FCC 47 CFR § 2.1093
IEEE Std 1528-2013

SAR EVALUATION REPORT
(Part 0 : SAR CHARACTERIZATION)

FOR

GSM/WCDMA/LTE/5G NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax, NFC, WPT and UWB

MODEL NUMBER: SM-F946U, SM-F946U1

FCC ID: A3LSMF946U

REPORT NUMBER: 4790748041-S1V2

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TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	5/15/2023	Initial Issue	--
V2	5/24/2023	Retest BT SAR for Phablet and UMPC -Revised Sec. 6.3.	Seungyeon Kim

Table of Contents

1. Attestation of SAR Characterization

Applicant Name	SAMSUNG ELECTRONICS CO.,LTD.
FCC ID	A3LSMF946U
Model Number	SM- F946U, SM-F946U1
Applicable Standards	FCC 47 CFR § 2.1093 IEC/IEEE Std 62209-1528 : 2020 Published RF exposure KDB procedures
Report type	Part.0 : SAR Characterization
Date Tested	3/8/2023 to 5/22/2022
Part 0 Purpose	Part 0 is the procedures for determining P_{Limit} for 2G/3G/4G/5G NR sub6 and WLAN/BT to satisfy *SAR_design_target* in order to FCC limit's requirement.

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government

Approved & Released By:	Prepared By:
	
Justin Park Operations Leader UL Korea, Ltd. Suwon Laboratory	Seungyeon Kim Laboratory Engineer UL Korea, Ltd. Suwon Laboratory

2. Introduction

The equipment under test (EUT) is SAMSUNG Smartphone (FCC ID : A3LSMF946U), it contains the Qualcomm modems supporting 2G/3G/4G/5G NR and WLAN/BT technologies. These modems are enable with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is in compliance with FCC requirement.

This purpose of the part 0 report is to determine SAR char is derived from SAR test measurements and conducted power measurements to determine P_{Limit} for each technology/band. The P_{Limit} represents the maximum time-averaged power level for the corresponding radio/antenna configuration.

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

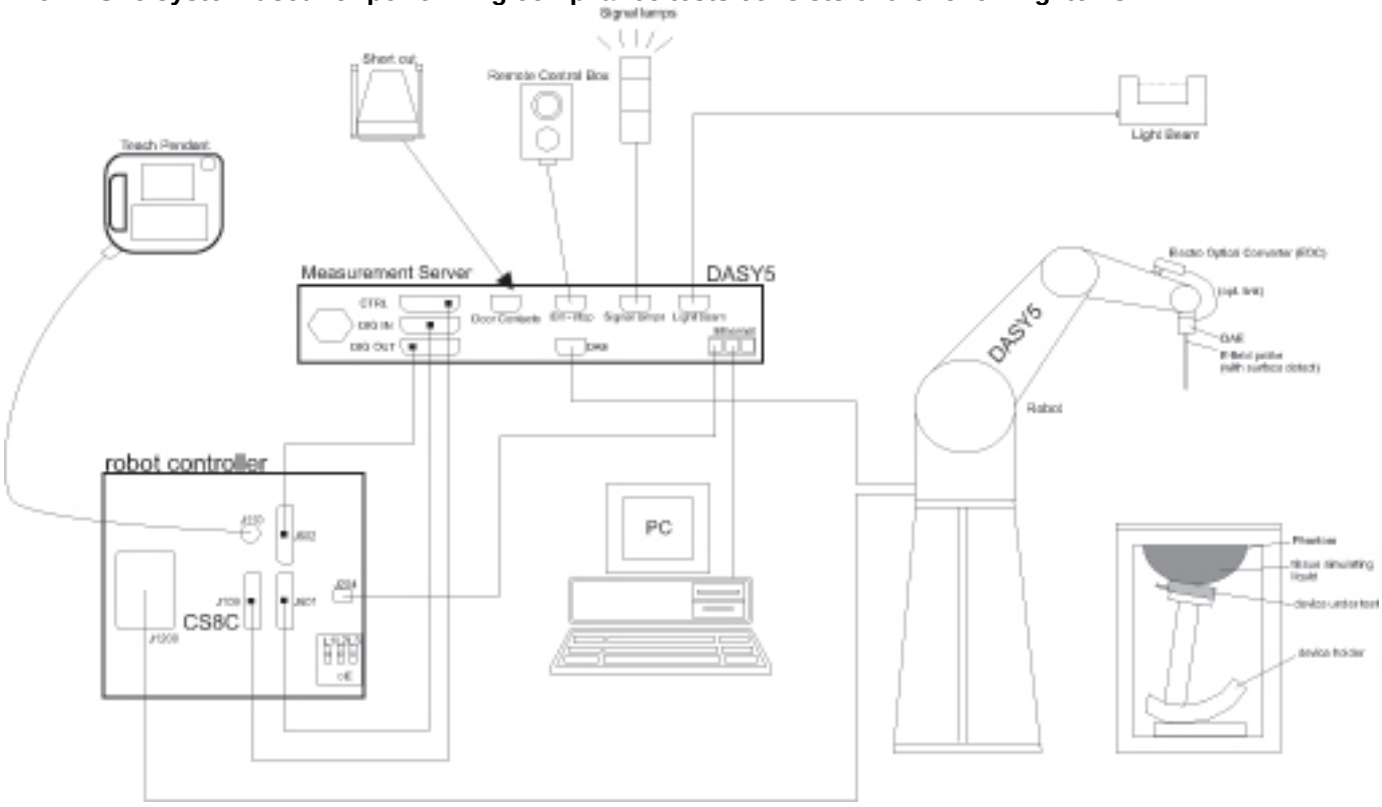
Suwon	
SAR 1 Room	SAR 6 Room
SAR 2 Room	SAR 7 Room
SAR 3 Room	SAR 9 Room
SAR 4 Room	
SAR 5 Room	

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.
The full scope of accreditation can be viewed at https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf.

4. SAR Measurement System & Test Equipment

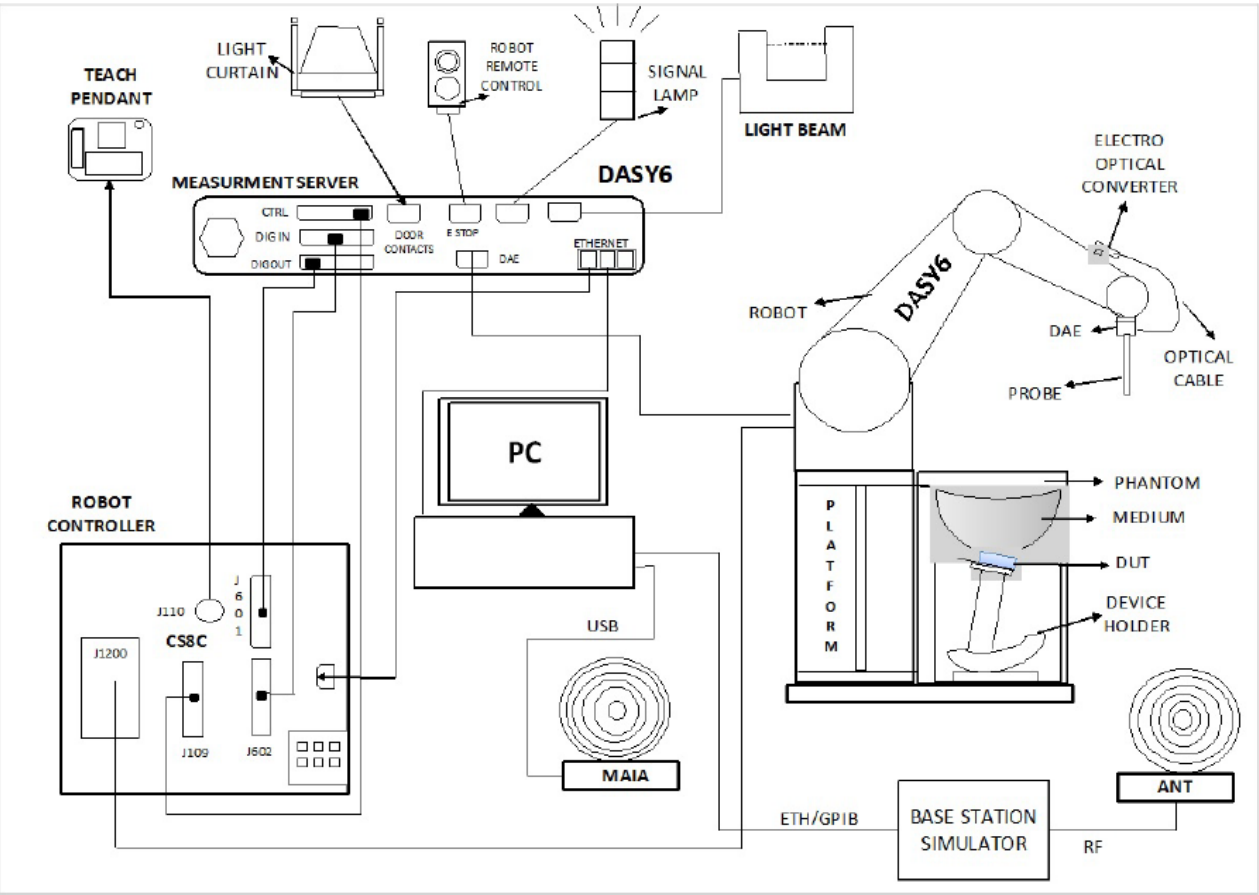
4.1. SAR Measurement System

The DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot 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 amplification, 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 WinXP or Win7 and the DASY5 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.

The DASY6 & 8 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot 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 amplification, 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 Win10 and the DASY6 or 8 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.

4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	E5071C	MY46522054	8-5-2023
Network Analyzer	ROHDE & SCHWARZ	ZNB 20	102256	8-5-2023
Dielectric Assessment Kit	SPEAG	DAK-12	1158	11-17-2023
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-25-2023
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Shorting block	SPEAG	DAK-12 Short	SM DAK 220 AD	N/A
Thermometer	LKM	DTM3000	3851	8-3-2023
Thermometer	LKM	DTM3000	3862	8-3-2023

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Aglient	N5181A	MY50145882	8-4-2023
MXG Analog Signal Generator	Keysight	N5181B	MY59100587	8-4-2023
MXG Analog Signal Generator	Keysight	N5173B	MY59101083	8-4-2023
Power Sensor	KEYSIGHT	U2000A	MY60180020	8-3-2023
Power Sensor	KEYSIGHT	U2000A	MY60490008	8-3-2023
Power Sensor	KEYSIGHT	U2000A	MY60160004	8-3-2023
Power Sensor	KEYSIGHT	U2000A	MY61010010	8-3-2023
Power Amplifier	EXODUS	AMP2027	1410025-AMP2027-10003	11-2-2023
Power Amplifier	MINI-CIRCUITS	TVA-R5-13A+	2111006	1-6-2024
Power Amplifier	EXODUS	AMP2027ADB	10002	1-6-2024
Directional Coupler	Aglient	772D	MY52180193	8-3-2023
Directional Coupler	H.P	778D	16133	8-3-2023
Directional Coupler	NARDA	4216-10	02835	8-3-2023
Directional Coupler	MINI-CIRCUITS	ZMDC-30-1+	SF569102123	8-3-2023
Low Pass Filter	FILTRON	L140012FL	1410003S	8-3-2023
Low Pass Filter	MICROLAB	LA-60N	3942	8-3-2023
Low Pass Filter	MINI-CIRCUITS	VLF-6000+	S0142	8-2-2023
Low Pass Filter	MINI-CIRCUITS	VLF-3000+	S0143	8-2-2023
Low Pass Filter	MINI-CIRCUITS	NLP-1200	VUU19301915	1-5-2024
Attenuator	KEYSIGHT	8491B/003	MY39272276	8-3-2023
Attenuator	KEYSIGHT	8491B/010	MY39271981	8-3-2023
Attenuator	KEYSIGHT	8491B/010	MY39272011	8-2-2023
Attenuator	KEYSIGHT	8491B/020	MY39272301	8-3-2023
Attenuator	KEYSIGHT	8491B/020	MY39272302	8-2-2023
Attenuator	KEYSIGHT	8491B/003	MY39272275	8-2-2023
E-Field Probe	SPEAG	EX3DV4	7313	3-24-2024
E-Field Probe	SPEAG	EX3DV4	7314	5-31-2023
E-Field Probe	SPEAG	EX3DV4	7330	1-24-2024
E-Field Probe	SPEAG	EX3DV4	7376	7-27-2023
E-Field Probe	SPEAG	EX3DV4	7545	8-19-2023
E-Field Probe	SPEAG	EX3DV4	7645	11-15-2023
E-Field Probe	SPEAG	EX3DV4	7651	5-30-2023
E-Field Probe	SPEAG	EX3DV4	7652	**4-28-2023**
E-Field Probe	SPEAG	EX3DV4	7646	3-23-2024
E-Field Probe	SPEAG	EX3DV4	3871	9-26-2023
Data Acquisition Electronics	SPEAG	DAE4	1447	3-22-2024
Data Acquisition Electronics	SPEAG	DAE4	1468	8-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1494	7-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1591	3-22-2024
Data Acquisition Electronics	SPEAG	DAE4	1670	6-7-2023
Data Acquisition Electronics	SPEAG	DAE4	1671	5-31-2023
Data Acquisition Electronics	SPEAG	DAE4	1667	**4-27-2023**
Data Acquisition Electronics	SPEAG	DAE4	1668	**4-27-2023**
Data Acquisition Electronics	SPEAG	DAE4	1343	8-18-2023
Data Acquisition Electronics	SPEAG	DAE4	912	11-16-2023
Data Acquisition Electronics	SPEAG	DAE3	479	10-6-2023

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. All equipments were used until Cal.Due data.

