RF MEASUREMENT REPORT

FCC ID:	VW3F5688A
Applicant:	SAGEMCOM BROADBAND SAS
Product:	5GNR CPE Router
Model No.:	BGW530-900
Brand Name:	SAGEMCOM
FCC Rule(s):	Part 2, 22 (H), 24 (E), 27, 90(R)
Result:	Complies
Received Date:	2023-09-05
Test Date:	2023-09-07 ~ 2023-10-18

Reviewed By: Sunny Sun

Approved By: Robin Wu

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
2309RSU009-U4	V01	Initial Report	2023-10-24	Invalid
2309RSU009-U4	V02	Updated Max EIRP	2023-10-29	Valid

CONTENTS

1. General Information

1.1. Applicant

SAGEMCOM BROADBAND SAS

250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE

1.2. Manufacturer

SAGEMCOM BROADBAND SAS

250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE

1.3. Testing Facility

☒	**Test Site – MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong)				
	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China				
	Laboratory Location (Suzhou - SIP)				
	4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025	☐G-20034	☐C-20020	☐T-20020
		☐R-20141	☐G-20134	☐C-20103	☐T-20104
☐	**Test Site – MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen)				
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site – MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan)				
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: 3261				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	5GNR CPE Router
Model No.	BGW530-900
Brand Name	SAGEMCOM
IMEI	354240380005524
Wi-Fi Specification	802.11a/b/g/n/ac/ax
3GPP Specification	LTE Band 2/5/12/14/17/30/66 NR SA/NSA Band n2/5/12/30/66/77
Power Type	By AC/DC adapter
Integrated Modular Information	
Modular Name	5G Sub-6 GHz LGA Module
Mode No.	RG520N-AT
FCC ID	XMR2023RG520NAT
Manufacturer	QUECTEL
Accessories	
AC/DC adapter #01	Model No.: ADS-42DG-1212042EPCU-L Input: 100-127V~50/60Hz Max 1.2A Output: 12.0V⎓3.5A
AC/DC adapter #02	Model No.: G30-V3500R120-042E0-US Input: 100-127V~50/60Hz 1.2A Max Output: 12.0V⎓3.5A
AC/DC adapter #03	Model No.: NBS42F120350VU Input: 100-127V~50/60Hz 1.0A Output: 12.0V⎓3.5A

Remark:

1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.
2. This device is based on the certification modular to assess the radiated spurious emission and the output power of LTE Band 30.
3. For this report, we select Adapter 1# for testing.

1.5. Radio Specification under Testing

E-UTRA Specification	
TX Frequency Range	LTE Band 2: 1850 ~ 1910MHz, LTE Band 5: 824 ~ 849MHz LTE Band 12: 699 ~ 716MHz, LTE Band 14: 788 ~ 798 MHz LTE Band 17: 704 ~ 716MHz, LTE Band 30: 2305 ~ 2315MHz LTE Band 66: 1710 ~ 1780MHz
RX Frequency Range	LTE Band 2: 1930 ~ 1990MHz, LTE Band 5: 869 ~ 894MHz LTE Band 12: 729 ~ 746MHz, LTE Band 14: 758 ~ 768 MHz LTE Band 17: 734 ~ 746MHz, LTE Band 30: 2350 ~ 2360MHz LTE Band 66: 2110 ~ 2200MHz
Inter-Band CA	CA_2A-12A
Modulation	up to 256QAM
Power Class	3

1.6. Description of Available Antennas

Technology	Frequency Range (MHz)	Antenna Type	Max Peak Gain (dBi)
LTE Band 2	1850 ~ 1910	PCB Antenna	4.69
LTE Band 5	824 ~ 849		2.32
LTE Band 12/17	699 ~ 716		2.57
LTE Band 14	788 ~ 798		1.71
LTE Band 30	2305 ~ 2315		3.28
LTE Band 66	1710 ~ 1780		5.73

Note: All antenna information (Antenna type and Peak Gain) is provided by the manufacturer.

