RF SAFETY LAB
A NEXT GENERATION TEST LABORATORY™

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47CFR §2.1093 – FCC SAR REPORT

FCC ID:	PY7-46195Y
Device Type:	Portable Device
Report Issue Date:	March 19, 2024

Sony Corporation
1-7-1 Konan Minato-ku
Tokyo, 108-0075, Japan

Certification

FCC Equipment Class	Body SAR over 1g [W/kg]	1g Simultaneous Tx SAR [W/kg]	Extremity SAR over 10g [W/kg]	10g Simultaneous Tx SAR [W/kg]	psPD over 4cm^2 [W/m^2]
PCB	1.05	1.52	0.82	0.92	-
CBE	1.10	1.52	0.77	0.92	-
DTS	0.34	1.52	< 0.10	0.92	-
NII	0.13	1.52	< 0.10	0.92	-
6XD	0.11	1.52	< 0.10	0.92	3.38
DSS	< 0.10	1.52	< 0.10	0.92	-
FCC Limit	**1.60**	**1.60**	**4.0**	**4.0**	**10.0**

The measurement evaluations presented in this report are based on the maximum performance of the tested device(s), which has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/ general population exposure federal limits in 47CFR § 1.1310 and has been tested in accordance with the measurement procedures specified within this report.

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This report and data apply only for US operations only.

This document has been revised and replaces all previously issued versions of this document with the same Test Report S/N.

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TESTING LABORATORY

Steve Liu
President

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1. DUT Specifics

1.1. Device under Test

The manufacturer has confirmed that the device is within operational tolerances expected for production units and has the same physical, mechanical, and thermal characteristics expected for production units. The serial number of the device used for each test is indicated alongside the results.

Software version 0.143 was used during testing.

1.2. Maximum SAR per Mode

Table 1-1 Maximum SAR per Mode

FCC Equipment Class	Band/Mode	Frequency (MHz)	Body SAR (1g) [W/kg]	1g Simultaneous Tx SAR [W/kg]	Extremity SAR (10g) [W/kg]	10g Simultaneous Tx SAR [W/kg]	psPD [W/m^2]
PCB	LTE Band 71	663 - 698 MHz	0.729	1.517	0.739	0.924	-
PCB	LTE Band 12	699 - 716 MHz	0.536	1.517	0.622	0.924	-
PCB	LTE Band 17	704 - 716 MHz	-	-	-	-	-
PCB	LTE Band 13	777 - 787 MHz	0.648	1.517	0.694	0.924	-
PCB	LTE Band 5	824 - 849 MHz	0.709	1.517	0.389	0.924	-
PCB	LTE Band 66	1710 - 1780 MHz	0.599	1.517	0.268	0.924	-
PCB	LTE Band 4	1710 - 1755 MHz	-	-	-	-	-
PCB	LTE Band 25	1850 - 1915 MHz	0.646	1.517	0.191	0.924	-
PCB	LTE Band 2	1850 - 1910 MHz	0.251	1.517	-	0.924	-
PCB	LTE Band 30	2305 - 2315 MHz	0.474	1.517	0.155	0.924	-
PCB	LTE Band 41	2496 - 2690 MHz	0.653	1.517	0.213	0.924	-
CBE	LTE Band 48	3550 - 3700 MHz	0.974	1.517	0.771	0.924	-
PCB	NR Band n71	663 - 698 MHz	0.665	1.517	0.647	0.924	-
PCB	NR Band n5	824 - 849 MHz	0.71	1.517	0.447	0.924	-
PCB	NR Band n66	1710 - 1780 MHz	0.871	1.517	0.229	0.924	-
PCB	NR Band n25	1850 - 1915 MHz	0.586	1.517	0.141	0.924	-
PCB	NR Band n2	1850 - 1910 MHz	-	-	-	-	-
PCB	NR Band n30	2305 - 2315 MHz	0.658	1.517	0.133	0.924	-
PCB	NR Band n41	2496 - 2690 MHz	0.914	1.517	0.241	0.924	-
CBE	NR Band n48	3550 - 3700 MHz	1.101	1.517	0.715	0.924	-
PCB	NR Band n77	3450 - 3550 MHz 3700 - 3980 MHz	1.046	1.517	0.823	0.924	-
DTS	2.4 GHz WIFI	2412 - 2462 MHz	0.337	1.517	0.082	0.924	-
NII	5 GHz WIFI	5180 - 5825 MHz MHz	0.128	1.517	0.019	0.924	-
6XD	6 GHz WIFI	5955 - 7115 MHz MHz	0.111	1.517	0.012	0.924	3.38
DSS	2.4 GHz Bluetooth	2402 - 2480 MHz	0.087	1.517	0.034	0.924	-

1.3. LTE and NR Supported Bandwidths and Modulations

Table 1-2 LTE and NR Bands and Modulations

Band	Bandwidth (MHz)	UL Modulation	SCS (kHz)
LTE Band 71	20, 15, 10, 5	QPSK, 16QAM, 64QAM	N/A
LTE Band 12	10, 5, 3, 1.4	QPSK, 16QAM, 64QAM	N/A
LTE Band 17	10, 5	QPSK, 16QAM, 64QAM	N/A
LTE Band 13	10, 5	QPSK, 16QAM, 64QAM	N/A
LTE Band 5	10, 5, 3, 1.4	QPSK, 16QAM, 64QAM	N/A
LTE Band 66	20, 15, 10, 5, 3, 1.4	QPSK, 16QAM, 64QAM	N/A
LTE Band 4	20, 15, 10, 5, 3, 1.4	QPSK, 16QAM, 64QAM	N/A
LTE Band 25	20, 15, 10, 5, 3, 1.4	QPSK, 16QAM, 64QAM	N/A
LTE Band 2	20, 15, 10, 5, 3, 1.4	QPSK, 16QAM, 64QAM	N/A
LTE Band 30	10, 5	QPSK, 16QAM, 64QAM	N/A
LTE Band 41	20, 15, 10, 5	QPSK, 16QAM, 64QAM	N/A
LTE Band 48	20, 15, 10, 5	QPSK, 16QAM, 64QAM	N/A
NR Band n71	20, 15,10, 5	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	15
NR Band n5	20, 15, 10, 5	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	15
NR Band n66	20, 15, 10, 5	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	15
NR Band n25	20, 15, 10, 5	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	15
NR Band n2	20, 15, 10, 5	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	15
NR Band n30	10	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	15
NR Band n41	100, 90, 80, 60, 50, 40, 30, 20	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	30
NR Band n48	40, 20	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	30
NR Band n77	100, 80, 60, 40, 30, 20	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM	30

1.4. Time-Averaging Algorithm for RF Exposure Compliance

This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature. This feature implements a time-averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

Note that WLAN operations are not enabled with Smart Transmit for this device.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target or PD_design_target, below the predefined time-averaged power limit (i.e., Plimit for sub-6 radio, and input.power.limit for 5G mmW NR), for each characterized technology and band.

Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

Note that the device uncertainty for sub-6GHz WWAN is 1.0 dB for this EUT.

Table 1-3 SARChar

Exposure Scenario			Maximum Tune-Up Output Power*	Free-Space	Body/ Extremity
DSI				4	3
Band/Mode	Antenna	Antenna Group	Pmax (dBm)	Plimit (dBm)	Plimit (dBm)
LTE Band 71	Main1	AG0	24.0	40.0	24.0
LTE Band 12/17	Main1	AG0	24.0	40.0	22.0
LTE Band 12/17	Sub	AG1	24.0	40.0	21.0
LTE Band 13	Main1	AG0	24.0	40.0	22.5
LTE Band 13	Sub	AG1	23.7	40.0	23.0
LTE Band 5	Main1	AG0	24.0	40.0	21.5
LTE Band 5	Sub	AG1	24.0	40.0	20.0
LTE Band 66/4	Main2	AG0	24.0	40.0	18.5
LTE Band 66	Sub	AG1	23.0	40.0	15.5
LTE Band 25/2	Main2	AG0	24.0	40.0	18.0
LTE Band 2	Sub	AG1	23.0	40.0	16.0
LTE Band 30	Main2	AG0	22.0	40.0	16.5
LTE Band 30	Sub	AG1	22.0	40.0	13.5
LTE Band 41	Main2	AG0	22.0	40.0	17.0
LTE Band 48	Main1	AG0	19.0	40.0	17.0
LTE Band 48	Sub-UHB	AG1	19.0	40.0	16.5
NR Band n71	Main1	AG0	24.0	40.0	24.0
NR Band n5	Main1	AG0	24.3	40.0	21.0
NR Band n5	Sub	AG1	23.8	40.0	20.0
NR Band n66	Main2	AG0	24.0	40.0	19.0
NR Band n25/n2	Main2	AG0	24.0	40.0	18.0
NR Band n30	Main2	AG0	21.5	40.0	16.5
NR Band n41 PC2	Main2	AG0	23.0	40.0	18.0
NR Band n41 PC3	Main2	AG0	24.0	40.0	18.0
NR Band n41 UL-MIMO	Main2	AG0	19.5	40.0	15.5
NR Band n41 SRS 1T4R PC2	Sub	AG1	21.4	40.0	13.9
NR Band n41 SRS 1T4R PC3	Sub	AG1	22.4	40.0	13.9
NR Band n41 UL-MIMO / SRS 2T4R	Sub	AG1	19.5	40.0	15.5
NR Band n41 SRS 1T4R PC2	3rd-LMH	AG1	22.2	40.0	15.2
NR Band n41 SRS 1T4R PC3	3rd-LMH	AG1	23.2	40.0	15.2
NR Band n41 SRS 2T4R	3rd-LMH	AG1	18.7	40.0	14.7
NR Band n41 SRS 1T4R PC2	4th-MBHB	AG1	22.3	40.0	13.3
NR Band n41 SRS 1T4R PC3	4th-MBHB	AG1	23.3	40.0	13.3
NR Band n41 SRS 2T4R	4th-MBHB	AG1	17.7	40.0	12.2
NR Band n48	Main1	AG0	21.0	40.0	18.0
NR Band n48 UL-MIMO	Main1	AG0	18.0	40.0	18.0
NR Band n48 UL-MIMO / SRS 2T4R	Sub-UHB	AG1	18.0	40.0	18.0
NR Band n48 SRS 2T4R	3rd-LMH	AG1	16.8	40.0	8.8
NR Band n48 SRS 2T4R	4th-MBHB	AG1	16.2	40.0	11.7
NR Band n77 PC2	Main1	AG0	23.5	40.0	16.5
NR Band n77 PC3	Main1	AG0	24.3	40.0	16.5
NR Band n77 UL-MIMO / SRS 2T4R	Main1	AG0	19.8	40.0	16.5
NR Band n77 PC2	Sub-UHB	AG1	22.0	40.0	15.5
NR Band n77 PC3	Sub-UHB	AG1	22.8	40.0	15.5
NR Band n77 SRS 1T4R PC2	Sub-UHB	AG1	22.0	40.0	15.5
NR Band n77 SRS 1T4R PC3	Sub-UHB	AG1	22.8	40.0	15.5
NR Band n77 UL-MIMO / SRS 2T4R	Sub-UHB	AG1	19.8	40.0	16.5
NR Band n77 SRS 1T4R PC2	3rd-LMH	AG1	21.2	40.0	12.7
NR Band n77 SRS 1T4R PC3	3rd-LMH	AG1	22.0	40.0	12.7
NR Band n77 SRS 2T4R	3rd-LMH	AG1	17.5	40.0	12.7
NR Band n77 SRS 1T4R PC2	4th-MBHB	AG1	21.4	40.0	10.4
NR Band n77 SRS 1T4R PC3	4th-MBHB	AG1	22.2	40.0	10.4
NR Band n77 SRS 2T4R	4th-MBHB	AG1	16.9	40.0	9.6

*Note all Plimit EFS and maximum tune up output power Pmax levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (e.g. LTE TDD).

The maximum time-averaged output power (dBm) for any Sub6 WWAN technology, band, and DSI = minimum of the "Plimit EFS" and "Maximum tune up output power Pmax", +1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D04v01.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

1.5. Maximum Time-Averaged Power

This device follows the below target output power specifications and tolerances. SAR values were scaled to the maximum allowed power (including tolerance) to determine compliance per KDB Publication 447498 D04v01.

Device uses a motion sensing algorithm to configure the powers to the DSI=3 when in “on-body” conditions. The verification of this mechanism is included in Appendix H. Per FCC Guidance, Body and Extremity SAR tests were performed at the DSI=3 conditions. Per the interim guidance in FCC KDB 447498, SAR was additionally measured at 25mm without any power reduction.

Table 1-4 LTE Target RF Output Power

LTE			
Band/Mode	Antenna	Modulated Average Nominal Power [dBm]	
		Pmax (Off-Body)	DSI 3 (Body/Extremity)
LTE Band 71	Main1	24.0	24.0
LTE Band 12/17	Main 1	24.0	22.0
LTE Band 12/17	Sub	24.0	21.0
LTE Band 13	Main1	24.0	22.5
LTE Band 13	Sub	23.7	23.0
LTE Band 5	Main1	24.0	21.5
LTE Band 5	Sub	24.0	20.0
LTE Band 66/4	Main2	24.0	18.5
LTE Band 25/2	Main2	24.0	18.0
LTE Band 30	Main2	22.0*	16.5
LTE Band 41	Main2	24.0	19.0
LTE Band 48	Main1	21.0**	19.0
LTE Band 48	Sub-UHB	21.0	18.5
Upper Tolerance: +1.0 dB *Upper Tolerance: +0.4 dB **Upper Tolerance: +0.5 dB			
Lower Tolerance: -1.5 dB			

LTE during EN-DC conditions			
Band/Mode	Antenna	Modulated Average Nominal Power [dBm]	
		Pmax (Off-Body)	DSI 3 (Body/Extremity)
LTE Band 12	Main1	23.0	22.0
LTE Band 13	Main1	23.0	22.5
LTE Band 5	Main1	23.0	21.5
LTE Band 66	Main2	23.0	18.5
LTE Band 66	Sub	23.0	15.5
LTE Band 2	Main2	23.0	18.0
LTE Band 2	Sub	23.0	16.0
LTE Band 30	Main2	22.0*	16.5
LTE Band 30	Sub	22.0	13.5
LTE Band 41	Main2	23.0	19.0
LTE Band 48	Main1	21.0**	19.0
LTE Band 48	Sub-UHB	21.0	18.5
Upper Tolerance: +1.0 dB *Upper Tolerance: +0.4 dB **Upper Tolerance: +0.5 dB			
Lower Tolerance: -1.5 dB			

Table 1-5 NR Target RF Output Power

NR			
Band/Mode	Antenna	Modulated Average Nominal Power [dBm]	
		Pmax (Off-Body)	DSI 3 (Body/Extremity)
NR Band n71	Main1	24.0	24.0
NR Band n5	Main1	24.3*	21.0
NR Band n5	Sub	23.8	19.5
NR Band n66	Main2	24.0	19.0
NR Band n25/n2	Main2	24.0	18.0
NR Band n30	Main2	21.5**	16.5
NR Band n41 PC2	Main2	26.0	18.0
NR Band n41 PC3	Main2	24.0	18.0
NR Band n41 (PC3, UL-MIMO)	Main2	19.5	15.5
NR Band n41 PC2 SRS 1T4R	Sub	24.4	13.9
NR Band n41 PC3 SRS 1T4R	Sub	22.4	13.9
NR Band n41 (PC3, UL-MIMO / SRS 2T4R)	Sub	19.5	15.5
NR Band n41 PC2 SRS 1T4R	3rd-LMH	25.2	15.2
NR Band n41 PC3 SRS 1T4R	3rd-LMH	23.2	15.2
NR Band n41 PC3 SRS 2T4R	3rd-LMH	18.7	14.7
NR Band n41 PC2 SRS 1T4R	4th-MBHB	25.3	13.3
NR Band n41 PC3 SRS 1T4R	4th-MBHB	23.3	13.3
NR Band n41 PC3 SRS 2T4R	4th-MBHB	17.7	12.2
NR Band n48 SA	Main1	21.0***	18.0
NR Band n48 UL-MIMO	Main1	18.0***	18.0
NR Band n48 (UL-MIMO / SRS 2T4R)	Sub-UHB	18.0	18.0
NR Band n48 SRS 2T4R	3rd-LMH	16.8	8.8
NR Band n48 SRS 2T4R	4th-MBHB	16.2	11.7
NR Band n77 PC2	Main1	26.5	16.5
NR Band n77 PC3	Main1	24.3*	16.5
NR Band n77 (PC3, UL-MIMO / SRS 2T4R)	Main1	19.8	16.5
NR Band n77 PC2 AS-Div	Sub-UHB	25.0	15.5
NR Band n77 PC3 AS-Div	Sub-UHB	22.8	15.5
NR Band n77 PC2 SRS 1T4R	Sub-UHB	25.0	15.5
NR Band n77 PC3 SRS 1T4R	Sub-UHB	22.8	15.5
NR Band n77 (PC3, UL-MIMO / SRS 2T4R)	Sub-UHB	19.8	16.5
NR Band n77 PC2 SRS 1T4R	3rd-LMH	24.2	12.7
NR Band n77 PC3 SRS 1T4R	3rd-LMH	22.0	12.7
NR Band n77 PC3 SRS 2T4R	3rd-LMH	17.5	12.7
NR Band n77 PC2 SRS 1T4R	4th-MBHB	24.4	10.4
NR Band n77 PC3 SRS 1T4R	4th-MBHB	22.2	10.4
NR Band n77 PC3 SRS 2T4R	4th-MBHB	16.9	9.6
Upper Tolerance: +1.0 dB *Upper Tolerance: +0.7 dB **Upper Tolerance: +0.4 dB ***Upper Tolerance: +0.5 dB			
Lower Tolerance: -1.5 dB			

Note: UL-MIMO Operations are limited to CP-OFDM only

Table 1-6 2.4 GHz WLAN Maximum RF Output Power (including tolerance)

2.4 GHz WLAN									
Mode / Band	Power Level	Chain0 in MIMO				Chain1 in MIMO			
		802.11b (CDD + STBC)	802.11g (CDD + STBC)	802.11n (CDD + STBC, SDM)	802.11ax (SU) (CDD + STBC, SDM)	802.11b (CDD + STBC)	802.11g (CDD + STBC)	802.11n (CDD + STBC, SDM)	802.11ax (SU) (CDD + STBC, SDM)
		Maximum Allowed Power [dBm]							
2.45 GHz WLAN	Normal State	13	13	13	13	12.5	13	13	13
	Simultaneous 2 GHz and 5 GHz / 6 GHz State	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5

Note: IEEE 802.11ax RU operations are addressed in the associated EMC test report. Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode. SISO operations are not supported.

