FCC RF Test Report

APPLICANT	:	NEC CASIO Mobile Communications, Ltd.
EQUIPMENT	:	GSM/EGPRS/WCDMA/LTE Mobile Phone
BRAND NAME	:	NEC
MODEL NAME	:	NE-201A1A
MARKETING NAME	:	KMP7R4AE1-1AB
FCC ID	:	A98-RSZ3446
STANDARD	:	47 CFR Part 2, 22, 24, 27
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Oct. 31, 2012 and completely tested on Dec. 06, 2012. We, SPORTON INTERNATIONAL 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 INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai

Jones Tsai / Manager

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

TABLE OF CONTENTS

REVISION HISTORY **3**

SUMMARY OF TEST RESULT **4**

1 GENERAL DESCRIPTION **5**

1.1 Applicant 5
1.2 Manufacturer 5
1.3 Feature of Equipment Under Test 5
1.4 Product Specification of Equipment Under Test 6
1.5 Emission Designator 7
1.6 Testing Site 8
1.7 Applied Standards 9
1.8 Ancillary Equipment List 9

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **10**

2.1 Test Mode 10
2.2 Connection Diagram of Test System 14

3 TEST RESULT **15**

3.1 Conducted Output Power Measurement 15
3.2 Peak-to-Average Ratio 21
3.3 Effective Radiated Power and Equivalent Isotropic Radiated Power Measurement 38
3.4 Occupied Bandwidth 58
3.5 Conducted Band Edge Measurement 95
3.6 Conducted Spurious Emission Measurement 169
3.7 Radiated Spurious Emission Measurement 278
3.8 Frequency Stability Measurement 316

4 LIST OF MEASURING EQUIPMENTS **332**

5 UNCERTAINTY OF EVALUATION **333**

APPENDIX A. PHOTOGRAPHS OF EUT

APPENDIX B. SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG2O3103B	Rev. 01	Initial issue of report	Dec. 25, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	NA	PASS	-
3.2	NA	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§22.913(a)(2)	Effective Radiated Power (Band 5)	ERP < 7 Watts	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 17)	ERP < 3 Watts		
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		
3.4	§2.1049 §22.917(a) §24.238(a) §27.53(g)(1)	Occupied Bandwidth	N/A	PASS	-
3.5	§2.1049 §27.53(h)	Conducted Band Edge Measurement	< $43+10\log_{10}(P[Watts])$	PASS	-
3.6	§2.1051 §27.53(h)	Conducted Spurious Emission	< $43+10\log_{10}(P[Watts])$	PASS	-
3.7	§2.1053 §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission	< $43+10\log_{10}(P[Watts])$	PASS	Under limit 17.25 dB at 3764.000 MHz
3.8	§2.1055 §24.235 §27.54	Frequency Stability Temperature & Voltage	< 2.5 ppm	PASS	

1 General Description

1.1 Applicant

NEC CASIO Mobile Communications, Ltd.
31Fl., Tamagawa Renaissance City Tower N, 1753 Shimonumabe, Nakahara-ku, Kawasaki, Kanagawa 211-8666 Japan 2

1.2 Manufacturer

Arima Communications Corp.
6F., No. 866, Jhongjheng Rd., Jhonghe Dist., New Taipei City 23586, Taiwan

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	GSM/EGPRS/WCDMA/LTE Mobile Phone
Brand Name	NEC
Model Name	NE-201A1A
Marketing Name	KMP7R4AE1-1AB
FCC ID	A98-RSZ3446
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/ WLAN 11bgn / Bluetooth / NFC
HW Version	EP2
SW Version	3.0.8
EUT Stage	Identical Prototype

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

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 17 : 736.5 MHz ~ 740.5 MHz
Bandwidth	1.4MHz / 3MHz / 5MHz/ 10MHz / 15MHz / 20MHz (Band 2) 1.4MHz / 3MHz / 5MHz/ 10MHz / 15MHz / 20MHz (Band 4) 1.4MHz / 3MHz / 5MHz/ 10MHz (Band 5) 5MHz / 10MHz (Band 17)
Maximum Output Power to Antenna	LTE Band 2 : 23.96 dBm LTE Band 4 : 23.99 dBm LTE Band 5 : 23.58 dBm LTE Band 17 : 23.71 dBm
Antenna Type	Embedded Antenna
Type of Modulation	QPSK / 16QAM

1.5 Emission Designator

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (%, Hz, ppm)	Maximum ERP/EIRP
Part 22	LTE Band 5	QPSK	1.4 MHz	1M10G7D	0.012 ppm	0.0531 W
Part 22	LTE Band 5	16QAM	1.4 MHz	1M09D7W	0.011 ppm	0.0436 W
Part 22	LTE Band 5	QPSK	3 MHz	2M74G7D	0.018 ppm	0.0719 W
Part 22	LTE Band 5	16QAM	3 MHz	2M73D7W	0.012 ppm	0.0569 W
Part 22	LTE Band 5	QPSK	5MHz	4M50G7D	0.012 ppm	0.0650 W
Part 22	LTE Band 5	16QAM	5MHz	4M50D7W	0.011 ppm	0.0495 W
Part 22	LTE Band 5	QPSK	10MHz	9M07G7D	0.015 ppm	0.0863 W
Part 22	LTE Band 5	16QAM	10MHz	9M07D7W	0.011 ppm	0.0610 W
Part 24	LTE Band 2	QPSK	1.4 MHz	1M10G7D	0.019 ppm	0.0643 W
Part 24	LTE Band 2	16QAM	1.4 MHz	1M10D7W	0.018 ppm	0.2500 W
Part 24	LTE Band 2	QPSK	3 MHz	2M73G7D	0.014 ppm	0.4355 W
Part 24	LTE Band 2	16QAM	3 MHz	2M73D7W	0.015 ppm	0.3296 W
Part 24	LTE Band 2	QPSK	5MHz	4M50G7D	0.015 ppm	0.3908 W
Part 24	LTE Band 2	16QAM	5MHz	4M50D7W	0.015 ppm	0.3062 W
Part 24	LTE Band 2	QPSK	10MHz	9M06G7D	0.014 ppm	0.3112 W
Part 24	LTE Band 2	16QAM	10MHz	9M06D7W	0.014 ppm	0.2673 W
Part 24	LTE Band 2	QPSK	15MHz	13M5G7D	0.014 ppm	0.1954 W
Part 24	LTE Band 2	16QAM	15MHz	13M5D7W	0.014 ppm	0.2089 W
Part 24	LTE Band 2	QPSK	20MHz	18M6G7D	0.015 ppm	0.2143 W
Part 24	LTE Band 2	16QAM	20MHz	18M5D7W	0.016 ppm	0.1828 W

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (%, Hz, ppm)	Maximum ERP/EIRP
Part 27	LTE Band 4	QPSK	1.4 MHz	1M10G7D	0.010 ppm	0.2178 W
Part 27	LTE Band 4	16QAM	1.4 MHz	1M10D7W	0.011 ppm	0.1862 W
Part 27	LTE Band 4	QPSK	3 MHz	2M74G7D	0.010 ppm	0.2070 W
Part 27	LTE Band 4	16QAM	3 MHz	2M75D7W	0.010 ppm	0.1841 W
Part 27	LTE Band 4	QPSK	5MHz	4M50G7D	0.008 ppm	0.2938 W
Part 27	LTE Band 4	16QAM	5MHz	4M52D7W	0.009 ppm	0.2600 W
Part 27	LTE Band 4	QPSK	10MHz	9M16G7D	0.009 ppm	0.3715 W
Part 27	LTE Band 4	16QAM	10MHz	9M08D7W	0.010 ppm	0.3155 W
Part 27	LTE Band 4	QPSK	15MHz	13M51G7D	0.008 ppm	0.2208 W
Part 27	LTE Band 4	16QAM	15MHz	13M56D7W	0.010 ppm	0.1807 W
Part 27	LTE Band 4	QPSK	20MHz	18M80G7D	0.009 ppm	0.1803 W
Part 27	LTE Band 4	16QAM	20MHz	18M64D7W	0.008 ppm	0.1641 W
Part 27	LTE Band 17	QPSK	5MHz	4M52G7D	0.012 ppm	0.0815 W
Part 27	LTE Band 17	16QAM	5MHz	4M52D7W	0.013 ppm	0.0662 W
Part 27	LTE Band 17	QPSK	10MHz	9M13G7D	0.013 ppm	0.0785 W
Part 27	LTE Band 17	16QAM	10MHz	9M10D7W	0.013 ppm	0.0581 W

1.6 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st 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.		FCC/IC Registration No.
	TH02-HY	03CH07-HY	TW1022/4086B-1

1.7 Applied Standards

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

- 47 CFR Part 2, 27
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v01

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.

1.8 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	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. Frequency range investigated for radiated emission: 30MHz to 10th harmonic.

Test Modes			
Band		**Radiated TCs**	**Conducted TCs**
LTE Band 5	**BW 1.4MHz**	■ LTE (RB Size 1, RB Offset 5) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 2) Link ■ LTE (RB Size 1, RB Offset 5) Link ■ LTE (RB Size 3, RB Offset 0) Link ■ LTE (RB Size 3, RB Offset 1) Link ■ LTE (RB Size 3, RB Offset 2) Link ■ LTE (RB Size 6, RB Offset 0) Link
	BW 3MHz	■ LTE (RB Size 1, RB Offset 14) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 7) Link ■ LTE (RB Size 1, RB Offset 14) Link ■ LTE (RB Size 8, RB Offset 0) Link ■ LTE (RB Size 8, RB Offset 4) Link ■ LTE (RB Size 8, RB Offset 7) Link ■ LTE (RB Size 15, RB Offset 0) Link
	BW 5MHz	■ LTE (RB Size 1, RB Offset 12) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 12) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 12, RB Offset 0) Link ■ LTE (RB Size 12, RB Offset 6) Link ■ LTE (RB Size 12, RB Offset 11) Link ■ LTE (RB Size 25, RB Offset 0) Link
	BW 10MHz	■ LTE (RB Size 1, RB Offset 49) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 1, RB Offset 49) Link ■ LTE (RB Size 25, RB Offset 0) Link ■ LTE (RB Size 25, RB Offset 12) Link ■ LTE (RB Size 25, RB Offset 24) Link ■ LTE (RB Size 50, RB Offset 0) Link

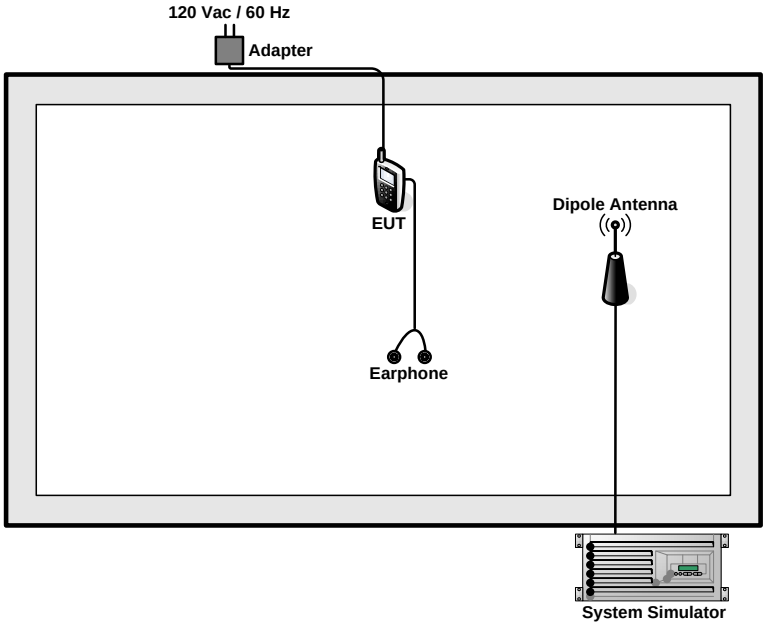
Test Modes			
Band		**Radiated TCs**	**Conducted TCs**
LTE Band 2	**BW 1.4MHz**	■ LTE (RB Size 3, RB Offset 1) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 2) Link ■ LTE (RB Size 1, RB Offset 5) Link ■ LTE (RB Size 3, RB Offset 0) Link ■ LTE (RB Size 3, RB Offset 1) Link ■ LTE (RB Size 3, RB Offset 2) Link ■ LTE (RB Size 6, RB Offset 0) Link
	BW 3MHz	■ LTE (RB Size 1, RB Offset 14) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 7) Link ■ LTE (RB Size 1, RB Offset 14) Link ■ LTE (RB Size 8, RB Offset 0) Link ■ LTE (RB Size 8, RB Offset 4) Link ■ LTE (RB Size 8, RB Offset 7) Link ■ LTE (RB Size 15, RB Offset 0) Link
	BW 5MHz	■ LTE (RB Size 1, RB Offset 24) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 12) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 12, RB Offset 0) Link ■ LTE (RB Size 12, RB Offset 6) Link ■ LTE (RB Size 12, RB Offset 11) Link ■ LTE (RB Size 25, RB Offset 0) Link
	BW 10MHz	■ LTE (RB Size 1, RB Offset 24) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 1, RB Offset 49) Link ■ LTE (RB Size 25, RB Offset 0) Link ■ LTE (RB Size 25, RB Offset 12) Link ■ LTE (RB Size 25, RB Offset 24) Link ■ LTE (RB Size 50, RB Offset 0) Link
	BW 15MHz	■ LTE (RB Size 1, RB Offset 0) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 37) Link ■ LTE (RB Size 1, RB Offset 74) Link ■ LTE (RB Size 36, RB Offset 0) Link ■ LTE (RB Size 36, RB Offset 19) Link ■ LTE (RB Size 36, RB Offset 39) Link ■ LTE (RB Size 75, RB Offset 0) Link

Test Modes			
Band		Radiated TCs	Conducted TCs
LTE Band 2	BW 20MHz	■ LTE (RB Size 1, RB Offset 0) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 49) Link ■ LTE (RB Size 1, RB Offset 99) Link ■ LTE (RB Size 50, RB Offset 0) Link ■ LTE (RB Size 50, RB Offset 24) Link ■ LTE (RB Size 50, RB Offset 49) Link ■ LTE (RB Size 100, RB Offset 0) Link

Test Modes			
Band		Radiated TCs	Conducted TCs
LTE Band 4	BW 1.4MHz	■ LTE (RB Size 3, RB Offset 1) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 2) Link ■ LTE (RB Size 1, RB Offset 5) Link ■ LTE (RB Size 3, RB Offset 0) Link ■ LTE (RB Size 3, RB Offset 1) Link ■ LTE (RB Size 3, RB Offset 2) Link ■ LTE (RB Size 6, RB Offset 0) Link
	BW 3MHz	■ LTE (RB Size 1, RB Offset 0) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 7) Link ■ LTE (RB Size 1, RB Offset 14) Link ■ LTE (RB Size 8, RB Offset 0) Link ■ LTE (RB Size 8, RB Offset 4) Link ■ LTE (RB Size 8, RB Offset 7) Link ■ LTE (RB Size 15, RB Offset 0) Link
	BW 5MHz	■ LTE (RB Size 1, RB Offset 12) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 12) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 12, RB Offset 0) Link ■ LTE (RB Size 12, RB Offset 6) Link ■ LTE (RB Size 12, RB Offset 11) Link ■ LTE (RB Size 25, RB Offset 0) Link
	BW 10MHz	■ LTE (RB Size 1, RB Offset 24) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 1, RB Offset 49) Link ■ LTE (RB Size 25, RB Offset 0) Link ■ LTE (RB Size 25, RB Offset 12) Link ■ LTE (RB Size 25, RB Offset 24) Link ■ LTE (RB Size 50, RB Offset 0) Link

Test Modes			
Band		Radiated TCs	Conducted TCs
LTE Band 4	BW 15MHz	■ LTE (RB Size 1, RB Offset 0) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 37) Link ■ LTE (RB Size 1, RB Offset 74) Link ■ LTE (RB Size 38, RB Offset 0) Link ■ LTE (RB Size 38, RB Offset 18) Link ■ LTE (RB Size 38, RB Offset 37) Link ■ LTE (RB Size 75, RB Offset 0) Link
	BW 20MHz	■ LTE (RB Size 1, RB Offset 0) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 49) Link ■ LTE (RB Size 1, RB Offset 99) Link ■ LTE (RB Size 50, RB Offset 0) Link ■ LTE (RB Size 50, RB Offset 24) Link ■ LTE (RB Size 50, RB Offset 49) Link ■ LTE (RB Size 100, RB Offset 0) Link
LTE Band 17	BW 5MHz	■ LTE (RB Size 1, RB Offset 24) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 12) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 12, RB Offset 0) Link ■ LTE (RB Size 12, RB Offset 6) Link ■ LTE (RB Size 12, RB Offset 11) Link ■ LTE (RB Size 25, RB Offset 0) Link
	BW 10MHz	■ LTE (RB Size 1, RB Offset 49) Link	■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 1, RB Offset 49) Link ■ LTE (RB Size 25, RB Offset 0) Link ■ LTE (RB Size 25, RB Offset 12) Link ■ LTE (RB Size 25, RB Offset 24) Link ■ LTE (RB Size 50, RB Offset 0) Link

2.2 Connection Diagram of Test System



3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

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

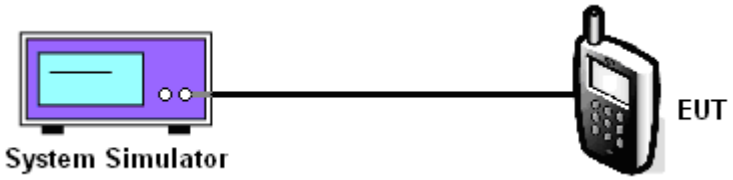
3.1.2 Measuring Instruments

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 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

Operation Band	Band Width	Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)	PAPR (dB)	Mod / RB (Size – Offset)
LTE Band 5	1.4MHz	QPSK	20407	824.7	23.53	0.23	5.32	QPSK 1-0
			20525	836.5	23.57	0.23	5.32	QPSK 1-5
			20643	848.3	23.56	0.23	5.32	QPSK 1-5
		16QAM	20407	824.7	22.67	0.18	6.19	16QAM 1-0
			20525	836.5	22.59	0.18	6.19	16QAM 3-0
			20643	848.3	22.82	0.19	6.19	16QAM 3-1
	3MHz	QPSK	20415	825.5	23.57	0.23	5.48	QPSK 1-7
			20525	836.5	23.50	0.22	5.48	QPSK 1-14
			20635	847.5	23.57	0.23	5.48	QPSK 1-0
		16QAM	20415	825.5	22.96	0.20	6.31	16QAM 1-7
			20525	836.5	22.61	0.18	6.31	16QAM 1-7
			20635	847.5	22.72	0.19	6.31	16QAM 1-7
	5MHz	QPSK	20425	826.5	23.51	0.22	5.42	QPSK 1-12
			20525	836.5	23.44	0.22	5.42	QPSK 1-12
			20625	846.5	23.52	0.22	5.42	QPSK 1-0
		16QAM	20425	826.5	22.87	0.19	6.31	16QAM 1-24
			20525	836.5	22.82	0.19	6.31	16QAM 1-24
			20625	846.5	22.93	0.20	6.31	16QAM 1-12
	10MHz	QPSK	20450	829.0	23.53	0.23	5.51	QPSK 1-24
			20525	836.5	23.58	0.23	5.51	QPSK 1-49
			20600	844.0	23.52	0.22	5.51	QPSK 1-24
		16QAM	20450	829.0	22.75	0.19	6.41	16QAM 1-24
			20525	836.5	22.53	0.18	6.41	16QAM 1-24
			20600	844.0	22.67	0.18	6.41	16QAM 1-49

Operation Band	Band Width	Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)	PAPR (dB)	Mod / RB (Size – Offset)
LTE Band 2	1.4MHz	QPSK	18607	1850.7	23.70	0.23	4.97	QPSK 1-5
			18900	1880.0	23.75	0.24	4.97	QPSK 3-1
			19193	1909.3	23.54	0.23	4.97	QPSK 3-1
		16QAM	18607	1850.7	22.72	0.19	5.90	16QAM 3-2
			18900	1880.0	23.02	0.20	5.90	16QAM 1-2
			19193	1909.3	22.83	0.19	5.90	16QAM 1-0
	3MHz	QPSK	18615	1851.5	23.63	0.23	5.29	QPSK 1-14
			18900	1880.0	23.87	0.24	5.29	QPSK 1-14
			19185	1908.5	23.64	0.23	5.29	QPSK 1-0
		16QAM	18615	1851.5	22.68	0.19	6.03	16QAM 1-0
			18900	1880.0	23.16	0.21	6.03	16QAM 1-0
			19185	1908.5	22.89	0.19	6.03	16QAM 1-0
	5MHz	QPSK	18625	1852.5	23.74	0.24	5.26	QPSK 1-12
			18900	1880.0	23.96	0.25	5.26	QPSK 1-24
			19175	1907.5	23.90	0.25	5.26	QPSK 1-12
		16QAM	18625	1852.5	23.12	0.21	6.12	16QAM 1-12
			18900	1880.0	23.11	0.20	6.12	16QAM 1-0
			19175	1907.5	23.17	0.21	6.12	16QAM 1-0
	10MHz	QPSK	18650	1855.0	23.94	0.25	5.29	QPSK 1-24
			18900	1880.0	23.92	0.25	5.29	QPSK 1-24
			19150	1905.0	23.91	0.25	5.29	QPSK 1-24
		16QAM	18650	1855.0	23.09	0.20	6.19	16QAM 1-49
			18900	1880.0	22.97	0.20	6.19	16QAM 1-24
			19150	1905.0	23.03	0.20	6.19	16QAM 1-24

Operation Band	Band Width	Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)	PAPR (dB)	Mod / RB (Size – Offset)
LTE Band 2	15MHz	QPSK	18675	1857.5	23.75	0.24	5.54	QPSK 1-37
			18900	1880.0	23.82	0.24	5.54	QPSK 1-0
			19125	1902.5	23.64	0.23	5.54	QPSK 1-37
		16QAM	18675	1857.5	22.85	0.19	6.22	16QAM 1-74
			18900	1880.0	22.74	0.19	6.22	16QAM 1-37
			19125	1902.5	22.54	0.18	6.22	16QAM 1-74
	20MHz	QPSK	18700	1860.0	23.90	0.25	5.42	QPSK 1-49
			18900	1880.0	23.96	0.25	5.42	QPSK 1-0
			19100	1900	23.90	0.25	5.42	QPSK 1-49
		16QAM	18700	1860.0	22.85	0.19	6.19	16QAM 1-49
			18900	1880.0	22.78	0.19	6.19	16QAM 1-0
			19100	1900	23.02	0.20	6.19	16QAM 1-0

Operation Band	Band Width	Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)	PAPR (dB)	Mod / RB (Size – Offset)
LTE Band 4	1.4MHz	QPSK	19957	1710.7	23.94	0.25	4.36	QPSK 3-1
			20175	1732.5	23.88	0.24	4.36	QPSK 3-1
			20393	1754.3	23.63	0.23	4.36	QPSK 1-0
		16QAM	19957	1710.7	22.99	0.20	5.22	16QAM 3-0
			20175	1732.5	23.00	0.20	5.22	16QAM 3-0
			20393	1754.3	22.85	0.19	5.22	16QAM 1-0
	3MHz	QPSK	19965	1711.5	23.98	0.25	4.87	QPSK 1-7
			20175	1732.5	23.85	0.24	4.87	QPSK 1-0
			20385	1753.5	23.75	0.24	4.87	QPSK 1-7
		16QAM	19965	1711.5	22.97	0.20	5.64	16QAM 1-7
			20175	1732.5	22.90	0.19	5.64	16QAM 1-0
			20385	1753.5	22.75	0.19	5.64	16QAM 1-0
	5MHz	QPSK	19975	1712.5	23.98	0.25	4.84	QPSK 1-0
			20175	1732.5	23.86	0.24	4.84	QPSK 1-12
			20375	1752.5	23.71	0.23	4.84	QPSK 1-12
		16QAM	19975	1712.5	22.97	0.20	5.61	16QAM 1-24
			20175	1732.5	22.88	0.19	5.61	16QAM 1-0
			20375	1752.5	22.76	0.19	5.61	16QAM 1-12
	10MHz	QPSK	20000	1715.0	23.98	0.25	4.90	QPSK 1-24
			20175	1732.5	23.87	0.24	4.90	QPSK 1-24
			20350	1750.0	23.81	0.24	4.90	QPSK 1-0
		16QAM	20000	1715.0	22.82	0.19	5.67	16QAM 1-0
			20175	1732.5	22.99	0.20	5.67	16QAM 1-0
			20350	1750.0	22.77	0.19	5.67	16QAM 1-0

Operation Band	Band Width	Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)	PAPR (dB)	Mod / RB (Size – Offset)
LTE Band 4	15MHz	QPSK	20025	1717.5	23.98	0.25	4.94	QPSK 1-0
			20175	1732.5	23.93	0.25	4.94	QPSK 1-0
			20325	1747.5	23.88	0.24	4.94	QPSK 1-0
		16QAM	20025	1717.5	22.98	0.20	5.71	16QAM 1-0
			20175	1732.5	22.96	0.20	5.71	16QAM 1-74
			20325	1747.5	22.93	0.20	5.71	16QAM 1-0
	20MHz	QPSK	20050	1720.0	23.96	0.25	4.84	QPSK 1-49
			20175	1732.5	23.99	0.25	4.84	QPSK 1-0
			20300	1745.0	23.89	0.24	4.84	QPSK 1-49
		16QAM	20050	1720.0	22.96	0.20	5.71	16QAM 1-99
			20175	1732.5	22.98	0.20	5.71	16QAM 1-0
			20300	1745.0	22.77	0.19	5.71	16QAM 1-0

Operation Band	Band Width	Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)	PAPR (dB)	Mod / RB (Size – Offset)
LTE Band 17	5MHz	QPSK	23755	706.5	23.62	0.23	5.93	QPSK 1-24
			23790	710.0	23.66	0.23	5.93	QPSK 1-24
			23825	713.5	23.53	0.23	5.93	QPSK 1-12
		16QAM	23755	706.5	22.92	0.20	6.79	16QAM 1-12
			23790	710.0	22.86	0.19	6.79	16QAM 1-12
			23825	713.5	22.76	0.19	6.79	16QAM 1-24
	10MHz	QPSK	23780	709.0	23.69	0.23	5.83	QPSK 1-49
			23790	710.0	23.71	0.23	5.83	QPSK 1-49
			23800	711.0	23.67	0.23	5.83	QPSK 1-24
		16QAM	23780	709.0	22.95	0.20	6.79	16QAM 1-49
			23790	710.0	22.98	0.20	6.79	16QAM 1-24
			23800	711.0	22.92	0.20	6.79	16QAM 1-24

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. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

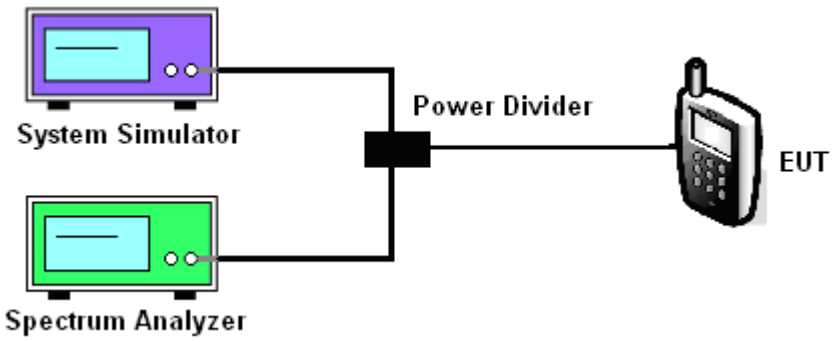
3.2.2 Measuring Instruments

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. For GSM/EGPRS operating modes:
   a. Set the RBW = 1MHz, VBW = 1MHz, Peak detector in spectrum analyzer.
   b. Set EUT in maximum power output, and triggered the burst signal.
   c. Measured respectively the Peak level and Mean level, and the deviation was recorded as Peak to Average Ratio.
3. For UMTS operating modes:
   a. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
   b. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.

3.2.4 Test Setup



3.2.5 Test Result of Peak-to-Average Ratio

Modes	LTE Band 2			
BW / Mod.	1.4MHz / QPSK	1.4MHz / 16QAM	3MHz / QPSK	3MHz / 16QAM
Peak-to-Average Ratio (dB)	4.97	5.90	5.29	6.03
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
Peak-to-Average Ratio (dB)	5.26	6.12	5.29	6.19
BW / Mod.	15MHz / QPSK	15MHz / 16QAM	20MHz / QPSK	20MHz / 16QAM
Peak-to-Average Ratio (dB)	5.54	6.22	5.42	6.19

Modes	LTE Band 4			
BW / Mod.	1.4MHz / QPSK	1.4MHz / 16QAM	3MHz / QPSK	3MHz / 16QAM
Peak-to-Average Ratio (dB)	4.36	5.22	4.87	5.64
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
Peak-to-Average Ratio (dB)	4.84	5.61	4.90	5.67
BW / Mod.	15MHz / QPSK	15MHz / 16QAM	20MHz / QPSK	20MHz / 16QAM
Peak-to-Average Ratio (dB)	4.94	5.71	4.84	5.71

Modes	LTE Band 17			
BW / Mod.	5MHz / QPSK	5MHz / 16QAM	10MHz / QPSK	10MHz / 16QAM
Peak-to-Average Ratio (dB)	5.93	6.79	5.83	6.79

Note:

The maximum RB configurations of the PAPR summary as below:

BW1.4M RB setting：RB Size 6, RB offset 0

BW3.0M RB setting：RB Size 15, RB offset 0

BW5.0M RB setting：RB Size 25, RB offset 0

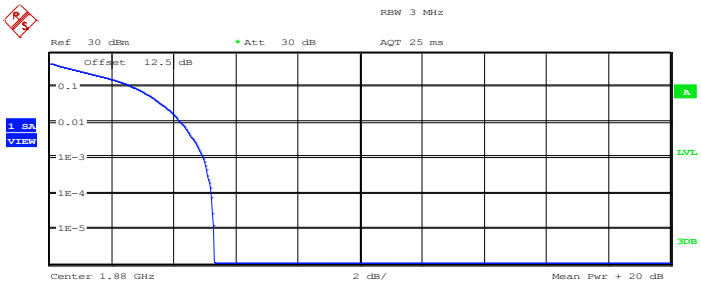
BW10.0M RB setting：RB Size 50, RB offset 0

BW15.0M RB setting：RB Size 75, RB offset 0

BW20.0M RB setting：RB Size 100, RB offset 0

3.2.6 Peak to Average Power Ratio

Peak-to-Average Ratio on LTE Band 2 1.4MHz / QPSK

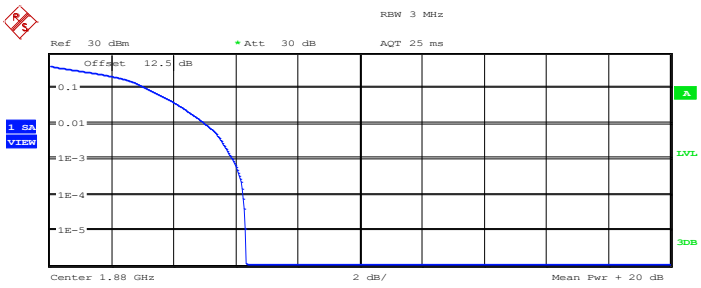


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	21.65 dBm
Peak	26.96 dBm
Crest	5.31 dB
10 %	2.69 dB
1 %	4.23 dB
.1 %	4.97 dB
.01 %	5.22 dB

Date: 23.NOV.2012 10:34:19

Peak-to-Average Ratio on LTE Band 2 1.4MHz / 16QAM

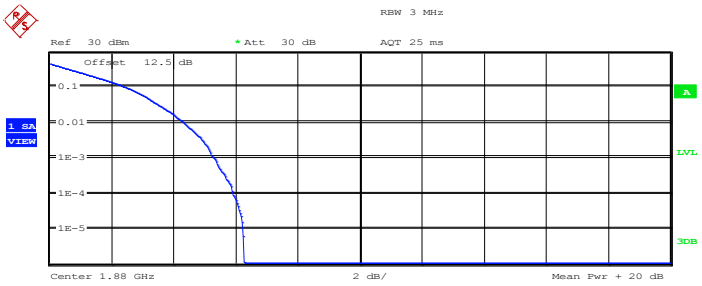


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	20.64 dBm
Peak	26.96 dBm
Crest	6.32 dB
10 %	3.11 dB
1 %	5.00 dB
.1 %	5.90 dB
.01 %	6.25 dB

Date: 23.NOV.2012 10:34:39

Peak-to-Average Ratio on LTE Band 2 3MHz / QPSK

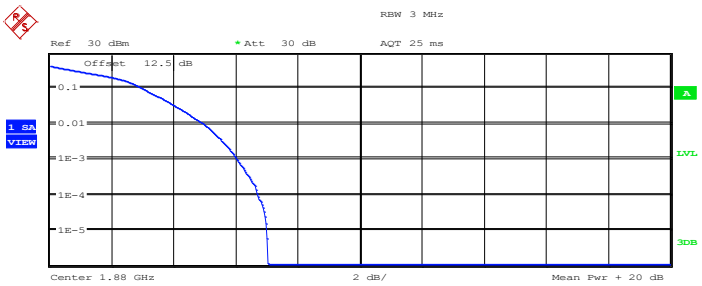


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	20.98 dBm
Peak	27.24 dBm
Crest	6.26 dB
10 %	2.44 dB
1 %	4.29 dB
.1 %	5.29 dB
.01 %	5.93 dB

Date: 28.NOV.2012 10:19:09

Peak-to-Average Ratio on LTE Band 2 3MHz / 16QAM

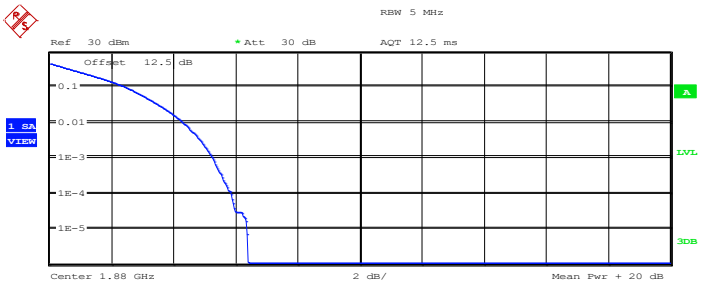


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	20.42 dBm
Peak	27.45 dBm
Crest	7.03 dB
10 %	2.98 dB
1 %	4.97 dB
.1 %	6.03 dB
.01 %	6.70 dB

Date: 28.NOV.2012 10:19:28

Peak-to-Average Ratio on LTE Band 2 5MHz / QPSK

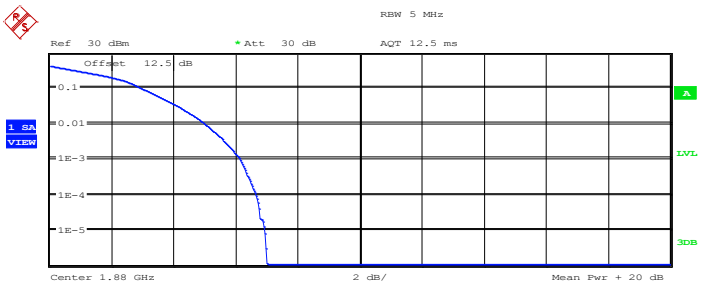


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

	Trace 1
Mean	21.48 dBm
Peak	27.87 dBm
Crest	6.39 dB
10 %	2.47 dB
1 %	4.29 dB
.1 %	5.26 dB
.01 %	5.87 dB

Date: 23.NOV.2012 10:33:03

Peak-to-Average Ratio on LTE Band 2 5MHz / 16QAM

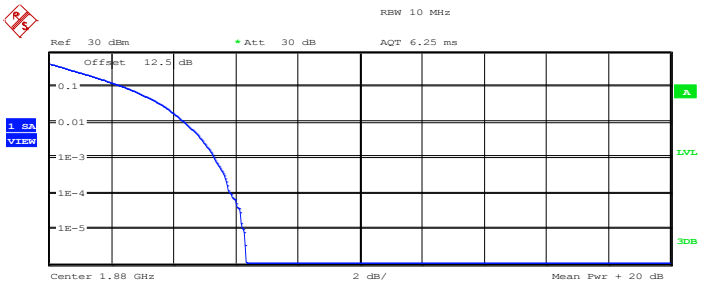


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

	Trace 1
Mean	20.45 dBm
Peak	27.45 dBm
Crest	7.00 dB
10 %	2.98 dB
1 %	5.00 dB
.1 %	6.12 dB
.01 %	6.67 dB

Date: 23.NOV.2012 10:33:22

Peak-to-Average Ratio on LTE Band 2 10MHz / QPSK

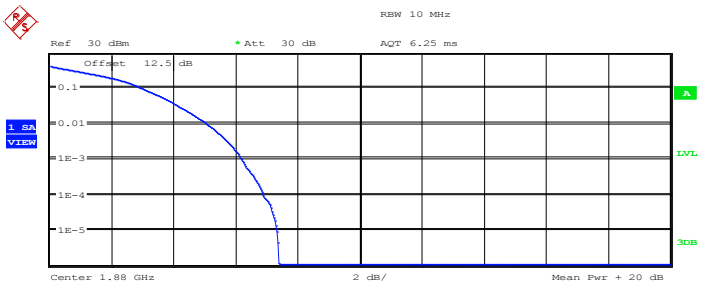


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	21.71 dBm
Peak	28.03 dBm
Crest	6.33 dB
10 %	2.40 dB
1 %	4.33 dB
.1 %	5.29 dB
.01 %	5.83 dB

Date: 23.NOV.2012 10:31:40

Peak-to-Average Ratio on LTE Band 2 10MHz / 16QAM

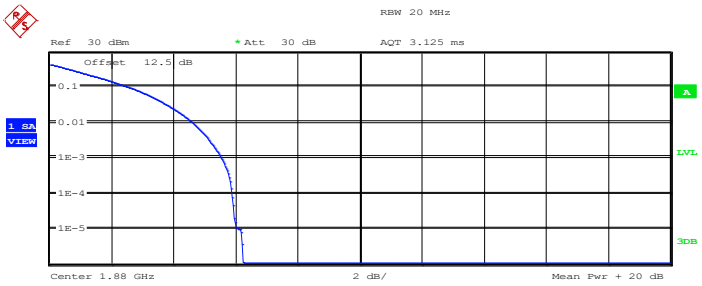


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	20.71 dBm
Peak	28.10 dBm
Crest	7.39 dB
10 %	2.98 dB
1 %	5.06 dB
.1 %	6.19 dB
.01 %	6.89 dB

Date: 23.NOV.2012 10:32:04

Peak-to-Average Ratio on LTE Band 2 15MHz / QPSK

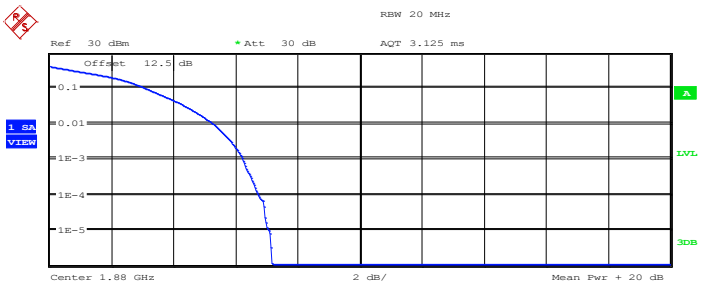


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.53 dBm
Peak	27.76 dBm
Crest	6.23 dB
10 %	2.56 dB
1 %	4.58 dB
.1 %	5.54 dB
.01 %	5.90 dB

