

MEASUREMENT REPORT

FCC PART 27

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 27
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-U2	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.

CONTENTS

Description	Page
1. GENERAL INFORMATION.....	4
1.1. Applicant.....	4
1.2. Manufacturer.....	4
1.3. Testing Facility	4
2. PRODUCT INFORMATION	5
2.1. Product Information	5
2.2. Radio Specification under Test	5
2.3. Description of Available Antennas.....	5
2.4. Test Methodology.....	5
2.5. EMI Suppression Device(s)/Modifications	6
2.6. Configuration of Tested System	6
2.7. Test Environment Condition.....	6
3. TEST EQUIPMENT CALIBRATION DATE.....	7
4. MEASUREMENT UNCERTAINTY.....	8
5. TEST RESULT	9
5.1. Summary	9
5.2. Equivalent Isotropically Radiated Power Measurement	10
5.2.1. Test Limit.....	10
5.2.2. Test Procedure.....	10
5.2.3. Test Setting	10
5.2.4. Test Setup	10
5.2.5. Test Result	11
5.3. Conducted Spurious Emission Measurement.....	19
5.3.1. Test Limit.....	19
5.3.2. Test Procedure.....	19
5.3.3. Test Setting	19
5.3.4. Test Setup	20
5.3.5. Test Result	21
6. CONCLUSION	27
Appendix A - Test Setup Photograph	28
Appendix B - EUT Photograph	29

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: 3450 ~ 3550 MHz Band 43: 3700 ~ 3800 MHz
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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

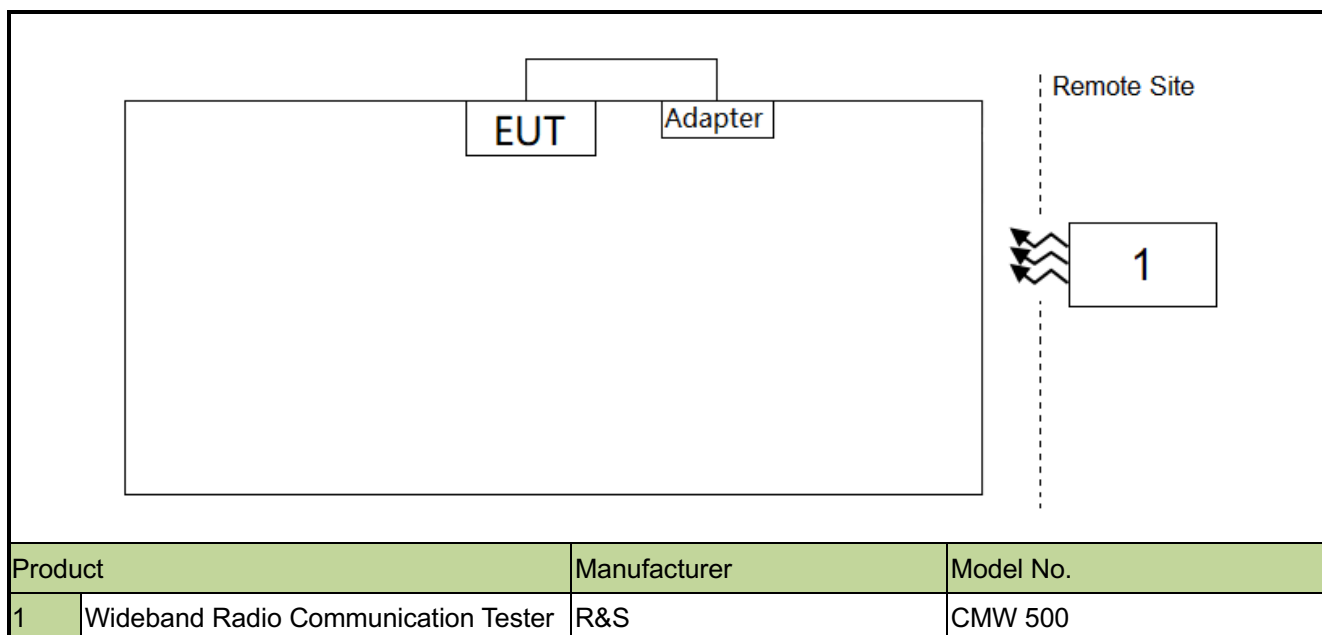
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26:2015
- FCC CFR 47 Part 2, 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

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% ($U=2U_c(y)$): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.13dB

5. TEST RESULT

5.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
27.50(j)(3) 27.50(k)(3)	Equivalent Isotropic Radiated Power (42, 43)	< 1 Watts Max EIRP	Conducted	Pass	Section 5.2
2.1051,27.53(l)(2), (n)(2)	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

Band 42, 43:

Mobile and portable stations are limited to 1 Watt EIRP.

