

Part 0: SAR Characterization Evaluation Report for FCC

Applicant Name : Getac Technology Corporation

Applicant Address : 5F., Building A, No. 209, Sec. 1 Nangang Rd., Taipei City, 11568, Taiwan

Product Name : 5G/LTE data card

Brand Name : Getac

Model Number : FN990A28

FCC ID : QYLFN990U

Report Number : USSC255064001

Compliant Standards : FCC 47 CFR §2.1093

Sample Received Date : May 07, 2025

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Report Issue Date : Aug. 08, 2025

The above equipment have been tested by **Eurofins E&E Wireless Taiwan Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Device Under Test (DUT) configurations represented herein are true and accurate accounts of the measurements of the sample's characteristics under the conditions specified in this report.

Note:

1. The test results are valid only for samples provided by customers and under the test conditions described in this report.
2. This report shall not be reproduced except in full, without the written approval of Eurofins E&E Wireless Taiwan Co., Ltd.
3. The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.

Approved By :

Roy Wu / SAR Technical Director

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Revision History

Rev.	Issued Date	Description	Revised by
00	Aug. 08, 2025	Initial Issue	Rowan Hsieh

1. Information of Testing Laboratory

Test Facilities

Company Name: Eurofins E&E Wireless Taiwan Co., Ltd.
Address: No. 140-1, Changan Street, Bade District, Taoyuan City, Taiwan
Website: <https://www.atl.com.tw>
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E-mail: infoEETW@eurofins.com

Test Site Location

- ☐ No. 140-1, Changan Street, Bade District, Taoyuan City, Taiwan
☒ No. 2, Wuquan 5th Rd. Wugu Dist., New Taipei City, Taiwan

Laboratory Accreditation

Location	TAF	FCC	ISED
No. 140-1, Changan Street, Bade District, Taoyuan City, Taiwan	Accreditation No.: 1330	Designation No.: TW0010	Company No.: 7381A CAB ID: TW1330
No. 2, Wuquan 5th Rd. Wugu Dist., New Taipei City, Taiwan	Accreditation No.: 1330	Designation No.: TW0034	Company No.: 28922 CAB ID: TW1330

2. Device Under Test Information

Product Name	5G/LTE data card	
Brand Name	Getac	
Model Name	FN990A28	
FCC ID	QYLFN990U	
Host Information	Product Name: Tablet Trade Name: Getac Model Name: UX10, UX10G5, UX10G5AR, UX10Y, (Y= 10 characters, Y can be 0 to 9, A to Z, a to z, "/", "\", "-", "_" or blank for marketing purpose) All models are electrically identical, different model names are for marketing purpose.	
Testing Sample No.	C255064_A006	
Supported Wireless Technologies	Tx Frequency (MHz)	Operating Mode
	WCDMA Band 2 : 1852.4 ~ 1907.6 Band 4 : 1712.4 ~ 1752.6 Band 5 : 826.4 ~ 846.6	UMTS Rel. 99 (Voice / Data) HSDPA (Rel. 5) HSUPA (Rel. 6) HSPA+ (Rel. 7) DC-HSDPA (Rel. 8)
	LTE Band 2 : 1850.7 ~ 1909.3 Band 4 : 1710.7 ~ 1754.3 Band 5 : 824.7 ~ 848.3 Band 7 : 2502.5 ~ 2567.5 Band 12 : 699.7 ~ 715.3 Band 13 : 779.5 ~ 784.5 Band 14 : 790.5 ~ 795.5 Band 17 : 706.5 ~ 713.5 Band 25 : 1850.7 ~ 1914.3 Band 26 : 814.7 ~ 848.3 Band 38 : 2572.5 ~ 2617.5 Band 41 : 2498.5 ~ 2687.5 Band 42 : 3452.5 ~ 3597.5 Band 43 : 3602.5 ~ 3647.5, 3652.5 ~ 3697.5 Band 48 : 3552.5 ~ 3697.5 Band 66 : 1710.7 ~ 1779.3 Band 71 : 665.5 ~ 695.5	QPSK, 16QAM, 64QAM, 256QAM
	5G NR FR1 n2 : 1852.5 ~ 1907.5 n5 : 826.5 ~ 846.5 n7 : 2502.5 ~ 2567.5 n12 : 701.5 ~ 713.5 n13 : 777 ~ 787 n14 : 790.5 ~ 795.5 n25 : 1852.5 ~ 1912.5 n26 : 816.5 ~ 846.5 n38 : 2575 ~ 2615 n41 : 2501.01 ~ 2685 n48 : 3555 ~ 3694.98 n66 : 1712.5 ~ 1777.5 n71 : 665.5 ~ 695.5 n77 : 3455.01 ~ 3544.98, 3705 ~ 3975 n78 : 3455.01 ~ 3544.98, 3705 ~ 3795	CP-OFDM $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM DFT-s-OFDM QPSK, 16QAM, 64QAM, 256QAM
	WLAN 2.4G : 2412 ~ 2462 5G : 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 6G : 5955 ~ 7115	2.4G : 802.11b/g/n/ax 5G : 802.11a/n/ac/ax 6G : 802.11ax
	Bluetooth 2402 ~ 2480	BR, EDR, LE
	RFID 13.56	PSK

Note:

The above DUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

Time-Averaging for SAR

This device is enabled with *Qualcomm Smart Transmit* algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 3G/LTE/5G NR WWAN is in compliance with FCC requirements. This *Part 0* report shows SAR characterization of WWAN radios for 3G/LTE/5G NR sub-6. The characterization is achieved by determining P_{limit} for 3G/LTE/5G NR sub-6 that corresponds to the exposure design targets after accounting for all device design related uncertainties. The SAR characterization is denoted as SAR Char in this report.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in *Part 1* report. The validation of the time-averaging algorithm and compliance under the dynamic (time-varying) transmission scenario for WWAN technologies are reported in *Part 2* report.

Nomenclature for Part 0 Report

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

3. SAR Measurement System

3.1. Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is 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). The equation description is as below:

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

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be related to the electrical field in the tissue by

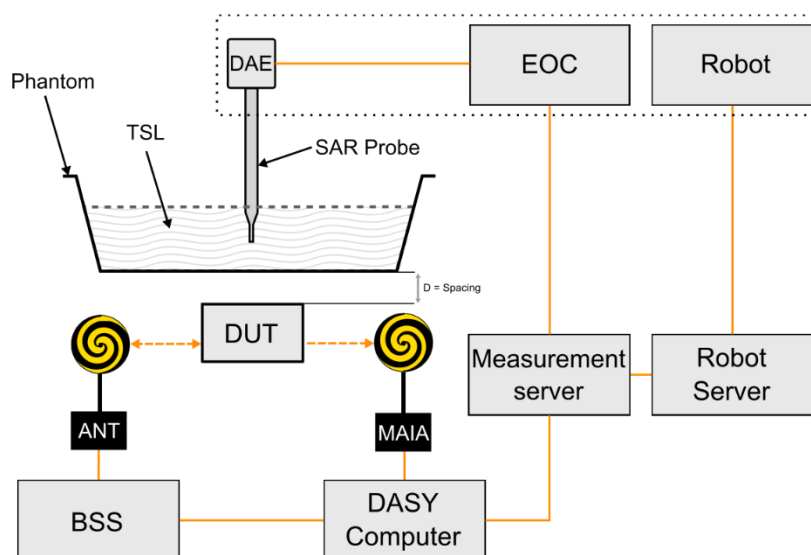
$$\text{SAR} = \frac{\sigma |\mathbf{E}|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2. SPEAG DASY8 System

The DASY8 system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY8 software defined. The DASY8 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.

Figure 3-1: SPEAG DASY8 System Setup



3.3. SAR Measurement Procedure

According to the SAR test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Area scan
- Zoom scan
- Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

- Make DUT to transmit maximum output power
- Measure conducted output power through RF cable
- Place the DUT in the specific position of phantom
- Perform SAR testing steps on the DASY system
- Record the SAR value

3.3.1. Area Scan and Zoom Scan Procedure

First area scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an area scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, zoom scan is required. The zoom scan is performed around the highest E-field value to determine the averaged SAR-distribution.

Measure the local SAR at a test point at 1.4 mm of the inner surface of the phantom recommended by SPEAG. The area scan (two-dimensional SAR distribution) is performed cover at least an area larger than the projection of the DUT or antenna. The measurement resolution and spatial resolution for interpolation shall be chosen to allow identification of the local peak locations to within one-half of the linear dimension of the corresponding side of the zoom scan volume. Following table provides the measurement parameters required for the area scan.

Parameter	$f \leq 3 \text{ GHz}$	$f > 3 \text{ GHz}$
Maximum distance from closest measurement point to phantom surface	5 $\pm$ 1 mm	$\frac{1}{2} \delta \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° $\pm$ 1°	20° $\pm$ 1°
Maximum area scan spatial resolution : $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	$\leq 2 \text{ GHz} : \leq 15 \text{ mm}$ $2 \sim 3 \text{ GHz} : \leq 12 \text{ mm}$	$3 \sim 4 \text{ GHz} : \leq 12 \text{ mm}$ $4 \sim 6 \text{ GHz} : \leq 10 \text{ mm}$ $6 \sim 7 \text{ GHz} : \leq 7.5 \text{ mm}$

From the scanned SAR distribution, identify the position of the maximum SAR value, in addition identify the positions of any local maxima with SAR values within 2 dB of the maximum value that will not be within the zoom scan of other peaks. Additional peaks shall be measured only when the primary peak is within 2 dB of the SAR compliance limit (e.g. 1 W/kg for SAR_{1g} limit of 1.6 W/kg; or 1.26 W/kg for SAR_{10g} limit of 2 W/kg).

The zoom scan (three-dimensional SAR distribution) is performed at the local maxima locations identified in previous area scan procedure. The zoom scan volume must be larger than the required minimum dimensions. When graded grids are used, which only applies in the direction normal to the phantom surface, the initial grid separation closest to the phantom surface and subsequent graded grid increment ratios must satisfy the required protocols. The 1-g SAR averaging volume must be fully contained within the zoom scan measurement volume boundaries; otherwise, the measurement must be repeated by shifting or expanding the zoom scan volume. The similar requirements also apply to 10-g SAR measurements. Following table provides the measurement parameters required for the zoom scan.

