FCC Test Report

FCC ID	:	**SQG-PINNACLE1**
Equipment	:	**LTE Modem**
Model No.	:	**Pinnacle 100**
Brand Name	:	**Laird Connectivity**
Applicant	:	**Laird Connectivity, Inc.**
Address	:	**W66N220 Commerce Court, Cedarburg, Wisconsin 53012, USA**
Standard	:	**47 CFR FCC Part 22 Subpart H**
Received Date	:	**Apr. 16, 2019**
Tested Date	:	**Apr. 28 ~ May 29, 2020**

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

Testing Laboratory 2732

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Release Record

Report No.	Version	Description	Issued Date
FG950303P22	Rev. 01	Initial issue	Jun. 11, 2020

Summary of Test Results

FCC Rules	Test Items	Measured	Result
2.1046 / 22.913(a)(5)	Effective Radiated Power	Power[dBm]: 23.73	Pass
2.1053 / 22.917(a)	Radiated Emissions	Meet the requirement of limit	Pass
2.1051 / 22.917(a)	Conducted Emissions	Meet the requirement of limit	Pass
2.1051 / 22.917(a)	Band Edge	Meet the requirement of limit	Pass
2.1049 / 22.917(a)	Occupied Bandwidth	Note	Pass
-	Peak to Average Ratio	Note	Pass
2.1055 / 22.355	Frequency Stability	Note	Pass

Note: Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

Operating Frequency	824 MHz ~ 849 MHz
Modulation	QPSK /16QAM
UE category	M1

1.1.2 Antenna Details

Ant. No.	Brand / Model	Type	Connector	Gain (dBi)	Operating Band
External					
1	Laird / DBA6927C1	Dipole	U.FL	0.5	LTE Band 5
2	Laird / EFF6925A3S	Flex	U.FL	1.9	LTE Band 5
3	ASC / RFDPA131000SMTB803	Dipole	U.FL	0.38	LTE Band 5
Integrated					
4	Laird/110-00665	Stamped Metal	N/A	1.3	LTE Band 5

1.1.3 EUT Operational Condition

Power Supply Type	3.7 Vdc

1.1.4 Accessories

N/A

1.1.5 Operating Channel List

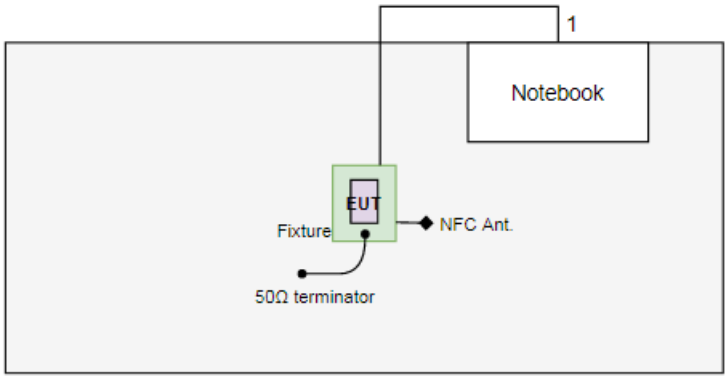
LTE Band 5		
Channel Bandwidths (MHz)	**Channel**	**Frequency (MHz)**
1.4	20407	824.7
1.4	20525	836.5
1.4	20643	848.3
3	20415	825.5
3	20525	836.5
3	20635	847.5
5	20425	826.5
5	20525	836.5
5	20625	846.5
10	20450	829.0
10	20525	836.5
10	20600	844.0

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E6440	DoC	---
2	USB Cable	I-Gota	micro to A	---	---
3	50Ω terminator	---	---	---	---
4	Fixture	---	---	---	Provided by applicant.

1.3 Test Setup Chart

Test Setup Diagram



No.	Signal cable / Length (m)
1	USB, 1m shielded.

1.4 The Equipment List

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Apr. 28 ~ May 29, 2020				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101498	Dec. 17, 2019	Dec. 16, 2020
Receiver	R&S	ESR3	101657	Feb. 14, 2020	Feb. 13, 2021
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 12, 2019	Jul. 11, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 12, 2019	Dec. 11, 2020
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2019	Nov. 14, 2020
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2019	Nov. 12, 2020
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 07, 2019	Oct. 06, 2020
Preamplifier	EMC	EMC02325	980225	Jul. 09, 2019	Jul. 08, 2020
Preamplifier	Agilent	83017A	MY39501308	Oct. 08, 2019	Oct. 07, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 07, 2019	Oct. 06, 2020
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 07, 2019	Oct. 06, 2020
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 07, 2019	Oct. 06, 2020
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Oct. 07, 2019	Oct. 06, 2020
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	May 11 ~ May 15, 2020				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101063	Apr. 30, 2020	Apr. 29, 2021
Spectrum Analyzer	R&**S**	FSV40	101499	Jan. 09, 2020	Jan. 08, 2021
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
DC POWER SOURCE	GW INSTEK	GPC-6030D	GES855395	Oct. 29, 2019	Oct. 28, 2020
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

According to the specification of EUT, the EUT must comply with following standards.

47 CFR FCC Part 22 Subpart H
ANSI C63.4-2014
ANSI C63.26-2015
FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
FCC KDB 971168 D02 Misc Rev Approv License Devices v02r01
FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Deviation from Test Standard and Measurement Procedure

None

1.7 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2).

Measurement Uncertainty	
Parameters	**Uncertainty**
Conducted emission	±2.715 dB
Radiated emission ≤ 1GHz	±3.41 dB
Radiated emission > 1GHz	±4.59 dB

2 Test Configuration

2.1 Testing Condition and Location Information

Test Item	Test Site	Ambient Condition	Tested By
Radiated Emissions	03CH01-WS	24-26°C / 62-67%	Akun Chung

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

LTE Band 5			
Test item	**Channel Bandwidths**	**Modulation**	**Test channel**
Effective Radiated Power Conducted Emissions	1.4 MHz 3 MHz 5 MHz 10 MHz	QPSK / 16QAM QPSK / 16QAM QPSK / 16QAM QPSK / 16QAM	20407 / 20525 / 20643 20415 / 20525 / 20635 20425 / 20525 / 20625 20450 / 20525 / 20600
Radiated Emission ≤ 1GHz	1.4 MHz 3 MHz 5 MHz 10 MHz	QPSK 16QAM QPSK QPSK	20407 20525 20625 20600
Radiated Emission > 1GHz	1.4 MHz	QPSK QPSK QPSK	20407 20525 20643
	3 MHz	QPSK 16QAM QPSK	20415 20525 20635
	5 MHz	QPSK QPSK QPSK	20425 20525 20625
	10 MHz	16QAM 16QAM 16QAM	20450 20525 20600
Band Edge	1.4 MHz 3 MHz 5 MHz 10 MHz	QPSK / 16QAM QPSK / 16QAM QPSK / 16QAM QPSK / 16QAM	20407 / 20643 20415 / 20635 20425 / 20625 20450 / 20600

Note:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.
2. 50Ω terminators is connected to antenna port of EUT for radiated emission measurement.

3 Test Results

3.1 Effective Radiated Power

3.1.1 Limit of Effective Radiated Power

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

3.1.2 Test Procedures

For E.R.P measurement

ERP can be calculated by below formula from KDB 412172 D01.

1. EIRP = $P_T + G_T - L_C$

   P_T = transmitter output power, in dBm.

   G_T = gain of the transmitting antenna, in dBi (EIRP).

   L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

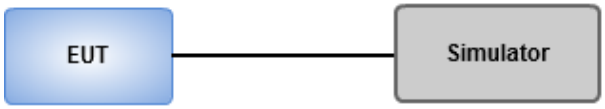
2. ERP = EIRP – 2.15 dB.

For Conducted power measurement

1. The EUT links up with simulator and is set to maximum output power level at low / middel / high channel.
2. Measure the output power of low / middle / high channel of the EUT

3.1.3 Test Setup

Conducted Power Measurement



3.1.4 Test Result of Effective Radiated Power (dBm)

LTE Band 5, BW (MHz): 1.4													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
Low Range	20407	824.7	QPSK	1	0	0	-85	23.98	1.9	25.88	23.73	0.236	7
			QPSK	1	5	0	-85	23.43	1.9	25.33	23.18	0.208	7
			QPSK	3	3	0	-85	21.81	1.9	23.71	21.56	0.143	7
			QPSK	6	0	0	-85	21.01	1.9	22.91	20.76	0.119	7
			16QAM	1	0	0	-85	21.38	1.9	23.28	21.13	0.130	7
			16QAM	1	5	0	-85	21.53	1.9	23.43	21.28	0.134	7
			16QAM	3	0	0	-85	20.78	1.9	22.68	20.53	0.113	7
			16QAM	6	0	0	-85	20.69	1.9	22.59	20.44	0.111	7
Mid. Range	20525	836.5	QPSK	1	0	0	-85	23.89	1.9	25.79	23.64	0.231	7
			QPSK	1	5	0	-85	23.44	1.9	25.34	23.19	0.208	7
			QPSK	3	3	0	-85	21.77	1.9	23.67	21.52	0.142	7
			QPSK	6	0	0	-85	20.97	1.9	22.87	20.72	0.118	7
			16QAM	1	0	0	-85	21.35	1.9	23.25	21.1	0.129	7
			16QAM	1	5	0	-85	21.42	1.9	23.32	21.17	0.131	7
			16QAM	3	0	0	-85	20.74	1.9	22.64	20.49	0.112	7
			16QAM	5	0	0	-85	20.4	1.9	22.3	20.15	0.104	7
High Range	20643	848.3	QPSK	1	0	0	-85	23.88	1.9	25.78	23.63	0.231	7
			QPSK	1	5	0	-85	23.43	1.9	25.33	23.18	0.208	7
			QPSK	3	3	0	-85	21.84	1.9	23.74	21.59	0.144	7
			QPSK	6	0	0	-85	20.99	1.9	22.89	20.74	0.119	7
			16QAM	1	0	0	-85	21.37	1.9	23.27	21.12	0.129	7
			16QAM	1	5	0	-85	21.47	1.9	23.37	21.22	0.132	7
			16QAM	3	0	0	-85	20.69	1.9	22.59	20.44	0.111	7
			16QAM	6	0	0	-85	20.44	1.9	22.34	20.19	0.104	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 3													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
Low Range	20415	825.5	QPSK	1	0	0	-85	22.87	1.9	24.77	22.62	0.183	7
			QPSK	1	5	0	-85	22.76	1.9	24.66	22.51	0.178	7
			QPSK	1	0	1	-85	22.79	1.9	24.69	22.54	0.179	7
			QPSK	1	5	1	-85	22.69	1.9	24.59	22.44	0.175	7
			QPSK	3	3	0	-85	21.65	1.9	23.55	21.4	0.138	7
			QPSK	3	3	1	-85	21.57	1.9	23.47	21.32	0.136	7
			QPSK	6	0	0	-85	20.66	1.9	22.56	20.41	0.110	7
			QPSK	6	0	1	-85	20.58	1.9	22.48	20.33	0.108	7
			16QAM	1	0	0	-85	22.75	1.9	24.65	22.5	0.178	7
			16QAM	1	5	0	-85	22.65	1.9	24.55	22.4	0.174	7
			16QAM	1	0	1	-85	22.67	1.9	24.57	22.42	0.175	7
			16QAM	1	5	1	-85	22.58	1.9	24.48	22.33	0.171	7
			16QAM	3	0	0	-85	21.59	1.9	23.49	21.34	0.136	7
			16QAM	3	3	1	-85	21.62	1.9	23.52	21.37	0.137	7
			16QAM	5	0	0	-85	21.57	1.9	23.47	21.32	0.136	7
			16QAM	5	0	1	-85	21.49	1.9	23.39	21.24	0.133	7
Mid. Range	20525	836.5	QPSK	1	0	0	-85	22.76	1.9	24.66	22.51	0.178	7
			QPSK	1	5	0	-85	22.59	1.9	24.49	22.34	0.171	7
			QPSK	1	0	1	-85	22.87	1.9	24.77	22.62	0.183	7
			QPSK	1	5	1	-85	22.74	1.9	24.64	22.49	0.177	7
			QPSK	3	3	0	-85	21.62	1.9	23.52	21.37	0.137	7
			QPSK	3	3	1	-85	21.65	1.9	23.55	21.4	0.138	7
			QPSK	6	0	0	-85	20.71	1.9	22.61	20.46	0.111	7
			QPSK	6	0	1	-85	20.78	1.9	22.68	20.53	0.113	7
			16QAM	1	0	0	-85	22.57	1.9	24.47	22.32	0.171	7
			16QAM	1	5	0	-85	22.73	1.9	24.63	22.48	0.177	7
			16QAM	1	0	1	-85	22.93	1.9	24.83	22.68	0.185	7
			16QAM	1	5	1	-85	22.67	1.9	24.57	22.42	0.175	7
			16QAM	3	0	0	-85	21.68	1.9	23.58	21.43	0.139	7
			16QAM	3	3	1	-85	21.71	1.9	23.61	21.46	0.140	7
			16QAM	5	0	0	-85	21.66	1.9	23.56	21.41	0.138	7
			16QAM	5	0	1	-85	21.61	1.9	23.51	21.36	0.137	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 3													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
High Range	20635	847.5	QPSK	1	0	0	-85	22.81	1.9	24.71	22.56	0.180	7
			QPSK	1	5	0	-85	22.73	1.9	24.63	22.48	0.177	7
			QPSK	1	0	1	-85	22.77	1.9	24.67	22.52	0.179	7
			QPSK	1	5	1	-85	22.69	1.9	24.59	22.44	0.175	7
			QPSK	3	3	0	-85	21.62	1.9	23.52	21.37	0.137	7
			QPSK	3	3	1	-85	21.56	1.9	23.46	21.31	0.135	7
			QPSK	6	0	0	-85	20.68	1.9	22.58	20.43	0.110	7
			QPSK	6	0	1	-85	20.55	1.9	22.45	20.3	0.107	7
			16QAM	1	0	0	-85	22.64	1.9	24.54	22.39	0.173	7
			16QAM	1	5	0	-85	22.54	1.9	24.44	22.29	0.169	7
			16QAM	1	0	1	-85	22.49	1.9	24.39	22.24	0.167	7
			16QAM	1	5	1	-85	22.63	1.9	24.53	22.38	0.173	7
			16QAM	3	0	0	-85	21.67	1.9	23.57	21.42	0.139	7
			16QAM	3	3	1	-85	21.73	1.9	23.63	21.48	0.141	7
			16QAM	5	0	0	-85	21.7	1.9	23.6	21.45	0.140	7
			16QAM	5	0	1	-85	21.68	1.9	23.58	21.43	0.139	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 5													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
Low Range	20425	826.5	QPSK	1	0	0	-85	22.82	1.9	24.72	22.57	0.181	7
			QPSK	1	5	0	-85	22.81	1.9	24.71	22.56	0.180	7
			QPSK	1	0	1	-85	22.79	1.9	24.69	22.54	0.179	7
			QPSK	1	5	1	-85	22.77	1.9	24.67	22.52	0.179	7
			QPSK	1	0	3	-85	22.78	1.9	24.68	22.53	0.179	7
			QPSK	1	5	3	-85	22.71	1.9	24.61	22.46	0.176	7
			QPSK	3	0	0	-85	21.98	1.9	23.88	21.73	0.149	7
			QPSK	3	3	3	-85	21.77	1.9	23.67	21.52	0.142	7
			QPSK	6	0	0	-85	21.99	1.9	23.89	21.74	0.149	7
			QPSK	6	0	1	-85	21.92	1.9	23.82	21.67	0.147	7
			QPSK	6	0	3	-85	21.97	1.9	23.87	21.72	0.149	7
			16QAM	1	0	0	-85	22.62	1.9	24.52	22.37	0.173	7
			16QAM	1	5	0	-85	22.69	1.9	24.59	22.44	0.175	7
			16QAM	1	0	1	-85	22.67	1.9	24.57	22.42	0.175	7
			16QAM	1	5	1	-85	22.68	1.9	24.58	22.43	0.175	7
			16QAM	1	0	3	-85	22.64	1.9	24.54	22.39	0.173	7
			16QAM	1	5	3	-85	22.66	1.9	24.56	22.41	0.174	7
			16QAM	3	0	0	-85	21.77	1.9	23.67	21.52	0.142	7
			16QAM	3	3	3	-85	21.79	1.9	23.69	21.54	0.143	7
			16QAM	5	0	0	-85	21.81	1.9	23.71	21.56	0.143	7
			16QAM	5	0	1	-85	21.83	1.9	23.73	21.58	0.144	7
			16QAM	5	0	3	-85	21.82	1.9	23.72	21.57	0.144	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 5													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
Mid. Range	20525	836.5	QPSK	1	0	0	-85	22.69	1.9	24.59	22.44	0.175	7
			QPSK	1	5	0	-85	22.64	1.9	24.54	22.39	0.173	7
			QPSK	1	0	1	-85	22.66	1.9	24.56	22.41	0.174	7
			QPSK	1	5	1	-85	22.45	1.9	24.35	22.2	0.166	7
			QPSK	1	0	3	-85	22.67	1.9	24.57	22.42	0.175	7
			QPSK	1	5	3	-85	22.56	1.9	24.46	22.31	0.170	7
			QPSK	3	0	0	-85	21.81	1.9	23.71	21.56	0.143	7
			QPSK	3	3	3	-85	21.64	1.9	23.54	21.39	0.138	7
			QPSK	6	0	0	-85	21.84	1.9	23.74	21.59	0.144	7
			QPSK	6	0	1	-85	21.87	1.9	23.77	21.62	0.145	7
			QPSK	6	0	3	-85	21.79	1.9	23.69	21.54	0.143	7
			16QAM	1	0	0	-85	22.49	1.9	24.39	22.24	0.167	7
			16QAM	1	5	0	-85	22.47	1.9	24.37	22.22	0.167	7
			16QAM	1	0	1	-85	22.57	1.9	24.47	22.32	0.171	7
			16QAM	1	5	1	-85	22.53	1.9	24.43	22.28	0.169	7
			16QAM	1	0	3	-85	22.55	1.9	24.45	22.3	0.170	7
			16QAM	1	5	3	-85	22.46	1.9	24.36	22.21	0.166	7
			16QAM	3	0	0	-85	21.69	1.9	23.59	21.44	0.139	7
			16QAM	3	3	3	-85	21.67	1.9	23.57	21.42	0.139	7
			16QAM	5	0	0	-85	21.73	1.9	23.63	21.48	0.141	7
			16QAM	5	0	1	-85	21.66	1.9	23.56	21.41	0.138	7
			16QAM	5	0	3	-85	21.68	1.9	23.58	21.43	0.139	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 5													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
High Range	20625	846.5	QPSK	1	0	0	-85	22.69	1.9	24.59	22.44	0.175	7
			QPSK	1	5	0	-85	22.63	1.9	24.53	22.38	0.173	7
			QPSK	1	0	1	-85	22.91	1.9	24.81	22.66	0.185	7
			QPSK	1	5	1	-85	22.78	1.9	24.68	22.53	0.179	7
			QPSK	1	0	3	-85	22.59	1.9	24.49	22.34	0.171	7
			QPSK	1	5	3	-85	22.51	1.9	24.41	22.26	0.168	7
			QPSK	3	0	0	-85	21.71	1.9	23.61	21.46	0.140	7
			QPSK	3	3	3	-85	21.59	1.9	23.49	21.34	0.136	7
			QPSK	6	0	0	-85	21.71	1.9	23.61	21.46	0.140	7
			QPSK	6	0	1	-85	22.1	1.9	24	21.85	0.153	7
			QPSK	6	0	3	-85	21.77	1.9	23.67	21.52	0.142	7
			16QAM	1	0	0	-85	22.42	1.9	24.32	22.17	0.165	7
			16QAM	1	5	0	-85	22.31	1.9	24.21	22.06	0.161	7
			16QAM	1	0	1	-85	22.82	1.9	24.72	22.57	0.181	7
			16QAM	1	5	1	-85	22.75	1.9	24.65	22.5	0.178	7
			16QAM	1	0	3	-85	22.42	1.9	24.32	22.17	0.165	7
			16QAM	1	5	3	-85	22.35	1.9	24.25	22.1	0.162	7
			16QAM	3	0	0	-85	21.47	1.9	23.37	21.22	0.132	7
			16QAM	3	3	3	-85	21.58	1.9	23.48	21.33	0.136	7
			16QAM	5	0	0	-85	21.61	1.9	23.51	21.36	0.137	7
			16QAM	5	0	1	-85	21.97	1.9	23.87	21.72	0.149	7
			16QAM	5	0	3	-85	21.69	1.9	23.59	21.44	0.139	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 10													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
Low Range	20450	829	QPSK	1	0	0	-85	22.75	1.9	24.65	22.5	0.178	7
			QPSK	1	5	0	-85	22.67	1.9	24.57	22.42	0.175	7
			QPSK	1	0	3	-85	22.63	1.9	24.53	22.38	0.173	7
			QPSK	1	5	3	-85	22.61	1.9	24.51	22.36	0.172	7
			QPSK	1	0	7	-85	22.61	1.9	24.51	22.36	0.172	7
			QPSK	1	5	7	-85	22.57	1.9	24.47	22.32	0.171	7
			QPSK	4	0	0	-85	22.71	1.9	24.61	22.46	0.176	7
			QPSK	4	2	7	-85	22.91	1.9	24.81	22.66	0.185	7
			QPSK	6	0	0	-85	21.74	1.9	23.64	21.49	0.141	7
			QPSK	6	0	7	-85	21.69	1.9	23.59	21.44	0.139	7
			16QAM	1	0	0	-85	22.76	1.9	24.66	22.51	0.178	7
			16QAM	1	5	0	-85	22.71	1.9	24.61	22.46	0.176	7
			16QAM	1	0	3	-85	22.71	1.9	24.61	22.46	0.176	7
			16QAM	1	5	3	-85	22.65	1.9	24.55	22.4	0.174	7
			16QAM	1	0	7	-85	22.61	1.9	24.51	22.36	0.172	7
			16QAM	1	5	7	-85	22.56	1.9	24.46	22.31	0.170	7
			16QAM	4	2	0	-85	22.75	1.9	24.65	22.5	0.178	7
			16QAM	4	2	7	-85	22.71	1.9	24.61	22.46	0.176	7
			16QAM	5	0	0	-85	21.76	1.9	23.66	21.51	0.142	7
			16QAM	5	0	7	-85	21.77	1.9	23.67	21.52	0.142	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 10													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
Mid. Range	20525	836.5	QPSK	1	0	0	-85	22.72	1.9	24.62	22.47	0.177	7
			QPSK	1	5	0	-85	22.66	1.9	24.56	22.41	0.174	7
			QPSK	1	0	3	-85	22.62	1.9	24.52	22.37	0.173	7
			QPSK	1	5	3	-85	22.68	1.9	24.58	22.43	0.175	7
			QPSK	1	0	7	-85	22.51	1.9	24.41	22.26	0.168	7
			QPSK	1	5	7	-85	22.46	1.9	24.36	22.21	0.166	7
			QPSK	4	0	0	-85	22.71	1.9	24.61	22.46	0.176	7
			QPSK	4	2	7	-85	22.71	1.9	24.61	22.46	0.176	7
			QPSK	6	0	0	-85	21.88	1.9	23.78	21.63	0.146	7
			QPSK	6	0	7	-85	21.64	1.9	23.54	21.39	0.138	7
			16QAM	1	0	0	-85	22.72	1.9	24.62	22.47	0.177	7
			16QAM	1	5	0	-85	22.67	1.9	24.57	22.42	0.175	7
			16QAM	1	0	3	-85	22.77	1.9	24.67	22.52	0.179	7
			16QAM	1	5	3	-85	22.69	1.9	24.59	22.44	0.175	7
			16QAM	1	0	7	-85	22.57	1.9	24.47	22.32	0.171	7
			16QAM	1	5	7	-85	22.49	1.9	24.39	22.24	0.167	7
			16QAM	4	2	0	-85	22.85	1.9	24.75	22.6	0.182	7
			16QAM	4	2	7	-85	22.74	1.9	24.64	22.49	0.177	7
			16QAM	5	0	0	-85	21.79	1.9	23.69	21.54	0.143	7
			16QAM	5	0	7	-85	21.678	1.9	23.578	21.428	0.139	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

