





PART 0 SAR Characterization Report

Test Report No. 14367173H-A

Customer	Panasonic Corporation of North America
Description of EUT	Radio Module (Tested inside of Panasonic Personal Computer FZ-G2)
Model Number of EUT	WW21A
FCC ID	ACJ9TGWW21A
Issue Date	December 26, 2022
Remarks	-

Representative Test Engineer	Approved By
	
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1 Introduction

This device uses Qualcomm® Smart Transmit feature and cannot operate without specific absorption ratio (SAR) and power density (PD) characterization at the device level, beforehand. The parameters obtained from SAR and PD characterization (char) is used as input for Smart Transmit. Both SAR char and PD char will be entered via the Embedded File System (EFS) to enable the Smart Transmit feature.

Part 0 report describes the results for the SAR char and PD char generation and evaluates them on the 5G milli wave (mmW) new radio (NR) enabled equipment under test (EUT).

This description is an overview for STx and test results may not include both sub6 (SAR) and mmW (PD).

2 Customer information

Company Name	Panasonic Corporation of North America
Address	Two Riverfront Plaza, 9th Floor Newark, NEW JERSEY, 07102-5940, USA
Telephone Number	+1-201-348-7760
Contact Person	Ben Botros

*Remarks:

Panasonic Connect Co., Ltd. is on behalf of the applicant: Panasonic Corporation of North America (Company incorporated abroad).

The information provided from the customer is as follows.

- Customer, Description of EUT, Model No. FCC ID on the cover and other relevant pages
 - Operating / Test Mode(s) (Mode(s)) on all the relevant pages
 - SECTION 2: Customer information
 - SECTION 3: Equipment under test (EUT) other than the receipt date
 - SECTION 8: SAR device uncertainty, SAR design target, SAR char generation (Plimit and Pmax (Tune up limit))
- * The laboratory is exempted from liability of any test results affected from the above information in section 3.

3 Equipment under test (EUT)

3.1 Identification of EUT

Description	Radio Module
Model Number	WW21A
Serial number	2CTSA00742 (1.75 GHz and 650 MHz band) 2CTSA00747 (Above 2 GHz) 2CTSA00763 (Other than the above)
Rating	DC 3.0 to 3.6 V
Condition	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	No Modification by the test lab.
Receipt Date	June 13, 2022
Test Date	June 23, 2022 to July 25, 2022

<Information of Host device>

Type	Personal Computer FZ-G2 Intel Core i7-1185G7 (1.1 GHz Max 4.9 GHz) 10.1 inch LCD (1920 x 1200)
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3.2 Product description

Wireless technologies	Dup.	Band		Mode	
WCDMA	FDD	2		UMTS Rel. 99 (Data) HSDPA (Rel. 5)	
	FDD	4		HSUPA (Rel. 6), HSPA+ (Rel. 7), DC-HSDPA (Rel. 8)	
	FDD	5			
LTE	FDD	2		QPSK, 16QAM, 64AQM, 256QAM Downlink MIMO Support: Yes(2x2, 4x4) Supported band : B2, B4, B7, B25, B38, B41, B42, B48, B66 Uplink MIMO Support: No Uplink transmission is limited to a single output stream.	
	FDD	4			
	FDD	5			
	*B42: not used in US (FCC)	FDD	7		
	FDD	12			
	FDD	13			
	*B48: not used in Canada(ISED)	FDD	14		
	FDD	17			
	FDD	25			
	FDD	26			
	FDD (Rx only)	29			
	TDD	38			
	TDD	41			
	TDD	42			
	TDD (Rx only)	46			
	TDD	48			
FDD	66				
FDD	71				
LTE CA	Downlink			Uplink	
	Maximum 7 carriers			*B42: not used in US (FCC) / B48: not used in Canada (ISED) Maximum 2 carriers Supported combination: <Intra-band contiguous> 7C, 41C, 42C <Inter-band> not supported	
5G NR (FR1)	FDD	15 kHz	n2	Pi/2 BPSK (DFT-s-OFDM), QPSK (CP-OFDM/DFT-s-OFDM), 16QAM (CP-OFDM/DFT-s-OFDM), 64QAM (CP-OFDM/DFT-s-OFDM), 256QAM (CP-OFDM/DFT-s-OFDM) Downlink MIMO Support: Yes(2x2, 4x4) Supported band : n2, n41, n66, n77, n78 Uplink MIMO Support: No Uplink transmission is limited to a single output stream.	
	FDD	15 kHz	n5		
	*n78 is not used in US (FCC)	TDD	30 kHz		n41
	FDD	15 kHz	n66		
	FDD	15 kHz	n71		
	TDD	30 kHz	n77		
	TDD	30 kHz	n78		
	-	-	-		-
-	-	-	-		
EN-DC (LTE-FR1 Sub6) (NSA mode only)	Supported combination				
	LTE Anchor Bands for NR band n2		LTE Band 5/12/13/14/48		
	LTE Anchor Bands for NR band n5		LTE Band 2/7/66		
	LTE Anchor Bands for NR band n41		LTE Band 2/4/25/26/41/66		
	LTE Anchor Bands for NR band n66		LTE Band 5/12/13/14/48/71		
	LTE Anchor Bands for NR band n71		LTE Band 2/7/66		
	LTE Anchor Bands for NR band n77		LTE Band 2/5/12/13/14/41/66		
	LTE Anchor Bands for NR band n78*		LTE Band 2/4/5/7/12/13/38/41/66/71 *n78: not used in US (FCC)		