Parameter		$f \leq 3 \text{ GHz}$	$f > 3 \text{ GHz}$
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$		$\leq 2 \text{ GHz} : \leq 8 \text{ mm}$ $2 \sim 3 \text{ GHz} : \leq 5 \text{ mm}$	$3 \sim 4 \text{ GHz} : \leq 5.0 \text{ mm}$ $4 \sim 6 \text{ GHz} : \leq 4.0 \text{ mm}$ $6 \sim 7 \text{ GHz} : \leq 3.4 \text{ mm}$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid : $\Delta z_{\text{Zoom}}(n)$	$\leq 5 \text{ mm}$	$3 \sim 4 \text{ GHz} : \leq 4.0 \text{ mm}$ $4 \sim 5 \text{ GHz} : \leq 3.0 \text{ mm}$ $5 \sim 7 \text{ GHz} : \leq 2.0 \text{ mm}$
	graded grids : $\Delta z_{\text{Zoom}}(1)$	$\leq 4 \text{ mm}$	$3 \sim 4 \text{ GHz} : \leq 3.0 \text{ mm}$ $4 \sim 5 \text{ GHz} : \leq 2.5 \text{ mm}$ $5 \sim 6 \text{ GHz} : \leq 2.0 \text{ mm}$ $6 \sim 7 \text{ GHz} : \leq 1.7 \text{ mm}$
	$\Delta z_{\text{Zoom}}(n>1)$	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1) \text{ mm}$	
Minimum zoom scan volume (x, y, z)		$\geq 30 \text{ mm}$	$3 \sim 4 \text{ GHz} : \geq 28 \text{ mm}$ $4 \sim 5 \text{ GHz} : \geq 25 \text{ mm}$ $5 \sim 7 \text{ GHz} : \geq 22 \text{ mm}$

3.3.2. Power Drift Monitoring

All SAR testing is under the DUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of DUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

3.3.3. Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

3.3.4. SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

4. SAR Characterization

4.1. DSI (Device State Index) and SAR Determination

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

When SAR_{1g} and SAR_{10g} exposure comparison is needed, the worst-case was determined from SAR normalized to 1g or 10g SAR limit.

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

Exposure Scenario	Description	SAR Test Cases
Body (DSI = 0)	Device positioned against to body	Body SAR tested with DUT at 0 mm

4.2. SAR Design Target

The *SAR_{design_target}* is determined by ensuring that it is less than SAR limit after accounting for total device designed related uncertainties specified by the manufacturer. The total uncertainties for this device is 1.0 dB. To account for total uncertainty, *SAR_{design_target}* is determined as below.

$$SAR_{design_target} < SAR_{regulatory\ limit} \times 10^{\frac{-Total\ Uncertainty}{10}}$$

For SAR_{1g}, the SAR_{regulatory limit} is 1.6 W/kg, and the *SAR_{design_target}* is 0.95 W/kg.

4.3. SAR Characterization

SAR test results corresponding to P_{max} for each antenna/technology/band/DSI can be found in section 4.4.

The P_{limit} is calculated by linearly scaling with the measured SAR at the P_{max} to correspond to the SAR_{design_target} .

The P_{limit} determination for each exposure scenario corresponding to SAR_{design_target} are show in below.

SAR Characterizations

DSI		0	P_{max} (Maximum Tune-up Power, dBm)
Design Target value 1g SAR		0.95 (W/kg)	
Test Distance (mm)		0	
WWAN Bands	Tx Antenna	P_{limit} (dBm)	
WCDMA Band 2	Main	17.9	23.5
WCDMA Band 4	Main	17.4	23.5
WCDMA Band 5	Main	20.5	23.5
LTE B2 / B25	Main	18.3	23.0
LTE B4 / B66	Main	17.7	23.0
LTE B5 / B26	Main	20.6	23.0
LTE B7	Main	13.0	23.0
LTE B12 / B17	Main	21.2	23.0
LTE B13	Main	20.4	23.0
LTE B14	Main	20.7	23.0
LTE B41(PC3) / B38	Main	11.1	21.0
LTE B41(PC2)	Main	13.4	21.9
LTE B42	MIMO2	12.9	18.5
LTE B43	MIMO2	15.0	18.5
LTE B48	MIMO2	14.0	18.5
LTE B71	Main	22.2	23.0
5G NR n2 / n25	Main	17.2	23.5
5G NR n5	Main	20.8	23.5
5G NR n7	Main	12.6	23.5
5G NR n12	Main	22.2	23.5
5G NR n13	Main	21.4	23.5
5G NR n14	Main	21.3	23.5
5G NR n26	Main	21.1	23.5
5G NR n38	Aux	23.7	24.0
5G NR n41(PC2)	Aux	22.9	26.5
5G NR n48	MIMO2	19.3	21.5
5G NR n66	Main	17.2	23.5
5G NR n71	Main	22.1	23.5
5G NR n77 / n78 (PC2)	MIMO2	19.9	26.5

Note :

- When $P_{max} < P_{limit}$, the DUT will operate at a power level up to P_{max} .
- All P_{limit} 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).
- Maximum tune-up output power P_{max} is used to configure DUT during RF tune-up procedure. The maximum allowed output power is equal to maximum Tune up output power +1.0 dB device design uncertainty.