Table 1-7 5 GHz WLAN Maximum RF Output Power (including tolerance)

5 GHz WLAN						
Mode	Band	Power Level	Chain0 / Chain1 in MIMO			
			802.11a (CDD + STBC)	802.11n (CDD + STBC, SDM)	802.11ac (CDD + STBC, SDM)	802.11ax (SU) (CDD + STBC, SDM)
			Maximum Allowed Power [dBm]			
5 GHz WLAN (20 MHz BW)	UNII-1/2A/2C/3	Normal State	7.5	7.5	7.5	7.5
		Simultaneous 2 GHz and 5 GHz State	7.5	7.5	7.5	7.5
5 GHz WLAN (40 MHz BW)	UNII-1/2A/2C/3	Normal State		7.5	7.5	7.5
		Simultaneous 2 GHz and 5 GHz State		7.5	7.5	7.5
5 GHz WLAN (80 MHz BW)	UNII-1/2A/2C/3	Normal State			7.5	7.5
		Simultaneous 2 GHz and 5 GHz State			7.5	7.5
5 GHz WLAN (160 MHz BW)	UNII-1/2A/2C	Normal State			7.5	7.5
		Simultaneous 2 GHz and 5 GHz State			7.5	7.5

Note: IEEE 802.11ax RU operations are addressed in the associated EMC test report. Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode. SISO operations are not supported.

Table 1-8 6 GHz WLAN Maximum RF Output Power (including tolerance)

6 GHz WLAN - LPI				
Mode	Band	Power Level	Chain0 / Chain1 in MIMO	
			802.11a (CDD + STBC)	802.11ax (SU) (CDD + STBC, SDM)
			Maximum Allowed Power [dBm]	
6 GHz WLAN (20 MHz BW)	UNII-5/6/7	Normal State	5.0	5.0
		Simultaneous 2 GHz and 6 GHz State	5.0	5.0
	UNII-8	Normal State	5.5	6.5
		Simultaneous 2 GHz and 6 GHz State	5.5	6.5
6 GHz WLAN (40 MHz BW)	UNII-5/6/7/8	Normal State		7.5
		Simultaneous 2 GHz and 6 GHz State		7.5
6 GHz WLAN (80 MHz BW)	UNII-5/6/7/8	Normal State		7.5
		Simultaneous 2 GHz and 6 GHz State		7.5
6 GHz WLAN (160 MHz BW)	UNII-5/6/7/8	Normal State		7.5
		Simultaneous 2 GHz and 6 GHz State		7.5

*Note: IEEE 802.11ax RU operations are addressed in the associated EMC test report. Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode. SISO operations are not supported.

Table 1-9 2.4 GHz Bluetooth Maximum RF Output Power (including tolerance)

2.4 GHz Bluetooth	
Chain0 / Chain1	
Mode	Maximum Allowed Power [dBm]
BR	11.0
EDR	11.0
BLE 1 Mbps	10.79
BLE 2 Mbps	10.79
BLE LR s2	10.79
BLE LR s8	10.79

1.6. Surfaces Required for Testing

Antennas	Back	Front	Top	Bottom	Right	Left
Main1	Yes	Yes	No	Yes	Yes	No
Sub	Yes	Yes	Yes	No	Yes	No
Main2	Yes	Yes	No	Yes	No	Yes
Sub-UHB	Yes	Yes	Yes	No	No	Yes
3rd-LMH	Yes	Yes	Yes	No	Yes	No
4th-MBHB	Yes	Yes	No	No	No	Yes
WIFI MIMO	Yes	Yes	Yes	Yes	Yes	Yes
Bluetooth Chain0	Yes	Yes	Yes	No	No	Yes
Bluetooth Chain1	Yes	Yes	No	Yes	Yes	No

Note: Particular DUT edges were not required to be evaluated if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v02r01 Section III. The distances between the transmit antennas and the edges of the device are included in the filing.

1.7. Test Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication D05v02r05, D05Av01r02 (4G)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D04v01 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 648474 D04v01r03 (Phablet Procedures)
- April 2019 TCB Workshop Notes (IEEE 802.11ax)
- IEC/IEEE 63195-1:2022
- SPEAG Application Note (Interim Procedures for Devices Operating at 6-10 GHz) (Version 9)

2. DUT Conducted Powers

2.1. LTE Conducted Powers

Note: Per FCC KDB Publication 941225 D05v02r05, LTE SAR for the lower bandwidths and for higher order modulations was not required for testing since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg. Conducted powers for the higher order modulations and for the lower bandwidths for all LTE Bands are included in the Secondary Mode Conducted Power Appendix.

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

Table 2-1

LTE Band 71		Frequency [MHz]		680.5	MPR [dB]
Antenna:	**Main1**				
Bandwidth [MHz]:	**20**	Channel Number		133297	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
Pmax (Off-Body/Body/Extremity)	QPSK	1	0	23.29	0
		1	50	23.48	0
		1	99	**23.53**	0
		50	0	22.58	1
		50	25	22.64	1
		50	50	**22.65**	1
		100	0	22.64	1

Table 2-2

LTE Band 12		Frequency [MHz]		707.5	MPR [dB]
Antenna:	**Main1**				
Bandwidth [MHz]:	**10**	Channel Number		23095	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	22.55	0
		1	25	**22.56**	0
		1	49	22.39	0
		25	0	22.39	0
		25	12	**22.40**	0
		25	25	22.39	0
		50	0	22.39	0

Table 2-3

LTE Band 12		Frequency [MHz]		707.5	MPR [dB]
Antenna:	Sub				
Bandwidth [MHz]:	10	Channel Number		23095	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	21.44	0
		1	25	**21.78**	0
		1	49	21.26	0
		25	0	21.44	0
		25	12	**21.56**	0
		25	25	21.53	0
		50	0	21.44	0

Table 2-4

LTE Band 13		Frequency [MHz]		782	MPR [dB]
Antenna:	Main1				
Bandwidth [MHz]:	10	Channel Number		23230	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	22.86	0
		1	25	22.78	0
		1	49	**22.87**	0
		25	0	22.88	0
		25	12	22.83	0
		25	25	**22.89**	0
		50	0	22.83	0

Table 2-5

LTE Band 13		Frequency [MHz]		782	MPR [dB]
Antenna:	Sub				
Bandwidth [MHz]:	10	Channel Number		23230	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	23.49	0
		1	25	**23.50**	0
		1	49	23.29	0
		25	0	22.94	0.3
		25	12	**22.95**	0.3
		25	25	22.93	0.3
		50	0	22.82	0.3

Table 2-6

LTE Band 5		Frequency [MHz]		836.5	MPR [dB]
Antenna:	**Main1**				
Bandwidth [MHz]:	**10**	Channel Number		20525	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	**22.11**	0
		1	25	21.88	0
		1	49	22.02	0
		25	0	21.88	0
		25	12	21.91	0
		25	25	**21.92**	0
		50	0	21.82	0

Table 2-7

LTE Band 5		Frequency [MHz]		836.5	MPR [dB]
Antenna:	**Sub**				
Bandwidth [MHz]:	**10**	Channel Number		20525	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	**20.51**	0
		1	25	20.40	0
		1	49	20.41	0
		25	0	**20.44**	0
		25	12	20.42	0
		25	25	20.43	0
		50	0	20.44	0

Table 2-8

LTE Band 66		Frequency [MHz]		1720	1745	1770	MPR [dB]
Antenna:	**Main2**						
Bandwidth [MHz]:	**20**	Channel Number		132072	132322	132572	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	QPSK	1	0	18.95	18.94	18.86	0
		1	50	18.98	**19.42**	19.00	0
		1	99	18.83	19.00	18.80	0
		50	0	18.90	18.96	19.01	0
		50	25	19.00	**19.09**	19.03	0
		50	50	19.02	19.00	19.05	0
		100	0	18.98	19.09	18.97	0

Table 2-9

LTE Band 66		Frequency [MHz]		1720	1745	1770	MPR [dB]
Antenna:	Sub						
Bandwidth [MHz]:	20	Channel Number		132072	132322	132572	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	QPSK	1	0	15.66	15.77	**15.85**	0
		1	50	15.65	15.72	15.77	0
		1	99	15.63	15.75	15.71	0
		50	0	15.62	15.66	15.81	0
		50	25	15.70	15.79	15.80	0
		50	50	15.68	15.81	**15.88**	0
		100	0	15.64	15.74	15.79	0

Table 2-10

LTE Band 25		Frequency [MHz]		1860	1882.5	1905	MPR [dB]
Antenna:	Main2						
Bandwidth [MHz]:	20	Channel Number		26140	26365	26590	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	QPSK	1	0	18.21	18.31	18.35	0
		1	50	18.30	18.28	**18.48**	0
		1	99	18.20	18.21	18.26	0
		50	0	18.34	18.34	18.51	0
		50	25	18.38	18.38	**18.63**	0
		50	50	18.33	18.39	18.57	0
		100	0	18.38	18.37	18.48	0

Table 2-11

LTE Band 2		Frequency [MHz]		1860	1880	1900	MPR [dB]
Antenna:	Sub						
Bandwidth [MHz]:	20	Channel Number		18700	18900	19100	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	QPSK	1	0	15.93	16.02	16.11	0
		1	50	15.92	16.10	16.05	0
		1	99	16.03	**16.12**	16.02	0
		50	0	15.90	16.06	16.00	0
		50	25	16.02	16.08	16.09	0
		50	50	15.97	**16.15**	16.07	0
		100	0	15.99	16.04	16.10	0

Table 2-12

LTE Band 30		Frequency [MHz]		2310	MPR [dB]
Antenna:	Main2				
Bandwidth [MHz]:	10	Channel Number		27710	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	16.73	0
		1	25	**16.83**	0
		1	49	16.72	0
		25	0	16.77	0
		25	12	16.86	0
		25	25	**16.87**	0
		50	0	16.81	0

Table 2-13

LTE Band 30		Frequency [MHz]		2310	MPR [dB]
Antenna:	Sub				
Bandwidth [MHz]:	10	Channel Number		27710	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	QPSK	1	0	14.00	0
		1	25	**14.02**	0
		1	49	13.89	0
		25	0	13.65	0
		25	12	13.73	0
		25	25	**13.79**	0
		50	0	13.66	0

Table 2-14

LTE Band 41		Frequency [MHz]		2506	2549.5	2593	2636.5	2680	MPR [dB]
Antenna:	Main2								
Bandwidth [MHz]:	20	Channel Number		39750	40185	40620	41055	41490	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]					
DSI 3 (Body/Extremity)	QPSK	1	0	19.55	19.55	19.62	19.78	**19.86**	0
		1	50	19.52	19.55	19.71	19.79	19.79	0
		1	99	19.44	19.46	19.67	19.75	19.74	0
		50	0	19.60	19.67	19.74	19.81	19.87	0
		50	25	19.71	19.74	19.91	19.93	19.88	0
		50	50	19.68	19.68	19.86	19.89	**19.98**	0
		100	0	19.69	19.70	19.84	19.84	19.85	0

Table 2-15

LTE Band 48		Frequency [MHz]		3560	3603.3	3646.7	3690	MPR [dB]
Antenna:	Main1							
Bandwidth [MHz]:	20	Channel Number		55340	55773	56207	56640	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]				
DSI 3 (Body/Extremity)	QPSK	1	0	19.32	19.30	19.38	19.49	0
		1	50	19.37	19.36	19.46	**19.60**	0
		1	99	19.32	19.32	19.41	19.46	0
		50	0	19.53	19.48	19.54	19.70	0
		50	25	19.59	19.57	19.63	**19.72**	0
		50	50	19.57	19.53	19.59	19.71	0
		100	0	19.58	19.52	19.54	19.59	0

Table 2-16

LTE Band 48		Frequency [MHz]		3560	3603.3	3646.7	3690	MPR [dB]
Antenna:	Sub-UHB							
Bandwidth [MHz]:	20	Channel Number		55340	55773	56207	56640	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]				
DSI 3 (Body/Extremity)	QPSK	1	0	18.60	18.78	18.70	**19.06**	0
		1	50	18.72	18.81	18.76	18.80	0
		1	99	18.72	18.90	18.67	18.76	0
		50	0	18.77	18.90	18.90	**18.93**	0
		50	25	18.81	18.90	18.82	18.92	0
		50	50	18.82	18.92	18.83	18.87	0
		100	0	18.81	18.89	18.89	18.90	0

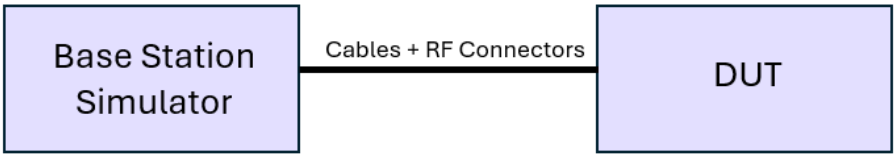


Figure 2-1 Power Measurement Setup

2.2. NR Conducted Powers

Per October 2020 TCB Workshop Guidance, NR FR1 SAR evaluations are being generally based on adapting the existing LTE SAR procedures (FCC KDB Publication 941225 D05v02r05). Therefore, NR SAR for the lower bandwidths and higher order modulations was not required for testing based on the measured output power and the reported NR SAR for the highest bandwidth. Conducted powers for the higher order modulations and for the lower bandwidths for all NR Bands are included in the Secondary Mode Conducted Power Appendix.

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

Table 2-17

NR Band n71		Frequency [MHz]		680.5	MPR [dB]
Antenna:	Main1				
Bandwidth [MHz]:	20	Channel Number		136100	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
Pmax (Off-Body/Body/Extremity)	DFT-s-OFDM QPSK	1	1	24.42	0
		1	53	24.41	0
		1	104	**24.53**	0
		50	0	23.42	1
		50	28	**24.43**	0
		50	56	23.52	1
		100	0	23.42	1

Table 2-18

NR Band n5		Frequency [MHz]		836.5	MPR [dB]
Antenna:	Main1				
Bandwidth [MHz]:	20	Channel Number		167300	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
Pmax (Off-Body)	DFT-s-OFDM QPSK	1	1	24.55	0
		1	53	**24.59**	0
		1	104	23.65	0
		50	0	23.61	1
		50	28	**24.58**	0
		50	56	22.92	1
		100	0	23.33	1
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**21.30**	0
		1	53	21.26	0
		1	104	21.19	0
		50	0	**21.24**	0
		50	28	21.23	0
		50	56	21.18	0
		100	0	21.16	0

Table 2-19

NR Band n5		Frequency [MHz]		836.5	MPR [dB]
Antenna:	Sub				
Bandwidth [MHz]:	20	Channel Number		167300	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**19.98**	0
		1	53	19.91	0
		1	104	19.80	0
		50	0	19.84	0
		50	28	**19.91**	0
		50	56	19.89	0
		100	0	19.77	0

Table 2-20

NR Band n66		Frequency [MHz]		1720	1745	1770	MPR [dB]
Antenna:	Main2						
Bandwidth [MHz]:	20	Channel Number		344000	349000	354000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
Pmax (Off-Body)	DFT-s-OFDM QPSK	1	1	24.13	**24.21**	24.12	0
		1	53	24.05	24.14	24.09	0
		1	104	24.11	24.09	24.11	0
		50	0	23.13	23.03	22.98	1
		50	28	24.09	**24.10**	23.97	0
		50	56	23.03	23.04	22.93	1
		100	0	23.14	23.04	22.90	1
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	18.95	19.04	19.01	0
		1	53	**19.06**	18.96	19.05	0
		1	104	18.92	19.05	19.05	0
		50	0	18.95	18.92	18.87	0
		50	28	**19.03**	18.90	18.83	0
		50	56	19.01	18.88	18.90	0
		100	0	18.99	18.86	18.81	0

Table 2-21

NR Band n25		Frequency [MHz]		1860	1882.5	1905	MPR [dB]
Antenna:	Main2						
Bandwidth [MHz]:	20	Channel Number		372000	376500	381000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	18.65	18.61	18.75	0
		1	53	18.63	18.66	**18.88**	0
		1	104	18.69	18.68	18.86	0
		50	0	18.74	18.67	18.66	0
		50	28	18.66	18.65	**18.77**	0
		50	56	18.64	18.64	18.73	0
		100	0	18.68	18.69	18.72	0

Table 2-22

NR Band n30		Frequency [MHz]		2310	MPR [dB]
Antenna:	Main2				
Bandwidth [MHz]:	10	Channel Number		462000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**16.89**	0
		1	26	16.88	0
		1	50	16.81	0
		25	0	16.71	0
		25	14	**16.72**	0
		25	27	16.69	0
		50	0	16.72	0

Table 2-23

NR Band n41		Frequency [MHz]		2592.99	MPR [dB]
Antenna:	Main2				
Bandwidth [MHz]:	100	Channel Number		518598	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**18.48**	0
		1	137	18.45	0
		1	271	18.43	0
		135	0	18.42	0
		135	69	18.49	0
		135	138	**18.50**	0
		270	0	18.46	0

Table 2-24

NR Band n41 SRS 1T4R		Frequency [MHz]		2592.99	MPR [dB]
Antenna:	Sub				
Bandwidth [MHz]:	100	Channel Number		518598	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
Pmax (Off-Body)	DFT-s-OFDM QPSK	1	1	24.81	0
		1	137	24.91	0
		1	271	**25.04**	0
		135	0	23.91	1
		135	69	**24.98**	0
		135	138	24.05	1
		270	0	24.04	1
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	14.29	0
		1	137	14.36	0
		1	271	**14.40**	0
		135	0	14.32	0
		135	69	**14.42**	0
		135	138	14.39	0
		270	0	14.36	0

Table 2-25

NR Band n41 UL-MIMO/SRS 2T4R		Frequency [MHz]		2592.99	MPR [dB]
Antenna:	Sub				
Bandwidth [MHz]:	100	Channel Number		518598	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	CP-OFDM QPSK	1	1	15.70	0
		1	137	15.73	0
		1	271	**15.78**	0
		137	0	15.60	0
		137	68	15.63	0
		137	136	**15.70**	0
		273	0	15.66	0

Table 2-26

NR Band n41 SRS 1T4R		Frequency [MHz]		2592.99	MPR [dB]
Antenna:	3rd-LMH				
Bandwidth [MHz]:	100	Channel Number		518598	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	15.94	0
		1	137	**15.97**	0
		1	271	15.94	0
		135	0	15.83	0
		135	69	**15.86**	0
		135	138	15.78	0
		270	0	15.80	0

Table 2-27

NR Band n41 SRS 1T4R		Frequency [MHz]		2592.99	MPR [dB]
Antenna:	4th-MBHB				
Bandwidth [MHz]:	100	Channel Number		518598	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	13.75	0
		1	137	**13.84**	0
		1	271	13.73	0
		135	0	13.63	0
		135	69	**13.76**	0
		135	138	13.66	0
		270	0	13.74	0

