

FCC Test Report

(Part 24&27)

Product Name : LTE Router
Model No : WLD71-T3
FCC ID : NKR-WLD71-T3

Applicant : Wistron NeWeb Corporation

Address : 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.

Date of Receipt : 2016/10/28
Issued Date : 2017/01/10
Report No. : 16B0078R-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

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Product Name : LTE Router

Applicant : Wistron NeWeb Corporation

Address : 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.

Manufacturer : WNC

Trade Name : WNC

Model No. : WLD71-T3

EUT Rated Voltage : DC 12V

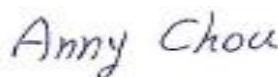
EUT Test Voltage : AC 120V/60Hz

Measurement Standard : FCC CFR Title 47 Part 2 24 27

Measurement Reference : TIA/EIA 603-D 2010

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	25
4.1. Test Secification.....	25
4.2. Test Setup.....	25
4.3. Test Procedure	25
4.4. Test Result of Occupied Bandwidth.....	26
5. Spurious Emission At Antenna Terminals (+/-1MHz).....	39
5.1. Test Specification	39
5.2. Setup.....	39
5.3. Limits	39
5.4. Test Procedure	39
5.5. Test Result of Spurious Emission At Antenna Terminals (+/-1MHz)	40
6. Spurious Emission	88
6.1. Test Specification	88
6.2. Test Setup.....	88
6.3. Limits	89
6.4. Test Procedure	89
6.5. Test Result of Spurious Emission.....	90
7. Frequency Stability Under Temperature & Voltage Variations.....	174
7.1. Test Specification	174
7.2. Test Setup.....	174
7.3. Limits	174
7.4. Test Procedure	174
7.5. Test Result of Frequency Stability Under Temperature Variations.....	175
8. Peak to Average Ratio	199
8.1. Test Specification	199
8.2. Test Setup.....	199
8.3. Limits.....	199
8.4. Test Procedure	199
8.5. Test Result of Spurious Emission	200
Attachment 1: EUT Test Photographs	
Attachment 2: EUT Detailed Photographs	

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	LTE Router
Model No.	WLD71-T3
Trade Name	WNC
IMEI No.	35526808
FCC ID	NKR-WLD71-T3
Modulation	LTE Band 2 : QPSK/16-QAM
	LTE Band 4 : QPSK/16-QAM
TX Frequency	LTE Band 2: 1850 MHz ~1910 MHz
	LTE Band 4: 1710 MHz ~1755 MHz
Rx Frequency	LTE Band 2: 1930 MHz ~1990 MHz
	LTE Band 4: 2110 MHz ~2155 MHz
Bandwidth	LTE Band 2: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 4: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
HW Version	48WLD711.0GAPAL
SW Version	AR_WLD71-T3_v2.0
Antenna Type	Inverted-F Antenna

1.2. Antenna List

No	Manufacturer	Part No	Antenna Type	Peak Gain
1	WNC	3AWLD7501S1-111 (WWAN Main)	Inverted-F Antenna	2.7 dBi for 1710-2170 MHz
2	WNC	3AWLD7501S1-111 (WWAN Diversity)	Inverted-F Antenna	2.7 dBi for 1710-2170 MHz

1.3. Operational Description

The information contained within this report is intended to show verification of compliance of the 1700/1900MHz to the requirements of FCC 47 CFR Part 2, 24, 27

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:

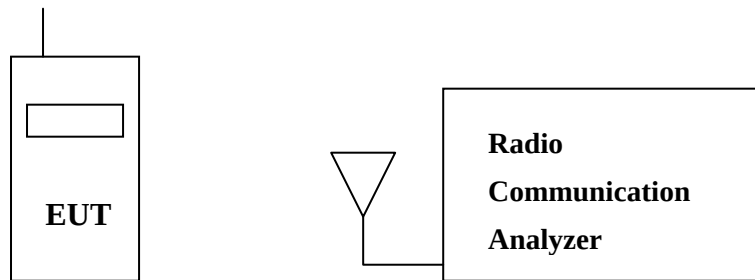
Test Mode:	LTE Band 2 (1.4M)-QPSK/16QAM
	LTE Band 2 (3M)-QPSK/16QAM
	LTE Band 2 (5M)-QPSK/16QAM
	LTE Band 2 (10M)-QPSK/16QAM
	LTE Band 2 (15M)-QPSK/16QAM
	LTE Band 2 (20M)-QPSK/16QAM
	LTE Band 4 (1.4M)-QPSK/16QAM
	LTE Band 4 (3M)-QPSK/16QAM
	LTE Band 4 (5M)-QPSK/16QAM
	LTE Band 4 (10M)-QPSK/16QAM
	LTE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

Note :

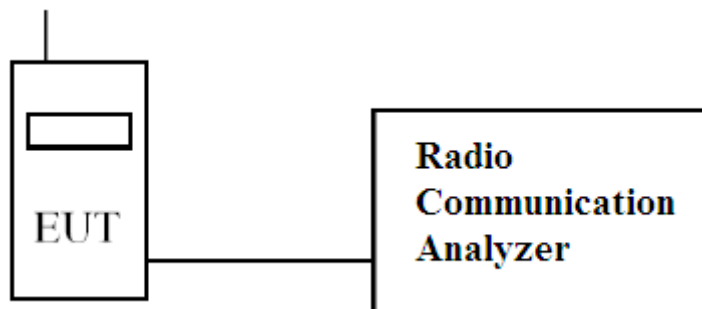
The maximum power levels are chosen in the LTE Band 2/4, only these modes were used for all tests.

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	22.7
Humidity (%RH)	25-75	48
Barometric pressure (mbar)	860-1060	982

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
FCC Registration Number :92195

Site Name: DEKRA Testing and Certification Co., Ltd

Lin Kou Laboratory:
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,
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	4M51G7D	4M49W7D
2	10	9M01G7D	9M01W7D
2	15	13M4G7D	13M4W7D
2	20	18M4G7D	18M4W7D
4	1.4	1M10G7D	1M09W7D
4	3	2M73G7D	2M72W7D
4	5	4M50G7D	4M49W7D
4	10	9M03G7D	9M02W7D
4	15	13M4G7D	13M4W7D
4	20	18M5G7D	18M4W7D

1.8. Voltages and DC currents

LTE Band 2 (1.4M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.078A
	EUT Standby :	AC voltage : 120V , AC current : 0.030A
LTE Band 2 (3M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.079A
	EUT Standby :	AC voltage : 120V , AC current : 0.031A
LTE Band 2 (5M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.080A
	EUT Standby :	AC voltage : 120V , AC current : 0.031A
LTE Band 2 (10M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.082A
	EUT Standby :	AC voltage : 120V , AC current : 0.032A
LTE Band 2 (15M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.092A
	EUT Standby :	AC voltage : 120V , AC current : 0.030A
LTE Band 2 (20M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.091A
	EUT Standby :	AC voltage : 120V , AC current : 0.032A
LTE Band 4 (1.4M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.079A
	EUT Standby :	AC voltage : 120V , AC current : 0.031A
LTE Band 4 (3M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.082A
	EUT Standby :	AC voltage : 120V , AC current : 0.030A
LTE Band 4 (5M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.083A
	EUT Standby :	AC voltage : 120V , AC current : 0.033A
LTE Band 4 (10M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.082A
	EUT Standby :	AC voltage : 120V , AC current : 0.032A
LTE Band 4 (15M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.090A
	EUT Standby :	AC voltage : 120V , AC current : 0.030A
LTE Band 4 (20M)	EUT Transmitting (in maximum power) :	AC voltage : 120V , AC current : 0.089A
	EUT Standby :	AC voltage : 120V , AC current : 0.030A

2. Technical Test

2.1. Summary of test result

Standard	Test Item	Result	Note
2.1046	Conducted Output Power	Pass	
24.232(c)			
27.5			
2.1049	Occupied Bandwidth	Pass	
24.238(b)			
27.53(g)			
2.1051	Spurious Emission at Antenna Terminals	Pass	
24.238(a)			
27.53(g)			
2.1051	Conducted Emission	Pass	
24.238(a)			
27.53(g)			
2.1053	Field Strength of Spurious Radiation	Pass	
24.238(a)			
27.53(g)			
2.1055	Frequency Stability for Temperature & Voltage	Pass	
24.235			
27.54			
27.50(a)	Peak to Average Ratio	Pass	

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	2016/12/04
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	R&S	CMU200	104846	2016/07/07

Radiated / Site3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2707	2016/05/25
Horn Antenna	R&S	9120D	867	2016/04/14
Pre-Amplifier	Agilent	87405C	MY47010653	2016/08/11
Spectrum Analyzer	Agilent	N9010A	MY54510357	2016/04/13
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)

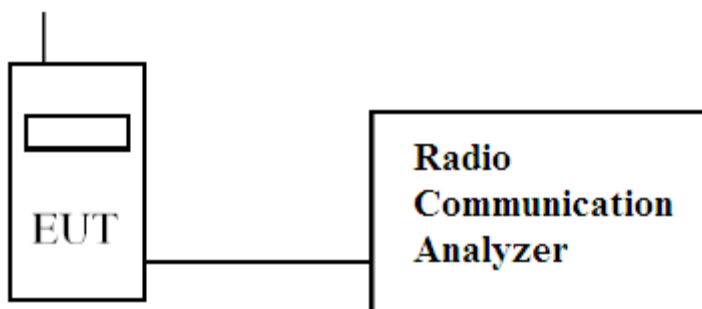
The measurement uncertainty of confidence of 95% is evaluated as ± 4.08 dB

3. Conducted Output Power Measurement

3.1. Test Specification

According to Part 2.1046, 24.232, 27.50

3.2. Test Setup



3.3. Limits

Band	Limit
LTE Band 2/1900	<2W
LTE Band 4/1700	<1W

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)	Antenna Gain (dBi)	EIRP Power (W)
Band 2 (1900MHz)/1.4MHz	18607	QPSK	1	#0	0	23.17	2.7	0.386
			1	#Mid	0	23.26	2.7	0.394
			1	#Max	0	23.19	2.7	0.388
			50%	#0	0	23.16	2.7	0.385
			50%	#Mid	0	23.22	2.7	0.391
			50%	#Max	0	23.24	2.7	0.393
			100%	--	1	22.21	2.7	0.310
		16QAM	1	#0	1	22.24	2.7	0.312
			1	#Mid	1	22.15	2.7	0.305
			1	#Max	1	22.10	2.7	0.302
			50%	#0	1	22.23	2.7	0.311
			50%	#Mid	1	22.34	2.7	0.319
			50%	#Max	1	22.44	2.7	0.327
			100%	--	2	21.31	2.7	0.252
	18900	QPSK	1	#0	0	23.02	2.7	0.373
			1	#Mid	0	23.11	2.7	0.381
			1	#Max	0	23.02	2.7	0.373
			50%	#0	0	23.12	2.7	0.382
			50%	#Mid	0	23.08	2.7	0.378
			50%	#Max	0	23.12	2.7	0.382
			100%	--	1	22.06	2.7	0.299
		16QAM	1	#0	1	22.04	2.7	0.298
			1	#Mid	1	21.97	2.7	0.293
			1	#Max	1	22.06	2.7	0.299
			50%	#0	1	22.07	2.7	0.300
			50%	#Mid	1	22.13	2.7	0.304
			50%	#Max	1	22.08	2.7	0.301
			100%	--	2	20.96	2.7	0.232
	19193	QPSK	1	#0	0	23.15	2.7	0.385
			1	#Mid	0	23.23	2.7	0.392
			1	#Max	0	22.94	2.7	0.366
			50%	#0	0	23.20	2.7	0.389
			50%	#Mid	0	23.11	2.7	0.381
			50%	#Max	0	23.16	2.7	0.385
			100%	--	1	22.15	2.7	0.305
		16QAM	1	#0	1	22.13	2.7	0.304
			1	#Mid	1	22.10	2.7	0.302
			1	#Max	1	22.12	2.7	0.303
			50%	#0	1	22.13	2.7	0.304
			50%	#Mid	1	22.10	2.7	0.302
			50%	#Max	1	22.17	2.7	0.307
			100%	--	2	21.01	2.7	0.235

EIRP Power(W)= Conducted Power + Antenna Gain

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 2 (1900MHz)/3MHz	18615	QPSK	1	#0	0	22.81	2.7	0.356
			1	#Mid	0	23.07	2.7	0.378
			1	#Max	0	23.24	2.7	0.393
			50%	#0	1	22.21	2.7	0.310
			50%	#Mid	1	22.30	2.7	0.316
			50%	#Max	1	22.39	2.7	0.323
			100%	--	1	22.40	2.7	0.324
		16QAM	1	#0	1	22.43	2.7	0.326
			1	#Mid	1	22.42	2.7	0.325
			1	#Max	1	22.38	2.7	0.322
			50%	#0	2	21.04	2.7	0.237
			50%	#Mid	2	21.05	2.7	0.237
			50%	#Max	2	21.13	2.7	0.242
			100%	--	2	21.06	2.7	0.238
	18900	QPSK	1	#0	0	22.98	2.7	0.370
			1	#Mid	0	23.12	2.7	0.382
			1	#Max	0	23.08	2.7	0.378
			50%	#0	1	22.09	2.7	0.301
			50%	#Mid	1	22.17	2.7	0.307
			50%	#Max	1	22.10	2.7	0.302
			100%	--	1	22.07	2.7	0.300
		16QAM	1	#0	1	21.90	2.7	0.288
			1	#Mid	1	22.34	2.7	0.319
			1	#Max	1	22.04	2.7	0.298
			50%	#0	2	20.95	2.7	0.232
			50%	#Mid	2	21.14	2.7	0.242
			50%	#Max	2	20.98	2.7	0.233
			100%	--	2	21.02	2.7	0.236
	19185	QPSK	1	#0	0	22.98	2.7	0.370
			1	#Mid	0	23.22	2.7	0.391
			1	#Max	0	22.85	2.7	0.359
			50%	#0	1	22.16	2.7	0.306
			50%	#Mid	1	22.24	2.7	0.312
			50%	#Max	1	22.19	2.7	0.308
			100%	--	1	22.20	2.7	0.309
		16QAM	1	#0	1	22.12	2.7	0.303
			1	#Mid	1	21.72	2.7	0.277
			1	#Max	1	22.06	2.7	0.299
			50%	#0	2	21.15	2.7	0.243
			50%	#Mid	2	21.08	2.7	0.239
			50%	#Max	2	21.31	2.7	0.252
			100%	--	2	21.00	2.7	0.234
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 2 (1900MHz)/5MHz	18625	QPSK	1	#0	0	23.13	2.7	0.383
			1	#Mid	0	23.35	2.7	0.403
			1	#Max	0	22.87	2.7	0.361
			50%	#0	1	22.18	2.7	0.308
			50%	#Mid	1	22.32	2.7	0.318
			50%	#Max	1	22.21	2.7	0.310
			100%	--	1	22.18	2.7	0.308
		16QAM	1	#0	1	21.95	2.7	0.292
			1	#Mid	1	22.14	2.7	0.305
			1	#Max	1	21.97	2.7	0.293
			50%	#0	2	21.36	2.7	0.255
			50%	#Mid	2	21.14	2.7	0.242
			50%	#Max	2	21.32	2.7	0.252
			100%	--	2	21.28	2.7	0.250
	18900	QPSK	1	#0	0	23.09	2.7	0.379
			1	#Mid	0	23.15	2.7	0.385
			1	#Max	0	23.01	2.7	0.372
			50%	#0	1	22.16	2.7	0.306
			50%	#Mid	1	22.27	2.7	0.314
			50%	#Max	1	22.11	2.7	0.303
			100%	--	1	22.08	2.7	0.301
		16QAM	1	#0	1	21.90	2.7	0.288
			1	#Mid	1	22.19	2.7	0.308
			1	#Max	1	21.76	2.7	0.279
			50%	#0	2	20.89	2.7	0.229
			50%	#Mid	2	20.91	2.7	0.230
			50%	#Max	2	21.08	2.7	0.239
			100%	--	2	21.02	2.7	0.236
	19175	QPSK	1	#0	0	22.78	2.7	0.353
			1	#Mid	0	23.29	2.7	0.397
			1	#Max	0	22.65	2.7	0.343
			50%	#0	1	22.10	2.7	0.302
			50%	#Mid	1	22.06	2.7	0.299
			50%	#Max	1	21.99	2.7	0.294
			100%	--	1	22.00	2.7	0.295
		16QAM	1	#0	1	21.86	2.7	0.286
			1	#Mid	1	21.70	2.7	0.275
			1	#Max	1	21.49	2.7	0.262
			50%	#0	2	20.77	2.7	0.222
			50%	#Mid	2	21.03	2.7	0.236
			50%	#Max	2	20.88	2.7	0.228
			100%	--	2	20.86	2.7	0.227
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 2 (1900MHz)/10MHz	18650	QPSK	1	#0	0	22.92	2.7	0.365
			1	#Mid	0	23.26	2.7	0.394
			1	#Max	0	22.92	2.7	0.365
			50%	#0	1	22.30	2.7	0.316
			50%	#Mid	1	22.28	2.7	0.315
			50%	#Max	1	22.08	2.7	0.301
			100%	--	1	22.13	2.7	0.304
		16QAM	1	#0	1	21.61	2.7	0.270
			1	#Mid	1	22.15	2.7	0.305
			1	#Max	1	21.94	2.7	0.291
			50%	#0	2	21.27	2.7	0.249
			50%	#Mid	2	21.27	2.7	0.249
			50%	#Max	2	21.21	2.7	0.246
			100%	--	2	21.31	2.7	0.252
	18900	QPSK	1	#0	0	22.85	2.7	0.359
			1	#Mid	0	23.19	2.7	0.388
			1	#Max	0	23.03	2.7	0.374
			50%	#0	1	22.25	2.7	0.313
			50%	#Mid	1	22.25	2.7	0.313
			50%	#Max	1	22.04	2.7	0.298
			100%	--	1	22.14	2.7	0.305
		16QAM	1	#0	1	22.03	2.7	0.297
			1	#Mid	1	22.21	2.7	0.310
			1	#Max	1	21.89	2.7	0.288
			50%	#0	2	21.07	2.7	0.238
			50%	#Mid	2	21.24	2.7	0.248
			50%	#Max	2	21.07	2.7	0.238
			100%	--	2	21.04	2.7	0.237
	19150	QPSK	1	#0	0	23.01	2.7	0.372
			1	#Mid	0	23.09	2.7	0.379
			1	#Max	0	22.90	2.7	0.363
			50%	#0	1	22.10	2.7	0.302
			50%	#Mid	1	22.13	2.7	0.304
			50%	#Max	1	22.05	2.7	0.299
			100%	--	1	22.08	2.7	0.301
		16QAM	1	#0	1	21.65	2.7	0.272
			1	#Mid	1	22.04	2.7	0.298
			1	#Max	1	21.84	2.7	0.284
			50%	#0	2	21.23	2.7	0.247
			50%	#Mid	2	21.25	2.7	0.248
			50%	#Max	2	21.10	2.7	0.240
			100%	--	2	21.22	2.7	0.247
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 2 (1900MHz)/15MHz	18675	QPSK	1	#0	0	23.22	2.7	0.391
			1	#Mid	0	23.09	2.7	0.379
			1	#Max	0	22.85	2.7	0.359
			50%	#0	1	22.27	2.7	0.314
			50%	#Mid	1	22.02	2.7	0.296
			50%	#Max	1	22.15	2.7	0.305
			100%	--	1	22.23	2.7	0.311
		16QAM	1	#0	1	22.09	2.7	0.301
			1	#Mid	1	21.97	2.7	0.293
			1	#Max	1	21.81	2.7	0.282
			50%	#0	2	21.23	2.7	0.247
			50%	#Mid	2	20.98	2.7	0.233
			50%	#Max	2	20.96	2.7	0.232
			100%	--	2	21.21	2.7	0.246
	18900	QPSK	1	#0	0	22.80	2.7	0.355
			1	#Mid	0	22.95	2.7	0.367
			1	#Max	0	22.93	2.7	0.366
			50%	#0	1	22.16	2.7	0.306
			50%	#Mid	1	22.14	2.7	0.305
			50%	#Max	1	22.27	2.7	0.314
			100%	--	1	22.22	2.7	0.310
		16QAM	1	#0	1	21.79	2.7	0.281
			1	#Mid	1	21.69	2.7	0.275
			1	#Max	1	21.80	2.7	0.282
			50%	#0	2	21.02	2.7	0.236
			50%	#Mid	2	21.04	2.7	0.237
			50%	#Max	2	21.10	2.7	0.240
			100%	--	2	21.24	2.7	0.248
	19125	QPSK	1	#0	0	22.94	2.7	0.366
			1	#Mid	0	23.09	2.7	0.379
			1	#Max	0	22.85	2.7	0.359
			50%	#0	1	22.00	2.7	0.295
			50%	#Mid	1	22.06	2.7	0.299
			50%	#Max	1	21.97	2.7	0.293
			100%	--	1	21.90	2.7	0.288
		16QAM	1	#0	1	21.69	2.7	0.275
			1	#Mid	1	21.85	2.7	0.285
			1	#Max	1	21.94	2.7	0.291
			50%	#0	2	20.92	2.7	0.230
			50%	#Mid	2	20.98	2.7	0.233
			50%	#Max	2	20.92	2.7	0.230
			100%	--	2	20.92	2.7	0.230
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modula- tion	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 2 (1900MHz)/20MHz	18700	QPSK	1	#0	0	23.07	2.7	0.378
			1	#Mid	0	23.09	2.7	0.379
			1	#Max	0	22.76	2.7	0.352
			50%	#0	1	22.09	2.7	0.301
			50%	#Mid	1	22.02	2.7	0.296
			50%	#Max	1	22.04	2.7	0.298
			100%	--	1	22.13	2.7	0.304
		16QAM	1	#0	1	22.02	2.7	0.296
			1	#Mid	1	22.06	2.7	0.299
			1	#Max	1	21.89	2.7	0.288
			50%	#0	2	21.23	2.7	0.247
			50%	#Mid	2	20.99	2.7	0.234
			50%	#Max	2	21.12	2.7	0.241
			100%	--	2	21.12	2.7	0.241
	18900	QPSK	1	#0	0	23.01	2.7	0.372
			1	#Mid	0	23.26	2.7	0.394
			1	#Max	0	22.96	2.7	0.368
			50%	#0	1	21.98	2.7	0.294
			50%	#Mid	1	22.00	2.7	0.295
			50%	#Max	1	22.03	2.7	0.297
			100%	--	1	22.11	2.7	0.303
		16QAM	1	#0	1	21.95	2.7	0.292
			1	#Mid	1	22.02	2.7	0.296
			1	#Max	1	21.76	2.7	0.279
			50%	#0	2	21.03	2.7	0.236
			50%	#Mid	2	21.03	2.7	0.236
			50%	#Max	2	21.07	2.7	0.238
			100%	--	2	21.07	2.7	0.238
	19100	QPSK	1	#0	0	22.80	2.7	0.355
			1	#Mid	0	23.14	2.7	0.384
			1	#Max	0	22.69	2.7	0.346
			50%	#0	1	21.96	2.7	0.292
			50%	#Mid	1	21.90	2.7	0.288
			50%	#Max	1	21.86	2.7	0.286
			100%	--	1	21.92	2.7	0.290
		16QAM	1	#0	1	21.73	2.7	0.277
			1	#Mid	1	22.05	2.7	0.299
			1	#Max	1	21.71	2.7	0.276
			50%	#0	2	20.80	2.7	0.224
			50%	#Mid	2	20.93	2.7	0.231
			50%	#Max	2	20.79	2.7	0.223
			100%	--	2	20.85	2.7	0.226
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (dBm)	Antenna Gain (dBi)	EIRP Power (W)
Band 4 (1700MHz)/1.4MHz	19957	QPSK	1	#0	0	23.48	2.7	0.415
			1	#Mid	0	23.64	2.7	0.431
			1	#Max	0	23.47	2.7	0.414
			50%	#0	0	23.60	2.7	0.427
			50%	#Mid	0	23.58	2.7	0.425
			50%	#Max	0	23.60	2.7	0.427
			100%	--	1	22.59	2.7	0.338
		16QAM	1	#0	1	22.76	2.7	0.352
			1	#Mid	1	22.90	2.7	0.363
			1	#Max	1	22.69	2.7	0.346
			50%	#0	1	22.63	2.7	0.341
			50%	#Mid	1	22.60	2.7	0.339
			50%	#Max	1	22.59	2.7	0.338
			100%	--	2	21.48	2.7	0.262
	20175	QPSK	1	#0	0	23.47	2.7	0.414
			1	#Mid	0	23.50	2.7	0.417
			1	#Max	0	23.29	2.7	0.397
			50%	#0	0	23.40	2.7	0.407
			50%	#Mid	0	23.38	2.7	0.406
			50%	#Max	0	23.41	2.7	0.408
			100%	--	1	22.31	2.7	0.317
		16QAM	1	#0	1	22.08	2.7	0.301
			1	#Mid	1	22.13	2.7	0.304
			1	#Max	1	21.93	2.7	0.290
			50%	#0	1	22.26	2.7	0.313
			50%	#Mid	1	22.10	2.7	0.302
			50%	#Max	1	21.93	2.7	0.290
			100%	--	2	21.10	2.7	0.240
	20393	QPSK	1	#0	0	23.06	2.7	0.377
			1	#Mid	0	23.18	2.7	0.387
			1	#Max	0	22.97	2.7	0.369
			50%	#0	0	23.39	2.7	0.406
			50%	#Mid	0	23.22	2.7	0.391
			50%	#Max	0	23.25	2.7	0.394
			100%	--	1	22.20	2.7	0.309
		16QAM	1	#0	1	22.28	2.7	0.315
			1	#Mid	1	22.33	2.7	0.318
			1	#Max	1	22.16	2.7	0.306
			50%	#0	1	22.30	2.7	0.316
			50%	#Mid	1	22.40	2.7	0.324
			50%	#Max	1	22.46	2.7	0.328
			100%	--	2	21.11	2.7	0.240

EIRP Power(W)= Conducted Power + Antenna Gain

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 4 (1700MHz)/3MHz	19965	QPSK	1	#0	0	23.80	2.7	0.447
			1	#Mid	0	23.55	2.7	0.422
			1	#Max	0	23.66	2.7	0.433
			50%	#0	1	22.75	2.7	0.351
			50%	#Mid	1	22.72	2.7	0.348
			50%	#Max	1	22.70	2.7	0.347
			100%	--	1	22.65	2.7	0.343
		16QAM	1	#0	1	22.78	2.7	0.353
			1	#Mid	1	22.58	2.7	0.337
			1	#Max	1	22.68	2.7	0.345
			50%	#0	2	21.45	2.7	0.260
			50%	#Mid	2	21.42	2.7	0.258
			50%	#Max	2	21.41	2.7	0.258
			100%	--	2	21.54	2.7	0.265
	20175	QPSK	1	#0	0	23.43	2.7	0.410
			1	#Mid	0	23.36	2.7	0.404
			1	#Max	0	23.25	2.7	0.394
			50%	#0	1	22.55	2.7	0.335
			50%	#Mid	1	22.45	2.7	0.327
			50%	#Max	1	22.37	2.7	0.321
			100%	--	1	22.50	2.7	0.331
		16QAM	1	#0	1	22.86	2.7	0.360
			1	#Mid	1	22.56	2.7	0.336
			1	#Max	1	22.18	2.7	0.308
			50%	#0	2	21.20	2.7	0.245
			50%	#Mid	2	21.28	2.7	0.250
			50%	#Max	2	21.12	2.7	0.241
			100%	--	2	21.38	2.7	0.256
	20385	QPSK	1	#0	0	23.51	2.7	0.418
			1	#Mid	0	23.24	2.7	0.393
			1	#Max	0	23.23	2.7	0.392
			50%	#0	1	22.17	2.7	0.307
			50%	#Mid	1	22.27	2.7	0.314
			50%	#Max	1	22.29	2.7	0.316
			100%	--	1	22.22	2.7	0.310
		16QAM	1	#0	1	21.94	2.7	0.291
			1	#Mid	1	21.60	2.7	0.269
			1	#Max	1	21.97	2.7	0.293
			50%	#0	2	21.16	2.7	0.243
			50%	#Mid	2	21.16	2.7	0.243
			50%	#Max	2	21.27	2.7	0.249
			100%	--	2	21.27	2.7	0.249
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 4 (1700MHz)/5MHz	19975	QPSK	1	#0	0	23.58	2.7	0.425
			1	#Mid	0	23.42	2.7	0.409
			1	#Max	0	23.56	2.7	0.423
			50%	#0	1	22.56	2.7	0.336
			50%	#Mid	1	22.46	2.7	0.328
			50%	#Max	1	22.54	2.7	0.334
			100%	--	1	22.47	2.7	0.329
		16QAM	1	#0	1	22.55	2.7	0.335
			1	#Mid	1	22.27	2.7	0.314
			1	#Max	1	22.27	2.7	0.314
			50%	#0	2	21.43	2.7	0.259
			50%	#Mid	2	21.34	2.7	0.254
			50%	#Max	2	21.43	2.7	0.259
			100%	--	2	21.58	2.7	0.268
	20175	QPSK	1	#0	0	23.28	2.7	0.396
			1	#Mid	0	23.14	2.7	0.384
			1	#Max	0	23.01	2.7	0.372
			50%	#0	1	22.25	2.7	0.313
			50%	#Mid	1	22.26	2.7	0.313
			50%	#Max	1	22.12	2.7	0.303
			100%	--	1	22.28	2.7	0.315
		16QAM	1	#0	1	22.11	2.7	0.303
			1	#Mid	1	21.79	2.7	0.281
			1	#Max	1	22.14	2.7	0.305
			50%	#0	2	21.16	2.7	0.243
			50%	#Mid	2	21.10	2.7	0.240
			50%	#Max	2	21.04	2.7	0.237
			100%	--	2	21.10	2.7	0.240
	20375	QPSK	1	#0	0	23.13	2.7	0.383
			1	#Mid	0	23.07	2.7	0.378
			1	#Max	0	23.04	2.7	0.375
			50%	#0	1	22.02	2.7	0.296
			50%	#Mid	1	22.04	2.7	0.298
			50%	#Max	1	21.99	2.7	0.294
			100%	--	1	22.04	2.7	0.298
		16QAM	1	#0	1	21.87	2.7	0.286
			1	#Mid	1	21.80	2.7	0.282
			1	#Max	1	21.90	2.7	0.288
			50%	#0	2	21.16	2.7	0.243
			50%	#Mid	2	20.78	2.7	0.223
			50%	#Max	2	20.83	2.7	0.225
			100%	--	2	20.91	2.7	0.230
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 4 (1700MHz)/10MHz	20000	QPSK	1	#0	0	23.25	2.7	0.394
			1	#Mid	0	23.36	2.7	0.404
			1	#Max	0	23.14	2.7	0.384
			50%	#0	1	22.41	2.7	0.324
			50%	#Mid	1	22.36	2.7	0.321
			50%	#Max	1	22.27	2.7	0.314
			100%	--	1	22.38	2.7	0.322
		16QAM	1	#0	1	22.16	2.7	0.306
			1	#Mid	1	22.30	2.7	0.316
			1	#Max	1	21.84	2.7	0.284
			50%	#0	2	21.31	2.7	0.252
			50%	#Mid	2	21.26	2.7	0.249
			50%	#Max	2	21.26	2.7	0.249
			100%	--	2	21.17	2.7	0.244
	20175	QPSK	1	#0	0	22.96	2.7	0.368
			1	#Mid	0	23.08	2.7	0.378
			1	#Max	0	22.94	2.7	0.366
			50%	#0	1	22.18	2.7	0.308
			50%	#Mid	1	22.03	2.7	0.297
			50%	#Max	1	22.05	2.7	0.299
			100%	--	1	22.06	2.7	0.299
		16QAM	1	#0	1	21.99	2.7	0.294
			1	#Mid	1	22.15	2.7	0.305
			1	#Max	1	21.81	2.7	0.282
			50%	#0	2	21.01	2.7	0.235
			50%	#Mid	2	21.15	2.7	0.243
			50%	#Max	2	21.08	2.7	0.239
			100%	--	2	21.00	2.7	0.234
	20350	QPSK	1	#0	0	22.95	2.7	0.367
			1	#Mid	0	23.03	2.7	0.374
			1	#Max	0	22.89	2.7	0.362
			50%	#0	1	22.01	2.7	0.296
			50%	#Mid	1	22.00	2.7	0.295
			50%	#Max	1	21.94	2.7	0.291
			100%	--	1	22.02	2.7	0.296
		16QAM	1	#0	1	21.85	2.7	0.285
			1	#Mid	1	22.14	2.7	0.305
			1	#Max	1	21.94	2.7	0.291
			50%	#0	2	21.04	2.7	0.237
			50%	#Mid	2	20.86	2.7	0.227
			50%	#Max	2	20.77	2.7	0.222
			100%	--	2	20.97	2.7	0.233
EIRP Power(W)= Conducted Power + Antenna Gain								

Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 4 (1700MHz)/15MHz	20025	QPSK	1	#0	0	23.43	2.7	0.410
			1	#Mid	0	23.28	2.7	0.396
			1	#Max	0	23.24	2.7	0.393
			50%	#0	1	22.40	2.7	0.324
			50%	#Mid	1	22.22	2.7	0.310
			50%	#Max	1	22.16	2.7	0.306
			100%	--	1	22.26	2.7	0.313
		16QAM	1	#0	1	22.30	2.7	0.316
			1	#Mid	1	22.02	2.7	0.296
			1	#Max	1	22.01	2.7	0.296
			50%	#0	2	21.36	2.7	0.255
			50%	#Mid	2	21.19	2.7	0.245
			50%	#Max	2	21.14	2.7	0.242
			100%	--	2	21.24	2.7	0.248
	20175	QPSK	1	#0	0	23.31	2.7	0.399
			1	#Mid	0	23.15	2.7	0.385
			1	#Max	0	22.93	2.7	0.366
			50%	#0	1	22.15	2.7	0.305
			50%	#Mid	1	22.07	2.7	0.300
			50%	#Max	1	22.18	2.7	0.308
			100%	--	1	22.16	2.7	0.306
		16QAM	1	#0	1	22.07	2.7	0.300
			1	#Mid	1	21.82	2.7	0.283
			1	#Max	1	21.65	2.7	0.272
			50%	#0	2	21.05	2.7	0.237
			50%	#Mid	2	20.98	2.7	0.233
			50%	#Max	2	20.90	2.7	0.229
			100%	--	2	21.00	2.7	0.234
	20325	QPSK	1	#0	0	23.04	2.7	0.375
			1	#Mid	0	22.90	2.7	0.363
			1	#Max	0	22.98	2.7	0.370
			50%	#0	1	21.98	2.7	0.294
			50%	#Mid	1	21.83	2.7	0.284
			50%	#Max	1	21.90	2.7	0.288
			100%	--	1	21.97	2.7	0.293
		16QAM	1	#0	1	21.91	2.7	0.289
			1	#Mid	1	21.63	2.7	0.271
			1	#Max	1	21.80	2.7	0.282
			50%	#0	2	21.01	2.7	0.235
			50%	#Mid	2	20.87	2.7	0.228
			50%	#Max	2	20.85	2.7	0.226
			100%	--	2	20.80	2.7	0.224
EIRP Power(W)= Conducted Power + Antenna Gain								

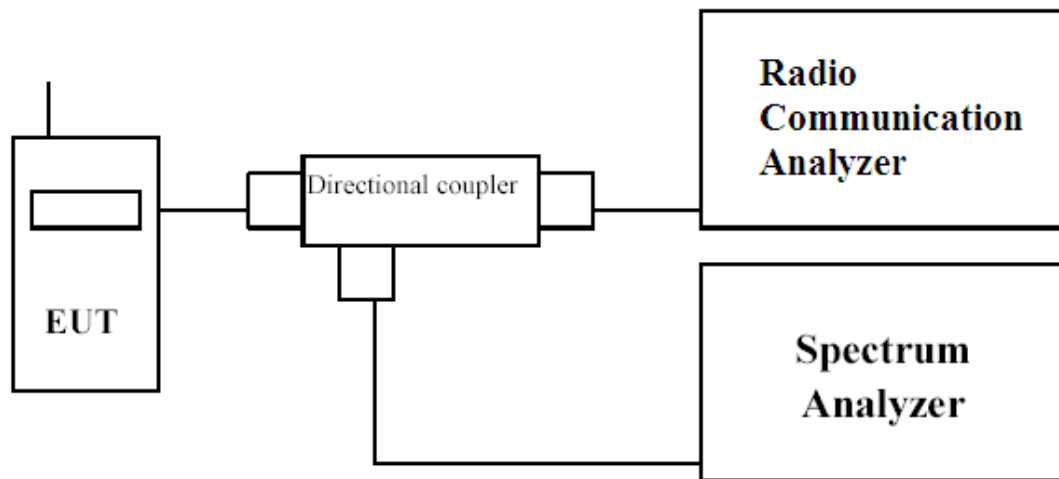
Band	Channel	Modulation	RB No.	RB Offset	MPR	Max Power (Conducted)	Antenna Gain (dBi)	EIRP Power (W)
Band 4 (1700MHz)/20MHz	20050	QPSK	1	#0	0	23.20	2.7	0.389
			1	#Mid	0	23.31	2.7	0.399
			1	#Max	0	23.04	2.7	0.375
			50%	#0	1	22.42	2.7	0.325
			50%	#Mid	1	22.41	2.7	0.324
			50%	#Max	1	22.26	2.7	0.313
			100%	--	1	22.36	2.7	0.321
		16QAM	1	#0	1	22.26	2.7	0.313
			1	#Mid	1	22.07	2.7	0.300
			1	#Max	1	21.91	2.7	0.289
			50%	#0	2	21.40	2.7	0.257
			50%	#Mid	2	21.29	2.7	0.251
			50%	#Max	2	21.26	2.7	0.249
			100%	--	2	21.26	2.7	0.249
	20175	QPSK	1	#0	0	23.28	2.7	0.396
			1	#Mid	0	23.30	2.7	0.398
			1	#Max	0	22.76	2.7	0.352
			50%	#0	1	22.26	2.7	0.313
			50%	#Mid	1	22.13	2.7	0.304
			50%	#Max	1	21.98	2.7	0.294
			100%	--	1	22.16	2.7	0.306
		16QAM	1	#0	1	22.27	2.7	0.314
			1	#Mid	1	21.95	2.7	0.292
			1	#Max	1	21.62	2.7	0.270
			50%	#0	2	20.98	2.7	0.233
			50%	#Mid	2	20.97	2.7	0.233
			50%	#Max	2	21.00	2.7	0.234
			100%	--	2	21.06	2.7	0.238
	20300	QPSK	1	#0	0	23.27	2.7	0.395
			1	#Mid	0	23.13	2.7	0.383
			1	#Max	0	22.62	2.7	0.340
			50%	#0	1	22.03	2.7	0.297
			50%	#Mid	1	21.85	2.7	0.285
			50%	#Max	1	21.91	2.7	0.289
			100%	--	1	21.96	2.7	0.292
		16QAM	1	#0	1	22.08	2.7	0.301
			1	#Mid	1	21.89	2.7	0.288
			1	#Max	1	21.71	2.7	0.276
			50%	#0	2	21.05	2.7	0.237
			50%	#Mid	2	20.86	2.7	0.227
			50%	#Max	2	20.76	2.7	0.222
			100%	--	2	20.88	2.7	0.228
EIRP Power(W)= Conducted Power + Antenna Gain								

4. Occupied Bandwidth

4.1. Test Secification

According to Part 2.1049, 24.238, 27.53.

