FCC RF Test Report

APPLICANT	:	ZTE CORPORATION
EQUIPMENT	:	Mobile Hotspot
BRAND NAME	:	ZTE
MODEL NAME	:	MF96
FCC ID	:	Q78-MF96
STANDARD	:	47 CFR Part 2, 27(L)
CLASSIFICATION	:	PCS Licensed Transmitter (PCB)

The product was received on Sep. 26, 2012 and completely tested on Oct. 22, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai

Jones Tsai / Manager

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG292604B	Rev. 01	Initial issue of report	Dec. 11, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	NA	Conducted Output Power	NA	PASS	-
3.1	§27.50(c)(10) §27.50(d)(4)	RSS-139 (6.4) SRSP-513(5.1.2)	Equivalent Isotropic Radiated Power	EIRP < 1 Watt (Band 4)	PASS	-
3.2	§27.50(d)(5)	RSS-139(6.4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§2.1049 §27.53(h)	N/A	Occupied Bandwidth	NA	PASS	-
3.4	§2.1051 §27.53(h)	RSS-139 (6.5)	Emission Mask Measurement	< $43+10\log_{10}$(P[Watts])	PASS	-
3.4	§2.1051 §27.53(h)	RSS-139 (6.5)	Conducted Spurious Emission	< $43+10\log_{10}$(P[Watts])	PASS	-
3.5	§2.1053 §27.53(h)	RSS-139 (6.5)	Undesirable Out of Band Emissions	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 41.92 dB at 5198.000 MHz
3.6	§2.1055 §27.54	RSS-139 (6.3)	Frequency Stability Temperature & Voltage	< 2.5 ppm	PASS	-

1 General Description

1.1 Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.2 Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Hotspot
Brand Name	ZTE
Model Name	MF96
FCC ID	Q78-MF96
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+/LTE/WLAN 11bgn
HW Version	xn2C
SW Version	PV_ZTE_MF96_V1.0.0B01
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	1710.7MHz ~ 1754.3 MHz
Rx Frequency	2110.7 MHz ~ 2154.3 MHz
Bandwidth	1.4MHz / 3MHz / 5MHz/ 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	22.81 dBm
Antenna Type	PIFA Antenna
Type of Modulation	QPSK / 16QAM

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.5 Maximum EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	BW	Maximum EIRP (W)	Frequency Tolerance (%, Hz, ppm)	Emission Designator
Part 27L	LTE Band 4	QPSK	1.4MHz	0.2992 W	0.300	1M10G7D
Part 27L	LTE Band 4	16QAM	1.4MHz	0.2344 W	0.300	1M10D7W
Part 27L	LTE Band 4	QPSK	3MHz	0.2767 W	0.012	2M74G7D
Part 27L	LTE Band 4	16QAM	3MHz	0.2193 W	0.012	2M74D7W
Part 27L	LTE Band 4	QPSK	5MHz	0.2805 W	0.012	4M52G7D
Part 27L	LTE Band 4	16QAM	5MHz	0.2280 W	0.012	4M52D7W
Part 27L	LTE Band 4	QPSK	10MHz	0.2864 W	0.012	9M20G7D
Part 27L	LTE Band 4	16QAM	10MHz	0.2489 W	0.012	9M12D7W
Part 27L	LTE Band 4	QPSK	15MHz	0.1706 W	0.010	13M6G7D
Part 27L	LTE Band 4	16QAM	15MHz	0.1312 W	0.010	13M6D7W
Part 27L	LTE Band 4	QPSK	20MHz	0.2046 W	0.010	18M1G7D
Part 27L	LTE Band 4	16QAM	20MHz	0.1730 W	0.010	18M0D7W

1.6 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.		
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
Test Site No.	**Sporton Site No.**		**FCC/IC Registration No.**
	TH01-KS	03CH01-KS	149928/4086E-1

1.7 Applied Standards

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

- 47 CFR Part 2, 27(L)
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v01
- IC RSS-139 Issue 2
- NOTICE 2012-DRS0126

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radiocommunication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

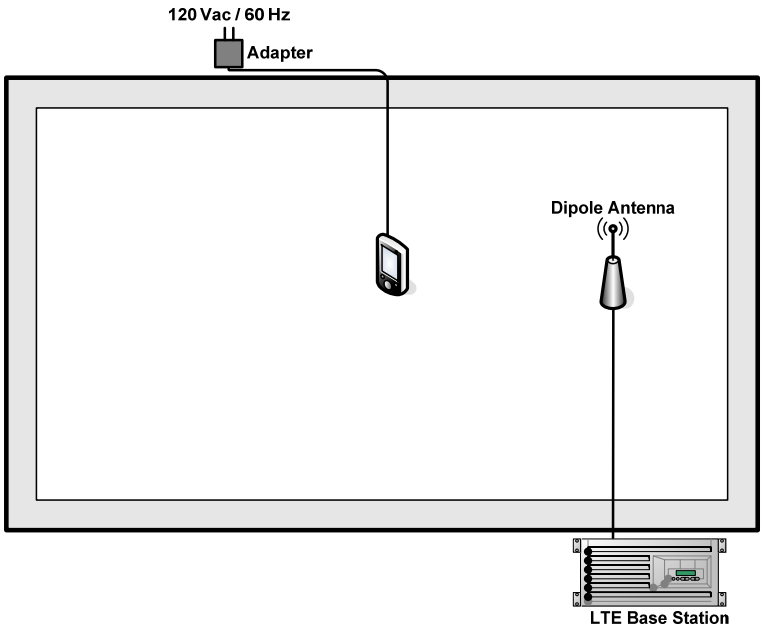
Frequency range investigated for radiated emission is: 30 MHz to 18000 MHz.

Test Modes			
Band		**Radiated TCs**	**Conducted TCs**
LTE Band 4	**BW 1.4MHz**	■ LTE (RB Size 1, RB Offset 0) QPSK Link	■ LTE (RB Size 1, RB Offset 0)Link ■ LTE (RB Size 1, RB Offset 5)Link ■ LTE (RB Size 3, RB Offset 2)Link ■ LTE (RB Size 6, RB Offset 0)Link
	BW 3MHz	■ LTE (RB Size 1, RB Offset 0) QPSK Link	■ LTE (RB Size 1, RB Offset 0)Link ■ LTE (RB Size 1, RB Offset 14)Link ■ LTE (RB Size 8, RB Offset 4)Link ■ LTE (RB Size 15, RB Offset 0)Link
	BW 5MHz	■ LTE (RB Size 1, RB Offset 0) QPSK Link	■ LTE (RB Size 1, RB Offset 0)Link ■ LTE (RB Size 1, RB Offset 24)Link ■ LTE (RB Size 12, RB Offset 6)Link ■ LTE (RB Size 25, RB Offset 0)Link
	BW 10MHz	■ LTE (RB Size 1, RB Offset 0) QPSK Link	■ LTE (RB Size 1, RB Offset 0)Link ■ LTE (RB Size 1, RB Offset 49)Link ■ LTE (RB Size 25, RB Offset 13)Link ■ LTE (RB Size 50, RB Offset 0)Link
	BW 15MHz	■ LTE (RB Size 1, RB Offset 74) QPSK Link	■ LTE (RB Size 1, RB Offset 0)Link ■ LTE (RB Size 1, RB Offset 74)Link ■ LTE (RB Size 36, RB Offset 18)Link ■ LTE (RB Size 75, RB Offset 0)Link
	BW 20MHz	■ LTE (RB Size 1, RB Offset 0) QPSK Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 99) Link ■ LTE (RB Size 50, RB Offset 25) Link ■ LTE (RB Size 100, RB Offset 0) Link

Note:

1. For conducted test, both two Modulations (QPSK and 16QAM) are tested. For RSE, only the maximum RF output power level is chosen.
2. From conducted spurious emission measurement, the modulation related spurious emission out of the band is not identified. Since MPR is implemented, 1RB-QPSK results in highest RF power, therefore it's chosen for RSE measurement.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and 10dB attenuator between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and 10dB attenuator factor.
Offset = RF cable loss + attenuator factor.
Following table shows an offset computation example with cable loss 5.2 dB.

Example :
Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 5.2 + 10 = 15.2 (dB)

3 Test Result

3.1 Maximum Output Power and Effective Isotropic Radiated Power Measurement

3.1.1 Limit

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004. Mobile and portable (hand-held) stations operating in each channel are limited to average EIRP of 1 watts.

3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

For Conducted Power Measurement:

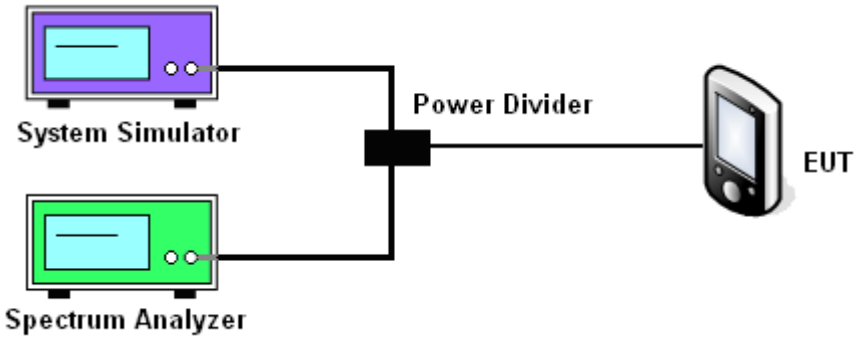
1. The RF output of the transmitter was connected to base station simulator.
2. Set EUT at maximum average power by base station simulator.
3. Measure lowest, middle, and highest channels for each bandwidth and different modulation.

For Effective Isotropic Radiated Power Measurement:

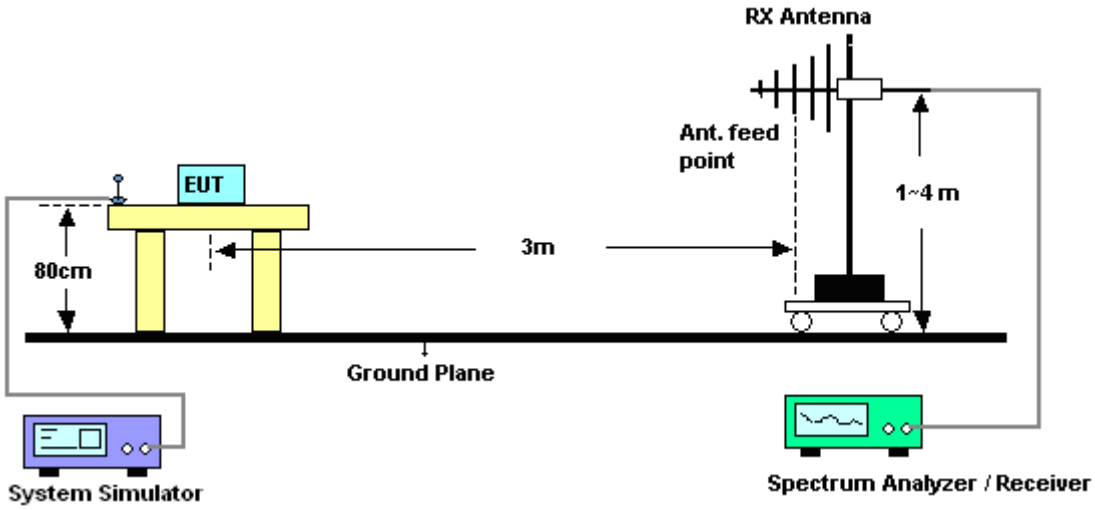
1. The EUT was placed on an non-conductive rotating platform with 0.8 meter height in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m.
2. During the measurement, the EUT was enforced in maximum power. The highest emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Effective Radiated Power (ERP) and Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, EIRP= LVL + Correction factor.

3.1.4 Test Setup

<Conducted Power and Band Edge Measurement>



<Effective Isotropic Radiated Power Measurement>



3.1.5 Test Result of Conducted Output Power

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	1.4MHz	19957	1710.7	QPSK	1	0	22.67	0.1849
					1	5	22.53	0.1791
					3	2	22.36	0.1722
					6	0	21.75	0.1496
				16-QAM	1	0	21.78	0.1507
					1	5	21.72	0.1486
					3	2	21.51	0.1416
					6	0	20.98	0.1253
		20175	1732.5	QPSK	1	0	22.80	0.1905
					1	5	22.70	0.1862
					3	2	22.65	0.1841
					6	0	21.74	0.1493
				16-QAM	1	0	21.99	0.1581
					1	5	21.98	0.1578
					3	2	21.75	0.1496
					6	0	20.99	0.1256
		20393	1754.3	QPSK	1	0	22.63	0.1832
					1	5	22.57	0.1807
					3	2	22.51	0.1782
					6	0	21.50	0.1413
				16-QAM	1	0	21.68	0.1472
					1	5	21.67	0.1469
					3	2	21.60	0.1445
					6	0	20.68	0.1169

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	3MHz	19965	1711.5	QPSK	1	0	22.70	0.1862
					1	14	22.60	0.1820
					8	4	21.60	0.1445
					15	0	21.55	0.1429
				16-QAM	1	0	21.86	0.1535
					1	14	21.77	0.1503
					8	4	20.54	0.1132
					15	0	20.49	0.1119
		20175	1732.5	QPSK	1	0	22.74	0.1879
					1	14	22.72	0.1871
					8	4	21.64	0.1459
					15	0	21.62	0.1452
				16-QAM	1	0	21.98	0.1578
					1	14	21.94	0.1563
					8	4	20.73	0.1183
					15	0	20.75	0.1189
		20385	1753.5	QPSK	1	0	22.54	0.1795
					1	14	22.53	0.1791
					8	4	21.42	0.1387
					15	0	21.35	0.1365
				16-QAM	1	0	21.70	0.1479
					1	14	21.66	0.1466
					8	4	20.44	0.1107
					15	0	20.42	0.1102

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	5MHz	19975	1712.5	QPSK	1	0	22.57	0.1807
					1	24	22.33	0.1710
					12	6	21.49	0.1409
					25	0	21.48	0.1406
				16-QAM	1	0	21.70	0.1479
					1	24	21.67	0.1469
					12	6	20.58	0.1143
					25	0	20.50	0.1122
		20175	1732.5	QPSK	1	0	22.66	0.1845
					1	24	22.65	0.1841
					12	6	21.79	0.1510
					25	0	21.72	0.1486
				16-QAM	1	0	21.85	0.1531
					1	24	21.75	0.1496
					12	6	20.94	0.1242
					25	0	20.58	0.1143
		20375	1752.5	QPSK	1	0	22.59	0.1816
					1	24	22.57	0.1807
					12	6	21.36	0.1368
					25	0	21.33	0.1358
				16-QAM	1	0	21.86	0.1535
					1	24	21.80	0.1514
					12	6	20.44	0.1107
					25	0	20.28	0.1067

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	10MHz	20000	1715	QPSK	1	0	22.52	0.1786
					1	49	22.51	0.1782
					25	13	21.42	0.1387
					50	0	21.20	0.1318
				16-QAM	1	0	21.80	0.1514
					1	49	21.72	0.1486
					25	13	20.56	0.1138
					50	0	20.22	0.1052
		20175	1732.5	QPSK	1	0	22.68	0.1854
					1	49	22.67	0.1849
					25	13	21.50	0.1413
					50	0	21.41	0.1384
				16-QAM	1	0	21.88	0.1542
					1	49	21.83	0.1524
					25	13	20.59	0.1146
					50	0	20.44	0.1107
		20350	1750	QPSK	1	0	22.54	0.1795
					1	49	22.52	0.1786
					25	13	21.41	0.1384
					50	0	21.29	0.1346
				16-QAM	1	0	21.72	0.1486
					1	49	21.66	0.1466
					25	13	20.20	0.1047
					50	0	20.26	0.1062

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	15MHz	20025	1717.5	QPSK	1	0	22.63	0.1832
					1	74	22.41	0.1742
					36	18	21.27	0.1340
					75	0	21.20	0.1318
				16-QAM	1	0	21.82	0.1521
					1	74	21.74	0.1493
					36	18	20.22	0.1052
					75	0	20.19	0.1045
		20175	1732.5	QPSK	1	0	22.55	0.1799
					1	74	22.81	0.1910
					36	18	21.48	0.1406
					75	0	21.39	0.1377
				16-QAM	1	0	21.73	0.1489
					1	74	21.94	0.1563
					36	18	20.58	0.1143
					75	0	20.42	0.1102
		20325	1747.5	QPSK	1	0	22.56	0.1803
					1	74	22.52	0.1786
					36	18	21.20	0.1318
					75	0	21.28	0.1343
				16-QAM	1	0	22.00	0.1585
					1	74	21.72	0.1486
					36	18	20.15	0.1035
					75	0	20.14	0.1033

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	20MHz	20050	1720	QPSK	1	0	22.76	0.1888
					1	99	22.71	0.1866
					50	25	21.44	0.1393
					100	0	21.41	0.1384
				16-QAM	1	0	21.97	0.1574
					1	99	21.96	0.1570
					50	25	20.41	0.1099
					100	0	20.41	0.1099
		20175	1732.5	QPSK	1	0	22.64	0.1837
					1	99	22.63	0.1832
					50	25	21.56	0.1432
					100	0	21.55	0.1429
				16-QAM	1	0	21.82	0.1521
					1	99	21.77	0.1503
					50	25	20.61	0.1151
					100	0	20.60	0.1148
		20300	1745	QPSK	1	0	22.64	0.1837
					1	99	22.60	0.1820
					50	25	21.45	0.1396
					100	0	21.47	0.1403
				16-QAM	1	0	21.96	0.1570
					1	99	21.94	0.1563
					50	25	20.45	0.1109
					100	0	20.44	0.1107

3.1.6 Test Result of EIRP

LTE Band 4 Radiated Power EIRP										
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset						
4	1.4	QPSK	1	0	1710.70	-10.13	33.69	23.56	0.2270	H
4	1.4	QPSK	1	0	1732.50	-10.25	35.01	24.76	0.2992	H
4	1.4	QPSK	1	0	1754.30	-10.90	34.42	23.52	0.2249	H
4	1.4	QPSK	1	0	1710.70	-19.68	36.15	16.47	0.0444	V
4	1.4	QPSK	1	0	1732.50	-20.12	37.4	17.28	0.0535	V
4	1.4	QPSK	1	0	1754.30	-19.63	36.78	17.15	0.0519	V
4	1.4	16QAM	1	0	1710.70	-11.00	33.69	22.69	0.1858	H
4	1.4	16QAM	1	0	1732.50	-11.31	35.01	23.70	0.2344	H
4	1.4	16QAM	1	0	1754.30	-11.68	34.42	22.74	0.1879	H
4	1.4	16QAM	1	0	1710.70	-19.71	36.15	16.44	0.0441	V
4	1.4	16QAM	1	0	1732.50	-19.84	37.4	17.56	0.0570	V
4	1.4	16QAM	1	0	1754.30	-19.61	36.78	17.17	0.0521	V
4	3	QPSK	1	0	1711.50	-10.71	33.69	22.98	0.1986	H
4	3	QPSK	1	0	1732.50	-10.59	35.01	24.42	0.2767	H
4	3	QPSK	1	0	1753.50	-11.27	34.42	23.15	0.2065	H
4	3	QPSK	1	0	1711.50	-20.07	36.15	16.08	0.0406	V
4	3	QPSK	1	0	1732.50	-20.27	37.4	17.13	0.0516	V
4	3	QPSK	1	0	1753.50	-20.11	36.78	16.67	0.0465	V
4	3	16QAM	1	0	1711.50	-11.42	33.69	22.27	0.1687	H
4	3	16QAM	1	0	1732.50	-11.60	35.01	23.41	0.2193	H
4	3	16QAM	1	0	1753.50	-11.95	34.42	22.47	0.1766	H
4	3	16QAM	1	0	1711.50	-19.90	36.15	16.25	0.0422	V
4	3	16QAM	1	0	1732.50	-19.86	37.4	17.54	0.0568	V
4	3	16QAM	1	0	1753.50	-19.57	36.78	17.21	0.0526	V

LTE Band 4 Radiated Power EIRP										
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset						
4	5	QPSK	1	0	1712.50	-10.97	33.69	22.72	0.1871	H
4	5	QPSK	1	0	1732.50	-10.53	35.01	24.48	0.2805	H
4	5	QPSK	1	0	1752.50	-10.50	34.42	23.92	0.2466	H
4	5	QPSK	1	0	1712.50	-20.65	36.15	15.50	0.0355	V
4	5	QPSK	1	0	1732.50	-21.04	37.4	16.36	0.0433	V
4	5	QPSK	1	0	1752.50	-20.17	36.78	16.61	0.0458	V
4	5	16QAM	1	0	1712.50	-11.58	33.69	22.11	0.1626	H
4	5	16QAM	1	0	1732.50	-11.43	35.01	23.58	0.2280	H
4	5	16QAM	1	0	1752.50	-11.17	34.42	23.25	0.2113	H
4	5	16QAM	1	0	1712.50	-21.21	36.15	14.94	0.0312	V
4	5	16QAM	1	0	1732.50	-21.64	37.4	15.76	0.0377	V
4	5	16QAM	1	0	1752.50	-20.85	36.78	15.93	0.0392	V
4	10	QPSK	1	0	1715.00	-10.69	33.69	23.00	0.1995	H
4	10	QPSK	1	0	1732.50	-10.76	35.01	24.25	0.2661	H
4	10	QPSK	1	0	1750.00	-9.85	34.42	24.57	0.2864	H
4	10	QPSK	1	0	1715.00	-20.40	36.15	15.75	0.0376	V
4	10	QPSK	1	0	1732.50	-21.10	37.4	16.30	0.0427	V
4	10	QPSK	1	0	1750.00	-19.80	36.78	16.98	0.0499	V
4	10	16QAM	1	0	1715.00	-11.12	33.69	22.57	0.1807	H
4	10	16QAM	1	0	1732.50	-11.50	35.01	23.51	0.2244	H
4	10	16QAM	1	0	1750.00	-10.46	34.42	23.96	0.2489	H
4	10	16QAM	1	0	1715.00	-20.85	36.15	15.30	0.0339	V
4	10	16QAM	1	0	1732.50	-21.74	37.4	15.66	0.0368	V
4	10	16QAM	1	0	1750.00	-20.45	36.78	16.33	0.0430	V

LTE Band 4 Radiated Power EIRP										
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset						
4	15	QPSK	1	0	1717.50	-15.20	33.69	21.74	0.1493	H
4	15	QPSK	1	74	1732.50	-12.82	35.01	22.32	0.1706	H
4	15	QPSK	1	0	1747.50	-14.43	34.42	22.24	0.1675	H
4	15	QPSK	1	0	1717.50	-18.64	36.15	17.51	0.0564	V
4	15	QPSK	1	74	1732.50	-15.72	37.4	16.48	0.0445	V
4	15	QPSK	1	0	1747.50	-15.96	36.78	20.82	0.1208	V
4	15	16QAM	1	0	1717.50	-12.83	33.69	20.86	0.1219	H
4	15	16QAM	1	74	1732.50	-13.83	35.01	21.18	0.1312	H
4	15	16QAM	1	0	1747.50	-13.25	34.42	21.17	0.1309	H
4	15	16QAM	1	0	1717.50	-19.34	36.15	16.81	0.0480	V
4	15	16QAM	1	74	1732.50	-22.61	37.4	14.79	0.0301	V
4	15	16QAM	1	0	1747.50	-20.59	36.78	16.19	0.0416	V
4	20	QPSK	1	0	1720.00	-12.18	33.69	21.51	0.1416	H
4	20	QPSK	1	0	1732.50	-12.78	35.01	22.23	0.1671	H
4	20	QPSK	1	0	1745.00	-11.31	34.42	23.11	0.2046	H
4	20	QPSK	1	0	1720.00	-20.67	36.15	15.48	0.0353	V
4	20	QPSK	1	0	1732.50	-18.61	37.4	18.79	0.0757	V
4	20	QPSK	1	0	1745.00	-19.75	36.78	17.03	0.0505	V
4	20	16QAM	1	0	1720.00	-12.72	33.69	20.97	0.1250	H
4	20	16QAM	1	0	1732.50	-13.42	35.01	21.59	0.1442	H
4	20	16QAM	1	0	1745.00	-12.04	34.42	22.38	0.1730	H
4	20	16QAM	1	0	1720.00	-22.28	36.15	13.87	0.0244	V
4	20	16QAM	1	0	1732.50	-19.04	37.4	18.36	0.0685	V
4	20	16QAM	1	0	1745.00	-22.58	36.78	14.20	0.0263	V

3.2 Peak-to-Average Ratio

3.2.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. The following guidelines are offered for performing a CCDF measurement.

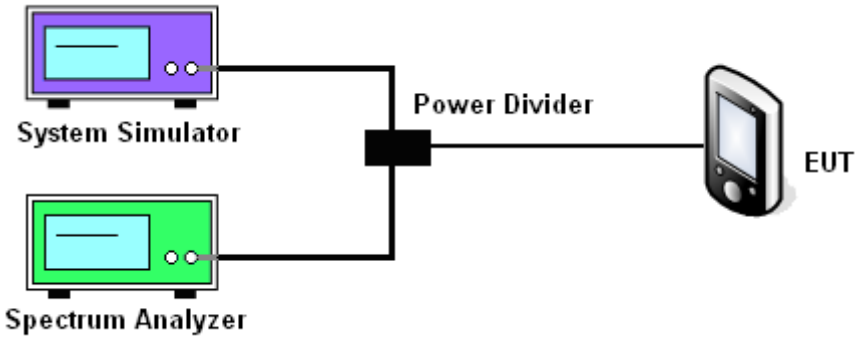
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The CCDF (Complementary Cumulative Distribution Function) of the middle channel for the highest RF powers were measured.

