



FCC RF Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : CDMA/LTE Dual-Mode Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : ZTE N910
FCC ID : Q78-ZTEN910
STANDARD : 47 CFR Part 2, 24E, 27L
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TX FREQUENCY RANGE : LTE Band II : 1850 MHz ~ 1910 MHz
LTE Band IV : 1710 MHz ~ 1755 MHz
RX FREQUENCY RANGE : LTE Band II : 1930 MHz ~ 1990 MHz
LTE Band IV : 2110 MHz ~ 2155 MHz
MAX. ERP/EIRP POWER : 0.16 W (LTE Band II, QPSK, BW 1.4MHz)
0.15 W (LTE Band II, 16QAM, BW 1.4MHz)
0.19 W (LTE Band II, QPSK, BW 3MHz)
0.12 W (LTE Band II, 16QAM, BW 3MHz)
0.18 W (LTE Band II, QPSK, BW 5MHz)
0.15 W (LTE Band II, 16QAM, BW 5MHz)
0.18 W (LTE Band II, QPSK, BW 10MHz)
0.15 W (LTE Band II, 16QAM, BW 10MHz)
0.15 W (LTE Band II, QPSK, BW 15MHz)
0.14 W (LTE Band II, 16QAM, BW 15MHz)
0.18 W (LTE Band II, QPSK, BW 20MHz)
0.16 W (LTE Band II, 16QAM, BW 20MHz)
0.10 W (LTE Band IV, QPSK, BW 1.4MHz)
0.10 W (LTE Band IV, 16QAM, BW 1.4MHz)
0.15 W (LTE Band IV, QPSK, BW 3MHz)
0.09 W (LTE Band IV, 16QAM, BW 3MHz)
0.15 W (LTE Band IV, QPSK, BW 5MHz)
0.14 W (LTE Band IV, 16QAM, BW 5MHz)
0.15 W (LTE Band IV, QPSK, BW 10MHz)
0.14 W (LTE Band IV, 16QAM, BW 10MHz)
0.17 W (LTE Band IV, QPSK, BW 15MHz)
0.16 W (LTE Band IV, 16QAM, BW 15MHz)
0.17 W (LTE Band IV, QPSK, BW 20MHz)
0.11 W (LTE Band IV, 16QAM, BW 20MHz)

EMISSION DESIGNATOR : 1M10G7D (LTE Band II, QPSK, BW 1.4MHz)
1M10D7W (LTE Band II, 16QAM, BW 1.4MHz)
2M74G7D (LTE Band II, QPSK, BW 3MHz)
2M74D7W (LTE Band II, 16QAM, BW 3MHz)
4M50G7D (LTE Band II, QPSK, BW 5MHz)
4M52D7W (LTE Band II, 16QAM, BW 5MHz)
9M16G7D (LTE Band II, QPSK, BW 10MHz)
9M12D7W (LTE Band II, 16QAM, BW 10MHz)
13M5G7D (LTE Band II, QPSK, BW 15MHz)
13M6D7W (LTE Band II, 16QAM, BW 15MHz)
18M7G7D (LTE Band II, QPSK, BW 20MHz)
18M8D7W (LTE Band II, 16QAM, BW 20MHz)
1M10G7D (LTE Band IV, QPSK, BW 1.4MHz)
1M10D7W (LTE Band IV, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band IV, QPSK, BW 3MHz)
2M74D7W (LTE Band IV, 16QAM, BW 3MHz)
4M52G7D (LTE Band IV, QPSK, BW 5MHz)
4M52D7W (LTE Band IV, 16QAM, BW 5MHz)
9M16G7D (LTE Band IV, QPSK, BW 10MHz)
9M16D7W (LTE Band IV, 16QAM, BW 10MHz)
13M5G7D (LTE Band IV, QPSK, BW 15MHz)
13M6D7W (LTE Band IV, 16QAM, BW 15MHz)
18M7G7D (LTE Band IV, QPSK, BW 20MHz)
18M7D7W (LTE Band IV, 16QAM, BW 20MHz)

The product was received on Nov. 07, 2011 and completely tested on Mar. 15, 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 / Manager



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



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APPENDIX A. PHOTOGRAPHS OF EUT

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Average Power	NA	PASS	-
3.2	§24.232(d) §27.50(d)(5)	Peak-to-Average Ratio	< 13dB	PASS	-
3.3	§24.232(c) §27.50(d)(4)	Equivalent Isotropic Radiated Power	< 2 Watts (Band 2) < 1 Watt (Band 4)	PASS	-
3.4	§2.1049 §24.238(a)	Occupied Bandwidth	NA	PASS	-
3.5	§2.1051 §24.238(a) §27.53(g)(h)	Band Edge Measurement	< $43+10\log_{10}(P[\text{Watts}])$	PASS	-
3.6	§2.1051 §24.238(a) §27.53(g)(h)	Conducted Emission	< $43+10\log_{10}(P[\text{Watts}])$	PASS	-
3.7	§2.1053 §24.238(a) §27.53(h) (g)	Field Strength of Spurious Radiation	< $43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 36.47 dB at 10395 MHz -
3.8	§2.1055 §24.235 §27.54	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 & Specification	
Equipment	CDMA/LTE Dual-Mode Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N910
FCC ID	Q78-ZTEN910
Tx Frequency	LTE Band II : 1850 MHz ~ 1910 MHz LTE Band IV : 1710 MHz ~ 1755 MH
Rx Frequency	LTE Band II : 1930 MHz ~ 1990 MHz LTE Band IV : 2110 MHz ~ 2155 MHz
Maximum Output Average Power to Antenna	LTE Band II : 22.77 dBm LTE Band IV : 22.76 dBm
Antenna Type	PIFA Antenna
HW Version	N910.H02
SW Version	GB_N910V1.0.0B07
EUT Stage	Identical Prototype

1.4 Emission Designator

FCC Rule	System	Type of Modulation	BW	Emission Designator	Maximum EIRP
Part 24	LTE Band 2	QPSK	1.4 MHz	1M10G7D	0.16 W
Part 24	LTE Band 2	16QAM	1.4 MHz	1M10D7W	0.15 W
Part 24	LTE Band 2	QPSK	3 MHz	2M74G7D	0.19 W
Part 24	LTE Band 2	16QAM	3 MHz	2M74D7W	0.12 W
Part 24	LTE Band 2	QPSK	5MHz	4M50G7D	0.18 W
Part 24	LTE Band 2	16QAM	5MHz	4M52D7W	0.15 W
Part 24	LTE Band 2	QPSK	10MHz	9M16G7D	0.18 W
Part 24	LTE Band 2	16QAM	10MHz	9M12D7W	0.15 W
Part 24	LTE Band 2	QPSK	15MHz	13M5G7D	0.15 W
Part 24	LTE Band 2	16QAM	15MHz	13M6D7W	0.14 W
Part 24	LTE Band 2	QPSK	20MHz	18M7G7D	0.18 W
Part 24	LTE Band 2	16QAM	20MHz	18M8D7W	0.16 W
Part 27	LTE Band 4	QPSK	1.4 MHz	1M10G7D	0.10 W
Part 27	LTE Band 4	16QAM	1.4 MHz	1M10D7W	0.10 W
Part 27	LTE Band 4	QPSK	3 MHz	2M72G7D	0.15 W
Part 27	LTE Band 4	16QAM	3 MHz	2M74D7W	0.09 W
Part 27	LTE Band 4	QPSK	5MHz	4M52G7D	0.15 W
Part 27	LTE Band 4	16QAM	5MHz	4M52D7W	0.14 W
Part 27	LTE Band 4	QPSK	10MHz	9M16G7D	0.15 W
Part 27	LTE Band 4	16QAM	10MHz	9M16D7W	0.14 W
Part 27	LTE Band 4	QPSK	15MHz	13M5G7D	0.17 W
Part 27	LTE Band 4	16QAM	15MHz	13M6D7W	0.16 W
Part 27	LTE Band 4	QPSK	20MHz	18M7G7D	0.17 W
Part 27	LTE Band 4	16QAM	20MHz	18M7D7W	0.11 W

1.5 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.
	03CH01-KS	149928/4086E-1

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH02-HY	

1.6 Applied Standards

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

- ♦ 47 CFR Part 2, 24E, 27L
- ♦ ANSI / TIA / EIA-603-C-2004

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.

1.7 Ancillary Equipment List

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

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: 30MHz to 19000 MHz.

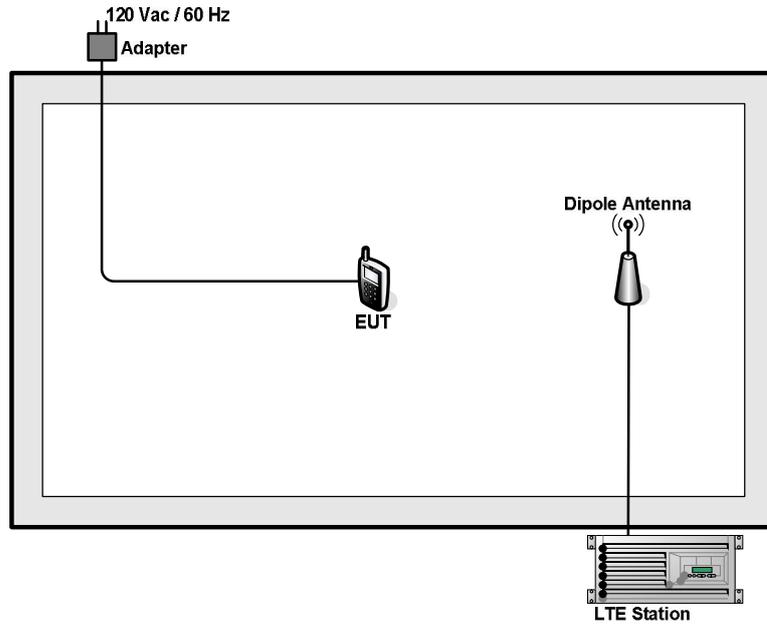
Test Modes			
Band		Radiated TCs	Conducted TCs
LTE Band II	BW 20MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) QPSK Link 	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 99) Link ■ LTE (RB Size 50, RB Offset 25) Link ■ LTE (RB Size 100, RB Offset 0) Link
	BW 15MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) QPSK Link 	<ul style="list-style-type: none"> ■ 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 10MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 49) QPSK Link 	<ul style="list-style-type: none"> ■ 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 5MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) QPSK Link 	<ul style="list-style-type: none"> ■ 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 3MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 14) QPSK Link 	<ul style="list-style-type: none"> ■ 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 1.4MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 5) QPSK Link 	<ul style="list-style-type: none"> ■ 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

Test Modes			
Band	Radiated TCs	Conducted TCs	
LTE Band IV	BW 20MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) QPSK Link 	<ul style="list-style-type: none"> ■ 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
	BW 15MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0), QPSK Link 	<ul style="list-style-type: none"> ■ 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 10MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) QPSK Link 	<ul style="list-style-type: none"> ■ 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 5MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 24) QPSK Link 	<ul style="list-style-type: none"> ■ 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 3MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) QPSK Link 	<ul style="list-style-type: none"> ■ 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 1.4MHz	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 5) QPSK Link 	<ul style="list-style-type: none"> ■ 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

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



3 Test Result

3.1 Conducted Output Average Power Measurement

3.1.1 Description of the Conducted Output Average Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum average power on the EUT. The measured average power in the radio frequency on the transmitter output terminals shall be reported.

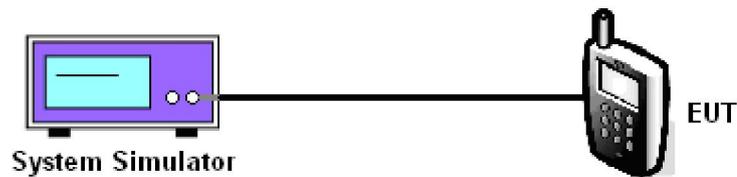
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum average power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.

3.1.4 Test Setup



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 II	20MHz	18700	1860	QPSK	1	0	22.52	0.179
					1	99	22.33	0.171
					50	25	21.56	0.143
					100	0	21.39	0.138
				16-QAM	1	0	22.04	0.160
					1	99	21.94	0.156
					50	25	20.72	0.118
					100	0	20.56	0.114
		18900	1880	QPSK	1	0	22.68	0.185
					1	99	22.66	0.185
					50	25	21.50	0.141
					100	0	21.61	0.145
	16-QAM			1	0	22.07	0.161	
				1	99	21.97	0.157	
				50	25	20.59	0.115	
				100	0	20.54	0.113	
	19100	1900	QPSK	1	0	22.52	0.179	
				1	99	22.44	0.175	
				50	25	21.29	0.135	
				100	0	21.30	0.135	
			16-QAM	1	0	22.08	0.161	
				1	99	21.87	0.154	
				50	25	20.57	0.114	
				100	0	20.39	0.109	



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band II	15MHz	18675	1857.5	QPSK	1	0	22.61	0.182
					1	74	22.68	0.185
					36	18	21.51	0.142
					75	0	21.38	0.137
				16-QAM	1	0	22.07	0.161
					1	74	21.99	0.158
					36	18	20.61	0.115
					75	0	20.46	0.111
		18900	1880	QPSK	1	0	22.34	0.171
					1	74	22.47	0.177
					36	18	21.57	0.144
					75	0	21.64	0.146
				16-QAM	1	0	21.98	0.158
					1	74	21.91	0.155
					36	18	20.78	0.120
					75	0	20.72	0.118
		19125	1902.5	QPSK	1	0	22.77	0.189
					1	74	22.66	0.185
					36	18	21.65	0.146
					75	0	21.55	0.143
				16-QAM	1	0	22.28	0.169
					1	74	22.23	0.167
					36	18	20.81	0.121
					75	0	20.54	0.113



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band II	10MHz	18650	1855	QPSK	1	0	22.58	0.181
					1	49	22.63	0.183
					25	13	21.58	0.144
					50	0	21.49	0.141
				16-QAM	1	0	21.95	0.157
					1	49	22.00	0.158
					25	13	20.85	0.122
					50	0	20.49	0.112
		18900	1880	QPSK	1	0	22.30	0.170
					1	49	22.30	0.170
					25	13	21.50	0.141
					50	0	21.34	0.136
				16-QAM	1	0	21.97	0.157
					1	49	21.99	0.158
					25	13	20.80	0.120
					50	0	20.66	0.116
		19150	1905	QPSK	1	0	22.30	0.170
					1	49	22.33	0.171
					25	13	21.35	0.136
					50	0	21.37	0.137
				16-QAM	1	0	21.98	0.158
					1	49	21.86	0.153
					25	13	20.87	0.122
					50	0	20.53	0.113



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band II	5MHz	18625	1852.5	QPSK	1	0	22.20	0.166
					1	24	22.30	0.170
					12	6	21.48	0.141
					25	0	21.49	0.141
				16-QAM	1	0	21.89	0.155
					1	24	22.09	0.162
					12	6	20.54	0.113
					25	0	21.00	0.126
		18900	1880	QPSK	1	0	22.35	0.172
					1	24	22.25	0.168
					12	6	21.42	0.139
					25	0	21.43	0.139
				16-QAM	1	0	21.82	0.152
					1	24	21.56	0.143
					12	6	20.45	0.111
					25	0	20.82	0.121
		19175	1907.5	QPSK	1	0	22.69	0.186
					1	24	22.55	0.180
					12	6	21.41	0.138
					25	0	21.45	0.140
				16-QAM	1	0	21.98	0.158
					1	24	21.54	0.143
					12	6	20.50	0.112
					25	0	21.02	0.126

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band II	3MHz	18615	1851.5	QPSK	1	0	22.42	0.175
					1	14	22.59	0.182
					8	4	21.51	0.142
					15	0	21.43	0.139
				16-QAM	1	0	21.94	0.156
					1	14	22.39	0.173
					8	4	20.82	0.121
					15	0	20.30	0.107
		18900	1880	QPSK	1	0	22.36	0.172
					1	14	22.01	0.159
					8	4	21.37	0.137
					15	0	21.19	0.132
				16-QAM	1	0	21.74	0.149
					1	14	21.67	0.147
					8	4	20.61	0.115
					15	0	20.44	0.111
		19185	1908.5	QPSK	1	0	22.15	0.164
					1	14	22.15	0.164
					8	4	21.21	0.132
					15	0	21.12	0.129
				16-QAM	1	0	21.82	0.152
					1	14	22.00	0.158
					8	4	20.66	0.116
					15	0	20.15	0.104



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band II	1.4MHz	18607	1850.7	QPSK	1	0	21.96	0.157
					1	5	22.42	0.175
					3	2	22.35	0.172
					6	0	21.20	0.132
				16-QAM	1	0	21.89	0.155
					1	5	21.80	0.151
					3	2	21.46	0.140
					6	0	20.40	0.110
		18900	1880	QPSK	1	0	22.30	0.170
					1	5	22.15	0.164
					3	2	22.35	0.172
					6	0	21.35	0.136
				16-QAM	1	0	21.89	0.155
					1	5	21.93	0.156
					3	2	21.72	0.149
					6	0	20.62	0.115
		19193	1909.3	QPSK	1	0	22.40	0.174
					1	5	22.50	0.178
					3	2	22.44	0.175
					6	0	21.39	0.138
				16-QAM	1	0	22.16	0.164
					1	5	21.97	0.157
					3	2	21.60	0.145
					6	0	20.63	0.116



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band IV	20MHz	20050	1720	QPSK	1	0	22.60	0.182
					1	99	22.68	0.185
					50	25	21.59	0.144
					100	0	21.46	0.140
				16-QAM	1	0	21.89	0.155
					1	99	21.99	0.158
					50	25	20.64	0.116
					100	0	20.55	0.114
		20175	1732.5	QPSK	1	0	22.69	0.186
					1	99	22.35	0.172
					50	25	21.42	0.139
					100	0	21.39	0.138
				16-QAM	1	0	21.98	0.158
					1	99	21.62	0.145
					50	25	20.65	0.116
					100	0	20.45	0.111
		20300	1745	QPSK	1	0	22.25	0.168
					1	99	22.15	0.164
					50	25	21.24	0.133
					100	0	21.18	0.131
				16-QAM	1	0	21.80	0.151
					1	99	21.90	0.155
					50	25	20.34	0.108
					100	0	20.32	0.108



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band IV	15MHz	20025	1717.5	QPSK	1	0	22.52	0.179
					1	74	22.69	0.186
					36	18	21.48	0.141
					75	0	21.45	0.140
				16-QAM	1	0	21.88	0.154
					1	74	22.01	0.159
					36	18	20.75	0.119
					75	0	20.45	0.111
		20175	1732.5	QPSK	1	0	22.76	0.189
					1	74	22.35	0.172
					36	18	21.56	0.143
					75	0	21.47	0.140
				16-QAM	1	0	22.18	0.165
					1	74	21.66	0.147
					36	18	20.72	0.118
					75	0	20.48	0.112
		20325	1747.5	QPSK	1	0	22.49	0.177
					1	74	22.50	0.178
					36	18	21.22	0.132
					75	0	21.20	0.132
				16-QAM	1	0	21.81	0.152
					1	74	21.75	0.150
					36	18	20.35	0.108
					75	0	20.21	0.105



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band IV	10MHz	20000	1715	QPSK	1	0	22.58	0.181
					1	49	22.58	0.181
					25	13	21.43	0.139
					50	0	21.31	0.135
				16-QAM	1	0	21.88	0.154
					1	49	21.86	0.153
					25	13	20.86	0.122
					50	0	20.59	0.115
		20175	1732.5	QPSK	1	0	22.35	0.172
					1	49	22.11	0.163
					25	13	21.34	0.136
					50	0	21.36	0.137
				16-QAM	1	0	22.08	0.161
					1	49	21.67	0.147
					25	13	20.81	0.121
					50	0	20.56	0.114
		20350	1750	QPSK	1	0	21.98	0.158
					1	49	22.15	0.164
					25	13	21.22	0.132
					50	0	21.29	0.135
				16-QAM	1	0	21.66	0.147
					1	49	21.88	0.154
					25	13	20.48	0.112
					50	0	20.31	0.107



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band IV	5MHz	19975	1712.5	QPSK	1	0	22.27	0.169
					1	24	22.26	0.168
					12	6	21.43	0.139
					25	0	21.45	0.140
				16-QAM	1	0	21.95	0.157
					1	24	21.41	0.138
					12	6	20.37	0.109
					25	0	20.92	0.124
		20175	1732.5	QPSK	1	0	22.43	0.175
					1	24	22.23	0.167
					12	6	21.37	0.137
					25	0	21.35	0.136
				16-QAM	1	0	21.87	0.154
					1	24	21.53	0.142
					12	6	20.36	0.109
					25	0	20.79	0.120
		20375	1752.5	QPSK	1	0	22.42	0.175
					1	24	22.46	0.176
					12	6	21.29	0.135
					25	0	21.33	0.136
				16-QAM	1	0	21.75	0.150
					1	24	21.49	0.141
					12	6	20.34	0.108
					25	0	20.69	0.117



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band IV	3MHz	19965	1711.5	QPSK	1	0	22.58	0.181
					1	14	22.57	0.181
					8	4	21.86	0.153
					15	0	21.76	0.150
				16-QAM	1	0	21.95	0.157
					1	14	22.24	0.167
					8	4	20.80	0.120
					15	0	20.57	0.114
		20175	1732.5	QPSK	1	0	22.62	0.183
					1	14	22.61	0.182
					8	4	21.50	0.141
					15	0	21.56	0.143
				16-QAM	1	0	22.09	0.162
					1	14	21.62	0.145
					8	4	20.76	0.119
					15	0	20.76	0.119
		20385	1753.5	QPSK	1	0	22.42	0.175
					1	14	22.41	0.174
					8	4	21.46	0.140
					15	0	21.32	0.136
				16-QAM	1	0	21.60	0.145
					1	14	21.85	0.153
					8	4	20.38	0.109
					15	0	20.53	0.113



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band IV	1.4MHz	19957	1710.7	QPSK	1	0	22.58	0.181
					1	5	22.41	0.174
					3	2	22.42	0.175
					6	0	21.58	0.144
				16-QAM	1	0	22.13	0.163
					1	5	22.04	0.160
					3	2	21.91	0.155
					6	0	20.74	0.119
		20175	1732.5	QPSK	1	0	22.57	0.181
					1	5	22.63	0.183
					3	2	22.53	0.179
					6	0	21.52	0.142
				16-QAM	1	0	22.14	0.164
					1	5	22.36	0.172
					3	2	21.95	0.157
					6	0	20.64	0.116
		20393	1754.3	QPSK	1	0	22.19	0.166
					1	5	22.45	0.176
					3	2	22.32	0.171
					6	0	21.48	0.141
				16-QAM	1	0	21.84	0.153
					1	5	22.01	0.159
					3	2	21.82	0.152
					6	0	20.47	0.111

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.

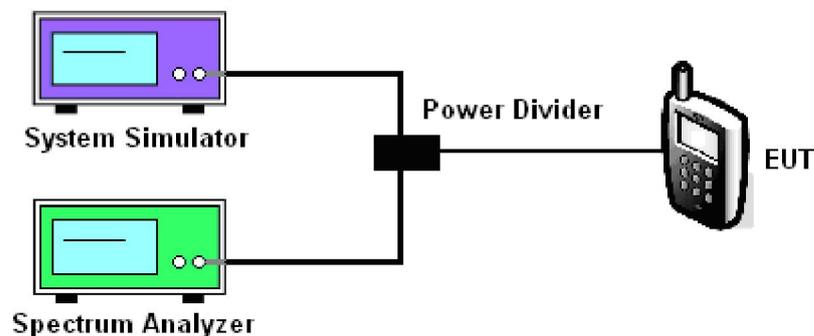
3.2.2 Measuring Instruments

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 II	1.4MHz	18900	1880	QPSK	5.08
				16-QAM	5.72
	3MHz	18900	1880	QPSK	5.12
				16-QAM	6.00
	5MHz	18900	1880	QPSK	5.28
				16-QAM	5.68
	10MHz	18900	1880	QPSK	5.44
				16-QAM	6.12
	15MHz	18900	1880	QPSK	5.92
				16-QAM	6.92
	20MHz	18900	1880	QPSK	6.56
				16-QAM	7.16
LTE Band IV	1.4MHz	20175	1732.5	QPSK	4.60
				16-QAM	5.20
	3MHz	20175	1732.5	QPSK	4.76
				16-QAM	5.56
	5MHz	20175	1732.5	QPSK	4.96
				16-QAM	5.44
	10MHz	20175	1732.5	QPSK	5.24
				16-QAM	6.04
	15MHz	20175	1732.5	QPSK	5.92
				16-QAM	6.8
	20MHz	20175	1732.5	QPSK	6.6
				16-QAM	7.16

3.3 Equivalent Isotropic Radiated Power Measurement

3.3.1 Description of the EIRP Measurement

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 2 watts with band 2 and EIRP of 1 watt with band 4.

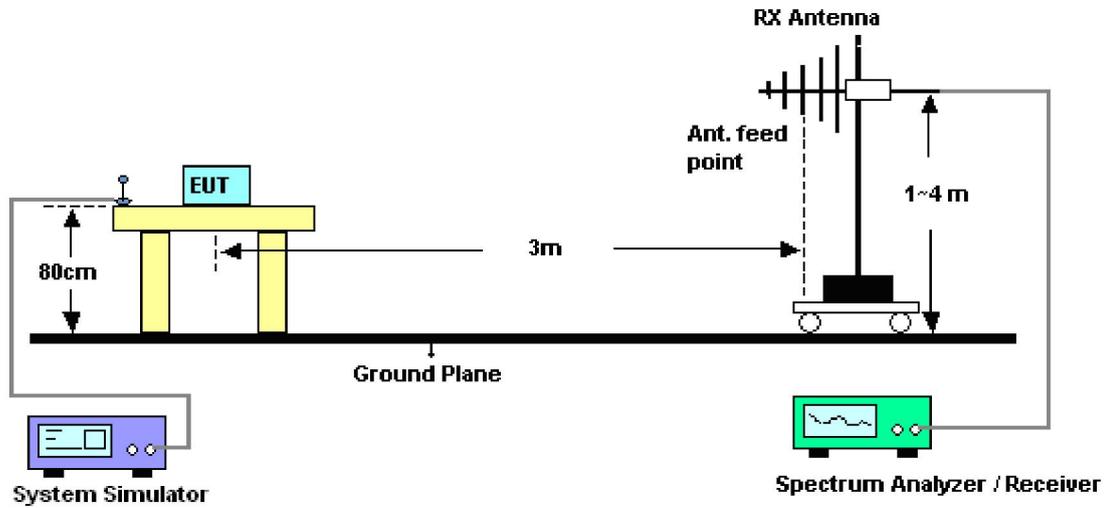
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

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 with a test antenna and a spectrum analyzer with RBW=3M VBW=3*RBW RMS Detector and used Channel Power function with measurement bandwidth = 5M/10MHz.
2. During the measurement, the EUT was enforced in maximum power and linked with a base station. 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 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, $EIRP = LVL + \text{Correction factor}$.

3.3.4 Test Setup



3.3.5 Test Result of EIRP

LTE Band 2 Radiated Power EIRP for BW 1.4MHz (QPSK, 1RB Size, RB Offset 5)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-15.85	37.79	21.94	0.16
1880.0	-22.38	39.33	16.95	0.05
1909.3	-18.26	38.27	20.01	0.10
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-25.71	39.67	13.96	0.02
1880.0	-30.79	39.23	8.44	0.01
1909.3	-24.80	38.59	13.79	0.02

LTE Band 2 Radiated Power EIRP for BW 1.4MHz (16QAM, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-15.96	37.16	21.83	0.15
1880.0	-18.48	35.61	20.85	0.12
1909.3	-17.46	36.04	20.81	0.12
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-24.05	36.1	15.62	0.04
1880.0	-25.83	37.44	13.40	0.02
1909.3	-26.10	39.12	12.49	0.02



LTE Band 2 Radiated Power EIRP for BW 3MHz (QPSK, 1RB Size, RB Offset 14)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-17.63	37.79	20.16	0.10
1880.0	-16.54	39.33	22.79	0.19
1908.5	-18.45	38.27	19.82	0.10
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-21.12	39.67	18.55	0.07
1880.0	-21.83	39.23	17.40	0.05
1908.5	-24.47	38.59	14.12	0.03

LTE Band 2 Radiated Power EIRP for BW 3MHz (16QAM, 1RB Size, RB Offset 14)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-17.68	37.16	20.11	0.10
1880.0	-18.48	35.61	20.85	0.12
1908.5	-17.44	36.04	20.83	0.12
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-25.07	36.1	14.60	0.03
1880.0	-25.36	37.44	13.87	0.02
1908.5	-28.41	39.12	10.18	0.01



LTE Band 2 Radiated Power EIRP for BW 5MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-15.61	37.79	22.18	0.17
1880.0	-16.89	39.33	22.44	0.18
1907.5	-15.95	38.27	22.32	0.17
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-19.08	39.67	20.59	0.11
1880.0	-19.38	39.23	19.85	0.10
1907.5	-22.28	38.59	16.31	0.04

LTE Band 2 Radiated Power EIRP for BW 5MHz (16QAM, 1RB Size, RB Offset 24)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-16.48	37.16	21.31	0.14
1880.0	-17.70	35.61	21.63	0.15
1907.5	-16.99	36.04	21.28	0.13
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-23.43	36.1	16.24	0.04
1880.0	-24.76	37.44	14.47	0.03
1907.5	-26.29	39.12	12.30	0.02



LTE Band 2 Radiated Power EIRP for BW 10MHz (QPSK, 1RB Size, RB Offset 49)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-14.72	37.16	22.44	0.18
1880.0	-13.77	35.61	21.84	0.15
1905.0	-15.54	36.04	20.50	0.11
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-22.57	36.1	13.53	0.02
1880.0	-23.74	37.44	13.70	0.02
1905.0	-22.54	39.12	16.58	0.05

LTE Band 2 Radiated Power EIRP for BW 10MHz (16QAM, 1RB Size, RB Offset 49)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-16.30	37.16	21.49	0.14
1880.0	-17.64	35.61	21.69	0.15
1905.0	-18.00	36.04	20.27	0.11
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-21.87	36.1	17.80	0.06
1880.0	-21.72	37.44	17.51	0.06
1905.0	-22.42	39.12	16.17	0.04



LTE Band 2 Radiated Power EIRP for BW 15MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1857.5	-15.31	37.16	21.85	0.15
1880.0	-14.08	35.61	21.53	0.14
1902.5	-14.28	36.04	21.76	0.15
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1857.5	-18.36	36.1	17.74	0.06
1880.0	-21.50	37.44	15.94	0.04
1902.5	-20.39	39.12	18.73	0.07

LTE Band 2 Radiated Power EIRP for BW 15MHz (16QAM, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-16.40	37.79	21.39	0.14
1880.0	-17.87	39.33	21.46	0.14
1909.8	-17.80	38.27	20.47	0.11
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-19.67	39.67	20.00	0.10
1880.0	-20.04	39.23	19.19	0.08
1909.8	-21.84	38.59	16.75	0.05



LTE Band 2 Radiated Power EIRP for BW 20MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-14.66	37.16	22.50	0.18
1880.0	-14.10	35.61	21.51	0.14
1900.0	-13.64	36.04	22.40	0.17
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-23.35	36.1	12.75	0.02
1880.0	-23.65	37.44	13.79	0.02
1900.0	-22.92	39.12	16.20	0.04

LTE Band 2 Radiated Power EIRP for BW 20MHz (16QAM, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-15.75	37.79	22.04	0.16
1880.0	-17.84	39.33	21.49	0.14
1900.0	-16.52	38.27	21.75	0.15
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-23.32	39.67	16.35	0.04
1880.0	-24.45	39.23	14.78	0.03
1900.0	-24.98	38.59	13.61	0.02



LTE Band 4 Radiated Power EIRP for BW 1.4MHz (QPSK, 1RB Size, RB Offset 5)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.7	-18.56	38.61	20.05	0.10
1732.5	-17.64	37.2	19.56	0.09
1754.3	-15.93	35.92	19.99	0.10
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.7	-23.11	34.84	11.73	0.01
1732.5	-24.20	37.92	13.72	0.02
1754.3	-22.13	40.63	18.50	0.07

LTE Band 4 Radiated Power EIRP for BW 1.4MHz (16QAM, 1RB Size, RB Offset 5)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.7	-18.61	38.61	20.00	0.10
1732.5	-17.73	37.2	19.47	0.09
1754.3	-16.13	35.92	19.79	0.10
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.7	-24.33	34.84	10.51	0.01
1732.5	-23.29	37.92	14.63	0.03
1754.3	-23.69	40.63	16.94	0.05



LTE Band 4 Radiated Power EIRP for BW 3MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.5	-16.79	38.61	21.82	0.15
1732.5	-17.45	37.2	19.75	0.09
1753.5	-15.48	35.92	20.44	0.11
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.5	-21.18	34.84	13.66	0.02
1732.5	-21.72	37.92	16.20	0.04
1753.5	-21.47	40.63	19.16	0.08

LTE Band 4 Radiated Power EIRP for BW 3MHz (16QAM, 1RB Size, RB Offset 14)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.5	-19.20	38.61	19.41	0.09
1732.5	-18.88	37.2	18.32	0.07
1753.5	-17.26	35.92	18.66	0.07
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.5	-21.88	34.84	12.96	0.02
1732.5	-23.62	37.92	14.30	0.03
1753.5	-23.21	40.63	17.42	0.06



LTE Band 4 Radiated Power EIRP for BW 5MHz (QPSK, 1RB Size, RB Offset 24)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-17.41	38.61	21.20	0.13
1732.5	-18.29	37.2	18.91	0.08
1752.5	-14.15	35.92	21.77	0.15
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-22.70	34.84	12.14	0.02
1732.5	-19.82	37.92	18.10	0.06
1752.5	-23.19	40.63	17.44	0.06

LTE Band 4 Radiated Power EIRP for BW 5MHz (16QAM, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-17.37	38.61	21.24	0.13
1732.5	-16.86	37.2	20.34	0.11
1752.5	-14.65	35.92	21.27	0.13
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-21.97	34.84	12.87	0.02
1732.5	-22.23	37.92	15.69	0.04
1752.5	-19.18	40.63	21.45	0.14



LTE Band 4 Radiated Power EIRP for BW 10MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1715.0	-17.14	38.61	21.47	0.14
1732.5	-17.54	37.2	19.66	0.09
1750.0	-14.49	35.92	21.43	0.14
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1715.0	-16.35	34.84	18.49	0.07
1732.5	-17.28	37.92	20.64	0.12
1750.0	-18.89	40.63	21.74	0.15

LTE Band 4 Radiated Power EIRP for BW 10MHz (16QAM, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-17.78	38.61	20.83	0.12
1880.0	-15.83	37.2	21.37	0.14
1909.8	-14.93	35.92	20.99	0.13
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-19.59	34.84	15.25	0.03
1880.0	-20.83	37.92	17.09	0.05
1909.8	-22.66	40.63	17.97	0.06



LTE Band 4 Radiated Power EIRP for BW 15MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.5	-16.29	38.61	22.32	0.17
1732.5	-15.73	37.2	21.47	0.14
1747.5	-14.81	35.92	21.11	0.13
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.5	-18.18	34.84	16.66	0.05
1732.5	-20.72	37.92	17.20	0.05
1747.5	-19.82	40.63	20.81	0.12

LTE Band 4 Radiated Power EIRP for BW 15MHz (16QAM, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.5	-17.53	38.61	21.08	0.13
1732.5	-15.16	37.2	22.04	0.16
1750.0	-16.23	35.92	19.69	0.09
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.5	-17.69	34.84	17.15	0.05
1732.5	-23.74	37.92	14.18	0.03
1750.0	-21.53	40.63	19.10	0.08



LTE Band 4 Radiated Power EIRP for BW 20MHz (QPSK, 1RB Size, RB Offset 0)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.0	-16.40	38.61	22.21	0.17
1732.5	-15.81	37.2	21.39	0.14
1745.0	-13.90	35.92	22.02	0.16
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.0	-19.36	34.84	15.48	0.04
1732.5	-20.69	37.92	17.23	0.05
1745.0	-19.38	40.63	21.25	0.13

LTE Band 4 Radiated Power EIRP for BW 20MHz (16QAM, 1RB Size, RB Offset 99)				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.0	-18.29	38.61	20.32	0.11
1732.5	-17.80	37.2	19.40	0.09
1745.0	-18.91	35.92	17.01	0.05
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.0	-14.31	34.84	20.53	0.11
1732.5	-17.70	37.92	20.22	0.11
1745.0	-20.18	40.63	20.45	0.11

3.4 Occupied Bandwidth Measurement

3.4.1 Description of Occupied Bandwidth Measurement

The 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.