Test Equipment (Continued)

System Validation Dipole	SPEAG	D750V3	1122	2/24/2024
System Validation Dipole	SPEAG	D835V2	4d174	9/21/2023
System Validation Dipole	SPEAG	D1750V2	1125	11/30/2023
System Validation Dipole	SPEAG	D1900V2	5d190	11/16/2023
System Validation Dipole	SPEAG	D5GHzV2	1184	11/23/2023
System Validation Dipole	SPEAG	D1900V2	5d199	3/25/2024
System Validation Dipole	SPEAG	D2450V2	960	3/24/2024
System Validation Dipole	SPEAG	D2600V2	1097	9/29/2023
System Validation Dipole	SPEAG	D5GHzV2	1209	2/28/2024
System Validation Dipole	SPEAG	D2300V2	1090	11/15/2023
System Validation Dipole	SPEAG	D3700V2	1036	5/21/2023
System Validation Dipole	SPEAG	D3500V2	1075	6/21/2023
System Validation Dipole	SPEAG	D750V3	1205	**4/27/2023**
System Validation Dipole	SPEAG	D1750V2	1180	9/21/2023
System Validation Dipole	SPEAG	D2300V2	1115	**4/23/2023**
System Validation Dipole	SPEAG	D2600V2	1178	**4/23/2023**
System Validation Dipole	SPEAG	D3900V2	1043	2/23/2024
System Validation Dipole	SPEAG	CLA -13	1015	8/23/2023
Thermometer	Lutron	MHB-382SD	AH.50215	1/9/2024
Thermometer	Lutron	MHB-382SD	AH.50213	1/11/2024
Thermometer	Lutron	MHB-382SD	AH.91463	1/11/2024
Thermometer	Lutron	MHB-382SD	AJ.45903	1/9/2024
Thermometer	Lutron	MHB-382SD	AJ.42446	8/9/2023
Thermometer	Lutron	MHB-382SD	AK.12102	8/9/2023
Thermometer	Lutron	MHB-382SD	AK.12103	8/9/2023
Thermometer	Lutron	MHB-382SD	AK.12121	8/9/2023
Thermometer	Lutron	MHB-382SD	AK.12123	1/9/2024
Thermometer	Lutron	MHB-382SD	AK.18789	8/9/2023

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	150313	8/2/2023
Base Station Simulator	R & S	CMW500	150314	8/2/2023
Base Station Simulator	R & S	CMW500	162790	8/2/2023
Base Station Simulator	R & S	CMW500	169803	1/5/2024
Base Station Simulator	R & S	CMW500	169801	1/5/2024
Base Station Simulator	R & S	CMW500	169799	8/2/2023
Base Station Simulator	R & S	CMW500	169800	8/2/2023
Base Station Simulator	R & S	CMW500	169798	8/2/2023
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510596	8/5/2023
UXM 5G Wireless Test Platform	KEYSIGHT	E751B	MY59150850	1/9/2024
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY58120110	1/10/2024
Radio Communication Test Station	Anritsu	MT8000A	6272466165	9/8/2023
Radio Communication Analyzer	Anritsu	MT8821C	6161094351	11/29/2023

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations. (for blue box items)
3. All equipments were used until Cal.Due data.

5. Device Under Test (DUT) Information

5.1. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☐ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☒ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 24) HSUPA (Category 6) DC-HSDPA (Category 24) HSPA+ (DL only)		100%
LTE	FDD Band 71 / Band 12 FDD Band 13 / Band 14 FDD Band 26 / Band 5 FDD Band 66 / Band 4 FDD Band 25 / Band 2 FDD Band 30 / Band 7 TDD Band 38 / Band 48 TDD Band 41-PC3&PC2 **UL CA intraband-contiguous (2CC)** 5B / 41C / 48C / 66B / 66C	QPSK 16QAM 64QAM 256QAM Rel. 16 Carrier Aggregation (2 Uplink and 6 Downlinks)		100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
NR (Sub6)	FDD Band n71 / Band n12 FDD Band n26 / Band n5 FDD Band n7 / Band n66 FDD Band n25 / Band n2 FDD Band n30 TDD Band n38 / Band 48 TDD Band n41-PC3&PC2 TDD Band n77-PC3&PC2	DFT-s-ODFM: ■ π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-ODFM: ■QPSK, 16QAM, 64QAM, 256QAM		100%
Wi-Fi	2.4 GHz	802.11b / 802.11g 802.11n (HT20)/ 802.11ax (HE20)		98.8% (802.11b)
	5 GHz	802.11a / 802.11n (HT20) & (HT40) 802.11ac (VHT20) & (VHT40) & (VHT80) & (VHT160) 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		97.2% (802.11ac (VHT80)
	6 GHz	802.11a 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		99.7% (802.11ax (HE160)
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 5.3 LE		84.3% (GFSK, 1M)
NFC	13.56 MHz	Type A/B/F		100%
UWB	6489.6 – 7987.2 MHz	Signal Configurations(0/1/3), PRF modes(BPRF/HPRF)		100%

Notes:

1. Wi-Fi & Bluetooth were tested SAR using highest duty cycle. Measured duty cycle plots are in Section.9.
2. This device supports Power Class 2(HPUE) and Power Class 3 for LTE Band 41, NR Band n41 and NR Band n77.
3. This device supports UL CA inter/intra band in LTE Band. Detail of configuration refer to appendix.G.
4. NR TDD Band n41 & n48 & n77 has support SRS(0,1,2,3) modes.
5. 6GHz RF Exposure report has test results of WiFi 6GHz and UWB.

5.2. Time-Averaging for SAR

This device is enabled with Qualcomm Smart Transmit algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 2G/3G/4G/5G NR Sub6 WWAN/WIFI/BT is compliance with FCC requirement. This part.0 report shows SAR characterization of 2G/3G/4G/5G NR Sub6 and WLAN/BT. Characterization is achieved by determining P_{limit} for 2G/3G/4G/5G NR Sub6 and WLAN/BT that correspond to the *SAR_design_target* after accounting for all device design related uncertainty. The SAR Characterization is denoted as SAR Char in this report.

5.3. Nomenclature for Part 0 Report

Technology	Term	Description
2G/3G/4G/ 5G NR Sub6/ and WLAN/BT	P_{limit}	Power level that corresponds to the exposure design target (*SAR_design_target*) after accounting for all device design related uncertainties
	P_{max}	Maximum tune up output power
	SAR_design_target	Target SAR level < FCC SAR limit after accounting for all device design related uncertainties
	SAR Char	Table containing P_{limit} for all technologies and bands

6. SAR Characterizations

6.1. SAR Design Target

SAR_Design_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer.

SAR_design_target			
$SAR\_design\_target < SAR\_regulatory\_limit \times 10^{\frac{-Total\ Uncertainty}{10}}$			
1g SAR (W/kg)		**10g SAR (W/kg)**	
Total Uncertainty	**1.0 dB**	**Total Uncertainty**	**1.0 dB**
SAR_regulatory_limit	**1.6 W/kg**	***SAR_regulatory_limit***	**4.0 W/kg**
SAR_design_target	**1.0 W/kg**	***SAR_design_target***	**2.5 W/kg**

6.2. DSI and SAR Determination

This device uses different Device State Index (DSI) to configure different time averaged power levels based on certain exposure scenarios. Depending on the detection scheme implemented in the Tablet, the worst-case SAR was determined by measurements for the relevant exposure conditions for that DSI. Detailed descriptions of the detection mechanisms are included in the operational description.

The device state index (DSI) conditions used in below table represent different exposure scenarios.

DSI and Corresponding Exposure Scenarios

RF exposure Scenarios	DSI No.	Descroption	KDB guide For SAR test
Folder Opened - Head	2	1. Next to the ear exposure condition. 2. Handset's Receiver(ear piece) is active during voice or VoIP call.	KDB 648474 D04
Folder Closed - Head	3	1. Next to the ear exposure condition. 2. Handset's Receiver(ear piece) is active during voice or VoIP call.	KDB 648474 D04
Folder Opened - Body	0	1. Hand use conditions for Handset(Phablet) and Proximity sensor is not triggered.	KDB 941225 D07
Folder Closed - Body-worn & Hotspot	1	1. SAR test requirements for Handset with wireless router or hotspot mode capabilities. 2. Hotspot mode SAR test for Near body use condition.	KDB 648474 D04 KDB 941225 D06
Folder Opened - Extremity	0	1. Hand use conditions for Handset(Phablet) and Proximity sensor is not triggered.	KDB 941225 D07
Folder Closed - Product Specific 10-g	1	1. Hand use conditions for Handset(Phablet) and Proximity sensor is not triggered.	KDB 648474 D04 KDB 616217 D04

6.3. SAR Char

SAR results corresponding to P_{max} for each antenna/technology/band/DSI can be found in Section.7. P_{limit} is calculated by linearly scaling with the measured SAR at the P_{max} to correspond to *the SAR_ design_target*. P_{limit} determination for each exposure scenario corresponding to *SAR_design_target* are shown in table.

P_{Limit} Determination

Device State Index (DSI)	Plimit Determination Scenarios
DSI = 0 or 1	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among; Folder Opened 1. UMPC 1g SAR folder open at 10 mm 2. UMPC 10g SAR folder open at 0 mm Folder Closed 1. Bodyworn & Hotspot SAR folder closed at 10 mm 2. Product Specific 10g SAR folder closed at 0 mm
DSI = 2 or 3	1. Plimit is calculated based on Head exposure SAR

Notes:

1. For DSI = 0 or 1, Plimit is calculated by:

All Antennas

P_{limit} = min{ P_{limit} corresponding to UMPC Body 1g SAR evaluation at 10 mm spacing,

P_{limit} corresponding to UMPC Extremity 10g SAR evaluation at 0 mm on all surfaces and side edges with each antenna location at within 25mm from that surface or edge.}

And

P_{limit} = min{ P_{limit} corresponding to Body-worn & Hotspot 1g SAR evaluation at 10mm spacing,

P_{limit} corresponding to Product specifc 10g SAR evaluation at 0 mm on all surfaces and side edges with each antenna location at within 25mm from that surface or edge.}

2. For Phablet devices: When hotspot mode applies, Product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
   In the case of DSI=1, phablet product specific 10-g SAR was not measured because the SAR value of Body-worn and hotspot was less than 1.2 W/kg.