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.

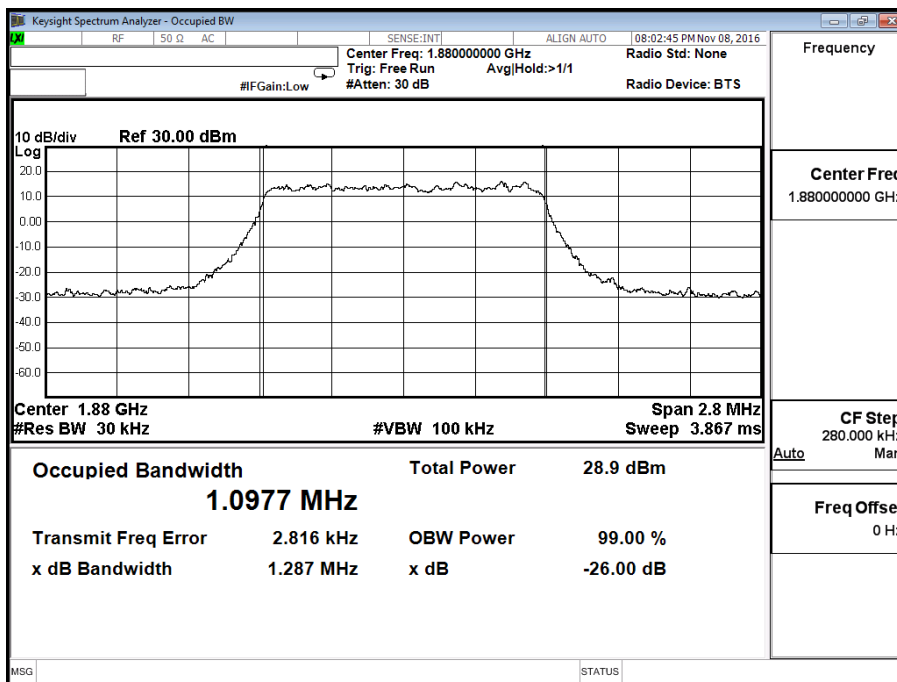
4.4. Test Result of Occupied Bandwidth

Product	LTE Router
Test Mode	Occupied Bandwidth
Test Site	CTR

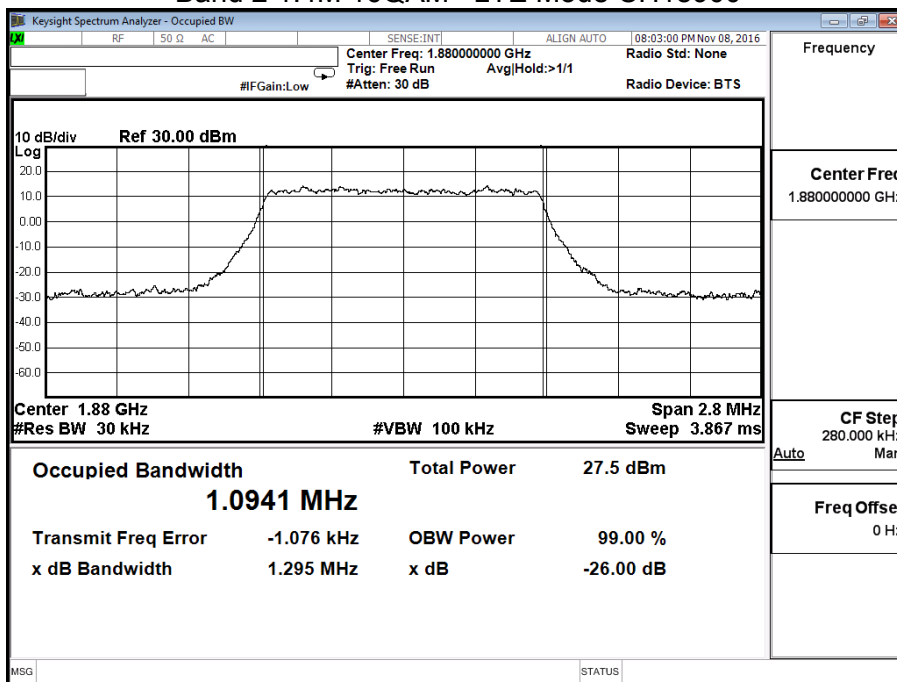
Test Mode	Channel	TX Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB bandwidth (MHz)	Result
Band 2 1.4M QPSK	18900	1880	1.0977	1.287	Pass
Band 2 1.4M 16QAM	18900	1880	1.0941	1.295	Pass
Band 2 3M QPSK	18900	1880	2.7284	3.058	Pass
Band 2 3M 16QAM	18900	1880	2.7171	3.039	Pass
Band 2 5M QPSK	18900	1880	4.5141	5.008	Pass
Band 2 5M 16QAM	18900	1880	4.4862	4.959	Pass
Band 2 10M QPSK	18900	1880	9.0126	10.03	Pass
Band 2 10M 16QAM	18900	1880	9.0083	9.995	Pass
Band 2 15M QPSK	18900	1880	13.428	14.66	Pass
Band 2 15M 16QAM	18900	1880	13.412	14.64	Pass
Band 2 20M QPSK	18900	1880	18.378	20.36	Pass
Band 2 20M 16QAM	18900	1880	18.375	20.27	Pass
Band 4 1.4M QPSK	20175	1732.5	1.0979	1.294	Pass
Band 4 1.4M 16QAM	20175	1732.5	1.0945	1.300	Pass
Band 4 3M QPSK	20175	1732.5	2.7343	3.068	Pass
Band 4 3M 16QAM	20175	1732.5	2.7200	3.045	Pass
Band 4 5M QPSK	20175	1732.5	4.5034	5.006	Pass
Band 4 5M 16QAM	20175	1732.5	4.4868	4.966	Pass
Band 4 10M QPSK	20175	1732.5	9.0272	10.04	Pass
Band 4 10M 16QAM	20175	1732.5	9.0212	10.01	Pass
Band 4 15M QPSK	20175	1732.5	13.429	14.71	Pass
Band 4 15M 16QAM	20175	1732.5	13.418	14.66	Pass
Band 4 20M QPSK	20175	1732.5	18.509	20.64	Pass
Band 4 20M 16QAM	20175	1732.5	18.418	20.35	Pass

Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 2 1.4M		

Band 2 1.4M QPSK - LTE Mode CH18900

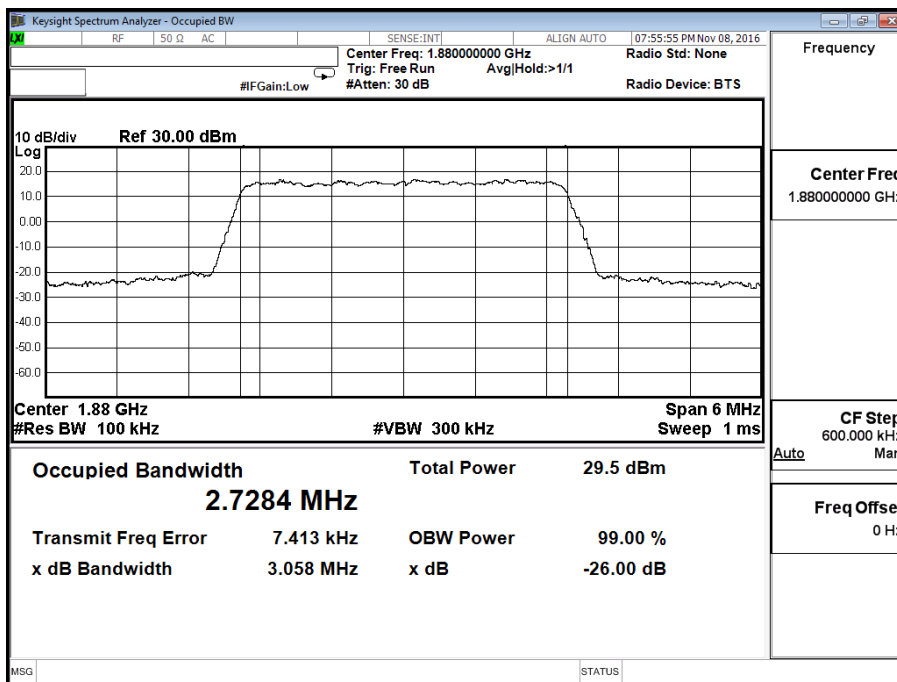


Band 2 1.4M 16QAM - LTE Mode CH18900

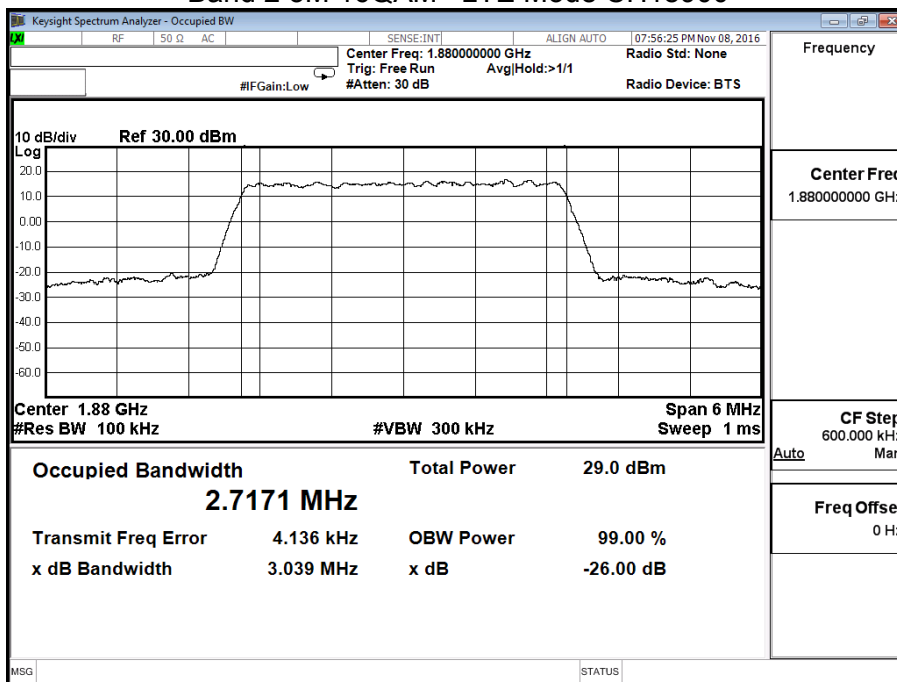


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 2 3M		

Band 2 3M QPSK - LTE Mode CH18900

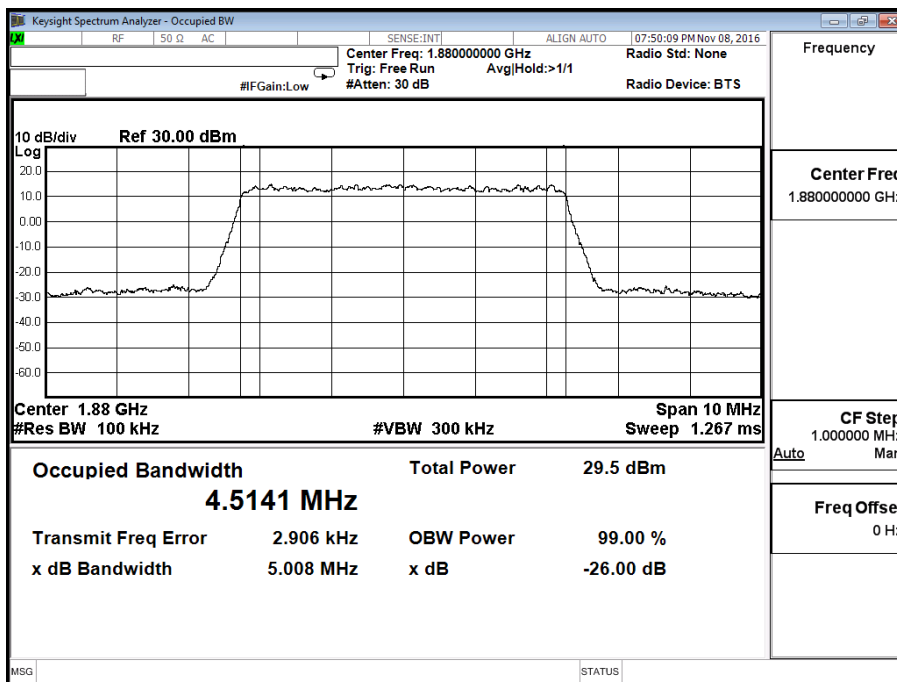


Band 2 3M 16QAM - LTE Mode CH18900

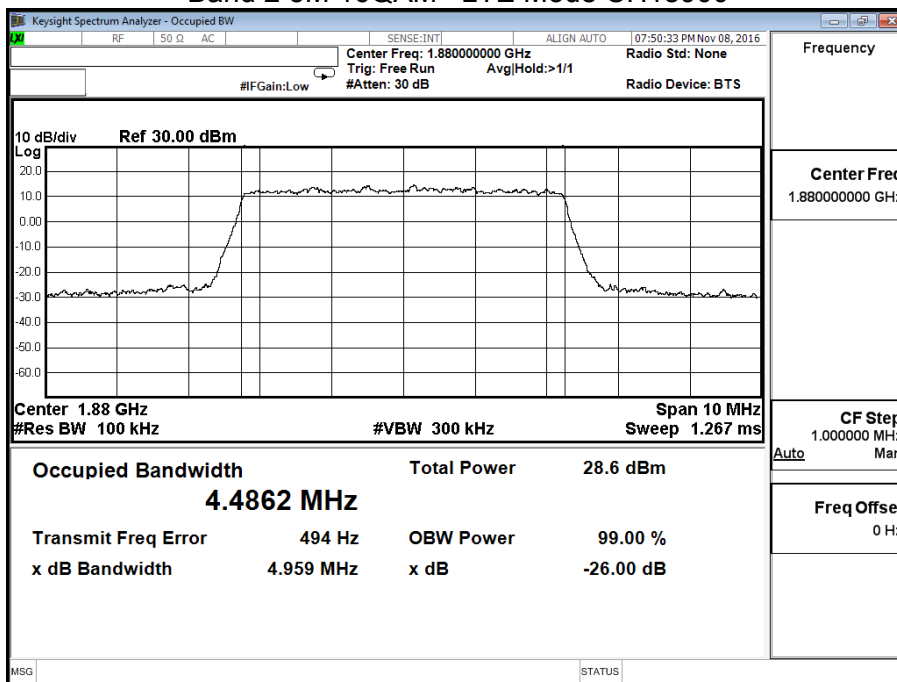


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 2 5M		

Band 2 5M QPSK - LTE Mode CH18900

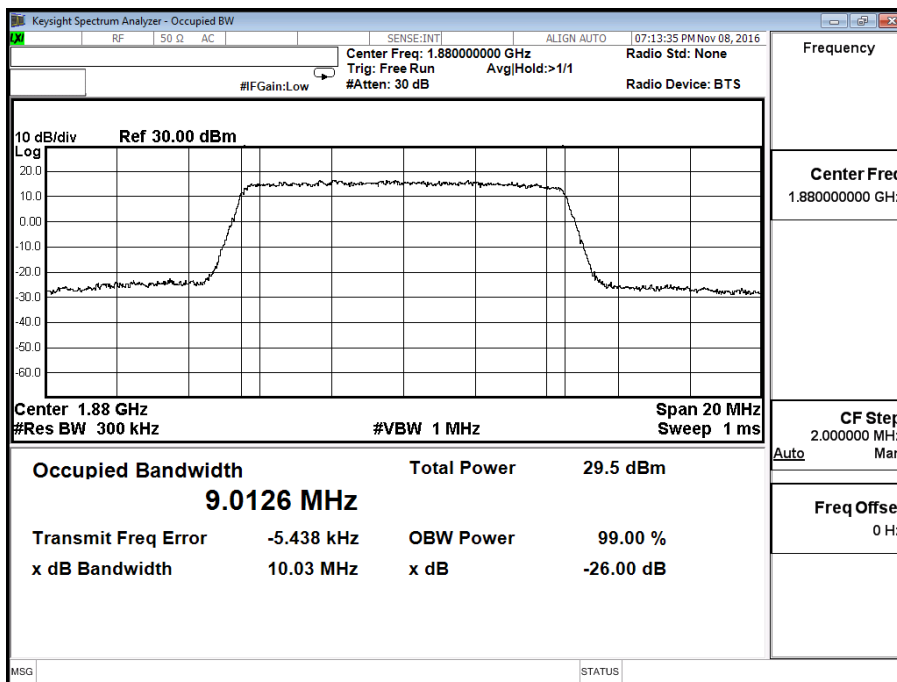


Band 2 5M 16QAM - LTE Mode CH18900

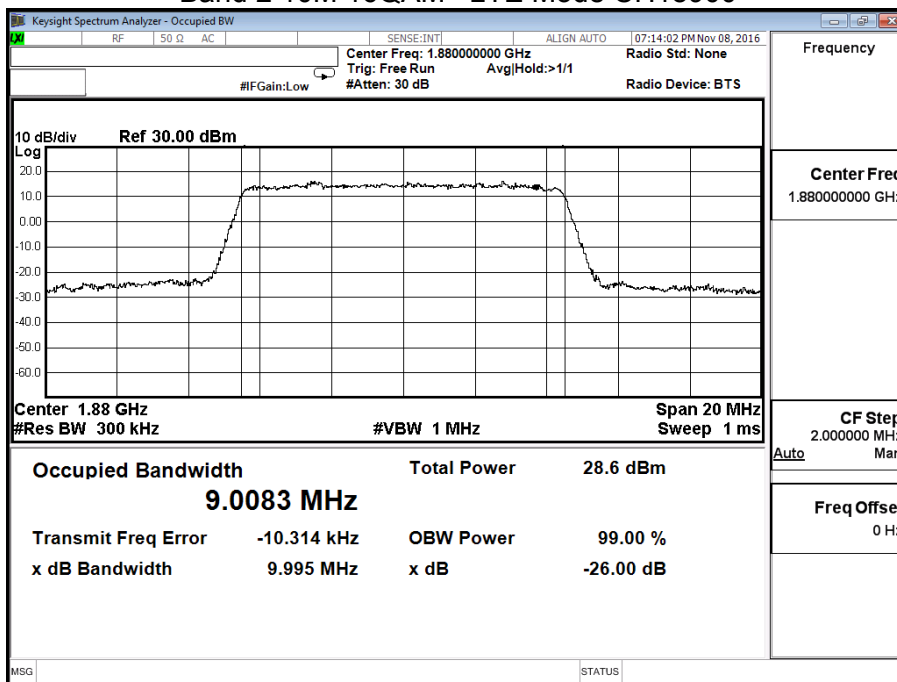


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 2 10M		

Band 2 10M QPSK - LTE Mode CH18900

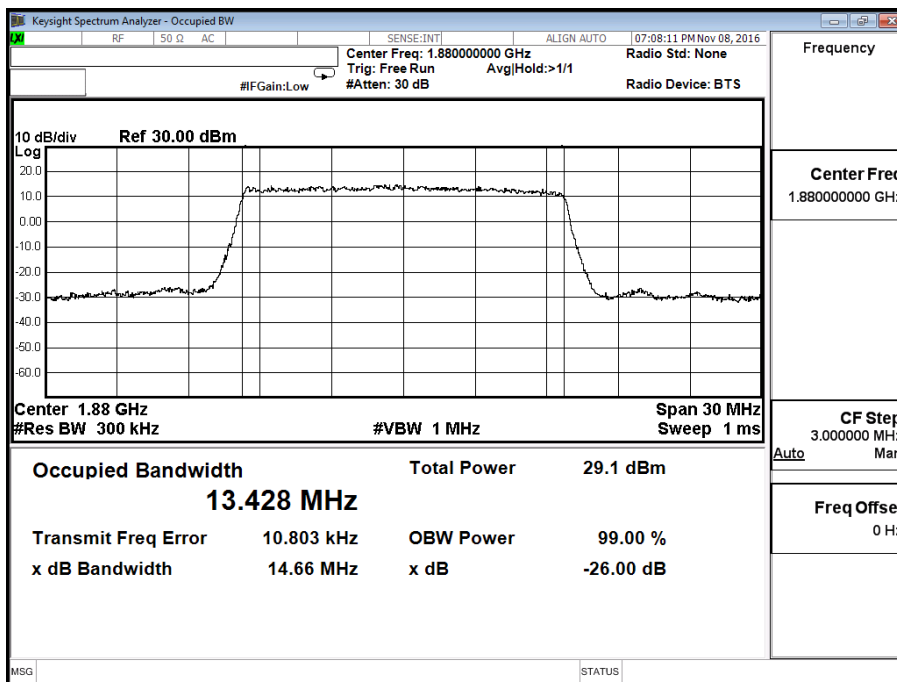


Band 2 10M 16QAM - LTE Mode CH18900

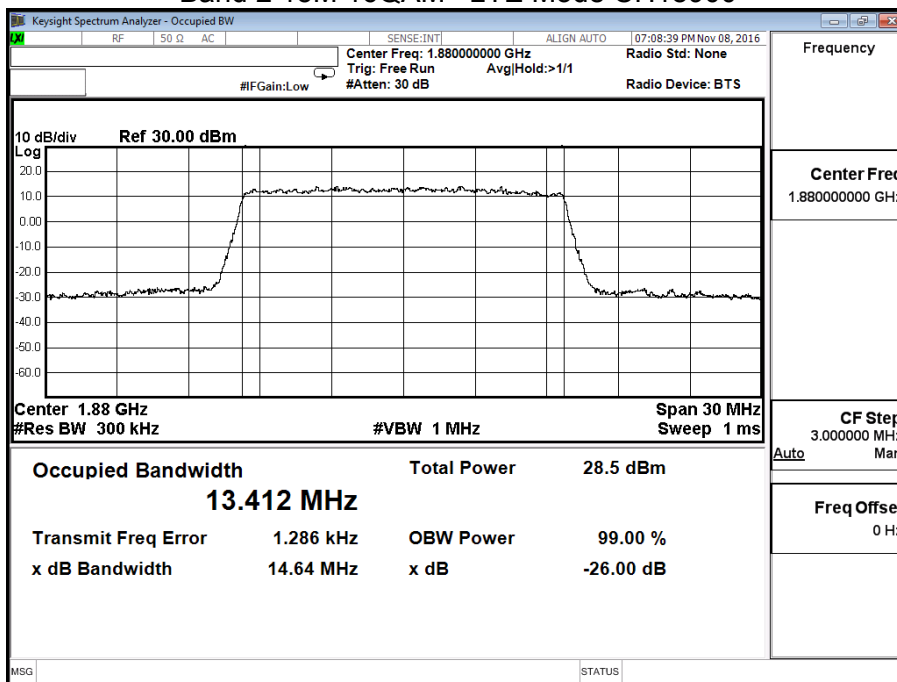


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 2 15M		

Band 2 15M QPSK - LTE Mode CH18900

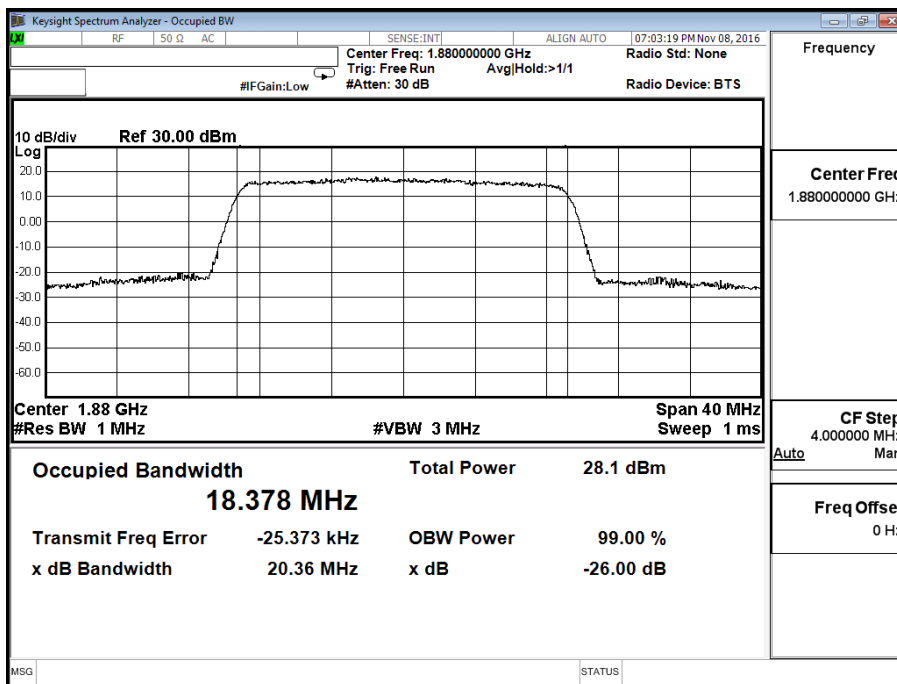


Band 2 15M 16QAM - LTE Mode CH18900

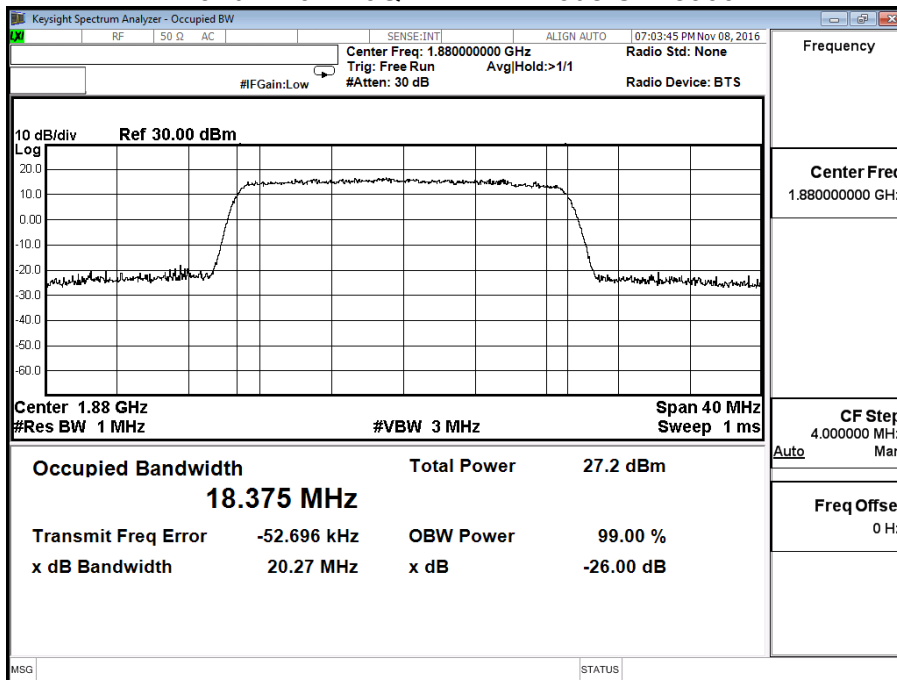


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 2 20M		

Band 2 20M QPSK - LTE Mode CH18900

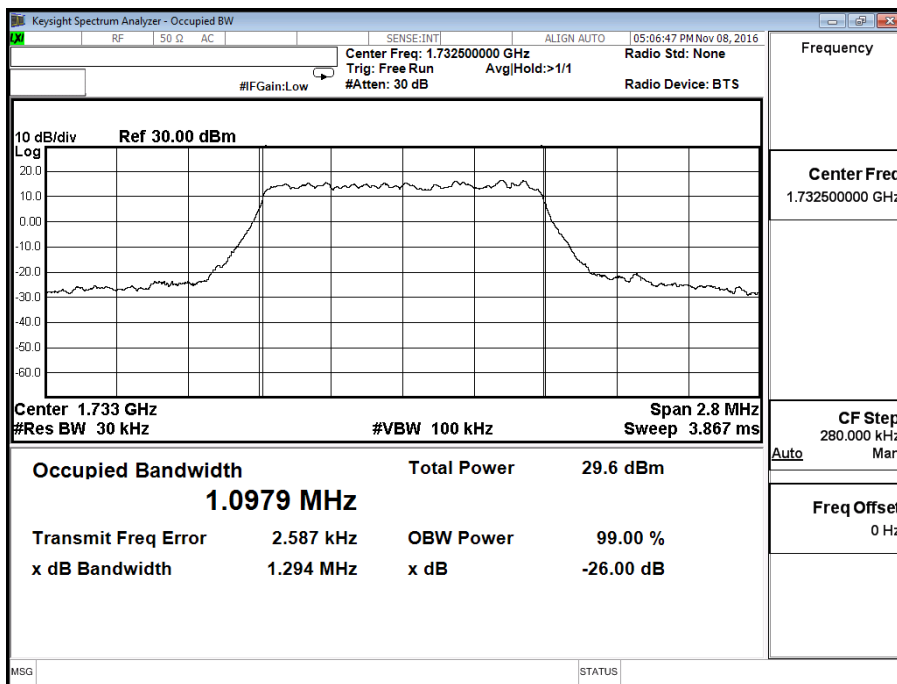


Band 2 20M 16QAM - LTE Mode CH18900

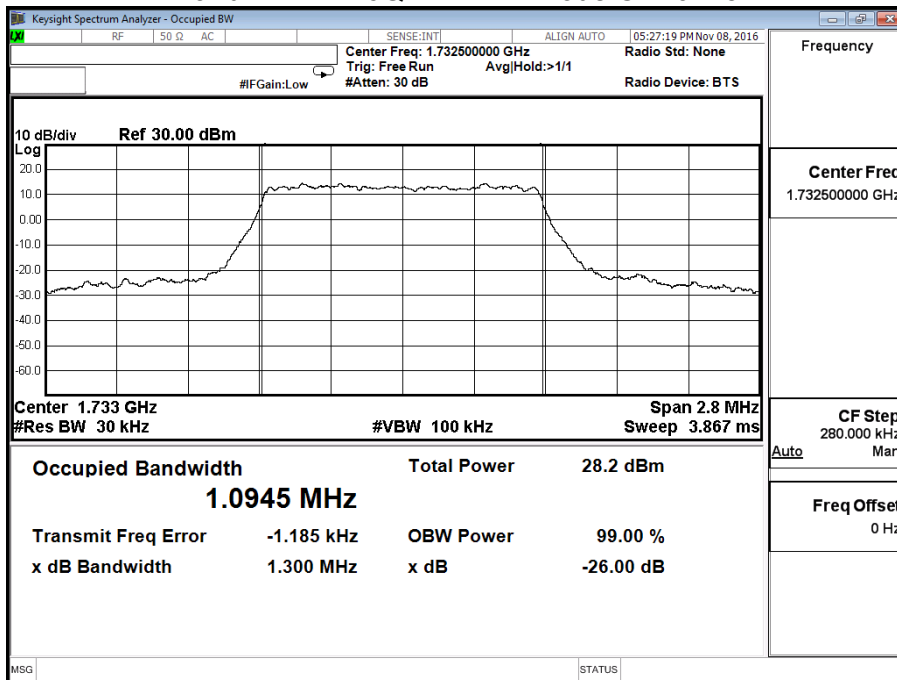


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 4 1.4M		

Band 4 1.4M QPSK - LTE Mode CH 20175

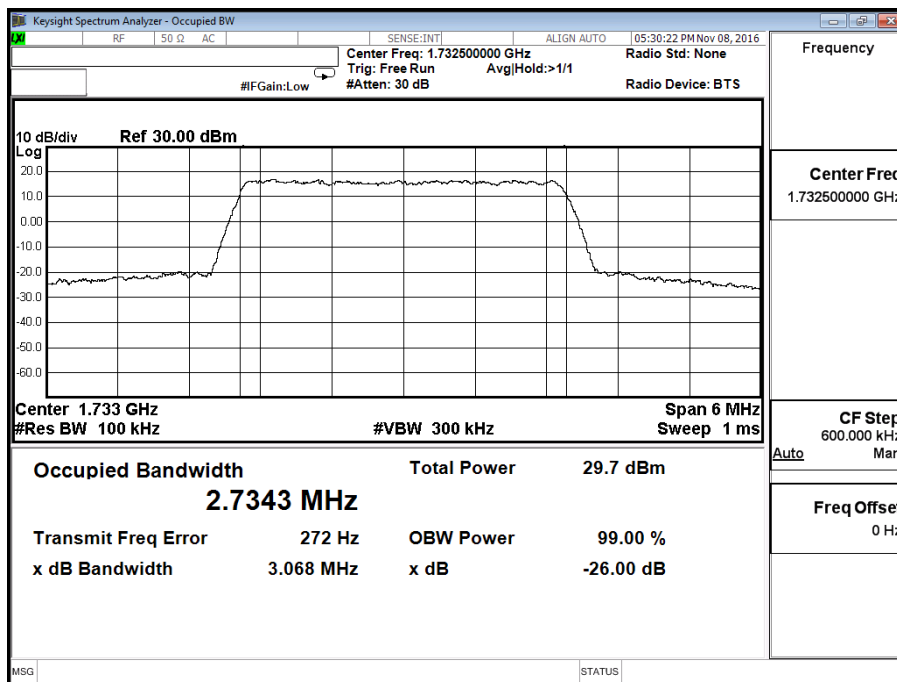


Band 4 1.4M 16QAM - LTE Mode CH20175

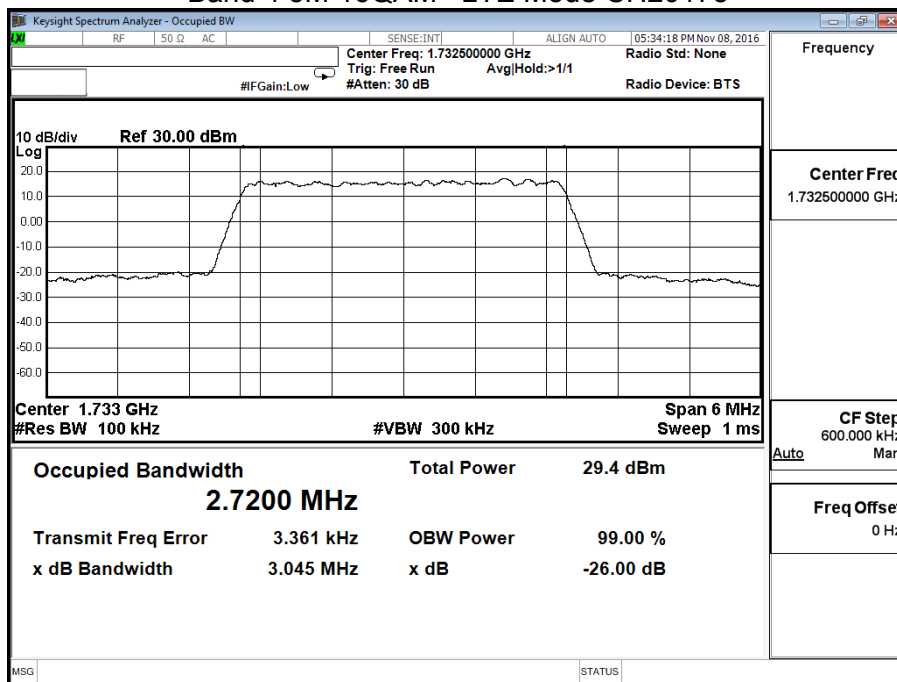


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 4 3M		

Band 4 3M QPSK - LTE Mode CH20175

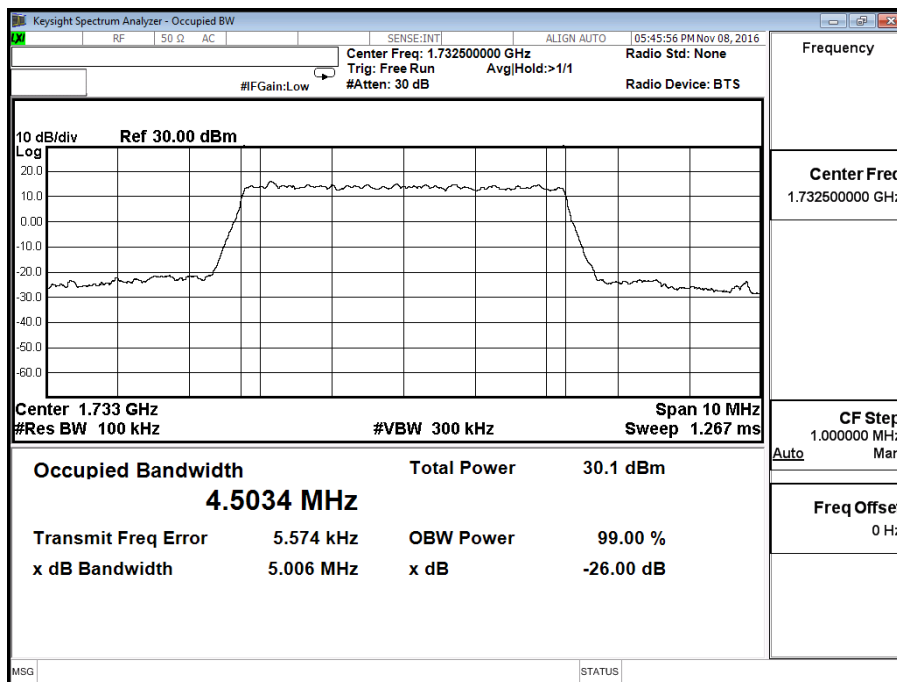


Band 4 3M 16QAM - LTE Mode CH20175

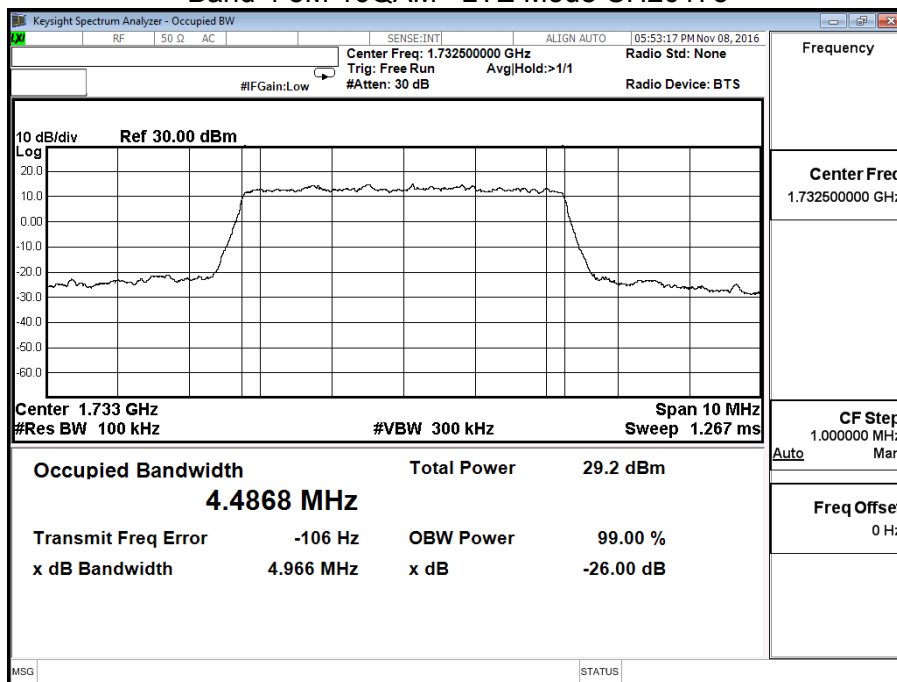


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 4 5M		

Band 4 5M QPSK - LTE Mode CH20175

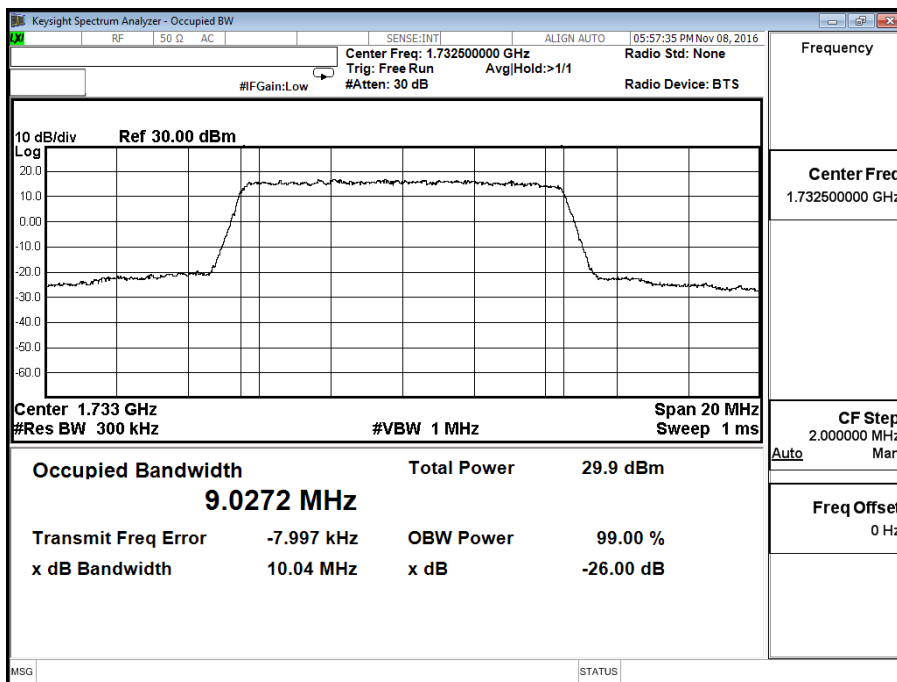


Band 4 5M 16QAM - LTE Mode CH20175

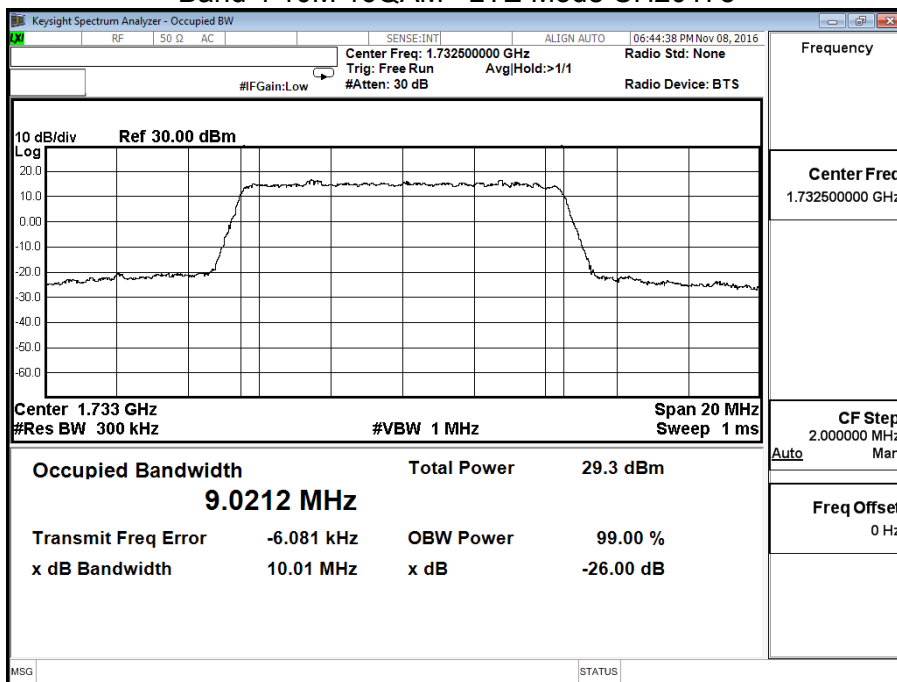


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 4 10M		

Band 4 10M QPSK - LTE Mode CH20175

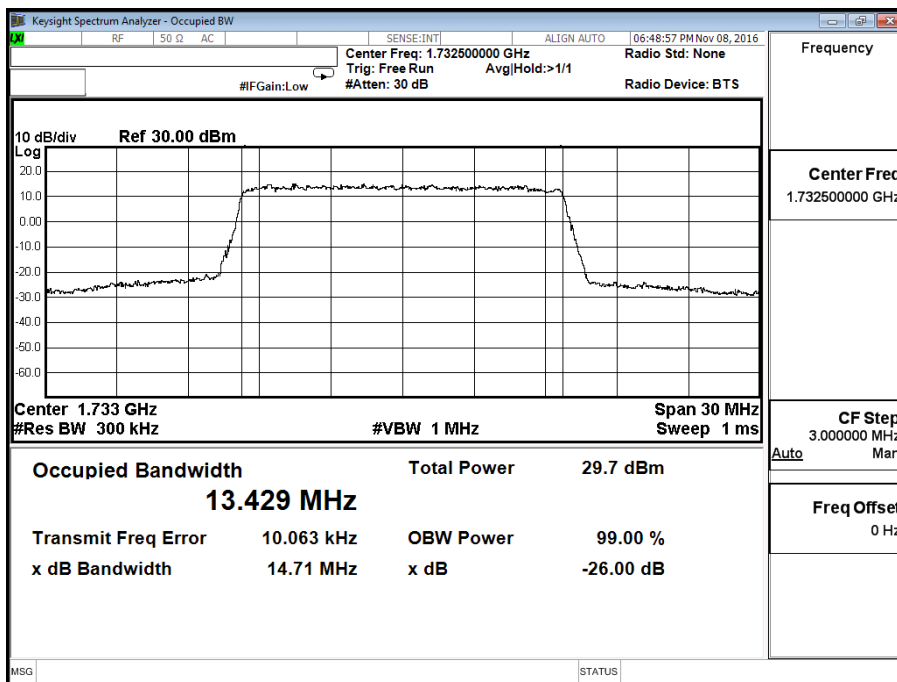


Band 4 10M 16QAM - LTE Mode CH20175

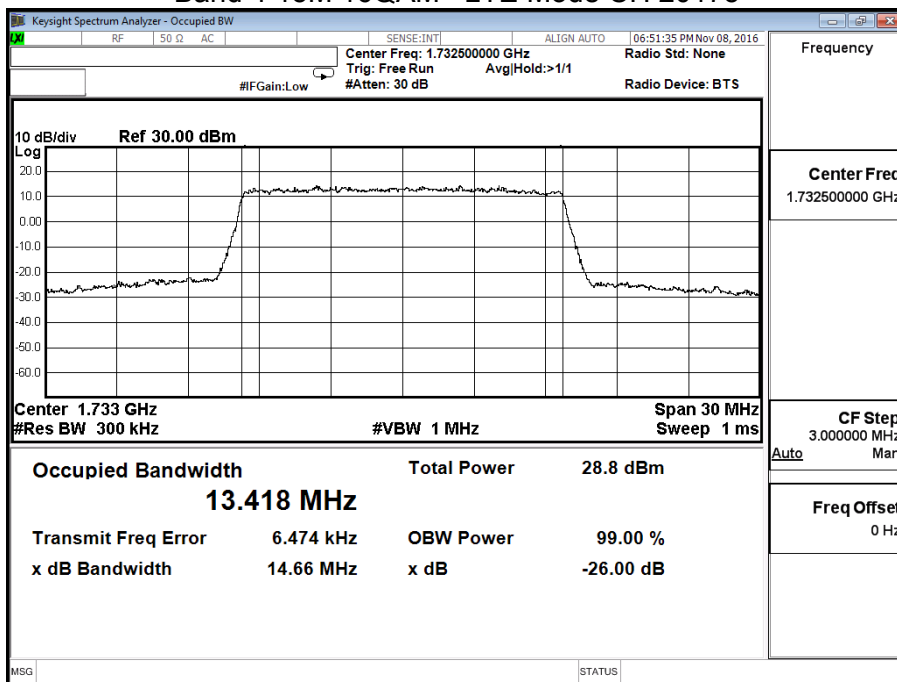


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 4 15M		

Band 4 15M QPSK - LTE Mode CH20175

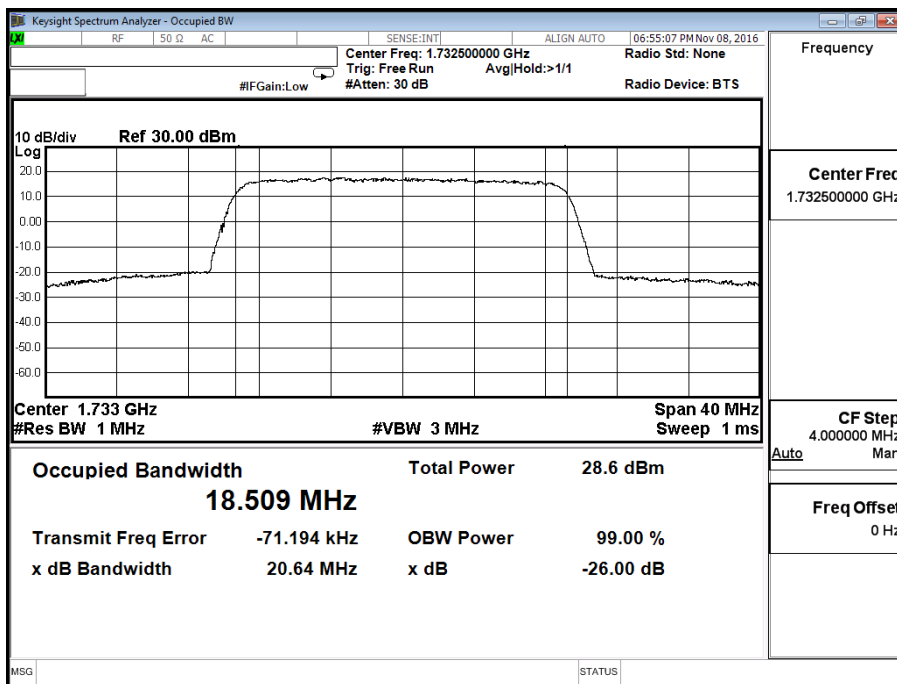


Band 4 15M 16QAM - LTE Mode CH 20175

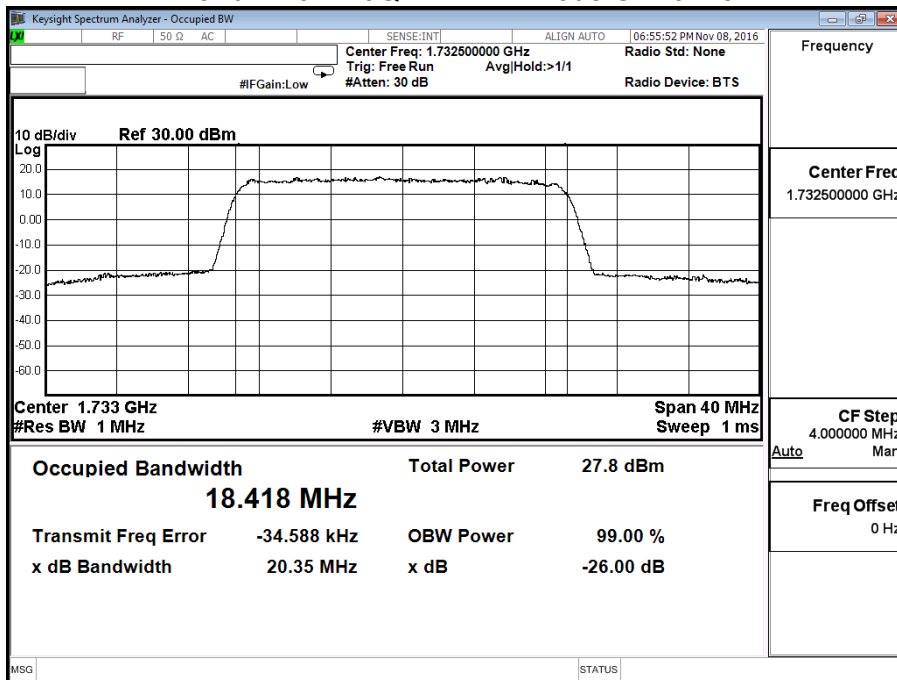


Product	LTE Router		
Test Mode	Occupied Bandwidth		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Band 4 20M		

Band 4 20M QPSK - LTE Mode CH20175



Band 4 20M 16QAM - LTE Mode CH20175

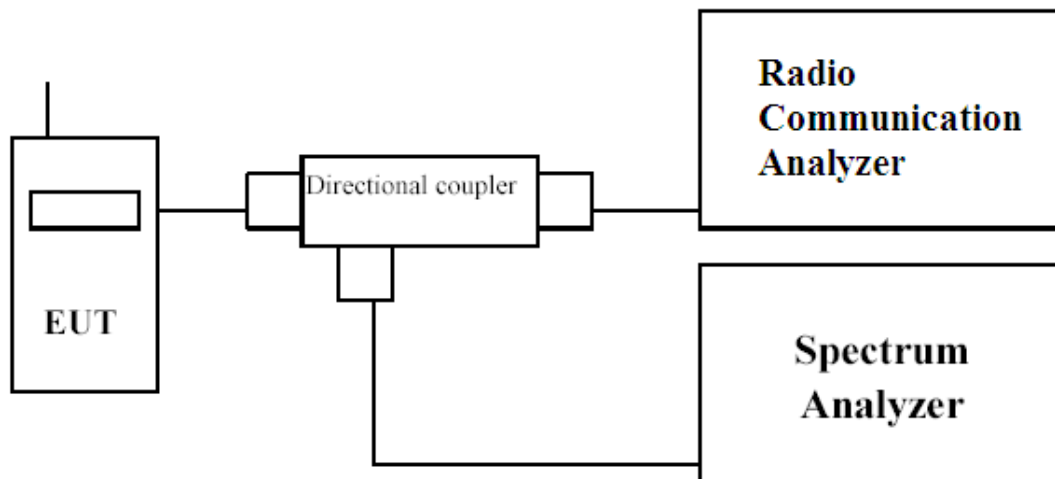


5. Spurious Emission At Antenna Terminals (+/-1MHz)

5.1. Test Specification

According to Part 2.1049, 24.238, 27.53

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

5.4. Test Procedure

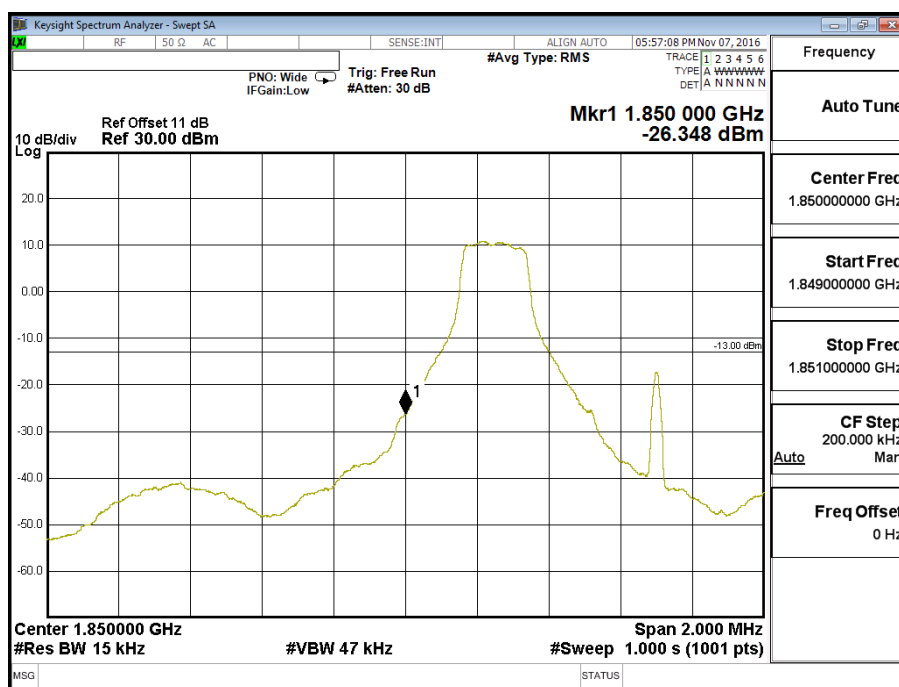
In accordance with Part 24.238, 27.53, at least 1% of the emission bandwidth was used for the resolution and video bandwidths up to 1MHz away from the Block Edge. At greater than 1MHz, the resolution and video bandwidth were increased to 1MHz/3MHz.

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

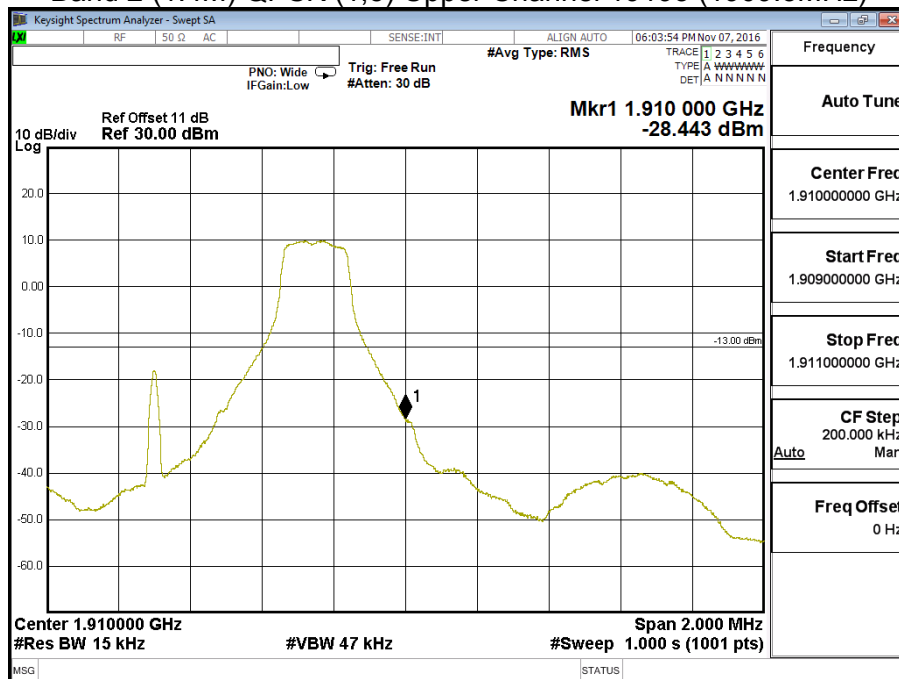
5.5. Test Result of Spurious Emission At Antenna Terminals (+/-1MHz)

Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (1.4M))		

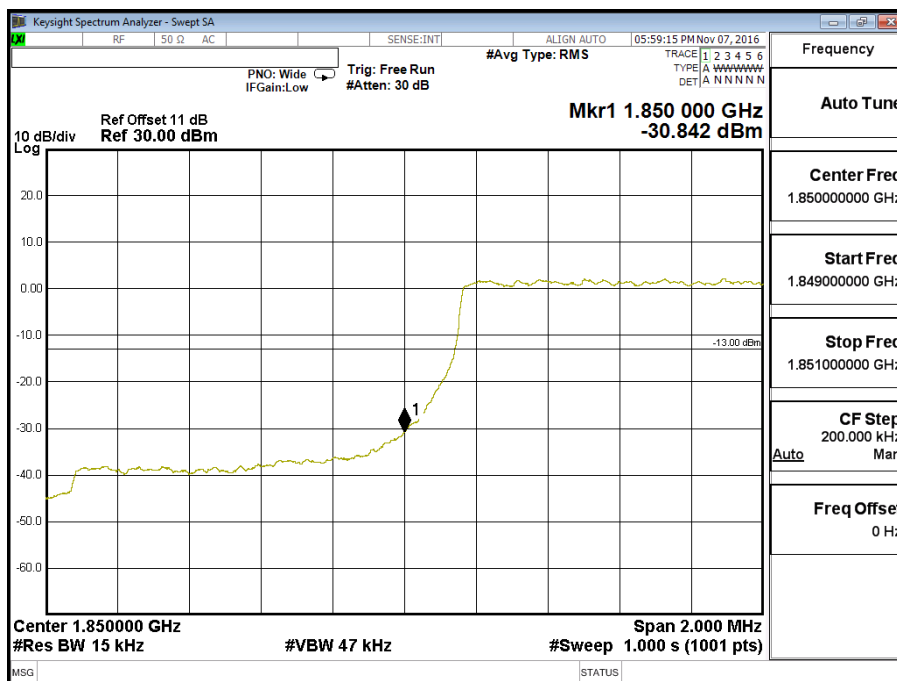
Band 2 (1.4M) QPSK (1,0) Lower Channel 18607 (1850.7MHz)



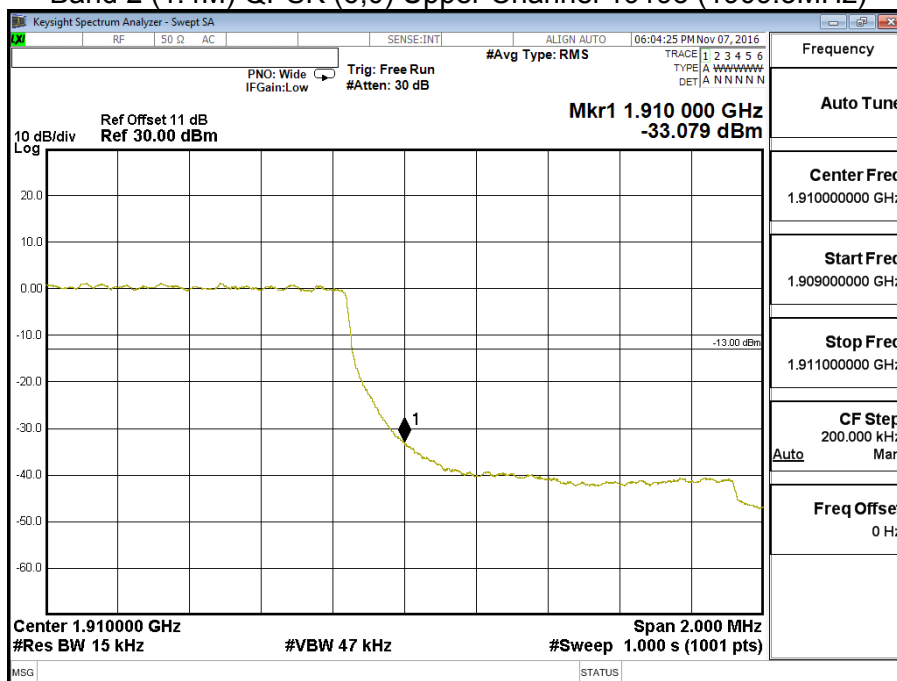
Band 2 (1.4M) QPSK (1,5) Upper Channel 19193 (1909.3MHz)



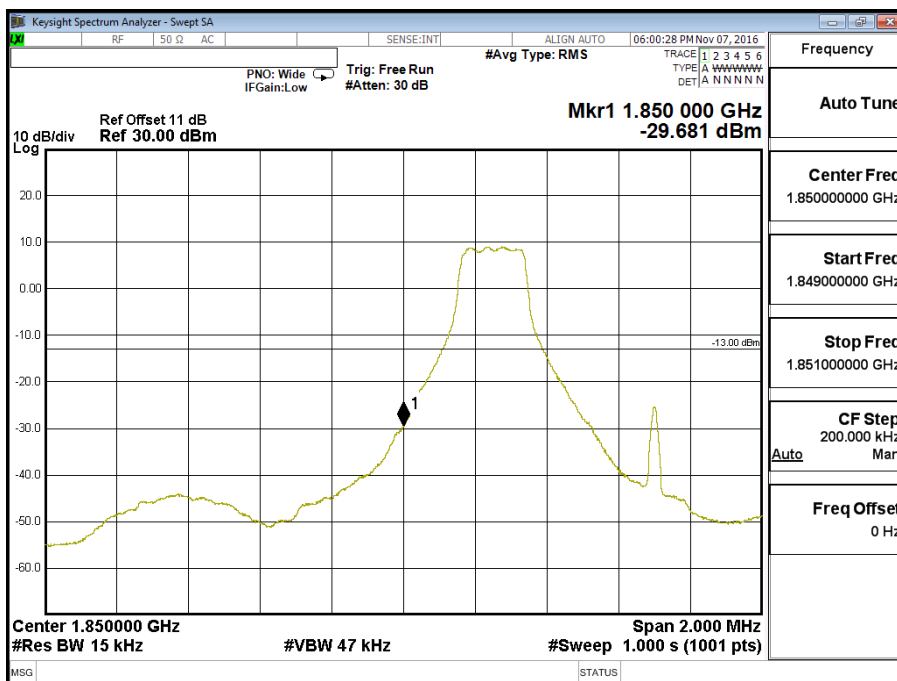
Band 2 (1.4M) QPSK (6,0) Lower Channel 18607 (1850.7MHz)



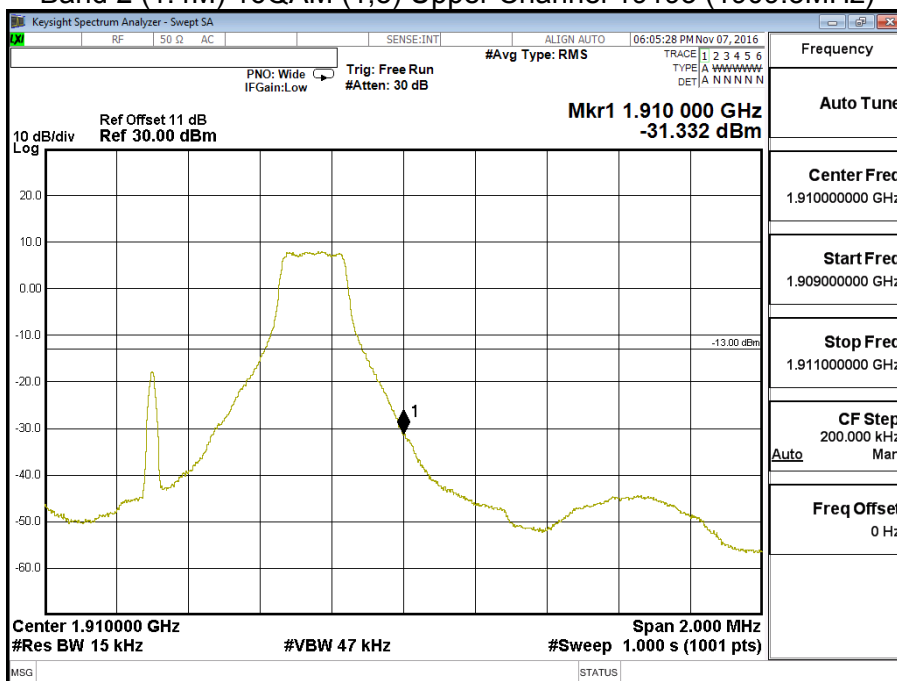
Band 2 (1.4M) QPSK (6,0) Upper Channel 19193 (1909.3MHz)



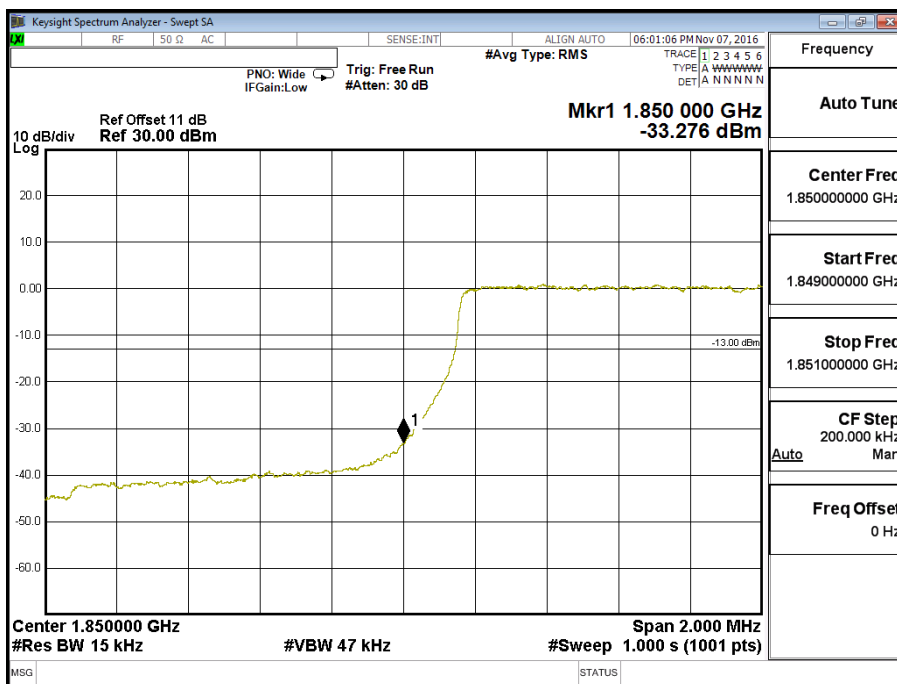
Band 2 (1.4M) 16QAM (1,0) Lower Channel 18607 (1850.7MHz)



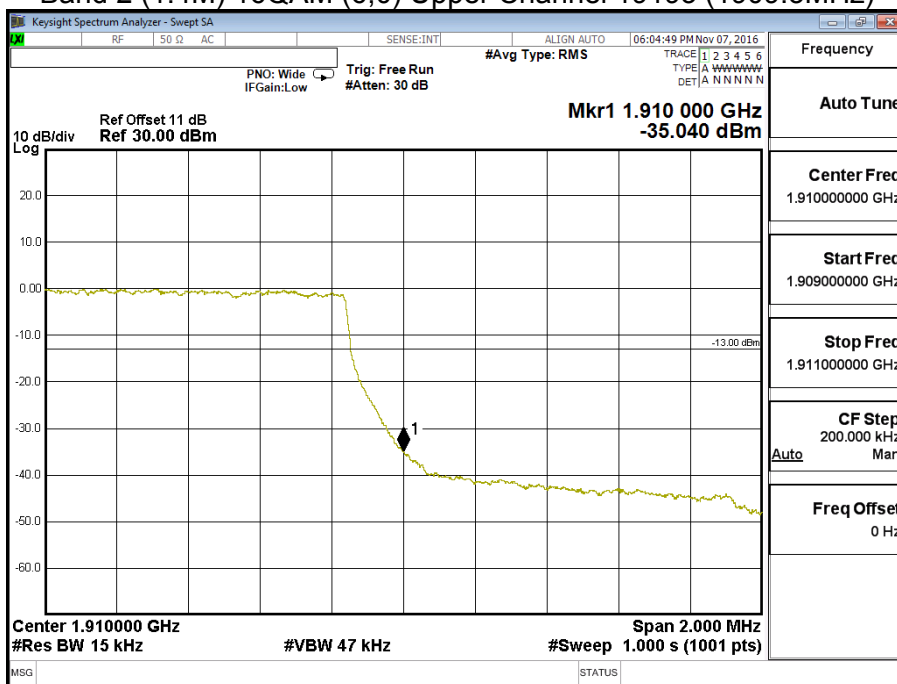
Band 2 (1.4M) 16QAM (1,5) Upper Channel 19193 (1909.3MHz)



