

# RF Exposure Report

## (Part 0: SAR Char Evaluation)

APPLICANT : OnePlus Technology (Shenzhen) Co., Ltd.  
EQUIPMENT : Mobile Phone  
BRAND NAME : ONEPLUS, <sup>+</sup>  
MODEL NAME : CPH2655  
FCC ID : 2ABZ2-OP23895  
STANDARD : FCC 47 CFR PART 2 (2.1093)

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.



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## History of this test report

| Report No. | Version | Description             | Issued Date   |
|------------|---------|-------------------------|---------------|
| FA461101D  | 01      | Initial issue of report | Sep. 27, 2024 |
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## 1. Introduction

The Qualcomm® Smart Transmit™ 5.0 of Smart Transmit (GEN2) Feature operates based on pre-defined sub6 antenna groups (AG). This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature. The RF exposure limit is defined based on time-averaged RF exposure. The RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN and WLAN/BT transmitter to ensure the product in compliance with RF exposure limit over a defined time window. To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement. Smart Transmit cannot operate without SAR characterization at the device level, beforehand.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. Both SAR char will be entered via the Embedded File System (EFS) version 23 to enable the Smart Transmit of GEN2 phase VI (do not support Antenna group).

### Terminologies in this report

|                    |                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| $P_{\text{limit}}$ | The time-averaged RF power which corresponds to SAR_design_target.                                                                                |
| $P_{\text{max}}$   | Maximum target power level                                                                                                                        |
| SAR_design_target: | The design target for SAR compliance. It should be less than regulatory power density limit to account for all device design related uncertainty. |
| SAR char           | $P_{\text{limit}}$ for all the technologies/bands for all applicable DSI                                                                          |



## 2. Product Description

| Product Feature & Specification         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment Name                          | Mobile Phone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Brand Name                              | ONEPLUS,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Model Name                              | CPH2655                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| FCC ID                                  | 2ABZ2-OP23895                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Wireless Technology and Frequency Range | GSM850: 824 MHz ~ 849 MHz<br>GSM1900: 1850MHz ~ 1910MHz<br>WCDMA Band II: 1850 MHz ~ 1910 MHz<br>WCDMA Band IV: 1710 MHz ~ 1755 MHz<br>WCDMA Band V: 824 MHz ~ 849 MHz<br>LTE Band 2: 1850 MHz ~ 1910 MHz<br>LTE Band 4: 1710 MHz ~ 1755 MHz<br>LTE Band 5: 824 MHz ~ 849 MHz<br>LTE Band 7: 2500 MHz ~ 2570 MHz<br>LTE Band 12: 699 MHz ~ 716 MHz<br>LTE Band 13: 777 MHz ~ 787 MHz<br>LTE Band 17: 704 MHz ~ 716 MHz<br>LTE Band 25: 1850 MHz ~ 1915 MHz<br>LTE Band 26: 814 MHz ~ 849 MHz<br>LTE Band 30: 2305 MHz ~ 2315 MHz<br>LTE Band 38: 2570 MHz ~ 2620 MHz<br>LTE Band 41: 2496 MHz ~ 2690 MHz<br>LTE Band 48: 3550 MHz ~ 3700 MHz<br>LTE Band 66: 1710 MHz ~ 1780 MHz<br>LTE Band 71: 663 MHz ~ 698 MHz<br>5G NR n2 : 1850 MHz ~ 1910 MHz<br>5G NR n5 : 824 MHz ~ 849 MHz<br>5G NR n7 : 2500 MHz ~ 2570 MHz<br>5G NR n12 : 699 MHz ~ 716 MHz<br>5G NR n25 : 1850 MHz ~ 1915 MHz<br>5G NR n30 : 2305 MHz ~ 2315 MHz<br>5G NR n38 : 2570 MHz ~ 2620 MHz<br>5G NR n41 : 2496 MHz ~ 2690 MHz<br>5G NR n48 : 3550 MHz ~ 3700 MHz<br>5G NR n66 : 1710 MHz ~ 1780 MHz<br>5G NR n71 : 663 MHz ~ 698 MHz<br>5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz<br>5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz<br>WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz<br>WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz<br>WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz<br>WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz<br>WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz<br>WLAN U-NII 5: 5925 MHz ~ 6425 MHz<br>WLAN U-NII 6: 6425 MHz ~ 6525 MHz<br>WLAN U-NII 7: 6525 MHz ~ 6875 MHz<br>WLAN U-NII 8: 6875 MHz ~ 7125 MHz<br>Bluetooth: 2402 MHz ~ 2480 MHz<br>NFC : 13.56 MHz<br>WPT: 110.1KHz ~ 148.5KHz |
| Mode                                    | GSM/GPRS/EGPRS/DTM<br>RMC/AMR 12.2Kbps<br>HSDPA<br>HSUPA<br>DC-HSDPA<br>HSPA+ (16QAM uplink is supported)<br>LTE: QPSK, 16QAM, 64QAM, 256QAM<br>5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM<br>WLAN 2.4GHz 802.11b/g/n HT20/HT40<br>WLAN 2.4GHz 802.11ac VHT20/VHT40<br>WLAN 2.4GHz 802.11ax/be HE20/HE40/EHT20/EHT40<br>WLAN 5GHz 802.11a/n HT20/HT40<br>WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160<br>WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160<br>WLAN 5GHz 802.11be EHT20/EHT40/EHT80/EHT160<br>WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160<br>WLAN 6GHz 802.11be EHT20/EHT40/EHT80/EHT160/EHT320<br>Bluetooth BR/EDR/LE<br>NFC: ASK<br>WPT: ASK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



