MEASUREMENT REPORT

FCC PART 22 & 24

FCC ID:	XMR202111EG915ULA
Application:	Quectel Wireless Solutions Company Limited
Application Type:	Certification
Product:	LTE Module
Model No.:	EG915U-LA
Brand Name:	Quectel
FCC Rule Part(s):	Part 22 (H), 24 (E)
Test Procedure(s):	ANSI C63.26: 2015
Test Date:	October 17 ~ November 02, 2021

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
2110RSU013-U1	Rev. 01	Initial Report	11-17-2021	Valid

CONTENTS

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 Module
Model No.	EG915U-LA
Brand Name	Quectel
IMEI	Conducted Measurement:865413050001212 Radiated Measurement: 865413050000693
Bluetooth Specification	V4.2 single mode for BR/EDR
Wi-Fi Specification	Scan function only
GSM Band	GSM 850, PCS 1900
E-UTRA Band	Band 2, 4, 5, 7, 66
Operating Temperature	-35 ~ 75 °C
Power Type	3.3 ~ 4.3Vdc, typical 3.8Vdc
Remark: 1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

GSM Specification	
T_X Frequency Range	GSM 850: 824 ~ 849MHz, PCS 1900: 1850 ~ 1910MHz
R_X Frequency Range	GSM 850: 869 ~ 894MHz, PCS 1900: 1930 ~ 1990MHz,
Modulation	GMSK, 8-PSK
Power Class	GSM 850: 5, PCS 1900: 3
Category	Multi-slot class 12

1.6. Test Methodology

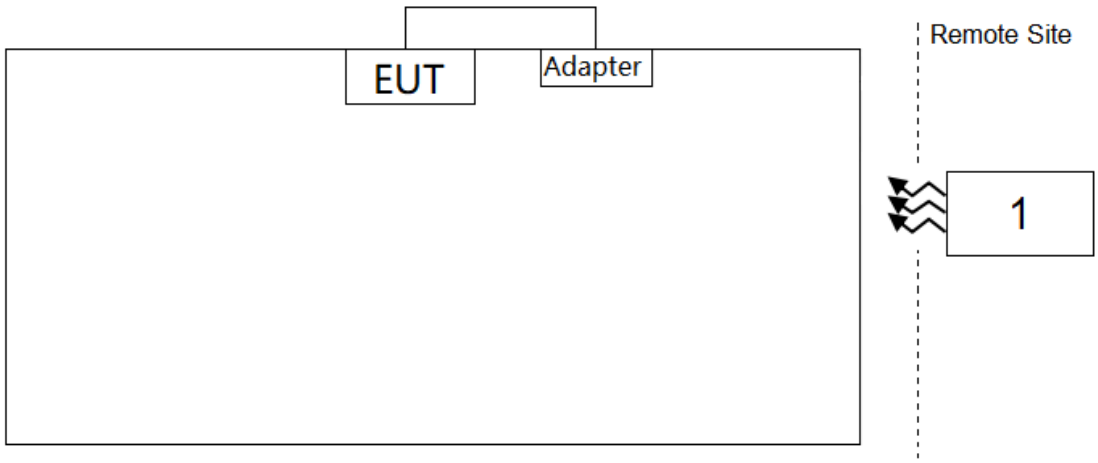
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26:2015
- FCC CFR 47 Part 22, Part 24
- 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. Maximum Power, Frequency Tolerance, and Emission Designator

System	Modulation	Maximum Power (W)	Frequency Tolerance (ppm)	Emission Designator
GSM 850_GPRS	GMSK	1.9364	0.0055	238KGXW
PCS 1900_GPRS	GMSK	0.8690	-0.0127	238KGXW

1.8. Configuration of Tested System



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

1.9. 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	2022/1/4	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2022/9/16	WZ-AC1
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2022/10/10	WZ-TR3
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2021/11/14	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
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2022/4/29	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
Signal Generator	Keysight	N5173B	MRTSUE06606	1 year	2021/12/3	WZ-SR6
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2022/1/6	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

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 Spurious Emissions
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
Conducted Spurious Emissions
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
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.28%
Frequency Stability
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 76.2Hz

4. TEST RESULT

4.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	Occupied Bandwidth	N/A	Conducted	Pass	Section 4.2
2.1055, 22.355 24.235	Frequency Stability	< 2.5 ppm		Pass	Section 4.3
22.913(a)(5)	Equivalent Radiated Power	< 7 Watts Max ERP		Pass	Section 4.4
24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts Max EIRP		Pass	Section 4.4
2.1051, 22.917(a) 24.238(a)	Band Edge	< 43 + 10log10 (P[Watts])		Pass	Section 4.5
2.1051, 22.913(d) 24.232(d)	Peak to Average Ratio	< 13dB		Pass	Section 4.6
24.238(a), 22.917(a)	Spurious Emission	< 43 + 10log10 (P[Watts])		Pass	Section 4.7
2.1053, 22.917(a) 24.238(a)	Spurious Emission	< 43 + 10log10 (P[Watts])	Radiated	Pass	Section 4.8

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. Therefore, the Frequency Stability, Channel Band Edge, Radiated & Conducted Spurious Emission were presented worst-case in the test report.

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.