4.4. SAR Test Result for P_{limit} Calculations

Band	Modulation	Test Position	Channel	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P_{limit} (With Duty Factor)	Minimum
WCDMA II	RMC12.2K	Bottom Surface	9262	Ant Main	w/o	24.30	24.5	1.40	0.95	21.6	17.9
WCDMA II	RMC12.2K	Left Side	9262	Ant Main	w/o	24.30	24.5	0.001	0.95	53.1	
WCDMA II	RMC12.2K	Right Side	9262	Ant Main	w/o	24.30	24.5	0.576	0.95	25.5	
WCDMA II	RMC12.2K	Top Side	9262	Ant Main	w/o	24.30	24.5	2.41	0.95	19.3	
WCDMA II	RMC12.2K	Bottom Side	9262	Ant Main	w/o	24.30	24.5	0.001	0.95	53.1	
WCDMA II	RMC12.2K	Top Side	9400	Ant Main	w/o	24.02	24.5	3.11	0.95	17.9	
WCDMA II	RMC12.2K	Top Side	9538	Ant Main	w/o	23.78	24.5	2.88	0.95	18.0	
WCDMA II	RMC12.2K	Top Side	9400	Ant Main	w/	24.02	24.5	3.03	0.95	18.0	17.4
WCDMA IV	RMC12.2K	Bottom Surface	1312	Ant Main	w/o	24.14	24.5	1.20	0.95	22.1	
WCDMA IV	RMC12.2K	Left Side	1312	Ant Main	w/o	24.14	24.5	0.206	0.95	29.8	
WCDMA IV	RMC12.2K	Right Side	1312	Ant Main	w/o	24.14	24.5	0.867	0.95	23.5	
WCDMA IV	RMC12.2K	Top Side	1312	Ant Main	w/o	24.14	24.5	3.53	0.95	17.4	
WCDMA IV	RMC12.2K	Bottom Side	1312	Ant Main	w/o	24.14	24.5	0.078	0.95	34.0	
WCDMA IV	RMC12.2K	Top Side	1413	Ant Main	w/o	24.11	24.5	3.14	0.95	17.9	
WCDMA IV	RMC12.2K	Top Side	1513	Ant Main	w/o	23.96	24.5	2.91	0.95	18.1	20.5
WCDMA IV	RMC12.2K	Top Side	1312	Ant Main	w/	24.14	24.5	3.41	0.95	17.6	
WCDMA V	RMC12.2K	Bottom Surface	4132	Ant Main	w/o	24.32	24.5	0.538	0.95	25.8	
WCDMA V	RMC12.2K	Left Side	4132	Ant Main	w/o	24.32	24.5	0.141	0.95	31.6	
WCDMA V	RMC12.2K	Right Side	4132	Ant Main	w/o	24.32	24.5	0.325	0.95	28.0	
WCDMA V	RMC12.2K	Top Side	4132	Ant Main	w/o	24.32	24.5	1.58	0.95	21.1	
WCDMA V	RMC12.2K	Bottom Side	4132	Ant Main	w/o	24.32	24.5	0.001	0.95	53.1	
WCDMA V	RMC12.2K	Top Side	4182	Ant Main	w/o	24.11	24.5	1.58	0.95	20.9	20.5
WCDMA V	RMC12.2K	Top Side	4233	Ant Main	w/o	23.79	24.5	1.62	0.95	20.5	
WCDMA V	RMC12.2K	Top Side	4233	Ant Main	w/	23.79	24.5	1.42	0.95	21.0	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P_{limit} (With Duty Factor)	Minimum
LTE 7	QPSK20M	Bottom Surface	21350	1	0	Ant Main	w/o	23.93	24.0	1.40	0.95	21.2	13.0
LTE 7	QPSK20M	Left Side	21350	1	0	Ant Main	w/o	23.93	24.0	0.001	0.95	52.7	
LTE 7	QPSK20M	Right Side	21350	1	0	Ant Main	w/o	23.93	24.0	0.516	0.95	25.6	
LTE 7	QPSK20M	Top Side	21350	1	0	Ant Main	w/o	23.93	24.0	6.51	0.95	14.6	
LTE 7	QPSK20M	Bottom Side	21350	1	0	Ant Main	w/o	23.93	24.0	0.001	0.95	52.7	
LTE 7	QPSK20M	Bottom Surface	21350	50	0	Ant Main	w/o	22.80	23.0	1.10	0.95	21.2	
LTE 7	QPSK20M	Left Side	21350	50	0	Ant Main	w/o	22.80	23.0	0.001	0.95	51.6	
LTE 7	QPSK20M	Right Side	21350	50	0	Ant Main	w/o	22.80	23.0	0.421	0.95	25.3	
LTE 7	QPSK20M	Top Side	21350	50	0	Ant Main	w/o	22.80	23.0	5.21	0.95	14.4	
LTE 7	QPSK20M	Bottom Side	21350	50	0	Ant Main	w/o	22.80	23.0	0.001	0.95	51.6	
LTE 7	QPSK20M	Bottom Surface	21350	100	0	Ant Main	w/o	22.69	23.0	1.07	0.95	21.2	
LTE 7	QPSK20M	Top Side	21350	100	0	Ant Main	w/o	22.69	23.0	5.09	0.95	14.4	
LTE 7	QPSK20M	Top Side	20850	1	0	Ant Main	w/o	23.71	24.0	8.87	0.95	13.0	
LTE 7	QPSK20M	Top Side	21100	1	0	Ant Main	w/o	23.89	24.0	7.39	0.95	14.0	
LTE 7	QPSK20M	Top Side	20850	1	0	Ant Main	w/	23.71	24.0	8.82	0.95	13.0	21.2
LTE 12	QPSK10M	Bottom Surface	23060	1	0	Ant Main	w/o	23.99	24.0	0.610	0.95	24.9	
LTE 12	QPSK10M	Left Side	23060	1	0	Ant Main	w/o	23.99	24.0	0.081	0.95	33.7	
LTE 12	QPSK10M	Right Side	23060	1	0	Ant Main	w/o	23.99	24.0	0.311	0.95	27.8	
LTE 12	QPSK10M	Top Side	23060	1	0	Ant Main	w/o	23.99	24.0	1.34	0.95	21.5	
LTE 12	QPSK10M	Bottom Side	23060	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 12	QPSK10M	Bottom Surface	23060	25	0	Ant Main	w/o	22.79	23.0	0.484	0.95	24.7	
LTE 12	QPSK10M	Left Side	23060	25	0	Ant Main	w/o	22.79	23.0	0.077	0.95	32.7	
LTE 12	QPSK10M	Right Side	23060	25	0	Ant Main	w/o	22.79	23.0	0.244	0.95	27.7	
LTE 12	QPSK10M	Top Side	23060	25	0	Ant Main	w/o	22.79	23.0	1.09	0.95	21.2	
LTE 12	QPSK10M	Bottom Side	23060	25	0	Ant Main	w/o	22.79	23.0	0.001	0.95	51.6	
LTE 12	QPSK10M	Top Side	23060	50	0	Ant Main	w/o	22.69	23.0	1.06	0.95	21.2	
LTE 12	QPSK10M	Top Side	23095	1	0	Ant Main	w/o	23.98	24.0	1.23	0.95	21.9	
LTE 12	QPSK10M	Top Side	23130	1	0	Ant Main	w/o	23.97	24.0	1.24	0.95	21.8	
LTE 12	QPSK10M	Top Side	23060	1	0	Ant Main	w/	23.99	24.0	1.29	0.95	21.7	20.4
LTE 13	QPSK10M	Bottom Surface	23230	1	0	Ant Main	w/o	23.99	24.0	0.588	0.95	25.1	
LTE 13	QPSK10M	Left Side	23230	1	0	Ant Main	w/o	23.99	24.0	0.114	0.95	32.2	
LTE 13	QPSK10M	Right Side	23230	1	0	Ant Main	w/o	23.99	24.0	0.273	0.95	28.4	
LTE 13	QPSK10M	Top Side	23230	1	0	Ant Main	w/o	23.99	24.0	1.65	0.95	20.6	
LTE 13	QPSK10M	Bottom Side	23230	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 13	QPSK10M	Bottom Surface	23230	25	0	Ant Main	w/o	22.79	23.0	0.471	0.95	24.8	
LTE 13	QPSK10M	Left Side	23230	25	0	Ant Main	w/o	22.79	23.0	0.092	0.95	31.9	
LTE 13	QPSK10M	Right Side	23230	25	0	Ant Main	w/o	22.79	23.0	0.218	0.95	28.2	
LTE 13	QPSK10M	Top Side	23230	25	0	Ant Main	w/o	22.79	23.0	1.28	0.95	20.5	
LTE 13	QPSK10M	Bottom Side	23230	25	0	Ant Main	w/o	22.79	23.0	0.001	0.95	51.6	20.7
LTE 13	QPSK10M	Top Side	23230	50	0	Ant Main	w/o	22.59	23.0	1.25	0.95	20.4	
LTE 13	QPSK10M	Top Side	23230	1	0	Ant Main	w/	23.99	24.0	1.62	0.95	20.7	
LTE 14	QPSK10M	Bottom Surface	23330	1	0	Ant Main	w/o	23.95	24.0	0.510	0.95	25.7	
LTE 14	QPSK10M	Left Side	23330	1	0	Ant Main	w/o	23.95	24.0	0.137	0.95	31.4	
LTE 14	QPSK10M	Right Side	23330	1	0	Ant Main	w/o	23.95	24.0	0.257	0.95	28.6	
LTE 14	QPSK10M	Top Side	23330	1	0	Ant Main	w/o	23.95	24.0	1.56	0.95	20.8	
LTE 14	QPSK10M	Bottom Side	23330	1	0	Ant Main	w/o	23.95	24.0	0.001	0.95	52.7	
LTE 14	QPSK10M	Bottom Surface	23330	25	0	Ant Main	w/o	22.75	23.0	0.408	0.95	25.4	
LTE 14	QPSK10M	Left Side	23330	25	0	Ant Main	w/o	22.75	23.0	0.103	0.95	31.4	
LTE 14	QPSK10M	Right Side	23330	25	0	Ant Main	w/o	22.75	23.0	0.202	0.95	28.5	20.7
LTE 14	QPSK10M	Top Side	23330	25	0	Ant Main	w/o	22.75	23.0	1.18	0.95	20.8	
LTE 14	QPSK10M	Bottom Side	23330	25	0	Ant Main	w/o	22.75	23.0	0.001	0.95	51.5	
LTE 14	QPSK10M	Top Side	23330	50	0	Ant Main	w/o	22.62	23.0	1.17	0.95	20.7	
LTE 14	QPSK10M	Top Side	23330	1	0	Ant Main	w/	23.95	24.0	1.47	0.95	21.1	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P _{max} (With Duty Factor)	Minimum
LTE 25	QPSK20M	Bottom Surface	26140	1	0	Ant Main	w/o	23.99	24.0	0.700	0.95	24.3	18.3
LTE 25	QPSK20M	Left Side	26140	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 25	QPSK20M	Right Side	26140	1	0	Ant Main	w/o	23.99	24.0	0.254	0.95	28.7	
LTE 25	QPSK20M	Top Side	26140	1	0	Ant Main	w/o	23.99	24.0	1.19	0.95	22.0	
LTE 25	QPSK20M	Bottom Side	26140	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 25	QPSK20M	Bottom Surface	26140	50	0	Ant Main	w/o	22.81	23.0	0.575	0.95	24.0	
LTE 25	QPSK20M	Left Side	26140	50	0	Ant Main	w/o	22.81	23.0	0.001	0.95	51.6	
LTE 25	QPSK20M	Right Side	26140	50	0	Ant Main	w/o	22.81	23.0	0.214	0.95	28.3	
LTE 25	QPSK20M	Top Side	26140	50	0	Ant Main	w/o	22.81	23.0	1.07	0.95	21.3	
LTE 25	QPSK20M	Bottom Side	26140	50	0	Ant Main	w/o	22.81	23.0	0.001	0.95	51.6	
LTE 25	QPSK20M	Bottom Surface	26140	100	0	Ant Main	w/o	22.66	23.0	0.563	0.95	23.9	
LTE 25	QPSK20M	Top Side	26140	100	0	Ant Main	w/o	22.66	23.0	1.1	0.95	21.0	
LTE 25	QPSK20M	Top Side	26365	1	0	Ant Main	w/o	23.98	24.0	1.53	0.95	20.9	
LTE 25	QPSK20M	Top Side	26590	1	0	Ant Main	w/o	23.90	24.0	2.76	0.95	18.3	
LTE 25	QPSK20M	Top Side	26590	1	0	Ant Main	w/	23.90	24.0	1.46	0.95	21.0	
LTE 26	QPSK15M	Bottom Surface	26765	1	0	Ant Main	w/o	23.99	24.0	0.510	0.95	25.7	20.6
LTE 26	QPSK15M	Left Side	26765	1	0	Ant Main	w/o	23.99	24.0	0.106	0.95	32.5	
LTE 26	QPSK15M	Right Side	26765	1	0	Ant Main	w/o	23.99	24.0	0.251	0.95	28.8	
LTE 26	QPSK15M	Top Side	26765	1	0	Ant Main	w/o	23.99	24.0	1.45	0.95	21.2	
LTE 26	QPSK15M	Bottom Side	26765	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 26	QPSK15M	Bottom Surface	26765	36	0	Ant Main	w/o	22.78	23.0	0.418	0.95	25.3	
LTE 26	QPSK15M	Left Side	26765	36	0	Ant Main	w/o	22.78	23.0	0.085	0.95	32.3	
LTE 26	QPSK15M	Right Side	26765	36	0	Ant Main	w/o	22.78	23.0	0.211	0.95	28.3	
LTE 26	QPSK15M	Top Side	26765	36	0	Ant Main	w/o	22.78	23.0	1.24	0.95	20.6	