### 3. SAR Characterization

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at WWAN and WLAN/BT bands. It will then be used as input for Smart Transmit to control and manage RF exposure for WWAN and WLAN/BT bands.

#### 3.1 SAR design target and uncertainty

SAR design Target :

| Band        | Antenna | DSI 4 Hotspot | DSI 4 Extremity | DSI 4 Body Worn | DSI 5 Head |
|-------------|---------|---------------|-----------------|-----------------|------------|
| GSM850      | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| GSM1900     | 5       | 0.910         | 2.270           | 0.910           | 0.910      |
| WCDMA II    | 0       | 0.696         | 2.270           | 0.380           | 0.851      |
| WCDMA II    | 5       | 0.743         | 2.270           | 0.328           | 0.051      |
| WCDMA IV    | 0       | 0.815         | 2.270           | 0.454           | 0.723      |
| WCDMA IV    | 5       | 0.896         | 2.270           | 0.414           | 0.069      |
| WCDMA V     | 0       | 0.954         | 2.270           | 0.620           | 0.699      |
| WCDMA V     | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 2  | 5       | 0.749         | 2.270           | 0.285           | 0.054      |
| LTE Band 2  | 0       | 0.682         | 2.270           | 0.458           | 0.977      |
| LTE Band 2  | 6       | 0.923         | 2.270           | 0.494           | 0.679      |
| LTE Band 2  | 7       | 0.912         | 2.270           | 0.710           | 0.622      |
| LTE Band 4  | 5       | 0.913         | 2.270           | 0.488           | 0.086      |
| LTE Band 4  | 0       | 0.664         | 2.270           | 0.402           | 0.862      |
| LTE Band 4  | 6       | 0.518         | 2.270           | 0.229           | 0.699      |
| LTE Band 4  | 7       | 0.751         | 2.270           | 0.503           | 0.585      |
| LTE Band 5  | 0       | 0.766         | 2.270           | 0.471           | 0.500      |
| LTE Band 5  | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 7  | 5       | 0.908         | 2.270           | 0.534           | 0.212      |
| LTE Band 7  | 0       | 0.961         | 2.270           | 0.523           | 0.995      |
| LTE Band 7  | 6       | 0.885         | 2.270           | 0.321           | 0.898      |
| LTE Band 7  | 7       | 0.501         | 2.270           | 0.192           | 0.461      |
| LTE Band 12 | 0       | 0.910         | 2.270           | 0.910           | 0.792      |
| LTE Band 12 | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 13 | 0       | 0.910         | 2.270           | 0.910           | 0.854      |
| LTE Band 13 | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 17 | 0       | 0.910         | 2.270           | 0.910           | 0.792      |
| LTE Band 17 | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 25 | 5       | 0.749         | 2.270           | 0.285           | 0.054      |
| LTE Band 25 | 0       | 0.704         | 2.270           | 0.336           | 0.876      |
| LTE Band 25 | 6       | 0.923         | 2.270           | 0.494           | 0.637      |
| LTE Band 25 | 7       | 0.912         | 2.270           | 0.710           | 0.622      |
| LTE Band 26 | 0       | 0.910         | 2.270           | 0.910           | 0.500      |
| LTE Band 26 | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 30 | 5       | 0.824         | 2.270           | 0.345           | 0.084      |
| LTE Band 30 | 0       | 0.630         | 2.270           | 0.398           | 0.981      |
| LTE Band 30 | 6       | 0.387         | 2.270           | 0.219           | 0.843      |
| LTE Band 30 | 7       | 0.438         | 2.270           | 0.227           | 0.594      |
| LTE Band 66 | 5       | 0.913         | 2.270           | 0.488           | 0.086      |
| LTE Band 66 | 0       | 0.664         | 2.270           | 0.402           | 0.862      |
| LTE Band 66 | 6       | 0.518         | 2.270           | 0.229           | 0.699      |
| LTE Band 66 | 7       | 0.751         | 2.270           | 0.503           | 0.585      |
| LTE Band 71 | 0       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 71 | 1       | 0.910         | 2.270           | 0.910           | 0.910      |
| LTE Band 38 | 5       | 1.030         | 2.270           | 0.599           | 0.176      |