LTE Band 5, BW (MHz): 10													
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT		Antenna Gain (dBi)	E.I.R.P Power (dBm)	E.R.P Power (dBm)	E.R.P Power (W)	E.R.P Limit (W)
			Modulation	RB Size	RB Offset	Narrowband	Cell Power	Power (dBm)					
High Range	20600	844	QPSK	1	0	0	-85	22.57	1.9	24.47	22.32	0.171	7
			QPSK	1	5	0	-85	22.58	1.9	24.48	22.33	0.171	7
			QPSK	1	5	7	-85	22.87	1.9	24.77	22.62	0.183	7
			QPSK	1	0	3	-85	22.87	1.9	24.77	22.62	0.183	7
			QPSK	1	5	3	-85	22.81	1.9	24.71	22.56	0.180	7
			QPSK	1	0	7	-85	22.94	1.9	24.84	22.69	0.186	7
			QPSK	4	0	0	-85	22.55	1.9	24.45	22.3	0.170	7
			QPSK	4	2	7	-85	22.89	1.9	24.79	22.64	0.184	7
			QPSK	6	0	0	-85	21.53	1.9	23.43	21.28	0.134	7
			QPSK	6	0	7	-85	21.99	1.9	23.89	21.74	0.149	7
			16QAM	1	0	0	-85	22.67	1.9	24.57	22.42	0.175	7
			16QAM	1	5	0	-85	22.55	1.9	24.45	22.3	0.170	7
			16QAM	1	0	3	-85	22.79	1.9	24.69	22.54	0.179	7
			16QAM	1	5	3	-85	22.59	1.9	24.49	22.34	0.171	7
			16QAM	1	0	7	-85	22.96	1.9	24.86	22.71	0.187	7
			16QAM	1	5	7	-85	22.82	1.9	24.72	22.57	0.181	7
			16QAM	4	2	0	-85	22.61	1.9	24.51	22.36	0.172	7
			16QAM	4	2	7	-85	22.73	1.9	24.63	22.48	0.177	7
			16QAM	5	0	0	-85	21.67	1.9	23.57	21.42	0.139	7
			16QAM	5	0	7	-85	21.96	1.9	23.86	21.71	0.148	7

Note1: EIRP = Conducted Output Power + Antenna Gain.

Note2: ERP = EIRP - 2.15.

Note3: Conducted power Refers to test report of FCC ID: N7NHL78. Test report no.: RF181126C15

3.1.5 Verification of Conducted Output Power

LTE Cat-M1 Band 5, BW (MHz): 1.4								
Test Frequency ID	NUL	Frequency of Uplink (MHz)	Test Configuration Initial of Power				EUT	
			Modulation	RB Size	RB Offset	Narrowband Index	Cell Power (dBm/15 kHz)	Conducted Power (dBm)
Low Range	20407	824.7	QPSK	1	0	0	-85	23.34
			QPSK	1	5	0	-85	23.21
			QPSK	3	3	0	-85	22.1
			QPSK	6	0	0	-85	21.37
			16QAM	1	0	0	-85	21.77
			16QAM	1	5	0	-85	21.73
			16QAM	3	0	0	-85	21.08
			16QAM	6	0	0	-85	21.3
Mid. Range	20525	836.5	QPSK	1	0	0	-85	23.46
			QPSK	1	5	0	-85	23.5
			QPSK	3	3	0	-85	22.29
			QPSK	6	0	0	-85	21.5
			16QAM	1	0	0	-85	22.14
			16QAM	1	5	0	-85	22.2
			16QAM	3	0	0	-85	21.39
			16QAM	5	0	0	-85	21.5
High Range	20643	848.3	QPSK	1	0	0	-85	23.5
			QPSK	1	5	0	-85	23.47
			QPSK	3	3	0	-85	23
			QPSK	6	0	0	-85	21.69
			16QAM	1	0	0	-85	22.29
			16QAM	1	5	0	-85	22.37
			16QAM	3	0	0	-85	21.37
			16QAM	6	0	0	-85	21.49

3.2 Radiated Emissions

3.2.1 Limit of Radiated Emissions

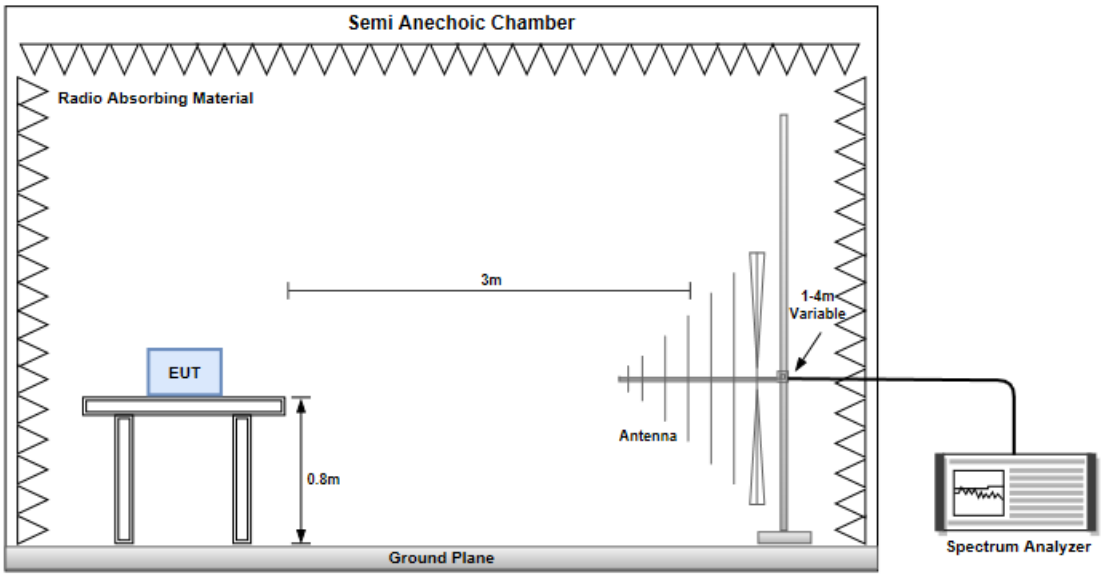
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB equal to -13dBm.

3.2.2 Test Procedures

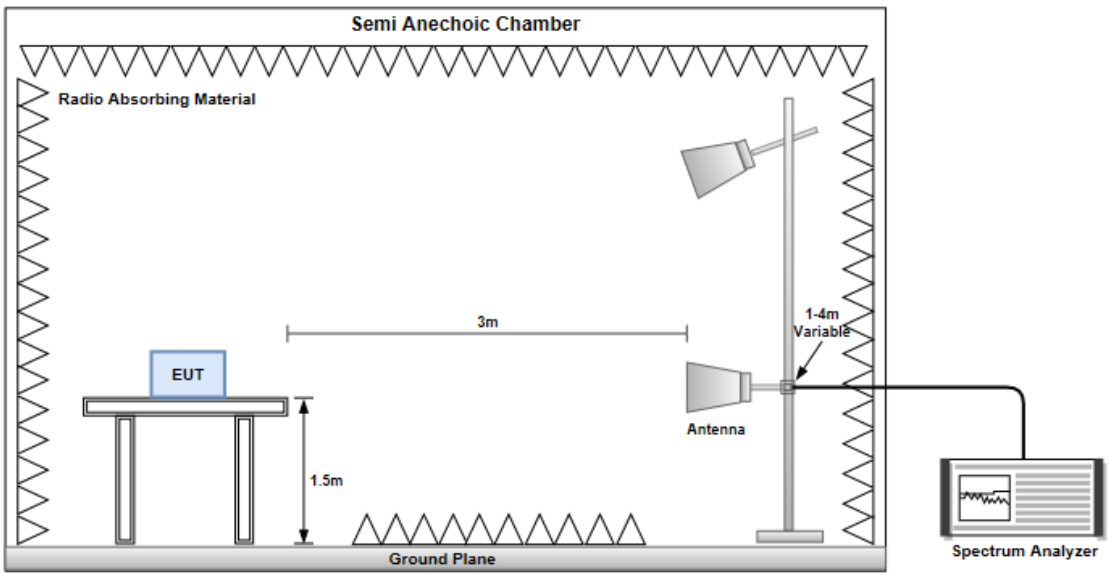
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.
4. After finding the max radiated emission, substitution method will be used for getting effective radiated power. EUT will be removed and substitution antenna will be placed at same position. Signal generator will output CW signal to substitution antenna through a RF cable. Rotate turntable and move antenna to find maximum radiated emission. Adjust output power of signal generator to let the maximum radiated emission is same as step 3. Record the output power level.
5. E.I.R.P = output power of step 4 + gain of substitution antenna – cable loss of RF cable. ERP can be calculated by below formula:
   E.R.P = E.I.R.P – 2.15dB.

3.2.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.2.4 Test Result of Radiated Emissions below 1GHz

Mode	LTE Band 5, QPSK, CB:1.4 MHz, 1 RB Offset 0, Channel: 20407						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
33.86	H	-69.69	-13	-56.69	-74.92	-49.03	-18.51
90.22	H	-71.63	-13	-58.63	-67.4	-64.57	-4.91
135.49	H	-71.69	-13	-58.69	-68.38	-62.94	-6.6
164.81	H	-70.59	-13	-57.59	-67.24	-62.53	-5.91
232.65	H	-69.59	-13	-56.59	-63.41	-65.6	-1.84
746.83	H	-66.3	-13	-53.3	-72.83	-62.07	-2.08
98.82	V	-69.31	-13	-56.31	-65.06	-62.15	-5.01
164.77	V	-66.99	-13	-53.99	-67.08	-58.93	-5.91
232.73	V	-69.8	-13	-56.8	-68.8	-65.82	-1.83
730.36	V	-55.67	-13	-42.67	-63.11	-51.57	-1.95
746.85	V	-58.04	-13	-45.04	-65.86	-53.81	-2.08
835.16	V	-64.29	-13	-51.29	-72.32	-60.18	-1.96

Mode	LTE Band 5, 16QAM, CB:3 MHz, 1 RB Offset 0, Channel: 20415						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
33.82	H	-69.56	-13	-56.56	-74.8	-48.89	-18.52
90.26	H	-71.5	-13	-58.5	-67.28	-64.44	-4.91
135.51	H	-71.81	-13	-58.81	-68.5	-63.06	-6.6
164386	H	-70.67	-13	-57.67	-67.31	-62.61	-5.91
232.58	H	-69.76	-13	-56.76	-63.57	-65.77	-1.84
746.89	H	-66.41	-13	-53.41	-72.94	-62.18	-2.08
98.75	V	-69.43	-13	-56.43	-65.17	-62.27	-5.01
164.82	V	-67.08	-13	-54.08	-67.17	-59.02	-5.91
232.75	V	-69.57	-13	-56.57	-68.57	-65.59	-1.83
730.28	V	-55.8	-13	-42.8	-63.23	-51.71	-1.94
746.81	V	-58.11	-13	-45.11	-65.93	-53.88	-2.08
835.18	V	-64.18	-13	-51.18	-72.21	-60.07	-1.96

NOTE: ERP = S.G power value + correction factor - 2.15.

Mode	LTE Band 5, QPSK, CB:5 MHz, 1 RB Offset 0, Channel: 20625						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
33.89	H	-69.67	-13	-56.67	-74.9	-49.02	-18.5
90.31	H	-71.63	-13	-58.63	-67.41	-64.57	-4.91
135.56	H	-71.67	-13	-58.67	-68.36	-62.92	-6.6
164.88	H	-70.62	-13	-57.62	-67.26	-62.57	-5.9
232.56	H	-69.67	-13	-56.67	-63.48	-65.68	-1.84
746.87	H	-66.54	-13	-53.54	-73.07	-62.31	-2.08
98.68	V	-69.27	-13	-56.27	-65.01	-62.12	-5
168.86	V	-66.8	-13	-53.8	-66.89	-58.74	-5.91
232.72	V	-69.73	-13	-56.73	-68.73	-65.75	-1.83
730.25	V	-55.64	-13	-42.64	-63.07	-51.55	-1.94
746.81	V	-57.97	-13	-44.97	-65.79	-53.74	-2.08
835.22	V	-64.29	-13	-51.29	-72.32	-60.18	-1.96

Mode	LTE Band 5, QPSK, CB:10 MHz, 1 RB Offset 0, Channel: 20600						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
33.91	H	-69.43	-13	-56.43	-74.65	-48.78	-18.5
90.42	H	-71.4	-13	-58.4	-67.18	-64.34	-4.91
135.68	H	-72.04	-13	-59.04	-68.75	-63.28	-6.61
164.91	H	-70.39	-13	-57.39	-67.03	-62.34	-5.9
232.69	H	-69.97	-13	-56.97	-63.79	-65.99	-1.83
746.88	H	-66.64	-13	-53.64	-73.17	-62.41	-2.08
98.82	V	-69.6	-13	-56.6	-65.35	-62.44	-5.01
164.92	V	-66.66	-13	-53.66	-66.75	-58.61	-5.9
232.69	V	-69.43	-13	-56.43	-68.43	-65.45	-1.83
730.29	V	-55.96	-13	-42.96	-63.39	-51.87	-1.94
746.84	V	-58.11	-13	-45.11	-65.93	-53.88	-2.08
835.39	V	-64.13	-13	-51.13	-72.16	-60.02	-1.96

NOTE: ERP = S.G power value + correction factor - 2.15.

3.2.5 Test Result of Radiated Emissions above 1GHz

Mode	LTE Band 5, QPSK, CB:1.4 MHz, 1 RB Offset 0, Channel: 20407						
Frequency (MHz)	Antenna Polarity	E.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
1648.5	H	-56.4	-13	-43.4	-60.54	-60.03	5.78
2472.75	H	-53.59	-13	-40.59	-61.29	-57.69	6.25
4121.25	H	-43.44	-13	-30.44	-55.67	-48.16	6.87
1648.5	V	-55.96	-13	-42.96	-60.2	-59.59	5.78
2472.75	V	-49.98	-13	-36.98	-57.86	-54.08	6.25
4121.25	V	-40.08	-13	-27.08	-52.33	-44.8	6.87

Mode	LTE Band 5, QPSK, CB:1.4 MHz, 1 RB Offset 0, Channel: 20525						
Frequency (MHz)	Antenna Polarity	E.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
1672.1	H	-56.16	-13	-43.16	-60.42	-59.89	5.88
2508.15	H	-50.19	-13	-37.19	-58.05	-54.41	6.37
4180.25	H	-41.94	-13	-28.94	-54.19	-46.62	6.83
1672.1	V	-54.65	-13	-41.65	-58.95	-58.38	5.88
2508.15	V	-48.41	-13	-35.41	-56.32	-52.63	6.37
4180.25	V	-38.8	-13	-25.8	-51.01	-43.48	6.83

Mode	LTE Band 5, QPSK, CB:1.4 MHz, 1 RB Offset 0, Channel: 20643						
Frequency (MHz)	Antenna Polarity.	E.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
1695.7	H	-55.4	-13	-42.4	-59.77	-59.24	5.99
2543.55	H	-48.26	-13	-35.26	-56.27	-52.59	6.48
4239.25	H	-40.84	-13	-27.84	-53.22	-45.46	6.77
1695.7	V	-55.46	-13	-42.46	-59.83	-59.3	5.99
2543.55	V	-47.21	-13	-34.21	-55.14	-51.54	6.48
4239.25	V	-37.25	-13	-24.25	-49.59	-41.87	6.77

NOTE: ERP = S.G power value + correction factor - 2.15.