SAR Characterizations

Exposure condition			Folder Open UMPC Body 1-g	Folder Open UMPC Extremity 10-g	Folder Closed Body-worn & Hotspot	Folder Closed Product Specific 10-g	Folder Open Head	Folder Closed Head	Pmax (Maximum tune-up Power) (dBm)
Spatial-average			1g	10g	1g	10g	1g	1g	
Test distance (mm)			10	0	10	0	0	0	
Configuration			Folder Open	Folder Open	Folder Closed	Folder Closed	Folder Open	Folder Closed	
DSI:			0		1		2	3	
RF Air Interface	Antenna	Antenna Group	P_{limit} corresponding to 1.0 W/kg (SAR_design_target) (1g) / 2.5 W/kg (SAR_design_target) (10g)						
GSM 850	A, A+B	AG0	28.37		31.40		33.72	33.72	25.48
GSM 1900	B	AG0	18.49		18.49		34.95	34.95	22.24
WCDMA 2	B	AG0	19.00		19.00		33.98	33.98	23.80
WCDMA 4	B	AG0	19.00		19.00		34.01	34.01	23.80
WCDMA 5	A, A+B	AG0	25.84		28.28		32.87	32.87	24.50
LTE B7	B	AG0	17.00		17.00		35.01	35.01	24.00
LTE B12	A, A+B	AG0	27.11		28.83		32.29	32.29	24.50
LTE B13	A, A+B	AG0	26.35		27.87		31.43	31.43	24.50
LTE B14	A, A+B	AG0	26.11		27.89		31.55	31.55	24.50
LTE B25(2)	B	AG0	19.00		19.00		33.49	33.49	24.00
LTE B26(5)	A, A+B	AG0	26.63		28.59		30.95	30.95	24.50
LTE B30	B	AG0	17.50		17.50		37.24	37.24	23.00
LTE B41 pc3 (38)	B	AG0	17.00		17.00		38.74	38.74	22.00
LTE B41 pc2	B	AG0	17.00		17.00		51.41	51.41	21.90
LTE B48	F	AG0	18.00		18.00		24.09	24.09	21.00
LTE B66(4)	B	AG0	19.00		19.00		34.31	34.31	24.00
LTE B71	A, A+B	AG0	27.49		29.08		32.97	32.97	24.50
NR Bn7	B	AG0	18.00		18.00		34.76	34.76	23.00
NR Bn12	A, A+B	AG0	28.08		28.75		33.78	33.78	24.50
NR Bn25(2)	B	AG0	19.00		19.00		34.94	34.94	23.50
NR Bn26(5)	A, A+B	AG0	26.84		28.18		33.16	33.16	24.50
NR Bn30	B	AG0	17.50		17.50		37.35	37.35	22.50
NR Bn66	B	AG0	19.00		19.00		34.43	34.43	23.50
NR Bn71	A, A+B	AG0	27.45		29.16		33.22	33.22	24.50
LTE B7 Upper	F	AG1	19.00		19.00		18.00	23.00	24.00
LTE B25(2) Upper	F	AG1	20.00		20.00		22.50	22.50	24.00
LTE B30 Upper	F	AG1	20.50		20.50		26.42	26.42	23.00
LTE B66(4) Upper	F	AG1	20.00		20.00		22.50	22.50	24.00
LTE B41 Upper pc3	F	AG1	19.00		19.00		25.85	25.85	22.00
LTE B41 Upper pc2	F	AG1	19.00		19.00		25.59	25.59	21.90
NR Bn7 Upper	F	AG1	19.00		19.00		18.00	25.95	23.00
NR Bn25(2) Upper	F	AG1	20.00		20.00		22.50	22.50	23.00
NR Bn30 Upper	F	AG1	20.50		20.50		25.22	25.22	22.50
NR Bn66 Upper	F	AG1	20.00		20.00		22.50	22.50	23.00
NR Bn38	F	AG1	19.00		19.00		20.00	20.00	24.00
NR Bn41 pc2 (SA) - SRS0 -	B	AG0	17.00		17.00		20.00	20.00	25.00
NR Bn41 pc3 (SA) - SRS0 -	B	AG0	17.00		17.00		20.00	20.00	24.00
NR Bn41 pc2/3 (SA) - SRS1 -	F	AG1	19.00		19.00		20.00	20.00	22.00
NR Bn41 pc2/3 (SA) - SRS2 -	C	AG0	12.00		12.00		12.00	12.00	21.50
NR Bn41 pc2/3 (NSA) - SRS2 -	H	AG1	12.00		12.00		12.00	12.00	18.00
NR Bn41 pc2/3 (SA) - SRS3 -	H	AG1	12.00		12.00		12.00	12.00	16.00
NR Bn41 pc2/3 (NSA) - SRS3 -	C	AG0	12.00		12.00		12.00	12.00	19.00
NR Bn41 pc2/3 (NSA) - SRS0 -	F	AG1	19.00		19.00		20.00	20.00	24.00
NR Bn41 pc2/3 (NSA) - SRS1 -	B	AG0	17.00		17.00		20.00	20.00	22.00
NR Bn48 - SRS0 -	F	AG1	18.00		18.00		19.00	19.00	23.00
NR Bn48 - SRS1 -	D	AG0	15.00		15.00		15.00	15.00	19.00
NR Bn48 - SRS2 -	G	AG1	15.00		15.00		15.00	15.00	23.00
NR Bn48 - SRS3 -	A	AG0	15.00		15.00		15.00	15.00	20.00
NR Bn77 pc2 - SRS0 -	F	AG1	17.50		17.50		17.00	18.00	26.00
NR Bn77 pc3 - SRS0 -	F	AG1	17.50		17.50		17.00	18.00	23.00
NR Bn77 pc2/3 - SRS1 -	D	AG0	15.00		15.00		15.00	15.00	17.00
NR Bn77 pc2/3 - SRS2 -	G	AG1	15.00		15.00		15.00	15.00	22.00
NR Bn77 pc2/3 - SRS3 -	A	AG0	15.00		15.00		15.00	15.00	17.00
DTS SISO Ant.2	G	AG1	21.11		22.93		17.00	17.00	18.00
DTS MIMO	H+G	AG1	21.19		22.10		17.00	17.00	18.00
UNII-2A MIMO	H+J	AG1	16.00		16.00		24.93	24.93	17.00
UNII-2C MIMO	H+J	AG1	16.00		16.00		22.16	22.16	17.00
UNII-3 MIMO	H+J	AG1	16.00		16.00		22.86	22.86	17.00
UNII-4 MIMO	H+J	AG1	16.00		16.00		23.53	23.53	17.00
WIFI 6e	H+J	AG1	22.49		15.76		24.49	24.49	9.00
Bluetooth Ant.1	H	AG1	25.46		29.18		28.17	28.17	17.00
Bluetooth Ant.2	G	AG1	21.98		25.54		24.05	24.05	15.00

Notes:

1. If P_{limit} is higher than P_{max} for some modes / bands, The modes/bands will operate at a power level up to P_{max}.
2. P_{max} (Maximum tune-up power) is specified in tune-up document. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty.
3. All P_{limit} EFS and maximum tune up output P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (e.g GSM and LTE TDD).
4. P_{limit}(DSI=0) was determined to be the lower of “UMPC Body 1-g” and “UMPC Extremity 10-g” in each WWAN Bands.
5. P_{limit}(DSI=1) was determined to be the lower of “Body-worn & Hotspot” and “Product Specific 10-g” in each WWAN Bands.
6. Some band’s DSIs were determined more conservative P_{limit} instead of calculation P_{limit} in Section.7.

7. SAR Test results for P_{limit} calculations

Head exposure (DSI = 2, 3)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Head	3	GSM 850	A	GPRS 2 Slots	190	0	Left Touch	24.58	0.122	33.72	33.72
						0	Left Tilt	24.58	0.057	37.02	
						0	Right Touch	24.58	0.116	33.93	
						0	Right Tilt	24.58	0.078	35.66	
			A+B	GPRS 2 Slots	190	0	Left Touch	24.58	0.109	34.21	
						0	Left Tilt	24.58	0.051	37.50	
						0	Right Touch	24.58	0.116	33.93	
						0	Right Tilt	24.58	0.019	41.79	
Head	3	GSM 1900	B	GPRS 3 Slots	661	0	Left Touch	21.85	0.012	40.99	34.95
						0	Left Tilt	21.85	0.018	39.32	
						0	Right Touch	21.85	0.049	34.95	
						0	Right Tilt	21.85	0.016	39.86	
Head	3	WCDMA 2	B	Rel 99	9400	0	Left Touch	24.02	0.087	34.64	33.98
						0	Left Tilt	24.02	0.081	34.95	
						0	Right Touch	24.02	0.101	33.98	
						0	Right Tilt	24.02	0.077	35.14	
Head	3	WCDMA 4	B	Rel 99	1413	0	Left Touch	23.97	0.062	36.05	34.01
						0	Left Tilt	23.97	0.065	35.81	
						0	Right Touch	23.97	0.051	36.89	
						0	Right Tilt	23.97	0.099	34.01	
Head	3	WCDMA 5	A	Rel 99	4183	0	Left Touch	24.54	0.115	33.93	32.87
						0	Left Tilt	24.54	0.063	36.55	
						0	Right Touch	24.54	0.147	32.87	
						0	Right Tilt	24.54	0.116	33.90	
			A+B	Rel 99	4183	0	Left Touch	24.54	0.141	33.05	
						0	Left Tilt	24.54	0.069	36.15	
						0	Right Touch	24.54	0.128	33.47	
						0	Right Tilt	24.54	0.082	35.40	
Head	3	LTE B7	B	QPSK BW=20 RB 1/99	20850	0	Left Touch	23.64	0.051	36.56	35.01
						0	Left Tilt	23.64	0.031	38.73	
						0	Right Touch	23.64	0.073	35.01	
						0	Right Tilt	23.64	0.025	39.66	
Head	3	LTE B12	A	QPSK BW=10 RB 1/49	23095	0	Left Touch	23.81	0.088	34.37	32.29
						0	Left Tilt	23.81	0.071	35.30	
						0	Right Touch	23.81	0.095	34.03	
						0	Right Tilt	23.81	0.070	35.36	
			A+B	QPSK BW=10 RB 1/49	23095	0	Left Touch	23.81	0.142	32.29	
						0	Left Tilt	23.81	0.081	34.73	
						0	Right Touch	23.81	0.115	33.20	
						0	Right Tilt	23.81	0.065	35.68	
Head	3	LTE B13	A	QPSK BW=10 RB 25/0	23230	0	Left Touch	22.83	0.102	32.74	31.43
						0	Left Tilt	22.83	0.059	35.12	
						0	Right Touch	22.83	0.138	31.43	
						0	Right Tilt	22.83	0.081	33.75	
			A+B	QPSK BW=10 RB 25/0	23230	0	Left Touch	22.83	0.107	32.54	
						0	Left Tilt	22.83	0.059	35.12	
						0	Right Touch	22.83	0.137	31.46	
						0	Right Tilt	22.83	0.070	34.38	
Head	3	LTE B14	A	QPSK BW=10 RB 1/49	23330	0	Left Touch	23.83	0.092	34.19	31.55
						0	Left Tilt	23.83	0.057	36.27	
						0	Right Touch	23.83	0.149	32.10	
						0	Right Tilt	23.83	0.080	34.80	
			A+B	QPSK BW=10 RB 1/49	23330	0	Left Touch	23.83	0.105	33.62	
						0	Left Tilt	23.83	0.056	36.35	
						0	Right Touch	23.83	0.169	31.55	
						0	Right Tilt	23.83	0.076	35.02	
Head	3	LTE B25	B	QPSK BW=20 RB 1/0	26140	0	Left Touch	23.62	0.059	35.90	33.49
						0	Left Tilt	23.62	0.064	35.54	
						0	Right Touch	23.62	0.099	33.66	
						0	Right Tilt	23.62	0.103	33.49	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Head exposure (DSI = 2, 3) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Head	3	LTE B26	A	QPSK BW=15 RB 36/39	26865	0	Left Touch	22.99	0.106	32.74	30.95
						0	Left Tilt	22.99	0.059	35.28	
						0	Right Touch	22.99	0.160	30.95	
						0	Right Tilt	22.99	0.065	34.86	
			A+B	QPSK BW=15 RB 1/37	26865	0	Left Touch	23.92	0.142	32.40	
						0	Left Tilt	23.92	0.065	35.79	
						0	Right Touch	23.92	0.156	31.99	
						0	Right Tilt	23.92	0.090	34.38	
Head	3	LTE B30	B	QPSK BW=10 RB 1/0	27710	0	Left Touch	23.26	0.027	38.95	37.24
						0	Left Tilt	23.26	0.019	40.47	
						0	Right Touch	23.26	0.040	37.24	
						0	Right Tilt	23.26	0.009	43.72	
Head	3	LTE B41 pc3	B	QPSK BW=20 RB 50/0	41055	0	Left Touch	20.50	0.015	38.74	38.74
						0	Left Tilt	20.50	0.001	50.50	
						0	Right Touch	20.50	0.007	42.05	
						0	Right Tilt	20.50	0.009	40.96	
Head	3	LTE B41 pc2	B	QPSK BW=20 RB 1/0	41055	0	Left Touch	21.43	0.001	51.43	51.43
Head	3	LTE B48	F	QPSK BW=20 RB 1/99	55340	0	Left Touch	20.28	0.154	28.40	24.09
						0	Left Tilt	20.28	0.268	26.00	
						0	Right Touch	20.28	0.310	25.37	
						0	Right Tilt	20.28	0.416	24.09	
Head	3	LTE B66	B	QPSK BW=20 RB 1/99	132072	0	Left Touch	23.61	0.085	34.31	34.31
						0	Left Tilt	23.61	0.067	35.37	
						0	Right Touch	23.61	0.053	36.38	
						0	Right Tilt	23.61	0.061	35.79	
Head	3	LTE B71	A	QPSK BW=10 RB 1/49	133297	0	Left Touch	24.08	0.051	37.00	32.97
						0	Left Tilt	24.08	0.032	39.03	
						0	Right Touch	24.08	0.054	36.76	
						0	Right Tilt	24.08	0.034	38.77	
			A+B	QPSK BW=10 RB 1/49	133297	0	Left Touch	24.08	0.107	33.79	
						0	Left Tilt	24.08	0.052	36.92	
						0	Right Touch	24.08	0.129	32.97	
						0	Right Tilt	24.08	0.077	35.22	
Head	3	NR Bn5	A	DFT-s-QPSK BW=20 RB 1/53	167300	0	Left Touch	24.50	0.115	33.89	33.50
						0	Left Tilt	24.50	0.064	36.44	
						0	Right Touch	24.50	0.126	33.50	
						0	Right Tilt	24.50	0.073	35.87	
Head			A+B	DFT-s-QPSK BW=20 RB 1/53	167300	0	Left Touch	24.50	0.112	34.01	32.83
						0	Left Tilt	24.50	0.061	36.65	
						0	Right Touch	24.50	0.147	32.83	
						0	Right Tilt	24.50	0.062	36.58	
Head	3	NR Bn7	B	DFT-s-QPSK BW=40 RB 1/214	507000	0	Left Touch	23.33	0.004	47.01	34.76
						0	Left Tilt	23.33	0.027	39.06	
						0	Right Touch	23.33	0.072	34.76	
						0	Right Tilt	23.33	0.005	46.51	
Head	3	NR Bn12	A	DFT-s-QPSK BW=15 RB 1/1	141500	0	Left Touch	24.57	0.077	35.71	33.78
						0	Left Tilt	24.57	0.046	37.94	
						0	Right Touch	24.57	0.107	34.28	
						0	Right Tilt	24.57	0.061	36.72	
			A+B	DFT-s-QPSK BW=15 RB 1/1	141500	0	Left Touch	24.57	0.120	33.78	
						0	Left Tilt	24.57	0.067	36.33	
						0	Right Touch	24.57	0.103	34.44	
						0	Right Tilt	24.57	0.052	37.40	
Head	3	NR Bn25	B	DFT-s-QPSK BW=40 RB 1/1	376500	0	Left Touch	24.13	0.029	39.51	34.94
						0	Left Tilt	24.13	0.017	41.83	
						0	Right Touch	24.13	0.083	34.94	
						0	Right Tilt	24.13	0.016	42.09	
Head	3	NR Bn26	A	DFT-s-QPSK BW=20 RB 1/53	166300	0	Left Touch	24.46	0.110	34.05	33.16
						0	Left Tilt	24.46	0.060	36.68	
						0	Right Touch	24.46	0.135	33.16	
						0	Right Tilt	24.46	0.067	36.20	
			A+B	DFT-s-QPSK BW=20 RB 1/53	166300	0	Left Touch	24.46	0.127	33.42	
						0	Left Tilt	24.46	0.069	36.05	
						0	Right Touch	24.46	0.062	36.56	
						0	Right Tilt	24.46	0.053	37.21	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Head exposure (DSI = 2, 3) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	P_{limit} (dBm)	Minimum P_{limit} (dBm)
Head	3	NR Bn30	B	DFT-s-QPSK BW=10 RB 1/26	462000	0	Left Touch	22.12	0.011	41.71	37.35
						0	Left Tilt	22.12	0.004	46.10	
						0	Right Touch	22.12	0.030	37.35	
						0	Right Tilt	22.12	0.008	43.09	
Head	3	NR Bn66	B	DFT-s-QPSK BW=40 RB 108/54	349000	0	Left Touch	23.46	0.080	34.43	34.43
						0	Left Tilt	23.46	0.039	37.55	
						0	Right Touch	23.46	0.060	35.68	
						0	Right Tilt	23.46	0.038	37.66	
Head	3	NR Bn71	A	DFT-s-QPSK BW=20 RB 50/28	136100	0	Left Touch	24.65	0.057	37.09	33.22
						0	Left Tilt	24.65	0.029	40.03	
						0	Right Touch	24.65	0.063	36.66	
						0	Right Tilt	24.65	0.024	40.85	
			A+B	DFT-s-QPSK BW=20 RB 50/28	136100	0	Left Touch	24.65	0.111	34.20	
						0	Left Tilt	24.65	0.065	36.53	
						0	Right Touch	24.65	0.139	33.22	
						0	Right Tilt	24.65	0.076	35.86	
Head	3	LTE B7 Upper	F	QPSK BW=20 RB 1/0	21350	0	Left Touch	23.25	0.720	24.68	23.36
						0	Left Tilt	23.25	0.974	23.36	
						0	Right Touch	23.25	0.645	25.15	
						0	Right Tilt	23.25	0.778	24.34	
Head	3	LTE B25 Upper	F	QPSK BW=20 RB 1/0	26140	0	Left Touch	22.54	0.453	25.98	24.60
						0	Left Tilt	22.54	0.552	25.12	
						0	Right Touch	22.54	0.522	25.36	
						0	Right Tilt	22.54	0.622	24.60	
Head	3	LTE B30 Upper	F	QPSK BW=10 RB 1/0	27710	0	Left Touch	22.83	0.333	27.61	26.42
						0	Left Tilt	22.83	0.438	26.42	
						0	Right Touch	22.83	0.338	27.54	
						0	Right Tilt	22.83	0.427	26.53	
Head	3	LTE B66 Upper	F	QPSK BW=20 RB 50/0	132572	0	Left Touch	22.71	0.598	24.94	23.74
						0	Left Tilt	22.71	0.789	23.74	
						0	Right Touch	22.71	0.634	24.69	
						0	Right Tilt	22.71	0.747	23.98	
Head	3	LTE B41 pc3 Upper	F	QPSK BW=20 RB 1/0	40620	0	Left Touch	21.80	0.280	27.33	25.85
						0	Left Tilt	21.80	0.394	25.85	
						0	Right Touch	21.80	0.266	27.55	
						0	Right Tilt	21.80	0.308	26.91	
Head	3	LTE B41 pc2 Upper	F	QPSK BW=20 RB 1/0	40620	0	Left Touch	21.80	0.418	25.59	25.59
Head	3	NR Bn7 Upper	F	DFT-s-QPSK BW=40 RB 1/214	507000	0	Left Touch	23.58	0.509	26.51	25.95
						0	Left Tilt	23.58	0.580	25.95	
						0	Right Touch	23.58	0.370	27.90	
						0	Right Tilt	23.58	0.529	26.35	
Head	3	NR Bn25 Upper	F	DFT-s-QPSK BW=40 RB 1/108	376500	0	Left Touch	22.78	0.494	25.84	24.43
						0	Left Tilt	22.78	0.679	24.46	
						0	Right Touch	22.78	0.549	25.38	
						0	Right Tilt	22.78	0.684	24.43	
Head	3	NR Bn30 Upper	F	DFT-s-QPSK BW=10 RB 1/26	462000	0	Left Touch	22.76	0.322	27.68	26.26
						0	Left Tilt	22.76	0.447	26.26	
						0	Right Touch	22.76	0.267	28.49	
						0	Right Tilt	22.76	0.395	26.79	
Head	3	NR Bn66 Upper	F	DFT-s-QPSK BW=40 RB 108/54	349000	0	Left Touch	22.37	0.533	25.10	23.16
						0	Left Tilt	22.37	0.813	23.27	
						0	Right Touch	22.37	0.536	25.08	
						0	Right Tilt	22.37	0.833	23.16	
Head	3	NR Bn41 pc2/3 (SA) - SRS0 -	B	DFT-s-QPSK BW=100 RB 135/0	518598	0	Left Touch	19.95	0.006	42.17	35.18
						0	Left Tilt	19.95	0.006	42.17	
						0	Right Touch	19.95	0.030	35.18	
						0	Right Tilt	19.95	0.006	42.17	
Head	3	NR Bn41 pc2/3 (SA) - SRS1 -	F	CW	518598	0	Left Touch	19.79	0.180	27.24	25.64
						0	Left Tilt	19.79	0.257	25.69	
						0	Right Touch	19.79	0.212	26.53	
						0	Right Tilt	19.79	0.260	25.64	