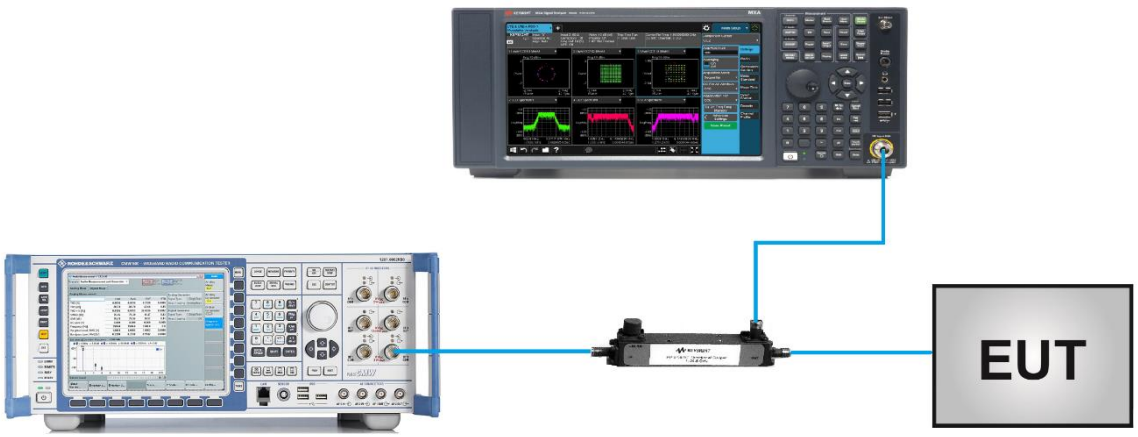
4.2.2.Test Procedure

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.

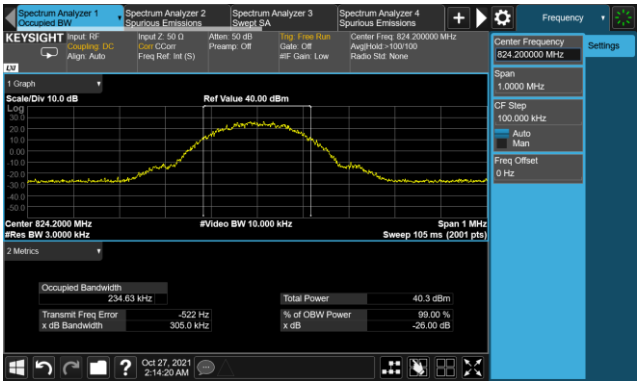
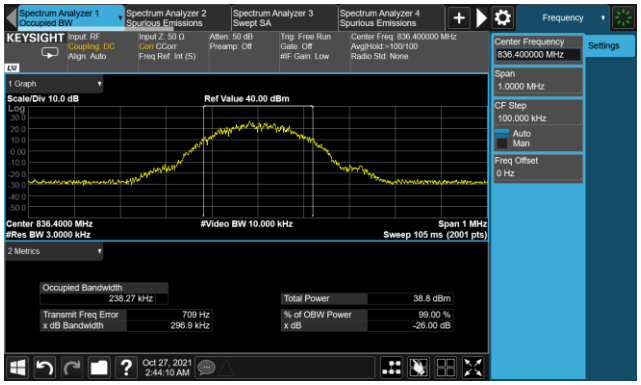
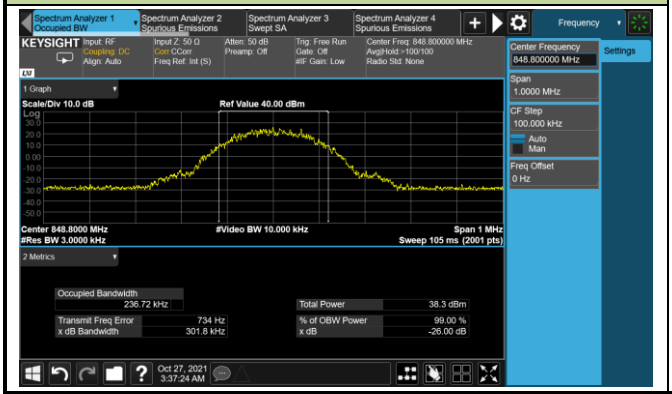
4.2.4.Test Setup



4.2.5.Test Result

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	GSM 850_GPRS		

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	824.2	0.234
Middle	836.4	0.238
High	848.8	0.237

99% Occupied Bandwidth	
Low Channel	Middle Channel
	
High Channel	
	

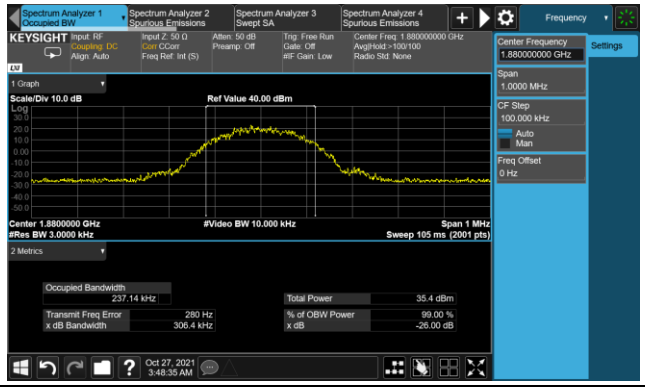
Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	PCS 1900_GPRS		

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	1850.2	0.235
Middle	1880.0	0.237
High	1909.8	0.238

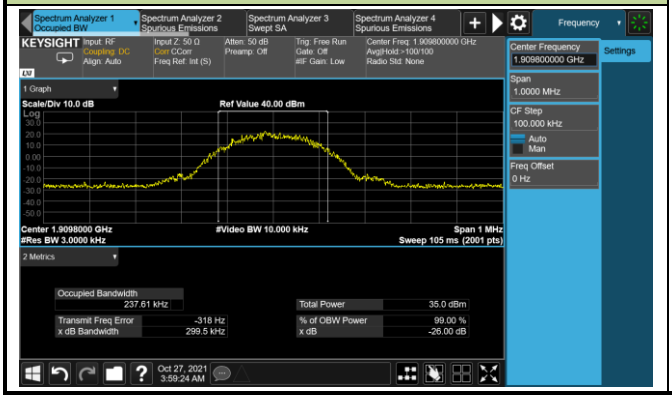
99% Occupied Bandwidth

Low Channel

Middle Channel



High Channel



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. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

4.3.2.Test Procedure

ANSI C63.26-2015 - Section 5.6

4.3.3.Test Setting

Frequency Stability Under Temperature Variations:

