

TEST REPORT

(Part 0: SAR Characterization)

Applicant: vivo Mobile Communication Co., Ltd.
Address: No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Equipment Type: Mobile Phone
Model Name: V2436
Brand Name: vivo
FCC ID: 2AUCY -V2436
Sample Arrival Date: May 12, 2025
Test Date: May 13, 2025 - May 15, 2025
Date of Issue: May 20, 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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Revision History		
Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>May 20, 2025</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION.....	3
1.1	Test Laboratory	3
1.2	Test Location	3
1.3	Test Environment Condition.....	3
2	INTRPDUCTION.....	4
2.1	Time-Averaging for SAR	4
2.2	Nomenclature for this Report.....	4
2.3	Bibliography.....	4
3	PRODUCT INFORMATION	5
3.1	Technical Information	5
4	SAR CHARACTERIZATIO.....	7
4.1	DSI and SAR Determination	7
4.2	SAR design Target and Uncertainty.....	11
4.3	SAR Char Table	11

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	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☒ 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-SZ2550217-702
FCC Part1 SAR Test Report	BL-SZ24C1257-701
FCC Part 2 RF Exposure Test Report	BL-SZ2550217-701

3 PRODUCT INFORMATION

3.1 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/13/17/18/19/26/66 TDD LTE Band 38/41 LTE CA Uplink (UL): CA_7C, CA_41C, CA_66C, CA_2A-4A, CA_2A-7A, CA_4A-5A, CA_4A-7A, CA_5A-7A, CA_5A-66A, CA_7A-4A 5G Network SA: NR n2/n5/n7/n26/n38/n41/n66/n77/n78 NSA(EN-DC): DC_4A_n2A, DC_66A_n2A, DC_7A_n2A, DC_4A_n38A, DC_66A_n38A, DC_4A_n41A, DC_66A_n41A, DC_7A_n5A, DC_2A_n66A, DC_5A_n66A, DC_7A_n66A, DC_2A_n7A, DC_4A_n7A, DC_5A_n7A, DC_66A_n7A, DC_7A_n77A, DC_2A_n78A, DC_38A_n78A, DC_41A_n78A, DC_4A_n78A, DC_5A_n78A, DC_66A_n78A, DC_7A_n78A Bluetooth (BR+EDR+BLE) WIFI 802.11b, 802.11g, WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) GPS, GLONASS, BDS, Galileo, QZSS, SBAS, NFC
Note: 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.	

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

Operating Mode	GSM, WCDMA, LTE, 2.4G WIFI, 5G WIFI, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 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
	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 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 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 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 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
	NR n77	TX: 3450 ~ 3550MHz	RX: 3450 ~ 3550MHz
		TX: 3700 ~ 3980MHz	RX: 3700~ 3980MHz
	NR n78	TX: 3450 ~ 3550MHz	RX: 3450 ~ 3550MHz
		TX: 3700 ~ 3800MHz	RX: 3700~ 3980MHz
	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: PIFA Antenna WIFI: PIFA Antenna Bluetooth: PIFA Antenna NFC: Loop Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		
Product Type	Portable Device		
EUT Type	☒ Production unit	☐ 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 conditions	Sensor	Position	Antenna	Power reduced bands
DSI2	On (head scenario)	WWAN Use Only	/	Head	Ant.11	LTE B4/7/66/38/41
						n7/66/38/41/77/78
					Ant.12	n77/78
					Ant.13	GSM850/1900
						WCDMA B2/4/5
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
						n2/5/7/26/66/38/41
					Ant.21	n77/78
					Ant.23	n77/78
					Ant.31	GSM850/1900
						WCDMA B2/4/5
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
						n2/5/7/26/66/38/41

