



PART 0 SAR CHAR REPORT

No. 25T04Z100363-020

For

Luxshare Precision Limited

5G Mobile Phone

Model Name: TMRV08P5G

with

Hardware Version: V1.0

Software Version: TMRV08P5G_0.02.01

FCC ID: 2BNRMTMRV08P5G

Issued Date: 2025-06-10

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 CTTL.

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REPORT HISTORY

Report Number	Revision	Issue Date	Description
25T04Z100363-020	Rev.0	2025-06-06	Initial creation of test report
25T04Z100363-020	Rev.1	2025-06-10	1. Add TX frequency band information for LTE B48 and WIFI6E on page6. 2. Add description for DSIs on page7 which should be consistent with the Power Level B1/C1/D1/E1 described in the tune-up procedure.

TABLE OF CONTENT

1 TEST LABORATORY	4
1.1. INTRODUCTION & ACCREDITATION	4
1.2. TESTING LOCATION	4
1.3. TESTING ENVIRONMENT	4
1.4. PROJECT DATA	4
1.5. SIGNATURE	4
2 INTRODUCTION	5
3 EQUIPMENT UNDER TEST (EUT) OVERVIEW	6
4 SAR CHARACTERIZATION	7
4.1 DSI AND SAR DETERMINATION	7
4.2 SAR DESIGN TARGET AND UNCERTAINTY	8
4.2 SAR CHAR	9
5 MEASUREMENT UNCERTAINTY	11

1 Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Location 1: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China 100191

1.3. Testing Environment

Normal Temperature: 18-25°C

Relative Humidity: 30-70%

1.4. Project data

Testing Start Date: 2025-03-10

Testing End Date: 2025-05-27

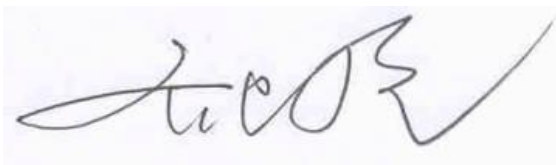
1.5. Signature



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Deputy Director of the laboratory
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2 Introduction

The equipment under test (EUT) is a smart phone. It contains the Qualcomm modem supporting 2G/3G/4G technologies and 5G NR Sub-6 GHz technologies. These modems enable Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is in compliance with the FCC requirement.

In the Part 0 report, the EUT SAR are characterized for WWAN radios (2G/3G/4G/Sub6 NR) to determine the power limit that corresponds to the exposure design target after accounting for all device design related uncertainties, i.e., SAR_design_target (< FCC SAR limit) for sub-6. The SAR characterization are denoted as SAR Char. SAR Char will be used as input for Qualcomm Smart Transmit to operate. SAR Char will be loaded and store in the EUT via the Embedded File System (EFS).

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

The EUT supports WLAN/BT radio as well but WLAN/BT modem is not enabled with Smart Transmit.

Nomenclature for Part 0 Report

Term	Description
P_{limit}	The time-averaged RF power which corresponds to SAR_design_target.
P_{max}	Maximum target power level
SAR_design_target:	The design target for SAR compliance. It should be less than regulatory power density limit to account for all device design related uncertainties.
SAR Char	P_{limit} for all the technologies/bands for all applicable DSI