Date: 28.NOV.2012 10:15:07

Peak-to-Average Ratio on LTE Band 2 15MHz / 16QAM

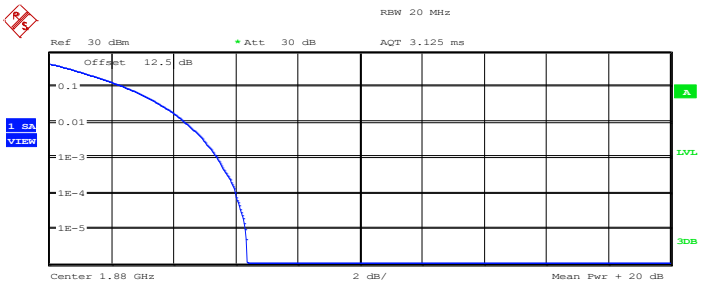


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	20.39 dBm
Peak	27.55 dBm
Crest	7.16 dB
10 %	3.11 dB
1 %	5.26 dB
.1 %	6.22 dB
.01 %	6.73 dB

Date: 28.NOV.2012 10:14:49

Peak-to-Average Ratio on LTE Band 2 20MHz / QPSK

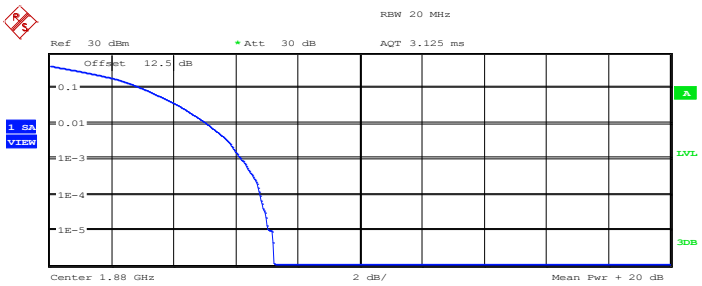


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.61 dBm
Peak	27.99 dBm
Crest	6.37 dB
10 %	2.44 dB
1 %	4.36 dB
.1 %	5.42 dB
.01 %	5.99 dB

Date: 23.NOV.2012 10:35:56

Peak-to-Average Ratio on LTE Band 2 20MHz / 16QAM

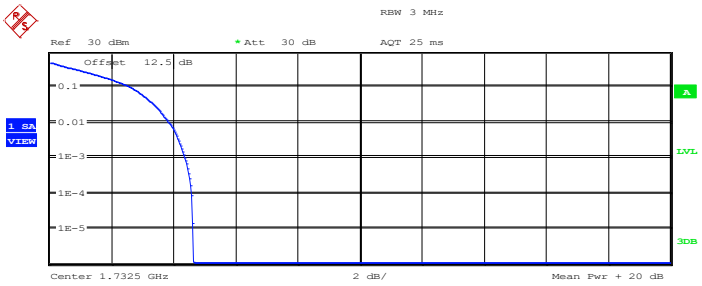


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	20.61 dBm
Peak	27.84 dBm
Crest	7.23 dB
10 %	3.01 dB
1 %	5.06 dB
.1 %	6.19 dB
.01 %	6.79 dB

Date: 23.NOV.2012 10:36:22

Peak-to-Average Ratio on LTE Band 4 1.4MHz / QPSK

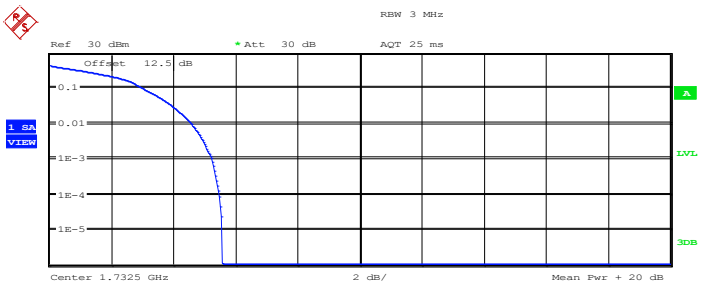


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	22.63 dBm
Peak	27.24 dBm
Crest	4.61 dB
10 %	2.60 dB
1 %	3.85 dB
.1 %	4.36 dB
.01 %	4.58 dB

Date: 23.NOV.2012 10:48:45

Peak-to-Average Ratio on LTE Band 4 1.4MHz / 16QAM

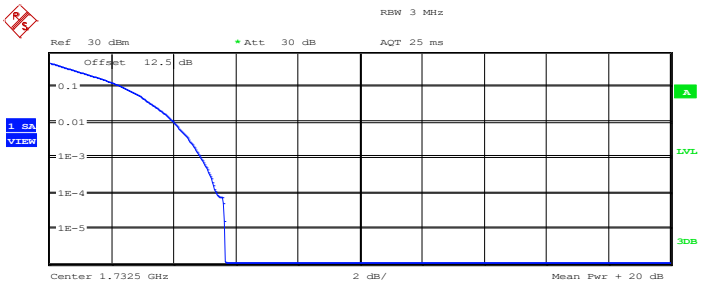


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	21.67 dBm
Peak	27.24 dBm
Crest	5.57 dB
10 %	3.01 dB
1 %	4.55 dB
.1 %	5.22 dB
.01 %	5.48 dB

Date: 23.NOV.2012 10:49:04

Peak-to-Average Ratio on LTE Band 4 3MHz / QPSK

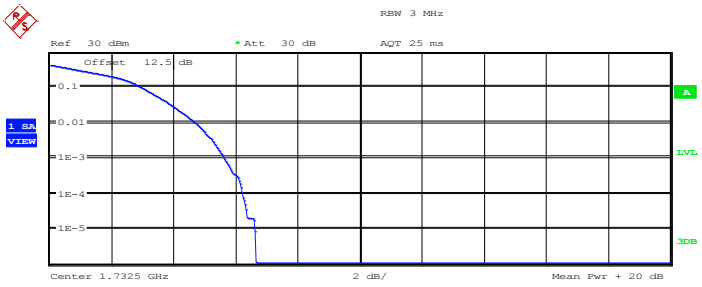


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	22.16 dBm
Peak	27.80 dBm
Crest	5.65 dB
10 %	2.34 dB
1 %	4.01 dB
.1 %	4.87 dB
.01 %	5.38 dB

Date: 28.NOV.2012 17:24:47

Peak-to-Average Ratio on LTE Band 4 3MHz / 16QAM

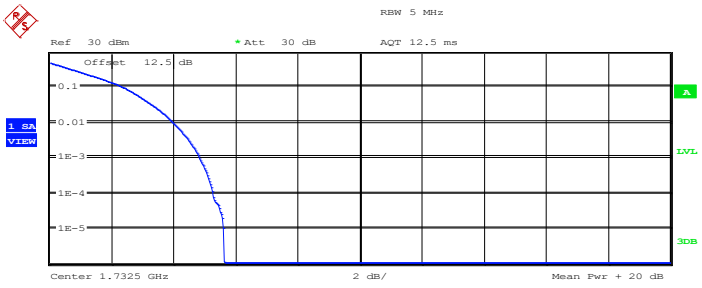


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 3.5MHz

	Trace 1
Mean	21.22 dBm
Peak	27.87 dBm
Crest	6.65 dB
10 %	2.98 dB
1 %	4.68 dB
.1 %	5.64 dB
.01 %	6.22 dB

Date: 28.NOV.2012 17:24:26

Peak-to-Average Ratio on LTE Band 4 5MHz / QPSK

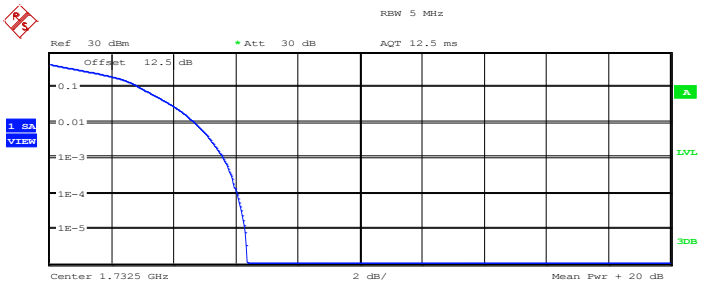


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

	Trace 1
Mean	22.38 dBm
Peak	28.02 dBm
Crest	5.64 dB
10 %	2.37 dB
1 %	3.97 dB
.1 %	4.84 dB
.01 %	5.26 dB

Date: 23.NOV.2012 10:45:30

Peak-to-Average Ratio on LTE Band 4 5MHz / 16QAM

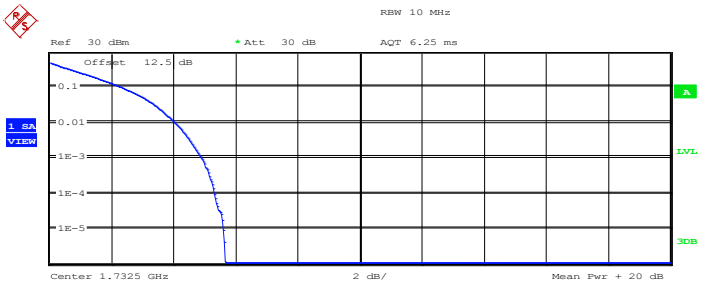


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

	Trace 1
Mean	21.51 dBm
Peak	27.87 dBm
Crest	6.36 dB
10 %	2.88 dB
1 %	4.65 dB
.1 %	5.61 dB
.01 %	6.06 dB

Date: 23.NOV.2012 10:45:46

Peak-to-Average Ratio on LTE Band 4 10MHz / QPSK

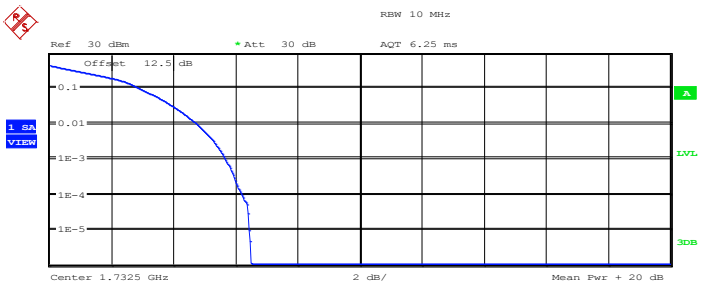


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	22.72 dBm
Peak	28.38 dBm
Crest	5.66 dB
10 %	2.31 dB
1 %	4.04 dB
.1 %	4.90 dB
.01 %	5.32 dB

Date: 23.NOV.2012 10:44:29

Peak-to-Average Ratio on LTE Band 4 10MHz / 16QAM

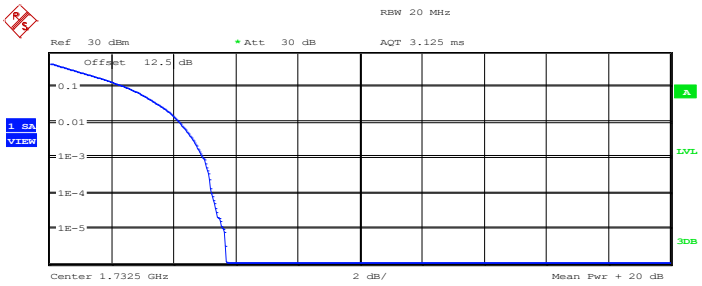


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	21.74 dBm
Peak	28.24 dBm
Crest	6.50 dB
10 %	2.88 dB
1 %	4.71 dB
.1 %	5.67 dB
.01 %	6.19 dB

Date: 23.NOV.2012 10:44:47

Peak-to-Average Ratio on LTE Band 4 15MHz / QPSK

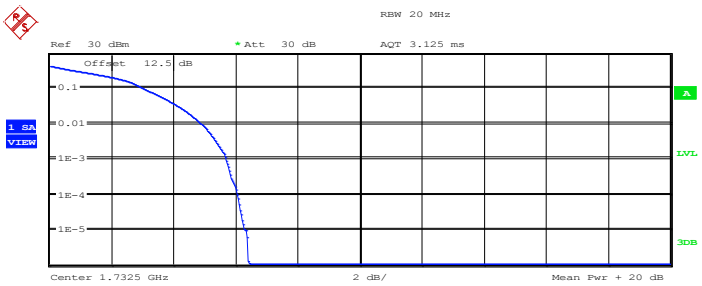


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	22.21 dBm
Peak	27.90 dBm
Crest	5.69 dB
10 %	2.47 dB
1 %	4.20 dB
.1 %	4.94 dB
.01 %	5.22 dB

Date: 28.NOV.2012 17:25:49

Peak-to-Average Ratio on LTE Band 4 15MHz / 16QAM

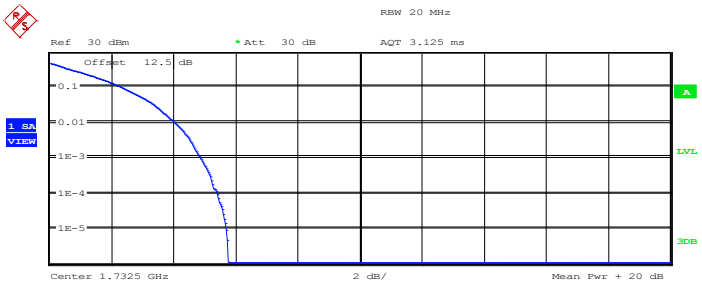


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.14 dBm
Peak	27.55 dBm
Crest	6.41 dB
10 %	3.04 dB
1 %	4.87 dB
.1 %	5.71 dB
.01 %	6.06 dB

Date: 28.NOV.2012 17:26:08

Peak-to-Average Ratio on LTE Band 4 20MHz / QPSK

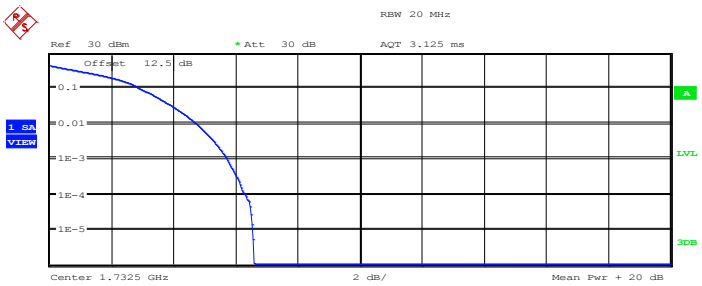


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	22.64 dBm
Peak	28.40 dBm
Crest	5.76 dB
10 %	2.31 dB
1 %	4.01 dB
.1 %	4.84 dB
.01 %	5.38 dB

Date: 23.NOV.2012 10:38:33

Peak-to-Average Ratio on LTE Band 4 20MHz / 16QAM

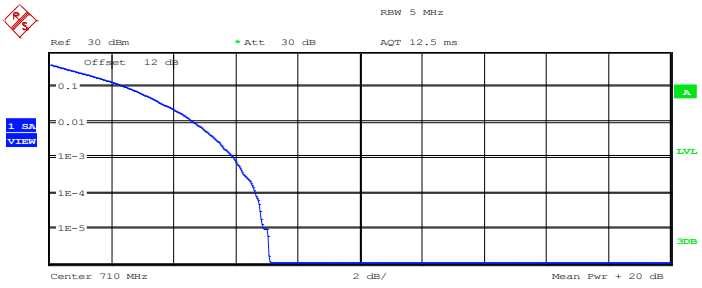


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.69 dBm
Peak	28.26 dBm
Crest	6.58 dB
10 %	2.92 dB
1 %	4.71 dB
.1 %	5.71 dB
.01 %	6.31 dB

Date: 23.NOV.2012 10:38:53

Peak-to-Average Ratio on LTE Band 17 5MHz / QPSK

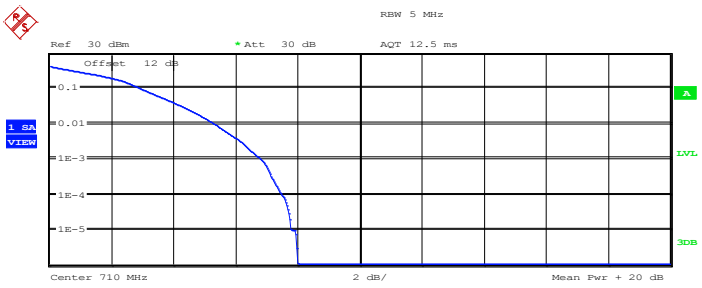


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

	Trace 1
Mean	21.00 dBm
Peak	28.09 dBm
Crest	7.08 dB
10 %	2.50 dB
1 %	4.65 dB
.1 %	5.93 dB
.01 %	6.63 dB

Date: 29.NOV.2012 10:03:06

Peak-to-Average Ratio on LTE Band 17 5MHz / 16QAM

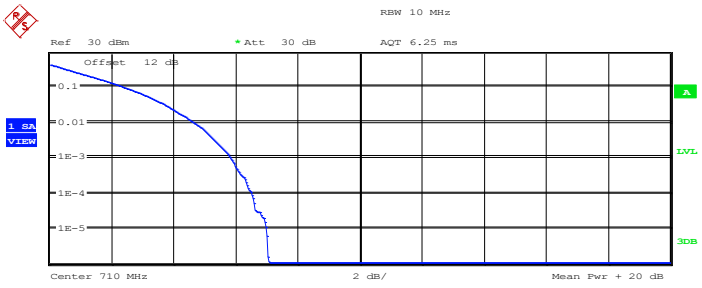


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 7.1MHz

	Trace 1
Mean	19.89 dBm
Peak	27.87 dBm
Crest	7.99 dB
10 %	2.95 dB
1 %	5.32 dB
.1 %	6.79 dB
.01 %	7.47 dB

Date: 29.NOV.2012 10:03:41

Peak-to-Average Ratio on LTE Band 17 10MHz / QPSK

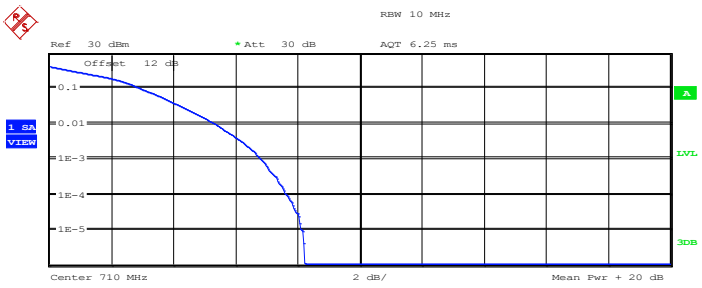


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	21.32 dBm
Peak	28.37 dBm
Crest	7.05 dB
10 %	2.40 dB
1 %	4.65 dB
.1 %	5.83 dB
.01 %	6.51 dB

Date: 29.NOV.2012 10:00:14

Peak-to-Average Ratio on LTE Band 17 10MHz / 16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	20.15 dBm
Peak	28.37 dBm
Crest	8.22 dB
10 %	2.95 dB
1 %	5.32 dB
.1 %	6.79 dB
.01 %	7.60 dB

Date: 29.NOV.2012 10:01:35

3.3 Effective Radiated Power and Equivalent Isotropic Radiated Power Measurement

3.3.1 Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v01. Mobile and portable (hand-held) stations operating are limited to average ERP of 7 watts with LTE band 5 and 3 watt with LTE band 17.

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v01. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2 and 1 watt with LTE band 4.

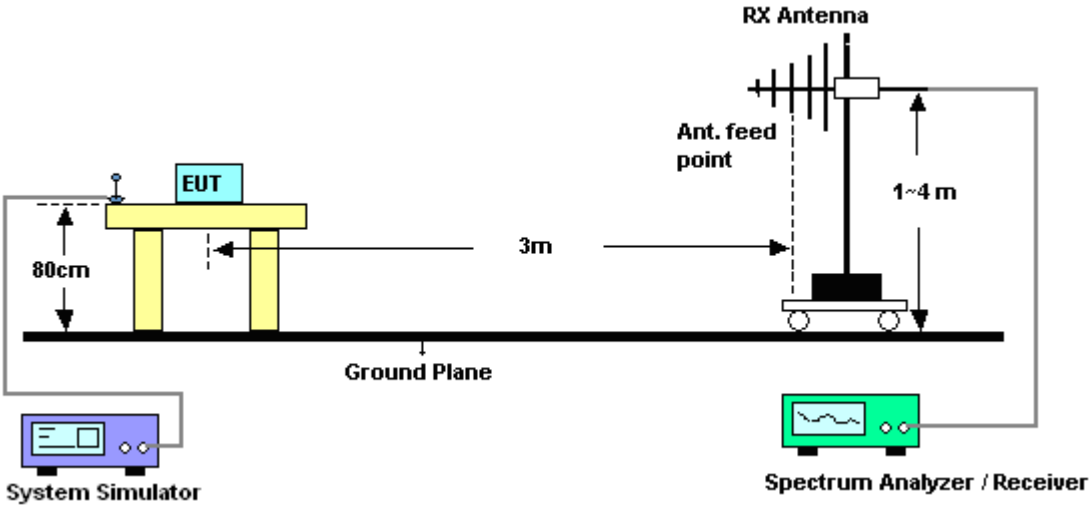
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The EUT was placed on a 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 which used a channel power option across EUT's signal bandwidth per section 4.0 of KDB 971168 D01.
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 + Correction factor and ERP = EIRP – 2.15.

3.3.4 Test Setup



3.3.5 Test Result of ERP/EIRP

LTE Band 2 Radiated Power EIRP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1850.7	-27.70	43.69	15.99	0.0397
1880.0	-26.71	44.79	18.08	0.0643
1909.3	-29.15	43.59	14.44	0.0278
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1850.7	-22.28	45.72	23.44	0.2208
1880.0	-21.68	46.78	25.10	0.3236
1909.3	-22.60	46.77	24.17	0.2612

LTE Band 2 Radiated Power EIRP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1850.7	-28.08	43.69	15.61	0.0364
1880.0	-27.69	44.79	17.10	0.0513
1909.3	-29.93	43.59	13.66	0.0232
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1850.7	-23.44	45.72	22.28	0.1690
1880.0	-22.80	46.78	23.98	0.2500
1909.3	-23.76	46.77	23.01	0.2000

LTE Band 2 Radiated Power EIRP for BW 3MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1851.5	-28.61	43.69	15.08	0.0322
1880.0	-28.71	44.79	16.08	0.0406
1908.5	-28.53	43.59	15.06	0.0321
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1851.5	-20.97	45.72	24.75	0.2985
1880.0	-20.39	46.78	26.39	0.4355
1908.5	-21.23	46.77	25.54	0.3581

LTE Band 2 Radiated Power EIRP for BW 3MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1851.5	-29.08	43.69	14.61	0.0289
1880.0	-29.37	44.79	15.42	0.0348
1908.5	-29.52	43.59	14.07	0.0255
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1851.5	-21.58	45.72	24.14	0.2594
1880.0	-21.60	46.78	25.18	0.3296
1908.5	-21.61	46.77	25.16	0.3281

LTE Band 2 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1852.5	-29.30	43.69	14.39	0.0275
1880.0	-29.77	44.79	15.02	0.0318
1907.5	-30.80	43.59	12.79	0.0190
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1852.5	-20.97	45.72	24.75	0.2985
1880.0	-20.86	46.78	25.92	0.3908
1907.5	-22.14	46.77	24.63	0.2904

LTE Band 2 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1852.5	-29.57	43.69	14.12	0.0258
1880.0	-29.97	44.79	14.82	0.0303
1907.5	-30.17	43.59	13.42	0.0220
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1852.5	-21.38	45.72	24.34	0.2716
1880.0	-21.92	46.78	24.86	0.3062
1907.5	-23.05	46.77	23.72	0.2355

LTE Band 2 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1855.0	-30.31	43.69	13.38	0.0218
1880.0	-30.14	44.79	14.65	0.0292
1905.0	-30.33	43.59	13.26	0.0212
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1855.0	-21.52	45.72	24.20	0.2630
1880.0	-21.85	46.78	24.93	0.3112
1905.0	-22.74	46.77	24.03	0.2529

LTE Band 2 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1855.0	-30.77	43.69	12.92	0.0196
1880.0	-30.46	44.79	14.33	0.0271
1905.0	-30.92	43.59	12.67	0.0185
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1855.0	-22.22	45.72	23.50	0.2239
1880.0	-22.51	46.78	24.27	0.2673
1905.0	-23.19	46.77	23.58	0.2280

LTE Band 2 Radiated Power EIRP for BW 15MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1857.5	-25.80	43.69	17.89	0.0615
1880.0	-28.68	44.79	16.11	0.0408
1902.5	-25.54	43.59	18.05	0.0638
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1857.5	-24.07	45.72	21.65	0.1462
1880.0	-25.05	46.78	21.73	0.1489
1902.5	-23.86	46.77	22.91	0.1954

LTE Band 2 Radiated Power EIRP for BW 15MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1857.5	-26.06	43.69	17.63	0.0579
1880.0	-28.86	44.79	15.93	0.0392
1902.5	-26.18	43.59	17.41	0.0551
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1857.5	-24.77	45.72	20.95	0.1245
1880.0	-24.78	46.78	22.00	0.1585
1902.5	-23.57	46.77	23.20	0.2089

LTE Band 2 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1860.0	-27.47	43.69	16.22	0.0419
1880.0	-25.97	44.79	18.82	0.0762
1900.0	-26.17	43.59	17.42	0.0552
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1860.0	-23.16	45.72	22.56	0.1803
1880.0	-23.47	46.78	23.31	0.2143
1900.0	-24.75	46.77	22.02	0.1592

LTE Band 2 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1860.0	-28.17	43.69	15.52	0.0356
1880.0	-26.93	44.79	17.86	0.0611
1900.0	-28.14	43.59	15.45	0.0351
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1860.0	-23.78	45.72	21.94	0.1563
1880.0	-24.16	46.78	22.62	0.1828
1900.0	-25.00	46.77	21.77	0.1503

LTE Band 4 Radiated Power EIRP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-27.99	41.65	11.51	0.0142
1732.50	-28.31	42.95	12.49	0.0177
1754.30	-28.93	42.28	11.20	0.0132
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-18.47	43.57	22.95	0.1972
1732.50	-20.41	45.94	23.38	0.2178
1754.30	-20.47	45.2	22.58	0.1811

LTE Band 4 Radiated Power EIRP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-28.85	41.65	10.65	0.0116
1732.50	-28.77	42.95	12.03	0.0160
1754.30	-29.56	42.28	10.57	0.0114
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-19.78	43.57	21.64	0.1459
1732.50	-21.09	45.94	22.70	0.1862
1754.30	-21.98	45.2	21.07	0.1279

LTE Band 4 Radiated Power EIRP for BW 3MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1711.50	-29.71	41.58	9.72	0.0094
1732.50	-29.36	42.95	11.44	0.0139
1753.50	-28.64	42.12	11.33	0.0136
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1711.50	-18.83	43.49	22.51	0.1782
1732.50	-20.63	45.94	23.16	0.2070
1753.50	-20.10	44.94	22.69	0.1858

LTE Band 4 Radiated Power EIRP for BW 3MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1711.50	-29.79	41.58	9.64	0.0092
1732.50	-30.26	42.95	10.54	0.0113
1753.50	-29.18	42.12	10.79	0.0120
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1711.50	-20.03	43.49	21.31	0.1352
1732.50	-21.14	45.94	22.65	0.1841
1753.50	-20.68	44.94	22.11	0.1626

LTE Band 4 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1712.50	-28.42	41.62	13.20	0.0209
1732.50	-28.59	42.06	13.47	0.0222
1752.50	-28.05	41.73	13.68	0.0233
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1712.50	-20.25	43.45	23.20	0.2089
1732.50	-21.00	45.68	24.68	0.2938
1752.50	-21.57	44.88	23.31	0.2143

LTE Band 4 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1712.50	-29.25	41.62	12.37	0.0173
1732.50	-29.18	42.06	12.88	0.0194
1752.50	-28.93	41.73	12.80	0.0191
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1712.50	-20.74	43.45	22.71	0.1866
1732.50	-21.53	45.68	24.15	0.2600
1752.50	-22.13	44.88	22.75	0.1884

LTE Band 4 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-27.12	42.12	15.00	0.0316
1732.50	-26.46	42.06	15.60	0.0363
1750.00	-28.34	41.57	13.23	0.0210
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-19.11	44.81	25.70	0.3715
1732.50	-20.29	45.68	25.39	0.3459
1750.00	-20.77	44.74	23.97	0.2495

LTE Band 4 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-29.33	42.12	12.79	0.0190
1732.50	-28.74	42.06	13.32	0.0215
1750.00	-28.77	41.57	12.80	0.0191
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-21.14	44.81	23.67	0.2328
1732.50	-20.69	45.68	24.99	0.3155
1750.00	-21.21	44.74	23.53	0.2254

LTE Band 4 Radiated Power EIRP for BW 15MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1717.50	-28.50	41.79	11.14	0.0130
1732.50	-28.55	42.06	11.36	0.0137
1747.50	-27.20	41.31	11.96	0.0157
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1717.50	-19.42	44.99	23.42	0.2198
1732.50	-20.09	45.68	23.44	0.2208
1747.50	-20.44	44.95	22.36	0.1722

LTE Band 4 Radiated Power EIRP for BW 15MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1717.50	-29.68	41.79	9.96	0.0099
1732.50	-29.30	42.06	10.61	0.0115
1747.50	-28.21	41.31	10.95	0.0124
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1717.50	-20.31	44.99	22.53	0.1791
1732.50	-20.96	45.68	22.57	0.1807
1747.50	-21.10	44.95	21.70	0.1479

LTE Band 4 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1720.00	-27.60	41.43	11.68	0.0147
1732.50	-28.52	42.06	11.39	0.0138
1745.00	-27.48	41.15	11.52	0.0142
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1720.00	-20.02	43.87	21.70	0.1479
1732.50	-20.97	45.68	22.56	0.1803
1745.00	-21.12	44.39	21.12	0.1294

LTE Band 4 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1720.00	-28.27	41.43	11.01	0.0126
1732.50	-29.48	42.06	10.43	0.0110
1745.00	-27.98	41.15	11.02	0.0126
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1720.00	-20.60	43.87	21.12	0.1294
1732.50	-21.38	45.68	22.15	0.1641
1745.00	-21.55	44.39	20.69	0.1172

LTE Band 5 Radiated Power ERP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-12.36	31.54	17.03	0.0505
836.5	-12.64	32.04	17.25	0.0531
848.3	-13.32	32.59	17.12	0.0515
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-16.41	32.93	14.37	0.0274
836.5	-16.81	32.82	13.86	0.0243
848.3	-17.11	33.62	14.36	0.0273

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-13.00	31.54	16.39	0.0436
836.5	-13.63	32.04	16.26	0.0423
848.3	-14.09	32.59	16.35	0.0432
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-17.28	32.93	13.50	0.0224
836.5	-17.87	32.82	12.80	0.0191
848.3	-17.98	33.62	13.49	0.0223

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 3MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-11.25	31.44	18.04	0.0637
836.5	-11.87	32.04	18.02	0.0634
847.5	-11.91	32.63	18.57	0.0719
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-18.23	32.78	12.40	0.0174
836.5	-18.30	32.82	12.37	0.0173
847.5	-18.70	33.4	12.55	0.0180

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 3MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-12.13	31.44	17.16	0.0520
836.5	-13.02	32.04	16.87	0.0486
847.5	-12.93	32.63	17.55	0.0569
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-18.99	32.78	11.64	0.0146
836.5	-19.40	32.82	11.27	0.0134
847.5	-19.56	33.4	11.69	0.0148

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-11.74	31.54	17.65	0.0582
836.5	-12.25	32.04	17.64	0.0581
846.5	-12.31	32.59	18.13	0.0650
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-17.92	32.93	12.86	0.0193
836.5	-18.38	32.82	12.29	0.0169
846.5	-18.42	33.62	13.05	0.0202

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-13.06	31.44	16.23	0.0420
836.5	-12.96	32.04	16.93	0.0493
846.5	-13.53	32.63	16.95	0.0495
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-18.95	32.78	11.68	0.0147
836.5	-18.72	32.82	11.95	0.0157
846.5	-19.54	33.4	11.71	0.0148

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829	-11.27	31.44	18.02	0.0634
836.5	-10.94	32.04	18.95	0.0785
844	-11.12	32.63	19.36	0.0863
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829	-19.13	32.78	11.50	0.0141
836.5	-18.63	32.82	12.04	0.0160
844	-18.65	33.4	12.60	0.0182

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 5 Radiated Power ERP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829	-11.96	31.44	17.33	0.0541
836.5	-12.65	32.04	17.24	0.0530
844	-12.63	32.63	17.85	0.0610
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829	-19.93	32.78	10.70	0.0117
836.5	-20.82	32.82	9.85	0.0097
844	-20.19	33.4	11.06	0.0128

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 17 Radiated Power ERP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-9.69	30.84	19.00	0.0794
710.00	-9.60	30.86	19.11	0.0815
713.50	-9.76	30.81	18.90	0.0776
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-18.24	34.59	14.20	0.0263
710.00	-17.52	34.03	14.36	0.0273
713.50	-17.46	33.68	14.07	0.0255

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 17 Radiated Power ERP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-10.85	30.84	17.84	0.0608
710.00	-10.50	30.86	18.21	0.0662
713.50	-11.30	30.81	17.36	0.0545
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-19.31	34.59	13.13	0.0206
710.00	-18.55	34.03	13.33	0.0215
713.50	-18.76	33.68	12.77	0.0189

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 17 Radiated Power ERP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
709.00	-9.97	30.77	18.65	0.0733
710.00	-10.40	30.86	18.31	0.0678
711.00	-9.72	30.82	18.95	0.0785
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
709.00	-16.82	34.16	15.19	0.0330
710.00	-15.04	34.03	16.84	0.0483
711.00	-16.87	33.94	14.92	0.0310

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 17 Radiated Power ERP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
709.00	-11.57	30.77	17.05	0.0507
710.00	-11.39	30.86	17.32	0.0540
711.00	-11.03	30.82	17.64	0.0581
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
709.00	-21.47	34.16	10.54	0.0113
710.00	-21.46	34.03	10.42	0.0110
711.00	-21.48	33.94	10.31	0.0107

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

3.4 Occupied Bandwidth

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.

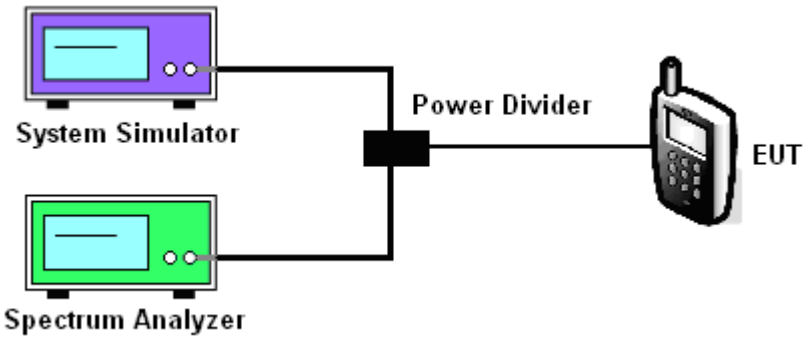
3.4.2 Measuring Instruments

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 with full RB sizes were measured.