|                 |    |       |       |       |       |
|-----------------|----|-------|-------|-------|-------|
| LTE Band 38     | 0  | 0.869 | 2.270 | 0.468 | 1.030 |
| LTE Band 41_PC3 | 5  | 1.030 | 2.270 | 0.599 | 0.910 |
| LTE Band 41_PC2 | 5  | 0.849 | 2.270 | 0.487 | 0.163 |
| LTE Band 41_PC3 | 0  | 0.869 | 2.270 | 0.468 | 1.030 |
| LTE Band 41_PC2 | 0  | 0.742 | 2.270 | 0.391 | 0.946 |
| LTE Band 41_PC3 | 6  | 0.935 | 2.270 | 0.403 | 1.040 |
| LTE Band 41_PC2 | 6  | 0.701 | 2.270 | 0.319 | 0.762 |
| LTE Band 41_PC3 | 7  | 0.910 | 2.270 | 0.910 | 0.910 |
| LTE Band 41_PC2 | 7  | 0.910 | 2.270 | 0.910 | 0.910 |
| LTE Band 48     | 10 | 0.931 | 2.270 | 0.462 | 0.874 |
| LTE Band 48     | 6  | 0.619 | 2.270 | 0.381 | 0.807 |
| LTE Band 48     | 11 | 0.535 | 2.270 | 0.509 | 0.988 |
| LTE Band 48     | 12 | 1.090 | 2.270 | 0.897 | 0.966 |
| FR1 n2          | 5  | 0.781 | 2.270 | 0.363 | 0.054 |
| FR1 n2          | 0  | 0.751 | 2.270 | 0.349 | 0.876 |
| FR1 n2          | 6  | 0.942 | 2.270 | 0.487 | 0.637 |
| FR1 n2          | 7  | 0.784 | 2.270 | 0.463 | 0.622 |
| FR1 n5          | 0  | 0.849 | 2.270 | 0.515 | 0.884 |
| FR1 n5          | 1  | 0.264 | 2.270 | 0.264 | 0.116 |
| FR1 n7          | 5  | 0.820 | 2.270 | 0.441 | 0.055 |
| FR1 n7          | 0  | 0.789 | 2.270 | 0.577 | 0.839 |
| FR1 n7          | 6  | 0.999 | 2.270 | 0.370 | 1.000 |
| FR1 n7          | 7  | 0.555 | 2.270 | 0.213 | 0.583 |
| FR1 n12         | 0  | 0.910 | 2.270 | 0.910 | 0.728 |
| FR1 n12         | 1  | 0.910 | 2.270 | 0.910 | 0.090 |
| FR1 n25         | 5  | 0.781 | 2.270 | 0.363 | 0.054 |
| FR1 n25         | 0  | 0.751 | 2.270 | 0.349 | 0.876 |
| FR1 n25         | 6  | 0.942 | 2.270 | 0.487 | 0.637 |
| FR1 n25         | 7  | 0.784 | 2.270 | 0.463 | 0.622 |
| FR1 n30         | 5  | 0.659 | 2.270 | 0.307 | 0.042 |
| FR1 n30         | 0  | 0.715 | 2.270 | 0.440 | 0.873 |
| FR1 n66         | 5  | 0.787 | 2.270 | 0.437 | 0.065 |
| FR1 n66         | 0  | 0.674 | 2.270 | 0.489 | 0.898 |
| FR1 n66         | 6  | 0.516 | 2.270 | 0.221 | 0.843 |
| FR1 n66         | 7  | 0.764 | 2.270 | 0.523 | 0.658 |
| FR1 n71         | 0  | 0.910 | 2.270 | 0.910 | 0.910 |
| FR1 n71         | 1  | 0.910 | 2.270 | 0.910 | 0.910 |
| FR1 n38         | 5  | 0.759 | 2.270 | 0.512 | 0.091 |
| FR1 n38         | 0  | 0.862 | 2.270 | 0.345 | 0.891 |
| FR1 n38         | 6  | 0.980 | 2.270 | 0.347 | 0.759 |
| FR1 n38         | 7  | 0.839 | 2.270 | 0.211 | 0.663 |
| FR1 n41_PC3     | 5  | 0.759 | 2.270 | 0.512 | 0.091 |
| FR1 n41_PC2     | 5  | 0.759 | 2.270 | 0.512 | 0.091 |
| FR1 n41_PC3     | 0  | 0.862 | 2.270 | 0.345 | 0.891 |
| FR1 n41_PC2     | 0  | 0.862 | 2.270 | 0.345 | 0.891 |
| FR1 n41_PC3     | 6  | 0.737 | 2.270 | 0.306 | 0.759 |
| FR1 n41_PC2     | 6  | 0.737 | 2.270 | 0.306 | 0.759 |
| FR1 n41_PC3     | 7  | 0.839 | 2.270 | 0.211 | 0.663 |
| FR1 n41_PC2     | 7  | 0.839 | 2.270 | 0.211 | 0.663 |
| FR1 n48         | 10 | 0.884 | 2.270 | 0.483 | 0.825 |
| FR1 n48         | 6  | 0.849 | 2.270 | 0.723 | 0.719 |
| FR1 n48         | 11 | 0.530 | 2.270 | 0.486 | 0.892 |
| FR1 n48         | 12 | 0.927 | 2.270 | 0.526 | 0.918 |
| FR1 n77_PC3     | 10 | 0.435 | 2.270 | 0.203 | 0.647 |
| FR1 n77_PC2     | 10 | 0.435 | 2.270 | 0.203 | 0.647 |
| FR1 n77_PC3     | 6  | 0.557 | 2.270 | 0.432 | 0.842 |