Table 2-28

NR Band n41 SRS 2T4R		Frequency [MHz]		2592.99	MPR [dB]
Antenna:	4th-MBHB				
Bandwidth [MHz]:	100	Channel Number		518598	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**12.81**	0
		1	137	12.60	0
		1	271	12.44	0
		135	0	**12.71**	0
		135	69	12.66	0
		135	138	12.52	0
		270	0	12.63	0

Table 2-29

NR Band n48 SA		Frequency [MHz]		3570	3624.99	3679.98	MPR [dB]
Antenna:	Main1						
Bandwidth [MHz]:	40	Channel Number		638000	641666	645332	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	18.30	18.31	18.31	0
		1	53	18.30	18.29	18.33	0
		1	104	**18.42**	18.40	18.34	0
		50	0	18.33	18.30	18.33	0
		50	28	18.32	18.30	18.26	0
		50	56	**18.34**	18.27	18.30	0
		100	0	18.31	18.32	18.30	0

Table 2-30

NR Band n48 UL-MIMO/SRS 2T4R		Frequency [MHz]		3570	3624.99	3679.98	MPR [dB]
Antenna:	Sub-UHB						
Bandwidth [MHz]:	40	Channel Number		638000	641666	645332	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/ Extremity)	CP-OFDM QPSK	1	1	17.75	18.10	18.12	0
		1	53	17.76	17.97	17.95	0
		1	104	17.93	**18.13**	18.09	0
		53	0	17.85	17.87	17.81	0
		53	27	17.86	**17.90**	17.69	0
		53	53	17.87	17.87	17.70	0
		106	0	17.89	17.89	17.77	0

Table 2-31

NR Band n48 SRS 2T4R		Frequency [MHz]		3570	3624.99	3679.98	MPR [dB]
Antenna:	3rd-LMH						
Bandwidth [MHz]:	40	Channel Number		638000	641666	645332	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	9.11	**9.15**	9.03	0
		1	53	9.03	9.01	8.95	0
		1	104	9.10	9.13	8.91	0
		50	0	9.05	**9.06**	8.93	0
		50	28	9.01	9.00	8.92	0
		50	56	9.02	9.02	8.77	0
		100	0	9.04	8.99	8.94	0

Table 2-32

NR Band n48 SRS 2T4R		Frequency [MHz]		3570	3624.99	3679.98	MPR [dB]
Antenna:	4th-MBHB						
Bandwidth [MHz]:	40	Channel Number		638000	641666	645332	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]			
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	12.27	12.13	12.35	0
		1	53	12.10	12.08	12.32	0
		1	104	12.17	12.18	**12.40**	0
		50	0	12.14	12.12	**12.15**	0
		50	28	12.11	12.11	12.08	0
		50	56	12.13	12.01	12.06	0
		100	0	12.09	12.14	12.07	0

Table 2-33

NR Band n77		Frequency [MHz]		3750	3930	MPR [dB]
Antenna:	Main1					
Bandwidth [MHz]:	100	Channel Number		650000	662000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]		
Pmax (Off-Body)	DFT-s-OFDM QPSK	1	1	26.66	26.41	0
		1	137	**26.83**	26.60	0
		1	271	26.64	26.25	0
		135	0	25.62	25.59	1
		135	69	**26.72**	26.66	0
		135	138	25.68	25.63	1
		270	0	25.67	25.55	1
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	16.49	16.48	0
		1	137	16.69	**16.70**	0
		1	271	16.56	16.69	0
		135	0	16.55	16.43	0
		135	69	16.54	**16.62**	0
		135	138	16.53	16.54	0
		270	0	16.48	16.49	0

Table 2-34

NR Band n77 DoD		Frequency [MHz]		3500.01	MPR [dB]
Antenna:	Main1				
Bandwidth [MHz]:	100	Channel Number		633334	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**16.70**	0
		1	137	16.66	0
		1	271	16.68	0
		135	0	16.64	0
		135	69	**16.69**	0
		135	138	16.60	0
		270	0	16.68	0

Table 2-35

NR Band n77 AS-Div/SRS 1T4R		Frequency [MHz]		3750	3930	MPR [dB]
Antenna:	Sub-UHB					
Bandwidth [MHz]:	100	Channel Number		650000	662000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]		
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	14.88	15.03	0
		1	137	15.08	**15.29**	0
		1	271	15.05	15.25	0
		135	0	15.04	15.17	0
		135	69	15.10	**15.34**	0
		135	138	15.09	15.33	0
		270	0	15.06	15.22	0

Table 2-36

NR Band n77 UL-MIMO/SRS 2T4R		Frequency [MHz]		3750	3930	MPR [dB]
Antenna:	Sub-UHB					
Bandwidth [MHz]:	100	Channel Number		650000	662000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]		
DSI 3 (Body/Extremity)	CP-OFDM QPSK	1	1	16.38	16.75	0
		1	137	16.56	**17.06**	0
		1	271	16.54	16.99	0
		137	0	16.55	16.74	0
		137	68	16.64	16.77	0
		137	136	16.63	**16.81**	0
		273	0	16.62	16.78	0

Table 2-37

NR Band n77 DoD AS-Div/SRS 1T4R		Frequency [MHz]		3500.01	MPR [dB]
Antenna:	Sub-UHB				
Bandwidth [MHz]:	100	Channel Number		633334	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	15.10	0
		1	137	15.24	0
		1	271	**15.37**	0
		135	0	15.15	0
		135	69	**15.26**	0
		135	138	15.22	0
		270	0	15.23	0

Table 2-38

NR Band n77 DoD UL-MIMO/SRS 2T4R		Frequency [MHz]		3500.01	MPR [dB]
Antenna:	Sub-UHB				
Bandwidth [MHz]:	100	Channel Number		633334	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	CP-OFDM QPSK	1	1	**16.25**	0
		1	137	16.24	0
		1	271	16.14	0
		137	0	**16.25**	0
		137	68	16.24	0
		137	136	16.13	0
		273	0	16.18	0

Table 2-39

NR Band n77 SRS 1T4R		Frequency [MHz]		3750	3930	MPR [dB]
Antenna:	3rd-LMH					
Bandwidth [MHz]:	100	Channel Number		650000	662000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]		
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	13.06	13.14	0
		1	137	13.05	**13.35**	0
		1	271	12.98	13.22	0
		135	0	13.11	13.21	0
		135	69	13.00	**13.30**	0
		135	138	13.10	13.19	0
		270	0	13.05	13.27	0

Table 2-40

NR Band n77 DoD SRS 1T4R		Frequency [MHz]		3500.01	MPR [dB]
Antenna:	3rd-LMH				
Bandwidth [MHz]:	100	Channel Number		633334	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**13.15**	0
		1	137	13.08	0
		1	271	13.13	0
		135	0	**13.14**	0
		135	69	13.10	0
		135	138	13.09	0
		270	0	13.08	0

Table 2-41

NR Band n77 SRS 1T4R		Frequency [MHz]		3750	3930	MPR [dB]
Antenna:	4th-MBHB					
Bandwidth [MHz]:	100	Channel Number		650000	662000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]		
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	10.82	10.74	0
		1	137	10.87	**11.00**	0
		1	271	10.77	10.89	0
		135	0	10.83	10.84	0
		135	69	10.88	10.93	0
		135	138	10.81	**10.94**	0
		270	0	10.78	10.91	0

Table 2-42

NR Band n77 SRS 2T4R		Frequency [MHz]		3750	3930	MPR [dB]
Antenna:	4th-MBHB					
Bandwidth [MHz]:	100	Channel Number		650000	662000	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]		
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**9.59**	9.10	0
		1	137	9.50	9.26	0
		1	271	9.43	9.13	0
		135	0	**9.57**	9.18	0
		135	69	9.49	9.23	0
		135	138	9.42	9.09	0
		270	0	9.46	9.06	0

Table 2-43

NR Band n77 DoD SRS 1T4R		Frequency [MHz]		3500.01	MPR [dB]
Antenna:	4th-MBHB				
Bandwidth [MHz]:	100	Channel Number		633334	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	11.03	0
		1	137	**11.06**	0
		1	271	11.05	0
		135	0	**11.02**	0
		135	69	11.01	0
		135	138	10.96	0
		270	0	11.00	0

Table 2-44

NR Band n77 DoD SRS 2T4R		Frequency [MHz]		3500.01	MPR [dB]
Antenna:	4th-MBHB				
Bandwidth [MHz]:	100	Channel Number		633334	
Power Level	Modulation	RB Size	RB Offset	Conducted Powers [dBm]	
DSI 3 (Body/Extremity)	DFT-s-OFDM QPSK	1	1	**10.47**	0
		1	137	10.21	0
		1	271	10.13	0
		135	0	**10.38**	0
		135	69	10.22	0
		135	138	10.10	0
		270	0	10.22	0

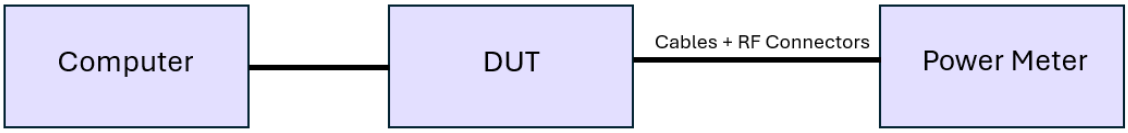


Figure 2-2 Power Measurement Setup

2.3. WIFI Conducted Powers

Table 2-45

2.4 GHz WIFI Conducted Power [dBm] - Normal State													
Mode		802.11b			802.11g			802.11n			802.11ax		
Channel	Frequency (MHz)	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO
1	2412	11.91	11.90	14.92	12.10	12.33	15.23	12.13	12.41	15.28	12.25	12.52	15.40
6	2437	11.91	11.92	14.93	12.26	12.56	15.42	12.28	12.56	15.43	12.43	12.73	15.59
11	2462	11.97	11.89	14.94	12.30	12.65	15.49	12.35	12.73	15.55	12.46	12.81	15.65

Table 2-46

2.4 GHz WIFI Conducted Power [pdBm] - Simultaneous 2 GHz and 5 GHz / 6 GHz State													
Mode		802.11b			802.11g			802.11n			802.11ax		
Channel	Frequency (MHz)	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO
1	2412	9.02	9.44	12.25	8.95	9.37	12.18	8.56	9.02	11.81	8.61	9.11	11.88
6	2437	9.27	9.34	12.32	8.86	9.06	11.97	8.88	9.06	11.98	9.04	9.19	12.13
11	2462	9.34	9.46	12.41	8.77	9.05	11.92	8.76	9.07	11.93	8.84	9.18	12.02

Table 2-47

5 GHz WIFI Conducted Power [dBm] - 80 MHz Bandwidth							
Mode		802.11ac			802.11ax		
Channel	Frequency (MHz)	Chain0	Chain1	MIMO	Chain0	Chain1	MIMO
42	5210	7.03	6.50	9.78	7.25	6.73	10.01
58	5290	7.11	7.08	10.11	7.46	7.27	10.38
106	5530	6.97	6.88	9.94	7.32	7.15	10.25
122	5610	6.98	6.67	9.84	7.28	6.93	10.12
138	5690	7.08	7.05	10.08	7.31	7.30	10.32
155	5775	7.18	6.65	9.93	7.42	6.91	10.18

Table 2-48

6 GHz WIFI Conducted Power [dBm] - 80 MHz Bandwidth				
Mode		802.11ax		
Channel	Frequency (MHz)	Chain0	Chain1	MIMO
7	5985	7.26	7.30	10.29
55	6225	7.10	7.41	10.27
103	6465	6.96	7.24	10.11
151	6705	6.21	7.17	9.73
215	7025	6.39	7.16	9.80

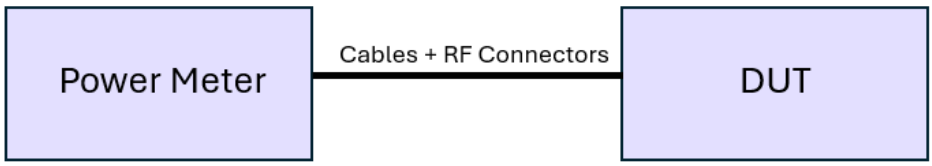


Figure 2-3 Power Measurement Setup

2.4. Bluetooth Conducted Powers

Table 2-49

Bluetooth Conducted Powers [dBm]				
Channel	Frequency (MHz)	Data rate	Chain	Conducted Power
0	2402	1 Mbps	0	9.91
39	2441	1 Mbps	0	10.32
78	2480	1 Mbps	0	10.53
0	2402	1 Mbps	1	9.90
39	2441	1 Mbps	1	9.97
78	2480	1 Mbps	1	10.65

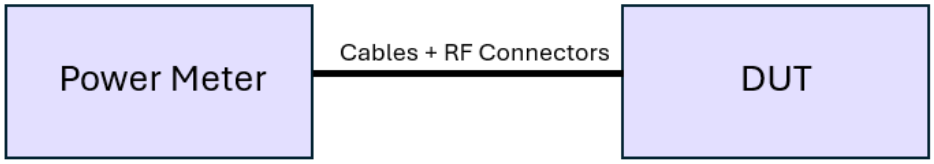
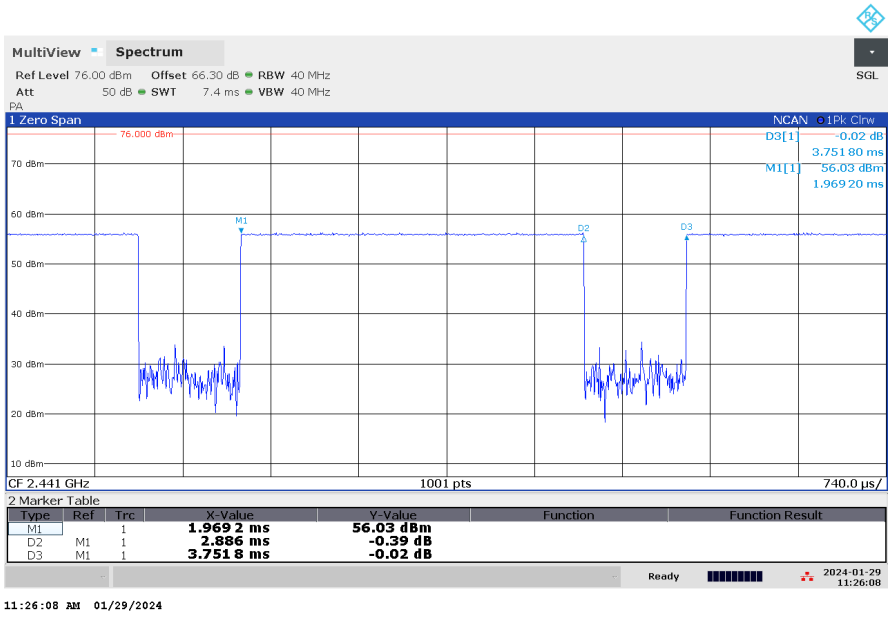
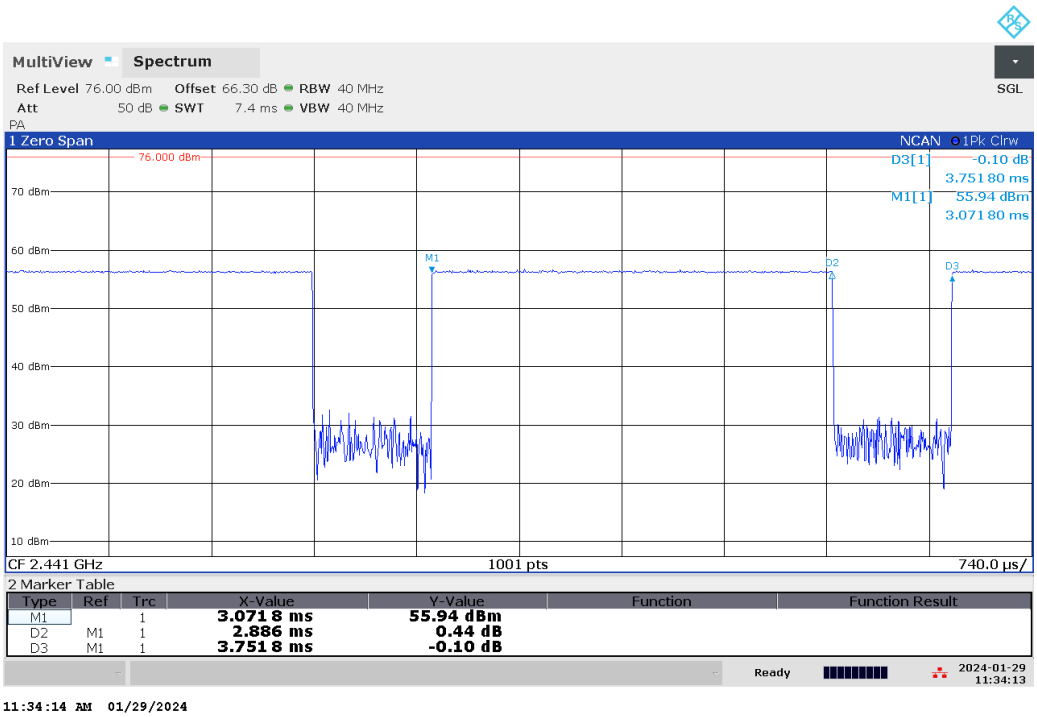


Figure 2-4 Power Measurement Setup



$$\text{Duty Cycle} = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.886\ ms}{3.7518\ ms} * 100\% = 76.9\%$$

Figure 2-5 2.4 GHz Bluetooth Chain0 Duty Cycle Plot and Calculation



$$\text{Duty Cycle} = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.886\ ms}{3.7518\ ms} * 100\% = 76.9\%$$

Figure 2-6 2.4 GHz Bluetooth Chain1 Duty Cycle Plot and Calculation

3. DUT SAR Test Results

3.1. LTE SAR Data

Table 3-1

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 71	Main1	0RTLA	-0.03	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	1	99	25	23.53	0	0	Back	0.520	0.729	-	-	1
Body	LTE Band 71	Main1	0RTLA	0.00	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	50	50	24	22.65	1	0	Back	0.427	0.583	-	-	-
Body	LTE Band 71	Main1	0RTLA	-0.02	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	1	99	25	23.53	0	5	Front	0.458	0.642	-	-	-
Body	LTE Band 71	Main1	0RTLA	0.00	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	50	50	24	22.65	1	5	Front	0.378	0.516	-	-	-
Body	LTE Band 71	Main1	0RTLA	0.01	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	1	99	25	23.53	0	5	Bottom	0.357	0.501	-	-	-
Body	LTE Band 71	Main1	0RTLA	-0.02	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	50	50	24	22.65	1	5	Bottom	0.294	0.401	-	-	-
Body	LTE Band 71	Main1	0F1LA	-0.08	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	1	99	25	23.53	0	5	Right	0.492	0.690	-	-	-
Body	LTE Band 71	Main1	0F1LA	-0.04	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	50	50	24	22.65	1	5	Right	0.408	0.557	-	-	-
Extremity	LTE Band 71	Main1	0RTLA	0.04	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	1	99	25	23.53	0	0	Bottom	-	-	0.527	0.739	2
Extremity	LTE Band 71	Main1	0RTLA	0.00	100.0%	100.0%	680.5	133297	QPSK, 20 MHz	50	50	24	22.65	1	0	Bottom	-	-	0.439	0.599	-