5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.2

5.2.3. 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:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T$$

where

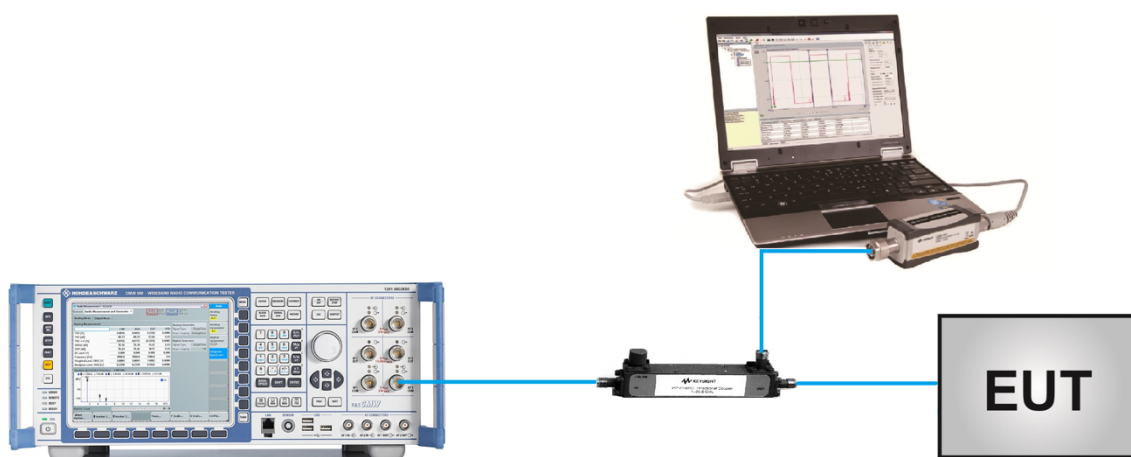
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , e.g., dBm or dBW)

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)

$$\text{ERP} = \text{EIRP} - 2.15$$

5.2.4. Test Setup



5.2.5. Test Result

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

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
QPSK							
42115	3452.50	5	1	0	23.37	22.19	< 30.00
42590	3500.00				23.55	22.37	< 30.00
43065	3547.50				23.54	22.36	< 30.00
42115	3452.50	5	1	12	23.33	22.15	< 30.00
42590	3500.00				23.59	22.41	< 30.00
43065	3547.50				23.61	22.43	< 30.00
42115	3452.50	5	1	24	23.27	22.09	< 30.00
42590	3500.00				23.44	22.26	< 30.00
43065	3547.50				23.61	22.43	< 30.00
42115	3452.50	5	25	0	22.24	21.06	< 30.00
42590	3500.00				22.46	21.28	< 30.00
43065	3547.50				22.57	21.39	< 30.00
42140	3455.00	10	1	0	23.17	21.99	< 30.00
42590	3500.00				23.42	22.24	< 30.00
43040	3545.00				23.47	22.29	< 30.00
42140	3455.00	10	1	24	23.24	22.06	< 30.00
42590	3500.00				23.51	22.33	< 30.00
43040	3545.00				23.55	22.37	< 30.00
42140	3455.00	10	1	49	23.29	22.11	< 30.00
42590	3500.00				23.53	22.35	< 30.00
43040	3545.00				23.49	22.31	< 30.00
42140	3455.00	10	50	0	22.27	21.09	< 30.00
42590	3500.00				22.54	21.36	< 30.00
43040	3545.00				22.55	21.37	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)							

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
QPSK							
42165	3457.50	15	1	0	23.19	22.01	< 30.00
42590	3500.00				23.53	22.35	< 30.00
43015	3542.50				23.41	22.23	< 30.00
42165	3457.50	15	1	37	23.23	22.05	< 30.00
42590	3500.00				23.54	22.36	< 30.00
43015	3542.50				23.40	22.22	< 30.00
42165	3457.50	15	1	74	23.54	22.36	< 30.00
42590	3500.00				23.61	22.43	< 30.00
43015	3542.50				23.62	22.44	< 30.00
42165	3457.50	15	75	0	22.37	21.19	< 30.00
42590	3500.00				22.50	21.32	< 30.00
43015	3542.50				22.49	21.31	< 30.00
42190	3460.00	20	1	0	22.82	21.64	< 30.00
42590	3500.00				23.53	22.35	< 30.00
42990	3540.00				23.47	22.29	< 30.00
42190	3460.00	20	1	49	23.22	22.04	< 30.00
42590	3500.00				23.53	22.35	< 30.00
42990	3540.00				23.51	22.33	< 30.00
42190	3460.00	20	1	99	23.48	22.30	< 30.00
42590	3500.00				23.54	22.36	< 30.00
42990	3540.00				23.69	22.51	< 30.00
42190	3460.00	20	100	0	22.45	21.27	< 30.00
42590	3500.00				22.53	21.35	< 30.00
42990	3540.00				22.55	21.37	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)							

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
16QAM							
42115	3452.50	5	1	0	22.39	21.21	< 30.00
42590	3500.00				22.57	21.39	< 30.00
43065	3547.50				22.90	21.72	< 30.00
42115	3452.50	5	1	12	22.52	21.34	< 30.00
42590	3500.00				22.62	21.44	< 30.00
43065	3547.50				22.98	21.80	< 30.00
42115	3452.50	5	1	24	22.50	21.32	< 30.00
42590	3500.00				22.45	21.27	< 30.00
43065	3547.50				22.69	21.51	< 30.00
42115	3452.50	5	25	0	21.22	20.04	< 30.00
42590	3500.00				21.63	20.45	< 30.00
43065	3547.50				21.63	20.45	< 30.00
42140	3455.00	10	1	0	22.45	21.27	< 30.00
42590	3500.00				22.47	21.29	< 30.00
43040	3545.00				22.37	21.19	< 30.00
42140	3455.00	10	1	24	22.47	21.29	< 30.00
42590	3500.00				22.40	21.22	< 30.00
43040	3545.00				22.40	21.22	< 30.00
42140	3455.00	10	1	49	22.57	21.39	< 30.00
42590	3500.00				22.22	21.04	< 30.00
43040	3545.00				22.51	21.33	< 30.00
42140	3455.00	10	50	0	21.26	20.08	< 30.00
42590	3500.00				21.56	20.38	< 30.00
43040	3545.00				21.64	20.46	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)							