3 Equipment Under Test (EUT) Overview

Description:	5G Mobile Phone
Model name:	TMRV08P5G
Tested Band:	GSM850/1900, WCDMA B2/4/5 LTE Band FDD:2/4/5/7/12/13/14/17/25/26/66/71 LTE Band TDD:38/41/48 5G NR n7/n25/n38/n41/n48/n66/n71/n78L BT, Wi-Fi(2.4G), Wi-Fi(5G), Wi-Fi(6E),NFC
Tx Frequency:	824 – 849 MHz (GSM 850)
	1850 – 1910 MHz (GSM 1900)
	824–849 MHz (WCDMA 850 Band V)
	1710 – 1755 MHz (WCDMA 1700 Band IV)
	1850–1910 MHz (WCDMA1900 Band II)
	1850 – 1910 MHz(LTE Band 2)
	1710 – 1755 MHz (LTE Band 4)
	824 – 849 MHz (LTE Band 5)
	2500 – 2570 MHz(LTE Band 7)
	699 – 716 MHz (LTE Band 12)
	777 –787 MHz (LTE Band 13)
	788 –798 MHz (LTE Band 14)
	704 –716 MHz (LTE Band 17)
	1850 – 1915 MHz (LTE Band 25)
	814 – 849 MHz (LTE Band 26)
	2570 – 2620 MHz (LTE Band 38)
	2496 – 2690 MHz (LTE Band 41)
	3550 – 3700 MHz (LTE Band 48)
	1710 – 1780 MHz (LTE Band 66)
	663 – 698 MHz (LTE Band 71)
	2412 – 2462 MHz (Wi-Fi 2.4G)
	5180 – 5240 MHz (UNII-1)
	5260 – 5320 MHz (UNII-2A)
	5500 – 5720 MHz (UNII-2C)
	5745 – 5825 MHz (UNII-3)
	5925 – 6425 MHz (UNII-5)
	6425 – 6525 MHz (UNII-6)
	6525 – 6875 MHz (UNII-7)
	6875 – 7125 MHz (UNII-8)
	2400 – 2483.5 MHz (Bluetooth)
	2500 – 2570 MHz (n7)
	1850 – 1915 MHz (n25)
	2570 – 2620 MHz (n38)
	2496 – 2690 MHz (n41)
	3550 – 3700 MHz (n48)
	1710– 1780 MHz (n66)
	3450 – 3550 MHz (n78L)
	13.56 MHz (NFC)
GPRS/EGPRS Multislot Class:	33
Test device production information:	Production unit
Device type:	Portable device

Antenna type:	Integrated antenna
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4 SAR Characterization

4.1 DSI and SAR Determination

This device uses different Device State Index (DSI) to configure different time averaged power levels based on certain exposure scenarios. Depending on the detection scheme implemented in the smartphone, the worst-case SAR is further grouped and determined for each or combined exposure scenario

DSI and Corresponding Exposure Scenarios

Scenario	Description
DSI 0(Power Level A1)	Body Sensor off
DSI 2(Power Level B1)	Head (Standalone)
DSI 3(Power Level C1)	Head (simultaneous transmission)
DSI 8(Power Level D1)	Body (Standalone)
DSI 13(Power Level E1)	Body (simultaneous transmission)

4.2 SAR Design Target and Uncertainty

SAR_design_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer.

To account for total uncertainty, SAR_design_target should be determined as:

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

Exposure Conditions	Trigger Condition	DSI	SAR design target	target-W/kg	report-W/kg	Rmark
Head	Rcv On	2	1g SAR design target	1.05	1.39	All
Body	Rcv Off	8	1g SAR design target	1.05	1.39	All
Extremity	Rcv Off	8	10g SAR design target	2.1	2.74	All

	Uncertainty dB(k=2) 2G	Uncertainty dB(k=2) 3G	Uncertainty dB(k=2) 4G	Uncertainty dB(k=2) 5G NR
Total Uncertainty	1	1	1	1.2

4.2 SAR Char

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating. P_{limit} is calculated by linearly scaling with the measured SAR at the P_{part0} to correspond to the SAR_design_target . When $P_{limit} < P_{max}$, P_{part0} was used as P_{limit} in the Smart Transmit EFS. When $P_{limit} > P_{max}$ and $P_{part0} = P_{max}$, calculated P_{max} was used in the Smart Transmit EFS. All reported SAR obtained from the P_{part0} SAR tests was less than $SAR_Design_target + \text{device uncertainty}$.