LTE 26	QPSK15M	Bottom Side	26765	36	0	Ant Main	w/o	22.78	23.0	0.001	0.95	51.6	
LTE 26	QPSK15M	Top Side	26765	75	0	Ant Main	w/o	22.67	23.0	1.21	0.95	20.6	
LTE 26	QPSK15M	Top Side	26865	1	0	Ant Main	w/o	23.98	24.0	1.48	0.95	21.1	
LTE 26	QPSK15M	Top Side	26965	1	0	Ant Main	w/o	23.93	24.0	1.43	0.95	21.2	
LTE 26	QPSK15M	Top Side	26865	1	0	Ant Main	w/	23.98	24.0	1.40	0.95	21.3	
LTE 41	QPSK20M	Bottom Surface	41490	1	0	Ant Main	w/o	23.99	24.0	0.812	0.95	22.7	14.1
LTE 41	QPSK20M	Left Side	41490	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	51.8	
LTE 41	QPSK20M	Right Side	41490	1	0	Ant Main	w/o	23.99	24.0	0.309	0.95	26.9	
LTE 41	QPSK20M	Top Side	41490	1	0	Ant Main	w/o	23.99	24.0	2.29	0.95	18.2	
LTE 41	QPSK20M	Bottom Side	41490	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	51.8	
LTE 41	QPSK20M	Bottom Surface	41490	50	0	Ant Main	w/o	22.80	23.0	0.694	0.95	22.2	
LTE 41	QPSK20M	Left Side	41490	50	0	Ant Main	w/o	22.80	23.0	0.001	0.95	50.6	
LTE 41	QPSK20M	Right Side	41490	50	0	Ant Main	w/o	22.80	23.0	0.253	0.95	26.5	
LTE 41	QPSK20M	Top Side	41490	50	0	Ant Main	w/o	22.80	23.0	1.85	0.95	17.9	
LTE 41	QPSK20M	Bottom Side	41490	50	0	Ant Main	w/o	22.80	23.0	0.001	0.95	50.6	
LTE 41	QPSK20M	Top Side	41490	100	0	Ant Main	w/o	22.70	23.0	1.83	0.95	17.9	
LTE 41	QPSK20M	Top Side	39750	1	0	Ant Main	w/o	23.59	24.0	5.32	0.95	14.1	
LTE 41	QPSK20M	Top Side	39790	1	0	Ant Main	w/o	23.54	24.0	5.23	0.95	14.1	
LTE 41	QPSK20M	Top Side	40185	1	0	Ant Main	w/o	23.88	24.0	4.15	0.95	15.5	
LTE 41	QPSK20M	Top Side	40620	1	0	Ant Main	w/o	23.95	24.0	3.28	0.95	16.6	
LTE 41	QPSK20M	Top Side	41055	1	0	Ant Main	w/o	23.98	24.0	2.62	0.95	17.6	
LTE 41(PC2)	QPSK20M	Top Side	39750	1	0	Ant Main	w/o	26.03	26.5	6.07	0.95	14.4	13.9
LTE 41(PC2)	QPSK20M	Top Side	39750	1	0	Ant Main	w/	26.03	26.5	5.94	0.95	14.5	
LTE 42	QPSK20M	Bottom Surface	43490	1	0	Ant MIMO 2	w/o	22.47	22.5	0.178	0.95	27.7	
LTE 42	QPSK20M	Left Side	43490	1	0	Ant MIMO 2	w/o	22.47	22.5	0.240	0.95	26.4	
LTE 42	QPSK20M	Right Side	43490	1	0	Ant MIMO 2	w/o	22.47	22.5	0.001	0.95	50.2	
LTE 42	QPSK20M	Top Side	43490	1	0	Ant MIMO 2	w/o	22.47	22.5	2.98	0.95	15.5	
LTE 42	QPSK20M	Bottom Side	43490	1	0	Ant MIMO 2	w/o	22.47	22.5	0.001	0.95	50.2	
LTE 42	QPSK20M	Bottom Surface	43490	50	0	Ant MIMO 2	w/o	21.44	21.5	0.145	0.95	27.6	
LTE 42	QPSK20M	Left Side	43490	50	0	Ant MIMO 2	w/o	21.44	21.5	0.193	0.95	26.4	
LTE 42	QPSK20M	Right Side	43490	50	0	Ant MIMO 2	w/o	21.44	21.5	0.001	0.95	49.2	
LTE 42	QPSK20M	Top Side	43490	50	0	Ant MIMO 2	w/o	21.44	21.5	2.28	0.95	15.6	
LTE 42	QPSK20M	Bottom Side	43490	50	0	Ant MIMO 2	w/o	21.44	21.5	0.001	0.95	49.2	
LTE 42	QPSK20M	Top Side	43490	100	0	Ant MIMO 2	w/o	21.18	21.5	2.21	0.95	15.5	
LTE 42	QPSK20M	Top Side	42190	1	0	Ant MIMO 2	w/o	22.32	22.5	4.20	0.95	13.9	
LTE 42	QPSK20M	Top Side	42623	1	0	Ant MIMO 2	w/o	22.24	22.5	3.33	0.95	14.8	
LTE 42	QPSK20M	Top Side	43057	1	0	Ant MIMO 2	w/o	22.13	22.5	2.88	0.95	15.3	
LTE 42	QPSK20M	Top Side	43190	1	0	Ant MIMO 2	w/o	22.46	22.5	3.65	0.95	14.6	16.0
LTE 42	QPSK20M	Top Side	43340	1	0	Ant MIMO 2	w/o	22.48	22.5	3.41	0.95	14.9	
LTE 42	QPSK20M	Top Side	42190	1	0	Ant MIMO 2	w/	22.32	22.5	4.13	0.95	13.9	
LTE 43	QPSK20M	Bottom Surface	44490	1	0	Ant MIMO 2	w/o	22.49	22.5	0.252	0.95	26.3	
LTE 43	QPSK20M	Left Side	44490	1	0	Ant MIMO 2	w/o	22.49	22.5	0.209	0.95	27.1	
LTE 43	QPSK20M	Right Side	44490	1	0	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	50.3	
LTE 43	QPSK20M	Top Side	44490	1	0	Ant MIMO 2	w/o	22.49	22.5	2.44	0.95	16.4	
LTE 43	QPSK20M	Bottom Side	44490	1	0	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	50.3	
LTE 43	QPSK20M	Bottom Surface	44490	50	0	Ant MIMO 2	w/o	21.20	21.5	0.200	0.95	26.0	
LTE 43	QPSK20M	Left Side	44490	50	0	Ant MIMO 2	w/o	21.20	21.5	0.182	0.95	26.4	
LTE 43	QPSK20M	Right Side	44490	50	0	Ant MIMO 2	w/o	21.20	21.5	0.001	0.95	49.0	
LTE 43	QPSK20M	Top Side	44490	50	0	Ant MIMO 2	w/o	21.20	21.5	2.00	0.95	16.0	
LTE 43	QPSK20M	Bottom Side	44490	50	0	Ant MIMO 2	w/o	21.20	21.5	0.001	0.95	49.0	
LTE 43	QPSK20M	Top Side	44490	100	0	Ant MIMO 2	w/o	21.08	21.5	1.93	0.95	16.0	
LTE 43	QPSK20M	Top Side	44190	1	0	Ant MIMO 2	w/o	22.47	22.5	2.38	0.95	16.5	
LTE 43	QPSK20M	Top Side	44340	1	0	Ant MIMO 2	w/o	22.48	22.5	2.30	0.95	16.6	
LTE 43	QPSK20M	Top Side	44490	1	0	Ant MIMO 2	w/	22.49	22.5	2.36	0.95	16.5	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P _{max} (With Duty Factor)	Minimum
LTE 43	QPSK20M	Bottom Surface	43990	1	0	Ant MIMO 2	w/o	22.38	22.5	0.278	0.95	25.7	16.0
LTE 43	QPSK20M	Left Side	43990	1	0	Ant MIMO 2	w/o	22.38	22.5	0.231	0.95	26.5	
LTE 43	QPSK20M	Right Side	43990	1	0	Ant MIMO 2	w/o	22.38	22.5	0.001	0.95	50.2	
LTE 43	QPSK20M	Top Side	43990	1	0	Ant MIMO 2	w/o	22.38	22.5	2.61	0.95	16.0	
LTE 43	QPSK20M	Bottom Side	43990	1	0	Ant MIMO 2	w/o	22.38	22.5	0.001	0.95	50.2	
LTE 43	QPSK20M	Bottom Surface	43990	50	0	Ant MIMO 2	w/o	21.49	21.5	0.220	0.95	25.8	
LTE 43	QPSK20M	Left Side	43990	50	0	Ant MIMO 2	w/o	21.49	21.5	0.201	0.95	26.2	
LTE 43	QPSK20M	Right Side	43990	50	0	Ant MIMO 2	w/o	21.49	21.5	0.001	0.95	49.3	
LTE 43	QPSK20M	Top Side	43990	50	0	Ant MIMO 2	w/o	21.49	21.5	2.08	0.95	16.1	
LTE 43	QPSK20M	Bottom Side	43990	50	0	Ant MIMO 2	w/o	21.49	21.5	0.001	0.95	49.3	
LTE 43	QPSK20M	Top Side	43990	100	0	Ant MIMO 2	w/o	21.38	22.5	2.01	0.95	16.1	
LTE 43	QPSK20M	Top Side	43690	1	0	Ant MIMO 2	w/o	22.31	22.5	2.45	0.95	16.2	
LTE 43	QPSK20M	Top Side	43840	1	0	Ant MIMO 2	w/o	22.32	22.5	2.51	0.95	16.1	
LTE 43	QPSK20M	Top Side	43990	1	0	Ant MIMO 2	w/	22.38	22.5	2.55	0.95	16.1	
LTE 48	QPSK20M	Bottom Surface	56207	1	0	Ant MIMO 2	w/o	22.49	22.5	0.231	0.95	26.6	15.0
LTE 48	QPSK20M	Left Side	56207	1	0	Ant MIMO 2	w/o	22.49	22.5	0.267	0.95	26.0	
LTE 48	QPSK20M	Right Side	56207	1	0	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	50.3	
LTE 48	QPSK20M	Top Side	56207	1	0	Ant MIMO 2	w/o	22.49	22.5	2.62	0.95	16.1	
LTE 48	QPSK20M	Bottom Side	56207	1	0	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	50.3	
LTE 48	QPSK20M	Bottom Surface	56207	50	0	Ant MIMO 2	w/o	21.22	21.5	0.182	0.95	26.4	
LTE 48	QPSK20M	Left Side	56207	50	0	Ant MIMO 2	w/o	21.22	21.5	0.210	0.95	25.8	
LTE 48	QPSK20M	Right Side	56207	50	0	Ant MIMO 2	w/o	21.22	21.5	0.001	0.95	49.0	
LTE 48	QPSK20M	Top Side	56207	50	0	Ant MIMO 2	w/o	21.22	21.5	2.14	0.95	15.7	
LTE 48	QPSK20M	Bottom Side	56207	50	0	Ant MIMO 2	w/o	21.22	21.5	0.001	0.95	49.0	
LTE 48	QPSK20M	Top Side	56207	100	0	Ant MIMO 2	w/o	21.13	21.5	2.12	0.95	15.6	
LTE 48	QPSK20M	Top Side	55340	1	0	Ant MIMO 2	w/o	22.47	22.5	3.33	0.95	15.0	
LTE 48	QPSK20M	Top Side	55773	1	0	Ant MIMO 2	w/o	22.47	22.5	2.90	0.95	15.6	
LTE 48	QPSK20M	Top Side	56640	1	0	Ant MIMO 2	w/o	22.48	22.5	2.30	0.95	16.6	
LTE 48	QPSK20M	Top Side	55340	1	0	Ant MIMO 2	w/	22.47	22.5	3.15	0.95	15.3	
LTE 66	QPSK20M	Bottom Surface	132572	1	0	Ant Main	w/o	23.99	24.0	1.08	0.95	22.4	17.7
LTE 66	QPSK20M	Left Side	132572	1	0	Ant Main	w/o	23.99	24.0	0.055	0.95	35.4	
LTE 66	QPSK20M	Right Side	132572	1	0	Ant Main	w/o	23.99	24.0	0.576	0.95	25.2	
LTE 66	QPSK20M	Top Side	132572	1	0	Ant Main	w/o	23.99	24.0	2.64	0.95	18.6	
LTE 66	QPSK20M	Bottom Side	132572	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 66	QPSK20M	Bottom Surface	132572	50	0	Ant Main	w/o	22.85	23.0	0.917	0.95	22.0	
LTE 66	QPSK20M	Left Side	132572	50	0	Ant Main	w/o	22.85	23.0	0.041	0.95	35.5	
LTE 66	QPSK20M	Right Side	132572	50	0	Ant Main	w/o	22.85	23.0	0.450	0.95	25.1	
LTE 66	QPSK20M	Top Side	132572	50	0	Ant Main	w/o	22.85	23.0	2.20	0.95	18.2	
LTE 66	QPSK20M	Bottom Side	132572	50	0	Ant Main	w/o	22.85	23.0	0.001	0.95	51.6	
LTE 66	QPSK20M	Top Side	132572	100	0	Ant Main	w/o	22.74	23.0	0.946	0.95	21.8	
LTE 66	QPSK20M	Top Side	132572	100	0	Ant Main	w/o	22.74	23.0	2.22	0.95	18.1	
LTE 66	QPSK20M	Top Side	132072	1	0	Ant Main	w/o	23.87	24.0	3.12	0.95	17.7	
LTE 66	QPSK20M	Top Side	132322	1	0	Ant Main	w/o	23.58	24.0	2.60	0.95	18.2	
LTE 66	QPSK20M	Top Side	132072	1	0	Ant Main	w/	23.87	24.0	2.92	0.95	18.0	
LTE 71	QPSK20M	Bottom Surface	133222	1	0	Ant Main	w/o	23.99	24.0	0.370	0.95	27.1	22.2
LTE 71	QPSK20M	Left Side	133222	1	0	Ant Main	w/o	23.99	24.0	0.070	0.95	34.3	
LTE 71	QPSK20M	Right Side	133222	1	0	Ant Main	w/o	23.99	24.0	0.150	0.95	31.0	
