RF MEASUREMENT REPORT

FCC ID:	XMR2020BG95M2
Application:	Quectel Wireless Solutions Company Limited
Product:	LTE Cat M1 & Cat NB2 Module
Model No.:	BG95-M2
Brand Name:	Quectel
FCC Rule Part(s):	Part 27
Test Procedure(s):	ANSI C63.26-2015
Test Date:	November 29, 2021 ~ January 14, 2022

Reviewed By: Sunny Sun

Approved By: Robin Wu

Revision History

Report No.	Version	Description	Issue Date	Note
2111RSU084-U2	Rev. 01	Initial Report	01-30-2022	Valid

Note: This report is prepared for FCC Class II permissive supplement to FCC ID “XMR2020BG95M2”, enable Band 8 technology via software.

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1. General Information

1.1. Applicant

Quectel Wireless Solutions Company Limited

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233

1.2. Manufacturer

Quectel Wireless Solutions Company Limited

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233

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: L3261-190725				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	LTE Cat M1 & Cat NB2 Module
Model No.	BG95-M2
Brand Name	Quectel
IMEI	Conducted Measurement:863859046086315 Radiated Measurement: 863859046094152
Operating Temp.	-40 ~ 85 °C
Supply Voltage	2.6 ~ 4.8Vdc, typical 3.3Vdc
CAT-M Band	Band 2, 4, 5, 8, 12, 13, 25, 26, 66, 85
NB-IoT Band	Band 2, 4, 5, 8, 12, 13, 25, 66, 71, 85
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Product Specification

FDD T_X Frequency Range	NB-IoT Band 8: 897.5 ~ 900.5 MHz
FDD R_X Frequency Range	NB-IoT Band 8: 942.5 ~ 945.5 MHz
Type of Modulation	BPSK, QPSK
Antenna Information	Dipole antenna with gain 2.46dBi

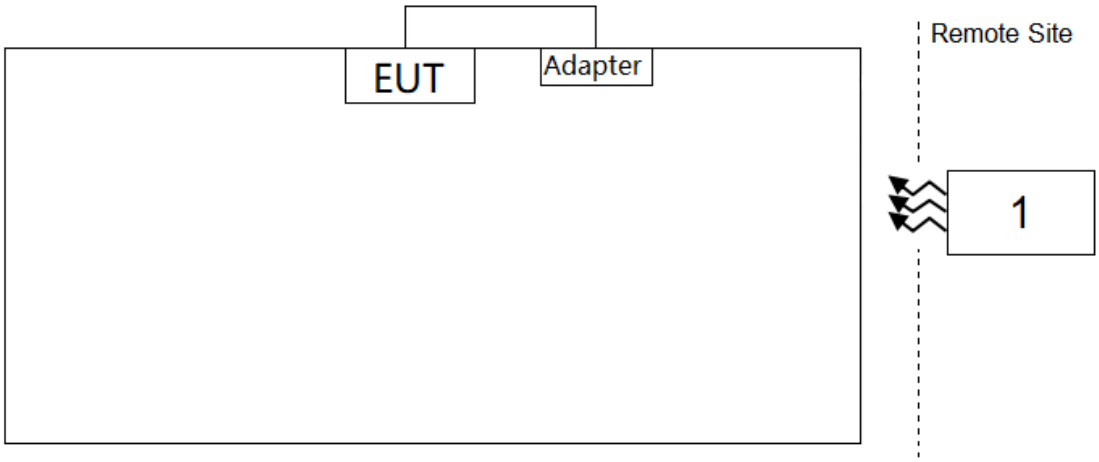
Note: For other features of this EUT, test report will be issued separately.

1.6. 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 Part 27
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 971168 D02 v02r01: Misc Rev Approv License Devices
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP

1.7. Configuration of Tested System



Product		Manufacturer	Model No.
1	Radio Communication Analyzer	Anritsu	8821C

1.8. Test Environment Condition

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

2. Test Equipment Calibration Date

Instrument	Manufacturer	Model No.	Asset No.	Last Cali. Date	Cali. Due Date	Test Site
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2023/1/3	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2022/9/16	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2022/10/28	WZ-AC1
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2022/10/10	WZ-TR3
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2022/11/12	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2022/8/5	WZ-AC1
Thermohygrometer	Yuhuaze	HTC-2	MRTSUE06184	1 year	2022/8/10	WZ-AC1
Vibration Test System	DongLing	ES-1-150	MRTSUE06206	1 year	2022/8/8	WZ-TR3
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2022/4/29	WZ-AC1
Horn Antenna	ETS	3117	MRTSUE06257	1 year	2022/9/25	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2022/2/25	WZ-SR6
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2022/6/28	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2022/6/28	WZ-AC1
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	/	/	WZ-SR6
Signal Analyzer	Keysight	N9020B	MRTSUE06583	1 year	2022/10/10	WZ-SR6
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2021/11/30	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2022/12/1	WZ-AC1
Signal Generator	Keysight	N5173B	MRTSUE06606	1 year	2021/11/28	WZ-SR6
Signal Generator	Keysight	N5173B	MRTSUE06606	1 year	2022/11/29	WZ-SR6
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2023/1/5	WZ-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2022/1/14	WZ-AC1
5G Wireless Test Platform	Keysight	E7515B	MRTSUE06942	1 year	2022/3/29	WZ-SR6
Radio Communication Analyzer	Anritsu	MT8821C	MRTSUE06960	1 year	2022/7/1	WZ-SR6
Radio Communication Test Station	Anritsu	MT8000A	MRTSUE06961	1 year	2022/7/1	WZ-SR6
Preamplifier	EMCI	EMC051845SE	MRTSUE06987	1 year	2022/9/9	WZ-AC1

Software	Version	Function
EMI Software	V3	EMI Test Software

3. 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 Emission Measurement
Measurement Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): Horizontal: 9kHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 9kHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.15dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.28%

4. Test Result

4.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Verdict
2.1049, 27.1506	Occupied Bandwidth	Conducted	Pass
2.1055	Frequency Stability		Pass
27.1507(a)(3)	Equivalent Radiated Power		Pass
27.1507(d)	Peak to Average Ratio		Pass
27.1509(a)	Band Edge		Pass
27.1509(a)	Spurious Emission		
27.1509(a)	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.
2) All supported modulation types were evaluated. The worst-case emission of modulation was selected.

4.2. Occupied Bandwidth Measurement

4.2.1. Test Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

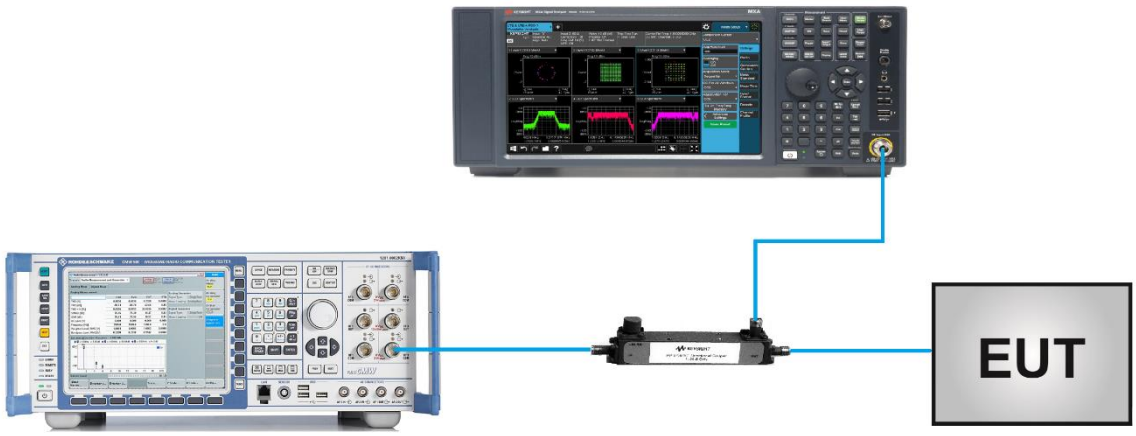
4.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.4

4.2.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

4.2.4. Test Setup



4.2.5. Test Result

Refer to Appendix A.1.

