

FCC RF Test Report

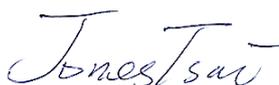
APPLICANT : ZTE CORPORATION
EQUIPMENT : CDMA/LTE Dual-Mode Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : ZTE N9511
FCC ID : SRQ-ZTEN9511
STANDARD : FCC CFR Part 2, 24(E), 27(L)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Jun. 05, 2013 and completely tested on Jul. 23, 2013. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

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



Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.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..... 5

 1.5 Modification of EUT 6

 1.6 Maximum EIRP Power, Frequency Tolerance, and Emission Designator 6

 1.7 Testing Site..... 7

 1.8 Applied Standards 7

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST 8

 2.1 Test Mode..... 8

 2.2 Connection Diagram of Test System..... 11

 2.3 Support Unit used in test configuration and system 12

 2.4 Measurement Results Explanation Example..... 12

3 TEST RESULT..... 13

 3.1 Conducted Output Power Measurement 13

 3.2 Peak-to-Average Ratio 26

 3.3 Equivalent Isotropic Radiated Power Measurement 40

 3.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement..... 48

 3.5 Conducted Band Edge Measurement 74

 3.6 Conducted Spurious Emission Measurement 123

 3.7 Radiated Spurious Emission Measurement 196

 3.8 Frequency Stability Measurement..... 222

4 UNCERTAINTY OF EVALUATION 234

APPENDIX A. SETUP PHOTOGRAPHS



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	NA	PASS	-
3.2	§24.232(d) 27.53(d)(5)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)(Band 25)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt	PASS	-
3.4	§2.1049 §24.238(a) §27.53(g) (h)	99% Occupied Bandwidth and 26dB Bandwidth	NA	PASS	-
3.5	§2.1051 §24.238(a) §27.53(g)(h)	Conducted Band Edge Measurement	< 43+10log ₁₀ (P[Watts])	PASS	-
3.6	§2.1051 §24.238(a) §27.53(g)(h)	Conducted Spurious Emission	< 43+10log ₁₀ (P[Watts])	PASS	-
3.7	§2.1053 §24.238(a) §27.53(g)(h)	Radiated Spurious Emission	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 14.44 dB at 9567.500 MHz
3.8	§2.1055 §24.235 §27.54	Frequency Stability Temperature & Voltage	< 2.5 ppm	PASS	-

1 General Description

1.1 Applicant

ZTE CORPORATION

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

1.2 Manufacturer

ZTE CORPORATION

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

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	CDMA/LTE Dual-Mode Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N9511
FCC ID	SRQ-ZTEN9511
EUT supports Radios application	CDMA/EV-DO/LTE/WLAN 11bgn / Bluetooth 2.1/3.0/4.0
HW Version	cyfA
SW Version	N9511V1.0.0B01
EUT Stage	Identical Prototype

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

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	LTE Band 4 : 1710.7MHz ~ 1754.3 MHz LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 25 : 1850.7 MHz ~ 1914.3 MHz
Rx Frequency	LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 25 : 1930.7 MHz ~ 1994.3 MHz
Bandwidth	1.4MHz / 3MHz / 5MHz/ 10MHz
Maximum Output Power to Antenna	LTE Band 4 : 23.05 dBm LTE Band 2 : 23.65 dBm LTE Band 25 : 23.40 dBm
Antenna Type	PIFA Antenna
Antenna Gain	-4dBi
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Maximum EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	BW	Maximum EIRP (W)	Frequency Tolerance (% , Hz, ppm)	Emission Designator
Part 27L	LTE Band 4	QPSK	1.4MHz	0.1824 W	0.014	1M10G7D
Part 27L	LTE Band 4	16QAM	1.4MHz	0.1476 W	0.015	1M10D7W
Part 27L	LTE Band 4	QPSK	3MHz	0.1811 W	0.015	2M74G7D
Part 27L	LTE Band 4	16QAM	3MHz	0.1479 W	0.016	2M74D7W
Part 27L	LTE Band 4	QPSK	5MHz	0.1742 W	0.017	4M52G7D
Part 27L	LTE Band 4	16QAM	5MHz	0.1552 W	0.013	4M52D7W
Part 27L	LTE Band 4	QPSK	10MHz	0.1845 W	0.016	9M16G7D
Part 27L	LTE Band 4	16QAM	10MHz	0.1476 W	0.012	9M16D7W
Part 24E	LTE Band 2	QPSK	1.4MHz	0.1791 W	0.015	1M10G7D
Part 24E	LTE Band 2	16QAM	1.4MHz	0.1318 W	0.010	1M10D7W
Part 24E	LTE Band 2	QPSK	3MHz	0.1750 W	0.013	2M74G7D
Part 24E	LTE Band 2	16QAM	3MHz	0.1250 W	0.013	2M75D7W
Part 24E	LTE Band 2	QPSK	5MHz	0.1500 W	0.010	4M52G7D
Part 24E	LTE Band 2	16QAM	5MHz	0.1186 W	0.010	4M50D7W
Part 24E	LTE Band 2	QPSK	10MHz	0.1644 W	0.014	9M12G7D
Part 24E	LTE Band 2	16QAM	10MHz	0.1445 W	0.009	9M12D7W
Part 24E	LTE Band 25	QPSK	1.4MHz	0.1702 W	0.017	1M10G7D
Part 24E	LTE Band 25	16QAM	1.4MHz	0.1429 W	0.016	1M10D7W
Part 24E	LTE Band 25	QPSK	3MHz	0.1687 W	0.017	2M74G7D
Part 24E	LTE Band 25	16QAM	3MHz	0.1337 W	0.018	2M74D7W
Part 24E	LTE Band 25	QPSK	5MHz	0.1600 W	0.019	4M50G7D
Part 24E	LTE Band 25	16QAM	5MHz	0.1337 W	0.025	4M50D7W
Part 24E	LTE Band 25	QPSK	10MHz	0.1524 W	0.015	9M16G7D
Part 24E	LTE Band 25	16QAM	10MHz	0.1330 W	0.015	9M12D7W



1.7 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.			
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958			
Test Site No.	Sporton Site No.			FCC/IC Registration No.
	TH01-KS	03CH01-KS	OTA01-KS	149928/4086E-1

1.8 Applied Standards

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

- FCC 47 CFR Part 2, 24(E), 27(L)
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02

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.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (X plane for LTE Band 4, Z plane for LTE Band 2 and LTE Band 25).

Frequency range investigated for radiated emission is as follows:

1. 30 MHz to 18000 MHz for LTE Band 4.
2. 30 MHz to 19100 MHz for LTE Band 2.
3. 30 MHz to 19200 MHz for LTE Band 25.

Test Modes		
Band	Radiated TCs	Conducted TCs
LTE Band 4	BW 1.4MHz ■ LTE (RB Size 1, RB Offset 0) QPSK Link	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 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) QPSK Link	<ul style="list-style-type: none"> ■ 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 0) QPSK Link	<ul style="list-style-type: none"> ■ 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 0) QPSK Link	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 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

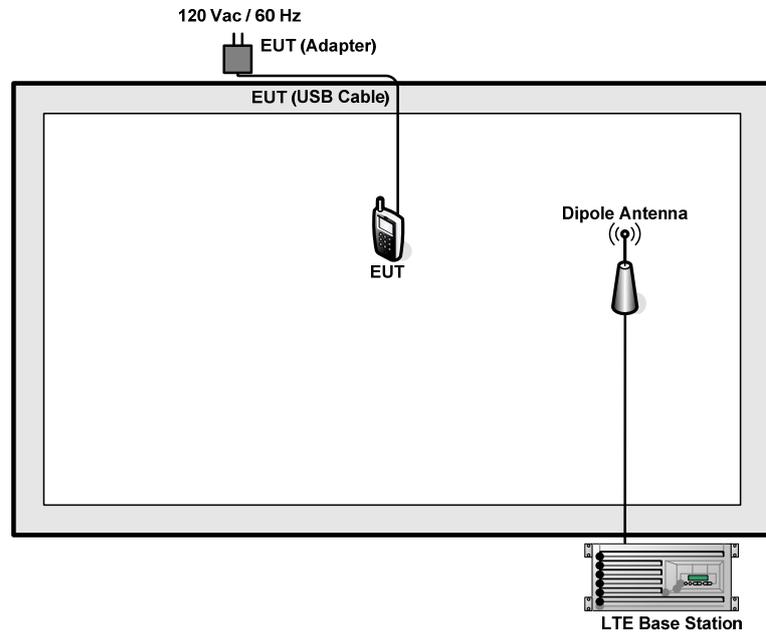


Test Modes		
Band	Radiated TCs	Conducted TCs
LTE Band 2	BW 1.4MHz ■ LTE (RB Size 1, RB Offset 0) QPSK Link	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 2) Link ■ LTE (RB Size 1, RB Offset 5) Link ■ LTE (RB Size 3, RB Offset 0) Link ■ LTE (RB Size 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) QPSK Link	<ul style="list-style-type: none"> ■ 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 0) QPSK Link	<ul style="list-style-type: none"> ■ 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) QPSK Link	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 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 25	BW 1.4MHz ■ LTE (RB Size 1, RB Offset 0) QPSK Link	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 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) QPSK Link	<ul style="list-style-type: none"> ■ 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 0) QPSK Link	<ul style="list-style-type: none"> ■ 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 0) QPSK Link	<ul style="list-style-type: none"> ■ LTE (RB Size 1, RB Offset 0) Link ■ LTE (RB Size 1, RB Offset 24) Link ■ LTE (RB Size 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



2.3 Support Unit used in test configuration and system

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

2.4 Measurement Results Explanation Example

For conducted test items:

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

The spectrum analyzer offset is derived from RF cable loss and 10dB attenuator factor.

Offset = RF cable loss + attenuator factor.

Following table shows an offset computation example with cable loss 5.2 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 5.2 + 10 = 15.2 \text{ (dB)} \end{aligned}$$

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.

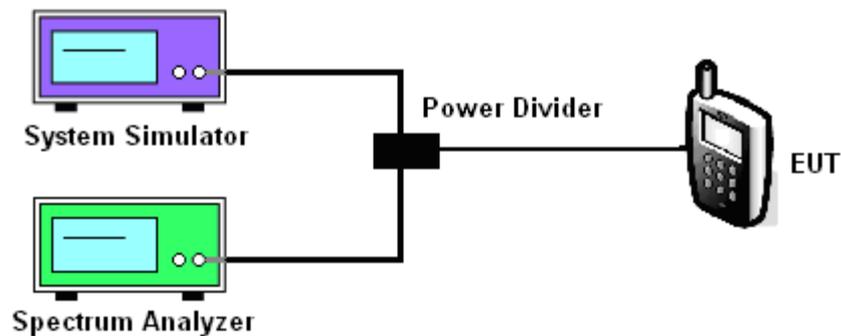
3.1.2 Measuring Instruments

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

Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	1.4MHz	19957	1710.7	QPSK	1	0	23.00	0.1995
					1	2	22.93	0.1963
					1	5	22.93	0.1963
					3	0	22.90	0.1950
					3	1	22.99	0.1991
					3	2	22.98	0.1986
				6	0	21.94	0.1563	
				16-QAM	1	0	22.09	0.1618
					1	2	21.96	0.1570
					1	5	22.06	0.1607
					3	0	22.05	0.1603
					3	1	21.93	0.1560
		3	2		22.04	0.1600		
		20175	1732.5	QPSK	1	0	23.02	0.2004
					1	2	22.95	0.1972
					1	5	22.90	0.1950
					3	0	22.96	0.1977
					3	1	22.92	0.1959
					3	2	22.94	0.1968
				6	0	21.91	0.1552	
				16-QAM	1	0	22.16	0.1644
					1	2	22.07	0.1611
					1	5	22.10	0.1622
					3	0	21.89	0.1545
					3	1	21.84	0.1528
		3	2		21.83	0.1524		
		20393	1754.3	QPSK	1	0	22.94	0.1968
					1	2	22.92	0.1959
					1	5	22.78	0.1897
					3	0	22.83	0.1919
3	1				22.86	0.1932		
3	2				22.84	0.1923		
6	0			21.81	0.1517			
16-QAM	1			0	21.99	0.1581		
	1			2	21.72	0.1486		
	1			5	21.98	0.1578		
	3			0	21.94	0.1563		
	3			1	21.78	0.1507		
	3	2	21.94	0.1563				
6	0	20.92	0.1236					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	3MHz	19965	1711.5	QPSK	1	0	23.01	0.2000
					1	7	22.94	0.1968
					1	14	22.98	0.1986
					8	0	21.93	0.1560
					8	4	22.00	0.1585
					8	7	21.90	0.1549
				15	0	21.99	0.1581	
				16-QAM	1	0	21.83	0.1524
					1	7	21.82	0.1521
					1	14	21.79	0.1510
					8	0	20.92	0.1236
					8	4	20.94	0.1242
		8	7		20.86	0.1219		
		20175	1732.5	QPSK	1	0	22.88	0.1941
					1	7	22.86	0.1932
					1	14	22.81	0.1910
					8	0	21.97	0.1574
					8	4	21.93	0.1560
					8	7	21.94	0.1563
				15	0	21.94	0.1563	
				16-QAM	1	0	22.18	0.1652
					1	7	22.17	0.1648
					1	14	22.06	0.1607
					8	0	20.92	0.1236
					8	4	20.89	0.1227
		8	7		20.82	0.1208		
		20385	1753.5	QPSK	1	0	23.03	0.2009
					1	7	22.92	0.1959
					1	14	22.83	0.1919
					8	0	21.79	0.1510
8	4				21.85	0.1531		
8	7				21.86	0.1535		
15	0			21.89	0.1545			
16-QAM	1			0	21.87	0.1538		
	1			7	21.81	0.1517		
	1			14	21.59	0.1442		
	8			0	20.61	0.1151		
	8			4	20.79	0.1199		
	8	7	20.79	0.1199				
15	0	20.83	0.1211					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)	
					RB Size	RB Offset			
LTE Band 4	5MHz	19975	1712.5	QPSK	1	0	23.00	0.1995	
					1	12	22.97	0.1982	
					1	24	22.99	0.1991	
					12	0	22.01	0.1589	
					12	6	21.96	0.1570	
					12	11	21.93	0.1560	
				16-QAM	25	0	21.96	0.1570	
					1	0	22.26	0.1683	
					1	12	22.25	0.1679	
					1	24	22.19	0.1656	
					12	0	21.00	0.1259	
					12	6	20.98	0.1253	
		20175	1732.5	QPSK	1732.5	12	11	21.04	0.1271
						25	0	20.88	0.1225
						1	0	22.95	0.1972
						1	12	22.94	0.1968
						1	24	22.93	0.1963
						12	0	21.90	0.1549
				16-QAM	12	6	21.94	0.1563	
					12	11	21.97	0.1574	
					25	0	21.89	0.1545	
					1	0	21.81	0.1517	
					1	12	21.67	0.1469	
					1	24	21.56	0.1432	
		20375	1752.5	QPSK	1752.5	12	0	20.97	0.1250
						12	6	20.96	0.1247
						12	11	20.86	0.1219
						25	0	20.82	0.1208
						1	0	23.01	0.2000
						1	12	22.65	0.1841
16-QAM	1			24	22.78	0.1897			
	12			0	21.83	0.1524			
	12			6	21.76	0.1500			
	12			11	21.91	0.1552			
	25			0	21.69	0.1476			
	1			0	21.98	0.1578			
				1	12	21.96	0.1570		
				1	24	21.75	0.1496		
				12	0	20.90	0.1230		
				12	6	20.79	0.1199		
				12	11	20.97	0.1250		
				25	0	20.84	0.1213		



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 4	10MHz	20000	1715	QPSK	1	0	23.04	0.2014
					1	24	23.01	0.2000
					1	49	22.92	0.1959
					25	0	21.94	0.1563
					25	12	21.91	0.1552
					25	24	21.86	0.1535
		16-QAM	50	0	21.79	0.1510		
			1	0	22.03	0.1596		
			1	24	22.02	0.1592		
			1	49	22.01	0.1589		
			25	0	20.84	0.1213		
			25	12	20.80	0.1202		
		20175	1732.5	QPSK	25	24	20.78	0.1197
					50	0	20.74	0.1186
					1	0	23.05	0.2018
					1	24	23.01	0.2000
					1	49	22.91	0.1954
					25	0	21.90	0.1549
	16-QAM	25	12	21.88	0.1542			
		25	24	21.85	0.1531			
		50	0	21.70	0.1479			
		1	0	22.25	0.1679			
		1	24	22.01	0.1589			
		1	49	22.02	0.1592			
	20350	1750	QPSK	25	0	20.97	0.1250	
				25	12	20.84	0.1213	
				25	24	20.91	0.1233	
				50	0	20.73	0.1183	
				1	0	22.83	0.1919	
				1	24	22.82	0.1914	
16-QAM	1	49	22.79	0.1901				
	25	0	21.81	0.1517				
	25	12	21.75	0.1496				
	25	24	21.73	0.1489				
	50	0	21.67	0.1469				
	1	0	21.84	0.1528				
					1	24	21.69	0.1476
					1	49	21.80	0.1514
					25	0	20.85	0.1216
					25	12	20.77	0.1194
					25	24	20.76	0.1191
					50	0	20.63	0.1156



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 2	1.4MHz	18607	1850.7	QPSK	1	0	23.57	0.2275
					1	2	23.47	0.2223
					1	5	23.53	0.2254
					3	0	23.43	0.2203
					3	1	23.56	0.2270
					3	2	23.40	0.2188
		6	0	22.51	0.1782			
		16-QAM	1	0	22.67	0.1849		
			1	2	22.62	0.1828		
			1	5	22.66	0.1845		
			3	0	22.32	0.1706		
			3	1	22.56	0.1803		
			3	2	22.56	0.1803		
		18900	1880	QPSK	1	0	23.58	0.2280
					1	2	23.51	0.2244
					1	5	23.45	0.2213
					3	0	23.47	0.2223
					3	1	23.46	0.2218
	3				2	23.46	0.2218	
	16-QAM	6	0	22.53	0.1791			
		1	0	22.68	0.1854			
		1	2	22.38	0.1730			
		1	5	22.44	0.1754			
		3	0	22.11	0.1626			
		3	1	22.45	0.1758			
	19193	1909.3	QPSK	3	2	22.45	0.1758	
				6	0	21.52	0.1419	
				1	0	23.65	0.2317	
				1	2	23.53	0.2254	
				1	5	23.51	0.2244	
3				0	23.48	0.2228		
16-QAM		3	1	23.49	0.2234			
		3	2	23.53	0.2254			
		6	0	22.58	0.1811			
		1	0	22.69	0.1858			
		1	2	22.32	0.1706			
		1	5	22.28	0.1690			
3	0	22.54	0.1795					
3	1	22.44	0.1754					
3	2	22.60	0.1820					
6	0	21.76	0.1500					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 2	3MHz	18615	1851.5	QPSK	1	0	23.52	0.2249
					1	7	23.44	0.2208
					1	14	23.45	0.2213
					8	0	22.50	0.1778
					8	4	22.53	0.1791
					8	7	22.57	0.1807
				15	0	22.51	0.1782	
				16-QAM	1	0	22.49	0.1774
					1	7	22.37	0.1726
					1	14	22.45	0.1758
					8	0	21.39	0.1377
					8	4	21.27	0.1340
		8	7		21.40	0.1380		
		18900	1880	QPSK	1	0	23.42	0.2198
					1	7	23.34	0.2158
					1	14	23.40	0.2188
					8	0	22.45	0.1758
					8	4	22.54	0.1795
					8	7	22.56	0.1803
				15	0	22.52	0.1786	
				16-QAM	1	0	22.53	0.1791
					1	7	22.22	0.1667
					1	14	21.99	0.1581
					8	0	21.44	0.1393
					8	4	21.29	0.1346
		8	7		21.48	0.1406		
		19185	1908.5	QPSK	1	0	23.53	0.2254
					1	7	23.48	0.2228
					1	14	23.49	0.2234
					8	0	22.51	0.1782
8	4				22.52	0.1786		
8	7				22.57	0.1807		
15	0			22.42	0.1746			
16-QAM	1			0	22.54	0.1795		
	1			7	22.42	0.1746		
	1			14	22.46	0.1762		
	8			0	21.38	0.1374		
	8			4	21.50	0.1413		
	8	7	21.42	0.1387				
15	0	21.58	0.1439					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 2	5MHz	18625	1852.5	QPSK	1	0	23.52	0.2249
					1	12	23.51	0.2244
					1	24	23.46	0.2218
					12	0	22.48	0.1770
					12	6	22.58	0.1811
					12	11	22.64	0.1837
		25	0	22.52	0.1786			
		16-QAM	1	0	22.38	0.1730		
			1	12	22.34	0.1714		
			1	24	22.26	0.1683		
			12	0	21.63	0.1455		
			12	6	21.62	0.1452		
			12	11	21.59	0.1442		
		18900	1880	QPSK	1	0	23.57	0.2275
					1	12	23.41	0.2193
					1	24	23.39	0.2183
					12	0	22.47	0.1766
					12	6	22.51	0.1782
	12				11	22.53	0.1791	
	16-QAM	25	0	22.45	0.1758			
		1	0	22.59	0.1816			
		1	12	22.44	0.1754			
		1	24	22.53	0.1791			
		12	0	21.48	0.1406			
		12	6	21.61	0.1449			
	19175	1907.5	QPSK	12	11	21.54	0.1426	
				25	0	21.39	0.1377	
				1	0	23.56	0.2270	
				1	12	23.30	0.2138	
				1	24	23.52	0.2249	
12				0	22.31	0.1702		
16-QAM		12	6	22.44	0.1754			
		12	11	22.50	0.1778			
		25	0	22.38	0.1730			
		1	0	22.60	0.1820			
		1	12	22.21	0.1663			
		1	24	22.52	0.1786			
12	0	21.35	0.1365					
12	6	21.26	0.1337					
12	11	21.38	0.1374					
25	0	21.30	0.1349					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)	
					RB Size	RB Offset			
LTE Band 2	10MHz	18650	1855	QPSK	1	0	23.35	0.2163	
					1	24	23.43	0.2203	
					1	49	23.47	0.2223	
					25	0	22.53	0.1791	
					25	12	22.46	0.1762	
					25	24	22.47	0.1766	
				16-QAM	50	0	22.27	0.1687	
					1	0	22.68	0.1854	
					1	24	22.66	0.1845	
					1	49	22.06	0.1607	
					25	0	21.48	0.1406	
					25	12	21.49	0.1409	
		18900	1880	QPSK	1880	25	24	21.45	0.1396
						50	0	21.22	0.1324
						1	0	23.39	0.2183
						1	24	23.44	0.2208
						1	49	23.56	0.2270
						25	0	22.40	0.1738
				16-QAM	25	12	22.45	0.1758	
					25	24	22.38	0.1730	
					50	0	22.36	0.1722	
					1	0	22.75	0.1884	
					1	24	22.58	0.1811	
					1	49	22.46	0.1762	
		19150	1905	QPSK	1905	25	0	21.35	0.1365
						25	12	21.42	0.1387
						25	24	21.36	0.1368
						50	0	21.29	0.1346
						1	0	23.48	0.2228
						1	24	23.45	0.2213
16-QAM	1			49	23.54	0.2259			
	25			0	22.35	0.1718			
	25			12	22.34	0.1714			
	25			24	22.37	0.1726			
	50			0	22.20	0.1660			
	1			0	22.74	0.1879			
16-QAM	1	24	22.56	0.1803					
	1	49	22.73	0.1875					
	25	0	21.45	0.1396					
	25	12	21.39	0.1377					
	25	24	21.33	0.1358					
	50	0	21.06	0.1276					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 25	1.4MHz	26047	1850.7	QPSK	1	0	23.33	0.2153
					1	2	23.25	0.2113
					1	5	23.23	0.2104
					3	0	23.25	0.2113
					3	1	23.22	0.2099
					3	2	23.24	0.2109
				6	0	22.29	0.1694	
				16-QAM	1	0	22.41	0.1742
					1	2	22.17	0.1648
					1	5	22.36	0.1722
					3	0	22.11	0.1626
					3	1	22.26	0.1683
		3	2		22.27	0.1687		
		26365	1882.5	QPSK	1	0	23.36	0.2168
					1	2	23.29	0.2133
					1	5	23.33	0.2153
					3	0	23.20	0.2089
					3	1	23.24	0.2109
					3	2	23.29	0.2133
				6	0	22.30	0.1698	
				16-QAM	1	0	22.63	0.1832
					1	2	22.15	0.1641
					1	5	22.54	0.1795
					3	0	22.27	0.1687
					3	1	22.35	0.1718
		3	2		22.36	0.1722		
		26683	1914.3	QPSK	1	0	22.91	0.1954
					1	2	22.83	0.1919
					1	5	22.65	0.1841
					3	0	22.84	0.1923
3	1				22.87	0.1936		
3	2				22.81	0.1910		
6	0			21.81	0.1517			
16-QAM	1			0	21.87	0.1538		
	1			2	21.72	0.1486		
	1			5	21.86	0.1535		
	3			0	21.84	0.1528		
	3			1	21.79	0.1510		
	3	2	21.69	0.1476				
6	0	20.80	0.1202					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 25	3MHz	26055	1851.5	QPSK	1	0	23.39	0.2183
					1	7	23.28	0.2128
					1	14	23.22	0.2099
					8	0	22.31	0.1702
					8	4	22.32	0.1706
					8	7	22.36	0.1722
					15	0	22.29	0.1694
		16-QAM	1	0	22.23	0.1671		
			1	7	21.98	0.1578		
			1	14	22.12	0.1629		
			8	0	21.18	0.1312		
			8	4	21.20	0.1318		
			8	7	21.26	0.1337		
		26365	1882.5	QPSK	1	0	23.26	0.2118
					1	7	23.20	0.2089
	1				14	23.22	0.2099	
	8				0	22.29	0.1694	
	8				4	22.35	0.1718	
	8				7	22.42	0.1746	
	15				0	22.34	0.1714	
	16-QAM		1	0	22.18	0.1652		
			1	7	22.03	0.1596		
			1	14	22.17	0.1648		
			8	0	21.16	0.1306		
			8	4	21.33	0.1358		
			8	7	21.23	0.1327		
			15	0	21.30	0.1349		
			26675	1913.5	QPSK	1	0	23.40
	1	7				22.95	0.1972	
	1	14				22.77	0.1892	
8	0	22.08				0.1614		
8	4	21.95				0.1567		
8	7	21.82				0.1521		
15	0	21.94				0.1563		
16-QAM	1	0		22.29	0.1694			
	1	7		21.93	0.1560			
	1	14		21.83	0.1524			
	8	0		21.14	0.1300			
	8	4		20.86	0.1219			
	8	7		20.80	0.1202			
	15	0		20.87	0.1222			



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)	
					RB Size	RB Offset			
LTE Band 25	5MHz	26065	1852.5	QPSK	1	0	23.32	0.2148	
					1	12	23.27	0.2123	
					1	24	23.26	0.2118	
					12	0	22.28	0.1690	
					12	6	22.38	0.1730	
					12	11	22.35	0.1718	
				16-QAM	25	0	22.22	0.1667	
					1	0	22.53	0.1791	
					1	12	22.47	0.1766	
					1	24	22.19	0.1656	
					12	0	21.34	0.1361	
					12	6	21.35	0.1365	
		26365	1882.5	QPSK	1882.5	12	11	21.45	0.1396
						25	0	21.33	0.1358
						1	0	23.34	0.2158
						1	12	23.18	0.2080
						1	24	23.23	0.2104
						12	0	22.30	0.1698
				16-QAM	12	6	22.34	0.1714	
					12	11	22.42	0.1746	
					25	0	22.26	0.1683	
					1	0	22.51	0.1782	
					1	12	22.31	0.1702	
					1	24	22.42	0.1746	
		26665	1912.5	QPSK	1912.5	12	0	21.31	0.1352
						12	6	21.33	0.1358
						12	11	21.35	0.1365
						25	0	21.19	0.1315
						1	0	23.27	0.2123
						1	12	23.17	0.2075
16-QAM	1			24	22.70	0.1862			
	12			0	22.22	0.1667			
	12			6	22.18	0.1652			
	12			11	22.00	0.1585			
	25			0	22.05	0.1603			
	1			0	22.57	0.1807			
16-QAM	1	12	22.33	0.1710					
	1	24	22.24	0.1675					
	12	0	21.13	0.1297					
	12	6	21.13	0.1297					
	12	11	21.02	0.1265					
	25	0	21.02	0.1265					



Mode	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power (dBm)	Average Power (Watts)
					RB Size	RB Offset		
LTE Band 25	10MHz	26090	1855	QPSK	1	0	23.30	0.2138
					1	24	23.25	0.2113
					1	49	23.23	0.2104
					25	0	22.26	0.1683
					25	12	22.38	0.1730
					25	24	22.28	0.1690
				50	0	22.17	0.1648	
				16-QAM	1	0	22.22	0.1667
					1	24	22.17	0.1648
					1	49	22.19	0.1656
					25	0	21.24	0.1330
					25	12	21.25	0.1334
		25	24		21.20	0.1318		
		26365	1882.5	QPSK	1	0	23.32	0.2148
					1	24	23.25	0.2113
					1	49	23.16	0.2070
					25	0	22.17	0.1648
					25	12	22.19	0.1656
					25	24	22.28	0.1690
				50	0	22.11	0.1626	
				16-QAM	1	0	22.38	0.1730
					1	24	22.35	0.1718
					1	49	22.03	0.1596
					25	0	21.23	0.1327
					25	12	21.13	0.1297
		25	24		21.16	0.1306		
		26640	1910	QPSK	1	0	23.24	0.2109
					1	24	23.14	0.2061
					1	49	22.88	0.1941
					25	0	22.21	0.1663
25	12				22.23	0.1671		
25	24				22.10	0.1622		
50	0			21.93	0.1560			
16-QAM	1			0	22.52	0.1786		
	1			24	22.25	0.1679		
	1			49	21.71	0.1483		
	25			0	21.01	0.1262		
	25			12	21.11	0.1291		
	25	24	21.01	0.1262				
50	0	20.92	0.1236					

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.

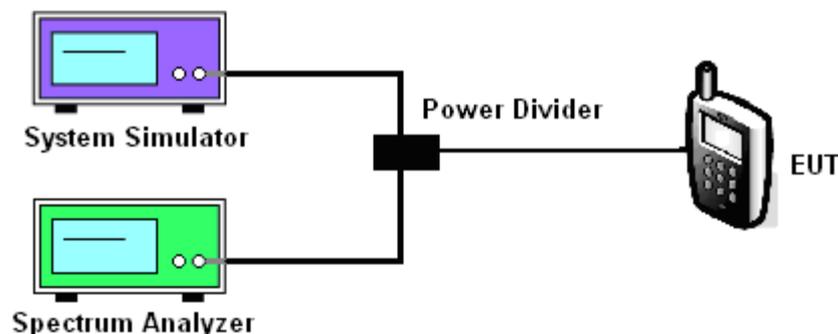
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and System Simulator via power divider.
2. For UMTS/LTE 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. Record the deviation as Peak to Average Ratio.

3.2.4 Test Setup



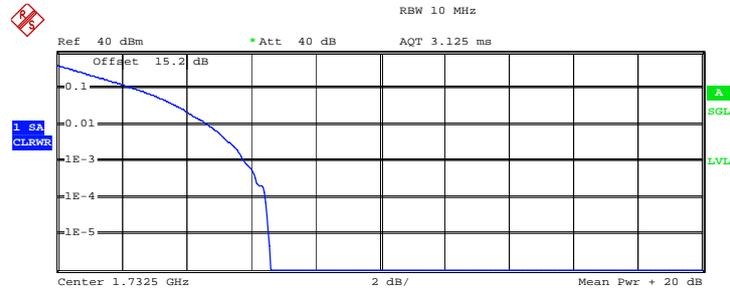
3.2.5 Test Result of Peak-to-Average Ratio

Band	Band Width	Channel	Frequency (MHz)	Modulation	PAR (dB)
LTE Band 4	1.4MHz	20175	1732.5	QPSK	5.80
				16-QAM	6.56
	3MHz	20175	1732.5	QPSK	5.64
				16-QAM	6.60
	5MHz	20175	1732.5	QPSK	5.84
				16-QAM	6.32
	10MHz	20175	1732.5	QPSK	5.68
				16-QAM	6.36
LTE Band 2	1.4MHz	18900	1880	QPSK	4.92
				16-QAM	5.76
	3MHz	18900	1880	QPSK	4.96
				16-QAM	5.96
	5MHz	18900	1880	QPSK	5.20
				16-QAM	6.00
	10MHz	18900	1880	QPSK	5.40
				16-QAM	6.32
LTE Band 25	1.4MHz	26365	1882.5	QPSK	4.72
				16-QAM	5.60
	3MHz	26365	1882.5	QPSK	5.08
				16-QAM	6.08
	5MHz	26365	1882.5	QPSK	5.40
				16-QAM	6.12
	10MHz	26365	1882.5	QPSK	5.56
				16-QAM	6.36



Band:	LTE Band 4	Bandwidth:	1.4MHz
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Peak-to-Average Ratio for QPSK-RB Size 6, RB Offset 0



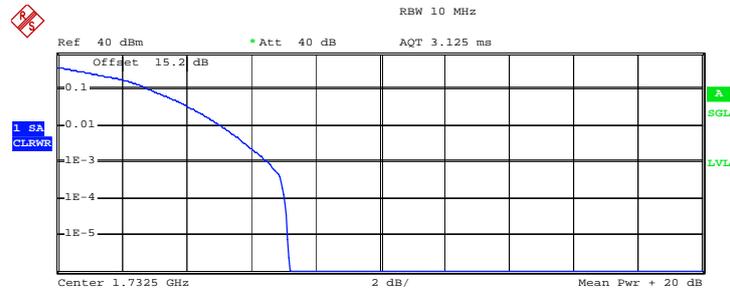
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
Mean 21.45 dBm
Peak 28.08 dBm
Crest 6.62 dB

10 % 2.48 dB
1 % 4.72 dB
.1 % 5.80 dB
.01 % 6.48 dB

Date: 21.JUN.2013 16:18:54

Peak-to-Average Ratio for 16QAM-RB Size 6, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
Mean 20.59 dBm
Peak 27.79 dBm
Crest 7.20 dB

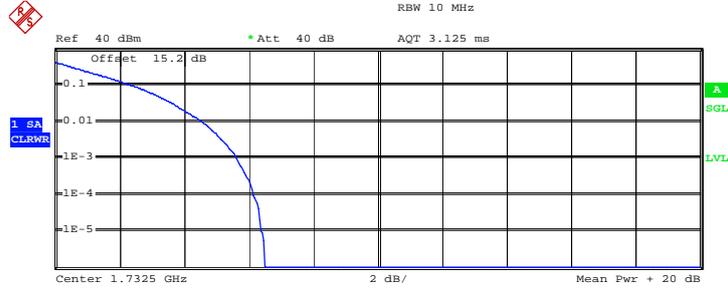
10 % 2.92 dB
1 % 5.12 dB
.1 % 6.56 dB
.01 % 7.08 dB

Date: 21.JUN.2013 16:18:39



Band:	LTE Band 4	Bandwidth:	3MHz
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Peak-to-Average Ratio for QPSK-RB Size 15, RB Offset 0



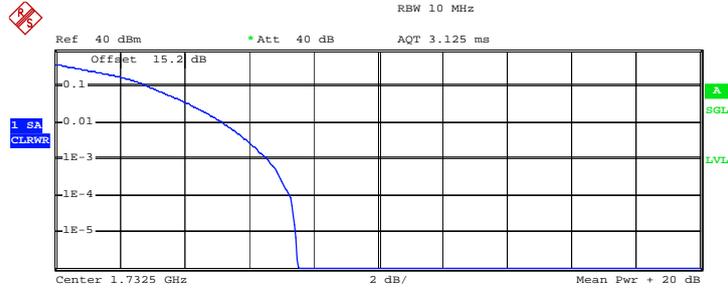
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 21.36 dBm
 Peak 27.86 dBm
 Crest 6.51 dB

10 % 2.48 dB
 1 % 4.60 dB
 .1 % 5.64 dB
 .01 % 6.16 dB

Date: 21.JUN.2013 16:19:38

Peak-to-Average Ratio for 16QAM-RB Size 15, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 20.35 dBm
 Peak 27.86 dBm
 Crest 7.52 dB

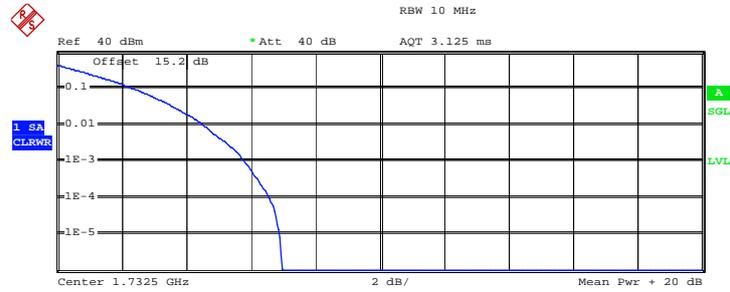
10 % 2.96 dB
 1 % 5.24 dB
 .1 % 6.60 dB
 .01 % 7.28 dB

Date: 21.JUN.2013 16:19:57



Band:	LTE Band 4	Bandwidth:	5MHz
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Peak-to-Average Ratio for QPSK-RB Size 25, RB Offset 0



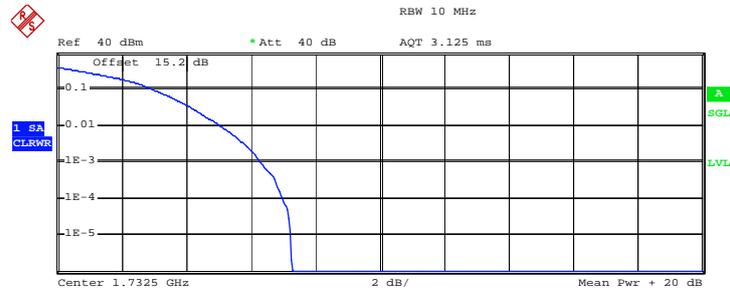
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 21.18 dBm
 Peak 28.15 dBm
 Crest 6.97 dB

10 % 2.44 dB
 1 % 4.56 dB
 .1 % 5.84 dB
 .01 % 6.60 dB

Date: 21.JUN.2013 16:20:42

Peak-to-Average Ratio for 16QAM-RB Size 25, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 20.24 dBm
 Peak 27.51 dBm
 Crest 7.27 dB

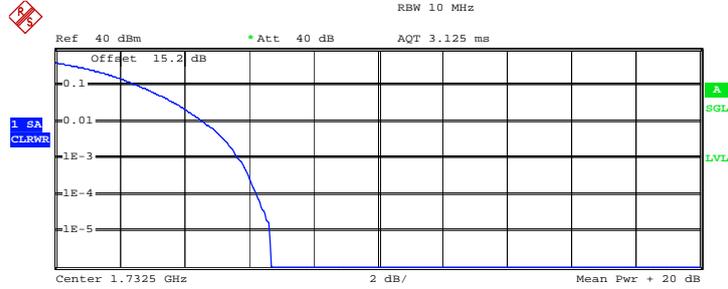
10 % 3.04 dB
 1 % 5.08 dB
 .1 % 6.32 dB
 .01 % 7.00 dB

Date: 21.JUN.2013 16:20:28



Band:	LTE Band 4	Bandwidth:	10MHz
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Peak-to-Average Ratio for QPSK-RB Size 50, RB Offset 0



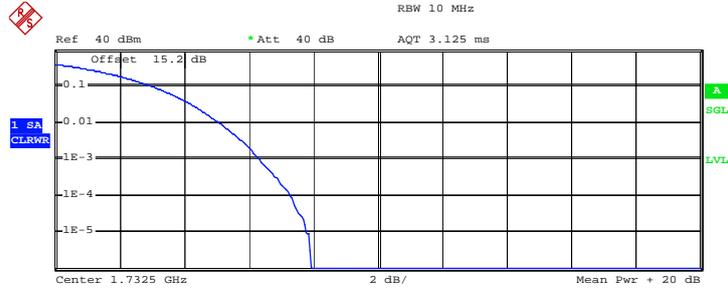
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 20.75 dBm
 Peak 27.44 dBm
 Crest 6.69 dB

10 %	2.64 dB
1 %	4.60 dB
.1 %	5.68 dB
.01 %	6.24 dB

Date: 21.JUN.2013 16:34:34

Peak-to-Average Ratio for 16QAM-RB Size 50, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 19.80 dBm
 Peak 27.72 dBm
 Crest 7.93 dB

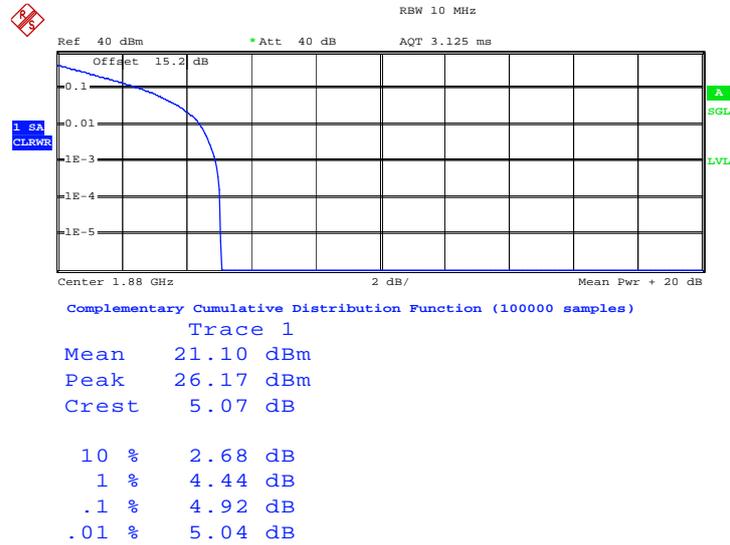
10 %	3.12 dB
1 %	5.12 dB
.1 %	6.36 dB
.01 %	7.32 dB

Date: 21.JUN.2013 16:36:37



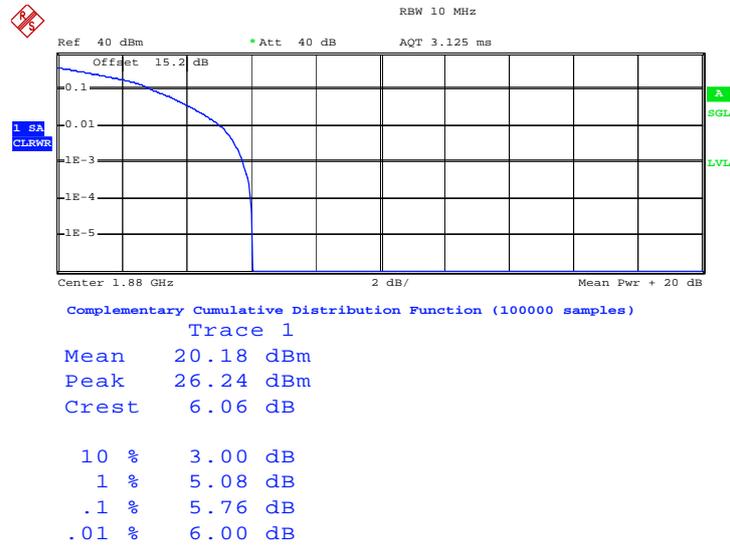
Band:	LTE Band 2	Bandwidth:	1.4MHz
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Peak-to-Average Ratio for QPSK-RB Size 6, RB Offset 0



Date: 17.JUN.2013 15:41:49

Peak-to-Average Ratio for 16QAM-RB Size 6, RB Offset 0

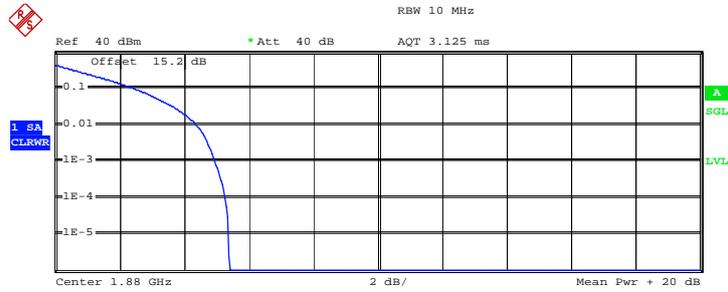


Date: 17.JUN.2013 15:42:35



Band:	LTE Band 2	Bandwidth:	3MHz
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Peak-to-Average Ratio for QPSK-RB Size 15, RB Offset 0



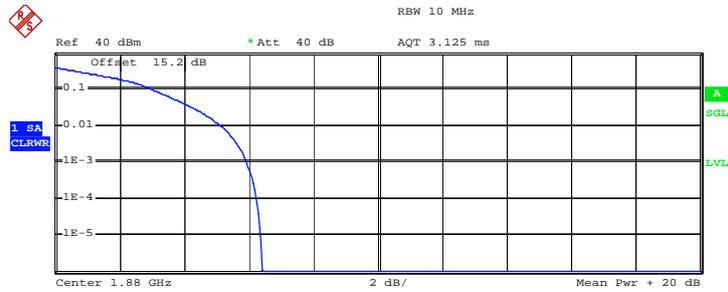
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 21.13 dBm
 Peak 26.52 dBm
 Crest 5.39 dB

10 % 2.52 dB
 1 % 4.40 dB
 .1 % 4.96 dB
 .01 % 5.28 dB

Date: 17.JUN.2013 15:43:22

Peak-to-Average Ratio for 16QAM-RB Size 15, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 20.03 dBm
 Peak 26.45 dBm
 Crest 6.43 dB

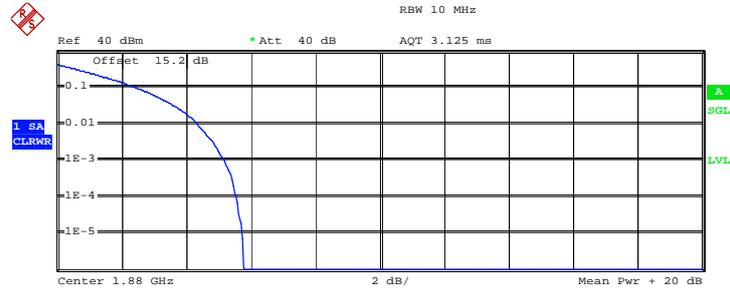
10 % 3.08 dB
 1 % 5.16 dB
 .1 % 5.96 dB
 .01 % 6.24 dB

Date: 17.JUN.2013 15:43:04



Band:	LTE Band 2	Bandwidth:	5MHz
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Peak-to-Average Ratio for QPSK-RB Size 25, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

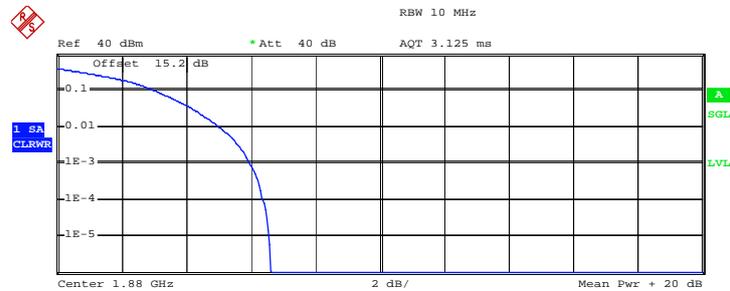
Trace 1

Mean 21.03 dBm
 Peak 26.81 dBm
 Crest 5.77 dB

10 % 2.52 dB
 1 % 4.36 dB
 .1 % 5.20 dB
 .01 % 5.56 dB

Date: 17.JUN.2013 15:43:39

Peak-to-Average Ratio for 16QAM-RB Size 25, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean 20.11 dBm
 Peak 26.74 dBm
 Crest 6.63 dB

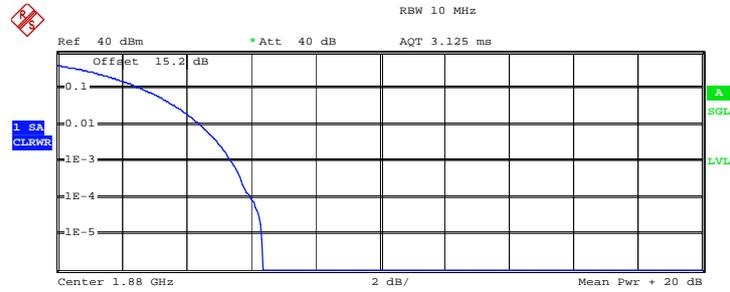
10 % 3.08 dB
 1 % 5.04 dB
 .1 % 6.00 dB
 .01 % 6.40 dB

Date: 17.JUN.2013 15:43:51



Band:	LTE Band 2	Bandwidth:	10MHz
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Peak-to-Average Ratio for QPSK-RB Size 50, RB Offset 0



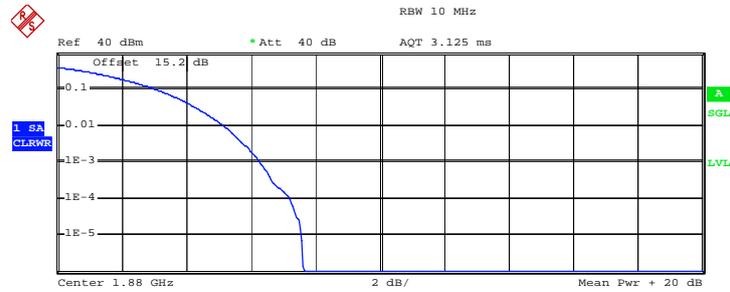
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 20.86 dBm
 Peak 27.23 dBm
 Crest 6.37 dB

10 % 2.68 dB
 1 % 4.48 dB
 .1 % 5.40 dB
 .01 % 6.00 dB

Date: 17.JUN.2013 16:46:32

Peak-to-Average Ratio for 16QAM-RB Size 50, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 19.66 dBm
 Peak 27.30 dBm
 Crest 7.63 dB

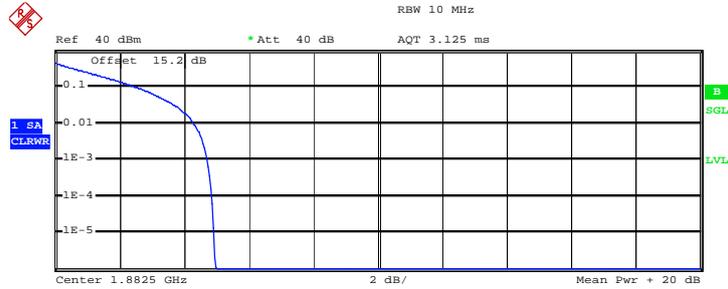
10 % 3.16 dB
 1 % 5.20 dB
 .1 % 6.32 dB
 .01 % 7.24 dB

Date: 17.JUN.2013 16:46:11



Band:	LTE Band 25	Bandwidth:	1.4MHz
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Peak-to-Average Ratio for QPSK-RB Size 6, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

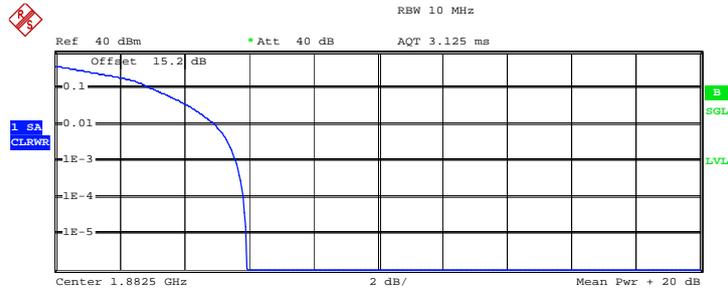
Trace 1

Mean 21.42 dBm
 Peak 26.38 dBm
 Crest 4.96 dB

10 % 2.60 dB
 1 % 4.32 dB
 .1 % 4.72 dB
 .01 % 4.88 dB

Date: 22.JUN.2013 13:32:20

Peak-to-Average Ratio for 16QAM-RB Size 6, RB Offset 0



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean 20.59 dBm
 Peak 26.52 dBm
 Crest 5.94 dB

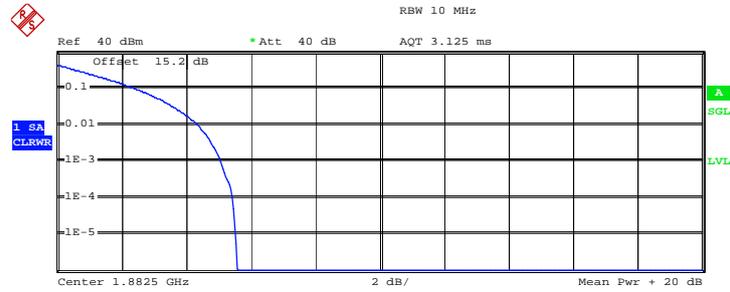
10 % 3.04 dB
 1 % 4.96 dB
 .1 % 5.60 dB
 .01 % 5.84 dB

Date: 22.JUN.2013 13:32:09



Band:	LTE Band 25	Bandwidth:	3MHz
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Peak-to-Average Ratio for QPSK-RB Size 15, RB Offset 0



Center 1.8825 GHz 2 dB/ Mean Pwr + 20 dB

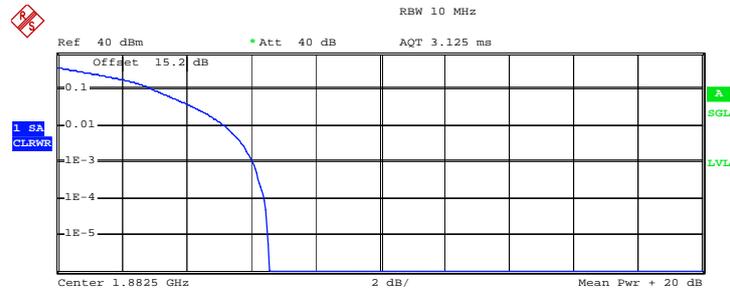
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 21.29 dBm
 Peak 26.88 dBm
 Crest 5.59 dB

10 % 2.48 dB
 1 % 4.36 dB
 .1 % 5.08 dB
 .01 % 5.44 dB

Date: 22.JUN.2013 13:48:01

Peak-to-Average Ratio for 16QAM-RB Size 15, RB Offset 0



Center 1.8825 GHz 2 dB/ Mean Pwr + 20 dB

Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 20.22 dBm
 Peak 26.81 dBm
 Crest 6.59 dB

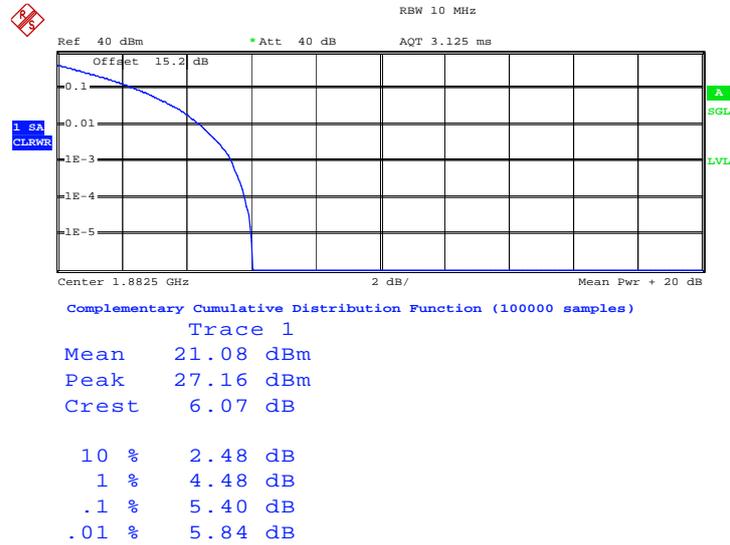
10 % 3.04 dB
 1 % 5.24 dB
 .1 % 6.08 dB
 .01 % 6.44 dB

Date: 22.JUN.2013 13:48:24



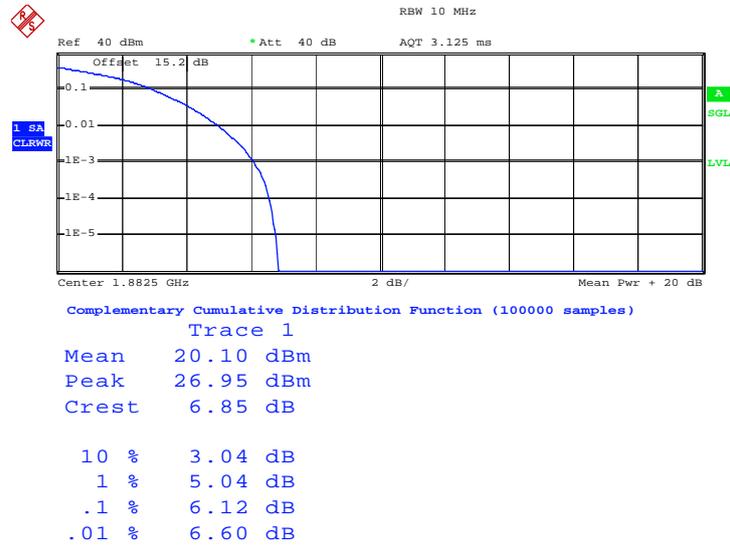
Band:	LTE Band 25	Bandwidth:	5MHz
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Peak-to-Average Ratio for QPSK-RB Size 25, RB Offset 0



Date: 22.JUN.2013 13:49:02

Peak-to-Average Ratio for 16QAM-RB Size 25, RB Offset 0

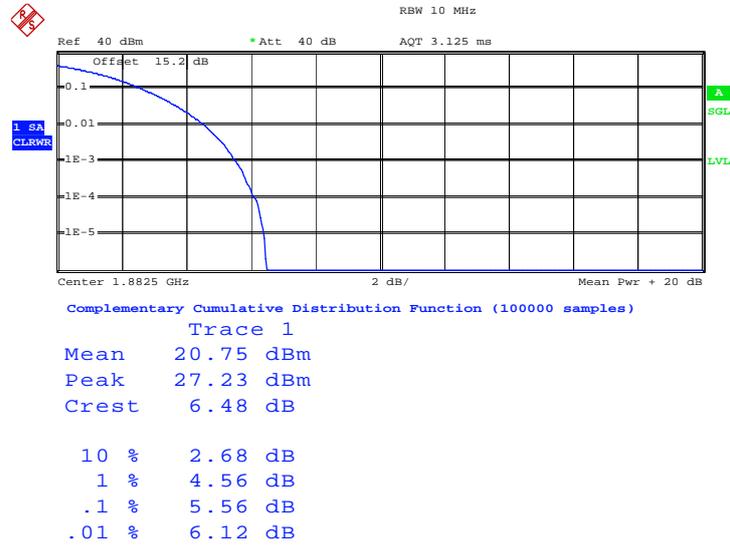


Date: 22.JUN.2013 13:48:49



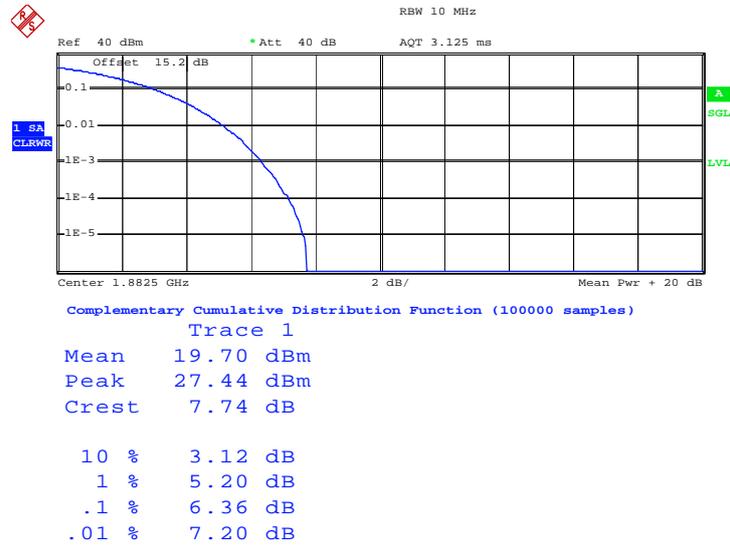
Band:	LTE Band 25	Bandwidth:	10MHz
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Peak-to-Average Ratio for QPSK-RB Size 50, RB Offset 0



Date: 22.JUN.2013 13:50:12

Peak-to-Average Ratio for 16QAM-RB Size 50, RB Offset 0



Date: 22.JUN.2013 13:50:27



3.3 Equivalent Isotropic Radiated Power Measurement

3.3.1 Description of the EIRP Measurement

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2 and LTE band 25, 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 turntable with 1.5 meter height in a fully anechoic chamber.
2. The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiated power.
4. The height of the receiving antenna is adjusted to look for the maximum EIRP.
5. Taking the record of maximum EIRP.
6. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
7. The conducted power at the terminal of the dipole antenna is measured.
8. Repeat step 3 to step 5 to get the maximum EIRP of the substitution antenna.
9. $EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$

P_s (dBm) : Input power to substitution antenna.