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
16QAM							
42165	3457.50	15	1	0	22.16	20.98	< 30.00
42590	3500.00				22.75	21.57	< 30.00
43015	3542.50				22.61	21.43	< 30.00
42165	3457.50	15	1	37	22.22	21.04	< 30.00
42590	3500.00				22.72	21.54	< 30.00
43015	3542.50				22.66	21.48	< 30.00
42165	3457.50	15	1	74	22.51	21.33	< 30.00
42590	3500.00				22.48	21.30	< 30.00
43015	3542.50				22.94	21.76	< 30.00
42165	3457.50	15	75	0	21.38	20.20	< 30.00
42590	3500.00				21.53	20.35	< 30.00
43015	3542.50				21.60	20.42	< 30.00
42190	3460.00	20	1	0	22.30	21.12	< 30.00
42590	3500.00				22.78	21.60	< 30.00
42990	3540.00				22.58	21.40	< 30.00
42190	3460.00	20	1	49	22.33	21.15	< 30.00
42590	3500.00				22.78	21.60	< 30.00
42990	3540.00				22.66	21.48	< 30.00
42190	3460.00	20	1	99	22.55	21.37	< 30.00
42590	3500.00				22.82	21.64	< 30.00
42990	3540.00				22.84	21.66	< 30.00
42190	3460.00	20	100	0	21.42	20.24	< 30.00
42590	3500.00				21.60	20.42	< 30.00
42990	3540.00				21.58	20.40	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + 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							
44640	3705.00	5	1	0	23.40	22.69	< 30.00
45090	3750.00				23.45	22.74	< 30.00
45540	3795.00				23.54	22.83	< 30.00
44640	3705.00	5	1	12	23.46	22.75	< 30.00
45090	3750.00				23.46	22.75	< 30.00
45540	3795.00				23.71	23.00	< 30.00
44640	3705.00	5	1	24	23.46	22.75	< 30.00
45090	3750.00				23.47	22.76	< 30.00
45540	3795.00				23.41	22.70	< 30.00
44640	3705.00	5	25	0	22.43	21.72	< 30.00
45090	3750.00				22.32	21.61	< 30.00
45540	3795.00				22.40	21.69	< 30.00
44640	3705.00	10	1	0	23.35	22.64	< 30.00
45090	3750.00				23.30	22.59	< 30.00
45540	3795.00				23.44	22.73	< 30.00
44640	3705.00	10	1	24	23.30	22.59	< 30.00
45090	3750.00				23.35	22.64	< 30.00
45540	3795.00				23.40	22.69	< 30.00
44640	3705.00	10	1	49	23.38	22.67	< 30.00
45090	3750.00				23.48	22.77	< 30.00
45540	3795.00				23.27	22.56	< 30.00
44640	3705.00	10	50	0	22.43	21.72	< 30.00
45090	3750.00				22.40	21.69	< 30.00
45540	3795.00				22.50	21.79	< 30.00

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

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
QPSK							
44665	3707.50	15	1	0	23.38	22.67	< 30.00
45090	3750.00				23.41	22.70	< 30.00
45515	3792.50				23.49	22.78	< 30.00
44665	3707.50	15	1	37	23.42	22.71	< 30.00
45090	3750.00				23.36	22.65	< 30.00
45515	3792.50				23.48	22.77	< 30.00
44665	3707.50	15	1	74	23.42	22.71	< 30.00
45090	3750.00				23.50	22.79	< 30.00
45515	3792.50				23.42	22.71	< 30.00
44665	3707.50	15	75	0	22.47	21.76	< 30.00
45090	3750.00				22.42	21.71	< 30.00
45515	3792.50				22.50	21.79	< 30.00
44690	3710.00	20	1	0	23.30	22.59	< 30.00
45090	3750.00				23.47	22.76	< 30.00
45490	3790.00				23.55	22.84	< 30.00
44690	3710.00	20	1	49	23.33	22.62	< 30.00
45090	3750.00				23.38	22.67	< 30.00
45490	3790.00				23.53	22.82	< 30.00
44690	3710.00	20	1	99	23.32	22.61	< 30.00
45090	3750.00				23.41	22.70	< 30.00
45490	3790.00				23.44	22.73	< 30.00
44690	3710.00	20	100	0	22.43	21.72	< 30.00
45090	3750.00				22.43	21.72	< 30.00
45490	3790.00				22.50	21.79	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)							