Mode	LTE Band 5, QPSK, CB:3 MHz, 1 RB Offset 0, Channel: 20415						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1649.02	H	-56.5	-13	-43.5	-60.65	-60.13	5.78
2473.53	H	-53.71	-13	-40.71	-61.41	-57.82	6.26
4122.55	H	-43.64	-13	-30.64	-55.87	-48.36	6.87
1649.02	V	-56.11	-13	-43.11	-60.35	-59.74	5.78
2473.53	V	-50.07	-13	-37.07	-57.95	-54.18	6.26
4122.55	V	-40.71	-13	-27.71	-52.96	-45.43	6.87

Mode	LTE Band 5, 16QAM, CB:3 MHz, 1 RB Offset 0, Channel: 20525						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1673.2	H	-56.64	-13	-43.64	-60.9	-60.38	5.89
2509.8	H	-53.84	-13	-40.84	-61.71	-58.06	6.37
4183	H	-43.71	-13	-30.71	-55.96	-48.39	6.83
1673.2	V	-55.8	-13	-42.8	-60.1	-59.54	5.89
2509.8	V	-50.31	-13	-37.31	-58.22	-54.53	6.37
4183	V	-41.07	-13	-28.07	-53.28	-45.75	6.83

Mode	LTE Band 5, QPSK, CB:3 MHz, 1 RB Offset 0, Channel: 20635						
Frequency (MHz)	**Antenna Polarity.**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1693.02	H	-56.67	-13	-43.67	-61.03	-60.49	5.97
2539.53	H	-53.54	-13	-40.54	-61.54	-57.86	6.47
4232.55	H	-43.81	-13	-30.81	-56.17	-48.44	6.78
1693.02	V	-55.99	-13	-42.99	-60.35	-59.81	5.97
2539.53	V	-50.41	-13	-37.41	-58.34	-54.73	6.47
4232.55	V	-41.37	-13	-28.37	-53.68	-46	6.78

NOTE: ERP = S.G power value + correction factor - 2.15.

Mode	LTE Band 5, QPSK, CB:5 MHz, 1 RB Offset 0, Channel: 20425						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1648.86	H	-56.3	-13	-43.3	-60.45	-59.93	5.78
2473.29	H	-53.99	-13	-40.99	-61.69	-58.09	6.25
4122.15	H	-43.71	-13	-30.71	-55.94	-48.43	6.87
1648.86	V	-56.21	-13	-43.21	-60.45	-59.84	5.78
2473.29	V	-50.3	-13	-37.3	-58.18	-54.4	6.25
4122.15	V	-40.77	-13	-27.77	-53.02	-45.49	6.87

Mode	LTE Band 5, QPSK, CB:5 MHz, 1 RB Offset 0, Channel: 20525						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1668.86	H	-56.41	-13	-43.41	-60.66	-60.13	5.87
2503.29	H	-54.08	-13	-41.08	-61.92	-58.28	6.35
4172.15	H	-43.79	-13	-30.79	-56.04	-48.48	6.84
1668.86	V	-56.37	-13	-43.37	-60.67	-60.09	5.87
2503.29	V	-50.51	-13	-37.51	-58.42	-54.71	6.35
4172.15	V	-41.1	-13	-28.1	-53.32	-45.79	6.84

Mode	LTE Band 5, QPSK, CB:5 MHz, 1 RB Offset 0, Channel: 20625						
Frequency (MHz)	**Antenna Polarity.**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1691.04	H	-56.56	-13	-43.56	-60.92	-60.38	5.97
2536.56	H	-54.03	-13	-41.03	-62.02	-58.34	6.46
4227.6	H	-44.07	-13	-31.07	-56.42	-48.71	6.79
1691.04	V	-56.21	-13	-43.21	-60.57	-60.03	5.97
2536.56	V	-50.8	-13	-37.8	-58.73	-55.11	6.46
4227.6	V	-41.39	-13	-28.39	-53.69	-46.03	6.79

NOTE: ERP = S.G power value + correction factor - 2.15.

Mode	LTE Band 5, 16QAM, CB:10 MHz, 1 RB Offset 0, Channel: 20450						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1665.56	H	-56.84	-13	-43.84	-61.07	-60.55	5.86
2498.34	H	-53.9	-13	-40.9	-61.72	-58.08	6.33
4163.9	H	-43.9	-13	-30.9	-56.13	-48.59	6.84
1665.56	V	-56.07	-13	-43.07	-60.35	-59.78	5.86
2498.34	V	-51.1	-13	-38.1	-59	-55.28	6.33
4163.9	V	-41.57	-13	-28.57	-53.79	-46.26	6.84

Mode	LTE Band 5, 16QAM, CB:10 MHz, 1 RB Offset 0, Channel: 20525						
Frequency (MHz)	**Antenna Polarity**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1665.26	H	-56.57	-13	-43.57	-60.79	-60.28	5.86
2497.89	H	-53.53	-13	-40.53	-61.35	-57.71	6.33
4163.15	H	-44.01	-13	-31.01	-56.25	-48.7	6.84
1665.26	V	-65.96	-13	-52.96	-70.24	-69.67	5.86
2497.89	V	-50.87	-13	-37.87	-58.77	-55.05	6.33
4163.15	V	-41.71	-13	-28.71	-53.93	-46.4	6.84

Mode	LTE Band 5, 16QAM, CB:10 MHz, 1 RB Offset 0, Channel: 20600						
Frequency (MHz)	**Antenna Polarity.**	**E.R.P (dBm)**	**Limit (dBm)**	**Margin (dB)**	**S.A Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**
1694.82	H	-56.48	-13	-43.48	-60.85	-60.18	5.85
2542.23	H	-53.77	-13	-40.77	-61.78	-57.95	6.33
4237.05	H	-44.09	-13	-31.09	-56.46	-48.78	6.84
1694.82	V	-65.43	-13	-52.43	-69.8	-69.13	5.85
2542.23	V	-50.76	-13	-37.76	-58.69	-54.94	6.33
4237.05	V	-41.81	-13	-28.81	-54.14	-46.5	6.84

NOTE: ERP = S.G power value + correction factor - 2.15.

3.3 Conducted Emissions

3.3.1 Limit of Conducted Emissions

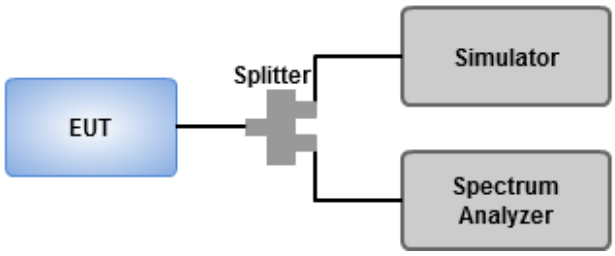
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB equal to -13dBm.

3.3.2 Test Procedures

1. Lowest, middle and highest operating channels are tested for this item.
2. Scan frequency range is from 30 MHz ~ 10 GHz.
3. Emission below 1GHz
   Set RBW = 100 kHz, VBW = 300 kHz, detector = Peak, sweep time = auto.

   Emission above 1GHz
   Set RBW = 1MHz, VBW = 3MHz, detector = Peak, sweep time = auto.
4. Record the max trace value and capture the test plot of each sub frequency band.

3.3.3 Test Setup



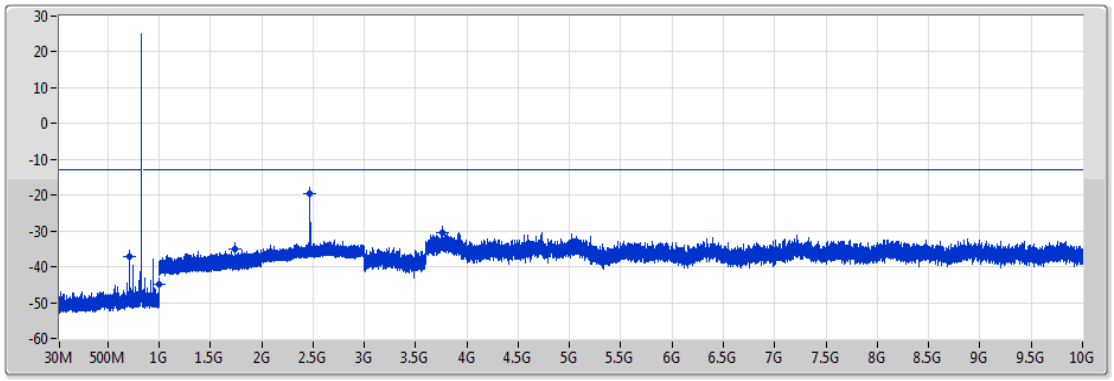
3.3.4 Test Result of Conducted Emissions

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark	Ref.Limit (dB)
Band 5	-	-	-	-	-	-	-	-	-	-	-	-	-
LTE-M1_1.4MHz_Nss1,QPSK_1TX	Pass	2G	3G	1M	3M	Peak	2.54369G	-18.25	-13.00	-5.25	1	-	-
LTE-M1_1.4MHz_Nss1,16QAM_1TX	Pass	2G	3G	1M	3M	Peak	2.50831G	-17.13	-13.00	-4.13	1	-	-
LTE-M1_3MHz_Nss1,QPSK_1TX	Pass	2G	3G	1M	3M	Peak	2.50909G	-17.39	-13.00	-4.39	1	-	-
LTE-M1_3MHz_Nss1,16QAM_1TX	Pass	2G	3G	1M	3M	Peak	2.54172G	-18.39	-13.00	-5.39	1	-	-
LTE-M1_5MHz_Nss1,QPSK_1TX	Pass	2G	3G	1M	3M	Peak	2.50947G	-18.51	-13.00	-5.51	1	-	-
LTE-M1_5MHz_Nss1,16QAM_1TX	Pass	2G	3G	1M	3M	Peak	2.47913G	-19.31	-13.00	-6.31	1	-	-
LTE-M1_10MHz_Nss1,QPSK_1TX	Pass	2G	3G	1M	3M	Peak	2.53175G	-18.06	-13.00	-5.06	1	-	-
LTE-M1_10MHz_Nss1,16QAM_1TX	Pass	2G	3G	1M	3M	Peak	2.53203G	-17.33	-13.00	-4.33	1	-	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

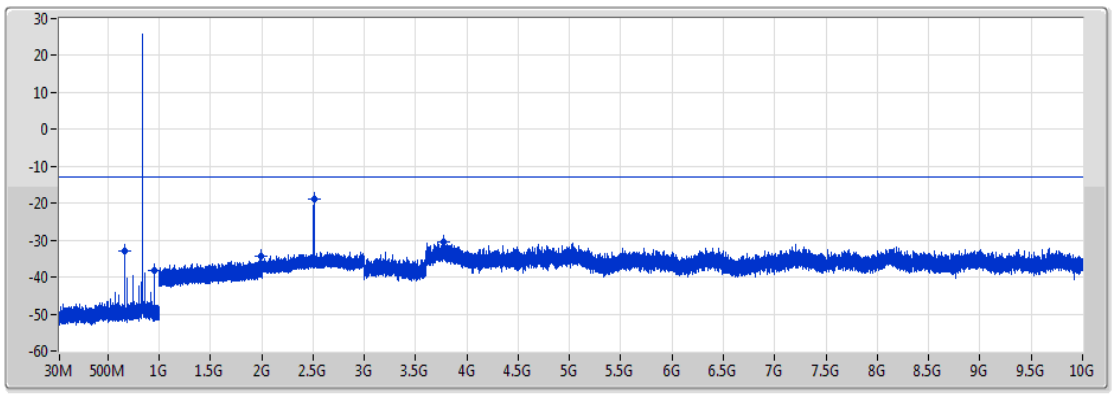
824.7MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	709.6M	-37.08	-13.00	-24.08	1	-
949M	1G	100k	300k	Peak	996.07M	-45.02	-13.00	-32.02	1	-
1G	2G	1M	3M	Peak	1.73697G	-35.11	-13.00	-22.11	1	-
2G	3G	1M	3M	Peak	2.47284G	-19.55	-13.00	-6.55	1	-
3G	10G	1M	3M	Peak	3.76519G	-30.43	-13.00	-17.43	1	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

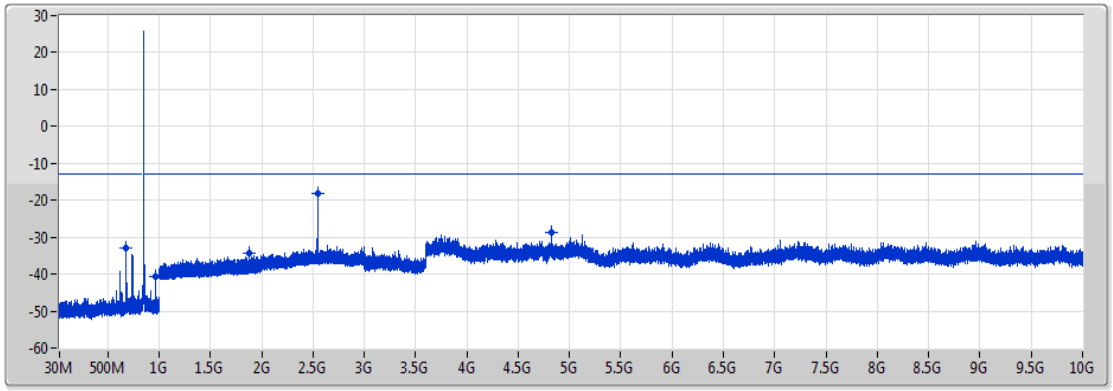
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	664.32M	-32.78	-13.00	-19.78	1	-
949M	1G	100k	300k	Peak	950.61M	-38.35	-13.00	-25.35	1	-
1G	2G	1M	3M	Peak	1.99472G	-34.37	-13.00	-21.37	1	-
2G	3G	1M	3M	Peak	2.50834G	-18.96	-13.00	-5.96	1	-
3G	10G	1M	3M	Peak	3.77459G	-30.44	-13.00	-17.44	1	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

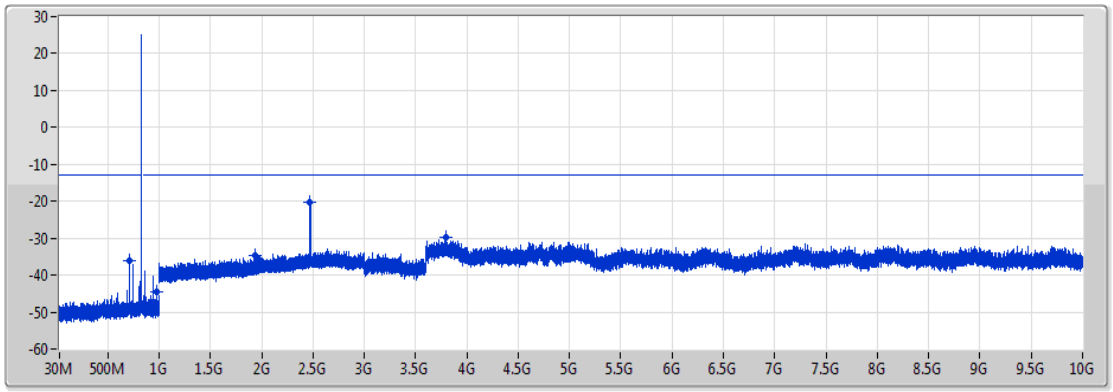
848.3MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	675.94M	-32.89	-13.00	-19.89	1	-
949M	1G	100k	300k	Peak	962.41M	-40.49	-13.00	-27.49	1	-
1G	2G	1M	3M	Peak	1.88006G	-34.31	-13.00	-21.31	1	-
2G	3G	1M	3M	Peak	2.54369G	-18.25	-13.00	-5.25	1	-
3G	10G	1M	3M	Peak	4.82481G	-28.85	-13.00	-15.85	1	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

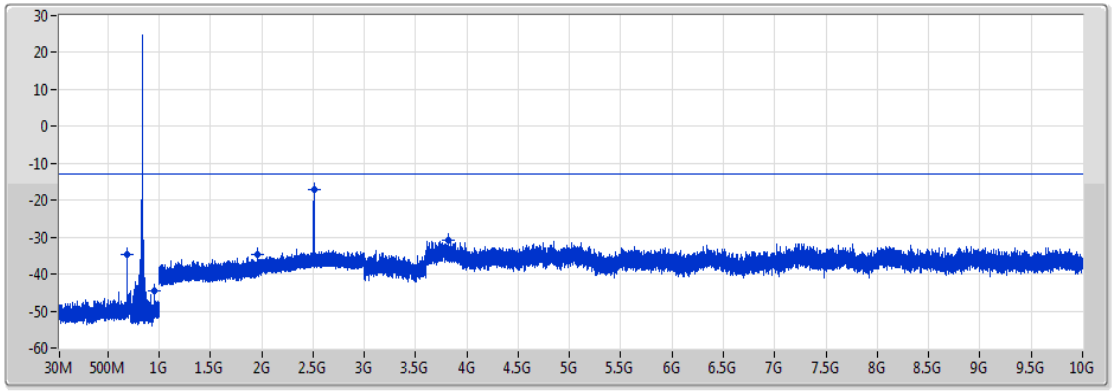
824.7MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	709.77M	-36.13	-13.00	-23.13	1	-
949M	1G	100k	300k	Peak	973.79M	-44.45	-13.00	-31.45	1	-
1G	2G	1M	3M	Peak	1.93572G	-34.69	-13.00	-21.69	1	-
2G	3G	1M	3M	Peak	2.47319G	-20.16	-13.00	-7.16	1	-
3G	10G	1M	3M	Peak	3.79713G	-29.68	-13.00	-16.68	1	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

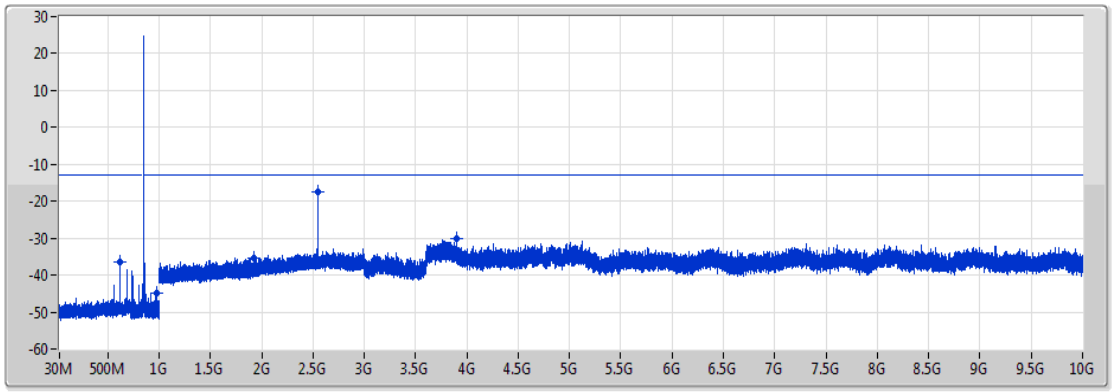
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-34.74	-13.00	-21.74	1	-
949M	1G	100k	300k	Peak	950.58M	-44.47	-13.00	-31.47	1	-
1G	2G	1M	3M	Peak	1.96356G	-34.77	-13.00	-21.77	1	-
2G	3G	1M	3M	Peak	2.50831G	-17.13	-13.00	-4.13	1	-
3G	10G	1M	3M	Peak	3.81463G	-30.67	-13.00	-17.67	1	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