|             |       |       |       |       |       |
|-------------|-------|-------|-------|-------|-------|
| FR1 n77_PC2 | 6     | 0.557 | 2.270 | 0.432 | 0.842 |
| FR1 n77_PC3 | 11    | 0.867 | 2.270 | 0.779 | 0.951 |
| FR1 n77_PC2 | 11    | 0.867 | 2.270 | 0.779 | 0.951 |
| FR1 n77_PC3 | 12    | 0.812 | 2.270 | 0.458 | 0.844 |
| FR1 n77_PC2 | 12    | 0.812 | 2.270 | 0.458 | 0.844 |
| FR1 n78_PC3 | 10    | 0.621 | 2.270 | 0.275 | 0.647 |
| FR1 n78_PC2 | 10    | 0.621 | 2.270 | 0.275 | 0.647 |
| FR1 n78_PC3 | 6     | 0.845 | 2.270 | 0.708 | 0.842 |
| FR1 n78_PC2 | 6     | 0.845 | 2.270 | 0.708 | 0.842 |
| FR1 n78_PC3 | 11    | 0.867 | 2.270 | 0.779 | 0.951 |
| FR1 n78_PC2 | 11    | 0.867 | 2.270 | 0.779 | 0.951 |
| FR1 n78_PC3 | 12    | 0.812 | 2.270 | 0.458 | 0.802 |
| FR1 n78_PC2 | 12    | 0.812 | 2.270 | 0.458 | 0.802 |
| Bluetooth   | 1     | 0.910 | 2.270 | 0.910 | 0.910 |
| Bluetooth   | 10    | 0.910 | 2.270 | 0.910 | 0.401 |
| Bluetooth   | 13    | 0.910 | 2.270 | 0.910 | 0.499 |
| WLAN2.4GHz  | 13    | 0.757 | 2.270 | 0.509 | 0.803 |
| WLAN2.4GHz  | 10    | 0.656 | 2.270 | 0.324 | 0.755 |
| WLAN2.4GHz  | 13+10 | 0.598 | 2.270 | 0.313 | 0.686 |
| WLAN5.2GHz  | 14    | 0.272 | 2.270 | 0.232 | 0.549 |
| WLAN5.2GHz  | 15    | 0.103 | 2.270 | 0.105 | 0.910 |
| WLAN5.2GHz  | 14+15 | 0.088 | 2.270 | 0.084 | 0.229 |
| WLAN5.3GHz  | 14    |       | 1.120 | 0.232 | 0.549 |
| WLAN5.3GHz  | 15    |       | 0.236 | 0.105 | 0.910 |
| WLAN5.3GHz  | 14+15 |       | 0.201 | 0.084 | 0.229 |
| WLAN5.5GHz  | 14    |       | 1.350 | 0.327 | 0.880 |
| WLAN5.5GHz  | 15    |       | 0.469 | 0.278 | 0.910 |
| WLAN5.5GHz  | 14+15 |       | 0.318 | 0.146 | 0.347 |
| WLAN5.8GHz  | 14    | 0.339 | 2.270 | 0.215 | 0.630 |
| WLAN5.8GHz  | 15    | 0.423 | 2.270 | 0.423 | 0.164 |
| WLAN5.8GHz  | 14+15 | 0.149 | 2.270 | 0.149 | 0.309 |
| WLAN6GHz    | 14    |       | 2.270 | 0.910 | 0.910 |
| WLAN6GHz    | 15    |       | 2.270 | 0.910 | 0.910 |
| WLAN6GHz    | 14+15 |       | 2.270 | 0.910 | 0.910 |

