



TEST REPORT

No.I20N00956-SAR

For

IDEMIA Identity and Security France

ID Screen

Model Name: MPH-MB003A/MPH-MB003B

With

Hardware Version: V01 (M16N)/ V01 (M32N)/ V01 (M16I)/ V01 (M32I)

Software Version: V01

FCC ID: ZBW-MPHMB003

Issued Date: 2020-07-03

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I20N00956-SAR	Rev.0	1st edition	2020-07-03



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1. Summary of Test Report

1.1. Test Items

Description: ID Screen
Model Name: MPH-MB003A/MPH-MB003B
Applicant's name: IDEMIA Identity and Security France
Manufacturer's Name: IDEMIA Identity and Security France

1.2. Test Standards

ANSI C95.1-1992, IEEE 1528-2013

1.3. Test Result

Pass. Please refer to "13. Summary of Test Results"

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

1.5. Project Data

Testing Start Date: 2020-06-11

Testing End Date: 2020-06-23

1.6. Signature

Li yongfu
(Prepared this test report)

Zhang Yunzhuan
(Reviewed this test report)

Cao Junfei
(Approved this test report)

2. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for IDEMIA Identity and Security France ID Screen MPH-MB003A/MPH-MB003B are as follows:

Table 2.1: Highest Reported SAR for Body (1g)

Exposure Configuration	Technology Band	Highest Reported SAR 1g(W/Kg)	Equipment Class
Body	GSM850	1.08	PCE
	GSM1900	0.92	
	WCDMA Band 2	1.25	
	WCDMA Band 5	1.15	
	LTE Band 2	1.25	
	LTE Band 4	1.21	
	LTE Band 5	1.30	
	LTE Band 7	1.24	
	LTE Band 38	0.91	
	Bluetooth 2.4G	0.03	DSS
	WLAN 2.4GHz	0.12	DTS
	WLAN 5GHz	0.70	NII

The SAR values found for the EUT are below the maximum recommended levels of 1.6 W/Kg as averaged over any 1g tissue according to the ANSI C95.1-1992.

The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output.

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report.

The highest reported SAR value is obtained at the case of **(Table 2.1)**, and the value is: **1.30 W/kg (1g)**.

Table 2.2: The sum of reported SAR values for main antenna and WLAN 2.4G

/	Position	Main Antenna (W/kg)	WLAN 2.4G (W/kg)	Sum (W/kg)
Highest reported SAR value for Body	Rear (0mm)	1.30	0.11	1.41

Note: the test positions of above tables are for the worse case that has been evaluated.

Table2.3: The sum of reported SAR values for main antenna and WLAN 5G

/	Position	Main Antenna (W/kg)	WLAN 5G (W/kg)	Sum (W/kg)
Highest reported SAR value for Body	Rear (0mm)	0.98	0.53	1.51

Note: the test positions of above tables are for the worse case that has been evaluated.

Table2.4: The sum of reported SAR values for main antenna and Bluetooth

/	Position	Main Antenna (W/kg)	Bluetooth (W/kg)	Sum (W/kg)
Highest reported SAR value for Body	Rear (0mm)	1.30	0.02	1.32

Note: the test positions of above tables are for the worse case that has been evaluated.

According to the above tables, the highest sum of reported SAR values is **1.51 W/kg (1g)**.

The detail for simultaneous transmission consideration is described in chapter 12.



3. Client Information

3.1. Applicant Information

Company Name:	IDEMIA Identity and Security France
Address:	IDEMIA Identity and Security France 2 place Samuel de Champlain 92400 Courbevoie FRANCE
City:	/
Country:	/
Telephone:	+33 1 30 20 14 34

3.2. Manufacturer Information

Company Name:	IDEMIA Identity and Security France
Address:	IDEMIA Identity and Security France 2 place Samuel de Champlain 92400 Courbevoie FRANCE
City:	/
Country:	/
Telephone:	+33 1 30 20 14 34

4. Equipment under Test (EUT) and Ancillary Equipment (AE)

4.1. About EUT

Description:	ID Screen
Model Name:	MPH-MB003A/MPH-MB003B
Marketing Name:	/
Operating mode(s):	GSM850/1900, WCDMA Band 2/5, LTE Band 2/4/5/7/38, Bluetooth, WLAN 2.4G/5G
Condition of EUT as received	No obvious damage in appearance
Tested Tx Frequency:	825 – 848.8MHz (GSM 850)
	1850.2 – 1910MHz (GSM 1900)
	1852.4 – 1907.6MHz (WCDMA Band 2)
	826.4 – 846.6MHz (WCDMA Band 5)
	1850.7 – 1909.3MHz (LTE Band 2)
	1710.7 – 1754.3MHz (LTE Band 4)
	824.7 – 848.3MHz (LTE Band 5)
	2502.5 – 2567.5MHz (LTE Band 7)
	2572.5 – 2617.5MHz (LTE Band 38)
	2402 – 2480MHz (Bluetooth)
	2412 – 2462MHz (WLAN 2.4G)
5180 – 5825MHz (WLAN 5G)	
GPRS / EGPRS Multislot Class:	12
GPRS capability Class:	B
Test device Production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Product Dimensions:	Long 239.5mm ;Wide 133.0mm ; Overall Diagonal 260mm

4.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
UT03aa	354520110003885	V01 (M16N)	V01
UT04aa	354520110005245	V01 (M16N)	V01
UT15aa	354520110006722	V01 (M16N)	V01
UT16aa	354520110010989	V01 (M32N)	V01
UT17aa	354520110006540	V01 (M16I)	V01
UT18aa	354520110011102	V01 (M32I)	V01

*EUT ID: is used to identify the test sample in the lab internally.

Note: It is performed to test SAR with the UT 03aa&04aa&16aa&17aa&18aa, and conducted power with the UT15aa.

4.3. Internal Identification of AE used during the test

AE ID*	Description	Type	Manufacturer
AE1	Battery	MPH-MB003A	Zhongshan Tianmao Battery Co., Ltd.

*AE ID: is used to identify the test sample in the lab internally.

4.4. Configuration List

There are four kinds of combination modes to be tested and the detail information is as follows:

MPH-MB003A		MPH-MB003B	
Config1	Config2	Config3	Config4
Non-IRIS SIM(16GB)	Non-IRIS SIM(32GB)	IRIS SIM(16GB)	IRIS SIM(32GB)
HW: V01 (M16N)	HW: V01 (M32N)	HW: V01 (M16I)	HW: V01 (M32I)

We'll perform the SAR measurement with Config1 and retest on highest value point with Config2, Config3 and Config4.

5. Test Methodology

5.1. Applicable Limit Regulations

ANSI C95.1–1992: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.60 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

5.2. Applicable Measurement Standards

IEEE 1528–2013: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Experimental Techniques.

KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

KDB 616217 D04 SAR for laptop and tablets v01r02: SAR Evaluation Considerations for Laptop, Notebook, Notebook and Tablet Computers.

KDB 941225 D01 SAR test for 3G devices v03r01: SAR Measurement Procedures for 3G Devices

KDB 941225 D05 SAR for LTE Devices v02r05: SAR Evaluation Considerations for LTE Devices

KDB 248227 D01 802.11 Wi-Fi SAR v02r02: SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters.

KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04: SAR Measurement Requirements for 100 MHz to 6 GHz.

KDB 865664 D02 RF Exposure Reporting v01r02: RF Exposure Compliance Reporting and Documentation Considerations

TCB workshop April 2019; RF Exposure Procedures (Tissue Simulating Liquids)

6. Specific Absorption Rate (SAR)

6.1. Introduction

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.

6.2. SAR Definition

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:

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

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

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = c \left(\frac{\delta T}{\delta t} \right)$$

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

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

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7. Tissue Simulating Liquids

7.1. Targets for tissue simulating liquid

Table 7.1: Targets for tissue simulating liquid

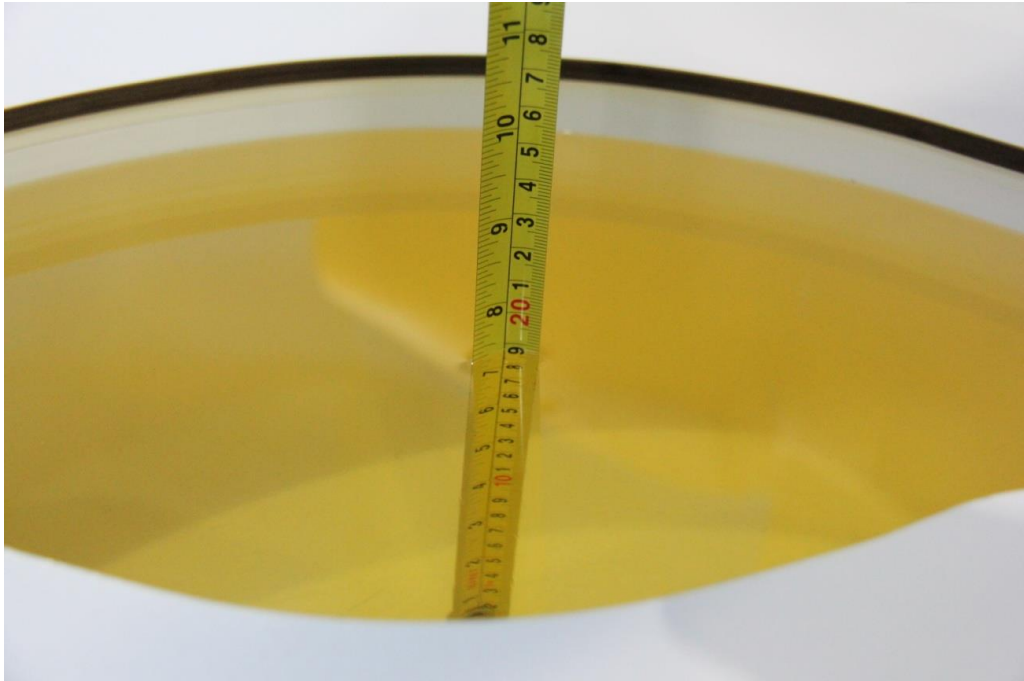
Frequency (MHz)	Liquid Type	Conductivity (σ)	$\pm 5\%$ Range	Permittivity (ϵ)	$\pm 5\%$ Range
835	Head	0.90	0.86~0.95	41.5	39.4~43.6
1750	Head	1.37	1.30~1.44	40.1	38.1~42.1
1900	Head	1.40	1.33~1.47	40.0	38.0~42.0
2450	Head	1.80	1.71~1.89	39.2	37.2~41.2
2550	Head	1.91	1.81~2.01	39.1	37.1~41.0
5250	Head	4.71	4.47~4.95	35.9	34.1~37.7
5600	Head	5.07	4.82~5.32	35.5	33.8~37.3
5750	Head	5.22	4.96~5.48	35.4	33.6~37.1

7.2. Dielectric Performance

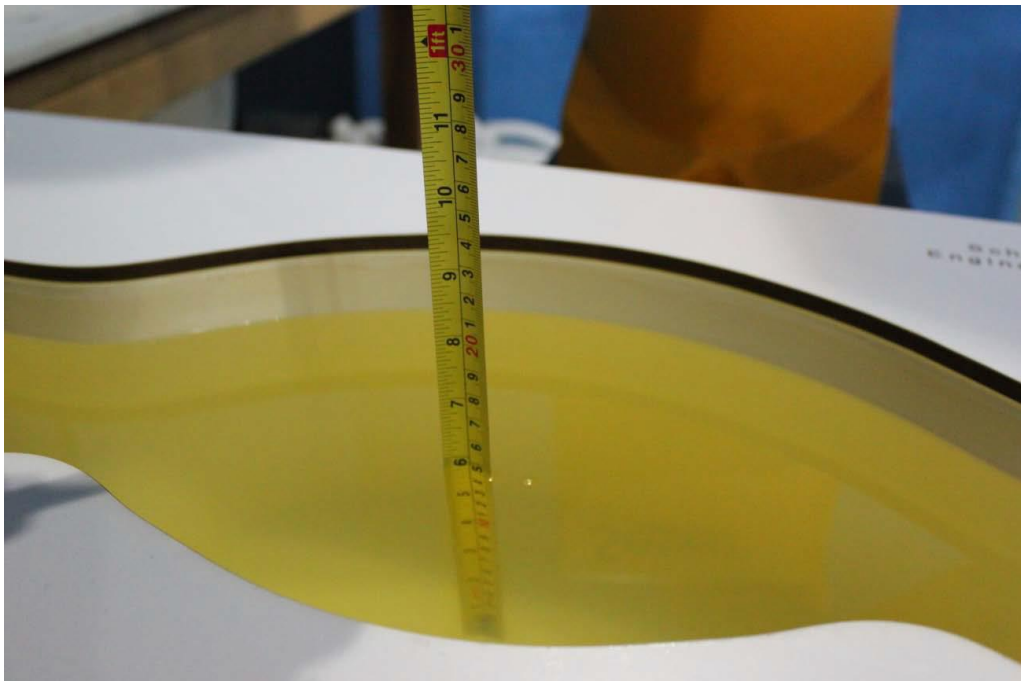
Table 7.2: Dielectric Performance of Tissue Simulating Liquid