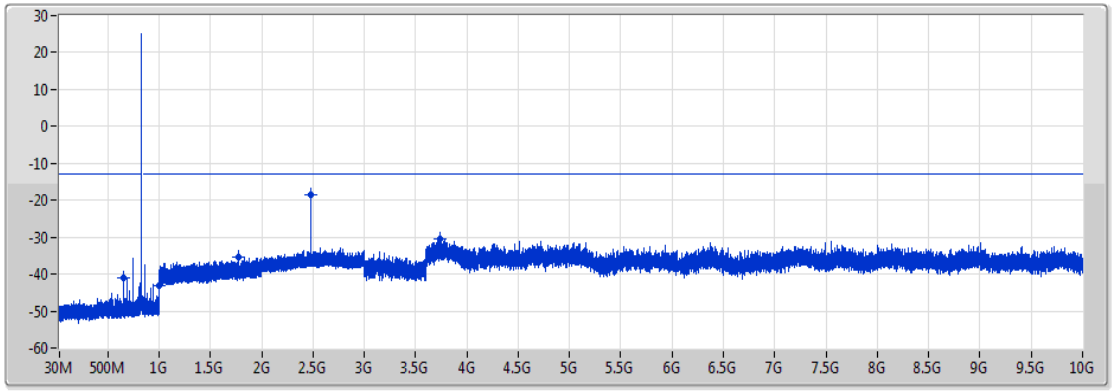
848.3MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	618.69M	-36.33	-13.00	-23.33	1	-
949M	1G	100k	300k	Peak	973.76M	-44.88	-13.00	-31.88	1	-
1G	2G	1M	3M	Peak	1.91959G	-35.31	-13.00	-22.31	1	-
2G	3G	1M	3M	Peak	2.54347G	-17.35	-13.00	-4.35	1	-
3G	10G	1M	3M	Peak	3.8995G	-30.06	-13.00	-17.06	1	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

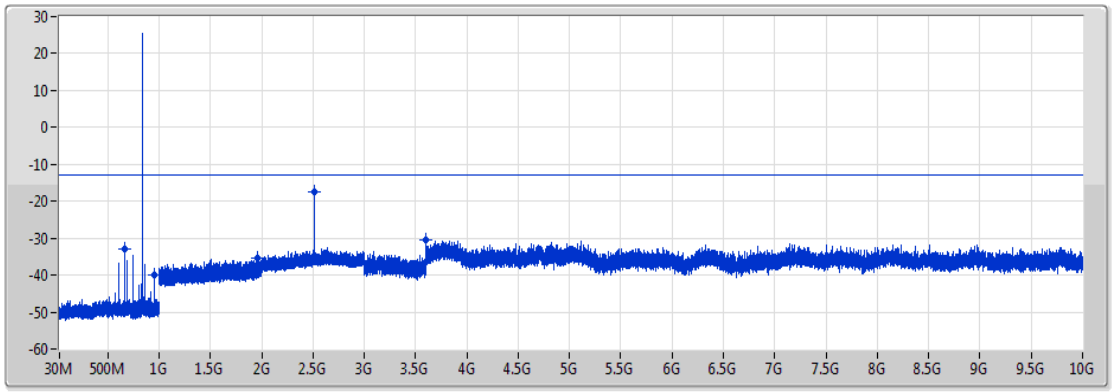
825.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	653.39M	-41.03	-13.00	-28.03	1	-
949M	1G	100k	300k	Peak	997.09M	-43.24	-13.00	-30.24	1	-
1G	2G	1M	3M	Peak	1.77591G	-35.55	-13.00	-22.55	1	-
2G	3G	1M	3M	Peak	2.47606G	-18.53	-13.00	-5.53	1	-
3G	10G	1M	3M	Peak	3.73719G	-30.58	-13.00	-17.58	1	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

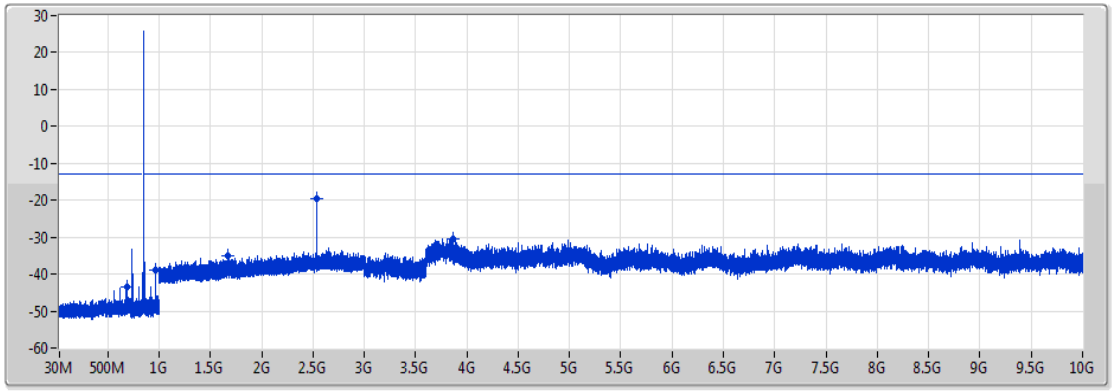
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	664.49M	-32.89	-13.00	-19.89	1	-
949M	1G	100k	300k	Peak	950.81M	-40.00	-13.00	-27.00	1	-
1G	2G	1M	3M	Peak	1.96222G	-35.38	-13.00	-22.38	1	-
2G	3G	1M	3M	Peak	2.50909G	-17.39	-13.00	-4.39	1	-
3G	10G	1M	3M	Peak	3.60178G	-30.64	-13.00	-17.64	1	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

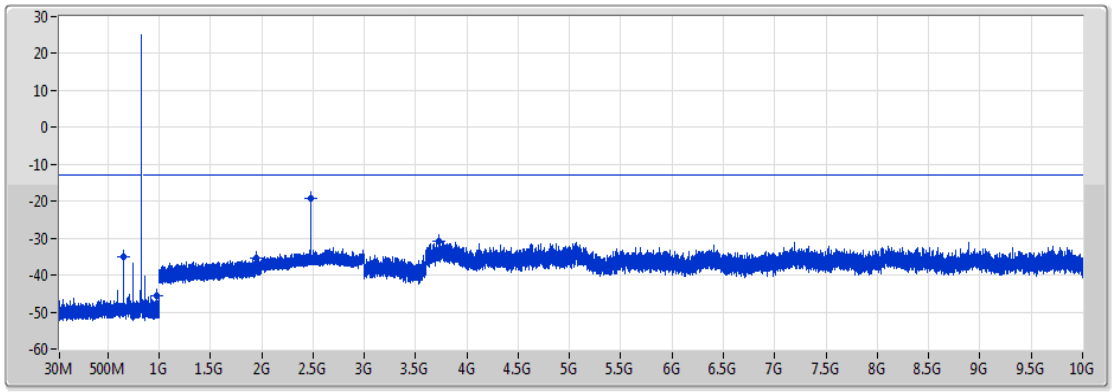
847.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-43.36	-13.00	-30.36	1	-
949M	1G	100k	300k	Peak	961.9M	-38.85	-13.00	-25.85	1	-
1G	2G	1M	3M	Peak	1.66994G	-35.07	-13.00	-22.07	1	-
2G	3G	1M	3M	Peak	2.54194G	-19.59	-13.00	-6.59	1	-
3G	10G	1M	3M	Peak	3.86341G	-30.37	-13.00	-17.37	1	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

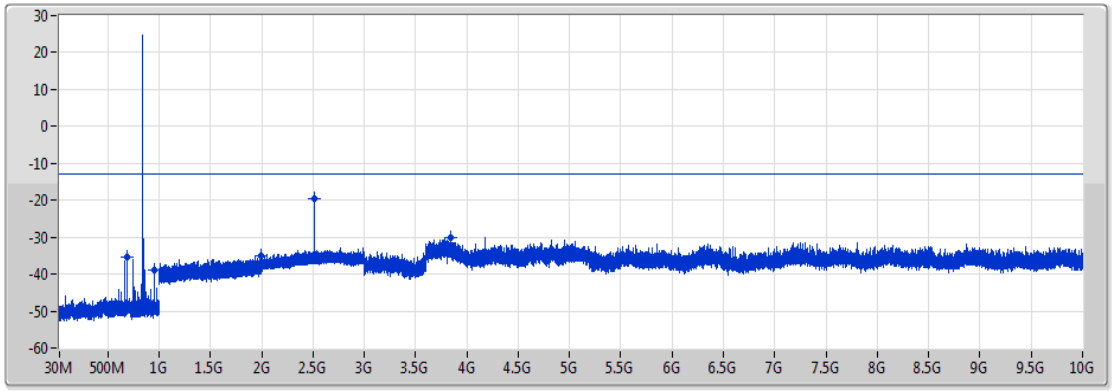
825.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	653.39M	-35.10	-13.00	-22.10	1	-
949M	1G	100k	300k	Peak	976.16M	-45.63	-13.00	-32.63	1	-
1G	2G	1M	3M	Peak	1.94916G	-35.56	-13.00	-22.56	1	-
2G	3G	1M	3M	Peak	2.47603G	-19.11	-13.00	-6.11	1	-
3G	10G	1M	3M	Peak	3.73063G	-30.68	-13.00	-17.68	1	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

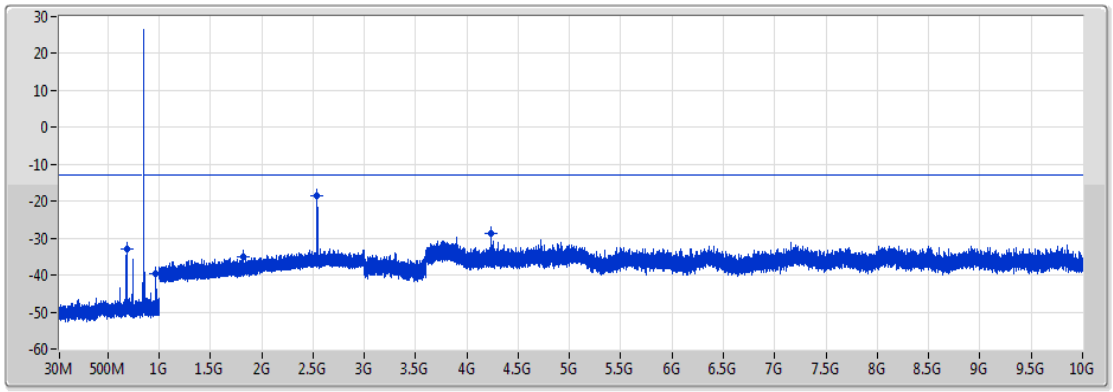
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-35.38	-13.00	-22.38	1	-
949M	1G	100k	300k	Peak	950.84M	-38.78	-13.00	-25.78	1	-
1G	2G	1M	3M	Peak	1.99344G	-35.09	-13.00	-22.09	1	-
2G	3G	1M	3M	Peak	2.50909G	-19.61	-13.00	-6.61	1	-
3G	10G	1M	3M	Peak	3.84744G	-30.07	-13.00	-17.07	1	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

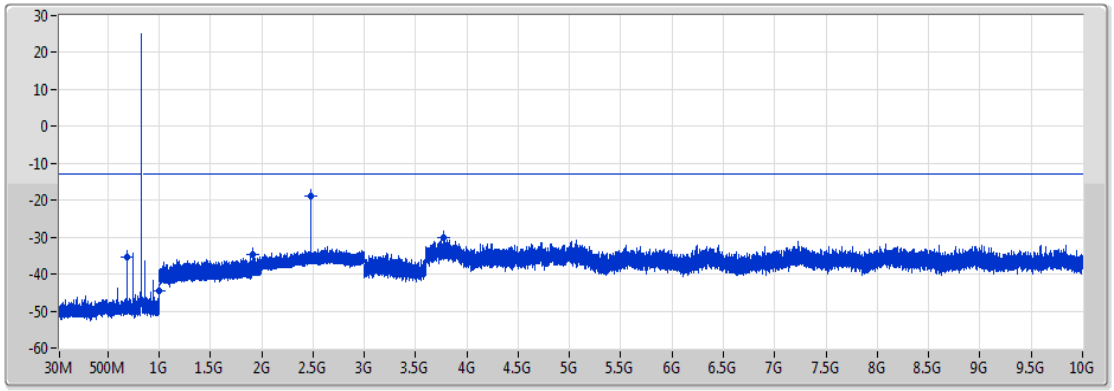
847.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-32.82	-13.00	-19.82	1	-
949M	1G	100k	300k	Peak	961.85M	-39.50	-13.00	-26.50	1	-
1G	2G	1M	3M	Peak	1.81513G	-35.04	-13.00	-22.04	1	-
2G	3G	1M	3M	Peak	2.54172G	-18.39	-13.00	-5.39	1	-
3G	10G	1M	3M	Peak	4.23659G	-28.84	-13.00	-15.84	1	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

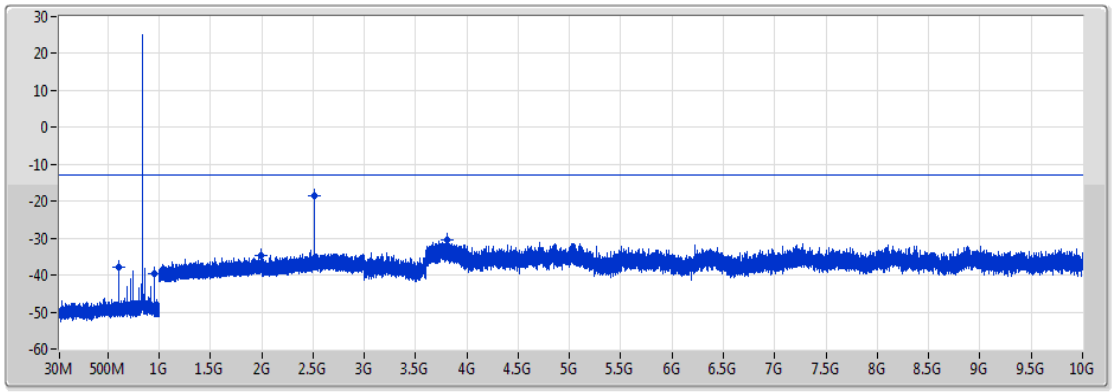
826.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-35.46	-13.00	-22.46	1	-
949M	1G	100k	300k	Peak	998.19M	-44.66	-13.00	-31.66	1	-
1G	2G	1M	3M	Peak	1.91444G	-34.70	-13.00	-21.70	1	-
2G	3G	1M	3M	Peak	2.47906G	-18.83	-13.00	-5.83	1	-
3G	10G	1M	3M	Peak	3.77547G	-30.24	-13.00	-17.24	1	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

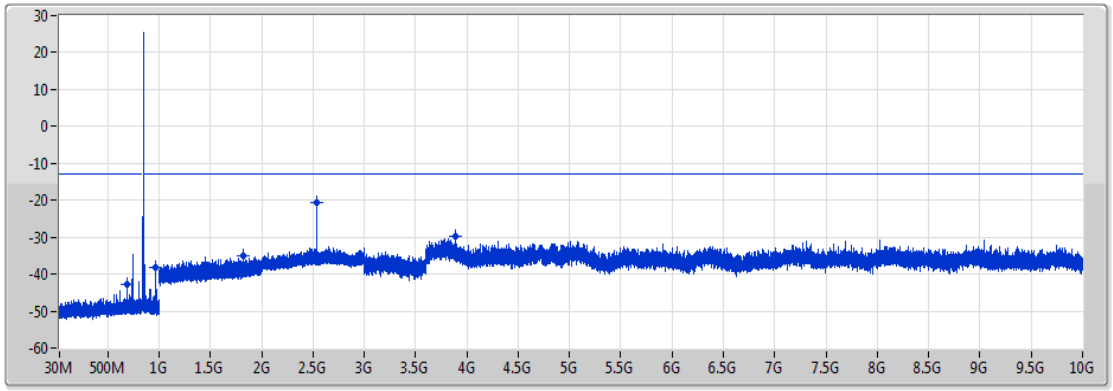
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	607.23M	-37.78	-13.00	-24.78	1	-
949M	1G	100k	300k	Peak	950.81M	-39.68	-13.00	-26.68	1	-
1G	2G	1M	3M	Peak	1.99666G	-34.85	-13.00	-21.85	1	-
2G	3G	1M	3M	Peak	2.50947G	-18.51	-13.00	-5.51	1	-
3G	10G	1M	3M	Peak	3.80938G	-30.60	-13.00	-17.60	1	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

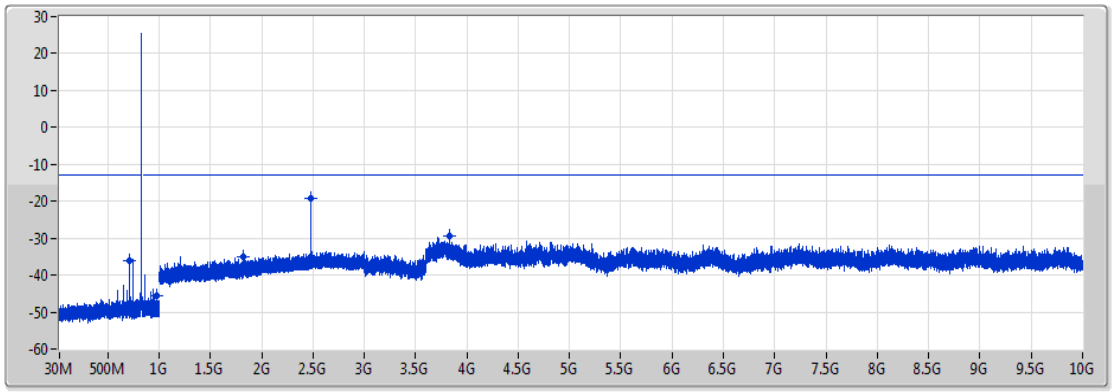
846.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-42.64	-13.00	-29.64	1	-
949M	1G	100k	300k	Peak	960.81M	-38.06	-13.00	-25.06	1	-
1G	2G	1M	3M	Peak	1.82466G	-35.01	-13.00	-22.01	1	-
2G	3G	1M	3M	Peak	2.53894G	-20.54	-13.00	-7.54	1	-
3G	10G	1M	3M	Peak	3.889G	-29.91	-13.00	-16.91	1	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

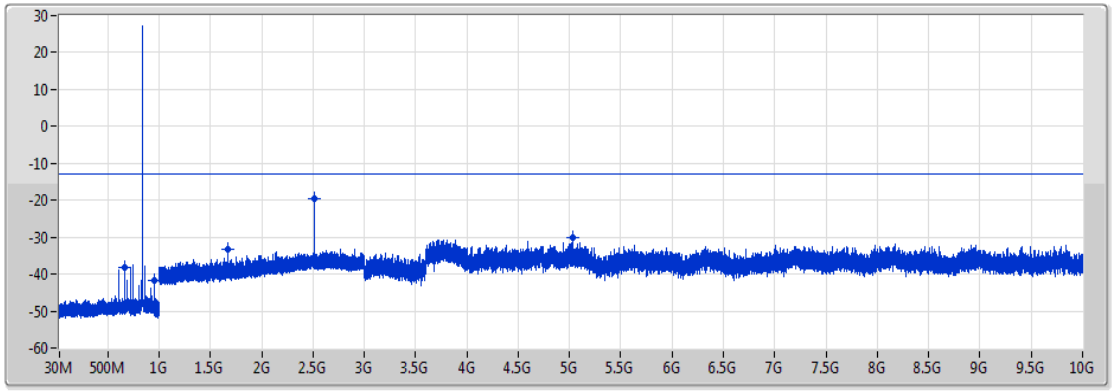
826.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	711.68M	-36.26	-13.00	-23.26	1	-
949M	1G	100k	300k	Peak	973.76M	-45.71	-13.00	-32.71	1	-
1G	2G	1M	3M	Peak	1.8215G	-35.15	-13.00	-22.15	1	-
2G	3G	1M	3M	Peak	2.47913G	-19.31	-13.00	-6.31	1	-
3G	10G	1M	3M	Peak	3.82819G	-29.42	-13.00	-16.42	1	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

