

FCC RF Test Report

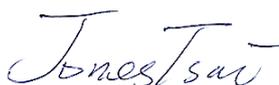
APPLICANT : ZTE CORPORATION
EQUIPMENT : CDMA/LTE Multi-mode Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : ZTE N9520
FCC ID : SRQ-ZTEN9520
STANDARD : FCC CFR Part 2, 24(E)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Sep. 14, 2013 and completely tested on Oct. 18, 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.



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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)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§24.232(c)	Equivalent Isotropic Radiated Power	EIRP < 2Watt	PASS	-
3.4	§2.1049 §24.238(a)	99% Occupied Bandwidth and 26dB Bandwidth	NA	PASS	-
3.5	§2.1051 §24.238(a)	Conducted Band Edge Measurement	< 43+10log ₁₀ (P[Watts])	PASS	-
3.6	§2.1051 §24.238(a)	Conducted Spurious Emission	< 43+10log ₁₀ (P[Watts])	PASS	-
3.7	§2.1053 §24.238(a)	Radiated Spurious Emission	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 35.52 dB at 3825.000 MHz
3.8	§2.1055 §24.235	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 Multi-mode Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N9520
FCC ID	SRQ-ZTEN9520
EUT supports Radios application	CDMA/EV-DO/LTE/WLAN2.4GHz 11bgn HT 20/ Bluetooth v3.0 +EDR/Bluetooth v4.0
HW Version	cyyB
SW Version	N9520V1.0.0B02
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 25 : 1850.7 MHz ~ 1914.3 MHz
Rx Frequency	LTE Band 25 : 1930.7 MHz ~ 1994.3 MHz
Bandwidth	1.4MHz / 3MHz / 5MHz / 10MHz
Maximum Output Power to Antenna	24.48 dBm
Antenna Type	PIFA Antenna
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 24E	LTE Band 25	QPSK	1.4MHz	0.43 W	0.006	1M10G7D
Part 24E	LTE Band 25	16QAM	1.4MHz	0.35 W	0.006	1M10D7W
Part 24E	LTE Band 25	QPSK	3MHz	0.44 W	0.005	2M74G7D
Part 24E	LTE Band 25	16QAM	3MHz	0.33 W	0.005	2M74D7W
Part 24E	LTE Band 25	QPSK	5MHz	0.42 W	0.005	4M50G7D
Part 24E	LTE Band 25	16QAM	5MHz	0.33 W	0.006	4M52D7W
Part 24E	LTE Band 25	QPSK	10MHz	0.45 W	0.005	9M16G7D
Part 24E	LTE Band 25	16QAM	10MHz	0.36 W	0.005	9M08D7W

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 Registration No.
	TH01-KS	OTA01-KS	149928

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.		
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755-3320-2398		
Test Site No.	Sporton Site No.		FCC Registration No.
	03CH01-SZ		831040



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)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r01

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

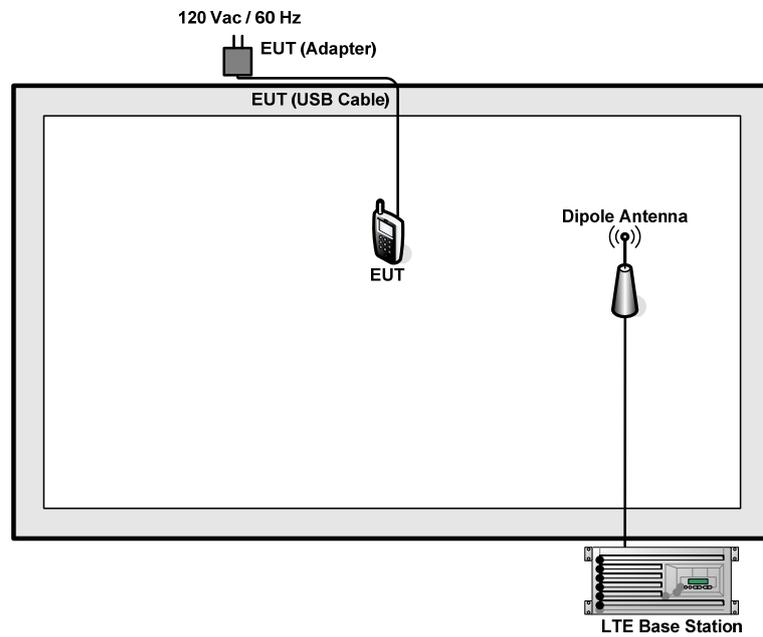
2.1 Test Mode

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 (Z plane).

Frequency range investigated for radiated emission is 30 MHz to 19200 MHz for LTE Band 25.

Test Modes		
Band	Radiated TCs	Conducted TCs
LTE Band 25	BW 1.4MHz ■ LTE (RB Size 1, RB Offset 2) 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.

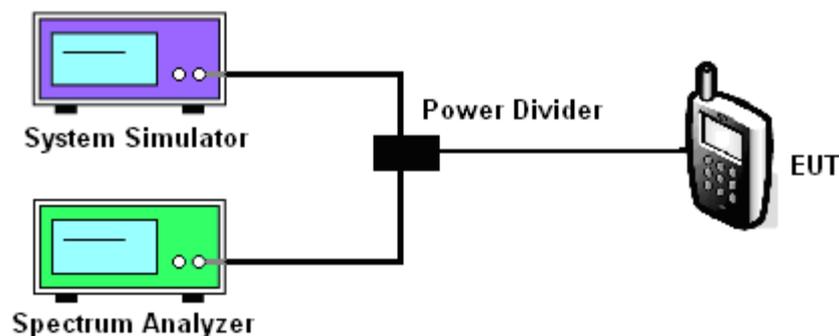
3.1.2 Measuring Instruments

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 25	1.4MHz	26047	1850.7	QPSK	1	0	24.41	0.2761
					1	2	24.43	0.2773
					1	5	24.32	0.2704
					3	0	24.28	0.2679
					3	1	24.28	0.2679
					3	2	24.32	0.2704
				6	0	23.30	0.2138	
				16-QAM	1	0	23.49	0.2234
					1	2	23.05	0.2018
					1	5	23.42	0.2198
					3	0	23.20	0.2089
					3	1	23.34	0.2158
		3	2		23.36	0.2168		
		26365	1882.5	QPSK	6	0	22.20	0.1660
					1	0	24.27	0.2673
					1	2	24.32	0.2704
					1	5	24.26	0.2667
					3	0	24.25	0.2661
					3	1	24.24	0.2655
				16-QAM	3	2	24.28	0.2679
					6	0	23.32	0.2148
					1	0	23.46	0.2218
					1	2	23.16	0.2070
					1	5	23.47	0.2223
					3	0	23.13	0.2056
		26683	1914.3	QPSK	3	1	23.30	0.2138
					3	2	23.32	0.2148
					6	0	22.40	0.1738
					1	0	24.36	0.2729
					1	2	24.28	0.2679
1	5				24.24	0.2655		
16-QAM	3			0	24.22	0.2642		
	3			1	24.20	0.2630		
	3			2	24.17	0.2612		
	6			0	23.34	0.2158		
	1			0	23.37	0.2173		
	1			2	22.91	0.1954		
16-QAM	1	5	23.40	0.2188				
	3	0	23.31	0.2143				
	3	1	23.29	0.2133				
	3	2	23.25	0.2113				
	6	0	22.26	0.1683				



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	24.34	0.2716
					1	7	24.30	0.2692
					1	14	24.28	0.2679
					8	0	23.32	0.2148
					8	4	23.34	0.2158
					8	7	23.30	0.2138
				15	0	23.22	0.2099	
				16-QAM	1	0	23.02	0.2004
					1	7	23.19	0.2084
					1	14	23.27	0.2123
					8	0	22.31	0.1702
					8	4	22.19	0.1656
		8	7		22.13	0.1633		
		26365	1882.5	QPSK	1	0	24.27	0.2673
					1	7	24.25	0.2661
					1	14	24.09	0.2564
					8	0	23.31	0.2143
					8	4	23.32	0.2148
					8	7	23.26	0.2118
				15	0	23.33	0.2153	
				16-QAM	1	0	23.49	0.2234
					1	7	22.84	0.1923
					1	14	23.46	0.2218
					8	0	22.14	0.1637
					8	4	22.16	0.1644
		8	7		22.18	0.1652		
		15	0	22.24	0.1675			
		26675	1913.5	QPSK	1	0	24.47	0.2799
					1	7	24.46	0.2793
					1	14	24.26	0.2667
8	0				23.40	0.2188		
8	4				23.39	0.2183		
8	7				23.44	0.2208		
15	0			23.29	0.2133			
16-QAM	1			0	23.12	0.2051		
	1			7	23.22	0.2099		
	1			14	23.28	0.2128		
	8			0	22.28	0.1690		
	8			4	22.35	0.1718		
	8	7	22.24	0.1675				
15	0	22.36	0.1722					



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	24.20	0.2630	
					1	12	24.22	0.2642	
					1	24	24.27	0.2673	
					12	0	23.28	0.2128	
					12	6	23.30	0.2138	
					12	11	23.27	0.2123	
				16-QAM	25	0	23.25	0.2113	
					1	0	23.45	0.2213	
					1	12	23.35	0.2163	
					1	24	23.16	0.2070	
					12	0	22.22	0.1667	
					12	6	22.34	0.1714	
		26365	1882.5	QPSK	1882.5	12	11	22.38	0.1730
						25	0	22.22	0.1667
						1	0	24.08	0.2559
						1	12	24.18	0.2618
						1	24	24.17	0.2612
						12	0	23.27	0.2123
				16-QAM	12	6	23.26	0.2118	
					12	11	23.20	0.2089	
					25	0	23.23	0.2104	
					1	0	23.12	0.2051	
					1	12	23.36	0.2168	
					1	24	23.46	0.2218	
		26665	1912.5	QPSK	1912.5	12	0	22.24	0.1675
						12	6	22.25	0.1679
						12	11	22.22	0.1667
						25	0	22.30	0.1698
						1	0	24.39	0.2748
						1	12	24.38	0.2742
16-QAM	1			24	24.18	0.2618			
	12			0	23.32	0.2148			
	12			6	23.36	0.2168			
	12			11	23.19	0.2084			
	25			0	23.22	0.2099			
	1			0	23.10	0.2042			
16-QAM	1	12	23.46	0.2218					
	1	24	23.04	0.2014					
	12	0	22.35	0.1718					
	12	6	22.45	0.1758					
	12	11	22.32	0.1706					
	25	0	22.25	0.1679					



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	24.26	0.2667
					1	24	24.23	0.2649
					1	49	24.22	0.2642
					25	0	23.30	0.2138
					25	12	23.28	0.2128
					25	24	23.33	0.2153
					50	0	23.08	0.2032
		16-QAM	1	0	23.43	0.2203		
			1	24	23.41	0.2193		
			1	49	23.35	0.2163		
			25	0	22.24	0.1675		
			25	12	22.06	0.1607		
			25	24	22.25	0.1679		
			50	0	22.05	0.1603		
	26365	1882.5	QPSK	1	0	24.48	0.2805	
				1	24	24.22	0.2642	
				1	49	24.17	0.2612	
				25	0	23.39	0.2183	
				25	12	23.28	0.2128	
				25	24	23.27	0.2123	
				50	0	23.15	0.2065	
		16-QAM	1	0	23.39	0.2183		
			1	24	23.05	0.2018		
			1	49	23.22	0.2099		
			25	0	22.19	0.1656		
			25	12	22.25	0.1679		
			25	24	22.16	0.1644		
26640	1910	QPSK	1	0	24.31	0.2698		
			1	24	24.24	0.2655		
			1	49	24.11	0.2576		
			25	0	23.11	0.2046		
			25	12	23.15	0.2065		
			25	24	23.29	0.2133		
			50	0	23.13	0.2056		
	16-QAM	1	0	23.37	0.2173			
		1	24	23.16	0.2070			
		1	49	23.17	0.2075			
		25	0	22.05	0.1603			
		25	12	22.17	0.1648			
		25	24	22.39	0.1734			
50	0	22.10	0.1622					

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.

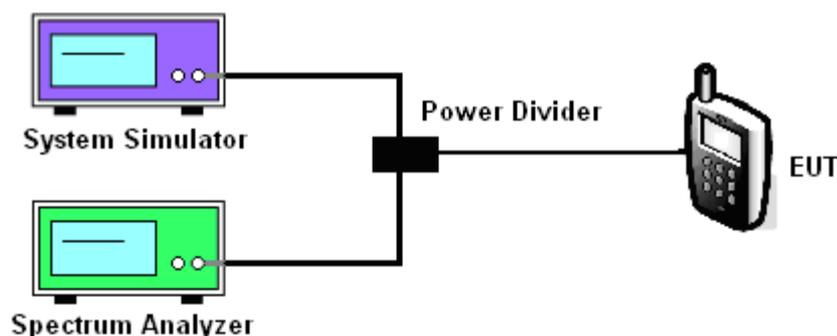
3.2.2 Measuring Instruments

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 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





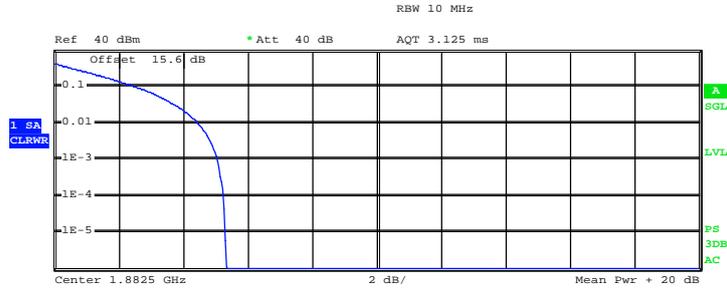
3.2.5 Test Result of Peak-to-Average Ratio

Band	Band Width	Channel	Frequency (MHz)	Modulation	PAR (dB)
LTE Band 25	1.4MHz	26365	1882.5	QPSK	5.08
				16-QAM	5.84
	3MHz	26365	1882.5	QPSK	5.04
				16-QAM	5.96
	5MHz	26365	1882.5	QPSK	5.32
				16-QAM	6.04
	10MHz	26365	1882.5	QPSK	5.28
				16-QAM	6.12



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)

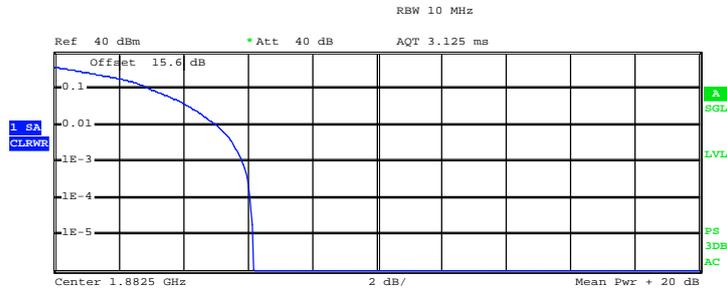
Trace 1

Mean 23.29 dBm
 Peak 28.64 dBm
 Crest 5.35 dB

10 % 2.60 dB
 1 % 4.48 dB
 .1 % 5.08 dB
 .01 % 5.24 dB

Date: 5.OCT.2013 15:15:00

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



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean 22.39 dBm
 Peak 28.57 dBm
 Crest 6.18 dB

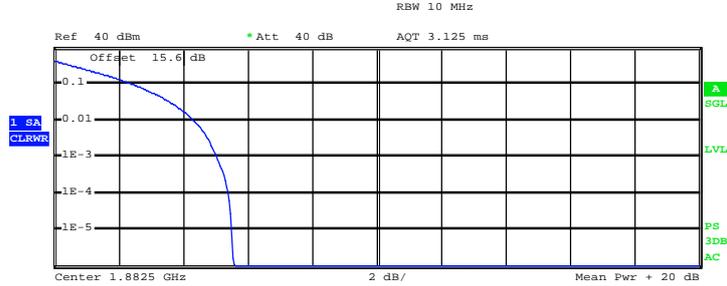
10 % 3.04 dB
 1 % 5.08 dB
 .1 % 5.84 dB
 .01 % 6.08 dB

Date: 5.OCT.2013 15:14:49



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



Complementary Cumulative Distribution Function (100000 samples)

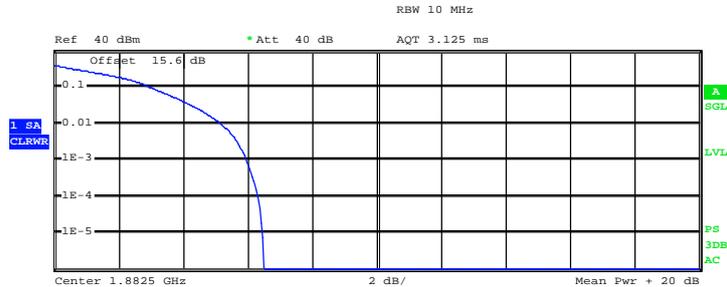
Trace 1

Mean 23.22 dBm
 Peak 28.78 dBm
 Crest 5.56 dB

10 % 2.48 dB
 1 % 4.36 dB
 .1 % 5.04 dB
 .01 % 5.40 dB

Date: 5.OCT.2013 15:15:17

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



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean 22.29 dBm
 Peak 28.78 dBm
 Crest 6.50 dB

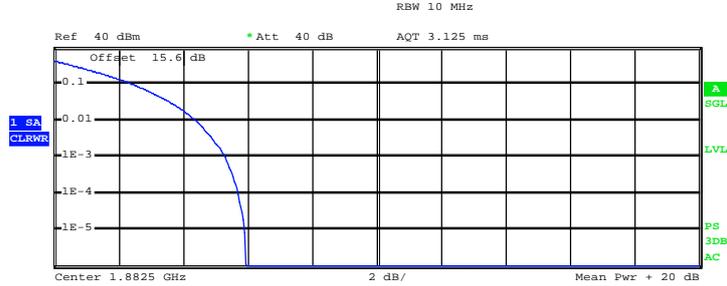
10 % 3.04 dB
 1 % 5.20 dB
 .1 % 5.96 dB
 .01 % 6.32 dB

Date: 5.OCT.2013 15:15:29



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



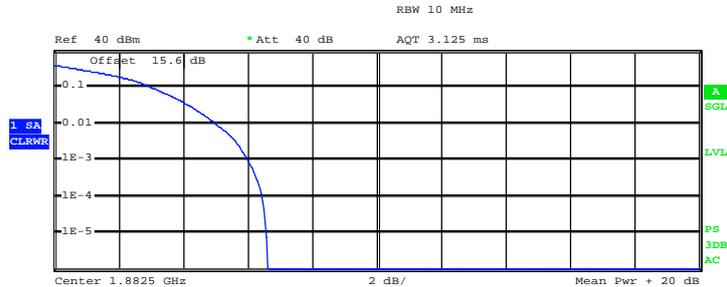
Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 23.20 dBm
 Peak 29.14 dBm
 Crest 5.94 dB

10 % 2.48 dB
 1 % 4.40 dB
 .1 % 5.32 dB
 .01 % 5.72 dB

Date: 5.OCT.2013 15:15:59

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



Complementary Cumulative Distribution Function (100000 samples)

Trace 1
 Mean 22.24 dBm
 Peak 28.85 dBm
 Crest 6.61 dB

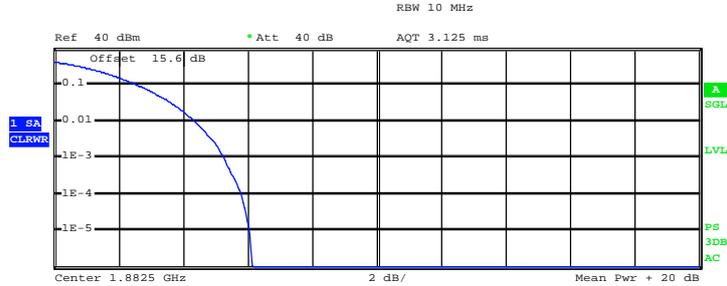
10 % 3.08 dB
 1 % 5.04 dB
 .1 % 6.04 dB
 .01 % 6.44 dB

Date: 5.OCT.2013 15:15:49



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



Complementary Cumulative Distribution Function (100000 samples)

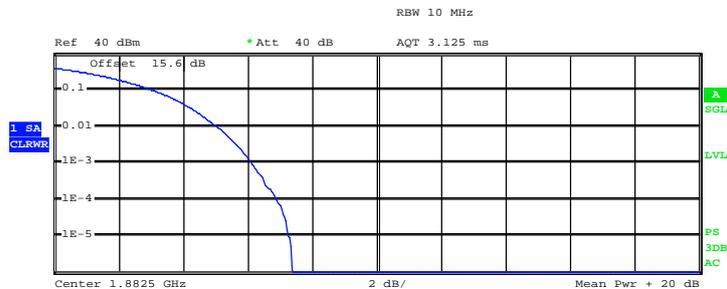
Trace 1

Mean 22.80 dBm
 Peak 28.92 dBm
 Crest 6.13 dB

10 % 2.64 dB
 1 % 4.36 dB
 .1 % 5.28 dB
 .01 % 5.80 dB

Date: 5.OCT.2013 15:16:17

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



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean 21.82 dBm
 Peak 29.21 dBm
 Crest 7.38 dB

10 % 3.12 dB
 1 % 5.08 dB
 .1 % 6.12 dB
 .01 % 6.92 dB

Date: 5.OCT.2013 15:16:28

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 v02r1. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts.