LTE 71	QPSK20M	Top Side	133222	1	0	Ant Main	w/o	23.99	24.0	0.699	0.95	24.3	
LTE 71	QPSK20M	Bottom Side	133222	1	0	Ant Main	w/o	23.99	24.0	0.001	0.95	52.8	
LTE 71	QPSK20M	Bottom Surface	133222	50	0	Ant Main	w/o	22.85	23.0	0.313	0.95	26.7	
LTE 71	QPSK20M	Left Side	133222	50	0	Ant Main	w/o	22.85	23.0	0.052	0.95	34.5	
LTE 71	QPSK20M	Right Side	133222	50	0	Ant Main	w/o	22.85	23.0	0.126	0.95	30.6	
LTE 71	QPSK20M	Top Side	133222	50	0	Ant Main	w/o	22.85	23.0	0.561	0.95	24.1	
LTE 71	QPSK20M	Bottom Side	133222	50	0	Ant Main	w/o	22.85	23.0	0.001	0.95	51.6	
LTE 71	QPSK20M	Top Side	133222	100	0	Ant Main	w/o	22.72	23.0	0.585	0.95	23.8	
LTE 71	QPSK20M	Top Side	133322	1	0	Ant Main	w/o	23.98	24.0	1.12	0.95	22.3	
LTE 71	QPSK20M	Top Side	133372	1	0	Ant Main	w/o	23.97	24.0	0.760	0.95	23.9	
LTE 71	QPSK20M	Top Side	133322	1	0	Ant Main	w/	23.98	24.0	0.963	0.95	22.9	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P _{max} (With Duty Factor)	Minimum
5GNR n5	DFT-s QPSK20M	Bottom Surface	166800	1	1	Ant Main	w/o	24.26	24.5	0.572	0.95	25.5	20.8
5GNR n5	DFT-s QPSK20M	Left Side	166800	1	1	Ant Main	w/o	24.26	24.5	0.103	0.95	32.9	
5GNR n5	DFT-s QPSK20M	Right Side	166800	1	1	Ant Main	w/o	24.26	24.5	0.351	0.95	27.6	
5GNR n5	DFT-s QPSK20M	Top Side	166800	1	1	Ant Main	w/o	24.26	24.5	1.57	0.95	21.1	
5GNR n5	DFT-s QPSK20M	Bottom Side	166800	1	1	Ant Main	w/o	24.26	24.5	0.001	0.95	53.0	
5GNR n5	DFT-s QPSK20M	Bottom Surface	166800	50	28	Ant Main	w/o	24.11	24.5	0.565	0.95	25.4	
5GNR n5	DFT-s QPSK20M	Left Side	166800	50	28	Ant Main	w/o	24.11	24.5	0.082	0.95	33.7	
5GNR n5	DFT-s QPSK20M	Right Side	166800	50	28	Ant Main	w/o	24.11	24.5	0.302	0.95	28.1	
5GNR n5	DFT-s QPSK20M	Top Side	166800	50	28	Ant Main	w/o	24.11	24.5	1.60	0.95	20.8	
5GNR n5	DFT-s QPSK20M	Bottom Side	166800	50	28	Ant Main	w/o	24.11	24.5	0.001	0.95	52.9	
5GNR n5	DFT-s QPSK20M	Top Side	166800	100	0	Ant Main	w/o	23.12	23.5	1.24	0.95	21.0	
5GNR n5	DFT-s QPSK20M	Top Side	167300	50	28	Ant Main	w/o	24.01	24.5	1.54	0.95	20.9	
5GNR n5	DFT-s QPSK20M	Top Side	167800	50	28	Ant Main	w/o	23.97	24.5	1.53	0.95	20.9	
5GNR n5	DFT-s QPSK20M	Top Side	166800	50	28	Ant Main	w/	24.11	24.5	1.50	0.95	21.1	
5GNR n7	DFT-s QPSK20M	Bottom Surface	507000	1	1	Ant Main	w/o	23.77	24.5	1.68	0.95	20.3	12.6
5GNR n7	DFT-s QPSK20M	Left Side	507000	1	1	Ant Main	w/o	23.77	24.5	0.001	0.95	52.5	
5GNR n7	DFT-s QPSK20M	Right Side	507000	1	1	Ant Main	w/o	23.77	24.5	0.502	0.95	25.5	
5GNR n7	DFT-s QPSK20M	Top Side	507000	1	1	Ant Main	w/o	23.77	24.5	8.48	0.95	13.3	
5GNR n7	DFT-s QPSK20M	Bottom Side	507000	1	1	Ant Main	w/o	23.77	24.5	0.001	0.95	52.5	
5GNR n7	DFT-s QPSK20M	Bottom Surface	507000	50	28	Ant Main	w/o	23.63	24.5	1.63	0.95	20.3	
5GNR n7	DFT-s QPSK20M	Left Side	507000	50	28	Ant Main	w/o	23.63	24.5	0.001	0.95	52.4	
5GNR n7	DFT-s QPSK20M	Right Side	507000	50	28	Ant Main	w/o	23.63	24.5	0.498	0.95	25.4	
5GNR n7	DFT-s QPSK20M	Top Side	507000	50	28	Ant Main	w/o	23.63	24.5	8.23	0.95	13.3	
5GNR n7	DFT-s QPSK20M	Bottom Side	507000	50	28	Ant Main	w/o	23.63	24.5	0.001	0.95	52.4	
5GNR n7	DFT-s QPSK20M	Top Side	507000	100	0	Ant Main	w/o	22.65	23.5	6.51	0.95	13.3	
5GNR n7	DFT-s QPSK20M	Bottom Surface	507000	100	0	Ant Main	w/o	22.65	23.5	1.30	0.95	20.3	
5GNR n7	DFT-s QPSK20M	Top Side	502000	50	28	Ant Main	w/o	23.38	24.5	8.78	0.95	12.7	
5GNR n7	DFT-s QPSK20M	Top Side	512000	50	28	Ant Main	w/o	23.59	24.5	6.11	0.95	14.5	
5GNR n7	DFT-s QPSK20M	Top Side	502000	50	28	Ant Main	w/	23.38	24.5	8.52	0.95	12.9	
5GNR n12	DFT-s QPSK15M	Bottom Surface	141300	1	1	Ant Main	w/o	23.65	24.5	0.978	0.95	23.5	22.2
5GNR n12	DFT-s QPSK15M	Left Side	141300	1	1	Ant Main	w/o	23.65	24.5	0.064	0.95	35.4	
5GNR n12	DFT-s QPSK15M	Right Side	141300	1	1	Ant Main	w/o	23.65	24.5	0.292	0.95	28.8	
5GNR n12	DFT-s QPSK15M	Top Side	141300	1	1	Ant Main	w/o	23.65	24.5	1.15	0.95	22.8	
5GNR n12	DFT-s QPSK15M	Bottom Side	141300	1	1	Ant Main	w/o	23.65	24.5	0.001	0.95	53.4	
5GNR n12	DFT-s QPSK15M	Bottom Surface	141300	36	22	Ant Main	w/o	23.45	24.5	0.925	0.95	23.6	
5GNR n12	DFT-s QPSK15M	Left Side	141300	36	22	Ant Main	w/o	23.45	24.5	0.074	0.95	34.5	
5GNR n12	DFT-s QPSK15M	Right Side	141300	36	22	Ant Main	w/o	23.45	24.5	0.265	0.95	29.0	
5GNR n12	DFT-s QPSK15M	Top Side	141300	36	22	Ant Main	w/o	23.45	24.5	1.24	0.95	22.3	
5GNR n12	DFT-s QPSK15M	Bottom Side	141300	36	22	Ant Main	w/o	23.45	24.5	0.001	0.95	53.2	
5GNR n12	DFT-s QPSK15M	Bottom Surface	141300	75	0	Ant Main	w/o	22.47	23.5	0.839	0.95	23.0	
5GNR n12	DFT-s QPSK15M	Top Side	141300	75	0	Ant Main	w/o	22.47	23.5	0.848	0.95	23.0	
5GNR n12	DFT-s QPSK15M	Top Side	141500	36	22	Ant Main	w/o	23.39	24.5	1.17	0.95	22.5	
5GNR n12	DFT-s QPSK15M	Top Side	141700	36	22	Ant Main	w/o	23.37	24.5	1.25	0.95	22.2	
5GNR n12	DFT-s QPSK15M	Top Side	141700	36	22	Ant Main	w/	23.37	24.5	1.20	0.95	22.4	
5GNR n13	DFT-s QPSK10M	Bottom Surface	156400	1	1	Ant Main	w/o	23.29	24.5	1.04	0.95	22.9	21.4
5GNR n13	DFT-s QPSK10M	Left Side	156400	1	1	Ant Main	w/o	23.29	24.5	0.106	0.95	32.8	
5GNR n13	DFT-s QPSK10M	Right Side	156400	1	1	Ant Main	w/o	23.29	24.5	0.274	0.95	28.7	
5GNR n13	DFT-s QPSK10M	Top Side	156400	1	1	Ant Main	w/o	23.29	24.5	1.39	0.95	21.6	
5GNR n13	DFT-s QPSK10M	Bottom Side	156400	1	1	Ant Main	w/o	23.29	24.5	0.001	0.95	53.1	
5GNR n13	DFT-s QPSK10M	Bottom Surface	156400	25	14	Ant Main	w/o	23.15	24.5	0.933	0.95	23.2	
5GNR n13	DFT-s QPSK10M	Left Side	156400	25	14	Ant Main	w/o	23.15	24.5	0.106	0.95	32.7	
5GNR n13	DFT-s QPSK10M	Right Side	156400	25	14	Ant Main	w/o	23.15	24.5	0.235	0.95	29.2	
5GNR n13	DFT-s QPSK10M	Top Side	156400	25	14	Ant Main	w/o	23.15	24.5	1.41	0.95	21.4	
5GNR n13	DFT-s QPSK10M	Bottom Side	156400	25	14	Ant Main	w/o	23.15	24.5	0.001	0.95	52.9	
5GNR n13	DFT-s QPSK10M	Bottom Surface	156400	50	0	Ant Main	w/o	22.27	23.5	0.714	0.95	23.5	
5GNR n13	DFT-s QPSK10M	Top Side	156400	50	0	Ant Main	w/o	22.27	23.5	1.07	0.95	21.8	
5GNR n13	DFT-s QPSK10M	Top Side	156400	25	14	Ant Main	w/	23.15	24.5	1.34	0.95	21.7	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P _{max} (With Duty Factor)	Minimum
5GNR n14	DFT-s QPSK10M	Bottom Surface	158600	1	1	Ant Main	w/o	23.08	24.5	1.01	0.95	22.8	21.3
5GNR n14	DFT-s QPSK10M	Left Side	158600	1	1	Ant Main	w/o	23.08	24.5	0.246	0.95	28.9	
5GNR n14	DFT-s QPSK10M	Right Side	158600	1	1	Ant Main	w/o	23.08	24.5	0.094	0.95	33.1	
5GNR n14	DFT-s QPSK10M	Top Side	158600	1	1	Ant Main	w/o	23.08	24.5	1.3	0.95	21.7	
5GNR n14	DFT-s QPSK10M	Bottom Side	158600	1	1	Ant Main	w/o	23.08	24.5	0.001	0.95	52.9	
5GNR n14	DFT-s QPSK10M	Bottom Surface	158600	25	14	Ant Main	w/o	23.01	24.5	1.02	0.95	22.7	
5GNR n14	DFT-s QPSK10M	Left Side	158600	25	14	Ant Main	w/o	23.01	24.5	0.095	0.95	33.0	
5GNR n14	DFT-s QPSK10M	Right Side	158600	25	14	Ant Main	w/o	23.01	24.5	0.251	0.95	28.8	
5GNR n14	DFT-s QPSK10M	Top Side	158600	25	14	Ant Main	w/o	23.01	24.5	1.41	0.95	21.3	
5GNR n14	DFT-s QPSK10M	Bottom Side	158600	25	14	Ant Main	w/o	23.01	24.5	0.001	0.95	52.8	
5GNR n14	DFT-s QPSK10M	Bottom Surface	158600	50	0	Ant Main	w/o	22.19	23.5	0.841	0.95	22.7	
5GNR n14	DFT-s QPSK10M	Top Side	158600	50	0	Ant Main	w/o	22.19	23.5	1.11	0.95	21.5	
5GNR n14	DFT-s QPSK10M	Top Side	158600	25	14	Ant Main	w/	23.01	24.5	1.35	0.95	21.5	
5GNR n25	DFT-s QPSK20M	Bottom Surface	372000	1	1	Ant Main	w/o	23.47	24.5	1.37	0.95	20.9	17.2
5GNR n25	DFT-s QPSK20M	Left Side	372000	1	1	Ant Main	w/o	23.47	24.5	0.001	0.95	52.9	
5GNR n25	DFT-s QPSK20M	Right Side	372000	1	1	Ant Main	w/o	23.47	24.5	0.453	0.95	25.7	
5GNR n25	DFT-s QPSK20M	Top Side	372000	1	1	Ant Main	w/o	23.47	24.5	2.16	0.95	18.9	
5GNR n25	DFT-s QPSK20M	Bottom Side	372000	1	1	Ant Main	w/o	23.47	24.5	0.001	0.95	52.2	
5GNR n25	DFT-s QPSK20M	Bottom Surface	372000	50	28	Ant Main	w/o	23.31	24.5	1.37	0.95	20.7	
5GNR n25	DFT-s QPSK20M	Left Side	372000	50	28	Ant Main	w/o	23.31	24.5	0.001	0.95	52.1	
5GNR n25	DFT-s QPSK20M	Right Side	372000	50	28	Ant Main	w/o	23.31	24.5	0.459	0.95	25.5	
5GNR n25	DFT-s QPSK20M	Top Side	372000	50	28	Ant Main	w/o	23.31	24.5	2.72	0.95	17.7	
5GNR n25	DFT-s QPSK20M	Bottom Side	372000	50	28	Ant Main	w/o	23.31	24.5	0.001	0.95	52.1	
5GNR n25	DFT-s QPSK20M	Bottom Surface	372000	100	0	Ant Main	w/o	22.29	23.5	0.970	0.95	21.2	