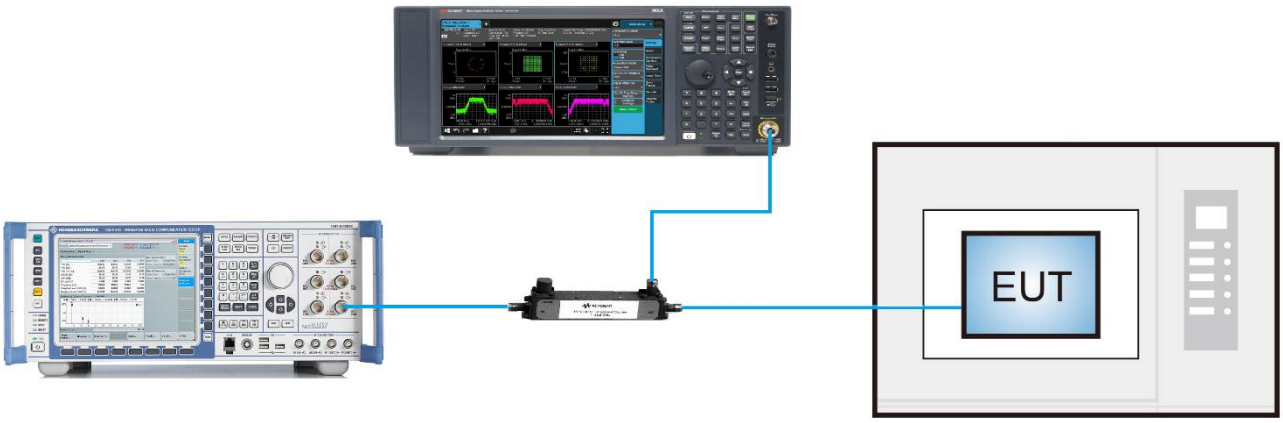
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain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

Product	LTE Module	Test Site	WZ-TR3
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	GSM 850_GPRS		

Power (Vdc)	Temp. (°C)	Frequency Tolerance (ppm)
3.8	-30	-0.0026
	-20	0.0035
	-10	0.0035
	0	0.0002
	+10	-0.0002
	+20	0.0022
	+30	0.0055
	+40	0.0000
	+50	-0.0044
3.3	+20	-0.0008
4.3	+20	0.0048

Product	LTE Module	Test Site	WZ-TR3
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	PCS 1900_GPRS		

Power (Vdc)	Temp. (°C)	Frequency Tolerance (ppm)
3.8	- 30	-0.0100
	- 20	-0.0076
	- 10	-0.0125
	0	-0.0104
	+ 10	-0.0121
	+ 20	-0.0127
	+ 30	-0.0106
	+ 40	-0.0119
	+ 50	-0.0102
3.3	+ 20	-0.0123
4.3	+ 20	-0.0121

4.4. Equivalent Isotropically Radiated Power Measurement

4.4.1.Test Limit

PCS 1900:

Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

GSM 850:

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

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

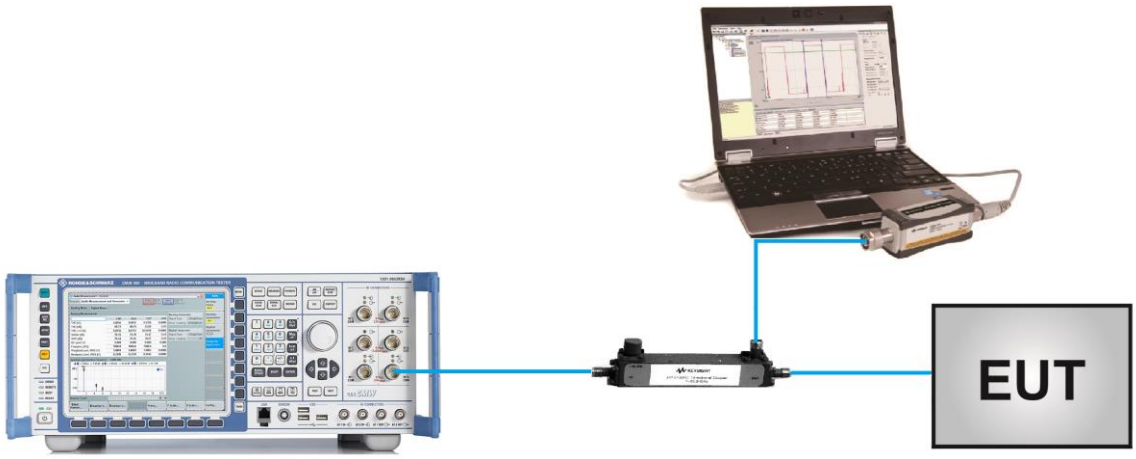
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, e.g., dBm or dBW)

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

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/07
Test Band	GSM 850		

Mode	Slot	Conducted Power (dBm)			Antenna Gain (dBi)	ERP (dBm)		
		GSM 850 Channel				GSM 850 Channel		
		128	189	251		128	189	251
GPRS	1	32.87	32.71	32.47	2.53	33.25	33.09	32.85
	2	30.85	30.65	30.45	2.53	31.23	31.03	30.83
	3	28.59	28.48	28.26	2.53	28.97	28.86	28.64
	4	26.45	26.41	26.24	2.53	26.83	26.79	26.62
Limit	38.45dBm							

Note: The ERP (dBm) = Output Power (dBm) + Antenna Gain (dBi) - 2.15

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	PCS 1900		

Mode	Slot	Conducted Power (dBm)			Antenna Gain (dBi)	EIRP (dBm)		
		PCS 1900 Channel				PCS 1900 Channel		
		512	661	810		512	661	810
GPRS	1	29.36	29.08	28.93	1.59	30.95	30.67	30.52
	2	27.67	27.49	27.44	1.59	29.26	29.08	29.03
	3	25.51	25.25	25.34	1.59	27.10	26.84	26.93
	4	23.51	23.18	23.22	1.59	25.10	24.77	24.81
Limit	33.01dBm							

Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

4.5. Band Edge Measurement

4.5.1.Test Limit

For operations in the 824 ~ 849 MHz, 1850 ~ 1910 MHz, the FCC limit is 43 + 10log10(P[$_{Watts}$]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