Measurement Date (yyyy-mm-dd)	Type	Frequency	Conductivity σ (S/m)	Drift (%)	Permittivity ϵ	Drift (%)
2020-06-16	Head	835	0.884	-1.78	41.85	0.84
2020-06-11	Head	1750	1.386	1.17	39.56	-1.35
2020-06-18	Head	1900	1.423	1.64	39.27	-1.82
2020-06-23	Head	2450	1.835	1.94	38.48	-1.84
2020-06-15	Head	2550	1.942	1.68	38.03	-2.74
2020-06-20	Head	5250	4.654	-1.19	36.72	2.28
2020-06-20	Head	5600	5.123	1.05	34.84	-1.86
2020-06-20	Head	5750	5.155	-1.25	35.96	1.58

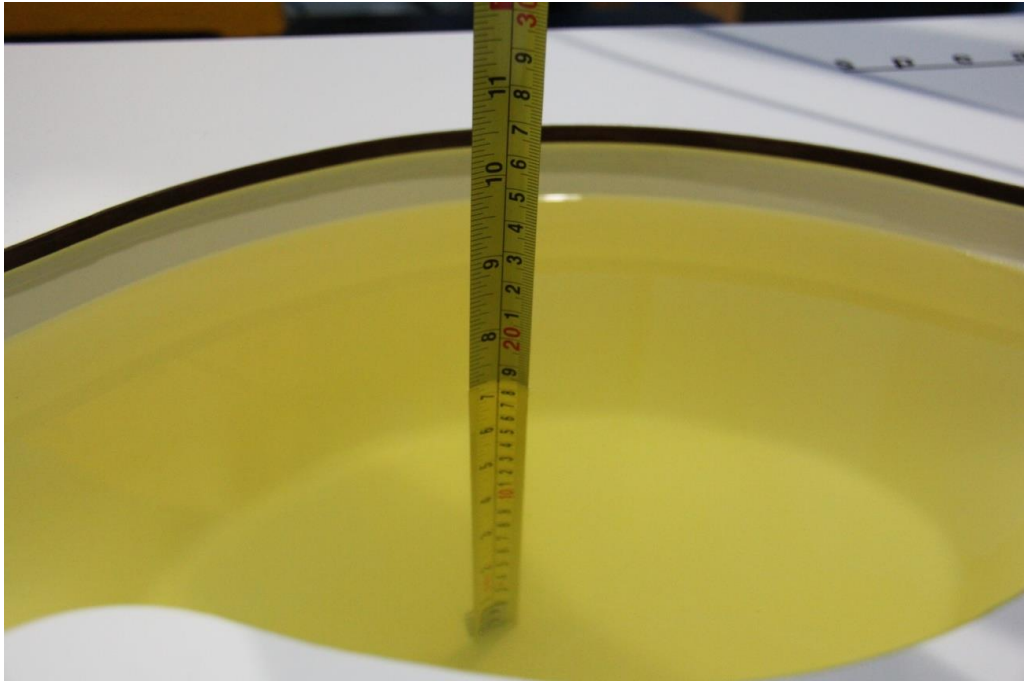
Note: The liquid temperature is 22.0°C.



Picture 7-1: Liquid depth in the Head Phantom (835MHz)



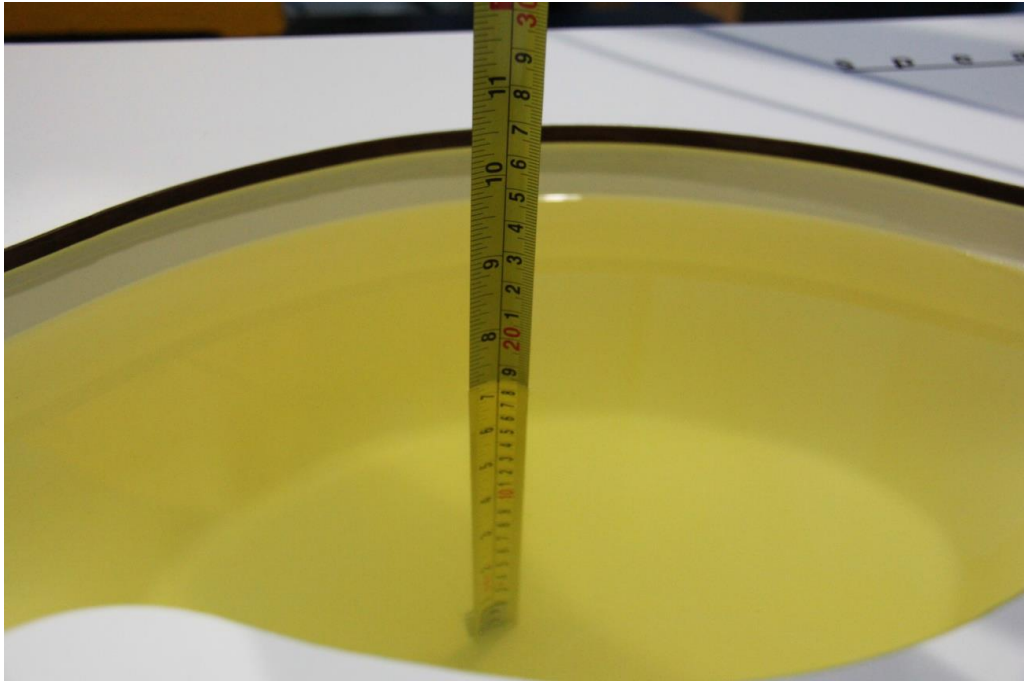
Picture 7-2: Liquid depth in the Head Phantom (1750MHz)



Picture 7-3: Liquid depth in the Head Phantom (1900MHz)



Picture 7-4: Liquid depth in the Head Phantom(2450MHz)



Picture 7-5: Liquid depth in the Head Phantom(2550MHz)

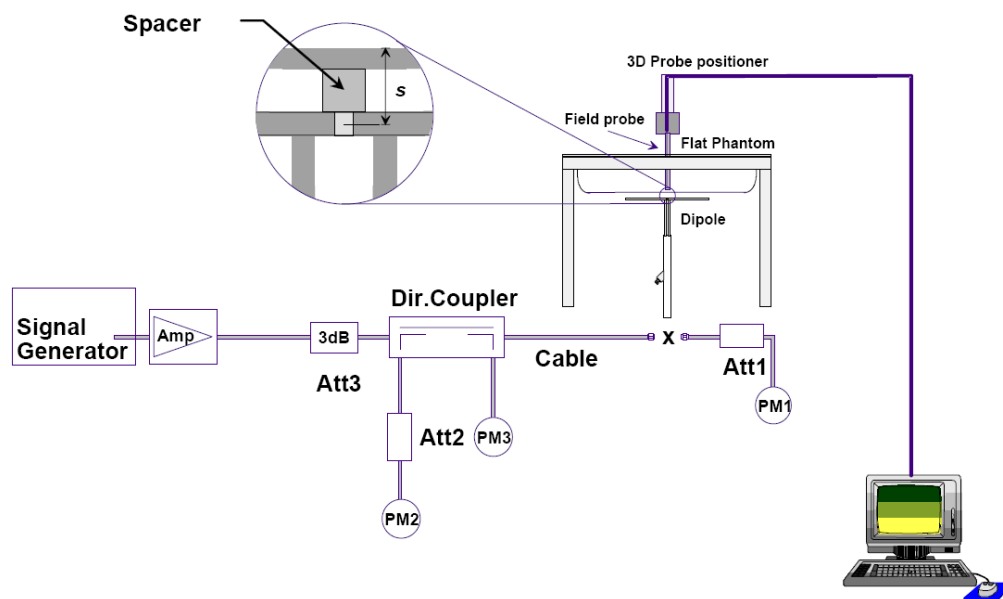


Picture 7-6: Liquid depth in the Head Phantom(5GHz)

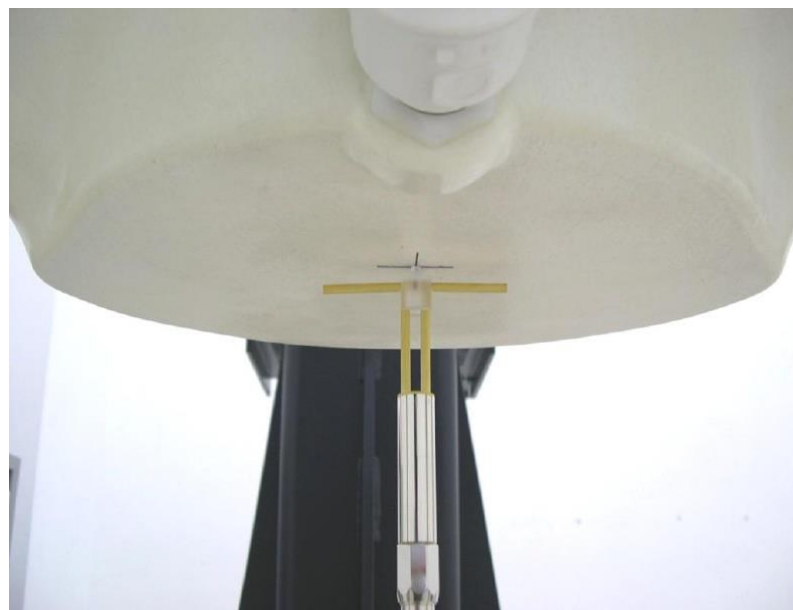
8. System verification

8.1. System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup

8.2. System Verification

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device.

Table 8.1: System Verification of Head

Measurement Date (yyyy-mm-dd)	Frequency	Target value (W/kg)		Measured value (W/kg)		Deviation (%)	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
2020-06-16	835 MHz	6.29	9.62	6.20	9.24	-1.43	-3.95
2020-06-11	1750 MHz	19.30	36.40	19.68	37.44	1.97	2.86
2020-06-18	1900 MHz	21.00	40.50	21.32	41.60	1.52	2.72
2020-06-23	2450 MHz	24.10	52.00	24.48	53.60	1.58	3.08
2020-06-15	2550 MHz	26.50	57.80	27.08	59.60	2.19	3.11
2020-06-20	5250 MHz	22.30	78.00	21.80	75.40	-2.24	-3.33
2020-06-20	5600 MHz	22.70	79.50	23.30	82.90	2.64	4.28
2020-06-20	5750 MHz	22.20	78.40	21.60	74.80	-2.70	-4.59

9. Measurement Procedures

9.1. Tests to be performed

In order to determine the highest value of the peak spatial-average SAR of a handset, all device positions, configurations and operational modes shall be tested for each frequency band according to steps 1 to 3 below. A flowchart of the test process is shown in picture 9.1.

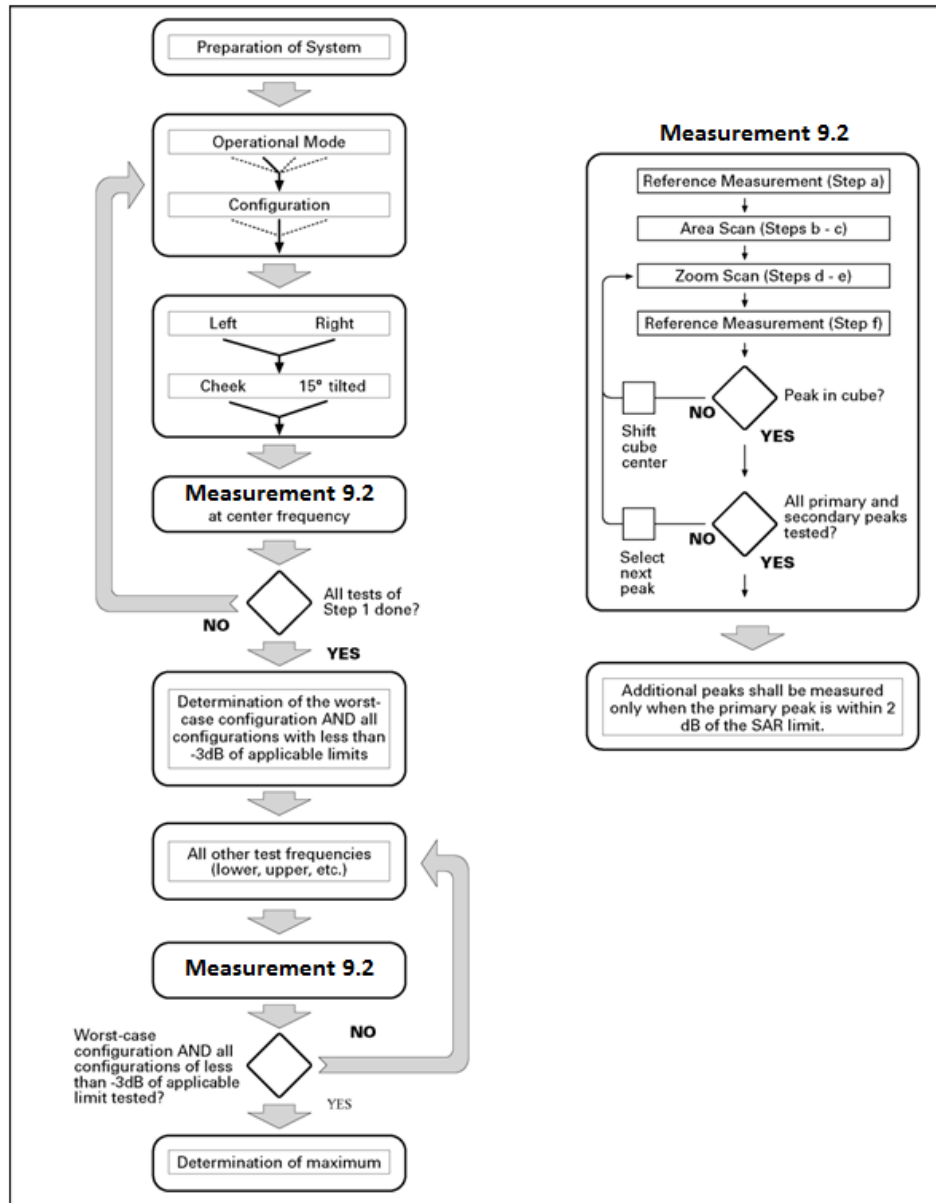
Step 1: The tests described in 9.2 shall be performed at the channel that is closest to the center of the transmit frequency band (f_c) for:

- a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom, as described in annex D),
- b) all configurations for each device position in a), e.g., antenna extended and retracted, and
- c) all operational modes, e.g., analogue and digital, for each device position in a) and configuration in b) in each frequency band.