Table 3-2

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 12	Main1	0C9LA	0.00	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	23	22.56	0	0	Back	0.484	0.536	-	-	3
Body	LTE Band 12	Main1	0C9LA	-0.02	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	23	22.40	0	0	Back	0.452	0.519	-	-	-
Body	LTE Band 12	Main1	0C9LA	0.00	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	23	22.56	0	5	Front	0.385	0.426	-	-	-
Body	LTE Band 12	Main1	0C9LA	-0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	23	22.40	0	5	Front	0.382	0.439	-	-	-
Body	LTE Band 12	Main1	0RTLA	-0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	23	22.56	0	5	Bottom	0.430	0.476	-	-	-
Body	LTE Band 12	Main1	0RTLA	0.02	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	23	22.40	0	5	Bottom	0.417	0.479	-	-	-
Body	LTE Band 12	Main1	0F1LA	0.02	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	23	22.56	0	5	Right	0.451	0.499	-	-	-
Body	LTE Band 12	Main1	0F1LA	0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	23	22.40	0	5	Right	0.440	0.505	-	-	-
Extremity	LTE Band 12	Main1	0RTLA	0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	23	22.56	0	0	Bottom	-	-	0.562	0.622	4
Extremity	LTE Band 12	Main1	0RTLA	0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	23	22.40	0	0	Bottom	-	-	0.542	0.622	-
Body	LTE Band 12	Sub	0RQLA	0.00	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	22	21.78	0	0	Back	0.297	0.312	-	-	-
Body	LTE Band 12	Sub	0RQLA	-0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	22	21.56	0	0	Back	0.294	0.325	-	-	-
Body	LTE Band 12	Sub	0RQLA	-0.02	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	22	21.78	0	5	Front	0.237	0.249	-	-	-
Body	LTE Band 12	Sub	0RQLA	0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	22	21.56	0	5	Front	0.235	0.260	-	-	-
Body	LTE Band 12	Sub	0RQLA	-0.01	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	22	21.78	0	5	Top	0.260	0.274	-	-	-
Body	LTE Band 12	Sub	0RQLA	0.03	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	22	21.56	0	5	Top	0.262	0.290	-	-	-
Body	LTE Band 12	Sub	0RQLA	-0.08	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	1	25	22	21.78	0	5	Right	0.165	0.174	-	-	-
Body	LTE Band 12	Sub	0RQLA	0.02	100.0%	100.0%	707.5	23095	QPSK, 10 MHz	25	12	22	21.56	0	5	Right	0.163	0.180	-	-	-

Table 3-3

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 13	Main1	0C9LA	0.00	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	49	23.5	22.87	0	0	Back	0.552	0.638	-	-	-
Body	LTE Band 13	Main1	0C9LA	-0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	25	23.5	22.89	0	0	Back	0.563	0.648	-	-	5
Body	LTE Band 13	Main1	0C9LA	0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	49	23.5	22.87	0	5	Front	0.550	0.636	-	-	-
Body	LTE Band 13	Main1	0C9LA	0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	25	23.5	22.89	0	5	Front	0.559	0.643	-	-	-
Body	LTE Band 13	Main1	0RTLA	-0.02	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	49	23.5	22.87	0	5	Bottom	0.497	0.575	-	-	-
Body	LTE Band 13	Main1	0RTLA	-0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	25	23.5	22.89	0	5	Bottom	0.463	0.533	-	-	-
Body	LTE Band 13	Main1	0F1LA	0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	49	23.5	22.87	0	5	Right	0.391	0.452	-	-	-
Body	LTE Band 13	Main1	0F1LA	0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	25	23.5	22.89	0	5	Right	0.363	0.418	-	-	-
Extremity	LTE Band 13	Main1	0RTLA	0.02	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	49	23.5	22.87	0	0	Bottom	-	-	0.600	0.694	6
Extremity	LTE Band 13	Main1	0RTLA	0.02	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	25	23.5	22.89	0	0	Bottom	-	-	0.558	0.642	-
Body	LTE Band 13	Sub	0RQLA	0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	25	24	23.50	0	0	Back	0.278	0.312	-	-	-
Body	LTE Band 13	Sub	0RQLA	0.00	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	12	23.7	22.95	0.3	0	Back	0.265	0.315	-	-	-
Body	LTE Band 13	Sub	0RQLA	0.03	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	25	24	23.50	0	5	Front	0.351	0.394	-	-	-
Body	LTE Band 13	Sub	0RQLA	0.00	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	12	23.7	22.95	0.3	5	Front	0.334	0.397	-	-	-
Body	LTE Band 13	Sub	0RTLA	0.00	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	25	24	23.50	0	5	Top	0.368	0.413	-	-	-
Body	LTE Band 13	Sub	0RTLA	0.01	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	12	23.7	22.95	0.3	5	Top	0.351	0.417	-	-	-
Body	LTE Band 13	Sub	0RQLA	0.00	100.0%	100.0%	782	23230	QPSK, 10 MHz	1	25	24	23.50	0	5	Right	0.138	0.155	-	-	-
Body	LTE Band 13	Sub	0RQLA	-0.02	100.0%	100.0%	782	23230	QPSK, 10 MHz	25	12	23.7	22.95	0.3	5	Right	0.108	0.128	-	-	-

Table 3-4

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 5	Main1	0F1LA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	22.5	22.11	0	0	Back	0.648	0.709	-	-	7
Body	LTE Band 5	Main1	0F1LA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	25	22.5	21.92	0	0	Back	0.609	0.696	-	-	-
Body	LTE Band 5	Main1	0F1LA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	22.5	22.11	0	5	Front	0.598	0.654	-	-	-
Body	LTE Band 5	Main1	0F1LA	0.21	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	25	22.5	21.92	0	5	Front	0.562	0.642	-	-	-
Body	LTE Band 5	Main1	0RTLA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	22.5	22.11	0	5	Bottom	0.488	0.534	-	-	-
Body	LTE Band 5	Main1	0RTLA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	25	22.5	21.92	0	5	Bottom	0.478	0.546	-	-	-
Body	LTE Band 5	Main1	0F1LA	-0.05	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	22.5	22.11	0	5	Right	0.512	0.560	-	-	-
Body	LTE Band 5	Main1	0F1LA	-0.01	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	25	22.5	21.92	0	5	Right	0.488	0.558	-	-	-
Extremity	LTE Band 5	Main1	0F1LA	-0.02	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	22.5	22.11	0	0	Bottom	-	-	0.345	0.377	8
Extremity	LTE Band 5	Main1	0F1LA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	25	22.5	21.92	0	0	Bottom	-	-	0.340	0.389	-
Body	LTE Band 5	Sub	0RQLA	0.05	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	21	20.51	0	0	Back	0.242	0.271	-	-	-
Body	LTE Band 5	Sub	0RQLA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	0	21	20.44	0	0	Back	0.233	0.265	-	-	-
Body	LTE Band 5	Sub	0RQLA	-0.07	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	21	20.51	0	5	Front	0.225	0.252	-	-	-
Body	LTE Band 5	Sub	0RQLA	-0.01	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	0	21	20.44	0	5	Front	0.220	0.250	-	-	-
Body	LTE Band 5	Sub	0RTLA	-0.01	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	21	20.51	0	5	Top	0.397	0.444	-	-	-
Body	LTE Band 5	Sub	0RTLA	0.00	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	0	21	20.44	0	5	Top	0.309	0.352	-	-	-
Body	LTE Band 5	Sub	0RTLA	0.03	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	1	0	21	20.51	0	5	Right	0.210	0.235	-	-	-
Body	LTE Band 5	Sub	0RTLA	0.05	100.0%	100.0%	836.5	20525	QPSK, 10 MHz	25	0	21	20.44	0	5	Right	0.211	0.240	-	-	-

Table 3-5

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 66	Main2	0F1LA	-0.01	100.0%	100.0%	1745	132322	QPSK, 20 MHz	1	50	19.5	19.42	0	0	Back	0.395	0.402	-	-	-
Body	LTE Band 66	Main2	0F1LA	0.00	100.0%	100.0%	1745	132322	QPSK, 20 MHz	50	25	19.5	19.09	0	0	Back	0.403	0.443	-	-	-
Body	LTE Band 66	Main2	0F1LA	0.03	100.0%	100.0%	1745	132322	QPSK, 20 MHz	1	50	19.5	19.42	0	5	Front	0.537	0.547	-	-	-
Body	LTE Band 66	Main2	0F1LA	0.01	100.0%	100.0%	1745	132322	QPSK, 20 MHz	50	25	19.5	19.09	0	5	Front	0.545	0.599	-	-	9
Body	LTE Band 66	Main2	0C9LA	0.02	100.0%	100.0%	1745	132322	QPSK, 20 MHz	1	50	19.5	19.42	0	5	Bottom	0.230	0.234	-	-	-
Body	LTE Band 66	Main2	0C9LA	0.02	100.0%	100.0%	1745	132322	QPSK, 20 MHz	50	25	19.5	19.09	0	5	Bottom	0.229	0.252	-	-	-
Body	LTE Band 66	Main2	0F1LA	0.05	100.0%	100.0%	1745	132322	QPSK, 20 MHz	1	50	19.5	19.42	0	5	Left	0.438	0.446	-	-	-
Body	LTE Band 66	Main2	0F1LA	0.01	100.0%	100.0%	1745	132322	QPSK, 20 MHz	50	25	19.5	19.09	0	5	Left	0.446	0.490	-	-	-
Extremity	LTE Band 66	Main2	0C9LA	0.01	100.0%	100.0%	1745	132322	QPSK, 20 MHz	1	50	19.5	19.42	0	0	Bottom	-	-	0.241	0.245	-
Extremity	LTE Band 66	Main2	0C9LA	0.06	100.0%	100.0%	1745	132322	QPSK, 20 MHz	50	25	19.5	19.09	0	0	Bottom	-	-	0.244	0.268	10
Body	LTE Band 66	Sub	0RQLA	0.04	100.0%	100.0%	1770	132572	QPSK, 20 MHz	1	0	16.5	15.85	0	0	Back	0.165	0.192	-	-	-
Body	LTE Band 66	Sub	0RQLA	-0.12	100.0%	100.0%	1770	132572	QPSK, 20 MHz	50	50	16.5	15.88	0	0	Back	0.171	0.197	-	-	-
Body	LTE Band 66	Sub	0RQLA	0.09	100.0%	100.0%	1770	132572	QPSK, 20 MHz	1	0	16.5	15.85	0	5	Front	0.257	0.298	-	-	-
Body	LTE Band 66	Sub	0RQLA	0.02	100.0%	100.0%	1770	132572	QPSK, 20 MHz	50	50	16.5	15.88	0	5	Front	0.267	0.308	-	-	-
Body	LTE Band 66	Sub	0RQLA	0.07	100.0%	100.0%	1770	132572	QPSK, 20 MHz	1	0	16.5	15.85	0	5	Top	0.086	0.100	-	-	-
Body	LTE Band 66	Sub	0RQLA	-0.01	100.0%	100.0%	1770	132572	QPSK, 20 MHz	50	50	16.5	15.88	0	5	Top	0.084	0.097	-	-	-
Body	LTE Band 66	Sub	0RQLA	0.06	100.0%	100.0%	1770	132572	QPSK, 20 MHz	1	0	16.5	15.85	0	5	Right	0.162	0.188	-	-	-
Body	LTE Band 66	Sub	0RQLA	-0.03	100.0%	100.0%	1770	132572	QPSK, 20 MHz	50	50	16.5	15.88	0	5	Right	0.174	0.201	-	-	-

Table 3-6

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 25	Main2	09CLA	0.02	100.0%	100.0%	1905	26590	QPSK, 20 MHz	1	50	19	18.48	0	0	Back	0.480	0.541	-	-	-
Body	LTE Band 25	Main2	0C9LA	0.03	100.0%	100.0%	1905	26590	QPSK, 20 MHz	50	25	19	18.63	0	0	Back	0.482	0.525	-	-	-
Body	LTE Band 25	Main2	09CLA	0.02	100.0%	100.0%	1860	26140	QPSK, 20 MHz	1	50	19	18.30	0	5	Front	0.524	0.616	-	-	-
Body	LTE Band 25	Main2	09CLA	0.02	100.0%	100.0%	1882.5	26365	QPSK, 20 MHz	1	0	19	18.31	0	5	Front	0.543	0.637	-	-	-
Body	LTE Band 25	Main2	09CLA	0.01	100.0%	100.0%	1905	26590	QPSK, 20 MHz	1	50	19	18.48	0	5	Front	0.573	0.646	-	-	-
Body	LTE Band 25	Main2	0C9LA	0.00	100.0%	100.0%	1905	26590	QPSK, 20 MHz	50	25	19	18.63	0	5	Front	0.578	0.629	-	-	11
Body	LTE Band 25	Main2	0F1LA	0.05	100.0%	100.0%	1905	26590	QPSK, 20 MHz	1	50	19	18.48	0	5	Bottom	0.185	0.209	-	-	-
Body	LTE Band 25	Main2	0F1LA	0.00	100.0%	100.0%	1905	26590	QPSK, 20 MHz	50	25	19	18.63	0	5	Bottom	0.188	0.205	-	-	-
Body	LTE Band 25	Main2	0F1LA	-0.01	100.0%	100.0%	1905	26590	QPSK, 20 MHz	1	50	19	18.48	0	5	Left	0.537	0.605	-	-	-
Body	LTE Band 25	Main2	0F1LA	-0.03	100.0%	100.0%	1905	26590	QPSK, 20 MHz	50	25	19	18.63	0	5	Left	0.565	0.615	-	-	-
Extremity	LTE Band 25	Main2	0F1LA	0.00	100.0%	100.0%	1905	26590	QPSK, 20 MHz	1	50	19	18.48	0	0	Bottom	-	-	0.169	0.190	-
Extremity	LTE Band 25	Main2	0F1LA	0.00	100.0%	100.0%	1905	26590	QPSK, 20 MHz	50	25	19	18.63	0	0	Bottom	-	-	0.175	0.191	12

Table 3-7

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 2	Sub	0RTLA	-0.04	100.0%	100.0%	1880	18900	QPSK, 20 MHz	1	99	17	16.12	0	0	Back	0.203	0.249	-	-	-
Body	LTE Band 2	Sub	0RTLA	-0.04	100.0%	100.0%	1880	18900	QPSK, 20 MHz	50	50	17	16.15	0	0	Back	0.194	0.236	-	-	-
Body	LTE Band 2	Sub	0RTLA	-0.02	100.0%	100.0%	1880	18900	QPSK, 20 MHz	1	99	17	16.12	0	5	Front	0.205	0.251	-	-	13
Body	LTE Band 2	Sub	0RTLA	-0.02	100.0%	100.0%	1880	18900	QPSK, 20 MHz	50	50	17	16.15	0	5	Front	0.190	0.231	-	-	-
Body	LTE Band 2	Sub	0RTLA	-0.04	100.0%	100.0%	1880	18900	QPSK, 20 MHz	1	99	17	16.12	0	5	Top	0.083	0.102	-	-	-
Body	LTE Band 2	Sub	0RTLA	-0.10	100.0%	100.0%	1880	18900	QPSK, 20 MHz	50	50	17	16.15	0	5	Top	0.085	0.103	-	-	-
Body	LTE Band 2	Sub	0RTLA	-0.08	100.0%	100.0%	1880	18900	QPSK, 20 MHz	1	99	17	16.12	0	5	Right	0.170	0.208	-	-	-
Body	LTE Band 2	Sub	0RTLA	0.03	100.0%	100.0%	1880	18900	QPSK, 20 MHz	50	50	17	16.15	0	5	Right	0.143	0.174	-	-	-

Table 3-8

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 30	Main2	0C9LA	0.01	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	17.5	16.83	0	0	Back	0.406	0.474	-	-	14
Body	LTE Band 30	Main2	0C9LA	0.02	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	17.5	16.87	0	0	Back	0.406	0.469	-	-	-
Body	LTE Band 30	Main2	0C9LA	0.00	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	17.5	16.83	0	5	Front	0.388	0.453	-	-	-
Body	LTE Band 30	Main2	0C9LA	-0.01	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	17.5	16.87	0	5	Front	0.388	0.449	-	-	-
Body	LTE Band 30	Main2	0F1LA	-0.02	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	17.5	16.83	0	5	Bottom	0.118	0.138	-	-	-
Body	LTE Band 30	Main2	0F1LA	0.11	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	17.5	16.87	0	5	Bottom	0.117	0.135	-	-	-
Body	LTE Band 30	Main2	0C9LA	-0.01	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	17.5	16.83	0	5	Left	0.341	0.398	-	-	-
Body	LTE Band 30	Main2	0C9LA	0.00	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	17.5	16.87	0	5	Left	0.346	0.400	-	-	-
Extremity	LTE Band 30	Main2	0F1LA	0.07	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	17.5	16.83	0	0	Bottom	-	-	0.133	0.155	15
Extremity	LTE Band 30	Main2	0F1LA	-0.01	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	17.5	16.87	0	0	Bottom	-	-	0.133	0.154	-
Body	LTE Band 30	Sub	0RQLA	-0.01	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	14.5	14.02	0	0	Back	0.218	0.243	-	-	-
Body	LTE Band 30	Sub	0RQLA	0.01	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	14.5	13.79	0	0	Back	0.204	0.240	-	-	-
Body	LTE Band 30	Sub	0RQLA	0.00	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	14.5	14.02	0	5	Front	0.116	0.130	-	-	-
Body	LTE Band 30	Sub	0RQLA	-0.02	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	14.5	13.79	0	5	Front	0.122	0.144	-	-	-
Body	LTE Band 30	Sub	0RQLA	-0.08	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	14.5	14.02	0	5	Top	0.161	0.180	-	-	-
Body	LTE Band 30	Sub	0RQLA	0.02	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	14.5	13.79	0	5	Top	0.168	0.198	-	-	-
Body	LTE Band 30	Sub	0RQLA	-0.09	100.0%	100.0%	2310	27710	QPSK, 10 MHz	1	25	14.5	14.02	0	5	Right	0.115	0.128	-	-	-
Body	LTE Band 30	Sub	0RQLA	0.05	100.0%	100.0%	2310	27710	QPSK, 10 MHz	25	25	14.5	13.79	0	5	Right	0.125	0.147	-	-	-

