



MEASUREMENT REPORT

FCC PART 96

FCC ID: ZMOFM101CG
Applicant: Fibocom Wireless Inc.

Application Type: Certification
Product: LTE Module
Model No.: FM101-CG
Brand Name: Fibocom
FCC Rule Part(s): Part 96
Test Procedure(s): ANSI C63.26: 2015
Test Date: December 27 ~ 30, 2021

Reviewed By: _____

Approved By: _____



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.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2112RSU074-U1	Rev. 01	Initial Report	01-13-2022	Valid

Note: This application for certification is leveraging the data reuse procedures from KDB 484596 based on reference FCC ID: ZMOFM101NA to cover variant FCC ID: ZMOFM101CG.

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1. GENERAL INFORMATION

1.1. Applicant

Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

1.2. Manufacturer

Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

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

2. PRODUCT INFORMATION

2.1. Product Information

Product Name	LTE Module
Model No.	FM101-CG
Brand Name	Fibocom
IMEI	867141050007479
Operating Temperature	-30 ~ 75 °C
Power Type	3.135 ~ 4.4Vdc, typical 3.8Vdc
Antenna Information	Refer to Section 2.3
E-UTRA Specification	
Single Band	Band 42, 43, 48
Modulation	Uplink up to 16QAM, Downlink up to 64QAM

Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.

2.2. Radio Specification under Test

TDD T _x & R _x Frequency Range	Band 42: 3550 ~ 3600 MHz; Band 43: 3600 ~ 3700 MHz Band 48: 3550 ~ 3700 MHz
Device Type	End User Device

2.3. Description of Available Antennas

Technology	Frequency Range (MHz)	Antenna Type	Max Peak Gain (dBi)
LTE Band 42	3450 ~ 3550	PIFA	-1.18
LTE Band 42	3550 ~ 3600		-1.18
LTE Band 43	3600 ~ 3700		-0.13
LTE Band 43	3700 ~ 3800		-0.71
LTE Band 48	3550 ~ 3700		-0.13

2.4. Test Methodology

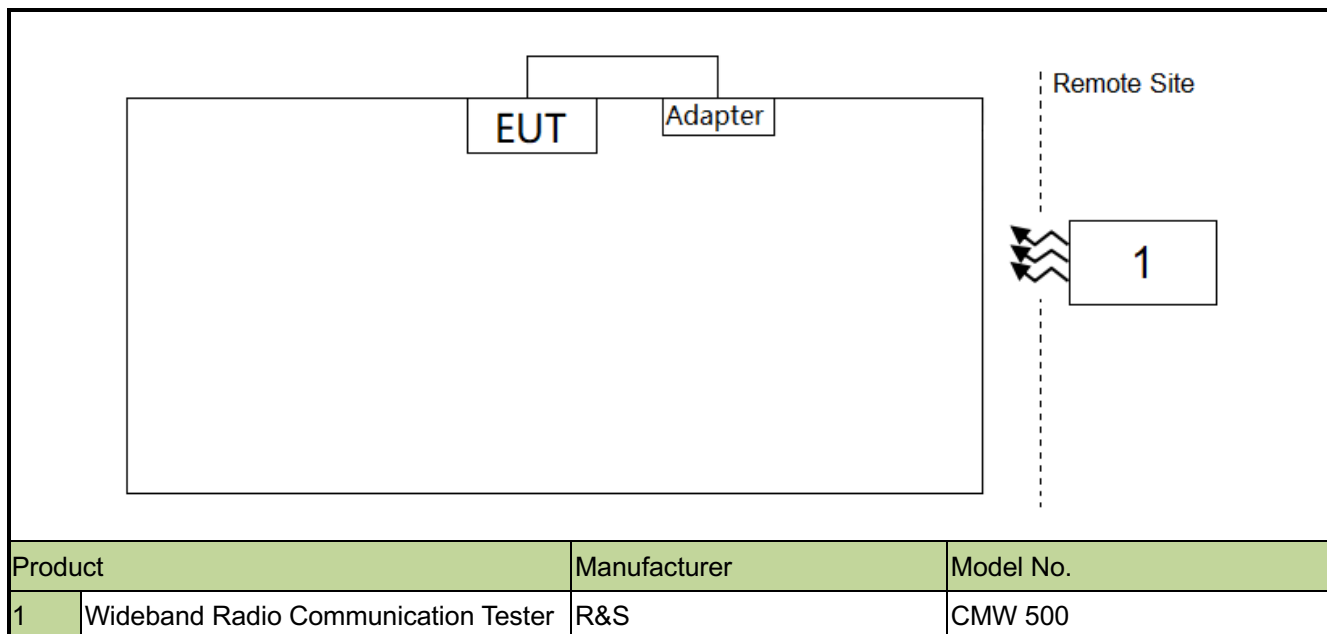
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26:2015
- FCC CFR 47 Part 96
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP

2.5. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.6. Configuration of Tested System



2.7. Test Environment Condition

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

3. TEST EQUIPMENT CALIBRATION DATE

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
Communication Tester	R&S	CMW500	MRTSUE06243	1 year	2022/10/10	SIP-SR1
Signal Generator	Keysight	E8257D	MRTSUE06453	1 year	2022/6/24	SIP-SR1
Thermohygrometer	testo	622	MRTSUE06629	1 year	2022/11/2	SIP-SR1
Signal Generator	Keysight	E8257D	MRTSUE06904	1 year	2022/11/23	SIP-SR1
DC POWER MODULE	Keysight	N6743B	MRTSUE06905	/	/	SIP-SR1
DC POWER MODULE	Keysight	N6743B	MRTSUE06906	/	/	SIP-SR1
Low-Profile Modular Power System Mainframe	Keysight	N6700C	MRTSUE06907	/	/	SIP-SR1
Signal Analyzer	Keysight	N9021B	MRTSUE06915	1 year	2022/1/18	SIP-SR1
Temperature Chamber	BAOYT	BYG-80CL	MRTSUE06932	1 year	2022/3/16	SIP-SR1
Shielding Room	MIX-BEP	SIP-SR1	MRTSUE06948	/	/	SIP-SR1

Software	Version	Function
EMI Software	V3	EMI Test Software

4. 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 $k = 2$.

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

5. TEST RESULT

5.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
96.41(b)	Equivalent Isotropic Radiated Power	Refer to section 5.2	Conducted	Pass	Section5.4
2.1051 96.41(e)	Spurious Emission	Refer to section 5.3		Pass	Section 5.3

Notes:

- 1) The analyzer plots shown in this report 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) Based on the original report, only LTE B42/43/48 is retained, and the related components of other frequency bands are removed.