If more than three frequencies need to be tested according to 11.1 (i.e., $N_c > 3$), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

Step 2: For the condition providing highest peak spatial-average SAR determined in Step 1, perform all tests described in 9.2 at all other test frequencies, i.e., lowest and highest frequencies. In addition, for all other conditions (device position, configuration and operational mode) where the peak spatial-average SAR value determined in Step 1 is within 3 dB of the applicable SAR limit, it is recommended that all other test frequencies shall be tested as well.

Step 3: Examine all data to determine the highest value of the peak spatial-average SAR found in Steps 1 to 2.



Picture 9.1 Block diagram of the tests to be performed

9.2. General Measurement Procedure

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

		≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$		≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
		When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}, \Delta y_{Zoom}$		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid $\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
	$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.			

9.3. WCDMA Measurement Procedures for SAR

The following procedures are applicable to WCDMA handsets operating under 3GPP Release99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & DPDCH_n), HSDPA and HSPA (HSUPA/HSDPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with the same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fixed reference channel) and E-DCH reference channel configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

For Release 5 HSDPA Data Devices:

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	CM/dB
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15	15/15	64	12/15	24/25	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

For Release 6 HSPA Data Devices

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI
1	11/15	15/15	64	11/15	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	12/15	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	3.0	2.0	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.0	0.0	21	81

9.4. LTE Measurement Procedures for SAR

SAR tests for LTE are performed with a base station simulator, Anristu MT8820C. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the Anristu MT8820C. It is performed for conducted power and SAR based on the KDB941225 D05.

SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

9.5. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

LTE TDD Band 38 support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$			-		

Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle

Calculated Duty Cycle = Extended cyclic prefix in uplink \times (T_s) \times # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

Where

$T_s = 1/(15000 \times 2048)$ seconds

9.6. Bluetooth & WLAN Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.



9.7. Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in Section 14 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

9.8. Proximity Sensor Considerations

This device uses a proximity sensor that share the same metallic electrode as the transmitting antenna to facilitate triggering in typical user interactivity with the device. Due to the operating configurations and exposure conditions required by the device, the proximity sensor is used to indicate when the tablet is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes to ensure SAR compliance for the following scenarios: To reduce the output power of main antennas during body operating configurations. . It is also set an output power leveled to the lowest one to make sure that in any case of SAR sensor hardware failure the SAR requirements can still be satisfied.

Sensor triggering distance summary data is included in Appendix K.

10. Conducted Output Power

10.1. GSM Measurement result

During the process of testing, the EUT was controlled via Agilent Digital Radio Communication tester (E5515C) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured peak output power should be greater and within 5% than EMI measurement.

Table 10.1: The conducted power measurement results for GPRS and EGPRS

Full Power								
GPRS850/ EGPRS850	Tune up	Measured Power (dBm)			calculation	Average Power (dBm)		
		251	190	128		251	190	128
1Tx-slots	33.5	32.71	32.63	32.71	-9.03dB	23.68	23.60	23.68
2Tx-slots	32.5	31.95	31.86	31.95	-6.02dB	25.93	25.84	25.93
3Tx-slots	31.0	30.18	30.08	30.14	-4.26dB	25.92	25.82	25.88
4Tx-slots	30.0	29.07	28.99	29.01	-3.01dB	26.06	25.98	26.00
EGPRS 850 (8PSK)	Tune up	Measured Power (dBm)			calculation	Measured Power (dBm)		
		251	190	128		251	190	128
1Tx-slots	28.5	27.73	28.06	28.17	-9.03dB	18.70	19.03	19.14
2Tx-slots	27.0	26.33	26.91	26.77	-6.02dB	20.31	20.89	20.75
3Tx-slots	25.0	24.06	24.53	24.46	-4.26dB	19.80	20.27	20.20
4Tx-slots	23.5	22.68	23.13	23.17	-3.01dB	19.67	20.12	20.16
Sensor on								
GPRS850/ EGPRS850	Tune up	Measured Power (dBm)			calculation	Average Power (dBm)		
		251	190	128		251	190	128
1Tx-slots	29.5	28.69	28.62	28.70	-9.03dB	19.66	19.59	19.67
2Tx-slots	28.5	27.92	27.85	27.91	-6.02dB	21.90	21.83	21.89
3Tx-slots	27.0	26.15	26.06	26.12	-4.26dB	21.89	21.80	21.86
4Tx-slots	26.0	25.06	24.98	25.02	-3.01dB	22.05	21.97	22.01
EGPRS 850 (8PSK)	Tune up	Measured Power (dBm)			calculation	Measured Power (dBm)		
		251	190	128		251	190	128
1Tx-slots	24.5	23.70	24.04	24.13	-9.03dB	14.67	15.01	15.10
2Tx-slots	23.0	22.31	22.88	22.75	-6.02dB	16.29	16.86	16.73
3Tx-slots	21.0	20.03	20.51	20.44	-4.26dB	15.77	16.25	16.18
4Tx-slots	19.5	18.66	19.10	19.14	-3.01dB	15.65	16.09	16.13

Full Power								
GPRS1900/ EGPRS1900	Tune up	Measured Power (dBm)			calculation	Average Power (dBm)		
		810	661	512		810	661	512
1Tx-slots	31.0	30.34	30.32	30.32	-9.03dB	21.31	21.29	21.29
2Tx-slots	30.0	29.61	29.55	29.53	-6.02dB	23.59	23.53	23.51
3Tx-slots	28.5	27.91	27.75	27.63	-4.26dB	23.65	23.49	23.37
4Tx-slots	27.5	26.87	26.67	26.47	-3.01dB	23.86	23.66	23.46
EGPRS 1900 (8PSK)	Tune up	Measured Power (dBm)			calculation	Measured Power (dBm)		
		810	661	512		810	661	512
1Tx-slots	27.5	27.10	27.03	26.75	-9.03dB	18.07	18.00	17.72
2Tx-slots	26.5	26.08	25.66	25.63	-6.02dB	20.06	19.64	19.61
3Tx-slots	24.5	24.09	23.60	23.54	-4.26dB	19.83	19.34	19.28
4Tx-slots	23.5	22.83	22.42	22.28	-3.01dB	19.82	19.41	19.27
Sensor on								
GPRS1900/ EGPRS1900	Tune up	Measured Power (dBm)			calculation	Average Power (dBm)		
		810	661	512		810	661	512
1Tx-slots	24.0	23.28	23.30	23.29	-9.03dB	14.25	14.27	14.26
2Tx-slots	23.0	22.60	22.62	22.55	-6.02dB	16.58	16.60	16.53
3Tx-slots	21.5	20.88	20.73	20.61	-4.26dB	16.62	16.47	16.35
4Tx-slots	20.5	19.94	19.73	19.64	-3.01dB	16.93	16.72	16.63
EGPRS 1900 (8PSK)	Tune up	Measured Power (dBm)			calculation	Measured Power (dBm)		
		810	661	512		810	661	512
1Tx-slots	20.5	20.08	20.02	19.77	-9.03dB	11.05	10.99	10.74
2Tx-slots	19.5	19.05	18.63	18.61	-6.02dB	13.03	12.61	12.59
3Tx-slots	17.5	17.08	16.57	16.52	-4.26dB	12.82	12.31	12.26
4Tx-slots	16.5	15.81	15.44	15.25	-3.01dB	12.80	12.43	12.24

Note:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for 850MHz and 1900MHz.

10.2. WCDMA Measurement result

Table 10.2: T The conducted power measurement results WCDMA

Full Power					
Item	band	WCDMA Band 2			
	ARFCN	Tune up	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	24.0	23.58	23.60	23.55
HSUPA	1	22.0	21.20	21.20	21.10
	2	22.0	20.70	20.60	20.50
	3	22.0	21.70	21.60	21.50
	4	22.0	20.20	20.10	20.10
	5	22.0	21.40	21.50	21.50
HSDPA	1	23.0	22.70	22.70	22.50
	2	23.0	22.60	22.60	22.40
	3	23.0	22.10	22.20	22.00
	4	23.0	22.10	22.20	21.90
DC-HSDPA	1	23.0	22.70	22.60	22.50
	2	23.0	22.60	22.60	22.60
	3	23.0	22.10	22.10	22.00
	4	23.0	22.10	22.10	22.00
Sensor on					
Item	band	WCDMA Band 2			
	ARFCN	Tune up	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)
WCDMA	\	16.5	16.08	16.05	16.01
HSUPA	1	15.5	14.20	14.10	14.00
	2	15.5	14.60	14.50	14.50
	3	15.5	14.20	14.20	14.10
	4	16.0	15.70	15.60	15.50
	5	15.5	14.80	14.90	14.80
HSDPA	1	16.0	15.70	15.60	15.50
	2	16.0	15.70	15.50	15.50
	3	16.0	15.00	15.10	14.90
	4	16.0	15.10	15.10	14.90
DC-HSDPA	1	16.0	15.60	15.60	15.60
	2	16.0	15.70	15.60	15.50
	3	16.0	15.10	15.00	15.00
	4	16.0	15.10	15.00	14.90

Full Power					
Item	band	WCDMA Band 5			
	ARFCN	Tune up	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
WCDMA	\	23.5	23.08	23.10	23.05
HSUPA	1	21.0	20.10	20.20	20.20
	2	21.0	19.50	19.80	19.70
	3	21.0	20.50	20.70	20.70
	4	21.0	19.10	19.20	19.30
	5	21.0	20.70	20.80	20.80
HSDPA	1	22.0	21.50	21.80	21.70
	2	22.0	21.50	21.70	21.70
	3	22.0	21.00	21.20	21.20
	4	22.0	21.00	21.20	21.20
DC-HSDPA	1	22.0	21.60	21.70	21.60
	2	22.0	21.50	21.60	21.70
	3	22.0	21.10	21.20	21.10
	4	22.0	21.00	21.10	21.20
Sensor on					
Item	band	WCDMA Band 5			
	ARFCN	Tune up	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)
WCDMA	\	22.5	22.05	22.13	22.03
HSUPA	1	20.5	19.40	19.50	19.60
	2	20.5	19.00	19.20	19.20
	3	20.5	20.00	20.10	20.10
	4	20.5	18.70	18.70	18.70
	5	20.5	19.90	20.00	20.00
HSDPA	1	21.5	21.00	21.10	21.10
	2	21.5	20.90	21.00	21.10
	3	21.5	20.40	20.50	20.60
	4	21.5	20.40	20.40	20.60
DC-HSDPA	1	21.5	21.00	21.10	21.20
	2	21.5	21.00	21.10	21.10
	3	21.5	20.30	20.50	20.50
	4	21.5	20.30	20.40	20.50