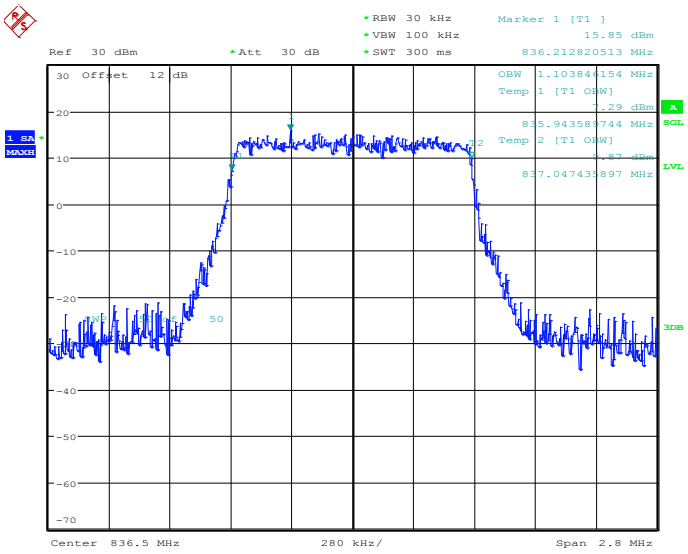
3.4.4 Test Setup



3.4.5 Test Result (Plots) of Occupied Bandwidth

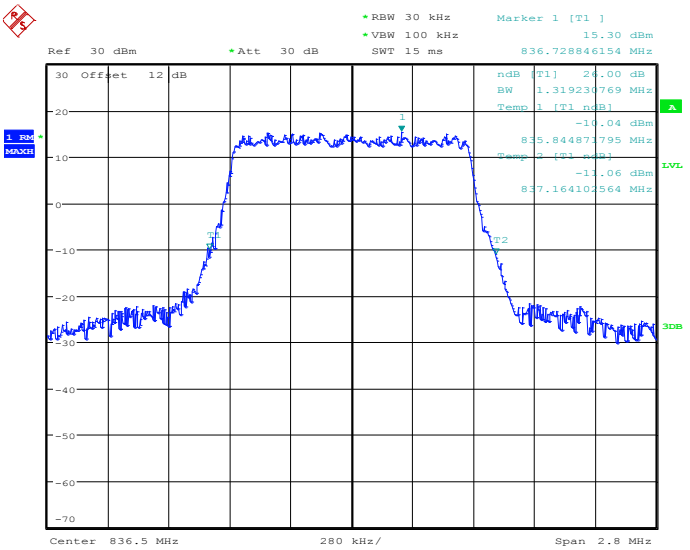
Band :	LTE Band 5	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:02:32

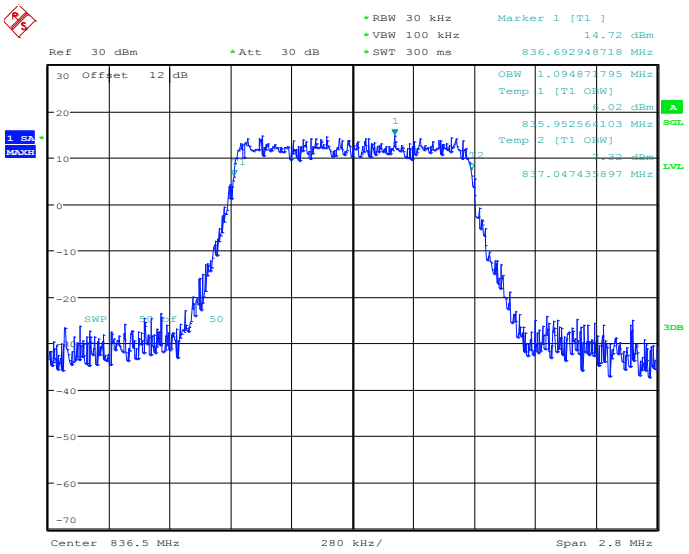
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:41:57

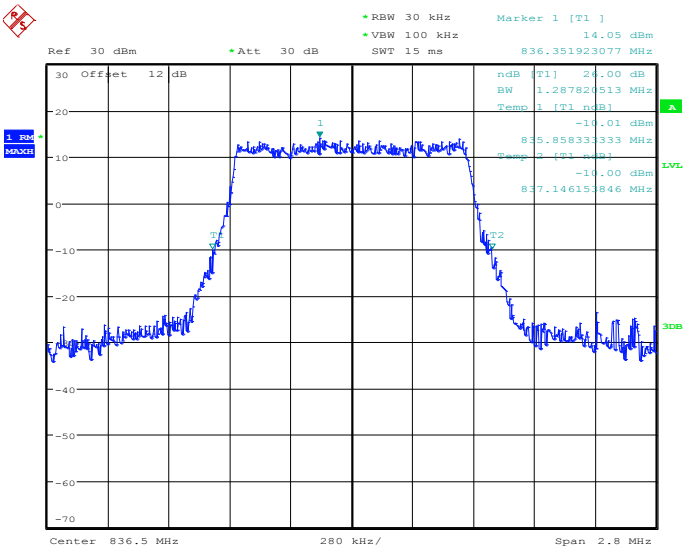
Band :	LTE Band 5	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:01:56

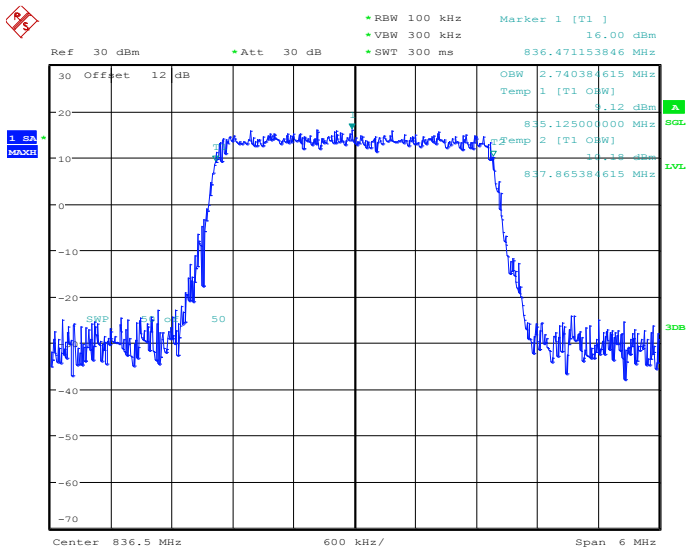
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:42:13

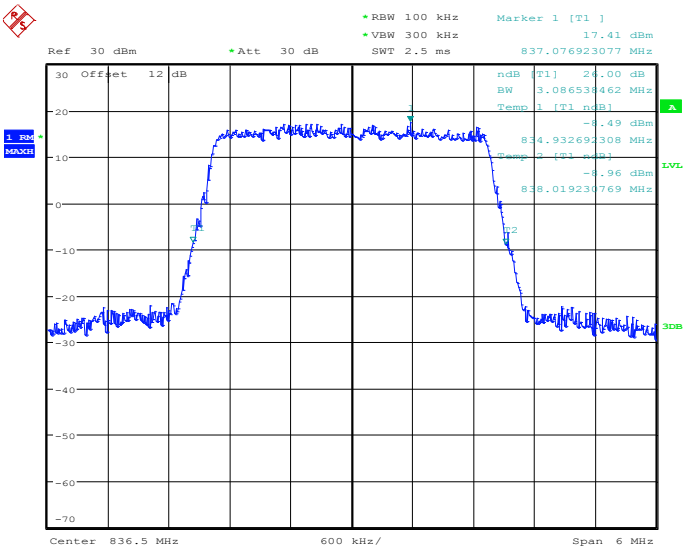
Band :	LTE Band 5	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:03:53

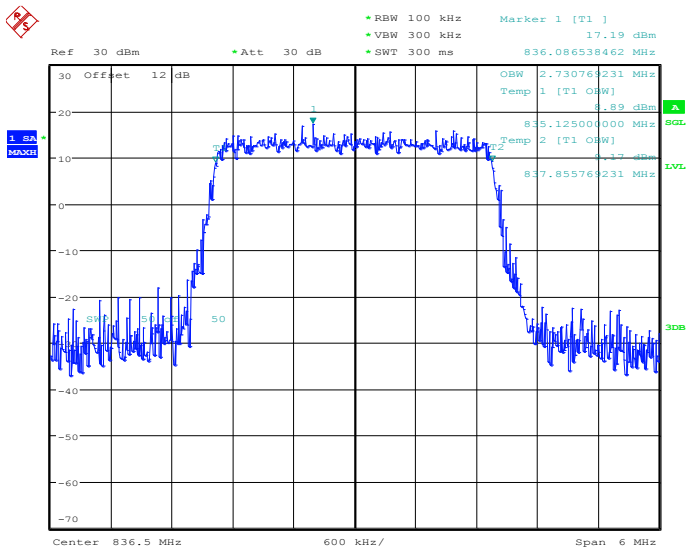
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:40:33

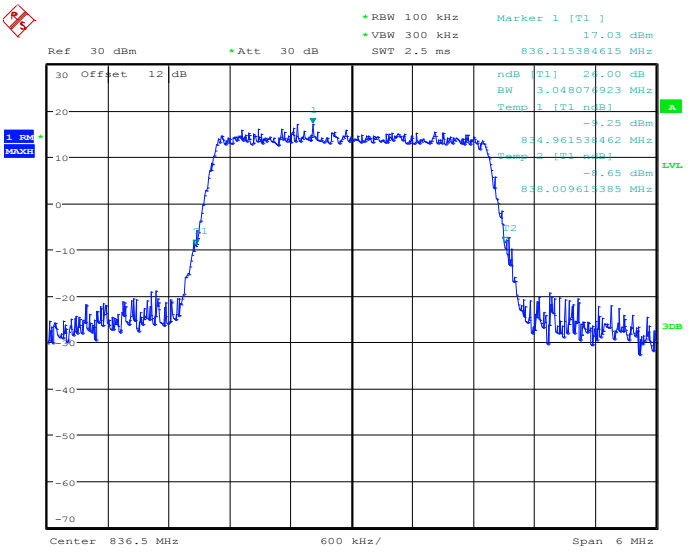
Band :	LTE Band 5	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:04:26

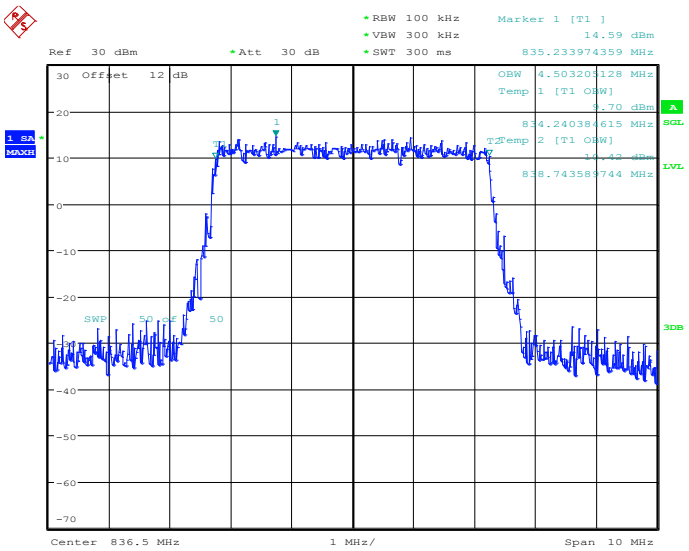
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:40:53

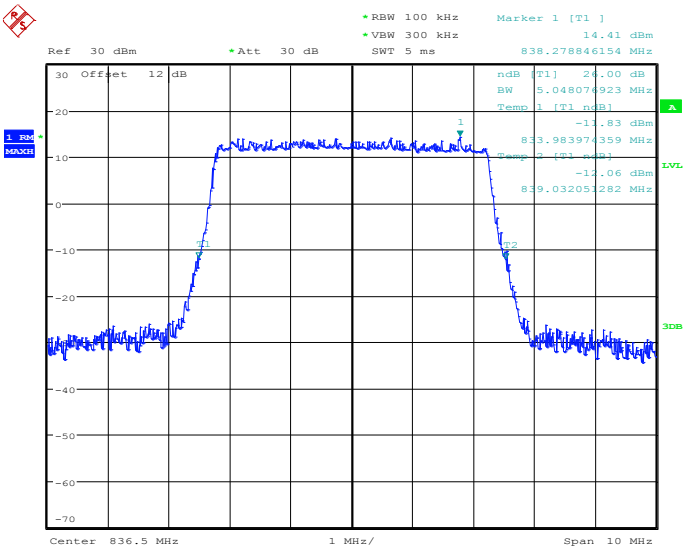
Band :	LTE Band 5	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:06:10

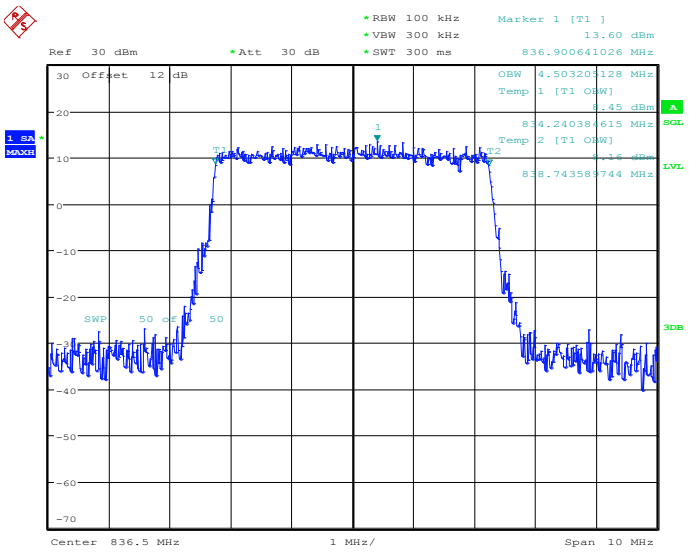
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:39:21

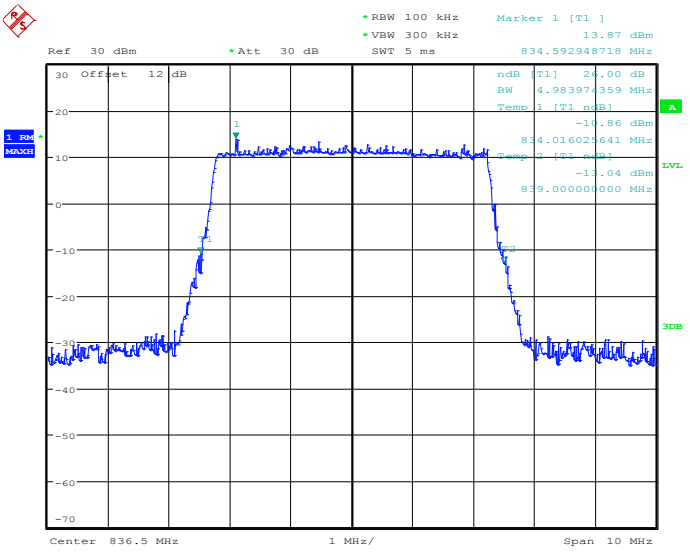
Band :	LTE Band 5	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:05:36

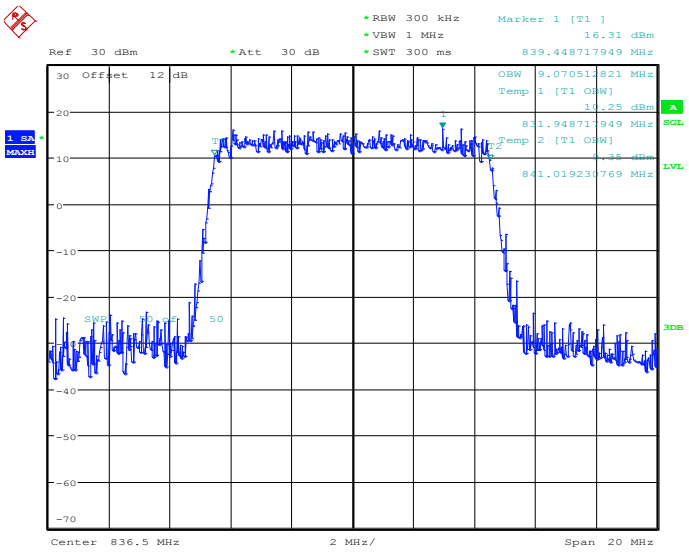
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:39:43

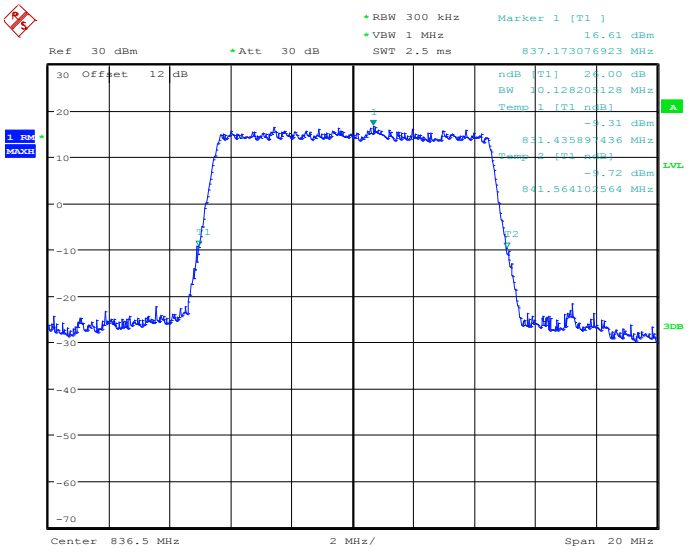
Band :	LTE Band 5	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:07:23

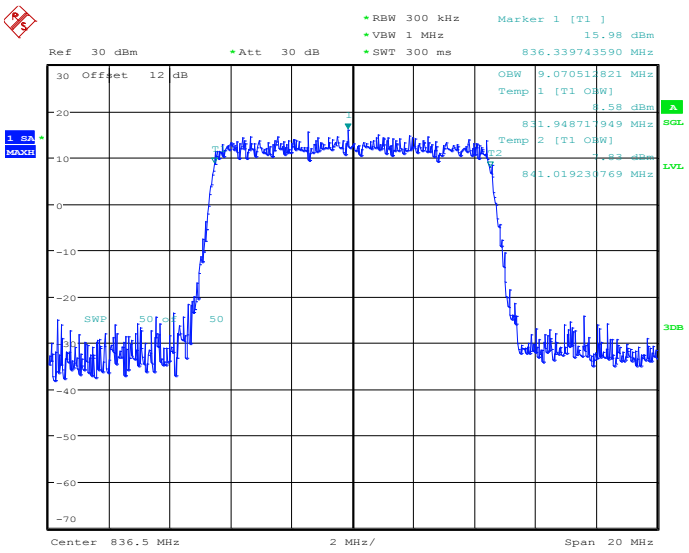
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:37:44

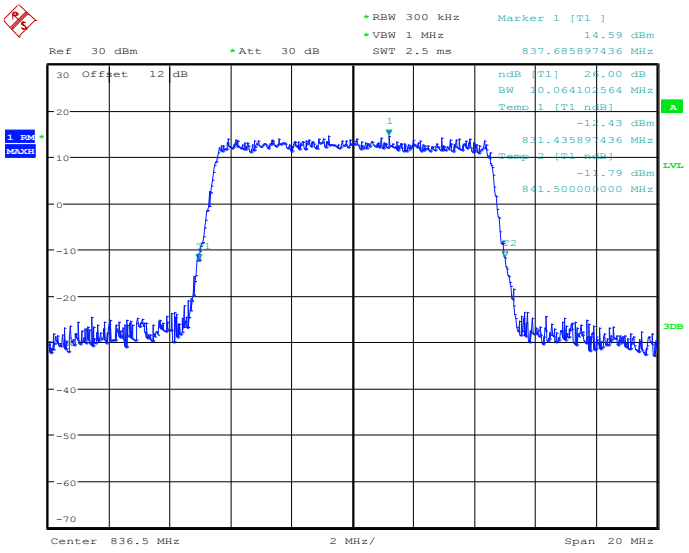
Band :	LTE Band 5	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 18:08:03

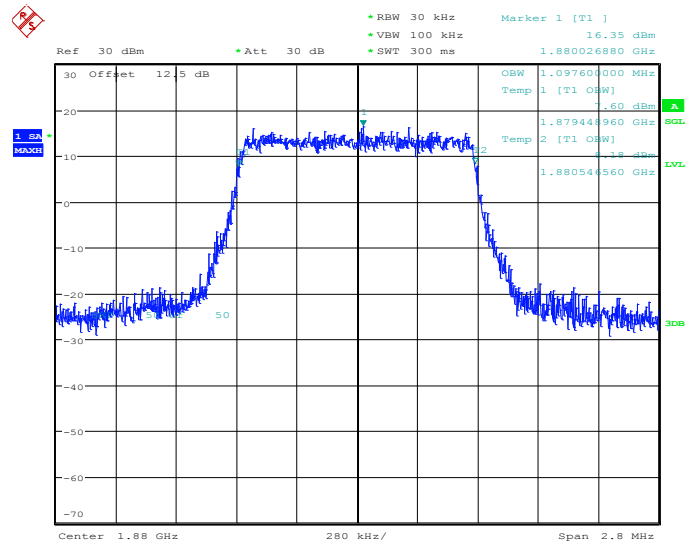
26dB Bandwidth Plot on Channel 20525



Date: 29.NOV.2012 14:38:03

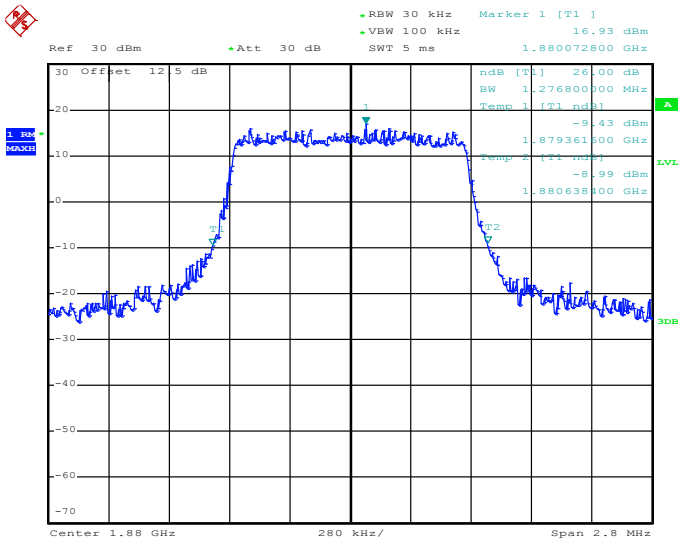
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:50:49

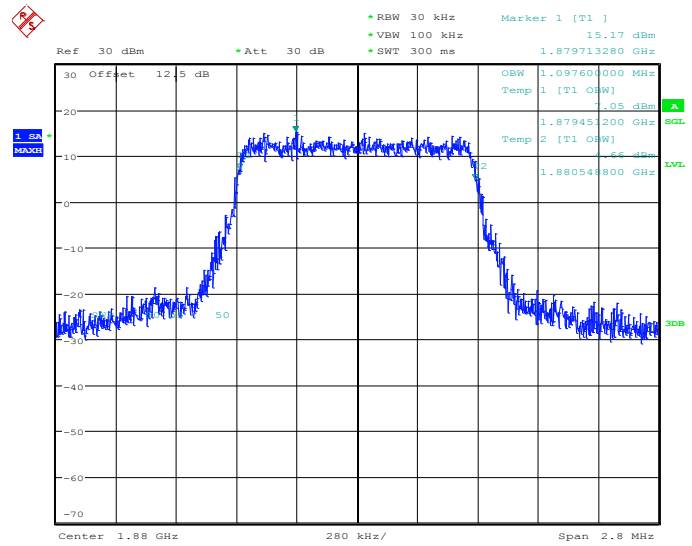
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:16:40

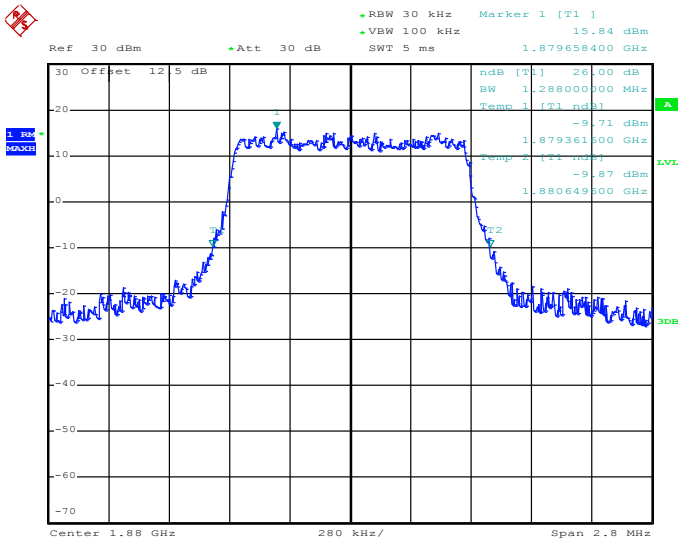
Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:50:26

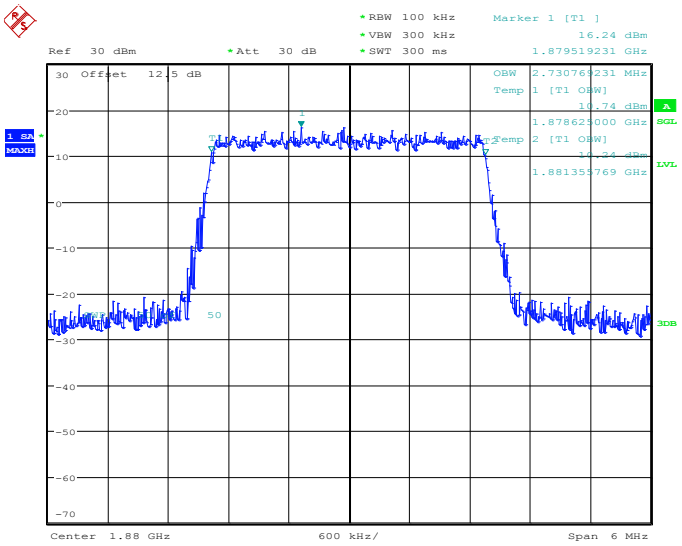
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:16:50

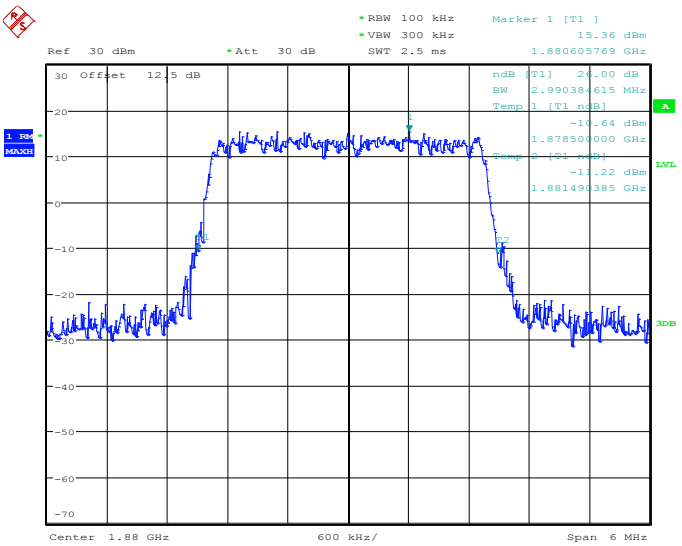
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 11:08:36

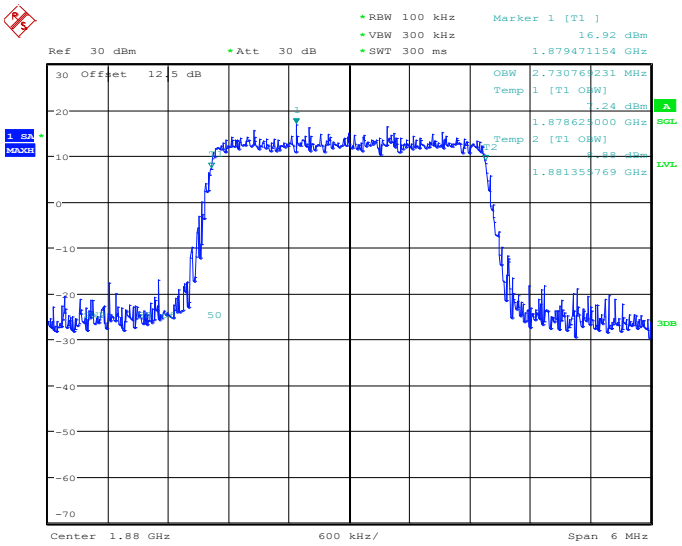
26dB Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 10:08:44

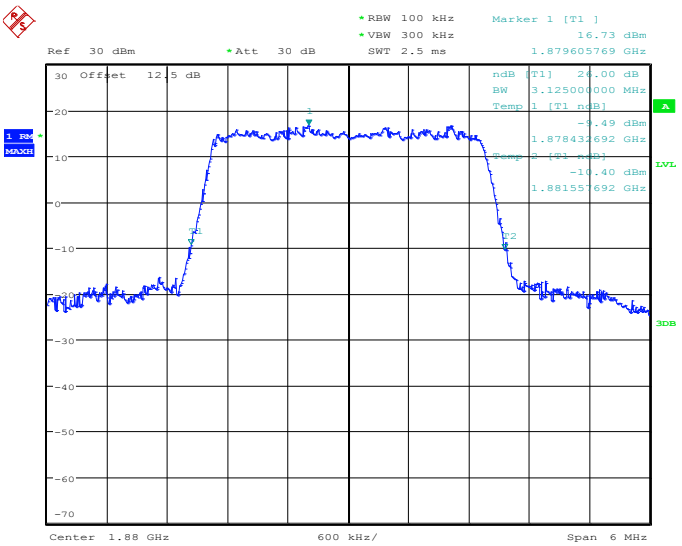
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 11:09:52

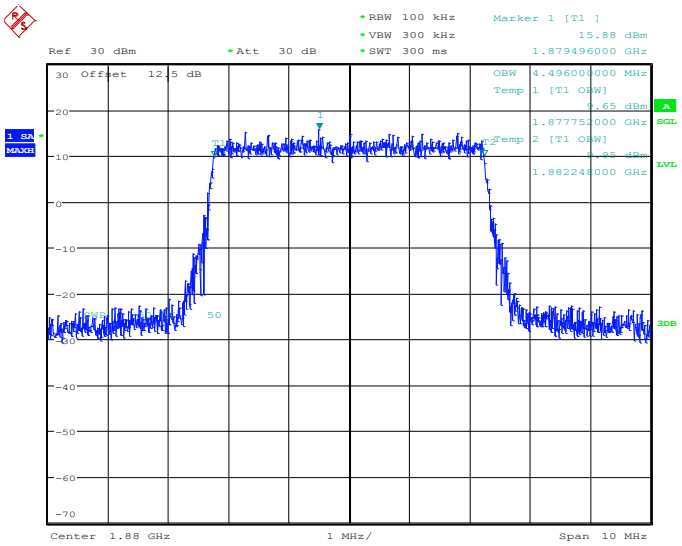
26dB Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 10:09:34

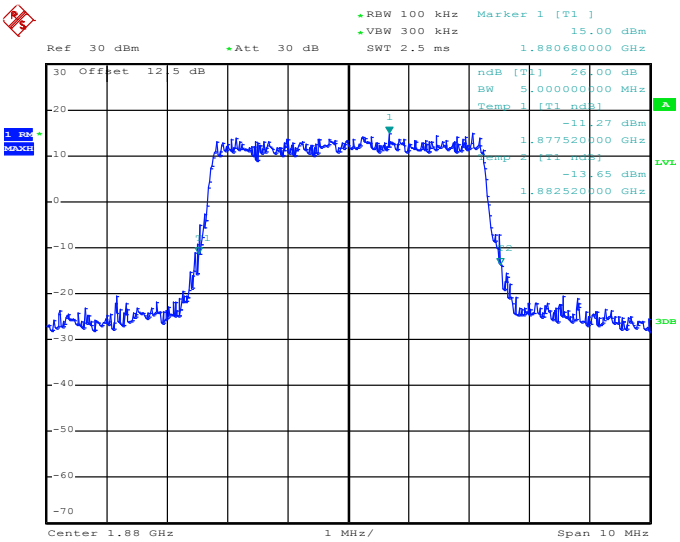
Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:53:00

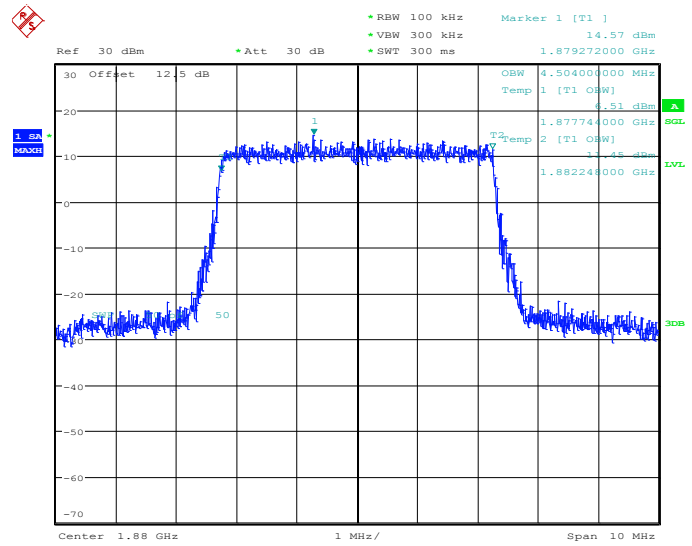
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:17:43

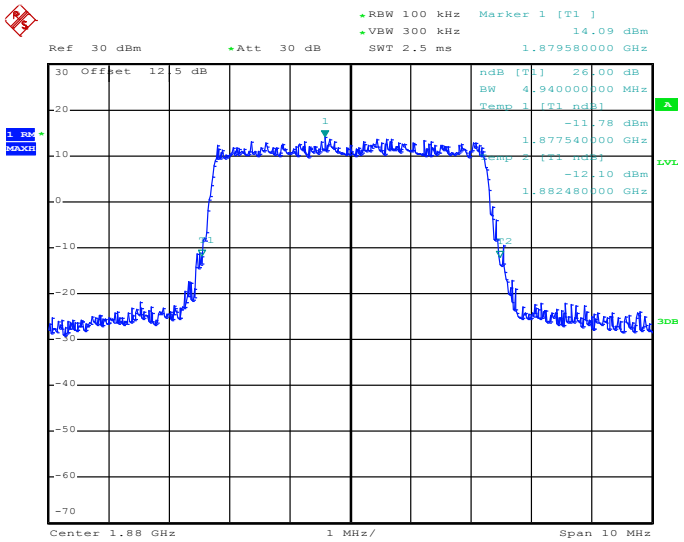
Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:53:27

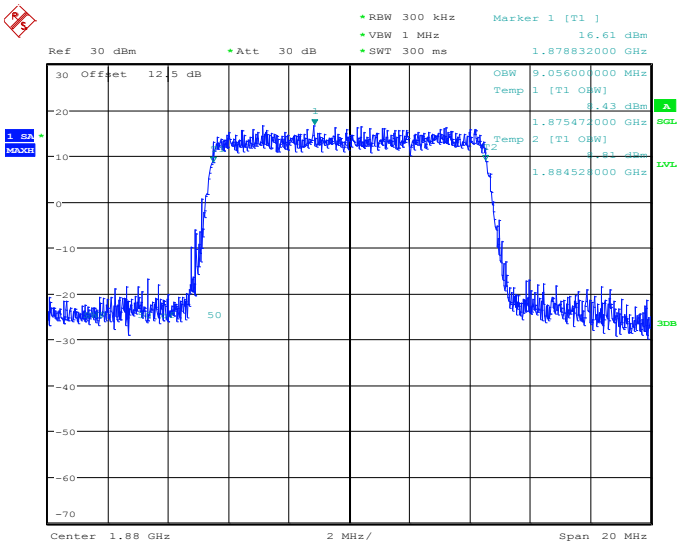
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:17:59

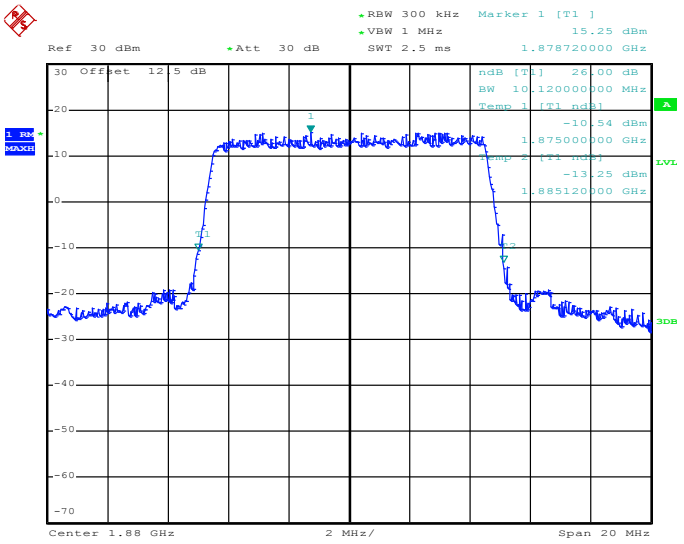
Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:54:07

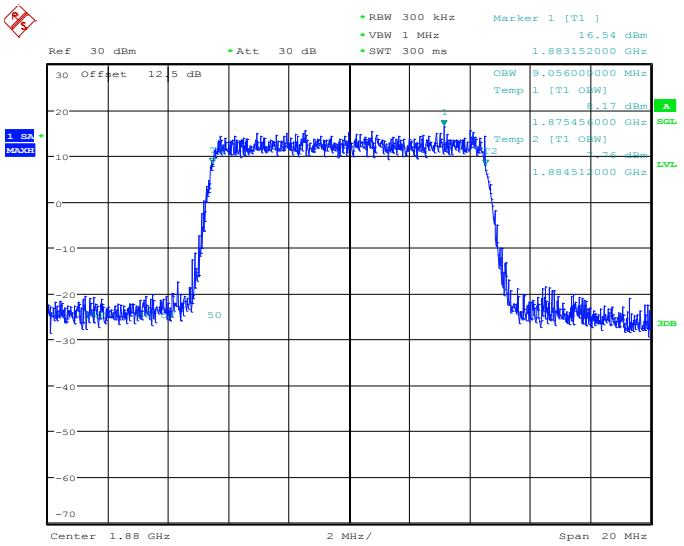
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:19:34

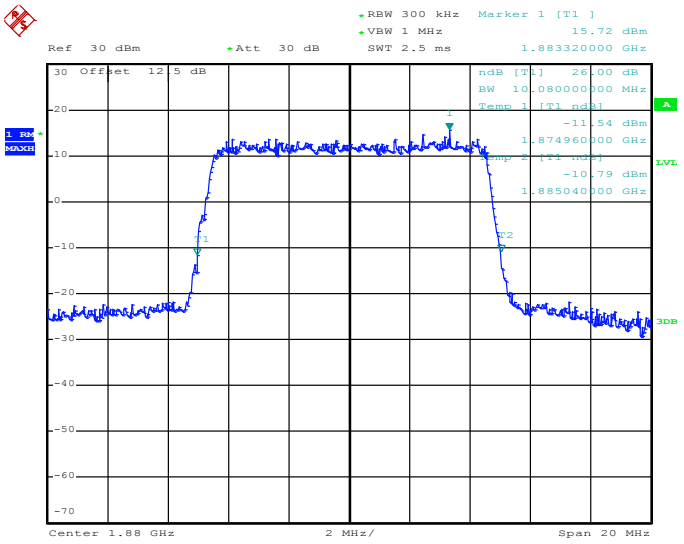
Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:54:35

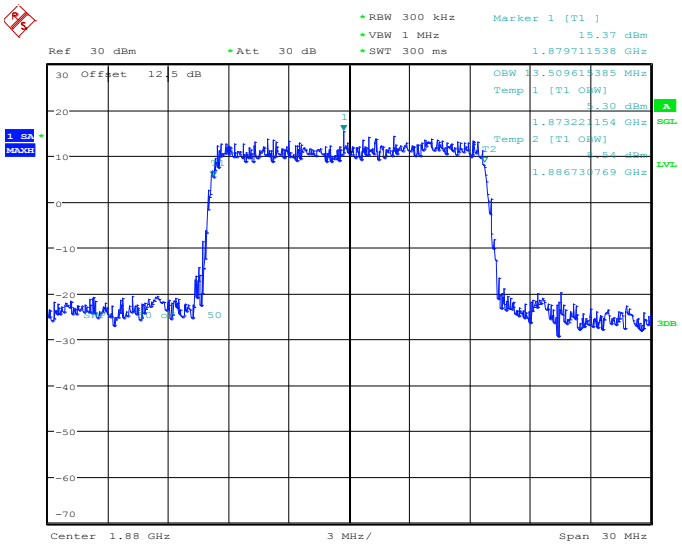
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:19:24

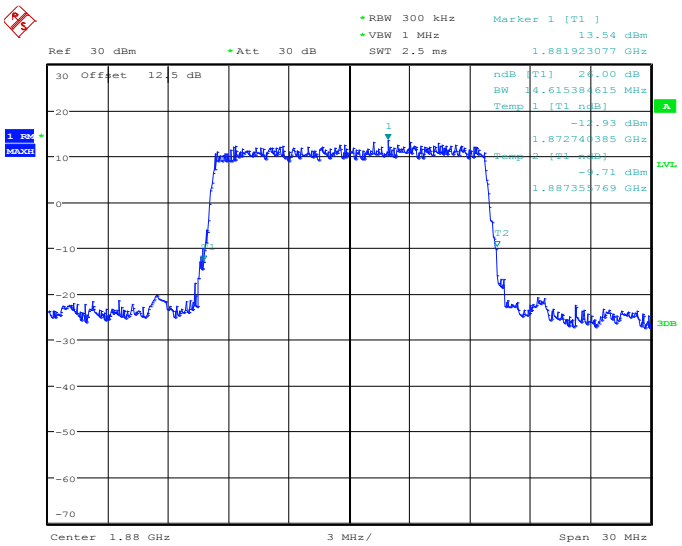
Band :	LTE Band 2	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 10:34:35

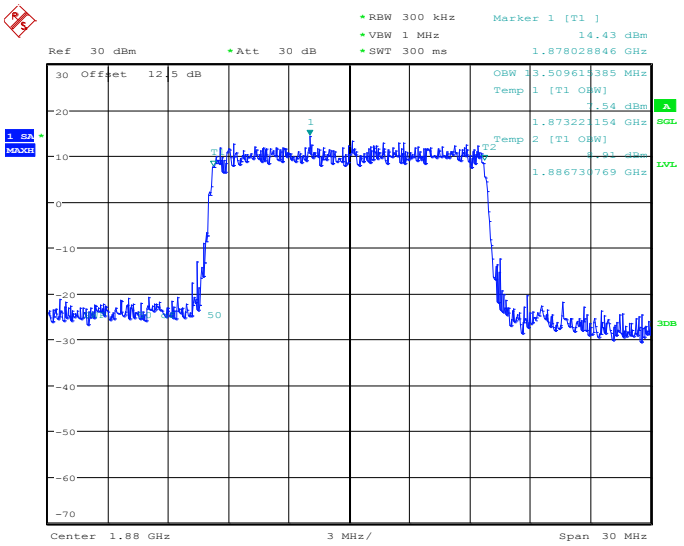
26dB Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 10:12:03

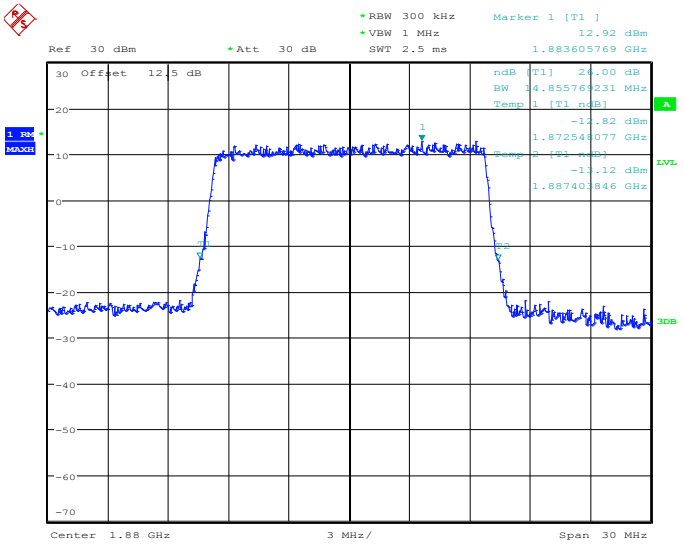
Band :	LTE Band 2	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 10:35:39

