

# TEST REPORT

## (Part 0: SAR Characterization)

**Applicant:** Guangdong OPPO Mobile Telecommunications Corp., Ltd.  
**Address:** NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China  
**Equipment Type:** Mobile Phone  
**Model Name:** CPH2743  
**Brand Name:** OPPO  
**FCC ID:** R9C-OP24335  
**Sample Arrival Date:** Apr. 03, 2025  
**Test Date:** May 16, 2025 - May 18, 2025  
**Date of Issue:** May 22, 2025

**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Zhang Jiwei

**Checked by:** Xu Rui

**Approved by:** Tolan Tu  
(Testing Director)

*Zhang Jiwei*

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<b>Revision History</b>		
Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>May 22, 2025</u>	<u>Initial Issue</u>

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# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

## 1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	<input type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	<input checked="" type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

## 1.3 Test Environment Condition

Ambient Temperature	18°C to 25°C
Ambient Relative Humidity	30% to 70%

## 2 INTRODUCTION

### 2.1 Time-Averaging for SAR

The equipment under test (EUT) is a smart phone. It contains the Qualcomm modem supporting 2G/3G/4/5G WWAN technologies. These WWAN modems enable Qualcomm's Smart Transmit feature to control and manage transmitting power, in real time, and to ensure the time-averaged RF exposure is always in compliance with the FCC requirement.

Base on Qualcomm's Smart Transmit cannot operate without SAR characterization at the device level, beforehand. This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. Both SAR char will be entered via the Embedded File System (EFS) to enable the Smart Transmit Feature.

This EUT support WLAN/BT modem, and WLAN/BT is not enabled with Qualcomm's Smart Transmit feature.

### 2.2 Nomenclature for this Report

Technology	Term	Description
2/3/4/G Sub-6 NR	$P_{limit}$	The time-averaged RF power which corresponds to SAR_design_target.
	$P_{max}$	Maximum output power
	SAR_design_target	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainty.
	SAR Char	$P_{limit}$ for all the technologies/bands for all applicable DSI

### 2.3 Bibliography

Report Description	Report Serial Number
FCC Part0 SAR Characterization Report	BL-SZ2530966-703
FCC Part1 SAR Test Report	BL-SZ2530966-701
FCC Part 2 RF Exposure Test Report	BL-SZ2530966-702

### 3 PRODUCT INFORMATION

#### 3.1 Technical Information

Network and Wireless connectivity	<p>2G Network GSM/GPRS/EDGE 850/900/1900</p> <p>3G Network WCDMA/HSDPA/HSUPA Band 2/4/5/8</p> <p>4G Network FDD LTE Band 2/4/5/7/8/12/13/17/18/19/26/28/66 TDD LTE Band 38/41/48</p> <p>LTE CA Uplink (UL): CA_2C, CA_7C, CA_38C, CA_41C, CA_4A-5A, CA_5A-7A, CA_5A-66A</p> <p>5G Network</p> <p>SA: NR n2/n5/n7/n12/n26/n38/n41/n66</p> <p>NSA(EN-DC): DC_7A_n5A, DC_66A_n5A, DC_2A_n7A, DC_4A_n7A, DC_5A_n7A, DC_66A_n7A, DC_7A_n26A, DC_2A_n38A, DC_4A_n38A, DC_5A_n38A, DC_66A_n38A, DC_2A_n41A, DC_4A_n41A, DC_26A_n41A, DC_66A_n41A, DC_2A_n66A, DC_5A_n66A, DC_7A_n66A, DC_12A_n66A</p> <p>Bluetooth (BR+EDR+BLE)</p> <p>2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40), VHT20/40</p> <p>5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80)</p> <p>GNSS, NFC</p>
<p>Note:</p> <p>The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA, LTE and NR, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.</p>	

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, NR, 2.4G WIFI, 5G WIFI, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 900	TX: 880 ~ 915 MHz	RX: 925 ~ 960 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	WCDMA Band 8	TX: 880 ~ 915 MHz	RX: 925 ~ 960 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 8	TX: 880 ~ 915 MHz	RX: 925 ~ 960 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz	

	LTE Band 18	TX: 815 ~ 824 MHz	RX: 860 ~ 869 MHz
		TX: 824 ~ 830 MHz	RX: 869 ~ 875 MHz
	LTE Band 19	TX: 830 ~ 845 MHz	RX: 875 ~ 890 MHz
	LTE Band 26	TX: 814 ~ 824 MHz	RX: 859 ~ 869 MHz
		TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 28	TX: 703 ~ 748 MHz	RX: 758~ 803 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 48	TX: 3550 ~ 3700 MHz	RX: 3550 ~ 3700 MHz
	NR n2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	NR n5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	NR n7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	NR n12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	NR n26	TX: 814 ~ 824 MHz	RX: 859 ~ 869 MHz
		TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	NR n38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	NR n41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	NR n66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	802.11b/g /n(HT20/HT40)	2412 ~ 2462 MHz	
VHT20/40	2412 ~ 2462 MHz		
802.11a/ /n(HT20/HT40) /ac(VHT20/VHT40 /VHT80)	5150 ~ 5250 MHz		
	5250 ~ 5350 MHz		
	5470 ~ 5725 MHz		
	5725 ~ 5850 MHz		
Bluetooth	2402 ~ 2480 MHz		
NFC	13.56 MHz		
Antenna Type	WWAN: IFA Antenna WIFI: IFA Antenna Bluetooth: IFA Antenna NFC: Coil Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		
Product Type	Portable Device		
EUT Type	<input checked="" type="checkbox"/> Production unit	<input type="checkbox"/> Identical prototype	

## 4 SAR CHARACTERIZATION

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for Smart Transmit to control and manage RF exposure for  $f < 6$  GHz.

### 4.1 DSI and SAR Determination

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

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

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

Reduced level	Receiver state	Transmitting	Antenna	Position
		conditions		
State5	On (head scenario)	WWAN Use Only	Ant.0	Head
			Ant.1	
			Ant.3	
			Ant.4	
			Ant.5	
			Ant.6	
			Ant.7	
State10	On (head scenario)	WWAN + WLAN	Ant.0	Head
			Ant.1	
			Ant.3	
			Ant.4	
			Ant.5	
			Ant.6	
			Ant.7	
State3	Off (Body-Worn/Extremity scenario)	WWAN Use Only	Ant.0	Front Side;Back Side;Left Edge;Right Edge;Top Edge;Bottom Edge
			Ant.1	
			Ant.3	
			Ant.4	
			Ant.5	
			Ant.6	
			Ant.7	
State8	Off (Body-Worn/Hotspot/Extremity scenario)	WWAN + WLAN	Ant.0	Front Side;Back Side;Left Edge;Right Edge;Top Edge;Bottom Edge
			Ant.1	
			Ant.3	

			Ant.4	
			Ant.5	
			Ant.6	
			Ant.7	
			Ant.10	



## 4.2 SAR design Target and Uncertainty

### Total Uncertainty:

The total device design and related uncertainty of the EUT is shown below (in dB), which includes TxAGC and device to device variation.