5GNR n25	DFT-s QPSK20M	Top Side	372000	100	0	Ant Main	w/o	22.29	23.5	2.12	0.95	17.8	
5GNR n25	DFT-s QPSK20M	Top Side	376500	50	28	Ant Main	w/o	23.27	24.5	3.06	0.95	17.2	21.1
5GNR n25	DFT-s QPSK20M	Top Side	381000	50	28	Ant Main	w/o	23.34	24.5	2.91	0.95	17.5	
5GNR n25	DFT-s QPSK20M	Top Side	376500	50	28	Ant Main	w/	23.27	24.5	2.88	0.95	17.5	
5GNR n26	DFT-s QPSK20M	Bottom Surface	166300	1	1	Ant Main	w/o	23.59	24.5	1.2	0.95	22.6	
5GNR n26	DFT-s QPSK20M	Left Side	166300	1	1	Ant Main	w/o	23.59	24.5	0.123	0.95	32.5	
5GNR n26	DFT-s QPSK20M	Right Side	166300	1	1	Ant Main	w/o	23.59	24.5	0.317	0.95	28.4	
5GNR n26	DFT-s QPSK20M	Top Side	166300	1	1	Ant Main	w/o	23.59	24.5	1.61	0.95	21.3	
5GNR n26	DFT-s QPSK20M	Bottom Side	166300	1	1	Ant Main	w/o	23.59	24.5	0.001	0.95	53.4	
5GNR n26	DFT-s QPSK20M	Bottom Surface	166300	50	28	Ant Main	w/o	23.44	24.5	1.07	0.95	22.9	
5GNR n26	DFT-s QPSK20M	Left Side	166300	50	28	Ant Main	w/o	23.44	24.5	0.123	0.95	32.3	
5GNR n26	DFT-s QPSK20M	Right Side	166300	50	28	Ant Main	w/o	23.44	24.5	0.272	0.95	28.9	
5GNR n26	DFT-s QPSK20M	Top Side	166300	50	28	Ant Main	w/o	23.44	24.5	1.63	0.95	21.1	
5GNR n26	DFT-s QPSK20M	Bottom Side	166300	50	28	Ant Main	w/o	23.44	24.5	0.001	0.95	53.2	17.2
5GNR n26	DFT-s QPSK20M	Bottom Surface	166300	100	0	Ant Main	w/o	22.43	23.5	0.821	0.95	23.1	
5GNR n26	DFT-s QPSK20M	Top Side	166300	100	0	Ant Main	w/o	22.43	23.5	1.23	0.95	21.3	
5GNR n26	DFT-s QPSK20M	Top Side	164800	50	28	Ant Main	w/o	23.40	24.5	1.55	0.95	21.3	
5GNR n26	DFT-s QPSK20M	Top Side	167800	50	28	Ant Main	w/o	23.43	24.5	1.42	0.95	21.7	
5GNR n26	DFT-s QPSK20M	Top Side	166300	50	28	Ant Main	w/	23.44	24.5	1.55	0.95	21.3	
5GNR n66	DFT-s QPSK20M	Bottom Surface	354000	1	1	Ant Main	w/o	23.80	24.5	1.12	0.95	22.1	
5GNR n66	DFT-s QPSK20M	Left Side	354000	1	1	Ant Main	w/o	23.80	24.5	0.070	0.95	34.1	
5GNR n66	DFT-s QPSK20M	Right Side	354000	1	1	Ant Main	w/o	23.80	24.5	0.574	0.95	25.0	
5GNR n66	DFT-s QPSK20M	Top Side	354000	1	1	Ant Main	w/o	23.80	24.5	2.80	0.95	18.1	
5GNR n66	DFT-s QPSK20M	Bottom Side	354000	1	1	Ant Main	w/o	23.80	24.5	0.037	0.95	36.9	
5GNR n66	DFT-s QPSK20M	Bottom Surface	354000	50	28	Ant Main	w/o	23.71	24.5	1.25	0.95	21.5	
5GNR n66	DFT-s QPSK20M	Left Side	354000	50	28	Ant Main	w/o	23.71	24.5	0.081	0.95	33.4	
5GNR n66	DFT-s QPSK20M	Right Side	354000	50	28	Ant Main	w/o	23.71	24.5	0.596	0.95	24.7	
5GNR n66	DFT-s QPSK20M	Top Side	354000	50	28	Ant Main	w/o	23.71	24.5	3.04	0.95	17.7	
5GNR n66	DFT-s QPSK20M	Bottom Side	354000	50	28	Ant Main	w/o	23.71	24.5	0.059	0.95	34.8	
5GNR n66	DFT-s QPSK20M	Bottom Surface	354000	100	0	Ant Main	w/o	22.69	23.5	0.990	0.95	21.5	
5GNR n66	DFT-s QPSK20M	Top Side	354000	100	0	Ant Main	w/o	22.69	23.5	2.43	0.95	17.6	17.2
5GNR n66	DFT-s QPSK20M	Top Side	344000	50	28	Ant Main	w/o	23.31	24.5	3.05	0.95	17.2	
5GNR n66	DFT-s QPSK20M	Top Side	349000	50	28	Ant Main	w/o	23.25	24.5	2.67	0.95	17.8	
5GNR n66	DFT-s QPSK20M	Top Side	344000	50	28	Ant Main	w/	23.31	24.5	2.87	0.95	17.5	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P _{max} (With Duty Factor)	Minimum
5G NR n71	DFT-s QPSK20M	Bottom Surface	134600	1	1	Ant Main	w/o	24.40	24.5	0.592	0.95	25.5	22.1
5G NR n71	DFT-s QPSK20M	Left Side	134600	1	1	Ant Main	w/o	24.40	24.5	0.109	0.95	32.8	
5G NR n71	DFT-s QPSK20M	Right Side	134600	1	1	Ant Main	w/o	24.40	24.5	0.235	0.95	29.5	
5G NR n71	DFT-s QPSK20M	Top Side	134600	1	1	Ant Main	w/o	24.40	24.5	1.10	0.95	22.8	
5G NR n71	DFT-s QPSK20M	Bottom Side	134600	1	1	Ant Main	w/o	24.40	24.5	0.001	0.95	53.2	
5G NR n71	DFT-s QPSK20M	Bottom Surface	134600	50	28	Ant Main	w/o	24.26	24.5	0.626	0.95	25.1	
5G NR n71	DFT-s QPSK20M	Left Side	134600	50	28	Ant Main	w/o	24.26	24.5	0.111	0.95	32.6	
5G NR n71	DFT-s QPSK20M	Right Side	134600	50	28	Ant Main	w/o	24.26	24.5	0.259	0.95	28.9	
5G NR n71	DFT-s QPSK20M	Top Side	134600	50	28	Ant Main	w/o	24.26	24.5	1.19	0.95	22.3	
5G NR n71	DFT-s QPSK20M	Bottom Side	134600	50	28	Ant Main	w/o	24.26	24.5	0.001	0.95	53.0	
5G NR n71	DFT-s QPSK20M	Top Side	134600	100	0	Ant Main	w/o	23.25	23.5	0.956	0.95	22.2	
5G NR n71	DFT-s QPSK20M	Top Side	136100	50	28	Ant Main	w/o	24.26	24.5	1.24	0.95	22.1	
5G NR n71	DFT-s QPSK20M	Top Side	137600	50	28	Ant Main	w/o	24.28	24.5	1.19	0.95	22.3	25.9
5G NR n71	DFT-s QPSK20M	Top Side	136100	50	28	Ant Main	w/	24.26	24.5	1.20	0.95	22.2	
5G NR n38	CP QPSK20M	Bottom Surface	522000	1	1	Ant Main	w/o	23.69	25.0	0.137	0.95	31.1	
5G NR n38	CP QPSK20M	Left Side	522000	1	1	Ant Main	w/o	23.69	25.0	0.225	0.95	28.9	
5G NR n38	CP QPSK20M	Right Side	522000	1	1	Ant Main	w/o	23.69	25.0	0.071	0.95	34.0	
5G NR n38	CP QPSK20M	Top Side	522000	1	1	Ant Main	w/o	23.69	25.0	0.447	0.95	26.0	
5G NR n38	CP QPSK20M	Bottom Side	522000	1	1	Ant Main	w/o	23.69	25.0	0.001	0.95	52.5	
5G NR n38	CP QPSK20M	Bottom Surface	522000	25	13	Ant Main	w/o	23.66	25.0	0.091	0.95	32.8	
5G NR n38	CP QPSK20M	Left Side	522000	25	13	Ant Main	w/o	23.66	25.0	0.242	0.95	28.6	
5G NR n38	CP QPSK20M	Right Side	522000	25	13	Ant Main	w/o	23.66	25.0	0.055	0.95	35.0	
5G NR n38	CP QPSK20M	Top Side	522000	25	13	Ant Main	w/o	23.66	25.0	0.419	0.95	26.2	
5G NR n38	CP QPSK20M	Bottom Side	522000	25	13	Ant Main	w/o	23.66	25.0	0.001	0.95	52.4	
5G NR n38	CP QPSK20M	Top Side	522000	50	0	Ant Main	w/o	23.42	24.5	0.354	0.95	26.7	23.7
5G NR n38	CP QPSK20M	Top Side	516000	1	1	Ant Main	w/o	23.65	25.0	0.378	0.95	26.7	
5G NR n38	CP QPSK20M	Top Side	519000	1	1	Ant Main	w/o	23.67	25.0	0.451	0.95	25.9	
5G NR n38	CP QPSK20M	Top Side	519000	1	1	Ant Main	w/	23.64	25.0	0.445	0.95	25.9	
5G NR n38	DFT-s QPSK20M	Bottom Surface	522000	1	1	Ant Aux	w/o	23.40	25.0	0.096	0.95	32.4	
5G NR n38	DFT-s QPSK20M	Left Side	522000	1	1	Ant Aux	w/o	23.40	25.0	0.650	0.95	24.0	
5G NR n38	DFT-s QPSK20M	Right Side	522000	1	1	Ant Aux	w/o	23.40	25.0	0.001	0.95	52.2	
5G NR n38	DFT-s QPSK20M	Top Side	522000	1	1	Ant Aux	w/o	23.40	25.0	0.001	0.95	52.2	
5G NR n38	DFT-s QPSK20M	Bottom Side	522000	1	1	Ant Aux	w/o	23.40	25.0	0.001	0.95	52.2	
5G NR n38	DFT-s QPSK20M	Bottom Surface	522000	25	13	Ant Aux	w/o	23.22	25.0	0.103	0.95	31.9	
5G NR n38	DFT-s QPSK20M	Left Side	522000	25	13	Ant Aux	w/o	23.22	25.0	0.659	0.95	23.8	
5G NR n38	DFT-s QPSK20M	Right Side	522000	25	13	Ant Aux	w/o	23.22	25.0	0.001	0.95	52.0	25.9
5G NR n38	DFT-s QPSK20M	Top Side	522000	25	13	Ant Aux	w/o	23.22	25.0	0.001	0.95	52.0	
5G NR n38	DFT-s QPSK20M	Bottom Side	522000	25	13	Ant Aux	w/o	23.22	25.0	0.001	0.95	52.0	
5G NR n38	DFT-s QPSK20M	Left Side	522000	50	0	Ant Aux	w/o	22.35	24.0	0.526	0.95	23.9	
5G NR n38	DFT-s QPSK20M	Left Side	516000	25	13	Ant Aux	w/o	23.07	25.0	0.647	0.95	23.7	
5G NR n38	DFT-s QPSK20M	Left Side	519000	25	13	Ant Aux	w/o	23.12	25.0	0.665	0.95	23.7	
5G NR n38	DFT-s QPSK20M	Left Side	519000	25	13	Ant Aux	w/	23.12	25.0	0.647	0.95	23.8	
5G NR n41	CP QPSK100M	Bottom Surface	513900	1	1	Ant Main	w/o	26.59	27.5	0.3	0.95	30.6	
5G NR n41	CP QPSK100M	Left Side	513900	1	1	Ant Main	w/o	26.59	27.5	0.567	0.95	27.8	
5G NR n41	CP QPSK100M	Right Side	513900	1	1	Ant Main	w/o	26.59	27.5	0.107	0.95	35.1	
5G NR n41	CP QPSK100M	Top Side	513900	1	1	Ant Main	w/o	26.59	27.5	0.648	0.95	27.3	
5G NR n41	CP QPSK100M	Bottom Side	513900	1	1	Ant Main	w/o	26.59	27.5	0.001	0.95	55.4	
5G NR n41	CP QPSK100M	Bottom Surface	513900	135	69	Ant Main	w/o	26.55	27.5	0.202	0.95	32.3	
5G NR n41	CP QPSK100M	Left Side	513900	135	69	Ant Main	w/o	26.55	27.5	0.479	0.95	28.5	
5G NR n41	CP QPSK100M	Right Side	513900	135	69	Ant Main	w/o	26.55	27.5	0.094	0.95	35.6	
5G NR n41	CP QPSK100M	Top Side	513900	135	69	Ant Main	w/o	26.55	27.5	0.64	0.95	27.3	
5G NR n41	CP QPSK100M	Bottom Side	513900	135	69	Ant Main	w/o	26.55	27.5	0.001	0.95	55.3	
5G NR n41	CP QPSK100M	Top Side	513900	270	0	Ant Main	w/o	26.31	26.5	0.62	0.95	27.2	25.9
5G NR n41	CP QPSK100M	Top Side	509202	1	1	Ant Main	w/o	26.54	27.5	0.83	0.95	26.1	
5G NR n41	CP QPSK100M	Top Side	510000	1	1	Ant Main	w/o	26.51	27.5	0.837	0.95	26.1	
5G NR n41	CP QPSK100M	Top Side	518598	1	1	Ant Main	w/o	26.49	27.5	0.843	0.95	26.0	
5G NR n41	CP QPSK100M	Top Side	523302	1	1	Ant Main	w/o	26.52	27.5	0.849	0.95	26.0	
5G NR n41	CP QPSK100M	Top Side	528000	1	1	Ant Main	w/o	26.47	27.5	0.867	0.95	25.9	
5G NR n41	CP QPSK100M	Top Side	528000	1	1	Ant Main	w/	26.47	27.5	0.857	0.95	25.9	

