

## APPENDIX G POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process was divided into two parts: (1) evaluation of output power levels for individual or multiple triggering mechanisms and (2) evaluation of the triggering distances for proximity-based sensors.

### G.1 Power Verification Procedure

The power verification was performed according to the following procedure:

1. A base station simulator was used to establish a conducted RF connection and the output power was monitored. The power measurements were confirmed to be within expected tolerances for all states before and after a power reduction mechanism was triggered.
2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.

|                                    |                                                                                                                                                 |                       |             |                                 |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|---------------------------------|
| FCC ID: PY7-57441Y                 |  <b>PCTEST</b><br><small>Proud to be part of element</small> | SAR EVALUATION REPORT | <b>SONY</b> | Reviewed by:<br>Quality Manager |
| Test Dates:<br>08/23/20 - 09/16/20 | DUT Type:<br>Portable Handset                                                                                                                   |                       |             | APPENDIX G:<br>Page 1 of 3      |

## G.2 Main Antenna Verification Summary

**Table G-1**  
**Power Measurement Verification for Main Antenna**

|                     | On Table             | On Body              | On Table             | In Hand              |
|---------------------|----------------------|----------------------|----------------------|----------------------|
| Mode                | Measured Power [dBm] | Measured Power [dBm] | Measured Power [dBm] | Measured Power [dBm] |
| NR Band n66         | Pmax Verified        | 16.77                | Pmax Verified        | 16.64                |
| NR Band n2          | Pmax Verified        | 16.59                | Pmax Verified        | 16.31                |
| UMTS B4 AMR         | Pmax Verified        | 15.7                 | Pmax Verified        | 15.69                |
| UMTS B2 AMR         | Pmax Verified        | 15.7                 | Pmax Verified        | 15.68                |
| GSM 1900 Voice      | Pmax Verified        | 26.83                | Pmax Verified        | 26.81                |
| GPRS 1900 4 Tx Slot | Pmax Verified        | 21.42                | Pmax Verified        | 21.03                |
| LTE Band 66         | Pmax Verified        | 15.87                | Pmax Verified        | 15.84                |
| LTE Band 4          | Pmax Verified        | 15.75                | Pmax Verified        | 15.77                |
| LTE Band 25         | Pmax Verified        | 15.44                | Pmax Verified        | 15.07                |
| LTE Band 2          | Pmax Verified        | 15.55                | Pmax Verified        | 15.13                |
| LTE Band 7          | Pmax Verified        | 15.02                | Pmax Verified        | 15.05                |
| LTE Band 41 PC3     | Pmax Verified        | 13.81                | Pmax Verified        | 13.76                |
| LTE Band 48         | Pmax Verified        | 14.24                | Pmax Verified        | 14.17                |

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the DSI during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the time-averaged output power of the main antenna. The motion detection operation was verified for two test cases, on-body and held in hand to represent conservative use cases for a handset devices, including head and body-worn scenarios. The verification results are above. For the purposes of this evaluation, the Reserve\_power\_margin (Qualcomm® Smart Transmit EFS entry) was set to 0dB, so that the EUT transmits continuously at Plimit for DSI=5 when the mechanism was triggered.

The power level data measured for the untriggered condition (not applicable for SAR testing and this SAR report), is described in the Confidential Technical Description in the FCC filing.

|                                           |                                                                                                                                                                                                              |                              |             |                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------|----------------------------------------|
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| <b>Test Dates:</b><br>08/23/20 - 09/16/20 | <b>DUT Type:</b><br>Portable Handset                                                                                                                                                                         |                              |             | <b>APPENDIX G:</b><br>Page 2 of 3      |

|                     | Exposure Condition   |                      |
|---------------------|----------------------|----------------------|
|                     | Hotspot Off          | Hotspot On           |
| Mode                | Measured Power [dBm] | Measured Power [dBm] |
| NR Band n66         | Pmax Verified        | 14.46                |
| NR Band n2          | Pmax Verified        | 14.8                 |
| UMTS B4 AMR         | Pmax Verified        | 16.24                |
| UMTS B2 AMR         | Pmax Verified        | 16.17                |
| GSM 1900 Voice      | Pmax Verified        | 27.6                 |
| GPRS 1900 4 Tx Slot | Pmax Verified        | 21.4                 |
| LTE Band 66         | Pmax Verified        | 16.10                |
| LTE Band 4          | Pmax Verified        | 16.00                |
| LTE Band 25         | Pmax Verified        | 15.97                |
| LTE Band 2          | Pmax Verified        | 16.21                |
| LTE Band 7          | Pmax Verified        | 15.61                |
| LTE Band 41 PC3     | Pmax Verified        | 13.46                |
| LTE Band 48         | Pmax Verified        | 13.93                |

The device configures the DSI when the hotspot mode is activated by the user in the UI. The verification results are above. For the purposes of this evaluation, the Reserve\_power\_margin (Qualcomm® Smart Transmit EFS entry) was set to 0dB, so that the EUT transmits continuously at Plimit for DSI=6 when the hotspot was active.

The power level data measured for the untriggered condition (not applicable for SAR testing and this SAR report), is described in the Confidential Technical Description in the FCC filing.

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| <b>Test Dates:</b><br>08/23/20 - 09/16/20 | <b>DUT Type:</b><br>Portable Handset                                                                                                            |                              |             | <b>APPENDIX G:</b><br>Page 3 of 3      |