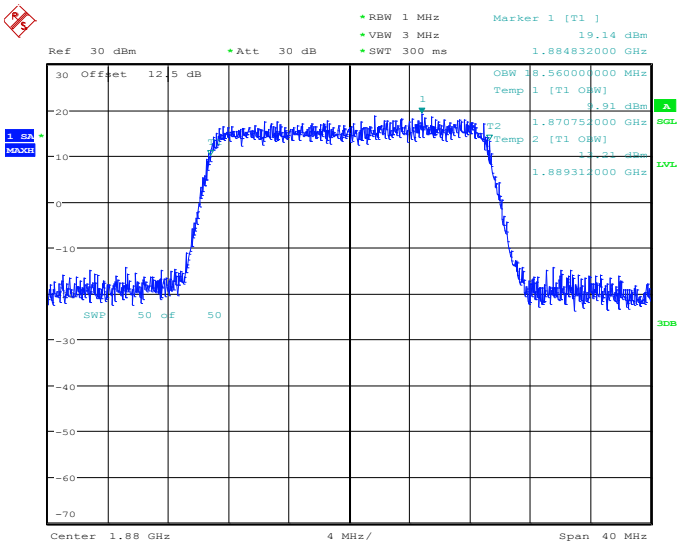
26dB Bandwidth Plot on Channel 18900



Date: 28.NOV.2012 10:13:04

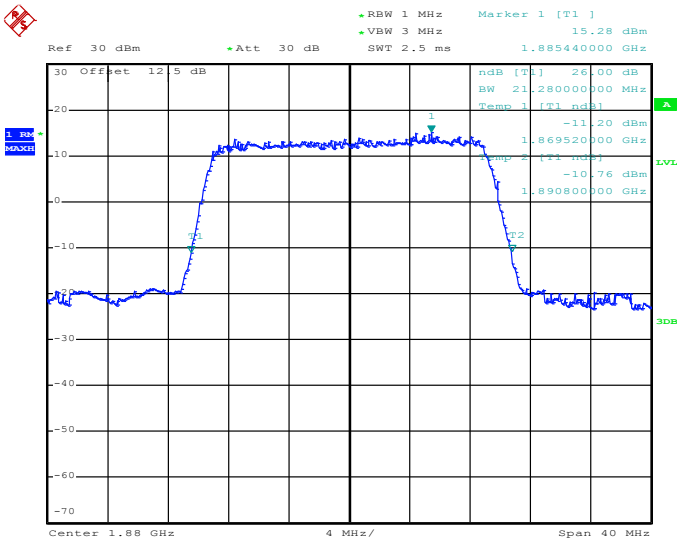
Band :	LTE Band 2	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:55:44

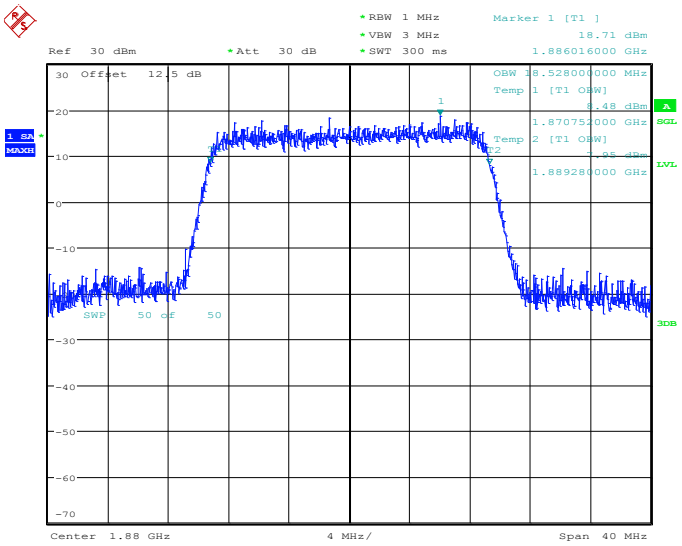
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:20:25

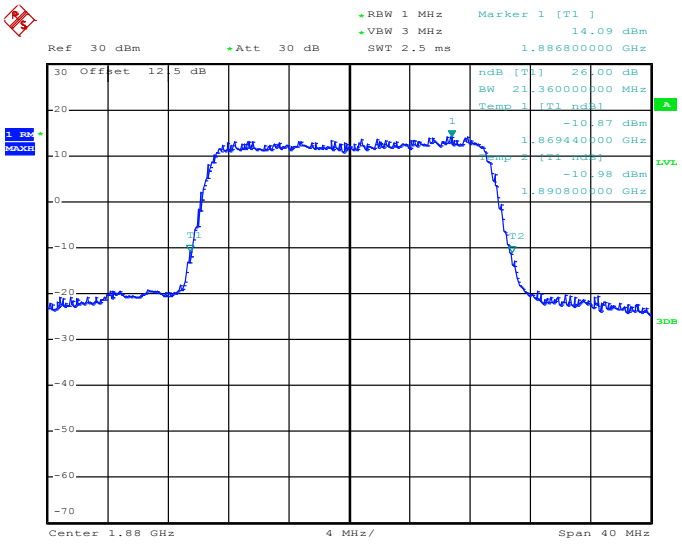
Band :	LTE Band 2	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18900



Date: 23.NOV.2012 11:56:27

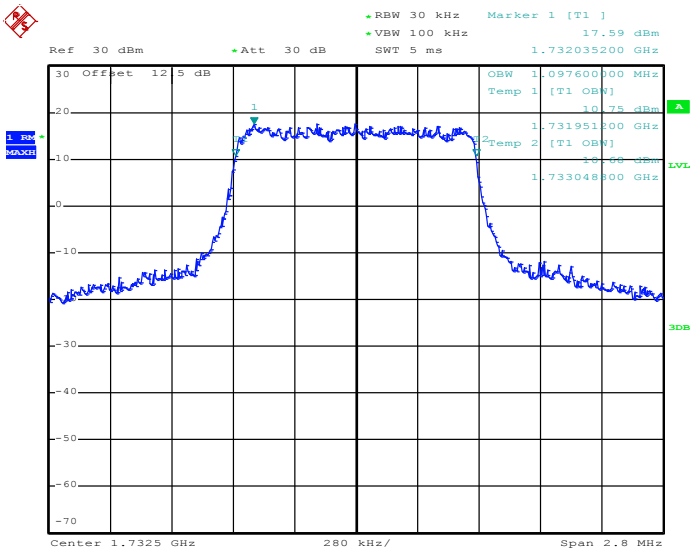
26dB Bandwidth Plot on Channel 18900



Date: 22.NOV.2012 19:20:39

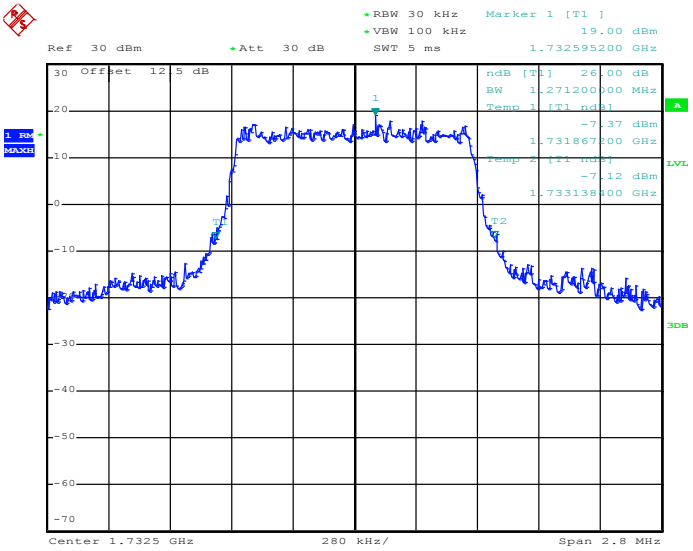
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175



Date: 22.NOV.2012 11:45:23

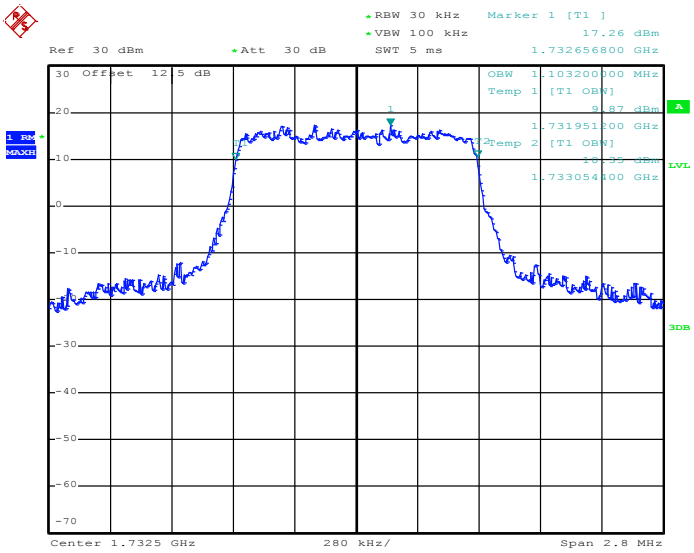
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:43:22

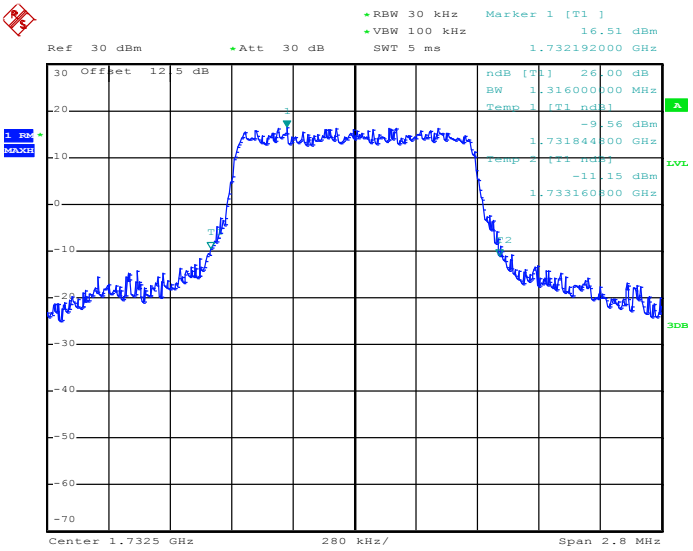
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175



Date: 22.NOV.2012 11:44:50

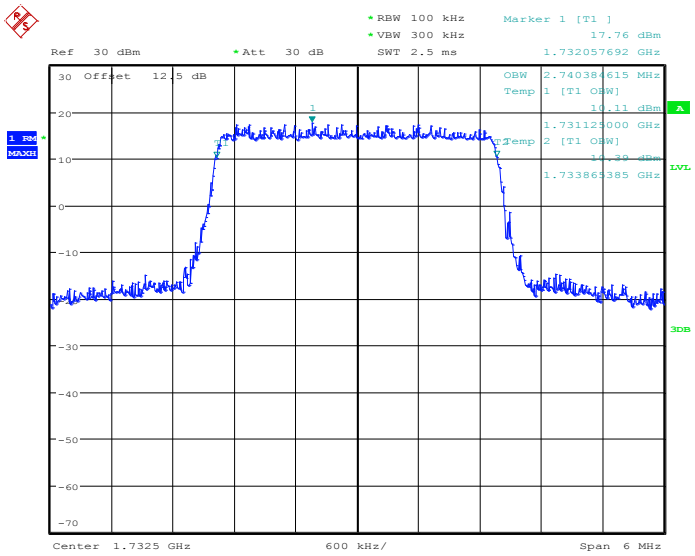
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:43:45

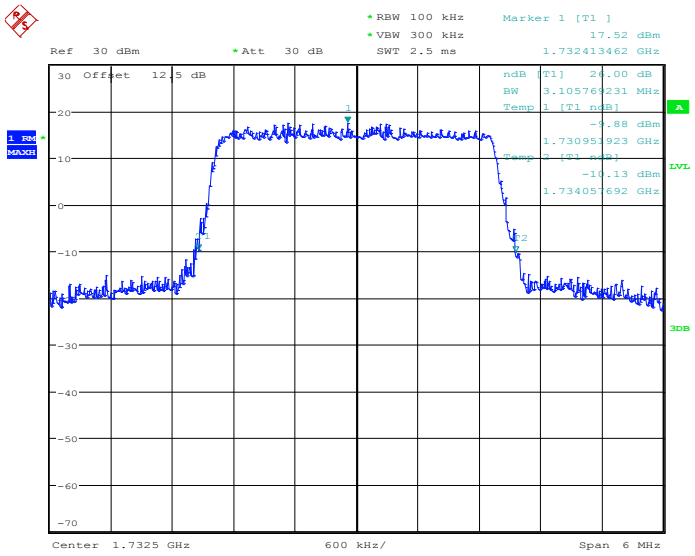
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:39:18

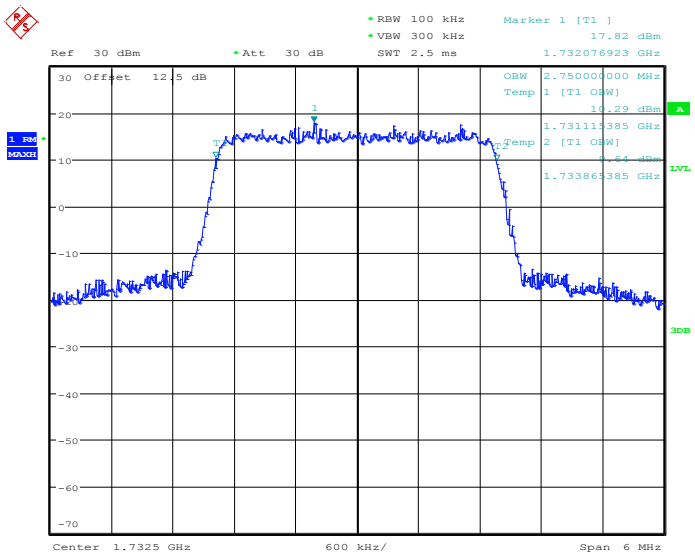
26dB Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:23:19

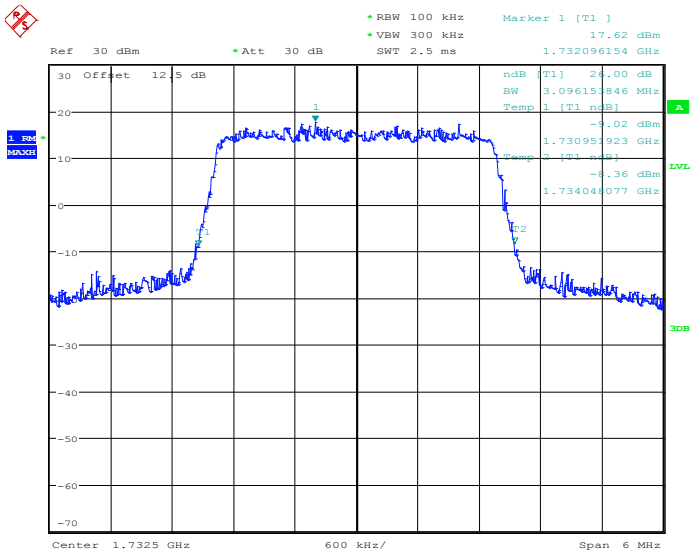
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:42:39

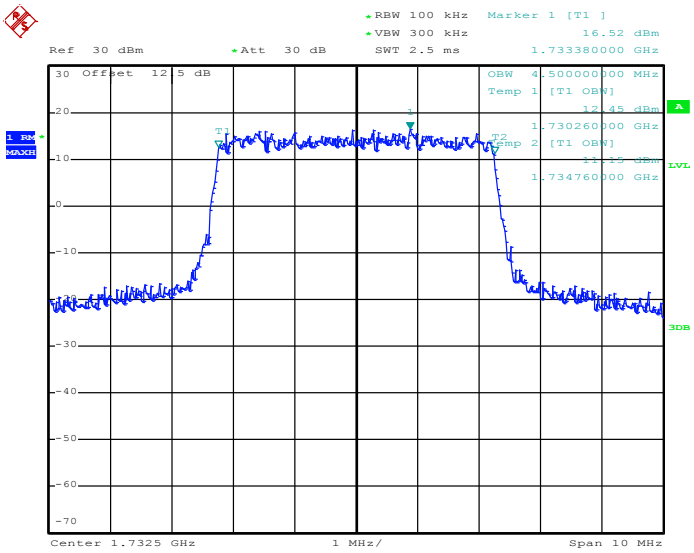
26dB Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:23:33

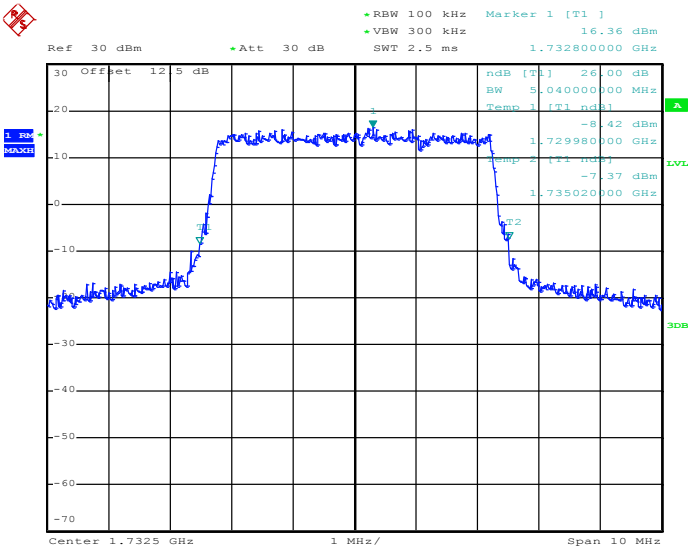
Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 21:12:26

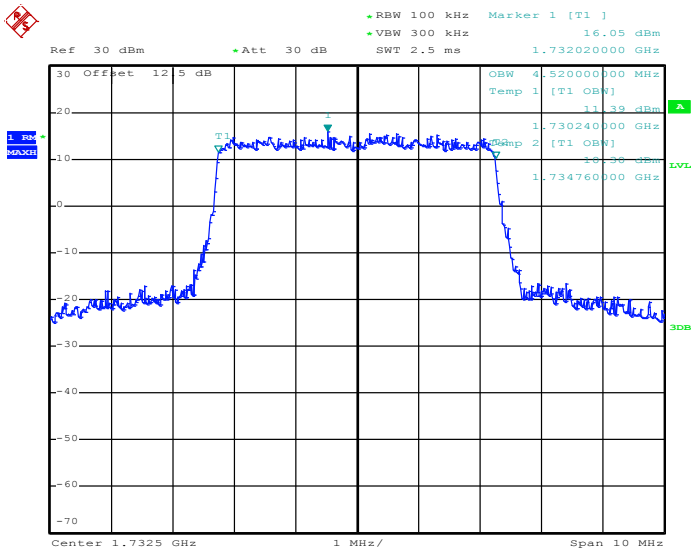
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:46:55

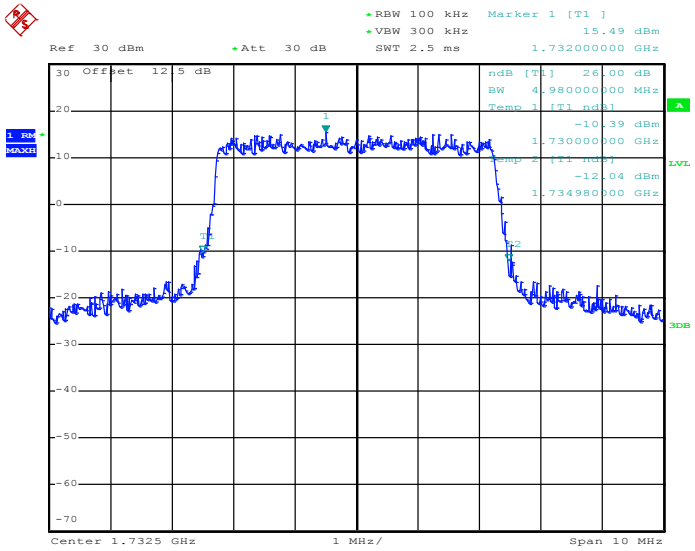
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 21:18:08

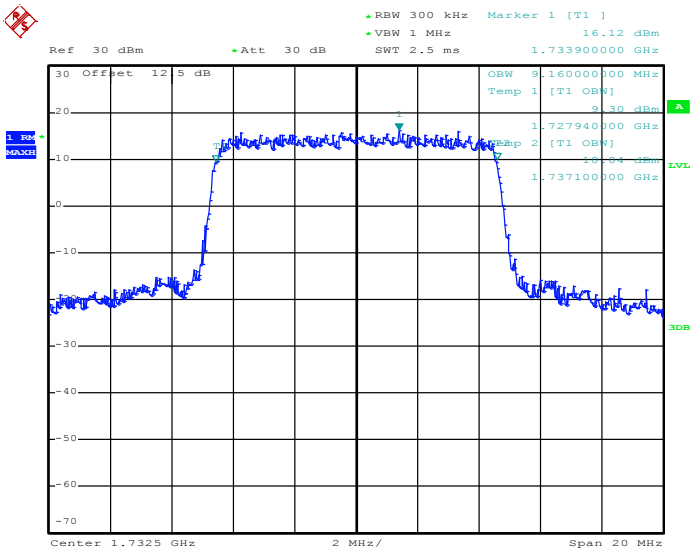
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:49:32

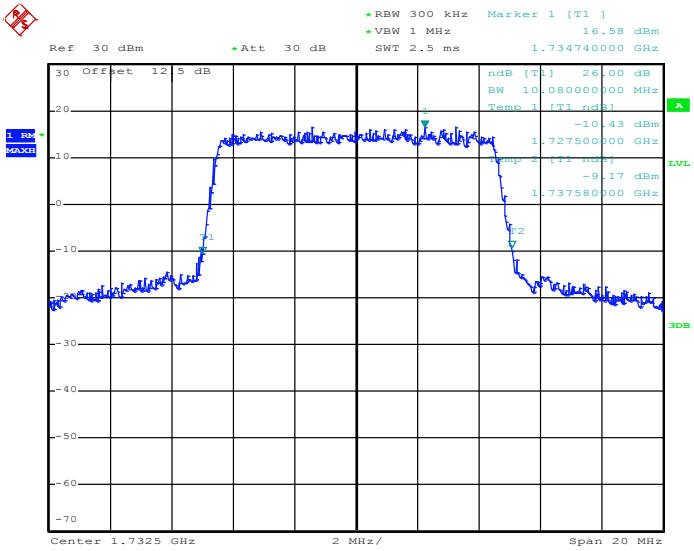
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 21:03:47

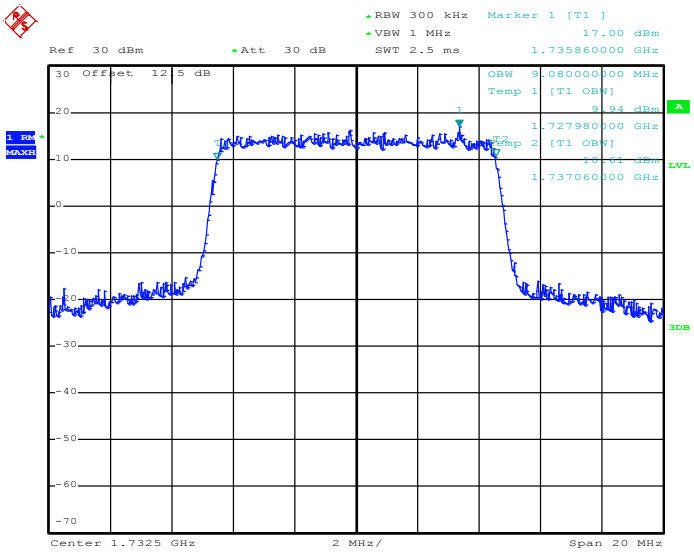
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:48:22

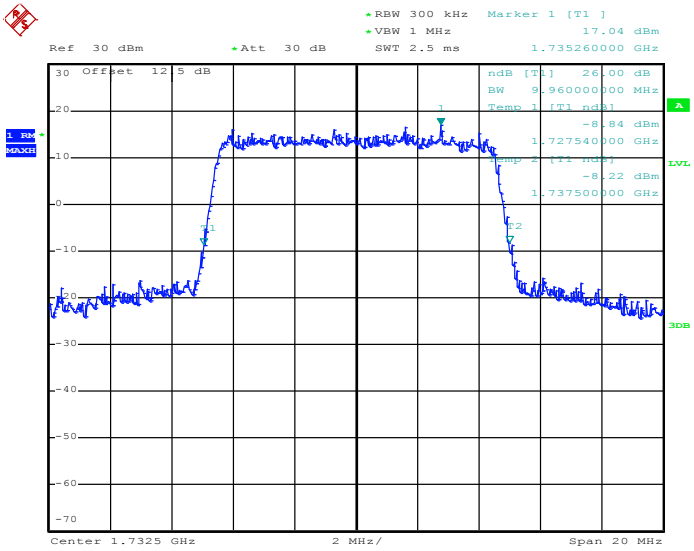
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 21:06:24

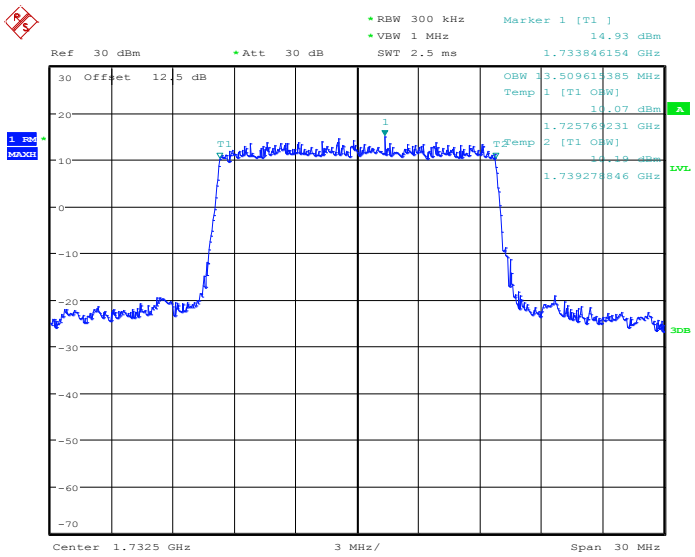
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:48:36

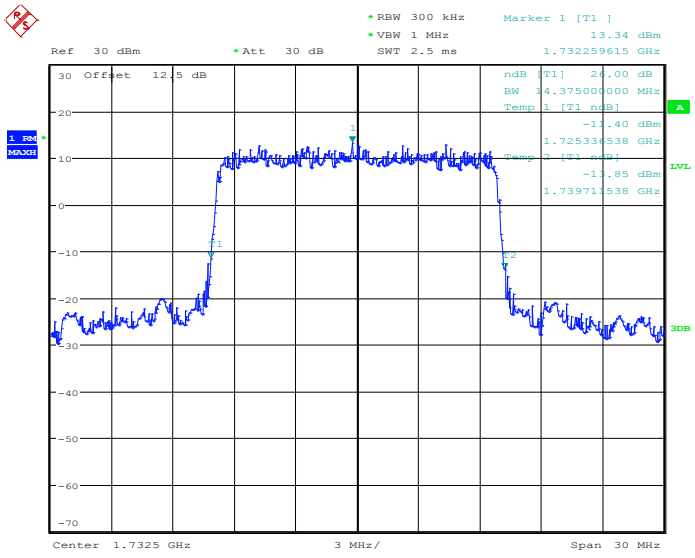
Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:27:41

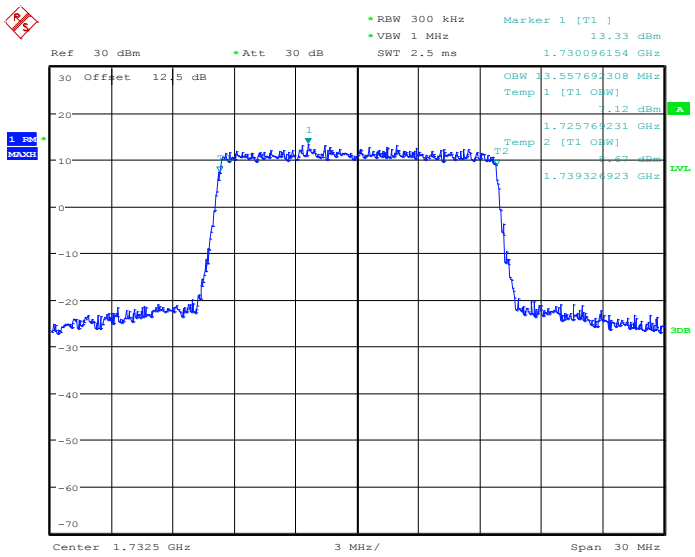
26dB Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:22:22

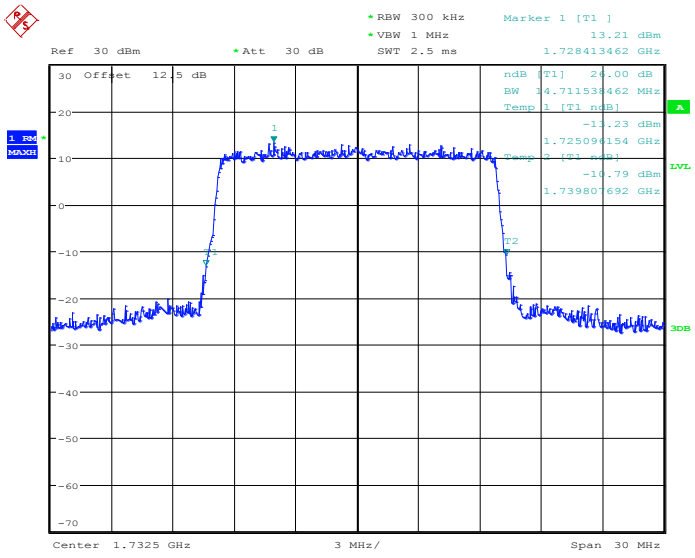
Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:35:42

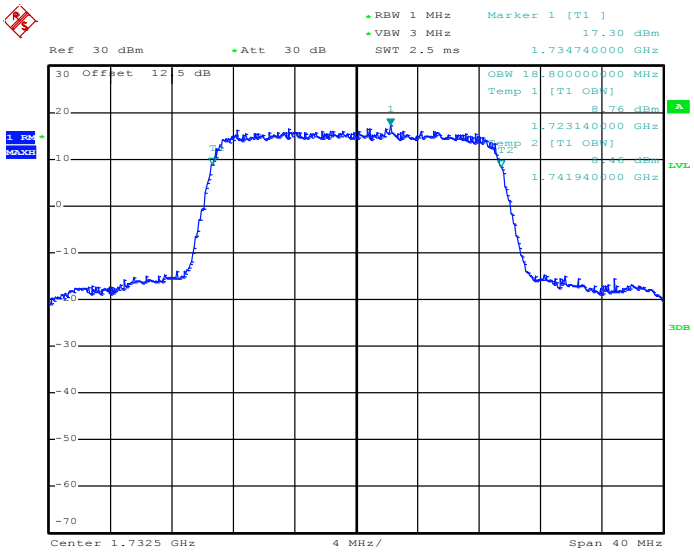
26dB Bandwidth Plot on Channel 20175



Date: 28.NOV.2012 17:22:34

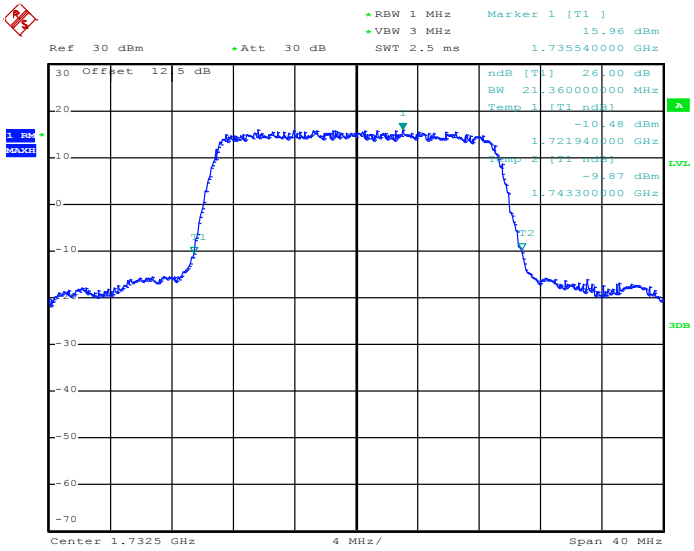
Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:56:32

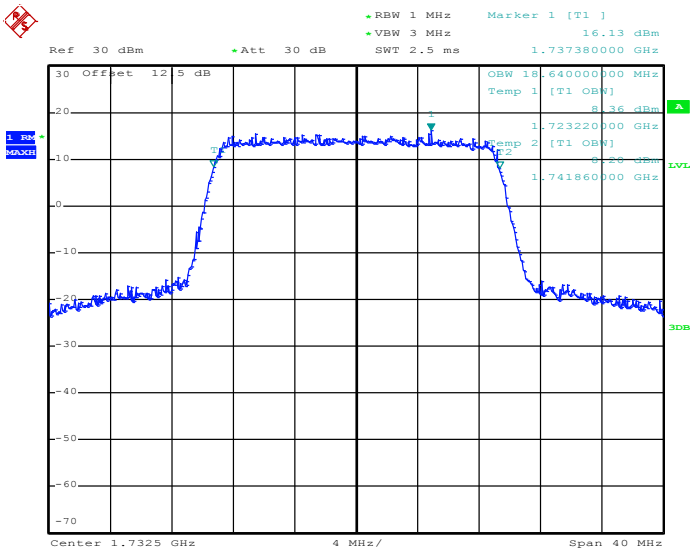
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:50:48

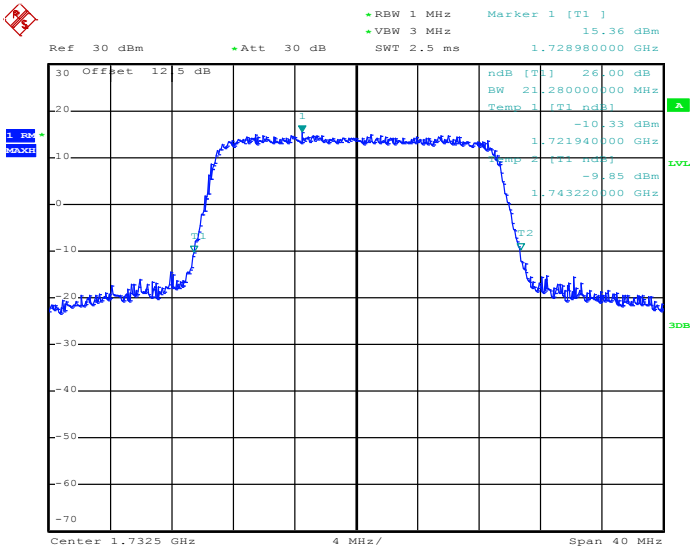
Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 21:02:18

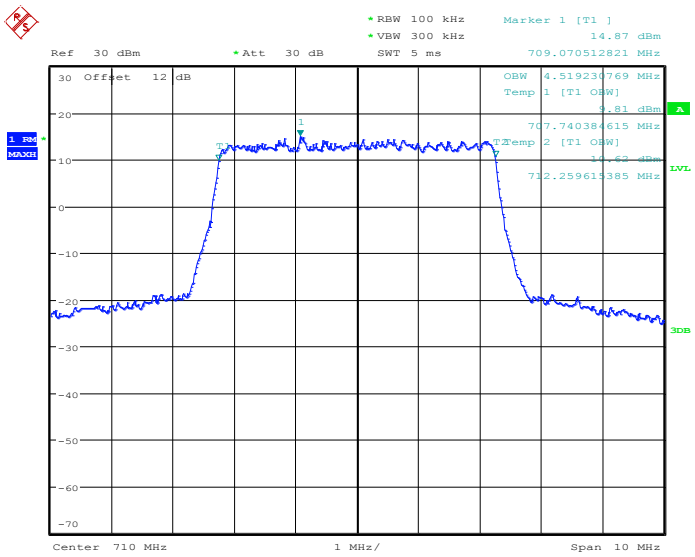
26dB Bandwidth Plot on Channel 20175



Date: 30.NOV.2012 20:51:02

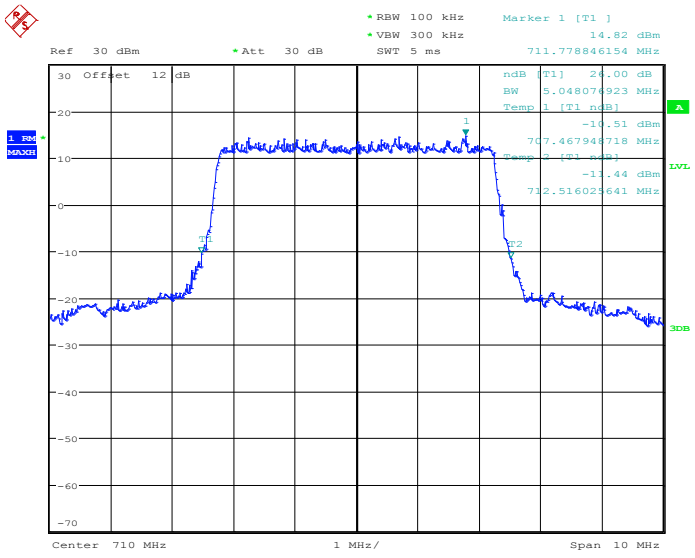
Band :	LTE Band 17	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 09:44:15

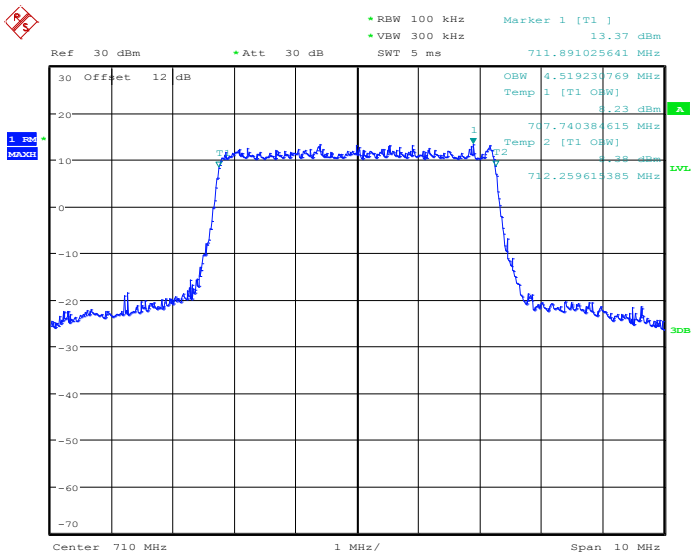
26dB Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 10:10:49

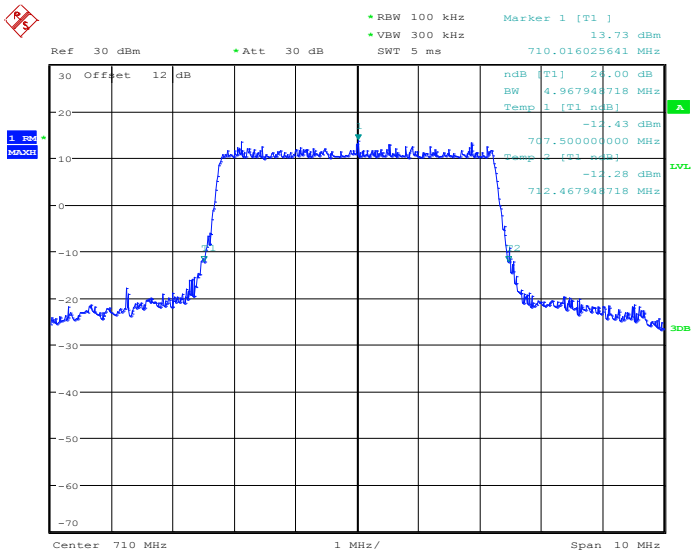
Band :	LTE Band 17	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 09:45:18

