

## SAR EVALUATION REPORT

For

**Shanghai Sunmi Technology Co.,Ltd.**

Room 505, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China

**FCC ID: 2AH25T5940**

|                                     |                                                                                                                                                                                                                            |                                                                                      |  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|
| <b>Report Type:</b><br>CIIPC report |                                                                                                                                                                                                                            | <b>Product Type:</b><br>Wireless data POS System                                     |  |
| <b>Project Engineer:</b>            | Bard Liu                                                                                                                                                                                                                   |  |  |
| <b>Report Number:</b>               | RKSA240109002-20B                                                                                                                                                                                                          |                                                                                      |  |
| <b>Report Date:</b>                 | 2024-05-15                                                                                                                                                                                                                 |                                                                                      |  |
| <b>Reviewed By:</b>                 | Oscar Ye<br>EMC Manager                                                                                                                                                                                                    |  |  |
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

| Attestation of Test Results                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                         |                                  |              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|--|
| EUT Information                                                                                                                                                                                                                                                                                                                                                                                                                                               | EUT Description                                                                                                                                                                                                                                                                                                                                                                         | Wireless data POS System         |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Tested Model                                                                                                                                                                                                                                                                                                                                                                            | T5940                            |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FCC ID                                                                                                                                                                                                                                                                                                                                                                                  | 2AH25T5940                       |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Serial Number                                                                                                                                                                                                                                                                                                                                                                           | RKSA240109002-1                  |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Test Date                                                                                                                                                                                                                                                                                                                                                                               | 2024-04-18~ 2024-04-25           |              |  |
| MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                         | Max. SAR Level(s) Reported(W/kg) | Limit (W/kg) |  |
| GSM850                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.661                            | 1.6          |  |
| GSM1900                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.813                            |              |  |
| WCDMA II                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.830                            |              |  |
| WCDMA IV                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.008                            |              |  |
| WCDMA V                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.868                            |              |  |
| LTE Band 7                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.112                            |              |  |
| LTE Band 12&LTE Band 17                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.589                            |              |  |
| LTE Band 25&LTE Band 2                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.918                            |              |  |
| LTE Band 26&LTE Band 5                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.580                            |              |  |
| LTE Band 66&LTE Band 4                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.028                            |              |  |
| LTE Band 40-low                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.067                            |              |  |
| LTE Band 40-upper                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.08                             |              |  |
| LTE Band 41                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.104                            |              |  |
| Bluetooth                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.342                            |              |  |
| 2.4GHz WLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.431                            |              |  |
| 5.2GHz WLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 0.944                            |              |  |
| 5.8GHz WLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.011                            |              |  |
| Simultaneous                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1g Body SAR                                                                                                                                                                                                                                                                                                                                                                             | 1.195                            |              |  |
| Applicable Standards                                                                                                                                                                                                                                                                                                                                                                                                                                          | FCC 47 CFR part 2.1093<br>Radiofrequency radiation exposure evaluation: portable devices                                                                                                                                                                                                                                                                                                |                                  |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RF Exposure Procedures: TCB Workshop April 2019                                                                                                                                                                                                                                                                                                                                         |                                  |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | IEEE 1528:2013<br>IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques                                                                                                                                                                                      |                                  |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               | KDB procedures<br>KDB 447498 D01 General RF Exposure Guidance v06<br>KDB 648474 D04 Handset SAR v01r03<br>KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04<br>KDB 865664 D02 RF Exposure Reporting v01r02<br>KDB 941225 D01 3G SAR Procedures v03r01<br>KDB 941225 D05 SAR for LTE Devices v02r05<br>KDB 941225 D06 Hot Spot SAR v02r01<br>KDB 248227 D01 802.11 Wi-Fi SAR v02r02 |                                  |              |  |
| <b>Note:</b> This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in <b>FCC 47 CFR part 2.1093</b> and has been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and RF exposure KDB procedures.<br><b>The results and statements contained in this report pertain only to the device(s) evaluated.</b> |                                                                                                                                                                                                                                                                                                                                                                                         |                                  |              |  |

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DOCUMENT HISTORY

| Revision | Release Date | Description of Revision | Report Number     |
|----------|--------------|-------------------------|-------------------|
| R1V1     | 2021-06-21   | Original Report         | RKSA210422002-20A |
| R1V2     | 2024-05-15   | CIIPC Report            | RKSA240109002-20B |

## FILING DESCRIPTION

| Report Number     | Information about Changes                 |
|-------------------|-------------------------------------------|
| RKSA210422002-20A | First Release                             |
| RKSA240109002-20B | Adapter, LCD, Stepping Motor, Scan Engine |

**Note:**

This is a CIIPC report application based on RKSA210422002-20A, grant date: 7/20/2021, the details as below:

1. Delete an adapter: UC13US
2. Add an LCD, its model is HS55ET16T6F, the supplier is Huashi Opto-Electronic Co., Ltd. and the specification is 5.45inch.
3. Add a stepping motor, its model is 15BY25-098, the supplier is SHENZHEN YOFON ELECTRONIC CO. , LTD and the specification is 5Vdc.
4. Add a scan engine, its model is NG004, the supplier is shanghai Sunmi Technology Co.,Ltd. and the specification is 3.3Vdc.

In response to the above changes, we retested the SAR on the front and worst sides. The frequency band of sensor reduce power is several more ( WCDMA 5/LTE Band 12&17/LTE Band26&5 ) , so we re-tested it

## EUT DESCRIPTION

*\*All measurement and test data in this report was gathered from production sample serial number: RKSA240109002-1(Assigned by BACL, Kunshan).The EUT supplied by the applicant was received on 2024-01-09.*

### Technical Specification

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Device Type:</b>           | portable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Exposure Category:</b>     | Population / Uncontrolled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Antenna Type(s):</b>       | FPC Antenna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Body-Worn Accessories:</b> | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Face-Head Accessories:</b> | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Operation Mode :</b>       | GPRS/EGPRS<br>WCDMA<br>FDD-LTE/ TDD-LTE<br>WLAN2.4G/WLAN 5G<br>Bluetooth<br>NFC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Frequency Band:</b>        | GSM 850: 824-849 MHz(TX), 869-894 MHz(RX)<br>GSM1900: 1850-1910MHz(TX), 1930-1990MHz(RX)<br>WCDMA Band II: 1850-1910 MHz MHz(TX), 1930-1990 MHz(RX)<br>WCDMA Band IV: 1710-1755 MHz(TX), 2110-2155MHz(RX)<br>WCDMA Band V: 824-849 MHz(TX), 869-894 MHz(RX)<br>LTE Band 2: 1850-1910 MHz(TX), 1930-1990MHz(RX)<br>LTE Band 4: 1710-1755 MHz(TX), 2110-2155MHz(RX)<br>LTE Band 5: 824-849 MHz(TX), 869-894 MHz(RX)<br>LTE Band 7: 2500-2570 MHz(TX), 2620-2690 MHz(RX)<br>LTE Band 12: 699-716 MHz(TX), 729-746 MHz(RX)<br>LTE Band 17: 704-716 MHz(TX), 734-746 MHz(RX)<br>LTE Band 25: 1850-1915 MHz(TX), 1930-1995 MHz(RX)<br>LTE Band 26: 814-849 MHz(TX), 859-894 MHz(RX)<br>LTE Band 40 Lower: 2305-2315 MHz(TX), 2305-2315 MHz(RX)<br>LTE Band 40 Upper: 2350-2360 MHz(TX), 2350-2360 MHz(RX)<br>LTE Band 41: 2555-2655 MHz(TX), 2555-2655 MHz(RX)<br>LTE Band 66: 1710-1780 MHz(TX), 2110-2200 MHz(RX)<br>2.4G Wi-Fi: 2412-2462 MHz(802.11b/g/n20), 2422-2452 MHz(802.11n40)<br>BT/BLE(1Mbps)/BLE(2Mbps): 2402-2480 MHz<br>5G WIFI Band 1: 5150~5250 MHz, Band 4: 5725~5850 MHz<br>NFC:13.56MHz |
| <b>Conducted RF Power:</b>    | GSM850: 33.98dBm GSM1900:29.45dBm<br>WCDMA Band II: 22.19 dBm; WCDMA Band IV: 22.34 dBm<br>WCDMA Band V: 22.16 dBm<br>LTE Band 2: 22.26 dBm; LTE Band 4: 22.21 dBm<br>LTE Band 5: 22.25 dBm;LTE Band 7: 22.21 dBm<br>LTE Band 12: 22.24 dBm; LTE Band 17: 22.31 dBm<br>LTE Band 25: 22.25 dBm; LTE Band 26: 22.26 dBm<br>LTE Band 40-low: 22.16 dBm; LTE Band 40-up: 22.25 dBm<br>LTE Band 41: 22.30 dBm<br>LTE Band 66: 22.35 dBm;<br>WLAN 2.4G: 16.92 dBm<br>WLAN 5.2G: 11.56 dBm<br>WLAN 5.8G :13.30 dBm<br>Bluetooth(BDR/EDR); 9.91 dBm; BLE:-2.37 dBm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power Source:</b>          | DC 7.7 V from battery                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Normal Operation:</b>      | Body Supported                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>★Maximum Antenna Gain:</b> | GPRS/EGPRS 850: 0.07 dBi<br>GPRS/EGPRS 1900: 2.0 dBi<br>WCDMA Band II: 2.0 dBi<br>WCDMA Band IV: 1.15 dBi<br>WCDMA Band V: 0.07 dBi<br>LTE Band 2: 2.0 dBi<br>LTE Band 4: 1.15 dBi<br>LTE Band 5: 0.07 dBi<br>LTE Band 7: 0.42 dBi<br>LTE Band 12: 2.0 dBi<br>LTE Band 17: 2.0 dBi<br>LTE Band 25: 2.0 dBi<br>LTE Band 26: 2.0 dBi<br>LTE Band 40: 2.0 dBi<br>LTE Band 41: 2.0 dBi<br>LTE Band 66: 1.15 dBi<br>2.4G Wi-Fi/BLE/BT: 2.0 dBi<br>5.2Gwifi/5.8Gwifi; 2.0 dBi |

*Adapter Information:**Model: TPA-23A050200UU01**Input: AC100-240V 50/60Hz 0.3A**Output: 5.0V, 2000mA**Note: The maximum antenna gain was declared by the manufacturer.*

## REFERENCE, STANDARDS, AND GUIDELINES

### FCC:

The Report and Order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g as recommended by the ANSI/IEEE standard C95.1-1992 [6] for an uncontrolled environment (Paragraph 65). According to the Supplement C of OET Bulletin 65 "Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under "worst-case" conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in North America is 1.6 mW/g average over 1 gram of tissue mass.

### SAR Limits

#### FCC Limit

| EXPOSURE LIMITS                                                  | SAR (W/kg)                                                     |                                                        |
|------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------|
|                                                                  | (General Population /<br>Uncontrolled Exposure<br>Environment) | (Occupational /<br>Controlled Exposure<br>Environment) |
| Spatial Average<br>(averaged over the whole body)                | 0.08                                                           | 0.4                                                    |
| Spatial Peak<br>(averaged over any 1 g of tissue)                | <b>1.60</b>                                                    | 8.0                                                    |
| Spatial Peak<br>(hands/wrists/feet/ankles<br>averaged over 10 g) | 4.0                                                            | 20.0                                                   |

Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

Occupational/Controlled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg for 1g Body SAR applied to the EUT.

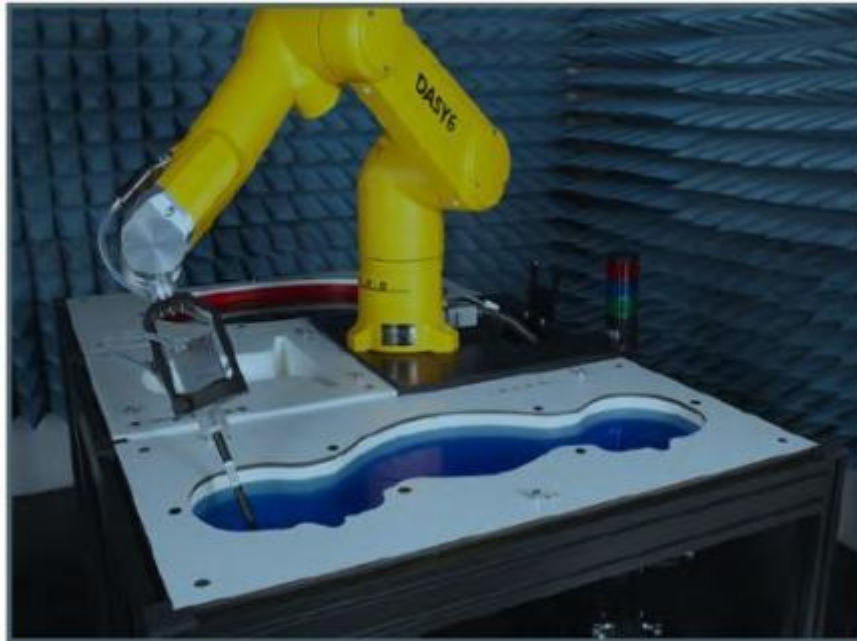
## FACILITIES

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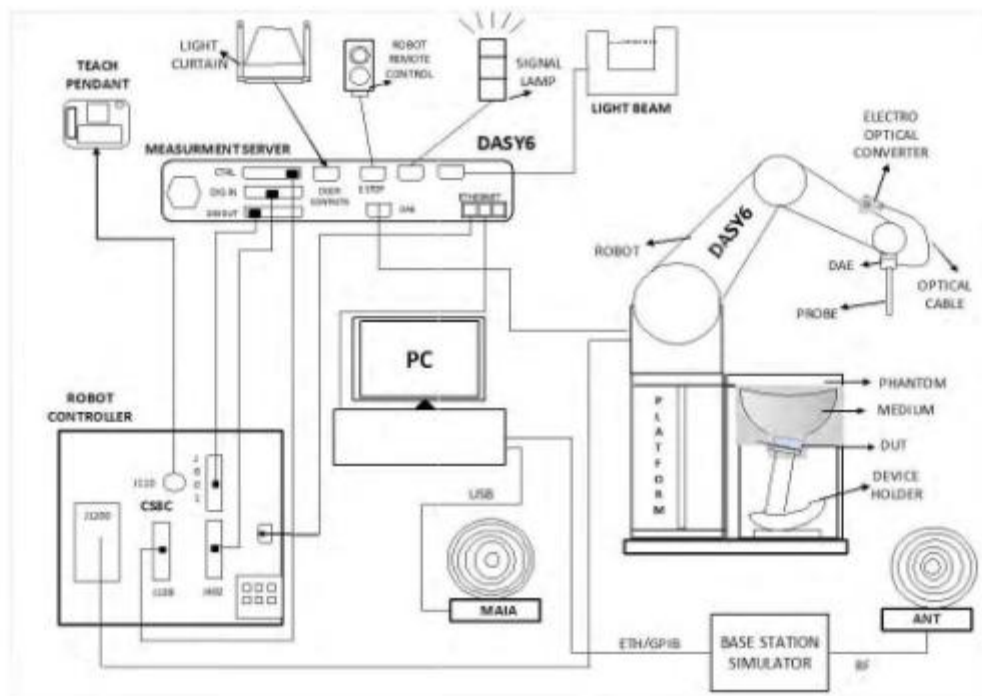
The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN5055.

These measurements were performed with the automated near-field scanning system DASY6 from Schmid & Partner Engineering AG (SPEAG) which is the Fifth generation of the system shown in the figure hereinafter:



The DASY6 system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot (Staubli TX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal application, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 professional operating system and the DASY52 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

### DASY6 Measurement Server

The DASY6 measurement server is based on a PC/104 CPU board with a 400 MHz Intel ULV Celeron, 128 MB chip-disk and 128 MB RAM. The necessary circuits for communication with the DAE4 (or DAE3) electronics box, as well as the 16-bit AD converter system for optical detection and digital I/O interface are contained on the DASY6 I/O board, which is directly connected to the PC/104 bus of the CPU board.



The measurement server performs all real-time data evaluations of field measurements and surface detection, controls robot movements, and handles safety operations. The PC operating system cannot interfere with these time-critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program- controlled robot movements. Furthermore, the measurement server is equipped with an expansion port, which is reserved for future applications. Please note that this expansion port does not have a standardized pinout, and therefore only devices provided by SPEAG can be connected. Connection of devices from any other supplier could seriously damage the measurement server.

**Data Acquisition Electronics**

The data acquisition electronics (DAE4) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

The input impedance of both the DAE4 as well as of the DAE3 box is 200M $\Omega$ ; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

**EX3DV4 E-Field Probes**

|                      |                                                                                                                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frequency</b>     | 10 MHz to > 6 GHz<br>Linearity: $\pm 0.2$ dB (30 MHz to 6 GHz)                                                                                                                                                |
| <b>Directivity</b>   | $\pm 0.3$ dB in TSL (rotation around probe axis)<br>$\pm 0.5$ dB in TSL (rotation normal to probe axis)                                                                                                       |
| <b>Dynamic Range</b> | 10 $\mu$ W/g to > 100 mW/g<br>Linearity: $\pm 0.2$ dB (noise: typically < 1 $\mu$ W/g)                                                                                                                        |
| <b>Dimensions</b>    | Overall length: 337 mm (Tip: 9 mm)<br>Tip diameter: 2.5 mm (Body: 10 mm)<br>Typical distance from probe tip to dipole centers: 1 mm                                                                           |
| <b>Application</b>   | High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%. |
| <b>Compatibility</b> | DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI                                                                                                                                                                |

**SAM Twin Phantom**

The SAM Twin Phantom (shown in front of DASY6) is a fiberglass shell phantom with shell thickness 2 mm, except in the ear region where the thickness is increased to 6 mm. The phantom has three measurement areas: 1) Left Head, 2) Right Head, and 3) Flat Section. For larger devices, the use of the ELI-Phantom (shown behind DASY6) is required. For devices such as glasses with a wireless link, the Face Down Phantom is the most suitable (between the SAM Twin and ELI phantoms).

When the phantom is mounted inside allocated slot of the DASY6 platform, phantom reference points can be taught directly in the DASY5 V5.2 software. When the DASY6 platform is used to mount the Phantom, some of the phantom teaching points cannot be reached by the robot in DASY5 V5.2. A special tool called P1a-P2aX-Former is provided to transform two of the three points, P1 and P2, to reachable locations. To use these new teaching points, a revised phantom configuration file is required.

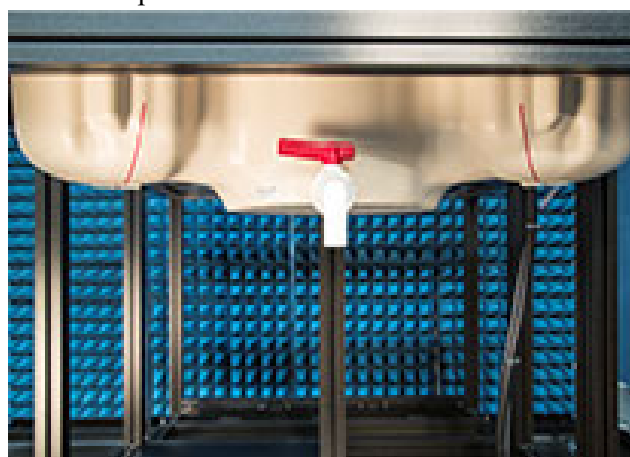
In addition to our standard broadband liquids, the phantom can be used with the following tissue simulating liquids:

Sugar-water-based liquids can be left permanently in the phantom. Always cover the liquid when the system is not in use to prevent changes in liquid parameters due to water evaporation.

DGBE-based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom, and the phantom should be dried when the system is not in use (desirable at least once a week).

Do not use other organic solvents without previously testing the solvent resistivity of the phantom.

Approximately 25 liters of liquid is required to fill the SAM Twin phantom.



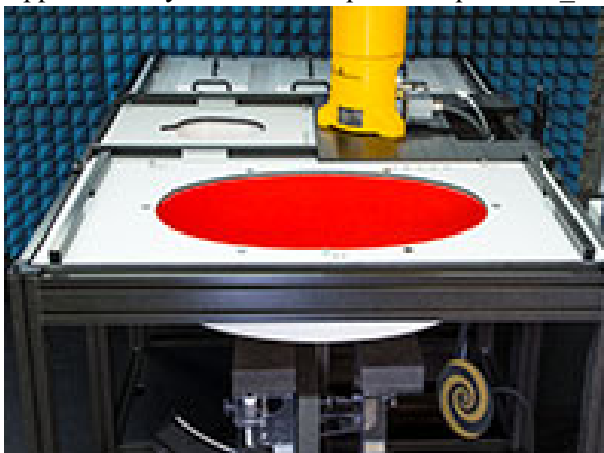
## ELI Phantom

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6 GHz. ELI is fully compatible with the latest draft of the standard IEC 62209-2 and the use of all known tissue simulating liquids. ELI has been optimized for performance and can be integrated into a SPEAG standard phantom table. A cover is provided to prevent evaporation of water and changes in liquid parameters. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points.

The phantom can be used with the following tissue simulating liquids:

- Sugar-water-based liquids can be left permanently in the phantom. Always cover the liquid when the system is not in use to prevent changes in liquid parameters due to water evaporation.
- DGBE-based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom, and the phantom should be dried when the system is not in use (desirable at least once a week).
- Do not use other organic solvents without previously testing the solvent resistivity of the phantom.

Approximately 25 liters of liquid is required to fill the ELI phantom.



## Robots

The DASY6 system uses the high-precision industrial robots TX60L, TX90XL, and RX160L from Staubli SA (France). The TX robot family - the successor of the well-known RX robot family - continues to offer the features important for DASY6 applications:

- High precision (repeatability 0.02mm)
- High reliability (industrial design)
- Low maintenance costs (virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements (brushless synchrony motors; no stepper motors)
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)

The robots are controlled by the Staubli CS8c robot controllers. All information regarding the use and maintenance of the robot arm and the robot controller is provided

**Area Scans**

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 15mm 2 step integral, with 1.5mm interpolation used to locate the peak SAR area used for zoom scan assessments.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

**Zoom Scan (Cube Scan Averaging)**

The averaging zoom scan volume utilized in the DASY5 software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1000 kg/m<sup>3</sup> is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1g cube is 10mm, with the side length of the 10g cube is 21.5mm.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the center of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 7 x 7 x 7 (5mmx5mmx5mm) providing a volume of 30 mm in the X & Y & Z axis.

## Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEC 62209-1:2016

### Recommended Tissue Dielectric Parameters for Head liquid

**Table A.3 – Dielectric properties of the head tissue-equivalent liquid**

| Frequency<br>MHz | Relative permittivity<br>$\epsilon_r$ | Conductivity ( $\sigma$ )<br>S/m |
|------------------|---------------------------------------|----------------------------------|
| 300              | 45,3                                  | 0,87                             |
| 450              | 43,5                                  | 0,87                             |
| 750              | 41,9                                  | 0,89                             |
| 835              | 41,5                                  | 0,90                             |
| 900              | 41,5                                  | 0,97                             |
| 1 450            | 40,5                                  | 1,20                             |
| 1 500            | 40,4                                  | 1,23                             |
| 1 640            | 40,2                                  | 1,31                             |
| 1 750            | 40,1                                  | 1,37                             |
| 1 800            | 40,0                                  | 1,40                             |
| 1 900            | 40,0                                  | 1,40                             |
| 2 000            | 40,0                                  | 1,40                             |
| 2 100            | 39,8                                  | 1,49                             |
| 2 300            | 39,5                                  | 1,67                             |
| 2 450            | 39,2                                  | 1,80                             |
| 2 600            | 39,0                                  | 1,96                             |
| 3 000            | 38,5                                  | 2,40                             |
| 3 500            | 37,9                                  | 2,91                             |
| 4 000            | 37,4                                  | 3,43                             |
| 4 500            | 36,8                                  | 3,94                             |
| 5 000            | 36,2                                  | 4,45                             |
| 5 200            | 36,0                                  | 4,66                             |
| 5 400            | 35,8                                  | 4,86                             |
| 5 600            | 35,5                                  | 5,07                             |
| 5 800            | 35,3                                  | 5,27                             |
| 6 000            | 35,1                                  | 5,48                             |

NOTE For convenience, permittivity and conductivity values at those frequencies which are not part of the original data provided by Drossos et al. [33] or the extension to 5 800 MHz are provided (i.e. the values shown *in italics*). These values were linearly interpolated between the values in this table that are immediately above and below these values, except the values at 6 000 MHz that were linearly extrapolated from the values at 3 000 MHz and 5 800 MHz.

#### Note:

- 1, Effective February 19, 2019, FCC has permitted the use of single head-tissue simulating liquid specified in IEC 62209-1 for all SAR tests.
- 2, Mix and Match of traditional FCC SAR TSLs and IEC 62209-1 TSL in a single application is not permitted TSL can be changed in a Permissive Change.
- 3, If SAR increases and original SAR > 1.2 W/kg, additional SAR measurements will be required IEC 62209-1 TSL is an alternative, not mandatory at this time.
- 4, If FCC parameters are used,  $\pm 5\%$  tolerance. If IEC parameters,  $\pm 10\%$ .
- 5, In this case, IEC parameters applied.

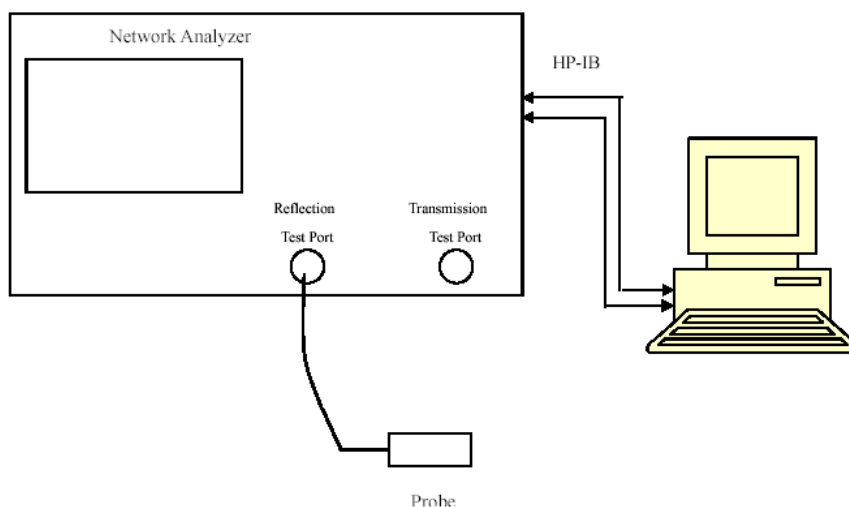
## EQUIPMENT LIST AND CALIBRATION

### Equipments List & Calibration Information

| Equipment                    | Model          | S/N           | Calibration Date | Calibration Due Date |
|------------------------------|----------------|---------------|------------------|----------------------|
| DASY5 Test Software          | DASY52 52.10.2 | N/A           | N/A              | N/A                  |
| DASY6 Measurement Server     | DASY6 6.0.31   | N/A           | N/A              | N/A                  |
| Data Acquisition Electronics | DAE4           | 527           | 2024/03/26       | 2025/03/25           |
| E-Field Probe                | EX3DV4         | 7557          | 2024/03/26       | 2025/03/25           |
| Mounting Device              | MD4HHTV5       | SD 000 H01 KA | N/A              | N/A                  |
| ELI V8.0 Phantom             | QD OVA 004 Ax  | 2095          | N/A              | N/A                  |
| Dipole, 750MHz               | D750V3         | 1166          | 2021/08/31       | 2024/08/30           |
| Dipole, 835MHz               | D835V2         | 445           | 2023/02/10       | 2026/02/09           |
| Dipole,1750MHz               | D1750V2        | 1140          | 2021/06/29       | 2024/06/28           |
| Dipole,1900MHz               | D1900V2        | 5d206         | 2021/09/01       | 2024/08/31           |
| Dipole,2300MHz               | D2300V2        | 1098          | 2022/08/23       | 2025/08/22           |
| Dipole,2450MHz               | D2450V2        | 970           | 2021/06/28       | 2024/06/27           |
| Dipole,2600MHz               | D2600V2        | 1162          | 2022/08/22       | 2025/08/21           |
| Dipole,5GHz                  | D5GHzV2        | 1296          | 2022/08/17       | 2025/08/16           |
| Simulated Tissue LiquidHead  | HBBL600-6000V6 | 180611-3      | Each Time        |                      |
| Network Analyzer             | E5071B         | SG42400155    | 2023/05/23       | 2024/05/22           |
| Dielectric Assessment Kit    | DAK-3.5        | SM DAK 300AB  | N/A              | N/A                  |
| Signal Generator             | N5182B         | MY53051592    | 2023/05/23       | 2024/05/22           |
| Power Amplifier              | 5S1G4          | 71377         | N/A              | N/A                  |
| Directional Coupler          | 4242-10        | 3307          | N/A              | N/A                  |
| Attenuator                   | 3dB            | 5402          | N/A              | N/A                  |
| Attenuator                   | 10dB           | AU 3842       | N/A              | N/A                  |
| Radio Communication Analyzer | MT8820C        | 6200930956    | 2023/06/15       | 2024/06/14           |
| Hygrothermograph             | HTC-1          | N/A           | 2023/5/22        | 2024/5/21            |
| Thermometer                  | UL-IL01        | N/A           | 2023/5/22        | 2024/5/21            |
| Power Meter                  | E4419B         | MY41291878    | 2023/05/23       | 2024/05/22           |

## SAR MEASUREMENT SYSTEM VERIFICATION

### Liquid Verification



Liquid Verification Setup Block Diagram

### Liquid Verification Results

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value   |              | Delta (%)       |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|----------------|--------------|-----------------|---------------------|---------------|
|                 |             | $\sigma$ (S/m)   | $\epsilon_r$ | $\sigma$ (S/m) | $\epsilon_r$ | $\Delta \sigma$ | $\Delta \epsilon_r$ |               |
| 750             | Head        | 0.900            | 41.707       | 0.890          | 41.900       | 1.12            | -0.46               | $\pm 5$       |
| 707.5           | Head        | 0.858            | 42.200       | 0.887          | 42.112       | -3.27           | 0.21                | $\pm 5$       |
| 704             | Head        | 0.855            | 42.248       | 0.887          | 42.133       | -3.61           | 0.27                | $\pm 5$       |
| 711             | Head        | 0.862            | 42.161       | 0.887          | 42.097       | -2.82           | 0.15                | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/18.

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value   |              | Delta (%)       |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|----------------|--------------|-----------------|---------------------|---------------|
|                 |             | $\sigma$ (S/m)   | $\epsilon_r$ | $\sigma$ (S/m) | $\epsilon_r$ | $\Delta \sigma$ | $\Delta \epsilon_r$ |               |
| 835             | Head        | 0.925            | 42.273       | 0.900          | 41.500       | 2.78            | 1.86                | $\pm 5$       |
| 824.2           | Head        | 0.914            | 42.401       | 0.898          | 41.512       | 1.78            | 2.14                | $\pm 5$       |
| 848.8           | Head        | 0.938            | 42.106       | 0.909          | 41.500       | 3.19            | 1.46                | $\pm 5$       |
| 836.6           | Head        | 0.927            | 42.253       | 0.901          | 41.500       | 2.89            | 1.81                | $\pm 5$       |
| 826.4           | Head        | 0.916            | 42.384       | 0.898          | 41.508       | 2.00            | 2.11                | $\pm 5$       |
| 846.6           | Head        | 0.936            | 42.120       | 0.907          | 41.500       | 3.20            | 1.49                | $\pm 5$       |
| 831.5           | Head        | 0.921            | 42.317       | 0.899          | 41.501       | 2.45            | 1.97                | $\pm 5$       |
| 821.5           | Head        | 0.911            | 42.435       | 0.897          | 41.517       | 1.56            | 2.21                | $\pm 5$       |
| 841.5           | Head        | 0.932            | 42.195       | 0.903          | 41.500       | 3.21            | 1.67                | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/19.

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 1750            | Head        | 1.368            | 39.457       | 1.370        | 40.100       | -0.15      | -1.60               | $\pm 5$       |
| 1745            | Head        | 1.363            | 39.479       | 1.384        | 40.046       | -1.52      | -1.42               | $\pm 5$       |
| 1720            | Head        | 1.337            | 39.583       | 1.369        | 40.089       | -2.34      | -1.26               | $\pm 5$       |
| 1770            | Head        | 1.387            | 39.375       | 1.395        | 40.015       | -0.57      | -1.60               | $\pm 5$       |
| 1732.6          | Head        | 1.351            | 39.531       | 1.377        | 40.069       | -1.89      | -1.34               | $\pm 5$       |
| 1712.4          | Head        | 1.33             | 39.618       | 1.364        | 40.104       | -2.49      | -1.21               | $\pm 5$       |
| 1752.6          | Head        | 1.371            | 39.449       | 1.388        | 40.034       | -1.22      | -1.46               | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/20.

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 1900            | Head        | 1.422            | 39.142       | 1.400        | 40.000       | 1.57       | -2.14               | $\pm 5$       |
| 1880            | Head        | 1.402            | 39.232       | 1.400        | 40.000       | 0.14       | -1.92               | $\pm 5$       |
| 1850.2          | Head        | 1.372            | 39.367       | 1.400        | 40.000       | -2.00      | -1.58               | $\pm 5$       |
| 1909.8          | Head        | 1.433            | 39.104       | 1.400        | 40.000       | 2.36       | -2.24               | $\pm 5$       |
| 1852.4          | Head        | 1.375            | 39.358       | 1.400        | 40.000       | -1.79      | -1.61               | $\pm 5$       |
| 1907.6          | Head        | 1.431            | 39.113       | 1.400        | 40.000       | 2.21       | -2.22               | $\pm 5$       |
| 1860            | Head        | 1.382            | 39.328       | 1.400        | 40.000       | -1.29      | -1.68               | $\pm 5$       |
| 1905            | Head        | 1.428            | 39.122       | 1.400        | 40.000       | 2.00       | -2.20               | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/21

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 2300            | Head        | 1.706            | 38.791       | 1.670        | 39.500       | 2.16       | -1.79               | $\pm 5$       |
| 2310            | Head        | 1.718            | 38.746       | 1.67         | 39.42        | 2.87       | -1.71               | $\pm 5$       |
| 2355            | Head        | 1.769            | 38.558       | 1.71         | 39.35        | 3.45       | -2.01               | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/22

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 2450            | Head        | 1.846            | 39.167       | 1.800        | 39.200       | 2.56       | -0.08               | $\pm 5$       |
| 2437            | Head        | 1.832            | 39.220       | 1.788        | 39.219       | 2.46       | 0.00                | $\pm 5$       |
| 2412            | Head        | 1.802            | 39.313       | 1.765        | 39.256       | 2.10       | 0.15                | $\pm 5$       |
| 2462            | Head        | 1.859            | 39.115       | 1.812        | 39.183       | 2.59       | -0.17               | $\pm 5$       |
| 2441            | Head        | 1.836            | 39.205       | 1.79         | 39.21        | 2.57       | -0.01               | $\pm 5$       |
| 2402            | Head        | 1.791            | 39.353       | 1.76         | 39.27        | 1.76       | 0.21                | $\pm 5$       |
| 2480            | Head        | 1.881            | 39.041       | 1.83         | 39.16        | 2.79       | -0.30               | $\pm 5$       |
| 2535            | Head        | 1.946            | 38.832       | 1.888        | 39.084       | 3.07       | -0.64               | $\pm 5$       |
| 2510            | Head        | 1.915            | 38.932       | 1.861        | 39.117       | 2.90       | -0.47               | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/23

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 2600            | Head        | 2.046            | 37.501       | 1.960        | 39.000       | 4.39       | -3.84               | $\pm 5$       |
| 2560            | Head        | 1.998            | 37.666       | 1.916        | 39.051       | 4.28       | -3.55               | $\pm 5$       |
| 2605            | Head        | 2.051            | 37.485       | 1.97         | 38.99        | 4.32       | -3.87               | $\pm 5$       |
| 2565            | Head        | 2.004            | 37.642       | 1.92         | 39.04        | 4.32       | -3.59               | $\pm 5$       |
| 2580            | Head        | 2.022            | 37.577       | 1.938        | 39.025       | 4.33       | -3.71               | $\pm 5$       |
| 2645            | Head        | 2.097            | 37.322       | 2.01         | 38.94        | 4.38       | -4.16               | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/24

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 5250            | Head        | 4.906            | 37.378       | 4.710        | 35.900       | 4.16       | 4.12                | $\pm 5$       |
| 5200            | Head        | 4.849            | 37.452       | 4.660        | 36.000       | 4.06       | 4.03                | $\pm 5$       |
| 5180            | Head        | 4.827            | 37.480       | 4.639        | 36.020       | 4.05       | 4.05                | $\pm 5$       |
| 5240            | Head        | 4.895            | 37.378       | 4.701        | 35.960       | 4.13       | 3.94                | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/25

| Frequency (MHz) | Liquid Type | Liquid Parameter |              | Target Value |              | Delta (%)  |                     | Tolerance (%) |
|-----------------|-------------|------------------|--------------|--------------|--------------|------------|---------------------|---------------|
|                 |             | O (S/m)          | $\epsilon_r$ | O (S/m)      | $\epsilon_r$ | $\Delta O$ | $\Delta \epsilon_r$ |               |
| 5750            | Head        | 5.465            | 36.558       | 5.220        | 35.400       | 4.69       | 3.27                | $\pm 5$       |
| 5785            | Head        | 5.476            | 36.583       | 5.255        | 35.315       | 4.21       | 3.59                | $\pm 5$       |
| 5745            | Head        | 5.428            | 36.627       | 5.215        | 35.355       | 4.08       | 3.60                | $\pm 5$       |
| 5825            | Head        | 5.516            | 36.511       | 5.296        | 35.275       | 4.15       | 3.50                | $\pm 5$       |

\*Liquid Verification above was performed on 2024/04/25

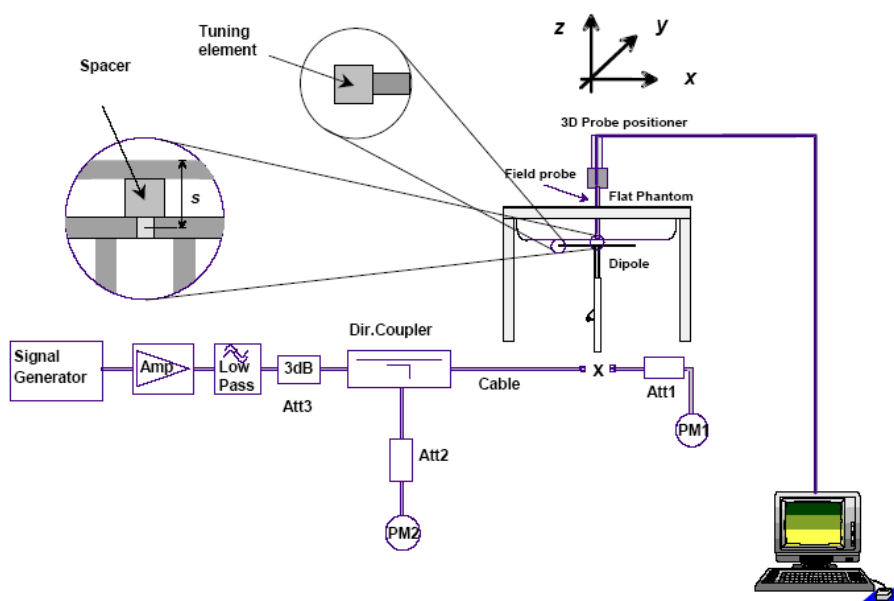
## System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of  $\pm 10\%$ . The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

The spacing distances in the **System Verification Setup Block Diagram** is given by the following:

- $s = 15 \text{ mm} \pm 0,2 \text{ mm}$  for  $300 \text{ MHz} \leq f \leq 1\,000 \text{ MHz}$ ;
- $s = 10 \text{ mm} \pm 0,2 \text{ mm}$  for  $1\,000 \text{ MHz} < f \leq 3\,000 \text{ MHz}$ ;
- $s = 10 \text{ mm} \pm 0,2 \text{ mm}$  for  $3\,000 \text{ MHz} < f \leq 6\,000 \text{ MHz}$ .