4.3. Frequency Stability Measurement

4.3.1. Test Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

4.3.2. Test Procedure

ANSI C63.26-2015 - Section 5.6

4.3.3. Test Setting

Frequency Stability Under Temperature Variations:

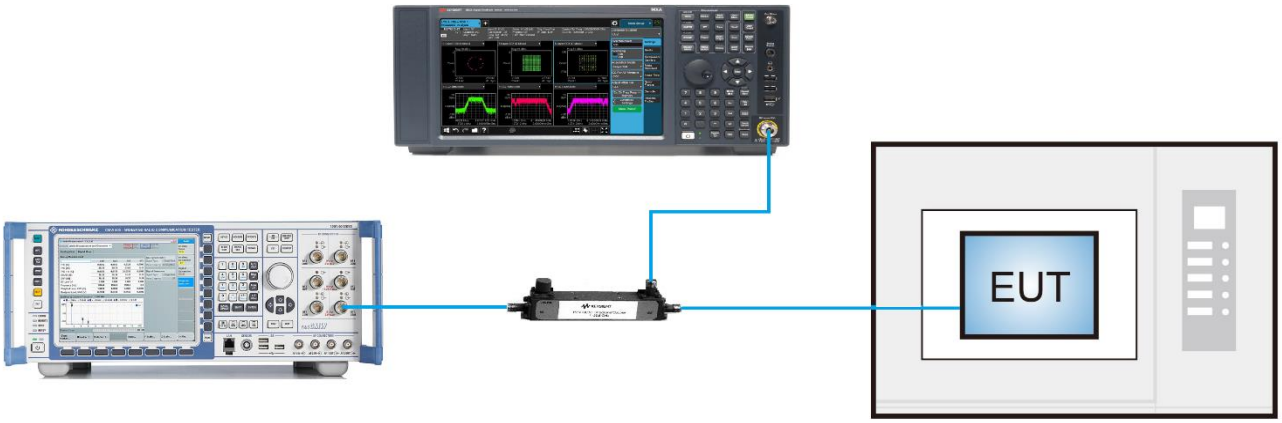
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, recordthe maximum frequency change.

4.3.4. Test Setup



4.3.5. Test Result

Refer to Appendix A.2.

4.4. Equivalent Isotropically Radiated Power Measurement

4.4.1. Test Limit

Mobile, control and auxiliary test stations. Mobile, control and auxiliary test stations must not exceed 10 watts ERP

4.4.2. Test Procedure

ANSI C63.26-2015 - Section 5.2

4.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

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

where

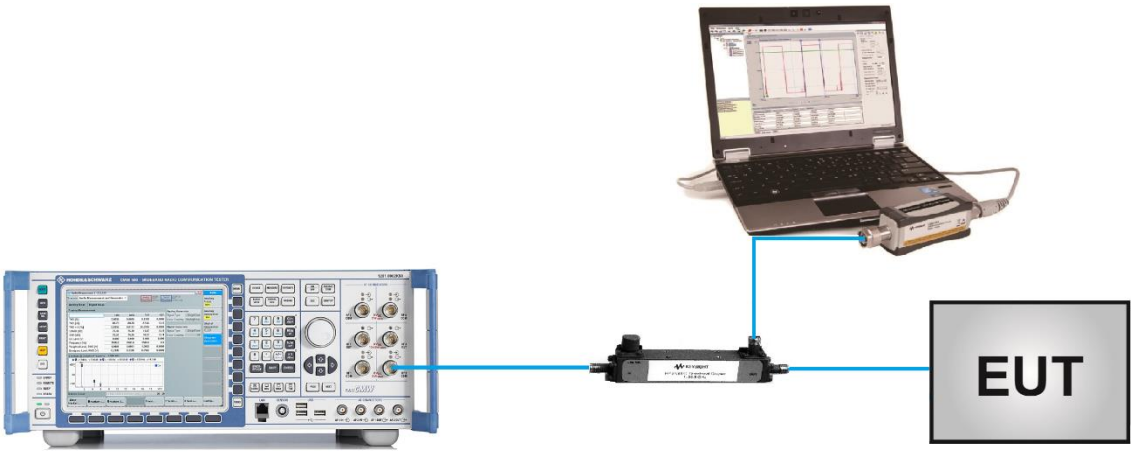
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, e.g., dBm or dBW)

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)

ERP = EIRP -2.15

4.4.4. Test Setup



4.4.5. Test Result

Refer to Appendix A.3.

4.5. Peak to Average Ratio Measurement

4.5.1. Test Limit

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

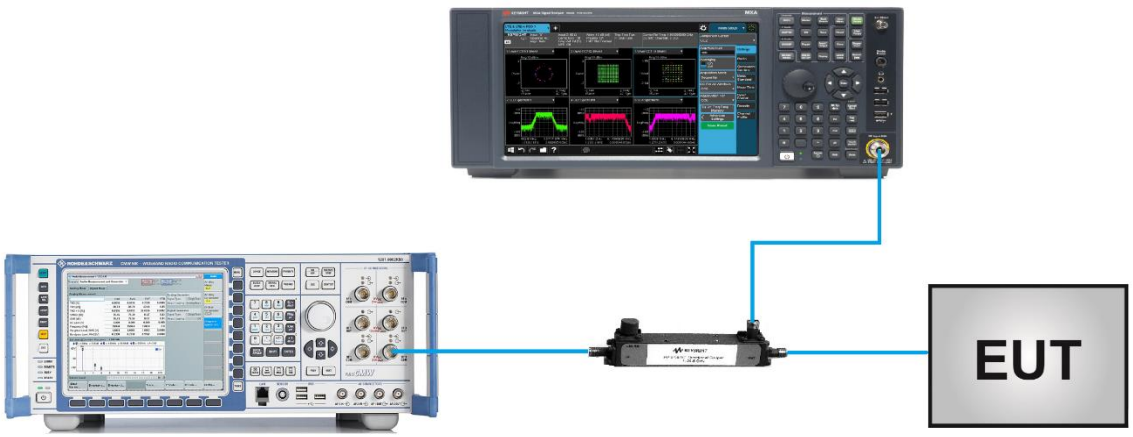
4.5.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.3.4 (CCDF).

4.5.3. Test Setting

1. Set the resolution / measurement bandwidth ≥ signal's occupied bandwidth
2. Set the number of counts to a value that stabilizes the measured CCDF curve
3. Record the maximum PARR level associated with a probability of 0.1%

4.5.4. Test Setup



4.5.5. Test Result

Refer to Appendix A.4.