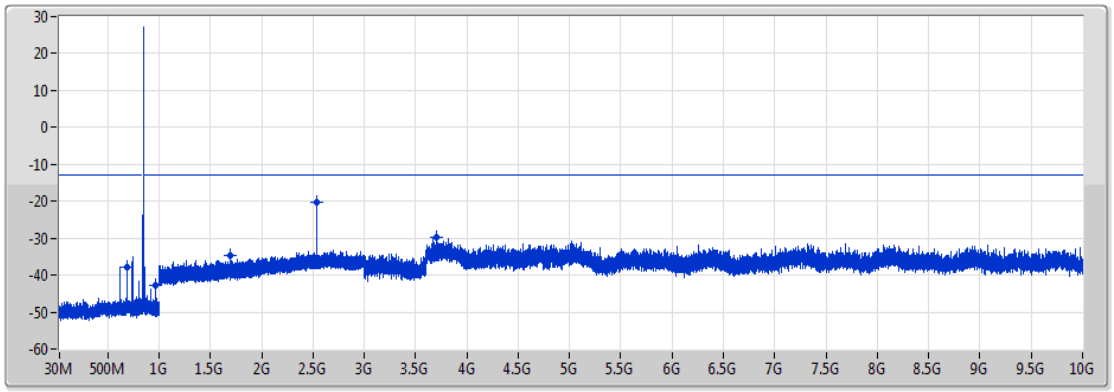
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	664.49M	-38.07	-13.00	-25.07	1	-
949M	1G	100k	300k	Peak	950.84M	-41.69	-13.00	-28.69	1	-
1G	2G	1M	3M	Peak	1.67291G	-33.34	-13.00	-20.34	1	-
2G	3G	1M	3M	Peak	2.50928G	-19.42	-13.00	-6.42	1	-
3G	10G	1M	3M	Peak	5.02672G	-30.20	-13.00	-17.20	1	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

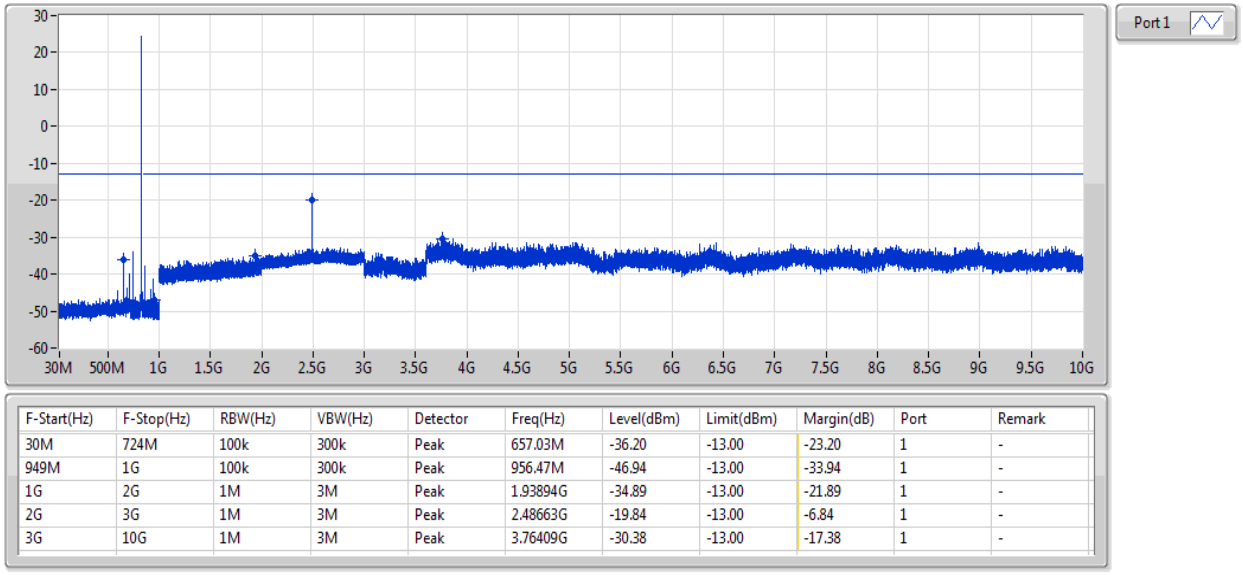
846.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-37.72	-13.00	-24.72	1	-
949M	1G	100k	300k	Peak	960.86M	-42.75	-13.00	-29.75	1	-
1G	2G	1M	3M	Peak	1.69294G	-34.75	-13.00	-21.75	1	-
2G	3G	1M	3M	Peak	2.53891G	-20.19	-13.00	-7.19	1	-
3G	10G	1M	3M	Peak	3.7035G	-29.72	-13.00	-16.72	1	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

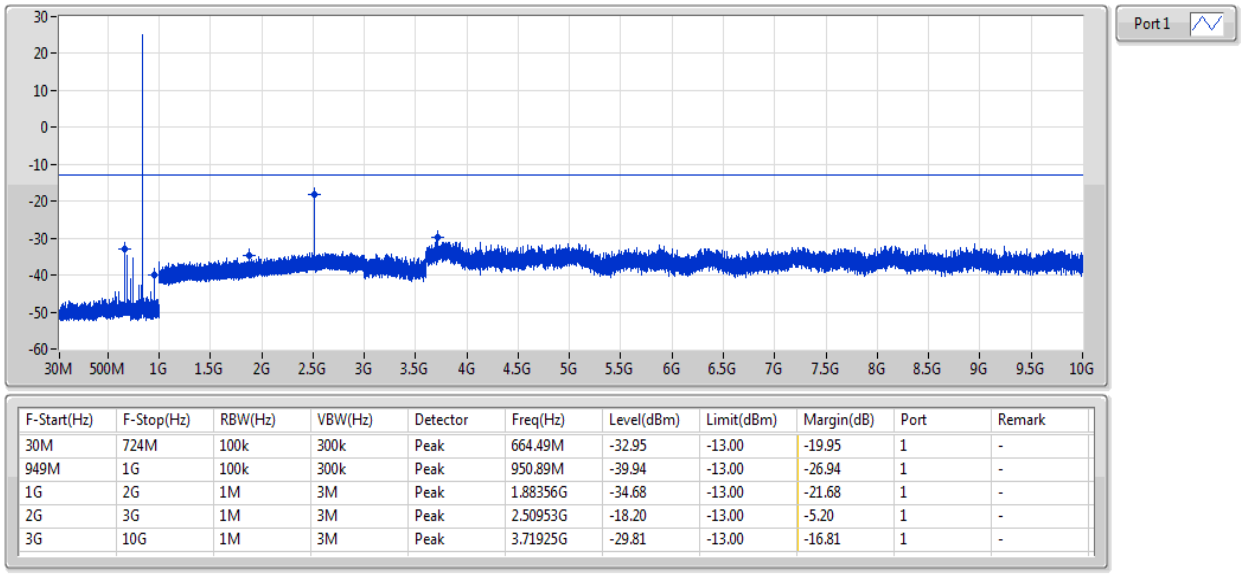
829MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	657.03M	-36.20	-13.00	-23.20	1	-
949M	1G	100k	300k	Peak	956.47M	-46.94	-13.00	-33.94	1	-
1G	2G	1M	3M	Peak	1.93894G	-34.89	-13.00	-21.89	1	-
2G	3G	1M	3M	Peak	2.48663G	-19.84	-13.00	-6.84	1	-
3G	10G	1M	3M	Peak	3.76409G	-30.38	-13.00	-17.38	1	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

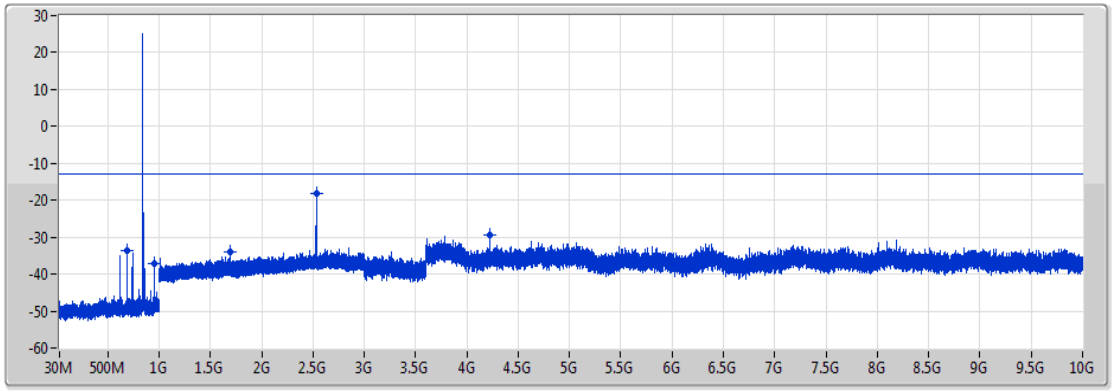
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	664.49M	-32.95	-13.00	-19.95	1	-
949M	1G	100k	300k	Peak	950.89M	-39.94	-13.00	-26.94	1	-
1G	2G	1M	3M	Peak	1.88356G	-34.68	-13.00	-21.68	1	-
2G	3G	1M	3M	Peak	2.50953G	-18.20	-13.00	-5.20	1	-
3G	10G	1M	3M	Peak	3.71925G	-29.81	-13.00	-16.81	1	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

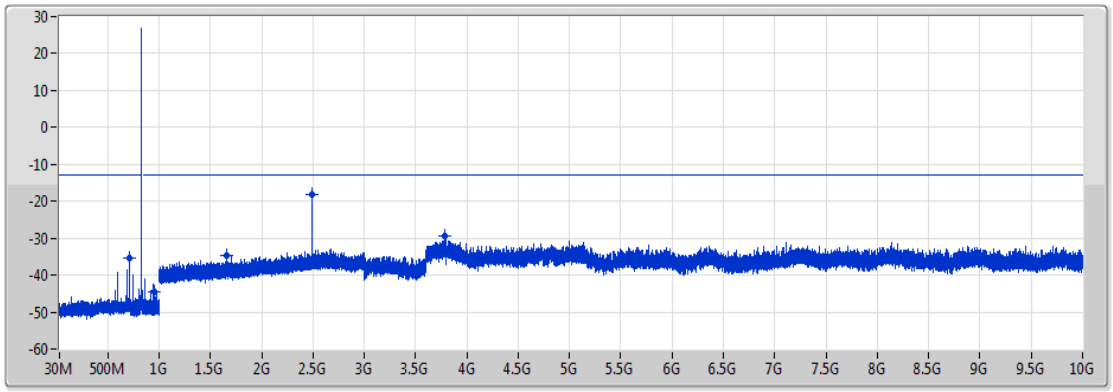
844MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-33.66	-13.00	-20.66	1	-
949M	1G	100k	300k	Peak	958.44M	-37.10	-13.00	-24.10	1	-
1G	2G	1M	3M	Peak	1.68819G	-33.96	-13.00	-20.96	1	-
2G	3G	1M	3M	Peak	2.53175G	-18.06	-13.00	-5.06	1	-
3G	10G	1M	3M	Peak	4.21997G	-29.46	-13.00	-16.46	1	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

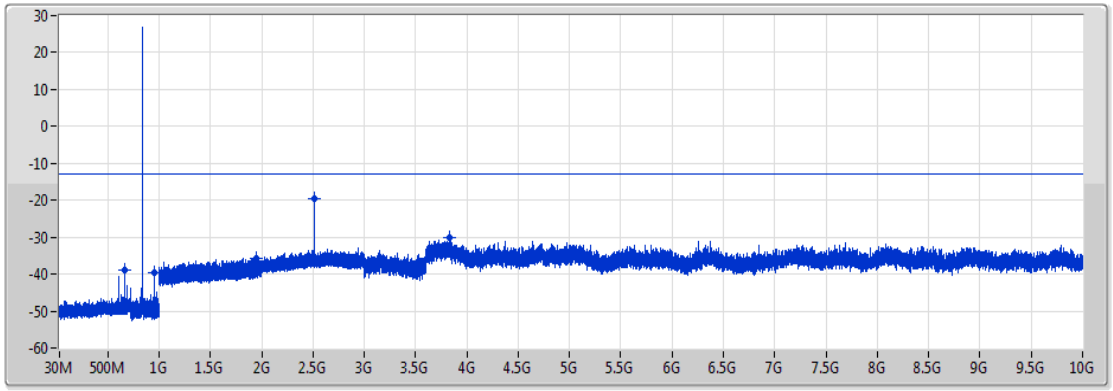
829MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	714.28M	-35.28	-13.00	-22.28	1	-
949M	1G	100k	300k	Peak	957.64M	-44.55	-13.00	-31.55	1	-
1G	2G	1M	3M	Peak	1.65772G	-34.69	-13.00	-21.69	1	-
2G	3G	1M	3M	Peak	2.48678G	-18.20	-13.00	-5.20	1	-
3G	10G	1M	3M	Peak	3.78663G	-29.26	-13.00	-16.26	1	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

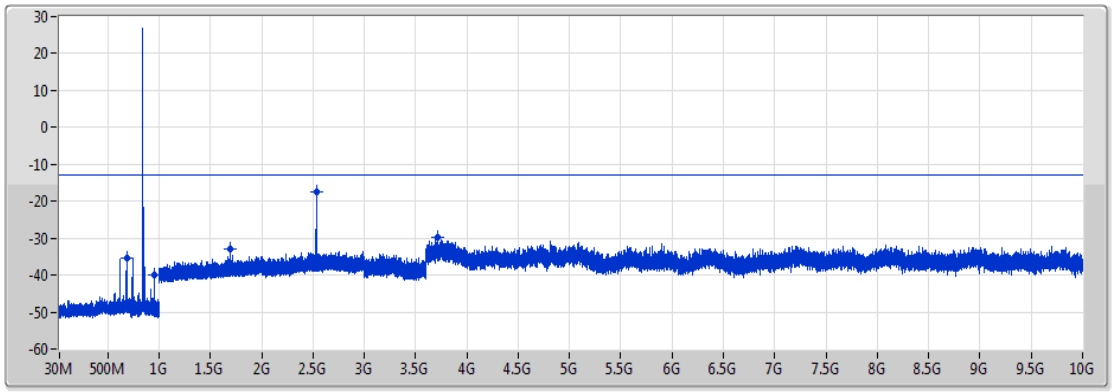
836.5MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	664.66M	-38.78	-13.00	-25.78	1	-
949M	1G	100k	300k	Peak	950.94M	-39.78	-13.00	-26.78	1	-
1G	2G	1M	3M	Peak	1.94663G	-35.76	-13.00	-22.76	1	-
2G	3G	1M	3M	Peak	2.50931G	-19.51	-13.00	-6.51	1	-
3G	10G	1M	3M	Peak	3.83169G	-30.04	-13.00	-17.04	1	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

844MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
30M	724M	100k	300k	Peak	687.39M	-35.47	-13.00	-22.47	1	-
949M	1G	100k	300k	Peak	958.44M	-39.88	-13.00	-26.88	1	-
1G	2G	1M	3M	Peak	1.68819G	-32.76	-13.00	-19.76	1	-
2G	3G	1M	3M	Peak	2.53203G	-17.33	-13.00	-4.33	1	-
3G	10G	1M	3M	Peak	3.71159G	-29.74	-13.00	-16.74	1	-

3.4 Band Edge

3.4.1 Limit of Band Edge

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 equal to -13dBm.

3.4.2 Test Procedures

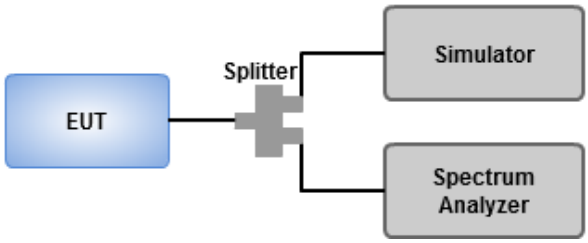
Out of band emission

1. Lowest, middle and highest operating channels are tested for this item.
2. Set RBW = 100 kHz, VBW = 300kHz, detector = RMS, sweep time = auto.
3. Record the max trace value and capture the test plot of each sub frequency band.

Band edge

1. Lowest and highest operating channels are tested for this item.
2. Set RBW = 1% of EBW, VBW = 3 x RBW, detector = RMS, sweep time = auto.
3. Record the max trace value and capture the test plot of each sub frequency band.

3.4.3 Test Setup



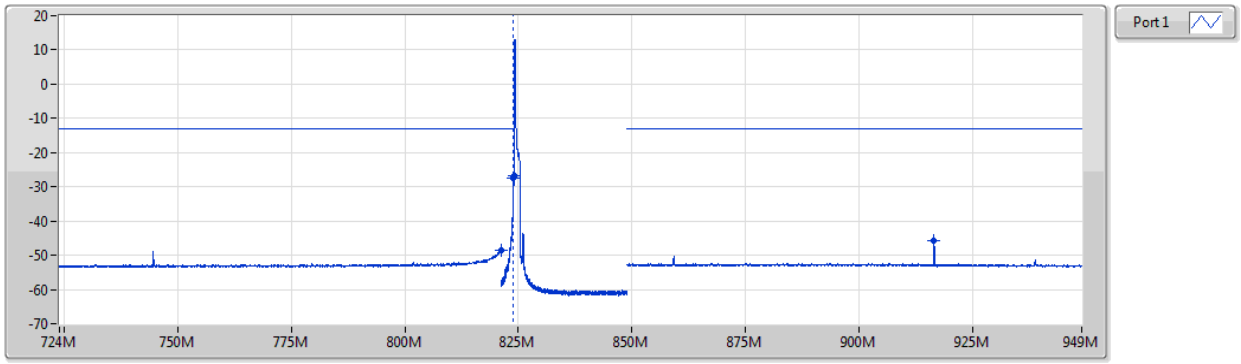
3.4.4 Test Result of Band Edge

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark	Ref.Limit (dB)
Band 5	-	-	-	-	-	-	-	-	-	-	-	-	-
LTE-M1_1.4MHz_Nss1,QPSK_1TX	Pass	849.1M	851.8M	15k	47k	RMS	849.15M	-24.86	-13.00	-11.86	1	MBW 100k	-
LTE-M1_1.4MHz_Nss1,16QAM_1TX	Pass	849M	849.1M	15k	47k	RMS	849M	-28.19	-13.00	-15.19	1	-	-
LTE-M1_3MHz_Nss1,QPSK_1TX	Pass	849.1M	855M	15k	47k	RMS	849.15M	-30.17	-13.00	-17.17	1	MBW 100k	-
LTE-M1_3MHz_Nss1,16QAM_1TX	Pass	849.1M	855M	15k	47k	RMS	849.15M	-31.36	-13.00	-18.36	1	MBW 100k	-
LTE-M1_5MHz_Nss1,QPSK_1TX	Pass	849.1M	859M	15k	47k	RMS	849.15M	-26.43	-13.00	-13.43	1	MBW 100k	-
LTE-M1_5MHz_Nss1,16QAM_1TX	Pass	849.1M	859M	15k	47k	RMS	849.15M	-29.98	-13.00	-16.98	1	MBW 100k	-
LTE-M1_10MHz_Nss1,QPSK_1TX	Pass	849.1M	869M	15k	47k	RMS	849.25M	-30.12	-13.00	-17.12	1	MBW 100k	-
LTE-M1_10MHz_Nss1,16QAM_1TX	Pass	804M	823.9M	15k	47k	RMS	823.85M	-32.33	-13.00	-19.33	1	MBW 100k	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

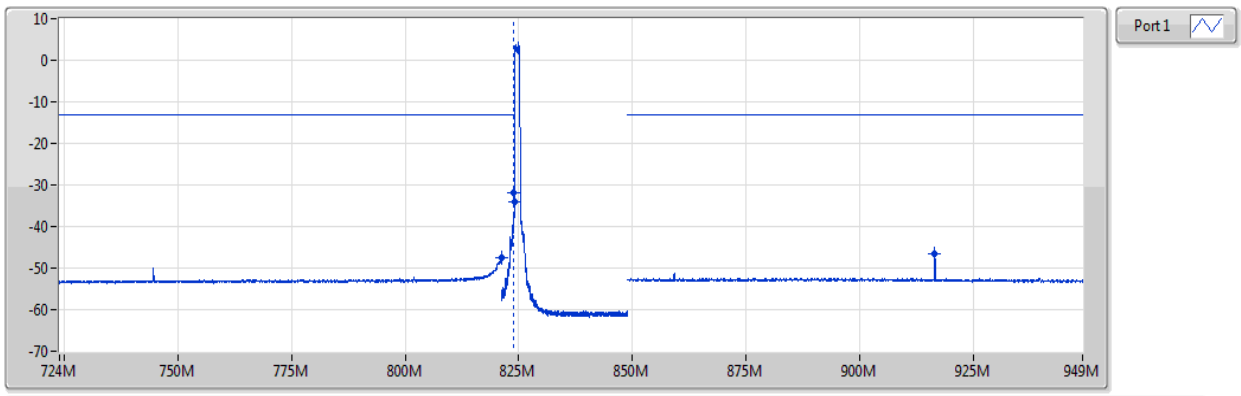
824.7MHz_QPSK_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	821.2M	100k	300k	RMS	821.15M	-48.40	-13.00	-35.40	1	-	-
821.2M	823.9M	15k	47k	RMS	823.85M	-27.50	-13.00	-14.50	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-26.79	-13.00	-13.79	1	-	-
849M	949M	100k	300k	RMS	916.5M	-45.80	-13.00	-32.80	1	-	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