## System Verification Setup Block Diagram



## System Accuracy Check Results

| Date       | Frequency Band | Liquid Type | Input Power (mW) | Measured SAR (W/kg) |       | Normalized to 1W (W/kg) | Target Value (W/kg) | Delta (%) | Tolerance (%) |
|------------|----------------|-------------|------------------|---------------------|-------|-------------------------|---------------------|-----------|---------------|
| 2024/04/18 | 750MHz         | Head        | 250              | 1g                  | 2.18  | 8.72                    | 8.52                | 2.35      | $\pm 10$      |
| 2024/04/19 | 835 MHz        | Head        | 250              | 1g                  | 2.43  | 9.72                    | 9.53                | 1.99      | $\pm 10$      |
| 2024/04/20 | 1750 MHz       | Head        | 250              | 1g                  | 9.65  | 38.6                    | 35.90               | 7.52      | $\pm 10$      |
| 2024/04/21 | 1900MHz        | Head        | 250              | 1g                  | 10.50 | 42                      | 39.60               | 6.06      | $\pm 10$      |
| 2024/04/22 | 2300MHz        | Head        | 250              | 1g                  | 11.9  | 47.6                    | 49.50               | -3.84     | $\pm 10$      |
| 2024/04/23 | 2450 MHz       | Head        | 250              | 1g                  | 14.00 | 56                      | 53.10               | 5.46      | $\pm 10$      |
| 2024/04/24 | 2600 MHz       | Head        | 250              | 1g                  | 14.00 | 56                      | 54.90               | 2.00      | $\pm 10$      |
| 2024/04/25 | 5250 MHz       | Head        | 100              | 1g                  | 7.42  | 74.2                    | 79.40               | -6.55     | $\pm 10$      |
| 2024/04/25 | 5750 MHz       | Head        | 100              | 1g                  | 7.63  | 76.3                    | 79.00               | -3.42     | $\pm 10$      |

\*The SAR values above are normalized to 1 Watt forward power.

**SAR SYSTEM VALIDATION DATA**

System Check\_Head\_750MHz

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1166

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.9$  S/m;  $\epsilon_r = 41.707$ ;  $\rho = 1000$  kg/m<sup>3</sup>

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(10.27, 10.27, 10.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.19 W/kg

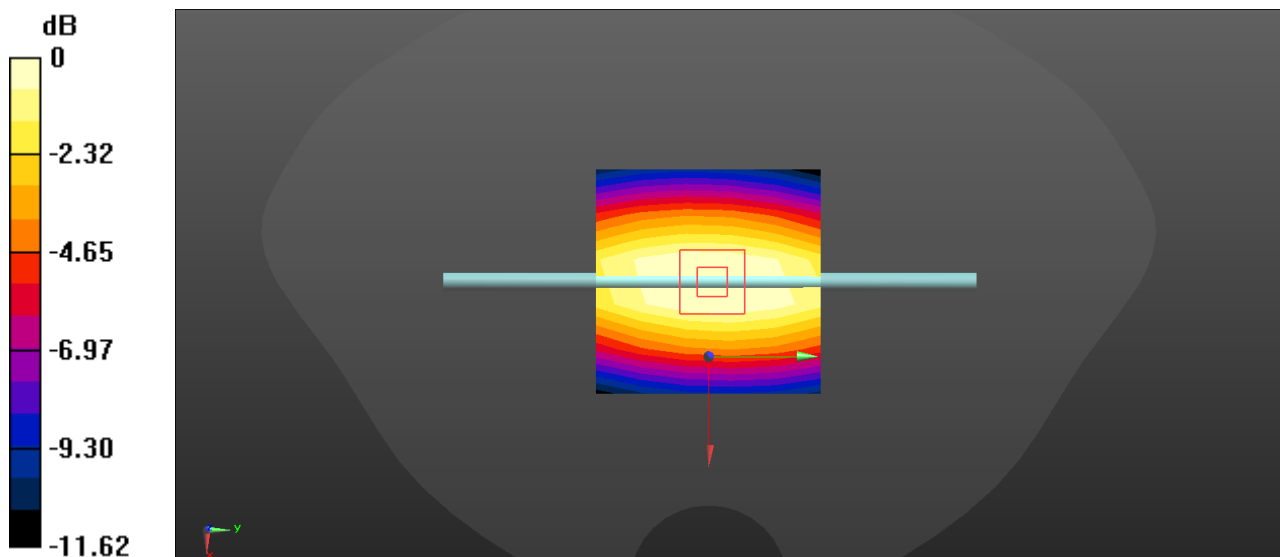
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.32 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.18 W/kg

**SAR(1 g) = 2.18 W/kg; SAR(10 g) = 1.45 W/kg**

Maximum value of SAR (measured) = 2.52 W/kg



$$0 \text{ dB} = 2.52 \text{ W/kg} = 4.01 \text{ dBW/kg}$$

## System Check\_Head\_835MHz

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:445

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 42.273$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(9.88, 9.88, 9.88); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.53 W/kg

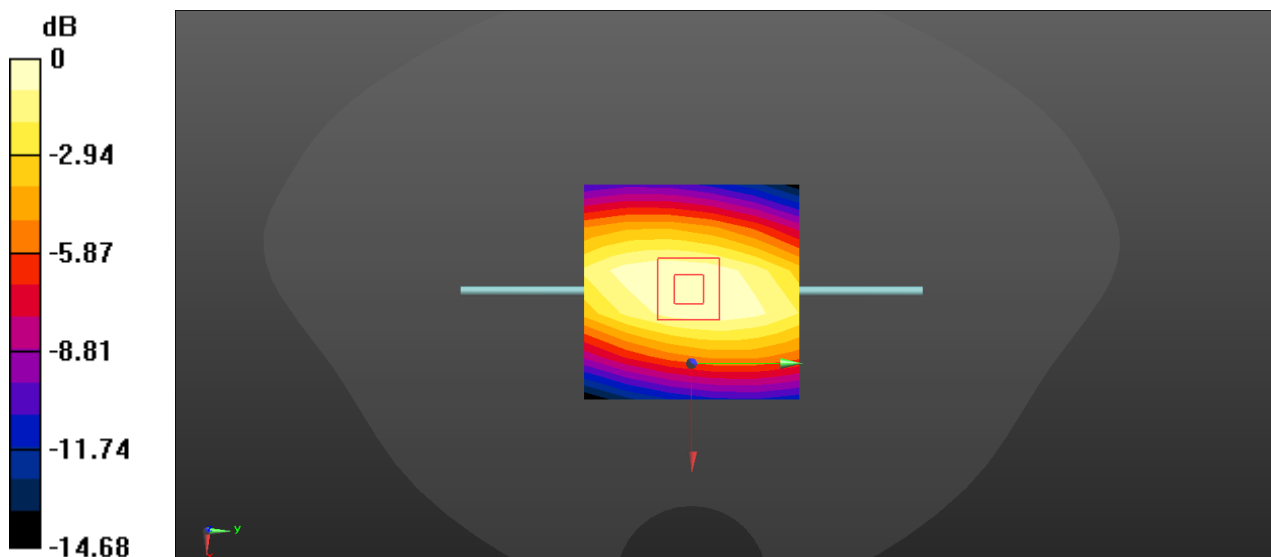
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.12 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.58 W/kg

**SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.6 W/kg**

Maximum value of SAR (measured) = 2.84 W/kg



$$0 \text{ dB} = 2.84 \text{ W/kg} = 4.53 \text{ dBW/kg}$$

## System Check\_Head\_1750MHz

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1140

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.368$  S/m;  $\epsilon_r = 39.457$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(8.28, 8.28, 8.28); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 12.8 W/kg

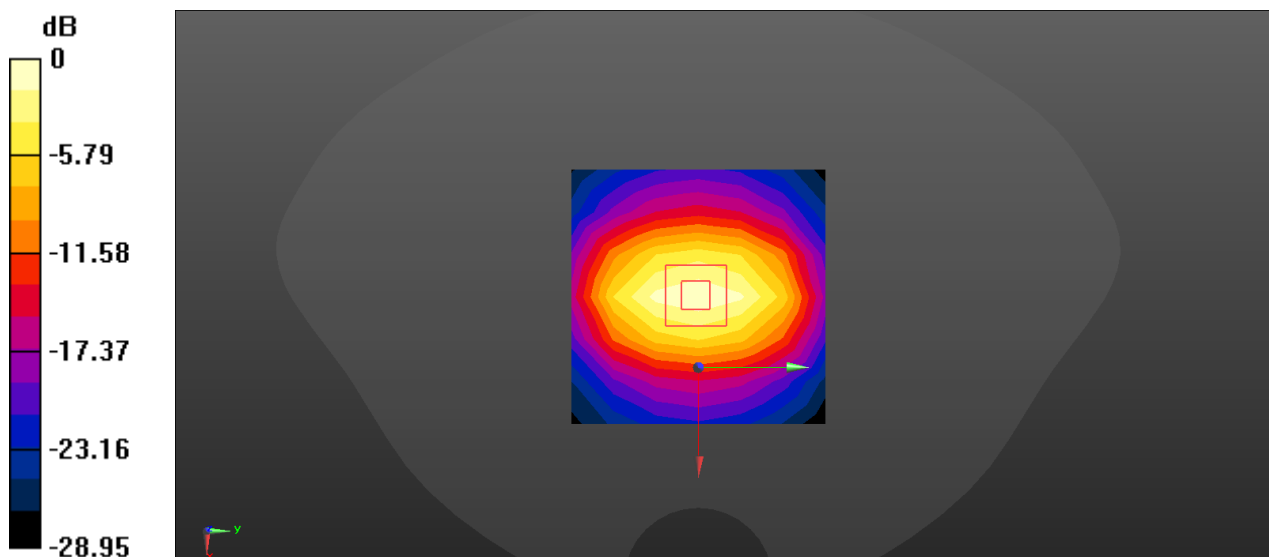
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 97.35 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 18.2 W/kg

**SAR(1 g) = 9.65 W/kg; SAR(10 g) = 5.02 W/kg**

Maximum value of SAR (measured) = 12.6 W/kg



$$0 \text{ dB} = 12.8 \text{ W/kg} = 11.07 \text{ dBW/kg}$$

## System Check\_Head\_1900MHz

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d206

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.422$  S/m;  $\epsilon_r = 39.142$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.92, 7.92, 7.92); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (7x7x1);** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 12.6 W/kg

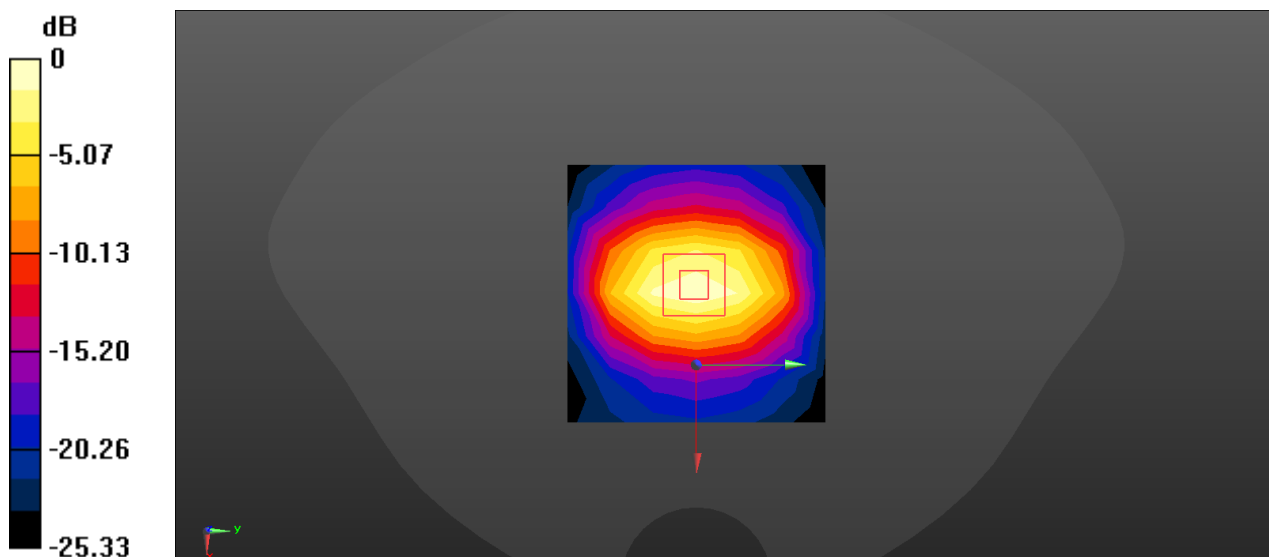
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 95.08 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 19.6 W/kg

**SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.45 W/kg**

Maximum value of SAR (measured) = 13.2 W/kg



$$0 \text{ dB} = 13.2 \text{ W/kg} = 11.21 \text{ dBW/kg}$$

## System Check\_Head\_2300MHz

DUT: D2300V2-1098; Type: D2300V2; Serial: D2300V2 - SN:1098

Communication System: UID 0, CW (0); Frequency: 2300 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.706$  S/m;  $\epsilon_r = 38.791$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.6, 7.6, 7.6); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (7x7x1);** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 13.7 W/kg

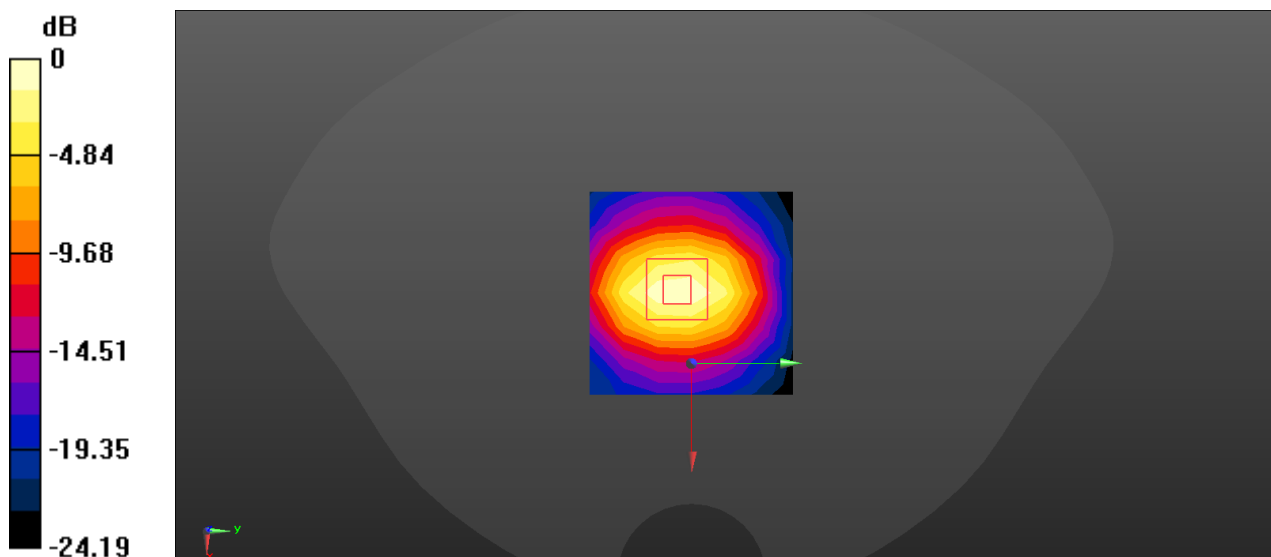
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.27 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 20.4 W/kg

**SAR(1 g) = 11.9 W/kg; SAR(10 g) = 5.43 W/kg**

Maximum value of SAR (measured) = 14.0 W/kg



$$0 \text{ dB} = 14.0 \text{ W/kg} = 11.46 \text{ dBW/kg}$$

## System Check\_Head\_2450MHz

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:970

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.846$  S/m;  $\epsilon_r = 39.167$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.27, 7.27, 7.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (7x7x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 17.3 W/kg

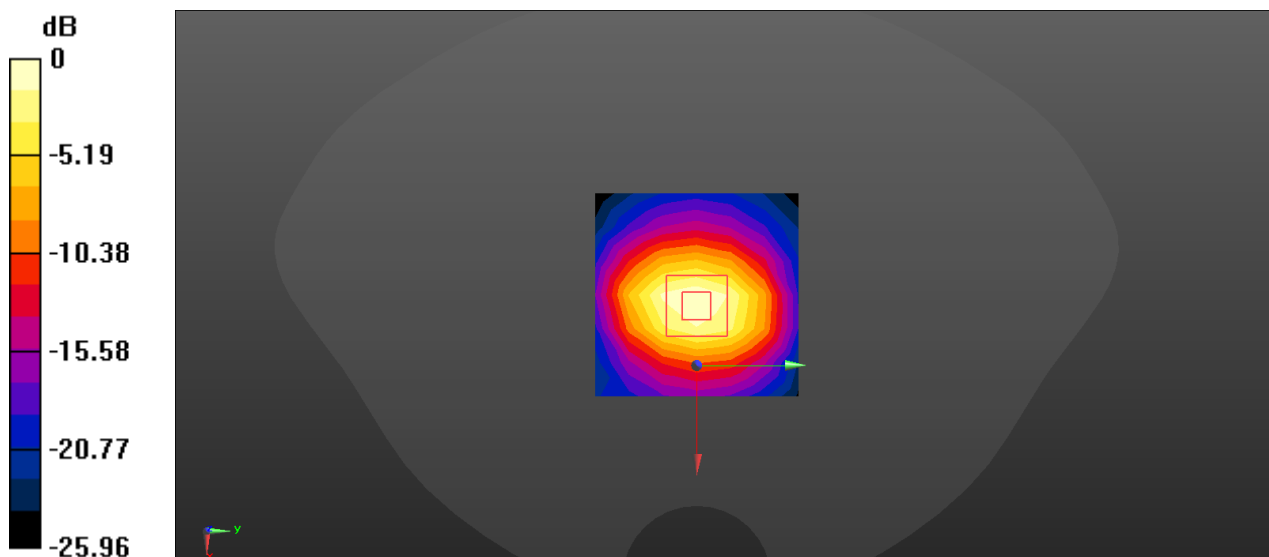
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 95.16 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 27.9 W/kg

**SAR(1 g) = 14 W/kg; SAR(10 g) = 6.47 W/kg**

Maximum value of SAR (measured) = 18.2 W/kg



$$0 \text{ dB} = 18.2 \text{ W/kg} = 12.60 \text{ dBW/kg}$$

## System Check\_Head\_2600MHz

DUT: D2600V2-1162; Type: D2600V2; Serial: D2600V2 - SN:1162

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.046$  S/m;  $\epsilon_r = 37.501$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.02, 7.02, 7.02); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=250mW/Area Scan (7x7x1);** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 23.6 W/kg

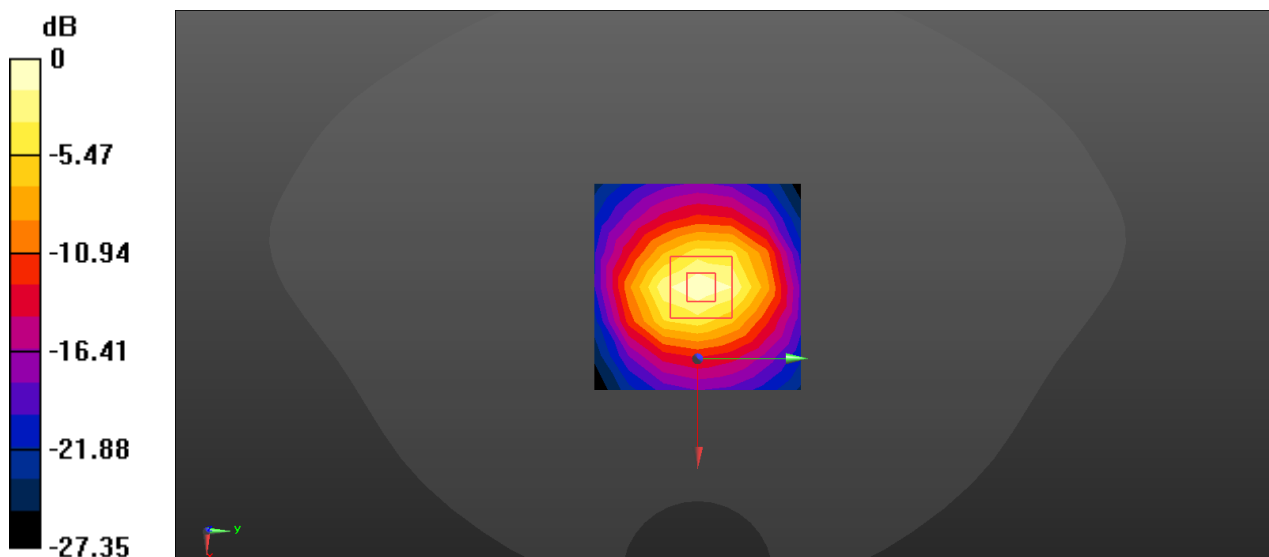
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.9 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 29.1 W/kg

**SAR(1 g) = 14 W/kg; SAR(10 g) = 6.36 W/kg**

Maximum value of SAR (measured) = 23.6 W/kg



$$0 \text{ dB} = 23.6 \text{ W/kg} = 13.73 \text{ dBW/kg}$$

## System Check\_Head\_5250MHz

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1296

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.906$  S/m;  $\epsilon_r = 37.378$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(5.25, 5.25, 5.25); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=100mW/Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.5 W/kg

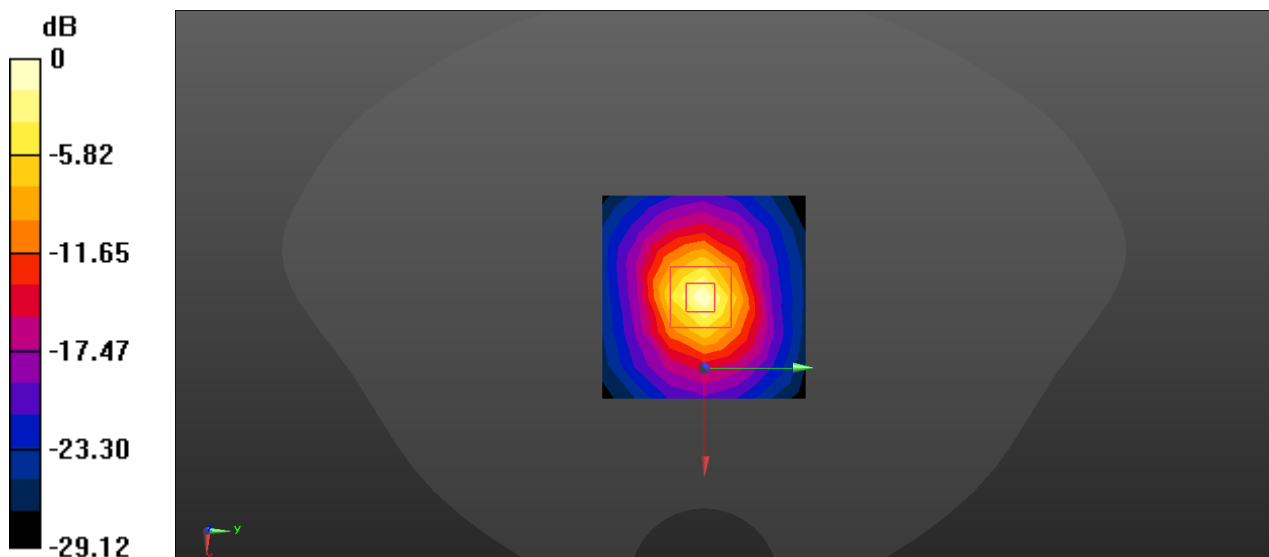
**Pin=100mW/Zoom Scan (7x7x17)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.27 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 36.4 W/kg

**SAR(1 g) = 7.42 W/kg; SAR(10 g) = 2.07 W/kg**

Maximum value of SAR (measured) = 10.7 W/kg

 $0 \text{ dB} = 10.7 \text{ W/kg} = 10.29 \text{ dBW/kg}$

## System Check\_Head\_5750MHz

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1296

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.465$  S/m;  $\epsilon_r = 36.558$ ;  $\rho = 1000$  kg/m<sup>3</sup>

## DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(4.78, 4.78, 4.78); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: Twin-SAM; Type: QD 000 P41 Ax; Serial: 1963
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

**Pin=100mW/Area Scan (9x9x1);** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 10.5 W/kg

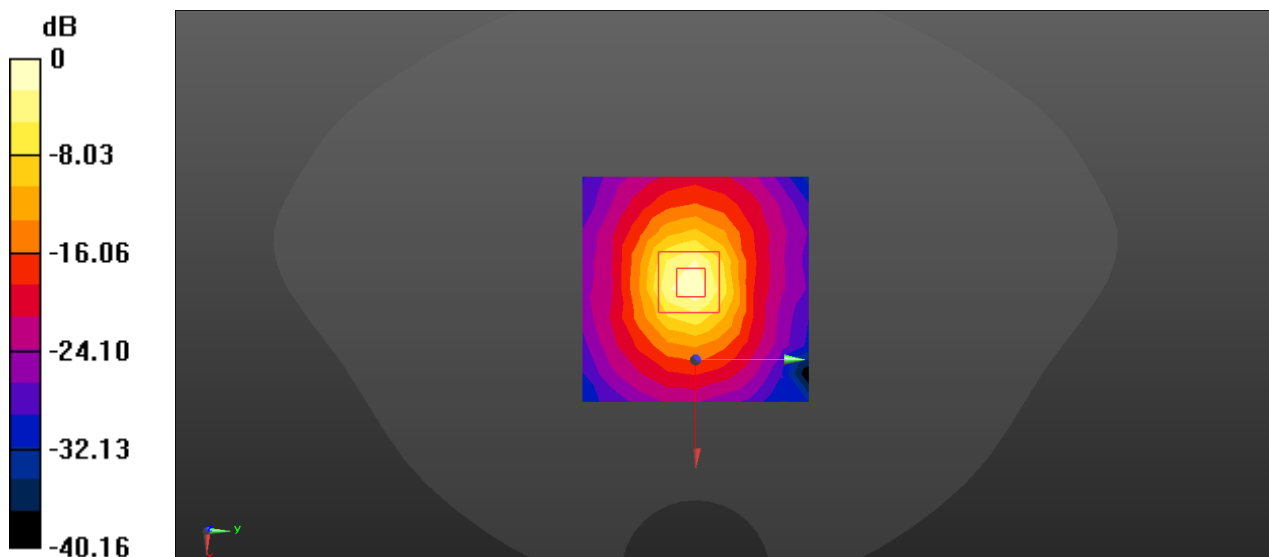
**Pin=100mW/Zoom Scan (10x10x17)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.83 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 32.6 W/kg

**SAR(1 g) = 7.63 W/kg; SAR(10 g) = 2.13 W/kg**

Maximum value of SAR (measured) = 12.0 W/kg



$$0 \text{ dB} = 12.0 \text{ W/kg} = 10.79 \text{ dBW/kg}$$

## EUT TEST STRATEGY AND METHODOLOGY

### Test positions for body-worn and other configurations

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only the accessory that dictates the closest spacing to the body must be tested.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components.

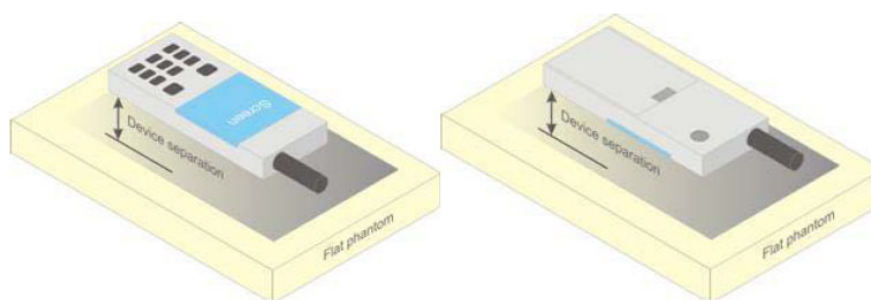


Figure 5 – Test positions for body-worn devices

### Test Distance for SAR Evaluation

In this case the EUT (Equipment Under Test) is set against from the phantom, the test distance is 0mm.

## SAR Evaluation Procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the ear point or central position was used as a reference value for assessing the power drop. The SAR at this point is measured at the start of the test and then again at the end of the testing.

Step 2: The SAR distribution at the exposed side of the head was measured at a distance of 4 mm from the inner surface of the shell. The area covered the entire dimension of the head or radiating structures of the EUT, the horizontal grid spacing was 15 mm x 15 mm, and the SAR distribution was determined by integrated grid of 1.5mm x 1.5mm. Based on these data, the area of the maximum absorption was determined by spline interpolation. The first Area Scan covers the entire dimension of the EUT to ensure that the hotspot was correctly identified.

Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7x 7 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

- 1) The data at the surface were extrapolated, since the center of the dipoles is 1.2 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

- 2) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 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 integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the averages.

All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

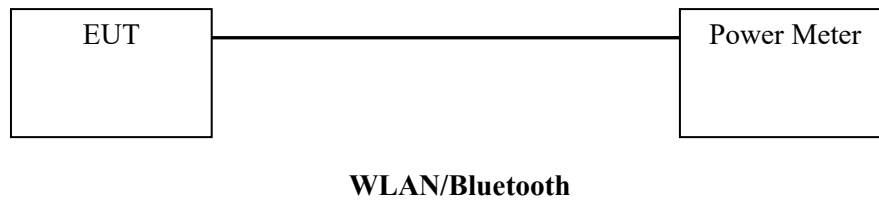
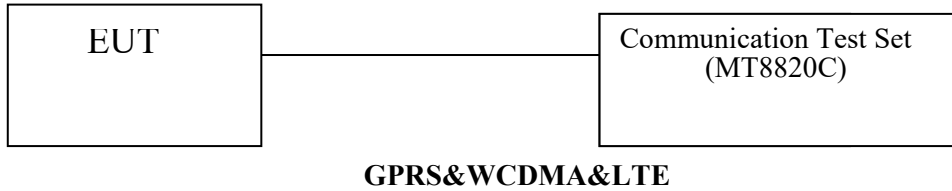
Step 4: Re-measurement of the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation was repeated.

## CONDUCTED OUTPUT POWER MEASUREMENT

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### Test Procedure

The RF output of the transmitter was connected to the input of the Communication Test Set and Power Meter



## Radio Configuration

The power measurement was configured by the Wireless Communication Test Set.

### GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/1900

Press Connection control to choose the different menus

Press RESET > choose all the reset all settings

Connection Press Signal Off to turn off the signal and change settings

Network Support > GPRS or EGSM

Main Service > Packet Data

Service selection > Test Mode A – Auto Slot Config. off

MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting

> Slot configuration > Uplink/Gamma

> 33 dBm for GPRS 850

> 30 dBm for GPRS 1900

> 27 dBm for EGPRS 850

> 26 dBm for EGPRS 1900

BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel

Frequency Offset > + 0 Hz

Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stable)

BCCH Channel > choose desired test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off

P0 > 4 dB

Slot Config > Unchanged (if already set under MS signal)

TCH > choose desired test channel

Hopping > Off

Main Timeslot > 3

Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)

Bit Stream > 2E9-1 PSR Bit Stream

AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input

Connection Press Signal on to turn on the signal and change settings

### WCDMA Release 99

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification. The EUT has a nominal maximum output power of 24dBm (+1.7/-3.7).

|                                   |                            |              |
|-----------------------------------|----------------------------|--------------|
| <b>WCDMA<br/>General Settings</b> | Loopback Mode              | Test Mode 1  |
|                                   | Rel99 RMC                  | 12.2kbps RMC |
|                                   | Power Control<br>Algorithm | Algorithm2   |
|                                   | $\beta_c/\beta_d$          | 8/15         |

**HSDPA**

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

|                               | Mode<br>Subset                | HSDPA<br>1   | HSDPA<br>2 | HSDPA<br>3 | HSDPA<br>4 |
|-------------------------------|-------------------------------|--------------|------------|------------|------------|
| WCDMA<br>General<br>Settings  | Loopback Mode                 | Test Mode 1  |            |            |            |
|                               | Rel99 RMC                     | 12.2kbps RMC |            |            |            |
|                               | HSDPA FRC                     | H-Set1       |            |            |            |
|                               | Power Control<br>Algorithm    | Algorithm2   |            |            |            |
|                               | $\beta_c$                     | 2/15         | 12/15      | 15/15      | 15/15      |
|                               | $\beta_d$                     | 15/15        | 15/15      | 8/15       | 4/15       |
|                               | $\beta_d(SF)$                 | 64           |            |            |            |
|                               | $\beta_c/\beta_d$             | 2/15         | 12/15      | 15/8       | 15/4       |
|                               | $\beta_{hs}$                  | 4/15         | 24/15      | 30/15      | 30/15      |
|                               | MPR(dB)                       | 0            | 0          | 0.5        | 0.5        |
| HSDPA<br>Specific<br>Settings | DACK                          | 8            |            |            |            |
|                               | DNAK                          | 8            |            |            |            |
|                               | DCQI                          | 8            |            |            |            |
|                               | Ack-Nack repetition<br>factor | 3            |            |            |            |
|                               | CQI Feedback                  | 4ms          |            |            |            |
|                               | CQI Repetition Factor         | 2            |            |            |            |
|                               | $A_{hs}=\beta_{hs}/\beta_c$   | 30/15        |            |            |            |

**HSUPA**

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

|                                | Mode                             | HSUPA                                                                                                                                      | HSUPA                                                | HSUPA                                                                                                                                      | HSUPA                                                                                                                                      | HSUPA                                                                                                                                      |
|--------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|                                | Subset                           | 1                                                                                                                                          | 2                                                    | 3                                                                                                                                          | 4                                                                                                                                          | 5                                                                                                                                          |
| <b>WCDMA General Settings</b>  | Loopback Mode                    | Test Mode 1                                                                                                                                |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | Rel99 RMC                        | 12.2kbps RMC                                                                                                                               |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | HSDPA FRC                        | H-Set1                                                                                                                                     |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | HSUPA Test                       | HSUPA Loopback                                                                                                                             |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | Power Control Algorithm          | Algorithm2                                                                                                                                 |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | $\beta_c$                        | 11/15                                                                                                                                      | 6/15                                                 | 15/15                                                                                                                                      | 2/15                                                                                                                                       | 15/15                                                                                                                                      |
|                                | $\beta_d$                        | 15/15                                                                                                                                      | 15/15                                                | 9/15                                                                                                                                       | 15/15                                                                                                                                      | 0                                                                                                                                          |
|                                | $\beta_{cc}$                     | 209/225                                                                                                                                    | 12/15                                                | 30/15                                                                                                                                      | 2/15                                                                                                                                       | 5/15                                                                                                                                       |
|                                | $\beta_c / \beta_d$              | 11/15                                                                                                                                      | 6/15                                                 | 15/9                                                                                                                                       | 2/15                                                                                                                                       | -                                                                                                                                          |
|                                | $\beta_{hs}$                     | 22/15                                                                                                                                      | 12/15                                                | 30/15                                                                                                                                      | 4/15                                                                                                                                       | 5/15                                                                                                                                       |
|                                | CM(dB)                           | 1.0                                                                                                                                        | 3.0                                                  | 2.0                                                                                                                                        | 3.0                                                                                                                                        | 1.0                                                                                                                                        |
|                                | MPR(dB)                          | 0                                                                                                                                          | 2                                                    | 1                                                                                                                                          | 2                                                                                                                                          | 0                                                                                                                                          |
| <b>HSDPA Specific Settings</b> | DACK                             | 8                                                                                                                                          |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | DNAK                             | 8                                                                                                                                          |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | DCQI                             | 8                                                                                                                                          |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | Ack-Nack repetition factor       | 3                                                                                                                                          |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | CQI Feedback                     | 4ms                                                                                                                                        |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | CQI Repetition Factor            | 2                                                                                                                                          |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
|                                | $A_{hs} = \beta_{hs} / \beta_c$  | 30/15                                                                                                                                      |                                                      |                                                                                                                                            |                                                                                                                                            |                                                                                                                                            |
| <b>HSUPA Specific Settings</b> | DE-DPCCH                         | 6                                                                                                                                          | 8                                                    | 8                                                                                                                                          | 5                                                                                                                                          | 7                                                                                                                                          |
|                                | DHARQ                            | 0                                                                                                                                          | 0                                                    | 0                                                                                                                                          | 0                                                                                                                                          | 0                                                                                                                                          |
|                                | AG Index                         | 20                                                                                                                                         | 12                                                   | 15                                                                                                                                         | 17                                                                                                                                         | 21                                                                                                                                         |
|                                | ETFCI                            | 75                                                                                                                                         | 67                                                   | 92                                                                                                                                         | 71                                                                                                                                         | 81                                                                                                                                         |
|                                | Associated Max UL Data Rate kbps | 242.1                                                                                                                                      | 174.9                                                | 482.8                                                                                                                                      | 205.8                                                                                                                                      | 308.9                                                                                                                                      |
|                                | Reference E_FCI                  | E-TFCI 11<br>E-TFCI PO 4<br>E-TFCI 67<br>E-TFCI PO 18<br>E-TFCI 71<br>E-TFCI PO23<br>E-TFCI 75<br>E-TFCI PO26<br>E-TFCI 81<br>E-TFCI PO 27 | E-TFCI 11<br>E-TFCI PO4<br>E-TFCI 92<br>E-TFCI PO 18 | E-TFCI 11<br>E-TFCI PO 4<br>E-TFCI 67<br>E-TFCI PO 18<br>E-TFCI 71<br>E-TFCI PO23<br>E-TFCI 75<br>E-TFCI PO26<br>E-TFCI 81<br>E-TFCI PO 27 | E-TFCI 11<br>E-TFCI PO 4<br>E-TFCI 67<br>E-TFCI PO 18<br>E-TFCI 71<br>E-TFCI PO23<br>E-TFCI 75<br>E-TFCI PO26<br>E-TFCI 81<br>E-TFCI PO 27 | E-TFCI 11<br>E-TFCI PO 4<br>E-TFCI 67<br>E-TFCI PO 18<br>E-TFCI 71<br>E-TFCI PO23<br>E-TFCI 75<br>E-TFCI PO26<br>E-TFCI 81<br>E-TFCI PO 27 |

**HSPA+**

| Sub-test | $\beta_c$<br>(Note3) | $\beta_d$ | $\beta_{HS}$<br>(Note1) | $\beta_{ec}$ | $\beta_{ed}$<br>(2xSF2)<br>(Note 4)            | $\beta_{ed}$<br>(2xSF4)<br>(Note 4)            | CM<br>(dB)<br>(Note 2) | MPR<br>(dB)<br>(Note 2) | AG<br>Index<br>(Note 4) | E-TFCI<br>(Note 5) | E-TFCI<br>(boost) |
|----------|----------------------|-----------|-------------------------|--------------|------------------------------------------------|------------------------------------------------|------------------------|-------------------------|-------------------------|--------------------|-------------------|
| 1        | 1                    | 0         | 30/15                   | 30/15        | $\beta_{ed1}$ : 30/15<br>$\beta_{ed2}$ : 30/15 | $\beta_{ed3}$ : 24/15<br>$\beta_{ed4}$ : 24/15 | 3.5                    | 2.5                     | 14                      | 105                | 105               |

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ .

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the  $\beta_c$  is set to 1 and  $\beta_d = 0$  by default.

Note 4:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

The following tests were conducted according to the test requirements in Table C.11.1.4 of 3GPP TS 34.121-1

**FDD-LTE**

For UE Power Class 1 and 3, the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2-1 due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1 and 3**

| Modulation | Channel bandwidth / Transmission bandwidth ( $N_{RB}$ ) |          |          |           |           |           | MPR (dB) |
|------------|---------------------------------------------------------|----------|----------|-----------|-----------|-----------|----------|
|            | 1.4 MHz                                                 | 3.0 MHz  | 5 MHz    | 10 MHz    | 15 MHz    | 20 MHz    |          |
| QPSK       | > 5                                                     | > 4      | > 8      | > 12      | > 16      | > 18      | $\leq 1$ |
| 16 QAM     | $\leq 5$                                                | $\leq 4$ | $\leq 8$ | $\leq 12$ | $\leq 16$ | $\leq 18$ | $\leq 1$ |
| 16 QAM     | > 5                                                     | > 4      | > 8      | > 12      | > 16      | > 18      | $\leq 2$ |

For UE Power Class 1 and 3 the specific requirements and identified sub clauses are specified in Table 6.2.4-1 along with the allowed A-MPR values that may be used to meet these requirements. The allowed A-MPR values specified below in Table 6.2.4-1 to 6.2.4-15 are in addition to the allowed MPR requirements specified in sub clause 6.2.3.

**Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)**

| Network Signalling value | Requirements (subclause)      | E-UTRA Band              | Channel bandwidth (MHz) | Resources Blocks ( $N_{RB}$ )                     | A-MPR (dB) |
|--------------------------|-------------------------------|--------------------------|-------------------------|---------------------------------------------------|------------|
| NS_01                    | 6.6.2.1.1                     | Table 5.5-1              | 1.4, 3, 5, 10, 15, 20   | Table 5.6-1                                       | N/A        |
| NS_03                    | 6.6.2.2.1                     | 2, 4, 10, 23, 25, 35, 36 | 3                       | >5                                                | $\leq 1$   |
|                          |                               |                          | 5                       | >6                                                | $\leq 1$   |
|                          |                               |                          | 10                      | >6                                                | $\leq 1$   |
|                          |                               |                          | 15                      | >8                                                | $\leq 1$   |
|                          |                               |                          | 20                      | >10                                               | $\leq 1$   |
| NS_04                    | 6.6.2.2.2                     | 41                       | 5                       | >6                                                | $\leq 1$   |
| NS_05                    | 6.6.3.3.1                     | 1                        | 10, 15, 20              | Table 6.2.4-4                                     |            |
| NS_06                    | 6.6.2.2.3                     | 12, 13, 14, 17           | 1.4, 3, 5, 10           | $\geq 50$                                         | $\leq 1$   |
| NS_07                    | 6.6.2.2.3<br>6.6.3.3.2        | 13                       | 10                      | Table 6.2.4-2                                     |            |
| NS_08                    | 6.6.3.3.3                     | 19                       | 10, 15                  | > 44                                              | $\leq 3$   |
| NS_09                    | 6.6.3.3.4                     | 21                       | 10, 15                  | > 40                                              | $\leq 1$   |
|                          |                               |                          |                         | > 55                                              | $\leq 2$   |
| NS_10                    |                               | 20                       | 15, 20                  | Table 6.2.4-3                                     |            |
| NS_11                    | 6.6.2.2.1                     | 23                       | 1.4, 3, 5, 10, 15, 20   | Table 6.2.4-5                                     |            |
| NS_12                    | 6.6.3.3.5                     | 26                       | 1.4, 3, 5               | Table 6.2.4-6                                     |            |
| NS_13                    | 6.6.3.3.6                     | 26                       | 5                       | Table 6.2.4-7                                     |            |
| NS_14                    | 6.6.3.3.7                     | 26                       | 10, 15                  | Table 6.2.4-8                                     |            |
| NS_15                    | 6.6.3.3.8                     | 26                       | 1.4, 3, 5, 10, 15       | Table 6.2.4-9<br>Table 6.2.4-10                   |            |
| NS_16                    | 6.6.3.3.9                     | 27                       | 3, 5, 10                | Table 6.2.4-11, Table 6.2.4-12,<br>Table 6.2.4-13 |            |
| NS_17                    | 6.6.3.3.10                    | 28                       | 5, 10                   | Table 5.6-1                                       | N/A        |
| NS_18                    | 6.6.3.3.11                    | 28                       | 5                       | $\geq 2$                                          | $\leq 1$   |
|                          |                               |                          | 10, 15, 20              | $\geq 1$                                          | $\leq 4$   |
| NS_19                    | 6.6.3.3.12                    | 44                       | 10, 15, 20              | Table 6.2.4-14                                    |            |
| NS_20                    | 6.2.2<br>6.6.2.2.1<br>6.6.3.2 | 23                       | 5, 10, 15, 20           | Table 6.2.4-15                                    |            |
| ...                      |                               |                          |                         |                                                   |            |
| NS_32                    | -                             | -                        | -                       | -                                                 | -          |

**TDD-LTE**

P TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

| Special subframe configuration | Normal cyclic prefix in downlink |                                |                                  | Extended cyclic prefix in downlink |                                |                                  |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|
|                                | DwPTS                            | UpPTS                          |                                  | DwPTS                              | UpPTS                          |                                  |
|                                |                                  | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |                                    | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| 0                              | $6592 \cdot T_s$                 | $2192 \cdot T_s$               | $2560 \cdot T_s$                 | $7680 \cdot T_s$                   | $2192 \cdot T_s$               | $2560 \cdot T_s$                 |
| 1                              | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 2                              | $21952 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 3                              | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$                  |                                |                                  |
| 4                              | $26336 \cdot T_s$                |                                |                                  | $7680 \cdot T_s$                   |                                |                                  |
| 5                              | $6592 \cdot T_s$                 | $4384 \cdot T_s$               | $5120 \cdot T_s$                 | $20480 \cdot T_s$                  | $4384 \cdot T_s$               | $5120 \cdot T_s$                 |
| 6                              | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 7                              | $21952 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$                  |                                |                                  |
| 8                              | $24144 \cdot T_s$                |                                |                                  | -                                  |                                |                                  |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                                  |                                |                                  |

Table 4.2-2: Uplink-downlink configurations.

| Uplink-downlink configuration | Downlink-to-Uplink Switch-point periodicity | Subframe number |   |   |   |   |   |   |   |   |   |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D |

**Calculated Duty Cycle**

| Uplink-Downlink Configuration | Downlink-to-Uplink Switch-point Periodicity | Subframe Number |   |   |   |   |   |   |   |   |   | Calculated Duty Cycle (%) |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---------------------------|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                           |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U | 63.33                     |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D | 43.33                     |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D | 23.33                     |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D | 31.67                     |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D | 21.67                     |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D | 11.67                     |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D | 53.33                     |

We used configuration 0 for LTE Band 41 SAR test, that is 63.33%(1:1.58)for duty cycle.

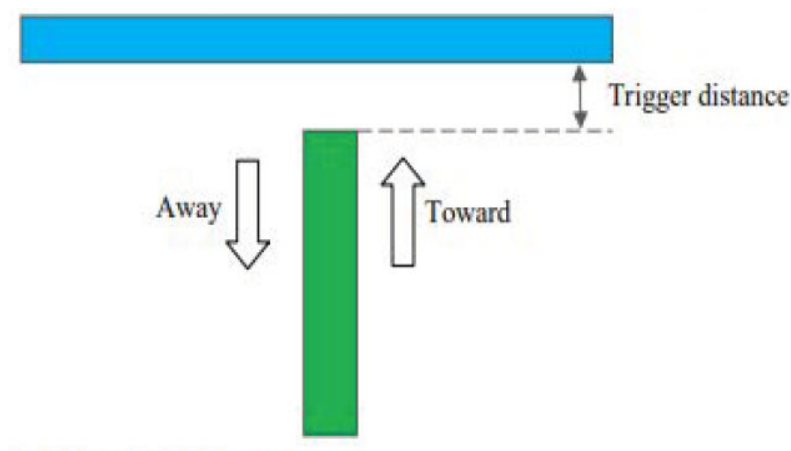
## Proximity Sensor Operation

Triggering distances (Per KDB 616217)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (6000MHz) and lowest (600MHz) frequency was used for proximity sensor triggering testing. It should be applied to determine proximity sensor triggering distances for the back surface and individual edges of a tablet.

2. Capacitive proximity sensor placed coincident with antenna elements at the left end of the pos are utilized to determine when the device comes in proximity of the user's body at the front or back or left side or right surface of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support. sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna

3. The device employs proximity sensors that detect the presence of the user's body or handhold at the front or back or left side or right side of the device. When back surface or edge of body worn condition is detected, GSM 850/GSM 1900/WCDMA II /WCDMA IV / WCDMA V /LTE Band 25&LTE Band 2 / LTE Band 66&LTE Band 4/LTE Band 7/ LTE Band 12&LTE Band 17/ LTE Band 26&LTE Band 5/LTE Band 40-low/LTE Band 40-upper/LTE Band 41/ WLAN5G reduced power will be active. Other mode or frequency band can't be active. (P-sensor can't work at detecting presence of the user's body at the bottom, top edges of the device.)



The minimum detection distances determined as below:

### Proximity Sensor Triggering Distance(mm) and Triggering Power(dBm)

#### GSM 850:

| Distance   |        | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 14 | 18 | 19 | 20 | 21 | 22 | 23 | 30 |
|------------|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Front edge | Toward | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
|            | Away   | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Back edge  | Toward | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
|            | Away   | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Left edge  | Toward | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 | 30 | 30 |
|            | Away   | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 30 | 30 |

#### GSM 1900

| Distance   |        | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 14 | 18 | 19 | 20 | 21 | 22 | 23 | 30 |
|------------|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Front edge | Toward | 24 | 24 | 24 | 24 | 24 | 24 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
|            | Away   | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| Back edge  | Toward | 24 | 24 | 24 | 24 | 24 | 24 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
|            | Away   | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| Left edge  | Toward | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 27 | 27 | 27 | 27 |
|            | Away   | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 27 | 27 |

**Note:** For GSM Mode(s), the maximum time based average power (4Slots) were used for calculation.

**WCDMA II:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 |

**WCDMA IV:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 |

**WCDMA V:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 |

**LTE Band25 & LTE Band2:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 |

**LTE Band12 & LTE Band17:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 |

**LTE Band26 & LTE Band5:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 22.5 | 22.5 |

**LTE Band66 & LTE Band4:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 |

**LTE Band7:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 22.5 | 22.5 |

**LTE Band40-low&: LTE Band40-up**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 22.5 | 22.5 |

**LTE Band41:**

| Distance   |        | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 14   | 18   | 19   | 20   | 21   | 22   | 23   | 30   |
|------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Front edge | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Back edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Left edge  | Toward | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 | 22.5 |
|            | Away   | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 22.5 | 22.5 |

**WLAN 5.2G :**

| Distance   |        | 0 | 1 | 2 | 3 | 4 | 5 | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 15 | 20 | 25 | 30 |
|------------|--------|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| Right edge | Toward | 9 | 9 | 9 | 9 | 9 | 9 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
|            | Away   | 9 | 9 | 9 | 9 | 9 | 9 | 9  | 9  | 9  | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |

**WLAN 5.8G :**

| Distance   |        | 0   | 1   | 2   | 3   | 4   | 5   | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 15   | 20   | 25   | 30   |
|------------|--------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| Right edge | Toward | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
|            | Away   | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5  | 7.5  | 7.5  | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |

**Note:** each side minimum detection distance was performed with below:

Toward: moving toward the phantom

Away: Moving away from the phantom

**Summary of trigger distances:**

| Band     | Back edge<br>(mm) |      | Front edge<br>(mm) |      | Left edge<br>(mm) |      |
|----------|-------------------|------|--------------------|------|-------------------|------|
|          | Toward            | Away | Toward             | Away | Toward            | Away |
| 2G/3G/4G | 5                 | 7    | 5                  | 7    | 20                | 22   |

**Note:** The SAR sensor located in GSM850 / GSM 1900 / WCDMA II / WCDMA IV/ WCDMA V/ LTE Band 2 / LTE Band4 / LTE Band5/ LTE Band26/ LTE Band12/ LTE Band17/LTE Band 7/ LTE Band 25/ LTE Band66 / LTE Band 40-low / LTE Band40-up / LTE Band 41 antenna

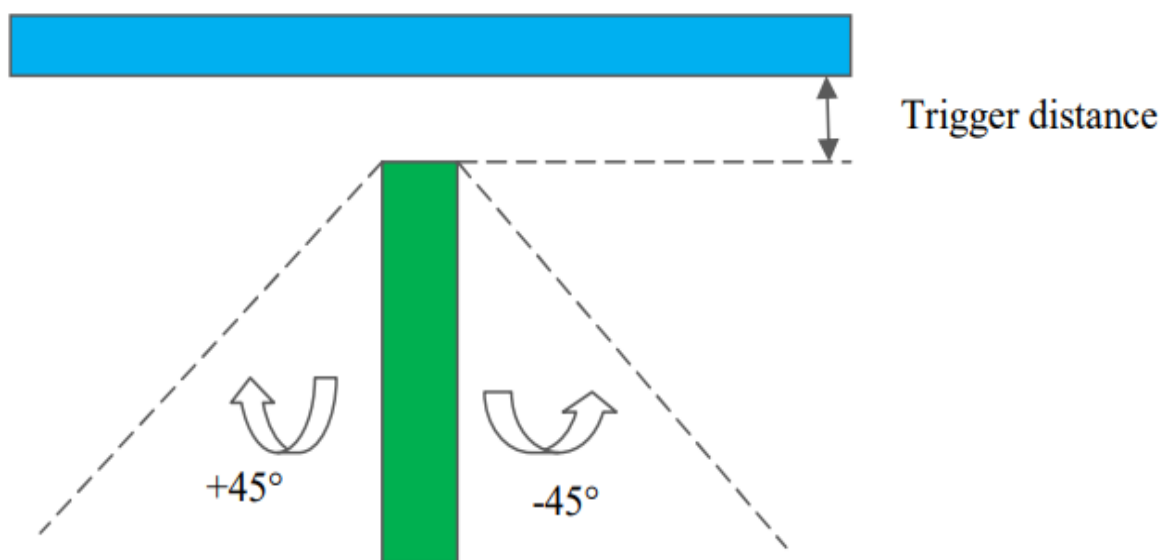
| Band    | Right edge<br>(mm) |      |
|---------|--------------------|------|
|         | Toward             | Away |
| WLAN 5G | 5                  | 8    |

**Note:** The SAR sensor located in WLAN5G antenna

### Tilt angle

The influence of device tilt angles to proximity sensor triggering was determined by positioning each device edge that contains a transmitting antenna, perpendicular to the flat phantom, at 4 mm separation.

Rotating the device around the edge next to the phantom in  $\leq 10^\circ$  increments until the device is  $\pm 45^\circ$  from the vertical position at  $0^\circ$ . And the maximum output power remains in the reduced mode.



**Proximity Sensor Status Table**

| Minimum Distance(mm) | -45 | -40 | -30 | -20 | -10 | 0  | 10 | 20 | 30 | 40 | 45 |
|----------------------|-----|-----|-----|-----|-----|----|----|----|----|----|----|
| 4                    | on  | on  | on  | on  | on  | on | on | on | on | on | on |

**Resulting test positions for SAR measurements**

| Wireless Technologies | Position | Triggering Distance(mm) | Worst case distance For SAR(mm) |
|-----------------------|----------|-------------------------|---------------------------------|
| WWAN                  | Front    | 5                       | 4                               |
|                       | Back     | 5                       | 4                               |
|                       | Left     | 20                      | 19                              |

| Wireless Technologies | Position | Triggering Distance(mm) | Worst case distance For SAR(mm) |
|-----------------------|----------|-------------------------|---------------------------------|
| WLAN                  | Right    | 5                       | 4                               |

**Maximum Target Output Power****Full Power Target power**

| Max Target Power(dBm)    |         |        |      |
|--------------------------|---------|--------|------|
| Mode/Band                | Channel |        |      |
|                          | Low     | Middle | High |
| GSM850 GPRS 1Tx          | 34      | 34     | 34   |
| GSM850 GPRS 2Tx          | 32      | 32     | 32   |
| GSM850 GPRS 3Tx          | 31      | 31     | 31   |
| GSM850 GPRS 4Tx          | 30      | 30     | 30   |
| GSM850 EGPRS 1Tx         | 28      | 28     | 28   |
| GSM850 EGPRS 2Tx         | 27      | 27     | 27   |
| GSM850 EGPRS 3Tx         | 26      | 26     | 26   |
| GSM850 EGPRS 4Tx         | 25.5    | 25.5   | 25.5 |
| GSM1900 GPRS 1Tx         | 30      | 30     | 30   |
| GSM1900 GPRS 2Tx         | 29      | 29     | 29   |
| GSM1900 GPRS 3Tx         | 27.5    | 27.5   | 27.5 |
| GSM1900 GPRS 4Tx         | 26.5    | 27     | 26.5 |
| GSM1900 EGPRS 1Tx        | 26      | 26     | 26   |
| GSM1900 EGPRS 2Tx        | 25      | 25     | 25   |
| GSM1900 EGPRS 3Tx        | 24      | 24     | 24   |
| GSM1900 EGPRS 4Tx        | 23      | 23     | 23   |
| WCDMA Band 2             | 22.5    | 22.5   | 22.5 |
| WCDMA Band 4             | 22.5    | 22.5   | 22.5 |
| WCDMA Band 5             | 22.5    | 22.5   | 22.5 |
| LTE Band 2               | 22.5    | 22.5   | 22.5 |
| LTE Band 4               | 22.5    | 22.5   | 22.5 |
| LTE Band 5               | 22.5    | 22.5   | 22.5 |
| LTE Band 7               | 22.5    | 22.5   | 22.5 |
| LTE Band 12              | 22.5    | 22.5   | 22.5 |
| LTE Band 17              | 22.5    | 22.5   | 22.5 |
| LTE Band 25              | 22.5    | 22.5   | 22.5 |
| LTE Band 26              | 22.5    | 22.5   | 22.5 |
| LTE Band 40-low          | 22.5    | 22.5   | 22.5 |
| LTE Band 40-up           | 22.5    | 22.5   | 22.5 |
| LTE Band 41              | 22.5    | 22.5   | 22.5 |
| LTE Band 66              | 22.5    | 22.5   | 22.5 |
| WLAN 2.4G (802.11b)      | 17      | 17     | 17   |
| WLAN 2.4G (802.11g)      | 14.5    | 14.5   | 14.5 |
| WLAN 2.4G (802.11n-HT20) | 13.6    | 13.6   | 13.6 |
| WLAN 2.4G (802.11n-HT40) | 12.5    | 12.5   | 12.5 |
| Bluetooth                | 10      | 10     | 10   |
| BLE(1Mbps)               | -3      | -2     | -2   |
| BLE(2Mbps)               | -3      | -2     | -2   |

|                        |      |      |      |
|------------------------|------|------|------|
| WLAN 5.2G(802 11 a)    | 12   | 12   | 12   |
| WLAN 5.2G(802 11 n20)  | 11.5 | 11.5 | 11.5 |
| WLAN 5.2G(802 11 n40)  | 11.0 | /    | 11.0 |
| WLAN 5.2G(802 11 ac20) | 11.5 | 11.5 | 11.5 |
| WLAN 5.2G(802 11 ac40) | 10.8 | /    | 10.8 |
| WLAN 5.2G(802 11 ac80) | /    | 9    | /    |
| WLAN 5.8G(802 11 a)    | 13.5 | 13.5 | 13.5 |
| WLAN 5.8G(802 11 n20)  | 13.3 | 13.3 | 13.3 |
| WLAN 5.8G(802 11 n40)  | 13.1 | /    | 13.1 |
| WLAN 5.8G(802 11 ac20) | 13.3 | 13.3 | 13.3 |
| WLAN 5.8G(802 11 ac40) | 13.3 | /    | 13.3 |
| WLAN 5.8G(802 11 ac80) | /    | 13.2 | /    |

**Reduction Target power**

| Max Target Power(dBm)  |         |        |      |
|------------------------|---------|--------|------|
| Mode/Band              | Channel |        |      |
|                        | Low     | Middle | High |
| GSM850 GPRS 1Tx        | 32      | 32     | 32   |
| GSM850 GPRS 2Tx        | 30      | 30     | 30   |
| GSM850 GPRS 3Tx        | 29      | 29     | 29   |
| GSM850 GPRS 4Tx        | 28      | 28     | 28   |
| GSM850 EGPRS 1Tx       | 26      | 26     | 26   |
| GSM850 EGPRS 2Tx       | 24.5    | 24.5   | 24.5 |
| GSM850 EGPRS 3Tx       | 23.5    | 23.5   | 23.5 |
| GSM850 EGPRS 4Tx       | 23      | 23     | 23   |
| GSM1900 GPRS 1Tx       | 27      | 27     | 27   |
| GSM1900 GPRS 2Tx       | 26      | 26     | 26   |
| GSM1900 GPRS 3Tx       | 24.5    | 24.5   | 24.5 |
| GSM1900 GPRS 4Tx       | 23.5    | 24     | 23.5 |
| GSM1900 EGPRS 1Tx      | 23      | 23     | 23   |
| GSM1900 EGPRS 2Tx      | 22      | 22     | 22   |
| GSM1900 EGPRS 3Tx      | 21      | 21     | 21   |
| GSM1900 EGPRS 4Tx      | 20      | 20     | 20   |
| WCDMA Band 2           | 18.5    | 18.5   | 18.5 |
| WCDMA Band 4           | 18.5    | 18.5   | 18.5 |
| LTE Band 2             | 19.5    | 19.5   | 19.5 |
| LTE Band 4             | 19.5    | 19.5   | 19.5 |
| LTE Band 7             | 14.5    | 14.5   | 14.5 |
| LTE Band 25            | 19.5    | 19.5   | 19.5 |
| LTE Band 40-low        | 18.5    | 18.5   | 18.5 |
| LTE Band 40-up         | 18.5    | 18.5   | 18.5 |
| LTE Band 41            | 19.5    | 19.5   | 19.5 |
| LTE Band 66            | 19.5    | 19.5   | 19.5 |
| WCDMA Band 5           | 20.5    | 20.5   | 20.5 |
| LTE Band 12            | 19.5    | 19.5   | 19.5 |
| LTE Band 17            | 19.5    | 19.5   | 19.5 |
| LTE Band 26            | 20.5    | 20.5   | 20.5 |
| LTE Band 5             | 20.5    | 20.5   | 20.5 |
| WLAN 5.2G(802 11 a)    | 9       | 9      | 9    |
| WLAN 5.2G(802 11 n20)  | 8.5     | 8.5    | 8.5  |
| WLAN 5.2G(802 11 n40)  | 7.5     | /      | 7.5  |
| WLAN 5.2G(802 11 ac20) | 8.5     | 8.5    | 8.5  |
| WLAN 5.2G(802 11 ac40) | 8       | /      | 8    |
| WLAN 5.2G(802 11 ac80) | /       | 6      | /    |
| WLAN 5.8G(802 11 a)    | 7.5     | 7.5    | 7.5  |

|                        |     |     |     |
|------------------------|-----|-----|-----|
| WLAN 5.8G(802 11 n20)  | 7.3 | 7.3 | 7.3 |
| WLAN 5.8G(802 11 n40)  | 7.2 | /   | 7.2 |
| WLAN 5.8G(802 11 ac20) | 7.2 | 7.2 | 7.2 |
| WLAN 5.8G(802 11 ac40) | 7.3 | /   | 7.3 |
| WLAN 5.8G(802 11 ac80) | /   | 7.2 | /   |

**Test Results:****GPRS:**

| Band     | Channel No. | Frequency (MHz) | RF Output Power (dBm) |         |         |         |
|----------|-------------|-----------------|-----------------------|---------|---------|---------|
|          |             |                 | 1 slot                | 2 slots | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 33.05                 | 31.87   | 30.67   | 29.64   |
|          | 190         | 836.6           | 33.44                 | 31.98   | 30.87   | 29.66   |
|          | 251         | 848.8           | 33.98                 | 31.02   | 30.9    | 29.49   |
| PCS 1900 | 512         | 1850.2          | 29.45                 | 28.64   | 27.26   | 26.01   |
|          | 661         | 1880.0          | 29                    | 28.79   | 27.13   | 26.68   |
|          | 810         | 1909.8          | 29.35                 | 28.76   | 27.29   | 26.04   |

**EDGE:**

| Band     | Channel No. | Frequency (MHz) | RF Output Power (dBm) |         |         |         |
|----------|-------------|-----------------|-----------------------|---------|---------|---------|
|          |             |                 | 1 slot                | 2 slots | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 27.26                 | 26.74   | 25.59   | 24.69   |
|          | 190         | 836.6           | 27.34                 | 26.2    | 25.78   | 24.21   |
|          | 251         | 848.8           | 27.52                 | 26.24   | 25.15   | 24.99   |
| PCS 1900 | 512         | 1850.2          | 25.09                 | 24.91   | 23.39   | 22      |
|          | 661         | 1880.0          | 25.87                 | 24.35   | 23.93   | 22.87   |
|          | 810         | 1909.8          | 25.48                 | 24.63   | 23.93   | 22.08   |

For SAR, the time based average power is relevant, the difference in between depends on the duty cycle of the TDMA signal.

| Number of Time slot                                  | 1     | 2     | 3        | 4     |
|------------------------------------------------------|-------|-------|----------|-------|
| Duty Cycle                                           | 1:8   | 1:4   | 1:2.66   | 1:2   |
| Time based Ave. power compared to slotted Ave. power | -9 dB | -6 dB | -4.25 dB | -3 dB |
| Crest Factor                                         | 8     | 4     | 2.66     | 2     |

**The time based average power for GPRS**

| Band     | Channel No. | Frequency (MHz) | Time based average Power (dBm) |        |         |         |
|----------|-------------|-----------------|--------------------------------|--------|---------|---------|
|          |             |                 | 1 slot                         | 2 slot | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 24.05                          | 25.87  | 26.41   | 26.64   |
|          | 190         | 836.6           | 24.44                          | 25.98  | 26.61   | 26.66   |
|          | 251         | 848.8           | 24.98                          | 25.02  | 26.64   | 26.49   |
| PCS 1900 | 512         | 1850.2          | 20.45                          | 22.64  | 23      | 23.01   |
|          | 661         | 1880            | 20                             | 22.79  | 22.87   | 23.68   |
|          | 810         | 1909.8          | 20.35                          | 22.76  | 23.03   | 23.04   |

**The time based average power for EDGE**

| Band     | Channel No. | Frequency (MHz) | Time based average Power (dBm) |        |         |         |
|----------|-------------|-----------------|--------------------------------|--------|---------|---------|
|          |             |                 | 1 slot                         | 2 slot | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 18.26                          | 20.74  | 21.33   | 21.69   |
|          | 190         | 836.6           | 18.34                          | 20.2   | 21.52   | 21.21   |
|          | 251         | 848.8           | 18.52                          | 20.24  | 20.89   | 21.99   |
| PCS 1900 | 512         | 1850.2          | 16.09                          | 18.91  | 19.13   | 19      |
|          | 661         | 1880            | 16.87                          | 18.35  | 19.67   | 19.87   |
|          | 810         | 1909.8          | 16.48                          | 18.63  | 19.67   | 19.08   |

**Note:**

1. Rohde & Schwarz Radio Communication Tester (CMU200) was used for the measurement of GSM peak and average output power for active timeslots.
- 2 .For GSM voice, 1 timeslot has been activated with power level 5 (850 MHz band) and 0 (1900 MHz band).
- 3 .For GPRS, 1, 2, 3 and 4 timeslots has been activated separately with power level 3(850 MHz band) and 3(1900 MHz band).
4. According to KDB941225D01-SAR for EGPRS mode are not required when the source-based time-averaged output power for data mode is lower than that in the normal GPRS mode.

**WCDMA:****WCDMA Band II**

| Mode            | Test Condition | Test Mode | 3GPP Sub Test | Average Output Power (dBm) |                  |                |
|-----------------|----------------|-----------|---------------|----------------------------|------------------|----------------|
|                 |                |           |               | Low Frequency              | Middle Frequency | High Frequency |
| WCDMA (Band II) | Normal         | Rel 99    | 1             | 22.17                      | 22.19            | 21.99          |
|                 |                | HSDPA     | 1             | 22.27                      | 22.15            | 22.14          |
|                 |                |           | 2             | 22.29                      | 22.02            | 22.26          |
|                 |                |           | 3             | 22.18                      | 22.07            | 22.08          |
|                 |                |           | 4             | 22.21                      | 22.10            | 22.06          |
|                 |                | HSUPA     | 1             | 22.39                      | 22.04            | 22.17          |
|                 |                |           | 2             | 22.24                      | 21.93            | 22.22          |
|                 |                |           | 3             | 22.34                      | 21.95            | 22.10          |
|                 |                |           | 4             | 22.37                      | 22.02            | 22.15          |
|                 |                |           | 5             | 22.32                      | 22.04            | 22.07          |
|                 |                | HSPA+     | 1             | 22.33                      | 22.04            | 22.13          |

**WCDMA Band IV**

| Mode            | Test Condition | Test Mode | 3GPP Sub Test | Average Output Power (dBm) |                  |                |
|-----------------|----------------|-----------|---------------|----------------------------|------------------|----------------|
|                 |                |           |               | Low Frequency              | Middle Frequency | High Frequency |
| WCDMA (Band IV) | Normal         | Rel 99    | 1             | 21.99                      | 22.34            | 22.22          |
|                 |                | HSDPA     | 1             | 22.32                      | 22.04            | 22.04          |
|                 |                |           | 2             | 22.26                      | 22.02            | 22.23          |
|                 |                |           | 3             | 22.27                      | 21.95            | 22.14          |
|                 |                |           | 4             | 22.33                      | 22.13            | 22.10          |
|                 |                | HSUPA     | 1             | 22.28                      | 22.09            | 22.11          |
|                 |                |           | 2             | 22.24                      | 22.04            | 22.14          |
|                 |                |           | 3             | 22.19                      | 21.99            | 22.08          |
|                 |                |           | 4             | 22.33                      | 22.12            | 22.22          |
|                 |                |           | 5             | 22.27                      | 21.95            | 22.09          |
|                 |                | HSPA+     | 1             | 22.30                      | 22.10            | 22.03          |

**WCDMA Band V**

| Mode           | Test Condition | Test Mode | 3GPP Sub Test | Average Output Power (dBm) |                  |                |
|----------------|----------------|-----------|---------------|----------------------------|------------------|----------------|
|                |                |           |               | Low Frequency              | Middle Frequency | High Frequency |
| WCDMA (Band V) | Normal         | Rel 99    | 1             | 22.06                      | 22.16            | 22.15          |
|                |                | HSDPA     | 1             | 22.14                      | 21.96            | 22.01          |
|                |                |           | 2             | 22.14                      | 22.18            | 22.16          |
|                |                |           | 3             | 22.17                      | 21.96            | 22.20          |
|                |                |           | 4             | 22.15                      | 22.01            | 22.11          |
|                |                | HSUPA     | 1             | 22.07                      | 22.10            | 22.13          |
|                |                |           | 2             | 21.98                      | 22.15            | 22.14          |
|                |                |           | 3             | 22.12                      | 22.13            | 22.18          |
|                |                |           | 4             | 22.05                      | 21.98            | 22.18          |
|                |                |           | 5             | 22.03                      | 22.01            | 22.11          |
|                |                | HSPA+     | 1             | 22.05                      | 22.00            | 22.11          |

**Note:**

1. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/HSPA+ when the maximum average output of each RF channel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

**Maximum Output Power:****LTE Band 2**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 21.70             | 21.19                | 21.78              |
|                |                 | 1#3                        | 22.00             | 21.41                | 21.30              |
|                |                 | 1#5                        | 21.30             | 21.78                | 21.50              |
|                |                 | 3#0                        | 21.69             | 21.35                | 21.42              |
|                |                 | 3#1                        | 21.80             | 21.11                | 21.05              |
|                |                 | 3#3                        | 22.14             | 21.16                | 21.48              |
|                |                 | 6#0                        | 21.26             | 22.10                | 21.36              |
|                | 16-QAM          | 1#0                        | 21.78             | 21.26                | 21.04              |
|                |                 | 1#3                        | 22.22             | 21.38                | 21.52              |
|                |                 | 1#5                        | 21.48             | 22.09                | 21.78              |
|                |                 | 3#0                        | 22.15             | 22.04                | 21.14              |
|                |                 | 3#1                        | 21.77             | 22.02                | 21.49              |
|                |                 | 3#3                        | 21.85             | 21.82                | 21.19              |
|                |                 | 6#0                        | 22.08             | 22.07                | 21.19              |
| 3M             | QPSK            | 1#0                        | 21.47             | 21.18                | 21.50              |
|                |                 | 1#7                        | 21.66             | 21.94                | 21.51              |
|                |                 | 1#14                       | 21.58             | 21.87                | 21.37              |
|                |                 | 8#0                        | 21.70             | 21.84                | 21.05              |
|                |                 | 8#4                        | 21.26             | 21.25                | 21.11              |
|                |                 | 8#7                        | 21.36             | 21.82                | 21.88              |
|                |                 | 15#0                       | 22.14             | 21.24                | 21.87              |
|                | 16-QAM          | 1#0                        | 22.13             | 22.01                | 21.49              |
|                |                 | 1#7                        | 21.65             | 21.25                | 21.40              |
|                |                 | 1#14                       | 21.94             | 22.06                | 21.97              |
|                |                 | 8#0                        | 21.39             | 21.86                | 21.13              |
|                |                 | 8#4                        | 21.30             | 21.22                | 21.06              |
|                |                 | 8#7                        | 21.43             | 21.79                | 21.20              |
|                |                 | 15#0                       | 21.37             | 21.56                | 21.19              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 21.99             | 22.08                | 21.34              |
|                |                 | 1#12                       | 21.70             | 22.09                | 21.62              |
|                |                 | 1#24                       | 21.65             | 22.10                | 21.47              |
|                |                 | 12#0                       | 21.56             | 22.01                | 21.29              |
|                |                 | 12#6                       | 21.35             | 21.75                | 21.09              |
|                |                 | 12#11                      | 21.26             | 21.93                | 21.03              |
|                |                 | 25#0                       | 21.78             | 21.26                | 21.42              |
|                | 16-QAM          | 1#0                        | 21.98             | 21.74                | 21.29              |
|                |                 | 1#12                       | 21.64             | 21.54                | 21.92              |
|                |                 | 1#24                       | 22.24             | 22.07                | 21.69              |
|                |                 | 12#0                       | 21.42             | 21.54                | 21.58              |
|                |                 | 12#6                       | 22.14             | 21.13                | 21.96              |
|                |                 | 12#11                      | 21.82             | 21.82                | 21.92              |
|                |                 | 25#0                       | 21.58             | 21.71                | 21.34              |
| 10M            | QPSK            | 1#0                        | 21.94             | 21.17                | 21.60              |
|                |                 | 1#24                       | 21.69             | 21.14                | 21.78              |
|                |                 | 1#49                       | 21.61             | 21.95                | 21.27              |
|                |                 | 25#0                       | 22.08             | 21.59                | 21.60              |
|                |                 | 25#12                      | 21.75             | 21.45                | 21.74              |
|                |                 | 25#24                      | 21.89             | 21.64                | 21.59              |
|                |                 | 50#0                       | 21.75             | 21.94                | 21.49              |
|                | 16-QAM          | 1#0                        | 21.84             | 21.84                | 21.88              |
|                |                 | 1#24                       | 22.19             | 21.96                | 21.34              |
|                |                 | 1#49                       | 21.34             | 21.34                | 22.00              |
|                |                 | 25#0                       | 21.96             | 21.13                | 21.78              |
|                |                 | 25#12                      | 22.05             | 22.10                | 21.21              |
|                |                 | 25#24                      | 21.57             | 21.76                | 21.92              |
|                |                 | 50#0                       | 21.61             | 21.90                | 21.24              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 21.53                | 22.02                   | 21.73                 |
|                |                 | 1#37                          | 21.55                | 21.84                   | 21.79                 |
|                |                 | 1#74                          | 21.40                | 21.29                   | 22.00                 |
|                |                 | 36#0                          | 21.58                | 21.81                   | 21.70                 |
|                |                 | 36#17                         | 21.47                | 21.26                   | 21.17                 |
|                |                 | 36#35                         | 21.56                | 21.15                   | 21.21                 |
|                |                 | 75#0                          | 21.58                | 21.78                   | 21.97                 |
|                | 16-QAM          | 1#0                           | 21.55                | 21.82                   | 21.77                 |
|                |                 | 1#37                          | 21.51                | 21.93                   | 21.51                 |
|                |                 | 1#74                          | 21.29                | 22.03                   | 21.57                 |
|                |                 | 36#0                          | 21.82                | 21.34                   | 21.43                 |
|                |                 | 36#17                         | 21.37                | 21.23                   | 21.31                 |
|                |                 | 36#35                         | 21.69                | 21.49                   | 21.93                 |
|                |                 | 75#0                          | 22.20                | 21.98                   | 21.93                 |
| 20M            | QPSK            | 1#0                           | 22.11                | 22.26                   | 21.19                 |
|                |                 | 1#49                          | 22.20                | 21.32                   | 21.68                 |
|                |                 | 1#99                          | 21.53                | 21.76                   | 21.93                 |
|                |                 | 50#0                          | 22.18                | 22.06                   | 21.67                 |
|                |                 | 50#24                         | 22.21                | 21.72                   | 21.27                 |
|                |                 | 50#49                         | 21.53                | 21.80                   | 21.59                 |
|                |                 | 100#0                         | 21.87                | 21.96                   | 21.05                 |
|                | 16-QAM          | 1#0                           | 21.87                | 21.90                   | 21.98                 |
|                |                 | 1#49                          | 21.33                | 21.73                   | 21.03                 |
|                |                 | 1#99                          | 22.04                | 22.06                   | 21.84                 |
|                |                 | 50#0                          | 21.57                | 21.15                   | 21.75                 |
|                |                 | 50#24                         | 21.63                | 21.40                   | 21.80                 |
|                |                 | 50#49                         | 21.40                | 21.56                   | 21.23                 |
|                |                 | 100#0                         | 22.06                | 21.39                   | 21.45                 |