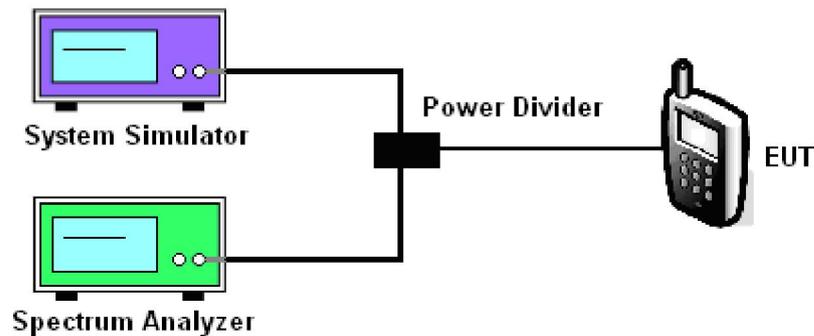
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The 99% occupied bandwidth (BW) of the middle channel for the highest RF powers were measured.

3.4.4 Test Setup

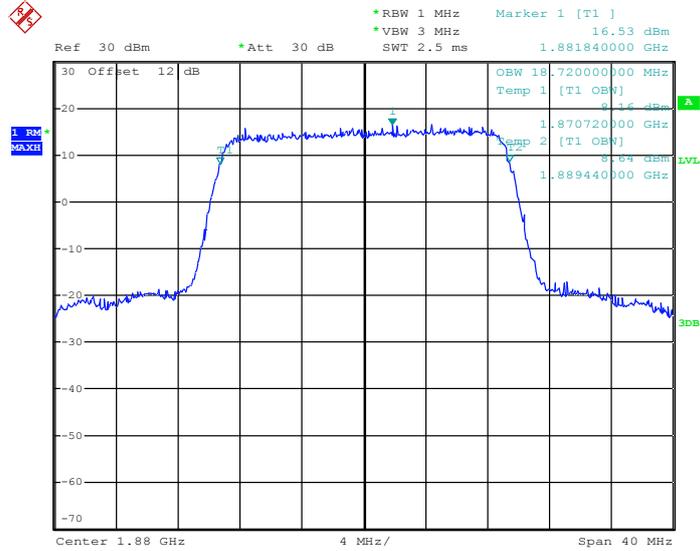




3.4.5 Test Result (Plots) of Occupied Bandwidth

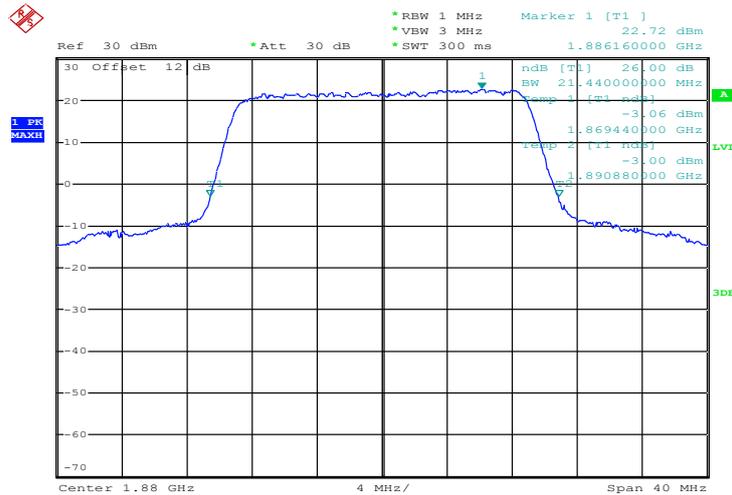
Band :	LTE Band II	BW / Mod. :	20MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 17:30:12

26dB Bandwidth Plot on Channel 18900

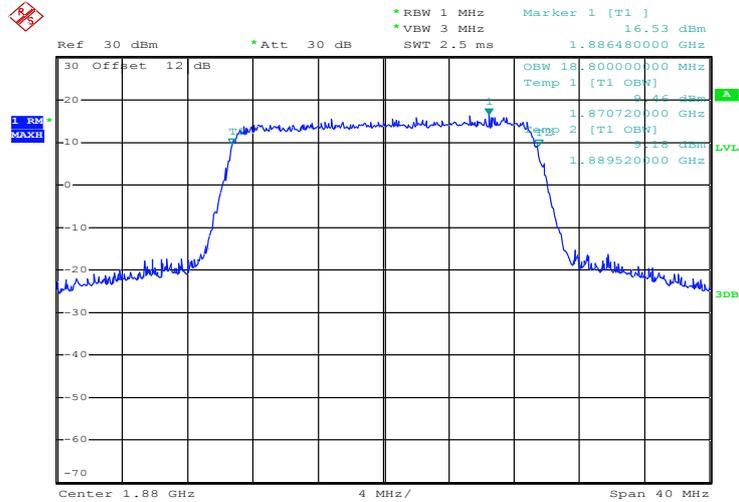


Date: 13.FEB.2012 10:11:27



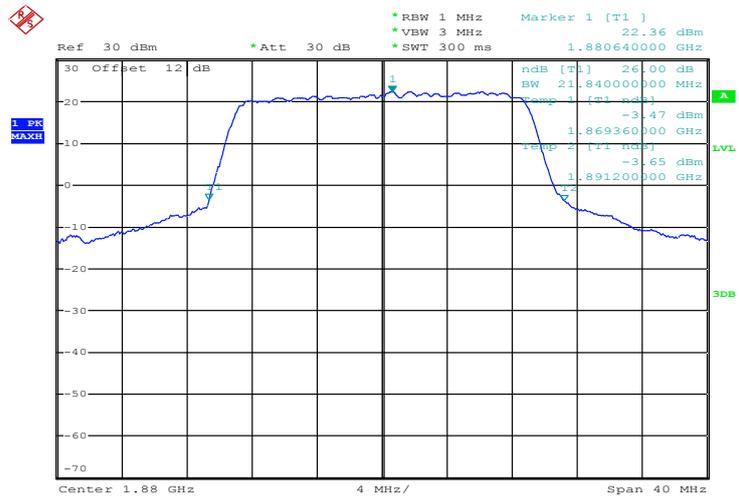
Band :	LTE Band II	BW / Mod. :	20MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 17:29:57

26dB Bandwidth Plot on Channel 18900

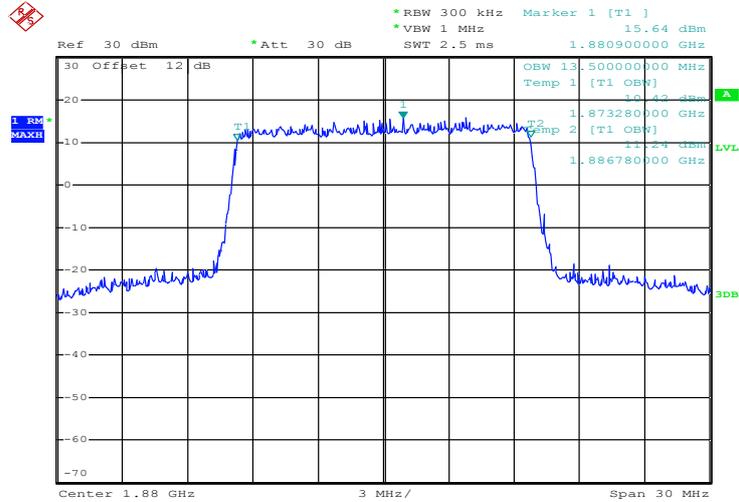


Date: 13.FEB.2012 10:11:08



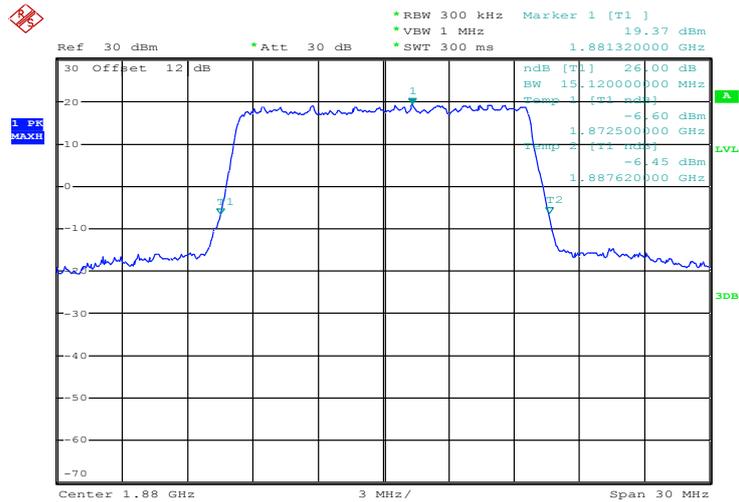
Band :	LTE Band II	BW / Mod. :	15MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 16:56:43

26dB Bandwidth Plot on Channel 18900

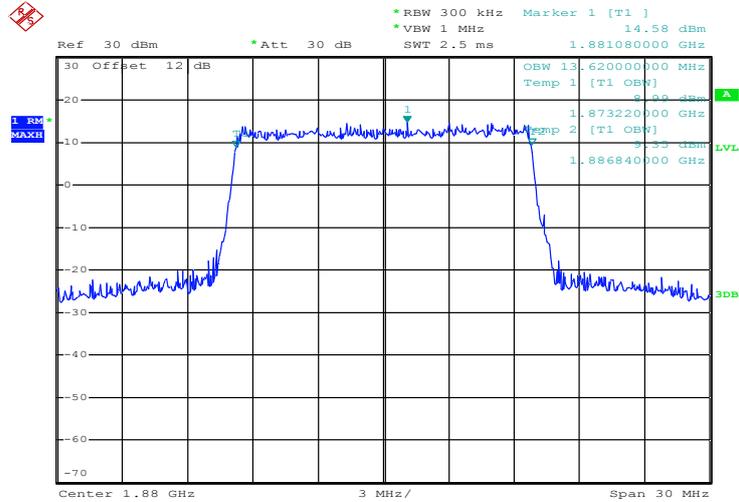


Date: 13.FEB.2012 10:09:01



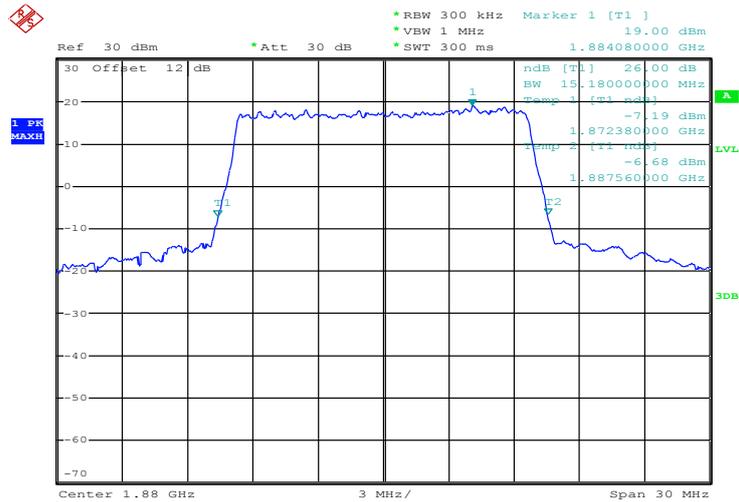
Band :	LTE Band II	BW / Mod. :	15MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 16:56:30

26dB Bandwidth Plot on Channel 18900

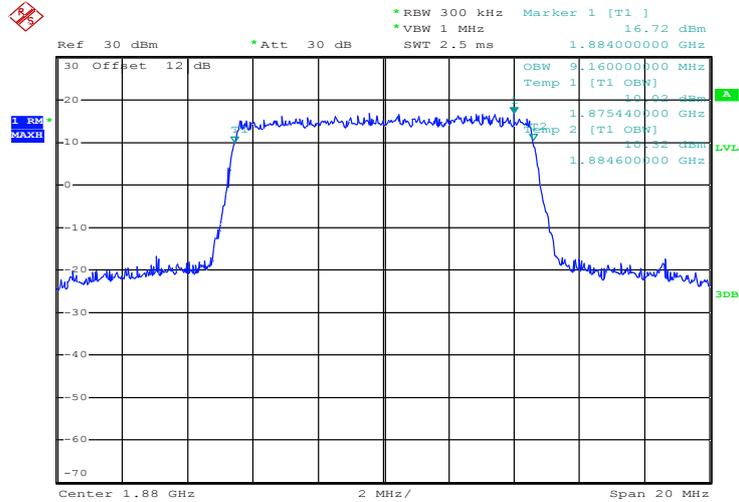


Date: 13.FEB.2012 10:09:24



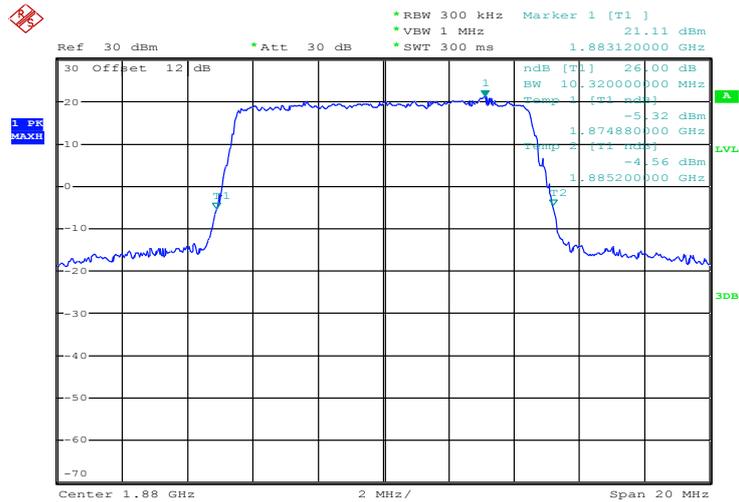
Band :	LTE Band II	BW / Mod. :	10MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 16:25:43

26dB Bandwidth Plot on Channel 18900

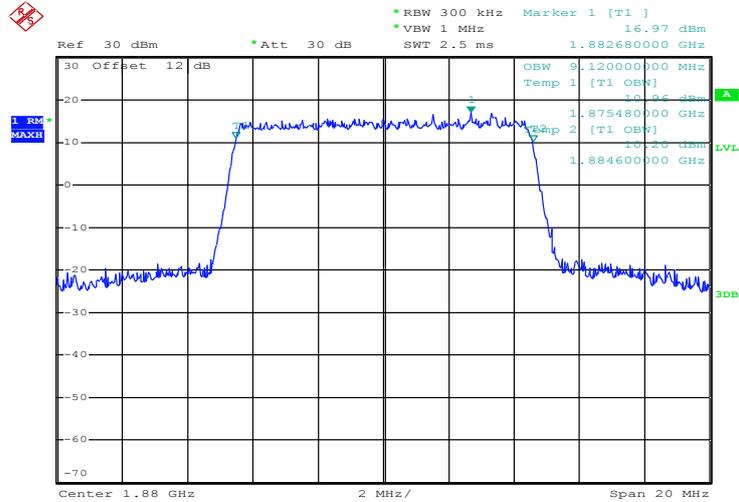


Date: 13.FEB.2012 10:07:55



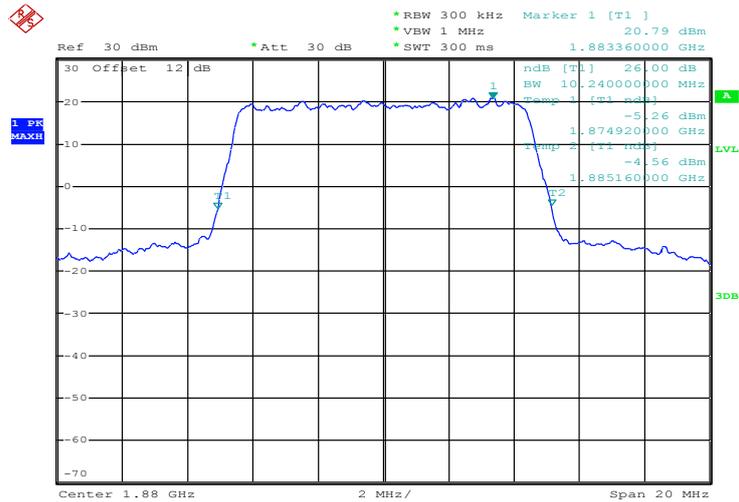
Band :	LTE Band II	BW / Mod. :	10MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 16:26:06

26dB Bandwidth Plot on Channel 18900

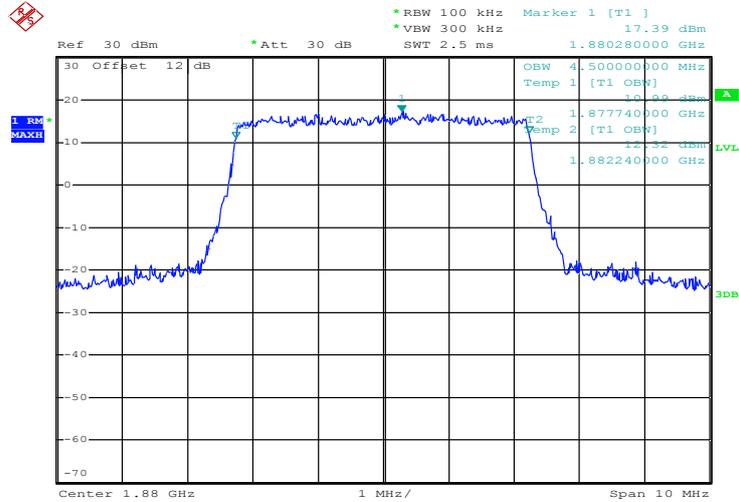


Date: 13.FEB.2012 10:07:39



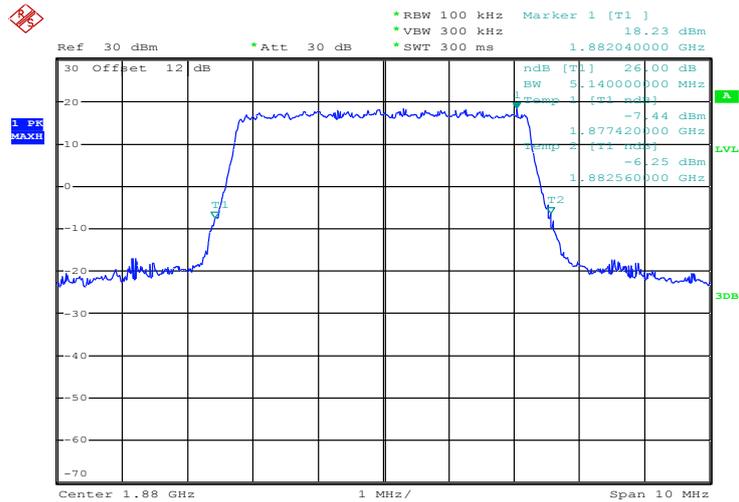
Band :	LTE Band II	BW / Mod. :	5MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 15:39:27

26dB Bandwidth Plot on Channel 18900

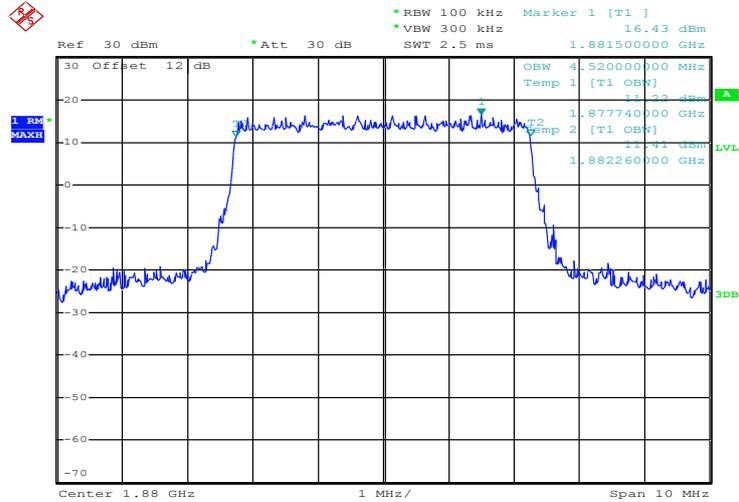


Date: 13.FEB.2012 09:57:30



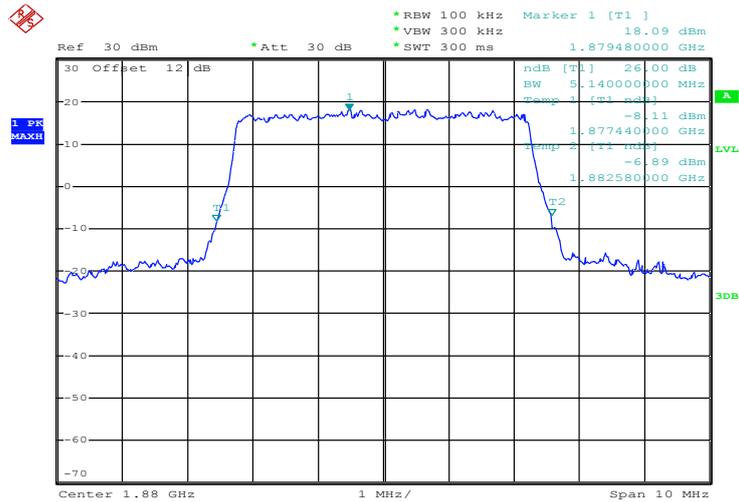
Band :	LTE Band II	BW / Mod. :	5MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 15:39:43

26dB Bandwidth Plot on Channel 18900

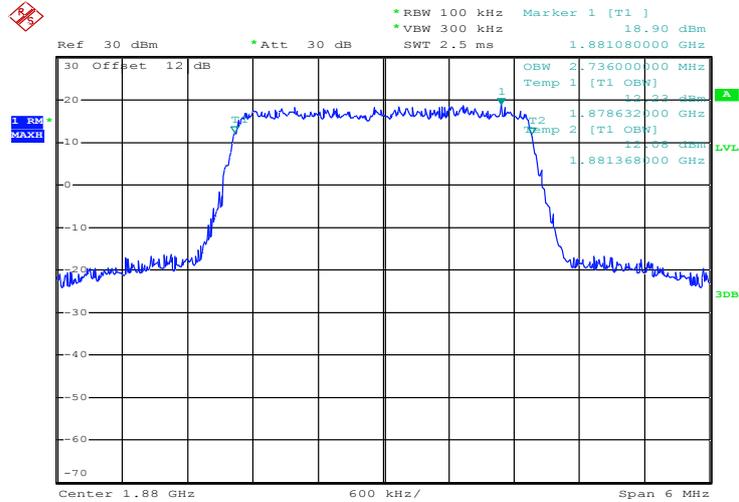


Date: 13.FEB.2012 09:57:48



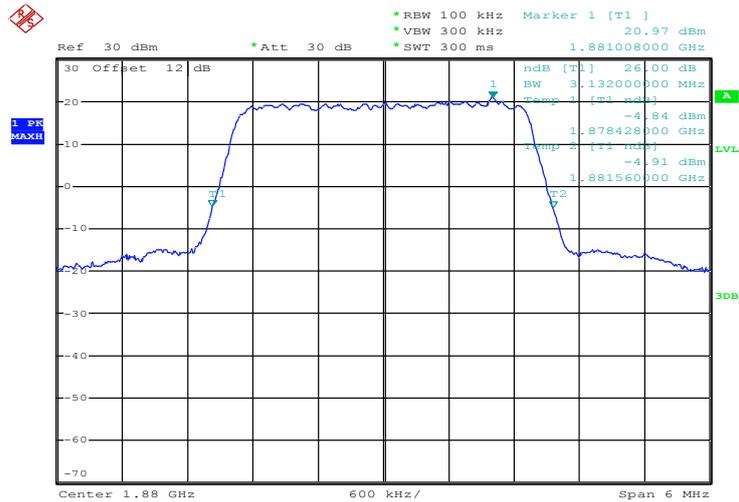
Band :	LTE Band II	BW / Mod. :	3MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 15:33:55

26dB Bandwidth Plot on Channel 18900

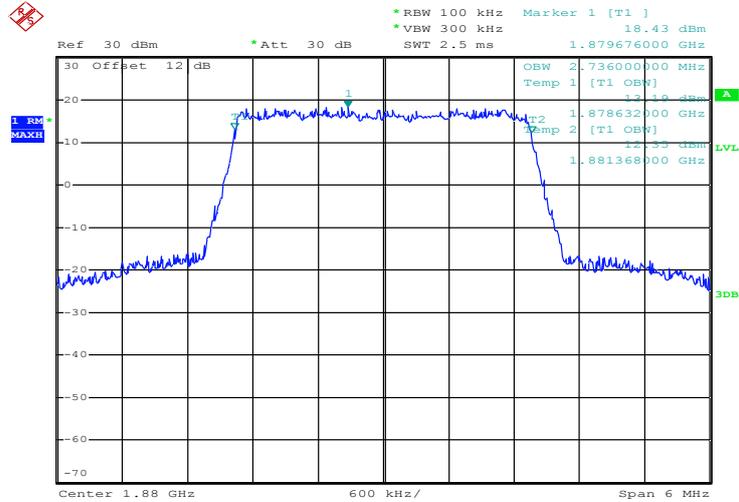


Date: 13.FEB.2012 10:05:09



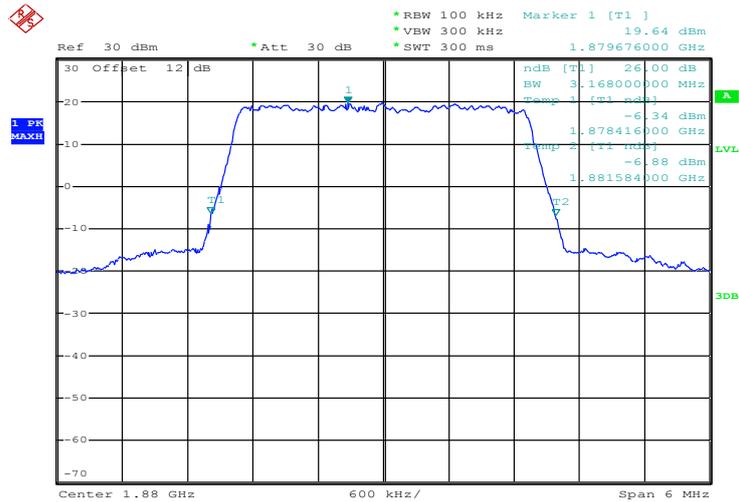
Band :	LTE Band II	BW / Mod. :	3MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 15:34:21

26dB Bandwidth Plot on Channel 18900

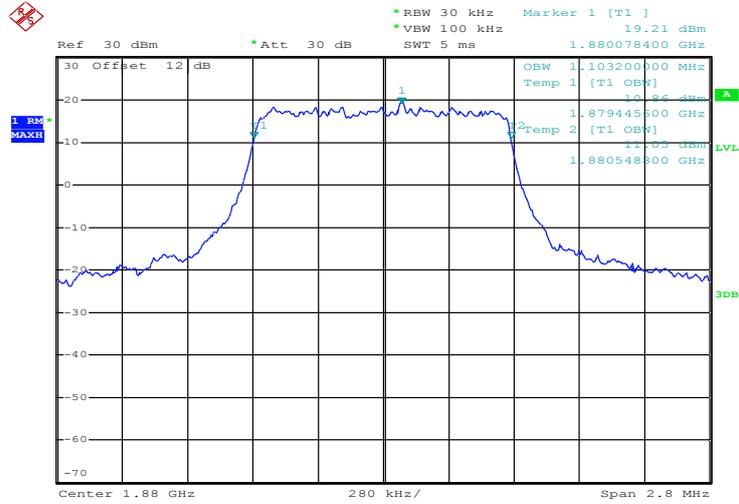


Date: 13.FEB.2012 10:05:26



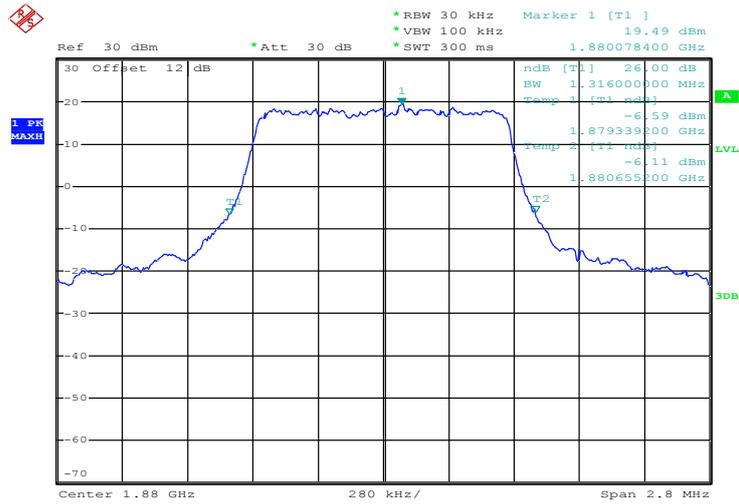
Band :	LTE Band II	BW / Mod. :	1.4MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 15:05:29