3.2.4 Test Setup



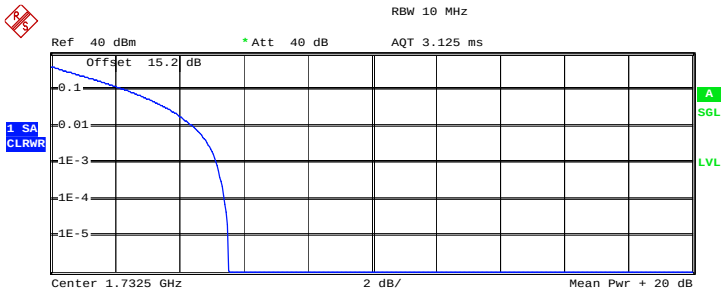
3.2.5 Test Result of Peak-to-Average Ratio

Band	Band Width	Channel	Frequency (MHz)	Modulation	PAR (dB)
LTE Band 4	1.4MHz	20175	1732.5	QPSK	5.16
				16-QAM	6.04
	3MHz	20175	1732.5	QPSK	5.12
				16-QAM	6.04
	5MHz	20175	1732.5	QPSK	5.32
				16-QAM	6.04
	10MHz	20175	1732.5	QPSK	5.56
				16-QAM	6.28
	15MHz	20175	1732.5	QPSK	5.84
				16-QAM	6.64
	20MHz	20175	1732.5	QPSK	6.48
				16-QAM	7.12

Band:	LTE Band 4	Bandwidth:	1.4MHz

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 6, RB Offset 0



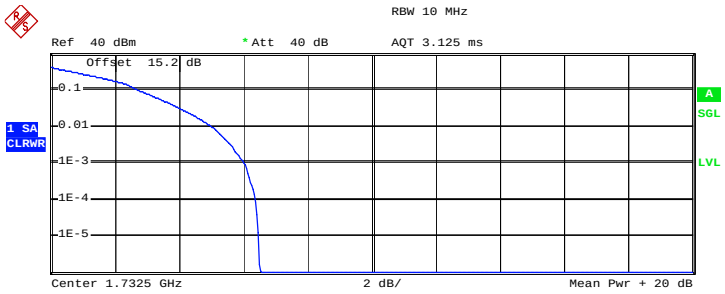
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.61 dBm
Peak	27.16 dBm
Crest	5.55 dB
10 %	2.44 dB
1 %	4.44 dB
.1 %	5.16 dB
.01 %	5.44 dB

Date: 14.OCT.2012 16:40:00

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 6, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

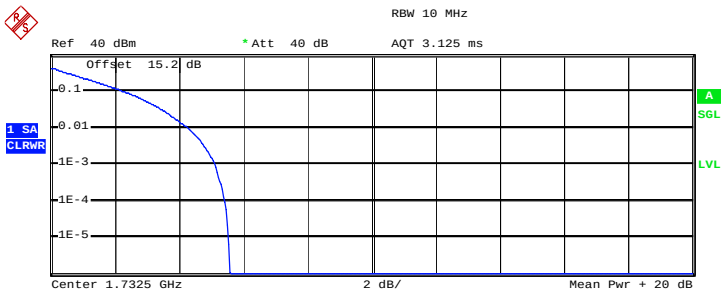
	Trace 1
Mean	20.50 dBm
Peak	27.01 dBm
Crest	6.51 dB
10 %	2.80 dB
1 %	5.04 dB
.1 %	6.04 dB
.01 %	6.40 dB

Date: 14.OCT.2012 16:38:29

Band:	LTE Band 4	Bandwidth:	3MHz

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 15, RB Offset 0



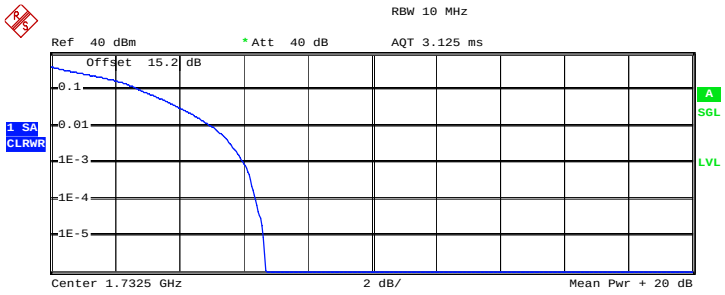
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.56 dBm
Peak	27.16 dBm
Crest	5.60 dB
10 %	2.36 dB
1 %	4.28 dB
.1 %	5.12 dB
.01 %	5.44 dB

Date: 14.OCT.2012 16:37:40

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 15, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

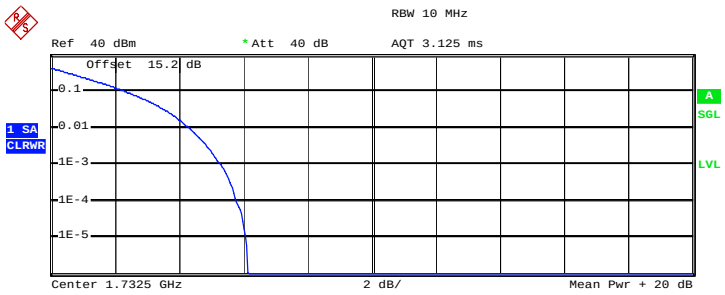
	Trace 1
Mean	20.54 dBm
Peak	27.23 dBm
Crest	6.69 dB
10 %	2.84 dB
1 %	5.04 dB
.1 %	6.04 dB
.01 %	6.40 dB

Date: 14.OCT.2012 16:38:03

Band:	LTE Band 4	Bandwidth:	5MHz

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 25, RB Offset 0



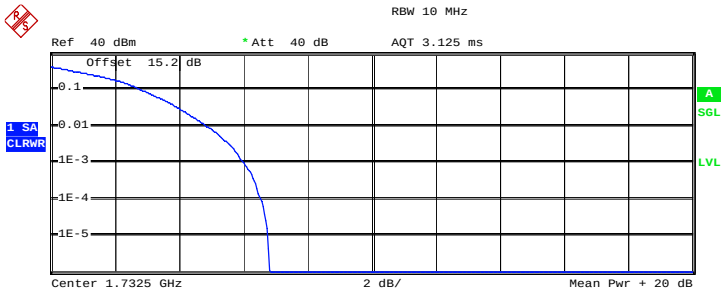
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.50 dBm
Peak	27.65 dBm
Crest	6.15 dB
10 %	2.40 dB
1 %	4.32 dB
.1 %	5.32 dB
.01 %	5.80 dB

Date: 14.OCT.2012 16:37:10

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 25, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

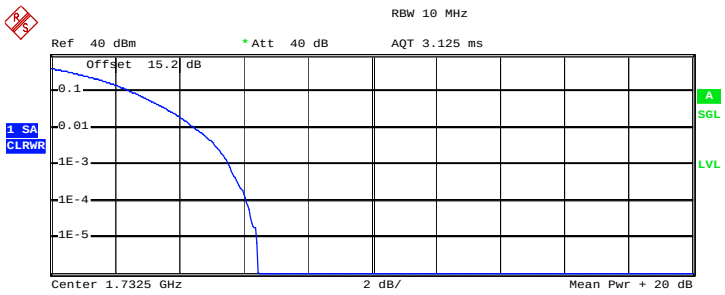
	Trace 1
Mean	20.35 dBm
Peak	27.16 dBm
Crest	6.80 dB
10 %	2.88 dB
1 %	4.88 dB
.1 %	6.04 dB
.01 %	6.56 dB

Date: 14.OCT.2012 16:36:52

Band:	LTE Band 4	Bandwidth:	10MHz

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 50, RB Offset 0



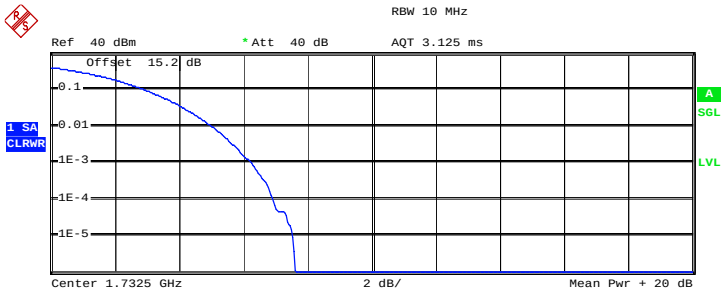
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.06 dBm
Peak	27.51 dBm
Crest	6.45 dB
10 %	2.56 dB
1 %	4.52 dB
.1 %	5.56 dB
.01 %	6.12 dB

Date: 14.OCT.2012 16:36:12

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 50, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

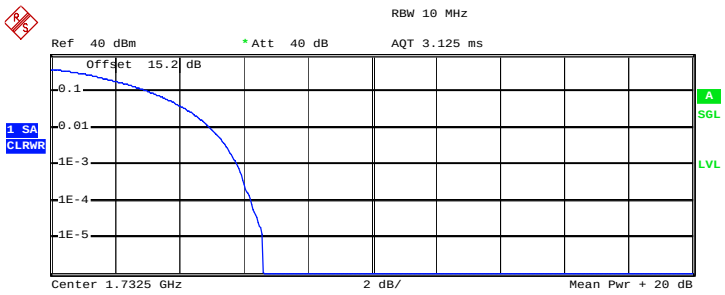
	Trace 1
Mean	20.18 dBm
Peak	27.79 dBm
Crest	7.61 dB
10 %	3.00 dB
1 %	5.04 dB
.1 %	6.28 dB
.01 %	6.92 dB

Date: 14.OCT.2012 16:36:27

Band:	LTE Band 4	Bandwidth:	15MHz

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 75, RB Offset 0



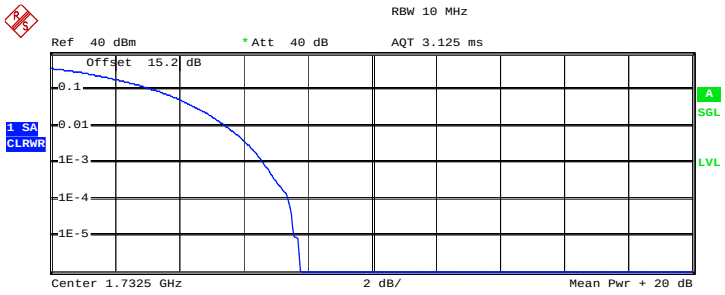
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	19.82 dBm
Peak	26.45 dBm
Crest	6.63 dB
10 %	3.12 dB
1 %	5.00 dB
.1 %	5.84 dB
.01 %	6.24 dB

Date: 14.OCT.2012 16:35:49

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 75, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

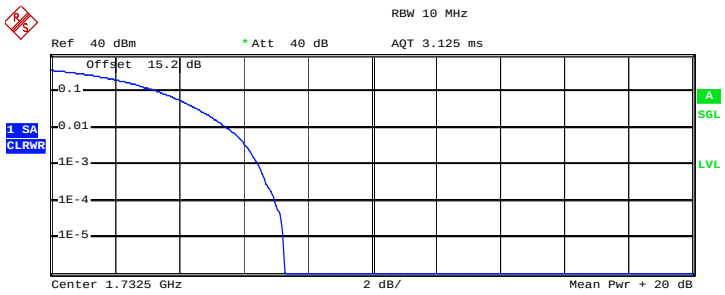
	Trace 1
Mean	18.75 dBm
Peak	26.52 dBm
Crest	7.77 dB
10 %	3.32 dB
1 %	5.48 dB
.1 %	6.64 dB
.01 %	7.40 dB

Date: 14.OCT.2012 16:35:37

Band:	LTE Band 4	Bandwidth:	20MHz

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 100, RB Offset 0



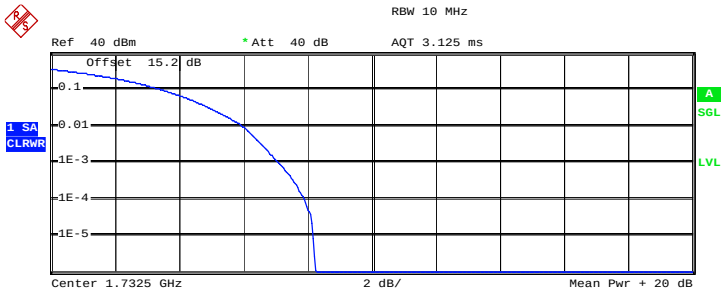
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	18.54 dBm
Peak	25.81 dBm
Crest	7.28 dB
10 %	3.44 dB
1 %	5.52 dB
.1 %	6.48 dB
.01 %	7.00 dB

Date: 14.OCT.2012 16:34:54

Peak-to-Average Ratio on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 100, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	17.43 dBm
Peak	25.67 dBm
Crest	8.24 dB
10 %	3.56 dB
1 %	6.00 dB
.1 %	7.12 dB
.01 %	7.92 dB

Date: 14.OCT.2012 16:35:10

3.3 Emission Bandwidth

3.3.1 Description of Emission Bandwidth Measurement

The 99% occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

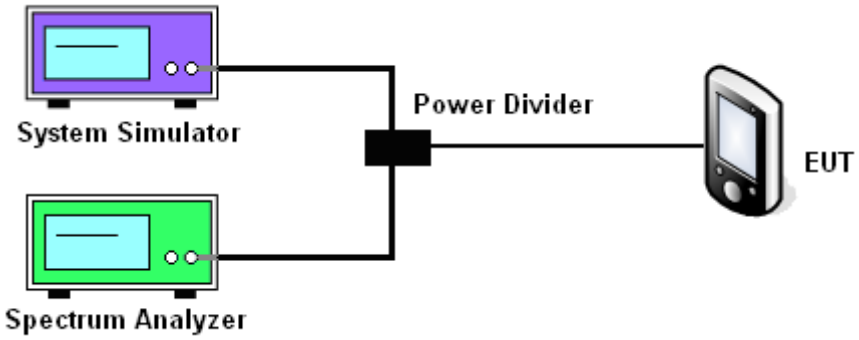
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and System Simulator via power divider.
2. The 99% occupied bandwidth and 26 dB bandwidth of the middle channel for the highest RF powers were measured.

3.3.4 Test Setup



3.3.6 Test Result of 99% Occupied Bandwidth and 26dB Bandwidth

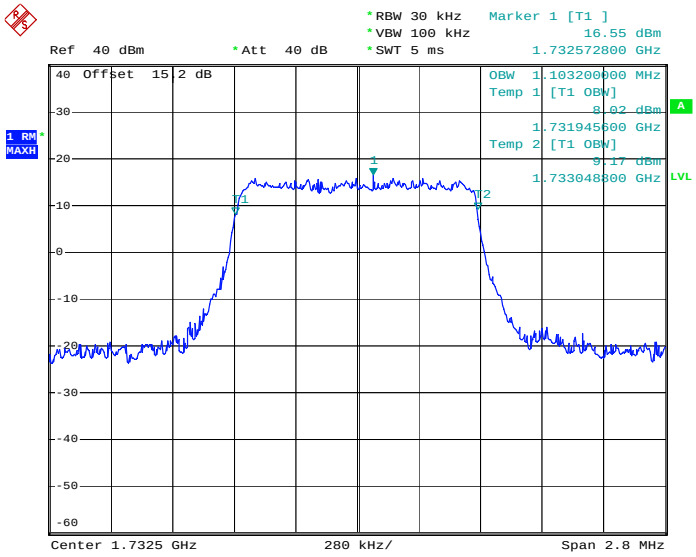
Band	Band Width	Channel	Frequency (MHz)	Modulation	99%Bandwidth (MHz)	26dB Bandwidth (MHz)
LTE Band 4	1.4MHz	20175	1732.5	QPSK	1.10	1.32
				16-QAM	1.10	1.34
	3MHz	20175	1732.5	QPSK	2.74	3.13
				16-QAM	2.74	3.16
	5MHz	20175	1732.5	QPSK	4.52	5.16
				16-QAM	4.52	5.14
	10MHz	20175	1732.5	QPSK	9.20	10.40
				16-QAM	9.12	10.24
	15MHz	20175	1732.5	QPSK	13.56	15.12
				16-QAM	13.56	15.24
	20MHz	20175	1732.5	QPSK	18.08	19.84
				16-QAM	18.00	19.68

3.3.7 Test Result (Plots) of 99% Occupied Bandwidth and 26dB Bandwidth

Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

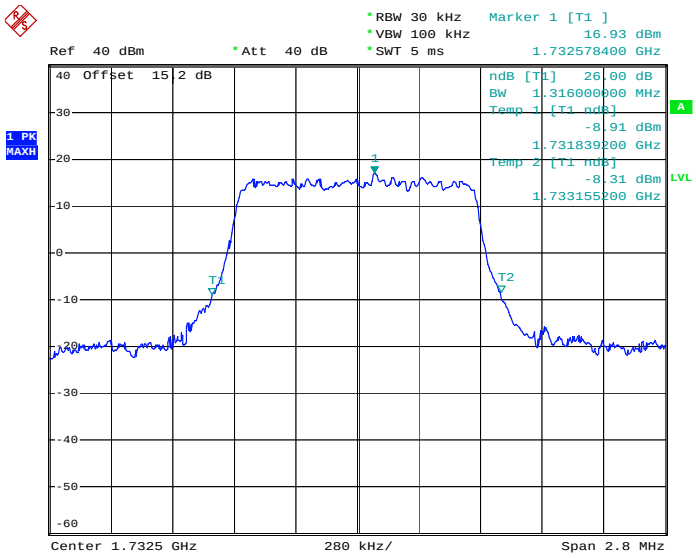
for QPSK-RB Size 6, RB Offset 0



Date: 14.OCT.2012 16:51:06

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

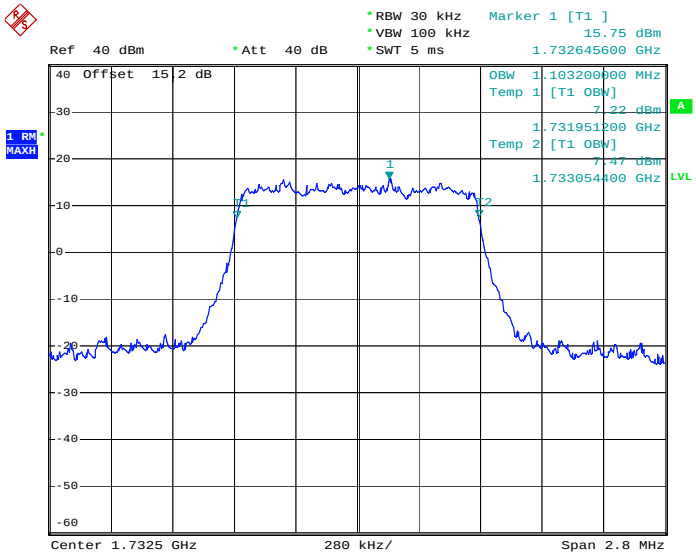
for QPSK-RB Size 6, RB Offset 0



Date: 14.OCT.2012 12:38:26

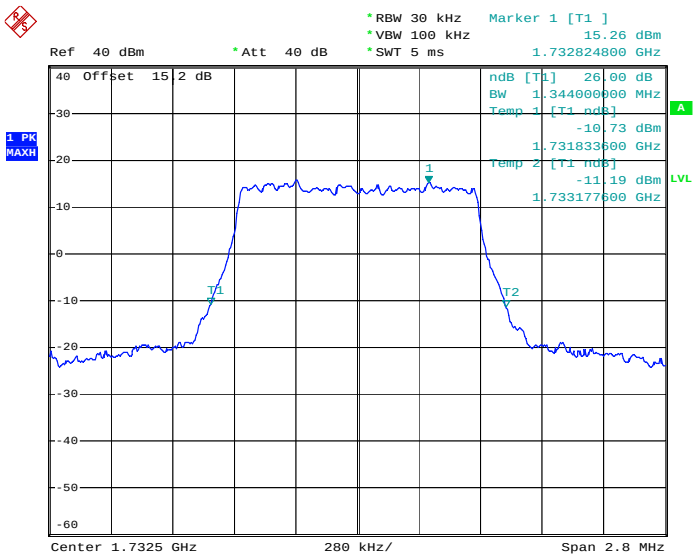
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz) for 16QAM-RB Size 6, RB Offset 0



Date: 14.OCT.2012 16:50:43

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz) for 16QAM-RB Size 6, RB Offset 0