G_s (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

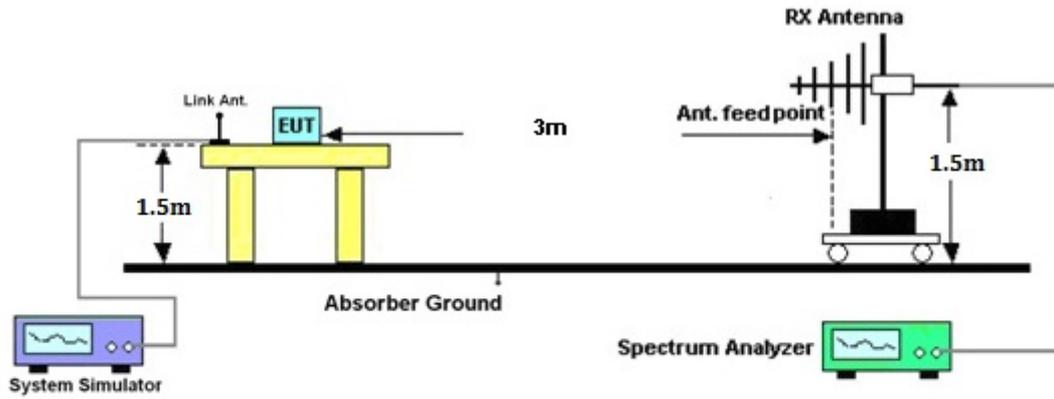
$E_s = R_s + AF$

AF (dB/m) : Receive antenna factor

R_t : The highest received signal in spectrum analyzer for EUT.

R_s : The highest received signal in spectrum analyzer for substitution antenna

3.3.4 Test Setup





3.3.5 Test Result of EIRP

LTE Band 4 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
4	1.4	QPSK	1	0	1710.7	21.87	0.1538	H
4	1.4	QPSK	1	0	1732.5	22.32	0.1706	H
4	1.4	QPSK	1	0	1754.3	22.61	0.1824	H
4	1.4	QPSK	1	0	1710.7	21.97	0.1574	V
4	1.4	QPSK	1	0	1732.5	22.40	0.1738	V
4	1.4	QPSK	1	0	1754.3	22.44	0.1754	V
4	1.4	16QAM	1	0	1710.7	21.00	0.1259	H
4	1.4	16QAM	1	0	1732.5	21.35	0.1365	H
4	1.4	16QAM	1	0	1754.3	21.69	0.1476	H
4	1.4	16QAM	1	0	1710.7	20.68	0.1169	V
4	1.4	16QAM	1	0	1732.5	21.21	0.1321	V
4	1.4	16QAM	1	0	1754.3	21.54	0.1426	V
4	3	QPSK	1	0	1711.5	22.02	0.1592	H
4	3	QPSK	1	0	1732.5	22.40	0.1738	H
4	3	QPSK	1	0	1753.5	22.58	0.1811	H
4	3	QPSK	1	0	1711.5	22.17	0.1648	V
4	3	QPSK	1	0	1732.5	22.43	0.1750	V
4	3	QPSK	1	0	1753.5	22.44	0.1754	V
4	3	16QAM	1	0	1711.5	20.74	0.1186	H
4	3	16QAM	1	0	1732.5	21.18	0.1312	H
4	3	16QAM	1	0	1753.5	21.70	0.1479	H
4	3	16QAM	1	0	1711.5	20.55	0.1135	V
4	3	16QAM	1	0	1732.5	21.07	0.1279	V
4	3	16QAM	1	0	1753.5	21.59	0.1442	V



LTE Band 4 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
4	5	QPSK	1	0	1712.5	22.06	0.1607	H
4	5	QPSK	1	0	1732.5	22.18	0.1652	H
4	5	QPSK	1	0	1752.5	22.41	0.1742	H
4	5	QPSK	1	0	1712.5	21.33	0.1358	V
4	5	QPSK	1	0	1732.5	21.53	0.1422	V
4	5	QPSK	1	0	1752.5	21.91	0.1552	V
4	5	16QAM	1	0	1712.5	20.96	0.1247	H
4	5	16QAM	1	0	1732.5	21.29	0.1346	H
4	5	16QAM	1	0	1752.5	21.91	0.1552	H
4	5	16QAM	1	0	1712.5	20.81	0.1205	V
4	5	16QAM	1	0	1732.5	21.24	0.1330	V
4	5	16QAM	1	0	1752.5	21.85	0.1531	V
4	10	QPSK	1	0	1715	22.06	0.1607	H
4	10	QPSK	1	0	1732.5	22.34	0.1714	H
4	10	QPSK	1	0	1750	22.66	0.1845	H
4	10	QPSK	1	0	1715	21.46	0.1400	V
4	10	QPSK	1	0	1732.5	21.82	0.1521	V
4	10	QPSK	1	0	1750	22.01	0.1589	V
4	10	16QAM	1	0	1715	21.00	0.1259	H
4	10	16QAM	1	0	1732.5	21.39	0.1377	H
4	10	16QAM	1	0	1750	21.69	0.1476	H
4	10	16QAM	1	0	1715	21.10	0.1288	V
4	10	16QAM	1	0	1732.5	21.32	0.1355	V
4	10	16QAM	1	0	1750	21.63	0.1455	V



LTE Band 2 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
2	1.4	QPSK	1	0	1850.7	21.23	0.1327	H
2	1.4	QPSK	1	0	1880	22.40	0.1738	H
2	1.4	QPSK	1	0	1909.3	22.50	0.1778	H
2	1.4	QPSK	1	0	1850.7	21.21	0.1321	V
2	1.4	QPSK	1	0	1880	22.41	0.1742	V
2	1.4	QPSK	1	0	1909.3	22.53	0.1791	V
2	1.4	16QAM	1	0	1850.7	19.92	0.0982	H
2	1.4	16QAM	1	0	1880	21.20	0.1318	H
2	1.4	16QAM	1	0	1909.3	21.17	0.1309	H
2	1.4	16QAM	1	0	1850.7	19.91	0.0979	V
2	1.4	16QAM	1	0	1880	21.13	0.1297	V
2	1.4	16QAM	1	0	1909.3	21.09	0.1285	V
2	3	QPSK	1	0	1851.5	20.44	0.1107	H
2	3	QPSK	1	0	1880	21.97	0.1574	H
2	3	QPSK	1	0	1908.5	22.34	0.1714	H
2	3	QPSK	1	0	1851.5	20.41	0.1099	V
2	3	QPSK	1	0	1880	21.91	0.1552	V
2	3	QPSK	1	0	1908.5	22.43	0.1750	V
2	3	16QAM	1	0	1851.5	19.20	0.0832	H
2	3	16QAM	1	0	1880	20.84	0.1213	H
2	3	16QAM	1	0	1908.5	20.96	0.1247	H
2	3	16QAM	1	0	1851.5	19.12	0.0817	V
2	3	16QAM	1	0	1880	20.83	0.1211	V
2	3	16QAM	1	0	1908.5	20.97	0.1250	V



LTE Band 2 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
2	5	QPSK	1	0	1852.5	20.11	0.1026	H
2	5	QPSK	1	0	1880	21.76	0.1500	H
2	5	QPSK	1	0	1907.5	21.69	0.1476	H
2	5	QPSK	1	0	1852.5	20.07	0.1016	V
2	5	QPSK	1	0	1880	21.72	0.1486	V
2	5	QPSK	1	0	1907.5	21.74	0.1493	V
2	5	16QAM	1	0	1852.5	19.12	0.0817	H
2	5	16QAM	1	0	1880	20.74	0.1186	H
2	5	16QAM	1	0	1907.5	20.64	0.1159	H
2	5	16QAM	1	0	1852.5	19.08	0.0809	V
2	5	16QAM	1	0	1880	20.69	0.1172	V
2	5	16QAM	1	0	1907.5	20.70	0.1175	V
2	10	QPSK	1	49	1855	21.08	0.1282	H
2	10	QPSK	1	49	1880	22.06	0.1607	H
2	10	QPSK	1	49	1905	22.16	0.1644	H
2	10	QPSK	1	49	1855	21.03	0.1268	V
2	10	QPSK	1	49	1880	22.00	0.1585	V
2	10	QPSK	1	49	1905	22.06	0.1607	V
2	10	16QAM	1	0	1855	19.88	0.0973	H
2	10	16QAM	1	0	1880	21.12	0.1294	H
2	10	16QAM	1	0	1905	21.46	0.1400	H
2	10	16QAM	1	0	1855	19.96	0.0991	V
2	10	16QAM	1	0	1880	21.25	0.1334	V
2	10	16QAM	1	0	1905	21.60	0.1445	V



LTE Band 25 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
25	1.4	QPSK	1	0	1850.7	20.75	0.1189	H
25	1.4	QPSK	1	0	1882.5	22.31	0.1702	H
25	1.4	QPSK	1	0	1914.3	22.27	0.1687	H
25	1.4	QPSK	1	0	1850.7	20.70	0.1175	V
25	1.4	QPSK	1	0	1882.5	22.18	0.1652	V
25	1.4	QPSK	1	0	1914.3	22.30	0.1698	V
25	1.4	16QAM	1	0	1850.7	20.14	0.1033	H
25	1.4	16QAM	1	0	1882.5	21.55	0.1429	H
25	1.4	16QAM	1	0	1914.3	21.42	0.1387	H
25	1.4	16QAM	1	0	1850.7	20.12	0.1028	V
25	1.4	16QAM	1	0	1882.5	21.40	0.1380	V
25	1.4	16QAM	1	0	1914.3	21.45	0.1396	V
25	3	QPSK	1	0	1851.5	20.39	0.1094	H
25	3	QPSK	1	0	1882.5	22.00	0.1585	H
25	3	QPSK	1	0	1913.5	22.27	0.1687	H
25	3	QPSK	1	0	1851.5	20.33	0.1079	V
25	3	QPSK	1	0	1882.5	21.84	0.1528	V
25	3	QPSK	1	0	1913.5	22.22	0.1667	V
25	3	16QAM	1	0	1851.5	19.32	0.0855	H
25	3	16QAM	1	0	1882.5	21.26	0.1337	H
25	3	16QAM	1	0	1913.5	21.25	0.1334	H
25	3	16QAM	1	0	1851.5	19.25	0.0841	V
25	3	16QAM	1	0	1882.5	21.11	0.1291	V
25	3	16QAM	1	0	1913.5	21.21	0.1321	V



LTE Band 25 Radiated Power EIRP								
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	EIRP (W)	H/V
			RB Size	RB Offset				
25	5	QPSK	1	0	1852.5	20.89	0.1227	H
25	5	QPSK	1	0	1882.5	22.00	0.1585	H
25	5	QPSK	1	0	1912.5	22.04	0.1600	H
25	5	QPSK	1	0	1852.5	20.88	0.1225	V
25	5	QPSK	1	0	1882.5	21.89	0.1545	V
25	5	QPSK	1	0	1912.5	21.91	0.1552	V
25	5	16QAM	1	0	1852.5	19.60	0.0912	H
25	5	16QAM	1	0	1882.5	21.04	0.1271	H
25	5	16QAM	1	0	1912.5	21.26	0.1337	H
25	5	16QAM	1	0	1852.5	19.54	0.0899	V
25	5	16QAM	1	0	1882.5	20.94	0.1242	V
25	5	16QAM	1	0	1912.5	21.09	0.1285	V
25	10	QPSK	1	0	1855	19.67	0.0927	H
25	10	QPSK	1	0	1882.5	21.73	0.1489	H
25	10	QPSK	1	0	1910	21.67	0.1469	H
25	10	QPSK	1	0	1855	19.74	0.0942	V
25	10	QPSK	1	0	1882.5	21.83	0.1524	V
25	10	QPSK	1	0	1910	21.79	0.1510	V
25	10	16QAM	1	0	1855	19.84	0.0964	H
25	10	16QAM	1	0	1882.5	21.20	0.1318	H
25	10	16QAM	1	0	1910	21.04	0.1271	H
25	10	16QAM	1	0	1855	19.92	0.0982	V
25	10	16QAM	1	0	1882.5	21.22	0.1324	V
25	10	16QAM	1	0	1910	21.24	0.1330	V

3.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.4.1 Description of 99% Occupied Bandwidth and 26dB Bandwidth Measurement

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

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

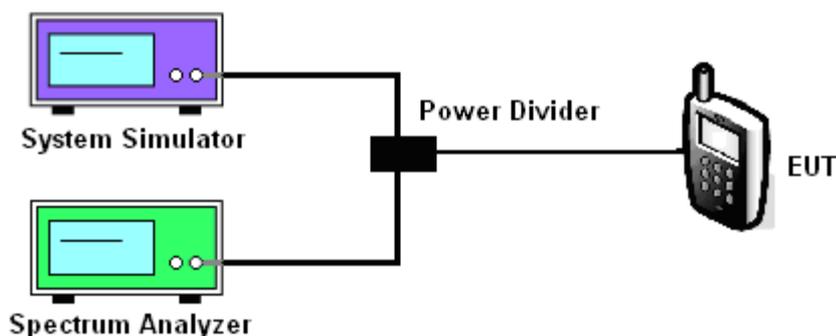
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

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

3.4.4 Test Setup



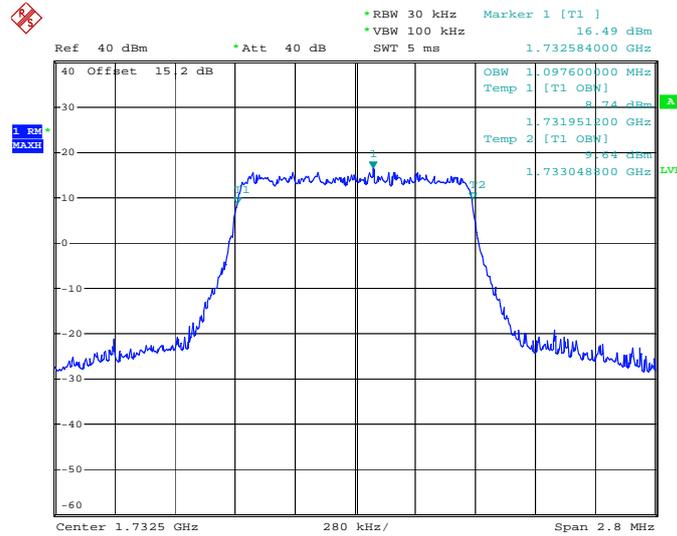
3.4.6 Test Result of 99% Occupied Bandwidth and 26dB Bandwidth

Band	Band Width	Channel	Frequency (MHz)	Modulation	99%Bandwidth (MHz)	26dB Bandwidth (MHz)
LTE Band 4	1.4MHz	20175	1732.5	QPSK	1.10	1.30
				16-QAM	1.10	1.30
	3MHz	20175	1732.5	QPSK	2.74	3.06
				16-QAM	2.74	3.07
	5MHz	20175	1732.5	QPSK	4.52	5.02
				16-QAM	4.52	5.04
10MHz	20175	1732.5	QPSK	9.16	10.12	
			16-QAM	9.16	10.04	
LTE Band 2	1.4MHz	18900	1880	QPSK	1.10	1.30
				16-QAM	1.10	1.29
	3MHz	18900	1880	QPSK	2.74	3.06
				16-QAM	2.75	3.12
	5MHz	18900	1880	QPSK	4.52	5.10
				16-QAM	4.50	5.06
10MHz	18900	1880	QPSK	9.12	9.96	
			16-QAM	9.12	9.96	
LTE Band 25	1.4MHz	26365	1882.5	QPSK	1.10	1.30
				16-QAM	1.10	1.29
	3MHz	26365	1882.5	QPSK	2.74	3.06
				16-QAM	2.74	3.10
	5MHz	26365	1882.5	QPSK	4.50	5.00
				16-QAM	4.50	4.98
10MHz	26365	1882.5	QPSK	9.16	10.08	
			16-QAM	9.12	10.04	

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

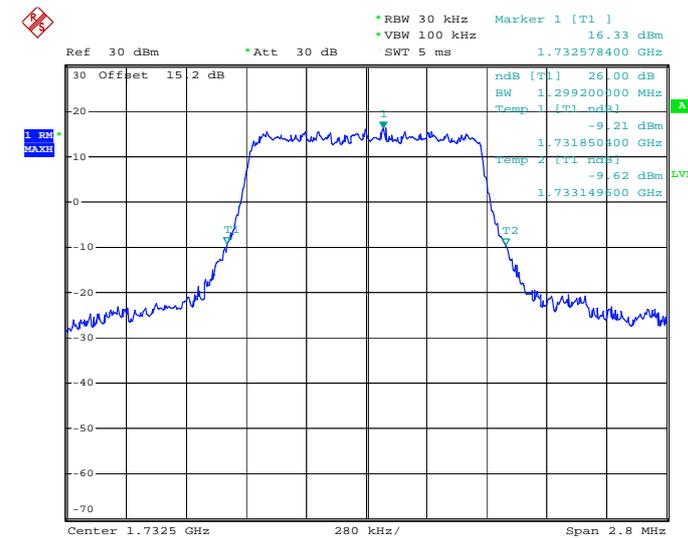
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20175
for RB Size 6, RB Offset 0



Date: 21.JUN.2013 15:51:26

26dB Bandwidth Plot on Channel 20175
for RB Size 6, RB Offset 0

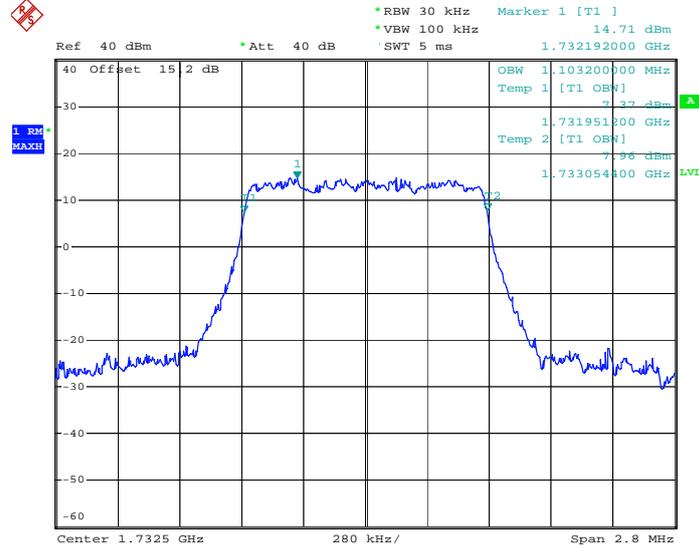


Date: 21.JUN.2013 14:55:23



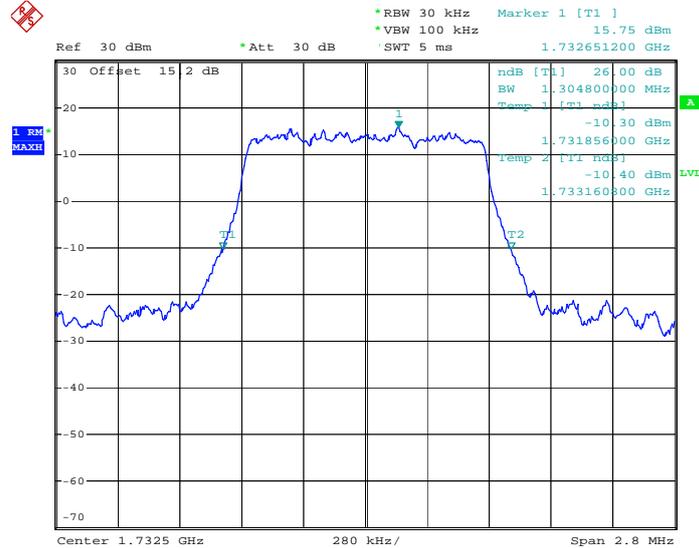
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 20175
for RB Size 6, RB Offset 0**



Date: 21.JUN.2013 15:51:07

**26dB Bandwidth Plot on Channel 20175
for RB Size 6, RB Offset 0**

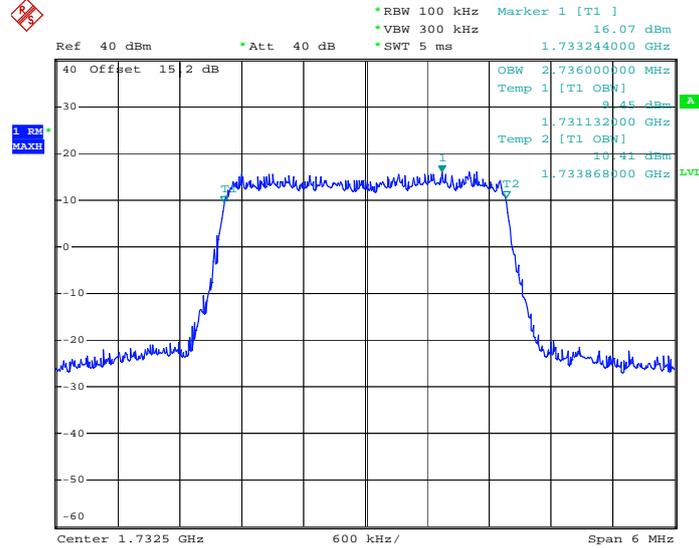


Date: 21.JUN.2013 14:54:53



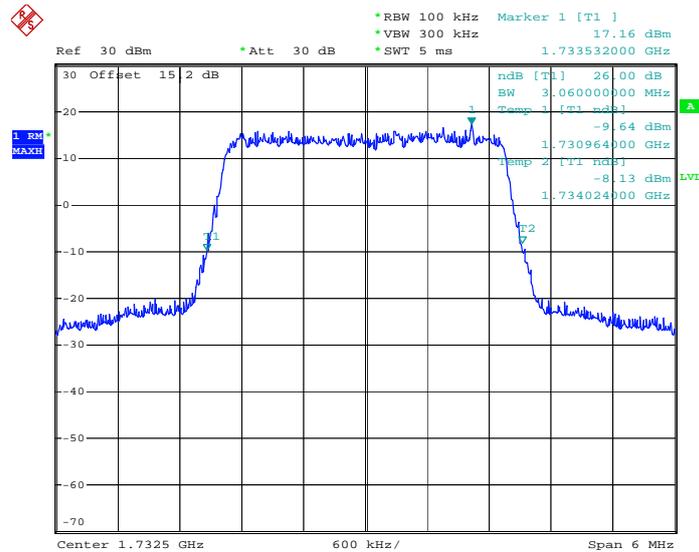
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 20175
for RB Size 15, RB Offset 0**



Date: 21.JUN.2013 15:57:14

**26dB Bandwidth Plot on Channel 20175
for RB Size 15, RB Offset 0**

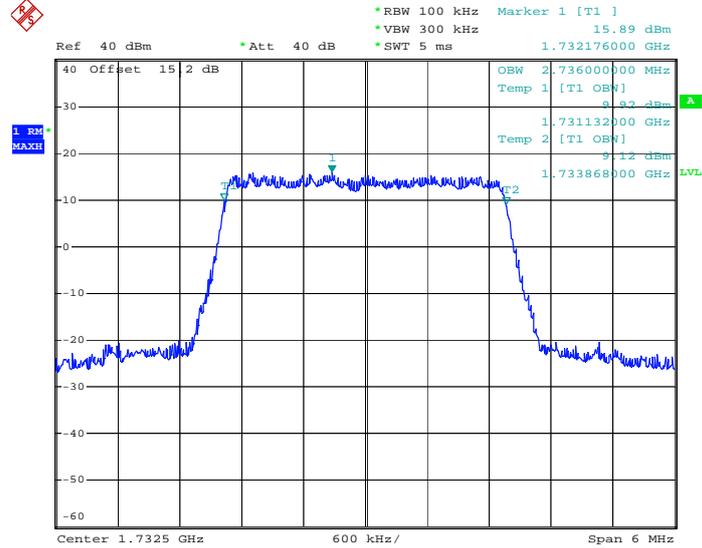


Date: 21.JUN.2013 14:56:11



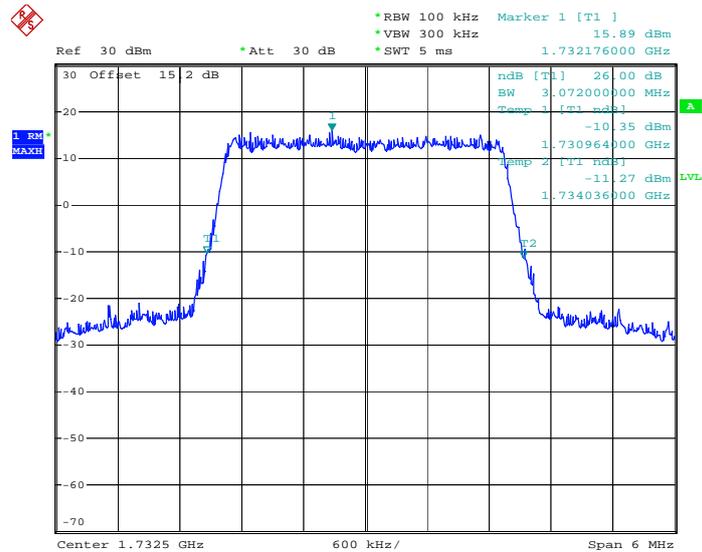
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 20175
for RB Size 15, RB Offset 0**



Date: 21.JUN.2013 15:56:58

**26dB Bandwidth Plot on Channel 20175
for RB Size 15, RB Offset 0**

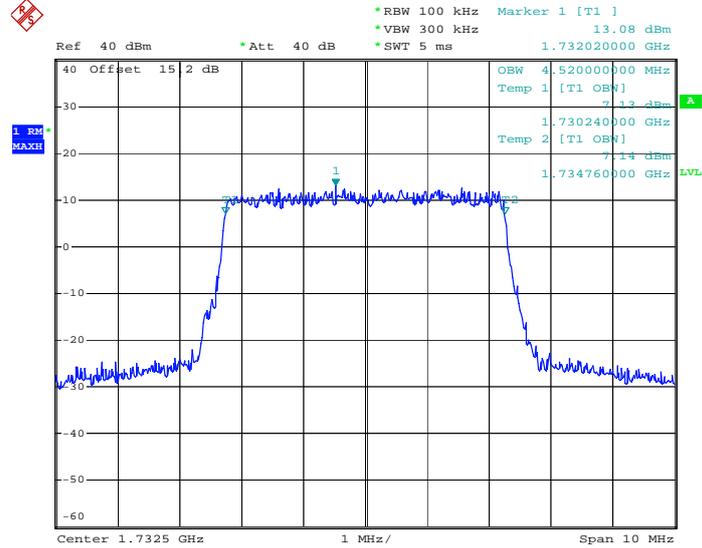


Date: 21.JUN.2013 14:56:35



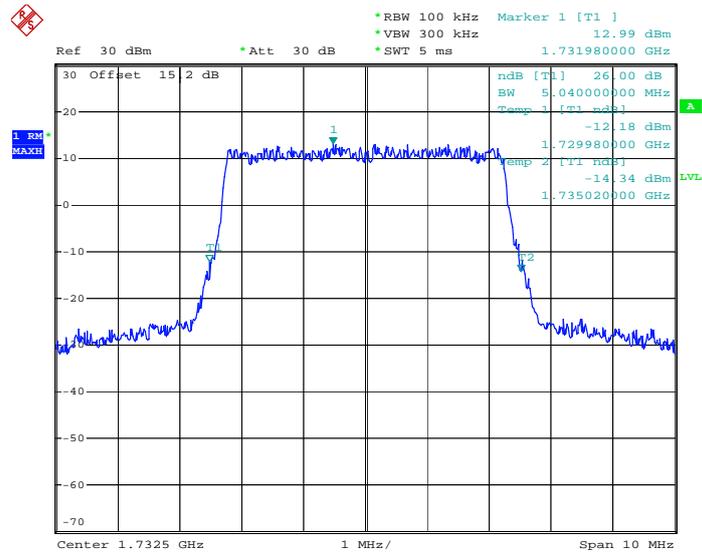
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 20175
for RB Size 25, RB Offset 0**



Date: 21.JUN.2013 16:02:24

**26dB Bandwidth Plot on Channel 20175
for RB Size 25, RB Offset 0**

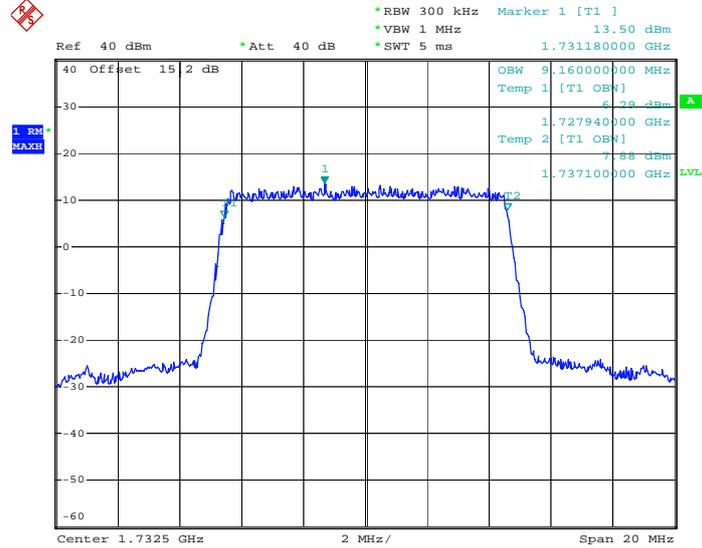


Date: 21.JUN.2013 14:57:39



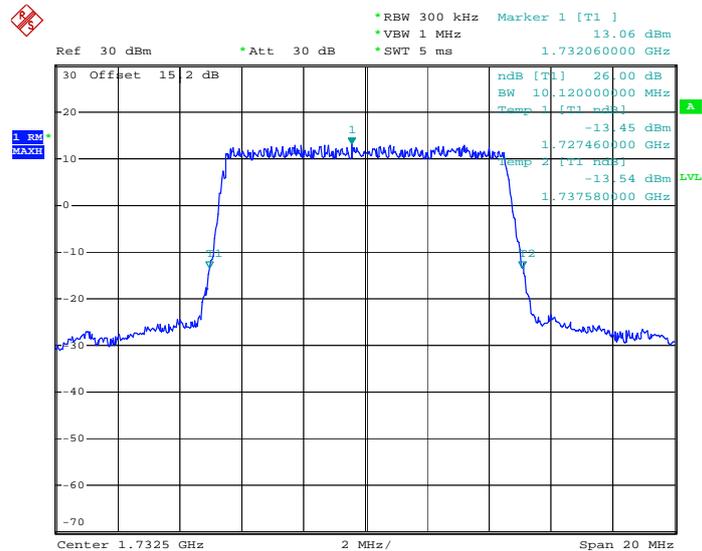
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 20175
for RB Size 50, RB Offset 0**



Date: 21.JUN.2013 16:07:07

**26dB Bandwidth Plot on Channel 20175
for RB Size 50, RB Offset 0**

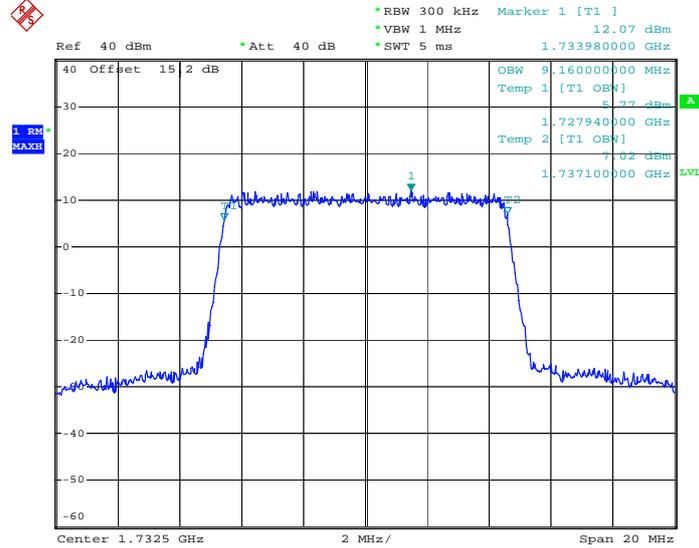


Date: 21.JUN.2013 14:59:05



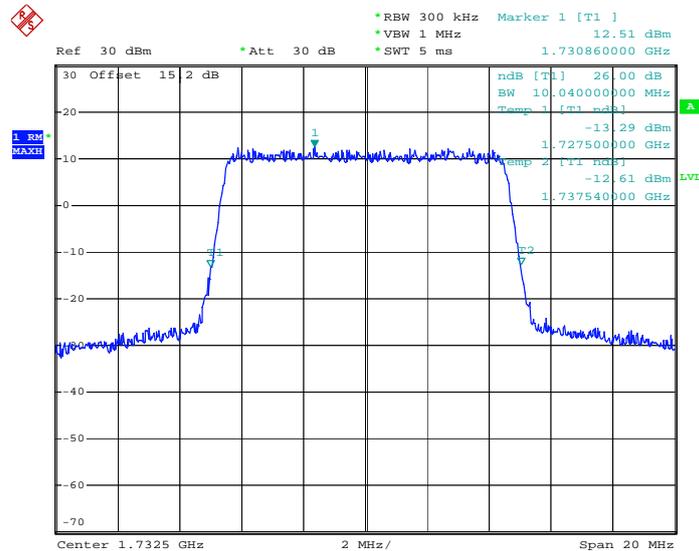
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 20175
for RB Size 50, RB Offset 0**



Date: 21.JUN.2013 16:07:25

**26dB Bandwidth Plot on Channel 20175
for RB Size 50, RB Offset 0**

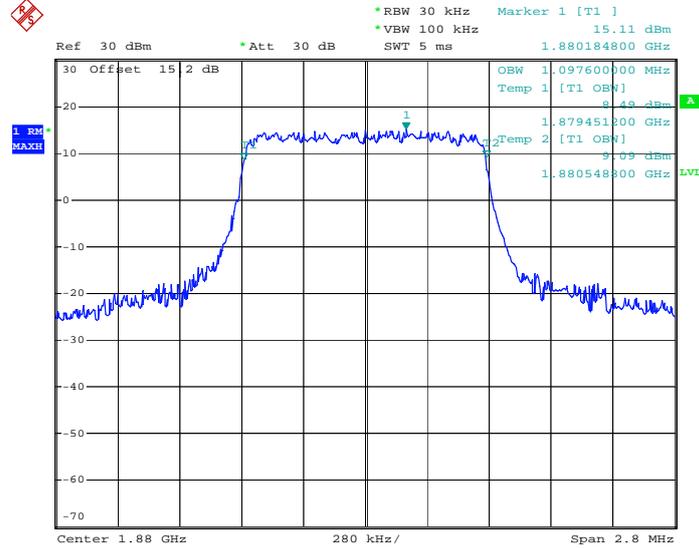


Date: 21.JUN.2013 14:59:33



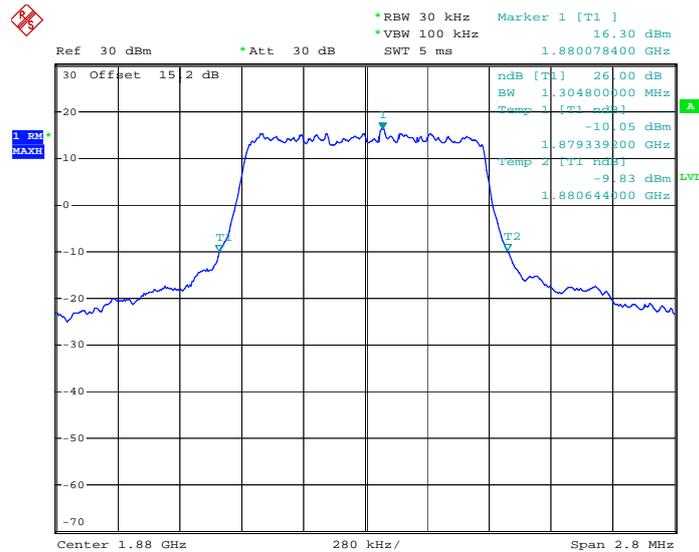
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 6, RB Offset 0**



Date: 17.JUN.2013 15:36:04

**26dB Bandwidth Plot on Channel 18900
for RB Size 6, RB Offset 0**

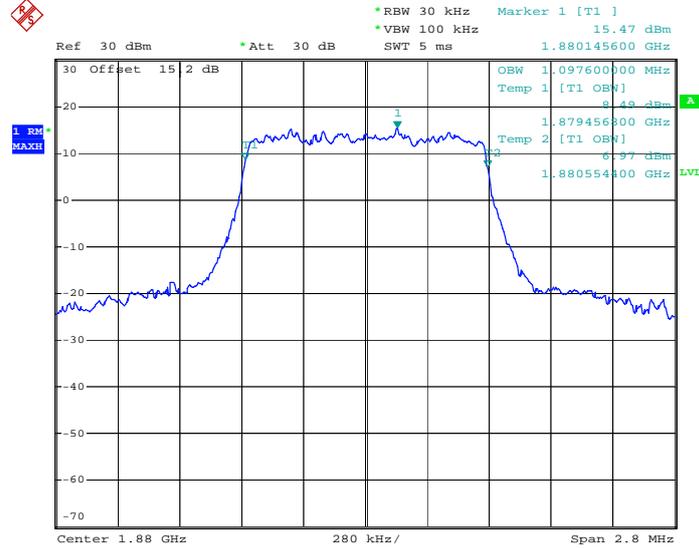


Date: 17.JUN.2013 15:00:08



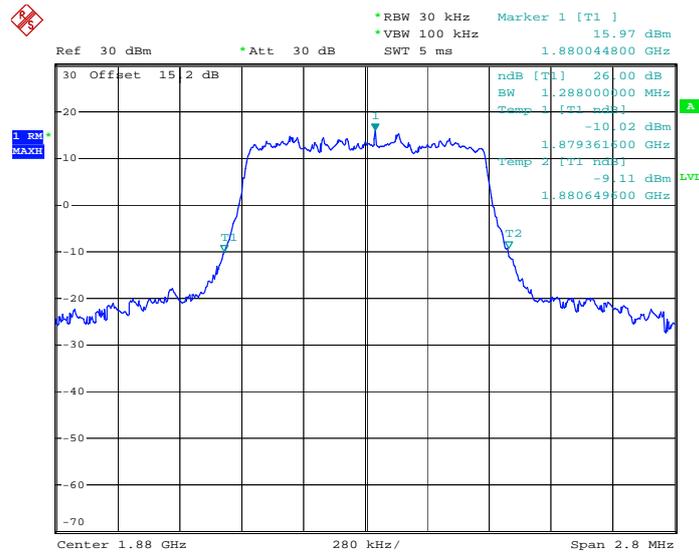
Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 6, RB Offset 0**



Date: 17.JUN.2013 15:35:48

**26dB Bandwidth Plot on Channel 18900
for RB Size 6, RB Offset 0**

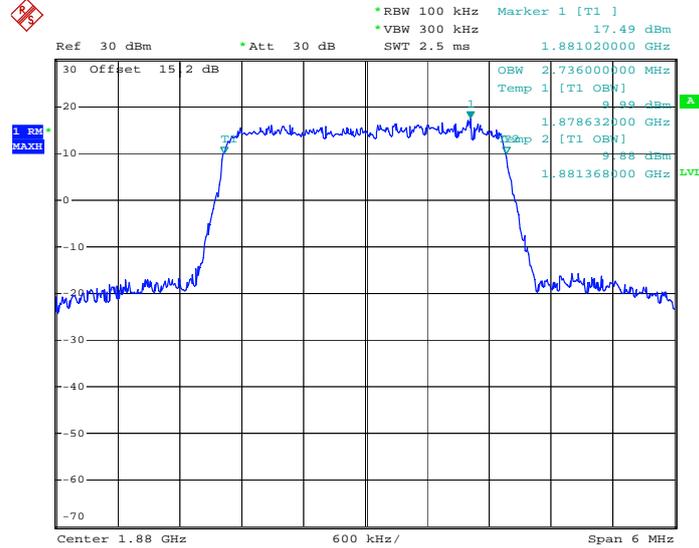


Date: 17.JUN.2013 15:00:46



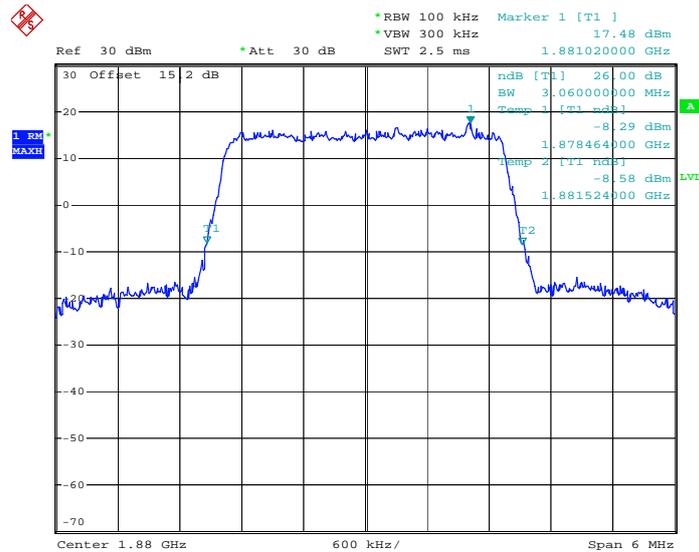
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 15, RB Offset 0**



Date: 17.JUN.2013 15:23:06

**26dB Bandwidth Plot on Channel 18900
for RB Size 15, RB Offset 0**

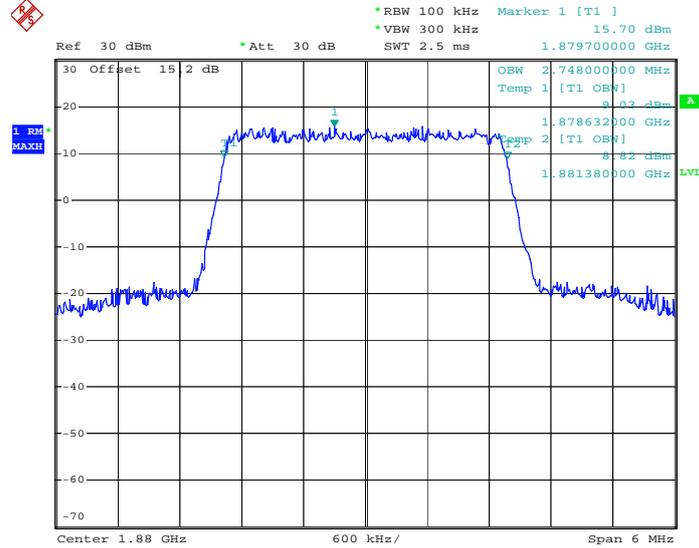


Date: 17.JUN.2013 15:02:56



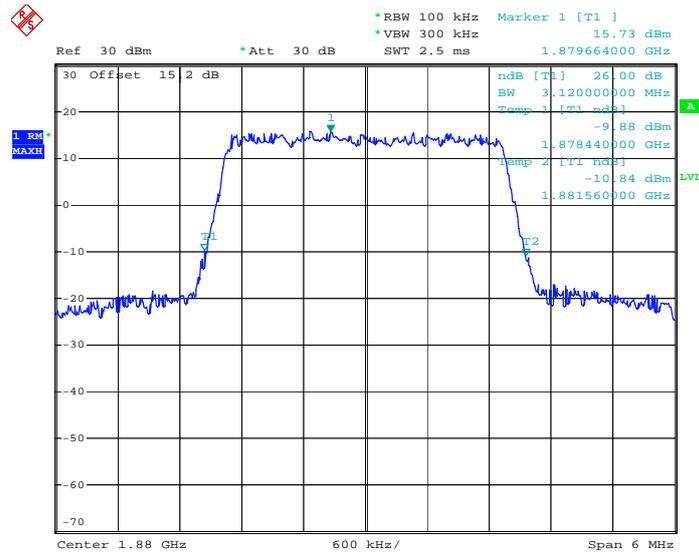
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 15, RB Offset 0**



Date: 17.JUN.2013 15:22:36

**26dB Bandwidth Plot on Channel 18900
for RB Size 15, RB Offset 0**

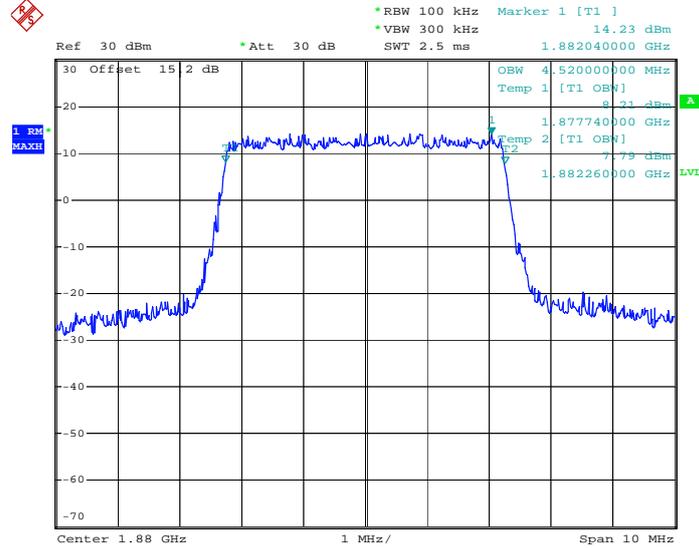


Date: 17.JUN.2013 15:01:45



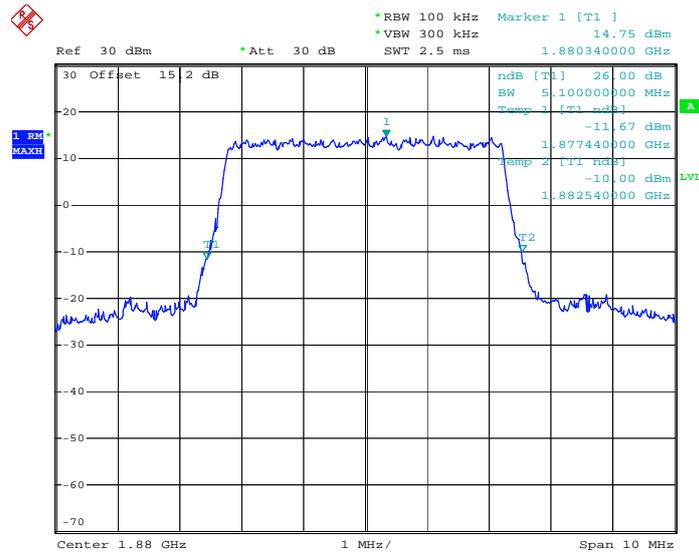
Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 25, RB Offset 0**



Date: 17.JUN.2013 15:27:01

**26dB Bandwidth Plot on Channel 18900
for RB Size 25, RB Offset 0**

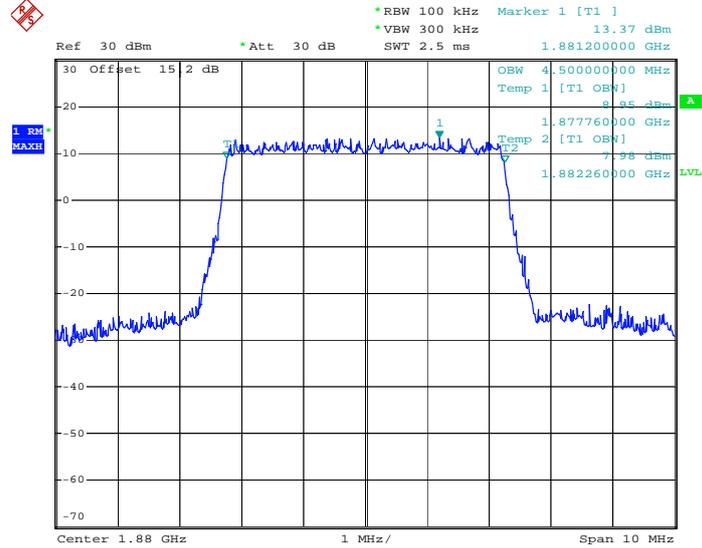


Date: 17.JUN.2013 15:05:53



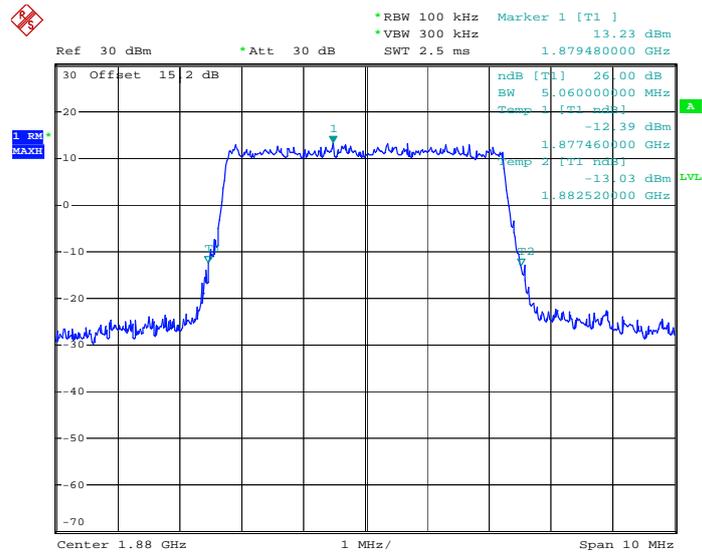
Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 19175
for RB Size 25, RB Offset 0**



Date: 17.JUN.2013 15:27:21

**26dB Bandwidth Plot on Channel 19175
for RB Size 25, RB Offset 0**

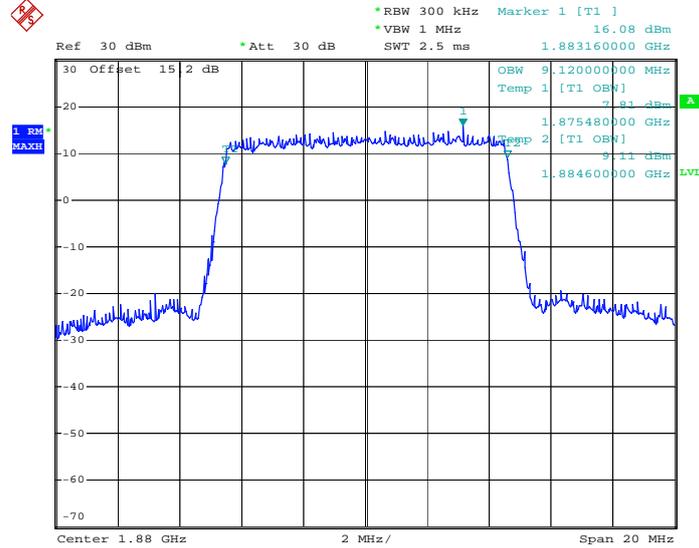


Date: 17.JUN.2013 15:06:24



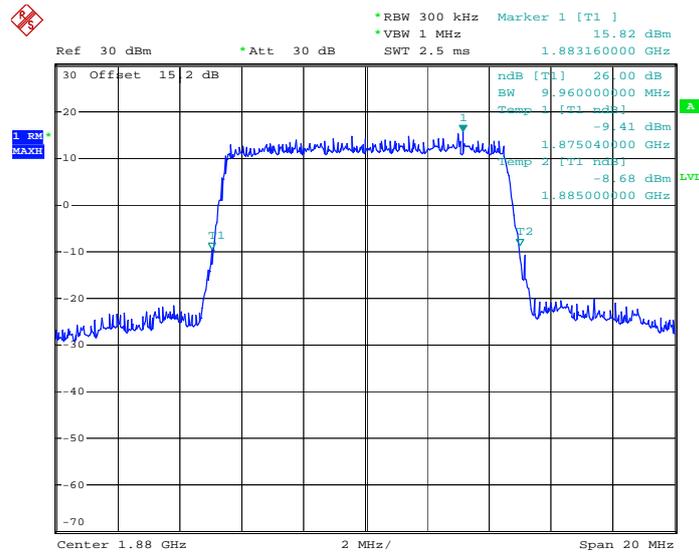
Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 50, RB Offset 0**