**LTE Band 4**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 21.99             | 21.57                | 21.68              |
|                |                 | 1#3                        | 21.99             | 21.36                | 21.14              |
|                |                 | 1#5                        | 21.54             | 21.96                | 21.22              |
|                |                 | 3#0                        | 21.43             | 21.21                | 22.00              |
|                |                 | 3#1                        | 21.73             | 21.23                | 21.02              |
|                |                 | 3#3                        | 21.93             | 21.49                | 21.05              |
|                |                 | 6#0                        | 22.15             | 21.86                | 21.11              |
|                | 16-QAM          | 1#0                        | 21.47             | 21.91                | 21.40              |
|                |                 | 1#3                        | 21.47             | 21.74                | 21.52              |
|                |                 | 1#5                        | 21.43             | 22.05                | 21.33              |
|                |                 | 3#0                        | 22.10             | 21.63                | 21.10              |
|                |                 | 3#1                        | 21.40             | 21.79                | 21.13              |
|                |                 | 3#3                        | 21.48             | 21.47                | 21.36              |
|                |                 | 6#0                        | 21.46             | 21.98                | 21.62              |
| 3M             | QPSK            | 1#0                        | 21.49             | 22.05                | 21.17              |
|                |                 | 1#7                        | 22.08             | 21.41                | 21.59              |
|                |                 | 1#14                       | 21.33             | 21.89                | 21.10              |
|                |                 | 8#0                        | 22.13             | 21.65                | 21.43              |
|                |                 | 8#4                        | 22.01             | 21.64                | 21.54              |
|                |                 | 8#7                        | 22.13             | 21.53                | 21.31              |
|                |                 | 15#0                       | 22.08             | 21.57                | 21.38              |
|                | 16-QAM          | 1#0                        | 21.75             | 21.53                | 22.01              |
|                |                 | 1#7                        | 21.36             | 22.04                | 21.68              |
|                |                 | 1#14                       | 21.44             | 22.06                | 21.21              |
|                |                 | 8#0                        | 21.96             | 22.07                | 21.83              |
|                |                 | 8#4                        | 22.09             | 21.22                | 21.38              |
|                |                 | 8#7                        | 21.38             | 21.26                | 21.19              |
|                |                 | 15#0                       | 22.18             | 21.26                | 21.91              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 21.32             | 21.86                | 21.59              |
|                |                 | 1#12                       | 21.66             | 21.58                | 21.60              |
|                |                 | 1#24                       | 22.10             | 21.50                | 21.49              |
|                |                 | 12#0                       | 22.04             | 21.33                | 21.46              |
|                |                 | 12#6                       | 21.51             | 21.78                | 21.29              |
|                |                 | 12#11                      | 21.67             | 21.13                | 21.46              |
|                |                 | 25#0                       | 21.68             | 21.22                | 21.82              |
|                | 16-QAM          | 1#0                        | 21.76             | 21.81                | 21.48              |
|                |                 | 1#12                       | 21.54             | 21.31                | 21.27              |
|                |                 | 1#24                       | 22.19             | 21.91                | 21.07              |
|                |                 | 12#0                       | 22.14             | 21.72                | 21.99              |
|                |                 | 12#6                       | 21.55             | 21.39                | 21.26              |
|                |                 | 12#11                      | 21.97             | 21.29                | 21.91              |
|                |                 | 25#0                       | 21.50             | 21.97                | 22.01              |
| 10M            | QPSK            | 1#0                        | 21.29             | 21.12                | 21.77              |
|                |                 | 1#24                       | 21.56             | 21.38                | 21.75              |
|                |                 | 1#49                       | 22.03             | 22.06                | 21.13              |
|                |                 | 25#0                       | 21.66             | 21.98                | 21.51              |
|                |                 | 25#12                      | 22.05             | 22.08                | 21.64              |
|                |                 | 25#24                      | 22.03             | 21.13                | 21.07              |
|                |                 | 50#0                       | 21.32             | 21.39                | 21.72              |
|                | 16-QAM          | 1#0                        | 22.12             | 21.82                | 21.29              |
|                |                 | 1#24                       | 22.13             | 21.38                | 21.76              |
|                |                 | 1#49                       | 21.56             | 21.21                | 21.19              |
|                |                 | 25#0                       | 21.73             | 21.89                | 21.36              |
|                |                 | 25#12                      | 21.59             | 21.40                | 21.41              |
|                |                 | 25#24                      | 21.77             | 21.64                | 21.41              |
|                |                 | 50#0                       | 21.59             | 21.58                | 21.45              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 21.53                | 22.09                   | 21.63                 |
|                |                 | 1#37                          | 21.33                | 21.95                   | 21.16                 |
|                |                 | 1#74                          | 22.16                | 21.23                   | 21.07                 |
|                |                 | 36#0                          | 21.83                | 21.26                   | 21.58                 |
|                |                 | 36#17                         | 21.56                | 21.52                   | 21.17                 |
|                |                 | 36#35                         | 22.00                | 21.70                   | 21.16                 |
|                |                 | 75#0                          | 21.21                | 21.92                   | 21.36                 |
|                | 16-QAM          | 1#0                           | 21.27                | 21.33                   | 21.84                 |
|                |                 | 1#37                          | 21.80                | 21.33                   | 21.20                 |
|                |                 | 1#74                          | 21.40                | 21.37                   | 21.97                 |
|                |                 | 36#0                          | 21.59                | 21.39                   | 21.81                 |
|                |                 | 36#17                         | 21.84                | 21.69                   | 21.45                 |
|                |                 | 36#35                         | 21.74                | 21.16                   | 21.28                 |
|                |                 | 75#0                          | 22.10                | 21.40                   | 21.53                 |
| 20M            | QPSK            | 1#0                           | 22.15                | 22.21                   | 22.17                 |
|                |                 | 1#49                          | 21.65                | 21.12                   | 21.20                 |
|                |                 | 1#99                          | 21.26                | 21.44                   | 21.59                 |
|                |                 | 50#0                          | 21.76                | 21.96                   | 21.90                 |
|                |                 | 50#24                         | 22.11                | 21.56                   | 21.09                 |
|                |                 | 50#49                         | 21.78                | 21.40                   | 21.24                 |
|                |                 | 100#0                         | 21.41                | 21.50                   | 22.02                 |
|                | 16-QAM          | 1#0                           | 22.04                | 21.45                   | 21.15                 |
|                |                 | 1#49                          | 21.37                | 21.34                   | 21.79                 |
|                |                 | 1#99                          | 22.06                | 21.91                   | 21.97                 |
|                |                 | 50#0                          | 21.65                | 22.02                   | 21.23                 |
|                |                 | 50#24                         | 21.69                | 21.41                   | 21.26                 |
|                |                 | 50#49                         | 21.72                | 21.37                   | 21.53                 |
|                |                 | 100#0                         | 21.42                | 21.13                   | 21.66                 |

**LTE Band 5**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 21.96             | 21.73                | 21.78              |
|                |                 | 1#3                        | 21.46             | 21.21                | 21.54              |
|                |                 | 1#5                        | 21.49             | 21.62                | 21.28              |
|                |                 | 3#0                        | 22.10             | 21.25                | 21.80              |
|                |                 | 3#1                        | 21.47             | 21.94                | 21.99              |
|                |                 | 3#3                        | 22.04             | 21.61                | 21.44              |
|                |                 | 6#0                        | 21.81             | 21.12                | 21.48              |
|                | 16-QAM          | 1#0                        | 21.66             | 22.05                | 21.27              |
|                |                 | 1#3                        | 21.99             | 21.44                | 21.81              |
|                |                 | 1#5                        | 21.99             | 21.31                | 21.94              |
|                |                 | 3#0                        | 21.78             | 21.92                | 21.29              |
|                |                 | 3#1                        | 21.93             | 21.51                | 21.60              |
|                |                 | 3#3                        | 22.02             | 21.70                | 21.36              |
|                |                 | 6#0                        | 21.45             | 21.77                | 21.67              |
| 3M             | QPSK            | 1#0                        | 21.84             | 21.34                | 21.43              |
|                |                 | 1#7                        | 21.76             | 21.44                | 21.17              |
|                |                 | 1#14                       | 21.72             | 21.49                | 21.19              |
|                |                 | 8#0                        | 21.97             | 21.62                | 21.29              |
|                |                 | 8#4                        | 21.72             | 21.60                | 21.42              |
|                |                 | 8#7                        | 21.95             | 21.96                | 21.95              |
|                |                 | 15#0                       | 21.57             | 21.48                | 21.18              |
|                | 16-QAM          | 1#0                        | 22.09             | 21.20                | 21.82              |
|                |                 | 1#7                        | 21.93             | 22.05                | 21.43              |
|                |                 | 1#14                       | 21.58             | 21.49                | 21.63              |
|                |                 | 8#0                        | 21.85             | 21.60                | 21.17              |
|                |                 | 8#4                        | 21.96             | 21.22                | 21.89              |
|                |                 | 8#7                        | 21.70             | 21.68                | 21.68              |
|                |                 | 15#0                       | 21.60             | 21.35                | 21.47              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 5M             | QPSK            | 1#0                           | 21.33                | 21.44                   | 21.86                 |
|                |                 | 1#12                          | 21.93                | 22.10                   | 21.19                 |
|                |                 | 1#24                          | 22.12                | 22.08                   | 21.05                 |
|                |                 | 12#0                          | 21.79                | 21.52                   | 21.35                 |
|                |                 | 12#6                          | 21.34                | 21.72                   | 21.33                 |
|                |                 | 12#11                         | 21.78                | 21.28                   | 21.32                 |
|                |                 | 25#0                          | 21.90                | 22.05                   | 21.66                 |
|                | 16-QAM          | 1#0                           | 22.19                | 21.40                   | 21.23                 |
|                |                 | 1#12                          | 21.35                | 21.13                   | 21.76                 |
|                |                 | 1#24                          | 21.54                | 22.02                   | 21.52                 |
|                |                 | 12#0                          | 21.99                | 21.55                   | 21.05                 |
|                |                 | 12#6                          | 21.43                | 21.58                   | 21.95                 |
|                |                 | 12#11                         | 21.47                | 21.14                   | 21.06                 |
|                |                 | 25#0                          | 22.04                | 21.54                   | 21.86                 |
| 10M            | QPSK            | 1#0                           | 22.18                | 22.25                   | 22.15                 |
|                |                 | 1#24                          | 21.72                | 21.64                   | 21.56                 |
|                |                 | 1#49                          | 21.40                | 21.97                   | 21.73                 |
|                |                 | 25#0                          | 21.34                | 21.88                   | 21.42                 |
|                |                 | 25#12                         | 22.06                | 21.51                   | 21.65                 |
|                |                 | 25#24                         | 22.16                | 21.43                   | 21.19                 |
|                |                 | 50#0                          | 22.20                | 21.74                   | 21.88                 |
|                | 16-QAM          | 1#0                           | 21.44                | 21.21                   | 21.02                 |
|                |                 | 1#24                          | 21.68                | 21.69                   | 21.26                 |
|                |                 | 1#49                          | 22.17                | 22.00                   | 21.21                 |
|                |                 | 25#0                          | 21.69                | 21.26                   | 21.37                 |
|                |                 | 25#12                         | 21.32                | 21.99                   | 21.57                 |
|                |                 | 25#24                         | 22.14                | 21.35                   | 21.98                 |
|                |                 | 50#0                          | 21.83                | 21.44                   | 21.06                 |

**LTE Band 7**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 22.11             | 21.78                | 21.91              |
|                |                 | 1#12                       | 21.78             | 21.22                | 21.53              |
|                |                 | 1#24                       | 21.48             | 21.23                | 21.62              |
|                |                 | 12#0                       | 21.53             | 21.54                | 21.65              |
|                |                 | 12#6                       | 21.79             | 21.66                | 21.02              |
|                |                 | 12#11                      | 21.28             | 21.85                | 21.28              |
|                |                 | 25#0                       | 21.73             | 21.89                | 21.85              |
|                | 16-QAM          | 1#0                        | 21.32             | 22.02                | 21.05              |
|                |                 | 1#12                       | 21.38             | 21.73                | 21.28              |
|                |                 | 1#24                       | 21.49             | 21.19                | 22.02              |
|                |                 | 12#0                       | 22.20             | 21.95                | 21.85              |
|                |                 | 12#6                       | 22.13             | 21.11                | 21.14              |
|                |                 | 12#11                      | 21.51             | 21.59                | 21.11              |
|                |                 | 25#0                       | 21.65             | 21.70                | 21.55              |
| 10M            | QPSK            | 1#0                        | 21.78             | 21.57                | 21.39              |
|                |                 | 1#24                       | 21.63             | 21.58                | 21.76              |
|                |                 | 1#49                       | 21.73             | 21.66                | 21.99              |
|                |                 | 25#0                       | 21.28             | 21.49                | 21.88              |
|                |                 | 25#12                      | 21.73             | 21.71                | 21.47              |
|                |                 | 25#24                      | 21.43             | 21.71                | 21.16              |
|                |                 | 50#0                       | 21.80             | 21.59                | 22.02              |
|                | 16-QAM          | 1#0                        | 21.94             | 22.09                | 21.73              |
|                |                 | 1#24                       | 21.29             | 21.97                | 22.00              |
|                |                 | 1#49                       | 21.63             | 21.50                | 21.71              |
|                |                 | 25#0                       | 21.96             | 21.52                | 21.05              |
|                |                 | 25#12                      | 21.79             | 21.15                | 21.96              |
|                |                 | 25#24                      | 21.82             | 21.72                | 21.31              |
|                |                 | 50#0                       | 21.95             | 21.53                | 21.07              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 21.65                | 21.45                   | 21.56                 |
|                |                 | 1#37                          | 21.58                | 21.35                   | 21.51                 |
|                |                 | 1#74                          | 21.96                | 21.45                   | 21.64                 |
|                |                 | 36#0                          | 22.15                | 21.76                   | 21.90                 |
|                |                 | 36#17                         | 21.29                | 21.85                   | 21.12                 |
|                |                 | 36#35                         | 22.20                | 21.55                   | 21.49                 |
|                |                 | 75#0                          | 22.14                | 21.45                   | 21.06                 |
|                | 16-QAM          | 1#0                           | 21.38                | 21.69                   | 21.94                 |
|                |                 | 1#37                          | 21.81                | 22.04                   | 21.35                 |
|                |                 | 1#74                          | 21.86                | 21.26                   | 22.00                 |
|                |                 | 36#0                          | 21.42                | 21.25                   | 21.65                 |
|                |                 | 36#17                         | 22.01                | 21.46                   | 21.96                 |
|                |                 | 36#35                         | 21.80                | 21.14                   | 21.93                 |
|                |                 | 75#0                          | 21.84                | 21.70                   | 21.30                 |
| 20M            | QPSK            | 1#0                           | 21.34                | 22.21                   | 22.12                 |
|                |                 | 1#49                          | 22.04                | 22.04                   | 21.09                 |
|                |                 | 1#99                          | 22.20                | 21.81                   | 21.50                 |
|                |                 | 50#0                          | 21.59                | 21.99                   | 21.27                 |
|                |                 | 50#24                         | 21.65                | 21.11                   | 21.44                 |
|                |                 | 50#49                         | 21.63                | 21.28                   | 21.26                 |
|                |                 | 100#0                         | 21.98                | 21.42                   | 21.95                 |
|                | 16-QAM          | 1#0                           | 21.50                | 22.02                   | 21.91                 |
|                |                 | 1#49                          | 22.19                | 21.16                   | 21.54                 |
|                |                 | 1#99                          | 21.29                | 21.23                   | 21.26                 |
|                |                 | 50#0                          | 21.32                | 21.67                   | 21.76                 |
|                |                 | 50#24                         | 21.56                | 21.60                   | 21.63                 |
|                |                 | 50#49                         | 21.79                | 21.48                   | 21.15                 |
|                |                 | 100#0                         | 21.44                | 21.51                   | 21.19                 |

## LTE Band 12

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 22.19             | 21.44                | 21.98              |
|                |                 | 1#3                        | 22.06             | 21.33                | 21.09              |
|                |                 | 1#5                        | 21.85             | 21.90                | 21.07              |
|                |                 | 3#0                        | 21.63             | 21.54                | 22.00              |
|                |                 | 3#1                        | 22.22             | 21.17                | 21.90              |
|                |                 | 3#3                        | 21.30             | 21.54                | 21.64              |
|                |                 | 6#0                        | 22.17             | 21.49                | 21.07              |
|                | 16-QAM          | 1#0                        | 21.30             | 21.98                | 21.36              |
|                |                 | 1#3                        | 22.00             | 21.59                | 21.67              |
|                |                 | 1#5                        | 21.81             | 21.95                | 21.57              |
|                |                 | 3#0                        | 21.30             | 21.64                | 21.10              |
|                |                 | 3#1                        | 21.86             | 21.78                | 21.69              |
|                |                 | 3#3                        | 21.33             | 21.82                | 21.77              |
|                |                 | 6#0                        | 21.93             | 22.00                | 21.62              |
| 3M             | QPSK            | 1#0                        | 21.24             | 21.31                | 21.73              |
|                |                 | 1#7                        | 22.11             | 21.21                | 21.14              |
|                |                 | 1#14                       | 21.62             | 21.40                | 21.93              |
|                |                 | 8#0                        | 21.44             | 21.46                | 21.13              |
|                |                 | 8#4                        | 21.65             | 21.50                | 21.31              |
|                |                 | 8#7                        | 22.16             | 21.35                | 21.18              |
|                |                 | 15#0                       | 22.05             | 21.37                | 21.12              |
|                | 16-QAM          | 1#0                        | 21.88             | 21.55                | 21.61              |
|                |                 | 1#7                        | 21.35             | 21.69                | 21.98              |
|                |                 | 1#14                       | 21.28             | 22.02                | 21.38              |
|                |                 | 8#0                        | 21.58             | 22.02                | 21.03              |
|                |                 | 8#4                        | 21.82             | 22.11                | 21.95              |
|                |                 | 8#7                        | 21.70             | 21.56                | 21.65              |
|                |                 | 15#0                       | 22.16             | 21.85                | 21.50              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 5M             | QPSK            | 1#0                           | 21.28                | 21.66                   | 21.69                 |
|                |                 | 1#12                          | 21.46                | 21.80                   | 21.19                 |
|                |                 | 1#24                          | 21.61                | 21.54                   | 21.76                 |
|                |                 | 12#0                          | 21.62                | 21.33                   | 21.51                 |
|                |                 | 12#6                          | 21.53                | 21.80                   | 21.84                 |
|                |                 | 12#11                         | 22.15                | 21.76                   | 21.94                 |
|                |                 | 25#0                          | 21.32                | 21.43                   | 21.96                 |
|                | 16-QAM          | 1#0                           | 21.40                | 21.83                   | 21.87                 |
|                |                 | 1#12                          | 22.14                | 22.11                   | 21.18                 |
|                |                 | 1#24                          | 21.33                | 21.91                   | 21.32                 |
|                |                 | 12#0                          | 21.58                | 21.39                   | 21.93                 |
|                |                 | 12#6                          | 21.75                | 21.53                   | 21.85                 |
|                |                 | 12#11                         | 22.09                | 22.03                   | 21.95                 |
|                |                 | 25#0                          | 21.75                | 21.87                   | 21.51                 |
| 10M            | QPSK            | 1#0                           | 21.61                | 22.24                   | 22.19                 |
|                |                 | 1#24                          | 21.52                | 21.43                   | 21.81                 |
|                |                 | 1#49                          | 22.05                | 21.37                   | 21.56                 |
|                |                 | 25#0                          | 21.91                | 21.86                   | 21.10                 |
|                |                 | 25#12                         | 22.01                | 22.01                   | 21.78                 |
|                |                 | 25#24                         | 21.47                | 21.92                   | 21.81                 |
|                |                 | 50#0                          | 21.82                | 21.52                   | 21.95                 |
|                | 16-QAM          | 1#0                           | 21.30                | 21.41                   | 21.36                 |
|                |                 | 1#24                          | 22.05                | 21.60                   | 21.53                 |
|                |                 | 1#49                          | 22.09                | 21.29                   | 21.62                 |
|                |                 | 25#0                          | 21.96                | 21.93                   | 21.22                 |
|                |                 | 25#12                         | 21.44                | 21.42                   | 21.55                 |
|                |                 | 25#24                         | 21.58                | 21.47                   | 21.97                 |
|                |                 | 50#0                          | 21.35                | 21.95                   | 21.39                 |

**LTE Band 17**

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 5M             | QPSK            | 1#0                           | 22.06                | 21.94                   | 21.88                 |
|                |                 | 1#12                          | 21.54                | 21.81                   | 21.84                 |
|                |                 | 1#24                          | 22.04                | 21.70                   | 21.44                 |
|                |                 | 12#0                          | 21.82                | 22.08                   | 21.36                 |
|                |                 | 12#6                          | 21.44                | 21.43                   | 21.38                 |
|                |                 | 12#11                         | 21.79                | 21.88                   | 21.07                 |
|                |                 | 25#0                          | 22.16                | 21.46                   | 21.38                 |
|                | 16-QAM          | 1#0                           | 21.84                | 21.54                   | 21.96                 |
|                |                 | 1#12                          | 21.70                | 21.53                   | 21.20                 |
|                |                 | 1#24                          | 21.64                | 21.18                   | 21.32                 |
|                |                 | 12#0                          | 21.34                | 21.74                   | 21.38                 |
|                |                 | 12#6                          | 21.96                | 21.45                   | 21.72                 |
|                |                 | 12#11                         | 22.17                | 21.94                   | 21.56                 |
|                |                 | 25#0                          | 21.74                | 21.79                   | 21.97                 |
| 10M            | QPSK            | 1#0                           | 21.41                | 22.31                   | 21.63                 |
|                |                 | 1#24                          | 21.89                | 21.85                   | 21.51                 |
|                |                 | 1#49                          | 21.63                | 21.85                   | 21.46                 |
|                |                 | 25#0                          | 22.17                | 22.23                   | 21.25                 |
|                |                 | 25#12                         | 22.03                | 21.86                   | 21.06                 |
|                |                 | 25#24                         | 21.70                | 21.85                   | 21.90                 |
|                |                 | 50#0                          | 21.41                | 21.93                   | 21.93                 |
|                | 16-QAM          | 1#0                           | 21.65                | 22.10                   | 21.48                 |
|                |                 | 1#24                          | 21.82                | 21.51                   | 21.32                 |
|                |                 | 1#49                          | 21.30                | 21.11                   | 21.62                 |
|                |                 | 25#0                          | 22.04                | 21.68                   | 21.84                 |
|                |                 | 25#12                         | 21.65                | 21.70                   | 21.11                 |
|                |                 | 25#24                         | 21.50                | 22.05                   | 21.05                 |
|                |                 | 50#0                          | 21.67                | 21.48                   | 21.93                 |

**LTE Band 25**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 22.04             | 21.48                | 21.95              |
|                |                 | 1#3                        | 21.96             | 21.14                | 21.90              |
|                |                 | 1#5                        | 22.11             | 21.46                | 22.01              |
|                |                 | 3#0                        | 21.57             | 21.44                | 21.23              |
|                |                 | 3#1                        | 21.50             | 21.96                | 21.43              |
|                |                 | 3#3                        | 21.64             | 21.49                | 21.79              |
|                |                 | 6#0                        | 21.53             | 22.03                | 21.61              |
|                | 16-QAM          | 1#0                        | 21.28             | 22.11                | 21.18              |
|                |                 | 1#3                        | 21.68             | 21.43                | 21.77              |
|                |                 | 1#5                        | 22.02             | 21.69                | 21.41              |
|                |                 | 3#0                        | 22.10             | 21.98                | 21.78              |
|                |                 | 3#1                        | 22.00             | 21.66                | 21.90              |
|                |                 | 3#3                        | 22.21             | 21.80                | 21.61              |
|                |                 | 6#0                        | 22.17             | 21.33                | 21.86              |
| 3M             | QPSK            | 1#0                        | 21.98             | 21.92                | 21.13              |
|                |                 | 1#7                        | 21.46             | 21.97                | 21.08              |
|                |                 | 1#14                       | 21.68             | 22.02                | 21.36              |
|                |                 | 8#0                        | 21.67             | 21.86                | 21.72              |
|                |                 | 8#4                        | 21.81             | 21.78                | 21.69              |
|                |                 | 8#7                        | 21.28             | 21.75                | 21.57              |
|                |                 | 15#0                       | 21.74             | 22.09                | 21.40              |
|                | 16-QAM          | 1#0                        | 21.94             | 22.05                | 21.94              |
|                |                 | 1#7                        | 21.66             | 21.72                | 21.16              |
|                |                 | 1#14                       | 21.69             | 21.24                | 21.46              |
|                |                 | 8#0                        | 22.15             | 21.98                | 21.30              |
|                |                 | 8#4                        | 21.63             | 21.30                | 21.22              |
|                |                 | 8#7                        | 21.31             | 21.93                | 21.41              |
|                |                 | 15#0                       | 22.21             | 22.08                | 21.96              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 22.16             | 21.82                | 21.42              |
|                |                 | 1#12                       | 21.98             | 21.71                | 21.62              |
|                |                 | 1#24                       | 21.47             | 21.96                | 21.18              |
|                |                 | 12#0                       | 21.84             | 22.09                | 21.06              |
|                |                 | 12#6                       | 21.67             | 21.64                | 21.58              |
|                |                 | 12#11                      | 21.81             | 21.61                | 21.57              |
|                |                 | 25#0                       | 21.68             | 21.58                | 21.88              |
|                | 16-QAM          | 1#0                        | 21.86             | 21.73                | 21.34              |
|                |                 | 1#12                       | 21.88             | 22.01                | 21.49              |
|                |                 | 1#24                       | 21.39             | 22.11                | 21.79              |
|                |                 | 12#0                       | 21.30             | 21.19                | 21.44              |
|                |                 | 12#6                       | 21.41             | 21.39                | 21.23              |
|                |                 | 12#11                      | 21.44             | 21.50                | 21.56              |
|                |                 | 25#0                       | 22.17             | 21.35                | 21.38              |
| 10M            | QPSK            | 1#0                        | 21.84             | 21.86                | 21.22              |
|                |                 | 1#24                       | 21.92             | 21.17                | 21.51              |
|                |                 | 1#49                       | 21.72             | 21.52                | 21.84              |
|                |                 | 25#0                       | 21.27             | 21.42                | 22.02              |
|                |                 | 25#12                      | 21.70             | 21.21                | 21.12              |
|                |                 | 25#24                      | 21.82             | 21.24                | 21.52              |
|                |                 | 50#0                       | 21.43             | 21.31                | 21.95              |
|                | 16-QAM          | 1#0                        | 21.99             | 21.61                | 21.04              |
|                |                 | 1#24                       | 22.12             | 21.28                | 21.61              |
|                |                 | 1#49                       | 22.15             | 21.37                | 21.64              |
|                |                 | 25#0                       | 22.22             | 21.90                | 21.72              |
|                |                 | 25#12                      | 22.23             | 21.99                | 21.69              |
|                |                 | 25#24                      | 21.91             | 21.32                | 21.39              |
|                |                 | 50#0                       | 21.97             | 21.65                | 21.70              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 21.31                | 22.07                   | 21.73                 |
|                |                 | 1#37                          | 22.07                | 21.46                   | 21.06                 |
|                |                 | 1#74                          | 21.75                | 21.16                   | 21.39                 |
|                |                 | 36#0                          | 21.43                | 21.20                   | 21.04                 |
|                |                 | 36#17                         | 21.84                | 21.97                   | 21.57                 |
|                |                 | 36#35                         | 21.69                | 21.37                   | 21.40                 |
|                |                 | 75#0                          | 21.76                | 21.62                   | 21.70                 |
|                | 16-QAM          | 1#0                           | 21.71                | 21.12                   | 21.75                 |
|                |                 | 1#37                          | 21.40                | 21.92                   | 21.17                 |
|                |                 | 1#74                          | 21.96                | 22.00                   | 21.06                 |
|                |                 | 36#0                          | 22.14                | 21.54                   | 21.63                 |
|                |                 | 36#17                         | 21.64                | 21.23                   | 21.66                 |
|                |                 | 36#35                         | 21.92                | 21.18                   | 21.65                 |
|                |                 | 75#0                          | 21.29                | 21.34                   | 21.08                 |
| 20M            | QPSK            | 1#0                           | 21.12                | 22.25                   | 21.19                 |
|                |                 | 1#49                          | 21.91                | 21.83                   | 21.30                 |
|                |                 | 1#99                          | 21.80                | 21.64                   | 21.34                 |
|                |                 | 50#0                          | 21.50                | 22.14                   | 21.47                 |
|                |                 | 50#24                         | 22.22                | 21.47                   | 21.10                 |
|                |                 | 50#49                         | 21.47                | 21.22                   | 21.30                 |
|                |                 | 100#0                         | 21.94                | 21.74                   | 21.76                 |
|                | 16-QAM          | 1#0                           | 22.24                | 21.50                   | 21.44                 |
|                |                 | 1#49                          | 22.18                | 21.39                   | 21.97                 |
|                |                 | 1#99                          | 21.75                | 21.20                   | 21.33                 |
|                |                 | 50#0                          | 21.70                | 21.65                   | 21.99                 |
|                |                 | 50#24                         | 22.25                | 21.67                   | 21.54                 |
|                |                 | 50#49                         | 21.81                | 22.07                   | 21.40                 |
|                |                 | 100#0                         | 21.41                | 21.57                   | 21.24                 |

**LTE Band 26**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 21.73             | 21.32                | 21.20              |
|                |                 | 1#3                        | 21.89             | 21.63                | 21.12              |
|                |                 | 1#5                        | 21.80             | 21.20                | 21.76              |
|                |                 | 3#0                        | 21.36             | 21.90                | 21.81              |
|                |                 | 3#1                        | 21.26             | 21.91                | 21.54              |
|                |                 | 3#3                        | 21.37             | 22.08                | 21.57              |
|                |                 | 6#0                        | 21.43             | 21.56                | 21.78              |
|                | 16-QAM          | 1#0                        | 21.77             | 21.45                | 21.54              |
|                |                 | 1#3                        | 22.14             | 22.08                | 21.32              |
|                |                 | 1#5                        | 21.68             | 21.44                | 21.94              |
|                |                 | 3#0                        | 22.09             | 22.00                | 21.72              |
|                |                 | 3#1                        | 22.02             | 21.50                | 21.91              |
|                |                 | 3#3                        | 22.16             | 21.70                | 21.53              |
|                |                 | 6#0                        | 21.67             | 21.17                | 21.62              |
| 3M             | QPSK            | 1#0                        | 21.48             | 21.34                | 21.24              |
|                |                 | 1#7                        | 21.84             | 21.82                | 21.33              |
|                |                 | 1#14                       | 21.50             | 21.31                | 21.18              |
|                |                 | 8#0                        | 21.61             | 21.85                | 21.66              |
|                |                 | 8#4                        | 22.24             | 21.44                | 21.98              |
|                |                 | 8#7                        | 21.47             | 21.96                | 21.96              |
|                |                 | 15#0                       | 22.05             | 22.05                | 21.75              |
|                | 16-QAM          | 1#0                        | 22.02             | 21.77                | 21.04              |
|                |                 | 1#7                        | 22.12             | 22.08                | 21.73              |
|                |                 | 1#14                       | 21.83             | 21.54                | 21.29              |
|                |                 | 8#0                        | 21.96             | 21.75                | 21.38              |
|                |                 | 8#4                        | 21.27             | 22.02                | 21.74              |
|                |                 | 8#7                        | 21.98             | 21.37                | 21.41              |
|                |                 | 15#0                       | 22.07             | 21.13                | 21.19              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 21.33             | 21.80                | 21.07              |
|                |                 | 1#12                       | 21.72             | 21.98                | 21.81              |
|                |                 | 1#24                       | 21.37             | 21.58                | 21.90              |
|                |                 | 12#0                       | 21.89             | 21.65                | 21.50              |
|                |                 | 12#6                       | 21.75             | 21.34                | 21.21              |
|                |                 | 12#11                      | 22.17             | 21.36                | 21.08              |
|                |                 | 25#0                       | 21.84             | 21.74                | 21.34              |
|                | 16-QAM          | 1#0                        | 21.67             | 21.46                | 21.35              |
|                |                 | 1#12                       | 21.28             | 21.80                | 22.00              |
|                |                 | 1#24                       | 21.67             | 21.48                | 21.17              |
|                |                 | 12#0                       | 21.40             | 21.57                | 21.50              |
|                |                 | 12#6                       | 21.40             | 21.67                | 21.55              |
|                |                 | 12#11                      | 21.59             | 21.20                | 21.10              |
|                |                 | 25#0                       | 21.35             | 21.42                | 21.74              |
| 10M            | QPSK            | 1#0                        | 21.49             | 21.91                | 21.78              |
|                |                 | 1#24                       | 21.43             | 21.26                | 21.05              |
|                |                 | 1#49                       | 21.95             | 21.36                | 21.68              |
|                |                 | 25#0                       | 21.61             | 22.10                | 21.65              |
|                |                 | 25#12                      | 21.89             | 21.64                | 21.48              |
|                |                 | 25#24                      | 21.70             | 21.12                | 21.11              |
|                |                 | 50#0                       | 22.11             | 21.99                | 21.27              |
|                | 16-QAM          | 1#0                        | 21.67             | 22.02                | 21.33              |
|                |                 | 1#24                       | 22.25             | 21.83                | 21.95              |
|                |                 | 1#49                       | 22.04             | 21.92                | 21.18              |
|                |                 | 25#0                       | 22.15             | 21.17                | 21.21              |
|                |                 | 25#12                      | 21.32             | 21.24                | 21.26              |
|                |                 | 25#24                      | 21.41             | 21.14                | 21.73              |
|                |                 | 50#0                       | 22.07             | 22.09                | 21.37              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 22.04                | 22.26                   | 22.14                 |
|                |                 | 1#37                          | 21.52                | 22.09                   | 21.55                 |
|                |                 | 1#74                          | 22.19                | 21.16                   | 21.96                 |
|                |                 | 36#0                          | 22.09                | 22.18                   | 21.74                 |
|                |                 | 36#17                         | 22.24                | 21.23                   | 21.41                 |
|                |                 | 36#35                         | 21.75                | 21.13                   | 21.27                 |
|                |                 | 75#0                          | 21.92                | 21.96                   | 21.04                 |
|                | 16-QAM          | 1#0                           | 21.89                | 21.12                   | 21.15                 |
|                |                 | 1#37                          | 21.34                | 21.13                   | 21.13                 |
|                |                 | 1#74                          | 21.73                | 21.81                   | 21.02                 |
|                |                 | 36#0                          | 21.78                | 21.26                   | 21.20                 |
|                |                 | 36#17                         | 22.02                | 21.95                   | 21.33                 |
|                |                 | 36#35                         | 21.99                | 21.34                   | 21.70                 |
|                |                 | 75#0                          | 21.31                | 21.59                   | 21.23                 |

**LTE Band 40 Lower**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 21.53             | 21.14                | 21.26              |
|                |                 | 1#12                       | 21.67             | 21.89                | 21.09              |
|                |                 | 1#24                       | 21.93             | 21.16                | 21.40              |
|                |                 | 12#0                       | 22.15             | 21.24                | 21.08              |
|                |                 | 12#6                       | 21.39             | 21.92                | 21.78              |
|                |                 | 12#11                      | 21.61             | 21.14                | 21.44              |
|                |                 | 25#0                       | 21.96             | 21.22                | 21.33              |
|                | 16-QAM          | 1#0                        | 21.42             | 21.17                | 21.96              |
|                |                 | 1#12                       | 21.99             | 21.23                | 21.38              |
|                |                 | 1#24                       | 21.65             | 21.97                | 21.99              |
|                |                 | 12#0                       | 21.51             | 21.68                | 21.36              |
|                |                 | 12#6                       | 21.45             | 21.78                | 21.24              |
|                |                 | 12#11                      | 21.91             | 21.85                | 21.44              |
|                |                 | 25#0                       | 21.70             | 21.97                | 21.35              |
| 10M            | QPSK            | 1#0                        | /                 | 22.16                | /                  |
|                |                 | 1#24                       | /                 | 21.50                | /                  |
|                |                 | 1#49                       | /                 | 21.63                | /                  |
|                |                 | 25#0                       | /                 | 22.06                | /                  |
|                |                 | 25#12                      | /                 | 21.95                | /                  |
|                |                 | 25#24                      | /                 | 22.06                | /                  |
|                |                 | 50#0                       | /                 | 21.12                | /                  |
|                | 16-QAM          | 1#0                        | /                 | 22.00                | /                  |
|                |                 | 1#24                       | /                 | 21.40                | /                  |
|                |                 | 1#49                       | /                 | 21.60                | /                  |
|                |                 | 25#0                       | /                 | 21.11                | /                  |
|                |                 | 25#12                      | /                 | 21.82                | /                  |
|                |                 | 25#24                      | /                 | 21.65                | /                  |
|                |                 | 50#0                       | /                 | 21.50                | /                  |

**Note:**

LTE Band40 duty cycle is 32.34%. Refer to the report for details RKSA240109002-00D

**LTE Band 40 Upper**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 21.87             | 21.96                | 21.80              |
|                |                 | 1#12                       | 21.84             | 21.83                | 21.51              |
|                |                 | 1#24                       | 22.24             | 21.85                | 21.89              |
|                |                 | 12#0                       | 21.37             | 21.61                | 21.24              |
|                |                 | 12#6                       | 21.29             | 21.63                | 21.45              |
|                |                 | 12#11                      | 22.05             | 21.47                | 21.57              |
|                |                 | 25#0                       | 21.62             | 21.30                | 21.08              |
|                | 16-QAM          | 1#0                        | 22.17             | 21.80                | 21.29              |
|                |                 | 1#12                       | 21.78             | 21.48                | 21.74              |
|                |                 | 1#24                       | 21.92             | 21.33                | 21.58              |
|                |                 | 12#0                       | 21.98             | 21.72                | 21.26              |
|                |                 | 12#6                       | 21.55             | 21.58                | 21.28              |
|                |                 | 12#11                      | 21.59             | 21.71                | 21.18              |
|                |                 | 25#0                       | 22.12             | 21.43                | 21.06              |
| 10M            | QPSK            | 1#0                        | /                 | 22.25                | /                  |
|                |                 | 1#24                       | /                 | 21.52                | /                  |
|                |                 | 1#49                       | /                 | 21.79                | /                  |
|                |                 | 25#0                       | /                 | 22.14                | /                  |
|                |                 | 25#12                      | /                 | 21.94                | /                  |
|                |                 | 25#24                      | /                 | 21.18                | /                  |
|                |                 | 50#0                       | /                 | 21.74                | /                  |
|                | 16-QAM          | 1#0                        | /                 | 21.19                | /                  |
|                |                 | 1#24                       | /                 | 22.03                | /                  |
|                |                 | 1#49                       | /                 | 21.79                | /                  |
|                |                 | 25#0                       | /                 | 21.15                | /                  |
|                |                 | 25#12                      | /                 | 21.66                | /                  |
|                |                 | 25#24                      | /                 | 21.71                | /                  |
|                |                 | 50#0                       | /                 | 21.88                | /                  |

**Note:**

LTE Band40 duty cycle is 31.32%. Refer to the report for details RKSA240109002-00D

**LTE Band 41**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Lowest Channel (dBm) | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|----------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 22.23                | 21.30             | 21.62                | 21.44              |
|                |                 | 1#12                       | 21.43                | 21.41             | 21.97                | 21.41              |
|                |                 | 1#24                       | 22.02                | 21.19             | 21.21                | 21.67              |
|                |                 | 12#0                       | 21.74                | 21.21             | 21.49                | 21.94              |
|                |                 | 12#6                       | 21.46                | 21.30             | 21.20                | 21.29              |
|                |                 | 12#11                      | 22.24                | 22.01             | 21.31                | 21.05              |
|                |                 | 25#0                       | 21.73                | 21.96             | 21.49                | 21.81              |
|                | 16-QAM          | 1#0                        | 21.70                | 21.86             | 22.11                | 21.73              |
|                |                 | 1#12                       | 21.58                | 21.70             | 21.55                | 21.87              |
|                |                 | 1#24                       | 21.49                | 22.10             | 21.80                | 21.28              |
|                |                 | 12#0                       | 21.84                | 21.76             | 21.93                | 21.32              |
|                |                 | 12#6                       | 21.57                | 22.11             | 21.40                | 21.59              |
|                |                 | 12#11                      | 21.84                | 21.10             | 21.25                | 21.32              |
|                |                 | 25#0                       | 22.25                | 21.45             | 21.58                | 21.17              |
| 10M            | QPSK            | 1#0                        | 21.73                | 21.10             | 21.85                | 21.34              |
|                |                 | 1#24                       | 21.59                | 21.71             | 21.77                | 21.82              |
|                |                 | 1#49                       | 22.15                | 21.02             | 21.77                | 21.51              |
|                |                 | 25#0                       | 21.96                | 21.44             | 21.83                | 21.19              |
|                |                 | 25#12                      | 21.90                | 21.90             | 21.18                | 22.01              |
|                |                 | 25#24                      | 22.07                | 21.01             | 21.82                | 21.63              |
|                |                 | 50#0                       | 21.98                | 21.82             | 21.77                | 21.21              |
|                | 16-QAM          | 1#0                        | 21.56                | 21.00             | 21.14                | 21.70              |
|                |                 | 1#24                       | 21.31                | 21.30             | 22.09                | 21.33              |
|                |                 | 1#49                       | 21.84                | 21.36             | 21.64                | 21.04              |
|                |                 | 25#0                       | 21.38                | 21.50             | 21.45                | 21.42              |
|                |                 | 25#12                      | 21.62                | 21.71             | 22.02                | 21.84              |
|                |                 | 25#24                      | 21.53                | 21.92             | 21.88                | 21.70              |
|                |                 | 50#0                       | 21.90                | 21.60             | 21.57                | 21.09              |

**Note:** The lowest channel frequency, middle channel frequency and high channel frequency is low, middle and high test frequencies corresponding to different bandwidths within the frequency range 2555MHz~2655MHz, and the low channel frequency is 2580MHz.

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Lowest Channel (dBm) | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|----------------------|-------------------|----------------------|--------------------|
| 15M            | QPSK            | 1#0                        | 21.45                | 21.52             | 21.61                | 21.92              |
|                |                 | 1#37                       | 21.53                | 21.69             | 21.77                | 21.05              |
|                |                 | 1#74                       | 21.46                | 21.46             | 21.66                | 21.05              |
|                |                 | 36#0                       | 22.09                | 21.62             | 21.98                | 21.08              |
|                |                 | 36#17                      | 21.68                | 21.81             | 21.97                | 21.56              |
|                |                 | 36#35                      | 21.88                | 21.36             | 21.13                | 21.73              |
|                |                 | 75#0                       | 21.70                | 21.42             | 21.32                | 22.02              |
|                | 16-QAM          | 1#0                        | 21.73                | 21.36             | 21.54                | 21.11              |
|                |                 | 1#37                       | 21.48                | 21.36             | 21.22                | 21.41              |
|                |                 | 1#74                       | 22.10                | 21.72             | 21.55                | 21.80              |
|                |                 | 36#0                       | 21.57                | 21.06             | 21.11                | 21.11              |
|                |                 | 36#17                      | 21.69                | 21.30             | 21.43                | 21.30              |
|                |                 | 36#35                      | 21.75                | 21.68             | 21.51                | 21.82              |
|                |                 | 75#0                       | 21.41                | 21.51             | 21.18                | 21.89              |
| 20M            | QPSK            | 1#0                        | 22.16                | 22.16             | 22.30                | 22.19              |
|                |                 | 1#49                       | 21.52                | 21.13             | 22.10                | 21.31              |
|                |                 | 1#99                       | 21.31                | 21.53             | 21.57                | 21.75              |
|                |                 | 50#0                       | 22.05                | 22.12             | 22.15                | 22.14              |
|                |                 | 50#24                      | 22.18                | 21.86             | 22.09                | 21.66              |
|                |                 | 50#49                      | 21.63                | 21.40             | 21.62                | 21.68              |
|                |                 | 100#0                      | 21.42                | 21.63             | 21.76                | 21.35              |
|                | 16-QAM          | 1#0                        | 22.02                | 21.69             | 21.29                | 21.04              |
|                |                 | 1#49                       | 22.20                | 21.62             | 21.23                | 21.48              |
|                |                 | 1#99                       | 22.07                | 22.05             | 21.81                | 22.02              |
|                |                 | 50#0                       | 21.86                | 21.32             | 21.48                | 21.70              |
|                |                 | 50#24                      | 21.52                | 21.43             | 22.04                | 21.48              |
|                |                 | 50#49                      | 22.14                | 21.29             | 21.51                | 21.08              |
|                |                 | 100#0                      | 22.13                | 21.36             | 21.45                | 21.03              |

**Note:** The lowest channel frequency, middle channel frequency and high channel frequency is low, middle and high test frequencies corresponding to different bandwidths within the frequency range 2555MHz~2655MHz, and the low channel frequency is 2580MHz.