4.6. Band Edge Measurement

4.6.1. Test Limit

For 900 MHz broadband operations in 897.5 ~ 900.5 MHz band by at least 43 + 10log (P) dB.

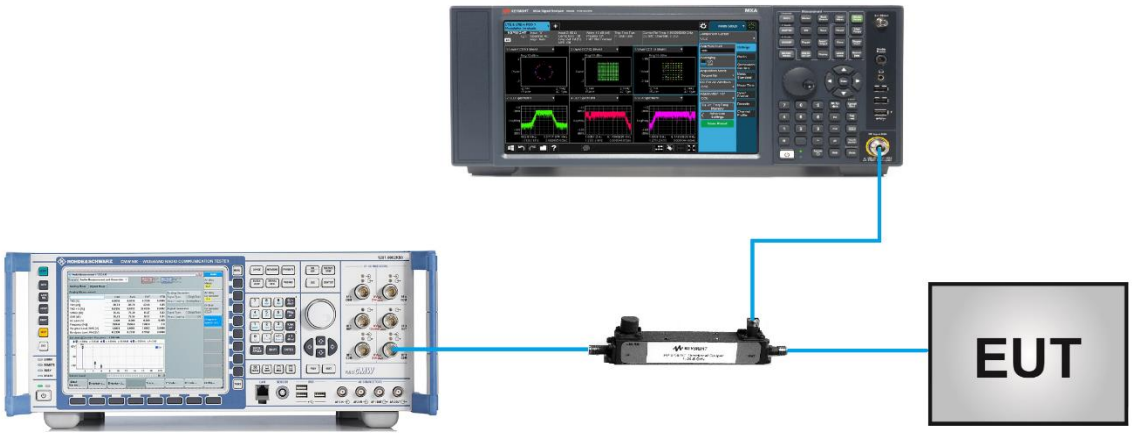
4.6.2. Test Procedure

ANSI C63.26-2015 - Section 5.7

4.6.3. Test Setting

1. Set the analyzer frequency to low or high channel
2. RBW ≥ The nominal RBW shall be in the range of 1% of the anticipated OBW (in the 1MHz band immediately outside and adjacent to the band edge). For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the OBW), provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer's band power functions.
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to "free run."
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power
8. 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.

4.6.4. Test Setup



4.6.5. Test Result

Refer to Appendix A.5.

4.7. Conducted Spurious Emissions Measurement

4.7.1. Test Limit

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst-case configuration. All modes of operation were investigated and the worst-case configuration results are reported in this section.

For 900 MHz broadband operations in 897.5 ~ 900.5 MHz band by at least 43 + 10 log (P) dB.

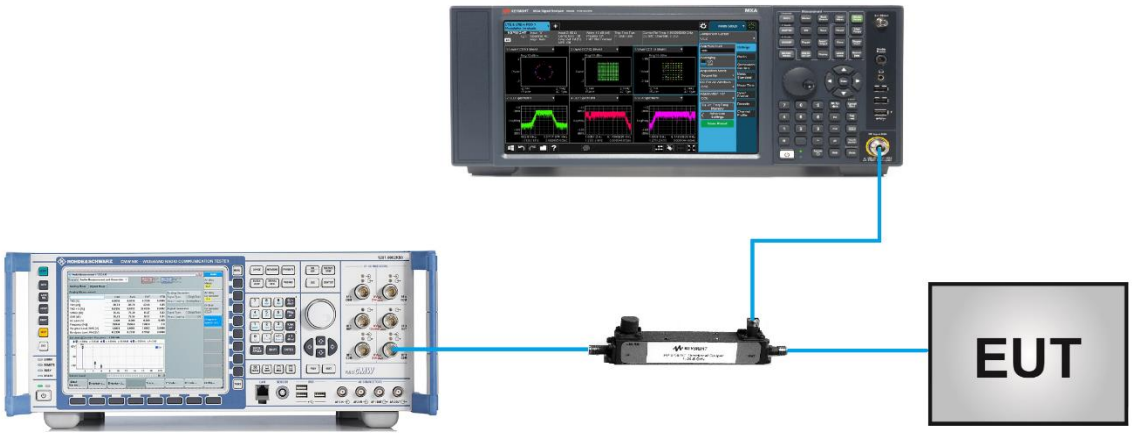
4.7.2. Test Procedure

ANSI C63.26-2015 - Section 5.7

4.7.3. Test Setting

1. Set the analyzer frequency to low, mid, high channel.
2. RBW = 1MHz
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to “free run.”
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power.
8. 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.

4.7.4. Test Setup



4.7.5. Test Result

Refer to Appendix A.6.

4.8. Radiated Spurious Emissions Measurement

4.8.1. Test Limit

Out of band emissions: The powerof 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.

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.