Total Uncertainty	Uncertainty dB(K=2)
	1.2

To account for total uncertainty, SAR\_design\_target should be determined as:

$$\text{SAR\_design\_target} < \text{SARregulat\_limit} \times 10^{\frac{-\text{total uncertainty}}{10}}$$

### SAR design Target:

RF Exposure Conditions	Standalone SAR(W/Kg) WWAN Only	Simultaneous SAR (W/kg) WWAN + WLAN
Head(1g)	0.90	1.07
Body-worn(1g)	0.49	0.64
Hotspot(1g)	0.80	1.06
Limbs(10g)	/	/

## 4.3 SAR Char Table

The worst-case reported SAR for each antenna/technology/band/DSI is summarized in below table

Note:

Mode	Antenna	WWAN Antenna								
		Full Power	Receiver on				Receiver off			
			Head		Body-Worn		Hotspot	Specific		
			Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Standalone	Simultaneous transmission	
			WWAN	WWAN + WLAN	WWAN	WWAN + WLAN	WWAN + WLAN	WWAN	WWAN + WLAN	
Off	State5	State10	State3	State8	State8	State3	State8			
GSM 850	Ant.0	32.50	29.50	29.50	31.50	30.50	30.50	31.50	30.50	
GPRS850 1 Tx Slot	Ant.0	32.50	29.50	29.50	31.50	30.50	30.50	31.50	30.50	
GPRS850 2 Tx Slot	Ant.0	30.00	27.00	27.00	29.00	28.00	28.00	29.00	28.00	
GPRS850 3 Tx Slot	Ant.0	28.50	25.50	25.50	27.50	26.50	26.50	27.50	26.50	
GPRS850 4 Tx Slot	Ant.0	27.50	24.50	24.50	26.50	25.50	25.50	26.50	25.50	
EGPRS850 1 Tx Slot	Ant.0	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	
EGPRS850 2 Tx Slot	Ant.0	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	
EGPRS850 3 Tx Slot	Ant.0	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	
EGPRS850 4 Tx Slot	Ant.0	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	
GSM 850	Ant.1	33.50	30.50	29.50	31.00	30.00	30.00	31.00	30.00	
GPRS850 1 Tx Slot	Ant.1	33.50	30.50	29.50	31.00	30.00	30.00	31.00	30.00	
GPRS850 2 Tx Slot	Ant.1	31.00	28.00	27.00	28.50	27.50	27.50	28.50	27.50	
GPRS850 3 Tx Slot	Ant.1	29.50	26.50	25.50	27.00	26.00	26.00	27.00	26.00	

GPRS850 4 Tx Slot	Ant.1	28.50	25.50	24.50	26.00	25.00	25.00	26.00	25.00
EGPRS850 1 Tx Slot	Ant.1	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00
EGPRS850 2 Tx Slot	Ant.1	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
EGPRS850 3 Tx Slot	Ant.1	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
EGPRS850 4 Tx Slot	Ant.1	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50
GSM 900	Ant.0	32.50	29.50	29.50	32.00	31.00	31.00	32.00	31.00
GPRS900 1 Tx Slot	Ant.0	32.50	29.50	29.50	32.00	31.00	31.00	32.00	31.00
GPRS900 2 Tx Slot	Ant.0	30.00	27.00	27.00	29.50	28.50	28.50	29.50	28.50
GPRS900 3 Tx Slot	Ant.0	28.50	25.50	25.50	28.00	27.00	27.00	28.00	27.00
GPRS900 4 Tx Slot	Ant.0	27.50	24.50	24.50	27.00	26.00	26.00	27.00	26.00
EGPRS900 1 Tx Slot	Ant.0	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00
EGPRS900 2 Tx Slot	Ant.0	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
EGPRS900 3 Tx Slot	Ant.0	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50
EGPRS900 4 Tx Slot	Ant.0	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
GSM 900	Ant.1	33.50	29.00	28.00	31.00	30.50	30.50	31.00	30.50
GPRS900 1 Tx Slot	Ant.1	33.50	29.00	28.00	31.00	30.50	30.50	31.00	30.50
GPRS900 2 Tx Slot	Ant.1	31.00	26.50	25.50	28.50	28.00	28.00	28.50	28.00
GPRS900 3 Tx Slot	Ant.1	29.50	25.00	24.00	27.00	26.50	26.50	27.00	26.50
GPRS900 4 Tx Slot	Ant.1	28.50	24.00	23.00	26.00	25.50	25.50	26.00	25.50
EGPRS900 1 Tx Slot	Ant.1	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00
EGPRS900 2 Tx Slot	Ant.1	26.00	26.00	25.50	26.00	26.00	26.00	26.00	26.00
EGPRS900 3 Tx Slot	Ant.1	24.50	24.50	23.50	24.50	24.50	24.50	24.50	24.50
EGPRS900 4 Tx Slot	Ant.1	23.50	22.50	22.00	23.50	23.50	23.50	23.50	23.50
GSM1900	Ant.3	30.30	28.80	27.80	30.30	29.80	29.80	30.30	29.80
GPRS1900 1 Tx Slot	Ant.3	30.30	28.80	27.80	30.30	29.80	29.80	30.30	29.80
GPRS1900 2 Tx Slot	Ant.3	27.80	26.30	25.30	27.80	27.30	27.30	27.80	27.30
GPRS1900 3 Tx Slot	Ant.3	26.30	24.80	23.80	26.30	25.80	25.80	26.30	25.80
GPRS1900 4 Tx Slot	Ant.3	25.30	23.80	22.80	25.30	24.80	24.80	25.30	24.80
EGPRS1900 1 Tx Slot	Ant.3	26.80	26.80	26.80	26.80	26.80	26.80	26.80	26.80
EGPRS1900 2 Tx Slot	Ant.3	24.30	24.30	24.30	24.30	24.30	24.30	24.30	24.30
EGPRS1900 3 Tx Slot	Ant.3	22.80	22.80	22.80	22.80	22.80	22.80	22.80	22.80
EGPRS1900 4 Tx Slot	Ant.3	22.30	22.30	22.30	22.30	22.30	22.30	22.30	22.30
GSM1900	Ant.4	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50
GPRS1900 1 Tx Slot	Ant.4	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50
GPRS1900 2 Tx Slot	Ant.4	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00
GPRS1900 3 Tx Slot	Ant.4	26.50	26.50	26.50	26.50	26.50	26.50	26.50	26.50
GPRS1900 4 Tx Slot	Ant.4	25.50	25.50	25.50	25.50	25.50	25.50	25.50	25.50
EGPRS1900 1 Tx Slot	Ant.4	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00
EGPRS1900 2 Tx Slot	Ant.4	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
EGPRS1900 3 Tx Slot	Ant.4	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
EGPRS1900 4 Tx Slot	Ant.4	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
WCDMA Band2 RMC	Ant.3	24.60	18.60	18.10	22.10	20.60	20.60	22.10	20.60
WCDMA Band2 AMR	Ant.3	24.60	18.60	18.10	22.10	20.60	20.60	22.10	20.60