1.7. Max EIRP

Technology	Frequency Band (MHz)	Max Conducted Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	Limit (dBm)
LTE Band 2	1850 ~ 1910	22.94	4.69	27.63	33.01
LTE Band 5	824 ~ 849	23.10	2.32	25.42	38.48
LTE Band 12/17	699 ~ 716	22.81	2.57	25.38	34.77
LTE Band 14	788 ~ 798	22.65	1.71	24.36	44.77
LTE Band 30	2305 ~ 2315	19.86	3.28	23.14	23.98
LTE Band 66	1710 ~ 1780	23.00	5.73	28.73	30.00
Remark: Except the LTE band 30, the Max conducted power extracted from the FCC certificate from FCC ID “XMR2023RG520NAT”.					

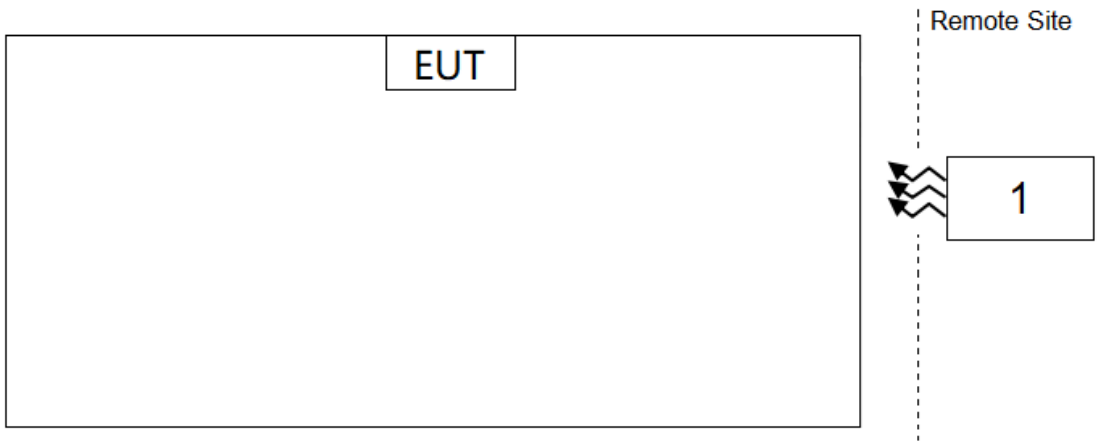
1.8. Test Methodology

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

- ANSI C63.26:2015
- FCC CFR 47 Part 2, Part 22, Part 24, Part 27, Part 90
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems

2. Test Configuration

2.1. Test System Connection Diagram



Product		Manufacturer	Model No.
1	Wideband Radio Communication Tester	R&S	CMW 500

2.2. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20% ~ 75%RH

3. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2024-05-15	WZ-AC2
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2024-09-17	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2024-05-23	WZ-AC2
Thermohygrometer	Mingle	ETH529	MRTSUE06170	1 year	2023-11-27	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2023-10-13	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2024-05-07	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2024-04-20	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2023-11-05	WZ-AC2
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2024-01-12	WZ-AC2
Preamplifier	EMCI	EMC051845SE	MRTSUE06987	1 year	2024-09-07	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11038	1 year	2023-11-01	WZ-AC2
Radio Communication Analyzer	Anritsu	MT8821C	MRTSUE06960	1 year	2024-07-06	WZ-AC2
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2023-12-28	SIP-AC2
Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2024-05-23	SIP-AC2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06598	1 year	2023-11-05	SIP-AC2
Preamplifier	EMCI	EMC051845SE	MRTSUE06601	1 year	2023-11-22	SIP-AC2
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2023-10-10	SIP-AC2
				1 year	2024-10-09	SIP-AC2
Signal Analyzer	Keysight	N9010B	MRTSUE06603	1 year	2023-10-25	SIP-AC2
Signal Analyzer	Keysight	N9020B	MRTSUE06604	1 year	2023-11-07	SIP-AC2
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2024-05-23	SIP-AC2
Thermohygrometer	testo	608-H1	MRTSUE06623	1 year	2023-11-27	SIP-AC2
Thermohygrometer	testo	608-H1	MRTSUE06624	1 year	2023-11-27	SIP-AC2
Preamplifier	EMCI	EMC001330	MRTSUE06643	1 year	2024-01-12	SIP-AC2
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06647	1 year	2024-06-17	SIP-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06648	1 year	2023-10-22	SIP-AC2
Anechoic Chamber	RIKEN	SIP-AC2	MRTSUE06781	1 year	2023-12-22	SIP-AC2
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2024-02-26	SIP-AC2
Communication Tester	R&S	CMW500	MRTSUE06881	1 year	2024-05-23	SIP-AC2
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2024-02-14	WZ-SR6
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	N/A	N/A	WZ-SR6
Signal Analyzer	Keysight	N9020B	MRTSUE06583	1 year	2024-09-27	WZ-SR6
Signal Generator	Keysight	N5173B	MRTSUE06606	1 year	2023-11-25	WZ-SR6
5G Wireless Test Platform	Keysight	E7515B	MRTSUE06942	1 year	2024-02-29	WZ-SR6