10.3. LTE Measurement result

Table 10.3: The conducted Power for LTE

Full Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1909.3MHz	23.60	22.74	21.79	24.0	23.0	22.0
		1880MHz	23.61	22.87	21.74	24.0	23.0	22.0
		1850.7MHz	23.54	22.73	21.68	24.0	23.0	22.0
	1RB_3	1909.3MHz	23.72	22.84	21.89	24.0	23.0	22.0
		1880MHz	23.74	23.04	21.84	24.0	23.0	22.0
		1850.7MHz	23.63	22.79	21.79	24.0	23.0	22.0
	1RB_0	1909.3MHz	23.63	22.80	21.81	24.0	23.0	22.0
		1880MHz	23.59	22.84	21.84	24.0	23.0	22.0
		1850.7MHz	23.55	22.67	21.69	24.0	23.0	22.0
	3RB_3	1909.3MHz	23.76	22.64	21.77	24.0	23.0	22.0
		1880MHz	23.72	22.72	21.80	24.0	23.0	22.0
		1850.7MHz	23.60	22.61	21.76	24.0	23.0	22.0
	3RB_1	1909.3MHz	23.82	22.72	21.78	24.0	23.0	22.0
		1880MHz	23.73	22.76	21.91	24.0	23.0	22.0
		1850.7MHz	23.72	22.66	21.81	24.0	23.0	22.0
	3RB_0	1909.3MHz	23.73	22.66	21.75	24.0	23.0	22.0
		1880MHz	23.71	22.71	21.87	24.0	23.0	22.0
		1850.7MHz	23.63	22.60	21.74	24.0	23.0	22.0
	6RB_0	1909.3MHz	22.82	21.83	20.79	23.0	22.0	21.0
		1880MHz	22.72	21.84	20.81	23.0	22.0	21.0
		1850.7MHz	22.72	21.74	20.66	23.0	22.0	21.0



Full Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1908.5MHz	23.68	22.84	21.80	24.0	23.0	22.0
		1880MHz	23.62	22.89	21.86	24.0	23.0	22.0
		1851.5MHz	23.62	22.79	21.76	24.0	23.0	22.0
	1RB_7	1908.5MHz	23.86	22.99	22.01	24.0	23.0	22.0
		1880MHz	23.83	23.07	22.05	24.0	23.0	22.0
		1851.5MHz	23.80	22.91	21.90	24.0	23.0	22.0
	1RB_0	1908.5MHz	23.70	22.81	21.81	24.0	23.0	22.0
		1880MHz	23.66	22.94	21.87	24.0	23.0	22.0
		1851.5MHz	23.59	22.80	21.78	24.0	23.0	22.0
	8RB_7	1908.5MHz	22.72	21.73	20.78	23.0	22.0	21.0
		1880MHz	22.66	21.73	20.76	23.0	22.0	21.0
		1851.5MHz	22.63	21.59	20.68	23.0	22.0	21.0
	8RB_4	1908.5MHz	22.78	21.75	20.76	23.0	22.0	21.0
		1880MHz	22.74	21.76	20.78	23.0	22.0	21.0
		1851.5MHz	22.68	21.64	20.70	23.0	22.0	21.0
	8RB_0	1908.5MHz	22.75	21.77	20.77	23.0	22.0	21.0
		1880MHz	22.69	21.73	20.73	23.0	22.0	21.0
		1851.5MHz	22.63	21.62	20.72	23.0	22.0	21.0
	15RB_0	1908.5MHz	22.80	21.71	20.76	23.0	22.0	21.0
		1880MHz	22.73	21.68	20.70	23.0	22.0	21.0
		1851.5MHz	22.66	21.59	20.61	23.0	22.0	21.0



Full Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1907.5MHz	23.57	22.70	21.70	24.0	23.0	22.0
		1880MHz	23.50	22.84	21.77	24.0	23.0	22.0
		1852.5MHz	23.46	22.71	21.74	24.0	23.0	22.0
	1RB_12	1907.5MHz	23.88	22.98	21.95	24.0	23.0	22.0
		1880MHz	23.90	22.98	22.02	24.0	23.0	22.0
		1852.5MHz	23.78	23.02	21.96	24.0	23.0	22.0
	1RB_0	1907.5MHz	23.51	22.71	21.69	24.0	23.0	22.0
		1880MHz	23.50	22.91	21.84	24.0	23.0	22.0
		1852.5MHz	23.46	22.69	21.70	24.0	23.0	22.0
	12RB_13	1907.5MHz	22.68	21.64	20.75	23.0	22.0	21.0
		1880MHz	22.68	21.66	20.78	23.0	22.0	21.0
		1852.5MHz	22.68	21.59	20.73	23.0	22.0	21.0
	12RB_6	1907.5MHz	22.82	21.74	20.80	23.0	22.0	21.0
		1880MHz	22.74	21.72	20.82	23.0	22.0	21.0
		1852.5MHz	22.71	21.61	20.75	23.0	22.0	21.0
	12RB_0	1907.5MHz	22.77	21.74	20.77	23.0	22.0	21.0
		1880MHz	22.72	21.71	20.78	23.0	22.0	21.0
		1852.5MHz	22.62	21.57	20.70	23.0	22.0	21.0
	25RB_0	1907.5MHz	22.76	21.76	20.74	23.0	22.0	21.0
		1880MHz	22.72	21.75	20.72	23.0	22.0	21.0
		1852.5MHz	22.67	21.66	20.66	23.0	22.0	21.0



Full Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1905MHz	23.65	22.85	21.90	24.0	23.0	22.0
		1880MHz	23.61	22.96	21.93	24.0	23.0	22.0
		1855MHz	23.60	22.71	21.68	24.0	23.0	22.0
	1RB_24	1905MHz	23.75	22.91	21.98	24.0	23.0	22.0
		1880MHz	23.71	23.06	21.95	24.0	23.0	22.0
		1855MHz	23.71	22.80	21.75	24.0	23.0	22.0
	1RB_0	1905MHz	23.63	22.83	21.86	24.0	23.0	22.0
		1880MHz	23.62	22.84	21.82	24.0	23.0	22.0
		1855MHz	23.57	22.68	21.70	24.0	23.0	22.0
	25RB_25	1905MHz	22.70	21.63	20.66	23.0	22.0	21.0
		1880MHz	22.70	21.77	20.73	23.0	22.0	21.0
		1855MHz	22.73	21.71	20.73	23.0	22.0	21.0
	25RB_12	1905MHz	22.78	21.74	20.75	23.0	22.0	21.0
		1880MHz	22.73	21.76	20.74	23.0	22.0	21.0
		1855MHz	22.71	21.70	20.73	23.0	22.0	21.0
	25RB_0	1905MHz	22.87	21.79	20.78	23.0	22.0	21.0
		1880MHz	22.77	21.76	20.78	23.0	22.0	21.0
		1855MHz	22.72	21.68	20.72	23.0	22.0	21.0
	50RB_0	1905MHz	22.77	21.75	20.72	23.0	22.0	21.0
		1880MHz	22.75	21.74	20.77	23.0	22.0	21.0
		1855MHz	22.75	21.73	20.76	23.0	22.0	21.0



Full Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1902.5MHz	23.57	22.73	21.73	24.0	23.0	22.0
		1880MHz	23.55	22.81	21.88	24.0	23.0	22.0
		1857.5MHz	23.49	22.74	21.75	24.0	23.0	22.0
	1RB_37	1902.5MHz	23.62	22.79	21.85	24.0	23.0	22.0
		1880MHz	23.64	22.95	21.94	24.0	23.0	22.0
		1857.5MHz	23.69	22.81	21.87	24.0	23.0	22.0
	1RB_0	1902.5MHz	23.55	22.82	21.86	24.0	23.0	22.0
		1880MHz	23.59	22.84	21.88	24.0	23.0	22.0
		1857.5MHz	23.58	22.72	21.79	24.0	23.0	22.0
	36RB_38	1902.5MHz	22.73	21.65	20.70	23.0	22.0	21.0
		1880MHz	22.74	21.67	20.76	23.0	22.0	21.0
		1857.5MHz	22.70	21.65	20.70	23.0	22.0	21.0
	36RB_19	1902.5MHz	22.79	21.71	20.75	23.0	22.0	21.0
		1880MHz	22.73	21.73	20.77	23.0	22.0	21.0
		1857.5MHz	22.71	21.69	20.71	23.0	22.0	21.0
	36RB_0	1902.5MHz	22.78	21.70	20.74	23.0	22.0	21.0
		1880MHz	22.74	21.71	20.74	23.0	22.0	21.0
		1857.5MHz	22.68	21.60	20.71	23.0	22.0	21.0
	75RB_0	1902.5MHz	22.77	21.67	20.71	23.0	22.0	21.0
		1880MHz	22.74	21.72	20.74	23.0	22.0	21.0
		1857.5MHz	22.71	21.69	20.70	23.0	22.0	21.0



Full Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1900MHz	23.53	22.77	21.58	24.0	23.0	22.0
		1880MHz	23.46	22.77	21.66	24.0	23.0	22.0
		1860MHz	23.48	22.63	21.69	24.0	23.0	22.0
	1RB_50	1900MHz	23.65	22.95	21.78	24.0	23.0	22.0
		1880MHz	23.76	22.96	21.82	24.0	23.0	22.0
		1860MHz	23.73	22.90	21.89	24.0	23.0	22.0
	1RB_0	1900MHz	23.53	22.94	21.76	24.0	23.0	22.0
		1880MHz	23.54	22.81	21.63	24.0	23.0	22.0
		1860MHz	23.53	22.62	21.67	24.0	23.0	22.0
	50RB_50	1900MHz	22.58	21.58	20.58	23.0	22.0	21.0
		1880MHz	22.69	21.69	20.70	23.0	22.0	21.0
		1860MHz	22.72	21.64	20.65	23.0	22.0	21.0
	50RB_25	1900MHz	22.73	21.74	20.73	23.0	22.0	21.0
		1880MHz	22.73	21.72	20.72	23.0	22.0	21.0
		1860MHz	22.77	21.72	20.72	23.0	22.0	21.0
	50RB_0	1900MHz	22.75	21.69	20.69	23.0	22.0	21.0
		1880MHz	22.76	21.74	20.73	23.0	22.0	21.0
		1860MHz	22.78	21.68	20.70	23.0	22.0	21.0
	100RB_0	1900MHz	22.66	21.64	20.67	23.0	22.0	21.0
		1880MHz	22.71	21.68	20.66	23.0	22.0	21.0
		1860MHz	22.65	21.65	20.66	23.0	22.0	21.0



Sensor on								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1909.3MHz	16.10	16.29	16.26	16.5	16.5	16.5
		1880MHz	16.06	16.25	16.32	16.5	16.5	16.5
		1850.7MHz	15.97	16.16	16.18	16.5	16.5	16.5
	1RB_3	1909.3MHz	16.23	16.41	16.40	16.5	16.5	16.5
		1880MHz	16.20	16.47	16.40	16.5	16.5	16.5
		1850.7MHz	16.14	16.22	16.25	16.5	16.5	16.5
	1RB_0	1909.3MHz	16.10	16.30	16.26	16.5	16.5	16.5
		1880MHz	16.06	16.39	16.30	16.5	16.5	16.5
		1850.7MHz	15.99	16.14	16.04	16.5	16.5	16.5
	3RB_3	1909.3MHz	16.17	16.13	16.20	16.5	16.5	16.5
		1880MHz	16.16	16.09	16.27	16.5	16.5	16.5
		1850.7MHz	16.11	15.98	16.20	16.5	16.5	16.5
	3RB_1	1909.3MHz	16.26	16.19	16.39	16.5	16.5	16.5
		1880MHz	16.21	16.14	16.35	16.5	16.5	16.5
		1850.7MHz	16.13	16.05	16.20	16.5	16.5	16.5
	3RB_0	1909.3MHz	16.22	16.07	16.32	16.5	16.5	16.5
		1880MHz	16.11	16.13	16.29	16.5	16.5	16.5
		1850.7MHz	16.10	16.04	16.19	16.5	16.5	16.5
	6RB_0	1909.3MHz	16.19	16.20	16.14	16.5	16.5	16.5
		1880MHz	16.16	16.20	16.16	16.5	16.5	16.5
		1850.7MHz	16.12	16.09	16.09	16.5	16.5	16.5

Sensor on								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1908.5MHz	16.13	16.42	16.21	16.5	16.5	16.5
		1880MHz	16.10	16.37	16.26	16.5	16.5	16.5
		1851.5MHz	16.07	16.22	16.18	16.5	16.5	16.5
	1RB_7	1908.5MHz	16.35	16.57	16.31	16.5	16.5	16.5
		1880MHz	16.27	16.56	16.44	16.5	16.5	16.5
		1851.5MHz	16.13	16.36	16.43	16.5	16.5	16.5
	1RB_0	1908.5MHz	16.12	16.35	16.15	16.5	16.5	16.5
		1880MHz	16.09	16.33	16.26	16.5	16.5	16.5
		1851.5MHz	16.02	16.20	16.16	16.5	16.5	16.5
	8RB_7	1908.5MHz	16.15	16.15	16.21	16.5	16.5	16.5
		1880MHz	16.15	16.15	16.16	16.5	16.5	16.5
		1851.5MHz	16.07	16.09	16.06	16.5	16.5	16.5
	8RB_4	1908.5MHz	16.23	16.18	16.25	16.5	16.5	16.5
		1880MHz	16.12	16.18	16.25	16.5	16.5	16.5
		1851.5MHz	16.11	16.10	16.14	16.5	16.5	16.5
	8RB_0	1908.5MHz	16.20	16.16	16.24	16.5	16.5	16.5
		1880MHz	16.15	16.17	16.24	16.5	16.5	16.5
		1851.5MHz	16.03	16.11	16.05	16.5	16.5	16.5
	15RB_0	1908.5MHz	16.17	16.14	16.16	16.5	16.5	16.5
		1880MHz	16.12	16.14	16.16	16.5	16.5	16.5
		1851.5MHz	16.09	16.02	16.08	16.5	16.5	16.5