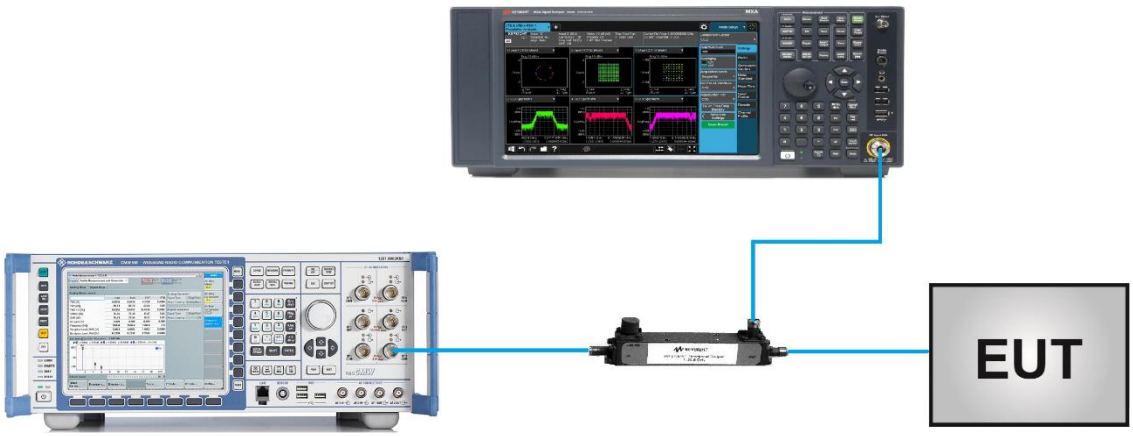
4.5.2.Test Procedure

ANSI C63.26-2015 - Section 5.7

4.5.3.Test Setting

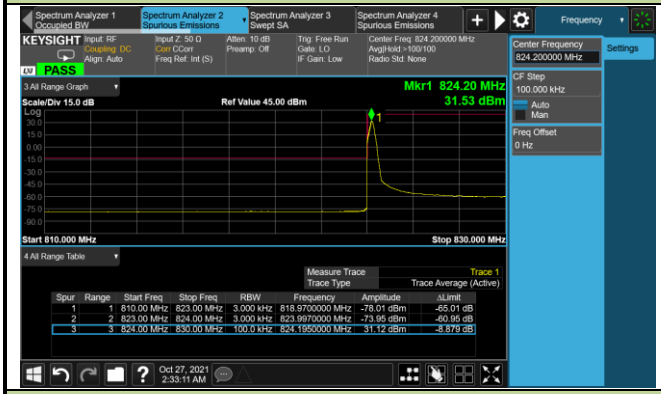
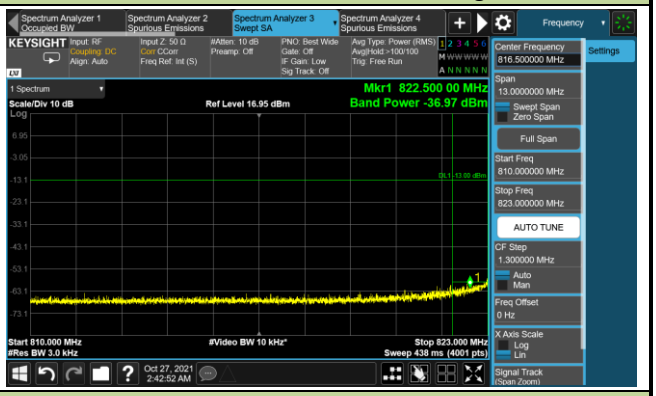
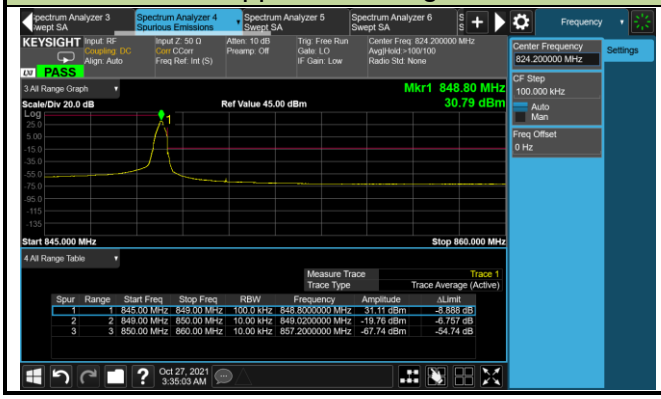
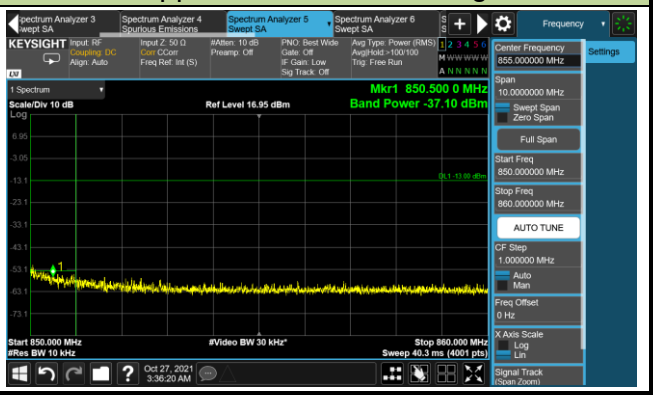
1. Set the analyzer frequency to low or high channel
2. RBW ≥ The nominal RBW shall be in the range of 1% of the anticipated OBW (in the 1MHz band immediately outside and adjacent to the band edge). For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW 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.