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

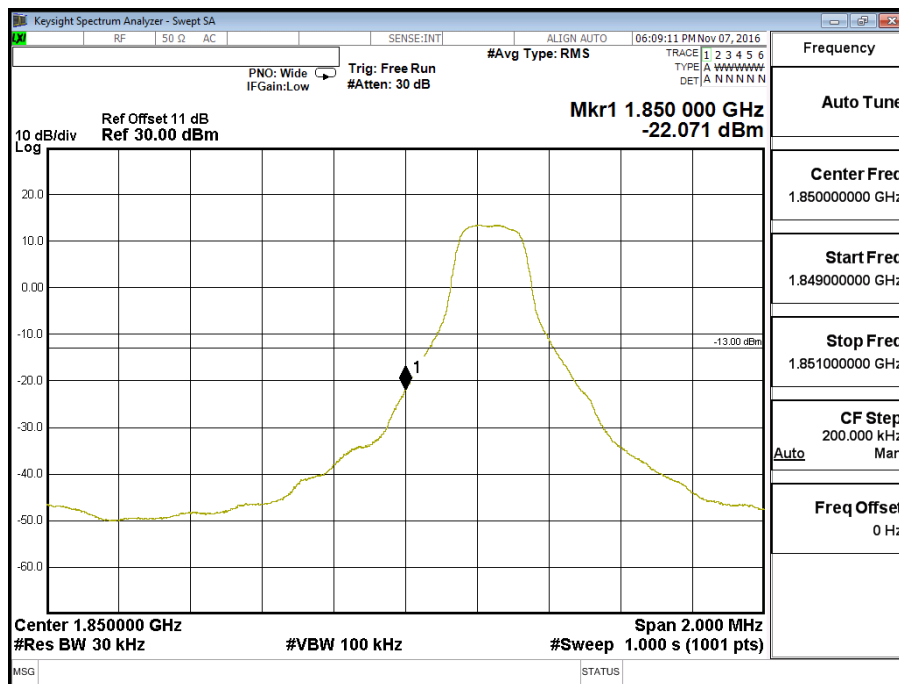


Band 2 (1.4M) 16QAM (6,0) Upper Channel 19193 (1909.3MHz)

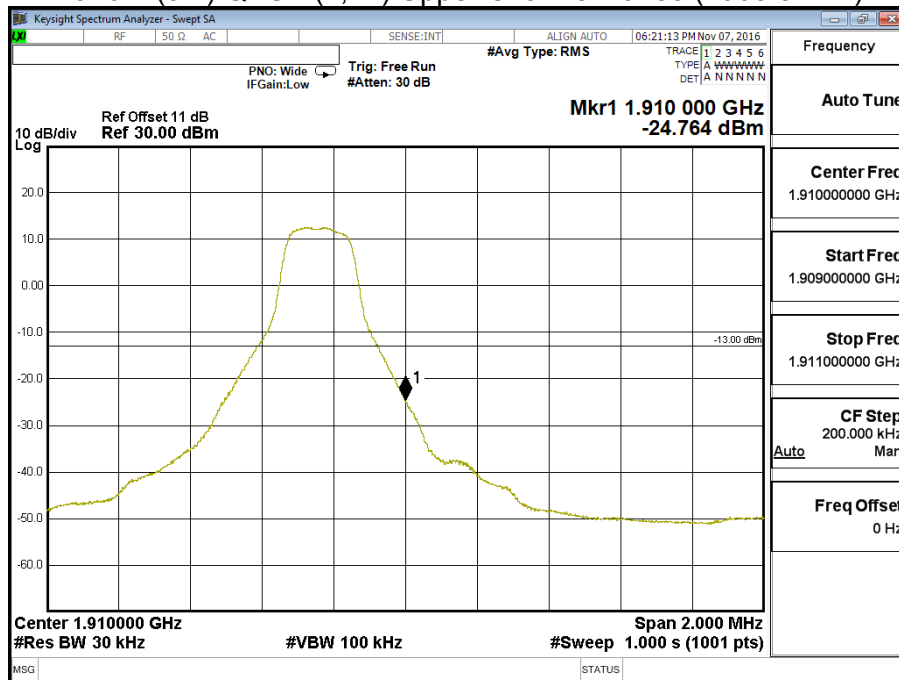


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (3M))		

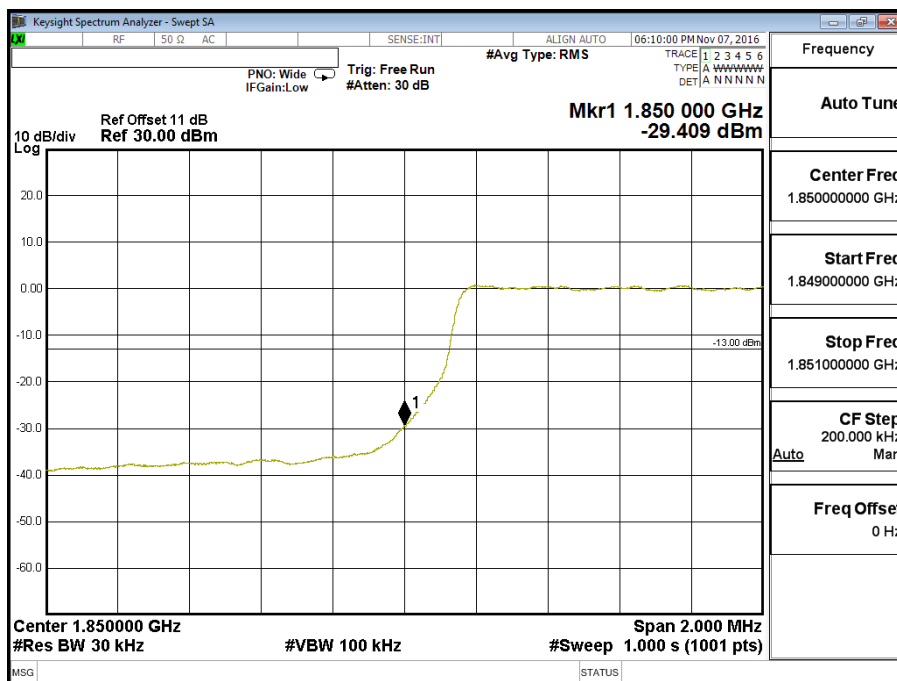
Band 2 (3M) QPSK (1,0) Lower Channel 18615 (1851.5MHz)



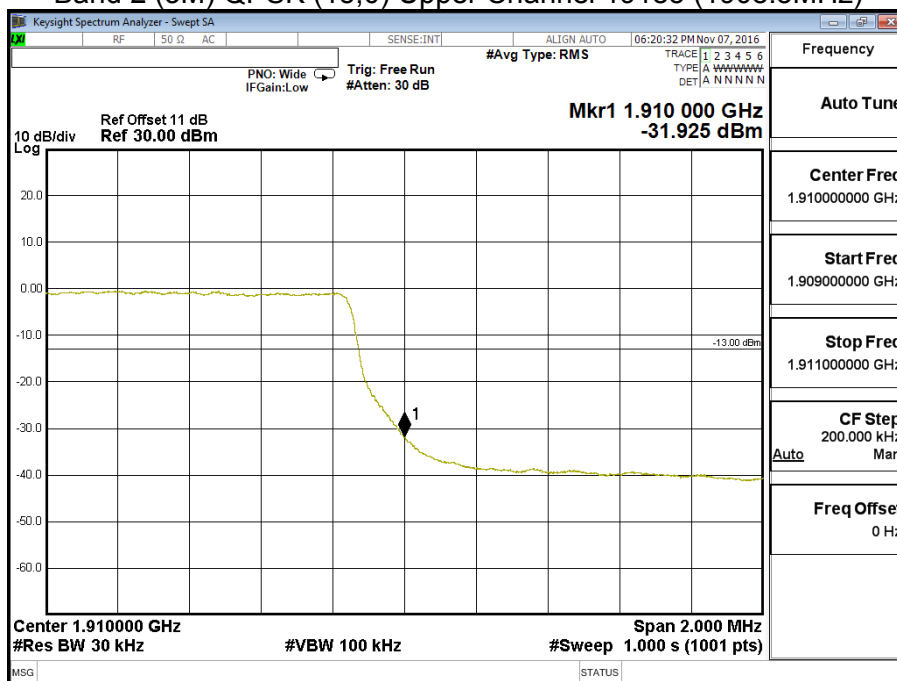
Band 2 (3M) QPSK (1,14) Upper Channel 19185 (1908.5MHz)



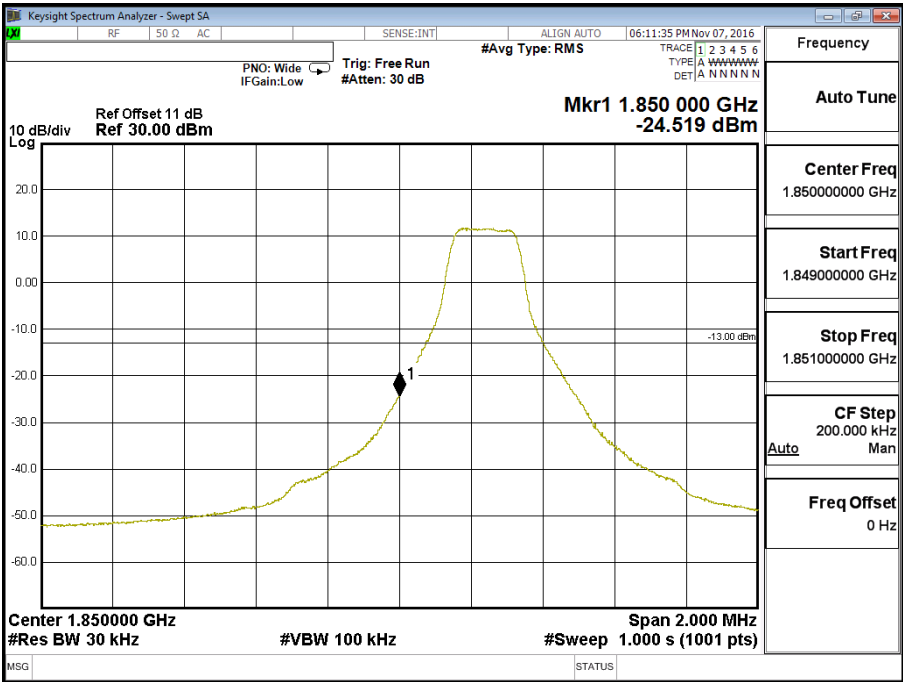
Band 2 (3M) QPSK (15,0) Lower Channel 18615 (1851.5MHz)



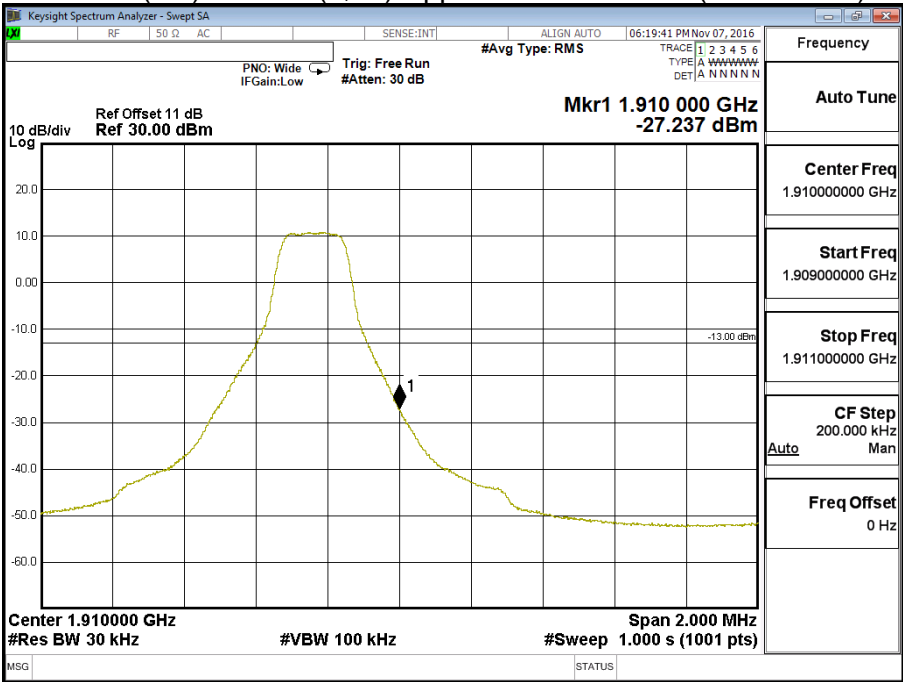
Band 2 (3M) QPSK (15,0) Upper Channel 19185 (1908.5MHz)



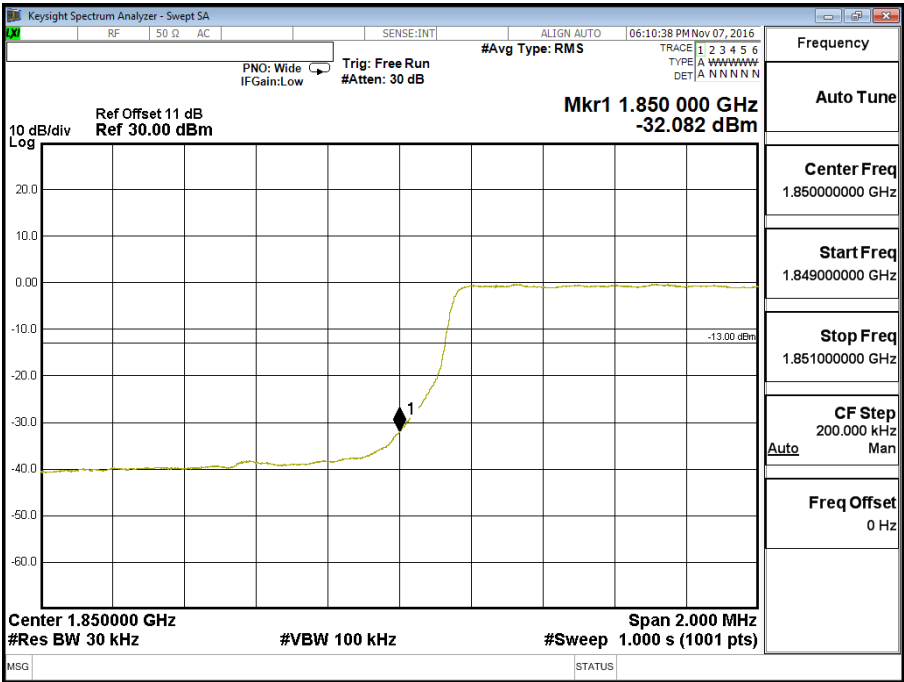
Band 2 (3M) 16QAM (1,0) Lower Channel 18615 (1851.5MHz)



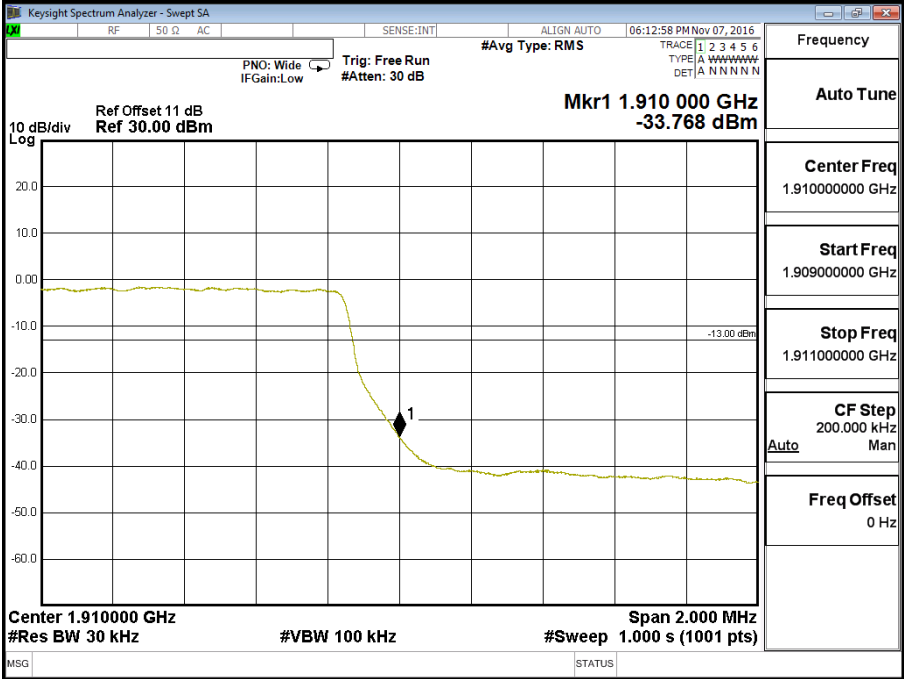
Band 2 (3M) 16QAM (1,14) Upper Channel 19185 (1908.5MHz)



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

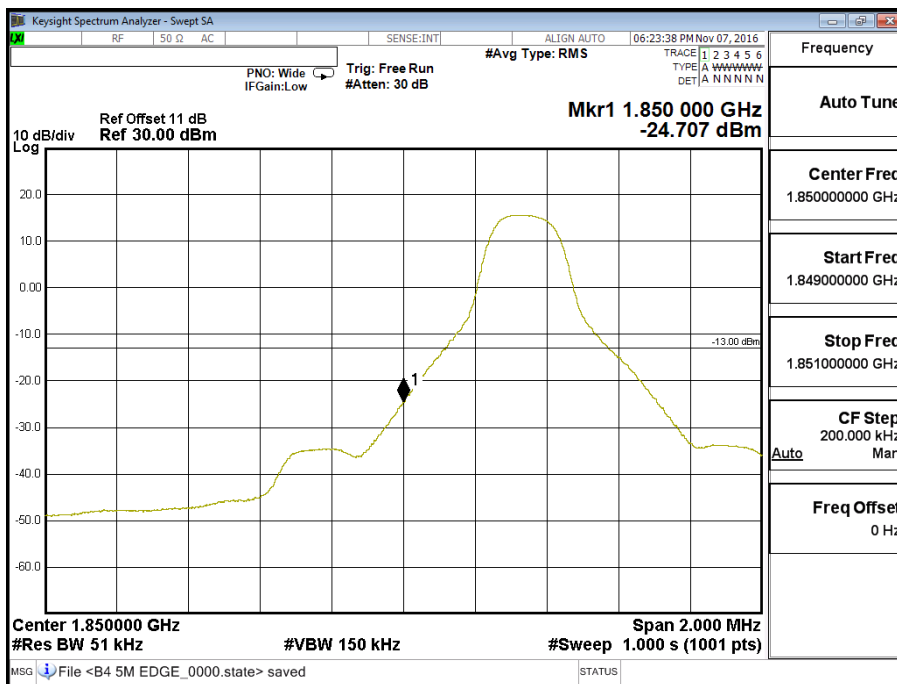


Band 2 (3M) 16QAM (15,0) Upper Channel 19185 (1908.5MHz)

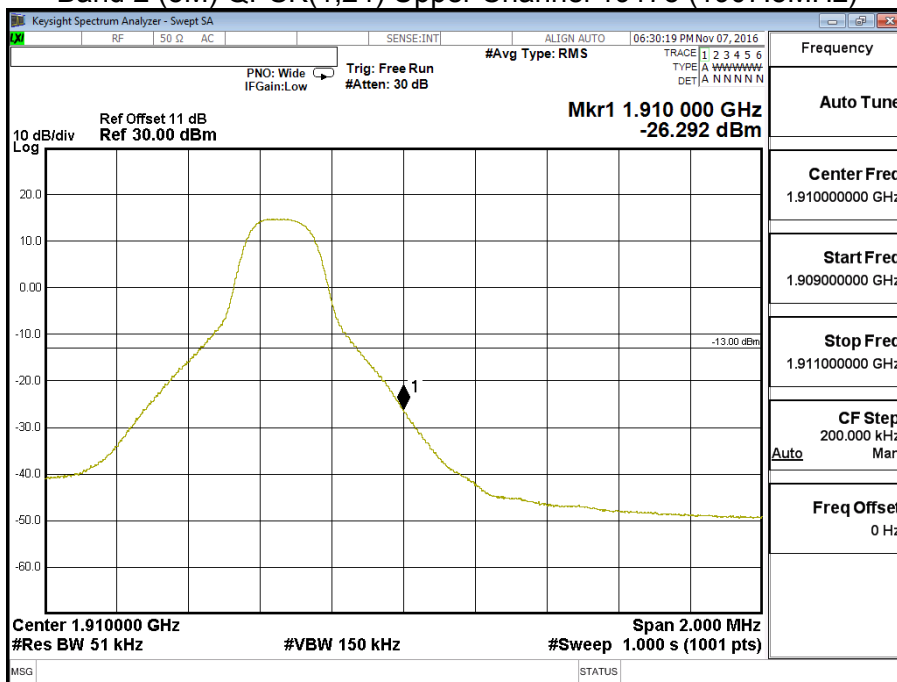


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (5M))		

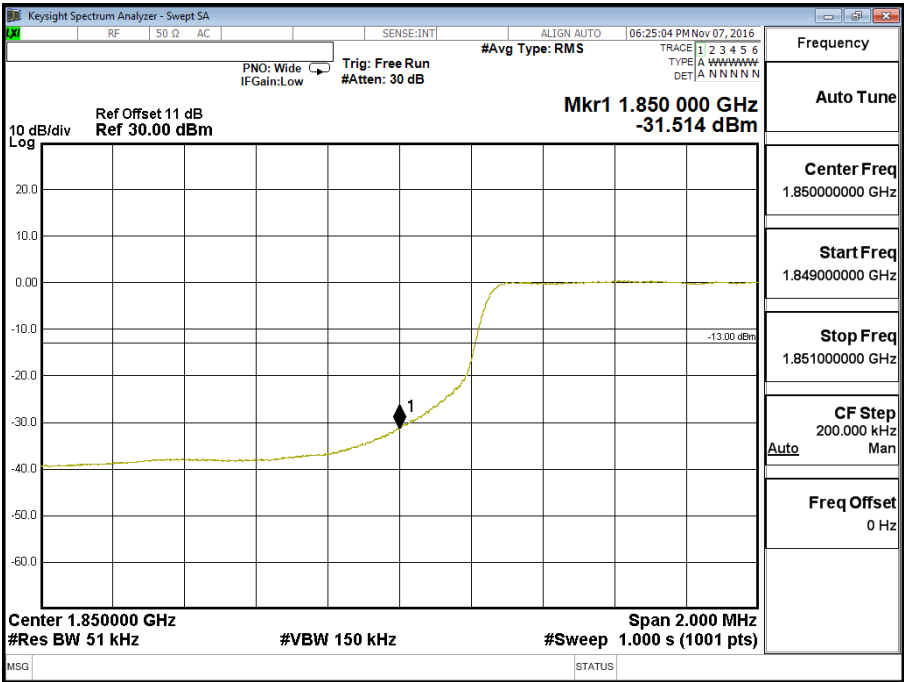
Band 2 (5M) QPSK(1,0) Lower Channel 18625 (1852.5MHz)



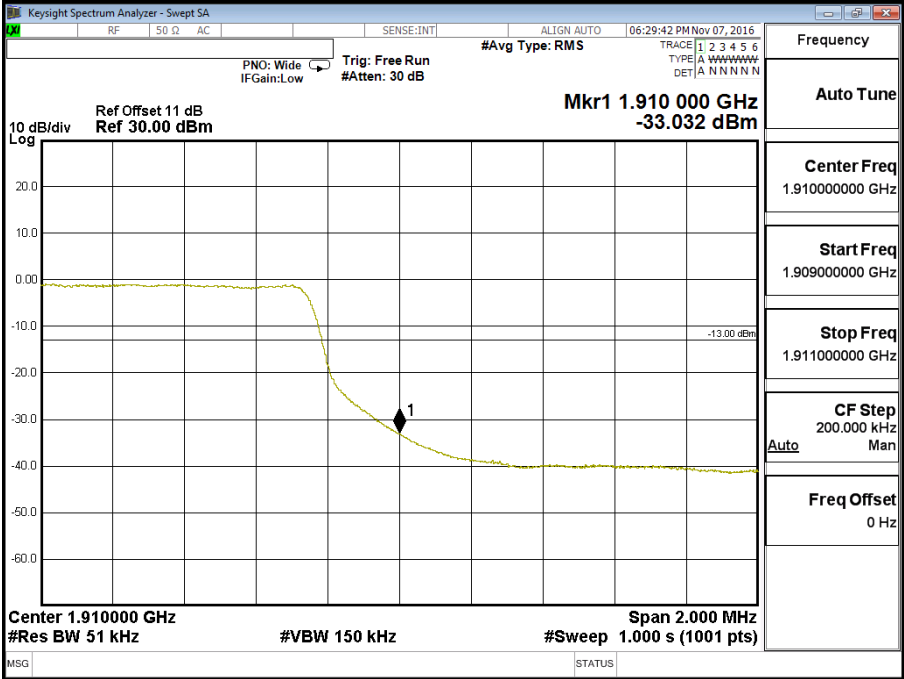
Band 2 (5M) QPSK(1,24) Upper Channel 19175 (1907.5MHz)



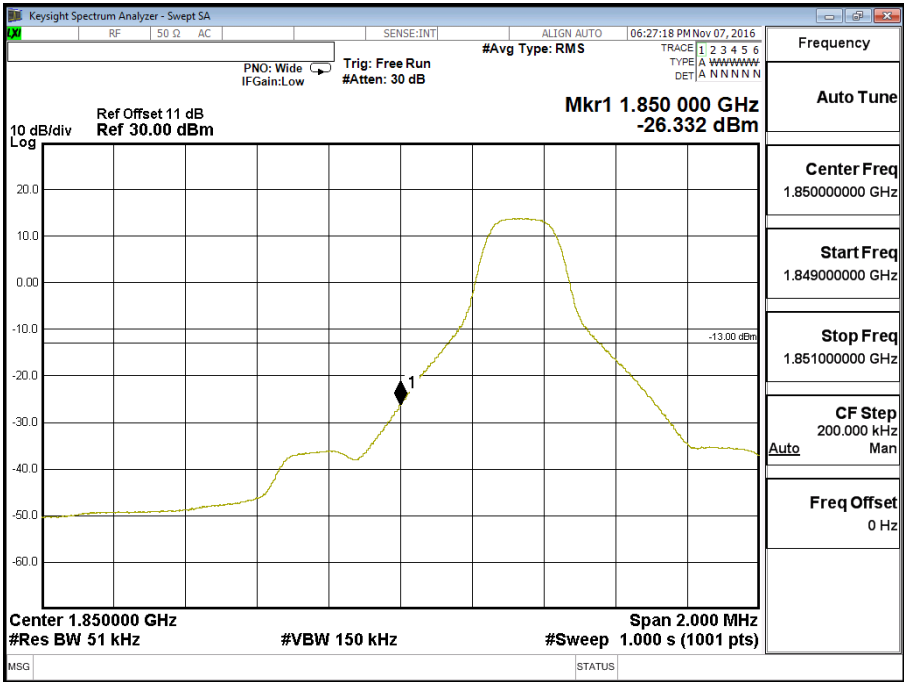
Band 2 (5M) QPSK(25,0) Lower Channel 18625 (1852.5MHz)



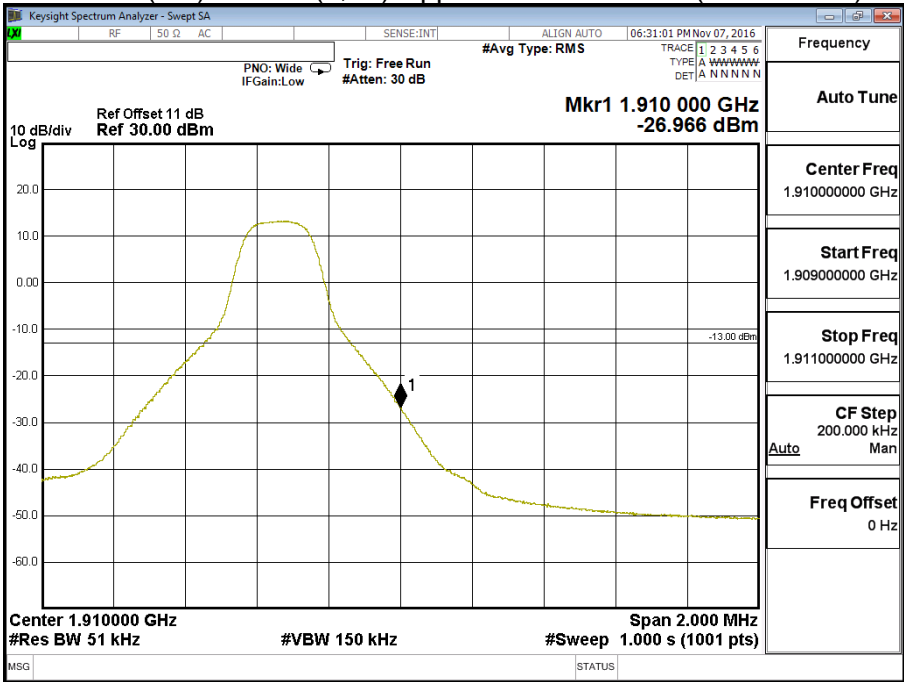
Band 2 (5M) QPSK(25,0) Upper Channel 19175 (1907.5MHz)



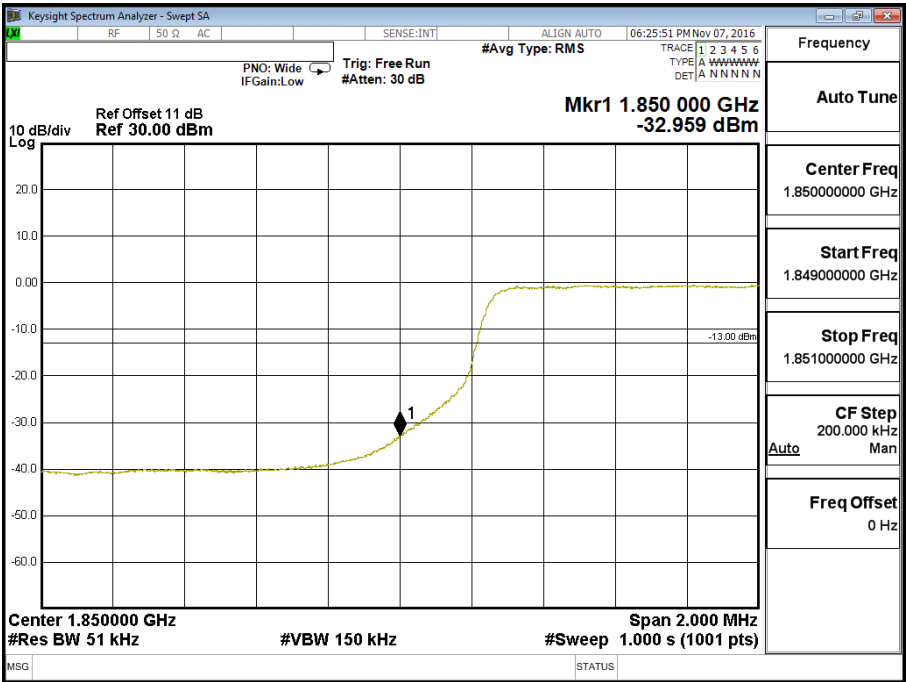
Band 2 (5M) 16QAM(1,0) Lower Channel 18625 (1852.5MHz)



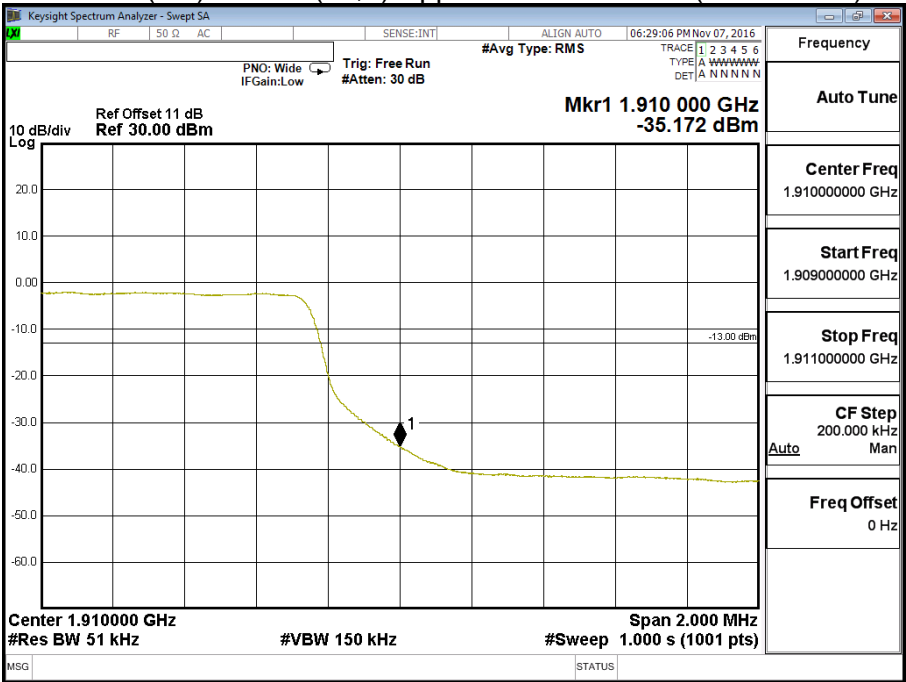
Band 2 (5M) 16QAM(1,24) Upper Channel 19175 (1907.5MHz)



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

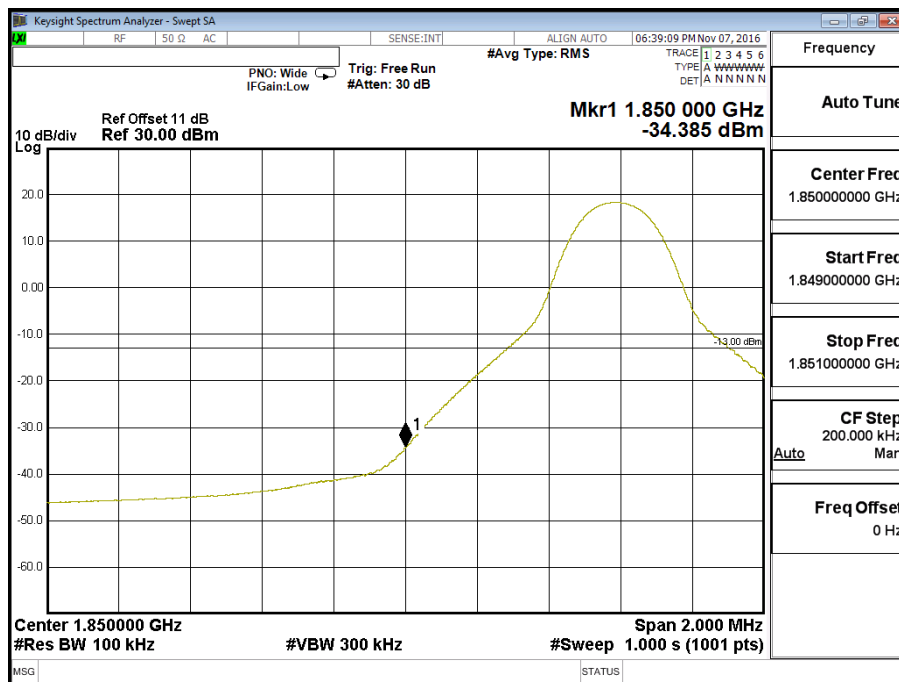


Band 2 (5M) 16QAM(25,0) Upper Channel 19175 (1907.5MHz)