Sensor on								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1907.5MHz	16.04	16.20	16.15	16.5	16.5	16.5
		1880MHz	15.99	16.27	16.16	16.5	16.5	16.5
		1852.5MHz	15.96	16.15	15.95	16.5	16.5	16.5
	1RB_12	1907.5MHz	16.28	16.49	16.46	16.5	16.5	16.5
		1880MHz	16.19	16.57	16.37	16.5	16.5	16.5
		1852.5MHz	16.19	16.38	16.33	16.5	16.5	16.5
	1RB_0	1907.5MHz	16.00	16.15	16.14	16.5	16.5	16.5
		1880MHz	15.99	16.24	16.16	16.5	16.5	16.5
		1852.5MHz	15.92	16.20	15.95	16.5	16.5	16.5
	12RB_13	1907.5MHz	16.08	16.03	16.11	16.5	16.5	16.5
		1880MHz	16.13	16.13	16.14	16.5	16.5	16.5
		1852.5MHz	16.09	16.01	16.07	16.5	16.5	16.5
	12RB_6	1907.5MHz	16.23	16.15	16.20	16.5	16.5	16.5
		1880MHz	16.23	16.16	16.17	16.5	16.5	16.5
		1852.5MHz	16.13	16.07	16.12	16.5	16.5	16.5
	12RB_0	1907.5MHz	16.19	16.10	16.17	16.5	16.5	16.5
		1880MHz	16.13	16.13	16.13	16.5	16.5	16.5
		1852.5MHz	16.08	16.00	16.00	16.5	16.5	16.5
	25RB_0	1907.5MHz	16.19	16.15	16.17	16.5	16.5	16.5
		1880MHz	16.12	16.17	16.18	16.5	16.5	16.5
		1852.5MHz	16.10	16.07	16.07	16.5	16.5	16.5



Sensor on								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1905MHz	16.12	16.28	16.21	16.5	16.5	16.5
		1880MHz	16.05	16.35	16.24	16.5	16.5	16.5
		1855MHz	16.03	16.31	16.19	16.5	16.5	16.5
	1RB_24	1905MHz	16.17	16.37	16.29	16.5	16.5	16.5
		1880MHz	16.23	16.52	16.44	16.5	16.5	16.5
		1855MHz	16.13	16.46	16.29	16.5	16.5	16.5
	1RB_0	1905MHz	16.05	16.26	16.19	16.5	16.5	16.5
		1880MHz	16.07	16.33	16.26	16.5	16.5	16.5
		1855MHz	16.06	16.32	16.18	16.5	16.5	16.5
	25RB_25	1905MHz	16.15	16.09	16.14	16.5	16.5	16.5
		1880MHz	16.18	16.13	16.20	16.5	16.5	16.5
		1855MHz	16.18	16.13	16.18	16.5	16.5	16.5
	25RB_12	1905MHz	16.17	16.15	16.23	16.5	16.5	16.5
		1880MHz	16.15	16.16	16.20	16.5	16.5	16.5
		1855MHz	16.15	16.13	16.19	16.5	16.5	16.5
	25RB_0	1905MHz	16.27	16.21	16.26	16.5	16.5	16.5
		1880MHz	16.19	16.21	16.23	16.5	16.5	16.5
		1855MHz	16.15	16.13	16.14	16.5	16.5	16.5
	50RB_0	1905MHz	16.21	16.17	16.18	16.5	16.5	16.5
		1880MHz	16.17	16.12	16.20	16.5	16.5	16.5
		1855MHz	16.17	16.12	16.12	16.5	16.5	16.5



Sensor on								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1902.5MHz	16.03	16.25	16.09	16.5	16.5	16.5
		1880MHz	16.04	16.29	16.17	16.5	16.5	16.5
		1857.5MHz	15.95	16.20	15.96	16.5	16.5	16.5
	1RB_37	1902.5MHz	16.08	16.30	16.28	16.5	16.5	16.5
		1880MHz	16.13	16.42	16.17	16.5	16.5	16.5
		1857.5MHz	16.10	16.28	16.10	16.5	16.5	16.5
	1RB_0	1902.5MHz	16.05	16.25	16.12	16.5	16.5	16.5
		1880MHz	16.05	16.25	16.16	16.5	16.5	16.5
		1857.5MHz	16.00	16.20	16.02	16.5	16.5	16.5
	36RB_38	1902.5MHz	16.15	16.08	16.13	16.5	16.5	16.5
		1880MHz	16.14	16.11	16.16	16.5	16.5	16.5
		1857.5MHz	16.12	16.07	16.15	16.5	16.5	16.5
	36RB_19	1902.5MHz	16.21	16.13	16.20	16.5	16.5	16.5
		1880MHz	16.14	16.10	16.17	16.5	16.5	16.5
		1857.5MHz	16.18	16.10	16.18	16.5	16.5	16.5
	36RB_0	1902.5MHz	16.18	16.12	16.17	16.5	16.5	16.5
		1880MHz	16.19	16.11	16.21	16.5	16.5	16.5
		1857.5MHz	16.15	16.05	16.12	16.5	16.5	16.5
	75RB_0	1902.5MHz	16.18	16.12	16.14	16.5	16.5	16.5
		1880MHz	16.17	16.14	16.17	16.5	16.5	16.5
		1857.5MHz	16.19	16.10	16.09	16.5	16.5	16.5



Sensor on								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1900MHz	15.98	16.19	16.18	16.5	16.5	16.5
		1880MHz	15.98	16.26	16.27	16.5	16.5	16.5
		1860MHz	15.94	16.22	16.18	16.5	16.5	16.5
	1RB_50	1900MHz	16.21	16.35	16.39	16.5	16.5	16.5
		1880MHz	16.22	16.46	16.38	16.5	16.5	16.5
		1860MHz	16.16	16.38	16.30	16.5	16.5	16.5
	1RB_0	1900MHz	16.00	16.31	16.30	16.5	16.5	16.5
		1880MHz	15.99	16.20	16.22	16.5	16.5	16.5
		1860MHz	15.99	16.18	16.17	16.5	16.5	16.5
	50RB_50	1900MHz	16.00	16.02	16.03	16.5	16.5	16.5
		1880MHz	16.11	16.12	16.14	16.5	16.5	16.5
		1860MHz	16.07	16.08	16.09	16.5	16.5	16.5
	50RB_25	1900MHz	16.10	16.14	16.18	16.5	16.5	16.5
		1880MHz	16.16	16.13	16.18	16.5	16.5	16.5
		1860MHz	16.15	16.14	16.17	16.5	16.5	16.5
	50RB_0	1900MHz	16.13	16.11	16.13	16.5	16.5	16.5
		1880MHz	16.18	16.16	16.19	16.5	16.5	16.5
		1860MHz	16.19	16.09	16.11	16.5	16.5	16.5
100RB_0	1900MHz	16.09	16.04	16.09	16.5	16.5	16.5	
	1880MHz	16.08	16.07	16.14	16.5	16.5	16.5	
	1860MHz	16.10	16.06	16.07	16.5	16.5	16.5	



Full Power								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1754.3MHz	23.33	22.69	21.51	24.0	23.0	22.0
		1732.5MHz	23.38	22.63	21.59	24.0	23.0	22.0
		1710.7MHz	23.35	22.70	21.63	24.0	23.0	22.0
	1RB_3	1754.3MHz	23.46	22.75	21.62	24.0	23.0	22.0
		1732.5MHz	23.49	22.72	21.73	24.0	23.0	22.0
		1710.7MHz	23.53	22.78	21.75	24.0	23.0	22.0
	1RB_0	1754.3MHz	23.35	22.68	21.58	24.0	23.0	22.0
		1732.5MHz	23.34	22.62	21.62	24.0	23.0	22.0
		1710.7MHz	23.36	22.70	21.50	24.0	23.0	22.0
	3RB_3	1754.3MHz	23.49	22.47	21.60	24.0	23.0	22.0
		1732.5MHz	23.45	22.44	21.54	24.0	23.0	22.0
		1710.7MHz	23.45	22.39	21.54	24.0	23.0	22.0
	3RB_1	1754.3MHz	23.50	22.54	21.54	24.0	23.0	22.0
		1732.5MHz	23.51	22.49	21.68	24.0	23.0	22.0
		1710.7MHz	23.45	22.43	21.54	24.0	23.0	22.0
	3RB_0	1754.3MHz	23.44	22.45	21.62	24.0	23.0	22.0
		1732.5MHz	23.44	22.38	21.50	24.0	23.0	22.0
		1710.7MHz	23.47	22.40	21.62	24.0	23.0	22.0
	6RB_0	1754.3MHz	22.47	21.59	20.52	23.0	22.0	21.0
		1732.5MHz	22.44	21.57	20.46	23.0	22.0	21.0
		1710.7MHz	22.46	21.56	20.52	23.0	22.0	21.0

Full Power								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1753.5MHz	23.41	22.70	21.45	24.0	23.0	22.0
		1732.5MHz	23.37	22.73	21.45	24.0	23.0	22.0
		1711.5MHz	23.44	22.82	21.56	24.0	23.0	22.0
	1RB_7	1753.5MHz	23.51	22.85	21.65	24.0	23.0	22.0
		1732.5MHz	23.43	22.81	21.68	24.0	23.0	22.0
		1711.5MHz	23.48	22.87	21.70	24.0	23.0	22.0
	1RB_0	1753.5MHz	23.40	22.70	21.43	24.0	23.0	22.0
		1732.5MHz	23.38	22.76	21.53	24.0	23.0	22.0
		1711.5MHz	23.43	22.71	21.54	24.0	23.0	22.0
	8RB_7	1753.5MHz	22.40	21.46	20.47	23.0	22.0	21.0
		1732.5MHz	22.39	21.45	20.54	23.0	22.0	21.0
		1711.5MHz	22.42	21.48	20.56	23.0	22.0	21.0
	8RB_4	1753.5MHz	22.45	21.52	20.53	23.0	22.0	21.0
		1732.5MHz	22.43	21.53	20.60	23.0	22.0	21.0
		1711.5MHz	22.46	21.54	20.60	23.0	22.0	21.0
	8RB_0	1753.5MHz	22.42	21.50	20.54	23.0	22.0	21.0
		1732.5MHz	22.41	21.46	20.58	23.0	22.0	21.0
		1711.5MHz	22.42	21.49	20.59	23.0	22.0	21.0
	15RB_0	1753.5MHz	22.44	21.43	20.50	23.0	22.0	21.0
		1732.5MHz	22.44	21.45	20.49	23.0	22.0	21.0
		1711.5MHz	22.42	21.50	20.47	23.0	22.0	21.0



Full Power								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1752.5MHz	23.26	22.53	21.45	24.0	23.0	22.0
		1732.5MHz	23.28	22.50	21.48	24.0	23.0	22.0
		1712.5MHz	23.33	22.59	21.56	24.0	23.0	22.0
	1RB_12	1752.5MHz	23.50	22.86	21.68	24.0	23.0	22.0
		1732.5MHz	23.52	22.75	21.82	24.0	23.0	22.0
		1712.5MHz	23.65	22.79	21.80	24.0	23.0	22.0
	1RB_0	1752.5MHz	23.35	22.59	21.53	24.0	23.0	22.0
		1732.5MHz	23.33	22.55	21.59	24.0	23.0	22.0
		1712.5MHz	23.29	22.50	21.53	24.0	23.0	22.0
	12RB_13	1752.5MHz	22.40	21.39	20.48	23.0	22.0	21.0
		1732.5MHz	22.46	21.44	20.55	23.0	22.0	21.0
		1712.5MHz	22.46	21.44	20.48	23.0	22.0	21.0
	12RB_6	1752.5MHz	22.52	21.50	20.61	23.0	22.0	21.0
		1732.5MHz	22.49	21.46	20.54	23.0	22.0	21.0
		1712.5MHz	22.48	21.47	20.56	23.0	22.0	21.0
	12RB_0	1752.5MHz	22.47	21.50	20.55	23.0	22.0	21.0
		1732.5MHz	22.44	21.42	20.52	23.0	22.0	21.0
		1712.5MHz	22.42	21.40	20.50	23.0	22.0	21.0
	25RB_0	1752.5MHz	22.44	21.49	20.51	23.0	22.0	21.0
		1732.5MHz	22.50	21.48	20.50	23.0	22.0	21.0
		1712.5MHz	22.45	21.47	20.50	23.0	22.0	21.0