DSI3	On (head scenario)	WWAN + WLAN	/	Head	Ant.11	LTE B4/7/66/38/41	
						n7/66/38/41/77/78	
					Ant.12	n77/78	
					Ant.13	GSM850/1900	
						WCDMA B2/4/5	
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41	
						LTE B2/4/5/7/66/38/41	
						n2/5/7/26/66/38/41	
					Ant.21	n77/78	
					Ant.23	n77/78	
					Ant.31	GSM850/1900	
						WCDMA B2/4/5	
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41	
						LTE B2/4/5/7/66/38/41	
						n2/5/7/26/66/38/41	
DSI4	Off (Body scenario)	WWAN Use Only	Off (SensorA) +Off (SensorB)	Front Side;Back Side;Left Edge;Right Edge;Top Edge;Bottom Edge	Ant.11	LTE B4/7/66/38/41	
						n7/66/38/41/77/78	
					Ant.13	GSM850/1900	
						WCDMA B2/4/5	
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41	
						LTE B2/4/5/7/66/38/41	
						n2/5/7/26/66/38/41	
			/		Ant.12	n77/78	
					Ant.21	n77/78	
					Ant.23	n77/78	
					Ant.31	GSM850/1900	
						WCDMA B2/4/5	

						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
						n2/5/7/26/66/38/41
DSI5	Off (Body scenario)	WWAN Use Only	On (SensorA) +On (SensorB)	Front Side;Back Side;Right Edge	Ant.11	LTE B4/7/66/38/41
						n7/66/38/41/77/78
				Front Side;Back Side;Top Edge	Ant.13	GSM850/1900
						WCDMA B2/4/5
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
DSI8	Off (Body scenario)	WWAN + WLAN	On (SensorA) +On (SensorB)	Front Side;Back Side;Right Edge	Ant.11	LTE B4/7/66/38/41
						n7/66/38/41/77/78
				Front Side;Back Side;Top Edge	Ant.13	GSM850/1900
						WCDMA B2/4/5
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
DSI9	Off (Body scenario)	WWAN + WLAN	On (SensorA) +Off (SensorB)	Front Side;Back Side	Ant.11	LTE B4/7/66/38/41
						n7/66/38/41/77/78
DSI10	Off (Body scenario)	WWAN + WLAN	Off (SensorA)	Front Side;Back Side;Left Edge;Right Edge;Top Edge;Bottom Edge	Ant.13	GSM850/1900
						WCDMA B2/4/5
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
						n2/5/7/26/66/38/41
			/		Ant.12	n77/78
						n7/66/38/41/77/78

					Ant.21	n77/78
					Ant.23	n77/78
					Ant.31	GSM850/1900
						WCDMA B2/4/5
						LTE B2/4/5/7/12/13/17/18/19/26/66/38/41
						LTE B2/4/5/7/66/38/41
			n2/5/7/26/66/38/41			
		Hotspot	Front Side;Back Side;Left Edge;Right Edge;Top Edge;Bottom Edge	Ant.11	LTE B4/7/66/38/41	
					n7/66/38/41/77/78	
				Ant.12	n77/78	
	Ant.13			GSM850/1900		
				WCDMA B2/4/5		
				LTE B2/4/5/7/12/13/17/18/19/26/66/38/41		
				LTE B2/4/5/7/66/38/41		
				n2/5/7/26/66/38/41		
	Ant.21			n77/78		
	Ant.23			n77/78		
	Ant.31			GSM850/1900		
				WCDMA B2/4/5		
		LTE B2/4/5/7/12/13/17/18/19/26/66/38/41				
		LTE B2/4/5/7/66/38/41				
		n2/5/7/26/66/38/41				

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)
	1.414

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)	0.71	1.01
Body-worn(1g)	0.57	1.00
Hotspot(1g)	0.71	0.91
Limbs(10g)	2.05	2.27