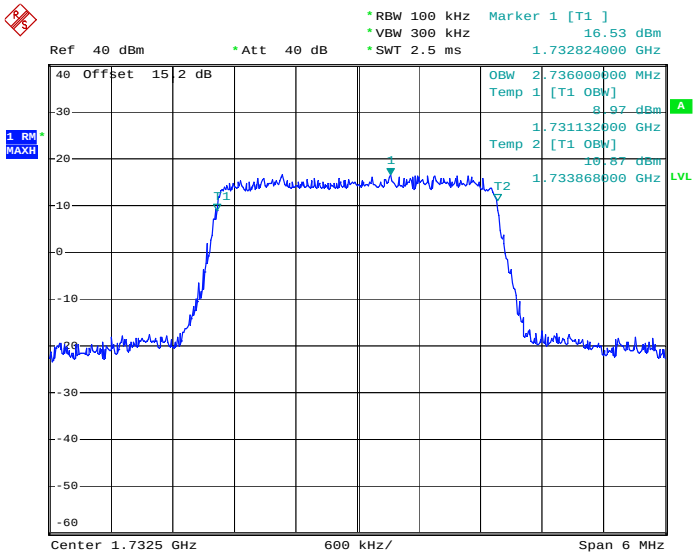


Date: 14.OCT.2012 12:37:46

Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

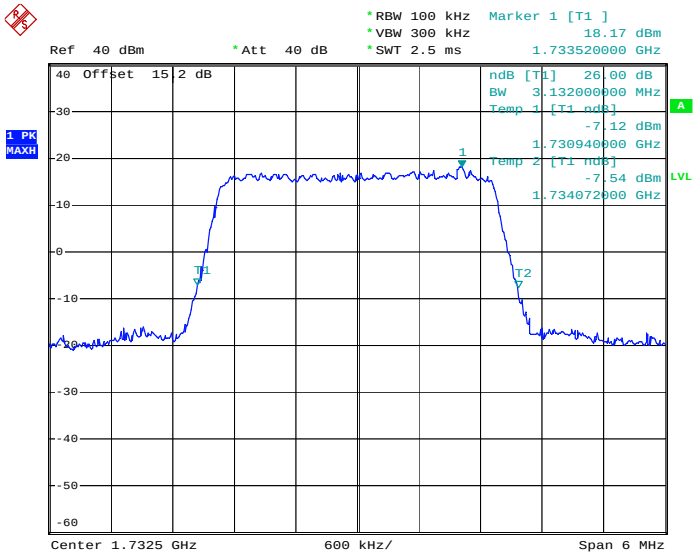
for QPSK-RB Size 15, RB Offset 0



Date: 14.OCT.2012 17:03:02

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 15, RB Offset 0

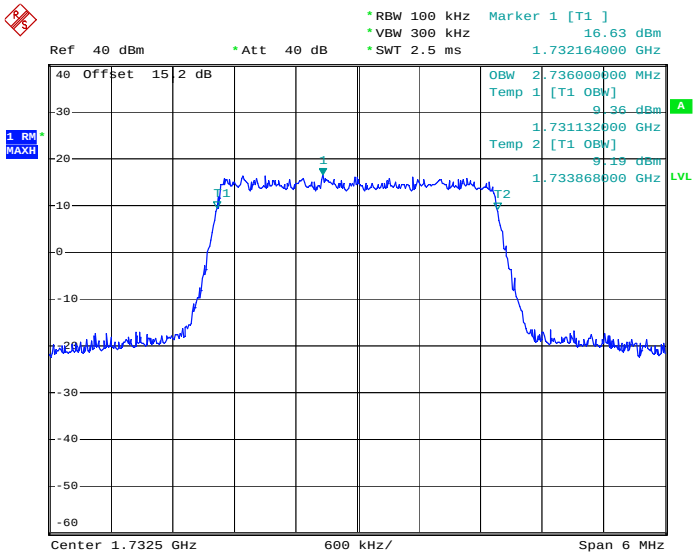


Date: 14.OCT.2012 12:41:01

Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

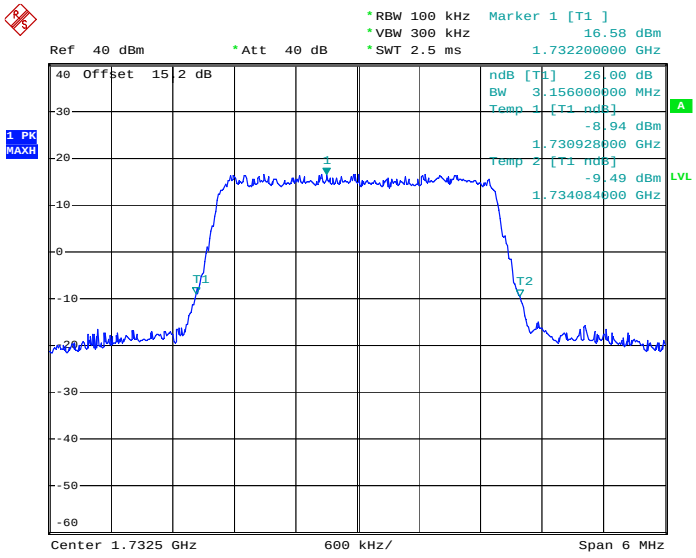
for 16QAM-RB Size 15, RB Offset 0



Date: 14.OCT.2012 17:02:47

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 15, RB Offset 0

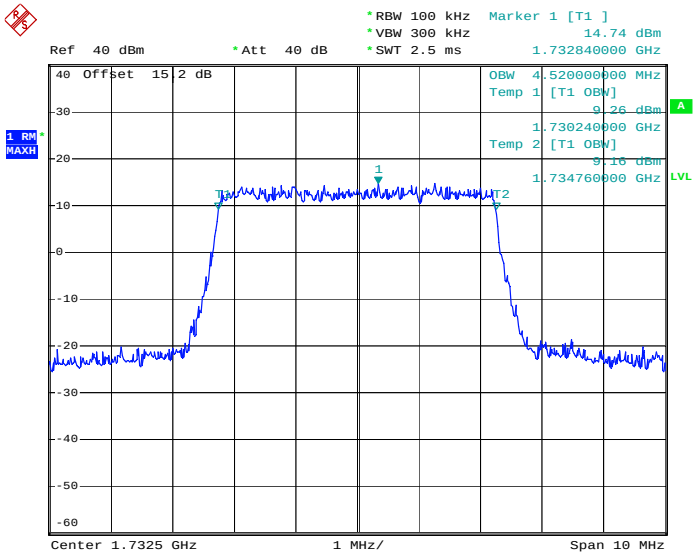


Date: 14.OCT.2012 12:41:30

Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

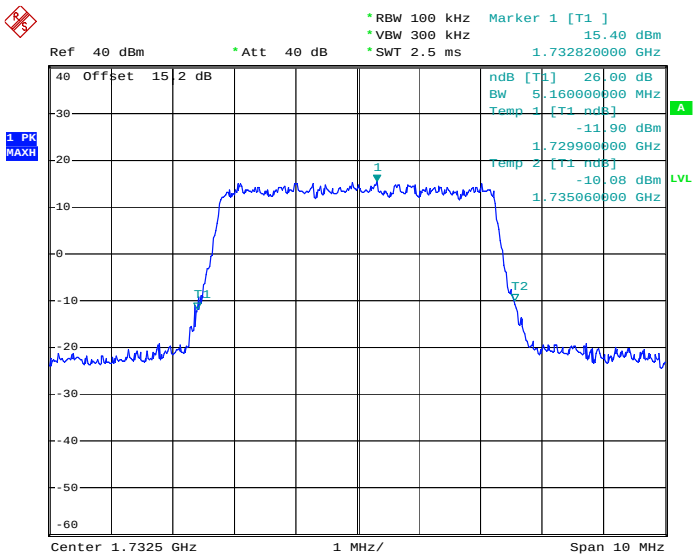
for QPSK-RB Size 25, RB Offset 0



Date: 14.OCT.2012 17:08:13

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 25, RB Offset 0

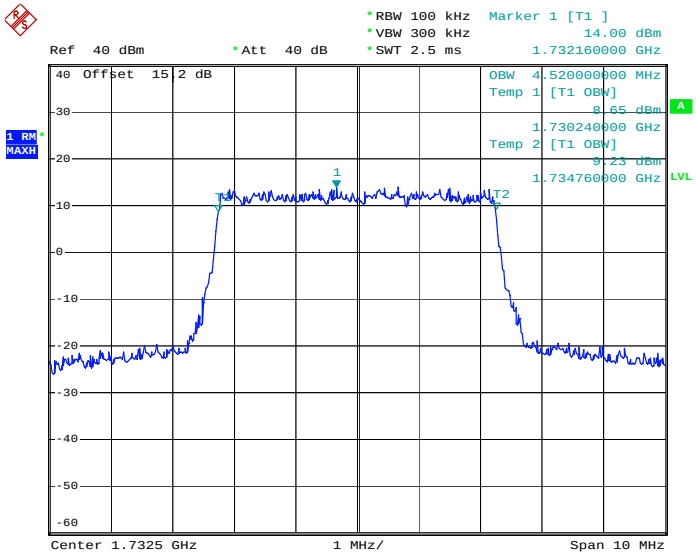


Date: 14.OCT.2012 12:43:14

Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

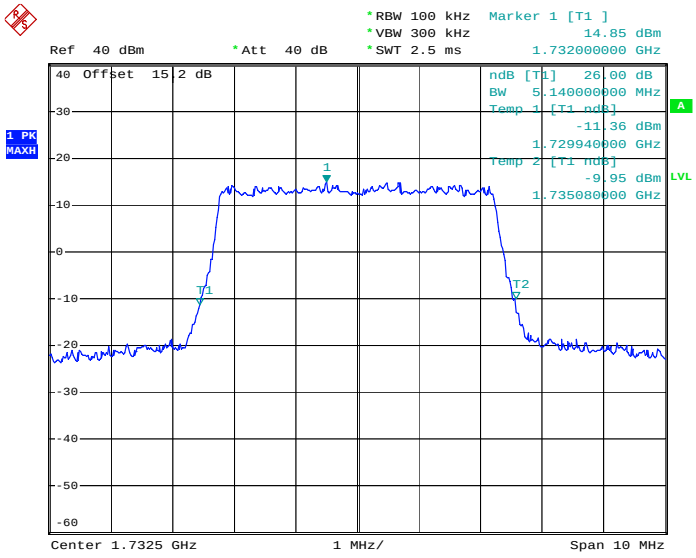
for 16QAM-RB Size 25, RB Offset 0



Date: 14.OCT.2012 17:07:56

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 25, RB Offset 0

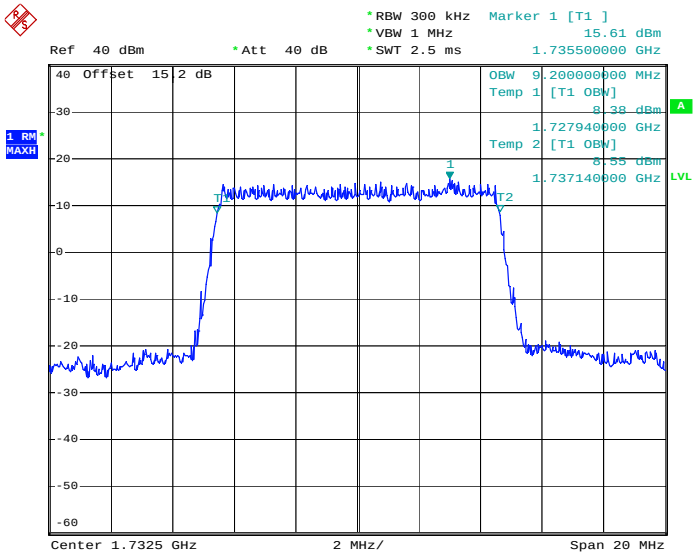


Date: 14.OCT.2012 12:42:35

Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

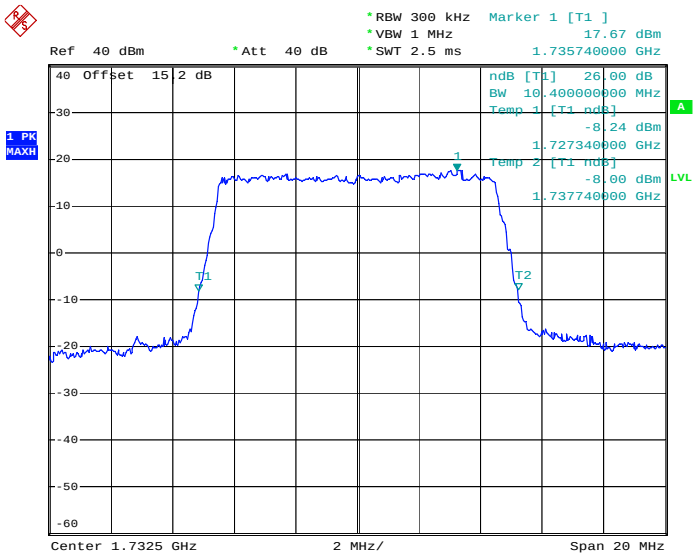
for QPSK-RB Size 50, RB Offset 0



Date: 14.OCT.2012 17:13:11

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 50, RB Offset 0

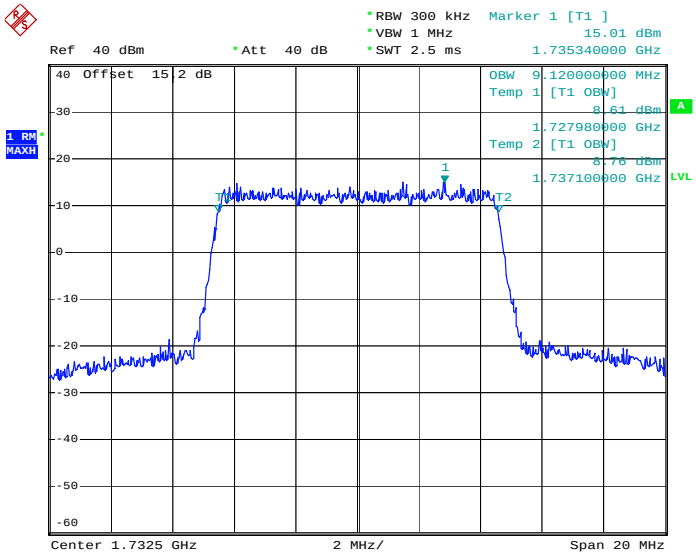


Date: 14.OCT.2012 12:44:38

Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

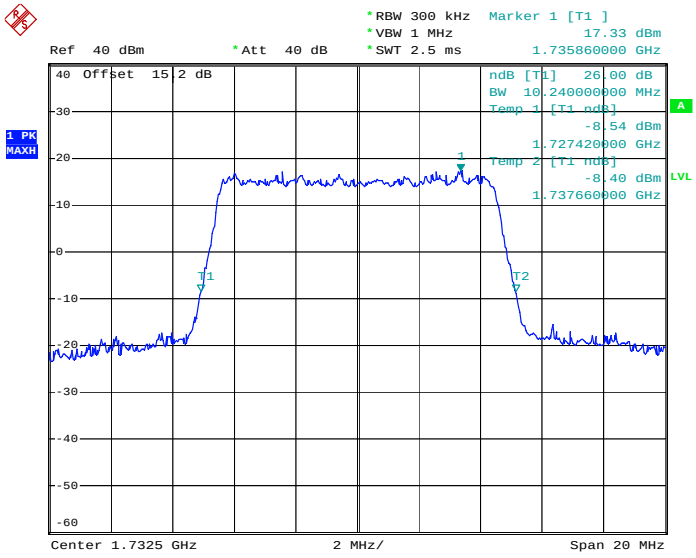
for 16QAM-RB Size 50, RB Offset 0



Date: 14.OCT.2012 17:12:54

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 50, RB Offset 0

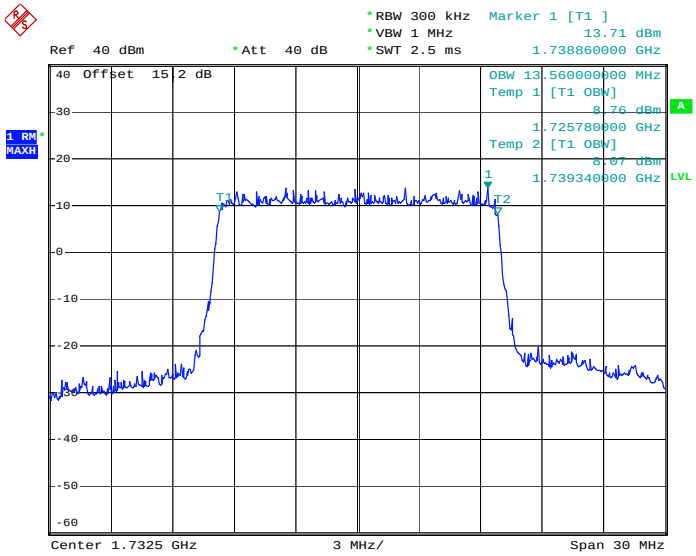


Date: 14.OCT.2012 12:45:08

Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

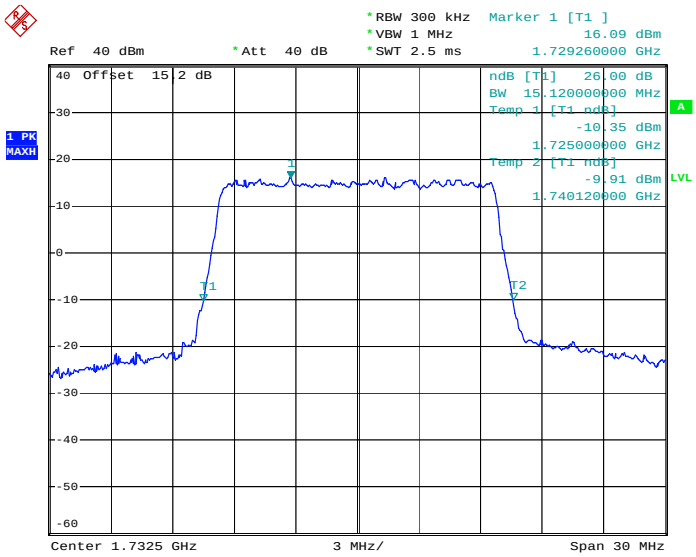
for QPSK-RB Size 75, RB Offset 0



Date: 14.OCT.2012 17:16:36

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 75, RB Offset 0

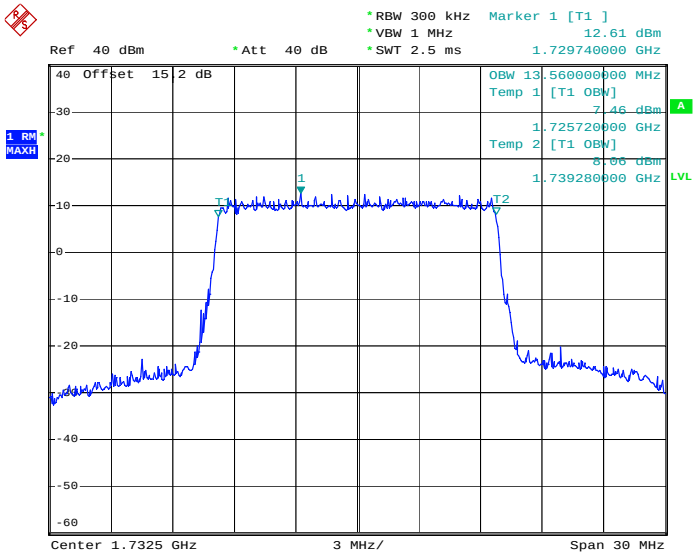


Date: 14.OCT.2012 13:02:44

Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

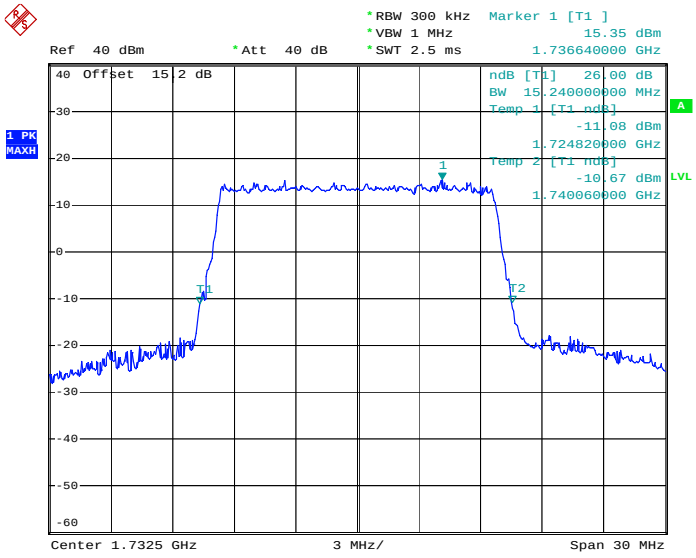
for 16QAM-RB Size 75, RB Offset 0



Date: 14.OCT.2012 17:16:18

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 75, RB Offset 0

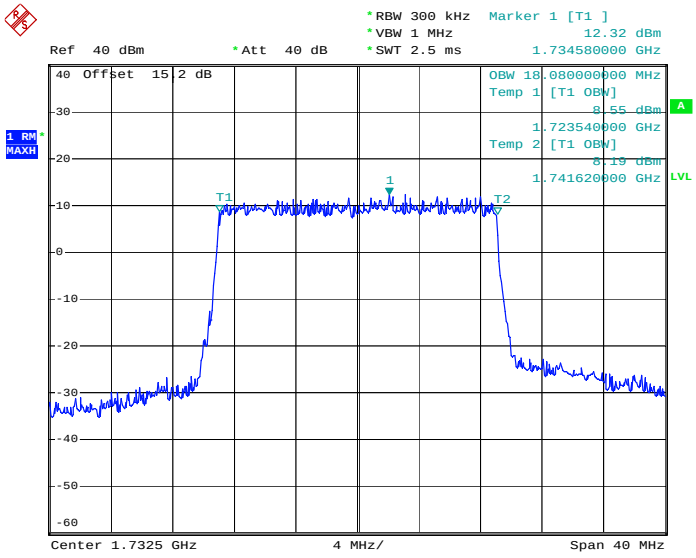


Date: 14.OCT.2012 13:03:18

Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

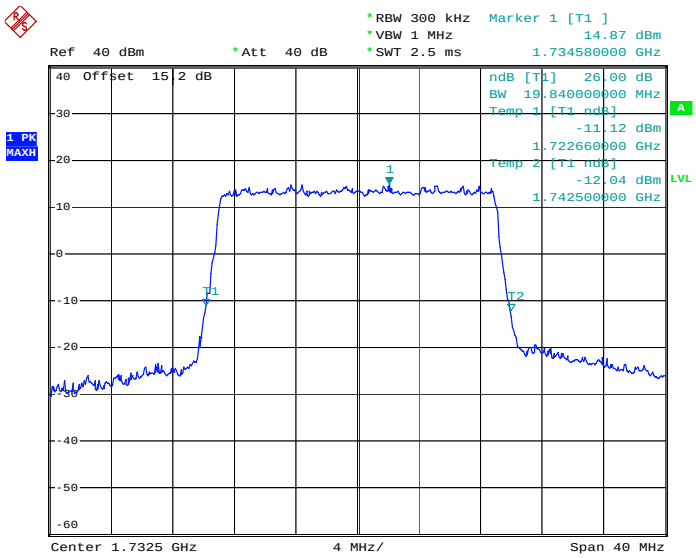
for QPSK-RB Size 100, RB Offset 0



Date: 14.OCT.2012 17:20:48

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for QPSK-RB Size 100, RB Offset 0

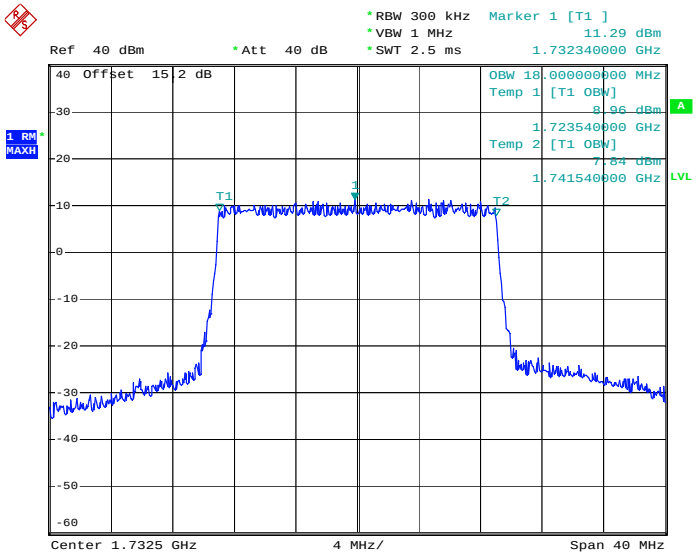


Date: 14.OCT.2012 13:04:58

Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175 (1732.5 MHz)

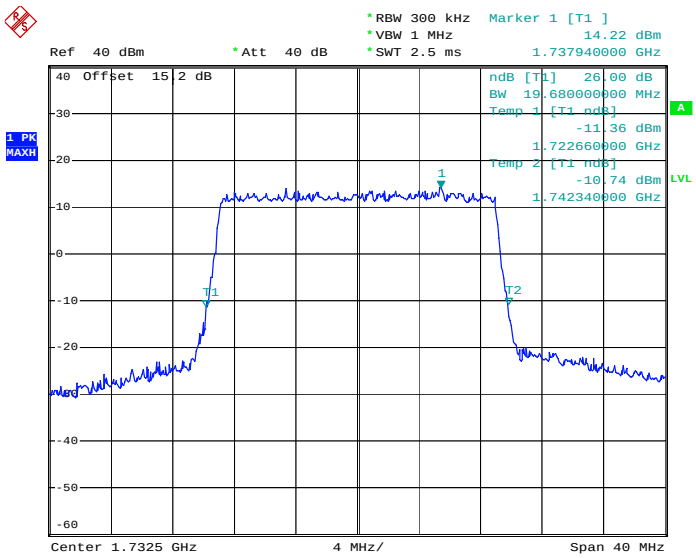
for 16QAM-RB Size 100, RB Offset 0



Date: 14.OCT.2012 17:20:32

26dB Bandwidth Plot on Channel 20175 (1732.5 MHz)

for 16QAM-RB Size 100, RB Offset 0



Date: 14.OCT.2012 13:03:57

3.4 Conducted Band Edge and Spurious Emission Measurement

3.4.1 Limit

For operations in band 4, the FCC limit is

$43 + 10\log_{10}(P[Watts])$ dB = -13 dBm in a 1 MHz bandwidth.

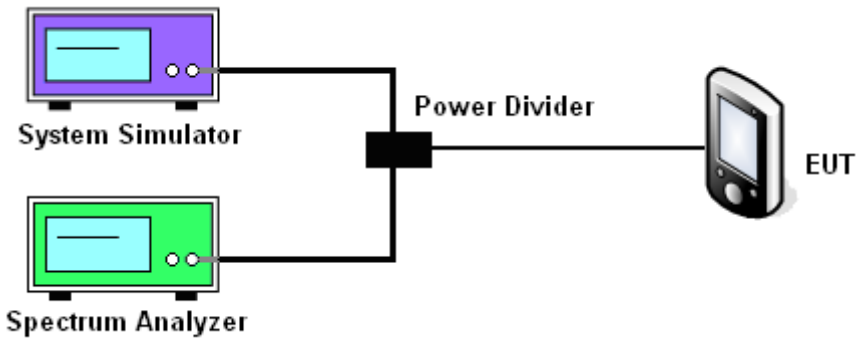
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via power divider.
2. The conducted spurious emission for the whole frequency range was taken.

3.4.4 Test Setup

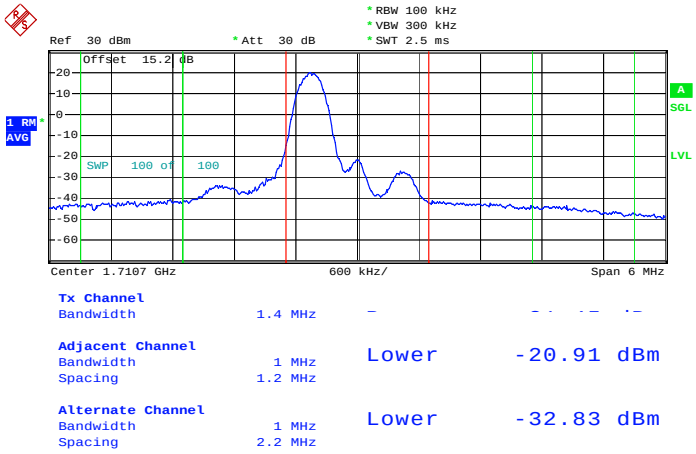


3.4.5 Test Plots of Conducted Band-Edge Emission

Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK

Lower Band Edge Plot on Channel 19957 (1710.7 MHz)

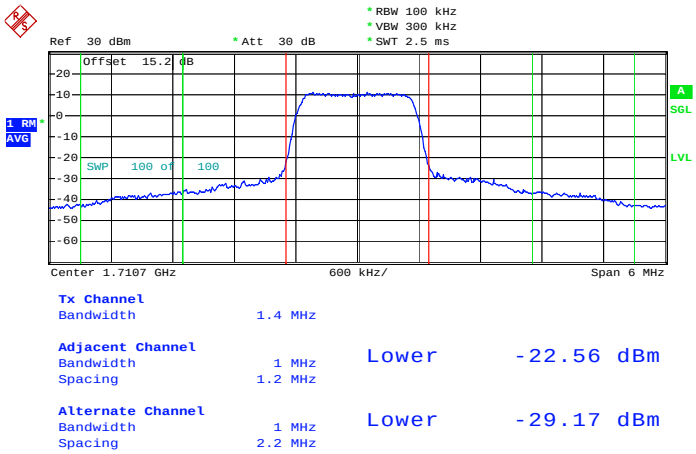
for QPSK-RB Size 1, RB Offset 0



Date: 14.OCT.2012 13:22:51

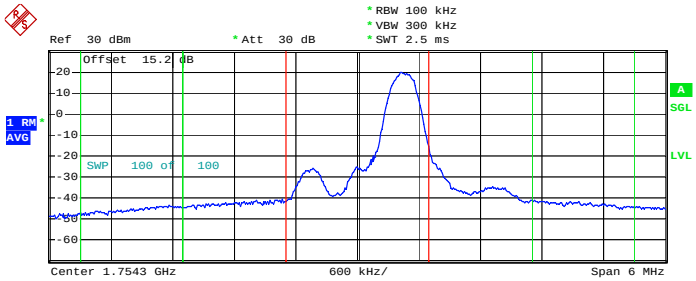
Lower Band Edge Plot on Channel 19957 (1710.7 MHz)

for QPSK-RB Size 6, RB Offset 0



Date: 14.OCT.2012 13:23:54

Higher Band Edge Plot on Channel 20393 (1754.3 MHz) for QPSK-RB Size 1, RB Offset 5



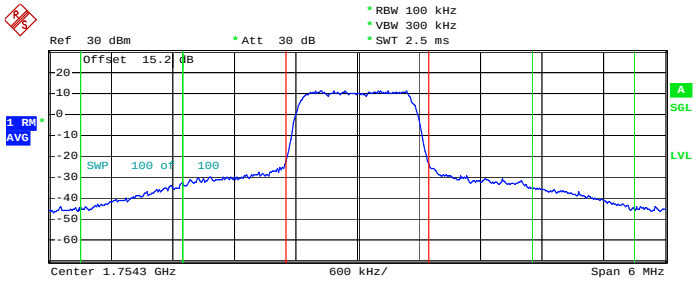
Tx Channel
Bandwidth 1.4 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 1.2 MHz Upper -19.82 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 2.2 MHz Upper -33.03 dBm

Date: 14.OCT.2012 13:27:14

Higher Band Edge Plot on Channel 20393 (1754.3 MHz) for QPSK-RB Size 6, RB Offset 0



Tx Channel
Bandwidth 1.4 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 1.2 MHz Upper -20.67 dBm

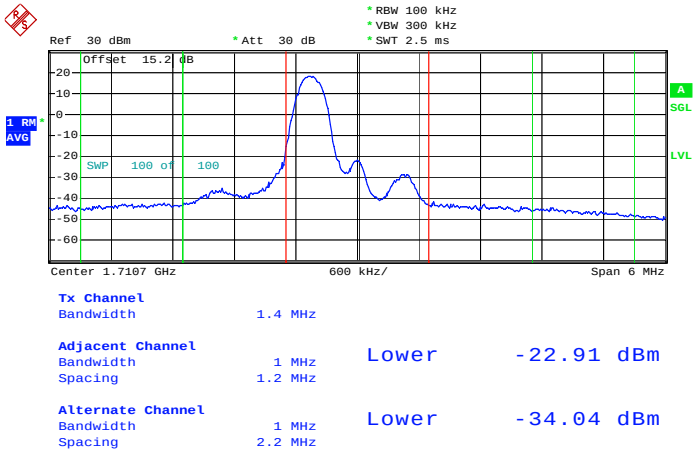
Alternate Channel
Bandwidth 1 MHz
Spacing 2.2 MHz Upper -28.59 dBm

Date: 14.OCT.2012 13:26:28

Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM

Lower Band Edge Plot on Channel 19957 (1710.7 MHz)

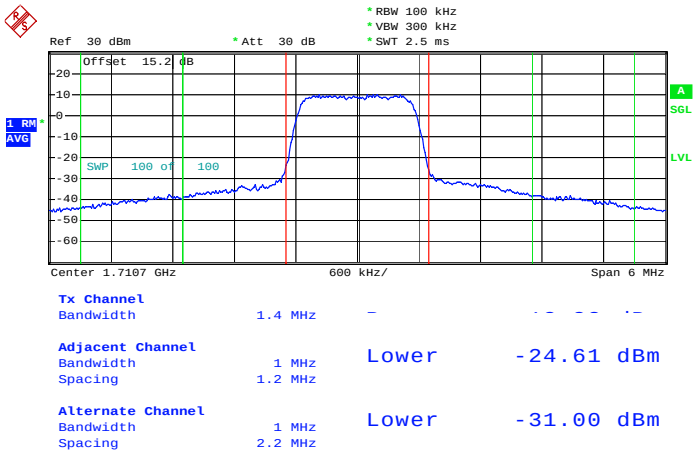
for 16QAM -RB Size 1, RB Offset 0



Date: 14.OCT.2012 13:22:39

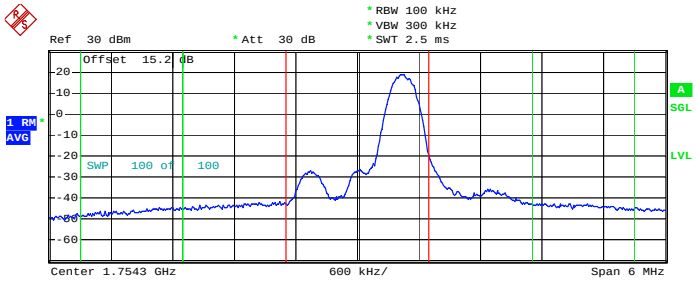
Lower Band Edge Plot on Channel 19957 (1710.7 MHz)

for 16QAM -RB Size 6, RB Offset 0



Date: 14.OCT.2012 13:24:09

Higher Band Edge Plot on Channel 20393 (1754.3 MHz) for 16QAM -RB Size 1, RB Offset 5



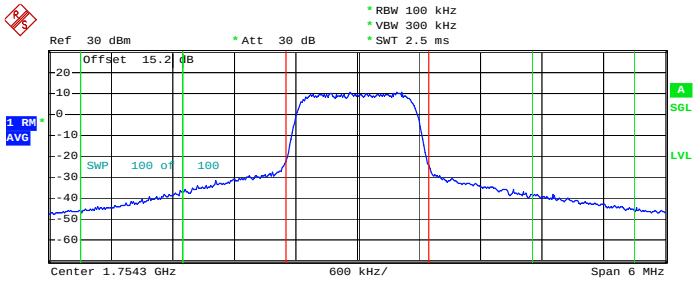
Tx Channel
Bandwidth 1.4 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 1.2 MHz Upper -22.91 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 2.2 MHz Upper -34.12 dBm

Date: 14.OCT.2012 13:27:27

Higher Band Edge Plot on Channel 20393 (1754.3 MHz) for 16QAM -RB Size 6, RB Offset 0



Tx Channel
Bandwidth 1.4 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 1.2 MHz Upper -22.94 dBm

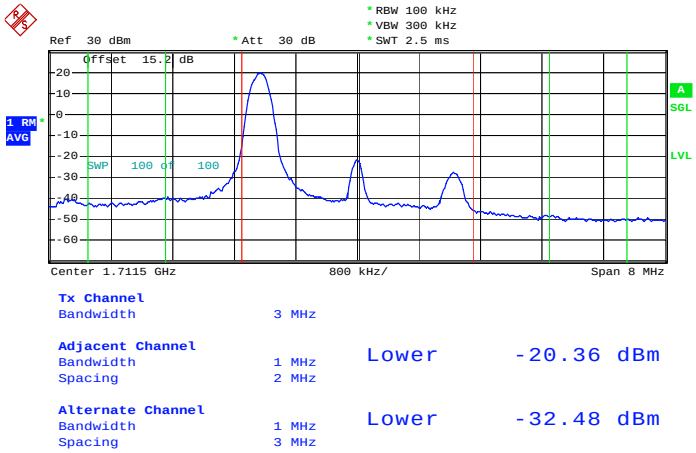
Alternate Channel
Bandwidth 1 MHz
Spacing 2.2 MHz Upper -31.57 dBm

Date: 14.OCT.2012 13:26:06

Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK

Lower Band Edge Plot on Channel 19965 (1711.5 MHz)

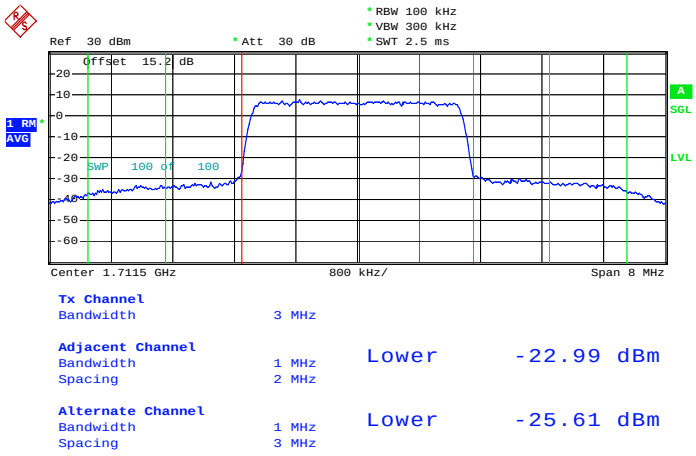
for QPSK-RB Size 1, RB Offset 0



Date: 14.OCT.2012 13:30:58

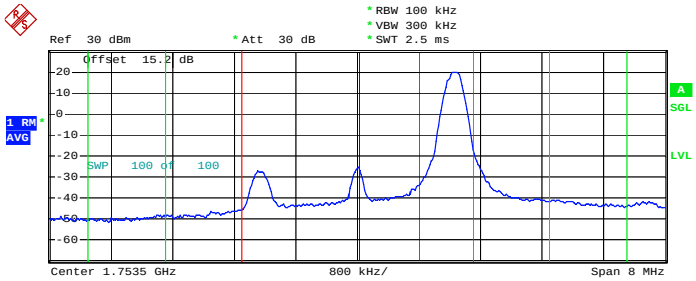
Lower Band Edge Plot on Channel 19965 (1711.5 MHz)

for QPSK-RB Size 15, RB Offset 0



Date: 14.OCT.2012 13:31:21

Higher Band Edge Plot on Channel 20385 (1753.5 MHz) for QPSK-RB Size 1, RB Offset 14



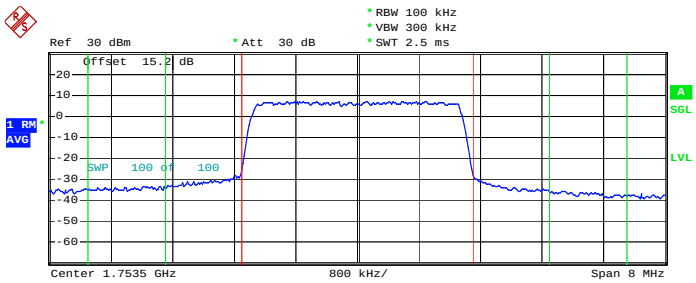
Tx Channel
Bandwidth 3 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 2 MHz Upper -18.96 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 3 MHz Upper -32.89 dBm

Date: 14.OCT.2012 13:33:47

Higher Band Edge Plot on Channel 20385 (1753.5 MHz) for QPSK-RB Size 15, RB Offset 0



Tx Channel
Bandwidth 3 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 2 MHz Upper -23.51 dBm

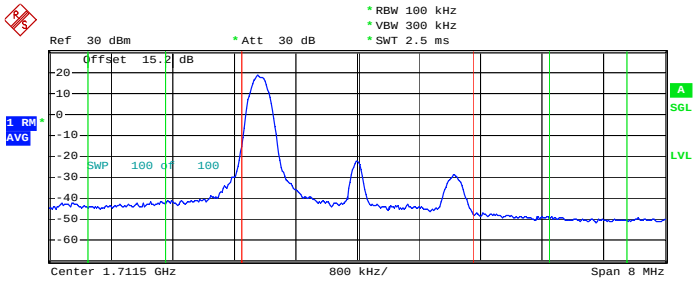
Alternate Channel
Bandwidth 1 MHz
Spacing 3 MHz Upper -27.29 dBm