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
16QAM							
44640	3705.00	5	1	0	22.40	21.69	< 30.00
45090	3750.00				22.66	21.95	< 30.00
45540	3795.00				22.76	22.05	< 30.00
44640	3705.00	5	1	12	22.47	21.76	< 30.00
45090	3750.00				22.78	22.07	< 30.00
45540	3795.00				22.61	21.90	< 30.00
44640	3705.00	5	1	24	22.41	21.70	< 30.00
45090	3750.00				22.47	21.76	< 30.00
45540	3795.00				22.48	21.77	< 30.00
44640	3705.00	5	25	0	21.44	20.73	< 30.00
45090	3750.00				21.48	20.77	< 30.00
45540	3795.00				21.33	20.62	< 30.00
44640	3705.00	10	1	0	22.66	21.95	< 30.00
45090	3750.00				22.37	21.66	< 30.00
45540	3795.00				22.64	21.93	< 30.00
44640	3705.00	10	1	24	22.66	21.95	< 30.00
45090	3750.00				22.40	21.69	< 30.00
45540	3795.00				22.32	21.61	< 30.00
44640	3705.00	10	1	49	22.27	21.56	< 30.00
45090	3750.00				22.46	21.75	< 30.00
45540	3795.00				22.61	21.90	< 30.00
44640	3705.00	10	50	0	21.45	20.74	< 30.00
45090	3750.00				21.45	20.74	< 30.00
45540	3795.00				21.45	20.74	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)							

Channel No.	Frequency (MHz)	Channel Bandwidth (MHz)	RB Size	RB Offset	Output Power (dBm)	EIRP (dBm)	Limit (dBm)
16QAM							
44665	3707.50	15	1	0	22.63	21.92	< 30.00
45090	3750.00				22.40	21.69	< 30.00
45515	3792.50				22.68	21.97	< 30.00
44665	3707.50	15	1	37	22.45	21.74	< 30.00
45090	3750.00				22.60	21.89	< 30.00
45515	3792.50				22.75	22.04	< 30.00
44665	3707.50	15	1	74	22.40	21.69	< 30.00
45090	3750.00				22.72	22.01	< 30.00
45515	3792.50				22.81	22.10	< 30.00
44665	3707.50	15	75	0	21.43	20.72	< 30.00
45090	3750.00				21.41	20.70	< 30.00
45515	3792.50				21.58	20.87	< 30.00
44690	3710.00	20	1	0	22.48	21.77	< 30.00
45090	3750.00				22.49	21.78	< 30.00
45490	3790.00				22.75	22.04	< 30.00
44690	3710.00	20	1	49	22.40	21.69	< 30.00
45090	3750.00				22.40	21.69	< 30.00
45490	3790.00				22.67	21.96	< 30.00
44690	3710.00	20	1	99	22.52	21.81	< 30.00
45090	3750.00				22.43	21.72	< 30.00
45490	3790.00				22.66	21.95	< 30.00
44690	3710.00	20	100	0	21.53	20.82	< 30.00
45090	3750.00				21.50	20.79	< 30.00
45490	3790.00				21.55	20.84	< 30.00
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)							

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 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.

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

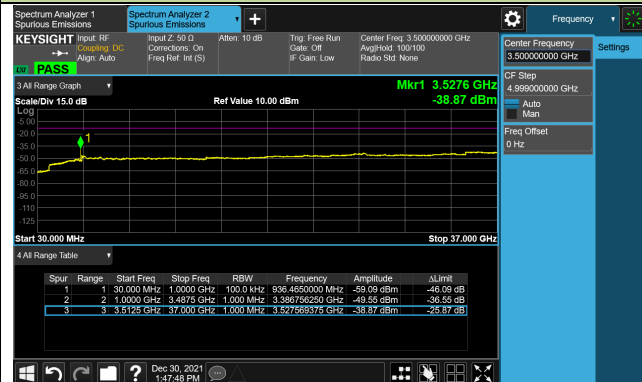
Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 42		

Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
42115	3452.50	5	30 ~ 39000	-38.87	≤ -13.00	Pass
42590	3500.00	5	30 ~ 39000	-33.15	≤ -13.00	Pass
43065	3547.50	5	30 ~ 39000	-41.70	≤ -13.00	Pass
42140	3455.00	10	30 ~ 39000	-41.16	≤ -13.00	Pass
42590	3500.00	10	30 ~ 39000	-39.96	≤ -13.00	Pass
43040	3545.00	10	30 ~ 39000	-39.54	≤ -13.00	Pass
42165	3457.50	15	30 ~ 39000	-41.71	≤ -13.00	Pass
42590	3500.00	15	30 ~ 39000	-41.76	≤ -13.00	Pass
43015	3542.50	15	30 ~ 39000	-41.75	≤ -13.00	Pass
42190	3460.00	20	30 ~ 39000	-40.71	≤ -13.00	Pass
42590	3500.00	20	30 ~ 39000	-41.63	≤ -13.00	Pass
42990	3540.00	20	30 ~ 39000	-41.75	≤ -13.00	Pass

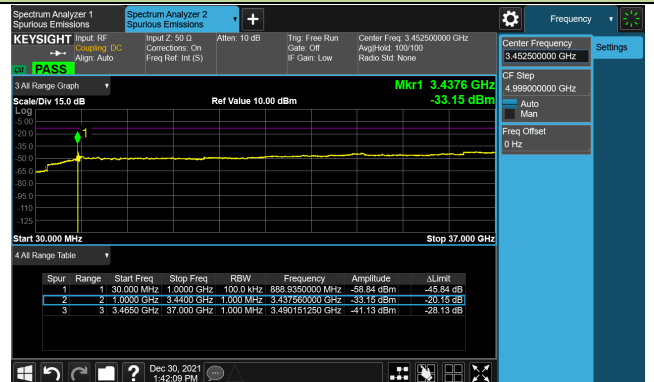
Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