**<SAR design target>**

To account for total uncertainty, SAR\_design\_target should be determined as:

$$SAR_{design\_target} < SAR_{regulatory\_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$



### 3.2 SAR Char Table

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at WWAN and WLAN/BT bands. It will then be used as input for Smart Transmit to control and manage RF exposure for WWAN and WLAN/BT bands.

#### <P<sub>limit</sub> for supported technologies and bands (P<sub>limit</sub> in EFS file)>

| Band            | Antenna | DSI 4 | DSI 5 | Total Uncertainty dB (k=2) | Pmax* |
|-----------------|---------|-------|-------|----------------------------|-------|
| GSM850          | 1       | 30.00 | 32.10 | 1.2                        | 24.3  |
| GSM1900         | 5       | 22.90 | 34.50 | 1.2                        | 21.3  |
| WCDMA II        | 0       | 20.10 | 19.60 | 1.2                        | 23.6  |
| WCDMA II        | 5       | 20.80 | 20.80 | 1.2                        | 23.8  |
| WCDMA IV        | 0       | 21.10 | 21.10 | 1.2                        | 23.6  |
| WCDMA IV        | 5       | 22.30 | 22.30 | 1.2                        | 23.8  |
| WCDMA V         | 0       | 22.10 | 20.60 | 1.2                        | 23.6  |
| WCDMA V         | 1       | 29.10 | 30.40 | 1.2                        | 23.6  |
| LTE Band 2      | 5       | 20.80 | 20.80 | 1.2                        | 23.8  |
| LTE Band 2      | 0       | 20.10 | 19.10 | 1.2                        | 23.6  |
| LTE Band 2      | 6       | 19.30 | 19.30 | 1.2                        | 22.8  |
| LTE Band 2      | 7       | 20.60 | 20.60 | 1.2                        | 23.6  |
| LTE Band 4      | 5       | 22.10 | 22.10 | 1.2                        | 23.6  |
| LTE Band 4      | 0       | 21.60 | 21.60 | 1.2                        | 23.6  |
| LTE Band 4      | 6       | 18.60 | 18.10 | 1.2                        | 22.6  |
| LTE Band 4      | 7       | 19.60 | 18.60 | 1.2                        | 22.6  |
| LTE Band 5      | 0       | 22.10 | 20.10 | 1.2                        | 23.6  |
| LTE Band 5      | 1       | 29.40 | 31.70 | 1.2                        | 23.8  |
| LTE Band 7      | 5       | 21.60 | 22.10 | 1.2                        | 23.1  |
| LTE Band 7      | 0       | 20.60 | 19.60 | 1.2                        | 22.6  |
| LTE Band 7      | 6       | 18.10 | 16.10 | 1.2                        | 22.6  |
| LTE Band 7      | 7       | 21.10 | 20.10 | 1.2                        | 22.6  |
| LTE Band 12     | 0       | 23.70 | 22.60 | 1.2                        | 23.6  |
| LTE Band 12     | 1       | 29.90 | 32.90 | 1.2                        | 23.8  |
| LTE Band 13     | 0       | 23.10 | 22.10 | 1.2                        | 23.1  |
| LTE Band 13     | 1       | 30.50 | 33.00 | 1.2                        | 23.6  |
| LTE Band 17     | 0       | 23.70 | 22.60 | 1.2                        | 23.6  |
| LTE Band 17     | 1       | 29.90 | 32.90 | 1.2                        | 23.8  |
| LTE Band 25     | 5       | 20.80 | 20.80 | 1.2                        | 23.8  |
| LTE Band 25     | 0       | 19.60 | 18.60 | 1.2                        | 23.6  |
| LTE Band 25     | 6       | 21.80 | 18.80 | 1.2                        | 22.8  |
| LTE Band 25     | 7       | 22.60 | 20.60 | 1.2                        | 23.6  |
| LTE Band 26     | 0       | 24.20 | 22.10 | 1.2                        | 23.6  |
| LTE Band 26     | 1       | 29.40 | 31.70 | 1.2                        | 23.8  |
| LTE Band 30     | 5       | 21.60 | 21.60 | 1.2                        | 23.6  |
| LTE Band 30     | 0       | 20.10 | 20.10 | 1.2                        | 22.6  |
| LTE Band 30     | 6       | 19.60 | 16.60 | 1.2                        | 22.6  |
| LTE Band 30     | 7       | 21.10 | 20.60 | 1.2                        | 23.1  |
| LTE Band 66     | 5       | 22.30 | 22.30 | 1.2                        | 23.8  |
| LTE Band 66     | 0       | 21.60 | 21.60 | 1.2                        | 23.6  |
| LTE Band 66     | 6       | 19.10 | 19.10 | 1.2                        | 23.6  |
| LTE Band 66     | 7       | 21.80 | 20.30 | 1.2                        | 23.8  |
| LTE Band 71     | 0       | 26.40 | 25.90 | 1.2                        | 22.8  |
| LTE Band 71     | 1       | 30.20 | 34.70 | 1.2                        | 23.6  |
| LTE Band 38     | 5       | 20.30 | 20.30 | 1.2                        | 21.8  |
| LTE Band 38     | 0       | 19.10 | 17.10 | 1.2                        | 21.6  |
| LTE Band 41_PC3 | 5       | 20.60 | 21.60 | 1.2                        | 21.6  |



