FCC RF Test Report

APPLICANT	**:**	**Sony Mobile Communications AB**
EQUIPMENT	**:**	**Smart phone**
BRAND NAME	**:**	**SONY**
TYPE NAME	**:**	**PM-0770-BV**
FCC ID	**:**	**PY7PM-0770**
STANDARD	**:**	**47 CFR Part 2, 22(H), 27**
CLASSIFICATION	**:**	**PCS Licensed Transmitter Held to Ear (PCE)**

The product was received on Apr. 02, 2014 and testing was completed on Apr. 25, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 and the testing has shown the tested sample to be in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG440264B	Rev. 01	Initial issue of report	Jun. 09, 2014
FG440264B	Rev. 02	Revise the typo in section 1.6	Jun. 24, 2014

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	Reporting Only	PASS	-
3.2	§27.50(d)(5)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§22.913(a)(2)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7)	EIRP < 2Watt		
3.4	§2.1049 §22.917(b) §27.53(l)(6)	Occupied Bandwidth	Reporting Only	PASS	-
3.5	§2.1051 §22.917(a) §27.53(l)(4)	Conducted Band Edge Measurement	< 43+10log10(P[Watt])	PASS	-
3.6	§2.1051 §22.917(a)	Conducted Spurious Emission (Band 5)	< $43+10\log_{10}$(P[Watts])	PASS	-
	§2.1051 §27.53(l)(4)	Conducted Spurious Emission (Band 7)	< 55+10log10(P[Watts])	PASS	-
3.7	§2.1053 §22.917(a)	Radiated Spurious Emission (Band 5)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 4.39 dB at 7680.000 MHz
	§2.1053 §27.53(l)(4)	Radiated Spurious Emission (Band 7)	< $55+10\log_{10}$(P[Watts])		
3.8	§2.1055 §22.355 §27.54	Frequency Stability Temperature & Voltage	< 2.5 ppm	PASS	-

1 General Description

1.1 Applicant

Sony Mobile Communications AB
Nya Vattentornet, 22188 Lund, Sweden

1.2 Manufacturer

Compal Communications, INC.
No. 385, Yangguang Street, Neihu, Taipei 11491, Taiwan

1.3 Product Feature of Equipment Under Test

The Equipment Under Test (hereafter called: EUT) is Smart phone supporting, GSM / WCDMA / LTE, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n, Bluetooth with FM Receiver, ANT+, NFC and GPS features, and below is details of information.

Product Feature	
Equipment	Smart phone
Brand Name	SONY
Type Name	PM-0770-BV
FCC ID	PY7PM-0770
GSM Operating Band(s)	GSM 850/900/1800/1900MHz
GPRS / EGPRS Multi Slot Class	GPRS Class 33 , EGPRS Class 33
WCDMA Operating Band(s)	FDD Band I / V / VIII
WCDMA Rel. Version	Rel. 8
LTE Operating Band(s)	FDD Band I / III / V / VII / VIII / XX
LTE Rel. Version	Rel. 10
Wi-Fi Specification	802.11b/g/n (HT20),802.11a/n (HT20/HT40)
Bluetooth Version	v3.0 + EDR / v4.0-LE
NFC Specification	ISO14443A / ISO14443B / Felica
ANT+	ANT+
Power Supply	Battery / AC Adapter / Car Charger

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 subjective to this standard

Product Specification subjective to this standard	
Tx Frequency	LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz
Rx Frequency	LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz
Bandwidth	LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	**<LTE Band 5>** 1.4MHz: 23.48 dBm / 0.2228 W 3MHz: 23.56 dBm / 0.2270 W 5MHz: 23.64 dBm / 0.2312 W 10MHz: 23.82 dBm / 0.2410 W **<LTE Band 7>** 5MHz: 22.47 dBm / 0.1766 W 10MHz: 22.47 dBm / 0.1766 W 15MHz: 22.43 dBm / 0.1750 W 20MHz: 22.48 dBm / 0.1770 W
Antenna Type	PIFA with parasitic strip Antenna
Type of Modulation	QPSK / 16QAM
H/W	A
S/W	18.3.C.0.10
EUT Stage	Production Unit

EUT Information List				
IMEI	HW Version	SW Version	S/N	Performed Test Item
IMEI : 004402452467404	A	18.3.C.0.10	ZH8002JA1J	RF conducted measurement
IMEI : 004402452467032			ZH8002J8RX	Radiated Spurious Emission, ERP/EIRP test

Accessory List	
AC Adapter	Model No. : EP800
	Type No. : CAA-0002016-US B
	SN : 3113W24100909
Battery	Model No. : LIS1551ERPC
	Type No. : F-4993-128-0
Earphone	Model No. : MH410c
	Type No. : AG-1100
	SN : 12481A1600364E0
USB Cable	Model No. : AHAB EC450
	Part No. : AI-0700
	SN : 132512D44063718A

Note:

1. Above EUT list and accessory list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report.
3. For other wireless features of this EUT, test report will be issued separately.

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP/EIRP
Part 22	LTE Band 5	QPSK	1.4 MHz	1M10G7D	-	0.0809 W
Part 22	LTE Band 5	16QAM	1.4 MHz	1M10D7W	-	0.0607 W
Part 22	LTE Band 5	QPSK	3 MHz	2M72G7D	-	0.0820 W
Part 22	LTE Band 5	16QAM	3 MHz	2M72D7W	-	0.0608 W
Part 22	LTE Band 5	QPSK	5 MHz	4M49G7D	-	0.0828 W
Part 22	LTE Band 5	16QAM	5 MHz	4M49D7W	-	0.0640 W
Part 22	LTE Band 5	QPSK	10 MHz	9M10G7D	0.0062 ppm	0.0794 W
Part 22	LTE Band 5	16QAM	10 MHz	9M08D7W	-	0.0618 W
Part 27	LTE Band 7	QPSK	5MHz	4M52G7D	-	0.2582 W
Part 27	LTE Band 7	16QAM	5MHz	4M51D7W	-	0.1919 W
Part 27	LTE Band 7	QPSK	10MHz	9M10G7D	0.0021 ppm	0.2360 W
Part 27	LTE Band 7	16QAM	10MHz	9M04D7W	-	0.1941 W
Part 27	LTE Band 7	QPSK	15MHz	13M5G7D	-	0.2382 W
Part 27	LTE Band 7	16QAM	15MHz	13M5D7W	-	0.2228 W
Part 27	LTE Band 7	QPSK	20MHz	18M5G7D	-	0.2344 W
Part 27	LTE Band 7	16QAM	20MHz	18M5D7W	-	0.2018 W

1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH02-HY	03CH07-HY

1.8 Applicable Standards

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

- 47 CFR Part 2, 22(H), 27
- 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.

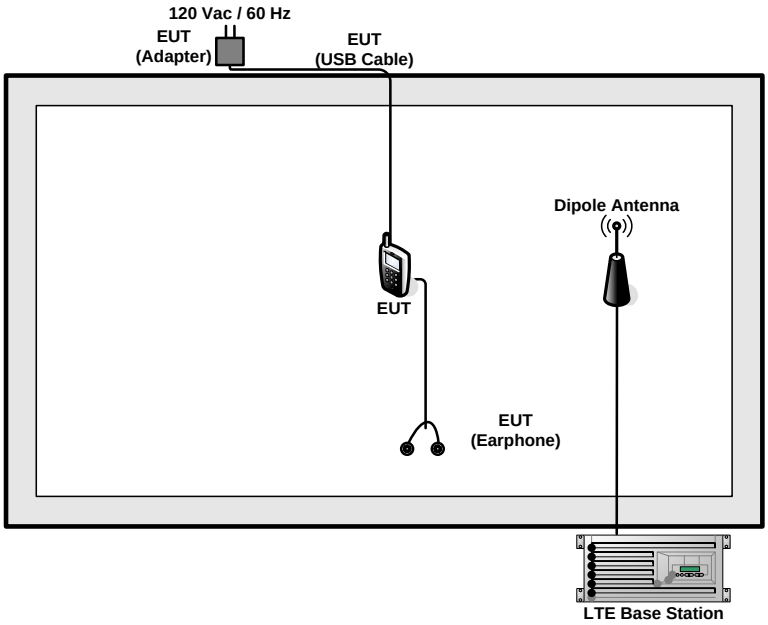
2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r01 with maximum output power.

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	5				v	-	-		v	v		v	v	v	v
	7	-	-				v		v	v		v	v	v	v
26dB and 99% Bandwidth	5	v	v	v	v	-	-	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	5	v	v	v	v	-	-	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
Frequency Stability	5				v	-	-	v				v		v	
	7	-	-		v			v				v		v	
E.R.P./ E.I.R.P.	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	5	v	v	v	v	-	-	v		v			v	v	v
	7	-	-	v	v	v	v	v		v			v	v	v
Note	1. The mark "v " means that this configuration is chosen for testing. 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

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

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor 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 attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example:

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

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

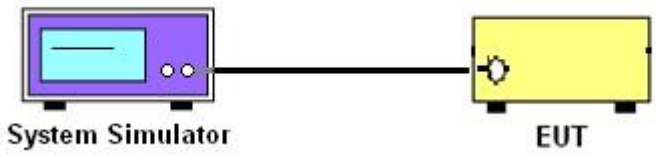
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

<LTE Band 5 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.82	23.77	23.72
10	QPSK	1	24	23.80	23.74	23.61
10	QPSK	1	49	23.78	23.71	23.57
10	QPSK	25	0	22.87	22.73	22.78
10	QPSK	25	12	22.84	22.72	22.75
10	QPSK	25	24	22.82	22.67	22.73
10	QPSK	50	0	22.80	22.64	22.72
10	16QAM	1	0	22.88	22.75	22.78
10	16QAM	1	24	22.73	22.68	22.64
10	16QAM	1	49	22.69	22.67	22.63
10	16QAM	25	0	21.83	21.77	21.77
10	16QAM	25	12	21.80	21.79	21.76
10	16QAM	25	24	21.74	21.74	21.72
10	16QAM	50	0	21.72	21.72	21.70
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.64	23.63	23.61
5	QPSK	1	12	23.63	23.58	23.61
5	QPSK	1	24	23.59	23.55	23.60
5	QPSK	12	0	22.65	22.68	22.67
5	QPSK	12	6	22.57	22.65	22.65
5	QPSK	12	11	22.53	22.62	22.61
5	QPSK	25	0	22.50	22.60	22.57
5	16QAM	1	0	22.69	22.60	22.60
5	16QAM	1	12	22.67	22.59	22.57
5	16QAM	1	24	22.65	22.55	22.54
5	16QAM	12	0	21.64	21.65	21.67
5	16QAM	12	6	21.63	21.59	21.67
5	16QAM	12	11	21.56	21.55	21.66
5	16QAM	25	0	21.55	21.53	21.64

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	23.55	23.54	**23.56**
3	QPSK	1	7	23.53	23.52	23.50
3	QPSK	1	14	23.49	23.50	23.49
3	QPSK	8	0	22.57	22.54	22.55
3	QPSK	8	4	22.56	22.52	22.53
3	QPSK	8	7	22.51	22.50	22.52
3	QPSK	15	0	22.44	22.47	22.49
3	16QAM	1	0	22.53	22.55	**22.57**
3	16QAM	1	7	22.47	22.55	22.52
3	16QAM	1	14	22.43	22.53	22.50
3	16QAM	8	0	21.55	21.59	21.55
3	16QAM	8	4	21.46	21.57	21.50
3	16QAM	8	7	21.41	21.50	21.49
3	16QAM	15	0	21.39	21.48	21.44
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	23.45	23.46	**23.48**
1.4	QPSK	1	2	23.42	23.42	23.45
1.4	QPSK	1	5	23.36	23.38	23.40
1.4	QPSK	3	0	23.35	23.30	23.38
1.4	QPSK	3	1	23.33	23.29	23.37
1.4	QPSK	3	2	23.28	23.25	23.36
1.4	QPSK	6	0	22.46	22.48	22.49
1.4	16QAM	1	0	**22.48**	22.46	22.43
1.4	16QAM	1	2	22.45	22.40	22.39
1.4	16QAM	1	5	22.42	22.35	22.37
1.4	16QAM	3	0	22.39	22.34	22.30
1.4	16QAM	3	1	22.33	22.31	22.28
1.4	16QAM	3	2	22.32	22.30	22.21
1.4	16QAM	6	0	21.45	21.47	21.39

<LTE Band 7 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	22.27	**22.48**	21.96
20	QPSK	1	49	22.26	22.26	21.87
20	QPSK	1	99	22.23	22.05	21.94
20	QPSK	50	0	19.55	19.88	19.55
20	QPSK	50	24	19.62	19.57	19.53
20	QPSK	50	49	19.64	19.50	19.65
20	QPSK	100	0	19.52	19.61	19.59
20	16QAM	1	0	21.35	**21.47**	20.98
20	16QAM	1	49	21.26	21.34	20.83
20	16QAM	1	99	21.26	21.05	20.97
20	16QAM	50	0	19.14	19.26	18.52
20	16QAM	50	24	19.24	19.05	18.60
20	16QAM	50	49	19.35	19.03	18.80
20	16QAM	100	0	19.15	19.08	18.67
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535.0	2562.5
15	QPSK	1	0	**22.43**	22.42	21.97
15	QPSK	1	37	22.42	22.39	21.91
15	QPSK	1	74	22.41	22.31	21.90
15	QPSK	36	0	19.72	19.90	19.52
15	QPSK	36	18	19.85	19.74	19.63
15	QPSK	36	37	20.02	19.91	19.69
15	QPSK	75	0	19.84	19.72	19.50
15	16QAM	1	0	**21.48**	**21.48**	21.01
15	16QAM	1	37	21.44	21.46	20.97
15	16QAM	1	74	21.46	21.31	20.84
15	16QAM	36	0	19.22	19.35	18.66
15	16QAM	36	18	19.37	19.41	18.75
15	16QAM	36	37	19.47	19.29	18.87
15	16QAM	75	0	19.22	19.36	18.77

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20800	21100	21400
Frequency (MHz)				2505.0	2535.0	2565.0
10	QPSK	1	0	22.42	**22.47**	22.01
10	QPSK	1	24	22.39	22.44	21.94
10	QPSK	1	49	22.37	22.33	21.64
10	QPSK	25	0	19.89	20.10	19.53
10	QPSK	25	12	19.94	19.97	19.57
10	QPSK	25	24	20.00	20.05	19.58
10	QPSK	50	0	19.91	20.06	19.54
10	16QAM	1	0	21.44	**21.46**	21.00
10	16QAM	1	24	21.38	21.44	20.95
10	16QAM	1	49	21.28	21.36	20.91
10	16QAM	25	0	19.58	19.73	19.20
10	16QAM	25	12	19.50	19.57	19.19
10	16QAM	25	24	19.58	19.66	19.15
10	16QAM	50	0	19.55	19.56	19.12
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535.0	2567.5
5	QPSK	1	0	22.40	**22.47**	22.05
5	QPSK	1	12	22.39	22.37	22.03
5	QPSK	1	24	22.34	22.44	21.86
5	QPSK	12	0	19.82	20.06	19.56
5	QPSK	12	6	19.90	19.92	19.52
5	QPSK	12	11	19.90	20.07	19.57
5	QPSK	25	0	19.87	19.96	19.54
5	16QAM	1	0	21.30	**21.45**	20.92
5	16QAM	1	12	21.28	21.44	20.91
5	16QAM	1	24	21.26	21.38	20.91
5	16QAM	12	0	19.26	19.61	19.09
5	16QAM	12	6	19.40	19.50	19.08
5	16QAM	12	11	19.47	19.52	19.07
5	16QAM	25	0	19.55	19.54	19.04

Note: maximum average power for LTE.

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.

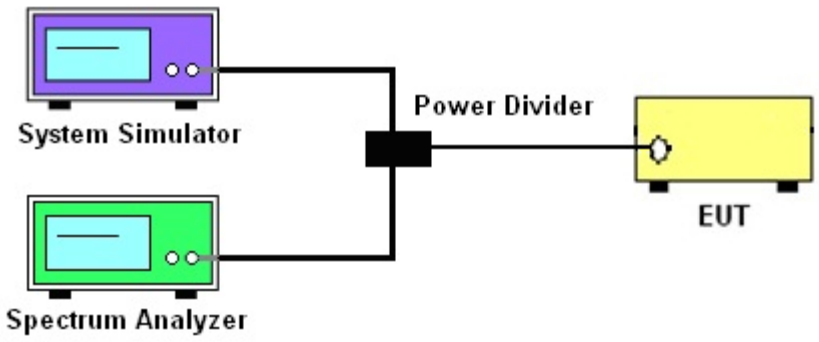
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.

3.2.4 Test Setup



3.2.5 Test Result of Peak-to-Average Ratio

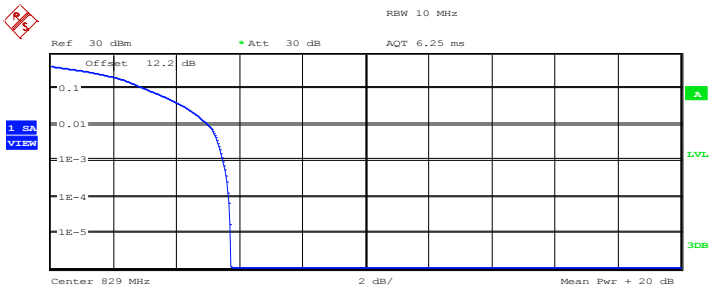
LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829.0	836.5	844.0
10	16QAM	1	0	5.48	6.76	5.87
10	16QAM	50	0	6.44	6.28	6.41

LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510.0	2535.0	2560.0
20	16QAM	1	0	4.23	3.97	5.32
20	16QAM	100	0	5.90	6.15	6.12

3.2.6 Peak to Average Power Ratio

Peak-to-Average Ratio on LTE Band 5

10MHz / 16QAM in Ch. 20450 (1RB Size)

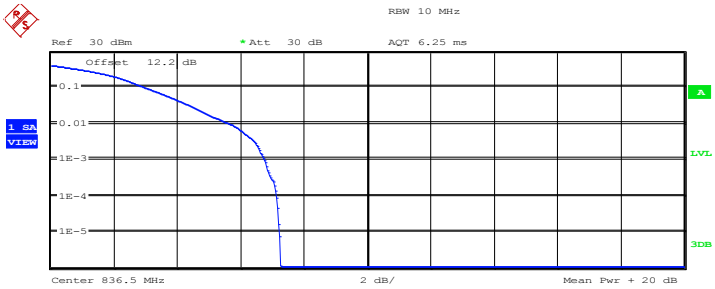


	Trace 1
Mean	23.55 dBm
Peak	29.26 dBm
Crest	5.71 dB
10 %	3.01 dB
1 %	5.00 dB
.1 %	5.48 dB
.01 %	5.64 dB

Date: 19.APR.2014 12:32:17

Peak-to-Average Ratio on LTE Band 5

10MHz / 16QAM in Ch. 20525 (1RB Size)

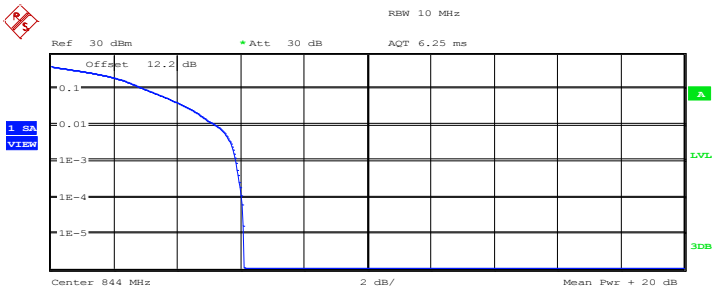


	Trace 1
Mean	23.23 dBm
Peak	30.48 dBm
Crest	7.26 dB
10 %	2.98 dB
1 %	5.64 dB
.1 %	6.76 dB
.01 %	7.15 dB

Date: 19.APR.2014 12:32:53

Peak-to-Average Ratio on LTE Band 5

10MHz / 16QAM in Ch. 20600 (1RB Size)



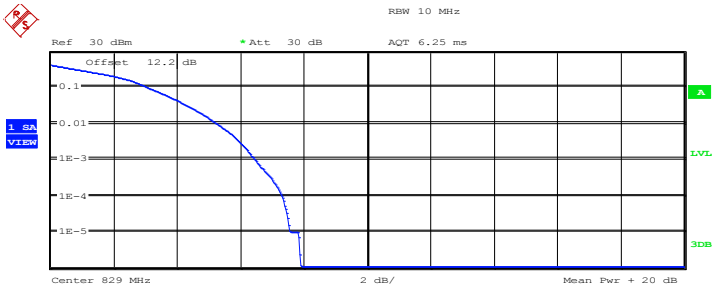
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	23.30 dBm
Peak	29.39 dBm
Crest	6.09 dB
10 %	2.98 dB
1 %	5.19 dB
.1 %	5.87 dB
.01 %	6.03 dB

Date: 19.APR.2014 12:33:31

Peak-to-Average Ratio on LTE Band 5

10MHz / 16QAM in Ch. 20450 (50RB Size)



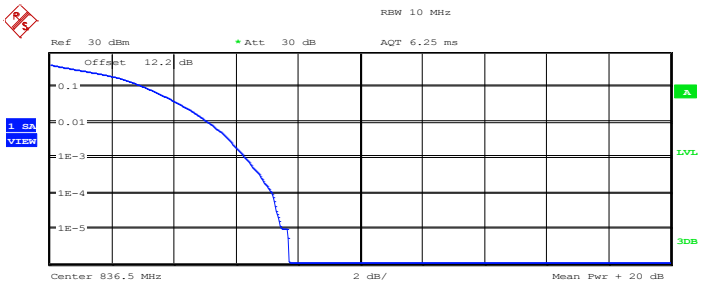
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	22.50 dBm
Peak	30.39 dBm
Crest	7.89 dB
10 %	3.08 dB
1 %	5.22 dB
.1 %	6.44 dB
.01 %	7.31 dB

Date: 19.APR.2014 12:32:39

Peak-to-Average Ratio on LTE Band 5

10MHz / 16QAM in Ch. 20525 (50RB Size)



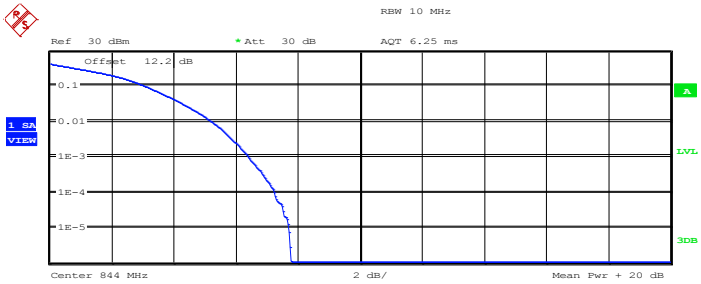
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	22.49 dBm
Peak	30.20 dBm
Crest	7.72 dB
10 %	3.04 dB
1 %	5.10 dB
.1 %	6.28 dB
.01 %	7.15 dB

Date: 19.APR.2014 12:33:10

Peak-to-Average Ratio on LTE Band 5

10MHz / 16QAM in Ch. 20600 (50RB Size)



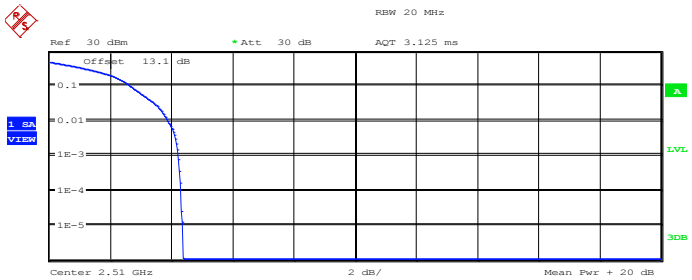
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	22.54 dBm
Peak	30.31 dBm
Crest	7.76 dB
10 %	3.08 dB
1 %	5.19 dB
.1 %	6.41 dB
.01 %	7.24 dB

Date: 19.APR.2014 12:33:50

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 20850 (1RB Size)



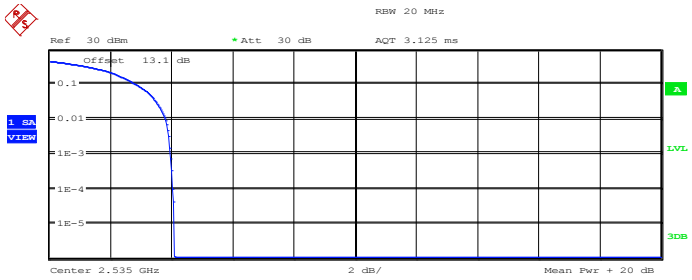
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	23.44 dBm
Peak	27.82 dBm
Crest	4.38 dB
10 %	2.63 dB
1 %	3.88 dB
.1 %	4.23 dB
.01 %	4.29 dB

Date: 15.APR.2014 12:42:06

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 21100 (1RB Size)



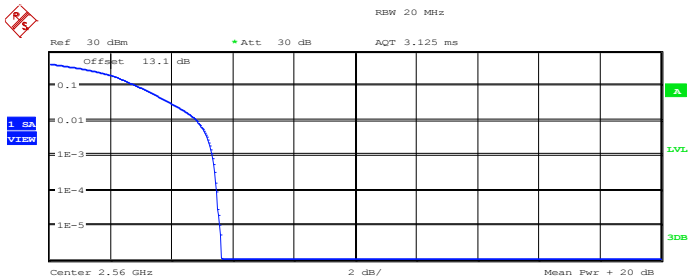
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	23.92 dBm
Peak	28.01 dBm
Crest	4.09 dB
10 %	2.82 dB
1 %	3.81 dB
.1 %	3.97 dB
.01 %	4.04 dB

Date: 15.APR.2014 12:42:48

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 21350 (1RB Size)



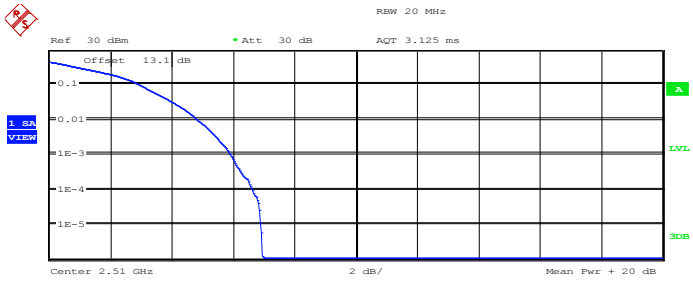
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	22.88 dBm
Peak	28.52 dBm
Crest	5.64 dB
10 %	2.88 dB
1 %	4.81 dB
.1 %	5.32 dB
.01 %	5.48 dB

Date: 15.APR.2014 12:44:04

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 20850 (100RB Size)



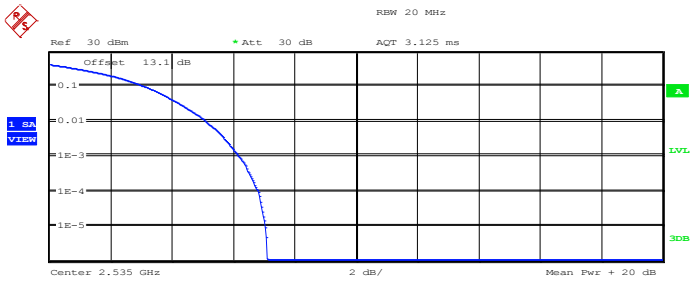
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.64 dBm
Peak	28.59 dBm
Crest	6.95 dB
10 %	2.92 dB
1 %	4.81 dB
.1 %	5.90 dB
.01 %	6.60 dB

Date: 15.APR.2014 12:42:27

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 21100 (100RB Size)



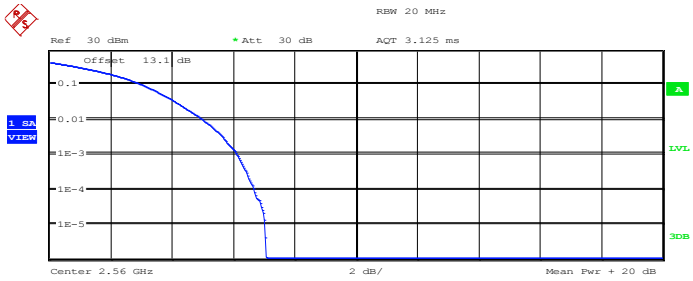
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.61 dBm
Peak	28.72 dBm
Crest	7.10 dB
10 %	3.11 dB
1 %	5.10 dB
.1 %	6.15 dB
.01 %	6.79 dB

Date: 15.APR.2014 12:43:41

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 21350 (100RB Size)



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

	Trace 1
Mean	21.18 dBm
Peak	28.23 dBm
Crest	7.05 dB
10 %	3.01 dB
1 %	4.97 dB
.1 %	6.12 dB
.01 %	6.67 dB

Date: 15.APR.2014 12:44:37

3.3 Effective Radiated Power and Equivalent Isotropic Radiated Power Measurement

3.3.1 Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r01. Mobile and portable (hand-held) stations operating are limited to average ERP of 7 watts with LTE band 5.

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 v02r01. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 7.

3.3.2 Measuring Instruments

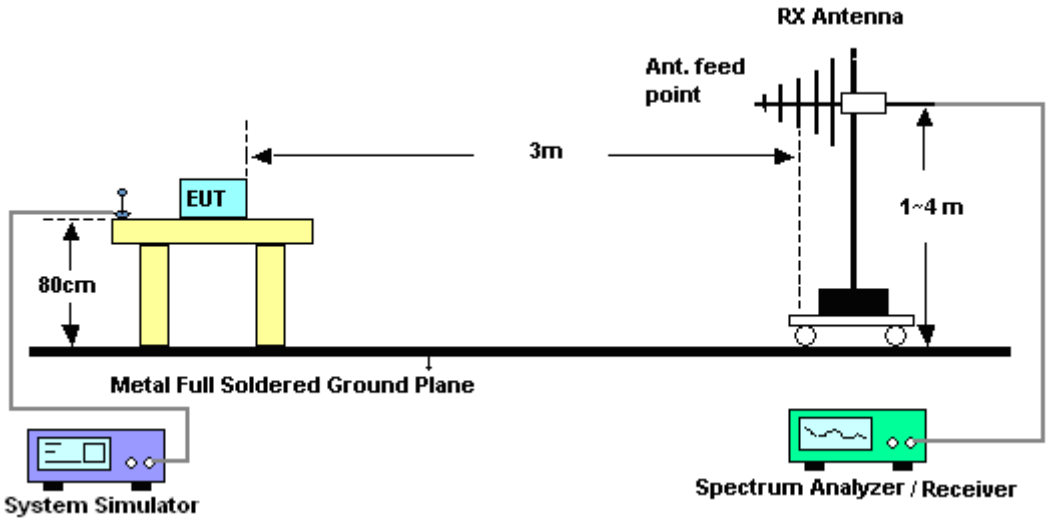
The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

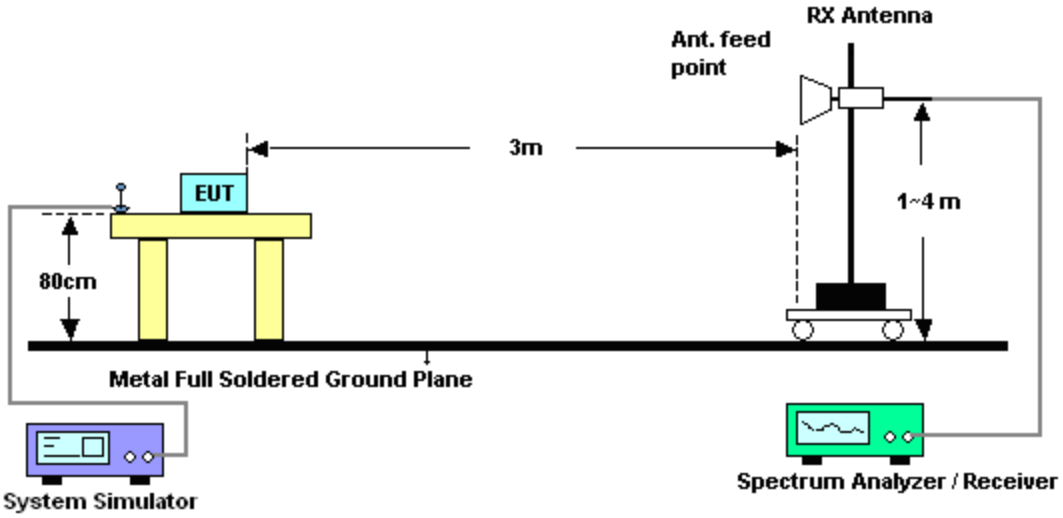
1. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01.
2. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, EIRP= LVL + Correction factor and ERP = EIRP – 2.15.

