

FCC&IC Test Report

(Part 22&24&27&RSS130&132&133&139&199)

Product Name : LE920A4-NA
Model No : LE920A4-NA
FCC ID : RI7LE920A4NA
IC ID : 5131A-LE920A4NA

Applicant : Telit Communications S.p.A.

Address : Viale Stazione di Prosecco, 5/B, 34010 Sgonico, Trieste, Italy

Date of Receipt : 2016/12/07
Issued Date : 2017/01/13
Report No. : 16C0188R-HPUSP40V00
Report Version : V2.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issued Date : 2017/01/13

Report No.: 16C0188R-HPUSP40V00



Product Name : LE920A4-NA

Applicant : Telit Communications S.p.A.

Address : Viale Stazione di Prosecco, 5/B, 34010 Sgonico, Trieste, Italy

Manufacturer : Telit Wireless Solutions Ltd.

Trade Name : 

Model No. : LE920A4-NA

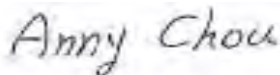
EUT Rated Voltage : DC 3.8V

EUT Test Voltage : DC 3.8V

Measurement Standard : FCC CFR Title 47 Part 2 22 24 27
RSS GEN Issue 4, RSS-130 Issue 1, RSS-132 Issue 3
RSS-133 Issue 6, RSS-139 Issue 3, RSS-199 Issue 2

Measurement Reference : TIA/EIA 603-C

Test Result : Complied

Documented By : 
(Senior Adm. Specialist / Anny Chou)

Tested By : 
(Senior Engineer / Vorana Chen)

Approved By : 
(Director / Vincent Lin)

TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	4
1.1. EUT Description	4
1.2. Antenna List.....	4
1.3. Operational Description.....	5
1.4. Configuration of tested System	6
1.5. EUT Setup Procedures	6
1.6. Test Facility	7
1.7. Type of Emission	8
1.8. Voltages and DC currents	9
2. Technical Test	10
2.1. Summary of test result	10
2.2. List of test Equipment.....	11
2.3. Measurement Uncertainty.....	11
3. Conducted Output Power Measurment	12
3.1. Test Specification	12
3.2. Test Setup	12
3.3. Limits.....	12
3.4. Test Procedure	12
3.5. Test Result of Maximum Power Output.....	13
4. Occupied Bandwidth	37
4.1. Test Secification	37
4.2. Test Setup	37
4.3. Test Procedure	37
4.4. Test Result of Occupied Bandwidth	38
5. Spurious Emission At Antenna Terminals (+/-1MHz).....	64
5.1. Test Specification	64
5.2. Setup.....	64
5.3. Limits.....	64
5.4. Test Procedure	65
5.5. Test Result of Spurious Emission At Antenna Terminals (+/-1MHz).....	66
6. Spurious Emission	162
6.1. Test Specification	162
6.2. Test Setup	162
6.3. Limits.....	163
6.4. Test Procedure	163
6.5. Test Result of Spurious Emission	164
7. Frequency Stability Under Temperature & Voltage Variations.....	340
7.1. Test Specification	340
7.2. Test Setup	340
7.3. Limits.....	340
7.4. Test Procedure	340
7.5. Test Result of Frequency Stability Under Temperature Variations.....	341
8. Peak to Average Ratio	389
8.1. Test Specification	389
8.2. Test Setup.....	389
8.3. Limits.....	389
8.4. Test Procedure	389
8.5. Test Result of Spurious Emission	390
Attachment 1: EUT Test Photographs	
Attachment 2: EUT Detailed Photographs	

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	LE920A4-NA
Model No.	LE920A4-NA
Trade Name	
IMEI No.	35722607
FCC ID	RI7LE920A4NA
IC ID	5131A-LE920A4N4
Modulation	LTE Band 2 : QPSK/16-QAM
	LTE Band 4 : QPSK/16-QAM
	LTE Band 5 : QPSK/16-QAM
	LTE Band 7 : QPSK/16-QAM
	LTE Band 12 : QPSK/16-QAM
TX Frequency	LTE Band 2: 1850~1910MHz
	LTE Band 4 : 1710MHz~1755MHz
	LTE Band 5: 824MHz ~849MHz
	LTE Band 7: 2500~2570MHz
	LTE Band 12 : 699MHz~716MHz
Rx Frequency	LTE Band 2: 1930~1990MHz
	LTE Band 4: 2110~2155MHz
	LTE Band 5: 869~894MHz
	LTE Band 7: 2620~2690MHz
	LTE Band 12 : 729~746MHz
Bandwidth	LTE Band 2: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 4: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 5: 1.4MHz/3MHz/5MHz/10MHz
	LTE Band 7: 5MHz/10MHz/15MHz/20MHz
	LTE Band 12 : 1.4MHz/3MHz/5MHz/10MHz
HW Version	1.00
SW Version	25.00.011
Antenna Type	Dipole

1.2. Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	Larid Technologies	DBA6927	0.99 dBi for 699-960MHz 2.37 dBi for 1710-2170MHz 2.81 dBi for 2400-2700MHz

1.3. Operational Description

The information contained within this report is intended to show verification of compliance of the 700/850/1700/1900/2500MHz to the requirements of FCC 47 CFR Part 2, 22, 24 and 27 & RSS GEN, RSS 130, RSS 132, RSS 133, RSS 139, RSS 199.

The EUT provide all functions described as above. The EUT is tested with maximum rated TX power via the Base Station simulator.

DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined

as:

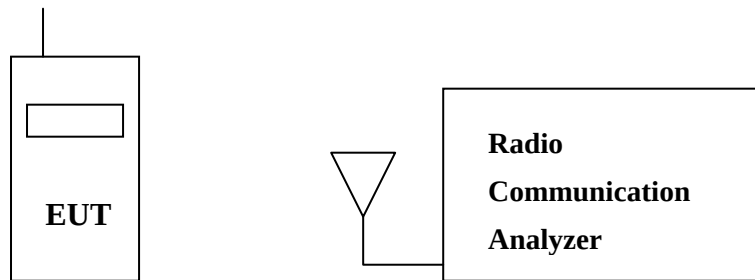
Test Mode:	LTE Band 2 (1.4M)-QPSK/16QAM
	LTE Band 2 (3M)-QPSK/16QAM
	LTE Band 2 (5M)-QPSK/16QAM
	LTE Band 2 (10M)-QPSK/16QAM
	LTE Band 2 (15M)-QPSK/16QAM
	LTE Band 2 (20M)-QPSK/16QAM
	LTE Band 4 (1.4M)-QPSK/16QAM
	LTE Band 4 (3M)-QPSK/16QAM
	LTE Band 4 (5M)-QPSK/16QAM
	LTE Band 4 (10M)-QPSK/16QAM
	LTE Band 4 (15M)-QPSK/16QAM
	LTE Band 4 (20M)-QPSK/16QAM
	LTE Band 5 (1.4M)-QPSK/16QAM
	LTE Band 5 (3M)-QPSK/16QAM
	LTE Band 5 (5M)-QPSK/16QAM
	LTE Band 5 (10M)-QPSK/16QAM
	LTE Band 7 (5M)-QPSK/16QAM
	LTE Band 7 (10M)-QPSK/16QAM
	LTE Band 7 (15M)-QPSK/16QAM
	LTE Band 7 (20M)-QPSK/16QAM
	LTE Band 12 (1.4M)-QPSK/16QAM
	LTE Band 12 (3M)-QPSK/16QAM
	LTE Band 12 (5M)-QPSK/16QAM
	LTE Band 12 (10M)-QPSK/16QAM

Note :

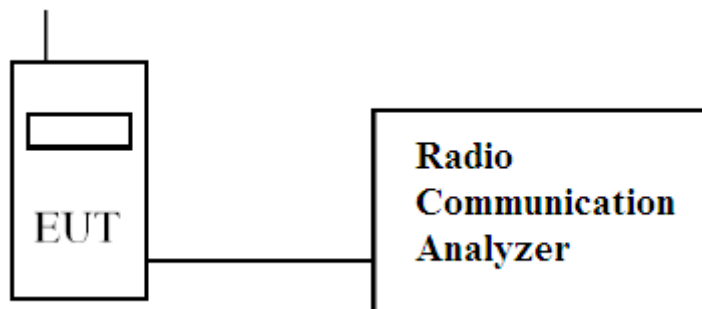
The maximum power levels are chosen in the LTE Band 2/4/5/7/12, only these modes were used for all tests.

1.4. Configuration of tested System

(a) Configuration of Radiated measurement



(b) Configuration of Conducted measurement



1.5. EUT Setup Procedures

- (1) Setup the EUT and simulators as shown on 1.3
- (2) Turn on the power of all equipments.
- (3) The EUT was set to communicate with MT8820C.
- (4) Repeat the above procedure (3).

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	22
Humidity (%RH)	25-75	51
Barometric pressure (mbar)	860-1060	988

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw/index_en.aspx

Site Description: File on

Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
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FCC Registration Number :92195

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Taiwan, R.O.C.

TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789

E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW1014

1.7. Type of Emission

Band	Bandwidth (MHz)	Modulation	
		QPSK	16QAM
2	1.4	1M10G7D	1M09W7D
2	3	2M73G7D	2M72W7D
2	5	4M52G7D	4M49W7D
2	10	9M02G7D	9M03W7D
2	15	13M5G7D	13M4W7D
2	20	18M4G7D	18M4W7D
4	1.4	1M10G7D	1M09W7D
4	3	2M73G7D	2M72W7D
4	5	4M50G7D	4M48W7D
4	10	9M03G7D	9M03W7D
4	15	13M4G7D	13M4W7D
4	20	18M5G7D	18M5W7D
5	1.4	1M10G7D	1M09W7D
5	3	2M73G7D	2M72W7D
5	5	4M50G7D	4M47W7D
5	10	9M01G7D	9M01W7D
7	5	4M50G7D	4M49W7D
7	10	9M03G7D	9M03W7D
7	15	13M4G7D	13M4W7D
7	20	18M5G7D	18M4W7D
12	1.4	1M10G7D	1M10W7D
12	3	2M74G7D	2M72W7D
12	5	4M50G7D	4M48W7D
12	10	8M99G7D	9M00W7D

[illegible]

2. Technical Test

2.1. Summary of test result

FCC Standard	IC Standard	Test Item	Result	Note
2.1046	RSS GEN	Conducted Output Power	Pass	
22.913(a)	RSS 130/RSS 132			
24.232(c)	RSS 133/RSS 139			
27.5	RSS 199			
2.1049	RSS GEN	Occupied Bandwidth	Pass	
22.917(a)	RSS 130/RSS 132			
24.238(b)	RSS 133/RSS 139			
27.53 (g, h, m(4))	RSS 199			
2.1051	RSS GEN	Spurious Emission at Antenna Terminals	Pass	
22.917(a)	RSS 130/RSS 132			
24.238(a)	RSS 133/RSS 139			
27.53 (g, h, m(4))	RSS 199			
2.1051	RSS GEN	Conducted Emission	Pass	
22.917(a)	RSS 130/RSS 132			
24.238(a)	RSS 133/RSS 139			
27.53 (g, h, m(4))	RSS 199			
2.1053	RSS GEN	Field Strength of Spurious Radiation	Pass	
22.917(a)	RSS 130/RSS 132			
24.238(a)	RSS 133/RSS 139			
27.53 (g, h, m(4))	RSS 199			
2.1055	RSS GEN	Frequency Stability for Temperature & Voltage	Pass	
22.355	RSS 130/RSS 132			
24.235	RSS 133/RSS 139			
27.54	RSS 199			
27.50(a)	RSS 130/RSS 132	Peak to Average Ratio	Pass	
	RSS 133/RSS 139			
	RSS 199			

2.2. List of test Equipment

Conducted /CTR

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY52220597	2016/02/18
Directional coupler	Agilent	87300C	MY44300353	2016/11/04
Directional coupler	Agilent	778D-012	50550	2016/11/08
Standard Temperature & Humidity Chamber	WIT	TH-1S-B	EQ-201-00146	2016/11/28
DC power supply	Agilent	E3610A	MY40009845	2016/07/14
Communication Tester	Agilent	8820C	6201465467	2016/06/21

Radiated / Site3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2707	2016/06/11
Horn Antenna	R&S	9120D	556	2016/01/11
Pre-Amplifier	Agilent	87405C	MY47010653	2016/08/11
Spectrum Analyzer	Agilent	N9010A	MY52220597	2016/02/18
DC power supply	Agilent	E3610A	MY40009845	2016/07/14
Communication Tester	Agilent	8820C	6201465467	2016/06/21

2.3. Measurement Uncertainty

Conducted Emission

The measurement uncertainty of confidence of 95% is evaluated as ± 1.52 dB

Radiated Emission (Below 1GHz)

The measurement uncertainty of confidence of 95% is evaluated as ± 3.44 dB .

Radiated Emission (Above 1GHz)

The measurement uncertainty of confidence of 95% is evaluated as ± 4.08 dB

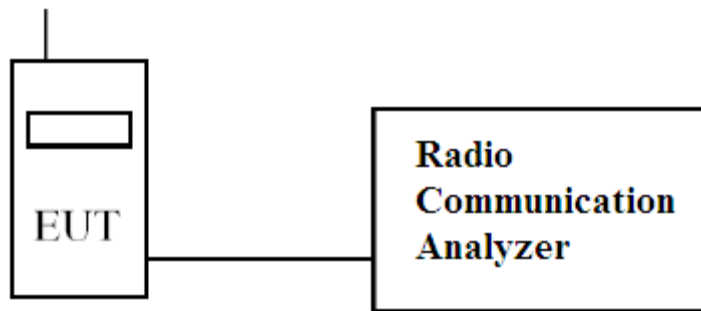
3. Conducted Output Power Measurement

3.1. Test Specification

According to FCC Part 2.1046, 22.913, 24.232, 27.50

RSS GEN, RSS 130, RSS 132, RSS 133, RSS 139, RSS 199

3.2. Test Setup



3.3. Limits

Band	Limit
LTE Band 2/1900	<2W
LTE Band 4/1700	<1W
LTE Band 5/850	<7W
LTE Band 7/2500	<2W
LTE Band 12/700	<3W

3.4. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the output power was measured at the antenna terminals of the EUT.

3.5. Test Result of Maximum Power Output

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (dBm)	Max Power (W)
Band 2 (1900MHz)/1.4MHz	1850.7MHz CH18607	QPSK	1	#0	0	23.58	0.228
			1	#Mid	0	23.59	0.229
			1	#Max	0	23.51	0.224
			50%	#0	1	23.78	0.239
			50%	#Mid	1	23.62	0.230
			50%	#Max	1	23.76	0.238
			100%	--	1	22.51	0.178
		16QAM	1	#0	1	22.38	0.173
			1	#Mid	1	22.21	0.166
			1	#Max	1	22.44	0.175
			50%	#0	2	22.31	0.170
			50%	#Mid	2	22.42	0.175
			50%	#Max	2	22.44	0.175
			100%	--	2	21.27	0.134
	1880MHz CH18900	QPSK	1	#0	0	22.79	0.190
			1	#Mid	0	22.80	0.191
			1	#Max	0	22.79	0.190
			50%	#0	1	22.81	0.191
			50%	#Mid	1	22.78	0.190
			50%	#Max	1	22.81	0.191
			100%	--	1	21.81	0.152
		16QAM	1	#0	1	21.60	0.145
			1	#Mid	1	21.62	0.145
			1	#Max	1	21.65	0.146
			50%	#0	2	21.72	0.149
			50%	#Mid	2	21.77	0.150
			50%	#Max	2	21.70	0.148
			100%	--	2	20.72	0.118
	1909.3MHz CH19193	QPSK	1	#0	0	23.97	0.249
			1	#Mid	0	23.90	0.245
			1	#Max	0	23.85	0.243
			50%	#0	1	23.92	0.247
			50%	#Mid	1	23.85	0.243
			50%	#Max	1	23.78	0.239
			100%	--	1	22.82	0.191
		16QAM	1	#0	1	22.84	0.192
			1	#Mid	1	22.83	0.192
			1	#Max	1	22.60	0.182
			50%	#0	2	22.87	0.194
			50%	#Mid	2	22.83	0.192
			50%	#Max	2	22.80	0.191
			100%	--	2	21.73	0.149

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 2 (1900MHz)/3MHz	1851.5MHz CH18615	QPSK	1	#0	0	23.68	0.233
			1	#Mid	0	23.53	0.225
			1	#Max	0	23.41	0.219
			50%	#0	1	22.48	0.177
			50%	#Mid	1	22.48	0.177
			50%	#Max	1	22.43	0.175
			100%	--	1	22.43	0.175
		16QAM	1	#0	1	22.15	0.164
			1	#Mid	1	22.32	0.171
			1	#Max	1	22.19	0.166
			50%	#0	2	21.47	0.140
			50%	#Mid	2	21.50	0.141
			50%	#Max	2	21.34	0.136
			100%	--	2	21.61	0.145
	1880MHz CH18900	QPSK	1	#0	0	22.49	0.177
			1	#Mid	0	22.72	0.187
			1	#Max	0	22.58	0.181
			50%	#0	1	21.80	0.151
			50%	#Mid	1	21.79	0.151
			50%	#Max	1	21.82	0.152
			100%	--	1	21.85	0.153
		16QAM	1	#0	1	21.48	0.141
			1	#Mid	1	21.65	0.146
			1	#Max	1	21.40	0.138
			50%	#0	2	20.62	0.115
			50%	#Mid	2	20.81	0.121
			50%	#Max	2	20.63	0.116
			100%	--	2	20.86	0.122
	1908.5MHz CH19185	QPSK	1	#0	0	23.80	0.240
			1	#Mid	0	23.90	0.245
			1	#Max	0	23.61	0.230
			50%	#0	1	22.79	0.190
			50%	#Mid	1	22.81	0.191
			50%	#Max	1	23.01	0.200
			100%	--	1	22.88	0.194
		16QAM	1	#0	1	22.76	0.189
			1	#Mid	1	22.51	0.178
			1	#Max	1	22.53	0.179
			50%	#0	2	21.97	0.157
			50%	#Mid	2	21.82	0.152
			50%	#Max	2	21.78	0.151
			100%	--	2	21.66	0.147

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 2 (1900MHz)/5MHz	1852.5MHz CH18625	QPSK	1	#0	0	23.18	0.208
			1	#Mid	0	23.65	0.232
			1	#Max	0	23.18	0.208
			50%	#0	1	22.41	0.174
			50%	#Mid	1	22.44	0.175
			50%	#Max	1	22.28	0.169
			100%	--	1	22.38	0.173
		16QAM	1	#0	1	22.03	0.160
			1	#Mid	1	22.16	0.164
			1	#Max	1	22.04	0.160
			50%	#0	2	21.29	0.135
			50%	#Mid	2	21.31	0.135
			50%	#Max	2	21.15	0.130
			100%	--	2	21.45	0.140
	1880MHz CH18900	QPSK	1	#0	0	22.44	0.175
			1	#Mid	0	22.65	0.184
			1	#Max	0	22.41	0.174
			50%	#0	1	21.73	0.149
			50%	#Mid	1	21.66	0.147
			50%	#Max	1	21.74	0.149
			100%	--	1	21.73	0.149
		16QAM	1	#0	1	21.38	0.137
			1	#Mid	1	21.51	0.142
			1	#Max	1	21.60	0.145
			50%	#0	2	20.69	0.117
			50%	#Mid	2	20.53	0.113
			50%	#Max	2	20.82	0.121
			100%	--	2	20.70	0.117
	1907.5MHz CH19175	QPSK	1	#0	0	23.69	0.234
			1	#Mid	0	23.73	0.236
			1	#Max	0	23.50	0.224
			50%	#0	1	22.86	0.193
			50%	#Mid	1	22.66	0.185
			50%	#Max	1	22.70	0.186
			100%	--	1	22.65	0.184
		16QAM	1	#0	1	22.49	0.177
			1	#Mid	1	22.66	0.185
			1	#Max	1	22.39	0.173
			50%	#0	2	21.78	0.151
			50%	#Mid	2	21.56	0.143
			50%	#Max	2	21.48	0.141
			100%	--	2	21.59	0.144

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 2 (1900MHz)/10MHz	1855MHz CH18650	QPSK	1	#0	0	23.26	0.212
			1	#Mid	0	23.51	0.224
			1	#Max	0	23.13	0.206
			50%	#0	1	22.58	0.181
			50%	#Mid	1	22.42	0.175
			50%	#Max	1	22.34	0.171
			100%	--	1	22.39	0.173
		16QAM	1	#0	1	22.18	0.165
			1	#Mid	1	22.11	0.163
			1	#Max	1	21.85	0.153
			50%	#0	2	21.40	0.138
			50%	#Mid	2	21.37	0.137
			50%	#Max	2	21.15	0.130
			100%	--	2	21.35	0.136
	1880MHz CH18900	QPSK	1	#0	0	22.48	0.177
			1	#Mid	0	22.83	0.192
			1	#Max	0	22.62	0.183
			50%	#0	1	21.75	0.150
			50%	#Mid	1	21.82	0.152
			50%	#Max	1	21.82	0.152
			100%	--	1	21.80	0.151
		16QAM	1	#0	1	21.43	0.139
			1	#Mid	1	21.50	0.141
			1	#Max	1	21.61	0.145
			50%	#0	2	20.94	0.124
			50%	#Mid	2	20.89	0.123
			50%	#Max	2	20.92	0.124
			100%	--	2	20.65	0.116
	1905MHz CH19150	QPSK	1	#0	0	23.46	0.222
			1	#Mid	0	23.90	0.245
			1	#Max	0	23.67	0.233
			50%	#0	1	22.70	0.186
			50%	#Mid	1	22.74	0.188
			50%	#Max	1	22.83	0.192
			100%	--	1	22.79	0.190
		16QAM	1	#0	1	22.44	0.175
			1	#Mid	1	22.68	0.185
			1	#Max	1	22.66	0.185
			50%	#0	2	21.56	0.143
			50%	#Mid	2	21.80	0.151
			50%	#Max	2	21.93	0.156
			100%	--	2	21.61	0.145

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 2 (1900MHz)/15MHz	1857.5MHz CH18675	QPSK	1	#0	0	23.36	0.217
			1	#Mid	0	23.23	0.210
			1	#Max	0	23.02	0.200
			50%	#0	1	22.45	0.176
			50%	#Mid	1	22.30	0.170
			50%	#Max	1	22.23	0.167
			100%	--	1	22.26	0.168
		16QAM	1	#0	1	22.28	0.169
			1	#Mid	1	21.98	0.158
			1	#Max	1	21.67	0.147
			50%	#0	2	21.26	0.134
			50%	#Mid	2	21.21	0.132
			50%	#Max	2	21.14	0.130
			100%	--	2	21.29	0.135
	1880MHz CH18900	QPSK	1	#0	0	22.66	0.185
			1	#Mid	0	22.82	0.191
			1	#Max	0	22.83	0.192
			50%	#0	1	21.67	0.147
			50%	#Mid	1	21.81	0.152
			50%	#Max	1	21.76	0.150
			100%	--	1	21.75	0.150
		16QAM	1	#0	1	21.53	0.142
			1	#Mid	1	21.32	0.136
			1	#Max	1	21.84	0.153
			50%	#0	2	20.62	0.115
			50%	#Mid	2	20.88	0.122
			50%	#Max	2	20.76	0.119
			100%	--	2	20.70	0.117
	1902.5MHz CH19125	QPSK	1	#0	0	23.08	0.203
			1	#Mid	0	23.69	0.234
			1	#Max	0	23.69	0.234
			50%	#0	1	22.55	0.180
			50%	#Mid	1	22.51	0.178
			50%	#Max	1	22.61	0.182
			100%	--	1	22.53	0.179
		16QAM	1	#0	1	22.12	0.163
			1	#Mid	1	22.31	0.170
			1	#Max	1	22.42	0.175
			50%	#0	2	21.44	0.139
			50%	#Mid	2	21.58	0.144
			50%	#Max	2	21.61	0.145
			100%	--	2	21.58	0.144

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 2 (1900MHz)/20MHz	1860MHz CH18700	QPSK	1	#0	0	23.16	0.207
			1	#Mid	0	23.33	0.215
			1	#Max	0	22.68	0.185
			50%	#0	1	22.38	0.173
			50%	#Mid	1	22.15	0.164
			50%	#Max	1	22.06	0.161
			100%	--	1	22.28	0.169
		16QAM	1	#0	1	22.23	0.167
			1	#Mid	1	22.05	0.160
			1	#Max	1	21.50	0.141
			50%	#0	2	21.31	0.135
			50%	#Mid	2	21.08	0.128
			50%	#Max	2	21.12	0.129
			100%	--	2	21.12	0.129
	1880MHz CH18900	QPSK	1	#0	0	22.56	0.180
			1	#Mid	0	22.89	0.195
			1	#Max	0	22.78	0.190
			50%	#0	1	21.58	0.144
			50%	#Mid	1	21.63	0.146
			50%	#Max	1	21.77	0.150
			100%	--	1	21.75	0.150
		16QAM	1	#0	1	21.53	0.142
			1	#Mid	1	21.64	0.146
			1	#Max	1	21.71	0.148
			50%	#0	2	20.65	0.116
			50%	#Mid	2	20.80	0.120
			50%	#Max	2	20.74	0.119
			100%	--	2	20.70	0.117
	1900MHz CH19100	QPSK	1	#0	0	22.84	0.192
			1	#Mid	0	23.56	0.227
			1	#Max	0	23.45	0.221
			50%	#0	1	22.40	0.174
			50%	#Mid	1	22.55	0.180
			50%	#Max	1	22.61	0.182
			100%	--	1	22.55	0.180
		16QAM	1	#0	1	22.05	0.160
			1	#Mid	1	22.25	0.168
			1	#Max	1	22.51	0.178
			50%	#0	2	21.25	0.133
			50%	#Mid	2	21.52	0.142
			50%	#Max	2	21.61	0.145
			100%	--	2	21.65	0.146

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (dBm)	Max Power (W)
Band 4 (1700MHz)/1.4MHz	1710.7MHz CH19957	QPSK	1	#0	0	23.22	0.210
			1	#Mid	0	23.48	0.223
			1	#Max	0	23.51	0.224
			50%	#0	1	23.56	0.227
			50%	#Mid	1	23.74	0.237
			50%	#Max	1	23.69	0.234
			100%	--	1	22.57	0.181
		16QAM	1	#0	1	22.82	0.191
			1	#Mid	1	22.84	0.192
			1	#Max	1	22.85	0.193
			50%	#0	2	22.53	0.179
			50%	#Mid	2	22.56	0.180
			50%	#Max	2	22.37	0.173
			100%	--	2	21.52	0.142
	1732.5MHz CH20175	QPSK	1	#0	0	23.11	0.205
			1	#Mid	0	23.18	0.208
			1	#Max	0	23.06	0.202
			50%	#0	1	23.20	0.209
			50%	#Mid	1	23.35	0.216
			50%	#Max	1	23.18	0.208
			100%	--	1	22.13	0.163
		16QAM	1	#0	1	21.95	0.157
			1	#Mid	1	21.94	0.156
			1	#Max	1	21.72	0.149
			50%	#0	2	22.12	0.163
			50%	#Mid	2	22.14	0.164
			50%	#Max	2	22.24	0.167
			100%	--	2	21.09	0.129
	1754.3MHz CH20393	QPSK	1	#0	0	22.40	0.174
			1	#Mid	0	22.52	0.179
			1	#Max	0	22.53	0.179
			50%	#0	1	22.48	0.177
			50%	#Mid	1	22.52	0.179
			50%	#Max	1	22.68	0.185
			100%	--	1	21.59	0.144
		16QAM	1	#0	1	21.36	0.137
			1	#Mid	1	21.32	0.136
			1	#Max	1	21.35	0.136
			50%	#0	2	21.46	0.140
			50%	#Mid	2	21.76	0.150
			50%	#Max	2	21.54	0.143
			100%	--	2	20.54	0.113

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 4 (1700MHz)/3MHz	1711.5MHz CH19965	QPSK	1	#0	0	23.51	0.224
			1	#Mid	0	23.31	0.214
			1	#Max	0	23.47	0.222
			50%	#0	1	22.61	0.182
			50%	#Mid	1	22.65	0.184
			50%	#Max	1	22.62	0.183
			100%	--	1	22.59	0.182
		16QAM	1	#0	1	22.38	0.173
			1	#Mid	1	22.35	0.172
			1	#Max	1	22.51	0.178
			50%	#0	2	21.32	0.136
			50%	#Mid	2	21.42	0.139
			50%	#Max	2	21.42	0.139
			100%	--	2	21.53	0.142
	1732.5MHz CH20175	QPSK	1	#0	0	23.01	0.200
			1	#Mid	0	23.08	0.203
			1	#Max	0	22.95	0.197
			50%	#0	1	22.19	0.166
			50%	#Mid	1	22.10	0.162
			50%	#Max	1	22.04	0.160
			100%	--	1	22.06	0.161
		16QAM	1	#0	1	21.98	0.158
			1	#Mid	1	21.76	0.150
			1	#Max	1	21.82	0.152
			50%	#0	2	20.97	0.125
			50%	#Mid	2	21.12	0.129
			50%	#Max	2	20.98	0.125
			100%	--	2	21.01	0.126
	1753.5MHz CH20385	QPSK	1	#0	0	22.61	0.182
			1	#Mid	0	22.53	0.179
			1	#Max	0	22.44	0.175
			50%	#0	1	21.63	0.146
			50%	#Mid	1	21.57	0.144
			50%	#Max	1	21.54	0.143
			100%	--	1	21.54	0.143
		16QAM	1	#0	1	21.76	0.150
			1	#Mid	1	21.68	0.147
			1	#Max	1	21.37	0.137
			50%	#0	2	20.72	0.118
			50%	#Mid	2	20.45	0.111
			50%	#Max	2	20.53	0.113
			100%	--	2	20.33	0.108

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 4 (1700MHz)/5MHz	1712.5MHz CH19975	QPSK	1	#0	0	23.11	0.205
			1	#Mid	0	23.38	0.218
			1	#Max	0	23.36	0.217
			50%	#0	1	22.52	0.179
			50%	#Mid	1	22.59	0.182
			50%	#Max	1	22.61	0.182
			100%	--	1	22.54	0.179
		16QAM	1	#0	1	22.38	0.173
			1	#Mid	1	22.63	0.183
			1	#Max	1	22.33	0.171
			50%	#0	2	21.48	0.141
			50%	#Mid	2	21.68	0.147
			50%	#Max	2	21.60	0.145
			100%	--	2	21.56	0.143
	1732.5MHz CH20175	QPSK	1	#0	0	22.99	0.199
			1	#Mid	0	23.11	0.205
			1	#Max	0	22.87	0.194
			50%	#0	1	22.17	0.165
			50%	#Mid	1	22.18	0.165
			50%	#Max	1	22.08	0.161
			100%	--	1	22.02	0.159
		16QAM	1	#0	1	21.99	0.158
			1	#Mid	1	21.80	0.151
			1	#Max	1	21.77	0.150
			50%	#0	2	21.16	0.131
			50%	#Mid	2	21.12	0.129
			50%	#Max	2	20.93	0.124
			100%	--	2	21.09	0.129
	1752.5MHz CH20375	QPSK	1	#0	0	22.48	0.177
			1	#Mid	0	22.88	0.194
			1	#Max	0	22.62	0.183
			50%	#0	1	21.77	0.150
			50%	#Mid	1	21.77	0.150
			50%	#Max	1	21.71	0.148
			100%	--	1	21.82	0.152
		16QAM	1	#0	1	21.65	0.146
			1	#Mid	1	21.22	0.132
			1	#Max	1	21.40	0.138
			50%	#0	2	20.77	0.119
			50%	#Mid	2	20.77	0.119
			50%	#Max	2	20.53	0.113
			100%	--	2	20.82	0.121

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 4 (1700MHz)/10MHz	1715MHz CH20000	QPSK	1	#0	0	23.34	0.216
			1	#Mid	0	23.50	0.224
			1	#Max	0	23.49	0.223
			50%	#0	1	22.64	0.184
			50%	#Mid	1	22.66	0.185
			50%	#Max	1	22.62	0.183
			100%	--	1	22.66	0.185
		16QAM	1	#0	1	22.48	0.177
			1	#Mid	1	22.62	0.183
			1	#Max	1	22.29	0.169
			50%	#0	2	21.75	0.150
			50%	#Mid	2	21.76	0.150
			50%	#Max	2	21.65	0.146
			100%	--	2	21.70	0.148
	1732.5MHz CH20175	QPSK	1	#0	0	22.98	0.199
			1	#Mid	0	23.24	0.211
			1	#Max	0	22.67	0.185
			50%	#0	1	22.17	0.165
			50%	#Mid	1	22.12	0.163
			50%	#Max	1	22.00	0.158
			100%	--	1	21.99	0.158
		16QAM	1	#0	1	21.97	0.157
			1	#Mid	1	21.91	0.155
			1	#Max	1	21.68	0.147
			50%	#0	2	21.35	0.136
			50%	#Mid	2	21.21	0.132
			50%	#Max	2	20.98	0.125
			100%	--	2	21.19	0.132
	1750MHz CH20350	QPSK	1	#0	0	22.81	0.191
			1	#Mid	0	22.92	0.196
			1	#Max	0	22.73	0.187
			50%	#0	1	21.91	0.155
			50%	#Mid	1	21.92	0.156
			50%	#Max	1	21.70	0.148
			100%	--	1	21.90	0.155
		16QAM	1	#0	1	21.66	0.147
			1	#Mid	1	21.85	0.153
			1	#Max	1	21.38	0.137
			50%	#0	2	20.91	0.123
			50%	#Mid	2	20.93	0.124
			50%	#Max	2	20.70	0.117
			100%	--	2	20.85	0.122

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 4 (1700MHz)/15MHz	1717.5MHz CH20025	QPSK	1	#0	0	23.50	0.224
			1	#Mid	0	23.61	0.230
			1	#Max	0	23.28	0.213
			50%	#0	1	22.76	0.189
			50%	#Mid	1	22.66	0.185
			50%	#Max	1	22.57	0.181
			100%	--	1	22.75	0.188
		16QAM	1	#0	1	22.40	0.174
			1	#Mid	1	22.43	0.175
			1	#Max	1	22.05	0.160
			50%	#0	2	21.80	0.151
			50%	#Mid	2	21.74	0.149
			50%	#Max	2	21.56	0.143
			100%	--	2	21.73	0.149
	1732.5MHz CH20175	QPSK	1	#0	0	23.33	0.215
			1	#Mid	0	23.15	0.207
			1	#Max	0	22.73	0.187
			50%	#0	1	22.35	0.172
			50%	#Mid	1	22.18	0.165
			50%	#Max	1	21.95	0.157
			100%	--	1	22.03	0.160
		16QAM	1	#0	1	22.22	0.167
			1	#Mid	1	22.01	0.159
			1	#Max	1	21.61	0.145
			50%	#0	2	21.35	0.136
			50%	#Mid	2	21.28	0.134
			50%	#Max	2	21.06	0.128
			100%	--	2	21.14	0.130
	1747.5MHz CH20325	QPSK	1	#0	0	23.05	0.202
			1	#Mid	0	23.06	0.202
			1	#Max	0	22.72	0.187
			50%	#0	1	21.96	0.157
			50%	#Mid	1	21.99	0.158
			50%	#Max	1	21.72	0.149
			100%	--	1	21.87	0.154
		16QAM	1	#0	1	21.93	0.156
			1	#Mid	1	21.77	0.150
			1	#Max	1	21.47	0.140
			50%	#0	2	21.12	0.129
			50%	#Mid	2	20.92	0.124
			50%	#Max	2	20.74	0.119
			100%	--	2	20.91	0.123

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 4 (1700MHz)/20MHz	1720MHz CH20050	QPSK	1	#0	0	23.26	0.212
			1	#Mid	0	23.84	0.242
			1	#Max	0	22.93	0.196
			50%	#0	1	22.72	0.187
			50%	#Mid	1	22.72	0.187
			50%	#Max	1	22.45	0.176
			100%	--	1	22.62	0.183
		16QAM	1	#0	1	22.38	0.173
			1	#Mid	1	22.68	0.185
			1	#Max	1	21.99	0.158
			50%	#0	2	21.84	0.153
			50%	#Mid	2	21.74	0.149
			50%	#Max	2	21.48	0.141
			100%	--	2	21.65	0.146
	1732.5MHz CH20175	QPSK	1	#0	0	23.39	0.218
			1	#Mid	0	23.03	0.201
			1	#Max	0	22.56	0.180
			50%	#0	1	22.34	0.171
			50%	#Mid	1	22.14	0.164
			50%	#Max	1	21.96	0.157
			100%	--	1	22.11	0.163
		16QAM	1	#0	1	22.36	0.172
			1	#Mid	1	22.14	0.164
			1	#Max	1	21.72	0.149
			50%	#0	2	21.29	0.135
			50%	#Mid	2	21.20	0.132
			50%	#Max	2	20.93	0.124
			100%	--	2	21.16	0.131
	1745MHz CH20300	QPSK	1	#0	0	23.01	0.200
			1	#Mid	0	23.15	0.207
			1	#Max	0	22.58	0.181
			50%	#0	1	22.16	0.164
			50%	#Mid	1	22.00	0.158
			50%	#Max	1	21.87	0.154
			100%	--	1	21.98	0.158
		16QAM	1	#0	1	22.08	0.161
			1	#Mid	1	21.91	0.155
			1	#Max	1	22.18	0.165
			50%	#0	2	21.34	0.136
			50%	#Mid	2	20.98	0.125
			50%	#Max	2	20.74	0.119
			100%	--	2	20.96	0.125

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (dBm)	Max Power (W)
Band 5 (850MHz)/1.4MHz	824.7MHz CH20407	QPSK	1	#0	0	23.47	0.222
			1	#Mid	0	23.46	0.222
			1	#Max	0	23.24	0.211
			50%	#0	1	23.41	0.219
			50%	#Mid	1	23.29	0.213
			50%	#Max	1	23.34	0.216
			100%	--	1	22.41	0.174
		16QAM	1	#0	1	22.32	0.171
			1	#Mid	1	22.22	0.167
			1	#Max	1	22.19	0.166
			50%	#0	2	22.42	0.175
			50%	#Mid	2	22.40	0.174
			50%	#Max	2	22.34	0.171
			100%	--	2	21.16	0.131
	836.5MHz CH20525	QPSK	1	#0	0	22.63	0.183
			1	#Mid	0	22.75	0.188
			1	#Max	0	22.77	0.189
			50%	#0	1	22.66	0.185
			50%	#Mid	1	22.63	0.183
			50%	#Max	1	22.79	0.190
			100%	--	1	21.65	0.146
		16QAM	1	#0	1	21.48	0.141
			1	#Mid	1	21.53	0.142
			1	#Max	1	21.49	0.141
			50%	#0	2	21.28	0.134
			50%	#Mid	2	21.63	0.146
			50%	#Max	2	21.60	0.145
			100%	--	2	20.61	0.115
	848.3MHz CH20643	QPSK	1	#0	0	23.99	0.251
			1	#Mid	0	23.98	0.250
			1	#Max	0	24.12	0.258
			50%	#0	1	24.00	0.251
			50%	#Mid	1	24.08	0.256
			50%	#Max	1	24.38	0.274
			100%	--	1	22.96	0.198
		16QAM	1	#0	1	22.91	0.195
			1	#Mid	1	22.88	0.194
			1	#Max	1	22.90	0.195
			50%	#0	2	22.98	0.199
			50%	#Mid	2	23.02	0.200
			50%	#Max	2	23.12	0.205
			100%	--	2	21.97	0.157

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 5 (850MHz)/3MHz	825.5MHz CH20415	QPSK	1	#0	0	23.35	0.216
			1	#Mid	0	23.36	0.217
			1	#Max	0	22.96	0.198
			50%	#0	1	22.30	0.170
			50%	#Mid	1	22.40	0.174
			50%	#Max	1	22.34	0.171
			100%	--	1	22.36	0.172
		16QAM	1	#0	1	22.24	0.167
			1	#Mid	1	22.19	0.166
			1	#Max	1	22.19	0.166
			50%	#0	2	21.03	0.127
			50%	#Mid	2	21.52	0.142
			50%	#Max	2	20.97	0.125
			100%	--	2	21.24	0.133
	836.5MHz CH20525	QPSK	1	#0	0	22.42	0.175
			1	#Mid	0	22.64	0.184
			1	#Max	0	22.81	0.191
			50%	#0	1	21.55	0.143
			50%	#Mid	1	21.79	0.151
			50%	#Max	1	21.77	0.150
			100%	--	1	21.71	0.148
		16QAM	1	#0	1	21.13	0.130
			1	#Mid	1	21.81	0.152
			1	#Max	1	21.76	0.150
			50%	#0	2	20.63	0.116
			50%	#Mid	2	20.89	0.123
			50%	#Max	2	20.95	0.124
			100%	--	2	20.67	0.117
	847.5MHz CH20635	QPSK	1	#0	0	23.82	0.241
			1	#Mid	0	24.06	0.255
			1	#Max	0	24.01	0.252
			50%	#0	1	22.87	0.194
			50%	#Mid	1	22.92	0.196
			50%	#Max	1	23.00	0.200
			100%	--	1	22.93	0.196
		16QAM	1	#0	1	22.39	0.173
			1	#Mid	1	22.77	0.189
			1	#Max	1	23.01	0.200
			50%	#0	2	21.88	0.154
			50%	#Mid	2	22.01	0.159
			50%	#Max	2	22.03	0.160
			100%	--	2	22.06	0.161