Date: 17.JUN.2013 15:34:17

**26dB Bandwidth Plot on Channel 18900
for RB Size 50, RB Offset 0**

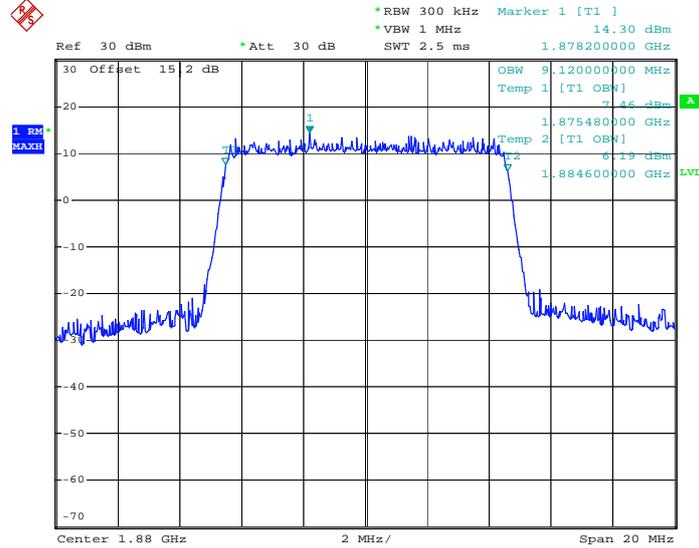


Date: 17.JUN.2013 15:10:47



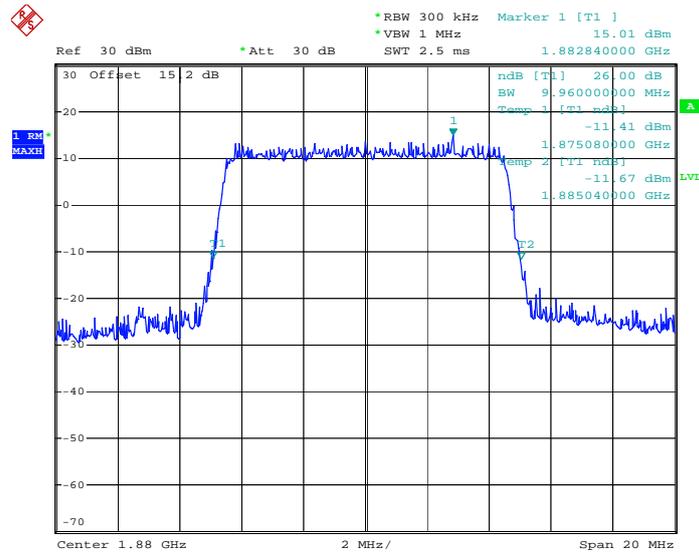
Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 18900
for RB Size 50, RB Offset 0**



Date: 17.JUN.2013 15:34:33

**26dB Bandwidth Plot on Channel 18900
for RB Size 50, RB Offset 0**

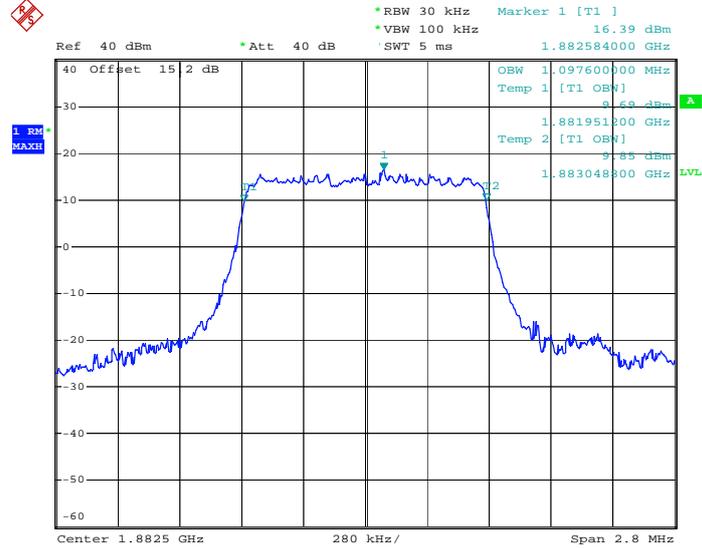


Date: 17.JUN.2013 15:11:06



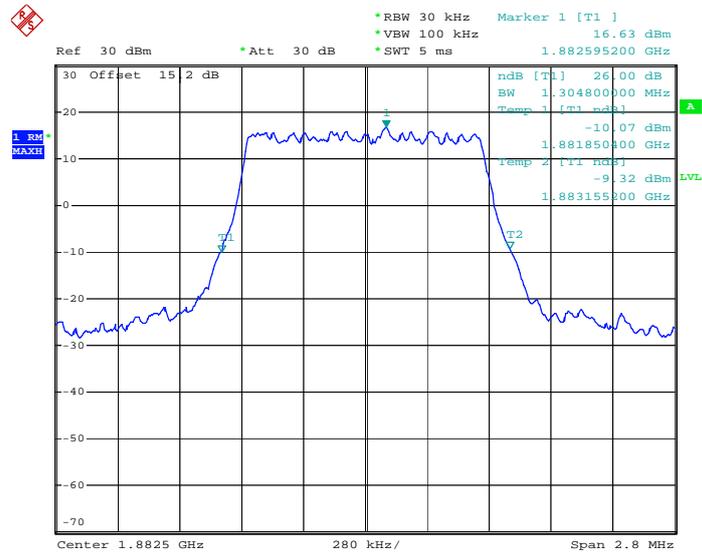
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 6, RB Offset 0**



Date: 22.JUN.2013 10:59:34

**26dB Bandwidth Plot on Channel 26365
for RB Size 6, RB Offset 0**

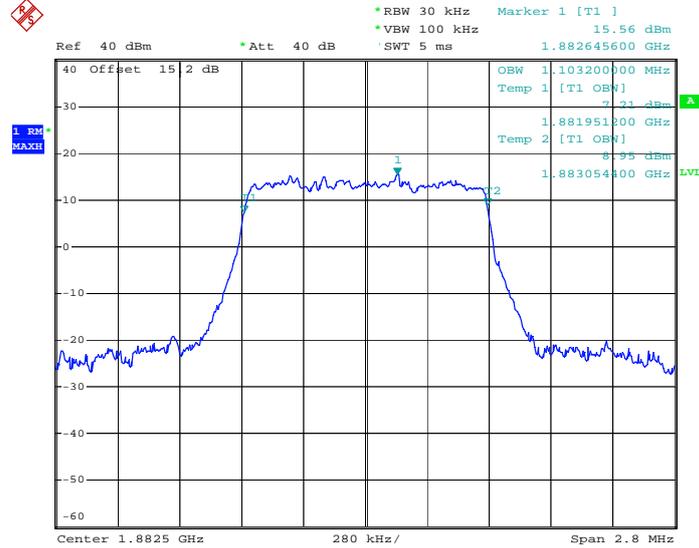


Date: 22.JUN.2013 10:37:36



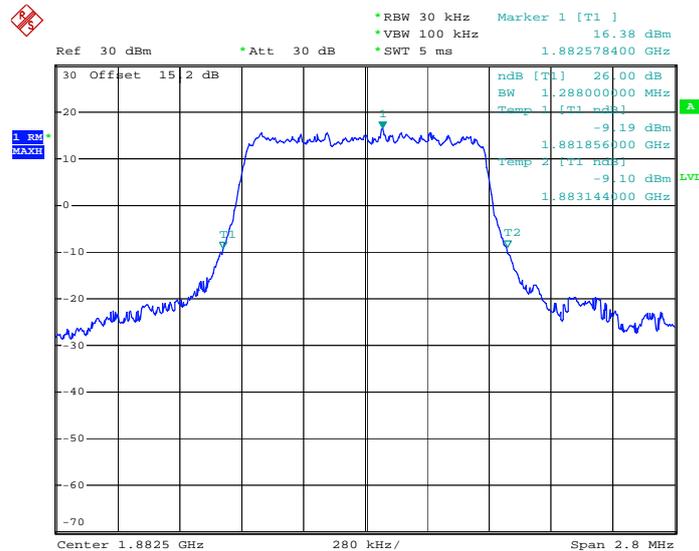
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 6, RB Offset 0**



Date: 22.JUN.2013 11:00:22

**26dB Bandwidth Plot on Channel 26365
for RB Size 6, RB Offset 0**

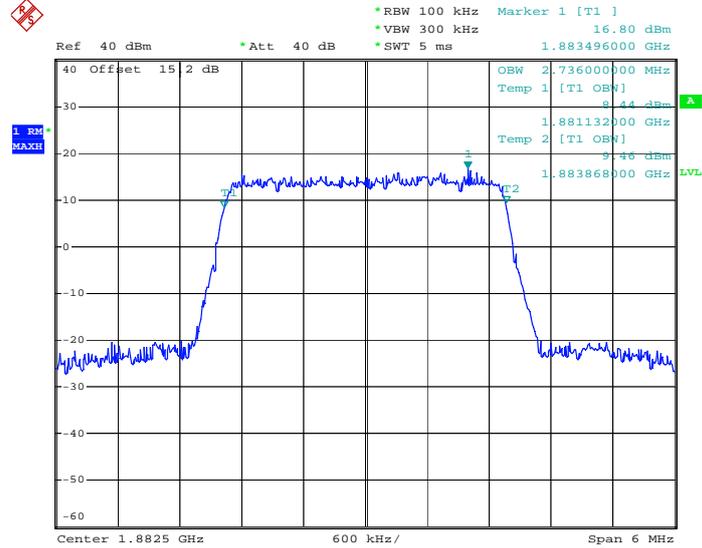


Date: 22.JUN.2013 10:48:56



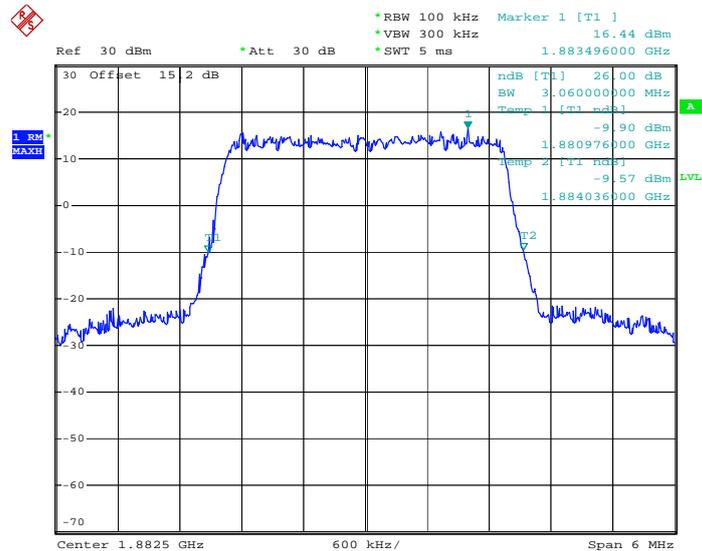
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 15, RB Offset 0**



Date: 22.JUN.2013 11:07:35

**26dB Bandwidth Plot on Channel 26365
for RB Size 15, RB Offset 0**

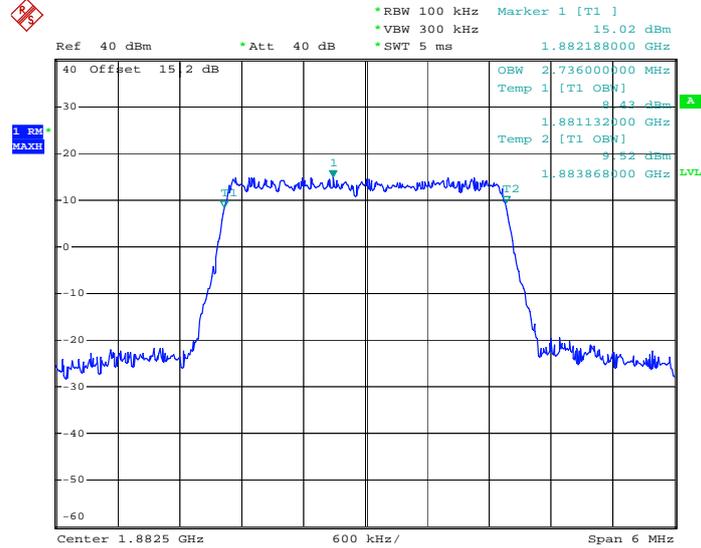


Date: 22.JUN.2013 10:42:48



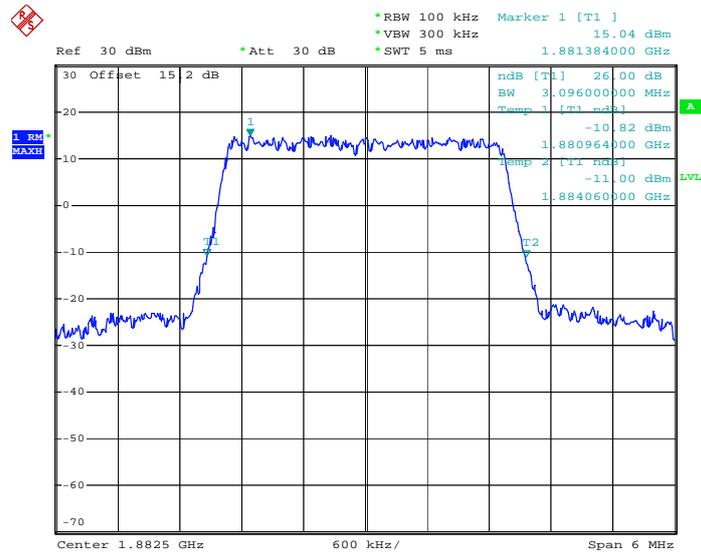
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 15, RB Offset 0**



Date: 22.JUN.2013 11:08:02

**26dB Bandwidth Plot on Channel 26365
for RB Size 15, RB Offset 0**

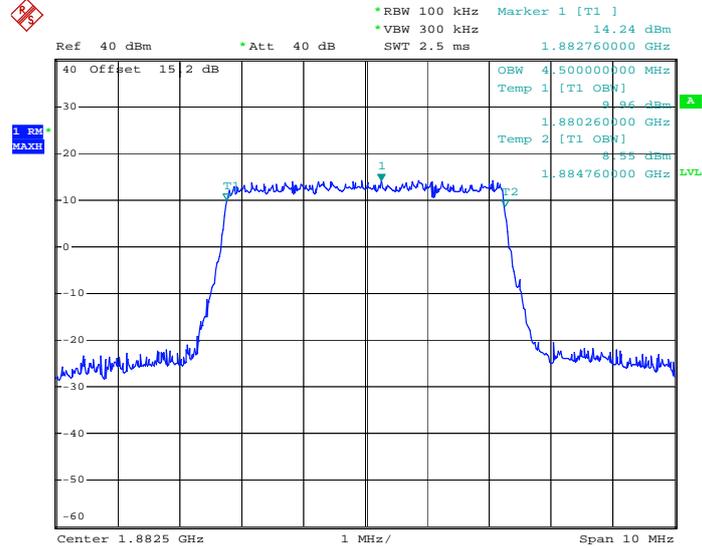


Date: 22.JUN.2013 10:42:30



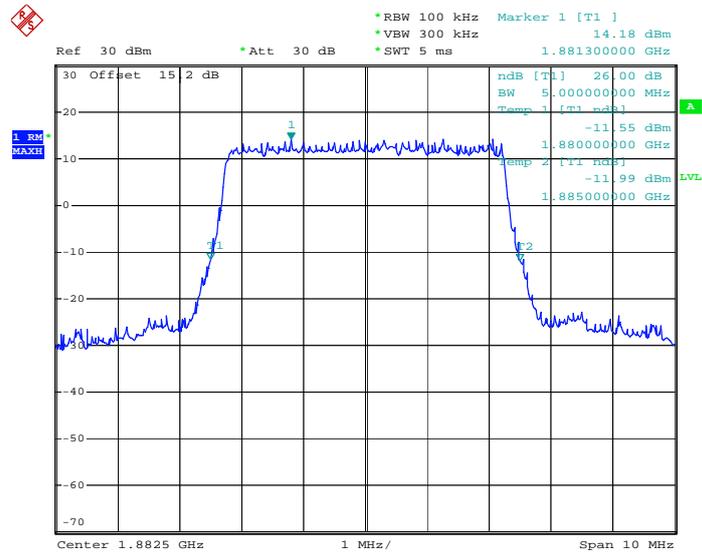
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 25, RB Offset 0**



Date: 22.JUN.2013 11:50:24

**26dB Bandwidth Plot on Channel 26365
for RB Size 25, RB Offset 0**

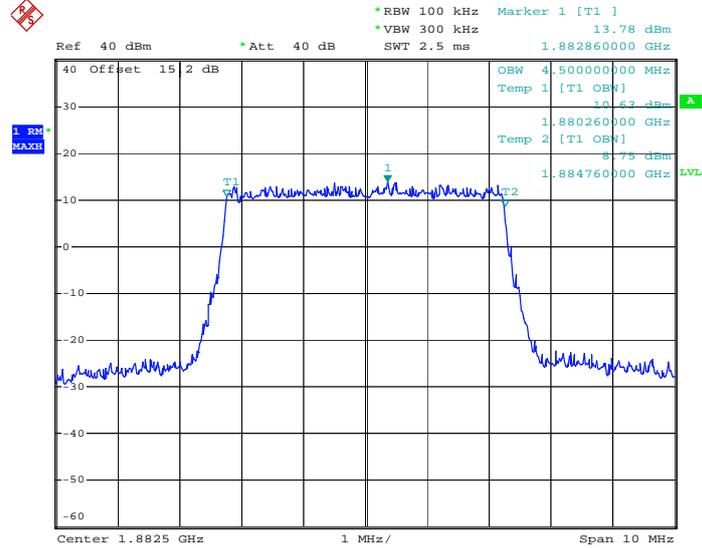


Date: 22.JUN.2013 10:44:24



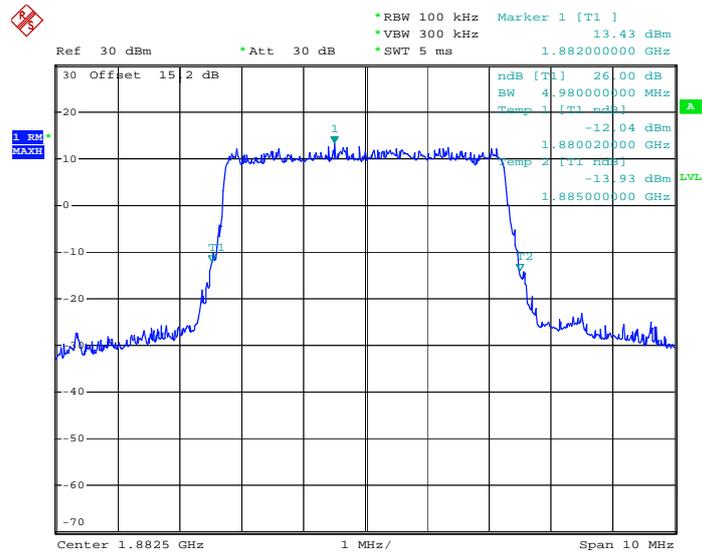
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 25, RB Offset 0**



Date: 22.JUN.2013 11:50:51

**26dB Bandwidth Plot on Channel 26365
for RB Size 25, RB Offset 0**

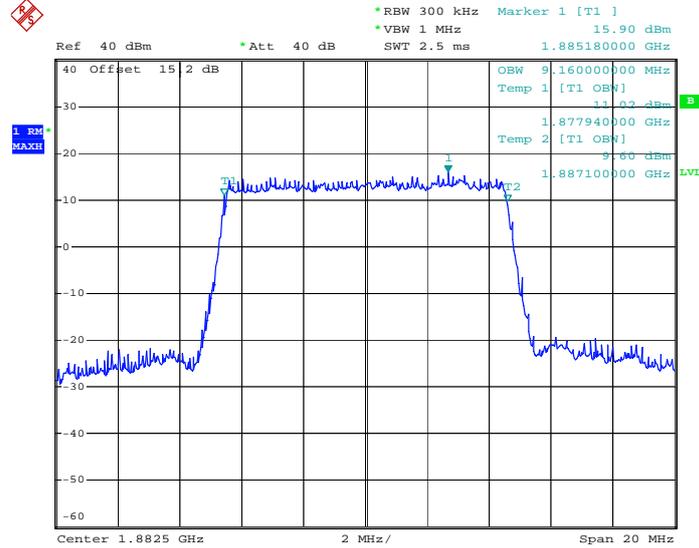


Date: 22.JUN.2013 10:44:51



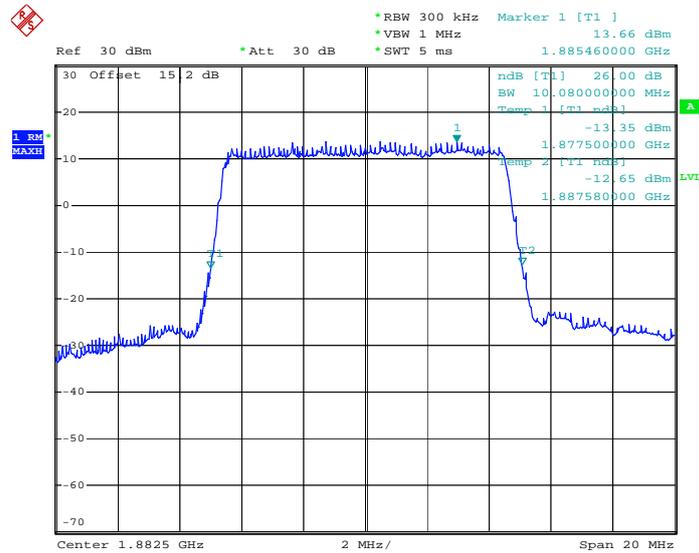
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 50, RB Offset 0**



Date: 22.JUN.2013 11:59:31

**26dB Bandwidth Plot on Channel 26365
for RB Size 50, RB Offset 0**

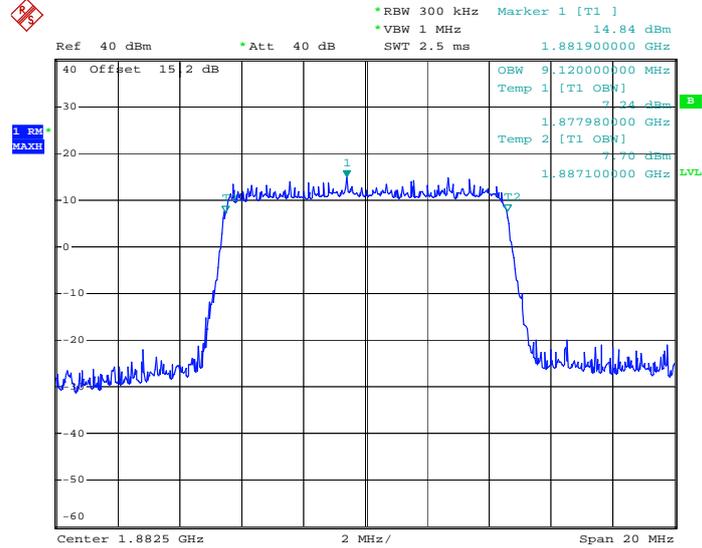


Date: 22.JUN.2013 10:46:47



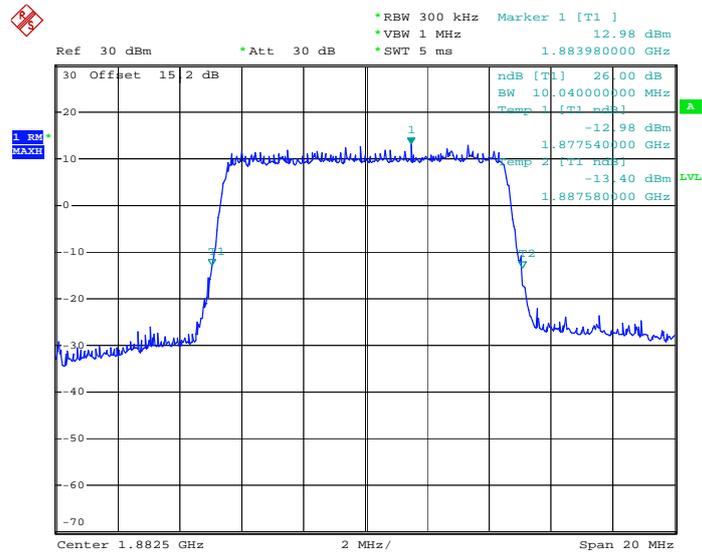
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 50, RB Offset 0**



Date: 22.JUN.2013 11:59:48

**26dB Bandwidth Plot on Channel 26365
for RB Size 50, RB Offset 0**



Date: 22.JUN.2013 10:45:44

3.5 Conducted Band Edge Measurement

3.5.1 Description of Conducted Band Edge Measurement

For operations in band 2, band 4 and band 25, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB = -13 dBm in a 1 MHz bandwidth.

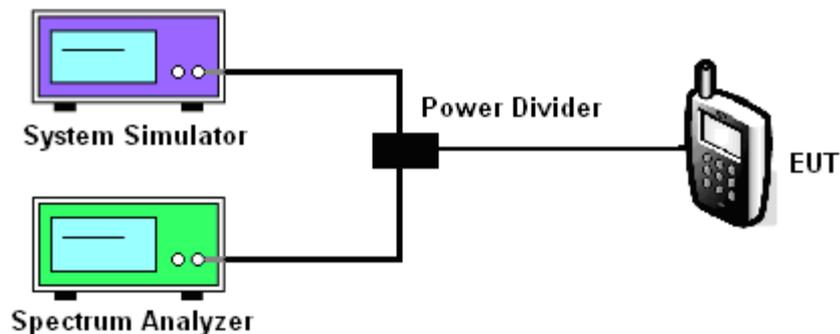
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Setting $RBW \geq 1\%$ EBW, and measuring bandwidth = 1MHz.
3. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
4. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13\text{dBm}$.

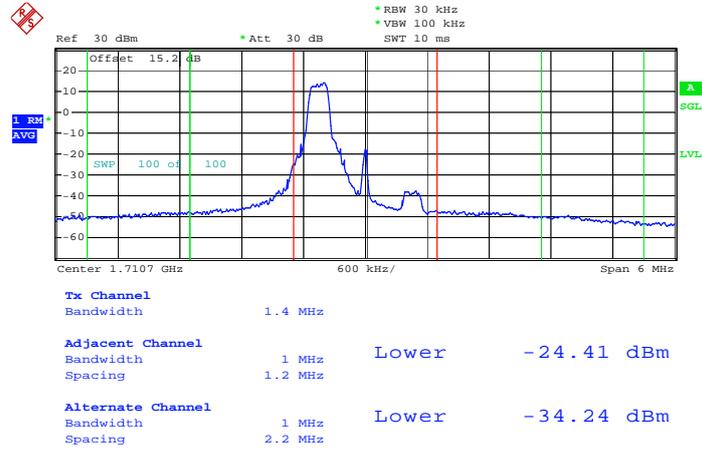
3.5.4 Test Setup



3.5.5 Test Result (Plots) of Conducted Band Edge

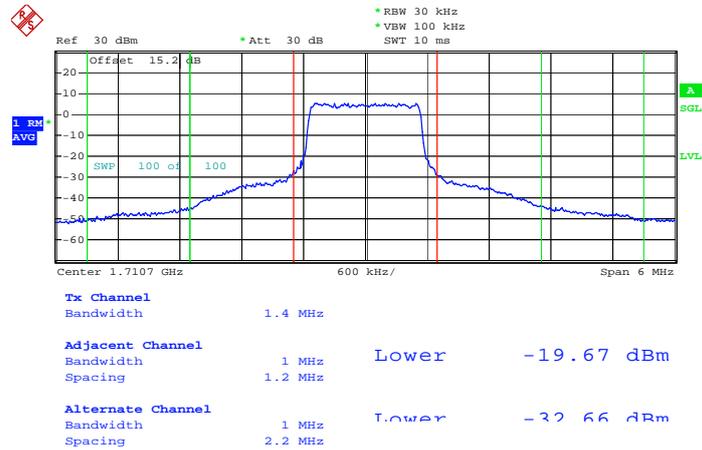
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 21.JUN.2013 16:43:39

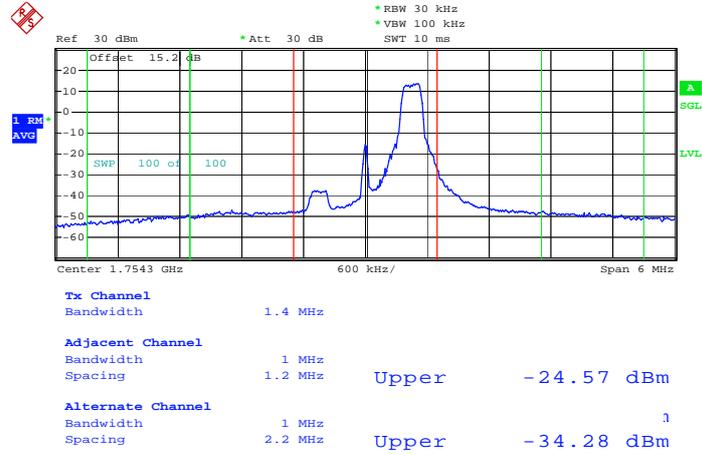
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 21.JUN.2013 16:44:45

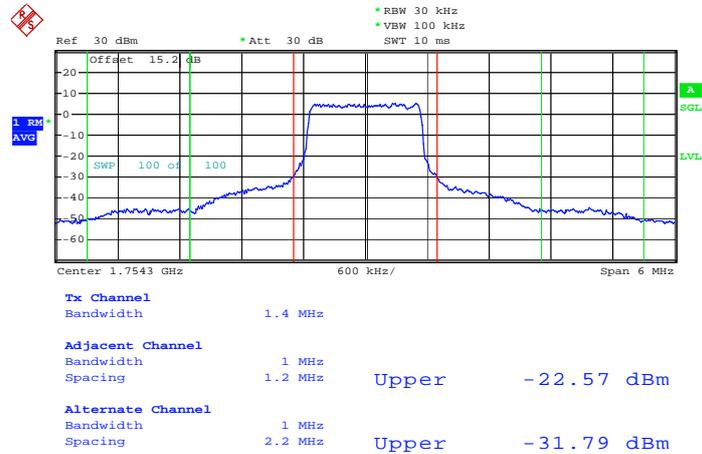


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 21.JUN.2013 16:47:41

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

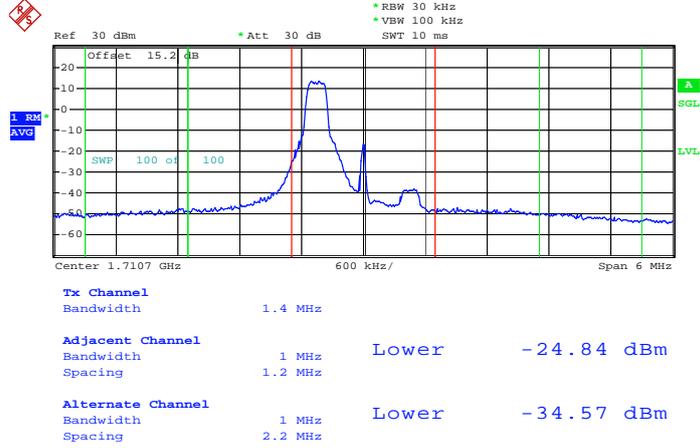


Date: 21.JUN.2013 16:46:38



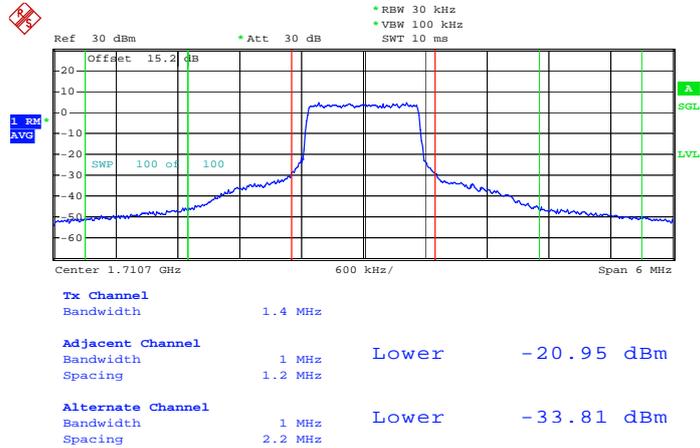
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 21.JUN.2013 16:43:26

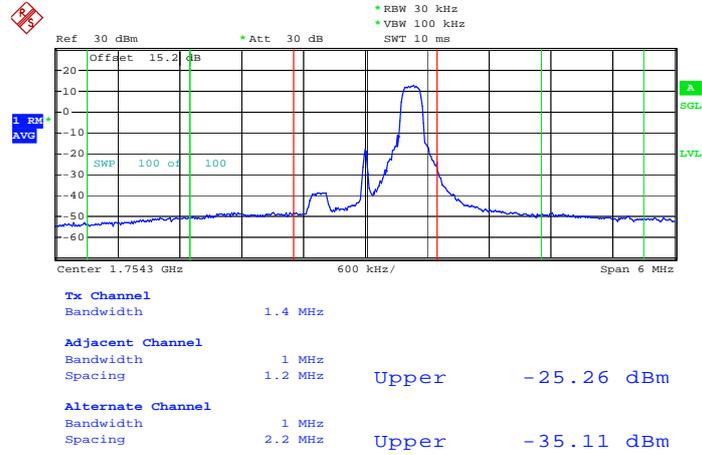
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Date: 21.JUN.2013 16:45:02

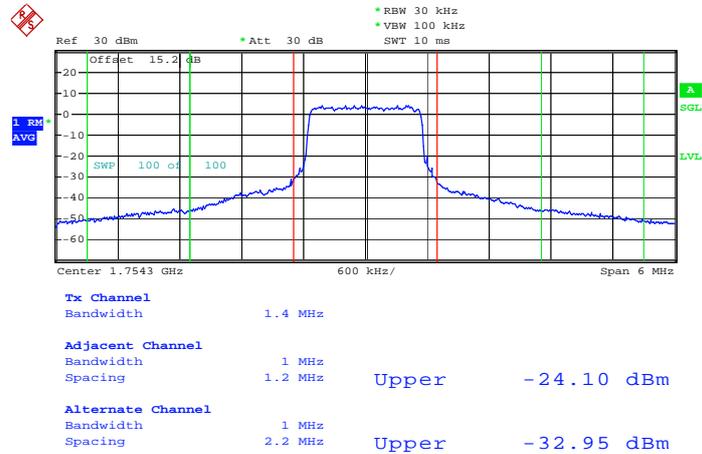


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Date: 21.JUN.2013 16:47:55

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

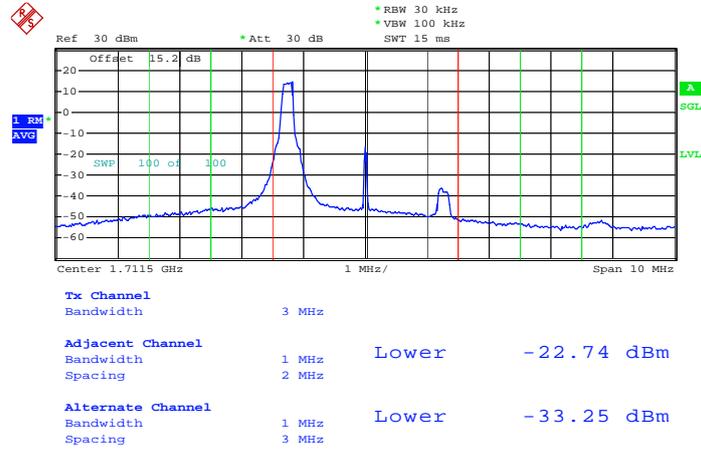


Date: 21.JUN.2013 16:46:23



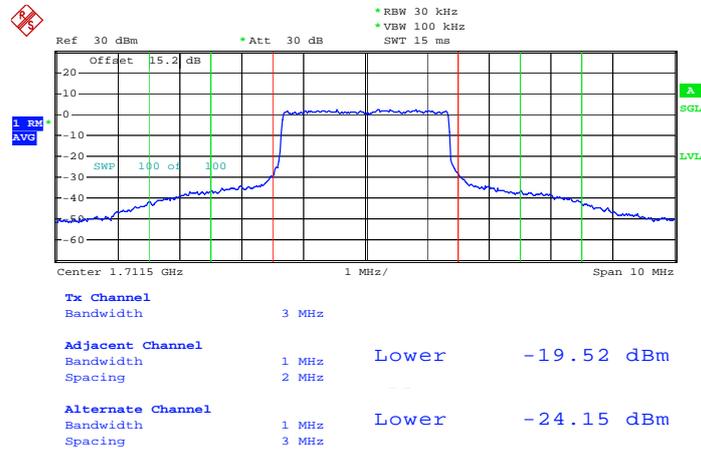
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 21.JUN.2013 16:51:09

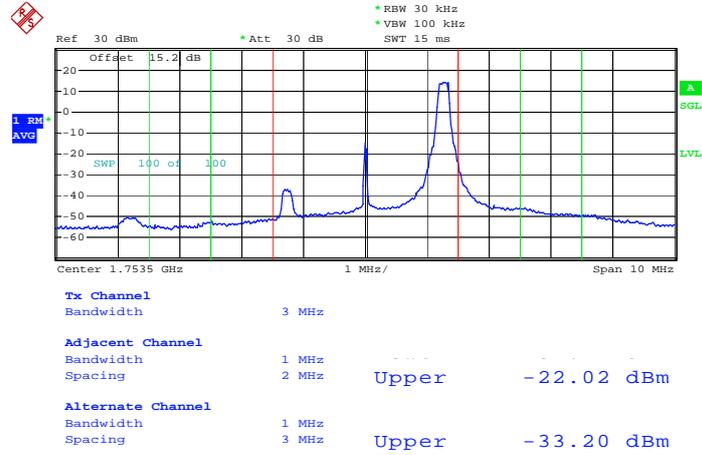
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 21.JUN.2013 16:51:35

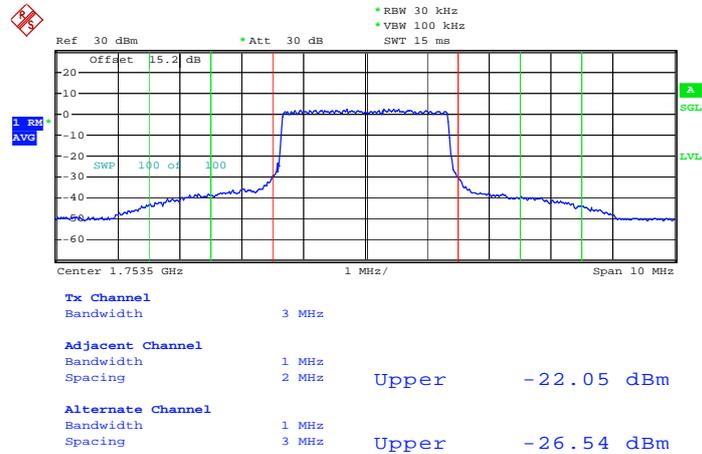


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 21.JUN.2013 16:53:33

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

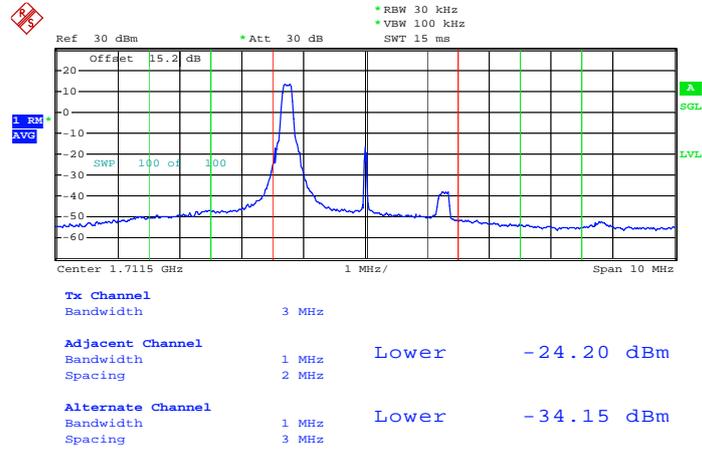


Date: 21.JUN.2013 16:52:59



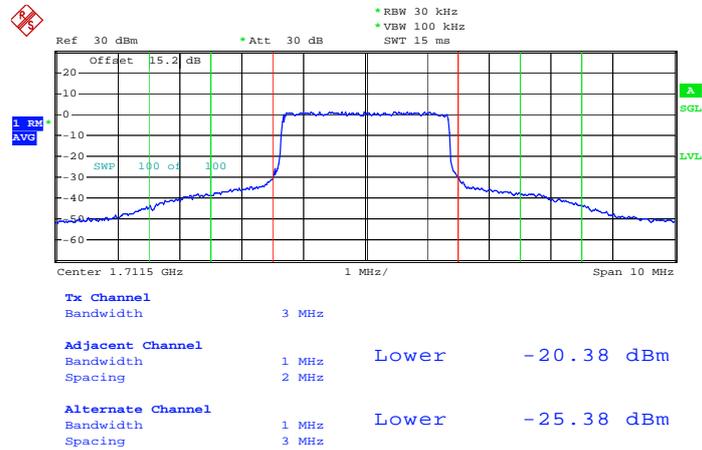
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 21.JUN.2013 16:50:54

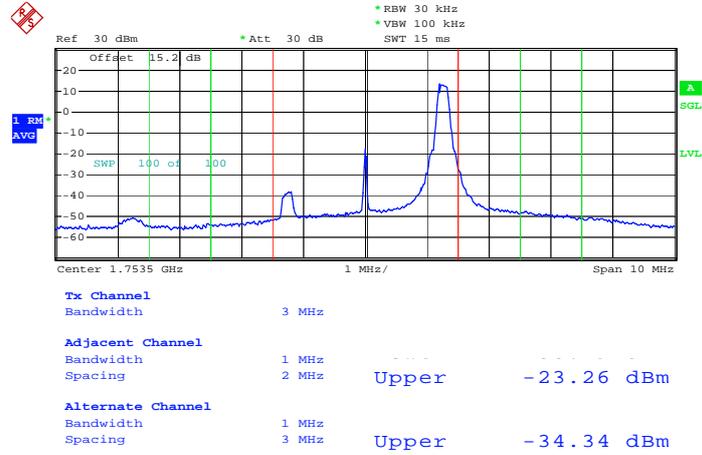
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Date: 21.JUN.2013 16:51:49

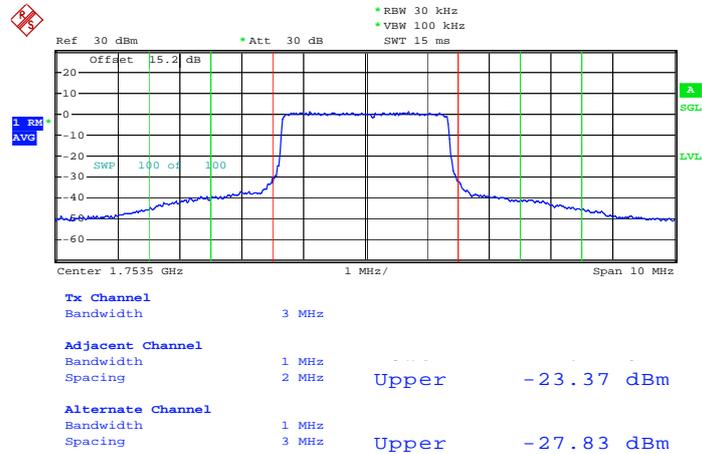


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Date: 21.JUN.2013 16:53:55

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

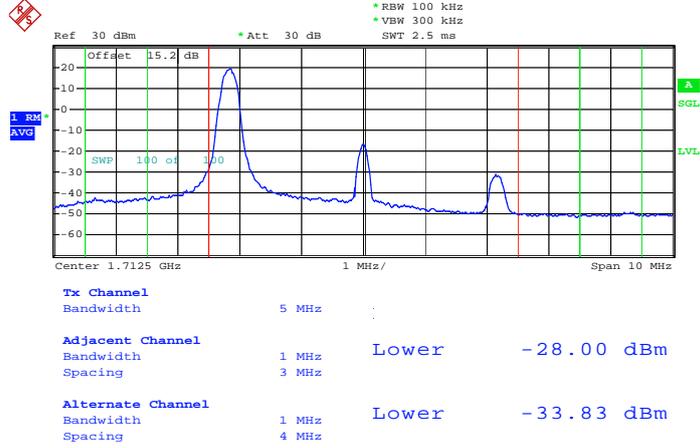


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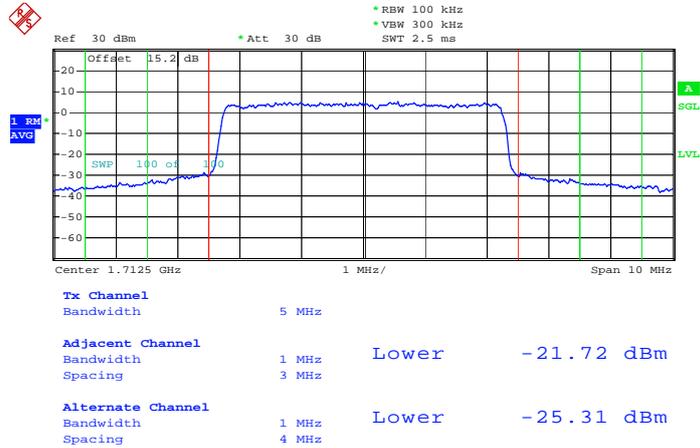
Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 21.JUN.2013 17:06:09

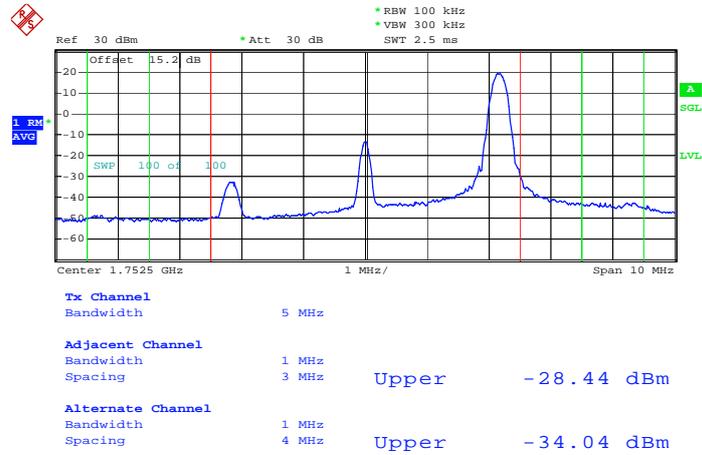
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 21.JUN.2013 17:06:28

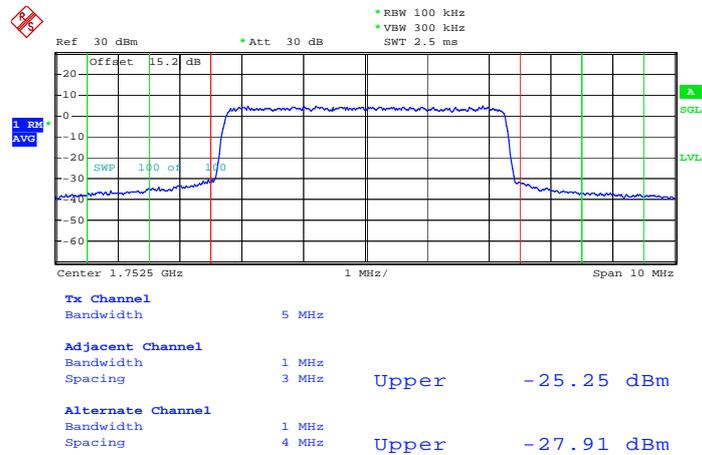


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 21.JUN.2013 17:15:53

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

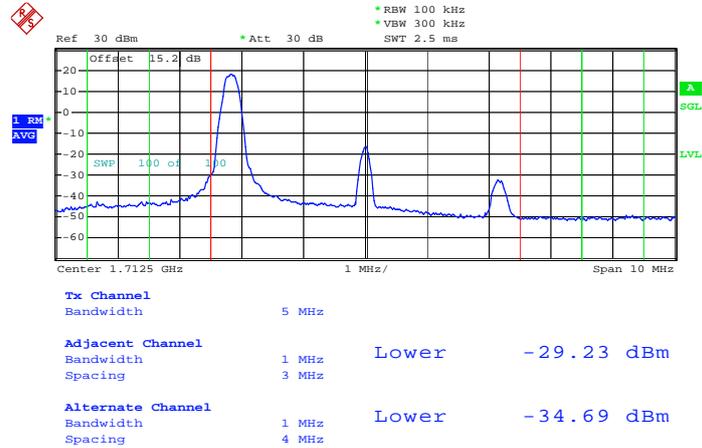


Date: 21.JUN.2013 17:15:37



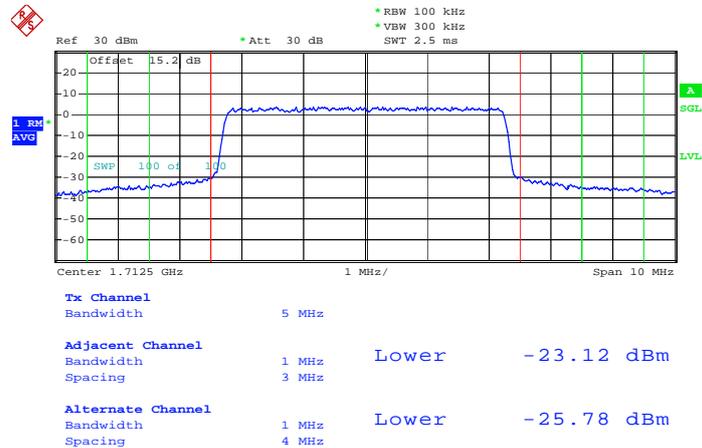
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 21.JUN.2013 17:05:54

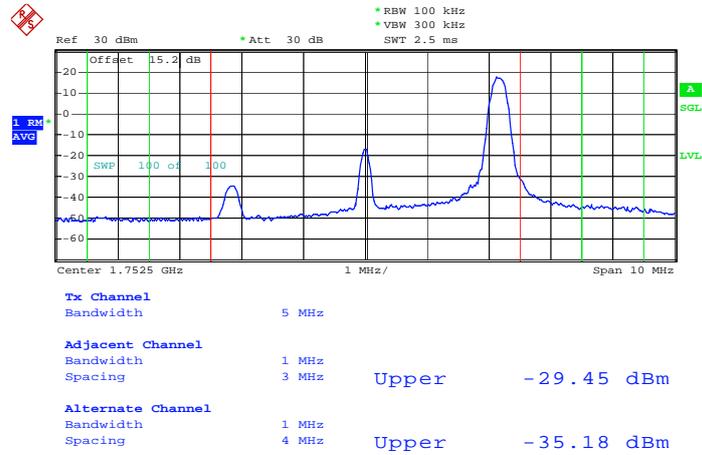
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Date: 21.JUN.2013 17:08:14

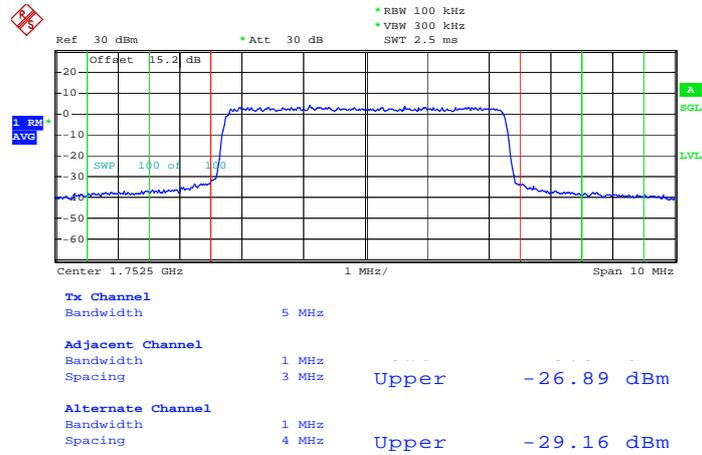


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24



Date: 21.JUN.2013 17:16:10

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

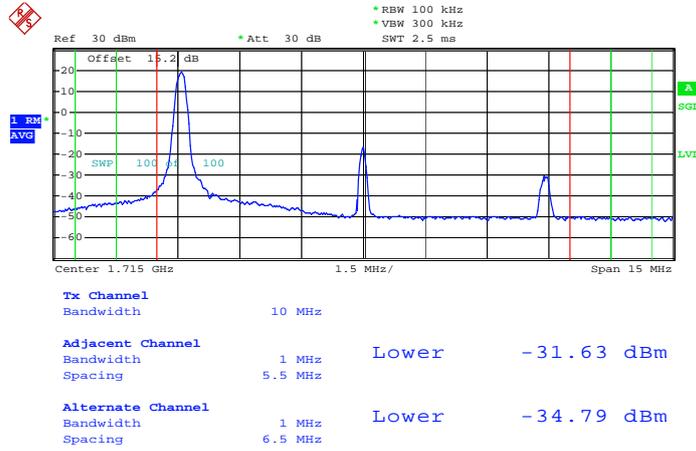


Date: 21.JUN.2013 17:09:21



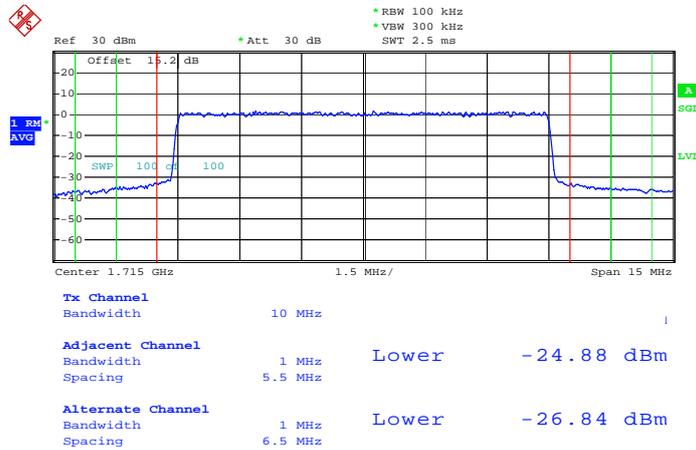
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 21.JUN.2013 17:20:31

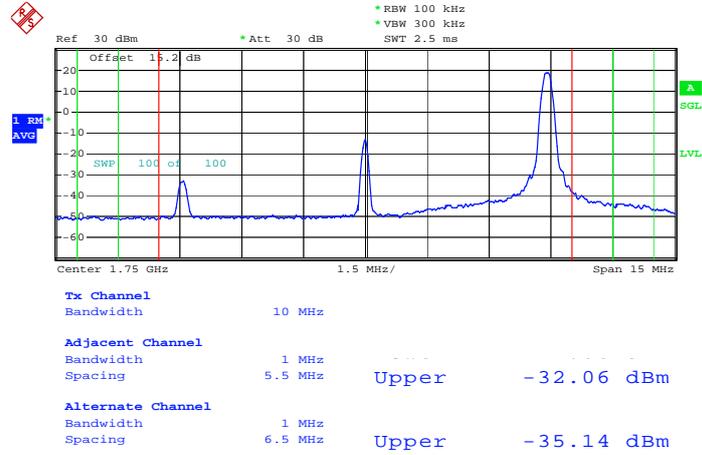
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 21.JUN.2013 17:21:02