5MHz Channel Bandwidth

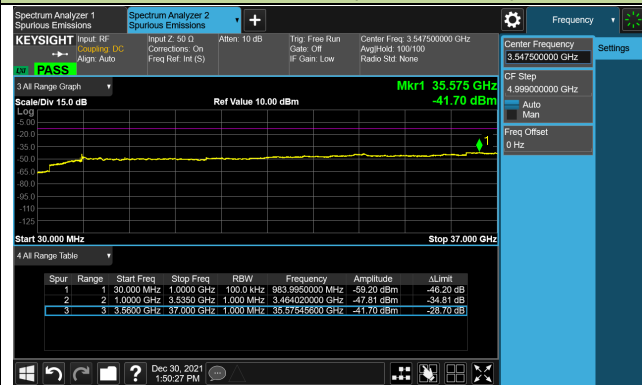
Channel 42115 (3452.5MHz)



Channel 42590 (3500MHz)

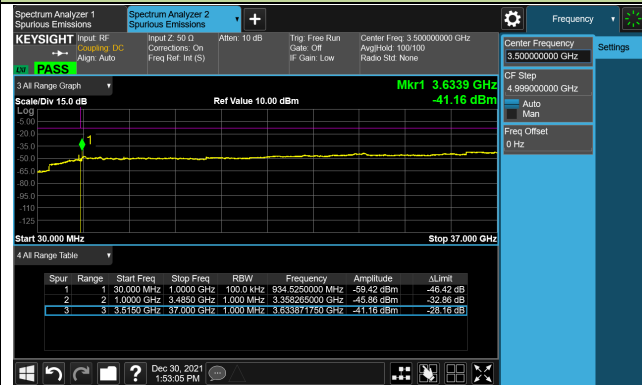


Channel 43065 (3547.5MHz)

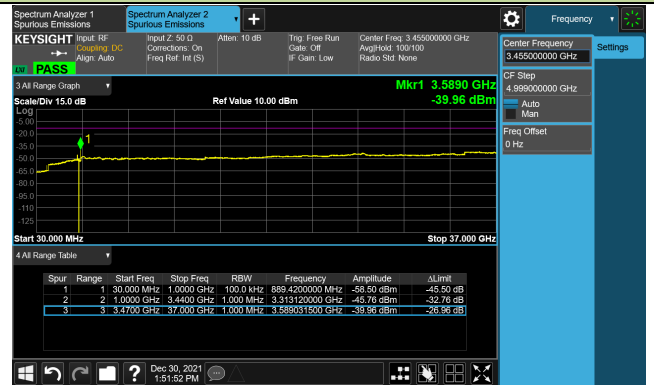


10MHz Channel Bandwidth

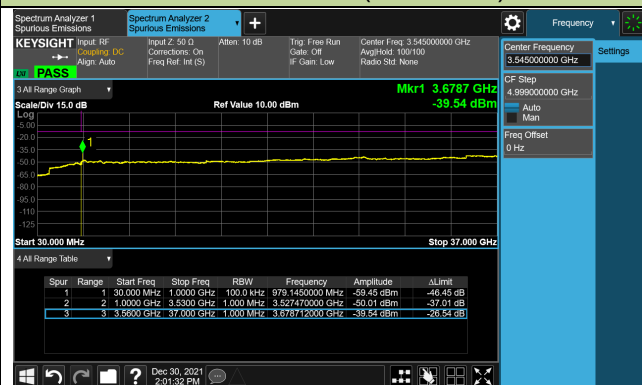
Channel 42140 (3455MHz)



Channel 42590 (3500MHz)

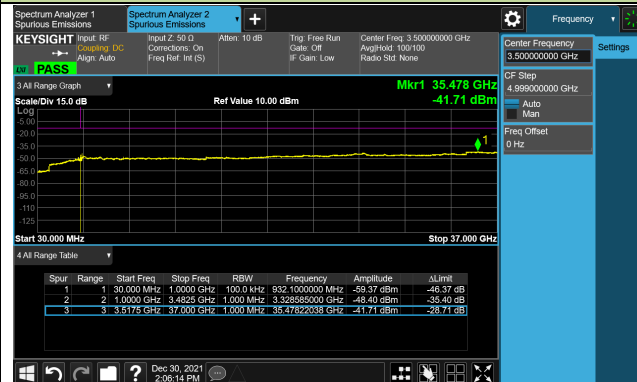


Channel 43040 (3545MHz)