4.8.2. Test Procedure

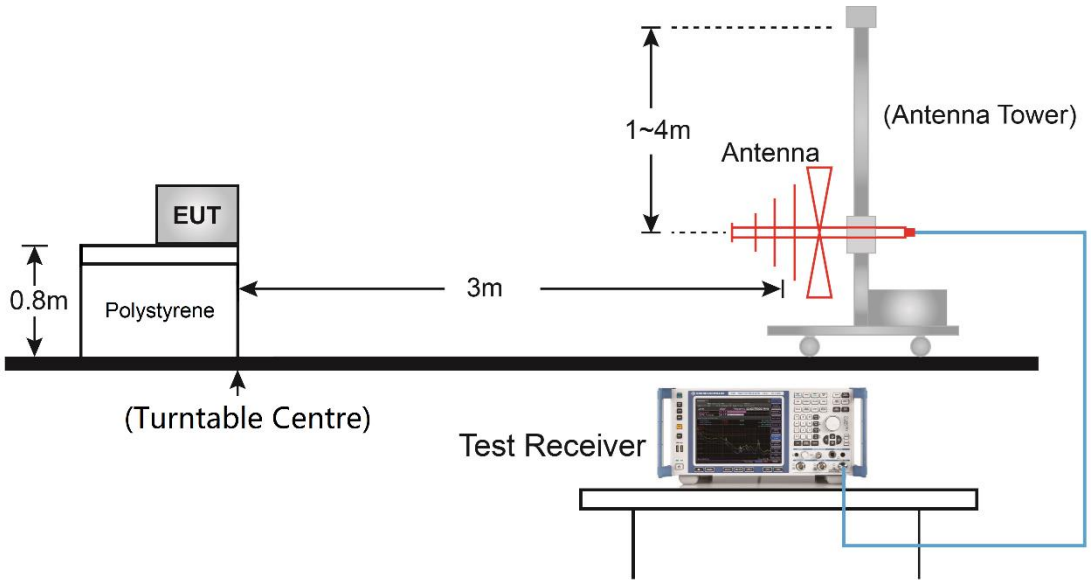
ANSI C63.26-2015 - Section 5.2.7 & 5.5

4.8.3. Test Setting

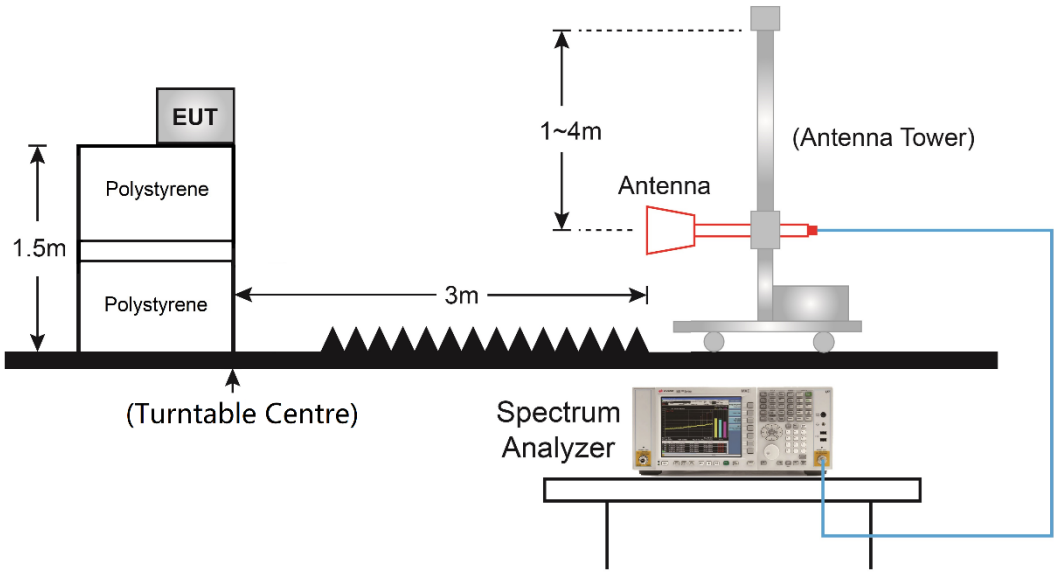
1. RBW = 1MHz
2. VBW≥ 3*RBW
3. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period)
4. Detector = Peak
5. Trace mode = max hold
6. The trace was allowed to stabilize

4.8.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



4.8.5. Test Result

Refer to Appendix A.7.

Appendix A - Test Result

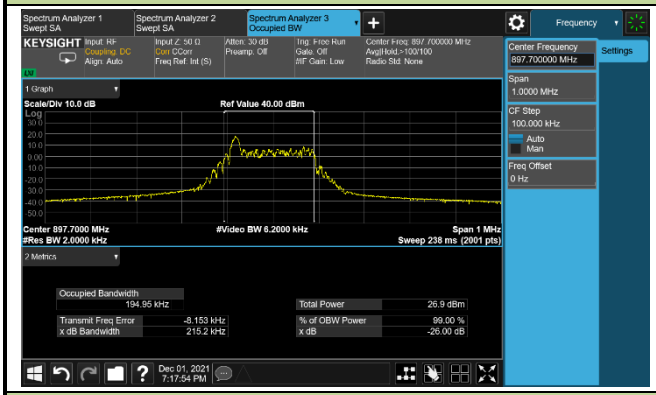
A.1 Occupied Bandwidth Test Result

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2021/11/29 ~ 2021/12/01	Test Band	Band 8

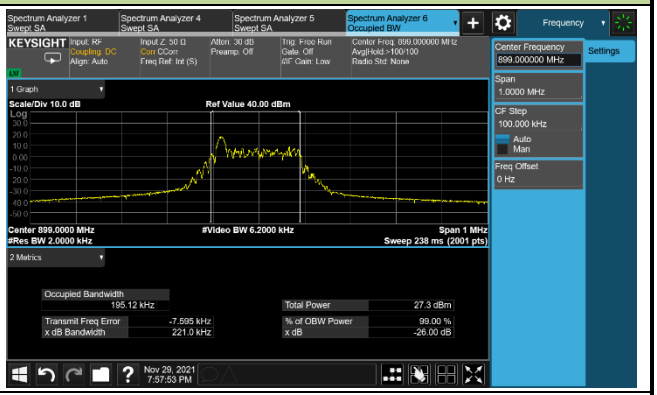
Channel	Frequency (MHz)	Modulation	Sub-carrier spacing (kHz)	N_{tones}	99% Bandwidth (kHz)
21627	897.7	QPSK	15	12@0	194.95
21640	899.0				195.12
21653	900.3				194.22

99% Bandwidth - QPSK

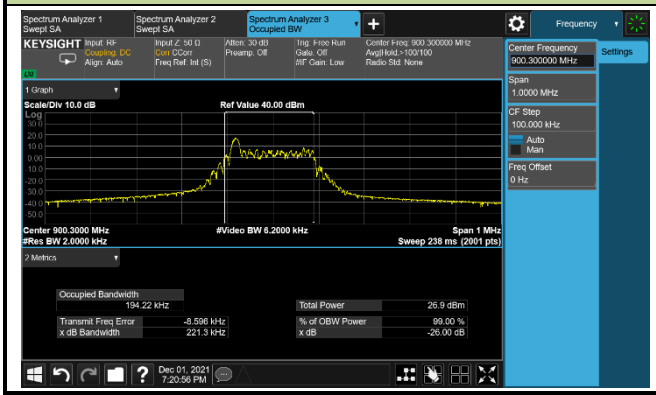
897.7MHz



899.0MHz



900.3MHz



A.2 Frequency Stability Test Result

Test Site	WZ-TR3	Test Engineer	Cloud Guo
Test Date	2021/12/08	Test Band	Band 8

Power (VDC)	Temp. (°C)	Freq. Error (Hz)	Frequency Tolerance (ppm)
3.3	- 30	5.2	0.0058
	- 20	6.7	0.0075
	- 10	15.5	0.0172
	0	9.1	0.0101
	+ 10	7.4	0.0082
	+ 20 (Ref)	2.8	0.0031
	+ 30	15.7	0.0175
	+ 40	9.5	0.0106
	+ 50	19	0.0211
4.8	+ 20	1.4	0.0016
2.6	+ 20	3.2	0.0036

A.3 Equivalent Isotropically Radiated Power Test Result

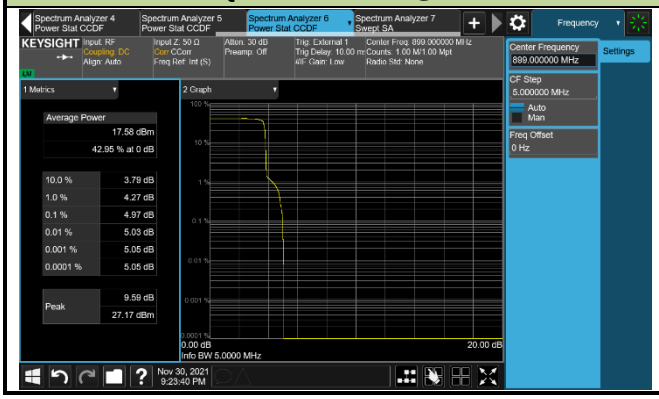
Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2021/12/02 ~ 2022/01/14	Test Band	Band 8