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.

$E_t = R_t + AF$

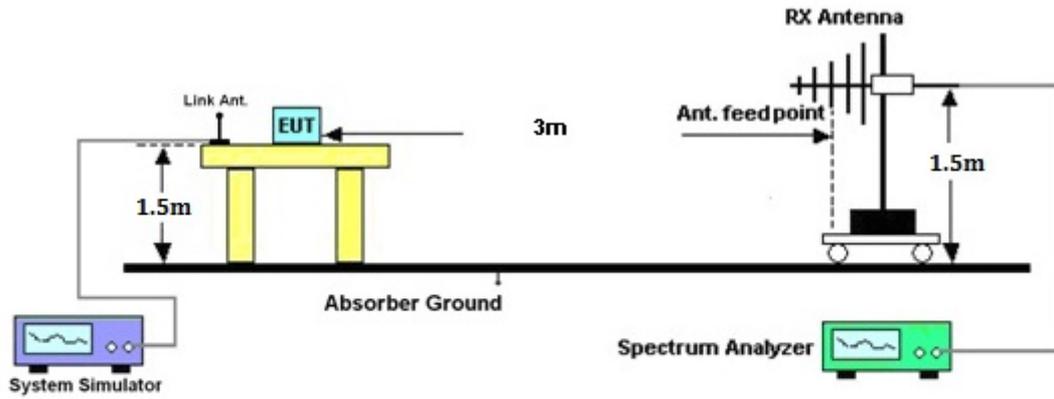
$E_s = R_s + AF$

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 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	26.30	0.43	H
25	1.4	QPSK	1	0	1882.5	26.28	0.42	H
25	1.4	QPSK	1	0	1914.3	25.79	0.38	H
25	1.4	QPSK	1	0	1850.7	25.42	0.35	V
25	1.4	QPSK	1	0	1882.5	25.20	0.33	V
25	1.4	QPSK	1	0	1914.3	24.20	0.26	V
25	1.4	16QAM	1	0	1850.7	25.43	0.35	H
25	1.4	16QAM	1	0	1882.5	25.09	0.32	H
25	1.4	16QAM	1	0	1914.3	24.66	0.29	H
25	1.4	16QAM	1	0	1850.7	24.42	0.28	V
25	1.4	16QAM	1	0	1882.5	23.96	0.25	V
25	1.4	16QAM	1	0	1914.3	23.07	0.20	V
25	3	QPSK	1	0	1851.5	26.39	0.44	H
25	3	QPSK	1	0	1882.5	26.21	0.42	H
25	3	QPSK	1	0	1913.5	25.88	0.39	H
25	3	QPSK	1	0	1851.5	25.31	0.34	V
25	3	QPSK	1	0	1882.5	25.08	0.32	V
25	3	QPSK	1	0	1913.5	24.37	0.27	V
25	3	16QAM	1	0	1851.5	25.13	0.33	H
25	3	16QAM	1	0	1882.5	25.20	0.33	H
25	3	16QAM	1	0	1913.5	24.57	0.29	H
25	3	16QAM	1	0	1851.5	24.02	0.25	V
25	3	16QAM	1	0	1882.5	24.04	0.25	V
25	3	16QAM	1	0	1913.5	23.01	0.20	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	26.25	0.42	H
25	5	QPSK	1	0	1882.5	26.07	0.40	H
25	5	QPSK	1	0	1912.5	26.11	0.41	H
25	5	QPSK	1	0	1852.5	25.04	0.32	V
25	5	QPSK	1	0	1882.5	24.90	0.31	V
25	5	QPSK	1	0	1912.5	24.71	0.30	V
25	5	16QAM	1	0	1852.5	25.23	0.33	H
25	5	16QAM	1	0	1882.5	24.91	0.31	H
25	5	16QAM	1	0	1912.5	24.99	0.32	H
25	5	16QAM	1	0	1852.5	24.15	0.26	V
25	5	16QAM	1	0	1882.5	23.69	0.23	V
25	5	16QAM	1	0	1912.5	23.53	0.23	V
25	10	QPSK	1	0	1855	26.20	0.42	H
25	10	QPSK	1	0	1882.5	26.49	0.45	H
25	10	QPSK	1	0	1910	26.29	0.43	H
25	10	QPSK	1	0	1855	24.87	0.31	V
25	10	QPSK	1	0	1882.5	25.05	0.32	V
25	10	QPSK	1	0	1910	24.59	0.29	V
25	10	16QAM	1	0	1855	25.24	0.33	H
25	10	16QAM	1	0	1882.5	25.52	0.36	H
25	10	16QAM	1	0	1910	25.27	0.34	H
25	10	16QAM	1	0	1855	23.95	0.25	V
25	10	16QAM	1	0	1882.5	23.88	0.24	V
25	10	16QAM	1	0	1910	23.63	0.23	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.

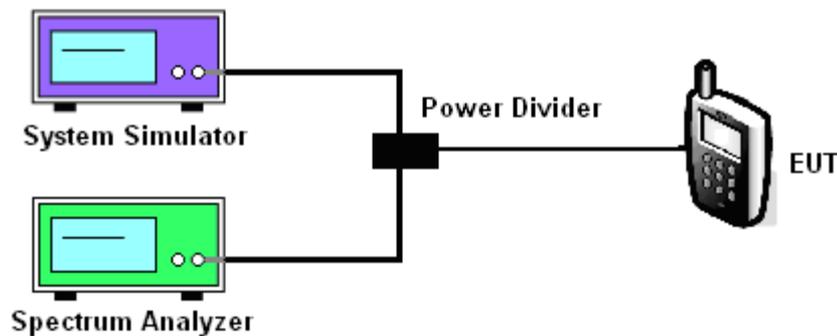
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

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

3.4.4 Test Setup



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

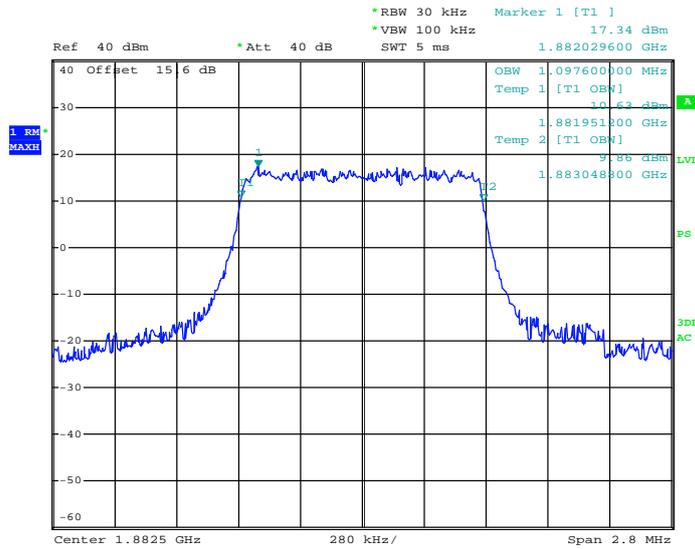
Band	Band Width	Channel	Frequency (MHz)	Modulation	99%Bandwidth (MHz)	26dB Bandwidth (MHz)
LTE Band 25	1.4MHz	26365	1882.5	QPSK	1.10	1.30
				16-QAM	1.10	1.31
	3MHz	26365	1882.5	QPSK	2.74	3.10
				16-QAM	2.74	3.12
	5MHz	26365	1882.5	QPSK	4.50	5.06
				16-QAM	4.52	5.04
	10MHz	26365	1882.5	QPSK	9.16	10.04
				16-QAM	9.08	9.96



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

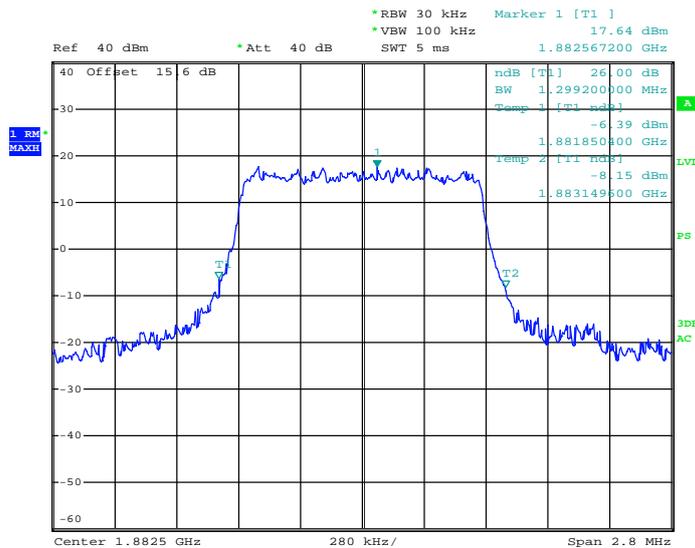
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 26365
for RB Size 6, RB Offset 0



Date: 5.OCT.2013 15:21:56

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

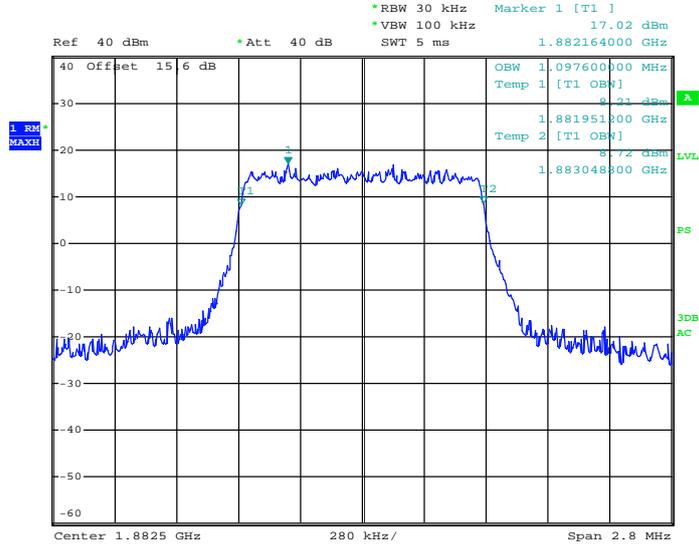


Date: 5.OCT.2013 15:11:40



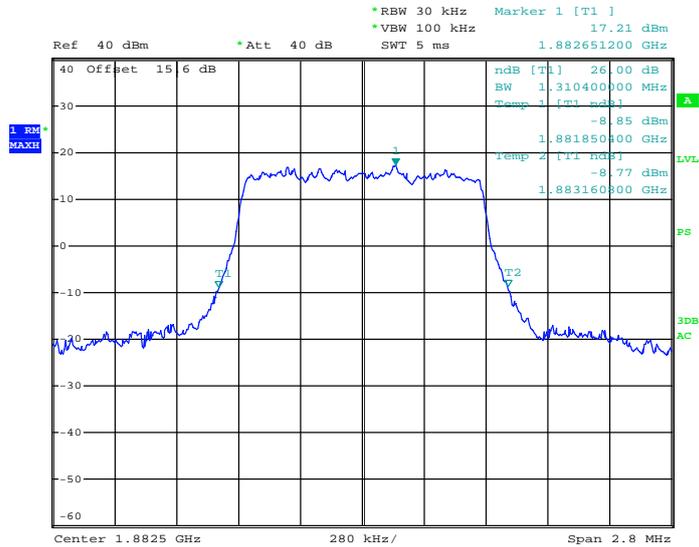
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 6, RB Offset 0**



Date: 5.OCT.2013 15:22:07

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

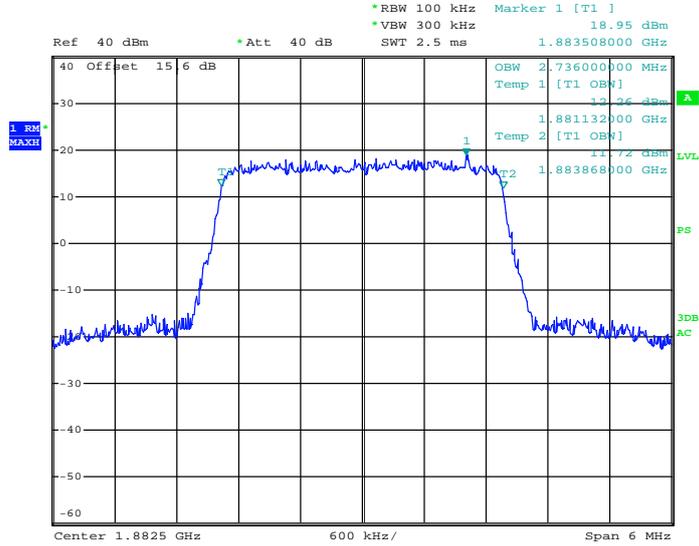


Date: 5.OCT.2013 15:11:25



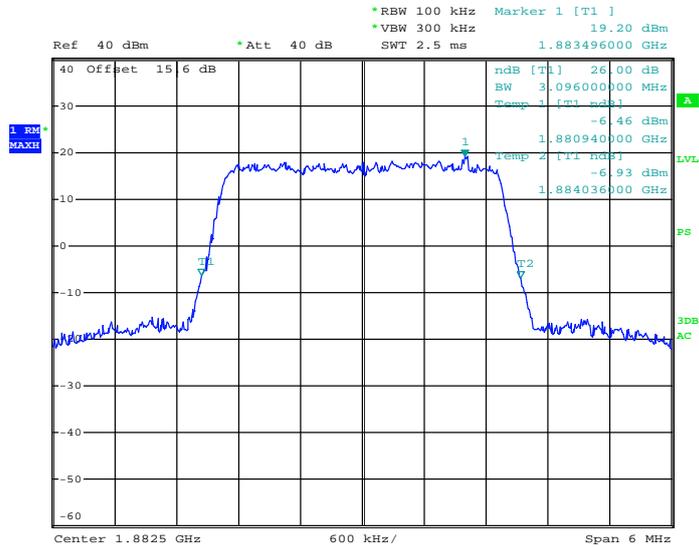
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 15, RB Offset 0**



Date: 5.OCT.2013 15:24:46

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

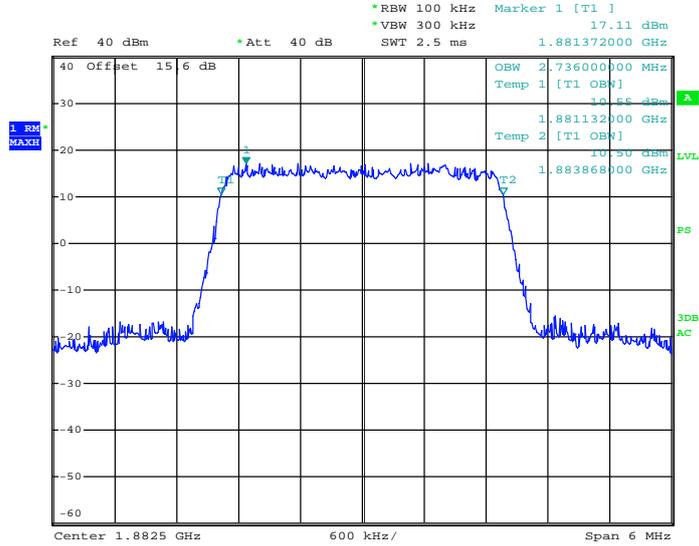


Date: 5.OCT.2013 15:12:20



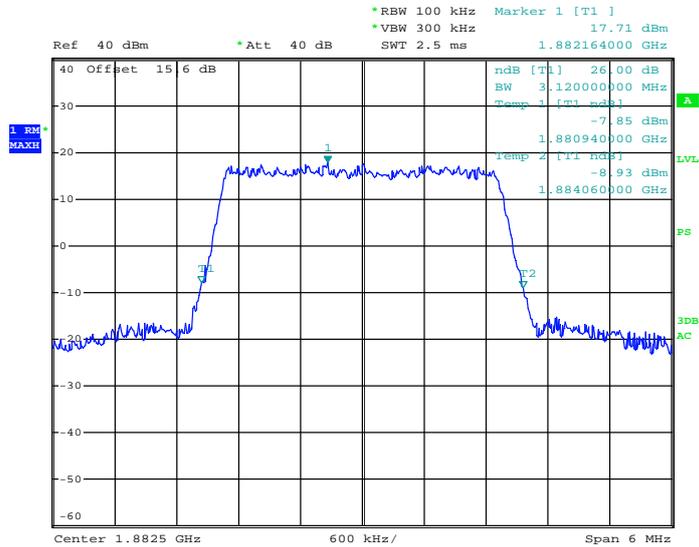
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 15, RB Offset 0**