**LTE Band 66**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 21.75             | 21.51                | 21.82              |
|                |                 | 1#3                        | 21.32             | 21.63                | 21.13              |
|                |                 | 1#5                        | 22.06             | 21.22                | 21.31              |
|                |                 | 3#0                        | 21.93             | 21.21                | 21.98              |
|                |                 | 3#1                        | 21.57             | 21.27                | 21.33              |
|                |                 | 3#3                        | 22.05             | 21.65                | 21.76              |
|                |                 | 6#0                        | 21.26             | 21.15                | 21.55              |
|                | 16-QAM          | 1#0                        | 21.86             | 21.31                | 21.81              |
|                |                 | 1#3                        | 21.28             | 21.49                | 21.59              |
|                |                 | 1#5                        | 22.09             | 22.01                | 21.52              |
|                |                 | 3#0                        | 22.10             | 21.63                | 21.92              |
|                |                 | 3#1                        | 22.15             | 21.39                | 21.98              |
|                |                 | 3#3                        | 21.38             | 21.96                | 21.36              |
|                |                 | 6#0                        | 21.33             | 21.62                | 21.86              |
| 3M             | QPSK            | 1#0                        | 21.53             | 21.25                | 21.05              |
|                |                 | 1#7                        | 22.10             | 21.16                | 21.76              |
|                |                 | 1#14                       | 21.86             | 21.51                | 21.70              |
|                |                 | 8#0                        | 21.95             | 21.90                | 21.67              |
|                |                 | 8#4                        | 21.78             | 21.87                | 21.07              |
|                |                 | 8#7                        | 22.09             | 21.21                | 21.84              |
|                |                 | 15#0                       | 21.99             | 22.00                | 21.77              |
|                | 16-QAM          | 1#0                        | 21.93             | 22.08                | 21.58              |
|                |                 | 1#7                        | 22.25             | 21.45                | 21.52              |
|                |                 | 1#14                       | 21.57             | 21.37                | 22.01              |
|                |                 | 8#0                        | 21.50             | 21.94                | 22.02              |
|                |                 | 8#4                        | 22.19             | 21.39                | 21.94              |
|                |                 | 8#7                        | 21.43             | 21.83                | 21.27              |
|                |                 | 15#0                       | 21.71             | 22.10                | 21.14              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 21.34             | 21.93                | 21.37              |
|                |                 | 1#12                       | 21.85             | 21.66                | 21.08              |
|                |                 | 1#24                       | 21.78             | 21.15                | 21.34              |
|                |                 | 12#0                       | 21.51             | 21.65                | 21.08              |
|                |                 | 12#6                       | 21.90             | 21.52                | 21.51              |
|                |                 | 12#11                      | 21.87             | 21.32                | 21.12              |
|                |                 | 25#0                       | 21.61             | 21.75                | 21.63              |
|                | 16-QAM          | 1#0                        | 21.46             | 21.44                | 21.32              |
|                |                 | 1#12                       | 21.50             | 21.46                | 21.43              |
|                |                 | 1#24                       | 21.86             | 21.21                | 21.68              |
|                |                 | 12#0                       | 21.87             | 21.58                | 22.01              |
|                |                 | 12#6                       | 21.27             | 21.49                | 21.42              |
|                |                 | 12#11                      | 22.19             | 21.17                | 21.36              |
|                |                 | 25#0                       | 21.35             | 21.43                | 21.32              |
| 10M            | QPSK            | 1#0                        | 21.53             | 22.00                | 21.41              |
|                |                 | 1#24                       | 22.14             | 21.60                | 21.73              |
|                |                 | 1#49                       | 21.29             | 21.19                | 21.23              |
|                |                 | 25#0                       | 21.66             | 21.59                | 21.44              |
|                |                 | 25#12                      | 21.41             | 21.25                | 21.06              |
|                |                 | 25#24                      | 22.14             | 21.54                | 21.18              |
|                |                 | 50#0                       | 22.17             | 21.56                | 21.81              |
|                | 16-QAM          | 1#0                        | 22.10             | 21.22                | 21.36              |
|                |                 | 1#24                       | 22.01             | 22.02                | 21.58              |
|                |                 | 1#49                       | 21.38             | 21.18                | 21.40              |
|                |                 | 25#0                       | 22.14             | 21.44                | 21.09              |
|                |                 | 25#12                      | 21.53             | 22.05                | 21.20              |
|                |                 | 25#24                      | 22.15             | 21.21                | 21.49              |
|                |                 | 50#0                       | 22.12             | 21.55                | 21.03              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 21.43                | 21.49                   | 21.18                 |
|                |                 | 1#37                          | 21.90                | 21.60                   | 21.45                 |
|                |                 | 1#74                          | 21.26                | 21.18                   | 21.50                 |
|                |                 | 36#0                          | 21.50                | 21.60                   | 21.63                 |
|                |                 | 36#17                         | 21.69                | 21.98                   | 21.03                 |
|                |                 | 36#35                         | 22.16                | 21.99                   | 21.80                 |
|                |                 | 75#0                          | 21.34                | 21.49                   | 21.46                 |
|                | 16-QAM          | 1#0                           | 22.00                | 21.59                   | 21.24                 |
|                |                 | 1#37                          | 21.75                | 21.71                   | 21.40                 |
|                |                 | 1#74                          | 21.74                | 21.15                   | 21.79                 |
|                |                 | 36#0                          | 21.87                | 21.84                   | 21.30                 |
|                |                 | 36#17                         | 21.64                | 21.90                   | 21.15                 |
|                |                 | 36#35                         | 21.61                | 21.80                   | 21.04                 |
|                |                 | 75#0                          | 21.37                | 21.41                   | 21.35                 |
| 20M            | QPSK            | 1#0                           | 22.28                | 22.35                   | 22.17                 |
|                |                 | 1#49                          | 21.39                | 21.34                   | 22.01                 |
|                |                 | 1#99                          | 21.82                | 21.74                   | 21.54                 |
|                |                 | 50#0                          | 21.96                | 22.11                   | 22.06                 |
|                |                 | 50#24                         | 21.84                | 21.65                   | 21.40                 |
|                |                 | 50#49                         | 21.30                | 21.80                   | 21.12                 |
|                |                 | 100#0                         | 22.09                | 21.55                   | 21.17                 |
|                | 16-QAM          | 1#0                           | 21.27                | 21.52                   | 21.58                 |
|                |                 | 1#49                          | 22.07                | 21.21                   | 21.10                 |
|                |                 | 1#99                          | 22.18                | 21.81                   | 21.11                 |
|                |                 | 50#0                          | 22.26                | 21.89                   | 21.13                 |
|                |                 | 50#24                         | 21.63                | 21.79                   | 21.69                 |
|                |                 | 50#49                         | 21.94                | 21.88                   | 22.02                 |
|                |                 | 100#0                         | 21.53                | 21.99                   | 21.88                 |

**WLAN 2.4G:**

| Mode         | Channel frequency (MHz) | Data Rate | Conducted Average Output Power(dBm) |
|--------------|-------------------------|-----------|-------------------------------------|
| 802.11b      | 2412                    | 1Mbps     | 16.75                               |
|              | 2437                    |           | 16.58                               |
|              | 2462                    |           | 16.92                               |
| 802.11g      | 2412                    | 6Mbps     | 14.03                               |
|              | 2437                    |           | 14.05                               |
|              | 2462                    |           | 14.01                               |
| 802.11n HT20 | 2412                    | MCS0      | 12.82                               |
|              | 2437                    |           | 13.38                               |
|              | 2462                    |           | 13.47                               |
| 802.11n HT40 | 2422                    | MCS0      | 12.00                               |
|              | 2437                    |           | 11.90                               |
|              | 2452                    |           | 11.82                               |

**Note:**

2.4G wifi duty cycle is 100%. Refer to the report for details RKSA240109002-00B

**WLAN 5.2G:**

| Test mode    | Band          | Frequency (MHz) | Average Conducted Output Power (dBm) |
|--------------|---------------|-----------------|--------------------------------------|
| 802.11a      | 5150-5250 MHz | 5180            | 11.56                                |
|              |               | 5200            | 11.53                                |
|              |               | 5240            | 11.41                                |
| 802.11ac20   | 5150-5250 MHz | 5180            | 11.30                                |
|              |               | 5200            | 11.40                                |
|              |               | 5240            | 11.29                                |
| 802.11n-HT20 | 5150-5250 MHz | 5180            | 11.39                                |
|              |               | 5200            | 11.30                                |
|              |               | 5240            | 11.40                                |
| 802.11ac40   | 5150-5250 MHz | 5190            | 10.50                                |
|              |               | 5230            | 10.21                                |
| 802.11n-HT40 | 5150-5250 MHz | 5190            | 10.45                                |
|              |               | 5230            | 10.44                                |
| 802.11ac80   | /             | 5210            | 8.75                                 |

**Note:**

5.2G wifi duty cycle is 100%. Refer to the report for details RKSA240109002-00E

**WLAN 5.8G:**

| Test mode    | Band          | Frequency (MHz) | Average Conducted Output Power (dBm) |
|--------------|---------------|-----------------|--------------------------------------|
| 802.11a      | 5725-5850 MHz | 5745            | 13.05                                |
|              |               | 5785            | 13.04                                |
|              |               | 5825            | 13.30                                |
| 802.11ac20   | 5725-5850 MHz | 5745            | 12.82                                |
|              |               | 5785            | 12.81                                |
|              |               | 5825            | 13.11                                |
| 802.11n-HT20 | 5725-5850 MHz | 5745            | 12.92                                |
|              |               | 5785            | 12.86                                |
|              |               | 5825            | 13.12                                |
| 802.11ac40   | 5725-5850 MHz | 5755            | 13.01                                |
|              |               | 5795            | 13.19                                |
| 802.11n-HT40 | 5725-5850 MHz | 5755            | 12.84                                |
|              |               | 5795            | 12.92                                |
| 802.11ac80   | /             | 5775            | 12.98                                |

**Note:**

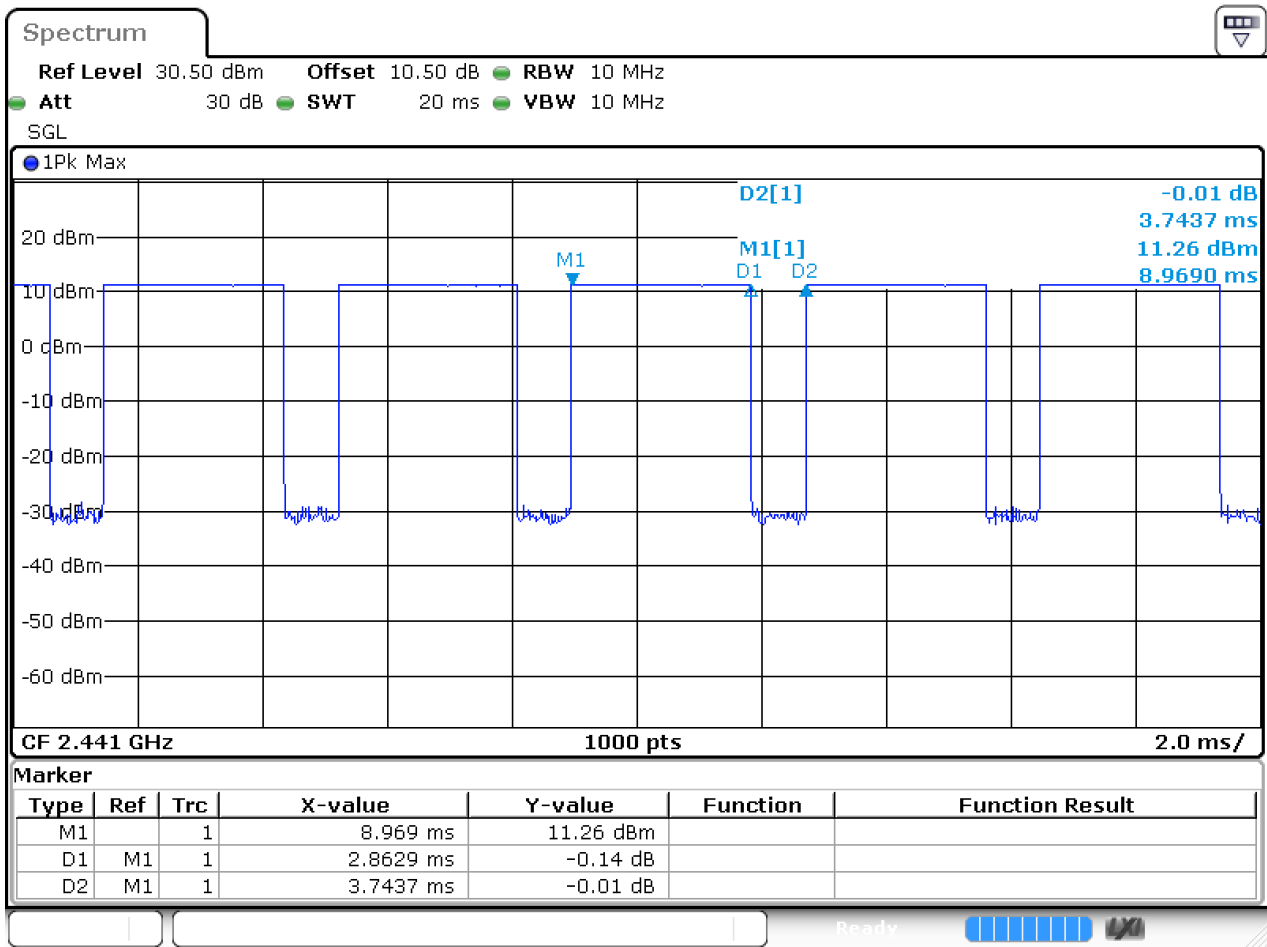
5.8G wifi duty cycle is 100%. Refer to the report for details RKSA240109002-00E

**Bluetooth:**

| Mode                 | Channel frequency (MHz) | RF Output Power (dBm) |
|----------------------|-------------------------|-----------------------|
| BDR(GFSK)            | 2402                    | 8.95                  |
|                      | 2441                    | 9.91                  |
|                      | 2480                    | 9.29                  |
| EDR( $\pi/4$ -DQPSK) | 2402                    | 8.72                  |
|                      | 2441                    | 9.18                  |
|                      | 2480                    | 9.63                  |
| EDR(8DPSK)           | 2402                    | 8.72                  |
|                      | 2441                    | 9.29                  |
|                      | 2480                    | 9.63                  |

**Note:**

Bluetooth duty cycle is 76.47%, as shown below.



ProjectNo.:RKSA240109002 Tester:Allen Sun

Date: 4.JUL.2024 14:18:28

**BLE:**

| Channel         | Frequency<br>(MHz) | Max Conducted<br>Peak Output<br>Power<br>(dBm) |
|-----------------|--------------------|------------------------------------------------|
| BLE(1Mbps) Mode |                    |                                                |
| Low             | 2402               | -4.05                                          |
| Middle          | 2440               | -2.44                                          |
| High            | 2480               | -2.89                                          |
| BLE(2Mbps) Mode |                    |                                                |
| Low             | 2402               | -3.86                                          |
| Middle          | 2440               | -2.37                                          |
| High            | 2480               | -2.86                                          |

**Note:**

BLE(1Mbps) duty cycle is 67.77%. Refer to the report for details RKSA240109002-00B

BLE(2Mbps) duty cycle is 35.01%. Refer to the report for details RKSA240109002-00B

**WWAN Antenna Reduction Power****GPRS:**

| Band     | Channel No. | Frequency (MHz) | RF Output Power (dBm) |         |         |         |
|----------|-------------|-----------------|-----------------------|---------|---------|---------|
|          |             |                 | 1 slot                | 2 slots | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 31.01                 | 29.89   | 28.65   | 27.61   |
|          | 190         | 836.6           | 31.44                 | 29.98   | 28.87   | 27.64   |
|          | 251         | 848.8           | 31.98                 | 29.02   | 28.9    | 27.49   |
| PCS 1900 | 512         | 1850.2          | 26.32                 | 25.56   | 24.24   | 22.9    |
|          | 661         | 1880.0          | 25.88                 | 25.72   | 24.02   | 23.49   |
|          | 810         | 1909.8          | 26.24                 | 25.66   | 24.22   | 22.96   |

**EDGE:**

| Band     | Channel No. | Frequency (MHz) | RF Output Power (dBm) |         |         |         |
|----------|-------------|-----------------|-----------------------|---------|---------|---------|
|          |             |                 | 1 slot                | 2 slots | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 25.15                 | 24.38   | 23.47   | 22.43   |
|          | 190         | 836.6           | 25.26                 | 24.36   | 23.49   | 22.28   |
|          | 251         | 848.8           | 25.17                 | 24.31   | 23.11   | 22.59   |
| PCS 1900 | 512         | 1850.2          | 22.05                 | 21.76   | 20.41   | 19.45   |
|          | 661         | 1880.0          | 22.71                 | 21.48   | 20.82   | 19.47   |
|          | 810         | 1909.8          | 22.52                 | 21.54   | 20.79   | 19.38   |

For SAR, the time based average power is relevant, the difference in between depends on the duty cycle of the TDMA signal.

| Number of Time slot                                  | 1     | 2     | 3        | 4     |
|------------------------------------------------------|-------|-------|----------|-------|
| Duty Cycle                                           | 1:8   | 1:4   | 1:2.66   | 1:2   |
| Time based Ave. power compared to slotted Ave. power | -9 dB | -6 dB | -4.25 dB | -3 dB |
| Crest Factor                                         | 8     | 4     | 2.66     | 2     |

**The time based average power for GPRS**

| Band     | Channel No. | Frequency (MHz) | Time based average Power (dBm) |        |         |         |
|----------|-------------|-----------------|--------------------------------|--------|---------|---------|
|          |             |                 | 1 slot                         | 2 slot | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 22.01                          | 23.89  | 24.4    | 24.61   |
|          | 190         | 836.6           | 22.44                          | 23.98  | 24.62   | 24.64   |
|          | 251         | 848.8           | 22.98                          | 23.02  | 24.65   | 24.49   |
| PCS 1900 | 512         | 1850.2          | 17.32                          | 19.56  | 19.99   | 19.9    |
|          | 661         | 1880            | 16.88                          | 19.72  | 19.77   | 20.49   |
|          | 810         | 1909.8          | 17.24                          | 19.66  | 19.97   | 19.96   |

**The time based average power for EDGE**

| Band     | Channel No. | Frequency (MHz) | Time based average Power (dBm) |        |         |         |
|----------|-------------|-----------------|--------------------------------|--------|---------|---------|
|          |             |                 | 1 slot                         | 2 slot | 3 slots | 4 slots |
| GSM 850  | 128         | 824.2           | 16.15                          | 18.38  | 19.22   | 19.43   |
|          | 190         | 836.6           | 16.26                          | 18.36  | 19.24   | 19.28   |
|          | 251         | 848.8           | 16.17                          | 18.31  | 18.86   | 19.59   |
| PCS 1900 | 512         | 1850.2          | 13.05                          | 15.76  | 16.16   | 16.45   |
|          | 661         | 1880            | 13.71                          | 15.48  | 16.57   | 16.47   |
|          | 810         | 1909.8          | 13.52                          | 15.54  | 16.54   | 16.38   |

**Note:**

1. Rohde & Schwarz Radio Communication Tester (CMU200) was used for the measurement of GSM peak and average output power for active timeslots.
- 2 .For GSM voice, 1 timeslot has been activated with power level 5 (850 MHz band) and 0 (1900 MHz band).
- 3 .For GPRS, 1, 2, 3 and 4 timeslots has been activated separately with power level 3(850 MHz band) and 3(1900 MHz band).
4. According to KDB941225D01-SAR for EGPRS mode are not required when the source-based time-averaged output power for data mode is lower than that in the normal GPRS mode.

**WCDMA Band II**

| Mode            | Test Condition | Test Mode | 3GPP Sub Test | Average Output Power (dBm) |                  |                |
|-----------------|----------------|-----------|---------------|----------------------------|------------------|----------------|
|                 |                |           |               | Low Frequency              | Middle Frequency | High Frequency |
| WCDMA (Band II) | Normal         | Rel 99    | 1             | 18.11                      | 18.21            | 17.93          |
|                 |                | HSDPA     | 1             | 18.14                      | 18.10            | 18.06          |
|                 |                |           | 2             | 18.12                      | 17.96            | 18.07          |
|                 |                |           | 3             | 18.09                      | 18.03            | 17.96          |
|                 |                |           | 4             | 18.13                      | 18.15            | 18.11          |
|                 |                | HSUPA     | 1             | 18.20                      | 18.14            | 18.12          |
|                 |                |           | 2             | 18.10                      | 17.96            | 18.15          |
|                 |                |           | 3             | 18.16                      | 18.11            | 18.02          |
|                 |                |           | 4             | 18.16                      | 17.95            | 18.01          |
|                 |                |           | 5             | 18.10                      | 18.14            | 18.15          |
|                 |                | HSPA+     | 1             | 18.15                      | 18.02            | 18.04          |

**WCDMA Band IV**

| Mode            | Test Condition | Test Mode | 3GPP Sub Test | Average Output Power (dBm) |                  |                |
|-----------------|----------------|-----------|---------------|----------------------------|------------------|----------------|
|                 |                |           |               | Low Frequency              | Middle Frequency | High Frequency |
| WCDMA (Band IV) | Normal         | Rel 99    | 1             | 18.13                      | 18.29            | 18.15          |
|                 |                | HSDPA     | 1             | 18.19                      | 18.09            | 18.06          |
|                 |                |           | 2             | 18.11                      | 18.01            | 18.17          |
|                 |                |           | 3             | 18.13                      | 17.93            | 18.12          |
|                 |                |           | 4             | 18.21                      | 18.04            | 18.05          |
|                 |                | HSUPA     | 1             | 18.17                      | 18.14            | 18.13          |
|                 |                |           | 2             | 18.13                      | 18.05            | 18.02          |
|                 |                |           | 3             | 18.16                      | 17.83            | 18.11          |
|                 |                |           | 4             | 18.23                      | 18.04            | 18.18          |
|                 |                |           | 5             | 18.13                      | 17.84            | 18.06          |
|                 |                | HSPA+     | 1             | 18.16                      | 18.00            | 18.07          |

**WCDMA Band V**

| Mode           | Test Condition | Test Mode | 3GPP Sub Test | Average Output Power (dBm) |                  |                |
|----------------|----------------|-----------|---------------|----------------------------|------------------|----------------|
|                |                |           |               | Low Frequency              | Middle Frequency | High Frequency |
| WCDMA (Band V) | Normal         | Rel 99    | 1             | 19.82                      | 20.09            | 19.95          |
|                |                | HSDPA     | 1             | 20.03                      | 19.76            | 19.86          |
|                |                |           | 2             | 19.97                      | 19.95            | 20.01          |
|                |                |           | 3             | 19.92                      | 19.81            | 20             |
|                |                |           | 4             | 19.98                      | 19.72            | 19.88          |
|                |                | HSUPA     | 1             | 19.94                      | 19.82            | 20             |
|                |                |           | 2             | 19.85                      | 19.91            | 19.96          |
|                |                |           | 3             | 19.99                      | 19.99            | 19.95          |
|                |                |           | 4             | 19.83                      | 19.68            | 20.08          |
|                |                |           | 5             | 19.85                      | 19.71            | 19.94          |
|                |                | HSPA+     | 1             | 19.93                      | 19.79            | 19.88          |

**LTE Band 12**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 18.99             | 18.32                | 18.71              |
|                |                 | 1#3                        | 18.81             | 18.05                | 17.86              |
|                |                 | 1#5                        | 18.61             | 18.79                | 17.84              |
|                |                 | 3#0                        | 18.45             | 18.31                | 18.74              |
|                |                 | 3#1                        | 19.01             | 18.04                | 18.63              |
|                |                 | 3#3                        | 18.04             | 18.3                 | 18.53              |
|                |                 | 6#0                        | 18.94             | 18.3                 | 17.93              |
|                | 16-QAM          | 1#0                        | 18.08             | 18.74                | 18.07              |
|                |                 | 1#3                        | 18.83             | 18.29                | 18.42              |
|                |                 | 1#5                        | 18.71             | 18.82                | 18.39              |
|                |                 | 3#0                        | 18.19             | 18.54                | 17.94              |
|                |                 | 3#1                        | 18.59             | 18.61                | 18.46              |
|                |                 | 3#3                        | 18.03             | 18.66                | 18.56              |
|                |                 | 6#0                        | 18.83             | 18.82                | 18.35              |
| 3M             | QPSK            | 1#0                        | 18.44             | 18.88                | 18.82              |
|                |                 | 1#7                        | 18.93             | 17.98                | 17.97              |
|                |                 | 1#14                       | 18.33             | 18.11                | 18.66              |
|                |                 | 8#0                        | 18.33             | 18.23                | 17.89              |
|                |                 | 8#4                        | 18.37             | 18.28                | 18.08              |
|                |                 | 8#7                        | 18.87             | 18.14                | 17.88              |
|                |                 | 15#0                       | 18.91             | 18.15                | 17.85              |
|                | 16-QAM          | 1#0                        | 18.75             | 18.34                | 18.39              |
|                |                 | 1#7                        | 18.09             | 18.4                 | 18.85              |
|                |                 | 1#14                       | 18.06             | 18.79                | 18.22              |
|                |                 | 8#0                        | 18.43             | 18.75                | 17.8               |
|                |                 | 8#4                        | 18.71             | 18.83                | 18.82              |
|                |                 | 8#7                        | 18.57             | 18.29                | 18.41              |
|                |                 | 15#0                       | 18.92             | 18.7                 | 18.32              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 5M             | QPSK            | 1#0                           | 18.01                | 18.54                   | 18.55                 |
|                |                 | 1#12                          | 18.27                | 18.7                    | 17.97                 |
|                |                 | 1#24                          | 18.4                 | 18.24                   | 18.63                 |
|                |                 | 12#0                          | 18.4                 | 18.19                   | 18.32                 |
|                |                 | 12#6                          | 18.43                | 18.5                    | 18.55                 |
|                |                 | 12#11                         | 18.89                | 18.65                   | 18.65                 |
|                |                 | 25#0                          | 18.03                | 18.26                   | 18.71                 |
|                | 16-QAM          | 1#0                           | 18.29                | 18.55                   | 18.74                 |
|                |                 | 1#12                          | 18.89                | 18.81                   | 18.01                 |
|                |                 | 1#24                          | 18.03                | 18.76                   | 18.12                 |
|                |                 | 12#0                          | 18.48                | 18.22                   | 18.68                 |
|                |                 | 12#6                          | 18.53                | 18.34                   | 18.62                 |
|                |                 | 12#11                         | 18.9                 | 18.78                   | 18.66                 |
|                |                 | 25#0                          | 18.62                | 18.62                   | 18.28                 |
| 10M            | QPSK            | 1#0                           | 18.5                 | 19.06                   | 18.97                 |
|                |                 | 1#24                          | 18.33                | 18.3                    | 18.55                 |
|                |                 | 1#49                          | 18.9                 | 18.25                   | 18.37                 |
|                |                 | 25#0                          | 18.65                | 18.61                   | 17.96                 |
|                |                 | 25#12                         | 18.76                | 18.81                   | 18.51                 |
|                |                 | 25#24                         | 18.36                | 18.68                   | 18.59                 |
|                |                 | 50#0                          | 18.62                | 18.37                   | 18.67                 |
|                | 16-QAM          | 1#0                           | 18.12                | 18.23                   | 18.07                 |
|                |                 | 1#24                          | 18.95                | 18.38                   | 18.38                 |
|                |                 | 1#49                          | 18.86                | 18.18                   | 18.46                 |
|                |                 | 25#0                          | 18.72                | 18.76                   | 18.04                 |
|                |                 | 25#12                         | 18.25                | 18.22                   | 18.42                 |
|                |                 | 25#24                         | 18.41                | 18.18                   | 18.87                 |
|                |                 | 50#0                          | 18.07                | 18.79                   | 18.21                 |

**LTE Band 17**

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 5M             | QPSK            | 1#0                           | 18.95                | 18.83                   | 18.77                 |
|                |                 | 1#12                          | 18.44                | 18.68                   | 18.69                 |
|                |                 | 1#24                          | 18.91                | 18.6                    | 18.14                 |
|                |                 | 12#0                          | 18.66                | 18.78                   | 18.15                 |
|                |                 | 12#6                          | 18.14                | 18.33                   | 18.27                 |
|                |                 | 12#11                         | 18.55                | 18.68                   | 17.94                 |
|                |                 | 25#0                          | 18.95                | 18.16                   | 18.28                 |
|                | 16-QAM          | 1#0                           | 18.59                | 18.31                   | 18.71                 |
|                |                 | 1#12                          | 18.5                 | 18.4                    | 18.05                 |
|                |                 | 1#24                          | 18.49                | 17.98                   | 18.13                 |
|                |                 | 12#0                          | 18.21                | 18.58                   | 18.22                 |
|                |                 | 12#6                          | 18.74                | 18.3                    | 18.55                 |
|                |                 | 12#11                         | 19.04                | 18.73                   | 18.33                 |
|                |                 | 25#0                          | 18.49                | 18.63                   | 18.67                 |
| 10M            | QPSK            | 1#0                           | 18.3                 | 19.09                   | 18.47                 |
|                |                 | 1#24                          | 18.64                | 18.59                   | 18.25                 |
|                |                 | 1#49                          | 18.37                | 18.55                   | 18.26                 |
|                |                 | 25#0                          | 18.92                | 18.94                   | 18.02                 |
|                |                 | 25#12                         | 18.85                | 18.61                   | 17.77                 |
|                |                 | 25#24                         | 18.43                | 18.69                   | 18.64                 |
|                |                 | 50#0                          | 18.26                | 18.78                   | 18.81                 |
|                | 16-QAM          | 1#0                           | 18.44                | 18.92                   | 18.26                 |
|                |                 | 1#24                          | 18.59                | 18.24                   | 18.06                 |
|                |                 | 1#49                          | 18.08                | 17.85                   | 18.32                 |
|                |                 | 25#0                          | 18.8                 | 18.38                   | 18.58                 |
|                |                 | 25#12                         | 18.46                | 18.6                    | 17.84                 |
|                |                 | 25#24                         | 18.26                | 18.95                   | 17.77                 |
|                |                 | 50#0                          | 18.43                | 18.27                   | 18.8                  |

**LTE Band 26**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 19.56             | 19.08                | 19.03              |
|                |                 | 1#3                        | 19.78             | 19.36                | 18.93              |
|                |                 | 1#5                        | 19.7              | 18.91                | 19.58              |
|                |                 | 3#0                        | 19.24             | 19.64                | 19.7               |
|                |                 | 3#1                        | 19.06             | 19.68                | 19.41              |
|                |                 | 3#3                        | 19.23             | 19.87                | 19.41              |
|                |                 | 6#0                        | 19.2              | 19.37                | 19.57              |
|                | 16-QAM          | 1#0                        | 19.47             | 19.3                 | 19.35              |
|                |                 | 1#3                        | 19.92             | 19.85                | 19.15              |
|                |                 | 1#5                        | 19.5              | 19.28                | 19.82              |
|                |                 | 3#0                        | 19.92             | 19.89                | 19.57              |
|                |                 | 3#1                        | 19.72             | 19.2                 | 19.66              |
|                |                 | 3#3                        | 19.87             | 19.41                | 19.26              |
|                |                 | 6#0                        | 19.57             | 19.06                | 19.39              |
| 3M             | QPSK            | 1#0                        | 19.37             | 19.14                | 19.09              |
|                |                 | 1#7                        | 19.63             | 19.66                | 19.19              |
|                |                 | 1#14                       | 19.22             | 19.06                | 19.08              |
|                |                 | 8#0                        | 19.37             | 19.61                | 19.54              |
|                |                 | 8#4                        | 20.13             | 19.15                | 19.85              |
|                |                 | 8#7                        | 19.26             | 19.83                | 19.78              |
|                |                 | 15#0                       | 19.9              | 19.76                | 19.64              |
|                | 16-QAM          | 1#0                        | 19.89             | 19.55                | 18.84              |
|                |                 | 1#7                        | 19.93             | 19.93                | 19.59              |
|                |                 | 1#14                       | 19.69             | 19.38                | 19.16              |
|                |                 | 8#0                        | 19.67             | 19.45                | 19.22              |
|                |                 | 8#4                        | 19.02             | 19.89                | 19.57              |
|                |                 | 8#7                        | 19.83             | 19.14                | 19.14              |
|                |                 | 15#0                       | 19.8              | 18.86                | 19.02              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 19.19             | 19.59                | 18.89              |
|                |                 | 1#12                       | 19.59             | 19.75                | 19.67              |
|                |                 | 1#24                       | 19.24             | 19.29                | 19.64              |
|                |                 | 12#0                       | 19.78             | 19.51                | 19.36              |
|                |                 | 12#6                       | 19.53             | 19.05                | 19.01              |
|                |                 | 12#11                      | 20                | 19.09                | 18.87              |
|                |                 | 25#0                       | 19.64             | 19.49                | 19.2               |
|                | 16-QAM          | 1#0                        | 19.4              | 19.21                | 19.15              |
|                |                 | 1#12                       | 19.08             | 19.5                 | 19.9               |
|                |                 | 1#24                       | 19.45             | 19.18                | 19.04              |
|                |                 | 12#0                       | 19.21             | 19.47                | 19.27              |
|                |                 | 12#6                       | 19.3              | 19.45                | 19.42              |
|                |                 | 12#11                      | 19.33             | 18.93                | 18.9               |
|                |                 | 25#0                       | 19.21             | 19.28                | 19.59              |
| 10M            | QPSK            | 1#0                        | 19.38             | 19.75                | 19.68              |
|                |                 | 1#24                       | 19.14             | 18.97                | 18.95              |
|                |                 | 1#49                       | 19.72             | 19.14                | 19.47              |
|                |                 | 25#0                       | 19.45             | 19.86                | 19.46              |
|                |                 | 25#12                      | 19.71             | 19.41                | 19.34              |
|                |                 | 25#24                      | 19.43             | 19.02                | 18.82              |
|                |                 | 50#0                       | 19.81             | 19.85                | 19.08              |
|                | 16-QAM          | 1#0                        | 19.39             | 19.73                | 19.21              |
|                |                 | 1#24                       | 19.97             | 19.56                | 19.71              |
|                |                 | 1#49                       | 19.77             | 19.64                | 18.89              |
|                |                 | 25#0                       | 19.99             | 18.87                | 19.11              |
|                |                 | 25#12                      | 19.02             | 19.14                | 19.07              |
|                |                 | 25#24                      | 19.13             | 19                   | 19.54              |
|                |                 | 50#0                       | 19.83             | 19.92                | 19.2               |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 19.93                | 20.13                   | 19.93                 |
|                |                 | 1#37                          | 19.33                | 19.8                    | 19.27                 |
|                |                 | 1#74                          | 19.89                | 18.96                   | 19.86                 |
|                |                 | 36#0                          | 19.95                | 19.9                    | 19.64                 |
|                |                 | 36#17                         | 20.09                | 19.03                   | 19.17                 |
|                |                 | 36#35                         | 19.57                | 18.91                   | 19.14                 |
|                |                 | 75#0                          | 19.79                | 19.72                   | 18.92                 |
|                | 16-QAM          | 1#0                           | 20.14                | 19.85                   | 19.55                 |
|                |                 | 1#37                          | 19.21                | 18.84                   | 18.92                 |
|                |                 | 1#74                          | 19.63                | 19.66                   | 18.78                 |
|                |                 | 36#0                          | 19.6                 | 18.96                   | 19.03                 |
|                |                 | 36#17                         | 19.73                | 19.69                   | 19.22                 |
|                |                 | 36#35                         | 19.69                | 19.09                   | 19.45                 |
|                |                 | 75#0                          | 19.16                | 19.39                   | 18.96                 |

**LTE Band 5**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 19.66             | 19.49                | 19.66              |
|                |                 | 1#3                        | 19.36             | 19.05                | 19.42              |
|                |                 | 1#5                        | 19.33             | 19.52                | 19                 |
|                |                 | 3#0                        | 19.83             | 19.07                | 19.62              |
|                |                 | 3#1                        | 19.23             | 19.83                | 19.74              |
|                |                 | 3#3                        | 19.84             | 19.46                | 19.28              |
|                |                 | 6#0                        | 19.64             | 18.96                | 19.26              |
|                | 16-QAM          | 1#0                        | 19.56             | 19.93                | 19.07              |
|                |                 | 1#3                        | 19.76             | 19.21                | 19.53              |
|                |                 | 1#5                        | 19.82             | 19.01                | 19.78              |
|                |                 | 3#0                        | 19.6              | 19.7                 | 19.08              |
|                |                 | 3#1                        | 19.71             | 19.21                | 19.42              |
|                |                 | 3#3                        | 19.83             | 19.56                | 19.1               |
|                |                 | 6#0                        | 19.29             | 19.53                | 19.38              |
| 3M             | QPSK            | 1#0                        | 19.6              | 19.24                | 19.29              |
|                |                 | 1#7                        | 19.54             | 19.31                | 18.95              |
|                |                 | 1#14                       | 19.55             | 19.3                 | 19.01              |
|                |                 | 8#0                        | 19.7              | 19.51                | 19.1               |
|                |                 | 8#4                        | 19.56             | 19.37                | 19.22              |
|                |                 | 8#7                        | 19.76             | 19.69                | 19.78              |
|                |                 | 15#0                       | 19.28             | 19.21                | 19.03              |
|                | 16-QAM          | 1#0                        | 19.81             | 18.99                | 19.53              |
|                |                 | 1#7                        | 19.64             | 19.87                | 19.32              |
|                |                 | 1#14                       | 19.31             | 19.37                | 19.49              |
|                |                 | 8#0                        | 19.72             | 19.32                | 19.03              |
|                |                 | 8#4                        | 19.79             | 19.11                | 19.62              |
|                |                 | 8#7                        | 19.58             | 19.49                | 19.54              |
|                |                 | 15#0                       | 19.37             | 19.14                | 19.27              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 5M             | QPSK            | 1#0                           | 19.2                 | 19.23                   | 19.59                 |
|                |                 | 1#12                          | 19.8                 | 19.92                   | 19.04                 |
|                |                 | 1#24                          | 19.97                | 19.86                   | 18.85                 |
|                |                 | 12#0                          | 19.56                | 19.24                   | 19.17                 |
|                |                 | 12#6                          | 19.07                | 19.5                    | 19.14                 |
|                |                 | 12#11                         | 19.68                | 19.08                   | 19.15                 |
|                |                 | 25#0                          | 19.75                | 19.82                   | 19.41                 |
|                | 16-QAM          | 1#0                           | 19.99                | 19.28                   | 18.99                 |
|                |                 | 1#12                          | 19.17                | 18.93                   | 19.58                 |
|                |                 | 1#24                          | 19.4                 | 19.75                   | 19.28                 |
|                |                 | 12#0                          | 19.84                | 19.34                   | 18.95                 |
|                |                 | 12#6                          | 19.17                | 19.44                   | 19.7                  |
|                |                 | 12#11                         | 19.2                 | 18.97                   | 18.85                 |
|                |                 | 25#0                          | 19.88                | 19.31                   | 19.73                 |
| 10M            | QPSK            | 1#0                           | 19.95                | 20.13                   | 19.87                 |
|                |                 | 1#24                          | 19.56                | 19.51                   | 19.26                 |
|                |                 | 1#49                          | 19.16                | 19.85                   | 19.62                 |
|                |                 | 25#0                          | 19.24                | 19.72                   | 19.16                 |
|                |                 | 25#12                         | 19.83                | 19.26                   | 19.42                 |
|                |                 | 25#24                         | 20                   | 19.14                   | 18.9                  |
|                |                 | 50#0                          | 19.92                | 19.52                   | 19.73                 |
|                | 16-QAM          | 1#0                           | 19.3                 | 19.1                    | 18.92                 |
|                |                 | 1#24                          | 19.48                | 19.4                    | 19.05                 |
|                |                 | 1#49                          | 20.06                | 19.86                   | 19.01                 |
|                |                 | 25#0                          | 19.51                | 19.14                   | 19.15                 |
|                |                 | 25#12                         | 19.17                | 19.81                   | 19.45                 |
|                |                 | 25#24                         | 19.97                | 19.12                   | 19.82                 |
|                |                 | 50#0                          | 19.7                 | 19.21                   | 18.76                 |