5.2. Equivalent Isotropically Radiated Power Measurement

5.2.1. Test Limit

The maximum effective isotropic radiated power (EIRP) End User Device is 23dBm/10MHz

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 than or equal to $\pm 2\%$).

- a) Set span to $2 \times$ to $3 \times$ the OBW.
- b) Set RBW = 1% to 5% of the OBW.
- c) Set VBW $\geq 3 \times$ RBW.
- d) Set number of measurement points in sweep $\geq 2 \times$ span / RBW.
- e) Sweep time:
 - 1) Set = auto-couple, or
 - 2) Set $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$ 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 $10 \log (1/\text{duty cycle})$ to the measured power level to compute the average power during continuous transmission. For example, add $[10 \log (1/0.25)] = 6 \text{ dB}$ 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:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T \quad (1)$$

where

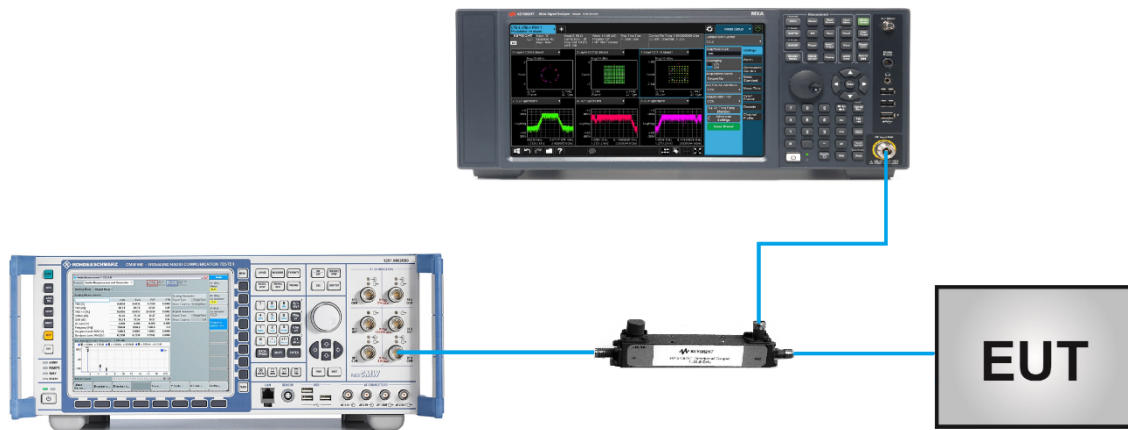
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas} , e.g., dBm or dBW)

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

Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/29
Test Band	LTE Band 42		

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm/10MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)
QPSK							
43115	3552.50	5	25	0	22.88	21.70	< 23.00
43340	3575.00				23.12	21.94	< 23.00
43565	3597.50				23.16	21.98	< 23.00
43140	3555.00	10	50	0	22.87	21.69	< 23.00
43340	3575.00				22.97	21.79	< 23.00
43540	3595.00				22.81	21.63	< 23.00
43165	3557.50	15	75	0	21.79	20.61	< 23.00
43340	3575.00				21.91	20.73	< 23.00
43515	3592.50				21.62	20.44	< 23.00
43190	3560.00	20	100	0	20.67	19.49	< 23.00
43340	3575.00				21.00	19.82	< 23.00
43490	3590.00				20.23	19.05	< 23.00
16QAM							
43115	3552.50	5	25	0	21.77	20.59	< 23.00
43340	3575.00				22.35	21.17	< 23.00
43565	3597.50				22.07	20.89	< 23.00
43140	3555.00	10	50	0	22.04	20.86	< 23.00
43340	3575.00				22.21	21.03	< 23.00
43540	3595.00				21.74	20.56	< 23.00
43165	3557.50	15	75	0	20.83	19.65	< 23.00
43340	3575.00				20.89	19.71	< 23.00
43515	3592.50				20.40	19.22	< 23.00
43190	3560.00	20	100	0	19.63	18.45	< 23.00
43340	3575.00				19.70	18.52	< 23.00
43490	3590.00				19.41	18.23	< 23.00
Note: The EIRP (dBm/10MHz) = Output Power (dBm/10MHz) + Antenna Gain (dBi)							

Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/29
Test Band	LTE Band 42		

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
QPSK							
43165	3557.50	15	75	0	22.67	21.49	N/A
43340	3575.00				22.71	21.53	N/A
43515	3592.50				22.77	21.59	N/A
43190	3560.00	20	100	0	22.78	21.60	N/A
43340	3575.00				22.82	21.64	N/A
43490	3590.00				22.81	21.63	N/A
16QAM							
43165	3557.50	15	75	0	21.71	20.53	N/A
43340	3575.00				21.75	20.57	N/A
43515	3592.50				21.78	20.60	N/A
43190	3560.00	20	100	0	21.84	20.66	N/A
43340	3575.00				21.87	20.69	N/A
43490	3590.00				21.96	20.78	N/A
Note 1: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi);							
Note 2: The EIRP is reported for FCC form 731.							

Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 43		

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm/10MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)
QPSK							
43615	3602.50	5	25	0	22.85	22.72	< 23.00
44090	3650.00				22.64	22.51	< 23.00
44565	3697.50				22.83	22.70	< 23.00
43640	3605.00	10	50	0	22.94	22.81	< 23.00
44090	3650.00				22.76	22.63	< 23.00
44540	3695.00				23.06	22.93	< 23.00
43665	3607.50	15	75	0	21.49	21.36	< 23.00
44090	3650.00				21.44	21.31	< 23.00
44515	3692.50				21.57	21.44	< 23.00
43690	3610.00	20	100	0	20.28	20.15	< 23.00
44090	3650.00				20.07	19.94	< 23.00
44490	3690.00				20.16	20.03	< 23.00
16QAM							
43615	3602.50	5	25	0	21.78	21.65	< 23.00
44090	3650.00				21.59	21.46	< 23.00
44565	3697.50				21.98	21.85	< 23.00
43640	3605.00	10	50	0	22.09	21.96	< 23.00
44090	3650.00				21.73	21.60	< 23.00
44540	3695.00				22.03	21.90	< 23.00
43665	3607.50	15	75	0	20.67	20.54	< 23.00
44090	3650.00				20.46	20.33	< 23.00
44515	3692.50				20.72	20.59	< 23.00
43690	3610.00	20	100	0	19.65	19.52	< 23.00
44090	3650.00				19.31	19.18	< 23.00
44490	3690.00				19.46	19.33	< 23.00
Note: The EIRP (dBm/10MHz) = Output Power (dBm/10MHz) + Antenna Gain (dBi)							

Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 43		

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
QPSK							
43665	3607.50	15	75	0	22.72	22.59	N/A
44090	3650.00				22.52	22.39	N/A
44515	3692.50				22.30	22.17	N/A
43690	3610.00	20	100	0	22.62	22.49	N/A
44090	3650.00				22.52	22.39	N/A
44490	3690.00				22.35	22.22	N/A
16QAM							
43665	3607.50	15	75	0	21.77	21.64	N/A
44090	3650.00				21.63	21.50	N/A
44515	3692.50				21.36	21.23	N/A
43690	3610.00	20	100	0	21.66	21.53	N/A
44090	3650.00				21.56	21.43	N/A
44490	3690.00				21.41	21.28	N/A
Note 1: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi);							
Note 2: The EIRP is reported for FCC form 731.							

Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 48		

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm/10MHz)	EIRP (dBm/10MHz)	Limit (dBm/10MHz)
QPSK							
55265	3552.50	5	25	0	22.12	21.99	< 23.00
55900	3625.00				22.28	22.15	< 23.00
56715	3697.50				22.11	21.98	< 23.00
55290	3555.00	10	50	0	22.55	22.42	< 23.00
55900	3625.00				22.04	21.91	< 23.00
56690	3695.00				21.63	21.50	< 23.00
55315	3557.50	15	75	0	22.16	22.03	< 23.00
55990	3625.00				21.45	21.32	< 23.00
56665	3692.50				22.03	21.90	< 23.00
55340	3560.00	20	100	0	21.07	20.94	< 23.00
55990	3625.00				20.51	20.38	< 23.00
56640	3690.00				20.63	20.50	< 23.00
16QAM							
55265	3552.50	5	25	0	22.21	22.08	< 23.00
55900	3625.00				21.83	21.70	< 23.00
56715	3697.50				22.06	21.93	< 23.00
55290	3555.00	10	50	0	22.19	22.06	< 23.00
55900	3625.00				21.84	21.71	< 23.00
56690	3695.00				22.08	21.95	< 23.00
55315	3557.50	15	75	0	21.10	20.97	< 23.00
55990	3625.00				20.47	20.34	< 23.00
56665	3692.50				20.43	20.30	< 23.00
55340	3560.00	20	100	0	19.98	19.85	< 23.00
55990	3625.00				19.03	18.90	< 23.00
56640	3690.00				19.59	19.46	< 23.00
Note: The EIRP (dBm/10MHz) = Output Power (dBm/10MHz) + Antenna Gain (dBi)							

Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 48		

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
QPSK							
55315	3557.50	15	75	0	22.81	22.68	N/A
55990	3625.00				22.73	22.60	N/A
56665	3692.50				22.44	22.31	N/A
55340	3560.00	20	100	0	22.85	22.72	N/A
55990	3625.00				22.73	22.60	N/A
56640	3690.00				22.44	22.31	N/A
16QAM							
55315	3557.50	15	75	0	21.93	21.80	N/A
55990	3625.00				21.78	21.65	N/A
56665	3692.50				21.45	21.32	N/A
55340	3560.00	20	100	0	21.87	21.74	N/A
55990	3625.00				21.75	21.62	N/A
56640	3690.00				21.42	21.29	N/A
Note 1: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi);							
Note 2: The EIRP is reported for FCC form 731.							

5.3. Conducted Spurious Emission Measurement

5.3.1.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.

The conducted power of any emissions below 3530MHz or above 3720MHz shall not exceed -40dBm/MHz.

5.3.2.Test Procedure

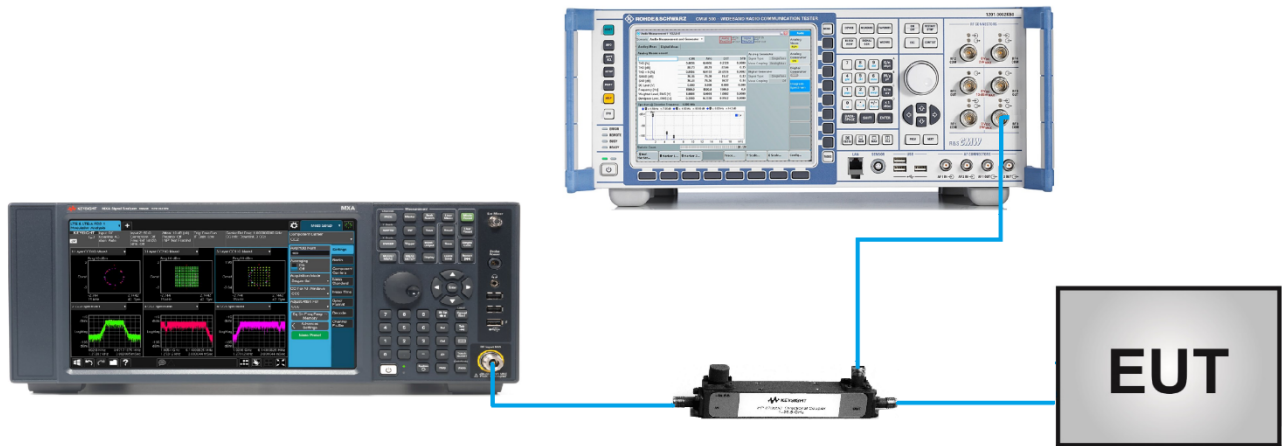
ANSI C63.26-2015 - Section 5.7

5.3.3.Test Setting

1. Set the analyzer frequency to low, mid, high channel.
2. RBW = 1MHz
3. VBW $\geq 3 \times$ 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.

5.3.4.Test Setup



5.3.5.Test Result

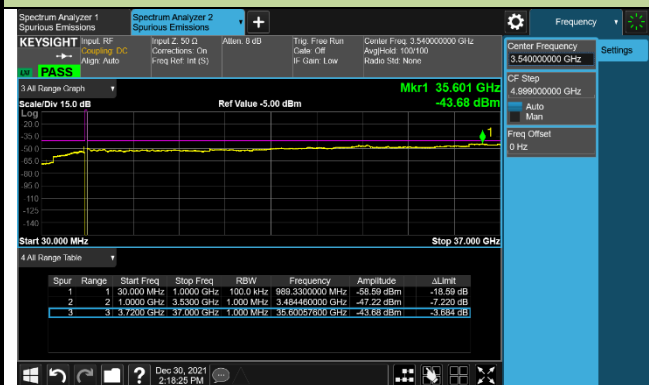
Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 42_QPSK		

Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm/MHz)	Limit (dBm/MHz)	Result
43115	3552.50	5	30 ~ 37000	-43.68	≤ -40.00	Pass
43340	3575.00	5	30 ~ 37000	-43.62	≤ -40.00	Pass
43565	3597.50	5	30 ~ 37000	-43.78	≤ -40.00	Pass
43140	3555.00	10	30 ~ 37000	-43.81	≤ -40.00	Pass
43340	3575.00	10	30 ~ 37000	-43.83	≤ -40.00	Pass
43540	3595.00	10	30 ~ 37000	-42.19	≤ -40.00	Pass
43165	3557.50	15	30 ~ 37000	-43.58	≤ -40.00	Pass
43340	3575.00	15	30 ~ 37000	-43.83	≤ -40.00	Pass
43515	3592.50	15	30 ~ 37000	-42.19	≤ -40.00	Pass
43190	3560.00	20	30 ~ 37000	-43.74	≤ -40.00	Pass
43340	3575.00	20	30 ~ 37000	-43.76	≤ -40.00	Pass
43490	3590.00	20	30 ~ 37000	-43.74	≤ -40.00	Pass

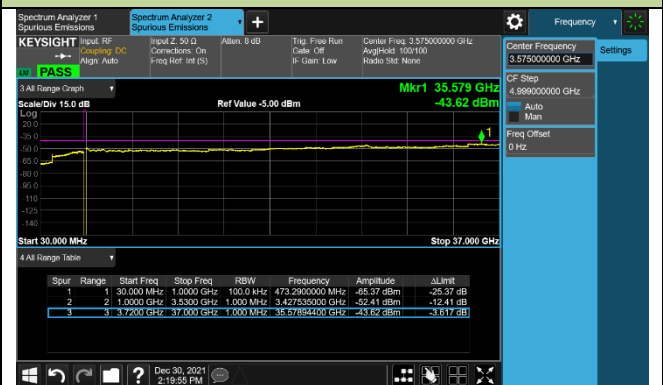
Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