Table 3-9

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 41	Main2	0F1LA	-0.09	63.3%	63.3%	2680	41490	QPSK, 20 MHz	1	0	20	19.86	0	0	Back	0.335	0.346	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.01	63.3%	63.3%	2680	41490	QPSK, 20 MHz	50	50	20	19.98	0	0	Back	0.331	0.333	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.02	63.3%	63.3%	2680	41490	QPSK, 20 MHz	1	0	20	19.86	0	5	Front	0.484	0.500	-	-	-
Body	LTE Band 41	Main2	0F1LA	0.02	63.3%	63.3%	2680	41490	QPSK, 20 MHz	50	50	20	19.98	0	5	Front	0.476	0.478	-	-	-
Body	LTE Band 41	Main2	0F1LA	0.18	63.3%	63.3%	2680	41490	QPSK, 20 MHz	1	0	20	19.86	0	5	Bottom	0.219	0.226	-	-	-
Body	LTE Band 41	Main2	0F1LA	0.06	63.3%	63.3%	2680	41490	QPSK, 20 MHz	50	50	20	19.98	0	5	Bottom	0.222	0.223	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.08	63.3%	63.3%	2506	39750	QPSK, 20 MHz	1	0	20	19.55	0	5	Left	0.563	0.624	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.02	63.3%	63.3%	2549.5	40185	QPSK, 20 MHz	1	0	20	19.55	0	5	Left	0.582	0.646	-	-	-
Body	LTE Band 41	Main2	0F1LA	0.01	63.3%	63.3%	2593	40620	QPSK, 20 MHz	1	50	20	19.71	0	5	Left	0.558	0.597	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.09	63.3%	63.3%	2636.5	41055	QPSK, 20 MHz	1	50	20	19.79	0	5	Left	0.572	0.600	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.15	63.3%	63.3%	2680	41490	QPSK, 20 MHz	1	0	20	19.86	0	5	Left	0.588	0.607	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.03	63.3%	63.3%	2506	39750	QPSK, 20 MHz	50	25	20	19.71	0	5	Left	0.582	0.622	-	-	-
Body	LTE Band 41	Main2	0F1LA	0.03	63.3%	63.3%	2549.5	40185	QPSK, 20 MHz	50	25	20	19.74	0	5	Left	0.615	0.653	-	-	16
Body	LTE Band 41	Main2	0F1LA	0.01	63.3%	63.3%	2593	40620	QPSK, 20 MHz	50	25	20	19.91	0	5	Left	0.569	0.581	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.03	63.3%	63.3%	2636.5	41055	QPSK, 20 MHz	50	25	20	19.93	0	5	Left	0.575	0.584	-	-	-
Body	LTE Band 41	Main2	0F1LA	-0.03	63.3%	63.3%	2680	41490	QPSK, 20 MHz	50	50	20	19.98	0	5	Left	0.605	0.608	-	-	-
Body	LTE Band 41	Main2	0F1LA	0.01	63.3%	63.3%	2680	41490	QPSK, 20 MHz	100	0	20	19.85	0	5	Left	0.602	0.623	-	-	-
Extremity	LTE Band 41	Main2	0F1LA	-0.03	63.3%	63.3%	2680	41490	QPSK, 20 MHz	1	0	20	19.86	0	0	Bottom	-	-	0.206	0.213	-
Extremity	LTE Band 41	Main2	0F1LA	-0.02	63.3%	63.3%	2680	41490	QPSK, 20 MHz	50	50	20	19.98	0	0	Bottom	-	-	0.211	0.212	17

Table 3-10

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	LTE Band 48	Main1	0F1LA	-0.11	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	50	20	19.60	0	0	Back	0.265	0.291	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.02	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	25	20	19.72	0	0	Back	0.271	0.289	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.02	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	50	20	19.60	0	5	Front	0.319	0.350	-	-	-
Body	LTE Band 48	Main1	0F1LA	-0.08	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	25	20	19.72	0	5	Front	0.331	0.353	-	-	-
Body	LTE Band 48	Main1	0F1LA	-0.11	63.3%	63.3%	3560	55340	QPSK, 20 MHz	1	50	20	19.37	0	5	Bottom	0.624	0.721	-	-	-
Body	LTE Band 48	Main1	0F1LA	-0.12	63.3%	63.3%	3603.3	55773	QPSK, 20 MHz	1	50	20	19.36	0	5	Bottom	0.652	0.756	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.05	63.3%	63.3%	3646.7	56207	QPSK, 20 MHz	1	50	20	19.46	0	5	Bottom	0.756	0.856	-	-	-
Body	LTE Band 48	Main1	0F1LA	-0.08	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	50	20	19.60	0	5	Bottom	0.879	0.964	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.07	63.3%	63.3%	3560	55340	QPSK, 20 MHz	50	25	20	19.59	0	5	Bottom	0.635	0.698	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.06	63.3%	63.3%	3603.3	55773	QPSK, 20 MHz	50	25	20	19.57	0	5	Bottom	0.663	0.732	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.03	63.3%	63.3%	3646.7	56207	QPSK, 20 MHz	50	25	20	19.63	0	5	Bottom	0.777	0.846	-	-	-
Body	LTE Band 48	Main1	0F1LA	-0.08	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	25	20	19.72	0	5	Bottom	0.900	0.960	-	-	18
Body	LTE Band 48	Main1	0F1LA	0.04	63.3%	63.3%	3690	56640	QPSK, 20 MHz	100	0	20	19.59	0	5	Bottom	0.886	0.974	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.05	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	50	20	19.60	0	5	Right	0.542	0.594	-	-	-
Body	LTE Band 48	Main1	0F1LA	0.02	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	25	20	19.72	0	5	Right	0.553	0.590	-	-	-
Extremity	LTE Band 48	Main1	0F1LA	0.00	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	50	20	19.60	0	0	Bottom	-	-	0.703	0.771	-
Extremity	LTE Band 48	Main1	0F1LA	-0.02	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	25	20	19.72	0	0	Bottom	-	-	0.719	0.767	19
Body	LTE Band 48	Sub-UHB	0RQLA	0.01	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	0	19.5	19.06	0	0	Back	0.119	0.132	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	0.21	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	0	19.5	18.93	0	0	Back	0.088	0.100	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	0.04	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	0	19.5	19.06	0	5	Front	0.279	0.309	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	0.10	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	0	19.5	18.93	0	5	Front	0.283	0.323	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	0.13	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	0	19.5	19.06	0	5	Top	0.118	0.131	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	0.14	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	0	19.5	18.93	0	5	Top	0.121	0.138	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	0.21	63.3%	63.3%	3690	56640	QPSK, 20 MHz	1	0	19.5	19.06	0	5	Left	0.070	0.077	-	-	-
Body	LTE Band 48	Sub-UHB	0RQLA	-0.11	63.3%	63.3%	3690	56640	QPSK, 20 MHz	50	0	19.5	18.93	0	5	Left	0.064	0.073	-	-	-

3.2. NR SAR Data

Table 3-11

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n71	Main1	07SLA	-0.05	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	1	104	25	24.53	0	0	Back	0.565	0.630	-	-	-
Body	NR Band n71	Main1	07SLA	0.01	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	50	28	25	24.43	0	0	Back	0.583	0.665	-	-	20
Body	NR Band n71	Main1	07SLA	0.00	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	1	104	25	24.53	0	5	Front	0.465	0.518	-	-	-
Body	NR Band n71	Main1	07SLA	-0.01	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	50	28	25	24.43	0	5	Front	0.475	0.542	-	-	-
Body	NR Band n71	Main1	07SLA	0.02	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	1	104	25	24.53	0	5	Bottom	0.343	0.382	-	-	-
Body	NR Band n71	Main1	07SLA	-0.03	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	50	28	25	24.43	0	5	Bottom	0.345	0.393	-	-	-
Body	NR Band n71	Main1	07SLA	-0.01	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	1	104	25	24.53	0	5	Right	0.449	0.500	-	-	-
Body	NR Band n71	Main1	07SLA	0.03	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	50	28	25	24.43	0	5	Right	0.487	0.555	-	-	-
Extremity	NR Band n71	Main1	07SLA	0.00	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	1	104	25	24.53	0	0	Bottom	-	-	0.537	0.598	-
Extremity	NR Band n71	Main1	07SLA	0.00	100.0%	100.0%	680.5	136100	DFT-s-OFDM QPSK, 20 MHz	50	28	25	24.43	0	0	Bottom	-	-	0.567	0.647	21

Table 3-12

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n5	Main1	07SLA	-0.03	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	22	21.30	0	Back	0.593	0.697	-	-	-
Body	NR Band n5	Main1	07SLA	0.01	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	22	21.24	0	Back	0.579	0.690	-	-	-
Body	NR Band n5	Main1	07SLA	-0.01	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	22	21.30	5	Front	0.604	0.710	-	-	22
Body	NR Band n5	Main1	07SLA	0.03	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	22	21.24	5	Front	0.571	0.680	-	-	-
Body	NR Band n5	Main1	07SLA	-0.04	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	22	21.30	5	Bottom	0.423	0.497	-	-	-
Body	NR Band n5	Main1	07SLA	-0.01	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	22	21.24	5	Bottom	0.401	0.478	-	-	-
Body	NR Band n5	Main1	07SLA	-0.03	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	22	21.30	5	Right	0.357	0.419	-	-	-
Body	NR Band n5	Main1	07SLA	-0.01	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	22	21.24	5	Right	0.352	0.419	-	-	-
Extremity	NR Band n5	Main1	07SLA	0.00	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	22	21.30	0	Bottom	-	-	0.370	0.435	-
Extremity	NR Band n5	Main1	07SLA	0.02	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	22	21.24	0	Bottom	-	-	0.375	0.447	23
Body	NR Band n5	Sub	0RQLA	-0.04	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	20.5	19.98	0	Back	0.250	0.282	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.02	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	20.5	19.91	0	Back	0.243	0.278	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.02	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	20.5	19.98	5	Front	0.219	0.247	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.04	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	20.5	19.91	5	Front	0.200	0.229	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.05	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	20.5	19.98	5	Top	0.173	0.195	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.02	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	20.5	19.91	5	Top	0.151	0.173	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.02	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	20.5	19.98	5	Right	0.168	0.189	-	-	-
Body	NR Band n5	Sub	0RQLA	-0.02	100.0%	100.0%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	50	20.5	19.91	5	Right	0.160	0.183	-	-	-

Table 3-13

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n66	Main2	08GLA	0.00	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	1	53	20	19.06	0	0	Back	0.438	0.544	-	-	-
Body	NR Band n66	Main2	08GLA	-0.01	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	50	28	20	19.03	0	0	Back	0.459	0.574	-	-	-
Body	NR Band n66	Main2	08GLA	0.01	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	1	53	20	19.06	0	5	Front	0.667	0.828	-	-	-
Body	NR Band n66	Main2	08GLA	0.01	100.0%	100.0%	1745	349000	DFT-s-OFDM QPSK, 20 MHz	1	104	20	19.05	0	5	Front	0.594	0.739	-	-	-
Body	NR Band n66	Main2	08GLA	0.01	100.0%	100.0%	1770	354000	DFT-s-OFDM QPSK, 20 MHz	1	53	20	19.05	0	5	Front	0.686	0.854	-	-	24
Body	NR Band n66	Main2	08GLA	0.02	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	50	28	20	19.03	0	5	Front	0.558	0.698	-	-	-
Body	NR Band n66	Main2	08GLA	0.01	100.0%	100.0%	1745	349000	DFT-s-OFDM QPSK, 20 MHz	50	0	20	18.92	0	5	Front	0.601	0.771	-	-	-
Body	NR Band n66	Main2	08GLA	-0.01	100.0%	100.0%	1770	354000	DFT-s-OFDM QPSK, 20 MHz	50	56	20	18.90	0	5	Front	0.676	0.871	-	-	-
Body	NR Band n66	Main2	08GLA	0.01	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	100	0	20	18.99	0	5	Front	0.604	0.762	-	-	-
Body	NR Band n66	Main2	08GLA	-0.03	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	1	53	20	19.06	0	5	Bottom	0.171	0.212	-	-	-
Body	NR Band n66	Main2	08GLA	-0.02	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	50	28	20	19.03	0	5	Bottom	0.180	0.225	-	-	-
Body	NR Band n66	Main2	08GLA	0.01	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	1	53	20	19.06	0	5	Left	0.519	0.644	-	-	-
Body	NR Band n66	Main2	08GLA	0.00	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	50	28	20	19.03	0	5	Left	0.520	0.650	-	-	-
Extremity	NR Band n66	Main2	08GLA	0.00	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	1	53	20	19.06	0	0	Bottom	-	-	0.182	0.226	-
Extremity	NR Band n66	Main2	08GLA	0.03	100.0%	100.0%	1720	344000	DFT-s-OFDM QPSK, 20 MHz	50	28	20	19.03	0	0	Bottom	-	-	0.183	0.229	25

Table 3-14

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n25	Main2	07SLA	0.00	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	1	53	19	18.88	0	0	Back	0.406	0.417	-	-	-
Body	NR Band n25	Main2	07SLA	0.01	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	50	28	19	18.77	0	0	Back	0.411	0.433	-	-	-
Body	NR Band n25	Main2	07SLA	0.02	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	1	53	19	18.88	0	5	Front	0.529	0.544	-	-	-
Body	NR Band n25	Main2	07SLA	-0.02	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	50	28	19	18.77	0	5	Front	0.556	0.586	-	-	26
Body	NR Band n25	Main2	07SLA	0.02	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	1	53	19	18.88	0	5	Bottom	0.143	0.147	-	-	-
Body	NR Band n25	Main2	07SLA	-0.03	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	50	28	19	18.77	0	5	Bottom	0.146	0.154	-	-	-
Body	NR Band n25	Main2	07SLA	0.03	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	1	53	19	18.88	0	5	Left	0.476	0.489	-	-	-
Body	NR Band n25	Main2	07SLA	-0.02	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	50	28	19	18.77	0	5	Left	0.493	0.520	-	-	-
Extremity	NR Band n25	Main2	07SLA	0.02	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	1	53	19	18.88	0	0	Bottom	-	-	0.137	0.141	27
Extremity	NR Band n25	Main2	07SLA	0.06	100.0%	100.0%	1905	381000	DFT-s-OFDM QPSK, 20 MHz	50	28	19	18.77	0	0	Bottom	-	-	0.134	0.141	-

Table 3-15

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n30	Main2	08GLA	0.12	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	1	1	17.5	16.89	0	0	Back	0.565	0.650	-	-	28
Body	NR Band n30	Main2	08GLA	0.03	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	25	14	17.5	16.72	0	0	Back	0.550	0.658	-	-	-
Body	NR Band n30	Main2	08GLA	0.04	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	1	1	17.5	16.89	0	5	Front	0.385	0.443	-	-	-
Body	NR Band n30	Main2	08GLA	-0.02	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	25	14	17.5	16.72	0	5	Front	0.379	0.454	-	-	-
Body	NR Band n30	Main2	08GLA	0.08	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	1	1	17.5	16.89	0	5	Bottom	0.088	0.101	-	-	-
Body	NR Band n30	Main2	08GLA	0.15	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	25	14	17.5	16.72	0	5	Bottom	0.093	0.111	-	-	-
Body	NR Band n30	Main2	08GLA	0.00	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	1	1	17.5	16.89	0	5	Left	0.365	0.420	-	-	-
Body	NR Band n30	Main2	08GLA	-0.02	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	25	14	17.5	16.72	0	5	Left	0.346	0.414	-	-	-
Extremity	NR Band n30	Main2	08GLA	0.08	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	1	1	17.5	16.89	0	0	Bottom	-	-	0.105	0.121	-
Extremity	NR Band n30	Main2	08GLA	0.11	100.0%	100.0%	2310	462000	DFT-s-OFDM QPSK, 10 MHz	25	14	17.5	16.72	0	0	Bottom	-	-	0.111	0.133	29

Table 3-16

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n41	Main2	-	0RTLA	-0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	1	19	18.48	0	0	Back	0.474	0.534	-	-	-
Body	NR Band n41	Main2	-	0RTLA	0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	138	19	18.50	0	0	Back	0.415	0.466	-	-	-
Body	NR Band n41	Main2	-	07SLA	0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	1	19	18.48	0	5	Front	0.611	0.689	-	-	-
Body	NR Band n41	Main2	-	0RTLA	0.00	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	138	19	18.50	0	5	Front	0.549	0.616	-	-	-
Body	NR Band n41	Main2	-	07SLA	-0.04	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	270	0	19	18.46	0	5	Front	0.569	0.644	-	-	-
Body	NR Band n41	Main2	-	07SLA	0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	1	19	18.48	0	5	Bottom	0.228	0.257	-	-	-
Body	NR Band n41	Main2	-	07SLA	0.08	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	138	19	18.50	0	5	Bottom	0.257	0.288	-	-	-
Body	NR Band n41	Main2	-	07SLA	0.08	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	1	19	18.48	0	5	Left	0.674	0.760	-	-	-
Body	NR Band n41	Main2	-	07SLA	0.03	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	138	19	18.50	0	5	Left	0.647	0.726	-	-	-
Body	NR Band n41	Main2	-	07SLA	-0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	270	0	19	18.46	0	5	Left	0.646	0.732	-	-	-
Extremity	NR Band n41	Main2	-	07SLA	-0.04	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	1	19	18.48	0	0	Bottom	-	-	0.194	0.219	-
Extremity	NR Band n41	Main2	-	07SLA	0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	138	19	18.50	0	0	Bottom	-	-	0.215	0.241	31
Body	NR Band n41	Sub	-	036LA	0.06	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	1	271	16.5	15.78	0	0	Back	0.382	0.451	-	-	-
Body	NR Band n41	Sub	-	036LA	0.03	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	137	136	16.5	15.70	0	0	Back	0.293	0.352	-	-	-
Body	NR Band n41	Sub	-	036LA	0.01	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	1	271	16.5	15.78	0	5	Front	0.237	0.280	-	-	-
Body	NR Band n41	Sub	-	036LA	-0.11	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	137	136	16.5	15.70	0	5	Front	0.177	0.213	-	-	-
Body	NR Band n41	Sub	-	036LA	0.07	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	1	271	16.5	15.78	0	5	Top	0.728	0.859	-	-	-
Body	NR Band n41	Sub	1T4R Check	036LA	-0.03	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	14.9	14.42	0	5	Top	0.581	0.649	-	-	-
Body	NR Band n41	Sub	-	036LA	-0.08	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	137	136	16.5	15.70	0	5	Top	0.740	0.890	-	-	-
Body	NR Band n41	Sub	-	036LA	-0.05	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	273	0	16.5	15.66	0	5	Top	0.753	0.914	-	-	30
Body	NR Band n41	Sub	-	036LA	-0.12	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	1	271	16.5	15.78	0	5	Right	0.133	0.157	-	-	-
Body	NR Band n41	Sub	-	036LA	-0.12	100.0%	100.0%	2592.99	518598	CP-OFDM QPSK, 100 MHz	137	136	16.5	15.70	0	5	Right	0.131	0.157	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	-0.06	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	16.2	15.97	0	0	Back	0.174	0.183	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	0.21	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	16.2	15.86	0	0	Back	0.154	0.167	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	-0.05	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	16.2	15.97	0	5	Front	0.030	0.032	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	0.03	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	16.2	15.86	0	5	Front	0.033	0.036	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	0.12	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	16.2	15.97	0	5	Top	0.091	0.096	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	0.21	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	16.2	15.86	0	5	Top	0.097	0.105	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	0.04	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	16.2	15.97	0	5	Right	0.165	0.174	-	-	-
Body	NR Band n41	3rd-LMH	-	036LA	-0.15	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	16.2	15.86	0	5	Right	0.185	0.200	-	-	-
Body	NR Band n41	4th-MBHB	-	036LA	0.04	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	14.3	13.84	0	0	Back	0.119	0.132	-	-	-
Body	NR Band n41	4th-MBHB	-	036LA	-0.02	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	14.3	13.76	0	0	Back	0.117	0.132	-	-	-
Body	NR Band n41	4th-MBHB	-	036LA	-0.10	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	14.3	13.84	0	5	Front	0.047	0.052	-	-	-
Body	NR Band n41	4th-MBHB	-	036LA	-0.03	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	14.3	13.76	0	5	Front	0.048	0.054	-	-	-
Body	NR Band n41	4th-MBHB	-	036LA	0.13	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	137	14.3	13.84	0	5	Left	0.119	0.132	-	-	-
Body	NR Band n41	4th-MBHB	2T4R Check	036LA	0.01	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	1	13.2	12.81	0	5	Left	0.075	0.082	-	-	-
Body	NR Band n41	4th-MBHB	-	036LA	-0.04	100.0%	100.0%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	135	69	14.3	13.76	0	5	Left	0.120	0.136	-	-	-