3.3.4 Test Setup

For Effective Radiated Power



For Equivalent Isotropic Radiated Power



3.3.5 Test Result of ERP/EIRP

LTE Band 5 Radiated Power ERP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-10.31	31.54	19.08	0.0809
836.5	-11.39	32.04	18.50	0.0708
848.3	-12.98	32.59	17.46	0.0557
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-17.01	32.93	13.77	0.0238
836.5	-16.76	32.82	13.91	0.0246
848.3	-18.14	33.62	13.33	0.0215

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

LTE Band 5 Radiated Power ERP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-11.56	31.54	17.83	0.0607
836.5	-12.51	32.04	17.38	0.0547
848.3	-13.88	32.59	16.56	0.0453
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
824.7	-18.26	32.93	12.52	0.0179
836.5	-18.00	32.82	12.67	0.0185
848.3	-19.16	33.62	12.31	0.0170

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

LTE Band 5 Radiated Power ERP for BW 3MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-10.25	31.54	19.14	0.0820
836.5	-11.07	32.04	18.82	0.0762
847.5	-12.39	32.59	18.05	0.0638
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-17.24	32.93	13.54	0.0226
836.5	-17.20	32.82	13.47	0.0222
847.5	-17.88	33.62	13.59	0.0229

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

LTE Band 5 Radiated Power ERP for BW 3MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-11.45	31.44	17.84	0.0608
836.5	-12.41	32.04	17.48	0.0560
847.5	-13.13	32.63	17.35	0.0543
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
825.5	-18.44	32.78	12.19	0.0166
836.5	-18.22	32.82	12.45	0.0176
847.5	-18.47	33.4	12.78	0.0190

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

LTE Band 5 Radiated Power ERP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-10.11	31.44	19.18	0.0828
836.5	-11.00	32.04	18.89	0.0774
846.5	-11.89	32.63	18.59	0.0723
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-17.18	32.78	13.45	0.0221
836.5	-16.87	32.82	13.80	0.0240
846.5	-17.10	33.4	14.15	0.0260

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

LTE Band 5 Radiated Power ERP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-11.23	31.44	18.06	0.0640
836.5	-12.52	32.04	17.37	0.0546
846.5	-13.09	32.63	17.39	0.0548
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
826.5	-18.19	32.78	12.44	0.0175
836.5	-17.95	32.82	12.72	0.0187
846.5	-18.00	33.4	13.25	0.0211

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

LTE Band 5 Radiated Power ERP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829.0	-10.29	31.44	19.00	0.0794
836.5	-10.95	32.04	18.94	0.0783
844.0	-11.74	32.63	18.74	0.0748
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829.0	-17.21	32.78	13.42	0.0220
836.5	-17.18	32.82	13.49	0.0223
844.0	-17.06	33.4	14.19	0.0262

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

LTE Band 5 Radiated Power ERP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829.0	-11.48	31.44	17.81	0.0604
836.5	-11.98	32.04	17.91	0.0618
844.0	-12.75	32.63	17.73	0.0593
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
829.0	-18.42	32.78	12.21	0.0166
836.5	-18.02	32.82	12.65	0.0184
844.0	-18.13	33.4	13.12	0.0205

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

LTE Band 7 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2502.5	-23.19	46.44	23.25	0.2113
2535.0	-22.73	46.85	24.12	0.2582
2567.5	-23.57	46.93	23.36	0.2168
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2502.5	-30.14	48.49	18.35	0.0684
2535.0	-29.64	47.50	17.86	0.0611
2567.5	-29.54	48.26	18.72	0.0745

LTE Band 7 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2502.5	-24.53	46.44	21.91	0.1552
2535.0	-24.02	46.85	22.83	0.1919
2567.5	-24.86	46.93	22.07	0.1611
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2502.5	-31.87	48.49	16.62	0.0459
2535.0	-30.96	47.50	16.54	0.0451
2567.5	-30.47	48.26	17.79	0.0601

LTE Band 7 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2505.0	-23.43	46.38	22.95	0.1972
2535.0	-23.12	46.85	23.73	0.2360
2565.0	-23.44	46.89	23.45	0.2213
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2505.0	-30.09	48.26	18.17	0.0656
2535.0	-29.54	47.50	17.96	0.0625
2565.0	-30.08	48.10	18.02	0.0634

LTE Band 7 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2505.0	-24.56	46.38	21.82	0.1521
2535.0	-23.97	46.85	22.88	0.1941
2565.0	-24.30	46.89	22.59	0.1816
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2505.0	-31.20	48.26	17.06	0.0508
2535.0	-30.59	47.50	16.91	0.0491
2565.0	-31.11	48.10	16.99	0.0500

LTE Band 7 Radiated Power EIRP for BW 15MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2507.5	-23.25	46.51	23.26	0.2118
2535.0	-23.08	46.85	23.77	0.2382
2562.5	-23.50	46.44	22.94	0.1968
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2507.5	-30.16	47.86	17.70	0.0589
2535.0	-28.92	47.50	18.58	0.0721
2562.5	-30.18	48.09	17.91	0.0618

LTE Band 7 Radiated Power EIRP for BW 15MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2507.5	-24.02	46.51	22.49	0.1774
2535.0	-23.37	46.85	23.48	0.2228
2562.5	-24.28	46.44	22.16	0.1644
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2507.5	-31.38	47.86	16.48	0.0445
2535.0	-30.00	47.50	17.50	0.0562
2562.5	-31.24	48.09	16.85	0.0484

LTE Band 7 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2510.0	-23.45	46.54	23.09	0.2037
2535.0	-23.15	46.85	23.70	0.2344
2560.0	-24.47	46.49	22.02	0.1592
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2510.0	-30.84	47.75	16.91	0.0491
2535.0	-29.56	47.50	17.94	0.0622
2560.0	-29.89	48.43	18.54	0.0714

LTE Band 7 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2510.0	-24.18	46.54	22.36	0.1722
2535.0	-23.80	46.85	23.05	0.2018
2560.0	-25.33	46.49	21.16	0.1306
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2510.0	-31.28	47.75	16.47	0.0444
2535.0	-30.45	47.50	17.05	0.0507
2560.0	-30.53	48.43	17.90	0.0617

3.4 Occupied Bandwidth

3.4.1 Description of Occupied Bandwidth Measurement

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

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

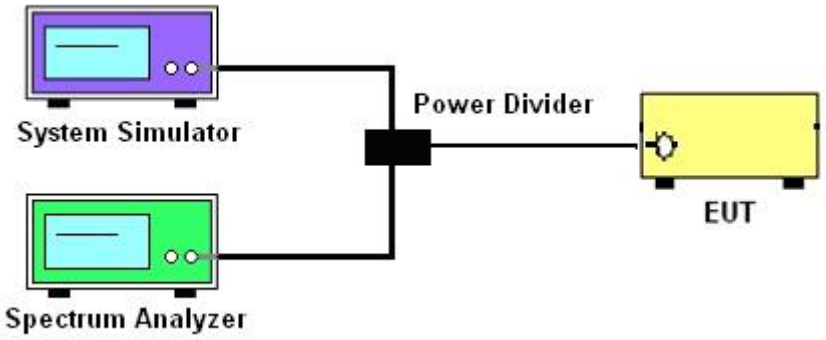
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The 26dB and 99% occupied bandwidth (BW) of the middle channel for the highest RF power with full RB sizes were measured.

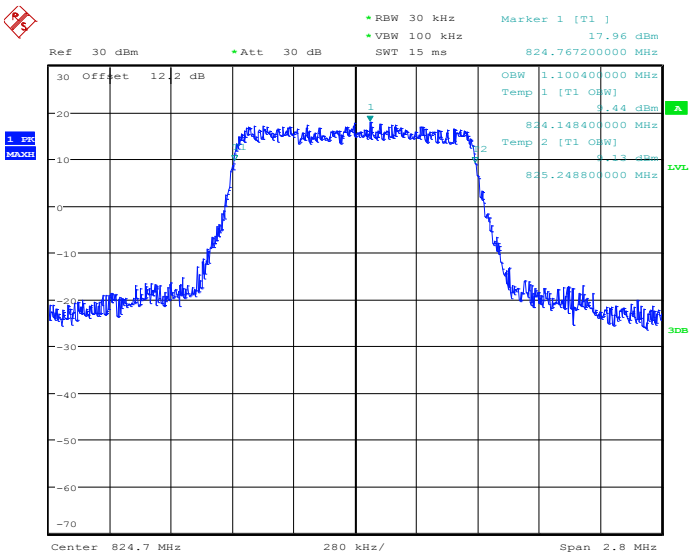
3.4.4 Test Setup



3.4.5 Test Result (Plots) of Occupied Bandwidth

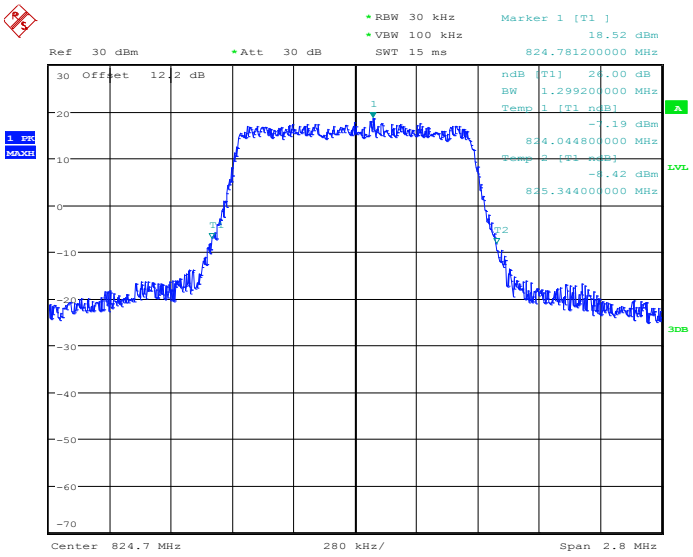
Band :	LTE Band 5	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20407



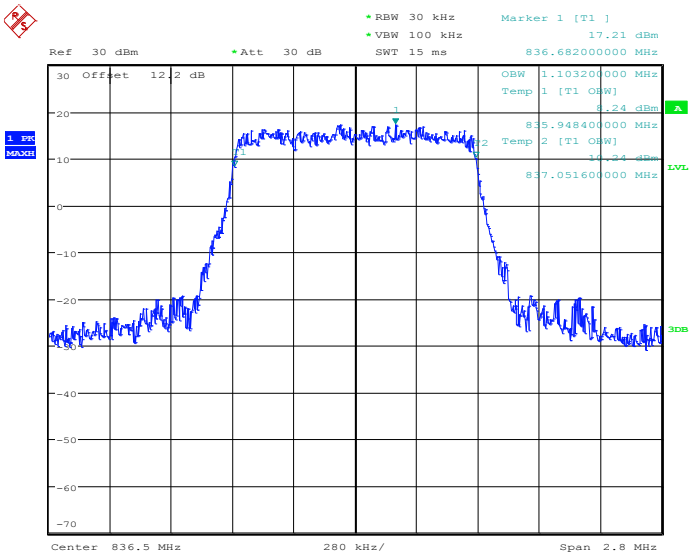
Date: 19.APR.2014 12:45:13

26dB Bandwidth Plot on Channel 20407



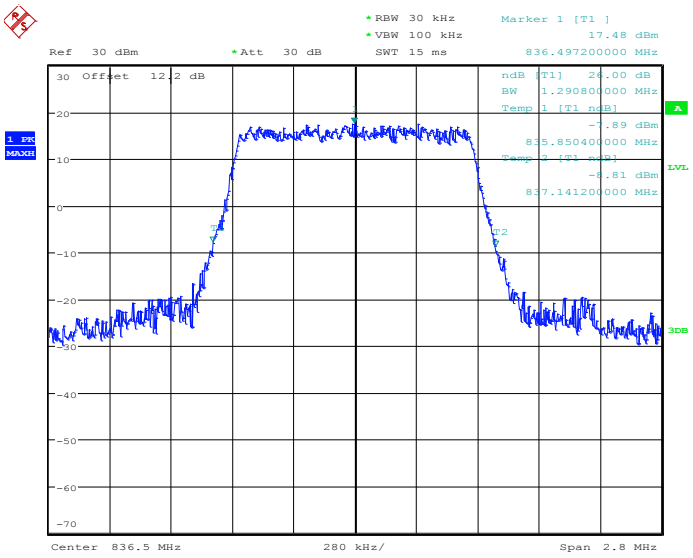
Date: 19.APR.2014 12:46:03

99% Occupied Bandwidth Plot on Channel 20525



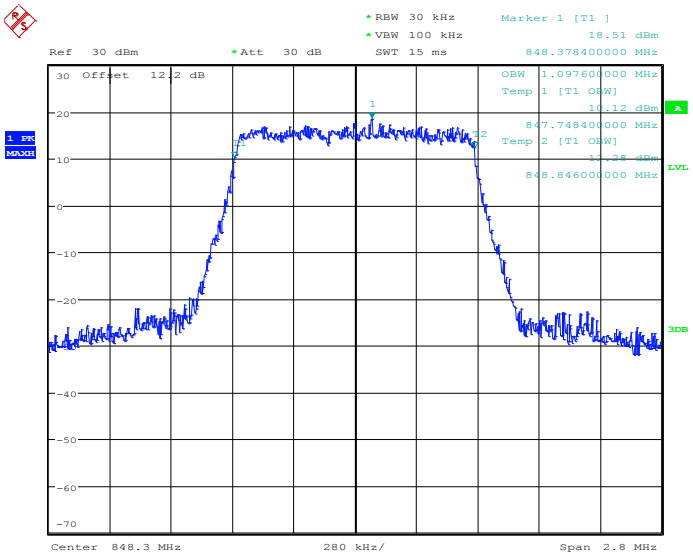
Date: 19.APR.2014 12:46:19

26dB Bandwidth Plot on Channel 20525



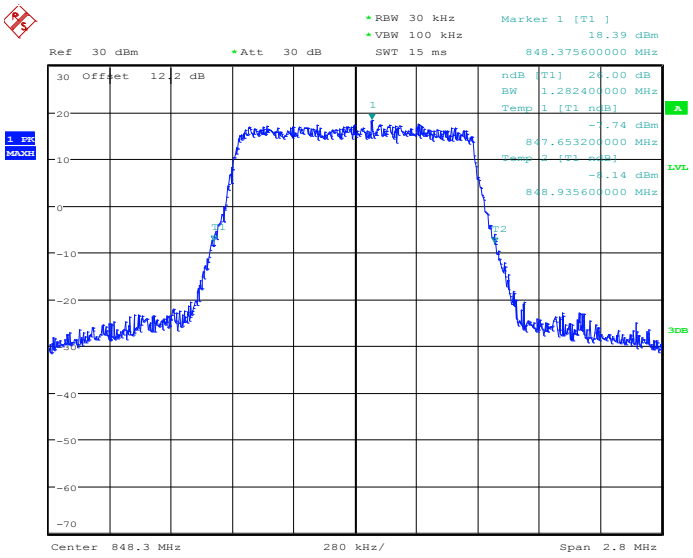
Date: 19.APR.2014 12:46:51

99% Occupied Bandwidth Plot on Channel 20643



Date: 19.APR.2014 12:47:24

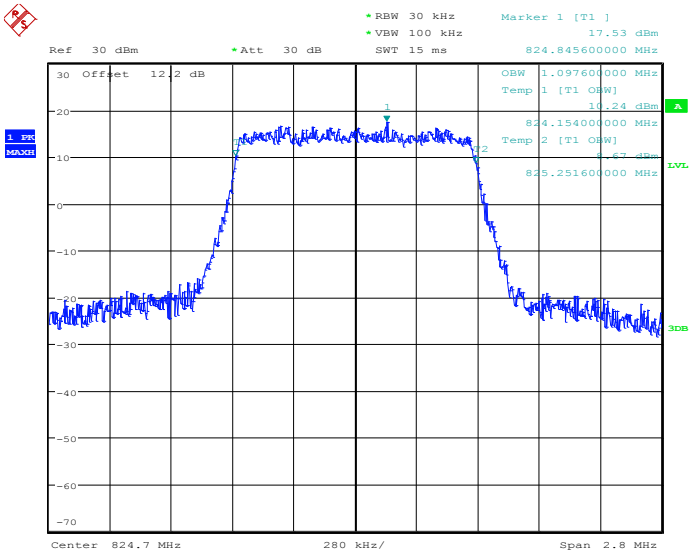
26dB Bandwidth Plot on Channel 20643



Date: 19.APR.2014 12:47:57

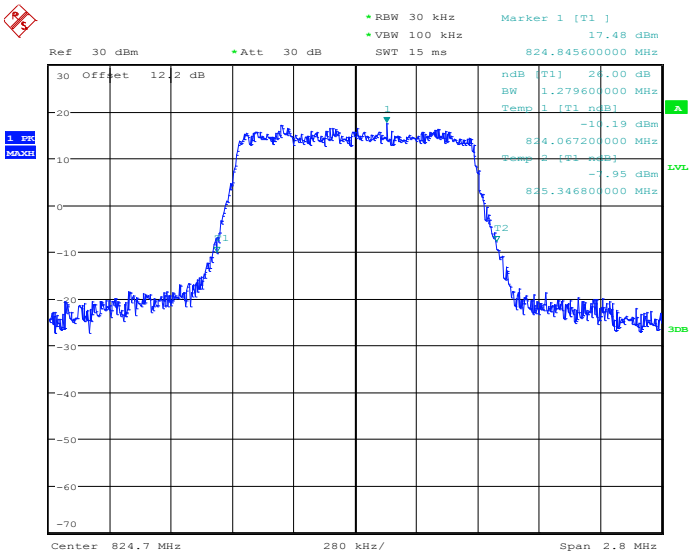
Band :	LTE Band 5	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20407



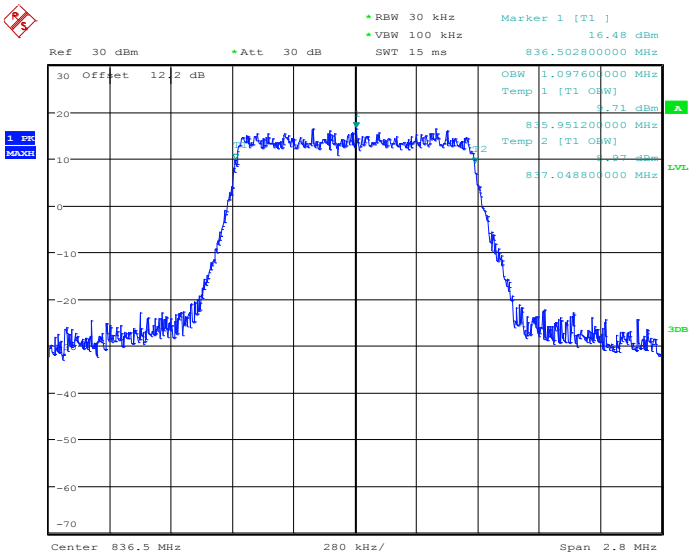
Date: 19.APR.2014 12:45:29

26dB Bandwidth Plot on Channel 20407



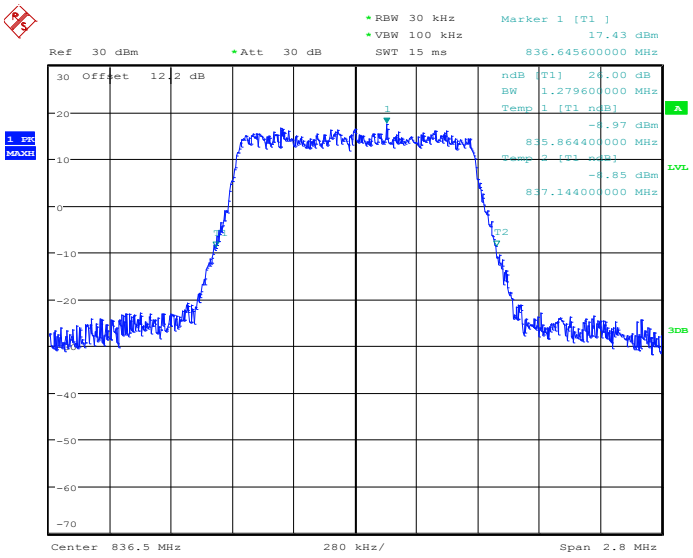
Date: 19.APR.2014 12:45:46

99% Occupied Bandwidth Plot on Channel 20525



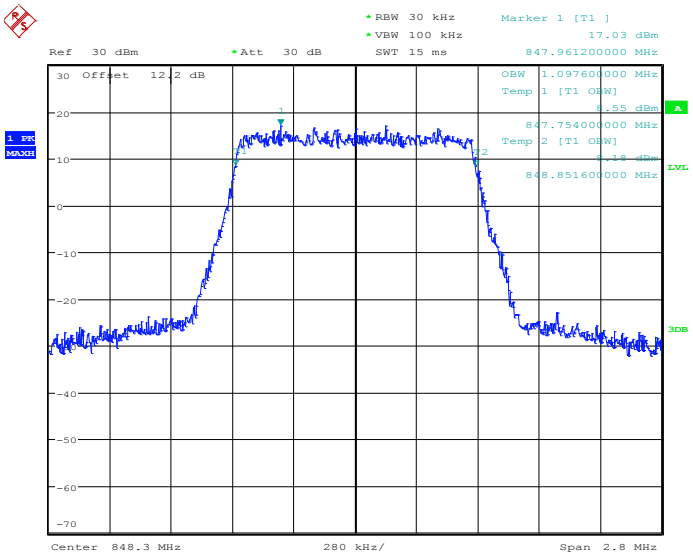
Date: 19.APR.2014 12:46:34

26dB Bandwidth Plot on Channel 20525



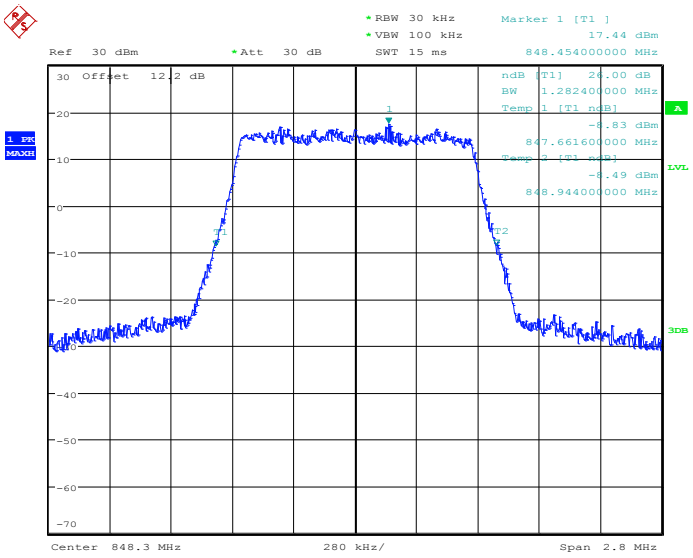
Date: 19.APR.2014 12:47:09

99% Occupied Bandwidth Plot on Channel 20643



Date: 19.APR.2014 12:47:40

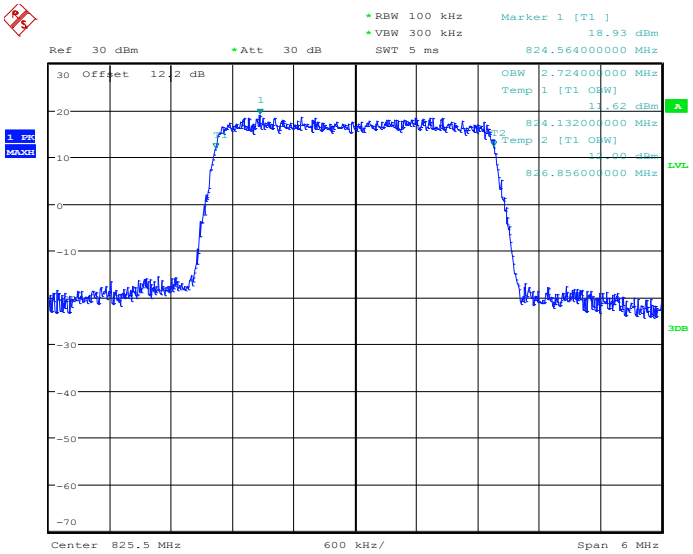
26dB Bandwidth Plot on Channel 20643



Date: 19.APR.2014 12:48:14

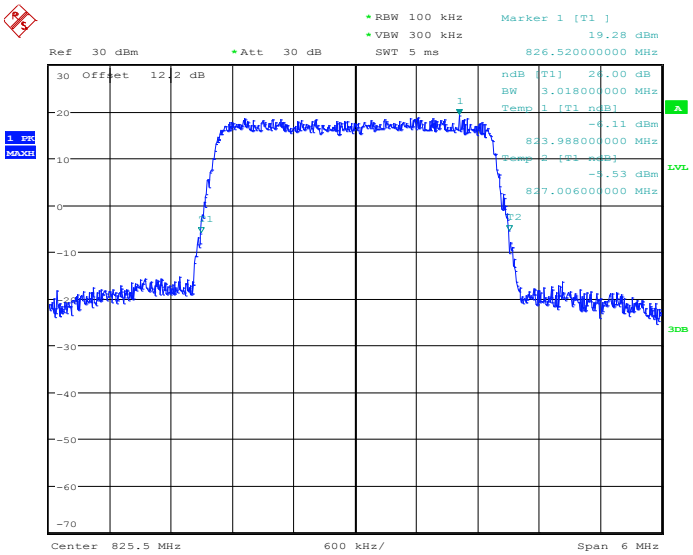
Band :	LTE Band 5	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20415



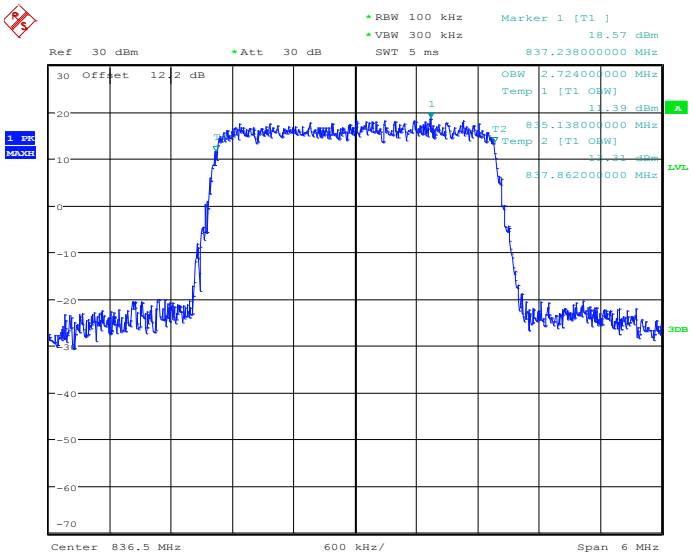
Date: 19.APR.2014 13:02:12

26dB Bandwidth Plot on Channel 20415



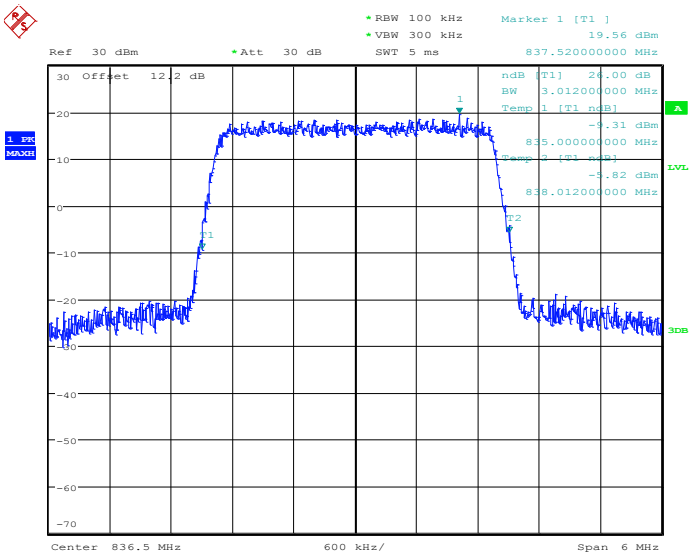
Date: 19.APR.2014 12:50:38

99% Occupied Bandwidth Plot on Channel 20525



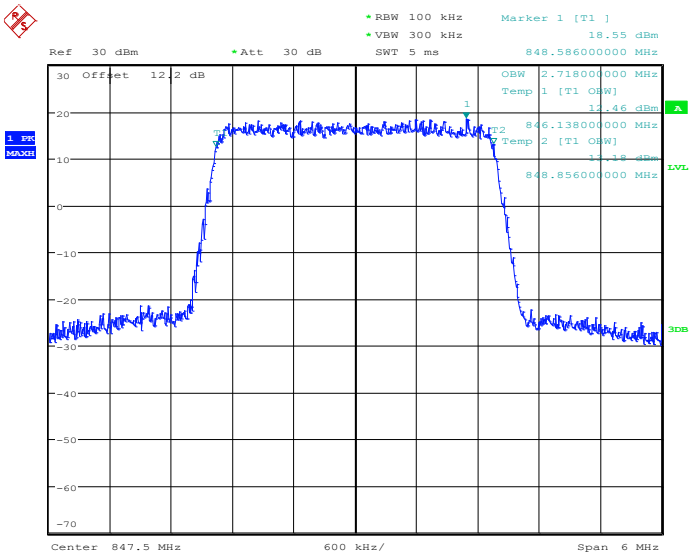
Date: 19.APR.2014 12:51:11

26dB Bandwidth Plot on Channel 20525



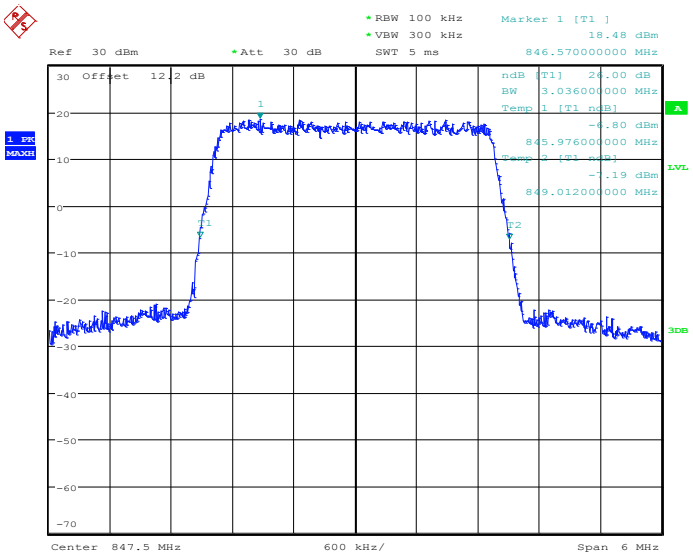
Date: 19.APR.2014 12:51:44

99% Occupied Bandwidth Plot on Channel 20635



Date: 19.APR.2014 12:52:16

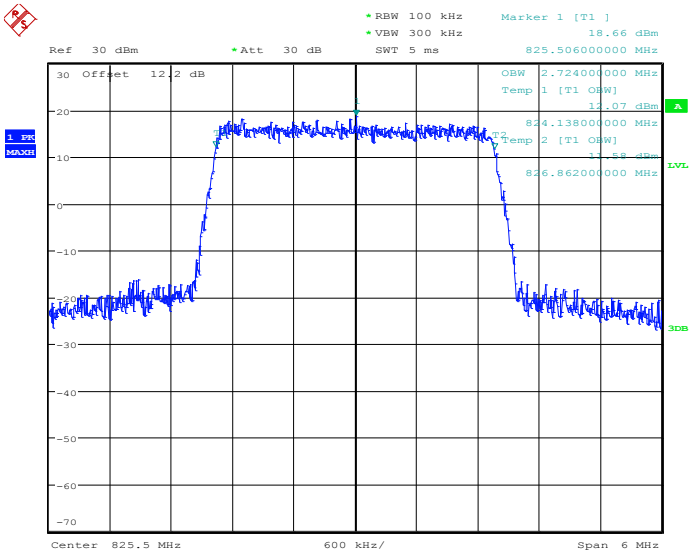
26dB Bandwidth Plot on Channel 20635



Date: 19.APR.2014 12:52:49

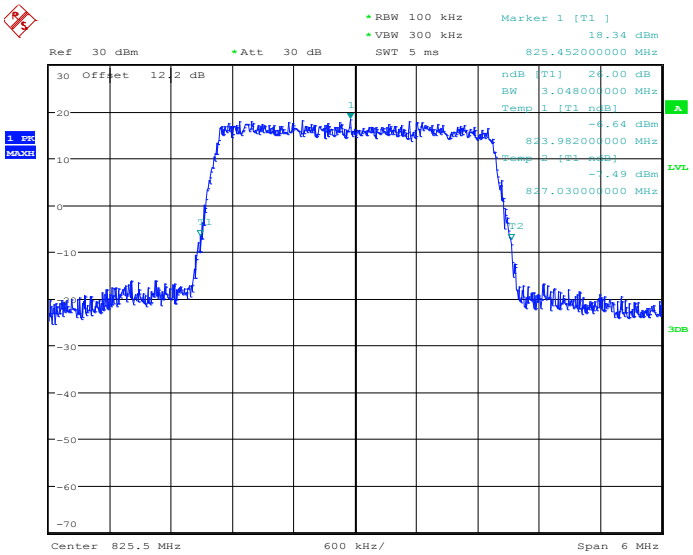
Band :	LTE Band 5	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20415