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 5 (850MHz)/5MHz	826.5MHz CH20425	QPSK	1	#0	0	23.19	0.208
			1	#Mid	0	23.24	0.211
			1	#Max	0	22.90	0.195
			50%	#0	1	22.30	0.170
			50%	#Mid	1	22.17	0.165
			50%	#Max	1	22.05	0.160
			100%	--	1	22.31	0.170
		16QAM	1	#0	1	22.27	0.169
			1	#Mid	1	22.33	0.171
			1	#Max	1	21.84	0.153
			50%	#0	2	21.26	0.134
			50%	#Mid	2	21.14	0.130
			50%	#Max	2	21.02	0.126
			100%	--	2	21.29	0.135
	836.5MHz CH20525	QPSK	1	#0	0	22.30	0.170
			1	#Mid	0	22.71	0.187
			1	#Max	0	22.90	0.195
			50%	#0	1	21.44	0.139
			50%	#Mid	1	21.79	0.151
			50%	#Max	1	21.85	0.153
			100%	--	1	21.74	0.149
		16QAM	1	#0	1	21.37	0.137
			1	#Mid	1	21.90	0.155
			1	#Max	1	21.70	0.148
			50%	#0	2	20.43	0.110
			50%	#Mid	2	20.78	0.120
			50%	#Max	2	20.84	0.121
			100%	--	2	20.73	0.118
	846.5MHz CH20625	QPSK	1	#0	0	23.48	0.223
			1	#Mid	0	23.83	0.242
			1	#Max	0	23.73	0.236
			50%	#0	1	22.81	0.191
			50%	#Mid	1	22.91	0.195
			50%	#Max	1	22.83	0.192
			100%	--	1	22.79	0.190
		16QAM	1	#0	1	22.41	0.174
			1	#Mid	1	22.66	0.185
			1	#Max	1	22.83	0.192
			50%	#0	2	21.76	0.150
			50%	#Mid	2	21.86	0.153
			50%	#Max	2	21.80	0.151
			100%	--	2	21.84	0.153

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 5 (850MHz)/10MHz	829MHz CH20450	QPSK	1	#0	0	23.21	0.209
			1	#Mid	0	22.93	0.196
			1	#Max	0	22.38	0.173
			50%	#0	1	22.34	0.171
			50%	#Mid	1	22.08	0.161
			50%	#Max	1	21.82	0.152
			100%	--	1	22.22	0.167
		16QAM	1	#0	1	22.17	0.165
			1	#Mid	1	22.09	0.162
			1	#Max	1	21.39	0.138
			50%	#0	2	21.31	0.135
			50%	#Mid	2	20.93	0.124
			50%	#Max	2	20.98	0.125
			100%	--	2	21.19	0.132
	836.5MHz CH20525	QPSK	1	#0	0	22.64	0.184
			1	#Mid	0	22.83	0.192
			1	#Max	0	22.95	0.197
			50%	#0	1	21.63	0.146
			50%	#Mid	1	21.83	0.152
			50%	#Max	1	22.01	0.159
			100%	--	1	21.88	0.154
		16QAM	1	#0	1	21.51	0.142
			1	#Mid	1	21.75	0.150
			1	#Max	1	22.01	0.159
			50%	#0	2	20.75	0.119
			50%	#Mid	2	20.76	0.119
			50%	#Max	2	21.04	0.127
			100%	--	2	20.76	0.119
	844MHz CH20600	QPSK	1	#0	0	23.24	0.211
			1	#Mid	0	23.68	0.233
			1	#Max	0	23.66	0.232
			50%	#0	1	22.33	0.171
			50%	#Mid	1	22.64	0.184
			50%	#Max	1	22.84	0.192
			100%	--	1	22.57	0.181
		16QAM	1	#0	1	21.86	0.153
			1	#Mid	1	22.23	0.167
			1	#Max	1	22.70	0.186
			50%	#0	2	21.31	0.135
			50%	#Mid	2	21.64	0.146
			50%	#Max	2	21.87	0.154
			100%	--	2	21.47	0.140

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 7 (2500MHz)/5MHz	2502.5MHz CH20775	QPSK	1	#0	0	22.95	0.197
			1	#Mid	0	23.52	0.225
			1	#Max	0	23.14	0.206
			50%	#0	1	22.39	0.173
			50%	#Mid	1	22.55	0.180
			50%	#Max	1	22.29	0.169
			100%	--	1	22.41	0.174
		16QAM	1	#0	1	22.18	0.165
			1	#Mid	1	22.18	0.165
			1	#Max	1	22.20	0.166
			50%	#0	2	21.34	0.136
			50%	#Mid	2	21.51	0.142
			50%	#Max	2	21.45	0.140
			100%	--	2	21.36	0.137
	2535MHz CH21100	QPSK	1	#0	0	22.76	0.189
			1	#Mid	0	23.07	0.203
			1	#Max	0	22.89	0.195
			50%	#0	1	22.06	0.161
			50%	#Mid	1	22.20	0.166
			50%	#Max	1	22.11	0.163
			100%	--	1	22.07	0.161
		16QAM	1	#0	1	21.61	0.145
			1	#Mid	1	21.96	0.157
			1	#Max	1	21.77	0.150
			50%	#0	2	21.00	0.126
			50%	#Mid	2	21.11	0.129
			50%	#Max	2	20.91	0.123
			100%	--	2	21.15	0.130
	2567.5MHz CH21425	QPSK	1	#0	0	23.30	0.214
			1	#Mid	0	23.56	0.227
			1	#Max	0	23.21	0.209
			50%	#0	1	22.61	0.182
			50%	#Mid	1	22.57	0.181
			50%	#Max	1	22.54	0.179
			100%	--	1	22.61	0.182
		16QAM	1	#0	1	22.33	0.171
			1	#Mid	1	22.29	0.169
			1	#Max	1	22.32	0.171
			50%	#0	2	21.65	0.146
			50%	#Mid	2	21.54	0.143
			50%	#Max	2	21.60	0.145
			100%	--	2	21.65	0.146

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 7 (2500MHz)/10MHz	2505MHz CH20800	QPSK	1	#0	0	23.14	0.206
			1	#Mid	0	23.52	0.225
			1	#Max	0	23.15	0.207
			50%	#0	1	22.37	0.173
			50%	#Mid	1	22.39	0.173
			50%	#Max	1	22.33	0.171
			100%	--	1	22.36	0.172
		16QAM	1	#0	1	22.12	0.163
			1	#Mid	1	22.43	0.175
			1	#Max	1	22.11	0.163
			50%	#0	2	21.58	0.144
			50%	#Mid	2	21.63	0.146
			50%	#Max	2	21.47	0.140
			100%	--	2	21.43	0.139
	2535MHz CH21100	QPSK	1	#0	0	22.69	0.186
			1	#Mid	0	23.22	0.210
			1	#Max	0	22.89	0.195
			50%	#0	1	22.07	0.161
			50%	#Mid	1	22.09	0.162
			50%	#Max	1	22.09	0.162
			100%	--	1	22.12	0.163
		16QAM	1	#0	1	21.85	0.153
			1	#Mid	1	22.11	0.163
			1	#Max	1	21.91	0.155
			50%	#0	2	21.06	0.128
			50%	#Mid	2	21.09	0.129
			50%	#Max	2	21.07	0.128
			100%	--	2	20.97	0.125
	2565MHz CH21400	QPSK	1	#0	0	23.13	0.206
			1	#Mid	0	23.73	0.236
			1	#Max	0	23.35	0.216
			50%	#0	1	22.68	0.185
			50%	#Mid	1	22.70	0.186
			50%	#Max	1	22.57	0.181
			100%	--	1	22.62	0.183
		16QAM	1	#0	1	22.34	0.171
			1	#Mid	1	22.32	0.171
			1	#Max	1	22.49	0.177
			50%	#0	2	21.76	0.150
			50%	#Mid	2	21.72	0.149
			50%	#Max	2	21.63	0.146
			100%	--	2	21.52	0.142

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 7 (2500MHz)/15MHz	2507.5MHz CH20825	QPSK	1	#0	0	22.91	0.195
			1	#Mid	0	23.35	0.216
			1	#Max	0	23.04	0.201
			50%	#0	1	22.41	0.174
			50%	#Mid	1	22.46	0.176
			50%	#Max	1	22.35	0.172
			100%	--	1	22.44	0.175
		16QAM	1	#0	1	22.40	0.174
			1	#Mid	1	22.38	0.173
			1	#Max	1	21.88	0.154
			50%	#0	2	21.44	0.139
			50%	#Mid	2	21.49	0.141
			50%	#Max	2	21.28	0.134
			100%	--	2	21.51	0.142
	2535MHz CH21100	QPSK	1	#0	0	22.96	0.198
			1	#Mid	0	23.14	0.206
			1	#Max	0	23.15	0.207
			50%	#0	1	22.24	0.167
			50%	#Mid	1	22.07	0.161
			50%	#Max	1	22.05	0.160
			100%	--	1	22.11	0.163
		16QAM	1	#0	1	21.91	0.155
			1	#Mid	1	21.73	0.149
			1	#Max	1	22.03	0.160
			50%	#0	2	21.32	0.136
			50%	#Mid	2	21.19	0.132
			50%	#Max	2	21.14	0.130
			100%	--	2	21.10	0.129
	2562.5MHz CH21375	QPSK	1	#0	0	23.46	0.222
			1	#Mid	0	23.67	0.233
			1	#Max	0	23.66	0.232
			50%	#0	1	22.69	0.186
			50%	#Mid	1	22.75	0.188
			50%	#Max	1	22.68	0.185
			100%	--	1	22.66	0.185
		16QAM	1	#0	1	22.42	0.175
			1	#Mid	1	22.33	0.171
			1	#Max	1	22.73	0.187
			50%	#0	2	21.69	0.148
			50%	#Mid	2	21.65	0.146
			50%	#Max	2	21.62	0.145
			100%	--	2	21.58	0.144

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 7 (2500MHz)/20MHz	2510MHz CH20850	QPSK	1	#0	0	22.98	0.199
			1	#Mid	0	23.37	0.217
			1	#Max	0	22.81	0.191
			50%	#0	1	22.30	0.170
			50%	#Mid	1	22.33	0.171
			50%	#Max	1	22.22	0.167
			100%	--	1	22.42	0.175
		16QAM	1	#0	1	22.21	0.166
			1	#Mid	1	22.47	0.177
			1	#Max	1	21.82	0.152
			50%	#0	2	21.50	0.141
			50%	#Mid	2	21.47	0.140
			50%	#Max	2	21.30	0.135
			100%	--	2	21.45	0.140
	2535MHz CH21100	QPSK	1	#0	0	22.79	0.190
			1	#Mid	0	23.27	0.212
			1	#Max	0	22.98	0.199
			50%	#0	1	22.18	0.165
			50%	#Mid	1	22.09	0.162
			50%	#Max	1	22.21	0.166
			100%	--	1	22.07	0.161
		16QAM	1	#0	1	22.04	0.160
			1	#Mid	1	22.19	0.166
			1	#Max	1	21.95	0.157
			50%	#0	2	21.20	0.132
			50%	#Mid	2	21.22	0.132
			50%	#Max	2	21.25	0.133
			100%	--	2	21.19	0.132
	2560MHz CH21350	QPSK	1	#0	0	22.95	0.197
			1	#Mid	0	23.55	0.226
			1	#Max	0	23.38	0.218
			50%	#0	1	22.72	0.187
			50%	#Mid	1	22.62	0.183
			50%	#Max	1	22.71	0.187
			100%	--	1	22.68	0.185
		16QAM	1	#0	1	22.29	0.169
			1	#Mid	1	22.63	0.183
			1	#Max	1	22.73	0.187
			50%	#0	2	21.61	0.145
			50%	#Mid	2	21.68	0.147
			50%	#Max	2	21.69	0.148
			100%	--	2	21.54	0.143

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 12 (700MHz)/1.4MHz	699.7MHz CH23017	QPSK	1	#0	0	23.06	0.202
			1	#Mid	0	23.11	0.205
			1	#Max	0	23.03	0.201
			50%	#0	1	23.15	0.207
			50%	#Mid	1	23.08	0.203
			50%	#Max	1	23.15	0.207
			100%	--	1	22.13	0.163
		16QAM	1	#0	1	22.00	0.158
			1	#Mid	1	22.03	0.160
			1	#Max	1	21.96	0.157
			50%	#0	2	22.14	0.164
			50%	#Mid	2	22.10	0.162
			50%	#Max	2	22.04	0.160
			100%	--	2	21.00	0.126
	707.5MHz CH23095	QPSK	1	#0	0	23.31	0.214
			1	#Mid	0	23.26	0.212
			1	#Max	0	23.25	0.211
			50%	#0	1	23.20	0.209
			50%	#Mid	1	23.27	0.212
			50%	#Max	1	23.35	0.216
			100%	--	1	22.32	0.171
		16QAM	1	#0	1	22.27	0.169
			1	#Mid	1	22.11	0.163
			1	#Max	1	22.75	0.188
			50%	#0	2	22.24	0.167
			50%	#Mid	2	22.29	0.169
			50%	#Max	2	22.26	0.168
			100%	--	2	21.08	0.128
	715.3MHz CH23173	QPSK	1	#0	0	23.78	0.239
			1	#Mid	0	24.07	0.255
			1	#Max	0	24.06	0.255
			50%	#0	1	24.09	0.256
			50%	#Mid	1	24.13	0.259
			50%	#Max	1	24.01	0.252
			100%	--	1	22.88	0.194
		16QAM	1	#0	1	22.81	0.191
			1	#Mid	1	22.79	0.190
			1	#Max	1	22.79	0.190
			50%	#0	2	22.90	0.195
			50%	#Mid	2	23.09	0.204
			50%	#Max	2	22.88	0.194
			100%	--	2	21.71	0.148

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 12 (700MHz)/3MHz	700.5MHz CH23025	QPSK	1	#0	0	22.94	0.197
			1	#Mid	0	22.99	0.199
			1	#Max	0	23.06	0.202
			50%	#0	1	22.08	0.161
			50%	#Mid	1	22.22	0.167
			50%	#Max	1	22.25	0.168
			100%	--	1	22.20	0.166
		16QAM	1	#0	1	22.39	0.173
			1	#Mid	1	22.45	0.176
			1	#Max	1	22.15	0.164
			50%	#0	2	21.18	0.131
			50%	#Mid	2	21.25	0.133
			50%	#Max	2	21.28	0.134
			100%	--	2	21.01	0.126
	707.5MHz CH23095	QPSK	1	#0	0	23.30	0.214
			1	#Mid	0	23.20	0.209
			1	#Max	0	23.38	0.218
			50%	#0	1	22.37	0.173
			50%	#Mid	1	22.34	0.171
			50%	#Max	1	22.25	0.168
			100%	--	1	22.24	0.167
		16QAM	1	#0	1	22.32	0.171
			1	#Mid	1	21.93	0.156
			1	#Max	1	22.29	0.169
			50%	#0	2	21.30	0.135
			50%	#Mid	2	21.29	0.135
			50%	#Max	2	21.28	0.134
			100%	--	2	21.34	0.136
	714.5MHz CH23165	QPSK	1	#0	0	23.95	0.248
			1	#Mid	0	24.07	0.255
			1	#Max	0	24.06	0.255
			50%	#0	1	22.99	0.199
			50%	#Mid	1	22.92	0.196
			50%	#Max	1	23.01	0.200
			100%	--	1	22.86	0.193
		16QAM	1	#0	1	22.70	0.186
			1	#Mid	1	22.99	0.199
			1	#Max	1	23.00	0.200
			50%	#0	2	22.02	0.159
			50%	#Mid	2	22.01	0.159
			50%	#Max	2	22.07	0.161
			100%	--	2	21.99	0.158

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 12 (700MHz)/5MHz	701.5MHz CH23035	QPSK	1	#0	0	22.86	0.193
			1	#Mid	0	23.51	0.224
			1	#Max	0	23.39	0.218
			50%	#0	1	22.09	0.162
			50%	#Mid	1	22.28	0.169
			50%	#Max	1	22.30	0.170
			100%	--	1	22.32	0.171
		16QAM	1	#0	1	21.90	0.155
			1	#Mid	1	21.74	0.149
			1	#Max	1	21.99	0.158
			50%	#0	2	21.10	0.129
			50%	#Mid	2	21.42	0.139
			50%	#Max	2	21.43	0.139
			100%	--	2	21.29	0.135
	707.5MHz CH23095	QPSK	1	#0	0	23.30	0.214
			1	#Mid	0	23.34	0.216
			1	#Max	0	23.12	0.205
			50%	#0	1	22.40	0.174
			50%	#Mid	1	22.40	0.174
			50%	#Max	1	22.34	0.171
			100%	--	1	22.38	0.173
		16QAM	1	#0	1	22.18	0.165
			1	#Mid	1	21.87	0.154
			1	#Max	1	22.07	0.161
			50%	#0	2	21.43	0.139
			50%	#Mid	2	21.23	0.133
			50%	#Max	2	21.18	0.131
			100%	--	2	21.32	0.136
	713.5MHz CH23155	QPSK	1	#0	0	23.46	0.222
			1	#Mid	0	24.01	0.252
			1	#Max	0	23.84	0.242
			50%	#0	1	22.68	0.185
			50%	#Mid	1	22.90	0.195
			50%	#Max	1	22.86	0.193
			100%	--	1	22.85	0.193
		16QAM	1	#0	1	22.12	0.163
			1	#Mid	1	22.81	0.191
			1	#Max	1	22.88	0.194
			50%	#0	2	21.51	0.142
			50%	#Mid	2	21.90	0.155
			50%	#Max	2	22.14	0.164
			100%	--	2	22.02	0.159

Band	Frequency Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Max Power (W)
Band 12 (700MHz)/10MHz	704MHz CH23060	QPSK	1	#0	0	22.80	0.191
			1	#Mid	0	23.50	0.224
			1	#Max	0	23.15	0.207
			50%	#0	1	22.27	0.169
			50%	#Mid	1	22.30	0.170
			50%	#Max	1	22.39	0.173
			100%	--	1	22.49	0.177
		16QAM	1	#0	1	21.95	0.157
			1	#Mid	1	22.36	0.172
			1	#Max	1	22.24	0.167
			50%	#0	2	21.35	0.136
			50%	#Mid	2	21.27	0.134
			50%	#Max	2	21.45	0.140
			100%	--	2	21.46	0.140
	707.5MHz CH23095	QPSK	1	#0	0	22.79	0.190
			1	#Mid	0	23.18	0.208
			1	#Max	0	23.45	0.221
			50%	#0	1	22.31	0.170
			50%	#Mid	1	22.38	0.173
			50%	#Max	1	22.36	0.172
			100%	--	1	22.27	0.169
		16QAM	1	#0	1	21.82	0.152
			1	#Mid	1	22.25	0.168
			1	#Max	1	22.45	0.176
			50%	#0	2	21.36	0.137
			50%	#Mid	2	21.40	0.138
			50%	#Max	2	21.45	0.140
			100%	--	2	21.24	0.133
	711MHz CH23130	QPSK	1	#0	0	23.11	0.205
			1	#Mid	0	23.73	0.236
			1	#Max	0	23.57	0.228
			50%	#0	1	22.50	0.178
			50%	#Mid	1	22.62	0.183
			50%	#Max	1	22.83	0.192
			100%	--	1	22.66	0.185
		16QAM	1	#0	1	22.10	0.162
			1	#Mid	1	22.76	0.189
			1	#Max	1	22.79	0.190
			50%	#0	2	21.50	0.141
			50%	#Mid	2	21.75	0.150
			50%	#Max	2	21.94	0.156
			100%	--	2	21.56	0.143

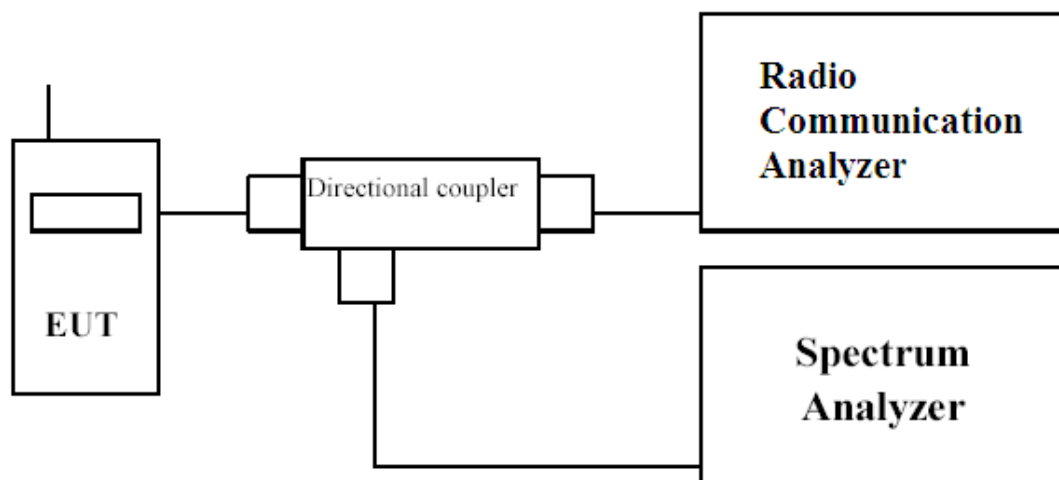
4. Occupied Bandwidth

4.1. Test Secification

According to FCC Part 2.1049, 22.917, 24.238, 27.53

RSS GEN, RSS 130, RSS 132, RSS 133, RSS 139, RSS 199

4.2. Test Setup



4.3. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the occupied bandwidth was measured at the antenna terminals of the EUT.

The Resolution BW of the analyzer is set to 1 %~5% of the emission bandwidth. The EUT's occupied bandwidth is measured as the width of the signal between two points, one below the carrier center frequency and one above the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

The plots below show the resultant display from the Spectrum Analyser.

4.4. Test Result of Occupied Bandwidth

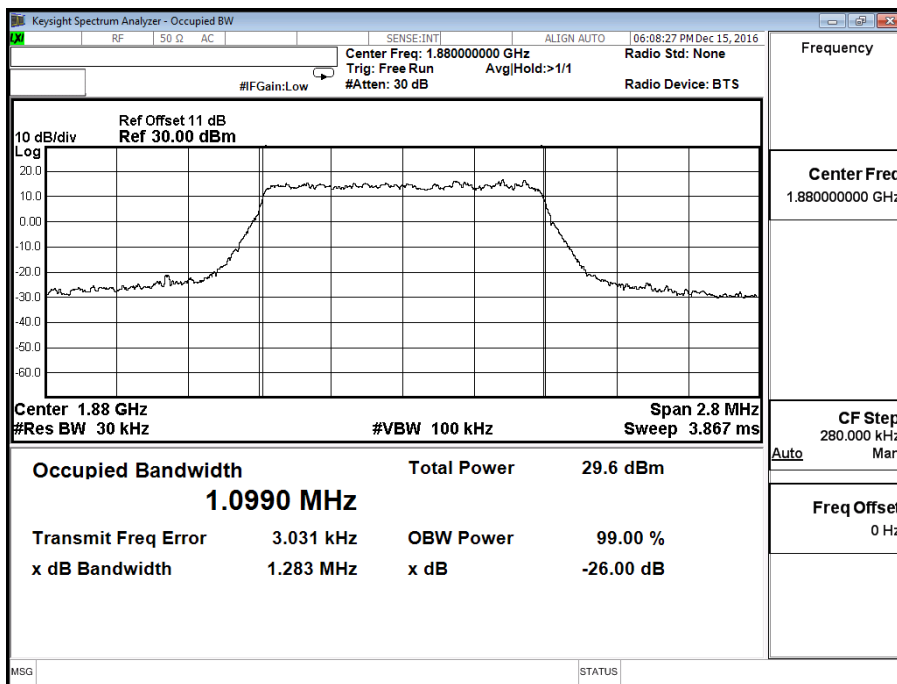
Product	LE920A4-NA
Test Mode	Occupied Bandwidth
Test Site	CTR

Test Mode	Channel	TX Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB bandwidth (MHz)	Result
Band 2 1.4M QPSK	18900	1880	1.0990	1.283	Pass
Band 2 1.4M 16QAM	18900	1880	1.0931	1.307	Pass
Band 2 3M QPSK	18900	1880	2.7311	3.070	Pass
Band 2 3M 16QAM	18900	1880	2.7196	3.047	Pass
Band 2 5M QPSK	18900	1880	4.5164	5.001	Pass
Band 2 5M 16QAM	18900	1880	4.4851	4.971	Pass
Band 2 10M QPSK	18900	1880	9.0221	9.948	Pass
Band 2 10M 16QAM	18900	1880	9.0295	10.03	Pass
Band 2 15M QPSK	18900	1880	13.494	14.55	Pass
Band 2 15M 16QAM	18900	1880	13.432	14.49	Pass
Band 2 20M QPSK	18900	1880	18.438	20.24	Pass
Band 2 20M 16QAM	18900	1880	18.418	20.17	Pass
Band 4 1.4M QPSK	20175	1732.5	1.0984	1.293	Pass
Band 4 1.4M 16QAM	20175	1732.5	1.0947	1.308	Pass
Band 4 3M QPSK	20175	1732.5	2.7328	3.071	Pass
Band 4 3M 16QAM	20175	1732.5	2.7198	3.047	Pass
Band 4 5M QPSK	20175	1732.5	4.5039	4.995	Pass
Band 4 5M 16QAM	20175	1732.5	4.4839	4.953	Pass
Band 4 10M QPSK	20175	1732.5	9.0267	10.06	Pass
Band 4 10M 16QAM	20175	1732.5	9.0279	9.978	Pass
Band 4 15M QPSK	20175	1732.5	13.444	14.69	Pass
Band 4 15M 16QAM	20175	1732.5	13.431	14.66	Pass
Band 4 20M QPSK	20175	1732.5	18.504	20.39	Pass
Band 4 20M 16QAM	20175	1732.5	18.468	20.35	Pass

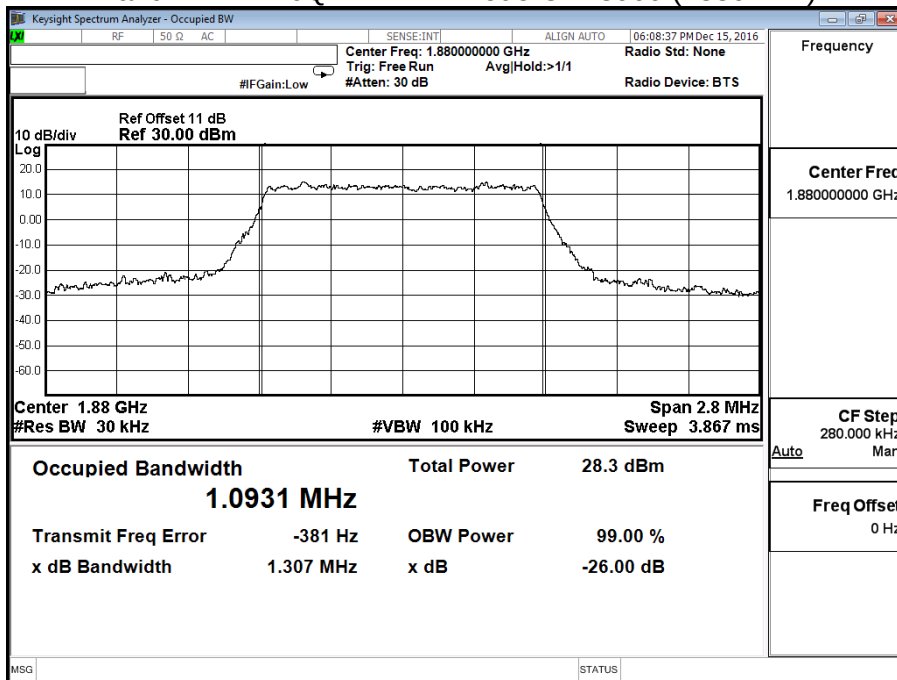
Band 5 1.4M QPSK	20525	836.5	1.0978	1.287	Pass
Band 5 1.4M 16QAM	20525	836.5	1.0934	1.297	Pass
Band 5 3M QPSK	20525	836.5	2.7326	3.067	Pass
Band 5 3M 16QAM	20525	836.5	2.7189	3.040	Pass
Band 5 5M QPSK	20525	836.5	4.4981	5.008	Pass
Band 5 5M 16QAM	20525	836.5	4.4748	4.937	Pass
Band 5 10M QPSK	20525	836.5	9.0115	10.01	Pass
Band 5 10M 16QAM	20525	836.5	9.0097	9.992	Pass
Band 7 5M QPSK	21100	2535	4.5018	5.041	Pass
Band 7 5M 16QAM	21100	2535	4.4918	4.964	Pass
Band 7 10M QPSK	21100	2535	9.0320	9.930	Pass
Band 7 10M 16QAM	21100	2535	9.0300	9.965	Pass
Band 7 15M QPSK	21100	2535	13.439	14.67	Pass
Band 7 15M 16QAM	21100	2535	13.436	14.60	Pass
Band 7 20M QPSK	21100	2535	18.462	20.33	Pass
Band 7 20M 16QAM	21100	2535	18.424	20.26	Pass
Band 12 1.4M QPSK	23095	707.5	1.0979	1.296	Pass
Band 12 1.4M 16QAM	23095	707.5	1.0962	1.301	Pass
Band 12 3M QPSK	23095	707.5	2.7357	3.062	Pass
Band 12 3M 16QAM	23095	707.5	2.7240	3.043	Pass
Band 12 5M QPSK	23095	707.5	4.5035	4.952	Pass
Band 12 5M 16QAM	23095	707.5	4.4841	4.973	Pass
Band 12 10M QPSK	23095	707.5	8.9881	9.976	Pass
Band 12 10M 16QAM	23095	707.5	8.9979	9.914	Pass

Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 2 1.4M		

Band 2 1.4M QPSK - LTE Mode CH18900 (1880MHz)

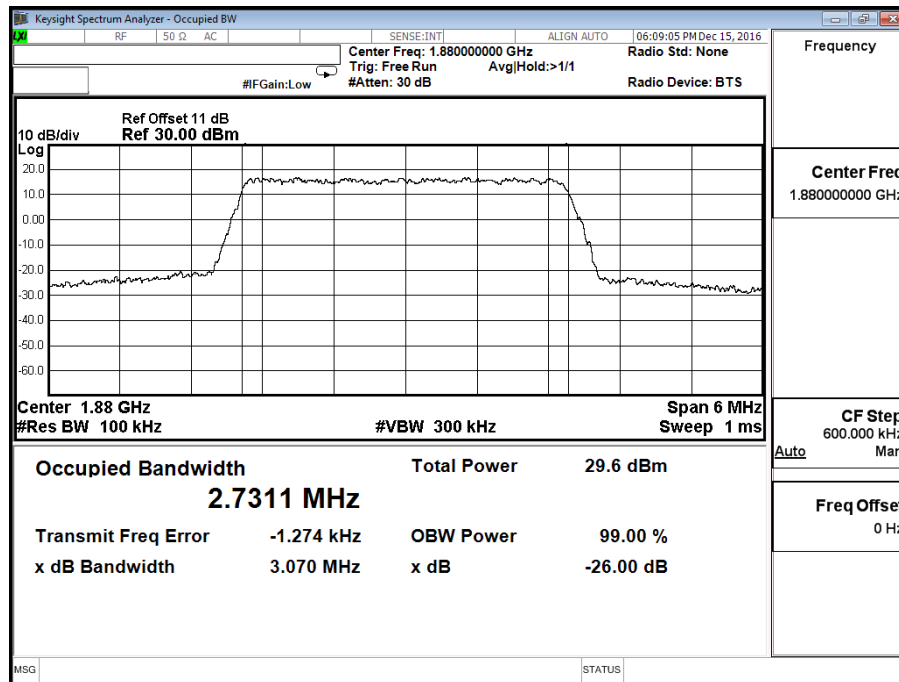


Band 2 1.4M 16QAM - LTE Mode CH18900 (1880MHz)

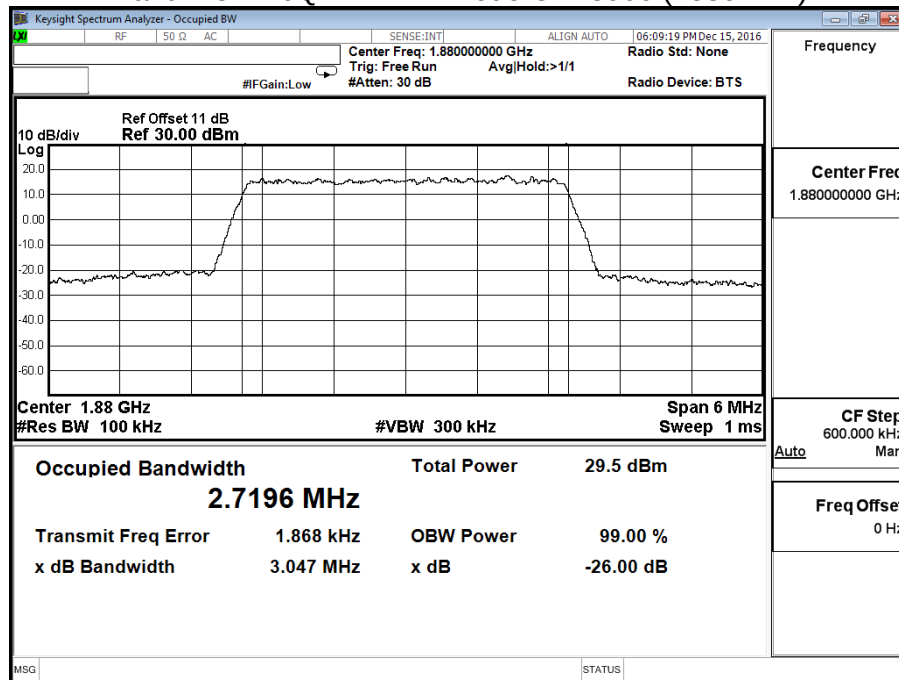


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 2 3M		

Band 2 3M QPSK - LTE Mode CH18900 (1880MHz)

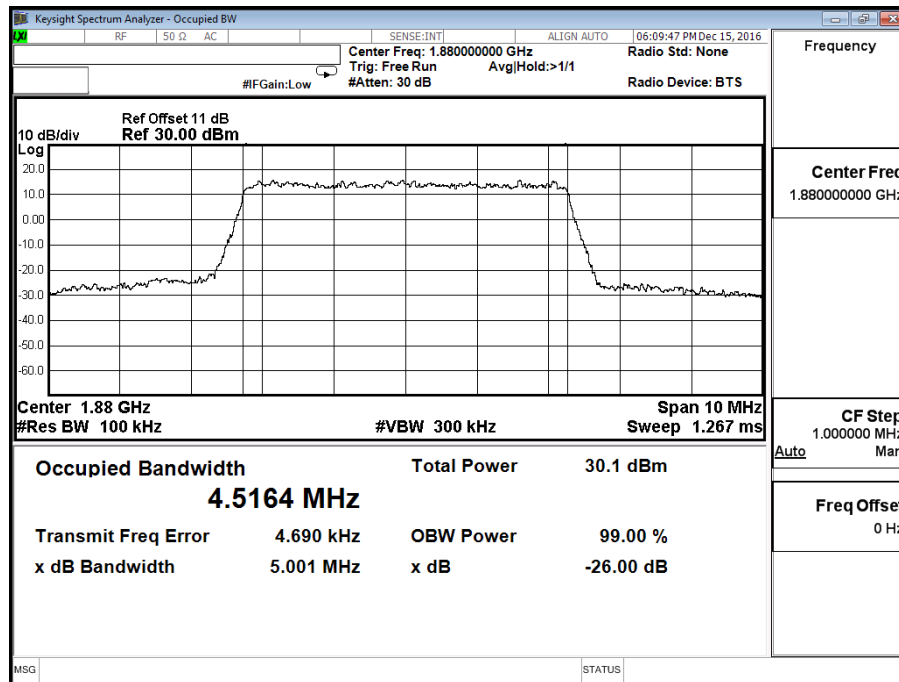


Band 2 3M 16QAM - LTE Mode CH18900 (1880MHz)

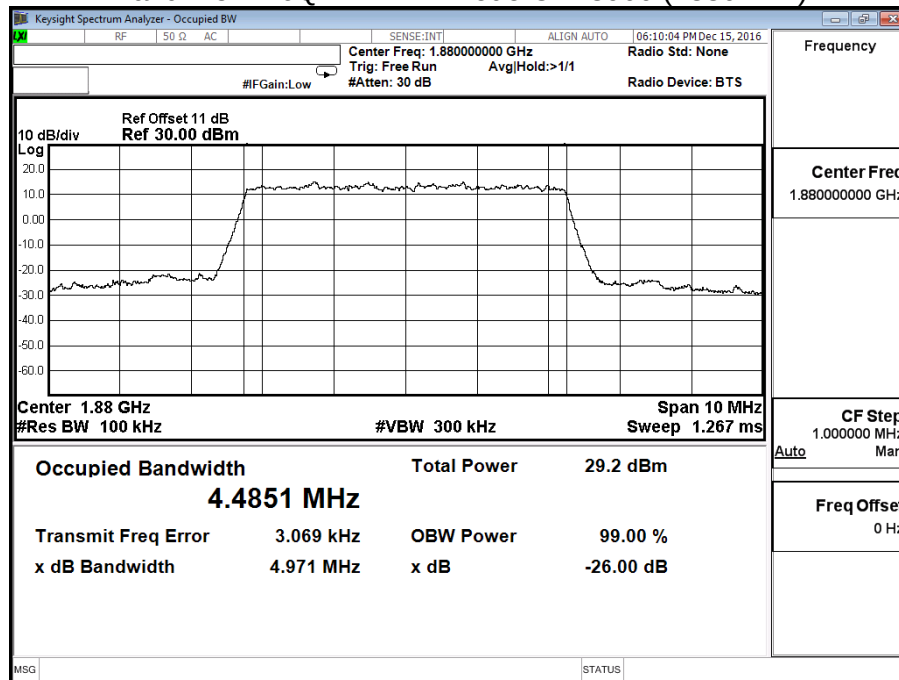


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 2 5M		

Band 2 5M QPSK - LTE Mode CH18900 (1880MHz)

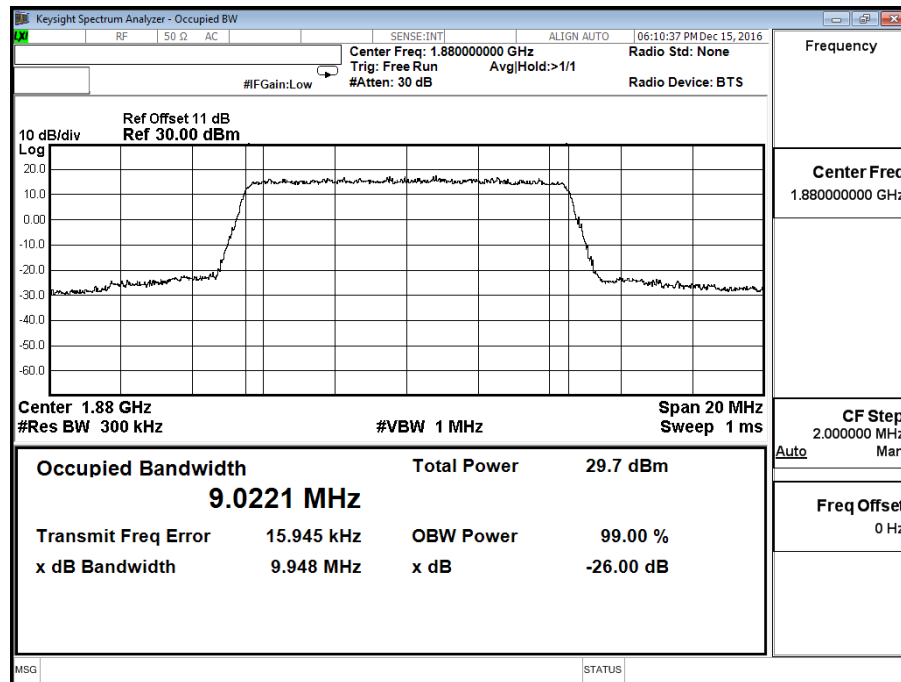


Band 2 5M 16QAM - LTE Mode CH18900 (1880MHz)

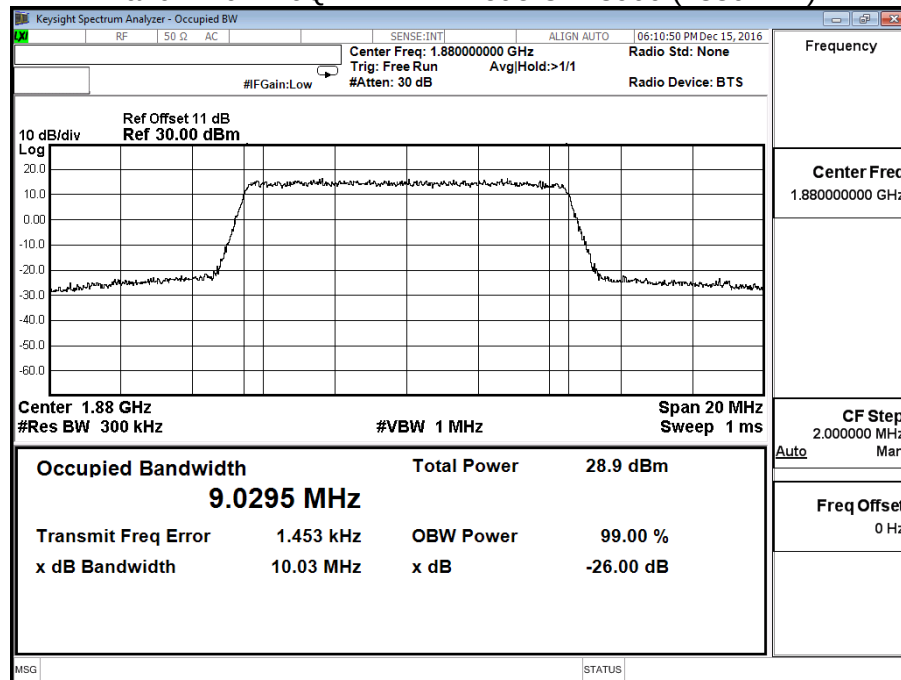


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 2 10M		

Band 2 10M QPSK - LTE Mode CH18900 (1880MHz)