Wireless module (Tested inside of Panasonic Tablet PC FZ-G2)

Model: WL22A (FCC ID ACJ9TGWL22A / ISED certification number 216H-CFWL22A)

Wireless technologies	Dup.	Band		Mode
WLAN	TDD	2.4 GHz	2412 - 2472 for US	802.11b 802.11g
			2412 - 2462 for Canada	802.11n(20, 40)
	TDD	5 GHz	5180 - 5240 5260 - 5320 5500 - 5720 5745 - 5825	802.11a 802.11n(20, 40) 802.11ac(20, 40, 80, 160) 802.11ax(20, 40, 80, 160)
TDD	6 GHz	5955 - 6415 6435 - 6515 6535 - 6875 6875 - 7115	802.11ax(20, 40, 80, 160)	
Bluetooth	TDD	2.4 GHz	2402 - 2480	BR/EDR/LE

4 Location

UL Japan, Inc. Ise EMC Lab.
Shielded room for SAR testings
A2LA Certificate Number: 5107.02 / FCC Test Firm Registration Number: 884919
ISED SAR Lab Company Number: 2973C / CAB identifier: JP0002
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone: +81-596-24-8999

5 References

Federal Communications Commission. (October 23, 2015). *447498 D01 General RF Exposure Guidance v06*.
International Electrotechnical Commission. (2018). *IEC TR 63170:2018*.
SPEAG. (August 2018). 5G Module V1.2 Application Note: 5G Compliance Testing.

6 Time averaging for SAR and PD

The Qualcomm® Smart Transmit algorithm controls and manages the instantaneous Tx power to maintain the time-averaged Tx power (in turn, time-averaged RF exposure) is in compliance with regulatory limits.

7 Definitions, symbols, and abbreviations

7.1 Definitions

SAR_design_target	: Target value to use STx and also this shall be less than regulatory SAR limit (i.e., 1gSAR limit for FCC) after accounting for all device design related uncertainties.
SAR_design_target_extremity	: SAR_design_target for limbs
Tx_power_at_SAR_design_target	: Transmit level that matches SAR_design_target
Δ_{min}	: housing material influence
PD_design_target	: The design target for PD compliance. It should be less than regulatory power density limit to account for all device design related uncertainties
<i>input.power.limit</i>	: For a PD characterized wireless device, the input power level at antenna port(s) for each beam corresponding to PD_design_target.
PD char	: The table that contains input.power.limit fed to antenna port(s) for all supported beams.
N beams	: The mmW device supports total N beams, where M out of N are single beams and the rest of (N-M) are beam pairs (where 2 single beams are excited at the same time).
power density (PD) or S_{av}	: Energy per unit time and unit area crossing a surface of area A characterized by the normal unit vector $\hat{\mathbf{n}}$ and averaging time.

$$S_{av} = \frac{1}{AT} \iint (\mathbf{E} \times \mathbf{H}) \cdot \hat{\mathbf{n}} dA dT$$

Specific Absorption Rate (SAR): : The time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ), as shown in the following equation:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dV} \right)$$

7.2 Symbols

Symbol	Quantity	Unit	Dimensions
E	Electric field	volt per meter	V / m
f	Frequency	hertz	Hz
H	Magnetic field	ampere per meter	A / m
λ	Wavelength	meter	m
S	Local power density	watt per square meter	W / m ²
PD or S _{av}	Spatial-average power density	watt per square meter	W / m ² (mW / cm ²)
SAR	Specific Absorption Rate	watt per kilo gram	W / kg

7.3 Abbreviations

DSI	: device state index
KDB	: knowledge data base from Federal communication committee (FCC)
BS or BSE	: base station or base station emulator
CW	: continuous wave
DUT	: device under test
NR	: new radio
PD	: power density
RF	: radio frequency
TER	: total exposure ratio
S _n	: surface number
S _{tot} or S _{total}	: total propagating power flux density into the phantom
S _n or S _{norm}	: surface normal propagating power flux density into the phantom or in normed vector space
Ant	: antenna
nG	: n generation (e.g. 3G, 4G and 5G)
<input checked="" type="checkbox"/>	: applicable.
<input type="checkbox"/>	: NOT applicable.