4.3 SAR Char Table

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

Mode	Antenna	WWAN Antenna											
		Full Power	Receiver on		Receiver off								
			Head		Body-Worn		Hotspot	Extremity					
			Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Standalone	Simultaneous transmission				
		Off	DSI2	DSI3	DSI4	DSI9	DSI10	DSI10	DSI4	DSI5	DSI8	DSI9	DSI10
GSM 850	Ant.13	33.50	32.50	32.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50
GSM 850	Ant.31	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50
GSM 1900	Ant.13	30.50	28.00	28.00	30.50	30.00	30.00	30.00	30.50	30.50	30.00	30.00	30.00
GSM 1900	Ant.31	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50

WCDMA Band2 RMC	Ant.13	25.00	17.00	17.00	25.00	21.00	21.00	21.00	25.00	21.00	21.00	21.00	21.00
WCDMA Band2 RMC	Ant.31	25.00	25.00	25.00	23.00	21.00	21.00	21.00	23.00	23.00	21.00	21.00	21.00
WCDMA Band4 RMC	Ant.13	25.00	17.00	17.00	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50
WCDMA Band4 RMC	Ant.31	25.00	25.00	25.00	21.00	20.50	20.50	20.50	21.00	21.00	20.50	20.50	20.50
WCDMA Band5 RMC	Ant.13	25.00	23.00	23.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
WCDMA Band5 RMC	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 2	Ant.13	24.50	18.00	18.00	24.50	20.50	20.50	20.50	24.50	21.00	20.50	20.50	20.50
LTE Band 2	Ant.31	24.50	24.50	24.50	23.00	20.50	20.50	20.50	23.00	23.00	20.50	20.50	20.50
LTE Band 4	Ant.13	24.50	17.50	17.50	24.50	21.00	21.00	21.00	24.50	21.50	21.00	21.00	21.00
LTE Band 4	Ant.31	24.50	24.50	24.50	21.50	20.50	20.50	20.50	21.50	21.50	20.50	20.50	20.50
LTE Band 4	Ant.11	24.50	23.50	23.50	24.50	21.50	21.50	21.50	24.50	23.00	21.50	21.50	21.50
LTE Band 5	Ant.13	25.00	23.00	23.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 5	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 7	Ant.13	24.00	13.00	13.00	21.50	14.50	14.50	14.50	21.50	19.00	14.50	14.50	14.50
LTE Band 7	Ant.31	24.00	24.00	24.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
LTE Band 7	Ant.11	24.00	18.00	18.00	24.00	18.00	18.00	18.00	24.00	19.00	18.00	18.00	18.00

LTE Band 12	Ant.13	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 12	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 13	Ant.13	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 13	Ant.31	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 17	Ant.13	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 17	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 18	Ant.13	24.50	22.50	22.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 18	Ant.31	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 19	Ant.13	24.50	22.50	22.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 19	Ant.31	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 26	Ant.13	25.00	23.00	23.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 26	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 66	Ant.13	24.50	17.50	17.50	24.50	21.00	21.00	21.00	24.50	21.50	21.00	21.00	21.00
LTE Band 66	Ant.31	24.50	24.50	24.50	21.50	20.50	20.50	20.50	21.50	21.50	20.50	20.50	20.50
LTE Band 66	Ant.11	24.50	23.50	23.50	24.50	22.50	22.50	22.50	24.50	23.00	22.50	22.50	22.50
LTE Band 38	Ant.13	24.70	16.70	16.70	24.70	18.20	18.20	18.20	24.70	22.20	18.20	18.20	18.20
LTE Band 38	Ant.31	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70
LTE Band 38	Ant.11	24.70	21.20	21.20	24.70	19.70	19.70	19.70	24.70	21.20	19.70	19.70	19.70