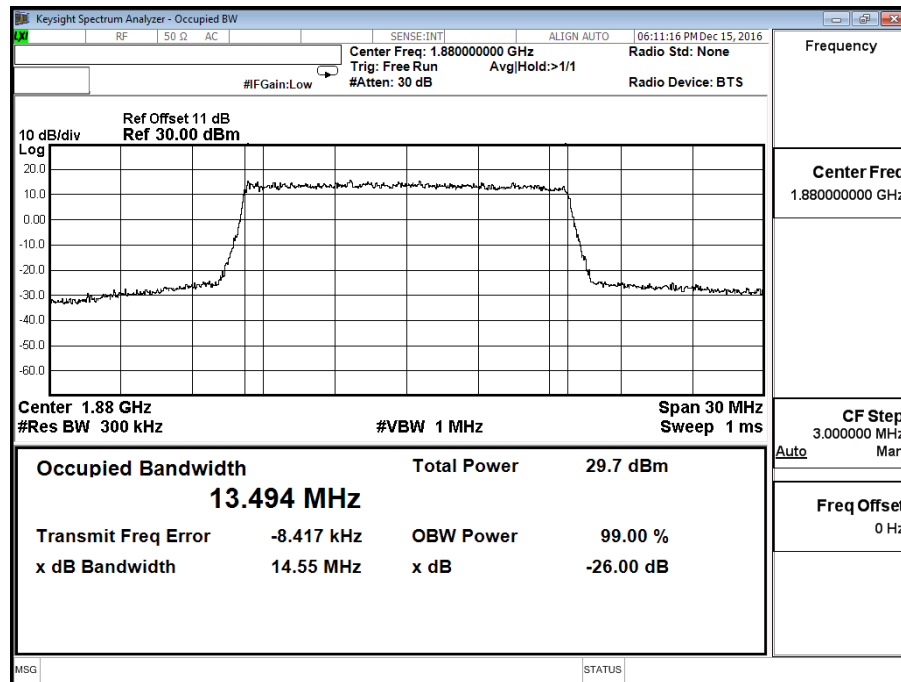


Band 2 10M 16QAM - LTE Mode CH18900 (1880MHz)

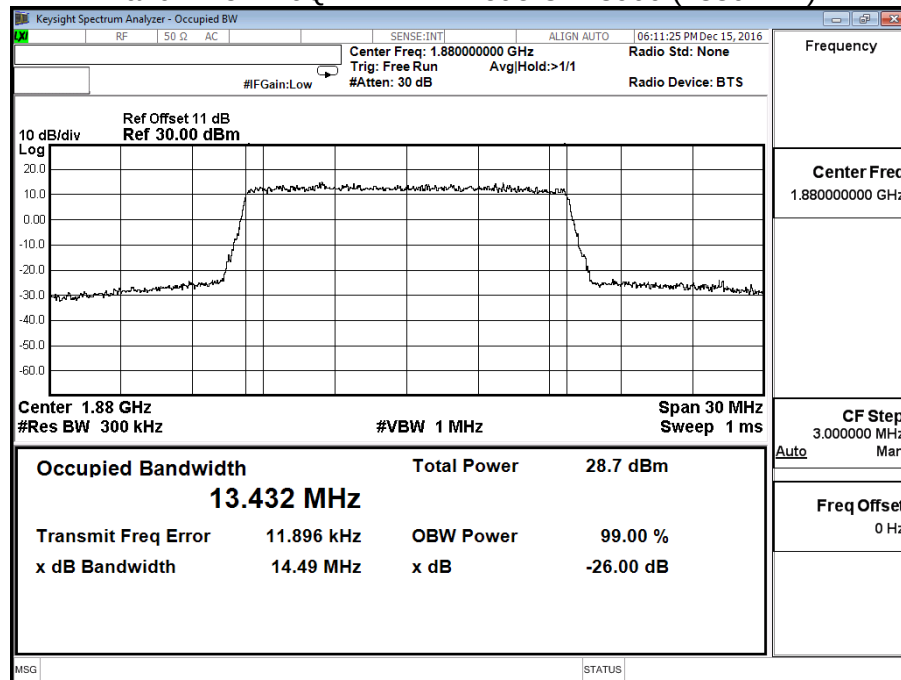


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 2 15M		

Band 2 15M QPSK - LTE Mode CH18900 (1880MHz)

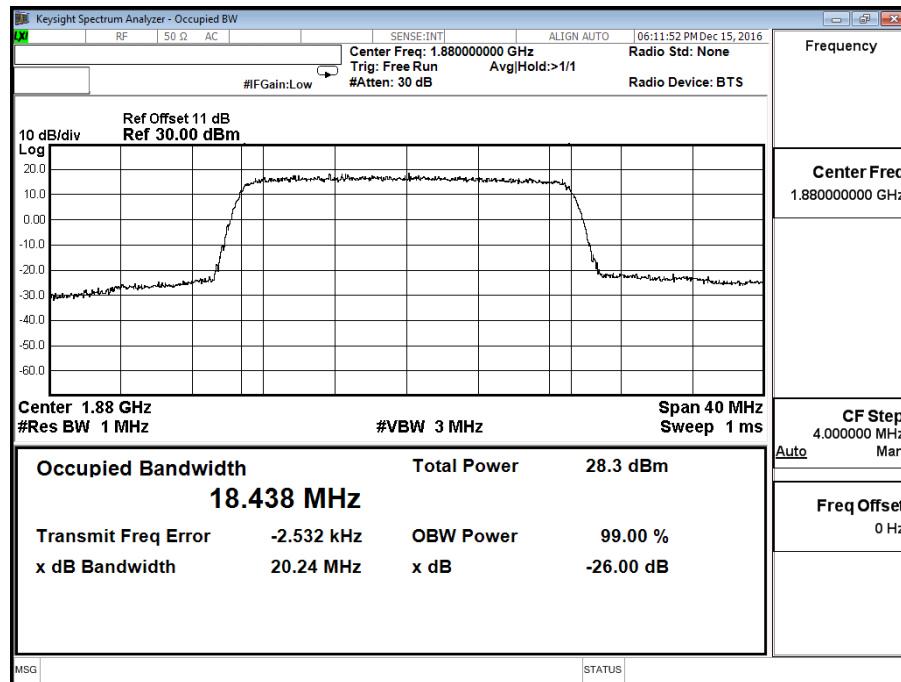


Band 2 15M 16QAM - LTE Mode CH18900 (1880MHz)

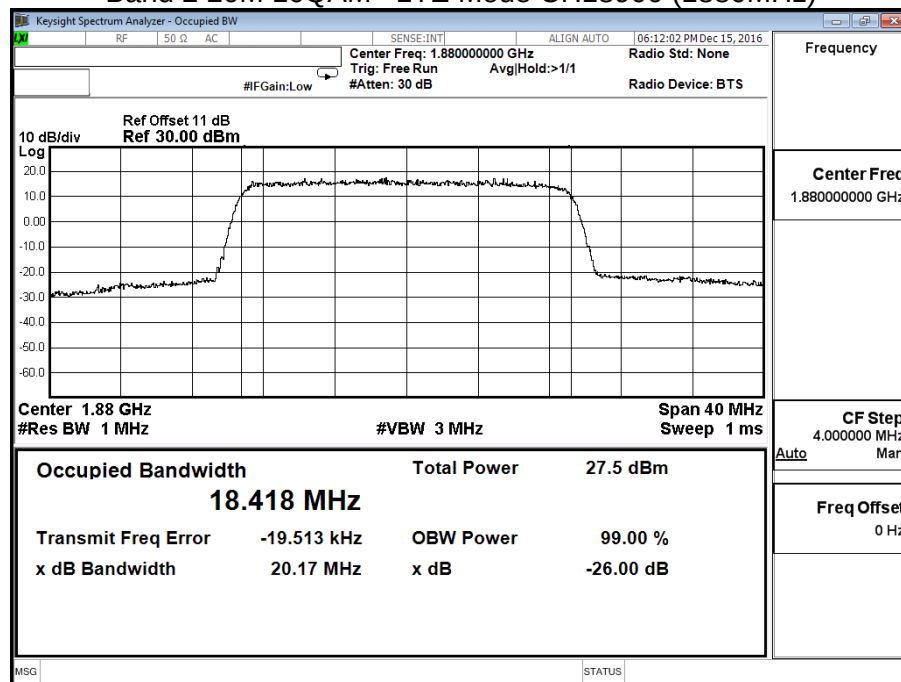


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 2 20M		

Band 2 20M QPSK - LTE Mode CH18900 (1880MHz)

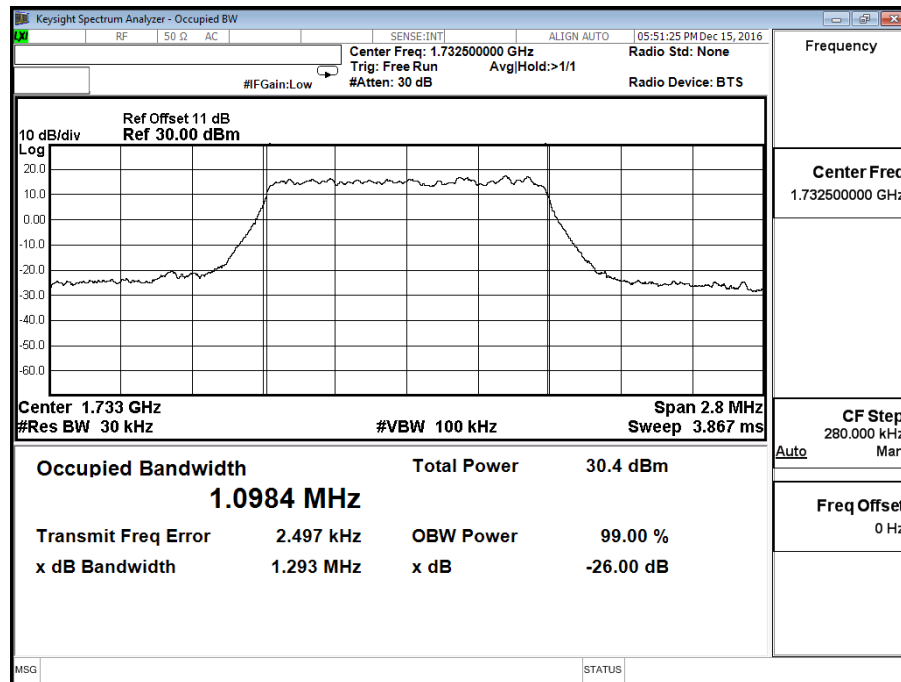


Band 2 20M 16QAM - LTE Mode CH18900 (1880MHz)

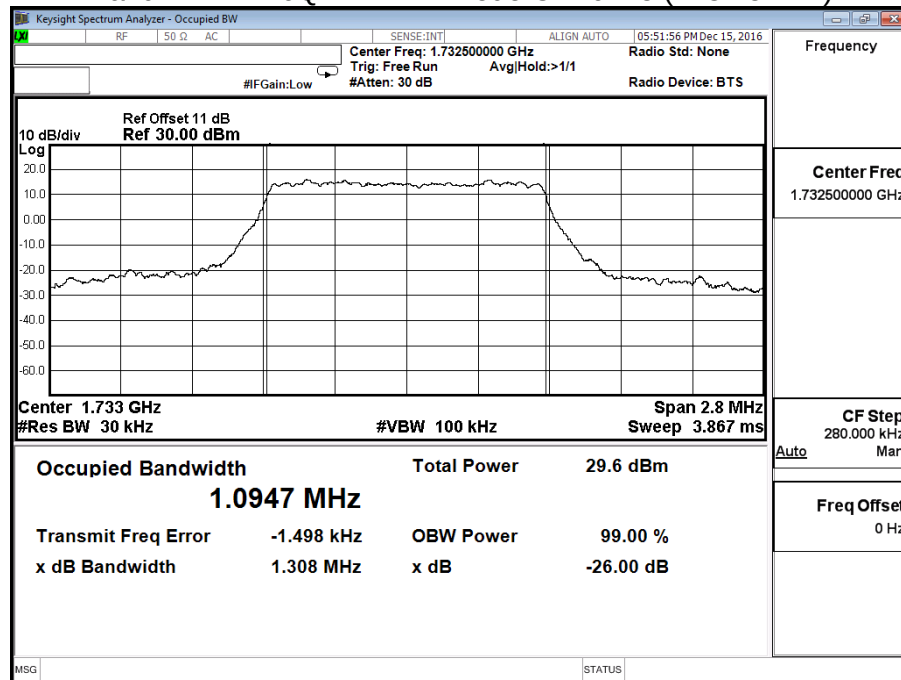


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 4 1.4M		

Band 4 1.4M QPSK - LTE Mode CH 20175 (1732.5MHz)

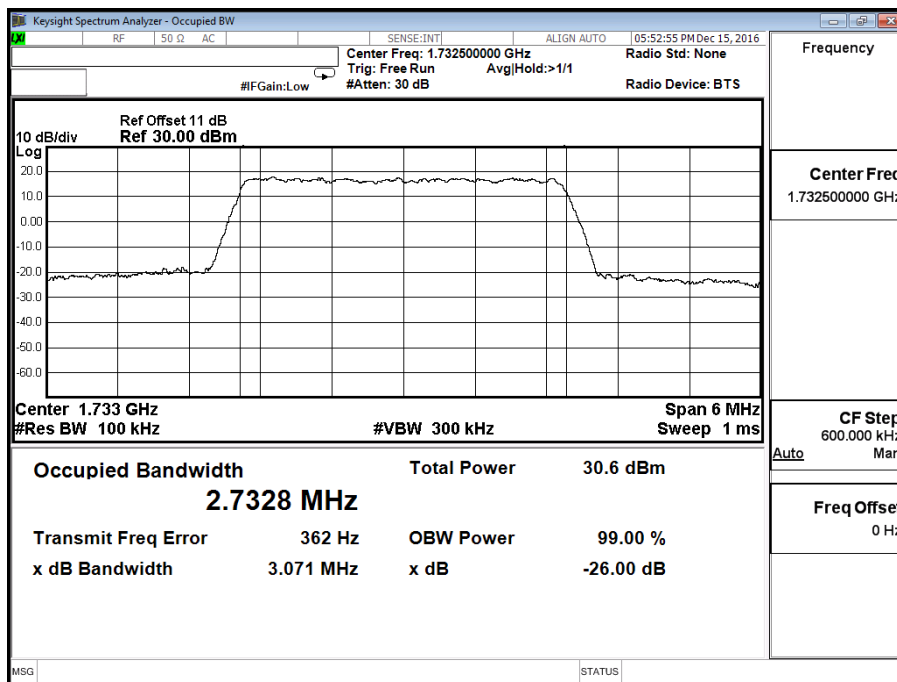


Band 4 1.4M 16QAM - LTE Mode CH20175 (1732.5MHz)

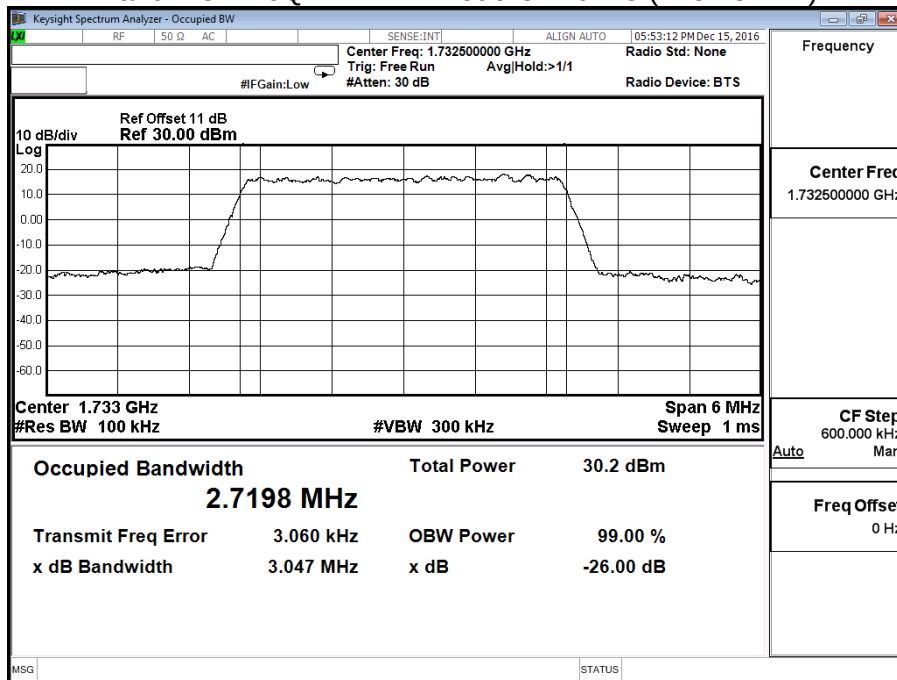


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 4 3M		

Band 4 3M QPSK - LTE Mode CH20175 (1732.5MHz)

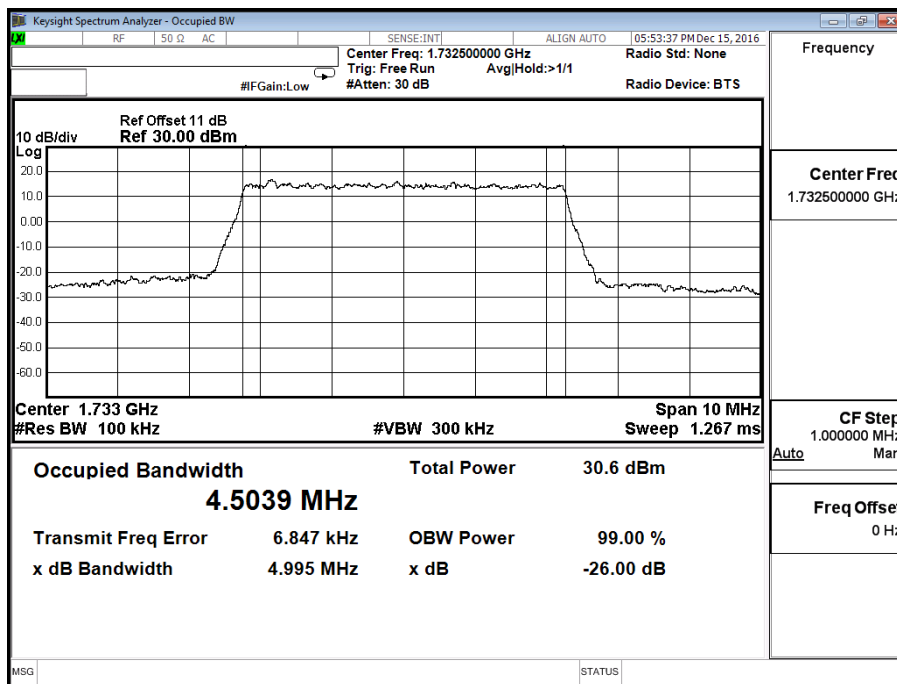


Band 4 3M 16QAM - LTE Mode CH20175 (1732.5MHz)

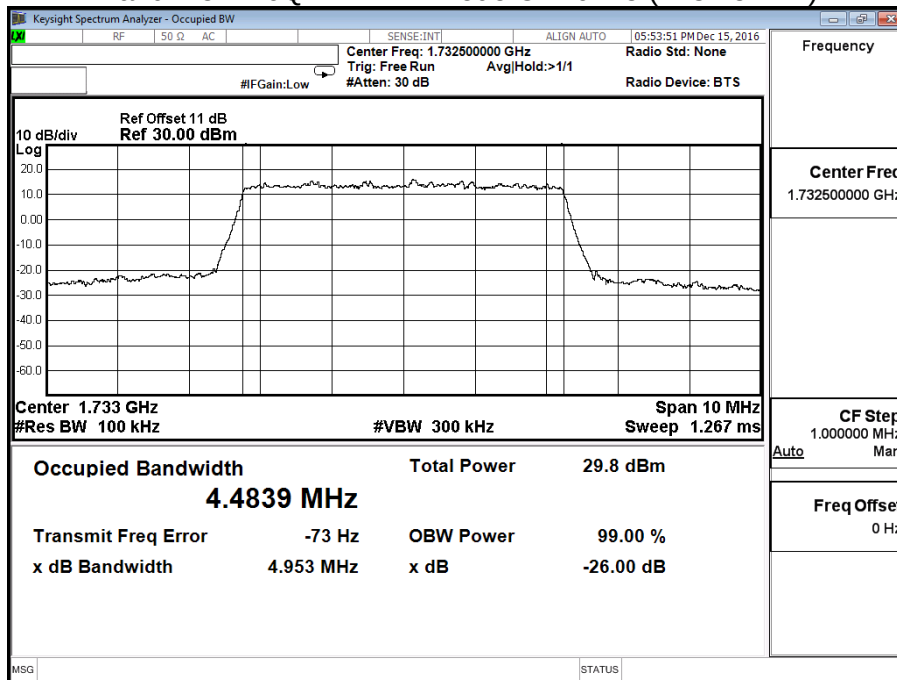


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 4 5M		

Band 4 5M QPSK - LTE Mode CH20175 (1732.5MHz)

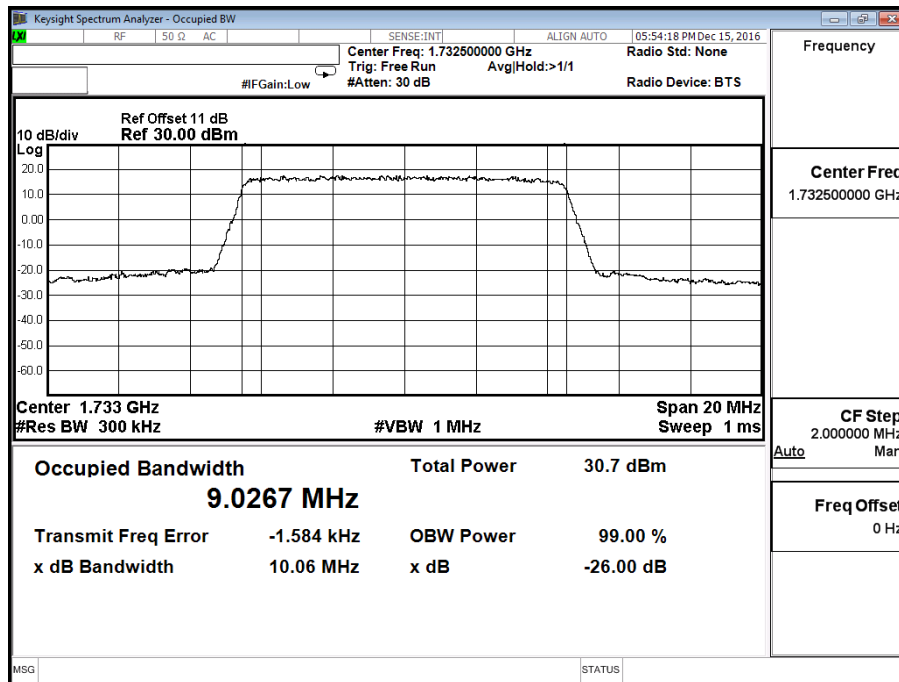


Band 4 5M 16QAM - LTE Mode CH20175 (1732.5MHz)

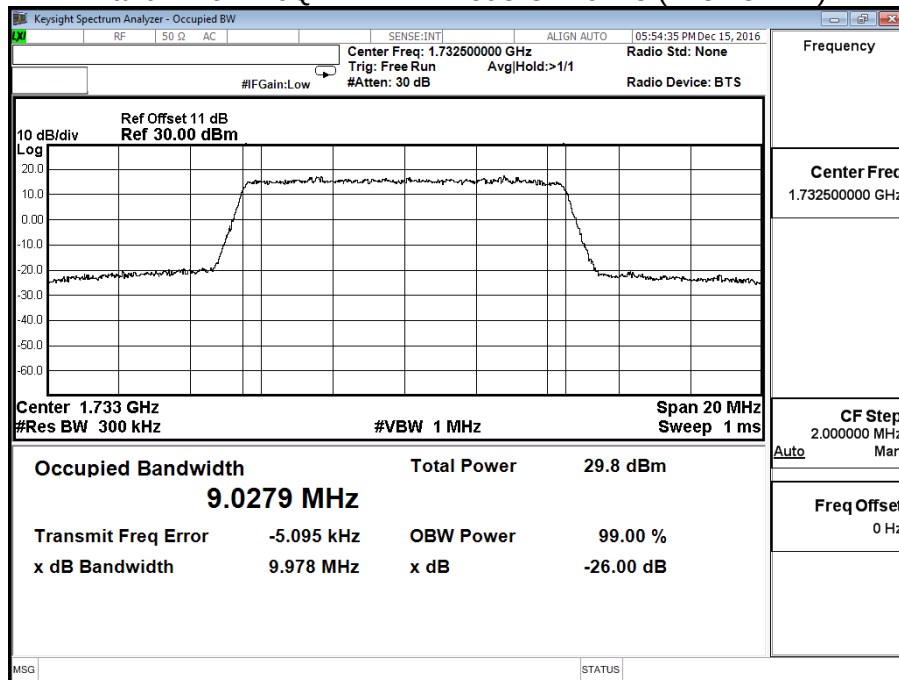


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 4 10M		

Band 4 10M QPSK - LTE Mode CH20175 (1732.5MHz)

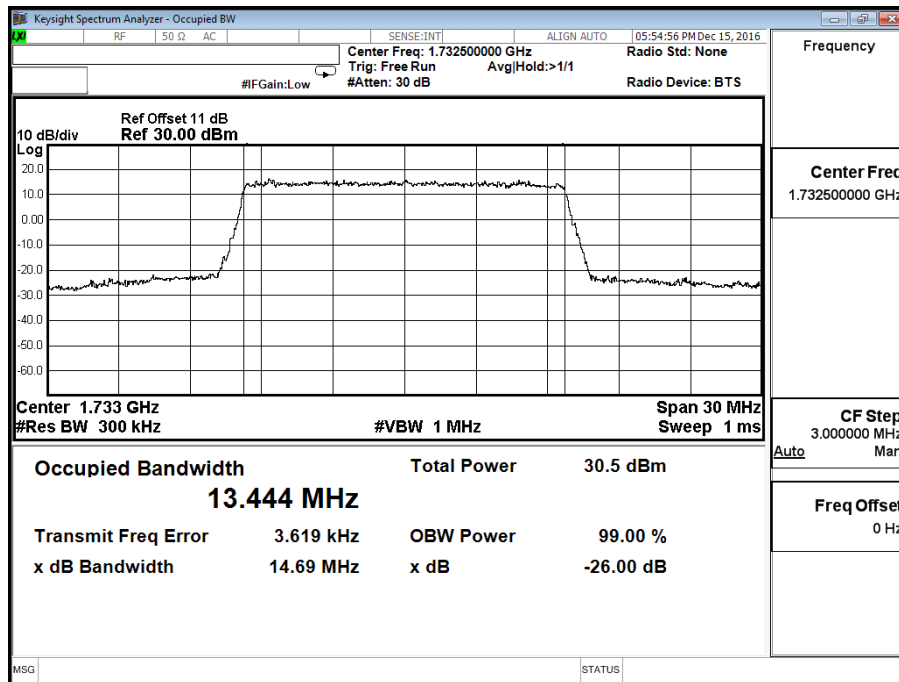


Band 4 10M 16QAM - LTE Mode CH20175 (1732.5MHz)

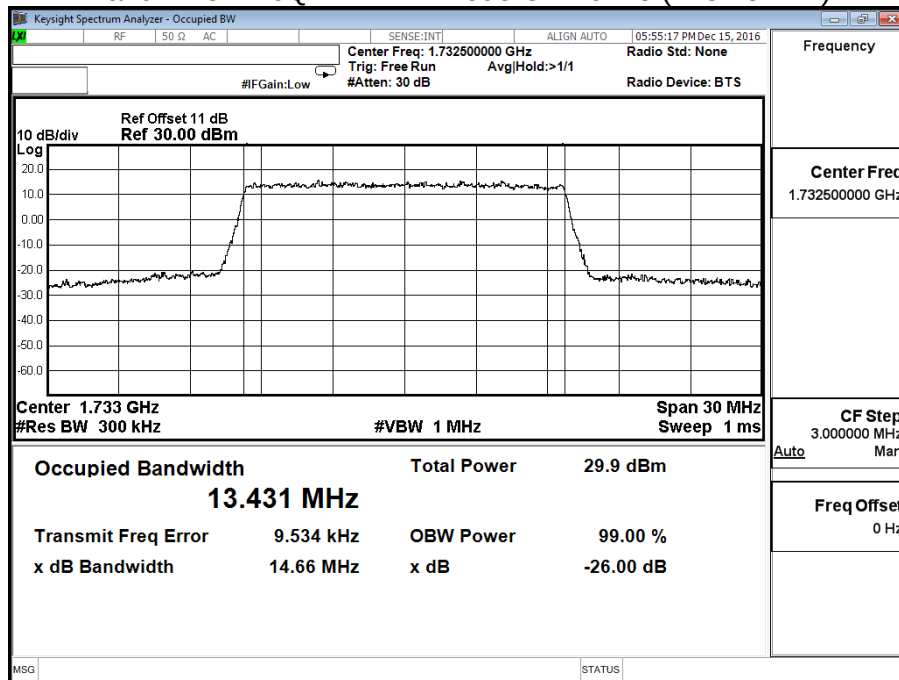


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 4 15M		

Band 4 15M QPSK - LTE Mode CH20175 (1732.5MHz)

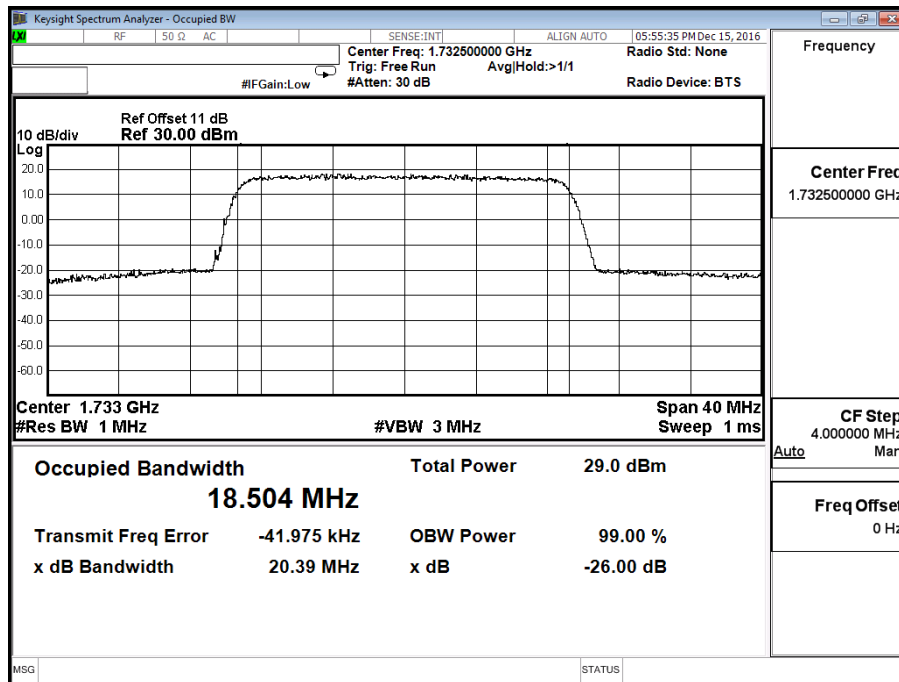


Band 4 15M 16QAM - LTE Mode CH 20175 (1732.5MHz)

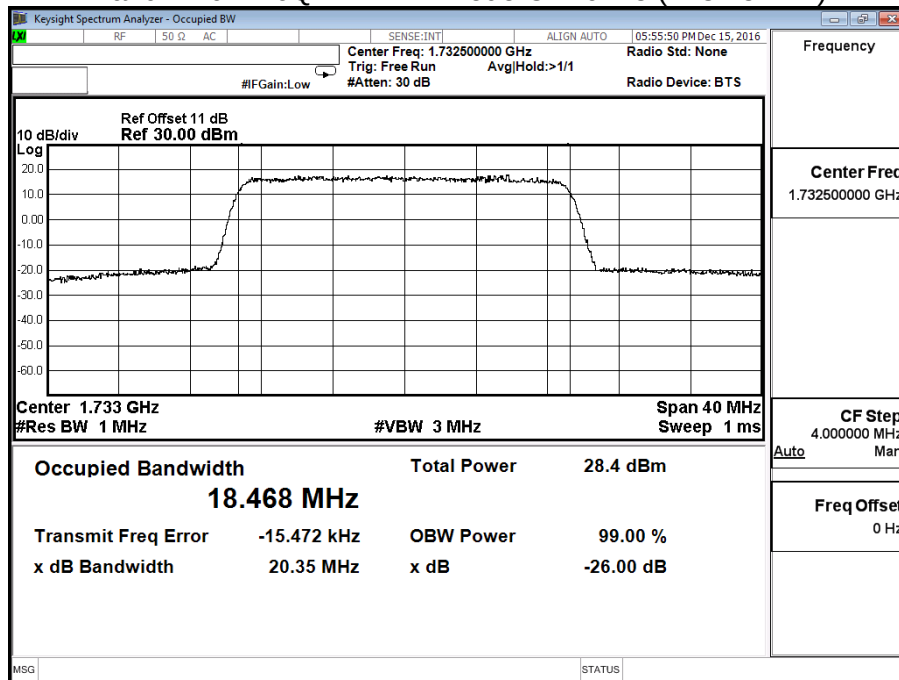


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 4 20M		

Band 4 20M QPSK - LTE Mode CH20175 (1732.5MHz)

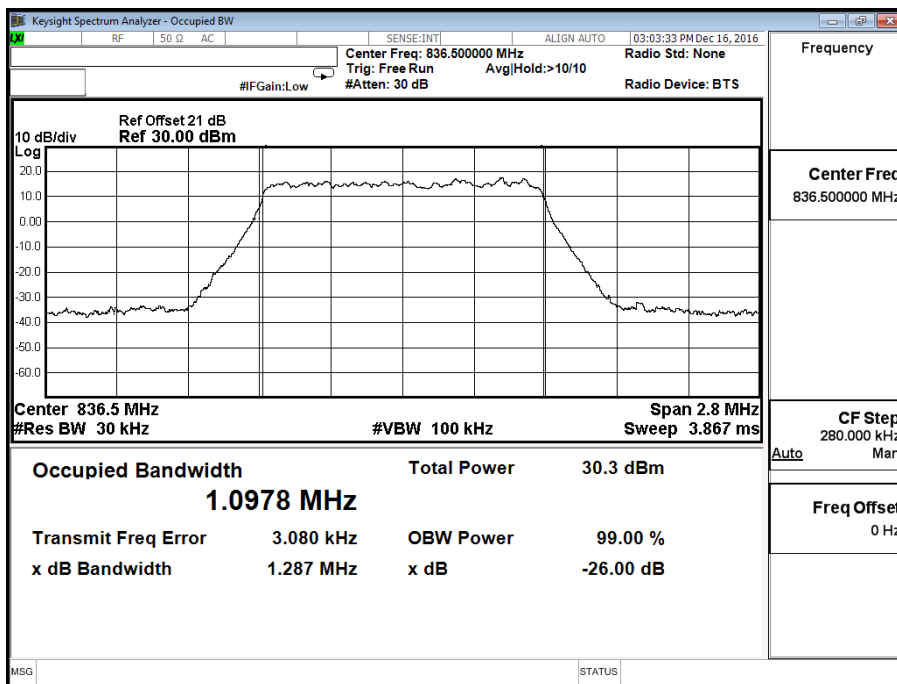


Band 4 20M 16QAM - LTE Mode CH20175 (1732.5MHz)

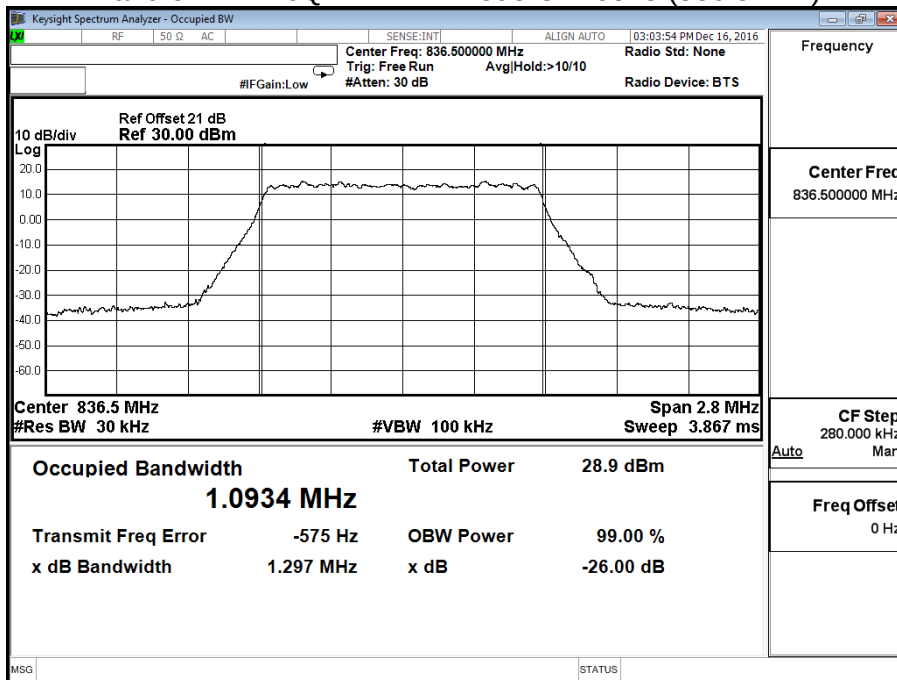


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 5 1.4M		

Band 5 1.4M QPSK - LTE Mode CH 20525 (836.5MHz)

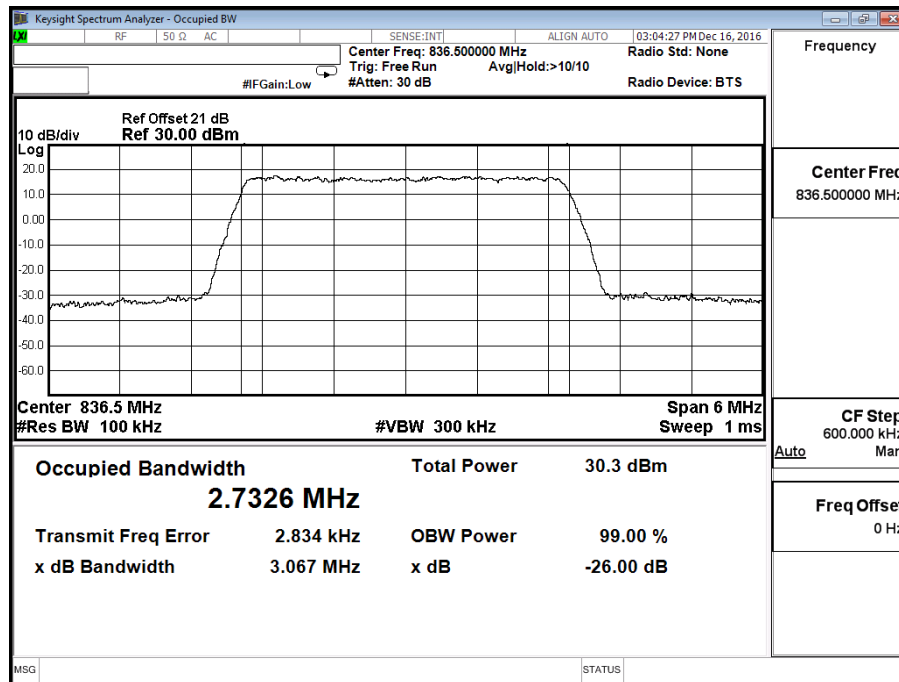


Band 5 1.4M 16QAM - LTE Mode CH20525 (836.5MHz)

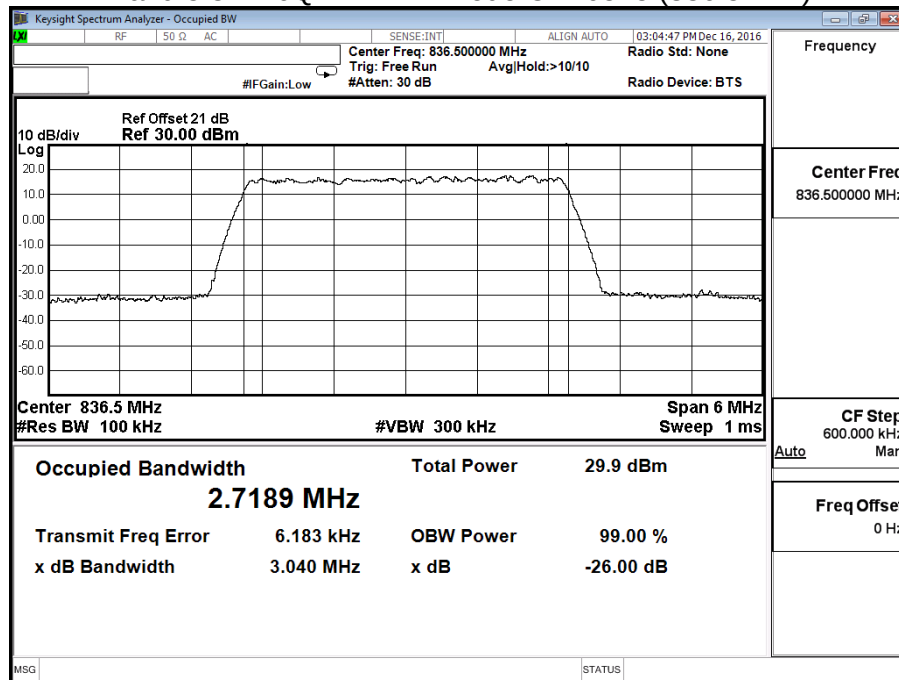


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 5 3M		

Band 5 3M QPSK - LTE Mode CH20525 (836.5MHz)