**LTE Band 2**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 18.92             | 19.07                | 18.78              |
|                |                 | 1#3                        | 19.15             | 18.63                | 18.26              |
|                |                 | 1#5                        | 18.35             | 18.20                | 18.67              |
|                |                 | 3#0                        | 18.79             | 18.45                | 18.09              |
|                |                 | 3#1                        | 18.29             | 18.42                | 18.52              |
|                |                 | 3#3                        | 19.22             | 18.43                | 18.23              |
|                |                 | 6#0                        | 18.49             | 18.81                | 18.83              |
|                | 16-QAM          | 1#0                        | 18.71             | 18.87                | 18.29              |
|                |                 | 1#3                        | 18.39             | 18.26                | 18.46              |
|                |                 | 1#5                        | 18.47             | 18.40                | 18.96              |
|                |                 | 3#0                        | 19.01             | 18.51                | 18.29              |
|                |                 | 3#1                        | 18.97             | 18.19                | 18.54              |
|                |                 | 3#3                        | 18.99             | 18.53                | 18.74              |
|                |                 | 6#0                        | 18.52             | 18.16                | 18.98              |
| 3M             | QPSK            | 1#0                        | 18.27             | 18.75                | 19.02              |
|                |                 | 1#7                        | 19.03             | 18.32                | 18.20              |
|                |                 | 1#14                       | 18.97             | 18.81                | 18.53              |
|                |                 | 8#0                        | 19.11             | 18.34                | 18.97              |
|                |                 | 8#4                        | 18.51             | 18.58                | 18.39              |
|                |                 | 8#7                        | 18.42             | 18.23                | 18.53              |
|                |                 | 15#0                       | 18.84             | 18.49                | 18.33              |
|                | 16-QAM          | 1#0                        | 18.45             | 18.22                | 18.49              |
|                |                 | 1#7                        | 18.41             | 18.78                | 18.83              |
|                |                 | 1#14                       | 18.59             | 18.87                | 18.76              |
|                |                 | 8#0                        | 18.57             | 18.64                | 18.48              |
|                |                 | 8#4                        | 18.77             | 18.30                | 18.94              |
|                |                 | 8#7                        | 18.28             | 18.85                | 18.71              |
|                |                 | 15#0                       | 18.41             | 19.01                | 18.38              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 18.84             | 19.06                | 18.69              |
|                |                 | 1#12                       | 18.93             | 18.75                | 18.61              |
|                |                 | 1#24                       | 19.22             | 18.69                | 18.15              |
|                |                 | 12#0                       | 18.89             | 18.89                | 18.04              |
|                |                 | 12#6                       | 18.87             | 18.43                | 18.44              |
|                |                 | 12#11                      | 18.41             | 18.84                | 18.58              |
|                |                 | 25#0                       | 18.73             | 18.20                | 18.30              |
|                | 16-QAM          | 1#0                        | 18.94             | 19.01                | 18.49              |
|                |                 | 1#12                       | 18.29             | 18.74                | 18.84              |
|                |                 | 1#24                       | 19.24             | 19.07                | 18.50              |
|                |                 | 12#0                       | 18.86             | 18.20                | 18.63              |
|                |                 | 12#6                       | 19.21             | 18.22                | 18.43              |
|                |                 | 12#11                      | 18.73             | 18.32                | 18.88              |
|                |                 | 25#0                       | 18.95             | 18.93                | 18.30              |
| 10M            | QPSK            | 1#0                        | 19.16             | 18.56                | 18.46              |
|                |                 | 1#24                       | 18.88             | 18.20                | 18.88              |
|                |                 | 1#49                       | 18.64             | 18.20                | 18.80              |
|                |                 | 25#0                       | 19.02             | 18.86                | 18.30              |
|                |                 | 25#12                      | 18.92             | 18.88                | 18.15              |
|                |                 | 25#24                      | 19.05             | 18.59                | 18.40              |
|                |                 | 50#0                       | 19.05             | 18.21                | 18.33              |
|                | 16-QAM          | 1#0                        | 18.94             | 18.69                | 18.26              |
|                |                 | 1#24                       | 18.48             | 18.18                | 18.95              |
|                |                 | 1#49                       | 19.16             | 18.32                | 18.10              |
|                |                 | 25#0                       | 18.67             | 18.36                | 18.64              |
|                |                 | 25#12                      | 18.63             | 18.91                | 18.91              |
|                |                 | 25#24                      | 18.53             | 18.34                | 18.91              |
|                |                 | 50#0                       | 18.80             | 18.64                | 18.83              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 18.47                | 18.69                   | 18.05                 |
|                |                 | 1#37                          | 19.24                | 18.85                   | 18.13                 |
|                |                 | 1#74                          | 18.34                | 18.94                   | 18.74                 |
|                |                 | 36#0                          | 19.23                | 18.19                   | 18.80                 |
|                |                 | 36#17                         | 18.50                | 18.76                   | 18.30                 |
|                |                 | 36#35                         | 18.78                | 18.37                   | 18.04                 |
|                |                 | 75#0                          | 18.38                | 18.16                   | 18.41                 |
|                | 16-QAM          | 1#0                           | 18.47                | 18.97                   | 18.74                 |
|                |                 | 1#37                          | 19.25                | 18.14                   | 18.29                 |
|                |                 | 1#74                          | 19.10                | 18.89                   | 18.99                 |
|                |                 | 36#0                          | 18.26                | 18.45                   | 18.39                 |
|                |                 | 36#17                         | 18.41                | 19.04                   | 18.06                 |
|                |                 | 36#35                         | 18.50                | 18.31                   | 18.68                 |
|                |                 | 75#0                          | 18.80                | 18.96                   | 18.91                 |
| 20M            | QPSK            | 1#0                           | 19.20                | 18.44                   | 18.72                 |
|                |                 | 1#49                          | 18.29                | 18.82                   | 18.89                 |
|                |                 | 1#99                          | 19.22                | 19.10                   | 18.53                 |
|                |                 | 50#0                          | 18.85                | 18.38                   | 18.97                 |
|                |                 | 50#24                         | 19.08                | 18.36                   | 18.33                 |
|                |                 | 50#49                         | 19.05                | 18.18                   | 18.85                 |
|                |                 | 100#0                         | 19.23                | 18.51                   | 19.01                 |
|                | 16-QAM          | 1#0                           | 18.67                | 18.66                   | 18.34                 |
|                |                 | 1#49                          | 19.23                | 18.36                   | 18.84                 |
|                |                 | 1#99                          | 18.96                | 18.33                   | 18.73                 |
|                |                 | 50#0                          | 18.71                | 18.89                   | 18.07                 |
|                |                 | 50#24                         | 18.94                | 18.65                   | 18.75                 |
|                |                 | 50#49                         | 19.06                | 18.56                   | 18.90                 |
|                |                 | 100#0                         | 18.35                | 19.07                   | 18.80                 |

**LTE Band 4**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 18.46             | 18.88                | 18.53              |
|                |                 | 1#3                        | 19.07             | 18.47                | 18.58              |
|                |                 | 1#5                        | 19.08             | 19.06                | 19.02              |
|                |                 | 3#0                        | 18.51             | 18.16                | 18.65              |
|                |                 | 3#1                        | 18.65             | 18.15                | 18.79              |
|                |                 | 3#3                        | 18.73             | 18.16                | 18.64              |
|                |                 | 6#0                        | 18.31             | 18.81                | 18.77              |
|                | 16-QAM          | 1#0                        | 18.91             | 18.82                | 18.56              |
|                |                 | 1#3                        | 18.74             | 18.53                | 18.23              |
|                |                 | 1#5                        | 18.35             | 18.76                | 19.00              |
|                |                 | 3#0                        | 18.43             | 18.86                | 18.86              |
|                |                 | 3#1                        | 19.03             | 18.64                | 18.78              |
|                |                 | 3#3                        | 18.56             | 18.95                | 18.57              |
|                |                 | 6#0                        | 18.43             | 18.62                | 18.26              |
| 3M             | QPSK            | 1#0                        | 19.15             | 18.67                | 18.82              |
|                |                 | 1#7                        | 18.40             | 18.73                | 18.83              |
|                |                 | 1#14                       | 19.13             | 18.79                | 18.95              |
|                |                 | 8#0                        | 19.25             | 18.98                | 19.01              |
|                |                 | 8#4                        | 18.79             | 18.33                | 18.75              |
|                |                 | 8#7                        | 18.38             | 18.99                | 18.68              |
|                |                 | 15#0                       | 19.16             | 18.68                | 18.87              |
|                | 16-QAM          | 1#0                        | 18.81             | 18.12                | 18.70              |
|                |                 | 1#7                        | 18.27             | 18.47                | 18.98              |
|                |                 | 1#14                       | 18.84             | 18.45                | 18.79              |
|                |                 | 8#0                        | 18.58             | 18.37                | 18.72              |
|                |                 | 8#4                        | 19.09             | 19.08                | 18.51              |
|                |                 | 8#7                        | 19.05             | 19.00                | 18.18              |
|                |                 | 15#0                       | 18.94             | 18.76                | 18.25              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 19.00             | 18.40                | 19.01              |
|                |                 | 1#12                       | 19.04             | 18.19                | 18.04              |
|                |                 | 1#24                       | 19.11             | 19.11                | 18.69              |
|                |                 | 12#0                       | 18.44             | 18.41                | 18.81              |
|                |                 | 12#6                       | 19.16             | 18.29                | 18.37              |
|                |                 | 12#11                      | 18.56             | 18.63                | 18.31              |
|                |                 | 25#0                       | 19.09             | 18.61                | 18.05              |
|                | 16-QAM          | 1#0                        | 18.79             | 18.92                | 18.26              |
|                |                 | 1#12                       | 18.29             | 18.91                | 18.62              |
|                |                 | 1#24                       | 18.95             | 18.42                | 18.30              |
|                |                 | 12#0                       | 18.66             | 18.61                | 18.97              |
|                |                 | 12#6                       | 19.20             | 18.87                | 18.40              |
|                |                 | 12#11                      | 19.04             | 18.31                | 18.35              |
|                |                 | 25#0                       | 18.91             | 18.28                | 18.33              |
| 10M            | QPSK            | 1#0                        | 19.10             | 18.37                | 18.12              |
|                |                 | 1#24                       | 19.06             | 18.74                | 18.88              |
|                |                 | 1#49                       | 19.21             | 18.75                | 18.95              |
|                |                 | 25#0                       | 19.11             | 19.01                | 18.57              |
|                |                 | 25#12                      | 19.02             | 18.71                | 18.37              |
|                |                 | 25#24                      | 18.40             | 18.13                | 18.88              |
|                |                 | 50#0                       | 19.05             | 18.30                | 18.49              |
|                | 16-QAM          | 1#0                        | 18.49             | 18.99                | 18.77              |
|                |                 | 1#24                       | 18.98             | 18.84                | 18.14              |
|                |                 | 1#49                       | 18.67             | 18.97                | 18.27              |
|                |                 | 25#0                       | 18.95             | 18.68                | 18.14              |
|                |                 | 25#12                      | 18.73             | 18.17                | 18.85              |
|                |                 | 25#24                      | 18.48             | 19.00                | 18.84              |
|                |                 | 50#0                       | 18.84             | 18.93                | 18.85              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 18.82                | 18.66                   | 18.87                 |
|                |                 | 1#37                          | 18.63                | 19.10                   | 18.27                 |
|                |                 | 1#74                          | 19.12                | 19.09                   | 18.05                 |
|                |                 | 36#0                          | 18.73                | 18.22                   | 18.37                 |
|                |                 | 36#17                         | 18.41                | 18.57                   | 18.70                 |
|                |                 | 36#35                         | 19.26                | 18.23                   | 18.17                 |
|                |                 | 75#0                          | 19.25                | 18.95                   | 18.90                 |
|                | 16-QAM          | 1#0                           | 19.04                | 18.98                   | 18.77                 |
|                |                 | 1#37                          | 18.64                | 18.77                   | 18.56                 |
|                |                 | 1#74                          | 18.81                | 18.59                   | 18.96                 |
|                |                 | 36#0                          | 18.87                | 18.18                   | 18.66                 |
|                |                 | 36#17                         | 19.21                | 18.44                   | 18.73                 |
|                |                 | 36#35                         | 18.66                | 18.66                   | 18.16                 |
|                |                 | 75#0                          | 18.33                | 18.38                   | 18.36                 |
| 20M            | QPSK            | 1#0                           | 19.18                | 18.24                   | 18.08                 |
|                |                 | 1#49                          | 18.59                | 18.47                   | 18.58                 |
|                |                 | 1#99                          | 18.70                | 18.28                   | 18.69                 |
|                |                 | 50#0                          | 18.80                | 19.05                   | 18.46                 |
|                |                 | 50#24                         | 18.30                | 18.69                   | 18.54                 |
|                |                 | 50#49                         | 18.93                | 18.33                   | 18.31                 |
|                |                 | 100#0                         | 18.74                | 18.38                   | 18.06                 |
|                | 16-QAM          | 1#0                           | 18.86                | 18.99                   | 18.52                 |
|                |                 | 1#49                          | 19.08                | 18.41                   | 18.40                 |
|                |                 | 1#99                          | 18.30                | 18.82                   | 18.36                 |
|                |                 | 50#0                          | 18.98                | 18.90                   | 18.35                 |
|                |                 | 50#24                         | 18.49                | 18.24                   | 18.57                 |
|                |                 | 50#49                         | 18.73                | 18.75                   | 18.36                 |
|                |                 | 100#0                         | 18.58                | 18.32                   | 18.72                 |

## LTE Band 7

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 13.40             | 13.60                | 13.38              |
|                |                 | 1#12                       | 13.56             | 13.91                | 13.82              |
|                |                 | 1#24                       | 13.39             | 13.17                | 13.56              |
|                |                 | 12#0                       | 14.24             | 14.00                | 13.13              |
|                |                 | 12#6                       | 13.99             | 13.50                | 13.22              |
|                |                 | 12#11                      | 13.73             | 13.27                | 13.83              |
|                |                 | 25#0                       | 13.43             | 13.36                | 13.05              |
|                | 16-QAM          | 1#0                        | 13.73             | 14.03                | 13.88              |
|                |                 | 1#12                       | 13.64             | 13.58                | 13.50              |
|                |                 | 1#24                       | 14.17             | 13.99                | 13.51              |
|                |                 | 12#0                       | 13.48             | 14.00                | 13.32              |
|                |                 | 12#6                       | 14.24             | 13.50                | 13.86              |
|                |                 | 12#11                      | 13.68             | 14.10                | 13.49              |
|                |                 | 25#0                       | 14.06             | 13.16                | 13.68              |
| 10M            | QPSK            | 1#0                        | 13.78             | 13.92                | 13.27              |
|                |                 | 1#24                       | 13.91             | 13.39                | 13.30              |
|                |                 | 1#49                       | 13.32             | 13.84                | 13.39              |
|                |                 | 25#0                       | 13.98             | 13.14                | 13.63              |
|                |                 | 25#12                      | 13.61             | 13.59                | 13.96              |
|                |                 | 25#24                      | 14.17             | 13.26                | 13.06              |
|                |                 | 50#0                       | 13.87             | 13.93                | 13.41              |
|                | 16-QAM          | 1#0                        | 13.49             | 13.73                | 13.59              |
|                |                 | 1#24                       | 13.28             | 13.72                | 13.34              |
|                |                 | 1#49                       | 13.43             | 13.19                | 13.95              |
|                |                 | 25#0                       | 14.18             | 13.84                | 13.36              |
|                |                 | 25#12                      | 14.03             | 13.92                | 13.73              |
|                |                 | 25#24                      | 13.48             | 13.17                | 13.11              |
|                |                 | 50#0                       | 13.45             | 13.37                | 13.39              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 13.57                | 13.57                   | 13.77                 |
|                |                 | 1#37                          | 13.43                | 13.37                   | 13.89                 |
|                |                 | 1#74                          | 13.58                | 13.39                   | 13.71                 |
|                |                 | 36#0                          | 14.13                | 13.63                   | 13.25                 |
|                |                 | 36#17                         | 13.74                | 13.15                   | 13.61                 |
|                |                 | 36#35                         | 13.76                | 13.76                   | 13.86                 |
|                |                 | 75#0                          | 14.12                | 13.89                   | 13.32                 |
|                | 16-QAM          | 1#0                           | 13.93                | 13.21                   | 13.55                 |
|                |                 | 1#37                          | 14.22                | 13.28                   | 13.76                 |
|                |                 | 1#74                          | 13.46                | 13.28                   | 13.81                 |
|                |                 | 36#0                          | 14.20                | 13.19                   | 13.24                 |
|                |                 | 36#17                         | 14.16                | 14.05                   | 13.31                 |
|                |                 | 36#35                         | 14.20                | 13.80                   | 13.10                 |
|                |                 | 75#0                          | 14.12                | 13.20                   | 13.72                 |
| 20M            | QPSK            | 1#0                           | 14.21                | 14.24                   | 14.22                 |
|                |                 | 1#49                          | 13.99                | 13.88                   | 13.30                 |
|                |                 | 1#99                          | 13.90                | 13.94                   | 13.87                 |
|                |                 | 50#0                          | 14.16                | 14.23                   | 14.14                 |
|                |                 | 50#24                         | 13.57                | 14.06                   | 13.26                 |
|                |                 | 50#49                         | 13.49                | 13.17                   | 13.29                 |
|                |                 | 100#0                         | 14.22                | 13.58                   | 13.82                 |
|                | 16-QAM          | 1#0                           | 13.48                | 14.06                   | 13.04                 |
|                |                 | 1#49                          | 14.15                | 13.40                   | 13.29                 |
|                |                 | 1#99                          | 13.32                | 13.13                   | 13.08                 |
|                |                 | 50#0                          | 13.45                | 13.82                   | 13.76                 |
|                |                 | 50#24                         | 14.06                | 13.95                   | 13.66                 |
|                |                 | 50#49                         | 13.59                | 13.60                   | 13.67                 |
|                |                 | 100#0                         | 14.00                | 13.39                   | 13.64                 |

## LTE Band 25

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 19.01             | 18.48                | 18.44              |
|                |                 | 1#3                        | 18.67             | 18.67                | 18.43              |
|                |                 | 1#5                        | 19.06             | 18.29                | 18.61              |
|                |                 | 3#0                        | 18.68             | 19.05                | 18.65              |
|                |                 | 3#1                        | 19.04             | 18.91                | 18.40              |
|                |                 | 3#3                        | 19.12             | 18.82                | 18.57              |
|                |                 | 6#0                        | 18.80             | 18.83                | 18.28              |
|                | 16-QAM          | 1#0                        | 18.52             | 18.92                | 18.32              |
|                |                 | 1#3                        | 18.61             | 19.03                | 18.32              |
|                |                 | 1#5                        | 19.01             | 18.66                | 19.01              |
|                |                 | 3#0                        | 18.99             | 18.68                | 18.08              |
|                |                 | 3#1                        | 18.83             | 18.96                | 18.78              |
|                |                 | 3#3                        | 18.97             | 19.02                | 18.94              |
|                |                 | 6#0                        | 18.77             | 18.74                | 18.90              |
| 3M             | QPSK            | 1#0                        | 18.95             | 18.42                | 18.22              |
|                |                 | 1#7                        | 18.38             | 18.92                | 18.59              |
|                |                 | 1#14                       | 18.88             | 18.22                | 18.48              |
|                |                 | 8#0                        | 19.01             | 18.21                | 18.48              |
|                |                 | 8#4                        | 18.94             | 18.22                | 18.64              |
|                |                 | 8#7                        | 19.15             | 18.20                | 18.68              |
|                |                 | 15#0                       | 18.99             | 18.17                | 18.02              |
|                | 16-QAM          | 1#0                        | 18.66             | 18.80                | 18.87              |
|                |                 | 1#7                        | 18.49             | 18.73                | 18.81              |
|                |                 | 1#14                       | 18.89             | 18.37                | 18.17              |
|                |                 | 8#0                        | 18.36             | 18.16                | 18.47              |
|                |                 | 8#4                        | 18.61             | 18.45                | 18.48              |
|                |                 | 8#7                        | 18.91             | 18.27                | 18.10              |
|                |                 | 15#0                       | 18.97             | 18.99                | 18.71              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 18.95             | 19.10                | 18.53              |
|                |                 | 1#12                       | 18.32             | 18.20                | 18.76              |
|                |                 | 1#24                       | 18.61             | 18.60                | 18.89              |
|                |                 | 12#0                       | 18.98             | 18.82                | 18.19              |
|                |                 | 12#6                       | 18.30             | 18.44                | 18.21              |
|                |                 | 12#11                      | 19.12             | 19.08                | 19.00              |
|                |                 | 25#0                       | 18.45             | 18.72                | 18.83              |
|                | 16-QAM          | 1#0                        | 18.52             | 19.06                | 18.30              |
|                |                 | 1#12                       | 18.66             | 18.81                | 18.67              |
|                |                 | 1#24                       | 19.06             | 18.89                | 18.47              |
|                |                 | 12#0                       | 18.59             | 18.14                | 18.90              |
|                |                 | 12#6                       | 18.96             | 19.06                | 18.60              |
|                |                 | 12#11                      | 18.65             | 18.21                | 18.36              |
|                |                 | 25#0                       | 18.94             | 18.50                | 18.90              |
| 10M            | QPSK            | 1#0                        | 18.46             | 18.51                | 18.26              |
|                |                 | 1#24                       | 19.02             | 18.69                | 18.48              |
|                |                 | 1#49                       | 18.46             | 18.61                | 18.42              |
|                |                 | 25#0                       | 18.97             | 18.41                | 18.78              |
|                |                 | 25#12                      | 18.44             | 19.10                | 19.00              |
|                |                 | 25#24                      | 18.46             | 18.19                | 18.21              |
|                |                 | 50#0                       | 19.23             | 18.18                | 18.28              |
|                | 16-QAM          | 1#0                        | 19.12             | 18.78                | 18.80              |
|                |                 | 1#24                       | 18.73             | 18.47                | 18.90              |
|                |                 | 1#49                       | 19.18             | 19.07                | 18.23              |
|                |                 | 25#0                       | 19.18             | 18.52                | 18.13              |
|                |                 | 25#12                      | 19.17             | 19.11                | 18.40              |
|                |                 | 25#24                      | 18.94             | 18.43                | 18.87              |
|                |                 | 50#0                       | 19.22             | 18.66                | 18.08              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 18.32                | 18.31                   | 18.97                 |
|                |                 | 1#37                          | 18.62                | 18.83                   | 18.73                 |
|                |                 | 1#74                          | 18.75                | 18.83                   | 18.71                 |
|                |                 | 36#0                          | 18.37                | 18.58                   | 19.01                 |
|                |                 | 36#17                         | 18.92                | 18.62                   | 18.03                 |
|                |                 | 36#35                         | 19.08                | 19.05                   | 18.80                 |
|                |                 | 75#0                          | 18.49                | 18.88                   | 18.17                 |
|                | 16-QAM          | 1#0                           | 18.56                | 19.04                   | 18.91                 |
|                |                 | 1#37                          | 18.34                | 18.69                   | 18.85                 |
|                |                 | 1#74                          | 18.46                | 18.63                   | 18.29                 |
|                |                 | 36#0                          | 19.06                | 18.92                   | 18.95                 |
|                |                 | 36#17                         | 18.73                | 18.95                   | 18.05                 |
|                |                 | 36#35                         | 19.10                | 18.30                   | 19.01                 |
|                |                 | 75#0                          | 18.41                | 19.09                   | 18.36                 |
| 20M            | QPSK            | 1#0                           | 19.11                | 19.24                   | 19.13                 |
|                |                 | 1#49                          | 18.74                | 18.28                   | 18.64                 |
|                |                 | 1#99                          | 18.91                | 18.80                   | 18.59                 |
|                |                 | 50#0                          | 18.81                | 19.06                   | 18.86                 |
|                |                 | 50#24                         | 18.54                | 18.22                   | 18.90                 |
|                |                 | 50#49                         | 18.32                | 18.65                   | 18.04                 |
|                |                 | 100#0                         | 18.57                | 18.94                   | 18.65                 |
|                | 16-QAM          | 1#0                           | 18.89                | 18.85                   | 18.04                 |
|                |                 | 1#49                          | 19.21                | 18.93                   | 18.18                 |
|                |                 | 1#99                          | 18.86                | 18.75                   | 18.62                 |
|                |                 | 50#0                          | 18.67                | 18.14                   | 18.70                 |
|                |                 | 50#24                         | 19.07                | 18.95                   | 18.05                 |
|                |                 | 50#49                         | 18.49                | 18.23                   | 18.34                 |
|                |                 | 100#0                         | 18.74                | 18.27                   | 18.53                 |

**LTE Band 40 Lower**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 17.36             | 17.52                | 17.27              |
|                |                 | 1#12                       | 18.13             | 17.48                | 17.43              |
|                |                 | 1#24                       | 18.25             | 17.44                | 17.53              |
|                |                 | 12#0                       | 17.43             | 17.14                | 17.48              |
|                |                 | 12#6                       | 17.62             | 17.51                | 17.20              |
|                |                 | 12#11                      | 17.71             | 17.12                | 17.72              |
|                |                 | 25#0                       | 18.18             | 18.07                | 17.27              |
|                | 16-QAM          | 1#0                        | 17.95             | 17.16                | 17.55              |
|                |                 | 1#12                       | 18.13             | 17.38                | 17.48              |
|                |                 | 1#24                       | 17.77             | 17.14                | 17.52              |
|                |                 | 12#0                       | 17.28             | 17.24                | 17.54              |
|                |                 | 12#6                       | 17.83             | 17.60                | 17.65              |
|                |                 | 12#11                      | 17.63             | 17.99                | 17.29              |
|                |                 | 25#0                       | 17.67             | 17.30                | 17.69              |
| 10M            | QPSK            | 1#0                        | /                 | 18.26                | /                  |
|                |                 | 1#24                       | /                 | 17.43                | /                  |
|                |                 | 1#49                       | /                 | 17.25                | /                  |
|                |                 | 25#0                       | /                 | 17.99                | /                  |
|                |                 | 25#12                      | /                 | 17.85                | /                  |
|                |                 | 25#24                      | /                 | 18.08                | /                  |
|                |                 | 50#0                       | /                 | 18.06                | /                  |
|                | 16-QAM          | 1#0                        | /                 | 17.55                | /                  |
|                |                 | 1#24                       | /                 | 17.87                | /                  |
|                |                 | 1#49                       | /                 | 17.56                | /                  |
|                |                 | 25#0                       | /                 | 17.25                | /                  |
|                |                 | 25#12                      | /                 | 17.41                | /                  |
|                |                 | 25#24                      | /                 | 17.51                | /                  |
|                |                 | 50#0                       | /                 | 17.20                | /                  |

**LTE Band 40 Upper**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 17.69             | 18.02                | 17.50              |
|                |                 | 1#12                       | 17.57             | 17.50                | 17.79              |
|                |                 | 1#24                       | 17.61             | 17.13                | 17.45              |
|                |                 | 12#0                       | 17.85             | 17.13                | 17.83              |
|                |                 | 12#6                       | 17.70             | 17.78                | 17.79              |
|                |                 | 12#11                      | 17.35             | 17.15                | 17.52              |
|                |                 | 25#0                       | 17.83             | 17.25                | 17.23              |
|                | 16-QAM          | 1#0                        | 18.21             | 17.35                | 17.15              |
|                |                 | 1#12                       | 17.63             | 17.99                | 17.36              |
|                |                 | 1#24                       | 18.17             | 17.47                | 17.29              |
|                |                 | 12#0                       | 17.34             | 17.33                | 17.84              |
|                |                 | 12#6                       | 17.63             | 17.81                | 17.39              |
|                |                 | 12#11                      | 18.06             | 17.38                | 17.34              |
|                |                 | 25#0                       | 17.98             | 17.11                | 17.45              |
| 10M            | QPSK            | 1#0                        | /                 | 18.21                | /                  |
|                |                 | 1#24                       | /                 | 17.80                | /                  |
|                |                 | 1#49                       | /                 | 18.15                | /                  |
|                |                 | 25#0                       | /                 | 18.06                | /                  |
|                |                 | 25#12                      | /                 | 17.89                | /                  |
|                |                 | 25#24                      | /                 | 17.19                | /                  |
|                |                 | 50#0                       | /                 | 17.91                | /                  |
|                | 16-QAM          | 1#0                        | /                 | 17.73                | /                  |
|                |                 | 1#24                       | /                 | 17.68                | /                  |
|                |                 | 1#49                       | /                 | 17.75                | /                  |
|                |                 | 25#0                       | /                 | 17.74                | /                  |
|                |                 | 25#12                      | /                 | 17.50                | /                  |
|                |                 | 25#24                      | /                 | 17.30                | /                  |
|                |                 | 50#0                       | /                 | 17.99                | /                  |

## LTE Band 41

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Lowest Channel (dBm) | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|----------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 18.81                | 19.02             | 18.52                | 18.38              |
|                |                 | 1#12                       | 18.91                | 18.76             | 18.91                | 18.24              |
|                |                 | 1#24                       | 18.92                | 19.08             | 18.07                | 18.83              |
|                |                 | 12#0                       | 19.12                | 18.44             | 18.32                | 19.07              |
|                |                 | 12#6                       | 18.47                | 18.49             | 18.13                | 18.59              |
|                |                 | 12#11                      | 19.10                | 18.43             | 18.37                | 18.53              |
|                |                 | 25#0                       | 19.10                | 18.17             | 18.24                | 18.33              |
|                | 16-QAM          | 1#0                        | 19.24                | 18.12             | 18.35                | 18.80              |
|                |                 | 1#12                       | 18.80                | 18.36             | 18.97                | 19.05              |
|                |                 | 1#24                       | 18.83                | 18.35             | 18.88                | 18.32              |
|                |                 | 12#0                       | 18.83                | 19.06             | 18.56                | 18.14              |
|                |                 | 12#6                       | 19.16                | 18.76             | 18.42                | 18.76              |
|                |                 | 12#11                      | 19.11                | 18.37             | 18.73                | 18.41              |
|                |                 | 25#0                       | 18.35                | 18.56             | 18.84                | 18.28              |
| 10M            | QPSK            | 1#0                        | 18.94                | 19.05             | 18.53                | 18.50              |
|                |                 | 1#24                       | 18.86                | 18.64             | 18.53                | 18.70              |
|                |                 | 1#49                       | 18.77                | 18.45             | 18.64                | 18.63              |
|                |                 | 25#0                       | 18.37                | 18.98             | 18.50                | 18.79              |
|                |                 | 25#12                      | 18.53                | 19.01             | 18.41                | 18.30              |
|                |                 | 25#24                      | 18.42                | 18.54             | 18.30                | 18.37              |
|                |                 | 50#0                       | 19.05                | 18.41             | 18.94                | 18.44              |
|                | 16-QAM          | 1#0                        | 19.03                | 18.97             | 18.67                | 18.31              |
|                |                 | 1#24                       | 19.16                | 18.83             | 18.13                | 18.94              |
|                |                 | 1#49                       | 18.71                | 18.60             | 18.47                | 18.34              |
|                |                 | 25#0                       | 19.09                | 18.34             | 18.44                | 18.85              |
|                |                 | 25#12                      | 19.22                | 18.37             | 18.59                | 18.50              |
|                |                 | 25#24                      | 18.35                | 18.55             | 18.11                | 18.52              |
|                |                 | 50#0                       | 18.40                | 18.64             | 18.45                | 18.71              |

**Note:** The lowest channel frequency, middle channel frequency and high channel frequency is low, middle and high test frequencies corresponding to different bandwidths within the frequency range 2555MHz~2655MHz, and the low channel frequency is 2580MHz.

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Lowest Channel (dBm) | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|----------------------|-------------------|----------------------|--------------------|
| 15M            | QPSK            | 1#0                        | 18.77                | 18.35             | 18.11                | 18.98              |
|                |                 | 1#37                       | 18.61                | 18.69             | 18.19                | 18.30              |
|                |                 | 1#74                       | 18.53                | 18.49             | 18.40                | 18.48              |
|                |                 | 36#0                       | 18.65                | 18.58             | 18.97                | 18.36              |
|                |                 | 36#17                      | 18.28                | 19.01             | 18.94                | 18.54              |
|                |                 | 36#35                      | 18.54                | 18.22             | 18.50                | 18.12              |
|                |                 | 75#0                       | 19.17                | 18.70             | 18.71                | 18.25              |
|                | 16-QAM          | 1#0                        | 18.90                | 18.21             | 19.02                | 18.83              |
|                |                 | 1#37                       | 18.32                | 18.91             | 18.22                | 18.50              |
|                |                 | 1#74                       | 18.33                | 18.13             | 18.83                | 18.45              |
|                |                 | 36#0                       | 18.43                | 18.75             | 18.96                | 18.41              |
|                |                 | 36#17                      | 19.09                | 18.40             | 18.32                | 19.04              |
|                |                 | 36#35                      | 19.13                | 18.39             | 18.42                | 18.81              |
|                |                 | 75#0                       | 18.36                | 18.51             | 18.52                | 18.94              |
| 20M            | QPSK            | 1#0                        | 19.11                | 19.19             | 19.25                | 19.07              |
|                |                 | 1#49                       | 18.34                | 18.23             | 18.90                | 18.54              |
|                |                 | 1#99                       | 18.92                | 19.02             | 18.50                | 18.34              |
|                |                 | 50#0                       | 19.14                | 19.16             | 19.20                | 19.10              |
|                |                 | 50#24                      | 19.14                | 18.14             | 18.38                | 18.82              |
|                |                 | 50#49                      | 19.12                | 18.63             | 18.14                | 18.85              |
|                |                 | 100#0                      | 18.33                | 18.23             | 18.56                | 18.72              |
|                | 16-QAM          | 1#0                        | 18.53                | 18.77             | 18.88                | 18.15              |
|                |                 | 1#49                       | 18.33                | 18.35             | 19.02                | 18.86              |
|                |                 | 1#99                       | 18.90                | 18.66             | 18.66                | 18.15              |
|                |                 | 50#0                       | 18.58                | 18.25             | 18.57                | 18.62              |
|                |                 | 50#24                      | 18.36                | 18.27             | 18.74                | 19.00              |
|                |                 | 50#49                      | 18.64                | 18.53             | 18.06                | 18.48              |
|                |                 | 100#0                      | 19.06                | 19.05             | 18.41                | 18.25              |

**Note:** The lowest channel frequency, middle channel frequency and high channel frequency is low, middle and high test frequencies corresponding to different bandwidths within the frequency range 2555MHz~2655MHz, and the low channel frequency is 2580MHz.

**LTE Band 66**

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 1.4M           | QPSK            | 1#0                        | 18.31             | 18.96                | 18.27              |
|                |                 | 1#3                        | 18.53             | 18.77                | 18.34              |
|                |                 | 1#5                        | 19.23             | 18.30                | 18.18              |
|                |                 | 3#0                        | 18.90             | 18.58                | 18.27              |
|                |                 | 3#1                        | 19.25             | 18.38                | 18.71              |
|                |                 | 3#3                        | 18.96             | 18.86                | 18.25              |
|                |                 | 6#0                        | 19.06             | 18.23                | 19.02              |
|                | 16-QAM          | 1#0                        | 19.15             | 18.64                | 19.02              |
|                |                 | 1#3                        | 18.36             | 18.96                | 18.65              |
|                |                 | 1#5                        | 18.96             | 18.90                | 18.60              |
|                |                 | 3#0                        | 18.84             | 18.15                | 18.96              |
|                |                 | 3#1                        | 18.61             | 18.34                | 18.30              |
|                |                 | 3#3                        | 19.17             | 18.24                | 18.91              |
|                |                 | 6#0                        | 18.79             | 18.46                | 18.87              |
| 3M             | QPSK            | 1#0                        | 18.36             | 18.94                | 18.65              |
|                |                 | 1#7                        | 18.43             | 18.99                | 18.54              |
|                |                 | 1#14                       | 18.27             | 18.70                | 19.00              |
|                |                 | 8#0                        | 19.06             | 18.40                | 18.34              |
|                |                 | 8#4                        | 18.83             | 18.25                | 18.10              |
|                |                 | 8#7                        | 18.43             | 19.11                | 18.27              |
|                |                 | 15#0                       | 18.47             | 18.55                | 18.94              |
|                | 16-QAM          | 1#0                        | 18.26             | 18.18                | 18.46              |
|                |                 | 1#7                        | 18.43             | 18.12                | 18.08              |
|                |                 | 1#14                       | 18.66             | 18.89                | 18.73              |
|                |                 | 8#0                        | 19.23             | 19.03                | 18.61              |
|                |                 | 8#4                        | 18.37             | 18.11                | 18.22              |
|                |                 | 8#7                        | 18.75             | 18.74                | 18.65              |
|                |                 | 15#0                       | 18.85             | 18.20                | 18.50              |

| Test Bandwidth | Test Modulation | Resource Block & RB offset | Low Channel (dBm) | Middle Channel (dBm) | High Channel (dBm) |
|----------------|-----------------|----------------------------|-------------------|----------------------|--------------------|
| 5M             | QPSK            | 1#0                        | 19.12             | 18.13                | 18.95              |
|                |                 | 1#12                       | 19.09             | 18.67                | 18.21              |
|                |                 | 1#24                       | 18.74             | 18.86                | 18.69              |
|                |                 | 12#0                       | 18.38             | 18.98                | 18.86              |
|                |                 | 12#6                       | 18.72             | 18.25                | 18.36              |
|                |                 | 12#11                      | 18.28             | 18.17                | 19.00              |
|                |                 | 25#0                       | 18.99             | 18.66                | 18.42              |
|                | 16-QAM          | 1#0                        | 18.97             | 18.58                | 18.06              |
|                |                 | 1#12                       | 19.01             | 19.03                | 18.34              |
|                |                 | 1#24                       | 18.96             | 18.48                | 18.43              |
|                |                 | 12#0                       | 18.39             | 18.17                | 18.30              |
|                |                 | 12#6                       | 18.74             | 18.79                | 18.92              |
|                |                 | 12#11                      | 18.60             | 18.49                | 18.46              |
|                |                 | 25#0                       | 18.68             | 18.31                | 18.95              |
| 10M            | QPSK            | 1#0                        | 19.13             | 18.36                | 18.66              |
|                |                 | 1#24                       | 18.62             | 18.97                | 18.58              |
|                |                 | 1#49                       | 19.07             | 18.16                | 18.72              |
|                |                 | 25#0                       | 18.52             | 19.09                | 18.83              |
|                |                 | 25#12                      | 18.60             | 18.31                | 18.67              |
|                |                 | 25#24                      | 18.59             | 18.56                | 18.56              |
|                |                 | 50#0                       | 18.63             | 18.16                | 18.51              |
|                | 16-QAM          | 1#0                        | 18.33             | 18.89                | 18.26              |
|                |                 | 1#24                       | 18.95             | 18.73                | 18.05              |
|                |                 | 1#49                       | 18.49             | 18.98                | 18.03              |
|                |                 | 25#0                       | 18.74             | 18.46                | 18.18              |
|                |                 | 25#12                      | 18.87             | 19.00                | 18.60              |
|                |                 | 25#24                      | 18.38             | 18.85                | 18.20              |
|                |                 | 50#0                       | 19.09             | 18.49                | 18.23              |

| Test Bandwidth | Test Modulation | Resource Block<br>& RB offset | Low Channel<br>(dBm) | Middle<br>Channel (dBm) | High Channel<br>(dBm) |
|----------------|-----------------|-------------------------------|----------------------|-------------------------|-----------------------|
| 15M            | QPSK            | 1#0                           | 18.79                | 18.95                   | 18.53                 |
|                |                 | 1#37                          | 18.72                | 18.83                   | 18.26                 |
|                |                 | 1#74                          | 18.90                | 18.44                   | 18.17                 |
|                |                 | 36#0                          | 18.62                | 18.81                   | 18.30                 |
|                |                 | 36#17                         | 18.28                | 18.96                   | 18.04                 |
|                |                 | 36#35                         | 18.52                | 18.67                   | 18.06                 |
|                |                 | 75#0                          | 18.73                | 18.40                   | 18.32                 |
|                | 16-QAM          | 1#0                           | 18.73                | 18.15                   | 18.19                 |
|                |                 | 1#37                          | 18.33                | 18.73                   | 18.96                 |
|                |                 | 1#74                          | 18.95                | 18.54                   | 18.64                 |
|                |                 | 36#0                          | 19.15                | 18.62                   | 18.56                 |
|                |                 | 36#17                         | 19.14                | 18.57                   | 18.33                 |
|                |                 | 36#35                         | 18.40                | 18.57                   | 18.24                 |
|                |                 | 75#0                          | 18.88                | 18.29                   | 18.78                 |
| 20M            | QPSK            | 1#0                           | 19.21                | 19.39                   | 19.28                 |
|                |                 | 1#49                          | 19.05                | 19.09                   | 18.14                 |
|                |                 | 1#99                          | 18.37                | 18.68                   | 18.97                 |
|                |                 | 50#0                          | 19.20                | 19.33                   | 19.10                 |
|                |                 | 50#24                         | 19.00                | 18.17                   | 18.80                 |
|                |                 | 50#49                         | 18.62                | 18.30                   | 18.72                 |
|                |                 | 100#0                         | 18.81                | 18.97                   | 18.74                 |
|                | 16-QAM          | 1#0                           | 18.74                | 19.06                   | 18.53                 |
|                |                 | 1#49                          | 18.73                | 18.69                   | 18.33                 |
|                |                 | 1#99                          | 18.99                | 18.14                   | 18.93                 |
|                |                 | 50#0                          | 19.07                | 18.88                   | 18.44                 |
|                |                 | 50#24                         | 18.62                | 18.19                   | 18.47                 |
|                |                 | 50#49                         | 19.24                | 18.33                   | 18.21                 |
|                |                 | 100#0                         | 18.97                | 18.57                   | 18.21                 |

**WLAN 5.2G:**

| Test mode    | Band          | Frequency (MHz) | Average Conducted Output Power (dBm) |
|--------------|---------------|-----------------|--------------------------------------|
| 802.11a      | 5150-5250 MHz | 5180            | 8.68                                 |
|              |               | 5200            | 8.56                                 |
|              |               | 5240            | 8.39                                 |
| 802.11ac20   | 5150-5250 MHz | 5180            | 8.35                                 |
|              |               | 5200            | 8.30                                 |
|              |               | 5240            | 8.22                                 |
| 802.11n-HT20 | 5150-5250 MHz | 5180            | 8.31                                 |
|              |               | 5200            | 8.29                                 |
|              |               | 5240            | 8.36                                 |
| 802.11ac40   | 5150-5250 MHz | 5190            | 7.53                                 |
|              |               | 5230            | 7.20                                 |
| 802.11n-HT40 | 5150-5250 MHz | 5190            | 7.34                                 |
|              |               | 5230            | 7.38                                 |
| 802.11ac80   | /             | 5210            | 5.71                                 |

**Note :**

1.The maximum antenna gain is 2 dBi.