5MHz Channel Bandwidth

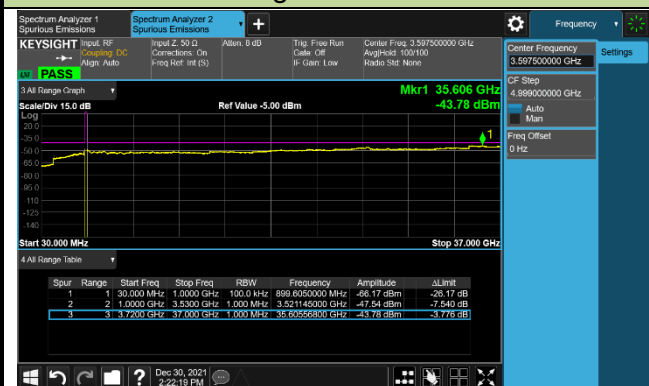
Low Channel



Middle Channel

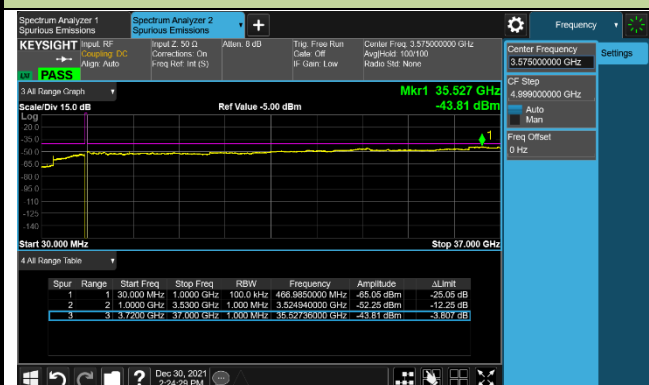


High Channel

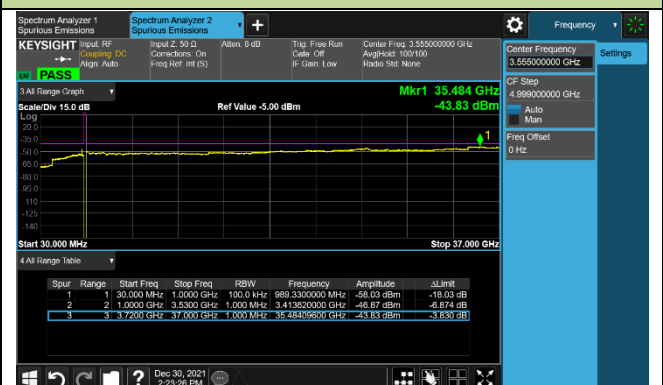


10MHz Channel Bandwidth

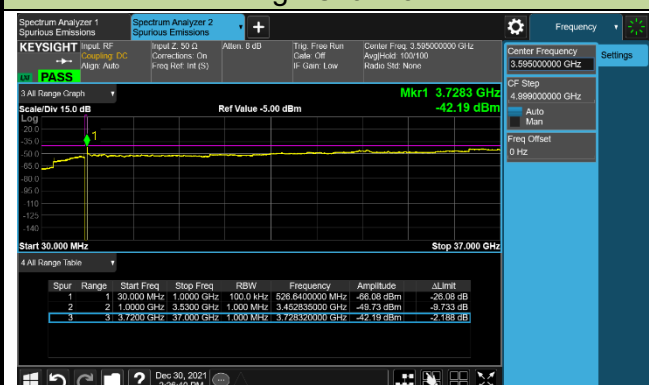
Low Channel



Middle Channel

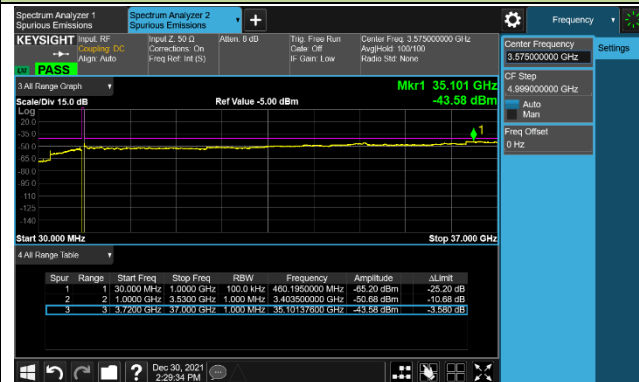


High Channel

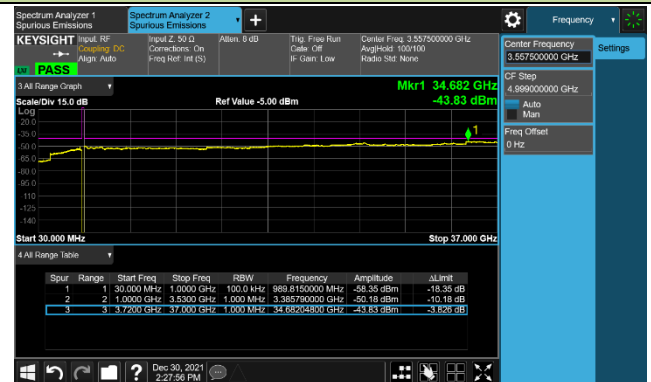


15MHz Channel Bandwidth

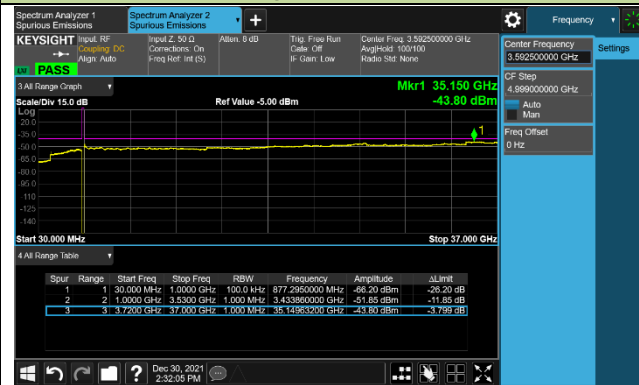
Low Channel



Middle Channel

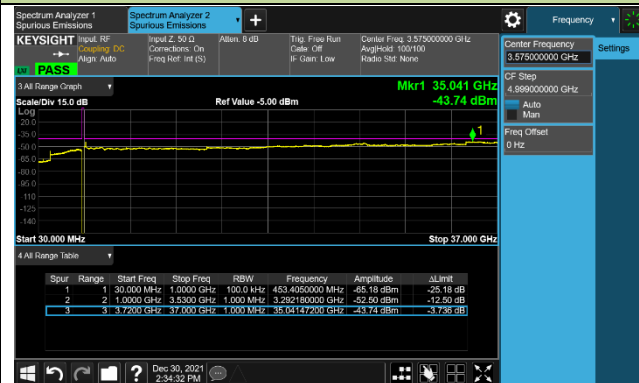


High Channel

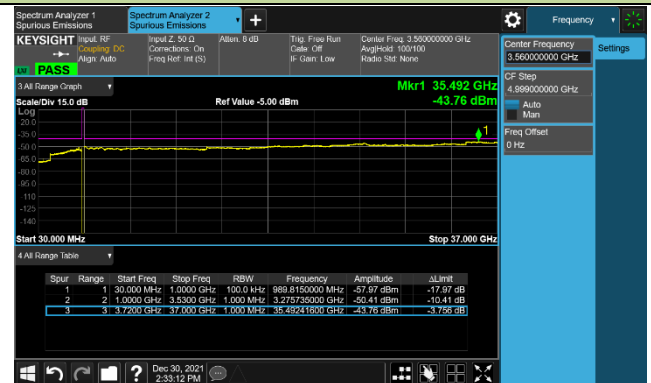


20MHz Channel Bandwidth

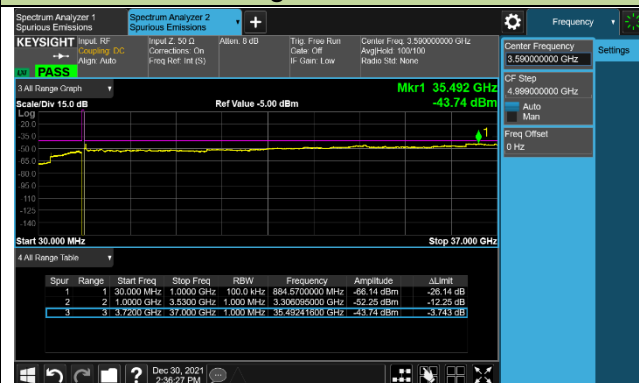
Low Channel



Middle Channel



High Channel



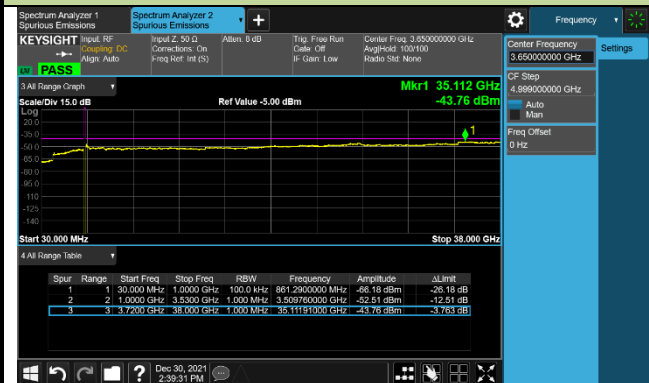
Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 43_QPSK		

Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm/MHz)	Limit (dBm/MHz)	Result
43615	3602.50	5	30 ~ 40000	-43.76	≤ -40.00	Pass
44090	3650.00	5	30 ~ 40000	-43.50	≤ -40.00	Pass
44565	3697.50	5	30 ~ 40000	-44.01	≤ -40.00	Pass
43640	3605.00	10	30 ~ 40000	-40.30	≤ -40.00	Pass
44090	3650.00	10	30 ~ 40000	-43.77	≤ -40.00	Pass
44540	3695.00	10	30 ~ 40000	-44.06	≤ -40.00	Pass
43665	3607.50	15	30 ~ 40000	-40.59	≤ -40.00	Pass
44090	3650.00	15	30 ~ 40000	-44.18	≤ -40.00	Pass
44515	3692.50	15	30 ~ 40000	-40.49	≤ -40.00	Pass
43690	3610.00	20	30 ~ 40000	-43.85	≤ -40.00	Pass
44090	3650.00	20	30 ~ 40000	-43.17	≤ -40.00	Pass
44490	3690.00	20	30 ~ 40000	-43.96	≤ -40.00	Pass

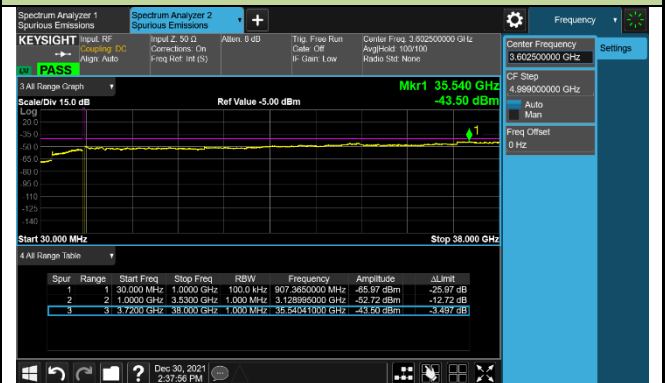
Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