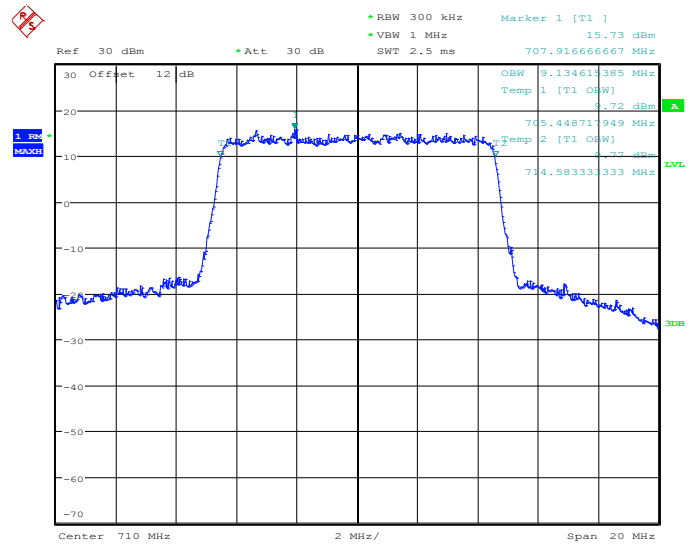
26dB Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 10:11:09

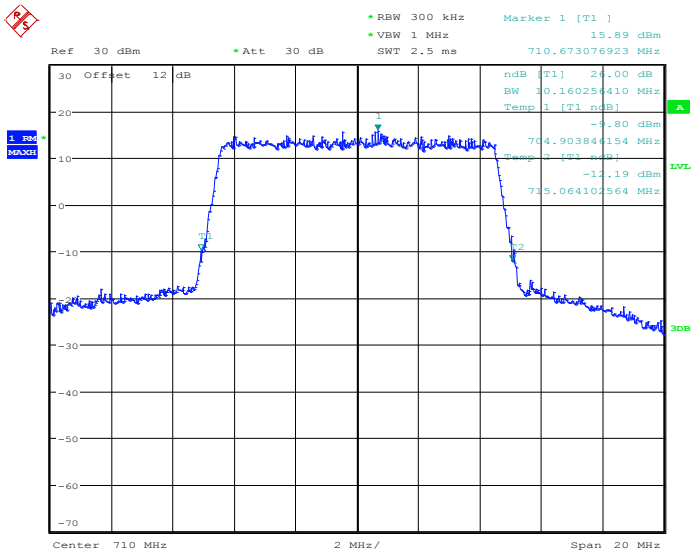
Band :	LTE Band 17	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 09:50:38

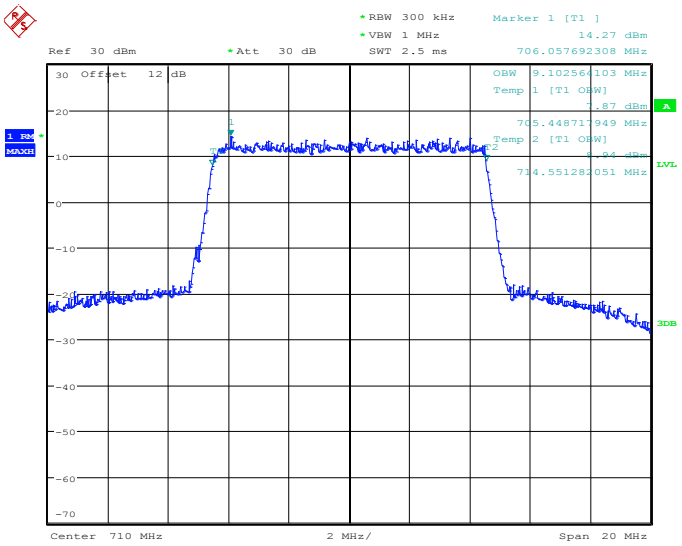
26dB Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 10:10:08

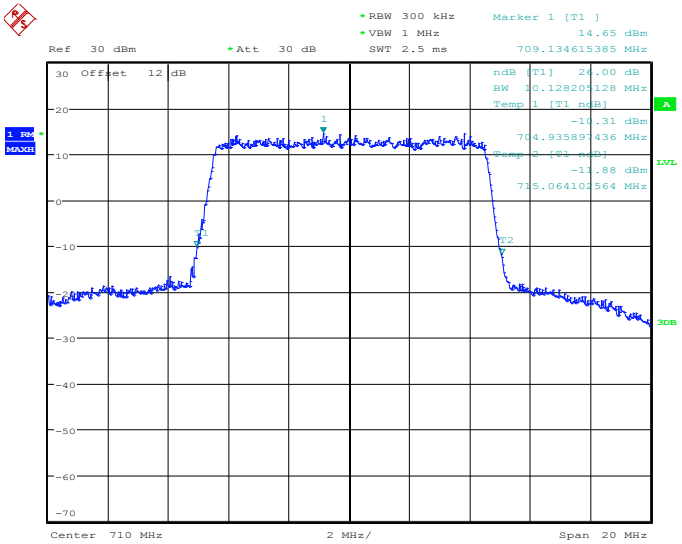
Band :	LTE Band 17	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 09:50:58

26dB Bandwidth Plot on Channel 23790



Date: 29.NOV.2012 10:09:40

3.5 Conducted Band Edge Measurement

3.5.1 Description of Conducted Band Edge Measurement

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

For operations in the 698 -746 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100 KHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

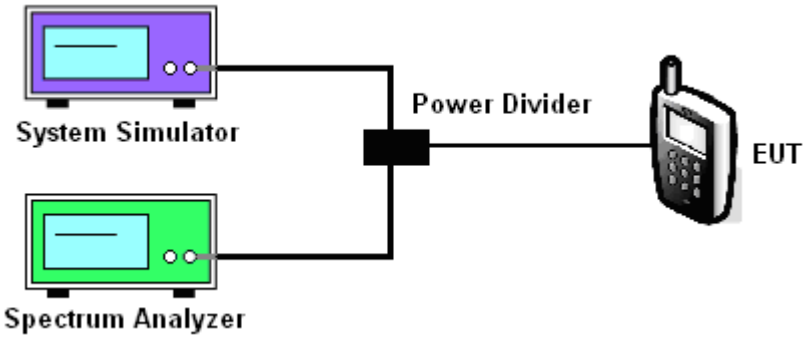
3.5.2 Measuring Instruments

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 RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. For Band 4, the band edges of low and high channels for the highest RF powers were measured. In the 1 MHz bands immediately outside and adjacent to the licensee's frequency block, RBW ≥ 1% EBW employed.
4. For Band 17, the band edges of low and high channels for the highest RF powers were measured. In the 100 kHz bands immediately outside and adjacent to a licensee's frequency block, RBW ≥ 30 kHz employed.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
   = P(W) - [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

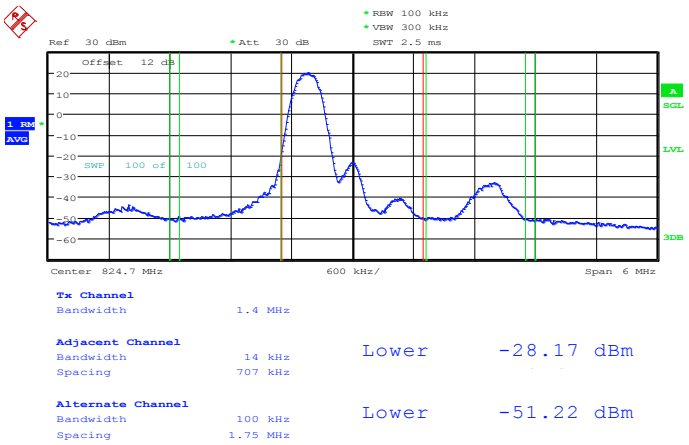
3.5.4 Test Setup



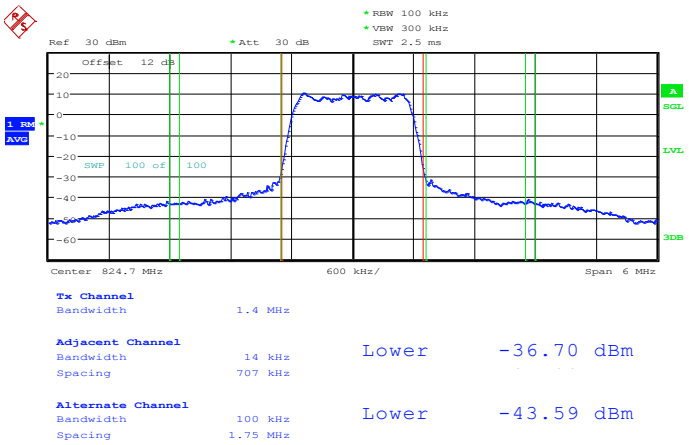
3.5.5 Test Result (Plots) of Conducted Band Edge

Band :	LTE Band 5	Band Width :	1.4MHz / QPSK

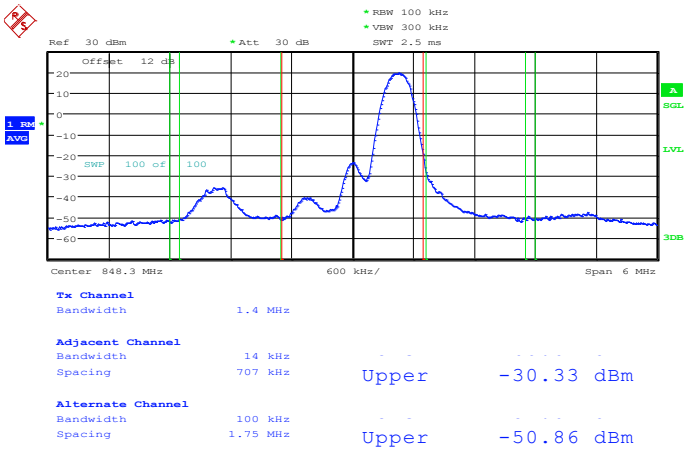
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



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

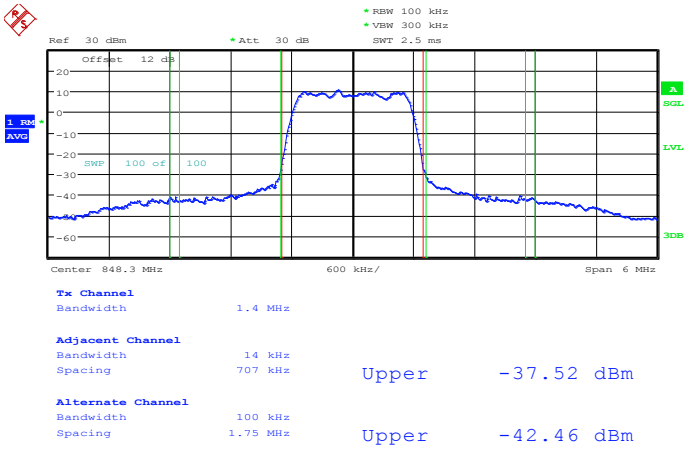


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 29.NOV.2012 15:36:22

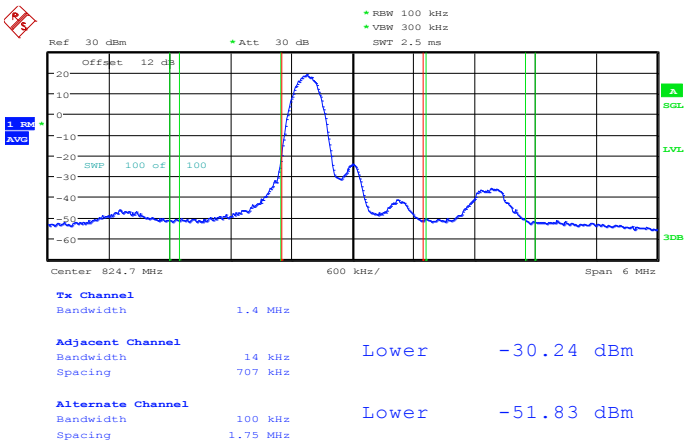
Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0



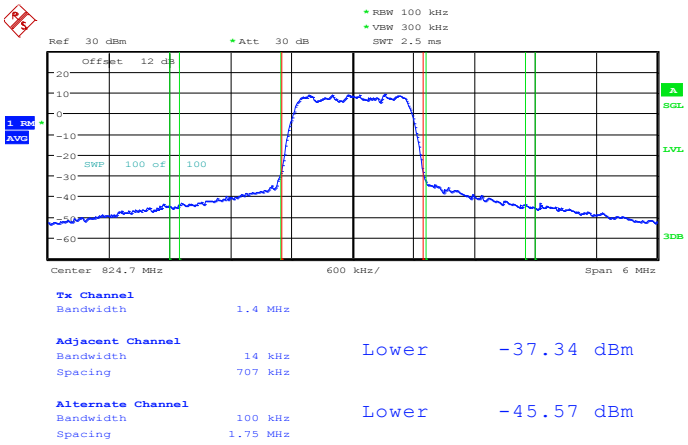
Date: 29.NOV.2012 15:36:49

Band :	LTE Band 5	Band Width :	1.4MHz / 16QAM

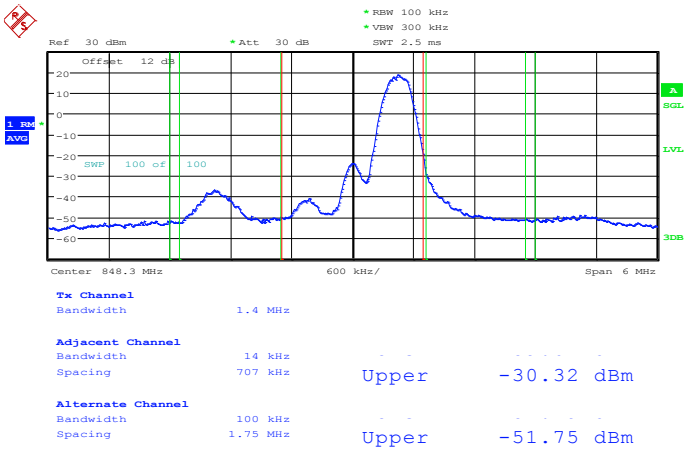
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Lower Band Edge Plot for 16QAM-RB Size 6, RB Offset 0

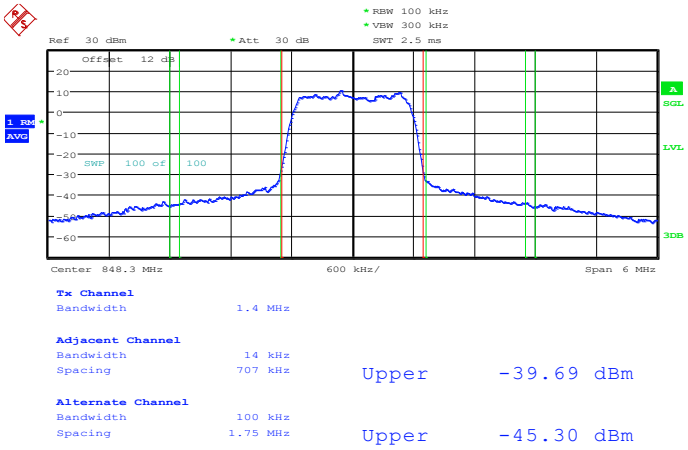


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 5



Date: 29.NOV.2012 15:36:02

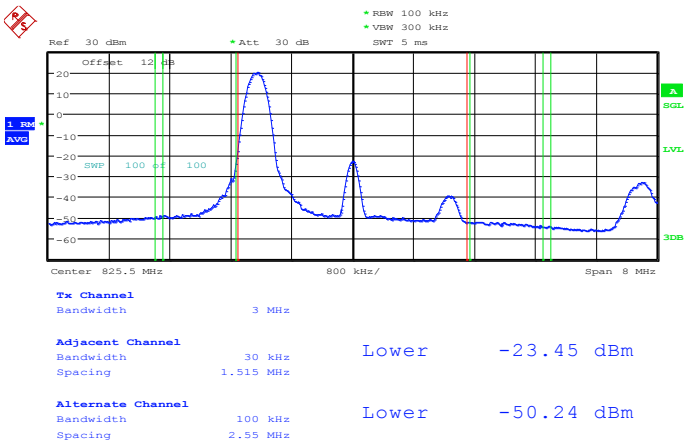
Higher Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



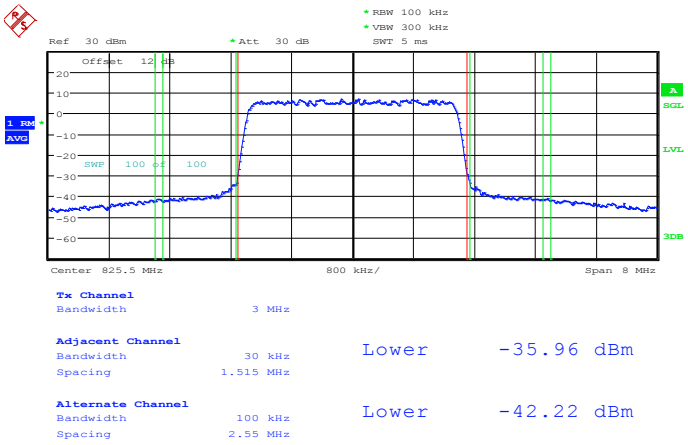
Date: 29.NOV.2012 15:37:10

Band :	LTE Band 5	Band Width :	3MHz / QPSK

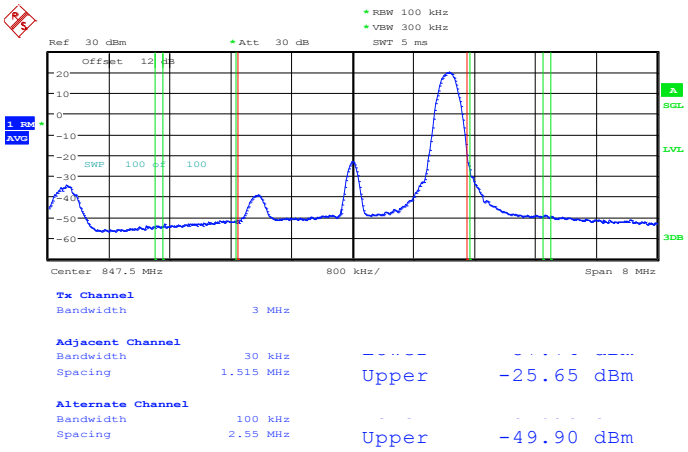
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



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

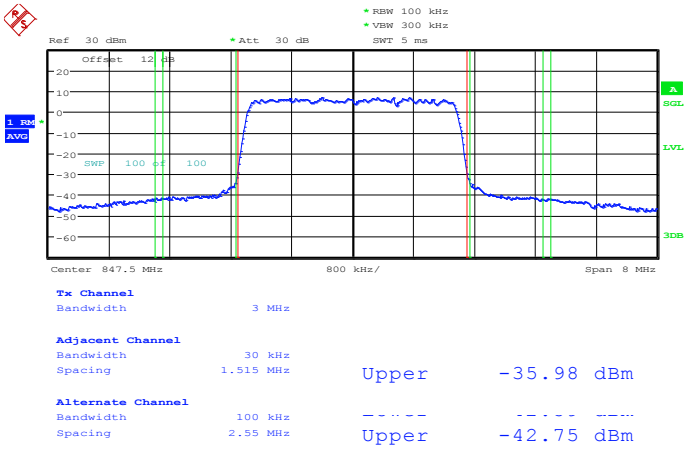


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 29.NOV.2012 15:40:44

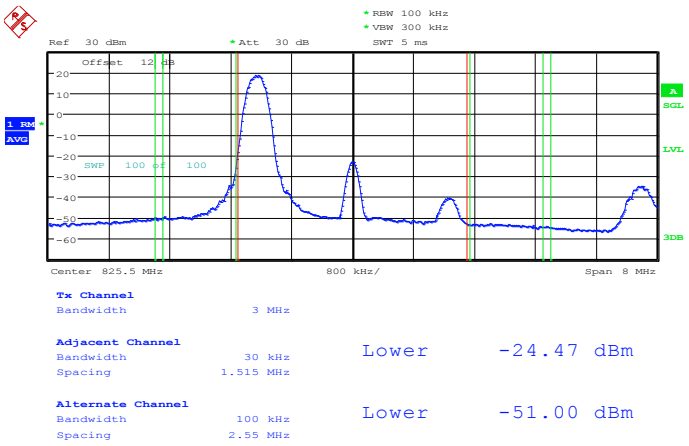
Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 29.NOV.2012 15:39:26

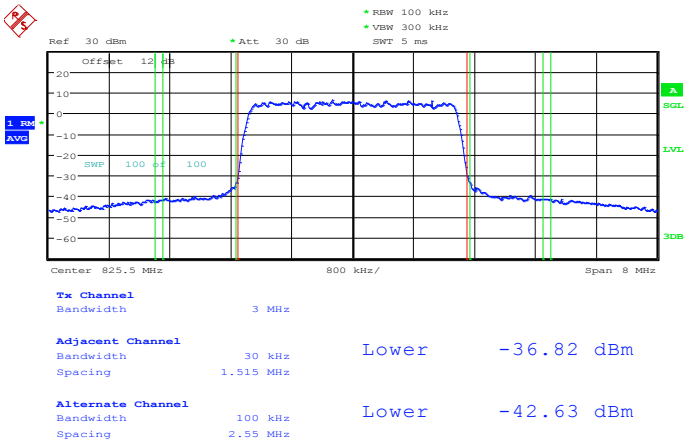
Band :	LTE Band 5	Band Width :	3MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



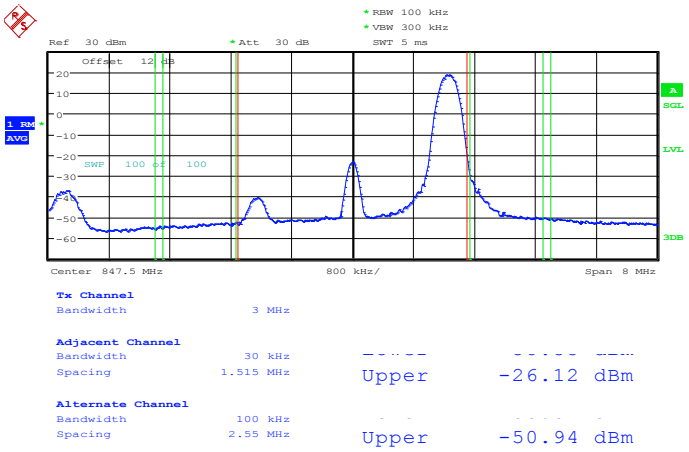
Date: 29.NOV.2012 15:42:25

Lower Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



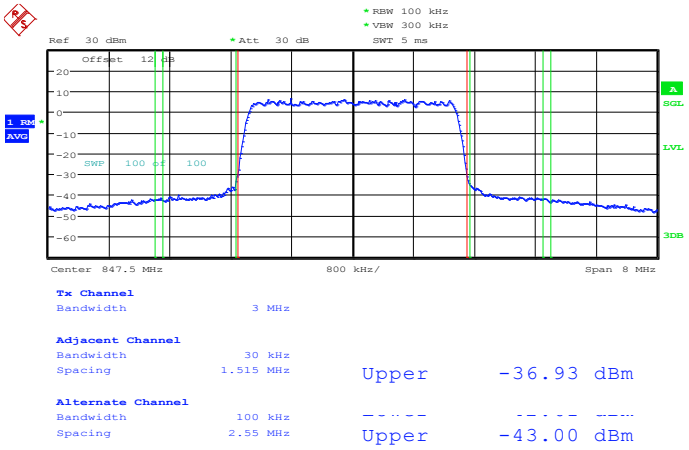
Date: 29.NOV.2012 15:42:52

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 14



Date: 29.NOV.2012 15:40:24

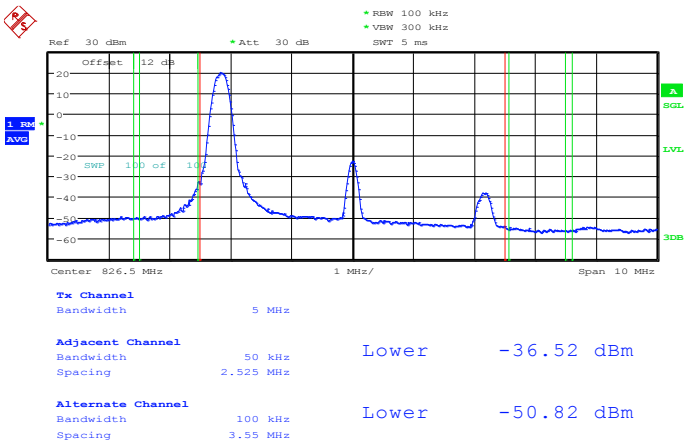
Higher Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



Date: 29.NOV.2012 15:39:51

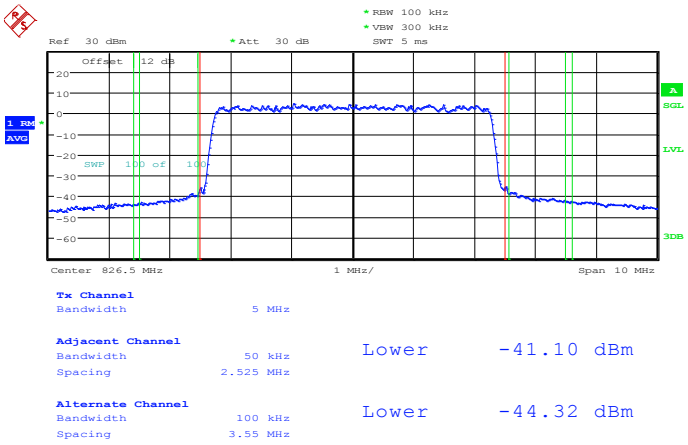
Band :	LTE Band 5	Band Width :	5MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



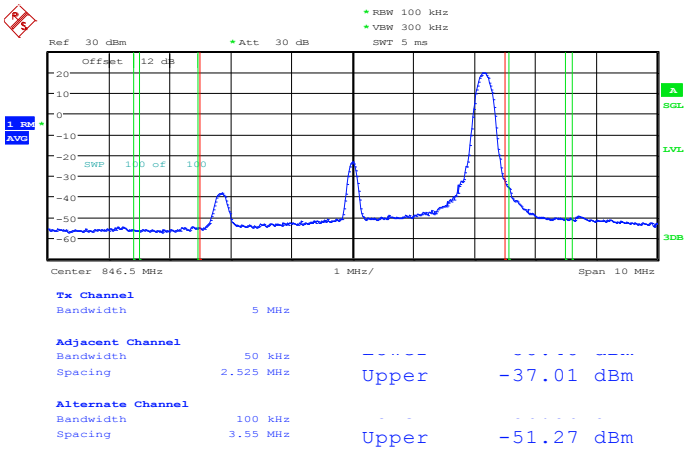
Date: 29.NOV.2012 15:45:21

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



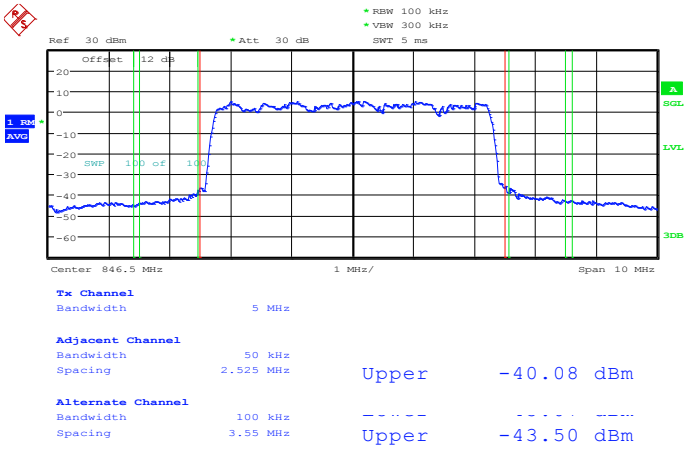
Date: 29.NOV.2012 15:46:50

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



Date: 29.NOV.2012 15:49:15

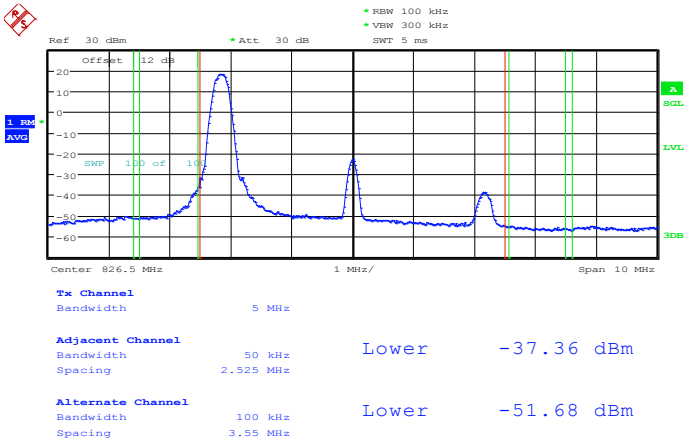
Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 29.NOV.2012 15:48:05

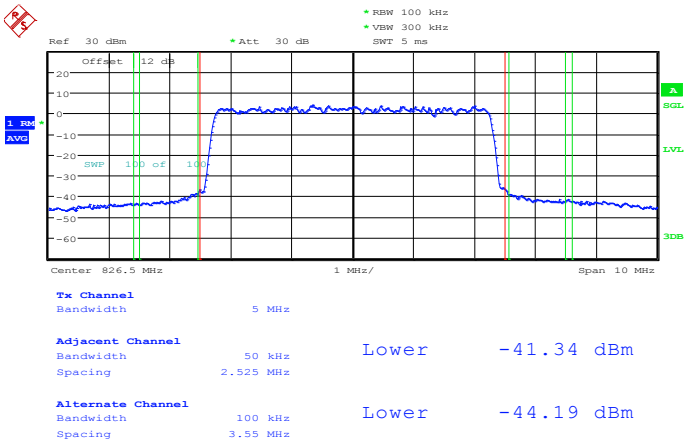
Band :	LTE Band 5	Band Width :	5MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



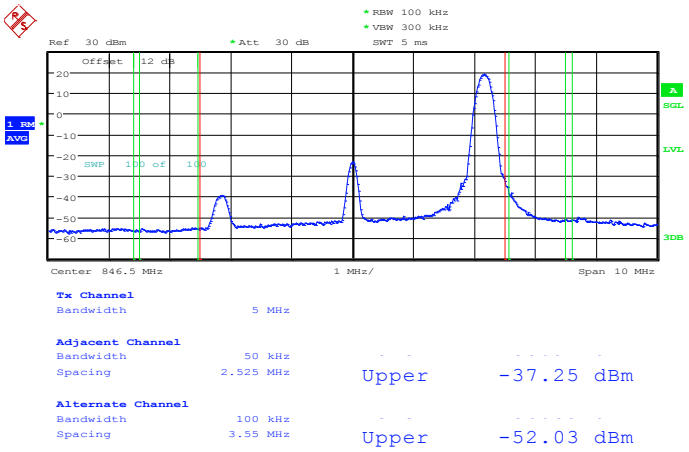
Date: 29.NOV.2012 15:45:48

Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



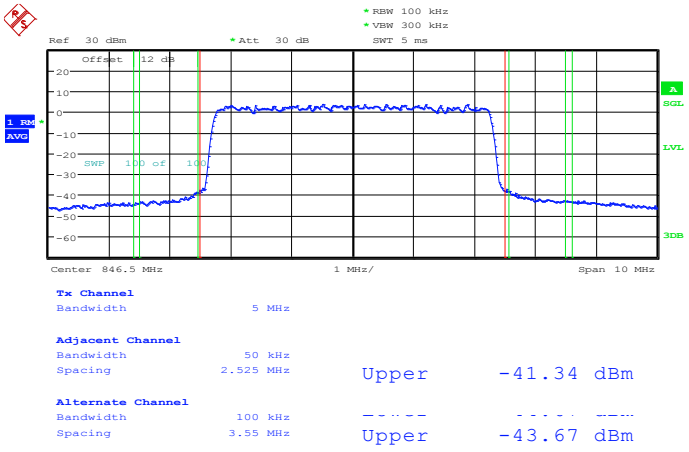
Date: 29.NOV.2012 15:46:31

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 29.NOV.2012 15:48:53

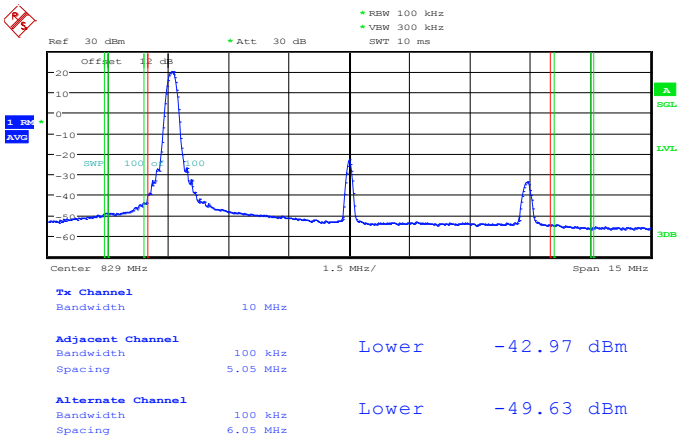
Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 29.NOV.2012 15:48:27

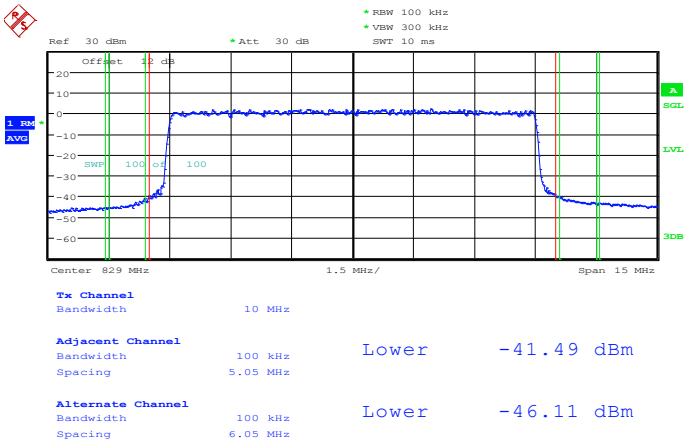
Band :	LTE Band 5	Band Width :	10MHz /QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



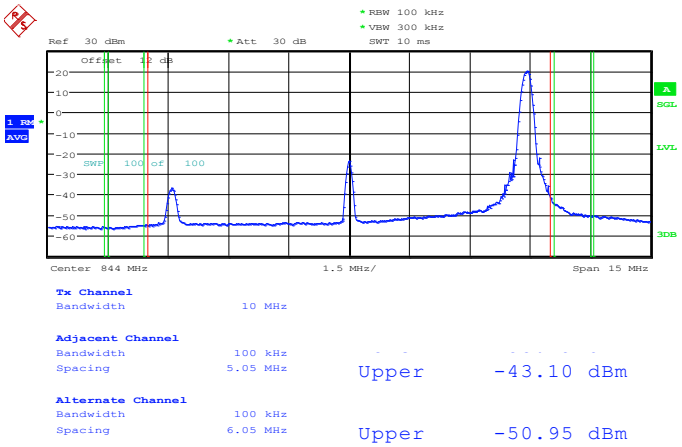
Date: 29.NOV.2012 15:56:07

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



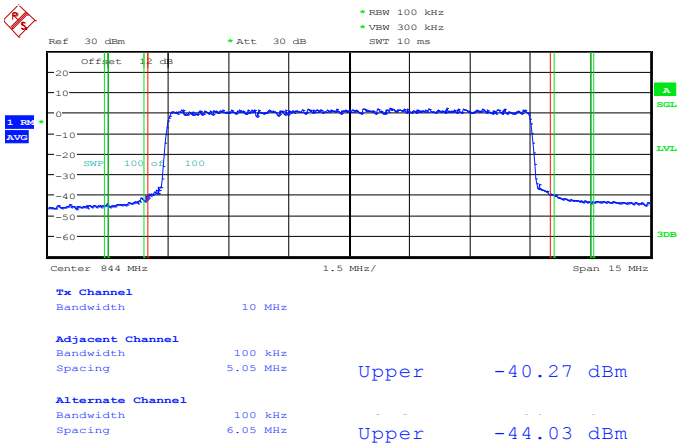
Date: 29.NOV.2012 15:57:24

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



Date: 29.NOV.2012 15:54:30

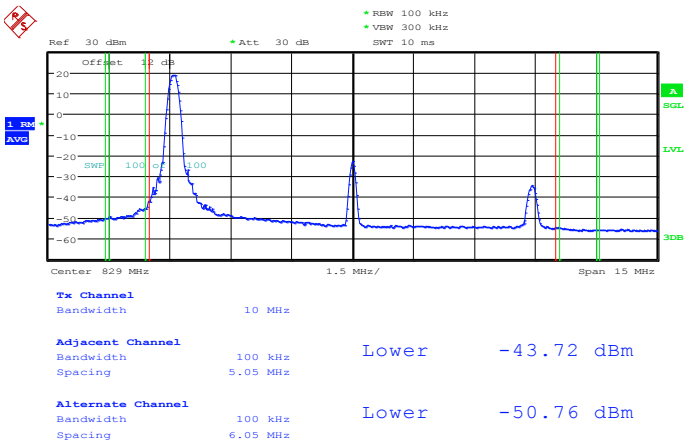
Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 29.NOV.2012 15:53:11

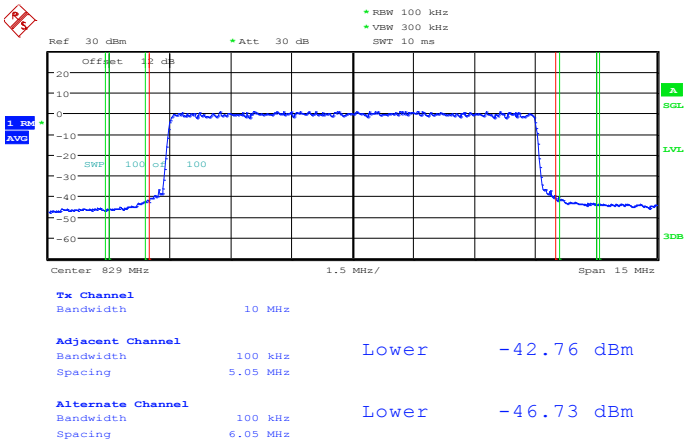
Band :	LTE Band 5	Band Width :	10MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