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Radio Communication Analyzer	Anritsu	MT8821C	MRTSUE06960	1 year	2024-07-06	WZ-SR6
Radio Communication Test Station	Anritsu	MT8000A	MRTSUE06961	1 year	2024-06-29	WZ-SR6

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_MF 7802	1.02	RE Antenna & Turntable
Controller_MF 7802BS	1.02	RE Antenna & Turntable

4. Decision Rules and Measurement Uncertainty

4.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Radiated Spurious Emissions
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.59dB Coplanar: 9kHz~30MHz: 2.60dB Horizontal: 30MHz~200MHz: 3.85dB 200MHz~1GHz: 4.36dB 1GHz~40GHz: 4.98dB Vertical: 30MHz~200MHz: 4.06dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.91dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.66dB

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
27.50(a)(3)	Equivalent Isotropic Radiated Power	Conducted	Pass
2.1051, 22.917(a), 24.238(a) 27.53(c) (f) (g) (h), 90.543(e)(f)	Spurious Emissions	Radiated	Pass

Notes:

1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

5.2. Equivalent Isotropically Radiated Power Measurement

5.2.1. Test Limit

For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth

5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.4.4.2 &5.2.5.5

5.2.3. Test Setting

When the fundamental condition for average power measurements cannot be realized (i.e., the EUT can not be configured to transmit at full-power on a continuous basis (i.e., duty cycle < 98%) and the instrumentation cannot be configured to measure only during active full-power transmissions), then the following procedure can be used if the EUT duty cycle is constant (i.e., duty cycle variations are less thanor equal to ±2%).

a) Set span to 2 × to 3 × the OBW.

b) Set RBW = 1% to 5% of the OBW.

c) Set VBW ≥ 3 × RBW.

d) Set number of measurement points in sweep ≥ 2 × span / RBW.

e) Sweep time:

1) Set = auto-couple, or

2) Set ≥ [10 × (number of points in sweep) × (transmission symbol period)] for single sweep (automation-compatible) measurement.

f) Detector = power averaging (rms).

g) Set sweep trigger to “free run.”

h) Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

i) Using the marker function to identify the maximum PSD.

j) Add 10 log (1/duty cycle) to the measured power level to compute the average power during continuous transmission. For example, add [10 log (1/0.25)] = 6 dB if the duty cycle is a constant 25%.

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

ERP or EIRP = P_{Meas} + G_T (1)

where

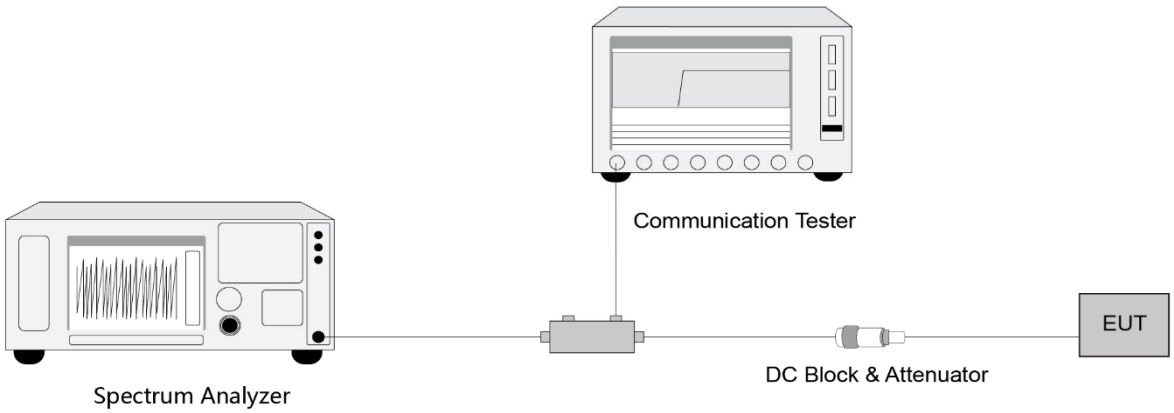
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