LTE Band 41	Ant.13	24.70	16.20	16.20	23.70	17.70	17.70	17.70	23.70	20.20	17.70	17.70	17.70
LTE Band 41	Ant.31	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70	24.70
LTE Band 41	Ant.11	24.70	20.70	20.70	24.70	19.70	19.70	19.70	24.70	21.70	19.70	19.70	19.70
n2	Ant.13	24.50	18.00	18.00	24.50	20.50	20.50	20.50	24.50	21.00	20.50	20.50	20.50
n2	Ant.31	24.50	24.50	24.50	23.00	21.50	21.50	21.50	23.00	23.00	21.50	21.50	21.50
n5	Ant.13	25.00	23.00	23.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
n5	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
n7	Ant.13	24.50	13.50	13.50	22.00	14.50	14.50	14.50	22.00	19.00	14.50	14.50	14.50
n7	Ant.31	24.50	24.50	24.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
n7	Ant.11	24.50	18.50	18.50	24.50	18.50	18.50	18.50	24.50	19.50	18.50	18.50	18.50
n26	Ant.13	25.00	23.00	23.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
n26	Ant.31	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
n66	Ant.13	24.50	18.50	18.50	24.50	21.00	21.00	21.00	24.50	21.50	21.00	21.00	21.00
n66	Ant.31	24.50	24.50	24.50	21.50	20.50	20.50	20.50	21.50	21.50	20.50	20.50	20.50
n66	Ant.11	24.50	23.00	23.00	24.50	22.50	22.50	22.50	24.50	23.00	22.50	22.50	22.50
n38	Ant.13	24.50	14.00	14.00	22.00	15.50	15.50	15.50	22.00	19.50	15.50	15.50	15.50
n38	Ant.31	24.50	24.50	24.50	22.50	21.50	21.50	21.50	22.50	22.50	21.50	21.50	21.50
n38	Ant.11	24.50	18.50	18.50	24.50	17.00	17.00	17.00	24.50	19.00	17.00	17.00	17.00

n41	Ant.13	26.00	14.00	14.00	22.00	16.00	16.00	16.00	22.00	19.50	16.00	16.00	16.00
n41	Ant.31	26.00	26.00	26.00	23.00	22.00	22.00	22.00	23.00	23.00	22.00	22.00	22.00
n41	Ant.11	26.00	17.50	17.50	24.00	17.50	17.50	17.50	24.00	19.00	17.50	17.50	17.50
n77	Ant.11	24.50	19.00	19.00	24.50	20.00	20.00	20.00	24.50	20.00	20.00	20.00	20.00
n77	Ant.12	24.50	18.50	18.50	24.50	22.50	22.50	22.50	24.50	22.50	22.50	22.50	22.50
n77	Ant.21	22.50	16.50	16.50	22.50	19.00	19.00	19.00	22.50	22.50	19.00	19.00	19.00
n77	Ant.23	22.50	16.50	16.50	21.50	19.00	19.00	19.00	21.50	21.50	19.00	19.00	19.00
n78	Ant.11	26.50	18.50	18.50	24.00	20.00	20.00	20.00	24.00	20.00	20.00	20.00	20.00
n78	Ant.12	27.00	18.00	18.00	24.50	23.00	23.00	23.00	24.50	23.00	23.00	23.00	23.00
n78	Ant.21	24.00	16.50	16.50	22.50	19.00	19.00	19.00	22.50	22.50	19.00	19.00	19.00
n78	Ant.23	23.50	15.50	15.50	21.00	18.50	18.50	18.50	21.00	21.00	18.50	18.50	18.50

EN-DC Configurations	EN-DC LTE bands	LTE Power									EN-DC NR bands	NR Power								
		Antenna	Full Power (dBm)	Head(Receiver on)		Body(Receiver off)						Antenna	Full Power (dBm)	Head(Receiver on)		Body(Receiver off)				
				Standalone	Simultaneous transmission	Standalone		Simultaneous transmission						Standalone	Simultaneous transmission	Standalone		Simultaneous transmission		
DSI2	DSI3	DSI4	DSI5	DSI8	DSI9	DSI10	DSI2	DSI3	DSI4	DSI5	DSI8	DSI9	DSI10							
ENDC LTE+N7	LTE Band2	ANT 13#	24.5	15.5	15.5	24.5	18.5	18.5	18.5	18.0	N7	ANT 11#	24.5	16.0	16.0	24.5	17.0	16.0	16.0	16.0
		ANT 31#	24.5	24.5	24.5	23.0	23.0	20.5	20.5	20.5										
	LTE Band4	ANT 13#	24.5	15.0	15.0	24.5	19.0	18.5	18.5	18.5										
		ANT 31#	24.5	24.5	24.5	21.5	21.5	20.5	20.5	20.5										