26dB Bandwidth Plot on Channel 18900

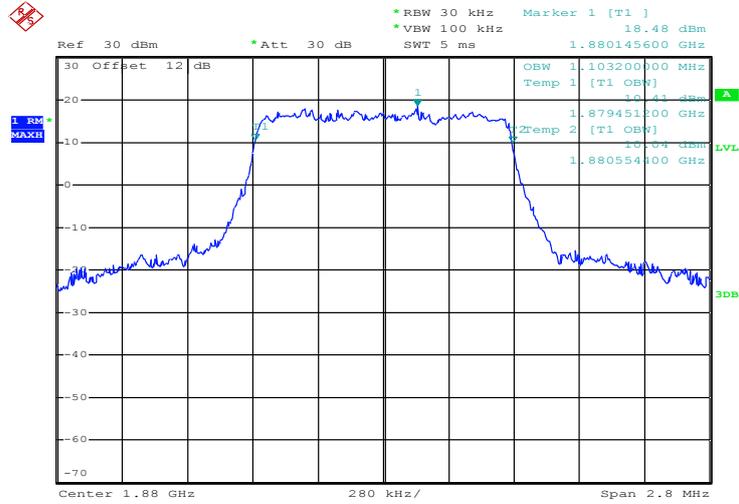


Date: 13.FEB.2012 10:02:49



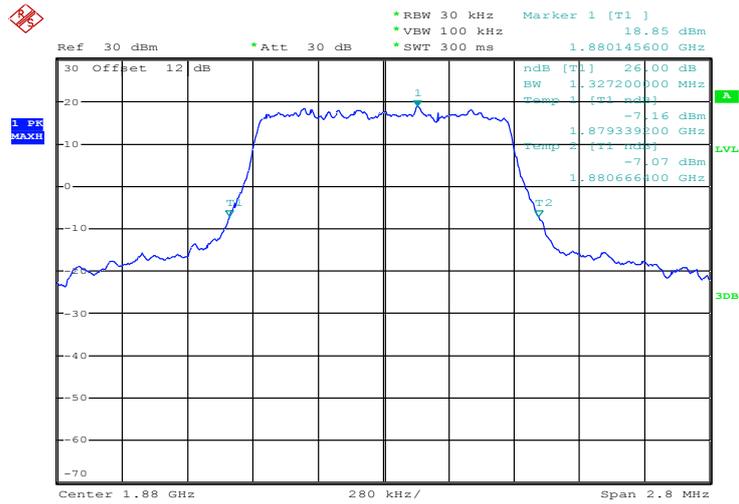
Band :	LTE Band II	BW / Mod. :	1.4MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18900



Date: 10.FEB.2012 15:06:06

26dB Bandwidth Plot on Channel 18900

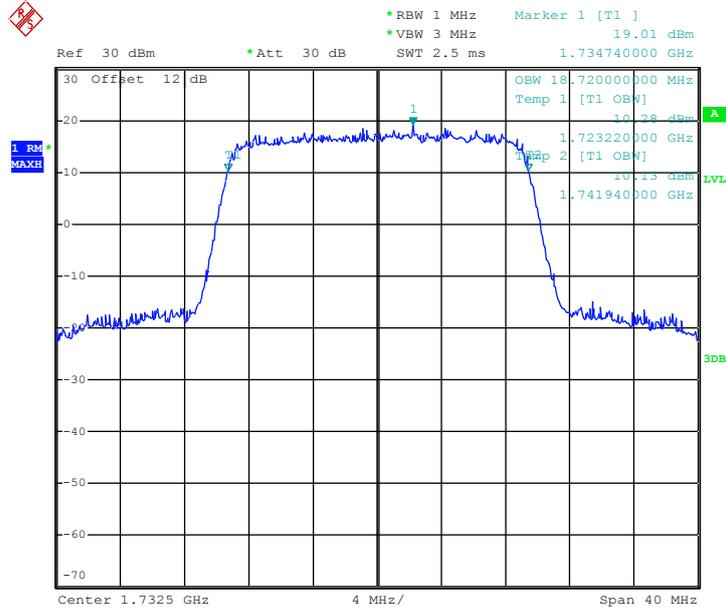


Date: 13.FEB.2012 10:02:26



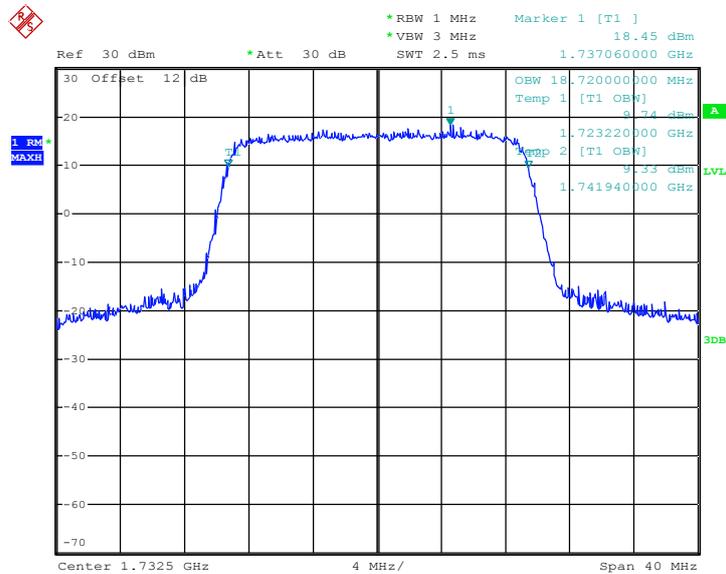
Band :	LTE Band IV	BW / Mod. :	20MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175



Band :	LTE Band IV	BW / Mod. :	20MHz / 16QAM
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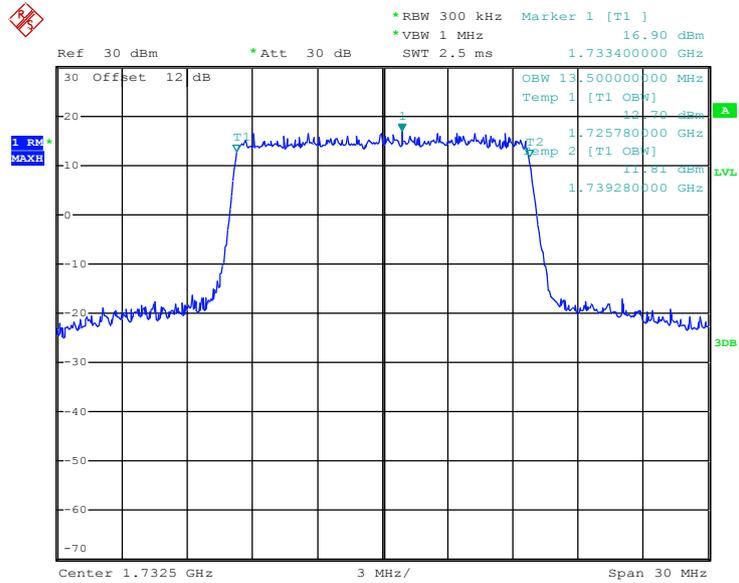
99% Occupied Bandwidth Plot on Channel 20175





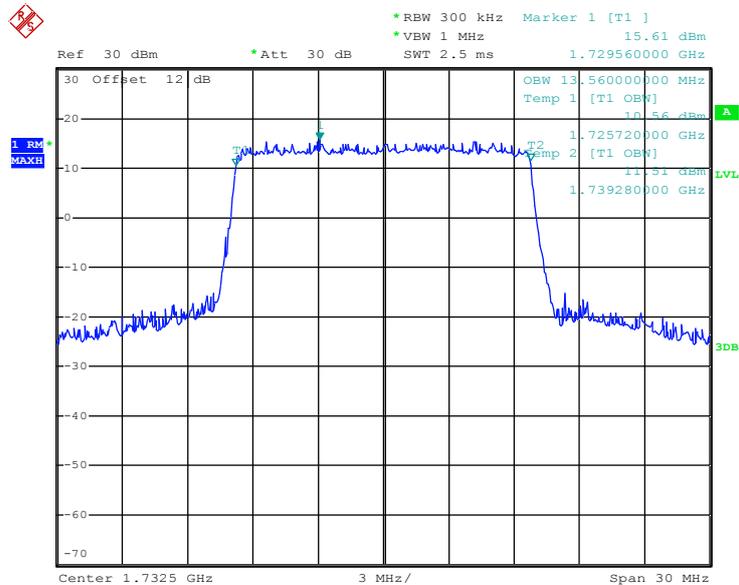
Band :	LTE Band IV	BW / Mod. :	15MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175



Band :	LTE Band IV	BW / Mod. :	15MHz / 16QAM
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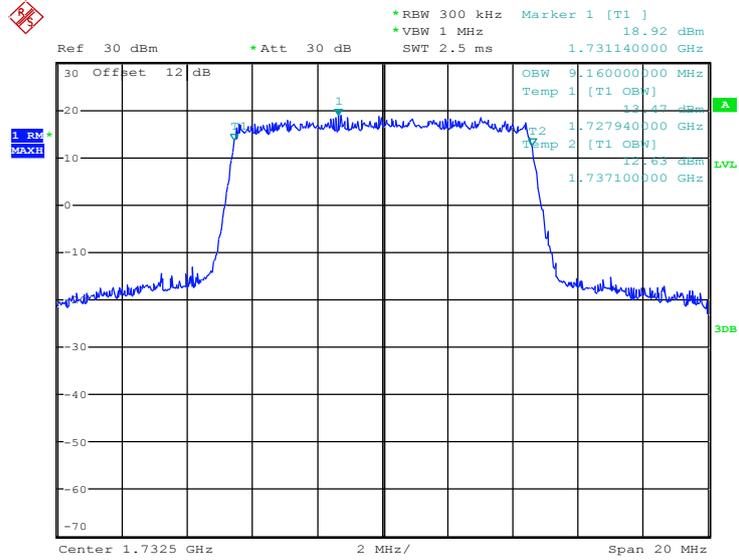
99% Occupied Bandwidth Plot on Channel 20175





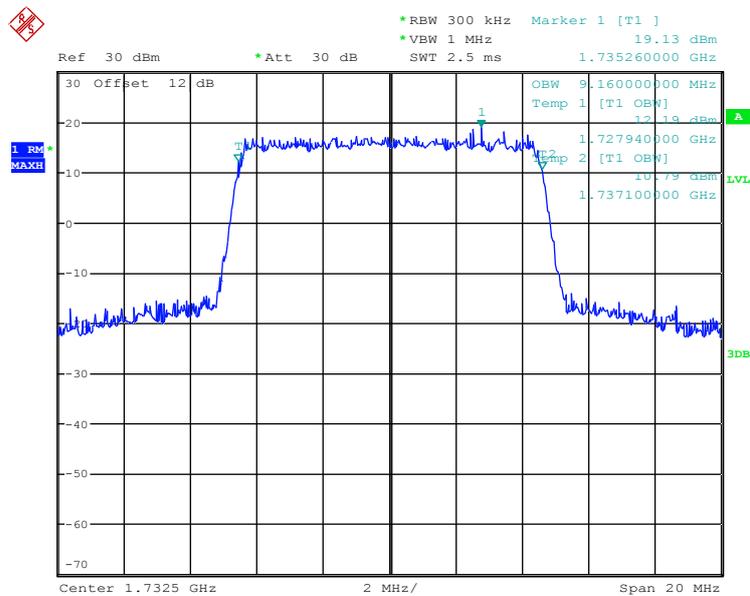
Band :	LTE Band IV	BW / Mod. :	10MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175



Band :	LTE Band IV	BW / Mod. :	10MHz / 16QAM
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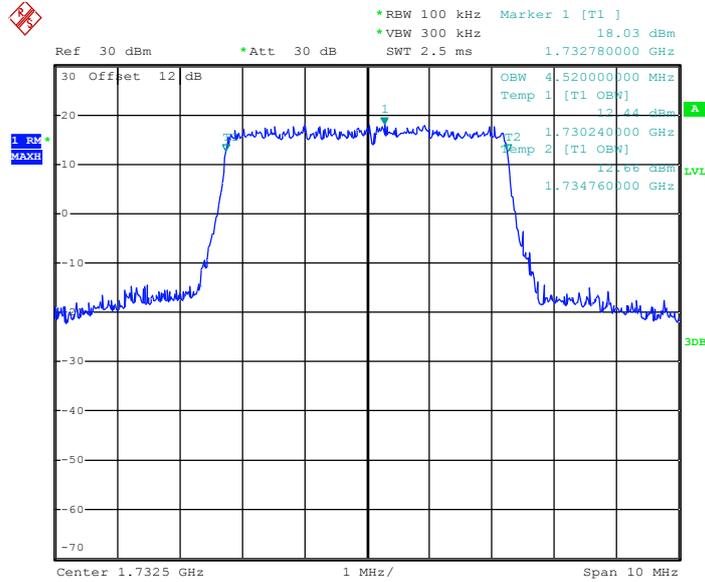
99% Occupied Bandwidth Plot on Channel 20175





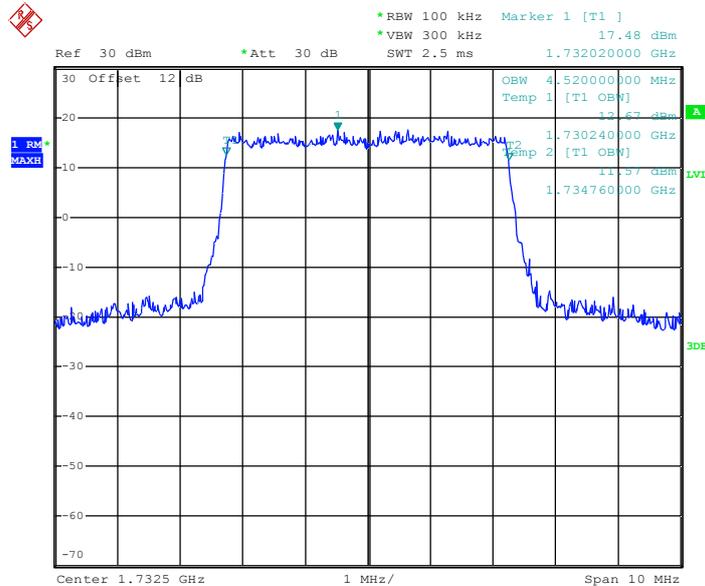
Band :	LTE Band IV	BW / Mod. :	5MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175



Band :	LTE Band IV	BW / Mod. :	5MHz / 16QAM
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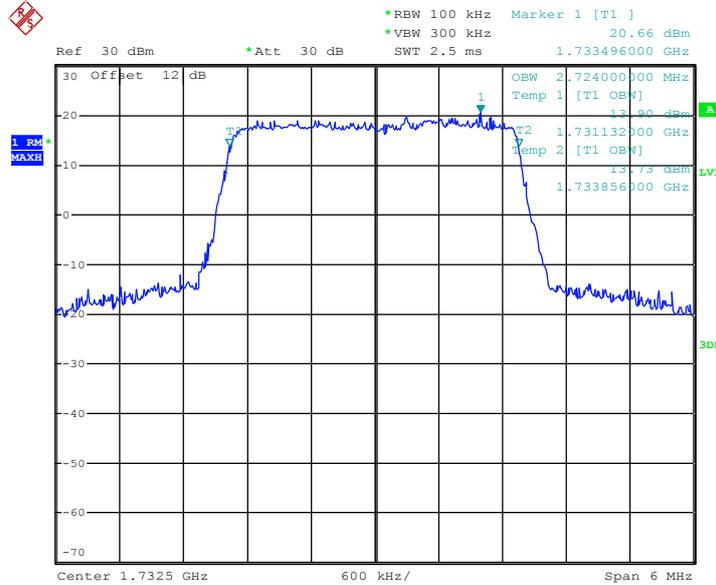
99% Occupied Bandwidth Plot on Channel 20175





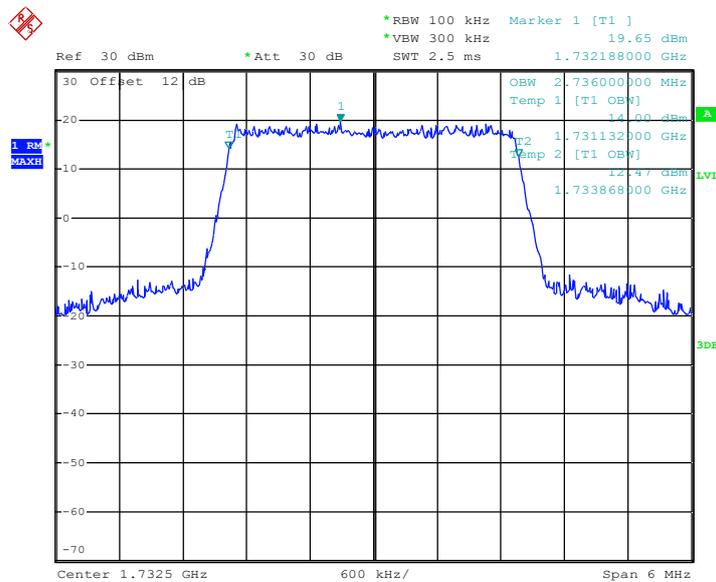
Band :	LTE Band IV	BW / Mod. :	3MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175



Band :	LTE Band IV	BW / Mod. :	3MHz / 16QAM
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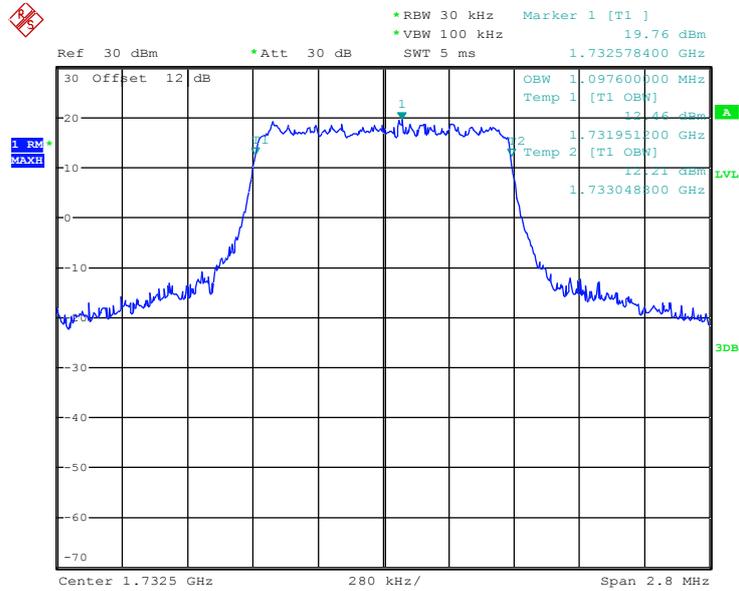
99% Occupied Bandwidth Plot on Channel 20175





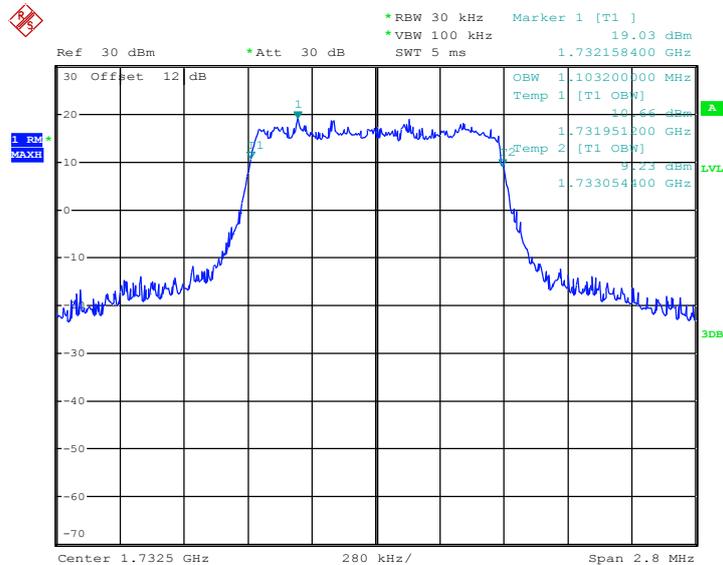
Band :	LTE Band IV	BW / Mod. :	1.4MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175



Band :	LTE Band IV	BW / Mod. :	1.4MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20175



3.5 Band Edge and Emission Mask Measurement

3.5.1 Limit

For operations in the PCS and 1710 – 1755 MHz bands , the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB = -13 dBm in a 1 MHz bandwidth.

3.5.2 Measuring Instruments

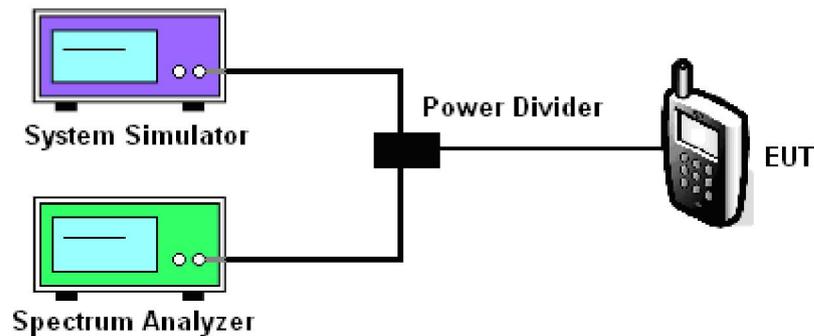
See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The band edges of low and high channels for the highest RF powers were measured. The RBW is set larger than 1% of 26dB bandwidth.

For LTE bandwidth 1.4MHz ~ 10MHz, RBW=100 kHz; for LTE bandwidth 15MHz ~ 20MHz, RBW=300 kHz.

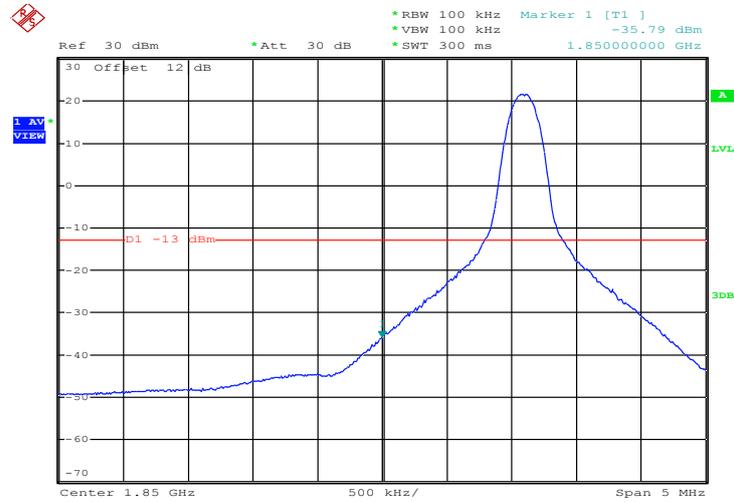
3.5.4 Test Setup



3.5.5 Test Result (Plots) of Conducted Band Edge

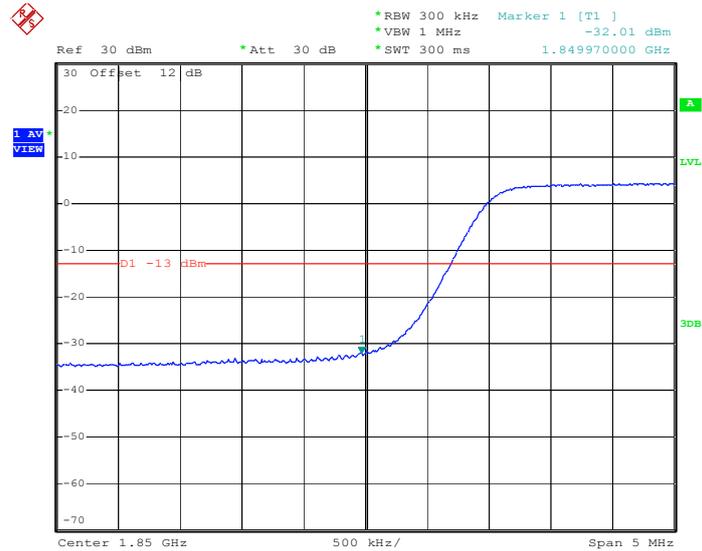
Band :	LTE Band II	Band Width	20MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 11:24:02

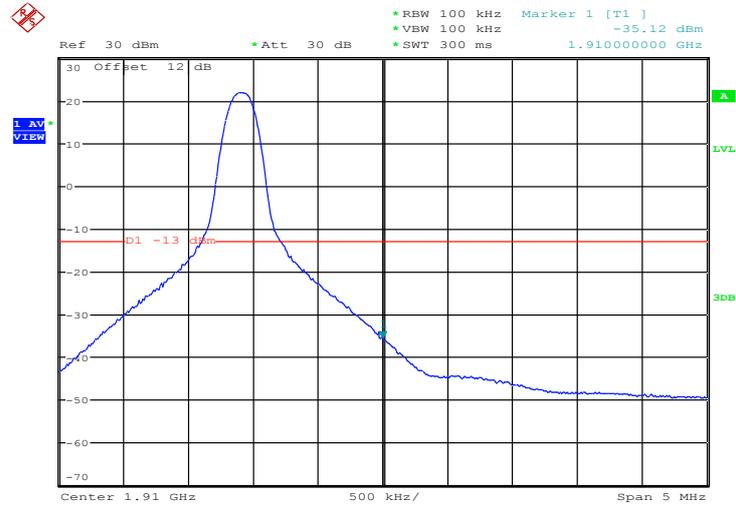
Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Date: 16.MAR.2012 21:06:23

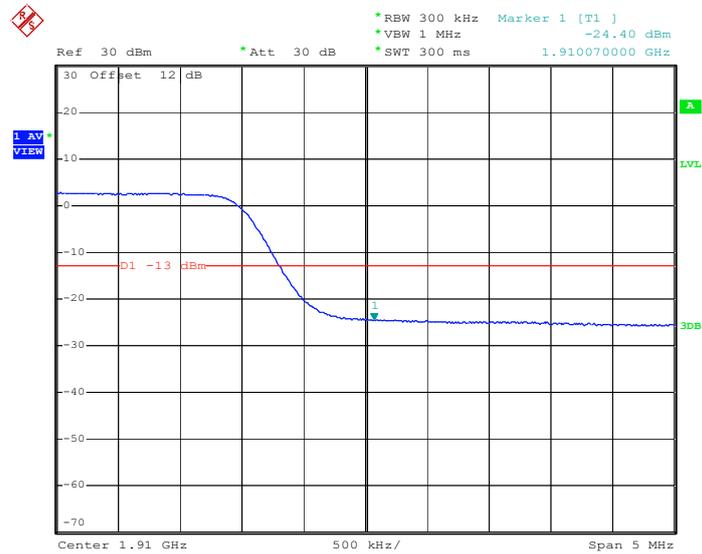


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 13.FEB.2012 11:20:47

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

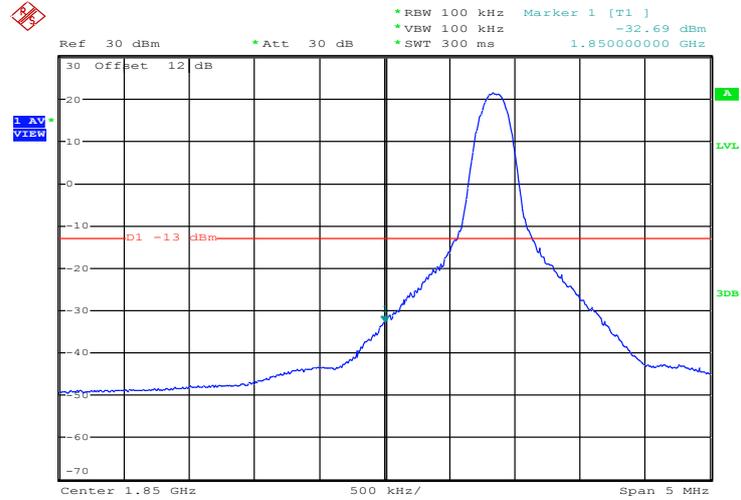


Date: 16.MAR.2012 21:01:05



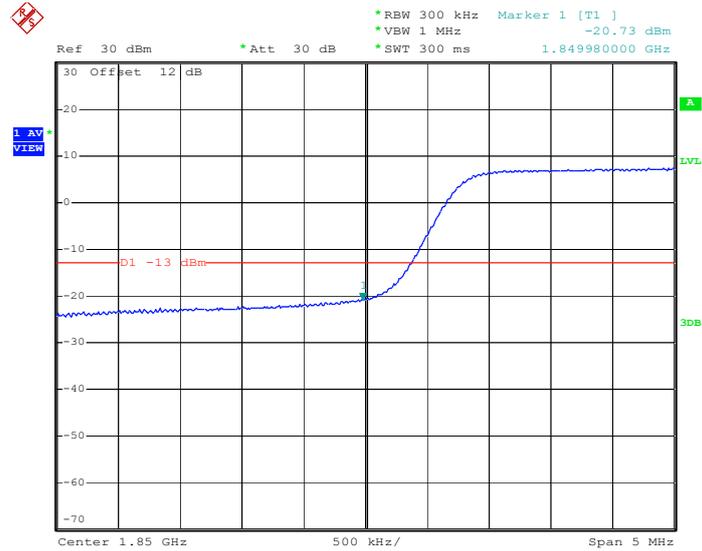
Band :	LTE Band II	Band Width	15MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 11:26:13

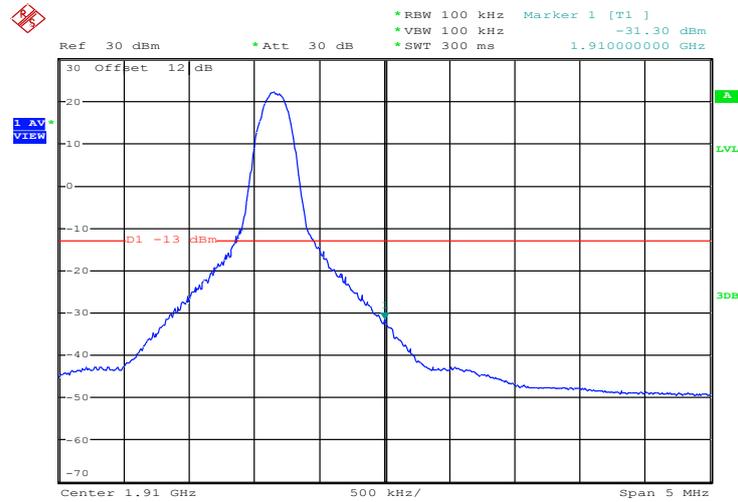
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 16.MAR.2012 20:45:00

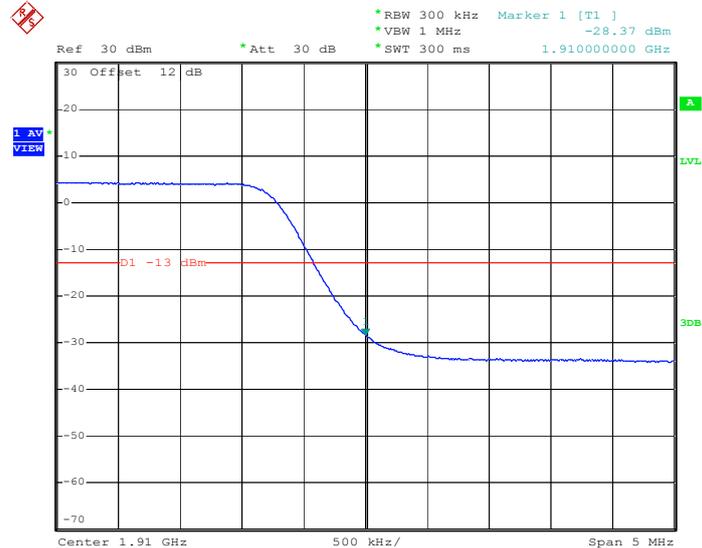


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Date: 13.FEB.2012 11:32:21

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

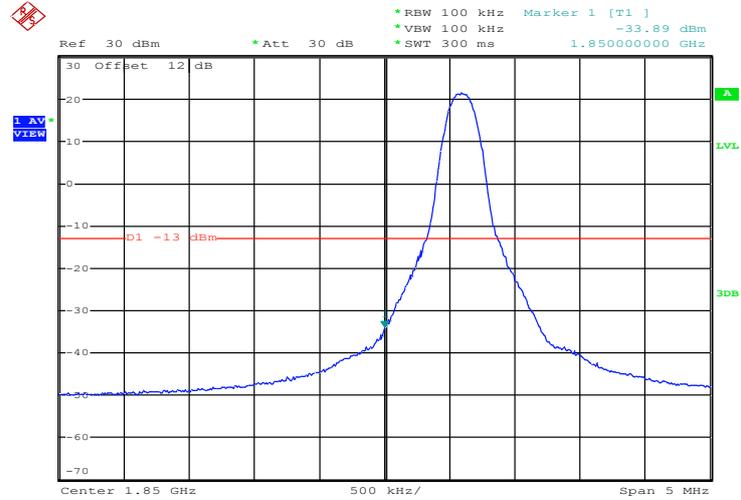


Date: 16.MAR.2012 20:53:05



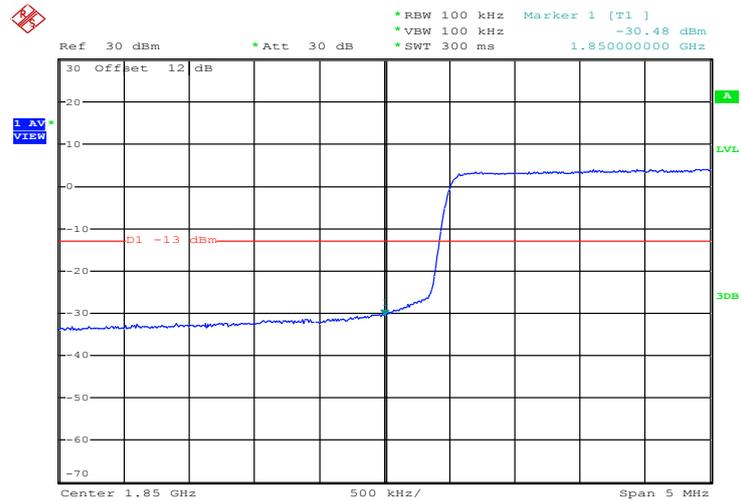
Band :	LTE Band II	Band Width	10MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 11:37:32