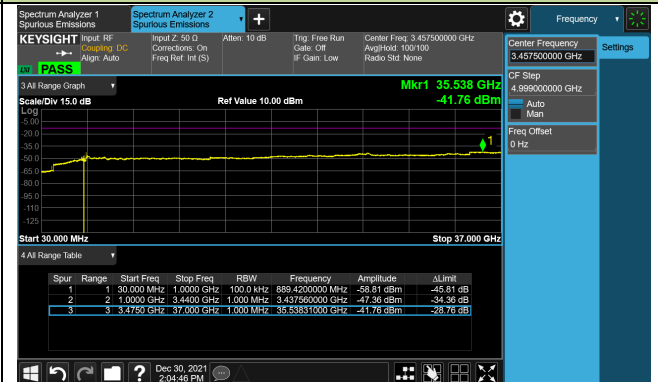


15MHz Channel Bandwidth

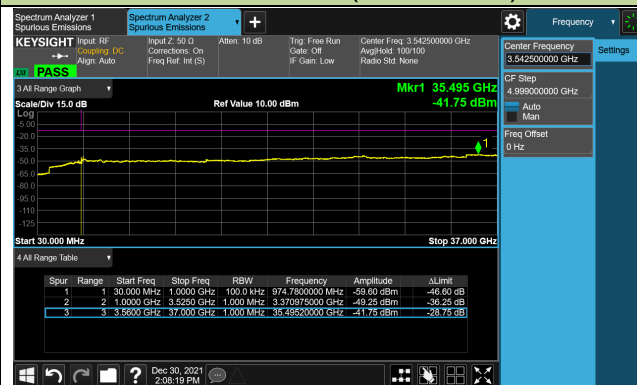
Channel 42165 (3457.5MHz)



Channel 42590 (3500MHz)

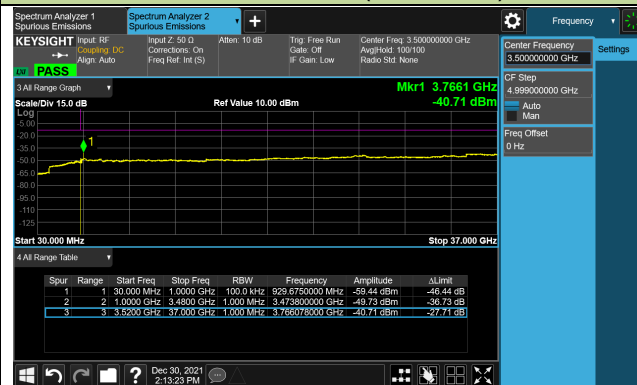


Channel 43015 (3542.5MHz)

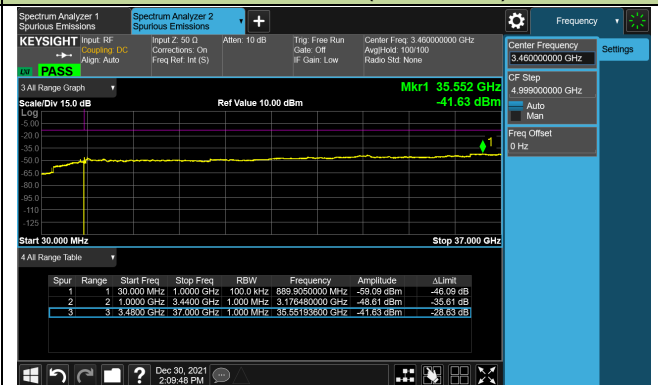


20MHz Channel Bandwidth

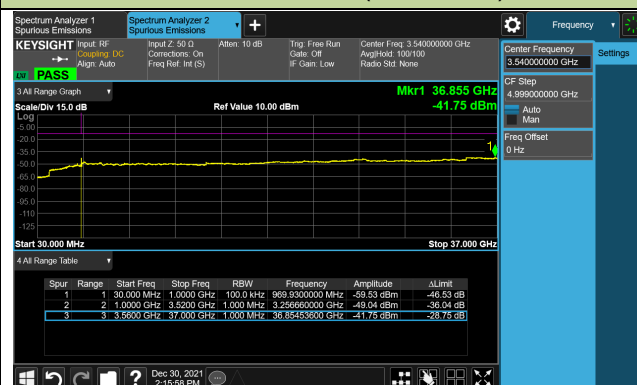
Channel 42190 (3460MHz)



Channel 42590 (3500MHz)



Channel 43090 (3540MHz)



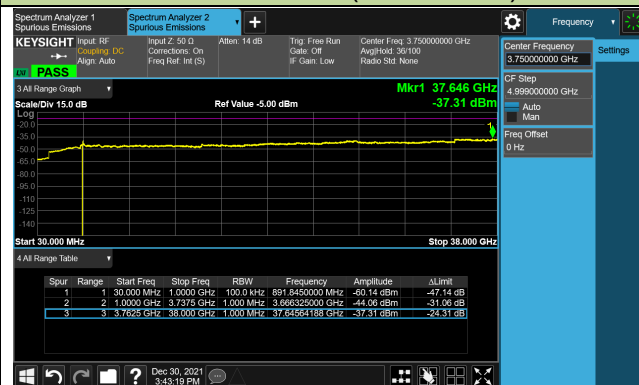
Product	LTE Module	Test Site	SIP-SR1
Test Engineer	Candy Luo	Test Date	2021/12/30
Test Band	LTE Band 43		

Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
44615	3702.50	5	30 ~ 39000	-37.31	≤ -13.00	Pass
45090	3750.00	5	30 ~ 39000	-42.47	≤ -13.00	Pass
45565	3797.50	5	30 ~ 39000	-33.35	≤ -13.00	Pass
44640	3705.00	10	30 ~ 39000	-37.62	≤ -13.00	Pass
45090	3750.00	10	30 ~ 39000	-37.57	≤ -13.00	Pass
45540	3795.00	10	30 ~ 39000	-37.90	≤ -13.00	Pass
44665	3707.50	15	30 ~ 39000	-37.75	≤ -13.00	Pass
45090	3750.00	15	30 ~ 39000	-37.69	≤ -13.00	Pass
45515	3792.50	15	30 ~ 39000	-37.72	≤ -13.00	Pass
44690	3710.00	20	30 ~ 39000	-37.97	≤ -13.00	Pass
45090	3750.00	20	30 ~ 39000	-38.07	≤ -13.00	Pass
45490	3790.00	20	30 ~ 39000	-37.84	≤ -13.00	Pass

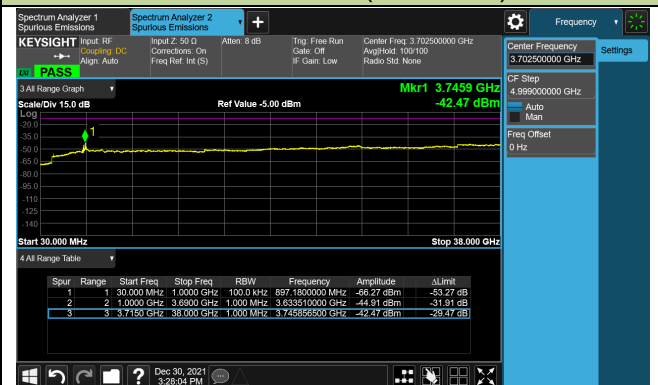
Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

5MHz Channel Bandwidth

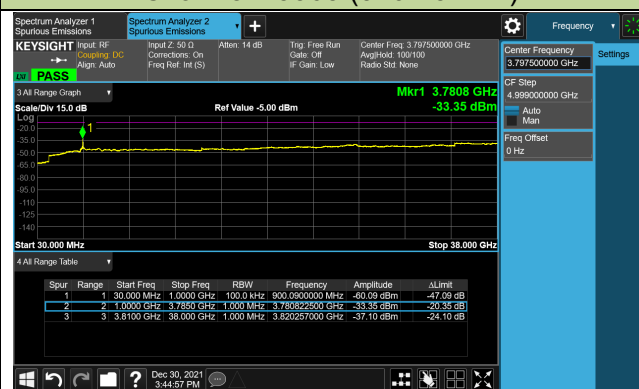
Channel 44615 (3702.5MHz)



Channel 45090 (3750MHz)

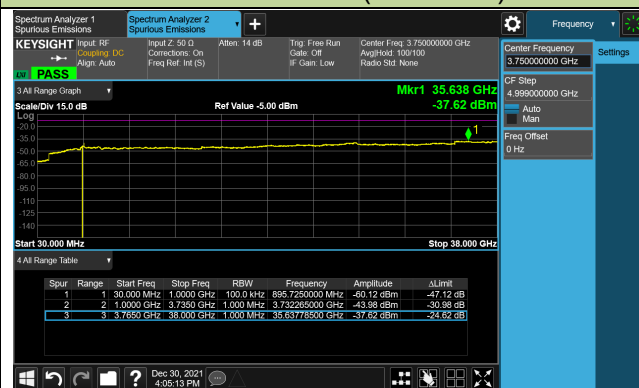


Channel 45565 (3797.5MHz)

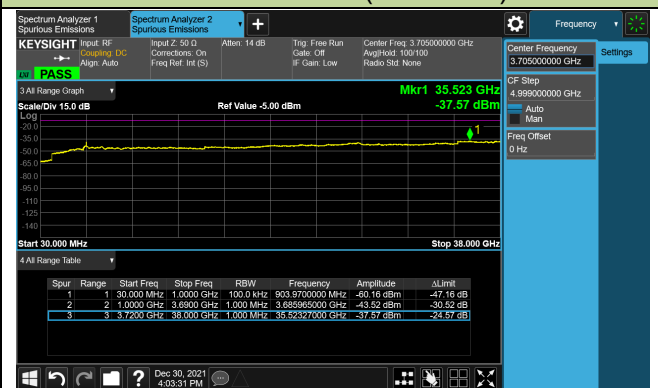


10MHz Channel Bandwidth

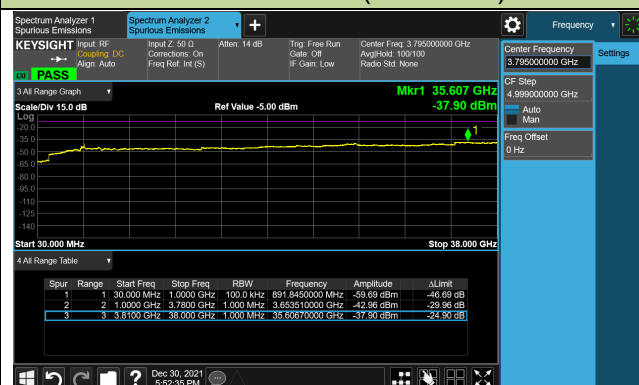
Channel 44640 (3705MHz)



Channel 45090 (3750MHz)