	LTE	ANT 13#	25.0	20.5	20.5	25. 0	25. 0	24. 0	24. 0	24.0										
		Band5	ANT 31#	25.0	25.0	25.0	25. 0	25. 0	25. 0	25. 0										
	LTE	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5										
		Band66	ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5										
ENDC LTE+N38	LTE	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5	N38	ANT 11#	24.5	16.5	16.5	24. 5	16. 5	14. 5	14. 5	14.5
		Band4	ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5										
	LTE	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5										
		Band66	ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5										
ENDC LTE+N41	LTE	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5	N41	ANT 11#	26.0	15.5	15.5	24. 0	16. 5	15. 0	15. 0	15.0
		Band4	ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5										
	LTE	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5										
		Band66	ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5										
ENDC LTE+N66	LTE	ANT 13#	24.5	15.5	15.5	24. 5	18. 5	18. 0	18. 0	18.0	N66	ANT 11#	24.5	20.5	20.5	24. 5	20. 5	20. 0	20. 0	20.0
		Band2	ANT 31#	24.5	24.5	24.5	23. 0	23. 0	20. 5	20. 5										
	LTE	ANT 13#	25.0	20.5	20.5	25. 0	25. 0	24. 0	24. 0	24.0										
		Band5	ANT 31#	25.0	25.0	25.0	25. 0	25. 0	25. 0	25. 0										
	LTE	ANT 13#	24.0	10.5	10.5	21. 5	16. 5	12. 0	12. 0	12.0										
		Band7	ANT 31#	24.0	24.0	24.0	22. 0	22. 0	22. 0	22. 0										
ENDC LTE+N2	LTE Band4	ANT 11#	24.5	21.0	21.0	24. 5	20. 5	19. 0	19. 0	19.0	N2	ANT 13#	24.5	15.5	15.5	24. 5	18. 5	18. 0	18. 0	
	LTE Band7	ANT 11#	24.0	16.0	16.0	24. 0	16. 5	15. 5	15. 5	15.5										
	LTE Band66	ANT 11#	24.5	21.0	21.0	24. 5	20. 5	20. 0	20. 0	20.0										
		LTE Band4	ANT 11#	24.5	21.0	21.0	24. 5	20. 5	19. 0	19. 0		19.0		ANT 31#	24.5	24.5	24.5	23. 0	20. 5	20. 5