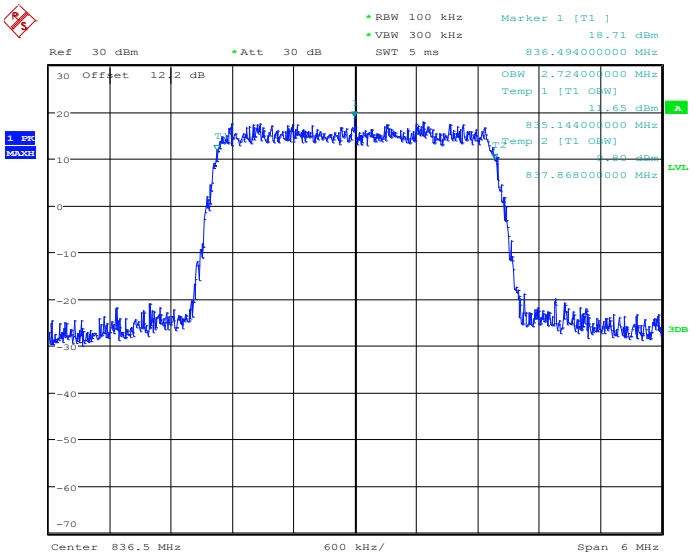
Date: 19.APR.2014 12:50:20

26dB Bandwidth Plot on Channel 20415



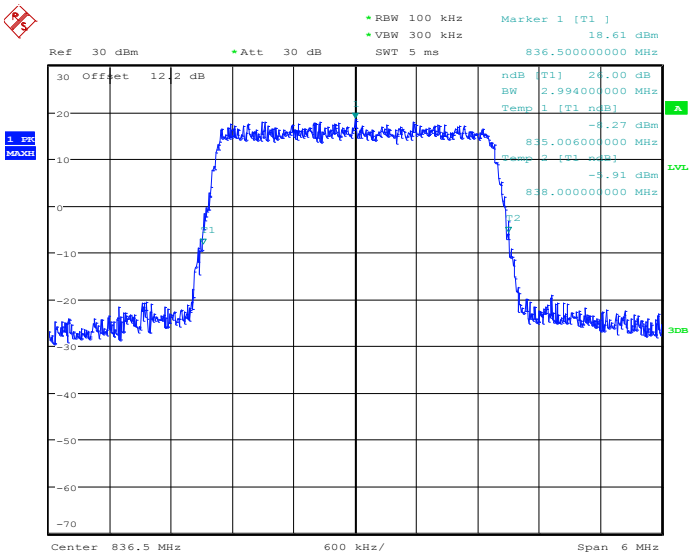
Date: 19.APR.2014 12:50:55

99% Occupied Bandwidth Plot on Channel 20525



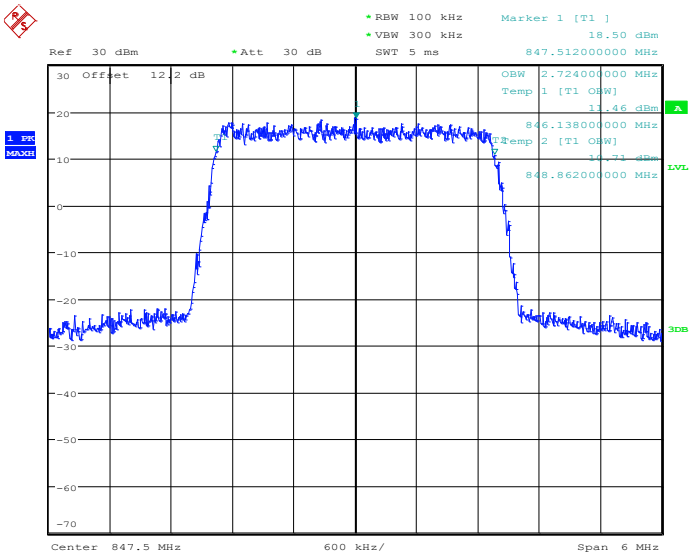
Date: 19.APR.2014 12:51:26

26dB Bandwidth Plot on Channel 20525



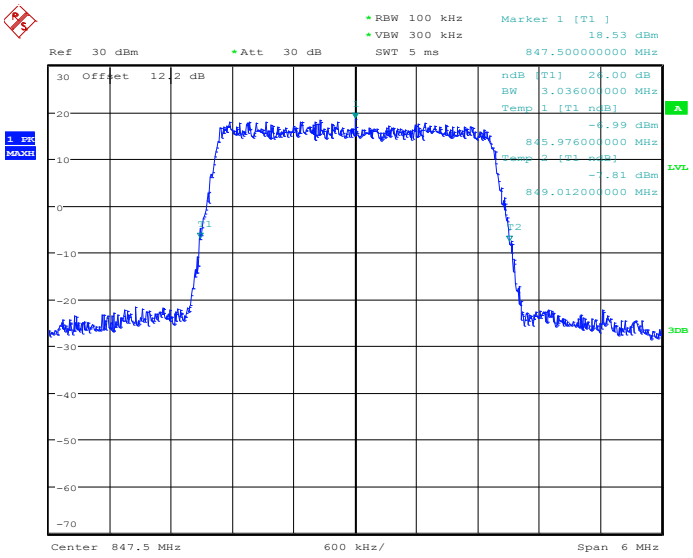
Date: 19.APR.2014 12:52:01

99% Occupied Bandwidth Plot on Channel 20635



Date: 19.APR.2014 12:52:32

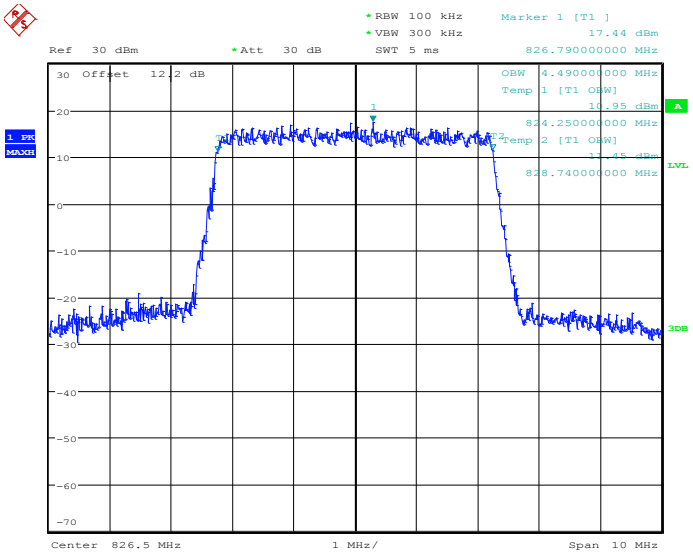
26dB Bandwidth Plot on Channel 20635



Date: 19.APR.2014 12:53:06

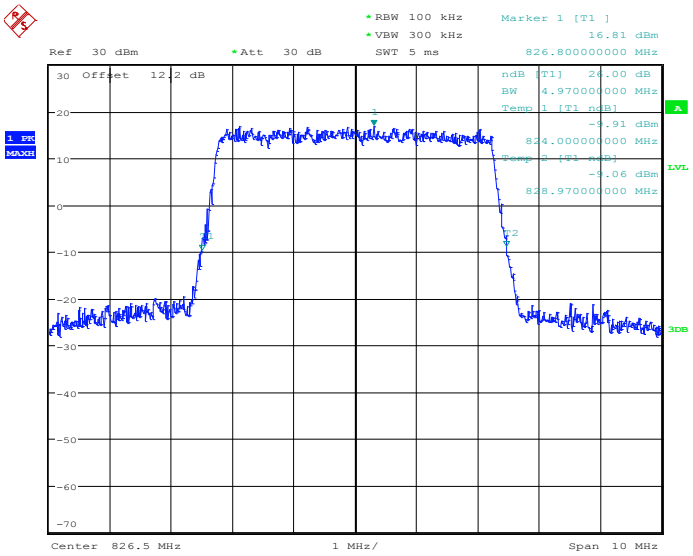
Band :	LTE Band 5	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20425



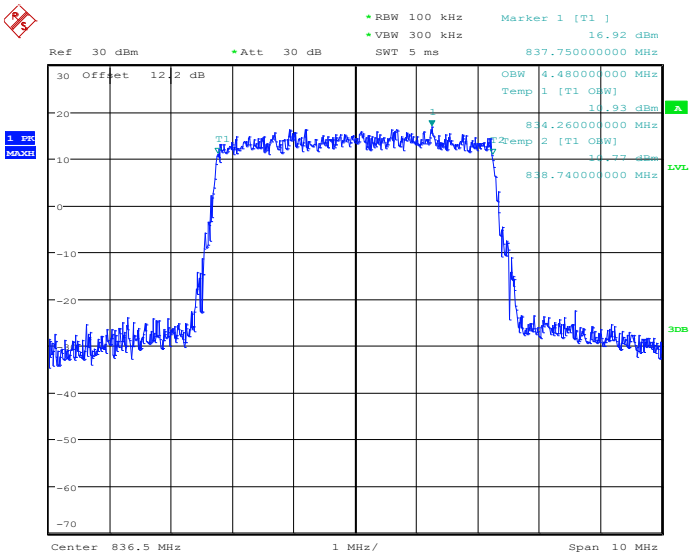
Date: 19.APR.2014 12:53:26

26dB Bandwidth Plot on Channel 20425



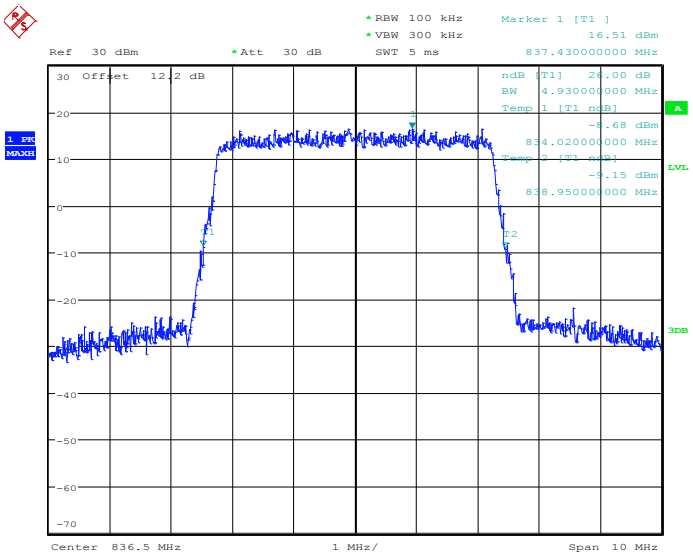
Date: 19.APR.2014 12:53:59

99% Occupied Bandwidth Plot on Channel 20525



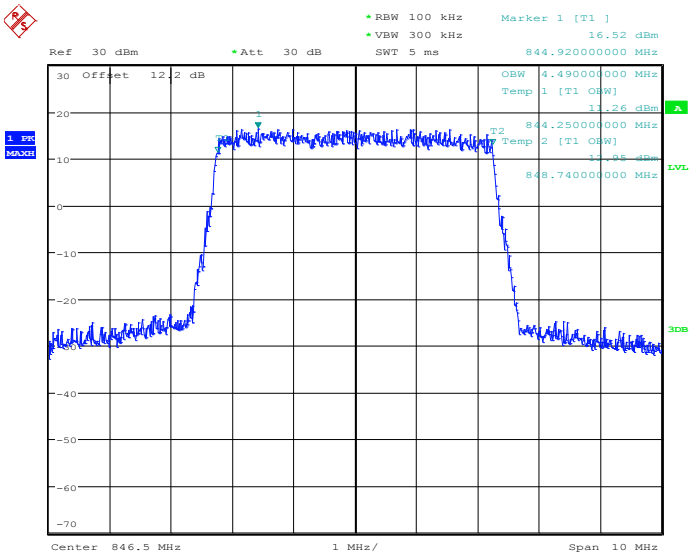
Date: 19.APR.2014 12:54:32

26dB Bandwidth Plot on Channel 20525



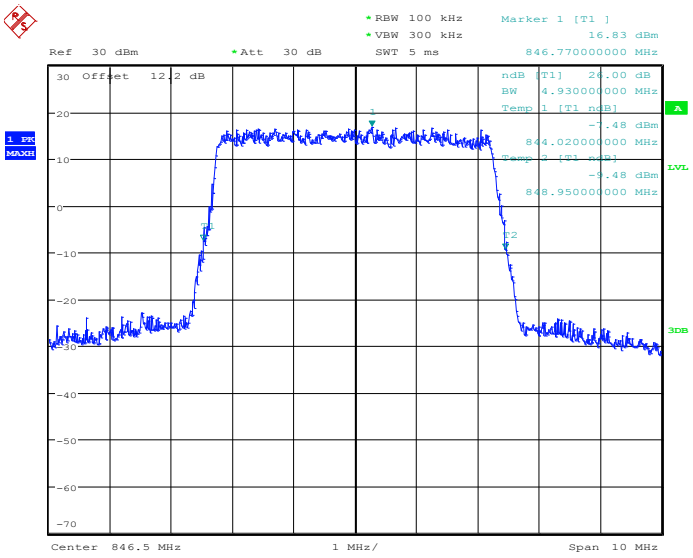
Date: 19.APR.2014 12:55:04

99% Occupied Bandwidth Plot on Channel 20625



Date: 19.APR.2014 12:55:37

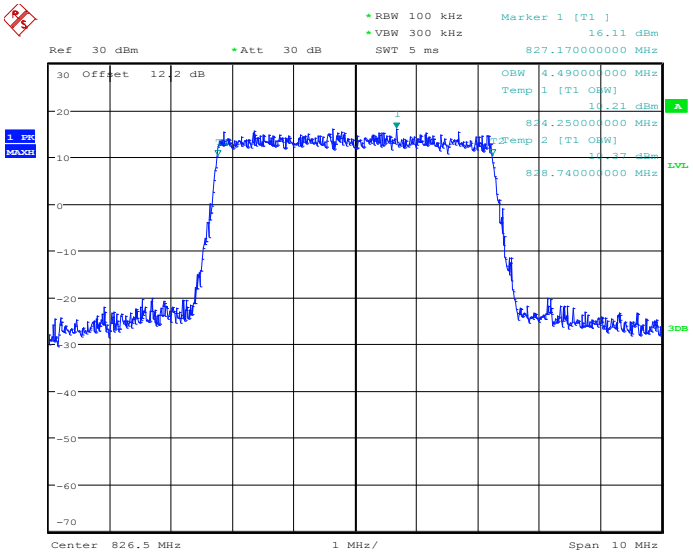
26dB Bandwidth Plot on Channel 20625



Date: 19.APR.2014 12:56:10

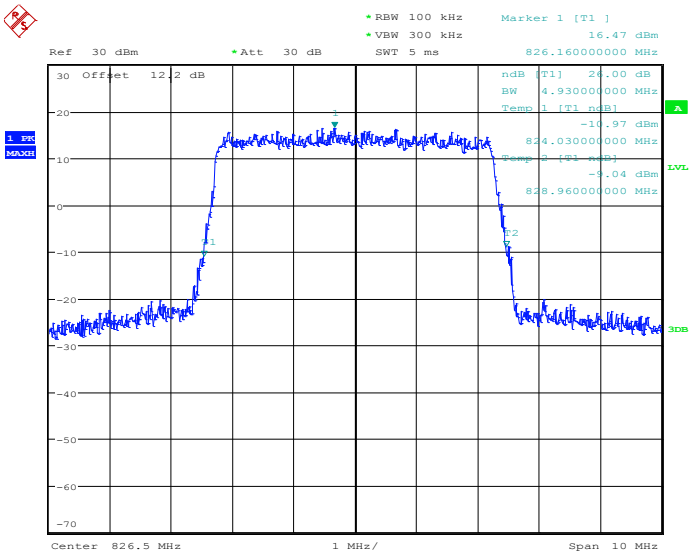
Band :	LTE Band 5	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20425



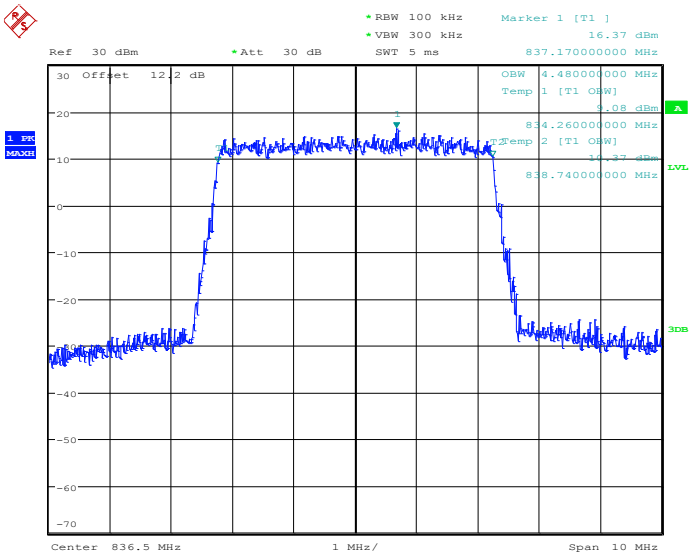
Date: 19.APR.2014 12:53:42

26dB Bandwidth Plot on Channel 20425



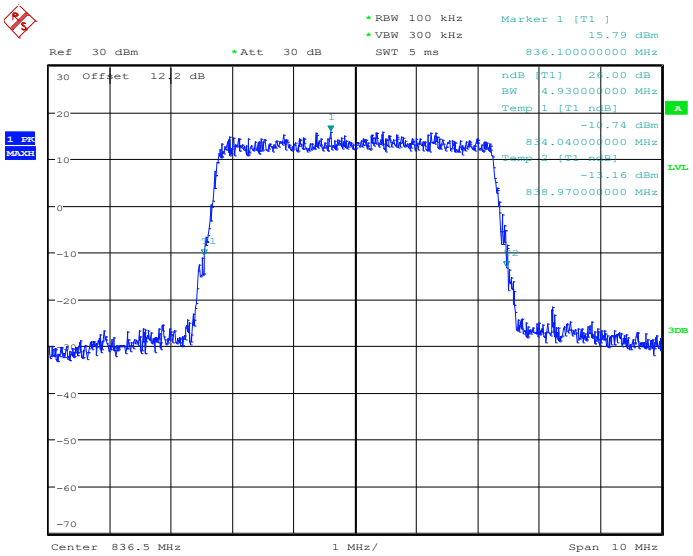
Date: 19.APR.2014 12:54:16

99% Occupied Bandwidth Plot on Channel 20525



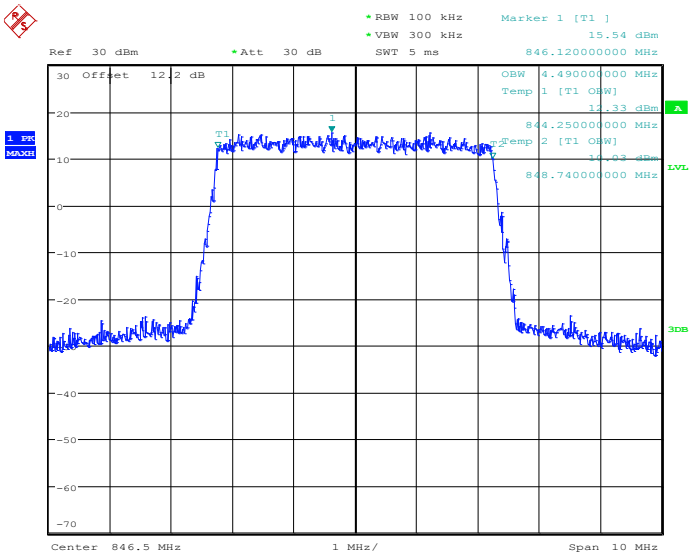
Date: 19.APR.2014 12:54:47

26dB Bandwidth Plot on Channel 20525



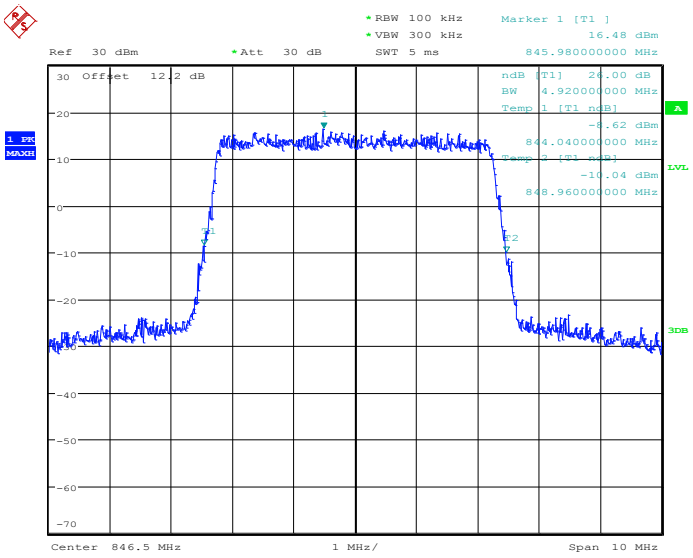
Date: 19.APR.2014 12:55:22

99% Occupied Bandwidth Plot on Channel 20625



Date: 19.APR.2014 12:55:53

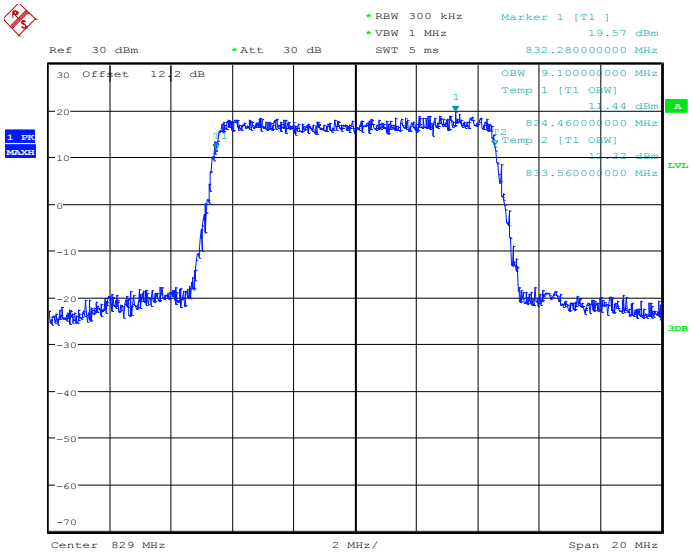
26dB Bandwidth Plot on Channel 20625



Date: 19.APR.2014 12:56:27

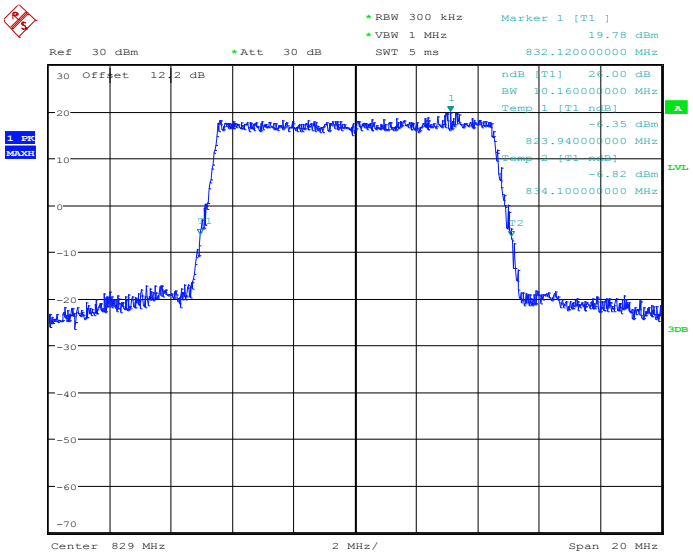
Band :	LTE Band 5	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20450



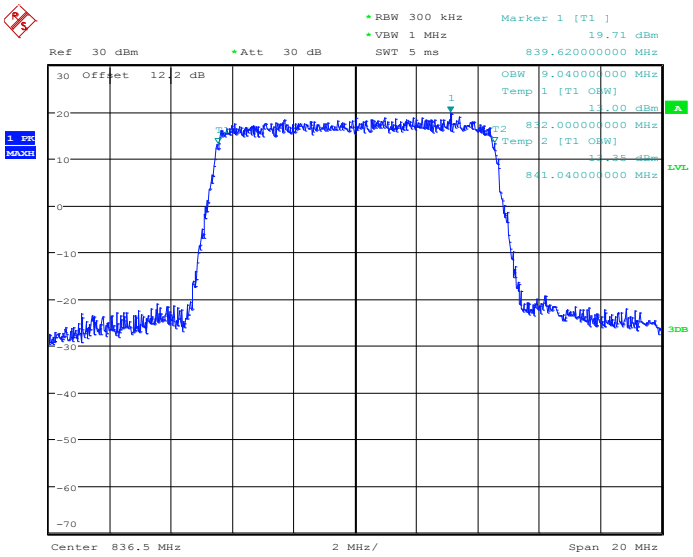
Date: 19.APR.2014 12:56:47

26dB Bandwidth Plot on Channel 20450



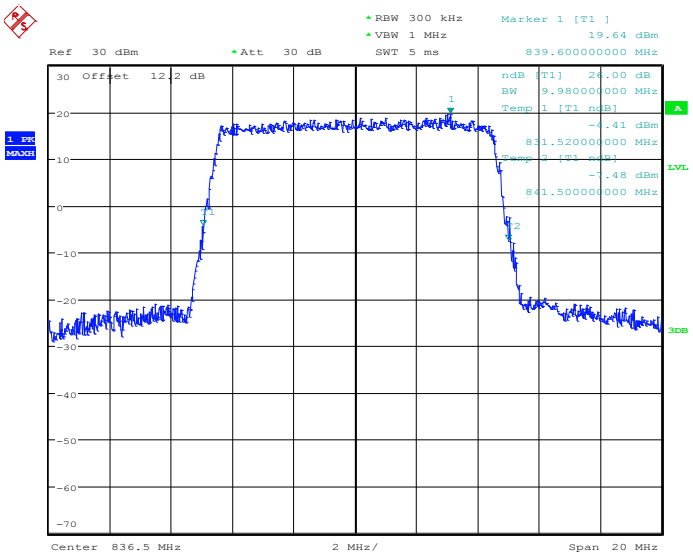
Date: 19.APR.2014 12:57:20

99% Occupied Bandwidth Plot on Channel 20525



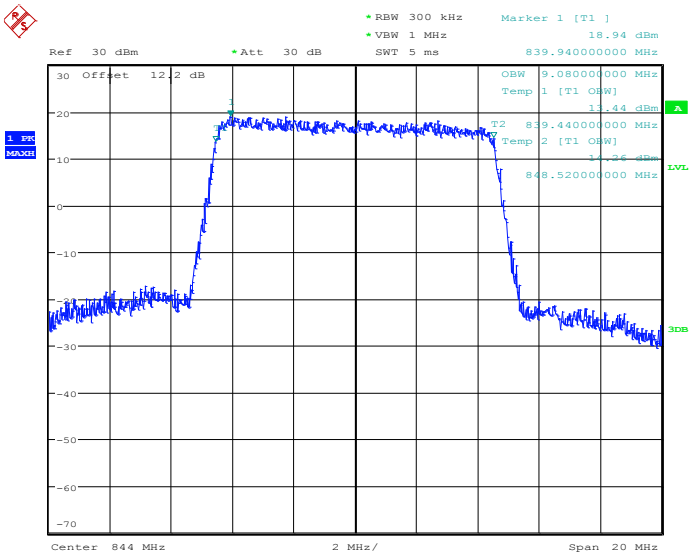
Date: 19.APR.2014 12:57:52

26dB Bandwidth Plot on Channel 20525



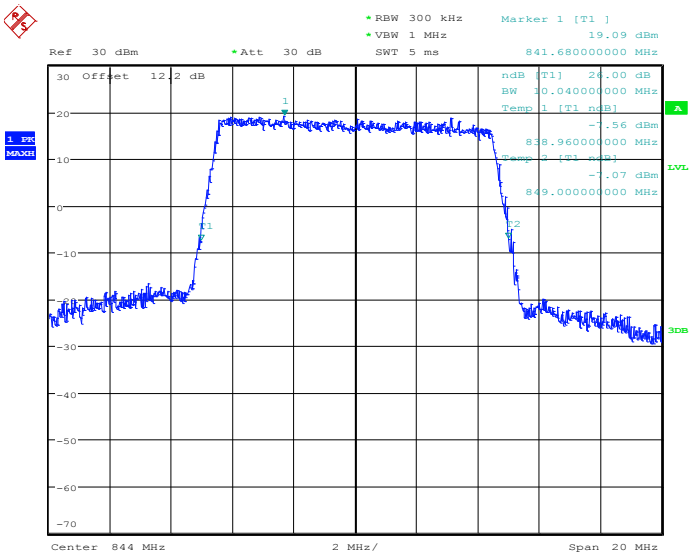
Date: 19.APR.2014 12:58:25

99% Occupied Bandwidth Plot on Channel 20600



Date: 19.APR.2014 12:58:58

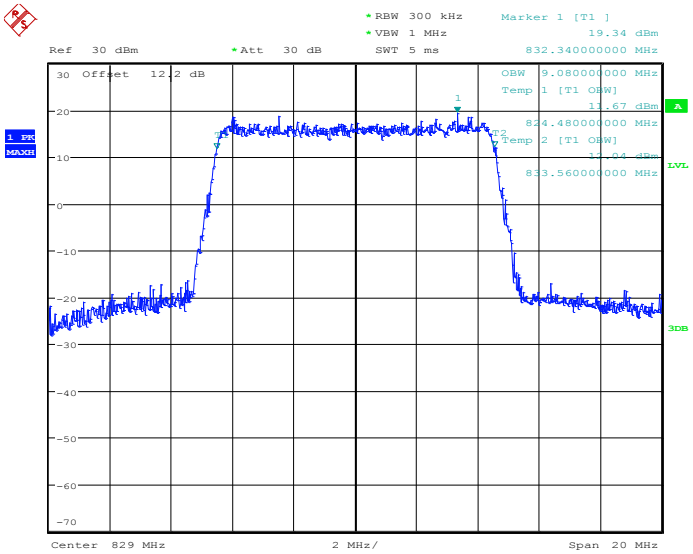
26dB Bandwidth Plot on Channel 20600



Date: 19.APR.2014 12:59:31

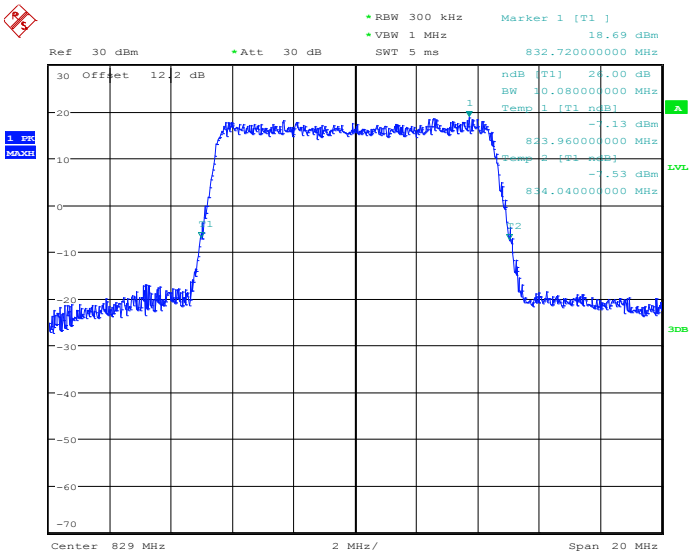
Band :	LTE Band 5	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20450