Band	ANT	Receiver ON	Receiver on+WLAN	Sensor on	Sensor on+WLAN	Pmax
		DSI-2	DSI-3	DSI-8	DSI-13	
GSM850	0	33	33	33	33	33
GSM850	2	31.5	30	31.5	31.5	31.5
GSM1900	1	30	30	29	29	30
GSM1900	4	28	26	30	30	30
WCDMA B2	1	24	24	19.5	19.5	24
WCDMA B2	4	18	18	23	23	24
WCDMA B4	1	24	24	19	19	24
WCDMA B4	4	19	19	24	22	24
WCDMA B5	0	24	24	24	24	24
WCDMA B5	2	23	21	23	23	23
B2	1	24	24	19.5	19.5	24
B2	4	18	18	23	21.5	24
B4	1	24	24	19	19	24
B4	4	19	19	22.5	22.5	24
B5	0	24	24	24	22	24
B5	2	22	20.5	22	22	22
B7	1	23	23	22	22	23
B7	4	15.5	15.5	23	20.5	23
B12	0	24	24	24	24	24
B12	2	19	19	19	19	19
B13	0	24	24	24	24	24
B13	2	19	19	19	19	19
B14	0	24	24	24	24	24
B14	2	22	22	22	22	22
B17	0	24	24	24	24	24
B17	2	19	19	19	19	19
B25	1	24	24	19.5	19.5	24
B25	4	18	18	23	21.5	24
B26	0	24	24	24	22	24
B26	2	22	20.5	22	22	22
B38-PC3	1	23	23	20.5	20.5	23
B38-PC3	4	18.1	18.1	23	23	23
B41-PC3	1	23	23	20.5	20.5	23
B41-PC3	4	18.1	18.1	23	23	23
B38-PC2	1	26	26	22	22	26
B38-PC2	4	20.5	20.5	26	26	26
B41-PC2	1	26	26	22	22	26
B41-PC2	4	20.5	20.5	26	26	26
B48	5	18.8	16.8	21.5	19.5	24
B48	7	17.8	16	22.5	21.5	23.2
B48	4	13.5	13.5	18.8	18.8	18.8
B48	2	18.8	18.8	18.8	18.8	18.8
B66	1	24	24	19	19	24
B66	4	19	19	22.5	22.5	24
B71	0	24	24	24	24	24
B71	2	19.5	19.5	19.5	19.5	19.5

Band	ANT	Receiver ON	Receiver on+WLAN	Sensor on	Sensor on+WLAN	Pmax
		DSI-2	DSI-3	DSI-8	DSI-13	
5G N7	1	23	23	22	22	23
5G N7	4	16.6	16.6	21	21	23
5G N25	1	24	24	19.7	19.7	24
5G N25	4	18.5	18.5	21	21	24
5G N38(100% duty)	1	26	26	18.2	18.2	26
5G N38(100% duty)	4	16.3	16.3	24	21.6	26
5G N38(100% duty)	3	25	25	22.9	22.9	25
5G N38(100% duty)	8	19.7	16.7	22	22	22
5G N41(100% duty)	1	26	26	18.2	18.2	26
5G N41(100% duty)	4	16.3	16.3	24	21.6	26
5G N41(100% duty)	3	25	25	22.9	22.9	25
5G N41(100% duty)	8	19.7	16.7	22	22	22
5G N48(100% duty)	5	16	16	18.7	18.7	24
5G N48(100% duty)	7	15.4	15.4	19.4	18	23.2
5G N48(100% duty)	4	16	16	18.8	18.8	18.8
5G N48(100% duty)	2	18.8	18.8	18.8	18.8	18.8
5G N66	1	24	24	18.8	18.8	24
5G N66	4	19.5	19.5	22.1	22.1	24
5G N71	0	24	24	24	24	24
5G N71	2	20	20	20	20	20
5G N78(100% duty)	5	16.2	16.2	18.7	18.7	26
5G N78(100% duty)	7	15.7	15.7	19.7	15.5	25.5
5G N78(100% duty)	4	16	15	22.5	20	22.5
5G N78(100% duty)	2	19	16	19	19	19

Note:

1 When Pmax < P_{limit}, the DUT will operate at a power level up to Pmax.

2 Pmax is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + device uncertainty.

5 Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

Therefore, the measurement uncertainty is not required.