Notes:

3. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
4. Measured Output power refer to Sec.9 in SAR part.1 report.
5. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Head exposure (DSI = 2, 3) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	P_{limit} (dBm)	Minimum P_{limit} (dBm)
Head	3	NR Bn41 pc2/3 (SA) - SRS2 -	C	CW	518598	0	Left Touch	12.21	0.001	42.21	31.42
						0	Left Tilt	12.21	0.001	42.21	
						0	Right Touch	12.21	0.009	32.67	
						0	Right Tilt	12.21	0.012	31.42	
Head	3	NR Bn41 pc2/3 (SA) - SRS3 -	H	CW	518598	0	Left Touch	11.12	0.017	28.82	28.82
						0	Left Tilt	11.12	0.005	34.13	
						0	Right Touch	11.12	0.001	41.12	
						0	Right Tilt	11.12	0.001	41.12	
Head	3	NR Bn41 pc2/3 (NSA) - SRS0 -	F	DFT-s-QPSK BW=100 RB 1/1	518598	0	Left Touch	20.09	0.269	25.79	24.51
						0	Left Tilt	20.09	0.361	24.51	
						0	Right Touch	20.09	0.223	26.61	
						0	Right Tilt	20.09	0.280	25.62	
Head	3	NR Bn41 pc2/3 (NSA) - SRS1 -	B	CW	518598	0	Left Touch	19.69	0.003	44.92	44.92
Head	3	NR Bn48 - SRS0 -	F	DFT-s-QPSK BW=100 RB 50/56	645332	0	Left Touch	19.68	0.311	24.75	20.73
						0	Left Tilt	19.68	0.364	24.07	
						0	Right Touch	19.68	0.500	22.69	
						0	Right Tilt	19.68	0.786	20.73	
Head	3	NR Bn48 - SRS1 -	D	CW	638000	0	Left Touch	15.81	0.001	45.81	45.81
						0	Left Tilt	15.81	0.001	45.81	
						0	Right Touch	15.81	0.001	45.81	
						0	Right Tilt	15.81	0.001	45.81	
Head	3	NR Bn48 - SRS2 -	G	CW	638000	0	Left Touch	15.67	0.222	22.21	21.06
						0	Left Tilt	15.67	0.289	21.06	
						0	Right Touch	15.67	0.146	24.03	
						0	Right Tilt	15.67	0.192	22.84	
Head	3	NR Bn48 - SRS3 -	A	CW	638000	0	Left Touch	15.60	0.001	45.60	45.60
						0	Left Tilt	15.60	0.001	45.60	
						0	Right Touch	15.60	0.001	45.60	
						0	Right Tilt	15.60	0.001	48.16	
Head	3	NR Bn77 pc2/3 - SRS0 -	F	DFT-s-QPSK BW=100 RB 1/271	662000	0	Left Touch	18.16	0.266	23.91	19.30
						0	Left Tilt	18.16	0.384	22.32	
						0	Right Touch	18.16	0.568	20.62	
						0	Right Tilt	18.16	0.770	19.30	
Head	3	NR Bn77 pc2/3 - SRS1 -	D	CW	633334	0	Left Touch	15.37	0.001	45.37	45.37
						0	Left Tilt	15.37	0.001	45.37	
						0	Right Touch	15.37	0.001	45.37	
						0	Right Tilt	15.37	0.001	45.37	
Head	3	NR Bn77 pc2/3 - SRS2 -	G	CW	650000	0	Left Touch	15.28	0.167	23.05	21.94
						0	Left Tilt	15.28	0.216	21.94	
						0	Right Touch	15.28	0.113	24.75	
						0	Right Tilt	15.28	0.119	24.52	
Head	3	NR Bn77 pc2/3 - SRS3 -	A	CW	650000	0	Left Touch	15.78	0.001	45.78	34.32
						0	Left Tilt	15.78	0.001	45.78	
						0	Right Touch	15.78	0.014	34.32	
						0	Right Tilt	15.78	0.002	42.77	
Head	3	DTS SISO Ant.2	G	802.11b 1Mbps	6	0	Left Touch	17.63	0.178	25.13	24.41
						0	Left Tilt	17.63	0.210	24.41	
						0	Right Touch	17.63	0.180	25.08	
						0	Right Tilt	17.63	0.199	24.64	
Head	3	DTS MIMO	H+G	802.11b 1Mbps	11	0	Left Touch	17.35	0.565	19.83	19.09
						0	Left Tilt	17.35	0.609	19.50	
						0	Right Touch	17.35	0.557	19.89	
						0	Right Tilt	17.35	0.670	19.09	
Head	3	UNII-2A MIMO	H+J	802.11ac VHT80 MCS0	58	0	Left Touch	17.08	0.085	27.79	24.93
						0	Left Tilt	16.77	0.072	28.20	
						0	Right Touch	17.08	0.164	24.93	
						0	Right Tilt	16.77	0.039	30.86	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Head exposure (DSI = 2, 3) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Head	3	UNII-2C MIMO	H+J	802.11ac VHT80 MCS0	138	0	Left Touch	17.07	0.200	24.06	22.16
						0	Left Tilt	17.27	0.097	27.40	
						0	Right Touch	17.07	0.310	22.16	
						0	Right Tilt	17.27	0.082	28.13	
Head	3	UNII-3 MIMO	H+J	802.11ac VHT80 MCS0	155	0	Left Touch	16.53	0.140	25.07	22.86
						0	Left Tilt	17.69	0.070	29.24	
						0	Right Touch	16.53	0.233	22.86	
						0	Right Tilt	17.69	0.082	28.55	
Head	3	UNII-4 MIMO	H+J	802.11ac VHT80 MCS0	171	0	Left Touch	16.85	0.101	26.81	23.53
						0	Left Tilt	17.19	0.047	30.47	
						0	Right Touch	16.85	0.215	23.53	
						0	Right Tilt	17.19	0.087	27.79	
Head	3	WIFI 6E MIMO	H+J	802.11ax VHT160 MCS0	79	0	Left Touch	9.62	0.024	25.82	24.49
						0	Left Tilt	8.29	0.024	24.49	
						0	Right Touch	9.62	0.026	25.47	
						0	Right Tilt	8.29	0.018	25.74	
Head	3	Bluetooth Ant.1	H	LE , 1M (37 pkt)	19	0	Left Touch	17.57	0.087	28.17	28.17
						0	Left Tilt	17.57	0.050	30.58	
						0	Right Touch	17.57	0.054	30.24	
						0	Right Tilt	17.57	0.061	29.71	
Head	3	Bluetooth Ant.2	G	LE , 1M (37 pkt)	19	0	Left Touch	15.13	0.089	25.63	24.05
						0	Left Tilt	15.13	0.109	24.75	
						0	Right Touch	15.13	0.093	25.44	
						0	Right Tilt	15.13	0.128	24.05	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Body-worn & Hotspot exposure (DSI = 1)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Body & Hotspot	1	GSM 850	A	GPRS 2 slots	190	10	Rear	24.58	0.168	32.33	31.40
						10	Front	24.58	0.040	38.56	
						10	R/Left	24.58	0.083	35.39	
						10	Bottom	24.58	0.061	36.73	
			A+B	GPRS 2 slots	190	10	Rear	24.58	0.142	33.06	
						10	Front	24.58	0.038	38.78	
						10	R/Left	24.58	0.058	36.95	
						10	Bottom	24.58	0.208	31.40	
						10	R/Right	24.58	0.036	39.02	
Body & Hotspot	1	GSM 1900	B	GPRS 4 slots	661	10	Rear	18.43	0.181	25.85	23.21
						10	Front	18.43	0.110	28.02	
						10	R/Left	18.43	0.113	27.90	
						10	Bottom	18.43	0.333	23.21	
						10	R/Right	18.43	0.021	35.21	
Body & Hotspot	1	WCDMA 2	B	Rel 99	9400	10	Rear	19.21	0.233	25.54	22.23
						10	Front	19.21	0.156	27.28	
						10	R/Left	19.21	0.250	25.23	
						10	Bottom	19.21	0.499	22.23	
						10	R/Right	19.21	0.023	35.59	
Body & Hotspot	1	WCDMA 4	B	Rel 99	1413	10	Rear	19.16	0.459	22.54	21.22
						10	Front	19.16	0.142	27.64	
						10	R/Left	19.16	0.161	27.09	
						10	Bottom	19.16	0.622	21.22	
						10	R/Right	19.16	0.047	32.44	
Body & Hotspot	1	WCDMA 5	A	Rel 99	4183	10	Rear	24.54	0.423	28.28	28.28
						10	Front	24.54	0.158	32.55	
						10	R/Left	24.54	0.295	29.84	
						10	Bottom	24.54	0.115	33.93	
			A+B	Rel 99	4183	10	Rear	24.54	0.290	29.92	
						10	Front	24.54	0.073	35.91	
						10	R/Left	24.54	0.154	32.66	
						10	Bottom	24.54	0.110	34.13	
						10	R/Right	24.54	0.059	36.83	
Body & Hotspot	1	LTE B7	B	QPSK BW=20 RB 1/99	20850	10	Rear	17.61	0.340	22.30	21.79
						10	Front	17.61	0.069	29.22	
						10	R/Left	17.61	0.068	29.28	
						10	Bottom	17.61	0.382	21.79	
						10	R/Right	17.61	0.015	35.85	
Body & Hotspot	1	LTE B12	A	QPSK BW=10 RB1/49	23095	10	Rear	23.81	0.174	31.40	28.83
						10	Front	23.81	0.130	32.67	
						10	R/Left	23.81	0.253	29.78	
						10	Bottom	23.81	0.049	36.91	
			A+B	QPSK BW=10 RB1/49	23095	10	Rear	23.81	0.166	31.61	
						10	Front	23.81	0.138	32.41	
						10	R/Left	23.81	0.315	28.83	
						10	Bottom	23.81	0.056	36.33	
						10	R/Right	23.81	0.102	33.72	
Body & Hotspot	1	LTE B13	A	QPSK BW=10 RB1/0	23230	10	Rear	23.89	0.233	30.22	27.87
						10	Front	23.89	0.133	32.65	
						10	R/Left	23.89	0.347	28.49	
						10	Bottom	23.89	0.104	33.72	
			A+B	QPSK BW=10 RB1/0	23230	10	Rear	23.89	0.252	29.88	
						10	Front	23.89	0.157	31.93	
						10	R/Left	23.89	0.400	27.87	
						10	Bottom	23.89	0.118	33.17	
						10	R/Right	23.89	0.167	31.66	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Body-worn & Hotspot exposure (DSI = 1) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Body & Hotspot	1	LTE B14	A	QPSK BW=10 RB1/49	23330	10	Rear	23.83	0.335	28.58	27.89
						10	Front	23.83	0.168	31.58	
						10	R/Left	23.83	0.393	27.89	
						10	Bottom	23.83	0.134	32.56	
			A+B	QPSK BW=10 RB1/49	23330	10	Rear	23.83	0.291	29.19	
						10	Front	23.83	0.165	31.66	
						10	R/Left	23.83	0.355	28.33	
						10	Bottom	23.83	0.143	32.28	
						10	R/Right	23.83	0.164	31.68	
Body & Hotspot	1	LTE B25	B	QPSK BW=20 RB1/0	26140	10	Rear	19.18	0.246	25.27	21.80
						10	Front	19.18	0.143	27.63	
						10	R/Left	19.18	0.210	25.96	
						10	Bottom	19.18	0.547	21.80	
						10	R/Right	19.18	0.029	34.56	
Body & Hotspot	1	LTE B26	A	QPSK BW=15 RB1/37	26865	10	Rear	23.92	0.341	28.59	28.59
						10	Front	23.92	0.167	31.69	
						10	R/Left	23.92	0.294	29.24	
						10	Bottom	23.92	0.094	34.19	
			A+B	QPSK BW=15 RB1/37	26865	10	Rear	23.92	0.244	30.05	
						10	Front	23.92	0.064	35.86	
						10	R/Left	23.92	0.272	29.57	
						10	Bottom	23.92	0.096	34.10	
						10	R/Right	23.92	0.175	31.49	
Body & Hotspot	1	LTE B30	B	QPSK BW=10 RB1/0	27710	10	Rear	17.85	0.269	23.55	21.94
						10	Front	17.85	0.086	28.51	
						10	R/Left	17.85	0.051	30.77	
						10	Bottom	17.85	0.390	21.94	
						10	R/Right	17.85	0.020	34.84	
Body & Hotspot	1	LTE B41 PC3	B	QPSK BW=20 RB1/0	41055	10	Rear	17.35	0.267	23.08	20.28
						10	Front	17.35	0.049	30.45	
						10	R/Left	17.35	0.069	28.96	
						10	Bottom	17.35	0.509	20.28	
						10	R/Right	17.35	0.022	33.93	
Body & Hotspot	1	LTE B41 PC2	B	QPSK BW=20 RB1/0	41055	10	Bottom	17.28	0.502	20.27	20.27
Body & Hotspot	1	LTE B48	F	QPSK BW=20 RB50/50	55340	10	Rear	18.44	0.237	24.69	24.48
						10	Front	18.44	0.018	35.89	
						10	Top	18.44	0.249	24.48	
						10	R/Right	18.44	0.053	31.20	
Body & Hotspot	1	LTE B66	B	QPSK BW=20 RB 50/50	132072	10	Rear	19.08	0.379	23.29	21.09
						10	Front	19.08	0.129	27.97	
						10	R/Left	19.08	0.103	28.95	
						10	Bottom	19.08	0.629	21.09	
						10	R/Right	19.08	0.042	32.85	
Body & Hotspot	1	LTE B71	A	QPSK BW=10 RB 1/49	133297	10	Rear	24.08	0.122	33.22	29.08
						10	Front	24.08	0.094	34.35	
						10	R/Left	24.08	0.270	29.77	
						10	Bottom	24.08	0.023	40.46	