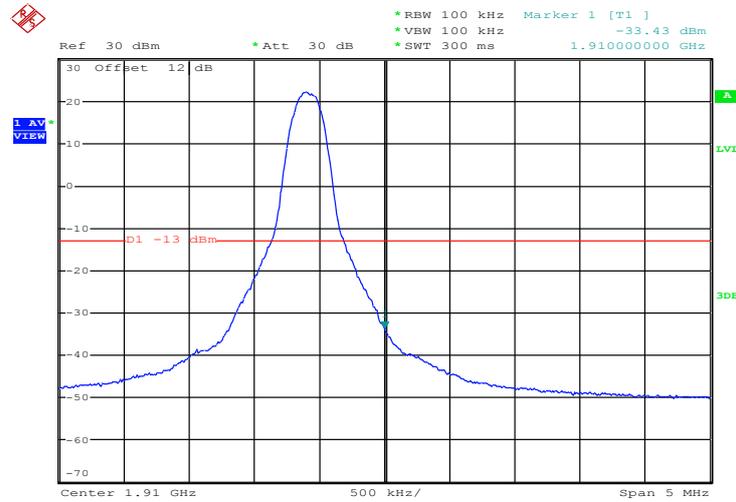
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 13.FEB.2012 11:36:34

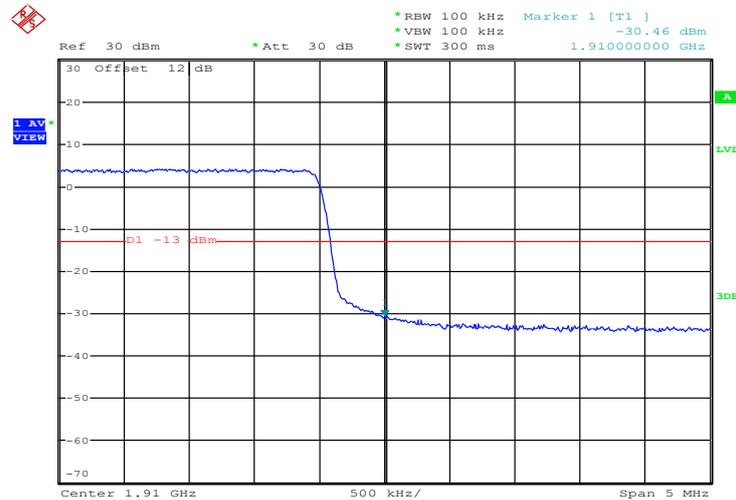


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 13.FEB.2012 11:33:57

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

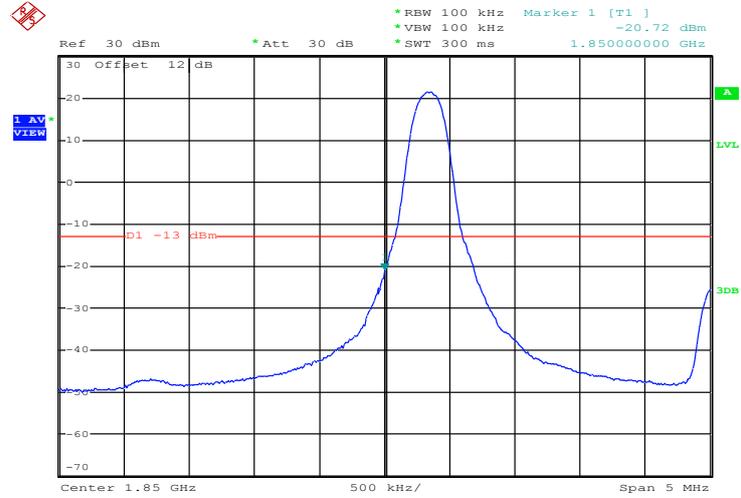


Date: 13.FEB.2012 11:35:17



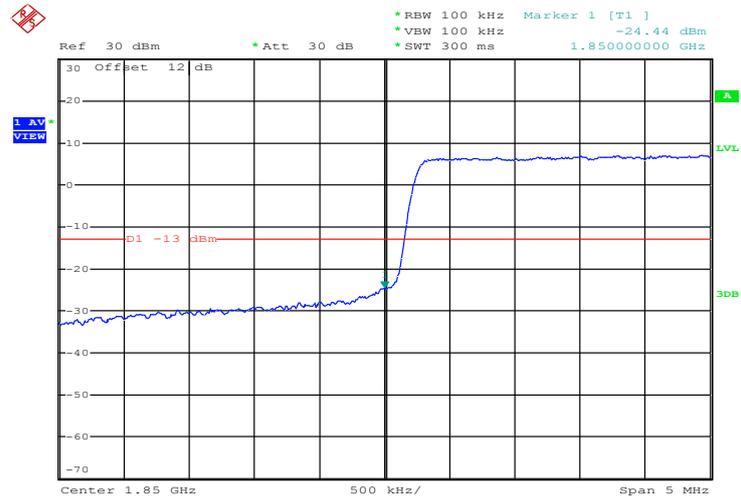
Band :	LTE Band II	Band Width	5MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 11:48:09

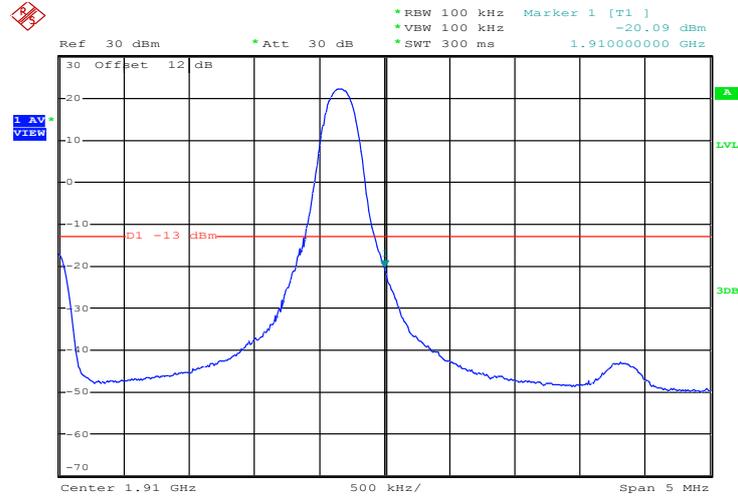
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 13.FEB.2012 11:49:28

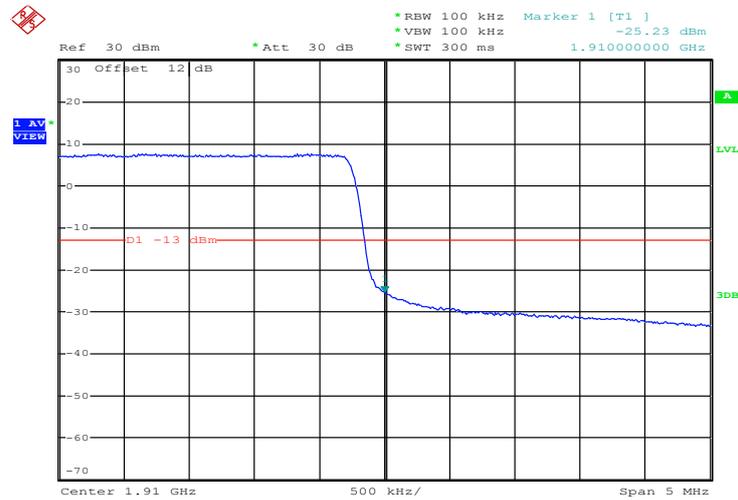


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 13.FEB.2012 11:47:14

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

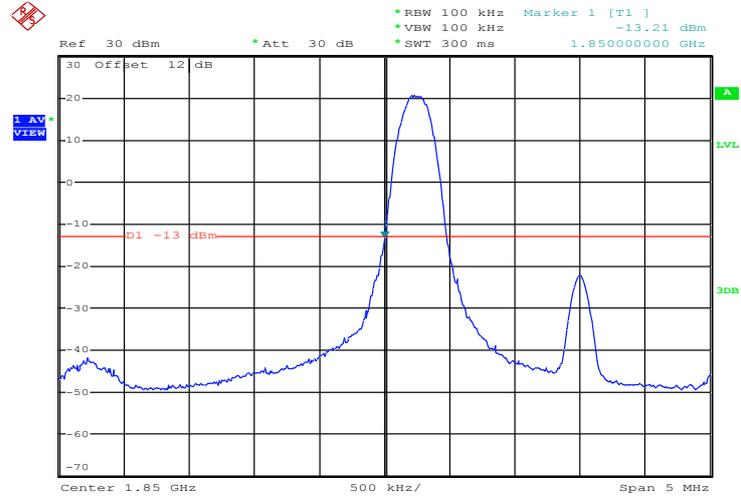


Date: 13.FEB.2012 11:45:12



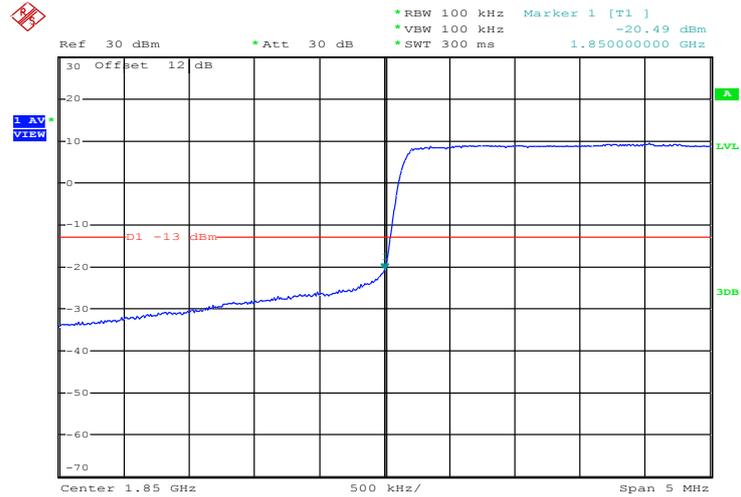
Band :	LTE Band II	Band Width	3MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 13:51:29

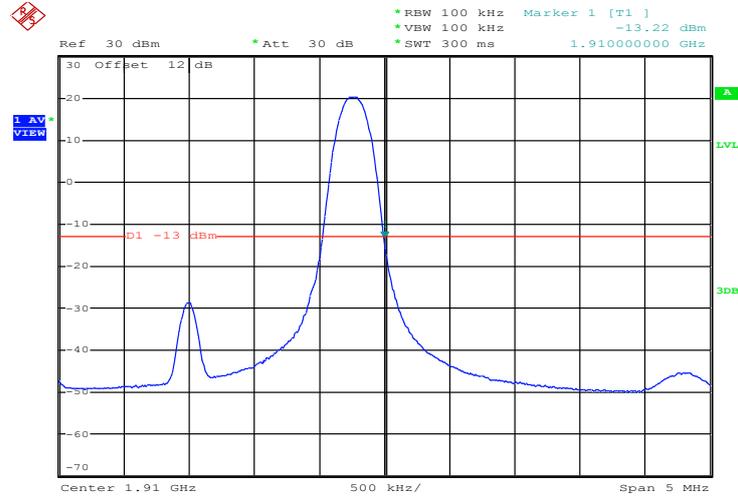
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 13.FEB.2012 13:55:14

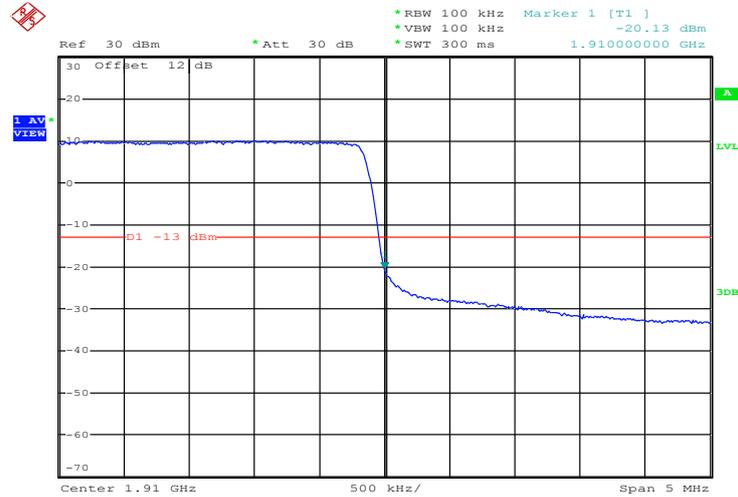


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 13.FEB.2012 13:58:02

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

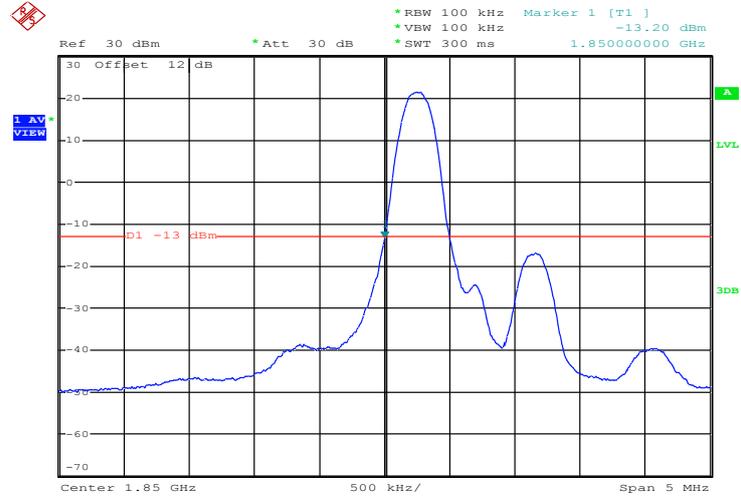


Date: 13.FEB.2012 13:38:59



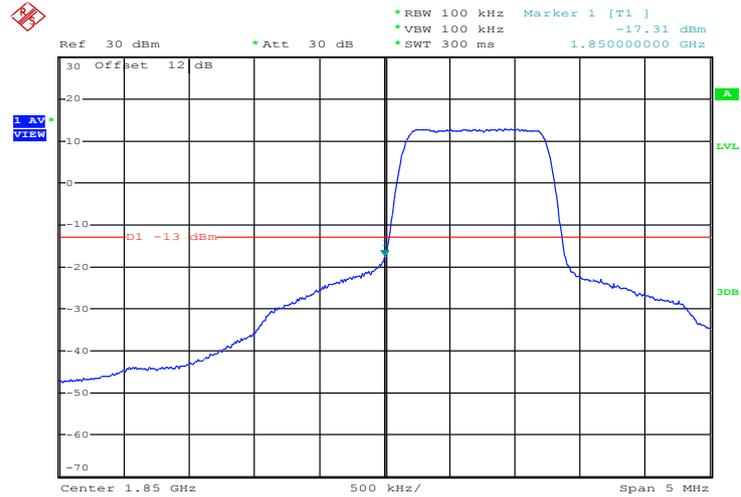
Band :	LTE Band II	Band Width	1.4MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 11:58:20

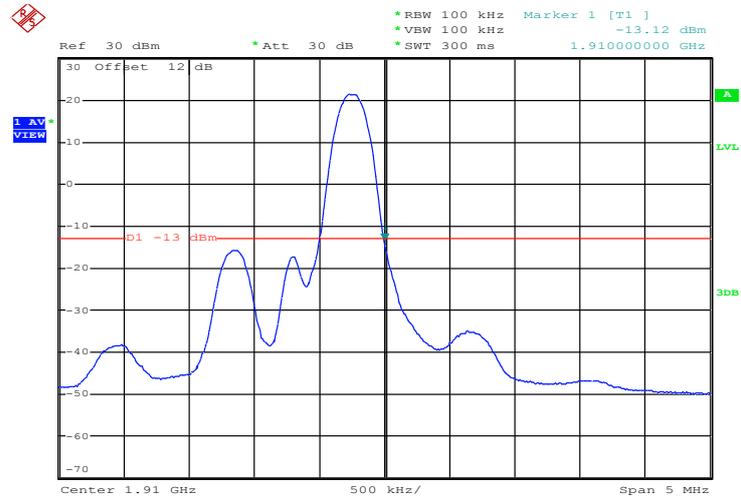
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 13.FEB.2012 12:23:07

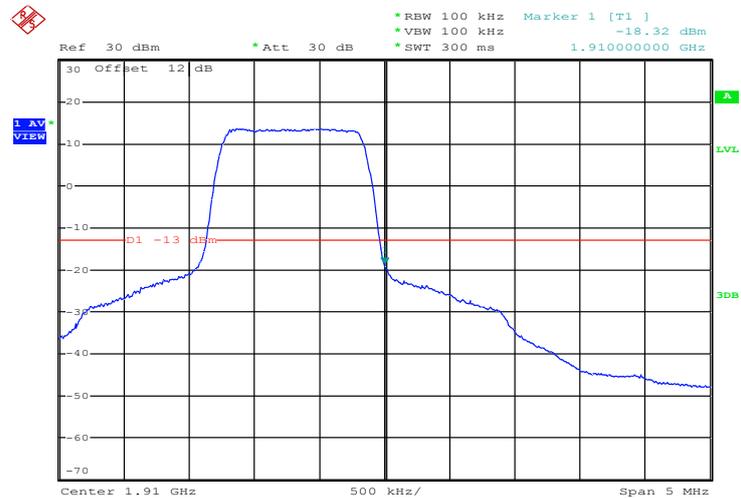


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 13.FEB.2012 12:29:13

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0

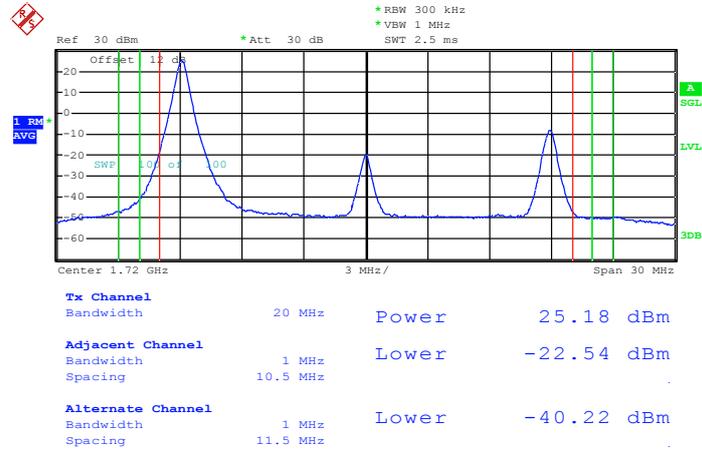


Date: 13.FEB.2012 12:24:27



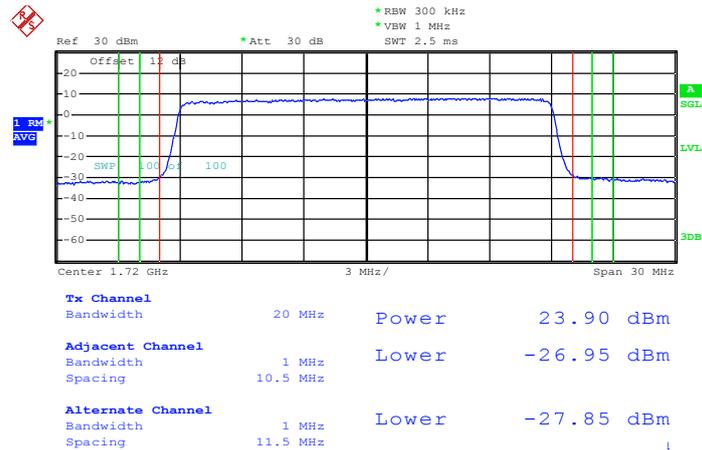
Band :	LTE Band IV	Band Width	20MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 11.FEB.2012 12:14:19

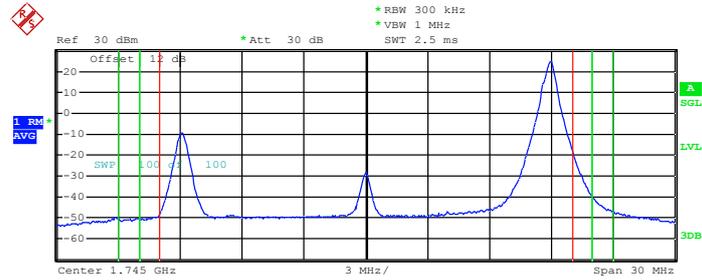
Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Date: 11.FEB.2012 12:15:42



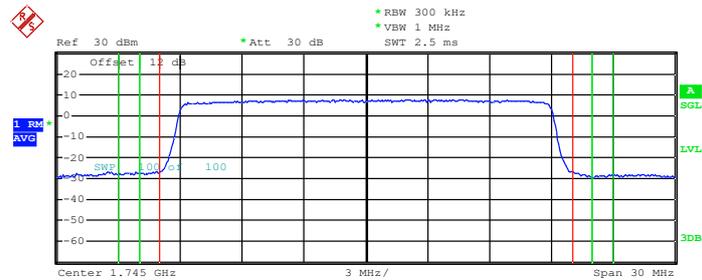
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Tx Channel	Bandwidth	20 MHz	Power	24.48 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-20.72 dBm
	Spacing	10.5 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-39.39 dBm
	Spacing	11.5 MHz		

Date: 11.FEB.2012 12:17:23

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0



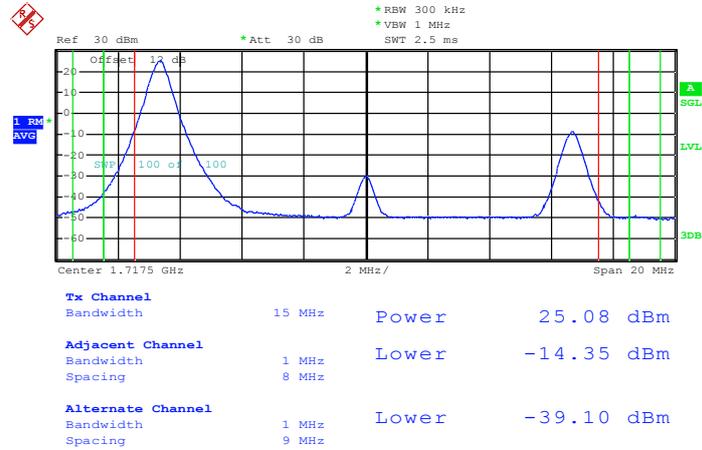
Tx Channel	Bandwidth	20 MHz	Power	23.87 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-23.57 dBm
	Spacing	10.5 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-24.29 dBm
	Spacing	11.5 MHz		

Date: 11.FEB.2012 12:18:27



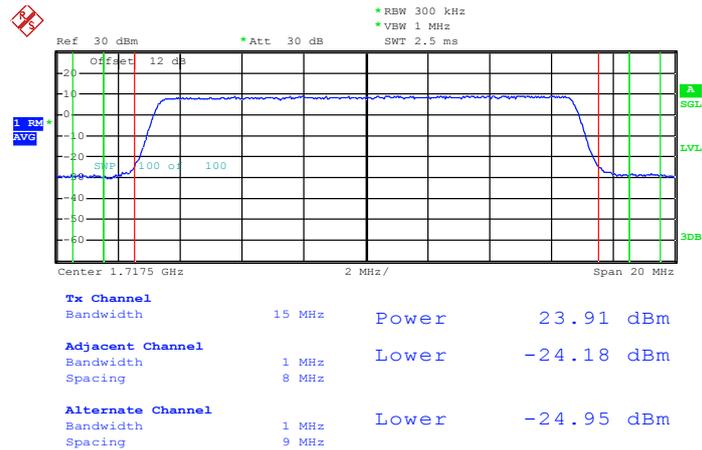
Band :	LTE Band IV	Band Width	15MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 11.FEB.2012 11:55:36

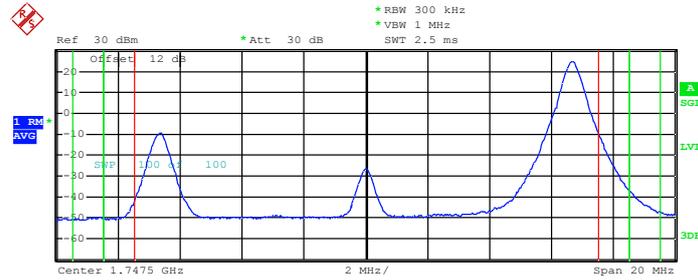
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 11.FEB.2012 11:56:26



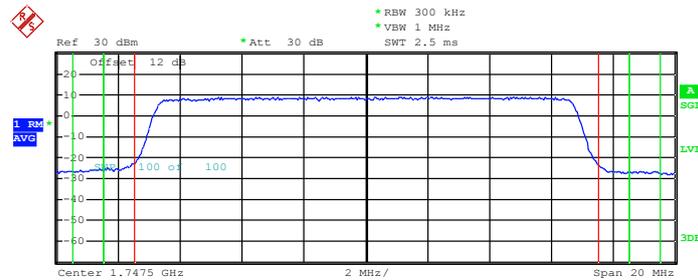
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Tx Channel			
Bandwidth	15 MHz	Power	24.67 dBm
Adjacent Channel			
Bandwidth	1 MHz	Upper	-13.03 dBm
Spacing	8 MHz		
Alternate Channel			
Bandwidth	1 MHz	Upper	-37.41 dBm
Spacing	9 MHz		

Date: 11.FEB.2012 12:05:27

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0



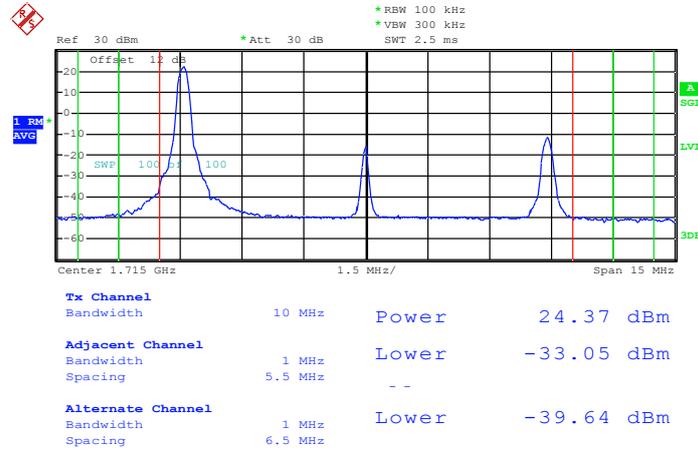
Tx Channel			
Bandwidth	15 MHz	Power	23.86 dBm
Adjacent Channel			
Bandwidth	1 MHz	Upper	-21.69 dBm
Spacing	8 MHz		
Alternate Channel			
Bandwidth	1 MHz	Upper	-22.55 dBm
Spacing	9 MHz		

Date: 11.FEB.2012 12:08:07



Band :	LTE Band IV	Band Width	10MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 11.FEB.2012 11:41:00

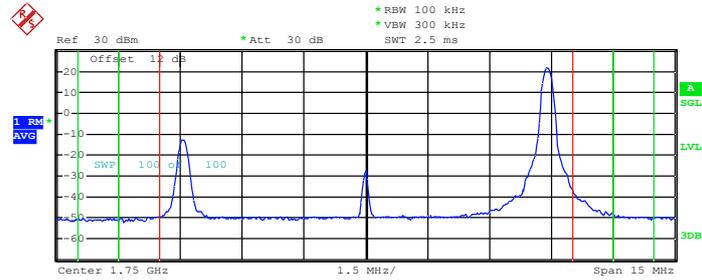
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 11.FEB.2012 11:42:47



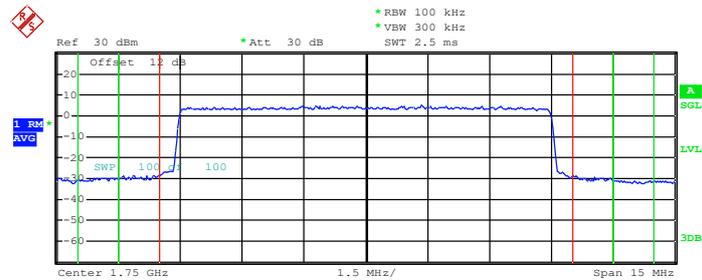
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Tx Channel	Bandwidth	10 MHz	Power	23.87 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-33.40 dBm
	Spacing	5.5 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-39.99 dBm
	Spacing	6.5 MHz		

Date: 11.FEB.2012 11:44:50

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0



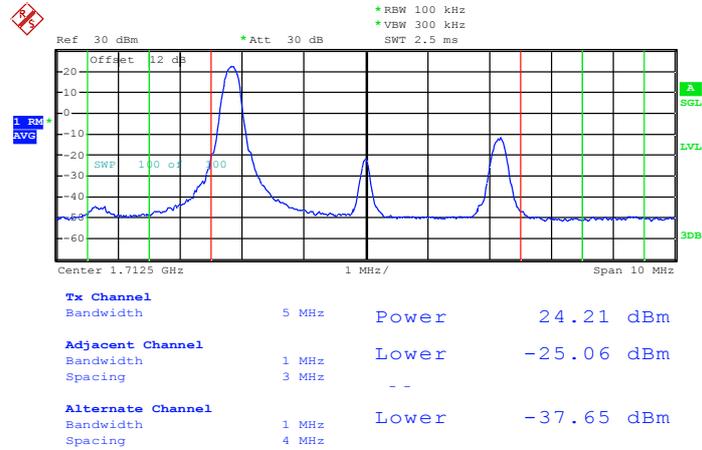
Tx Channel	Bandwidth	10 MHz	Power	22.87 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-20.37 dBm
	Spacing	5.5 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-21.78 dBm
	Spacing	6.5 MHz		

Date: 11.FEB.2012 11:46:21



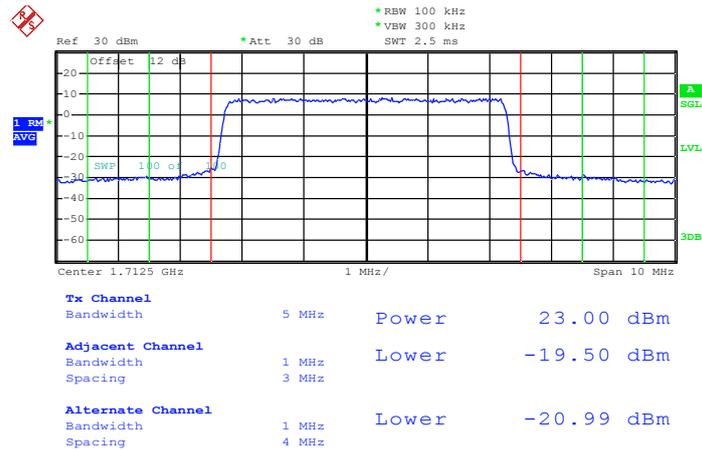
Band :	LTE Band IV	Band Width	5MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 11.FEB.2012 11:30:17

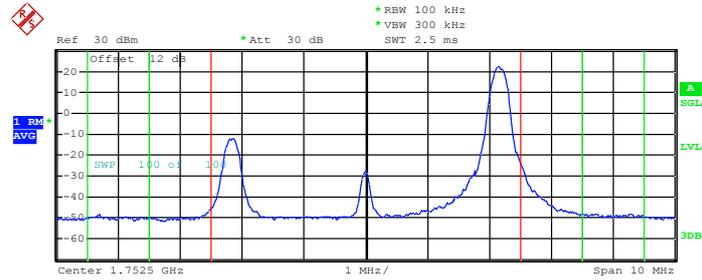
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 11.FEB.2012 11:31:25



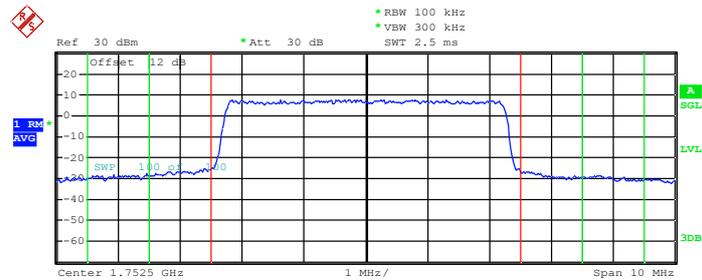
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Tx Channel			
Bandwidth	5 MHz	Power	24.13 dBm
Adjacent Channel			
Bandwidth	1 MHz	Upper	-25.49 dBm
Spacing	3 MHz		
Alternate Channel			
Bandwidth	1 MHz	Upper	-38.95 dBm
Spacing	4 MHz		