HSDPA Subtest-1	Ant.3	24.10	18.10	17.60	21.60	20.10	20.10	21.60	20.10
HSDPA Subtest-2	Ant.3	24.10	18.10	17.60	21.60	20.10	20.10	21.60	20.10
HSDPA Subtest-3	Ant.3	23.10	17.10	16.60	20.60	19.10	19.10	20.60	19.10
HSDPA Subtest-4	Ant.3	23.10	17.10	16.60	20.60	19.10	19.10	20.60	19.10
DC-HSDPA Subtest-1	Ant.3	24.10	18.10	17.60	21.60	20.10	20.10	21.60	20.10
DC-HSDPA Subtest-2	Ant.3	24.10	18.10	17.60	21.60	20.10	20.10	21.60	20.10
DC-HSDPA Subtest-3	Ant.3	23.10	17.10	16.60	20.60	19.10	19.10	20.60	19.10
DC-HSDPA Subtest-4	Ant.3	23.10	17.10	16.60	20.60	19.10	19.10	20.60	19.10
HSUPA Subtest-1	Ant.3	24.10	18.10	17.60	21.60	20.10	20.10	21.60	20.10
HSUPA Subtest-2	Ant.3	21.80	15.80	15.30	19.30	17.80	17.80	19.30	17.80
HSUPA Subtest-3	Ant.3	22.80	16.80	16.30	20.30	18.80	18.80	20.30	18.80
HSUPA Subtest-4	Ant.3	21.80	15.80	15.30	19.30	17.80	17.80	19.30	17.80
HSUPA Subtest-5	Ant.3	24.10	18.10	17.60	21.60	20.10	20.10	21.60	20.10
HSPA+(16QAM)	Ant.3	21.80	15.80	15.30	19.30	17.80	17.80	19.30	17.80
WCDMA Band2 RMC	Ant.4	24.80	24.80	24.80	21.80	21.30	21.30	21.80	21.30
WCDMA Band2 AMR	Ant.4	24.80	24.80	24.80	21.80	21.30	21.30	21.80	21.30
HSDPA Subtest-1	Ant.4	24.30	24.30	24.30	21.30	20.80	20.80	21.30	20.80
HSDPA Subtest-2	Ant.4	24.30	24.30	24.30	21.30	20.80	20.80	21.30	20.80
HSDPA Subtest-3	Ant.4	23.30	23.30	23.30	20.30	19.80	19.80	20.30	19.80
HSDPA Subtest-4	Ant.4	23.30	23.30	23.30	20.30	19.80	19.80	20.30	19.80
DC-HSDPA Subtest-1	Ant.4	24.30	24.30	24.30	21.30	20.80	20.80	21.30	20.80
DC-HSDPA Subtest-2	Ant.4	24.30	24.30	24.30	21.30	20.80	20.80	21.30	20.80
DC-HSDPA Subtest-3	Ant.4	23.30	23.30	23.30	20.30	19.80	19.80	20.30	19.80
DC-HSDPA Subtest-4	Ant.4	23.30	23.30	23.30	20.30	19.80	19.80	20.30	19.80
HSUPA Subtest-1	Ant.4	24.30	24.30	24.30	21.30	20.80	20.80	21.30	20.80
HSUPA Subtest-2	Ant.4	22.00	22.00	22.00	19.00	18.50	18.50	19.00	18.50
HSUPA Subtest-3	Ant.4	23.00	23.00	23.00	20.00	19.50	19.50	20.00	19.50
HSUPA Subtest-4	Ant.4	22.00	22.00	22.00	19.00	18.50	18.50	19.00	18.50
HSUPA Subtest-5	Ant.4	24.30	24.30	24.30	21.30	20.80	20.80	21.30	20.80
HSPA+(16QAM)	Ant.4	22.00	22.00	22.00	19.00	18.50	18.50	19.00	18.50
WCDMA Band4 RMC	Ant.3	24.60	17.10	16.60	22.60	20.60	20.60	22.60	20.60
WCDMA Band4 AMR	Ant.3	24.60	17.10	16.60	22.60	20.60	20.60	22.60	20.60
HSDPA Subtest-1	Ant.3	24.10	16.60	16.10	22.10	20.10	20.10	22.10	20.10
HSDPA Subtest-2	Ant.3	24.10	16.60	16.10	22.10	20.10	20.10	22.10	20.10
HSDPA Subtest-3	Ant.3	23.30	15.80	15.30	21.30	19.30	19.30	21.30	19.30
HSDPA Subtest-4	Ant.3	23.30	15.80	15.30	21.30	19.30	19.30	21.30	19.30
DC-HSDPA Subtest-1	Ant.3	24.10	16.60	16.10	22.10	20.10	20.10	22.10	20.10
DC-HSDPA Subtest-2	Ant.3	24.10	16.60	16.10	22.10	20.10	20.10	22.10	20.10
DC-HSDPA Subtest-3	Ant.3	23.30	15.80	15.30	21.30	19.30	19.30	21.30	19.30
DC-HSDPA Subtest-4	Ant.3	23.30	15.80	15.30	21.30	19.30	19.30	21.30	19.30
HSUPA Subtest-1	Ant.3	23.80	16.30	15.80	21.80	19.80	19.80	21.80	19.80
HSUPA Subtest-2	Ant.3	21.80	14.30	13.80	19.80	17.80	17.80	19.80	17.80
HSUPA Subtest-3	Ant.3	22.80	15.30	14.80	20.80	18.80	18.80	20.80	18.80