Date: 14.OCT.2012 13:34:14

Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM

Lower Band Edge Plot on Channel 19965 (1711.5 MHz)

for 16QAM -RB Size 1, RB Offset 0



Tx Channel
Bandwidth 3 MHz

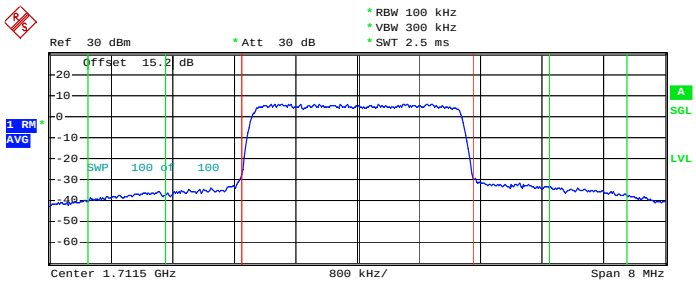
Adjacent Channel
Bandwidth 1 MHz
Spacing 2 MHz
Lower -20.68 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 3 MHz
Lower -33.63 dBm

Date: 14.OCT.2012 13:30:45

Lower Band Edge Plot on Channel 19965 (1711.5 MHz)

for 16QAM -RB Size 15, RB Offset 0



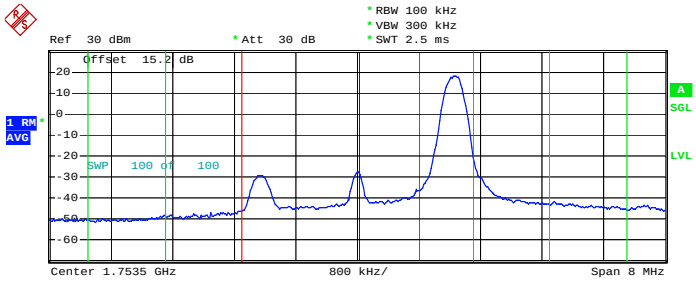
Tx Channel
Bandwidth 3 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 2 MHz
Lower -24.93 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 3 MHz
Lower -28.03 dBm

Date: 14.OCT.2012 13:31:52

Higher Band Edge Plot on Channel 20385 (1753.5 MHz) for 16QAM -RB Size 1, RB Offset 14



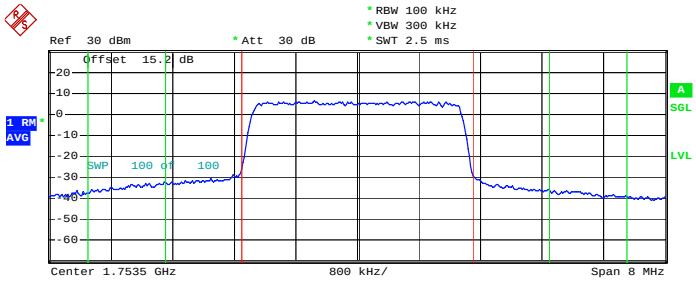
Tx Channel
Bandwidth 3 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 2 MHz Upper -22.35 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 3 MHz Upper -34.09 dBm

Date: 14.OCT.2012 13:33:34

Higher Band Edge Plot on Channel 20385 (1753.5 MHz) for 16QAM -RB Size 15, RB Offset 0



Tx Channel
Bandwidth 3 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 2 MHz Upper -24.36 dBm

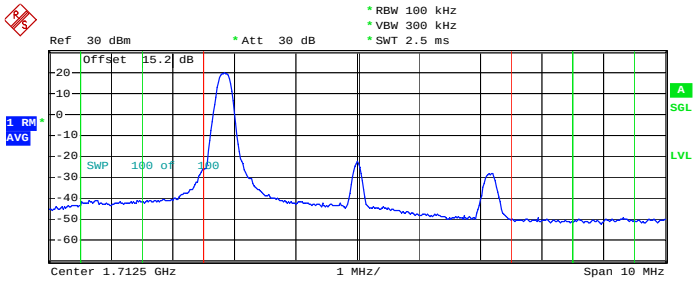
Alternate Channel
Bandwidth 1 MHz
Spacing 3 MHz Upper -28.14 dBm

Date: 14.OCT.2012 13:34:32

Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK

Lower Band Edge Plot on Channel 19975 (1712.5 MHz)

for QPSK-RB Size 1, RB Offset 0



Tx Channel
Bandwidth 5 MHz

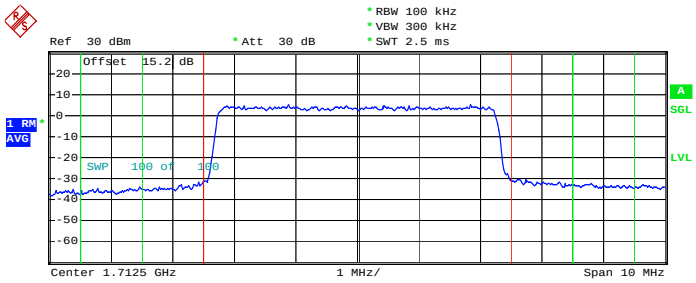
Adjacent Channel
Bandwidth 1 MHz
Spacing 3 MHz
Lower -25.92 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 4 MHz
Lower -32.35 dBm

Date: 14.OCT.2012 13:37:45

Lower Band Edge Plot on Channel 19975 (1712.5 MHz)

for QPSK-RB Size 25, RB Offset 0



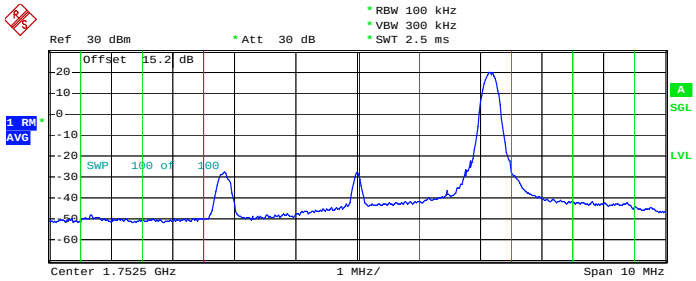
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 3 MHz
Lower -24.61 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 4 MHz
Lower -26.23 dBm

Date: 14.OCT.2012 13:38:21

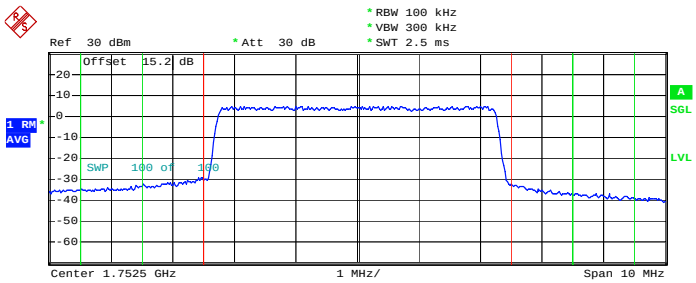
Higher Band Edge Plot on Channel 20375 (1752.5 MHz) for QPSK-RB Size 1, RB Offset 24



Tx Channel			
Bandwidth	5 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-25.93 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	4 MHz	Upper	-33.07 dBm

Date: 14.OCT.2012 13:40:31

Higher Band Edge Plot on Channel 20375 (1752.5 MHz) for QPSK-RB Size 25, RB Offset 0



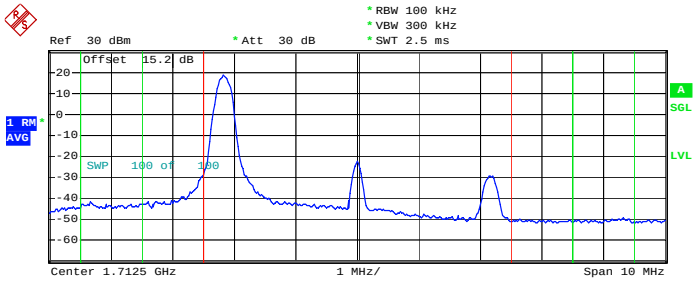
Tx Channel			
Bandwidth	5 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-25.41 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	4 MHz	Upper	-28.33 dBm

Date: 14.OCT.2012 13:40:57

Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM

Lower Band Edge Plot on Channel 19975 (1712.5 MHz)

for 16QAM -RB Size 1, RB Offset 0



Tx Channel
Bandwidth 5 MHz

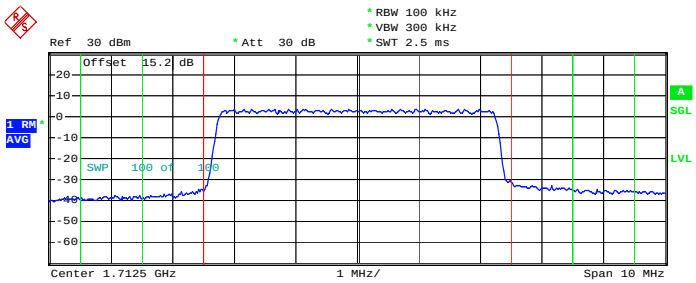
Adjacent Channel
Bandwidth 1 MHz
Spacing 3 MHz
Lower -28.03 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 4 MHz
Lower -33.81 dBm

Date: 14.OCT.2012 13:37:22

Lower Band Edge Plot on Channel 19975 (1712.5 MHz)

for 16QAM -RB Size 25, RB Offset 0



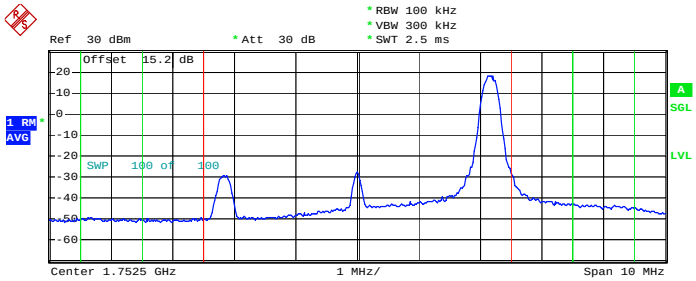
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 3 MHz
Lower -27.46 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 4 MHz
Lower -29.11 dBm

Date: 14.OCT.2012 13:38:36

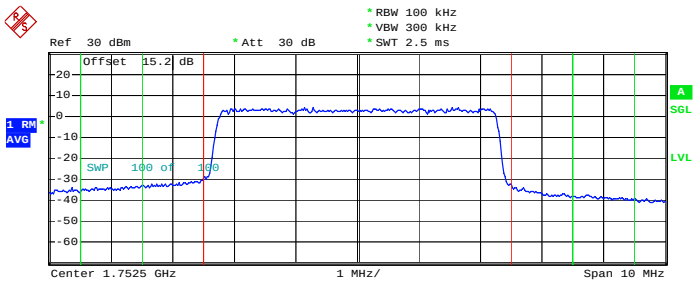
Higher Band Edge Plot on Channel 20375 (1752.5 MHz) for 16QAM -RB Size 1, RB Offset 24



Tx Channel			
Bandwidth	5 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-28.00 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	4 MHz	Upper	-34.20 dBm

Date: 14.OCT.2012 13:40:17

Higher Band Edge Plot on Channel 20375 (1752.5 MHz) for 16QAM -RB Size 25, RB Offset 0



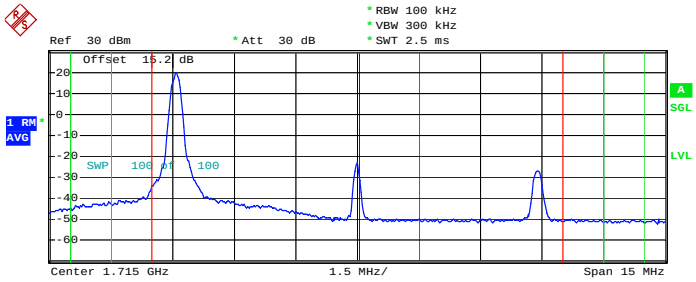
Tx Channel			
Bandwidth	5 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-26.50 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	4 MHz	Upper	-29.04 dBm

Date: 14.OCT.2012 13:41:26

Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK

Lower Band Edge Plot on Channel 20000 (1715.0 MHz)

for QPSK-RB Size 1, RB Offset 0

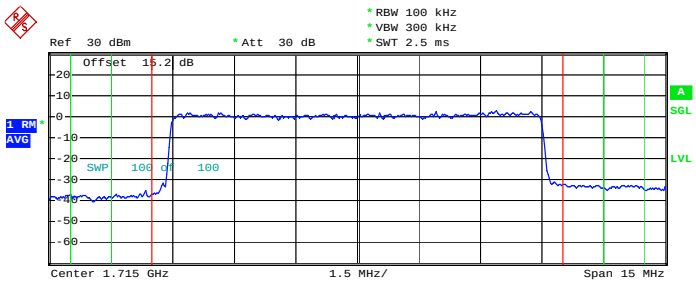


Tx Channel			
Bandwidth	10 MHz		
Adjacent Channel			
Bandwidth	1 MHz	Lower	-30.74 dBm
Spacing	5.5 MHz		
Alternate Channel			
Bandwidth	1 MHz	Lower	-33.66 dBm
Spacing	6.5 MHz		

Date: 14.OCT.2012 13:44:30

Lower Band Edge Plot on Channel 20000 (1715.0 MHz)

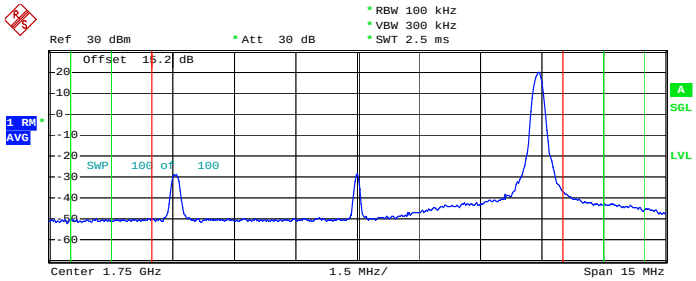
for QPSK-RB Size 50, RB Offset 0



Tx Channel			
Bandwidth	10 MHz		
Adjacent Channel			
Bandwidth	1 MHz	Lower	-28.01 dBm
Spacing	5.5 MHz		
Alternate Channel			
Bandwidth	1 MHz	Lower	-28.74 dBm
Spacing	6.5 MHz		

Date: 14.OCT.2012 13:44:57

Higher Band Edge Plot on Channel 20350 (1750.0 MHz) for QPSK-RB Size 1, RB Offset 49



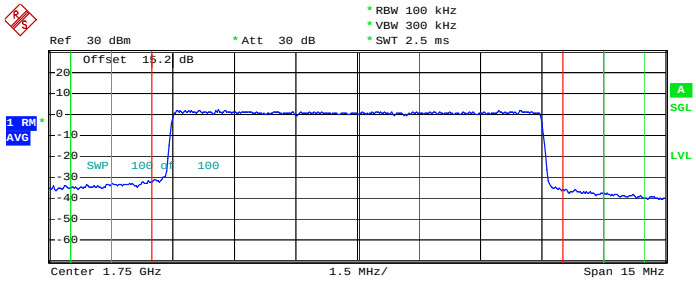
Tx Channel
Bandwidth 10 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 5.5 MHz Upper -31.11 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 6.5 MHz Upper -34.16 dBm

Date: 14.OCT.2012 14:29:33

Higher Band Edge Plot on Channel 20350 (1750.0 MHz) for QPSK-RB Size 50, RB Offset 0



Tx Channel
Bandwidth 10 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 5.5 MHz Upper -27.34 dBm

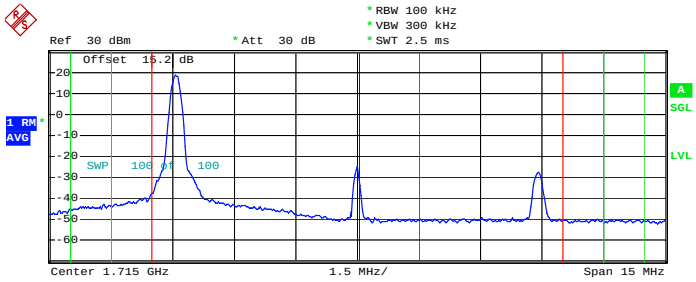
Alternate Channel
Bandwidth 1 MHz
Spacing 6.5 MHz Upper -29.00 dBm

Date: 14.OCT.2012 14:30:25

Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM

Lower Band Edge Plot on Channel 20000 (1715.0 MHz)

for 16QAM -RB Size 1, RB Offset 0



Tx Channel
Bandwidth 10 MHz

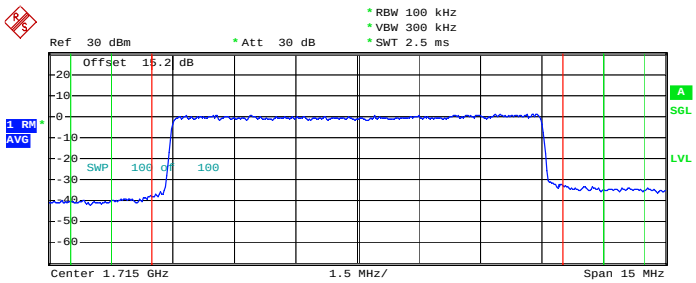
Adjacent Channel
Bandwidth 1 MHz
Spacing 5.5 MHz
Lower -31.78 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 6.5 MHz
Lower -34.65 dBm

Date: 14.OCT.2012 13:44:13

Lower Band Edge Plot on Channel 20000 (1715.0 MHz)

for 16QAM -RB Size 50, RB Offset 0



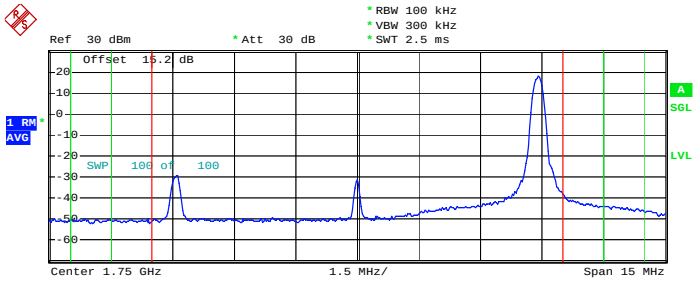
Tx Channel
Bandwidth 10 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 5.5 MHz
Lower -29.74 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 6.5 MHz
Lower -31.09 dBm

Date: 14.OCT.2012 13:45:10

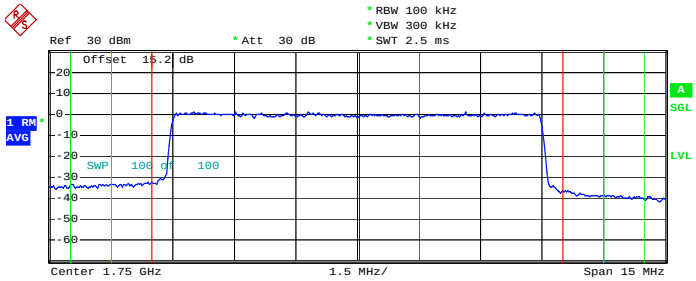
Higher Band Edge Plot on Channel 20350 (1750.0 MHz) for 16QAM -RB Size 1, RB Offset 49



Tx Channel			
Bandwidth	10 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	5.5 MHz	Upper	-32.36 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	6.5 MHz	Upper	-35.19 dBm

Date: 14.OCT.2012 14:29:53

Higher Band Edge Plot on Channel 20350 (1750.0 MHz) for 16QAM -RB Size 50, RB Offset 0



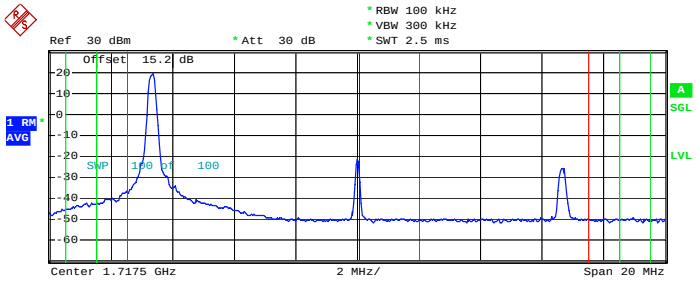
Tx Channel			
Bandwidth	10 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	5.5 MHz	Upper	-28.23 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	6.5 MHz	Upper	-29.67 dBm

Date: 14.OCT.2012 14:30:11

Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK

Lower Band Edge Plot on Channel 20025 (1717.5 MHz)

for QPSK-RB Size 1, RB Offset 0



Tx Channel
Bandwidth 15 MHz

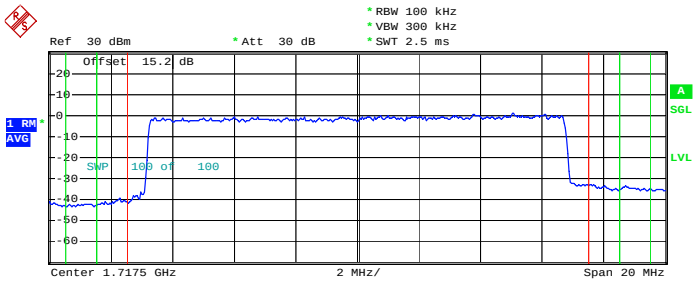
Adjacent Channel
Bandwidth 1 MHz
Spacing 8 MHz
Lower -30.46 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 9 MHz
Lower -33.98 dBm

Date: 14.OCT.2012 13:52:40

Lower Band Edge Plot on Channel 20025 (1717.5 MHz)

for QPSK-RB Size 75, RB Offset 0



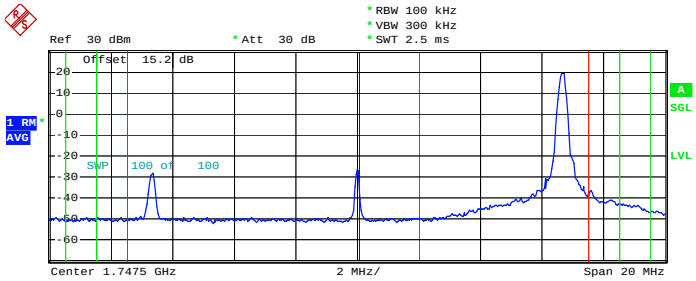
Tx Channel
Bandwidth 15 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 8 MHz
Lower -31.51 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 9 MHz
Lower -32.88 dBm

Date: 14.OCT.2012 13:53:29

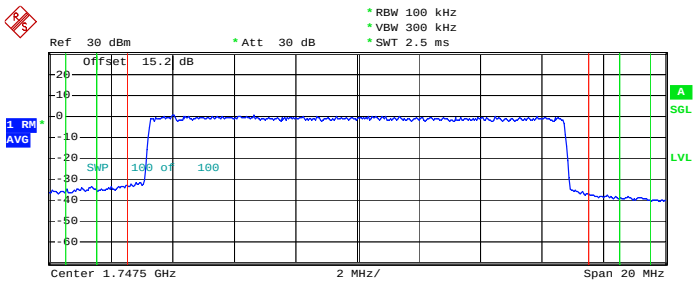
Higher Band Edge Plot on Channel 20325 (1747.5 MHz) for QPSK-RB Size 1, RB Offset 74



Tx Channel			
Bandwidth	15 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	8 MHz	Upper	-30.48 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	9 MHz	Upper	-34.27 dBm

Date: 14.OCT.2012 13:55:51

Higher Band Edge Plot on Channel 20325 (1747.5 MHz) for QPSK-RB Size 75, RB Offset 0



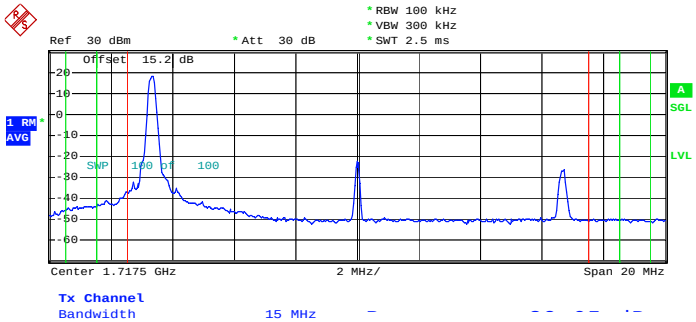
Tx Channel			
Bandwidth	15 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	8 MHz	Upper	-28.40 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	9 MHz	Upper	-29.30 dBm

Date: 14.OCT.2012 13:54:26

Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM

Lower Band Edge Plot on Channel 20025 (1717.5 MHz)

for 16QAM -RB Size 1, RB Offset 0

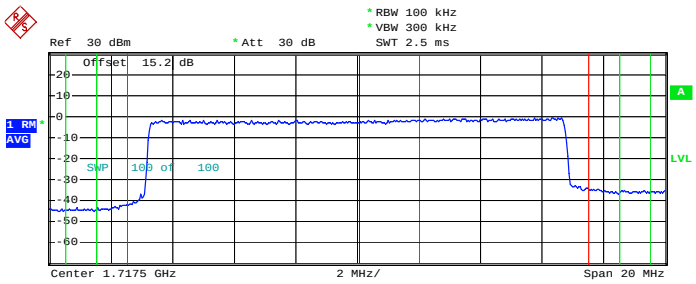


Tx Channel			
Bandwidth	15 MHz		
Adjacent Channel			
Bandwidth	1 MHz	Lower	-31.70 dBm
Spacing	8 MHz		
Alternate Channel			
Bandwidth	1 MHz	Lower	-34.80 dBm
Spacing	9 MHz		

Date: 14.OCT.2012 13:52:25

Lower Band Edge Plot on Channel 20025 (1717.5 MHz)

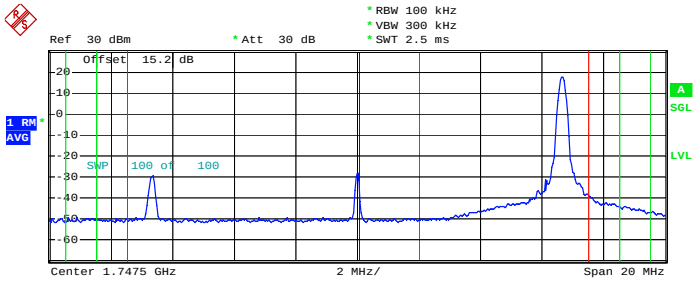
for 16QAM -RB Size 75, RB Offset 0



Tx Channel			
Bandwidth	15 MHz		
Adjacent Channel			
Bandwidth	1 MHz	Lower	-33.72 dBm
Spacing	8 MHz		
Alternate Channel			
Bandwidth	1 MHz	Lower	-34.67 dBm
Spacing	9 MHz		

Date: 14.OCT.2012 18:50:08

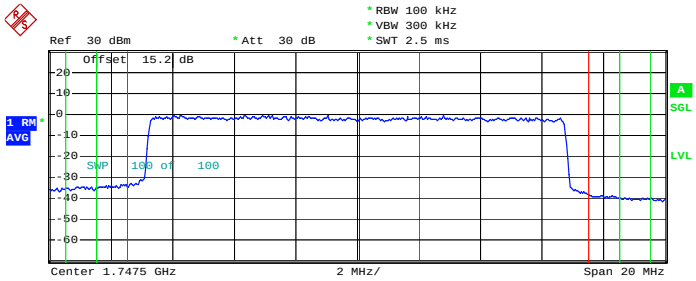
Higher Band Edge Plot on Channel 20325 (1747.5 MHz) for 16QAM -RB Size 1, RB Offset 74



Tx Channel			
Bandwidth	15 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	8 MHz	Upper	-32.10 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	9 MHz	Upper	-35.40 dBm

Date: 14.OCT.2012 13:55:29

Higher Band Edge Plot on Channel 20325 (1747.5 MHz) for 16QAM -RB Size 75, RB Offset 0



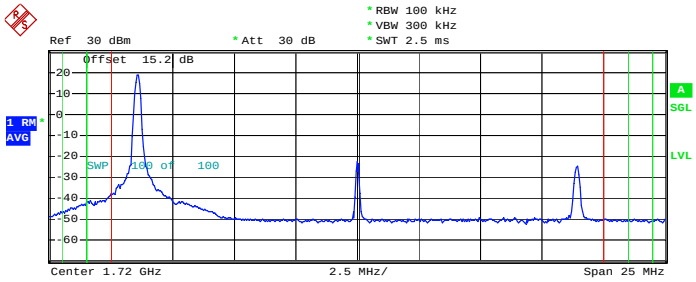
Tx Channel			
Bandwidth	15 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	8 MHz	Upper	-29.39 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	9 MHz	Upper	-30.57 dBm