			A+B	QPSK BW=10 RB 1/49	133297	10	Rear	24.08	0.127	33.04	
						10	Front	24.08	0.081	35.00	
						10	R/Left	24.08	0.316	29.08	
						10	Bottom	24.08	0.042	37.85	
						10	R/Right	24.08	0.175	31.65	
Body & Hotspot	1	NR Bn5	A	QPSK BW=10 RB 50/28	167300	10	Rear	24.51	0.376	28.76	28.76
						10	Front	24.51	0.168	32.26	
						10	R/Left	24.51	0.210	31.29	
						10	Bottom	24.51	0.115	33.90	
			A+B	QPSK BW=10 RB 50/28	167300	10	Rear	24.51	0.305	29.67	
						10	Front	24.51	0.142	32.99	
						10	R/Left	24.51	0.271	30.18	
						10	Bottom	24.51	0.063	36.52	
						10	R/Right	24.51	0.175	32.08	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Body-worn & Hotspot exposure (DSI = 1) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Body & Hotspot	1	NR Bn7	B	DFT-s-QPSK BW=40 RB 1/214	507000	10	Rear	18.15	0.408	22.04	20.52
						10	Front	18.15	0.064	30.09	
						10	R/Left	18.15	0.064	30.09	
						10	Bottom	18.15	0.579	20.52	
						10	R/Right	18.15	0.026	34.00	
Body & Hotspot	1	NR Bn12	A	DFT-s-QPSK BW=15 RB 36/22	141500	10	Rear	24.51	0.201	31.48	28.75
						10	Front	24.51	0.130	33.37	
						10	R/Left	24.51	0.288	29.92	
						10	Bottom	24.51	0.043	38.18	
			A+B	DFT-s-QPSK BW=15 RB 36/22	141500	10	Rear	24.51	0.202	31.46	
						10	Front	24.51	0.150	32.75	
						10	R/Left	24.51	0.377	28.75	
						10	Bottom	24.51	0.066	36.31	
						10	R/Right	24.51	0.162	32.41	
Body & Hotspot	1	NR Bn25	B	DFT-s-QPSK BW=40 RB 1/1	376500	10	Rear	19.49	0.223	26.01	22.17
						10	Front	19.49	0.090	29.95	
						10	R/Left	19.49	0.202	26.44	
						10	Bottom	19.49	0.540	22.17	
						10	R/Right	19.49	0.028	35.02	
Body & Hotspot	1	NR Bn26	A	DFT-s-QPSK BW=20 RB 50/28	166300	10	Rear	24.41	0.420	28.18	28.18
						10	Front	24.41	0.156	32.48	
						10	R/Left	24.41	0.293	29.74	
						10	Bottom	24.41	0.099	34.45	
			A+B	DFT-s-QPSK BW=20 RB 50/28	166300	10	Rear	24.41	0.287	29.83	
						10	Front	24.41	0.151	32.62	
						10	R/Left	24.41	0.139	32.98	
						10	Bottom	24.41	0.095	34.63	
						10	R/Right	24.41	0.077	35.55	
Body & Hotspot	1	NR Bn30	B	DFT-s-QPSK BW=10 RB 25/14	462000	10	Rear	17.81	0.325	22.69	21.08
						10	Front	17.81	0.065	29.68	
						10	R/Left	17.81	0.036	32.25	
						10	Bottom	17.81	0.471	21.08	
						10	R/Right	17.81	0.021	34.59	
Body & Hotspot	1	NR Bn66	B	DFT-s-QPSK BW=40 RB 108/54	349000	10	Rear	19.15	0.383	23.32	21.93
						10	Front	19.15	0.156	27.22	
						10	R/Left	19.15	0.136	27.81	
						10	Bottom	19.15	0.527	21.93	
						10	R/Right	19.15	0.057	31.59	
Body & Hotspot	1	NR Bn71	A	DFT-s-QPSK BW=40 RB 50/28	136100	10	Rear	24.65	0.142	33.13	29.16
						10	Front	24.65	0.102	34.56	
						10	R/Left	24.65	0.203	31.58	
						10	Bottom	24.65	0.034	39.34	
			A+B	DFT-s-QPSK BW=20 RB 50/28	136100	10	Rear	24.65	0.167	32.42	
						10	Front	24.65	0.166	32.45	
						10	R/Left	24.65	0.354	29.16	
						10	Bottom	24.65	0.058	37.02	
						10	R/Right	24.65	0.152	32.83	
Body & Hotspot	1	LTE B7 Upper	F	QPSK BW=20 RB 50/50	21350	10	Rear	18.35	0.227	24.79	22.87
						10	Front	18.35	0.080	29.32	
						10	Top	18.35	0.353	22.87	
						10	R/Right	18.35	0.076	29.54	
Body & Hotspot	1	LTE B25 Upper	F	QPSK BW=20 RB 50/0	26140	10	Rear	19.81	0.366	24.18	22.62
						10	Front	19.81	0.094	30.08	
						10	Top	19.81	0.523	22.62	
						10	R/Right	19.81	0.073	31.18	
Body & Hotspot	1	LTE B30 Upper	F	QPSK BW=10 RB 1/0	27710	10	Rear	19.92	0.331	24.72	23.20
						10	Front	19.92	0.087	30.52	
						10	Top	19.92	0.470	23.20	
						10	R/Right	19.92	0.087	30.52	
Body & Hotspot	1	LTE B66 Upper	F	QPSK BW=20 RB 50/0	132572	10	Rear	20.10	0.400	24.08	22.73
						10	Front	20.10	0.137	28.73	
						10	Top	20.10	0.546	22.73	
						10	R/Right	20.10	0.086	30.76	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Body-worn & Hotspot exposure (DSI = 1) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Body & Hotspot	1	LTE B41 pc3 Upper	F	QPSK BW=20 RB 50/0	40620	10	Rear	19.00	0.261	24.83	23.44
						10	Front	19.00	0.081	29.92	
						10	Top	19.00	0.360	23.44	
						10	R/Right	19.00	0.076	30.19	
Body & Hotspot	1	LTE B41 pc2 Upper	F	QPSK BW=20 RB 50/0	40620	10	Top	19.07	0.342	23.73	23.73
Body & Hotspot	1	NR Bn7 Upper	F	DFT-s-QPSK BW=40 RB 1/214	507000	10	Rear	19.62	0.199	26.63	25.40
						10	Front	19.62	0.058	31.99	
						10	Top	19.62	0.264	25.40	
						10	R/Right	19.62	0.045	33.09	
Body & Hotspot	1	NR Bn25 Upper	F	DFT-s-QPSK BW=40 RB 1/108	376500	10	Rear	20.29	0.343	24.94	22.57
						10	Front	20.29	0.085	31.00	
						10	Top	20.29	0.591	22.57	
						10	R/Right	20.29	0.093	30.61	
Body & Hotspot	1	NR Bn30 Upper	F	DFT-s-QPSK BW=10 RB 25/14	462000	10	Rear	20.70	0.554	23.26	22.89
						10	Front	20.70	0.108	30.37	
						10	Top	20.70	0.604	22.89	
						10	R/Right	20.70	0.134	29.43	
Body & Hotspot	1	NR Bn66 Upper	F	DFT-s-QPSK BW=40 RB 108/54	349000	10	Rear	20.00	0.286	25.44	21.97
						10	Front	20.00	0.140	28.54	
						10	Top	20.00	0.635	21.97	
						10	R/Right	20.00	0.107	29.71	
Body & Hotspot	1	NR Bn41 pc2/3 (SA) - SRS0 -	B	DFT-s-QPSK BW=100 RB 135/0	518598	10	Rear	16.86	0.134	25.59	23.30
						10	Front	16.86	0.017	34.56	
						10	R/Left	16.86	0.026	32.71	
						10	Bottom	16.86	0.227	23.30	
Body & Hotspot	1	NR Bn41 pc2/3 (SA) - SRS1 -	F	CW	518598	10	Rear	18.67	0.146	27.03	24.45
						10	Front	18.67	0.055	31.27	
						10	Top	18.67	0.264	24.45	
						10	R/Right	18.67	0.052	31.51	
Body & Hotspot	1	NR Bn41 pc2/3 (SA) - SRS2 -	C	CW	518598	10	Rear	12.21	0.014	30.75	30.17
						10	Front	12.21	0.001	42.21	
						10	Bottom	12.21	0.016	30.17	
						10	R/Right	12.21	0.001	42.21	
Body & Hotspot	1	NR Bn41 pc2/3 (SA) - SRS3 -	H	CW	518598	10	Rear	11.12	0.016	29.08	29.08
						10	Front	11.12	0.003	36.35	
						10	R/Left	11.12	0.015	29.36	
Body & Hotspot	1	NR Bn41 pc2/3 (NSA) - SRS0 -	F	DFT-s-QPSK BW=100 RB 135/0	518598	10	Rear	18.88	0.187	26.16	25.01
						10	Front	18.88	0.055	31.48	
						10	Top	18.88	0.244	25.01	
						10	R/Right	18.88	0.061	31.03	
Body & Hotspot	1	NR Bn41 pc2/3 (NSA) - SRS1 -	B	CW	518598	10	Rear	16.67	0.176	24.21	22.03
						10	Front	16.67	0.028	32.20	
						10	R/Left	16.67	0.291	22.03	
						10	Bottom	16.67	0.284	22.14	
						10	R/Right	16.67	0.010	36.67	
Body & Hotspot	1	NR Bn48 - SRS0 -	F	DFT-s-QPSK BW=100 RB 50/56	645332	10	Rear	18.23	0.262	24.05	22.39
						10	Front	18.23	0.063	30.24	
						10	Top	18.23	0.384	22.39	
						10	R/Right	18.23	0.055	30.83	
Body & Hotspot	1	NR Bn48 - SRS1 -	D	CW	638000	10	Rear	15.81	0.127	24.77	22.27
						10	Front	15.81	0.016	33.77	
						10	Bottom	15.81	0.226	22.27	
						10	R/Right	15.81	0.001	45.81	
Body & Hotspot	1	NR Bn48 - SRS2 -	G	CW	638000	10	Rear	15.67	0.181	23.09	23.09
						10	Front	15.67	0.039	29.76	
						10	Top	15.67	0.117	24.99	
						10	R/Left	15.67	0.018	33.12	
Body & Hotspot	1	NR Bn48 - SRS3 -	A	CW	638000	10	Rear	15.60	0.054	28.28	24.63
						10	Front	15.60	0.017	33.30	
						10	R/Left	15.60	0.047	28.88	
						10	Bottom	15.60	0.125	24.63	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Body-worn & Hotspot exposure (DSI = 1) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
Body & Hotspot	1	NR Bn77 pc2/3 - SRS0 -	F	DFT-s-QPSK BW=100 RB 1/271		10	Rear	17.78	0.308	22.89	21.30
						10	Front	17.78	0.084	28.54	
						10	Top	17.78	0.445	21.30	
						10	R/Right	17.78	0.033	32.59	
Body & Hotspot	1	NR Bn77 pc2/3 - SRS1 -	D	CW	633334	10	Rear	15.25	0.112	24.76	22.03
						10	Front	15.25	0.009	35.71	
						10	Bottom	15.25	0.210	22.03	
						10	R/Right	15.25	0.006	37.47	
Body & Hotspot	1	NR Bn77 pc2/3 - SRS2 -	G	CW	633334	10	Rear	15.72	0.140	24.26	24.26
						10	Front	15.72	0.031	30.81	
						10	Top	15.72	0.098	25.81	
						10	R/Left	15.72	0.100	25.72	
Body & Hotspot	1	NR Bn77 pc2/3 - SRS3 -	A	CW	650000	10	Rear	15.78	0.055	28.38	23.82
						10	Front	15.78	0.050	28.79	
						10	R/Left	15.78	0.147	24.11	
						10	Bottom	15.78	0.157	23.82	
Body & Hotspot	1	DTS SISO Ant.2	G	802.11b 1Mbps	2437	10	Rear	18.74	0.275	24.35	22.93
						10	Front	18.74	0.097	28.87	
						10	Top	18.74	0.381	22.93	
						10	R/Left	18.74	0.150	26.98	
Body & Hotspot	1	DTS MIMO	H+G	802.11b 1Mbps	2437	10	Rear	18.35	0.286	23.79	22.10
						10	Front	18.35	0.148	26.65	
						10	Top	18.35	0.422	22.10	
						10	R/Left	18.35	0.241	24.53	
						10	R/Right	18.35	0.020	35.34	
Body & Hotspot	1	UNII-2A MIMO	H+J	802.11ac VHT80	5290	10	Rear	15.44	0.595	17.69	17.69
						10	Front	16.72	0.024	32.92	
Body & Hotspot	1	UNII-2C MIMO	H+J	802.11ac VHT80	5290	10	Rear	16.11	0.690	17.72	17.72
						10	Front	16.71	0.021	33.49	
Body & Hotspot	1	UNII-3 MIMO	H+J	802.11ac VHT80 MCS0	5775	10	Rear	15.68	0.702	17.22	17.22
						10	Front	15.68	0.013	34.54	
						10	Top	15.68	0.237	21.93	
						10	R/Left	16.33	0.085	27.04	
						10	R/Right	16.33	0.051	29.25	
Body & Hotspot	1	UNII-4 MIMO	H+J	802.11ac VHT80	5855	10	Rear	15.86	0.601	18.07	18.07
						10	Front	16.37	0.007	37.92	
Body & Hotspot	1	WIFI 6E MIMO	H+J	802.11ax HE160	79	10	Rear	9.36	0.229	15.76	15.76
						10	Front	9.62	0.004	33.60	
Body & Hotspot	1	Bluetooth Ant.1	H	LE , 1M (37 pkt)	19	10	Rear	17.57	0.062	29.64	29.18
						10	Front	17.57	0.014	36.11	
						10	R/Left	17.57	0.069	29.18	
Body & Hotspot	1	Bluetooth Ant.2	G	LE , 1M (37 pkt)	19	10	Rear	15.13	0.054	27.80	25.54
						10	Front	15.13	0.014	33.66	
						10	Top	15.13	0.091	25.54	
						10	R/Left	15.13	0.011	34.71	
						10	R/Right	15.13	0.003	40.35	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