4.5.4.Test Setup

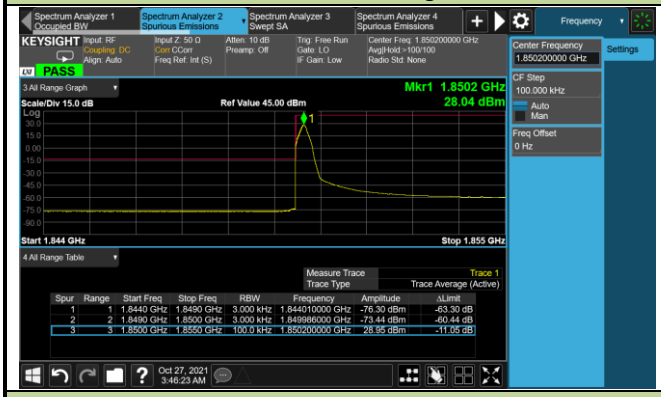
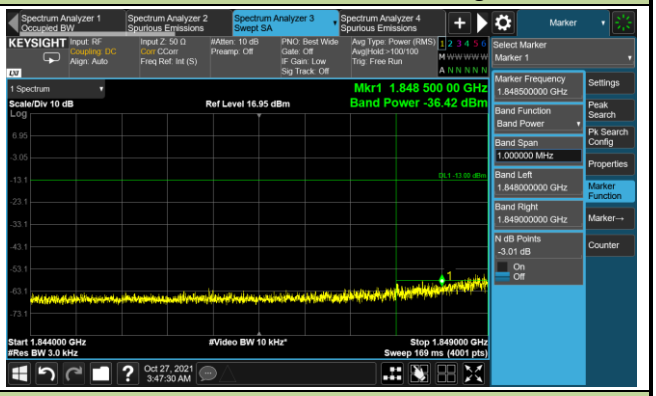
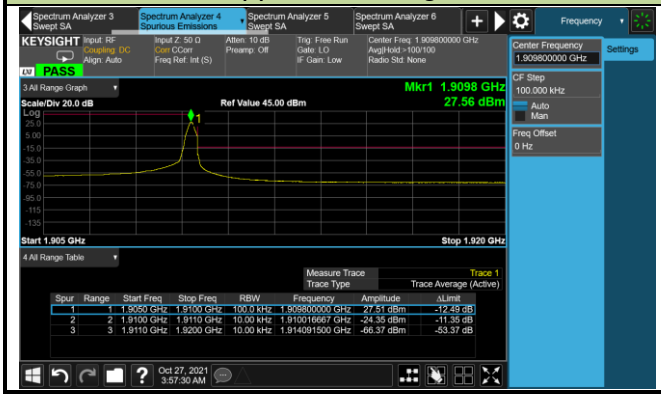
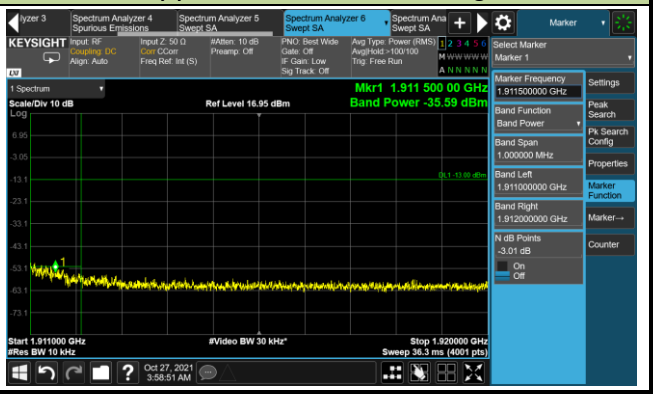


4.5.5.Test Result

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	GSM 850		

GSM 850_GPRS	
Lower Band Edge	Lower Extended Band Edge
	
Upper Band Edge	Upper Extended Band Edge
	

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	PCS 1900		

PCS 1900_GPRS	
Lower Band Edge	Lower Extended Band Edge
	
Upper Band Edge	Upper Extended Band Edge
	

4.6. Peak to Average Ratio Measurement

4.6.1.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.