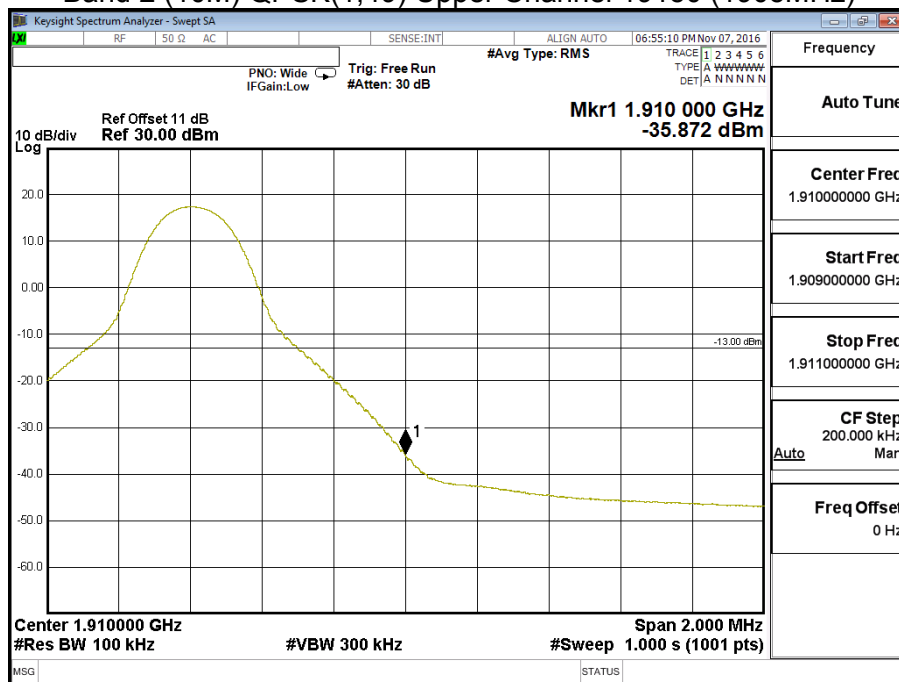


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (10M))		

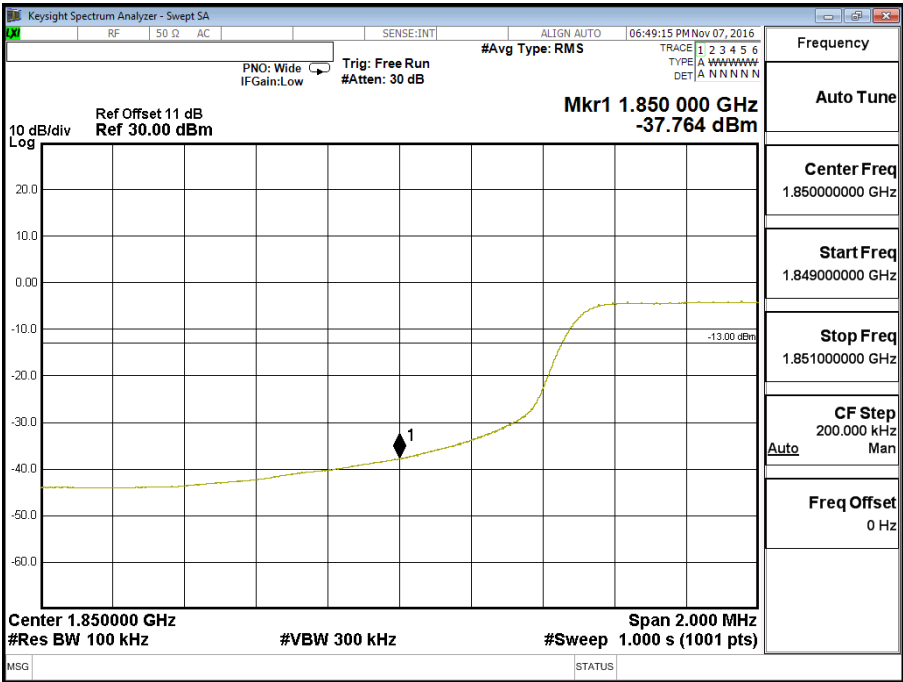
Band 2 (10M) QPSK(1,0) Lower Channel 18650 (1855MHz)



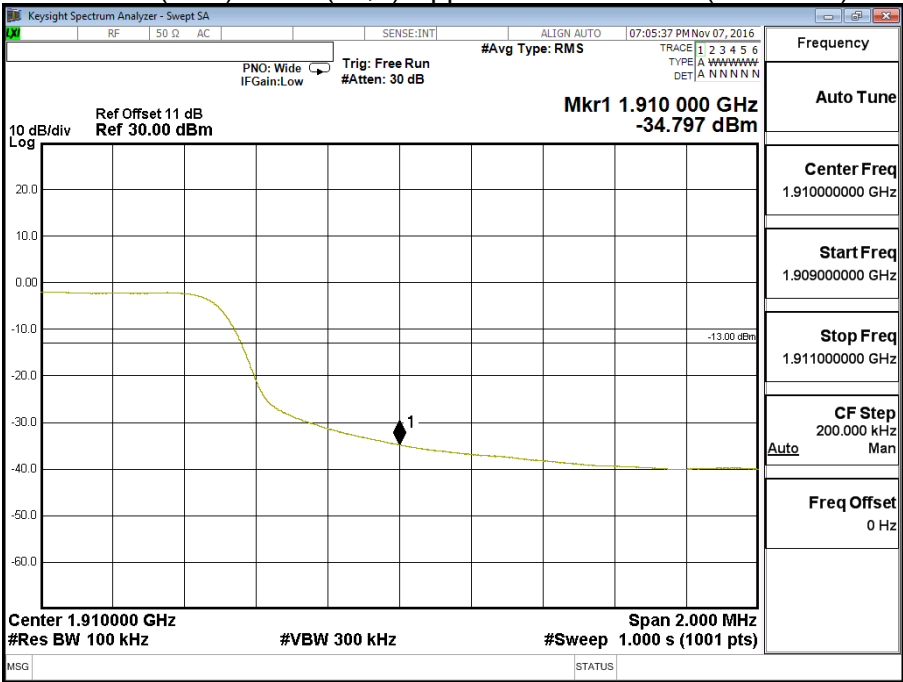
Band 2 (10M) QPSK(1,49) Upper Channel 19150 (1905MHz)



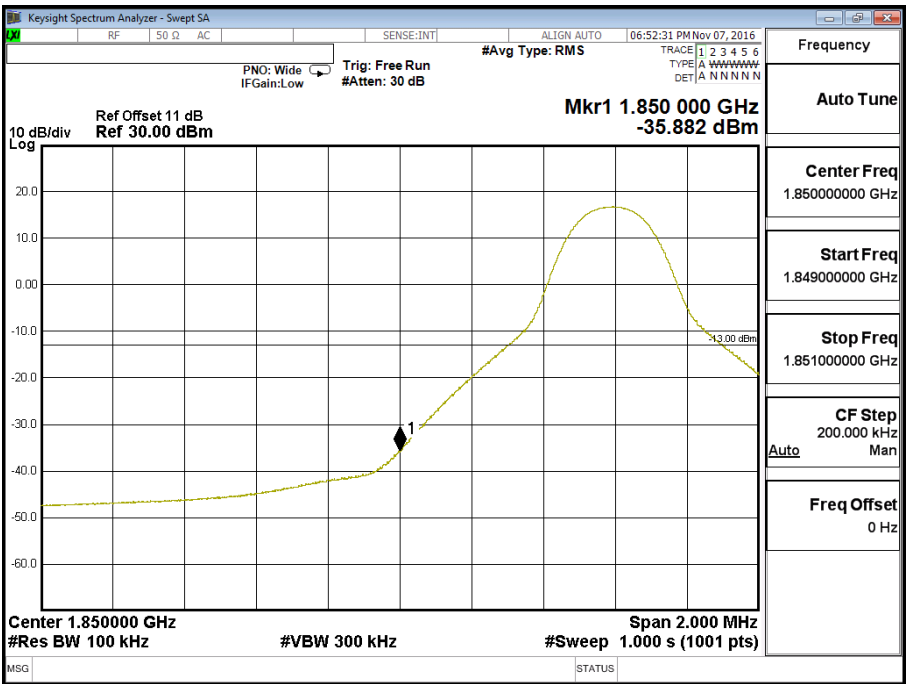
Band 2 (10M) QPSK(50,0) Lower Channel 18650 (1855MHz)



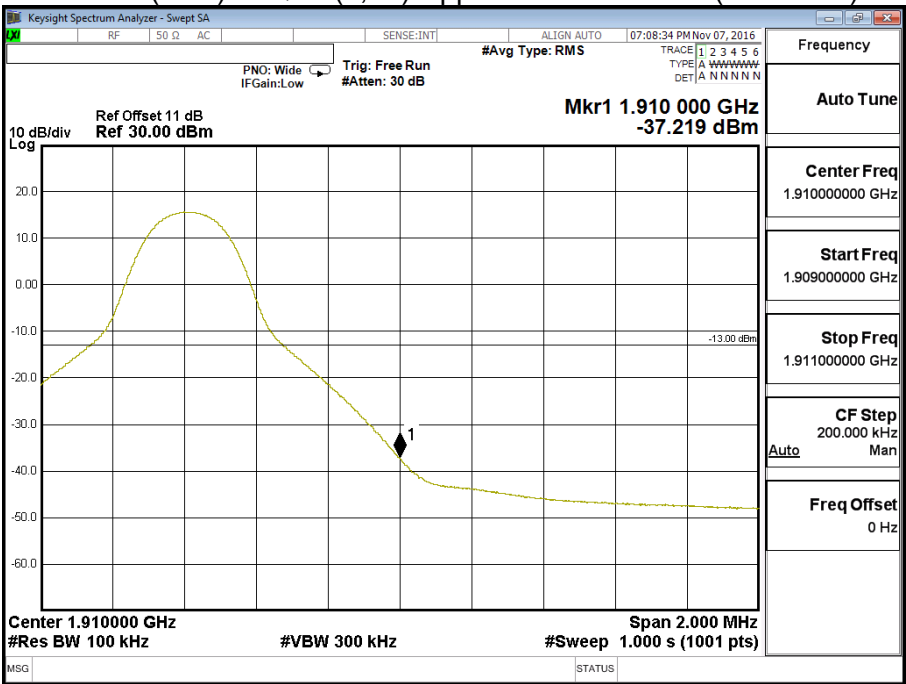
Band 2 (10M) QPSK(50,0) Upper Channel 19150 (1905MHz)



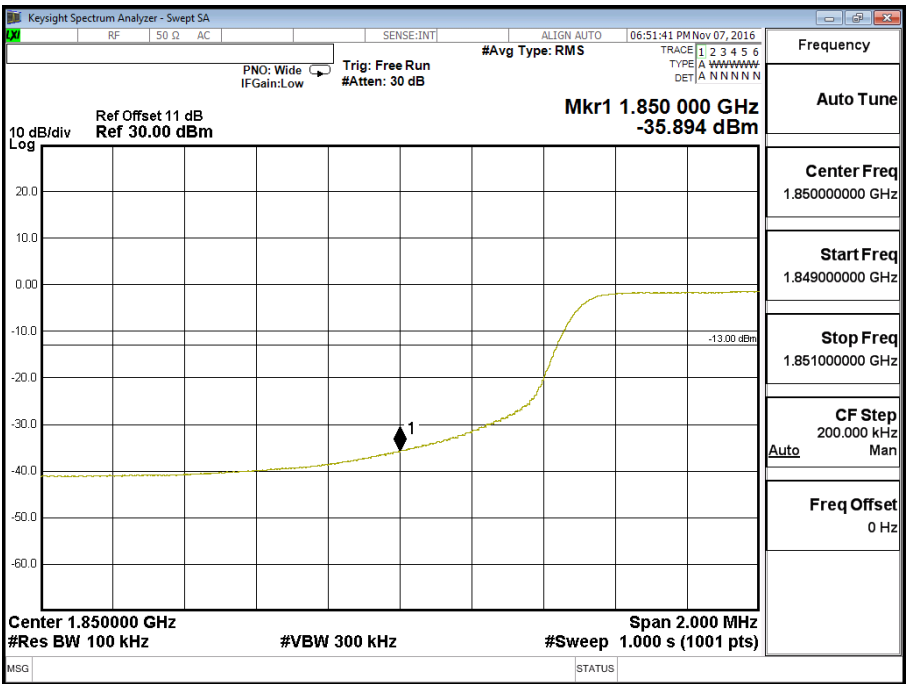
Band 2 (10M) 16QAM(1,0) Lower Channel 18650 (1855MHz)



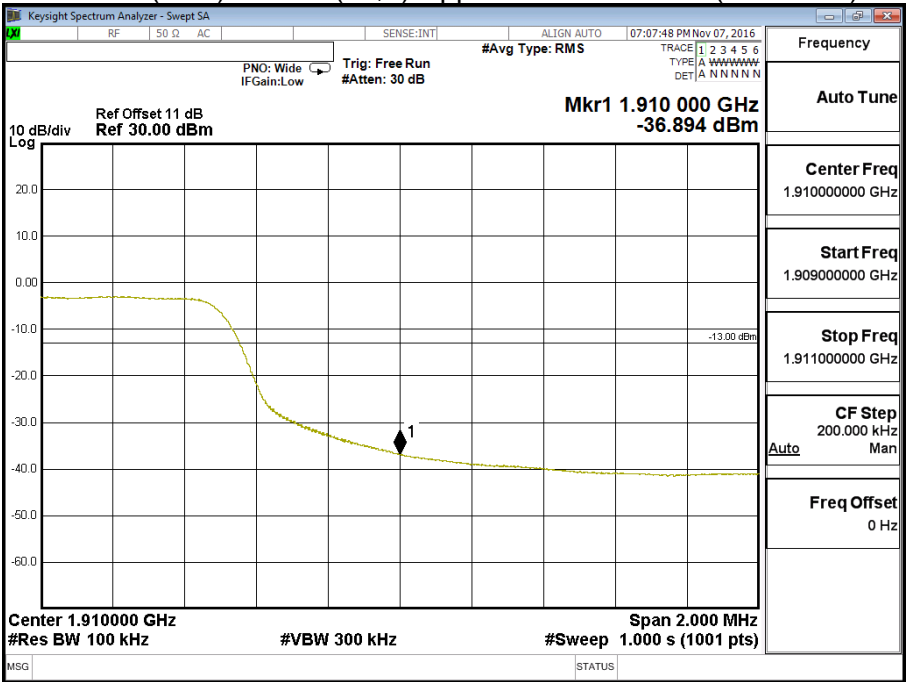
Band 2 (10M) 16QAM(1,49) Upper Channel 19150 (1905MHz)



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

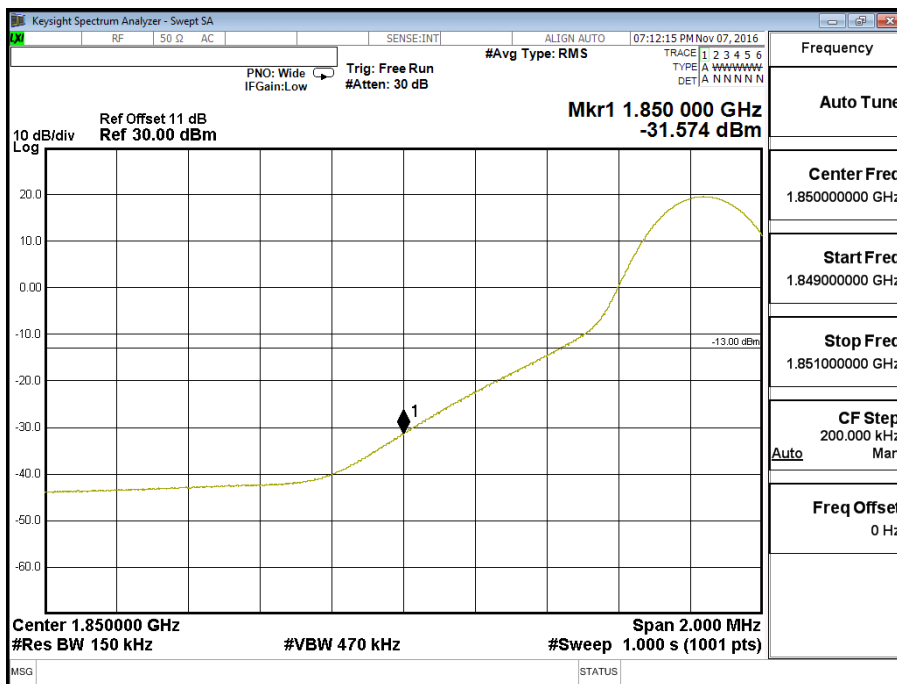


Band 2 (10M) 16QAM(50,0) Upper Channel 19150 (1905MHz)

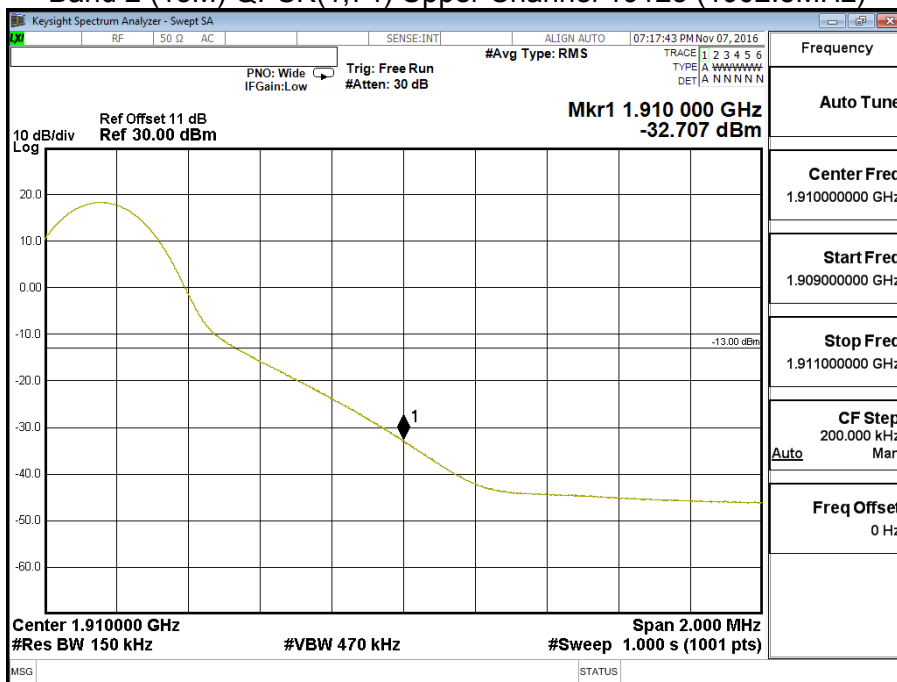


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (15M))		

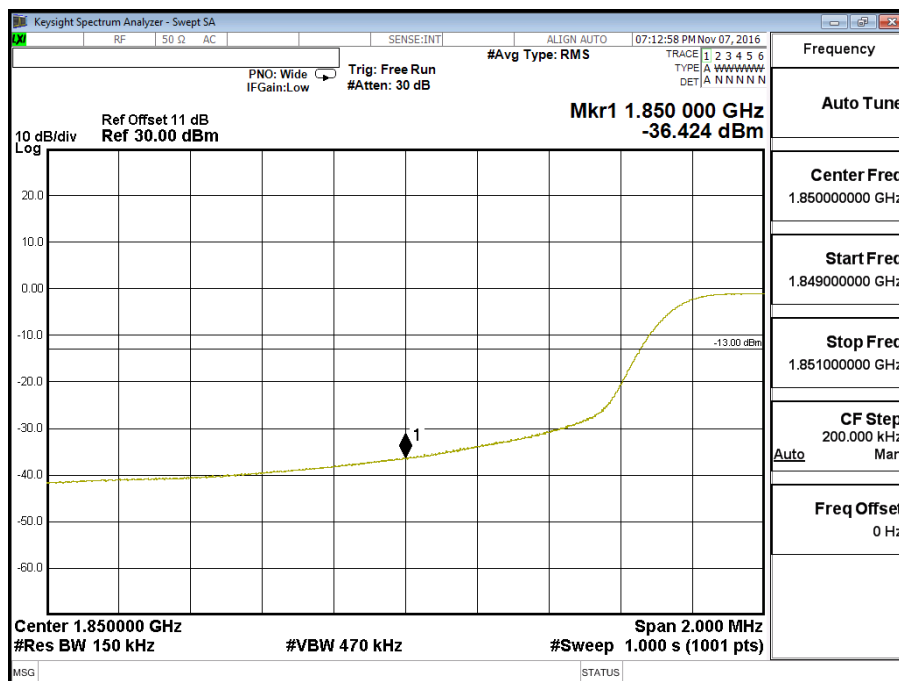
Band 2 (15M)QPSK(1,0) Lower Channel 18675 (1857.5MHz)



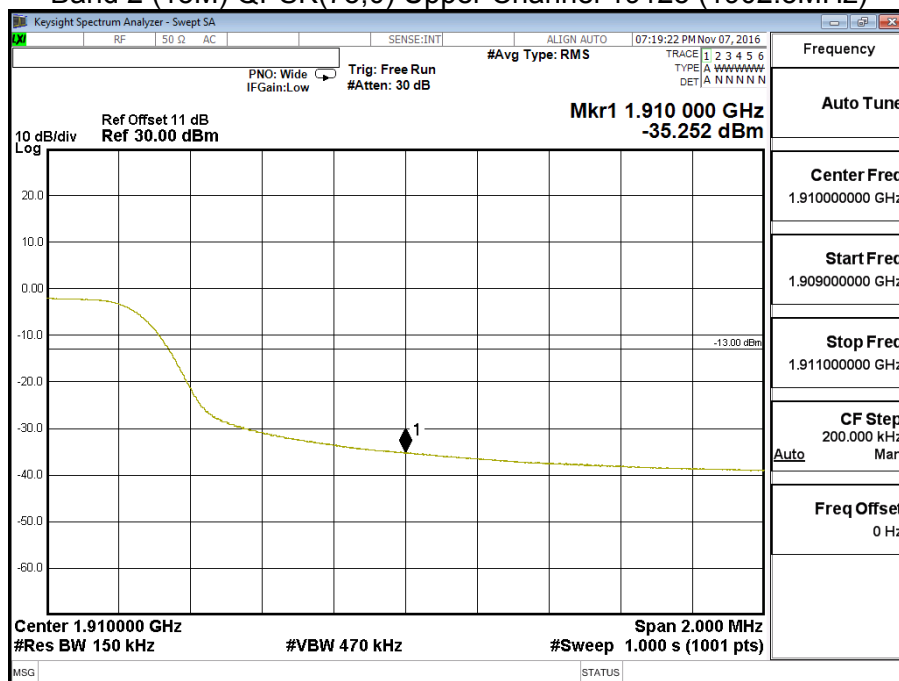
Band 2 (15M) QPSK(1,74) Upper Channel 19125 (1902.5MHz)



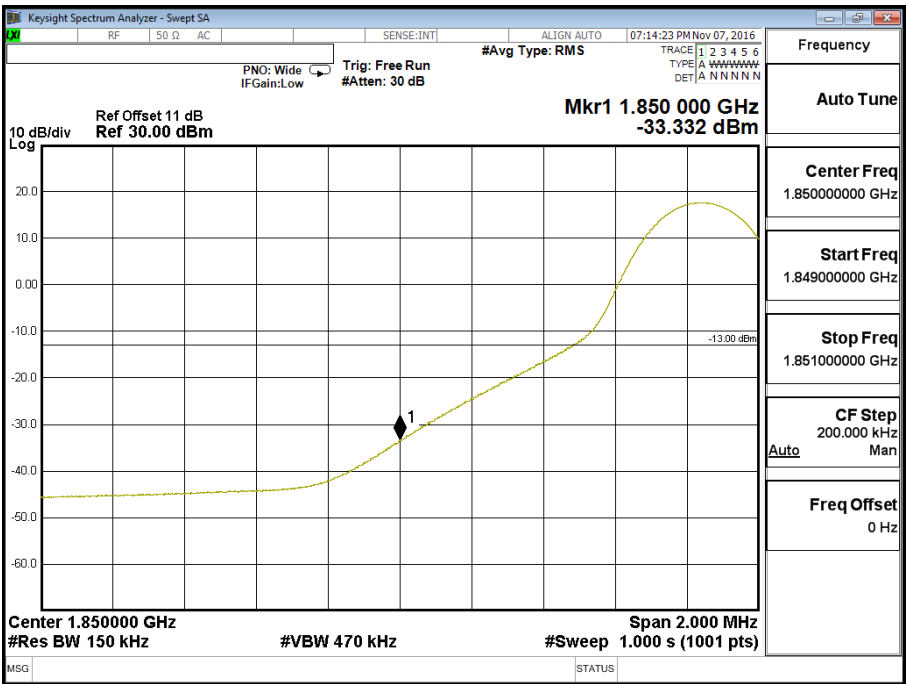
Band 2 (15M) QPSK(75,0) Lower Channel 18675 (1857.5MHz)



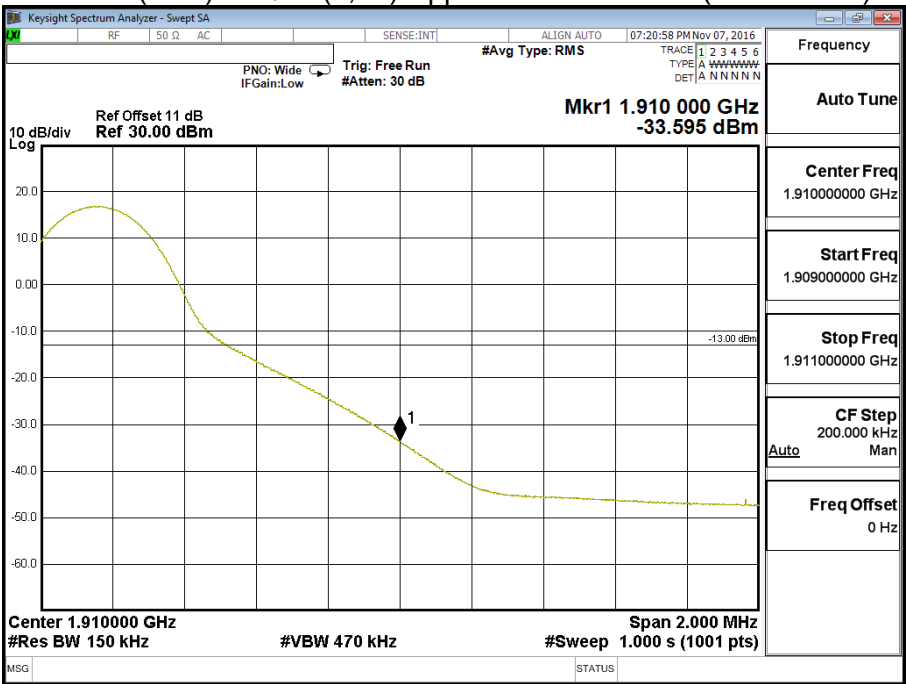
Band 2 (15M) QPSK(75,0) Upper Channel 19125 (1902.5MHz)



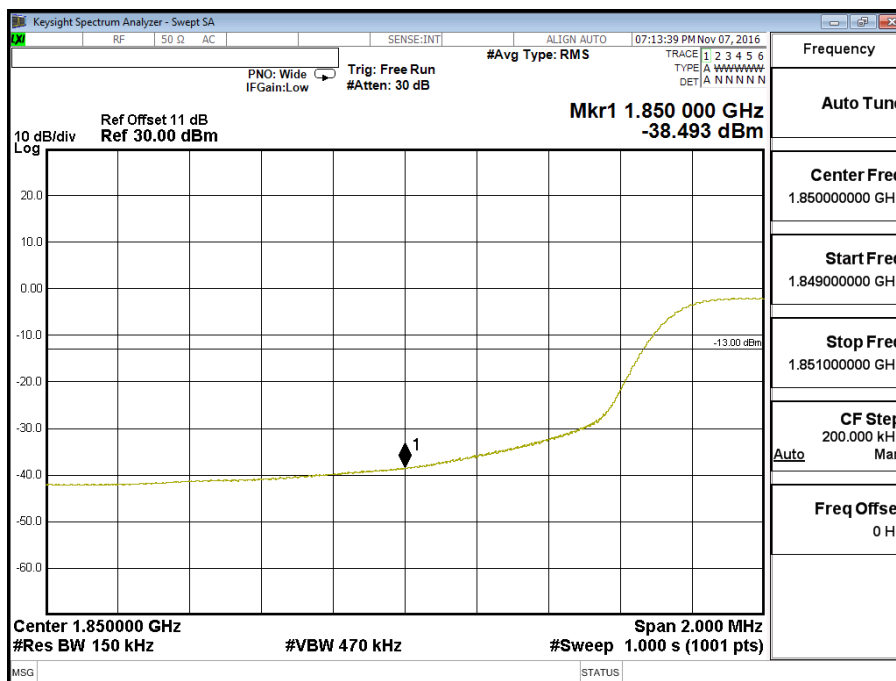
Band 2 (15M) 16QAM(1,0) Lower Channel 18675 (1857.5MHz)



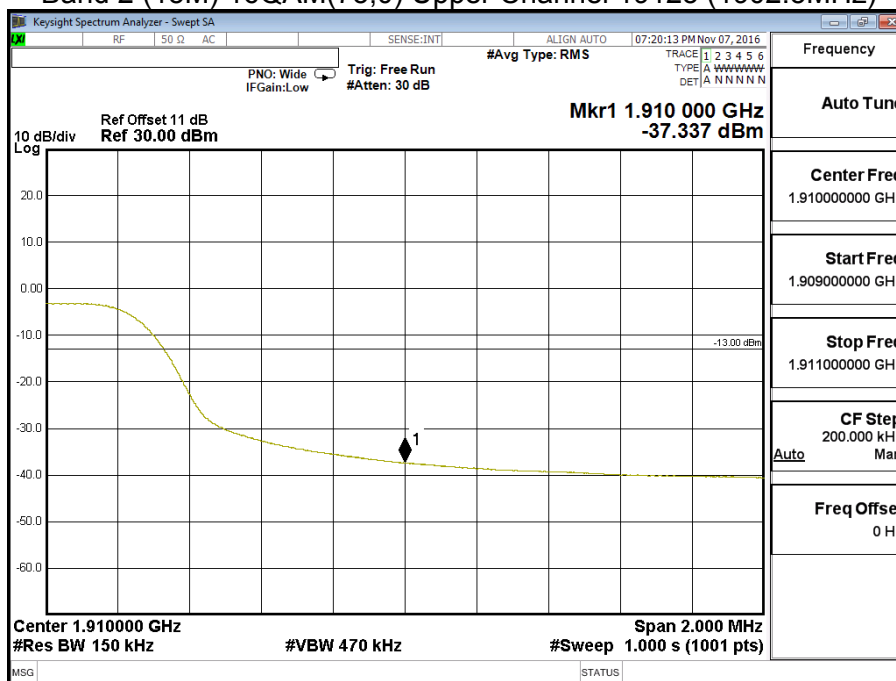
Band 2 (15M) 16QAM(1,74) Upper Channel 19125 (1902.5MHz)



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

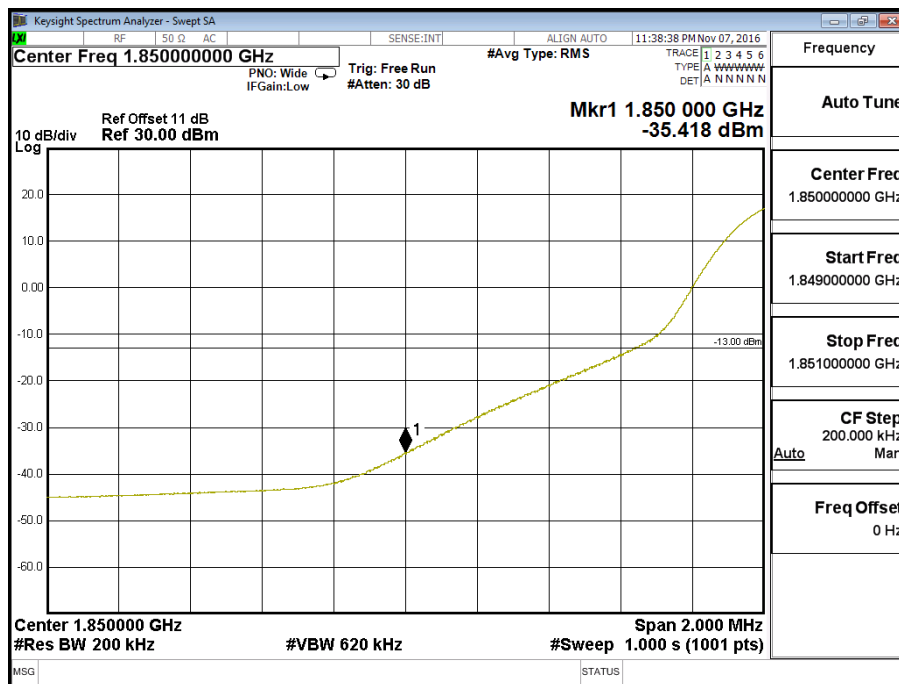


Band 2 (15M) 16QAM(75,0) Upper Channel 19125 (1902.5MHz)

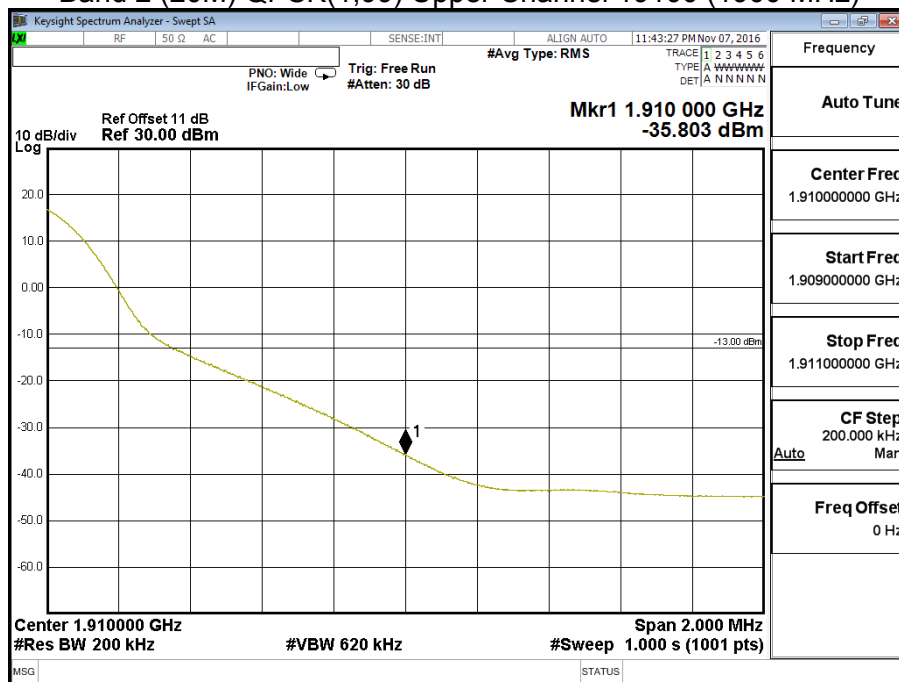


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 2 (20M))		

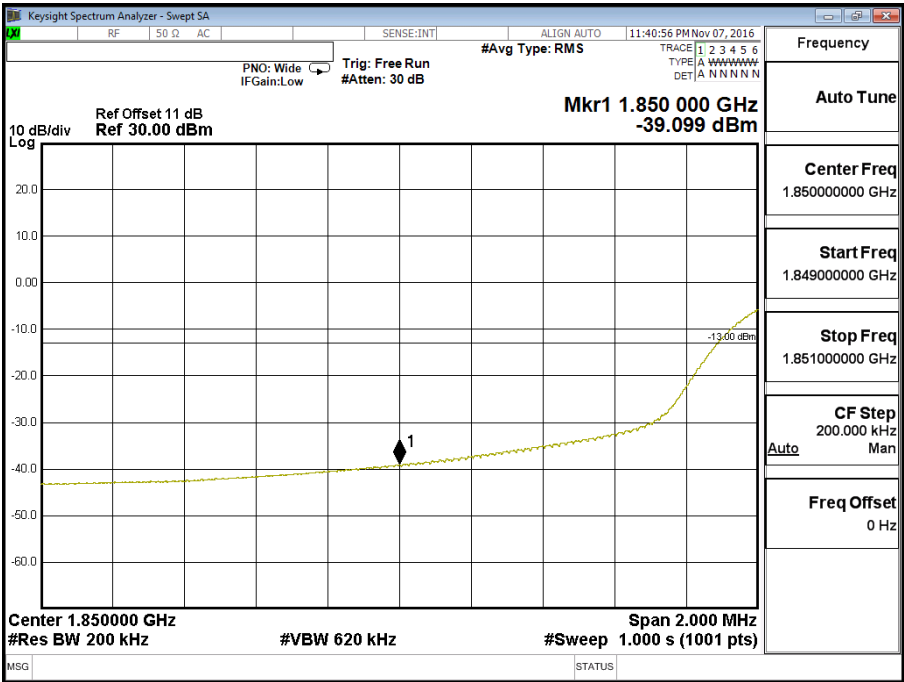
Band 2 (20M) QPSK(1,0) Lower Channel 18700 (1860MHz)