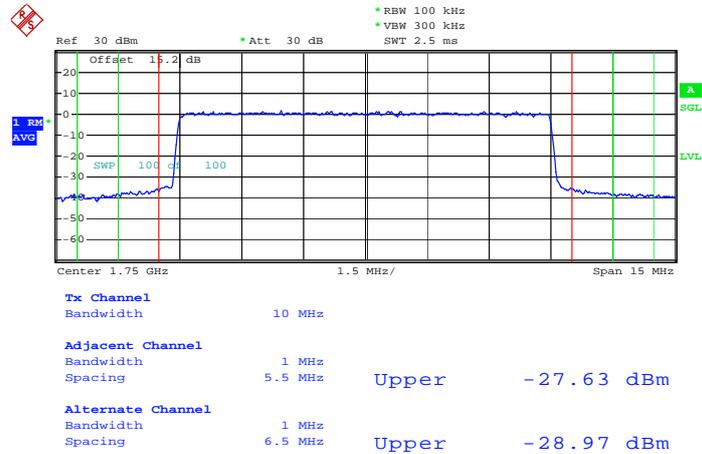


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 21.JUN.2013 17:24:13

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

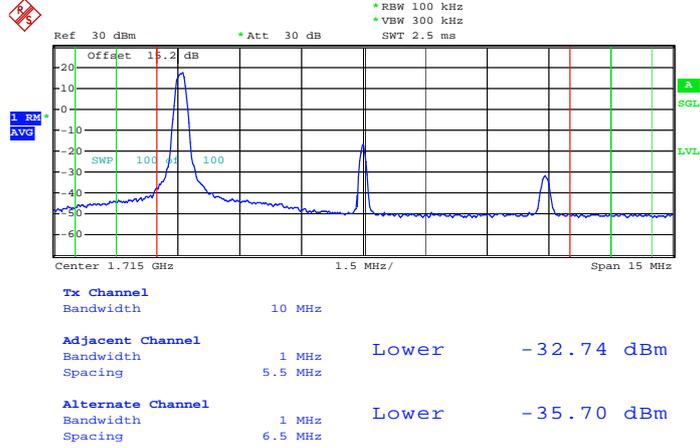


Date: 21.JUN.2013 17:23:33



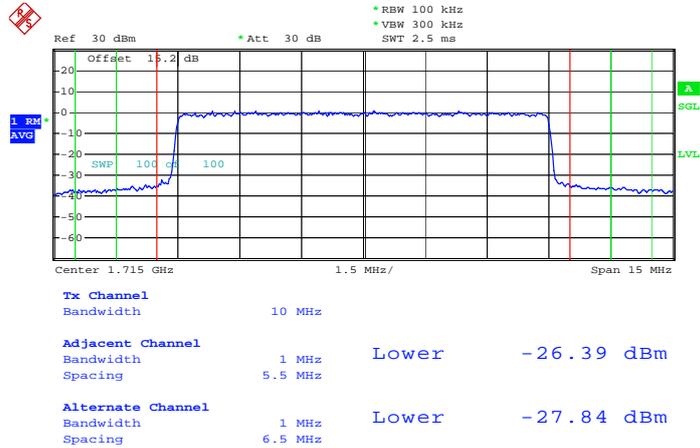
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 21.JUN.2013 17:20:17

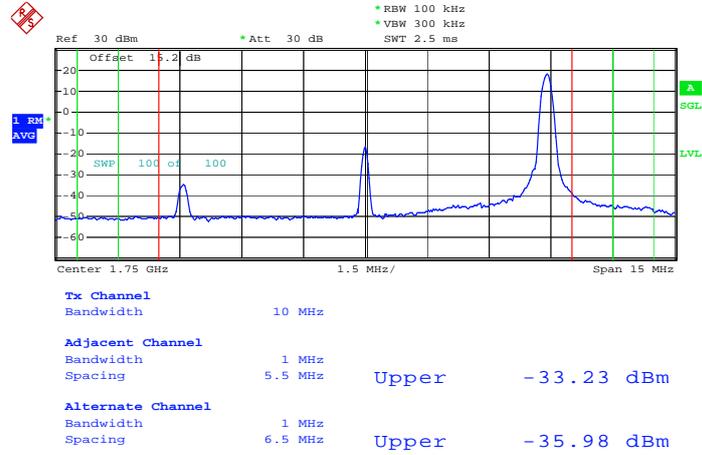
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Date: 21.JUN.2013 17:21:26

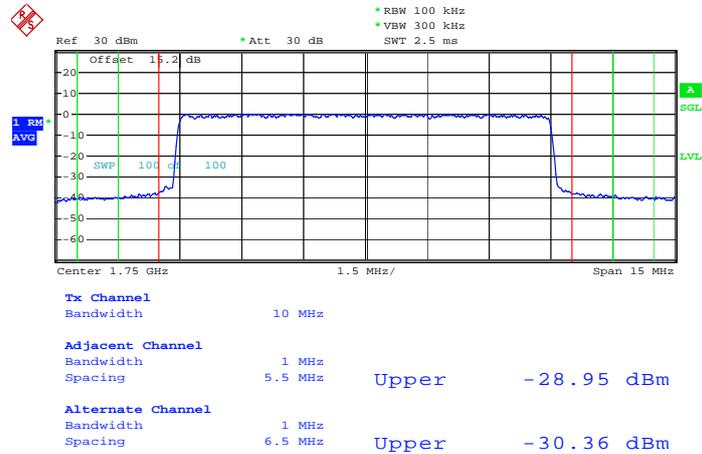


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



Date: 21.JUN.2013 17:24:28

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

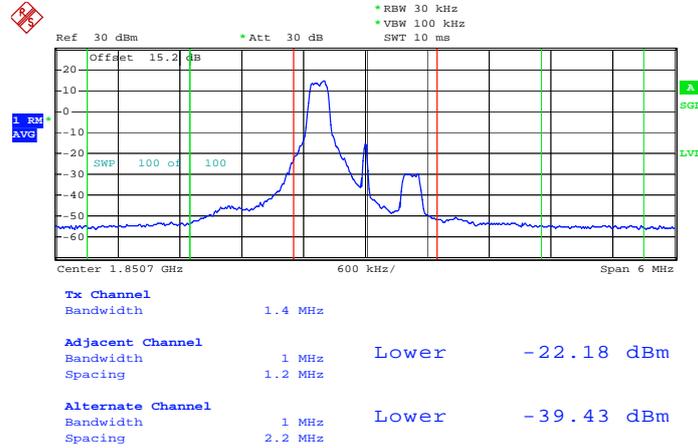


Date: 21.JUN.2013 17:23:18



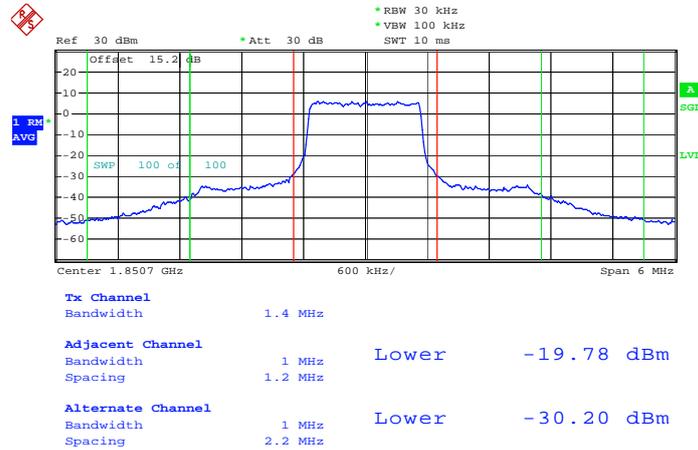
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:49:43

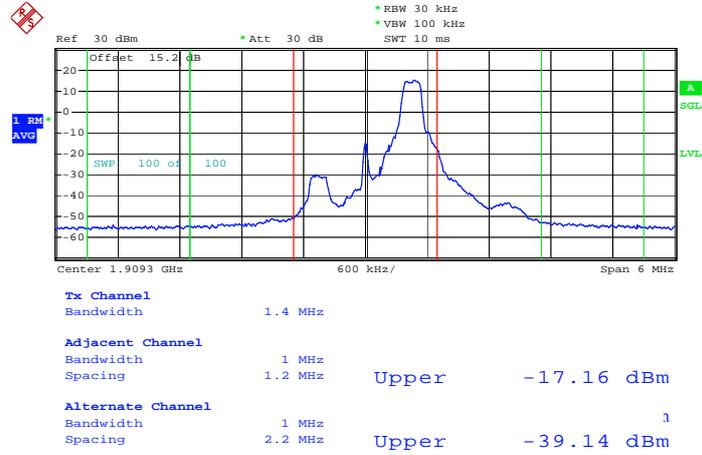
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 17.JUN.2013 17:50:26

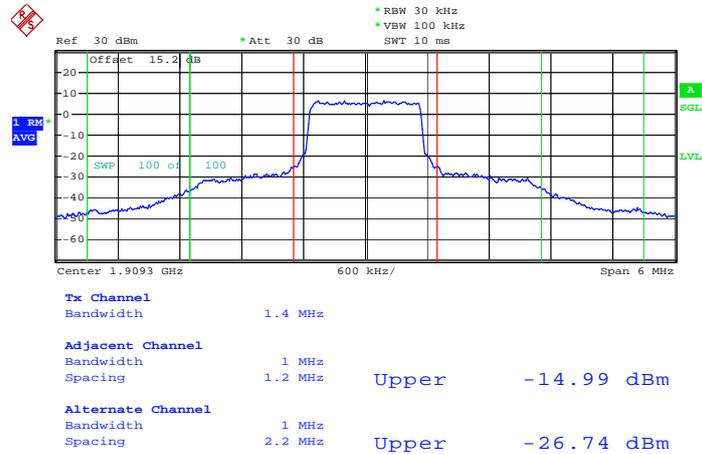


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 17.JUN.2013 17:52:22

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

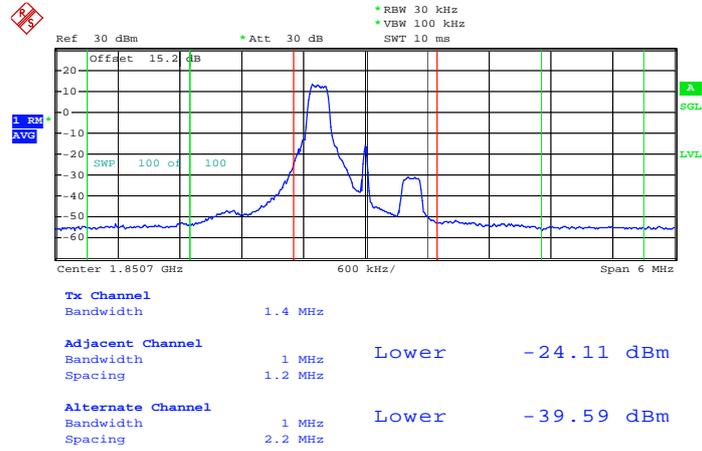


Date: 17.JUN.2013 17:51:40



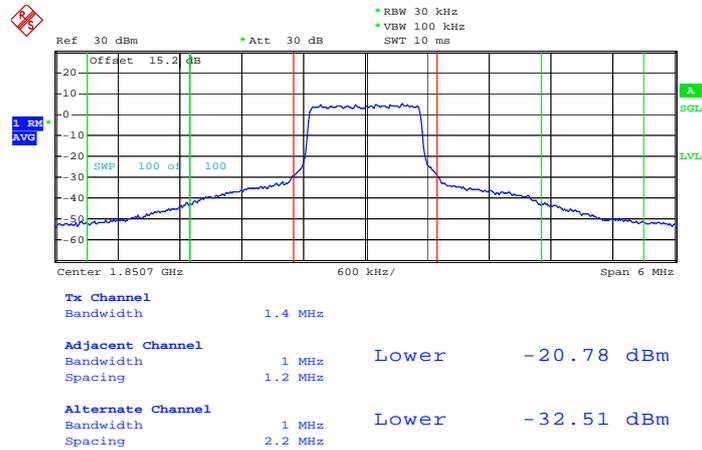
Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:49:29

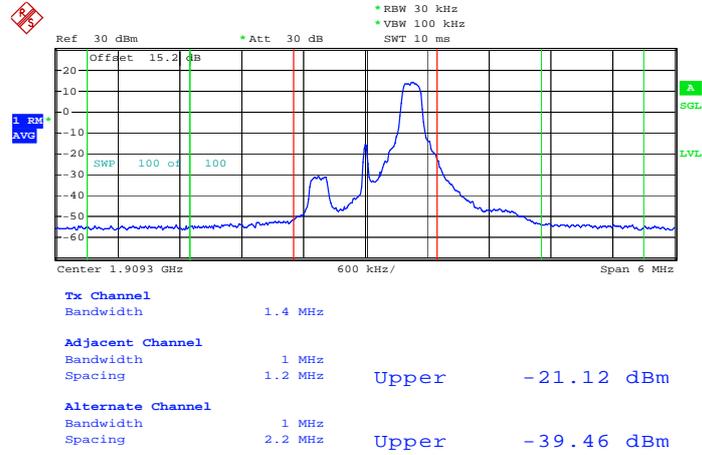
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Date: 17.JUN.2013 17:50:39

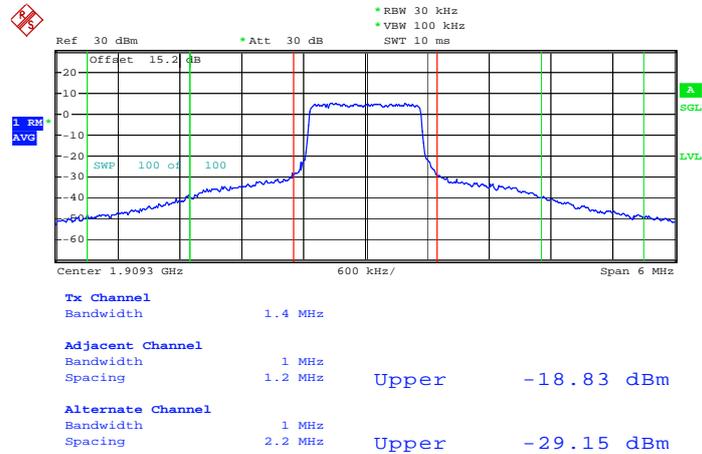


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Date: 17.JUN.2013 17:52:49

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

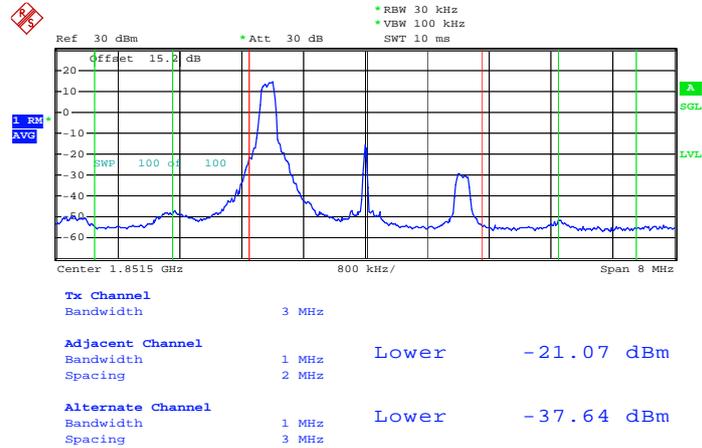


Date: 17.JUN.2013 17:51:23



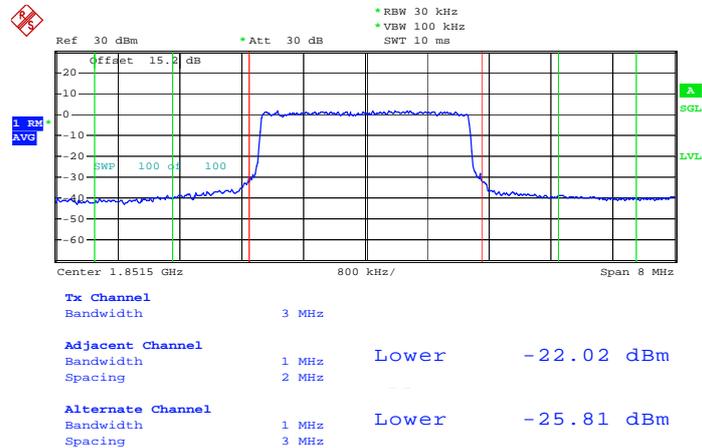
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:39:07

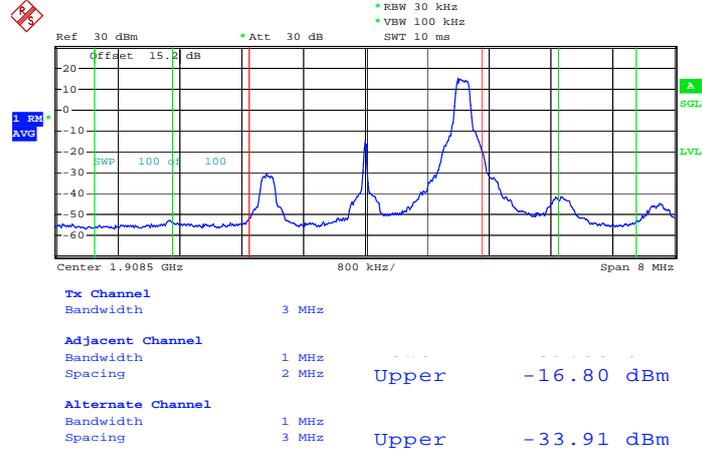
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 17.JUN.2013 17:43:23

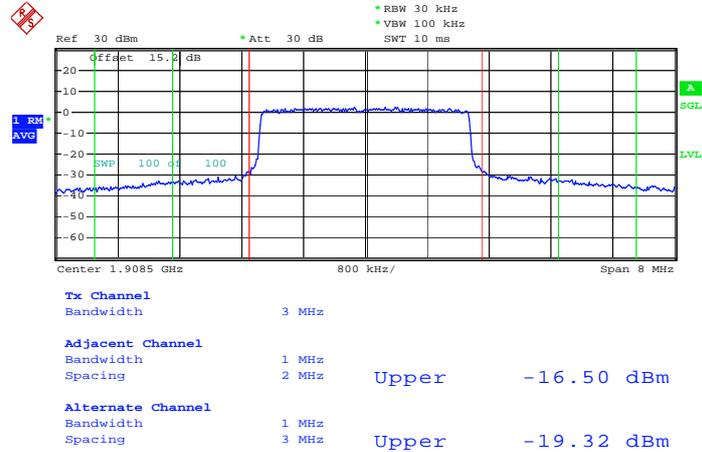


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 17.JUN.2013 17:42:06

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

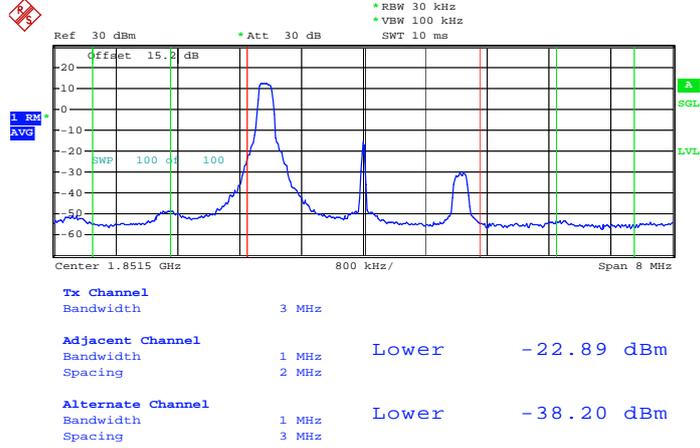


Date: 17.JUN.2013 17:42:48



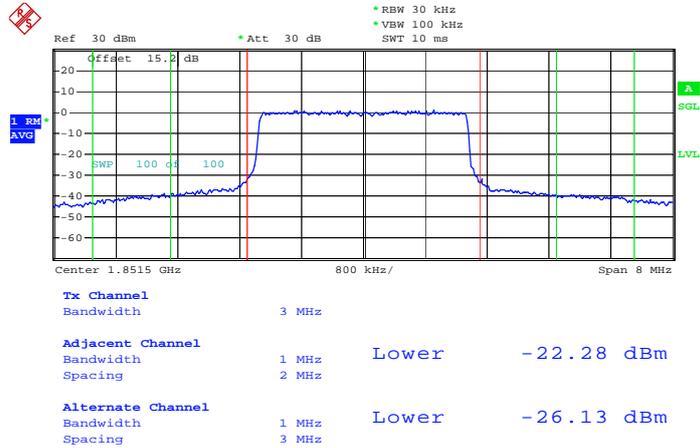
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:39:39

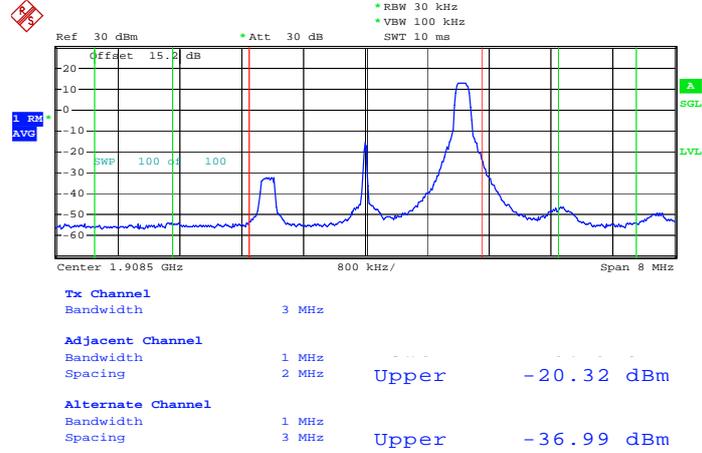
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Date: 17.JUN.2013 17:43:43

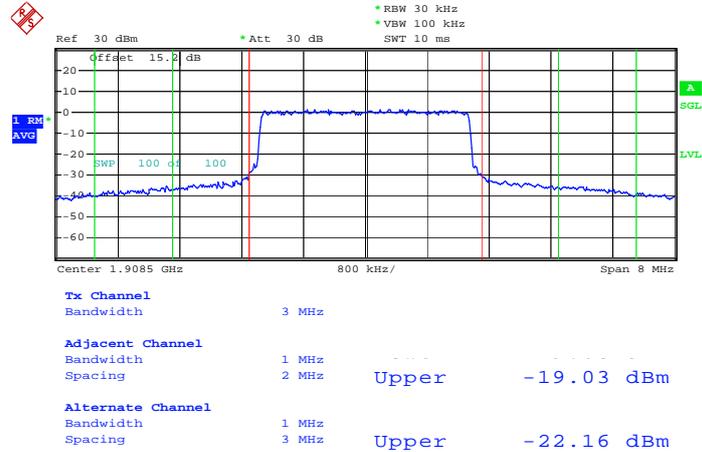


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Date: 17.JUN.2013 17:42:19

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

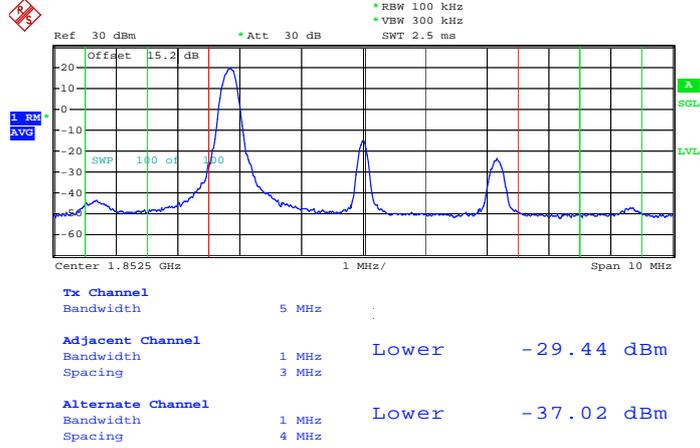


Date: 17.JUN.2013 17:42:35



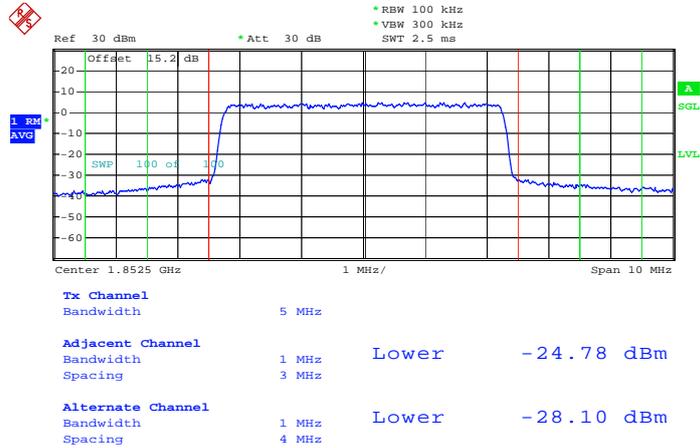
Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:29:28

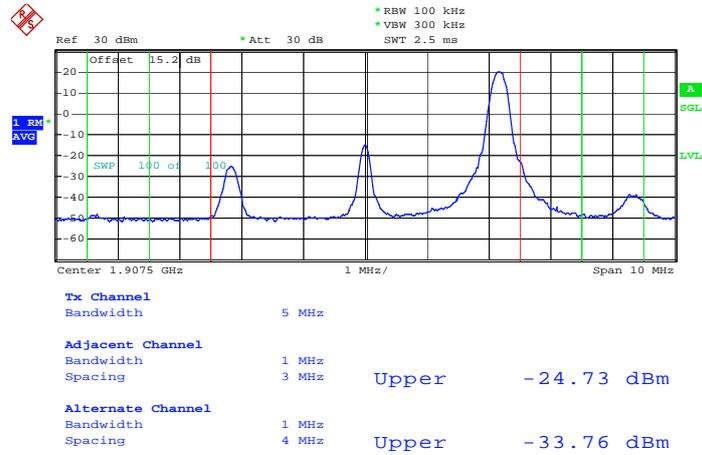
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 17.JUN.2013 17:32:15

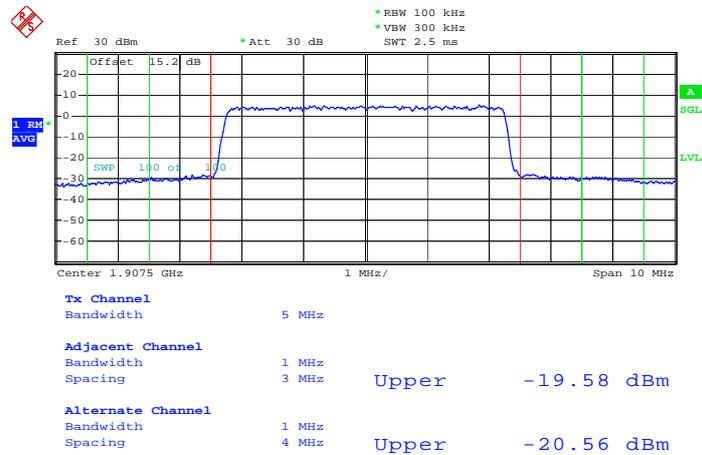


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 17.JUN.2013 17:35:31

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

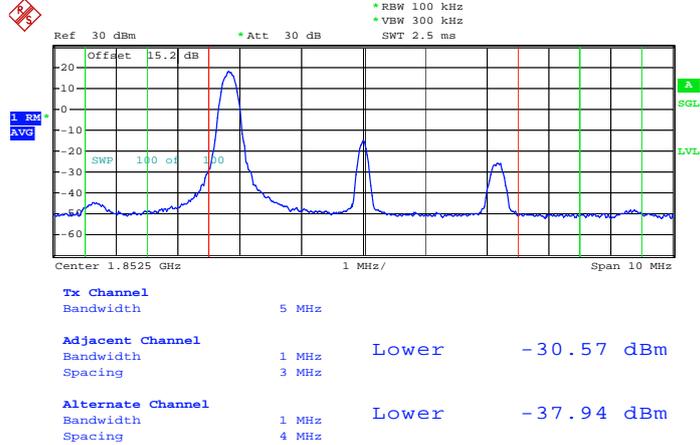


Date: 17.JUN.2013 17:34:41



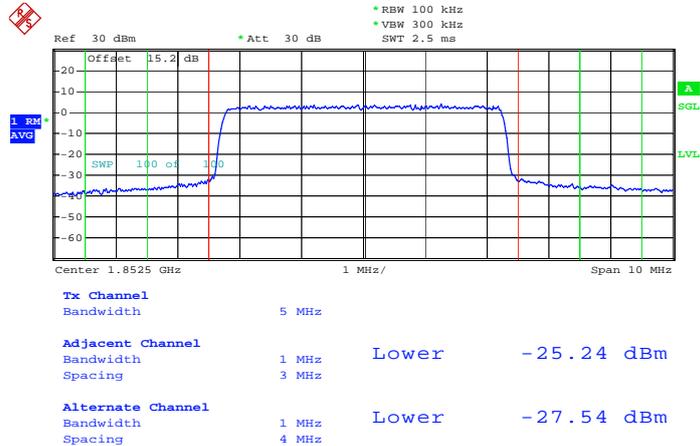
Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:29:43

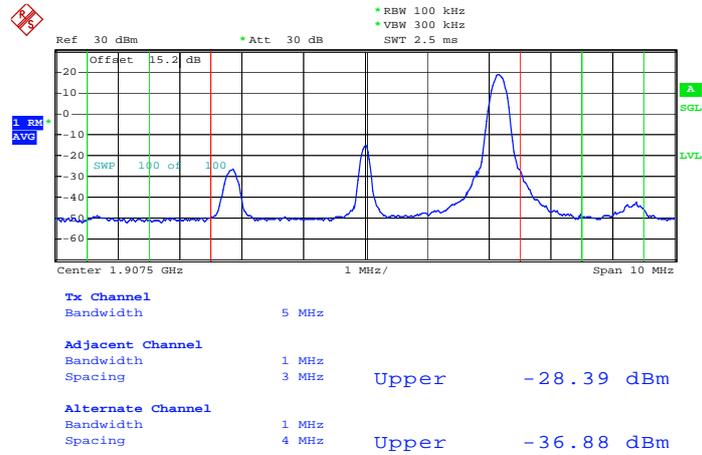
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Date: 17.JUN.2013 17:31:54

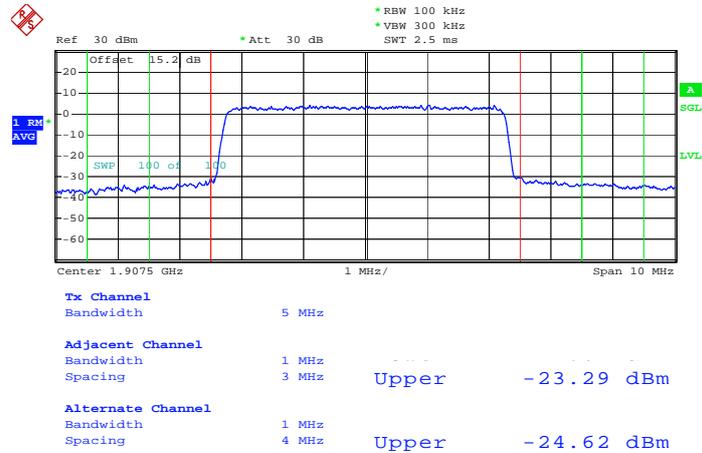


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24



Date: 17.JUN.2013 17:35:19

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

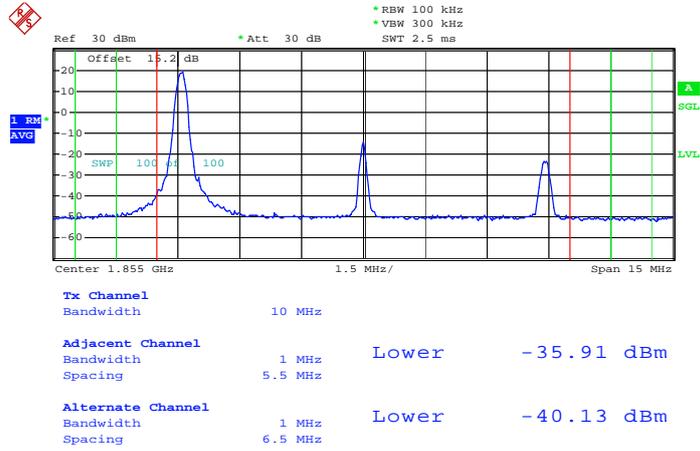


Date: 17.JUN.2013 17:35:00



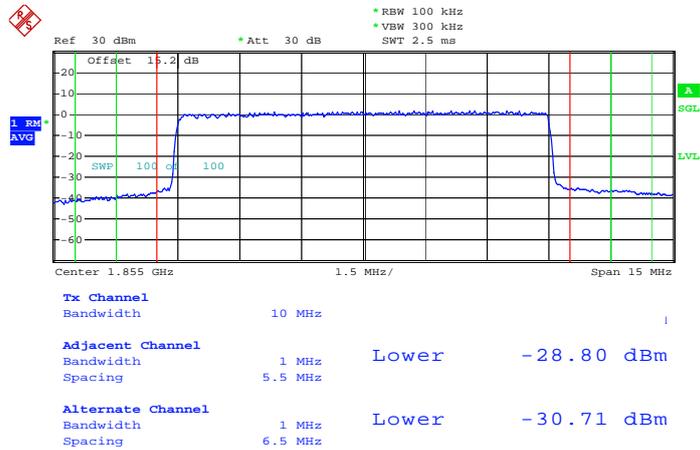
Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:24:11

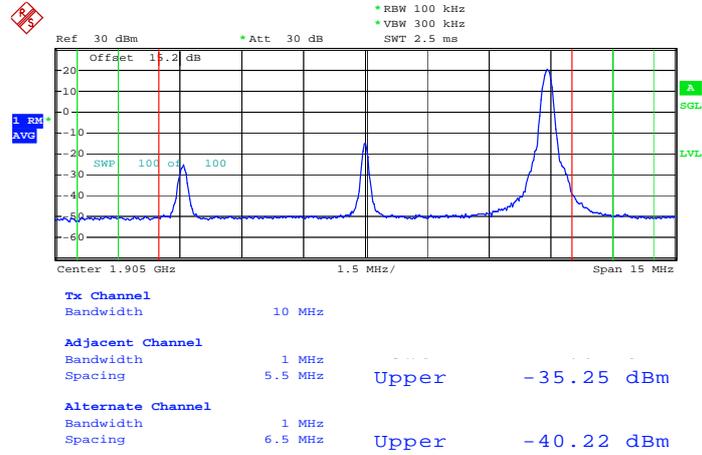
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 17.JUN.2013 17:25:43

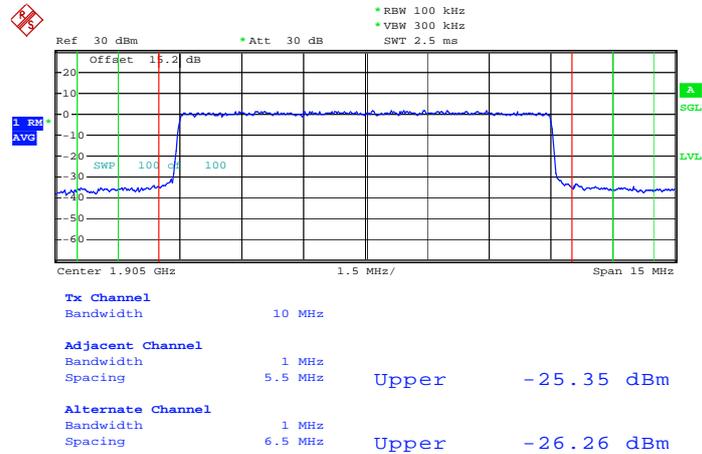


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 17.JUN.2013 17:27:46

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

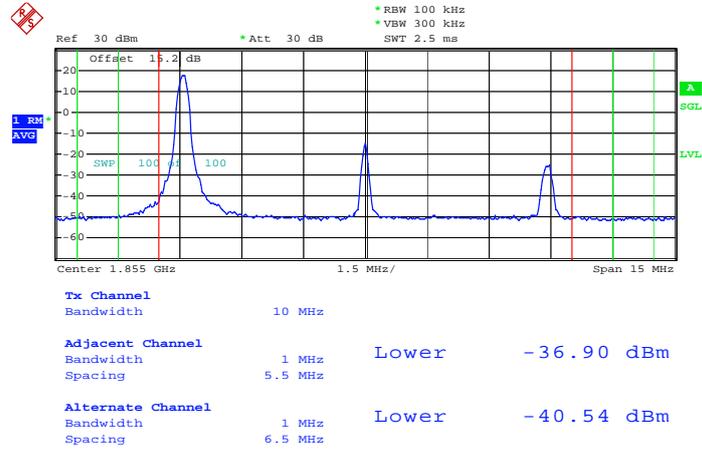


Date: 17.JUN.2013 17:26:57



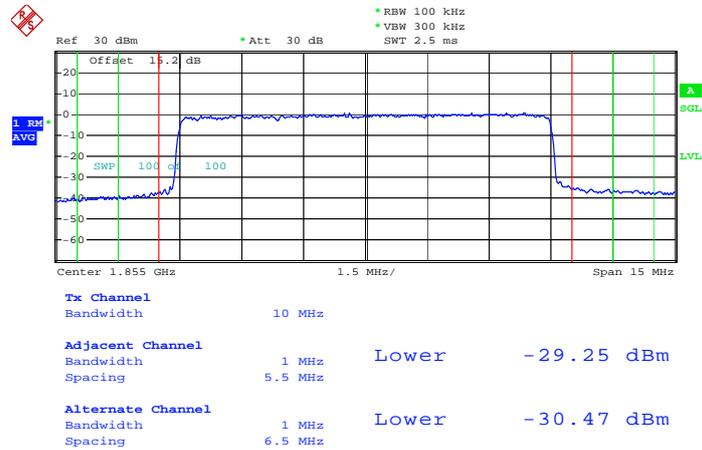
Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 17.JUN.2013 17:24:25

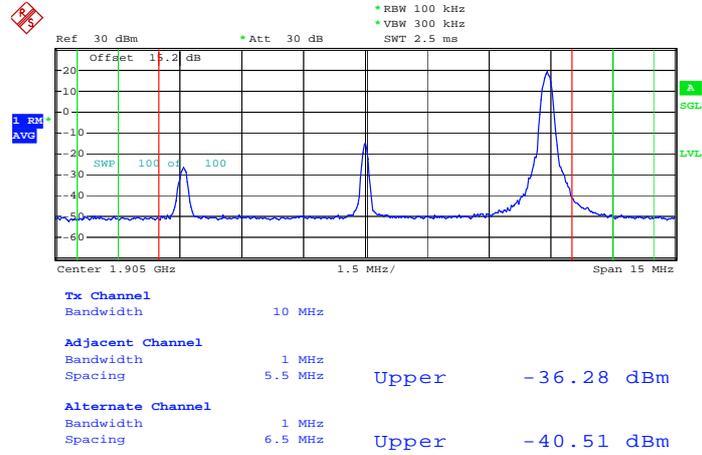
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Date: 17.JUN.2013 17:25:22

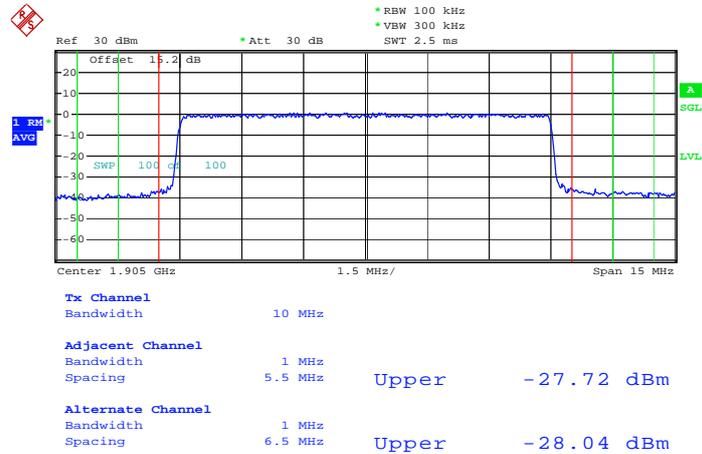


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



Date: 17.JUN.2013 17:27:30

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

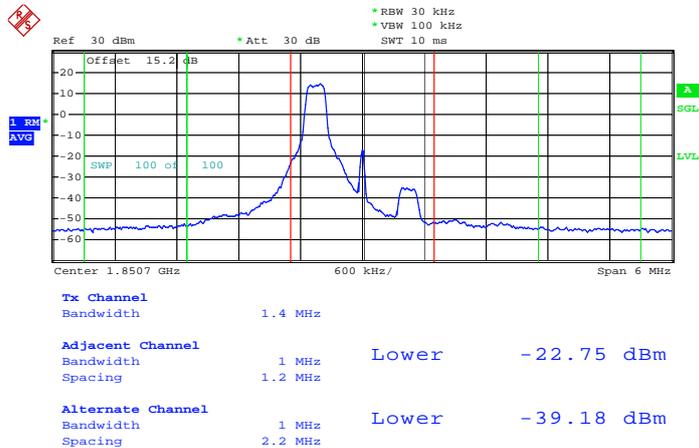


Date: 17.JUN.2013 17:27:08



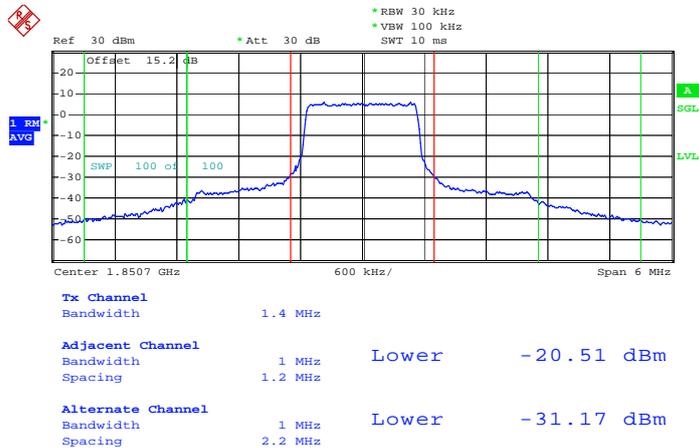
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:34:19

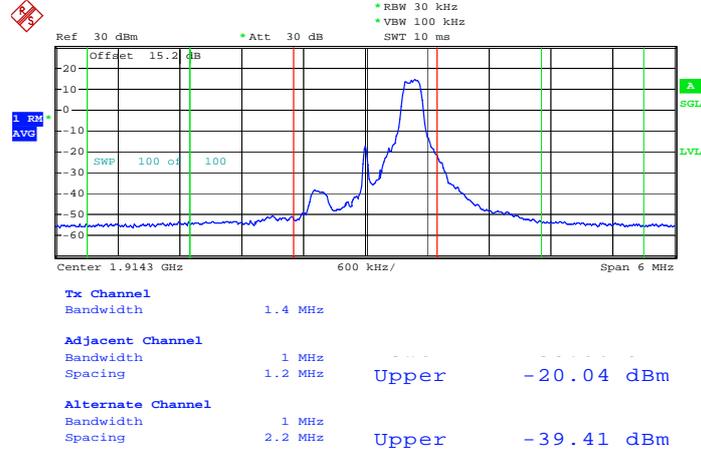
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 22.JUN.2013 14:33:40

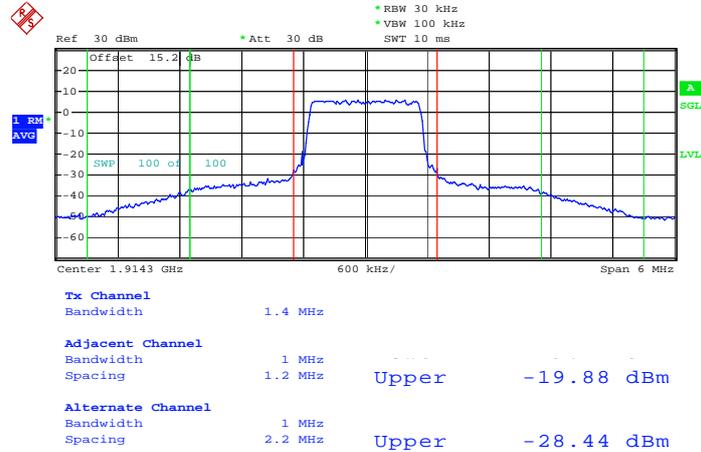


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 22.JUN.2013 14:36:50

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

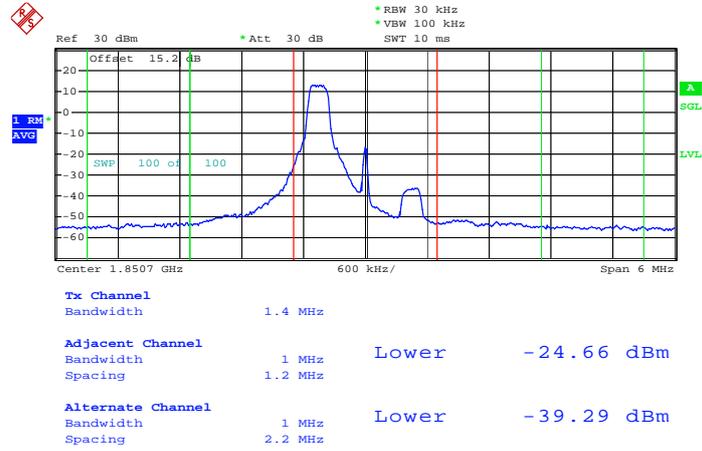


Date: 22.JUN.2013 14:36:22



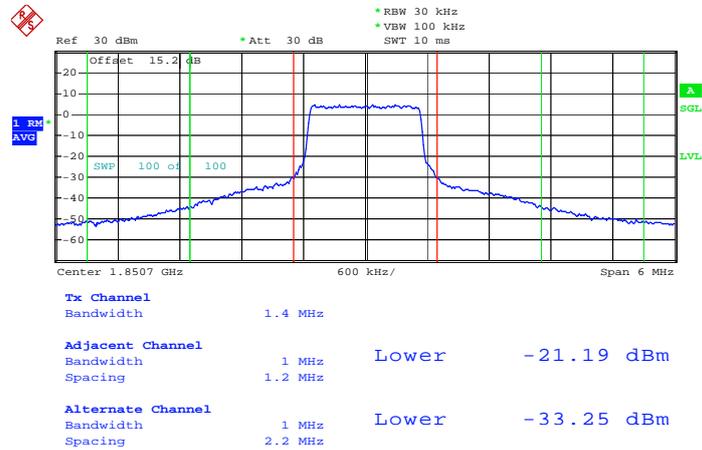
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:34:37

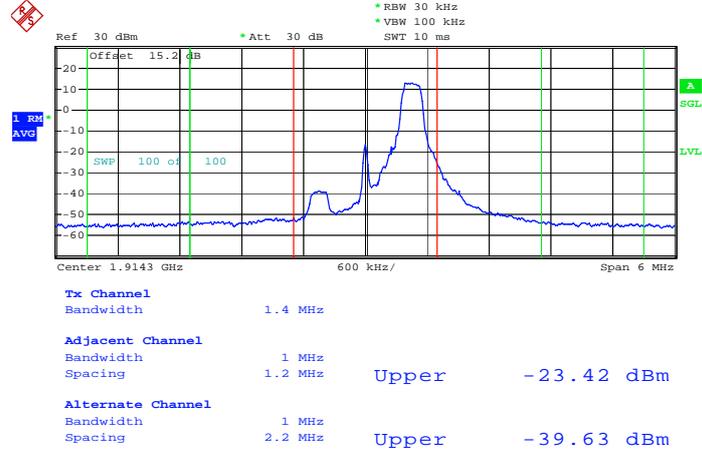
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Date: 22.JUN.2013 14:33:24

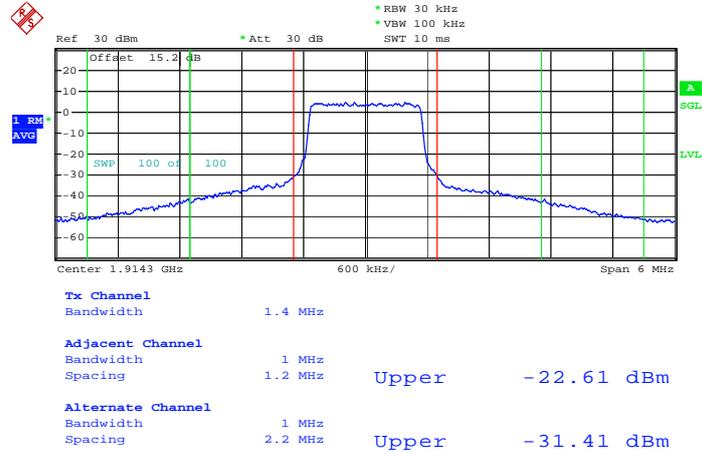


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Date: 22.JUN.2013 14:37:18

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

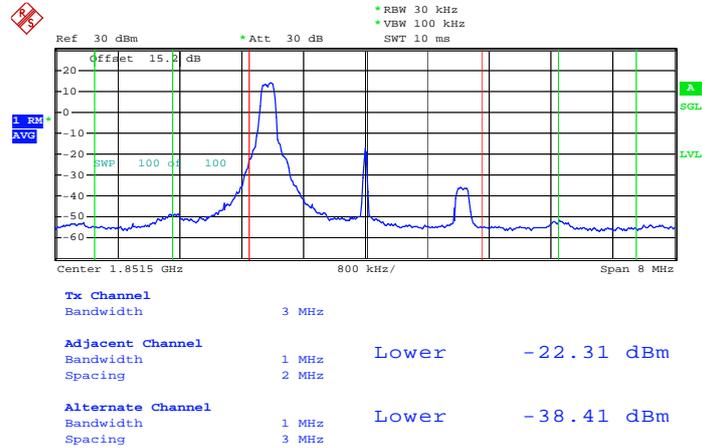


Date: 22.JUN.2013 14:35:43



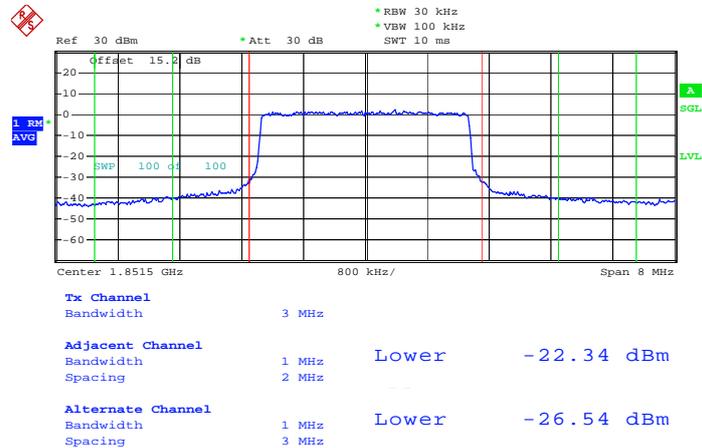
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:27:49

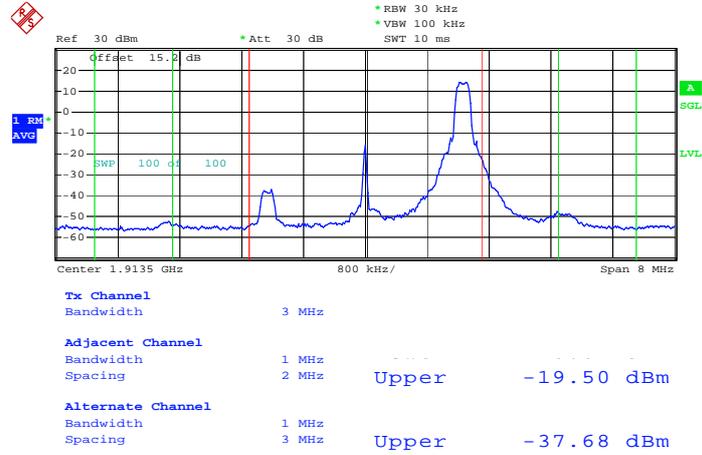
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 22.JUN.2013 14:28:06

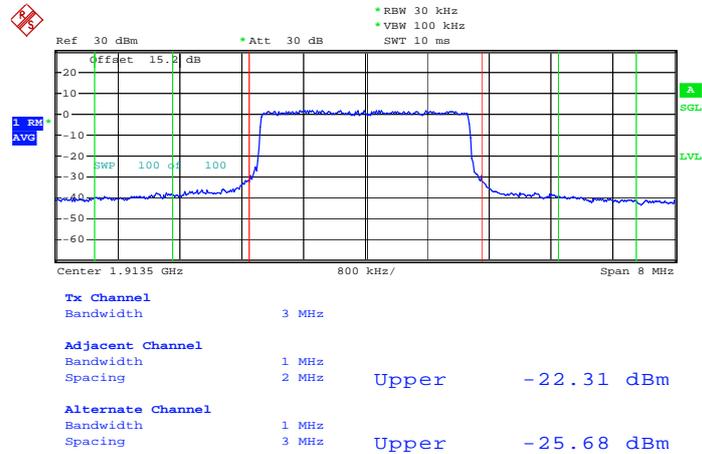


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 22.JUN.2013 14:29:57

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

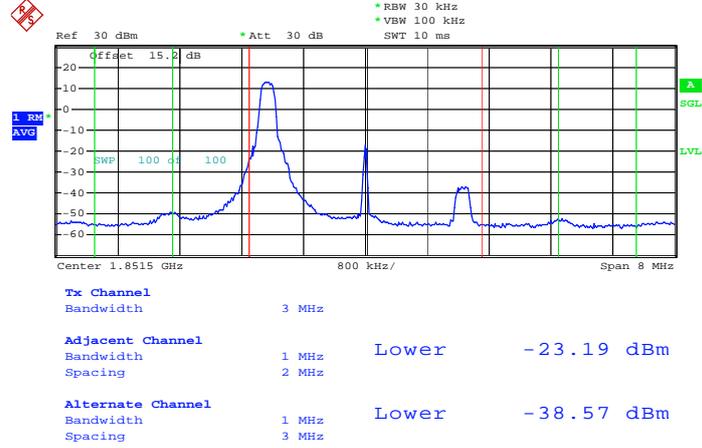


Date: 22.JUN.2013 14:30:16



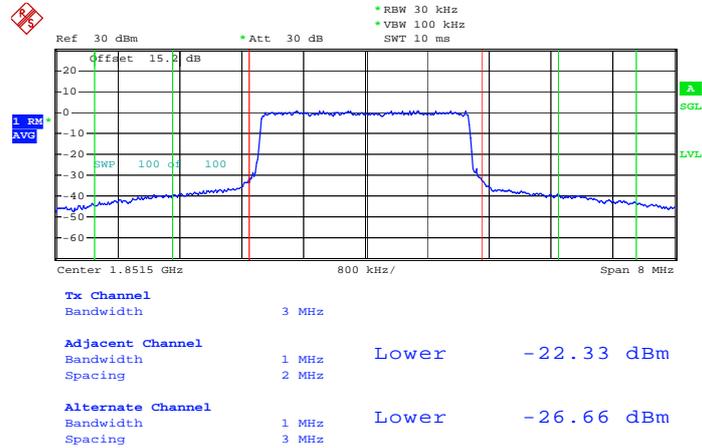
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:27:34

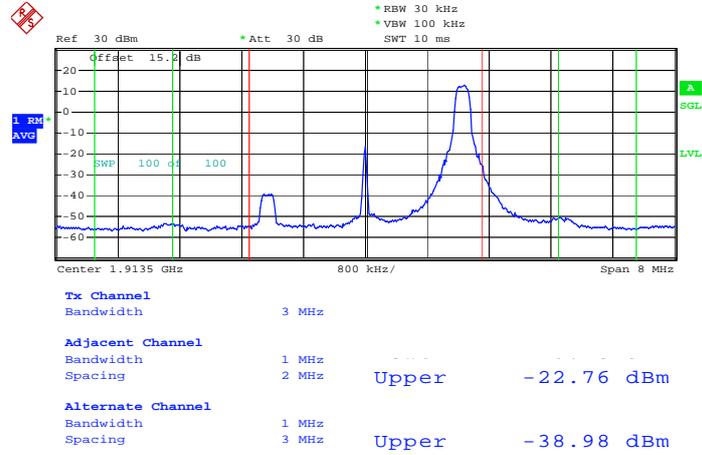
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Date: 22.JUN.2013 14:28:32