Channel No.	Frequency (MHz)	Sub-carrier spacing (kHz)	N_{tones}	Output Power (dBm)	ERP (dBm)	Limit (dBm)
BPSK						
21627	897.7	3.75	1@0	20.94	21.25	< 40.00
21640	899.0			20.80	21.11	< 40.00
21653	900.3			20.86	21.17	< 40.00
21627	897.7		1@47	20.86	21.17	< 40.00
21640	899.0			20.66	20.97	< 40.00
21653	900.3			20.79	21.10	< 40.00
21627	897.7	15	1@0	20.90	21.21	< 40.00
21640	899.0			20.73	21.04	< 40.00
21653	900.3			20.83	21.14	< 40.00
21627	897.7		1@11	20.79	21.10	< 40.00
21640	899.0			20.62	20.93	< 40.00
21653	900.3			20.73	21.04	< 40.00
QPSK						
21627	897.7	3.75	1@0	20.90	21.21	< 40.00
21640	899.0			20.94	21.25	< 40.00
21653	900.3			20.86	21.17	< 40.00
21627	897.7		1@47	20.81	21.12	< 40.00
21640	899.0			20.79	21.10	< 40.00
21653	900.3			20.74	21.05	< 40.00
21627	897.7	15	1@0	20.81	21.12	< 40.00
21640	899.0			20.76	21.07	< 40.00
21653	900.3			20.84	21.15	< 40.00
21627	897.7		1@11	20.79	21.10	< 40.00
21640	899.0			20.66	20.97	< 40.00
21653	900.3			20.72	21.03	< 40.00
21627	897.7		12@0	18.72	19.03	< 40.00
21640	899.0			18.56	18.87	< 40.00
21653	900.3			18.66	18.97	< 40.00
Note: The ERP (dBm) = Output Power (dBm) + Antenna Gain (dBi) - 2.15						

A.4 Peak to Average Ratio Test Result

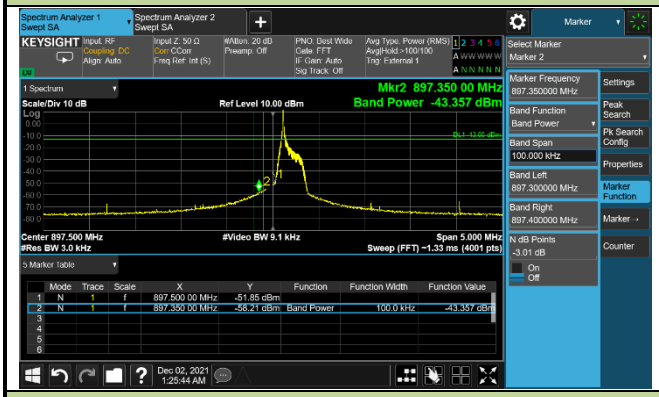
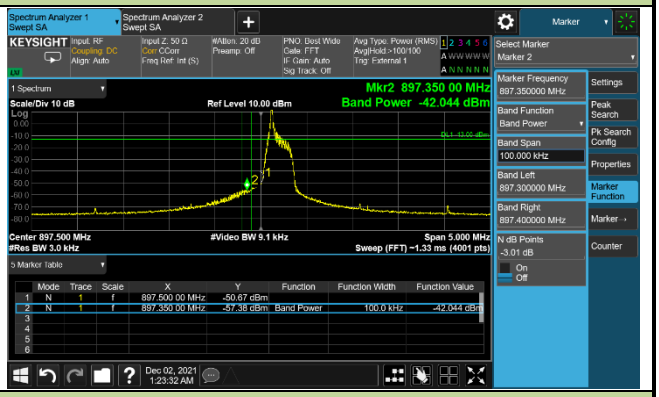
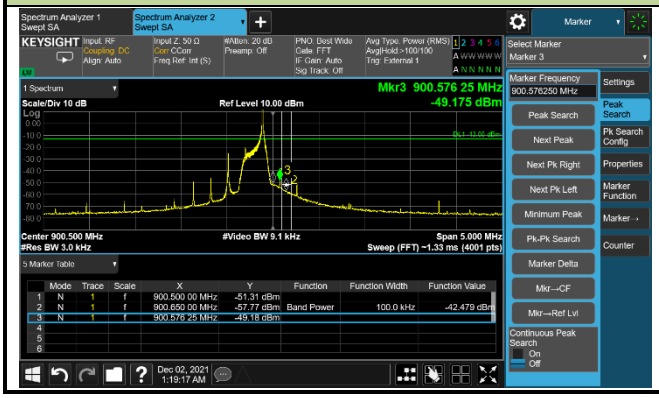
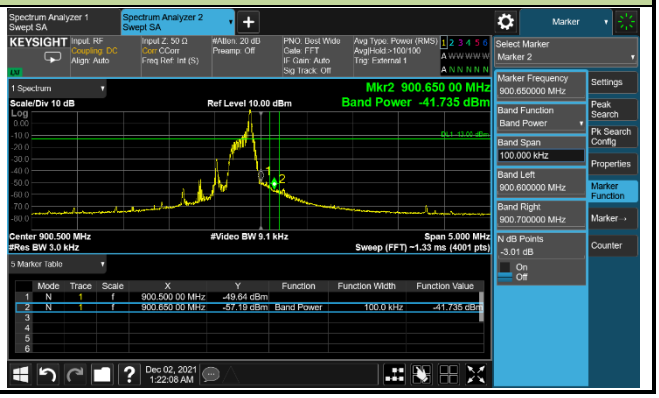
Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2021/11/30	Test Band	Band 8