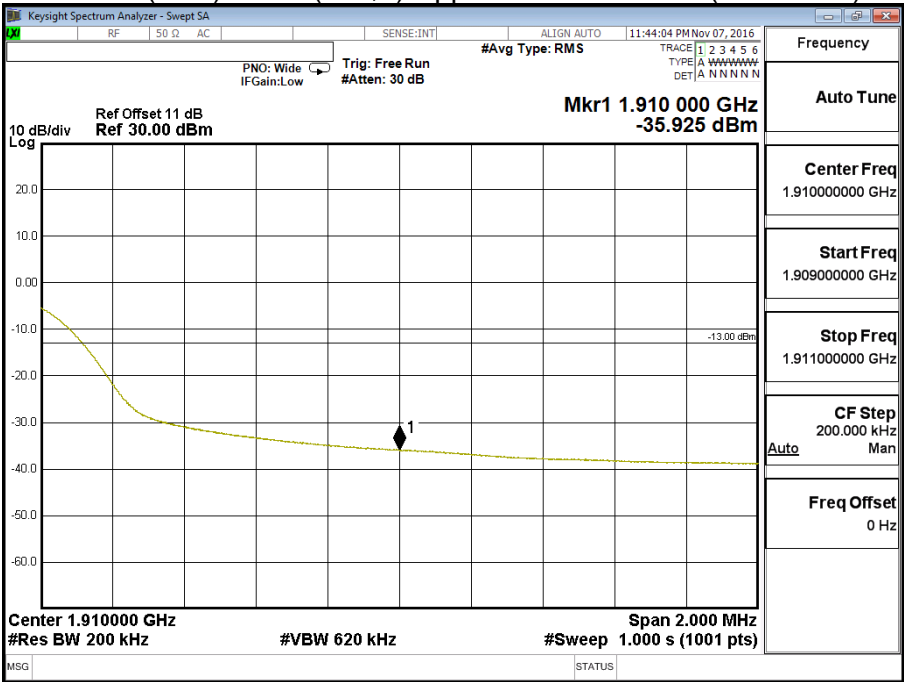
Band 2 (20M) QPSK(1,99) Upper Channel 19100 (1900 MHz)



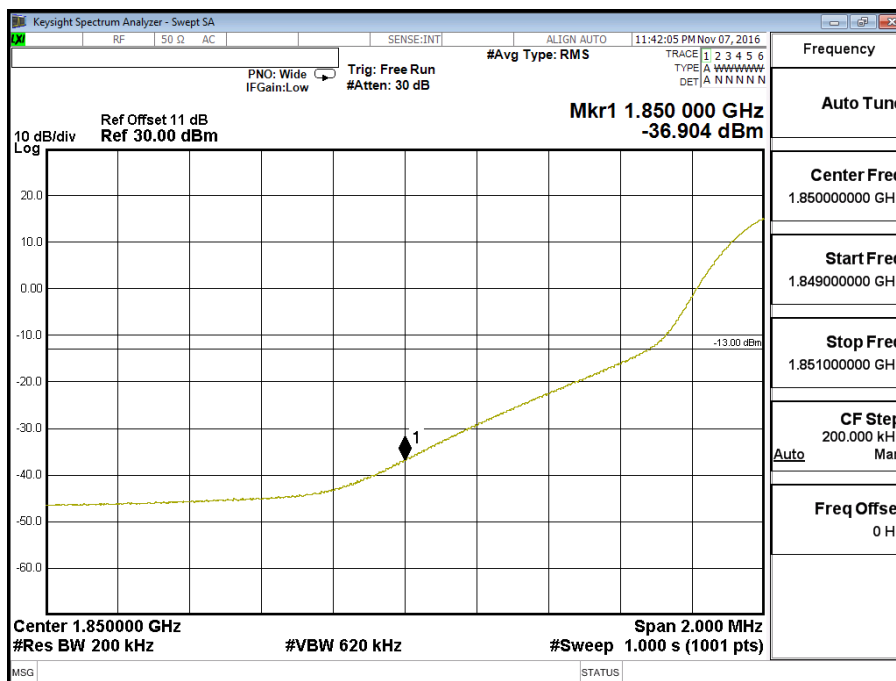
Band 2 (20M) QPSK(100,0) Lower Channel 18700 (1860MHz)



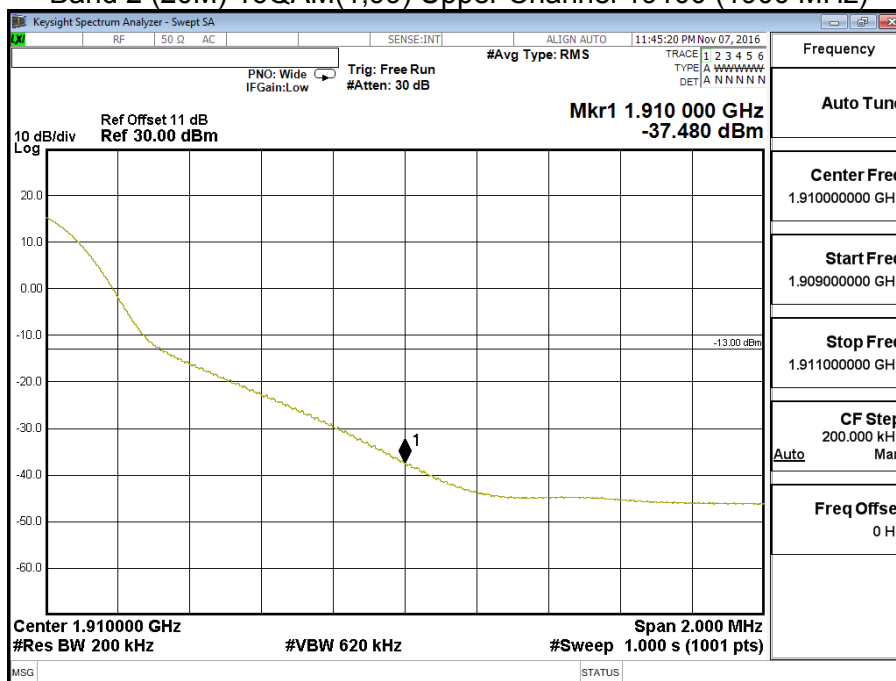
Band 2 (20M) QPSK(100,0) Upper Channel 19100 (1900 MHz)



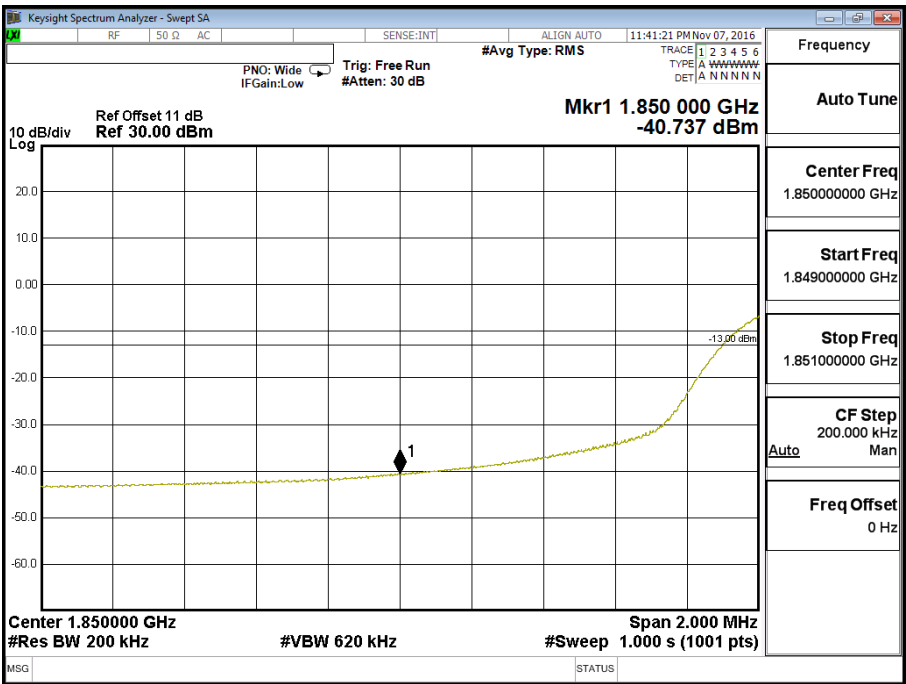
Band 2 (20M) 16QAM(1,0) Lower Channel 18700 (1860MHz)



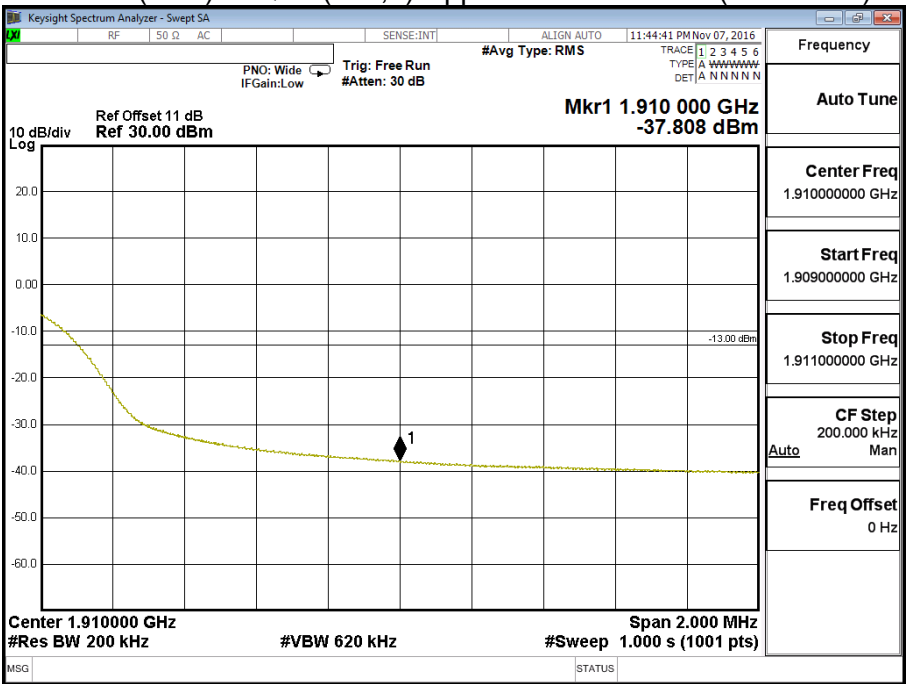
Band 2 (20M) 16QAM(1,99) Upper Channel 19100 (1900 MHz)



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

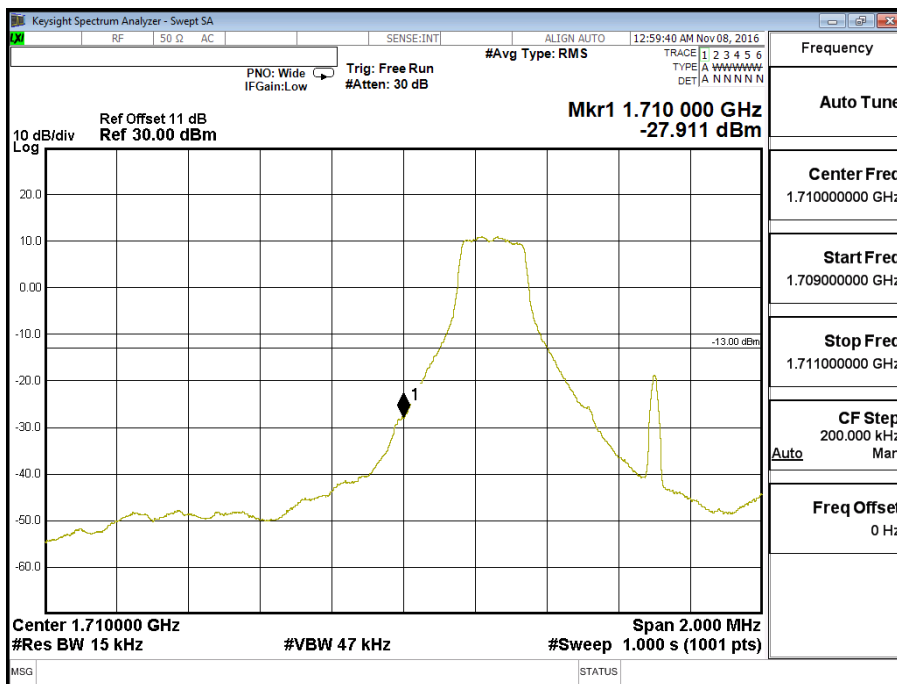


Band 2 (20M) 16QAM(100,0) Upper Channel 19100 (1900 MHz)

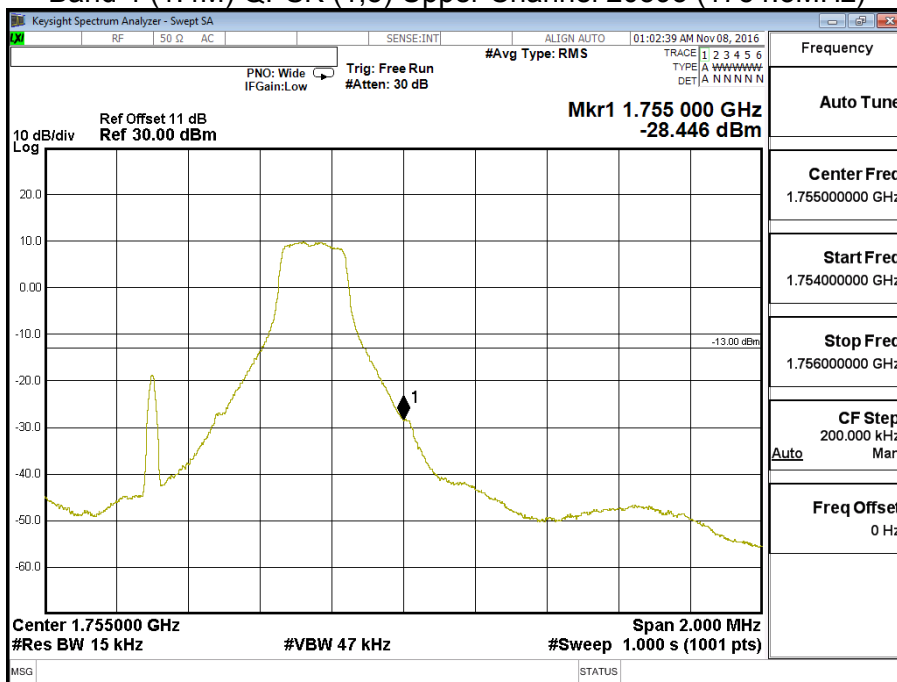


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (1.4M))		

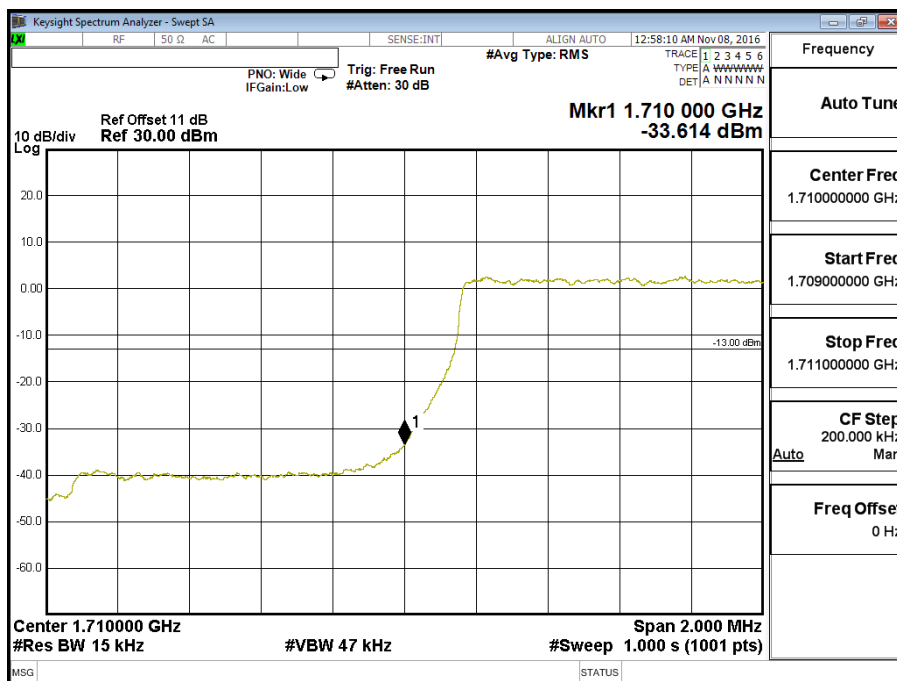
Band 4 (1.4M) QPSK (1,0) Lower Channel 19957 (1710.7MHz)



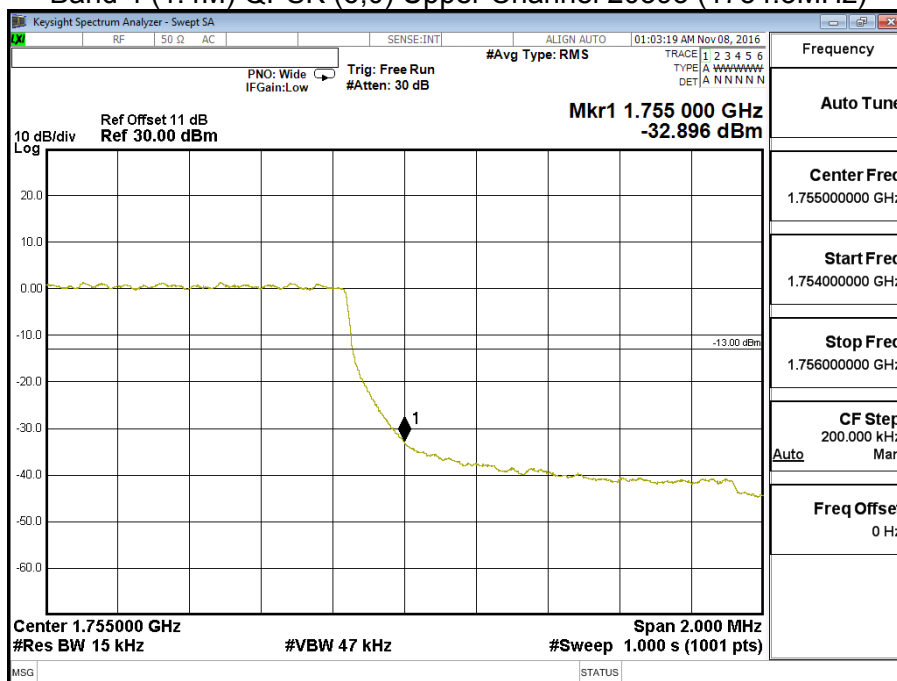
Band 4 (1.4M) QPSK (1,5) Upper Channel 20393 (1754.3MHz)



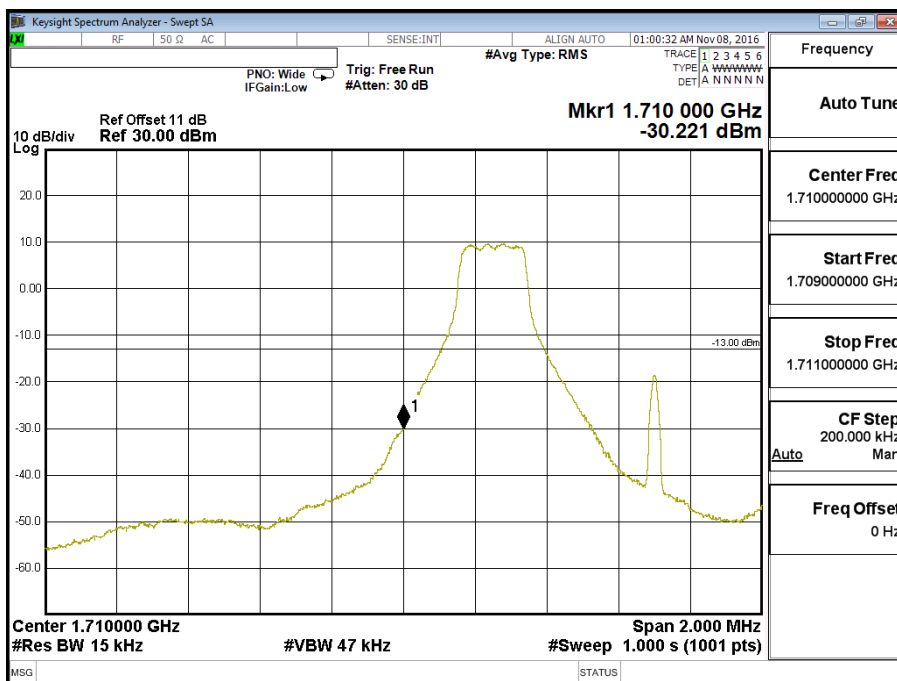
Band 4 (1.4M) QPSK (6,0) Lower Channel 19957 (1710.7MHz)



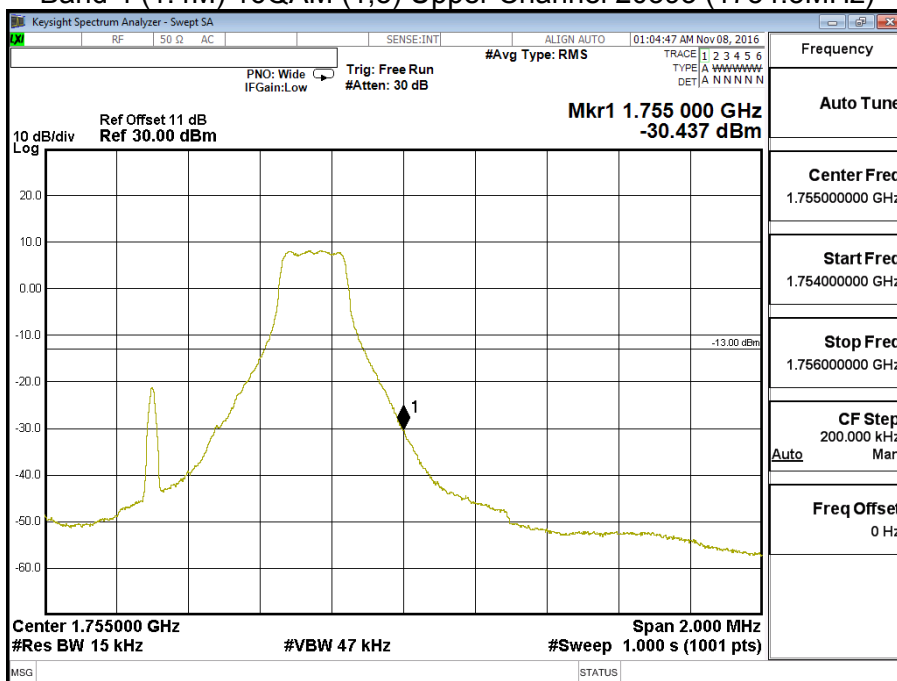
Band 4 (1.4M) QPSK (6,0) Upper Channel 20393 (1754.3MHz)



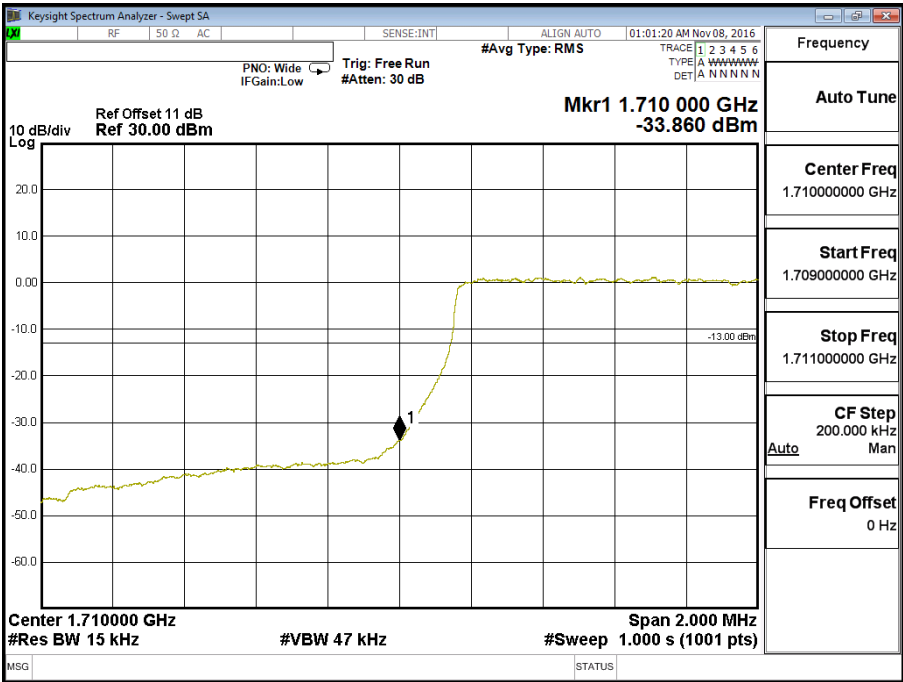
Band 4 (1.4M) 16QAM (1,0) Lower Channel 19957 (1710.7MHz)



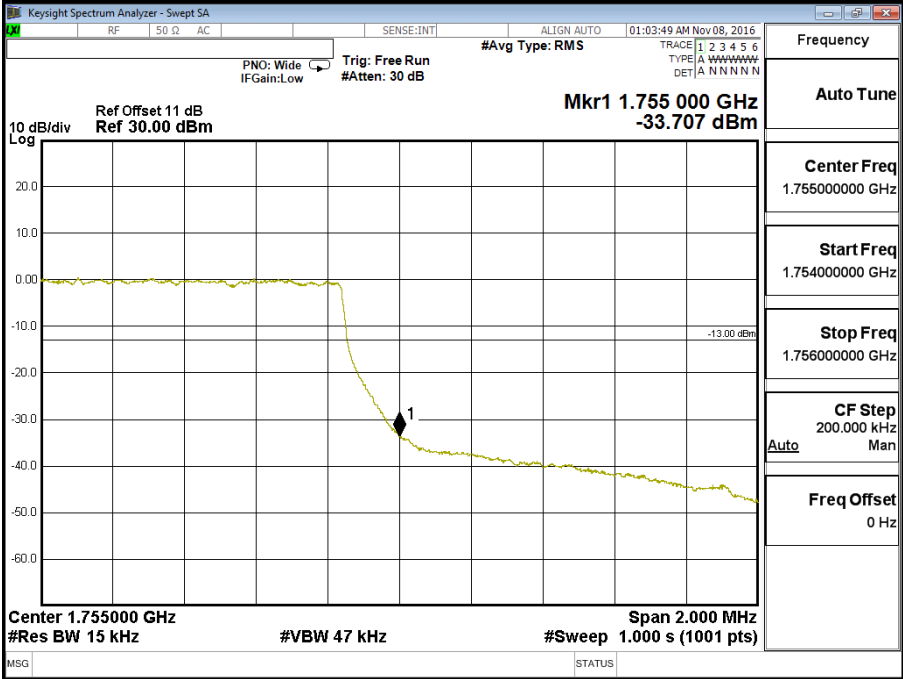
Band 4 (1.4M) 16QAM (1,5) Upper Channel 20393 (1754.3MHz)



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

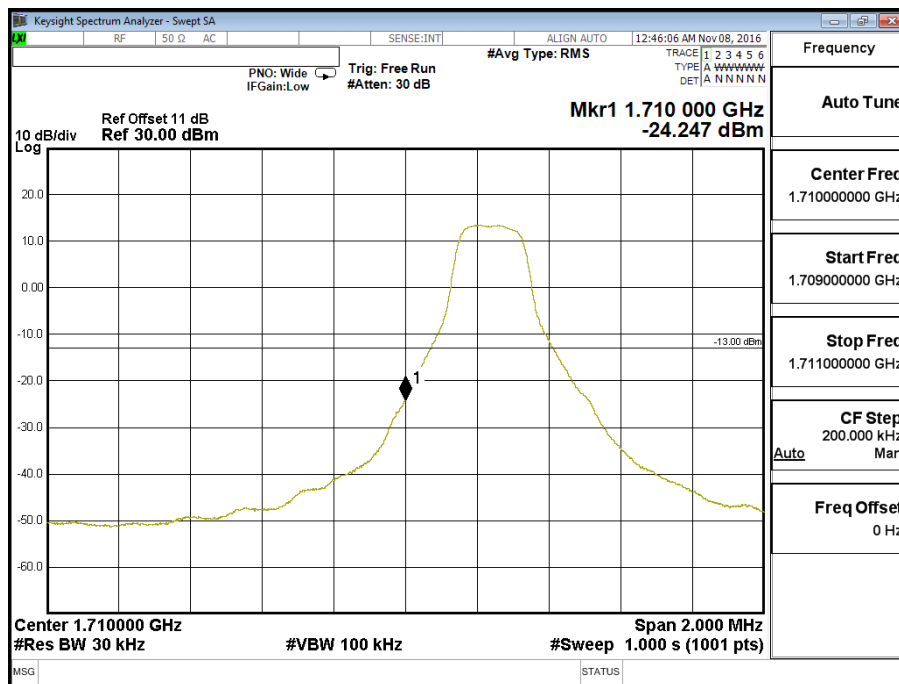


Band 4 (1.4M) 16QAM (6,0) Upper Channel 20393 (1754.3MHz)

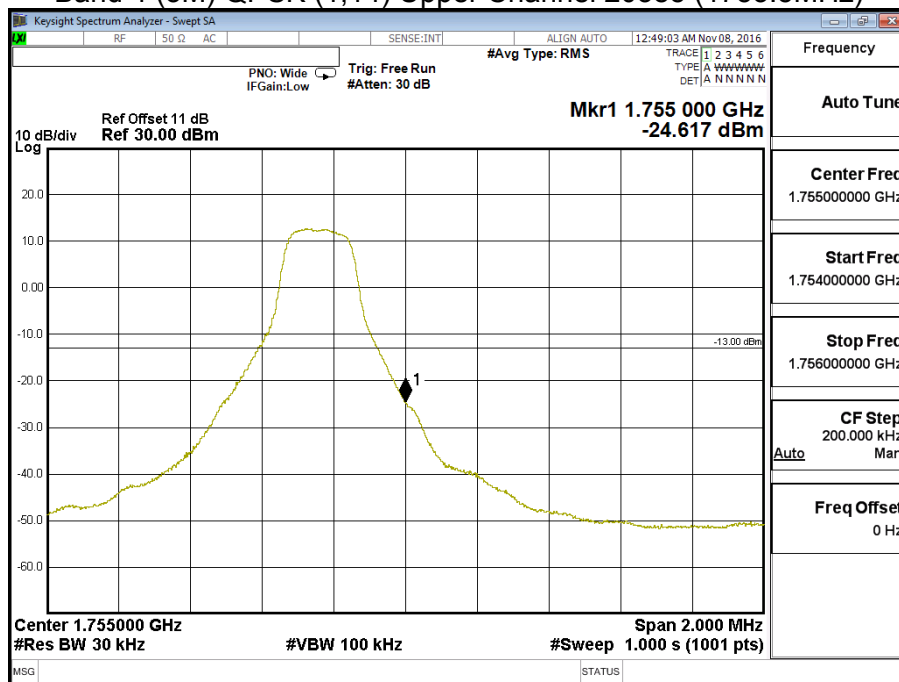


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (3M))		

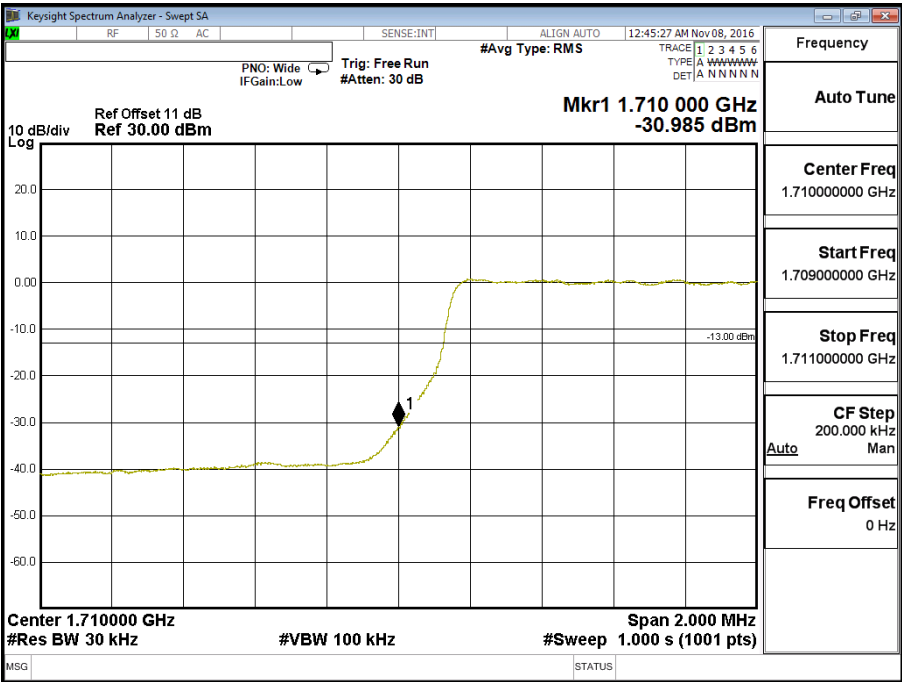
Band 4 (3M) QPSK (1,0) Lower Channel 19965 (1711.5MHz)



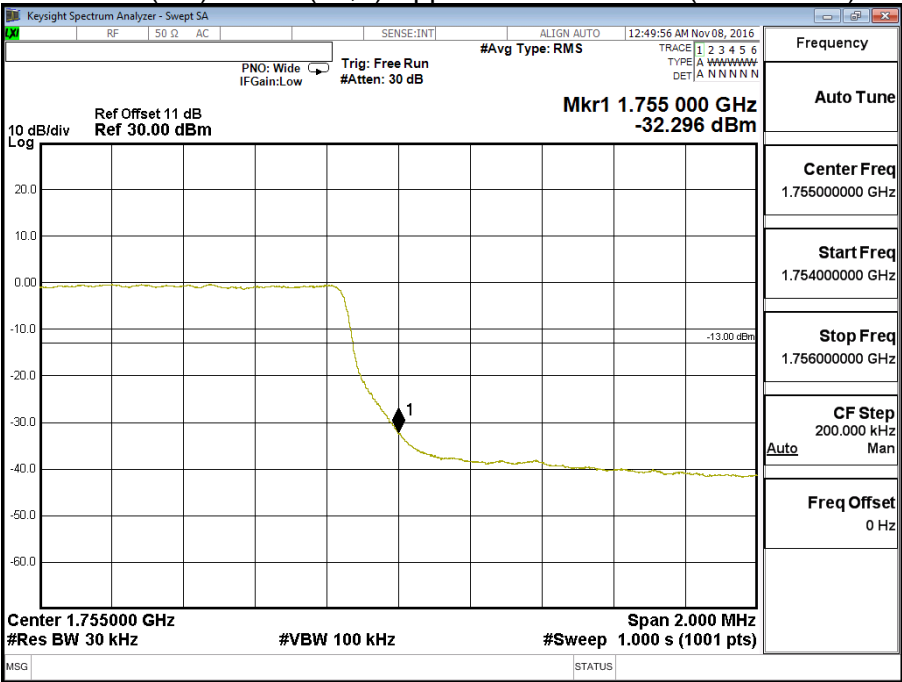
Band 4 (3M) QPSK (1,14) Upper Channel 20385 (1753.5MHz)