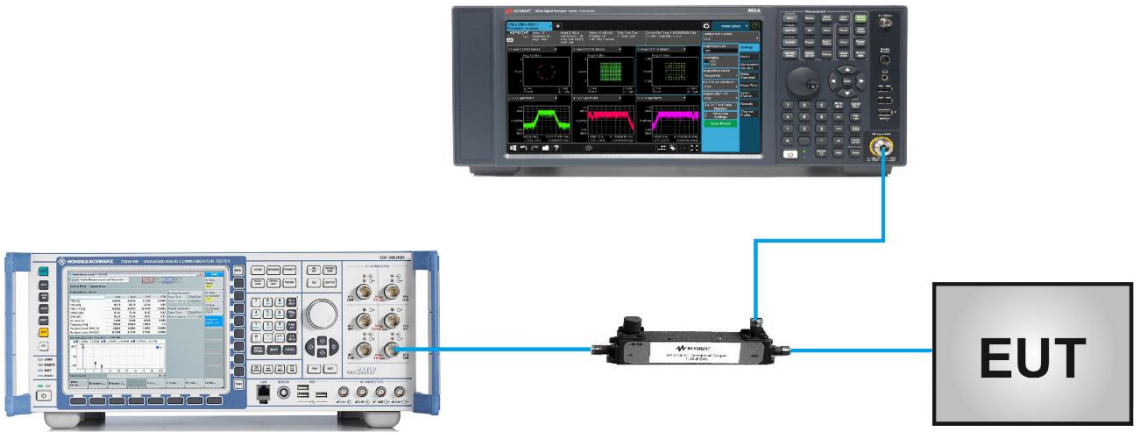
4.6.2.Test Procedure

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

4.6.3.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%

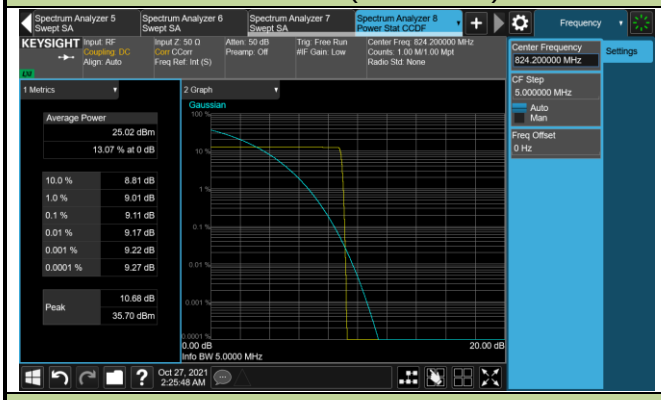
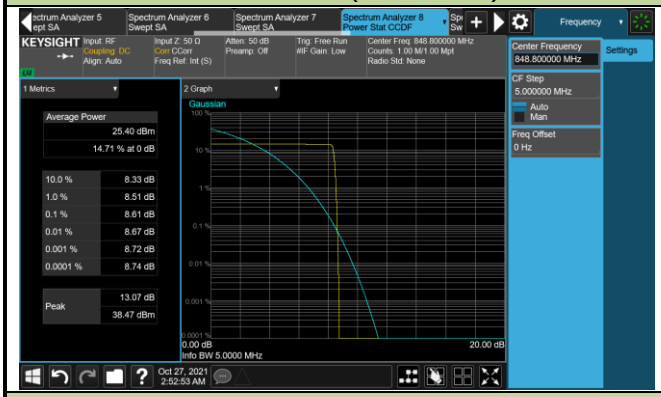
4.6.4.Test Setup

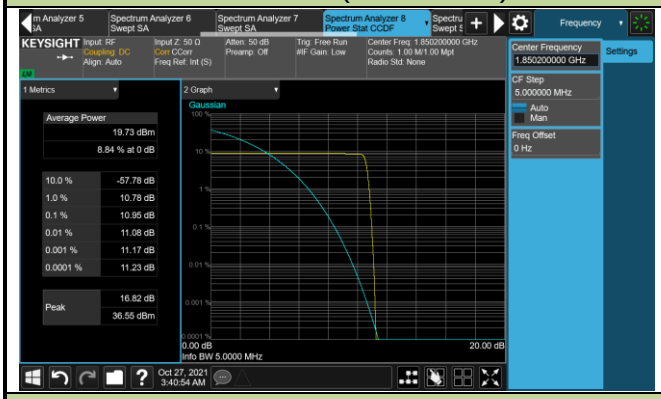
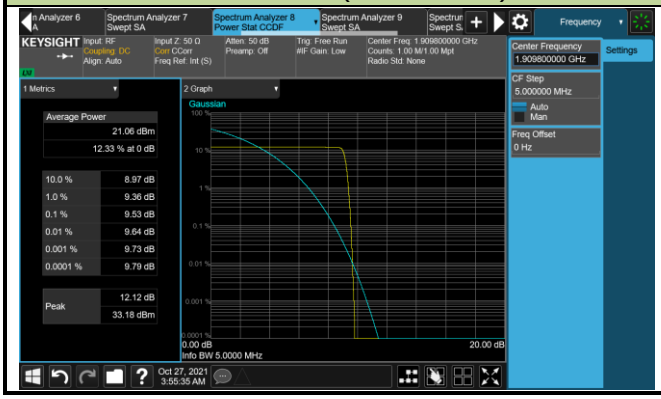


4.6.5.Test Result

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/10/27
Test Band	GSM 850, PCS 1900		

Channel No.	Frequency (MHz)	Channel Bandwidth (KHz)	Peak to Average Ratio (dB)	Limit (dB)	Result
GSM 850_GPRS					
128	824.2	200	9.11	≤ 13.00	Pass
189	836.4	200	9.56	≤ 13.00	Pass
251	848.8	200	8.61	≤ 13.00	Pass
PCS 1900_GPRS					
512	1850.2	200	10.95	≤ 13.00	Pass
661	1880.0	200	10.42	≤ 13.00	Pass
810	1909.8	200	9.53	≤ 13.00	Pass

GSM 850_GPRS	
Channel 128 (824.2MHz)	Channel 189 (836.4MHz)
	
Channel 254 (848.8MHz)	
	

PCS 1900_GPRS	
Channel 512 (1850.2MHz)	Channel 661 (1880.0MHz)
	
Channel 810 (1909.8MHz)	
	

4.7. Conducted Spurious Emission 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 Low 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.

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of 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

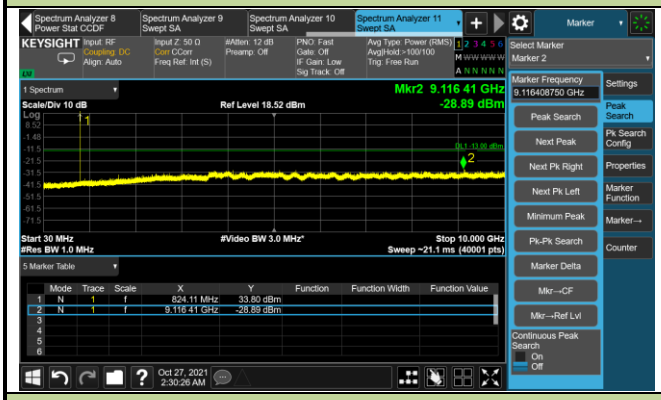
4.7.5.Test Result

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Candy Luo	Test Date	2021/06/07
Test Band	GSM 850, PCS 1900		

Mode	Frequency (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
GSM 850 GPRS	824.2	30 ~ 10000	-28.89	≤ -13.00	Pass
	836.4	30 ~ 10000	-29.40	≤ -13.00	Pass
	848.8	30 ~ 10000	-29.43	≤ -13.00	Pass
PCS 1900 GPRS	1850.2	30 ~ 20000	-28.24	≤ -13.00	Pass
	1880.0	30 ~ 20000	-28.45	≤ -13.00	Pass
	1909.8	30 ~ 20000	-28.44	≤ -13.00	Pass