Band	Modulation	Test Position	Channel	RB Size	RB Offset	Antenna	External Battery Pack	Meas. Conducted Power (dBm)	Tune-up (dBm)	SAR-1g (W/kg)	SAR Design Target	P _{EMF} (With Duty Factor)	Minimum
5GNR n41	DFT-s QPSK100M	Bottom Surface	513900	1	1	Ant Aux	w/o	26.37	27.5	0.236	0.95	31.4	22.9
5GNR n41	DFT-s QPSK100M	Left Side	513900	1	1	Ant Aux	w/o	26.37	27.5	1.27	0.95	24.1	
5GNR n41	DFT-s QPSK100M	Right Side	513900	1	1	Ant Aux	w/o	26.37	27.5	0.001	0.95	55.1	
5GNR n41	DFT-s QPSK100M	Top Side	513900	1	1	Ant Aux	w/o	26.37	27.5	0.098	0.95	35.2	
5GNR n41	DFT-s QPSK100M	Bottom Side	513900	1	1	Ant Aux	w/o	26.37	27.5	0.164	0.95	33.0	
5GNR n41	DFT-s QPSK100M	Bottom Surface	513900	135	69	Ant Aux	w/o	26.19	27.5	0.218	0.95	31.6	
5GNR n41	DFT-s QPSK100M	Left Side	513900	135	69	Ant Aux	w/o	26.19	27.5	1.31	0.95	23.8	
5GNR n41	DFT-s QPSK100M	Right Side	513900	135	69	Ant Aux	w/o	26.19	27.5	0.001	0.95	55.0	
5GNR n41	DFT-s QPSK100M	Top Side	513900	135	69	Ant Aux	w/o	26.19	27.5	0.083	0.95	35.8	
5GNR n41	DFT-s QPSK100M	Bottom Side	513900	135	69	Ant Aux	w/o	26.19	27.5	0.154	0.95	33.1	
5GNR n41	DFT-s QPSK100M	Left Side	513900	270	0	Ant Aux	w/o	25.23	26.5	1.03	0.95	23.9	
5GNR n41	DFT-s QPSK100M	Left Side	509202	135	69	Ant Aux	w/o	26.02	27.5	1.20	0.95	24.0	
5GNR n41	DFT-s QPSK100M	Left Side	510000	135	69	Ant Aux	w/o	25.99	27.5	1.23	0.95	23.9	
5GNR n41	DFT-s QPSK100M	Left Side	518598	135	69	Ant Aux	w/o	26.03	27.5	1.27	0.95	23.8	
5GNR n41	DFT-s QPSK100M	Left Side	523302	135	69	Ant Aux	w/o	25.94	27.5	1.38	0.95	23.3	
5GNR n41	DFT-s QPSK100M	Left Side	528000	135	69	Ant Aux	w/o	25.90	27.5	1.50	0.95	22.9	
5GNR n41	DFT-s QPSK100M	Left Side	528000	135	69	Ant Aux	w/	25.90	27.5	1.44	0.95	23.1	
5GNR n48	DFT-s QPSK40M	Bottom Surface	638000	1	1	Ant MIMO 2	w/o	22.49	22.5	0.107	0.95	31.0	19.3
5GNR n48	DFT-s QPSK40M	Left Side	638000	1	1	Ant MIMO 2	w/o	22.49	22.5	0.144	0.95	29.7	
5GNR n48	DFT-s QPSK40M	Right Side	638000	1	1	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	51.3	
5GNR n48	DFT-s QPSK40M	Top Side	638000	1	1	Ant MIMO 2	w/o	22.49	22.5	1.55	0.95	19.4	
5GNR n48	DFT-s QPSK40M	Bottom Side	638000	1	1	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	51.3	
5GNR n48	DFT-s QPSK40M	Bottom Surface	638000	50	28	Ant MIMO 2	w/o	22.49	22.5	0.110	0.95	30.9	
5GNR n48	DFT-s QPSK40M	Left Side	638000	50	28	Ant MIMO 2	w/o	22.49	22.5	0.159	0.95	29.3	
5GNR n48	DFT-s QPSK40M	Right Side	638000	50	28	Ant MIMO 2	w/o	22.49	22.5	0.001	0.95	51.3	
5GNR n48	DFT-s QPSK40M	Top Side	638000	50	28	Ant MIMO 2	w/o	22.49	22.5	1.57	0.95	19.3	
5GNR n48	DFT-s QPSK40M	Bottom Side	638000	50	28	Ant MIMO 2	w/o	22.41	22.5	0.001	0.95	51.2	
5GNR n48	DFT-s QPSK40M	Top Side	638000	100	0	Ant MIMO 2	w/o	21.39	21.5	1.21	0.95	19.3	
5GNR n48	DFT-s QPSK40M	Top Side	640444	50	28	Ant MIMO 2	w/o	22.30	22.5	1.32	0.95	19.9	
5GNR n48	DFT-s QPSK40M	Top Side	642888	50	28	Ant MIMO 2	w/o	22.30	22.5	1.16	0.95	20.4	
5GNR n48	DFT-s QPSK40M	Top Side	645332	50	28	Ant MIMO 2	w/o	22.29	22.5	1.06	0.95	20.8	
5GNR n48	DFT-s QPSK40M	Top Side	638000	50	28	Ant MIMO 2	w/	22.49	22.5	1.48	0.95	19.6	
5GNR n77	DFT-s QPSK100M	Bottom Surface	650000	1	1	Ant MIMO 2	w/o	26.63	27.5	0.386	0.95	29.5	19.9
5GNR n77	DFT-s QPSK100M	Left Side	650000	1	1	Ant MIMO 2	w/o	26.63	27.5	0.375	0.95	29.7	
5GNR n77	DFT-s QPSK100M	Right Side	650000	1	1	Ant MIMO 2	w/o	26.63	27.5	0.001	0.95	55.4	
5GNR n77	DFT-s QPSK100M	Top Side	650000	1	1	Ant MIMO 2	w/o	26.63	27.5	2.84	0.95	20.9	
5GNR n77	DFT-s QPSK100M	Bottom Side	650000	1	1	Ant MIMO 2	w/o	26.63	27.5	0.001	0.95	55.4	
5GNR n77	DFT-s QPSK100M	Bottom Surface	650000	135	69	Ant MIMO 2	w/o	26.43	27.5	0.465	0.95	28.5	
5GNR n77	DFT-s QPSK100M	Left Side	650000	135	69	Ant MIMO 2	w/o	26.43	27.5	0.394	0.95	29.3	
5GNR n77	DFT-s QPSK100M	Right Side	650000	135	69	Ant MIMO 2	w/o	26.43	27.5	0.001	0.95	55.2	
5GNR n77	DFT-s QPSK100M	Top Side	650000	135	69	Ant MIMO 2	w/o	26.43	27.5	2.85	0.95	20.7	
5GNR n77	DFT-s QPSK100M	Bottom Side	650000	135	69	Ant MIMO 2	w/o	26.43	27.5	0.001	0.95	55.2	
5GNR n77	DFT-s QPSK100M	Top Side	650000	270	0	Ant MIMO 2	w/o	25.47	26.5	2.35	0.95	20.5	
5GNR n77	DFT-s QPSK100M	Top Side	652400	135	69	Ant MIMO 2	w/o	26.14	27.5	2.88	0.95	20.3	
5GNR n77	DFT-s QPSK100M	Top Side	654800	135	69	Ant MIMO 2	w/o	26.07	27.5	2.79	0.95	20.4	
5GNR n77	DFT-s QPSK100M	Top Side	657200	135	69	Ant MIMO 2	w/o	25.89	27.5	2.81	0.95	20.2	
5GNR n77	DFT-s QPSK100M	Top Side	659600	135	69	Ant MIMO 2	w/o	25.83	27.5	2.80	0.95	20.1	
5GNR n77	DFT-s QPSK100M	Top Side	662000	135	69	Ant MIMO 2	w/o	25.76	27.5	2.91	0.95	19.9	
5GNR n77	DFT-s QPSK100M	Top Side	633334	135	69	Ant MIMO 2	w/o	26.27	27.5	2.87	0.95	20.5	
5GNR n77	DFT-s QPSK100M	Top Side	662000	135	69	Ant MIMO 2	w/	25.76	27.5	2.67	0.95	20.3	

5. Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Cal. Date	Cal. Period
SPEAG	750 MHz System Validation Kit	D750V3	1222	Jun. 03, 2025	1 year
SPEAG	835 MHz System Validation Kit	D835V2	4d291	Jun. 03, 2025	1 year
SPEAG	1800 MHz System Validation Kit	D1800V2	2d167	Jun. 04, 2025	1 year
SPEAG	1900 MHz System Validation Kit	D1900V2	5d111	Jun. 03, 2025	1 year
SPEAG	2450 MHz System Validation Kit	D2450V2	1087	Jun. 03, 2025	1 year
SPEAG	2600 MHz System Validation Kit	D2600V2	1197	Jun. 03, 2025	1 year
SPEAG	3500 MHz System Validation Kit	D3500V2	1013	Aug. 22, 2024	1 year
SPEAG	3700 MHz System Validation Kit	D3700V2	1034	Aug. 19, 2024	1 year
SPEAG	3900 MHz System Validation Kit	D3900V2	1014	Aug. 20, 2024	1 year
SPEAG	5 GHz System Validation Kit	D5GHzV2	1358	Jun. 02, 2025	1 year
SPEAG	6.5 GHz System Validation Kit	D6.5GHzV2	1081	Jun. 02, 2025	1 year
SPEAG	Dosimetric E-Field Probe	EX3DV4	7650	Jun. 10, 2025	1 year
SPEAG	Data Acquisition Electronics	DAE4	1669	May. 19, 2025	1 year
SPEAG	Data Acquisition Electronics	DAE4	1742	Aug. 15, 2024	1 year
R&S	Spectrum Analyzer	FSV3013	101701	Oct. 11, 2024	1 year
Anritsu	Radio Communication Analyzer	MT8821C	6272459653	Aug. 15, 2024	1 year
Anritsu	Radio Communication Analyzer	MT8000A	6272524702	Sep. 06, 2024	1 year
Keysight	UXM 5G Wireless Test Platform	E7515B	MY59020225	Mar. 06, 2025	1 year
Keysight	Network Analyzer	E5080B	MY59202160	Jan. 20, 2025	1 year
SPEAG	Dielectric Probe Kit	DAK-3.5	1219	Mar. 13, 2025	1 year
SPEAG	POWERSOURCE1	SE UMS 160 CA	4283	Aug. 15, 2024	1 year
HILA	Digital Thermometer	TM-906A	1500033	Oct. 24, 2024	1 year
R&S	Signal Generator	SMB100A03	183594	Dec. 11, 2024	1 year
Testo	Thermometer	608-H1	83837935	Dec. 06, 2024	1 year

Test Engineer : Chih Chen

***** End of Report *****