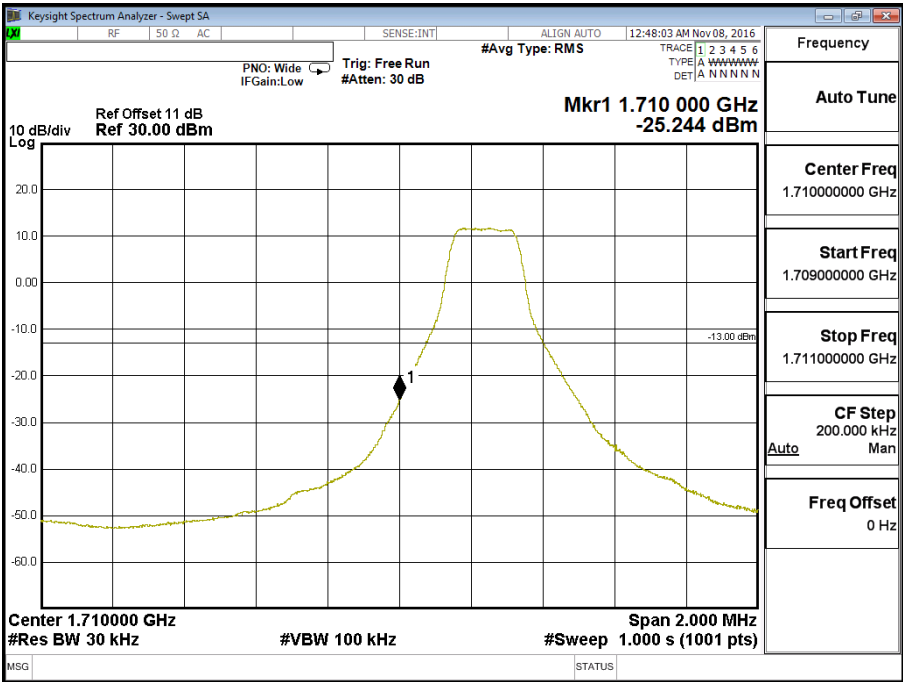
Band 4 (3M) QPSK (15,0) Lower Channel 19965 (1711.5MHz)



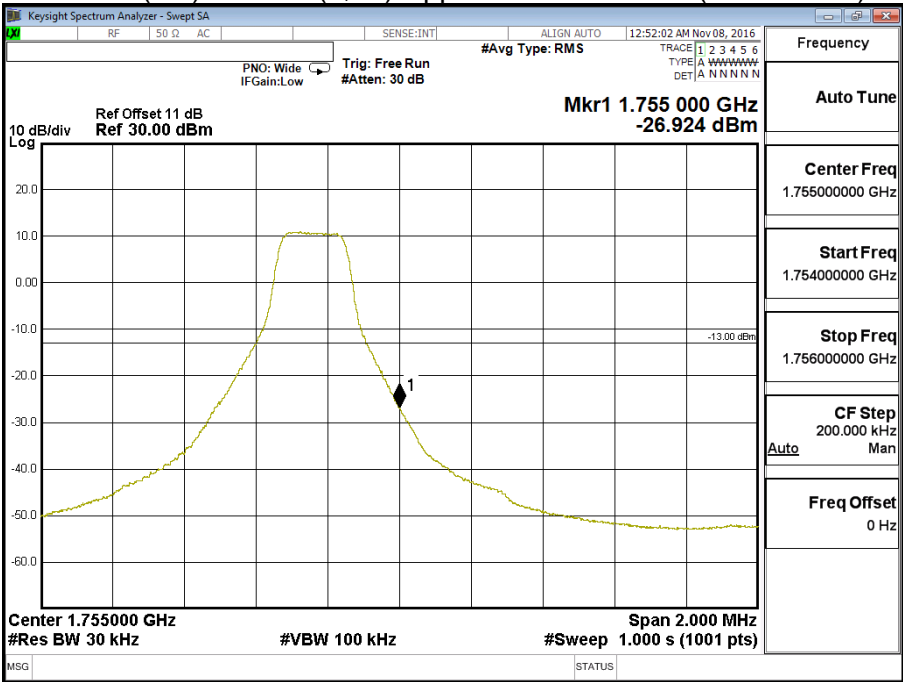
Band 4 (3M) QPSK (15,0) Upper Channel 20385 (1753.5MHz)



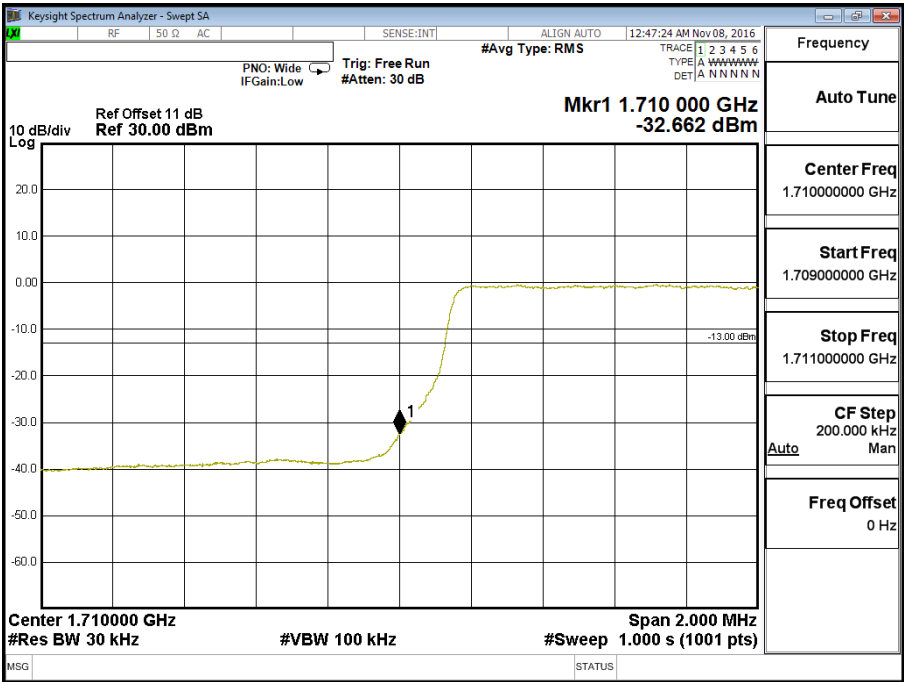
Band 4 (3M) 16QAM (1,0) Lower Channel 19965 (1711.5MHz)



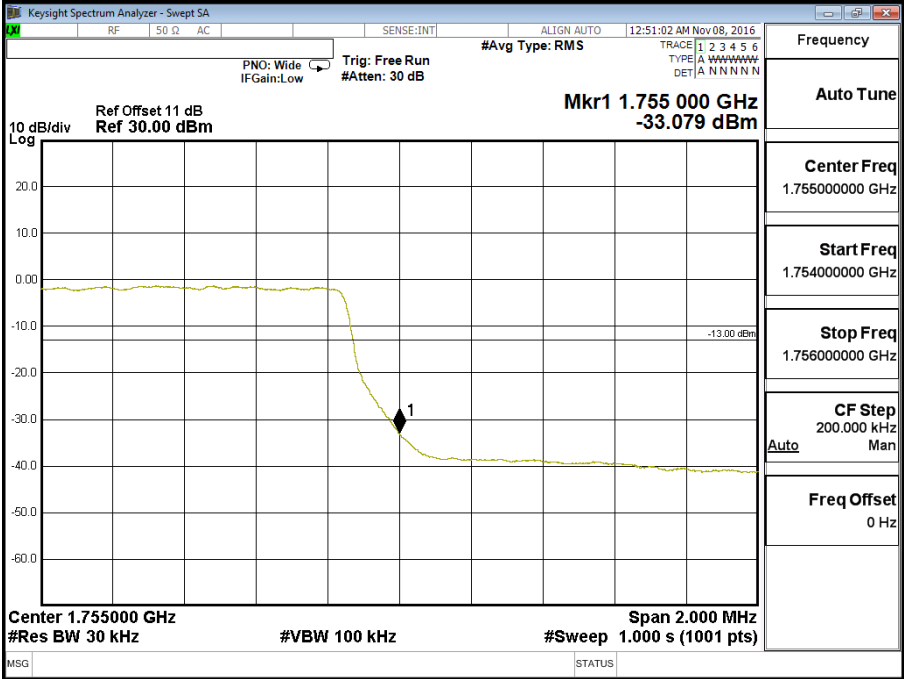
Band 4 (3M) 16QAM (1,14) Upper Channel 20385 (1753.5MHz)



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

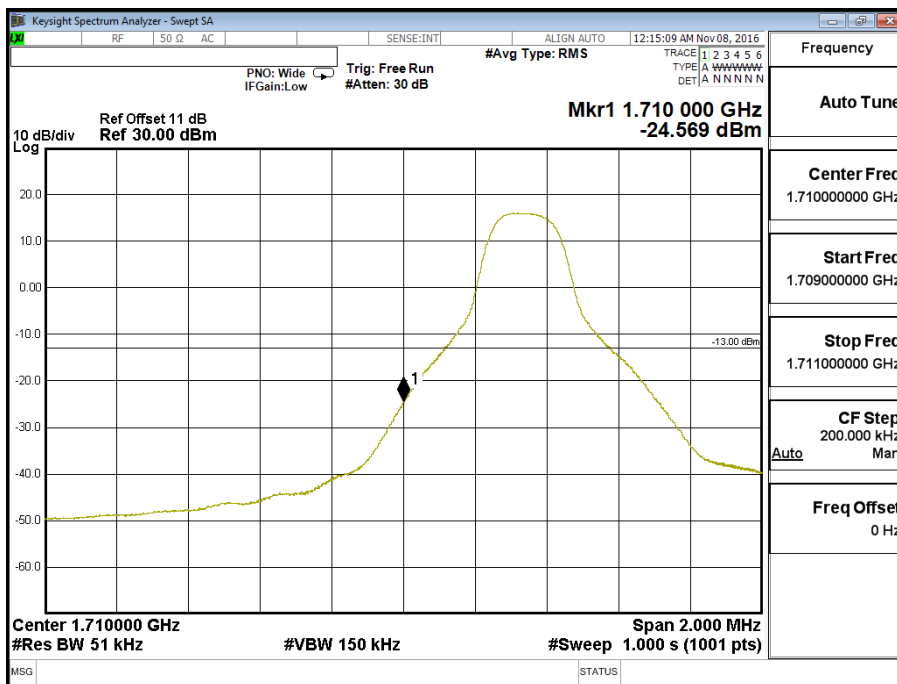


Band 4 (3M) 16QAM (15,0) Upper Channel 20385 (1753.5MHz)

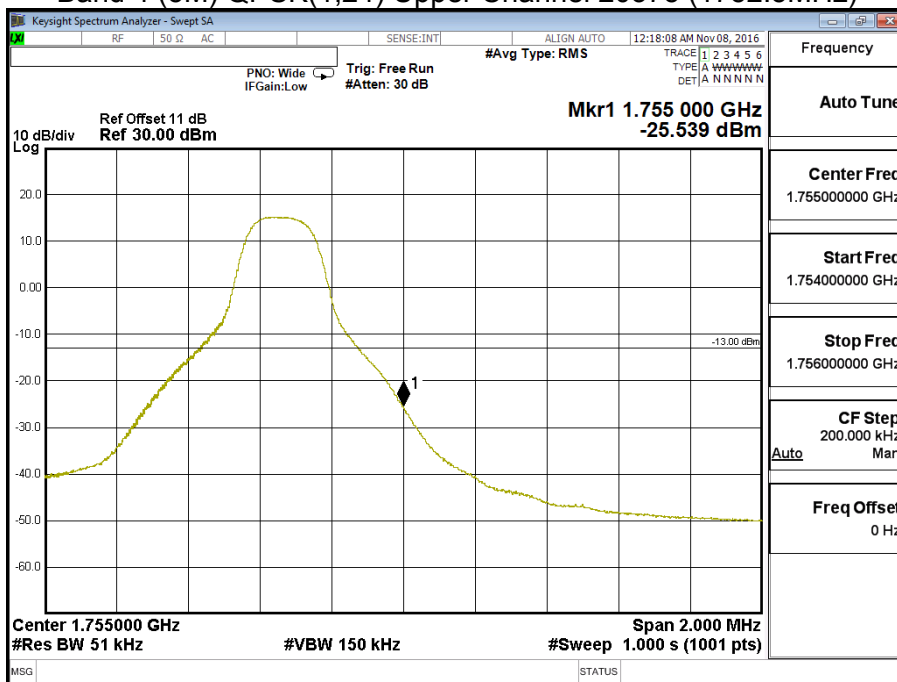


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (5M))		

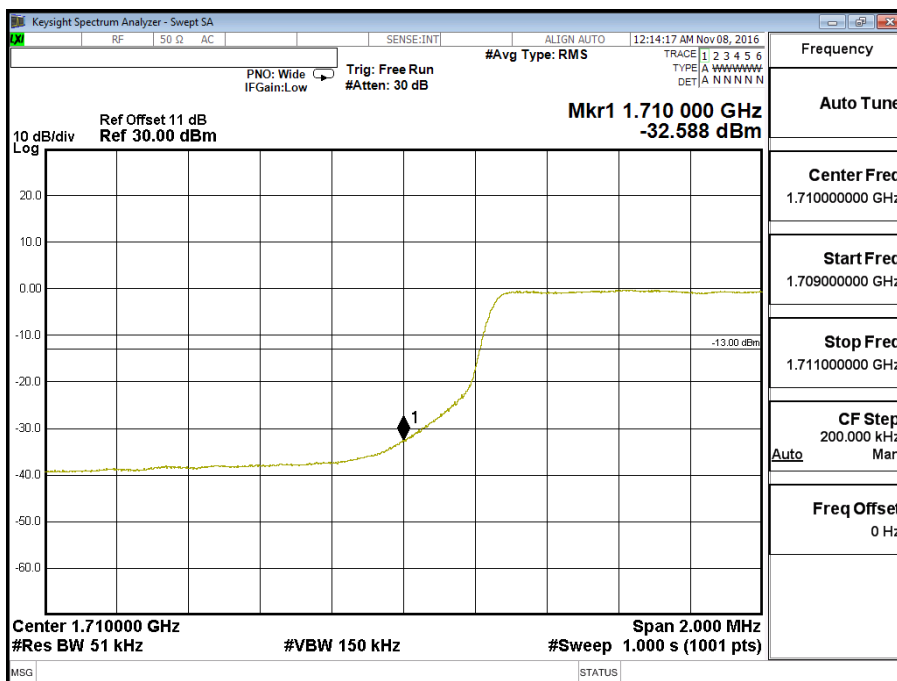
Band 4 (5M) QPSK(1,0) Lower Channel 19975 (1712.5MHz)



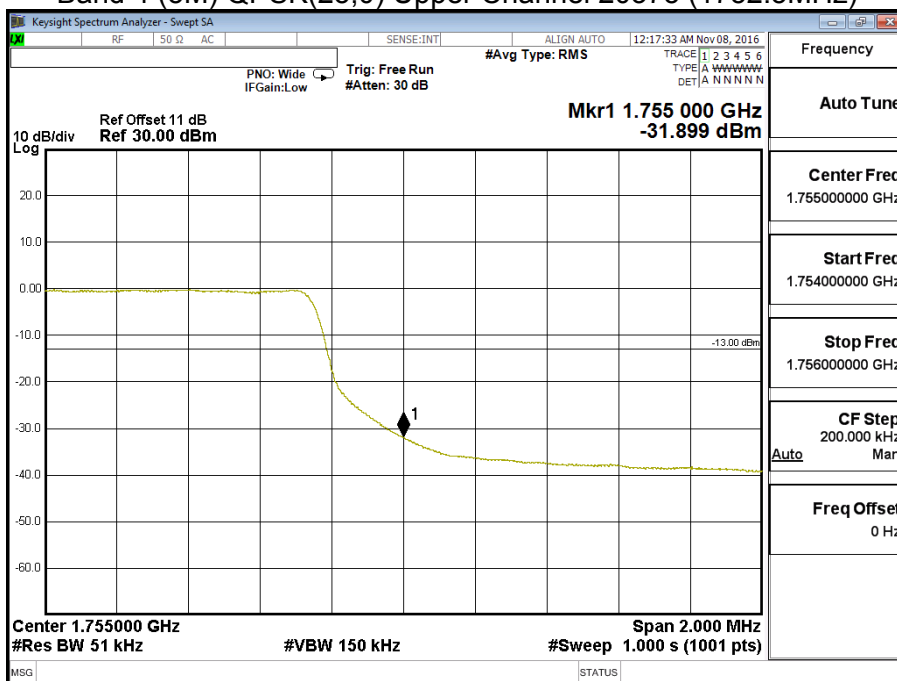
Band 4 (5M) QPSK(1,24) Upper Channel 20375 (1752.5MHz)



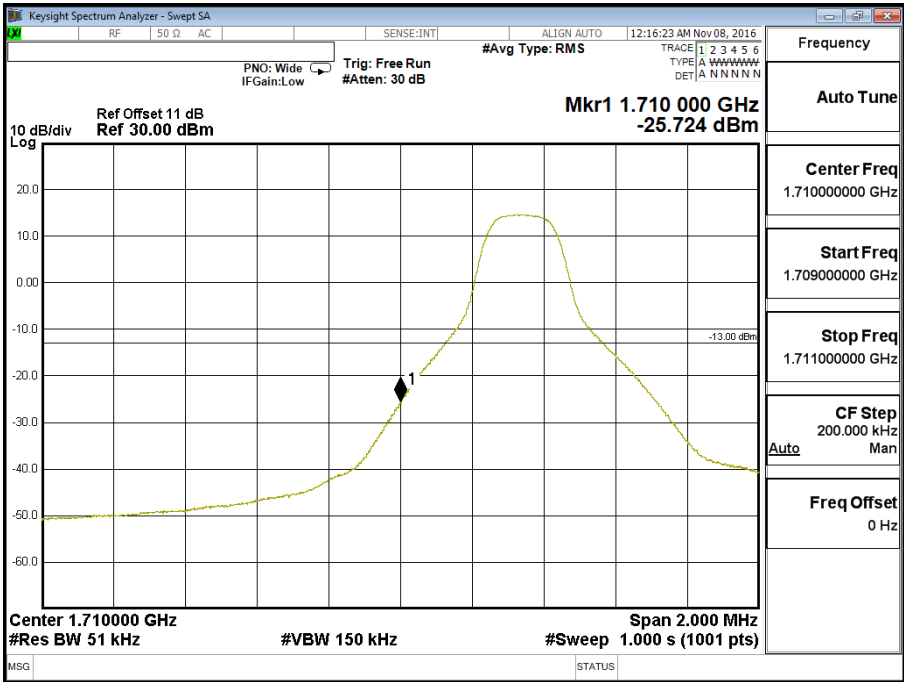
Band 4 (5M) QPSK(25,0) Lower Channel 19975 (1712.5MHz)



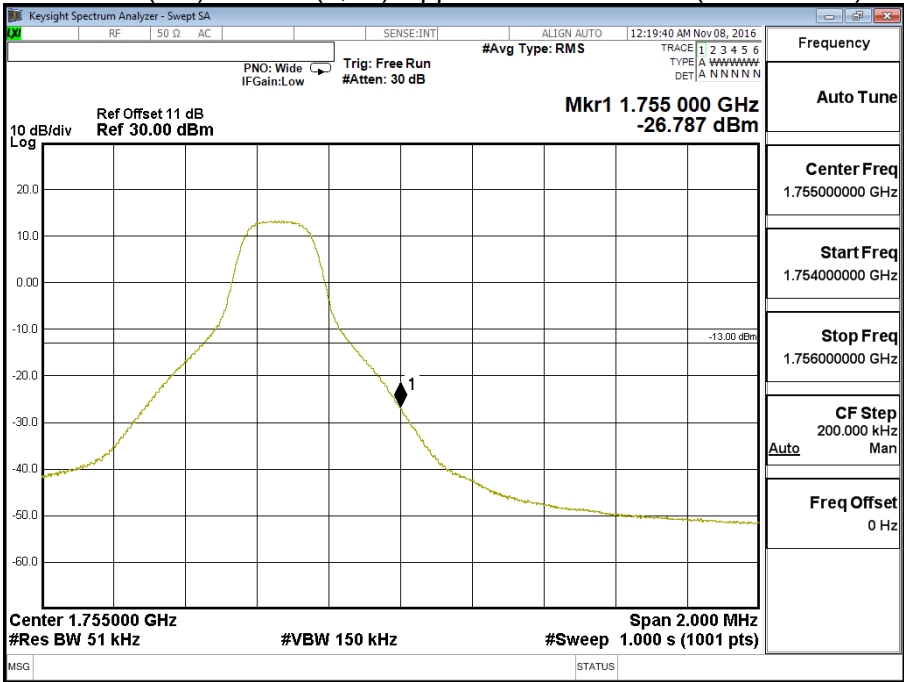
Band 4 (5M) QPSK(25,0) Upper Channel 20375 (1752.5MHz)



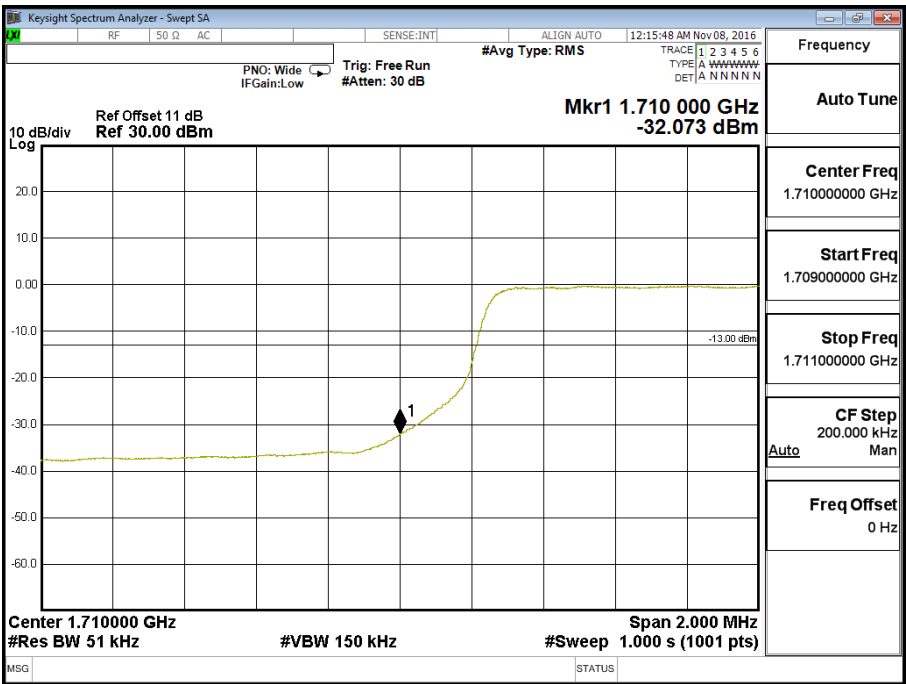
Band 4 (5M) 16QAM(1,0) Lower Channel 19975 (1712.5MHz)



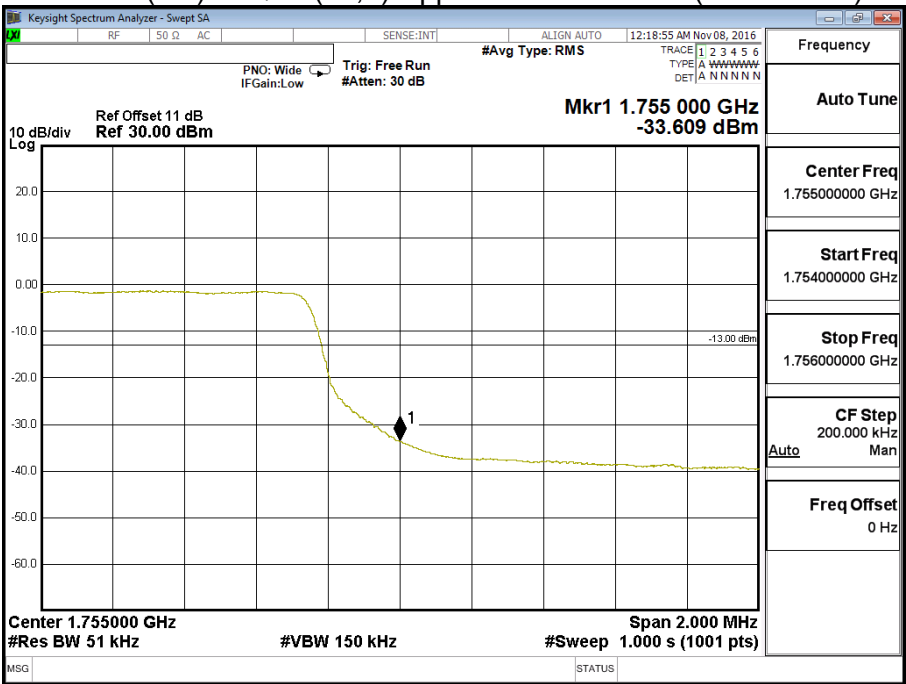
Band 4 (5M) 16QAM(1,24) Upper Channel 20375 (1752.5MHz)



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

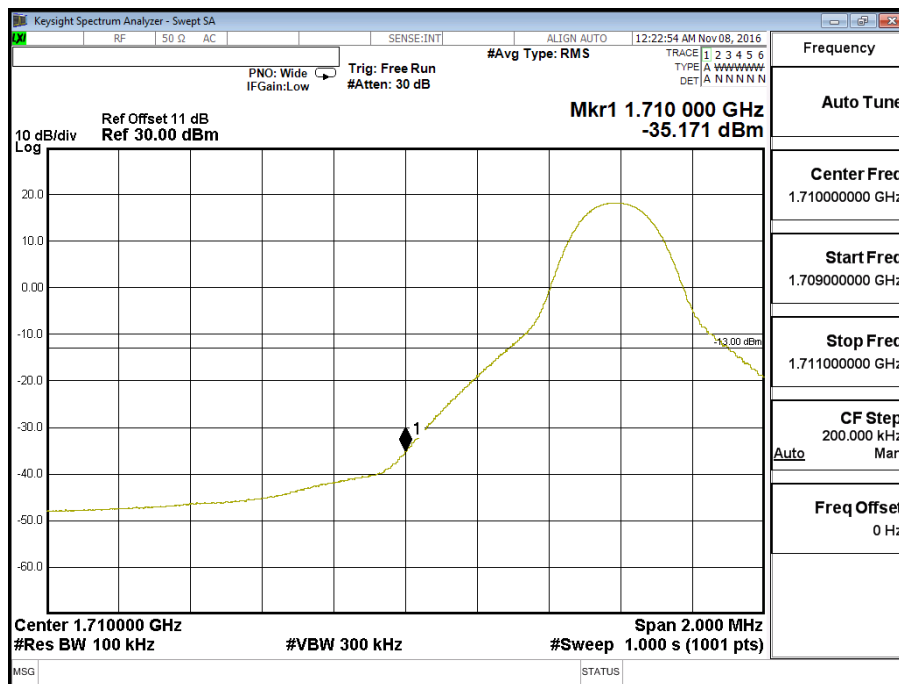


Band 4 (5M) 16QAM(25,0) Upper Channel 20375 (1752.5MHz)

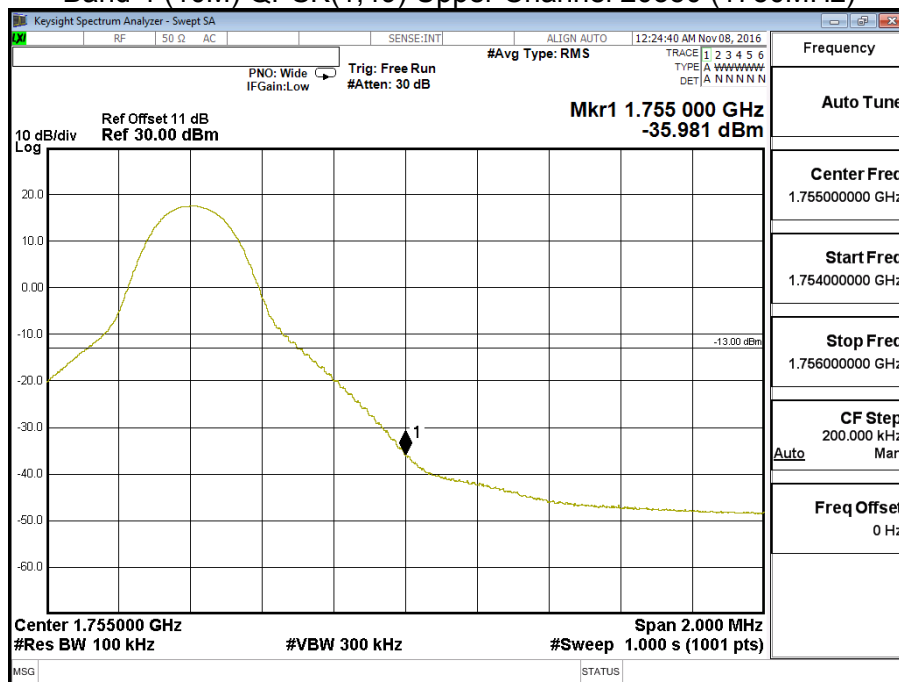


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (10M))		

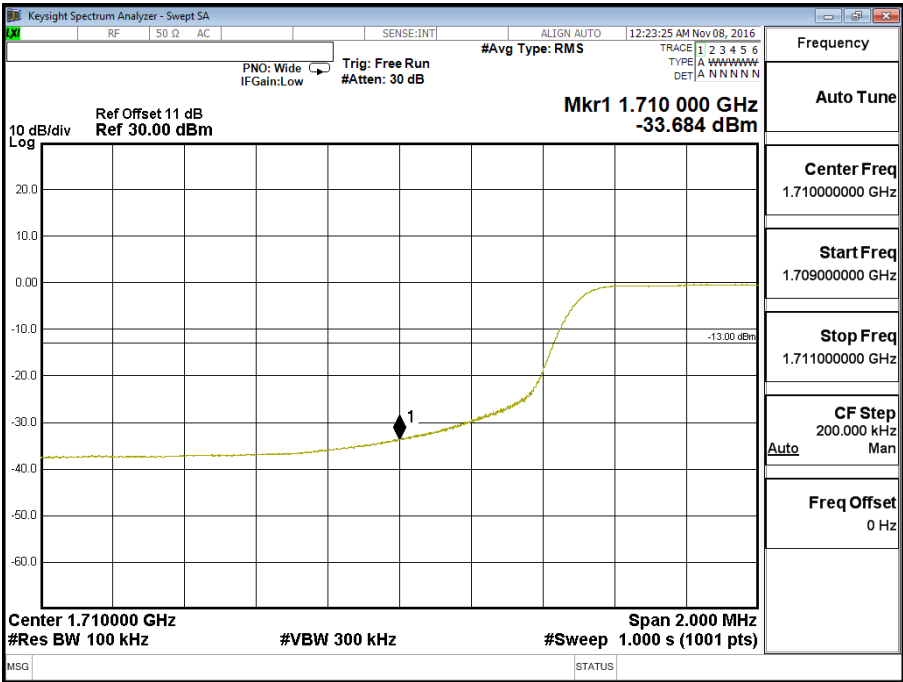
Band 4 (10M) QPSK(1,0) Lower Channel 20000 (1715MHz)



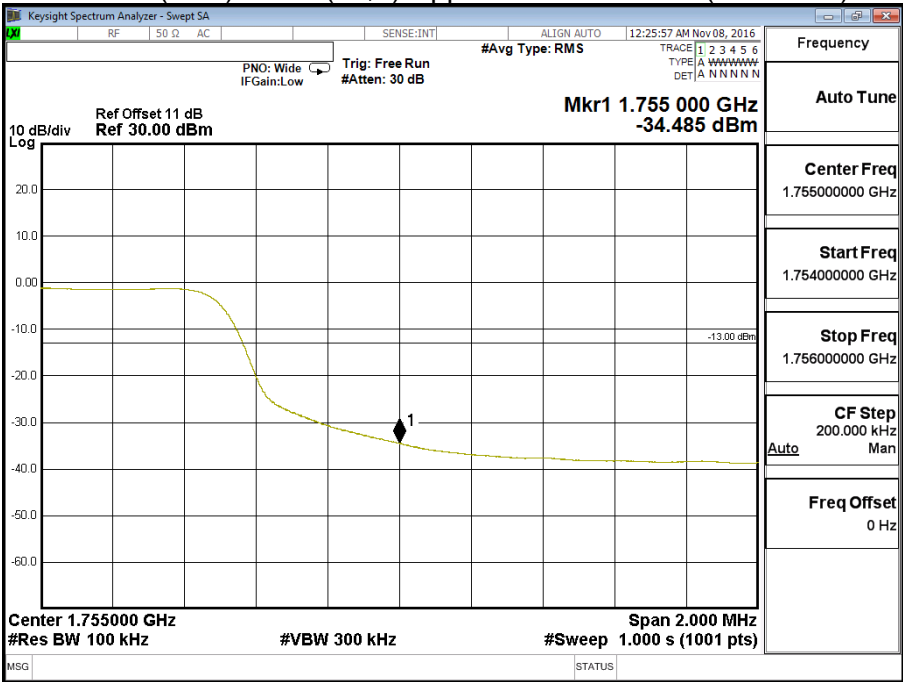
Band 4 (10M) QPSK(1,49) Upper Channel 20350 (1750MHz)



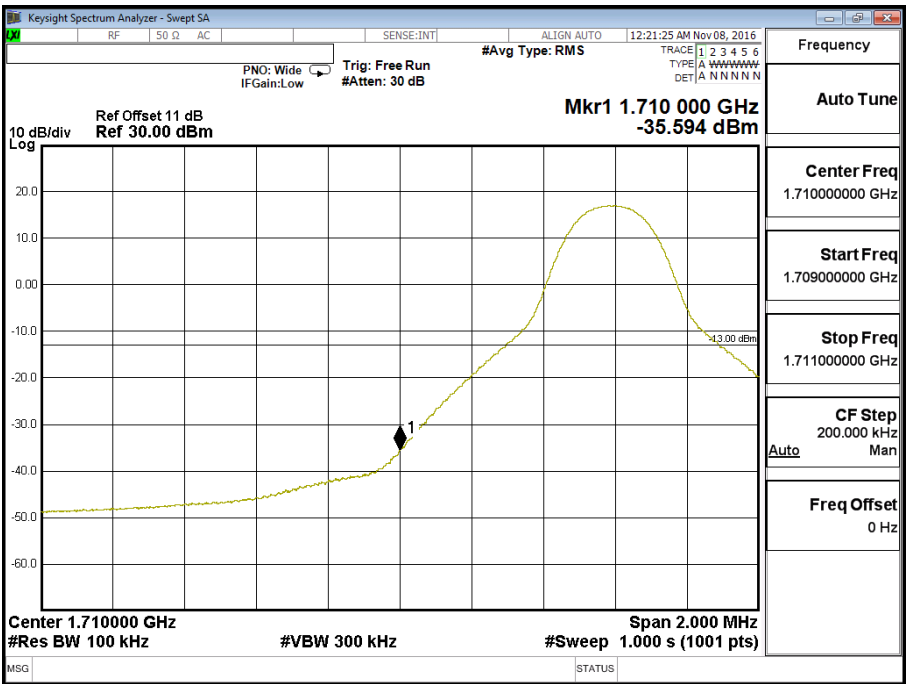
Band 4 (10M) QPSK(50,0) Lower Channel 20000 (1715MHz)



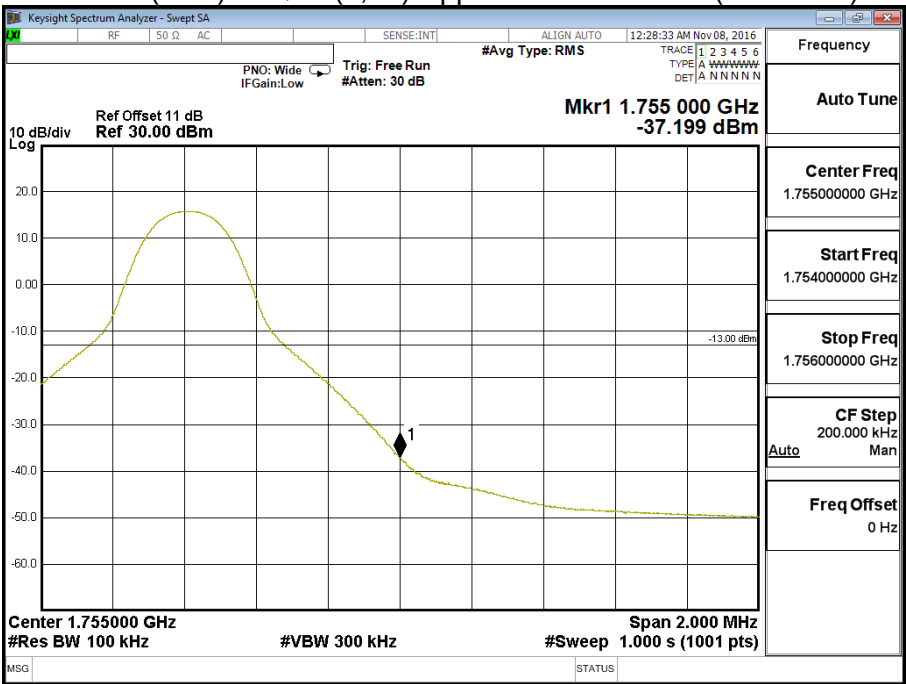
Band 4 (10M) QPSK(50,0) Upper Channel 20350 (1750MHz)