Date: 5.OCT.2013 15:24:59

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

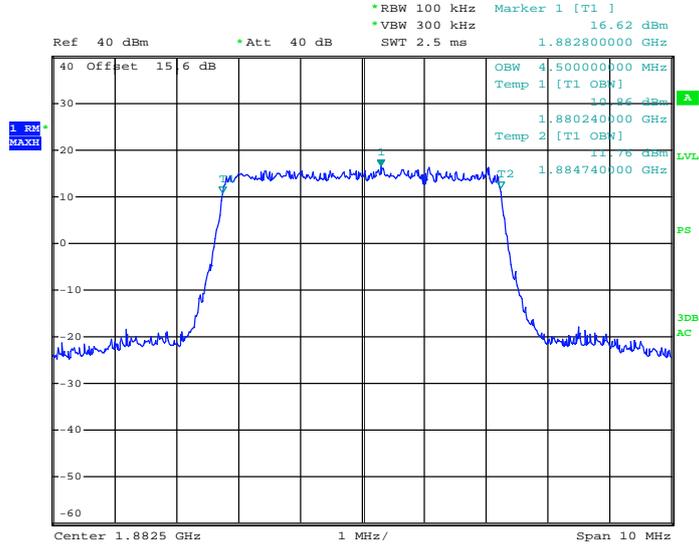


Date: 5.OCT.2013 15:12:50



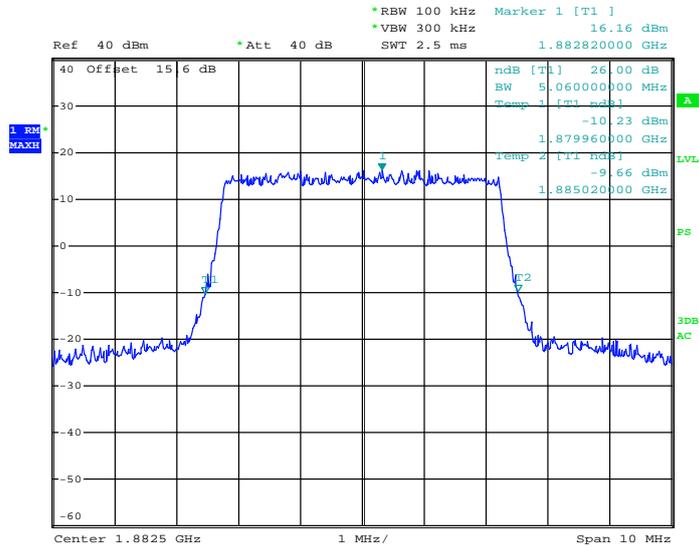
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 25, RB Offset 0**



Date: 5.OCT.2013 15:34:51

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

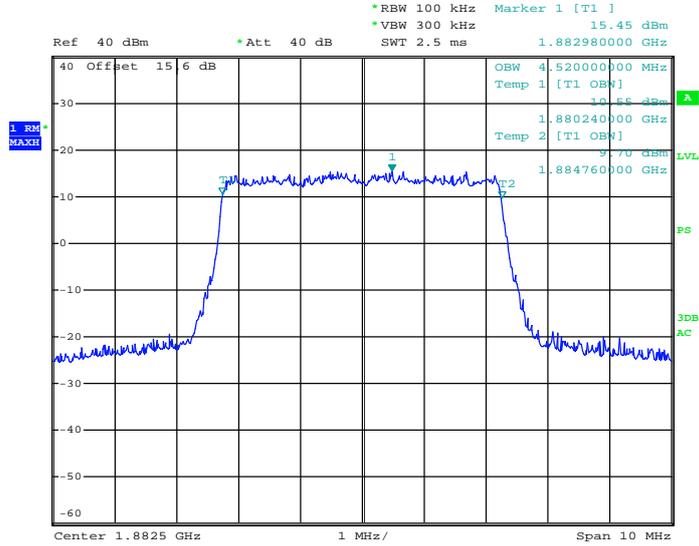


Date: 5.OCT.2013 15:13:33



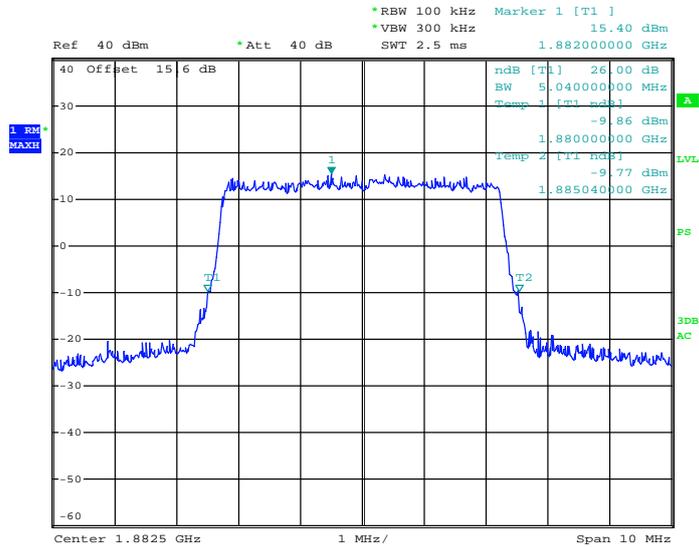
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 25, RB Offset 0**



Date: 5.OCT.2013 15:35:24

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

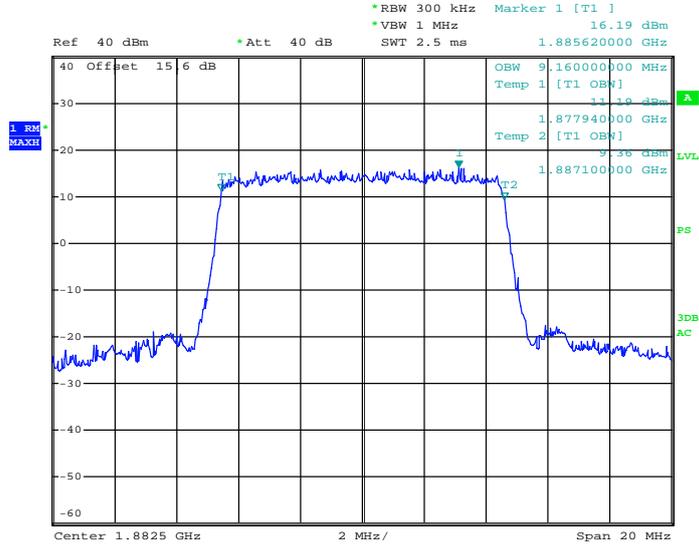


Date: 5.OCT.2013 15:13:16



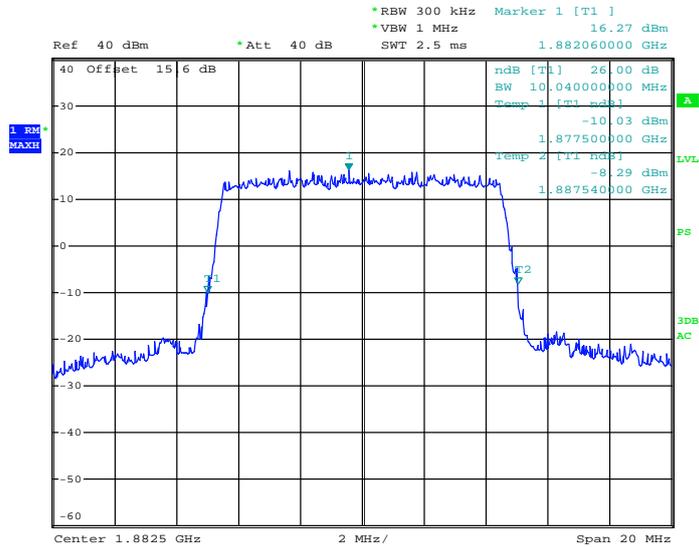
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 50, RB Offset 0**



Date: 5.OCT.2013 15:37:34

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

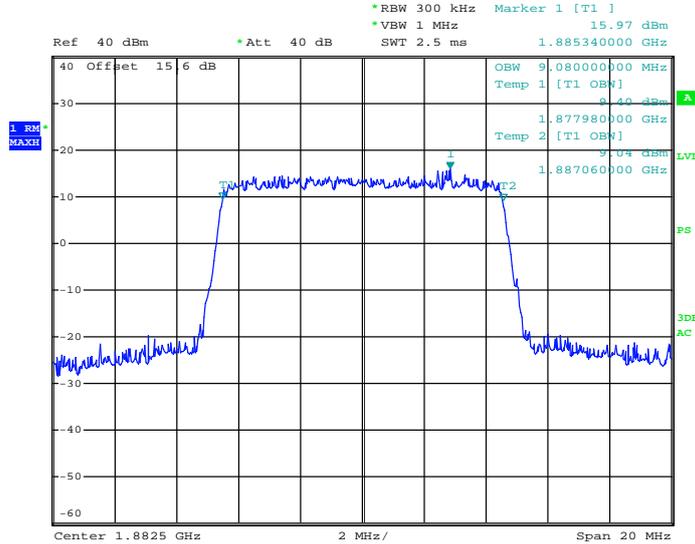


Date: 5.OCT.2013 15:13:56



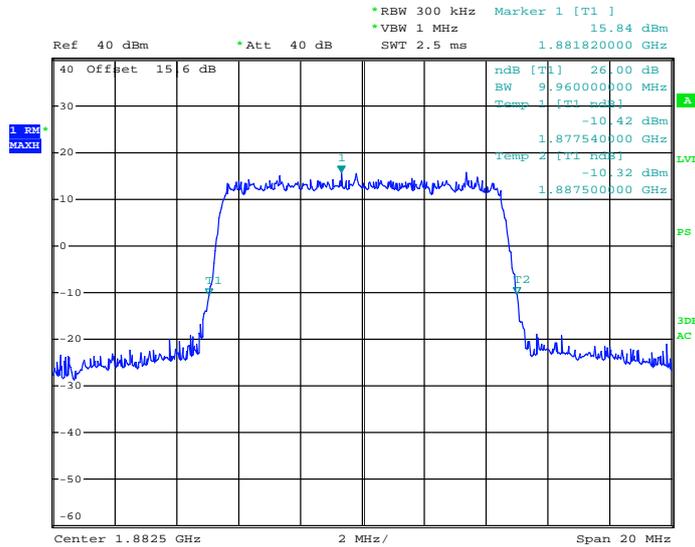
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
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**99% Occupied Bandwidth Plot on Channel 26365
for RB Size 50, RB Offset 0**



Date: 5.OCT.2013 15:37:45

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



Date: 5.OCT.2013 15:14:09

3.5 Conducted Band Edge Measurement

3.5.1 Description of Conducted Band Edge Measurement

For operations in LTE band 25, the FCC limit is

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

3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

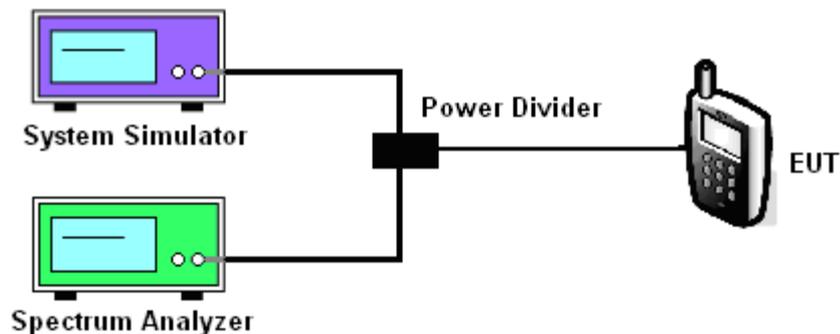
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Setting $RBW \geq 1\% \text{ EBW}$, and measuring bandwidth = 1MHz.
3. The RF fundamental frequency should be excluded against the limit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

$$= P(\text{W}) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$$

$$= -13\text{dBm}.$$

3.5.4 Test Setup

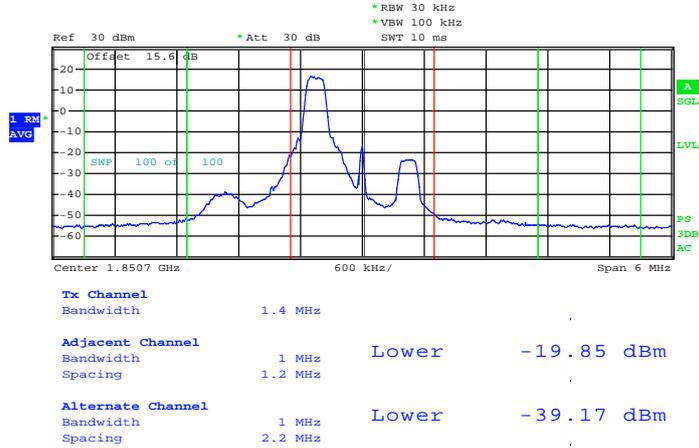




3.5.5 Test Result (Plots) of Conducted Band Edge

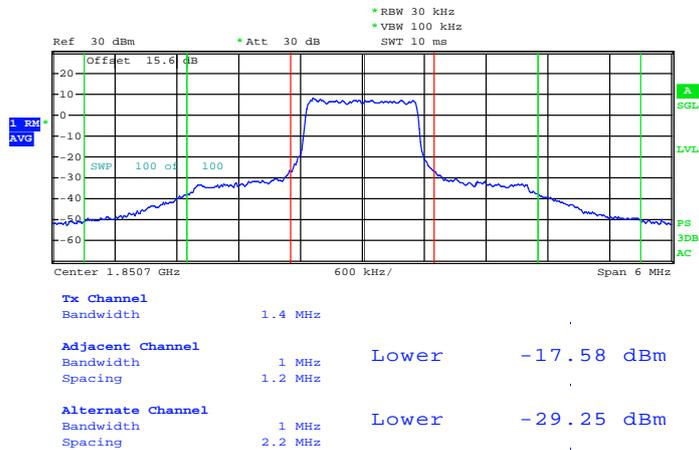
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:09:58

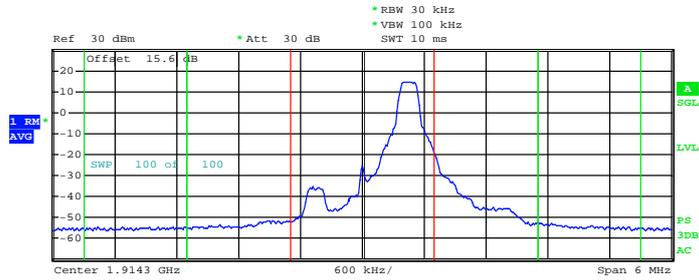
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 5.OCT.2013 17:10:38



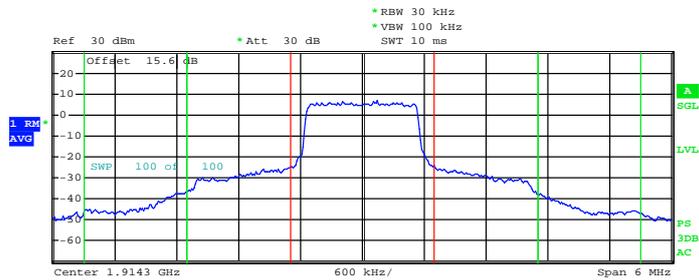
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Tx Channel			
Bandwidth	1.4 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	1.2 MHz	Upper	-17.97 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	2.2 MHz	Upper	-39.47 dBm

Date: 5.OCT.2013 17:43:42

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



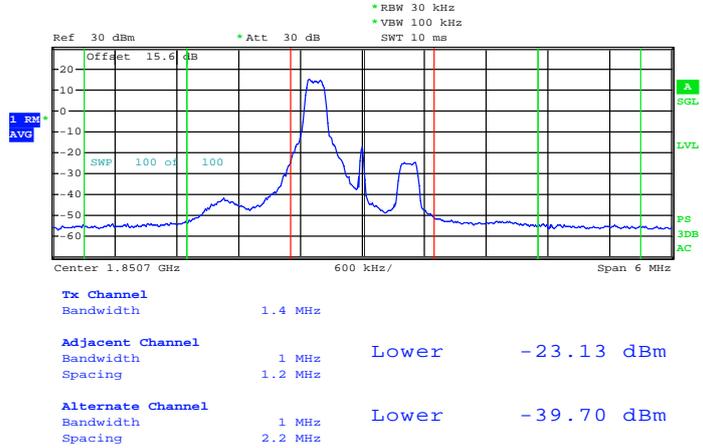
Tx Channel			
Bandwidth	1.4 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	1.2 MHz	Upper	-14.01 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	2.2 MHz	Upper	-28.40 dBm

Date: 5.OCT.2013 17:42:57



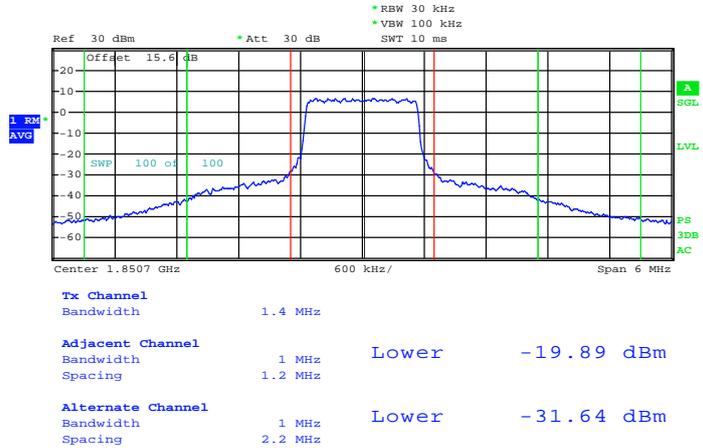
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:10:11

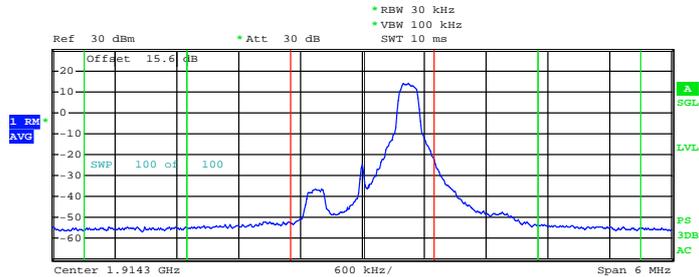
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Date: 5.OCT.2013 17:10:27



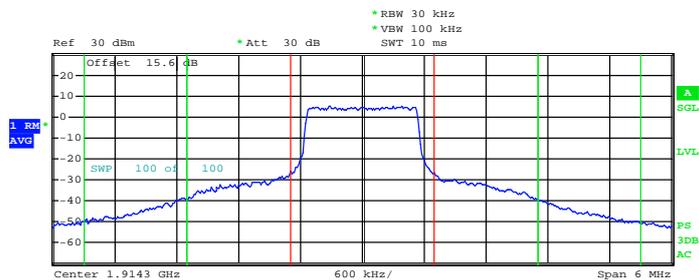
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Tx Channel			
Bandwidth	1.4 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	1.2 MHz	Upper	-21.22 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	2.2 MHz	Upper	-39.72 dBm

Date: 5.OCT.2013 17:43:31

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



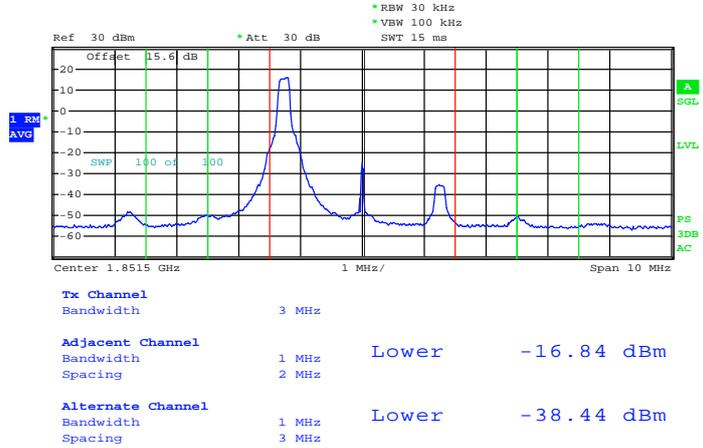
Tx Channel			
Bandwidth	1.4 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	1.2 MHz	Upper	-17.46 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	2.2 MHz	Upper	-29.80 dBm