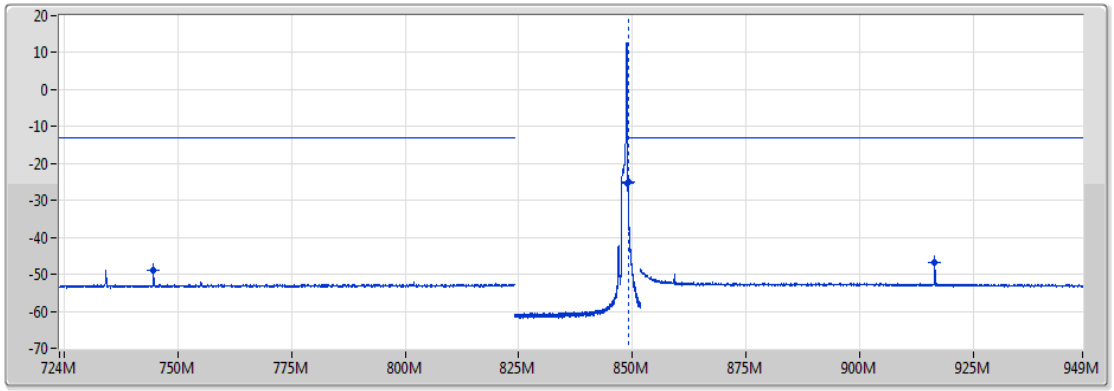
824.7MHz_QPSK_RB 6,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	821.2M	100k	300k	RMS	821.2M	-47.36	-13.00	-34.36	1	-	-
821.2M	823.9M	15k	47k	RMS	823.85M	-31.89	-13.00	-18.89	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-34.04	-13.00	-21.04	1	-	-
849M	949M	100k	300k	RMS	916.5M	-46.50	-13.00	-33.50	1	-	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

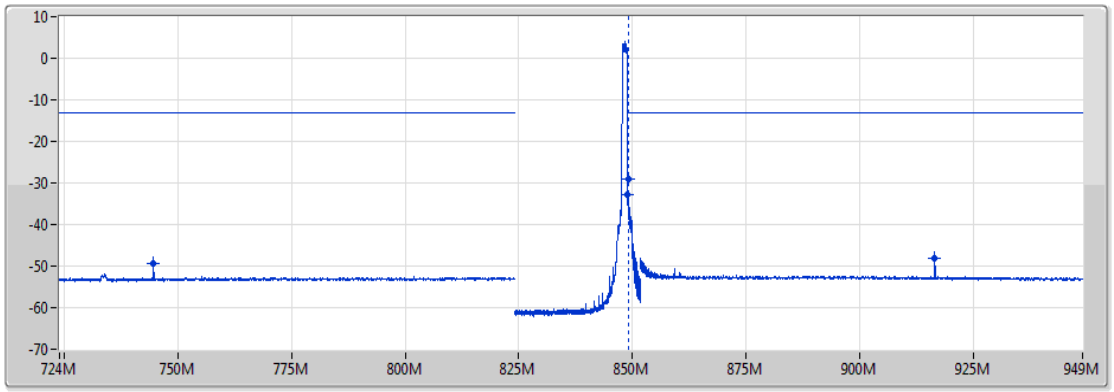
848.3MHz_QPSK_RB 1,#RB 5,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.7M	-48.89	-13.00	-35.89	1	-
849M	849.1M	15k	47k	RMS	849M	-25.45	-13.00	-12.45	1	-
849.1M	851.8M	15k	47k	RMS	849.15M	-24.86	-13.00	-11.86	1	MBW 100k
851.8M	949M	100k	300k	RMS	916.54M	-46.66	-13.00	-33.66	1	-

Band 5_LTE-M1_1.4MHz_Nss1,QPSK_1TX **CSE-TX-Port**

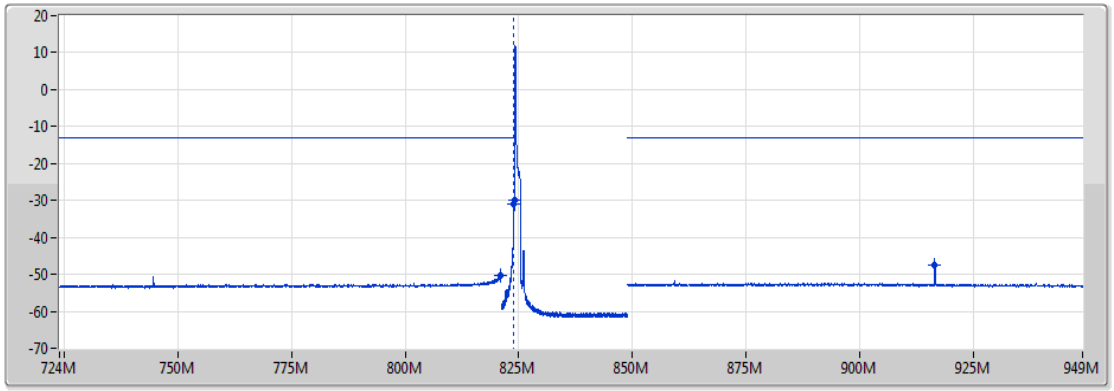
848.3MHz_QPSK_RB 6,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-49.36	-13.00	-36.36	1	-
849M	849.1M	15k	47k	RMS	849.01M	-32.89	-13.00	-19.89	1	-
849.1M	851.8M	15k	47k	RMS	849.15M	-28.95	-13.00	-15.95	1	MBW 100k
851.8M	949M	100k	300k	RMS	916.54M	-48.03	-13.00	-35.03	1	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

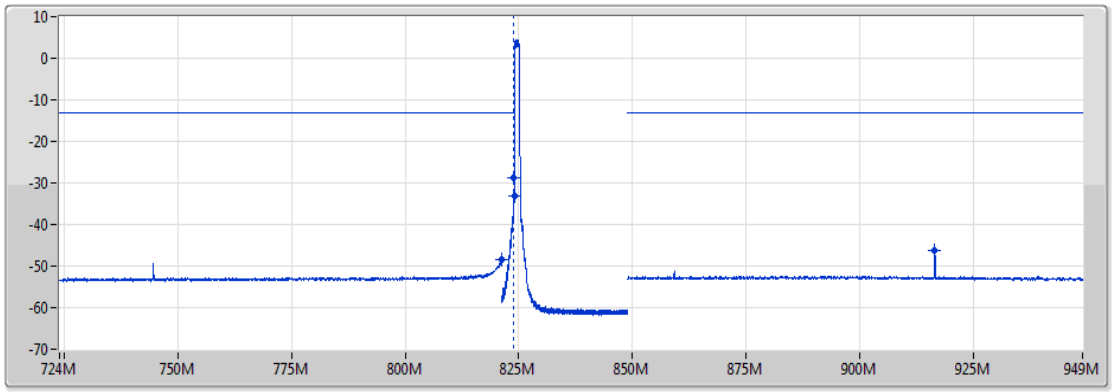
824.7MHz_16QAM_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	821.2M	100k	300k	RMS	821.1M	-50.43	-13.00	-37.43	1	-	-
821.2M	823.9M	15k	47k	RMS	823.85M	-30.98	-13.00	-17.98	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-29.78	-13.00	-16.78	1	-	-
849M	949M	100k	300k	RMS	916.5M	-47.45	-13.00	-34.45	1	-	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

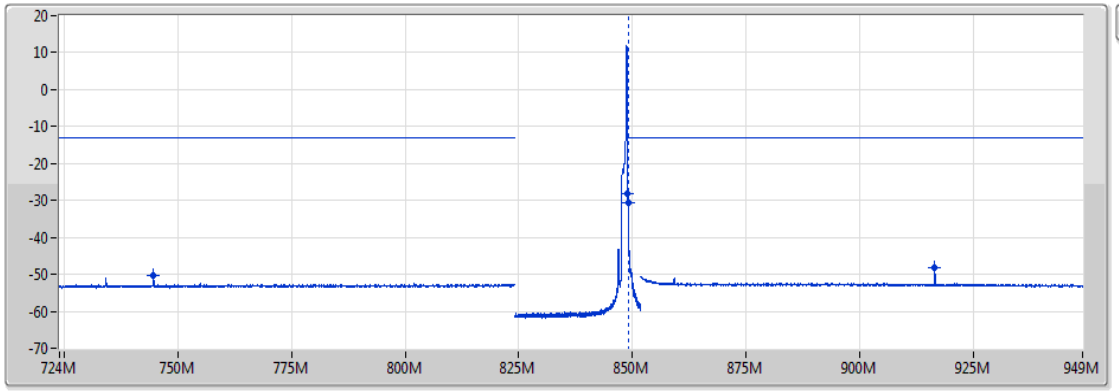
824.7MHz_16QAM_RB 5,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	821.2M	100k	300k	RMS	821.2M	-48.44	-13.00	-35.44	1	-	-
821.2M	823.9M	15k	47k	RMS	823.85M	-28.85	-13.00	-15.85	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-33.07	-13.00	-20.07	1	-	-
849M	949M	100k	300k	RMS	916.5M	-46.35	-13.00	-33.35	1	-	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

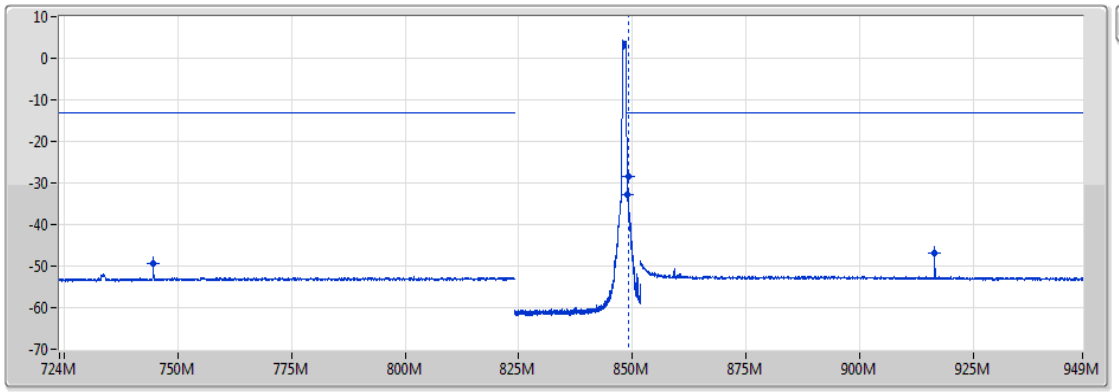
848.3MHz_16QAM_RB 1,#RB 5,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.7M	-50.47	-13.00	-37.47	1	-
849M	849.1M	15k	47k	RMS	849M	-28.19	-13.00	-15.19	1	-
849.1M	851.8M	15k	47k	RMS	849.15M	-30.46	-13.00	-17.46	1	MBW 100k
851.8M	949M	100k	300k	RMS	916.54M	-48.16	-13.00	-35.16	1	-

Band 5_LTE-M1_1.4MHz_Nss1,16QAM_1TX **CSE-TX-Port**

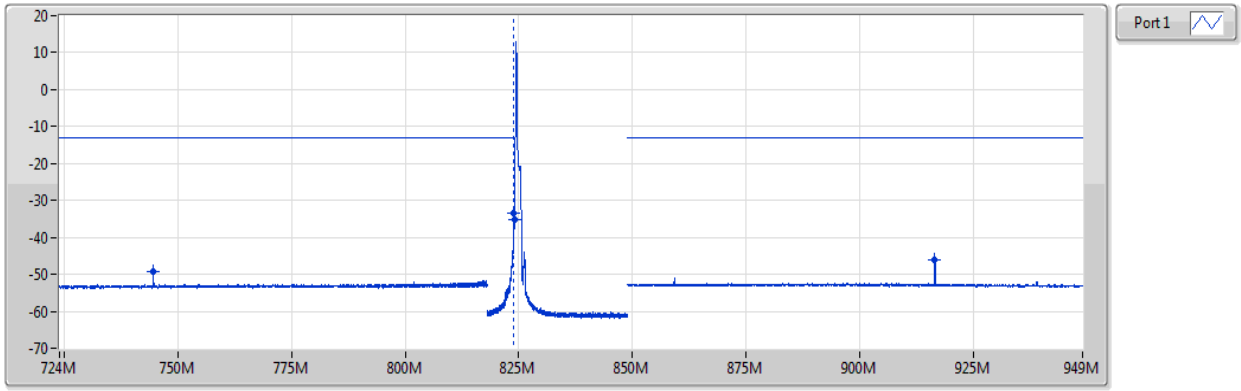
848.3MHz_16QAM_RB 5,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-49.45	-13.00	-36.45	1	-
849M	849.1M	15k	47k	RMS	849.01M	-32.84	-13.00	-19.84	1	-
849.1M	851.8M	15k	47k	RMS	849.15M	-28.40	-13.00	-15.40	1	MBW 100k
851.8M	949M	100k	300k	RMS	916.49M	-46.78	-13.00	-33.78	1	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

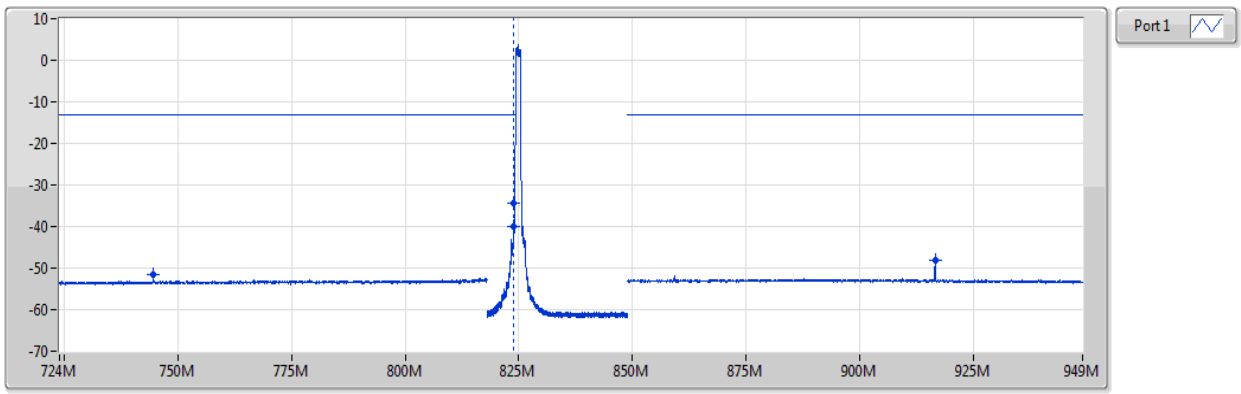
825.5MHz_QPSK_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	818M	100k	300k	RMS	744.63M	-49.31	-13.00	-36.31	1	-	-
818M	823.9M	15k	47k	RMS	823.85M	-33.35	-13.00	-20.35	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-35.34	-13.00	-22.34	1	-	-
849M	949M	100k	300k	RMS	916.5M	-46.17	-13.00	-33.17	1	-	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

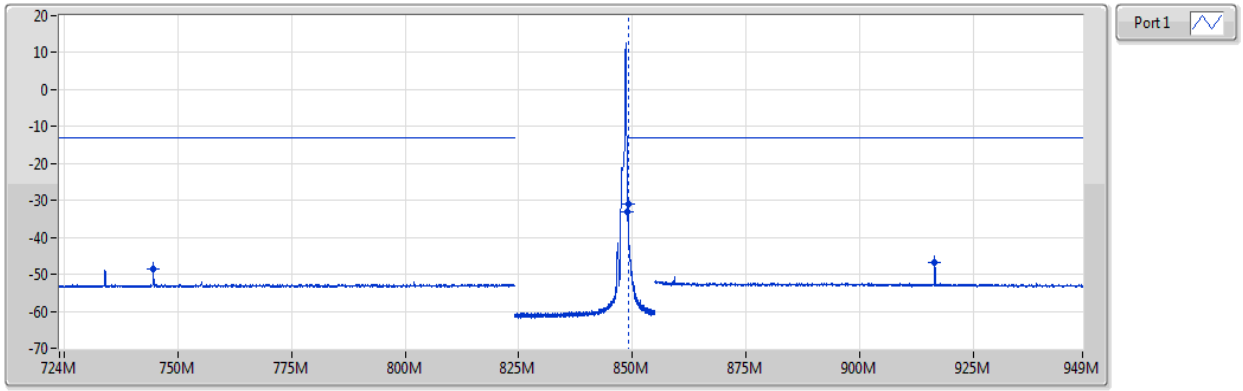
825.5MHz_QPSK_RB 6,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	818M	100k	300k	RMS	744.63M	-51.55	-13.00	-38.55	1	-	-
818M	823.9M	15k	47k	RMS	823.85M	-34.47	-13.00	-21.47	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	823.91M	-40.05	-13.00	-27.05	1	-	-
849M	949M	100k	300k	RMS	916.55M	-48.24	-13.00	-35.24	1	-	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

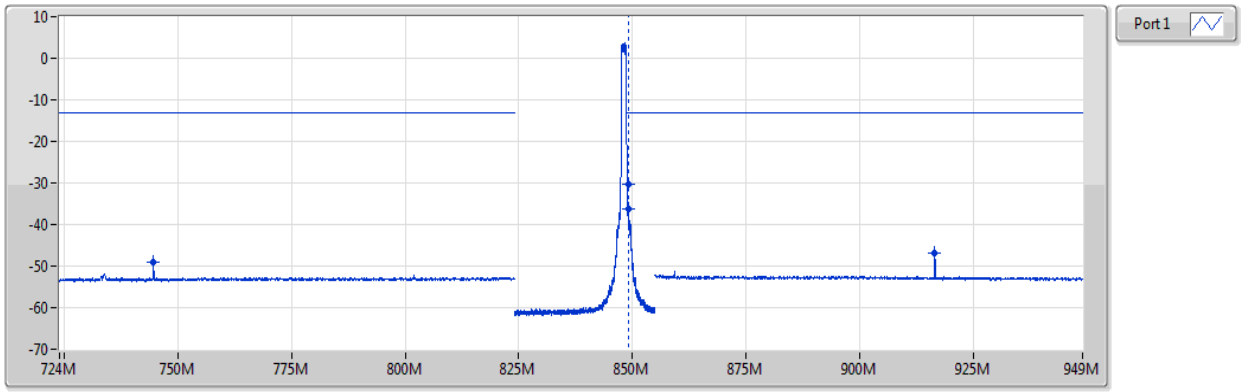
847.5MHz_QPSK_RB 1,#RB 5,NB 1



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-48.50	-13.00	-35.50	1	-
849M	849.1M	15k	47k	RMS	849M	-33.23	-13.00	-20.23	1	-
849.1M	855M	15k	47k	RMS	849.15M	-30.91	-13.00	-17.91	1	MBW 100k
855M	949M	100k	300k	RMS	916.52M	-46.79	-13.00	-33.79	1	-