|                 |    |       |       |     |      |
|-----------------|----|-------|-------|-----|------|
| LTE Band 41_PC2 | 5  | 20.60 | 21.60 | 1.2 | 22.5 |
| LTE Band 41_PC3 | 0  | 19.10 | 20.10 | 1.2 | 20.6 |
| LTE Band 41_PC2 | 0  | 19.10 | 20.10 | 1.2 | 21.5 |
| LTE Band 41_PC3 | 6  | 19.60 | 18.60 | 1.2 | 21.6 |
| LTE Band 41_PC2 | 6  | 19.60 | 18.60 | 1.2 | 22.0 |
| LTE Band 41_PC3 | 7  | 24.70 | 23.50 | 1.2 | 21.6 |
| LTE Band 41_PC2 | 7  | 24.70 | 23.50 | 1.2 | 22.0 |
| LTE Band 48     | 10 | 20.60 | 19.10 | 1.2 | 21.6 |
| LTE Band 48     | 6  | 20.10 | 15.10 | 1.2 | 21.1 |
| LTE Band 48     | 11 | 21.10 | 16.60 | 1.2 | 21.6 |
| LTE Band 48     | 12 | 18.10 | 14.10 | 1.2 | 20.1 |
| FR1 n2          | 5  | 21.20 | 20.70 | 1.2 | 24.2 |
| FR1 n2          | 0  | 20.00 | 19.00 | 1.2 | 24.0 |
| FR1 n2          | 6  | 20.00 | 18.00 | 1.2 | 23.5 |
| FR1 n2          | 7  | 21.00 | 21.00 | 1.2 | 24.0 |
| FR1 n5          | 0  | 22.50 | 21.00 | 1.2 | 24.0 |
| FR1 n5          | 1  | 23.70 | 23.70 | 1.2 | 24.2 |
| FR1 n7          | 5  | 21.00 | 21.00 | 1.2 | 23.5 |
| FR1 n7          | 0  | 20.00 | 19.00 | 1.2 | 23.0 |
| FR1 n7          | 6  | 18.50 | 16.50 | 1.2 | 23.0 |
| FR1 n7          | 7  | 21.50 | 20.00 | 1.2 | 23.0 |
| FR1 n12         | 0  | 24.00 | 23.00 | 1.2 | 24.0 |
| FR1 n12         | 1  | 27.90 | 23.20 | 1.2 | 24.2 |
| FR1 n25         | 5  | 22.20 | 20.70 | 1.2 | 24.2 |
| FR1 n25         | 0  | 20.00 | 19.00 | 1.2 | 24.0 |
| FR1 n25         | 6  | 21.70 | 18.20 | 1.2 | 23.2 |
| FR1 n25         | 7  | 22.00 | 21.00 | 1.2 | 24.0 |