5MHz Channel Bandwidth

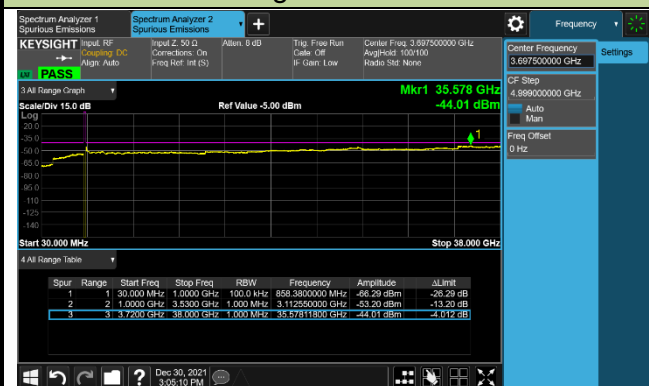
Low Channel



Middle Channel

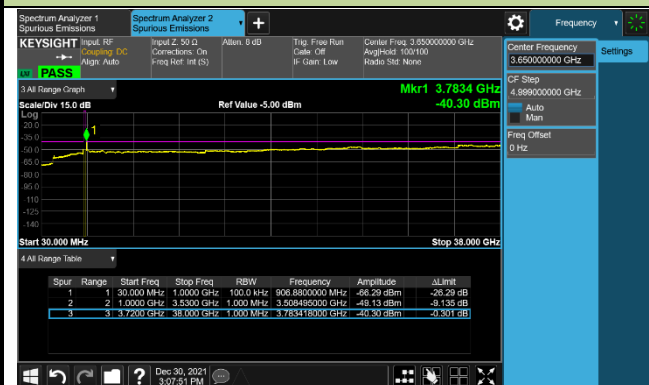


High Channel

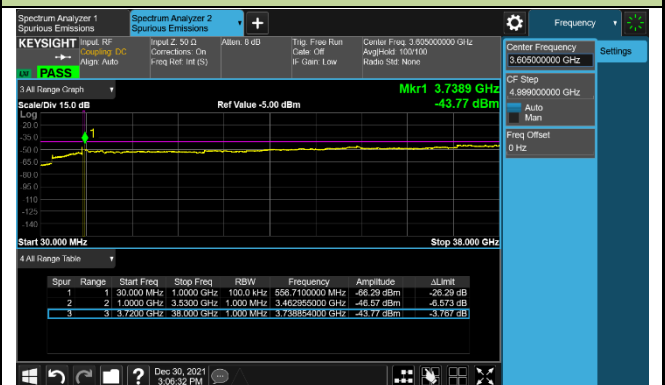


10MHz Channel Bandwidth

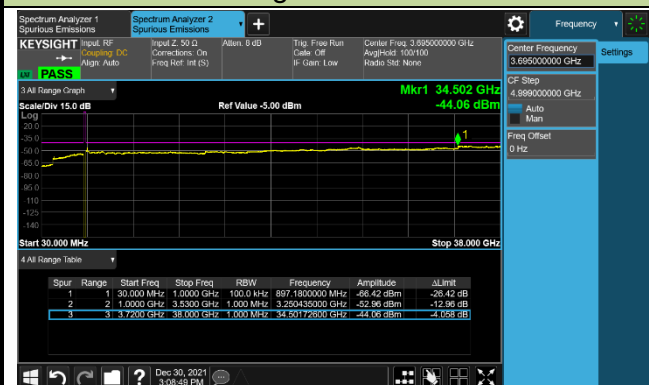
Low Channel



Middle Channel

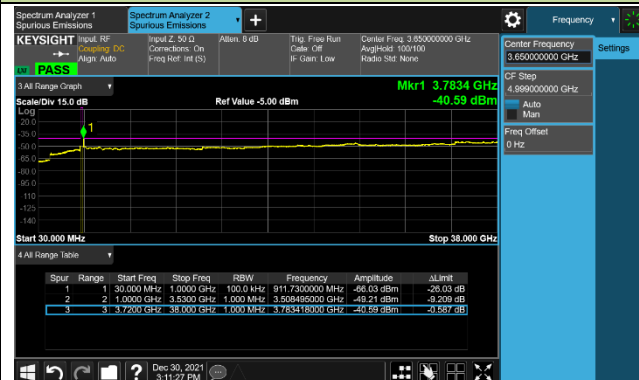


High Channel

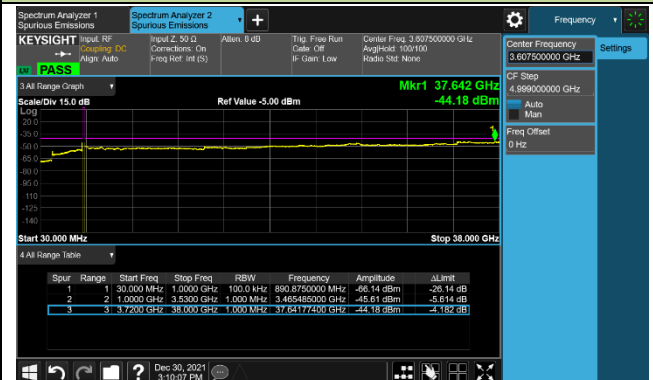


15MHz Channel Bandwidth

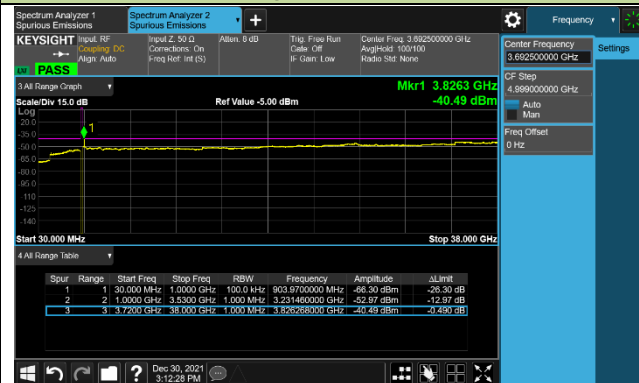
Low Channel



Middle Channel

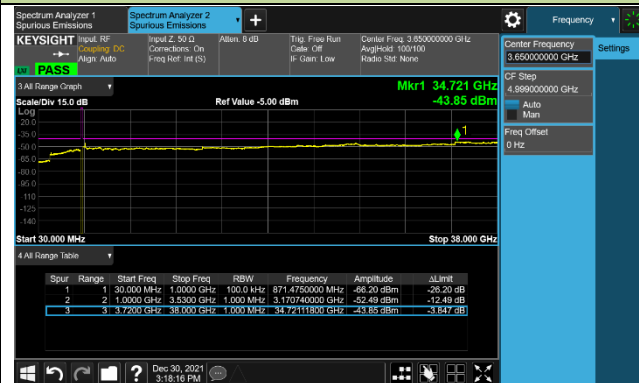


High Channel

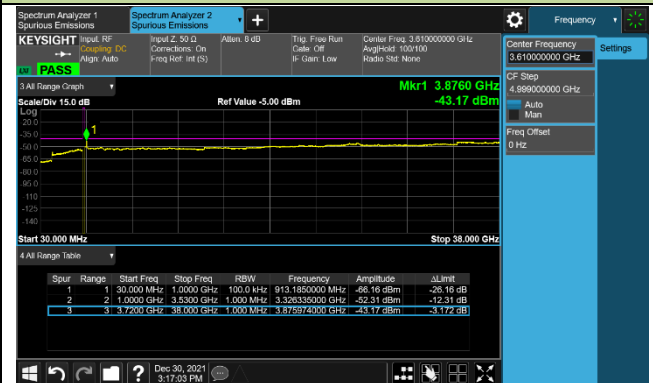


20MHz Channel Bandwidth

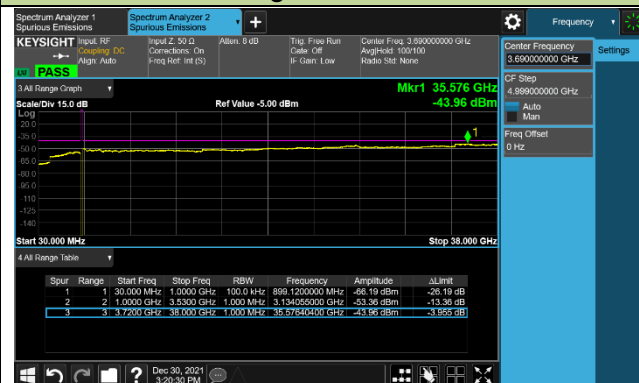
Low Channel



Middle Channel



High Channel



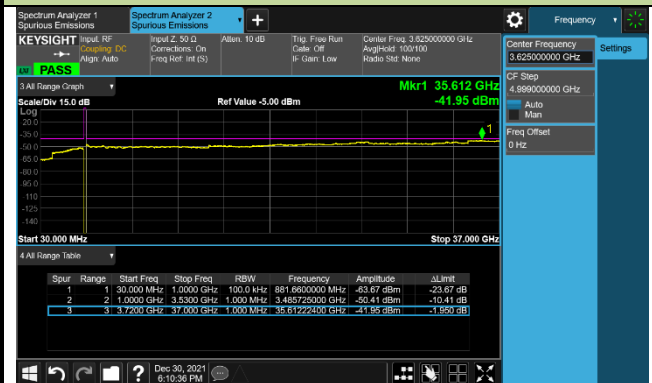
Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 48_QPSK		

Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm/MHz)	Limit (dBm/MHz)	Result
55265	3552.5	5	30 ~ 40000	-41.95	≤ -40.00	Pass
55900	3625.0	5	30 ~ 40000	-41.90	≤ -40.00	Pass
56715	3697.5	5	30 ~ 40000	-40.82	≤ -40.00	Pass
55290	3555.0	10	30 ~ 40000	-41.79	≤ -40.00	Pass
55900	3625.0	10	30 ~ 40000	-42.01	≤ -40.00	Pass
56690	3695.0	10	30 ~ 40000	-42.04	≤ -40.00	Pass
55315	3557.5	15	30 ~ 40000	-41.92	≤ -40.00	Pass
55900	3625.0	15	30 ~ 40000	-41.93	≤ -40.00	Pass
56665	3692.5	15	30 ~ 40000	-41.98	≤ -40.00	Pass
55340	3550.0	20	30 ~ 40000	-42.04	≤ -40.00	Pass
55900	3625.0	20	30 ~ 40000	-41.94	≤ -40.00	Pass
56640	3690.0	20	30 ~ 40000	-42.01	≤ -40.00	Pass

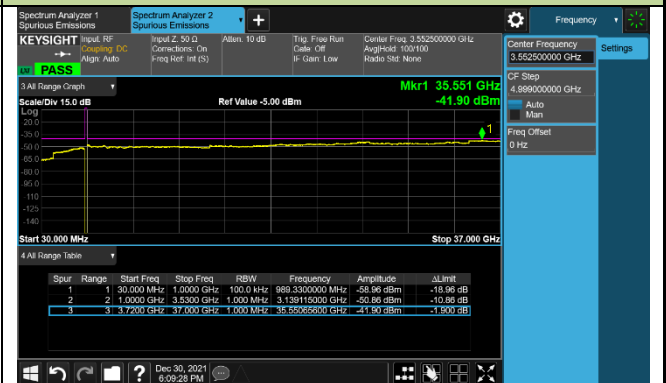
Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