Date: 11.FEB.2012 11:34:42

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0



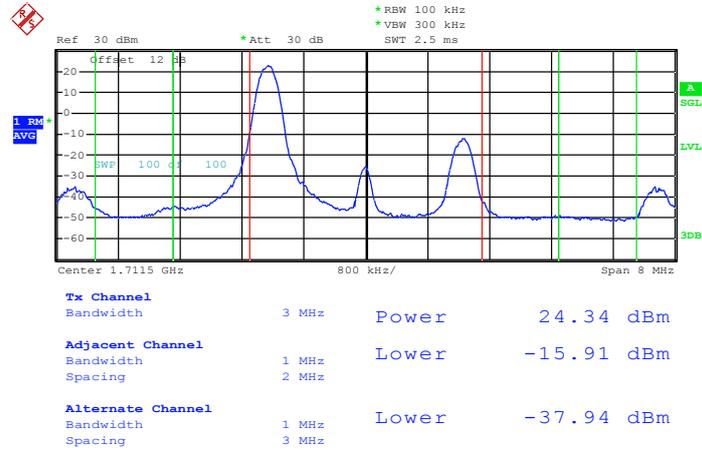
Tx Channel			
Bandwidth	5 MHz	Power	22.82 dBm
Adjacent Channel			
Bandwidth	1 MHz	Upper	-18.75 dBm
Spacing	3 MHz		
Alternate Channel			
Bandwidth	1 MHz	Upper	-20.17 dBm
Spacing	4 MHz		

Date: 11.FEB.2012 11:37:13



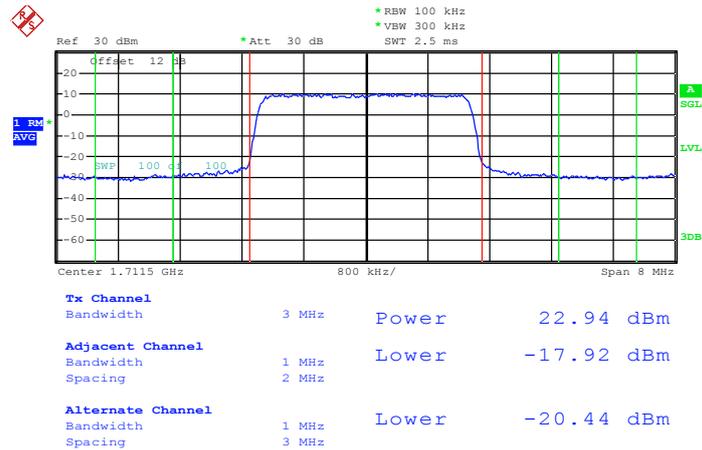
Band :	LTE Band IV	Band Width	3MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 11.FEB.2012 11:21:24

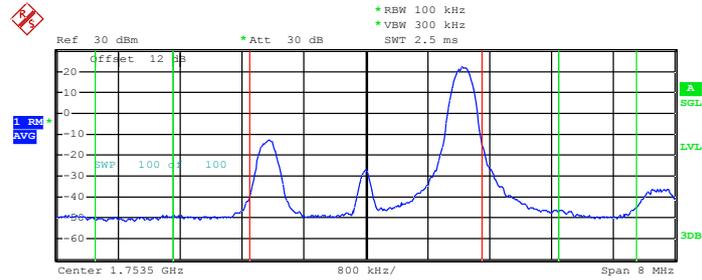
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 11.FEB.2012 11:22:33



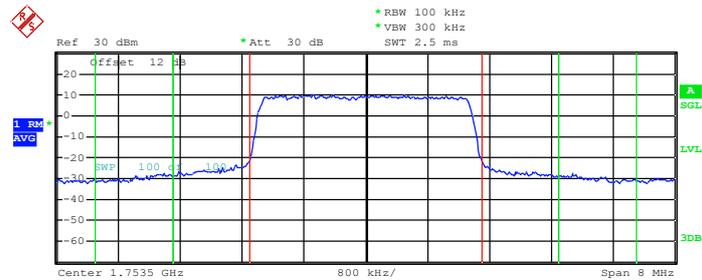
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Tx Channel	Bandwidth	3 MHz	Power	24.08 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-17.72 dBm
	Spacing	2 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-38.52 dBm
	Spacing	3 MHz		

Date: 11.FEB.2012 11:24:26

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0



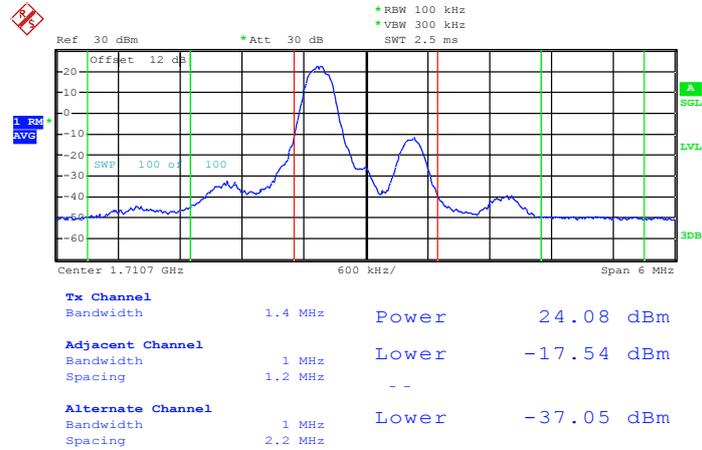
Tx Channel	Bandwidth	3 MHz	Power	22.73 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-17.12 dBm
	Spacing	2 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-20.25 dBm
	Spacing	3 MHz		

Date: 11.FEB.2012 11:26:42



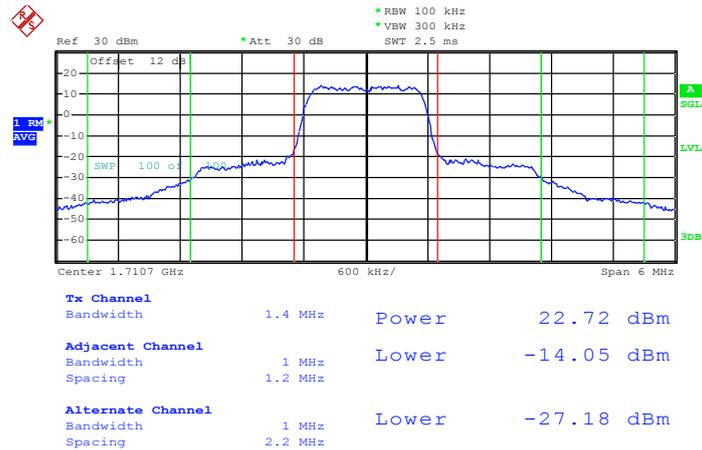
Band :	LTE Band IV	Band Width	1.4MHz
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 13.FEB.2012 19:10:15

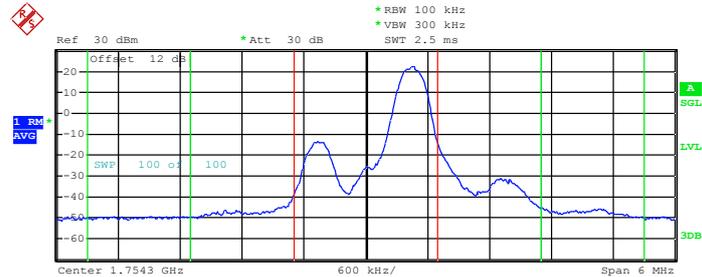
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 13.FEB.2012 19:11:56



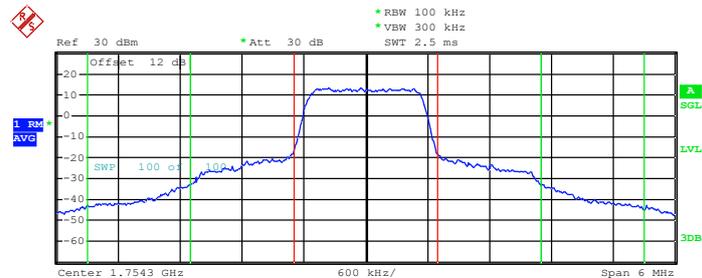
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Tx Channel	Bandwidth	1.4 MHz	Power	23.79 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-17.77 dBm
	Spacing	1.2 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-37.55 dBm
	Spacing	2.2 MHz		

Date: 13.FEB.2012 19:15:51

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Tx Channel	Bandwidth	1.4 MHz	Power	22.40 dBm
Adjacent Channel	Bandwidth	1 MHz	Upper	-14.03 dBm
	Spacing	1.2 MHz		
Alternate Channel	Bandwidth	1 MHz	Upper	-28.64 dBm
	Spacing	2.2 MHz		

Date: 13.FEB.2012 19:14:16

3.6 Conducted Emission Measurement

3.6.1 Description of Conducted Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

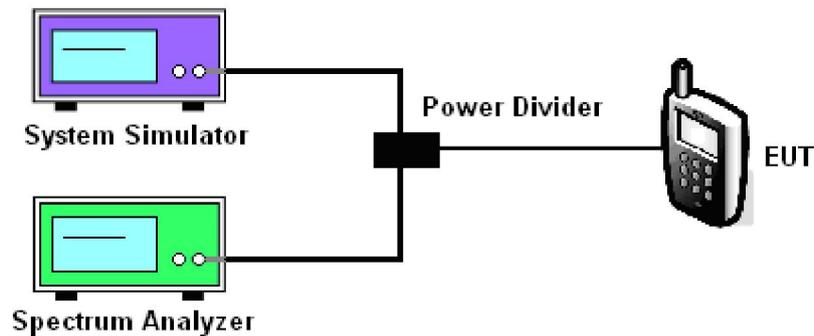
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.

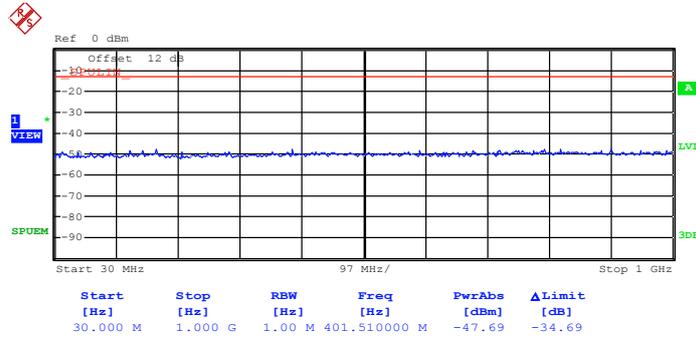
3.6.4 Test Setup



3.6.5 Test Result (Plots) of Conducted Emission

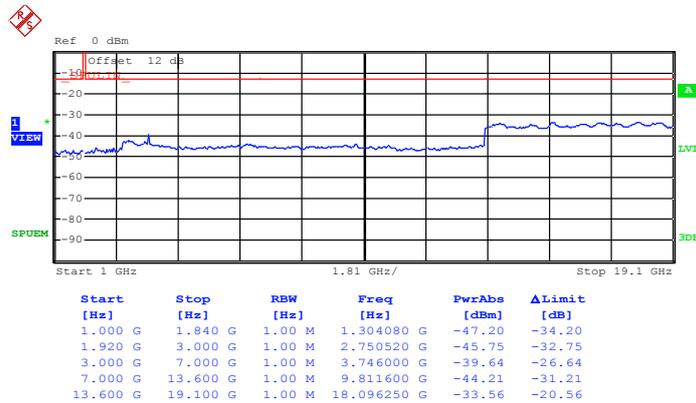
Band :	LTE Band II	Bandwidth :	20MHz
Frequency :	1880	Channel :	18900

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 02:44:03

Conducted Emission Plot (1GHz ~ 19.1GHz) for QPSK (RB Size 1, RB Offset 0)

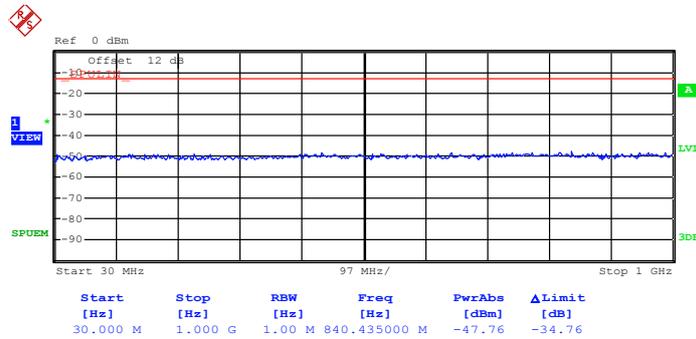


Date: 16.MAR.2012 02:15:59



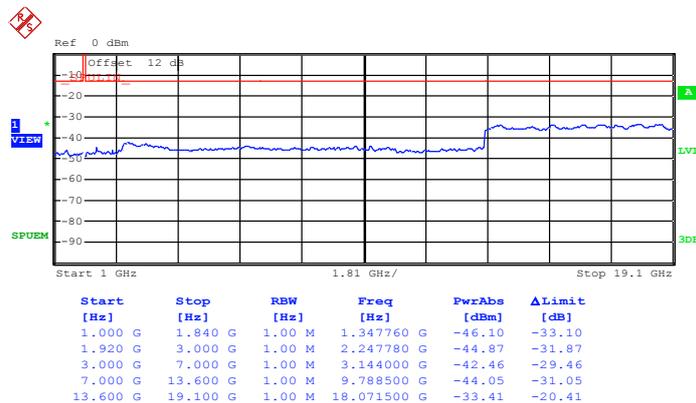
Band :	LTE Band II	Bandwidth :	20MHz
Frequency :	1900	Channel :	19100

Conducted Emission Plot (30MHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 02:44:50

Conducted Emission Plot (1GHz ~ 19.1GHz) for 16-QAM (RB Size 1, RB Offset 0)

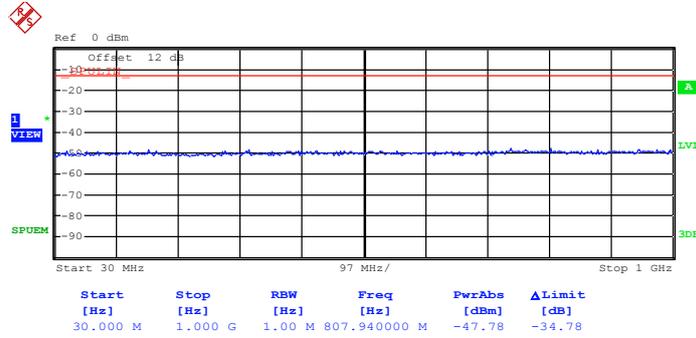


Date: 16.MAR.2012 02:20:03



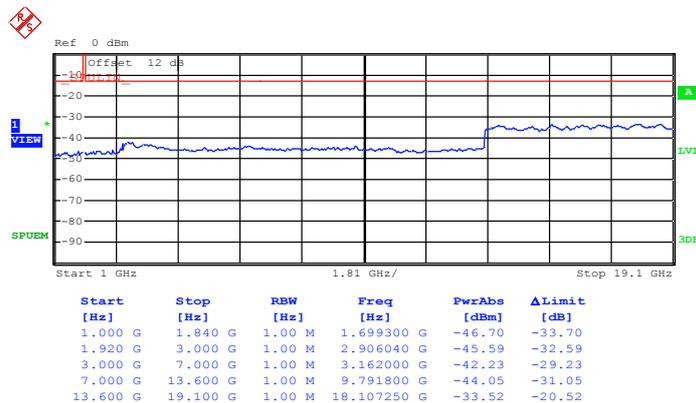
Band :	LTE Band II	Bandwidth :	15MHz
Frequency :	1902.5	Channel :	19125

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 02:42:17

Conducted Emission Plot (1GHz ~ 19.1GHz) for QPSK (RB Size 1, RB Offset 0)

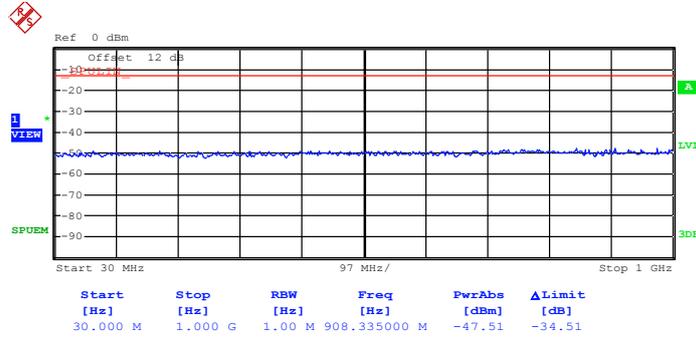


Date: 16.MAR.2012 02:12:02



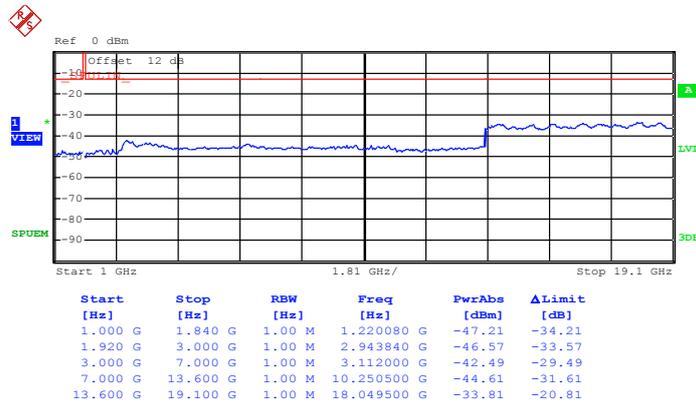
Band :	LTE Band II	Bandwidth :	15MHz
Frequency :	1902.5	Channel :	19125

**Conducted Emission Plot (30MHz ~ 1GHz) for
16-QAM (RB Size 1, RB Offset 0)**



Date: 16.MAR.2012 02:42:45

**Conducted Emission Plot (1GHz ~ 19.1GHz) for
16-QAM (RB Size 1, RB Offset 0)**

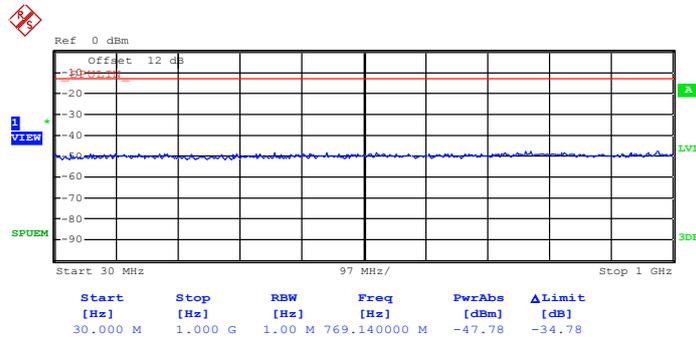


Date: 16.MAR.2012 02:12:38



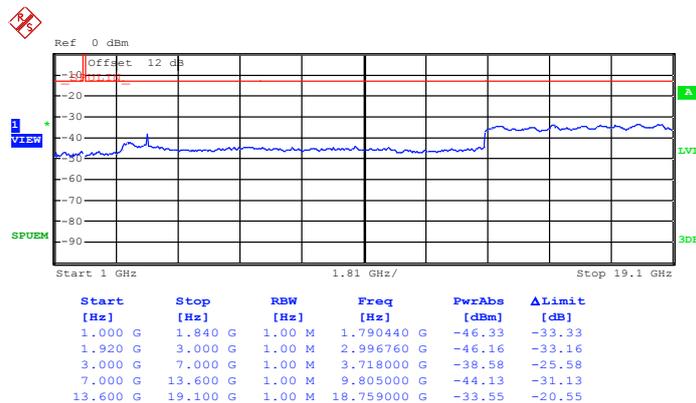
Band :	LTE Band II	Bandwidth :	10MHz
Frequency :	1855	Channel :	18650

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 49)



Date: 16.MAR.2012 02:38:08

Conducted Emission Plot (1GHz ~ 19.1GHz) for QPSK (RB Size 1, RB Offset 49)

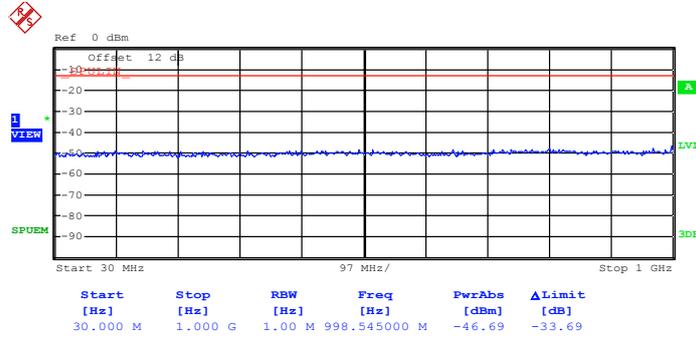


Date: 16.MAR.2012 02:01:29



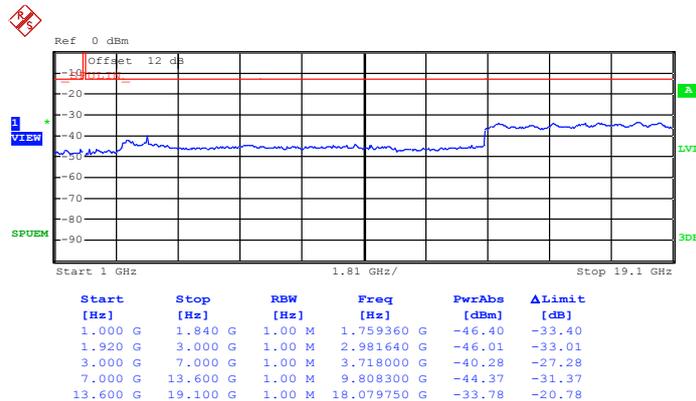
Band :	LTE Band II	Bandwidth :	10MHz
Frequency :	1855	Channel :	18650

Conducted Emission Plot (30MHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 49)



Date: 16.MAR.2012 02:38:24

Conducted Emission Plot (1GHz ~ 19.1GHz) for 16-QAM (RB Size 1, RB Offset 49)

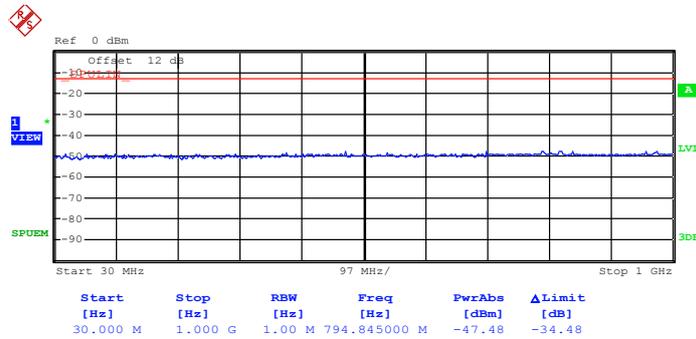


Date: 16.MAR.2012 02:01:55



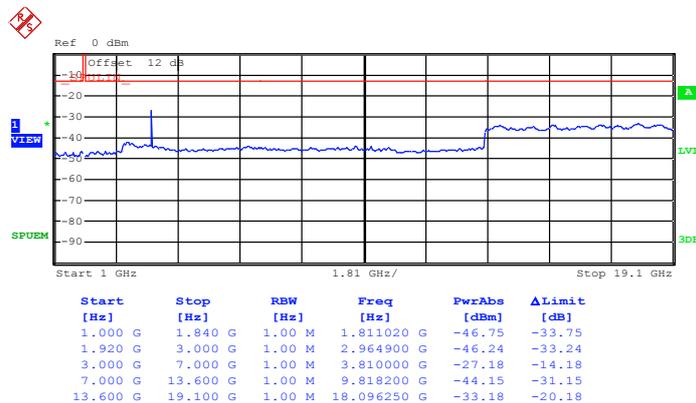
Band :	LTE Band II	Bandwidth:	5MHz
Frequency :	1907.5	Channel :	19175

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 02:37:18

Conducted Emission Plot (1GHz ~ 19.1GHz) for QPSK (RB Size 1, RB Offset 0)

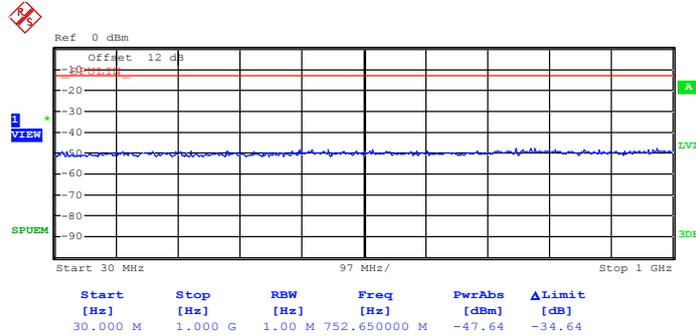


Date: 16.MAR.2012 01:58:29



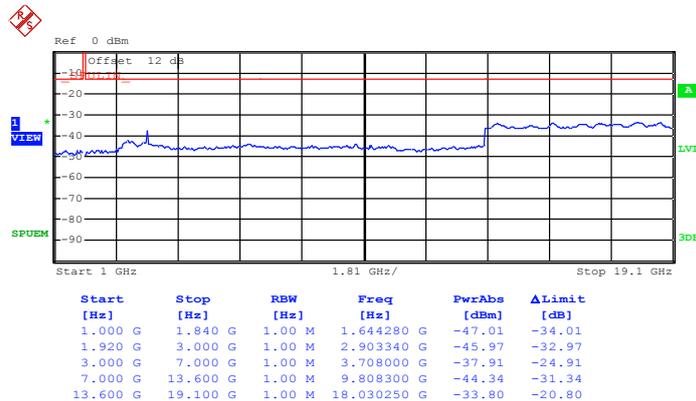
Band :	LTE Band II	Bandwidth:	5MHz
Frequency :	1852.5	Channel :	18625

**Conducted Emission Plot (30MHz ~ 1GHz) for
16-QAM (RB Size 1, RB Offset 24)**



Date: 16.MAR.2012 02:36:07

**Conducted Emission Plot (1GHz ~ 19.1GHz) for
16-QAM (RB Size 1, RB Offset 24)**

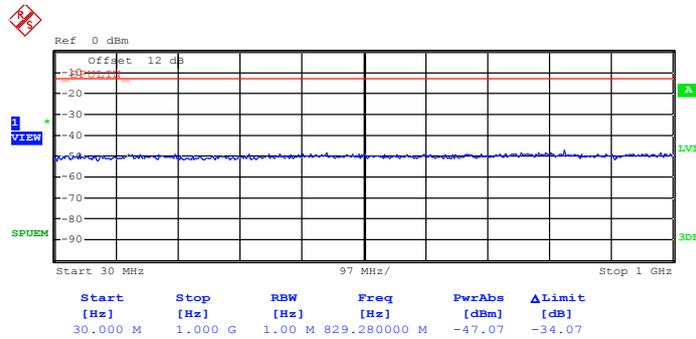


Date: 16.MAR.2012 01:53:54



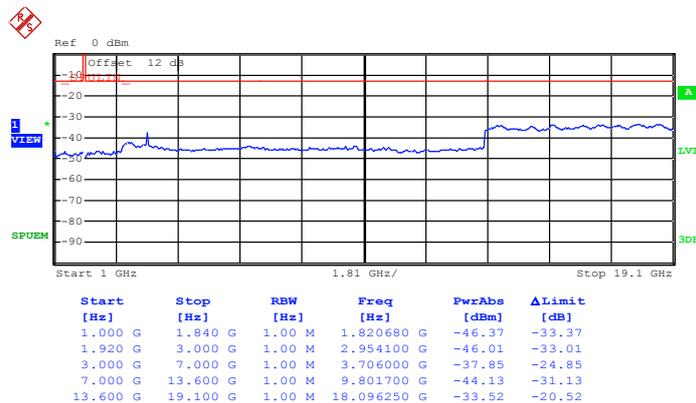
Band :	LTE Band II	Bandwidth:	3MHz
Frequency :	1851.5	Channel :	18615

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 14)



Date: 16.MAR.2012 02:32:48

Conducted Emission Plot (1GHz ~ 19.1GHz) for QPSK (RB Size 1, RB Offset 14)

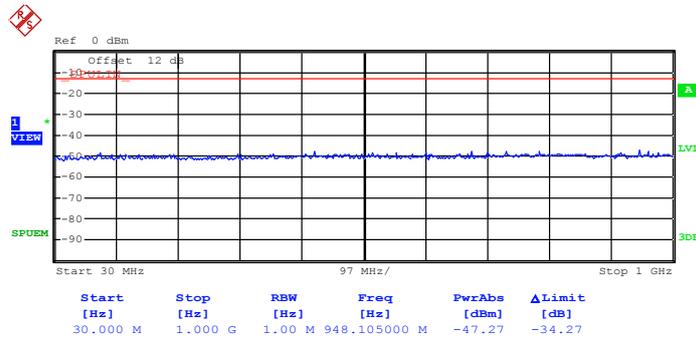


Date: 16.MAR.2012 01:47:18



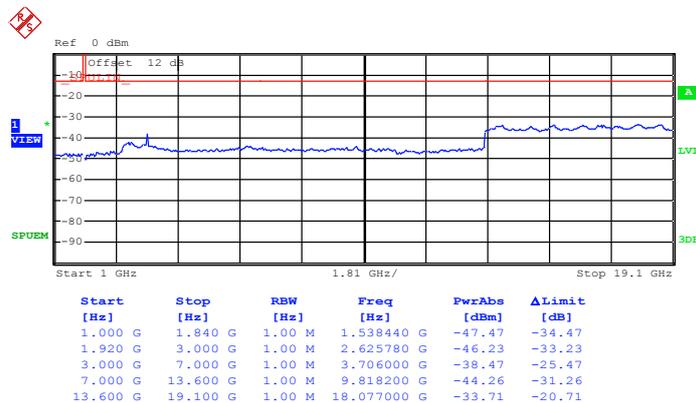
Band :	LTE Band II	Bandwidth:	3MHz
Frequency :	1851.5	Channel :	18615

Conducted Emission Plot (30MHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 14)



Date: 16.MAR.2012 02:33:08

Conducted Emission Plot (1GHz ~ 19.1GHz) for 16-QAM (RB Size 1, RB Offset 14)

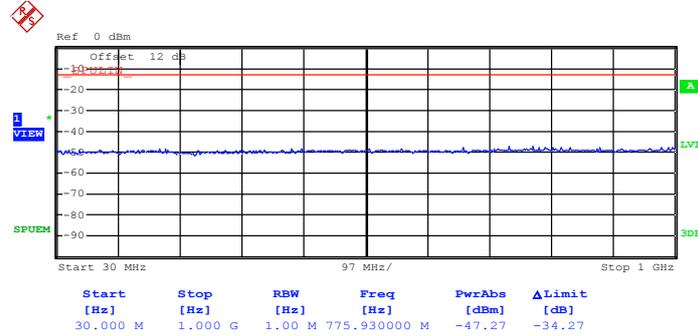


Date: 16.MAR.2012 01:47:44



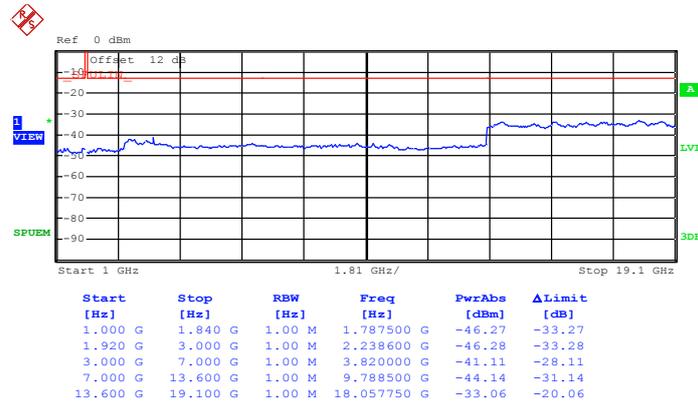
Band :	LTE Band II	Bandwidth:	1.4MHz
Frequency :	1909.3	Channel :	19193

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 5)



Date: 16.MAR.2012 02:31:17

Conducted Emission Plot (1GHz ~ 19.1GHz) for QPSK (RB Size 1, RB Offset 5)

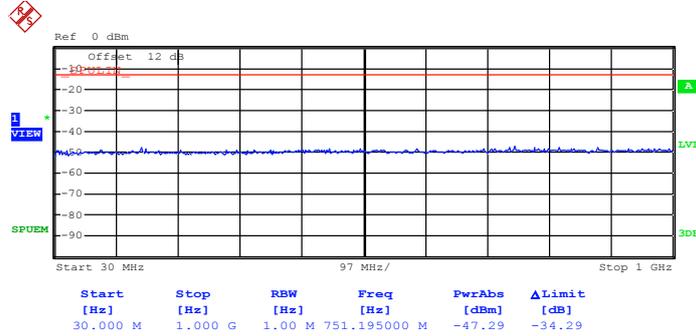


Date: 16.MAR.2012 01:44:36



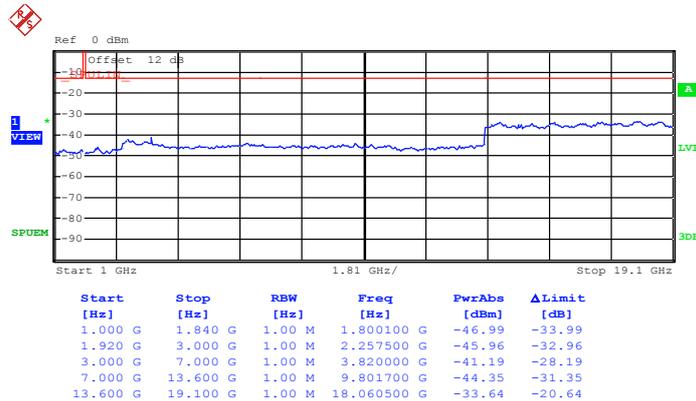
Band :	LTE Band II	Bandwidth:	1.4MHz
Frequency :	1909.3	Channel :	19193