Product Specific 10-g without triggering sensor (DSI = 1)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	P_{limit} (dBm)	Minimum P_{limit} (dBm)
Product Specific-10g	1	UNII-2A MIMO	H+J	802.11ac VHT80 MCS0	58	10	Rear	15.44	1.090	15.07	15.07
						10	Front	16.72	0.124	25.79	
						10	Top	15.44	0.178	22.94	
						10	R/Left	16.72	0.574	19.13	
						10	R/Right	16.72	0.034	31.41	
Product Specific-10g	1	UNII-2C MIMO	H+J	802.11ac VHT80 MCS0	138	10	Rear	16.71	1.030	16.58	16.58
						10	Front	16.71	0.178	24.21	
						10	Top	16.11	0.097	26.24	
						10	R/Left	16.71	0.920	17.07	
						10	R/Right	16.71	0.028	32.24	
Product Specific-10g	1	UNII-4 MIMO	H+J	802.11ac VHT80 MCS0	171	10	Rear	15.86	0.784	16.92	16.92
						10	Front	16.37	0.156	24.44	
						10	Top	15.86	0.196	22.94	
						10	R/Left	16.37	0.692	17.97	
						10	R/Right	15.86	0.033	30.67	
Product Specific-10g	1	WIFI 6E MIMO	H+J	802.11ax VHT160 MCS0	79	10	Rear	8.29	0.056	20.81	20.81
						10	Front	9.62	0.007	31.17	
						10	Top	9.62	0.003	34.85	
						10	R/Left	9.62	0.035	24.18	
						10	R/Right	8.29	0.001	38.29	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Body-1g Exposure (DSI = 0)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Body-1g	0	GSM 850	A+B	GPRS 2 Slots	190	10	Rear	24.58	0.418	28.37	28.37
						10	Front	24.58	0.342	29.24	
						10	R/Left	24.58	0.134	33.31	
						10	Bottom	24.58	0.216	31.23	
UMPC Body-1g	0	GSM 1900	B	GPRS 4 Slots	661	10	Rear	18.43	0.234	24.74	22.49
						10	Front	18.43	0.135	27.13	
						10	R/Left	18.43	0.049	31.53	
						10	Bottom	18.43	0.393	22.49	
UMPC Body-1g	0	WCDMA 2	B	Rel 99 RMC 12.2 kbps	9400	10	Rear	19.21	0.313	24.25	21.18
						10	Front	19.21	0.241	25.39	
						10	R/Left	19.21	0.190	26.42	
						10	Bottom	19.21	0.635	21.18	
UMPC Body-1g	0	WCDMA 4	B	Rel 99 RMC 12.2 kbps	1413	10	Rear	19.16	0.306	24.30	22.02
						10	Front	19.16	0.235	25.45	
						10	R/Left	19.16	0.110	28.75	
						10	Bottom	19.16	0.518	22.02	
UMPC Body-1g	0	WCDMA 5	A+B	Rel 99 RMC 12.2 kbps	4183	10	Rear	24.54	0.741	25.84	25.84
						10	Front	24.54	0.435	28.16	
						10	R/Left	24.54	0.166	32.34	
						10	Bottom	24.54	0.222	31.08	
UMPC Body-1g	0	LTE B7	B	QPSK BW=20 RB 1/49	20850	10	Rear	17.59	0.492	20.67	19.62
						10	Front	17.59	0.230	23.97	
						10	R/Left	17.59	0.097	27.72	
						10	Bottom	17.59	0.627	19.62	
UMPC Body-1g	0	LTE B12	A+B	QPSK BW=10 RB 1/49	23095	10	Rear	23.81	0.397	27.82	27.82
						10	Front	23.81	0.309	28.91	
						10	R/Left	23.81	0.257	29.71	
						10	Bottom	23.81	0.192	30.98	
UMPC Body-1g	0	LTE B13	A+B	QPSK BW=10 RB 1/0	23230	10	Rear	23.89	0.422	27.64	27.64
						10	Front	23.89	0.334	28.65	
						10	R/Left	23.89	0.348	28.47	
						10	Bottom	23.89	0.321	28.82	
UMPC Body-1g	0	LTE B14	A+B	QPSK BW=10 RB 1/49	23330	10	Rear	23.83	0.422	27.58	26.99
						10	Front	23.83	0.332	28.62	
						10	R/Left	23.83	0.285	29.28	
						10	Bottom	23.83	0.483	26.99	
UMPC Body-1g	0	LTE B25	B	QPSK BW=20 RB 50/0	26140	10	Rear	19.22	0.416	23.03	21.58
						10	Front	19.22	0.227	25.66	
						10	R/Left	19.22	0.162	27.12	
						10	Bottom	19.22	0.581	21.58	
UMPC Body-1g	0	LTE B26	A+B	QPSK BW=15 RB 1/37	26865	10	Rear	23.92	0.464	27.25	27.25
						10	Front	23.92	0.364	28.31	
						10	R/Left	23.92	0.154	32.04	
						10	Bottom	23.92	0.251	29.92	
UMPC Body-1g	0	LTE B30	B	QPSK BW=10 RB 1/0	27710	10	Rear	17.85	0.285	23.30	20.87
						10	Front	17.85	0.145	26.24	
						10	R/Left	17.85	0.069	29.46	
						10	Bottom	17.85	0.499	20.87	
UMPC Body-1g	0	LTE B41 pc3	B	QPSK BW=20 RB 1/0	41055	10	Rear	17.35	0.405	21.28	18.58
						10	Front	17.35	0.201	24.32	
						10	R/Left	17.35	0.059	29.64	
					40185	10	Bottom	16.76	0.658	18.58	
UMPC Body-1g	0	LTE B41 pc2	B	QPSK BW=20 RB 50/0	40185	10	Rear	17.24	0.480	20.43	20.43