Date: 5.OCT.2013 17:43:12



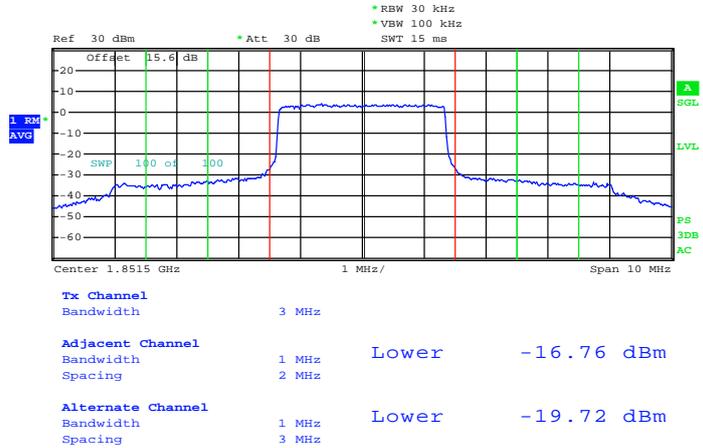
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:53:07

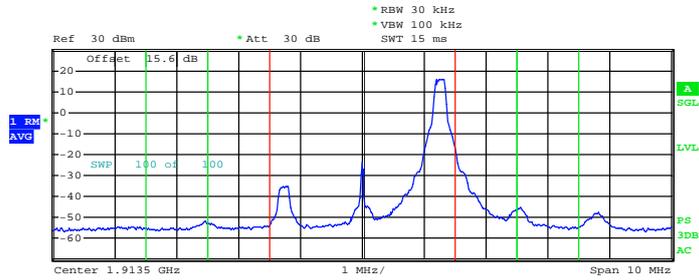
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 5.OCT.2013 17:52:20



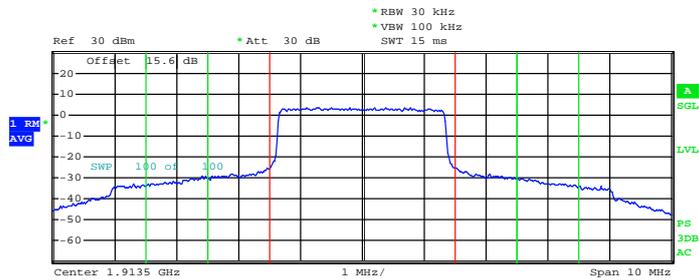
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Tx Channel			
Bandwidth	3 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	2 MHz	Upper	-14.87 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-36.65 dBm

Date: 5.OCT.2013 17:53:49

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



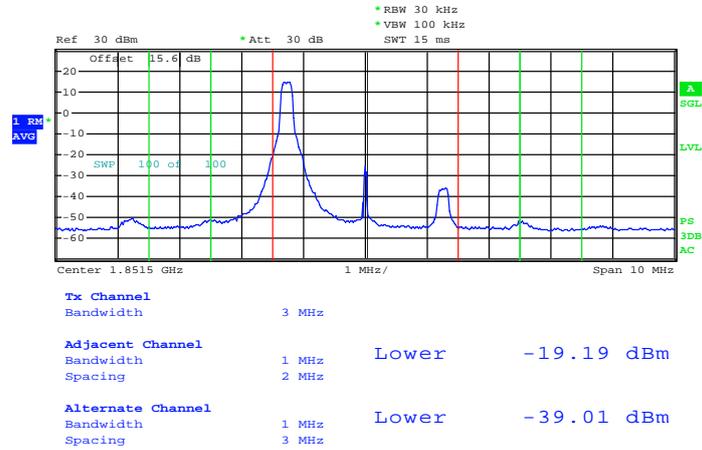
Tx Channel			
Bandwidth	3 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	2 MHz	Upper	-13.69 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-17.39 dBm

Date: 5.OCT.2013 17:54:32



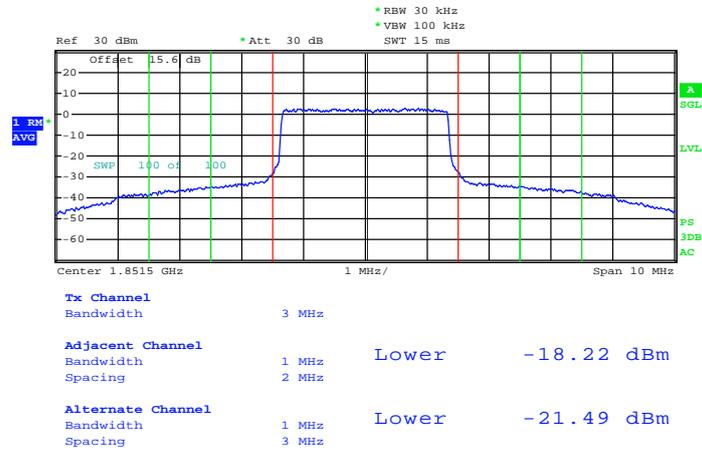
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:52:54

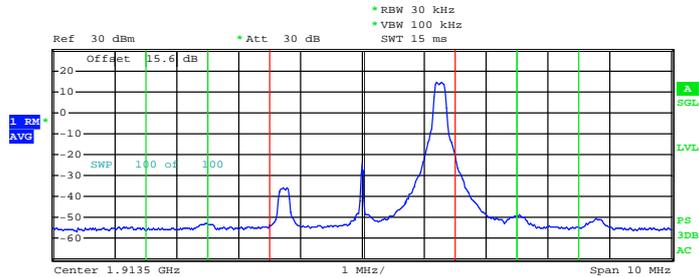
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Date: 5.OCT.2013 17:52:31



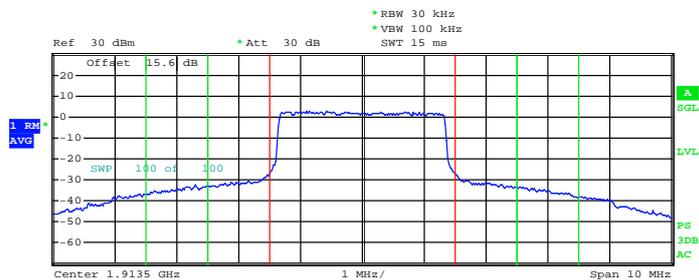
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Tx Channel			
Bandwidth	3 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	2 MHz	Upper	-18.21 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-38.30 dBm

Date: 5.OCT.2013 17:54:01

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



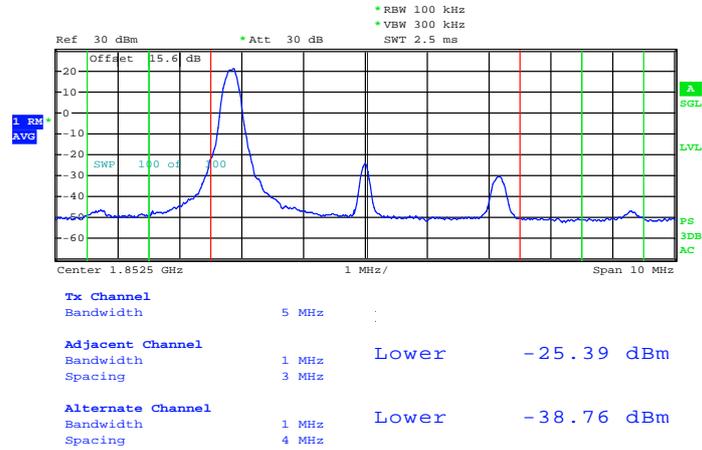
Tx Channel			
Bandwidth	3 MHz		
Adjacent Channel			
Bandwidth	1 MHz		
Spacing	2 MHz	Upper	-16.55 dBm
Alternate Channel			
Bandwidth	1 MHz		
Spacing	3 MHz	Upper	-20.45 dBm

Date: 5.OCT.2013 17:54:16



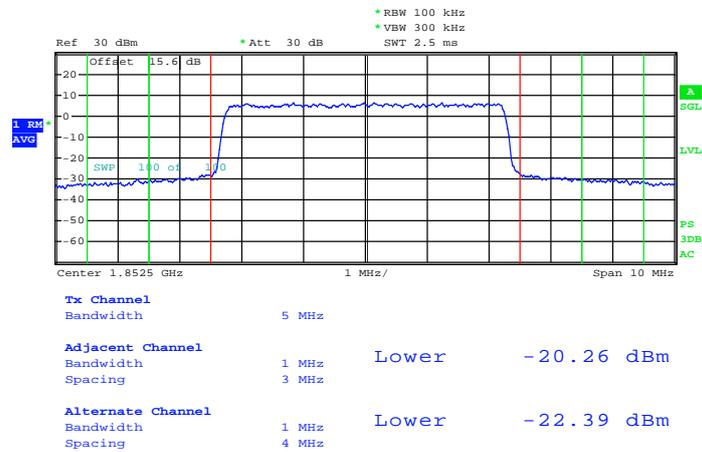
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:55:57

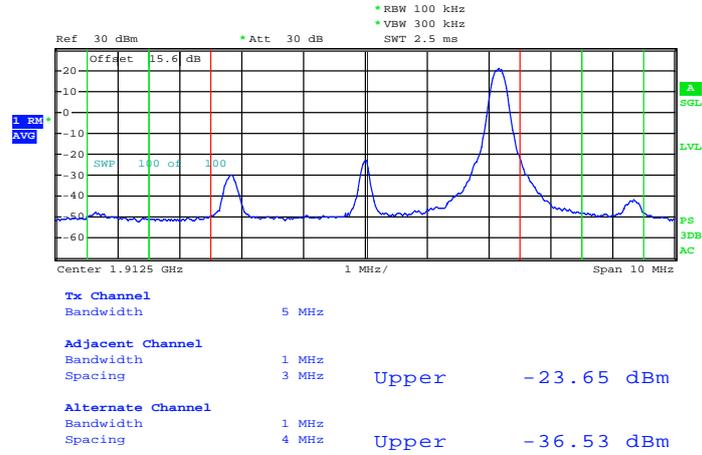
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 5.OCT.2013 17:56:34

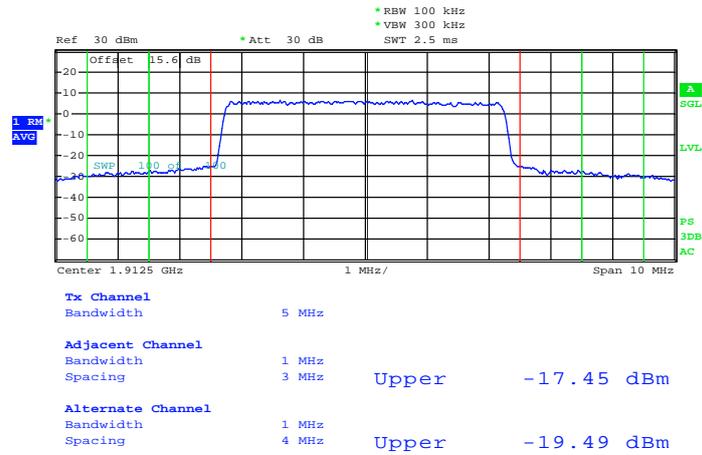


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 5.OCT.2013 17:57:59

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

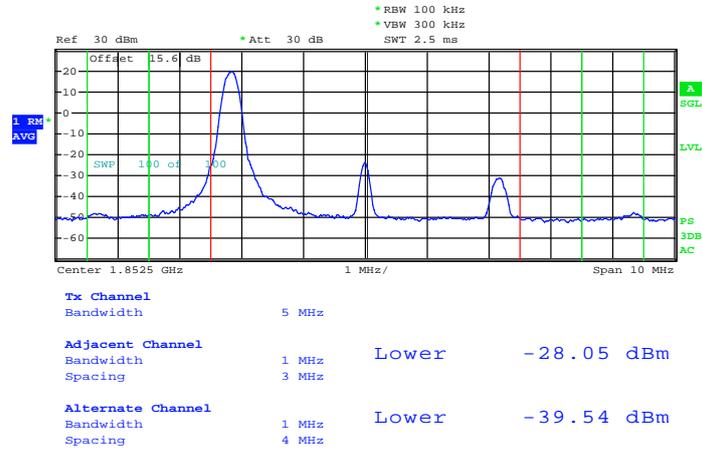


Date: 5.OCT.2013 17:57:22



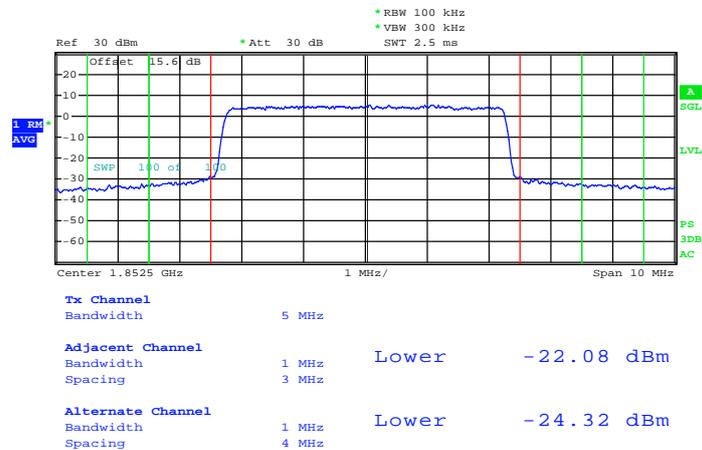
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:56:09

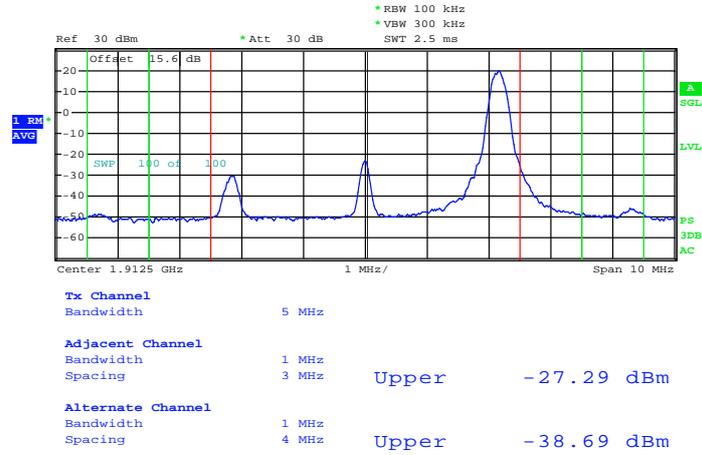
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Date: 5.OCT.2013 17:56:23

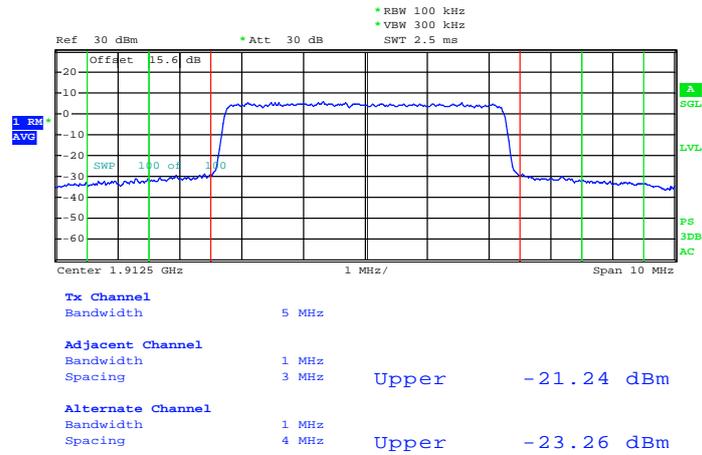


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24



Date: 5.OCT.2013 17:57:49

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

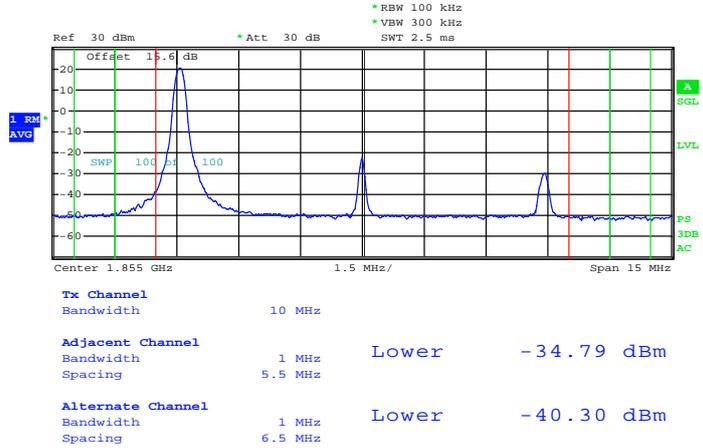


Date: 5.OCT.2013 17:57:32



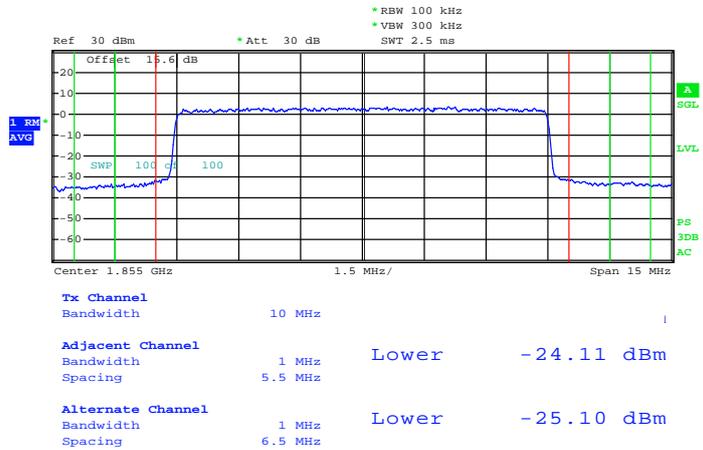
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 5.OCT.2013 17:59:51

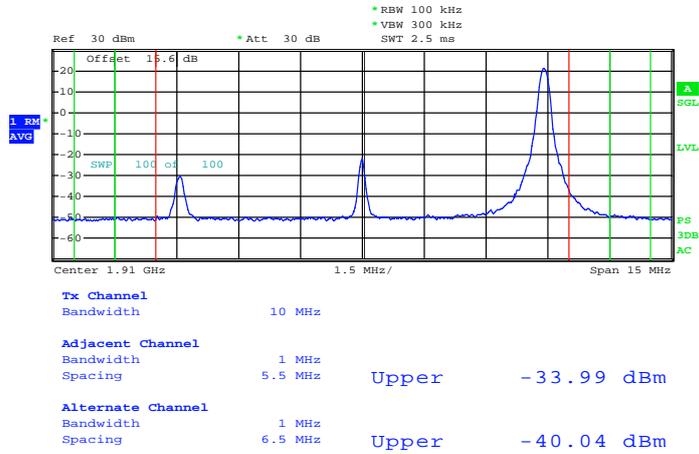
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 5.OCT.2013 18:00:29