8 SAR char generation

8.1 Usage scenarios in SAR evaluation and DSI determination

applicable	Scenario	Description	Position example
<input type="checkbox"/>	Head	Device positioned next to head	$SAR_{head} = \max\{SAR_{LC}, SAR_{LT}, SAR_{RC}, SAR_{RT}\}$
<input checked="" type="checkbox"/>	Body	Device positioned next to body with or without a body-worn accessory	$SAR_{body} = \max\{SAR_{s1}, SAR_{s2}, SAR_{s3}, SAR_{s4}, SAR_{s5}, SAR_{s6}\}$
<input type="checkbox"/>	Hotspot mode	Device transmitting in hotspot mode and assumed to be located next to human body	$SAR_{hotspot} = \max\{SAR_{s1}, SAR_{s2}, SAR_{s3}, SAR_{s4}, SAR_{s5}, SAR_{s6}\}$
<input type="checkbox"/>	Extremity SAR (10g)	10gSAR is evaluated for all applicable surfaces of the device against the flat phantom with 0 mm separation distance	$10gSAR_{extremity} = \max\{10gSAR_{s1}, 10gSAR_{s2}, 10gSAR_{s3}, 10gSAR_{s4}, 10gSAR_{s5}, 10gSAR_{s6}\}$

L/R: Left/Right, C/T: Cheek/Tilt, S: Surface

Table 8-A summary of Usage/Exposure Scenario for this EUT

DSI	State
0	Full power operation
1	Reduction power operation

8.2 SAR device uncertainty

Table 8-B device uncertainty

Item	Uncertainty dB
Total uncertainty	1.0

k=2

8.3 SAR design target

To account for the total uncertainty, SAR_{design_target} needs to:

$$SAR_{design_target} < SAR_{regulaory_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

the SAR_{design_target} for the EUT is determined as: < 1.27 W / kg

DSI	SAR_{design_target}
0 and 1	0.7 W/kg All band excluding force peak(FP) mode, results for FP might be lower than 0.7 W/kg

8.4 SAR char generation

The position is based on KDB 447498.

Table 8-C Summary of Plimit

RAT	Force Peak	Band	Pmax	Plimit(DSI 0)	Plimit (DSI 1)	
WCDMA		2	23.5	22.2	16.7	
		4	22.7	21.8	17.6	
		5	23.5	22.1	16.2	
LTE		2	23.0	22.5	16.5	
		4	23.0	21.5	17.0	
		5	23.0	23.5	16.6	
		7	23.0	22.1	16.8	
		12	23.0	26.0	17.9	
		13	23.0	23.7	17.1	
		14	23.0	23.5	17.1	
		17	23.0	26.1	18.2	
		25	23.0	22.6	16.6	
		26	23.0	22.3	16.6	
		38	23.0	24.6	20.5	
		41	23.0	25.5	19.1	
		Y	42*	10.8	20.6	10.9
		Y	48*	9.9	21.1	11.3
			66	23.0	21.5	17.0
		71	23.0	24.4	18.1	
NR		n2	23.5	22.4	17.4	
		n5	23.5	23.2	17.0	
		n41	20.5	20.8	11.2	
		n66	22.5	20.8	17.0	
		n71	23.5	25.3	18.4	
		n77(FCC Block A)	23.5	19.1	8.0	
		n77(FCC Block C)	23.5	19.1	8.0	
		Y	n77(ISED)*	8.2	18.4	8.6
		Y	n78(ISED)*	8.2	18.4	8.6

If $P_{max} < P_{limit}$ then,

The EUT operates at P_{max} for static SAR measurement

else EUT transmit at P_{limit} for static SAR measurement

Below bands Plimit is converted to Pmax by applying above condition.

RAT	Force Peak	Band	Pmax	Plimit(DSI 0)	Plimit (DSI 1)	
LTE		5	23.0	23.0	16.6	
		12	23.0	23.0	17.9	
		13	23.0	23.0	17.1	
		14	23.0	23.0	17.1	
		17	23.0	23.0	18.2	
		38	23.0	23.0	20.5	
		41	23.0	23.0	19.1	
		Y	42*	10.8	10.8	10.8
	Y	48*	9.9	9.9	9.9	
		71	23.0	23.0	18.1	
NR		n41	20.5	20.5	11.2	
		n71	23.5	23.5	18.4	
		Y	n77(ISED)*	8.2	8.2	8.2
		Y	n78(ISED)*	8.2	8.2	8.2

Note(s):

- LTE band 42 is only for ISED, LTE band 48 is only for FCC.
- FCC support only n77, ISED supports both n77/n78
- Plimit(DSI 0 / 1) has a tolerance (± 1 dB).
- Tune up limit = Plimit

Additional information

For LTE B48 (FCC)

Uplink Downlink config (UDC)	Special sub frame (SSF)	Burst ave tune up DSI=0/1 [dBm]	P _{max} burst ave [dBm]	Time ave DSI=0/1 [dBm]
0	0 to 7	9.9	9.9	7.5
1	0 to 7	11.3	11.3	7.5
2	0 to 7	14.2	14.2	7.5
3	0 to 7	12.8	12.8	7.5
4	0 to 7	14.4	14.4	7.5
5	0 to 7	17.3	17.3	7.5
6	0 to 7	10.4	10.4	7.5

LTE band 48 doesn't have a same burst tune up for UDC/SSF but has same time average tune up limit.