For devices utilizing multiple antennas, see 6.4 for guidance with respect to determining the effective array transmit antenna gain term to be used in the above equation.

5.2.4. Test Setup



5.2.5. Test Result

Refer to Appendix A.1.

5.3. Radiated Spurious Emissions Measurement

5.3.1. Test Limit

Out of band emissions: The power of any emission outside of theauthorized operating frequency ranges must be attenuated below the transmitting power (P) by a factorof at least 43 + 10 log(P) dB. The emission limit equal to -13dBm.

For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to −70 dBW/MHz(-40dBm/MHz) equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW (-50dBm) EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, atransmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

For Band 30, the power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 70 + 10 log (P) dB.

E (dBμV/m) = EIRP (dBm) - 20 log D + 104.8; where D is the measurement distance in meters. The emission limit equal to 82.3dBμV/m or 55.3dBμV/m.

5.3.2. Test Procedure

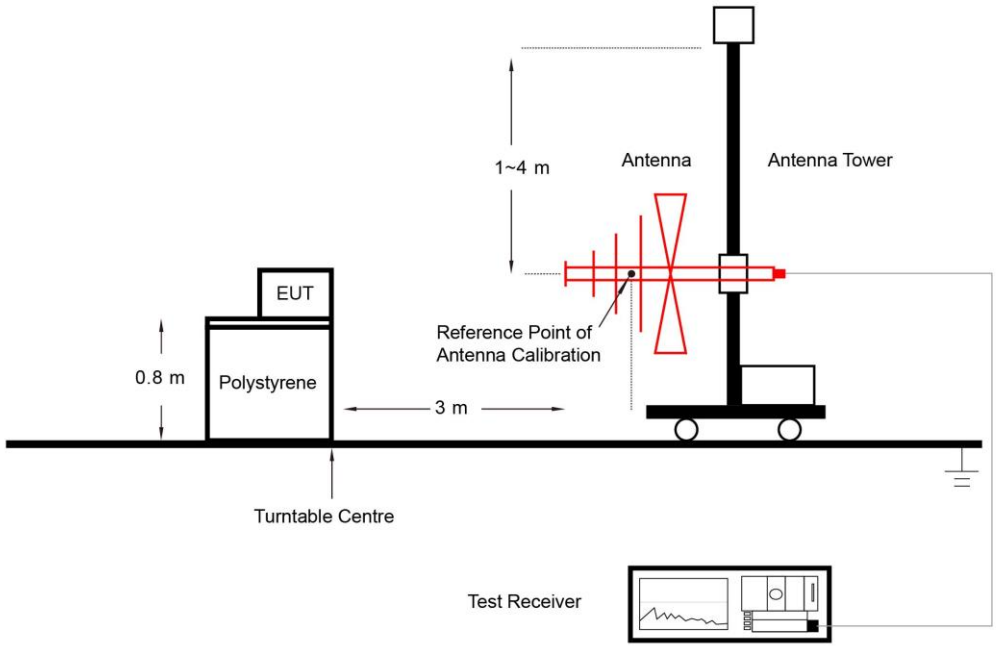
ANSI C63.26-2015 - Section 5.2.7 & 5.5

5.3.3. Test Setting

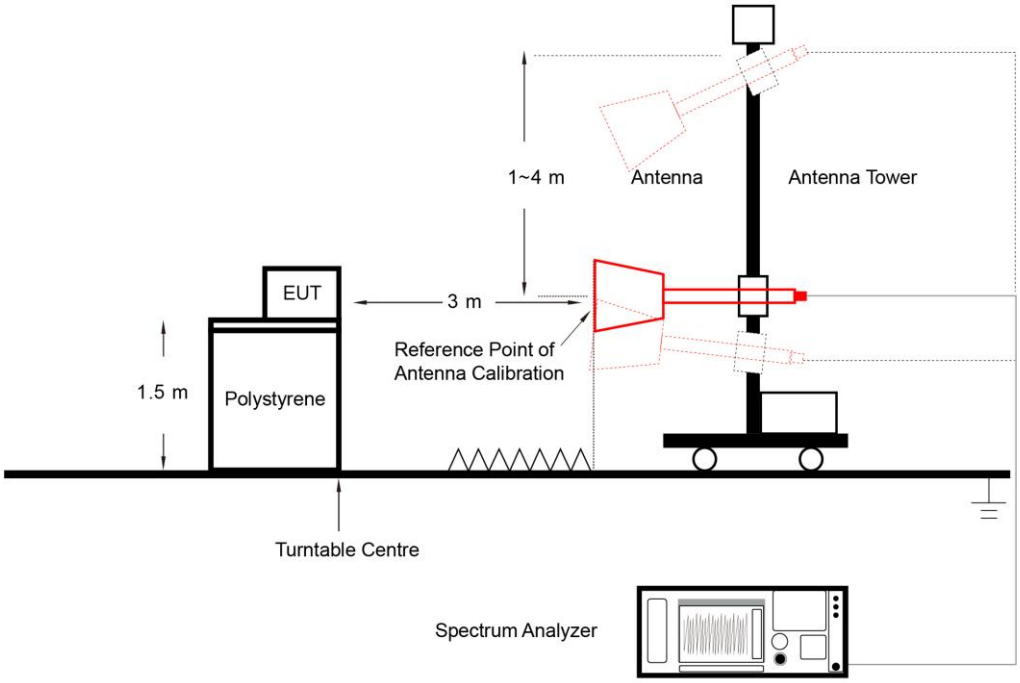
1. RBW = 1MHz
2. VBW ≥ 3*RBW
3. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period)
4. Detector = Peak
5. Trace mode = max hold
6. The trace was allowed to stabilize

5.3.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.3.5. Test Result

Refer to Appendix A.2.

Appendix A - Test Result

A.1 Equivalent Isotropically Radiated Power Test Result