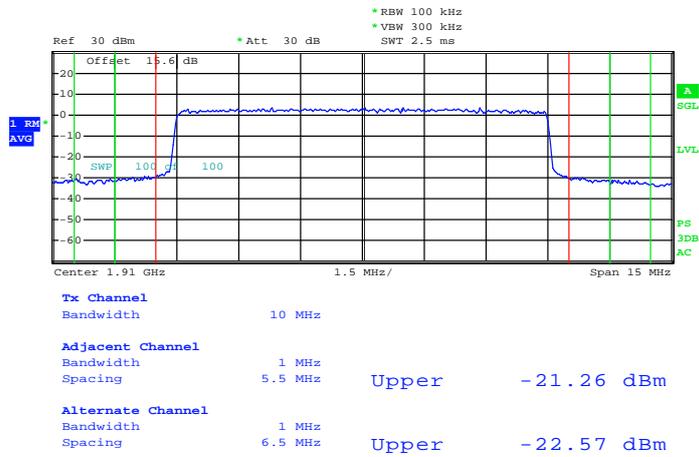


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 5.OCT.2013 18:01:24

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

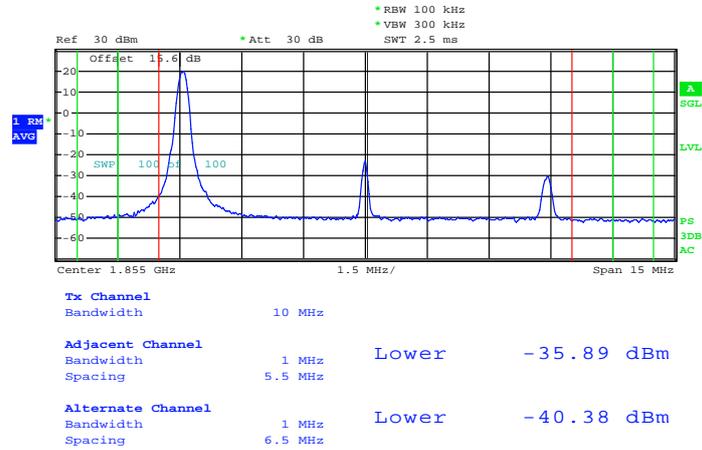


Date: 5.OCT.2013 18:02:18



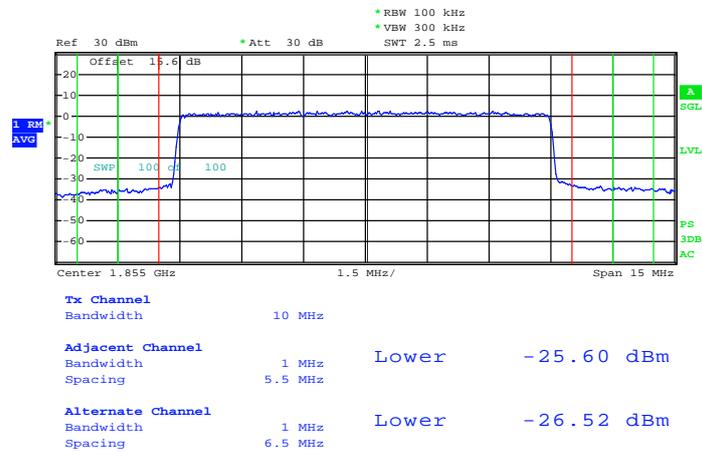
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 5.OCT.2013 18:00:03

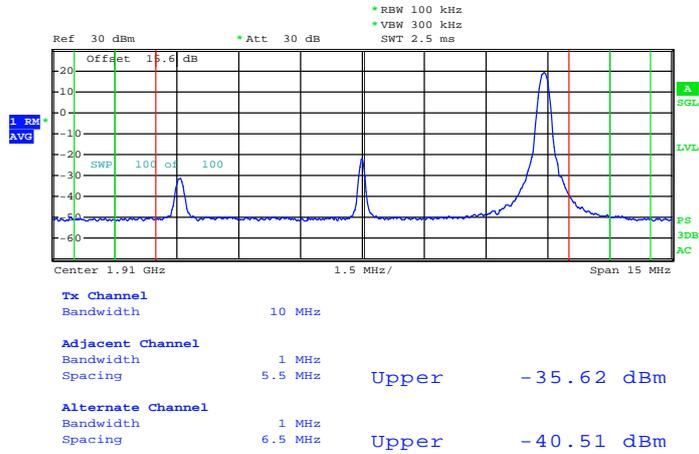
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Date: 5.OCT.2013 18:00:18

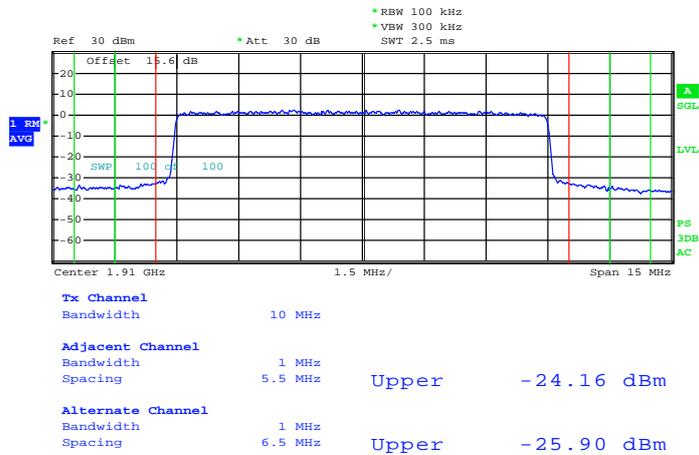


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



Date: 5.OCT.2013 18:01:36

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



Date: 5.OCT.2013 18:02:03

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

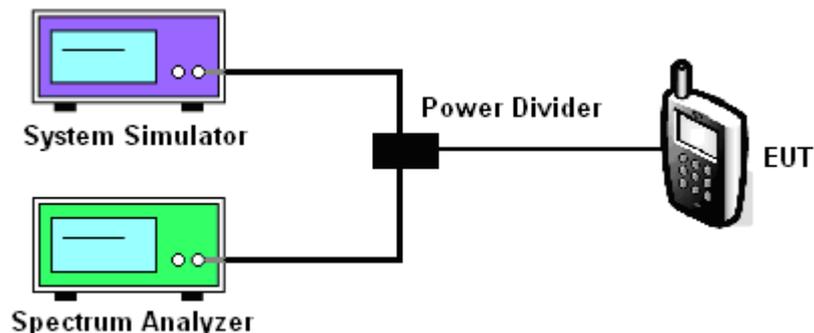
1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting 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)

$$= P(W) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$$

$$= -13\text{dBm}.$$

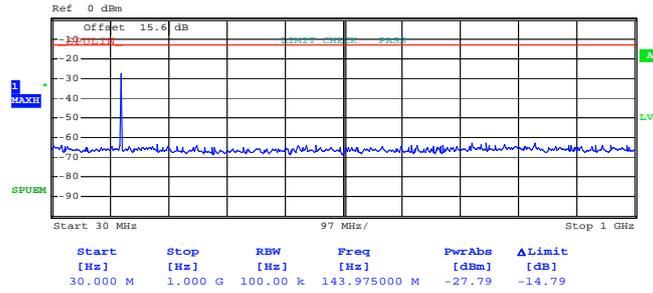
3.6.3 Test Setup



3.6.4 Test Plots of Spurious Emission

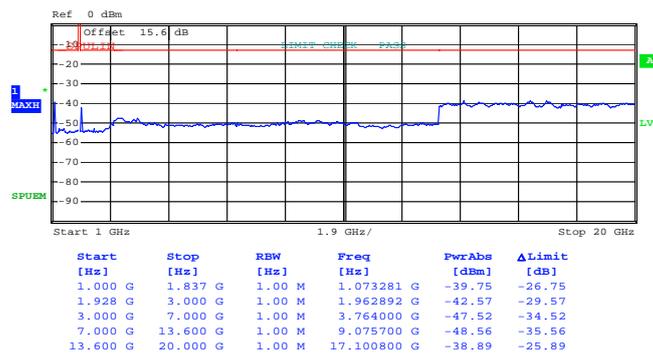
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
Frequency :	1850.7	Channel :	26047

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 2)



Date: 14.SEP.2013 17:13:41

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 2)

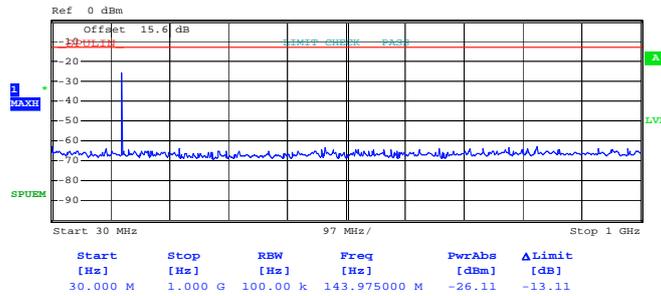


Date: 14.SEP.2013 17:14:30



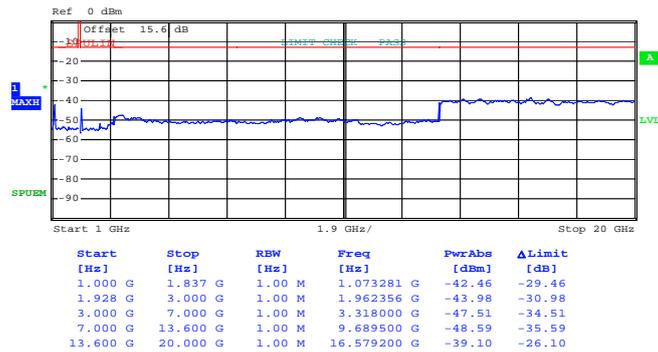
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
Frequency :	1882.5	Channel :	26365

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 2)



Date: 14.SEP.2013 17:16:40

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 2)

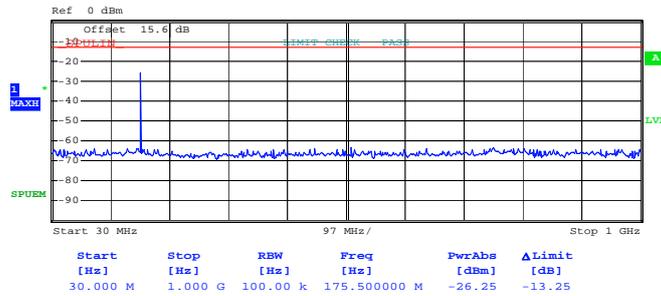


Date: 14.SEP.2013 17:17:25



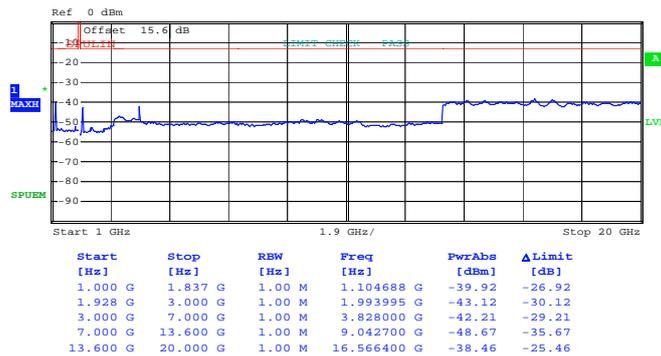
Band :	LTE Band 25	BW / Mod. :	1.4MHz / QPSK
Frequency :	1914.3	Channel :	26683

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



Date: 14.SEP.2013 17:16:13

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

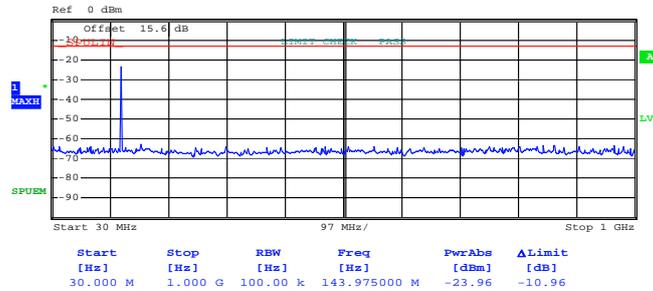


Date: 14.SEP.2013 17:15:09



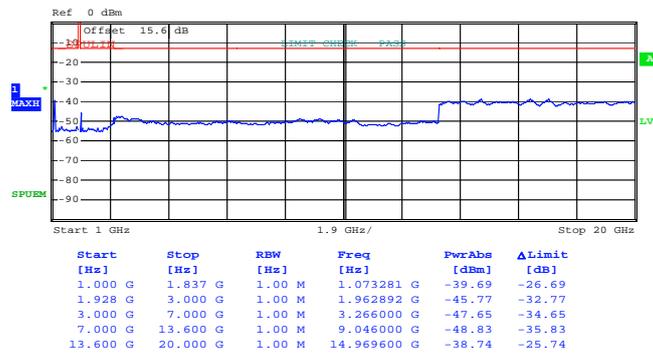
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1850.7	Channel :	26047

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



Date: 14.SEP.2013 17:13:53

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

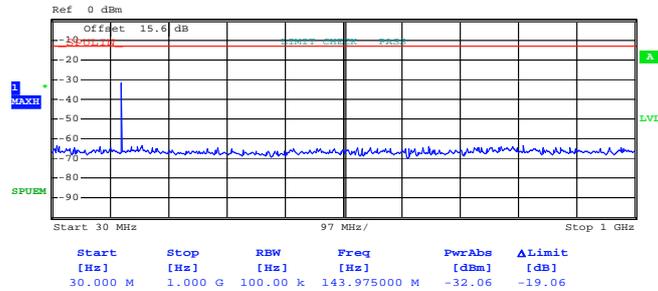


Date: 14.SEP.2013 17:14:17



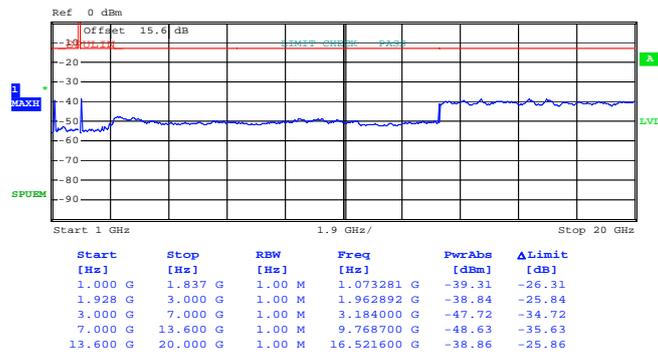
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 14.SEP.2013 17:16:53

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 5)

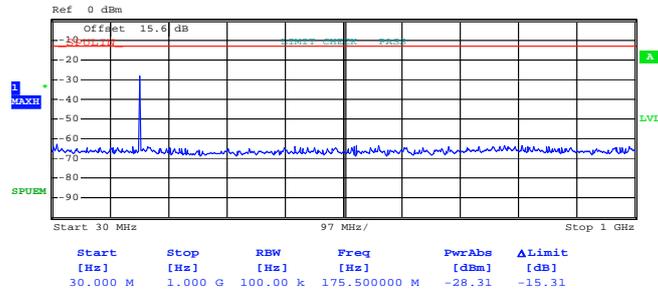


Date: 14.SEP.2013 17:17:12



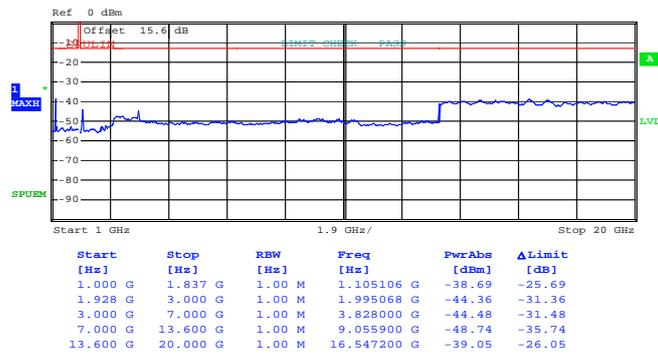
Band :	LTE Band 25	BW / Mod. :	1.4MHz / 16QAM
Frequency :	1914.3	Channel :	26683

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



Date: 14.SEP.2013 17:16:02

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 5)

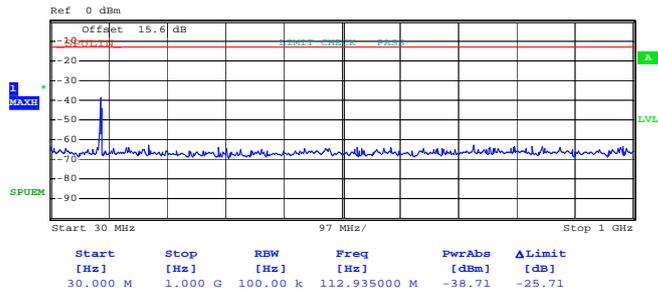


Date: 14.SEP.2013 17:15:25



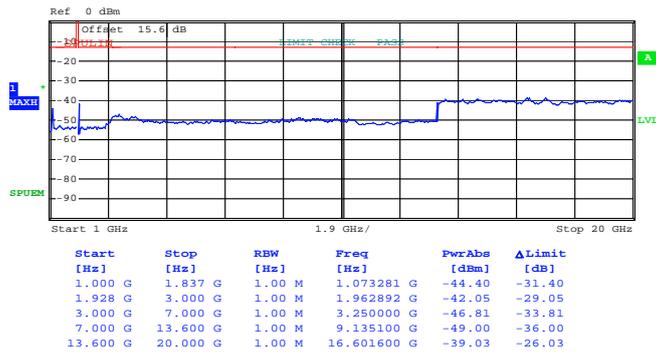
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
Frequency :	1851.5	Channel :	26055

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



Date: 14.SEP.2013 17:19:01

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

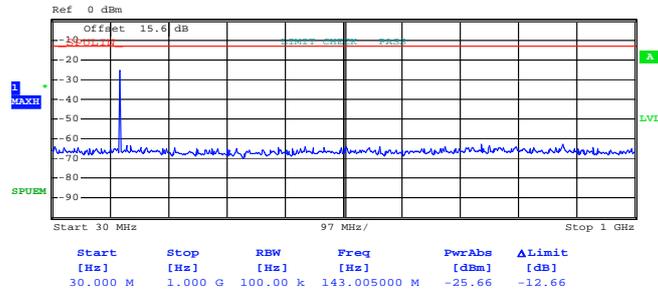


Date: 14.SEP.2013 17:18:16



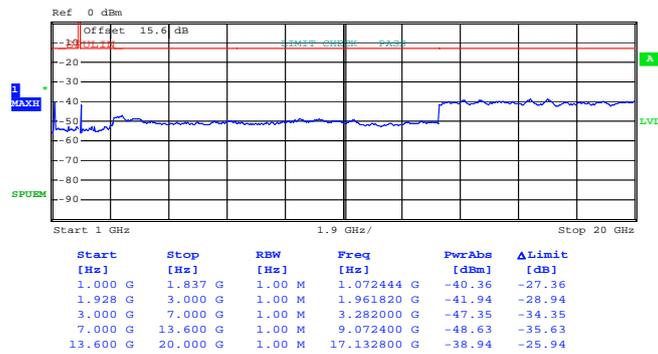
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
Frequency :	1882.5	Channel :	26365