Table 3-17

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n48	Main1	-	08GLA	-0.20	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.42	0	0	Back	0.421	0.481	-	-	-
Body	NR Band n48	Main1	-	08GLA	-0.10	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	50	56	19	18.34	0	0	Back	0.359	0.418	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.00	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.42	0	5	Front	0.392	0.448	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.02	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	50	56	19	18.34	0	5	Front	0.418	0.487	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.00	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.42	0	5	Bottom	0.753	0.861	-	-	-
Body	NR Band n48	Main1	-	08GLA	-0.02	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.40	0	5	Bottom	0.714	0.820	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.01	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.34	0	5	Bottom	0.914	1.064	-	-	-
Body	NR Band n48	Main1	Variability	08GLA	0.00	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.34	0	5	Bottom	0.946	1.101	-	-	32
Body	NR Band n48	Main1	-	08GLA	0.04	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	50	56	19	18.34	0	5	Bottom	0.665	0.774	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.01	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	50	0	19	18.30	0	5	Bottom	0.636	0.747	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.00	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	50	0	19	18.33	0	5	Bottom	0.770	0.898	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.01	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	100	0	19	18.32	0	5	Bottom	0.698	0.816	-	-	-
Body	NR Band n48	Main1	-	08GLA	-0.03	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.42	0	5	Right	0.646	0.738	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.00	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.40	0	5	Right	0.576	0.661	-	-	-
Body	NR Band n48	Main1	-	08GLA	-0.01	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.34	0	5	Right	0.606	0.705	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.05	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	50	56	19	18.34	0	5	Right	0.616	0.717	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.03	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	50	0	19	18.30	0	5	Right	0.549	0.645	-	-	-
Body	NR Band n48	Main1	-	08GLA	0.05	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	50	0	19	18.33	0	5	Right	0.633	0.739	-	-	-
Body	NR Band n48	Main1	-	08GLA	-0.01	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	100	0	19	18.32	0	5	Right	0.557	0.651	-	-	-
Extremity	NR Band n48	Main1	-	08GLA	-0.02	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	1	104	19	18.42	0	0	Bottom	-	-	0.626	0.715	33
Extremity	NR Band n48	Main1	-	08GLA	-0.09	100.0%	100.0%	3570	638000	DFT-s-OFDM QPSK, 40 MHz	50	56	19	18.34	0	0	Bottom	-	-	0.611	0.711	-
Body	NR Band n48	Sub-UHB	-	02QLA	0.21	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	1	104	19	18.13	0	0	Back	0.114	0.139	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	-0.10	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	53	27	19	17.90	0	0	Back	0.138	0.178	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	0.21	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	1	104	19	18.13	0	5	Front	0.320	0.391	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	0.17	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	53	27	19	17.90	0	5	Front	0.364	0.469	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	0.06	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	1	104	19	18.13	0	5	Top	0.096	0.117	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	-0.04	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	53	27	19	17.90	0	5	Top	0.119	0.153	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	0.21	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	1	104	19	18.13	0	5	Left	0.046	0.056	-	-	-
Body	NR Band n48	Sub-UHB	-	02QLA	0.21	100.0%	100.0%	3624.99	641666	CP-OFDM QPSK, 40 MHz	53	27	19	17.90	0	5	Left	0.054	0.070	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	-0.19	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	1	1	9.8	9.15	0	0	Back	0.036	0.042	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	0.15	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	50	0	9.8	9.06	0	0	Back	0.036	0.043	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	0.13	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	1	1	9.8	9.15	0	5	Front	0.000	0.000	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	0.17	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	50	0	9.8	9.06	0	5	Front	0.000	0.000	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	0.16	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	1	1	9.8	9.15	0	5	Top	0.000	0.000	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	0.15	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	50	0	9.8	9.06	0	5	Top	0.002	0.002	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	0.16	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	1	1	9.8	9.15	0	5	Right	0.025	0.029	-	-	-
Body	NR Band n48	3rd-LMH	-	02QLA	-0.04	100.0%	100.0%	3624.99	641666	DFT-s-OFDM QPSK, 40 MHz	50	0	9.8	9.06	0	5	Right	0.017	0.020	-	-	-
Body	NR Band n48	4th-MBHB	-	0RTLA	0.07	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	12.7	12.40	0	0	Back	0.178	0.191	-	-	-
Body	NR Band n48	4th-MBHB	-	0RTLA	-0.09	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	50	0	12.7	12.15	0	0	Back	0.185	0.210	-	-	-
Body	NR Band n48	4th-MBHB	-	0RTLA	0.15	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	12.7	12.40	0	5	Front	0.062	0.066	-	-	-
Body	NR Band n48	4th-MBHB	-	0RTLA	0.21	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	50	0	12.7	12.15	0	5	Front	0.065	0.074	-	-	-
Body	NR Band n48	4th-MBHB	-	0RTLA	-0.11	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	12.7	12.40	0	5	Left	0.277	0.297	-	-	-
Body	NR Band n48	4th-MBHB	-	0RTLA	0.00	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	50	0	12.7	12.15	0	5	Left	0.265	0.301	-	-	-

Table 3-18

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	NR Band n77	Main1	-	08GLA	-0.10	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.70	0	0	Back	0.257	0.309	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.16	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	17.5	16.62	0	0	Back	0.279	0.342	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.02	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.69	0	5	Front	0.371	0.447	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.02	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.70	0	5	Front	0.380	0.457	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.01	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	135	0	17.5	16.55	0	5	Front	0.333	0.414	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.21	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	17.5	16.62	0	5	Front	0.389	0.476	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.10	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	270	0	17.5	16.49	0	5	Front	0.381	0.481	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.03	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.69	0	5	Bottom	0.723	0.871	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.07	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.70	0	5	Bottom	0.827	0.994	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.01	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	135	0	17.5	16.55	0	5	Bottom	0.651	0.810	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	17.5	16.62	0	5	Bottom	0.798	0.977	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.08	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	270	0	17.5	16.49	0	5	Bottom	0.829	1.046	-	-	34
Body	NR Band n77	Main1	Variability	08GLA	-0.02	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	270	0	17.5	16.49	0	5	Bottom	0.824	1.040	-	-	-
Body	NR Band n77 DoD	Main1	-	0RQLA	-0.04	100.0%	100.0%	3500.01	633334	DFT-s-OFDM QPSK, 100 MHz	1	1	17.5	16.70	0	5	Bottom	0.348	0.418	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.10	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.69	0	5	Right	0.531	0.640	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.70	0	5	Right	0.501	0.602	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.05	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	135	0	17.5	16.55	0	5	Right	0.444	0.553	-	-	-
Body	NR Band n77	Main1	-	08GLA	-0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	17.5	16.62	0	5	Right	0.497	0.609	-	-	-
Body	NR Band n77	Main1	-	08GLA	0.04	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	270	0	17.5	16.49	0	5	Right	0.506	0.638	-	-	-
Extremity	NR Band n77	Main1	-	08GLA	-0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	17.5	16.70	0	0	Bottom	-	-	0.674	0.810	35
Extremity	NR Band n77	Main1	-	08GLA	0.00	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	17.5	16.62	0	0	Bottom	-	-	0.672	0.823	-
Extremity	NR Band n77 DoD	Main1	-	0RQLA	-0.05	100.0%	100.0%	3500.01	633334	DFT-s-OFDM QPSK, 100 MHz	1	1	17.5	16.70	0	0	Bottom	-	-	0.337	0.405	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.11	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	1	137	17.5	17.06	0	0	Back	0.254	0.281	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.03	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	137	136	17.5	16.81	0	0	Back	0.216	0.253	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	-0.05	100.0%	100.0%	3750	650000	CP-OFDM QPSK, 100 MHz	1	137	17.5	16.56	0	5	Front	0.298	0.370	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.18	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	1	137	17.5	17.06	0	5	Front	0.462	0.511	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.21	100.0%	100.0%	3750	650000	CP-OFDM QPSK, 100 MHz	137	68	17.5	16.64	0	5	Front	0.360	0.439	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	-0.08	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	137	136	17.5	16.81	0	5	Front	0.461	0.540	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.21	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	273	0	17.5	16.78	0	5	Front	0.472	0.557	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.16	100.0%	100.0%	3750	650000	CP-OFDM QPSK, 100 MHz	1	137	17.5	16.56	0	5	Top	0.182	0.226	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.08	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	1	137	17.5	17.06	0	5	Top	0.606	0.671	-	-	-
Body	NR Band n77	Sub-UHB	ASDIV/1T4R Check	0RQLA	-0.08	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	16.5	15.34	0	5	Top	0.438	0.572	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.02	100.0%	100.0%	3750	650000	CP-OFDM QPSK, 100 MHz	137	68	17.5	16.64	0	5	Top	0.156	0.190	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.04	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	137	136	17.5	16.81	0	5	Top	0.686	0.804	-	-	-
Body	NR Band n77	Sub-UHB	-	0RQLA	0.21	100.0%	100.0%	3930	662000	CP-OFDM QPSK, 100 MHz	273	0	17.5	16.78	0	5	Top	0.600	0.708	-	-	-
Body	NR Band n77 DoD	Sub-UHB	-	0RQLA	-0.17	100.0%	100.0%	3500.01	633334	CP-OFDM QPSK, 100 MHz	1	1	17.5	16.25	0	5	Top	0.112	0.149	-	-	-
Body	NR Band n77 DoD	Sub-UHB	ASDIV/1T4R Check	0RQLA	0.21	100.0%	100.0%	3500.01	633334	DFT-s-OFDM QPSK, 100 MHz	1	271	16.5	15.37	0	5	Top	0.084	0.109	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.13	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	13.7	13.35	0	0	Back	0.054	0.059	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.04	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	13.7	13.30	0	0	Back	0.060	0.066	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.05	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	13.7	13.35	0	5	Front	0.009	0.010	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	13.7	13.30	0	5	Front	0.009	0.010	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	-0.01	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	13.7	13.35	0	5	Top	0.007	0.008	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.21	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	13.7	13.30	0	5	Top	0.006	0.007	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	13.7	13.35	0	5	Right	0.072	0.078	-	-	-
Body	NR Band n77	3rd-LMH	-	0RQLA	0.14	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	69	13.7	13.30	0	5	Right	0.066	0.072	-	-	-
Body	NR Band n77 DoD	3rd-LMH	-	0RQLA	-0.01	100.0%	100.0%	3500.01	633334	DFT-s-OFDM QPSK, 100 MHz	1	1	13.7	13.15	0	5	Right	0.120	0.136	-	-	-
Body	NR Band n77	4th-MBHB	-	0RQLA	0.21	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	11.4	11.00	0	0	Back	0.104	0.114	-	-	-
Body	NR Band n77	4th-MBHB	-	0RQLA	-0.01	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	138	11.4	10.94	0	0	Back	0.096	0.107	-	-	-
Body	NR Band n77	4th-MBHB	-	0RQLA	0.04	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	11.4	11.00	0	5	Front	0.029	0.032	-	-	-
Body	NR Band n77	4th-MBHB	-	0RQLA	0.07	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	138	11.4	10.94	0	5	Front	0.026	0.029	-	-	-
Body	NR Band n77	4th-MBHB	2T4R Check	0RQLA	0.05	100.0%	100.0%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	1	1	10.6	9.59	0	5	Left	0.005	0.006	-	-	-
Body	NR Band n77	4th-MBHB	-	0RQLA	0.03	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	1	137	11.4	11.00	0	5	Left	0.166	0.182	-	-	-
Body	NR Band n77	4th-MBHB	-	0RQLA	0.21	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	135	138	11.4	10.94	0	5	Left	0.162	0.180	-	-	-
Body	NR Band n77 DoD	4th-MBHB	-	0RQLA	-0.07	100.0%	100.0%	3500.01	633334	DFT-s-OFDM QPSK, 100 MHz	1	137	11.4	11.06	0	5	Left	0.124	0.134	-	-	-
Body	NR Band n77 DoD	4th-MBHB	2T4R Check	0RQLA	0.21	100.0%	100.0%	3500.01	633334	DFT-s-OFDM QPSK, 100 MHz	1	1	10.6	10.47	0	5	Left	0.000	0.000	-	-	-

3.3. WLAN SAR Data

Table 3-19

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	Maximum Allowed Power 2nd Ant [dBm]	Measured Conducted Power 2nd Ant [dBm]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	2.4 GHz WIFI	MIMO	Chain0	021LA	-0.05	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	0	Back	0.102	0.107	-	-	-
Body	2.4 GHz WIFI	MIMO	Chain1	021LA	0.21	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	0	Back	0.038	0.040	-	-	-
Body	2.4 GHz WIFI	MIMO	Chain0	021LA	-0.03	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	0	Back	0.284	0.337	-	-	36
Body	2.4 GHz WIFI	MIMO	Chain1	021LA	-0.01	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	0	Back	0.086	0.102	-	-	-
Body	2.4 GHz WIFI	MIMO	Chain0	021LA	-0.05	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	5	Front	0.022	0.023	-	-	-
Body	2.4 GHz WIFI	MIMO	Chain1	021LA	0.21	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	5	Front	0.009	0.009	-	-	-
Body	2.4 GHz WIFI	MIMO	Chain0	021LA	0.06	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	5	Front	0.049	0.058	-	-	-
Body	2.4 GHz WIFI	MIMO	Chain1	021LA	0.03	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	5	Front	0.021	0.025	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	0.21	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	5	Top	0.015	0.016	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	0.15	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	5	Top	0.040	0.048	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	0.21	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	5	Bottom	0.027	0.028	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	0.16	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	5	Bottom	0.069	0.082	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	0.13	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	5	Right	0.011	0.012	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	-0.04	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	5	Right	0.028	0.033	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	-0.05	100.0%	99.2%	2462	11	IEEE 802.11b 22 MHz	1	9.5	9.34	9.5	9.46	5	Left	0.132	0.138	-	-	-
Body	2.4 GHz WIFI	MIMO	-	021LA	0.00	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	5	Left	0.284	0.337	-	-	-
Extremity	2.4 GHz WIFI	MIMO	-	021LA	0.03	100.0%	97.8%	2462	11	IEEE 802.11n 20 MHz	13	13	12.35	13	12.73	0	Bottom	-	-	0.069	0.082	37

Table 3-20

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	Maximum Allowed Power 2nd Ant [dBm]	Measured Conducted Power 2nd Ant [dBm]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	5 GHz WIFI	MIMO	Chain0	021LA	0.04	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	0	Back	0.018	0.020	-	-	-
Body	5 GHz WIFI	MIMO	Chain1	021LA	0.06	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	0	Back	0.000	0.000	-	-	-
Body	5 GHz WIFI	MIMO	Chain0	021LA	0.08	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	0	Back	0.032	0.036	-	-	-
Body	5 GHz WIFI	MIMO	Chain1	021LA	0.21	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	0	Back	0.021	0.024	-	-	-
Body	5 GHz WIFI	MIMO	Chain0	021LA	0.13	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	0	Back	0.028	0.035	-	-	-
Body	5 GHz WIFI	MIMO	Chain1	021LA	0.17	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	0	Back	0.029	0.036	-	-	-
Body	5 GHz WIFI	MIMO	Chain0	021LA	0.19	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	5	Front	0.019	0.021	-	-	-
Body	5 GHz WIFI	MIMO	Chain1	021LA	0.21	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	5	Front	0.000	0.000	-	-	-
Body	5 GHz WIFI	MIMO	Chain0	021LA	-0.02	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	5	Front	0.032	0.036	-	-	-
Body	5 GHz WIFI	MIMO	Chain1	021LA	-0.02	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	5	Front	0.000	0.000	-	-	-
Body	5 GHz WIFI	MIMO	Chain0	021LA	-0.04	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	5	Front	0.035	0.043	-	-	-
Body	5 GHz WIFI	MIMO	Chain1	021LA	0.07	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	5	Front	0.002	0.002	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	-0.02	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	5	Top	0.000	0.000	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.21	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	5	Top	0.000	0.000	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.11	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	5	Top	0.008	0.010	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.06	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	5	Bottom	0.006	0.007	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.14	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	5	Bottom	0.016	0.018	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	-0.06	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	5	Bottom	0.033	0.041	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	-0.13	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	5	Right	0.002	0.002	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	-0.17	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	5	Right	0.002	0.002	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.21	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	5	Right	0.001	0.001	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.03	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	5	Left	0.075	0.084	-	-	-
Body	5 GHz WIFI	MIMO	-	021LA	0.02	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	5	Left	0.113	0.128	-	-	38
Body	5 GHz WIFI	MIMO	-	021LA	0.18	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	5	Left	0.102	0.126	-	-	-
Extremity	5 GHz WIFI	MIMO	-	021LA	0.13	100.0%	98.2%	5290	58	IEEE 802.11ac 80 MHz	58.5	7.5	7.11	7.5	7.08	0	Bottom	-	-	0.002	0.002	-
Extremity	5 GHz WIFI	MIMO	-	021LA	0.04	100.0%	98.2%	5690	138	IEEE 802.11ac 80 MHz	58.5	7.5	7.08	7.5	7.05	0	Bottom	-	-	0.006	0.007	-
Extremity	5 GHz WIFI	MIMO	-	021LA	0.21	100.0%	98.2%	5775	155	IEEE 802.11ac 80 MHz	58.5	7.5	7.18	7.5	6.65	0	Bottom	-	-	0.015	0.019	39