HSUPA Subtest-4	Ant.3	21.80	14.30	13.80	19.80	17.80	17.80	19.80	17.80
HSUPA Subtest-5	Ant.3	24.10	16.60	16.10	22.10	20.10	20.10	22.10	20.10
HSPA+(16QAM)	Ant.3	21.80	14.30	13.80	19.80	17.80	17.80	19.80	17.80
WCDMA Band4 RMC	Ant.4	24.80	24.80	24.80	22.30	21.30	21.30	22.30	21.30
WCDMA Band4 AMR	Ant.4	24.80	24.80	24.80	22.30	21.30	21.30	22.30	21.30
HSDPA Subtest-1	Ant.4	24.30	24.30	24.30	21.80	20.80	20.80	21.80	20.80
HSDPA Subtest-2	Ant.4	24.30	24.30	24.30	21.80	20.80	20.80	21.80	20.80
HSDPA Subtest-3	Ant.4	23.50	23.50	23.50	21.00	20.00	20.00	21.00	20.00
HSDPA Subtest-4	Ant.4	23.50	23.50	23.50	21.00	20.00	20.00	21.00	20.00
DC-HSDPA Subtest-1	Ant.4	24.30	24.30	24.30	21.80	20.80	20.80	21.80	20.80
DC-HSDPA Subtest-2	Ant.4	24.30	24.30	24.30	21.80	20.80	20.80	21.80	20.80
DC-HSDPA Subtest-3	Ant.4	23.50	23.50	23.50	21.00	20.00	20.00	21.00	20.00
DC-HSDPA Subtest-4	Ant.4	23.50	23.50	23.50	21.00	20.00	20.00	21.00	20.00
HSUPA Subtest-1	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50
HSUPA Subtest-2	Ant.4	22.00	22.00	22.00	19.50	18.50	18.50	19.50	18.50
HSUPA Subtest-3	Ant.4	23.00	23.00	23.00	20.50	19.50	19.50	20.50	19.50
HSUPA Subtest-4	Ant.4	22.00	22.00	22.00	19.50	18.50	18.50	19.50	18.50
HSUPA Subtest-5	Ant.4	24.30	24.30	24.30	21.80	20.80	20.80	21.80	20.80
HSPA+(16QAM)	Ant.4	22.00	22.00	22.00	19.50	18.50	18.50	19.50	18.50
WCDMA Band5 RMC	Ant.0	24.60	20.60	20.60	22.10	21.10	21.10	22.10	21.10
WCDMA Band5 AMR	Ant.0	24.60	20.60	20.60	22.10	21.10	21.10	22.10	21.10
HSDPA Subtest-1	Ant.0	23.60	19.60	19.60	21.10	20.10	20.10	21.10	20.10
HSDPA Subtest-2	Ant.0	23.60	19.60	19.60	21.10	20.10	20.10	21.10	20.10
HSDPA Subtest-3	Ant.0	23.10	19.10	19.10	20.60	19.60	19.60	20.60	19.60
HSDPA Subtest-4	Ant.0	23.10	19.10	19.10	20.60	19.60	19.60	20.60	19.60
DC-HSDPA Subtest-1	Ant.0	23.60	19.60	19.60	21.10	20.10	20.10	21.10	20.10
DC-HSDPA Subtest-2	Ant.0	23.60	19.60	19.60	21.10	20.10	20.10	21.10	20.10
DC-HSDPA Subtest-3	Ant.0	23.10	19.10	19.10	20.60	19.60	19.60	20.60	19.60
DC-HSDPA Subtest-4	Ant.0	23.10	19.10	19.10	20.60	19.60	19.60	20.60	19.60
HSUPA Subtest-1	Ant.0	23.80	19.80	19.80	21.30	20.30	20.30	21.30	20.30
HSUPA Subtest-2	Ant.0	21.80	17.80	17.80	19.30	18.30	18.30	19.30	18.30
HSUPA Subtest-3	Ant.0	22.80	18.80	18.80	20.30	19.30	19.30	20.30	19.30
HSUPA Subtest-4	Ant.0	21.80	17.80	17.80	19.30	18.30	18.30	19.30	18.30
HSUPA Subtest-5	Ant.0	23.80	19.80	19.80	21.30	20.30	20.30	21.30	20.30
HSPA+(16QAM)	Ant.0	21.80	17.80	17.80	19.30	18.30	18.30	19.30	18.30
WCDMA Band5 RMC	Ant.1	24.80	20.30	19.30	22.30	21.30	21.30	22.30	21.30
WCDMA Band5 AMR	Ant.1	24.80	20.30	19.30	22.30	21.30	21.30	22.30	21.30
HSDPA Subtest-1	Ant.1	23.80	19.30	18.30	21.30	20.30	20.30	21.30	20.30
HSDPA Subtest-2	Ant.1	23.80	19.30	18.30	21.30	20.30	20.30	21.30	20.30
HSDPA Subtest-3	Ant.1	23.30	18.80	17.80	20.80	19.80	19.80	20.80	19.80
HSDPA Subtest-4	Ant.1	23.30	18.80	17.80	20.80	19.80	19.80	20.80	19.80
DC-HSDPA Subtest-1	Ant.1	23.80	19.30	18.30	21.30	20.30	20.30	21.30	20.30
DC-HSDPA Subtest-2	Ant.1	23.80	19.30	18.30	21.30	20.30	20.30	21.30	20.30