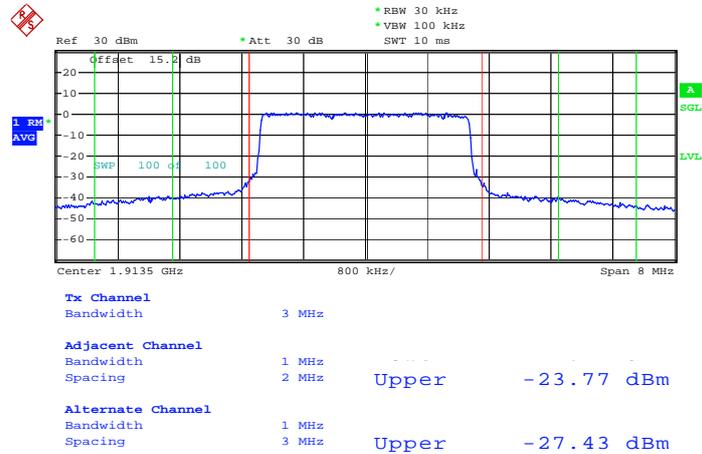


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Date: 22.JUN.2013 14:29:37

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

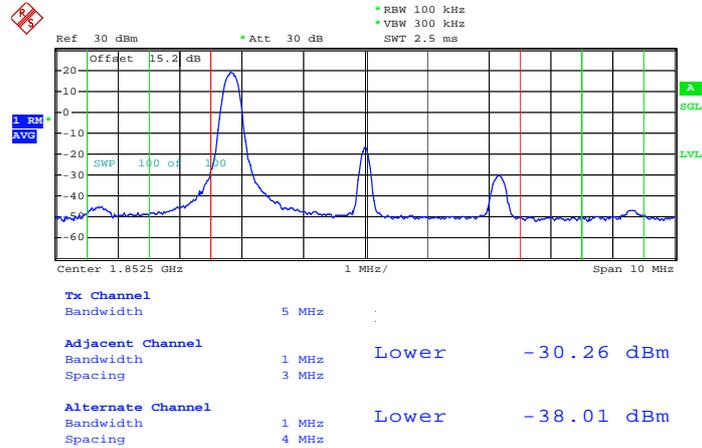


Date: 22.JUN.2013 14:30:38



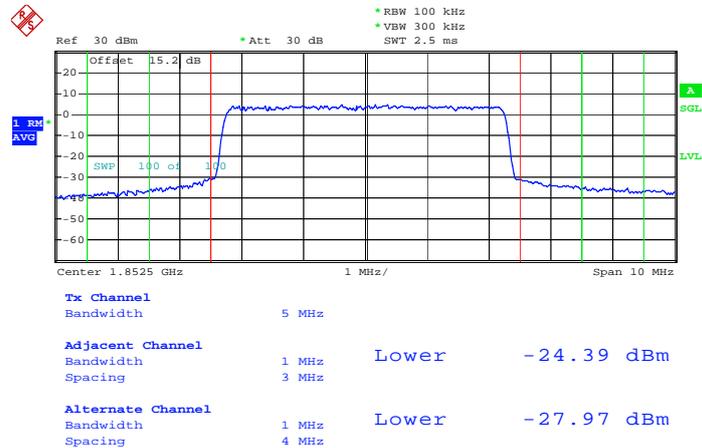
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:39:19

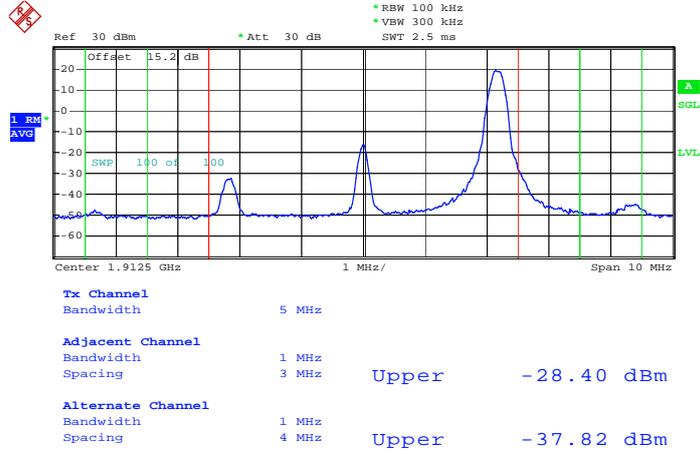
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 22.JUN.2013 14:39:55

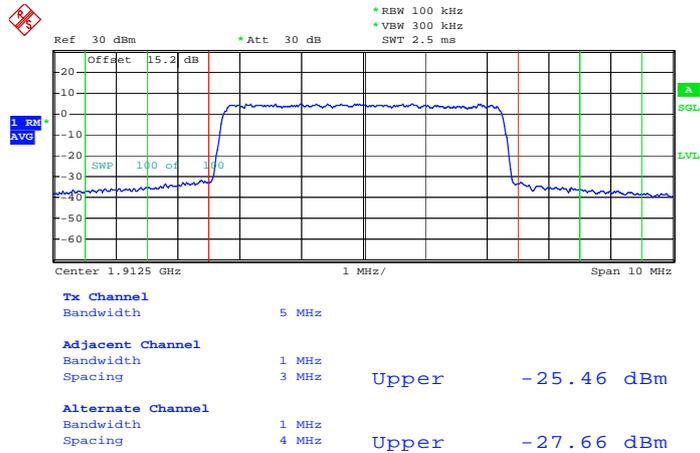


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 22.JUN.2013 14:41:28

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

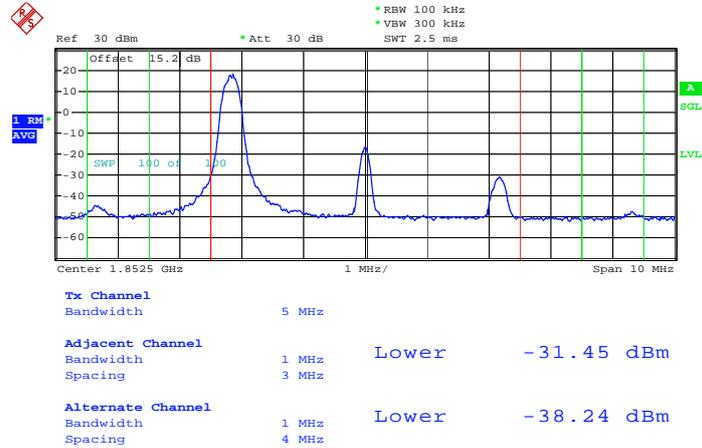


Date: 22.JUN.2013 14:41:51



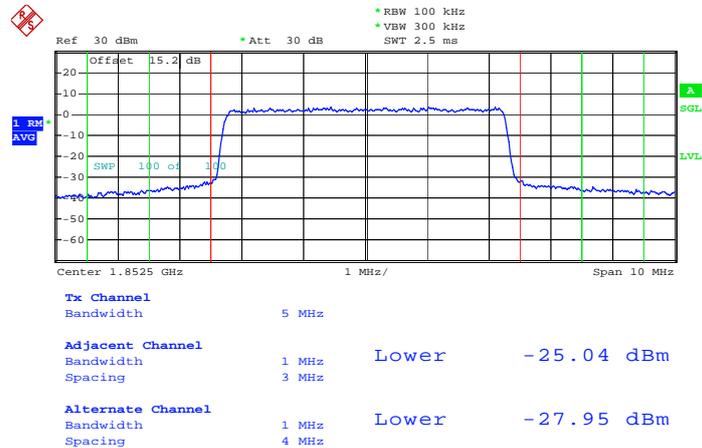
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:39:04

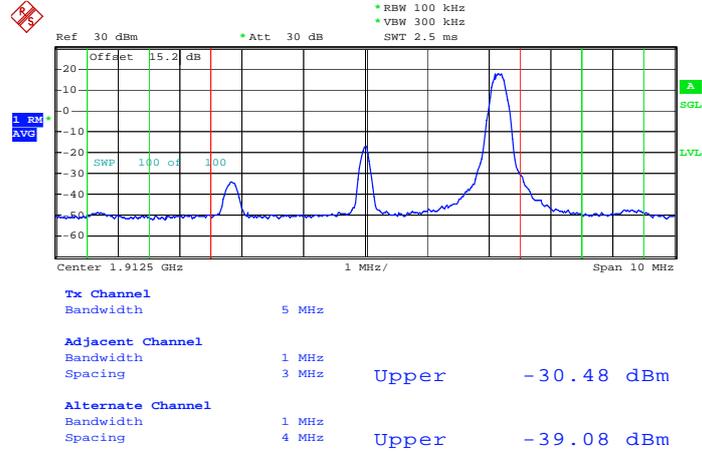
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Date: 22.JUN.2013 14:40:22

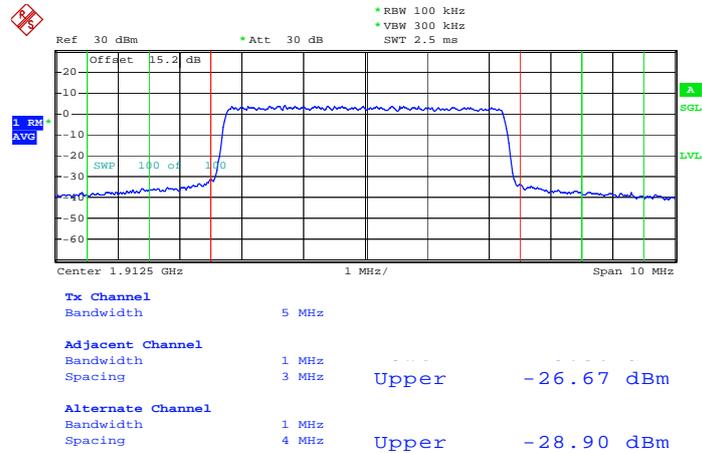


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24



Date: 22.JUN.2013 14:41:14

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

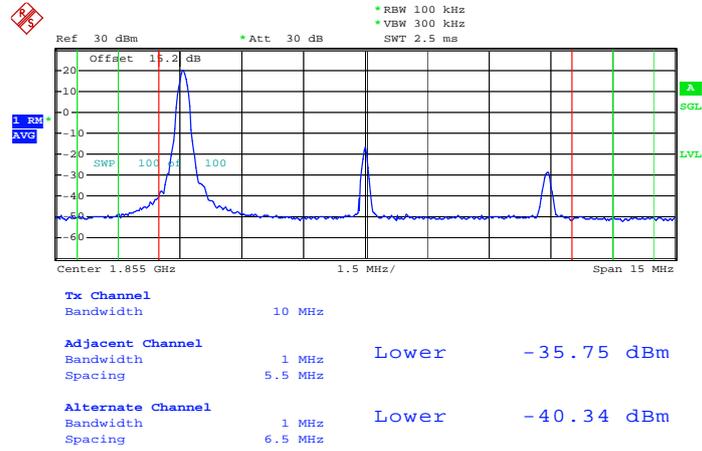


Date: 22.JUN.2013 14:42:07



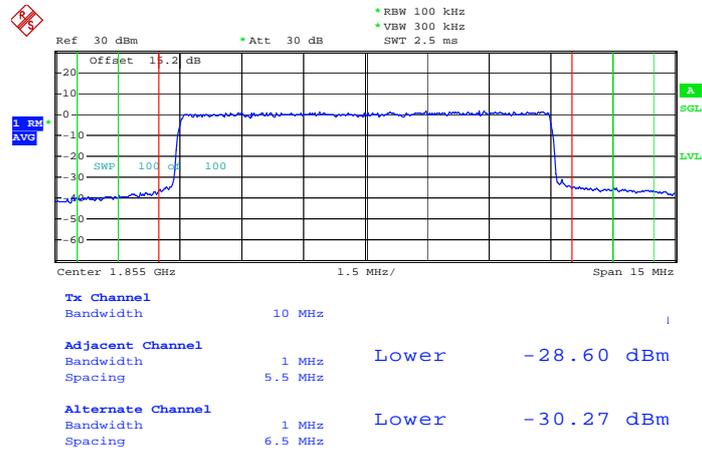
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:45:35

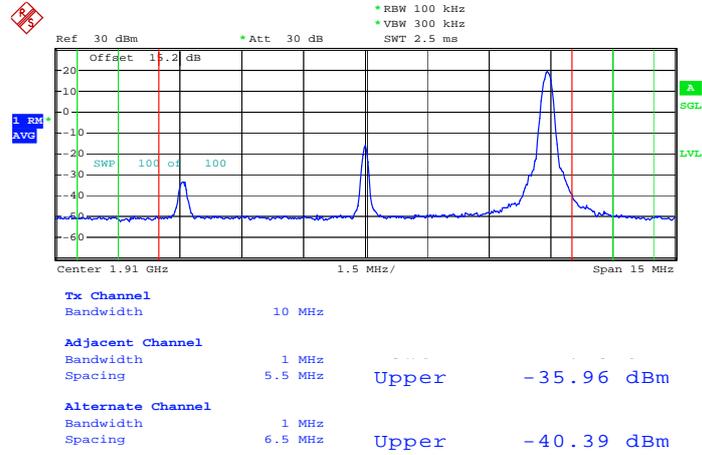
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 22.JUN.2013 14:45:57

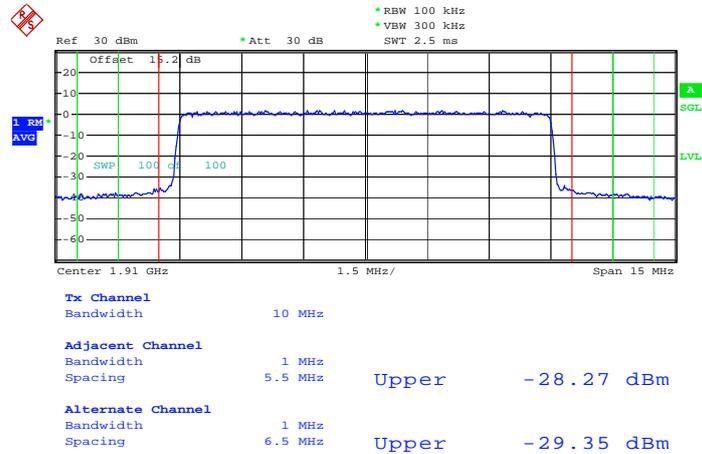


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 22.JUN.2013 14:48:03

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

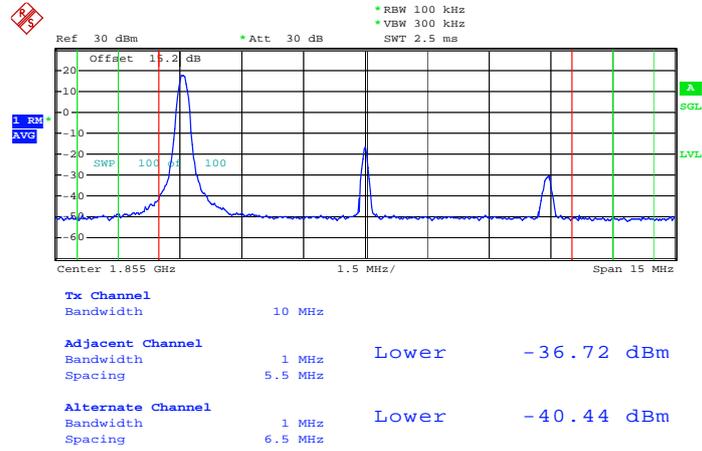


Date: 22.JUN.2013 14:48:50



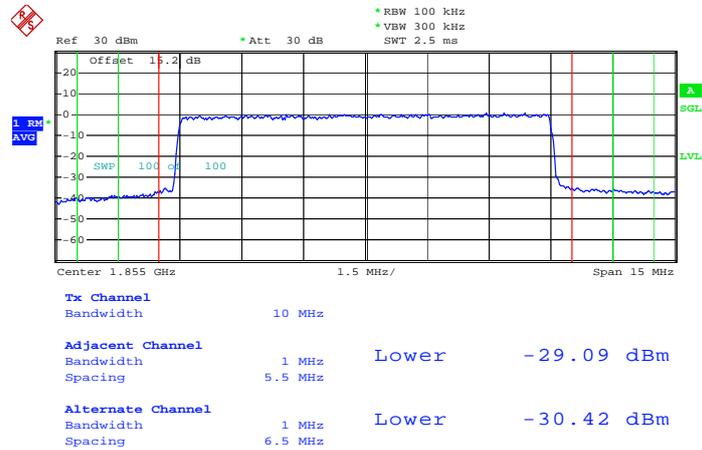
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 22.JUN.2013 14:45:18

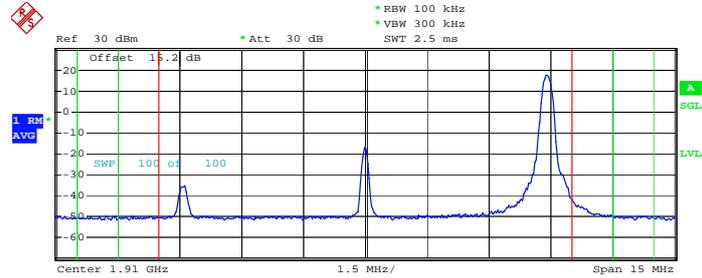
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Date: 22.JUN.2013 14:46:16



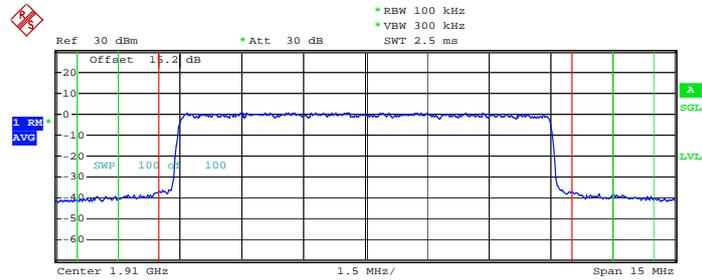
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



Tx Channel			
Bandwidth	10 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	5.5 MHz	Upper	-36.94 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	6.5 MHz	Upper	-40.40 dBm

Date: 22.JUN.2013 14:47:36

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



Tx Channel			
Bandwidth	10 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	5.5 MHz	Upper	-29.33 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	6.5 MHz	Upper	-30.05 dBm

Date: 22.JUN.2013 14:49:13

3.6 Conducted Spurious Emission Measurement

3.6.1 Description of Conducted Spurious Emission Measurement

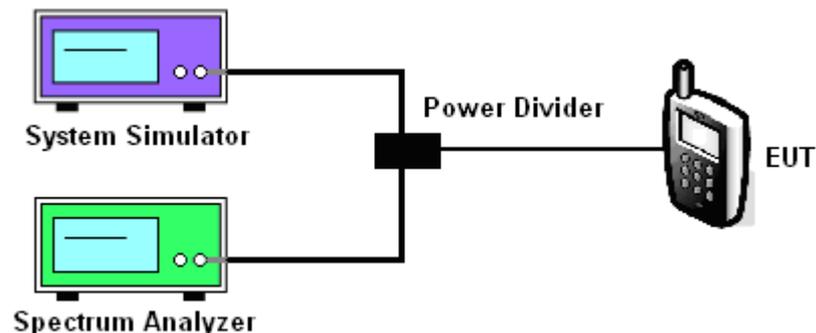
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 9 kHz up to a frequency including its 10th harmonic.

3.6.2 Measuring Instruments

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. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13\text{dBm}$.

3.6.3 Test Setup

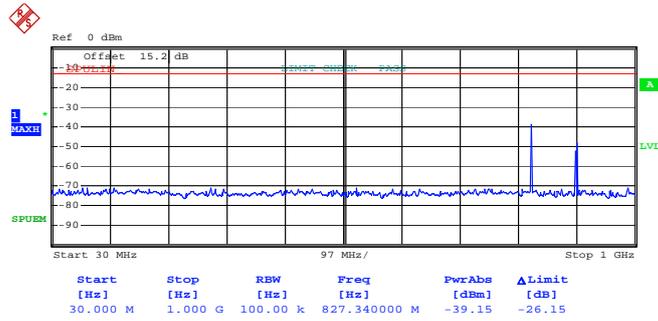




3.6.4 Test Plots of Spurious Emission

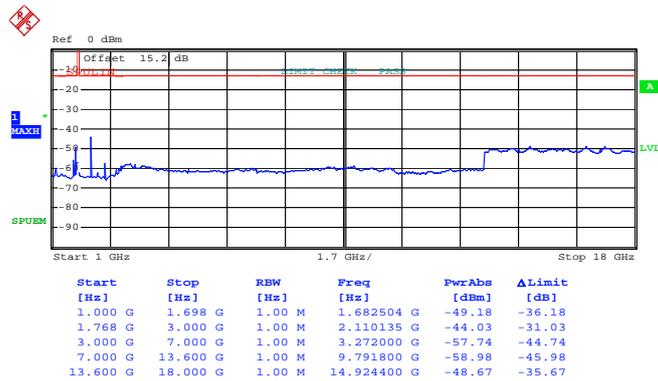
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
Frequency :	1710.7	Channel :	19957

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



Date: 21.JUN.2013 18:38:35

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

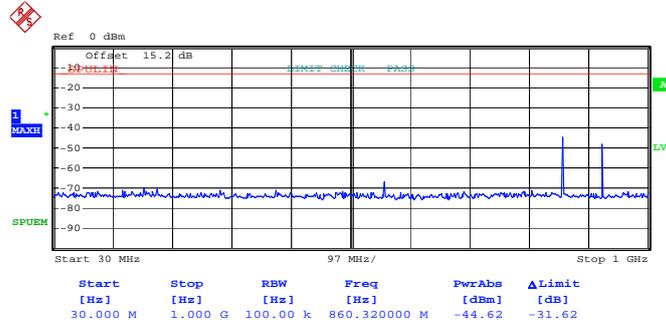


Date: 21.JUN.2013 18:39:19



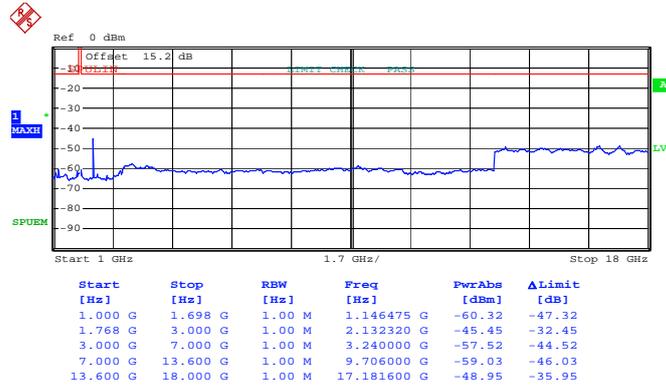
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:40:48

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

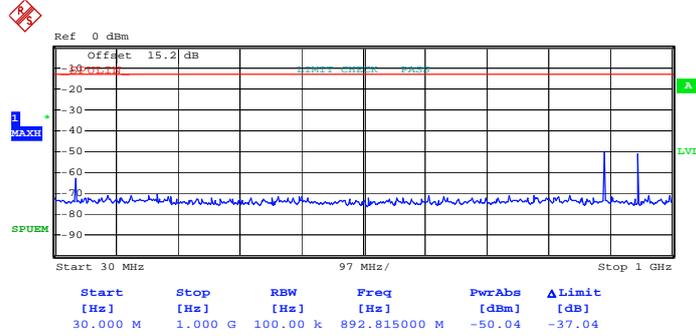


Date: 21.JUN.2013 18:40:28



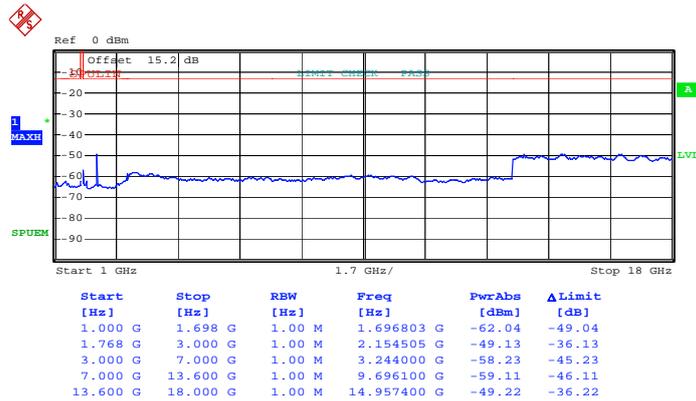
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
Frequency :	1754.3	Channel :	20393

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



Date: 21.JUN.2013 18:43:45

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

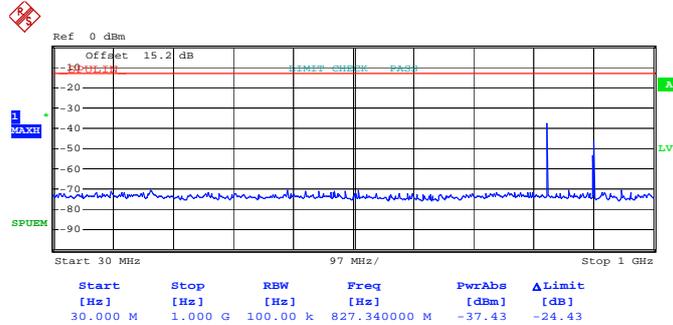


Date: 21.JUN.2013 18:43:18



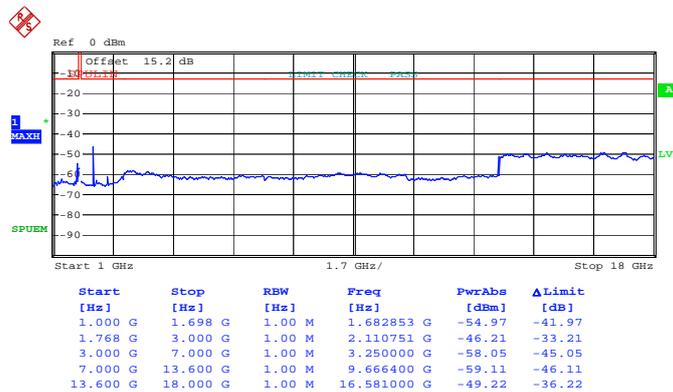
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1710.7	Channel :	19957

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



Date: 21.JUN.2013 18:38:21

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

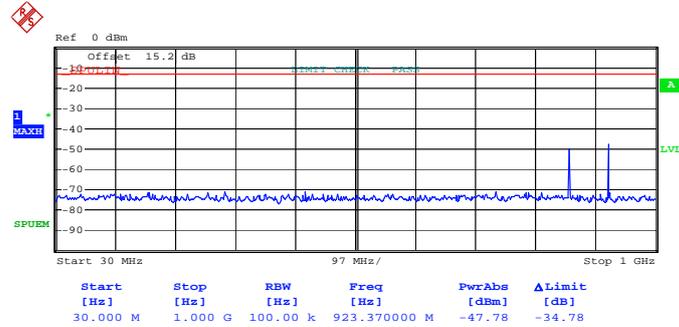


Date: 21.JUN.2013 18:39:35



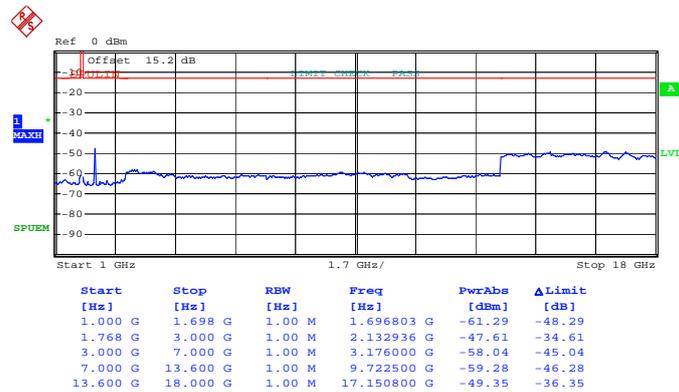
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:41:01

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

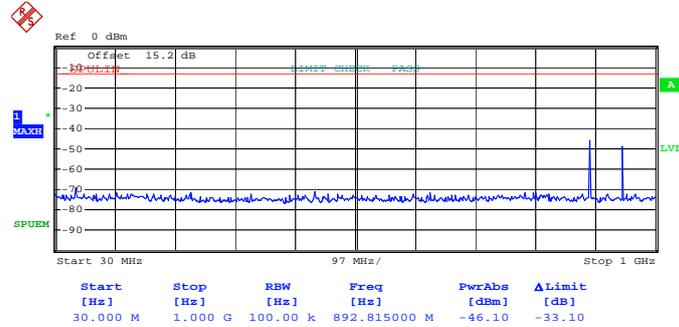


Date: 21.JUN.2013 18:40:12



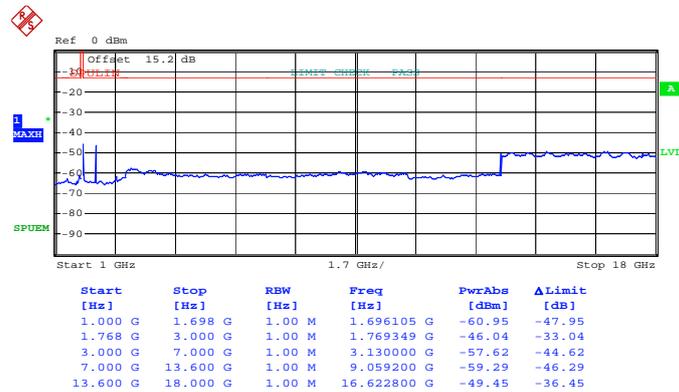
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1754.3	Channel :	20393

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



Date: 21.JUN.2013 18:43:57

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

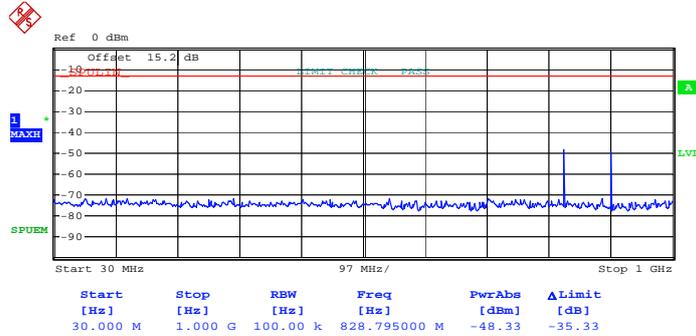


Date: 21.JUN.2013 18:43:01



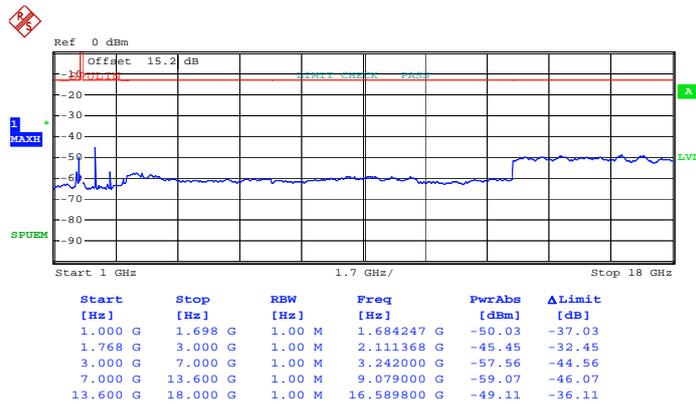
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
Frequency :	1711.5	Channel :	19965

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



Date: 21.JUN.2013 18:45:13

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

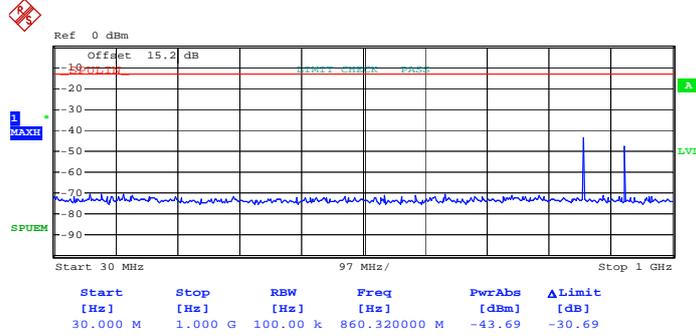


Date: 21.JUN.2013 18:47:46



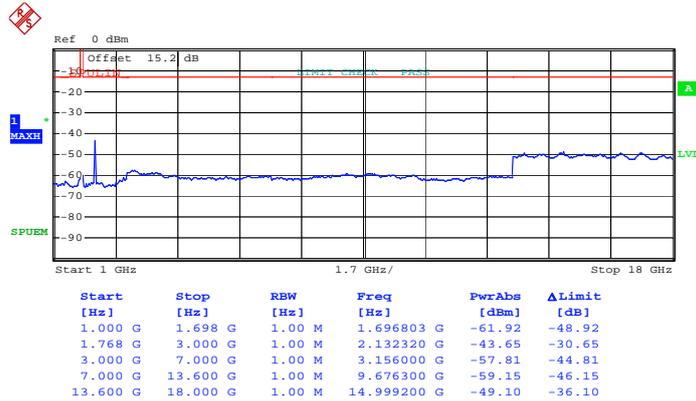
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:50:03

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

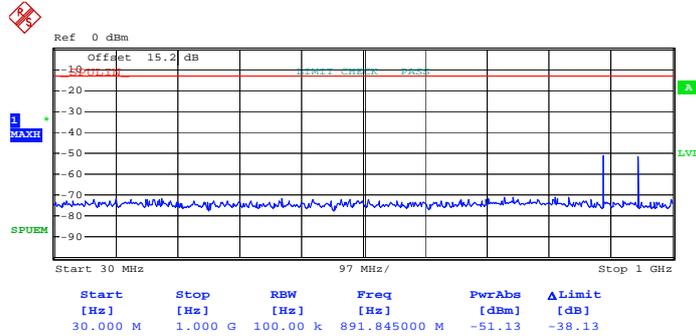


Date: 21.JUN.2013 18:49:07



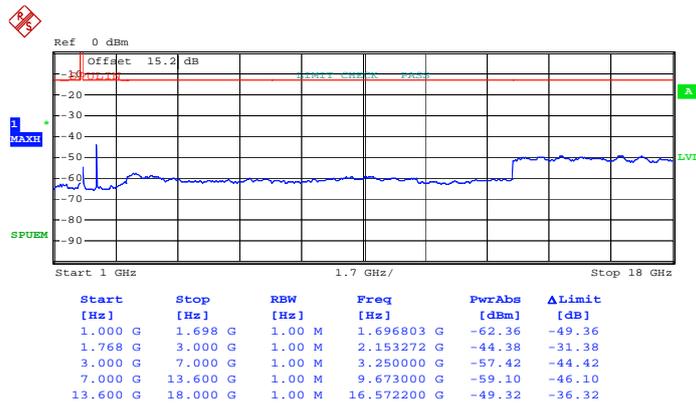
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
Frequency :	1753.5	Channel :	20385

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



Date: 21.JUN.2013 18:51:09

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

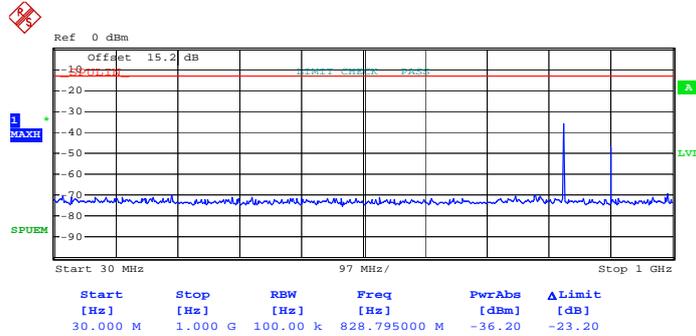


Date: 21.JUN.2013 18:51:44



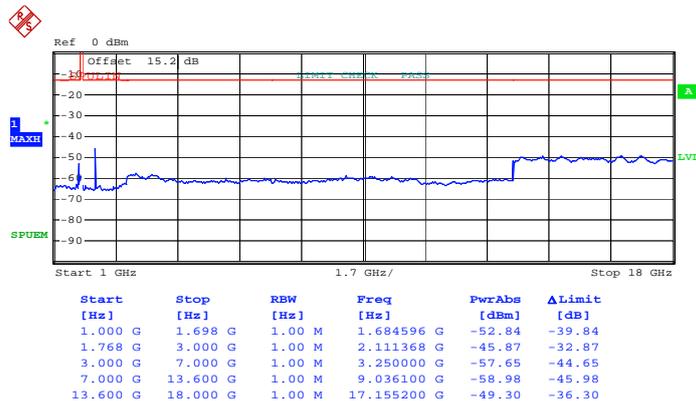
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
Frequency :	1711.5	Channel :	19965

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



Date: 21.JUN.2013 18:45:02

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

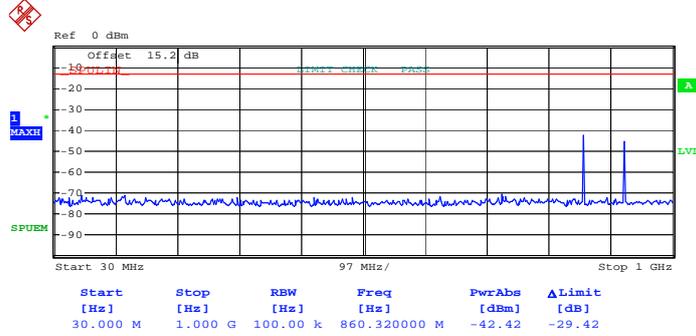


Date: 21.JUN.2013 18:48:01



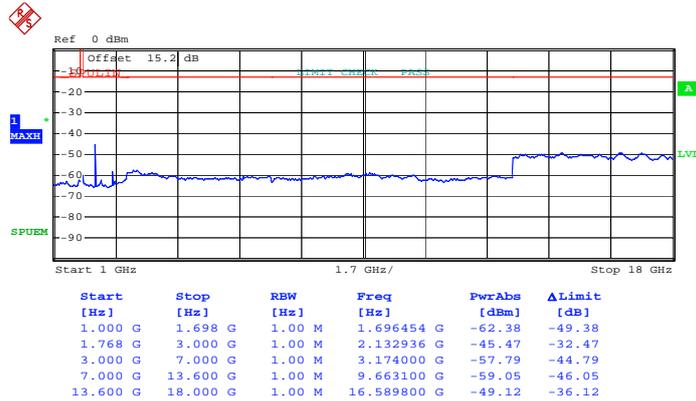
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:50:14

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

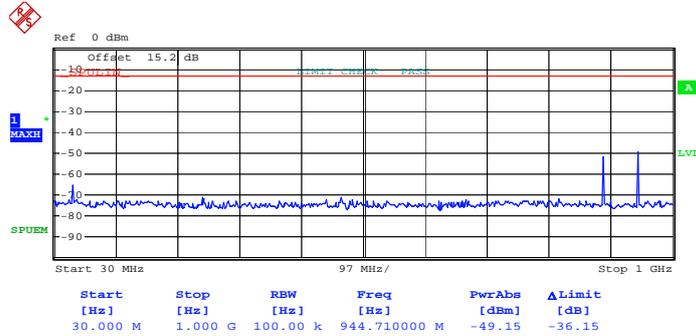


Date: 21.JUN.2013 18:48:42



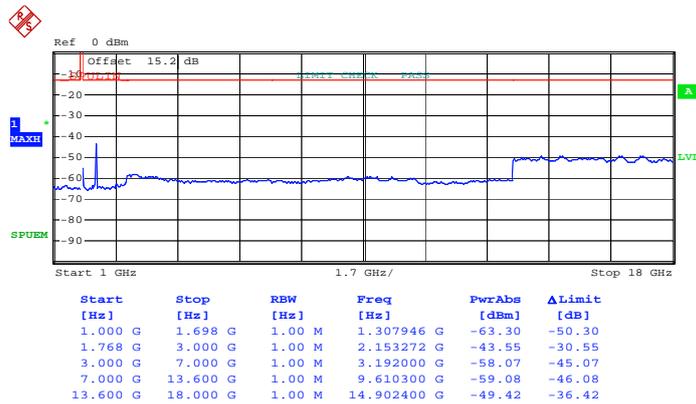
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
Frequency :	1753.5	Channel :	20385

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



Date: 21.JUN.2013 18:50:56

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

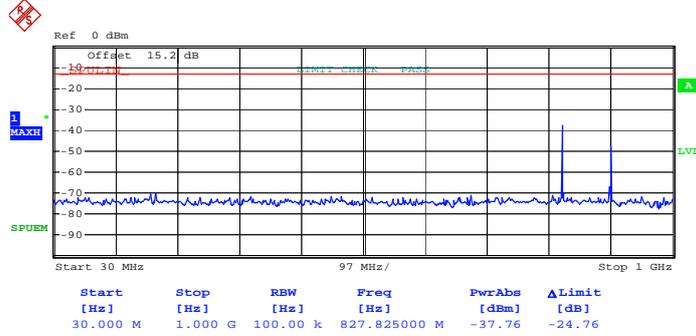


Date: 21.JUN.2013 18:51:58



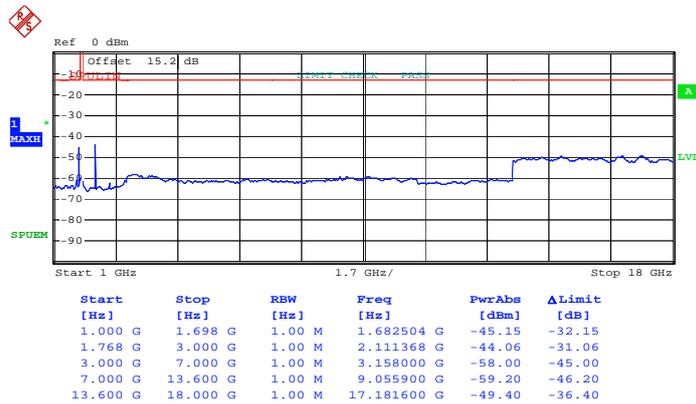
Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
Frequency :	1712.5	Channel :	19975

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



Date: 21.JUN.2013 18:53:24

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

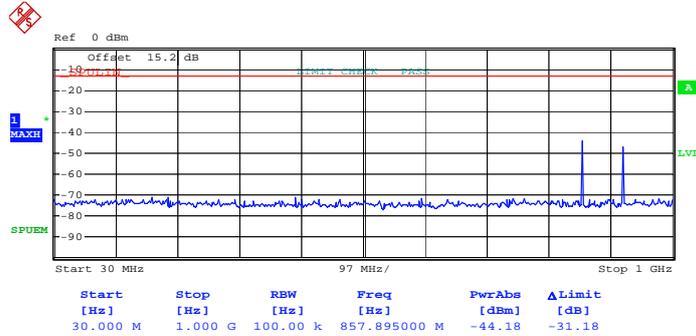


Date: 21.JUN.2013 18:53:05



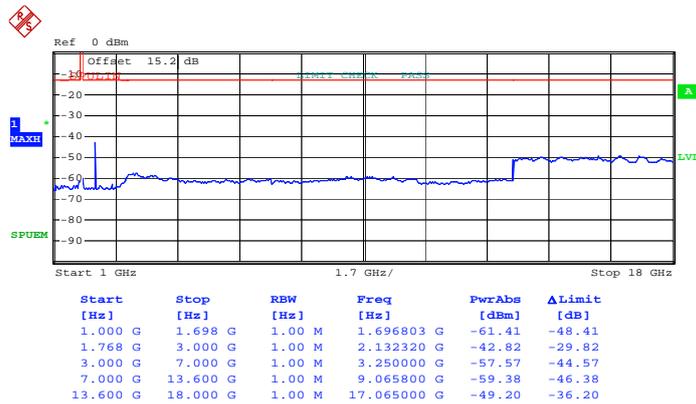
Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:54:25

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

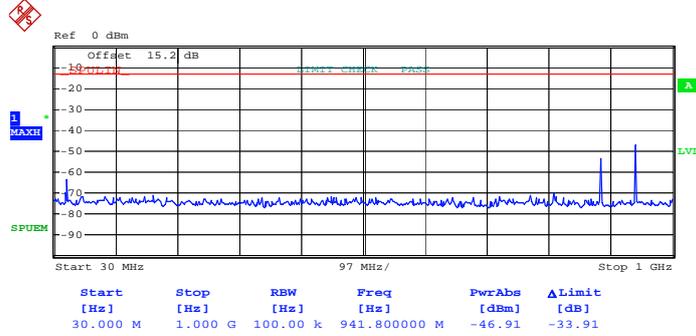


Date: 21.JUN.2013 18:54:49



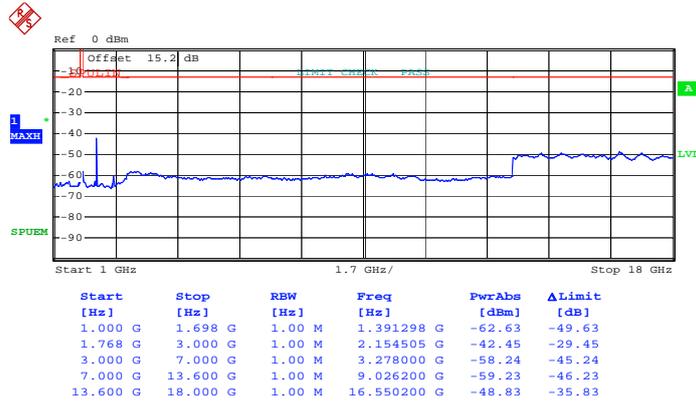
Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
Frequency :	1752.5	Channel :	20375

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



Date: 21.JUN.2013 18:56:05

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

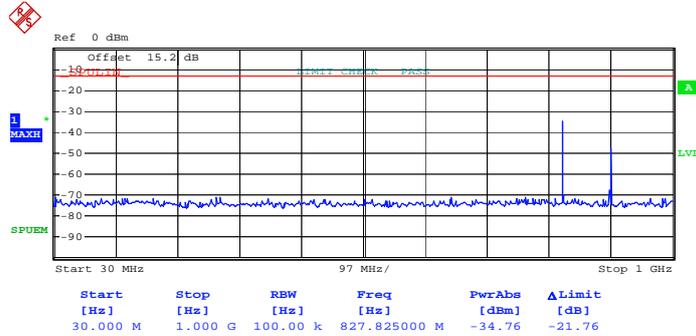


Date: 21.JUN.2013 18:55:48



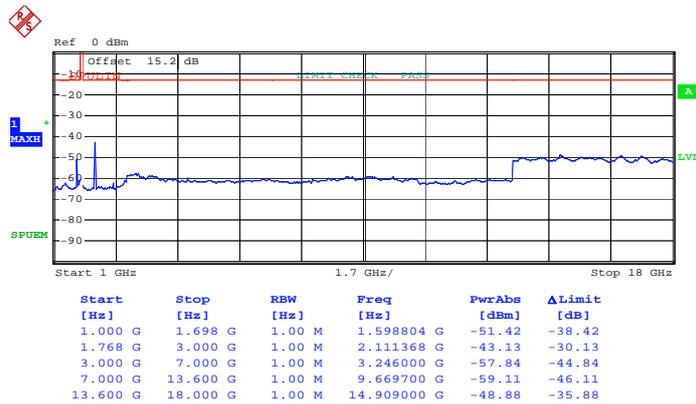
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
Frequency :	1712.5	Channel :	19975

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



Date: 21.JUN.2013 18:53:36

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

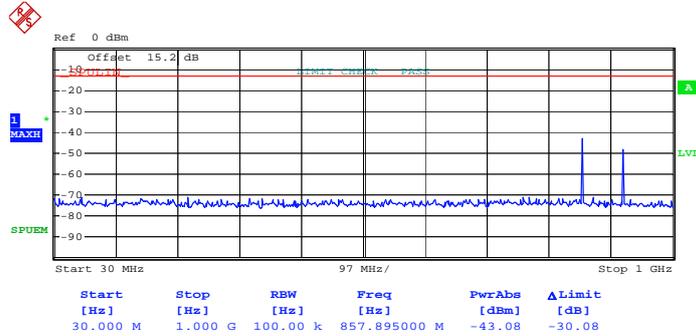


Date: 21.JUN.2013 18:52:52



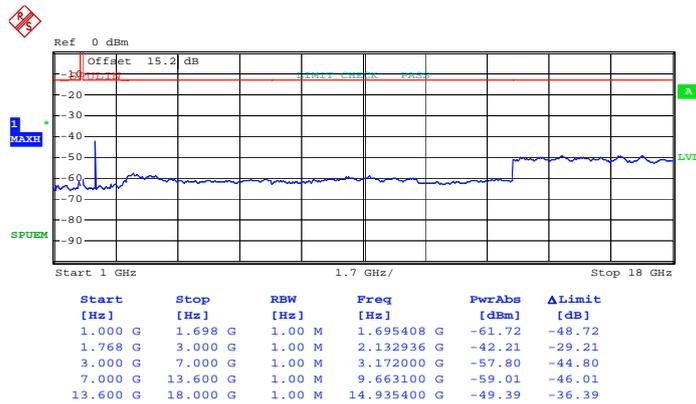
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:54:09

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

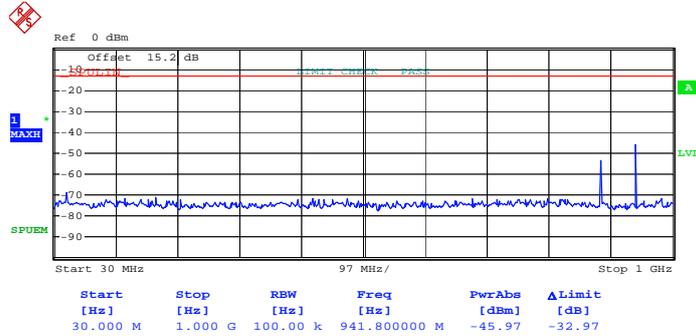


Date: 21.JUN.2013 18:55:04



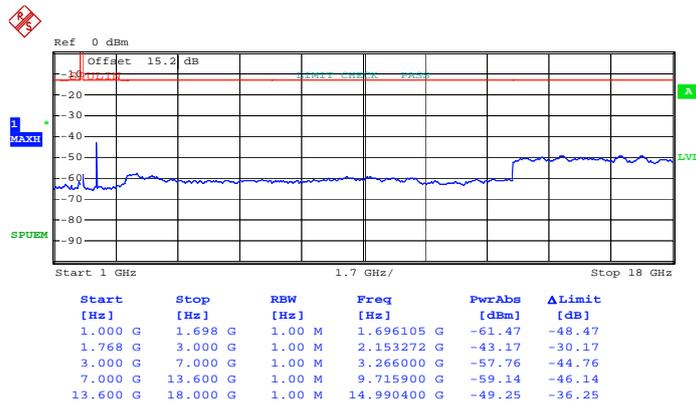
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
Frequency :	1752.5	Channel :	20375

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



Date: 21.JUN.2013 18:56:16

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

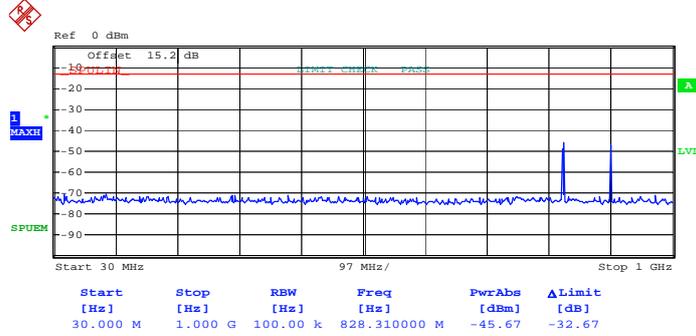


Date: 21.JUN.2013 18:55:35



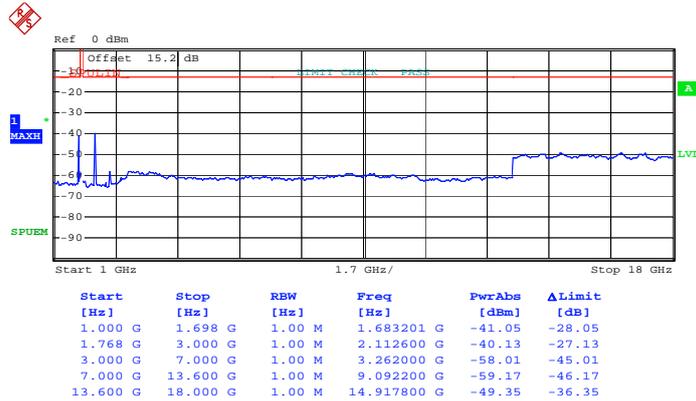
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
Frequency :	1715	Channel :	20000

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



Date: 21.JUN.2013 18:57:16

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

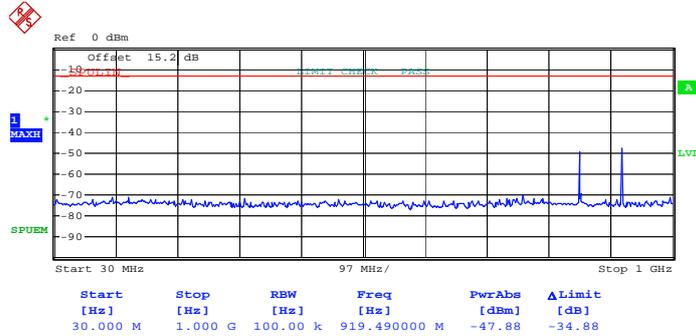


Date: 21.JUN.2013 18:57:39



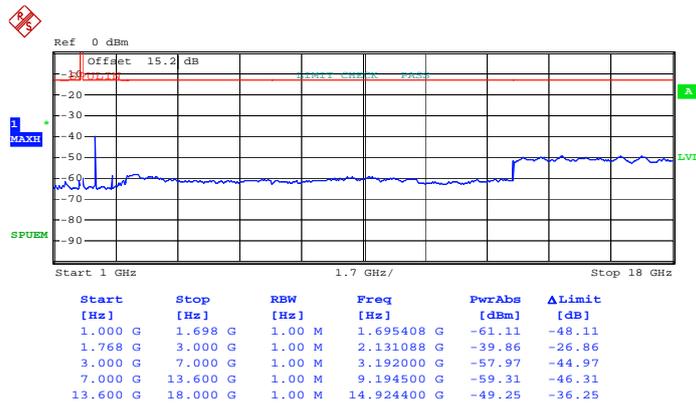
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:59:04

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

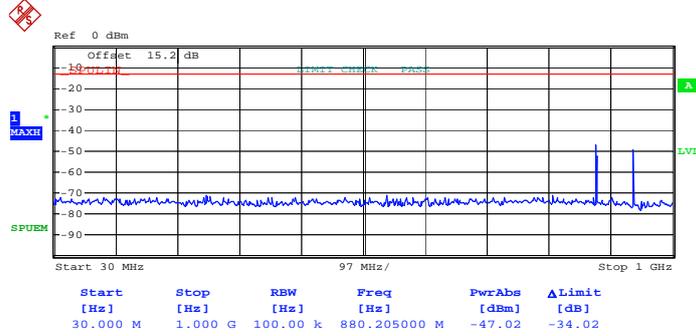


Date: 21.JUN.2013 18:58:45



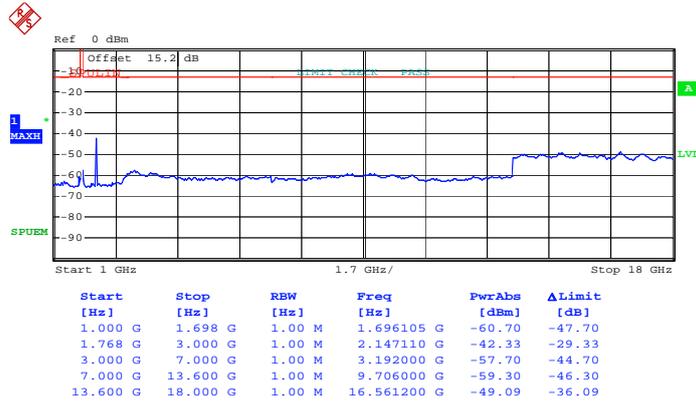
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
Frequency :	1750	Channel :	20350

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



Date: 21.JUN.2013 19:01:43

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

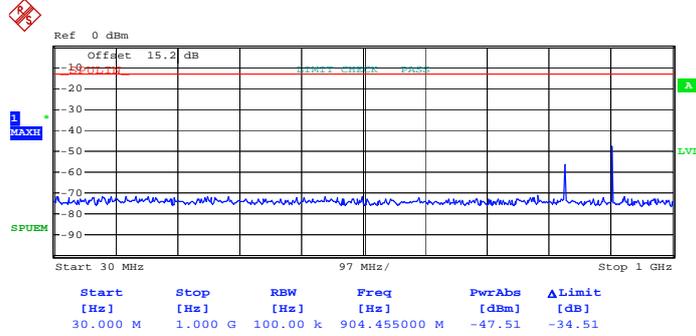


Date: 21.JUN.2013 19:00:46



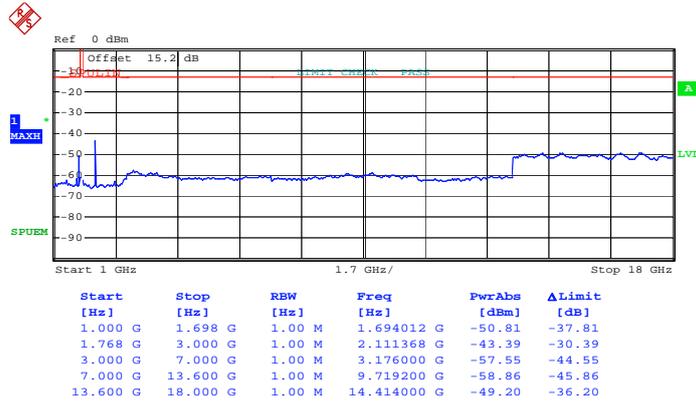
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
Frequency :	1715	Channel :	20000