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



Date: 14.SEP.2013 17:19:30

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

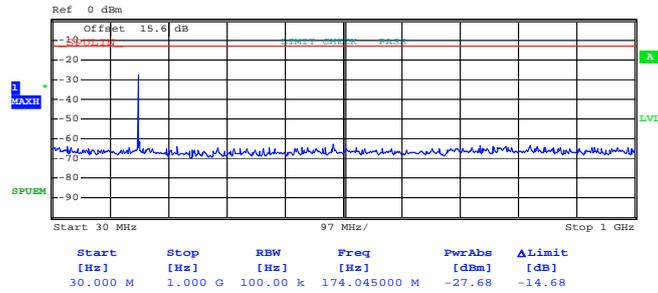


Date: 14.SEP.2013 17:20:22



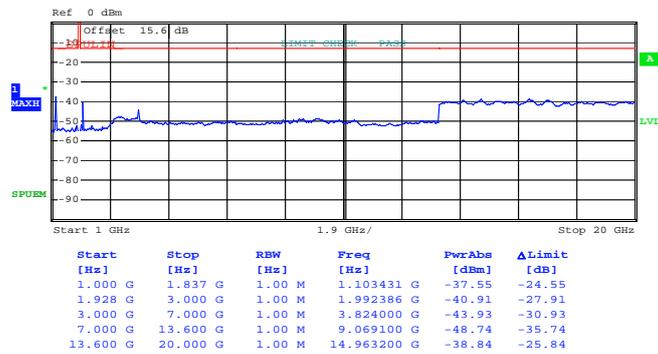
Band :	LTE Band 25	BW / Mod. :	3MHz / QPSK
Frequency :	1913.5	Channel :	26675

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



Date: 14.SEP.2013 17:22:01

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

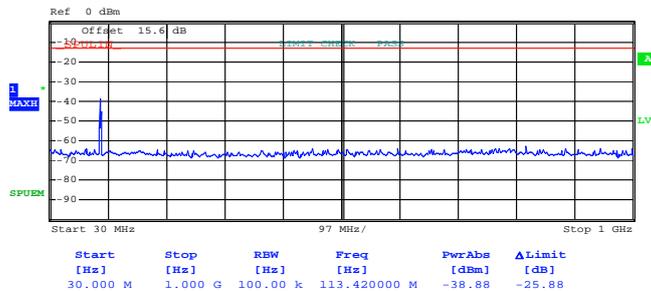


Date: 14.SEP.2013 17:21:13



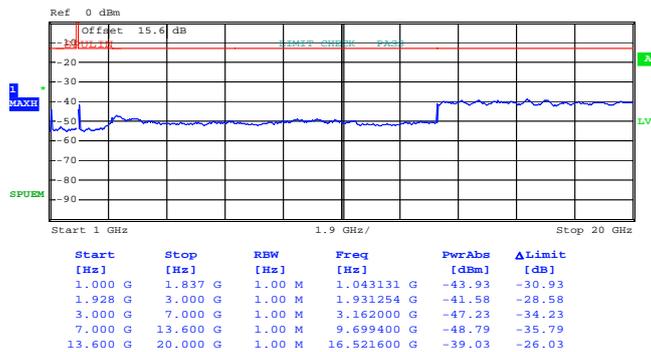
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
Frequency :	1851.5	Channel :	26055

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



Date: 14.SEP.2013 17:18:52

Conducted Emission Plot (1GHz ~ 20GHz) for
16-QAM (RB Size 1, RB Offset 14)

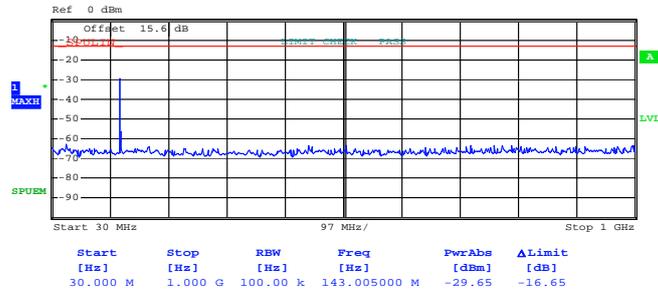


Date: 14.SEP.2013 17:18:35



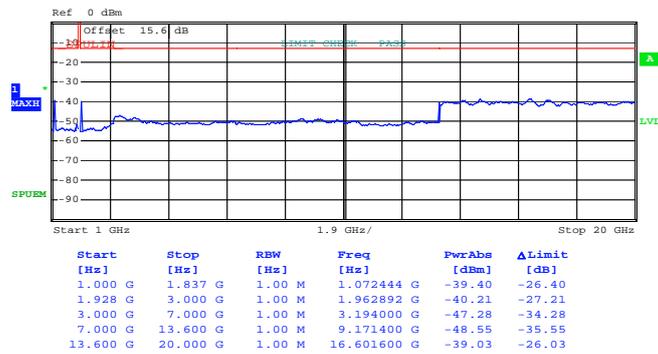
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 14.SEP.2013 17:19:43

Conducted Emission Plot (1GHz ~ 20GHz) for 16-QAM (RB Size 1, RB Offset 0)

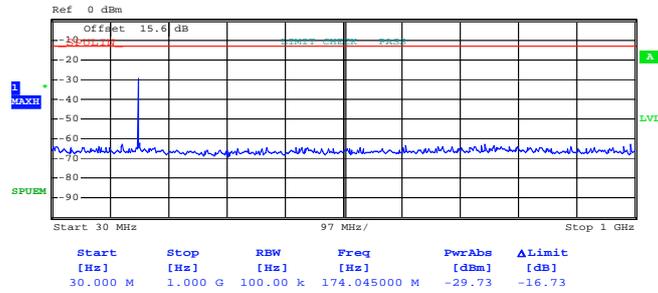


Date: 14.SEP.2013 17:20:10



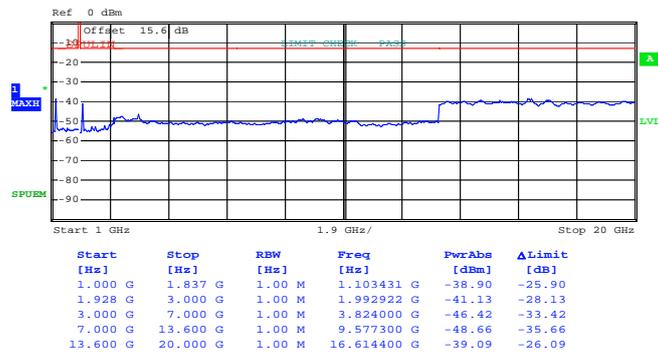
Band :	LTE Band 25	BW / Mod. :	3MHz / 16QAM
Frequency :	1913.5	Channel :	26675

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



Date: 14.SEP.2013 17:21:52

**Conducted Emission Plot (1GHz ~ 20GHz) for
16-QAM (RB Size 1, RB Offset 14)**

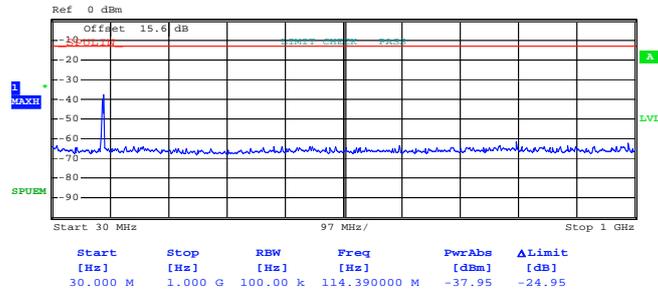


Date: 14.SEP.2013 17:21:29



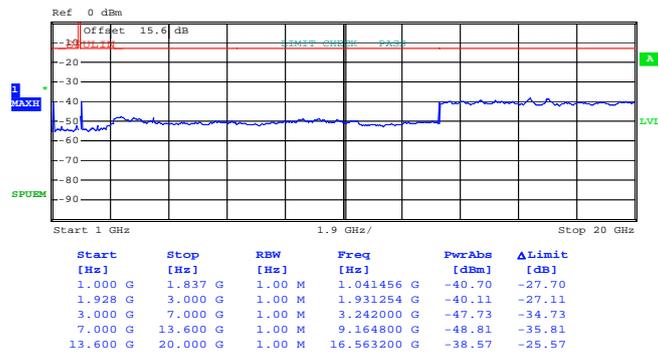
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
Frequency :	1852.5	Channel :	26065

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 24)



Date: 14.SEP.2013 17:23:32

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 24)

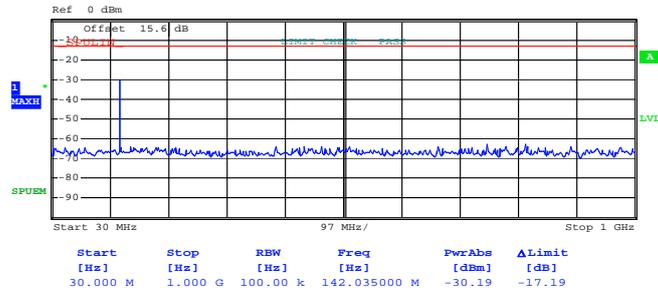


Date: 14.SEP.2013 17:24:36



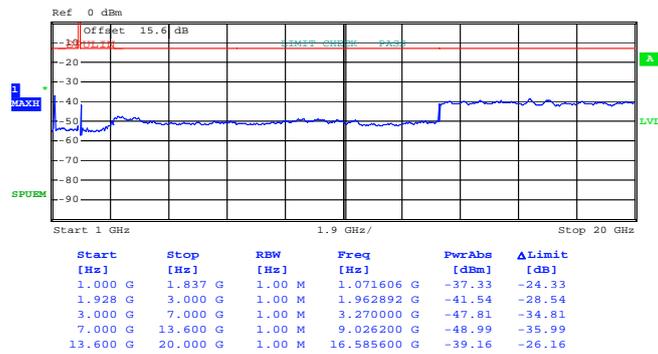
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
Frequency :	1882.5	Channel :	26365

Conducted Emission Plot (30MHz ~ 1GHz) for QPSK (RB Size 1, RB Offset 12)



Date: 14.SEP.2013 17:26:10

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 12)

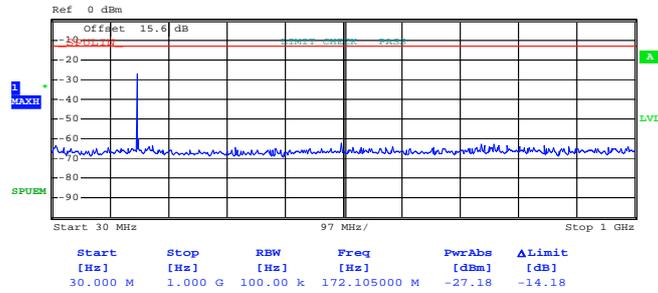


Date: 14.SEP.2013 17:25:27



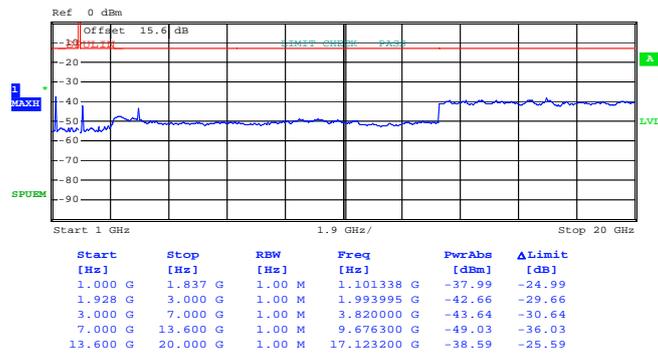
Band :	LTE Band 25	BW / Mod. :	5MHz / QPSK
Frequency :	1912.5	Channel :	26665

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



Date: 14.SEP.2013 17:28:00

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

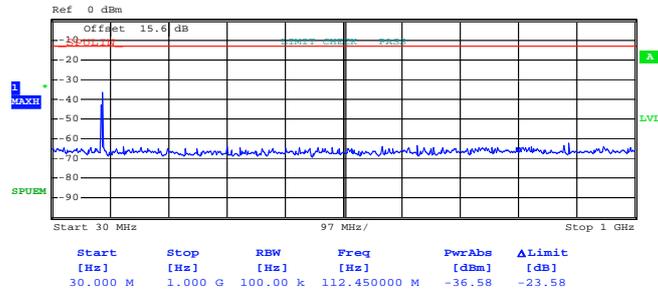


Date: 14.SEP.2013 17:27:13



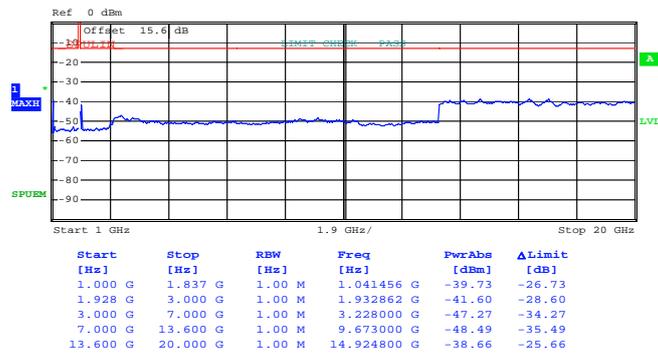
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
Frequency :	1852.5	Channel :	26065

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



Date: 14.SEP.2013 17:23:47

Conducted Emission Plot (1GHz ~ 20GHz) for 16-QAM (RB Size 1, RB Offset 0)

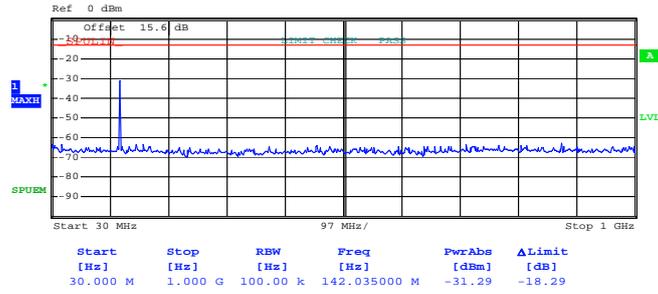


Date: 14.SEP.2013 17:24:23



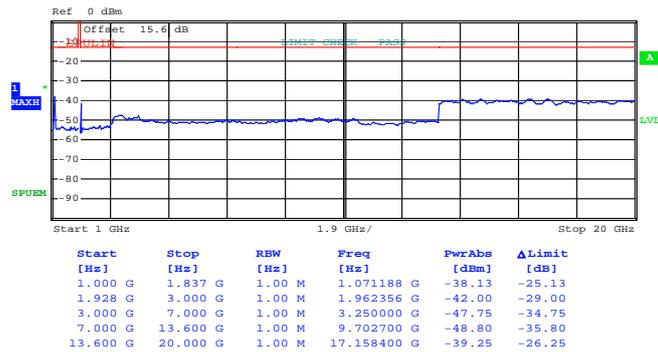
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 14.SEP.2013 17:26:00

Conducted Emission Plot (1GHz ~ 20GHz) for 16-QAM (RB Size 1, RB Offset 24)

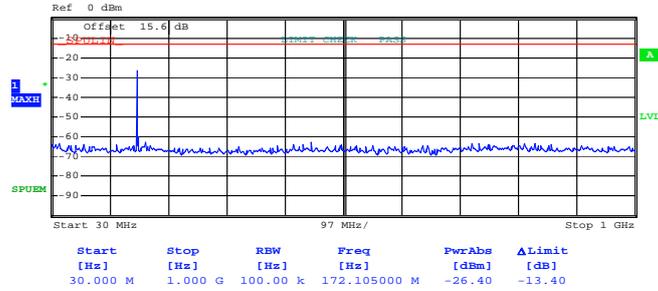


Date: 14.SEP.2013 17:25:40



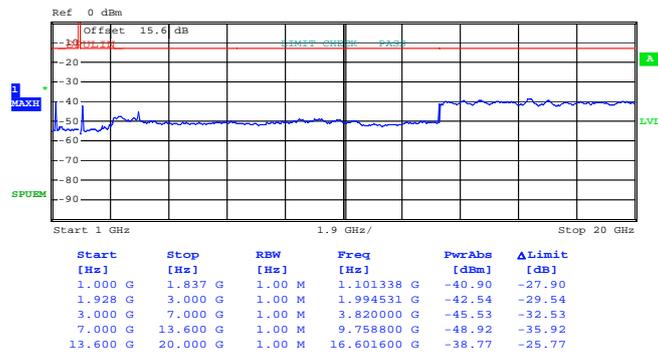
Band :	LTE Band 25	BW / Mod. :	5MHz / 16QAM
Frequency :	1912.5	Channel :	26665

Conducted Emission Plot (30MHz ~ 1GHz) for 16-QAM (RB Size 1, RB Offset 12)



Date: 14.SEP.2013 17:27:49

Conducted Emission Plot (1GHz ~ 20GHz) for 16-QAM (RB Size 1, RB Offset 12)

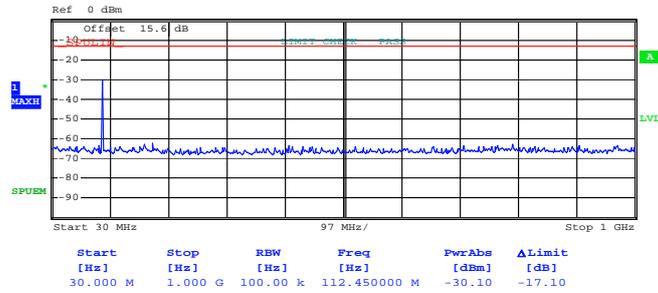


Date: 14.SEP.2013 17:27:30



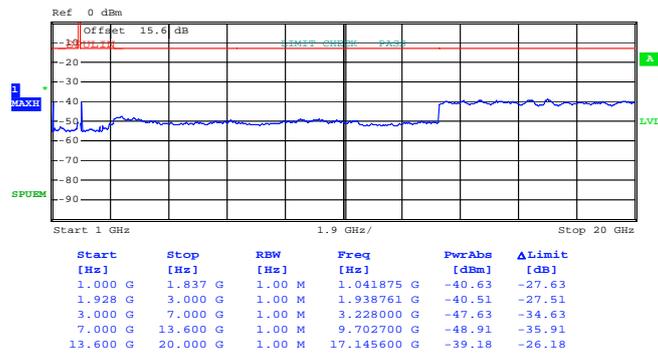
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
Frequency :	1855	Channel :	26090

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



Date: 14.SEP.2013 17:28:36

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

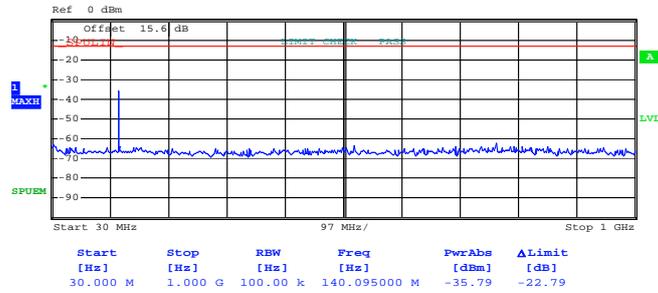


Date: 14.SEP.2013 17:29:32



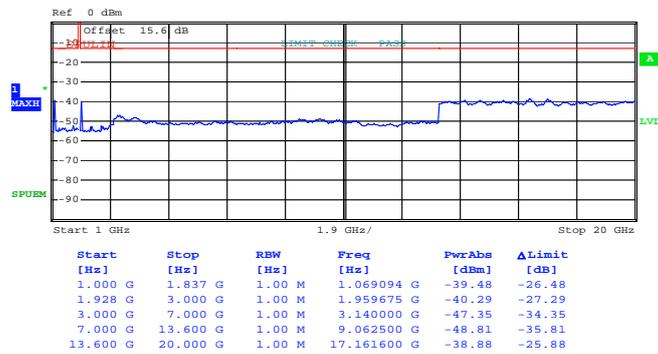
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
Frequency :	1882.5	Channel :	26365