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Body-1g Exposure (DSI = 0) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Body-1g	0	LTE B48	F	QPSK BW=20 RB 1/49	55340	10	Rear	18.44	0.241	24.62	23.88
						10	Front	18.44	0.141	26.95	
						10	Top	18.44	0.286	23.88	
UMPC Body-1g	0	LTE B66	B	QPSK BW=20 RB 50/24	132072	10	Rear	19.08	0.381	23.27	22.51
						10	Front	19.08	0.214	25.78	
						10	R/Left	19.08	0.111	28.63	
						10	Bottom	19.08	0.454	22.51	
UMPC Body-1g	0	LTE B71	A+B	QPSK BW=20 RB 1/49	133297	10	Rear	24.08	0.335	28.83	28.49
						10	Front	24.08	0.270	29.77	
						10	R/Left	24.08	0.362	28.49	
						10	Bottom	24.08	0.249	30.12	
UMPC Body-1g	0	NR Bn7	B	DFT-s-QPSK BW=40 RB 108/54	507000	10	Rear	18.15	0.602	20.35	18.76
						10	Front	18.15	0.384	22.31	
						10	R/Left	18.15	0.110	27.74	
						10	Bottom	18.15	0.868	18.76	
UMPC Body-1g	0	NR Bn12	A+B	DFT-s-QPSK BW=15 RB 36/22	141500	10	Rear	24.51	0.434	28.14	28.14
						10	Front	24.51	0.274	30.13	
						10	R/Left	24.51	0.274	30.13	
						10	Bottom	24.51	0.188	31.77	
UMPC Body-1g	0	NR Bn25	B	DFT-s-QPSK BW=40 RB 108/54	376500	10	Rear	19.40	0.250	25.42	22.44
						10	Front	19.40	0.187	26.68	
						10	R/Left	19.40	0.110	28.99	
						10	Bottom	19.40	0.497	22.44	
UMPC Body-1g	0	NR Bn26	A+B	DFT-s-QPSK BW=20 RB 50/28	166300	10	Rear	24.41	0.523	27.22	27.22
						10	Front	24.41	0.356	28.90	
						10	R/Left	24.41	0.159	32.40	
						10	Bottom	24.41	0.234	30.72	
UMPC Body-1g	0	NR Bn30	B	DFT-s-QPSK BW=10 RB 25/14	462000	10	Rear	17.81	0.469	21.10	19.71
						10	Front	17.81	0.332	22.60	
						10	R/Left	17.81	0.070	29.34	
						10	Bottom	17.81	0.645	19.71	
UMPC Body-1g	0	NR Bn66	B	DFT-s-QPSK BW=40 RB 1/214	349000	10	Rear	19.15	0.453	22.59	22.45
						10	Front	19.15	0.286	24.59	
						10	R/Left	19.15	0.094	29.42	
						10	Bottom	19.15	0.468	22.45	
UMPC Body-1g	0	NR Bn71	A+B	DFT-s-QPSK BW=20 RB 50/28	136100	10	Rear	24.65	0.323	29.56	29.56
						10	Front	24.65	0.251	30.65	
						10	R/Left	24.65	0.271	30.32	
						10	Bottom	24.65	0.202	31.60	
UMPC Body-1g	0	LTE B7 Upper	F	QPSK BW=20 RB 50/50	21350	10	Rear	18.35	0.304	23.52	22.17
						10	Front	18.35	0.137	26.98	
						10	Top	18.35	0.415	22.17	
UMPC Body-1g	0	LTE B25 Upper	F	QPSK BW=20 RB 50/0	26140	10	Rear	19.81	0.374	24.08	22.61
						10	Front	19.81	0.295	25.11	
						10	Top	19.81	0.525	22.61	
UMPC Body-1g	0	LTE B30 Upper	F	QPSK BW=10 RB 1/0	27710	10	Rear	19.92	0.324	24.81	22.31
						10	Front	19.92	0.276	25.51	
						10	Top	19.92	0.577	22.31	
UMPC Body-1g	0	LTE B66 Upper	F	QPSK BW=20 RB 50/50	132572	10	Rear	20.10	0.388	24.21	22.40
						10	Front	20.10	0.262	25.92	
						10	Top	20.10	0.589	22.40	
UMPC Body-1g	0	LTE B41 pc3 Upper	F	QPSK BW=20 RB 50/0	40620	10	Rear	19.00	0.297	24.27	22.87
						10	Front	19.00	0.134	27.73	
						10	Top	19.00	0.410	22.87	
UMPC Body-1g	0	LTE B41 pc2 Upper	F	QPSK BW=20 RB 50/0	40620	10	Top	19.07	0.387	23.19	23.19

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Body-1g Exposure (DSI = 0) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Body-1g	0	NR Bn7 Upper	F	DFT-s-QPSK BW=40 RB 108/0	507000	10	Rear	19.46	0.374	23.73	22.84
						10	Front	19.46	0.199	26.47	
						10	Top	19.46	0.459	22.84	
UMPC Body-1g	0	NR Bn25 Upper	F	DFT-s-QPSK BW=40 RB 108/0	376500	10	Rear	20.29	0.459	23.67	22.75
						10	Front	20.29	0.299	25.53	
						10	Top	20.29	0.568	22.75	
UMPC Body-1g	0	NR Bn30 Upper	F	DFT-s-QPSK BW=10 RB 25/14	462000	10	Rear	20.70	0.294	26.02	23.46
						10	Front	20.70	0.209	27.50	
						10	Top	20.70	0.530	23.46	
UMPC Body-1g	0	NR Bn66 Upper	F	DFT-s-QPSK BW=40 RB 1/214	349000	10	Rear	19.94	0.460	23.31	22.64
						10	Front	19.94	0.337	24.66	
						10	Top	19.94	0.537	22.64	
UMPC Body-1g	0	NR Bn41 pc2/3 (SA) - SRS0 -	B	DFT-s-QPSK BW=100 RB 1/1	518598	10	Rear	17.13	0.198	24.16	22.00
						10	Front	17.13	0.110	26.72	
						10	R/Left	17.13	0.040	31.11	
						10	Bottom	17.13	0.326	22.00	
UMPC Body-1g	0	NR Bn41 pc2/3 (SA) - SRS1 -	F	CW BW=100	518598	10	Rear	18.67	0.207	25.51	22.54
						10	Front	18.67	0.141	27.18	
						10	Top	18.67	0.410	22.54	
UMPC Body-1g	0	NR Bn41 pc2/3 (SA) - SRS2 -	C	CW BW=100	518598	10	Rear	12.21	0.013	31.07	31.07
						10	Front	12.21	0.008	33.18	
						10	Bottom	12.21	0.001	42.21	
UMPC Body-1g	0	NR Bn41 pc2/3 (SA) - SRS3 -	H	CW BW=100	518598	10	Rear	11.12	0.012	30.33	27.50
						10	Front	11.12	0.011	30.71	
						10	R/Left	11.12	0.023	27.50	
UMPC Body-1g	0	NR Bn41 pc2/3 (NSA) - SRS0 -	F	DFT-s-QPSK BW=100 RB 1/1	518598	10	Rear	19.00	0.211	25.76	22.02
						10	Front	19.00	0.191	26.19	
						10	Top	19.00	0.499	22.02	
UMPC Body-1g	0	NR Bn48 - SRS0 -	F	DFT-s-QPSK BW=40 50/56	645332	10	Rear	18.23	0.225	24.71	21.71
						10	Front	18.23	0.122	27.37	
						10	Top	18.23	0.449	21.71	
UMPC Body-1g	0	NR Bn48 - SRS1 -	D	CW BW=40	638000	10	Rear	15.81	0.106	25.56	21.66
						10	Front	15.81	0.094	26.08	
						10	Bottom	15.81	0.260	21.66	
UMPC Body-1g	0	NR Bn48 - SRS2 -	G	CW BW=40	638000	10	Rear	15.67	0.149	23.94	20.96
						10	Front	15.67	0.087	26.27	
						10	Top	15.67	0.296	20.96	
						10	R/Left	15.67	0.050	28.68	
UMPC Body-1g	0	NR Bn48 - SRS3 -	A	CW BW=40	638000	10	Rear	15.60	0.064	27.54	25.19
						10	Front	15.60	0.075	26.85	
						10	R/Left	15.60	0.079	26.62	
						10	Bottom	15.60	0.110	25.19	
UMPC Body-1g	0	NR Bn77 pc2/3 - SRS0 -	F	DFT-s-QPSK BW=100 RB 1/271	662000	10	Rear	17.78	0.236	24.05	22.65
						10	Front	17.78	0.151	25.99	
						10	Top	17.78	0.326	22.65	
UMPC Body-1g	0	NR Bn77 pc2/3 - SRS1 -	D	CW BW=100	633334	10	Rear	15.50	0.207	22.34	19.34
						10	Front	15.50	0.137	24.13	
						10	Bottom	15.50	0.413	19.34	
UMPC Body-1g	0	NR Bn77 pc2/3 - SRS2 -	G	CW BW=100	633334	10	Rear	15.72	0.189	22.96	21.74
						10	Front	15.72	0.091	26.13	
						10	Top	15.72	0.250	21.74	
						10	R/Left	15.72	0.039	29.81	
UMPC Body-1g	0	NR Bn77 pc2/3 - SRS3 -	A	CW BW=100	633334	10	Rear	15.45	0.095	25.67	23.44
						10	Front	15.45	0.116	24.81	
						10	R/Left	15.45	0.134	24.18	
						10	Bottom	15.45	0.159	23.44	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Body-1g Exposure (DSI = 0) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 1g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Body-1g	0	DTS SISO Ant.2	G	802.11b 1Mbps	6	10	Rear	18.74	0.283	24.22	22.93
						10	Front	18.74	0.124	27.81	
						10	Top	18.74	0.381	22.93	
						10	R/Left	18.74	0.261	24.57	
UMPC Body-1g	0	DTS MIMO	H+G	802.11b 1Mbps	6	10	Rear	18.35	0.327	23.20	21.19
						10	Front	18.35	0.198	25.38	
						10	Top	18.35	0.363	22.75	
						10	R/Left	18.35	0.520	21.19	
UMPC Body-1g	0	UNII-2A MIMO	H+J	802.11ac VHT 80	58	10	Rear	15.44	0.479	18.64	18.64
						10	Front	16.70	0.058	29.07	
						10	Top	15.44	0.059	27.73	
						10	R/Left	16.70	0.129	25.59	
UMPC Body-1g	0	UNII-2C MIMO	H+J	802.11ac VHT 80	138	10	Rear	16.11	0.581	18.47	18.47
						10	Front	16.71	0.284	22.18	
						10	Top	16.11	0.071	27.60	
						10	R/Left	16.71	0.235	23.00	
UMPC Body-1g	0	UNII-3 MIMO	H+J	802.11ac VHT 80	155	10	Rear	15.68	0.742	16.98	16.98
						10	Front	16.33	0.251	22.33	
						10	Top	15.68	0.256	21.60	
						10	R/Left	16.33	0.222	22.87	
UMPC Body-1g	0	UNII-4 MIMO	H+J	802.11ac VHT 80	171	10	Rear	15.86	0.575	18.26	18.26
						10	Front	16.37	0.265	22.14	
						10	Top	15.86	0.227	22.30	
						10	R/Left	16.37	0.232	22.72	
UMPC Body-1g	0	WIFI 6E MIMO	H+J	802.11ax VHT 160	79	10	Rear	8.29	0.038	22.49	22.49
						10	Front	9.62	0.018	27.07	
						10	Top	8.29	0.033	23.10	
						10	R/Left	9.62	0.021	26.40	
UMPC Body-1g	0	Bluetooth Ant.1	H	LE , 1M (37 pkt)	19	10	Rear	17.57	0.074	28.88	26.50
						10	Front	17.57	0.086	28.22	
						10	R/Left	17.57	0.128	26.50	
UMPC Body-1g	0	Bluetooth Ant.2	G	LE , 1M (37 pkt)	19	10	Rear	15.13	0.069	26.74	26.74
						10	Front	15.13	0.042	28.89	
						10	Top	15.13	0.069	26.74	
						10	R/Left	15.13	0.028	30.65	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Extremity-10g Exposure (DSI = 0)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 10g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Extremity-10g	0	GSM 850	A+B	GPRS 2 Slots	190	0	Rear	24.58	0.881	29.11	29.11
						0	Front	24.58	0.810	29.47	
						0	R/Left	24.58	0.648	30.44	
						0	Bottom	24.58	0.556	31.11	
UMPC Extremity-10g	0	GSM 1900	B	GPRS 4 Slots	661	0	Rear	18.43	0.721	23.83	21.41
						0	Front	18.43	0.670	24.15	
						0	R/Left	18.43	0.101	32.37	
						0	Bottom	18.43	1.260	21.41	
UMPC Extremity-10g	0	WCDMA 2	B	Rel 99	9400	0	Rear	19.21	1.230	22.29	19.75
						0	Front	19.21	0.911	23.59	
						0	R/Left	19.21	0.537	25.89	
						0	Bottom	19.21	2.210	19.75	
UMPC Extremity-10g	0	WCDMA 4	B	Rel 99	1413	0	Rear	19.16	1.240	22.21	20.22
						0	Front	19.16	0.999	23.14	
						0	R/Left	19.16	0.258	29.02	
						0	Bottom	19.16	1.960	20.22	
UMPC Extremity-10g	0	WCDMA 5	A+B	Rel 99	4183	0	Rear	24.54	1.170	27.84	27.18
						0	Front	24.54	1.040	28.35	
						0	R/Left	24.54	1.360	27.18	
						0	Bottom	24.54	1.030	28.39	
UMPC Extremity-10g	0	LTE B7	B	QPSK BW=20 RB 50/24	20850	0	Rear	17.71	1.320	20.48	18.13
						0	Front	17.71	0.840	22.45	
						0	R/Left	17.71	0.194	28.81	
						0	Bottom	17.71	2.270	18.13	
UMPC Extremity-10g	0	LTE B12	A+B	QPSK BW=10 RB 1/49	23095	0	Rear	23.81	0.826	28.62	27.11
						0	Front	23.81	0.960	27.97	
						0	R/Left	23.81	1.170	27.11	
						0	Bottom	23.81	0.740	29.10	
UMPC Extremity-10g	0	LTE B13	A+B	QPSK BW=10 RB 1/0	23230	0	Rear	23.89	0.888	28.39	26.35
						0	Front	23.89	1.130	27.34	
						0	R/Left	23.89	1.420	26.35	
						0	Bottom	23.89	1.100	27.46	
UMPC Extremity-10g	0	LTE B14	A+B	QPSK BW=10 RB 1/49	23330	0	Rear	23.83	0.958	28.00	26.11
						0	Front	23.83	0.970	27.94	
						0	R/Left	23.83	1.430	26.26	
						0	Bottom	23.83	1.480	26.11	
UMPC Extremity-10g	0	LTE B25	B	QPSK BW=20 RB 50/0	26140	0	Rear	19.22	0.945	23.45	20.70
						0	Front	19.22	0.809	24.12	
						0	R/Left	19.22	0.454	26.63	
						0	Bottom	19.22	1.780	20.70	
UMPC Extremity-10g	0	LTE B26	A+B	QPSK BW=15 RB 1/37	268685	0	Rear	23.92	0.955	28.10	26.63
						0	Front	23.92	1.010	27.86	
						0	R/Left	23.92	1.340	26.63	
						0	Bottom	23.92	1.000	27.90	
UMPC Extremity-10g	0	LTE B30	B	QPSK BW=10 RB 25/0	27710	0	Rear	17.88	0.992	21.89	18.96
						0	Front	17.88	0.825	22.69	
						0	R/Left	17.88	0.111	31.41	
						0	Bottom	17.88	1.950	18.96	
UMPC Extremity-10g	0	LTE B41 pc3	B	QPSK BW=20 RB 1/0	41055	0	Rear	17.35	1.020	21.24	18.52
						0	Front	17.35	0.763	22.50	
						0	R/Left	17.35	0.140	29.87	
						0	Bottom	17.35	1.910	18.52	
UMPC Extremity-10g	0	LTE B41 pc2	B	QPSK BW=20 RB 50/0	40185	0	Bottom	18.56	1.870	19.82	19.82