Band 5_LTE-M1_3MHz_Nss1,QPSK_1TX **CSE-TX-Port**

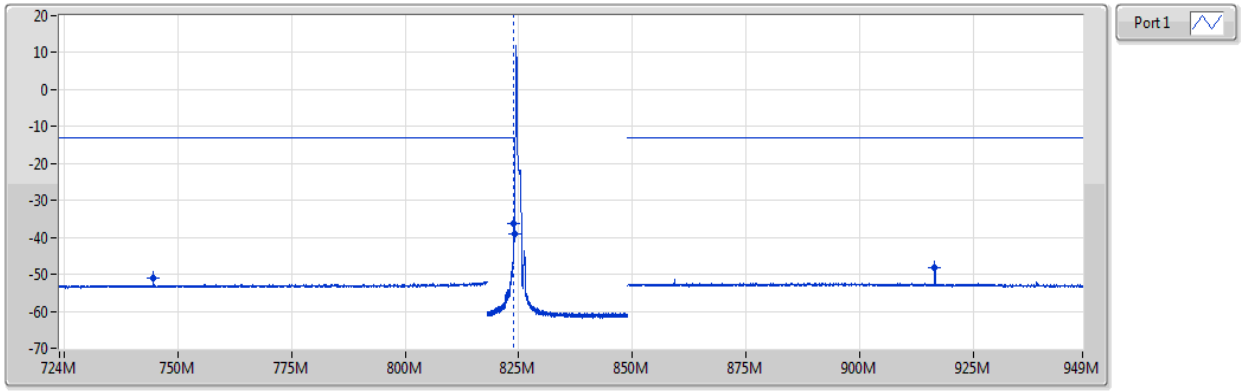
847.5MHz_QPSK_RB 6,#RB 0,NB 1



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-49.16	-13.00	-36.16	1	-
849M	849.1M	15k	47k	RMS	849.09M	-36.21	-13.00	-23.21	1	-
849.1M	855M	15k	47k	RMS	849.15M	-30.17	-13.00	-17.17	1	MBW 100k
855M	949M	100k	300k	RMS	916.52M	-46.95	-13.00	-33.95	1	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

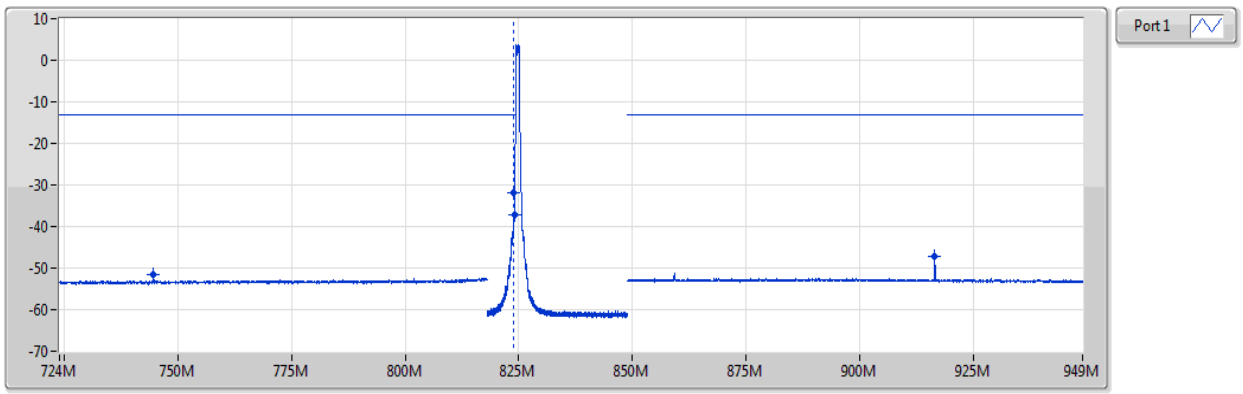
825.5MHz_16QAM_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	818M	100k	300k	RMS	744.68M	-51.02	-13.00	-38.02	1	-	-
818M	823.9M	15k	47k	RMS	823.85M	-36.42	-13.00	-23.42	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-39.11	-13.00	-26.11	1	-	-
849M	949M	100k	300k	RMS	916.5M	-48.06	-13.00	-35.06	1	-	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

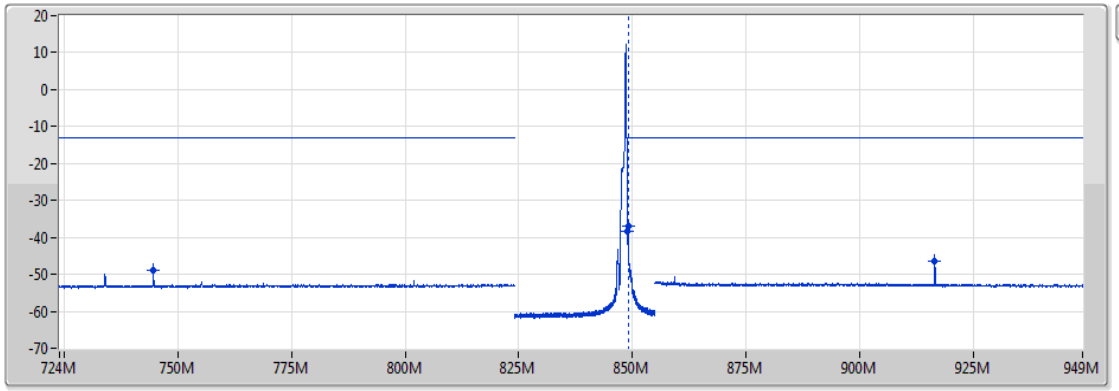
825.5MHz_16QAM_RB 5,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	818M	100k	300k	RMS	744.68M	-51.47	-13.00	-38.47	1	-	-
818M	823.9M	15k	47k	RMS	823.85M	-31.82	-13.00	-18.82	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	823.99M	-37.24	-13.00	-24.24	1	-	-
849M	949M	100k	300k	RMS	916.5M	-47.28	-13.00	-34.28	1	-	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

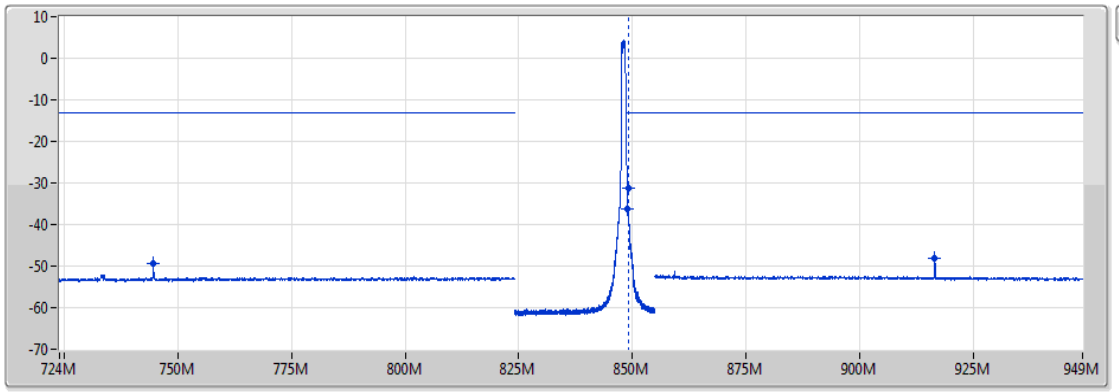
847.5MHz_16QAM_RB 1,#RB 5,NB 1



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-48.74	-13.00	-35.74	1	-
849M	849.1M	15k	47k	RMS	849.01M	-38.51	-13.00	-25.51	1	-
849.1M	855M	15k	47k	RMS	849.15M	-37.03	-13.00	-24.03	1	MBW 100k
855M	949M	100k	300k	RMS	916.52M	-46.58	-13.00	-33.58	1	-

Band 5_LTE-M1_3MHz_Nss1,16QAM_1TX **CSE-TX-Port**

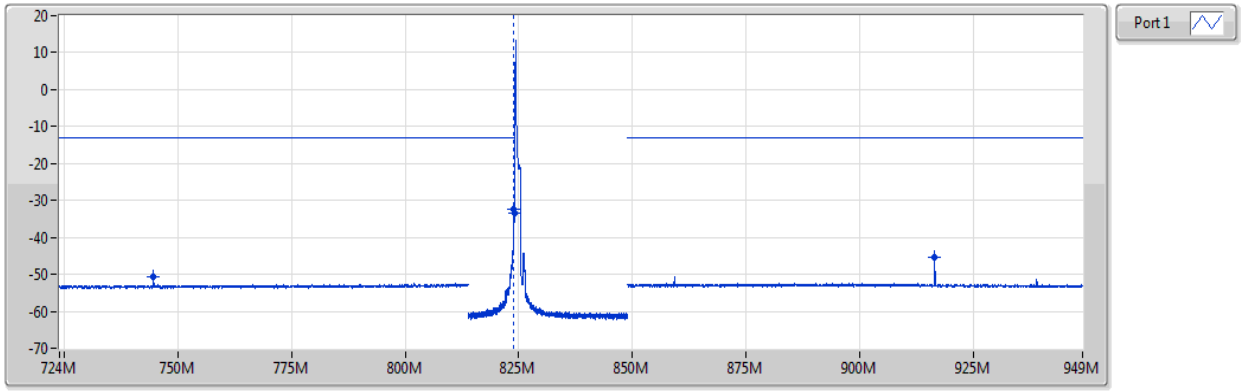
847.5MHz_16QAM_RB 5,#RB 0,NB 1



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-49.38	-13.00	-36.38	1	-
849M	849.1M	15k	47k	RMS	849M	-36.38	-13.00	-23.38	1	-
849.1M	855M	15k	47k	RMS	849.15M	-31.36	-13.00	-18.36	1	MBW 100k
855M	949M	100k	300k	RMS	916.52M	-48.03	-13.00	-35.03	1	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

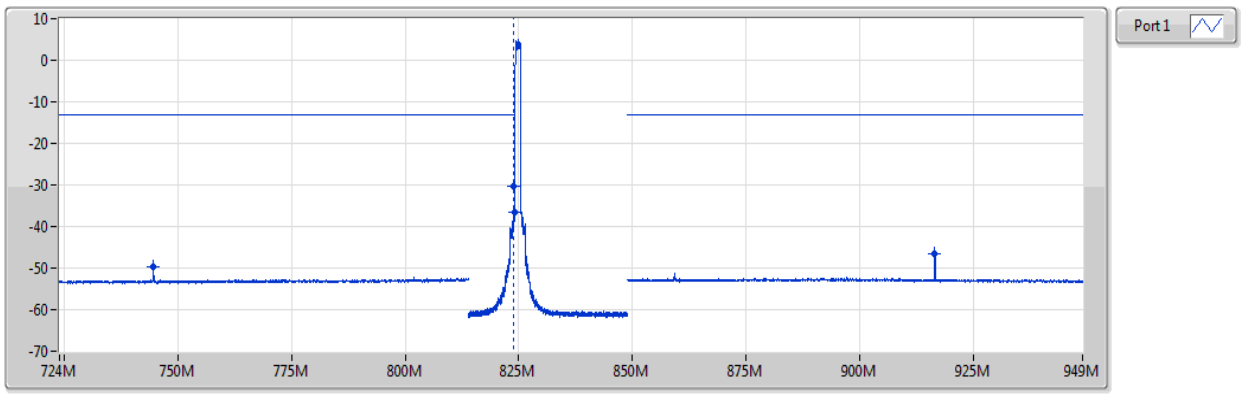
826.5MHz_QPSK_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	814M	100k	300k	RMS	744.61M	-50.63	-13.00	-37.63	1	-	-
814M	823.9M	15k	47k	RMS	823.85M	-32.37	-13.00	-19.37	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-33.52	-13.00	-20.52	1	-	-
849M	949M	100k	300k	RMS	916.5M	-45.24	-13.00	-32.24	1	-	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

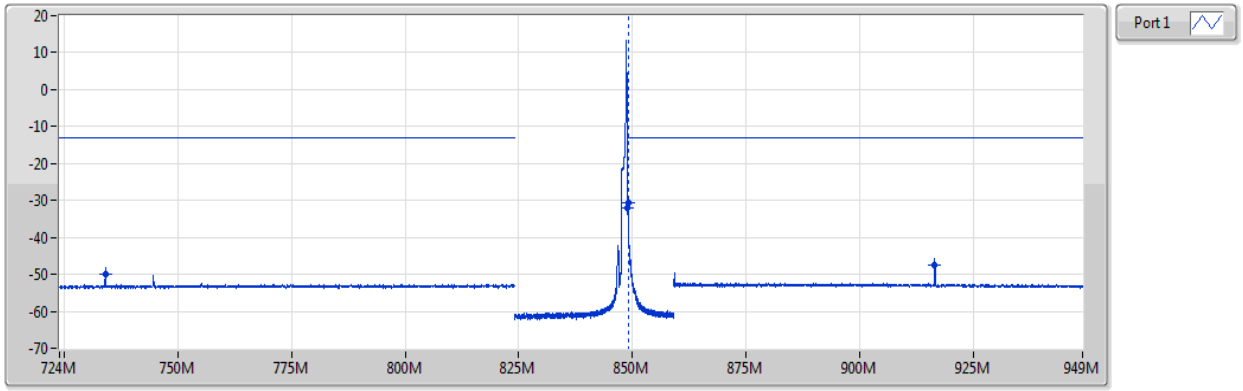
826.5MHz_QPSK_RB 6,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	814M	100k	300k	RMS	744.66M	-49.57	-13.00	-36.57	1	-	-
814M	823.9M	15k	47k	RMS	823.85M	-30.30	-13.00	-17.30	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-36.61	-13.00	-23.61	1	-	-
849M	949M	100k	300k	RMS	916.5M	-46.70	-13.00	-33.70	1	-	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

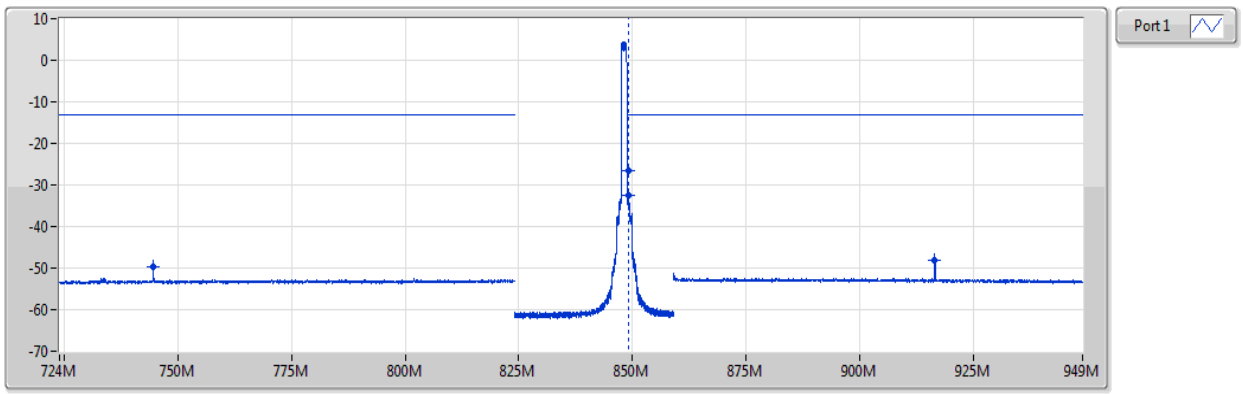
846.5MHz_QPSK_RB 1,#RB 5,NB 3



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	734.1M	-49.88	-13.00	-36.88	1	-
849M	849.1M	15k	47k	RMS	849M	-32.20	-13.00	-19.20	1	-
849.1M	859M	15k	47k	RMS	849.15M	-30.67	-13.00	-17.67	1	MBW 100k
859M	949M	100k	300k	RMS	916.47M	-47.44	-13.00	-34.44	1	-

Band 5_LTE-M1_5MHz_Nss1,QPSK_1TX **CSE-TX-Port**

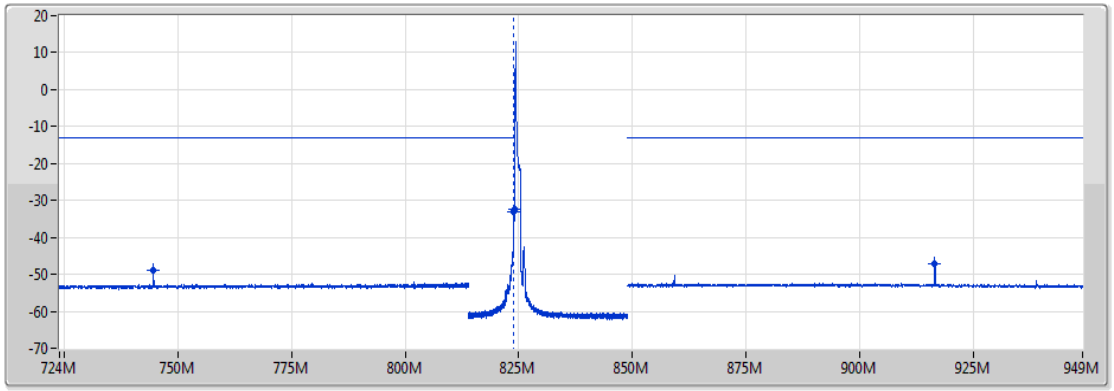
846.5MHz_QPSK_RB 6,#RB 0,NB 3



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-49.81	-13.00	-36.81	1	-
849M	849.1M	15k	47k	RMS	849.06M	-32.49	-13.00	-19.49	1	-
849.1M	859M	15k	47k	RMS	849.15M	-26.43	-13.00	-13.43	1	MBW 100k
859M	949M	100k	300k	RMS	916.51M	-48.11	-13.00	-35.11	1	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

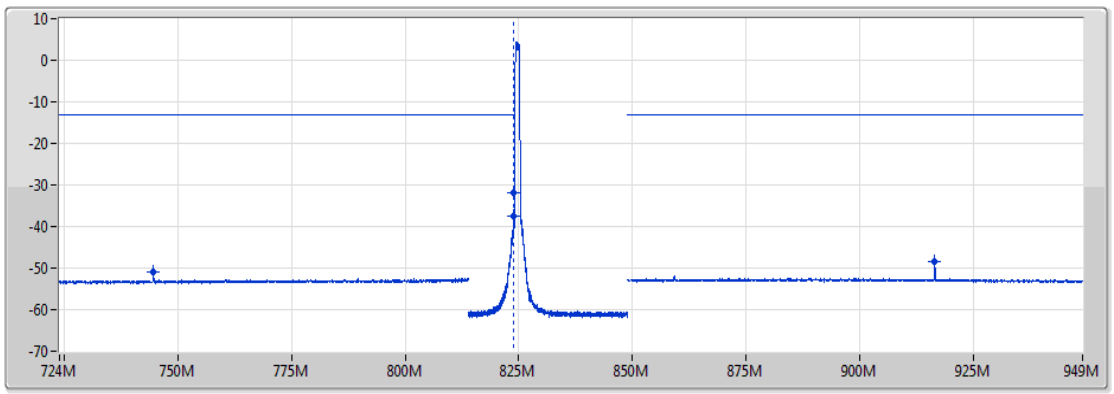
826.5MHz_16QAM_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	814M	100k	300k	RMS	744.66M	-48.88	-13.00	-35.88	1	-	-
814M	823.9M	15k	47k	RMS	823.85M	-33.03	-13.00	-20.03	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-32.28	-13.00	-19.28	1	-	-
849M	949M	100k	300k	RMS	916.45M	-47.29	-13.00	-34.29	1	-	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