Table 3-21

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	Maximum Allowed Power 2nd Ant [dBm]	Measured Conducted Power 2nd Ant [dBm]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Measured APD [W/m^2]	Reported APD [W/m^2]	Test Plot
Body	6 GHz WIFI	MIMO	Chain0	021LA	0.04	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	0	Back	0.033	0.035	-	-	0.205	0.220	-
Body	6 GHz WIFI	MIMO	Chain1	021LA	-0.02	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	0	Back	0.011	0.012	-	-	0.046	0.049	-
Body	6 GHz WIFI	MIMO	Chain0	021LA	-0.06	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	5	Front	0.023	0.025	-	-	0.125	0.134	-
Body	6 GHz WIFI	MIMO	Chain1	021LA	-0.17	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	5	Front	0.003	0.003	-	-	0.007	0.008	-
Body	6 GHz WIFI	MIMO	-	021LA	0.18	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	5	Top	0.012	0.013	-	-	0.057	0.061	-
Body	6 GHz WIFI	MIMO	-	021LA	0.21	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	5	Bottom	0.018	0.019	-	-	0.107	0.115	-
Body	6 GHz WIFI	MIMO	-	021LA	0.06	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	5	Right	0.001	0.001	-	-	0.000	0.000	-
Body	6 GHz WIFI	MIMO	-	021LA	0.21	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	5	Left	0.091	0.098	-	-	0.657	0.705	-
Body	6 GHz WIFI	MIMO	-	021LA	0.01	100.0%	98.5%	6225	55	IEEE 802.11ax 80 MHz	68.1	7.5	7.10	7.5	7.41	5	Left	0.100	0.111	-	-	0.737	0.820	40
Body	6 GHz WIFI	MIMO	-	021LA	0.09	100.0%	98.5%	6465	103	IEEE 802.11ax 80 MHz	68.1	7.5	6.96	7.5	7.24	5	Left	0.041	0.047	-	-	0.223	0.256	-
Body	6 GHz WIFI	MIMO	-	021LA	0.04	100.0%	98.5%	6705	151	IEEE 802.11ax 80 MHz	68.1	7.5	6.21	7.5	7.17	5	Left	0.043	0.059	-	-	0.330	0.451	-
Body	6 GHz WIFI	MIMO	-	021LA	0.06	100.0%	98.5%	7025	215	IEEE 802.11ax 80 MHz	68.1	7.5	6.39	7.5	7.16	5	Left	0.023	0.030	-	-	0.151	0.198	-
Extremity	6 GHz WIFI	MIMO	-	021LA	0.00	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	0	Bottom	-	-	0.011	0.012	0.263	0.282	41

Exposure Condition	Band/Mode	Antenna	Additional Information	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	Maximum Allowed Power 2nd Ant [dBm]	Measured Conducted Power 2nd Ant [dBm]	IEC 62479 Uncertainty Scaling Factor	Separation Distance [mm]	Position	Measured Normal psPD [W/m^2]	Scaled Normal psPD [W/m^2]	Measured Total psPD [W/m^2]	Scaled Total psPD [W/m^2]	Test Plot
Body	6 GHz WIFI	MIMO	Chain0	079LA	0.03	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Back	0.651	0.789	0.833	1.009	-
Body	6 GHz WIFI	MIMO	Chain1	079LA	-0.03	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Back	0.309	0.374	0.630	0.763	-
Body	6 GHz WIFI	MIMO	Chain0	079LA	-0.21	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Front	0.527	0.638	1.050	1.272	-
Body	6 GHz WIFI	MIMO	Chain1	079LA	-0.09	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Front	0.306	0.371	0.610	0.739	-
Body	6 GHz WIFI	MIMO	-	079LA	0.12	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Top	0.519	0.629	0.973	1.179	-
Body	6 GHz WIFI	MIMO	-	079LA	-0.10	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Bottom	0.803	0.973	1.060	1.284	-
Body	6 GHz WIFI	MIMO	-	079LA	-0.11	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Right	0.215	0.260	0.281	0.340	-
Body	6 GHz WIFI	MIMO	-	079LA	-0.01	100.0%	98.5%	5985	7	IEEE 802.11ax 80 MHz	68.1	7.5	7.26	7.5	7.30	1.129	2	Left	1.770	2.144	2.790	3.380	48
Body	6 GHz WIFI	MIMO	-	079LA	0.14	100.0%	98.5%	6225	55	IEEE 802.11ax 80 MHz	68.1	7.5	7.10	7.5	7.41	1.129	2	Left	1.740	2.187	2.390	3.004	-
Body	6 GHz WIFI	MIMO	-	079LA	0.04	100.0%	98.5%	6465	103	IEEE 802.11ax 80 MHz	68.1	7.5	6.96	7.5	7.24	1.129	2	Left	0.715	0.928	1.510	1.960	-
Body	6 GHz WIFI	MIMO	-	079LA	-0.06	100.0%	98.5%	6705	151	IEEE 802.11ax 80 MHz	68.1	7.5	6.21	7.5	7.17	1.129	2	Left	0.748	1.154	0.988	1.524	-
Body	6 GHz WIFI	MIMO	-	079LA	-0.07	100.0%	98.5%	7025	215	IEEE 802.11ax 80 MHz	68.1	7.5	6.39	7.5	7.16	1.129	2	Left	0.736	1.089	1.140	1.687	-

3.4. Bluetooth SAR Data

Table 3-22

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Measured 10g SAR [W/Kg]	Reported 10g SAR [W/Kg]	Test Plot
Body	2.4 GHz Bluetooth	Chain0	021LA	0.21	83.3%	76.9%	2480	78	FHSS	1	11	10.53	0	Back	0.068	0.082	-	-	-
Body	2.4 GHz Bluetooth	Chain0	021LA	0.16	83.3%	76.9%	2480	78	FHSS	1	11	10.53	5	Front	0.016	0.019	-	-	-
Body	2.4 GHz Bluetooth	Chain0	021LA	-0.02	83.3%	76.9%	2480	78	FHSS	1	11	10.53	5	Top	0.011	0.013	-	-	-
Body	2.4 GHz Bluetooth	Chain0	021LA	0.11	83.3%	76.9%	2480	78	FHSS	1	11	10.53	5	Left	0.072	0.087	-	-	42
Body	2.4 GHz Bluetooth	Chain1	021LA	0.20	83.3%	76.9%	2480	78	FHSS	1	11	10.65	0	Back	0.039	0.046	-	-	-
Body	2.4 GHz Bluetooth	Chain1	021LA	0.19	83.3%	76.9%	2480	78	FHSS	1	11	10.65	5	Front	0.009	0.011	-	-	-
Body	2.4 GHz Bluetooth	Chain1	021LA	-0.07	83.3%	76.9%	2480	78	FHSS	1	11	10.65	5	Bottom	0.000	0.000	-	-	-
Body	2.4 GHz Bluetooth	Chain1	021LA	0.21	83.3%	76.9%	2480	78	FHSS	1	11	10.65	5	Right	0.013	0.015	-	-	-
Extremity	2.4 GHz Bluetooth	Chain1	021LA	-0.16	83.3%	76.9%	2480	78	FHSS	1	11	10.65	0	Bottom	-	-	0.029	0.034	43

3.5. SAR Data at Pmax Power Level

Table 3-23

Exposure Condition	Band/Mode	Antenna	DUT SN	Power Drift [dB]	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Maximum Allowed Power [dBm]	Measured Conducted Power [dBm]	MPR [dB]	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Reported 1g SAR [W/Kg]	Test Plot
Off-Body	NR Band n5	Main1	07SLA	-0.02	100%	100%	836.5	167300	DFT-s-OFDM QPSK, 20 MHz	1	53	25	24.59	0	25	Front	0.218	0.240	44
Off-Body	NR Band n77	Main1	07SLA	0.04	50%	50%	3750	650000	DFT-s-OFDM QPSK, 100 MHz	1	137	27.5	26.83	0	25	Bottom	0.387	0.452	45
Off-Body	NR Band n66	Main2	07SLA	0.00	100%	100%	1745	349000	DFT-s-OFDM QPSK, 20 MHz	1	1	25	24.21	0	25	Front	0.165	0.198	46
Off-Body	NR Band n41	Sub	02QLA	0.06	50%	50%	2592.99	518598	DFT-s-OFDM QPSK, 100 MHz	1	271	25.4	25.04	0	25	Top	0.246	0.267	47

3.6. General SAR Testing Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D04v01.
2. Liquid tissue depth was at least 15.0 cm for all frequencies.
3. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04v01.
4. Batteries are fully charged at the beginning of the SAR measurements.
5. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the 1g thresholds for the equivalent test cases.
6. Per FCC Guidance, Body SAR testing was performed at 5mm with respect to the Front, Top, Bottom, Left and Right edges of the device. Back side SAR was performed at 0mm due to the form factor of this device. Extremity SAR at 0mm for bottom edge was additionally evaluated.
7. This device does not support any held-to-ear operations.
8. Device uses a motion sensing algorithm to configure the powers to the DSI=3 when in "on-body" conditions. The verification of this mechanism is included in Appendix H. Per FCC Guidance, Body and Extremity SAR tests were performed at the DSI=3 conditions. Per the interim guidance in FCC KDB 447498, SAR was additionally measured at 25mm without any power reduction. The worst-case SAR values after being scaled to maximum power for each general frequency band (low band, mid band, high band and ultra-high band) were selected for measurements at 25mm.
9. Simultaneous transmission analysis is provided in Appendix E.

3.7. LTE Notes:

1. LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 9.3.
2. LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
4. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
5. Per FCC KDB Publication 447498 D04v01, when the reported 1g SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for LTE Bnd 41/48, testing at the other channels was required for such test configurations.
6. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor

in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.

7. This device supports LTE Carrier Aggregation (CA) and 4x4 MIMO operations in the downlink. All uplink communications are identical to Release 8 specifications. Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations and 4x4 downlink MIMO was not needed since the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

3.8. NR Notes:

1. SAR testing for NR was performed using test mode software to establish connection.
2. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
3. Per FCC KDB Publication 447498 D04v01, when the reported NR Band n77 C-Band 1g SAR measured at the highest output power channel in a given test configuration was > 0.4 W/kg, testing at the other channels was required for such test configurations.
4. Per FCC KDB Publication 447498 D04v01, when the reported NR Band n48 1g SAR measured at the highest output power channel in a given test configuration was > 0.6 W/kg, testing at the other channels was required for such test configurations.
5. Simultaneous transmission analysis for EN-DC operations is addressed in the associated Part 2 algorithm validation Test Report.
6. Per FCC Guidance, C-band for NR n77 (3700 – 3980 MHz) was fully tested according to FCC procedures. For each exposure condition and antenna, the worst-case position was additionally evaluated for NR n77 DoD band (3450 – 3550 MHz).
7. This device uses two transmit pathways for NR n41/n77 operations. For each exposure condition and antenna, the pathway with the highest target power was fully evaluated. The worst case position for each antenna and exposure condition was additionally evaluated using the other pathway.

3.9. WLAN Notes:

1. Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI operations, the initial test configuration was selected according to the 802.11 transmission modes with the highest maximum allowed powers. SAR for other 802.11 modes was not required due to the maximum allowed powers and the highest reported SAR.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 and 6 GHz WIFI operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations.
4. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D04v01 making a measurement with both antennas transmitting simultaneously. When Chain0 and Chain1 are indicated in the tables above, a zoom scan was run centered over each of the antennas.

5. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated Part 15 test reports.
7. For 6 GHz WIFI Operations:
    - Per FCC Guidance, both SAR and Power Density measurements were performed to demonstrate compliance.
    - Per FCC Guidance, SAR was performed using 6.5 GHz SAR probe calibration factor for WIFI 6E. Per October 2020 TCB workshop notes, 5 channels were tested for WIFI 6E.
    - Per October 2020 TCB Workshop notes, absorbed power density (APD) using a $4cm^2$ averaging area is reported based on SAR measurements for 6 GHz WIFI.
    - Power density was calculated by repeated E-field measurements on two measurement planes separated by $\lambda/4$.
    - Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 1.55 dB (42.9%) was used to determine the psPD measurement scaling factor.

3.10. Bluetooth Note:

1. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 83.3% transmission duty factor for Bluetooth to determine compliance. See Section 2.4 for the time domain plot and calculation for the duty factor of the device.

4. DUT SAR Measurement Variability Requirement

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

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

1. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2. A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3. A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4. Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Table 4-1

Exposure Condition	Band/Mode	Antenna	Maximum Duty Cycle [%]	Measured Duty Cycle [%]	Frequency [MHz]	Channel	Modulation/Configuration	RB Size	RB Offset	Separation Distance [mm]	Position	Measured 1g SAR [W/Kg]	Repeated Measured 1g SAR [W/Kg]	Ratio
Body	NR Band n48	Main1	100.0%	100.0%	3679.98	645332	DFT-s-OFDM QPSK, 40 MHz	1	104	5	Bottom	0.914	0.946	1.04
Body	NR Band n77	Main1	100.0%	100.0%	3930	662000	DFT-s-OFDM QPSK, 100 MHz	270	0	5	Bottom	0.829	0.824	1.01

5. General Introduction

Title 47 of the Code of Federal Regulations (CFR) pertains to United States Federal regulation for Telecommunications. The **Federal Communications Commission (FCC)** is the agency responsible for implementing and enforcing these regulations. The rules define a **radiofrequency device** as any device which in its operation is capable of emitting radiofrequency energy by radiation, conduction, or other means.

47CFR §2.1093(b) states, "A **portable device** is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that the RF source's radiating structure(s) **is/are within 20 centimeters of the body of the user**."

Also, 47CFR §2.1093(d)(6) states, that General population/uncontrolled exposure limits defined in §1.1310 "apply to portable devices intended for use by consumers or persons who are exposed as a consequence of their employment and may not be fully aware of the potential for exposure or cannot exercise control over their exposure."

47CFR §2.1093(d)(2) states that evaluation of compliance within FCC's SAR limits can be demonstrated by laboratory measurements. This test report serves this purpose.

6. Background on Radiofrequency (RF) Exposure Limits

6.1. Controlled Environment

Controlled environments are defined as locations where the RF field intensities have been adequately characterized by means of measurement or calculation and exposure is incurred by persons who are: aware of the potential for RF field exposure, cognizant of the intensity of the RF fields in their environment, aware of the potential health risks associated with RF field exposure and able to control their risk using mitigation strategies. In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

6.2. Uncontrolled Environment

Uncontrolled environments are defined as locations where either insufficient assessment of RF fields have been conducted or where persons who are allowed access to these areas have not received proper RF field awareness/safety training and have no means to assess or, if required, to mitigate their exposure to RF fields. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed, or in which persons who may not be made fully aware of the potential for exposure, or cannot exercise control over their exposure. Members of the general public would fall under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

6.3. RF Exposure Limits for 100kHz – 6 GHz

Per FCC 47 CFR §1.1310, the SAR limits are applied for frequencies 100kHz ~ 6 GHz as shown below.

Table 6-1 Human Exposure to RF Radiation Limits in 47 CFR §1.1310 - SAR Basic Restrictions

Environment	Condition	**SAR**	Averaging volume
Uncontrolled / General Population	Head, Neck Trunk	**1.6 W/kg**	1g cube
	Extremity	**4.0 W/kg**	10g cube
Controlled	Head/Trunk	**8 W/kg**	1g cube
	Extremity / Limbs	**20 W/kg**	10g cube

6.4. RF Exposure Limits for 6 - 100 GHz

Per FCC 47 CFR §1.1310, the power density limits are applied for frequencies between 6 GHz and 100 GHz as shown below. Note that 10 W/m^2 is equivalent to 1 mW/cm^2.

Table 6-2 Human Exposure to RF Radiation Limits in 47 CFR §1.1310

Environment	Power Density (W/m^2)	Average Time (minutes)
Uncontrolled / General Population	10	30
Controlled	50	6

6.5. General FCC Policy on Human Exposure to RF

Quoted from the FCC OET website:

The FCC is required by the National Environmental Policy Act of 1969, among other things, to evaluate the effect of emissions from FCC-regulated transmitters on the quality of the human environment. Several organizations, such as the American National Standards Institute (ANSI), the Institute of Electrical and Electronics Engineers, Inc. (IEEE) ,and the National Council on Radiation Protection and Measurements (NRCP) have issued recommendations for human exposure to RF electromagnetic fields.

On August 1, 1996, the Commission adopted the NCRP's recommended Maximum Permissible Exposure limits for field strength and power density for the transmitters operating at frequencies of 300 kHz to 100 GHz. In addition, the Commission adopted the specific absorption rate (SAR) limits for devices operating within close proximity to the body as specified within the ANSI/IEEE C95.1-1992 guidelines. (See Report and Order, FCC 96-326)

The Commission's requirements are detailed in Parts 1 and 2 of the FCC's Rules and Regulations [47 C.F.R. 1.1307(b), 1.1310, 2.1091, 2.1093]. The potential hazards associated with RF electromagnetic fields are discussed in the FCC's RF Safety FAQ.

7. RF Safety Laboratory SAR Measurement System

7.1. SAR Measurement Hardware and Software

Peak spatially averaged SAR (psSAR) measurements are performed using a DASY8 robot system with cDASY8 module SAR software. The DASY8 is made by SPEAG in Switzerland and consists of a 6-axis robot, robot controller, computer, dosimetric probe, probe alignment light beam unit, and various SAR phantoms.

7.2. E-Field Probe

Manufacturer	Schmid & Partner Engineering AG
Model	EX3DV4
Description	Smallest isotropic electric (E-) field probe for high precision specific absorption rate (SAR) measurements
Frequency Range	10 MHz - 10.0 GHz
Dynamic Range	10 µW/g – >100 mW/g
Overall Length (mm)	337
Body Diameter (mm)	12
Tip Length (mm)	337
Tip Diameter (mm)	2.5
Probe Tip to Sensor X Calibration Point (mm)	1
Probe Tip to Sensor Y Calibration Point (mm)	1
Applications	High precision dosimetric measurements in any exposure scenario (e.g. very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better than 30%
Compatibility	DASY8 robot + cDASY8 module SAR software

7.3. Peak Spatially Averaged SAR (psSAR) Measurements

SAR Evaluations are performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04, IEEE 1528:2013 and IEC/IEEE 62209-1528:

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface, and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04, IEEE 1528:2013 and IEC/IEEE 62209-1528.