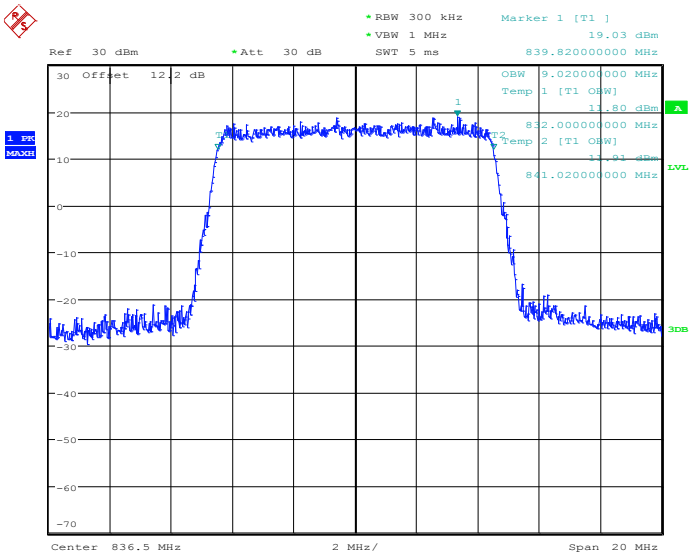
Date: 19.APR.2014 12:57:02

26dB Bandwidth Plot on Channel 20450



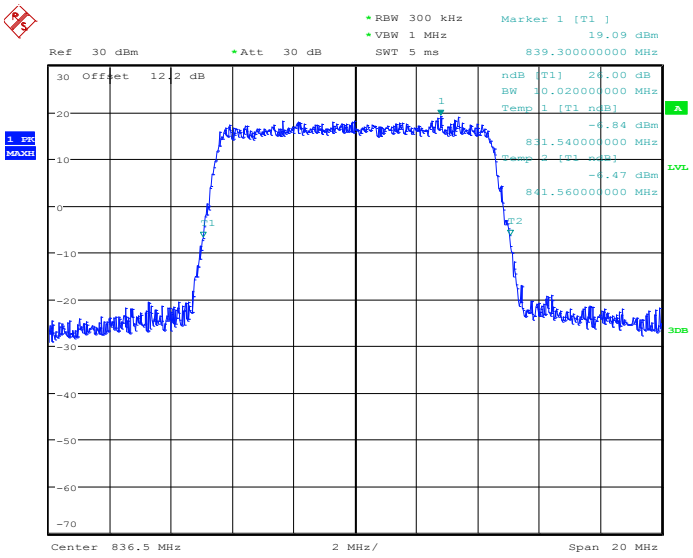
Date: 19.APR.2014 12:57:37

99% Occupied Bandwidth Plot on Channel 20525



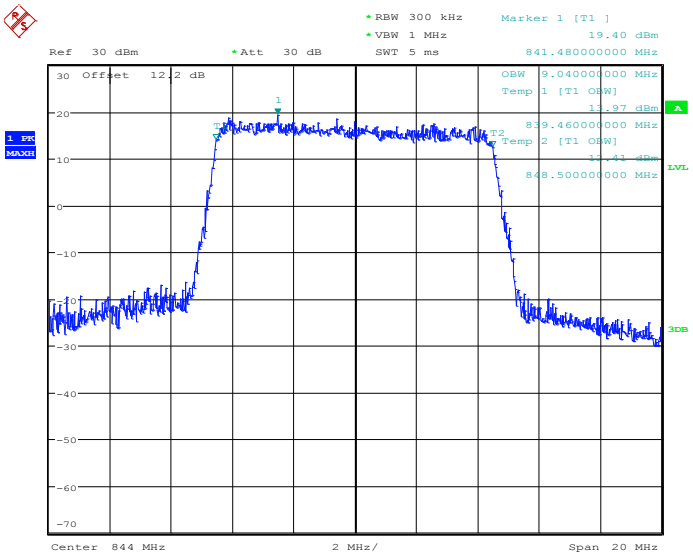
Date: 19.APR.2014 12:58:08

26dB Bandwidth Plot on Channel 20525



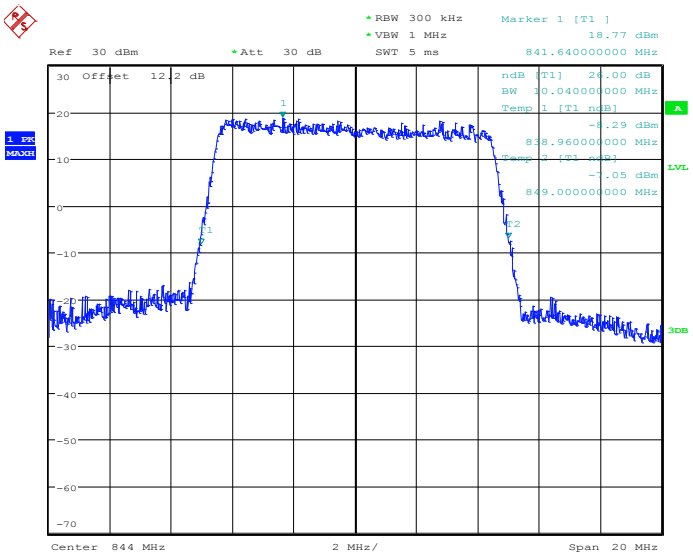
Date: 19.APR.2014 12:58:43

99% Occupied Bandwidth Plot on Channel 20600



Date: 19.APR.2014 12:59:14

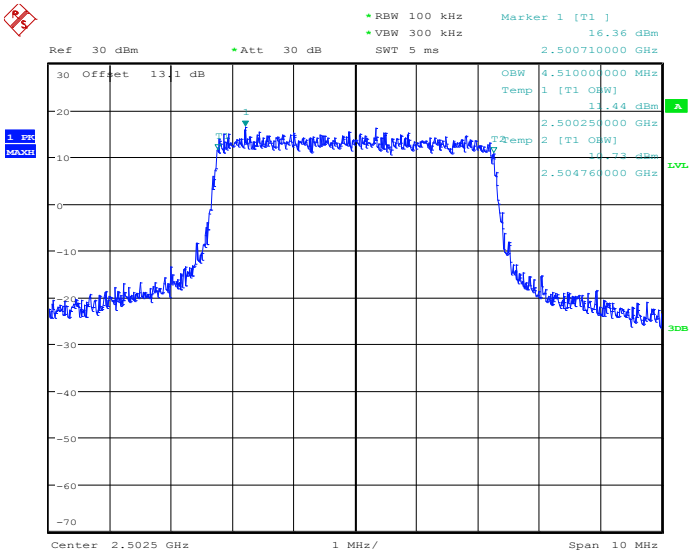
26dB Bandwidth Plot on Channel 20600



Date: 19.APR.2014 12:59:48

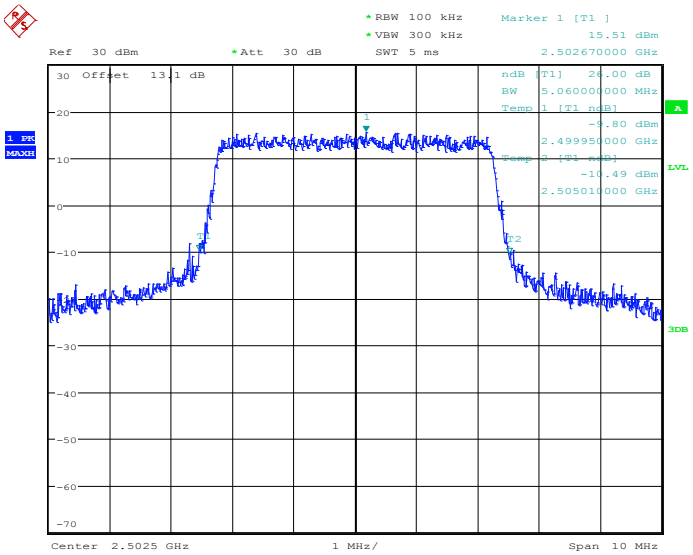
Band :	LTE Band 7	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20775



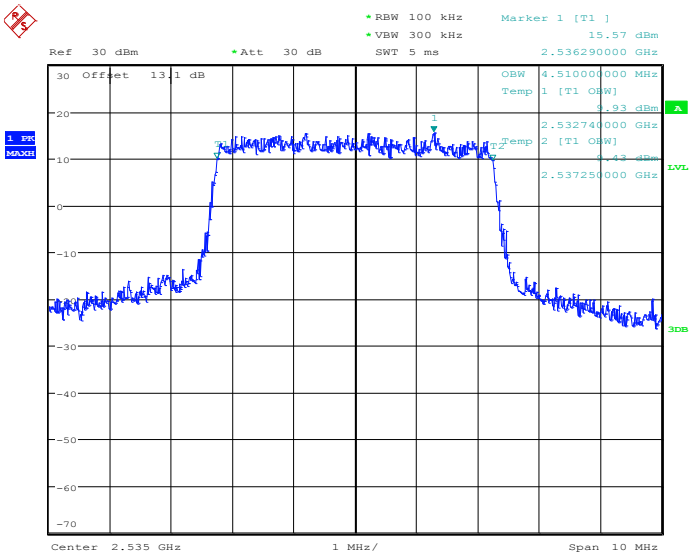
Date: 15.APR.2014 11:36:48

26dB Bandwidth Plot on Channel 20775



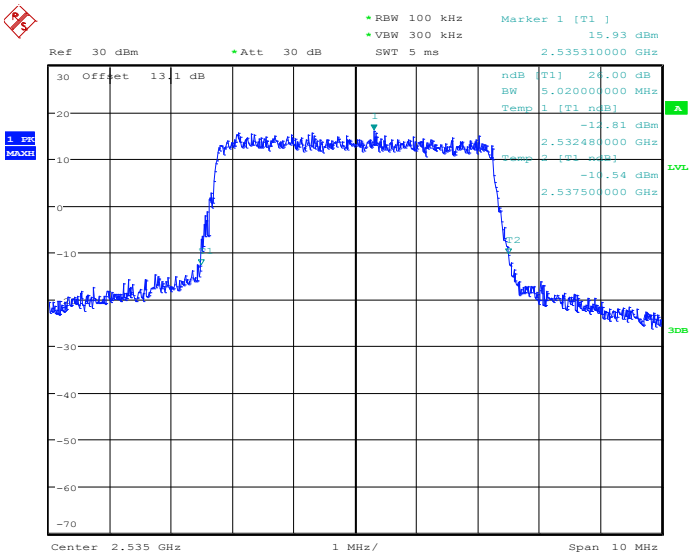
Date: 15.APR.2014 11:37:21

99% Occupied Bandwidth Plot on Channel 21100



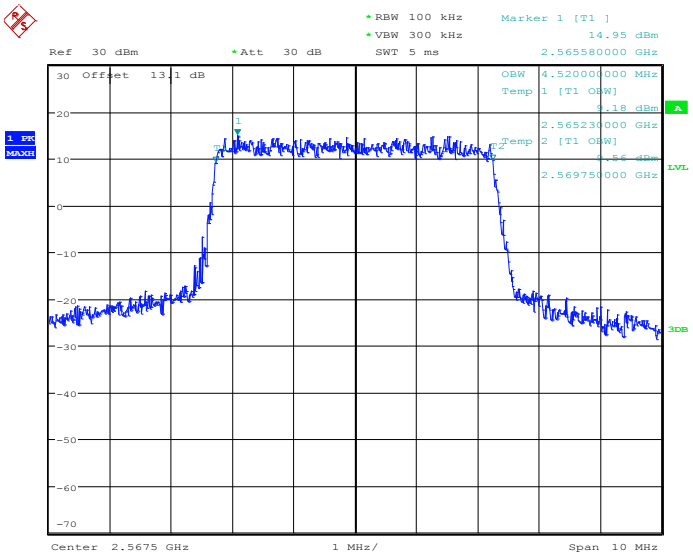
Date: 15.APR.2014 11:43:06

26dB Bandwidth Plot on Channel 21100



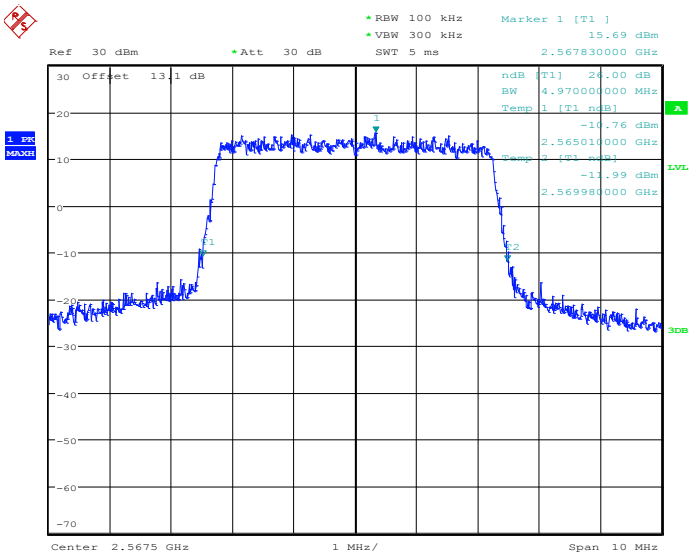
Date: 15.APR.2014 11:43:38

99% Occupied Bandwidth Plot on Channel 21425



Date: 15.APR.2014 11:46:15

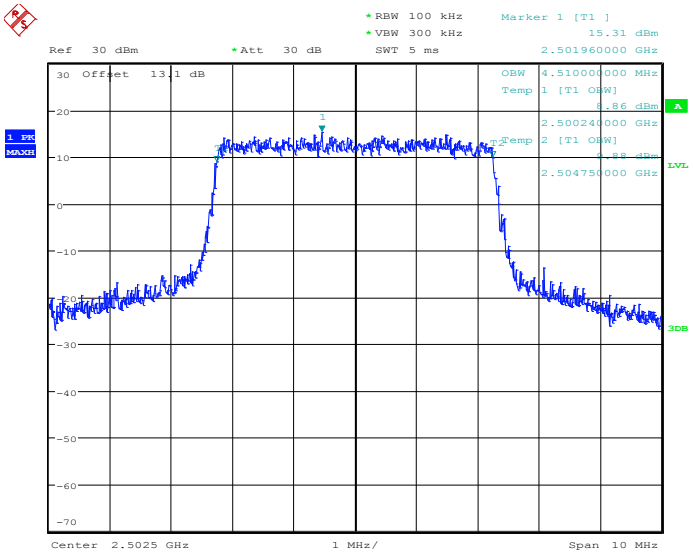
26dB Bandwidth Plot on Channel 21425



Date: 15.APR.2014 11:46:48

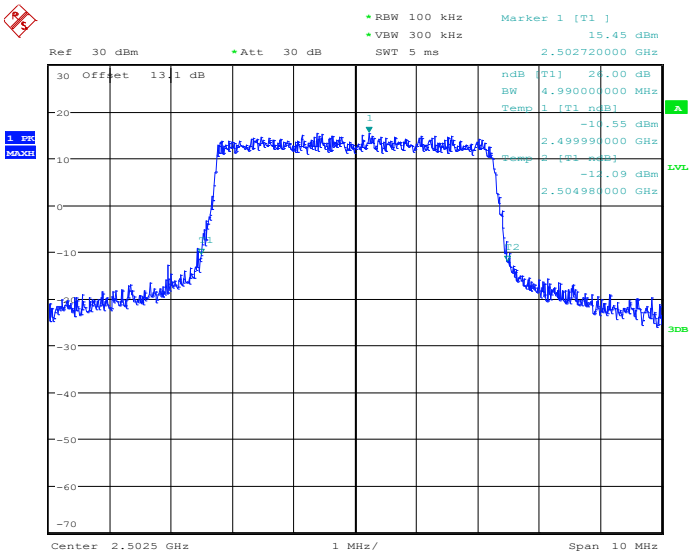
Band :	LTE Band 7	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20775



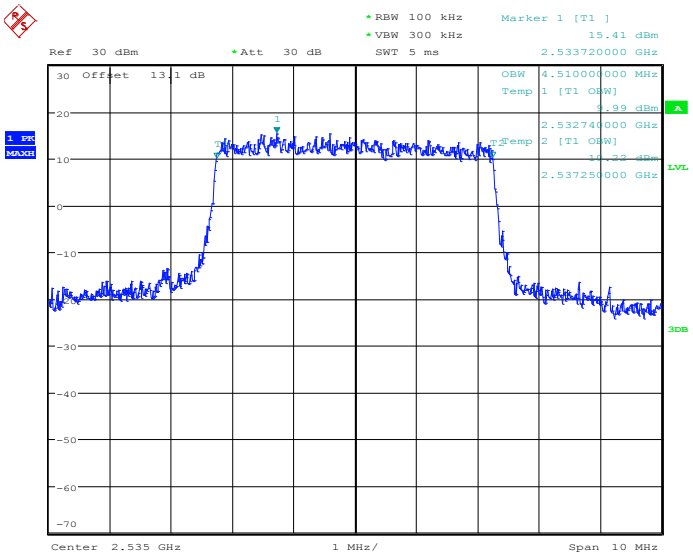
Date: 15.APR.2014 11:37:04

26dB Bandwidth Plot on Channel 20775



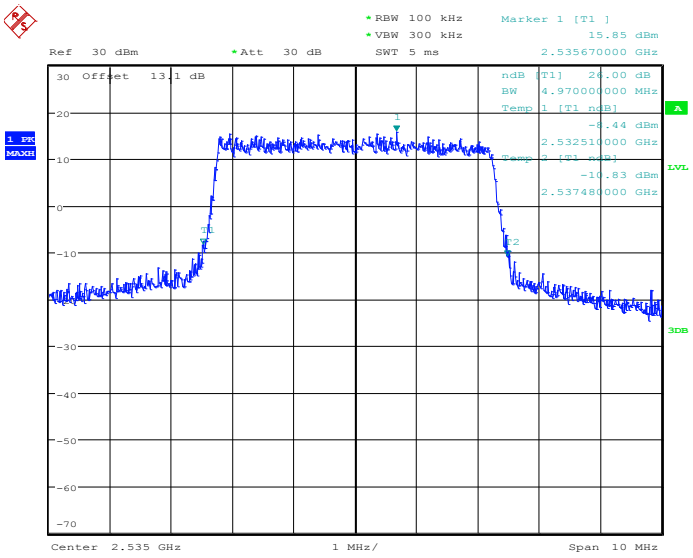
Date: 15.APR.2014 11:37:38

99% Occupied Bandwidth Plot on Channel 21100



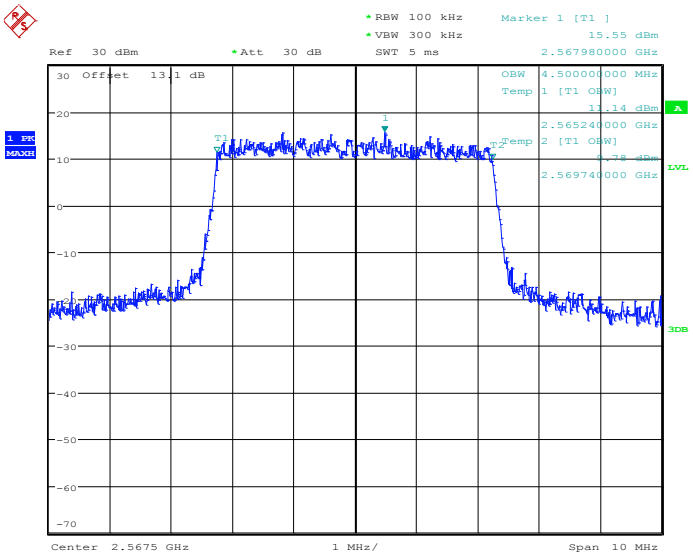
Date: 15.APR.2014 11:43:21

26dB Bandwidth Plot on Channel 21100



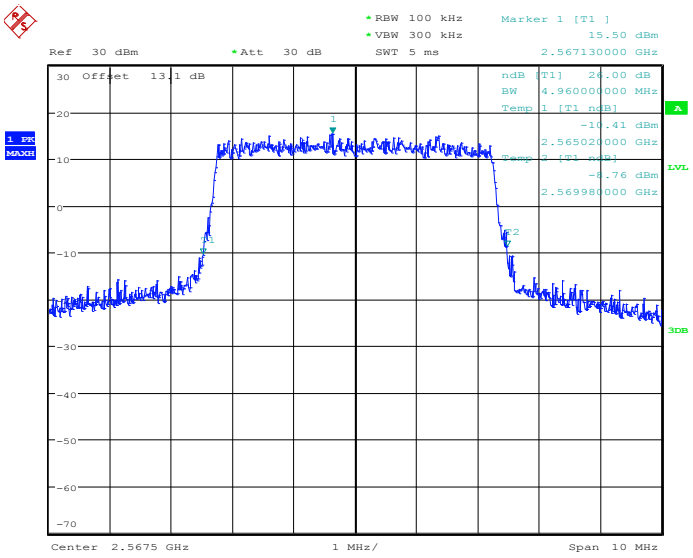
Date: 15.APR.2014 11:43:55

99% Occupied Bandwidth Plot on Channel 21425



Date: 15.APR.2014 11:46:31

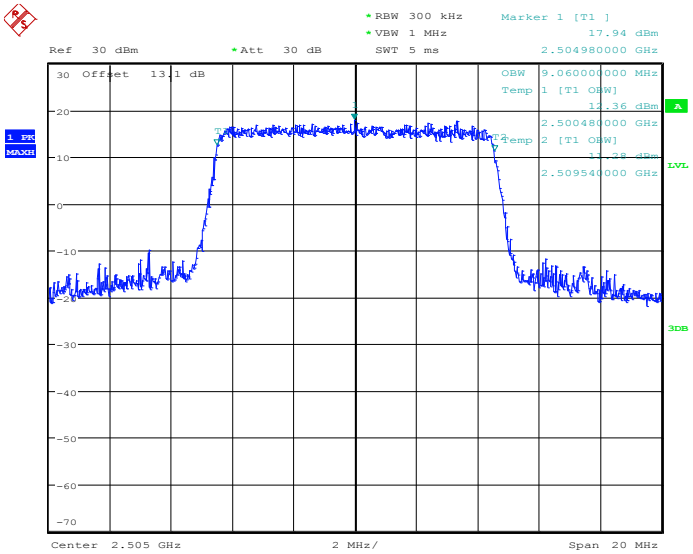
26dB Bandwidth Plot on Channel 21425



Date: 15.APR.2014 11:47:05

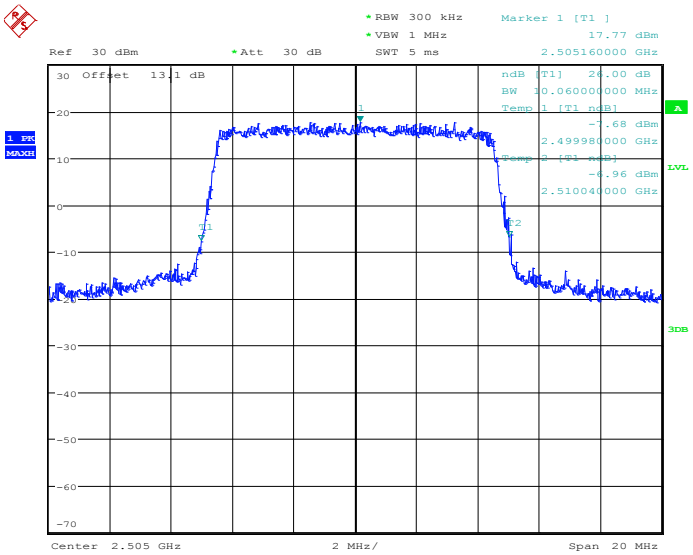
Band :	LTE Band 7	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20800



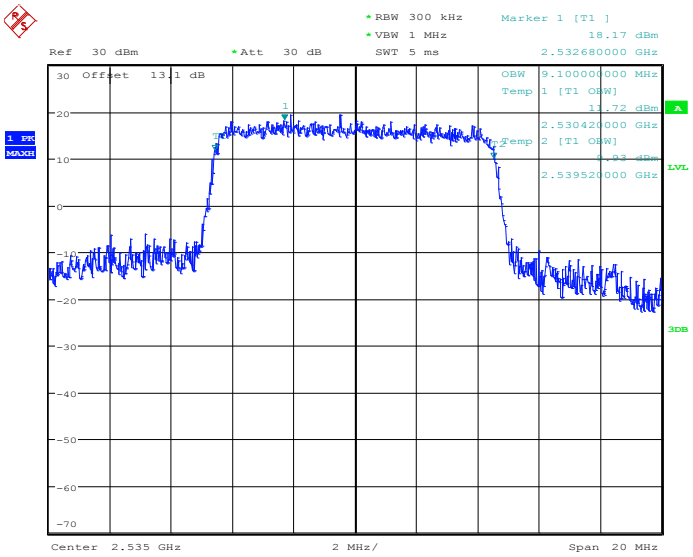
Date: 15.APR.2014 11:52:30

26dB Bandwidth Plot on Channel 20800



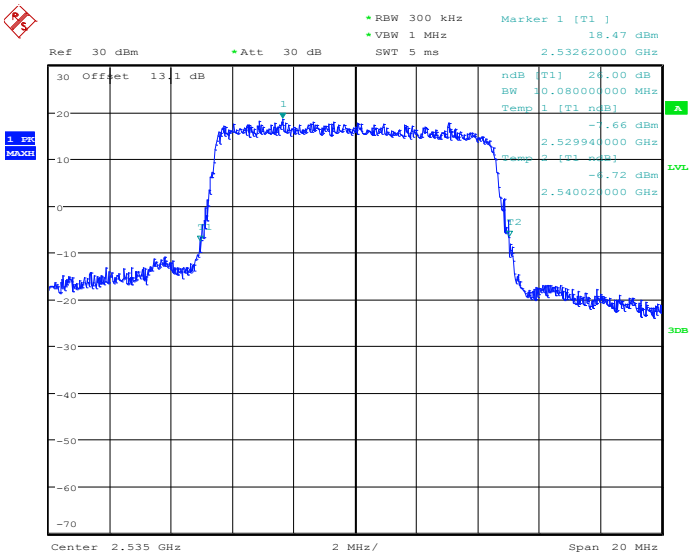
Date: 15.APR.2014 11:53:03

99% Occupied Bandwidth Plot on Channel 21100



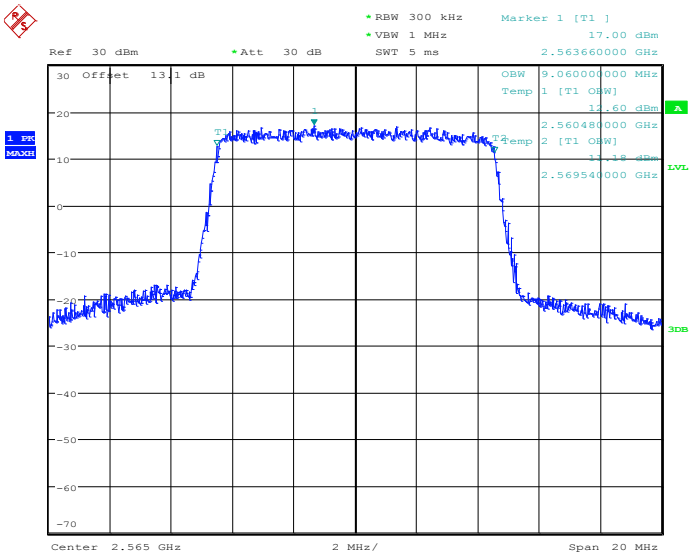
Date: 15.APR.2014 11:58:46

26dB Bandwidth Plot on Channel 21100



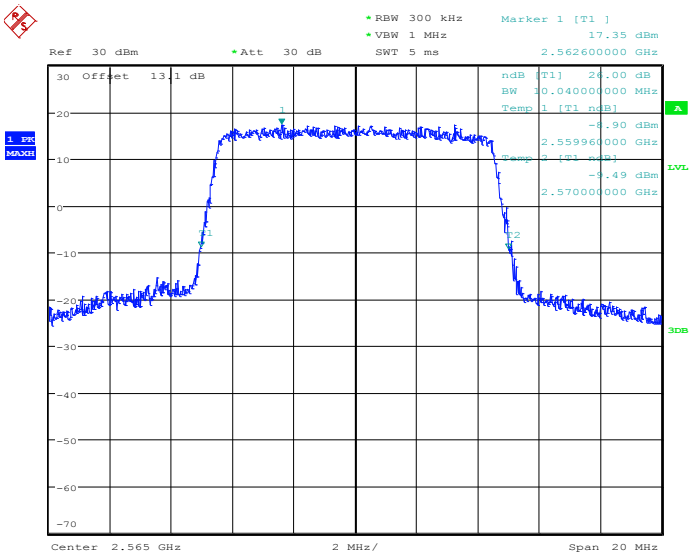
Date: 15.APR.2014 11:59:19

99% Occupied Bandwidth Plot on Channel 21400



Date: 15.APR.2014 12:01:57

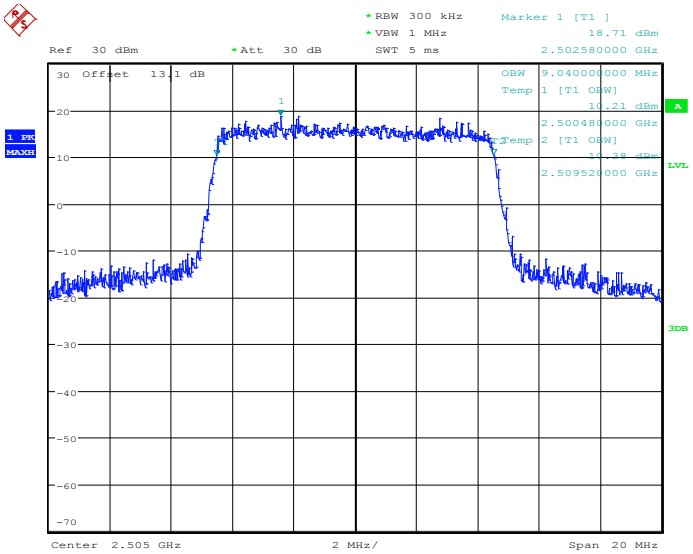
26dB Bandwidth Plot on Channel 21400



Date: 15.APR.2014 12:02:30

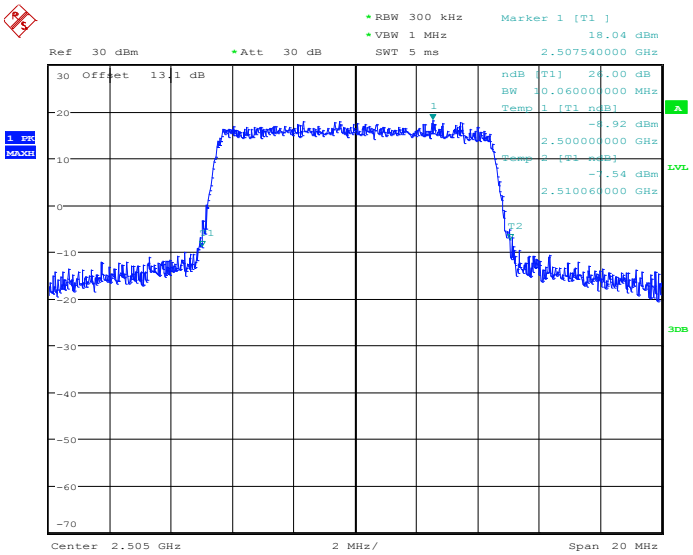
Band :	LTE Band 7	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20800