Full Power								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1750MHz	23.33	22.67	21.48	24.0	23.0	22.0
		1732.5MHz	23.34	22.62	21.57	24.0	23.0	22.0
		1715MHz	23.42	22.71	21.70	24.0	23.0	22.0
	1RB_24	1750MHz	23.51	22.87	21.72	24.0	23.0	22.0
		1732.5MHz	23.48	22.80	21.71	24.0	23.0	22.0
		1715MHz	23.60	22.90	21.75	24.0	23.0	22.0
	1RB_0	1750MHz	23.45	22.76	21.72	24.0	23.0	22.0
		1732.5MHz	23.50	22.81	21.69	24.0	23.0	22.0
		1715MHz	23.42	22.67	21.62	24.0	23.0	22.0
	25RB_25	1750MHz	22.45	21.45	20.49	23.0	22.0	21.0
		1732.5MHz	22.50	21.53	20.55	23.0	22.0	21.0
		1715MHz	22.50	21.52	20.56	23.0	22.0	21.0
	25RB_12	1750MHz	22.51	21.51	20.53	23.0	22.0	21.0
		1732.5MHz	22.51	21.54	20.58	23.0	22.0	21.0
		1715MHz	22.51	21.56	20.56	23.0	22.0	21.0
	25RB_0	1750MHz	22.60	21.60	20.62	23.0	22.0	21.0
		1732.5MHz	22.48	21.51	20.53	23.0	22.0	21.0
		1715MHz	22.55	21.56	20.58	23.0	22.0	21.0
	50RB_0	1750MHz	22.55	21.50	20.55	23.0	22.0	21.0
		1732.5MHz	22.53	21.51	20.53	23.0	22.0	21.0
		1715MHz	22.52	21.59	20.57	23.0	22.0	21.0



Full Power								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1747.5MHz	23.30	22.62	21.51	24.0	23.0	22.0
		1732.5MHz	23.30	22.59	21.46	24.0	23.0	22.0
		1717.5MHz	23.36	22.75	21.52	24.0	23.0	22.0
	1RB_37	1747.5MHz	23.47	22.76	21.67	24.0	23.0	22.0
		1732.5MHz	23.45	22.73	21.64	24.0	23.0	22.0
		1717.5MHz	23.51	22.79	21.69	24.0	23.0	22.0
	1RB_0	1747.5MHz	23.41	22.69	21.63	24.0	23.0	22.0
		1732.5MHz	23.42	22.78	21.46	24.0	23.0	22.0
		1717.5MHz	23.40	22.65	21.47	24.0	23.0	22.0
	36RB_38	1747.5MHz	22.45	21.45	20.47	23.0	22.0	21.0
		1732.5MHz	22.49	21.42	20.51	23.0	22.0	21.0
		1717.5MHz	22.50	21.50	20.60	23.0	22.0	21.0
	36RB_19	1747.5MHz	22.52	21.52	20.60	23.0	22.0	21.0
		1732.5MHz	22.53	21.47	20.55	23.0	22.0	21.0
		1717.5MHz	22.54	21.52	20.59	23.0	22.0	21.0
	36RB_0	1747.5MHz	22.56	21.53	20.58	23.0	22.0	21.0
		1732.5MHz	22.50	21.52	20.54	23.0	22.0	21.0
		1717.5MHz	22.51	21.52	20.60	23.0	22.0	21.0
	75RB_0	1747.5MHz	22.53	21.52	20.54	23.0	22.0	21.0
		1732.5MHz	22.46	21.46	20.49	23.0	22.0	21.0
		1717.5MHz	22.49	21.52	20.53	23.0	22.0	21.0

Full Power								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1745MHz	23.24	22.56	21.40	24.0	23.0	22.0
		1732.5MHz	23.20	22.58	21.32	24.0	23.0	22.0
		1720MHz	23.26	22.56	21.32	24.0	23.0	22.0
	1RB_50	1745MHz	23.51	22.81	21.57	24.0	23.0	22.0
		1732.5MHz	23.50	22.86	21.65	24.0	23.0	22.0
		1720MHz	23.52	22.73	21.73	24.0	23.0	22.0
	1RB_0	1745MHz	23.34	22.71	21.50	24.0	23.0	22.0
		1732.5MHz	23.38	22.73	21.43	24.0	23.0	22.0
		1720MHz	23.32	22.53	21.57	24.0	23.0	22.0
	50RB_50	1745MHz	22.38	21.42	20.44	23.0	22.0	21.0
		1732.5MHz	22.42	21.44	20.47	23.0	22.0	21.0
		1720MHz	22.56	21.56	20.55	23.0	22.0	21.0
	50RB_25	1745MHz	22.55	21.52	20.52	23.0	22.0	21.0
		1732.5MHz	22.50	21.50	20.54	23.0	22.0	21.0
		1720MHz	22.52	21.54	20.60	23.0	22.0	21.0
	50RB_0	1745MHz	22.56	21.54	20.58	23.0	22.0	21.0
		1732.5MHz	22.51	21.44	20.50	23.0	22.0	21.0
		1720MHz	22.58	21.59	20.62	23.0	22.0	21.0
	100RB_0	1745MHz	22.50	21.46	20.48	23.0	22.0	21.0
		1732.5MHz	22.45	21.43	20.51	23.0	22.0	21.0
		1720MHz	22.55	21.57	20.59	23.0	22.0	21.0



Sensor on								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1754.3MHz	16.25	16.55	16.50	17.0	17.0	17.0
		1732.5MHz	16.27	16.61	16.53	17.0	17.0	17.0
		1710.7MHz	16.29	16.65	16.56	17.0	17.0	17.0
	1RB_3	1754.3MHz	16.39	16.73	16.58	17.0	17.0	17.0
		1732.5MHz	16.37	16.84	16.61	17.0	17.0	17.0
		1710.7MHz	16.46	16.72	16.68	17.0	17.0	17.0
	1RB_0	1754.3MHz	16.33	16.58	16.47	17.0	17.0	17.0
		1732.5MHz	16.31	16.66	16.56	17.0	17.0	17.0
		1710.7MHz	16.28	16.63	16.55	17.0	17.0	17.0
	3RB_3	1754.3MHz	16.41	16.38	16.53	17.0	17.0	17.0
		1732.5MHz	16.40	16.35	16.47	17.0	17.0	17.0
		1710.7MHz	16.41	16.40	16.58	17.0	17.0	17.0
	3RB_1	1754.3MHz	16.45	16.46	16.54	17.0	17.0	17.0
		1732.5MHz	16.48	16.43	16.56	17.0	17.0	17.0
		1710.7MHz	16.48	16.46	16.61	17.0	17.0	17.0
	3RB_0	1754.3MHz	16.41	16.39	16.54	17.0	17.0	17.0
		1732.5MHz	16.38	16.38	16.58	17.0	17.0	17.0
		1710.7MHz	16.41	16.41	16.56	17.0	17.0	17.0
	6RB_0	1754.3MHz	16.37	16.51	16.45	17.0	17.0	17.0
		1732.5MHz	16.39	16.55	16.41	17.0	17.0	17.0
		1710.7MHz	16.40	16.49	16.45	17.0	17.0	17.0



Sensor on								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1753.5MHz	16.32	16.67	16.65	17.0	17.0	17.0
		1732.5MHz	16.30	16.63	16.53	17.0	17.0	17.0
		1711.5MHz	16.32	16.76	16.60	17.0	17.0	17.0
	1RB_7	1753.5MHz	16.54	16.83	16.73	17.0	17.0	17.0
		1732.5MHz	16.45	16.69	16.68	17.0	17.0	17.0
		1711.5MHz	16.44	16.88	16.73	17.0	17.0	17.0
	1RB_0	1753.5MHz	16.35	16.68	16.68	17.0	17.0	17.0
		1732.5MHz	16.33	16.68	16.56	17.0	17.0	17.0
		1711.5MHz	16.34	16.74	16.55	17.0	17.0	17.0
	8RB_7	1753.5MHz	16.38	16.45	16.47	17.0	17.0	17.0
		1732.5MHz	16.36	16.45	16.52	17.0	17.0	17.0
		1711.5MHz	16.36	16.44	16.48	17.0	17.0	17.0
	8RB_4	1753.5MHz	16.40	16.52	16.52	17.0	17.0	17.0
		1732.5MHz	16.35	16.44	16.56	17.0	17.0	17.0
		1711.5MHz	16.43	16.45	16.50	17.0	17.0	17.0
	8RB_0	1753.5MHz	16.35	16.49	16.52	17.0	17.0	17.0
		1732.5MHz	16.33	16.44	16.52	17.0	17.0	17.0
		1711.5MHz	16.38	16.45	16.51	17.0	17.0	17.0
	15RB_0	1753.5MHz	16.37	16.38	16.39	17.0	17.0	17.0
		1732.5MHz	16.35	16.38	16.41	17.0	17.0	17.0
		1711.5MHz	16.41	16.35	16.45	17.0	17.0	17.0



Sensor on								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1752.5MHz	16.20	16.52	16.49	17.0	17.0	17.0
		1732.5MHz	16.23	16.50	16.49	17.0	17.0	17.0
		1712.5MHz	16.27	16.53	16.52	17.0	17.0	17.0
	1RB_12	1752.5MHz	16.47	16.81	17.03	17.0	17.0	17.0
		1732.5MHz	16.58	16.68	16.82	17.0	17.0	17.0
		1712.5MHz	16.48	16.70	16.76	17.0	17.0	17.0
	1RB_0	1752.5MHz	16.30	16.60	16.50	17.0	17.0	17.0
		1732.5MHz	16.29	16.55	16.53	17.0	17.0	17.0
		1712.5MHz	16.23	16.52	16.50	17.0	17.0	17.0
	12RB_13	1752.5MHz	16.36	16.33	16.42	17.0	17.0	17.0
		1732.5MHz	16.39	16.40	16.46	17.0	17.0	17.0
		1712.5MHz	16.38	16.40	16.44	17.0	17.0	17.0
	12RB_6	1752.5MHz	16.45	16.43	16.50	17.0	17.0	17.0
		1732.5MHz	16.42	16.44	16.49	17.0	17.0	17.0
		1712.5MHz	16.41	16.38	16.48	17.0	17.0	17.0
	12RB_0	1752.5MHz	16.43	16.42	16.46	17.0	17.0	17.0
		1732.5MHz	16.38	16.38	16.43	17.0	17.0	17.0
		1712.5MHz	16.38	16.35	16.44	17.0	17.0	17.0
	25RB_0	1752.5MHz	16.39	16.41	16.43	17.0	17.0	17.0
		1732.5MHz	16.40	16.38	16.49	17.0	17.0	17.0
		1712.5MHz	16.38	16.35	16.39	17.0	17.0	17.0



Sensor on								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1750MHz	16.29	16.65	16.58	17.0	17.0	17.0
		1732.5MHz	16.30	16.64	16.60	17.0	17.0	17.0
		1715MHz	16.35	16.70	16.72	17.0	17.0	17.0
	1RB_24	1750MHz	16.49	16.83	16.75	17.0	17.0	17.0
		1732.5MHz	16.44	16.82	16.73	17.0	17.0	17.0
		1715MHz	16.54	16.78	16.80	17.0	17.0	17.0
	1RB_0	1750MHz	16.37	16.71	16.66	17.0	17.0	17.0
		1732.5MHz	16.42	16.72	16.73	17.0	17.0	17.0
		1715MHz	16.39	16.65	16.70	17.0	17.0	17.0
	25RB_25	1750MHz	16.41	16.42	16.46	17.0	17.0	17.0
		1732.5MHz	16.42	16.46	16.50	17.0	17.0	17.0
		1715MHz	16.42	16.46	16.52	17.0	17.0	17.0
	25RB_12	1750MHz	16.47	16.51	16.52	17.0	17.0	17.0
		1732.5MHz	16.46	16.48	16.50	17.0	17.0	17.0
		1715MHz	16.47	16.47	16.48	17.0	17.0	17.0
	25RB_0	1750MHz	16.53	16.55	16.56	17.0	17.0	17.0
		1732.5MHz	16.41	16.47	16.51	17.0	17.0	17.0
		1715MHz	16.52	16.52	16.52	17.0	17.0	17.0
	50RB_0	1750MHz	16.51	16.45	16.52	17.0	17.0	17.0
		1732.5MHz	16.47	16.49	16.55	17.0	17.0	17.0
		1715MHz	16.49	16.47	16.55	17.0	17.0	17.0