For LTE B42(ISED)

Uplink Downlink config (UDC)	Special sub frame (SSF)	Burst ave tune up DSI=0/1 [dBm]	P _{max} burst ave [dBm]	Time ave DSI=0/1 [dBm]
0	0 to 7	10.8	10.8	8.5
1	0 to 7	12.0	12.0	8.5
2	0 to 7	14.9	14.9	8.5
3	0 to 7	13.4	13.4	8.5
4	0 to 7	15.1	15.1	8.5
5	0 to 7	18.0	18.0	8.5
6	0 to 7	11.2	11.2	8.5

LTE band 42 doesn't have a same burst tune up for UDC/SSF but has same time average tune up limit.

Appendix A SAR result

Results include both FCC and ISED data, but the end product correctly controls the bands and plimit at firmware level. This only for purpose on submissions.

Calc. Plimit = rounded {measured power + 10log (target SAR / measured SAR value)}
ex Plimit for WCDMA band 2 DSI0 = 23.43 + 10 log(0.700/0.923) = 22.2 dBm

The channel and position selection criteria:

- For WCDMA, tested at worst condition based on original condition.
- For LTE, test starts with worst power ch and if worst channel is not same as original condition, additional channel is conducted.
- [Original condition]
FCC ID: ACJ9TGWW21A granted on 2021/12/20
ISED Certification Number: 216H-CFWW21A granted on 2022/01/06

A.1 W-CDMA B2 DSI0

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)	1-g SAR (W/kg)	Calc. Plimit
					Meas.	Meas.	
Rear tilt (Edge1 side)	0	Rel 99 RMC 12.2 kbps	9262	1852.4	23.57		
			9400	1880.0	23.43	0.923	22.2
			9538	1907.6	23.30		

A.2 W-CDMA B2 DSII

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)	1-g SAR (W/kg)	Calc. Plimit
					Meas.	Meas.	
Edge4	0	Rel 99 RMC 12.2 kbps	9262	1852.4	23.57		
			9400	1880.0	23.43		
			9538	1907.6	23.30	3.230	16.7

A.3 W-CDMA B4 DSI0

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)	1-g SAR (W/kg)	Calc. Plimit
					Meas.	Meas.	
Rear tilt (Edge4 side)	9	Rel 99 RMC 12.2 kbps	1312	1712.4	23.56	1.050	21.8
			1413	1732.6	23.48		
			1513	1752.6	23.42		

A.4 W-CDMA B4 DSII

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)	1-g SAR (W/kg)	Calc. Plimit
					Meas.	Meas.	
Edge4	0	Rel 99 RMC 12.2 kbps	1312	1712.4	23.56		
			1413	1732.6	23.48	2.690	17.6
			1513	1752.6	23.42		

A.5 W-CDMA-B5 DSI0

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)	1-g SAR (W/kg)	Calc. Plimit
					Meas.	Meas.	
Rear tilt (Edge4 side)	9	Rel 99 RMC 12.2 kbps	4132	826.4	23.59		
			4183	836.6	23.38	0.931	22.1
			4233	846.6	23.15		

A.6 W-CDMA-B5 DSII

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)	1-g SAR (W/kg)	Calc. Plimit
					Meas.	Meas.	
Edge4	0	Rel 99 RMC 12.2 kbps	4132	826.4	23.59	3.540	16.6
			4183	836.6	23.38		
			4233	846.6	23.15	3.490	16.2

On previous result, measurement and scaled channel is not same, so both channels are conducted.

A.7 LTE B2 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	QPSK	18700	1860	1	0	22.76	0.751	22.5
			18900.0	1880.0	1	0	22.67		
			19100.0	1900.0	1	0	22.66		
			18700	1860	50	0	21.90	0.600	22.6
			18900	1880	50	50	21.75		
			19100	1900	50	24	21.68		
			18700	1860	100	0	21.89	0.583	22.7

A.8 LTE B2 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	18700	1860	1	0	22.76	2.930	16.5
			18900	1880	1	0	22.67		
			19100	1900	1	0	22.66		
			18700	1860	50	0	21.90	2.430	16.5
			18900	1880	50	50	21.75		
			19100	1900	50	24	21.68		
			18700	1860	100	0	21.89	2.420	16.5

A.9 LTE B4 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	QPSK	20175	1732.5	1	99	22.73	0.878	21.7
			20175	1732.5	1	0	22.68		
			20175	1732.5	1	49	22.66		
			20175	1732.5	50	50	21.85	0.728	21.7
			20175	1732.5	50	0	21.82		
			20175	1732.5	50	24	21.80		
			20175	1732.5	100	0	21.77	0.750	21.5

A.10 LTE B4 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	20175	1732.5	1	99	22.73	2.620	17.0
			20175	1732.5	1	0	22.68		
			20175	1732.5	1	49	22.66		
			20175	1732.5	50	50	21.85	2.150	17.0
			20175	1732.5	50	0	21.82		
			20175	1732.5	50	24	21.80		
			20175	1732.5	100	0	21.77	2.030	17.1