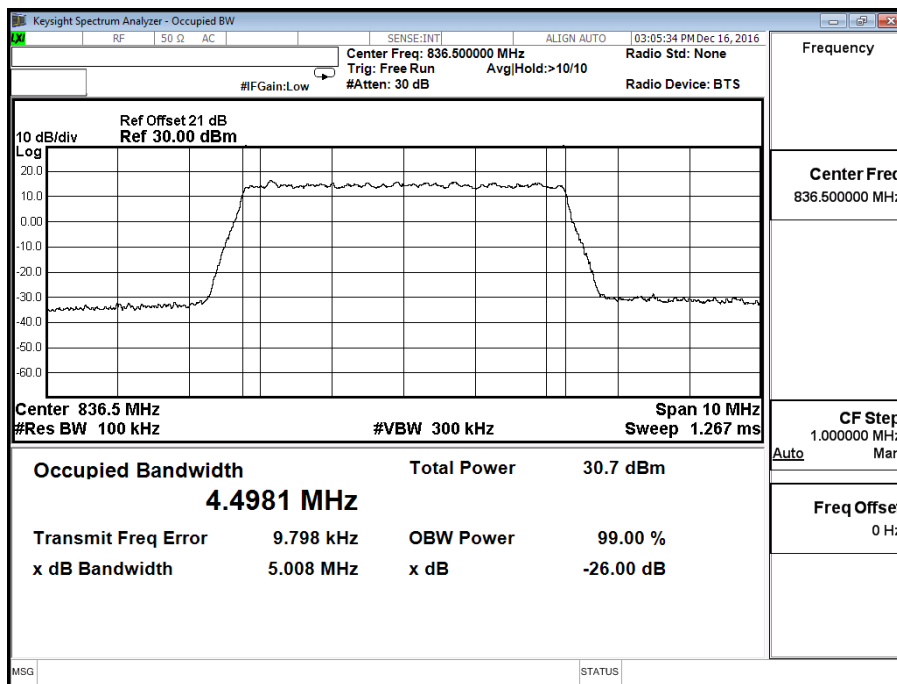


Band 5 3M 16QAM - LTE Mode CH20525 (836.5MHz)

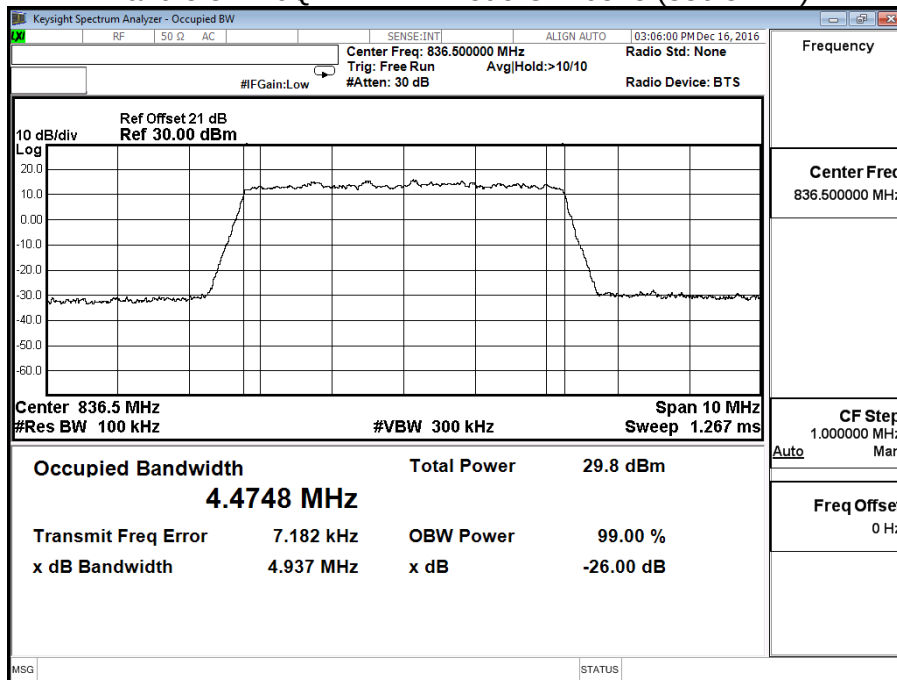


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 5 5M		

Band 5 5M QPSK - LTE Mode CH20525 (836.5MHz)

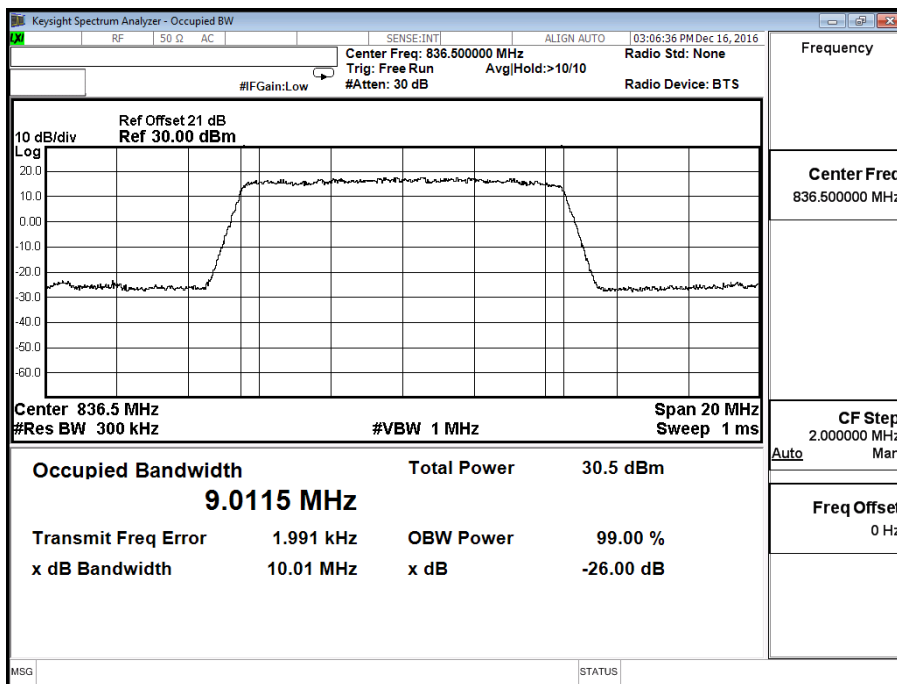


Band 5 5M 16QAM - LTE Mode CH20525 (836.5MHz)

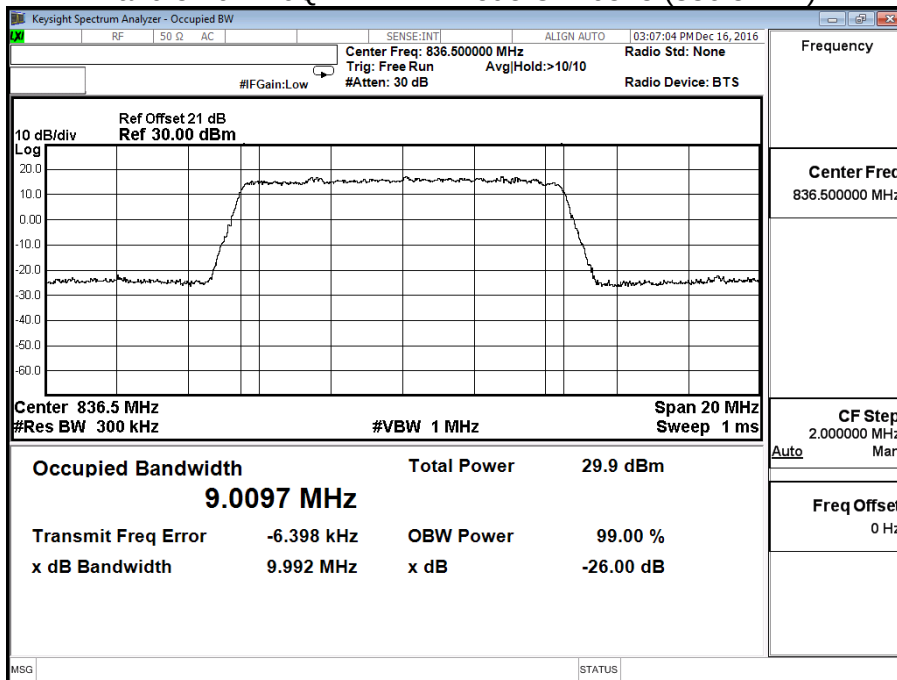


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 5 10M		

Band 5 10M QPSK - LTE Mode CH20525 (836.5MHz)

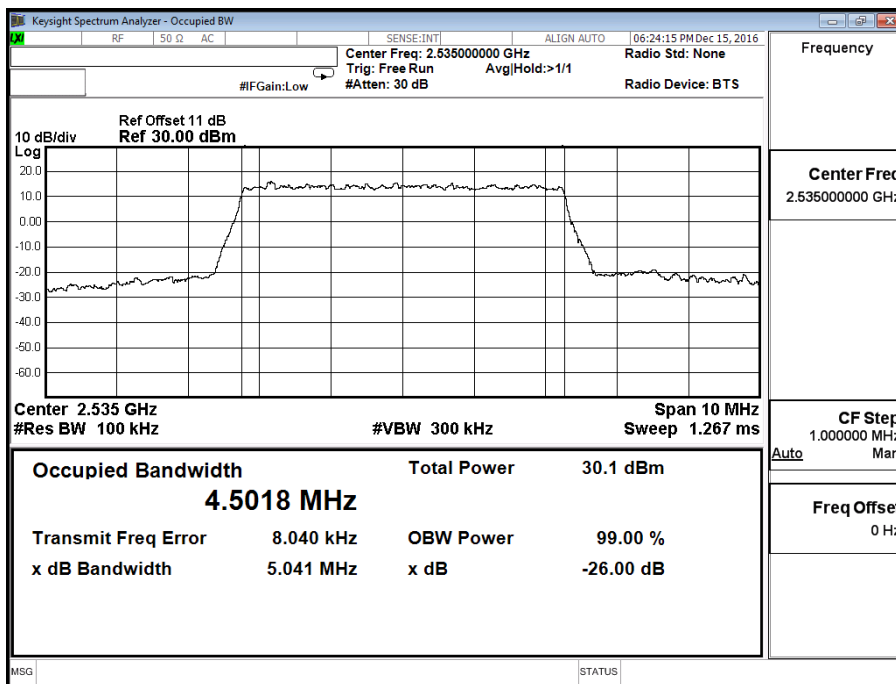


Band 5 10M 16QAM - LTE Mode CH20525 (836.5MHz)

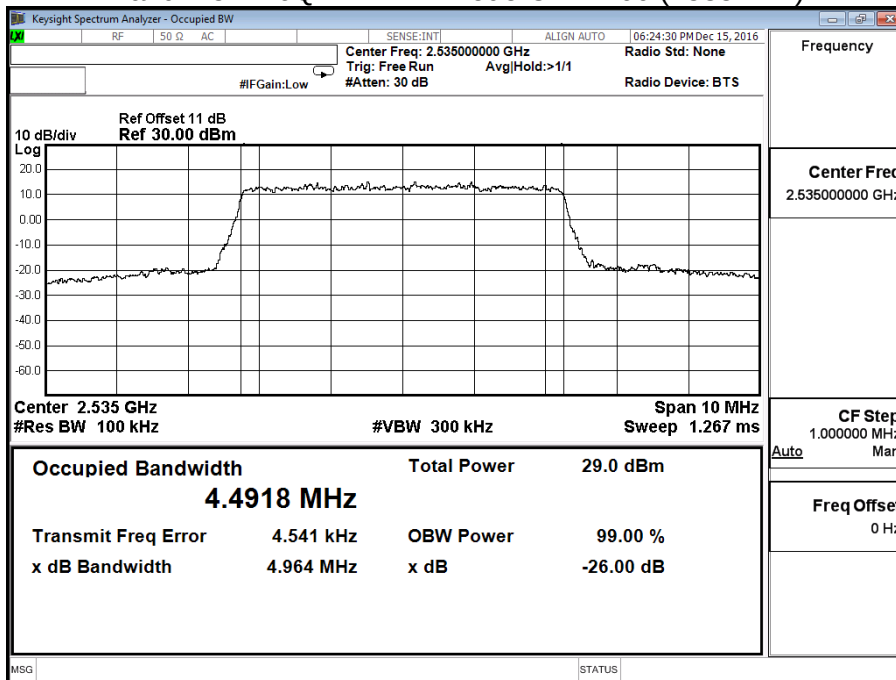


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 7 5M		

Band 7 5M QPSK - LTE Mode CH21100 (2535MHz)

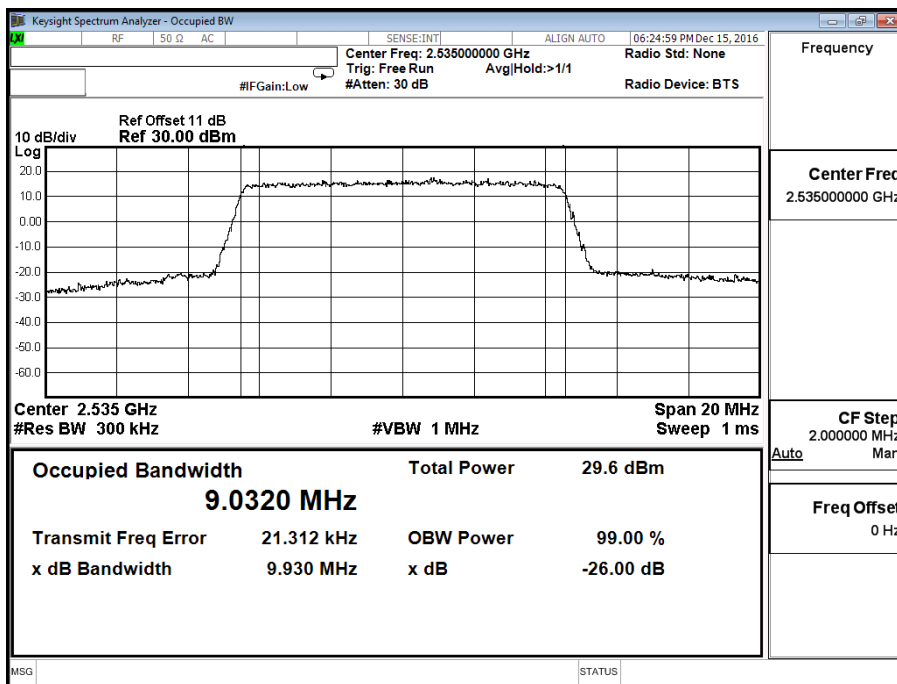


Band 7 5M 16QAM - LTE Mode CH21100 (2535MHz)

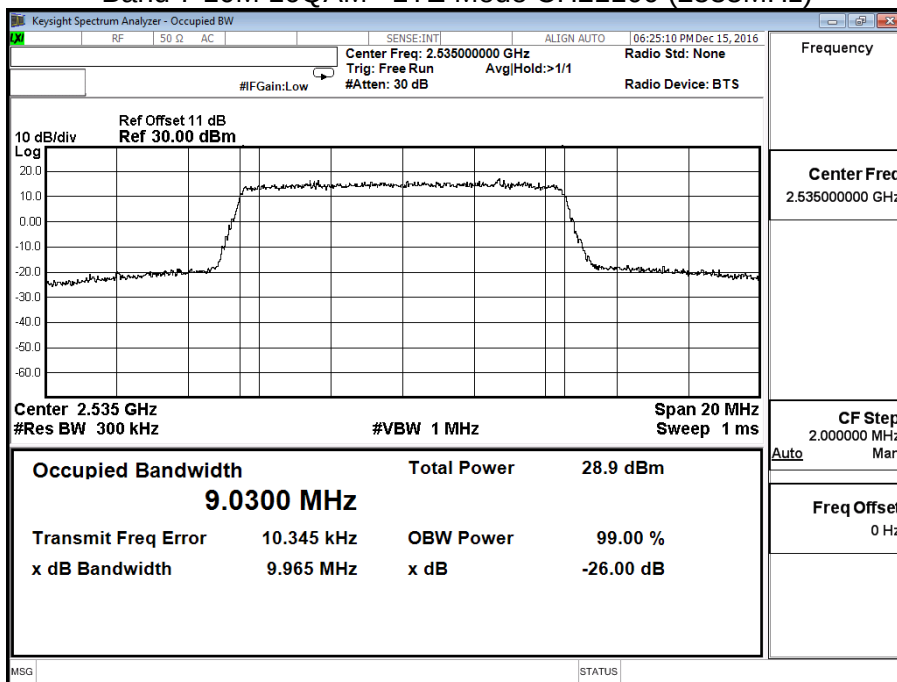


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 7 10M		

Band 7 10M QPSK - LTE Mode CH21100 (2535MHz)

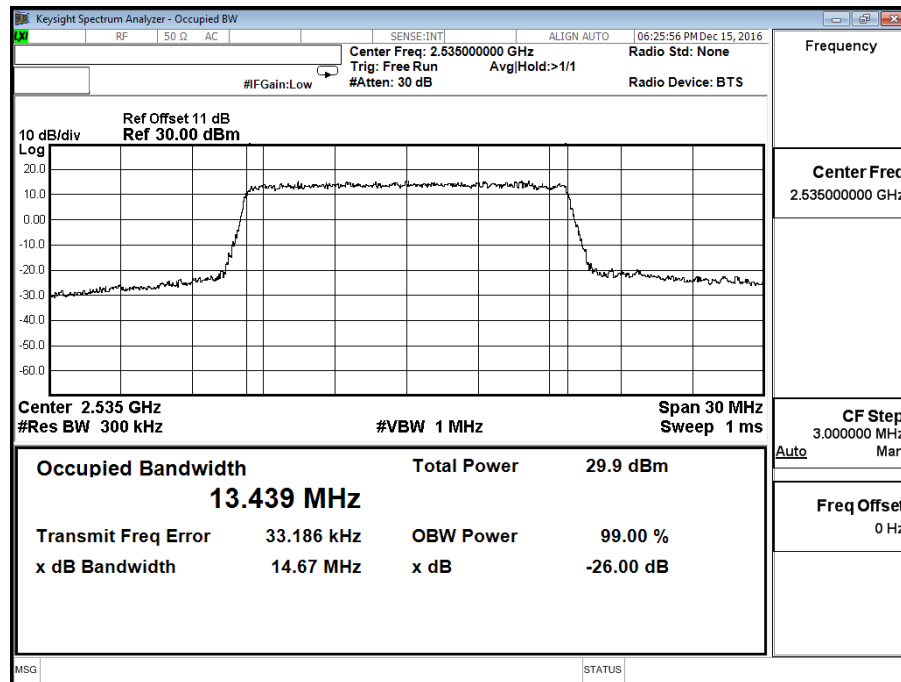


Band 7 10M 16QAM - LTE Mode CH21100 (2535MHz)

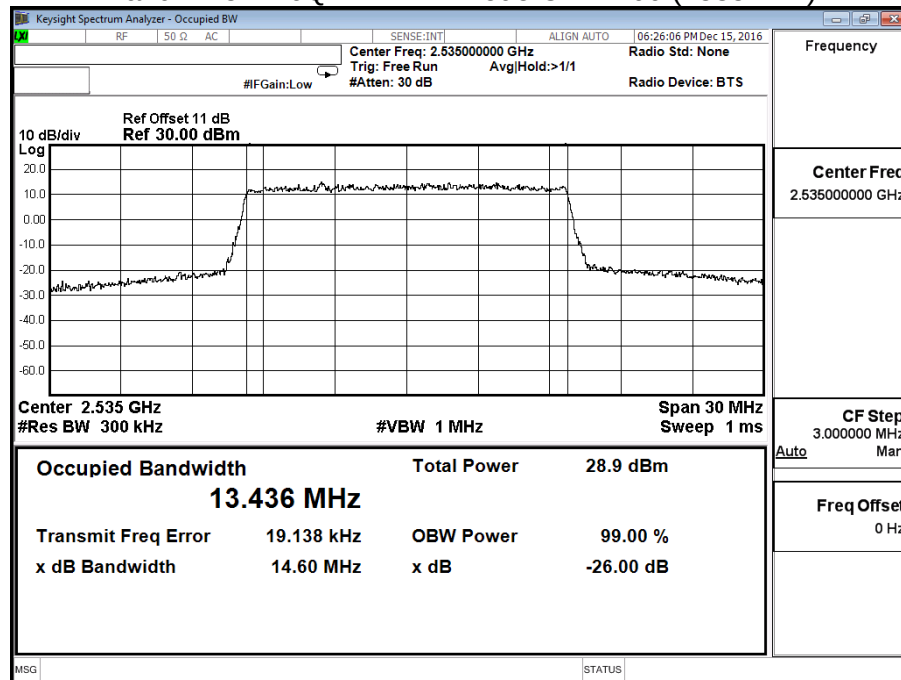


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 7 15M		

Band 7 15M QPSK - LTE Mode CH21100 (2535MHz)

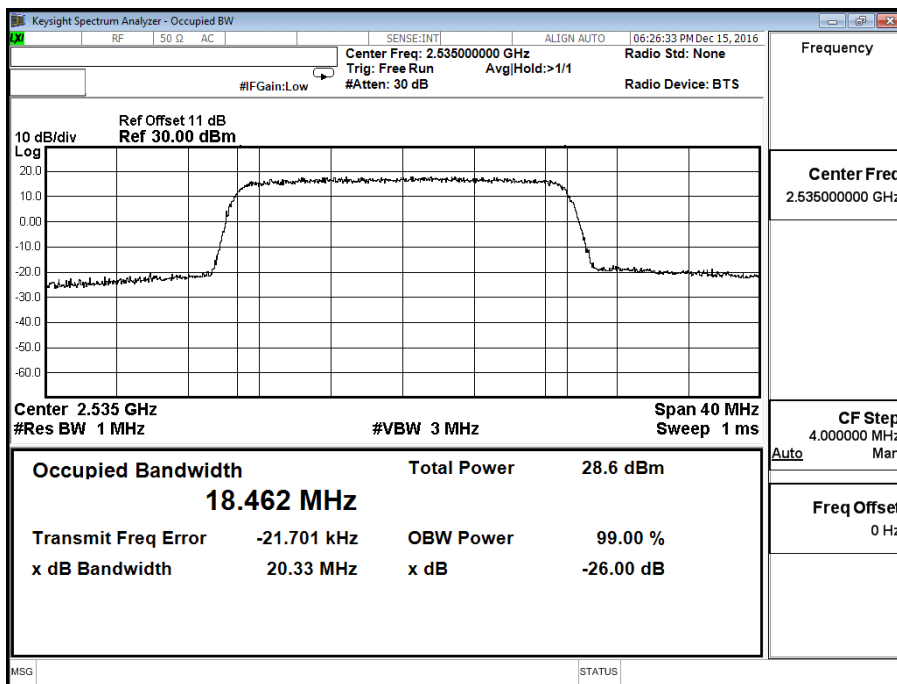


Band 7 15M 16QAM - LTE Mode CH21100 (2535MHz)

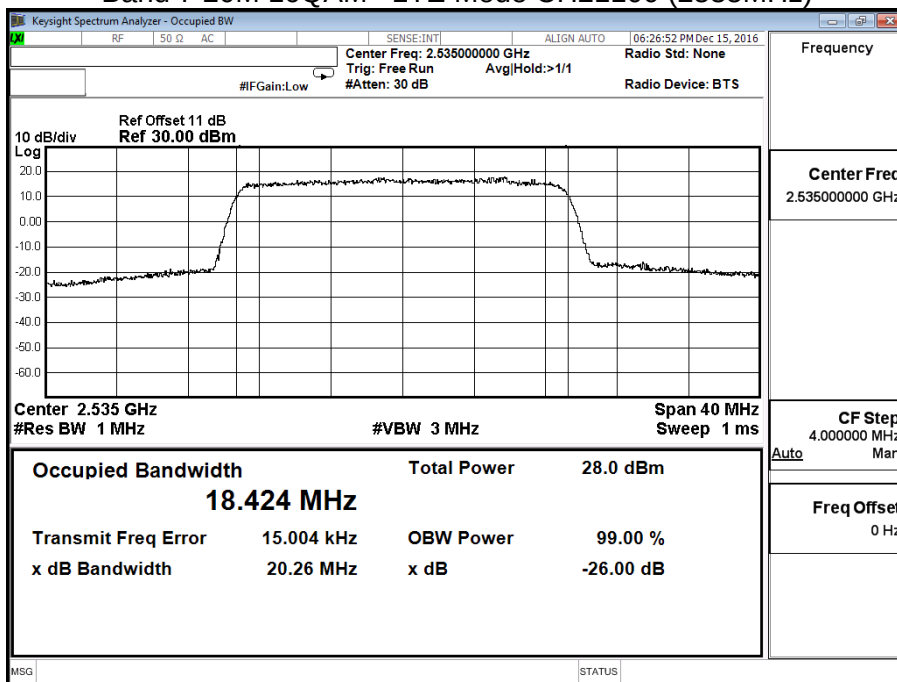


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 7 20M		

Band 7 20M QPSK - LTE Mode CH21100 (2535MHz)

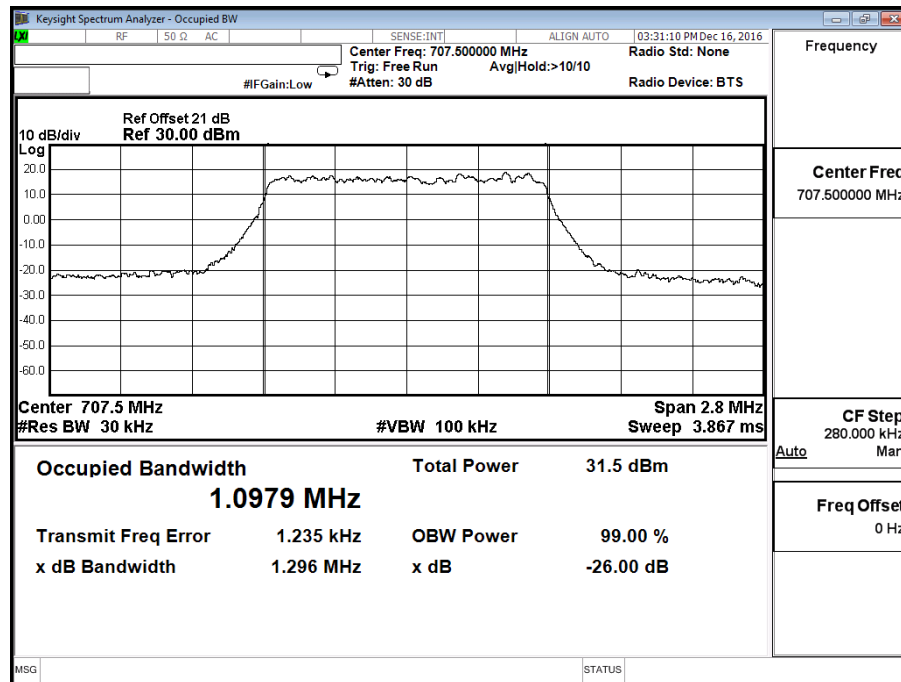


Band 7 20M 16QAM - LTE Mode CH21100 (2535MHz)

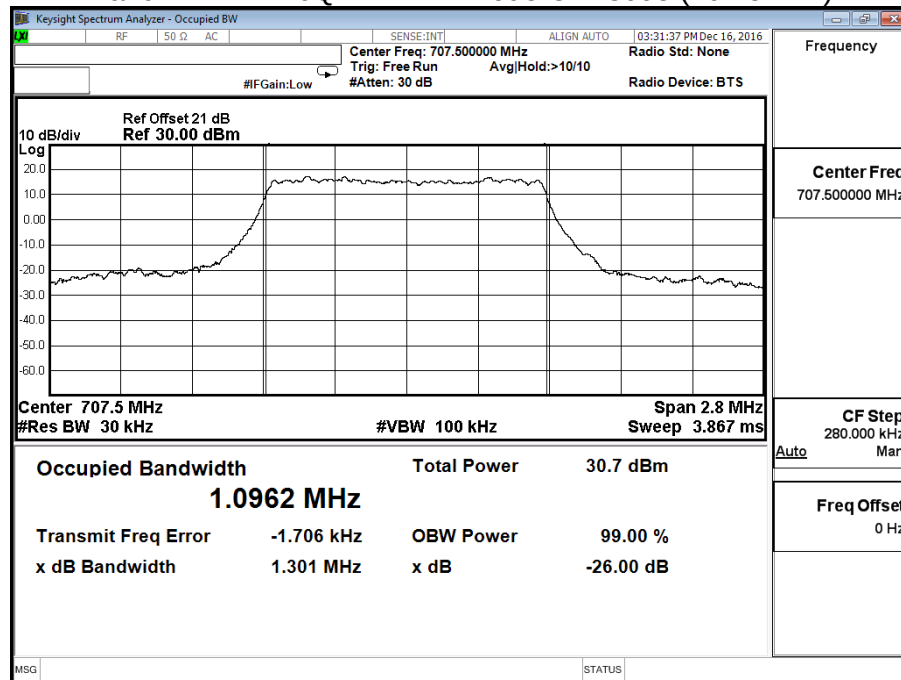


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 12 1.4M		

Band 12 1.4M QPSK - LTE Mode CH23095 (707.5MHz)

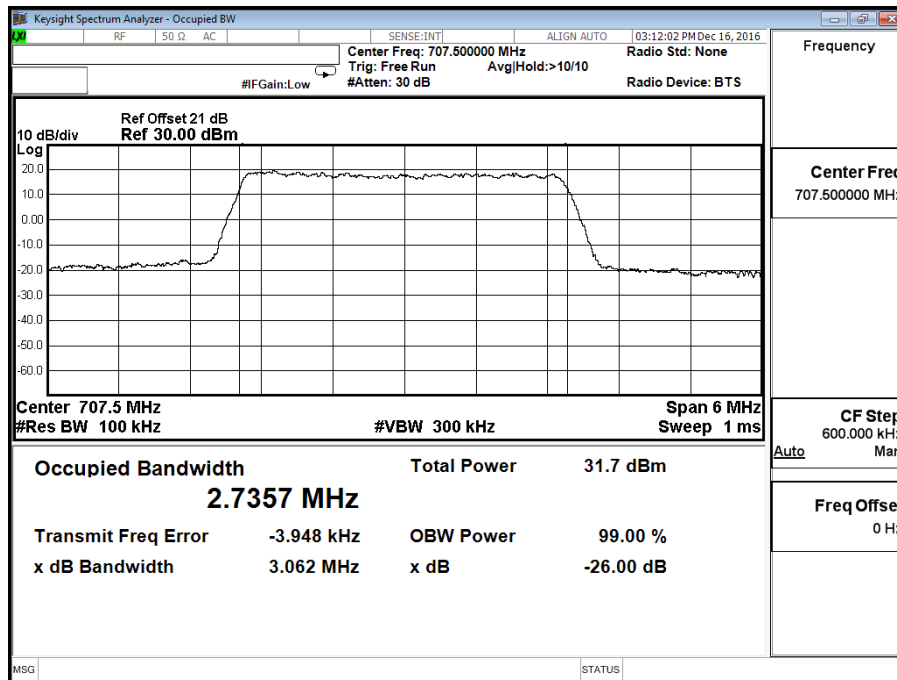


Band 12 1.4M 16QAM - LTE Mode CH23095 (707.5MHz)

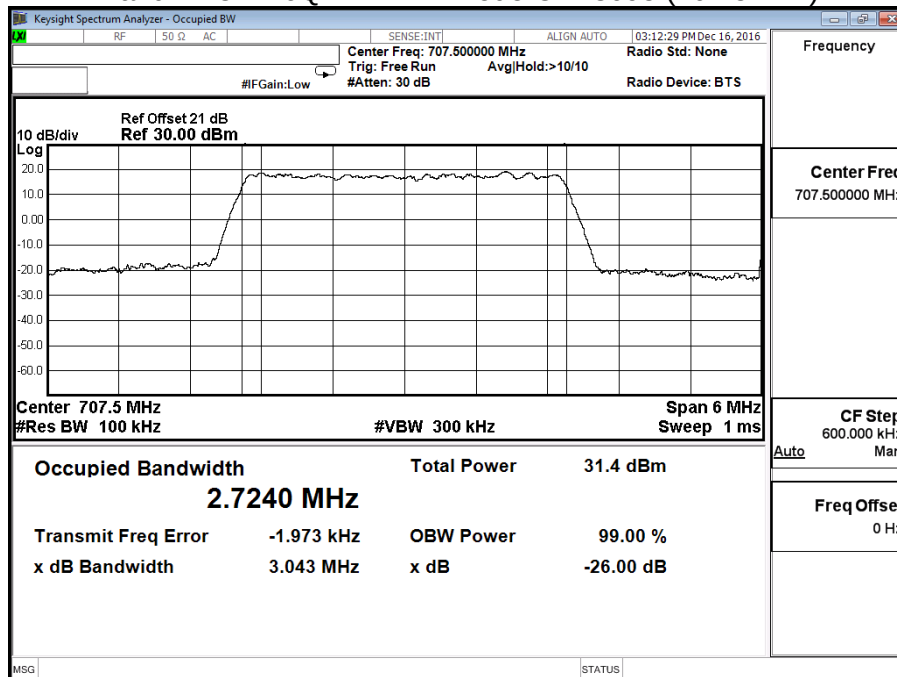


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 12 3M		

Band 12 3M QPSK - LTE Mode CH23095 (707.5MHz)

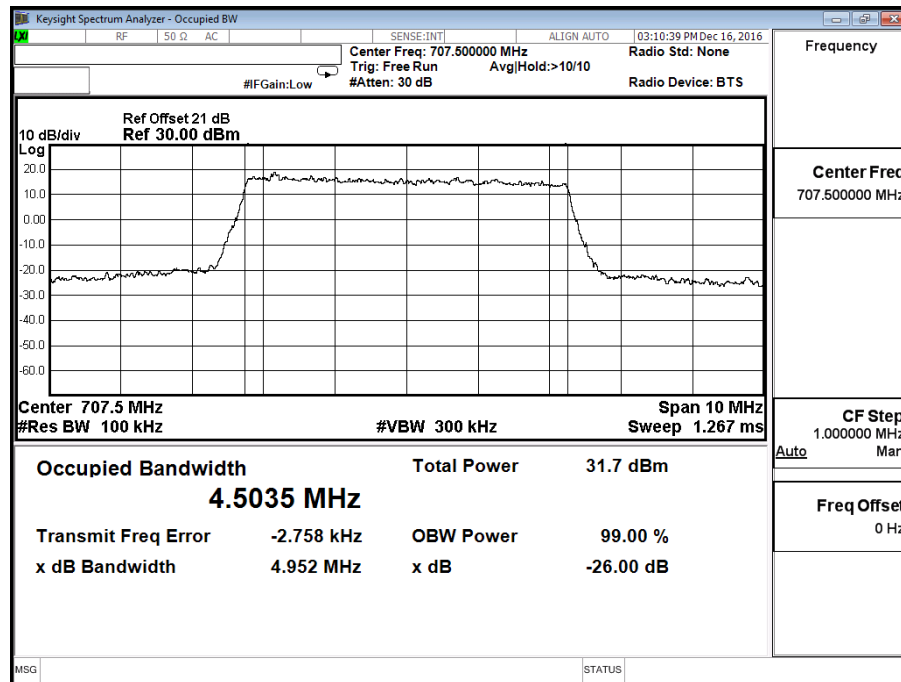


Band 12 3M 16QAM - LTE Mode CH23095 (707.5MHz)

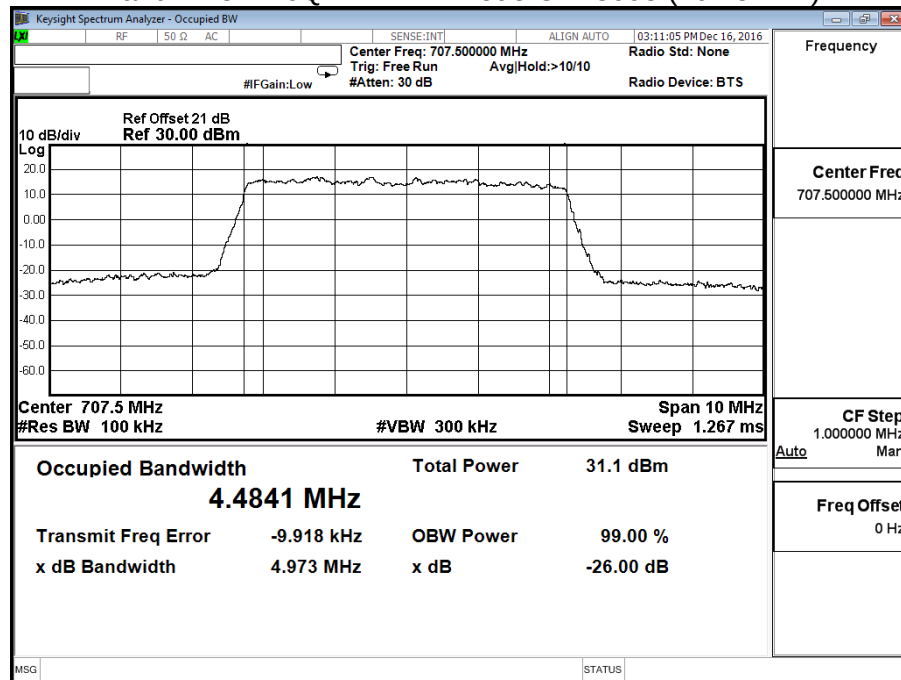


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 12 5M		

Band 12 5M QPSK - LTE Mode CH23095 (707.5MHz)

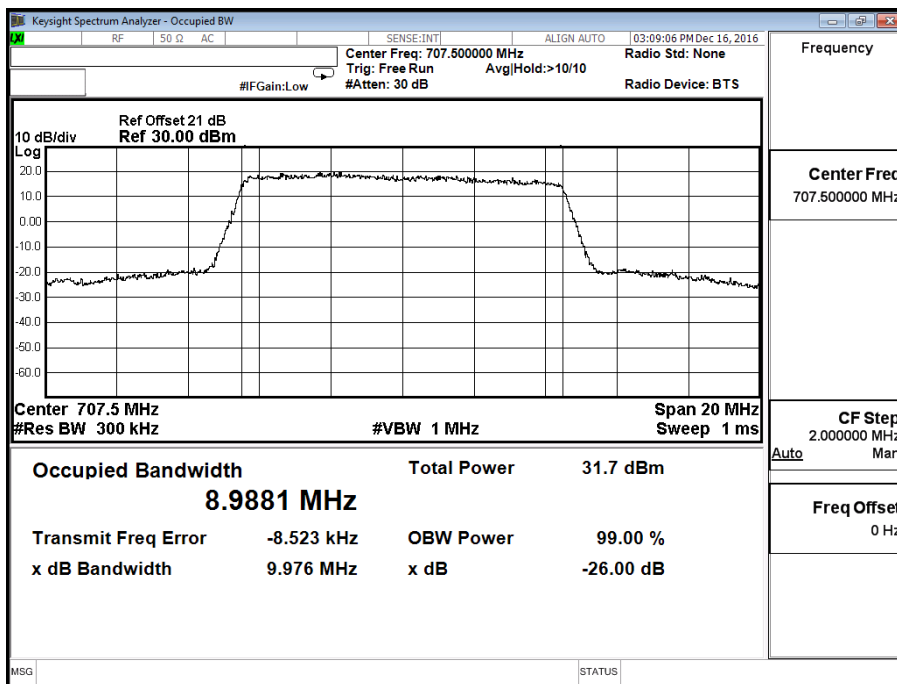


Band 12 5M 16QAM - LTE Mode CH23095 (707.5MHz)

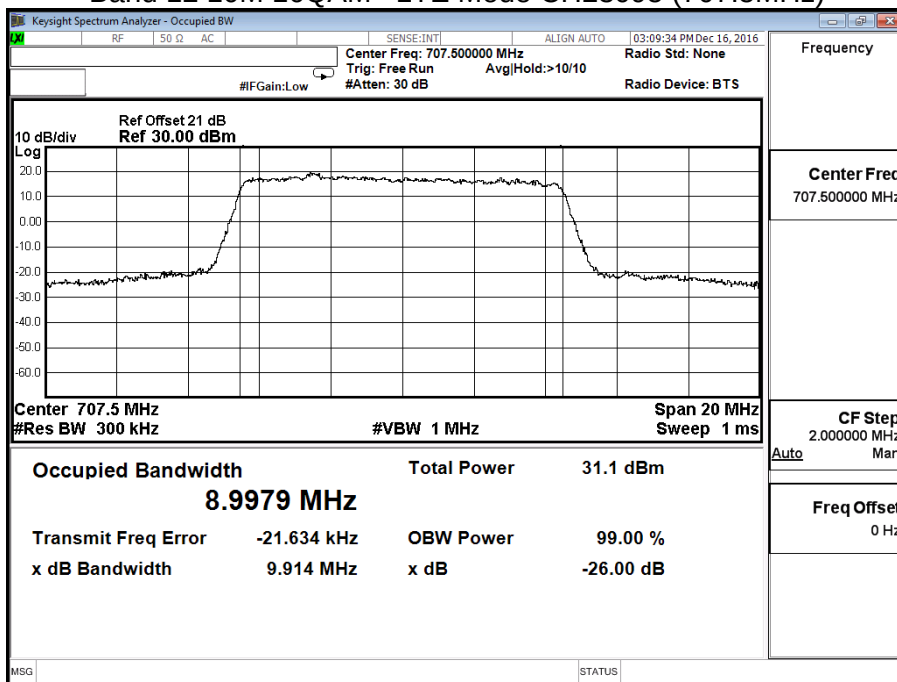


Product	LE920A4-NA		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Band 12 10M		

Band 12 10M QPSK - LTE Mode CH23095 (707.5MHz)



Band 12 10M 16QAM - LTE Mode CH23095 (707.5MHz)



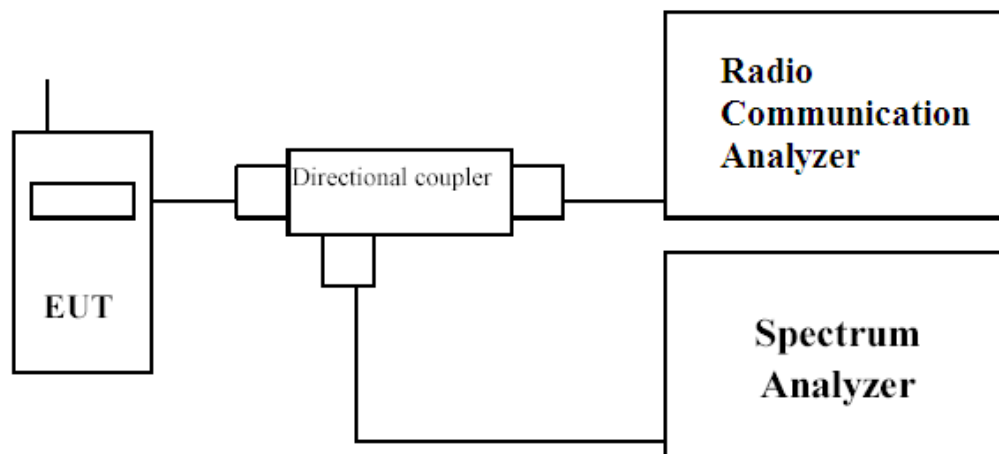
5. Spurious Emission At Antenna Terminals (+/-1MHz)

5.1. Test Specification

According to Part 2.1051, 22.917, 24.238, 27.53

RSS GEN, RSS 130, RSS 132, RSS 133, RSS 139, RSS 199

5.2. Setup



5.3. Limits

The spurious (unwanted) emission limits specified in the individual FCC rule parts applicable to licensed digital transmitters (typically referred to under the heading 'emission limits') normally apply to any and all emissions that are present outside of the authorized frequency band/block and apply to emissions in both the out-of-band and spurious domains. unwanted emissions are required by the licensed rule parts to be attenuated below the transmitter power by a factor of at least $43 + 10\log(P)$ dB, where P represents the transmitter power expressed in watts

For LTE Band 7:

27.53(m) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

5.4. Test Procedure

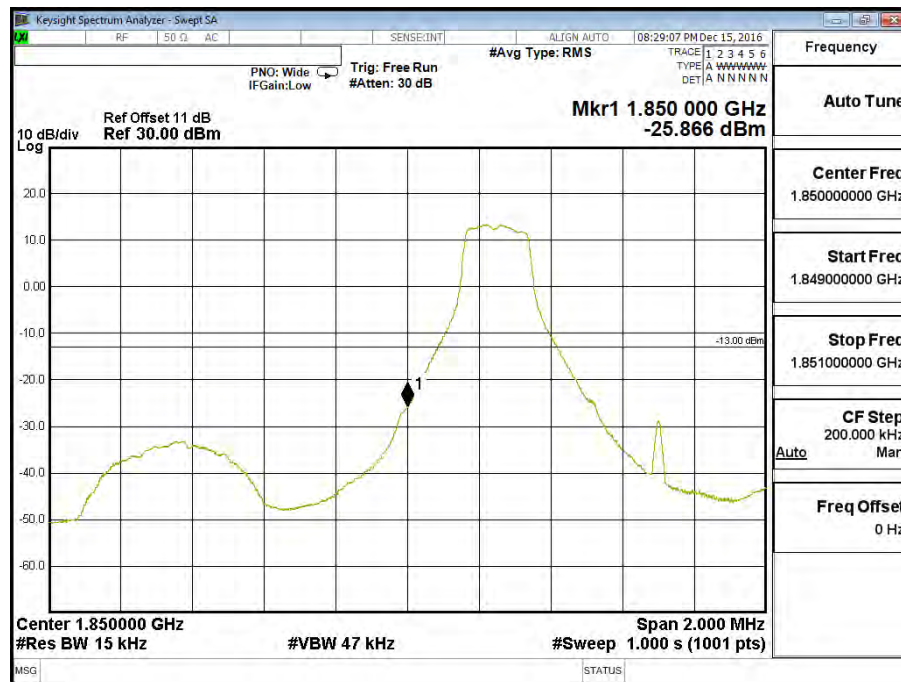
In accordance with Part 22.917, 24.238, 27.53, RSS 130, RSS 132, RSS 133, RSS 139, RSS 199 at least 1% of the emission bandwidth was used for the resolution and video bandwidths up to 1MHz away from the Block Edge. At greater than 1MHz, the resolution and video bandwidth were increased to 1MHz/3MHz.