DC-HSDPA Subtest-3	Ant.1	23.30	18.80	17.80	20.80	19.80	19.80	20.80	19.80
DC-HSDPA Subtest-4	Ant.1	23.30	18.80	17.80	20.80	19.80	19.80	20.80	19.80
HSUPA Subtest-1	Ant.1	24.00	19.50	18.50	21.50	20.50	20.50	21.50	20.50
HSUPA Subtest-2	Ant.1	22.00	17.50	16.50	19.50	18.50	18.50	19.50	18.50
HSUPA Subtest-3	Ant.1	23.00	18.50	17.50	20.50	19.50	19.50	20.50	19.50
HSUPA Subtest-4	Ant.1	22.00	17.50	16.50	19.50	18.50	18.50	19.50	18.50
HSUPA Subtest-5	Ant.1	24.00	19.50	18.50	21.50	20.50	20.50	21.50	20.50
HSPA+(16QAM)	Ant.1	22.00	17.50	16.50	19.50	18.50	18.50	19.50	18.50
WCDMA Band8 RMC	Ant.0	24.60	20.60	20.60	23.10	22.10	22.10	23.10	22.10
WCDMA Band8 AMR	Ant.0	24.60	20.60	20.60	23.10	22.10	22.10	23.10	22.10
HSDPA Subtest-1	Ant.0	23.60	19.60	19.60	22.10	21.10	21.10	22.10	21.10
HSDPA Subtest-2	Ant.0	23.60	19.60	19.60	22.10	21.10	21.10	22.10	21.10
HSDPA Subtest-3	Ant.0	23.10	19.10	19.10	21.60	20.60	20.60	21.60	20.60
HSDPA Subtest-4	Ant.0	23.10	19.10	19.10	21.60	20.60	20.60	21.60	20.60
DC-HSDPA Subtest-1	Ant.0	23.60	19.60	19.60	22.10	21.10	21.10	22.10	21.10
DC-HSDPA Subtest-2	Ant.0	23.60	19.60	19.60	22.10	21.10	21.10	22.10	21.10
DC-HSDPA Subtest-3	Ant.0	23.10	19.10	19.10	21.60	20.60	20.60	21.60	20.60
DC-HSDPA Subtest-4	Ant.0	23.10	19.10	19.10	21.60	20.60	20.60	21.60	20.60
HSUPA Subtest-1	Ant.0	23.80	19.80	19.80	22.30	21.30	21.30	22.30	21.30
HSUPA Subtest-2	Ant.0	21.80	17.80	17.80	20.30	19.30	19.30	20.30	19.30
HSUPA Subtest-3	Ant.0	22.80	18.80	18.80	21.30	20.30	20.30	21.30	20.30
HSUPA Subtest-4	Ant.0	21.80	17.80	17.80	20.30	19.30	19.30	20.30	19.30
HSUPA Subtest-5	Ant.0	23.80	19.80	19.80	22.30	21.30	21.30	22.30	21.30
HSPA+(16QAM)	Ant.0	21.80	17.80	17.80	20.30	19.30	19.30	20.30	19.30
WCDMA Band8 RMC	Ant.1	24.80	20.80	19.80	21.30	20.30	20.30	21.30	20.30
WCDMA Band8 AMR	Ant.1	24.80	20.80	19.80	21.30	20.30	20.30	21.30	20.30
HSDPA Subtest-1	Ant.1	23.80	19.80	18.80	20.30	19.30	19.30	20.30	19.30
HSDPA Subtest-2	Ant.1	23.80	19.80	18.80	20.30	19.30	19.30	20.30	19.30
HSDPA Subtest-3	Ant.1	23.30	19.30	18.30	19.80	18.80	18.80	19.80	18.80
HSDPA Subtest-4	Ant.1	23.30	19.30	18.30	19.80	18.80	18.80	19.80	18.80
DC-HSDPA Subtest-1	Ant.1	23.80	19.80	18.80	20.30	19.30	19.30	20.30	19.30
DC-HSDPA Subtest-2	Ant.1	23.80	19.80	18.80	20.30	19.30	19.30	20.30	19.30
DC-HSDPA Subtest-3	Ant.1	23.30	19.30	18.30	19.80	18.80	18.80	19.80	18.80
DC-HSDPA Subtest-4	Ant.1	23.30	19.30	18.30	19.80	18.80	18.80	19.80	18.80
HSUPA Subtest-1	Ant.1	24.00	20.00	19.00	20.50	19.50	19.50	20.50	19.50
HSUPA Subtest-2	Ant.1	22.00	18.00	17.00	18.50	17.50	17.50	18.50	17.50
HSUPA Subtest-3	Ant.1	23.00	19.00	18.00	19.50	18.50	18.50	19.50	18.50
HSUPA Subtest-4	Ant.1	22.00	18.00	17.00	18.50	17.50	17.50	18.50	17.50
HSUPA Subtest-5	Ant.1	24.00	20.00	19.00	20.50	19.50	19.50	20.50	19.50
HSPA+(16QAM)	Ant.1	22.00	18.00	17.00	18.50	17.50	17.50	18.50	17.50
LTE Band2	Ant.3	23.80	18.80	18.30	22.30	20.80	20.80	22.30	20.80
LTE Band2	Ant.4	24.00	24.00	24.00	22.00	21.00	21.00	22.00	21.00
LTE Band4	Ant.3	24.80	17.80	16.80	22.30	21.30	21.30	22.30	21.30

LTE Band4	Ant.4	25.00	25.00	25.00	22.50	21.50	21.50	22.50	21.50
LTE Band4	Ant.5	23.20	21.20	20.20	21.20	19.70	19.70	21.20	19.70
LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00
LTE Band7	Ant.3	24.80	18.30	17.30	21.30	19.80	19.80	21.30	19.80
LTE Band7	Ant.4	25.00	25.00	25.00	23.50	21.50	21.50	23.50	21.50
LTE Band7	Ant.5	22.50	19.00	18.00	22.50	21.00	21.00	22.50	21.00
LTE Band8	Ant.0	23.80	21.80	20.80	21.80	20.80	20.80	21.80	20.80
LTE Band8	Ant.1	25.00	20.50	19.50	21.00	20.00	20.00	21.00	20.00
LTE Band12	Ant.0	23.80	23.80	22.80	22.80	21.80	21.80	22.80	21.80
LTE Band12	Ant.1	25.00	25.00	24.00	23.50	22.50	22.50	23.50	22.50
LTE Band13	Ant.0	23.80	23.80	23.80	22.80	21.80	21.80	22.80	21.80
LTE Band13	Ant.1	25.00	23.00	23.00	23.00	22.00	22.00	23.00	22.00
LTE Band17	Ant.0	23.80	23.80	22.80	22.80	21.80	21.80	22.80	21.80
LTE Band17	Ant.1	25.00	25.00	24.00	24.00	23.00	23.00	24.00	23.00
LTE Band18	Ant.0	23.80	22.80	22.30	22.80	21.80	21.80	22.80	21.80
LTE Band18	Ant.1	25.00	22.00	21.00	22.50	21.50	21.50	22.50	21.50
LTE Band19	Ant.0	23.80	22.30	21.30	21.80	20.80	20.80	21.80	20.80
LTE Band19	Ant.1	25.00	22.00	21.00	22.00	21.00	21.00	22.00	21.00
LTE Band26	Ant.0	23.80	21.80	20.80	21.80	20.80	20.80	21.80	20.80
LTE Band26	Ant.1	25.00	21.50	20.50	22.00	21.00	21.00	22.00	21.00
LTE Band28	Ant.0	23.80	22.30	21.30	22.30	21.30	21.30	22.30	21.30
LTE Band28	Ant.1	25.00	23.00	22.50	23.50	22.50	22.50	23.50	22.50
LTE Band66	Ant.3	24.80	17.30	16.30	22.80	21.30	21.30	22.80	21.30
LTE Band66	Ant.4	25.00	25.00	25.00	22.50	21.50	21.50	22.50	21.50
LTE Band66	Ant.5	23.20	21.70	20.70	21.20	19.70	19.70	21.20	19.70
LTE Band38	Ant.3	24.80	20.80	19.30	22.80	21.30	21.30	22.80	21.30
LTE Band38	Ant.4	25.00	25.00	25.00	25.00	24.00	24.00	25.00	24.00
LTE Band38	Ant.5	22.50	22.50	21.50	22.50	22.00	22.00	22.50	22.00
LTE Band41(PC3)	Ant.3	24.80	21.30	20.30	23.80	22.30	22.30	23.80	22.30
LTE Band41(PC3)	Ant.4	25.00	25.00	25.00	25.00	24.50	24.50	25.00	24.50
LTE Band41(PC3)	Ant.5	22.50	22.00	20.50	22.50	22.50	22.50	22.50	22.50
LTE Band41(PC2)	Ant.3	26.10	23.10	22.10	25.60	24.10	24.10	25.60	24.10
LTE Band41(PC2)	Ant.4	26.30	26.30	26.30	26.30	25.80	25.80	26.30	25.80
LTE Band41(PC2)	Ant.5	23.80	23.80	22.80	23.80	23.80	23.80	23.80	23.80
LTE Band48	Ant.5	24.30	19.30	18.30	20.80	18.80	18.80	20.80	18.80
LTE Band48	Ant.6	20.40	20.40	19.90	20.40	20.40	20.40	20.40	20.40
LTE Band48	Ant.7	25.00	18.00	17.00	20.50	19.00	19.00	20.50	19.00
LTE Band48	Ant.10	21.80	17.80	16.80	20.30	18.30	18.30	20.30	18.30
n2	Ant.3	24.10	19.10	18.10	22.10	19.60	19.60	22.10	19.60
n2	Ant.4	24.30	24.30	24.30	22.30	21.30	21.30	22.30	21.30
n5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
n5	Ant.1	25.00	21.50	20.50	21.50	20.00	20.00	21.50	20.00