2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04, IEEE 1528:2013 and IEC/IEEE 62209-1528. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):
   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).
   b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.
   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
   d. The zoom scan is confirmed to meet both of the following parameters if the result is > 0.1 W/kg. If the result does not meet the below parameters, it is re-measured with a finer resolution scan until the below parameters are met.
      (1) The smallest horizontal distance from the local SAR peaks to all points 3 dB below the SAR peak shall be larger than the horizontal grid steps in both x- and y-directions.
      (2) The ratio of the SAR at the second measured point (M2) to the SAR at the closest measured point (Ml) at the x-y location of the measured maximum SAR value shall be at least 30%
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

7.4. Test Positions

7.4.1. Device Holder

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

7.4.2. UMPC Body Configurations

Small hand-held tablets (and devices of similar form factors that are designed primarily for interactive hand-held use next to or near the body of users) require body SAR and extremity SAR evaluation. These types of minitablets are normally optimized for mobile web access and multimedia use. UMPC test procedures are applicable for devices with displays and overall diagonal dimension ≤ 20 cm.

Devices are to be set up according to KDB publication 941225 D07v01r02 requirements and are configured with maximum output power during SAR assessment for a worst case SAR evaluation.

Per KDB Publication 941225 D07v01r02, UMPC mini-tablet devices must be tested for all surfaces and edges ≤25 mm from a transmitting antenna. A test separation distance of 5 mm may be considered for 1g SAR.

7.4.3. Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions; i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1g body and 10g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D04v01 should be applied to determine SAR test requirements.

7.5. RF Safety Laboratory SAR System Measurement Uncertainty

SAR Uncertainty for DUTs
According to 62209-1528

Symbol	Input Quantity (Xi) (Source of Uncertainty)	62209-1528 Ref	Unc. (xi)	Prob. Dist. PDFi	Div(qi)	ci (1g)	ci (10g)	Std Unc (1g)	Std. Unc (10g)	vi
Measurement System Errors										
CF	Probe Calibration	8.4.1.1	18.6%	N (k=2)	2	1	1	9.30%	9.3%	∞
CFdrift	Probe Calibration Drift	8.4.1.2	1.7%	R	√3	1	1	1.0%	1.0%	∞
LIN	Probe Linearity and Detection Limit	8.4.1.3	4.7%	R	√3	1	1	2.7%	2.7%	∞
BBS	Broadband Signal	8.4.1.4	2.8%	R	√3	1	1	1.6%	1.6%	∞
ISO	Probe Isotropy	8.4.1.5	7.6%	R	√3	1	1	4.4%	4.4%	∞
DAE	Other probe and data acquisition errors	8.4.1.6	2.4%	N	1	1	1	2.4%	2.4%	∞
AMB	RF Ambient and Noise	8.4.1.7	1.8%	N	1	1	1	1.8%	1.8%	∞
Δxyz	Probe Positioning Errors	8.4.1.8	0.005 mm	N	1	0.5	0.5	0.3%	0.3%	
DAT	Data Processing Errors	8.4.1.9	3.5%	N	1	1	1	3.5%	3.5%	∞
Phantom and Device Errors										
LIQ(σ)	Measurement of Phantom Conductivity	8.4.2.1	2.5%	N	1	0.78	0.71	2.0%	1.8%	∞
LIQ(Tc)	Temperature Effects (Medium)	8.4.2.2	3.4%	R	√3	0.78	0.71	1.5%	1.4%	∞
EPS	Shell Permittivity	8.4.2.3	14.0%	R	√3	0.5	0.5	4.0%	4.0%	∞
DIS	Distance between the radiating element of the DUT and the phantom medium	8.4.2.4	2.0%	N	1	2	2	4.0%	4.0%	∞
Dxyz	Repeatability of Positioning the DUT or source against the phantom	8.4.2.5	1.0%	N	1	1	1	1.0%	1.0%	5
H	Device Holder Effects	8.4.2.6	3.6%	N	1	1	1	3.6%	3.6%	8
MOD	Effect of Operating mode on probe sensitivity	8.4.2.7	2.4%	R	√3	1	1	1.4%	1.4%	∞
RFdrift	Variation in SAR due to Drift in ouptput of DUT	8.4.2.9	2.5%	N	1	1	1	2.5%	2.5%	∞
VAL	Validation Antenna Uncertainty (Validation measurement only)	8.4.2.10	0.0%	N	1	1	1	0.0%	0.0%	∞
Pin	Uncertianty in Accepted Power (Validation Measurement only)	8.4.2.11	0.0%	N	1	1	1	0.0%	0.0%	∞
Correction to the SAR Results										
C(ε',σ)	Phantom Deviation from Target (ε',σ)	8.4.3.1	1.9%	N	1	1	0.84	1.9%	1.6%	∞
C(R)	SAR Scaling	8.4.3.2	0.0%	R	√3	1	1	0.0%	0.0%	∞
u(ΔS AR)							Combined Uncertainty	14.2%	14.1%	∞
U							Expanded Uncertainty and Effective Degrees of Freedom (k=2)	28.4%	28.3%	

8. RF Safety Laboratory Power Density Measurement System

8.1. Power Density Measurement Hardware and Software

Peak spatially averaged power density (psPD) measurements are performed using a DASY8 robot system with cDASY8 module mmWave software. The DASY8 is made by SPEAG in Switzerland and consists of a 6-axis robot, robot controller, computer, dosimetric probe, and probe alignment light beam unit.

8.2. E-Field Probe

Manufacturer	Schmid & Partner Engineering AG
Model	EUmmWVx
Description	E-field probe for high precision power density (PD) measurements
Frequency Range	750 MHz - 110 GHz
Dynamic Range	< 20 - 10,000 V/m with PRE-10 (min < 50 - 3,000 V/m)
Overall Length (mm)	320
Body Diameter (mm)	8
Tip Length (mm)	23
Tip Diameter (mm)	8
Probe Tip to Sensor X Calibration Point (mm)	1.5
Probe Tip to Sensor Y Calibration Point (mm)	1.5
Applications	High precision dosimetric measurements of devices and transmitters above 6 GHz
Compatibility	DASY8 robot + cDASY8 module mmWave software

8.3. Peak Spatially Averaged Power Density (psPD) Measurements

Electromagnetic field reconstruction is based on Maxwell's equations and uses the Gerchberg-Saxton algorithm to calculate power density. The general measurement procedure is as follows:

1. Measure the local E-field at a point within the measurement region and where the field is higher than the noise level. This reference level will be used to assess output DUT drift during the measurement.
2. Measure the E-field over the measurement region. Measurement techniques are determined by the measurement system manufacturer. In the near-field, a step size of λ/4 or less is required.
3. Check that the peak is captured. Calculate the psPD on the evaluation surface from the measured fields and ensure the psPD is accurately calculated according to the equation below. Averaging area, A, and averaging shape is specified by the applicable exposure limits or regulatory requirements.

$$psPD = \frac{1}{2A_{av}} \iint_{A_{av}} \|Re\{E \times H\}\| dA$$

4. Measure the local E-field at the same location chosen in the first step. The DUT drift is estimated as the difference between the squared amplitude of the field values taken. When measurement drift was greater than 5%, the psPD measurement and drift measurements were repeated.

8.4. RF Safety Laboratory Power Density System Measurement Uncertainty

Power Density Uncertainty for DUTs According to IEC/IEEE 63195-1							
Symbol	Description	Unc. (+/- dB)	Probab. Distri.	Div.	ci	Std. Unc. (+/- dB)	vi
Measurement System							
CAL	Calibration	0.49	N	1	1	0.49	∞
COR	Probe correction	0.00	R	√3	1	0.00	∞
FRS	Frequency Response	0.20	R	√3	1	0.12	∞
SCC	Sensor cross coupling	0.00	R	√3	1	0.00	∞
ISO	Isotropy	0.50	R	√3	1	0.29	∞
LIN	Linearity	0.20	R	√3	1	0.12	∞
PSC	Probe scattering	0.00	R	√3	1	0.00	∞
PPO	Probe postitioning offset	0.30	R	√3	1	0.17	∞
PPR	Probe positioning repeatability	0.04	R	√3	1	0.02	∞
SMO	Sensor mechanical offset	0.00	R	√3	1	0.00	∞
PSR	Probe spatial resolution	0.00	R	√3	1	0.00	∞
FLD	Field impedance dependance	0.00	R	√3	1	0.00	∞
MED	Measurement drift	0.05	R	√3	1	0.03	∞
APN	Amplitude and phase noise	0.04	R	√3	1	0.02	∞
TR	Measurement area truncation	0.00	R	√3	1	0.00	∞
DAQ	Data acquisition	0.03	N	1	1	0.03	∞
SMP	Sampling	0.00	R	√3	1	0.00	∞
REC	Field reconstruction	0.65	R	√3	1	0.38	∞
SNR	Signal-to-noise raio	0.00	R	√3	1	0.00	∞
TRA	FTE/MEO	0.00	R	√3	1	0.00	∞
SCA	Power density scaling	0.00	R	√3	1	0.00	∞
SAV	Spatial averaging	0.10	R	√3	1	0.06	∞
DUT and Environmental							
PC	Probe coupling with DUT	0.00	R	√3	1	0.00	∞
MOD	Modulation response	0.40	R	√3	1	0.23	∞
IT	Integration time	0.00	R	√3	1	0.00	∞
RT	Response time	0.00	R	√3	1	0.00	∞
DH	Device holder influence	0.10	R	√3	1	0.06	∞
DA	DUT alignment	0.00	R	√3	1	0.00	∞
AC	RF ambient conditions	0.04	R	√3	1	0.02	∞
TEM	Laboratory temperatures	0.05	R	√3	1	0.03	∞
REF	Laboratory reflections	0.04	R	√3	1	0.02	∞
MSI	Immunity / secondary reception	0.00	R	√3	1	0.00	∞
DRI	Drift of the DUT	0.21	R	√3	1	0.12	∞
					Combined Standard Uncertainty	0.77	∞
					Expanded Standard Uncertainty and Effective Degrees of Freedom (k=2)	1.55	

9. Technology Specific Test Setup Requirements

9.1. Measured and Reported SAR

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

9.2. Procedures Used to Establish RF Signal for SAR

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

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

9.3. SAR Measurement Conditions for LTE

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

9.3.1. Spectrum Plots for RB Configurations

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

9.3.2. MPR and A-MPR

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

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

9.3.3. Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

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

9.4. SAR Testing with 802.11 Transmitters

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

9.4.1. General Device Setup

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

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is

typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% duty factor to determine compliance at the maximum tune-up tolerance limit.

9.4.2. Initial Test Position Procedure

The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.4.3. 2.4 GHz SAR Test Requirements

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

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

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

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

9.4.4. OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., then 802.11n or 802.11g then 802.11n, is used for SAR measurement.

9.4.5. Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the

configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 8.6.6). When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.4.6. Subsequent Test Configuration Procedures

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

10. Equipment List

Manufacturer	Model	Description	Serial Number	Calibration Date	Calibration Due	CBT
Amplifier Research	15S4G8AM1	RF Broadband Amplifier (4 - 8 GHz)	0554497			✓
Amplifier Research	5S1G4	RF Broadband Amplifier (800 MHz - 4.2 GHz)	331258			✓
Anritsu	MG3691B	Anritsu MG3691B Signal Generator	54914			✓
Anritsu	MA24118A	Microwave USB Power Sensor (10MHz - 18 GHz)	2123431	7/11/2023	7/10/2024	
Anritsu	MA24118A	Microwave USB Power Sensor (10MHz - 18 GHz)	2123500	11/15/2023	11/14/2024	
Anritsu	MT8000A	MT8000A Radio Communication Test Station	6262261936	6/14/2023	6/13/2024	
Anritsu	S820E	Vector Network Analyzer	2348026	11/30/2023	11/30/2024	
Control Company	4040	Ambient Thermometer	230581662	8/28/2023	8/28/2025	
Control Company	4040	Ambient Thermometer	230581657	8/28/2023	8/28/2025	
Control Company	4040	Ambient Thermometer	230581656	8/28/2023	8/28/2025	
Control Company	4352	Long Stem Liquid Thermometer	230662212	9/28/2023	9/28/2025	
Control Company	4352	Long Stem Liquid Thermometer	230662223	9/28/2023	9/28/2025	
Control Company	4352	Long Stem Liquid Thermometer	230662291	9/28/2023	9/28/2025	
Hewlett Packard	8648C	HP Signal Generator	3537A01741	8/16/2021	8/16/2024	
Micro-Coax	UFB205A-0-0240-30x30	SMA M-F RF test Cable (DC - 18 GHz)	-			✓
Mini-Circuits	BW-N20W20+	20dB RF Fixed Attenuator (DC - 18 GHz)	-			✓
Mini-Circuits	BW-N20W20+	20dB RF Fixed Attenuator (DC - 18 GHz)	-			✓
Mini-Circuits	BW-S3W2+	3dB RF Fixed Attenuator (DC - 18 GHz)	-			✓
Mini-Circuits	BW-S3W2+	3dB RF Fixed Attenuator (DC - 18 GHz)	-			✓
Mini-Circuits	CBL-6FT-SMNM+	Precision Test Cable SMA/N (DC - 18 GHz)	3318			✓
Mini-Circuits	CBL-6FT-SMNM+	Precision Test Cable SMA/N (DC - 18 GHz)	3335			✓
Mini-Circuits	CBL-6FT-SMNM+	Precision Test Cable SMA/N (DC - 18 GHz)	3329			✓
Mini-Circuits	NF-SF50+	RF Adapter N Male to SMA Female (DC - 18 GHz)	-			✓
Mini-Circuits	VLF-8400+	Coaxial Low Pass Filter (DC - 8.4 GHz)	-			✓
Mini-Circuits	VLF-6000+	Coaxial Low Pass Filter (DC - 6 GHz)	-			✓
Mini-Circuits	VLF-3000+	Coaxial Low Pass Filter (DC - 3 GHz)	-			✓
Mini-Circuits	VLF-1000+	Coaxial Low Pass Filter (DC - 1 GHz)	-			✓
Mitutoyo	CD-4"AX	Digital Caliper	B23243217	9/28/2023	9/28/2025	
Narda	24785-20	20 dB SMA Fixed Attenuator (DC - 4.0 GHz)	-			✓
Narda	4226-20 (26733)	20 dB SMA Directional Coupler (0.5 - 18 GHz)	0201			✓
Rohde & Schwarz	SMCV100B	R&S SMCV100B Vector Signal Generator (VSG)	103882	12/21/2023	12/19/2025	
Rohde & Schwarz	CMW500	CMW500 Radio Communication Test Station	1201.0002K50-167186-cf	1/12/2024	1/12/2025	
SPEAG	10 GHz System Verification Source	10 GHz System Verification Source	1074	10/10/2023	10/10/2024	
SPEAG	D1750V2	1750 MHz System Validation Dipole	1205	10/11/2023	10/11/2024	
SPEAG	D1900V2	1900 MHz System Validation Dipole	5d252	10/6/2023	10/6/2024	
SPEAG	D2300V2	2300 MHz System Validation Dipole	1139	10/9/2023	10/9/2024	
SPEAG	D2450V2	2450 MHz System Validation Dipole	1112	10/9/2023	10/9/2024	
SPEAG	D2600V2	2600 MHz System Validation Dipole	1215	10/12/2023	10/12/2024	
SPEAG	D3500V2	3500 MHz System Validation Dipole	1154	10/2/2023	10/2/2024	
SPEAG	D3700V2	3700 MHz System Validation Dipole	1130	10/12/2023	10/12/2024	
SPEAG	D3900V2	3900 MHz System Validation Dipole	1101	10/2/2023	10/2/2024	
SPEAG	D5GHzV2	5GHz System Validation Dipole	1396	10/10/2023	10/10/2024	
SPEAG	D6.5GHzV2	6.5GHz System Validation Dipole	1104	10/11/2023	10/11/2024	
SPEAG	D750V3	750 MHz System Validation Dipole	1235	10/11/2023	10/11/2024	
SPEAG	D835V2	835 MHz System Validation Dipole	4d311	10/9/2023	10/9/2024	
SPEAG	DAE4ip	Data Acquisition Electronics with Integ. Power	1844	11/2/2023	11/2/2024	
SPEAG	DAE4ip	Data Acquisition Electronics with Integ. Power	1839	10/9/2023	10/9/2024	
SPEAG	DAE4ip	Data Acquisition Electronics with Integ. Power	1838	10/9/2023	10/9/2024	
SPEAG	DAE4ip	Data Acquisition Electronics with Integ. Power	1843	11/2/2023	11/2/2024	
SPEAG	DAK-12	DAK-12 Dielectric Probe	1194	10/5/2023	10/5/2024	
SPEAG	DAK-3.5	DAK-3.5 Dielectric Probe	1349	10/5/2023	10/5/2024	
SPEAG	EX3DV4	SAR Measurement Probe	7853	11/14/2023	11/14/2024	
SPEAG	EX3DV4	SAR Measurement Probe	7836	10/11/2023	10/11/2024	
SPEAG	EX3DV4	SAR Measurement Probe	7859	12/19/2023	12/19/2024	
SPEAG	EX3DV4	SAR Measurement Probe	7857	12/19/2023	12/19/2024	
SPEAG	EUmmWV4	mmWave Measurement Probe	9690	10/9/2023	10/9/2024	
SPEAG	Powersource1	Signal Generator	4341	1/5/2024	1/5/2025	
Anritsu	MT8820C	Radio Communication Test Station	6201342024			
Anritsu	MT8820C	Radio Communication Test Station	6201179629			
Anritsu	MT8820C	Radio Communication Test Station	6201342019			
SPEAG	SE UMS 171 E	MAIA Modulation and Interference Analyzer	1814			
SPEAG	SE UMS 171 E	MAIA Modulation and Interference Analyzer	1817			
SPEAG	SE UMS 171 EA	MAIA Modulation and Interference Analyzer	1820			
SPEAG	SE UMS 171 EA	MAIA Modulation and Interference Analyzer	1815			
SPEAG	SE UMS 176 C	ANT Wideband Communication Antenna	1579			
SPEAG	SE UMS 176 C	ANT Wideband Communication Antenna	1601			
SPEAG	SE UMS 176 C	ANT Wideband Communication Antenna	1610			
SPEAG	SE UMS 176 C	ANT Wideband Communication Antenna	1590			

* Components calibrated before testing. Prior to testing, the measurement paths containing a cable, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator, power sensor, or VNA) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

11. Conclusion

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

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