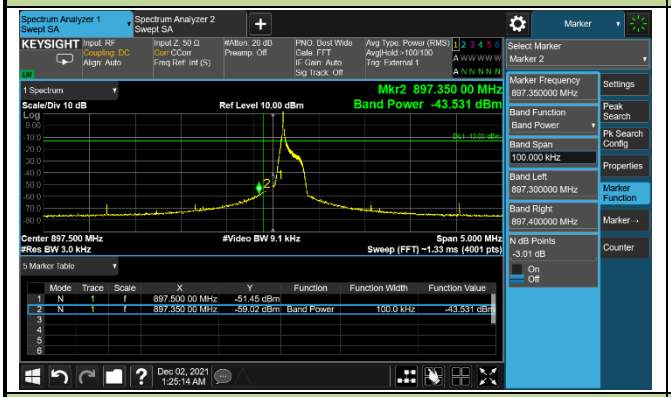
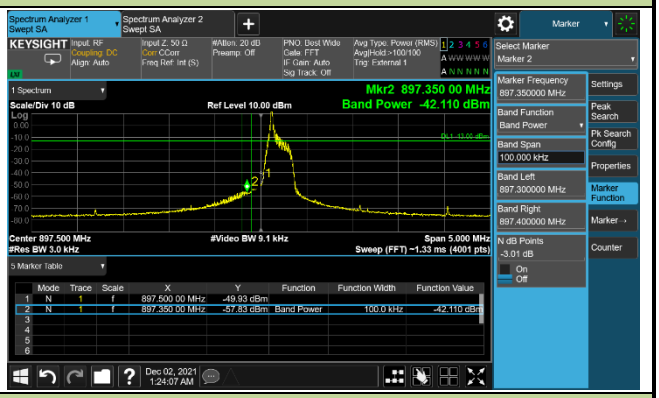
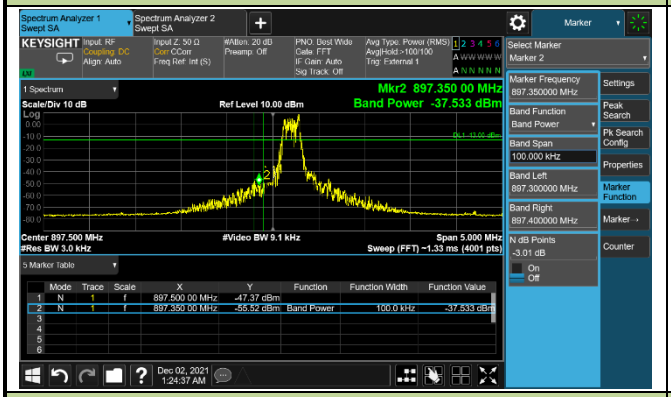
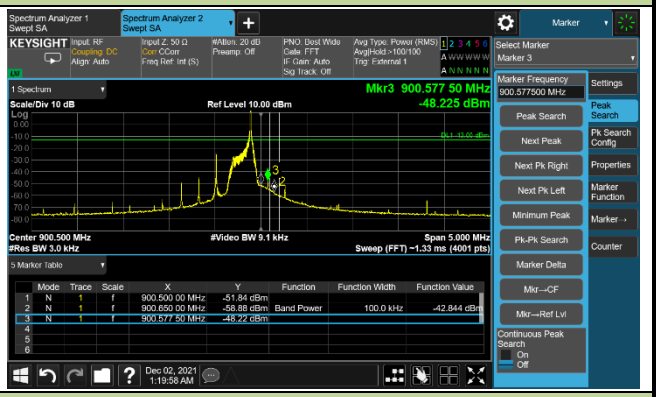
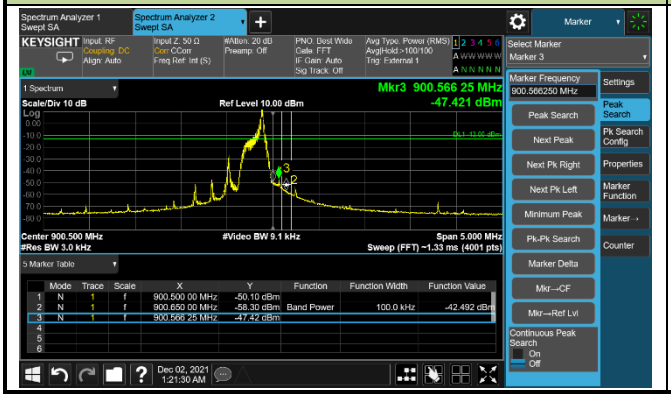
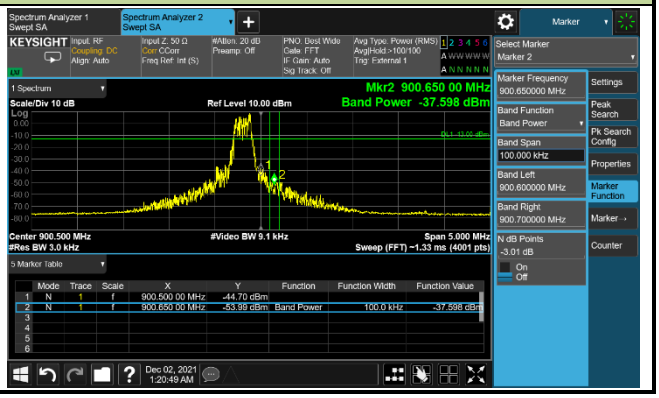
Channel No.	Frequency (MHz)	Sub-carrier spacing (kHz)	N_{tones}	Peak to Average Ratio (dB)	Limit (dB)	Result
21640	899.0	15	12@0	4.97	≤ 13.00	Pass

QPSK 15kHz 12@0	
	

A.5 Band Edge Test Result

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2021/12/02	Test Band	Band 8

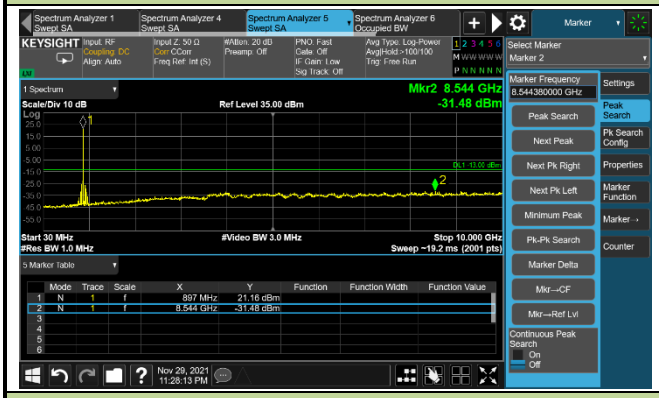
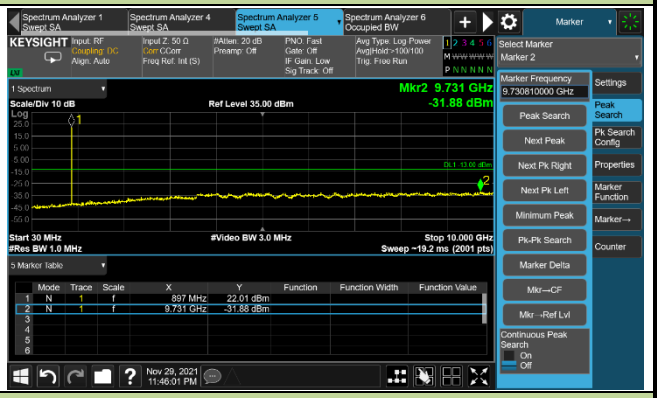
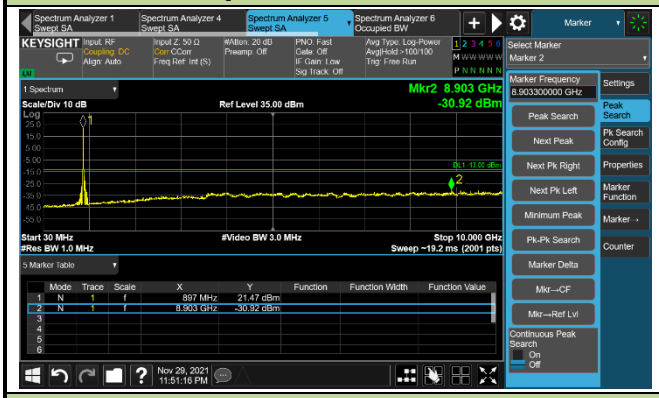
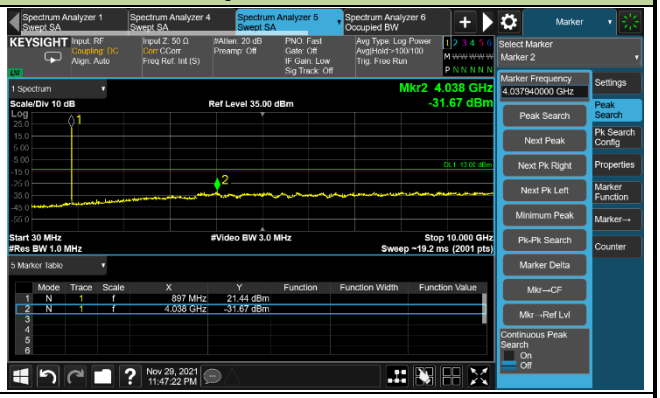
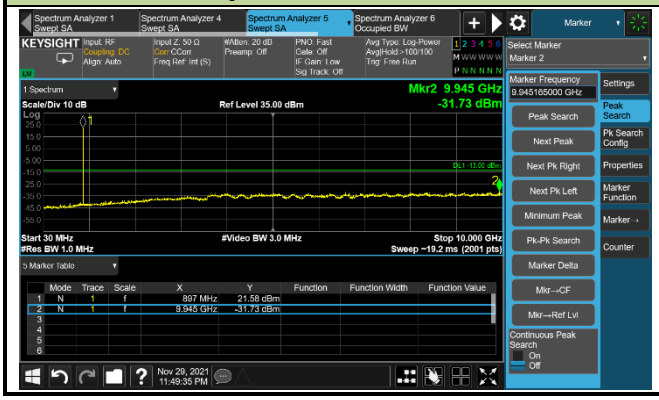
BPSK	
3.75kHz 1@0 CH-Low	15kHz 1@0 CH-Low
	