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Extremity-10g Exposure (DSI = 0) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 10g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Extremity-10g	0	LTE B48	F	QPSK BW=20 RB 1/99	55340	0	Rear	18.29	0.521	25.10	19.39
						0	Front	18.29	0.957	22.46	
						0	Top	18.29	1.940	19.39	
UMPC Extremity-10g	0	LTE B66	B	QPSK BW=20 RB 50/50	132072	0	Rear	19.08	0.992	23.09	21.69
						0	Front	19.08	0.879	23.62	
						0	R/Left	19.08	0.249	29.10	
						0	Bottom	19.08	1.370	21.69	
UMPC Extremity-10g	0	LTE B71	A+B	QPSK BW=20 RB 1/49	133297	0	Rear	24.08	0.726	29.45	27.49
						0	Front	24.08	0.962	28.23	
						0	R/Left	24.08	1.140	27.49	
						0	Bottom	24.08	0.816	28.94	
UMPC Extremity-10g	0	NR Bn7	B	DFT-s-QPSK BW=40 RB 108/54	507000	0	Rear	18.11	2.280	18.51	18.51
						0	Front	18.11	0.525	24.89	
						0	R/Left	18.11	0.209	28.89	
						0	Bottom	18.11	2.160	18.74	
UMPC Extremity-10g	0	NR Bn12	A+B	DFT-s-QPSK BW=15 RB 36/22	1415000	0	Rear	24.51	1.040	28.32	28.08
						0	Front	24.51	0.927	28.82	
						0	R/Left	24.51	1.100	28.08	
						0	Bottom	24.51	0.918	28.86	
UMPC Extremity-10g	0	NR Bn25	B	DFT-s-QPSK BW=40 RB 108/54	376500	0	Rear	19.40	0.746	24.65	21.07
						0	Front	19.40	0.888	23.90	
						0	R/Left	19.40	0.318	28.36	
						0	Bottom	19.40	1.700	21.07	
UMPC Extremity-10g	0	NR Bn26	A+B	DFT-s-QPSK BW=20 RB 50/28	166300	0	Rear	24.41	1.220	27.53	26.84
						0	Front	24.41	1.130	27.86	
						0	R/Left	24.41	1.430	26.84	
						0	Bottom	24.41	1.350	27.09	
UMPC Extremity-10g	0	NR Bn30	B	DFT-s-QPSK BW=10 RB 25/14	462000	0	Rear	17.81	1.080	21.46	17.90
						0	Front	17.81	0.490	24.89	
						0	R/Left	17.81	0.142	30.27	
						0	Bottom	17.81	2.450	17.90	
UMPC Extremity-10g	0	NR Bn66	B	DFT-s-QPSK BW=40 RB 108/54	349000	0	Rear	19.15	0.960	23.31	21.06
						0	Front	19.15	1.080	22.80	
						0	R/Left	19.15	0.226	29.59	
						0	Bottom	19.15	1.610	21.06	
UMPC Extremity-10g	0	NR Bn71	A+B	DFT-s-QPSK BW=20 RB 1/1	1361000	0	Rear	24.90	0.754	30.11	27.45
						0	Front	24.90	0.869	29.49	
						0	R/Left	24.90	1.390	27.45	
						0	Bottom	24.90	0.941	29.14	
UMPC Extremity-10g	0	LTE B7 Upper	F	QPSK BW=20 RB 50/50	21350	0	Rear	18.35	0.396	26.35	21.19
						0	Front	18.35	0.586	24.65	
						0	Top	18.35	1.300	21.19	
UMPC Extremity-10g	0	LTE B25 Upper	F	QPSK BW=20 RB 50/0	26140	0	Rear	19.81	1.000	23.79	21.58
						0	Front	19.81	0.739	25.10	
						0	Top	19.81	1.665	21.58	
UMPC Extremity-10g	0	LTE B30 Upper	F	QPSK BW=20 RB 25/12	27710	0	Rear	20.13	0.889	24.62	20.74
						0	Front	20.13	1.050	23.90	
						0	Top	20.13	2.170	20.74	
UMPC Extremity-10g	0	LTE B66 Upper	F	QPSK BW=20 RB 50/0	132572	0	Rear	20.10	1.030	23.95	22.07
						0	Front	20.10	0.811	24.99	
						0	Top	20.10	1.590	22.07	
UMPC Extremity-10g	0	LTE B41 pc3 Upper	F	QPSK BW=20 RB 1/0	40620	0	Rear	19.10	0.374	27.35	20.38
						0	Front	19.10	0.627	25.11	
						0	Top	19.10	1.860	20.38	
UMPC Extremity-10g	0	LTE B41 pc2 Upper	F	QPSK BW=20 RB 50/0	40185	0	Top	19.07	1.370	21.68	21.68

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Extremity-10g Exposure (DSI = 0) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 10g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Extremity-10g	0	NR Bn7 Upper	F	DFT-s-QPSK BW=40 RB 108/54	507000	0	Rear	19.48	0.441	27.02	20.49
						0	Front	19.48	0.610	25.61	
						0	Top	19.48	1.980	20.49	
UMPC Extremity-10g	0	NR Bn25 Upper	F	DFT-s-QPSK BW=40 RB 108/0	376500	0	Rear	20.29	1.220	23.41	21.60
						0	Front	20.29	1.160	23.62	
						0	Top	20.29	1.850	21.60	
UMPC Extremity-10g	0	NR Bn30 Upper	F	DFT-s-QPSK BW=10 RB 25/14	462000	0	Rear	20.70	0.980	24.77	21.12
						0	Front	20.70	1.070	24.39	
						0	Top	20.70	2.270	21.12	
UMPC Extremity-10g	0	NR Bn66 Upper	F	DFT-s-QPSK BW=40 RB 108/54	349000	0	Rear	20.00	1.060	23.73	21.60
						0	Front	20.00	1.090	23.61	
						0	Top	20.00	1.730	21.60	
UMPC Extremity-10g	0	NR Bn41 pc2/3 (SA) - SRS0 -	B	DFT-s-QPSK BW=100 RB 1/1	518598	0	Rear	17.13	0.741	22.41	20.14
						0	Front	17.13	0.478	24.32	
						0	R/Left	17.13	0.079	32.13	
						0	Bottom	17.13	1.250	20.14	
UMPC Extremity-10g	0	NR Bn41 pc2/3 (SA) - SRS1 -	F	CW	518598	0	Rear	18.67	0.540	25.33	20.58
						0	Front	18.67	0.745	23.93	
						0	Top	18.67	1.610	20.58	
UMPC Extremity-10g	0	NR Bn41 pc2/3 (SA) - SRS2 -	C	CW	518598	0	Rear	12.21	0.104	26.02	26.02
						0	Front	12.21	0.046	29.56	
						0	Bottom	12.21	0.001	46.19	
UMPC Extremity-10g	0	NR Bn41 pc2/3 (SA) - SRS3 -	H	CW	518598	0	Rear	11.12	0.062	27.18	24.13
						0	Front	11.12	0.125	24.13	
						0	R/Left	11.12	0.111	24.65	
UMPC Extremity-10g	0	NR Bn41 pc2/3 (NSA) - SRS0 -	F	DFT-s-QPSK BW=100 RB 135/0	518598	0	Rear	18.88	0.546	25.49	20.36
						0	Front	18.88	0.599	25.09	
						0	Top	18.88	1.780	20.36	
UMPC Extremity-10g	0	NR Bn41 pc2/3 (NSA) - SRS1 -	B	CW	518598	0	Rear	16.70	0.708	22.18	19.41
						0	Front	16.70	0.551	23.27	
						0	R/Left	16.70	0.100	30.68	
						0	Bottom	16.70	1.340	19.41	
UMPC Extremity-10g	0	NR Bn48 - SRS0 -	F	DFT-s-QPSK BW=100 RB 50/56	645332	0	Rear	18.23	0.687	23.84	20.72
						0	Front	18.23	0.915	22.60	
						0	Top	18.23	1.410	20.72	
UMPC Extremity-10g	0	NR Bn48 - SRS1 -	D	CW	638000	0	Rear	15.81	0.307	24.92	24.92
						0	Front	15.81	0.296	25.08	
						0	Bottom	15.81	0.254	25.74	
UMPC Extremity-10g	0	NR Bn48 - SRS2 -	G	CW	638000	0	Rear	15.67	0.398	23.65	20.01
						0	Front	15.67	0.336	24.39	
						0	Top	15.67	0.920	20.01	
						0	R/Left	15.67	0.104	29.48	
UMPC Extremity-10g	0	NR Bn48 - SRS3 -	A	CW	638000	0	Rear	15.60	0.235	25.87	23.20
						0	Front	15.60	0.434	23.20	
						0	R/Left	15.60	0.206	26.44	
						0	Bottom	15.60	0.371	23.89	
UMPC Extremity-10g	0	NR Bn77 pc2/3 - SRS0 -	F	DFT-s-QPSK BW=100 RB 135/69	662000	0	Rear	17.78	0.779	22.84	18.68
						0	Front	17.78	1.030	21.63	
						0	Top	17.78	2.030	18.68	
UMPC Extremity-10g	0	NR Bn77 pc2/3 - SRS1 -	D	CW	650000	0	Rear	15.25	0.574	21.64	20.23
						0	Front	15.25	0.550	21.83	
						0	Bottom	15.25	0.794	20.23	
UMPC Extremity-10g	0	NR Bn77 pc2/3 - SRS2 -	G	CW	650000	0	Rear	15.72	0.479	22.90	20.82
						0	Front	15.72	0.450	23.17	
						0	Top	15.72	0.773	20.82	
						0	R/Left	15.72	0.057	32.14	

Notes:

1. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
2. Measured Output power refer to Sec.9 in SAR part.1 report.
3. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

UMPC Extremity-10g Exposure (DSI = 0) (Continued)

RF Exposure Conditions	DSI	band	Antenna	mode	Ch.	Test distance (mm)	Test position	Output power (dbm)	meas SAR 10g (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
UMPC Extremity-10g	0	NR Bn77 pc2/3 - SRS3 -	A	CW	650000	0	Rear	15.45	0.334	24.19	22.25
						0	Front	15.45	0.522	22.25	
						0	R/Left	15.45	0.371	23.74	
						0	Bottom	15.45	0.426	23.14	
UMPC Extremity-10g	0	DTS SISO Ant.2	G	802.11b 1Mbps	6	0	Rear	18.74	0.691	24.32	21.11
						0	Front	18.74	0.680	24.39	
						0	Top	18.74	1.450	21.11	
						0	R/Left	18.74	0.494	25.78	
UMPC Extremity-10g	0	DTS MIMO	H+G	802.11b 1Mbps	6	0	Rear	18.35	0.690	23.94	21.57
						0	Front	18.35	0.644	24.24	
						0	Top	18.35	1.190	21.57	
						0	R/Left	18.35	1.060	22.08	
UMPC Extremity-10g	0	UNII-2A MIMO	H+J	802.11ac VHT 80	58	0	Rear	15.44	1.130	18.89	18.89
						0	Front	16.72	0.942	20.96	
						0	Top	15.44	0.120	28.63	
						0	R/Left	16.72	0.828	21.52	
UMPC Extremity-10g	0	UNII-2C MIMO	H+J	802.11ac VHT 80	138	0	Rear	16.11	0.987	20.15	20.15
						0	Front	16.71	0.558	23.22	
						0	Top	16.11	0.105	29.88	
						0	R/Left	16.71	1.100	20.28	
UMPC Extremity-10g	0	UNII-3 MIMO	H+J	802.11ac VHT 80	155	0	Rear	15.68	1.240	18.73	18.73
						0	Front	16.33	0.614	22.43	
						0	Top	15.68	0.301	24.87	
						0	R/Left	16.33	0.712	21.78	
UMPC Extremity-10g	0	UNII-4 MIMO	H+J	802.11ac VHT 80	171	0	Rear	15.86	1.030	19.71	19.71
						0	Front	16.37	1.080	20.02	
						0	Top	15.86	0.279	25.38	
						0	R/Left	16.37	0.717	21.79	
UMPC Extremity-10g	0	WIFI 6E MIMO	H+J	802.11ax HE 160 MCS 0	79	0	Rear	8.29	0.062	24.35	22.56
						0	Front	9.62	0.127	22.56	
						0	Top	8.29	0.022	28.85	
						0	R/Left	9.62	0.048	26.79	
UMPC Extremity-10g	0	Bluetooth Ant.1	H	LE , 1M (37 pkt)	19	0	Rear	17.57	0.186	28.85	25.46
						0	Front	17.57	0.349	26.12	
						0	R/Left	17.57	0.406	25.46	
UMPC Extremity-10g	0	Bluetooth Ant.2	G	LE , 1M (37 pkt)	19	0	Rear	15.13	0.232	25.45	21.98
						0	Front	15.13	0.228	25.53	
						0	Top	15.13	0.516	21.98	
						0	R/Left	15.13	0.089	29.62	

Notes:

4. The maximum allowed power is equal to maximum tune up power + 1 dB device design uncertainty
5. Measured Output power refer to Sec.9 in SAR part.1 report.
6. Some bands were determined more conservative P_{limit} instead of calculation P_{limit}.

END OF REPORT