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



Date: 14.SEP.2013 17:30:34

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

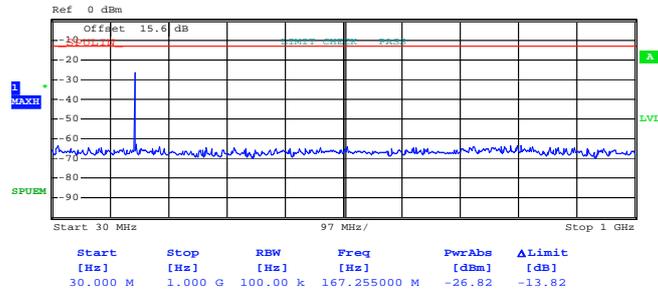


Date: 14.SEP.2013 17:29:54



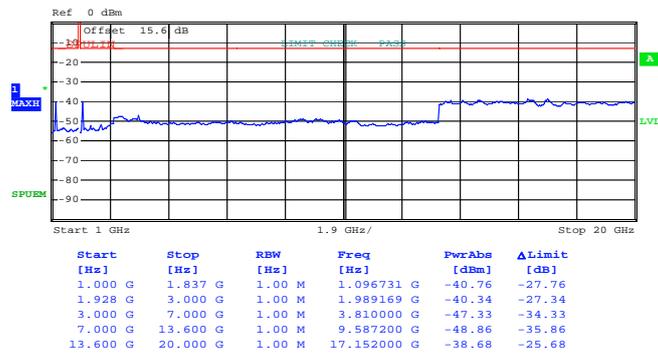
Band :	LTE Band 25	BW / Mod. :	10MHz / QPSK
Frequency :	1910	Channel :	26640

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



Date: 14.SEP.2013 17:31:14

Conducted Emission Plot (1GHz ~ 20GHz) for QPSK (RB Size 1, RB Offset 0)

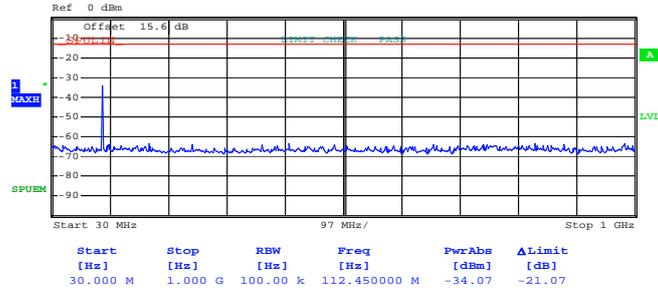


Date: 14.SEP.2013 17:32:01



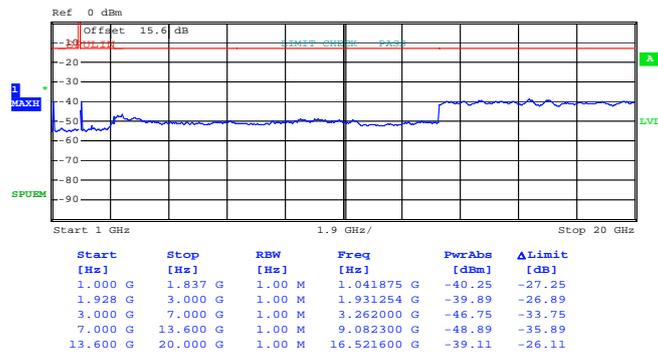
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
Frequency :	1855	Channel :	26090

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



Date: 14.SEP.2013 17:28:47

Conducted Emission Plot (1GHz ~ 20GHz) for 16-QAM (RB Size 1, RB Offset 0)

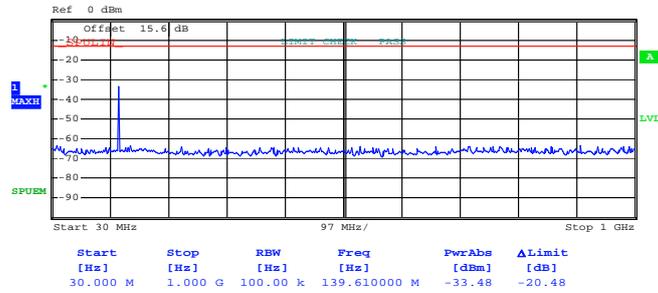


Date: 14.SEP.2013 17:29:19



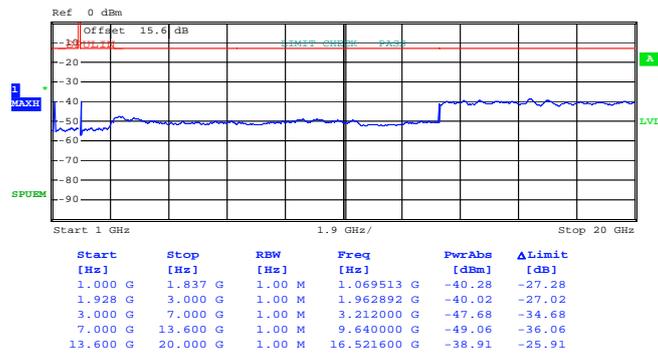
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
Frequency :	1882.5	Channel :	26365

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



Date: 14.SEP.2013 17:30:24

**Conducted Emission Plot (1GHz ~ 20GHz) for
16-QAM (RB Size 1, RB Offset 0)**

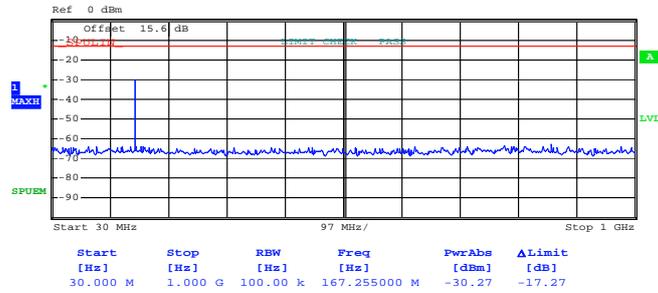


Date: 14.SEP.2013 17:30:06



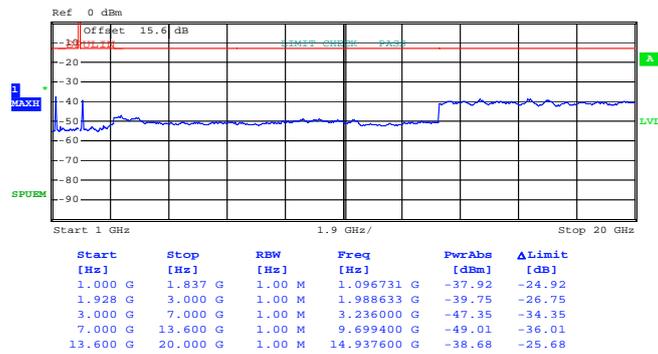
Band :	LTE Band 25	BW / Mod. :	10MHz / 16QAM
Frequency :	1910	Channel :	26640

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



Date: 14.SEP.2013 17:31:28

Conducted Emission Plot (1GHz ~ 20GHz) for 16-QAM (RB Size 1, RB Offset 0)



Date: 14.SEP.2013 17:31:49

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

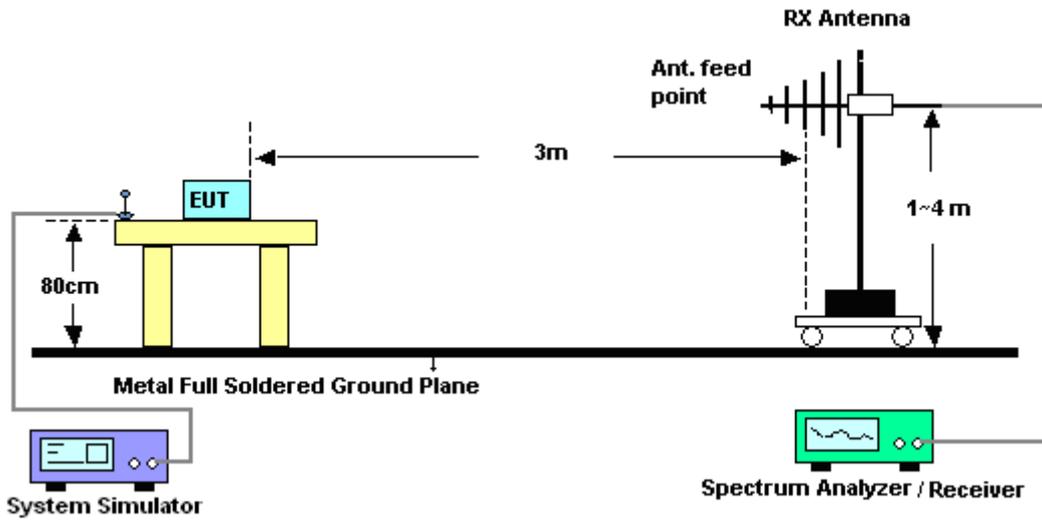
See list of measuring instruments of this test report.

3.7.3 Test Procedures

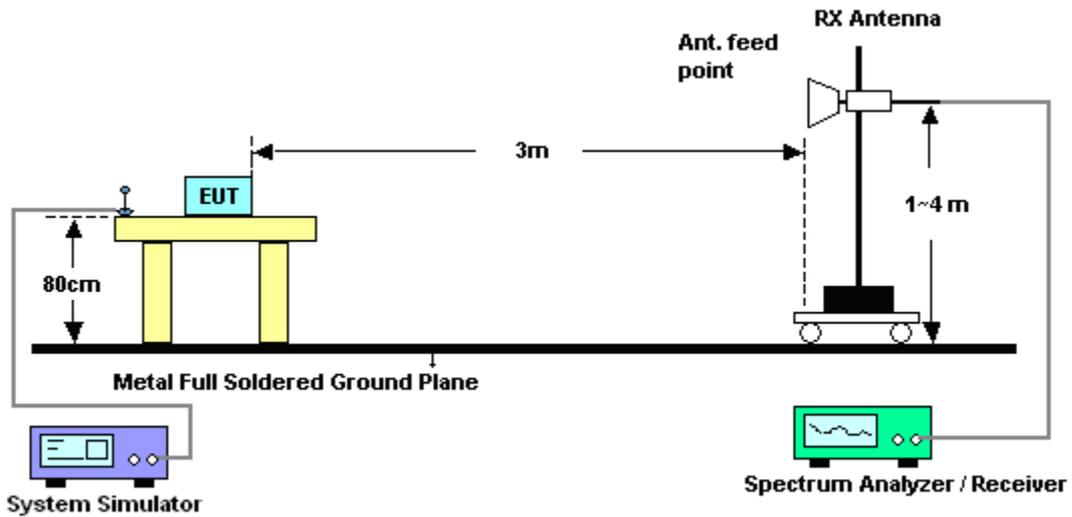
1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving 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



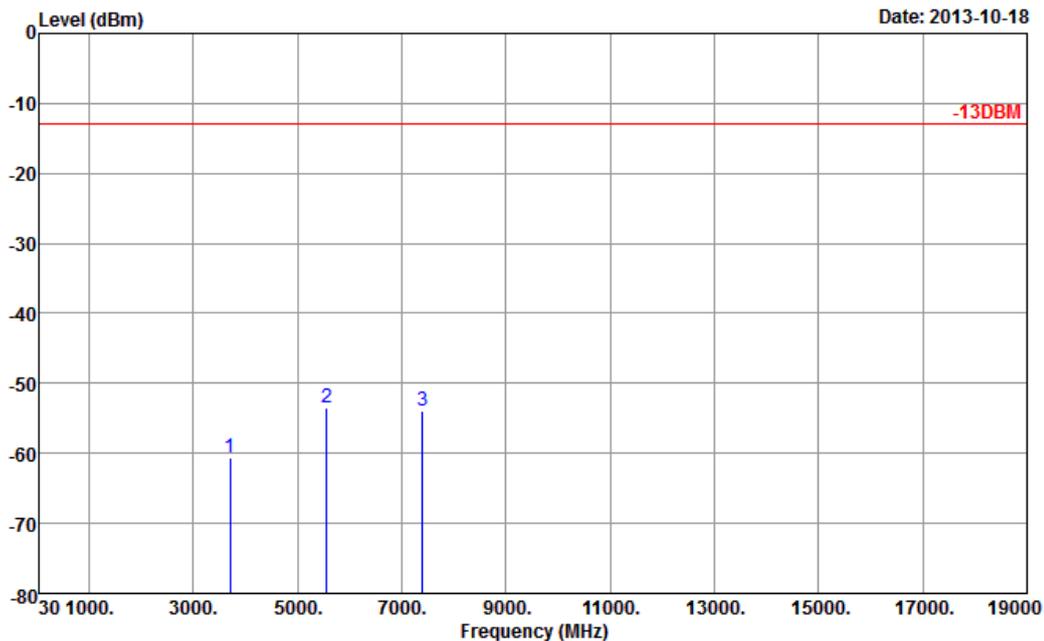
For radiated emissions above 1GHz





3.7.5 Test Result of Radiated Emissions

Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 2	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



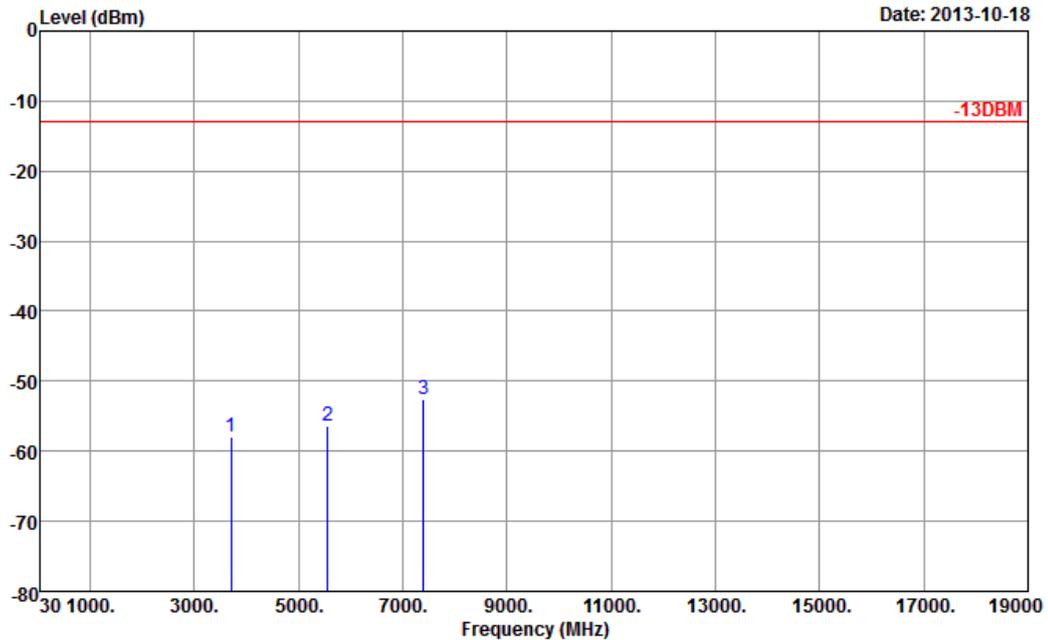
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_H_130101 HORIZONTAL

Plane : Z

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
3701	-60.63	-13	-47.63	-72.78	-67.37	1.28	8.02	H	Pass
5552	-53.45	-13	-40.45	-71.44	-61.87	1.58	10.00	H	Pass
7403	-53.89	-13	-40.89	-75.83	-64.21	1.78	12.10	H	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	1.4MHz, QPSK, RB Size 1, RB Offset 2	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



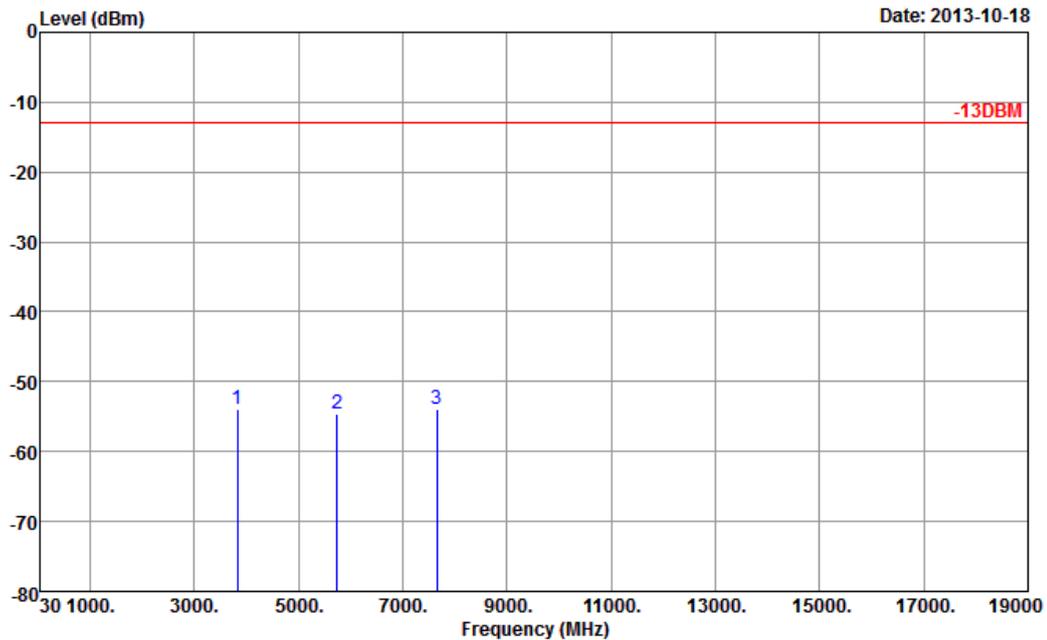
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_V_130101 VERTICAL

Plane : Z

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
3701	-57.96	-13	-44.96	-72.99	-64.70	1.28	8.02	V	Pass
5552	-56.33	-13	-43.33	-73.41	-64.75	1.58	10	V	Pass
7403	-52.64	-13	-39.64	-74.89	-62.96	1.78	12.1	V	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



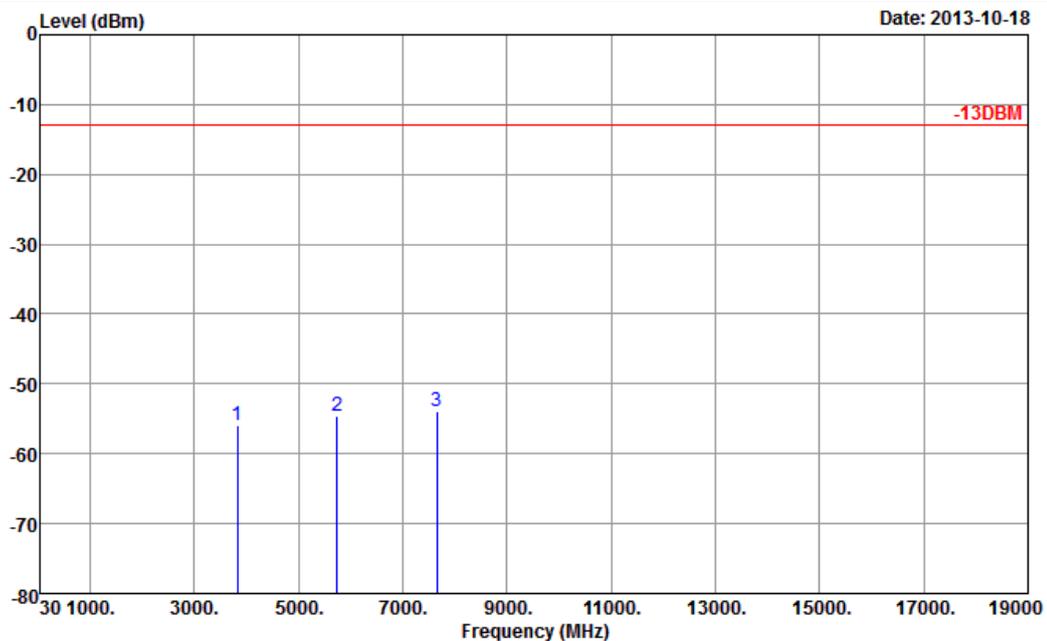
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_H_130101 HORIZONTAL