n7	Ant.3	25.20	18.20	17.20	20.70	19.20	19.20	20.70	19.20
n7	Ant.4	25.40	25.40	25.40	22.90	20.90	20.90	22.90	20.90
n7	Ant.5	22.90	19.90	18.90	22.90	21.40	21.40	22.90	21.40
n12	Ant.0	23.80	23.80	23.80	22.80	21.30	21.30	22.80	21.30
n12	Ant.1	25.00	25.00	25.00	24.00	23.00	23.00	24.00	23.00
n26	Ant.0	23.80	21.30	20.30	21.80	20.80	20.80	21.80	20.80
n26	Ant.1	25.00	21.00	20.00	22.00	21.00	21.00	22.00	21.00
n66	Ant.3	24.80	16.80	17.30	22.30	20.80	20.80	22.30	20.80
n66	Ant.4	25.00	25.00	25.00	22.00	21.00	21.00	22.00	21.00
n66	Ant.5	23.20	21.20	20.70	20.70	19.20	19.20	20.70	19.20
n38	Ant.3	25.20	18.70	17.20	20.70	19.20	19.20	20.70	19.20
n38	Ant.4	25.40	25.40	25.40	23.40	21.90	21.90	23.40	21.90
n38	Ant.5	22.90	20.90	19.40	22.90	22.90	22.90	22.90	22.90
n41(PC3)	Ant.3	25.20	18.20	16.20	19.20	17.70	17.70	19.20	17.70
n41(PC3)	Ant.4	25.40	25.40	25.40	22.40	19.90	19.90	22.40	19.90
n41(PC3)	Ant.5	22.90	19.40	17.40	22.90	21.40	21.40	22.90	21.40
n41(PC2)	Ant.3	26.50	18.50	17.50	20.50	19.00	19.00	20.50	19.00
n41(PC2)	Ant.4	26.70	26.70	26.70	23.70	21.20	21.20	23.70	21.20
n41(PC2)	Ant.5	24.20	20.70	18.70	24.20	22.70	22.70	24.20	22.70

LTE-UL CA Configurations	UL CA		Antenna Configurations		
	Band1	Band2	1	2	3
CA_2C	LTE Band2	LTE Band2	LTE Ant.3	LTE Ant.4	/
CA_7C	LTE Band7	LTE Band7	LTE Ant.3	LTE Ant.4	LTE Ant.5
CA_38C	LTE Band38	LTE Band38	LTE Ant.3	LTE Ant.4	LTE Ant.5
CA_41C	LTE Band41	LTE Band41	LTE Ant.3	LTE Ant.4	LTE Ant.5
CA_4A_5A	LTE Band4	LTE Band5	LTE Ant.3	LTE Ant.4	LTE Ant.5
			LTE Ant.0	LTE Ant.1	/
CA_5A_7A	LTE Band5	LTE Band7	LTE Ant.0	LTE Ant.1	/
			LTE Ant.3	LTE Ant.4	LTE Ant.5
CA_5A_66A	LTE Band5	LTE Band66	LTE Ant.0	LTE Ant.1	/
			LTE Ant.3	LTE Ant.4	LTE Ant.5

Mode	Band	Antenna	LTE-Inter CA Antenna							
			Full Power	Receiver on		Receiver off				
				Head		Body-worn		Hotspot	Specific	
				Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Standalone	Simultaneous transmission

				WWAN	WWAN + WLAN	WWAN	WWAN + WLAN	WWAN + WLAN	WWAN	WWAN + WLAN
			Off	State5	State10	State3	State8	State8	State3	State8
CA_4A+5A	LTE Band4	Ant.3	24.80	17.80	16.80	22.30	21.30	21.30	22.30	21.30
	LTE Band4	Ant.4	25.00	25.00	25.00	22.50	21.50	21.50	22.50	21.50
	LTE Band4	Ant.5	23.20	21.20	20.20	21.20	19.70	19.70	21.20	19.70
	LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
	LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00
CA_5A+7A	LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
	LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00
	LTE Band7	Ant.3	24.80	18.30	17.30	21.30	19.80	19.80	21.30	19.80
	LTE Band7	Ant.4	25.00	25.00	25.00	23.50	21.50	21.50	23.50	21.50
	LTE Band7	Ant.5	22.50	19.00	18.00	22.50	21.00	21.00	22.50	21.00
CA_5A+66A	LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
	LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00
	LTE Band66	Ant.3	24.80	17.30	16.30	22.80	21.30	21.30	22.80	21.30
	LTE Band66	Ant.4	25.00	25.00	25.00	22.50	21.50	21.50	22.50	21.50
	LTE Band66	Ant.5	23.20	21.70	20.70	21.20	19.70	19.70	21.20	19.70