Conducted Emission Plot (30MHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 02:31:40

Conducted Emission Plot (1GHz ~ 19.1GHz) for 16-QAM (RB Size 1, RB Offset 0)

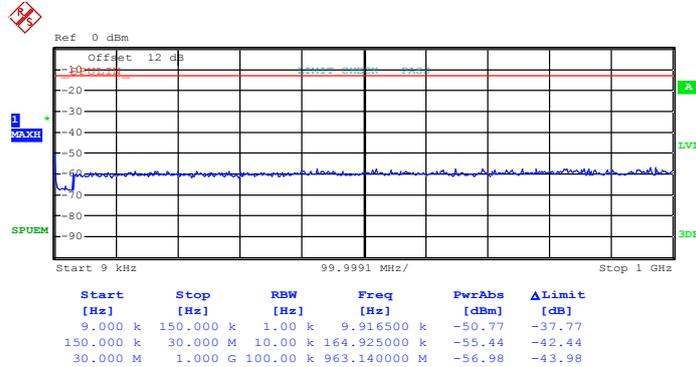


Date: 16.MAR.2012 01:45:11



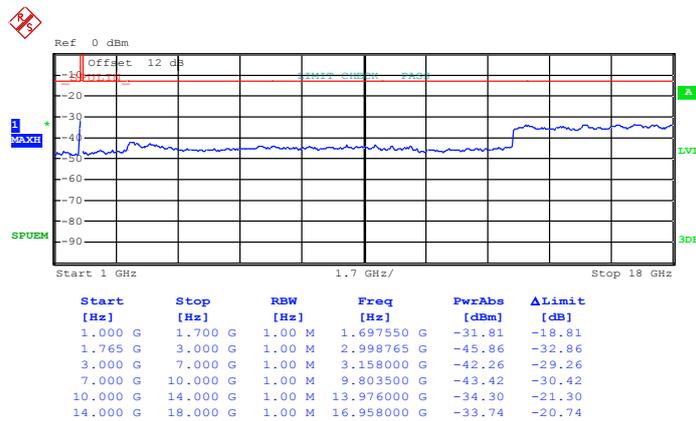
Band :	LTE Band IV	Bandwidth :	20MHz
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (9kHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 01:05:36

Conducted Emission Plot (1GHz ~ 18GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 01:04:08



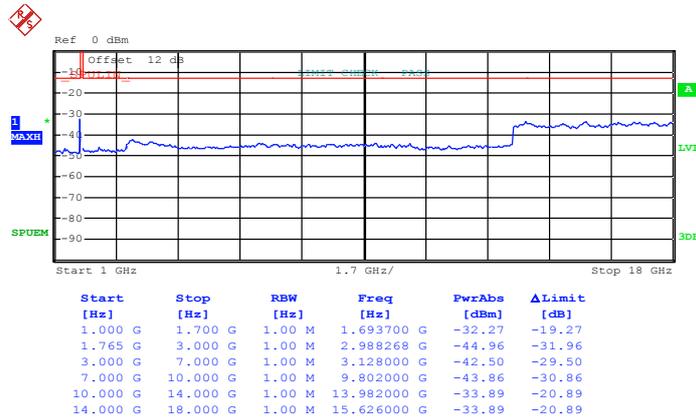
Band :	LTE Band IV	Bandwidth :	20MHz
Frequency :	1720	Channel :	20050

**Conducted Emission Plot (9kHz ~ 1GHz) for
16-QAM (RB Size 1, RB Offset 99)**



Date: 16.MAR.2012 01:01:49

**Conducted Emission Plot (1GHz ~ 18GHz) for
16-QAM (RB Size 1, RB Offset 99)**

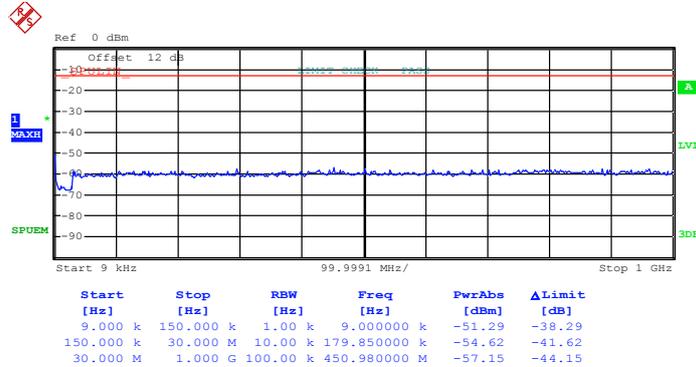


Date: 16.MAR.2012 01:02:52



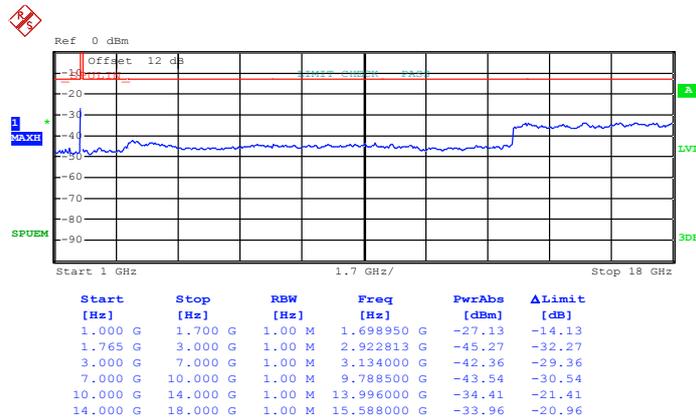
Band :	LTE Band IV	Bandwidth :	15MHz
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (9kHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 00:49:20

Conducted Emission Plot (1GHz ~ 18GHz) for QPSK (RB Size 1, RB Offset 0)

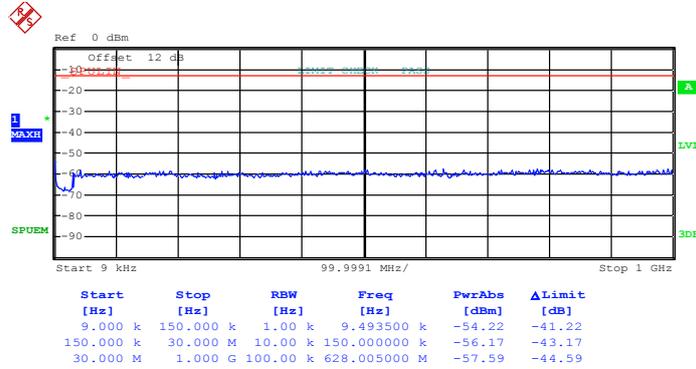


Date: 16.MAR.2012 00:52:32



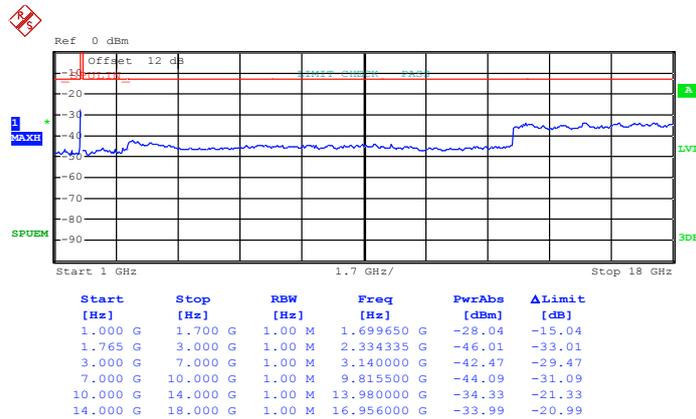
Band :	LTE Band IV	Bandwidth :	15MHz
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (9kHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 00:49:51

Conducted Emission Plot (1GHz ~ 18GHz) for 16-QAM (RB Size 1, RB Offset 0)

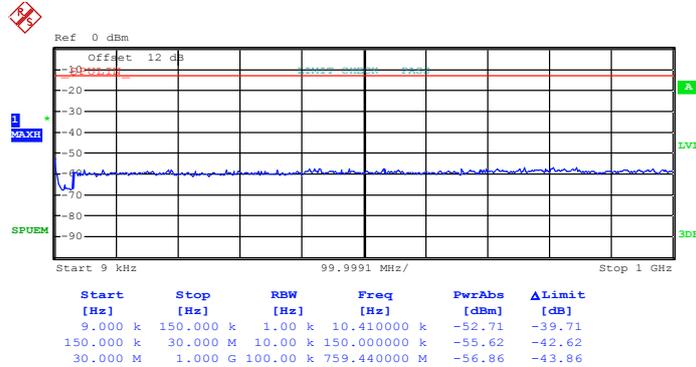


Date: 16.MAR.2012 00:52:56



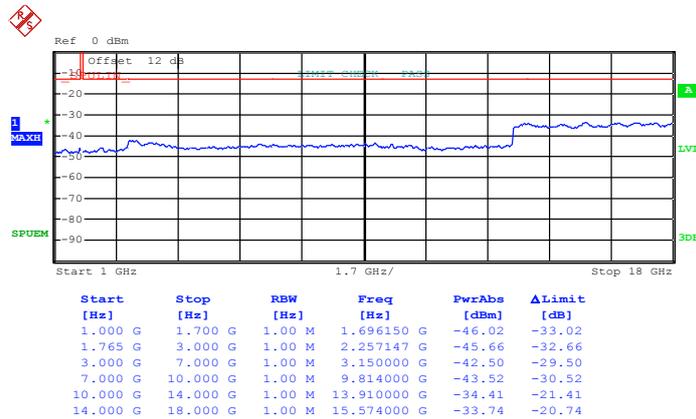
Band :	LTE Band IV	Bandwidth :	10MHz
Frequency :	1715	Channel :	20000

Conducted Emission Plot (9kHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 00:31:32

Conducted Emission Plot (1GHz ~ 18GHz) for QPSK (RB Size 1, RB Offset 0)

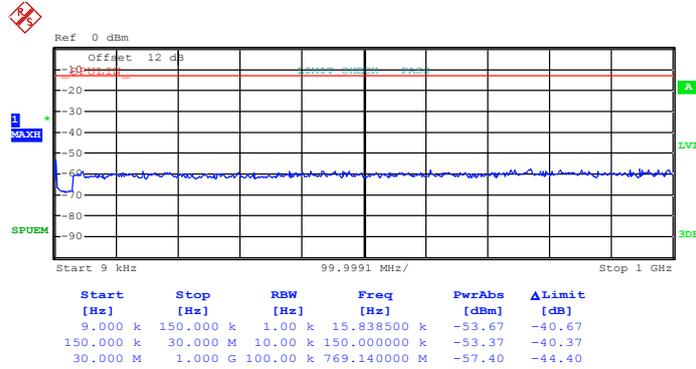


Date: 16.MAR.2012 00:33:23



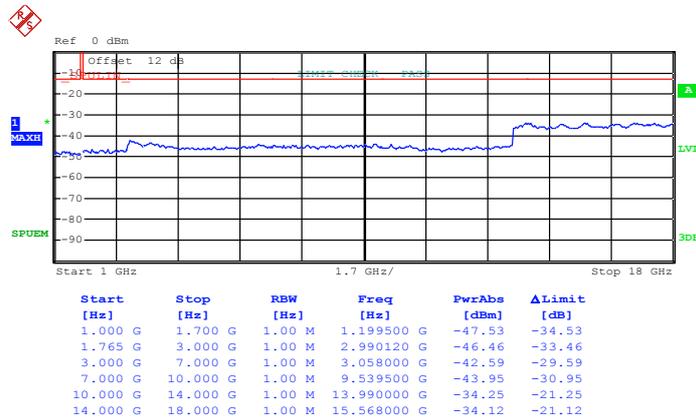
Band :	LTE Band IV	Bandwidth :	10MHz
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (9kHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 00:38:47

Conducted Emission Plot (1GHz ~ 18GHz) for 16-QAM (RB Size 1, RB Offset 0)

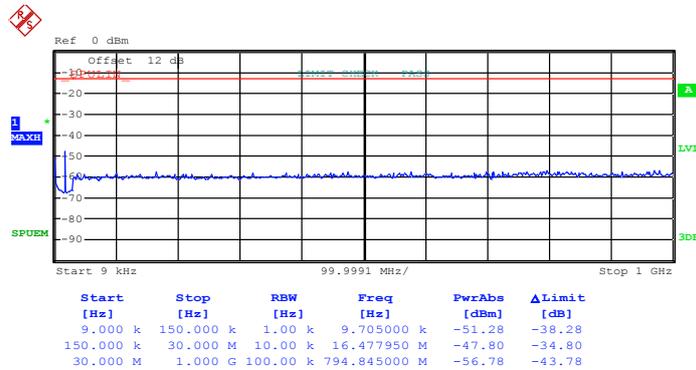


Date: 16.MAR.2012 00:37:42



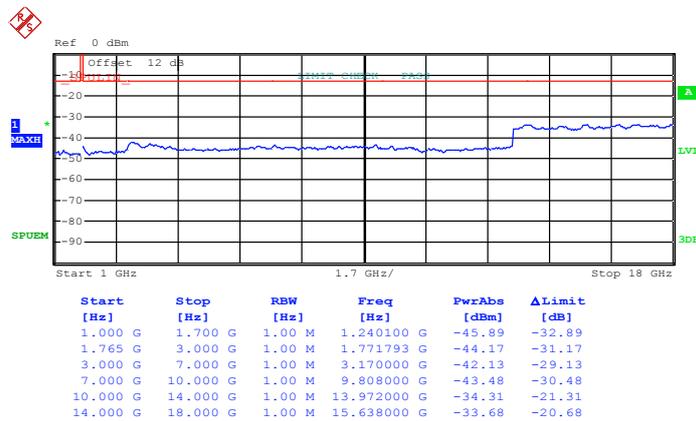
Band :	LTE Band IV	Bandwidth:	5MHz
Frequency :	1752.5	Channel :	20375

Conducted Emission Plot (9kHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 24)



Date: 16.MAR.2012 00:22:06

Conducted Emission Plot (1GHz ~ 18GHz) for QPSK (RB Size 1, RB Offset 24)

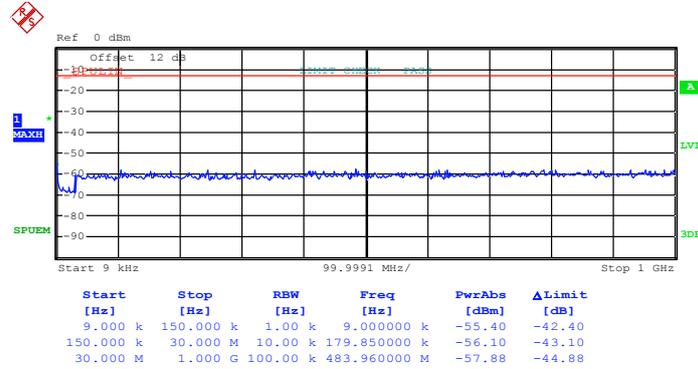


Date: 16.MAR.2012 00:23:55



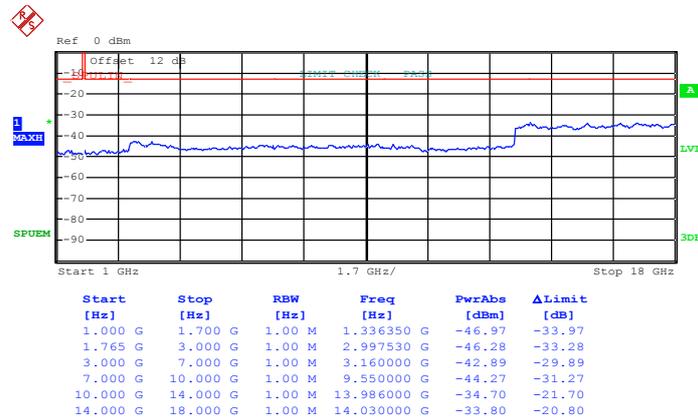
Band :	LTE Band IV	Bandwidth:	5MHz
Frequency :	1712.5	Channel :	19975

Conducted Emission Plot (9kHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 0)



Date: 16.MAR.2012 00:27:51

Conducted Emission Plot (1GHz ~ 18GHz) for 16-QAM (RB Size 1, RB Offset 0)

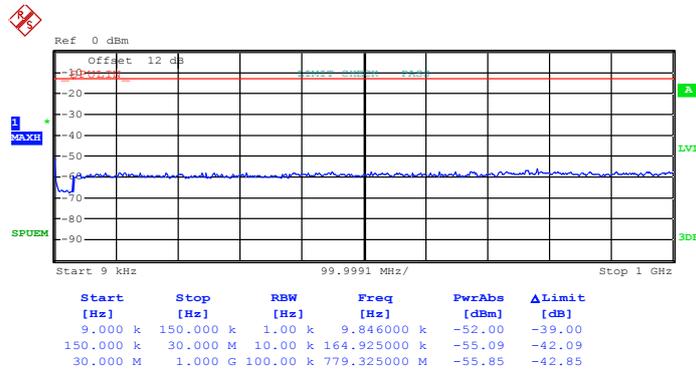


Date: 16.MAR.2012 00:26:42



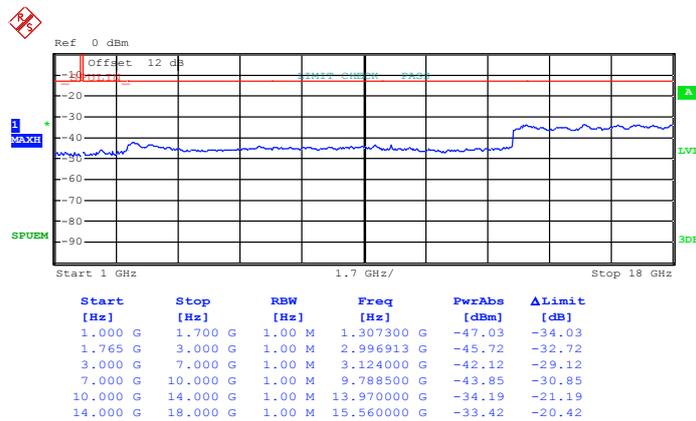
Band :	LTE Band IV	Bandwidth:	3MHz
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (9kHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 0)



Date: 15.MAR.2012 20:21:25

Conducted Emission Plot (1GHz ~ 18GHz) for QPSK (RB Size 1, RB Offset 0)

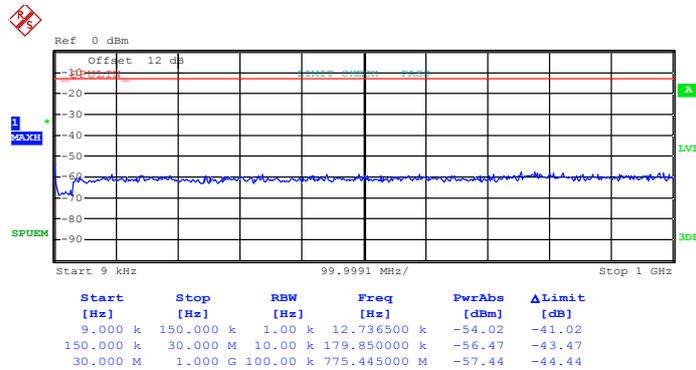


Date: 15.MAR.2012 20:45:04



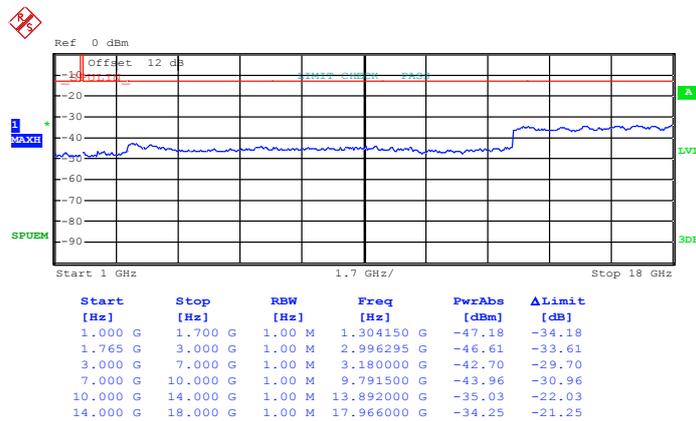
Band :	LTE Band IV	Bandwidth:	3MHz
Frequency :	1711.5	Channel :	19965

Conducted Emission Plot (9kHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 14)



Date: 15.MAR.2012 20:19:35

Conducted Emission Plot (1GHz ~ 18GHz) for 16-QAM (RB Size 1, RB Offset 14)

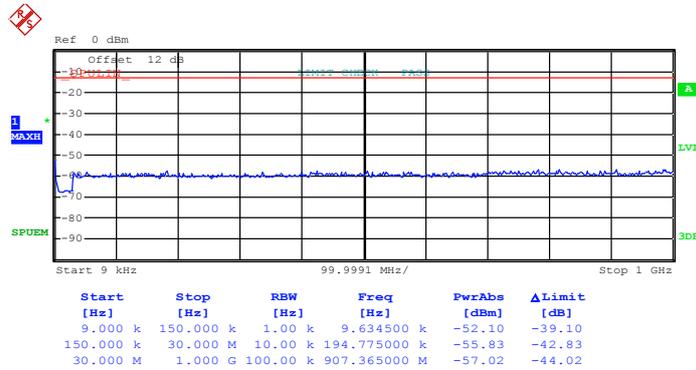


Date: 15.MAR.2012 20:44:00



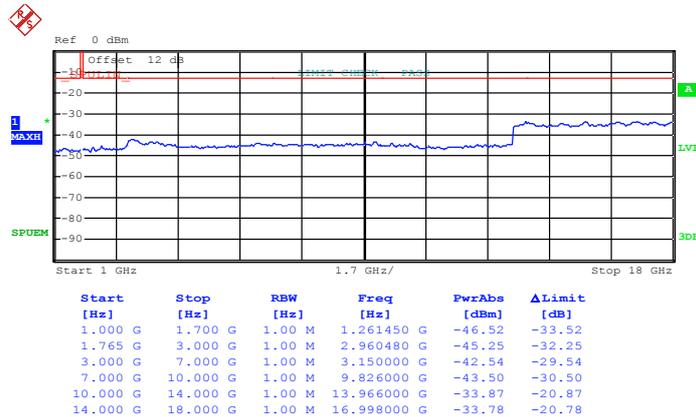
Band :	LTE Band IV	Bandwidth:	1.4MHz
Frequency :	1732.5	Channel :	20175

Conducted Emission Plot (9kHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 5)



Date: 16.MAR.2012 00:03:08

Conducted Emission Plot (1GHz ~ 18GHz) for QPSK (RB Size 1, RB Offset 5)

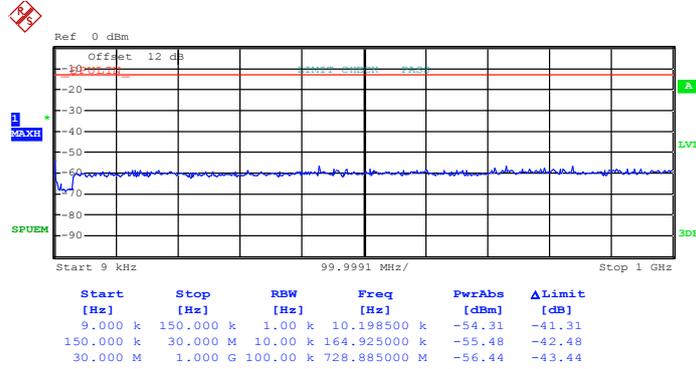


Date: 16.MAR.2012 00:04:52



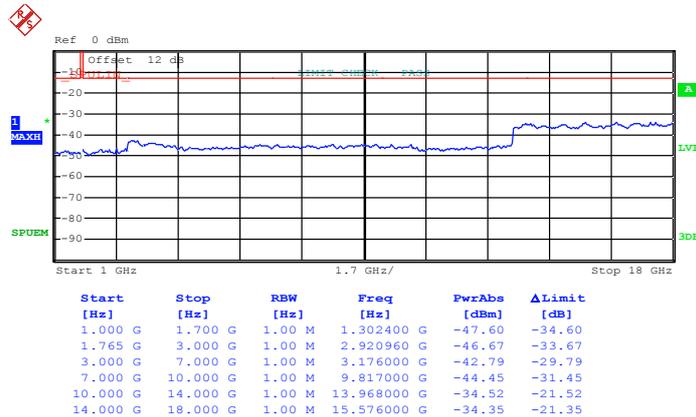
Band :	LTE Band IV	Bandwidth :	1.4MHz
Frequency :	1732.5	Channel :	20175

**Conducted Emission Plot (9kHz ~ 1GHz) for
16-QAM (RB Size 1, RB Offset 5)**



Date: 16.MAR.2012 00:03:33

**Conducted Emission Plot (1GHz ~ 18GHz) for
16-QAM (RB Size 1, RB Offset 5)**



Date: 16.MAR.2012 00:05:53

3.7 Field Strength of Spurious Radiation Measurement

3.7.1 Description of Field Strength of Spurious Radiated 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.

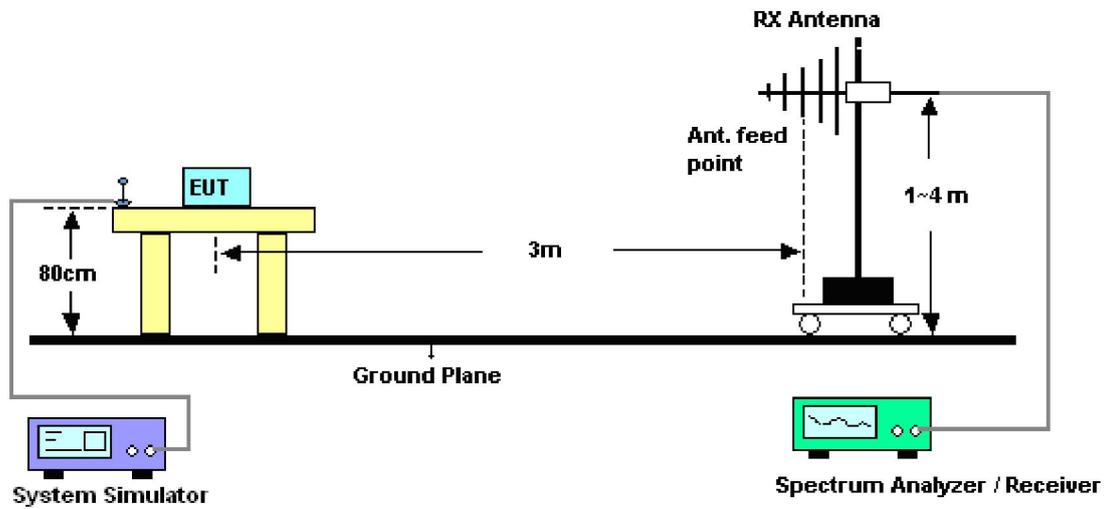
3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

1. The EUT was placed on a rotatable wooden table with 0.8 meter about 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, Sweep = 500ms, 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.

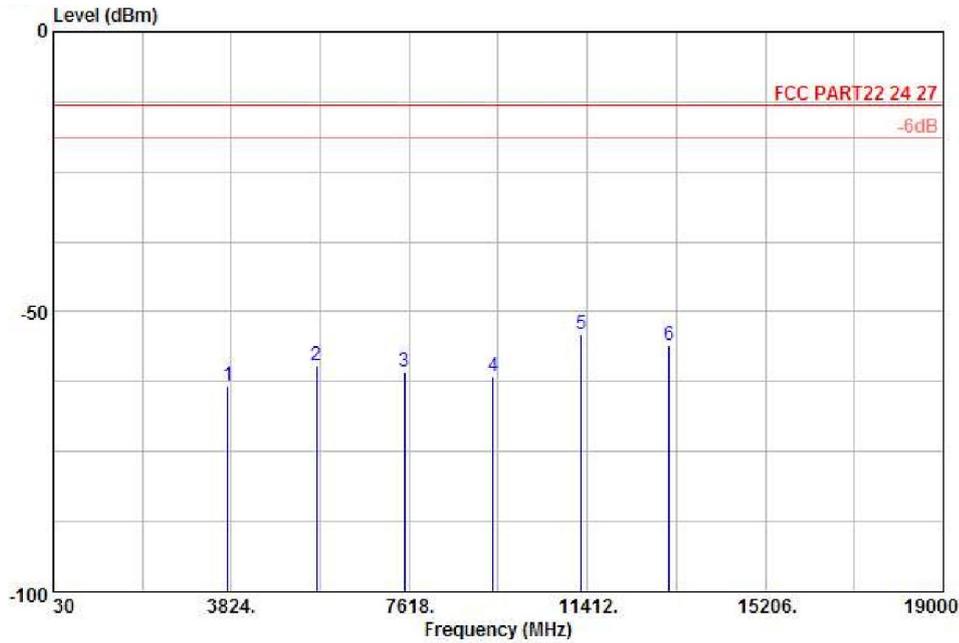
3.7.4 Test Setup





3.7.5 Test Result of Field Strength of Spurious Radiated

Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	20MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

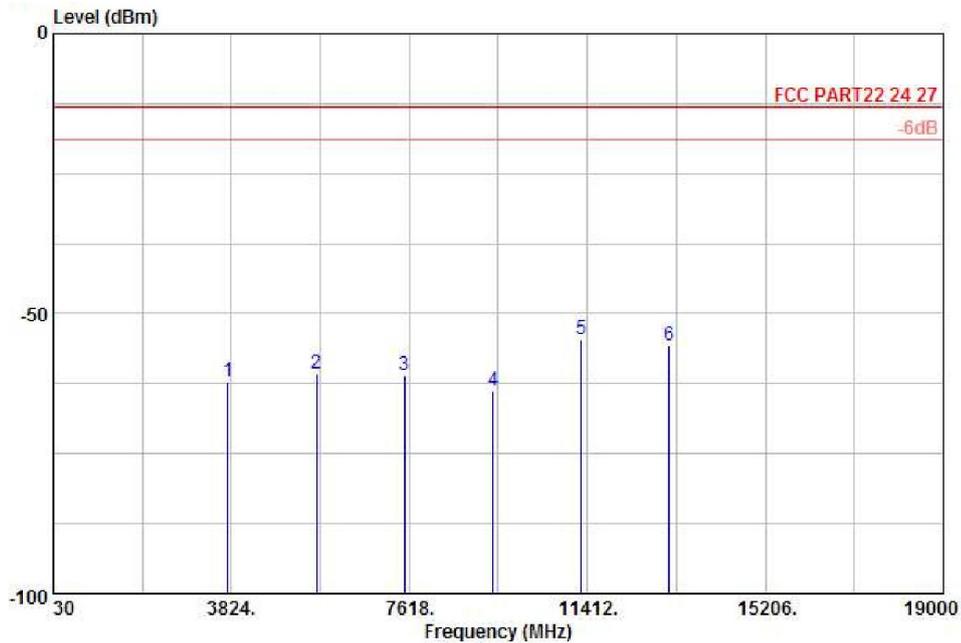


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3760	-63.20	-13	-50.20	-64.17	-69.58	0.78	7.16	H	Pass
5640	-59.73	-13	-46.73	-63.91	-68.27	1.04	9.58	H	Pass
7520	-60.75	-13	-47.75	-65.88	-70.86	1.35	11.46	H	Pass
9400	-61.54	-13	-48.54	-64.80	-72.60	1.75	12.81	H	Pass
11280	-54.04	-13	-41.04	-65.53	-65.13	2	13.09	H	Pass
13160	-55.85	-13	-42.85	-67.15	-67.56	2.04	13.75	H	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	20MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