The reference power and path losses of all channels used for testing in each frequency block were measured.

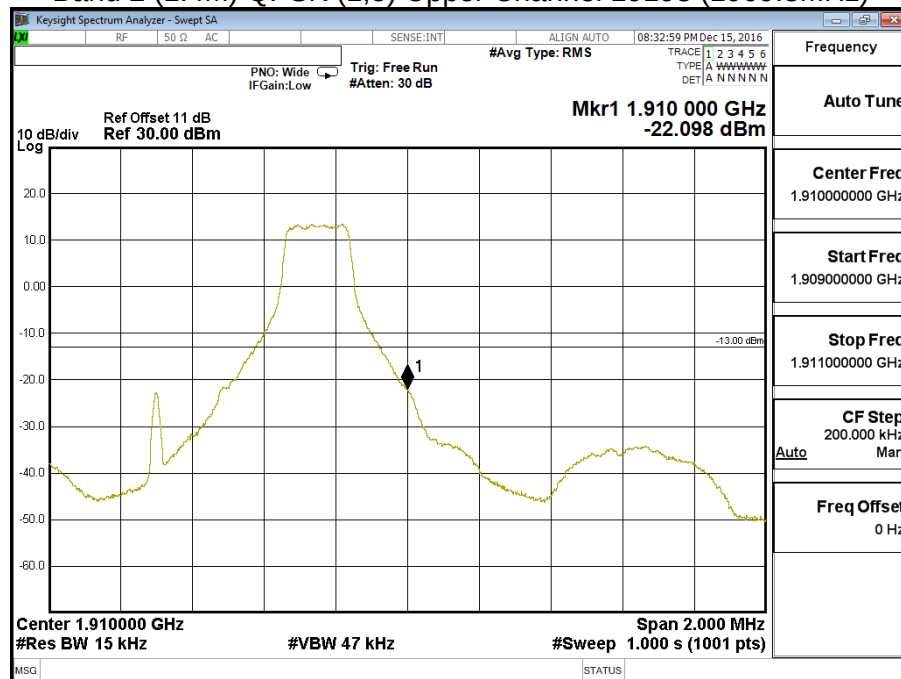
5.5. Test Result of Spurious Emission At Antenna Terminals (+/-1MHz)

Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (1.4M))		

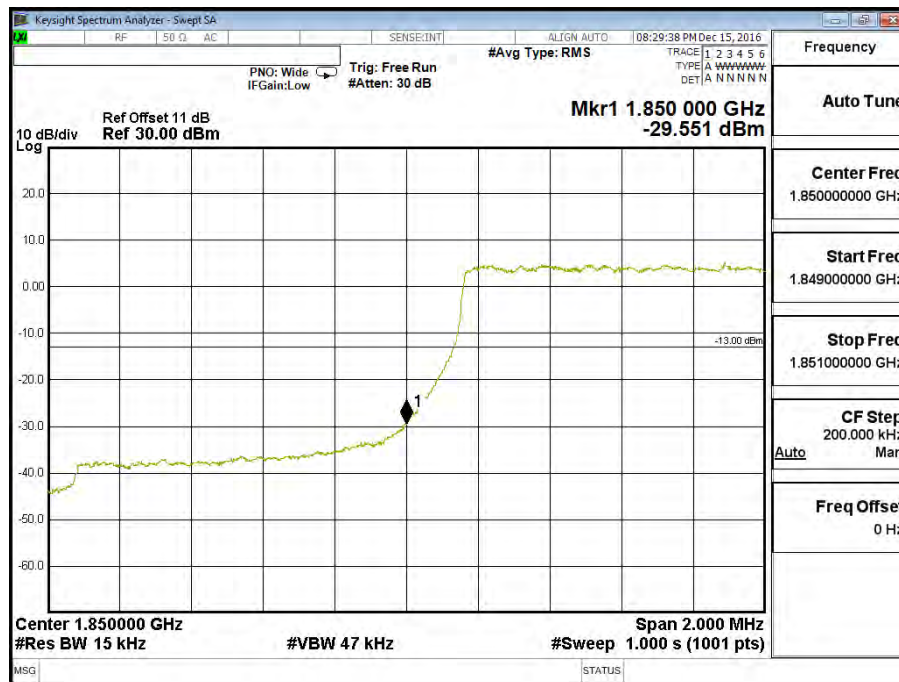
Band 2 (1.4M) QPSK (1,0) Lower Channel 18607 (1850.7MHz)



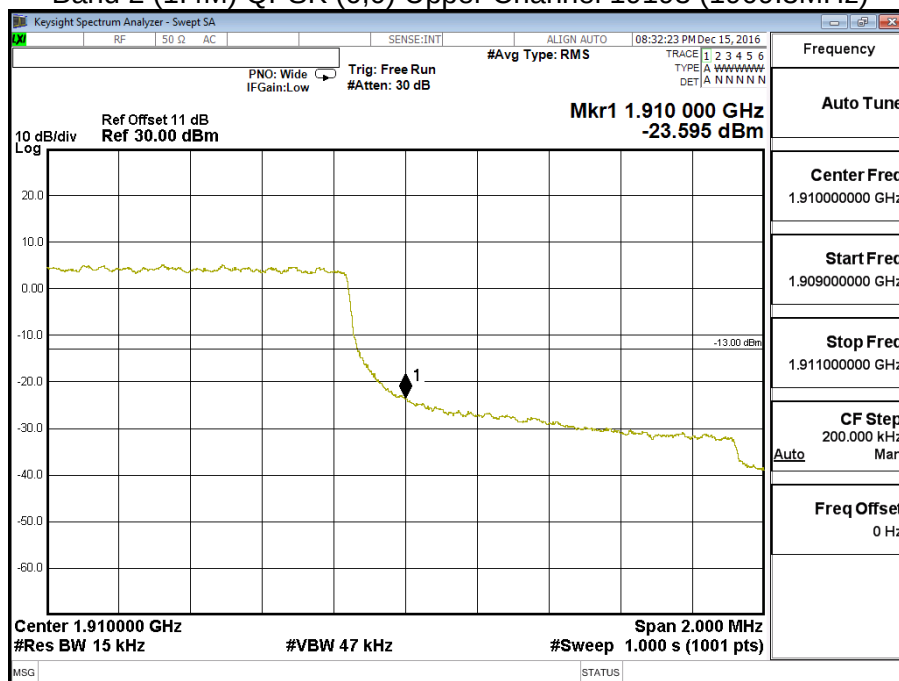
Band 2 (1.4M) QPSK (1,5) Upper Channel 19193 (1909.3MHz)



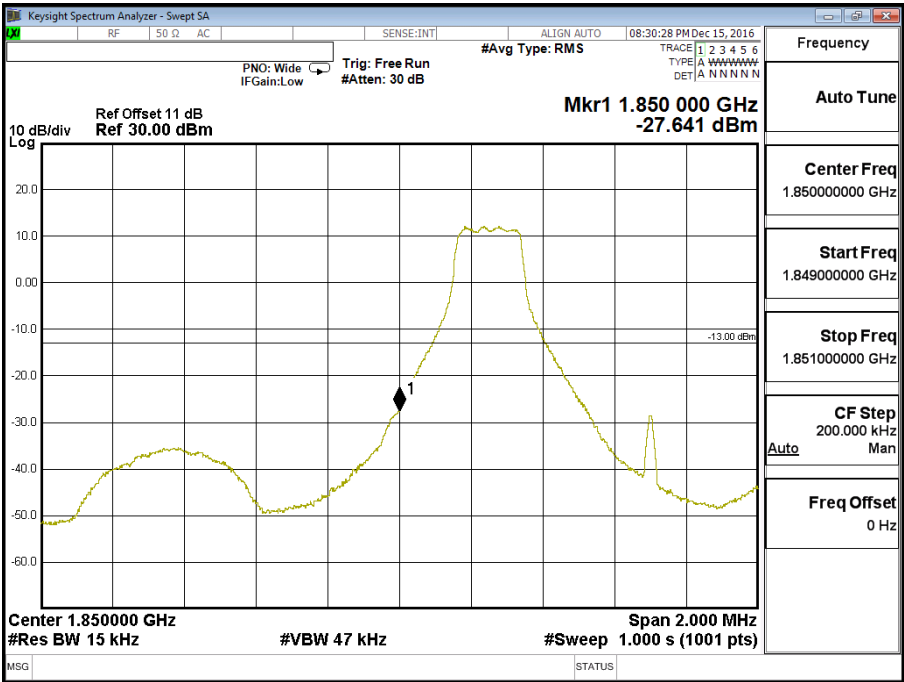
Band 2 (1.4M) QPSK (6,0) Lower Channel 18607 (1850.7MHz)



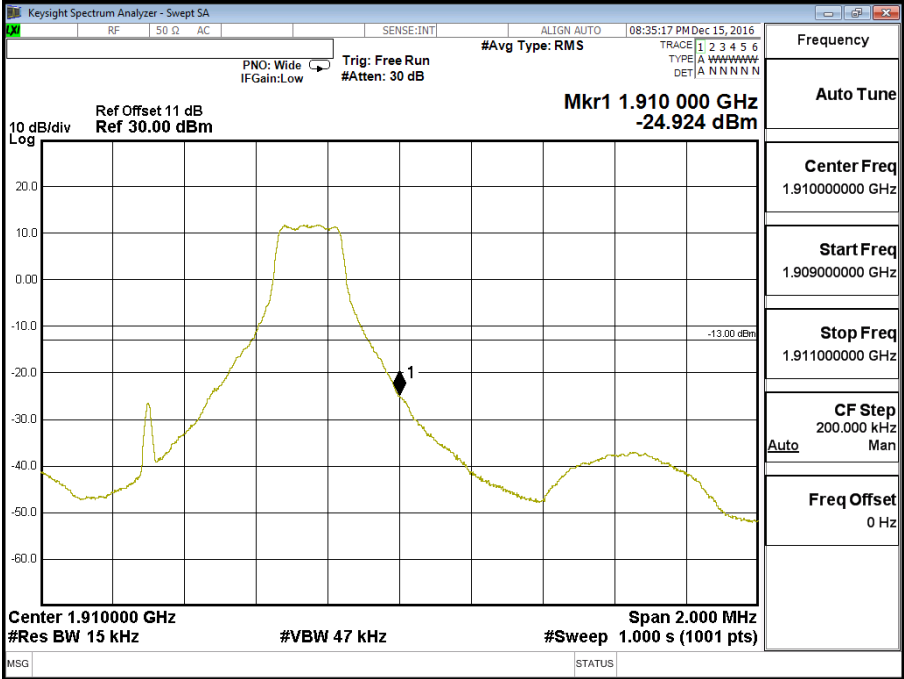
Band 2 (1.4M) QPSK (6,0) Upper Channel 19193 (1909.3MHz)



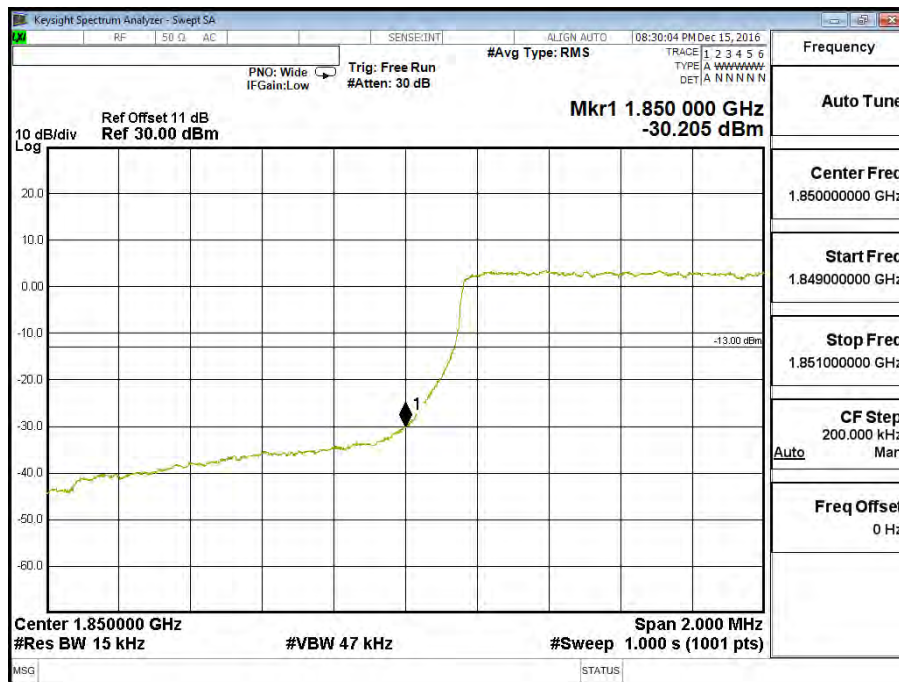
Band 2 (1.4M) 16QAM (1,0) Lower Channel 18607 (1850.7MHz)



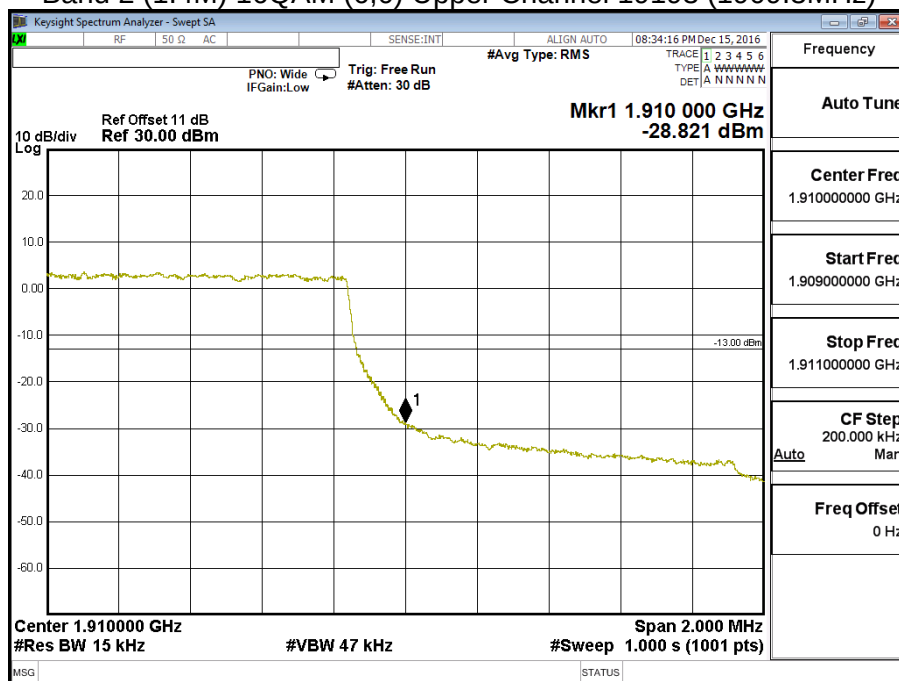
Band 2 (1.4M) 16QAM (1,5) Upper Channel 19193 (1909.3MHz)



Band 2 (1.4M) 16QAM (6,0) Lower Channel 18607 (1850.7MHz)

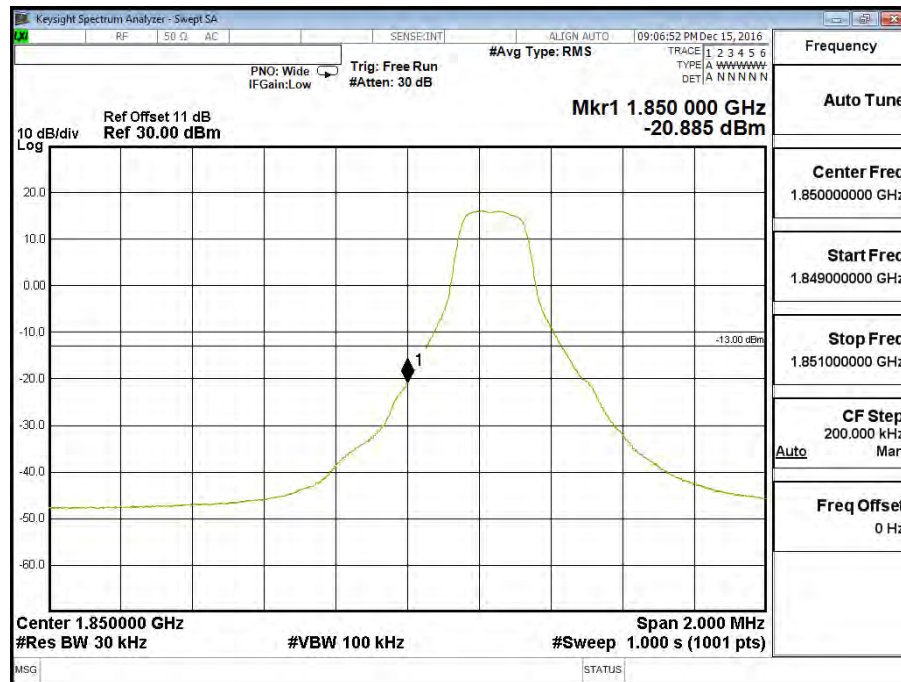


Band 2 (1.4M) 16QAM (6,0) Upper Channel 19193 (1909.3MHz)

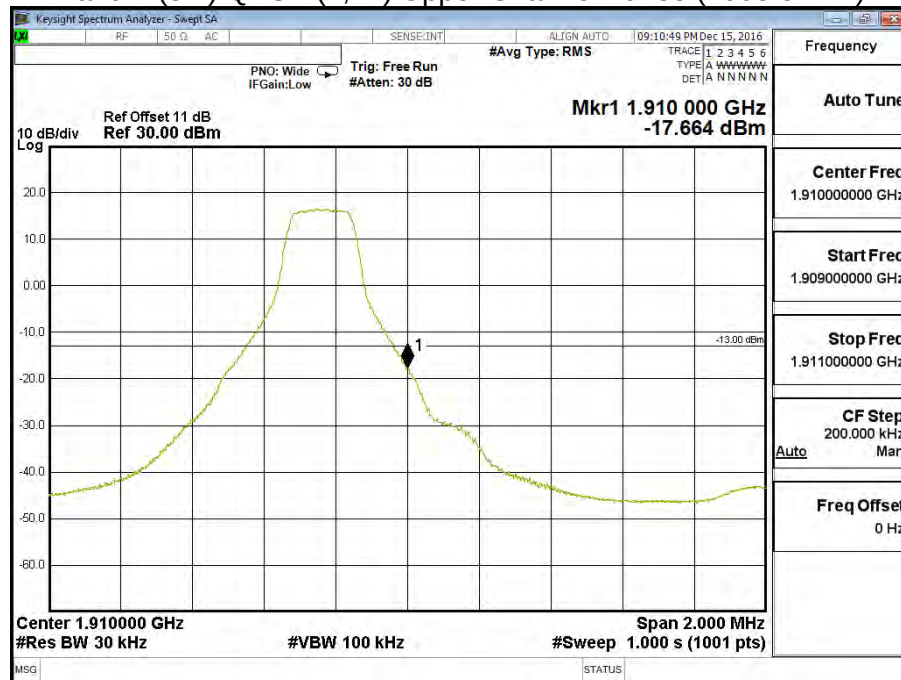


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (3M))		

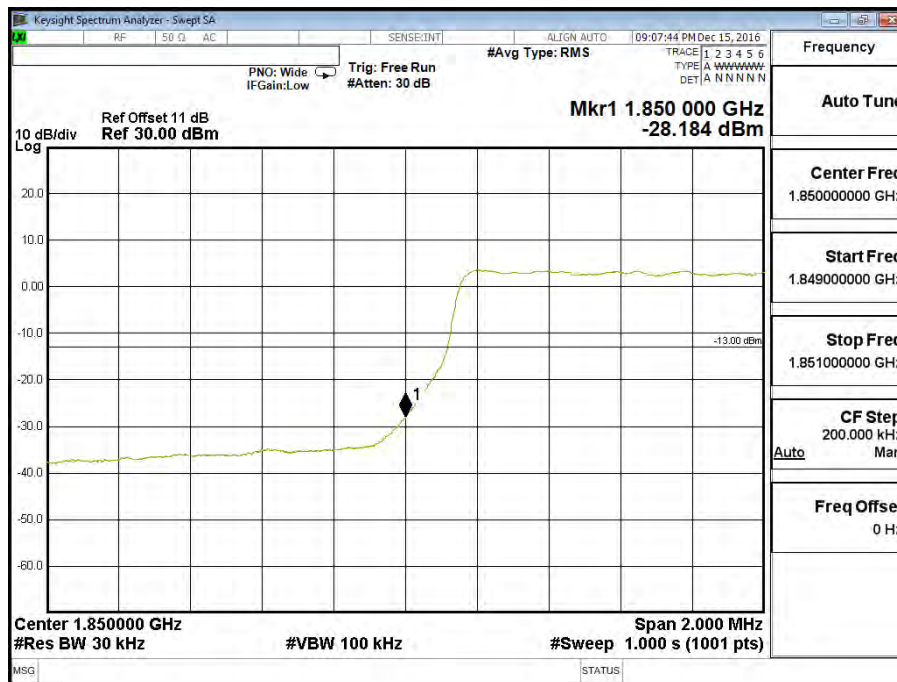
Band 2 (3M) QPSK (1,0) Lower Channel 18615 (1851.5MHz)



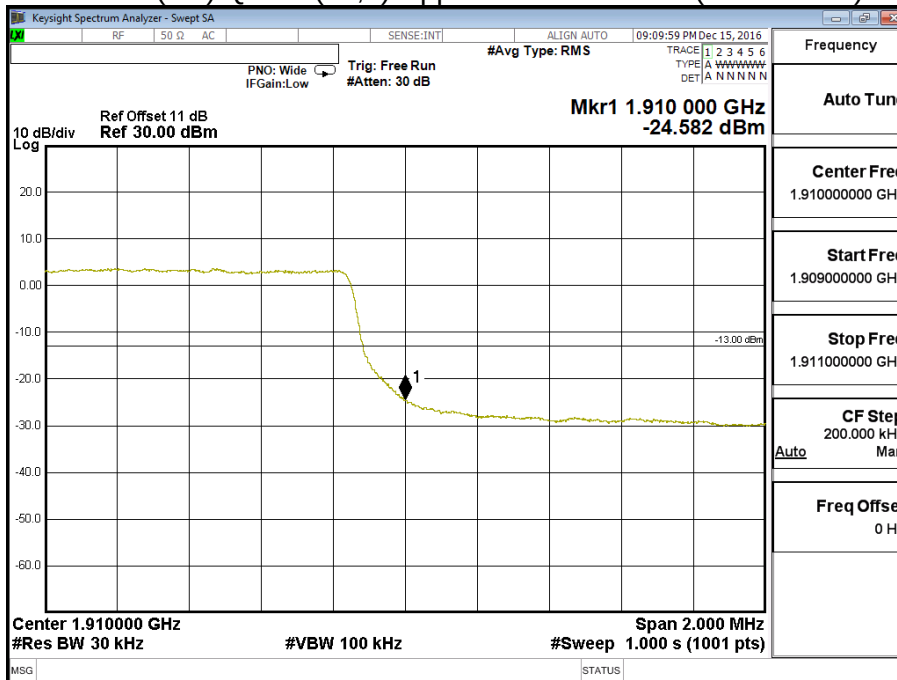
Band 2 (3M) QPSK (1,14) Upper Channel 19185 (1908.5MHz)



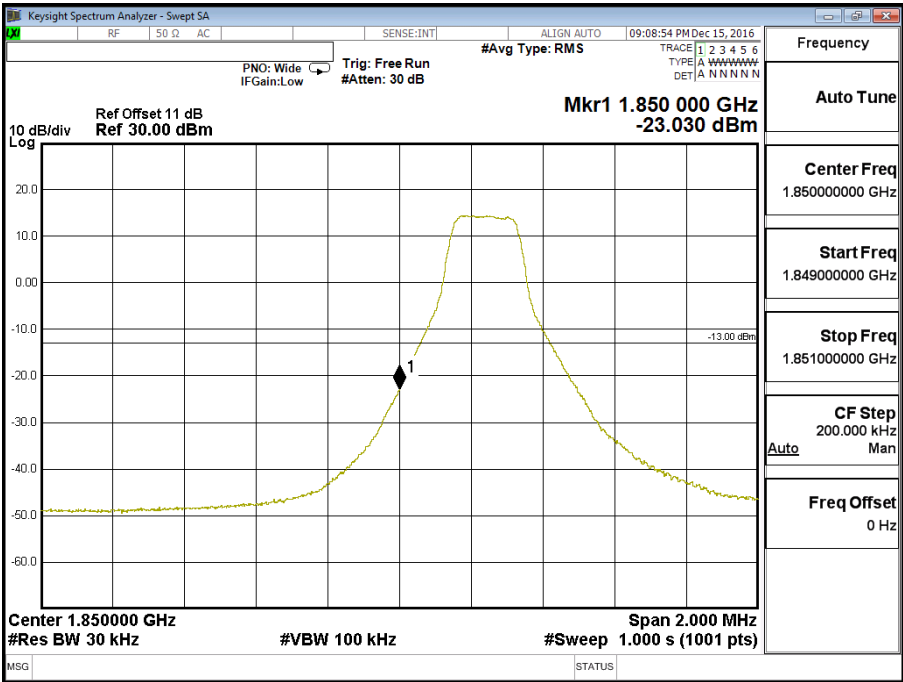
Band 2 (3M) QPSK (15,0) Lower Channel 18615 (1851.5MHz)



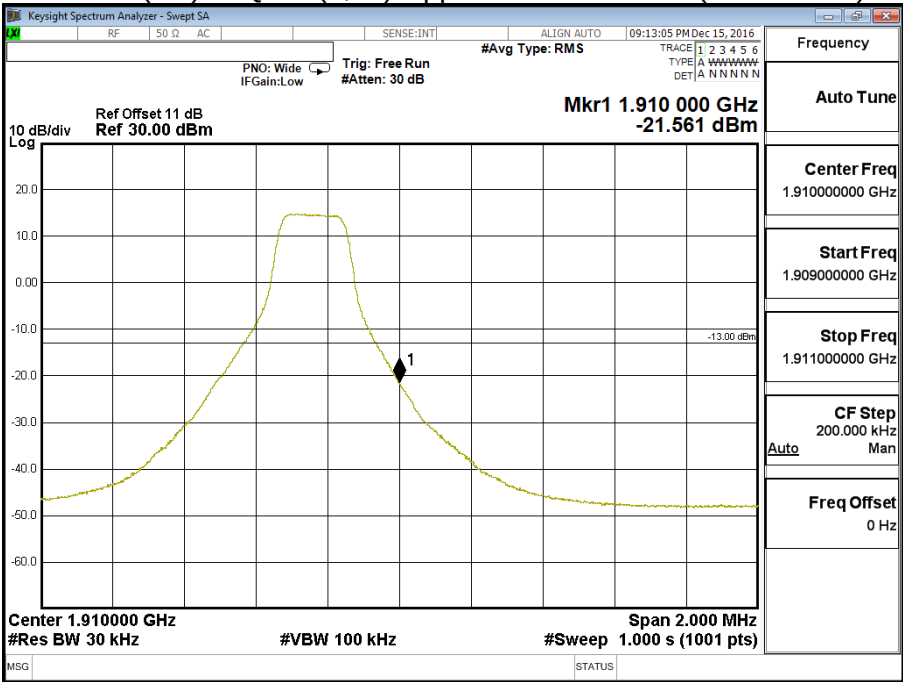
Band 2 (3M) QPSK (15,0) Upper Channel 19185 (1908.5MHz)



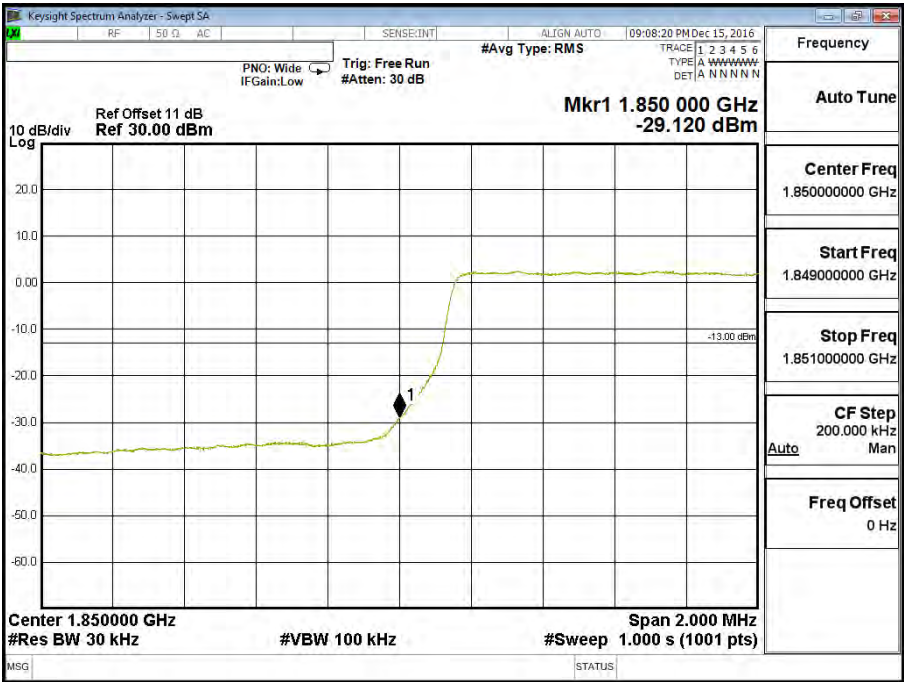
Band 2 (3M) 16QAM (1,0) Lower Channel 18615 (1851.5MHz)



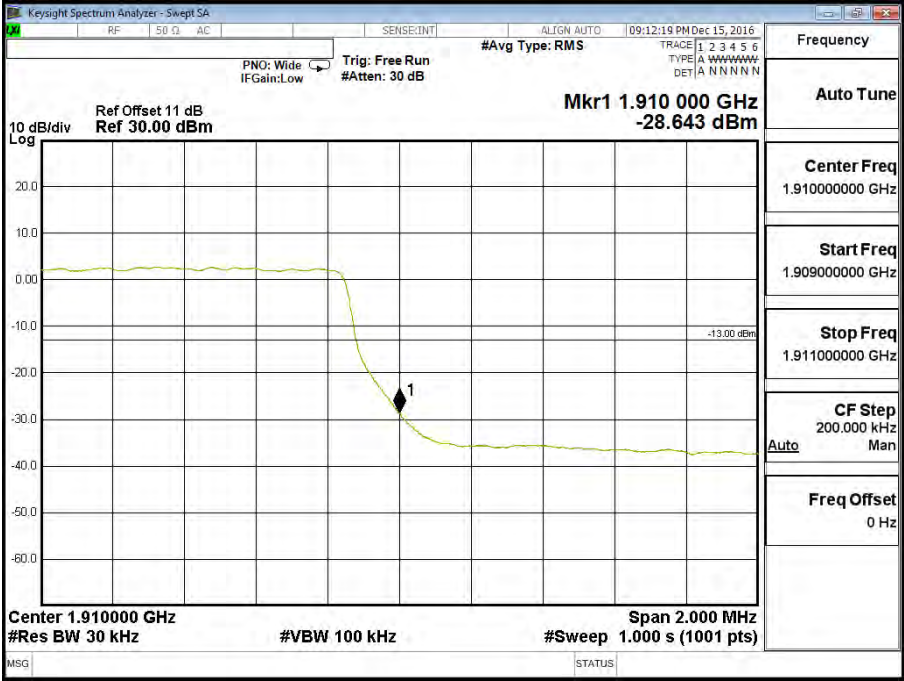
Band 2 (3M) 16QAM (1,14) Upper Channel 19185 (1908.5MHz)



Band 2 (3M) 16QAM (15,0) Lower Channel 18615 (1851.5MHz)

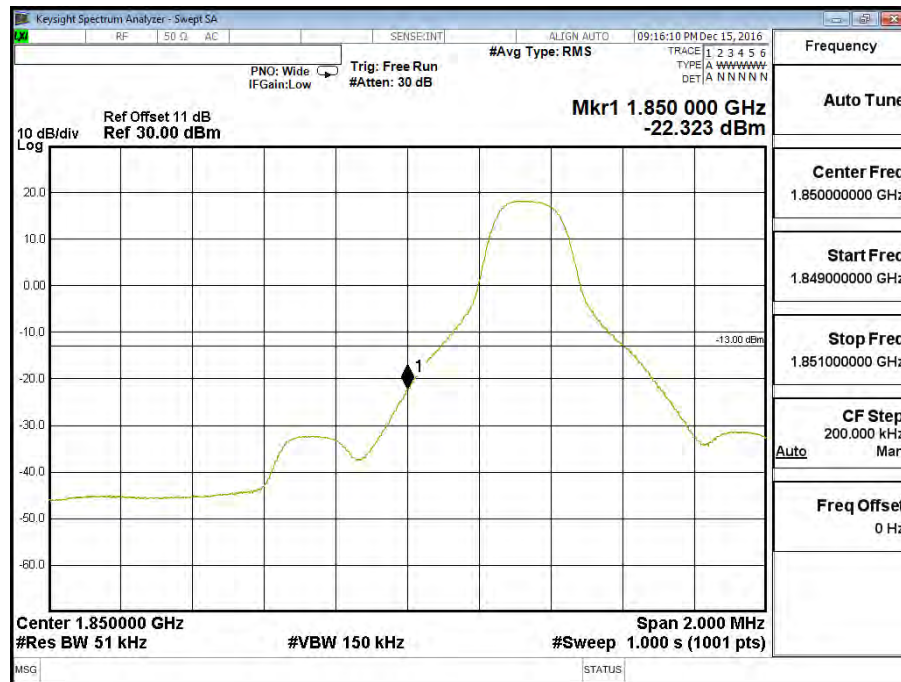


Band 2 (3M) 16QAM (15,0) Upper Channel 19185 (1908.5MHz)

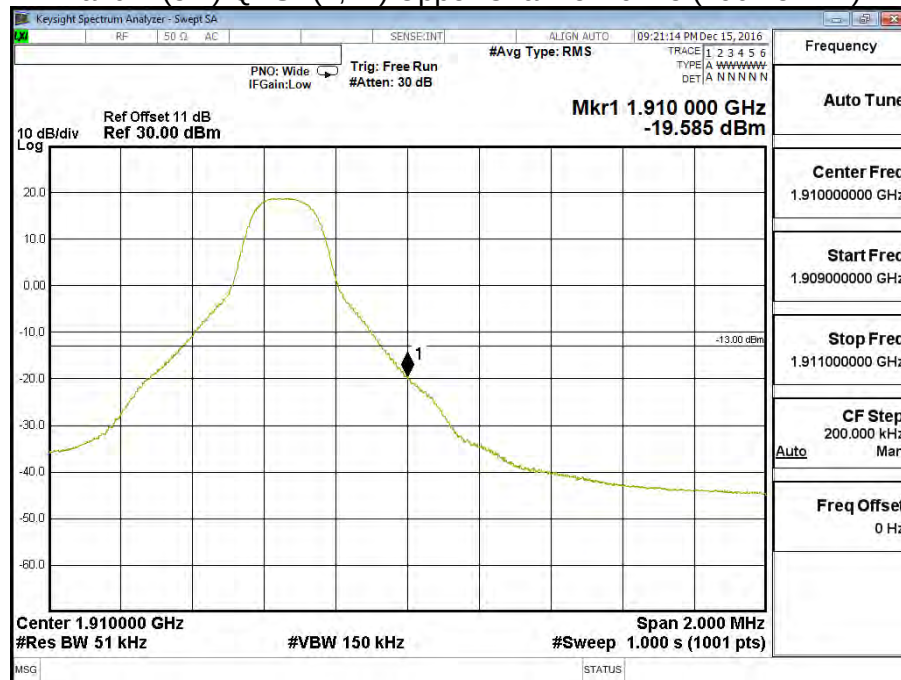


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (5M))		

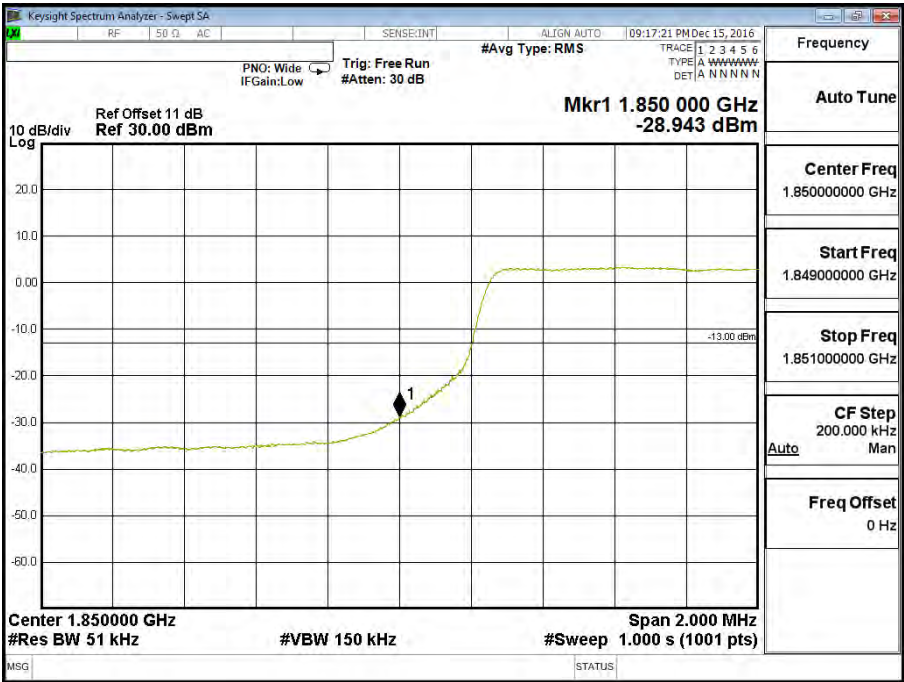
Band 2 (5M) QPSK(1,0) Lower Channel 18625 (1852.5MHz)