Date: 14.OCT.2012 13:54:47

Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK

Lower Band Edge Plot on Channel 20050 (1720.0 MHz)

for QPSK-RB Size 1, RB Offset 0



Tx Channel
Bandwidth 20 MHz

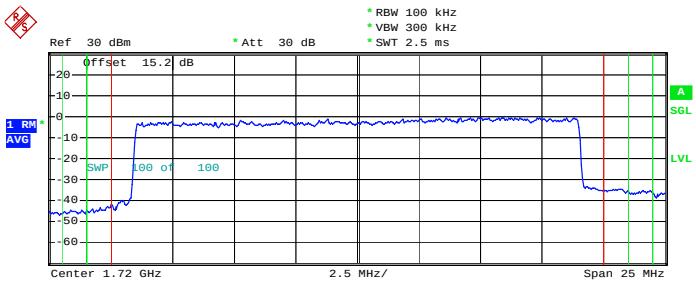
Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz
Lower -31.37 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz
Lower -34.74 dBm

Date: 14.OCT.2012 13:58:03

Lower Band Edge Plot on Channel 20050 (1720.0 MHz)

for QPSK-RB Size 100, RB Offset 0



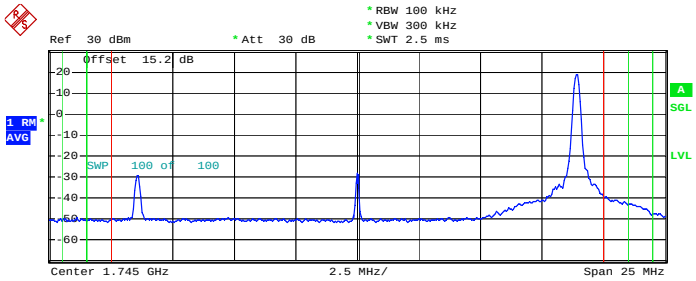
Tx Channel
Bandwidth 20 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz
Lower -34.67 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz
Lower -35.67 dBm

Date: 14.OCT.2012 13:59:14

Higher Band Edge Plot on Channel 20300 (1745.0 MHz) for QPSK-RB Size 1, RB Offset 99



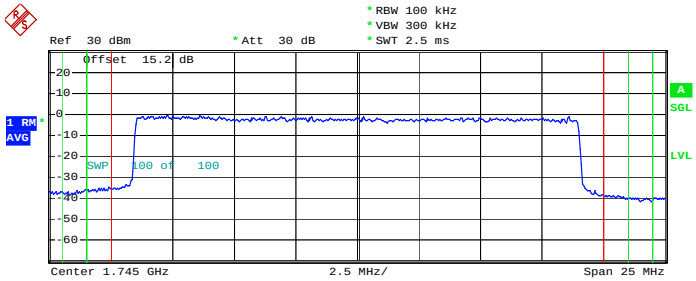
Tx Channel
Bandwidth 20 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz Upper -31.45 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz Upper -34.61 dBm

Date: 14.OCT.2012 14:00:42

Higher Band Edge Plot on Channel 20300 (1745.0 MHz) for QPSK-RB Size 100, RB Offset 0



Tx Channel
Bandwidth 20 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz Upper -29.51 dBm

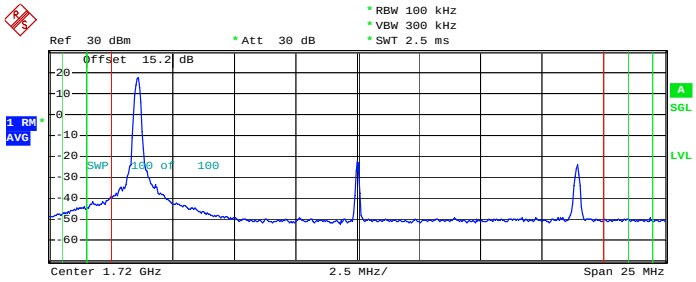
Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz Upper -30.54 dBm

Date: 14.OCT.2012 14:01:45

Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM

Lower Band Edge Plot on Channel 20050 (1720.0 MHz)

for 16QAM -RB Size 1, RB Offset 0



Tx Channel
Bandwidth 20 MHz

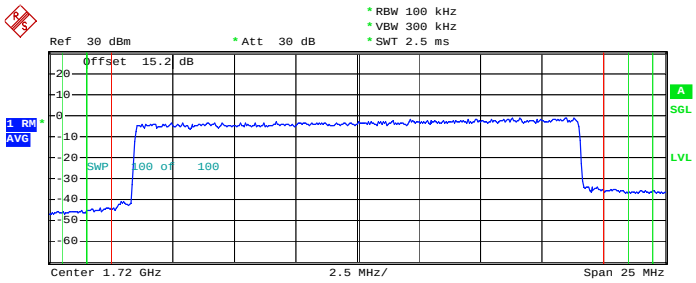
Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz
Lower -32.56 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz
Lower -35.79 dBm

Date: 14.OCT.2012 13:58:18

Lower Band Edge Plot on Channel 20050 (1720.0 MHz)

for 16QAM -RB Size 100, RB Offset 0



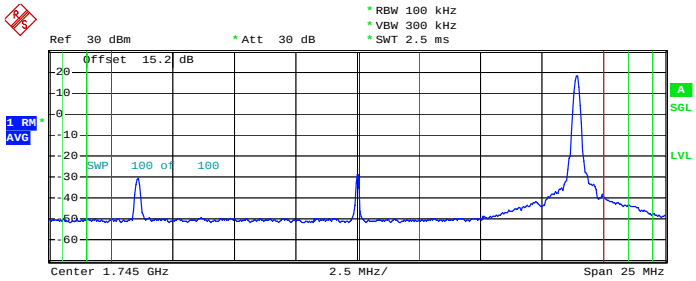
Tx Channel
Bandwidth 20 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz
Lower -34.98 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz
Lower -36.17 dBm

Date: 14.OCT.2012 13:58:58

Higher Band Edge Plot on Channel 20300 (1745.0 MHz) for 16QAM -RB Size 1, RB Offset 99



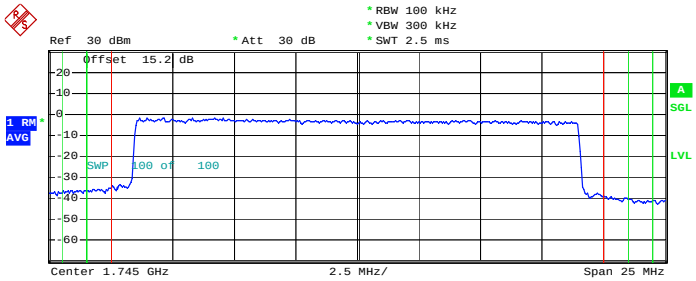
Tx Channel
Bandwidth 20 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz Upper -32.34 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz Upper -35.57 dBm

Date: 14.OCT.2012 14:01:01

Higher Band Edge Plot on Channel 20300 (1745.0 MHz) for 16QAM -RB Size 100, RB Offset 0



Tx Channel
Bandwidth 20 MHz

Adjacent Channel
Bandwidth 1 MHz
Spacing 10.5 MHz Upper -30.33 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 11.5 MHz Upper -31.53 dBm

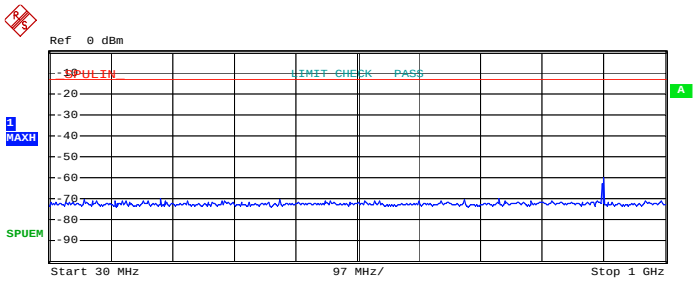
Date: 14.OCT.2012 14:01:25

3.4.6 Test Plots of Spurious Emission

Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
Frequency :	1710.7	Channel :	19957

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

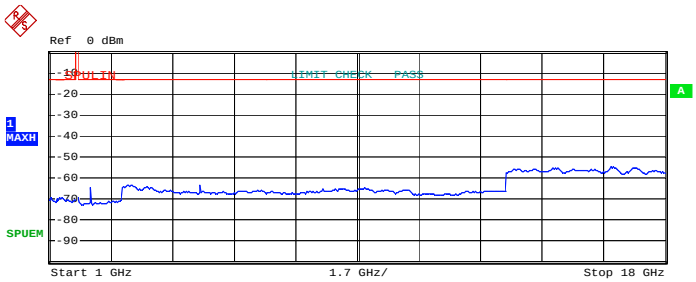


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.030000 M	-60.18	-47.18

Date: 14.OCT.2012 15:18:48

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



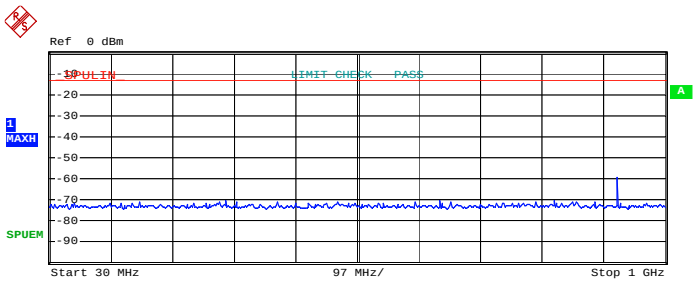
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.021971 G	-69.12	-56.12
1.768 G	3.000 G	1.00 M	2.110751 G	-64.85	-51.85
3.000 G	7.000 G	1.00 M	3.262000 G	-63.33	-50.33
7.000 G	13.600 G	1.00 M	9.689500 G	-64.56	-51.56
13.600 G	18.000 G	1.00 M	16.563400 G	-54.65	-41.65

Date: 14.OCT.2012 15:22:15

Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

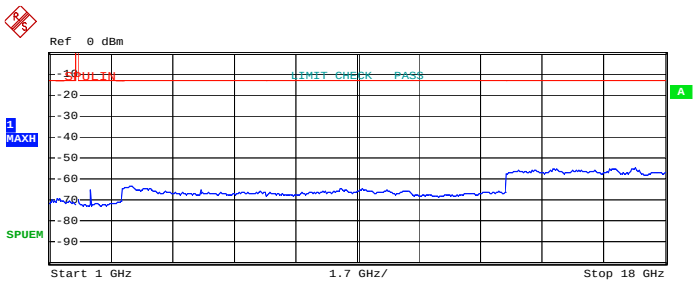


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	923.370000 M	-59.24	-46.24

Date: 14.OCT.2012 15:24:09

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



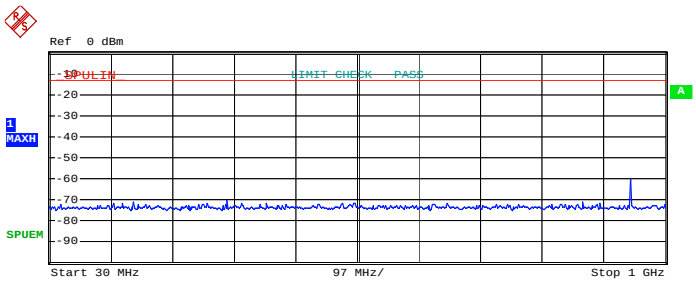
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.263306 G	-69.39	-56.39
1.768 G	3.000 G	1.00 M	2.132320 G	-65.20	-52.20
3.000 G	7.000 G	1.00 M	3.242000 G	-63.25	-50.25
7.000 G	13.600 G	1.00 M	9.036100 G	-64.68	-51.68
13.600 G	18.000 G	1.00 M	17.172800 G	-54.60	-41.60

Date: 14.OCT.2012 15:25:55

Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
Frequency :	1754.3	Channel :	20393

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

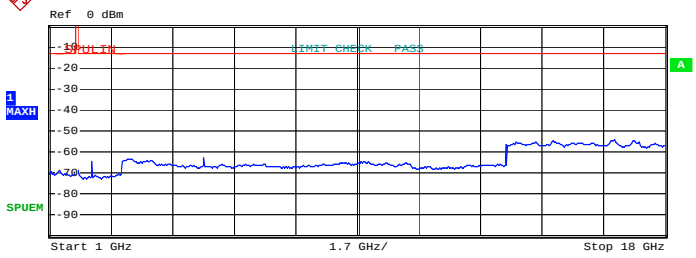


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	945.680000 M	-60.19	-47.19

Date: 14.OCT.2012 15:28:09

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



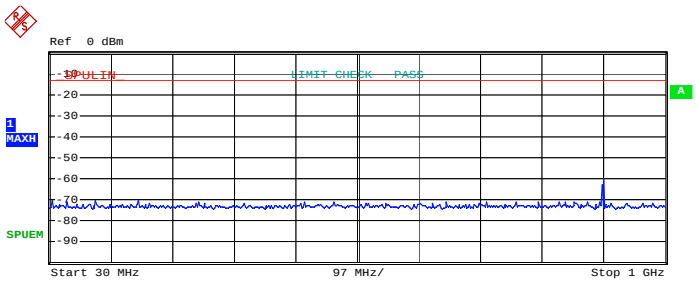
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.263306 G	-69.00	-56.00
1.768 G	3.000 G	1.00 M	2.154505 G	-64.69	-51.69
3.000 G	7.000 G	1.00 M	5.262000 G	-62.67	-49.67
7.000 G	13.600 G	1.00 M	9.692800 G	-64.67	-51.67
13.600 G	18.000 G	1.00 M	16.589800 G	-54.38	-41.38

Date: 14.OCT.2012 15:26:50

Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1710.7	Channel :	19957

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

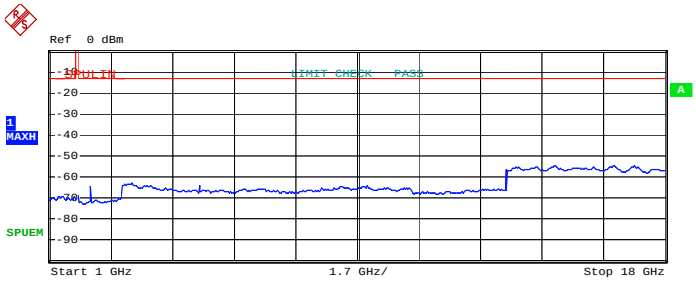


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.030000 M	-60.05	-47.05

Date: 14.OCT.2012 15:22:54

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



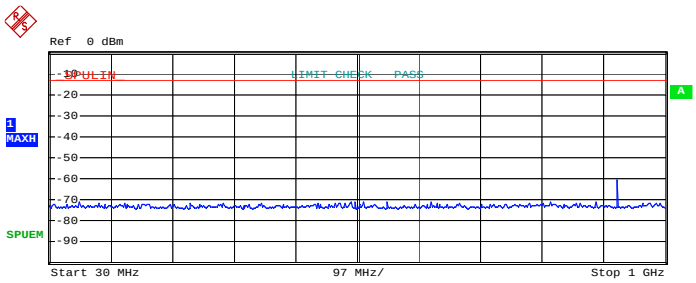
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.340729 G	-69.09	-56.09
1.768 G	3.000 G	1.00 M	2.110751 G	-64.74	-51.74
3.000 G	7.000 G	1.00 M	3.262000 G	-63.00	-50.00
7.000 G	13.600 G	1.00 M	9.762100 G	-64.33	-51.33
13.600 G	18.000 G	1.00 M	17.148600 G	-54.39	-41.39

Date: 14.OCT.2012 15:21:44

Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

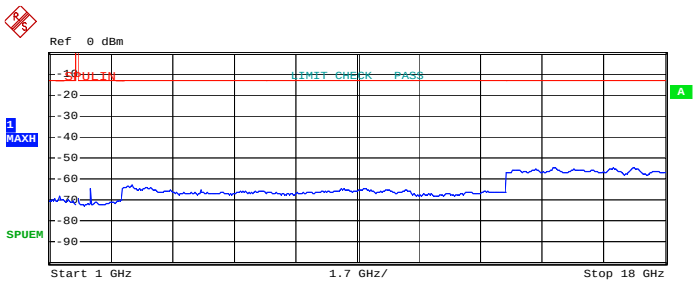


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	923.370000 M	-60.35	-47.35

Date: 14.OCT.2012 15:24:44

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



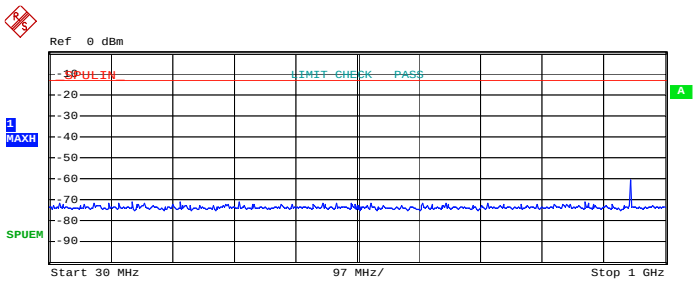
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.283534 G	-68.34	-55.34
1.768 G	3.000 G	1.00 M	2.132320 G	-64.43	-51.43
3.000 G	7.000 G	1.00 M	3.262000 G	-63.06	-50.06
7.000 G	13.600 G	1.00 M	9.042700 G	-64.76	-51.76
13.600 G	18.000 G	1.00 M	16.556800 G	-54.49	-41.49

Date: 14.OCT.2012 15:25:28

Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1754.3	Channel :	20393

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

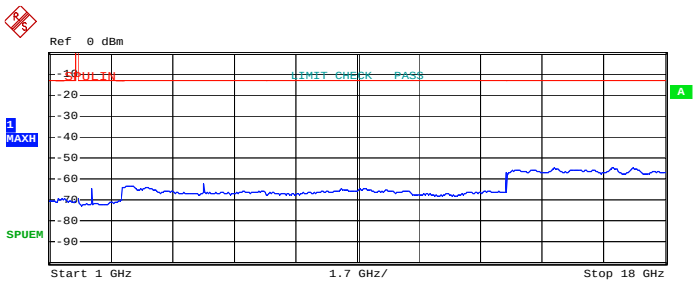


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	945.680000 M	-60.79	-47.79

Date: 14.OCT.2012 15:27:46

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



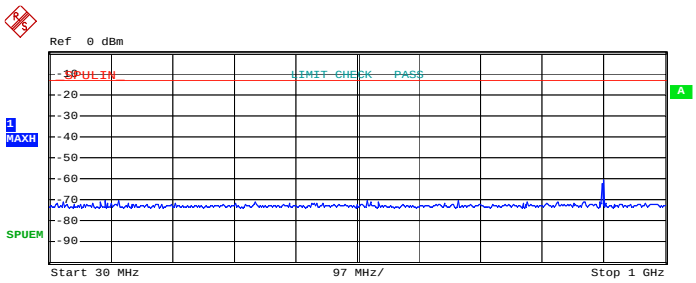
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.235406 G	-69.24	-56.24
1.768 G	3.000 G	1.00 M	2.154505 G	-64.36	-51.36
3.000 G	7.000 G	1.00 M	5.262000 G	-62.11	-49.11
7.000 G	13.600 G	1.00 M	9.692800 G	-64.59	-51.59
13.600 G	18.000 G	1.00 M	14.935400 G	-54.48	-41.48

Date: 14.OCT.2012 15:27:27

Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
Frequency :	1711.5	Channel :	19965

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

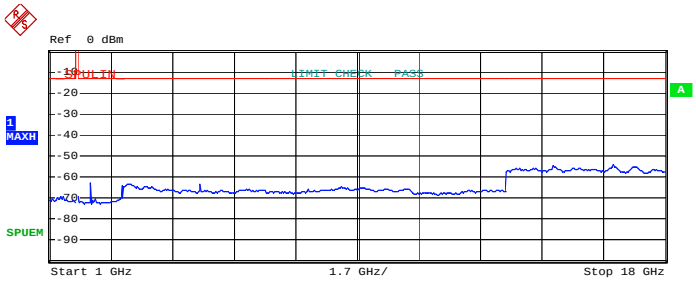


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.030000 M	-60.53	-47.53

Date: 14.OCT.2012 15:33:47

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



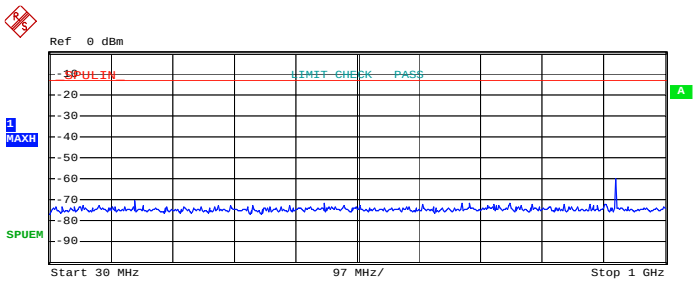
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.292601 G	-69.55	-56.55
1.768 G	3.000 G	1.00 M	2.111368 G	-62.78	-49.78
3.000 G	7.000 G	1.00 M	3.204000 G	-63.54	-50.54
7.000 G	13.600 G	1.00 M	9.069100 G	-64.77	-51.77
13.600 G	18.000 G	1.00 M	16.581000 G	-54.16	-41.16

Date: 14.OCT.2012 15:35:04

Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

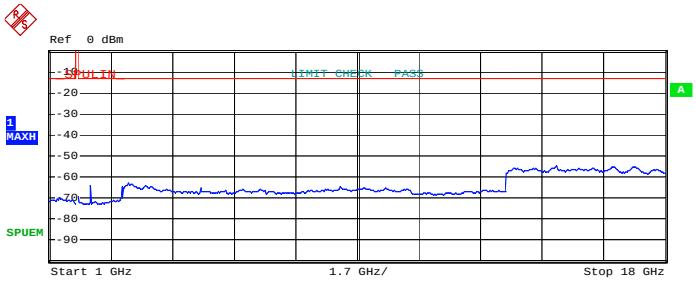


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	922.885000 M	-59.67	-46.67

Date: 14.OCT.2012 15:37:23

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



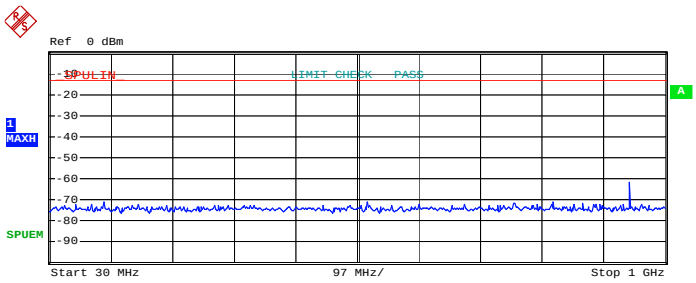
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.280395 G	-70.05	-57.05
1.768 G	3.000 G	1.00 M	2.132936 G	-64.19	-51.19
3.000 G	7.000 G	1.00 M	3.174000 G	-62.58	-49.58
7.000 G	13.600 G	1.00 M	9.029500 G	-64.82	-51.82
13.600 G	18.000 G	1.00 M	14.990400 G	-54.93	-41.93

Date: 14.OCT.2012 15:36:19

Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
Frequency :	1753.5	Channel :	20385

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

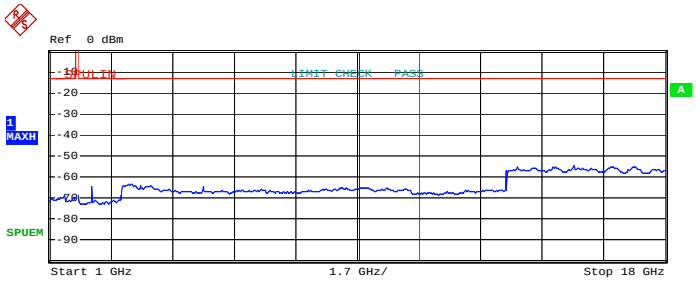


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	943.740000 M	-61.51	-48.51

Date: 14.OCT.2012 15:38:09

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



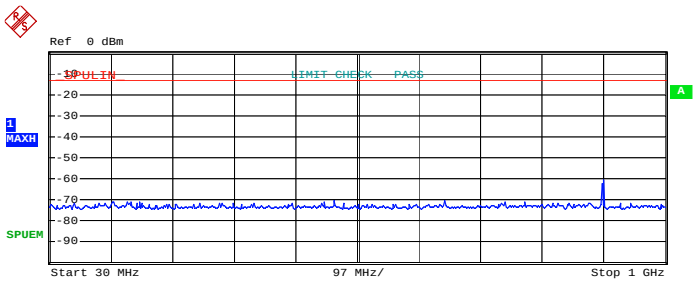
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.391995 G	-68.61	-55.61
1.768 G	3.000 G	1.00 M	2.153889 G	-64.87	-51.87
3.000 G	7.000 G	1.00 M	3.160000 G	-63.20	-50.20
7.000 G	13.600 G	1.00 M	9.626800 G	-64.98	-51.98
13.600 G	18.000 G	1.00 M	15.489800 G	-54.69	-41.69

Date: 14.OCT.2012 15:39:19

Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
Frequency :	1711.5	Channel :	19965

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

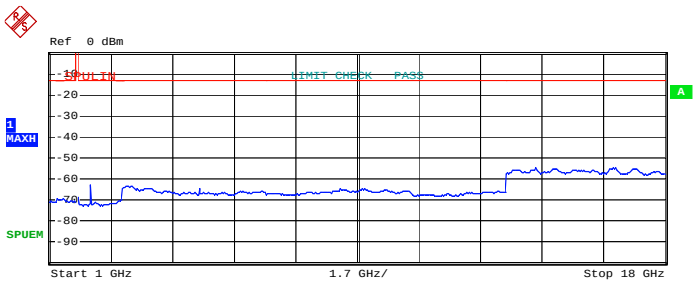


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.030000 M	-60.73	-47.73

Date: 14.OCT.2012 15:34:18

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



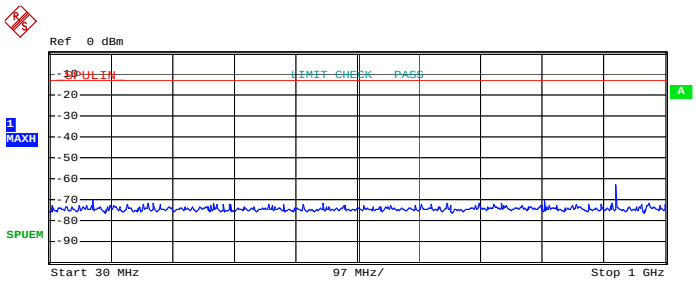
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.212389 G	-69.16	-56.16
1.768 G	3.000 G	1.00 M	2.111368 G	-63.03	-50.03
3.000 G	7.000 G	1.00 M	3.162000 G	-63.32	-50.32
7.000 G	13.600 G	1.00 M	9.699400 G	-64.51	-51.51
13.600 G	18.000 G	1.00 M	16.629400 G	-54.72	-41.72

Date: 14.OCT.2012 15:34:41

Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

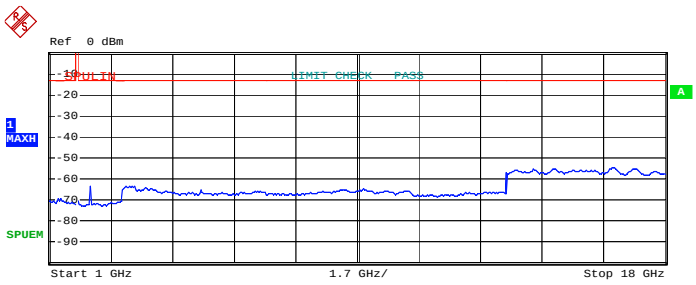


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	922.885000 M	-63.13	-50.13

Date: 14.OCT.2012 15:37:07

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



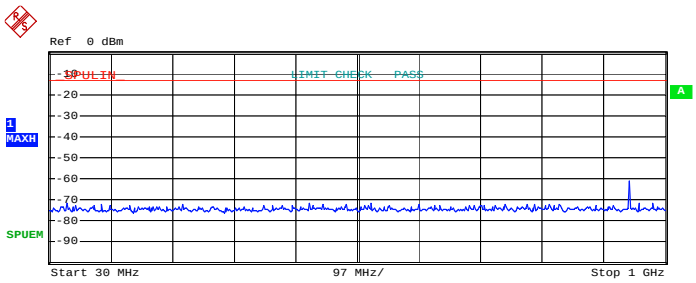
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.306900 G	-69.48	-56.48
1.768 G	3.000 G	1.00 M	2.132936 G	-63.36	-50.36
3.000 G	7.000 G	1.00 M	3.108000 G	-63.53	-50.53
7.000 G	13.600 G	1.00 M	9.669700 G	-64.86	-51.86
13.600 G	18.000 G	1.00 M	16.565600 G	-54.81	-41.81

Date: 14.OCT.2012 15:36:38

Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
Frequency :	1753.5	Channel :	20385