	LTE Band7	ANT 11#	24.0	16.0	16.0	24. 0	16. 5	15. 5	15. 5	15.5										
	LTE Band66	ANT 11#	24.5	21.0	21.0	24. 5	20. 5	20. 0	20. 0	20.0										
ENDC LTE+N5	LTE Band7	ANT 11#	24.0	16.0	16.0	24. 0	16. 5	15. 5	15. 5	15.5	N5	ANT 13#	25.0	20.5	20.5	25. 0	25. 0	24. 0	24. 0	24.0
		ANT 31#	24.0	24.0	24.0	22. 0	22. 0	22. 0	22. 0	22.0										
ENDC LTE+N77	LTE Band7	ANT 13#	24.0	10.5	10.5	21. 5	16. 5	12. 0	12. 0	12.0	N77	ANT 11#	24.5	16.5	16.5	24. 5	19. 5	19. 0	19. 0	19.0
		ANT 31#	24.0	24.0	24.0	22. 0	22. 0	22. 0	22. 0	22.0										
	LTE Band7	ANT 13#	24.0	10.5	10.5	21. 5	16. 5	12. 0	12. 0	12.0		ANT 12#	24.5	16.0	16.0	24. 5	20. 0	20. 0	20. 0	20.0
		ANT 31#	24.0	24.0	24.0	22. 0	22. 0	22. 0	22. 0	22.0										
ENDC LTE+N78	LTE Band2	ANT 13#	24.5	15.5	15.5	24. 5	18. 5	18. 0	18. 0	18.0	N78	ANT 11#	26.5	16.0	16.0	24. 0	19. 0	18. 0	18. 0	18.0
		ANT 31#	24.5	24.5	24.5	23. 0	23. 0	20. 5	20. 5	20.5										
	LTE Band4	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5										
		ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5	20.5										
	LTE Band5	ANT 13#	25.0	20.5	20.5	25. 0	25. 0	24. 0	24. 0	24.0										
		ANT 31#	25.0	25.0	25.0	25. 0	25. 0	25. 0	25. 0	25.0										
	LTE Band7	ANT 13#	24.5	11.0	11.0	21. 5	17. 0	12. 5	12. 5	12.5										
		ANT 31#	24.5	24.5	24.5	22. 5	22. 5	22. 5	22. 5	22.5										
	LTE Band66	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5										
		ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5	20.5										
	LTE Band38	ANT 13#	24.7	14.2	14.2	24. 7	19. 7	17. 2	17. 2	17.2										
		ANT 31#	24.7	24.7	24.7	24. 7	24. 7	24. 7	24. 7	24.7										
	LTE Band41	ANT 13#	24.7	14.7	14.7	23. 7	17. 7	16. 2	16. 2	16.2										
		ANT 31#	24.7	24.7	24.7	24. 7	24. 7	24. 7	24. 7	24.7										

	LTE Band2	ANT 13#	24.5	15.5	15.5	24. 5	18. 5	18. 0	18. 0	18.0	ANT 12#	26.5	16.0	16.0	24. 5	20. 0	20. 0	20. 0	20.0
		ANT 31#	24.5	24.5	24.5	23. 0	23. 0	20. 5	20. 5	20.5									
	LTE Band4	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5									
		ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5	20.5									
	LTE Band5	ANT 13#	25.0	20.5	20.5	25. 0	25. 0	24. 0	24. 0	24.0									
		ANT 31#	25.0	25.0	25.0	25. 0	25. 0	25. 0	25. 0	25.0									
	LTE Band7	ANT 13#	24.5	11.0	11.0	21. 5	17. 0	12. 5	12. 5	12.5									
		ANT 31#	24.5	24.5	24.5	22. 5	22. 5	22. 5	22. 5	22.5									
	LTE Band66	ANT 13#	24.5	15.0	15.0	24. 5	19. 0	18. 5	18. 5	18.5									
		ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5	20.5									
	LTE Band38	ANT 13#	24.7	14.2	14.2	24. 7	19. 7	17. 2	17. 2	17.2									
		ANT 31#	24.7	24.7	24.7	24. 7	24. 7	24. 7	24. 7	24.7									
	LTE Band41	ANT 13#	24.7	14.7	14.7	23. 7	17. 7	16. 2	16. 2	16.2									
		ANT 31#	24.7	24.7	24.7	24. 7	24. 7	24. 7	24. 7	24.7									

LTE-UL CA Configura tions	UL CA bands	UL CA Power								UL CA band s	UL CA Power															
		Ante nna	Full Pow er (dB m)	Head(Receiver on)		Body(Receiver off)						Ante nna	Full Pow er (dB m)	Head(Receiver on)		Body(Receiver off)										
				Standal one	Simultan eous transmis sion	Standalone		Simultaneous transmission						Standal one	Simultan eous transmis sion	Standalone		Simultaneous transmission								
				DSI2	DSI3	DS I4	DS I5	DS I8	DS I9	DSI 10				DSI2	DSI3	DS I4	DS I5	DS I8	DS I9	DSI 10						
Intra- Band UL CA	LTE Band7	ANT 13#	24.0	13.0	13.0	21. 5	19. 0	14. 5	14. 5	14. 5	/															
		ANT 31#	24.0	24.0	24.0	22. 0	22. 0	22. 0	22. 0	22. 0																
		ANT 11#	24.0	18.0	18.0	24. 0	19. 0	18. 0	18. 0	18. 0																