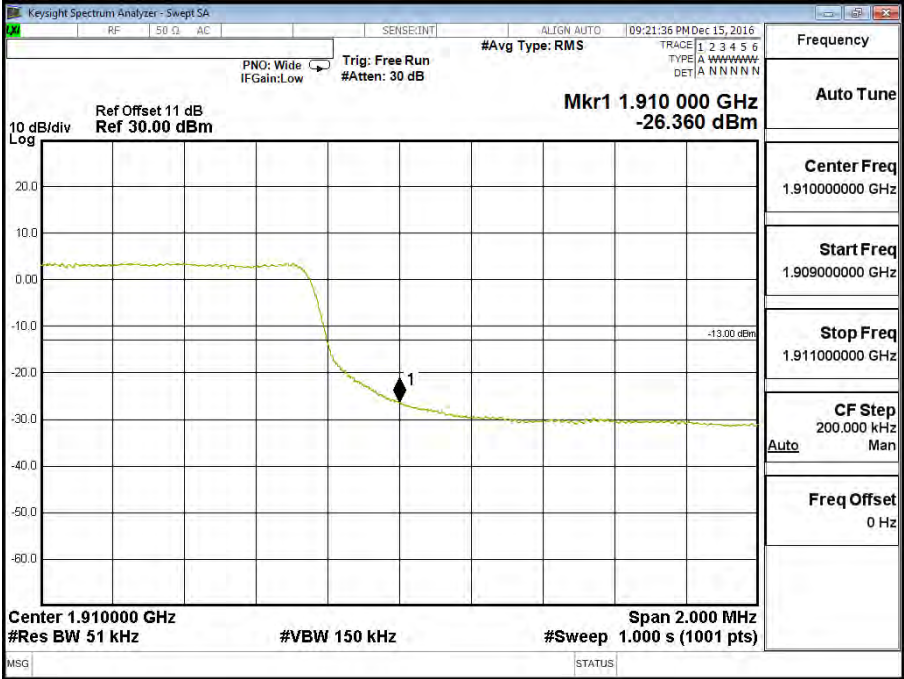
Band 2 (5M) QPSK(1,24) Upper Channel 19175 (1907.5MHz)



Band 2 (5M) QPSK(25,0) Lower Channel 18625 (1852.5MHz)



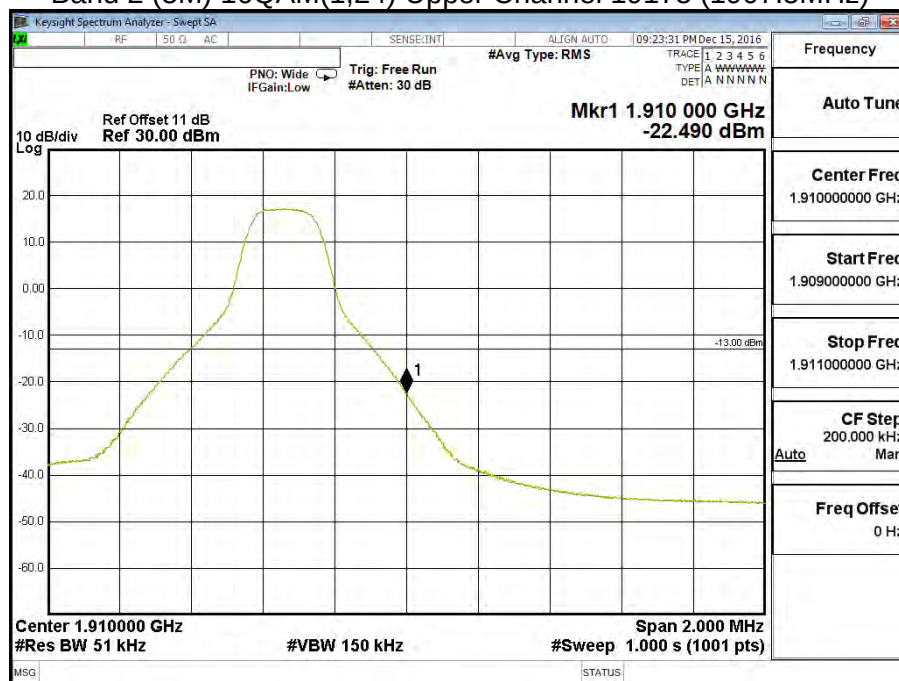
Band 2 (5M) QPSK(25,0) Upper Channel 19175 (1907.5MHz)



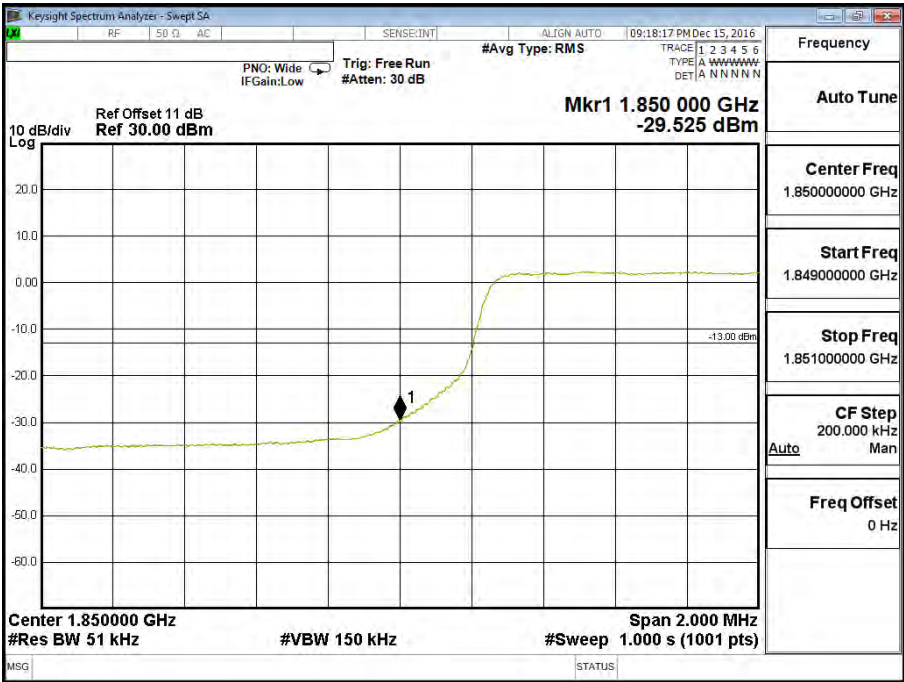
Band 2 (5M) 16QAM(1,0) Lower Channel 18625 (1852.5MHz)



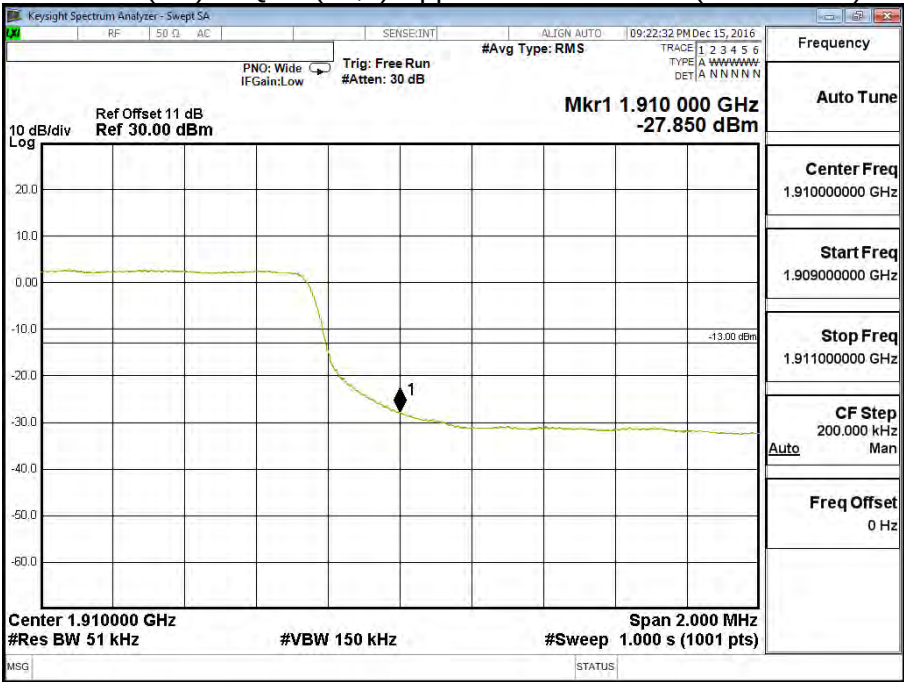
Band 2 (5M) 16QAM(1,24) Upper Channel 19175 (1907.5MHz)



Band 2 (5M) 16QAM(25,0) Lower Channel 18625 (1852.5MHz)

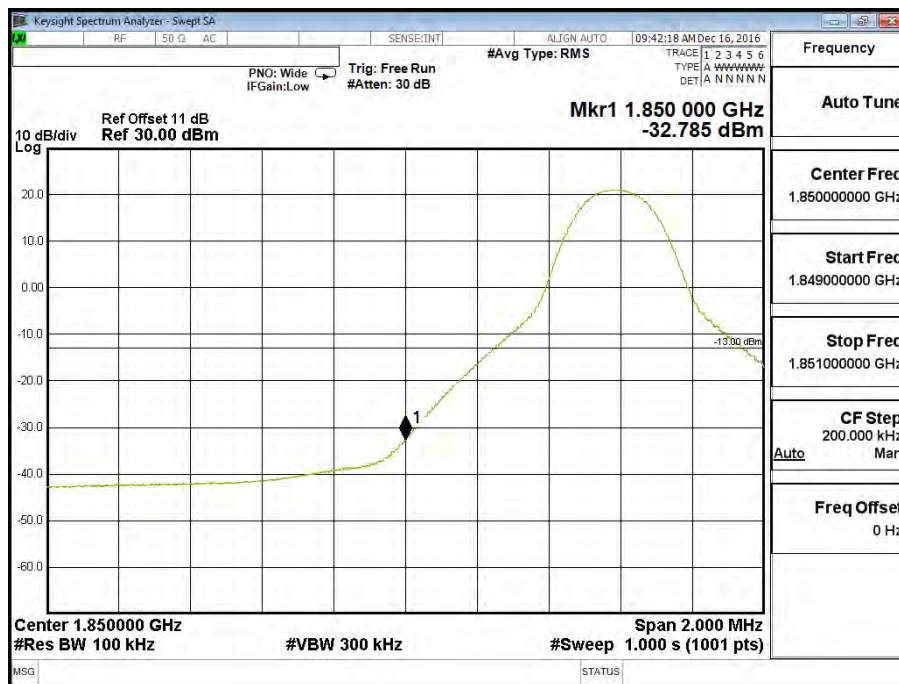


Band 2 (5M) 16QAM(25,0) Upper Channel 19175 (1907.5MHz)

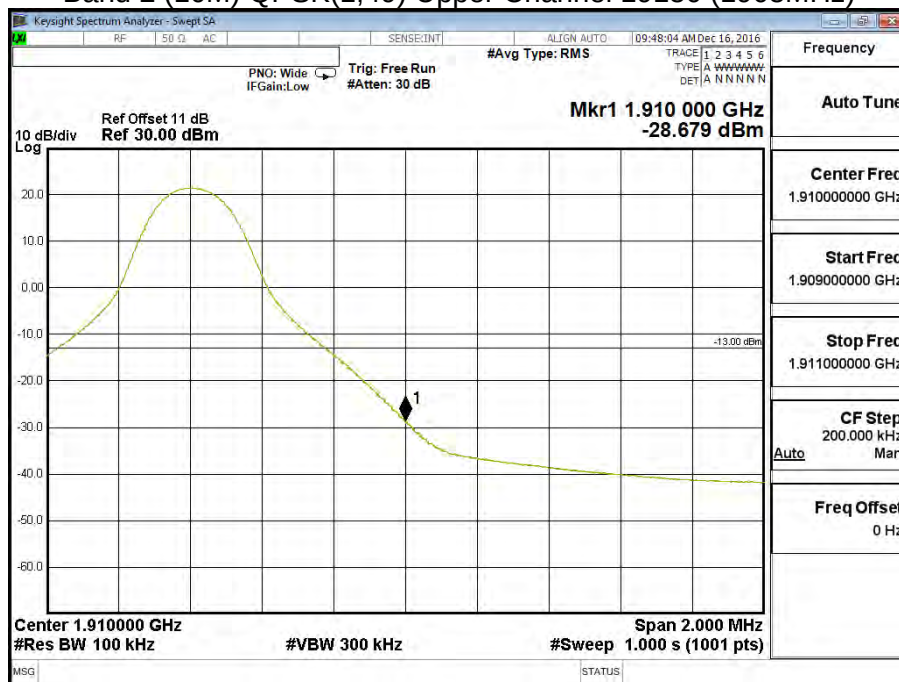


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (10M))		

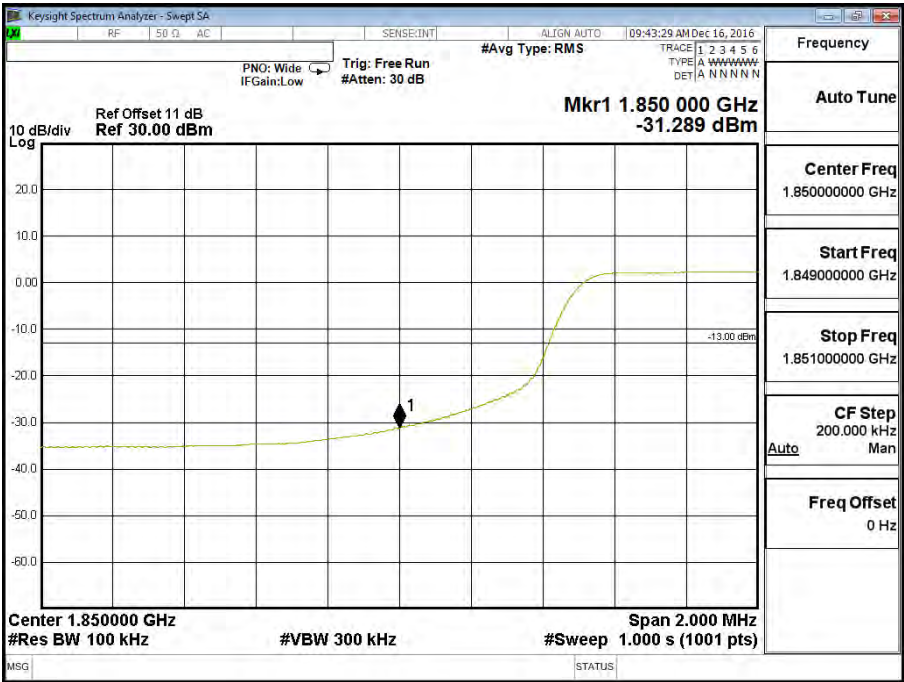
Band 2 (10M) QPSK(1,0) Lower Channel 18650 (1855MHz)



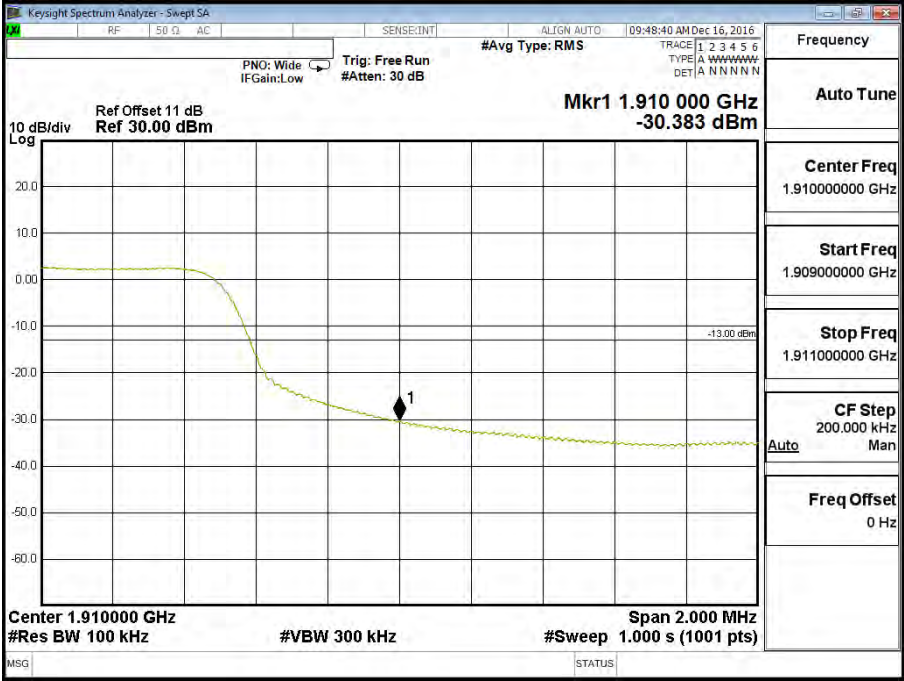
Band 2 (10M) QPSK(1,49) Upper Channel 19150 (1905MHz)



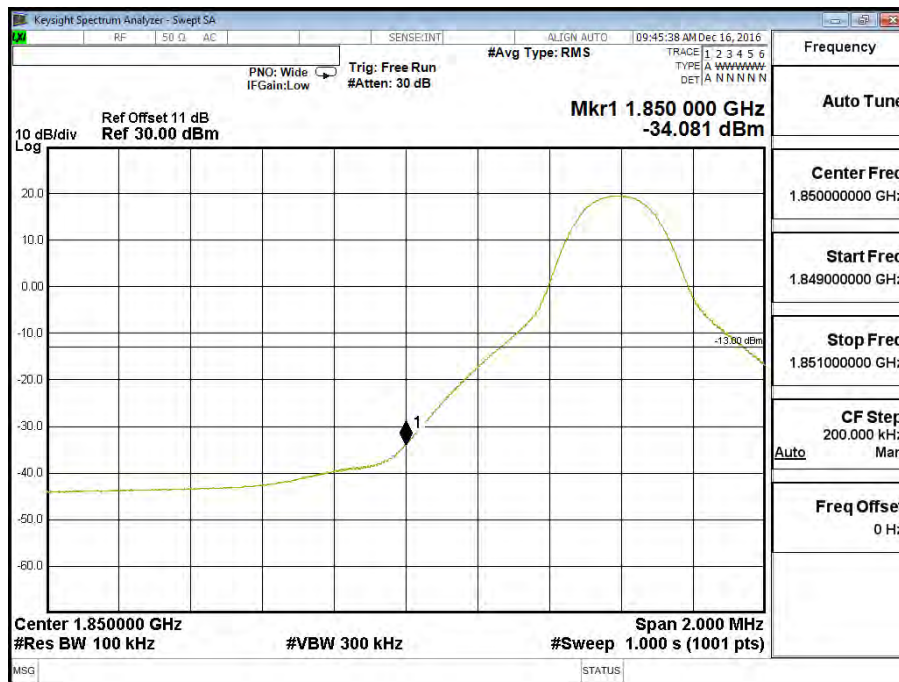
Band 2 (10M) QPSK(50,0) Lower Channel 18650 (1855MHz)



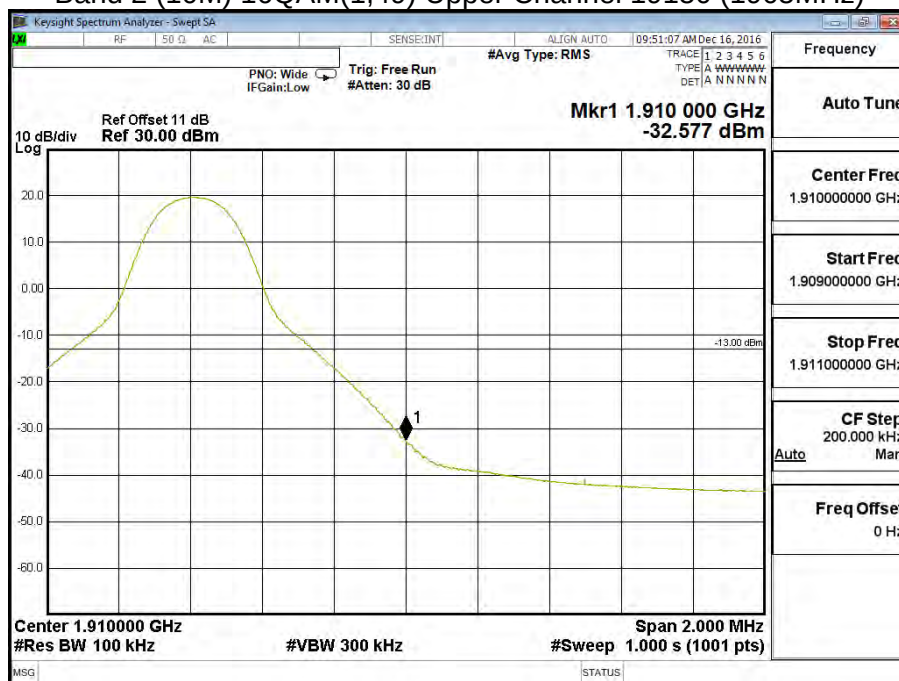
Band 2 (10M) QPSK(50,0) Upper Channel 19150 (1905MHz)



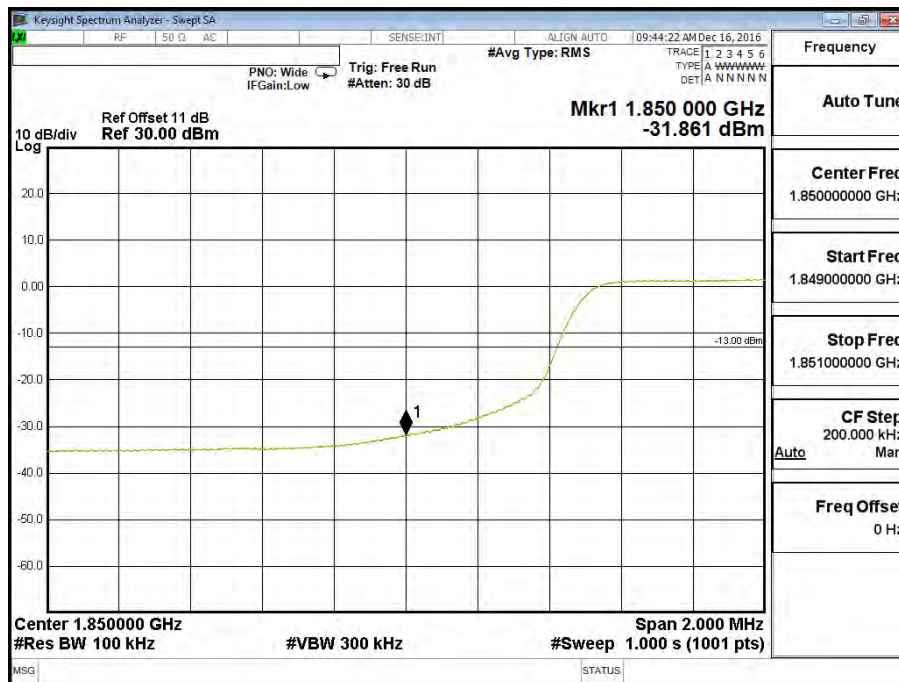
Band 2 (10M) 16QAM(1,0) Lower Channel 18650 (1855MHz)



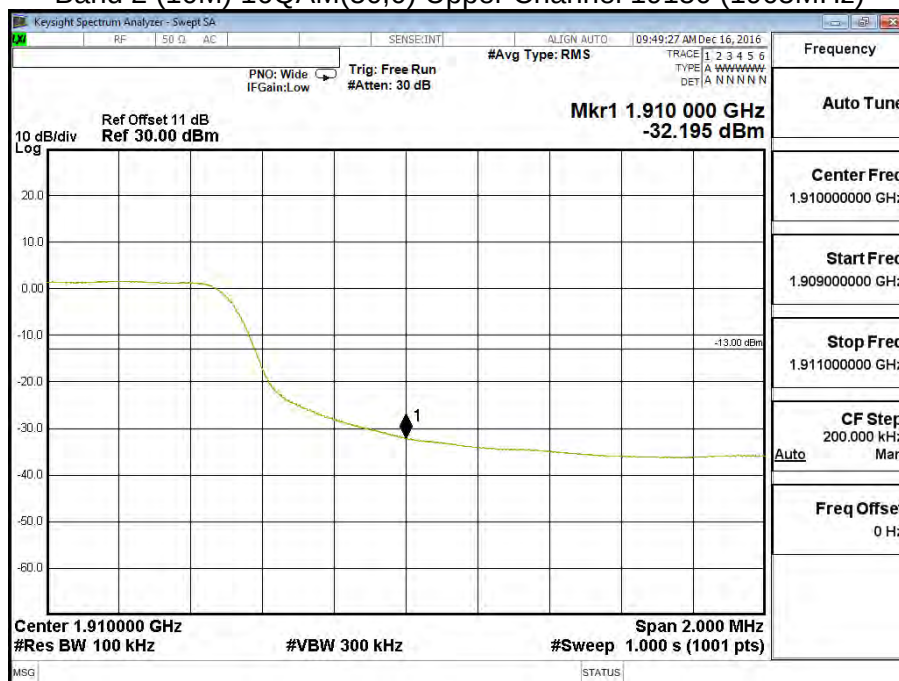
Band 2 (10M) 16QAM(1,49) Upper Channel 19150 (1905MHz)



Band 2 (10M) 16QAM(50,0) Lower Channel 18650 (1855MHz)



Band 2 (10M) 16QAM(50,0) Upper Channel 19150 (1905MHz)

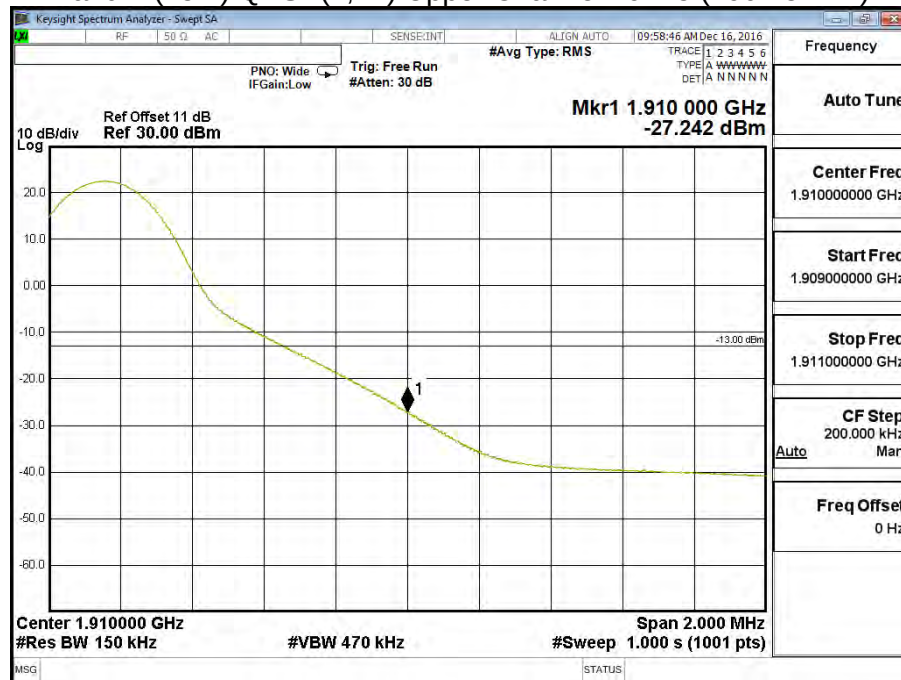


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (15M))		

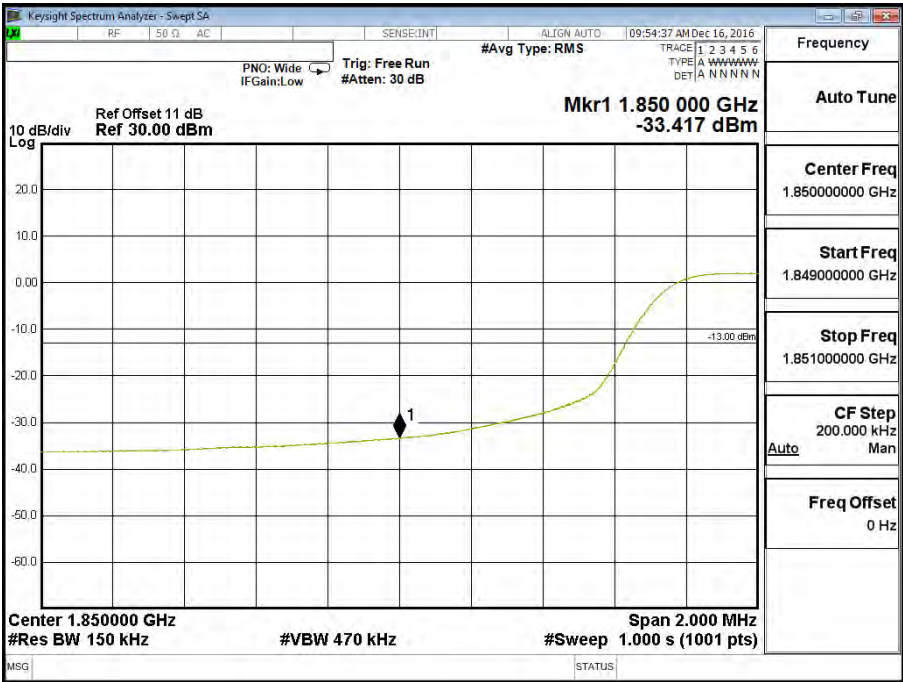
Band 2 (15M)QPSK(1,0) Lower Channel 18675 (1857.5MHz)



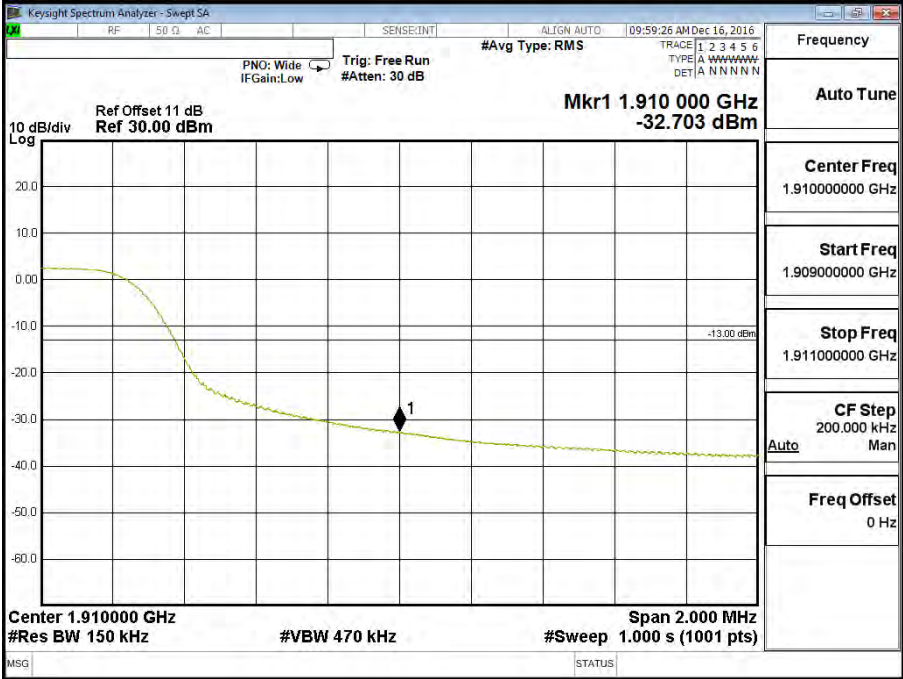
Band 2 (15M) QPSK(1,74) Upper Channel 19125 (1902.5MHz)



Band 2 (15M) QPSK(75,0) Lower Channel 18675 (1857.5MHz)



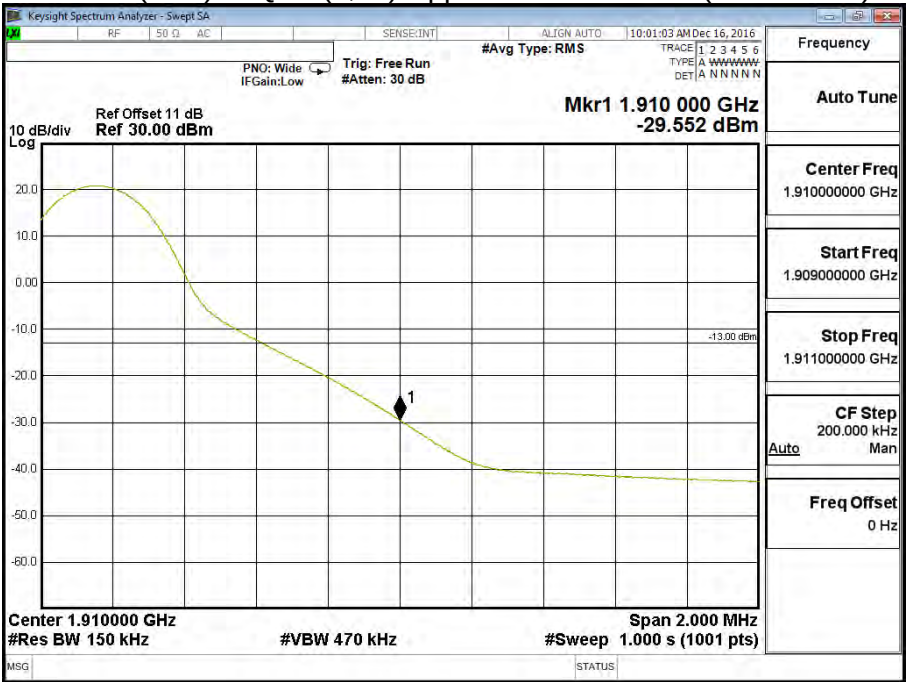
Band 2 (15M) QPSK(75,0) Upper Channel 19125 (1902.5MHz)



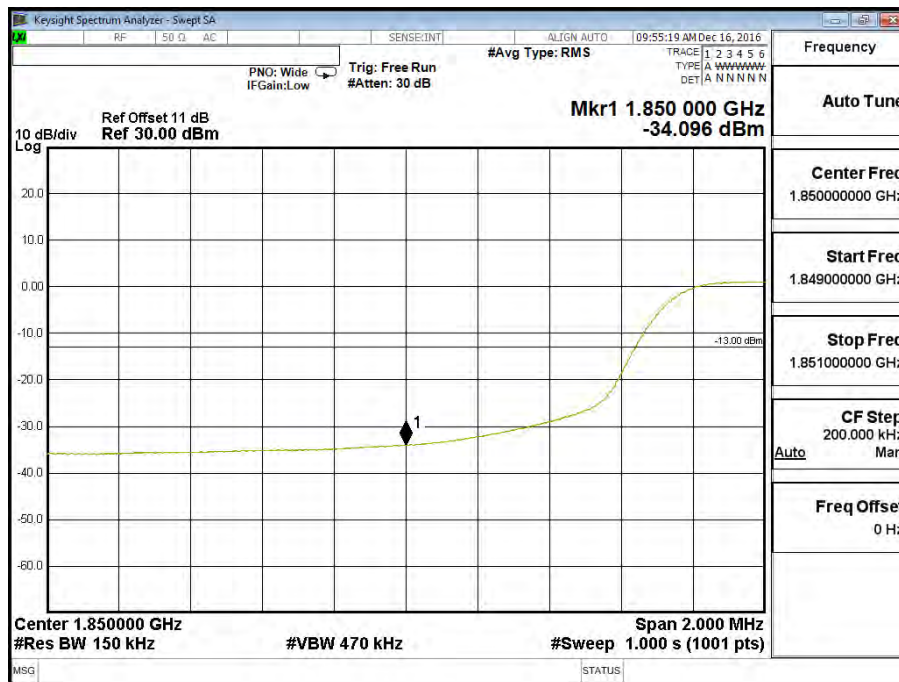
Band 2 (15M) 16QAM(1,0) Lower Channel 18675 (1857.5MHz)



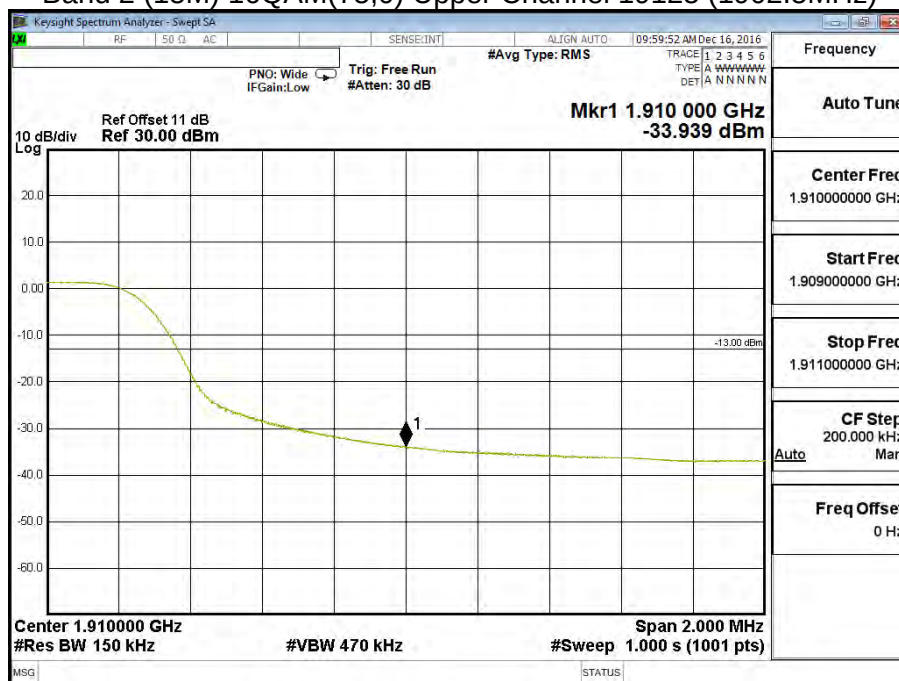
Band 2 (15M) 16QAM(1,74) Upper Channel 19125 (1902.5MHz)



Band 2 (15M) 16QAM(75,0) Lower Channel 18675 (1857.5MHz)

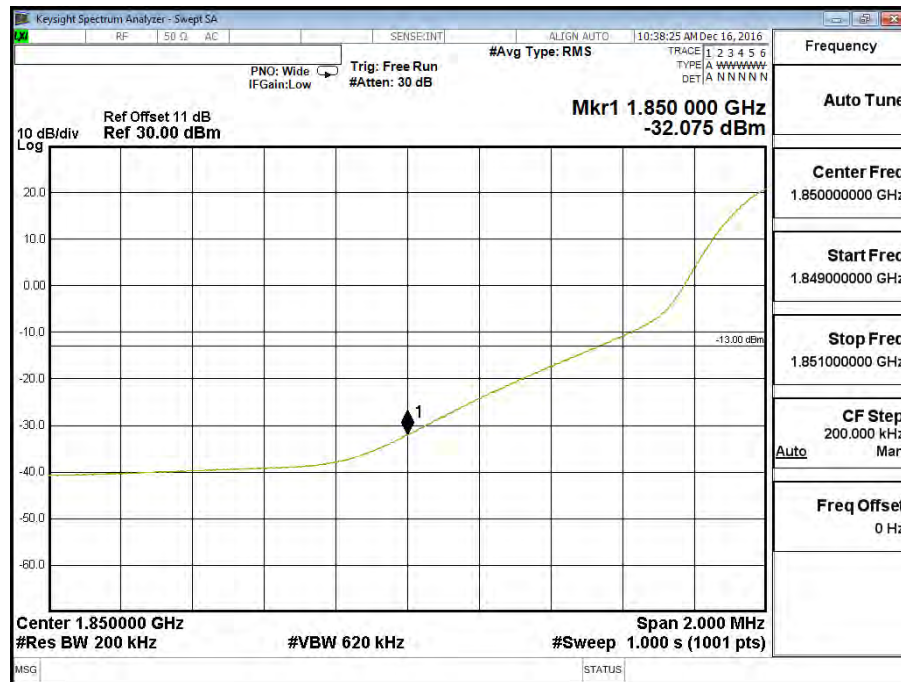


Band 2 (15M) 16QAM(75,0) Upper Channel 19125 (1902.5MHz)

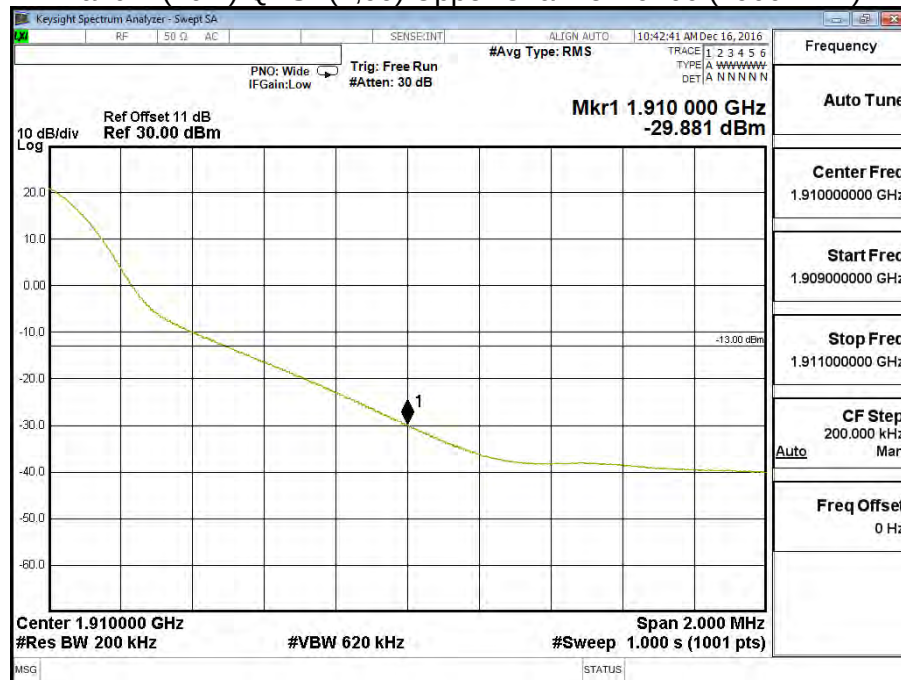


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (20M))		