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

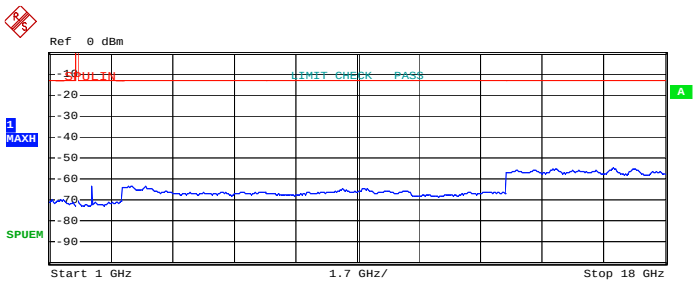


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	943.740000 M	-61.12	-48.12

Date: 14.OCT.2012 15:38:29

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



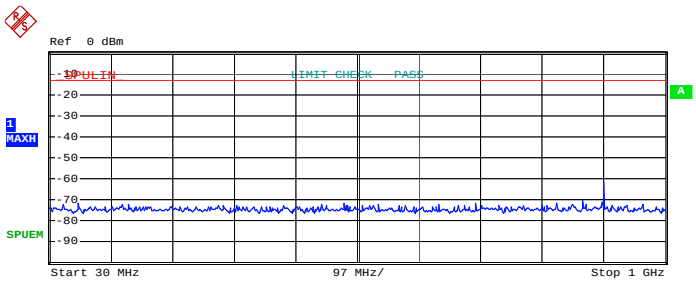
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.377696 G	-69.69	-56.69
1.768 G	3.000 G	1.00 M	2.153889 G	-63.66	-50.66
3.000 G	7.000 G	1.00 M	3.180000 G	-63.48	-50.48
7.000 G	13.600 G	1.00 M	9.682900 G	-64.77	-51.77
13.600 G	18.000 G	1.00 M	16.578800 G	-54.58	-41.58

Date: 14.OCT.2012 15:38:59

Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
Frequency :	1712.5	Channel :	19975

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

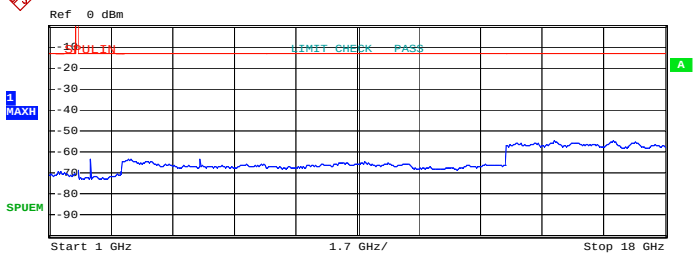


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.030000 M	-60.85	-47.85

Date: 14.OCT.2012 15:42:36

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



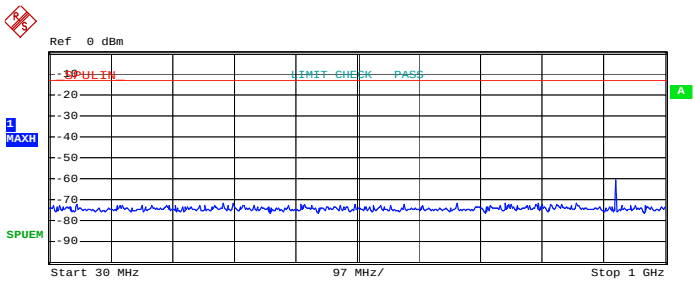
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.318409 G	-69.42	-56.42
1.768 G	3.000 G	1.00 M	2.113216 G	-63.64	-50.64
3.000 G	7.000 G	1.00 M	3.250000 G	-63.34	-50.34
7.000 G	13.600 G	1.00 M	9.699400 G	-64.89	-51.89
13.600 G	18.000 G	1.00 M	16.567800 G	-54.56	-41.56

Date: 14.OCT.2012 15:40:46

Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

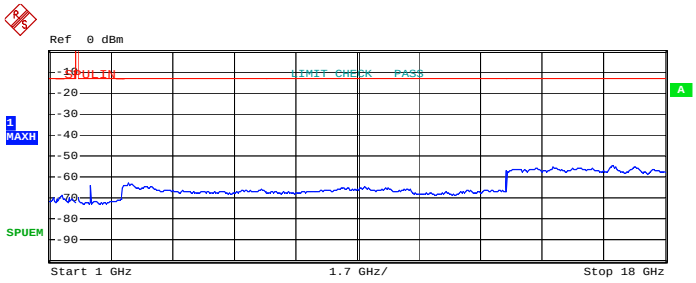


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	921.915000 M	-60.31	-47.31

Date: 14.OCT.2012 16:23:13

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



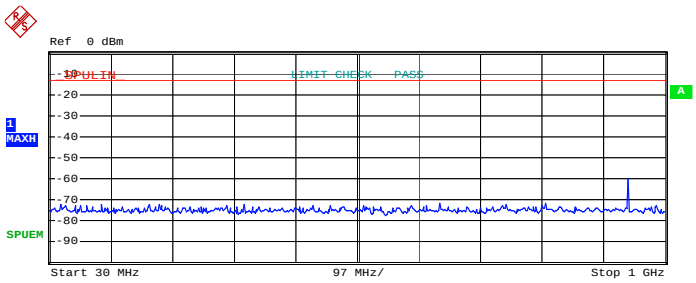
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.335149 G	-68.87	-55.87
1.768 G	3.000 G	1.00 M	2.134169 G	-63.86	-50.86
3.000 G	7.000 G	1.00 M	3.160000 G	-63.15	-50.15
7.000 G	13.600 G	1.00 M	9.702700 G	-64.39	-51.39
13.600 G	18.000 G	1.00 M	16.565600 G	-54.40	-41.40

Date: 14.OCT.2012 15:45:02

Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
Frequency :	1752.5	Channel :	20375

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

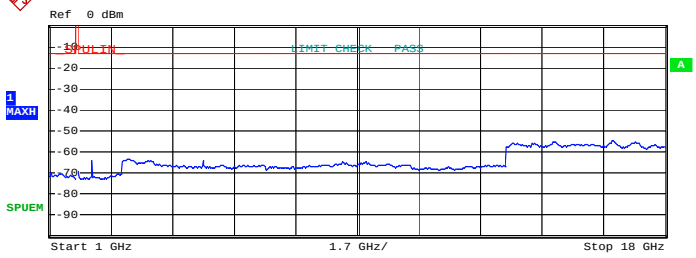


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	941.800000 M	-59.78	-46.78

Date: 14.OCT.2012 15:46:49

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



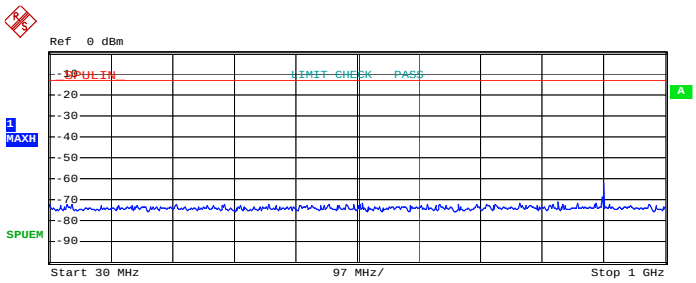
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.042548 G	-69.81	-56.81
1.768 G	3.000 G	1.00 M	2.151424 G	-64.07	-51.07
3.000 G	7.000 G	1.00 M	3.144000 G	-63.61	-50.61
7.000 G	13.600 G	1.00 M	9.072400 G	-64.89	-51.89
13.600 G	18.000 G	1.00 M	16.581000 G	-54.77	-41.77

Date: 14.OCT.2012 15:45:52

Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
Frequency :	1712.5	Channel :	19975

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

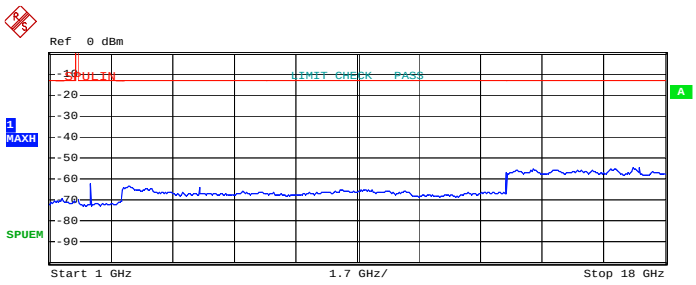


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.030000 M	-61.42	-48.42

Date: 14.OCT.2012 15:42:17

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



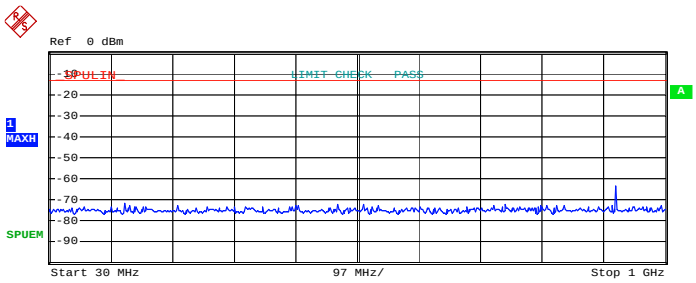
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.341426 G	-69.09	-56.09
1.768 G	3.000 G	1.00 M	2.113833 G	-62.25	-49.25
3.000 G	7.000 G	1.00 M	3.166000 G	-63.40	-50.40
7.000 G	13.600 G	1.00 M	9.696100 G	-64.92	-51.92
13.600 G	18.000 G	1.00 M	17.126600 G	-54.75	-41.75

Date: 14.OCT.2012 15:41:06

Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

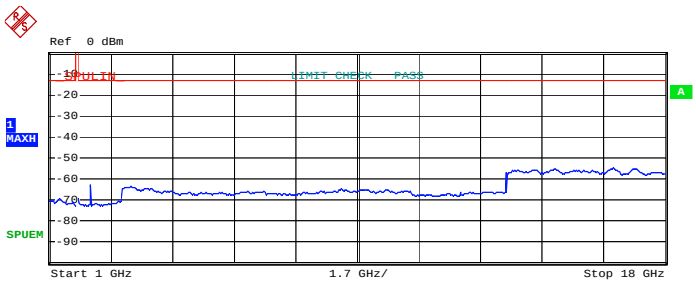


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	921.915000 M	-63.64	-50.64

Date: 14.OCT.2012 16:22:51

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



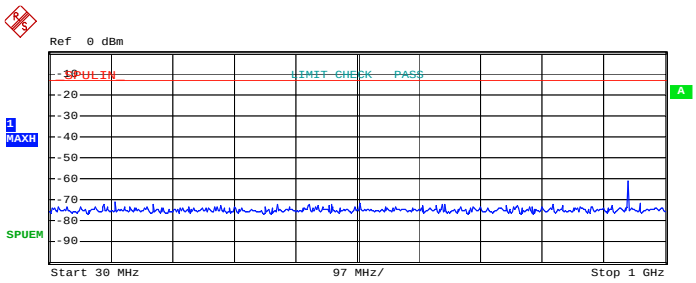
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.262958 G	-69.43	-56.43
1.768 G	3.000 G	1.00 M	2.131704 G	-62.77	-49.77
3.000 G	7.000 G	1.00 M	3.226000 G	-63.63	-50.63
7.000 G	13.600 G	1.00 M	9.052600 G	-64.88	-51.88
13.600 G	18.000 G	1.00 M	16.570000 G	-54.93	-41.93

Date: 14.OCT.2012 15:44:39

Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
Frequency :	1752.5	Channel :	20375

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

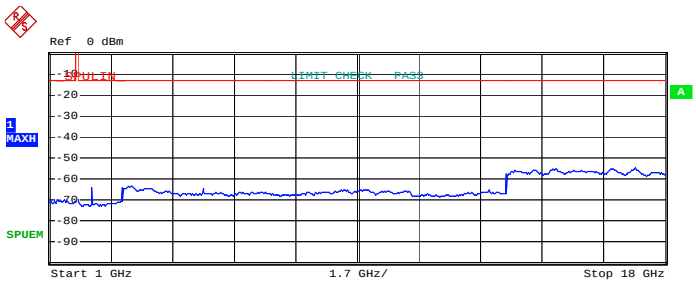


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	941.800000 M	-60.88	-47.88

Date: 14.OCT.2012 15:46:33

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



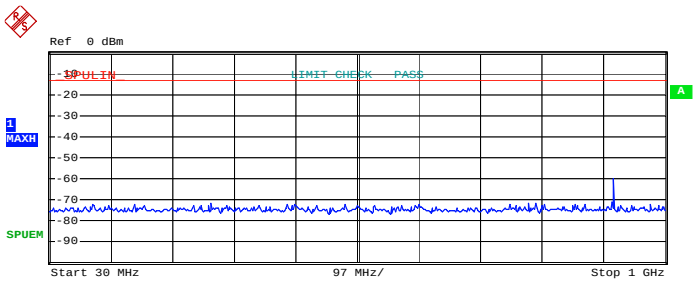
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.410130 G	-69.87	-56.87
1.768 G	3.000 G	1.00 M	2.152040 G	-63.82	-50.82
3.000 G	7.000 G	1.00 M	3.264000 G	-63.26	-50.26
7.000 G	13.600 G	1.00 M	9.062500 G	-64.92	-51.92
13.600 G	18.000 G	1.00 M	17.181600 G	-54.97	-41.97

Date: 14.OCT.2012 15:46:11

Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
Frequency :	1715	Channel :	20000

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

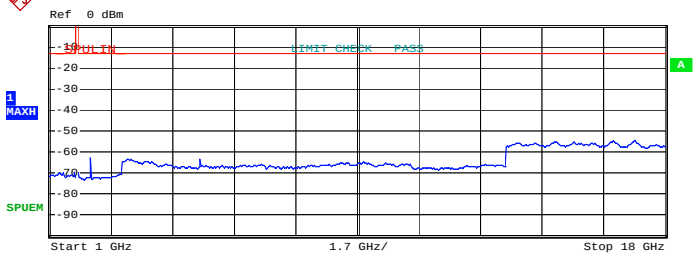


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	917.550000 M	-60.22	-47.22

Date: 14.OCT.2012 16:00:03

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



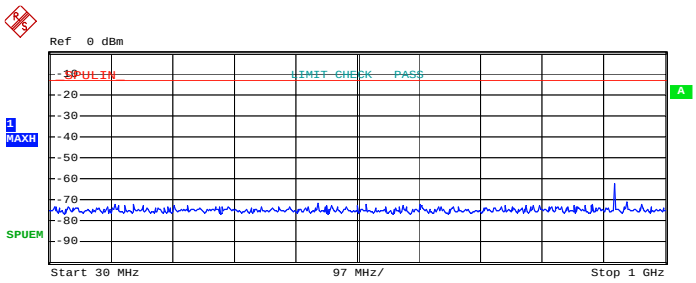
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.386415 G	-69.74	-56.74
1.768 G	3.000 G	1.00 M	2.116914 G	-62.58	-49.58
3.000 G	7.000 G	1.00 M	5.132000 G	-63.29	-50.29
7.000 G	13.600 G	1.00 M	9.682900 G	-64.89	-51.89
13.600 G	18.000 G	1.00 M	17.164000 G	-54.70	-41.70

Date: 14.OCT.2012 15:49:13

Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

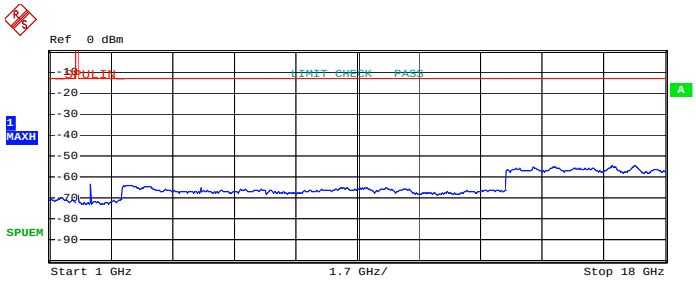


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	919.490000 M	-62.20	-49.20

Date: 14.OCT.2012 15:50:51

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



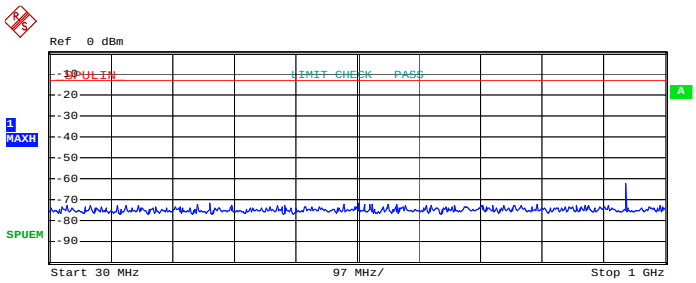
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.338636 G	-69.65	-56.65
1.768 G	3.000 G	1.00 M	2.129855 G	-63.53	-50.53
3.000 G	7.000 G	1.00 M	3.150000 G	-63.75	-50.75
7.000 G	13.600 G	1.00 M	9.646600 G	-64.91	-51.91
13.600 G	18.000 G	1.00 M	17.155200 G	-54.68	-41.68

Date: 14.OCT.2012 15:49:56

Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
Frequency :	1750	Channel :	20350

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

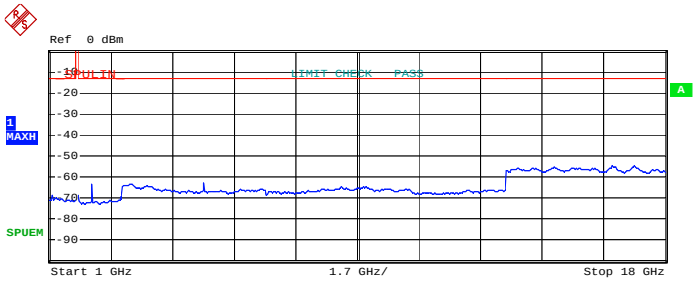


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	936.950000 M	-62.55	-49.55

Date: 14.OCT.2012 15:51:58

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



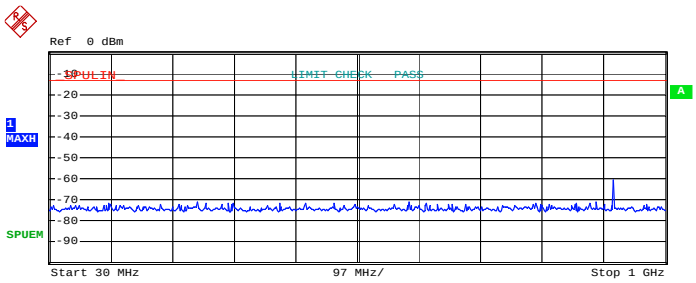
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.055451 G	-68.64	-55.64
1.768 G	3.000 G	1.00 M	2.147110 G	-63.35	-50.35
3.000 G	7.000 G	1.00 M	5.238000 G	-63.08	-50.08
7.000 G	13.600 G	1.00 M	9.669700 G	-64.43	-51.43
13.600 G	18.000 G	1.00 M	17.150800 G	-54.72	-41.72

Date: 14.OCT.2012 15:53:18

Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
Frequency :	1715	Channel :	20000

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

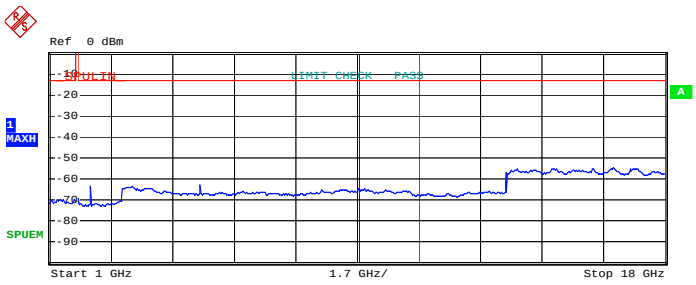


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	917.550000 M	-60.24	-47.24

Date: 14.OCT.2012 15:59:45

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



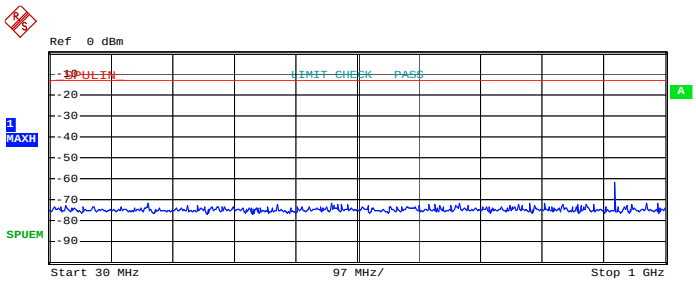
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.378743 G	-69.63	-56.63
1.768 G	3.000 G	1.00 M	2.118146 G	-63.20	-50.20
3.000 G	7.000 G	1.00 M	5.132000 G	-62.70	-49.70
7.000 G	13.600 G	1.00 M	9.517900 G	-64.72	-51.72
13.600 G	18.000 G	1.00 M	16.561200 G	-54.58	-41.58

Date: 14.OCT.2012 15:48:51

Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

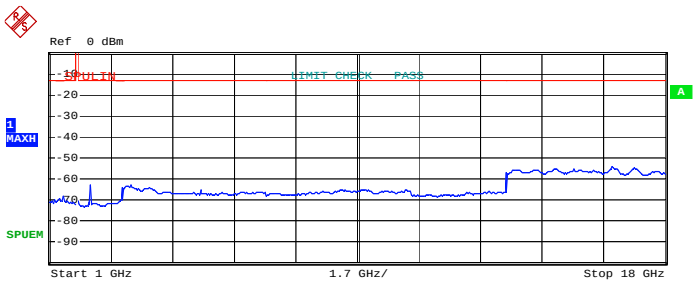


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	919.490000 M	-61.92	-48.92

Date: 14.OCT.2012 15:50:34

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



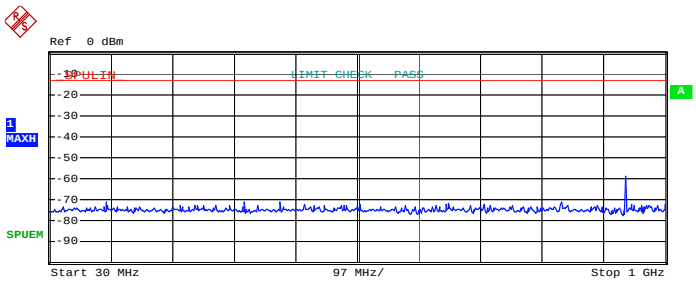
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.385717 G	-68.23	-55.23
1.768 G	3.000 G	1.00 M	2.130471 G	-63.01	-50.01
3.000 G	7.000 G	1.00 M	3.242000 G	-63.06	-50.06
7.000 G	13.600 G	1.00 M	9.052600 G	-64.93	-51.93
13.600 G	18.000 G	1.00 M	16.550200 G	-54.33	-41.33

Date: 14.OCT.2012 15:50:16

Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
Frequency :	1750	Channel :	20350

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

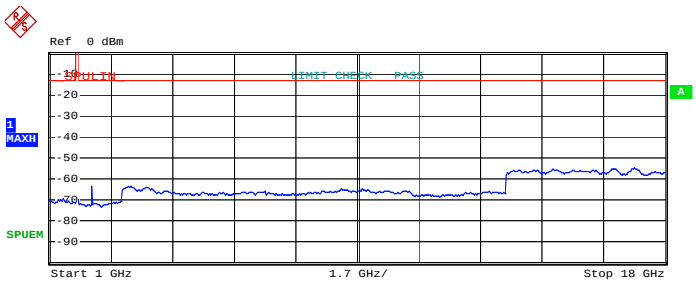


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	936.950000 M	-58.99	-45.99

Date: 14.OCT.2012 15:52:11

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



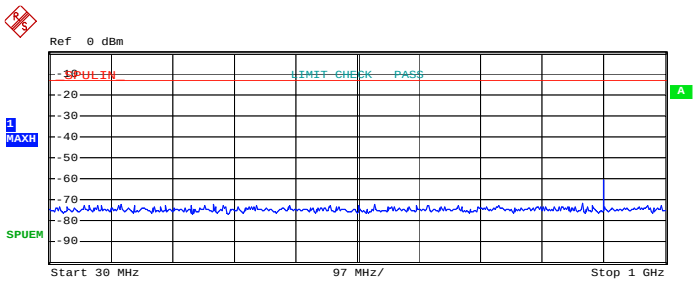
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.370721 G	-69.15	-56.15
1.768 G	3.000 G	1.00 M	2.150191 G	-63.52	-50.52
3.000 G	7.000 G	1.00 M	3.248000 G	-63.38	-50.38
7.000 G	13.600 G	1.00 M	9.046000 G	-64.74	-51.74
13.600 G	18.000 G	1.00 M	17.148600 G	-54.85	-41.85

Date: 14.OCT.2012 15:52:45

Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK
Frequency :	1717.5	Channel :	20025

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

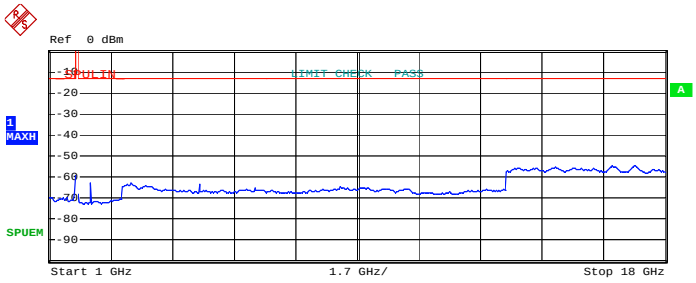


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.515000 M	-60.63	-47.63

Date: 14.OCT.2012 15:56:18

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



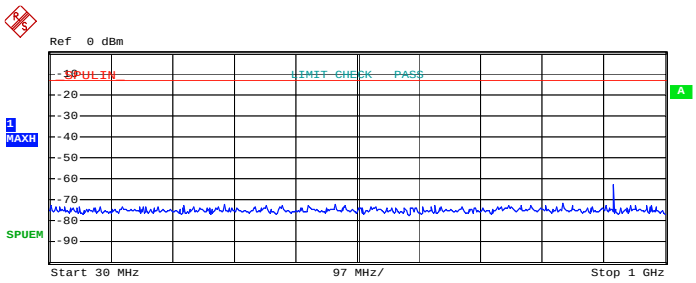
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.697151 G	-62.00	-49.00
1.768 G	3.000 G	1.00 M	2.120611 G	-62.68	-49.68
3.000 G	7.000 G	1.00 M	3.250000 G	-62.99	-49.99
7.000 G	13.600 G	1.00 M	9.013000 G	-64.84	-51.84
13.600 G	18.000 G	1.00 M	17.172800 G	-54.45	-41.45

Date: 14.OCT.2012 15:55:21

Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 74)

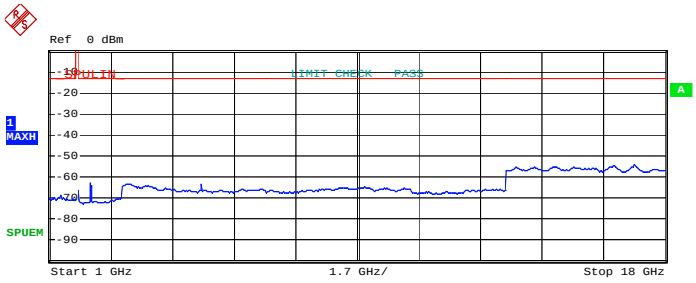


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	917.550000 M	-62.90	-49.90

Date: 14.OCT.2012 15:57:04

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 74)



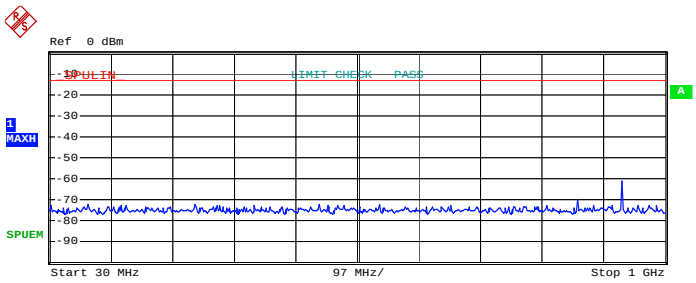
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.295391 G	-68.79	-55.79
1.768 G	3.000 G	1.00 M	2.131088 G	-62.79	-49.79
3.000 G	7.000 G	1.00 M	3.228000 G	-63.26	-50.26
7.000 G	13.600 G	1.00 M	9.692800 G	-64.55	-51.55
13.600 G	18.000 G	1.00 M	17.150800 G	-54.34	-41.34

Date: 14.OCT.2012 15:58:47

Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK
Frequency :	1747.5	Channel :	20325

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

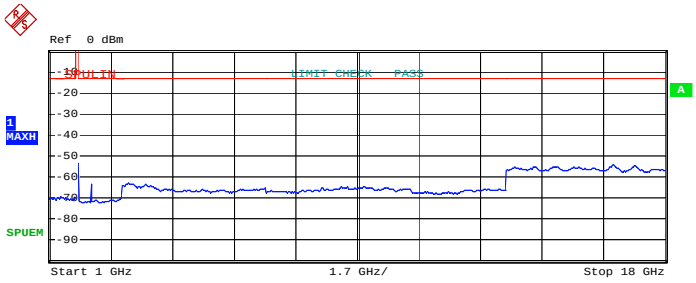


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	932.585000 M	-60.88	-47.88

Date: 14.OCT.2012 16:05:54

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



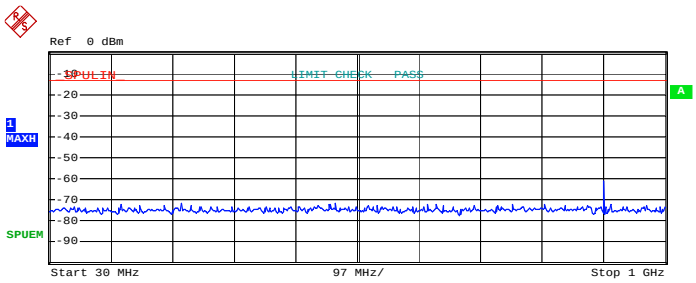
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.316665 G	-69.39	-56.39
1.768 G	3.000 G	1.00 M	1.768116 G	-59.41	-46.41
3.000 G	7.000 G	1.00 M	3.184000 G	-63.15	-50.15
7.000 G	13.600 G	1.00 M	9.669700 G	-64.44	-51.44
13.600 G	18.000 G	1.00 M	16.565600 G	-54.37	-41.37