3.75kHz 1@47 CH-High	15kHz 1@11 CH-High
	

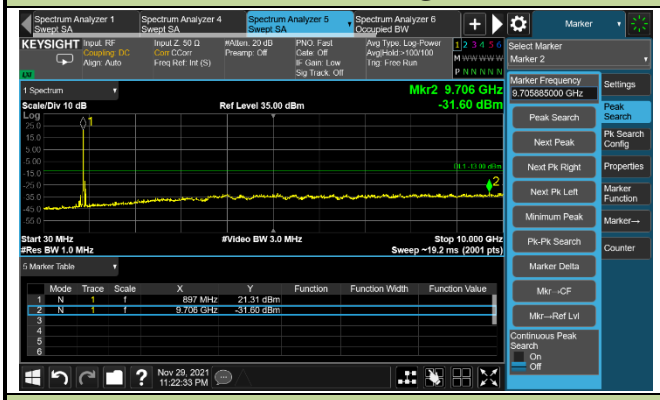
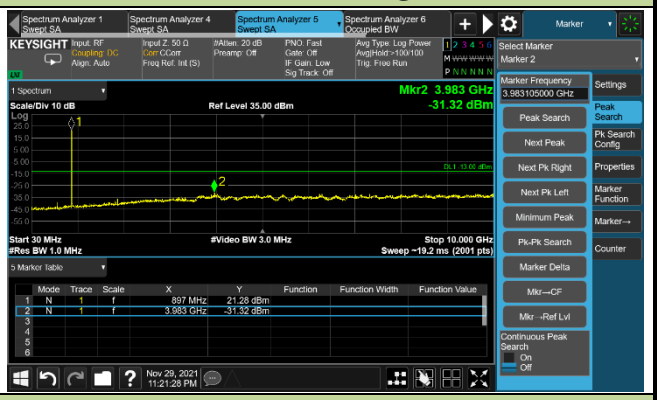
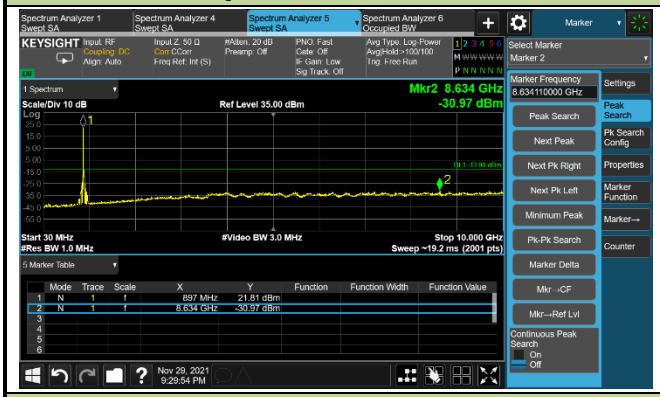
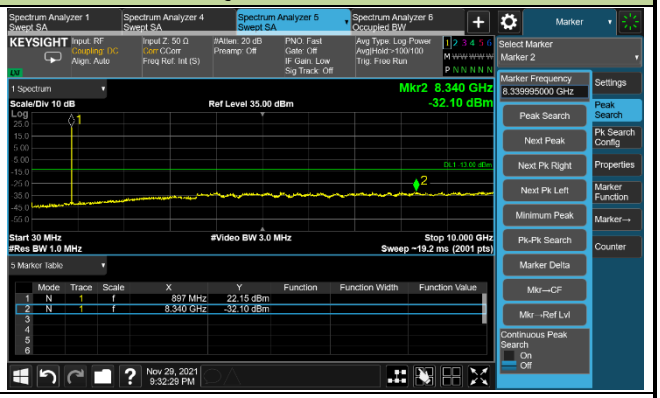
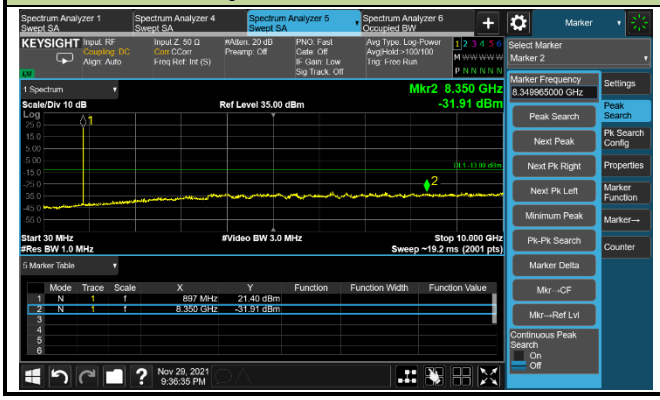
QPSK	
3.75kHz 1@0 CH-Low	15kHz 1@0 CH-Low
	