| FR1 n30         | 5  | 21.00 | 21.00 | 1.2 | 24.0 |
| FR1 n30         | 0  | 21.00 | 20.00 | 1.2 | 23.0 |
| FR1 n66         | 5  | 21.70 | 21.70 | 1.2 | 24.2 |
| FR1 n66         | 0  | 22.00 | 22.00 | 1.2 | 24.0 |
| FR1 n66         | 6  | 19.50 | 19.00 | 1.2 | 24.0 |
| FR1 n66         | 7  | 22.20 | 21.20 | 1.2 | 24.2 |
| FR1 n71         | 0  | 26.30 | 25.40 | 1.2 | 23.2 |
| FR1 n71         | 1  | 29.70 | 33.30 | 1.2 | 24.0 |
| FR1 n38         | 5  | 19.70 | 19.70 | 1.2 | 24.2 |
| FR1 n38         | 0  | 19.00 | 19.00 | 1.2 | 24.0 |
| FR1 n38         | 6  | 18.50 | 16.50 | 1.2 | 24.0 |
| FR1 n38         | 7  | 21.20 | 20.20 | 1.2 | 24.2 |
| FR1 n41_PC3     | 5  | 20.50 | 21.00 | 1.2 | 24.0 |
| FR1 n41_PC2     | 5  | 20.50 | 21.00 | 1.2 | 26.5 |
| FR1 n41_PC3     | 0  | 19.50 | 19.50 | 1.2 | 23.0 |
| FR1 n41_PC2     | 0  | 19.50 | 19.50 | 1.2 | 25.5 |
| FR1 n41_PC3     | 6  | 18.00 | 16.50 | 1.2 | 23.0 |
| FR1 n41_PC2     | 6  | 18.00 | 16.50 | 1.2 | 25.5 |
| FR1 n41_PC3     | 7  | 22.50 | 22.00 | 1.2 | 23.5 |
| FR1 n41_PC2     | 7  | 22.50 | 22.00 | 1.2 | 26.0 |
| FR1 n48         | 10 | 21.00 | 20.00 | 1.2 | 24.0 |
| FR1 n48         | 6  | 22.50 | 16.00 | 1.2 | 23.5 |
| FR1 n48         | 11 | 21.50 | 16.50 | 1.2 | 24.0 |
| FR1 n48         | 12 | 17.50 | 14.50 | 1.2 | 22.5 |
| FR1 n77_PC3     | 10 | 18.50 | 18.50 | 1.2 | 24.0 |
| FR1 n77_PC2     | 10 | 18.50 | 18.50 | 1.2 | 26.0 |
| FR1 n77_PC3     | 6  | 19.50 | 14.50 | 1.2 | 23.5 |
| FR1 n77_PC2     | 6  | 19.50 | 14.50 | 1.2 | 25.5 |
| FR1 n77_PC3     | 11 | 22.00 | 16.50 | 1.2 | 24.0 |