A.11 LTE B5 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	QPSK	-	-	-	-	-		
			20525	836.5	1	0	22.79	0.562	23.7
			-	-	-	-	-		
			20525	836.5	25	0	21.80	0.449	23.7
			-	-	-	-	-		
			20525	836.5	50	0	21.78	0.473	23.5

A.12 LTE B5 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	-	-	-	-	-		
			20525	836.5	1	0	22.79	2.790	16.8
			-	-	-	-	-		
			20525	836.5	25	0	21.80	2.270	16.7
			-	-	-	-	-		
			20525	836.5	50	0	21.78	2.310	16.6

A.13 LTE B7 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	QPSK	21100	2535	1	0	22.96	0.842	22.2
			21100	2535	1	49	22.94		
			21100	2535	1	99	22.92		
			21100	2535	50	50	21.99	0.689	22.1
			21100	2535	50	24	21.94		
			21100	2535	50	0	21.91		
			21350	2560	100	0	21.98	0.675	
			20850	2510	100	0	21.93		
21100	2535	100	0	21.91					

A.14 LTE B7 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	21100	2535	1	0	22.96	2.690	17.1
			21100	2535	1	49	22.94		
			21100	2535	1	99	22.92		
			21100	2535	50	50	21.99	2.320	16.8
			21100	2535	50	24	21.94		
			21100	2535	50	0	21.91		
			21350	2560	100	0	21.98	1.990	
			20850	2510	100	0	21.93		
21100	2535	100	0	21.91					

A.15 LTE B12 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Rear tilt(Edge1 side)	0	QPSK	-	-	-	-	-			
			23095	707.5	1	49	22.71	0.309	26.3	
			-	-	-	-	-	-		
			23095	707.5	25	12	21.86	0.247	26.4	
			-	-	-	-	-	-		
			23095	707.5	50	0	21.83	0.265	26.0	

A.16 LTE B12 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Edge 4	0	QPSK	-	-	-	-	-			
			23095	707.5	1	49	22.71	2.130	17.9	
			-	-	-	-	-	-		
			23095	707.5	25	12	21.86	1.720	18.0	
			-	-	-	-	-	-		
			23095	707.5	50	0	21.83	1.730	17.9	

A.17 LTE B13 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Rear tilt(Edge1 side)	0	QPSK	-	-	-	-	-	-	-	
			23230	782	1	0	22.45	0.459	24.3	
			-	-	-	-	-	-	-	-
			23230	782	25	25	21.55	0.397	24.0	
			-	-	-	-	-	-	-	-
			23230	782	50	0	21.52	0.424	23.7	

A.18 LTE B13 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Edge 4	0	QPSK	-	-	-	-	-	-	-	
			23230	782	1	0	22.45	2.330	17.2	
			-	-	-	-	-	-	-	-
			23230	782	25	25	21.55	1.910	17.2	
			-	-	-	-	-	-	-	-
			23230	782	50	0	21.52	1.920	17.1	

A.19 LTE B14 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Rear tilt(Edge1 side)	0	QPSK	-	-	-	-	-	-	-	
			23330	793	1	0	22.40	0.512	23.8	
			-	-	-	-	-	-	-	-
			23330	793	25	12	21.48	0.422	23.7	
			-	-	-	-	-	-	-	-
			23330	793	50	0	21.47	0.442	23.5	

A.20 LTE B14 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Edge 4	0	QPSK	-	-	-	-	-	-	-	
			23330	793	1	0	22.40	2.220	17.4	
			-	-	-	-	-	-	-	-
			23330	793	25	12	21.48	1.910	17.1	
			-	-	-	-	-	-	-	-
			23330	793	50	0	21.47	1.930	17.1	

A.21 LTE B17 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Rear tilt(Edge1 side)	0	QPSK	-	-	-	-	-	-	-	
			23790	710	1	49	22.85	0.314	26.3	
			-	-	-	-	-	-	-	-
			23790	710	25	25	21.88	0.257	26.2	
			-	-	-	-	-	-	-	-
			23790	710	50	0	21.80	0.263	26.1	

A.22 LTE B17 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Edge 4	0	QPSK	-	-	-	-	-	-	-	
			23790	710	1	49	22.85	1.970	18.4	
			-	-	-	-	-	-	-	-
			23790	710	25	25	21.88	1.630	18.2	
			-	-	-	-	-	-	-	-
			23790	710	50	0	21.80	1.560	18.3	

A.23 LTE B25 DSII

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	QPSK	26140	1860	1	0	22.78	0.730	22.6
			26365	1882.5	1	0	22.70		
			26590	1905	1	0	22.68		
			26140	1860	50	24	21.90	0.585	22.7
			26365	1882.5	50	24	21.85		
			26590	1905	50	50	21.72		
			26140	1860	100	0	21.87	0.580	22.7

A.24 LTE B25 DSII

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	26140	1860	1	0	22.78	2.840	16.7
			26365	1882.5	1	0	22.70		
			26590	1905	1	0	22.68		
			26140	1860	50	24	21.90	2.360	16.6
			26365	1882.5	50	24	21.85		
			26590	1905	50	50	21.72		
			26140	1860	100	0	21.87	2.350	16.6