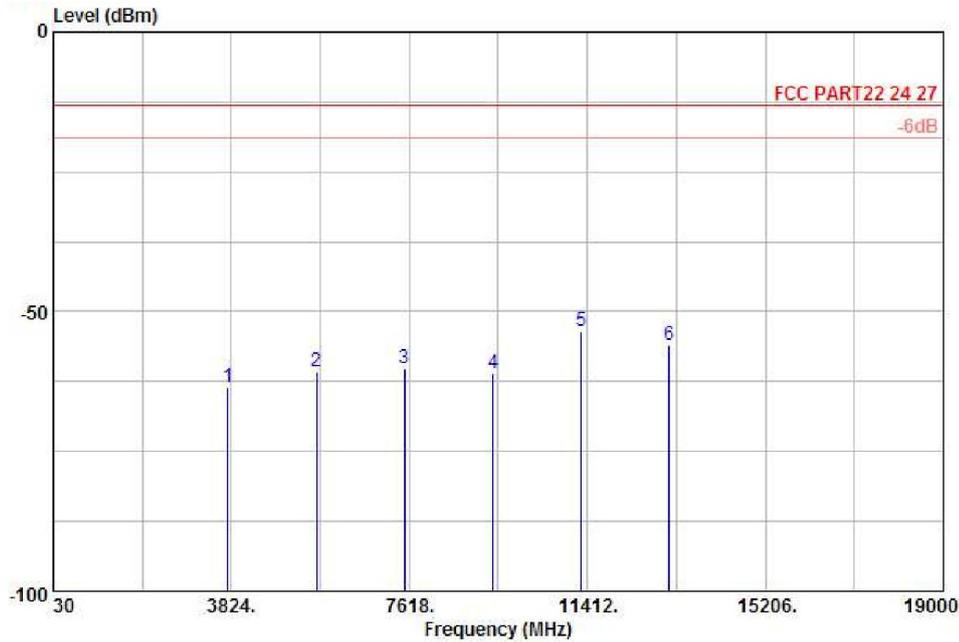


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3760	-62.24	-13	-49.24	-63.61	-68.62	0.78	7.16	V	Pass
5640	-60.61	-13	-47.61	-63.83	-69.15	1.04	9.58	V	Pass
7520	-60.98	-13	-47.98	-65.47	-71.09	1.35	11.46	V	Pass
9400	-63.73	-13	-50.73	-64.95	-74.79	1.75	12.81	V	Pass
11280	-54.53	-13	-41.53	-65.77	-65.62	2	13.09	V	Pass
13160	-55.68	-13	-42.68	-66.87	-67.39	2.04	13.75	V	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	15MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

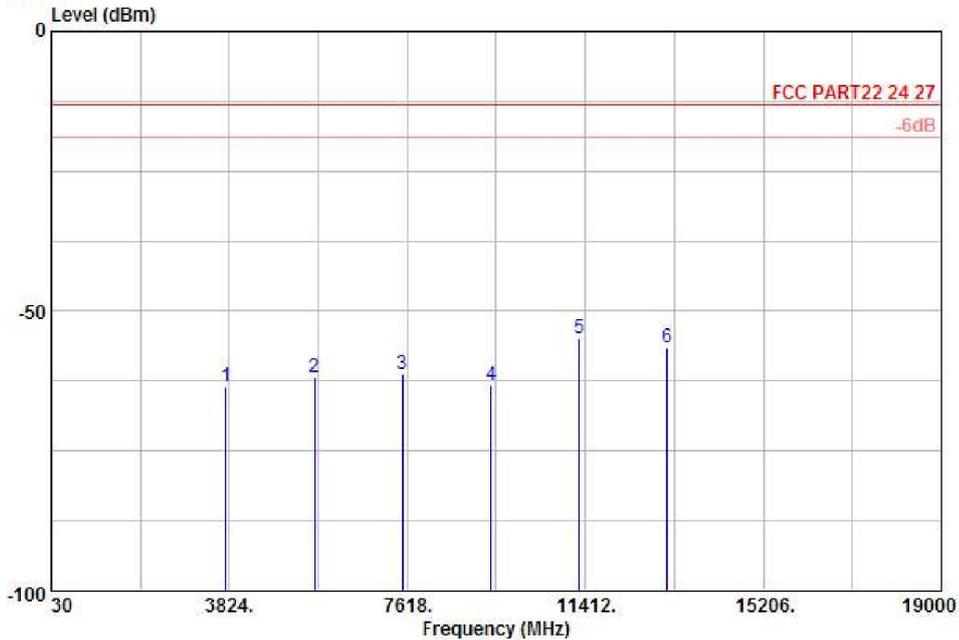


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3760	-63.48	-13	-50.48	-64.45	-69.86	0.78	7.16	H	Pass
5640	-60.78	-13	-47.78	-64.96	-69.32	1.04	9.58	H	Pass
7520	-60.18	-13	-47.18	-65.31	-70.29	1.35	11.46	H	Pass
9400	-61.11	-13	-48.11	-64.37	-72.17	1.75	12.81	H	Pass
11280	-53.54	-13	-40.54	-65.03	-64.63	2	13.09	H	Pass
13160	-55.97	-13	-42.97	-67.27	-67.68	2.04	13.75	H	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	15MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

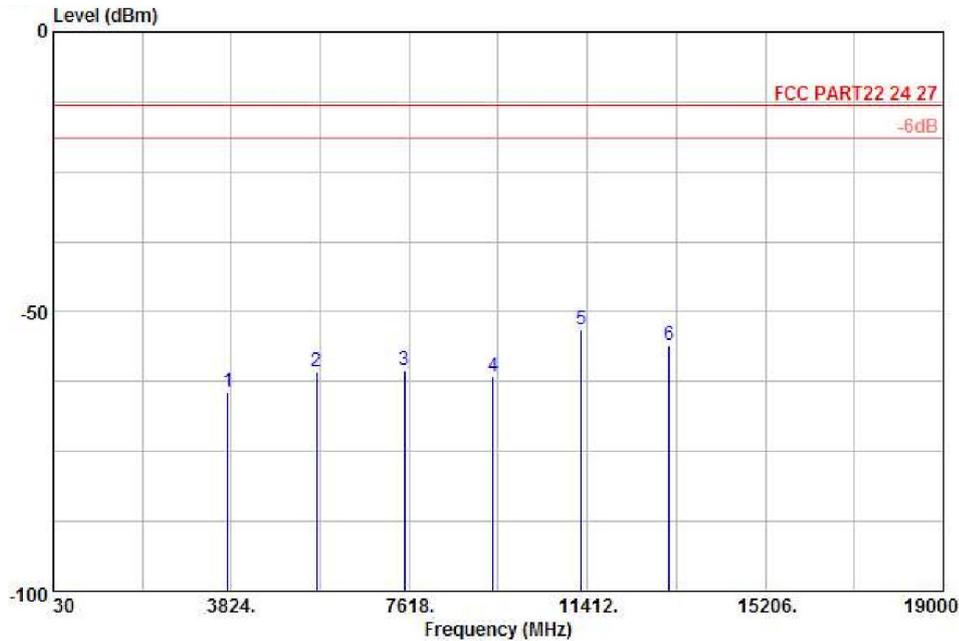


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3760	-63.54	-13	-50.54	-64.91	-69.92	0.78	7.16	V	Pass
5640	-61.72	-13	-48.72	-64.94	-70.26	1.04	9.58	V	Pass
7520	-61.29	-13	-48.29	-65.78	-71.40	1.35	11.46	V	Pass
9400	-63.22	-13	-50.22	-64.44	-74.28	1.75	12.81	V	Pass
11280	-54.98	-13	-41.98	-66.22	-66.07	2	13.09	V	Pass
13160	-56.48	-13	-43.48	-67.67	-68.19	2.04	13.75	V	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

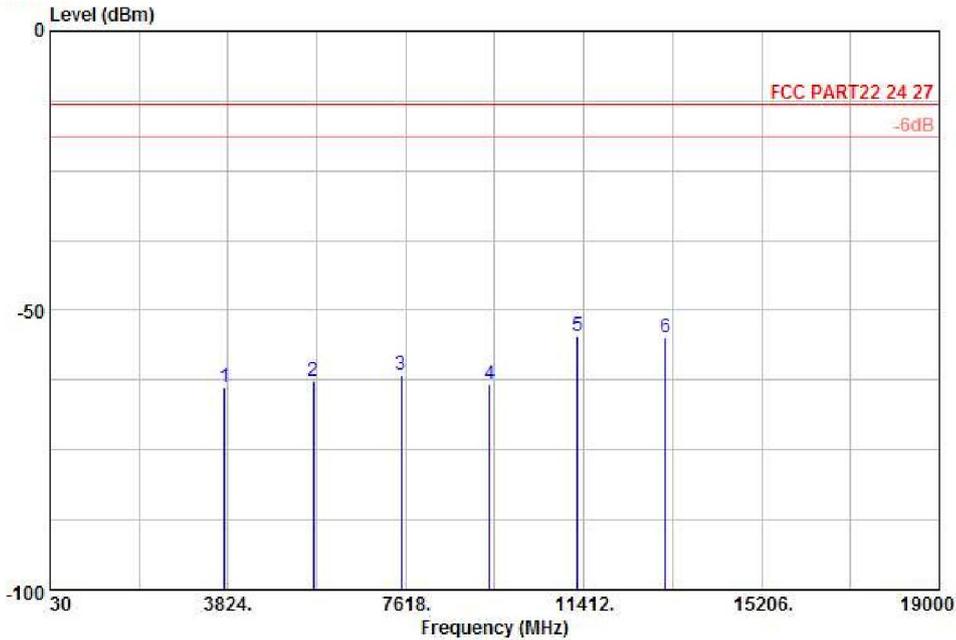


Site : 09CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3760	-64.24	-13	-51.24	-65.21	-70.62	0.78	7.16	H	Pass
5640	-60.84	-13	-47.84	-65.02	-69.38	1.04	9.58	H	Pass
7520	-60.55	-13	-47.55	-65.68	-70.66	1.35	11.46	H	Pass
9400	-61.57	-13	-48.57	-64.83	-72.63	1.75	12.81	H	Pass
11280	-53.30	-13	-40.30	-64.79	-64.39	2	13.09	H	Pass
13160	-56.04	-13	-43.04	-67.34	-67.75	2.04	13.75	H	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

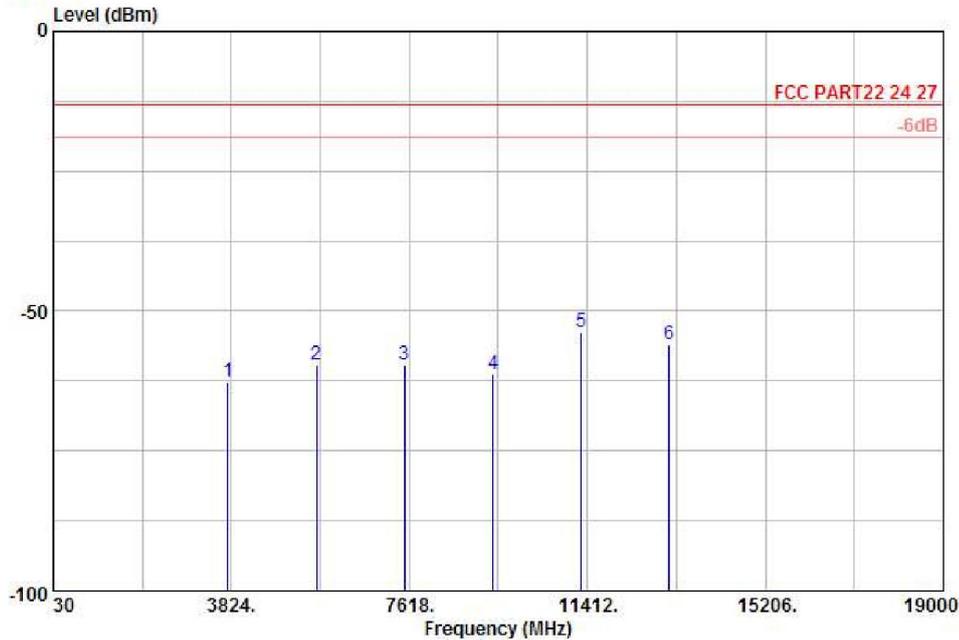


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3760	-63.67	-13	-50.67	-65.04	-70.05	0.78	7.16	V	Pass
5640	-62.72	-13	-49.72	-65.94	-71.26	1.04	9.58	V	Pass
7520	-61.45	-13	-48.45	-65.94	-71.56	1.35	11.46	V	Pass
9400	-63.15	-13	-50.15	-64.37	-74.21	1.75	12.81	V	Pass
11280	-54.65	-13	-41.65	-65.89	-65.74	2	13.09	V	Pass
13160	-54.98	-13	-41.98	-66.17	-66.69	2.04	13.75	V	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

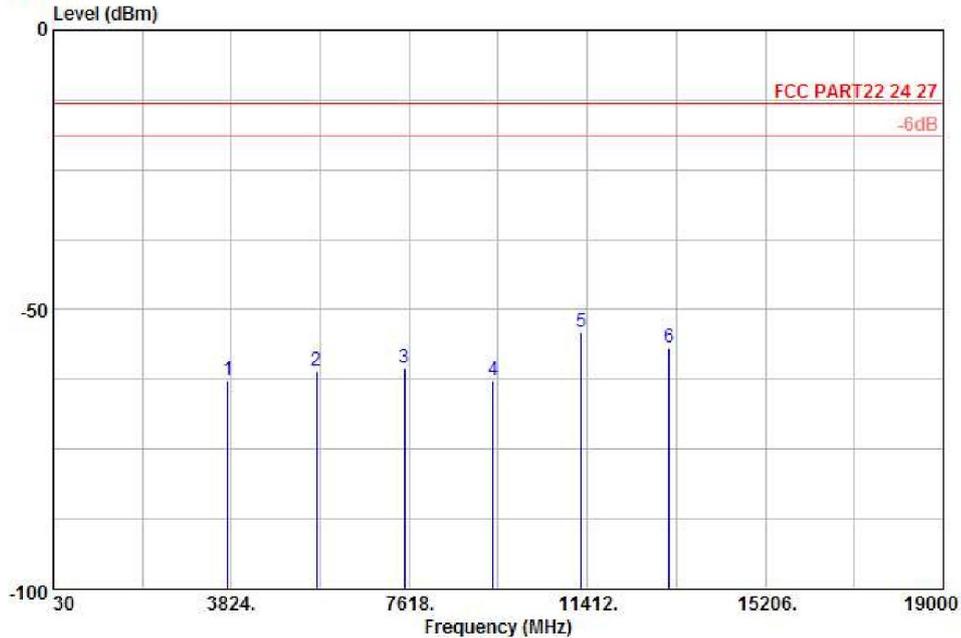


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3760	-62.63	-13	-49.63	-63.60	-69.01	0.78	7.16	H	Pass
5640	-59.71	-13	-46.71	-63.89	-68.25	1.04	9.58	H	Pass
7520	-59.60	-13	-46.60	-64.73	-69.71	1.35	11.46	H	Pass
9400	-61.37	-13	-48.37	-64.63	-72.43	1.75	12.81	H	Pass
11280	-53.80	-13	-40.80	-65.29	-64.89	2	13.09	H	Pass
13160	-56.12	-13	-43.12	-67.42	-67.83	2.04	13.75	H	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

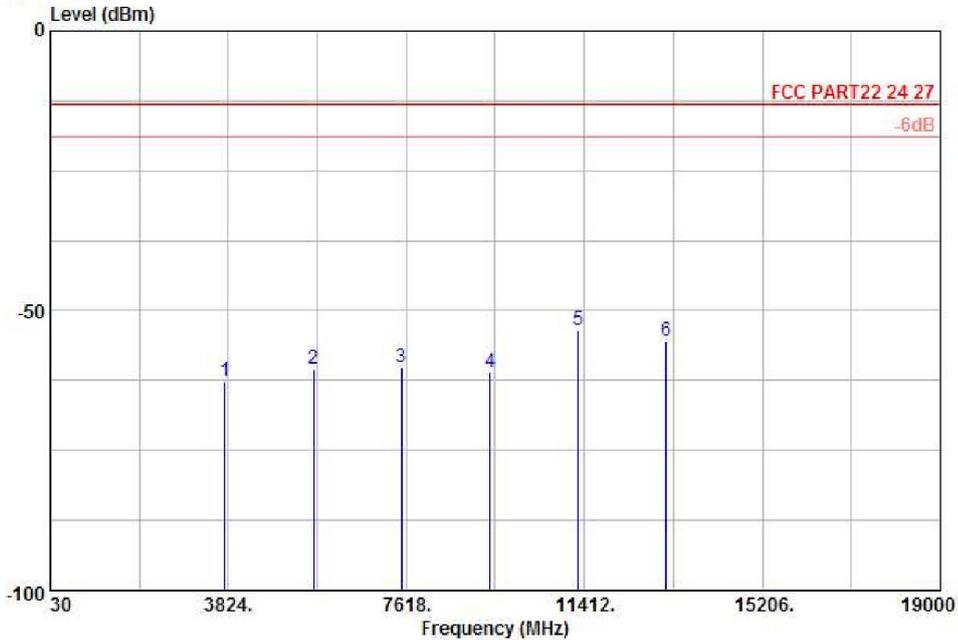


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3760	-62.73	-13	-49.73	-64.1	-69.11	0.78	7.16	V	Pass
5640	-61.09	-13	-48.09	-64.31	-69.63	1.04	9.58	V	Pass
7520	-60.56	-13	-47.56	-65.05	-70.67	1.35	11.46	V	Pass
9400	-62.60	-13	-49.60	-63.82	-73.66	1.75	12.81	V	Pass
11280	-53.90	-13	-40.90	-65.14	-64.99	2	13.09	V	Pass
13160	-56.72	-13	-43.72	-67.91	-68.43	2.04	13.75	V	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

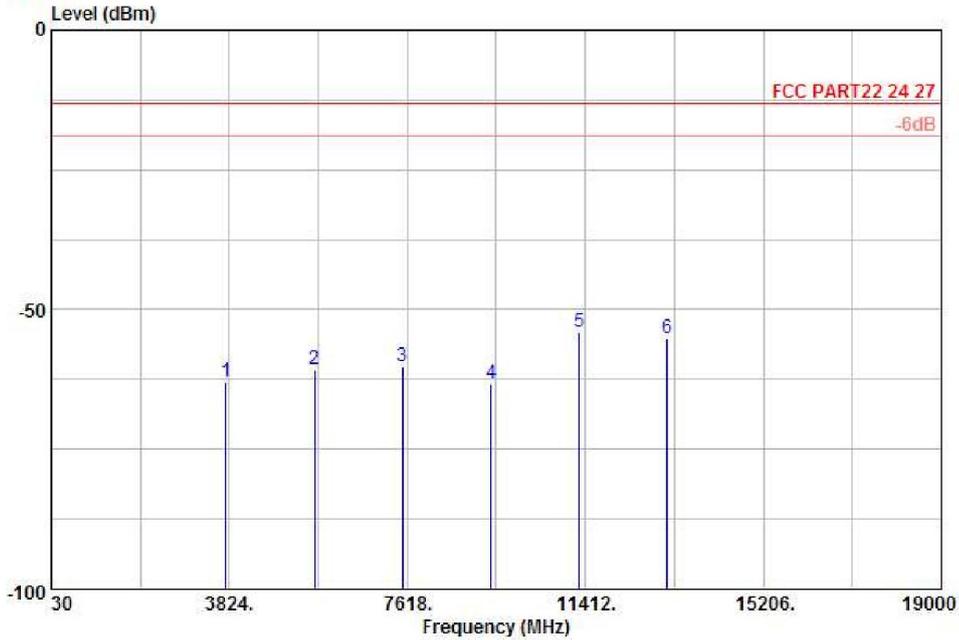


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3760	-62.79	-13	-49.79	-63.76	-69.17	0.78	7.16	H	Pass
5640	-60.45	-13	-47.45	-64.63	-68.99	1.04	9.58	H	Pass
7520	-60.11	-13	-47.11	-65.24	-70.22	1.35	11.46	H	Pass
9400	-60.93	-13	-47.93	-64.19	-71.99	1.75	12.81	H	Pass
11280	-53.35	-13	-40.35	-64.84	-64.44	2	13.09	H	Pass
13160	-55.57	-13	-42.57	-66.87	-67.28	2.04	13.75	H	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

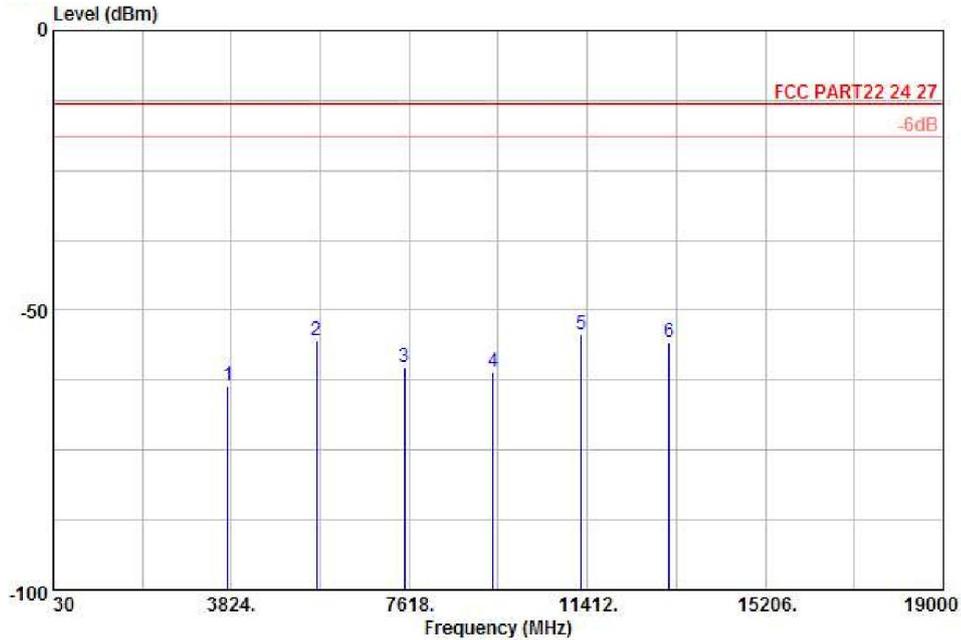


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3760	-62.99	-13	-49.99	-64.36	-69.37	0.78	7.16	V	Pass
5640	-60.85	-13	-47.85	-64.07	-69.39	1.04	9.58	V	Pass
7520	-60.24	-13	-47.24	-64.73	-70.35	1.35	11.46	V	Pass
9400	-63.35	-13	-50.35	-64.57	-74.41	1.75	12.81	V	Pass
11280	-53.98	-13	-40.98	-65.22	-65.07	2	13.09	V	Pass
13160	-55.27	-13	-42.27	-66.46	-66.98	2.04	13.75	V	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

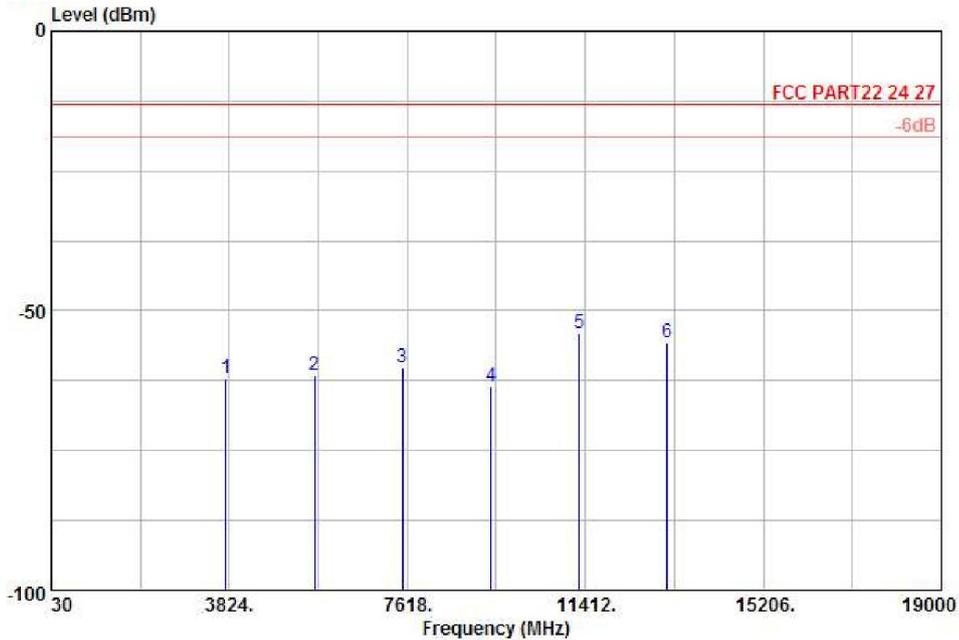


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3760	-63.48	-13	-50.48	-64.45	-69.86	0.78	7.16	H	Pass
5640	-55.32	-13	-42.32	-59.50	-63.86	1.04	9.58	H	Pass
7520	-60.21	-13	-47.21	-65.34	-70.32	1.35	11.46	H	Pass
9400	-60.90	-13	-47.90	-64.16	-71.96	1.75	12.81	H	Pass
11280	-54.35	-13	-41.35	-65.84	-65.44	2	13.09	H	Pass
13160	-55.83	-13	-42.83	-67.13	-67.54	2.04	13.75	H	Pass



Band :	LTE Band II	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK ,RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

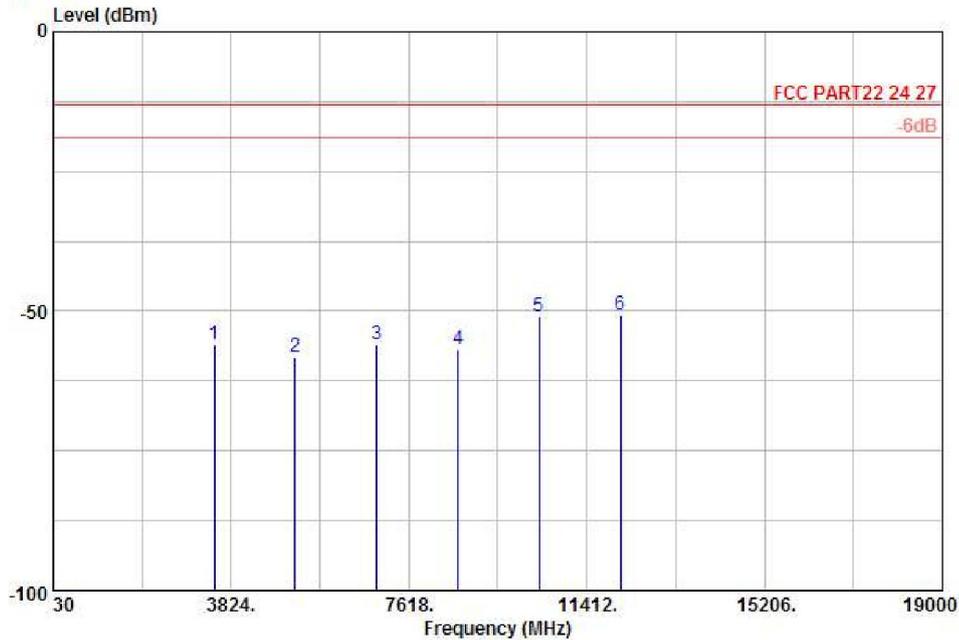


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3760	-62.24	-13	-49.24	-63.61	-68.62	0.78	7.16	V	Pass
5640	-61.53	-13	-48.53	-64.75	-70.07	1.04	9.58	V	Pass
7520	-60.17	-13	-47.17	-64.66	-70.28	1.35	11.46	V	Pass
9400	-63.53	-13	-50.53	-64.75	-74.59	1.75	12.81	V	Pass
11280	-54.11	-13	-41.11	-65.35	-65.20	2	13.09	V	Pass
13160	-55.75	-13	-42.75	-66.94	-67.46	2.04	13.75	V	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	20MHz QPSK RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

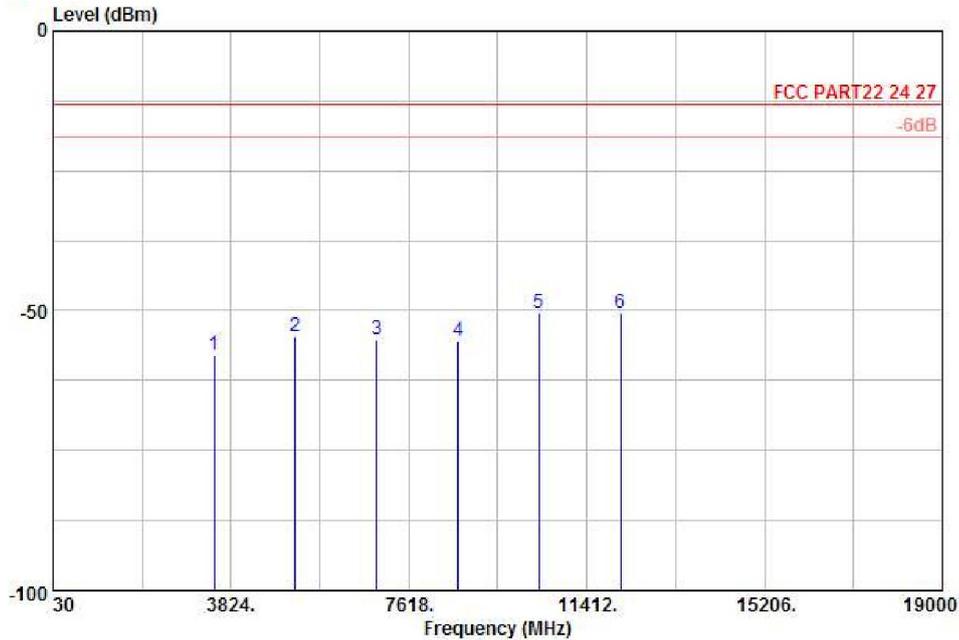


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3465	-55.87	-13	-42.87	-62.16	-38.20	1.42	7.54	H	Pass
5197.5	-58.26	-13	-45.26	-65.36	-68.60	1.58	9.80	H	Pass
6930	-56.01	-13	-43.01	-65.07	-67.90	1.69	11.51	H	Pass
8662.5	-56.94	-13	-43.94	-65.01	-58.70	2.12	12.86	H	Pass
10395	-50.99	-13	-37.99	-63.73	-54.80	2.31	12.90	H	Pass
12127.5	-50.77	-13	-37.77	-64.79	-53.00	2.57	13.10	H	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	20MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

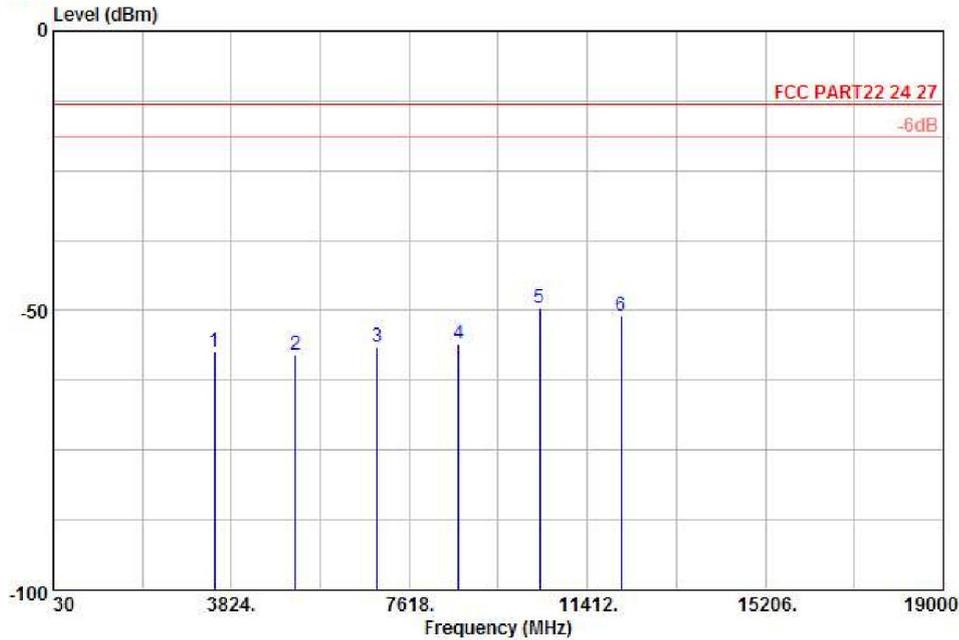


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3465	-57.99	-13	-44.99	-62.26	-43.20	1.42	7.54	V	Pass
5197.5	-54.51	-13	-41.51	-63.67	-70.30	1.58	9.80	V	Pass
6930	-55.22	-13	-42.22	-63.98	-64.60	1.69	11.51	V	Pass
8662.5	-55.44	-13	-42.44	-64.11	-56.60	2.12	12.86	V	Pass
10395	-50.39	-13	-37.39	-63.18	-53.60	2.31	12.90	V	Pass
12127.5	-50.38	-13	-37.38	-64.72	-52.20	2.57	13.10	V	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	15MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