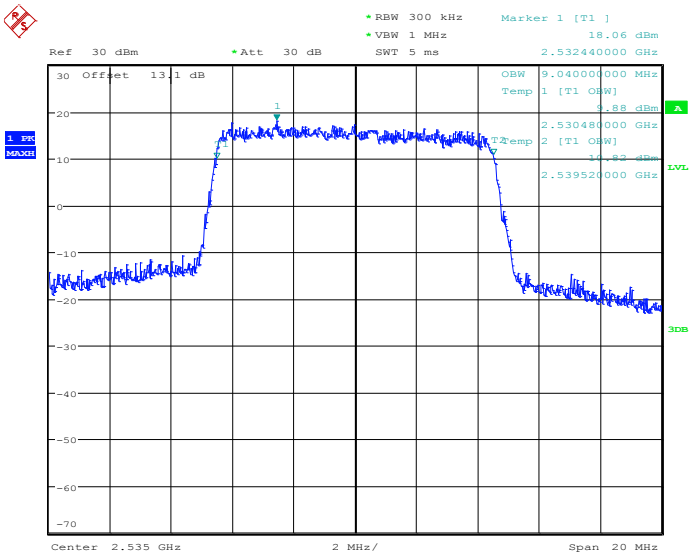
Date: 15.APR.2014 11:52:45

26dB Bandwidth Plot on Channel 20800



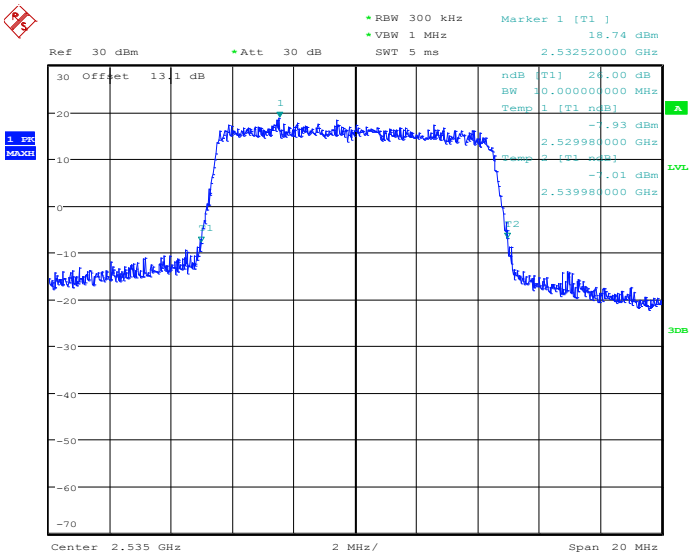
Date: 15.APR.2014 11:53:20

99% Occupied Bandwidth Plot on Channel 21100



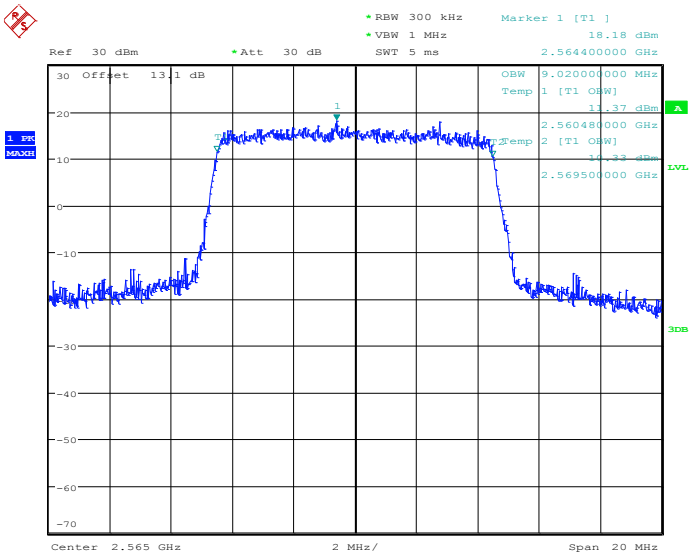
Date: 15.APR.2014 11:59:02

26dB Bandwidth Plot on Channel 21100



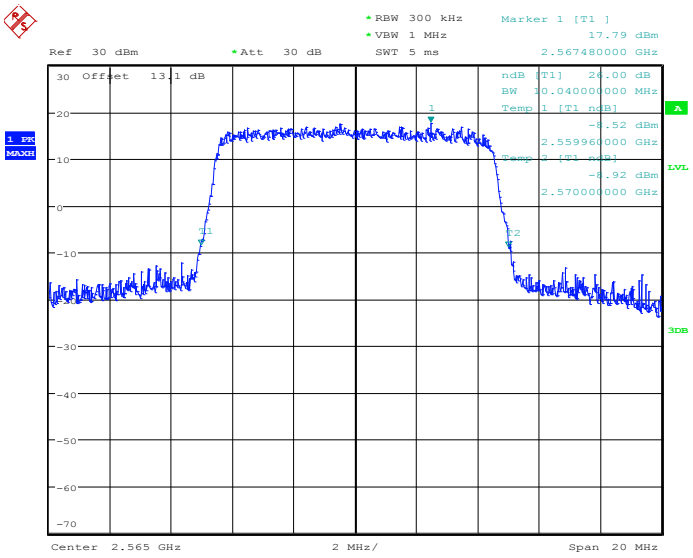
Date: 15.APR.2014 11:59:36

99% Occupied Bandwidth Plot on Channel 21400



Date: 15.APR.2014 12:02:12

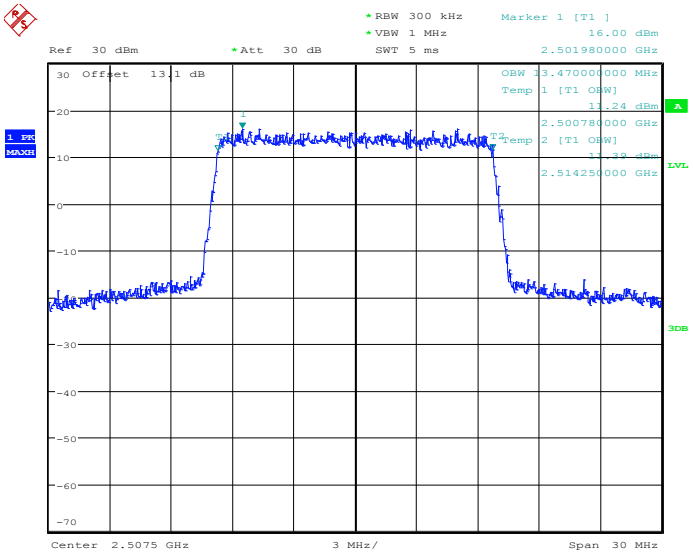
26dB Bandwidth Plot on Channel 21400



Date: 15.APR.2014 12:02:47

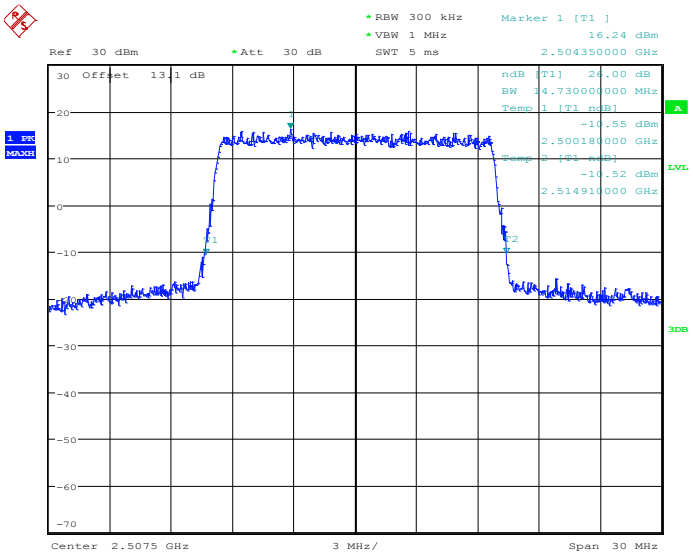
Band :	LTE Band 7	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20825



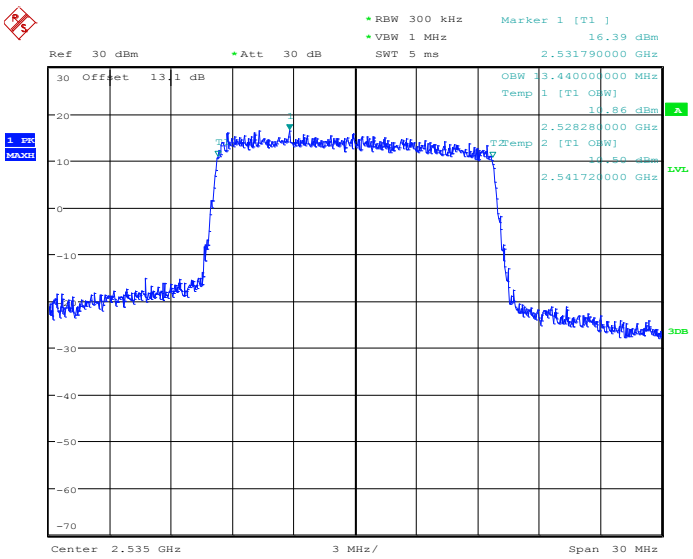
Date: 15.APR.2014 12:08:13

26dB Bandwidth Plot on Channel 20825



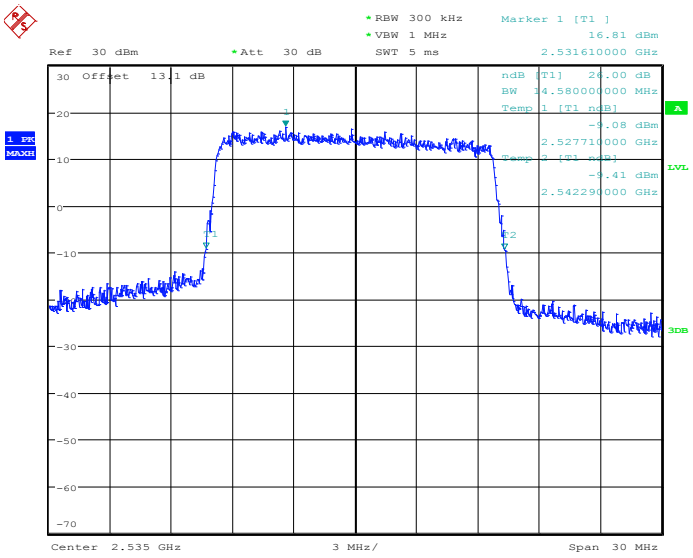
Date: 15.APR.2014 12:08:46

99% Occupied Bandwidth Plot on Channel 21100



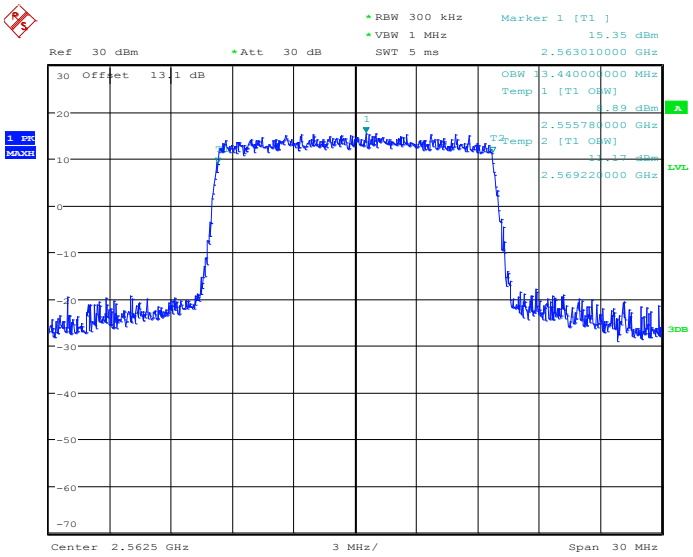
Date: 15.APR.2014 12:14:29

26dB Bandwidth Plot on Channel 21100



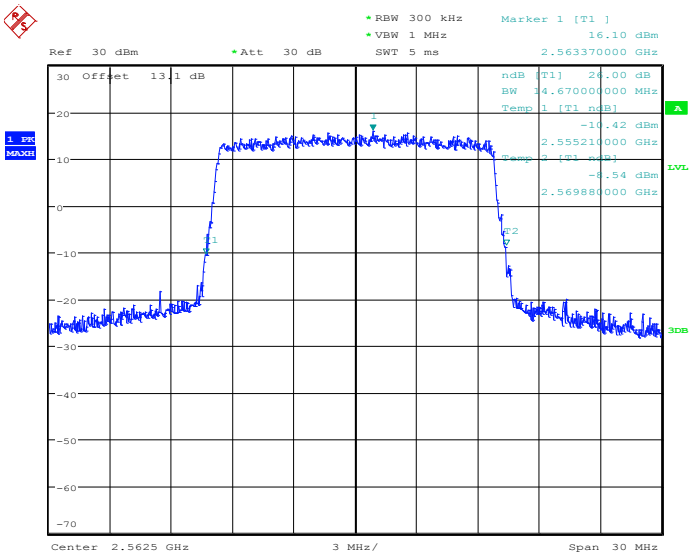
Date: 15.APR.2014 12:15:01

99% Occupied Bandwidth Plot on Channel 21375



Date: 15.APR.2014 12:17:39

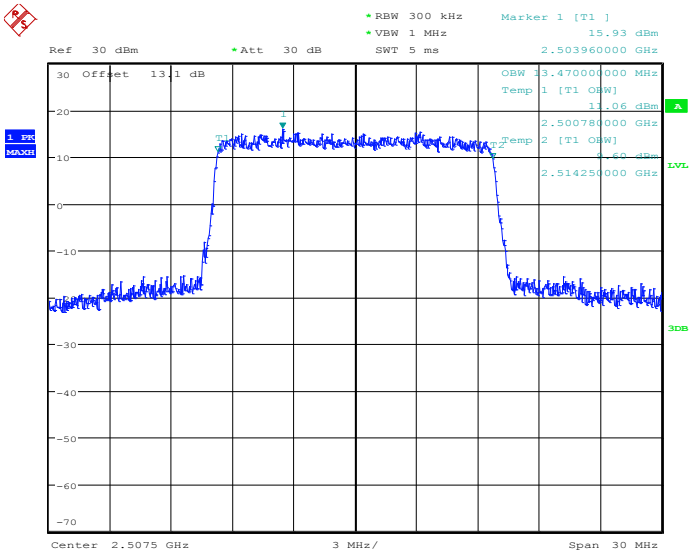
26dB Bandwidth Plot on Channel 21375



Date: 15.APR.2014 12:18:12

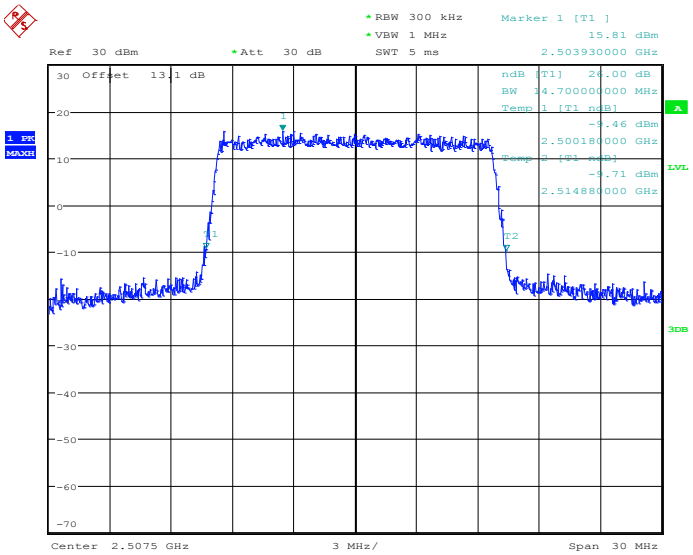
Band :	LTE Band 7	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20825



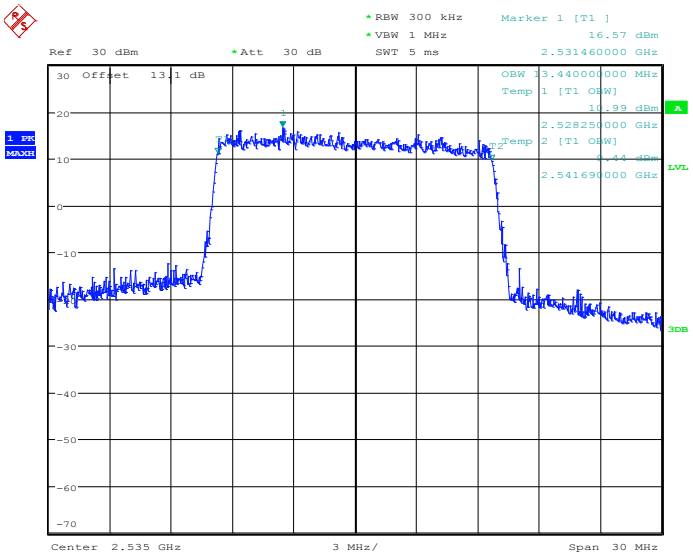
Date: 15.APR.2014 12:08:28

26dB Bandwidth Plot on Channel 20825



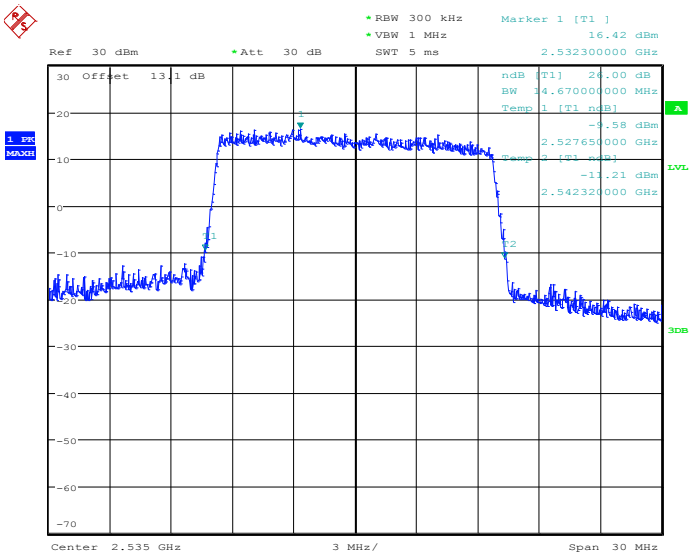
Date: 15.APR.2014 12:09:03

99% Occupied Bandwidth Plot on Channel 21100



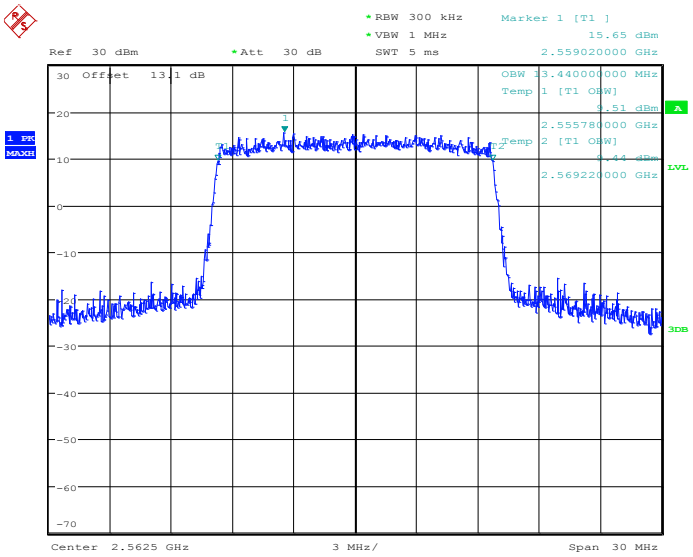
Date: 15.APR.2014 12:14:44

26dB Bandwidth Plot on Channel 21100



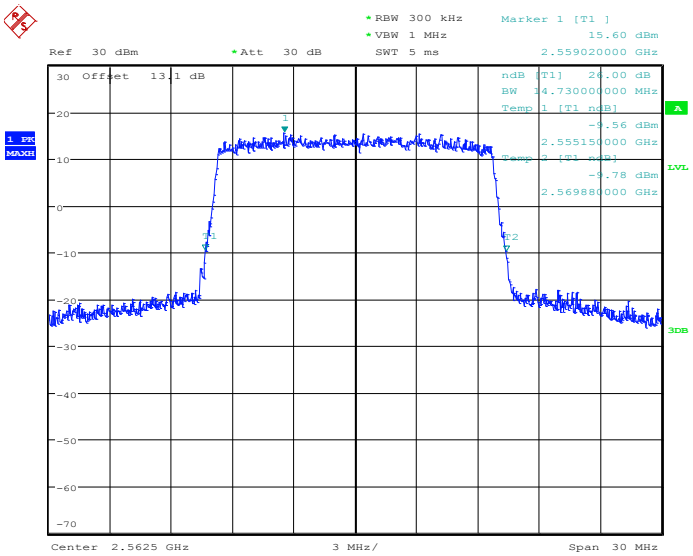
Date: 15.APR.2014 12:15:19

99% Occupied Bandwidth Plot on Channel 21375



Date: 15.APR.2014 12:17:55

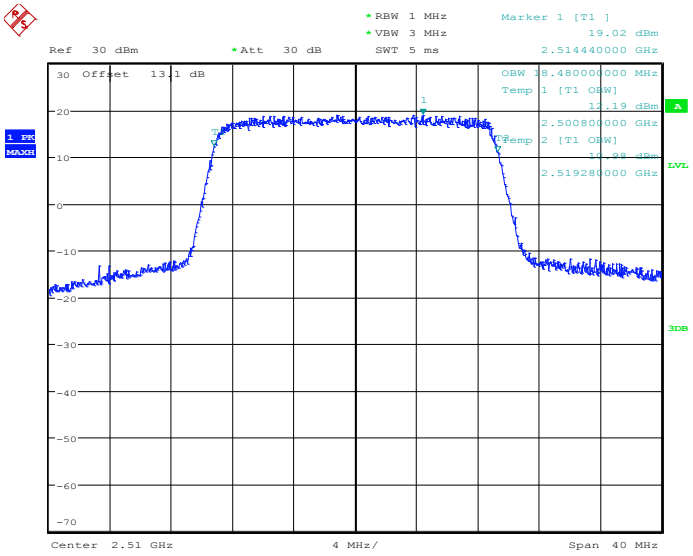
26dB Bandwidth Plot on Channel 21375



Date: 15.APR.2014 12:18:29

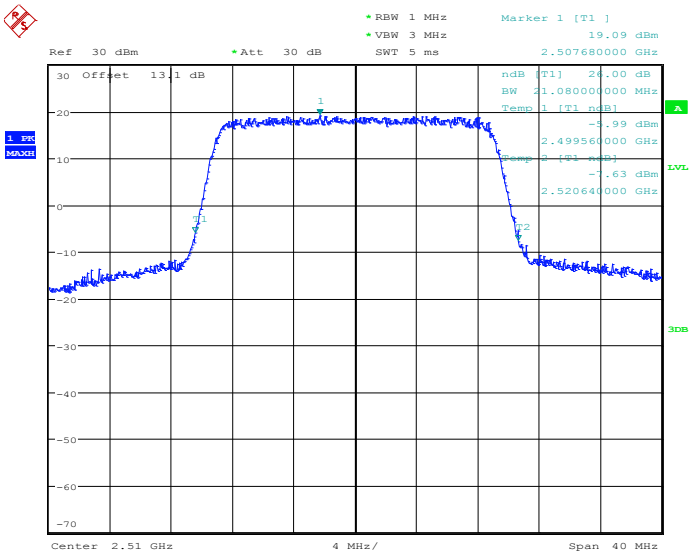
Band :	LTE Band 7	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20850



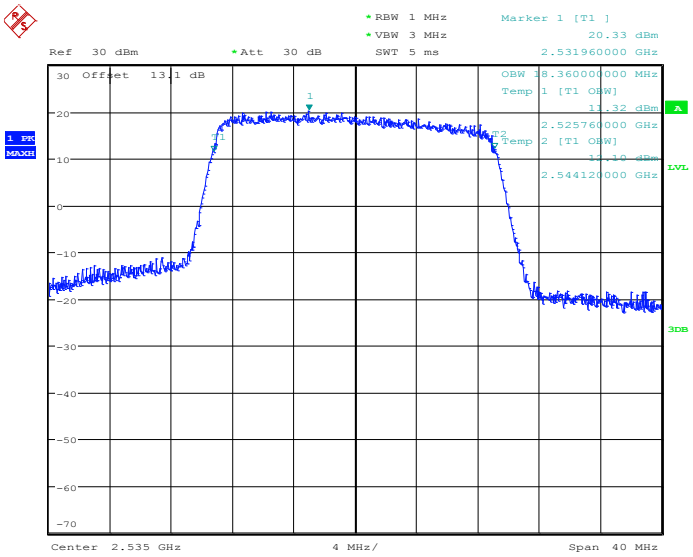
Date: 15.APR.2014 12:23:55

26dB Bandwidth Plot on Channel 20850



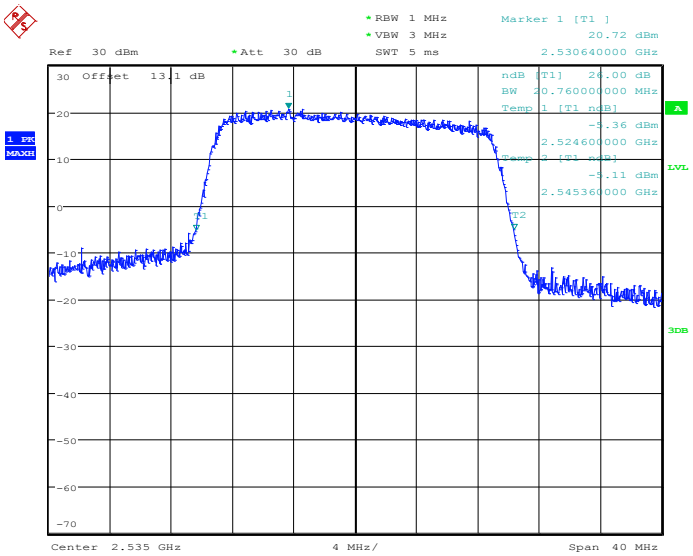
Date: 15.APR.2014 12:24:28

99% Occupied Bandwidth Plot on Channel 21100



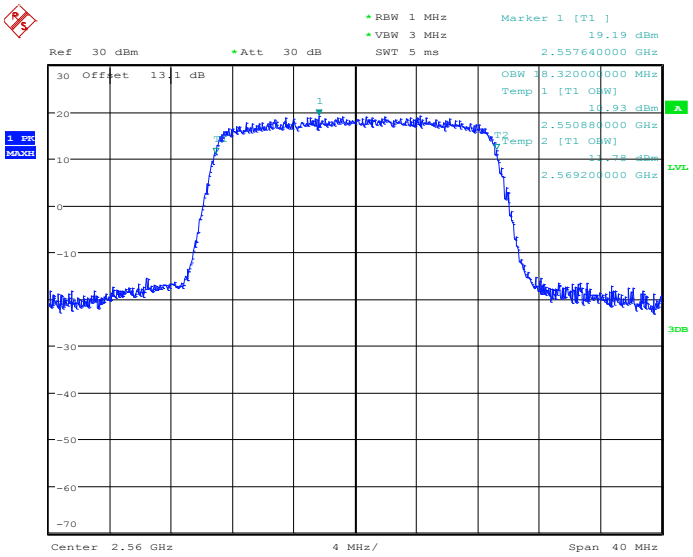
Date: 15.APR.2014 12:30:10

26dB Bandwidth Plot on Channel 21100



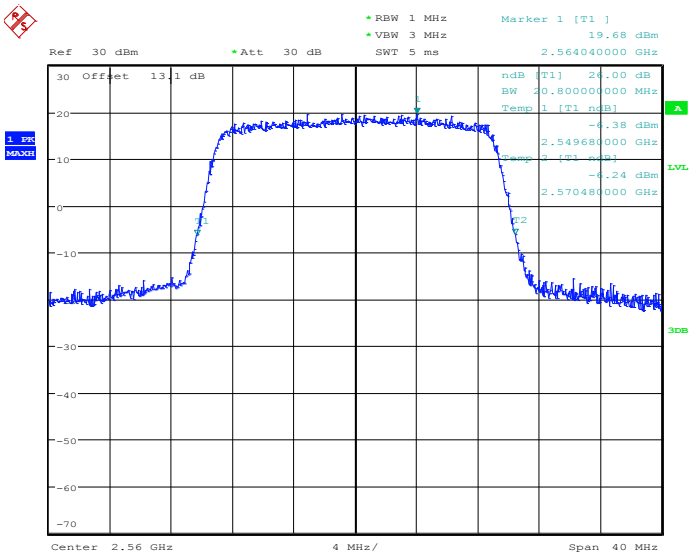
Date: 15.APR.2014 12:30:43

99% Occupied Bandwidth Plot on Channel 21350



Date: 15.APR.2014 12:33:21

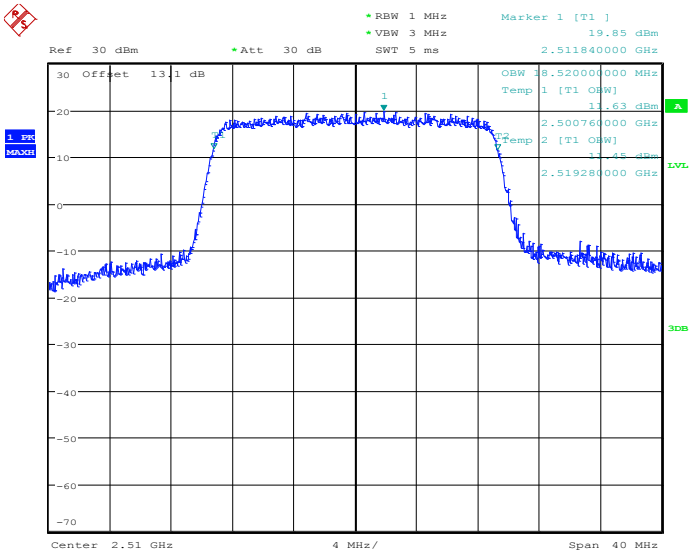
26dB Bandwidth Plot on Channel 21350



Date: 15.APR.2014 12:33:54

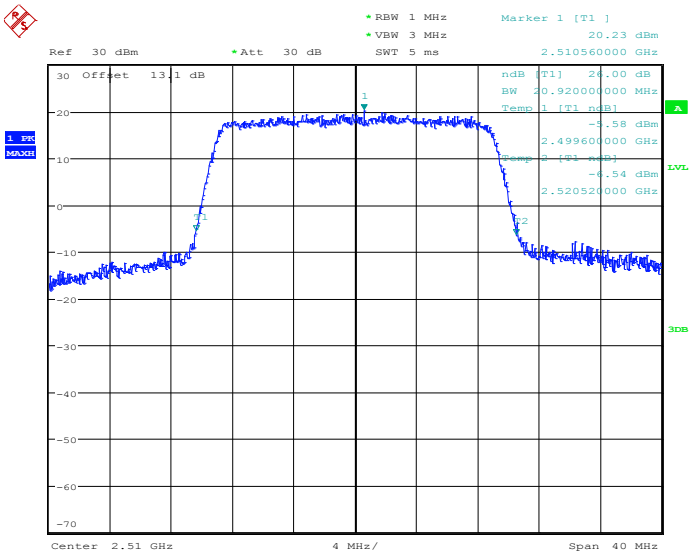
Band :	LTE Band 7	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20850



