 1057 |
| SPEAG | D6.5GHzV2 | 6.5 GHz SAR Dipole | 12/6/2024 | Annual | 12/6/2025 | 1018 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 1/13/2025 | Annual | 1/13/2026 | 1530 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 7/8/2024 | Annual | 7/8/2025 | 1677 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 4/10/2025 | Annual | 4/10/2026 | 1272 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 9/10/2024 | Annual | 9/10/2025 | 1449 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 2/6/2025 | Annual | 2/6/2026 | 665 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 5/9/2025 | Annual | 5/9/2026 | 1678 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 12/4/2024 | Annual | 12/4/2025 | 1213 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 7/8/2024 | Annual | 7/8/2025 | 1583 |
| SPEAG | DAE4ip | Dasy Data Acquisition Electronics | 2/7/2025 | Annual | 2/7/2026 | 1638 |
| SPEAG | DAE4 | Dasy Data Acquisition Electronics | 7/8/2024 | Annual | 6/5/2026 | 1558 |
| SPEAG | EX3DV4 | SAR Probe | 7/5/2024 | Annual | 7/5/2025 | 7406 |
| SPEAG | EX3DV4 | SAR Probe | 4/7/2025 | Annual | 4/7/2026 | 7659 |
| SPEAG | EX3DV4 | SAR Probe | 2/12/2025 | Annual | 2/12/2026 | 7417 |
| SPEAG | EX3DV4 | SAR Probe | 5/9/2025 | Annual | 5/9/2026 | 7660 |
| SPEAG | EX3DV4 | SAR Probe | 1/7/2025 | Annual | 1/7/2026 | 7713 |
| SPEAG | EUmmWV4 | EUmmWV4 Probe | 1/8/2025 | Annual | 1/8/2026 | 9389 |
| SPEAG | EX3DV4 | SAR Probe | 12/5/2024 | Annual | 12/5/2025 | 7410 |
| SPEAG | EX3DV4 | SAR Probe | 6/28/2024 | Annual | 6/28/2025 | 7803 |
| SPEAG | EX3DV4 | SAR Probe | 2/10/2025 | Annual | 2/10/2026 | 7570 |
| SPEAG | EX3DV4 | SAR Probe | 6/11/2025 | Annual | 6/11/2026 | 7661 |

Note: 1) All equipment was used solely within its respective calibration period. 2) CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 16 MEASUREMENT UNCERTAINTIES

Applicable for SAR Measurements < 6 GHz:

| | | | | f(d,k) | | | c x f/e | c x g/e | |
|---|---|---|---|---|---|---|---|---|---|
| **Uncertainty Component** | IEEE 1528 Sec. | Tol. (± %) | Prob. Dist. | Div. | $c_i$ 1gm | $c_i$ 10 gms | 1gm $u_i$ (± %) | 10gms $u_i$ (± %) | $v_i$ |
| **Measurement System** | | | | | | | | | |
| Probe Calibration | E.2.1 | 7 | N | 1 | 1 | 1 | 7.0 | 7.0 | ∞ |
| Axial Isotropy | E.2.2 | 0.25 | N | 1 | 0.7 | 0.7 | 0.2 | 0.2 | ∞ |
| Hemishperical Isotropy | E.2.2 | 1.3 | N | 1 | 0.7 | 0.7 | 0.9 | 0.9 | ∞ |
| Boundary Effect | E.2.3 | 2 | R | 1.73 | 1 | 1 | 1.2 | 1.2 | ∞ |
| Linearity | E.2.4 | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| System Detection Limits | E.2.4 | 0.25 | R | 1.73 | 1 | 1 | 0.1 | 0.1 | ∞ |
| Modulation Response | E.2.5 | 4.8 | R | 1.73 | 1 | 1 | 2.8 | 2.8 | ∞ |
| Readout Electronics | E.2.6 | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| Response Time | E.2.7 | 0.8 | R | 1.73 | 1 | 1 | 0.5 | 0.5 | ∞ |
| Integration Time | E.2.8 | 2.6 | R | 1.73 | 1 | 1 | 1.5 | 1.5 | ∞ |
| RF Ambient Conditions - Noise | E.6.1 | 3 | R | 1.73 | 1 | 1 | 1.7 | 1.7 | ∞ |
| RF Ambient Conditions - Reflections | E.6.1 | 3 | R | 1.73 | 1 | 1 | 1.7 | 1.7 | ∞ |
| Probe Positioner Mechanical Tolerance | E.6.2 | 0.8 | R | 1.73 | 1 | 1 | 0.5 | 0.5 | ∞ |
| Probe Positioning w/ respect to Phantom | E.6.3 | 6.7 | R | 1.73 | 1 | 1 | 3.9 | 3.9 | ∞ |
| Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation | E.5 | 4 | R | 1.73 | 1 | 1 | 2.3 | 2.3 | ∞ |
| **Test Sample Related** | | | | | | | | | |
| Test Sample Positioning | E.4.2 | 3.12 | N | 1 | 1 | 1 | 3.1 | 3.1 | 35 |
| Device Holder Uncertainty | E.4.1 | 1.67 | N | 1 | 1 | 1 | 1.7 | 1.7 | 5 |
| Output Power Variation - SAR drift measurement | E.2.9 | 5 | R | 1.73 | 1 | 1 | 2.9 | 2.9 | ∞ |
| SAR Scaling | E.6.5 | 0 | R | 1.73 | 1 | 1 | 0.0 | 0.0 | ∞ |
| **Phantom & Tissue Parameters** | | | | | | | | | |
| Phantom Uncertainty (Shape & Thickness tolerances) | E.3.1 | 7.6 | R | 1.73 | 1.0 | 1.0 | 4.4 | 4.4 | ∞ |
| Liquid Conductivity - measurement uncertainty | E.3.3 | 4.3 | N | 1 | 0.78 | 0.71 | 3.3 | 3.0 | 76 |
| Liquid Permittivity - measurement uncertainty | E.3.3 | 4.2 | N | 1 | 0.23 | 0.26 | 1.0 | 1.1 | 75 |
| Liquid Conductivity - Temperature Uncertainty | E.3.4 | 3.4 | R | 1.73 | 0.78 | 0.71 | 1.5 | 1.4 | ∞ |
| Liquid Permittivity - Temperature Unceritainty | E.3.4 | 0.6 | R | 1.73 | 0.23 | 0.26 | 0.1 | 0.1 | ∞ |
| Liquid Conductivity - deviation from target values | E.3.2 | 5.0 | R | 1.73 | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| Liquid Permittivity - deviation from target values | E.3.2 | 5.0 | R | 1.73 | 0.60 | 0.49 | 1.7 | 1.4 | ∞ |
| **Combined Standard Uncertainty (k=1)** | | | RSS | | | | 12.2 | 12.0 | 191 |
| **Expanded Uncertainty** (95% CONFIDENCE LEVEL) | | | k=2 | | | | 24.4 | 24.0 | |

The above measurement uncertainties are according to IEEE Std. 1528-2013




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

Applicable for SAR Measurements > 6 GHz:

| Uncertainty Component | IEEE 1528 Sec. | Tol. (± %) | Prob. Dist. | f(d,k) Div. | $c_i$ 1gm | $c_i$ 10 gms | c x f/e 1gm $u_i$ (± %) | c x g/e 10gms $u_i$ (± %) | $v_i$ |
|---|---|---|---|---|---|---|---|---|---|
| **Measurement System** | | | | | | | | | |
| Probe Calibration | E.2.1 | 9.3 | N | 1 | 1 | 1 | 9.3 | 9.3 | ∞ |
| Axial Isotropy | E.2.2 | 0.25 | N | 1 | 0.7 | 0.7 | 0.2 | 0.2 | ∞ |
| Hemishperical Isotropy | E.2.2 | 1.3 | N | 1 | 0.7 | 0.7 | 0.9 | 0.9 | ∞ |
| Boundary Effect | E.2.3 | 2 | R | 1.73 | 1 | 1 | 1.2 | 1.2 | ∞ |
| Linearity | E.2.4 | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| System Detection Limits | E.2.4 | 0.25 | R | 1.73 | 1 | 1 | 0.1 | 0.1 | ∞ |
| Modulation Response | E.2.5 | 4.8 | R | 1.73 | 1 | 1 | 2.8 | 2.8 | ∞ |
| Readout Electronics | E.2.6 | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| Response Time | E.2.7 | 0.8 | R | 1.73 | 1 | 1 | 0.5 | 0.5 | ∞ |
| Integration Time | E.2.8 | 2.6 | R | 1.73 | 1 | 1 | 1.5 | 1.5 | ∞ |
| RF Ambient Conditions - Noise | E.6.1 | 3 | R | 1.73 | 1 | 1 | 1.7 | 1.7 | ∞ |
| RF Ambient Conditions - Reflections | E.6.1 | 3 | R | 1.73 | 1 | 1 | 1.7 | 1.7 | ∞ |
| Probe Positioner Mechanical Tolerance | E.6.2 | 0.8 | R | 1.73 | 1 | 1 | 0.5 | 0.5 | ∞ |
| Probe Positioning w/ respect to Phantom | E.6.3 | 6.7 | R | 1.73 | 1 | 1 | 3.9 | 3.9 | ∞ |
| Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation | E.5 | 4 | R | 1.73 | 1 | 1 | 2.3 | 2.3 | ∞ |
| **Test Sample Related** | | | | | | | | | |
| Test Sample Positioning | E.4.2 | 3.12 | N | 1 | 1 | 1 | 3.1 | 3.1 | 35 |
| Device Holder Uncertainty | E.4.1 | 1.67 | N | 1 | 1 | 1 | 1.7 | 1.7 | 5 |
| Output Power Variation - SAR drift measurement | E.2.9 | 5 | R | 1.73 | 1 | 1 | 2.9 | 2.9 | ∞ |
| SAR Scaling | E.6.5 | 0 | R | 1.73 | 1 | 1 | 0.0 | 0.0 | ∞ |
| **Phantom & Tissue Parameters** | | | | | | | | | |
| Phantom Uncertainty (Shape & Thickness tolerances) | E.3.1 | 7.6 | R | 1.73 | 1.0 | 1.0 | 4.4 | 4.4 | ∞ |
| Liquid Conductivity - measurement uncertainty | E.3.3 | 4.3 | N | 1 | 0.78 | 0.71 | 3.3 | 3.0 | 76 |
| Liquid Permittivity - measurement uncertainty | E.3.3 | 4.2 | N | 1 | 0.23 | 0.26 | 1.0 | 1.1 | 75 |
| Liquid Conductivity - Temperature Uncertainty | E.3.4 | 3.4 | R | 1.73 | 0.78 | 0.71 | 1.5 | 1.4 | ∞ |
| Liquid Permittivity - Temperature Unceritainty | E.3.4 | 0.6 | R | 1.73 | 0.23 | 0.26 | 0.1 | 0.1 | ∞ |
| Liquid Conductivity - deviation from target values | E.3.2 | 5.0 | R | 1.73 | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| Liquid Permittivity - deviation from target values | E.3.2 | 5.0 | R | 1.73 | 0.60 | 0.49 | 1.7 | 1.4 | ∞ |
| **Combined Standard Uncertainty (k=1)** | | | RSS | | | | 13.8 | 13.6 | 191 |
| **Expanded Uncertainty** (95% CONFIDENCE LEVEL) | | | k=2 | | | | 27.6 | 27.1 | |

The above measurement uncertainties are according to IEEE Std. 1528-2013



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

Applicable for Power Density Measurements:

| a | b | c | d | e | f = c x f/e | g |
|---|---|---|---|---|---|---|
| **Uncertainty Component** | Unc. (± dB) | Prob. Dist. | Div. | $c_i$ | $u_i$ (± dB) | $v_i$ |
| **Measurement System** | | | | | | |
| Calibration | 0.49 | N | 1 | 1 | 0.49 | ∞ |
| Probe Correction | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Frequency Response | 0.20 | R | 1.73 | 1 | 0.12 | ∞ |
| Sensor Cross Coupling | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Isotropy | 0.50 | R | 1.73 | 1 | 0.29 | ∞ |
| Linearity | 0.20 | R | 1.73 | 1 | 0.12 | ∞ |
| Probe Scattering | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Probe Positioning offset | 0.30 | R | 1.73 | 1 | 0.17 | ∞ |
| Probe Positioning Repeatability | 0.04 | R | 1.73 | 1 | 0.02 | ∞ |
| Sensor MechanicalOffset | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Probe Spatial Resolution | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Field Impedence Dependance | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Amplitude and Phase Drift | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Amplitude and Phase Noise | 0.04 | R | 1.73 | 1 | 0.02 | ∞ |
| Measurement Area Truncation | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Data Acquisition | 0.03 | N | 1 | 1 | 0.03 | ∞ |
| Sampling | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Field Reconstruction | 2.00 | R | 1.73 | 1 | 1.15 | ∞ |
| Forward Transformation | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Power Density Scaling | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Spatial Averaging | 0.10 | R | 1.73 | 1 | 0.06 | ∞ |
| System Detection Limit | 0.04 | R | 1.73 | 1 | 0.02 | ∞ |
| **Test Sample Related** | | | | | | |
| Probe Coupling with DUT | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Modulation Response | 0.40 | R | 1.73 | 1 | 0.23 | ∞ |
| Integration Time | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Response Time | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Device Holder Influence | 0.10 | R | 1.73 | 1 | 0.06 | ∞ |
| DUT alignment | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| RF Ambient Conditions | 0.04 | R | 1.73 | 1 | 0.02 | ∞ |
| Ambient Reflections | 0.04 | R | 1.73 | 1 | 0.02 | ∞ |
| Immunity/Secondary Reception | 0.00 | R | 1.73 | 1 | 0.00 | ∞ |
| Drift of DUT | 0.21 | R | 1.73 | 1 | 0.12 | ∞ |
| **Combined Standard Uncertainty (k=1)** | | RSS | | | 1.34 | ∞ |
| **Expanded Uncertainty** (95% CONFIDENCE LEVEL) | | k=2 | | | 2.68 | |




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 17 CONCLUSION

## 17.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

# 18 REFERENCES


[1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Aug. 1996.

[2] ANSI/IEEE C95.1-2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, 2006.

[3] ANSI/IEEE C95.1-1992, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, Sept. 1992.

[4] ANSI/IEEE C95.3-2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: IEEE, December 2002.

[5] IEEE Standards Coordinating Committee 39 –Standards Coordinating Committee 34 – IEEE Std. 1528-2013, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

[6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for RadioFrequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.

[7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.

[8] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. 1 -124.

[9] K. Pokovic, T. Schmid, and N. Kuster, E-field Probe with improved isotropy in brain simulating liquids, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.

[10] Schmid & Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.

[11] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, The Dependence of EM Energy Absorption upon Human Modeling at 900 MHz, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct. 1996, pp. 1865-1873.

[12] N. Kuster and Q. Balzano, Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.

[13] G. Hartsgrove, A. Kraszewski, A. Surowiec, Simulated Biological Materials for Electromagnetic Radiation Absorption Studies, University of Ottawa, Bioelectromagnetics, Canada: 1987, pp. 29-36.

[14] Q. Balzano, O. Garay, T. Manning Jr., Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.

[15] W. Gander, Computermathematick, Birkhaeuser, Basel, 1992.

[16] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, Numerical Recipes in C, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.

[17] N. Kuster, R. Kastle, T. Schmid, Dosimetric evaluation of mobile communications equipment with known precision, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.

[18] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), Human Exposure to Electromagnetic Fields High-frequency: 10kHz-300GHz, Jan. 1995.




Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.

[19] Prof. Dr. Niels Kuster, ETH, Eidgenössische Technische Hoschschule Zürich, Dosimetric Evaluation of the Cellular Phone.

[20] IEC 62209-1, Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz), July 2016.

[21] Innovation, Science, Economic Development Canada RSS-102 Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Issue 5, March 2015.

[22] Health Canada Safety Code 6 Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz – 300 GHz, 2015

[23] FCC SAR Test Procedures for 2G-3G Devices, Mobile Hotspot and UMPC Devices KDB Publications 941225, D01-D07

[24] SAR Measurement Guidance for IEEE 802.11 Transmitters, KDB Publication 248227 D01

[25] FCC SAR Considerations for Handsets with Multiple Transmitters and Antennas, KDB Publications 648474 D03-D04

[26] FCC SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers, FCC KDB Publication 616217 D04

[27] FCC SAR Measurement and Reporting Requirements for 100MHz – 6 GHz, KDB Publications 865664 D01-D02

[28] FCC General RF Exposure Guidance and SAR Procedures for Dongles, KDB Publication 447498, D01-D02

[29] Anexo à Resolução No. 533, de 10 de Septembro de 2009.

[30] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz), Mar. 2010.



Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact CT.INFO@ELEMENT.COM.