EN-DC Configurations	E-UTRA	NR	Antenna Configurations					
	Band	Band	1	2	3	4	5	6
7A+n5A	LTE Band7	n5	LTE Ant.3	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.4	LTE Ant.5
			nr Ant.0	nr Ant.0	nr Ant.0	nr Ant.1	nr Ant.1	nr Ant.1
66A+n5A	LTE Band66	n5	LTE Ant.3	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.4	LTE Ant.5
			nr Ant.0	nr Ant.0	nr Ant.0	nr Ant.1	nr Ant.1	nr Ant.1
2A+n7A	LTE Band2	n7	LTE Ant.3	LTE Ant.5	/	/	/	
			nr Ant.4	nr Ant.4	/	/	/	/
4A+n7A	LTE Band4	n7	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
5A+n7A	LTE Band5	n7	LTE Ant.0	LTE Ant.0	LTE Ant.0	LTE Ant.1	LTE Ant.1	LTE Ant.1
			nr Ant.3	nr Ant.4	nr Ant.5	nr Ant.3	nr Ant.4	nr Ant.5
66A+n7A	LTE Band66	n7	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
7A+n26A	LTE Band7	n26	LTE Ant.3	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.4	LTE Ant.5
			nr Ant.0	nr Ant.0	nr Ant.0	nr Ant.1	nr Ant.1	nr Ant.1
2A+n66A	LTE Band2	n66	LTE Ant.3	LTE Ant.5	/	/	/	/
			nr Ant.4	nr Ant.4	/	/	/	/
5A+n66A	LTE Band5	n66	LTE Ant.0	LTE Ant.0	LTE Ant.0	LTE Ant.1	LTE Ant.1	LTE Ant.1
			nr Ant.3	nr Ant.4	nr Ant.5	nr Ant.3	nr Ant.4	nr Ant.5
7A+n66A	LTE Band7	n66	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
12A+n66A	LTE Band12	n66	LTE Ant.0	LTE Ant.0	LTE Ant.0	LTE Ant.1	LTE Ant.1	LTE Ant.1
			nr Ant.3	nr Ant.4	nr Ant.5	nr Ant.3	nr Ant.4	nr Ant.5
2A+n38A	LTE Band2	n38	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
4A+n38A	LTE Band4	n38	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
5A+n38A	LTE Band5	n38	LTE Ant.0	LTE Ant.0	LTE Ant.0	LTE Ant.1	LTE Ant.1	LTE Ant.1
			nr Ant.3	nr Ant.4	nr Ant.5	nr Ant.3	nr Ant.4	nr Ant.5
66A+n38A	LTE Band66	n38	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
2A+n41A	LTE Band2	n41	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
4A+n41A	LTE Band4	n41	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5
26A+n41A	LTE Band26	n41	LTE Ant.0	LTE Ant.0	LTE Ant.0	LTE Ant.1	LTE Ant.1	LTE Ant.1
			nr Ant.3	nr Ant.4	nr Ant.5	nr Ant.3	nr Ant.4	nr Ant.5
66A+n41A	LTE Band66	n41	LTE Ant.4	LTE Ant.5	LTE Ant.3	LTE Ant.5	LTE Ant.3	LTE Ant.4
			nr Ant.3	nr Ant.3	nr Ant.4	nr Ant.4	nr Ant.5	nr Ant.5

Mode	Band	Antenna	WWAN Antenna								
			Full Power	Receiver on				Receiver off			
				Head		Body-worn		Hotspot	Specific		
				Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Standalone	Simultaneous transmission	
				WWAN	WWAN + WLAN	WWAN	WWAN + WLAN	WWAN + WLAN	WWAN	WWAN + WLAN	
Off	State5	State10	State3	State8	State8	State3	State8				
DC_7A+n5A	LTE Band7	Ant.3	24.80	18.30	17.30	21.30	19.80	19.80	21.30	19.80	
	LTE Band7	Ant.4	25.00	25.00	25.00	23.50	21.50	21.50	23.50	21.50	
	LTE Band7	Ant.5	22.50	19.00	18.00	22.50	21.00	21.00	22.50	21.00	
	n5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80	
	n5	Ant.1	25.00	21.50	20.50	21.50	20.00	20.00	21.50	20.00	
DC_66A+n5A	LTE Band66	Ant.3	24.80	17.30	16.30	22.80	21.30	21.30	22.80	21.30	
	LTE Band66	Ant.4	25.00	25.00	25.00	22.50	21.50	21.50	22.50	21.50	
	LTE Band66	Ant.5	23.20	21.70	20.70	21.20	19.70	19.70	21.20	19.70	
	n5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80	
	n5	Ant.1	25.00	21.50	20.50	21.50	20.00	20.00	21.50	20.00	
DC_2A_n7A	LTE Band2	Ant.3	23.80	18.80	18.30	22.30	20.80	20.80	22.30	20.80	
	LTE Band2	Ant.5	22.20	21.20	20.20	21.20	19.20	19.20	21.20	19.20	
	n7	Ant.4	25.40	25.40	25.40	22.90	20.90	20.90	22.90	20.90	
DC_4A_n7A	LTE Band4	Ant.3	23.80	16.80	15.80	21.30	20.30	20.30	21.30	20.30	
	LTE Band4	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50	
	LTE Band4	Ant.5	22.20	20.20	19.20	20.20	18.70	18.70	20.20	18.70	
	n7	Ant.3	25.20	18.20	17.20	20.70	19.20	19.20	20.70	19.20	
	n7	Ant.4	25.40	25.40	25.40	22.90	20.90	20.90	22.90	20.90	
	n7	Ant.5	22.90	19.90	18.90	22.90	21.40	21.40	22.90	21.40	
DC_5A_n7A	LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80	
	LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00	
	n7	Ant.3	25.20	18.20	17.20	20.70	19.20	19.20	20.70	19.20	
	n7	Ant.4	25.40	25.40	25.40	22.90	20.90	20.90	22.90	20.90	
	n7	Ant.5	22.90	19.90	18.90	22.90	21.40	21.40	22.90	21.40	
DC_66A_n7A	LTE Band66	Ant.3	23.80	16.30	15.30	21.80	20.30	20.30	21.80	20.30	
	LTE Band66	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50	
	LTE Band66	Ant.5	22.20	20.70	19.70	20.20	18.70	18.70	20.20	18.70	
	n7	Ant.3	25.20	18.20	17.20	20.70	19.20	19.20	20.70	19.20	
	n7	Ant.4	25.40	25.40	25.40	22.90	20.90	20.90	22.90	20.90	
	n7	Ant.5	22.90	19.90	18.90	22.90	21.40	21.40	22.90	21.40	
DC_7A_n26A	LTE Band7	Ant.3	24.80	18.30	17.30	21.30	19.80	19.80	21.30	19.80	
	LTE Band7	Ant.4	25.00	25.00	25.00	23.50	21.50	21.50	23.50	21.50	
	LTE Band7	Ant.5	22.50	19.00	18.00	22.50	21.00	21.00	22.50	21.00	
	n26	Ant.0	23.80	21.30	20.30	21.80	20.80	20.80	21.80	20.80	
	n26	Ant.1	25.00	21.00	20.00	22.00	21.00	21.00	22.00	21.00	