5MHz Channel Bandwidth

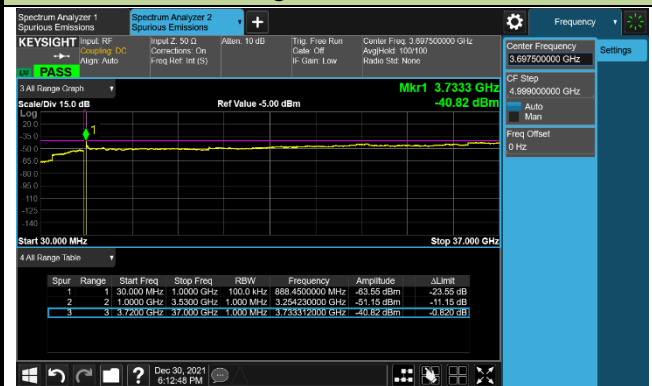
Low Channel



Middle Channel

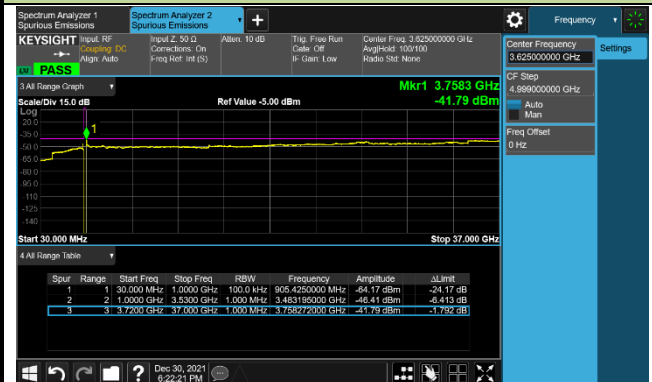


High Channel

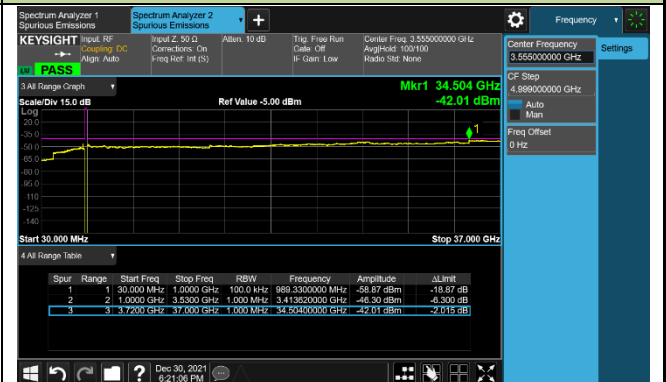


10MHz Channel Bandwidth

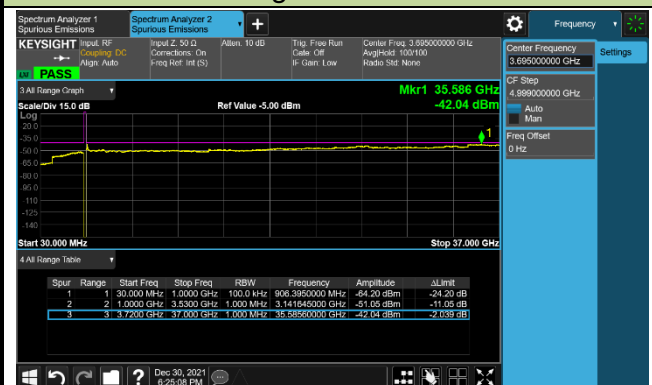
Low Channel



Middle Channel

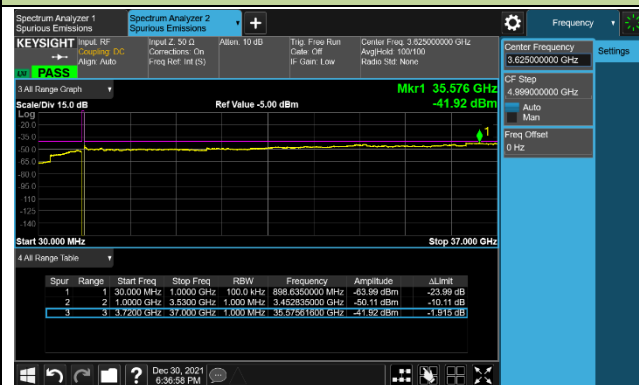


High Channel

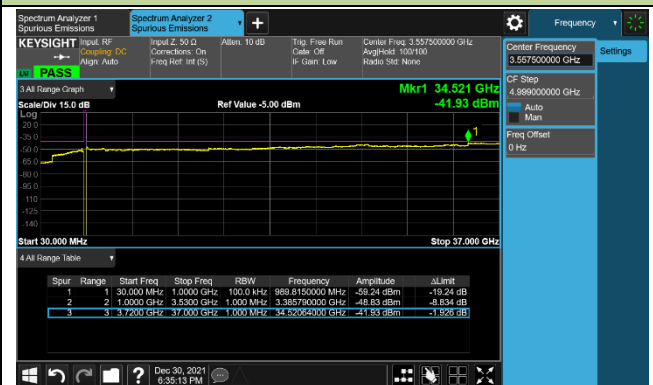


15MHz Channel Bandwidth

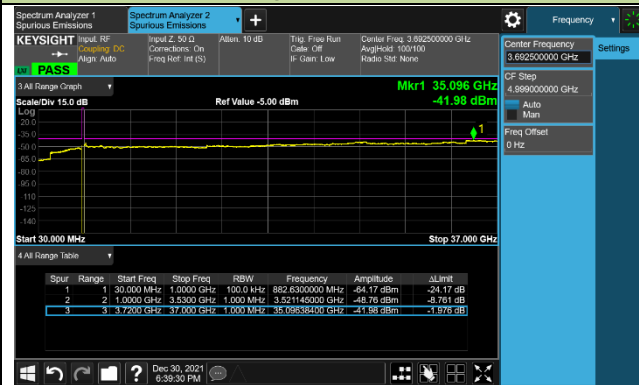
Low Channel



Middle Channel

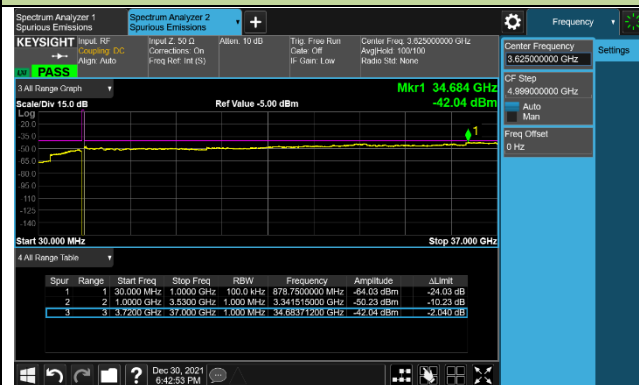


High Channel

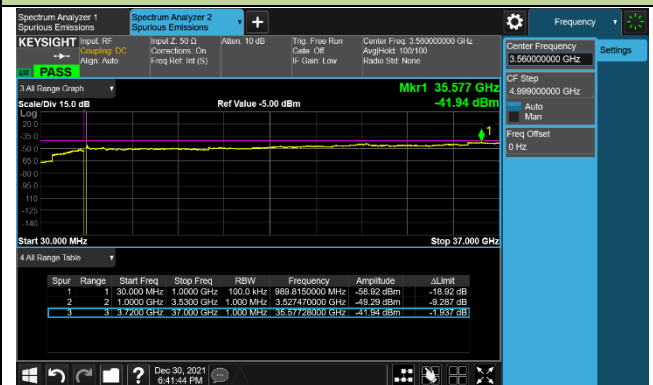


20MHz Channel Bandwidth

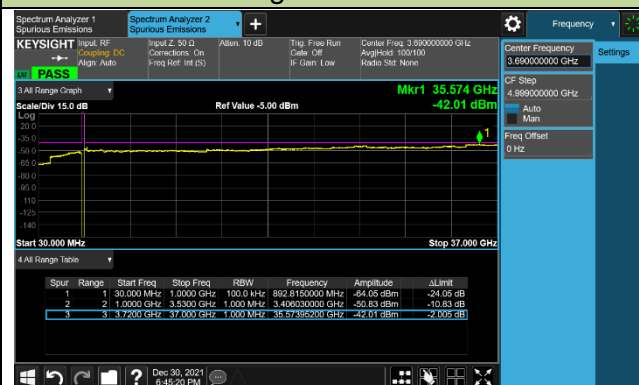
Low Channel



Middle Channel



High Channel



6. 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 “2112RSU074-UT” file.

Appendix B - EUT Photograph

Refer to "2112RSU074-UE" file.