Date: 14.OCT.2012 16:08:59

Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM
Frequency :	1717.5	Channel :	20025

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

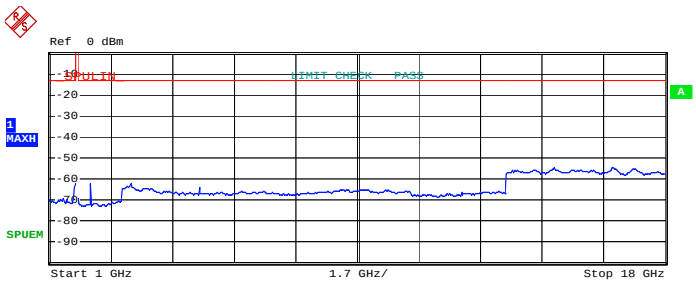


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.515000 M	-61.38	-48.38

Date: 14.OCT.2012 15:55:59

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



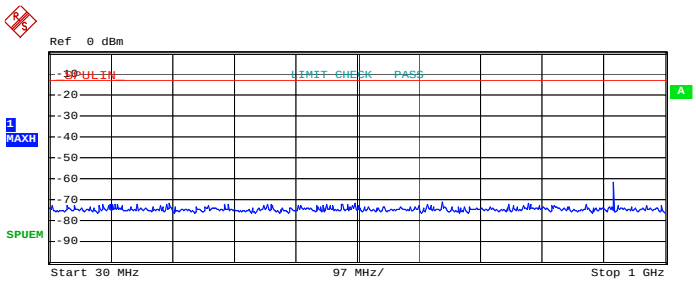
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.697151 G	-62.36	-49.36
1.768 G	3.000 G	1.00 M	2.113216 G	-62.50	-49.50
3.000 G	7.000 G	1.00 M	3.250000 G	-62.52	-49.52
7.000 G	13.600 G	1.00 M	9.715900 G	-65.07	-52.07
13.600 G	18.000 G	1.00 M	14.928800 G	-54.42	-41.42

Date: 14.OCT.2012 15:55:39

Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 74)

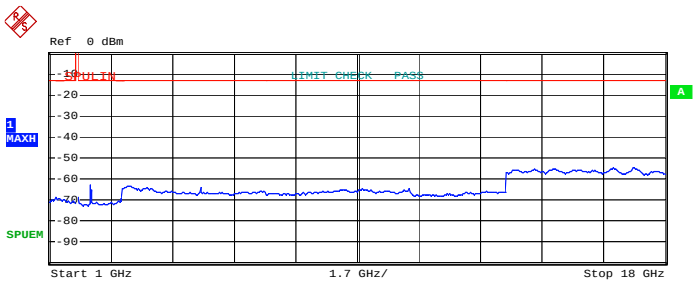


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	917.550000 M	-61.94	-48.94

Date: 14.OCT.2012 15:57:20

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 74)



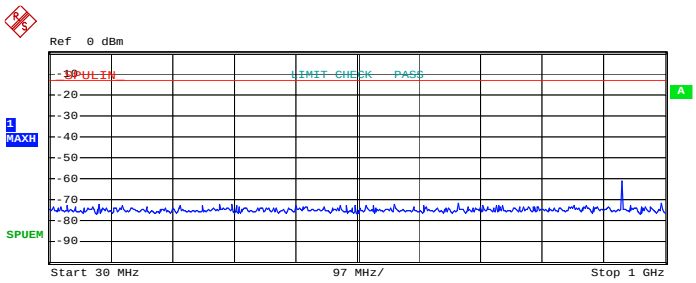
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.169841 G	-68.58	-55.58
1.768 G	3.000 G	1.00 M	2.132320 G	-63.06	-50.06
3.000 G	7.000 G	1.00 M	3.144000 G	-63.43	-50.43
7.000 G	13.600 G	1.00 M	9.640000 G	-64.75	-51.75
13.600 G	18.000 G	1.00 M	17.100200 G	-54.67	-41.67

Date: 14.OCT.2012 15:59:14

Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM
Frequency :	1747.5	Channel :	20325

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

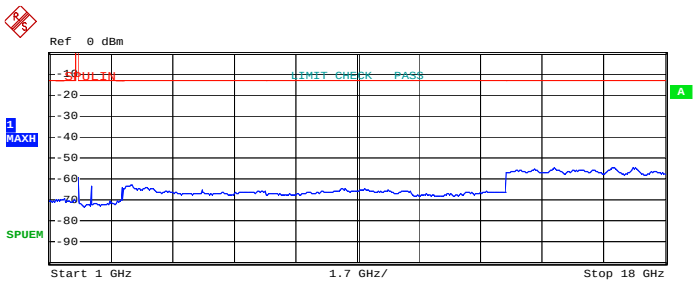


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	932.585000 M	-61.05	-48.05

Date: 14.OCT.2012 16:06:10

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



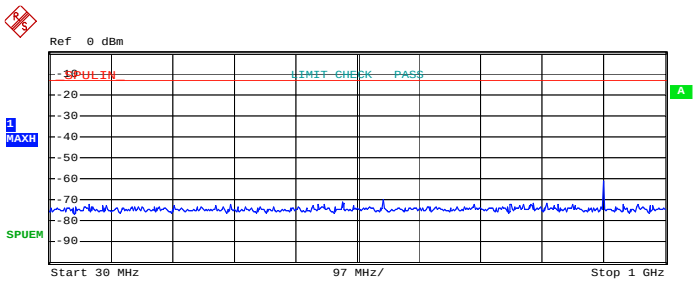
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.401760 G	-69.58	-56.58
1.768 G	3.000 G	1.00 M	1.768116 G	-59.61	-46.61
3.000 G	7.000 G	1.00 M	3.254000 G	-62.95	-49.95
7.000 G	13.600 G	1.00 M	9.161500 G	-64.53	-51.53
13.600 G	18.000 G	1.00 M	17.172800 G	-54.45	-41.45

Date: 14.OCT.2012 16:08:13

Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK
Frequency :	1720	Channel :	20050

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

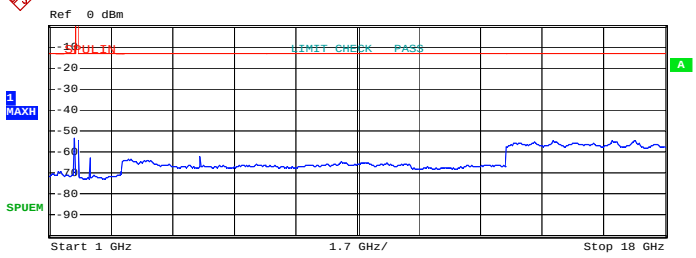


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.515000 M	-61.11	-48.11

Date: 14.OCT.2012 16:12:44

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



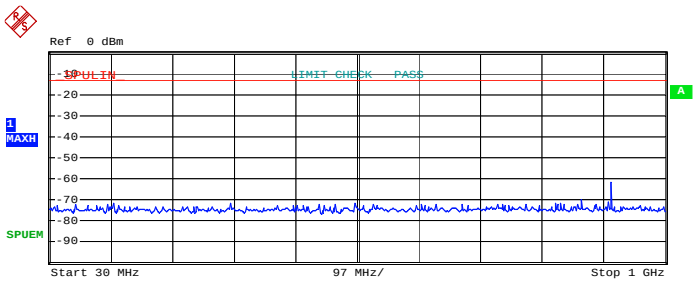
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.693664 G	-53.54	-40.54
1.768 G	3.000 G	1.00 M	1.768733 G	-54.93	-41.93
3.000 G	7.000 G	1.00 M	5.134000 G	-62.57	-49.57
7.000 G	13.600 G	1.00 M	9.052600 G	-64.86	-51.86
13.600 G	18.000 G	1.00 M	17.150800 G	-54.58	-41.58

Date: 14.OCT.2012 16:11:10

Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

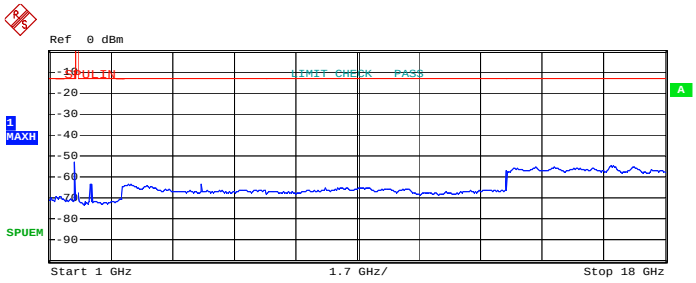


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	915.125000 M	-61.49	-48.49

Date: 14.OCT.2012 16:13:33

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



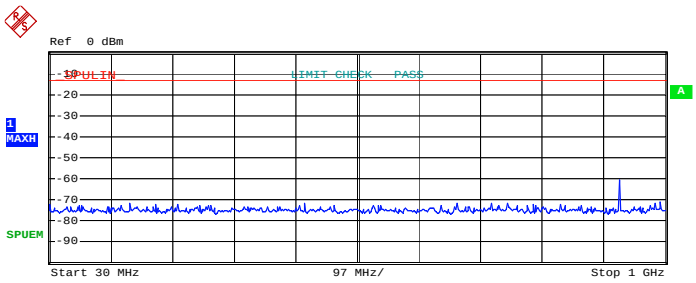
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.688433 G	-52.81	-39.81
1.768 G	3.000 G	1.00 M	2.129239 G	-63.16	-50.16
3.000 G	7.000 G	1.00 M	3.160000 G	-63.47	-50.47
7.000 G	13.600 G	1.00 M	9.032800 G	-65.07	-52.07
13.600 G	18.000 G	1.00 M	16.556800 G	-54.82	-41.82

Date: 14.OCT.2012 16:14:40

Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK
Frequency :	1745	Channel :	20300

Conducted Emission Plot (30MHz ~ 1GHz) for

QPSK (RB Size 1, RB Offset 0)

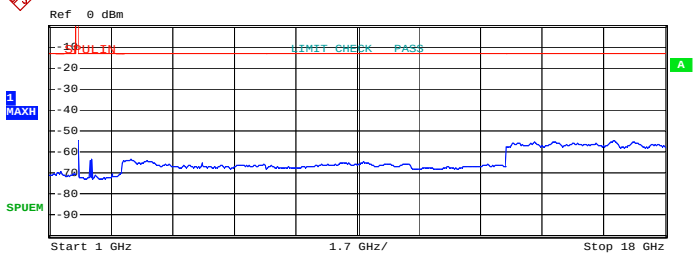


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	927.735000 M	-60.77	-47.77

Date: 14.OCT.2012 16:16:27

Conducted Emission Plot (1GHz ~ 18GHz) for

QPSK (RB Size 1, RB Offset 0)



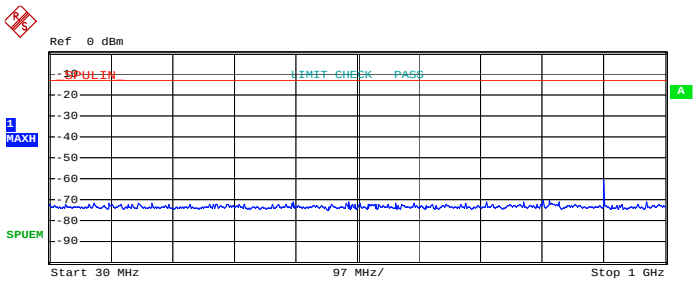
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.308993 G	-69.18	-56.18
1.768 G	3.000 G	1.00 M	1.771198 G	-54.96	-41.96
3.000 G	7.000 G	1.00 M	3.246000 G	-63.50	-50.50
7.000 G	13.600 G	1.00 M	9.663100 G	-64.75	-51.75
13.600 G	18.000 G	1.00 M	16.572200 G	-54.81	-41.81

Date: 14.OCT.2012 16:15:20

Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM
Frequency :	1720	Channel :	20050

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

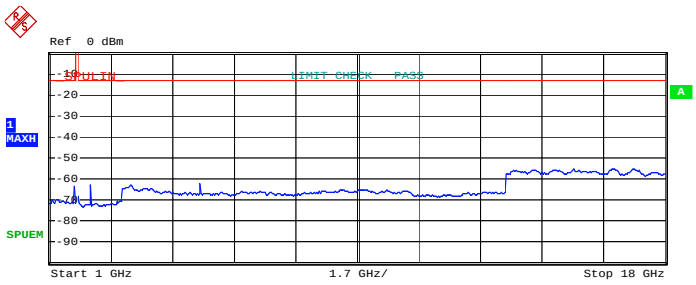


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	902.515000 M	-60.25	-47.25

Date: 14.OCT.2012 16:12:27

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



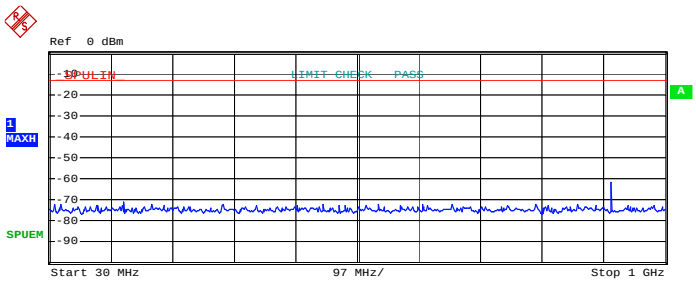
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.693315 G	-63.19	-50.19
1.768 G	3.000 G	1.00 M	2.128006 G	-62.77	-49.77
3.000 G	7.000 G	1.00 M	5.134000 G	-62.50	-49.50
7.000 G	13.600 G	1.00 M	9.679600 G	-64.92	-51.92
13.600 G	18.000 G	1.00 M	16.561200 G	-55.16	-42.16

Date: 14.OCT.2012 16:11:37

Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

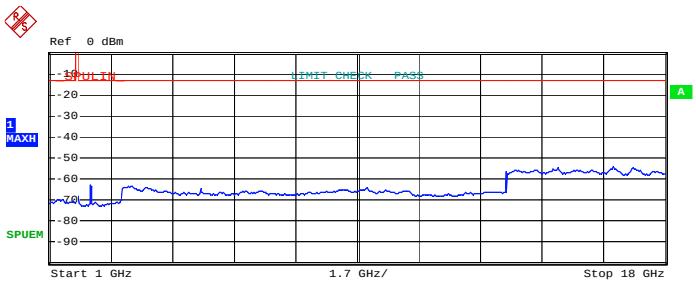


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	915.125000 M	-61.82	-48.82

Date: 14.OCT.2012 16:13:53

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



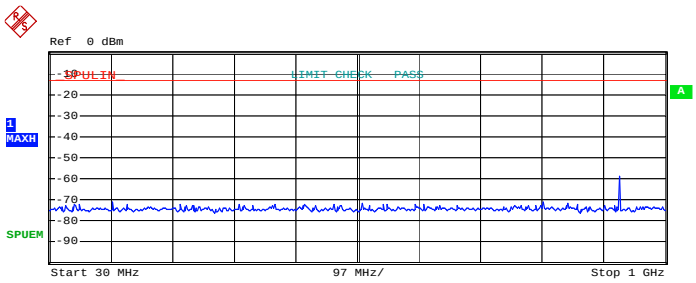
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.246915 G	-69.87	-56.87
1.768 G	3.000 G	1.00 M	2.128006 G	-63.10	-50.10
3.000 G	7.000 G	1.00 M	3.252000 G	-63.30	-50.30
7.000 G	13.600 G	1.00 M	9.755500 G	-64.22	-51.22
13.600 G	18.000 G	1.00 M	16.576600 G	-54.33	-41.33

Date: 14.OCT.2012 16:14:19

Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM
Frequency :	1745	Channel :	20300

Conducted Emission Plot (30MHz ~ 1GHz) for

16-QAM (RB Size 1, RB Offset 0)

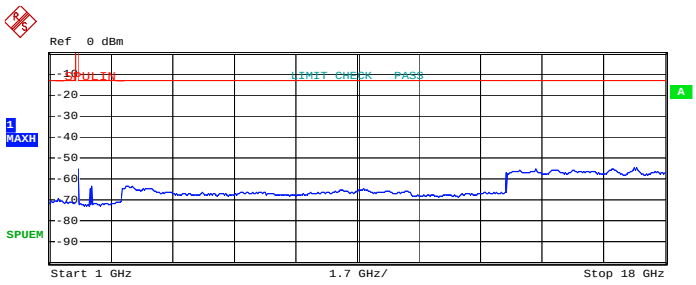


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	100.00 k	927.735000 M	-58.82	-45.82

Date: 14.OCT.2012 16:16:07

Conducted Emission Plot (1GHz ~ 18GHz) for

16-QAM (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.000 G	1.698 G	1.00 M	1.248310 G	-69.58	-56.58
1.768 G	3.000 G	1.00 M	1.771814 G	-55.09	-42.09
3.000 G	7.000 G	1.00 M	3.262000 G	-63.25	-50.25
7.000 G	13.600 G	1.00 M	9.676300 G	-64.87	-51.87
13.600 G	18.000 G	1.00 M	17.232200 G	-54.74	-41.74

Date: 14.OCT.2012 16:15:39

3.5 Radiated Emissions Measurement

3.5.1 Description of Radiated Emissions Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.5.2 Measuring Instruments

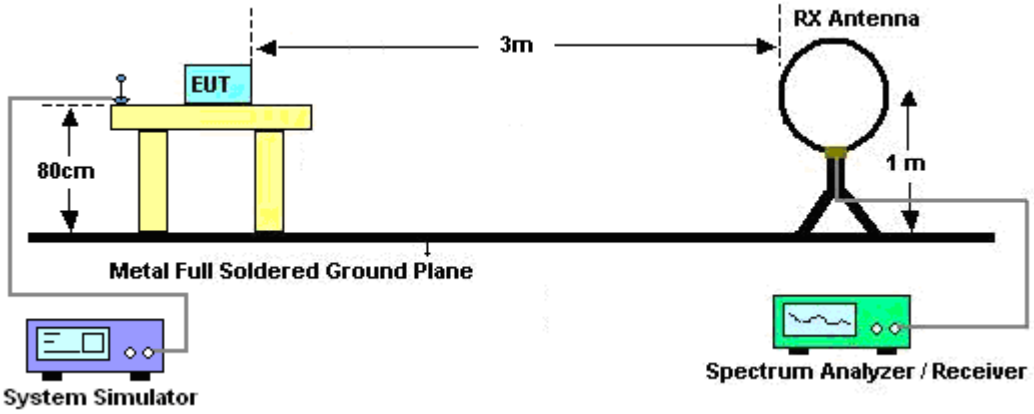
See list of measuring instruments of this test report.

3.5.3 Test Procedures

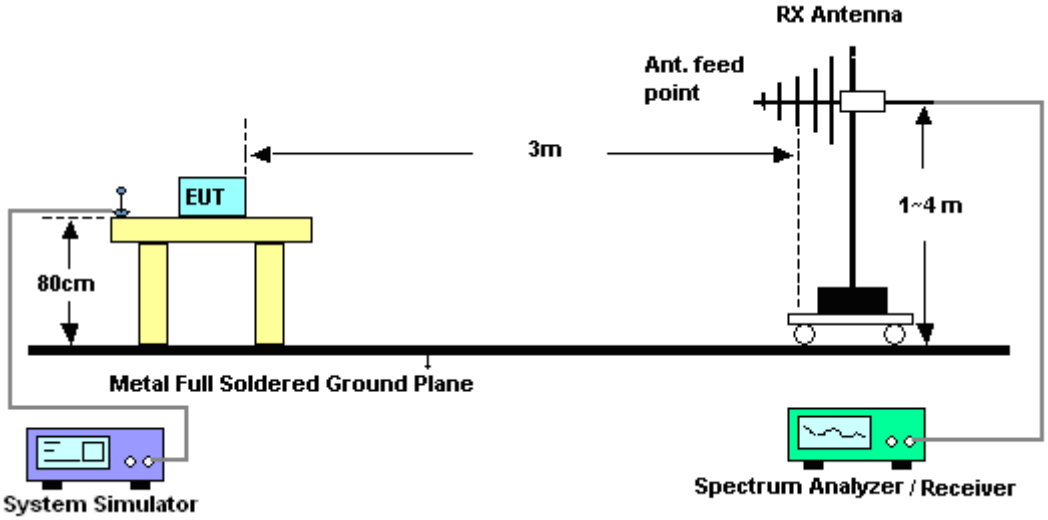
1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. Emission level (dBm) = output power + substitution Gain.

3.5.4 Test Setup

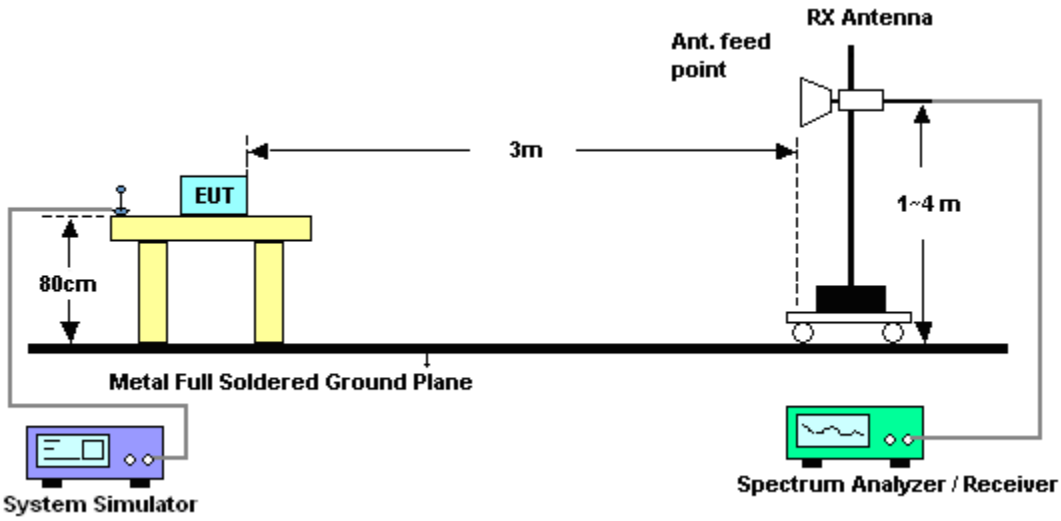
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz

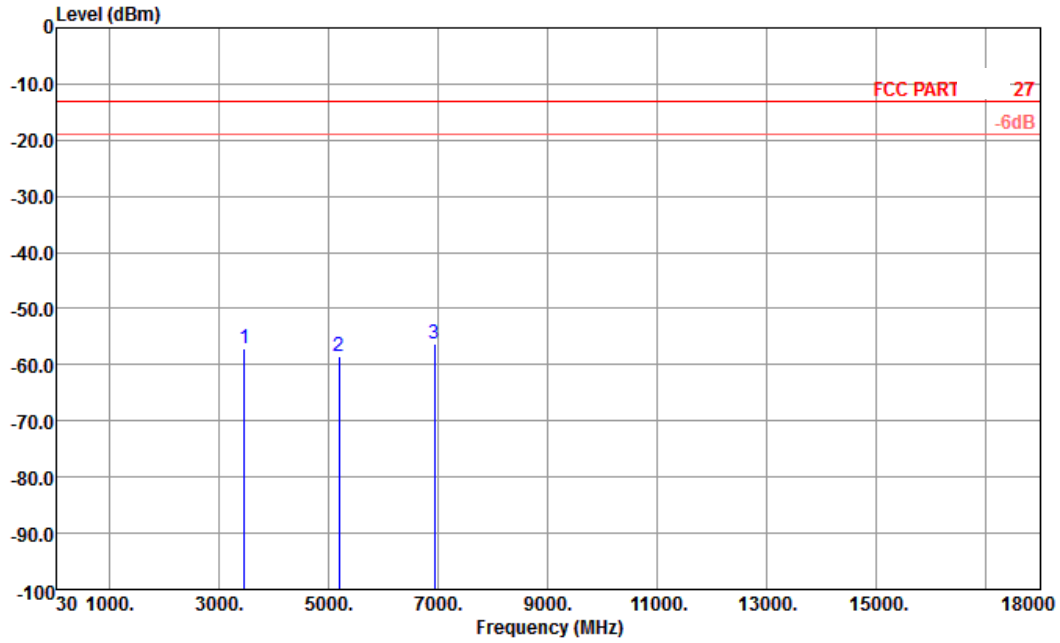


3.5.5 Test Results of Radiated Emissions (9 KHz ~ 30 MHz)

The low frequency, which started from 9 KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.5.6 Test Result of Radiated Emissions

Band :	LTE Band 4	**Temperature :**	23~25°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	**Relative Humidity :**	41~43%
Test Engineer :	Steven Hao	**Polarization :**	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

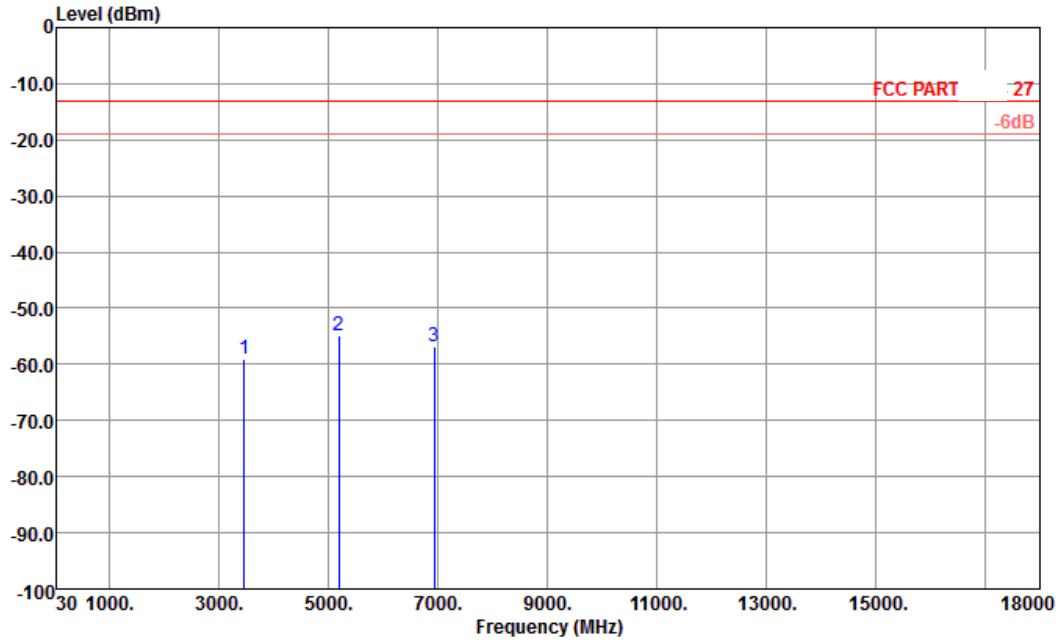


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 HORIZONTAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-57.02	-13	-44.02	-63.31	-62.42	2.2	7.60	H	Pass
5198	-58.42	-13	-45.42	-65.52	-65.20	3.12	9.90	H	Pass
6930	-56.38	-13	-43.38	-65.44	-64.27	2.98	10.87	H	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

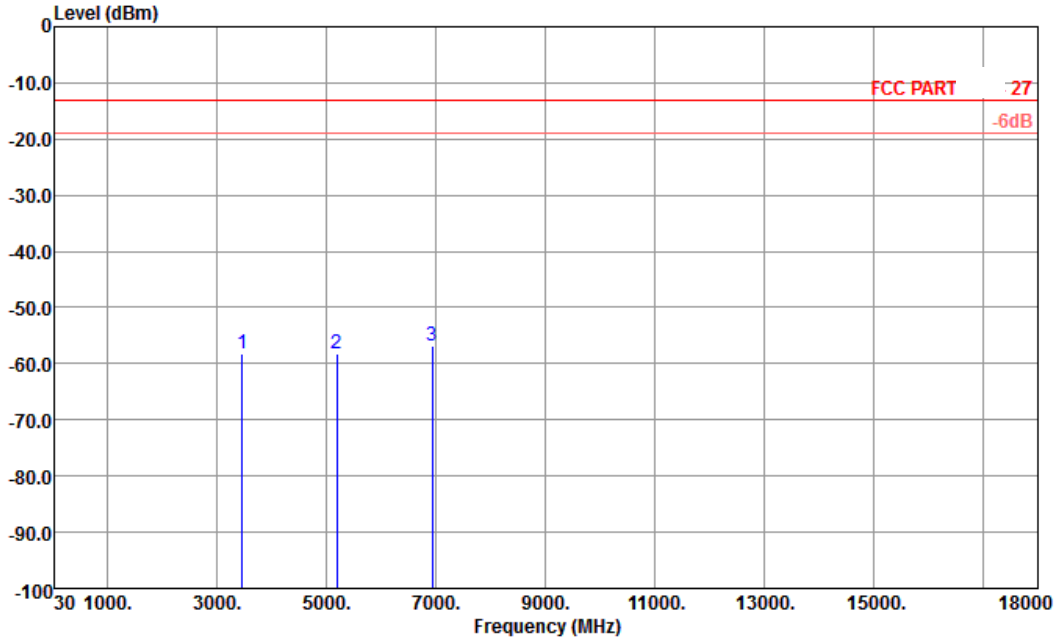


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 VERTICAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-59.00	-13	-46.00	-63.27	-64.40	2.2	7.6	V	Pass
5198	-54.92	-13	-41.92	-64.08	-61.70	3.12	9.9	V	Pass
6930	-56.88	-13	-43.88	-65.64	-64.77	2.98	10.87	V	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