A.25 LTE B26 DSII

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	QPSK	-	-	-	-	-		
			26865	831.5	1	0	22.75	0.780	22.3
			-	-	-	-	-		
			-	-	-	-	-		
			26865	831.5	36	0	21.86	0.635	22.3
			-	-	-	-	-		
			26865	831.5	75	0	21.79	0.617	22.3

A.26 LTE B26 DSII

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	-	-	-	-	-		
			26865	831.5	1	0	22.75	2.760	16.8
			-	-	-	-	-		
			-	-	-	-	-		
			26865	831.5	36	0	21.86	2.350	16.6
			-	-	-	-	-		
			26865	831.5	75	0	21.79	2.320	16.6

A.27 LTE B38 DSII

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	QPSK	38000	2595	1	49	22.58	0.410	24.9
			38000	2595	1	0	22.57		
			38000	2595	1	99	22.55		
			38000	2595	50	50	21.76	0.365	24.6
			38000	2595	50	0	21.70		
			38000	2595	50	24	21.68		
			38000	2595	100	0	21.70	0.352	24.7

A.28 LTE B38 DSII

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	38000	2595	1	49	22.58	1.130	20.5
			38000	2595	1	0	22.57		
			38000	2595	1	99	22.55		
			38000	2595	50	50	21.76	0.922	20.6
			38000	2595	50	0	21.70		
			38000	2595	50	24	21.68		
			38000	2595	100	0	21.70	0.913	20.5

A.29 LTE B41 DSI0 (FCC)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	QPSK	39750	2506	1	99	22.59		
			40185	2549.5	1	99	22.54		
			40620	2593	1	0	22.78	0.245	27.3
			41055	2636.5	1	0	22.74		
			41490	2680	1	0	22.66		
			39750	2506	50	24	21.82		
			40185	2549.5	50	50	21.78		
			40620	2593	50	24	21.80		
			41055	2636.5	50	0	21.83	0.233	26.6
			41490	2680	50	50	21.75		
			39750	2506	100	0	21.82	0.303	25.5

A.30 LTE B41 DSI1 (FCC)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	39750	2506	1	99	22.59		
			40185	2549.5	1	99	22.54		
			40620	2593	1	0	22.78	1.030	21.1
			41055	2636.5	1	0	22.74		
			41490	2680	1	0	22.66		
			39750	2506	50	24	21.82		
			40185	2549.5	50	50	21.78	1.140	19.7
			40620	2593	50	24	21.80		
			41055	2636.5	50	0	21.83	1.130	19.8
			41490	2680	50	50	21.75		
			39750	2506	100	0	21.82	1.260	19.3

A.31 LTE B41 DSI0 (ISED)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	QPSK	39790	2510	1	99	22.55		
			40185	2549.5	1	99	22.54		
			40620	2593	1	0	22.78	0.245	27.3
			41055	2636.5	1	0	22.74		
			41490	2680	1	0	22.66		
			39790	2510	50	50	21.82		
			40185	2549.5	50	50	21.78		
			40620	2593	50	50	21.80		
			41055	2636.5	50	0	21.83	0.233	26.6
			41490	2680	50	0	21.75		
			39790	2510	100	0	21.80	0.300	25.5

A.32 LTE B41 DSI1 (ISED)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	39790	2510	1	99	22.55		
			40185	2549.5	1	99	22.54		
			40620	2593	1	0	22.78	1.030	21.1
			41055	2636.5	1	0	22.74		
			41490	2680	1	0	22.66		
			39790	2510	50	24	21.82	1.320	19.1
			40185	2549.5	50	50	21.78		
			40620	2593	50	24	21.80		
			41055	2636.5	50	0	21.83	1.130	19.8
			41490	2680	50	50	21.75		
			39790	2510	100	0	21.82	1.320	19.1

Band 41 does not have same channels between FCC and ISED, as per customer request, lower power setting condition is applied for reduction that is 19.1 dBm.

A.33 LTE B42 DSI0 (ISED)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	19	QPSK	43490	3590	1	0	10.51	0.062	21.0
			43490	3590	1	49	10.48		
			43490	3590	1	99	10.39		
			43490	3590	50	0	10.62	0.064	21.0
			43490	3590	50	24	10.56		
			43490	3590	50	50	10.52		
			43490	3590	100	0	10.44	0.067	20.6

A.34 LTE B42 DSI1 (ISED)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	43490	3590	1	0	10.51	0.600	11.2
			43490	3590	1	49	10.48		
			43490	3590	1	99	10.39		
			43490	3590	50	0	10.62	0.628	11.1
			43490	3590	50	24	10.56		
			43490	3590	50	50	10.52		
			43490	3590	100	0	10.44	0.634	10.9

A.35 LTE B48 DSI0 (FCC)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	19	QPSK	55340	3560	1	99	9.80	0.051	21.2
			55340	3560	1	0	9.78		
			55340	3560	1	49	9.68		
			55340	3560	50	50	9.83	0.049	21.3
			55340	3560	50	0	9.82		
			55340	3560	50	24	9.74		
			55340	3560	100	0	9.77	0.051	21.1