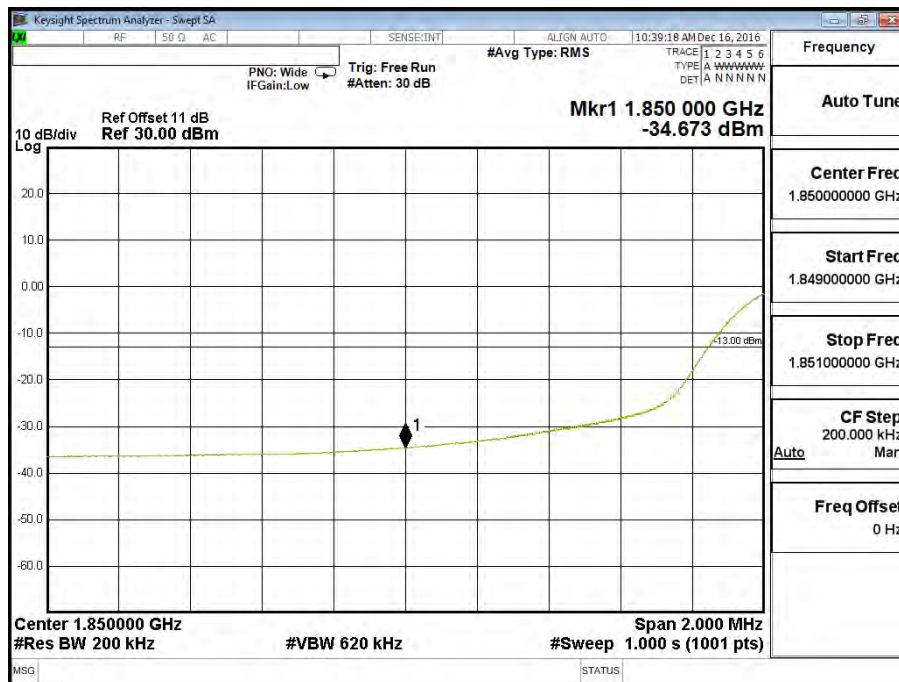
Band 2 (20M) QPSK(1,0) Lower Channel 18700 (1860MHz)



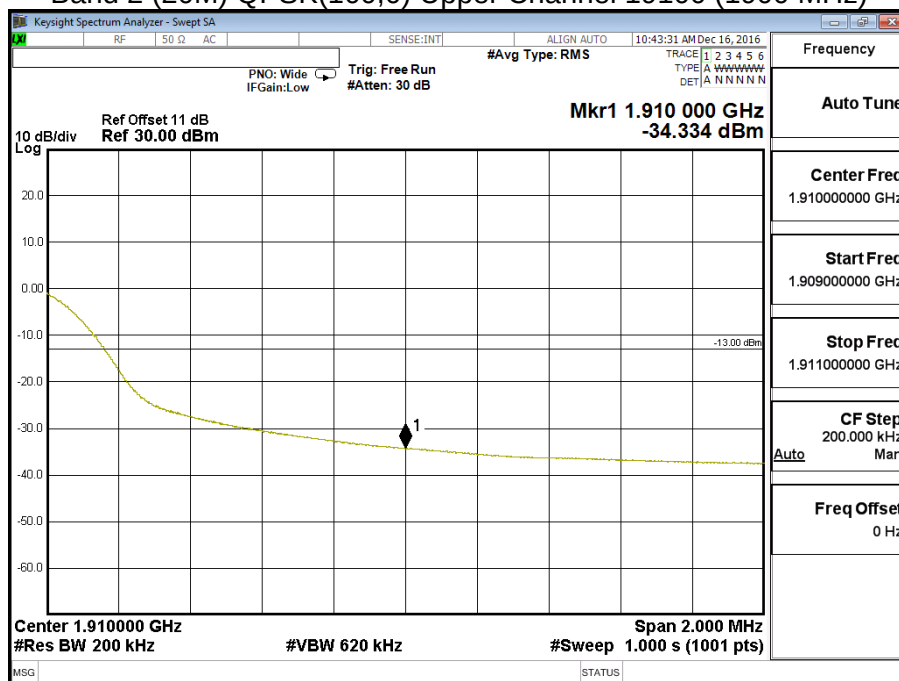
Band 2 (20M) QPSK(1,99) Upper Channel 19100 (1900 MHz)



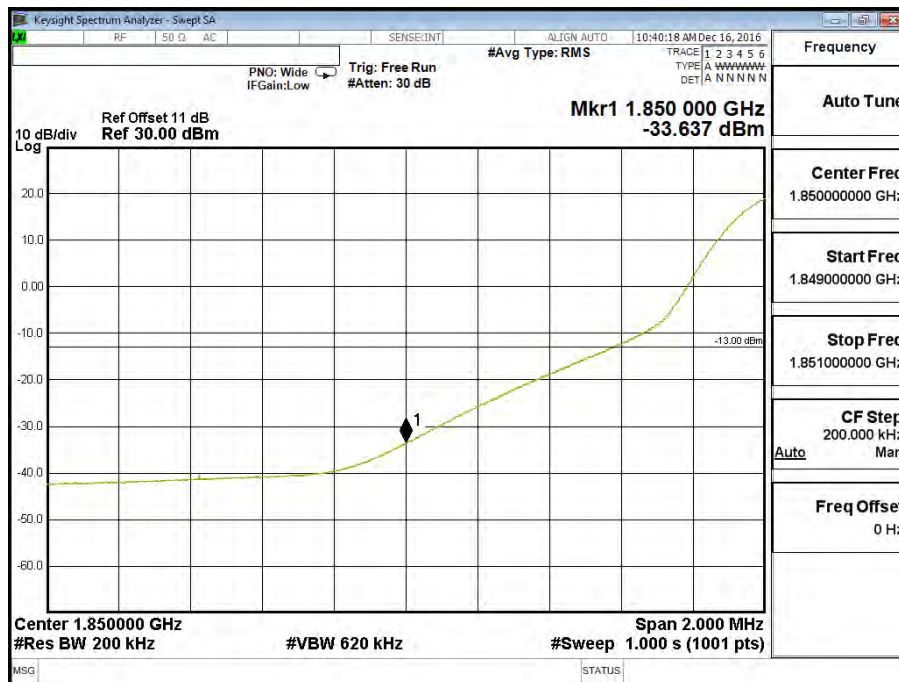
Band 2 (20M) QPSK(100,0) Lower Channel 18700 (1860MHz)



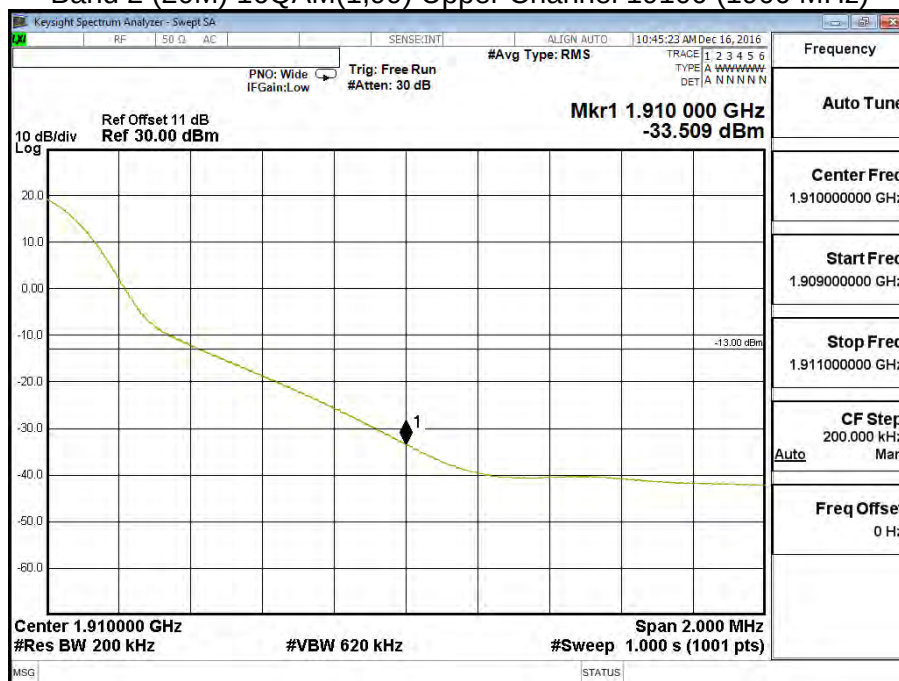
Band 2 (20M) QPSK(100,0) Upper Channel 19100 (1900 MHz)



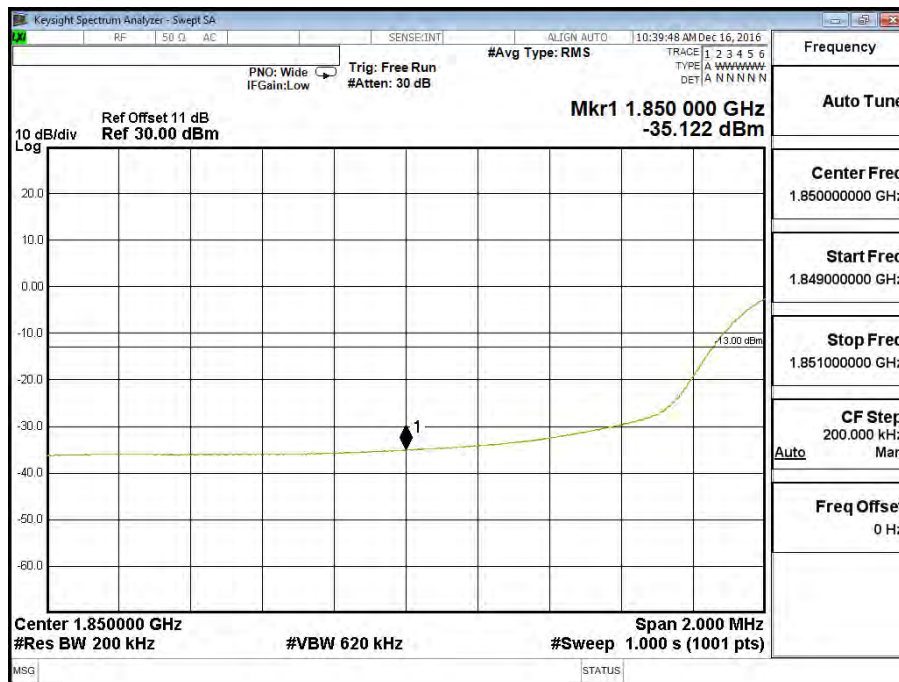
Band 2 (20M) 16QAM(1,0) Lower Channel 18700 (1860MHz)



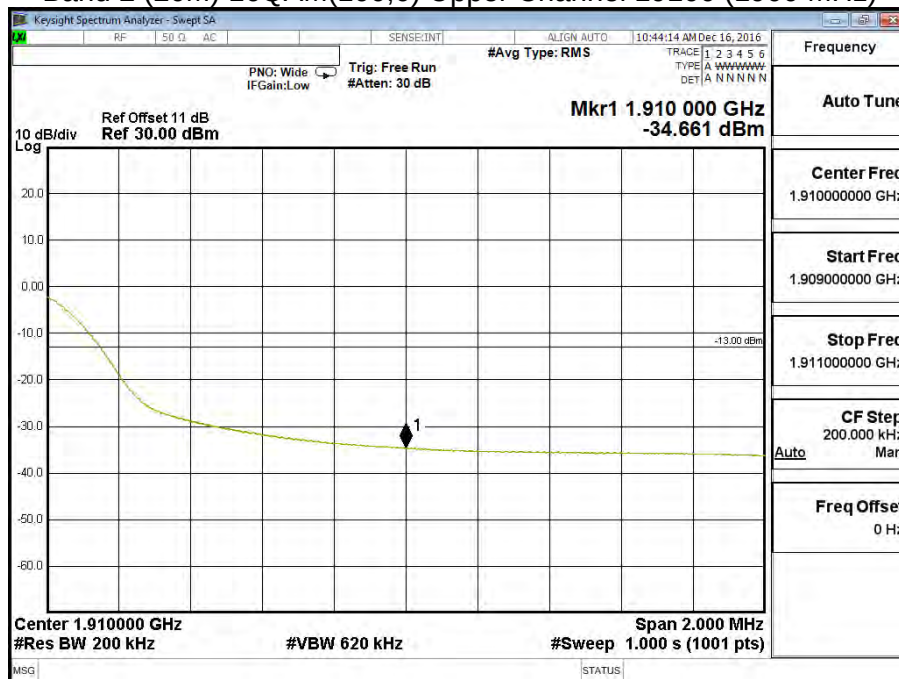
Band 2 (20M) 16QAM(1,99) Upper Channel 19100 (1900 MHz)



Band 2 (20M) 16QAM(100,0) Lower Channel 18700 (1860MHz)

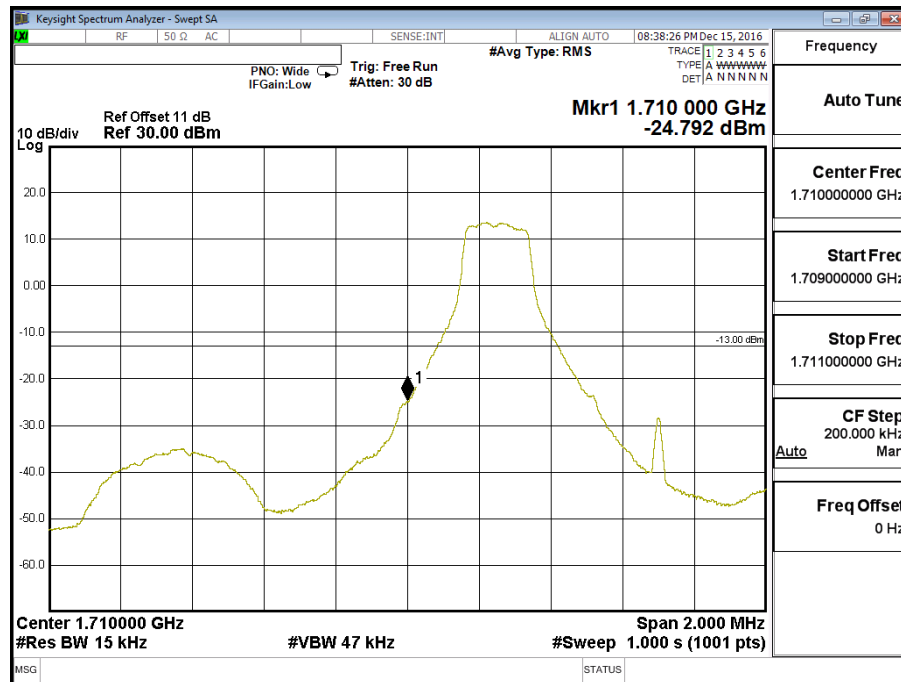


Band 2 (20M) 16QAM(100,0) Upper Channel 19100 (1900 MHz)

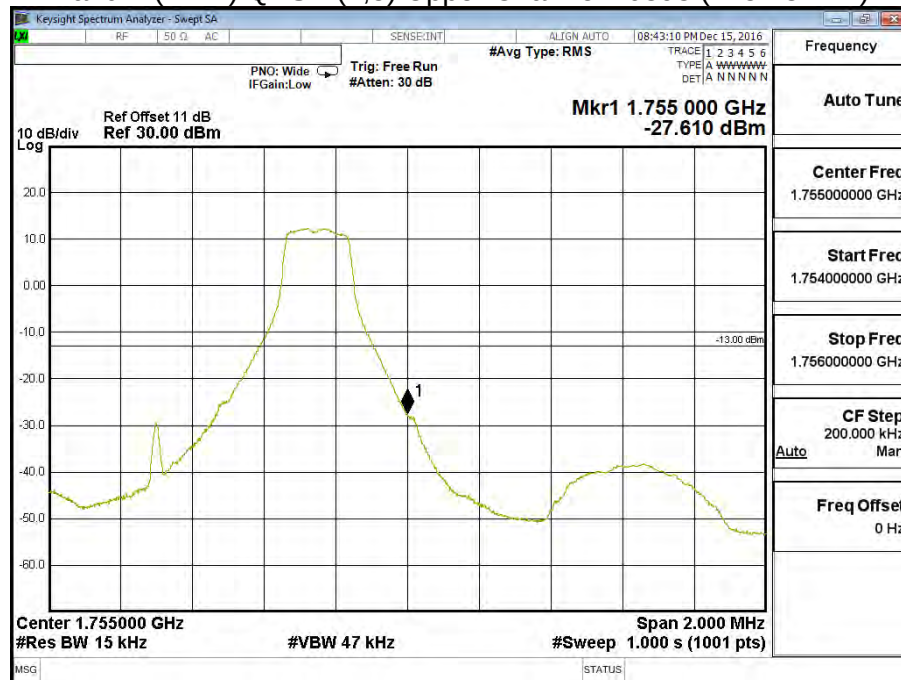


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (1.4M))		

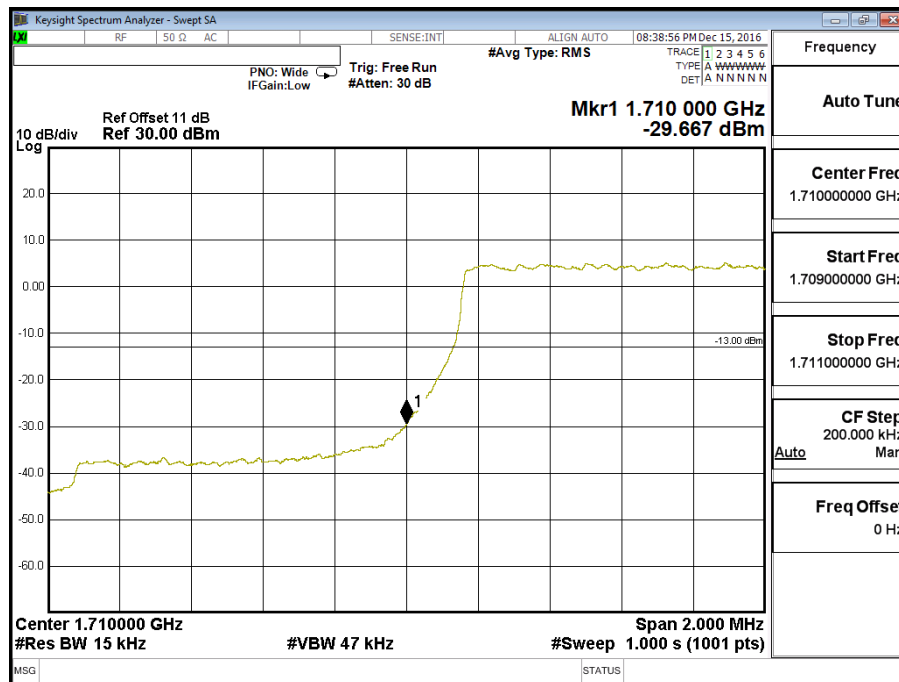
Band 4 (1.4M) QPSK (1,0) Lower Channel 19957 (1710.7MHz)



Band 4 (1.4M) QPSK (1,5) Upper Channel 20393 (1754.3MHz)



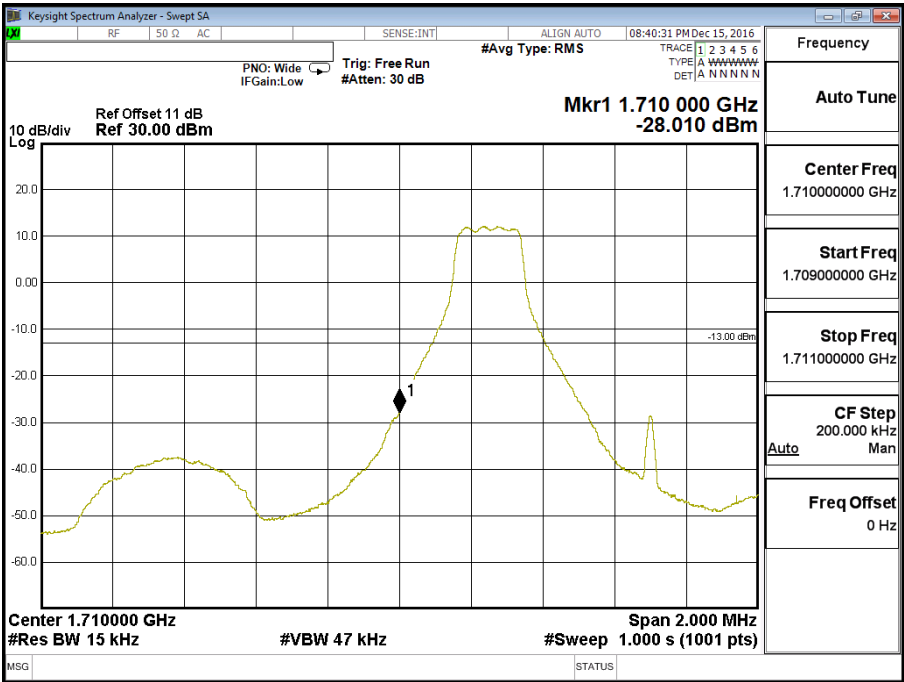
Band 4 (1.4M) QPSK (6,0) Lower Channel 19957 (1710.7MHz)



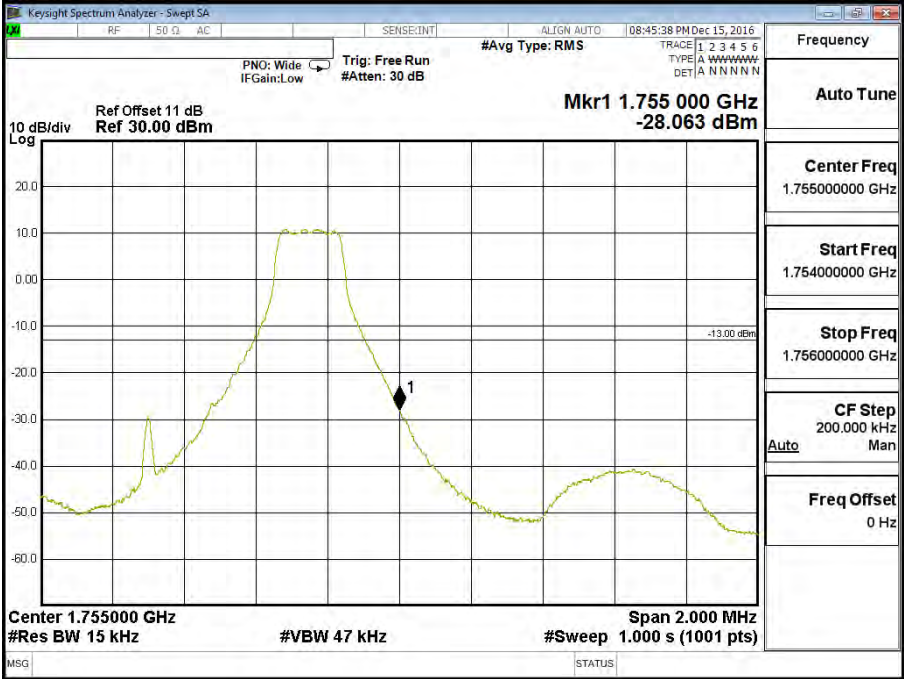
Band 4 (1.4M) QPSK (6,0) Upper Channel 20393 (1754.3MHz)



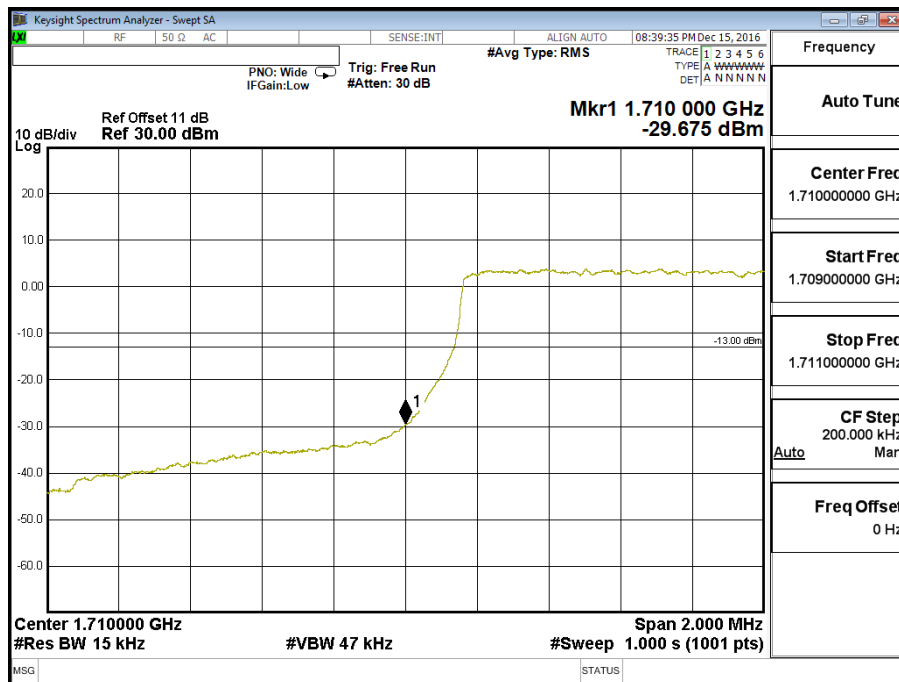
Band 4 (1.4M) 16QAM (1,0) Lower Channel 19957 (1710.7MHz)



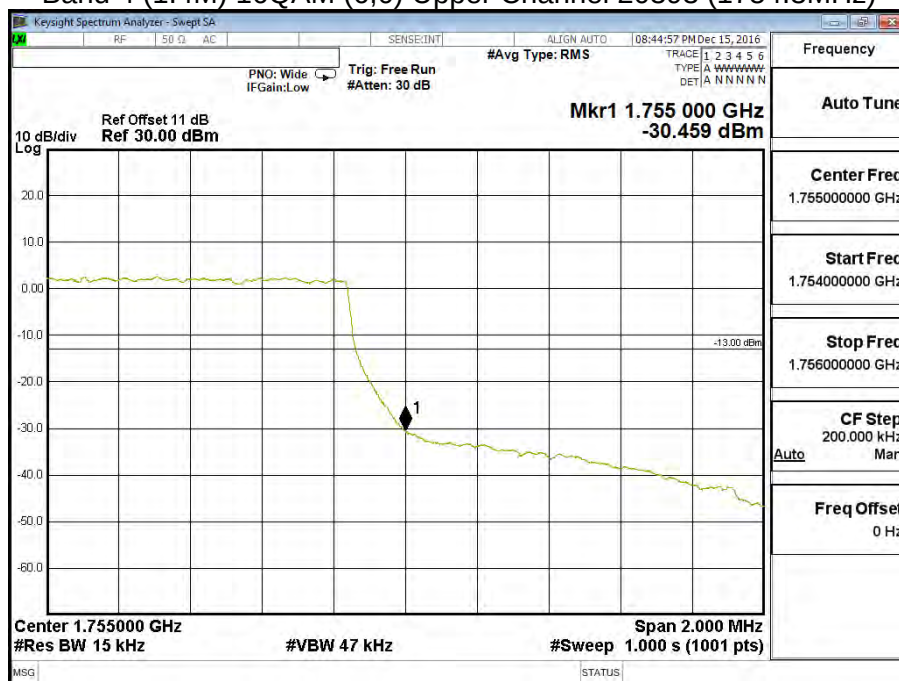
Band 4 (1.4M) 16QAM (1,5) Upper Channel 20393 (1754.3MHz)



Band 4 (1.4M) 16QAM (6,0) Lower Channel 19957 (1710.7MHz)

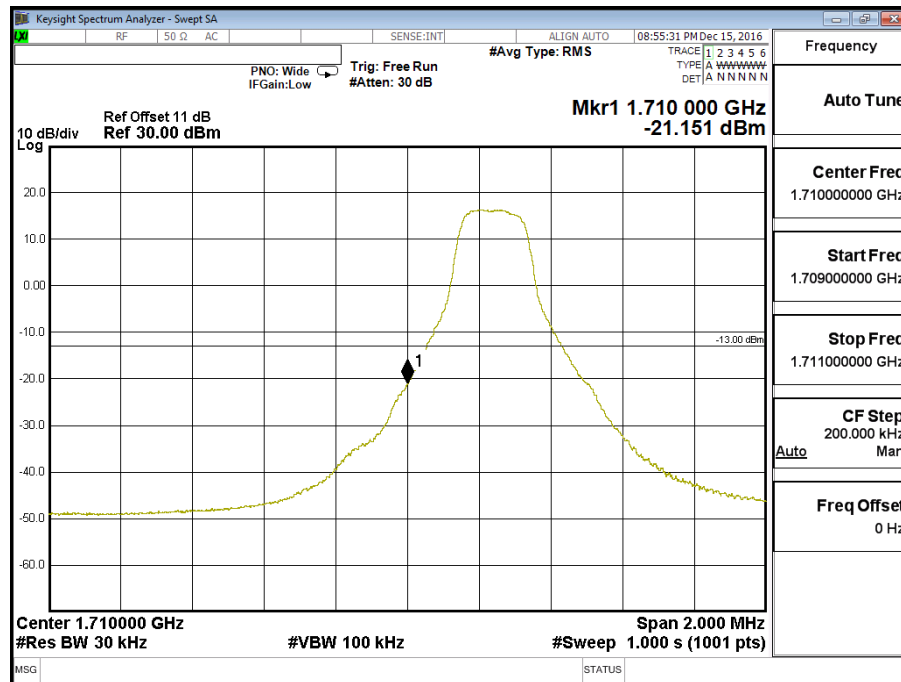


Band 4 (1.4M) 16QAM (6,0) Upper Channel 20393 (1754.3MHz)

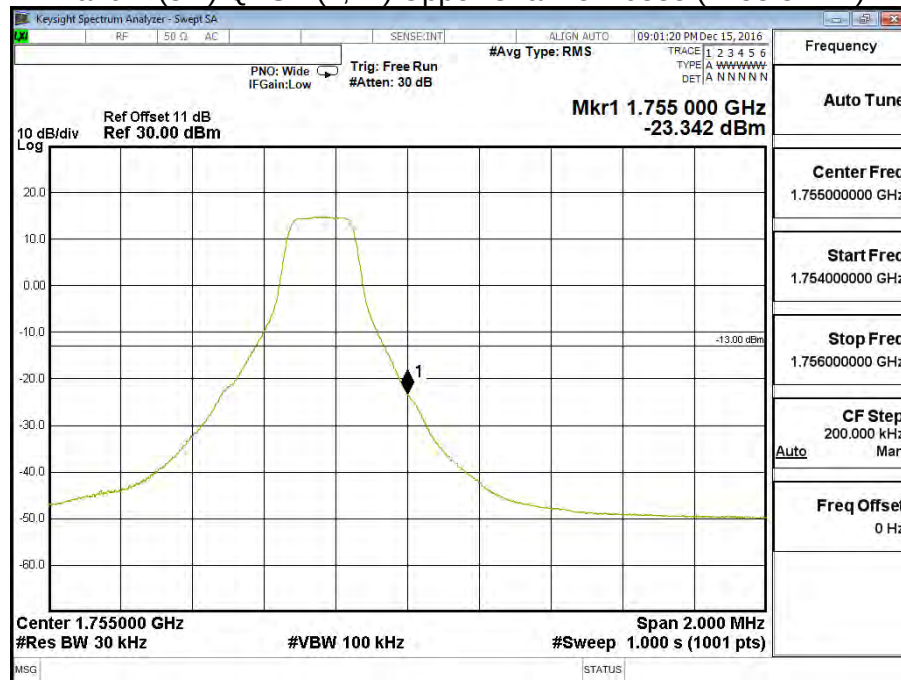


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (3M))		

Band 4 (3M) QPSK (1,0) Lower Channel 19965 (1711.5MHz)



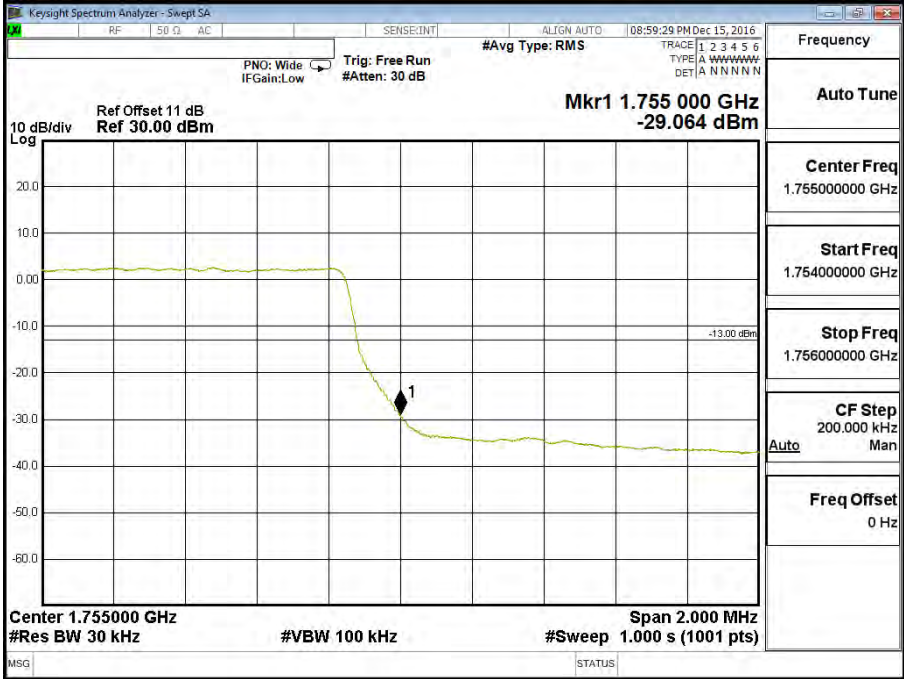
Band 4 (3M) QPSK (1,14) Upper Channel 20385 (1753.5MHz)



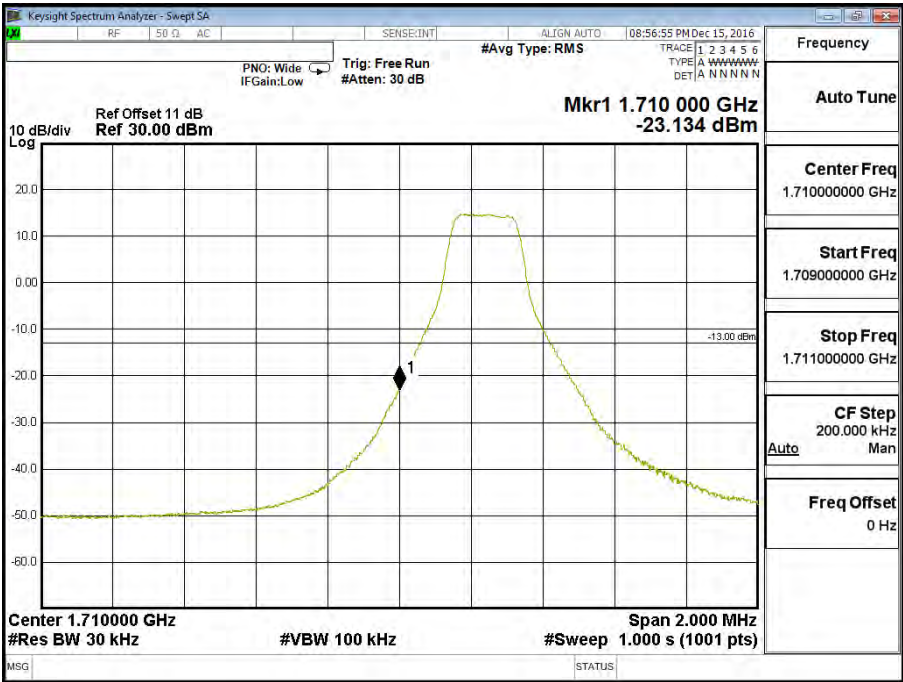
Band 4 (3M) QPSK (15,0) Lower Channel 19965 (1711.5MHz)



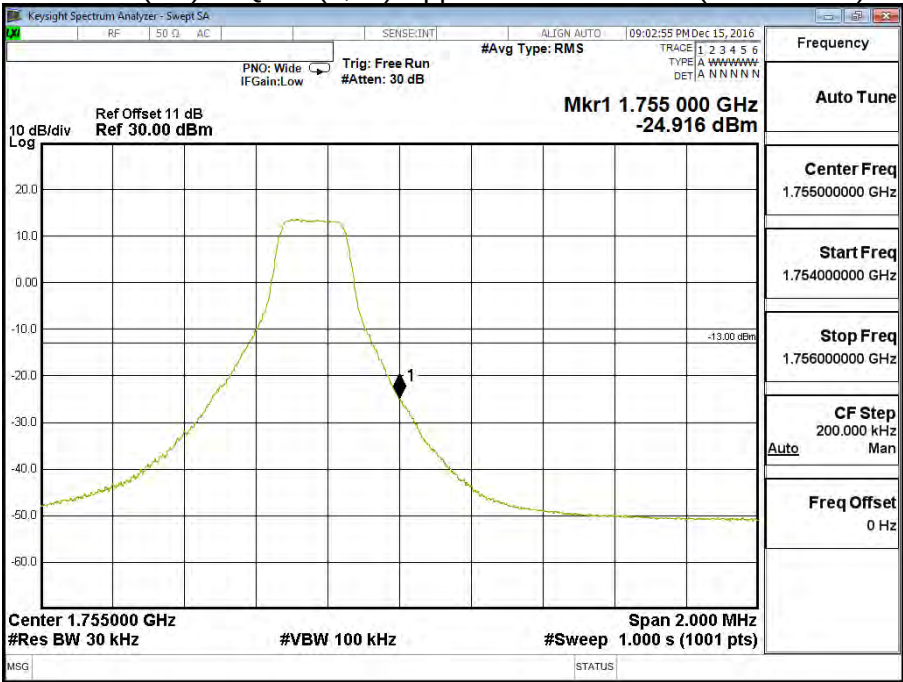
Band 4 (3M) QPSK (15,0) Upper Channel 20385 (1753.5MHz)



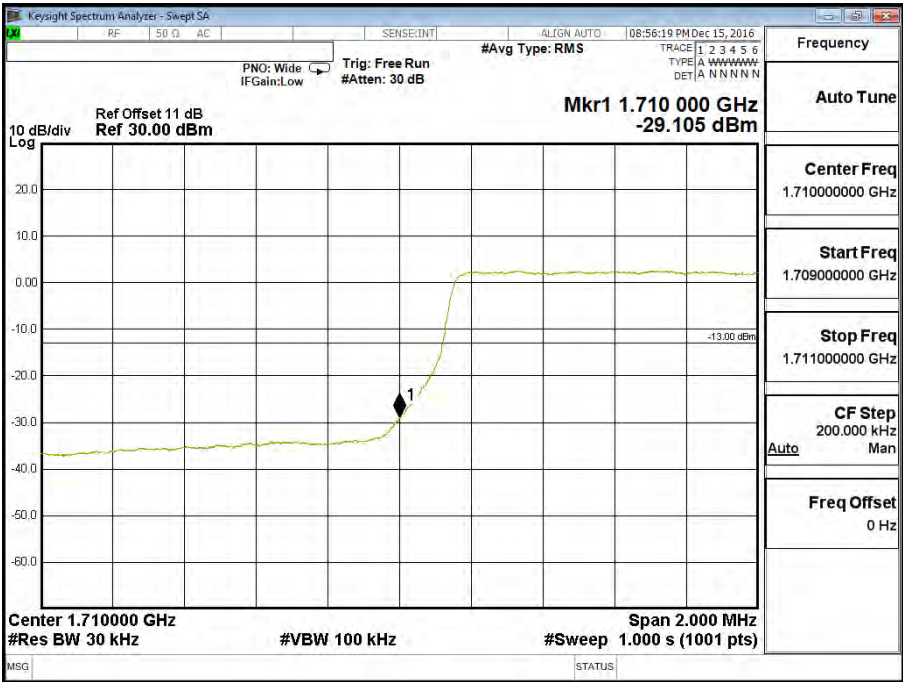
Band 4 (3M) 16QAM (1,0) Lower Channel 19965 (1711.5MHz)



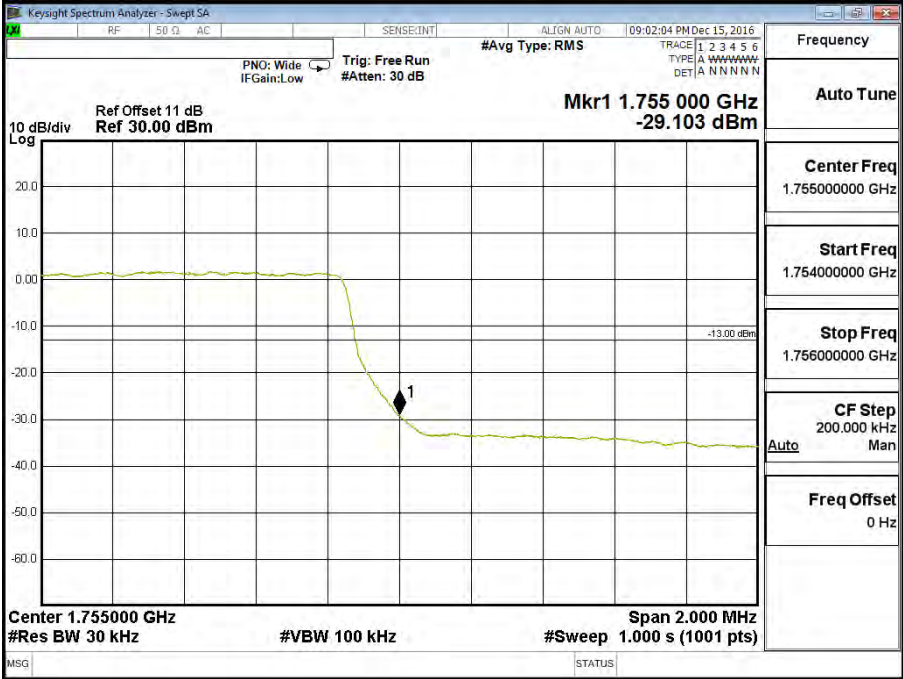
Band 4 (3M) 16QAM (1,14) Upper Channel 20385 (1753.5MHz)



Band 4 (3M) 16QAM (15,0) Lower Channel 19965 (1711.5MHz)



Band 4 (3M) 16QAM (15,0) Upper Channel 20385 (1753.5MHz)