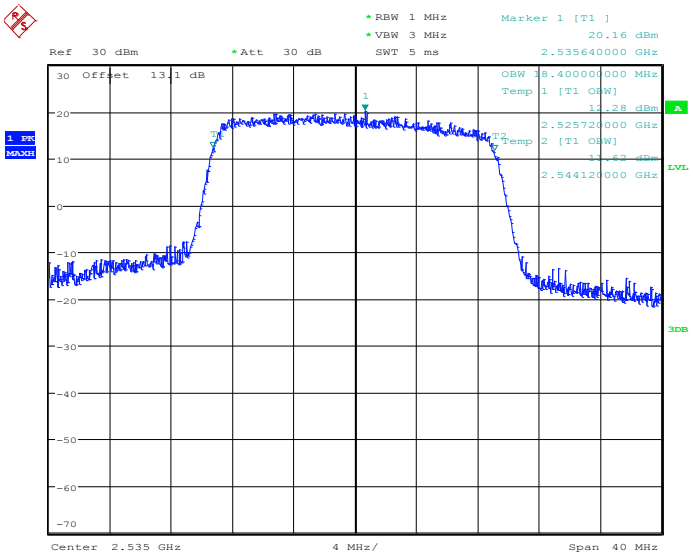
Date: 15.APR.2014 12:24:10

26dB Bandwidth Plot on Channel 20850



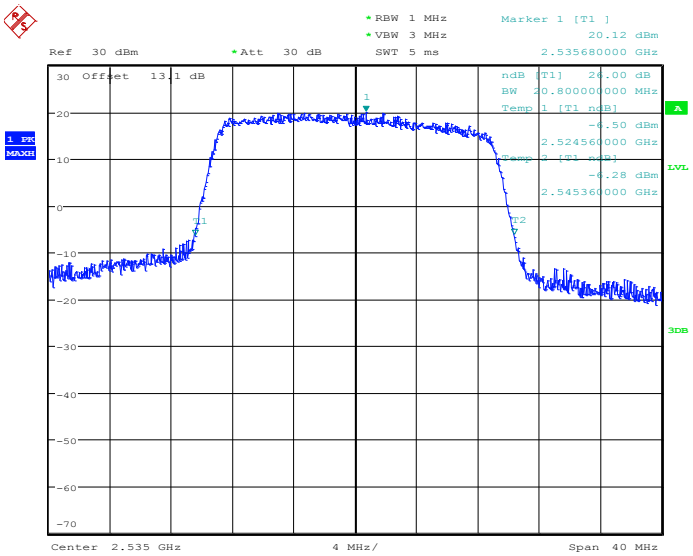
Date: 15.APR.2014 12:24:45

99% Occupied Bandwidth Plot on Channel 21100



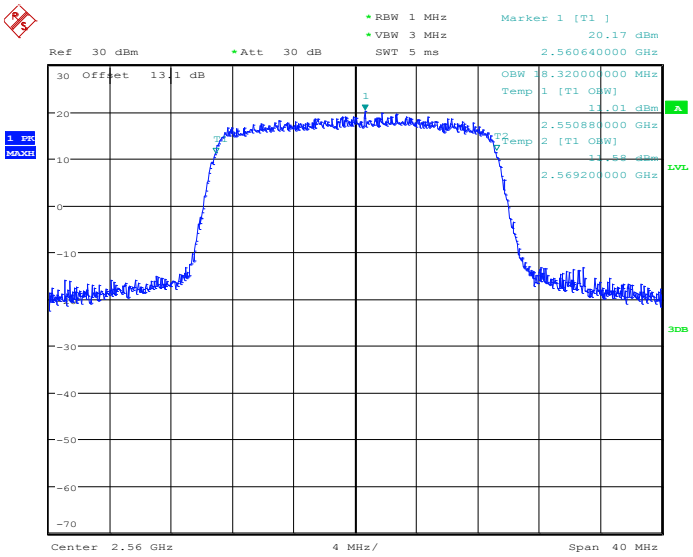
Date: 15.APR.2014 12:30:25

26dB Bandwidth Plot on Channel 21100



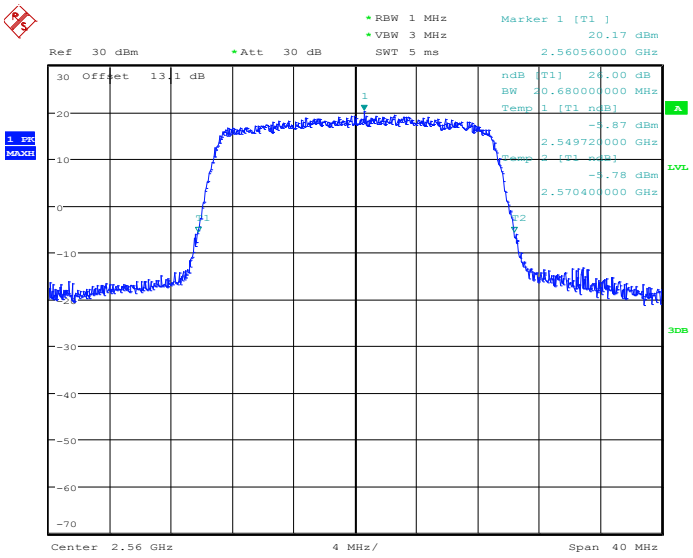
Date: 15.APR.2014 12:31:00

99% Occupied Bandwidth Plot on Channel 21350



Date: 15.APR.2014 12:33:36

26dB Bandwidth Plot on Channel 21350



Date: 15.APR.2014 12:34:11

3.5 Conducted Band Edge Measurement

3.5.1 Description of Conducted Band Edge Measurement

22.917(a) and RSS – 132

For operations in the 824 – 849 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (l)(4) and RSS – 199

The emissions be operated in the 2496-2690 MHz band, the attenuation factor of transmitter Power (P) shall be not less than 55 + 10 log (P) dB at the channel edge

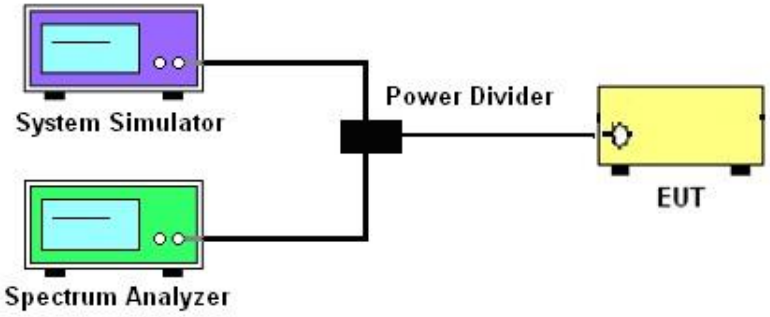
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with RMS detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
5. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

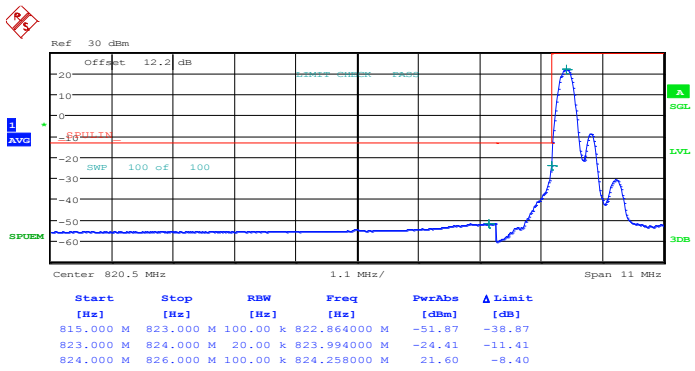
3.5.4 Test Setup



3.5.5 Test Result (Plots) of Conducted Band Edge

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

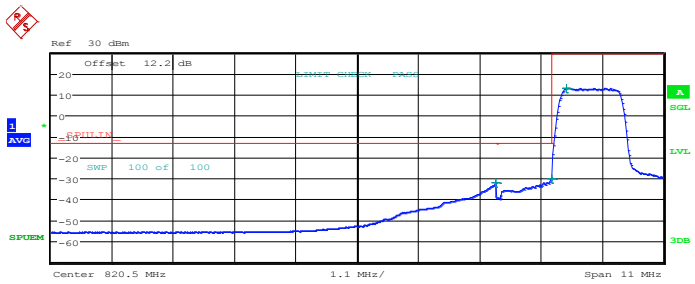
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.864000 M	-51.87	-38.87
823.000 M	824.000 M	20.00 k	823.994000 M	-24.41	-11.41
824.000 M	826.000 M	100.00 k	824.258000 M	21.60	-8.40

Date: 19.APR.2014 11:38:55

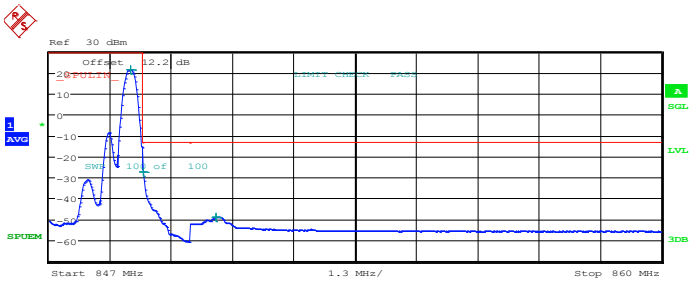
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.992000 M	-32.33	-19.33
823.000 M	824.000 M	20.00 k	823.999000 M	-30.19	-17.19
824.000 M	826.000 M	100.00 k	824.260000 M	13.04	-16.96

Date: 19.APR.2014 11:40:28

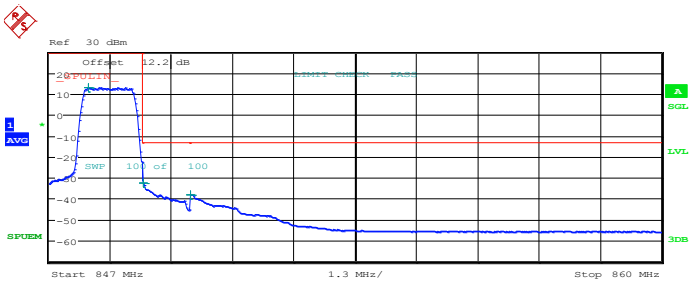
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
847.000 M	849.000 M	100.00 k	848.726000 M	21.46	-8.54
849.000 M	850.000 M	20.00 k	849.009000 M	-27.33	-14.33
850.000 M	860.000 M	100.00 k	850.540000 M	-48.92	-35.92

Date: 19.APR.2014 11:47:35

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

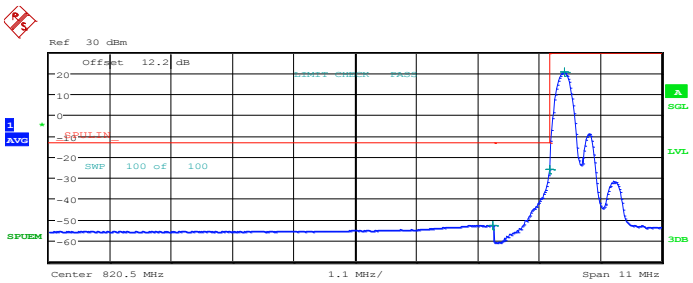


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
847.000 M	849.000 M	100.00 k	847.836000 M	12.81	-17.19
849.000 M	850.000 M	20.00 k	849.001000 M	-32.64	-19.64
850.000 M	860.000 M	100.00 k	850.000000 M	-38.09	-25.09

Date: 19.APR.2014 11:46:01

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

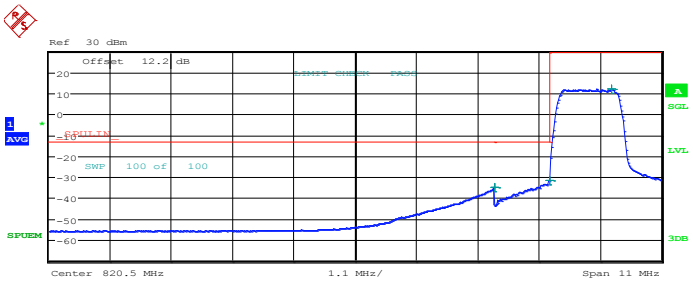
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.976000 M	-52.70	-39.70
823.000 M	824.000 M	20.00 k	823.997000 M	-25.87	-12.87
824.000 M	826.000 M	100.00 k	824.258000 M	20.36	-9.64

Date: 19.APR.2014 11:39:42

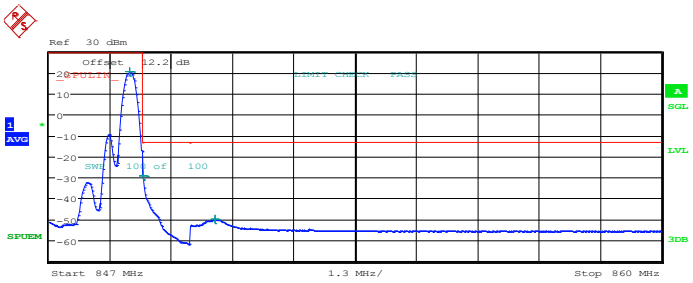
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	823.000000 M	-35.25	-22.25
823.000 M	824.000 M	20.00 k	823.992000 M	-31.64	-18.64
824.000 M	826.000 M	100.00 k	825.102000 M	11.93	-18.07

Date: 19.APR.2014 11:41:15

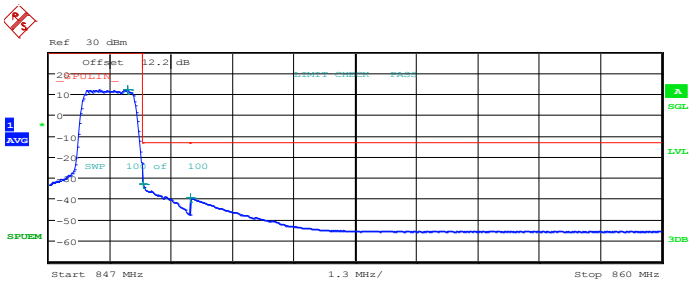
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
847.000 M	849.000 M	100.00 k	848.716000 M	20.37	-9.63
849.000 M	850.000 M	20.00 k	849.004000 M	-29.23	-16.23
850.000 M	860.000 M	100.00 k	850.530000 M	-50.26	-37.26

Date: 19.APR.2014 11:48:22

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

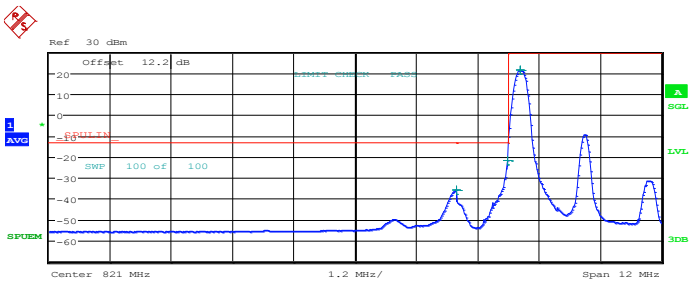


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
847.000 M	849.000 M	100.00 k	848.672000 M	11.80	-18.20
849.000 M	850.000 M	20.00 k	849.001000 M	-32.93	-19.93
850.000 M	860.000 M	100.00 k	850.000000 M	-39.76	-26.76

Date: 19.APR.2014 11:46:48

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

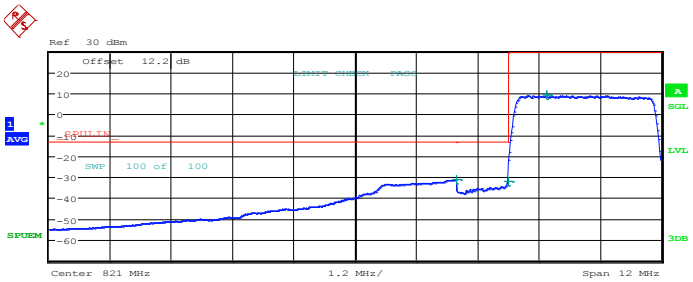
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.976000 M	-35.95	-22.95
823.000 M	824.000 M	30.00 k	823.989000 M	-22.02	-9.02
824.000 M	827.000 M	100.00 k	824.237000 M	21.33	-8.67

Date: 19.APR.2014 12:36:18

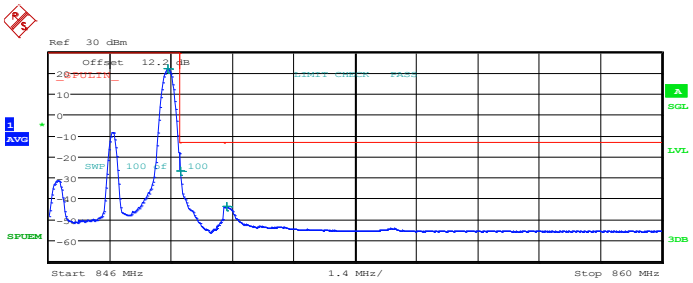
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.976000 M	-31.13	-18.13
823.000 M	824.000 M	30.00 k	823.998000 M	-32.06	-19.06
824.000 M	827.000 M	100.00 k	824.744000 M	9.06	-20.94

Date: 19.APR.2014 11:56:38

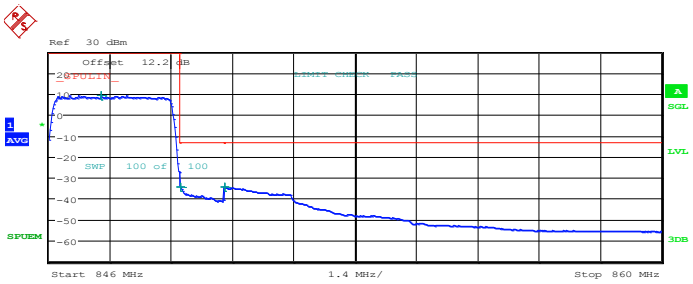
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
846.000 M	849.000 M	100.00 k	848.709000 M	21.59	-8.41
849.000 M	850.000 M	30.00 k	849.001000 M	-27.10	-14.10
850.000 M	860.000 M	100.00 k	850.070000 M	-44.12	-31.12

Date: 19.APR.2014 12:02:11

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

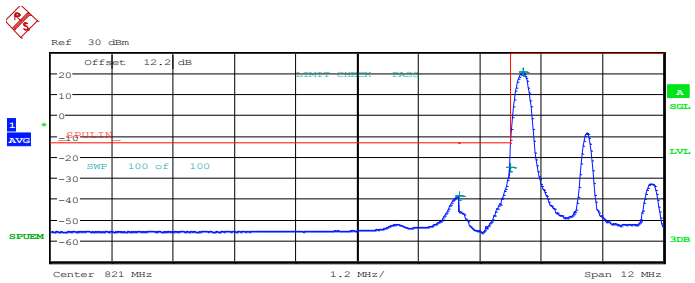


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
846.000 M	849.000 M	100.00 k	847.182000 M	9.07	-20.93
849.000 M	850.000 M	30.00 k	849.001000 M	-34.79	-21.79
850.000 M	860.000 M	100.00 k	850.020000 M	-34.75	-21.75

Date: 19.APR.2014 12:03:44

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

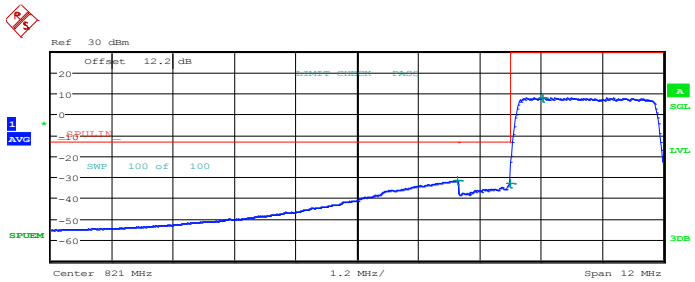
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.992000 M	-38.78	-25.78
823.000 M	824.000 M	30.00 k	823.998000 M	-25.28	-12.28
824.000 M	827.000 M	100.00 k	824.249000 M	20.24	-9.76

Date: 19.APR.2014 11:55:51

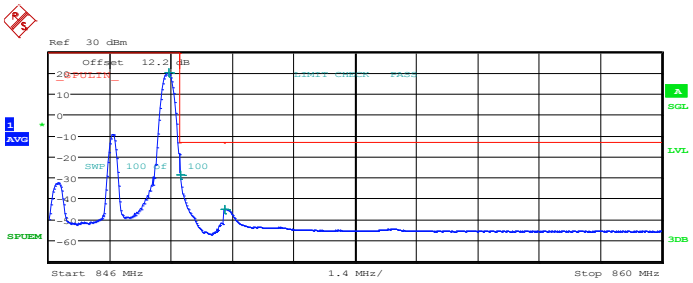
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.960000 M	-31.91	-18.91
823.000 M	824.000 M	30.00 k	823.991000 M	-32.95	-19.95
824.000 M	827.000 M	100.00 k	824.639000 M	7.81	-22.19

Date: 19.APR.2014 11:57:25

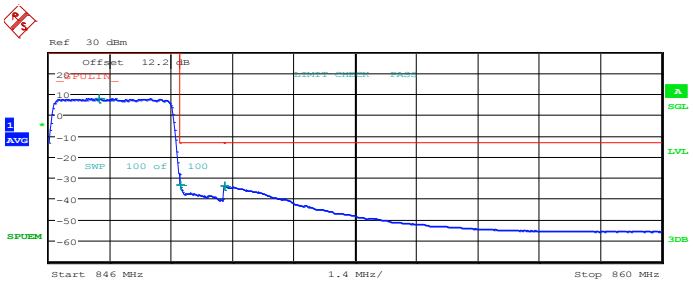
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
846.000 M	849.000 M	100.00 k	848.727000 M	19.83	-10.17
849.000 M	850.000 M	30.00 k	849.001000 M	-28.74	-15.74
850.000 M	860.000 M	100.00 k	850.010000 M	-45.19	-32.19

Date: 19.APR.2014 12:02:58

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

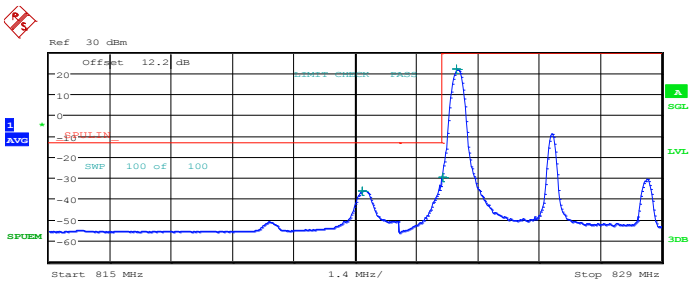


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
846.000 M	849.000 M	100.00 k	847.152000 M	7.76	-22.24
849.000 M	850.000 M	30.00 k	849.002000 M	-33.43	-20.43
850.000 M	860.000 M	100.00 k	850.010000 M	-34.27	-21.27

Date: 19.APR.2014 12:04:31

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

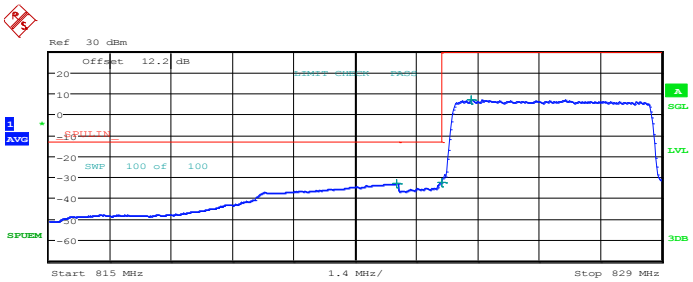
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.160000 M	-36.20	-23.20
823.000 M	824.000 M	50.00 k	823.999000 M	-29.93	-16.93
824.000 M	829.000 M	100.00 k	824.320000 M	21.58	-8.42

Date: 19.APR.2014 12:07:22

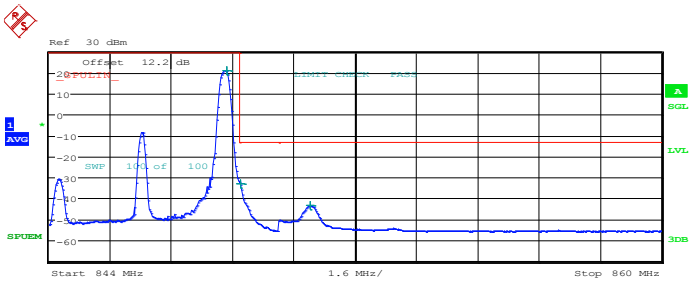
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.952000 M	-33.27	-20.27
823.000 M	824.000 M	50.00 k	823.984000 M	-32.61	-19.61
824.000 M	829.000 M	100.00 k	824.655000 M	6.63	-23.37

Date: 19.APR.2014 12:08:56

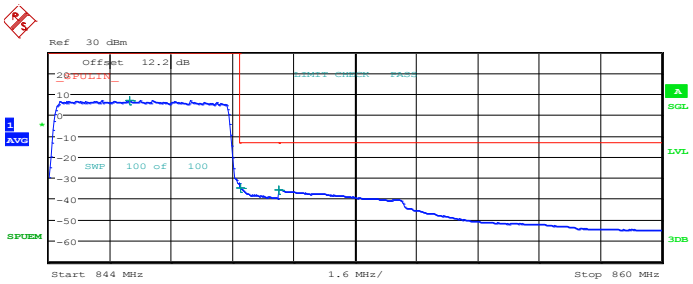
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
844.000 M	849.000 M	100.00 k	848.635000 M	21.04	-8.96
849.000 M	850.000 M	50.00 k	849.002000 M	-33.20	-20.20
850.000 M	860.000 M	100.00 k	850.820000 M	-43.59	-30.59

Date: 19.APR.2014 12:14:29

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

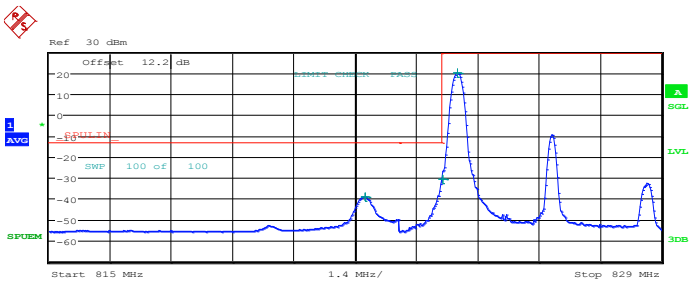


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
844.000 M	849.000 M	100.00 k	846.115000 M	6.83	-23.17
849.000 M	850.000 M	50.00 k	849.012000 M	-35.23	-22.23
850.000 M	860.000 M	100.00 k	850.000000 M	-36.12	-23.12

Date: 19.APR.2014 12:16:02

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

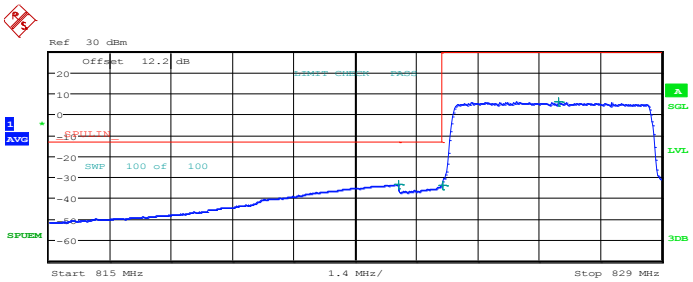
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.216000 M	-39.02	-26.02
823.000 M	824.000 M	50.00 k	823.996000 M	-30.73	-17.73
824.000 M	829.000 M	100.00 k	824.335000 M	19.87	-10.13

Date: 19.APR.2014 12:08:09

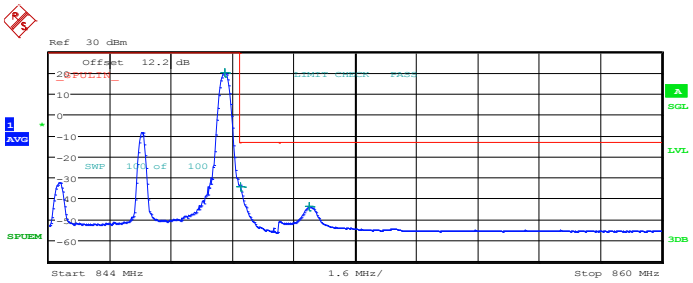
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.992000 M	-33.58	-20.58
823.000 M	824.000 M	50.00 k	823.996000 M	-33.97	-20.97
824.000 M	829.000 M	100.00 k	826.640000 M	5.62	-24.38

Date: 19.APR.2014 12:09:42

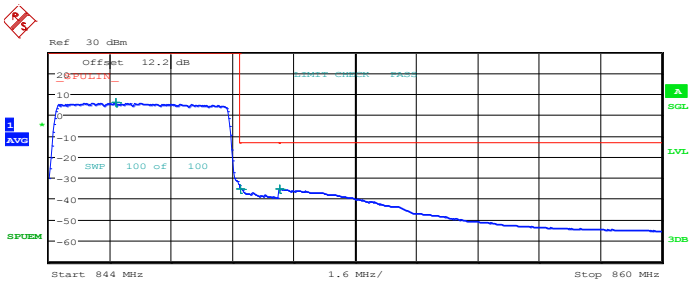
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
844.000 M	849.000 M	100.00 k	848.585000 M	20.08	-9.92
849.000 M	850.000 M	50.00 k	849.002000 M	-34.40	-21.40
850.000 M	860.000 M	100.00 k	850.800000 M	-44.14	-31.14

Date: 19.APR.2014 12:15:16

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

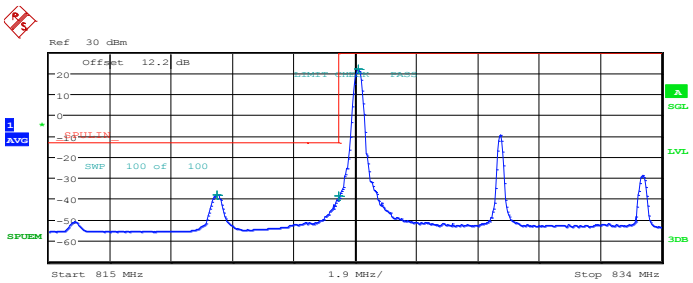


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
844.000 M	849.000 M	100.00 k	845.745000 M	5.62	-24.38
849.000 M	850.000 M	50.00 k	849.011000 M	-35.28	-22.28
850.000 M	860.000 M	100.00 k	850.030000 M	-35.66	-22.66

Date: 19.APR.2014 12:16:49

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

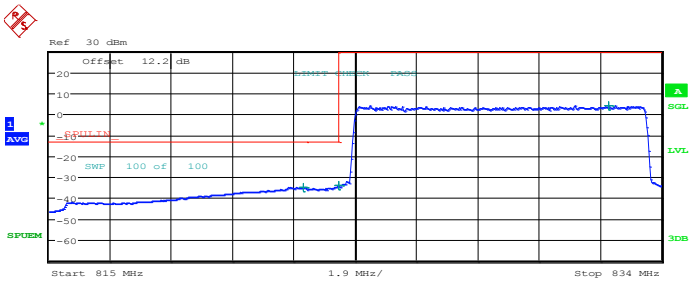
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	820.192000 M	-38.23	-25.23
823.000 M	824.000 M	100.00 k	823.996000 M	-38.86	-25.86
824.000 M	834.000 M	100.00 k	824.590000 M	21.76	-8.24

Date: 19.APR.2014 12:19:40

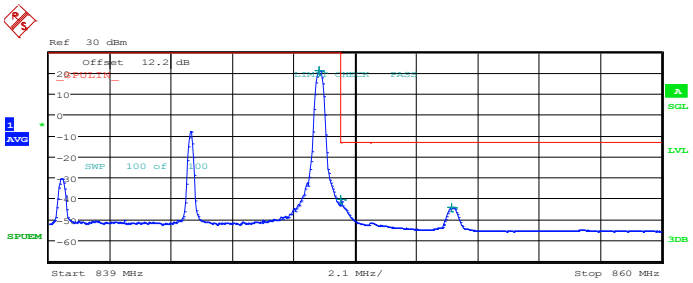
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.888000 M	-35.19	-22.19
823.000 M	824.000 M	100.00 k	823.982000 M	-34.15	-21.15
824.000 M	834.000 M	100.00 k	832.350000 M	4.04	-25.96

Date: 19.APR.2014 12:21:13

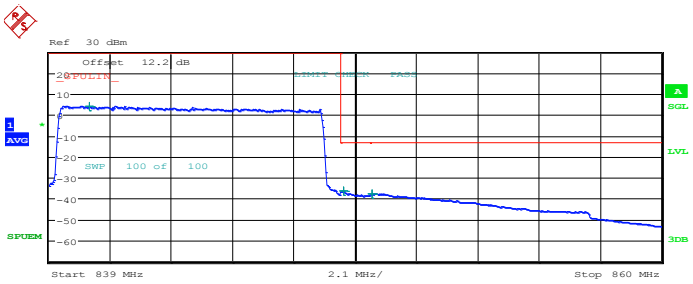
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
839.000 M	849.000 M	100.00 k	848.250000 M	21.08	-8.92
849.000 M	850.000 M	100.00 k	849.002000 M	-40.58	-27.58
850.000 M	860.000 M	100.00 k	852.800000 M	-44.48	-31.48