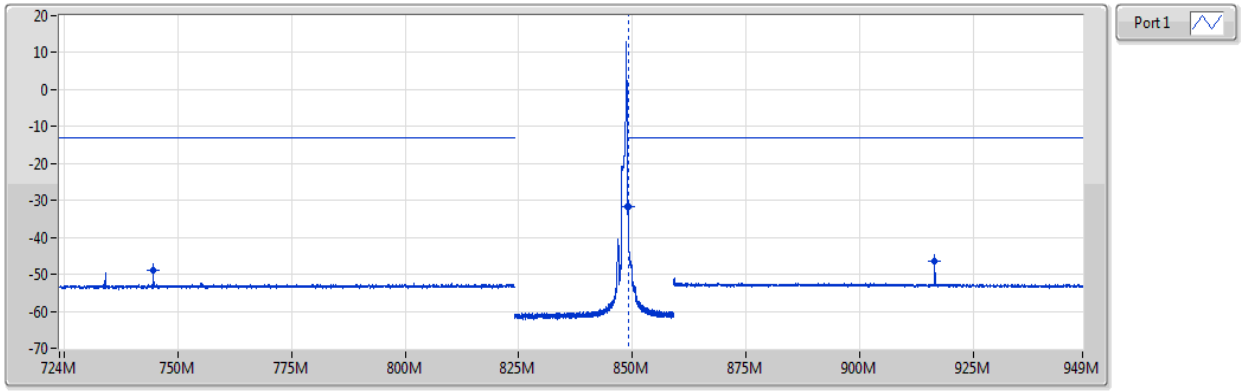
826.5MHz_16QAM_RB 5,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	814M	100k	300k	RMS	744.66M	-50.83	-13.00	-37.83	1	-	-
814M	823.9M	15k	47k	RMS	823.85M	-31.98	-13.00	-18.98	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	823.97M	-37.53	-13.00	-24.53	1	-	-
849M	949M	100k	300k	RMS	916.45M	-48.53	-13.00	-35.53	1	-	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

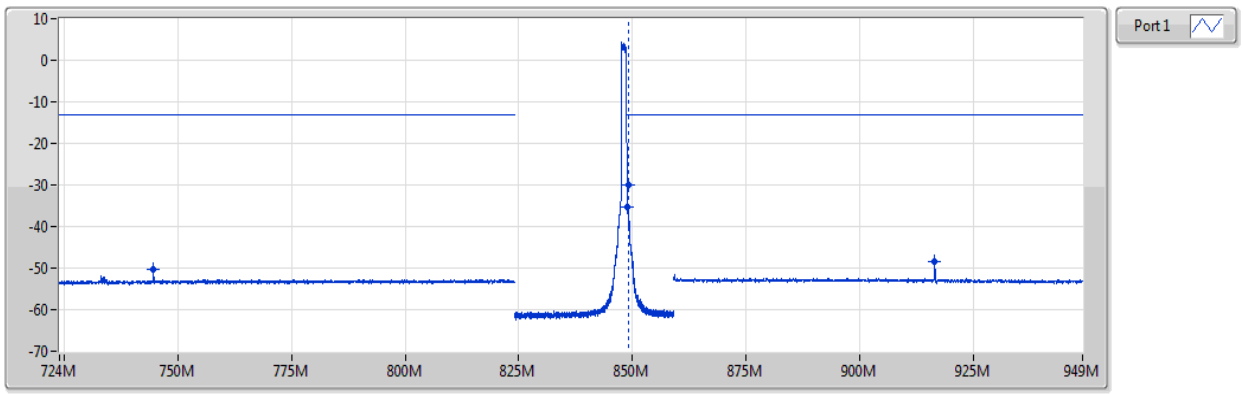
846.5MHz_16QAM_RB 1,#RB 5,NB 3



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-49.05	-13.00	-36.05	1	-
849M	849.1M	15k	47k	RMS	849M	-31.51	-13.00	-18.51	1	-
849.1M	859M	15k	47k	RMS	849.15M	-31.77	-13.00	-18.77	1	MBW 100k
859M	949M	100k	300k	RMS	916.51M	-46.54	-13.00	-33.54	1	-

Band 5_LTE-M1_5MHz_Nss1,16QAM_1TX **CSE-TX-Port**

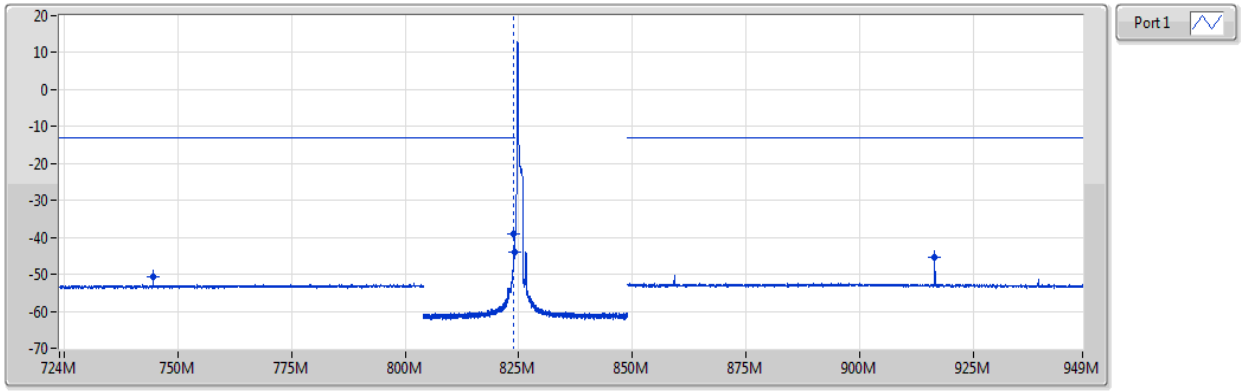
846.5MHz_16QAM_RB 5,#RB 0,NB 3



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.7M	-50.24	-13.00	-37.24	1	-
849M	849.1M	15k	47k	RMS	849M	-35.24	-13.00	-22.24	1	-
849.1M	859M	15k	47k	RMS	849.15M	-29.98	-13.00	-16.98	1	MBW 100k
859M	949M	100k	300k	RMS	916.51M	-48.57	-13.00	-35.57	1	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

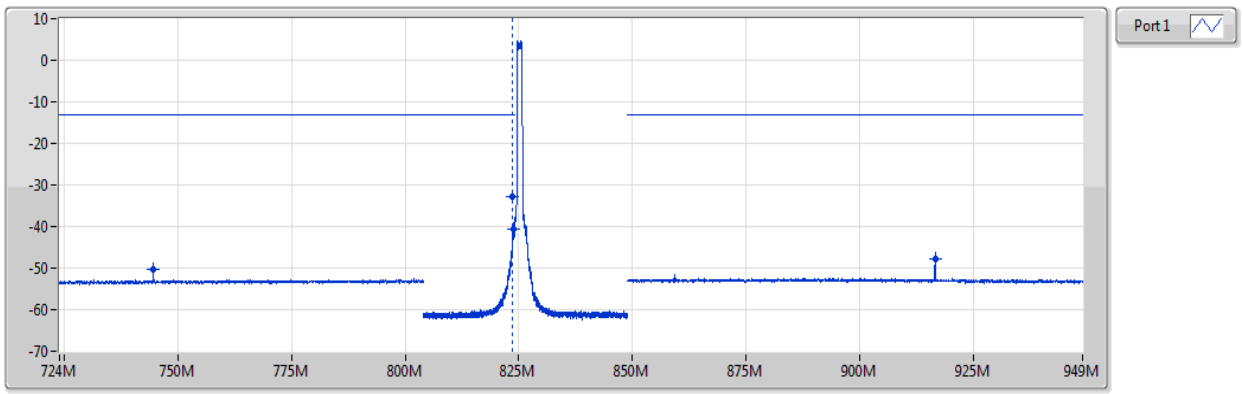
829MHz_QPSK_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	804M	100k	300k	RMS	744.68M	-50.53	-13.00	-37.53	1	-	-
804M	823.9M	15k	47k	RMS	823.85M	-39.00	-13.00	-26.00	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	824M	-44.06	-13.00	-31.06	1	-	-
849M	949M	100k	300k	RMS	916.5M	-45.25	-13.00	-32.25	1	-	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

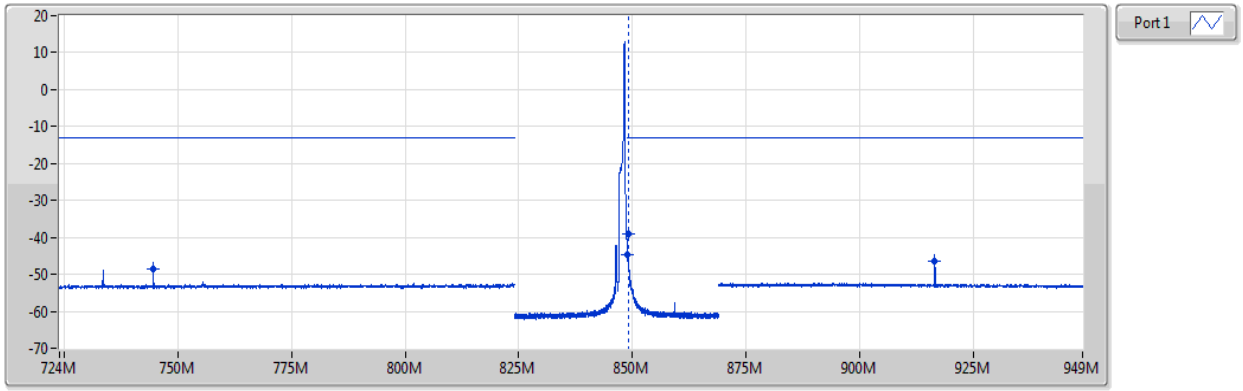
829MHz_QPSK_RB 6,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	804M	100k	300k	RMS	744.64M	-50.20	-13.00	-37.20	1	-	-
804M	823.9M	15k	47k	RMS	823.65M	-32.92	-13.00	-19.92	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	823.98M	-40.61	-13.00	-27.61	1	-	-
849M	949M	100k	300k	RMS	916.55M	-47.71	-13.00	-34.71	1	-	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

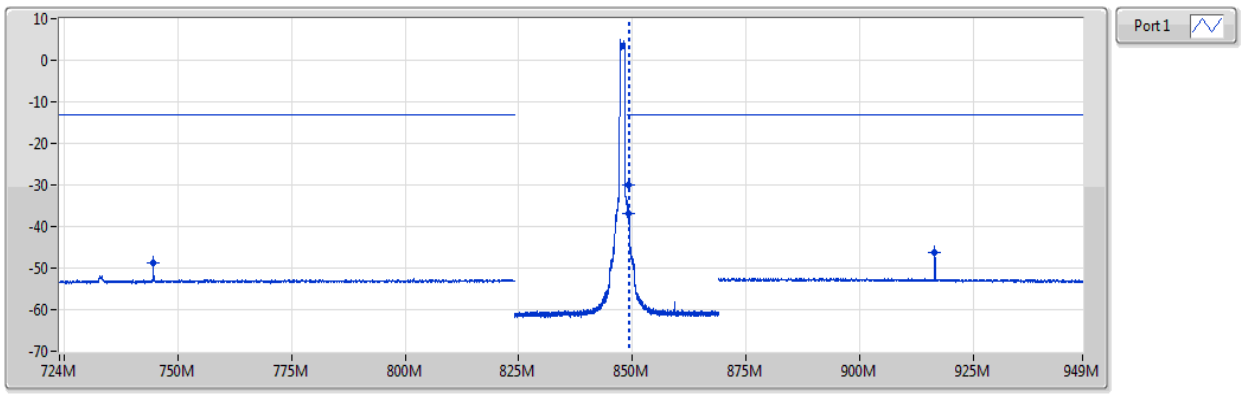
844MHz_QPSK_RB 1,#RB 5,NB 7



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-48.54	-13.00	-35.54	1	-
849M	849.1M	15k	47k	RMS	849.01M	-44.52	-13.00	-31.52	1	-
849.1M	869M	15k	47k	RMS	849.15M	-39.22	-13.00	-26.22	1	MBW 100k
869M	949M	100k	300k	RMS	916.48M	-46.51	-13.00	-33.51	1	-

Band 5_LTE-M1_10MHz_Nss1,QPSK_1TX **CSE-TX-Port**

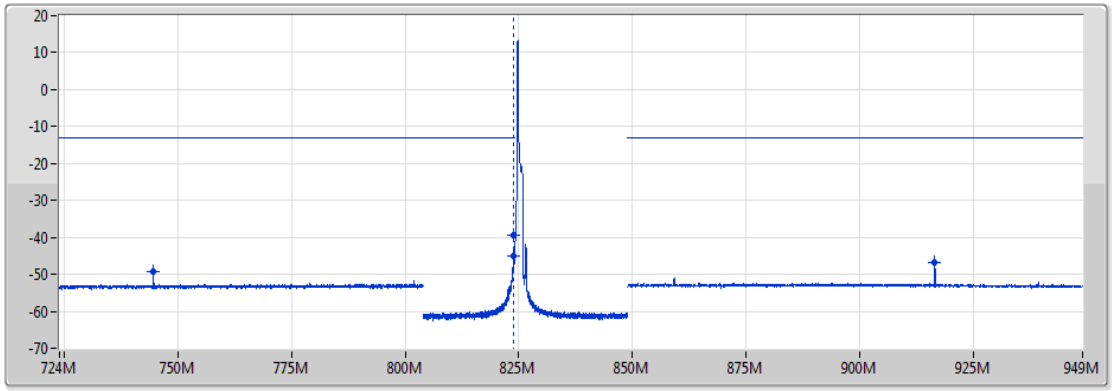
844MHz_QPSK_RB 6,#RB 0,NB 7



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-48.70	-13.00	-35.70	1	-
849M	849.1M	15k	47k	RMS	849.03M	-36.97	-13.00	-23.97	1	-
849.1M	869M	15k	47k	RMS	849.25M	-30.12	-13.00	-17.12	1	MBW 100k
869M	949M	100k	300k	RMS	916.52M	-46.30	-13.00	-33.30	1	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

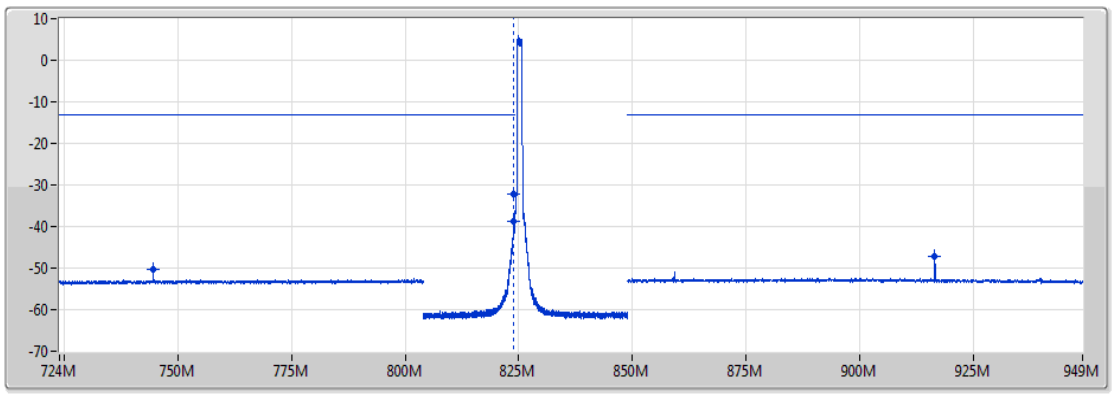
829MHz_16QAM_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	804M	100k	300k	RMS	744.68M	-49.16	-13.00	-36.16	1	-	-
804M	823.9M	15k	47k	RMS	823.85M	-39.44	-13.00	-26.44	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	823.96M	-44.91	-13.00	-31.91	1	-	-
849M	949M	100k	300k	RMS	916.45M	-46.88	-13.00	-33.88	1	-	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

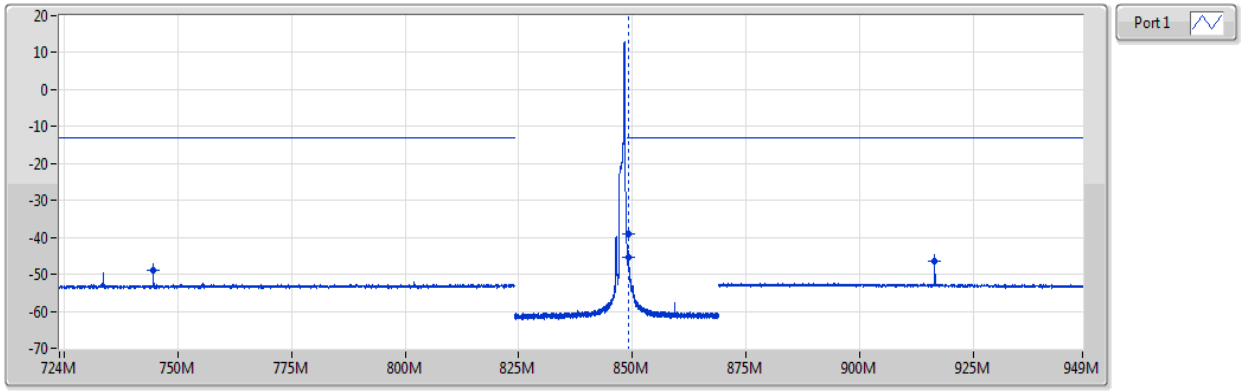
829MHz_16QAM_RB 5,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
724M	804M	100k	300k	RMS	744.64M	-50.45	-13.00	-37.45	1	-	-
804M	823.9M	15k	47k	RMS	823.85M	-32.33	-13.00	-19.33	1	MBW 100k	-
823.9M	824M	15k	47k	RMS	823.9M	-38.60	-13.00	-25.60	1	-	-
849M	949M	100k	300k	RMS	916.5M	-47.20	-13.00	-34.20	1	-	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

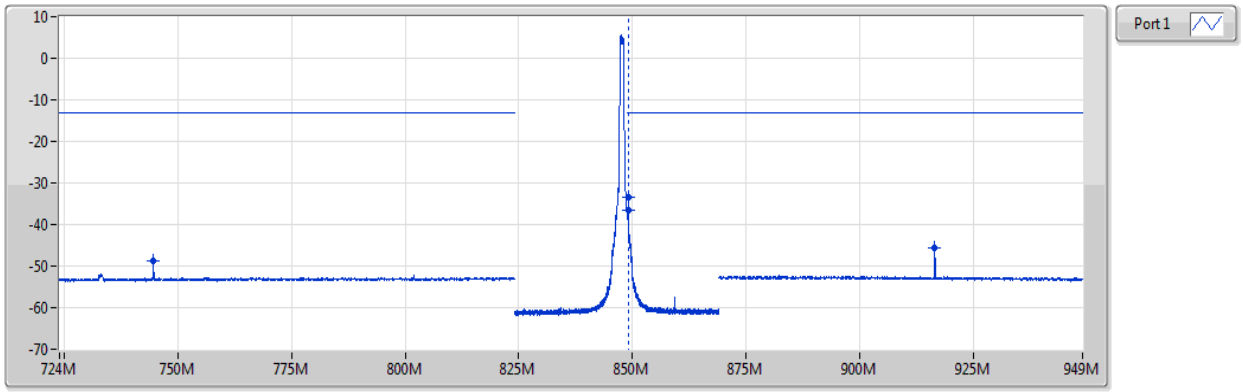
844MHz_16QAM_RB 1,#RB 5,NB 7



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-48.82	-13.00	-35.82	1	-
849M	849.1M	15k	47k	RMS	849.04M	-45.22	-13.00	-32.22	1	-
849.1M	869M	15k	47k	RMS	849.15M	-39.09	-13.00	-26.09	1	MBW 100k
869M	949M	100k	300k	RMS	916.52M	-46.30	-13.00	-33.30	1	-

Band 5_LTE-M1_10MHz_Nss1,16QAM_1TX **CSE-TX-Port**

844MHz_16QAM_RB 5,#RB 0,NB 7



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark
724M	824M	100k	300k	RMS	744.65M	-48.66	-13.00	-35.66	1	-
849M	849.1M	15k	47k	RMS	849.02M	-36.52	-13.00	-23.52	1	-
849.1M	869M	15k	47k	RMS	849.15M	-33.35	-13.00	-20.35	1	MBW 100k
869M	949M	100k	300k	RMS	916.48M	-45.77	-13.00	-32.77	1	-

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

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Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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