



FCC RADIO TEST REPORT

FCC ID : RWO-RZ350259
Equipment : Smartphone
Brand Name : RAZER
Model Name : RZ35-0259
Applicant : Razer Inc.
9 Pasteur, Suite 100, Irvine, California,
United States 92618
Manufacturer : Razer Inc.
9 Pasteur, Suite 100, Irvine, California,
United States 92618
Standard : FCC 47 CFR Part 2, 27

The product was received on Dec. 10, 2020 and testing was started from Feb. 08, 2021 and completed on Feb. 08, 2021. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FG9D2015-03A	01	Initial issue of report	Feb. 22, 2021



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§27.50 (h)(2)	Equivalent Isotropic Radiated Power (Band 7)	Pass	

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Lucy Wu



1 General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, NFC, WPC, and GNSS

Product Specification subjective to this standard	
Antenna Type	WWAN: PIFA Antenna WLAN <Ant. 1>: PIFA Antenna <Ant. 2>: PIFA Antenna Bluetooth: PIFA Antenna GPS/Glonass/BDS: PIFA Antenna NFC: Loop Antenna WPC: Loop Antenna
Antenna Gain	LTE Band 7: 0.9 dBi

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

No modifications are made to the EUT during all test items.



1.3 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH05-HY
Test Engineer	Sherry Wu
Temperature	23~25°C
Relative Humidity	53~55%

FCC Designation No.: TW1190

1.4 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168

D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
E.I.R.P	7	-	-	v	v	v	v	v	v	v	v			v	v	v
Remark	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported.															

2.2 Frequency List of Low/Middle/High Channels

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

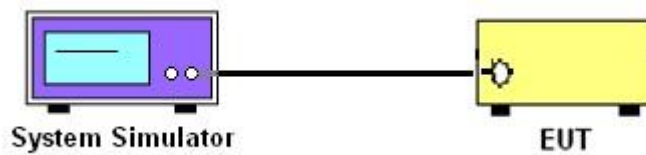
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.



3.2 Conducted Output Power and EIRP

3.2.1 Description of the Conducted Output Power Measurement and EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 7

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.2.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Base Station (Measure)	Anritsu	MT8821C	6262002534 1	N/A	Oct. 06, 2020	Feb. 08, 2021	Oct. 05, 2021	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101909	10Hz~40GHz	May 19, 2020	Feb. 08, 2021	May 18, 2021	Conducted (TH05-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#B	1-18GHz	Jan. 09, 2021	Feb. 08, 2021	Jan. 08, 2022	Conducted (TH05-HY)



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	21.70	21.64	21.90
20	1	49		21.62	21.56	21.39
20	1	99		21.42	21.57	21.42
20	50	0		20.71	20.69	20.64
20	50	24		20.63	20.62	20.52
20	50	50		20.59	20.47	20.46
20	100	0		20.58	20.60	20.56
20	1	0	16-QAM	20.75	20.69	20.95
20	1	49		20.86	20.96	20.48
20	1	99		20.55	20.99	20.96
20	50	0		19.78	19.87	19.78
20	50	24		19.67	19.68	19.65
20	50	50		19.71	19.62	19.62
20	100	0		19.64	19.67	19.65
20	1	0	64-QAM	19.99	19.89	20.00
20	1	49		19.84	19.87	19.69
20	1	99		19.44	19.68	19.65
20	50	0		18.84	18.82	18.77
20	50	24		18.73	18.75	18.69
20	50	50		18.58	18.61	18.62
20	100	0		18.70	18.61	18.62
15	1	0	QPSK	21.56	21.74	21.65
15	1	37		21.34	21.55	21.58
15	1	74		21.42	21.36	21.54
15	36	0		20.55	20.69	20.55
15	36	20		20.60	20.61	20.60
15	36	39		20.52	20.47	20.50
15	75	0		20.63	20.57	20.49
15	1	0	16-QAM	20.91	20.93	20.99
15	1	37		20.52	20.66	20.69
15	1	74		20.58	20.72	20.64
15	36	0		19.52	19.72	19.66
15	36	20		19.60	19.65	19.72
15	36	39		19.56	19.55	19.62
15	75	0		19.65	19.70	19.54
15	1	0	64-QAM	20.00	19.73	19.95
15	1	37		19.98	19.97	19.90
15	1	74		19.74	19.86	19.59
15	36	0		18.64	18.76	18.63
15	36	20		18.72	18.66	18.69
15	36	39		18.62	18.61	18.64
15	75	0		18.71	18.61	18.63