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



Date: 21.JUN.2013 18:56:49

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

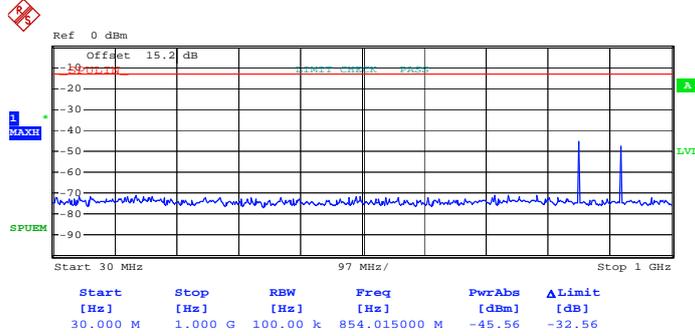


Date: 21.JUN.2013 18:57:59



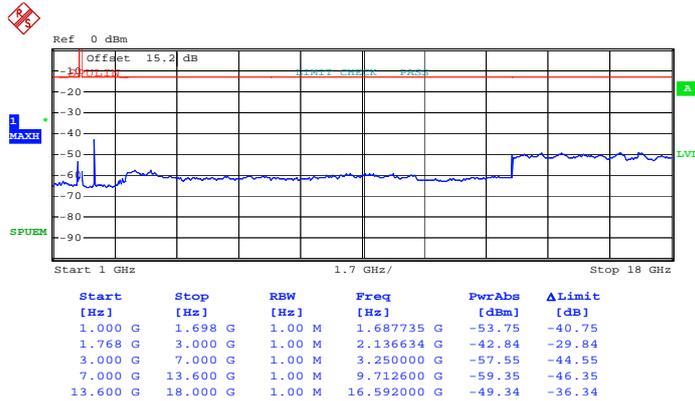
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
Frequency :	1732.5	Channel :	20175

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



Date: 21.JUN.2013 18:59:17

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

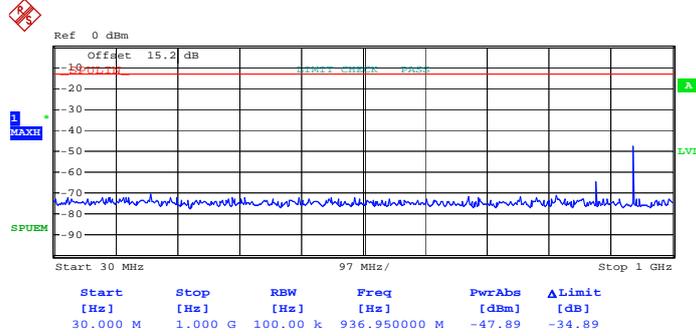


Date: 21.JUN.2013 18:58:27



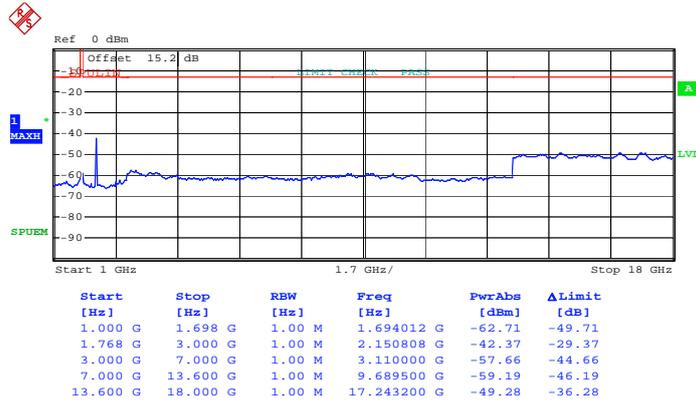
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
Frequency :	1750	Channel :	20350

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



Date: 21.JUN.2013 19:01:31

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

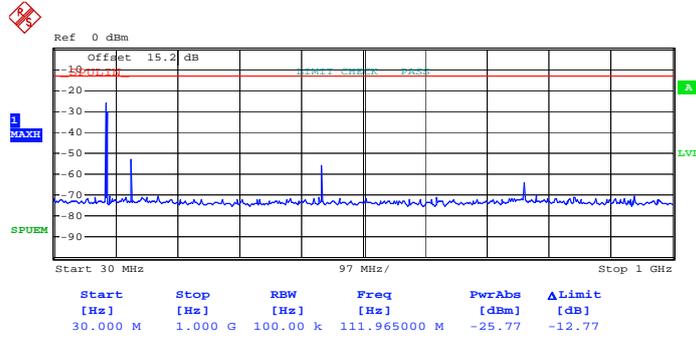


Date: 21.JUN.2013 19:01:00



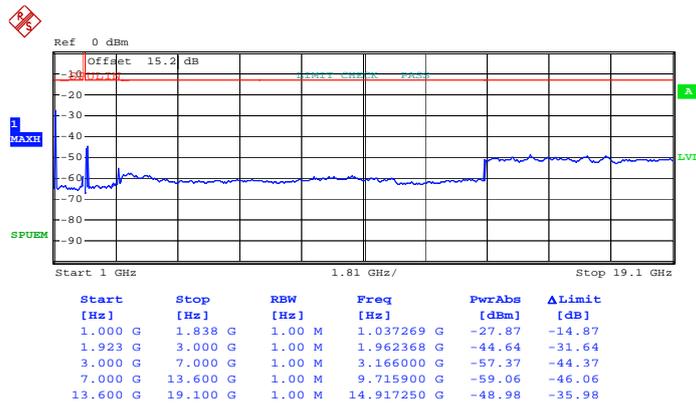
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK
Frequency :	1850.7	Channel :	18607

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



Date: 21.JUN.2013 11:55:46

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

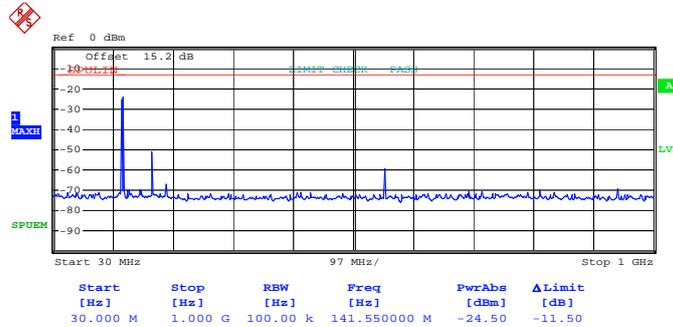


Date: 21.JUN.2013 11:57:15



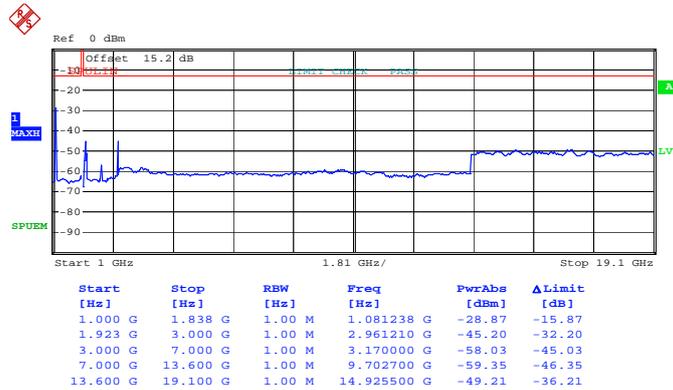
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 11:59:11

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

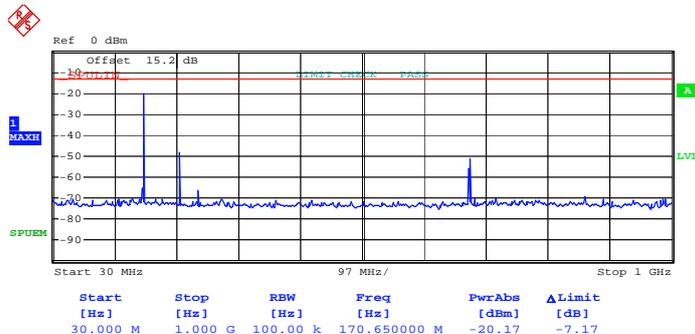


Date: 21.JUN.2013 11:58:19



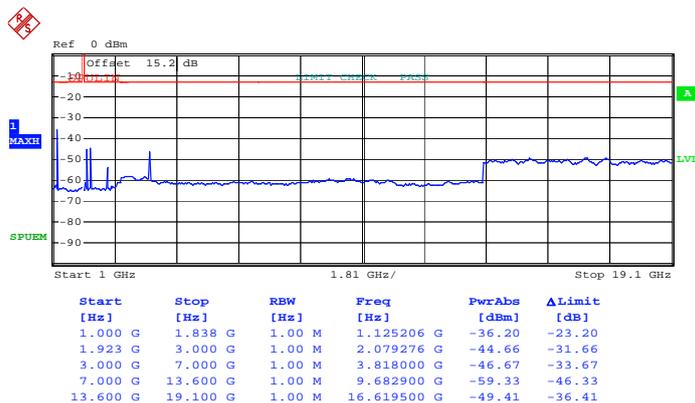
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK
Frequency :	1909.3	Channel :	19193

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



Date: 21.JUN.2013 12:00:11

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

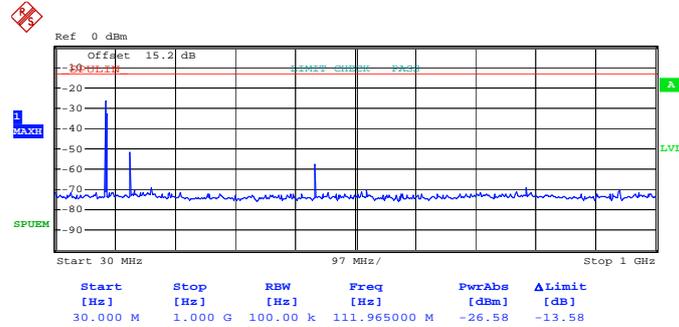


Date: 21.JUN.2013 12:01:31



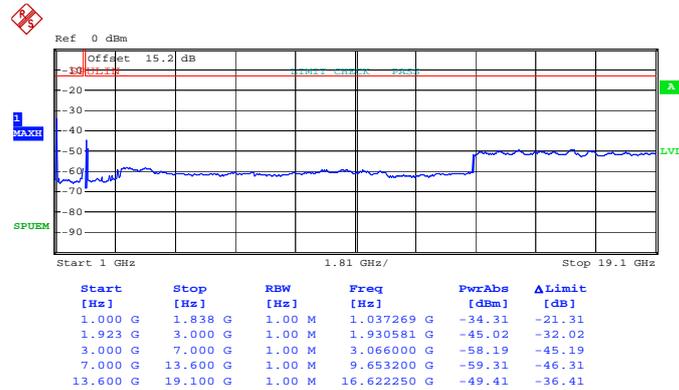
Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1850.7	Channel :	18607

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



Date: 21.JUN.2013 11:56:05

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

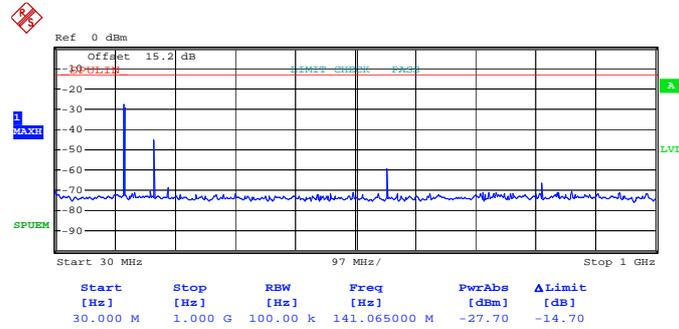


Date: 21.JUN.2013 11:57:00



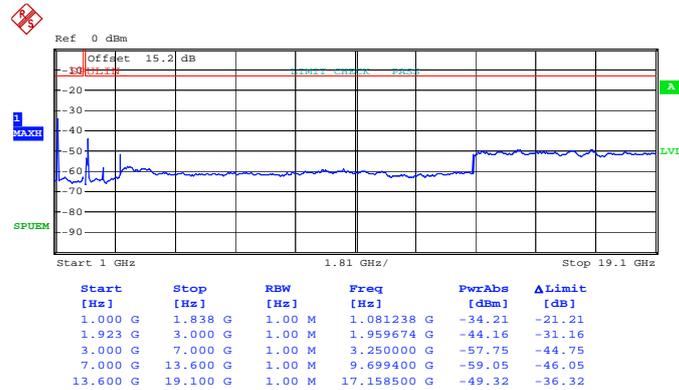
Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 11:58:57

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

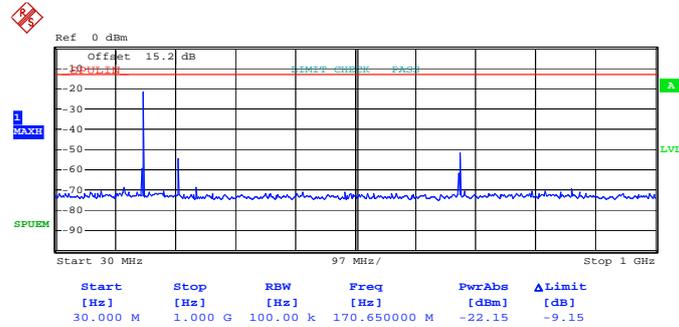


Date: 21.JUN.2013 11:58:34



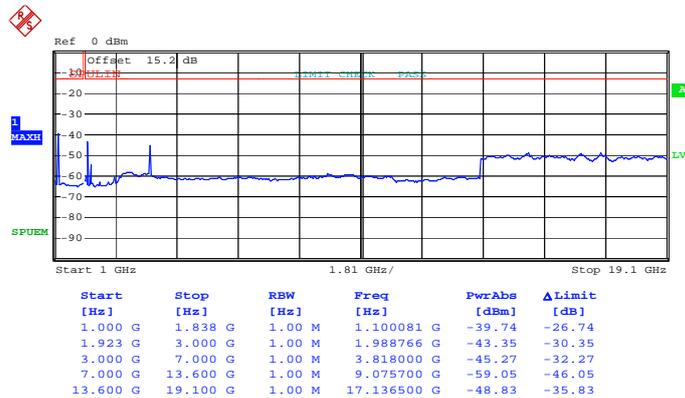
Band :	LTE Band 2	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1909.3	Channel :	19193

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



Date: 21.JUN.2013 12:00:39

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

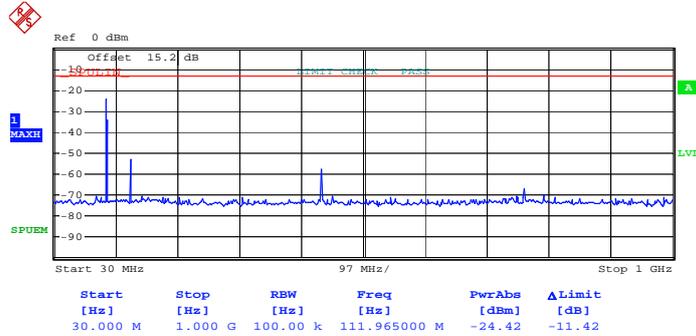


Date: 21.JUN.2013 12:01:12



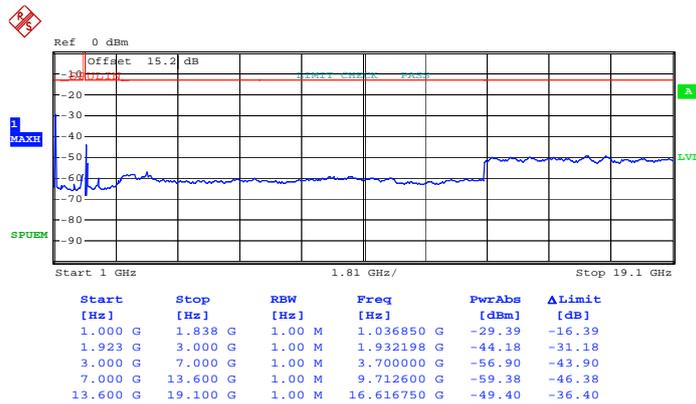
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK
Frequency :	1851.5	Channel :	18615

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



Date: 21.JUN.2013 12:04:23

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

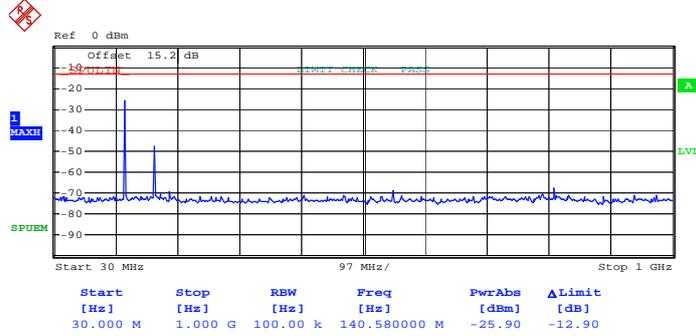


Date: 21.JUN.2013 12:03:14



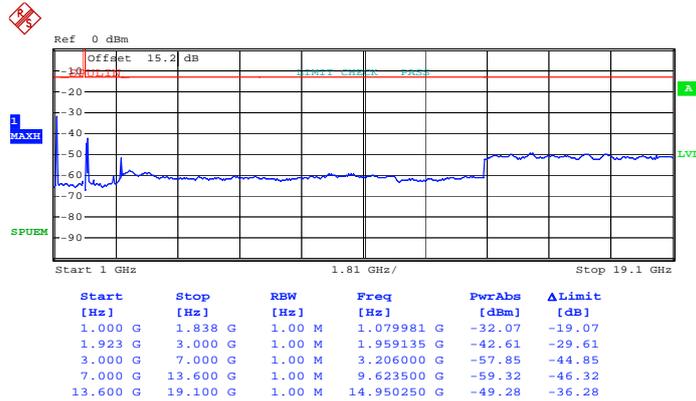
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 14:10:08

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

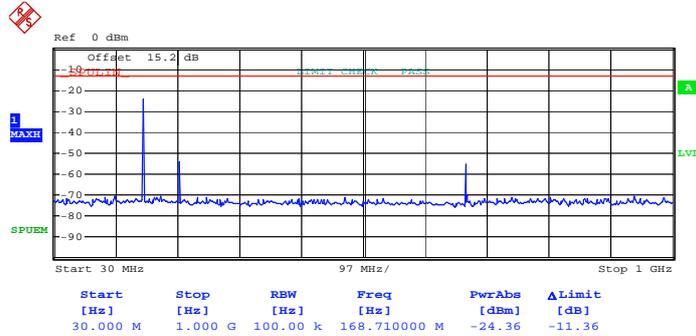


Date: 21.JUN.2013 14:11:24



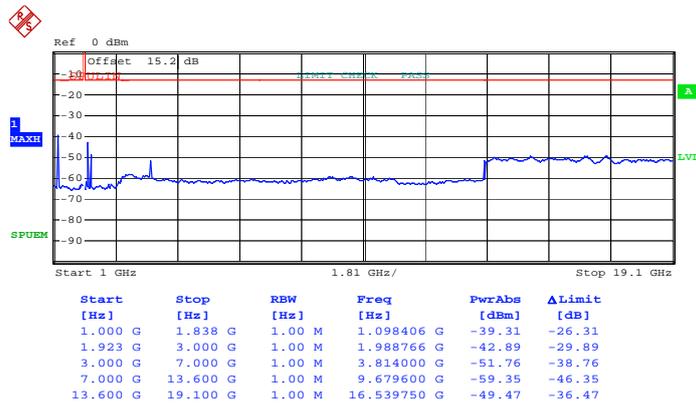
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK
Frequency :	1908.5	Channel :	19185

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



Date: 21.JUN.2013 14:14:04

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

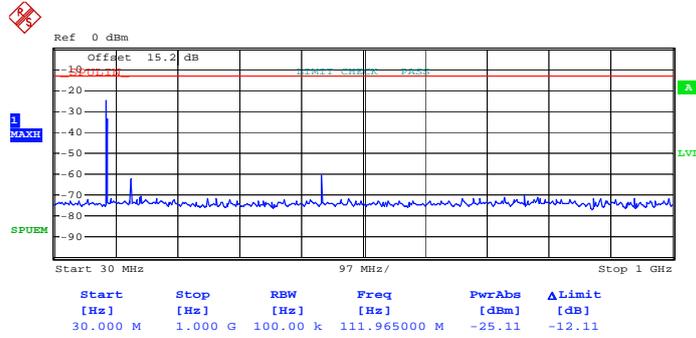


Date: 21.JUN.2013 14:13:06



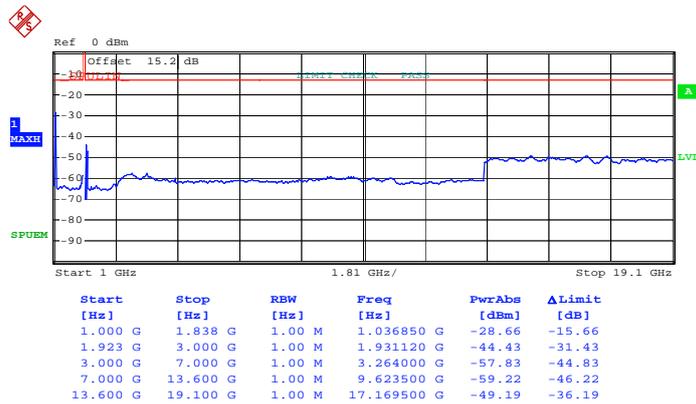
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM
Frequency :	1851.5	Channel :	18615

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



Date: 21.JUN.2013 12:04:00

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

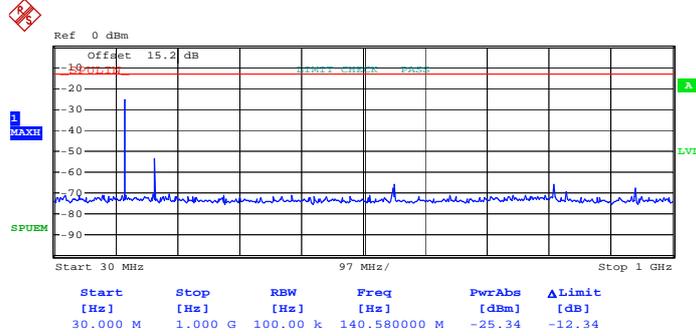


Date: 21.JUN.2013 12:03:40



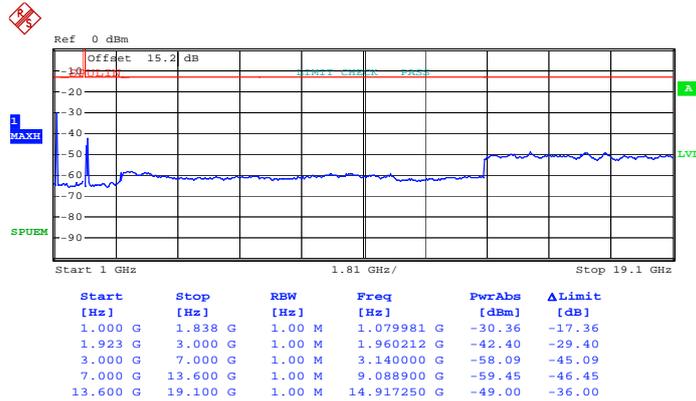
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 14:10:24

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

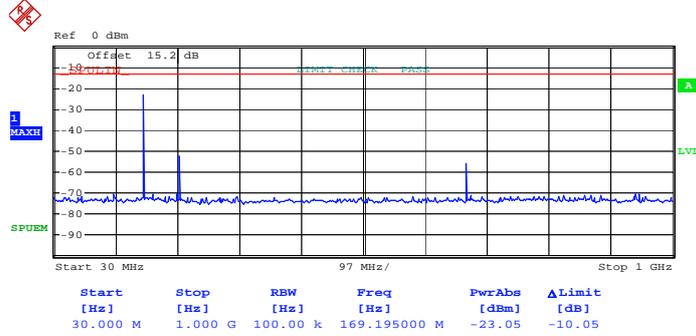


Date: 21.JUN.2013 14:11:09



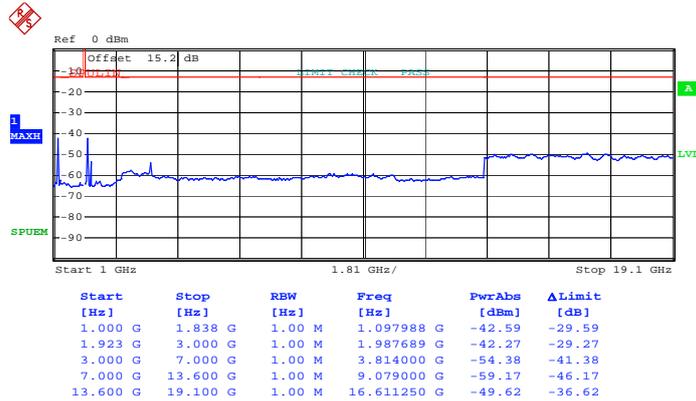
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM
Frequency :	1908.5	Channel :	19185

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



Date: 21.JUN.2013 14:13:50

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

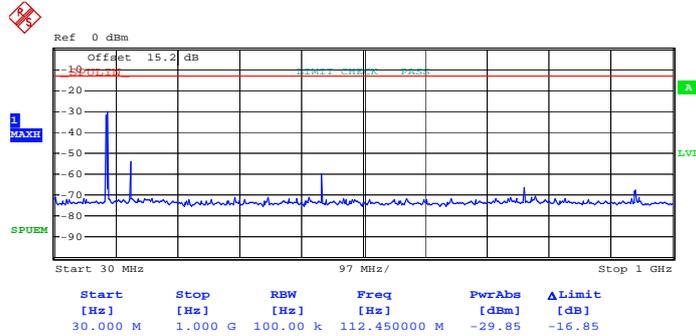


Date: 21.JUN.2013 14:13:28



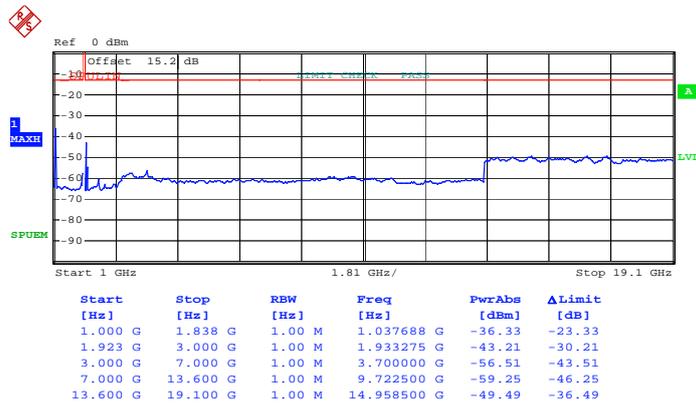
Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK
Frequency :	1852.5	Channel :	18625

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



Date: 21.JUN.2013 14:17:06

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

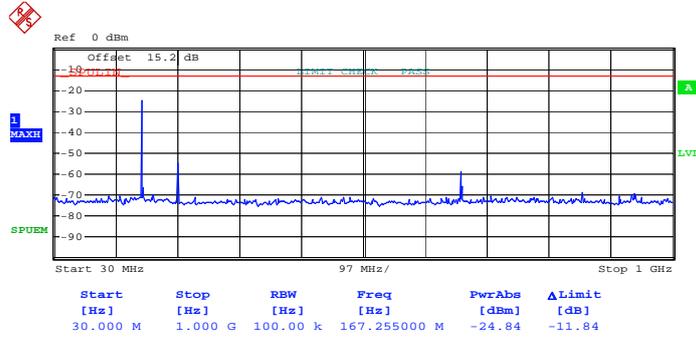


Date: 21.JUN.2013 14:18:20



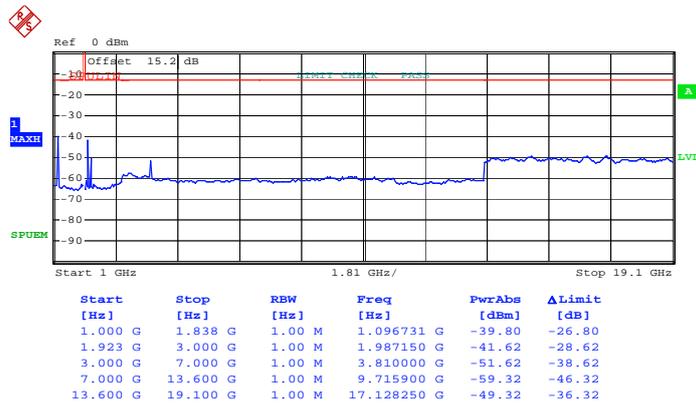
Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK
Frequency :	1907.5	Channel :	19175

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



Date: 21.JUN.2013 14:21:15

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

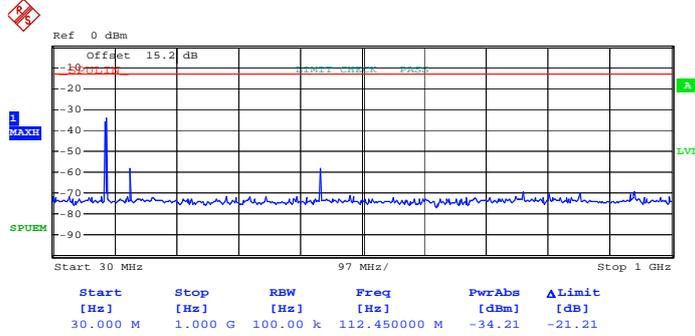


Date: 21.JUN.2013 14:24:30



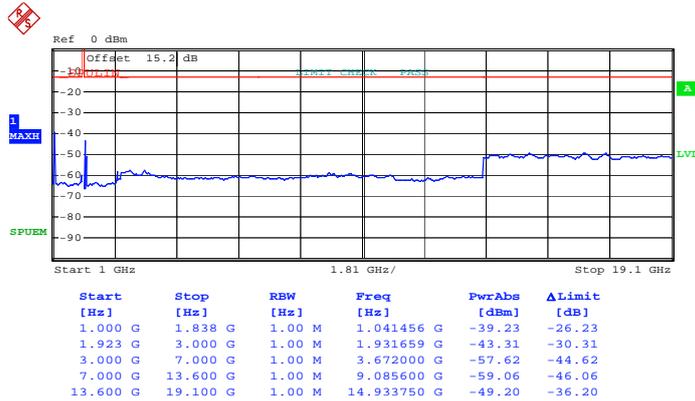
Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM
Frequency :	1852.5	Channel :	18625

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



Date: 21.JUN.2013 14:17:26

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

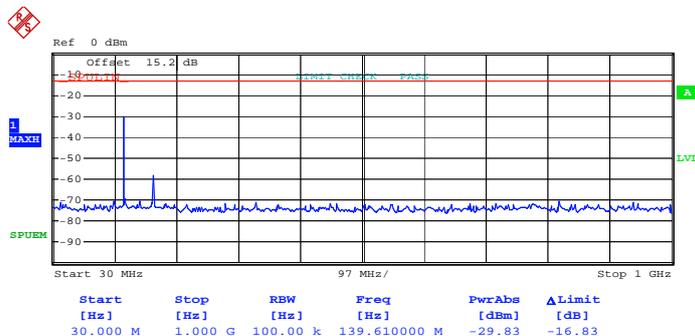


Date: 21.JUN.2013 14:17:59



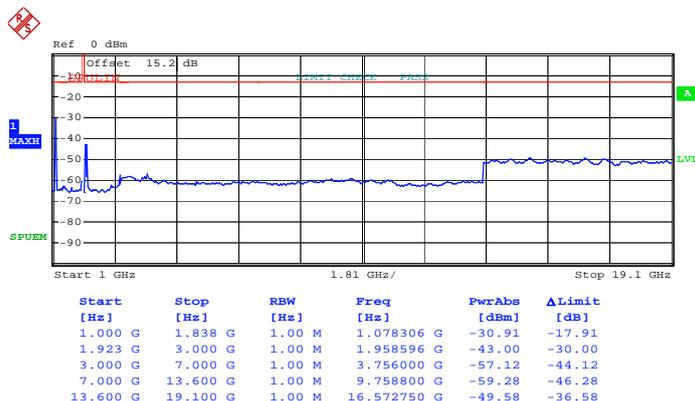
Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 14:20:09

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

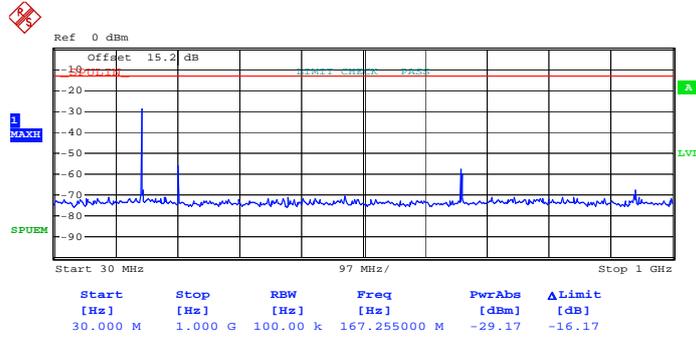


Date: 21.JUN.2013 14:19:43



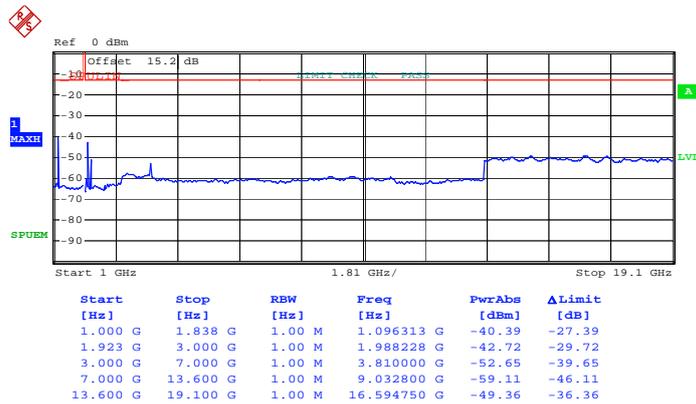
Band :	LTE Band 2	BW / Mod. :	5MHz / 16QAM
Frequency :	1907.5	Channel :	19175

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



Date: 21.JUN.2013 14:21:39

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

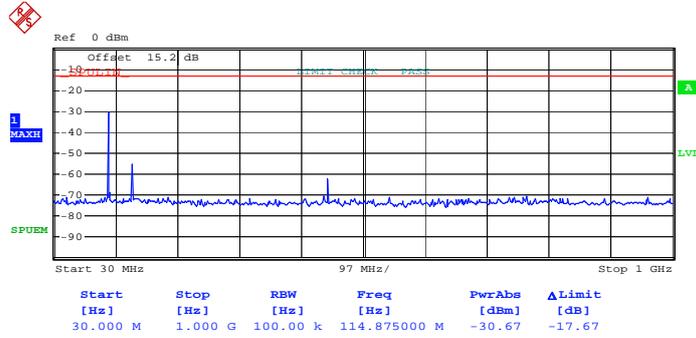


Date: 21.JUN.2013 14:24:52



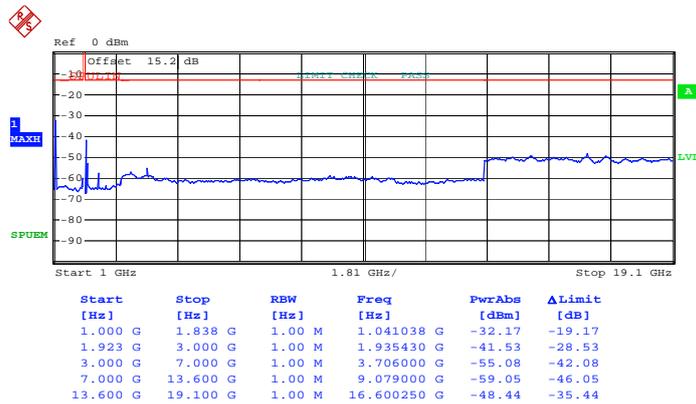
Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK
Frequency :	1855	Channel :	18650

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



Date: 21.JUN.2013 14:26:46

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

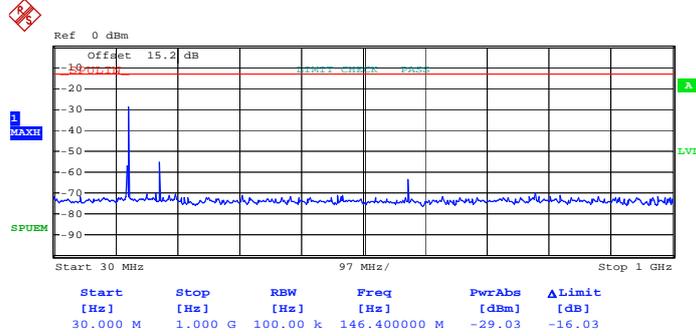


Date: 21.JUN.2013 14:27:24



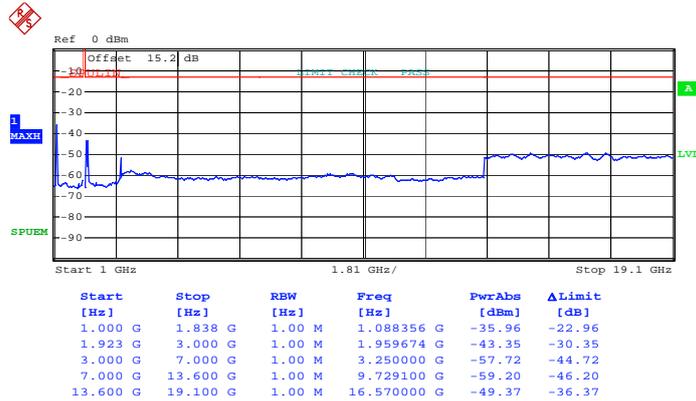
Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 14:29:10

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

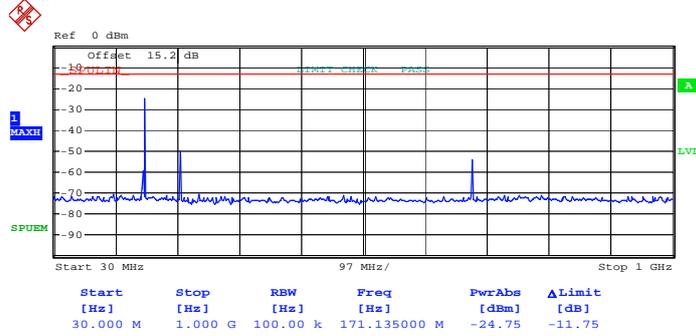


Date: 21.JUN.2013 14:28:43



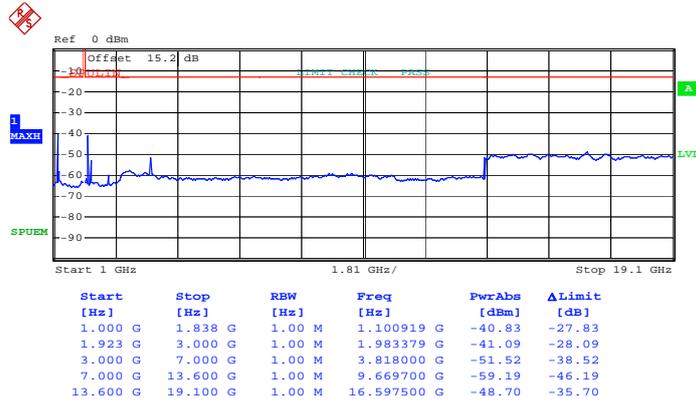
Band :	LTE Band 2	BW / Mod. :	10MHz / QPSK
Frequency :	1905	Channel :	19150

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



Date: 21.JUN.2013 14:35:26

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

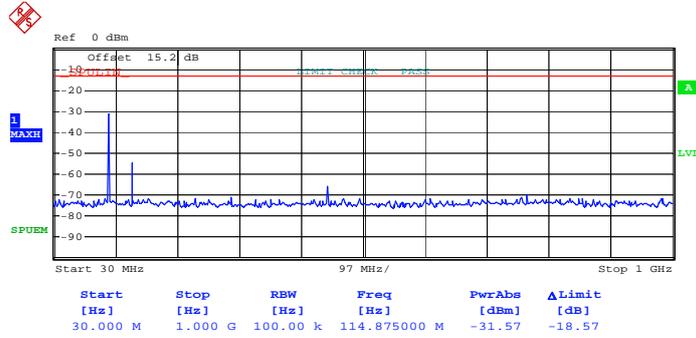


Date: 21.JUN.2013 14:35:54



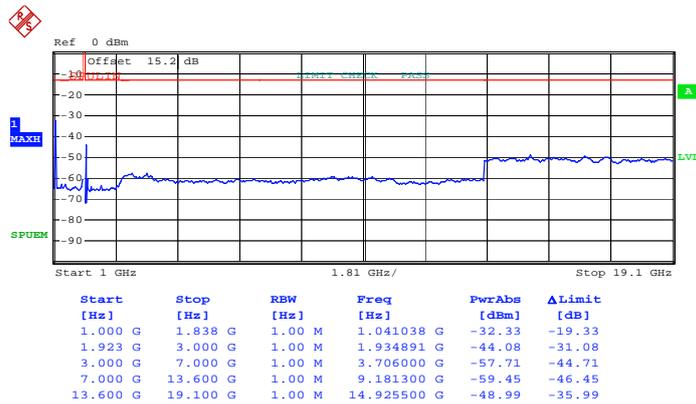
Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM
Frequency :	1855	Channel :	18650

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



Date: 21.JUN.2013 14:26:30

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

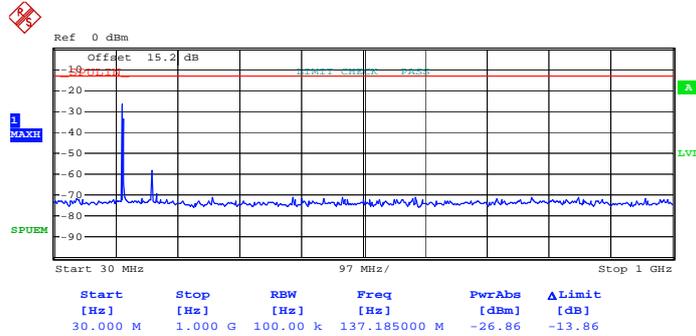


Date: 21.JUN.2013 14:26:10



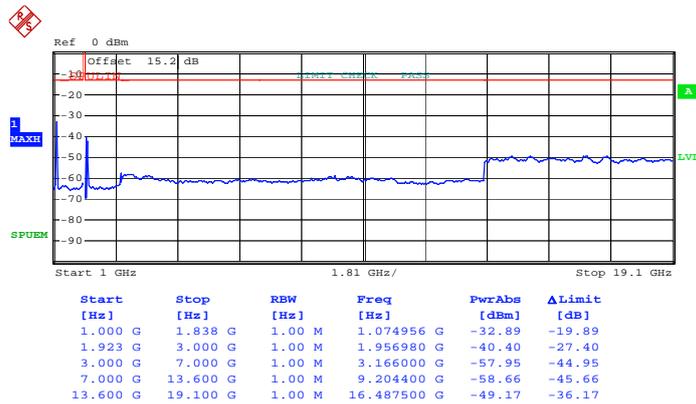
Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM
Frequency :	1880	Channel :	18900

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



Date: 21.JUN.2013 14:29:52

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

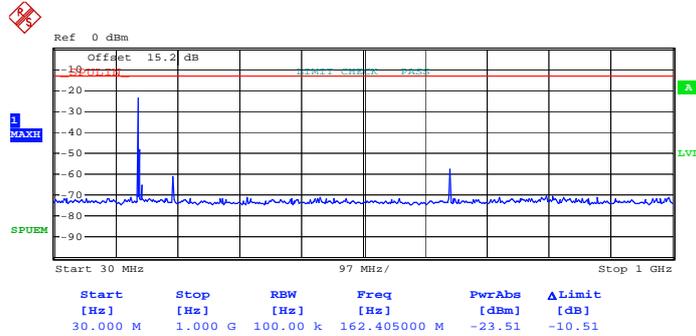


Date: 21.JUN.2013 14:30:16



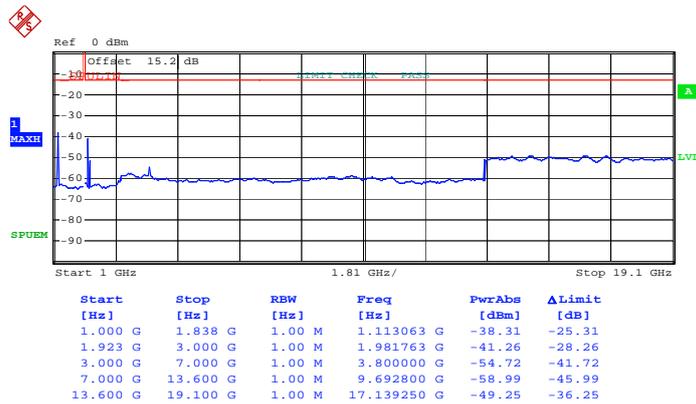
Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM
Frequency :	1905	Channel :	19150

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



Date: 21.JUN.2013 14:35:08

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

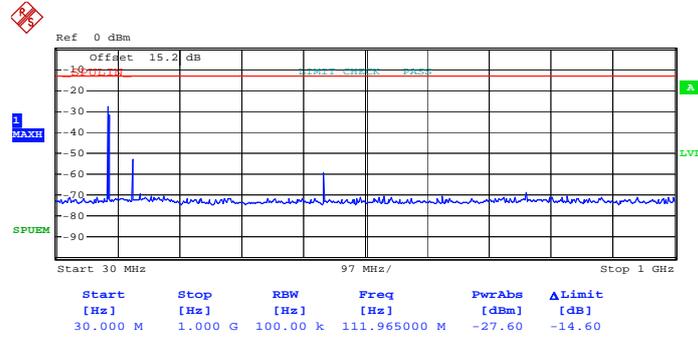


Date: 21.JUN.2013 14:34:18



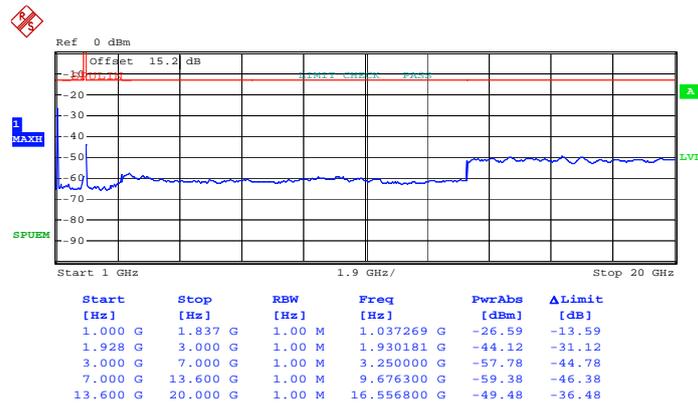
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
Frequency :	1850.7	Channel :	26047

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



Date: 22.JUN.2013 15:09:18

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

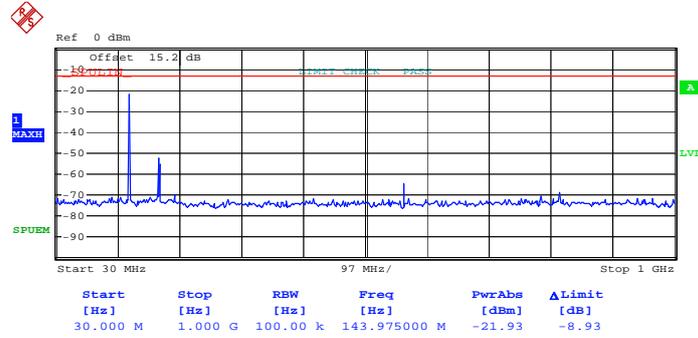


Date: 22.JUN.2013 15:10:11



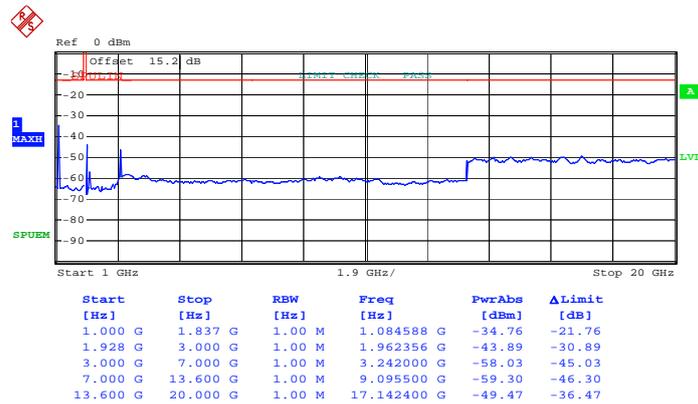
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:11:54

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

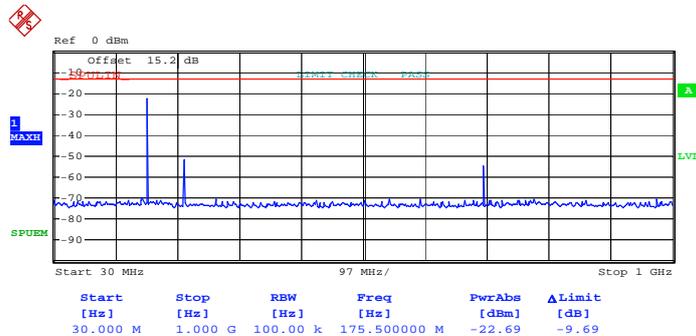


Date: 22.JUN.2013 15:11:34



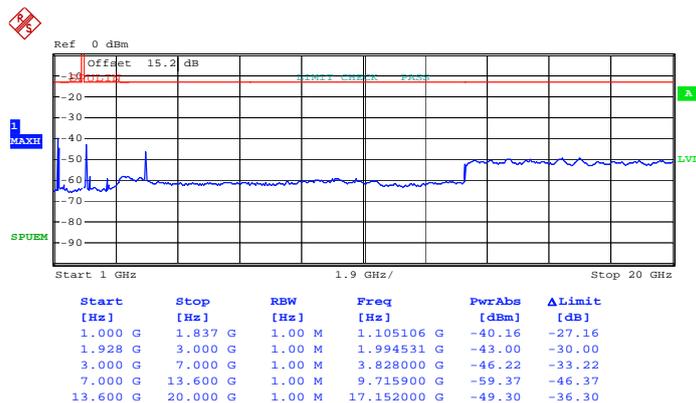
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
Frequency :	1914.3	Channel :	26683

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



Date: 22.JUN.2013 15:13:28

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

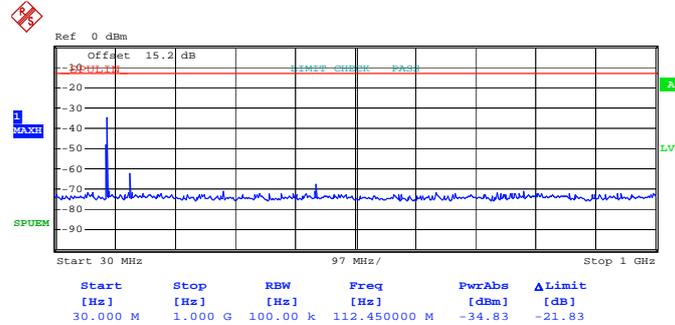


Date: 22.JUN.2013 15:13:50



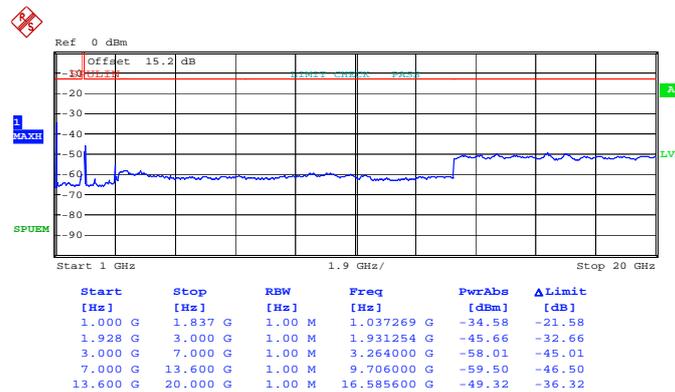
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1850.7	Channel :	26047

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



Date: 22.JUN.2013 15:08:49

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

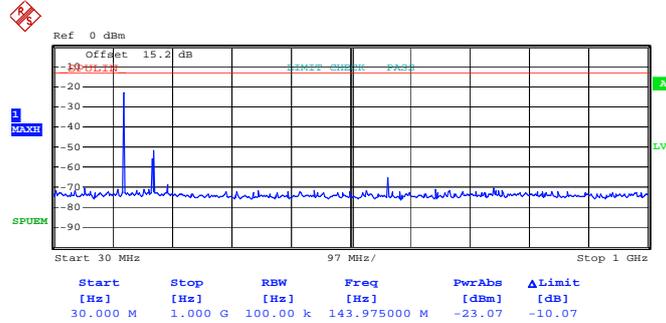


Date: 22.JUN.2013 15:10:28



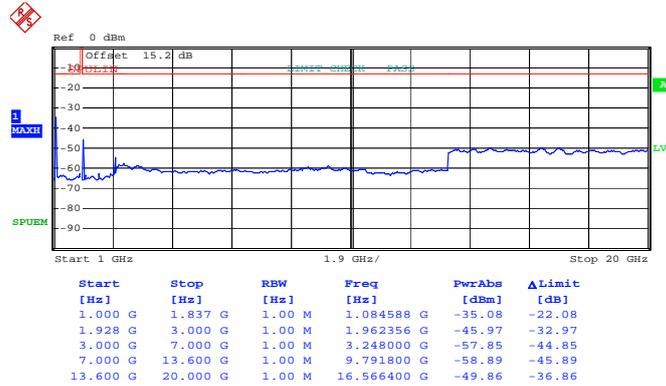
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:12:08

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

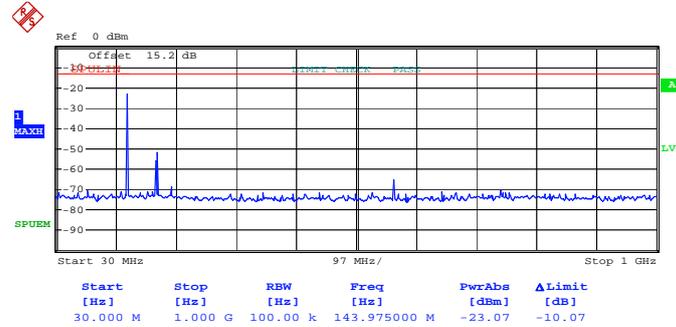


Date: 22.JUN.2013 15:11:09



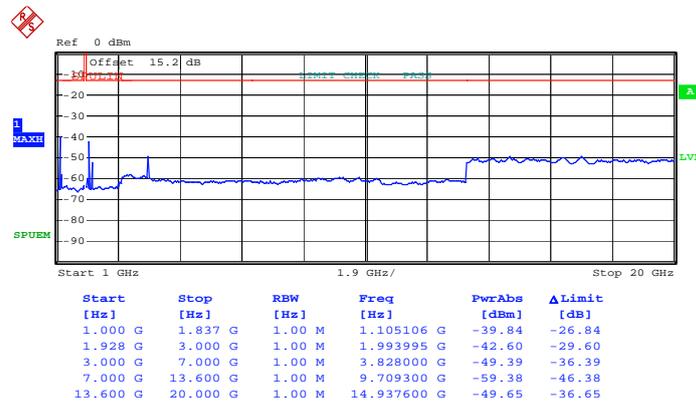
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1914.3	Channel :	26683