Date: 19.APR.2014 12:26:47

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

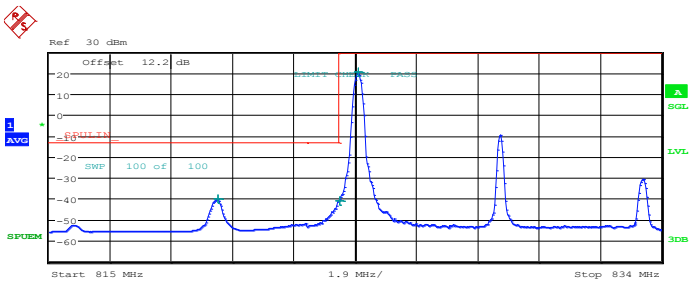


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
839.000 M	849.000 M	100.00 k	840.370000 M	4.16	-25.84
849.000 M	850.000 M	100.00 k	849.088000 M	-36.41	-23.41
850.000 M	860.000 M	100.00 k	850.070000 M	-37.78	-24.78

Date: 19.APR.2014 12:28:21

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

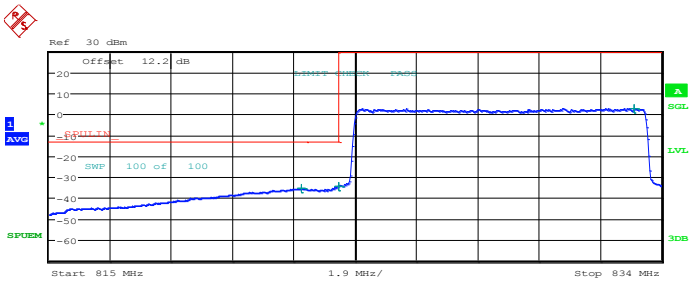
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	820.224000 M	-40.40	-27.40
823.000 M	824.000 M	100.00 k	823.999000 M	-41.04	-28.04
824.000 M	834.000 M	100.00 k	824.580000 M	20.28	-9.72

Date: 19.APR.2014 12:20:27

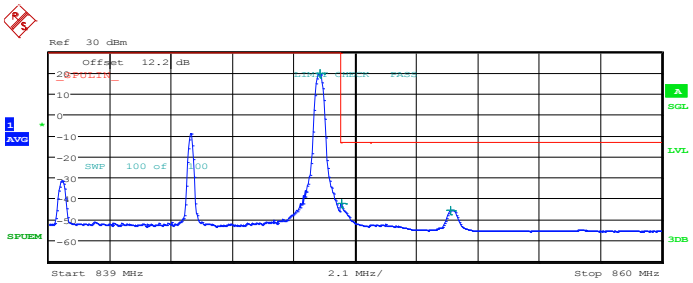
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
815.000 M	823.000 M	100.00 k	822.832000 M	-35.62	-22.62
823.000 M	824.000 M	100.00 k	823.992000 M	-34.68	-21.68
824.000 M	834.000 M	100.00 k	833.160000 M	2.63	-27.37

Date: 19.APR.2014 12:22:00

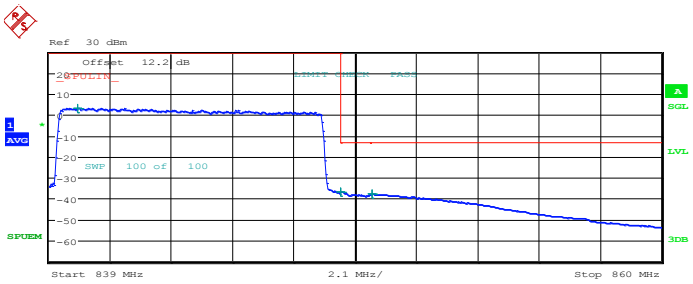
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
839.000 M	849.000 M	100.00 k	848.280000 M	19.28	-10.72
849.000 M	850.000 M	100.00 k	849.016000 M	-42.57	-29.57
850.000 M	860.000 M	100.00 k	852.780000 M	-45.66	-32.66

Date: 19.APR.2014 12:27:34

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

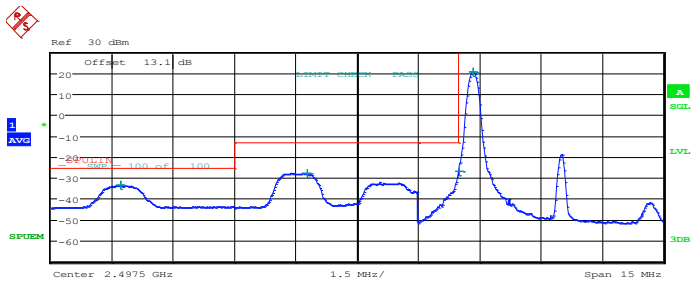


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
839.000 M	849.000 M	100.00 k	839.980000 M	3.19	-26.81
849.000 M	850.000 M	100.00 k	849.002000 M	-36.71	-23.71
850.000 M	860.000 M	100.00 k	850.070000 M	-37.83	-24.83

Date: 19.APR.2014 12:29:07

Band :	LTE Band 7	Band Width :	5MHz / QPSK

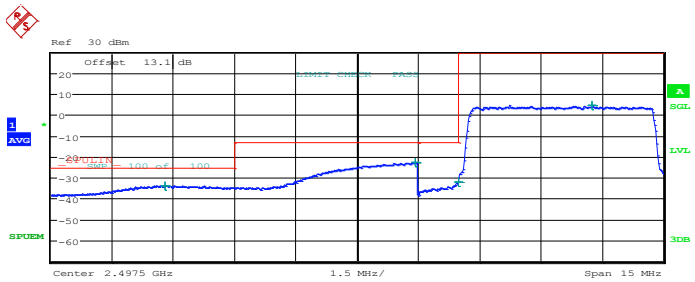
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.491710 G	-33.81	-8.81
2.494 G	2.499 G	1.00 M	2.496264 G	-28.05	-15.05
2.499 G	2.500 G	50.00 k	2.499998 G	-26.82	-13.82
2.500 G	2.505 G	100.00 k	2.500335 G	20.37	-9.63

Date: 24.APR.2014 18:09:49

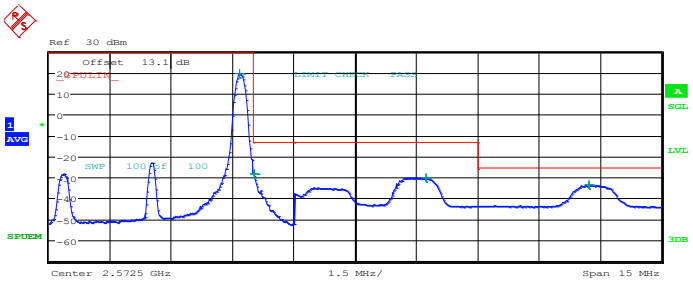
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.492799 G	-33.89	-8.89
2.494 G	2.499 G	1.00 M	2.498910 G	-22.65	-9.65
2.499 G	2.500 G	50.00 k	2.499982 G	-32.41	-19.41
2.500 G	2.505 G	100.00 k	2.503255 G	4.36	-25.64

Date: 24.APR.2014 18:11:21

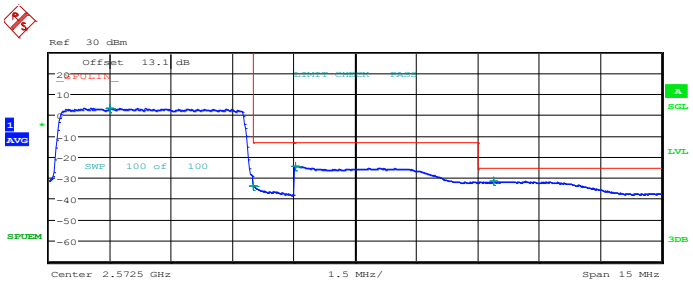
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.565 G	2.570 G	100.00 k	2.569675 G	19.32	-10.68
2.570 G	2.571 G	50.00 k	2.570014 G	-28.39	-15.39
2.571 G	2.575 G	1.00 M	2.574227 G	-30.29	-17.29
2.575 G	2.580 G	1.00 M	2.578218 G	-33.83	-8.83

Date: 24.APR.2014 18:12:53

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

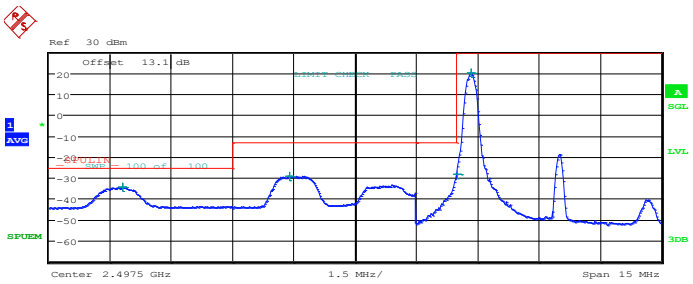


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.565 G	2.570 G	100.00 k	2.566485 G	3.16	-26.84
2.570 G	2.571 G	50.00 k	2.570001 G	-33.88	-20.88
2.571 G	2.575 G	1.00 M	2.571045 G	-24.74	-11.74
2.575 G	2.580 G	1.00 M	2.575878 G	-31.83	-6.83

Date: 24.APR.2014 18:14:26

Band :	LTE Band 7	Band Width :	5MHz / 16QAM

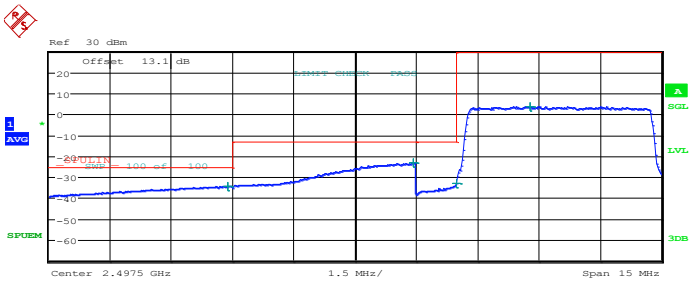
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.491809 G	-34.65	-9.65
2.494 G	2.499 G	1.00 M	2.495890 G	-29.23	-16.23
2.499 G	2.500 G	50.00 k	2.499989 G	-28.25	-15.25
2.500 G	2.505 G	100.00 k	2.500325 G	19.68	-10.32

Date: 24.APR.2014 18:10:35

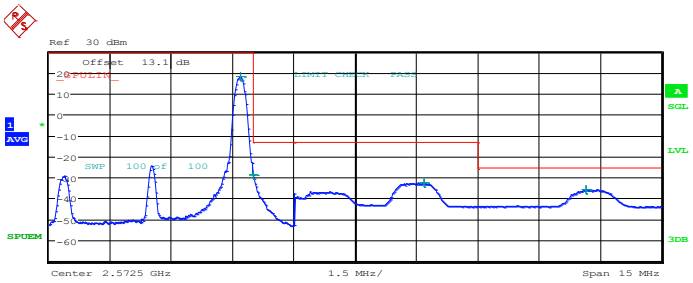
Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494383 G	-34.37	-9.37
2.494 G	2.499 G	1.00 M	2.498910 G	-23.24	-10.24
2.499 G	2.500 G	50.00 k	2.499987 G	-33.26	-20.26
2.500 G	2.505 G	100.00 k	2.501790 G	3.67	-26.33

Date: 24.APR.2014 18:12:07

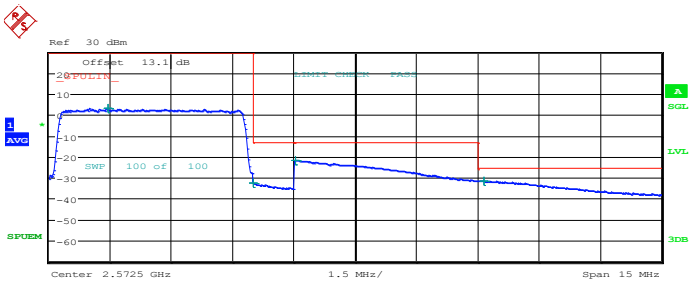
Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.565 G	2.570 G	100.00 k	2.569685 G	17.80	-12.20
2.570 G	2.571 G	50.00 k	2.570005 G	-28.80	-15.80
2.571 G	2.575 G	1.00 M	2.574177 G	-32.58	-19.58
2.575 G	2.580 G	1.00 M	2.578146 G	-35.96	-10.96

Date: 24.APR.2014 18:13:39

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

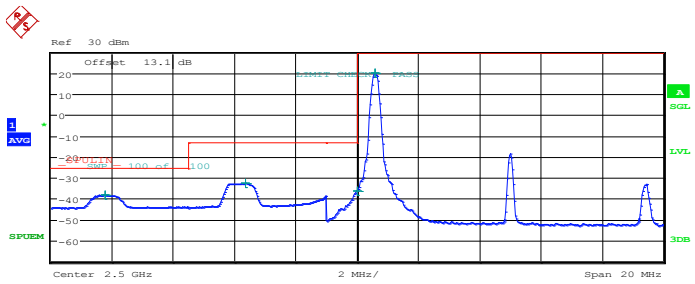


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.565 G	2.570 G	100.00 k	2.566440 G	2.88	-27.12
2.570 G	2.571 G	50.00 k	2.570005 G	-32.46	-19.46
2.571 G	2.575 G	1.00 M	2.571036 G	-21.82	-8.82
2.575 G	2.580 G	1.00 M	2.575639 G	-31.54	-6.54

Date: 24.APR.2014 18:15:12

Band :	LTE Band 7	Band Width :	10MHz / QPSK

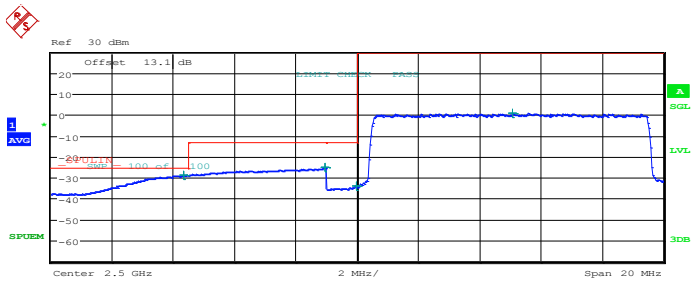
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.491755 G	-38.46	-13.46
2.494 G	2.499 G	1.00 M	2.496341 G	-32.74	-19.74
2.499 G	2.500 G	100.00 k	2.499994 G	-36.43	-23.43
2.500 G	2.510 G	100.00 k	2.500570 G	19.94	-10.06

Date: 24.APR.2014 18:29:45

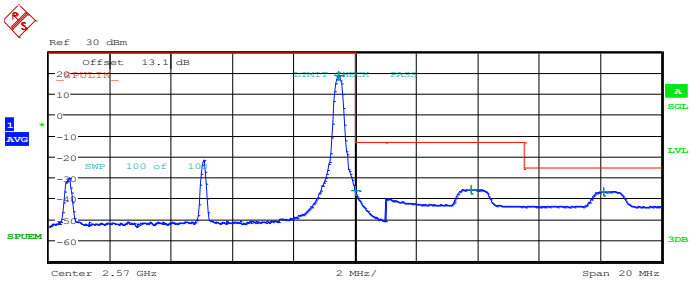
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494334 G	-29.06	-4.06
2.494 G	2.499 G	1.00 M	2.498941 G	-25.19	-12.19
2.499 G	2.500 G	100.00 k	2.499983 G	-34.23	-21.23
2.500 G	2.510 G	100.00 k	2.505070 G	0.59	-29.41

Date: 24.APR.2014 18:31:18

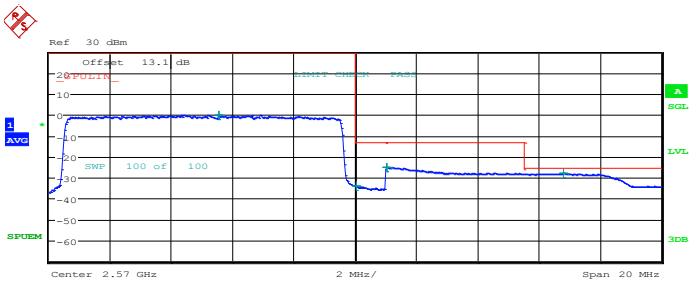
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.560 G	2.570 G	100.00 k	2.569450 G	18.56	-11.44
2.570 G	2.571 G	100.00 k	2.570003 G	-36.50	-23.50
2.571 G	2.575 G	1.00 M	2.573786 G	-35.74	-22.74
2.575 G	2.580 G	1.00 M	2.578101 G	-36.69	-11.69

Date: 24.APR.2014 18:32:51

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

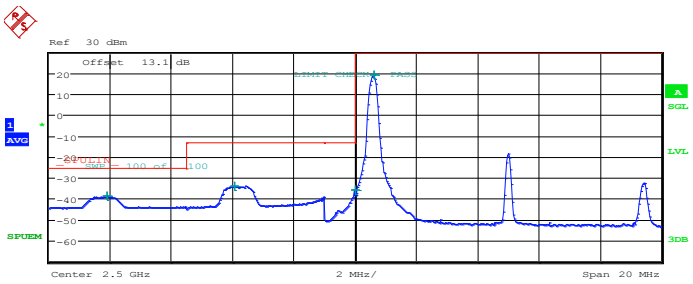


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.560 G	2.570 G	100.00 k	2.565540 G	-0.18	-30.18
2.570 G	2.571 G	100.00 k	2.570032 G	-33.90	-20.90
2.571 G	2.575 G	1.00 M	2.571023 G	-25.19	-12.19
2.575 G	2.580 G	1.00 M	2.576801 G	-28.18	-3.18

Date: 24.APR.2014 18:34:24

Band :	LTE Band 7	Band Width :	10MHz / 16QAM

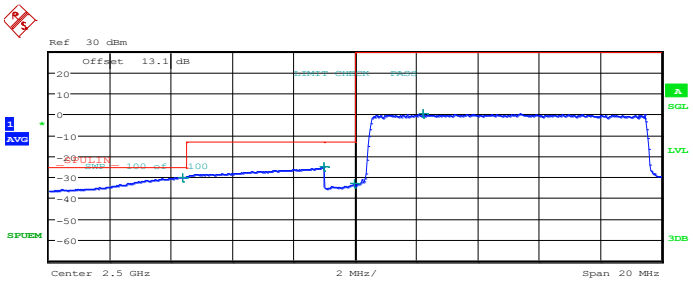
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.491886 G	-38.92	-13.92
2.494 G	2.499 G	1.00 M	2.496066 G	-34.11	-21.11
2.499 G	2.500 G	100.00 k	2.499996 G	-36.19	-23.19
2.500 G	2.510 G	100.00 k	2.500600 G	18.74	-11.26

Date: 24.APR.2014 18:30:32

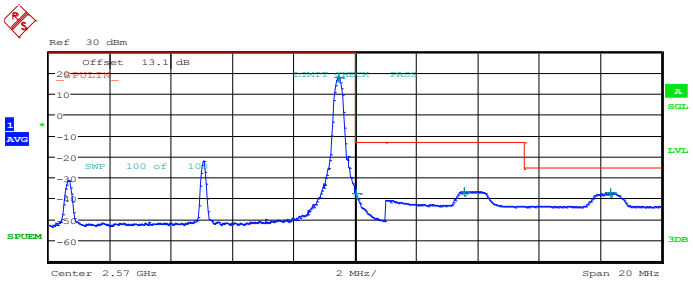
Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494374 G	-30.12	-5.12
2.494 G	2.499 G	1.00 M	2.498978 G	-25.35	-12.35
2.499 G	2.500 G	100.00 k	2.499959 G	-33.21	-20.21
2.500 G	2.510 G	100.00 k	2.502200 G	0.23	-29.77

Date: 24.APR.2014 18:32:04

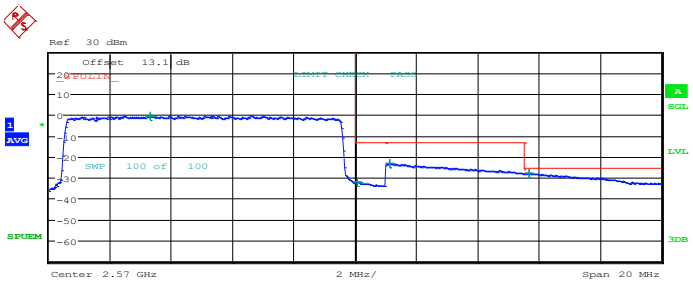
Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.560 G	2.570 G	100.00 k	2.569460 G	17.63	-12.37
2.570 G	2.571 G	100.00 k	2.570022 G	-37.83	-24.83
2.571 G	2.575 G	1.00 M	2.573565 G	-36.83	-23.83
2.575 G	2.580 G	1.00 M	2.578335 G	-37.52	-12.52

Date: 24.APR.2014 18:33:37

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

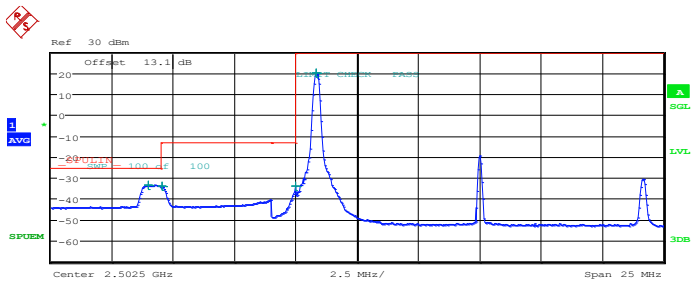


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.560 G	2.570 G	100.00 k	2.563300 G	-0.55	-30.55
2.570 G	2.571 G	100.00 k	2.570067 G	-31.98	-18.98
2.571 G	2.575 G	1.00 M	2.571121 G	-23.16	-10.16
2.575 G	2.580 G	1.00 M	2.575676 G	-27.97	-2.97

Date: 24.APR.2014 18:35:10

Band :	LTE Band 7	Band Width :	15MHz / QPSK

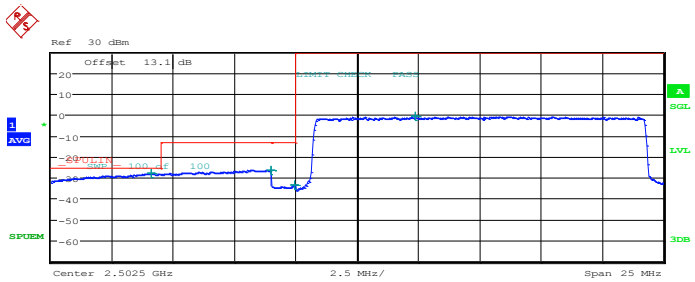
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.493946 G	-33.46	-8.46
2.494 G	2.499 G	1.00 M	2.494523 G	-34.19	-21.19
2.499 G	2.500 G	150.00 k	2.499994 G	-34.09	-21.09
2.500 G	2.515 G	100.00 k	2.500825 G	19.75	-10.25

Date: 24.APR.2014 18:36:01

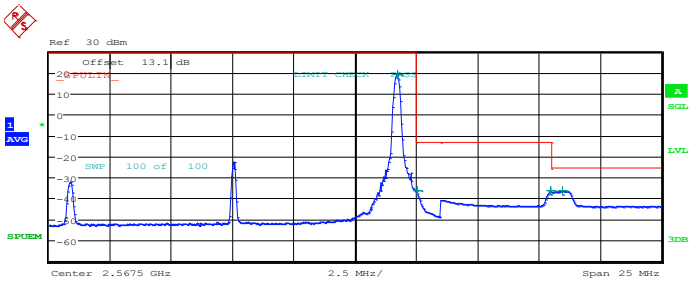
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494091 G	-28.19	-3.19
2.494 G	2.499 G	1.00 M	2.498982 G	-26.52	-13.52
2.499 G	2.500 G	150.00 k	2.499927 G	-33.60	-20.60
2.500 G	2.515 G	100.00 k	2.504845 G	-0.94	-30.94

Date: 24.APR.2014 18:37:33

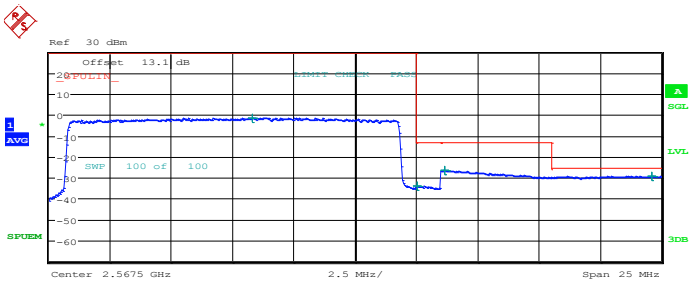
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.555 G	2.570 G	100.00 k	2.569205 G	19.02	-10.98
2.570 G	2.571 G	150.00 k	2.570005 G	-36.37	-23.37
2.571 G	2.575 G	1.00 M	2.575486 G	-36.61	-23.61
2.575 G	2.580 G	1.00 M	2.575941 G	-36.56	-11.56

Date: 24.APR.2014 18:39:06

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

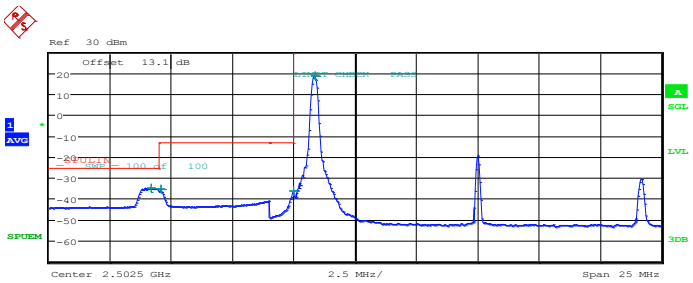


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.555 G	2.570 G	100.00 k	2.563295 G	-1.48	-31.48
2.570 G	2.571 G	150.00 k	2.570011 G	-34.03	-21.03
2.571 G	2.575 G	1.00 M	2.571135 G	-26.65	-13.65
2.575 G	2.580 G	1.00 M	2.579582 G	-29.41	-4.41

Date: 24.APR.2014 18:40:39

Band :	LTE Band 7	Band Width :	15MHz / 16QAM

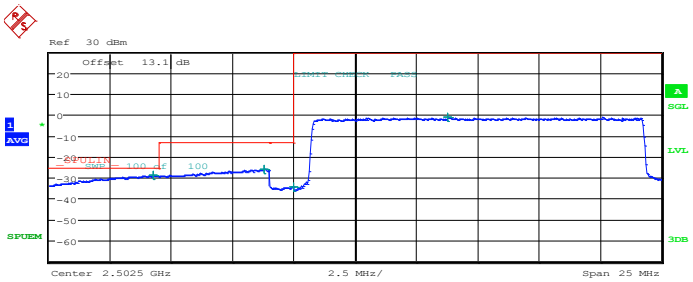
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494162 G	-35.17	-10.17
2.494 G	2.499 G	1.00 M	2.494554 G	-35.63	-22.63
2.499 G	2.500 G	150.00 k	2.499989 G	-36.41	-23.41
2.500 G	2.515 G	100.00 k	2.500840 G	18.70	-11.30

Date: 24.APR.2014 18:36:47

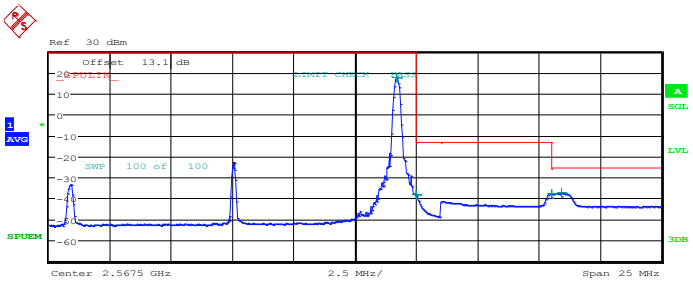
Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494230 G	-29.14	-4.14
2.494 G	2.499 G	1.00 M	2.498771 G	-26.03	-13.03
2.499 G	2.500 G	150.00 k	2.499966 G	-34.33	-21.33
2.500 G	2.515 G	100.00 k	2.506285 G	-1.41	-31.41

Date: 24.APR.2014 18:38:20

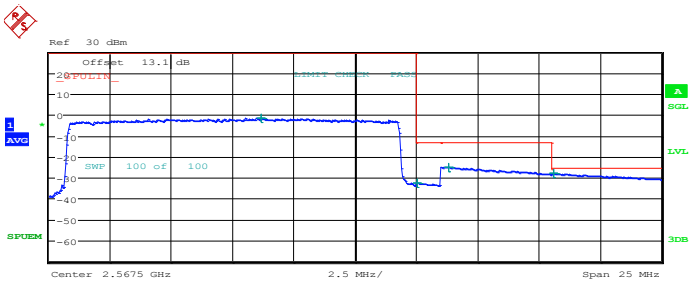
Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.555 G	2.570 G	100.00 k	2.569190 G	17.67	-12.33
2.570 G	2.571 G	150.00 k	2.570003 G	-38.22	-25.22
2.571 G	2.575 G	1.00 M	2.575500 G	-37.75	-24.75
2.575 G	2.580 G	1.00 M	2.575905 G	-37.51	-12.51

Date: 24.APR.2014 18:39:53

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

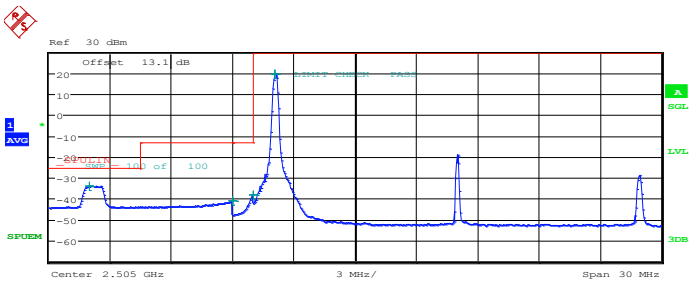


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.555 G	2.570 G	100.00 k	2.563640 G	-1.82	-31.82
2.570 G	2.571 G	150.00 k	2.570016 G	-32.53	-19.53
2.571 G	2.575 G	1.00 M	2.571320 G	-25.14	-12.14
2.575 G	2.580 G	1.00 M	2.575599 G	-28.11	-3.11

Date: 24.APR.2014 18:41:26

Band :	LTE Band 7	Band Width :	20MHz / QPSK

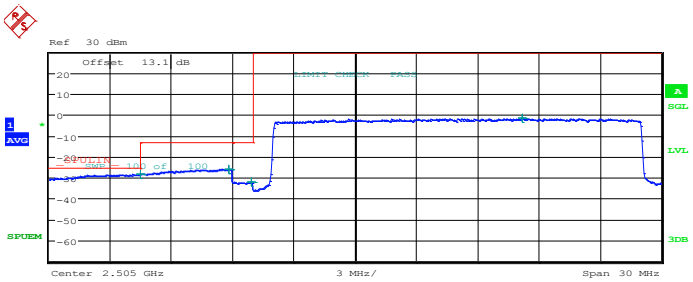
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.491994 G	-34.02	-9.02
2.494 G	2.499 G	1.00 M	2.498969 G	-41.24	-28.24
2.499 G	2.500 G	200.00 k	2.499993 G	-38.09	-25.09
2.500 G	2.520 G	100.00 k	2.501080 G	19.52	-10.48

Date: 24.APR.2014 18:42:16

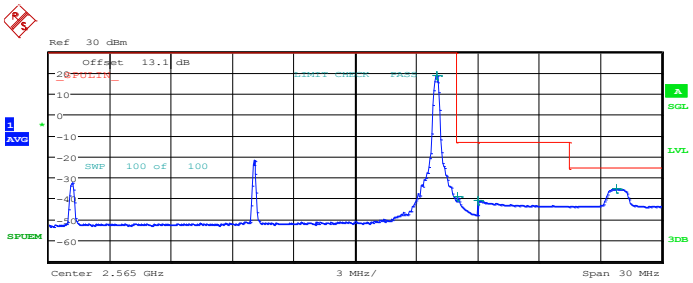
Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494491 G	-28.58	-3.58
2.494 G	2.499 G	1.00 M	2.498788 G	-26.22	-13.22
2.499 G	2.500 G	200.00 k	2.499916 G	-32.15	-19.15
2.500 G	2.520 G	100.00 k	2.513180 G	-1.89	-31.89

Date: 24.APR.2014 18:43:49

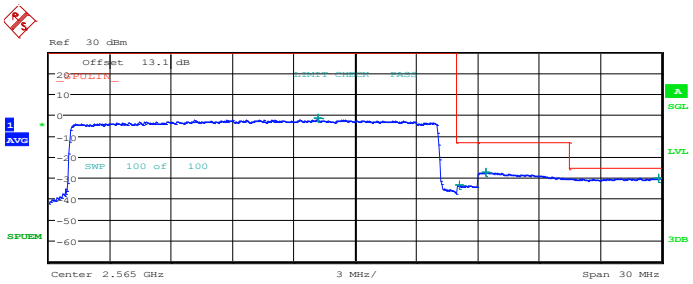
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.550 G	2.570 G	100.00 k	2.568980 G	18.51	-11.49
2.570 G	2.571 G	200.00 k	2.570001 G	-39.27	-26.27
2.571 G	2.575 G	1.00 M	2.571027 G	-41.32	-28.32
2.575 G	2.580 G	1.00 M	2.577799 G	-35.73	-10.73