GSM 850_GPRS

Low Channel

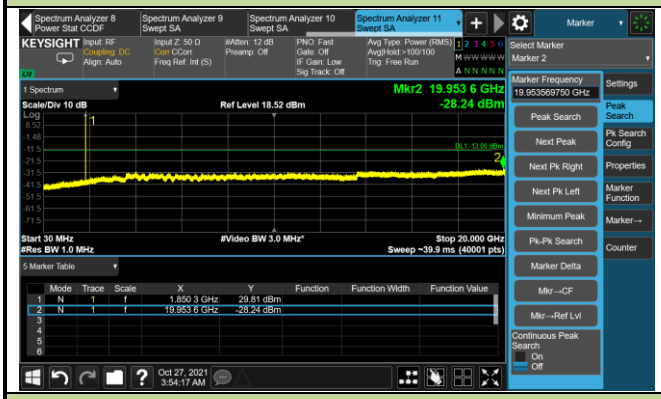


Middle Channel

High Channel

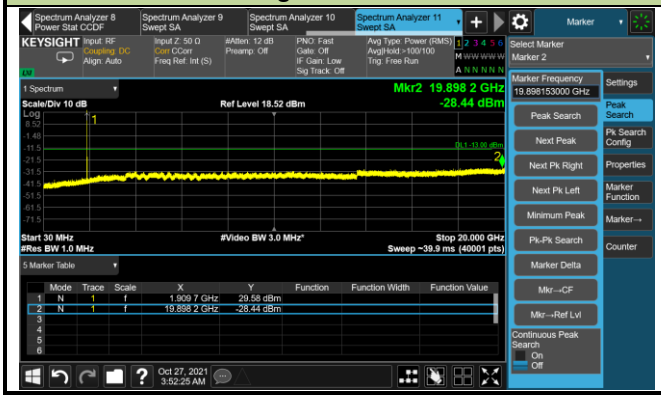
PCS 1900_GPRS

Low Channel



Middle Channel

High Channel



4.8. Radiated Spurious Emission 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

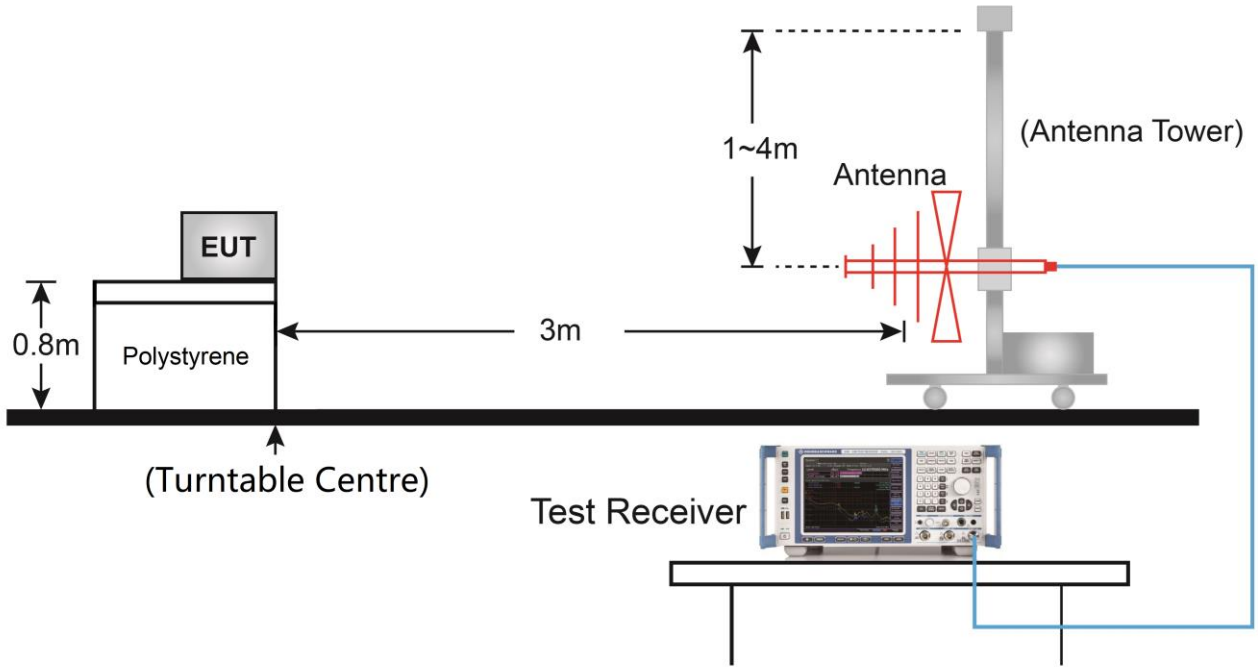
ANSI C63.26-2015 - Section 5.2.7 & 5.5

4.8.3. Test Setting

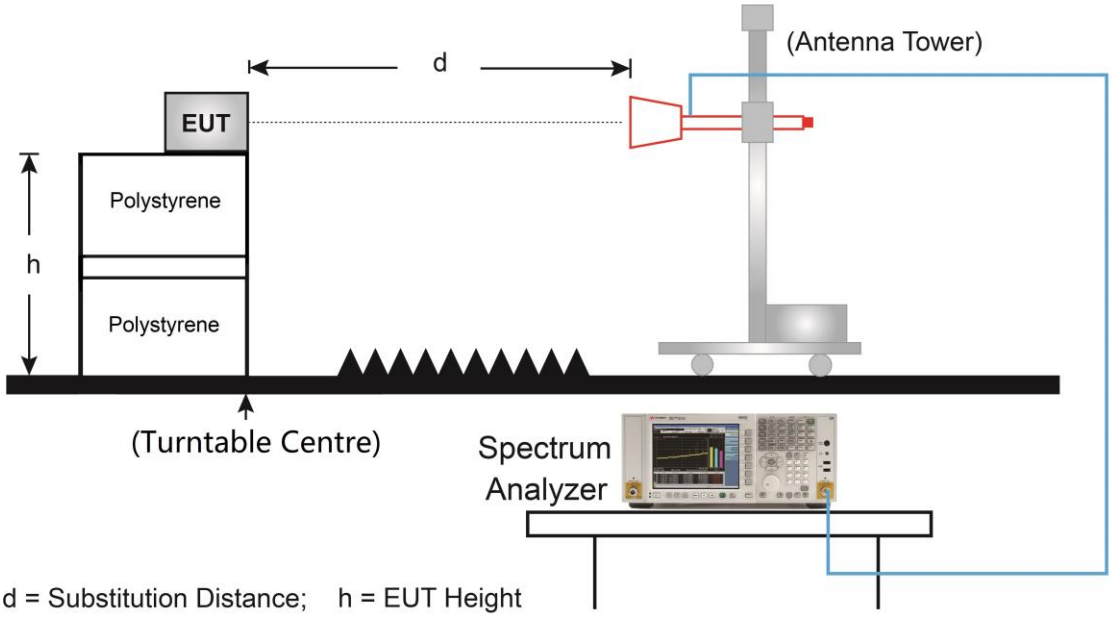
1. RBW = 1MHz
2. VBW ≥ 3*RBW
3. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period)
4. Detector = Peak
5. Trace mode = max hold
6. The trace was allowed to stabilize