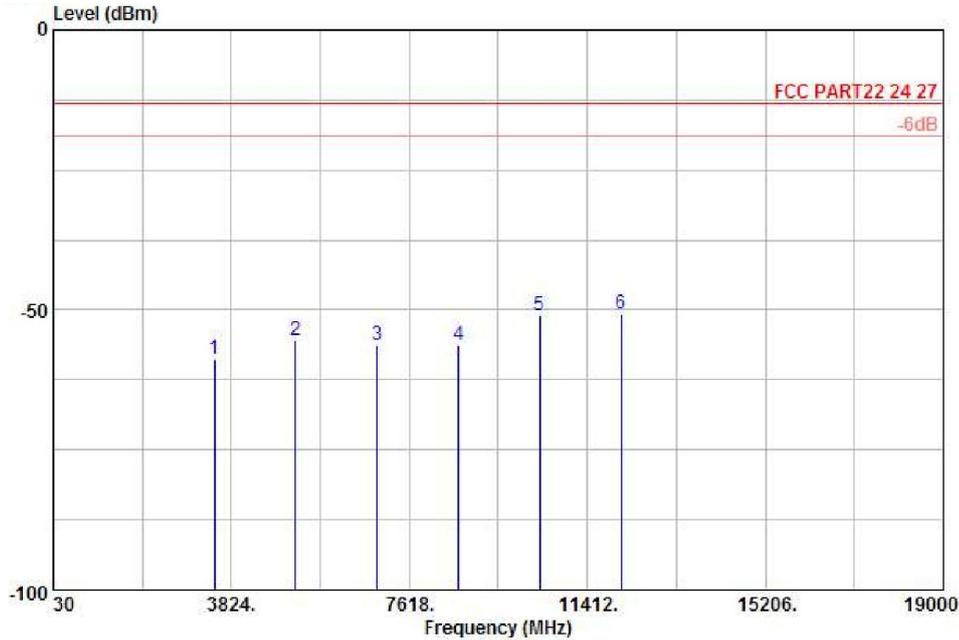


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3465	-57.26	-13	-44.26	-63.55	-38.20	1.42	7.54	H	Pass
5197.5	-57.83	-13	-44.83	-64.93	-68.60	1.58	9.80	H	Pass
6930	-56.45	-13	-43.45	-65.51	-67.90	1.69	11.51	H	Pass
8662.5	-55.89	-13	-42.89	-63.96	-58.70	2.12	12.86	H	Pass
10395	-49.47	-13	-36.47	-62.21	-54.80	2.31	12.90	H	Pass
12127.5	-50.87	-13	-37.87	-64.89	-53.00	2.57	13.10	H	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	15MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

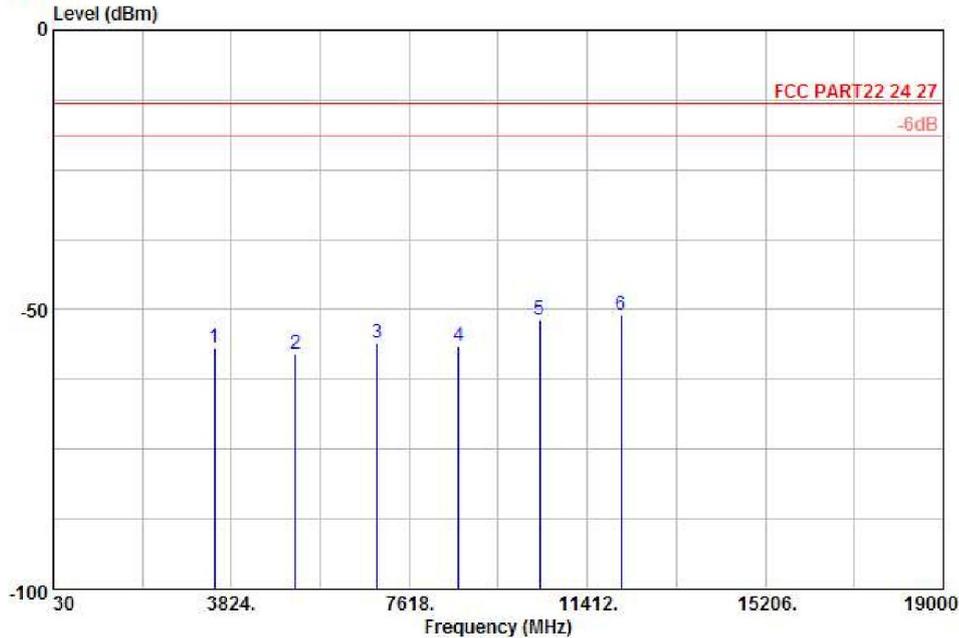


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3465	-58.75	-13	-45.75	-63.02	-43.20	1.42	7.54	V	Pass
5197.5	-55.54	-13	-42.54	-64.7	-70.30	1.58	9.80	V	Pass
6930	-56.25	-13	-43.25	-65.01	-64.60	1.69	11.51	V	Pass
8662.5	-56.36	-13	-43.36	-65.03	-56.60	2.12	12.86	V	Pass
10395	-51.09	-13	-38.09	-63.88	-53.60	2.31	12.90	V	Pass
12127.5	-50.74	-13	-37.74	-65.08	-52.20	2.57	13.10	V	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

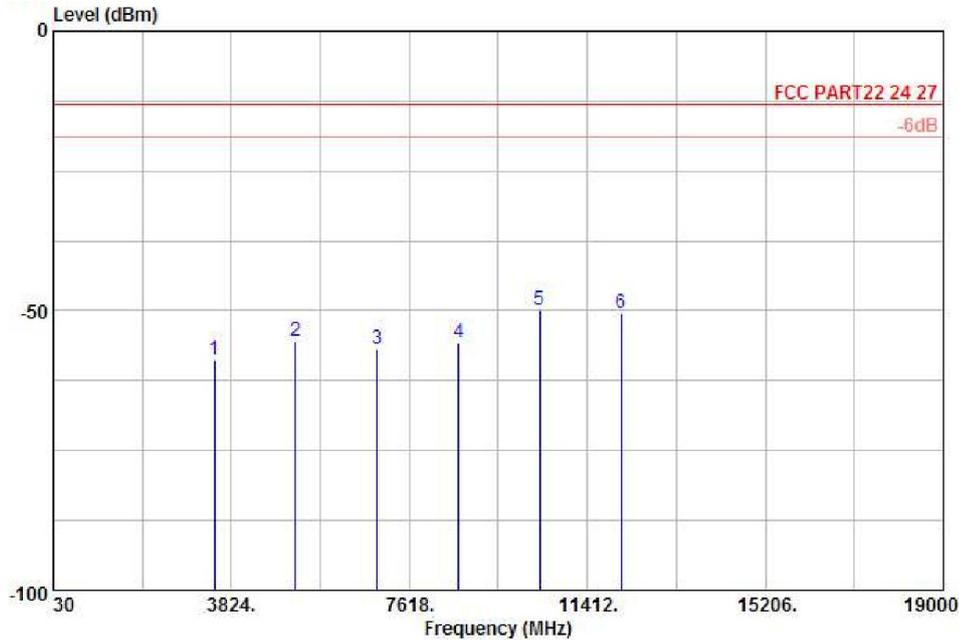


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3465	-56.89	-13	-43.89	-63.18	-38.20	1.42	7.54	H	Pass
5197.5	-58.04	-13	-45.04	-65.14	-68.60	1.58	9.80	H	Pass
6930	-56.09	-13	-43.09	-65.15	-67.90	1.69	11.51	H	Pass
8662.5	-56.49	-13	-43.49	-64.56	-58.70	2.12	12.86	H	Pass
10395	-51.81	-13	-38.81	-64.55	-54.80	2.31	12.90	H	Pass
12127.5	-50.85	-13	-37.85	-64.87	-53.00	2.57	13.10	H	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

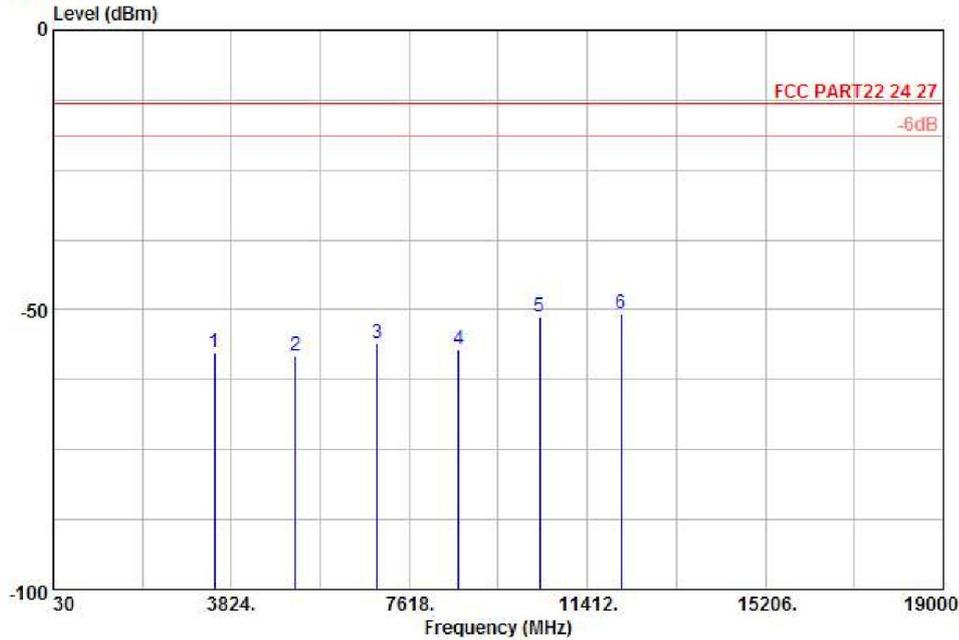


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3465	-58.76	-13	-45.76	-63.03	-43.20	1.42	7.54	V	Pass
5197.5	-55.41	-13	-42.41	-64.57	-70.30	1.58	9.80	V	Pass
6930	-56.73	-13	-43.73	-65.49	-64.60	1.69	11.51	V	Pass
8662.5	-55.59	-13	-42.59	-64.26	-56.60	2.12	12.86	V	Pass
10395	-49.97	-13	-36.97	-62.76	-53.60	2.31	12.90	V	Pass
12127.5	-50.40	-13	-37.40	-64.74	-52.20	2.57	13.10	V	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

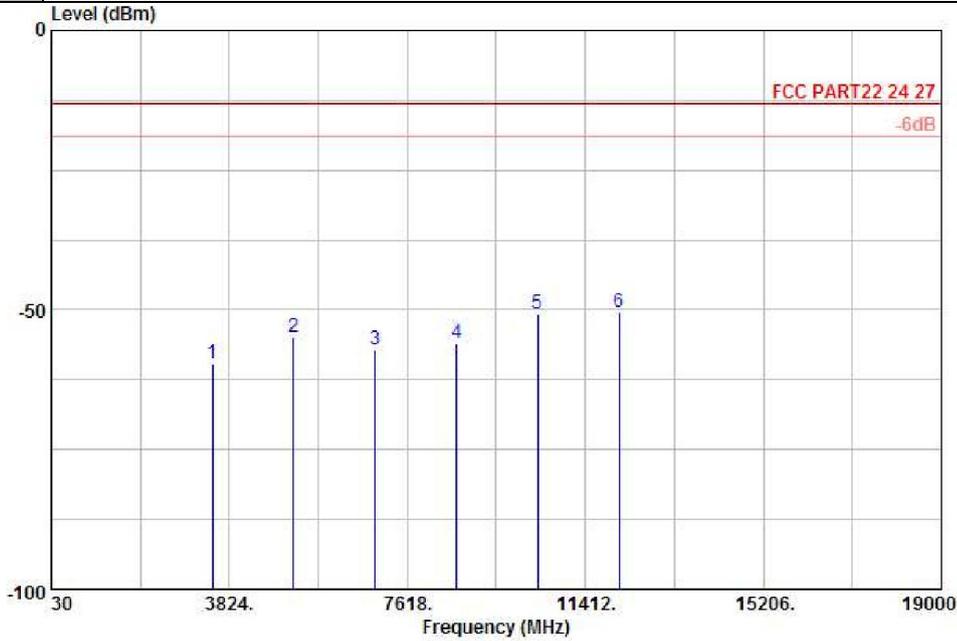


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3465	-57.58	-13	-44.58	-63.87	-38.20	1.42	7.54	H	Pass
5197.5	-58.26	-13	-45.26	-65.36	-68.60	1.58	9.80	H	Pass
6930	-56.01	-13	-43.01	-65.07	-67.90	1.69	11.51	H	Pass
8662.5	-56.99	-13	-43.99	-65.06	-58.70	2.12	12.86	H	Pass
10395	-51.31	-13	-38.31	-64.05	-54.80	2.31	12.90	H	Pass
12127.5	-50.56	-13	-37.56	-64.58	-53.00	2.57	13.10	H	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

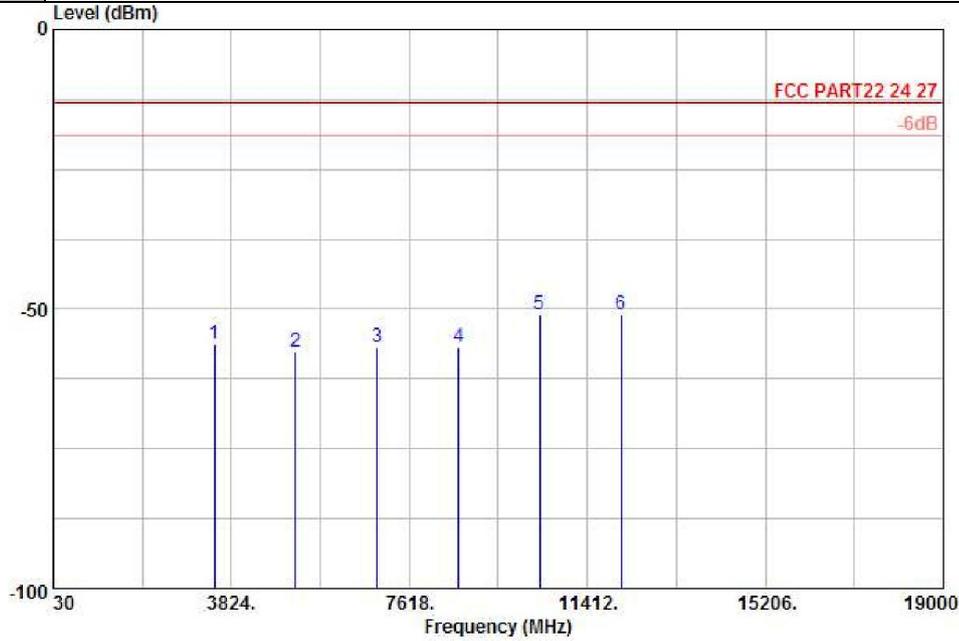


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3465	-59.60	-13	-46.60	-63.87	-43.20	1.42	7.54	V	Pass
5197.5	-54.76	-13	-41.76	-63.92	-70.30	1.58	9.80	V	Pass
6930	-56.97	-13	-43.97	-65.73	-64.60	1.69	11.51	V	Pass
8662.5	-55.97	-13	-42.97	-64.64	-56.60	2.12	12.86	V	Pass
10395	-50.77	-13	-37.77	-63.56	-53.60	2.31	12.90	V	Pass
12127.5	-50.36	-13	-37.36	-64.7	-52.20	2.57	13.10	V	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

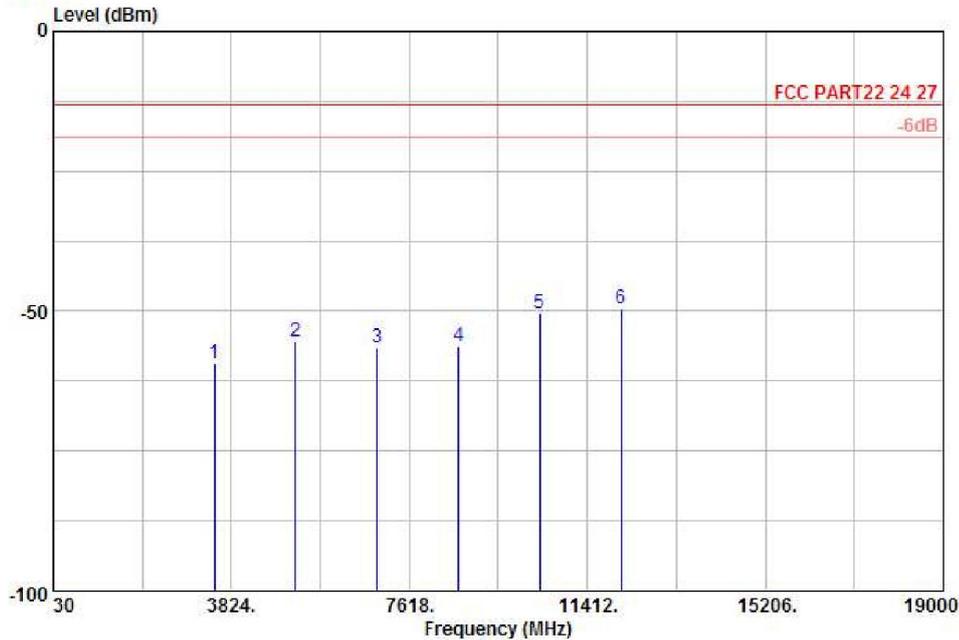


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3465	-56.26	-13	-43.26	-62.55	-38.20	1.42	7.54	H	Pass
5197.5	-57.74	-13	-44.74	-64.84	-68.60	1.58	9.80	H	Pass
6930	-56.96	-13	-43.96	-66.02	-67.90	1.69	11.51	H	Pass
8662.5	-56.69	-13	-43.69	-64.76	-58.70	2.12	12.86	H	Pass
10395	-51.07	-13	-38.07	-63.81	-54.80	2.31	12.90	H	Pass
12127.5	-51.11	-13	-38.11	-65.13	-53.00	2.57	13.10	H	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

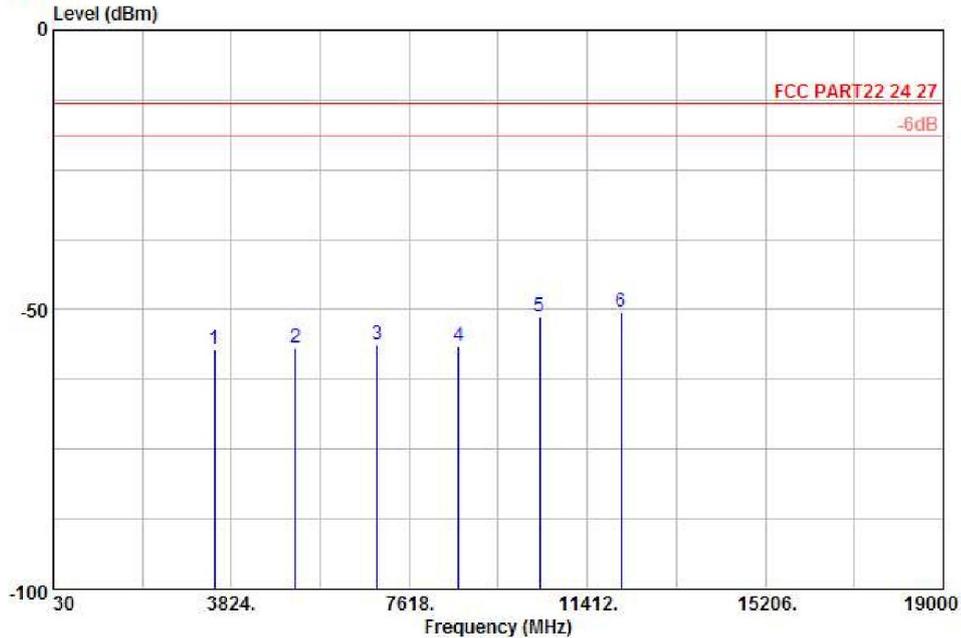


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3465	-59.27	-13	-46.27	-63.54	-43.20	1.42	7.54	V	Pass
5197.5	-55.48	-13	-42.48	-64.64	-70.30	1.58	9.80	V	Pass
6930	-56.53	-13	-43.53	-65.29	-64.60	1.69	11.51	V	Pass
8662.5	-56.32	-13	-43.32	-64.99	-56.60	2.12	12.86	V	Pass
10395	-50.44	-13	-37.44	-63.23	-53.60	2.31	12.90	V	Pass
12127.5	-49.58	-13	-36.58	-63.92	-52.20	2.57	13.10	V	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

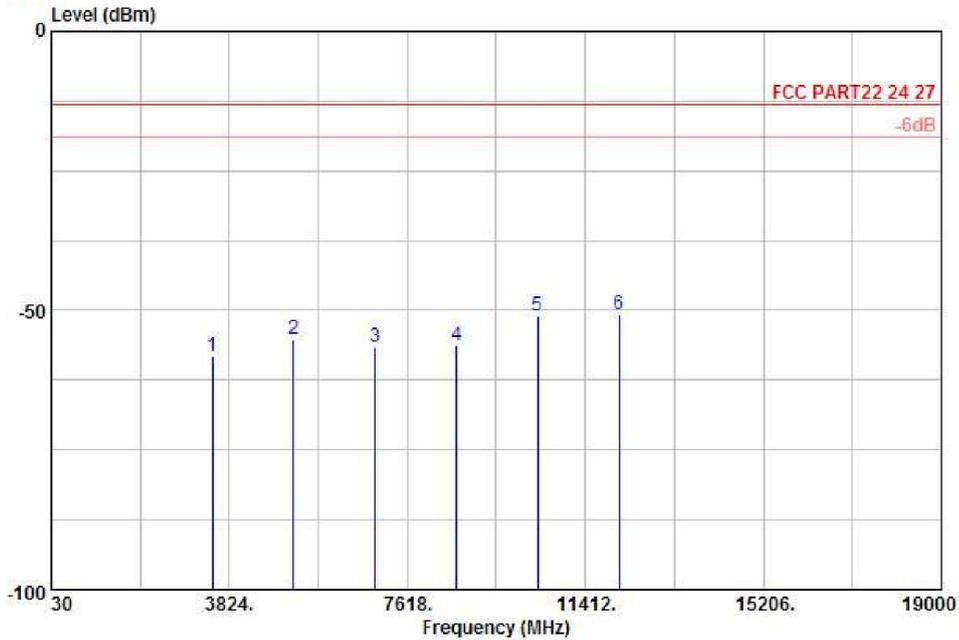


Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 HORIZONTAL
 Project : (FG) 1N0701

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
3465	-57.02	-13	-44.02	-63.31	-38.20	1.42	7.54	H	Pass
5197.5	-56.93	-13	-43.93	-64.03	-68.60	1.58	9.80	H	Pass
6930	-56.24	-13	-43.24	-65.30	-67.90	1.69	11.51	H	Pass
8662.5	-56.57	-13	-43.57	-64.64	-58.70	2.12	12.86	H	Pass
10395	-51.20	-13	-38.20	-63.94	-54.80	2.31	12.90	H	Pass
12127.5	-50.50	-13	-37.50	-64.52	-53.00	2.57	13.10	H	Pass



Band :	LTE Band IV	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1	Relative Humidity :	41~42%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-KS
 Condition: FCC PART22 24 27 HF EIRP FACTOR-09020 VERTICAL
 Project : (FG) 1N0701

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
3465	-58.24	-13	-45.24	-62.51	-43.20	1.42	7.54	V	Pass
5197.5	-55.18	-13	-42.18	-64.34	-70.30	1.58	9.80	V	Pass
6930	-56.51	-13	-43.51	-65.27	-64.60	1.69	11.51	V	Pass
8662.5	-56.33	-13	-43.33	-65	-56.60	2.12	12.86	V	Pass
10395	-51.06	-13	-38.06	-63.85	-53.60	2.31	12.90	V	Pass
12127.5	-50.77	-13	-37.77	-65.11	-52.20	2.57	13.10	V	Pass

3.8 Frequency Stability Measurement

3.8.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

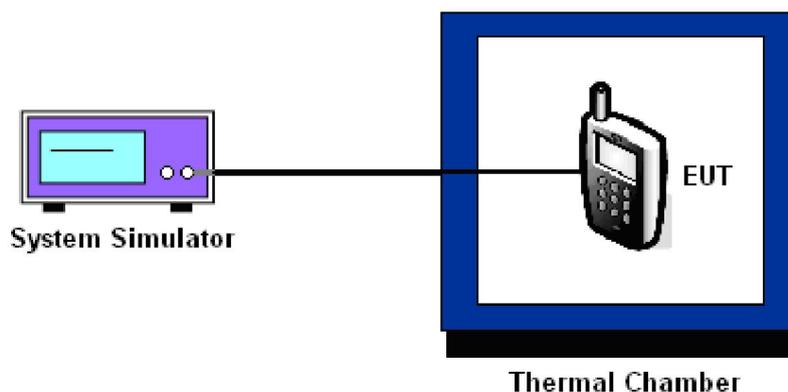
3.8.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the base station.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized for three hours. 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 can not be turned on at -30°C , the testing lowest temperature will be raised in 10°C step until the EUT can be turned on.

3.8.4 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at $25\pm 5^{\circ}\text{C}$ and connected with the base station.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

3.8.5 Test Setup



3.8.6 Test Result of Temperature Variation

Band :	LTE Band II			Limit (ppm) :	2.5
Temperature (°C)	20MHz		15MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	N/A	N/A	N/A	N/A	PASS
-20	N/A	N/A	N/A	N/A	
-10	9.9	0.005	12.9	0.007	
0	11.4	0.006	16.7	0.009	
10	15.9	0.008	14.1	0.008	
20	12.9	0.007	-11.1	-0.006	
30	8.7	0.005	-13.2	-0.007	
40	-11.1	-0.006	-18.8	-0.010	
50	-13.9	-0.007	-21.1	-0.011	
55	-19.8	0.000	-25.0	-0.013	

Note: The manufacturer declared that the EUT could work properly between temperatures -10°C~55°C.

Band :	LTE Band II			Limit (ppm) :	2.5
Temperature (°C)	10MHz		5MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	N/A	N/A	N/A	N/A	PASS
-20	N/A	N/A	N/A	N/A	
-10	14.1	0.008	16.2	0.009	
0	15.7	0.008	17.1	0.009	
10	12.2	0.006	13.8	0.007	
20	-9.9	-0.005	-15.5	-0.008	
30	-9.7	-0.005	-15.0	-0.008	
40	-13.5	-0.007	-17.0	-0.009	
50	-15.7	-0.008	-17.8	-0.009	
55	-22.0	-0.012	-22.1	-0.012	

Note: The manufacturer declared that the EUT could work properly between temperatures -10°C~55°C.



Band :	LTE Band II		Limit (ppm) :	2.5	
Temperature (°C)	3MHz		1.4MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	N/A	N/A	N/A	N/A	PASS
-20	N/A	N/A	N/A	N/A	
-10	11.6	0.006	8.3	0.004	
0	14.4	0.008	10.2	0.005	
10	9.9	0.005	9.1	0.005	
20	-14.7	-0.008	9.4	0.005	
30	-11.1	-0.006	11.2	0.006	
40	-13.5	-0.007	-10.5	-0.006	
50	-20.0	-0.011	-17.9	-0.010	
55	-22.0	-0.012	-19.9	-0.011	

Note: The manufacturer declared that the EUT could work properly between temperatures -10°C~55°C.

Band :	LTE Band IV		Limit (ppm) :	2.5	
Temperature (°C)	20MHz		15MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	N/A	N/A	N/A	N/A	PASS
-20	N/A	N/A	N/A	N/A	
-10	15.4	0.009	12.7	0.007	
0	12.3	0.007	11.1	0.006	
10	14.1	0.008	-14.1	-0.008	
20	7.8	0.005	-9.9	-0.006	
30	-12.5	-0.007	-12.6	-0.007	
40	-14.7	-0.008	-13.5	-0.008	
50	-20.1	-0.012	-14.0	-0.008	
55	-24.0	-0.014	-19.5	-0.011	

Note: The manufacturer declared that the EUT could work properly between temperatures -10°C~55°C.



Band :	LTE Band IV		Limit (ppm) :	2.5	
Temperature (°C)	10MHz		5MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	N/A	N/A	N/A	N/A	PASS
-20	N/A	N/A	N/A	N/A	
-10	11.7	0.007	16.0	0.009	
0	15.2	0.009	15.7	0.009	
10	-16.0	-0.009	-14.7	-0.008	
20	-11.8	-0.007	-7.8	-0.005	
30	-18.1	-0.010	-8.0	-0.005	
40	-19.9	-0.011	-15.0	-0.009	
50	-19.1	-0.011	-17.7	-0.010	
55	-23.6	-0.014	-21.3	-0.012	

Note: The manufacturer declared that the EUT could work properly between temperatures -10°C~55°C.

Band :	LTE Band IV		Limit (ppm) :	2.5	
Temperature (°C)	3MHz		1.4MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	N/A	N/A	N/A	N/A	PASS
-20	N/A	N/A	N/A	N/A	
-10	10.9	0.006	11.2	0.006	
0	10.0	0.006	10.7	0.006	
10	11.0	0.006	13.1	0.008	
20	9.5	0.005	8.6	0.005	
30	-9.7	-0.006	-10.1	-0.006	
40	-12.9	-0.007	-17.0	-0.010	
50	-18.1	-0.010	-20.2	-0.012	
55	-20.8	-0.012	-21.2	-0.012	

Note: The manufacturer declared that the EUT could work properly between temperatures -10°C~55°C.

3.8.7 Test Result of Voltage Variation

Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band II	20MHz	3.7	-14.0	-0.007	2.5	PASS
		BEP	-11.3	-0.006		
		4.2	-17.4	-0.009		
	15MHz	3.7	-15.7	-0.008		
		BEP	-11.2	-0.006		
		4.2	-13.6	-0.007		
	10MHz	3.7	-12.6	-0.007		
		BEP	-11.5	-0.006		
		4.2	-16.3	-0.009		
	5MHz	3.7	-12.1	-0.006		
		BEP	-10.4	-0.006		
		4.2	-16.4	-0.009		
	3MHz	3.7	-9.5	-0.005		
		BEP	-13.6	-0.007		
		4.2	-12.5	-0.007		
	1.4MHz	3.7	-12.8	-0.007		
		BEP	-13.8	-0.007		
		4.2	-14.1	-0.008		

Remark:

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



Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band IV	20MHz	3.7	-8.9	-0.005	2.5	PASS
		BEP	-13.4	-0.008		
		4.2	-15.5	-0.009		
	15MHz	3.7	-11.7	-0.007		
		BEP	-12.6	-0.007		
		4.2	-12.2	-0.007		
	10MHz	3.7	-12.2	-0.007		
		BEP	-13.3	-0.008		
		4.2	-12.7	-0.007		
	5MHz	3.7	-8.7	-0.005		
		BEP	-9.6	-0.006		
		4.2	-10.2	-0.006		
	3MHz	3.7	-9.5	-0.005		
		BEP	-12.0	-0.007		
		4.2	-11.1	-0.006		
	1.4MHz	3.7	-15.1	-0.009		
		BEP	-15.1	-0.009		
		4.2	-13.1	-0.008		

Remark:

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

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100055	9kHz~40GHz	Jun. 13, 2011	Mar. 16, 2012	Jun. 12, 2012	Conducted (TH02-HY)
LTE Base Station	Anritsu	MT8820C	6200930978	N/A	Dec. 27, 2011	Mar. 16, 2012	Dec. 28, 2012	Conducted (TH02-HY)
DC Power Supply	TOPWARD	3303D	740889	N/A	Jun. 07, 2011	Mar. 16, 2012	Jun. 08, 2012	Conducted (TH02-HY)
Thermal	Ten Billion	TTH-D35P	TBN-930701	N/A	Jul. 27, 2011	Mar. 16, 2012	Jul. 26, 2012	Conducted (TH02-HY)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 09, 2011	Feb. 07, 2012	Nov. 08, 2012	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Feb. 07, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Feb. 07, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/00	9 kHz~30 MHz	Jul. 28, 2011	Feb. 07, 2012	Jul. 27, 2012	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 06, 2012	Feb. 07, 2012	Jan. 05, 2013	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060004	30MHz~2GHz	Dec. 30, 2011	Feb. 07, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 07, 2011	Feb. 07, 2012	Nov. 06, 2012	Radiation (03CH01-KS)
SHE-EHF Horn	Schwarzbeck	BBHA9170	BBHA170249	15GHz~40GHz	Oct. 11, 2011	Feb. 07, 2012	Oct. 10, 2012	Radiation (03CH01-KS)
LTE Base Station	Anritsu	MT8820C	6200930978	N/A	Dec. 26, 2011	Feb. 07, 2012	Dec. 25, 2012	Radiation (03CH01-KS)

5 Uncertainty of Evaluation

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

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.41	Normal (k=2)	0.21
Antenna Factor Calibration	0.83	Normal (k=2)	0.42
Cable Loss Calibration	0.25	Normal (k=2)	0.13
Pre-Amplifier Gain Calibration	0.27	Normal (k=2)	0.14
RCV/SPA Specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site Imperfection	1.43	Rectangular	0.83
Mismatch	+0.39 / -0.41	U-Shape	0.28
Combined Standard Uncertainty $U_c(y)$	1.27		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54		

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

Contribution	Uncertainty of X_i		$u(X_i)$	C_i	$C_i * u(X_i)$
	dB	Probability Distribution			
Receiver Reading	± 0.10	Normal (k=2)	0.10	1	0.10
Antenna Factor Calibration	± 1.70	Normal (k=2)	0.85	1	0.85
Cable Loss Calibration	± 0.50	Normal (k=2)	0.25	1	0.25
Receiver Correction	± 2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	± 1.50	Rectangular	0.87	1	0.87
Site Imperfection	± 2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\text{Log}(1-\Gamma_1*\Gamma_2)$	+0.34 / -0.35	U-Shape	0.244	1	0.244
Combined Standard Uncertainty $U_c(y)$	2.36				
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.72				



Appendix A. Photographs of EUT

Please refer to Sporton report number EP1N0701 as below.