15 kHz 12@0 CH-Low	3.75kHz 1@47 CH-High
	
15kHz 1@11 CH-High	15kHz 12@0 CH-High
	

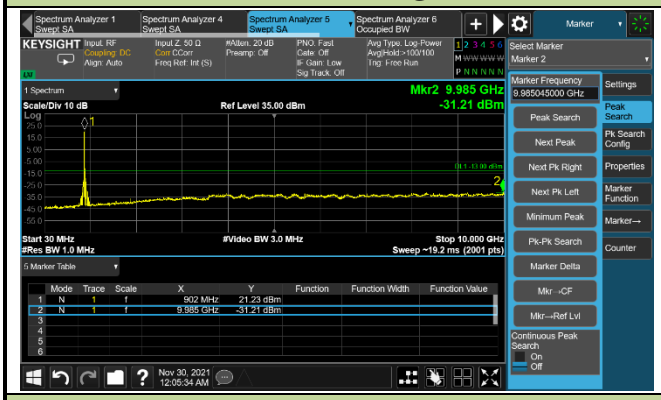
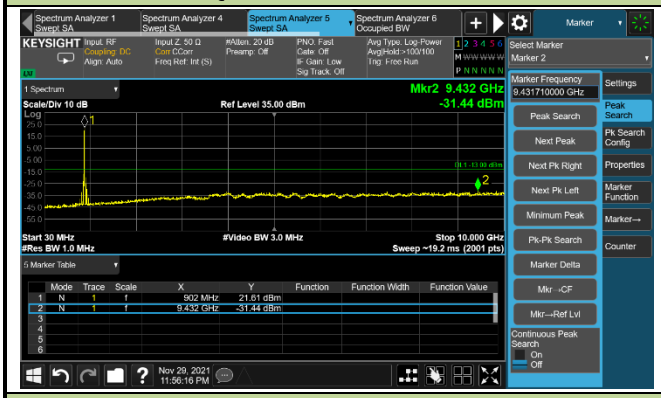
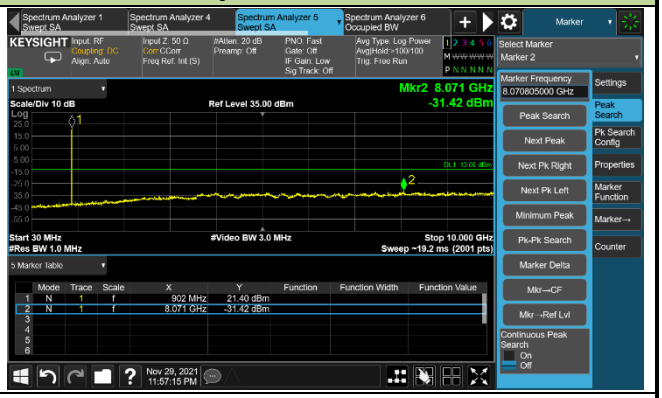
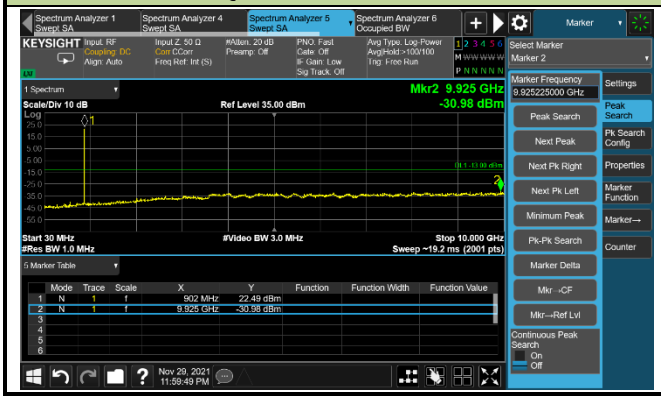
A.6 Conducted Spurious Emissions Test Result

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2021/11/30	Test Band	Band 8

Channel	Frequency (MHz)	Sub-carrier spacing (kHz)	N_{tones}	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
BPSK							
21627	897.7	3.75	1@0	30 ~ 10000	-31.48	≤ -13.00	Pass
21627	897.7	15	1@0	30 ~ 10000	-31.88	≤ -13.00	Pass
21640	899.0	3.75	1@0	30 ~ 10000	-31.60	≤ -13.00	Pass
21640	899.0	15	1@0	30 ~ 10000	-31.32	≤ -13.00	Pass
21653	900.3	3.75	1@47	30 ~ 10000	-31.21	≤ -13.00	Pass
21653	900.3	15	1@11	30 ~ 10000	-31.00	≤ -13.00	Pass
QPSK							
21627	897.7	3.75	1@0	30 ~ 10000	-30.92	≤ -13.00	Pass
21627	897.7	15	1@0	30 ~ 10000	-31.67	≤ -13.00	Pass
21627	897.7	15	12@0	30 ~ 10000	-31.73	≤ -13.00	Pass
21640	899.0	3.75	1@0	30 ~ 10000	-30.97	≤ -13.00	Pass
21640	899.0	15	1@0	30 ~ 10000	-32.10	≤ -13.00	Pass
21640	899.0	15	12@0	30 ~ 10000	-31.91	≤ -13.00	Pass
21653	900.3	3.75	1@47	30 ~ 10000	-31.44	≤ -13.00	Pass
21653	900.3	15	1@11	30 ~ 10000	-31.42	≤ -13.00	Pass
21653	900.3	15	12@0	30 ~ 10000	-30.98	≤ -13.00	Pass

Channel 21627 (897.7 MHz)	
BPSK 3.75kHz 1@0	BPSK 15kHz 1@0
	
QPSK 3.75kHz 1@0	QPSK 15kHz 1@0
	
QPSK 15kHz 12@0	
	

Channel 21640 (899.0 MHz)	
BPSK 3.75kHz 1@0	BPSK 15kHz 1@0
	
QPSK 3.75kHz 1@0	QPSK 15kHz 1@0
	
QPSK 15kHz 12@0	
	

Channel 21653 (900.3 MHz)	
BPSK 3.75kHz 1@47	BPSK 15kHz 1@11
	
QPSK 3.75kHz 1@47	QPSK 15kHz 1@11
	
QPSK 15kHz 12@0	
	

A.7 Radiated Spurious Emissions Test Result

Test Site	WZ-AC2	Test Engineer	Hyde Yu
Test Date	2021/12/10 ~ 2021/12/31	Test Band	Band 8, 15kHz, 1RB

Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Bottom Channel							
157.1	8.2	18.1	26.3	82.3	-56.0	Peak	Horizontal
629.0	14.1	25.8	39.9	82.3	-42.4	Peak	Horizontal
160.5	7.9	18.1	26.0	82.3	-56.3	Peak	Vertical
629.0	20.9	25.8	46.7	82.3	-35.6	Peak	Vertical
2691.5	54.2	-2.0	52.2	82.3	-30.1	Peak	Horizontal
11438.0	38.5	13.5	52.0	82.3	-30.3	Peak	Horizontal
2691.5	48.3	-2.0	46.3	82.3	-36.0	Peak	Vertical
11387.0	38.3	13.5	51.8	82.3	-30.5	Peak	Vertical
Middle Channel							
161.0	8.6	18.0	26.6	82.3	-55.7	Peak	Horizontal
611.0	8.8	26.0	34.8	82.3	-47.5	Peak	Horizontal
629.9	22.3	25.8	48.1	82.3	-34.2	Peak	Vertical
668.3	20.1	26.5	46.6	82.3	-35.7	Peak	Vertical
2700.0	52.0	-1.9	50.1	82.3	-32.2	Peak	Horizontal
12254.0	39.1	12.9	52.0	82.3	-30.3	Peak	Horizontal
2700.0	49.1	-1.9	47.2	82.3	-35.1	Peak	Vertical
10698.5	37.8	13.6	51.4	82.3	-30.9	Peak	Vertical
Top Channel							
158.5	8.1	18.1	26.2	82.3	-56.1	Peak	Horizontal
631.4	12.0	25.8	37.8	82.3	-44.5	Peak	Horizontal
59.6	8.2	17.8	26.0	82.3	-56.3	Peak	Vertical
631.4	23.0	25.8	48.8	82.3	-33.5	Peak	Vertical
2700.0	52.3	-1.9	50.4	82.3	-31.9	Peak	Horizontal
10860.0	39.0	13.9	52.9	82.3	-29.4	Peak	Horizontal
2700.0	49.3	-1.9	47.4	82.3	-34.9	Peak	Vertical
10996.0	38.2	13.8	52.0	82.3	-30.3	Peak	Vertical
Note: Measure Level (dBm) = Reading Level (dBm) + Factor (dB).							

Appendix B - Test Setup Photograph

Refer to “2111RSU084-UT” file.

Appendix C - EUT Photograph

Refer to “2111RSU084-UE” file.

The End