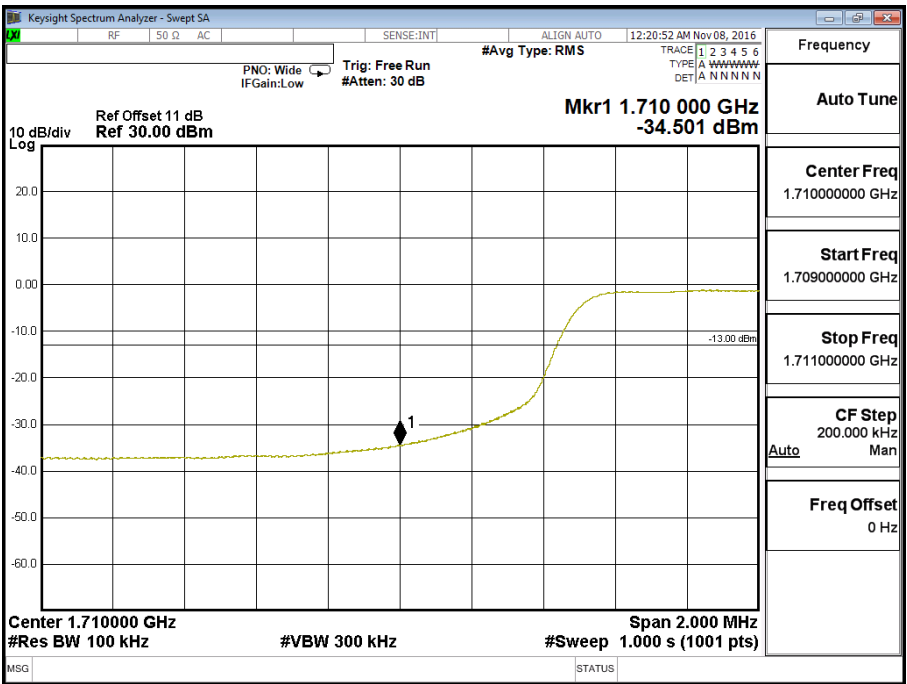
Band 4 (10M) 16QAM(1,0) Lower Channel 20000 (1715MHz)



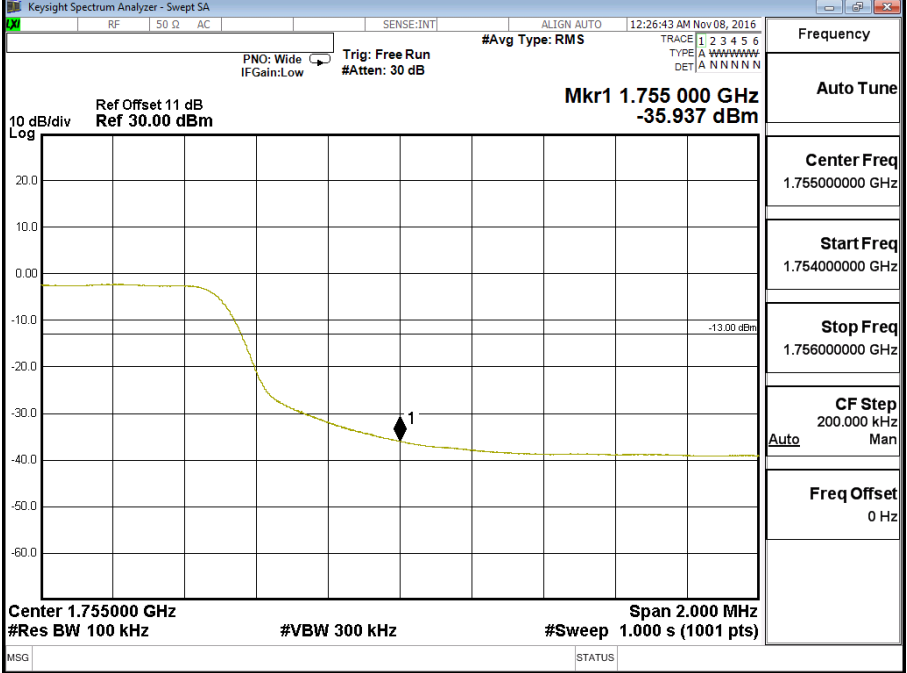
Band 4 (10M) 16QAM(1,49) Upper Channel 20350 (1750MHz)



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

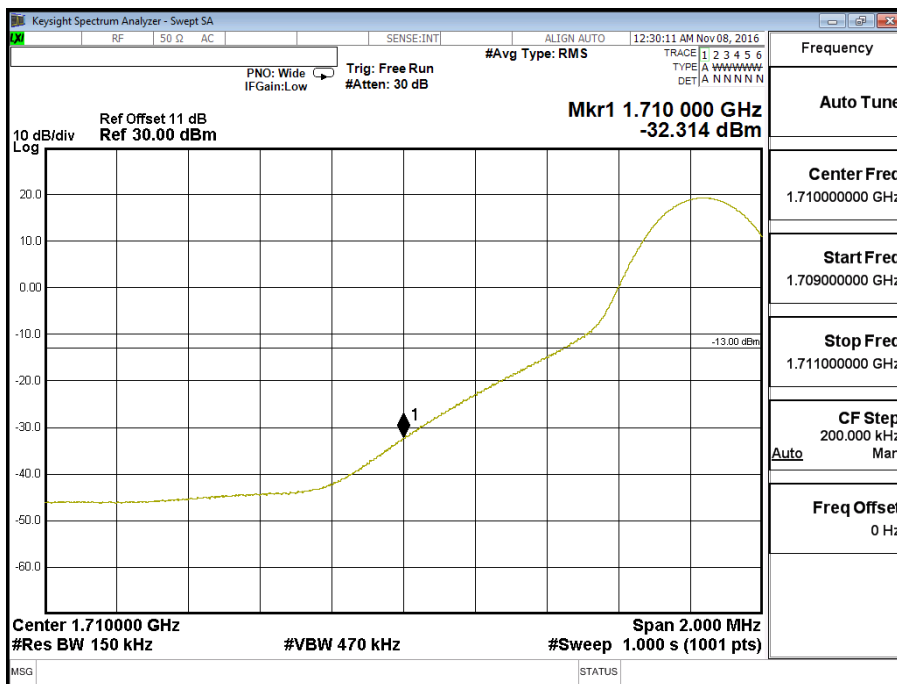


Band 4 (10M) 16QAM(50,0) Upper Channel 20350 (1750MHz)

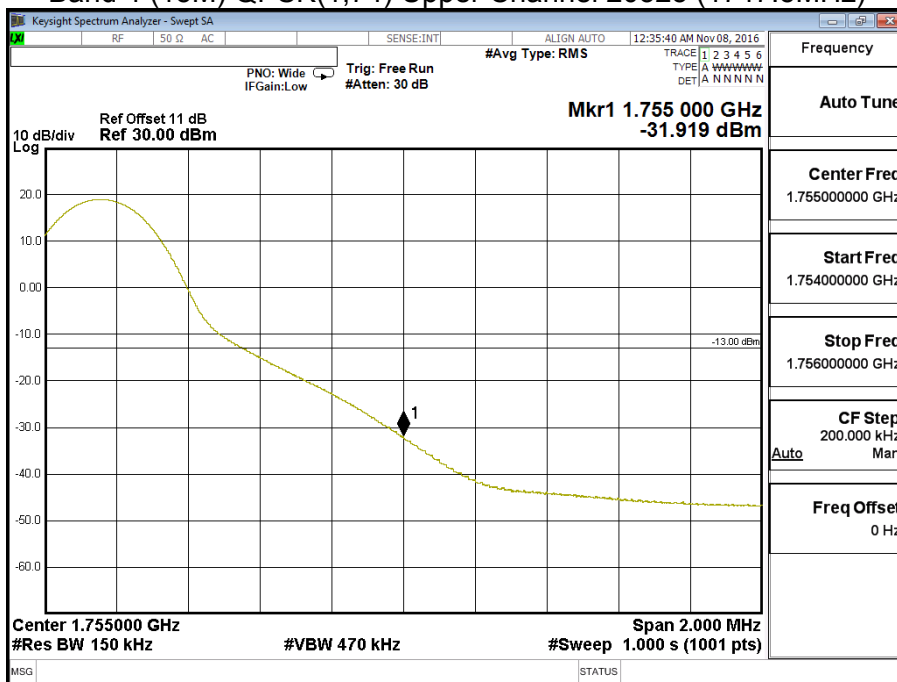


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (15M))		

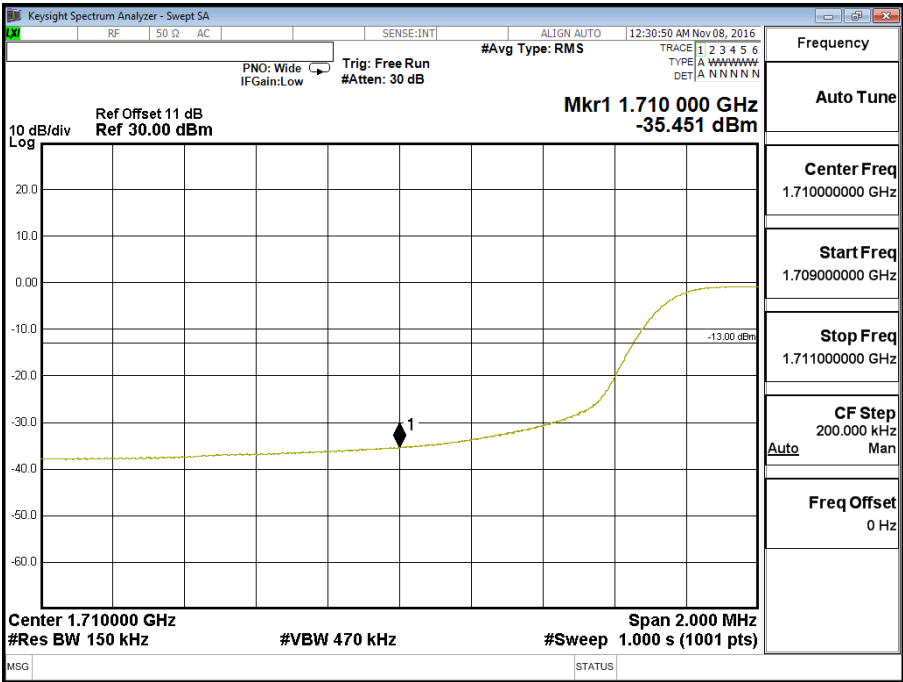
Band 4 (15M)QPSK(1,0) Lower Channel 20025 (1717.5MHz)



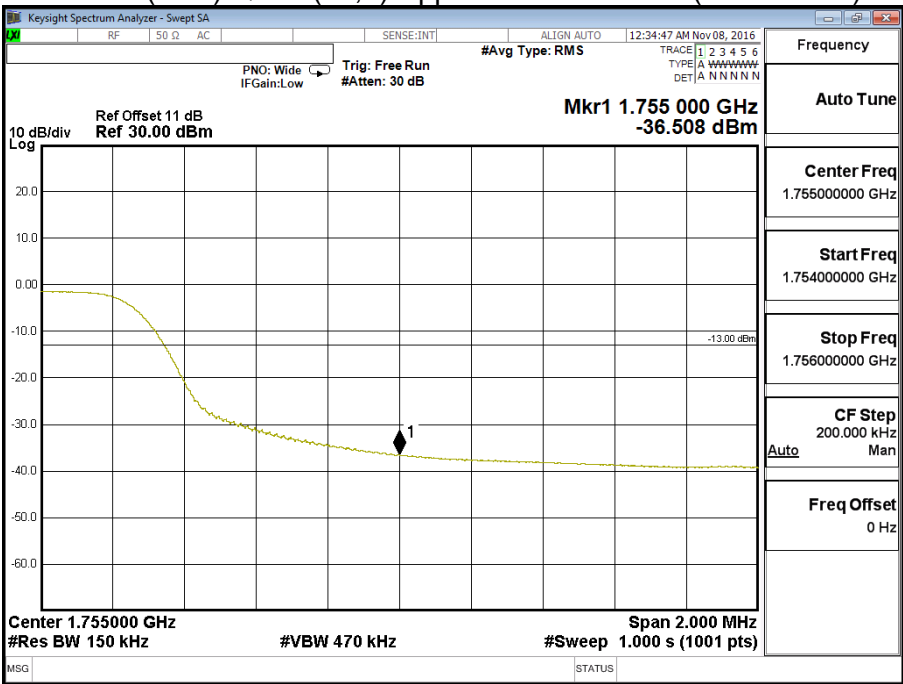
Band 4 (15M) QPSK(1,74) Upper Channel 20325 (1747.5MHz)



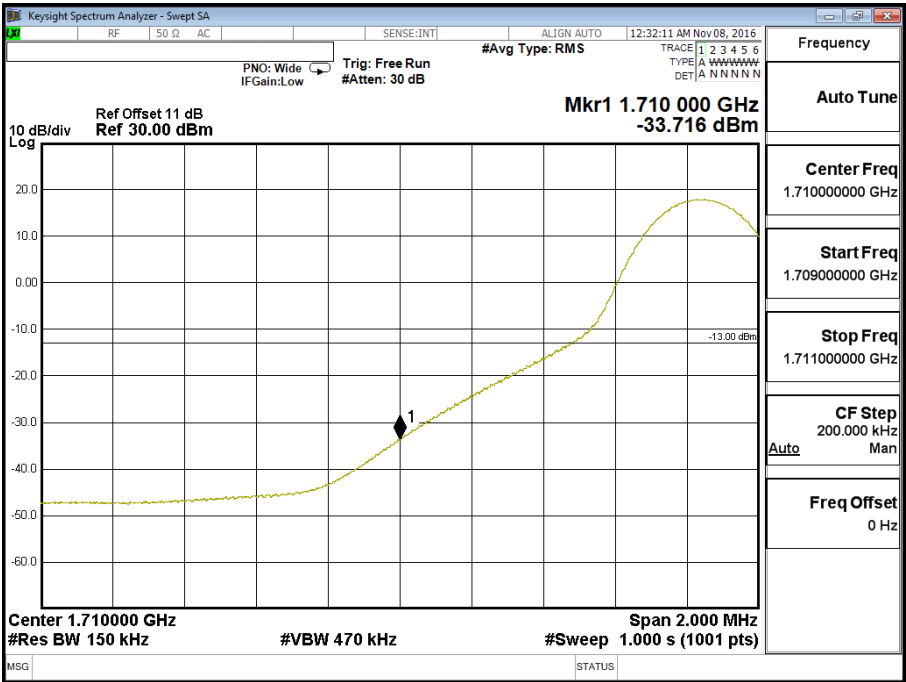
Band 4 (15M) QPSK(75,0) Lower Channel 20025 (1717.5MHz)



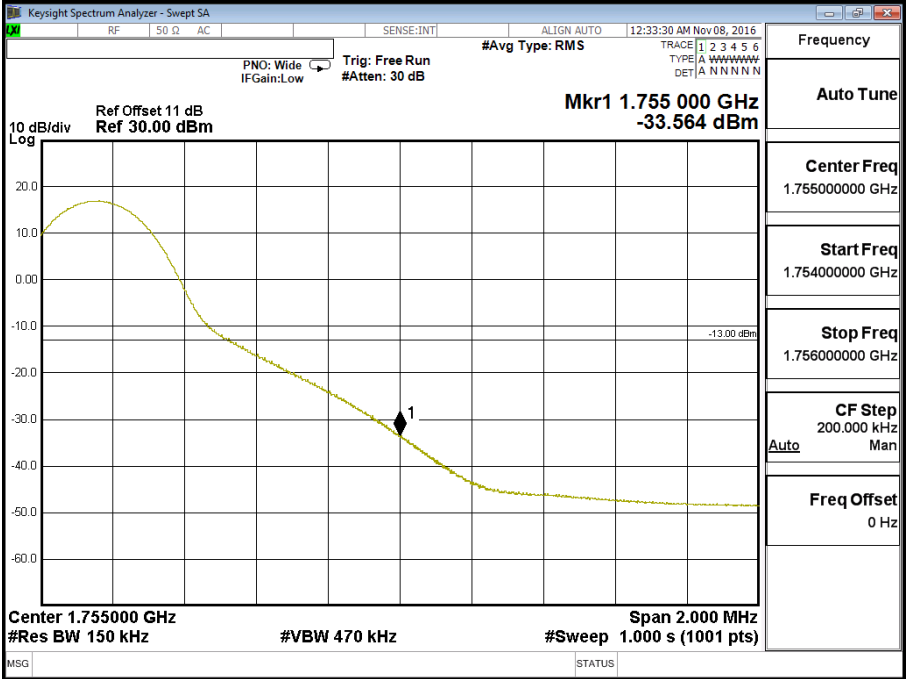
Band 4 (15M) QPSK(75,0) Upper Channel 20325 (1747.5MHz)



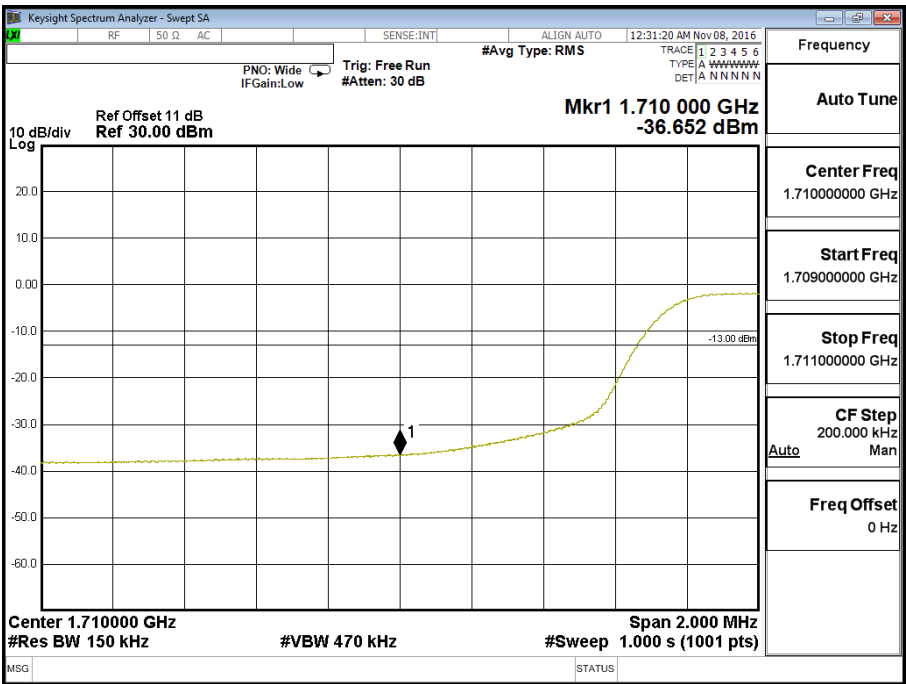
Band 4 (15M) 16QAM(1,0) Lower Channel 20025 (1717.5MHz)



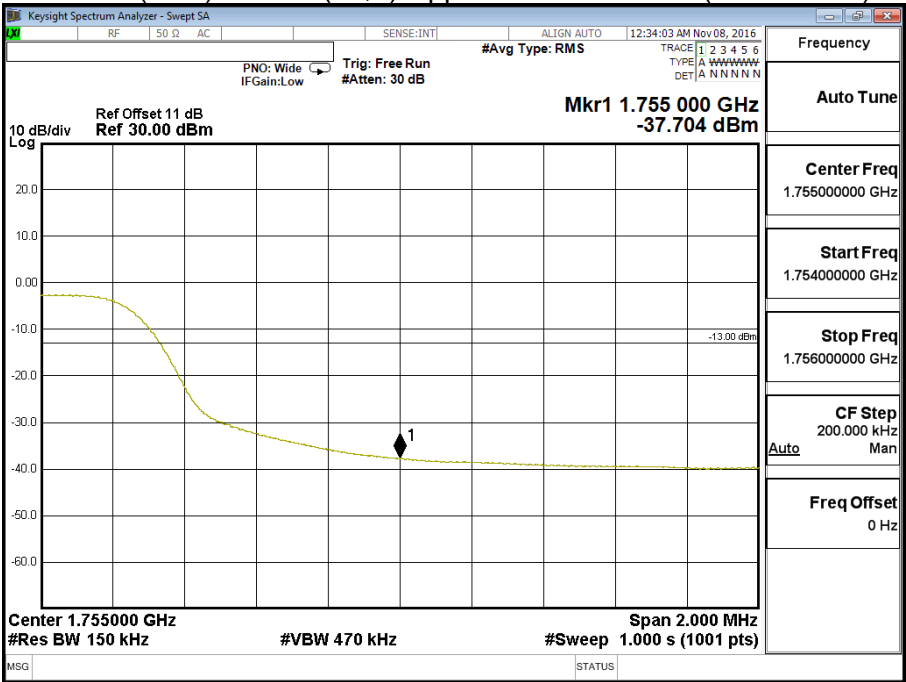
Band 4 (15M) 16QAM(1,74) Upper Channel 20325 (1747.5MHz)



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

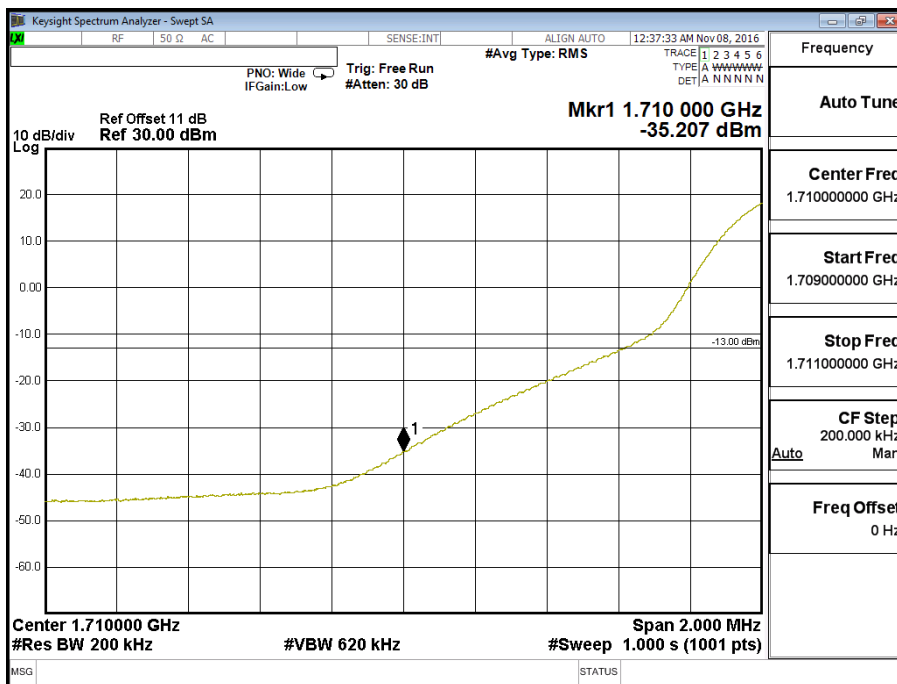


Band 4 (15M) 16QAM(75,0) Upper Channel 20325 (1747.5MHz)

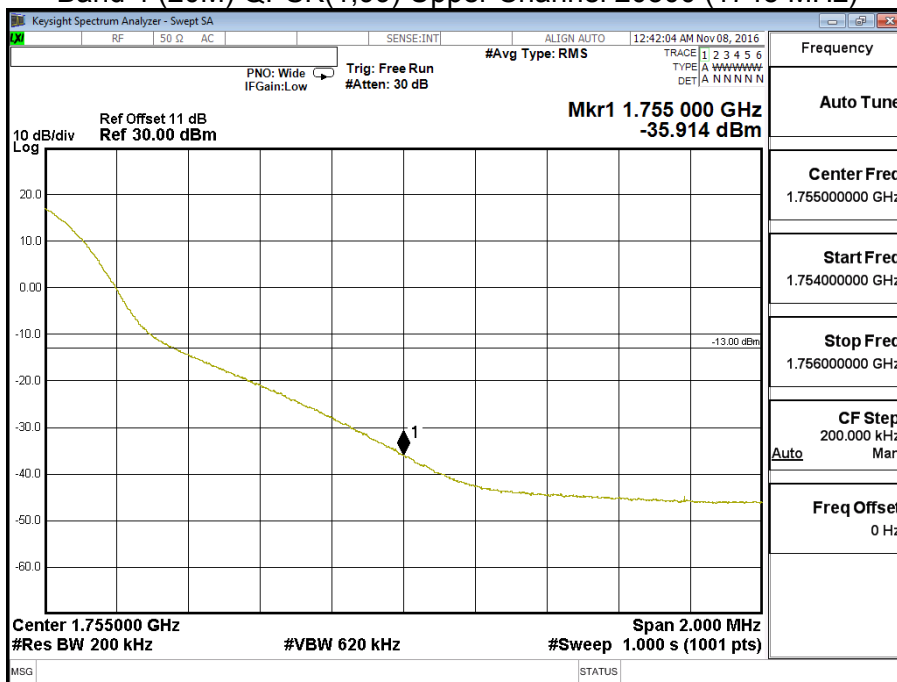


Product	LTE Router		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	Block Edge Test (Band 4 (20M))		

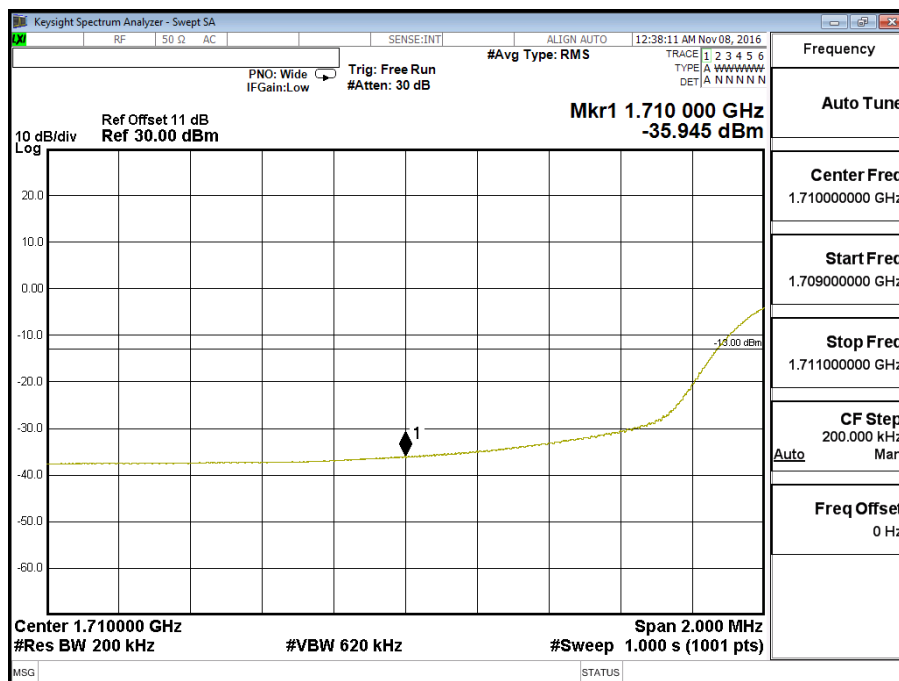
Band 4 (20M) QPSK(1,0) Lower Channel 20050 (1720MHz)



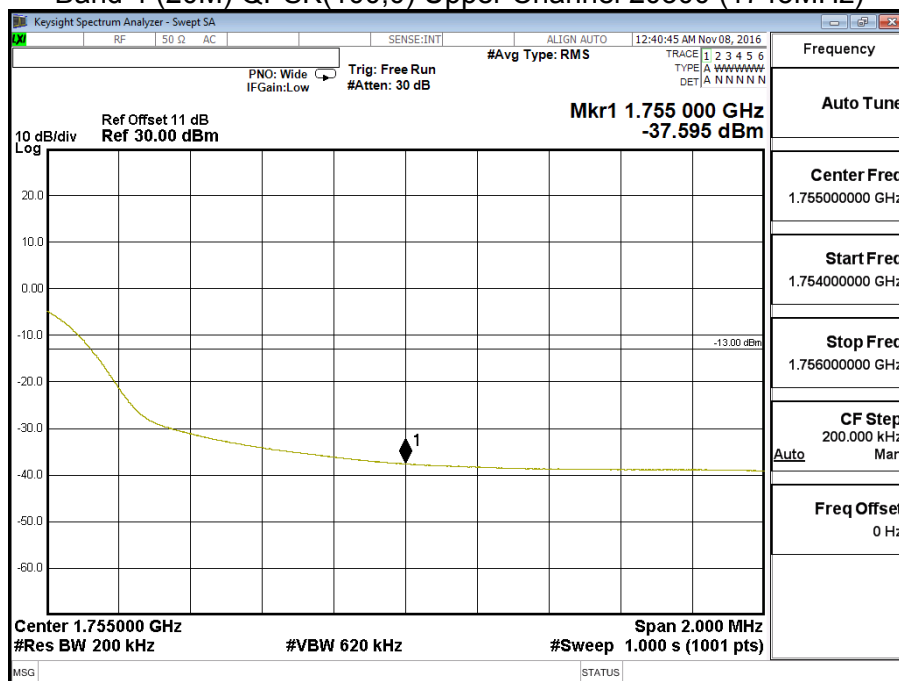
Band 4 (20M) QPSK(1,99) Upper Channel 20300 (1745 MHz)



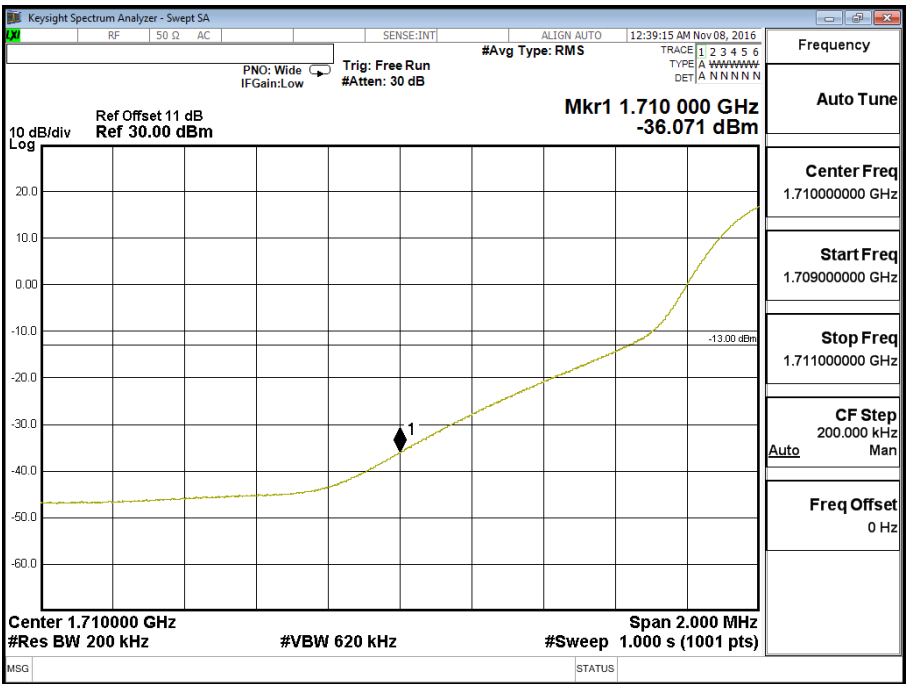
Band 4 (20M) QPSK(100,0) Lower Channel 20050 (1720MHz)



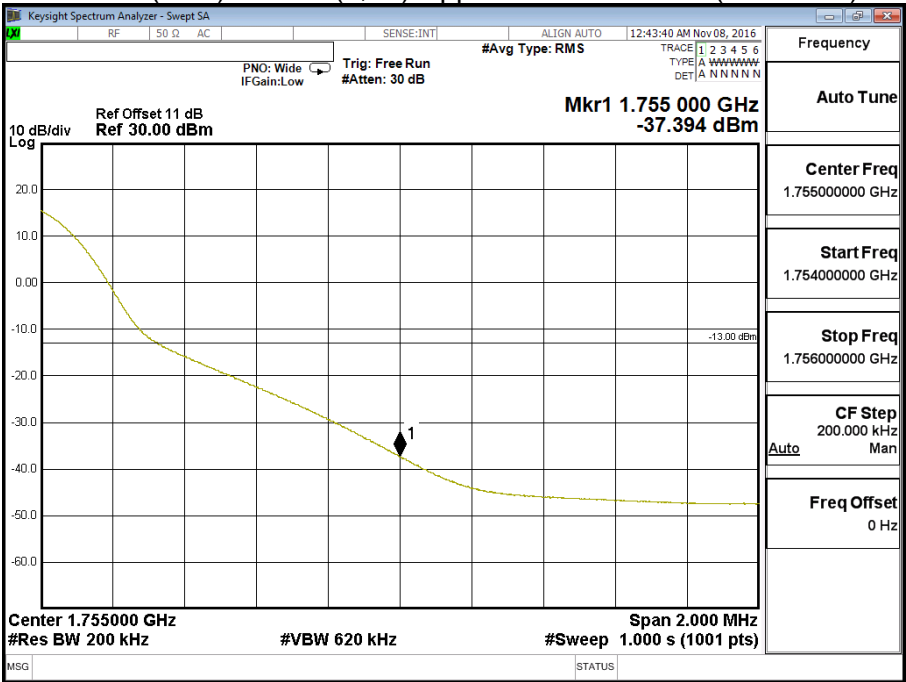
Band 4 (20M) QPSK(100,0) Upper Channel 20300 (1745MHz)



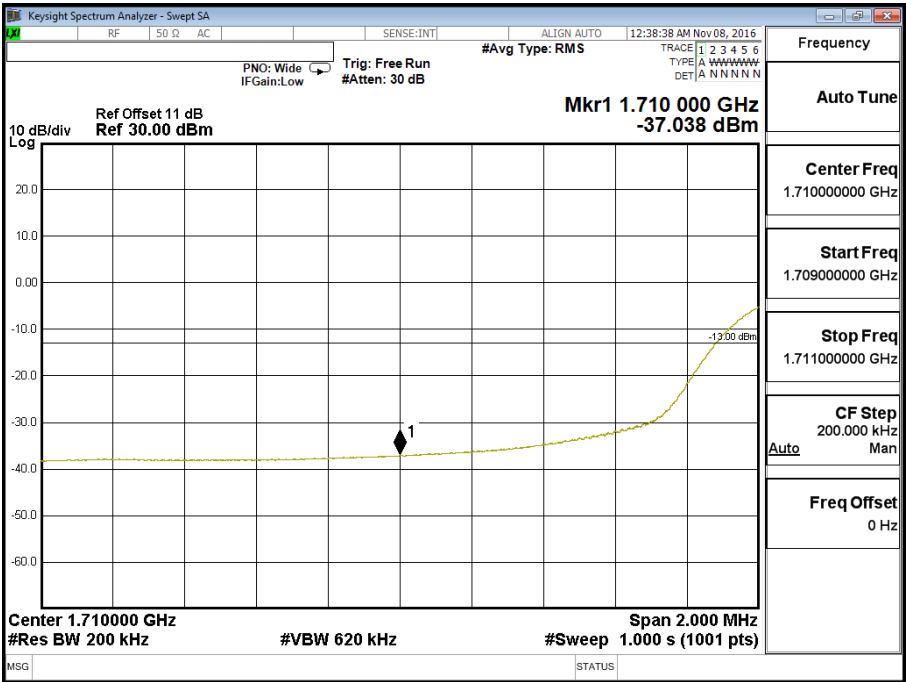
Band 4 (20M) 16QAM(1,0) Lower Channel 20050 (1720MHz)



Band 4 (20M) 16QAM(1,99) Upper Channel 20300 (1745MHz)



Band 4 (20M) 16QAM(100,0) Lower Channel 20050 (1720MHz)



Band 4 (20M) 16QAM(100,0) Upper Channel 20300 (1745MHz)