**WLAN 5.8G:**

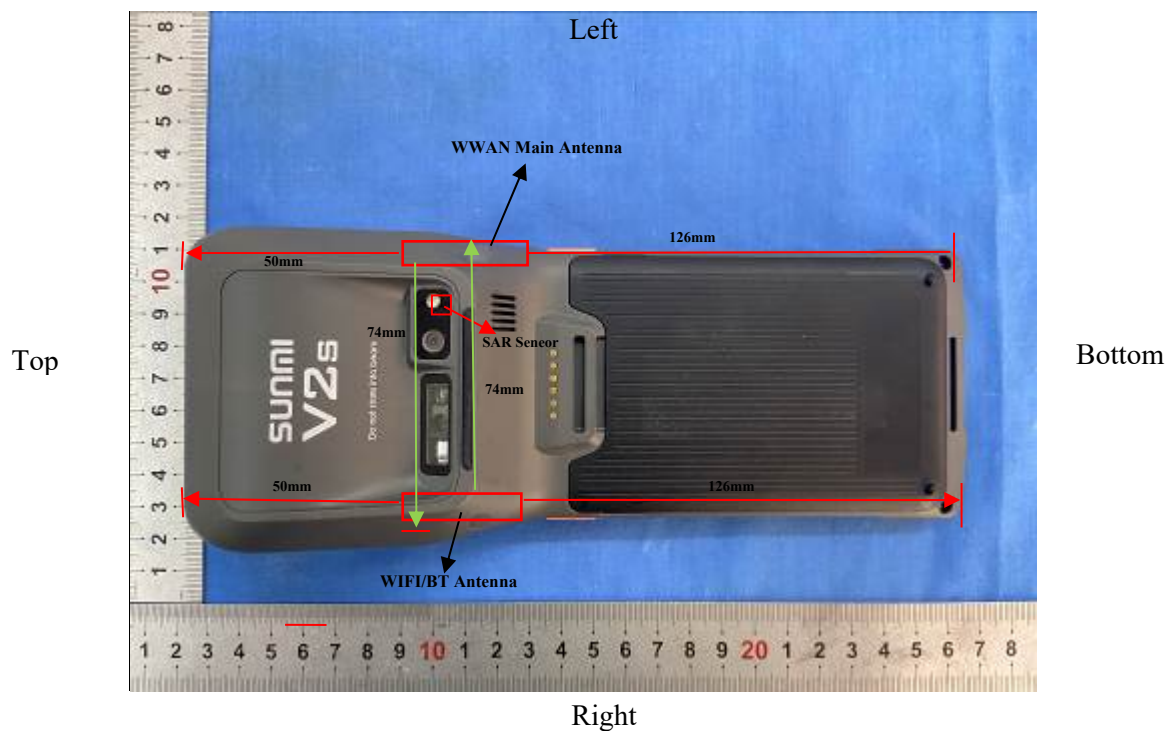
| Test mode    | Band          | Frequency (MHz) | Average Conducted Output Power (dBm) |
|--------------|---------------|-----------------|--------------------------------------|
| 802.11a      | 5725-5850 MHz | 5745            | 7.26                                 |
|              |               | 5785            | 7.18                                 |
|              |               | 5825            | 7.41                                 |
| 802.11ac20   | 5725-5850 MHz | 5745            | 6.94                                 |
|              |               | 5785            | 6.87                                 |
|              |               | 5825            | 7.05                                 |
| 802.11n-HT20 | 5725-5850 MHz | 5745            | 6.86                                 |
|              |               | 5785            | 6.74                                 |
|              |               | 5825            | 7.10                                 |
| 802.11ac40   | 5725-5850 MHz | 5755            | 7.05                                 |
|              |               | 5795            | 7.21                                 |
| 802.11n-HT40 | 5725-5850 MHz | 5755            | 6.91                                 |
|              |               | 5795            | 6.99                                 |
| 802.11ac80   | /             | 5775            | 7.01                                 |

**Note :**

1.The maximum antenna gain is 2 dBi.

## Standalone SAR test exclusion considerations

### Antennas Location:



### Antenna Distance To Edge

| Antenna   | Antenna Distance To Edge(mm) |       |      |       |     |        |
|-----------|------------------------------|-------|------|-------|-----|--------|
|           | Back                         | Front | Left | Right | Top | Bottom |
| WWAN Main | <5                           | <5    | <5   | 74    | 50  | 126    |
| WIFI/BT   | <5                           | <5    | 74   | <5    | 50  | 126    |

**Note:** The Main antenna has transmitting and receiving functions, while the DIV antenna only has receiving functions

## Standalone SAR test exclusion considerations

| Mode              | Frequency (MHz) | Pavg (dBm) | Pavg (mW) | Test Exclusion Distance(mm) |
|-------------------|-----------------|------------|-----------|-----------------------------|
| GSM 850           | 848.8           | 30.0       | 1000      | 197.95                      |
| GSM 1900          | 1909.8          | 27.0       | 501.19    | 89.26                       |
| WCDMA 2           | 1907.6          | 22.5       | 177.83    | 56.92                       |
| WCDMA 4           | 1752.6          | 22.5       | 177.83    | 56.45                       |
| WCDMA 5           | 846.6           | 22.5       | 177.83    | 52.62                       |
| LTE Band 25/2     | 1905            | 22.5       | 177.83    | 56.91                       |
| LTE Band 66/4     | 1770            | 22.5       | 177.83    | 56.51                       |
| LTE Band 7        | 2560            | 22.5       | 177.83    | 58.4                        |
| LTE Band 12/17    | 711             | 22.5       | 177.83    | 49.98                       |
| LTE Band 26/5     | 841.5           | 22.5       | 177.83    | 52.55                       |
| LTE Band 40-Lower | 2310            | 22.5       | 177.83    | 57.91                       |
| LTE Band 40-Upper | 2355            | 22.5       | 177.83    | 58                          |
| LTE Band 41       | 2680            | 22.5       | 177.83    | 58.62                       |
| WLAN 2.4G Antenna | 2462            | 17.0       | 50.12     | 26.21                       |
| WLAN 5.2G Antenna | 5240            | 12.0       | 15.85     | 12.09                       |
| WLAN 5.8G Antenna | 5825            | 13.5       | 22.39     | 18.01                       |
| Bluetooth         | 2480            | 10.0       | 10        | 5.25                        |
| BLE(1Mbps)        | 2480            | -2         | 0.63      | 0.33                        |
| BLE(2Mbps)        | 2480            | -2         | 0.63      | 0.33                        |

## SAR test exclusion for the EUT edge considerations Result

| Mode              | Back      | Front     | Left      | Right     | Top       | Bottom    |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| GSM 850           | Required  | Required  | Required  | Required  | Required  | Required  |
| GSM 1900          | Required  | Required  | Required  | Required  | Required  | Exclusion |
| WCDMA 2           | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| WCDMA 4           | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| WCDMA 5           | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 25/2     | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 66/4     | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 7        | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 12/17    | Required  | Required  | Required  | Exclusion | Exclusion | Exclusion |
| LTE Band 26/5     | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 40-Lower | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 40-Upper | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| LTE Band 41       | Required  | Required  | Required  | Exclusion | Required  | Exclusion |
| WLAN 2.4G Antenna | Required  | Required  | Exclusion | Required  | Exclusion | Exclusion |
| WLAN 5.2G Antenna | Required  | Required  | Exclusion | Required  | Exclusion | Exclusion |
| WLAN 5.8G Antenna | Required  | Required  | Exclusion | Required  | Exclusion | Exclusion |
| Bluetooth         | Required  | Required  | Exclusion | Required  | Exclusion | Exclusion |
| BLE(1Mbps)        | Exclusion | Exclusion | Exclusion | Exclusion | Exclusion | Exclusion |
| BLE(2Mbps)        | Exclusion | Exclusion | Exclusion | Exclusion | Exclusion | Exclusion |

**Distance< 50mm(To Edges)**

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

1.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz.

2. Power and distance are rounded to the nearest mW and mm before calculation.

3. The result is rounded to one decimal place for comparison.

4. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test Exclusion.

5. The Time based average Power is used for calculation

**Distance> 50mm(To Edges)**

At 100 MHz to 6 GHz and for *test separation distances*  $> 50$  mm, the SAR test exclusion threshold is determined according to the following:

a)  $[\text{Power allowed at numeric threshold for 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)]$  mW, at 100 MHz to 1500 MHz

b)  $[\text{Power allowed at numeric threshold for 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot 10]$  mW at  $> 1500$  MHz and  $\leq 6$  GHz.

According to KDB447498 D01 General RF Exposure Guidance v06: 4.3. General SAR test exclusion guidance

c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

- 1) For test separation distances  $> 50$  mm and  $< 200$  mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$
- 2) For test separation distances  $\leq 50$  mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$
- 3) SAR measurement procedures are not established below 100 MHz

**Measurement Result:**

For NFC, the power of EUT: E-Field@3m is 76.36 dBuV/m = -18.84dBm (0.01mW)

Note:  $E[\text{dB } \mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2$  for  $d = 3$  m.

SAR test exclusion threshold for NFC(13.56MHz) separation distance  $< 50$ mm

$$= [474 * (1 + \log(100/f(\text{MHz}))) / 2]$$

$$= 443\text{mW}$$

$$> 0.01 \text{ mW}$$

**Conclusion:**

The NFC SAR evaluation can be exempted.

**Note:**

For NFC, please refer to report RKSA240109002-00F

## SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetric evaluation.

## SAR Test Data

## Environmental Conditions

|                    |              |              |              |              |              |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Temperature:       | 22.4-23.2 °C | 22.5-23.4 °C | 22.8-23.5 °C | 22.3-23.4 °C | 22.6-23.4 °C |
| Relative Humidity: | 52 %         | 51 %         | 47%          | 49 %         | 51 %         |
| Test Date:         | 2024/04/18   | 2024/04/19   | 2024/04/20   | 2024/04/21   | 2024/04/22   |
| Temperature:       | 22.6-23.4 °C | 22.4-23.6 °C | 22.5-23.8 °C |              |              |
| Relative Humidity: | 51 %         | 53 %         | 48 %         |              |              |
| Test Date:         | 2024/04/23   | 2024/04/24   | 2024/04/25   |              |              |

Testing was performed by Allen and Jason

## GSM 850 :

| EUT Position      | Frequency (MHz) | Test Mode | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|-------------------|-----------------|-----------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                   |                 |           |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm)  | 836.6           | GPRS4TX   | On     | 27.64           | 28.00 | 1.086         | 0.469         | 0.510 | 1.6   | 1#   |
| Body-Back (0mm)   | 836.6           | GPRS4TX   | On     | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (0mm)   | 836.6           | GPRS4TX   | On     | 27.64           | 28.00 | 1.086         | 0.525         | 0.570 | 1.6   | 2#   |
| Body-Left (0mm)   | 824.2           | GPRS4TX   | On     | 27.61           | 28.00 | 1.094         | 0.511         | 0.559 | 1.6   | 3#   |
| Body-Left (0mm)   | 848.8           | GPRS4TX   | On     | 27.49           | 28.00 | 1.125         | 0.588         | 0.661 | 1.6   | 4#   |
| Body-Right (0mm)  | 836.6           | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Top (0mm)    | 836.6           | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Bottom (0mm) | 836.6           | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Front (4mm)  | 836.6           | GPRS4TX   | Off    | 29.66           | 30.00 | 1.081         | 0.230         | 0.249 | 1.6   | 162# |
| Body-Back (4mm)   | 836.6           | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (19mm)  | 836.6           | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |

**GSM 1900 :**

| EUT Position      | Frequency (MHz) | Test Mode | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|-------------------|-----------------|-----------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                   |                 |           |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm)  | 1880            | GPRS4TX   | On     | 23.49           | 24.00 | 1.125         | 0.164         | 0.184 | 1.6   | 5#   |
| Body-Back (0mm)   | 1880            | GPRS4TX   | On     | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (0mm)   | 1880            | GPRS4TX   | On     | 23.49           | 24.00 | 1.125         | 0.683         | 0.768 | 1.6   | 6#   |
| Body-Left (0mm)   | 1850.2          | GPRS4TX   | On     | 22.90           | 23.50 | 1.148         | 0.629         | 0.722 | 1.6   | 7#   |
| Body-Left (0mm)   | 1909.8          | GPRS4TX   | On     | 22.96           | 23.50 | 1.132         | 0.718         | 0.813 | 1.6   | 8#   |
| Body-Right (0mm)  | 1880            | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Top (0mm)    | 1880            | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Bottom (0mm) | 1880            | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Front (4mm)  | 1880            | GPRS4TX   | Off    | 26.68           | 27.00 | 1.076         | 0.113         | 0.122 | 1.6   | 163# |
| Body-Back (4mm)   | 1880            | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (19mm)  | 1880            | GPRS4TX   | Off    | /               | /     | /             | /             | /     | /     | /    |

**WCDMA Band II :**

| EUT Position     | Frequency (MHz) | Test Mode | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                  |                 |           |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm) | 1880            | RMC       | On     | 18.21           | 18.50 | 1.069         | 0.162         | 0.173 | 1.6   | 9#   |
| Body-Back (0mm)  | 1880            | RMC       | On     | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (0mm)  | 1880            | RMC       | On     | 18.21           | 18.50 | 1.069         | 0.739         | 0.790 | 1.6   | 10#  |
| Body-Left (0mm)  | 1852.4          | RMC       | On     | 18.11           | 18.50 | 1.094         | 0.759         | 0.830 | 1.6   | 11#  |
| Body-Left (0mm)  | 1907.6          | RMC       | On     | 17.93           | 18.50 | 1.140         | 0.701         | 0.799 | 1.6   | 12#  |
| Body-Front (4mm) | 1880            | RMC       | Off    | 22.19           | 22.50 | 1.074         | 0.120         | 0.129 | 1.6   | 164# |
| Body-Back (4mm)  | 1880            | RMC       | Off    | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (19mm) | 1880            | RMC       | Off    | /               | /     | /             | /             | /     | /     | /    |

**WCDMA Band IV :**

| EUT Position      | Frequency (MHz) | Test Mode | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|-------------------|-----------------|-----------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                   |                 |           |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm)  | 1732.6          | RMC       | ON     | 18.29           | 18.50 | 1.050         | 0.228         | 0.239 | 1.6   | 13#  |
| Body-Back (0mm)   | 1732.6          | RMC       | ON     | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (0mm)   | 1732.6          | RMC       | ON     | 18.29           | 18.50 | 1.050         | 0.958         | 1.005 | 1.6   | 14#  |
| Body-Left (0mm)   | 1712.4          | RMC       | ON     | 18.13           | 18.50 | 1.089         | 0.926         | 1.008 | 1.6   | 15#  |
| Body-Left (0mm)   | 1752.6          | RMC       | ON     | 18.15           | 18.50 | 1.084         | 0.878         | 0.952 | 1.6   | 16#  |
| Body-Right (0mm)  | 1732.6          | RMC       | OFF    | /               | /     | /             | /             | /     | /     | /    |
| Body-Top (0mm)    | 1732.6          | RMC       | OFF    | /               | /     | /             | /             | /     | /     | /    |
| Body-Bottom (0mm) | 1732.6          | RMC       | OFF    | /               | /     | /             | /             | /     | /     | /    |
| Body-Front (4mm)  | 1732.6          | RMC       | OFF    | 22.34           | 22.50 | 1.038         | 0.149         | 0.155 | 1.6   | 165# |
| Body-Back (4mm)   | 1732.6          | RMC       | OFF    | /               | /     | /             | /             | /     | /     | /    |
| Body-Left (19mm)  | 1732.6          | RMC       | OFF    | /               | /     | /             | /             | /     | /     | /    |

**WCDMA Band V :**

| EUT Position      | Frequency (MHz) | Test Mode | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|-------------------|-----------------|-----------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                   |                 |           |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm)  | 836.6           | RMC       | ON     | 20.09           | 20.50 | 1.099         | 0.473         | 0.520 | 1.6   | 17#  |
| Body-Back (0mm)   | 836.6           | RMC       | ON     | 20.09           | 20.50 | 1.099         | 0.267         | 0.293 | 1.6   | 18#  |
| Body-Left (0mm)   | 836.6           | RMC       | ON     | 20.09           | 20.50 | 1.099         | 0.728         | 0.800 | 1.6   | 19#  |
| Body-Left (0mm)   | 826.4           | RMC       | ON     | 19.82           | 20.50 | 1.169         | 0.694         | 0.812 | 1.6   | 20#  |
| Body-Left (0mm)   | 846.6           | RMC       | ON     | 19.95           | 20.50 | 1.135         | 0.765         | 0.868 | 1.6   | 21#  |
| Body-Right (0mm)  | 836.6           | RMC       | OFF    | 22.16           | 22.50 | 1.081         | 0.170         | 0.184 | 1.6   | 22#  |
| Body-Top (0mm)    | 836.6           | RMC       | OFF    | 22.16           | 22.50 | 1.081         | 0.043         | 0.065 | 1.6   | 23#  |
| Body-Bottom (0mm) | 836.6           | RMC       | OFF    | 22.16           | 22.50 | 1.081         | 0.060         | 0.263 | 1.6   | 24#  |
| Body-Front (4mm)  | 836.6           | RMC       | OFF    | 22.16           | 22.50 | 1.081         | 0.243         | 0.263 | 1.6   | 25#  |
| Body-Back (4mm)   | 836.6           | RMC       | OFF    | 22.16           | 22.50 | 1.081         | 0.236         | 0.255 | 1.6   | 26#  |
| Body-Left (19mm)  | 836.6           | RMC       | OFF    | 22.16           | 22.50 | 1.081         | 0.168         | 0.182 | 1.6   | 27#  |

**LTE Band 7 :**

| EUT Position     | Frequency (MHz) | Bandwidth (MHz) | RB     | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------------|--------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                  |                 |                 |        |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm) | 2535            | 20              | 1RB    | On     | 14.24           | 14.50 | 1.062         | 0.234         | 0.248 | 1.6   | 88#  |
|                  | 2535            | 20              | 50%RB  | On     | 14.23           | 14.50 | 1.064         | 0.189         | 0.201 | 1.6   | 89#  |
| Body-Back (0mm)  | 2535            | 20              | 1RB    | On     | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 2535            | 20              | 50%RB  | On     | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (0mm)  | 2535            | 20              | 1RB    | On     | 14.24           | 14.50 | 1.062         | 0.944         | 1.002 | 1.6   | 90#  |
|                  | 2510            | 20              | 1RB    | On     | 14.21           | 14.50 | 1.069         | 1.040         | 1.112 | 1.6   | 91#  |
|                  | 2560            | 20              | 1RB    | On     | 14.22           | 14.50 | 1.067         | 1.000         | 1.067 | 1.6   | 92#  |
|                  | 2535            | 20              | 50%RB  | On     | 14.23           | 14.50 | 1.064         | 0.787         | 0.837 | 1.6   | 93#  |
|                  | 2510            | 20              | 50%RB  | On     | 14.16           | 14.50 | 1.081         | 0.812         | 0.878 | 1.6   | 94#  |
|                  | 2560            | 20              | 50%RB  | On     | 14.14           | 14.50 | 1.086         | 0.883         | 0.959 | 1.6   | 95#  |
|                  | 2535            | 20              | 100%RB | On     | 13.58           | 14.50 | 1.236         | 0.802         | 0.991 | 1.6   | 96#  |
| Body-Front (4mm) | 2535            | 20              | 1RB    | Off    | 22.21           | 22.50 | 1.069         | 0.122         | 0.130 | 1.6   | 166# |
|                  | 2535            | 20              | 50%RB  | Off    | 21.99           | 22.50 | 1.125         | 0.099         | 0.111 | 1.6   | 167# |
| Body-Back (4mm)  | 2535            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 2535            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (19mm) | 2535            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 2535            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |

**LTE FDD Band 12& LTE FDD Band 17:**

| EUT Position      | Frequency (MHz) | Bandwidth (MHz) | RB    | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|-------------------|-----------------|-----------------|-------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                   |                 |                 |       |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm)  | 707.5           | 10              | 1RB   | On     | 19.06           | 19.50 | 1.107         | 0.327         | 0.362 | 1.6   | 48#  |
|                   | 707.5           | 10              | 50%RB | On     | 18.61           | 19.50 | 1.227         | 0.267         | 0.328 | 1.6   | 49#  |
| Body-Back (0mm)   | 707.5           | 10              | 1RB   | On     | 19.06           | 19.50 | 1.107         | 0.312         | 0.345 | 1.6   | 50#  |
|                   | 707.5           | 10              | 50%RB | On     | 18.61           | 19.50 | 1.227         | 0.265         | 0.325 | 1.6   | 51#  |
| Body-Left (0mm)   | 707.5           | 10              | 1RB   | On     | 19.06           | 19.50 | 1.107         | 0.468         | 0.518 | 1.6   | 52#  |
|                   | 704             | 10              | 1RB   | On     | 18.50           | 19.50 | 1.259         | 0.468         | 0.589 | 1.6   | 53#  |
|                   | 711             | 10              | 1RB   | On     | 18.97           | 19.50 | 1.130         | 0.460         | 0.520 | 1.6   | 54#  |
|                   | 707.5           | 10              | 50%RB | On     | 18.61           | 19.50 | 1.227         | 0.374         | 0.459 | 1.6   | 55#  |
| Body-Right (0mm)  | 707.5           | 10              | 1RB   | Off    | 22.24           | 22.50 | 1.062         | 0.053         | 0.056 | 1.6   | 56#  |
|                   | 707.5           | 10              | 50%RB | Off    | 21.86           | 22.50 | 1.159         | 0.050         | 0.057 | 1.6   | 57#  |
| Body-Top (0mm)    | 707.5           | 10              | 1RB   | Off    | 22.24           | 22.50 | 1.062         | 0.028         | 0.026 | 1.6   | 58#  |
|                   | 707.5           | 10              | 50%RB | Off    | 21.86           | 22.50 | 1.159         | 0.022         | 0.025 | 1.6   | 59#  |
| Body-Bottom (0mm) | 707.5           | 10              | 1RB   | Off    | 22.24           | 22.50 | 1.062         | 0.024         | 0.262 | 1.6   | 60#  |
|                   | 707.5           | 10              | 50%RB | Off    | 21.86           | 22.50 | 1.159         | 0.021         | 0.229 | 1.6   | 61#  |
| Body-Front (4mm)  | 707.5           | 10              | 1RB   | Off    | 22.24           | 22.50 | 1.062         | 0.247         | 0.262 | 1.6   | 62#  |
|                   | 707.5           | 10              | 50%RB | Off    | 21.86           | 22.50 | 1.159         | 0.198         | 0.229 | 1.6   | 63#  |
| Body-Back (4mm)   | 707.5           | 10              | 1RB   | Off    | 22.24           | 22.50 | 1.062         | 0.314         | 0.333 | 1.6   | 64#  |
|                   | 707.5           | 10              | 50%RB | Off    | 21.86           | 22.50 | 1.159         | 0.249         | 0.289 | 1.6   | 65#  |
| Body-Left (19mm)  | 707.5           | 10              | 1RB   | Off    | 22.24           | 22.50 | 1.062         | 0.111         | 0.118 | 1.6   | 66#  |
|                   | 707.5           | 10              | 50%RB | Off    | 21.86           | 22.50 | 1.159         | 0.095         | 0.110 | 1.6   | 67#  |

**Note:**

LTE FDD Band 12 and LTE FDD Band 17 have the same power, we only tested the LTE Band 12 because it has a larger frequency range, so the LTE FDD Band 17 does not need to be tested

**LTE Band 25 & LTE Band 2 :**

| EUT Position     | Frequency (MHz) | Bandwidth (MHz) | RB     | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------------|--------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                  |                 |                 |        |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm) | 1880            | 20              | 1RB    | On     | 19.24           | 19.50 | 1.062         | 0.156         | 0.166 | 1.6   | 97#  |
|                  | 1880            | 20              | 50%RB  | On     | 19.06           | 19.50 | 1.107         | 0.125         | 0.138 | 1.6   | 98#  |
| Body-Back (0mm)  | 1880            | 20              | 1RB    | On     | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 1880            | 20              | 50%RB  | On     | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (0mm)  | 1880            | 20              | 1RB    | On     | 19.24           | 19.50 | 1.062         | 0.811         | 0.861 | 1.6   | 99#  |
|                  | 1860            | 20              | 1RB    | On     | 19.11           | 19.50 | 1.094         | 0.839         | 0.918 | 1.6   | 100# |
|                  | 1905            | 20              | 1RB    | On     | 19.13           | 19.50 | 1.089         | 0.780         | 0.849 | 1.6   | 101# |
|                  | 1880            | 20              | 50%RB  | On     | 19.06           | 19.50 | 1.107         | 0.657         | 0.727 | 1.6   | 102# |
|                  | 1860            | 20              | 50%RB  | On     | 18.81           | 19.50 | 1.172         | 0.727         | 0.852 | 1.6   | 103# |
|                  | 1905            | 20              | 50%RB  | On     | 18.86           | 19.50 | 1.159         | 0.685         | 0.794 | 1.6   | 104# |
|                  | 1880            | 20              | 100%RB | On     | 18.94           | 19.50 | 1.138         | 0.680         | 0.774 | 1.6   | 105# |
| Body-Front (4mm) | 1880            | 20              | 1RB    | Off    | 22.25           | 22.50 | 1.059         | 0.083         | 0.088 | 1.6   | 168# |
|                  | 1880            | 20              | 50%RB  | Off    | 22.14           | 22.50 | 1.086         | 0.076         | 0.082 | 1.6   | 169# |
| Body-Back (4mm)  | 1880            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 1880            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (19mm) | 1880            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 1880            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |

**Note:**

LTE FDD Band 25 and LTE FDD Band 2 have the same power, we only tested the LTE Band 25 because it has a larger frequency range, so the LTE FDD Band 2 does not need to be tested

**LTE Band 26 & LTE Band 5 :**

| EUT Position      | Frequency (MHz) | Bandwidth (MHz) | RB    | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|-------------------|-----------------|-----------------|-------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                   |                 |                 |       |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm)  | 831.5           | 15              | 1RB   | On     | 20.13           | 20.50 | 1.089         | 0.327         | 0.356 | 1.6   | 68#  |
|                   | 831.5           | 15              | 50%RB | On     | 19.90           | 20.50 | 1.148         | 0.268         | 0.308 | 1.6   | 69#  |
| Body-Back (0mm)   | 831.5           | 15              | 1RB   | On     | 20.13           | 20.50 | 1.089         | 0.075         | 0.081 | 1.6   | 70#  |
|                   | 831.5           | 15              | 50%RB | On     | 19.90           | 20.50 | 1.148         | 0.076         | 0.087 | 1.6   | 71#  |
| Body-Left (0mm)   | 831.5           | 15              | 1RB   | On     | 20.13           | 20.50 | 1.089         | 0.491         | 0.535 | 1.6   | 72#  |
|                   | 821.5           | 15              | 1RB   | On     | 19.93           | 20.50 | 1.140         | 0.462         | 0.527 | 1.6   | 73#  |
|                   | 841.5           | 15              | 1RB   | On     | 19.93           | 20.50 | 1.140         | 0.509         | 0.580 | 1.6   | 74#  |
|                   | 831.5           | 15              | 50%RB | On     | 19.90           | 20.50 | 1.148         | 0.412         | 0.473 | 1.6   | 75#  |
| Body-Right (0mm)  | 831.5           | 15              | 1RB   | Off    | 22.26           | 22.50 | 1.057         | 0.089         | 0.094 | 1.6   | 76#  |
|                   | 831.5           | 15              | 50%RB | Off    | 22.18           | 22.50 | 1.076         | 0.073         | 0.079 | 1.6   | 77#  |
| Body-Top (0mm)    | 831.5           | 15              | 1RB   | Off    | 22.26           | 22.50 | 1.057         | 0.026         | 0.039 | 1.6   | 78#  |
|                   | 831.5           | 15              | 50%RB | Off    | 22.18           | 22.50 | 1.076         | 0.021         | 0.032 | 1.6   | 79#  |
| Body-Bottom (0mm) | 831.5           | 15              | 1RB   | Off    | 22.26           | 22.50 | 1.057         | 0.037         | 0.203 | 1.6   | 80#  |
|                   | 831.5           | 15              | 50%RB | Off    | 22.18           | 22.50 | 1.076         | 0.030         | 0.167 | 1.6   | 81#  |
| Body-Front (4mm)  | 831.5           | 15              | 1RB   | Off    | 22.26           | 22.50 | 1.057         | 0.192         | 0.203 | 1.6   | 82#  |
|                   | 831.5           | 15              | 50%RB | Off    | 22.18           | 22.50 | 1.076         | 0.155         | 0.167 | 1.6   | 83#  |
| Body-Back (4mm)   | 831.5           | 15              | 1RB   | Off    | 22.26           | 22.50 | 1.057         | 0.188         | 0.199 | 1.6   | 84#  |
|                   | 831.5           | 15              | 50%RB | Off    | 22.18           | 22.50 | 1.076         | 0.152         | 0.164 | 1.6   | 85#  |
| Body-Left (19mm)  | 831.5           | 15              | 1RB   | Off    | 22.26           | 22.50 | 1.057         | 0.104         | 0.110 | 1.6   | 86#  |
|                   | 831.5           | 15              | 50%RB | Off    | 22.18           | 22.50 | 1.076         | 0.082         | 0.088 | 1.6   | 87#  |

**Note:**

LTE FDD Band 26 and LTE FDD Band 5 have the same power, we only tested the LTE Band 26 because it has a larger frequency range, so the LTE FDD Band 5 does not need to be tested

**LTE FDD Band 66&TE FDD Band 4**

| EUT Position     | Frequency (MHz) | Bandwidth (MHz) | RB     | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------------|--------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                  |                 |                 |        |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm) | 1745            | 20              | 1RB    | On     | 19.39           | 19.50 | 1.026         | 0.222         | 0.228 | 1.6   | 116# |
|                  | 1745            | 20              | 50%RB  | On     | 19.33           | 19.50 | 1.040         | 0.187         | 0.194 | 1.6   | 117# |
| Body-Back (0mm)  | 1745            | 20              | 1RB    | On     | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 1745            | 20              | 50%RB  | On     | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (0mm)  | 1745            | 20              | 1RB    | On     | 19.39           | 19.50 | 1.026         | 0.955         | 0.979 | 1.6   | 118# |
|                  | 1720            | 20              | 1RB    | On     | 19.21           | 19.50 | 1.069         | 0.924         | 0.988 | 1.6   | 119# |
|                  | 1770            | 20              | 1RB    | On     | 19.28           | 19.50 | 1.052         | 0.977         | 1.028 | 1.6   | 120# |
|                  | 1745            | 20              | 50%RB  | On     | 19.33           | 19.50 | 1.040         | 0.816         | 0.849 | 1.6   | 121# |
|                  | 1720            | 20              | 50%RB  | On     | 19.20           | 19.50 | 1.072         | 0.803         | 0.860 | 1.6   | 122# |
|                  | 1770            | 20              | 50%RB  | On     | 19.10           | 19.50 | 1.096         | 0.829         | 0.909 | 1.6   | 123# |
|                  | 1745            | 20              | 100%RB | On     | 18.97           | 19.50 | 1.130         | 0.802         | 0.906 | 1.6   | 124# |
| Body-Front (4mm) | 1745            | 20              | 1RB    | Off    | 22.35           | 22.50 | 1.035         | 0.132         | 0.137 | 1.6   | 174# |
|                  | 1745            | 20              | 50%RB  | Off    | 22.11           | 22.50 | 1.094         | 0.112         | 0.123 | 1.6   | 175# |
| Body-Back (4mm)  | 1745            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 1745            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (19mm) | 1745            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 1745            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |

**Note:**

LTE FDD Band 66 and LTE FDD Band 4 have the same power, we only tested the LTE Band 66 because it has a larger frequency range, so the LTE FDD Band 4 does not need to be tested

**LTE TDD Band 40 - Low:**

| EUT Position     | Frequency (MHz) | Bandwidth (MHz) | RB     | SENSOR | Max Power (dBm) |       | Scale Factor | Duct Cycle Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------------|--------|--------|-----------------|-------|--------------|-------------------|---------------|-------|-------|------|
|                  |                 |                 |        |        | Measured        | Rated |              |                   | Measured      | Rated | Limit |      |
| Body-Front (0mm) | 2310            | 10              | 1RB    | On     | 18.26           | 18.50 | 1.057        | 3.092             | 0.090         | 0.095 | 1.6   | 106# |
|                  | 2310            | 10              | 50%RB  | On     | 17.99           | 18.50 | 1.125        | 3.092             | 0.092         | 0.103 | 1.6   | 107# |
| Body-Back (0mm)  | 2310            | 10              | 1RB    | On     | /               | /     | /            |                   | /             | /     | 1.6   | /    |
|                  | 2310            | 10              | 50%RB  | On     | /               | /     | /            |                   | /             | /     | 1.6   | /    |
| Body-Left (0mm)  | 2310            | 10              | 1RB    | On     | 18.26           | 18.50 | 1.057        | 3.092             | 1.010         | 1.067 | 1.6   | 108# |
|                  | 2310            | 10              | 50%RB  | On     | 17.99           | 18.50 | 1.125        | 3.092             | 0.807         | 0.908 | 1.6   | 109# |
|                  | 2310            | 10              | 100%RB | On     | 18.06           | 18.50 | 1.107        | 3.092             | 0.806         | 0.892 | 1.6   | 110# |
| Body-Front (4mm) | 2310            | 10              | 1RB    | Off    | 22.16           | 22.50 | 1.081        | 3.092             | 0.204         | 0.221 | 1.6   | 170# |
|                  | 2310            | 10              | 50%RB  | Off    | 22.06           | 22.50 | 1.107        | 3.092             | 0.162         | 0.179 | 1.6   | 171# |
| Body-Back (4mm)  | 2310            | 10              | 1RB    | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |
|                  | 2310            | 10              | 50%RB  | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |
| Body-Left (19mm) | 2310            | 10              | 1RB    | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |
|                  | 2310            | 10              | 50%RB  | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |

**LTE TDD Band 40 - upper:**

| EUT Position     | Frequency (MHz) | Bandwidth (MHz) | RB     | SENSOR | Max Power (dBm) |       | Scale Factor | Duct Cycle Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------------|--------|--------|-----------------|-------|--------------|-------------------|---------------|-------|-------|------|
|                  |                 |                 |        |        | Measured        | Rated |              |                   | Measured      | Rated | Limit |      |
| Body-Front (0mm) | 2355            | 10              | 1RB    | On     | 18.21           | 18.50 | 1.069        | 3.193             | 0.095         | 0.102 | 1.6   | 111# |
|                  | 2355            | 10              | 50%RB  | On     | 18.06           | 18.50 | 1.107        | 3.193             | 0.097         | 0.108 | 1.6   | 112# |
| Body-Back (0mm)  | 2355            | 10              | 1RB    | On     | /               | /     | /            |                   | /             | /     | 1.6   | /    |
|                  | 2355            | 10              | 50%RB  | On     | /               | /     | /            |                   | /             | /     | 1.6   | /    |
| Body-Left (0mm)  | 2355            | 10              | 1RB    | On     | 18.21           | 18.50 | 1.069        | 3.193             | 1.010         | 1.080 | 1.6   | 113# |
|                  | 2355            | 10              | 50%RB  | On     | 18.06           | 18.50 | 1.107        | 3.193             | 0.839         | 0.928 | 1.6   | 114# |
|                  | 2355            | 10              | 100%RB | On     | 17.91           | 18.50 | 1.146        | 3.193             | 0.841         | 0.963 | 1.6   | 115# |
| Body-Front (4mm) | 2355            | 10              | 1RB    | Off    | 22.25           | 22.50 | 1.059        | 3.193             | 0.213         | 0.226 | 1.6   | 172# |
|                  | 2355            | 10              | 50%RB  | Off    | 22.14           | 22.50 | 1.086        | 3.193             | 0.168         | 0.183 | 1.6   | 173# |
| Body-Back (4mm)  | 2355            | 10              | 1RB    | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |
|                  | 2355            | 10              | 50%RB  | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |
| Body-Left (19mm) | 2355            | 10              | 1RB    | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |
|                  | 2355            | 10              | 50%RB  | Off    | /               | /     | /            |                   | /             | /     | 1.6   | /    |