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



Date: 22.JUN.2013 15:13:13

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

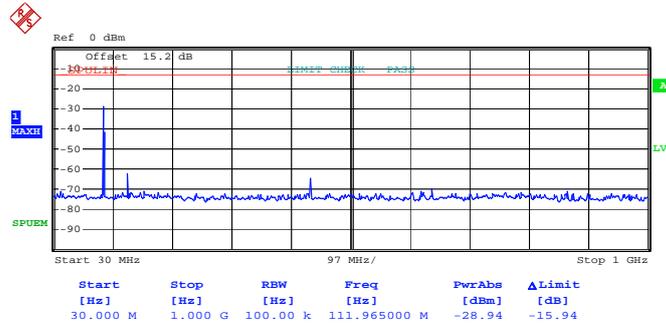


Date: 22.JUN.2013 15:14:06



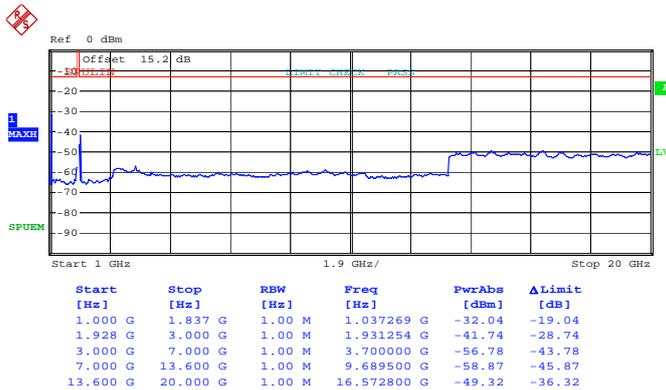
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
Frequency :	1851.5	Channel :	26055

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



Date: 22.JUN.2013 15:16:30

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

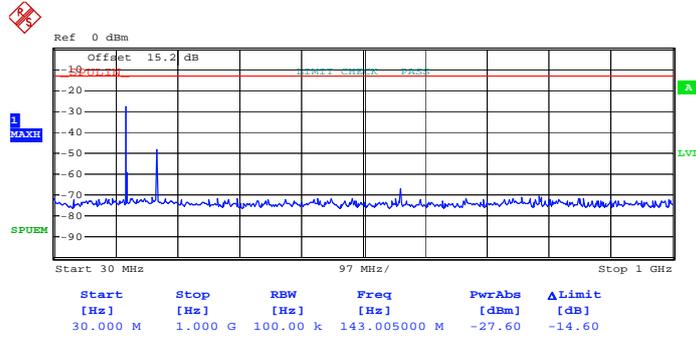


Date: 22.JUN.2013 15:16:03



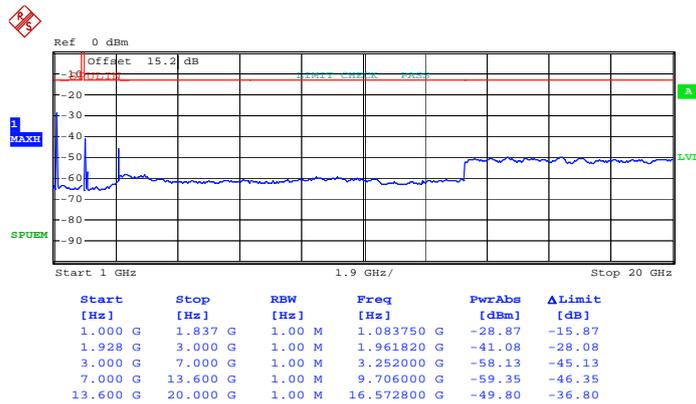
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:18:13

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

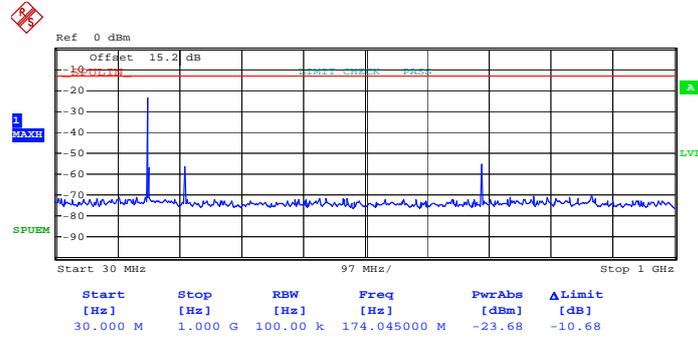


Date: 22.JUN.2013 15:18:41



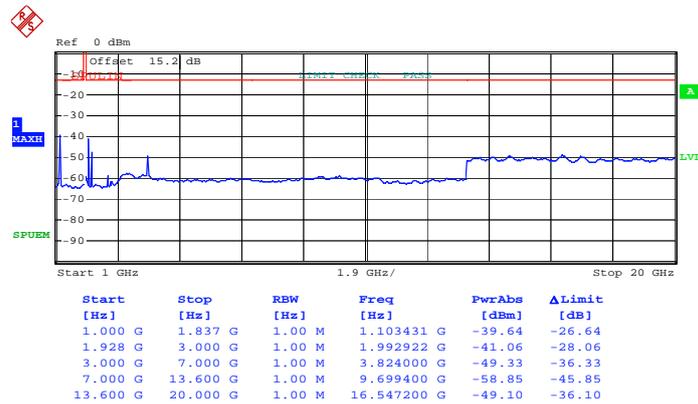
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
Frequency :	1913.5	Channel :	26675

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



Date: 22.JUN.2013 15:21:03

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

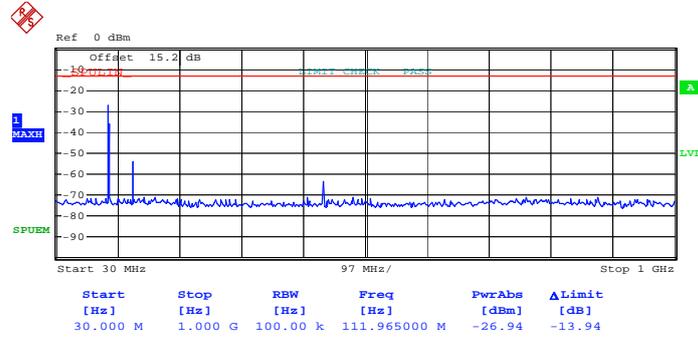


Date: 22.JUN.2013 15:20:28



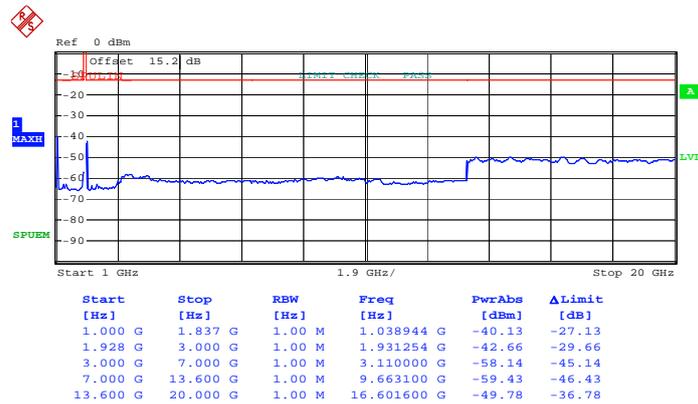
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
Frequency :	1851.5	Channel :	26055

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



Date: 22.JUN.2013 15:16:46

Conducted Emission Plot (1GHz ~ 19.2GHz) for 16-QAM (RB Size 1, RB Offset 0)

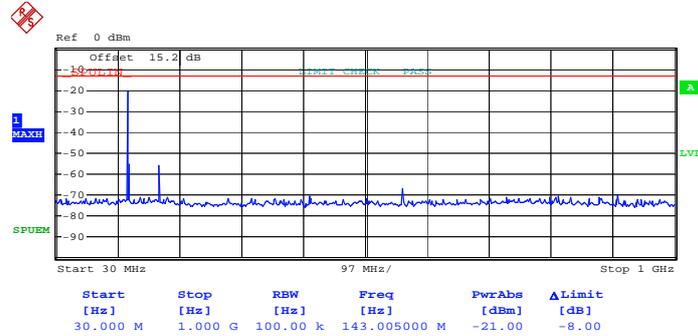


Date: 22.JUN.2013 15:15:42



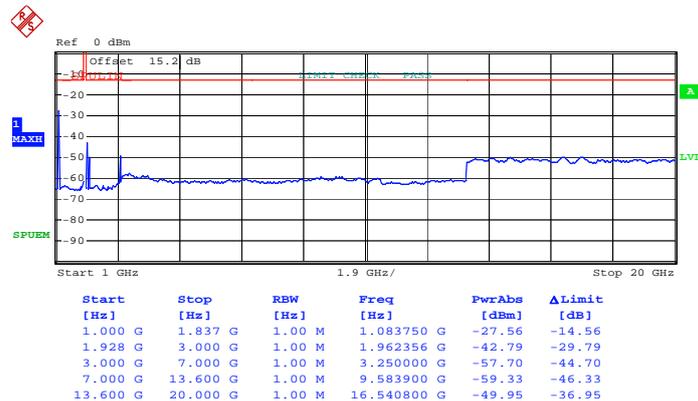
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:17:57

Conducted Emission Plot (1GHz ~ 19.2GHz) for 16-QAM (RB Size 1, RB Offset 0)

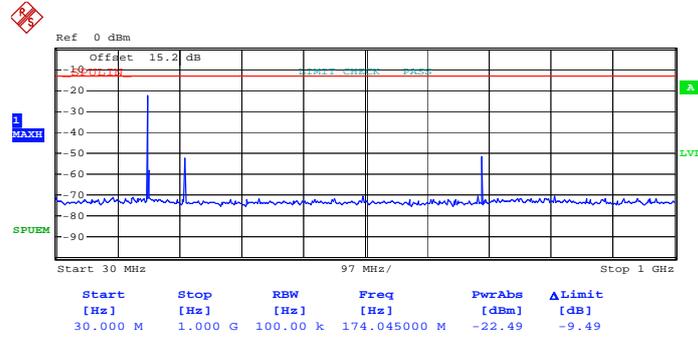


Date: 22.JUN.2013 15:19:04



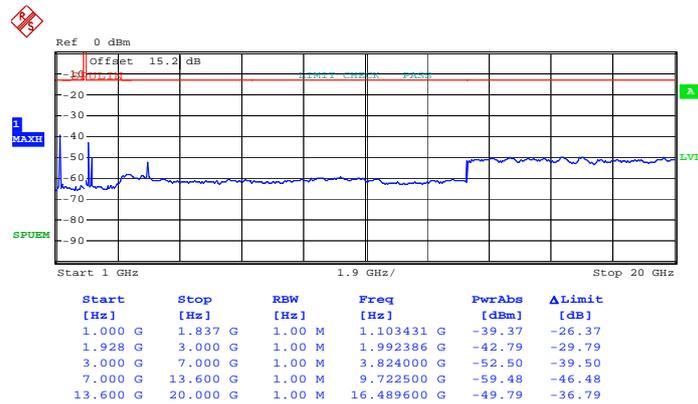
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
Frequency :	1913.5	Channel :	26675

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



Date: 22.JUN.2013 15:21:26

Conducted Emission Plot (1GHz ~ 19.2GHz) for 16-QAM (RB Size 1, RB Offset 0)

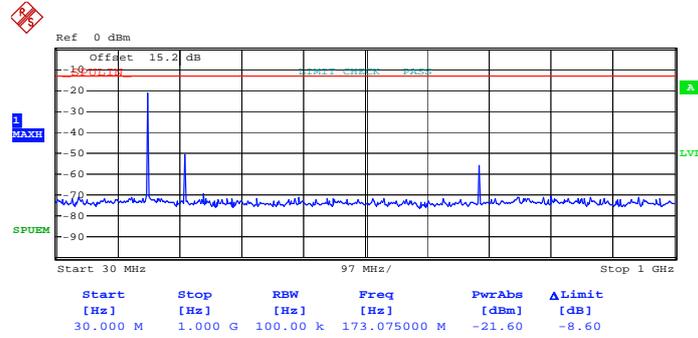


Date: 22.JUN.2013 15:19:41



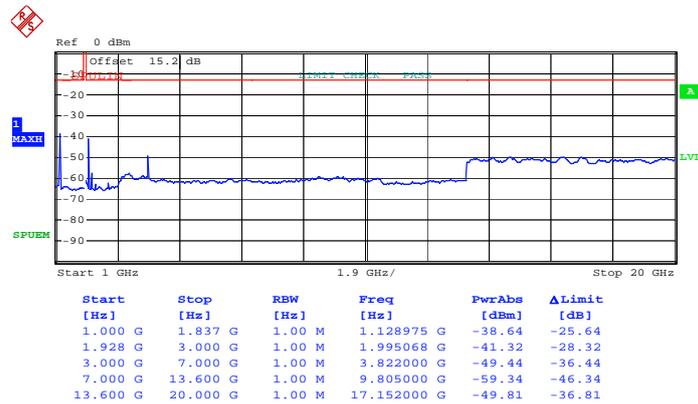
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
Frequency :	1852.5	Channel :	26065

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



Date: 22.JUN.2013 15:25:09

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

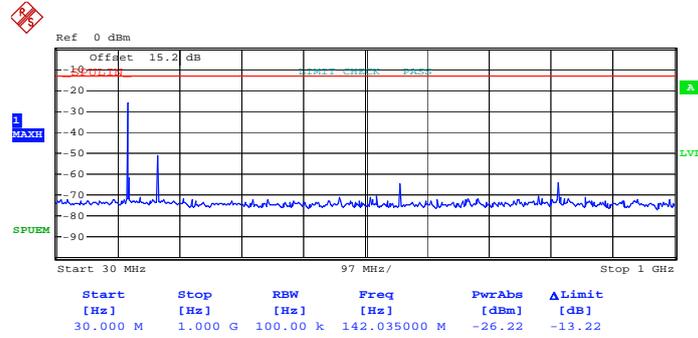


Date: 22.JUN.2013 15:26:34



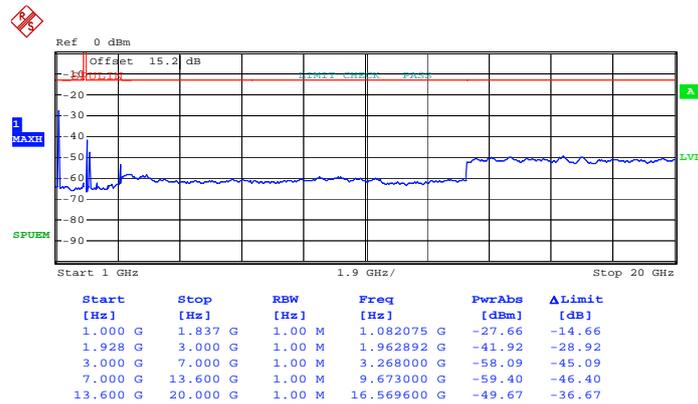
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:28:44

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

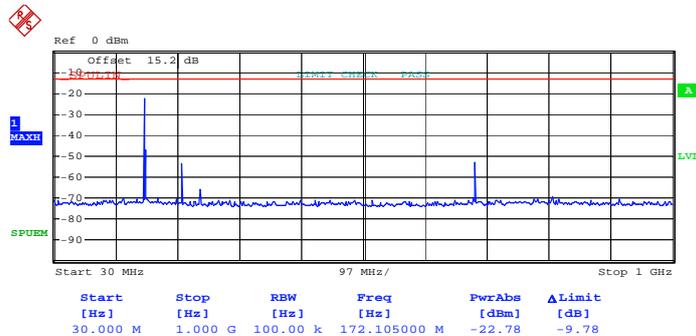


Date: 22.JUN.2013 15:27:48



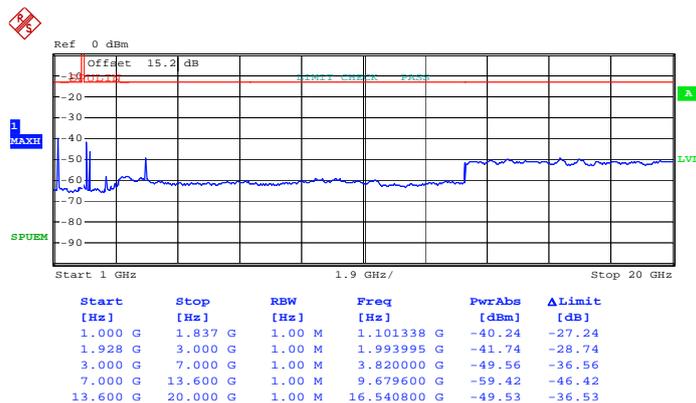
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
Frequency :	1912.5	Channel :	26665

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



Date: 22.JUN.2013 15:29:49

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

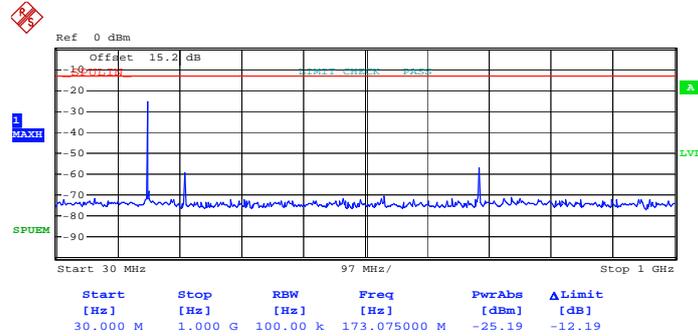


Date: 22.JUN.2013 15:30:43



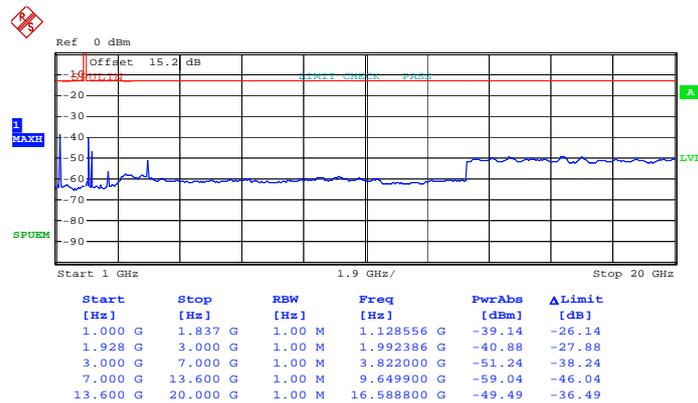
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
Frequency :	1852.5	Channel :	26065

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



Date: 22.JUN.2013 15:25:23

Conducted Emission Plot (1GHz ~ 19.2GHz) for 16-QAM (RB Size 1, RB Offset 0)

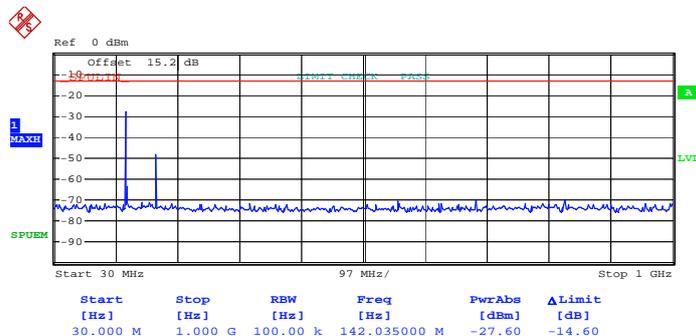


Date: 22.JUN.2013 15:26:11



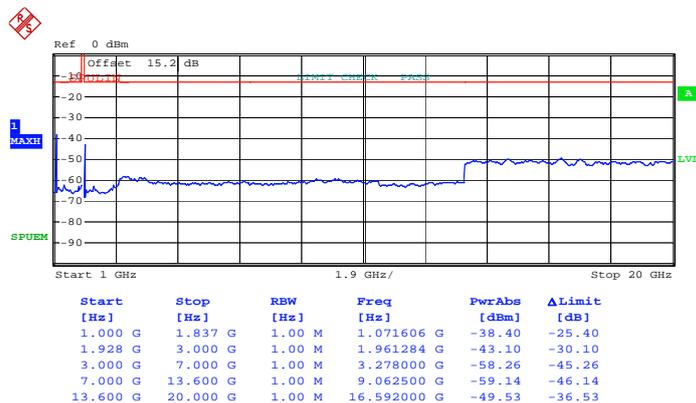
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:28:28

**Conducted Emission Plot (1GHz ~ 19.2GHz) for
16-QAM (RB Size 1, RB Offset 0)**

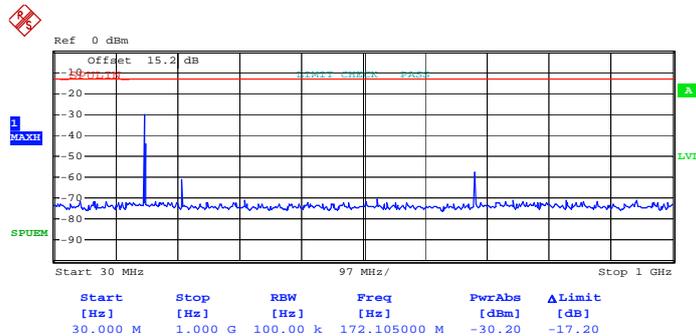


Date: 22.JUN.2013 15:28:05



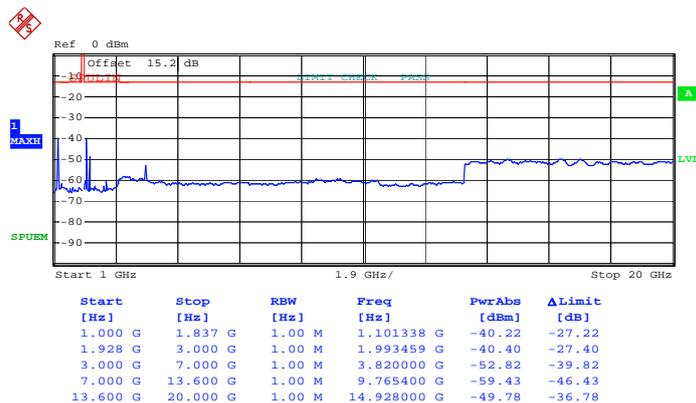
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
Frequency :	1912.5	Channel :	26665

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



Date: 22.JUN.2013 15:30:02

Conducted Emission Plot (1GHz ~ 19.2GHz) for 16-QAM (RB Size 1, RB Offset 0)

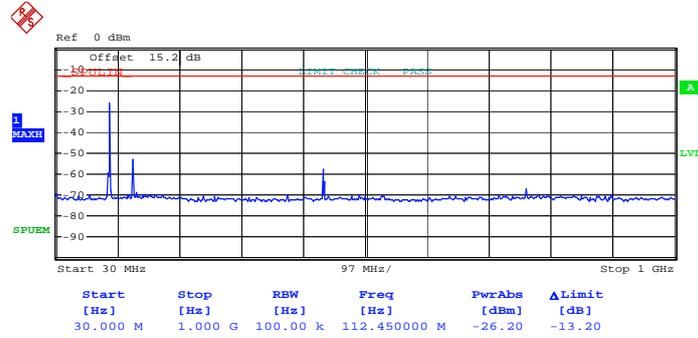


Date: 22.JUN.2013 15:30:28



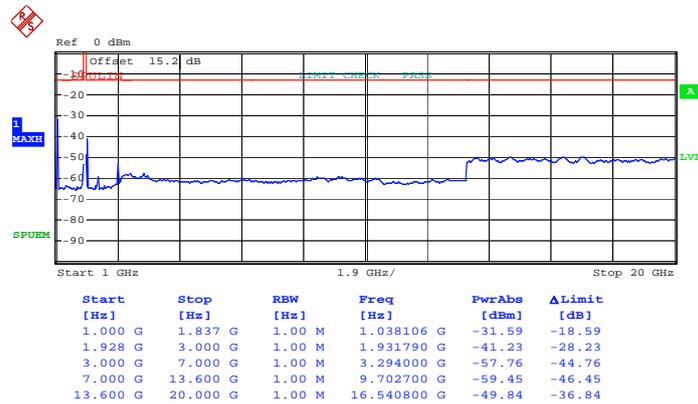
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
Frequency :	1855	Channel :	26090

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



Date: 22.JUN.2013 15:37:20

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

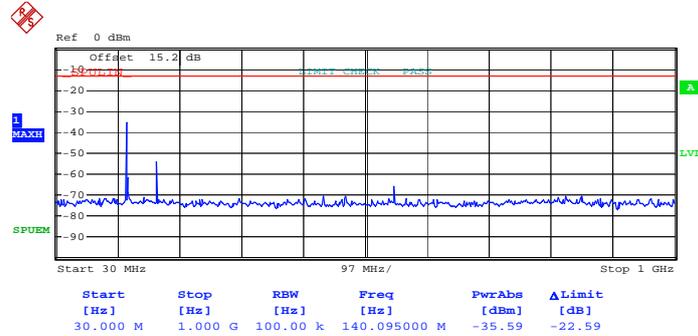


Date: 22.JUN.2013 15:35:35



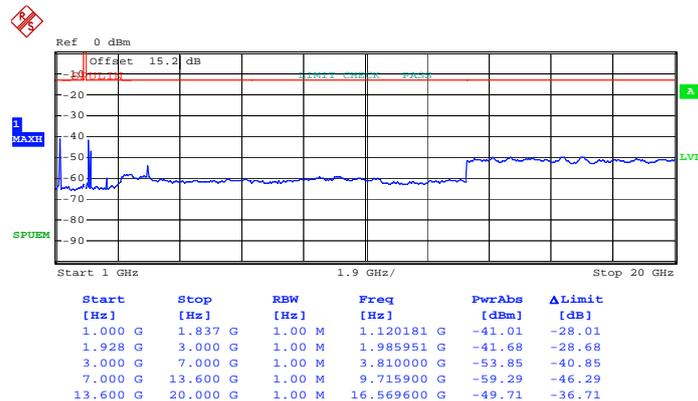
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:37:51

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

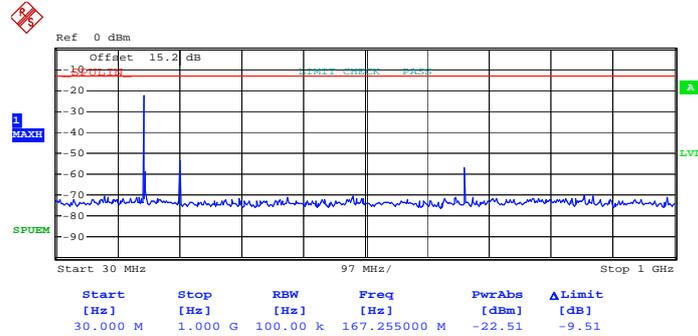


Date: 22.JUN.2013 15:52:58



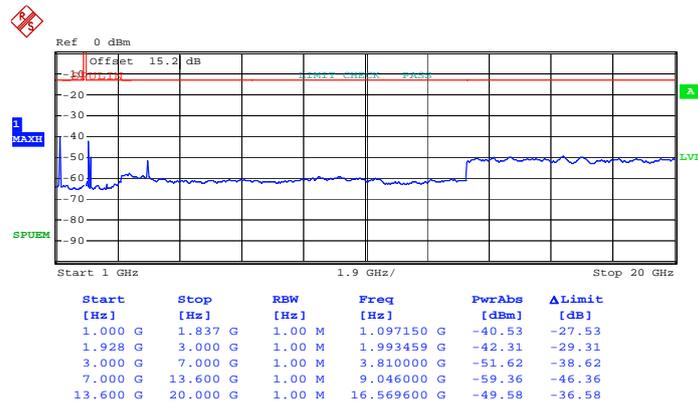
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
Frequency :	1910	Channel :	26640

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



Date: 22.JUN.2013 15:45:03

Conducted Emission Plot (1GHz ~ 19.2GHz) for QPSK (RB Size 1, RB Offset 0)

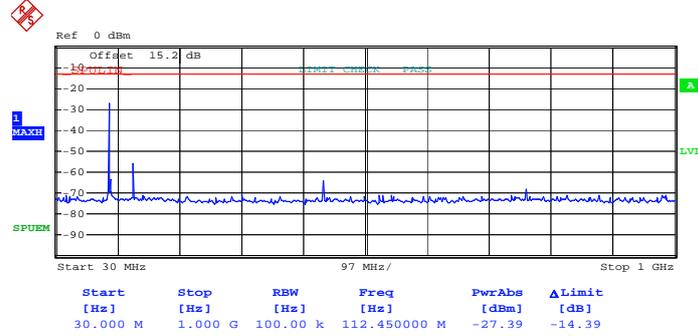


Date: 22.JUN.2013 15:50:54



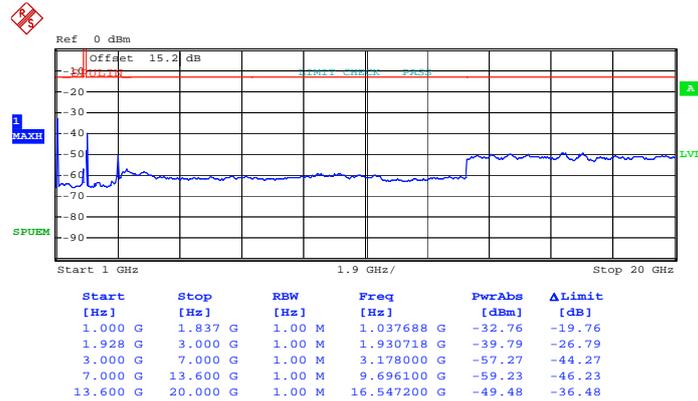
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
Frequency :	1855	Channel :	26090

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



Date: 22.JUN.2013 15:36:19

**Conducted Emission Plot (1GHz ~ 19.2GHz) for
16-QAM (RB Size 1, RB Offset 0)**

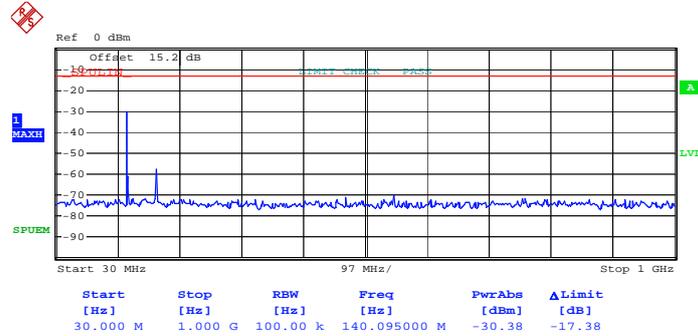


Date: 22.JUN.2013 15:35:53



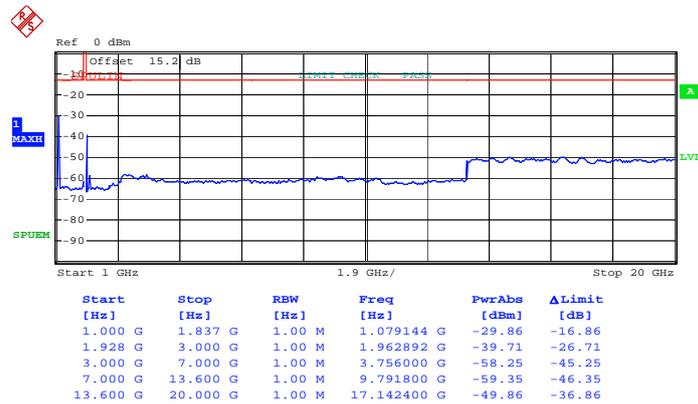
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 22.JUN.2013 15:38:04

Conducted Emission Plot (1GHz ~ 19.2GHz) for 16-QAM (RB Size 1, RB Offset 0)

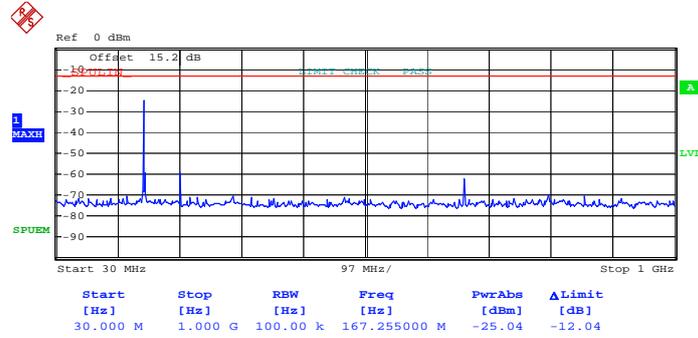


Date: 22.JUN.2013 15:38:35



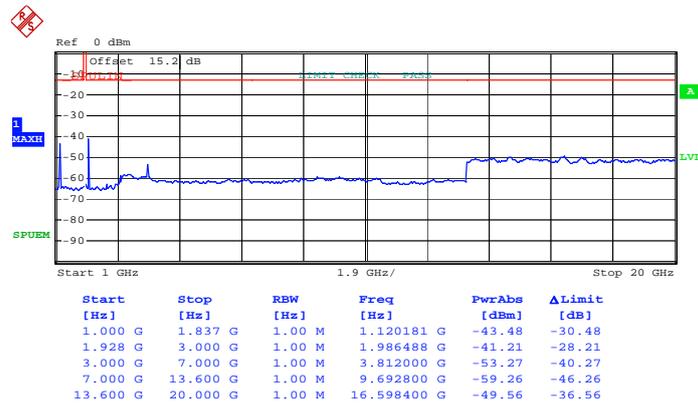
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
Frequency :	1910	Channel :	26640

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



Date: 22.JUN.2013 15:44:44

**Conducted Emission Plot (1GHz ~ 19.2GHz) for
16-QAM (RB Size 1, RB Offset 0)**



Date: 22.JUN.2013 15:51:12

3.7 Radiated Spurious Emission Measurement

3.7.1 Description of Radiated Spurious Emission

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

3.7.2 Measuring Instruments

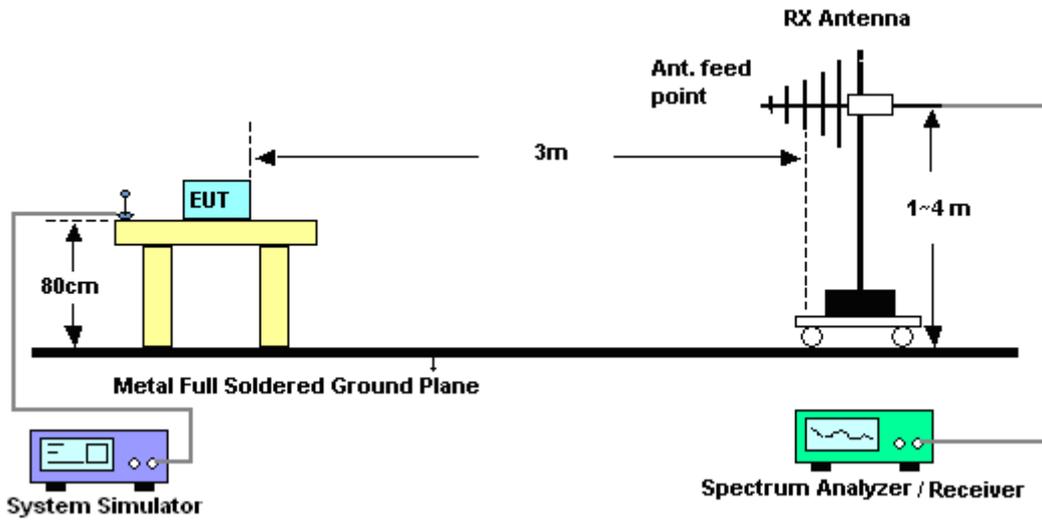
See list of measuring instruments of this test report.

3.7.3 Test Procedures

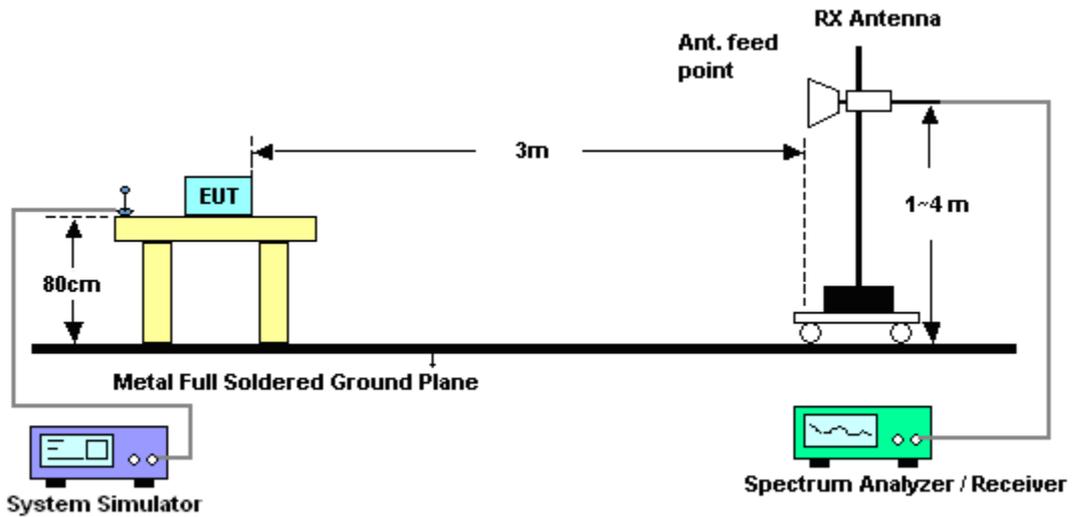
1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
11. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13\text{dBm}$.
12. $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$
13. $\text{ERP (dBm)} = \text{EIRP} - 2.15$

3.7.4 Test Setup

For radiated emissions from 30MHz to 1GHz



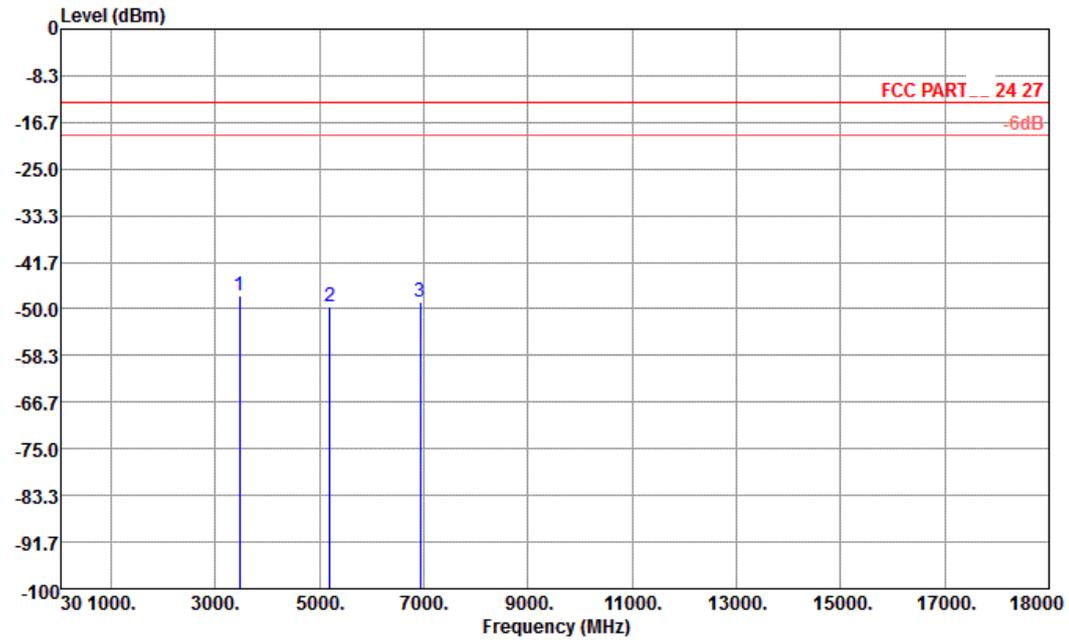
For radiated emissions above 1GHz





3.7.5 Test Result of Radiated Emissions

Band :	LTE Band 4	Temperature :	22~23°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

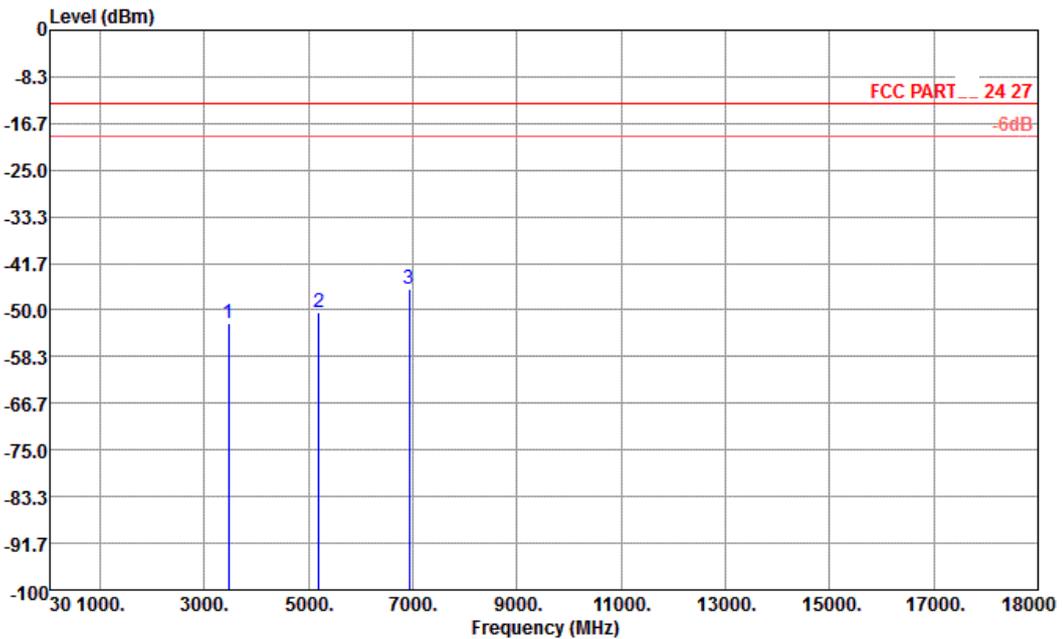


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-47.56	-13	-34.56	-56.76	-53.94	0.78	7.16	H	Pass
5196	-49.57	-13	-36.57	-63.35	-58.11	1.04	9.58	H	Pass
6930	-48.67	-13	-35.67	-64.30	-58.78	1.35	11.46	H	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

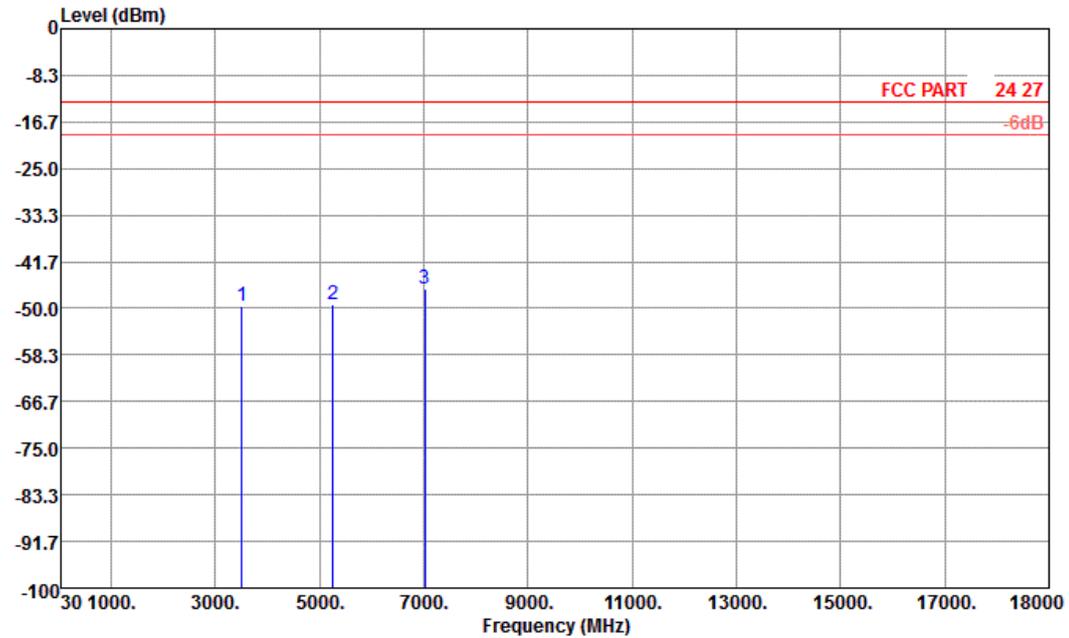


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3464	-52.33	-13	-39.33	-58.82	-58.71	0.78	7.16	V	Pass
5196	-50.37	-13	-37.37	-64.14	-58.91	1.04	9.58	V	Pass
6930	-46.31	-13	-33.31	-64.03	-56.42	1.35	11.46	V	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

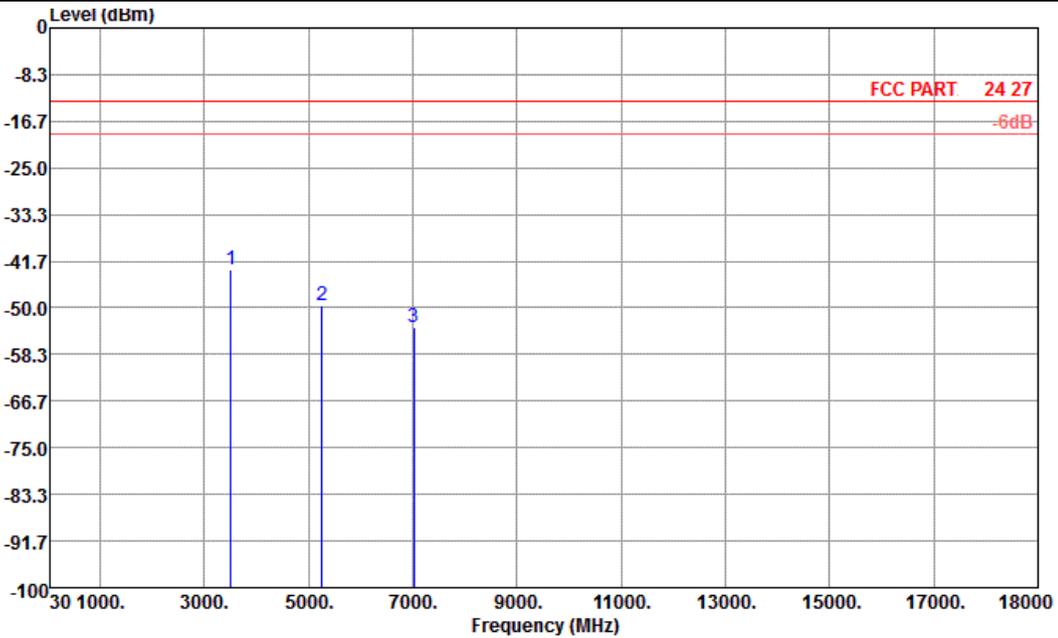


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3507	-49.65	-13	-36.65	-57.04	-56.03	0.78	7.16	H	Pass
5260	-49.31	-13	-36.31	-63.76	-57.85	1.04	9.58	H	Pass
7014	-46.39	-13	-33.39	-64.05	-56.50	1.35	11.46	H	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

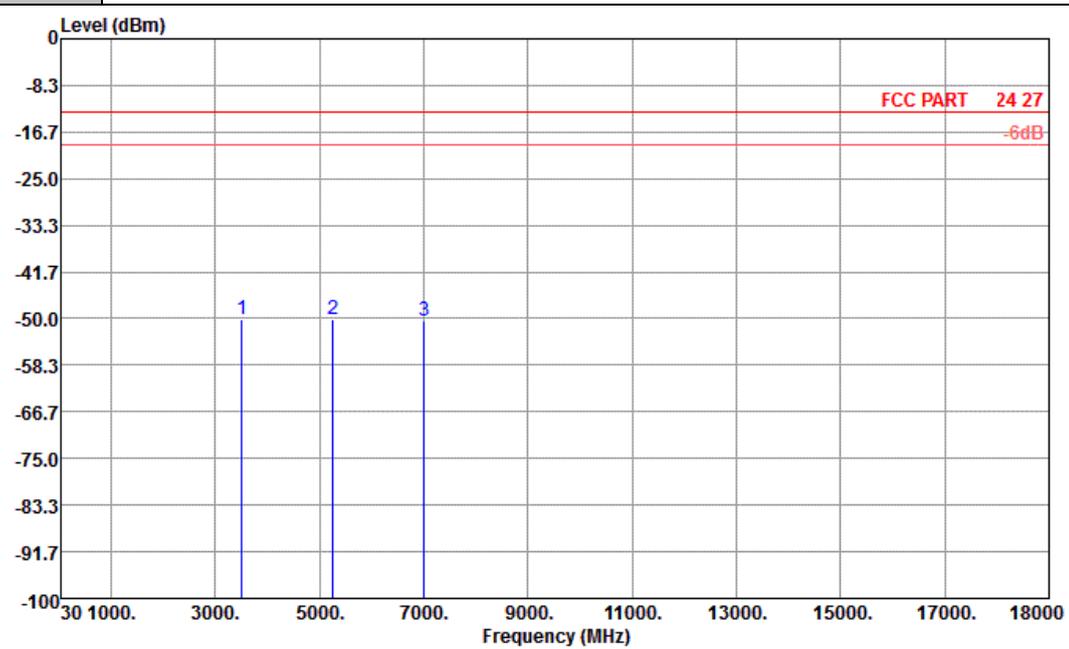


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3507	-43.26	-13	-30.26	-54.44	-49.64	0.78	7.16	V	Pass
5260	-49.69	-13	-36.69	-63.9	-58.23	1.04	9.58	V	Pass
7014	-53.60	-13	-40.60	-63.2	-63.71	1.35	11.46	V	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

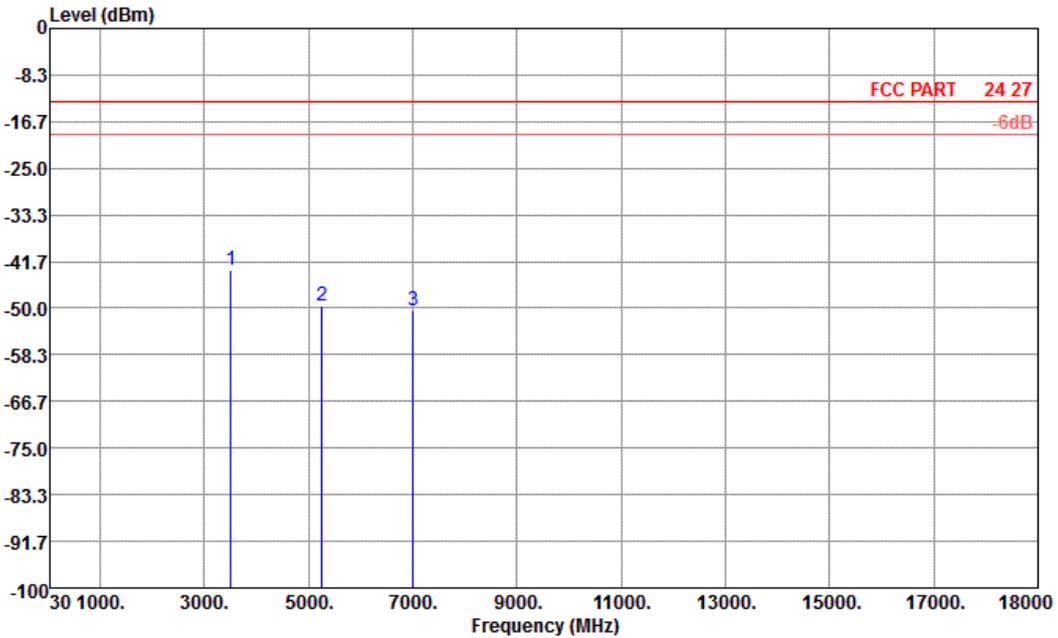


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3505	-50.23	-13	-37.23	-57.33	-56.61	0.78	7.16	H	Pass
5256	-50.14	-13	-37.14	-64.04	-58.68	1.04	9.58	H	Pass
7010	-50.33	-13	-37.33	-62.90	-60.44	1.35	11.46	H	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

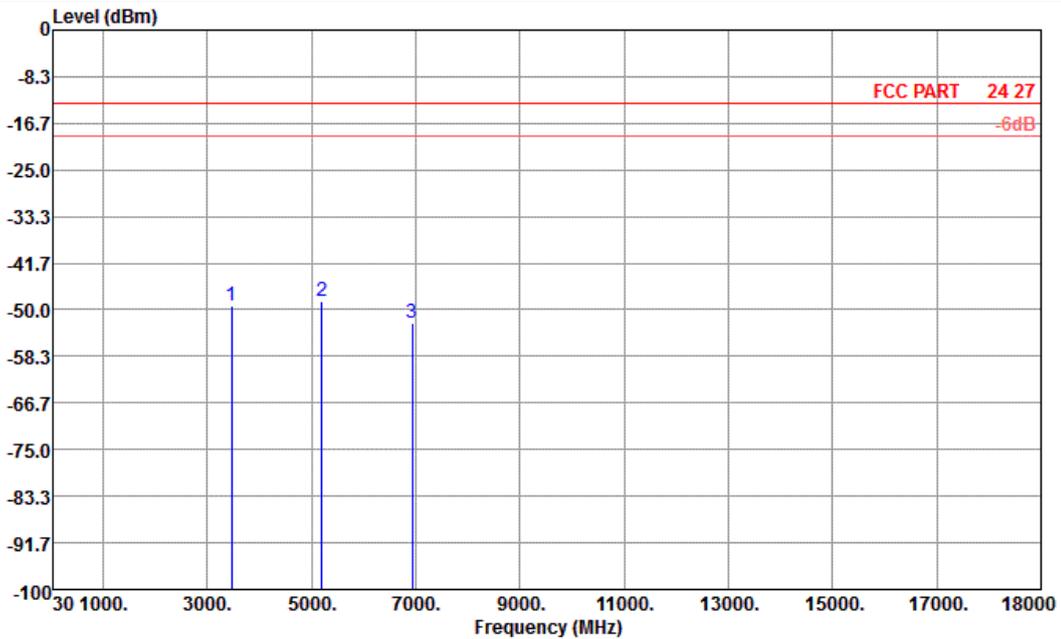


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3505	-43.29	-13	-30.29	-54.32	-49.67	0.78	7.16	V	Pass
5256	-49.67	-13	-36.67	-63.55	-58.21	1.04	9.58	V	Pass
7010	-50.34	-13	-37.34	-63.78	-60.45	1.35	11.46	V	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

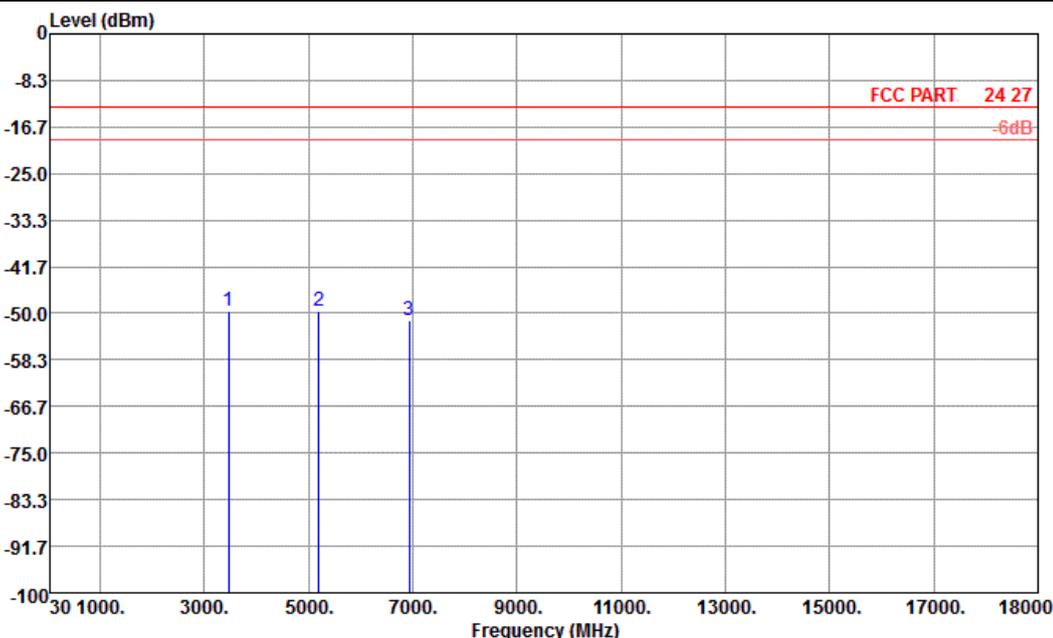


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3465	-49.35	-13	-36.35	-56.67	-55.73	0.78	7.16	H	Pass
5196	-48.58	-13	-35.58	-64.04	-57.12	1.04	9.58	H	Pass
6930	-52.37	-13	-39.37	-64.44	-62.48	1.35	11.46	H	Pass