	LTE Band41	ANT 13#	24.7	16.2	16.2	23. 7	20. 2	17. 7	17. 7	17. 7										
		ANT 31#	24.7	24.7	24.7	24. 7	24. 7	24. 7	24. 7	24. 7										
		ANT 11#	24.7	20.7	20.7	24. 7	21. 7	19. 7	19. 7	19. 7										
	LTE Band66	ANT 13#	24.5	17.5	17.5	24. 5	21. 5	21. 0	21. 0	21. 0										
		ANT 31#	24.5	24.5	24.5	21. 5	21. 5	20. 5	20. 5	20. 5										
		ANT 11#	24.5	23.5	23.5	24. 5	23. 0	22. 5	22. 5	22. 5										
	LTE Band2	ANT 13#	22.5	13.5	13.5	22. 5	16. 5	16. 0	16. 0	16. 0	LTE B4	ANT 11#	22.5	19.0	19.0	22. 5	18. 5	17. 0	17. 0	17. 0
		ANT 31#	22.5	22.5	22.5	21. 0	21. 0	18. 5	18. 5	18. 5										
Inter- Band UL CA	LTE Band2	ANT 13#	22.5	13.5	13.5	22. 5	16. 5	16. 0	16. 0	16. 0	LTE B7	ANT 11#	22.5	15.5	15.5	22. 5	15. 0	14. 0	14. 0	14. 0
		ANT 31#	22.5	22.5	22.5	21. 0	21. 0	18. 5	18. 5	18. 5										
	LTE Band4	ANT 11#	22.5	19.0	19.0	22. 5	18. 5	17. 0	17. 0	17. 0	LTE B5	ANT 13#	23.0	18.5	18.5	23. 0	23. 0	22. 0	22. 0	22. 0
												ANT 31#	23.0	23.0	23.0	23. 0	23. 0	23. 0	23. 0	23. 0
	LTE Band4	ANT 13#	22.5	14.0	14.0	22. 5	17. 0	16. 5	16. 5	16. 5	LTE B7	ANT 11#	22.5	15.5	15.5	22. 5	15. 0	14. 0	14. 0	14. 0
		ANT 31#	22.5	22.5	22.5	19. 5	19. 5	18. 5	18. 5	18. 5										
	LTE Band5	ANT 13#	23.0	18.5	18.5	23. 0	23. 0	22. 0	22. 0	22. 0	LTE B7	ANT 11#	22.5	15.5	15.5	22. 5	15. 0	14. 0	14. 0	14. 0
		ANT 31#	23.0	23.0	23.0	23. 0	23. 0	23. 0	23. 0	23. 0										
	LTE Band5	ANT 13#	23.0	18.5	18.5	23. 0	23. 0	22. 0	22. 0	22. 0	LTE B66	ANT 11#	22.5	18.5	18.5	22. 5	18. 5	18. 0	18. 0	18. 0
		ANT 31#	23.0	23.0	23.0	23. 0	23. 0	23. 0	23. 0	23. 0										
	LTE Band7	ANT 13#	22.5	9.0	9.0	21. 0	15. 0	10. 5	10. 5	10. 5	LTE B4	ANT 11#	22.5	19.0	19.0	22. 5	18. 5	17. 0	17. 0	17. 0
		ANT 31#	22.5	22.5	22.5	20. 5	20. 5	20. 5	20. 5	20. 5										

Note:

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--