4.8.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



4.8.5. Test Result

Product	LTE Module	Test Site	WZ-AC1
Test Engineer	Lucas Wang	Test Date	2021/10/26
Test Band	GSM 850		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level(dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
155.13	15.95	15.39	31.34	82.30	-50.96	Peak	Horizontal
722.10	3.96	29.07	33.03	82.30	-49.27	Peak	Horizontal
56.19	15.60	19.97	35.57	82.30	-46.73	Peak	Vertical
162.41	11.39	15.86	27.25	82.30	-55.05	Peak	Vertical
1646.00	57.76	-5.13	52.63	82.30	-29.67	Peak	Horizontal
4119.50	51.65	1.23	52.88	82.30	-29.42	Peak	Horizontal
3295.00	55.43	-1.62	53.81	82.30	-28.49	Peak	Vertical
4119.50	57.85	1.23	59.08	82.30	-23.22	Peak	Vertical
Middle Channel							
163.38	19.79	15.89	35.68	82.30	-46.62	Peak	Horizontal
666.81	4.39	28.21	32.60	82.30	-49.70	Peak	Horizontal
56.68	15.56	19.91	35.47	82.30	-46.83	Peak	Vertical
117.30	12.30	17.04	29.34	82.30	-52.96	Peak	Vertical
3346.00	52.63	-1.59	51.04	82.30	-31.26	Peak	Horizontal
4179.00	50.96	1.47	52.43	82.30	-29.87	Peak	Horizontal
3346.00	60.34	-1.59	58.75	82.30	-23.55	Peak	Vertical
4179.00	60.37	1.47	61.84	82.30	-20.46	Peak	Vertical
High Channel							
164.35	20.06	15.92	35.98	82.30	-46.32	Peak	Horizontal
902.03	4.48	31.47	35.95	82.30	-46.35	Peak	Horizontal
53.77	15.62	20.28	35.90	82.30	-46.40	Peak	Vertical
751.68	3.50	29.74	33.24	82.30	-49.06	Peak	Horizontal
3397.00	51.32	-1.30	50.02	82.30	-32.28	Peak	Horizontal
4247.00	50.77	1.63	52.40	82.30	-29.90	Peak	Vertical
3397.00	59.60	-1.30	58.30	82.30	-24.00	Peak	Vertical
4247.00	59.76	1.63	61.39	82.30	-20.91	Peak	Horizontal
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB).							

Product	LTE Module	Test Site	WZ-AC1
Test Engineer	Lucas Wang	Test Date	2021/10/26
Test Band	PCS 1900		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level(dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
155.62	14.18	15.42	29.60	82.30	-52.70	Peak	Horizontal
870.99	3.90	31.25	35.15	82.30	-47.15	Peak	Horizontal
53.77	14.42	20.28	34.70	82.30	-47.60	Peak	Vertical
851.59	3.93	31.03	34.96	82.30	-47.34	Peak	Vertical
3703.00	48.47	-0.10	48.37	82.30	-33.93	Peak	Horizontal
5547.50	42.46	4.23	46.69	82.30	-35.61	Peak	Horizontal
5547.50	55.50	4.23	59.73	82.30	-22.57	Peak	Vertical
14804.00	37.39	20.09	57.48	82.30	-24.82	Peak	Vertical
Middle Channel							
158.53	12.98	15.61	28.59	82.30	-53.71	Peak	Horizontal
861.29	3.35	31.22	34.57	82.30	-47.73	Peak	Horizontal
40.19	14.95	19.34	34.29	82.30	-48.01	Peak	Vertical
693.97	4.11	28.75	32.86	82.30	-49.44	Peak	Vertical
3762.50	47.86	0.03	47.89	82.30	-34.41	Peak	Horizontal
5641.00	41.81	4.69	46.50	82.30	-35.80	Peak	Horizontal
3762.50	56.50	0.03	56.53	82.30	-25.77	Peak	Vertical
15042.00	38.48	19.04	57.52	82.30	-24.78	Peak	Vertical
High Channel							
462.14	4.37	24.13	28.50	82.30	-53.80	Peak	Horizontal
796.30	4.11	29.94	34.05	82.30	-48.25	Peak	Horizontal
45.52	14.26	20.41	34.67	82.30	-47.63	Peak	Vertical
864.20	4.26	31.25	35.51	82.30	-46.79	Peak	Vertical
3822.00	48.01	0.20	48.21	82.30	-34.09	Peak	Horizontal
5726.00	36.05	5.39	41.44	82.30	-40.86	Peak	Horizontal
3822.00	58.03	0.20	58.23	82.30	-24.07	Peak	Vertical
15280.00	35.28	19.34	54.62	82.30	-27.68	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB).							

5. CONCLUSION

The data collected relate only the item(s) tested and show that unit is compliance with FCC Rules.

The End

Appendix A - Test Setup Photograph

Refer to “2110RSU013-UT” file.

Appendix B - EUT Photograph

Refer to “2110RSU013-UE” file.