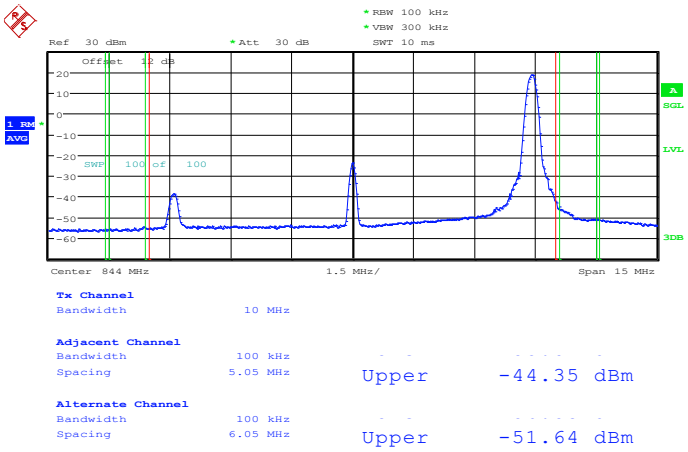
Date: 29.NOV.2012 15:56:27

Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



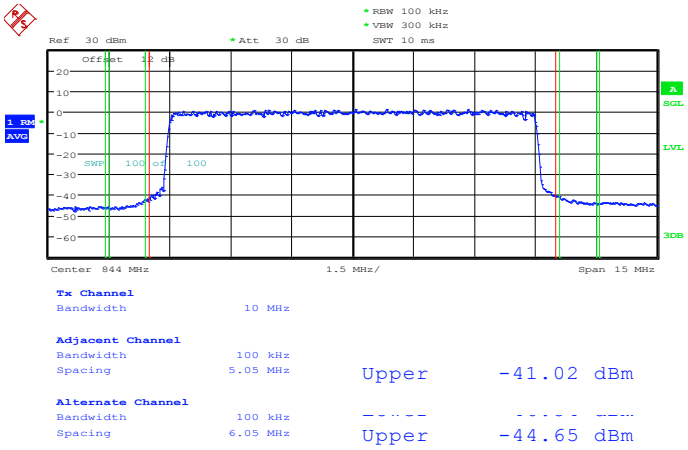
Date: 29.NOV.2012 15:56:57

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 29.NOV.2012 15:54:08

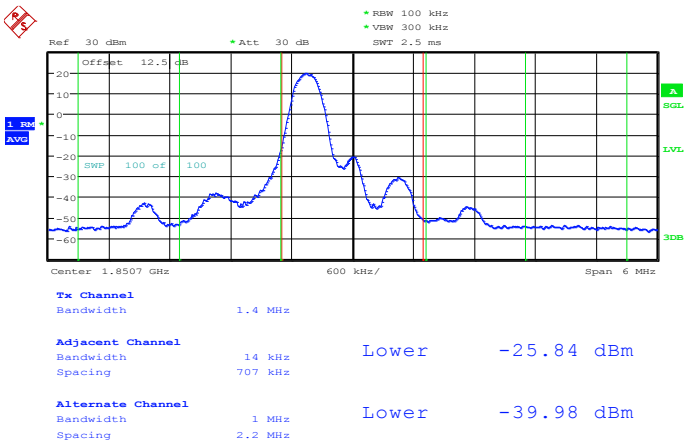
Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 29.NOV.2012 15:53:32

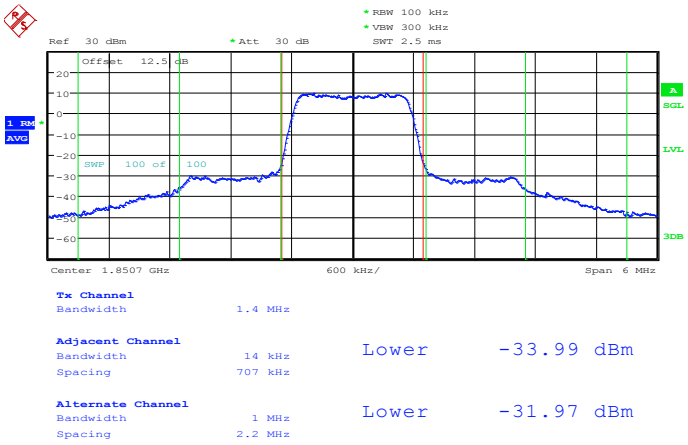
Band :	LTE Band 2	Band Width :	1.4MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



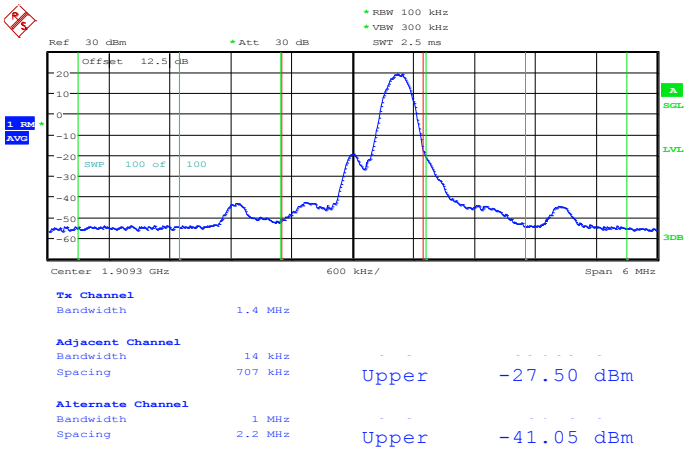
Date: 23.NOV.2012 10:03:20

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



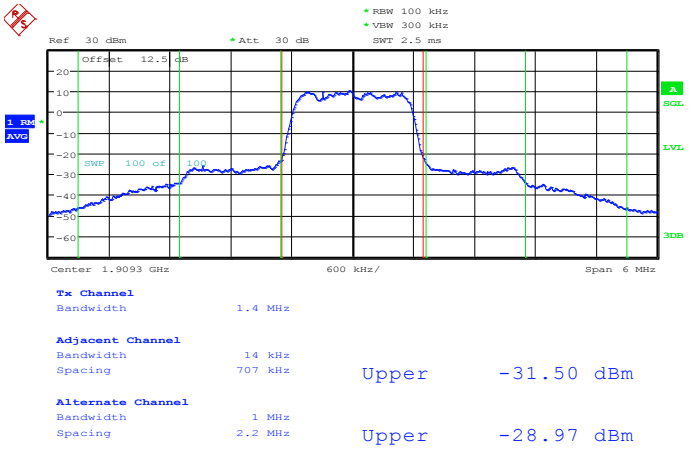
Date: 23.NOV.2012 10:02:51

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



Date: 23.NOV.2012 10:08:13

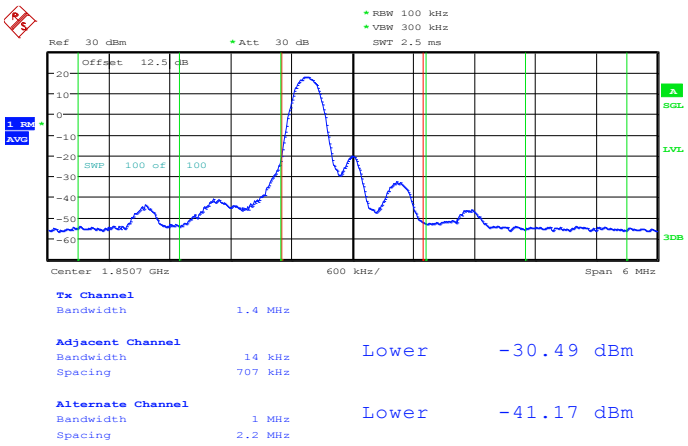
Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 23.NOV.2012 10:05:05

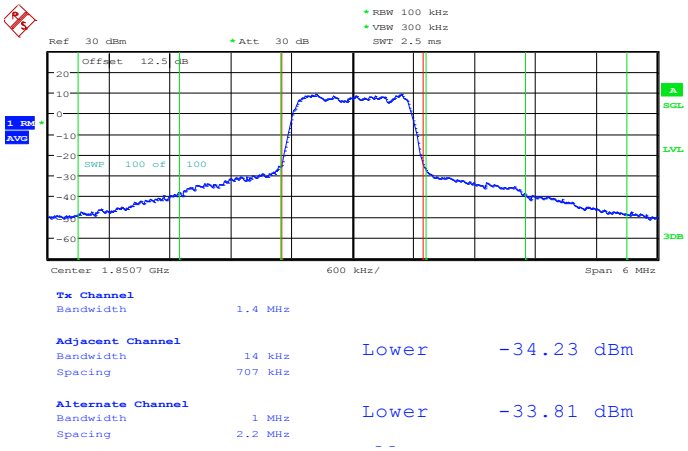
Band :	LTE Band 2	Band Width :	1.4MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



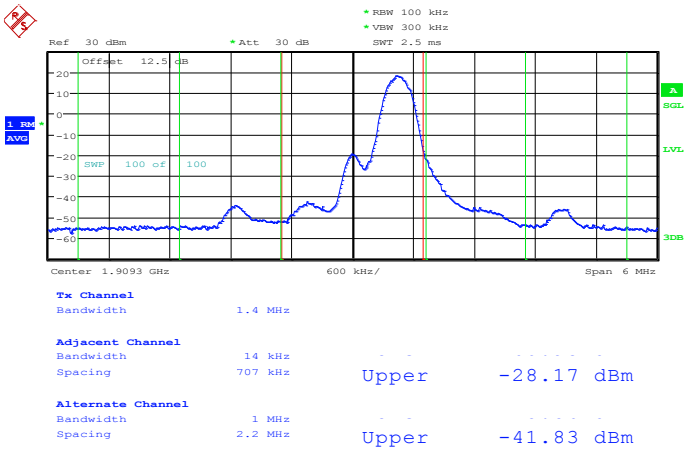
Date: 23.NOV.2012 10:03:34

Lower Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



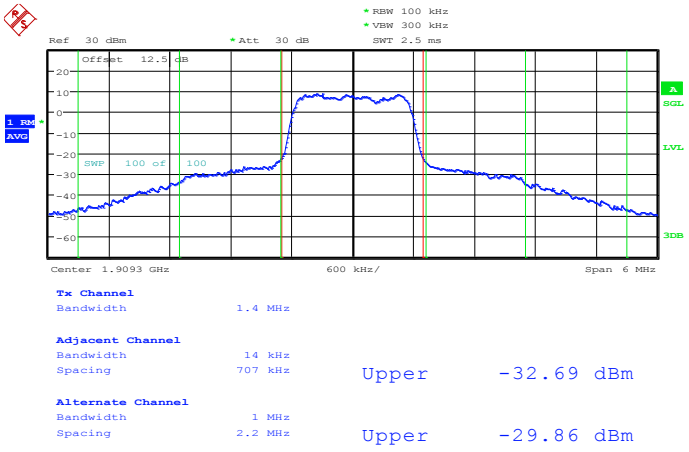
Date: 23.NOV.2012 10:03:50

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 5



Date: 23.NOV.2012 10:07:52

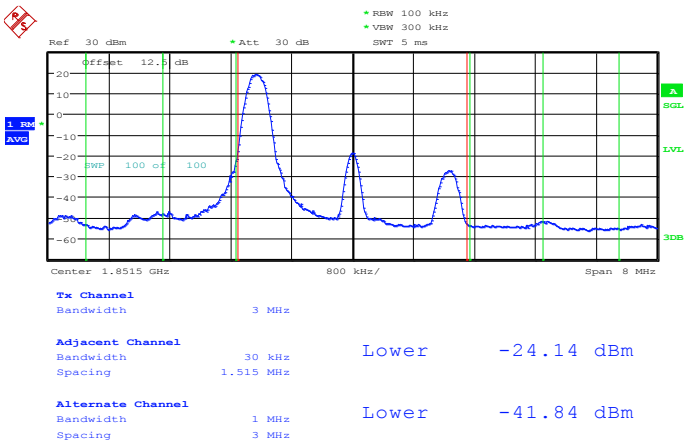
Higher Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



Date: 23.NOV.2012 10:05:42

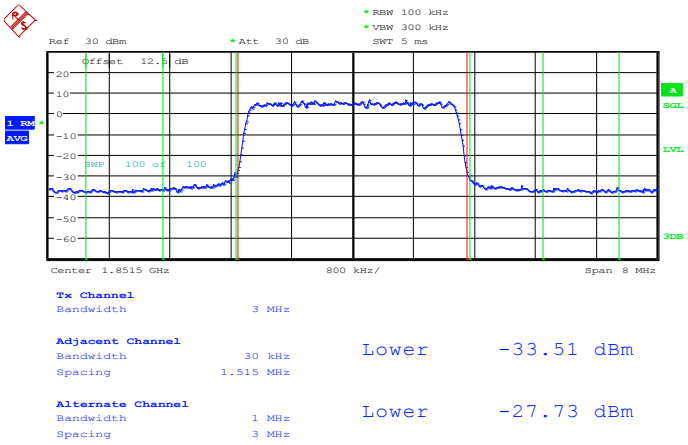
Band :	LTE Band 2	Band Width :	3MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



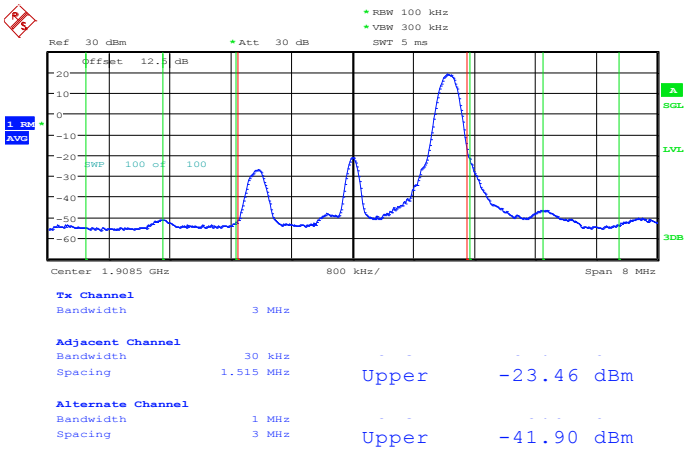
Date: 28.NOV.2012 11:17:48

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



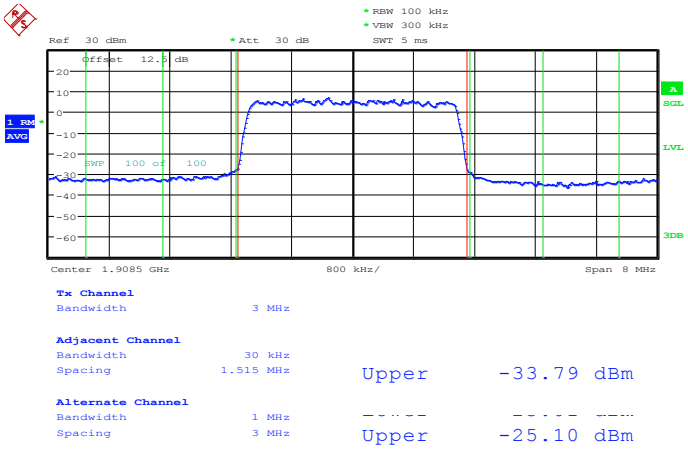
Date: 28.NOV.2012 11:16:51

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



Date: 28.NOV.2012 11:36:29

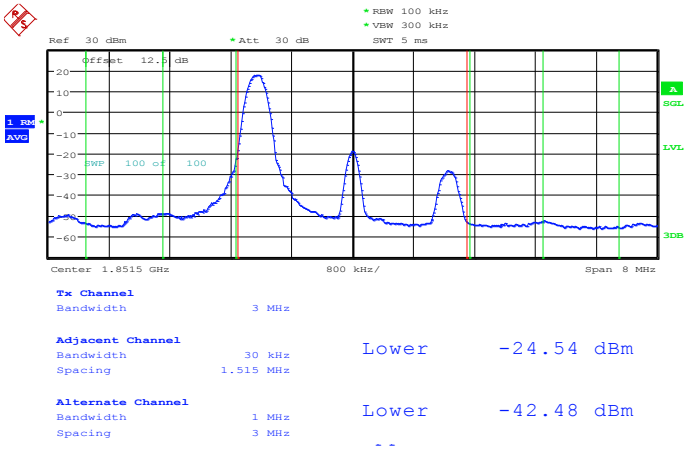
Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 28.NOV.2012 11:32:44

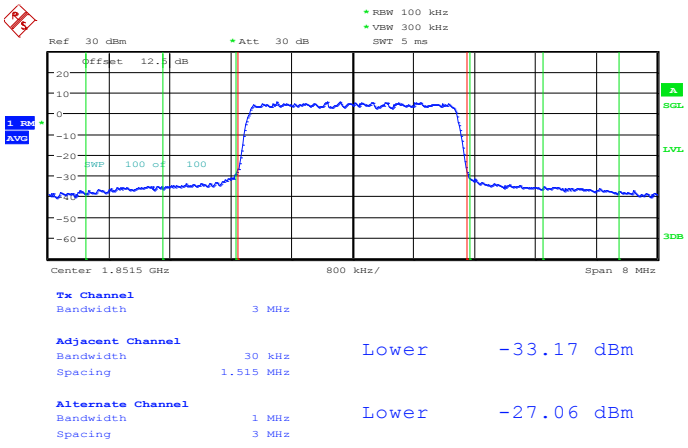
Band :	LTE Band 2	Band Width :	3MHz / 16QAM

Lower Band Edge Plot for Q16QAM-RB Size 1, RB Offset 0



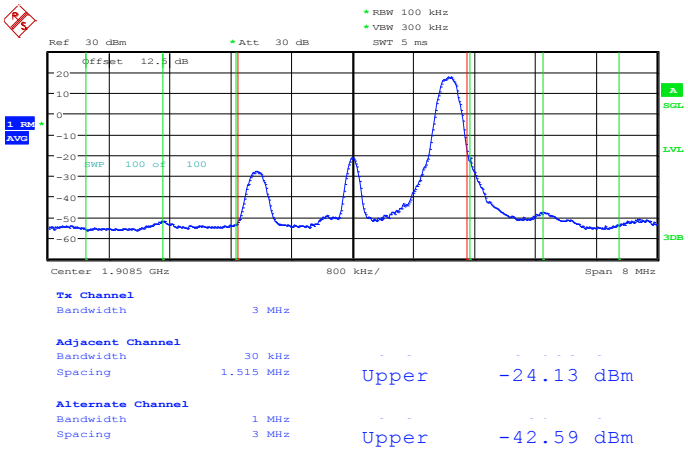
Date: 28.NOV.2012 11:18:03

Lower Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



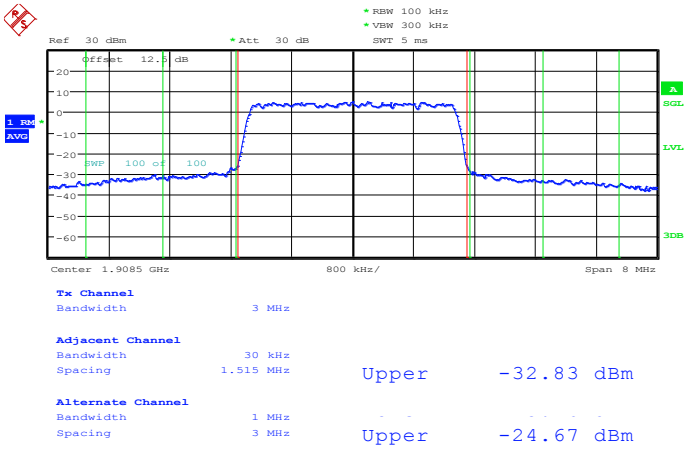
Date: 28.NOV.2012 11:18:24

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 14



Date: 28.NOV.2012 11:34:41

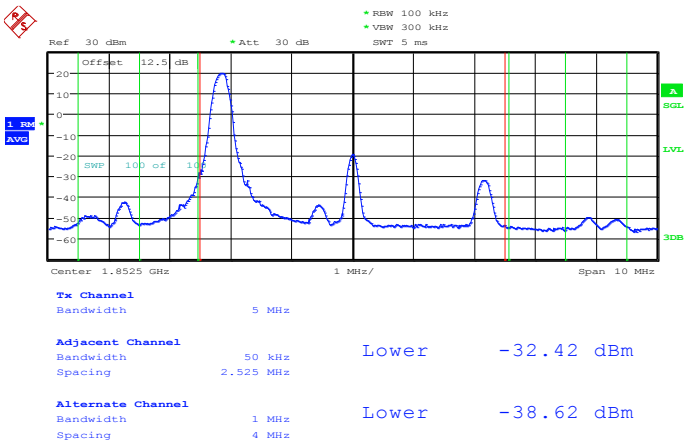
Higher Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



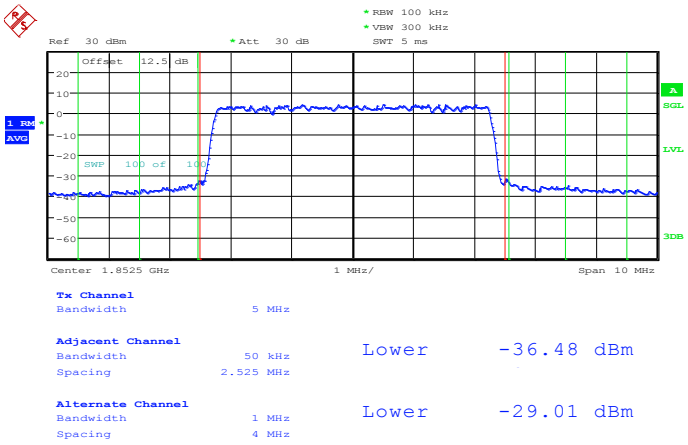
Date: 28.NOV.2012 11:34:21

Band :	LTE Band 2	Band Width :	5MHz / QPSK

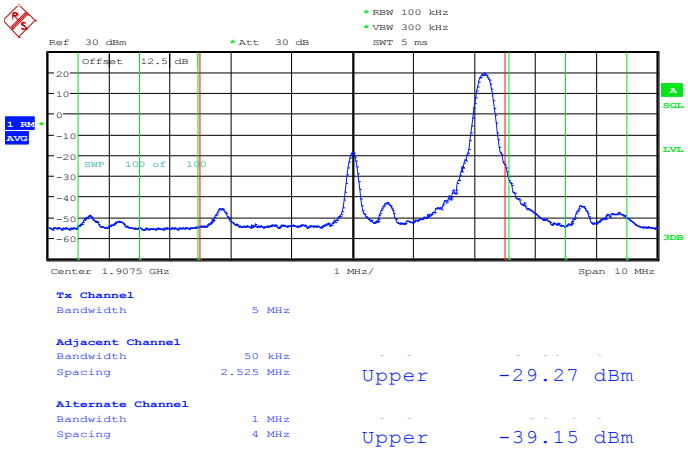
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



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

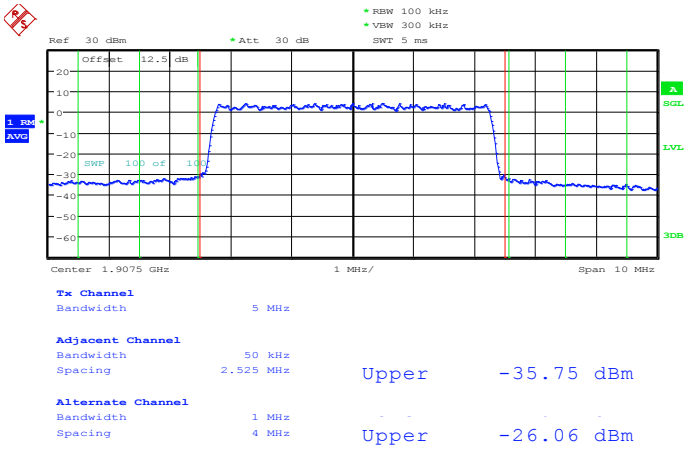


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 23.NOV.2012 10:11:41

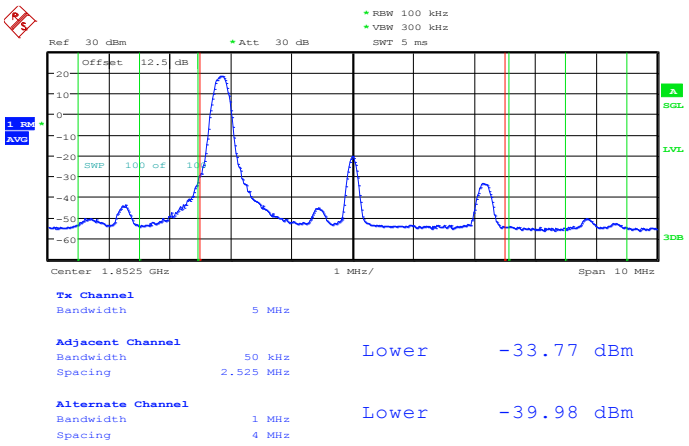
Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0



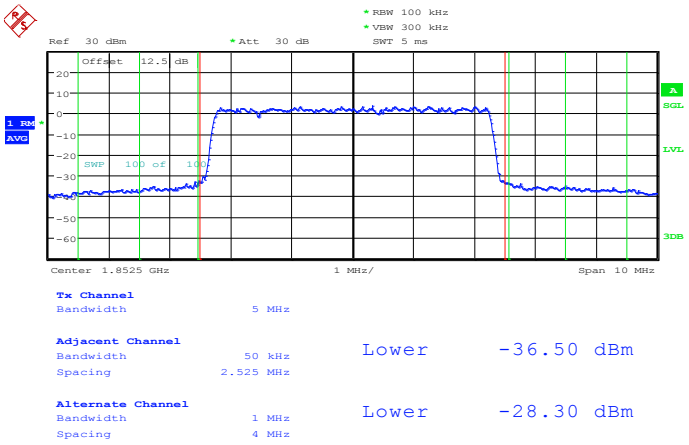
Date: 23.NOV.2012 10:11:09

Band :	LTE Band 2	Band Width :	5MHz / 16QAM

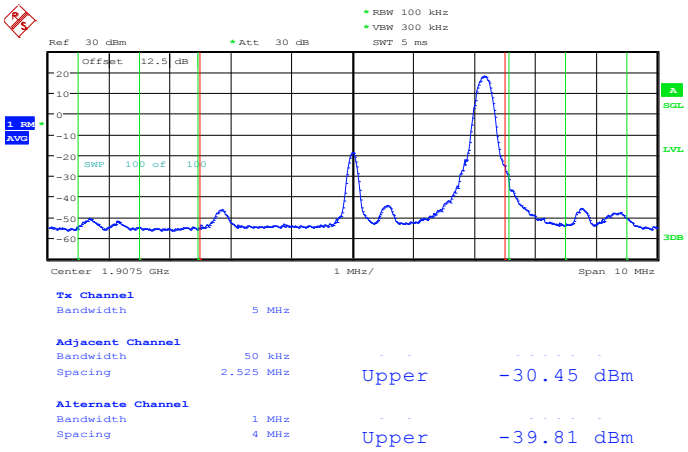
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

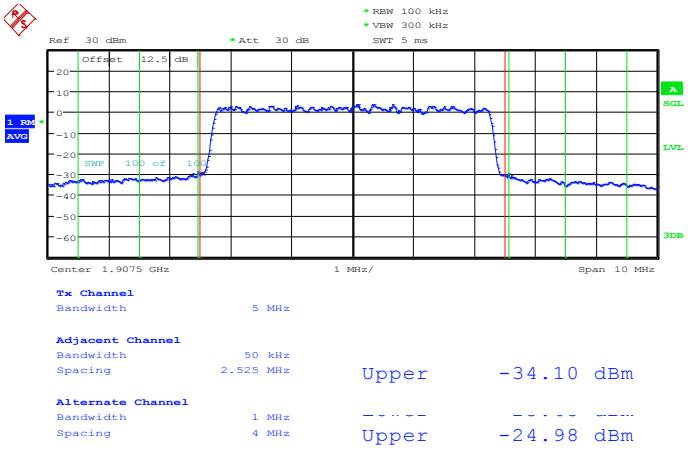


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 23.NOV.2012 10:12:05

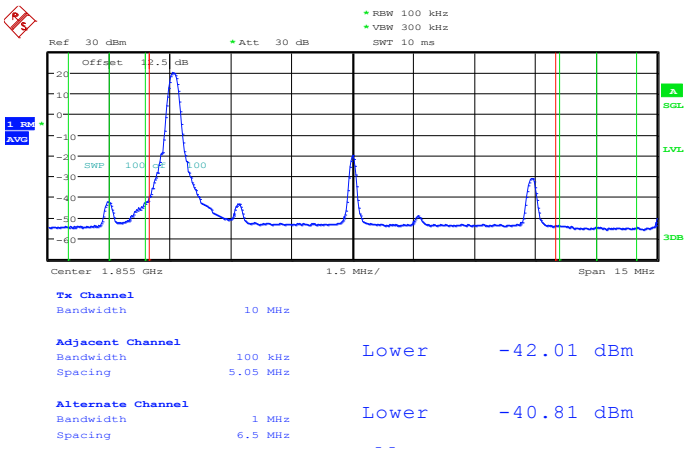
Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 23.NOV.2012 10:12:57

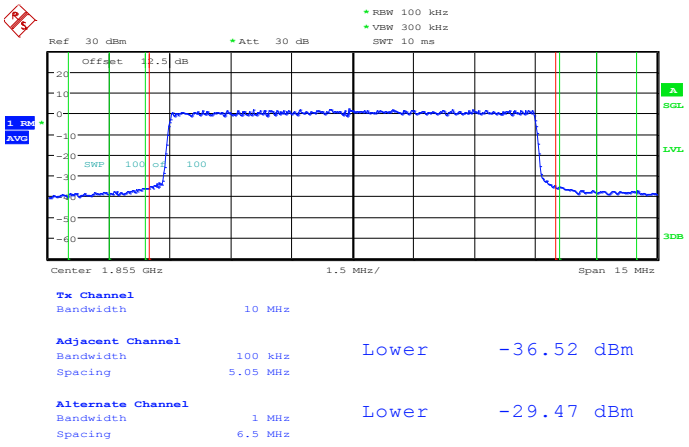
Band :	LTE Band 2	Band Width :	10MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



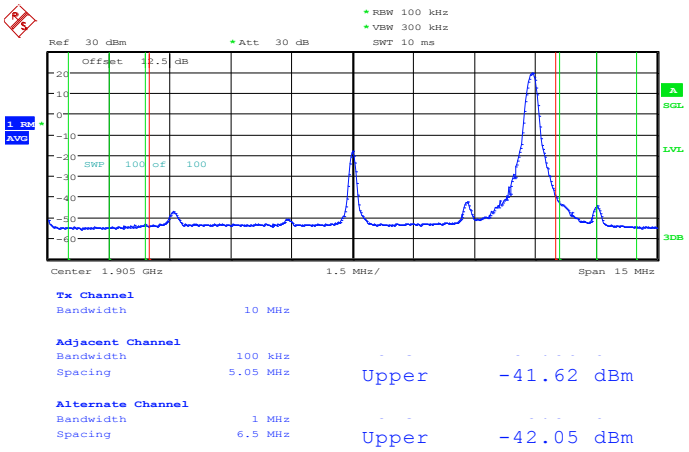
Date: 23.NOV.2012 10:18:22

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



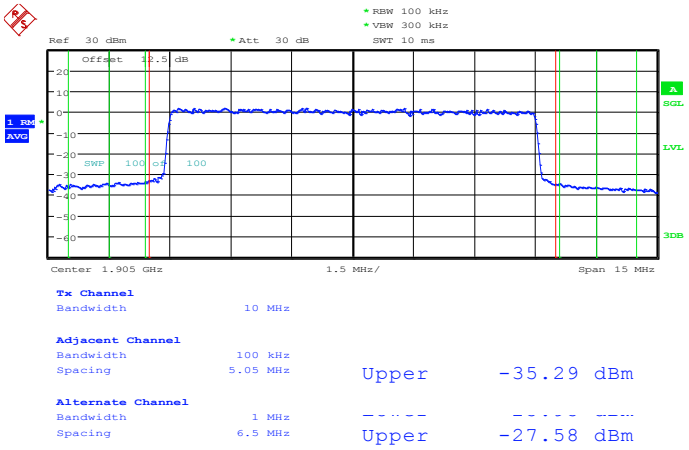
Date: 23.NOV.2012 10:16:57

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



Date: 23.NOV.2012 10:20:06

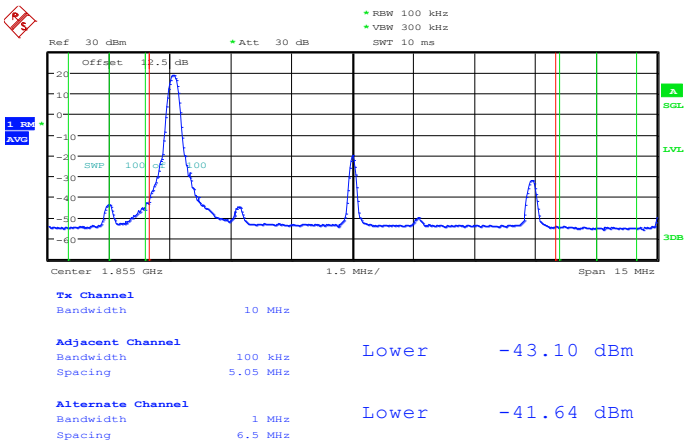
Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 23.NOV.2012 10:19:34

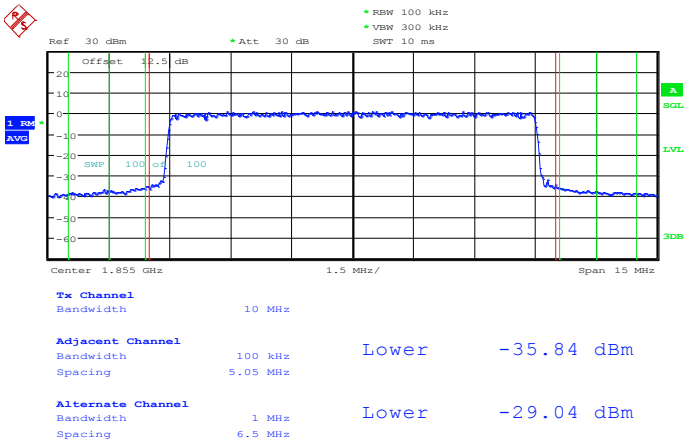
Band :	LTE Band 2	Band Width :	10MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



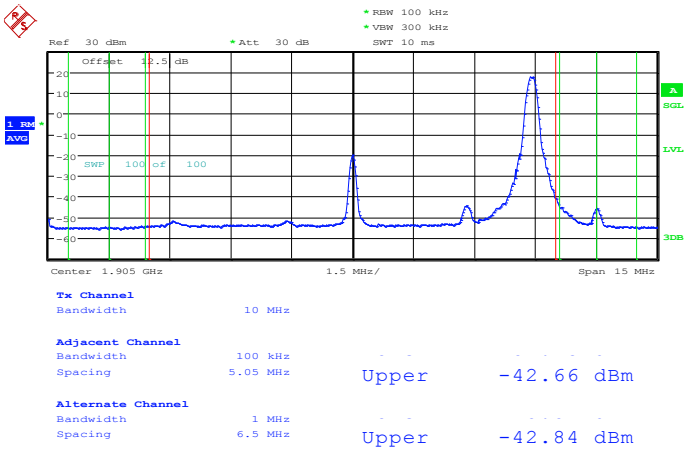
Date: 23.NOV.2012 10:18:37

Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



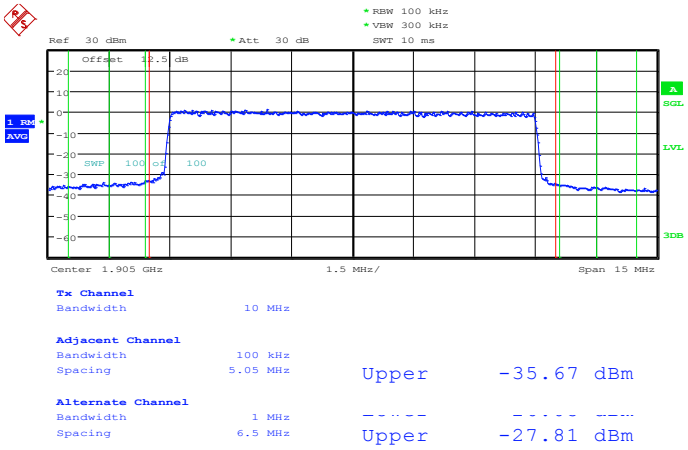
Date: 23.NOV.2012 10:17:12

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 23.NOV.2012 10:20:19

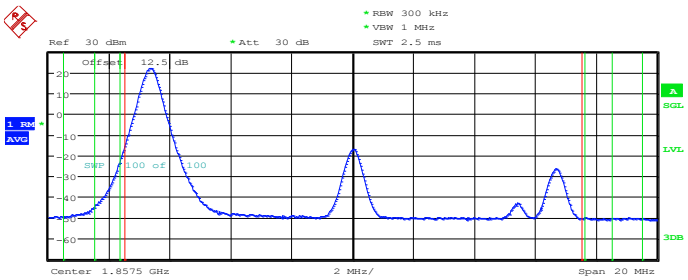
Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 23.NOV.2012 10:19:47

Band :	LTE Band 2	Band Width :	15MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



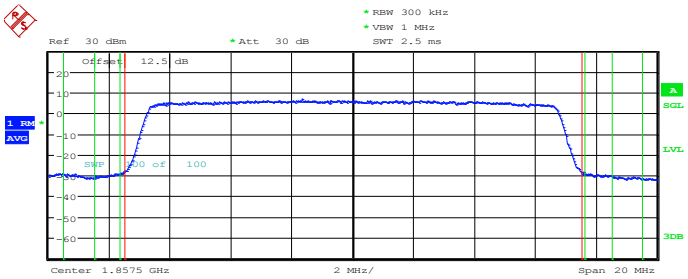
Tx Channel
Bandwidth 15 MHz

Adjacent Channel
Bandwidth 150 kHz
Spacing 7.575 MHz
Lower -23.06 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 9 MHz
Lower -43.68 dBm

Date: 28.NOV.2012 17:57:11

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



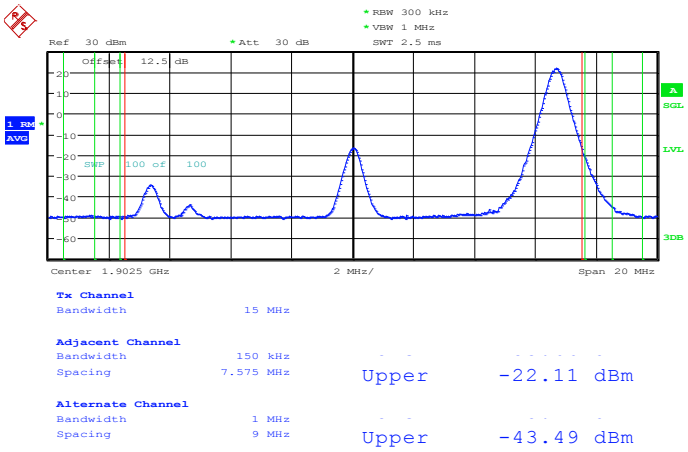
Tx Channel
Bandwidth 15 MHz

Adjacent Channel
Bandwidth 150 kHz
Spacing 7.575 MHz
Lower -32.59 dBm

Alternate Channel
Bandwidth 1 MHz
Spacing 9 MHz
Lower -25.91 dBm

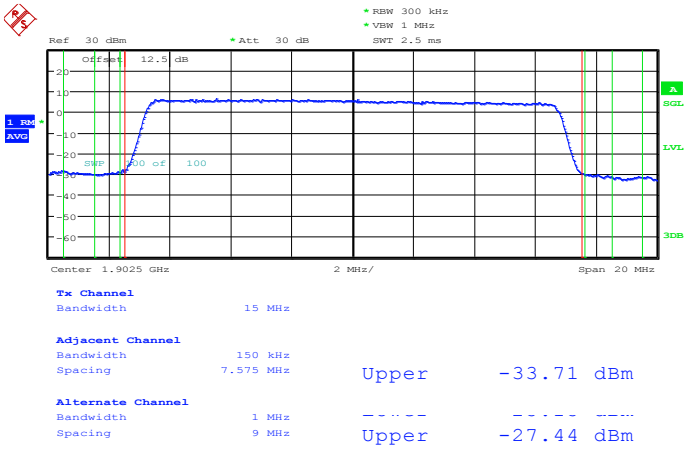
Date: 28.NOV.2012 17:57:58

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



Date: 28.NOV.2012 18:00:52

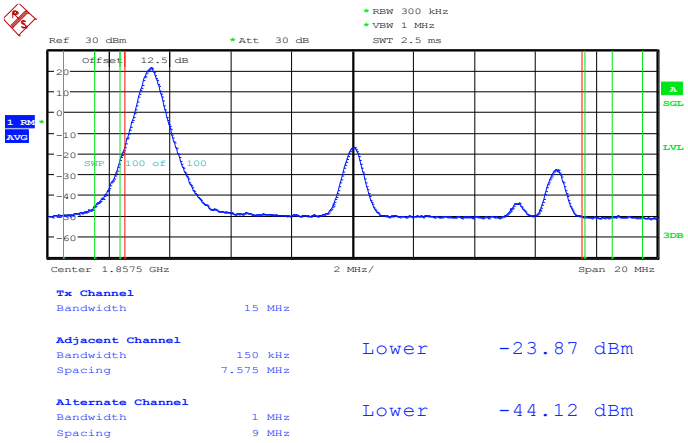
Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 28.NOV.2012 17:59:21