Band :	LTE Band 4	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

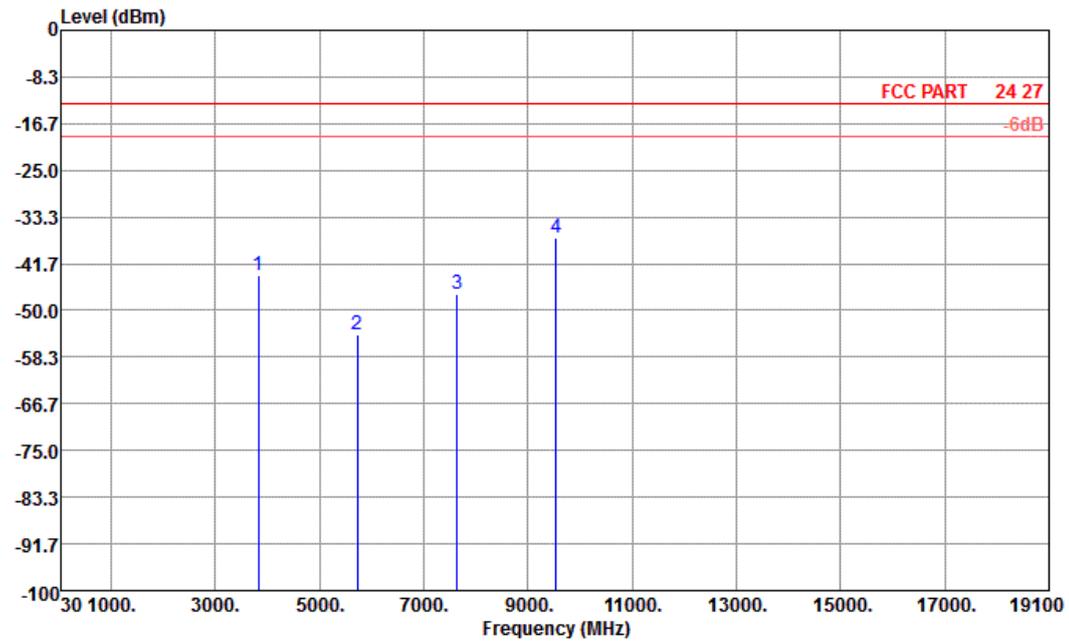


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3465	-49.68	-13	-36.68	-58.46	-56.06	0.78	7.16	V	Pass
5196	-49.65	-13	-36.65	-63.79	-58.19	1.04	9.58	V	Pass
6930	-51.37	-13	-38.37	-63.88	-61.48	1.35	11.46	V	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

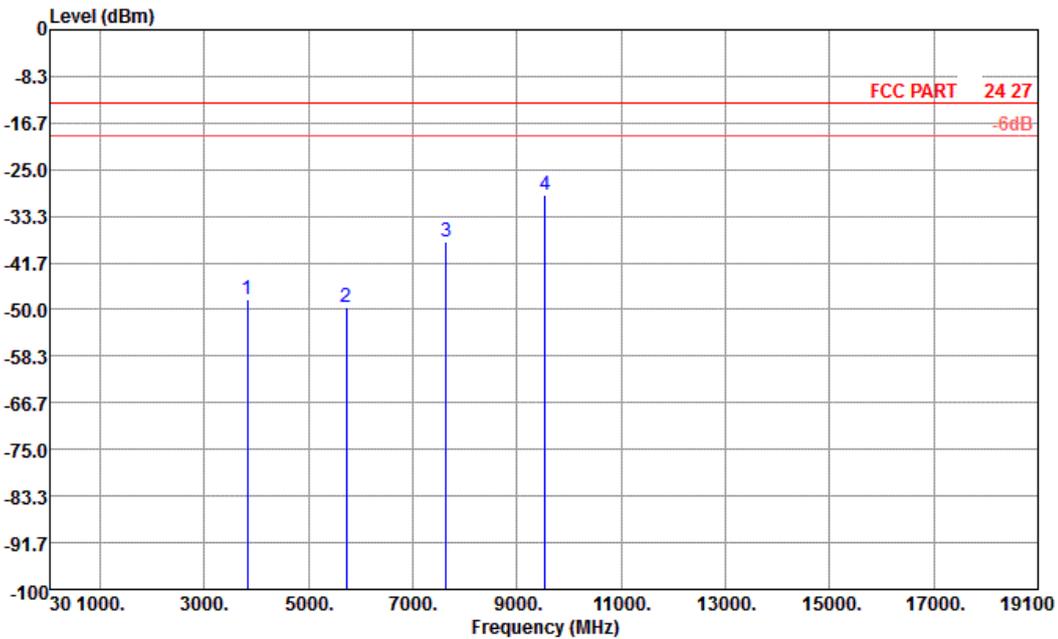


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3818	-43.64	-13	-30.64	-55.96	-50.02	0.78	7.16	H	Pass
5728	-54.18	-13	-41.18	-62.86	-62.72	1.04	9.58	H	Pass
7636	-47.04	-13	-34.04	-62.14	-57.15	1.35	11.46	H	Pass
9544	-37.04	-13	-24.04	-59.13	-48.10	1.75	12.81	H	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

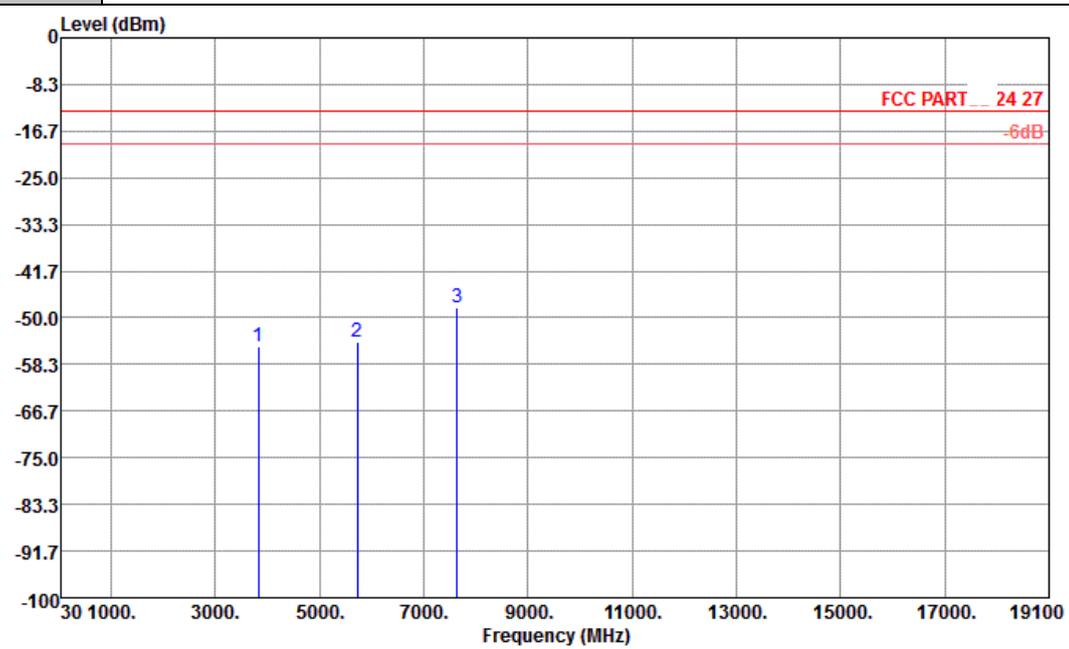


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3818	-48.32	-13	-35.32	-60.18	-54.70	0.78	7.16	V	Pass
5728	-49.46	-13	-36.46	-62.27	-58.00	1.04	9.58	V	Pass
7636	-37.99	-13	-24.99	-59.75	-48.10	1.35	11.46	V	Pass
9544	-29.60	-13	-16.60	-55.65	-40.66	1.75	12.81	V	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

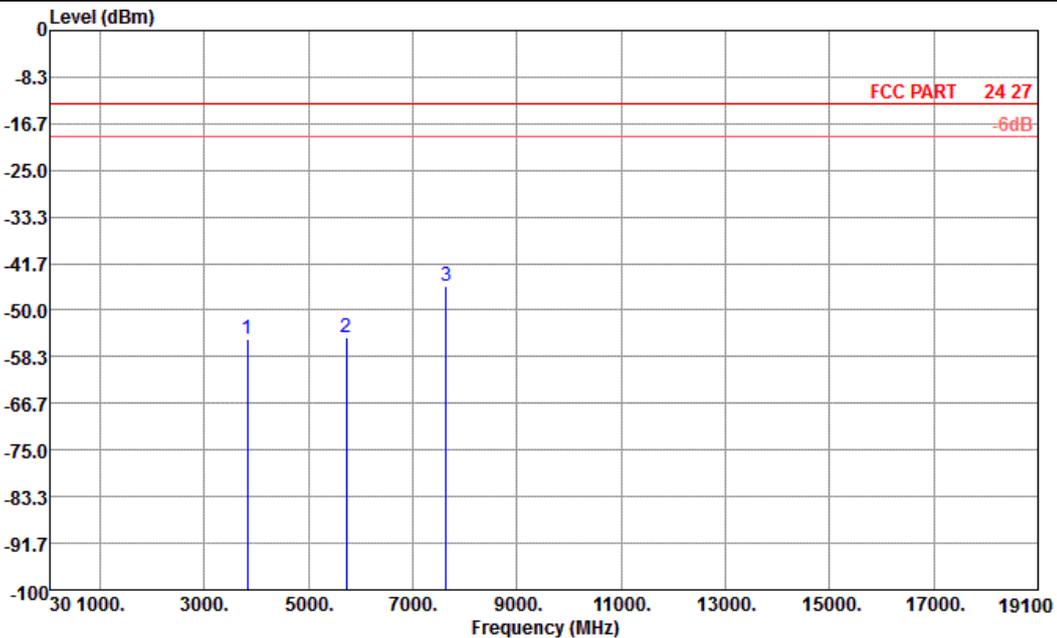


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3816	-55.24	-13	-42.24	-62.14	-61.62	0.78	7.16	H	Pass
5724	-54.25	-13	-41.25	-62.93	-62.79	1.04	9.58	H	Pass
7634	-48.24	-13	-35.24	-63.34	-58.35	1.35	11.46	H	Pass



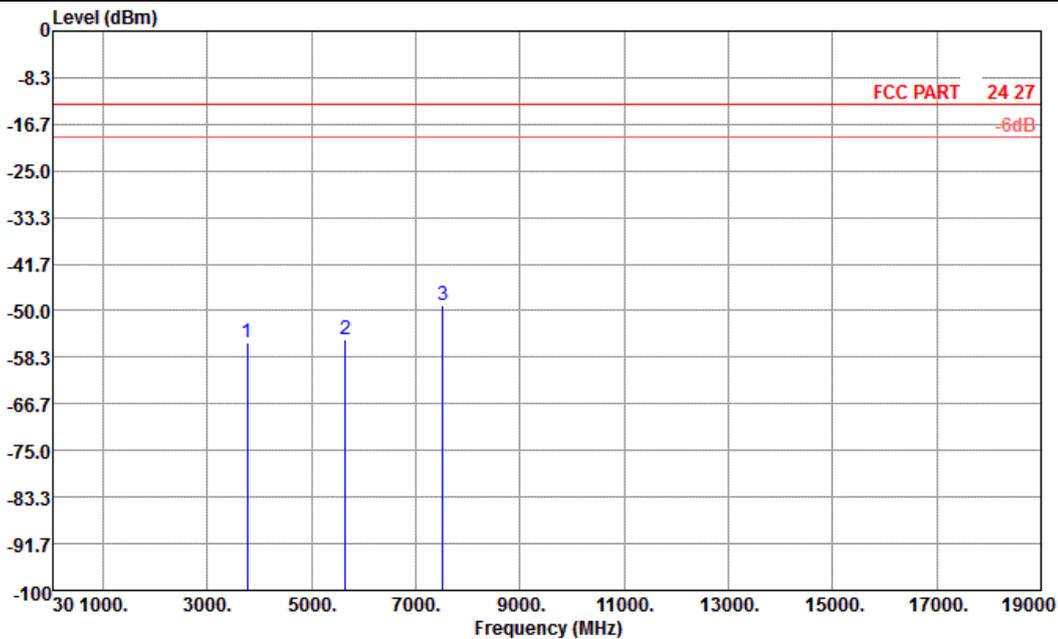
Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3816	-55.25	-13	-42.25	-63.07	-61.63	0.78	7.16	V	Pass
5724	-55.00	-13	-42.00	-63.86	-63.54	1.04	9.58	V	Pass
7634	-45.78	-13	-32.78	-62.99	-55.89	1.35	11.46	V	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

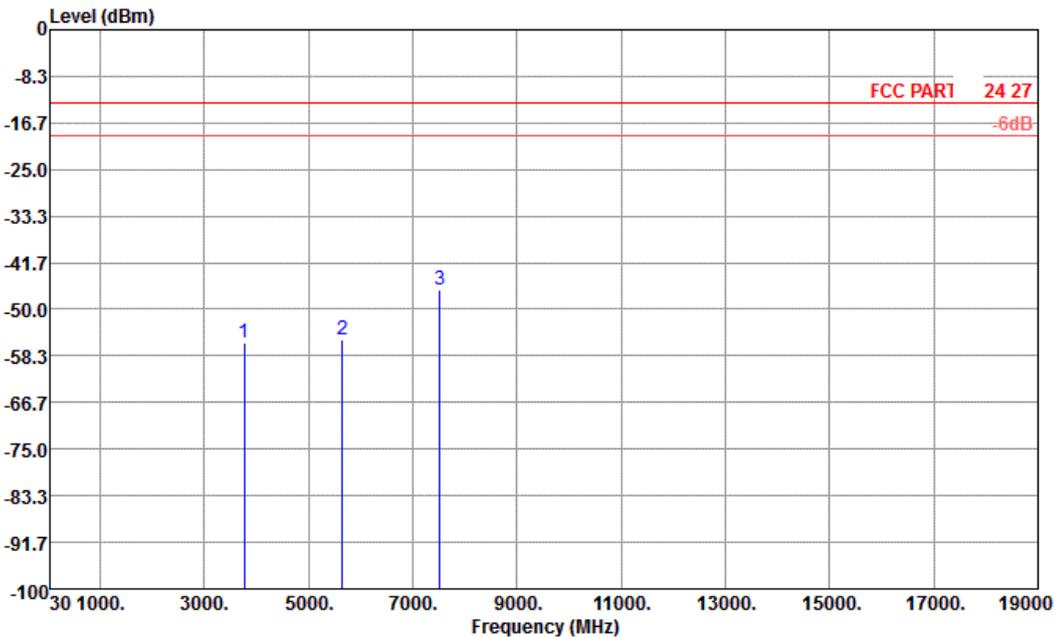


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-55.64	-13	-42.64	-62.54	-62.02	0.78	7.16	H	Pass
5640	-55.09	-13	-42.09	-63.77	-63.63	1.04	9.58	H	Pass
7520	-49.14	-13	-36.14	-64.24	-59.25	1.35	11.46	H	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

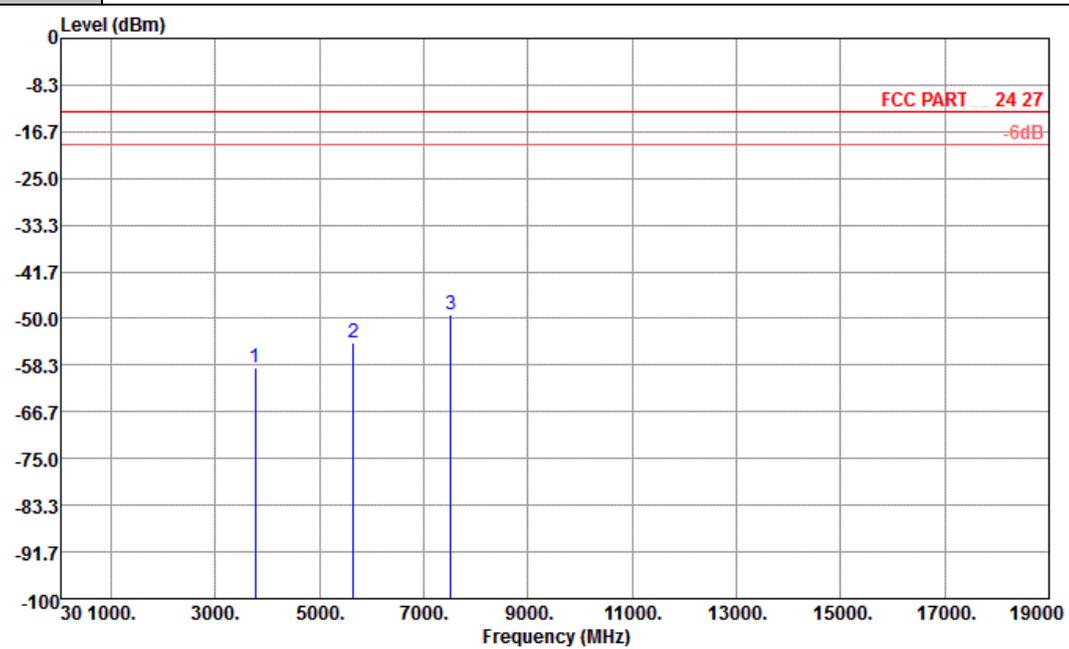


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-56.05	-13	-43.05	-63.87	-62.43	0.78	7.16	V	Pass
5640	-55.35	-13	-42.35	-64.21	-63.89	1.04	9.58	V	Pass
7520	-46.42	-13	-33.42	-63.63	-56.53	1.35	11.46	V	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 49	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

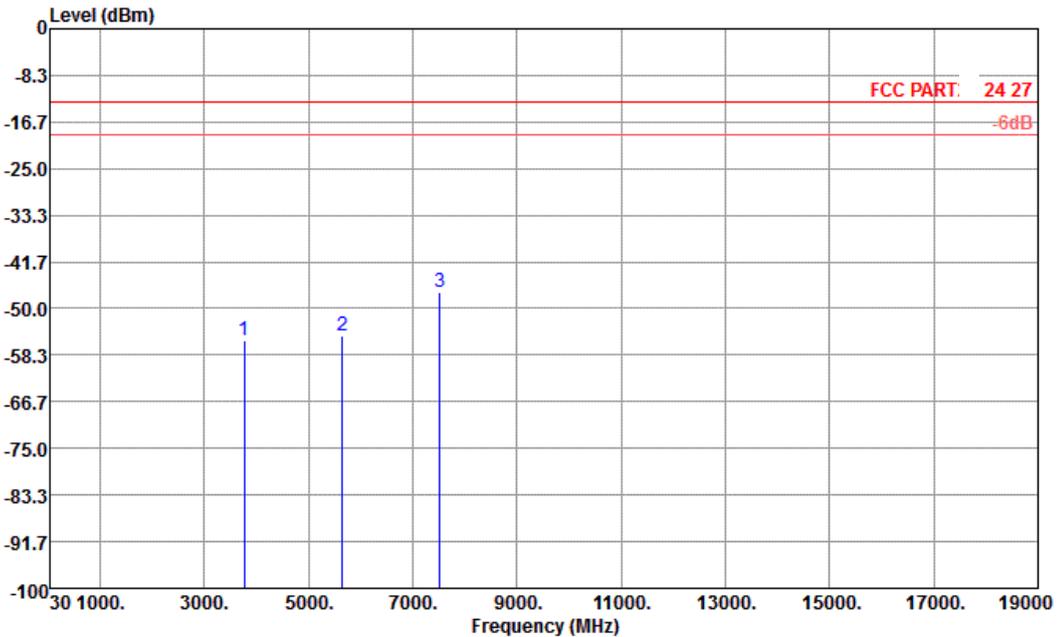


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-58.72	-13	-45.72	-65.62	-65.10	0.78	7.16	H	Pass
5640	-54.42	-13	-41.42	-63.10	-62.96	1.04	9.58	H	Pass
7520	-49.29	-13	-36.29	-64.39	-59.40	1.35	11.46	H	Pass



Band :	LTE Band 2	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 49	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

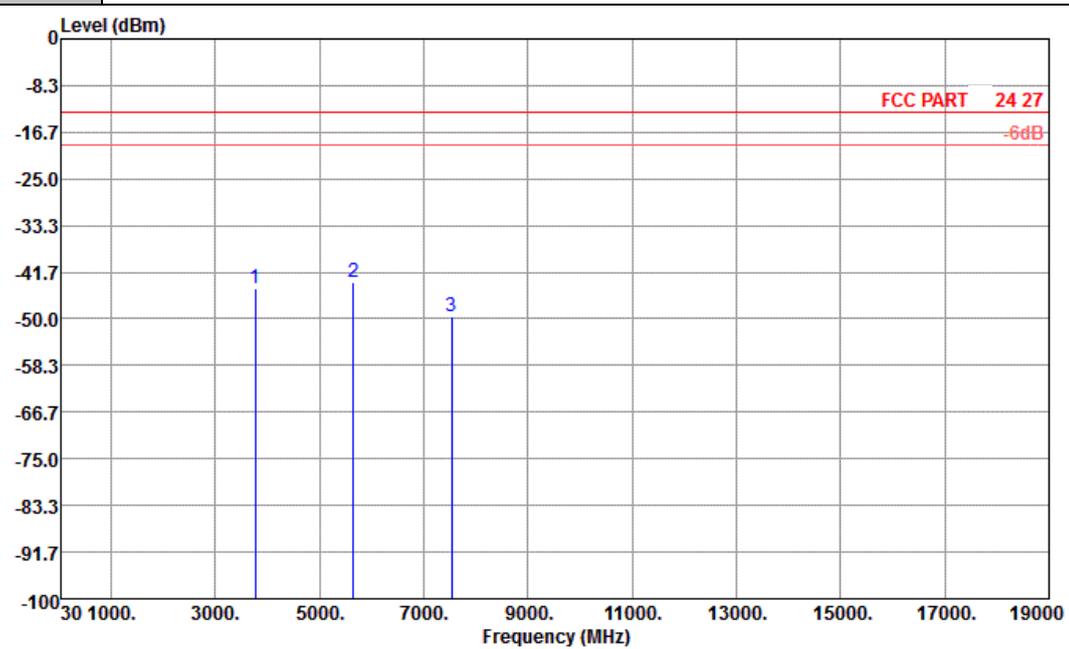


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-55.60	-13	-42.60	-63.42	-61.98	0.78	7.16	V	Pass
5640	-54.98	-13	-41.98	-63.84	-63.52	1.04	9.58	V	Pass
7520	-47.11	-13	-34.11	-64.32	-57.22	1.35	11.46	V	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

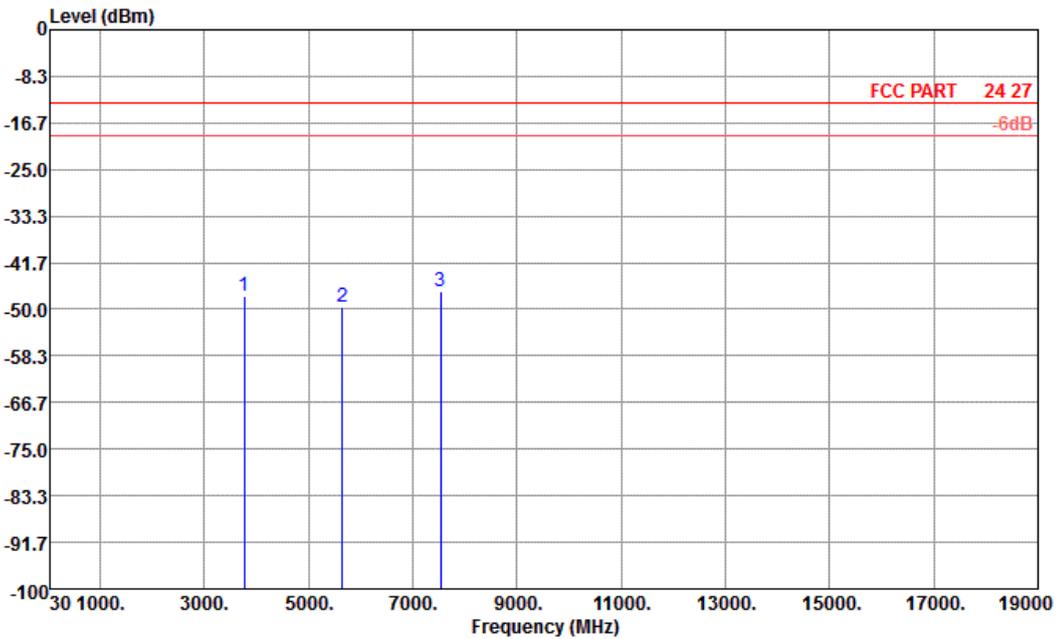


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3764	-44.66	-13	-31.66	-56.65	-51.04	0.78	7.16	H	Pass
5646	-43.33	-13	-30.33	-59.61	-51.87	1.04	9.58	H	Pass
7530	-49.62	-13	-36.62	-64.72	-59.73	1.35	11.46	H	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

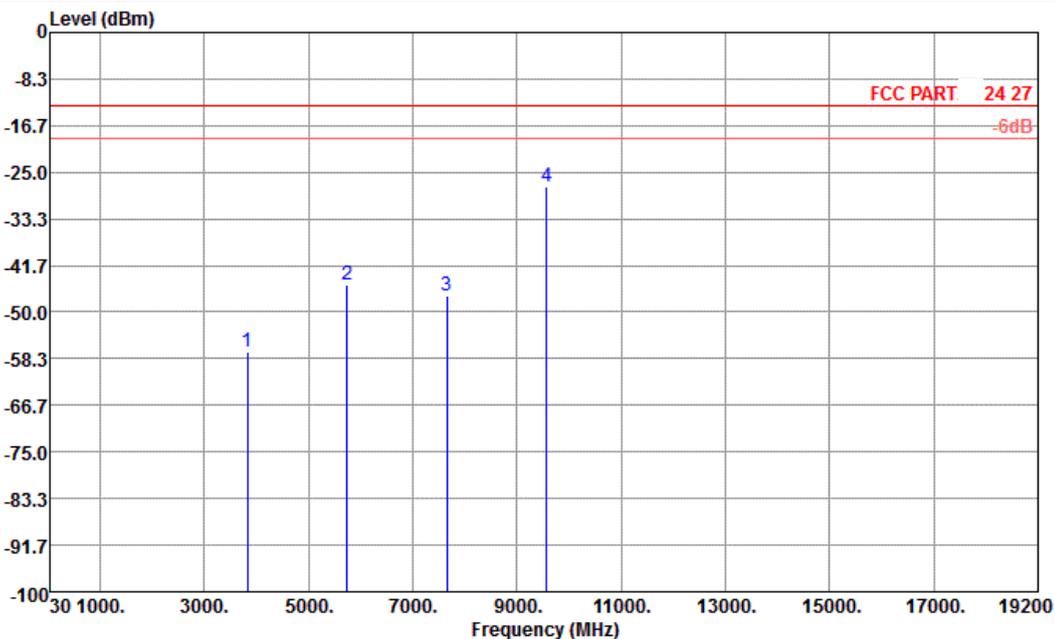


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3764	-47.59	-13	-34.59	-59.86	-53.97	0.78	7.16	V	Pass
5648	-49.53	-13	-36.53	-62.28	-58.07	1.04	9.58	V	Pass
7530	-46.77	-13	-33.77	-63.98	-56.88	1.35	11.46	V	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

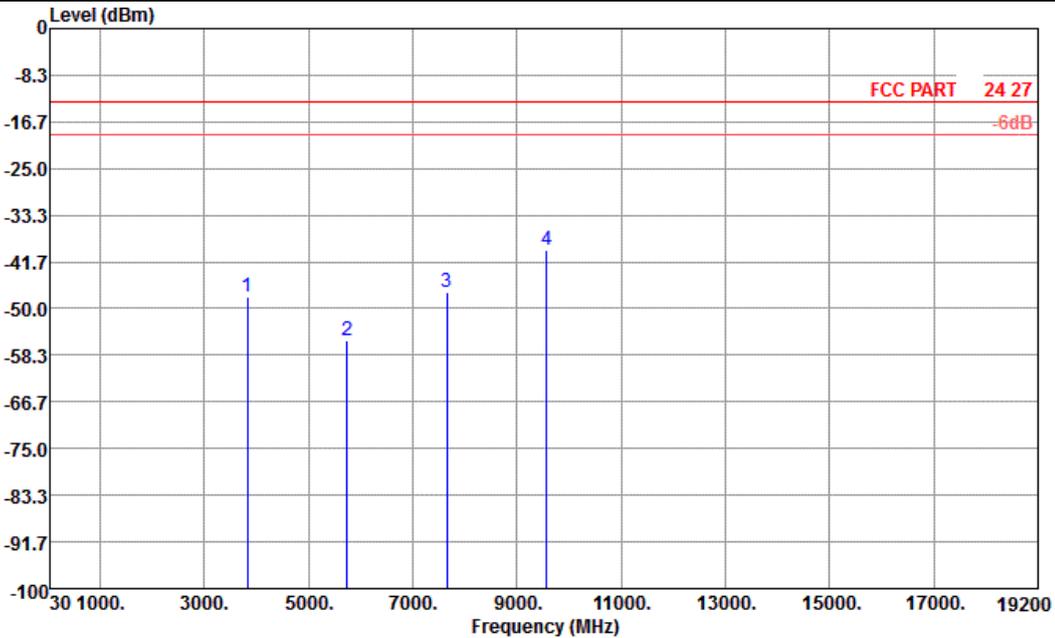


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3828	-57.06	-13	-44.06	-63.96	-63.44	0.78	7.16	H	Pass
5740	-45.13	-13	-32.13	-59.85	-53.67	1.04	9.58	H	Pass
7657	-47.11	-13	-34.11	-62.21	-57.22	1.35	11.46	H	Pass
9567.5	-27.44	-13	-14.44	-53.71	-38.50	1.75	12.81	H	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

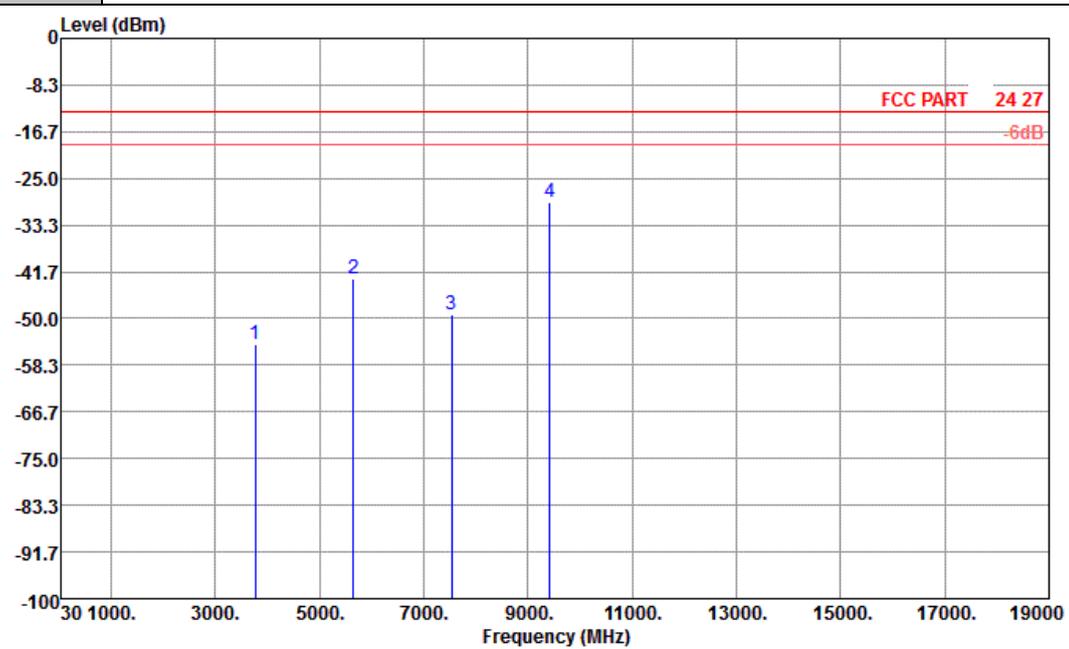


Site : 03CH01-KS
 Condition : FCC PART 24.27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3826	-47.98	-13	-34.98	-60.09	-54.36	0.78	7.16	V	Pass
5742	-55.68	-13	-42.68	-64.54	-64.22	1.04	9.58	V	Pass
7656	-47.04	-13	-34.04	-64.25	-57.15	1.35	11.46	V	Pass
9567.5	-39.65	-13	-26.65	-60.9	-50.71	1.75	12.81	V	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

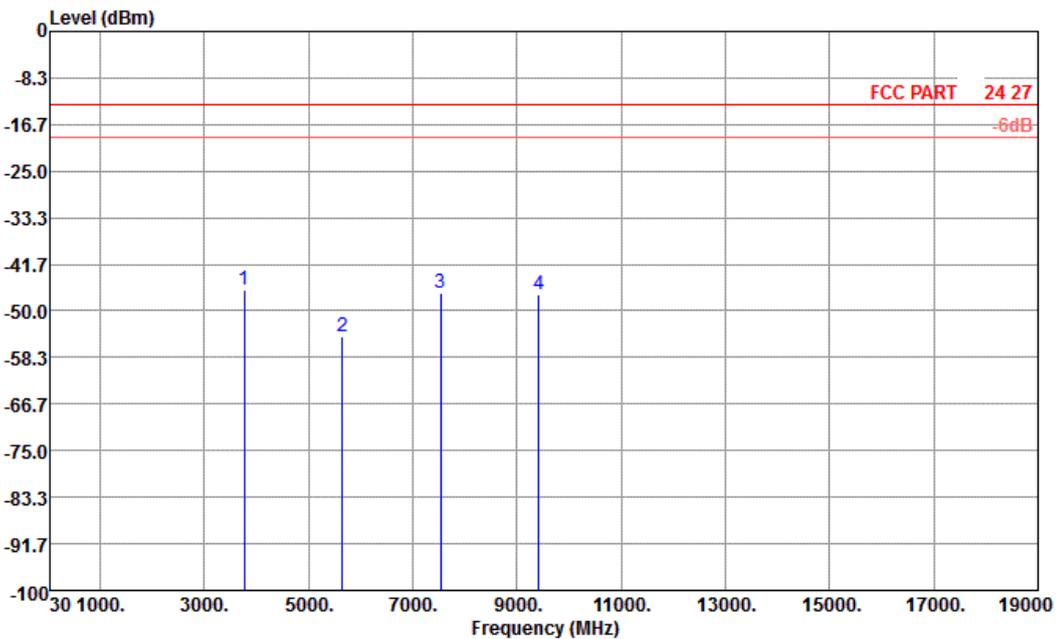


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3765	-54.67	-13	-41.67	-61.57	-61.05	0.78	7.16	H	Pass
5647	-42.81	-13	-29.81	-59.39	-51.35	1.04	9.58	H	Pass
7530	-49.25	-13	-36.25	-64.35	-59.36	1.35	11.46	H	Pass
9412	-29.21	-13	-16.21	-54.79	-40.27	1.75	12.81	H	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

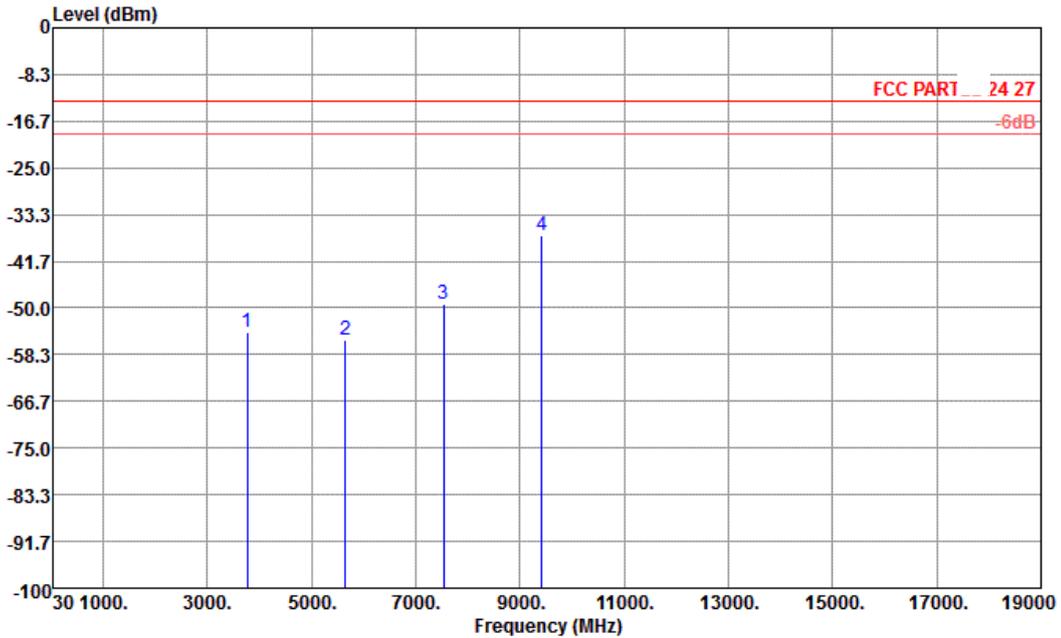


Site : 03CH01-KS
 Condition : FCC PART 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3765	-46.34	-13	-33.34	-59.15	-52.72	0.78	7.16	V	Pass
5648	-54.58	-13	-41.58	-63.44	-63.12	1.04	9.58	V	Pass
7530	-46.74	-13	-33.74	-63.95	-56.85	1.35	11.46	V	Pass
9412	-47.08	-13	-34.08	-62.94	-58.14	1.75	12.81	V	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

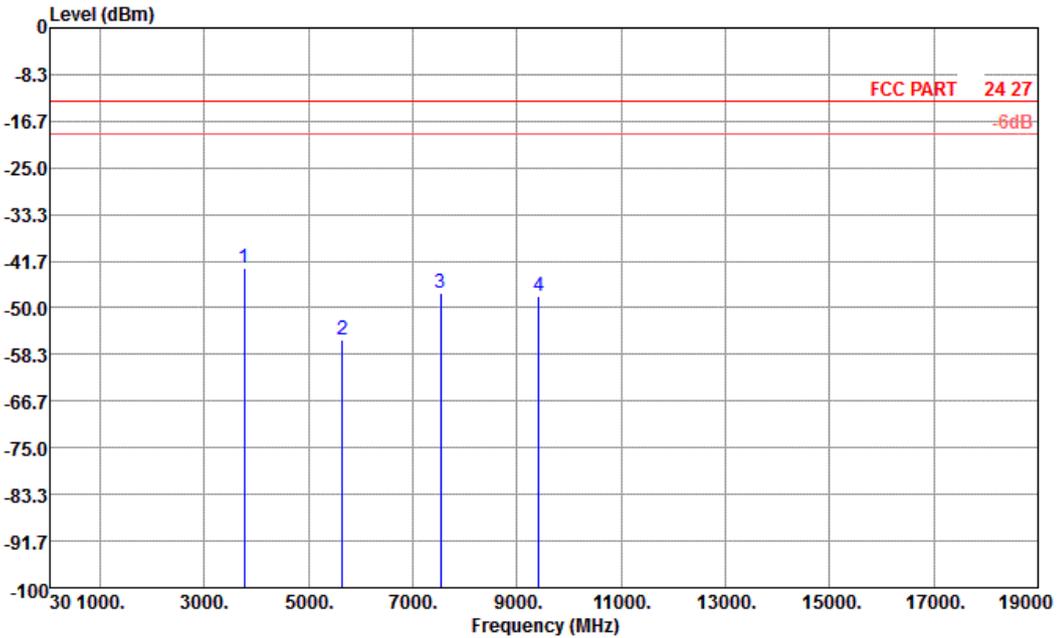


Site : 03CH01-KS
 Condition : FCC PART. 24 27 HF EIRP FACTOR HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3765	-54.39	-13	-41.39	-61.29	-60.77	0.78	7.16	H	Pass
5648	-55.79	-13	-42.79	-64.47	-64.33	1.04	9.58	H	Pass
7530	-49.35	-13	-36.35	-64.45	-59.46	1.35	11.46	H	Pass
9412	-37.06	-13	-24.06	-59.14	-48.12	1.75	12.81	H	Pass



Band :	LTE Band 25	Temperature :	21~22°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	41~42%
Test Engineer :	Steven Hao	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-KS
 Condition : FCC PART. 24 27 HF EIRP FACTOR VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3765	-42.95	-13	-29.95	-57.82	-49.33	0.78	7.16	V	Pass
5648	-55.79	-13	-42.79	-64.65	-64.33	1.04	9.58	V	Pass
7530	-47.23	-13	-34.23	-64.44	-57.34	1.35	11.46	V	Pass
9412	-47.84	-13	-34.84	-63.7	-58.90	1.75	12.81	V	Pass

3.8 Frequency Stability Measurement

3.8.1 Description of Frequency Stability Measurement

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

3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

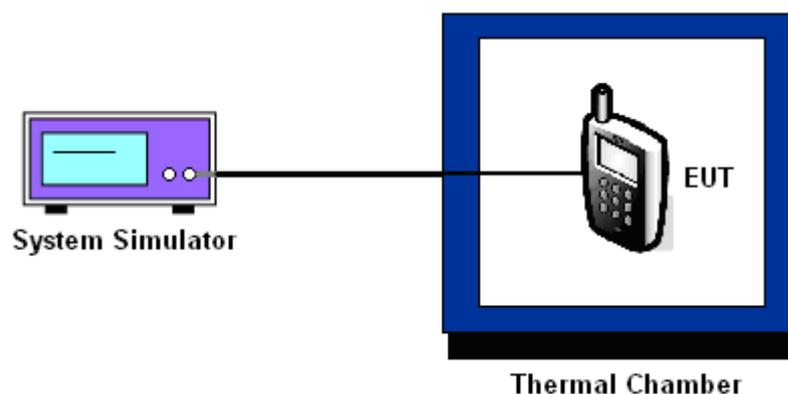
3.8.3 Test Procedures for Temperature Variation

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

3.8.4 Test Procedures for Voltage Variation

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

3.8.5 Test Setup



3.8.6 Test Result of Temperature Variation

Band :	LTE Band 4 (QPSK)		Limit (ppm) :	2.5	
Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	5.5	+0.008	8.2	+0.012	PASS
-20	9.8	+0.014	-11.0	-0.015	
-10	6.4	+0.009	-2.0	-0.003	
0	-6.7	-0.009	3.8	+0.005	
10	-9.8	-0.014	-9.0	-0.013	
20	3.6	+0.005	-7.4	-0.010	
30	0.5	+0.001	-5.1	-0.007	
40	1.6	+0.002	2.3	+0.003	
50	2.3	+0.003	-8.7	-0.012	
55	5.0	+0.007	3.2	+0.005	

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

Band :	LTE Band 4 (16QAM)		Limit (ppm) :	2.5	
Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	0.6	+0.001	5.6	+0.008	PASS
-20	3.8	+0.005	9.2	+0.013	
-10	4.9	+0.007	6.3	+0.009	
0	-5.6	-0.008	5.5	+0.008	
10	-3.6	-0.005	7.8	+0.011	
20	-9.0	-0.013	-11.5	-0.016	
30	-11.0	-0.015	-2.9	-0.004	
40	-5.6	-0.008	-8.0	-0.011	
50	8.2	+0.012	3.3	+0.005	
55	1.1	+0.002	4.6	+0.006	

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



Band :		LTE Band 4 (QPSK)		Limit (ppm) :		2.5	
Temperature (°C)	5MHz		10MHz		Result		
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)			
-30	8.0	+0.011	11.3	+0.016	PASS		
-20	5.0	+0.007	-10.0	-0.014			
-10	-5.7	-0.008	-8.2	-0.012			
0	3.5	+0.005	-5.6	-0.008			
10	-6.2	-0.009	3.5	+0.005			
20	-7.1	-0.010	-7.1	-0.010			
30	4.5	+0.006	-2.3	-0.003			
40	8.1	+0.011	-8.8	-0.012			
50	-9.0	-0.013	-1.6	-0.002			
55	-12.0	-0.017	-6.5	-0.009			

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

Band :		LTE Band 4 (16QAM)		Limit (ppm) :		2.5	
Temperature (°C)	5MHz		10MHz		Result		
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)			
-30	3.9	+0.005	5.6	+0.008	PASS		
-20	5.6	+0.008	-3.0	-0.004			
-10	8.8	+0.012	-5.4	-0.008			
0	7.2	+0.010	-2.5	-0.004			
10	3.5	+0.005	-8.7	-0.012			
20	6.9	+0.010	3.6	+0.005			
30	-6.0	-0.008	-6.8	-0.010			
40	-9.3	-0.013	5.5	+0.008			
50	-6.7	-0.009	4.0	+0.006			
55	-1.5	-0.002	7.1	+0.010			

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



Band :	LTE Band 2 (QPSK)		Limit (ppm) :	2.5	
Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	-2.3	-0.003	5.0	+0.007	PASS
-20	3.6	+0.005	6.2	+0.009	
-10	4.1	+0.006	7.7	+0.011	
0	6.0	+0.008	5.3	+0.007	
10	-7.0	-0.010	-8.0	-0.011	
20	-9.0	-0.013	-7.2	-0.010	
30	8.0	+0.011	-7.6	-0.011	
40	11.0	+0.015	-3.1	-0.004	
50	-10.0	-0.014	4.9	+0.007	
55	-5.0	-0.007	6.7	+0.009	

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

Band :	LTE Band 2 (16QAM)		Limit (ppm) :	2.5	
Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	5.6	+0.008	-6.0	-0.008	PASS
-20	-4.5	-0.006	-9.5	-0.013	
-10	-6.8	-0.010	4.1	+0.006	
0	4.9	+0.007	2.2	+0.003	
10	-0.1	-0.001	2.9	+0.004	
20	5.6	+0.008	-1.0	-0.001	
30	-0.1	-0.001	-6.8	-0.010	
40	4.7	+0.007	-6.3	-0.009	
50	5.6	+0.008	4.7	+0.007	
55	-1.7	-0.002	-2.9	-0.004	

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



Band :	LTE Band 2 (QPSK)		Limit (ppm) :	2.5	
Temperature (°C)	5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	4.9	+0.007	-9.6	-0.014	PASS
-20	-0.1	-0.001	-7.9	-0.011	
-10	4.7	+0.007	6.4	+0.009	
0	5.6	+0.008	3.0	+0.004	
10	3.8	+0.005	3.0	+0.004	
20	-4.8	-0.007	-7.9	-0.011	
30	0.9	+0.001	-0.1	-0.001	
40	-6.3	-0.009	-0.1	-0.001	
50	5.6	+0.008	-4.9	-0.007	
55	5.6	+0.008	6.4	+0.009	

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

Band :	LTE Band 2 (16QAM)		Limit (ppm) :	2.5	
Temperature (°C)	5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	-3.5	-0.005	0.9	+0.001	PASS
-20	1.9	+0.003	-6.3	-0.009	
-10	2.2	+0.003	-4.8	-0.007	
0	-2.8	-0.004	1.6	+0.002	
10	-3.6	-0.005	4.3	+0.006	
20	4.1	+0.006	2.6	+0.004	
30	-6.7	-0.009	3.7	+0.005	
40	4.1	+0.006	-0.1	-0.001	
50	4.7	+0.007	-4.9	-0.007	
55	5.6	+0.008	6.4	+0.009	

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



Band :	LTE Band 25 (QPSK)		Limit (ppm) :	2.5	
Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	11.5	+0.016	-12.0	-0.017	PASS
-20	-8.6	-0.012	9.5	+0.013	
-10	10.3	+0.015	7.5	+0.011	
0	11.9	+0.017	-9.5	-0.013	
10	-6.1	-0.009	-9.8	-0.014	
20	6.5	+0.009	-12.0	-0.017	
30	8.7	+0.012	9.5	+0.013	
40	-6.5	-0.009	7.5	+0.011	
50	-6.9	-0.010	-9.5	-0.013	
55	7.5	+0.011	8.2	+0.012	

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

Band :	LTE Band 25 (16QAM)		Limit (ppm) :	2.5	
Temperature (°C)	1.4MHz		3MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	8.6	+0.012	8.5	+0.012	PASS
-20	6.6	+0.009	6.9	+0.010	
-10	-7.1	-0.010	-7.9	-0.011	
0	11.5	+0.016	-8.8	-0.012	
10	-8.6	-0.012	6.5	+0.009	
20	-4.3	-0.006	-7.1	-0.010	
30	7.8	+0.011	-11.0	-0.015	
40	-7.0	-0.010	9.2	+0.013	
50	8.5	+0.012	7.3	+0.010	
55	-8.2	-0.012	-13.0	-0.018	

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



Band :	LTE Band 25 (QPSK)		Limit (ppm) :	2.5	
Temperature (°C)	5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	-11.6	-0.016	-8.6	-0.012	PASS
-20	-9.8	-0.014	10.3	+0.015	
-10	-13.4	-0.019	-11.0	-0.015	
0	8.6	+0.012	-8.6	-0.012	
10	6.0	+0.008	-6.5	-0.009	
20	6.9	+0.010	-6.9	-0.010	
30	-7.9	-0.011	7.5	+0.011	
40	-8.8	-0.012	7.7	+0.011	
50	6.5	+0.009	9.6	+0.014	
55	-7.1	-0.010	7.5	+0.011	

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

Band :	LTE Band 25 (16QAM)		Limit (ppm) :	2.5	
Temperature (°C)	5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)	Freq. Dev. (Hz)	Deviation (ppm)	
-30	-18.1	-0.025	-8.2	-0.012	PASS
-20	8.5	+0.012	-10.1	-0.014	
-10	-9.2	-0.013	-6.9	-0.010	
0	7.5	+0.011	-8.6	-0.012	
10	-16.9	-0.024	10.3	+0.015	
20	-8.4	-0.012	9.1	+0.013	
30	-9.5	-0.013	7.5	+0.011	
40	-6.8	-0.010	7.0	+0.010	
50	-7.3	-0.010	-9.5	-0.013	
55	-8.6	-0.012	-6.8	-0.010	

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

3.8.7 Test Result of Voltage Variation

Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 4 (QPSK)	1.4MHz	3.8	5.6	+0.008	2.5	PASS
		BEP	-4.7	-0.007		
		4.35	3.6	+0.005		
	3MHz	3.8	-9.0	-0.013		
		BEP	-5.0	-0.007		
		4.35	7.0	+0.010		
	5MHz	3.8	0.6	+0.001		
		BEP	6.7	+0.009		
		4.35	3.9	+0.005		
	10MHz	3.8	-5.8	-0.008		
		BEP	-4.1	-0.006		
		4.35	-4.6	-0.006		

Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 4 (16QAM)	1.4MHz	3.8	6.3	+0.009	2.5	PASS
		BEP	5.9	+0.008		
		4.35	9.1	+0.013		
	3MHz	3.8	-8.0	-0.011		
		BEP	6.6	+0.009		
		4.35	-7.5	-0.011		
	5MHz	3.8	3.8	+0.005		
		BEP	3.2	+0.005		
		4.35	-4.6	-0.006		
	10MHz	3.8	3.3	+0.005		
		BEP	-6.1	-0.009		
		4.35	5.3	+0.007		



Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 2 (QPSK)	1.4MHz	3.8	3.5	+0.005	2.5	PASS
		BEP	6.9	+0.010		
		4.35	-9.2	-0.013		
	3MHz	3.8	6.7	+0.009		
		BEP	-8.6	-0.012		
		4.35	-9.5	-0.013		
	5MHz	3.8	-6.8	-0.010		
		BEP	-6.3	-0.009		
		4.35	4.7	+0.007		
	10MHz	3.8	-2.9	-0.004		
		BEP	-6.0	-0.008		
		4.35	5.5	+0.008		

Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 2 (16QAM)	1.4MHz	3.8	-3.1	-0.004	2.5	PASS
		BEP	4.9	+0.007		
		4.35	-7.0	-0.010		
	3MHz	3.8	4.7	+0.007		
		BEP	3.6	+0.005		
		4.35	4.1	+0.006		
	5MHz	3.8	6.0	+0.008		
		BEP	-7.0	-0.010		
		4.35	6.4	+0.009		
	10MHz	3.8	3.0	+0.004		
		BEP	3.0	+0.004		
		4.35	6.0	+0.008		



Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 25 (QPSK)	1.4MHz	3.8	-9.8	-0.014	2.5	PASS
		BEP	-12.0	-0.017		
		4.35	9.5	+0.013		
	3MHz	3.8	7.5	+0.011		
		BEP	-9.5	-0.013		
		4.35	-10.1	-0.014		
	5MHz	3.8	6.9	+0.010		
		BEP	-7.9	-0.011		
		4.35	-8.8	-0.012		
	10MHz	3.8	-6.9	-0.010		
		BEP	7.5	+0.011		
		4.35	7.7	+0.011		

Band	Band Width & Channel	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 25 (16QAM)	1.4MHz	3.8	-6.9	-0.010	2.5	PASS
		BEP	-9.2	-0.013		
		4.35	7.5	+0.011		
	3MHz	3.8	-6.1	-0.009		
		BEP	7.5	+0.011		
		4.35	-7.3	-0.010		
	5MHz	3.8	-8.6	-0.012		
		BEP	-6.9	-0.010		
		4.35	-8.6	-0.012		
	10MHz	3.8	7.5	+0.011		
		BEP	5.5	+0.008		
		4.35	6.3	+0.009		

Remark:

1. Normal Voltage = 3.8V.
2. Battery End Point (BEP) = 3.6 V.



3.8.8 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 29, 2012	Jun. 17, 2013~ Jun. 22, 2013	Dec. 28, 2013	Conducted (TH01-KS)
Power Meter	Agilent	E4416A	MY45101555	N/A	Aug. 22, 2012	Jun. 17, 2013~ Jun. 22, 2013	Aug. 21, 2013	Conducted (TH01-KS)
Power Sensor	Agilent	E9327A	MY44421198	N/A	Aug. 22, 2012	Jun. 17, 2013~ Jun. 22, 2013	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 29, 2012	Jun. 17, 2013~ Jun. 22, 2013	Dec. 28, 2013	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Jun. 22, 2013~ Jun. 24, 2013	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	100400	9kHz~30GHz	Jun. 01, 2013	Jun. 22, 2013~ Jun. 24, 2013	May 31, 2014	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 07, 2012	Jun. 22, 2013~ Jun. 24, 2013	Dec. 06, 2013	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 06, 2013	Jun. 22, 2013~ Jun. 24, 2013	Jan. 05, 2014	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1GHz	Jun. 01, 2013	Jun. 22, 2013~ Jun. 24, 2013	May 31, 2014	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 29, 2012	Jun. 22, 2013~ Jun. 24, 2013	Dec. 28, 2013	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 07, 2012	Jun. 22, 2013~ Jun. 24, 2013	Nov. 06, 2013	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	9170249	15GHz~40GHz	Nov. 23, 2012	Jun. 22, 2013~ Jun. 24, 2013	Nov. 22, 2013	Radiation (03CH01-KS)
Turn Table	MF	MF7802	N/A	0 ~ 360 degree	N/A	Jun. 22, 2013~ Jun. 24, 2013	N/A	Radiation (03CH01-KS)
Antenna Mast	MF	MF7802	N/A	1 m - 4 m	N/A	Jun. 22, 2013~ Jun. 24, 2013	N/A	Radiation (03CH01-KS)



Base Station	Agilent	E5515C	GB47050646	Full Band	Aug. 17, 2013	Jul. 18, 2013~ Jul. 23, 2013	Aug. 16, 2013	EIRP (OTA01-KS)
Spectrum Analyzer	R&S	FSP 7	100819	9kHz~7GHz	May 23, 2013	Jul. 18, 2013~ Jul. 23, 2013	May 22, 2014	EIRP (OTA01-KS)
Switch Control Manframe	Agilent	3499A	MY42005452	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Dual 1-to-6(4) MW MUX	Agilent	N2276A	MY42000841	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002573	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002586	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Diagonal Dual Polarized Horn	ETS-Lindgren	3164-04	00066993	700MHz~6GHz	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Multi-Devices Controller	ETS-Lindgren	2090-OPT1	00066604	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Conical Log Spiral (Small)	ETS-Lindgren	3102	00066951	1~10GHz	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Turn Table	ETS-Lindgren	2088	N/A	Resolution : 0.1degree	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Limiting Amplifier	ETS-lindgren	109643	920326	10M~2.5GHz	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
EMQuest	ETS-Lindgren	EMQ-100	1125	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)
Medium Duty Holder	ETS-Lindgren	2015	N/A	N/A	N/A	Jul. 18, 2013~ Jul. 23, 2013	N/A	EIRP (OTA01-KS)



4 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.54
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

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