Sensor on								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1747.5MHz	16.25	16.62	16.51	17.0	17.0	17.0
		1732.5MHz	16.24	16.54	16.38	17.0	17.0	17.0
		1717.5MHz	16.24	16.64	16.45	17.0	17.0	17.0
	1RB_37	1747.5MHz	16.42	16.59	16.63	17.0	17.0	17.0
		1732.5MHz	16.39	16.71	16.56	17.0	17.0	17.0
		1717.5MHz	16.44	16.70	16.59	17.0	17.0	17.0
	1RB_0	1747.5MHz	16.33	16.65	16.60	17.0	17.0	17.0
		1732.5MHz	16.43	16.73	16.57	17.0	17.0	17.0
		1717.5MHz	16.33	16.55	16.47	17.0	17.0	17.0
	36RB_38	1747.5MHz	16.39	16.39	16.45	17.0	17.0	17.0
		1732.5MHz	16.42	16.39	16.44	17.0	17.0	17.0
		1717.5MHz	16.45	16.43	16.52	17.0	17.0	17.0
	36RB_19	1747.5MHz	16.49	16.45	16.52	17.0	17.0	17.0
		1732.5MHz	16.42	16.43	16.52	17.0	17.0	17.0
		1717.5MHz	16.45	16.49	16.53	17.0	17.0	17.0
	36RB_0	1747.5MHz	16.48	16.46	16.50	17.0	17.0	17.0
		1732.5MHz	16.44	16.46	16.49	17.0	17.0	17.0
		1717.5MHz	16.45	16.44	16.48	17.0	17.0	17.0
	75RB_0	1747.5MHz	16.46	16.46	16.48	17.0	17.0	17.0
		1732.5MHz	16.45	16.42	16.48	17.0	17.0	17.0
		1717.5MHz	16.43	16.45	16.55	17.0	17.0	17.0



Sensor on								
LTE Band 4			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1745MHz	16.18	16.54	16.52	17.0	17.0	17.0
		1732.5MHz	16.18	16.48	16.49	17.0	17.0	17.0
		1720MHz	16.25	16.57	16.56	17.0	17.0	17.0
	1RB_50	1745MHz	16.48	16.75	16.84	17.0	17.0	17.0
		1732.5MHz	16.49	16.82	16.74	17.0	17.0	17.0
		1720MHz	16.49	16.81	16.79	17.0	17.0	17.0
	1RB_0	1745MHz	16.33	16.53	16.64	17.0	17.0	17.0
		1732.5MHz	16.34	16.67	16.63	17.0	17.0	17.0
		1720MHz	16.31	16.60	16.56	17.0	17.0	17.0
	50RB_50	1745MHz	16.31	16.35	16.39	17.0	17.0	17.0
		1732.5MHz	16.38	16.38	16.40	17.0	17.0	17.0
		1720MHz	16.47	16.52	16.51	17.0	17.0	17.0
	50RB_25	1745MHz	16.47	16.48	16.50	17.0	17.0	17.0
		1732.5MHz	16.47	16.46	16.48	17.0	17.0	17.0
		1720MHz	16.50	16.49	16.55	17.0	17.0	17.0
	50RB_0	1745MHz	16.51	16.50	16.54	17.0	17.0	17.0
		1732.5MHz	16.55	16.37	16.41	17.0	17.0	17.0
		1720MHz	16.57	16.47	16.53	17.0	17.0	17.0
	100RB_0	1745MHz	16.40	16.43	16.49	17.0	17.0	17.0
		1732.5MHz	16.39	16.40	16.43	17.0	17.0	17.0
		1720MHz	16.49	16.52	16.53	17.0	17.0	17.0



Full Power								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	848.3MHz	23.01	22.28	21.37	24.0	23.0	22.0
		836.5MHz	23.10	22.44	21.43	24.0	23.0	22.0
		824.7MHz	23.03	22.34	21.29	24.0	23.0	22.0
	1RB_3	848.3MHz	23.17	22.45	21.44	24.0	23.0	22.0
		836.5MHz	23.22	22.56	21.49	24.0	23.0	22.0
		824.7MHz	23.18	22.41	21.44	24.0	23.0	22.0
	1RB_0	848.3MHz	23.07	22.32	21.35	24.0	23.0	22.0
		836.5MHz	23.12	22.47	21.39	24.0	23.0	22.0
		824.7MHz	23.08	22.26	21.20	24.0	23.0	22.0
	3RB_3	848.3MHz	23.12	22.07	21.40	24.0	23.0	22.0
		836.5MHz	23.20	22.18	21.32	24.0	23.0	22.0
		824.7MHz	23.17	22.11	21.34	24.0	23.0	22.0
	3RB_1	848.3MHz	23.20	22.15	21.33	24.0	23.0	22.0
		836.5MHz	23.20	22.19	21.37	24.0	23.0	22.0
		824.7MHz	23.19	22.19	21.40	24.0	23.0	22.0
	3RB_0	848.3MHz	23.18	22.07	21.33	24.0	23.0	22.0
		836.5MHz	23.19	22.16	21.37	24.0	23.0	22.0
		824.7MHz	23.22	22.15	21.36	24.0	23.0	22.0
	6RB_0	848.3MHz	22.21	21.21	20.18	23.0	22.0	21.0
		836.5MHz	22.18	21.26	20.21	23.0	22.0	21.0
		824.7MHz	22.23	21.24	20.22	23.0	22.0	21.0

Full Power								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	847.5MHz	23.13	22.38	21.34	24.0	23.0	22.0
		836.5MHz	23.18	22.47	21.49	24.0	23.0	22.0
		825.5MHz	23.17	22.43	21.41	24.0	23.0	22.0
	1RB_7	847.5MHz	23.35	22.59	21.43	24.0	23.0	22.0
		836.5MHz	23.35	22.64	21.63	24.0	23.0	22.0
		825.5MHz	23.22	22.53	21.54	24.0	23.0	22.0
	1RB_0	847.5MHz	23.16	22.38	21.30	24.0	23.0	22.0
		836.5MHz	23.21	22.52	21.44	24.0	23.0	22.0
		825.5MHz	23.20	22.35	21.42	24.0	23.0	22.0
	8RB_7	847.5MHz	22.15	21.27	20.31	23.0	22.0	21.0
		836.5MHz	22.22	21.31	20.31	23.0	22.0	21.0
		825.5MHz	22.16	21.26	20.32	23.0	22.0	21.0
	8RB_4	847.5MHz	22.19	21.29	20.37	23.0	22.0	21.0
		836.5MHz	22.23	21.37	20.39	23.0	22.0	21.0
		825.5MHz	22.21	21.30	20.32	23.0	22.0	21.0
	8RB_0	847.5MHz	22.15	21.27	20.33	23.0	22.0	21.0
		836.5MHz	22.21	21.39	20.38	23.0	22.0	21.0
		825.5MHz	22.16	21.28	20.29	23.0	22.0	21.0
	15RB_0	847.5MHz	22.19	21.23	20.20	23.0	22.0	21.0
		836.5MHz	22.26	21.29	20.28	23.0	22.0	21.0
		825.5MHz	22.23	21.24	20.22	23.0	22.0	21.0

Full Power								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	846.5MHz	23.02	22.23	21.27	24.0	23.0	22.0
		836.5MHz	23.12	22.43	21.31	24.0	23.0	22.0
		826.5MHz	23.07	22.30	21.22	24.0	23.0	22.0
	1RB_12	846.5MHz	23.30	22.54	21.50	24.0	23.0	22.0
		836.5MHz	23.32	22.58	21.53	24.0	23.0	22.0
		826.5MHz	23.43	22.54	21.36	24.0	23.0	22.0
	1RB_0	846.5MHz	23.06	22.21	21.29	24.0	23.0	22.0
		836.5MHz	23.10	22.46	21.34	24.0	23.0	22.0
		826.5MHz	23.11	22.30	21.16	24.0	23.0	22.0
	12RB_13	846.5MHz	22.14	21.13	20.26	23.0	22.0	21.0
		836.5MHz	22.23	21.29	20.29	23.0	22.0	21.0
		826.5MHz	22.23	21.28	20.29	23.0	22.0	21.0
	12RB_6	846.5MHz	22.26	21.27	20.32	23.0	22.0	21.0
		836.5MHz	22.30	21.32	20.32	23.0	22.0	21.0
		826.5MHz	22.28	21.33	20.35	23.0	22.0	21.0
	12RB_0	846.5MHz	22.17	21.16	20.24	23.0	22.0	21.0
		836.5MHz	22.28	21.35	20.33	23.0	22.0	21.0
		826.5MHz	22.18	21.22	20.18	23.0	22.0	21.0
	25RB_0	846.5MHz	22.18	21.23	20.24	23.0	22.0	21.0
		836.5MHz	22.28	21.30	20.32	23.0	22.0	21.0
		826.5MHz	22.24	21.27	20.26	23.0	22.0	21.0



Full Power								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	844MHz	23.16	22.27	21.38	24.0	23.0	22.0
		836.5MHz	23.22	22.35	21.46	24.0	23.0	22.0
		829MHz	23.25	22.54	21.40	24.0	23.0	22.0
	1RB_24	844MHz	23.28	22.40	21.50	24.0	23.0	22.0
		836.5MHz	23.36	22.47	21.57	24.0	23.0	22.0
		829MHz	23.26	22.55	21.58	24.0	23.0	22.0
	1RB_0	844MHz	23.20	22.35	21.38	24.0	23.0	22.0
		836.5MHz	23.21	22.38	21.51	24.0	23.0	22.0
		829MHz	23.18	22.36	21.45	24.0	23.0	22.0
	25RB_25	844MHz	22.26	21.27	20.24	23.0	22.0	21.0
		836.5MHz	22.34	21.34	20.37	23.0	22.0	21.0
		829MHz	22.26	21.29	20.34	23.0	22.0	21.0
	25RB_12	844MHz	22.27	21.32	20.30	23.0	22.0	21.0
		836.5MHz	22.35	21.34	20.35	23.0	22.0	21.0
		829MHz	22.28	21.30	20.35	23.0	22.0	21.0
	25RB_0	844MHz	22.24	21.26	20.25	23.0	22.0	21.0
		836.5MHz	22.33	21.45	20.43	23.0	22.0	21.0
		829MHz	22.24	21.28	20.27	23.0	22.0	21.0
50RB_0	844MHz	22.24	21.26	20.23	23.0	22.0	21.0	
	836.5MHz	22.42	21.39	20.39	23.0	22.0	21.0	
	829MHz	22.22	21.26	20.27	23.0	22.0	21.0	



Sensor on								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	848.3MHz	21.99	22.15	21.29	23.0	23.0	22.0
		836.5MHz	21.98	22.29	21.33	23.0	23.0	22.0
		824.7MHz	22.01	22.27	21.27	23.0	23.0	22.0
	1RB_3	848.3MHz	22.07	22.28	21.33	23.0	23.0	22.0
		836.5MHz	22.17	22.39	21.45	23.0	23.0	22.0
		824.7MHz	22.19	22.37	21.40	23.0	23.0	22.0
	1RB_0	848.3MHz	21.94	22.16	21.25	23.0	23.0	22.0
		836.5MHz	22.04	22.30	21.35	23.0	23.0	22.0
		824.7MHz	22.02	22.28	21.35	23.0	23.0	22.0
	3RB_3	848.3MHz	22.03	22.03	21.29	23.0	23.0	22.0
		836.5MHz	22.07	22.05	21.28	23.0	23.0	22.0
		824.7MHz	22.13	22.02	21.26	23.0	23.0	22.0
	3RB_1	848.3MHz	22.09	22.07	21.33	23.0	23.0	22.0
		836.5MHz	22.18	22.17	21.35	23.0	23.0	22.0
		824.7MHz	22.14	22.08	21.28	23.0	23.0	22.0
	3RB_0	848.3MHz	22.03	22.06	21.29	23.0	23.0	22.0
		836.5MHz	22.13	22.07	21.37	23.0	23.0	22.0
		824.7MHz	22.10	22.06	21.24	23.0	23.0	22.0
	6RB_0	848.3MHz	22.07	21.19	20.11	23.0	22.0	21.0
		836.5MHz	22.15	21.23	20.21	23.0	22.0	21.0
		824.7MHz	22.15	21.19	20.20	23.0	22.0	21.0



Sensor on								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	847.5MHz	22.06	22.22	21.43	23.0	23.0	22.0
		836.5MHz	22.10	22.28	21.46	23.0	23.0	22.0
		825.5MHz	22.04	22.22	21.41	23.0	23.0	22.0
	1RB_7	847.5MHz	22.06	22.46	21.48	23.0	23.0	22.0
		836.5MHz	22.31	22.51	21.69	23.0	23.0	22.0
		825.5MHz	22.14	22.37	21.46	23.0	23.0	22.0
	1RB_0	847.5MHz	22.00	22.25	21.37	23.0	23.0	22.0
		836.5MHz	22.08	22.36	21.46	23.0	23.0	22.0
		825.5MHz	22.08	22.26	21.43	23.0	23.0	22.0
	8RB_7	847.5MHz	22.05	21.13	20.20	23.0	22.0	21.0
		836.5MHz	22.10	21.22	20.29	23.0	22.0	21.0
		825.5MHz	22.13	21.19	20.29	23.0	22.0	21.0
	8RB_4	847.5MHz	22.10	21.19	20.24	23.0	22.0	21.0
		836.5MHz	22.13	21.24	20.27	23.0	22.0	21.0
		825.5MHz	22.15	21.23	20.27	23.0	22.0	21.0
	8RB_0	847.5MHz	22.08	21.17	20.19	23.0	22.0	21.0
		836.5MHz	22.11	21.22	20.28	23.0	22.0	21.0
		825.5MHz	22.11	21.16	20.22	23.0	22.0	21.0
	15RB_0	847.5MHz	22.09	21.12	20.21	23.0	22.0	21.0
		836.5MHz	22.13	21.18	20.24	23.0	22.0	21.0
		825.5MHz	22.12	21.15	20.17	23.0	22.0	21.0