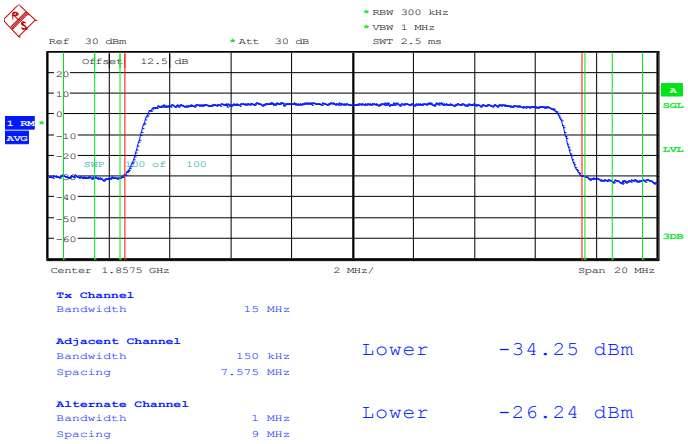
Band :	LTE Band 2	Band Width :	15MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



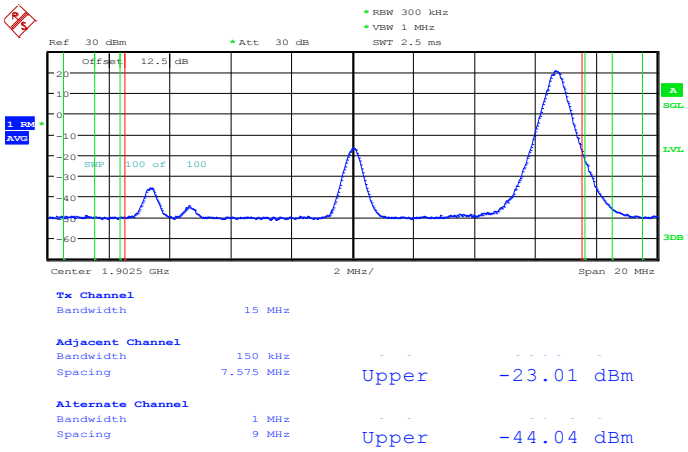
Date: 28.NOV.2012 17:57:23

Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



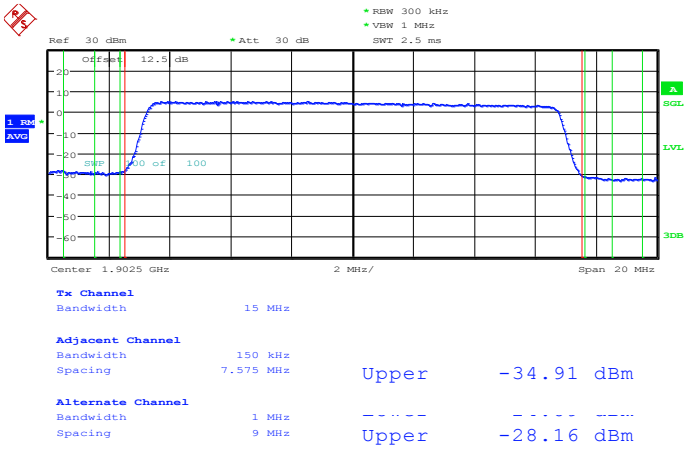
Date: 28.NOV.2012 17:57:46

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 28.NOV.2012 18:01:05

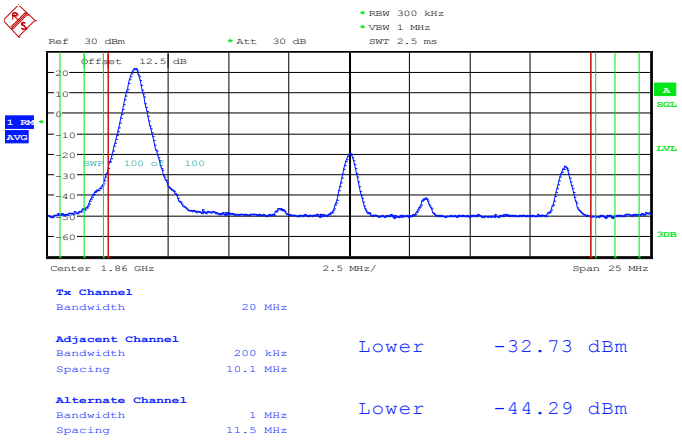
Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Date: 28.NOV.2012 17:59:35

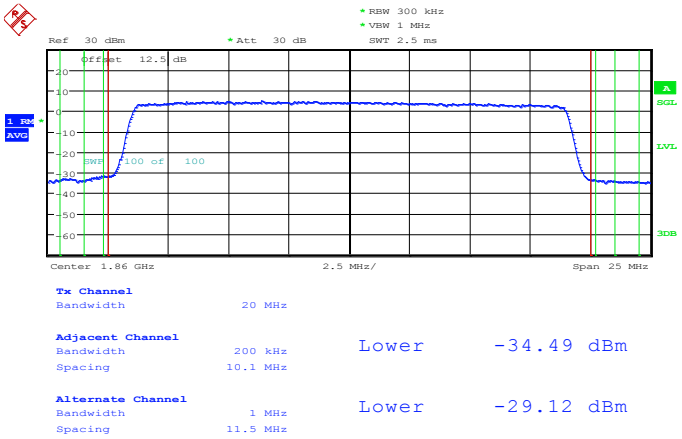
Band :	LTE Band 2	Band Width :	20MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



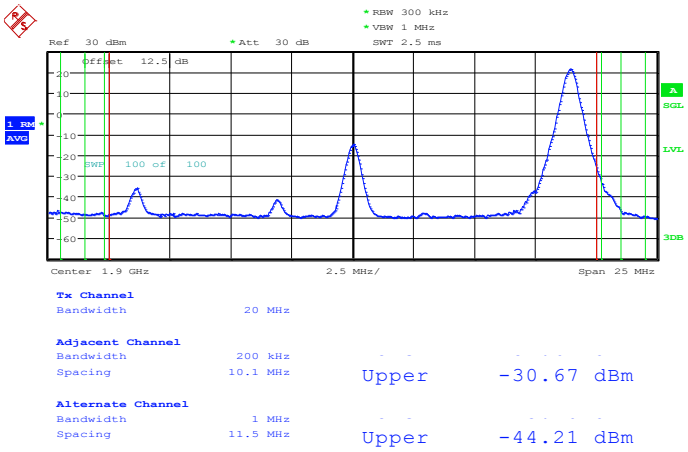
Date: 23.NOV.2012 10:24:12

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



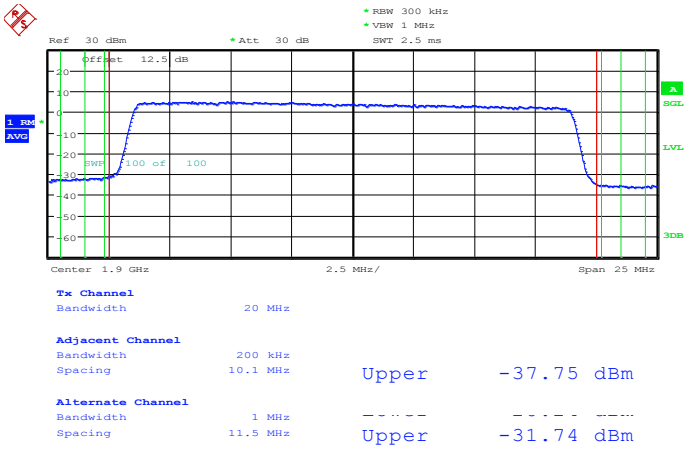
Date: 23.NOV.2012 10:23:36

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



Date: 23.NOV.2012 10:25:56

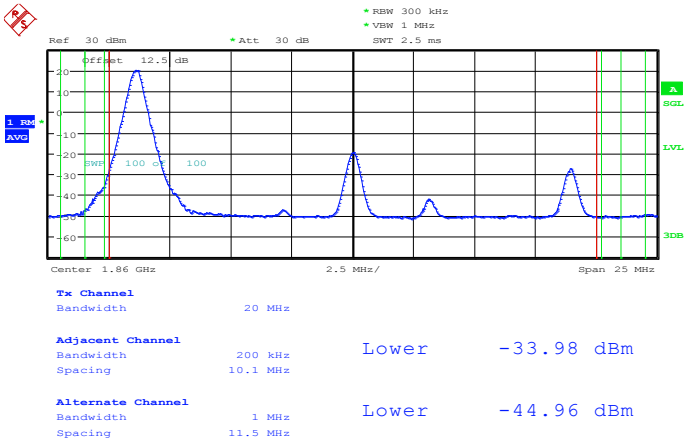
Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Date: 23.NOV.2012 10:25:27

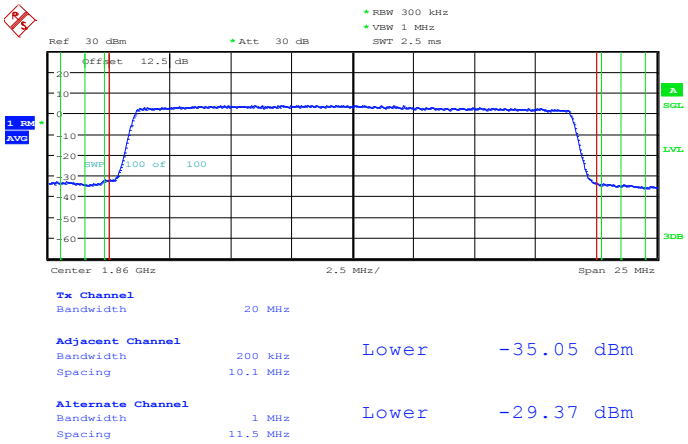
Band :	LTE Band 2	Band Width :	20MHz /16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



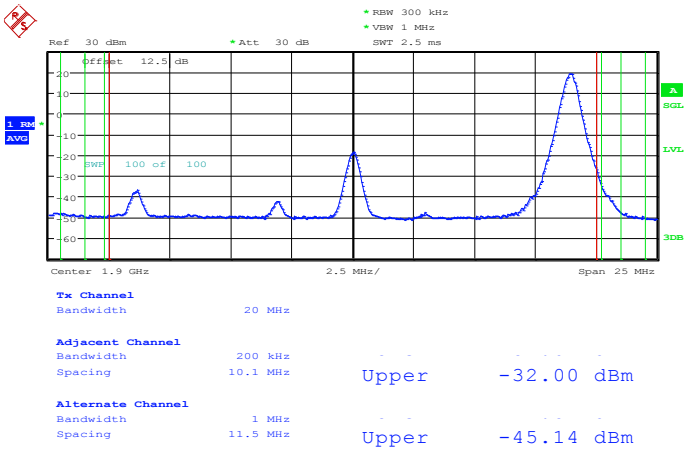
Date: 23.NOV.2012 10:24:30

Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



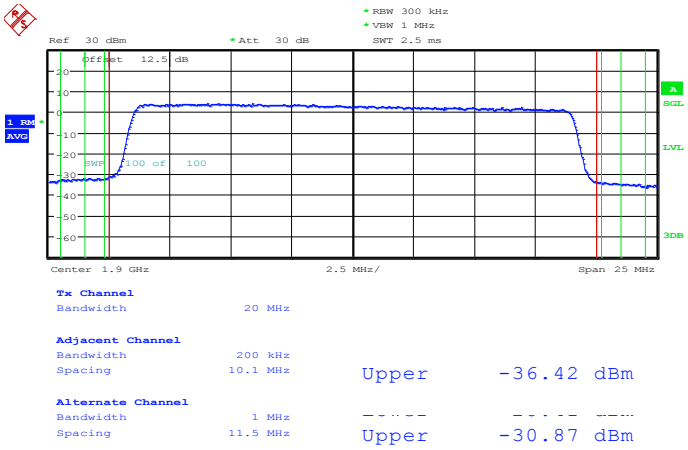
Date: 23.NOV.2012 10:23:49

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 23.NOV.2012 10:26:16

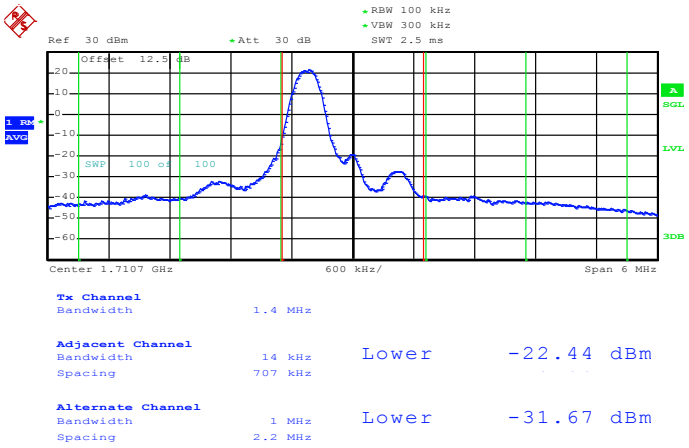
Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 23.NOV.2012 10:25:38

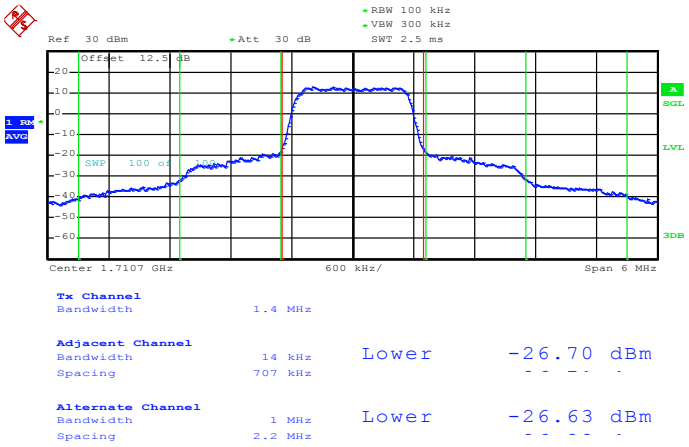
Band :	LTE Band 4	Band Width :	1.4MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



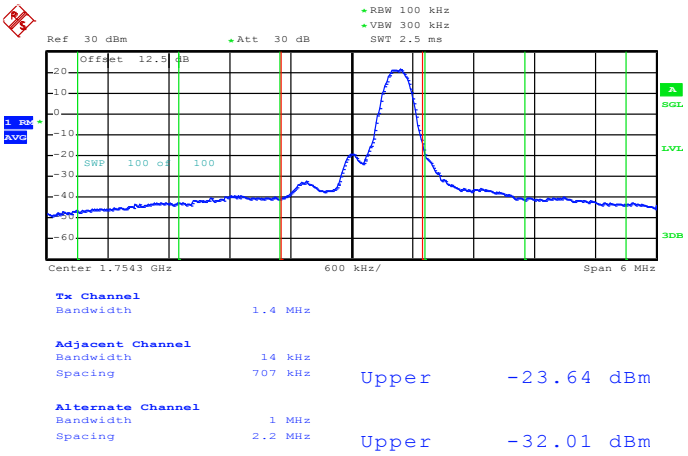
Date: 22.NOV.2012 13:59:10

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



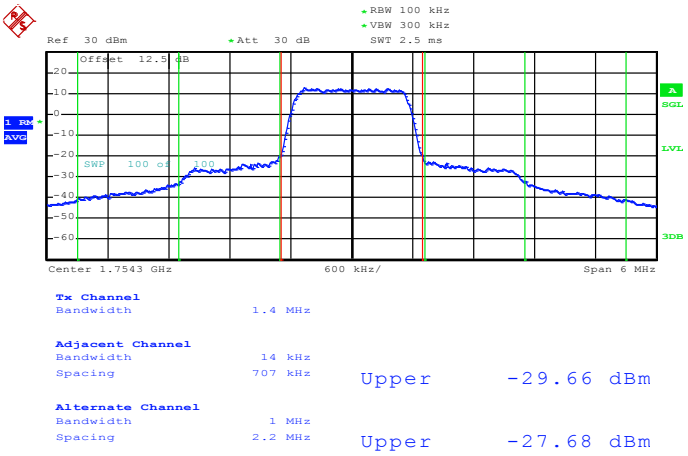
Date: 22.NOV.2012 13:58:10

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



Date: 22.NOV.2012 14:01:21

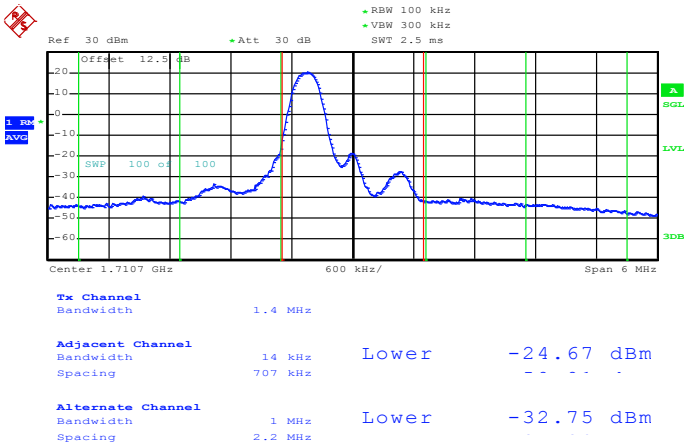
Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 22.NOV.2012 14:00:39

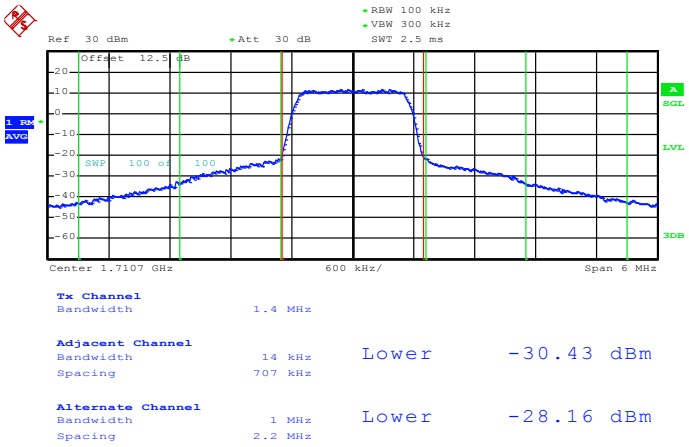
Band :	LTE Band 4	Band Width :	1.4MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



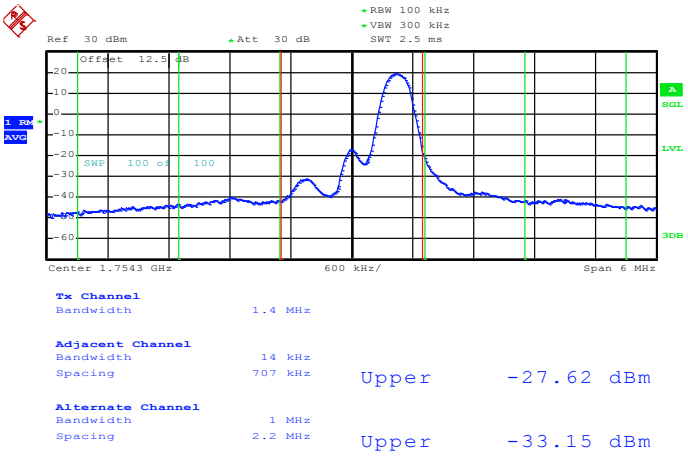
Date: 22.NOV.2012 13:59:22

Lower Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



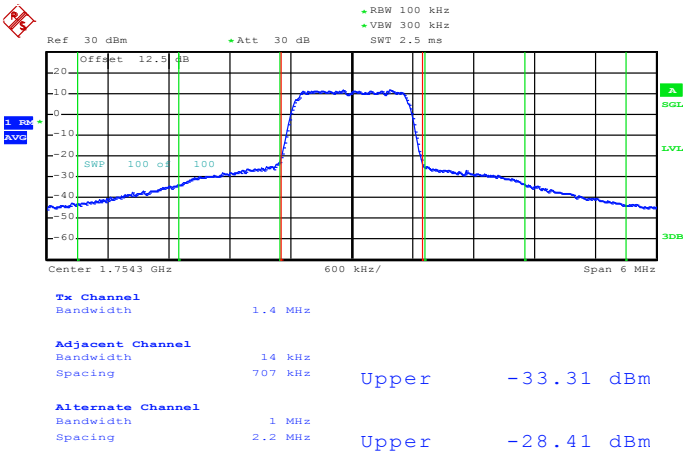
Date: 22.NOV.2012 13:58:51

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 5



Date: 22.NOV.2012 14:01:45

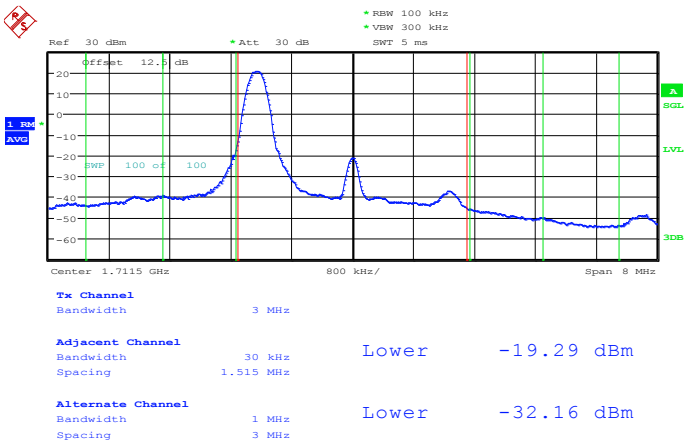
Higher Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



Date: 22.NOV.2012 14:00:53

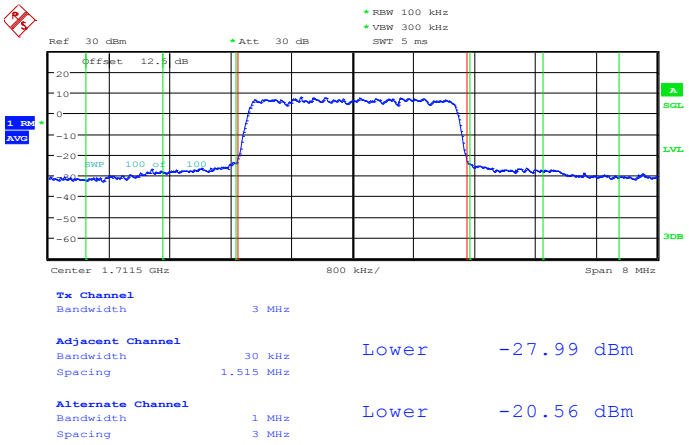
Band :	LTE Band 4	Band Width :	3MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



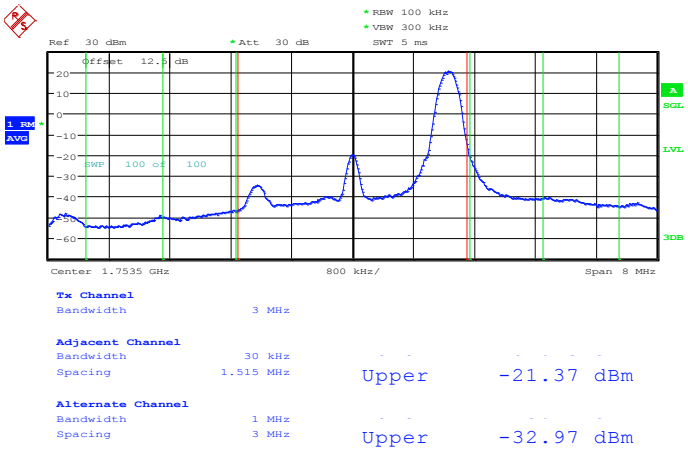
Date: 28.NOV.2012 17:07:43

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



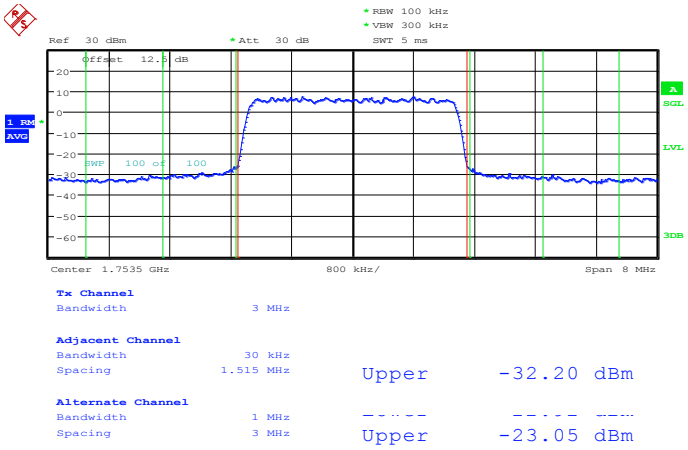
Date: 28.NOV.2012 17:07:19

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



Date: 28.NOV.2012 17:04:27

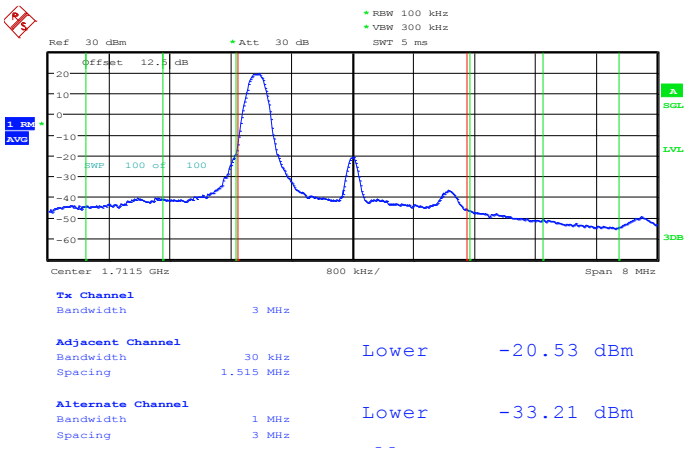
Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 28.NOV.2012 17:03:14

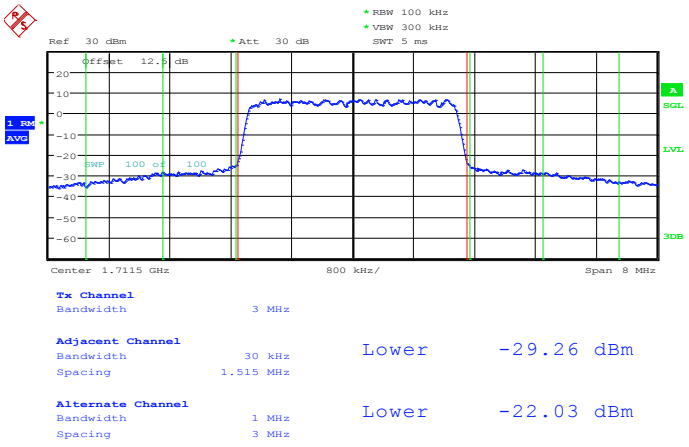
Band :	LTE Band 4	Band Width :	3MHz / 16QAM

Lower Band Edge Plot for Q16QAM-RB Size 1, RB Offset 0



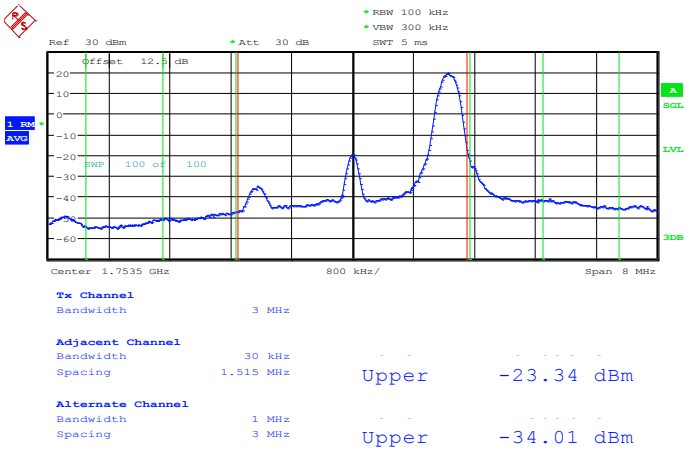
Date: 28.NOV.2012 17:08:08

Lower Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



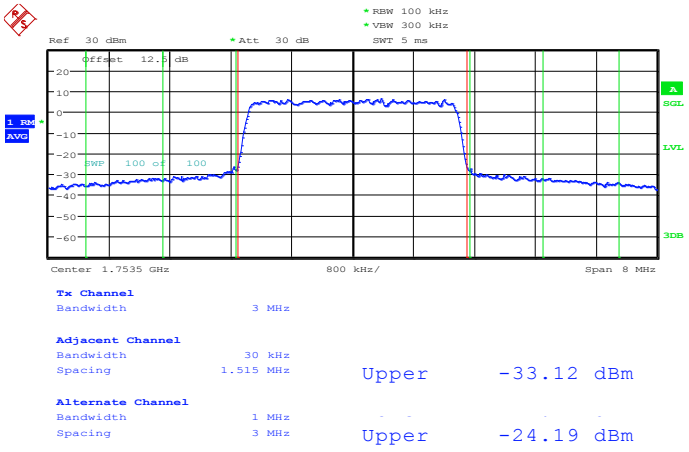
Date: 28.NOV.2012 17:08:41

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 14



Date: 28.NOV.2012 17:04:53

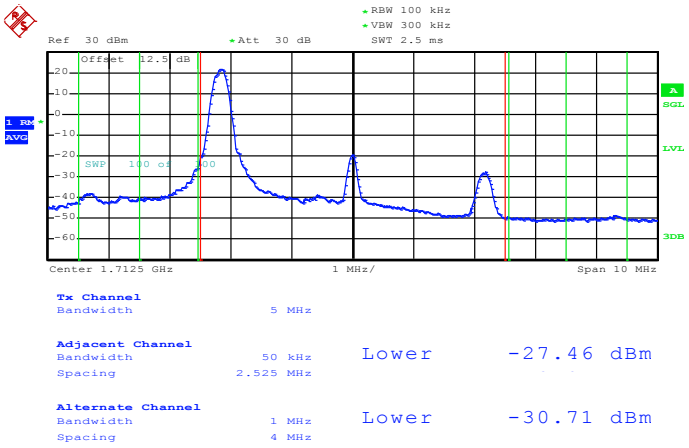
Higher Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



Date: 28.NOV.2012 17:05:15

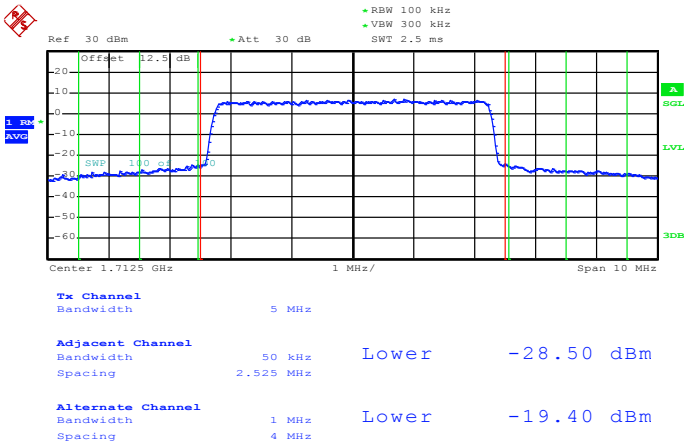
Band :	LTE Band 4	Band Width :	5MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



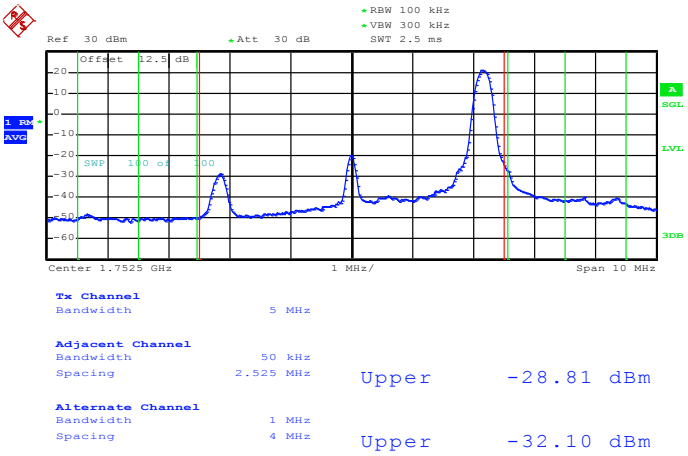
Date: 22.NOV.2012 14:06:25

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



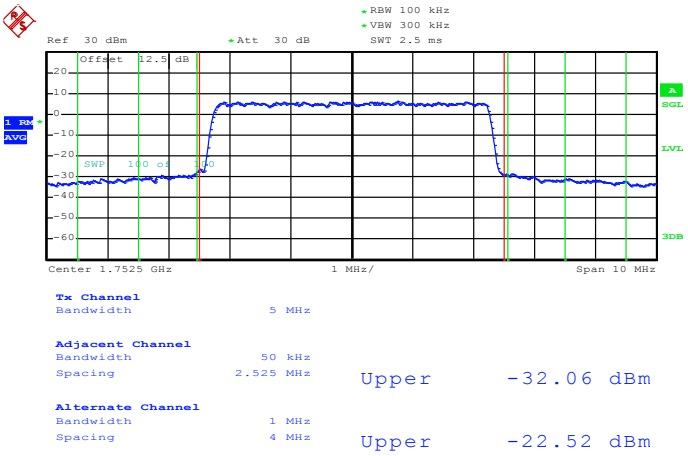
Date: 22.NOV.2012 14:05:26

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



Date: 22.NOV.2012 14:13:00

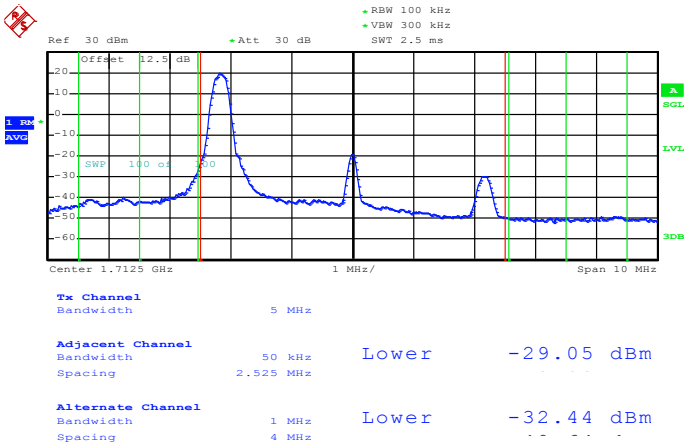
Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 22.NOV.2012 14:09:19

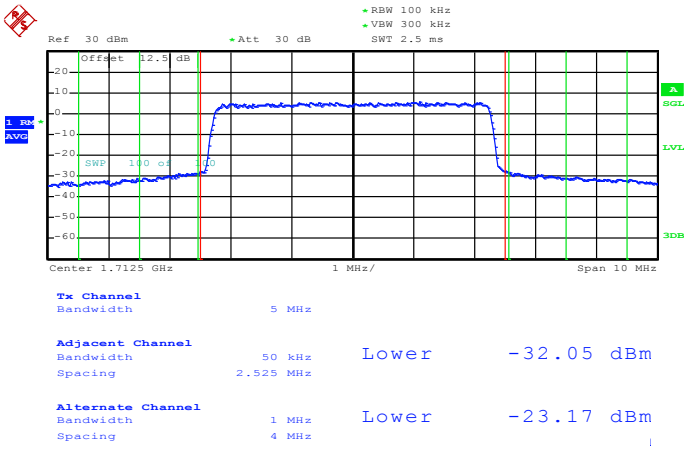
Band :	LTE Band 4	Band Width :	5MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



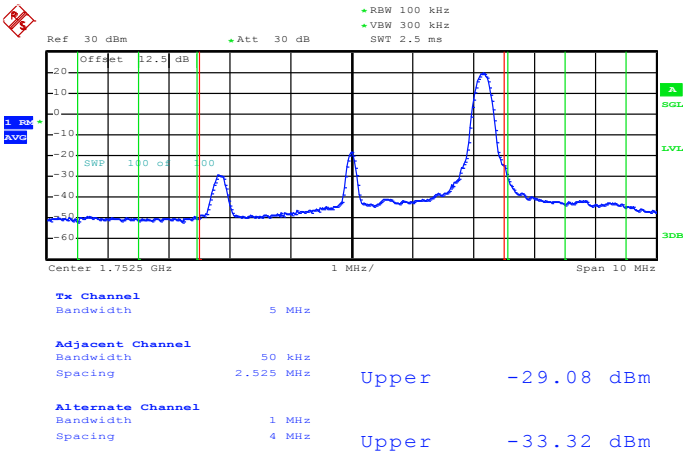
Date: 22.NOV.2012 14:06:12

Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



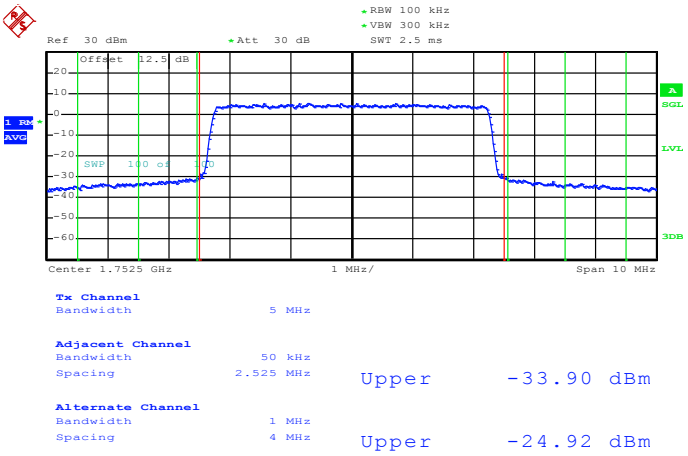
Date: 22.NOV.2012 14:05:52

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 22.NOV.2012 14:15:23

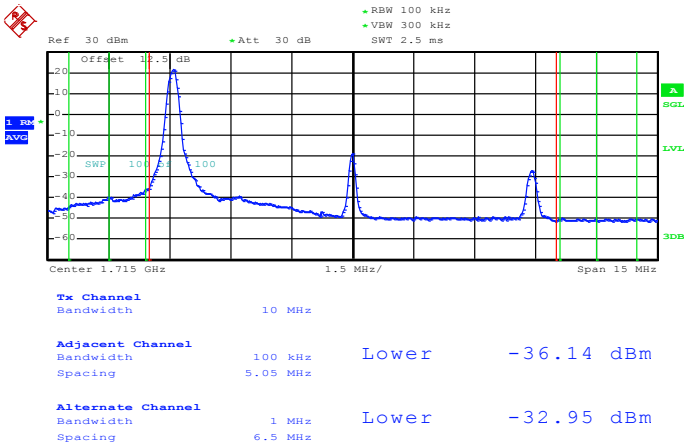
Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 22.NOV.2012 14:11:57