**LTE Band 41 :**

| EUT Position     | Frequency (MHz) | Bandwidth (MHz) | RB     | SENSOR | Max Power (dBm) |       | Scaled Factor | 1g SAR (W/kg) |       |       | Plot |
|------------------|-----------------|-----------------|--------|--------|-----------------|-------|---------------|---------------|-------|-------|------|
|                  |                 |                 |        |        | Meas.           | Rated |               | Meas.         | Rated | Limit |      |
| Body-Front (0mm) | 2605            | 20              | 1RB    | On     | 19.25           | 19.50 | 1.059         | 0.135         | 0.143 | 1.6   | 134# |
|                  | 2605            | 20              | 50%RB  | On     | 19.20           | 19.50 | 1.072         | 0.105         | 0.113 | 1.6   | 135# |
| Body-Back (0mm)  | 2605            | 20              | 1RB    | On     | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 2605            | 20              | 50%RB  | On     | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (0mm)  | 2605            | 20              | 1RB    | On     | 19.25           | 19.50 | 1.059         | 0.895         | 0.948 | 1.6   | 136# |
|                  | 2565            | 20              | 1RB    | On     | 19.11           | 19.50 | 1.094         | 0.916         | 1.002 | 1.6   | 137# |
|                  | 2580            | 20              | 1RB    | On     | 19.19           | 19.50 | 1.074         | 0.940         | 1.010 | 1.6   | 138# |
|                  | 2645            | 20              | 1RB    | On     | 19.07           | 19.50 | 1.104         | 1.000         | 1.104 | 1.6   | 139# |
|                  | 2605            | 20              | 50%RB  | On     | 19.20           | 19.50 | 1.072         | 0.823         | 0.882 | 1.6   | 140# |
|                  | 2565            | 20              | 50%RB  | On     | 19.14           | 19.50 | 1.086         | 0.821         | 0.892 | 1.6   | 141# |
|                  | 2580            | 20              | 50%RB  | On     | 19.16           | 19.50 | 1.081         | 0.832         | 0.900 | 1.6   | 142# |
|                  | 2645            | 20              | 50%RB  | On     | 19.10           | 19.50 | 1.096         | 0.863         | 0.946 | 1.6   | 143# |
|                  | 2605            | 20              | 100%RB | On     | 18.56           | 19.50 | 1.242         | 0.820         | 1.018 | 1.6   | 144# |
| Body-Front (4mm) | 2605            | 20              | 1RB    | Off    | 22.30           | 22.50 | 1.047         | 0.138         | 0.145 | 1.6   | 178# |
|                  | 2605            | 20              | 50%RB  | Off    | 22.15           | 22.50 | 1.084         | 0.118         | 0.128 | 1.6   | 179# |
| Body-Back (4mm)  | 2605            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 2605            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
| Body-Left (19mm) | 2605            | 20              | 1RB    | Off    | /               | /     | /             | /             | /     | 1.6   | /    |
|                  | 2605            | 20              | 50%RB  | Off    | /               | /     | /             | /             | /     | 1.6   | /    |

**WLAN 2.4G:**

| EUT Position      | Frequency (MHz) | Test Mode | SENSOR | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | Scaled Factor | Duct Cycle Factor | 1g SAR (W/kg) |            |       | Plot |
|-------------------|-----------------|-----------|--------|------------------------|------------------------|---------------|-------------------|---------------|------------|-------|------|
|                   |                 |           |        |                        |                        |               |                   | Meas. SAR     | Scaled SAR | Limit |      |
| Body-Front (0mm)  | 2462            | 802.11b   | Off    | 16.92                  | 17.00                  | 1.019         | 1.0               | 0.102         | 0.104      | 1.6   | 149# |
| Body-Back (0mm)   | 2462            | 802.11b   | Off    | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |
| Body-Left (0mm)   | 2462            | 802.11b   | Off    | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |
| Body-Right (0mm)  | 2462            | 802.11b   | Off    | 16.92                  | 17.00                  | 1.019         | 1.0               | 0.408         | 0.416      | 1.6   | 150# |
|                   | 2412            | 802.11b   | Off    | 16.75                  | 17.00                  | 1.059         | 1.0               | 0.386         | 0.409      | 1.6   | 151# |
|                   | 2437            | 802.11b   | Off    | 16.58                  | 17.00                  | 1.102         | 1.0               | 0.391         | 0.431      | 1.6   | 152# |
| Body-Top (0mm)    | 2462            | 802.11b   | Off    | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |
| Body-Bottom (0mm) | 2462            | 802.11b   | Off    | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |

**Bluetooth:**

| EUT Position      | Frequency (MHz) | Test Mode | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | Scaled Factor | Duct Cycle Factor | 1g SAR (W/Kg) |            |       | Plot |
|-------------------|-----------------|-----------|------------------------|------------------------|---------------|-------------------|---------------|------------|-------|------|
|                   |                 |           |                        |                        |               |                   | Meas.         | Scaled SAR | Limit |      |
| Body Front(0mm)   | 2441            | DH51Mbps  | 9.91                   | 10.00                  | 1.021         | 1.308             | 0.048         | 0.064      | 1.6   | 145# |
| Body Back(0mm)    | 2441            | DH51Mbps  | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |
| Body-Left (0mm)   | 2441            | DH51Mbps  | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |
| Body-Right(0mm)   | 2441            | DH51Mbps  | 9.91                   | 10.00                  | 1.021         | 1.308             | 0.210         | 0.280      | 1.6   | 146# |
|                   | 2402            | DH51Mbps  | 8.95                   | 10.00                  | 1.274         | 1.308             | 0.158         | 0.263      | 1.6   | 147# |
|                   | 2480            | DH51Mbps  | 9.29                   | 10.00                  | 1.178         | 1.308             | 0.222         | 0.342      | 1.6   | 148# |
| Body-Top (0mm)    | 2441            | DH51Mbps  | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |
| Body-Bottom (0mm) | 2441            | DH51Mbps  | /                      | /                      | /             | /                 | /             | /          | 1.6   | /    |

**Note:**

1. When the SAR Value is less than half of the limit, testing for other channels are optional.
2. When SAR or MPE 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.
3. KDB 248227 D01-SAR measurement is not required for 2.4 GHz OFDM(801.11g/n) when the highest reported SAR for DSSS(802.11b) is  $\leq 1.2$  W/kg, and the output power for DSSS is not less than that for OFDM.

**WLAN 5.2G:**

| EUT Position      | Frequency (MHz) | Test Mode | Bandwidth (MHz) | SENSOR | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | Scaled Factor | Duct Cycle Factor | 1g SAR (W/kg) |            |       | Plot |
|-------------------|-----------------|-----------|-----------------|--------|------------------------|------------------------|---------------|-------------------|---------------|------------|-------|------|
|                   |                 |           |                 |        |                        |                        |               |                   | Meas. SAR     | Scaled SAR | Limit |      |
| Body Front (0mm)  | 5180            | 802.11a   | 20              | Off    | 11.56                  | 12.00                  | 1.107         | 1.0               | 0.026         | 0.028      | 1.6   | 153# |
| Body-Back (0mm)   | 5180            | 802.11a   | 20              | Off    | /                      | /                      | /             |                   | /             | /          | 1.6   | /    |
| Body-Left (0mm)   | 5180            | 802.11a   | 20              | Off    | /                      | /                      | /             |                   | /             | /          | 1.6   | /    |
| Body- Right (0mm) | 5180            | 802.11a   | 20              | On     | 8.68                   | 9.00                   | 1.076         | 1.0               | 0.784         | 0.844      | 1.6   | 154# |
|                   | 5200            | 802.11a   | 20              | On     | 8.56                   | 9.00                   | 1.107         | 1.0               | 0.822         | 0.910      | 1.6   | 156# |
|                   | 5240            | 802.11a   | 20              | On     | 8.39                   | 9.00                   | 1.151         | 1.0               | 0.820         | 0.944      | 1.6   | 157# |
| Body-Top (0mm)    | 5180            | 802.11a   | 20              | Off    | /                      | /                      | /             |                   | /             | /          | 1.6   | /    |
| Body-Bottom (0mm) | 5180            | 802.11a   | 20              | Off    | /                      | /                      | /             |                   | /             | /          | 1.6   | /    |
| Body-Right (4mm)  | 5180            | 802.11a   | 20              | Off    | /                      | /                      | /             |                   | /             | /          | 1.6   | /    |

**WLAN 5.8G:**

| EUT Position      | Frequency (MHz) | Test Mode | Bandwidth (MHz) | SENSOR | Max. Meas. Power (dBm) | Max. Rated Power (dBm) | Scaled Factor | Duct Cycle Facto | 1g SAR (W/kg) |            |       | Plot |
|-------------------|-----------------|-----------|-----------------|--------|------------------------|------------------------|---------------|------------------|---------------|------------|-------|------|
|                   |                 |           |                 |        |                        |                        |               |                  | Meas. SAR     | Scaled SAR | Limit |      |
| Body Front (0mm)  | 5825            | 802.11a   | 20              | Off    | 13.30                  | 13.50                  | 1.047         | 1.0              | 0.039         | 0.041      | 1.6   | 158# |
| Body-Back (0mm)   | 5825            | 802.11a   | 20              | Off    | /                      | /                      | /             | /                | /             | /          | 1.6   | /    |
| Body-Left (0mm)   | 5825            | 802.11a   | 20              | Off    | /                      | /                      | /             | /                | /             | /          | 1.6   | /    |
| Body-Right (0mm)  | 5825            | 802.11a   | 20              | On     | 7.41                   | 7.50                   | 1.021         | 1.0              | 0.863         | 0.881      | 1.6   | 159# |
|                   | 5745            | 802.11a   | 20              | On     | 7.26                   | 7.50                   | 1.057         | 1.0              | 0.943         | 0.997      | 1.6   | 160# |
|                   | 5785            | 802.11a   | 20              | On     | 7.18                   | 7.50                   | 1.076         | 1.0              | 0.939         | 1.011      | 1.6   | 161# |
| Body-Top (0mm)    | 5825            | 802.11a   | 20              | Off    | /                      | /                      | /             | /                | /             | /          | 1.6   | /    |
| Body-Bottom (0mm) | 5825            | 802.11a   | 20              | Off    | /                      | /                      | /             | /                | /             | /          | 1.6   | /    |
| Body-Right (4mm)  | 5825            | 802.11a   | 20              | Off    | /                      | /                      | /             | /                | /             | /          | 1.6   | /    |

**Note:**

1. When the SAR Value is less than half of the limit, testing for other channels are optional.
2. When SAR or MPE 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.
3. When the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel must be used.
4. According to IEEE 1528:2013, If the correction  $\Delta$ SAR is within  $\pm 5\%$ , the measured SAR results should not be corrected.

## SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

### Simultaneous Transmission:

| Description of Simultaneous Transmit Capabilities |               |          |
|---------------------------------------------------|---------------|----------|
| Transmitter Combination                           | Simultaneous? | Hotspot? |
| WWAN + WLAN 2.4G                                  | √             | √        |
| WWAN+ WLAN 5G                                     | √             | √        |
| WWAN+ Bluetooth                                   | √             | ×        |
| WWAN + WLAN 2.4G/5G+NFC                           | √             | ×        |
| WWAN + Bluetooth +NFC                             | √             | ×        |

### Simultaneous Transmission Consideration Detail

| Transmitter Combination | Position    | Max SAR(W/kg) |            | $\Sigma$ SAR< 1.6W/kg |
|-------------------------|-------------|---------------|------------|-----------------------|
|                         |             | SAR1(WWAN)    | SAR2(WLAN) |                       |
| WWAN + WLAN 2.4G        | Body Front  | 0.520         | 0.104      | 0.624                 |
|                         | Body Back   | 0.345         | 0.061      | 0.406                 |
|                         | Body Left   | 1.112         | 0.011      | 1.123                 |
|                         | Body Right  | 0.184         | 0.431      | 0.615                 |
|                         | Body Top    | 0.065         | 0.011      | 0.076                 |
|                         | Body Bottom | 0.263         | 0.050      | 0.313                 |

| Transmitter Combination | Position    | Max SAR(W/kg) |                 | $\Sigma$ SAR< 1.6W/kg |
|-------------------------|-------------|---------------|-----------------|-----------------------|
|                         |             | SAR1(WWAN)    | SAR2(Bluetooth) |                       |
| WWAN+ Bluetooth         | Body Front  | 0.520         | 0.064           | 0.584                 |
|                         | Body Back   | 0.345         | 0.016           | 0.361                 |
|                         | Body Left   | 1.112         | 0.018           | 1.13                  |
|                         | Body Right  | 0.184         | 0.342           | 0.526                 |
|                         | Body Top    | 0.065         | 0.009           | 0.074                 |
|                         | Body Bottom | 0.263         | 0.020           | 0.283                 |

| Transmitter Combination | Position    | Max SAR(W/kg) |            | $\Sigma$ SAR< 1.6W/kg |
|-------------------------|-------------|---------------|------------|-----------------------|
|                         |             | SAR1(WWAN)    | SAR2(WLAN) |                       |
| WWAN+ WLAN 5G           | Body Front  | 0.520         | 0.041      | 0.561                 |
|                         | Body Back   | 0.345         | 0.053      | 0.398                 |
|                         | Body Left   | 1.112         | 0.004      | 1.116                 |
|                         | Body Right  | 0.184         | 1.011      | 1.195                 |
|                         | Body Top    | 0.065         | 0.004      | 0.069                 |
|                         | Body Bottom | 0.263         | 0.007      | 0.27                  |

Note:

1.Some of the data came from the original report RKSA210422002-20B

2.For the EIRP of NFC is 0.01mW, per KDB447498 D01 clause 4.3, the estimated SAR is so lower, so the NFC almost have no influence on the results of simultaneous transmission.

### Conclusion:

Sum of SAR:  $\Sigma$ SAR  $\leq$  1.6 W/kg for 1g Body SAR , therefore simultaneous transmission SAR with Volume Scans is **not required**.

## APPENDIX A SAR PLOTS OF SAR MEASUREMENT

**Please Refer to the Attachment.**

## APPENDIX B MEASUREMENT UNCERTAINTY

The uncertainty budget has been determined for the measurement system and is given in the following Table.

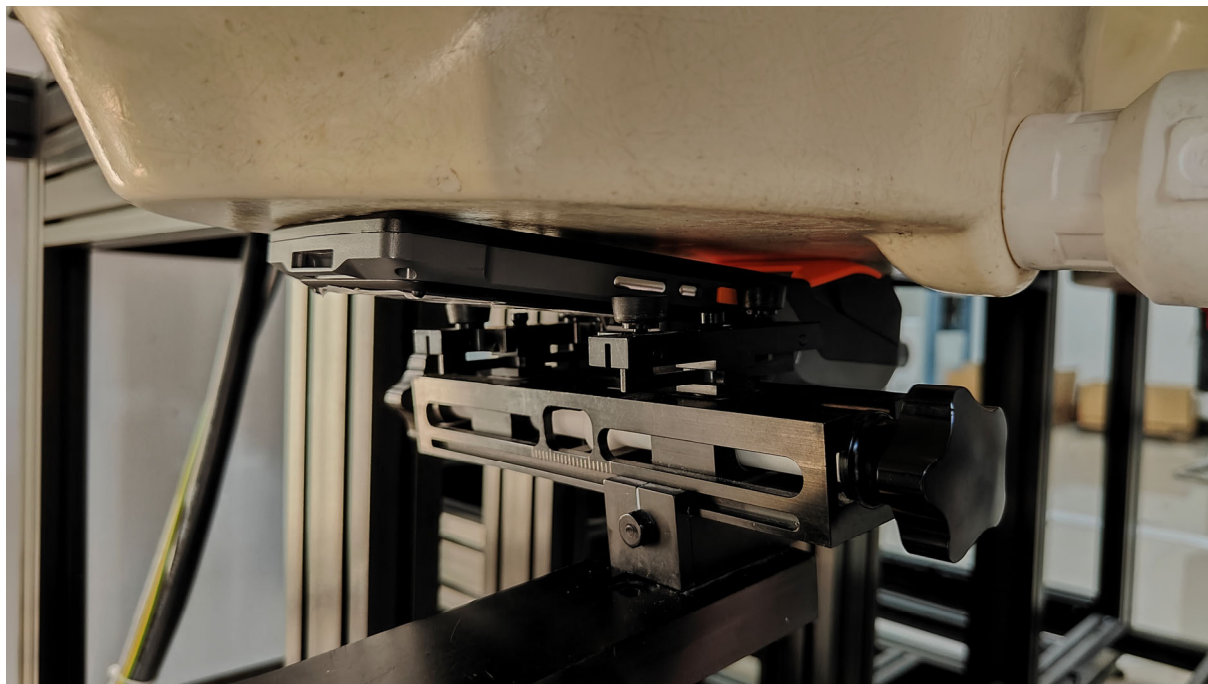
| <b>DASY6 Uncertainty Budget</b><br><b>According to IEEE 1528:2013</b><br><b>(30M - 3GHz range)</b> |                        |             |         |         |          |                                |                                 |           |
|----------------------------------------------------------------------------------------------------|------------------------|-------------|---------|---------|----------|--------------------------------|---------------------------------|-----------|
| Error Description                                                                                  | Uncertainty Value (±%) | Probability | Divisor | (Ci) 1g | (Ci) 10g | Standard Uncertainty (1g) (±%) | Standard Uncertainty (10g) (±%) | (Vi) Veff |
| <b>Measurement System</b>                                                                          |                        |             |         |         |          |                                |                                 |           |
| Probe Calibration                                                                                  | 6.35                   | N           | 1       | 1       | 1        | 6.35                           | 6.35                            | ∞         |
| Axial Isotropy                                                                                     | 4.7                    | R           | 1.732   | 1       | 1        | 2.7                            | 2.7                             | ∞         |
| Hemispherical Isotropy                                                                             | 9.6                    | R           | 1.732   | 1       | 1        | 5.5                            | 5.5                             | ∞         |
| Boundary Effects                                                                                   | 2.0                    | R           | 1.732   | 1       | 1        | 1.2                            | 1.2                             | ∞         |
| Linearity                                                                                          | 4.7                    | R           | 1.732   | 1       | 1        | 2.7                            | 2.7                             | ∞         |
| System Detection Limits                                                                            | 1.0                    | R           | 1.732   | 1       | 1        | 0.6                            | 0.6                             | ∞         |
| Modulation Response                                                                                | 2.4                    | R           | 1.732   | 1       | 1        | 1.4                            | 1.4                             | ∞         |
| Readout Electronics                                                                                | 0.3                    | N           | 1       | 1       | 1        | 0.3                            | 0.3                             | ∞         |
| Response Time                                                                                      | 0.8                    | R           | 1.732   | 1       | 1        | 0.5                            | 0.5                             | ∞         |
| Integration Time                                                                                   | 2.6                    | R           | 1.732   | 1       | 1        | 1.5                            | 1.5                             | ∞         |
| RF Ambient Noise                                                                                   | 3.0                    | R           | 1.732   | 1       | 1        | 1.7                            | 1.7                             | ∞         |
| RF Ambient Reflections                                                                             | 3.0                    | R           | 1.732   | 1       | 1        | 1.7                            | 1.7                             | ∞         |
| Probe Positioner                                                                                   | 0.8                    | R           | 1.732   | 1       | 1        | 0.5                            | 0.5                             | ∞         |
| Probe Positioning                                                                                  | 6.7                    | R           | 1.732   | 1       | 1        | 3.9                            | 3.9                             | ∞         |
| Post-Processing                                                                                    | 4.0                    | R           | 1.732   | 1       | 1        | 2.3                            | 2.3                             | ∞         |
| <b>Test Sample Related</b>                                                                         |                        |             |         |         |          |                                |                                 |           |
| Device Positioning                                                                                 | 2.9                    | N           | 1       | 1       | 1        | 2.9                            | 2.9                             | 145       |
| Device Holder                                                                                      | 3.6                    | N           | 1       | 1       | 1        | 3.6                            | 3.6                             | 5         |
| Power Drift                                                                                        | 5.0                    | R           | 1.732   | 1       | 1        | 2.9                            | 2.9                             | ∞         |
| Power Scaling                                                                                      | 0.0                    | R           | 1.732   | 1       | 1        | 0.0                            | 0.0                             | ∞         |
| <b>Phantom and Setup</b>                                                                           |                        |             |         |         |          |                                |                                 |           |
| Phantom Uncertainty                                                                                | 7.9                    | R           | 1.732   | 1       | 1        | 4.6                            | 4.6                             | ∞         |
| SAR correction                                                                                     | 1.9                    | N           | 1.732   | 1       | 0.84     | 1.1                            | 0.9                             | ∞         |
| Liquid Conductivity (mea.)                                                                         | 2.5                    | N           | 1.732   | 0.78    | 0.21     | 1.1                            | 0.3                             | ∞         |
| Liquid Permittivity (mea.)                                                                         | 2.5                    | N           | 1.732   | 0.23    | 0.26     | 0.3                            | 0.4                             | ∞         |
| Liquid Conductivity -Temp.unc                                                                      | 3.4                    | R           | 1.732   | 0.78    | 0.71     | 1.5                            | 1.4                             | ∞         |
| Liquid Permittivity -Temp.unc                                                                      | 0.4                    | R           | 1.732   | 0.23    | 0.26     | 0.1                            | 0.1                             | ∞         |
| <b>Combined Std. Uncertainty</b>                                                                   |                        |             |         |         |          | 13.18%                         | 13.11%                          | 1859      |
| <b>Coverage Factor for 95 %</b>                                                                    |                        |             |         |         |          | K=2                            | K=2                             |           |
| <b>Expanded STD Uncertainty</b>                                                                    |                        |             |         |         |          | 26.36%                         | 26.22%                          |           |

| <b>DASY6 Uncertainty Budget</b><br><b>According to IEEE 1528:2013</b><br><b>(3 - 6 GHz range)</b> |                        |             |         |         |          |                                |                                 |           |
|---------------------------------------------------------------------------------------------------|------------------------|-------------|---------|---------|----------|--------------------------------|---------------------------------|-----------|
| Error Description                                                                                 | Uncertainty Value (±%) | Probability | Divisor | (Ci) 1g | (Ci) 10g | Standard Uncertainty (1g) (±%) | Standard Uncertainty (10g) (±%) | (Vi) Veff |
| <b>Measurement System</b>                                                                         |                        |             |         |         |          |                                |                                 |           |
| Probe Calibration                                                                                 | 6.95                   | N           | 1       | 1       | 1        | 6.95                           | 6.95                            | ∞         |
| Axial Isotropy                                                                                    | 4.7                    | R           | 1.732   | 0.7     | 0.7      | 1.9                            | 1.9                             | ∞         |
| Hemispherical Isotropy                                                                            | 9.6                    | R           | 1.732   | 0.7     | 0.7      | 3.9                            | 3.9                             | ∞         |
| Boundary Effects                                                                                  | 2.0                    | R           | 1.732   | 1       | 1        | 1.2                            | 1.2                             | ∞         |
| Linearity                                                                                         | 4.7                    | R           | 1.732   | 1       | 1        | 2.7                            | 2.7                             | ∞         |
| System Detection Limits                                                                           | 1.0                    | R           | 1.732   | 1       | 1        | 0.6                            | 0.6                             | ∞         |
| Modulation Response                                                                               | 2.4                    | R           | 1.732   | 1       | 1        | 1.4                            | 1.4                             | ∞         |
| Readout Electronics                                                                               | 0.3                    | N           | 1       | 1       | 1        | 0.3                            | 0.3                             | ∞         |
| Response Time                                                                                     | 0.8                    | R           | 1.732   | 1       | 1        | 0.5                            | 0.5                             | ∞         |
| Integration Time                                                                                  | 2.6                    | R           | 1.732   | 1       | 1        | 1.5                            | 1.5                             | ∞         |
| RF Ambient Noise                                                                                  | 3.0                    | R           | 1.732   | 1       | 1        | 1.7                            | 1.7                             | ∞         |
| RF Ambient Reflections                                                                            | 3.0                    | R           | 1.732   | 1       | 1        | 1.7                            | 1.7                             | ∞         |
| Probe Positioner                                                                                  | 0.4                    | R           | 1.732   | 1       | 1        | 0.2                            | 0.2                             | ∞         |
| Probe Positioning                                                                                 | 6.7                    | R           | 1.732   | 1       | 1        | 3.9                            | 3.9                             | ∞         |
| Max.SAREval                                                                                       | 4.0                    | R           | 1.732   | 1       | 1        | 2.3                            | 2.3                             | ∞         |
| <b>Test Sample Related</b>                                                                        |                        |             |         |         |          |                                |                                 |           |
| Device Positioning                                                                                | 2.9                    | N           | 1.732   | 1       | 1        | 1.7                            | 1.7                             | 145       |
| Device Holder                                                                                     | 3.6                    | N           | 1.732   | 1       | 1        | 2.1                            | 2.1                             | 5         |
| Power Drift                                                                                       | 5.0                    | R           | 1.732   | 1       | 1        | 2.9                            | 2.9                             | ∞         |
| Power Scaling                                                                                     | 0.0                    | R           | 1.732   | 1       | 1        | 0.0                            | 0.0                             | ∞         |
| <b>Phantom and Setup</b>                                                                          |                        |             |         |         |          |                                |                                 |           |
| Phantom Uncertainty                                                                               | 6.6                    | R           | 1.732   | 1       | 1        | 3.8                            | 3.8                             | ∞         |
| SAR correction                                                                                    | 1.9                    | N           | 1.732   | 1       | 0.84     | 1.1                            | 0.9                             | ∞         |
| Liquid Conductivity (mea.)                                                                        | 2.5                    | N           | 1.732   | 0.78    | 0.71     | 1.1                            | 1.0                             | ∞         |
| Liquid Permittivity (mea.)                                                                        | 2.5                    | N           | 1.732   | 0.26    | 0.26     | 0.4                            | 0.4                             | ∞         |
| Liquid Conductivity -Temp.unc                                                                     | 3.4                    | R           | 1.732   | 0.78    | 0.71     | 1.5                            | 1.4                             | ∞         |
| Liquid Permittivity -Temp.unc                                                                     | 0.4                    | R           | 1.732   | 0.23    | 0.26     | 0.1                            | 0.1                             | ∞         |
| <b>Combined Std. Uncertainty</b>                                                                  |                        |             |         |         |          | 11.92%                         | 11.88%                          | 9023      |
| <b>Coverage Factor for 95 %</b>                                                                   |                        |             |         |         |          | K=2                            | K=2                             |           |
| <b>Expanded STD Uncertainty</b>                                                                   |                        |             |         |         |          | 23.84%                         | 23.76%                          |           |

## APPENDIX C EUT TEST POSITION PHOTOS

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WWAN/WLAN - Body Front(0mm)



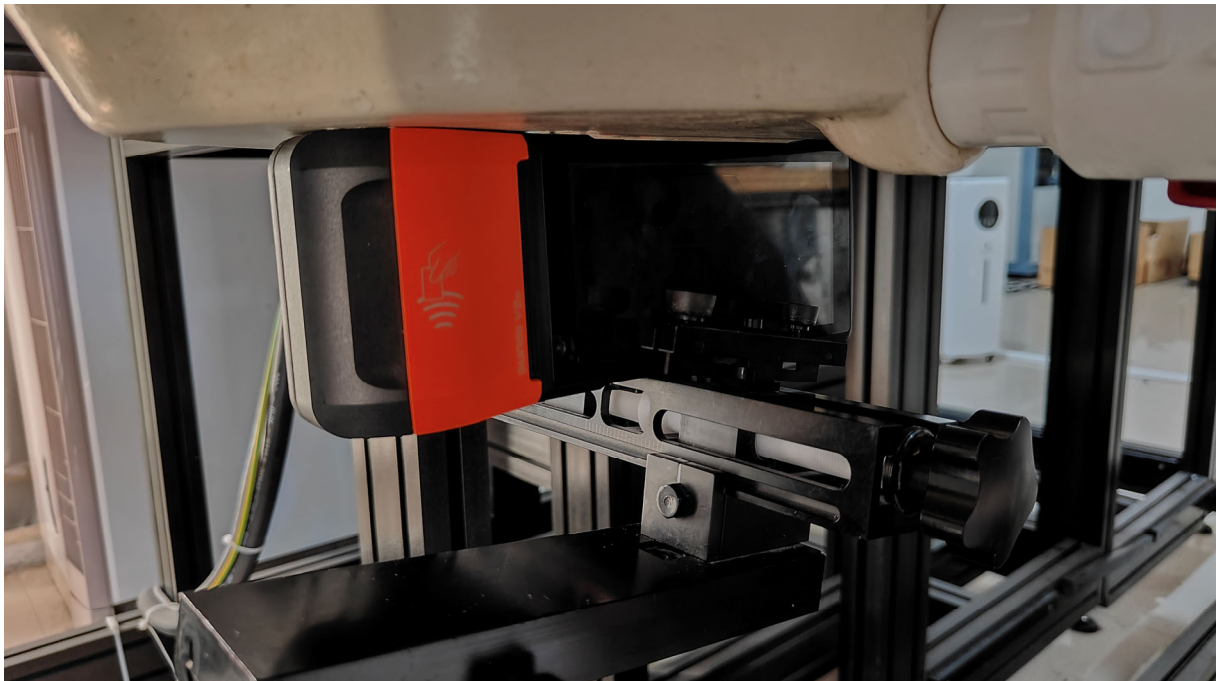
WWAN - Body Back(0mm)



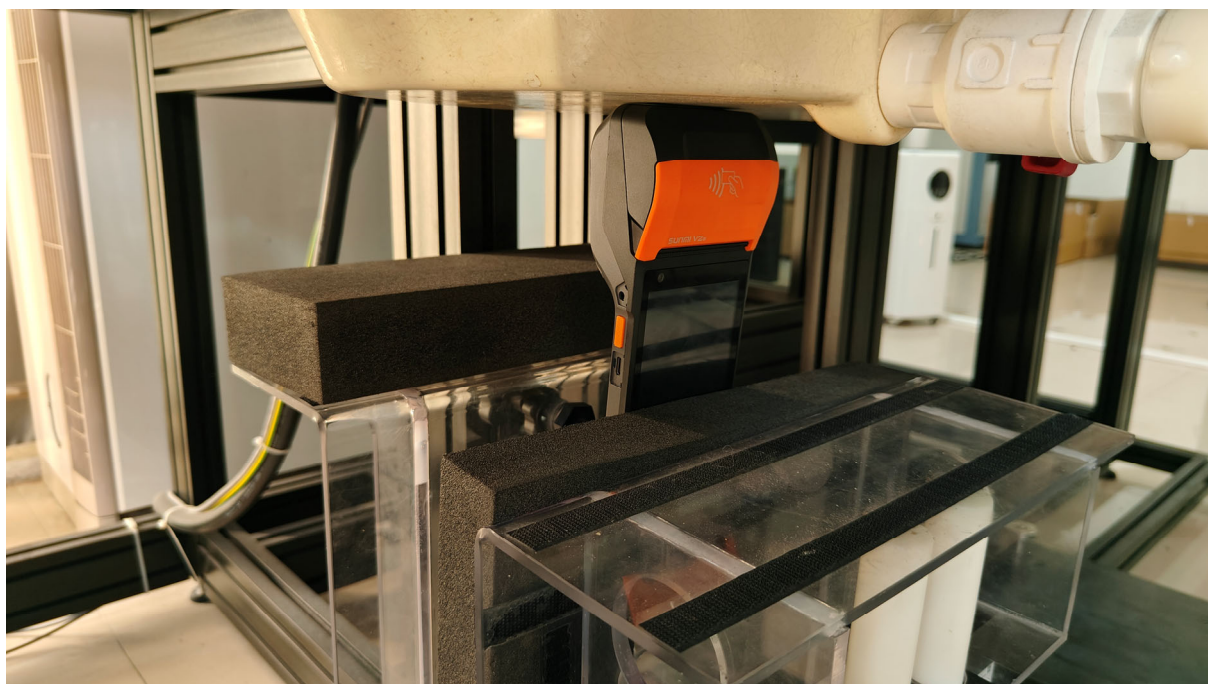
WWAN/WLAN - Body Left(0mm)



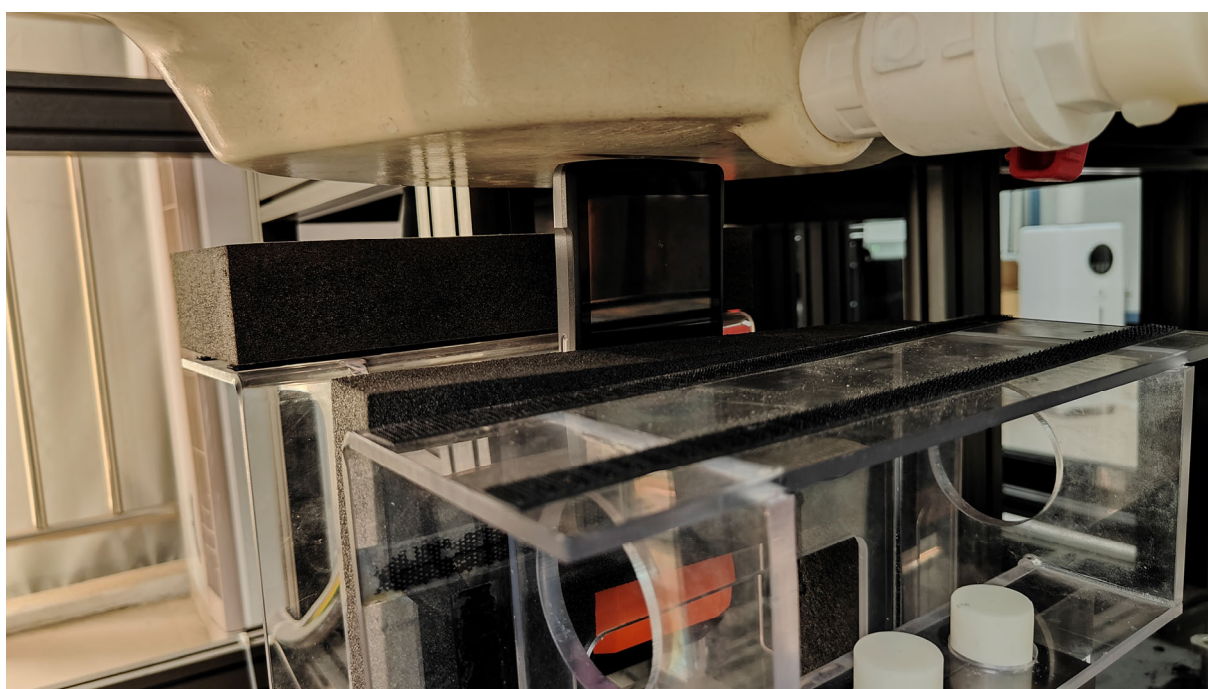
WWAN - Body Right(0mm)



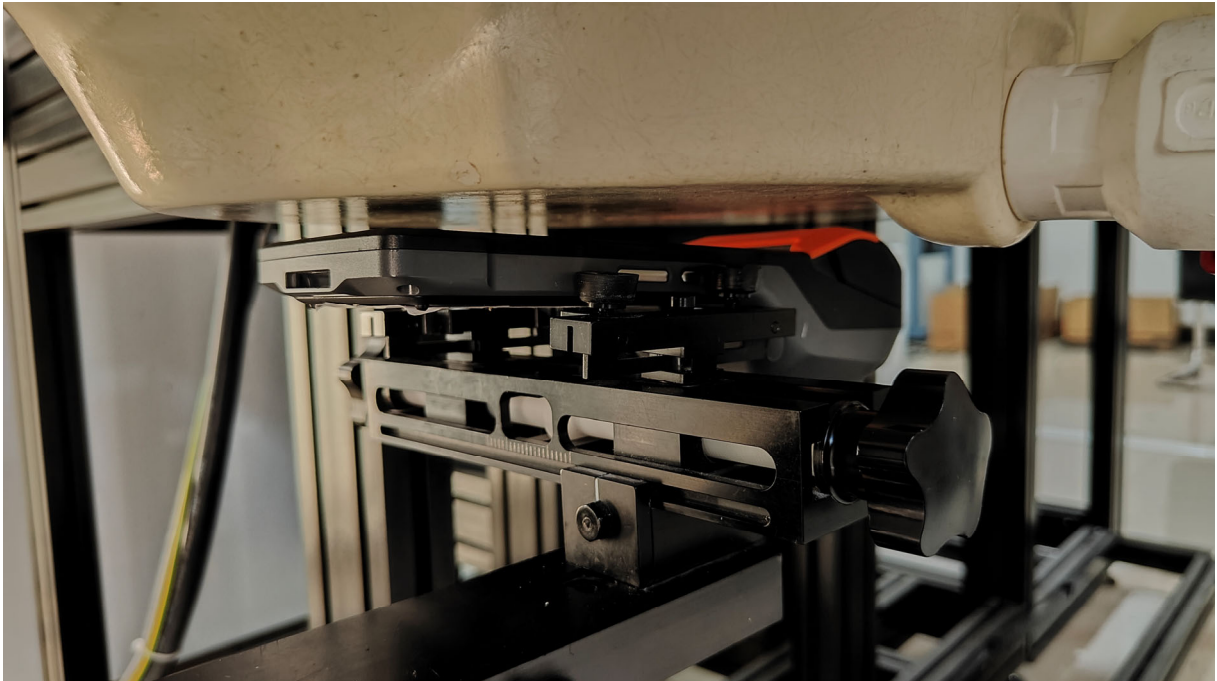
WWAN - Body Top(0mm)



WWAN - Body Bottom(0mm)



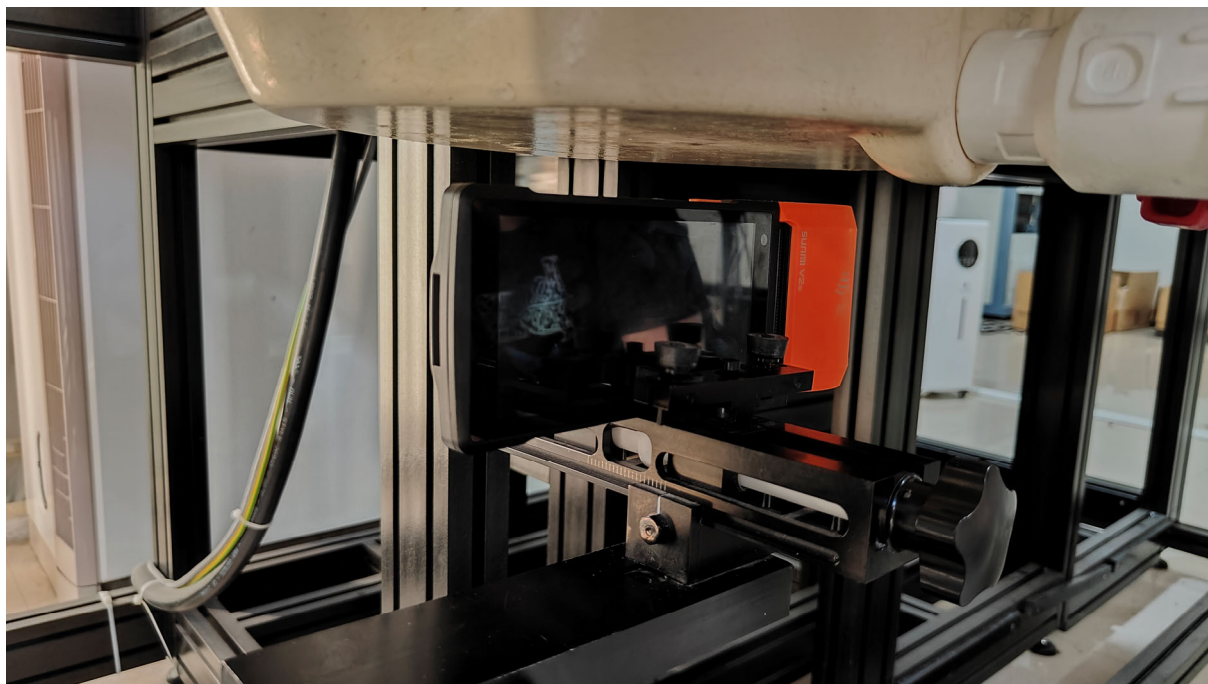
WWAN - Body Front(4mm)



WWAN - Body Back(4mm)



WWAN - Body Left(19mm)



## APPENDIX D CALIBRATION CERTIFICATES

**Please Refer to the Attachment.**

### Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with “★”.
2. The test data was only valid for the test sample(s).
3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor  $k=2$  with the 95.45% confidence interval.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***