A.36 LTE B48 DSI1 (FCC)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	55340	3560	1	99	9.80	0.490	11.3
			55340	3560	1	0	9.78		
			55340	3560	1	49	9.68		
			55340	3560	50	50	9.83	0.492	11.4
			55340	3560	50	0	9.82		
			55340	3560	50	24	9.74		
			55340	3560	100	0	9.77	0.497	11.3

A.37 LTE B66 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	QPSK	132072	1720	1	99	22.73	0.919	21.5
			132322	1745	1	99	22.84		
			132572	1770	1	0	22.95	0.929	21.7
			132072	1720	50	50	21.80		
			132322	1745	50	50	21.92		
			132572	1770	50	50	22.01	0.719	21.9
			132572	1770	100	0	21.91	0.707	21.9

A.38 LTE B66 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	132072	1720	1	99	22.73		
			132322	1745	1	99	22.84		
			132572	1770	1	0	22.95	2.670	17.1
			132072	1720	50	50	21.80		
			132322	1745	50	50	21.92		
			132572	1770	50	50	22.01	2.220	17.0
			132572	1770	100	0	21.91	2.190	17.0

A.39 LTE B71 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	QPSK	133297	680.5	1	99	22.62	0.461	24.4
			133297	680.5	1	0	22.59		
			133297	680.5	1	49	22.58		
			133297	680.5	50	24	21.73	0.375	24.4
			133297	680.5	50	50	21.68		
			133297	680.5	50	0	21.65		
			133297	680.5	100	0	21.72	0.336	24.9

A.40 LTE B71 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	QPSK	133297	680.5	1	99	22.62	1.990	18.1
			133297	680.5	1	0	22.59		
			133297	680.5	1	49	22.58		
			133297	680.5	50	24	21.73	1.590	18.2
			133297	680.5	50	50	21.68		
			133297	680.5	50	0	21.65		
			133297	680.5	100	0	21.72	1.600	18.1

A.41 NR n2 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	BPSK	372000	1860	1	1	23.46	0.878	22.5
			376000	1880	1	1	23.47	0.887	22.4
			380000	1900	1	1	23.28		
			372000	1860	50	28	23.34	0.795	22.8
			376000	1880	50	28	23.36	0.835	22.6
			380000	1900	50	28	23.14		
			376000	1880	100	0	22.87	0.745	22.6

A.42 NR n2 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	372000	1860	1	1	23.46		
			376000	1880	1	1	23.47	2.780	17.5
			380000	1900	1	1	23.28	2.630	17.5
			372000	1860	50	28	23.34		
			376000	1880	50	28	23.36	2.730	17.4
			380000	1900	50	28	23.14	2.610	17.4
			376000	1880	100	0	22.87	2.440	17.4

A.43 NR n5 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	BPSK	167300	836.5	1	1	23.21	0.667	23.4
			167300	836.5	50	28	23.01	0.666	23.2
			167300	836.5	100	0	22.50	0.589	23.2

A.44 NR n5 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	167300	836.5	1	1	23.21	2.810	17.2
			167300	836.5	50	28	23.01	2.720	17.1
			167300	836.5	100	0	22.50	2.460	17.0

A.45 NR n41 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Rear tilt(Edge2 side)	9	BPSK	-	-	-	-	-			
			518600	2593	1	137	20.73	0.666	20.9	
			-	-	-	-	-	-		
			-	-	-	-	-	-		
			518600	2593	135	69	20.70	0.686	20.8	
			-	-	-	-	-	-		
518600	2593	270	0	20.60	0.657	20.9				

A.46 NR n41 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit	
Edge 2	0	BPSK	-	-	-	-	-			
			518600	2593	1	137	20.73	6.070	11.3	
			-	-	-	-	-	-		
			-	-	-	-	-	-		
			518600	2593	135	69	20.70	6.220	11.2	
			-	-	-	-	-	-		
518600	2593	270	0	20.60	5.810	11.4				

A.47 NR n66 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	BPSK	344000	1720	1	104	22.89		
			349000	1745	1	104	22.90	0.892	21.8
			354000	1770	1	104	22.89		
			344000	1720	50	28	22.80	0.975	21.4
			349000	1745	50	28	22.82	1.020	21.2
			354000	1770	50	28	22.74		
			344000	1720	100	0	22.34	0.993	20.8

A.48 NR n66 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	344000	1720	1	104	22.89		
			349000	1745	1	104	22.90	2.440	17.5
			354000	1770	1	104	22.89		
			344000	1720	50	28	22.80		
			349000	1745	50	28	22.82	2.450	17.4
			354000	1770	50	28	22.74	2.550	17.1
			344000	1720	100	0	22.34	2.380	17.0

A.49 NR n71 DSI0

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge1 side)	0	BPSK	-	-	-	-	-		
			136100	680.5	1	1	22.75	0.366	25.6
			-	-	-	-	-		
			-	-	-	-	-		
			136100	680.5	50	28	22.53	0.373	25.3
			-	-	-	-	-		
			136100	680.5	100	0	22.16	0.331	25.4