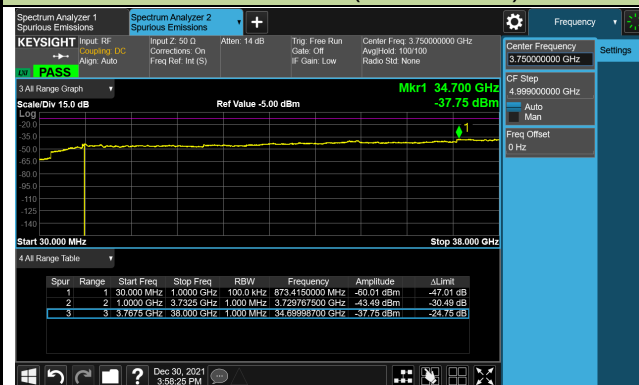


Channel 45540 (3795MHz)

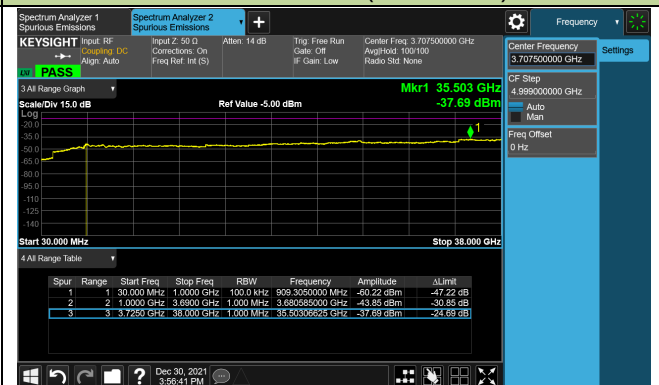


15MHz Channel Bandwidth

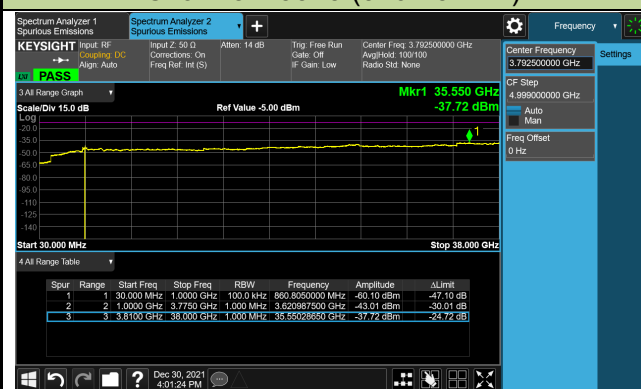
Channel 44665 (3707.5MHz)



Channel 45090 (3750MHz)

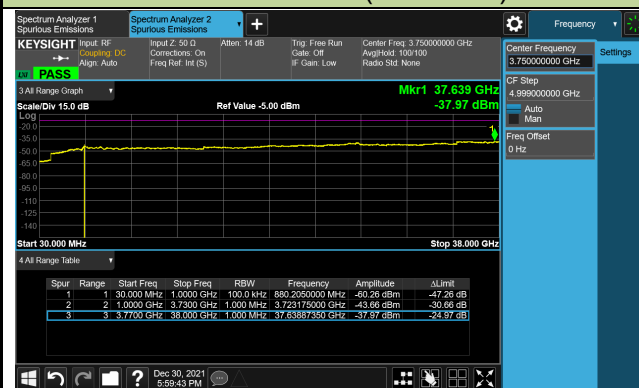


Channel 45515 (3792.5MHz)

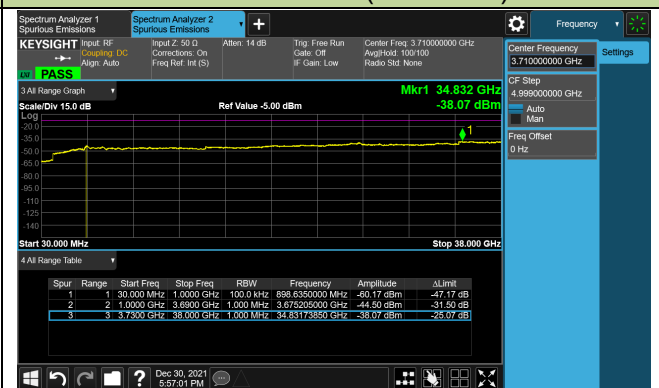


20MHz Channel Bandwidth

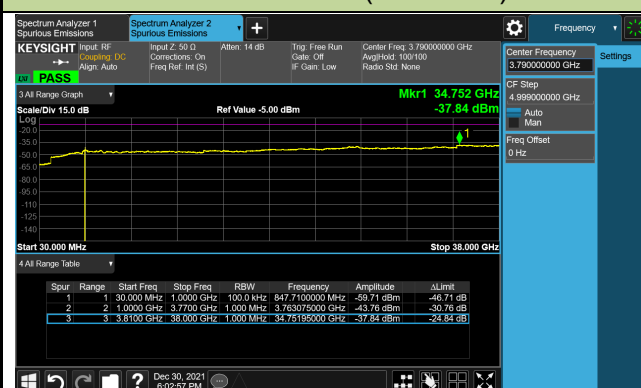
Channel 44690 (3710MHz)



Channel 45090 (3750MHz)



Channel 45490 (3790MHz)



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.