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.54	21.61	21.52
10	1	25		21.43	21.47	21.61
10	1	49		21.39	21.49	21.47
10	25	0		20.45	20.60	20.65
10	25	12		20.47	20.56	20.54
10	25	25		20.56	20.46	20.60
10	50	0		20.58	20.61	20.57
10	1	0	16-QAM	21.00	20.78	20.99
10	1	25		20.52	20.70	20.83
10	1	49		20.74	20.62	20.50
10	25	0		19.63	19.67	19.71
10	25	12		19.69	19.78	19.71
10	25	25		19.60	19.70	19.59
10	50	0		19.70	19.60	19.73
10	1	0	64-QAM	19.62	19.86	19.89
10	1	25		19.82	19.57	19.80
10	1	49		19.62	19.66	19.68
10	25	0		18.62	18.68	18.83
10	25	12		18.54	18.75	18.67
10	25	25		18.64	18.56	18.57
10	50	0		18.78	18.73	18.70
5	1	0	QPSK	21.48	21.56	21.52
5	1	12		21.41	21.58	21.58
5	1	24		21.38	21.31	21.47
5	12	0		20.49	20.56	20.64
5	12	7		20.47	20.56	20.65
5	12	13		20.44	20.52	20.57
5	25	0		20.42	20.52	20.53
5	1	0	16-QAM	21.00	20.98	20.73
5	1	12		20.65	20.44	20.96
5	1	24		20.43	20.83	20.72
5	12	0		19.57	19.60	19.71
5	12	7		19.56	19.73	19.70
5	12	13		19.45	19.59	19.65
5	25	0		19.56	19.60	19.67
5	1	0	64-QAM	19.79	19.76	19.85
5	1	12		19.50	19.62	19.80
5	1	24		19.73	19.81	19.67
5	12	0		18.69	18.66	18.71
5	12	7		18.70	18.76	18.66
5	12	13		18.68	18.59	18.64
5	25	0		18.50	18.57	18.57



Appendix B. Test Results of EIRP Test

EIRP

LTE Band 7 / 5MHz (Average) (GT - LC = 0.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	21.41	0.1384	22.31	0.1702
Middle		1	12	21.58	0.1439	22.48	0.1770
Highest		1	12	21.58	0.1439	22.48	0.1770
Lowest	16QAM	1	0	21.00	0.1259	21.90	0.1549
Middle		1	0	20.98	0.1253	21.88	0.1542
Highest		1	0	20.73	0.1183	21.63	0.1455
Lowest	64QAM	1	0	19.79	0.0953	20.69	0.1172
Middle		1	0	19.76	0.0946	20.66	0.1164
Highest		1	0	19.85	0.0966	20.75	0.1189
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz (Average) (GT - LC = 0.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.54	0.1426	22.44	0.1754
Middle		1	0	21.61	0.1449	22.51	0.1782
Highest		1	0	21.52	0.1419	22.42	0.1746
Lowest	16QAM	1	0	21.00	0.1259	21.90	0.1549
Middle		1	0	20.78	0.1197	21.68	0.1472
Highest		1	0	20.99	0.1256	21.89	0.1545
Lowest	64QAM	1	0	19.62	0.0916	20.52	0.1127
Middle		1	0	19.86	0.0968	20.76	0.1191
Highest		1	0	19.89	0.0975	20.79	0.1199
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 15MHz (Average) (GT - LC = 0.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.56	0.1432	22.46	0.1762
Middle		1	0	21.74	0.1493	22.64	0.1837
Highest		1	0	21.65	0.1462	22.55	0.1799
Lowest	16QAM	1	0	20.91	0.1233	21.81	0.1517
Middle		1	0	20.93	0.1239	21.83	0.1524
Highest		1	0	20.99	0.1256	21.89	0.1545
Lowest	64QAM	1	0	20.00	0.1000	20.90	0.1230
Middle		1	0	19.73	0.0940	20.63	0.1156
Highest		1	0	19.95	0.0989	20.85	0.1216
Limit	EIRP < 2W			Result		PASS	



LTE Band 7 / 20MHz (Average) (GT - LC = 0.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.70	0.1479	22.60	0.1820
Middle		1	0	21.64	0.1459	22.54	0.1795
Highest		1	0	21.90	0.1549	22.80	0.1905
Lowest	16QAM	1	99	20.55	0.1135	21.45	0.1396
Middle		1	99	20.99	0.1256	21.89	0.1545
Highest		1	99	20.96	0.1247	21.86	0.1535
Lowest	64QAM	1	0	19.99	0.0998	20.89	0.1227
Middle		1	0	19.89	0.0975	20.79	0.1199
Highest		1	0	20.00	0.1000	20.90	0.1230
Limit	EIRP < 2W			Result		PASS	

————THE END————