Plane : Z

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
3827	-53.90	-13	-40.90	-66.05	-60.64	1.28	8.02	H	Pass
5741	-54.55	-13	-41.55	-72.54	-62.97	1.58	10.00	H	Pass
7654	-53.94	-13	-40.94	-75.88	-64.26	1.78	12.10	H	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	3MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



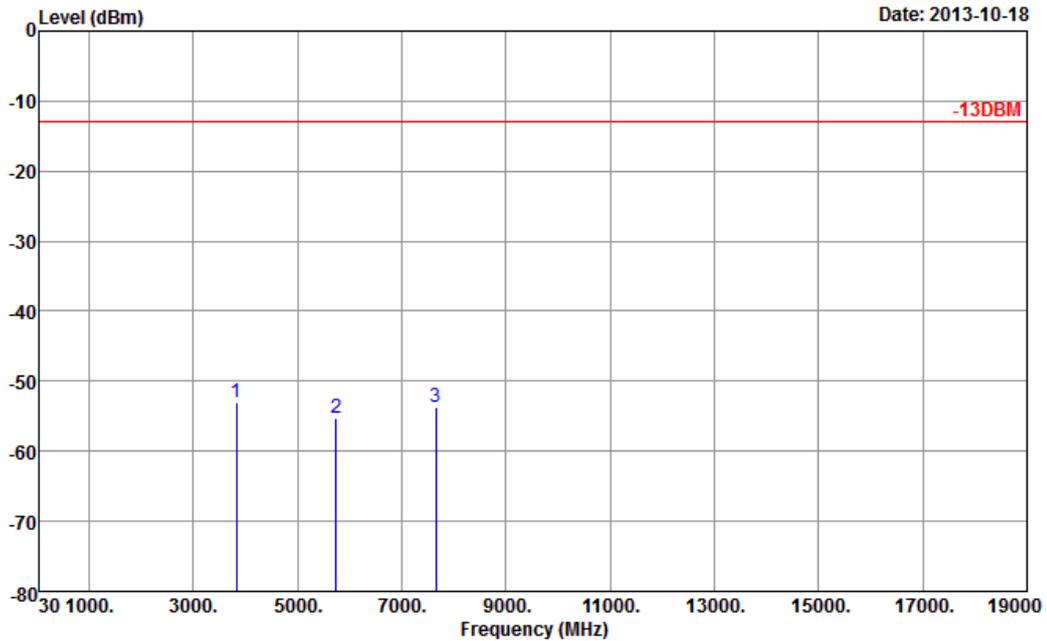
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_V_130101 VERTICAL

Plane : Z

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
3827	-55.94	-13	-42.94	-70.97	-62.68	1.28	8.02	V	Pass
5741	-54.65	-13	-41.65	-71.73	-63.07	1.58	10	V	Pass
7654	-53.94	-13	-40.94	-76.19	-64.26	1.78	12.1	V	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



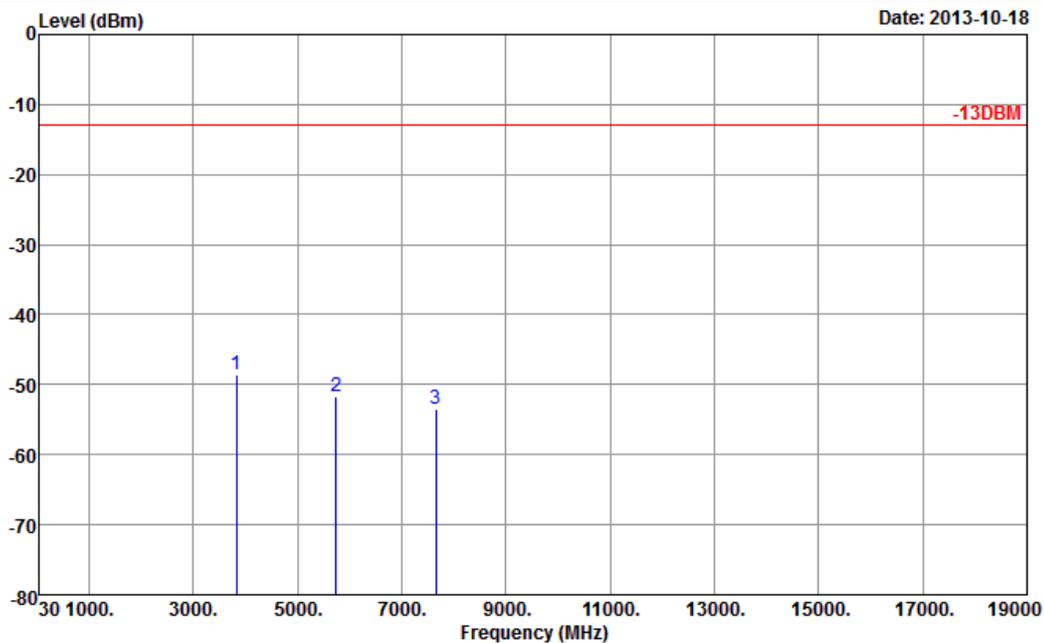
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_H_130101 HORIZONTAL

Plane : Z

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
3825	-53.13	-13	-40.13	-65.28	-59.87	1.28	8.02	H	Pass
5738	-55.16	-13	-42.16	-73.15	-63.58	1.58	10.00	H	Pass
7650	-53.68	-13	-40.68	-75.62	-64.00	1.78	12.10	H	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	5MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



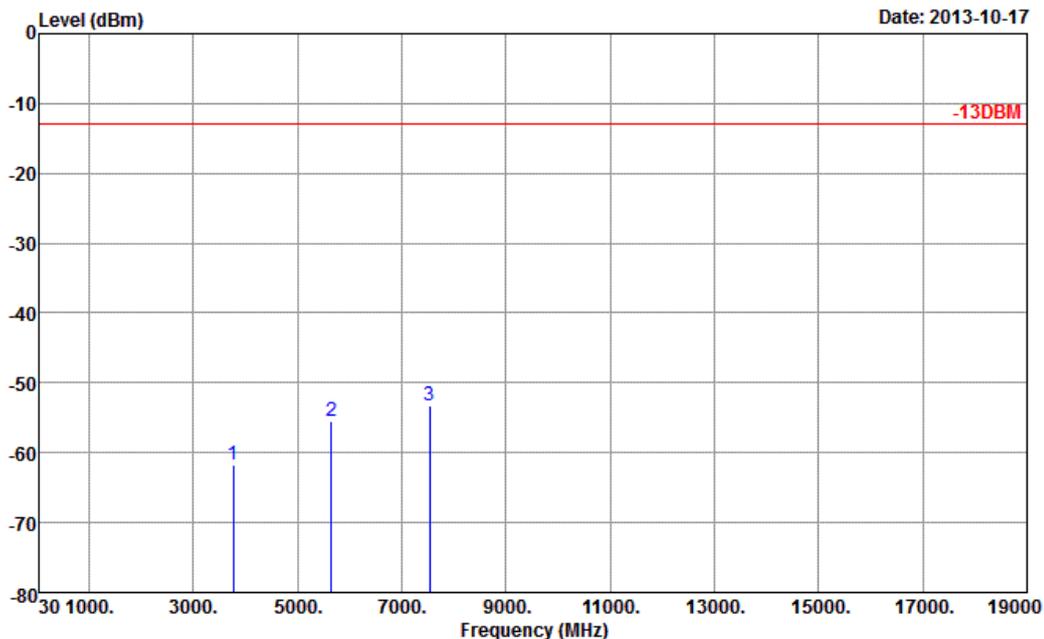
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_V_130101 VERTICAL

Plane : Z

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
3825	-48.52	-13	-35.52	-63.55	-55.26	1.28	8.02	V	Pass
5738	-51.74	-13	-38.74	-68.82	-60.16	1.58	10	V	Pass
7650	-53.44	-13	-40.44	-75.69	-63.76	1.78	12.1	V	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



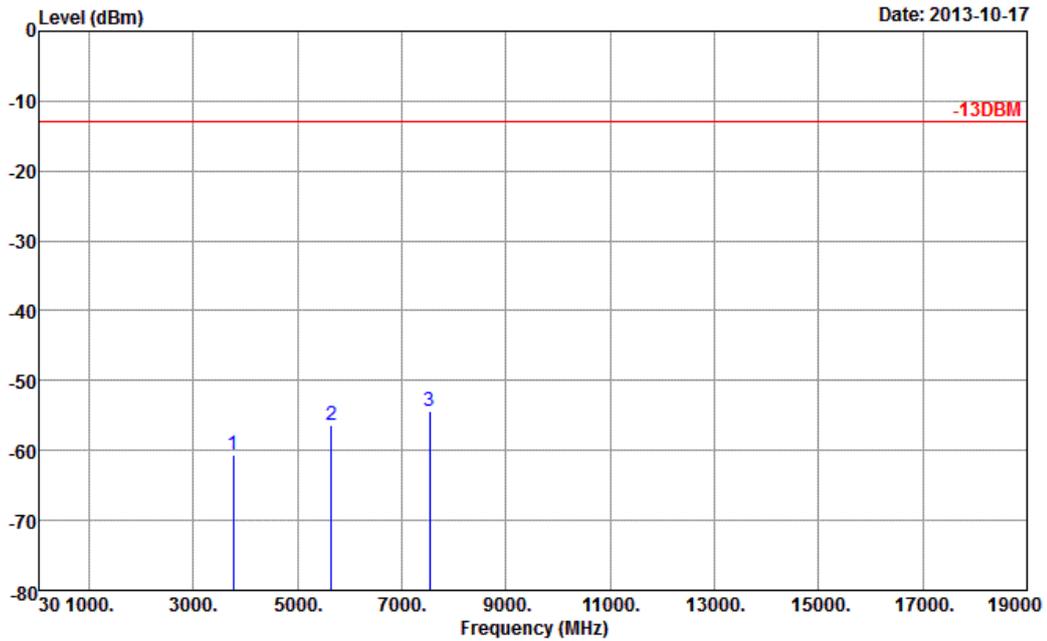
Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_H_130101 HORIZONTAL

Plane : Z

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
3756	-61.62	-13	-48.62	-73.77	-68.36	1.28	8.02	H	Pass
5634	-55.51	-13	-42.51	-73.50	-63.93	1.58	10.00	H	Pass
7512	-53.25	-13	-40.25	-75.19	-63.57	1.78	12.10	H	Pass



Band :	LTE Band 25	Temperature :	24~26°C
Test Mode :	10MHz, QPSK, RB Size 1, RB Offset 0	Relative Humidity :	49~52%
Test Engineer :	Robin Luo	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-SZ
 Condition : -13DBM HF_EIRP_V_130101 VERTICAL

Plane : Z

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
3756	-60.51	-13	-47.51	-75.54	-67.25	1.28	8.02	V	Pass
5634	-56.45	-13	-43.45	-73.53	-64.87	1.58	10	V	Pass
7512	-54.46	-13	-41.46	-76.71	-64.78	1.78	12.1	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.

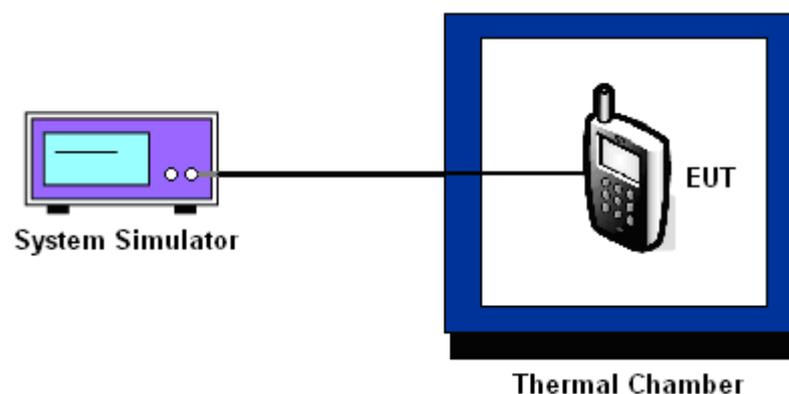
3.8.3 Test Procedures for Temperature Variation

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 25	Limit (ppm) :	2.5
Mode :	QPSK		

Temperature (°C)	1.4MHz		3MHz		5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)							
-30	-2.3	-0.001	-4.0	-0.002	8.0	+0.004	6.0	+0.003	PASS
-20	3.6	+0.002	-5.5	-0.003	6.5	+0.003	4.3	+0.002	
-10	4.1	+0.002	-6.8	-0.004	-6.8	-0.004	2.6	+0.001	
0	4.9	+0.003	3.5	+0.002	4.9	+0.003	6.7	+0.004	
10	8.0	+0.004	10.0	+0.005	-0.1	+0.000	-8.6	-0.005	
20	11.0	+0.006	9.0	+0.005	2.2	+0.001	8.0	+0.004	
30	-8.0	-0.004	3.5	+0.002	-2.8	-0.001	5.0	+0.003	
40	4.1	+0.002	6.0	+0.003	-3.6	-0.002	6.2	+0.003	
50	6.0	+0.003	6.9	+0.004	-9.0	-0.005	7.7	+0.004	

Band :	LTE Band 25	Limit (ppm) :	2.5
Mode :	16QAM		

Temperature (°C)	1.4MHz		3MHz		5MHz		10MHz		Result
	Freq. Dev. (Hz)	Deviation (ppm)							
-30	-4.0	-0.002	2.2	+0.001	-9.2	-0.005	-4.0	-0.002	PASS
-20	-5.5	-0.003	-2.8	-0.001	6.7	+0.004	10.0	+0.005	
-10	-6.8	-0.004	4.1	+0.002	2.2	+0.001	9.0	+0.005	
0	-2.8	-0.001	-7.0	-0.004	-2.8	-0.001	-10.0	-0.005	
10	11.2	+0.006	10.0	+0.005	11.9	+0.006	8.0	+0.004	
20	3.5	+0.002	4.1	+0.002	-6.8	-0.004	-8.0	-0.004	
30	4.0	+0.002	4.7	+0.002	-2.8	-0.001	-7.2	-0.004	
40	3.5	+0.002	6.0	+0.003	-3.0	-0.002	-7.0	-0.004	
50	-5.5	-0.003	-7.0	-0.004	11.2	+0.006	-9.0	-0.005	



3.8.7 Test Result of Voltage Variation

Band	Mode	Band Width	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 25	QPSK	1.4MHz	3.8	5.1	+0.003	2.5	PASS
			BEP	2.9	+0.002		
			4.35	2.2	+0.001		
		3MHz	3.8	7.2	+0.004		
			BEP	-9.1	-0.005		
			4.35	-9.2	-0.005		
		5MHz	3.8	6.0	+0.003		
			BEP	-7.0	-0.004		
			4.35	6.9	+0.004		
		10MHz	3.8	5.6	+0.003		
			BEP	-9.2	-0.005		
			4.35	6.0	+0.003		
	16QAM	1.4MHz	3.8	6.9	+0.004		
			BEP	1.9	+0.001		
			4.35	2.2	+0.001		
		3MHz	3.8	-8.6	-0.005		
			BEP	-9.5	-0.005		
			4.35	-6.8	-0.004		
		5MHz	3.8	-6.3	-0.003		
			BEP	11.2	+0.006		
			4.35	6.0	+0.003		
		10MHz	3.8	-7.0	-0.004		
			BEP	5.1	+0.003		
			4.35	7.9	+0.004		

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	FSV30	100845	9kHz~30GHz	Nov. 06, 2012	Sep.14, 2013~ Oct. 05, 2013	Nov. 05, 2013	Conducted (TH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 29, 2012	Sep.14, 2013~ Oct. 05, 2013	Dec. 28, 2013	Conducted (TH01-KS)
Power Meter	Agilent	E4418B	MY45107368	N/A	Aug. 21, 2013	Sep.14, 2013~ Oct. 05, 2013	Aug. 20, 2014	Conducted (TH01-KS)
Power Sensor	Agilent	N9304A H18	MY41498364	1nW~100mW (-60~+20dBm)	Aug. 21, 2013	Sep.14, 2013~ Oct. 05, 2013	Aug. 20, 2014	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 29, 2012	Sep.14, 2013~ Oct. 05, 2013	Dec. 28, 2013	Conducted (TH01-KS)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	Apr. 04, 2013	Oct. 17, 2013~ Oct. 18, 2013	Apr. 03, 2014	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 11, 2013	Oct. 17, 2013~ Oct. 18, 2013	Oct. 10, 2014	Radiation (03CH01-SZ)
Bilog Antenna	SCHAFFNER	CBL6112B	2614	30MHz~2GHz	Nov. 03, 2012	Oct. 17, 2013~ Oct. 18, 2013	Nov. 02, 2013	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3GHz Gain 30dB	Mar. 28, 2013	Oct. 17, 2013~ Oct. 18, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	Mar. 28, 2013	Oct. 17, 2013~ Oct. 18, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
SHF-EHF-Horn	Schwarzbeck	BBHA9170	BBHA9170249	14GHz~40GHz	Nov. 23, 2012	Oct. 17, 2013~ Oct. 18, 2013	Nov. 22, 2013	Radiation (03CH01-SZ)
Turn Table	EM Electronic	EM 1000	N/A	0 ~ 360 degree	N/A	Oct. 17, 2013~ Oct. 18, 2013	N/A	Radiation (03CH01-SZ)
Antenna Mast	EM Electronic	EM 1000	N/A	1 m ~ 4 m	N/A	Oct. 17, 2013~ Oct. 18, 2013	N/A	Radiation (03CH01-SZ)



Base Station	Agilent	E5515C	MY52102706	Full Band	Jun. 20, 2013	Oct. 11, 2013	Jun. 19, 2014	EIRP (OTA01-KS)
Spectrum Analyzer	R&S	FSP 7	100819	9kHz~7GHz	May 23, 2013	Oct. 11, 2013	May 22, 2014	EIRP (OTA01-KS)
Switch Control Manframe	Agilent	3499A	MY42005452	N/A	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Dual 1-to-6(4) MW MUX	Agilent	N2276A	MY42000841	N/A	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002573	N/A	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002586	N/A	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Diagonal Dual Polarized Horn	ETS-Lindgren	3164-04	00066993	700MHz~6GHz	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Multi-Devices Controller	ETS-Lindgren	2090-OPT1	00066604	N/A	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Conical Log Spiral (Small)	ETS-Lindgren	3102	00066951	1~10GHz	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Turn Table	ETS-Lindgren	2088	N/A	Resolution : 0.1degree	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Limiting Amplifier	ETS-lindgren	109643	920326	10M~2.5GHz	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
EMQuest	ETS-Lindgren	EMQ-100	1125	N/A	N/A	Oct. 11, 2013	N/A	EIRP (OTA01-KS)
Medium Duty Holder	ETS-Lindgren	2015	N/A	N/A	N/A	Oct. 11, 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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