DC_2A_n66A	LTE Band2	Ant.3	23.80	18.80	18.30	22.30	20.80	20.80	22.30	20.80
	LTE Band2	Ant.5	22.20	21.20	20.20	21.20	19.20	19.20	21.20	19.20
	n66	Ant.4	25.00	25.00	25.00	22.00	21.00	21.00	22.00	21.00
DC_5A_n66A	LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
	LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00
	n66	Ant.3	24.80	16.80	17.30	22.30	20.80	20.80	22.30	20.80
	n66	Ant.4	25.00	25.00	25.00	22.00	21.00	21.00	22.00	21.00
	n66	Ant.5	23.20	21.20	20.70	20.70	19.20	19.20	20.70	19.20
DC_7A_n66A	LTE Band7	Ant.3	23.80	17.30	16.30	20.30	18.80	18.80	20.30	18.80
	LTE Band7	Ant.4	24.00	24.00	24.00	22.50	20.50	20.50	22.50	20.50
	LTE Band7	Ant.5	21.30	17.80	16.80	21.30	19.80	19.80	21.30	19.80
	n66	Ant.3	24.80	16.80	17.30	22.30	20.80	20.80	22.30	20.80
	n66	Ant.4	25.00	25.00	25.00	22.00	21.00	21.00	22.00	21.00
	n66	Ant.5	23.20	21.20	20.70	20.70	19.20	19.20	20.70	19.20
DC_12A_n66A	LTE Band12	Ant.0	23.80	23.80	22.80	22.80	21.80	21.80	22.80	21.80
	LTE Band12	Ant.1	25.00	25.00	24.00	23.50	22.50	22.50	23.50	22.50
	n66	Ant.3	24.80	16.80	17.30	22.30	20.80	20.80	22.30	20.80
	n66	Ant.4	25.00	25.00	25.00	22.00	21.00	21.00	22.00	21.00
	n66	Ant.5	23.20	21.20	20.70	20.70	19.20	19.20	20.70	19.20
DC_2A_n38A	LTE Band2	Ant.3	23.80	18.80	18.30	22.30	20.80	20.80	22.30	20.80
	LTE Band2	Ant.4	24.00	24.00	24.00	22.00	21.00	21.00	22.00	21.00
	LTE Band2	Ant.5	22.20	21.20	20.20	21.20	19.20	19.20	21.20	19.20
	n38	Ant.3	25.20	18.70	17.20	20.70	19.20	19.20	20.70	19.20
	n38	Ant.4	25.40	25.40	25.40	23.40	21.90	21.90	23.40	21.90
	n38	Ant.5	22.90	20.90	19.40	22.90	22.90	22.90	22.90	22.90
DC_4A_n38A	LTE Band4	Ant.3	23.80	16.80	15.80	21.30	20.30	20.30	21.30	20.30
	LTE Band4	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50
	LTE Band4	Ant.5	22.20	20.20	19.20	20.20	18.70	18.70	20.20	18.70
	n38	Ant.3	25.20	18.70	17.20	20.70	19.20	19.20	20.70	19.20
	n38	Ant.4	25.40	25.40	25.40	23.40	21.90	21.90	23.40	21.90
	n38	Ant.5	23.60	21.60	20.10	23.60	23.60	23.60	23.60	23.60
DC_5A_n38A	LTE Band5	Ant.0	23.80	21.80	20.80	21.30	20.80	20.80	21.30	20.80
	LTE Band5	Ant.1	25.00	21.50	20.50	21.50	21.00	21.00	21.50	21.00
	n38	Ant.3	25.20	18.70	17.20	20.70	19.20	19.20	20.70	19.20
	n38	Ant.4	25.40	25.40	25.40	23.40	21.90	21.90	23.40	21.90
	n38	Ant.5	22.90	20.90	19.40	22.90	22.90	22.90	22.90	22.90
DC_66A_n38A	LTE Band66	Ant.3	23.80	16.30	15.30	21.80	20.30	20.30	21.80	20.30
	LTE Band66	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50
	LTE Band66	Ant.5	22.20	20.70	19.70	20.20	18.70	18.70	20.20	18.70
	n38	Ant.3	25.20	18.70	17.20	20.70	19.20	19.20	20.70	19.20
	n38	Ant.4	25.40	25.40	25.40	23.40	21.90	21.90	23.40	21.90
	n38	Ant.5	23.60	21.60	20.10	23.60	23.60	23.60	23.60	23.60
DC_2A_n41A	LTE Band2	Ant.3	23.80	18.80	18.30	22.30	20.80	20.80	22.30	20.80

	LTE Band2	Ant.4	24.00	24.00	24.00	22.00	21.00	21.00	22.00	21.00
	LTE Band2	Ant.5	22.20	21.20	20.20	21.20	19.20	19.20	21.20	19.20
	n41	Ant.3	25.20	17.20	16.20	19.20	17.70	17.70	19.20	17.70
	n41	Ant.4	25.40	25.40	25.40	22.40	19.90	19.90	22.40	19.90
	n41	Ant.5	22.90	19.40	17.40	22.90	21.40	21.40	22.90	21.40
DC_4A_n41A	LTE Band4	Ant.3	23.80	16.80	15.80	21.30	20.30	20.30	21.30	20.30
	LTE Band4	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50
	LTE Band4	Ant.5	22.20	20.20	19.20	20.20	18.70	18.70	20.20	18.70
	n41	Ant.3	25.20	17.20	16.20	19.20	17.70	17.70	19.20	17.70
	n41	Ant.4	25.40	25.40	25.40	22.40	19.90	19.90	22.40	19.90
	n41	Ant.5	22.90	19.40	17.40	22.90	21.40	21.40	22.90	21.40
DC_26A_n41A	LTE Band26	Ant.0	23.80	21.80	20.80	21.80	20.80	20.80	21.80	20.80
	LTE Band26	Ant.1	25.00	21.50	20.50	22.00	21.00	21.00	22.00	21.00
	n41	Ant.3	25.20	17.20	16.20	19.20	17.70	17.70	19.20	17.70
	n41	Ant.4	25.40	25.40	25.40	22.40	19.90	19.90	22.40	19.90
	n41	Ant.5	22.90	19.40	17.40	22.90	21.40	21.40	22.90	21.40
DC_66A_n41A	LTE Band66	Ant.3	23.80	16.30	15.30	21.80	20.30	20.30	21.80	20.30
	LTE Band66	Ant.4	24.00	24.00	24.00	21.50	20.50	20.50	21.50	20.50
	LTE Band66	Ant.5	22.20	20.70	19.70	20.20	18.70	18.70	20.20	18.70
	n41	Ant.3	25.20	17.20	16.20	19.20	17.70	17.70	19.20	17.70
	n41	Ant.4	25.40	25.40	25.40	22.40	19.90	19.90	22.40	19.90
	n41	Ant.5	22.90	19.40	17.40	22.90	21.40	21.40	22.90	21.40

1. \*Pmax is used for RF tune up procedure. The maximum allowed output power is equal to Pmax - 2.0 dB uncertainty.
2. \*\*AI Pmit power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD).
3. The max allowed outout power is the Pimt - 2dB device uncertainty, and if Pimt is higher than Pmax, the device outputpower will be Pmax instead.
4. The following table is duty cycle and factor used for calculating time average power.

GSM/FDD/TT	Duty Cycle(%)	Time average calculation factor(dB)
GSM 1TX	12.5	-9
GSM 2TX	25	-6
GSM 3TX	37.5	-4.3
GSM 4TX	50	-3
LTE FDD	100	0
LTE TDD	63.3	-2
NR FDD/TDD	100	0

--END OF REPORT--