Test Site	WZ-SR6	Test Engineer	Lucas Wang
Test Date	2023-10-17 ~ 2023-10-18	Test Band	Band 30

Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Power Density (dBm/5MHz)	EIRP Density (dBm/5MHz)	Limit (dBm /5MHz)
QPSK						
2307.5	5	1	0	19.69	22.97	< 23.98
2310.0				19.56	22.84	< 23.98
2312.5				19.69	22.97	< 23.98
2307.5	5	1	12	18.83	22.11	< 23.98
2310.0				19.61	22.89	< 23.98
2312.5				19.84	23.12	< 23.98
2307.5	5	1	24	19.76	23.04	< 23.98
2310.0				19.86	23.14	< 23.98
2312.5				19.67	22.95	< 23.98
2307.5	5	25	0	18.83	22.11	< 23.98
2310.0				18.81	22.09	< 23.98
2312.5				18.84	22.12	< 23.98
2310.0	10	1	0	19.76	23.04	< 23.98
2310.0			24	20.04	23.32	< 23.98
2310.0			49	19.79	23.07	< 23.98
2310.0		50	0	16.27	19.55	< 23.98
Note: The EIRP Density (dBm/5MHz) = Power Density (dBm/5MHz) + Antenna Gain (dBi)						

Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Power Density (dBm/5MHz)	EIRP Density (dBm/5MHz)	Limit (dBm /5MHz)
16QAM						
2307.5	5	1	0	19.04	22.32	< 23.98
2310.0				18.68	21.96	< 23.98
2312.5				19.17	22.45	< 23.98
2307.5	5	1	12	18.99	22.27	< 23.98
2310.0				19.14	22.42	< 23.98
2312.5				19.05	22.33	< 23.98
2307.5	5	1	24	18.64	21.92	< 23.98
2310.0				18.41	21.69	< 23.98
2312.5				19.08	22.36	< 23.98
2307.5	5	25	0	17.96	21.24	< 23.98
2310.0				17.60	20.88	< 23.98
2312.5				17.82	21.10	< 23.98
2310.0	10	1	0	19.35	22.63	< 23.98
2310.0			24	19.48	22.76	< 23.98
2310.0			49	19.24	22.52	< 23.98
2310.0		50	0	15.74	19.02	< 23.98
Note: The EIRP Density (dBm/5MHz) = Power Density (dBm/5MHz) + Antenna Gain (dBi)						

Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Power Density (dBm/5MHz)	EIRP Density (dBm/5MHz)	Limit (dBm /5MHz)
64QAM						
2307.5	5	1		18.65	21.93	< 23.98
2310.0				18.63	21.91	< 23.98
2312.5				18.43	21.71	< 23.98
2307.5	5	1	12	18.49	21.77	< 23.98
2310.0				18.68	21.96	< 23.98
2312.5				18.09	21.37	< 23.98
2307.5	5	1	24	18.60	21.88	< 23.98
2310.0				18.25	21.53	< 23.98
2312.5				18.05	21.33	< 23.98
2307.5	5	25	0	18.20	21.48	< 23.98
2310.0				18.16	21.44	< 23.98
2312.5				18.07	21.35	< 23.98
2310.0	10	1	0	18.35	21.63	< 23.98
2310.0			24	18.42	21.70	< 23.98
2310.0			49	18.64	21.92	< 23.98
2310.0		50	0	15.64	18.92	< 23.98
Note: The EIRP Density (dBm/5MHz) = Power Density (dBm/5MHz) + Antenna Gain (dBi)						

Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Power Density (dBm/5MHz)	EIRP Density (dBm/5MHz)	Limit (dBm /5MHz)
256QAM						
2307.5	5	1	0	18.45	21.73	< 23.98
2310.0				18.31	21.59	< 23.98
2312.5				18.21	21.49	< 23.98
2307.5	5	1	12	18.52	21.80	< 23.98
2310.0				18.46	21.74	< 23.98
2312.5				18.59	21.87	< 23.98
2307.5	5	1	24	18.37	21.65	< 23.98
2310.0				18.23	21.51	< 23.98
2312.5				18.48	21.76	< 23.98
2307.5	5	25	0	18.28	21.56	< 23.98
2310.0				18.21	21.49	< 23.98
2312.5				18.22	21.50	< 23.98
2310.0	10	1	0	18.31	21.59	< 23.98
2310.0			24	18.55	21.83	< 23.98
2310.0			49	18.39	21.67	< 23.98
2310.0		50	0	15.68	18.96	< 23.98
Note: The EIRP Density (dBm/5MHz) = Power Density (dBm/5MHz) + Antenna Gain (dBi)						