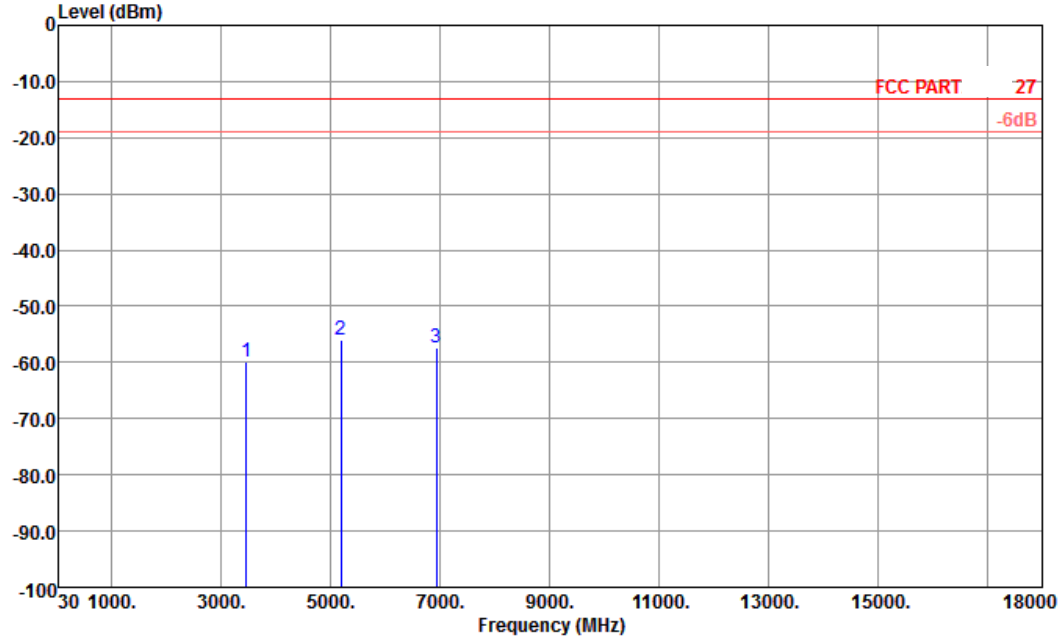


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 HORIZONTAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-58.09	-13	-45.09	-64.38	-63.49	2.2	7.60	H	Pass
5198	-58.33	-13	-45.33	-65.43	-65.11	3.12	9.90	H	Pass
6930	-56.78	-13	-43.78	-65.84	-64.67	2.98	10.87	H	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

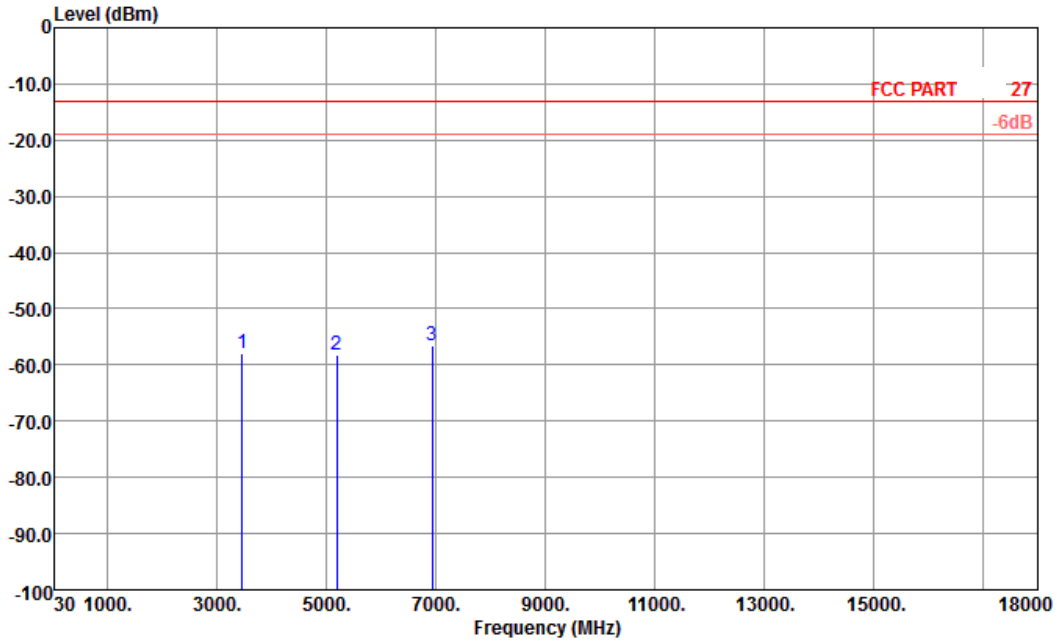


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 VERTICAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-59.86	-13	-46.86	-64.13	-65.26	2.2	7.6	V	Pass
5198	-55.88	-13	-42.88	-65.04	-62.66	3.12	9.9	V	Pass
6930	-57.45	-13	-44.45	-66.21	-65.34	2.98	10.87	V	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

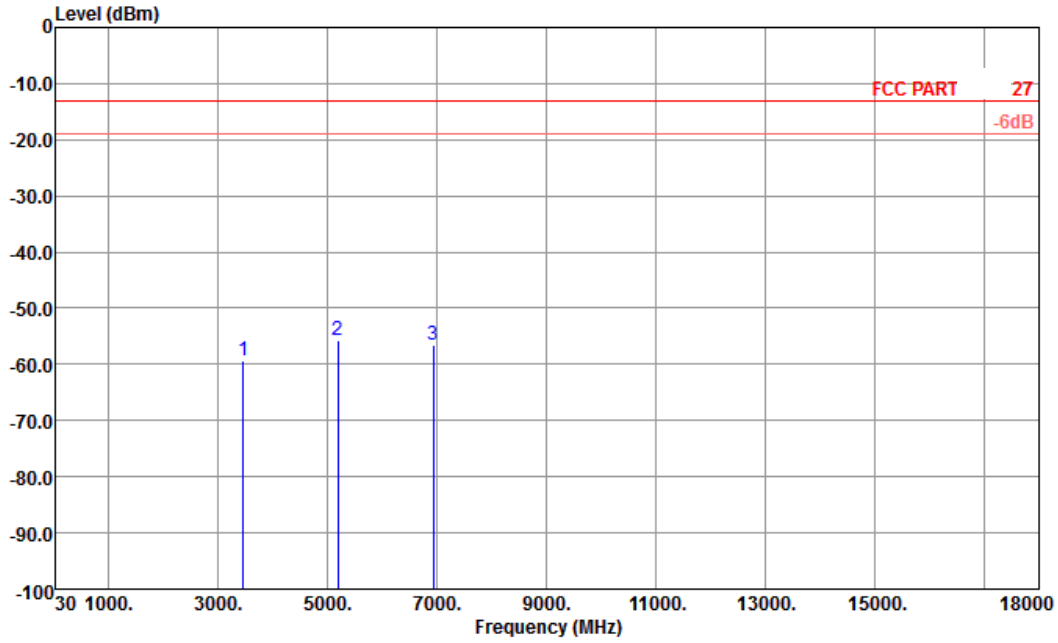


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 HORIZONTAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-57.89	-13	-44.89	-64.18	-63.29	2.2	7.60	H	Pass
5198	-58.30	-13	-45.30	-65.40	-65.08	3.12	9.90	H	Pass
6930	-56.65	-13	-43.65	-65.71	-64.54	2.98	10.87	H	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

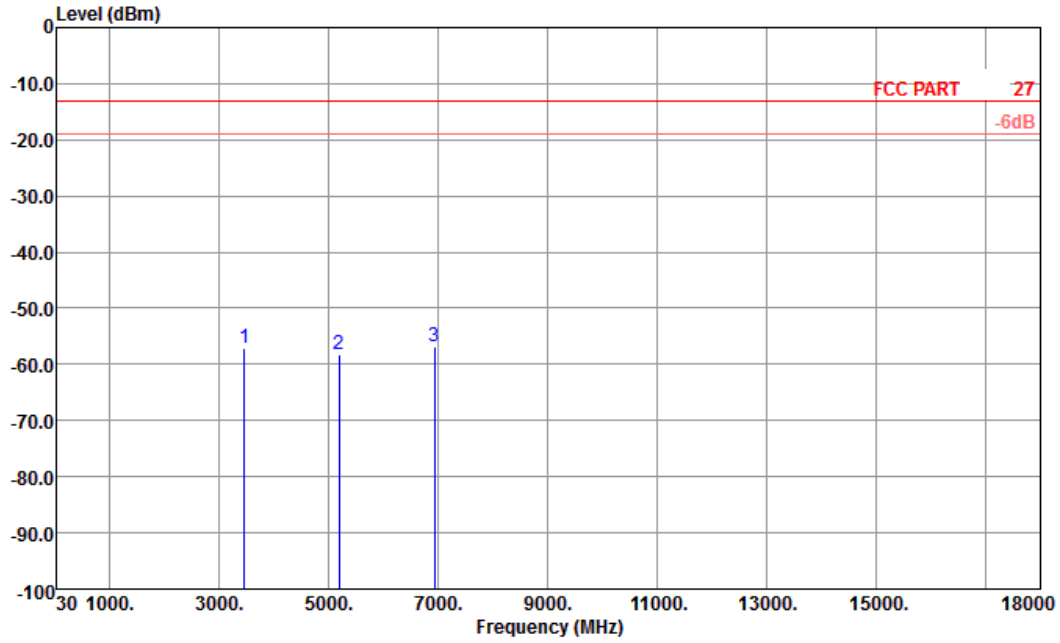


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 VERTICAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-59.41	-13	-46.41	-63.68	-64.81	2.2	7.6	V	Pass
5198	-55.76	-13	-42.76	-64.92	-62.54	3.12	9.9	V	Pass
6930	-56.48	-13	-43.48	-65.24	-64.37	2.98	10.87	V	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

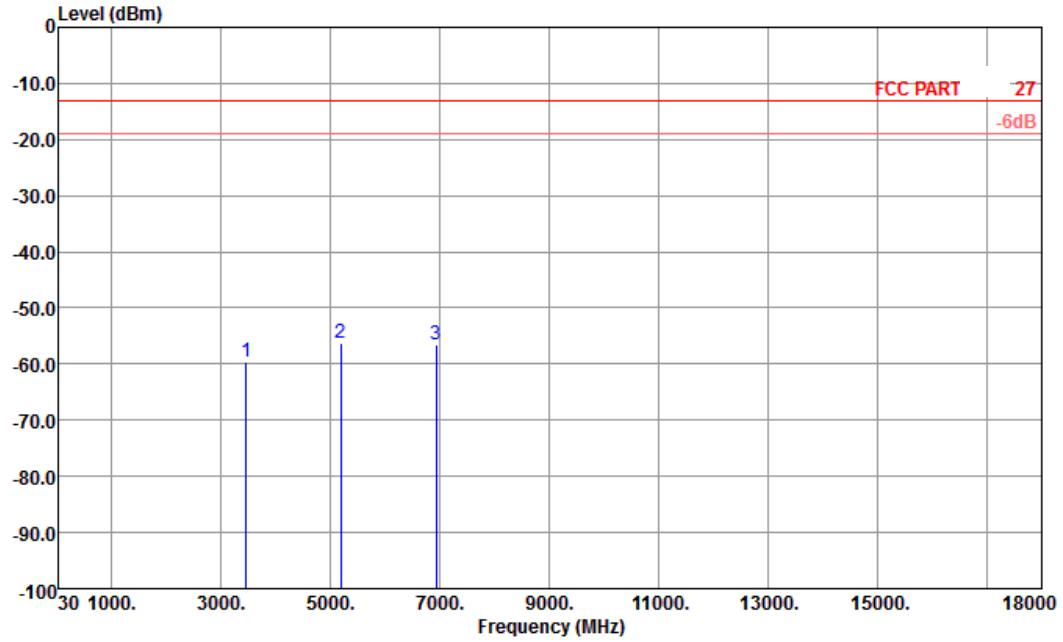


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 HORIZONTAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-57.16	-13	-44.16	-63.45	-62.56	2.2	7.60	H	Pass
5198	-58.12	-13	-45.12	-65.22	-64.90	3.12	9.90	H	Pass
6930	-56.78	-13	-43.78	-65.84	-64.67	2.98	10.87	H	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

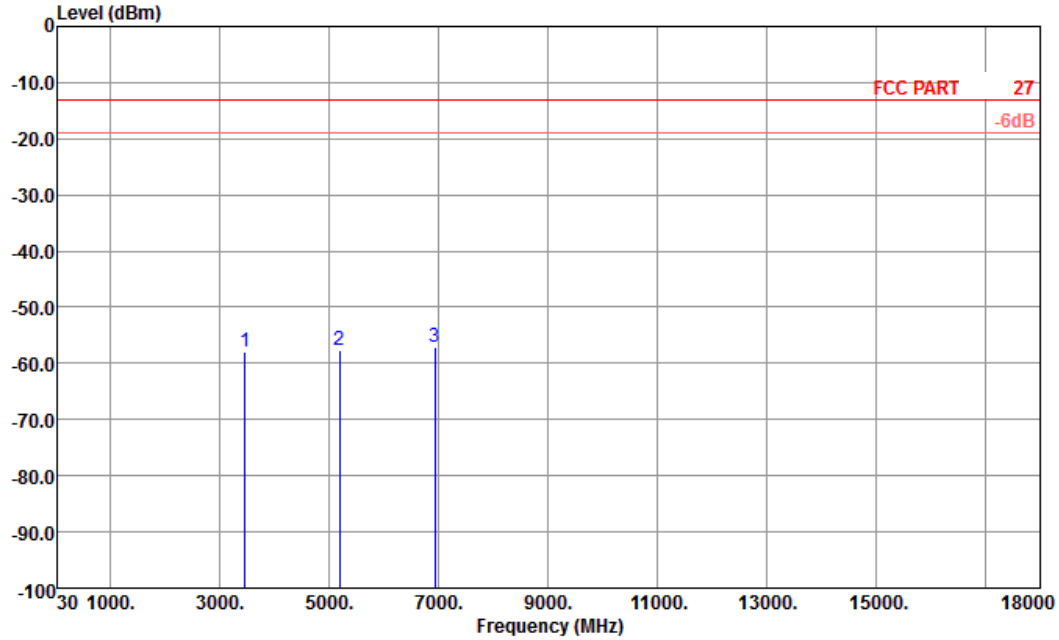


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 VERTICAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-59.69	-13	-46.69	-63.96	-65.09	2.2	7.6	V	Pass
5198	-56.24	-13	-43.24	-65.4	-63.02	3.12	9.9	V	Pass
6930	-56.46	-13	-43.46	-65.22	-64.35	2.98	10.87	V	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	15MHz, QPSK, RB Size 1, RB Offset 74	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

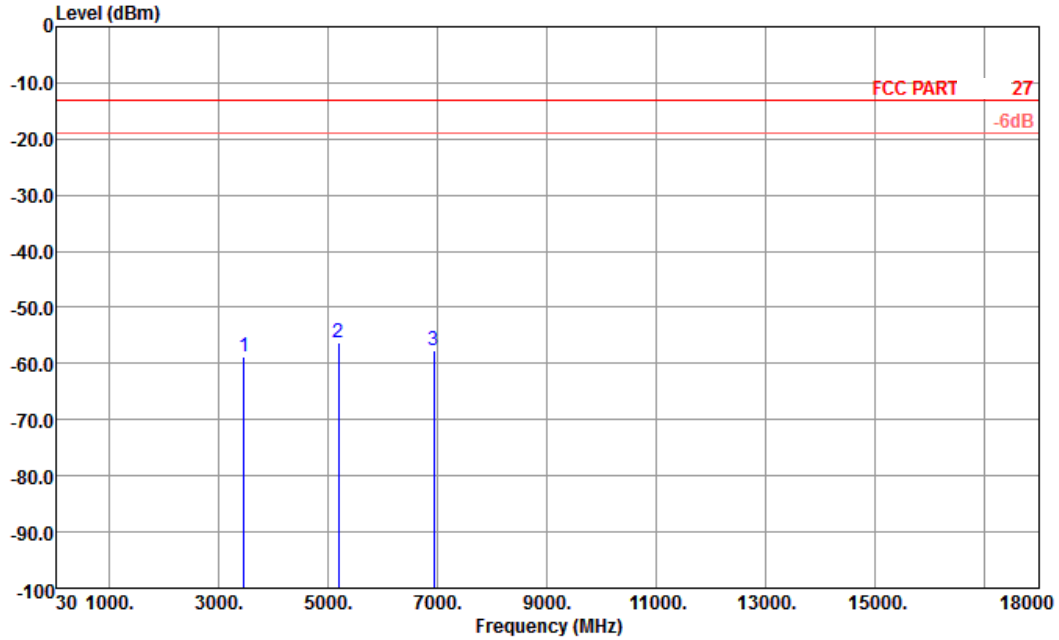


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 HORIZONTAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-57.93	-13	-44.93	-64.22	-63.33	2.2	7.60	H	Pass
5198	-57.57	-13	-44.57	-64.67	-64.35	3.12	9.90	H	Pass
6930	-57.13	-13	-44.13	-66.19	-65.02	2.98	10.87	H	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	15MHz, QPSK, RB Size 1, RB Offset 74	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

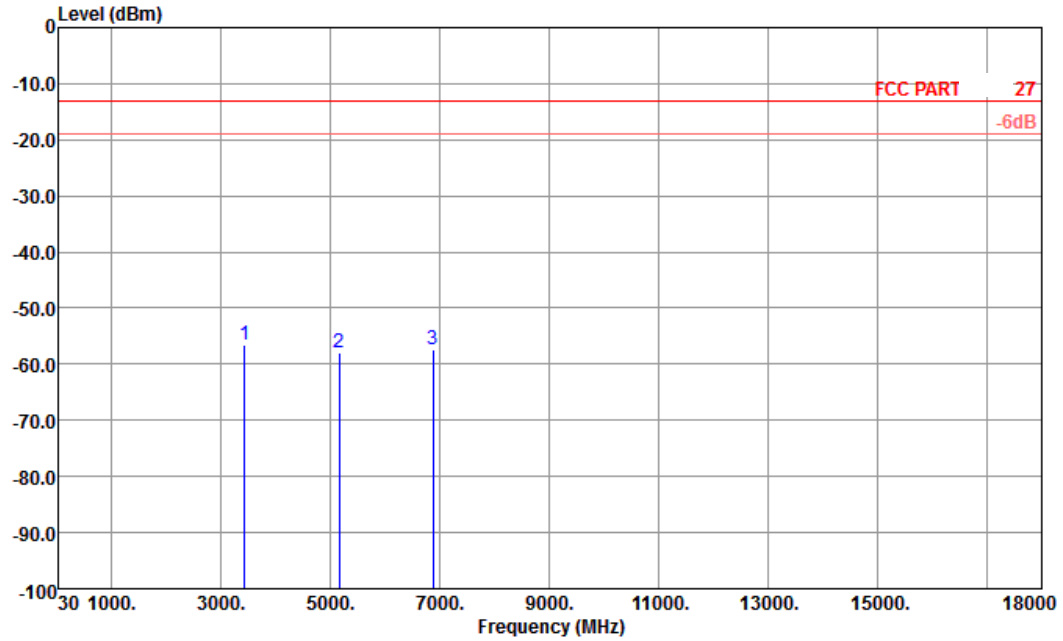


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 VERTICAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-58.85	-13	-45.85	-63.12	-64.25	2.2	7.6	V	Pass
5198	-56.25	-13	-43.25	-65.41	-63.03	3.12	9.9	V	Pass
6930	-57.63	-13	-44.63	-66.39	-65.52	2.98	10.87	V	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	20MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

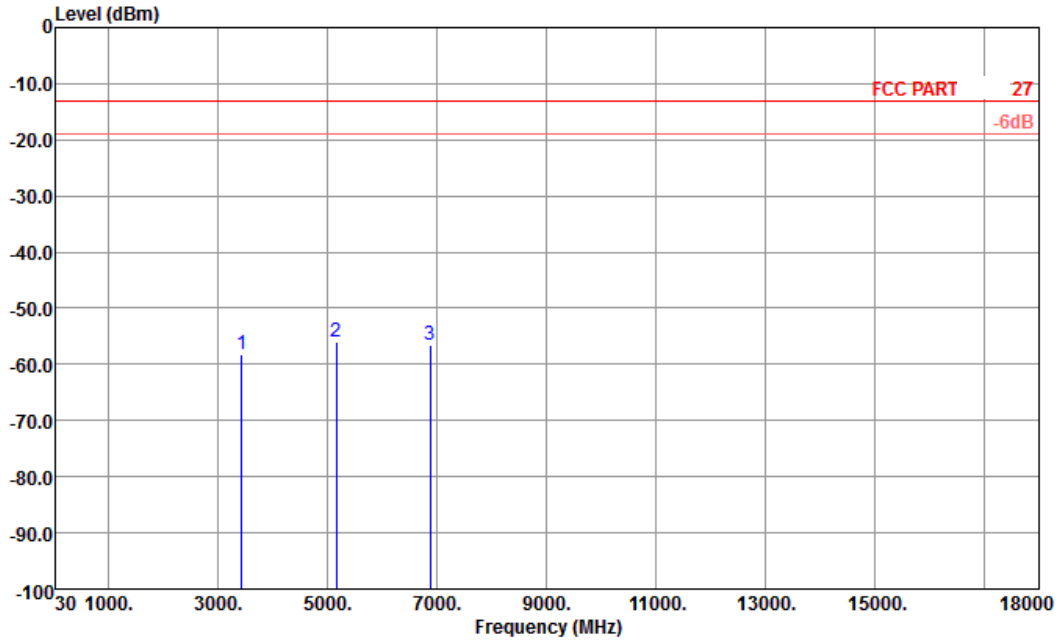


Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 HORIZONTAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3440	-56.46	-13	-43.46	-62.75	-61.86	2.2	7.60	H	Pass
5160	-57.93	-13	-44.93	-65.03	-64.71	3.12	9.90	H	Pass
6880	-57.40	-13	-44.40	-66.46	-65.29	2.98	10.87	H	Pass

Band :	LTE Band 4	Temperature :	23~25°C
Test Mode :	20MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~43%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-KS
Condition : FCC PART 27 HF EIRP FACTOR-09020 VERTICAL

Plan : E2

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3440	-58.24	-13	-45.24	-62.51	-63.64	2.2	7.6	V	Pass
5160	-55.95	-13	-42.95	-65.11	-62.73	3.12	9.9	V	Pass
6880	-56.64	-13	-43.64	-65.4	-64.53	2.98	10.87	V	Pass

3.6 Frequency Stability Measurement

3.6.1 Description of Frequency Stability Measurement

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency band. For equipment authorization purposes, this is a reporting requirement only.

3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

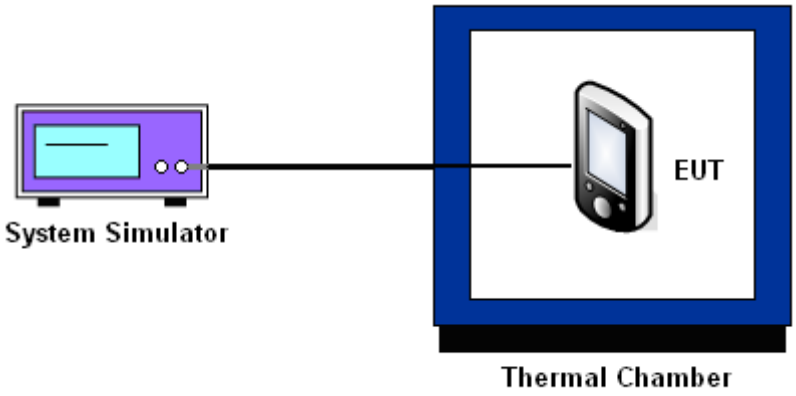
3.6.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.
4. If the EUT cannot be turned on at -30°C, the testing lowest temperature will be raised in 10°C step until the EUT can be turned on.

3.6.4 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at 25±5 °C and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case

3.6.5 Test Setup



3.6.6 Test Result of Temperature Variation

Band :	LTE Band 4	Limit (ppm) :	2.5

Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	1.9	0.300	0.1	0.000	PASS
-20	4.3	0.006	4.4	0.006	
-10	3.3	0.005	1.6	0.002	
0	8.7	0.012	0.5	0.001	
10	5.6	0.008	1.1	0.002	
20	3.5	0.005	0.9	0.001	
30	4.7	0.007	1.3	0.002	
40	1.8	0.003	-2.3	-0.003	
50	-1.3	-0.002	3.3	0.005	
55	0.1	0.000	4.1	0.006	

Note: The manufacturer declared that the EUT could work properly at temperature 55°C.

Band :	LTE Band 4	Limit (ppm) :	2.5

Temperature (°C)	5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	-0.9	-0.001	3.0	0.004	PASS
-20	6.6	0.009	0.8	0.001	
-10	0.4	0.001	-0.1	0.000	
0	0.1	0.000	4.9	0.007	
10	4.3	0.006	3.0	0.004	
20	3.9	0.005	3.9	0.005	
30	2.2	0.003	-2.9	-0.004	
40	0.9	0.001	0.8	0.001	
50	-1.0	-0.001	0.4	0.001	
55	8.7	0.012	-1.7	-0.002	

Band :	LTE Band 4	Limit (ppm) :	2.5

Temperature (°C)	15MHz		20MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	-3.3	-0.005	-1.0	-0.001	PASS
-20	-1.4	-0.002	4.3	0.006	
-10	2.5	0.004	0.9	0.001	
0	5.1	0.007	-2.2	-0.003	
10	4.7	0.007	5.6	0.008	
20	5.6	0.008	-6.3	-0.009	
30	7.1	0.010	-5.0	-0.007	
40	6.3	0.009	-2.3	-0.003	
50	0.9	0.001	-6.6	-0.009	
55	-1.2	-0.002	5.6	0.008	

3.6.7 Test Result of Voltage Variation

Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 4	1.4MHz	3.7	-1.3	-0.002	2.5	PASS
		3.5	-5.7	-0.008		
		4.2	-0.9	-0.001		
	3MHz	3.7	-7.3	-0.010		
		3.5	-8.2	-0.012		
		4.2	-6.2	-0.009		
	5MHz	3.7	-2.6	-0.004		
		3.5	-1.9	-0.003		
		4.2	-0.5	-0.001		
	10MHz	3.7	-3.7	-0.005		
		3.5	-8.4	-0.012		
		4.2	-3.4	-0.005		
	15MHz	3.7	1.3	0.002		
		3.5	-0.5	-0.001		
		4.2	-4.2	-0.006		
	20MHz	3.7	-5.5	-0.008		
		3.5	-4.3	-0.006		
		4.2	-6.8	-0.010		

Remark:

1. Normal Voltage = 3.7V.
2. Battery End Point (BEP) = 3.5 V.

3.6.8 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Oct. 14, 2012~ Oct. 22, 2012	Dec. 29, 2012	Conducted (TH01-KS)
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 22, 2012	Oct. 14, 2012~ Oct. 22, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 30, 2011	Oct. 14, 2012~ Oct. 22, 2012	Dec. 29, 2012	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 09, 2011	Oct. 16, 2012	Nov. 08, 2012	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Oct. 16, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Oct. 16, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 06, 2012	Oct. 16, 2012	Jan. 05, 2013	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060007	30MHz~2GHz	Dec. 30, 2011	Oct. 16, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 30, 2011	Oct. 16, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	9170249	15GHz-40GHz	Oct. 10, 2012	Oct. 16, 2012	Oct. 09, 2013	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/00	9kHz~30 MHz	Jul. 03, 2012	Oct. 16, 2012	Jul. 02, 2014	Radiation (03CH01-KS)
Signal Generator	R&S	SMR40	100455	10MHz-40GHz	Dec. 30, 2011	Oct. 16, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
LTE Base Station	Anritsu	MT8820C	6201074235	LTE_FDD full band	Dec. 30, 2011	Oct. 14, 2012~ Oct. 22, 2012	Dec. 29, 2012	-

4 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.54**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95%(U = 2Uc(y))	**4.72**

Appendix A. Photographs of EUT

Please refer to Sporton report number EP292604 as below.