Sensor on								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	846.5MHz	21.97	22.21	21.21	23.0	23.0	22.0
		836.5MHz	22.03	22.33	21.29	23.0	23.0	22.0
		826.5MHz	21.96	22.22	21.33	23.0	23.0	22.0
	1RB_12	846.5MHz	22.23	22.51	21.44	23.0	23.0	22.0
		836.5MHz	22.27	22.56	21.52	23.0	23.0	22.0
		826.5MHz	22.32	22.29	21.58	23.0	23.0	22.0
	1RB_0	846.5MHz	21.91	22.19	21.16	23.0	23.0	22.0
		836.5MHz	22.00	22.32	21.34	23.0	23.0	22.0
		826.5MHz	22.01	22.18	21.31	23.0	23.0	22.0
	12RB_13	846.5MHz	22.02	21.03	20.16	23.0	22.0	21.0
		836.5MHz	22.14	21.16	20.24	23.0	22.0	21.0
		826.5MHz	22.14	21.20	20.30	23.0	22.0	21.0
	12RB_6	846.5MHz	22.18	21.14	20.25	23.0	22.0	21.0
		836.5MHz	22.18	21.24	20.37	23.0	22.0	21.0
		826.5MHz	22.16	21.23	20.29	23.0	22.0	21.0
	12RB_0	846.5MHz	22.09	21.04	20.15	23.0	22.0	21.0
		836.5MHz	22.18	21.22	20.33	23.0	22.0	21.0
		826.5MHz	22.08	21.12	20.19	23.0	22.0	21.0
	25RB_0	846.5MHz	22.09	21.15	20.17	23.0	22.0	21.0
		836.5MHz	22.15	21.17	20.27	23.0	22.0	21.0
		826.5MHz	22.15	21.16	20.22	23.0	22.0	21.0



Sensor on								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	844MHz	22.11	22.35	21.40	23.0	23.0	22.0
		836.5MHz	22.15	22.34	21.41	23.0	23.0	22.0
		829MHz	22.13	22.43	21.38	23.0	23.0	22.0
	1RB_24	844MHz	22.23	22.42	21.40	23.0	23.0	22.0
		836.5MHz	22.27	22.54	21.54	23.0	23.0	22.0
		829MHz	22.25	22.45	21.33	23.0	23.0	22.0
	1RB_0	844MHz	22.12	22.34	21.31	23.0	23.0	22.0
		836.5MHz	22.14	22.37	21.24	23.0	23.0	22.0
		829MHz	22.09	22.25	21.28	23.0	23.0	22.0
	25RB_25	844MHz	22.17	21.18	20.24	23.0	22.0	21.0
		836.5MHz	22.24	21.25	20.34	23.0	22.0	21.0
		829MHz	22.18	21.17	20.26	23.0	22.0	21.0
	25RB_12	844MHz	22.20	21.17	20.26	23.0	22.0	21.0
		836.5MHz	22.32	21.26	20.35	23.0	22.0	21.0
		829MHz	22.19	21.20	20.31	23.0	22.0	21.0
	25RB_0	844MHz	22.13	21.12	20.20	23.0	22.0	21.0
		836.5MHz	22.30	21.36	20.40	23.0	22.0	21.0
		829MHz	22.11	21.15	20.23	23.0	22.0	21.0
	50RB_0	844MHz	22.14	21.10	20.20	23.0	22.0	21.0
		836.5MHz	22.26	21.32	20.36	23.0	22.0	21.0
		829MHz	22.11	21.17	20.25	23.0	22.0	21.0

Full Power								
LTE Band 7			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2567.4MHz	23.72	22.76	21.75	25.0	24.0	23.0
		2535MHz	23.67	22.70	21.71	25.0	24.0	23.0
		2502.5MHz	23.53	22.54	21.60	25.0	24.0	23.0
	1RB_12	2567.4MHz	23.96	23.02	21.99	25.0	24.0	23.0
		2535MHz	23.96	23.00	22.05	25.0	24.0	23.0
		2502.5MHz	23.81	22.81	21.81	25.0	24.0	23.0
	1RB_0	2567.4MHz	23.73	22.66	21.74	25.0	24.0	23.0
		2535MHz	23.68	22.69	21.67	25.0	24.0	23.0
		2502.5MHz	23.49	22.51	21.48	25.0	24.0	23.0
	12RB_13	2567.4MHz	22.94	21.79	20.86	24.0	23.0	22.0
		2535MHz	22.80	21.75	20.83	24.0	23.0	22.0
		2502.5MHz	22.68	21.58	20.64	24.0	23.0	22.0
	12RB_6	2567.4MHz	22.99	21.88	20.93	24.0	23.0	22.0
		2535MHz	22.88	21.78	20.90	24.0	23.0	22.0
		2502.5MHz	22.73	21.62	20.73	24.0	23.0	22.0
	12RB_0	2567.4MHz	22.96	21.85	20.90	24.0	23.0	22.0
		2535MHz	22.81	21.77	20.83	24.0	23.0	22.0
		2502.5MHz	22.70	21.61	20.65	24.0	23.0	22.0
	25RB_0	2567.4MHz	22.95	21.85	20.92	24.0	23.0	22.0
		2535MHz	22.84	21.78	20.82	24.0	23.0	22.0
		2502.5MHz	22.70	21.61	20.64	24.0	23.0	22.0



Full Power								
LTE Band 7			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2565MHz	23.89	22.89	21.88	25.0	24.0	23.0
		2535MHz	23.79	22.90	21.84	25.0	24.0	23.0
		2505MHz	23.68	22.84	21.82	25.0	24.0	23.0
	1RB_24	2565MHz	24.05	22.94	22.04	25.0	24.0	23.0
		2535MHz	23.89	22.98	21.98	25.0	24.0	23.0
		2505MHz	23.72	22.84	21.88	25.0	24.0	23.0
	1RB_0	2565MHz	23.83	22.85	21.81	25.0	24.0	23.0
		2535MHz	23.77	22.85	21.75	25.0	24.0	23.0
		2505MHz	23.61	22.69	21.59	25.0	24.0	23.0
	25RB_25	2565MHz	22.99	21.82	20.89	24.0	23.0	22.0
		2535MHz	22.92	21.76	20.79	24.0	23.0	22.0
		2505MHz	22.80	21.61	20.62	24.0	23.0	22.0
	25RB_12	2565MHz	23.07	21.89	20.89	24.0	23.0	22.0
		2535MHz	22.95	21.81	20.79	24.0	23.0	22.0
		2505MHz	22.84	21.64	20.67	24.0	23.0	22.0
	25RB_0	2565MHz	23.04	21.89	20.88	24.0	23.0	22.0
		2535MHz	22.95	21.78	20.79	24.0	23.0	22.0
		2505MHz	22.86	21.67	20.69	24.0	23.0	22.0
	50RB_0	2565MHz	22.97	21.88	20.92	24.0	23.0	22.0
		2535MHz	22.87	21.81	20.81	24.0	23.0	22.0
		2505MHz	22.75	21.68	20.67	24.0	23.0	22.0



Full Power								
LTE Band 7			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2562.5MHz	23.86	23.02	21.87	25.0	24.0	23.0
		2535MHz	23.82	22.97	21.90	25.0	24.0	23.0
		2507.5MHz	23.73	22.88	21.70	25.0	24.0	23.0
	1RB_37	2562.5MHz	23.94	23.03	22.00	25.0	24.0	23.0
		2535MHz	23.81	22.99	21.87	25.0	24.0	23.0
		2507.5MHz	23.69	22.80	21.63	25.0	24.0	23.0
	1RB_0	2562.5MHz	23.81	22.94	21.68	25.0	24.0	23.0
		2535MHz	23.73	22.89	21.82	25.0	24.0	23.0
		2507.5MHz	23.56	22.65	21.58	25.0	24.0	23.0
	36RB_38	2562.5MHz	22.99	21.86	20.86	24.0	23.0	22.0
		2535MHz	22.87	21.77	20.75	24.0	23.0	22.0
		2507.5MHz	22.83	21.73	20.69	24.0	23.0	22.0
	36RB_19	2562.5MHz	23.00	21.87	20.89	24.0	23.0	22.0
		2535MHz	22.90	21.82	20.76	24.0	23.0	22.0
		2507.5MHz	22.84	21.72	20.68	24.0	23.0	22.0
	36RB_0	2562.5MHz	22.94	21.84	20.82	24.0	23.0	22.0
		2535MHz	22.86	21.75	20.76	24.0	23.0	22.0
		2507.5MHz	22.80	21.67	20.65	24.0	23.0	22.0
	75RB_0	2562.5MHz	22.99	21.89	20.84	24.0	23.0	22.0
		2535MHz	22.89	21.77	20.74	24.0	23.0	22.0
		2507.5MHz	22.84	21.72	20.70	24.0	23.0	22.0



Full Power								
LTE Band 7			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2560MHz	23.78	22.86	21.89	25.0	24.0	23.0
		2535MHz	23.75	22.85	21.72	25.0	24.0	23.0
		2510MHz	23.73	22.83	21.73	25.0	24.0	23.0
	1RB_50	2560MHz	23.91	23.00	22.03	25.0	24.0	23.0
		2535MHz	23.85	22.94	21.93	25.0	24.0	23.0
		2510MHz	23.82	22.87	21.79	25.0	24.0	23.0
	1RB_0	2560MHz	23.66	22.84	21.65	25.0	24.0	23.0
		2535MHz	23.61	22.72	21.64	25.0	24.0	23.0
		2510MHz	23.45	22.53	21.50	25.0	24.0	23.0
	50RB_50	2560MHz	22.98	21.85	20.86	24.0	23.0	22.0
		2535MHz	22.83	21.74	20.67	24.0	23.0	22.0
		2510MHz	22.90	21.76	20.72	24.0	23.0	22.0
	50RB_25	2560MHz	23.08	21.94	20.95	24.0	23.0	22.0
		2535MHz	22.97	21.83	20.80	24.0	23.0	22.0
		2510MHz	22.87	21.76	20.75	24.0	23.0	22.0
	50RB_0	2560MHz	23.00	21.87	20.83	24.0	23.0	22.0
		2535MHz	22.84	21.78	20.68	24.0	23.0	22.0
		2510MHz	22.89	21.75	20.75	24.0	23.0	22.0
	100RB_0	2560MHz	22.94	21.87	20.87	24.0	23.0	22.0
		2535MHz	22.80	21.71	20.71	24.0	23.0	22.0
		2510MHz	22.89	21.80	20.74	24.0	23.0	22.0



Sensor on								
LTE Band 7			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2567.4MHz	15.82	16.10	16.00	16.5	16.5	16.5
		2535MHz	15.63	16.05	15.85	16.5	16.5	16.5
		2502.5MHz	15.48	15.79	15.71	16.5	16.5	16.5
	1RB_12	2567.4MHz	16.03	16.34	16.28	16.5	16.5	16.5
		2535MHz	15.91	16.18	16.14	16.5	16.5	16.5
		2502.5MHz	15.67	16.04	16.02	16.5	16.5	16.5
	1RB_0	2567.4MHz	15.74	16.06	15.89	16.5	16.5	16.5
		2535MHz	15.63	15.98	15.90	16.5	16.5	16.5
		2502.5MHz	15.46	15.74	15.68	16.5	16.5	16.5
	12RB_13	2567.4MHz	15.99	15.93	16.00	16.5	16.5	16.5
		2535MHz	15.80	15.77	15.84	16.5	16.5	16.5
		2502.5MHz	15.63	15.63	15.69	16.5	16.5	16.5
	12RB_6	2567.4MHz	16.03	15.99	16.04	16.5	16.5	16.5
		2535MHz	15.85	15.84	15.93	16.5	16.5	16.5
		2502.5MHz	15.68	15.64	15.69	16.5	16.5	16.5
	12RB_0	2567.4MHz	16.01	15.96	16.00	16.5	16.5	16.5
		2535MHz	15.81	15.77	15.87	16.5	16.5	16.5
		2502.5MHz	15.64	15.56	15.63	16.5	16.5	16.5
	25RB_0	2567.4MHz	16.01	16.03	16.00	16.5	16.5	16.5
		2535MHz	15.82	15.83	15.86	16.5	16.5	16.5
		2502.5MHz	15.65	15.65	15.64	16.5	16.5	16.5