A.50 NR n71 DSI1

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	-	-	-	-	-		
			136100	680.5	1	1	22.75	1.860	18.5
			-	-	-	-	-		
			-	-	-	-	-		
			136100	680.5	50	28	22.53	1.830	18.4
			-	-	-	-	-		
			136100	680.5	100	0	22.16	1.620	18.5

A.51 NR n77 DSI0 (FCC)

Block A

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	BPSK	633332	3499.98	1	1	22.91	1.200	20.6
			633332	3499.98	135	69	22.87	1.180	20.6
			633332	3499.98	270	0	22.37	1.050	20.6

Block C

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Rear tilt(Edge4 side)	9	BPSK	656000	3840	1	1	23.00	1.630	19.3
			656000	3840	135	69	22.94	1.650	19.2
			656000	3840	270	0	22.42	1.500	19.1

A.52 NR n77 DSI1 (FCC)

Block A

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	633332	3499.98	1	1	22.91	19.800	8.4
			633332	3499.98	135	69	22.87	18.100	8.7
			633332	3499.98	270	0	22.37	16.100	8.8

Block C

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	656000	3840	1	1	23.00	20.500	8.3
			656000	3840	135	69	22.94	21.400	8.1
			656000	3840	270	0	22.42	19.400	8.0

Band 77 has two blocks but as per customer request, lower power setting condition is applied that is 19.1 dBm for DSI0 and 8.0 dBm for ISED.

A.53 NR n77/n78 DSI0 (ISED)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	19	BPSK	636666	3550	1	137	7.87	0.058	18.7
			636666	3550	1	271	7.74		
			636666	3550	1	1	7.65		
			636666	3550	135	138	7.81	0.060	18.5
			636666	3550	135	69	7.75		
			636666	3550	135	0	7.66		
			636666	3550	270	0	7.69	0.059	18.4

A.54 NR n77/n78 DSI1 (ISED)

Test Position	Dist. (mm)	Modulation	UL CH #	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm) Meas. Avg	1-g SAR (W/kg) Meas.	Calc. Plimit
Edge 4	0	BPSK	636666	3550	1	137	7.87	0.555	8.9
			636666	3550	1	271	7.74		
			636666	3550	1	1	7.65		
			636666	3550	135	138	7.81	0.584	8.6
			636666	3550	135	69	7.75		
			636666	3550	135	0	7.66		
			636666	3550	270	0	7.69	0.564	8.6

Appendix B Measurement uncertainty

B.1 SAR measurement uncertainty

Error Description	Uncert. value	Unit	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std.Unc. (10g)
Measurement System Errors								
Probe Calibration	± 14.0	%	N	2	1	1	±7.0%	±7.0%
Probe Calibration Drift	± 1.7	%	R	√3	1	1	±1.0%	±1.0%
Probe Linearity	± 4.7	%	R	√3	1	1	±2.7%	±2.7%
Broadband Signal	± 2.6	%	R	√3	1	1	±1.5%	±1.5%
Probe Isotropy	± 7.6	%	R	√3	1	1	±4.4%	±4.4%
Data Acquisition	± 0.3	%	N	1	1	1	±0.3%	±0.3%
RF Ambient	± 1.8	%	N	1	1	1	±1.8%	±1.8%
Probe Positioning	± 0.2	%	N	1	0.33	0.33	±0.1%	±0.1%
Data Processing	± 2.3	%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors								
Conductivity (meas.)DAK	± 10.0	%	N	1	0.78	0.71	±7.8%	±7.1%
Conductivity (temp.)BB	± 3.4	%	R	√3	0.78	0.71	±1.5%	±1.4%
Phantom Permittivity	± 14.0	%	R	√3	0.25	0.25	±2.0%	±2.0%
Distance DUT - TSL	± 2.0	%	N	1	2	2	±4.0%	±4.0%
Device Positioning (+/- 0.5mm)	± 1.0	%	N	1	1	1	±1.0%	±1.0%
Device Holder	± 3.6	%	N	1	1	1	±3.6%	±3.6%
DUT Modulation	± 2.4	%	R	√3	1	1	±1.4%	±1.4%
Time-average SAR	± 2.6	%	R	√3	1	1	±1.5%	±1.5%
DUT drift	± 2.5	%	N	1	1	1	±2.5%	±2.5%
Val Antenna Unc.val	± 0.0	%	N	1	1	1	±0.0%	±0.0%
Unc. Input Powerval	± 0.0	%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
Deviation to Target	± 1.9	%	N	1	1	0.84	±1.9%	±1.6%
SAR scalingp	± 0.0	%	R	√3	1	1	±0.0%	±0.0%
Combined Std. Uncertainty							±14.1%	±13.7%
Expanded STD Uncertainty ($\kappa=2$)							±28.2%	±27.4%

Appendix C Revision History

Original Test Report No.: 14367173H-A

Revision	Test Report No.	Date	Page Revised Contents
- (Original)	14367173H-A	December 26, 2022	-

End of Report