A.2 Radiated Spurious Emissions Test Result

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Band 2, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
40.200	-2.3	18.8	16.5	82.3	-65.8	Quasi-peak	Horizontal
722.120	8.9	28.7	37.6	82.3	-44.7	Quasi-peak	Horizontal
39.700	13.0	18.7	31.7	82.3	-50.6	Quasi-peak	Vertical
728.800	-3.9	29.0	25.1	82.3	-57.2	Quasi-peak	Vertical
8182.500	33.2	11.5	44.7	82.3	-37.6	Peak	Horizontal
14846.500	32.2	20.1	52.3	82.3	-30.0	Peak	Horizontal
7451.500	33.6	12.2	45.8	82.3	-36.5	Peak	Vertical
14447.000	32.6	19.9	52.5	82.3	-29.8	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Band 5, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
51.340	7.6	20.5	28.1	82.3	-54.2	Quasi-peak	Horizontal
954.890	9.3	31.6	40.9	82.3	-41.4	Quasi-peak	Horizontal
40.190	12.0	18.8	30.8	82.3	-51.5	Quasi-peak	Vertical
870.100	10.8	30.8	41.6	82.3	-40.7	Quasi-peak	Vertical
3218.500	39.1	-2.4	36.7	82.3	-45.6	Peak	Horizontal
14447.000	32.3	19.9	52.2	82.3	-30.1	Peak	Horizontal
7222.000	32.6	11.3	43.9	82.3	-38.4	Peak	Vertical
14438.500	33.0	19.7	52.7	82.3	-29.6	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Band 12/17, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
47.010	8.7	20.3	29.0	82.3	-53.3	Quasi-peak	Horizontal
729.470	12.3	29.0	41.3	82.3	-41.0	Quasi-peak	Horizontal
40.200	14.3	18.8	33.1	82.3	-49.2	Quasi-peak	Vertical
900.100	8.4	31.2	39.6	82.3	-42.7	Quasi-peak	Vertical
4689.000	35.2	3.8	39.0	82.3	-43.3	Peak	Horizontal
14889.000	32.9	19.4	52.3	82.3	-30.0	Peak	Horizontal
7205.000	32.7	11.2	43.9	82.3	-38.4	Peak	Vertical
14455.500	32.6	19.8	52.4	82.3	-29.9	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Band 14, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
62.900	8.3	19.0	27.3	82.3	-55.0	Quasi-peak	Horizontal
920.510	9.1	31.1	40.2	82.3	-42.1	Quasi-peak	Horizontal
40.175	13.3	18.8	32.1	82.3	-50.2	Quasi-peak	Vertical
948.600	8.6	31.6	40.2	82.3	-42.1	Quasi-peak	Vertical
1561.000	37.1	-5.5	31.6	55.3	-23.7	Peak	Horizontal
14370.500	32.9	19.6	52.5	82.3	-29.8	Peak	Horizontal
1586.500	37.0	-5.7	31.3	55.3	-24.0	Peak	Vertical
14370.500	32.5	19.6	52.1	82.3	-30.2	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Band 30, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
40.610	-2.3	19.0	16.7	55.3	-38.6	Quasi-peak	Horizontal
604.300	-3.3	26.9	23.6	55.3	-31.7	Quasi-peak	Horizontal
40.175	15.2	18.8	34.0	55.3	-21.3	Quasi-peak	Vertical
129.120	3.0	15.6	18.6	55.3	-36.7	Quasi-peak	Vertical
5071.500	36.2	3.5	39.7	55.3	-15.6	Peak	Horizontal
7222.000	33.3	11.3	44.6	55.3	-10.7	Peak	Horizontal
6023.500	35.7	5.6	41.3	55.3	-14.0	Peak	Vertical
9219.500	34.3	13.6	47.9	55.3	-7.4	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Band 66, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
39.690	-1.9	18.7	16.8	82.3	-65.5	Quasi-peak	Horizontal
436.920	-2.4	24.0	21.6	82.3	-60.7	Quasi-peak	Horizontal
39.680	12.0	18.7	30.7	82.3	-51.6	Quasi-peak	Vertical
690.100	-2.9	28.4	25.5	82.3	-56.8	Quasi-peak	Vertical
8123.000	33.8	12.0	45.8	82.3	-36.5	Peak	Horizontal
14940.000	32.0	20.3	52.3	82.3	-30.0	Peak	Horizontal
11565.500	32.0	17.7	49.7	82.3	-32.6	Peak	Vertical
14829.500	31.7	20.0	51.7	82.3	-30.6	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	SIP-AC2	Test Engineer	Mero Zhou
Test Date	2023-09-06 ~ 2023-09-15	Test Band	LTE Inter Band CA_2A-12A, 1RB, QPSK

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
48.430	-4.5	18.5	14.0	82.3	-68.3	Quasi-peak	Horizontal
490.750	-7.5	23.6	16.1	82.3	-66.2	Quasi-peak	Horizontal
47.460	-5.5	18.4	12.9	82.3	-69.4	Quasi-peak	Vertical
446.130	-7.1	22.7	15.6	82.3	-66.7	Quasi-peak	Vertical
7511.000	52.7	2.0	54.7	82.3	-27.6	Peak	Horizontal
18000.000	36.6	20.4	57.0	82.3	-25.3	Peak	Horizontal
14583.000	38.9	11.7	50.6	82.3	-31.7	Peak	Vertical
18000.000	36.6	20.4	57.0	82.3	-25.3	Peak	Vertical

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 2: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9kHz to 30MHz and above 18GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Appendix B - Test Setup Photograph

Refer to “2309RSU009-UT” file.

Appendix C - EUT Photograph

Refer to “2309RSU009-UE” file.

The End