|             |       |       |       |     |      |
|-------------|-------|-------|-------|-----|------|
| FR1 n77_PC2 | 11    | 22.00 | 16.50 | 1.2 | 25.3 |
| FR1 n77_PC3 | 12    | 18.00 | 14.50 | 1.2 | 23.0 |
| FR1 n77_PC2 | 12    | 18.00 | 14.50 | 1.2 | 25.0 |
| FR1 n78_PC3 | 10    | 19.50 | 18.50 | 1.2 | 24.0 |
| FR1 n78_PC2 | 10    | 19.50 | 18.50 | 1.2 | 26.0 |
| FR1 n78_PC3 | 6     | 21.00 | 14.50 | 1.2 | 23.5 |
| FR1 n78_PC2 | 6     | 21.00 | 14.50 | 1.2 | 25.5 |
| FR1 n78_PC3 | 11    | 21.00 | 16.00 | 1.2 | 24.0 |
| FR1 n78_PC2 | 11    | 21.00 | 16.00 | 1.2 | 25.3 |
| FR1 n78_PC3 | 12    | 18.00 | 15.00 | 1.2 | 23.0 |
| FR1 n78_PC2 | 12    | 18.00 | 15.00 | 1.2 | 25.0 |
| Bluetooth   | 1     | 12.60 | 12.60 | 1.2 | 12.6 |
| Bluetooth   | 10    | 16.10 | 14.60 | 1.2 | 16.1 |
| Bluetooth   | 13    | 17.60 | 15.60 | 1.2 | 17.6 |
| WLAN2.4GHz  | 13    | 19.80 | 17.80 | 1.2 | 21.3 |
| WLAN2.4GHz  | 10    | 18.30 | 17.30 | 1.2 | 21.3 |
| WLAN2.4GHz  | 13+10 | 20.30 | 19.30 | 1.2 | 24.3 |
| WLAN5.2GHz  | 14    | 15.80 | 16.80 | 1.2 | 20.3 |
| WLAN5.2GHz  | 15    | 12.80 | 20.30 | 1.2 | 20.3 |
| WLAN5.2GHz  | 14+15 | 11.80 | 15.80 | 1.2 | 20.3 |
| WLAN5.3GHz  | 14    | 15.80 | 16.80 | 1.2 | 20.3 |
| WLAN5.3GHz  | 15    | 12.80 | 20.30 | 1.2 | 20.3 |
| WLAN5.3GHz  | 14+15 | 11.80 | 15.80 | 1.2 | 20.3 |
| WLAN5.5GHz  | 14    | 15.80 | 16.80 | 1.2 | 20.3 |
| WLAN5.5GHz  | 15    | 12.80 | 20.30 | 1.2 | 20.3 |
| WLAN5.5GHz  | 14+15 | 11.80 | 15.80 | 1.2 | 20.3 |
| WLAN5.8GHz  | 14    | 15.80 | 16.80 | 1.2 | 21.8 |
| WLAN5.8GHz  | 15    | 12.80 | 20.80 | 1.2 | 21.8 |
| WLAN5.8GHz  | 14+15 | 11.80 | 15.80 | 1.2 | 21.8 |
| WLAN6GHz    | 14    | 12.30 | 12.30 | 1.2 | 12.3 |
| WLAN6GHz    | 15    | 12.30 | 12.30 | 1.2 | 12.3 |
| WLAN6GHz    | 14+15 | 12.30 | 12.30 | 1.2 | 15.3 |

Note: 1) \* $P_{max}$  is used for RF tune up procedure. The maximum allowed output power is equal to  $P_{max}$  +total uncertainty.  
2) \*\*All  $P_{limit}$  power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).

3) The max allowed output power is the  $P_{limit}$  +total uncertainty, and if  $P_{limit}$  is higher than  $P_{max}$ , the device output power will be  $P_{max}$  instead.

4) The following table is duty cycle and factor used for calculating time average power.

| GSM/FDD/TDD | Duty Cycle | Time average calculation factor(dB) |
|-------------|------------|-------------------------------------|
| GSM 1TX     | 12.50%     | -9.0                                |
| GSM 2TX     | 25%        | -6.0                                |
| GSM 3TX     | 37.50%     | -4.3                                |
| GSM 4TX     | 50%        | -3.0                                |
| FDD LTE     | 100%       | 0.0                                 |
| TDD LTE     | 63.30%     | -2.0                                |
| TDD HPUE    | 43.30%     | -3.6                                |
| NR FDD/TDD  | 100%       | 0.0                                 |