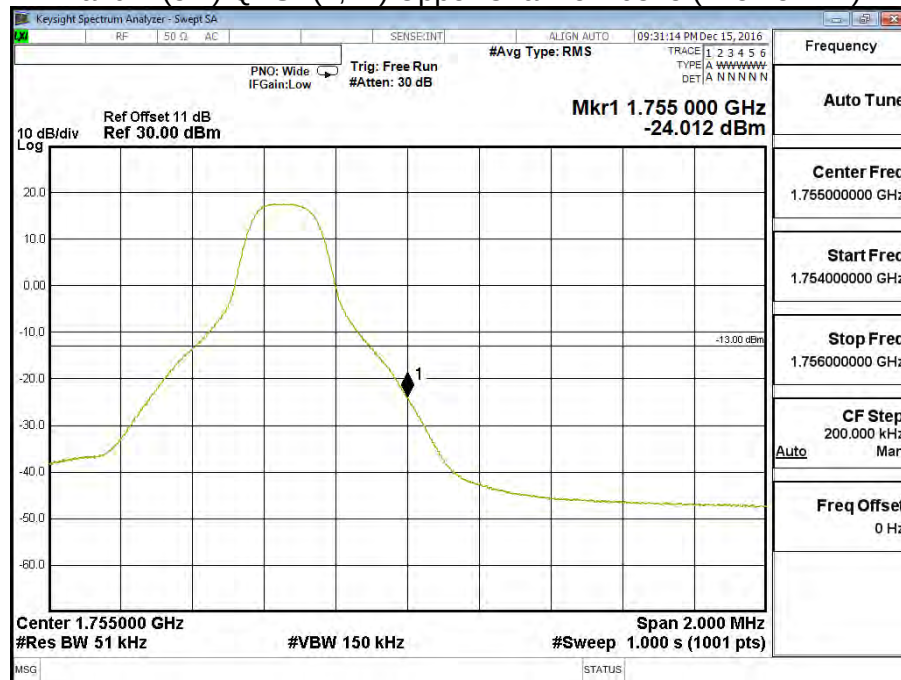


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (5M))		

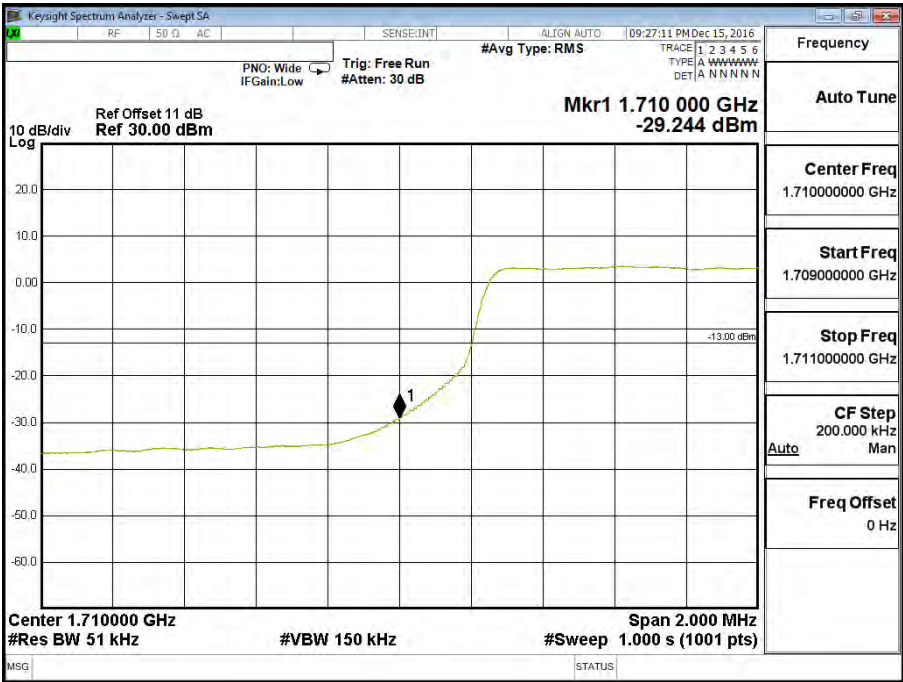
Band 4 (5M) QPSK(1,0) Lower Channel 19975 (1712.5MHz)



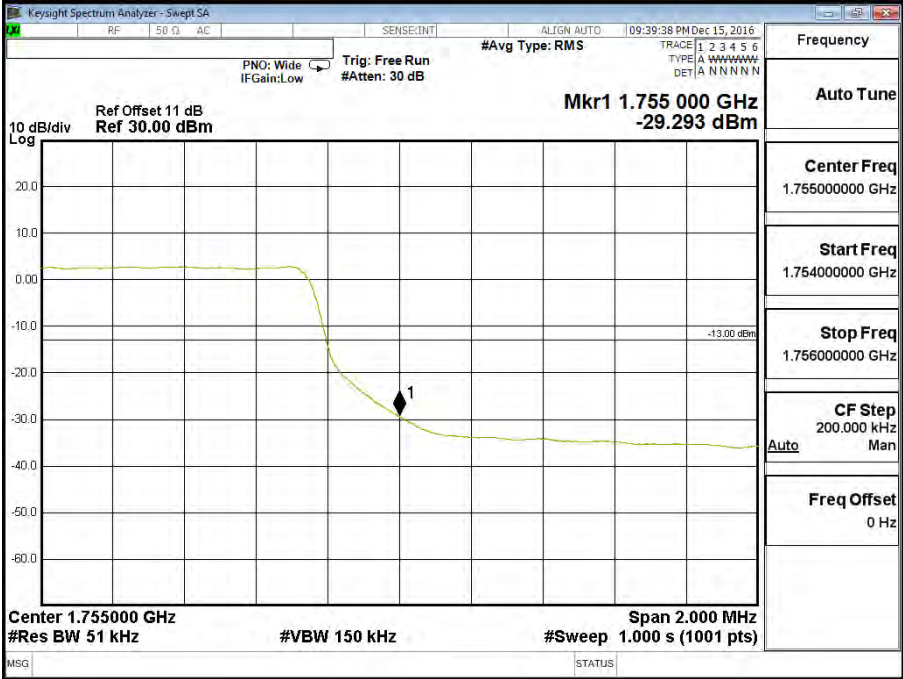
Band 4 (5M) QPSK(1,24) Upper Channel 20375 (1752.5MHz)



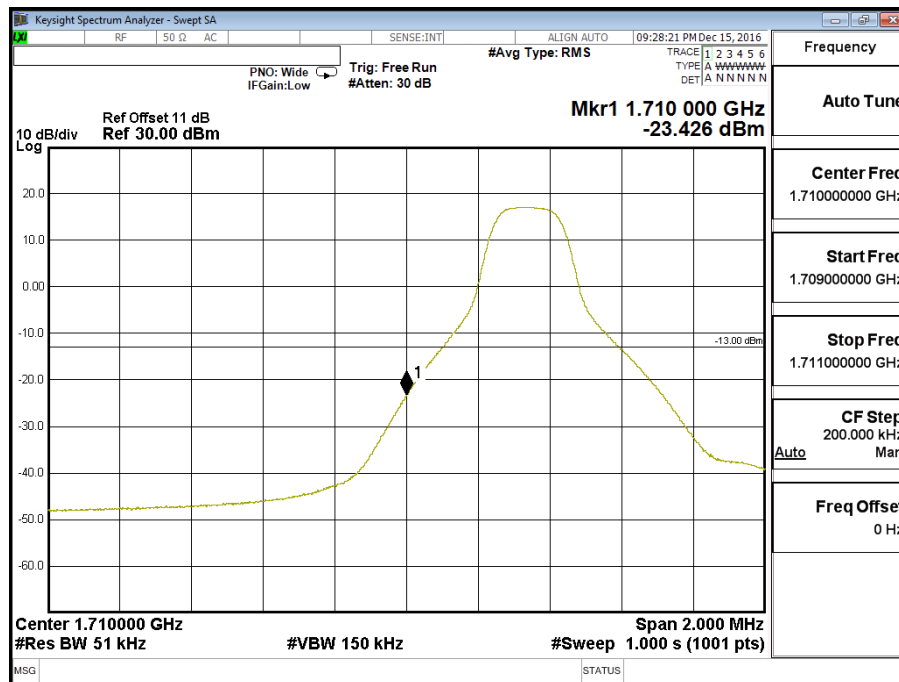
Band 4 (5M) QPSK(25,0) Lower Channel 19975 (1712.5MHz)



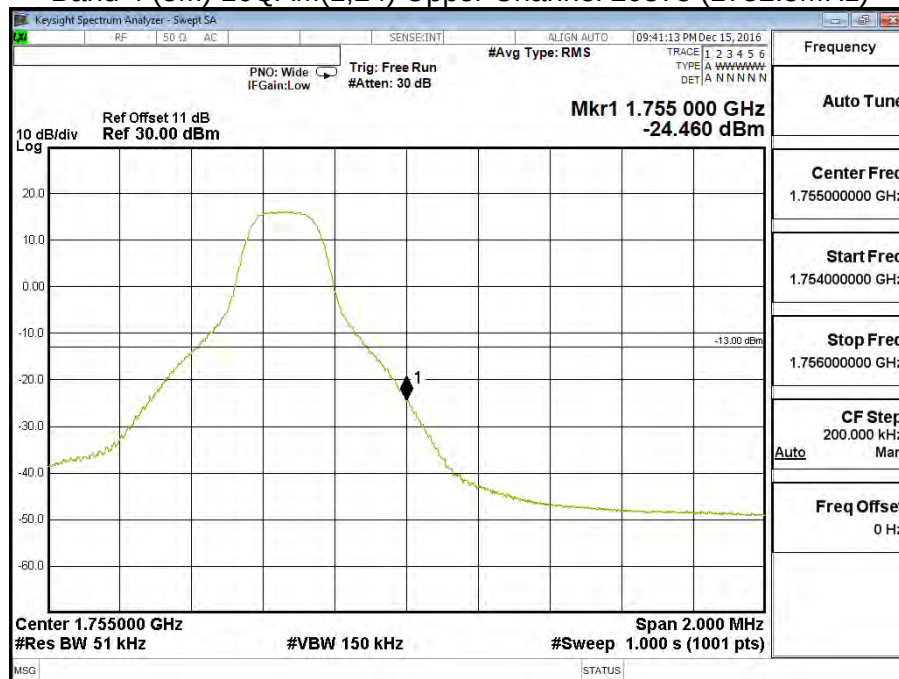
Band 4 (5M) QPSK(25,0) Upper Channel 20375 (1752.5MHz)



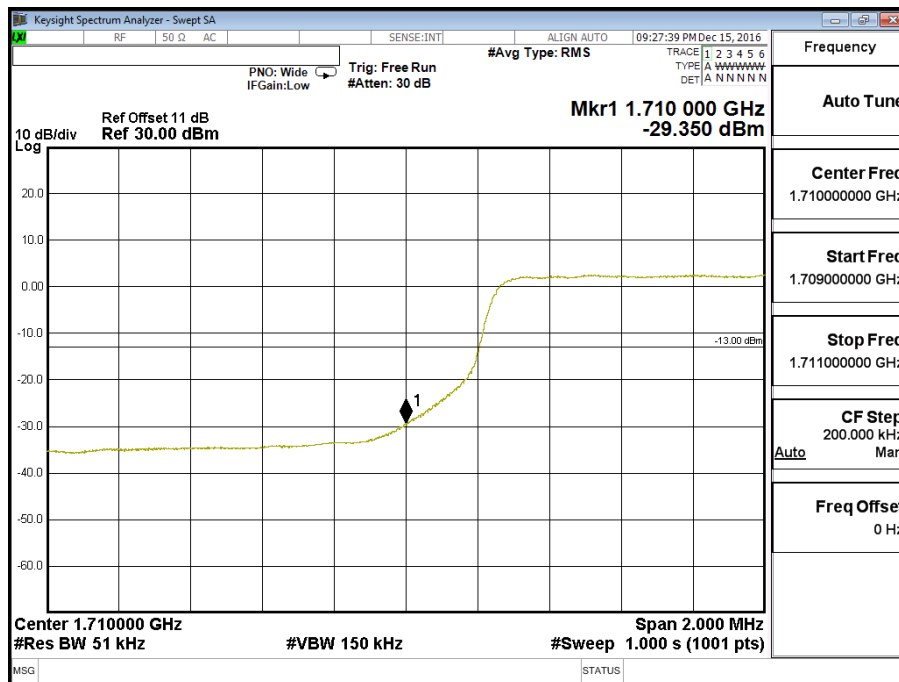
Band 4 (5M) 16QAM(1,0) Lower Channel 19975 (1712.5MHz)



Band 4 (5M) 16QAM(1,24) Upper Channel 20375 (1752.5MHz)



Band 4 (5M) 16QAM(25,0) Lower Channel 19975 (1712.5MHz)

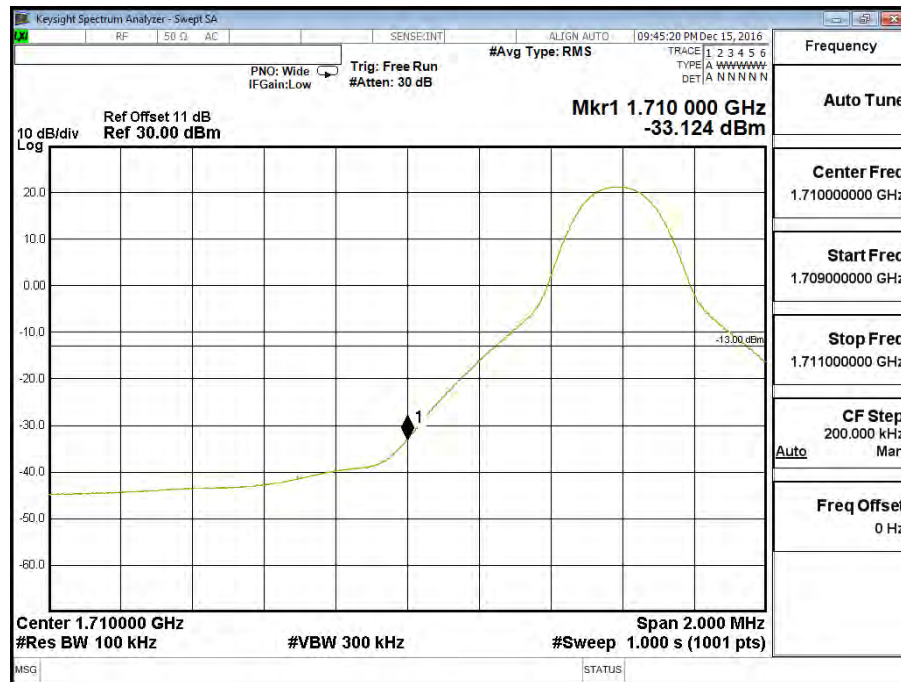


Band 4 (5M) 16QAM(25,0) Upper Channel 20375 (1752.5MHz)



Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (10M))		

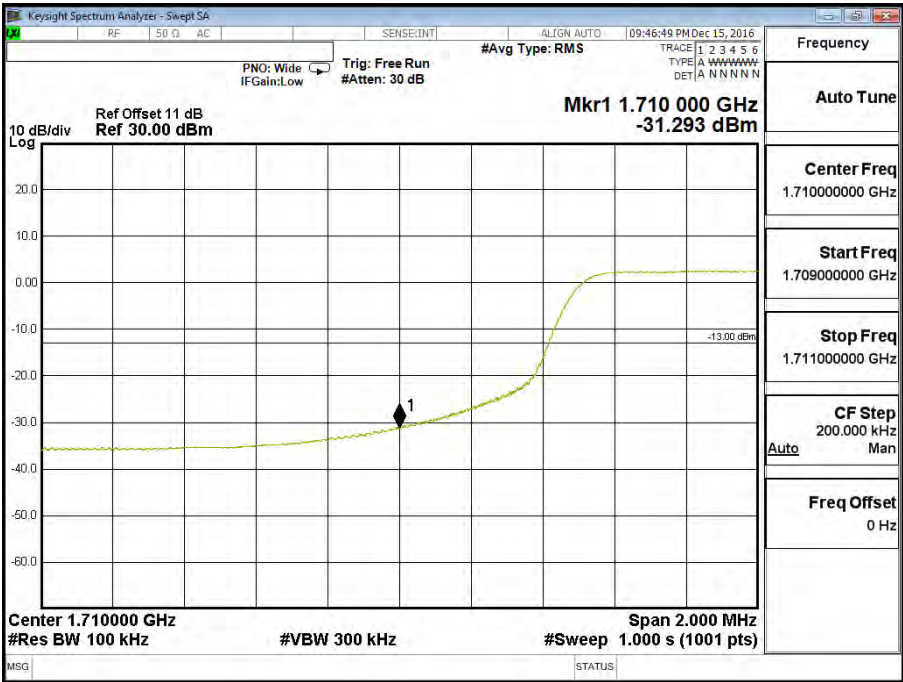
Band 4 (10M) QPSK(1,0) Lower Channel 20000 (1715MHz)



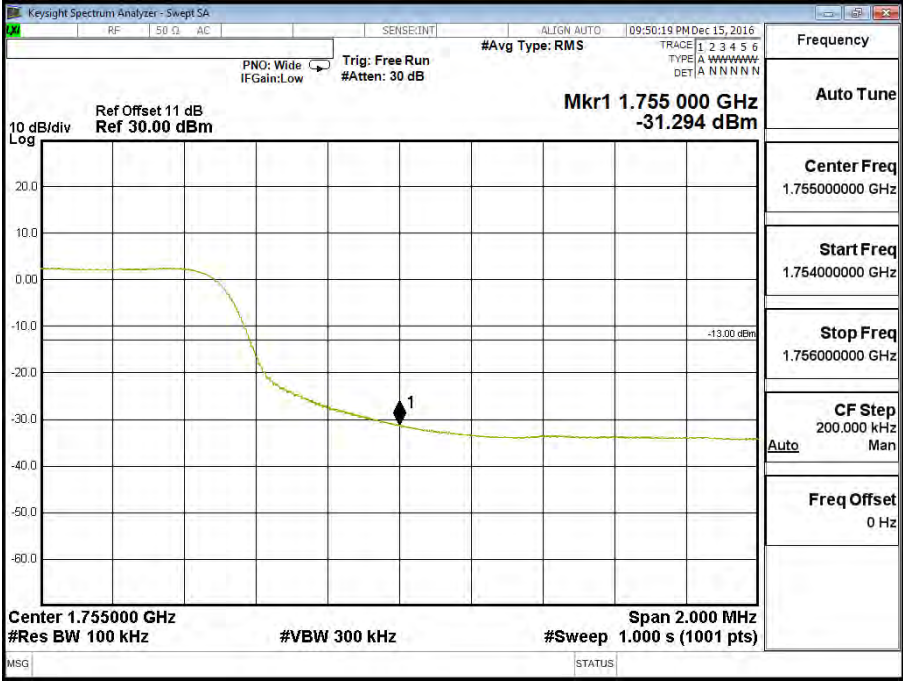
Band 4 (10M) QPSK(1,49) Upper Channel 20350 (1750MHz)



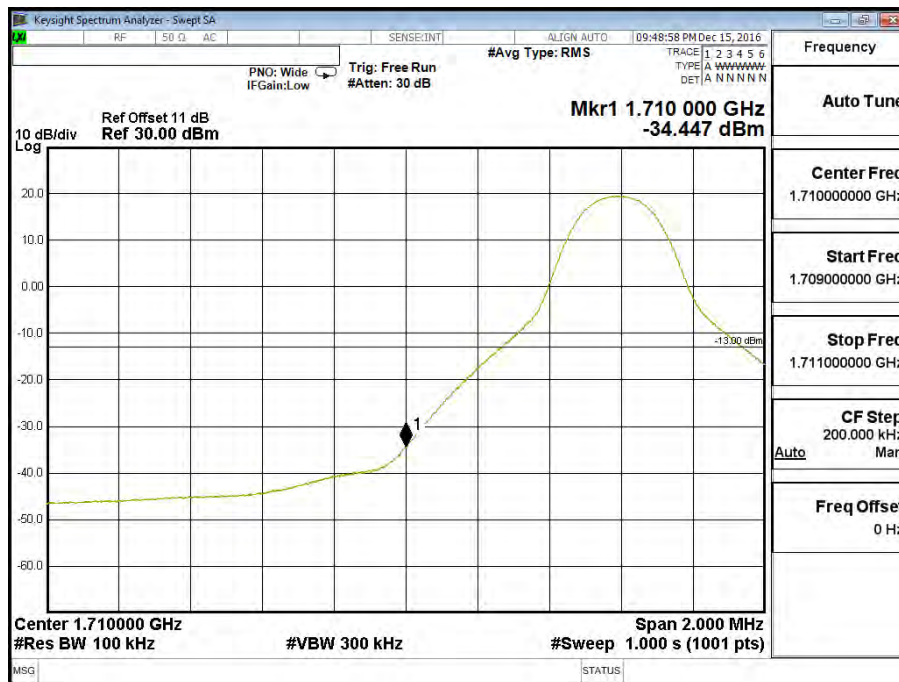
Band 4 (10M) QPSK(50,0) Lower Channel 20000 (1715MHz)



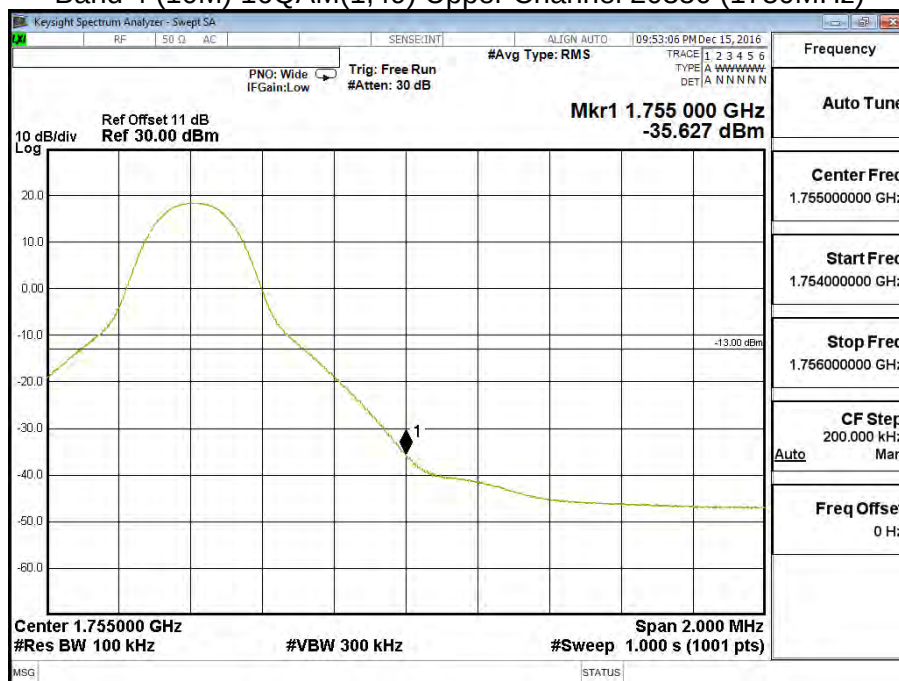
Band 4 (10M) QPSK(50,0) Upper Channel 20350 (1750MHz)



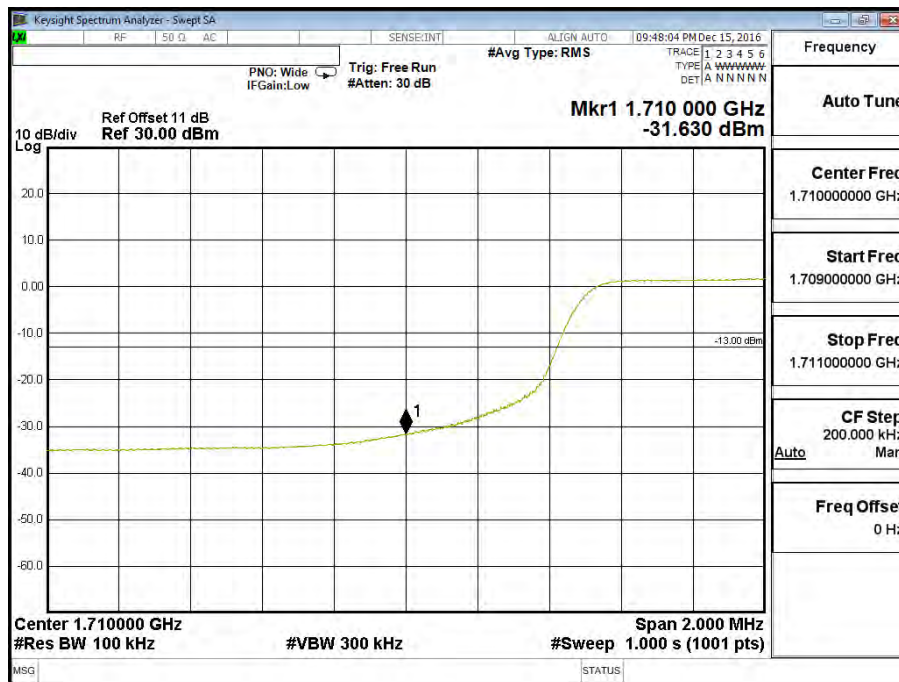
Band 4 (10M) 16QAM(1,0) Lower Channel 20000 (1715MHz)



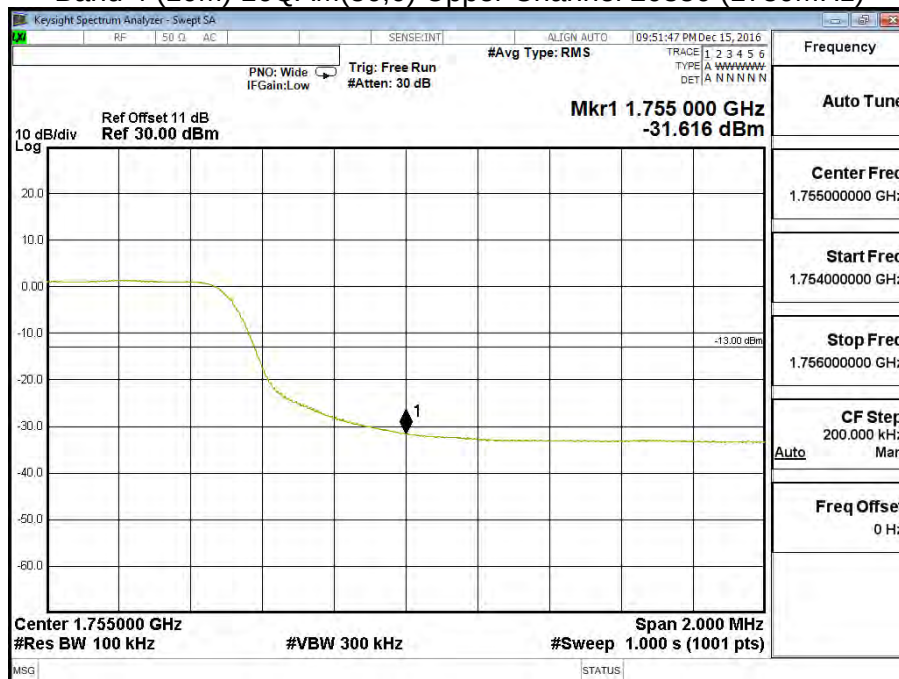
Band 4 (10M) 16QAM(1,49) Upper Channel 20350 (1750MHz)



Band 4 (10M) 16QAM(50,0) Lower Channel 20000 (1715MHz)



Band 4 (10M) 16QAM(50,0) Upper Channel 20350 (1750MHz)

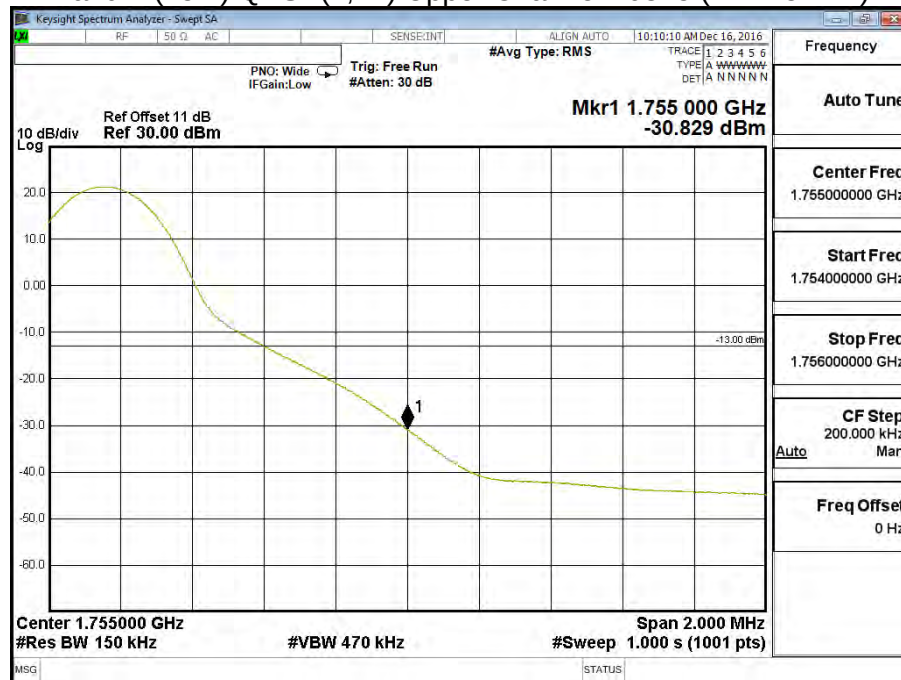


Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (15M))		

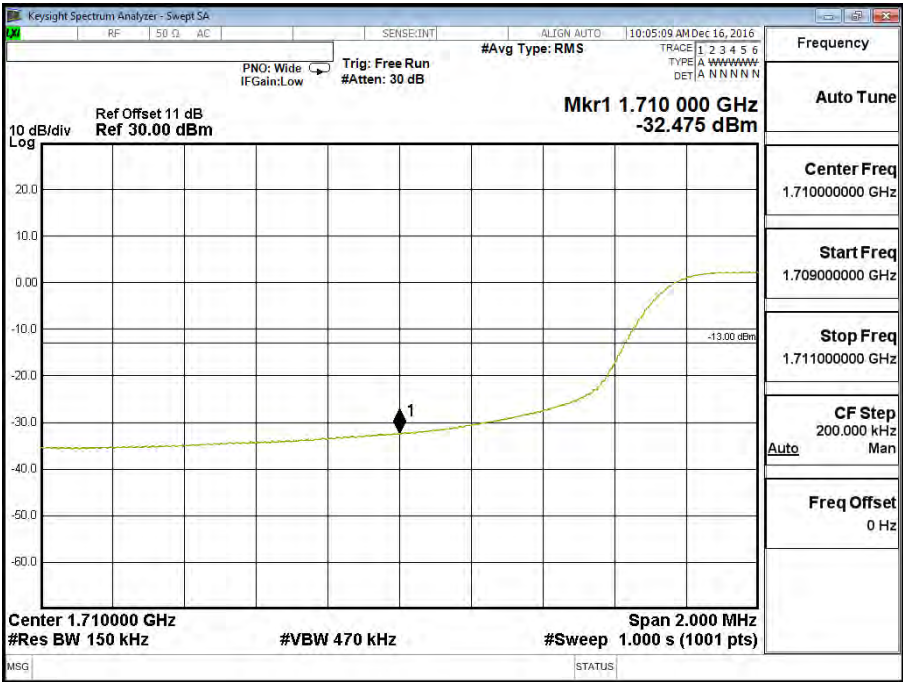
Band 4 (15M)QPSK(1,0) Lower Channel 20025 (1717.5MHz)



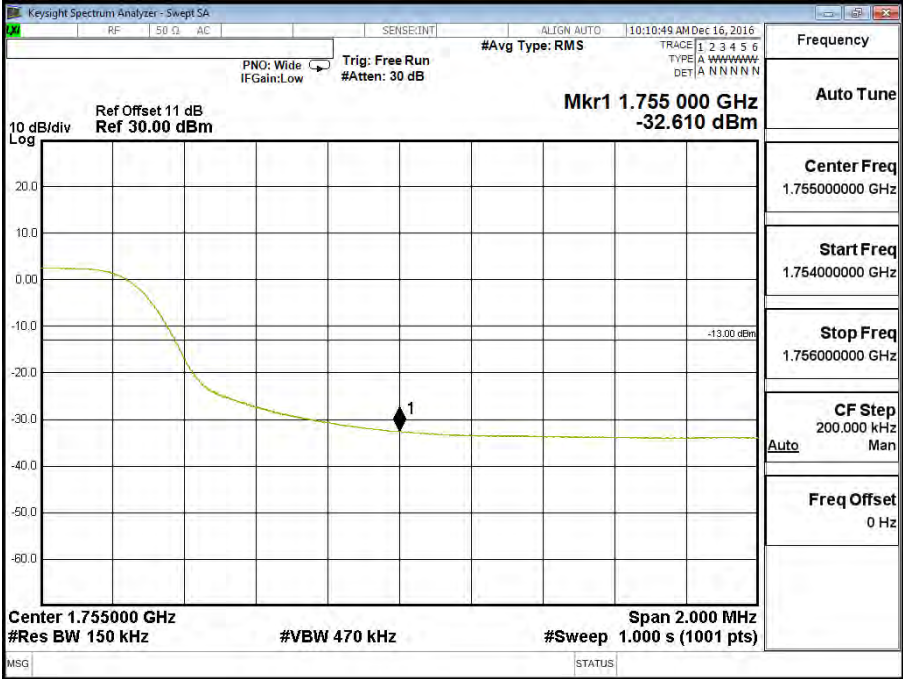
Band 4 (15M) QPSK(1,74) Upper Channel 20325 (1747.5MHz)



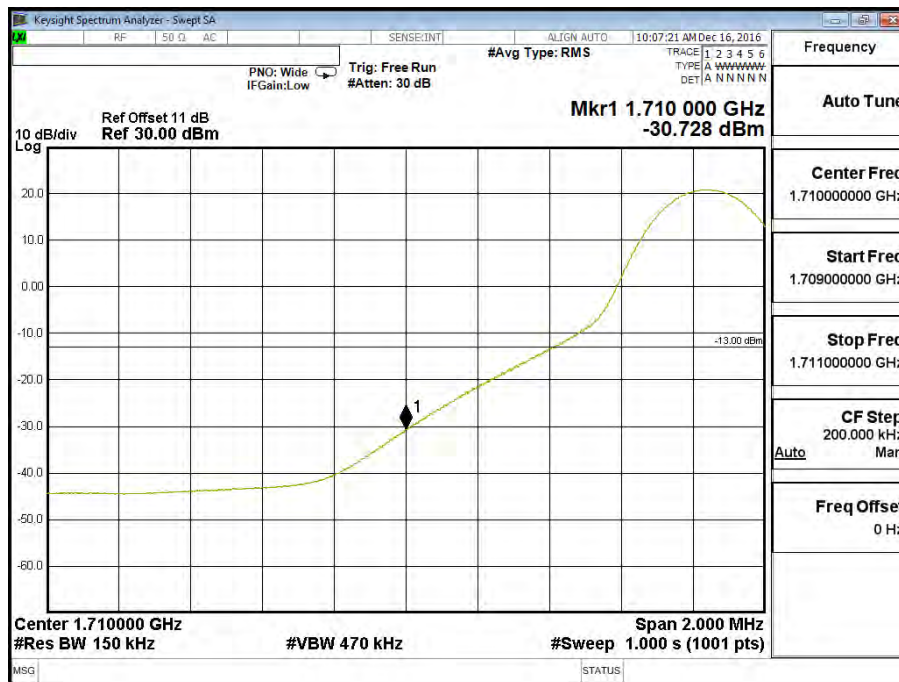
Band 4 (15M) QPSK(75,0) Lower Channel 20025 (1717.5MHz)



Band 4 (15M) QPSK(75,0) Upper Channel 20325 (1747.5MHz)



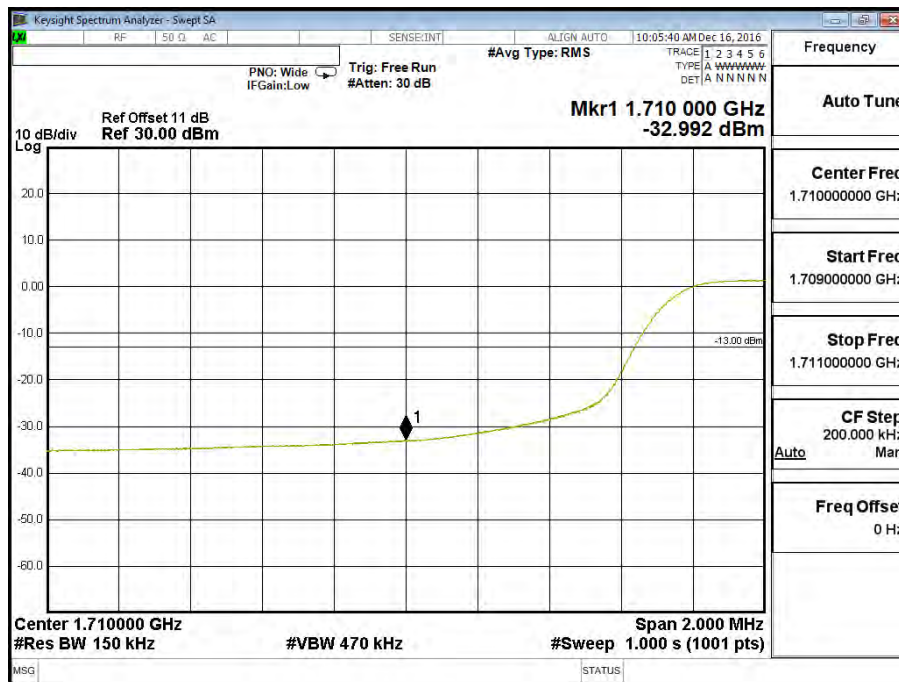
Band 4 (15M) 16QAM(1,0) Lower Channel 20025 (1717.5MHz)



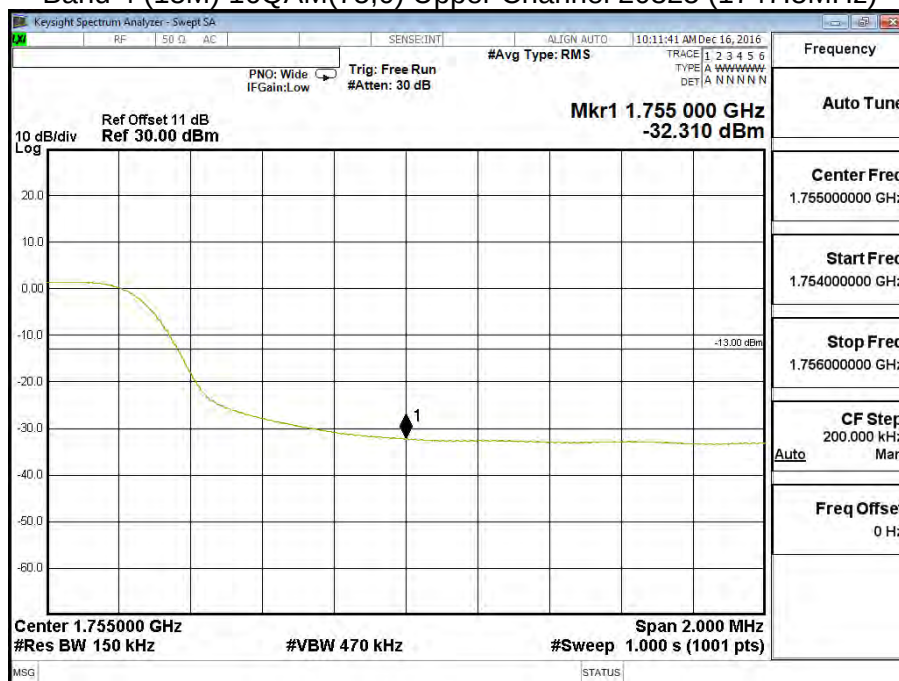
Band 4 (15M) 16QAM(1,74) Upper Channel 20325 (1747.5MHz)



Band 4 (15M) 16QAM(75,0) Lower Channel 20025 (1717.5MHz)

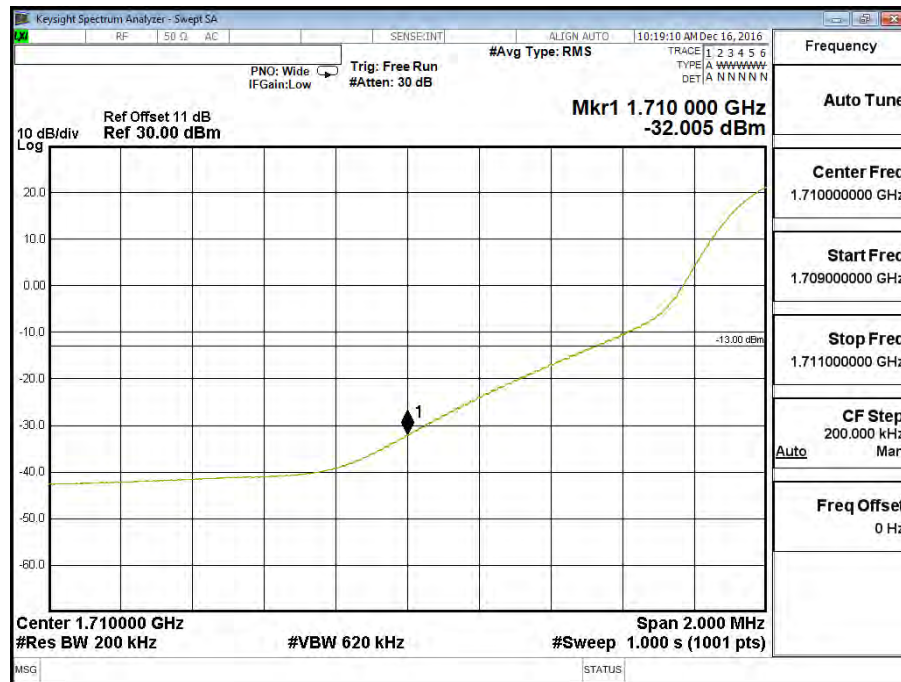


Band 4 (15M) 16QAM(75,0) Upper Channel 20325 (1747.5MHz)



Product	LE920A4-NA		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/15	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (20M))		

Band 4 (20M) QPSK(1,0) Lower Channel 20050 (1720MHz)



Band 4 (20M) QPSK(1,99) Upper Channel 20300 (1745MHz)