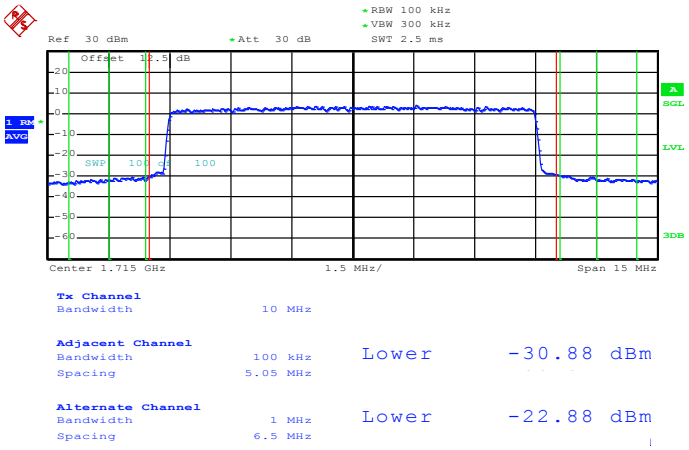
Band :	LTE Band 4	Band Width :	10MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



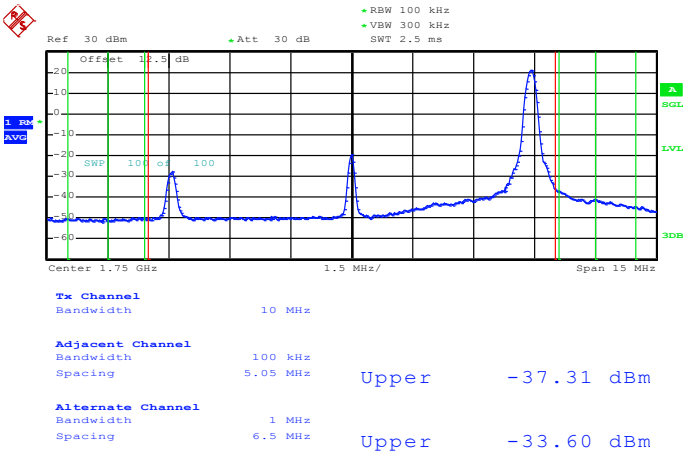
Date: 22.NOV.2012 14:20:15

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



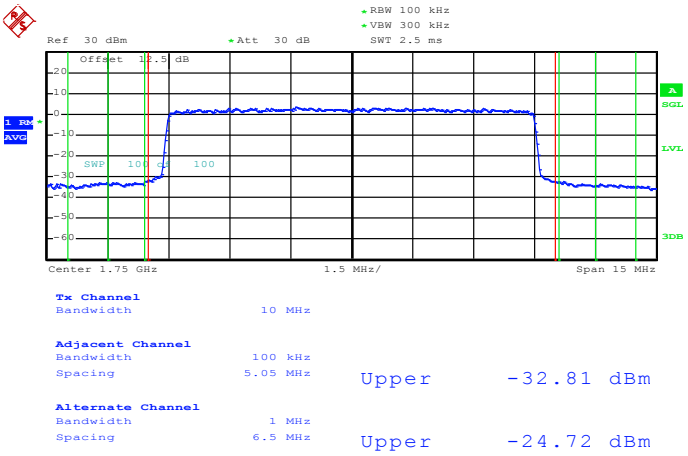
Date: 22.NOV.2012 14:19:46

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



Date: 22.NOV.2012 14:27:58

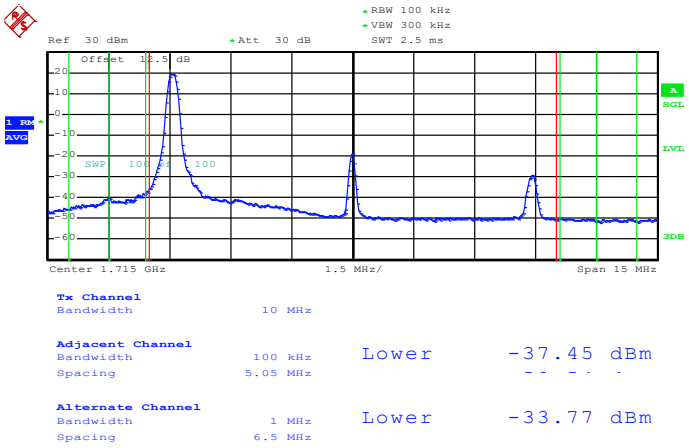
Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 22.NOV.2012 14:22:07

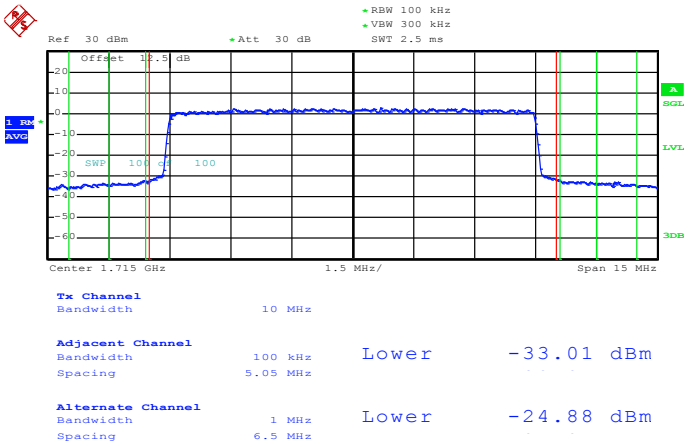
Band :	LTE Band 4	Band Width :	10MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



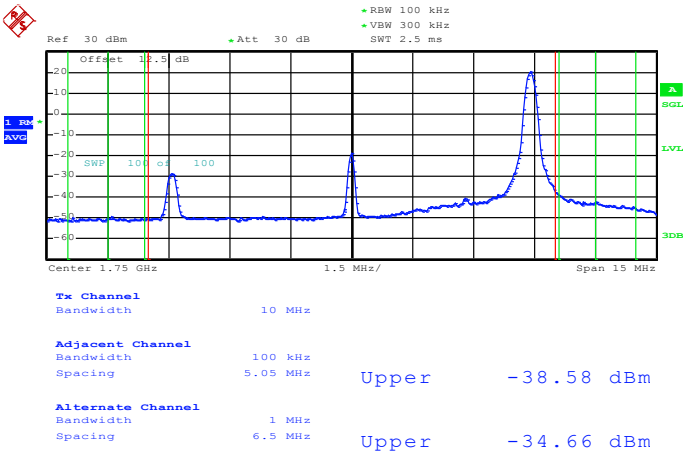
Date: 22.NOV.2012 14:20:37

Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



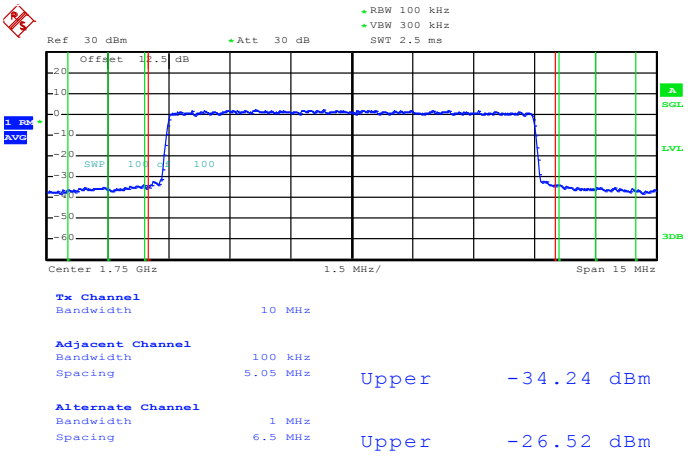
Date: 22.NOV.2012 14:19:59

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 22.NOV.2012 14:28:16

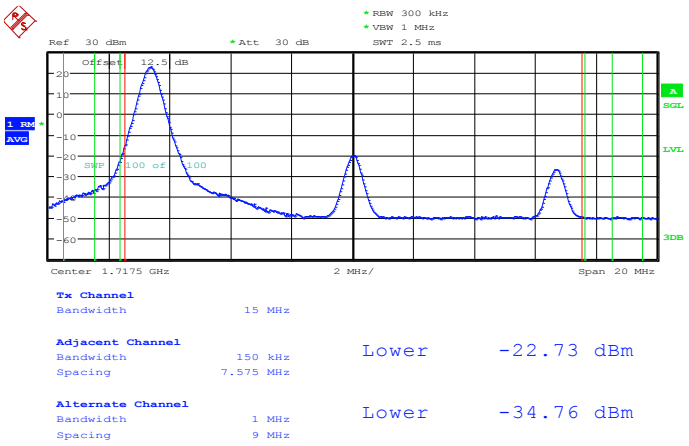
Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 22.NOV.2012 14:22:20

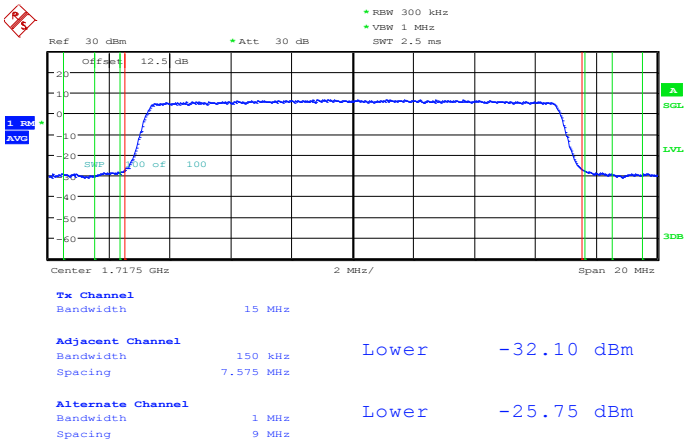
Band :	LTE Band 4	Band Width :	15MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



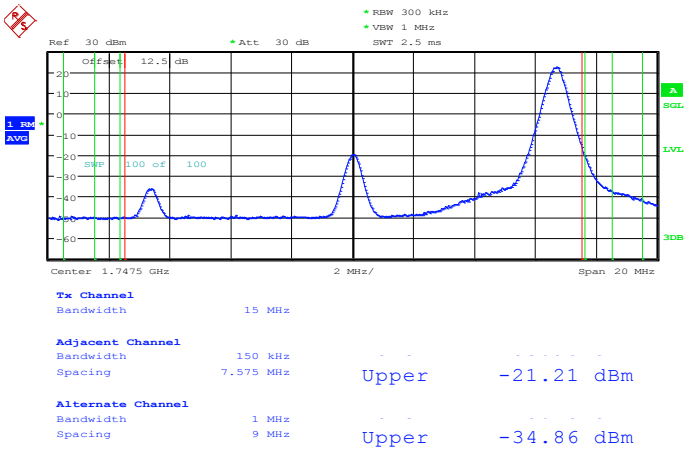
Date: 28.NOV.2012 17:13:18

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



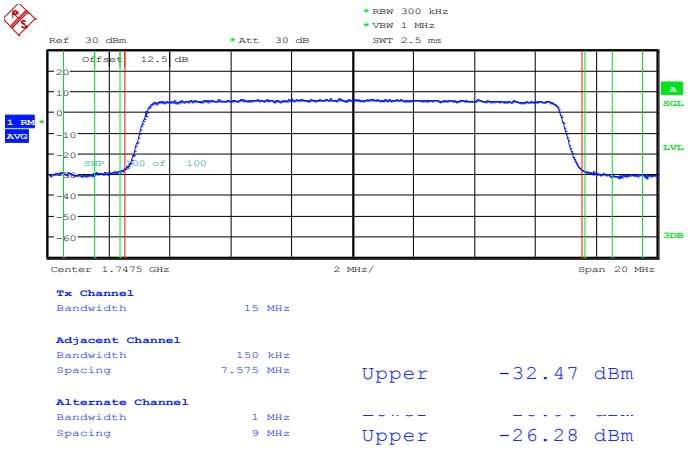
Date: 28.NOV.2012 17:13:03

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



Date: 28.NOV.2012 17:16:25

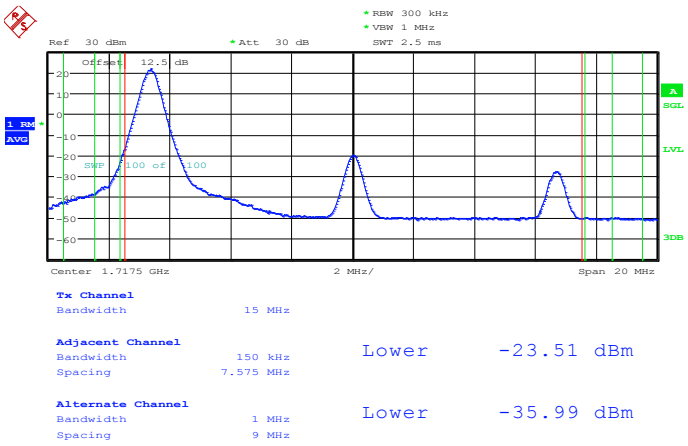
Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 28.NOV.2012 17:15:58

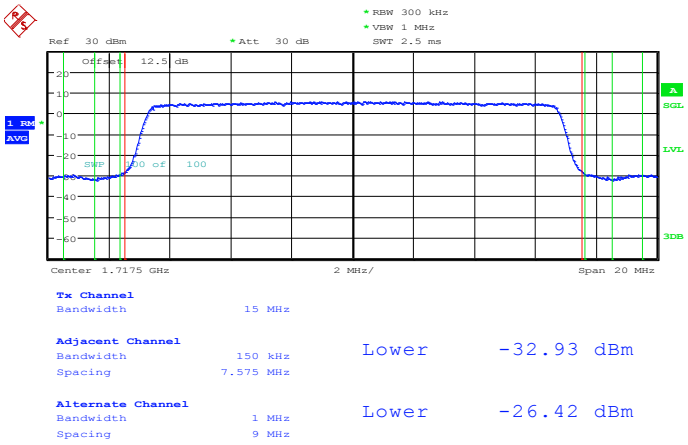
Band :	LTE Band 4	Band Width :	15MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



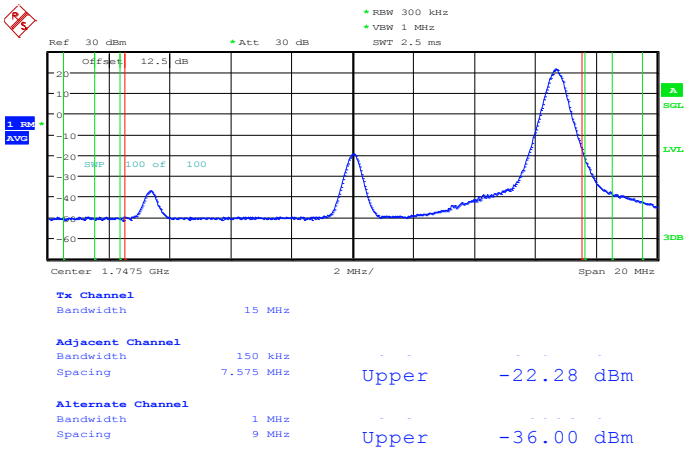
Date: 28.NOV.2012 17:13:34

Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



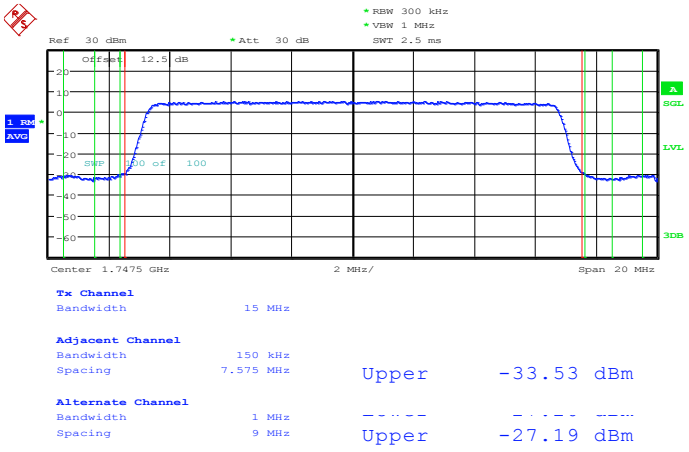
Date: 28.NOV.2012 17:13:56

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 28.NOV.2012 17:17:04

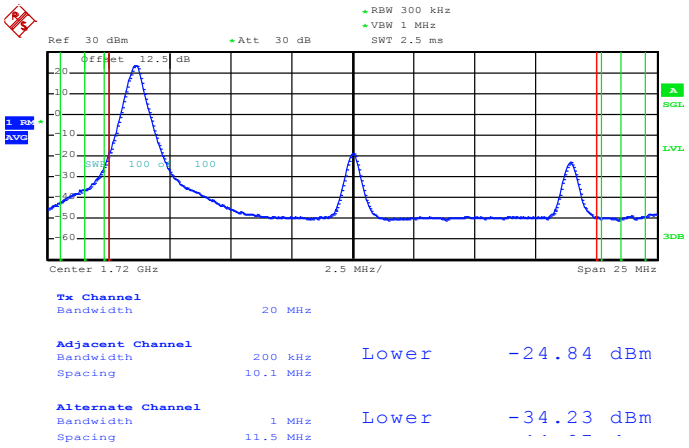
Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Date: 28.NOV.2012 17:17:23

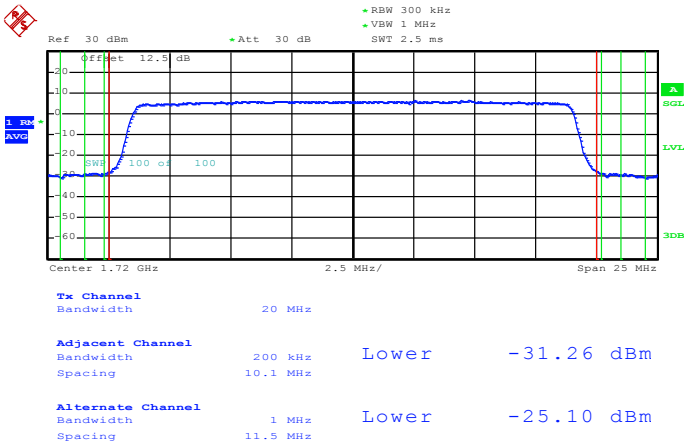
Band :	LTE Band 4	Band Width :	20MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



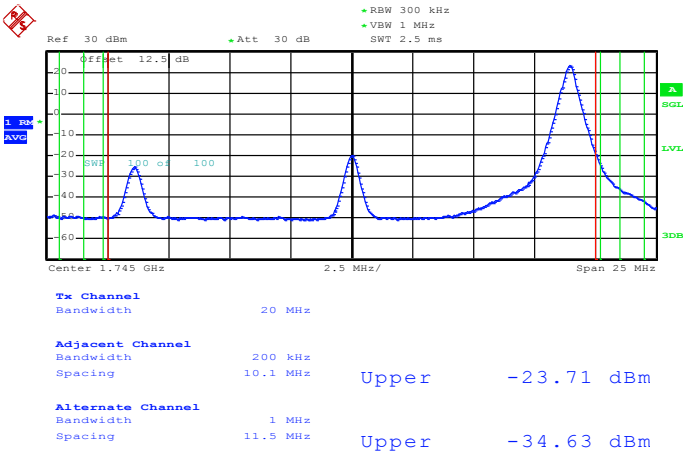
Date: 22.NOV.2012 14:34:48

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



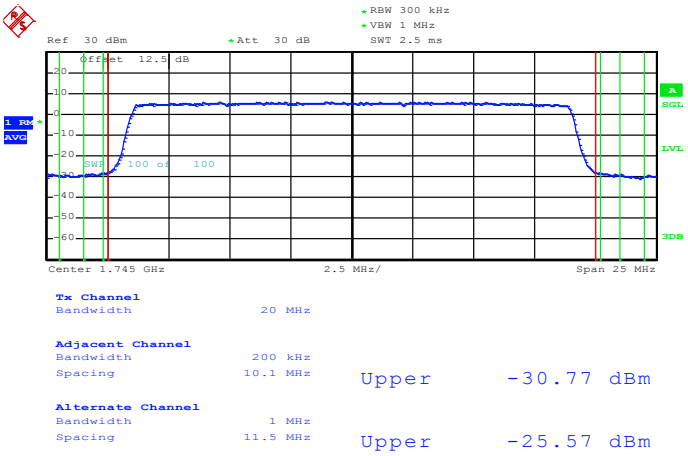
Date: 22.NOV.2012 14:34:01

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



Date: 22.NOV.2012 14:36:42

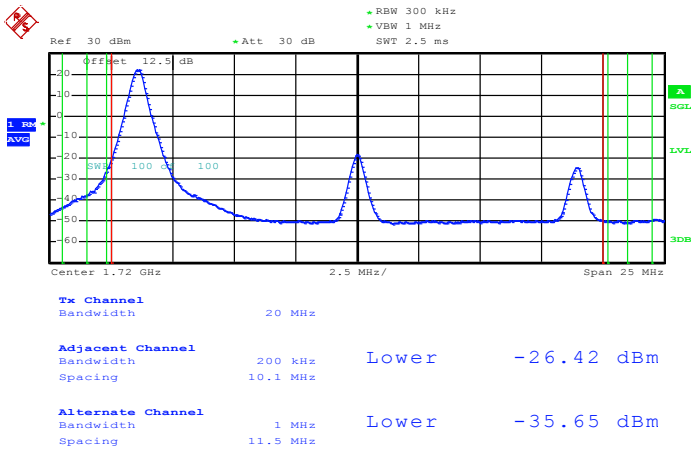
Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Date: 22.NOV.2012 14:35:59

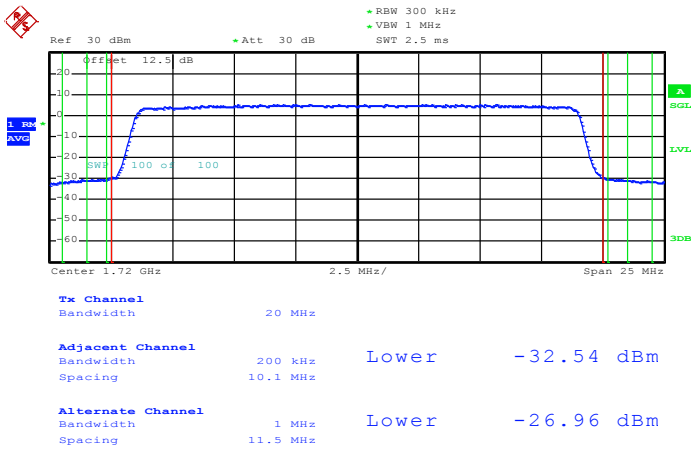
Band :	LTE Band 4	Band Width :	20MHz /16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



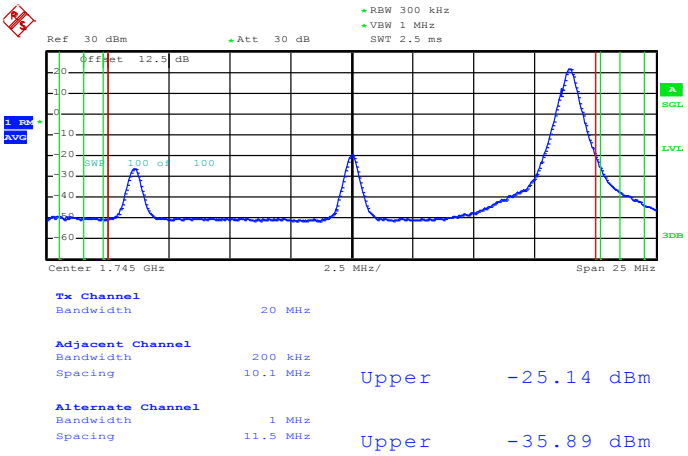
Date: 22.NOV.2012 14:35:02

Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



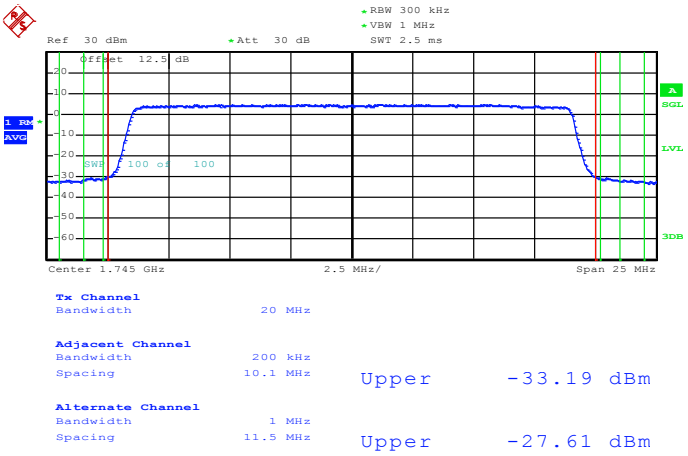
Date: 22.NOV.2012 14:34:15

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 22.NOV.2012 14:36:57

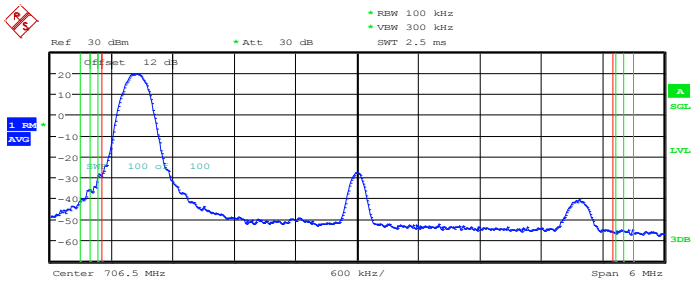
Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 22.NOV.2012 14:36:15

Band :	LTE Band 17	Band Width :	5MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



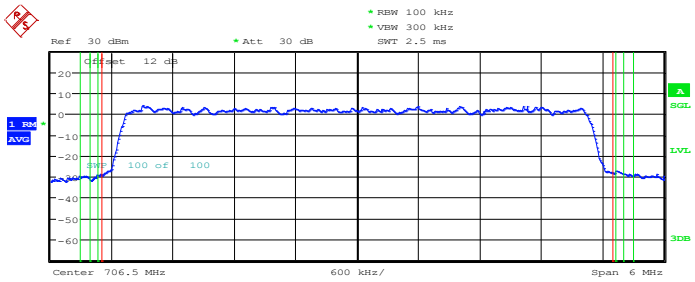
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 30 kHz
Spacing 2.515 MHz
Lower -34.32 dBm

Alternate Channel
Bandwidth 100 kHz
Spacing 2.65 MHz
Lower -38.24 dBm

Date: 29.NOV.2012 13:53:49

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



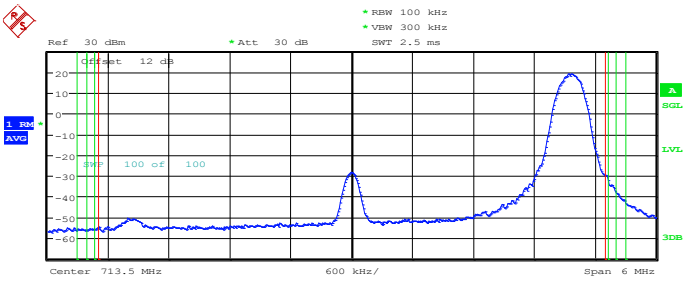
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 30 kHz
Spacing 2.515 MHz
Lower -34.87 dBm

Alternate Channel
Bandwidth 100 kHz
Spacing 2.65 MHz
Lower -30.65 dBm

Date: 29.NOV.2012 13:52:46

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



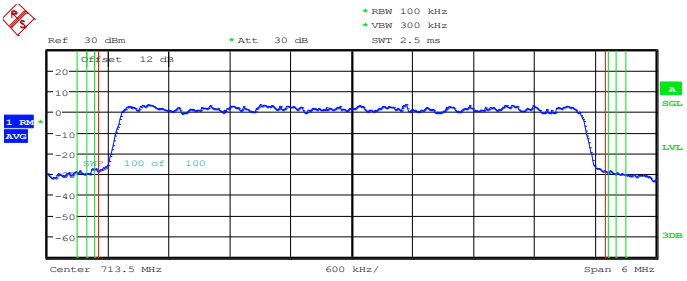
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 30 kHz
Spacing 2.515 MHz
Upper -35.60 dBm

Alternate Channel
Bandwidth 100 kHz
Spacing 2.65 MHz
Upper -40.42 dBm

Date: 29.NOV.2012 13:57:05

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



Tx Channel
Bandwidth 5 MHz

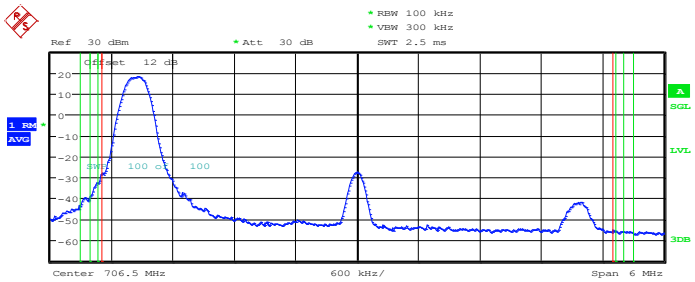
Adjacent Channel
Bandwidth 30 kHz
Spacing 2.515 MHz
Upper -34.84 dBm

Alternate Channel
Bandwidth 100 kHz
Spacing 2.65 MHz
Upper -30.31 dBm

Date: 29.NOV.2012 13:55:29

Band :	LTE Band 17	Band Width :	5MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



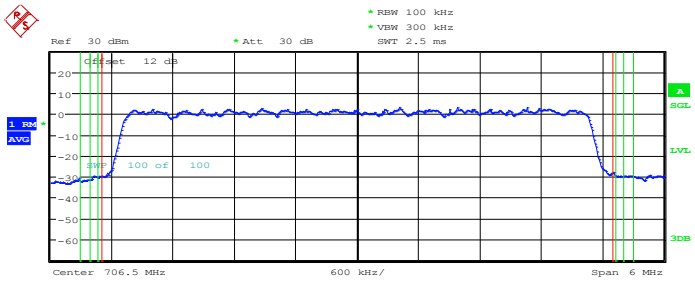
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 30 kHz
Spacing 2.515 MHz
Lower -36.22 dBm

Alternate Channel
Bandwidth 100 kHz
Spacing 2.65 MHz
Lower -40.72 dBm

Date: 29.NOV.2012 13:53:28

Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



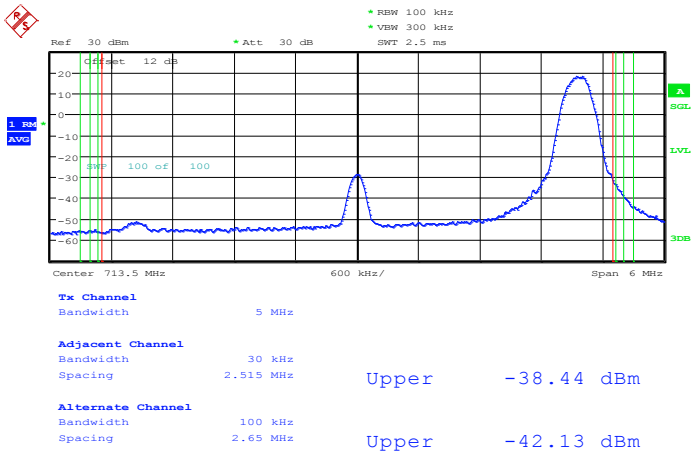
Tx Channel
Bandwidth 5 MHz

Adjacent Channel
Bandwidth 30 kHz
Spacing 2.515 MHz
Lower -35.59 dBm

Alternate Channel
Bandwidth 100 kHz
Spacing 2.65 MHz
Lower -32.20 dBm

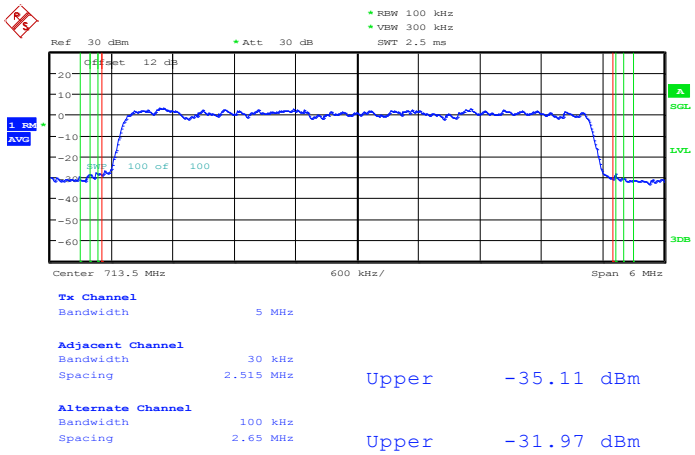
Date: 29.NOV.2012 13:53:06

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 29.NOV.2012 13:56:41

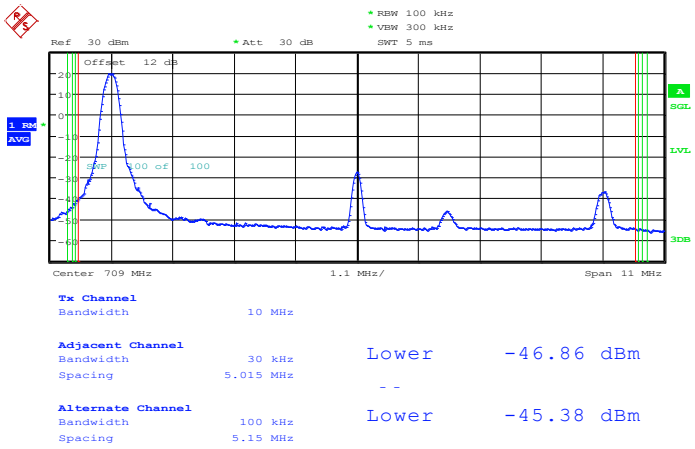
Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 29.NOV.2012 13:56:03

Band :	LTE Band 17	Band Width :	10MHz / QPSK

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

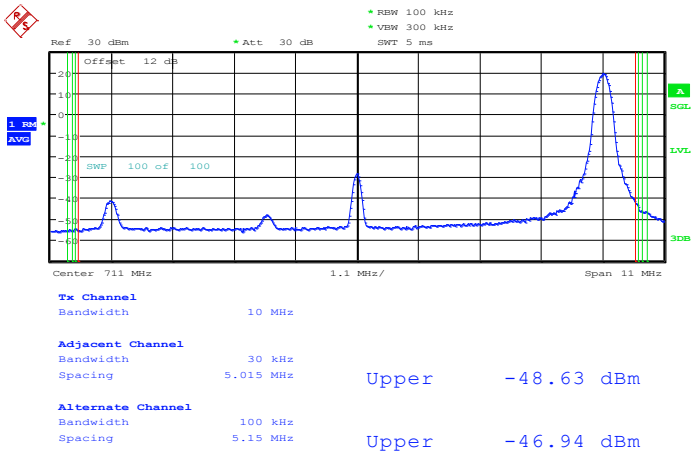


Date: 29.NOV.2012 13:47:08

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

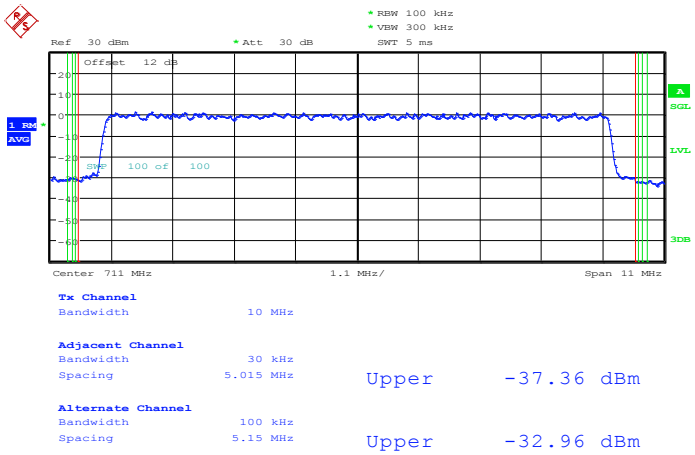
Date: 29.NOV.2012 13:46:48

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



Date: 29.NOV.2012 13:44:54

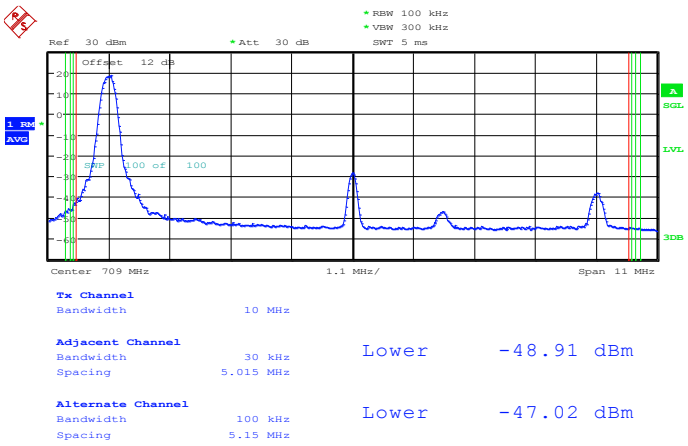
Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 29.NOV.2012 13:45:24

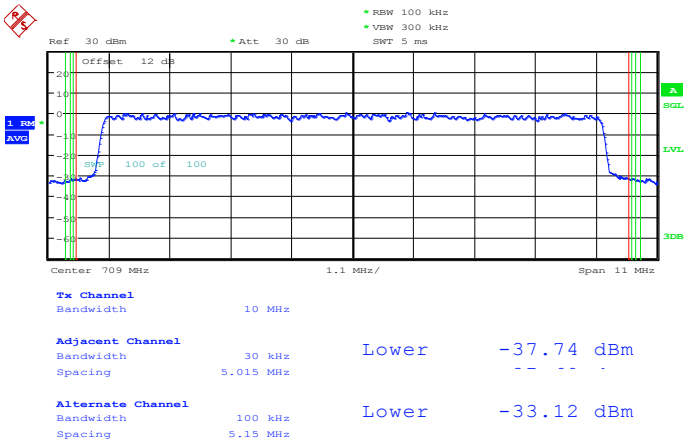
Band :	LTE Band 17	Band Width :	10MHz / 16QAM

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



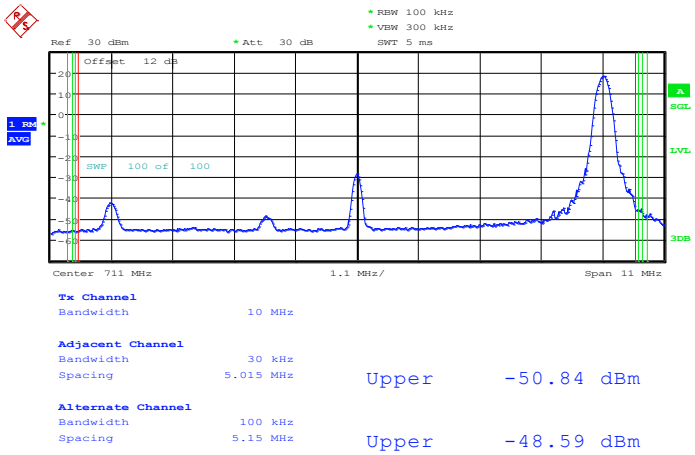
Date: 29.NOV.2012 13:47:27

Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



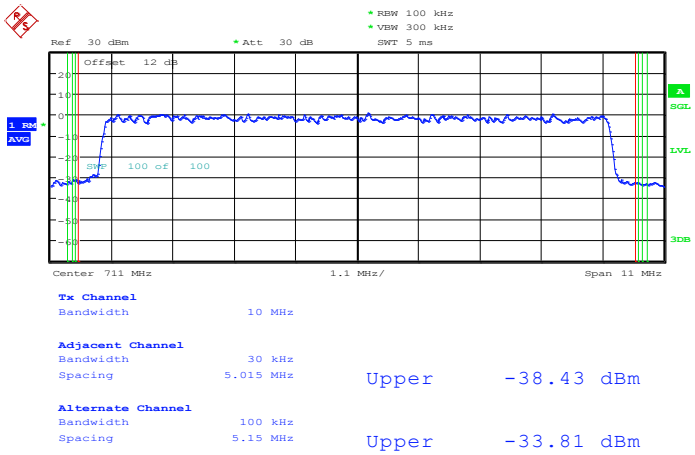
Date: 29.NOV.2012 13:46:26

Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 29.NOV.2012 13:44:33

Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 29.NOV.2012 13:45:49