Date: 24.APR.2014 18:45:21

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

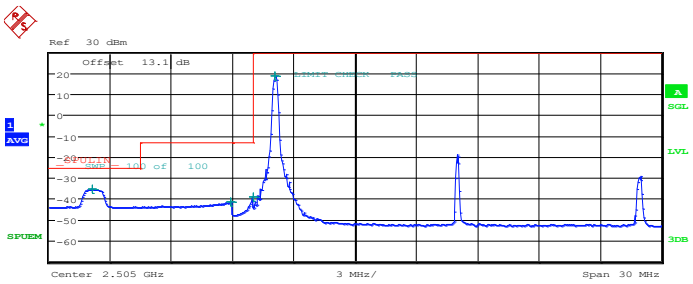


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.550 G	2.570 G	100.00 k	2.563160 G	-1.79	-31.79
2.570 G	2.571 G	200.00 k	2.570083 G	-33.70	-20.70
2.571 G	2.575 G	1.00 M	2.571401 G	-27.61	-14.61
2.575 G	2.580 G	1.00 M	2.579865 G	-30.42	-5.42

Date: 24.APR.2014 18:47:39

Band :	LTE Band 7	Band Width :	20MHz / 16QAM

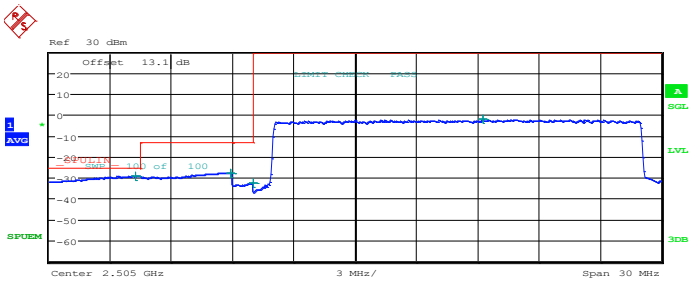
Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.492102 G	-35.36	-10.36
2.494 G	2.499 G	1.00 M	2.498910 G	-41.63	-28.63
2.499 G	2.500 G	200.00 k	2.499998 G	-39.48	-26.48
2.500 G	2.520 G	100.00 k	2.501080 G	18.28	-11.72

Date: 24.APR.2014 18:43:03

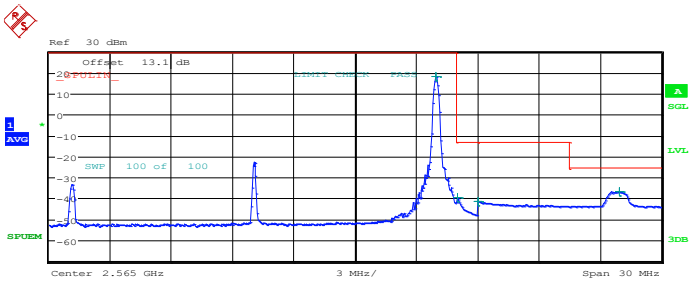
Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.490 G	2.494 G	1.00 M	2.494253 G	-29.32	-4.32
2.494 G	2.499 G	1.00 M	2.498883 G	-27.80	-14.80
2.499 G	2.500 G	200.00 k	2.499983 G	-32.74	-19.74
2.500 G	2.520 G	100.00 k	2.511240 G	-2.27	-32.27

Date: 24.APR.2014 18:44:35

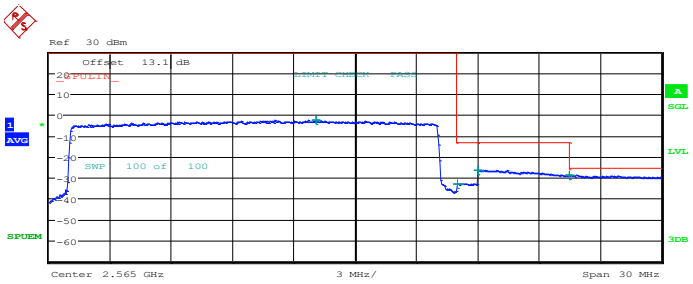
Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.550 G	2.570 G	100.00 k	2.568960 G	18.05	-11.95
2.570 G	2.571 G	200.00 k	2.570010 G	-39.88	-26.88
2.571 G	2.575 G	1.00 M	2.571000 G	-41.59	-28.59
2.575 G	2.580 G	1.00 M	2.577935 G	-36.94	-11.94

Date: 24.APR.2014 18:46:07

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



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.550 G	2.570 G	100.00 k	2.563100 G	-2.72	-32.72
2.570 G	2.571 G	200.00 k	2.570014 G	-33.01	-20.01
2.571 G	2.575 G	1.00 M	2.571032 G	-26.44	-13.44
2.575 G	2.580 G	1.00 M	2.575505 G	-28.88	-3.88

Date: 24.APR.2014 18:46:53

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.

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 55 + 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 10^{th} harmonic.

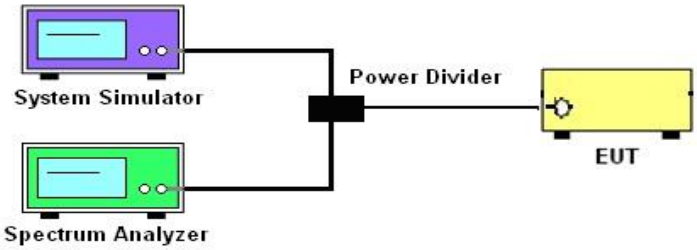
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a 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 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.
8. The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

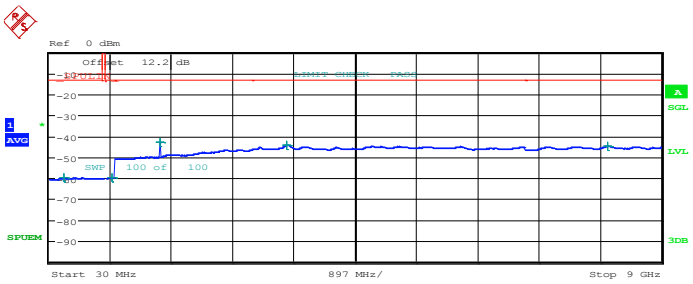
3.6.4 Test Setup


System Simulator
Power Divider
EUT
Spectrum Analyzer

3.6.5 Test Result (Plots) of Conducted Spurious Emission

Band :	LTE Band 5	Channel :	CH20407 (Low)
Band Width :	1.4MHz		

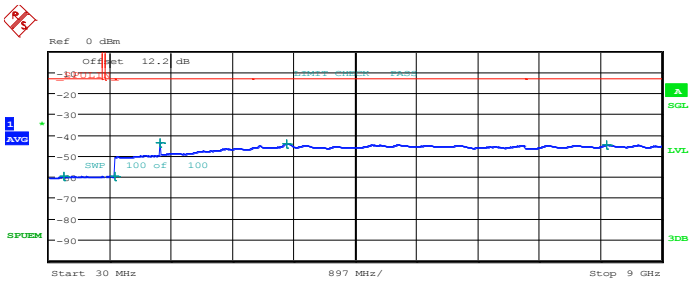
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	245.090000 M	-59.84	-46.84
860.000 M	1.000 G	100.00 k	949.880000 M	-59.77	-46.77
1.000 G	3.000 G	1.00 M	1.648000 G	-42.76	-29.76
3.000 G	7.000 G	1.00 M	3.512000 G	-44.32	-31.32
7.000 G	9.000 G	1.00 M	8.204000 G	-44.89	-31.89

Date: 19.APR.2014 11:42:15

16QAM (RB Size 1, RB Offset 0)

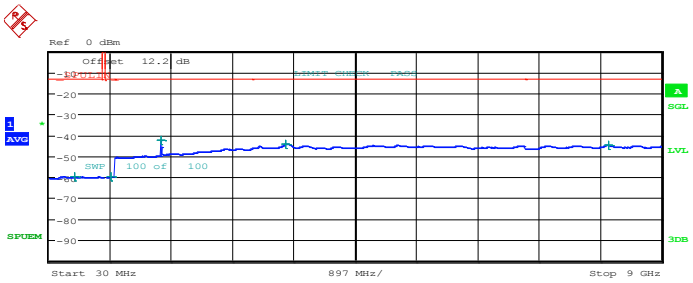


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	238.810000 M	-59.85	-46.85
860.000 M	1.000 G	100.00 k	997.340000 M	-59.80	-46.80
1.000 G	3.000 G	1.00 M	1.648000 G	-44.04	-31.04
3.000 G	7.000 G	1.00 M	3.508000 G	-44.25	-31.25
7.000 G	9.000 G	1.00 M	8.196000 G	-44.94	-31.94

Date: 19.APR.2014 11:43:15

Band :	LTE Band 5	Channel :	CH20525 (Middle)
Band Width :	1.4MHz		

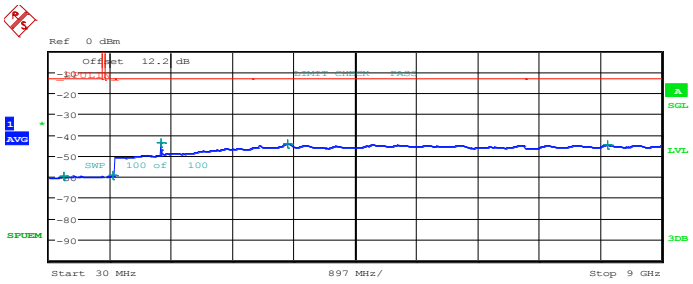
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	406.800000 M	-59.98	-46.98
860.000 M	1.000 G	100.00 k	933.640000 M	-59.82	-46.82
1.000 G	3.000 G	1.00 M	1.672000 G	-42.42	-29.42
3.000 G	7.000 G	1.00 M	3.492000 G	-44.31	-31.31
7.000 G	9.000 G	1.00 M	8.226000 G	-44.94	-31.94

Date: 19.APR.2014 11:44:15

16QAM (RB Size 1, RB Offset 0)

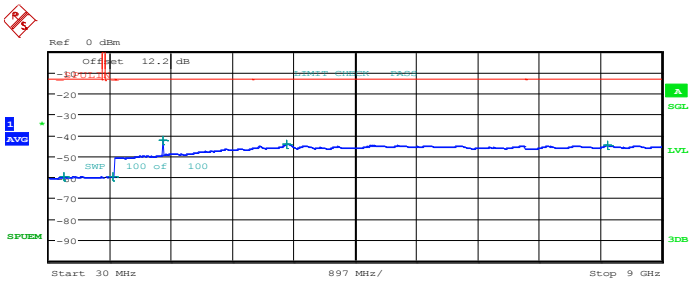


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	244.305000 M	-59.88	-46.88
860.000 M	1.000 G	100.00 k	957.860000 M	-59.49	-46.49
1.000 G	3.000 G	1.00 M	1.672000 G	-43.85	-30.85
3.000 G	7.000 G	1.00 M	3.516000 G	-44.30	-31.30
7.000 G	9.000 G	1.00 M	8.206000 G	-44.84	-31.84

Date: 19.APR.2014 11:45:15

Band :	LTE Band 5	Channel :	CH20643 (High)
Band Width :	1.4MHz		

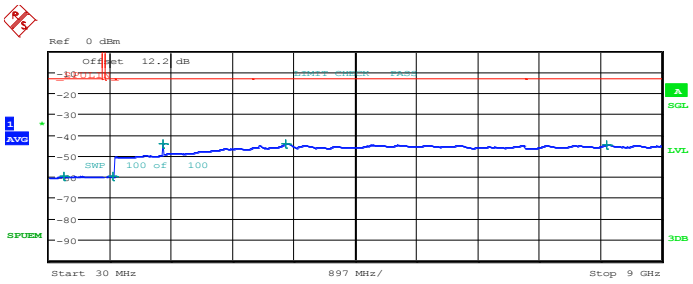
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	241.950000 M	-59.86	-46.86
860.000 M	1.000 G	100.00 k	967.940000 M	-59.82	-46.82
1.000 G	3.000 G	1.00 M	1.696000 G	-42.41	-29.41
3.000 G	7.000 G	1.00 M	3.504000 G	-44.23	-31.23
7.000 G	9.000 G	1.00 M	8.204000 G	-44.95	-31.95

Date: 19.APR.2014 11:49:21

16QAM (RB Size 1, RB Offset 0)

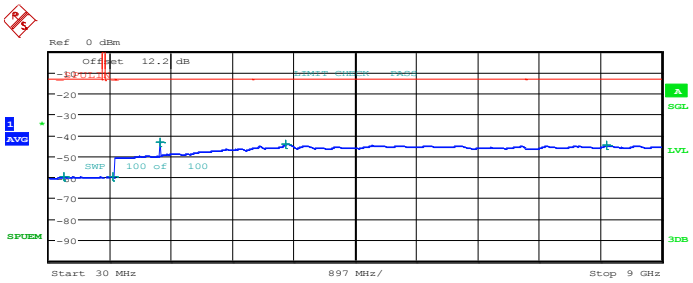


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	243.520000 M	-59.87	-46.87
860.000 M	1.000 G	100.00 k	967.100000 M	-59.94	-46.94
1.000 G	3.000 G	1.00 M	1.696000 G	-44.23	-31.23
3.000 G	7.000 G	1.00 M	3.492000 G	-44.37	-31.37
7.000 G	9.000 G	1.00 M	8.198000 G	-44.97	-31.97

Date: 19.APR.2014 11:50:21

Band :	LTE Band 5	Channel :	CH20415 (Low)
Band Width :	3MHz		

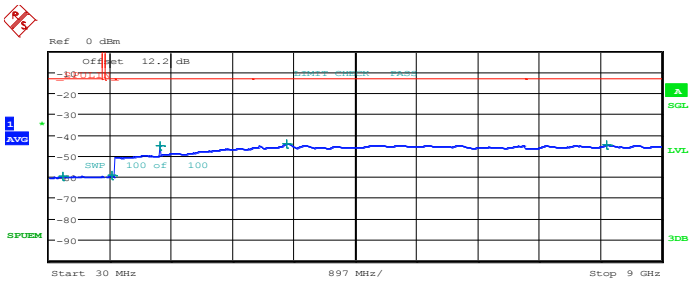
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	239.595000 M	-59.97	-46.97
860.000 M	1.000 G	100.00 k	963.320000 M	-59.75	-46.75
1.000 G	3.000 G	1.00 M	1.648000 G	-43.22	-30.22
3.000 G	7.000 G	1.00 M	3.500000 G	-44.34	-31.34
7.000 G	9.000 G	1.00 M	8.202000 G	-44.94	-31.94

Date: 19.APR.2014 11:58:25

16QAM (RB Size 1, RB Offset 0)

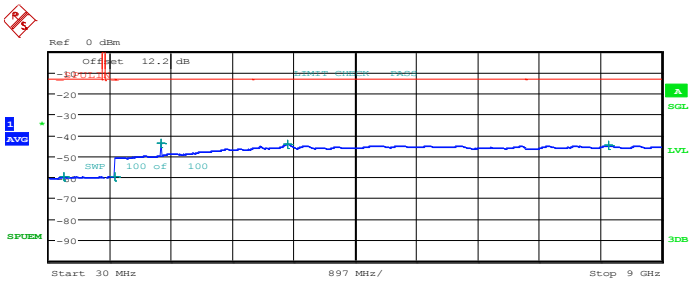


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	237.240000 M	-59.92	-46.92
860.000 M	1.000 G	100.00 k	944.140000 M	-59.58	-46.58
1.000 G	3.000 G	1.00 M	1.648000 G	-45.49	-32.49
3.000 G	7.000 G	1.00 M	3.508000 G	-44.39	-31.39
7.000 G	9.000 G	1.00 M	8.198000 G	-44.96	-31.96

Date: 19.APR.2014 11:59:24

Band :	LTE Band 5	Channel :	CH20525 (Middle)
Band Width :	3MHz		

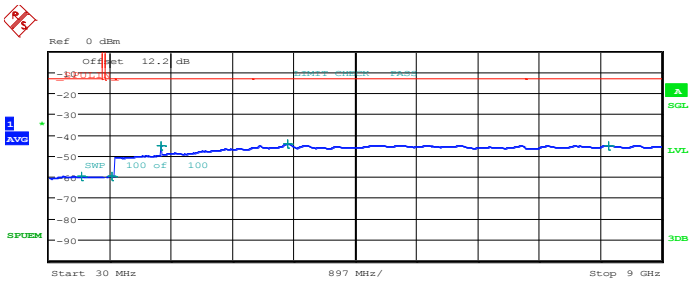
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	239.595000 M	-59.88	-46.88
860.000 M	1.000 G	100.00 k	993.980000 M	-59.82	-46.82
1.000 G	3.000 G	1.00 M	1.670000 G	-43.95	-30.95
3.000 G	7.000 G	1.00 M	3.516000 G	-44.34	-31.34
7.000 G	9.000 G	1.00 M	8.218000 G	-45.05	-32.05

Date: 19.APR.2014 12:00:24

16QAM (RB Size 1, RB Offset 0)

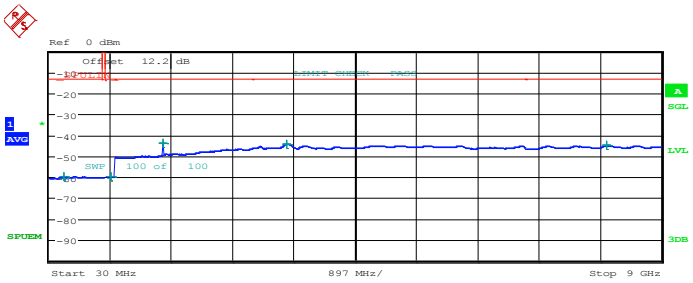


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	509.635000 M	-59.99	-46.99
860.000 M	1.000 G	100.00 k	944.140000 M	-59.87	-46.87
1.000 G	3.000 G	1.00 M	1.670000 G	-45.54	-32.54
3.000 G	7.000 G	1.00 M	3.516000 G	-44.37	-31.37
7.000 G	9.000 G	1.00 M	8.222000 G	-45.07	-32.07

Date: 19.APR.2014 12:01:24

Band :	LTE Band 5	Channel :	CH20635 (High)
Band Width :	3MHz		

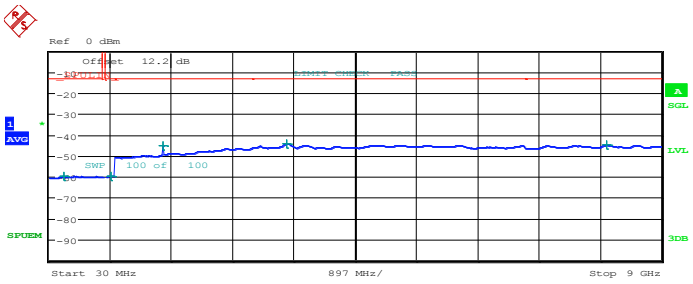
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	243.520000 M	-59.89	-46.89
860.000 M	1.000 G	100.00 k	928.880000 M	-59.70	-46.70
1.000 G	3.000 G	1.00 M	1.692000 G	-43.94	-30.94
3.000 G	7.000 G	1.00 M	3.504000 G	-44.34	-31.34
7.000 G	9.000 G	1.00 M	8.196000 G	-45.03	-32.03

Date: 19.APR.2014 12:05:31

16QAM (RB Size 1, RB Offset 0)

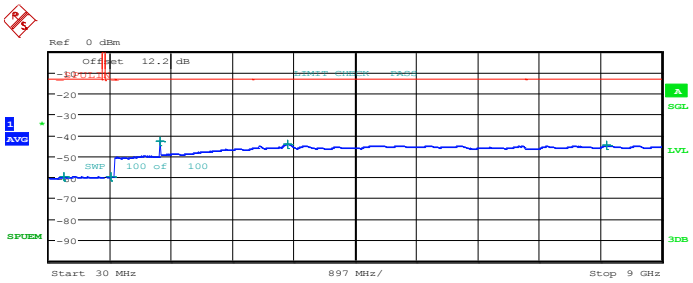


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	245.875000 M	-59.96	-46.96
860.000 M	1.000 G	100.00 k	933.360000 M	-59.68	-46.68
1.000 G	3.000 G	1.00 M	1.692000 G	-45.19	-32.19
3.000 G	7.000 G	1.00 M	3.504000 G	-44.34	-31.34
7.000 G	9.000 G	1.00 M	8.198000 G	-45.06	-32.06

Date: 19.APR.2014 12:06:31

Band :	LTE Band 5	Channel :	CH20425 (Low)
Band Width :	5MHz		

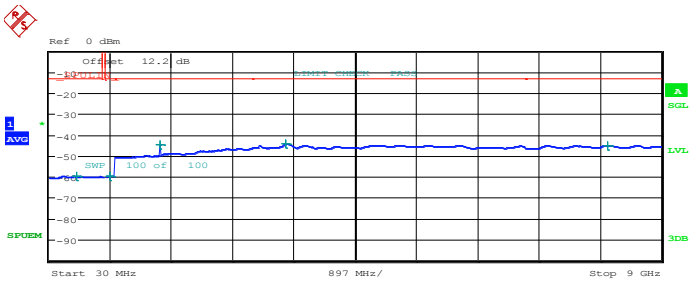
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	245.090000 M	-59.98	-46.98
860.000 M	1.000 G	100.00 k	937.840000 M	-59.82	-46.82
1.000 G	3.000 G	1.00 M	1.650000 G	-42.89	-29.89
3.000 G	7.000 G	1.00 M	3.516000 G	-44.36	-31.36
7.000 G	9.000 G	1.00 M	8.200000 G	-45.03	-32.03

Date: 19.APR.2014 12:10:42

16QAM (RB Size 1, RB Offset 0)

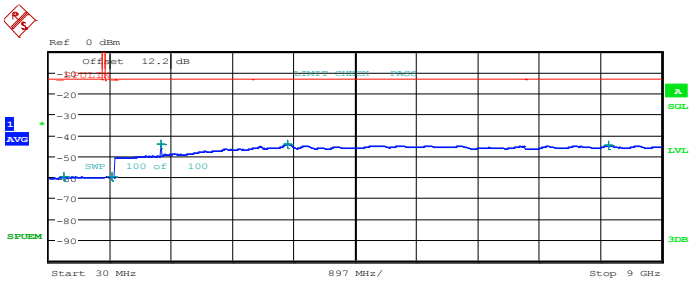


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	433.490000 M	-60.02	-47.02
860.000 M	1.000 G	100.00 k	926.920000 M	-59.75	-46.75
1.000 G	3.000 G	1.00 M	1.650000 G	-44.68	-31.68
3.000 G	7.000 G	1.00 M	3.500000 G	-44.35	-31.35
7.000 G	9.000 G	1.00 M	8.210000 G	-45.07	-32.07

Date: 19.APR.2014 12:11:42

Band :	LTE Band 5	Channel :	CH20525 (Middle)
Band Width :	5MHz		

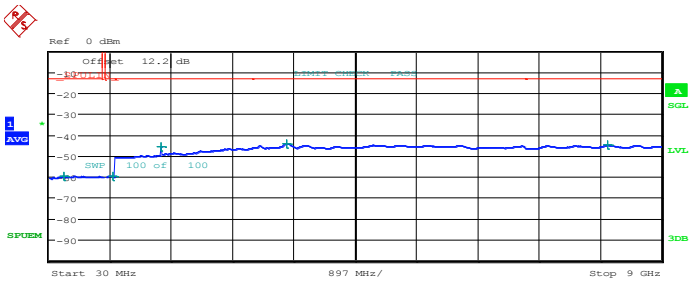
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	238.810000 M	-59.95	-46.95
860.000 M	1.000 G	100.00 k	942.880000 M	-59.85	-46.85
1.000 G	3.000 G	1.00 M	1.668000 G	-44.36	-31.36
3.000 G	7.000 G	1.00 M	3.520000 G	-44.42	-31.42
7.000 G	9.000 G	1.00 M	8.220000 G	-45.05	-32.05

Date: 19.APR.2014 12:12:42

16QAM (RB Size 1, RB Offset 0)

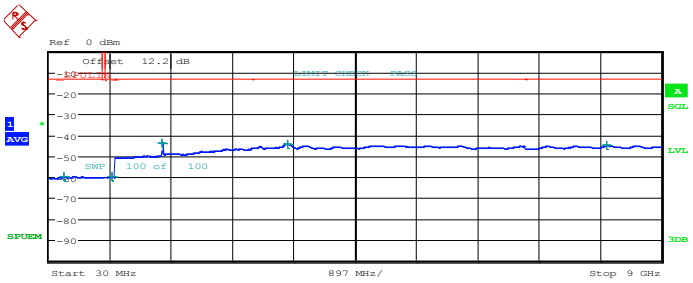


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	241.165000 M	-59.81	-46.81
860.000 M	1.000 G	100.00 k	964.720000 M	-59.69	-46.69
1.000 G	3.000 G	1.00 M	1.668000 G	-45.87	-32.87
3.000 G	7.000 G	1.00 M	3.508000 G	-44.33	-31.33
7.000 G	9.000 G	1.00 M	8.214000 G	-45.05	-32.05

Date: 19.APR.2014 12:13:42

Band :	LTE Band 5	Channel :	CH20625 (High)
Band Width :	5MHz		

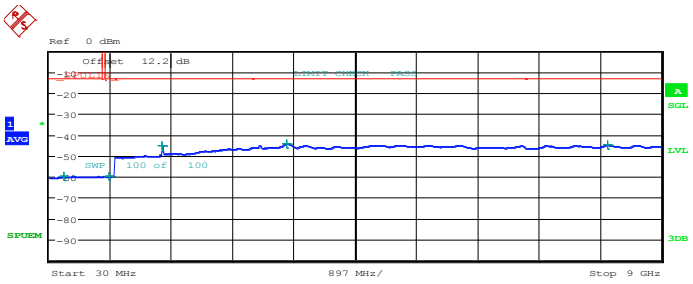
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	245.090000 M	-59.86	-46.86
860.000 M	1.000 G	100.00 k	952.400000 M	-59.86	-46.86
1.000 G	3.000 G	1.00 M	1.690000 G	-44.09	-31.09
3.000 G	7.000 G	1.00 M	3.516000 G	-44.35	-31.35
7.000 G	9.000 G	1.00 M	8.200000 G	-45.06	-32.06

Date: 19.APR.2014 12:17:49

16QAM (RB Size 1, RB Offset 0)

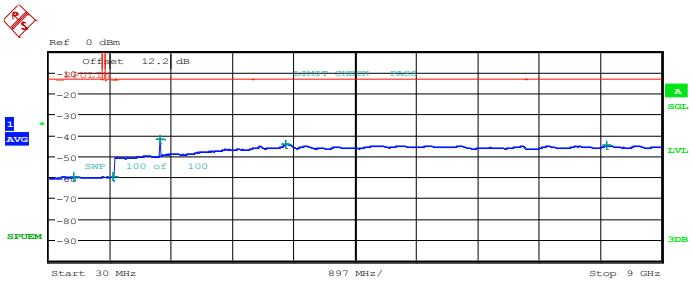


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	245.090000 M	-59.97	-46.97
860.000 M	1.000 G	100.00 k	911.240000 M	-59.67	-46.67
1.000 G	3.000 G	1.00 M	1.690000 G	-45.32	-32.32
3.000 G	7.000 G	1.00 M	3.508000 G	-44.41	-31.41
7.000 G	9.000 G	1.00 M	8.214000 G	-45.03	-32.03

Date: 19.APR.2014 12:18:49

Band :	LTE Band 5	Channel :	CH20450 (Low)
Band Width :	10MHz		

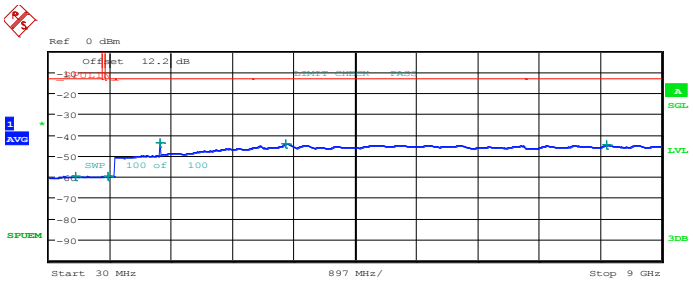
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	383.250000 M	-59.85	-46.85
860.000 M	1.000 G	100.00 k	971.160000 M	-59.72	-46.72
1.000 G	3.000 G	1.00 M	1.650000 G	-41.96	-28.96
3.000 G	7.000 G	1.00 M	3.488000 G	-44.43	-31.43
7.000 G	9.000 G	1.00 M	8.202000 G	-45.05	-32.05

Date: 19.APR.2014 12:23:00

16QAM (RB Size 1, RB Offset 0)

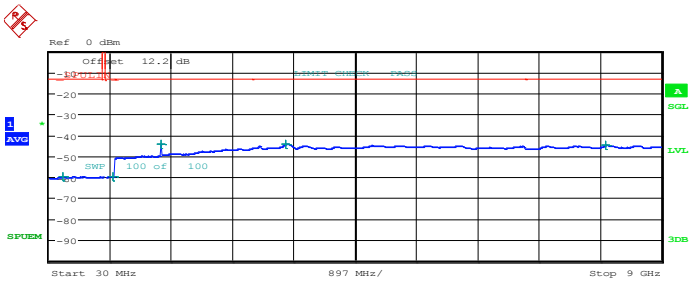


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	423.285000 M	-60.02	-47.02
860.000 M	1.000 G	100.00 k	885.340000 M	-59.88	-46.88
1.000 G	3.000 G	1.00 M	1.650000 G	-43.87	-30.87
3.000 G	7.000 G	1.00 M	3.496000 G	-44.40	-31.40
7.000 G	9.000 G	1.00 M	8.202000 G	-44.99	-31.99

Date: 19.APR.2014 12:24:00

Band :	LTE Band 5	Channel :	CH20525 (Middle)
Band Width :	10MHz		

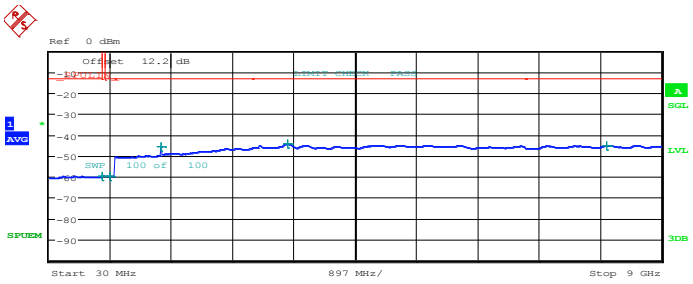
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	236.455000 M	-59.90	-46.90
860.000 M	1.000 G	100.00 k	959.820000 M	-59.63	-46.63
1.000 G	3.000 G	1.00 M	1.664000 G	-44.50	-31.50
3.000 G	7.000 G	1.00 M	3.500000 G	-44.36	-31.36
7.000 G	9.000 G	1.00 M	8.182000 G	-45.00	-32.00

Date: 19.APR.2014 12:25:00

16QAM (RB Size 1, RB Offset 0)

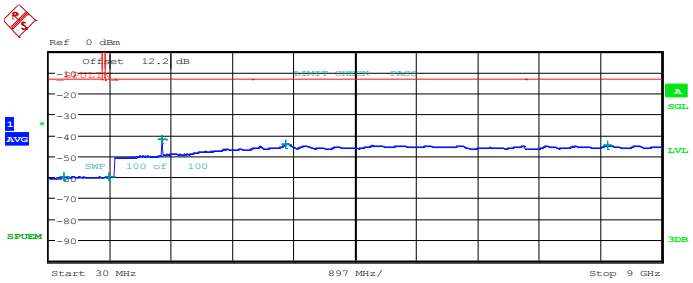


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	809.505000 M	-59.99	-46.99
860.000 M	1.000 G	100.00 k	927.620000 M	-59.77	-46.77
1.000 G	3.000 G	1.00 M	1.666000 G	-45.94	-32.94
3.000 G	7.000 G	1.00 M	3.520000 G	-44.38	-31.38
7.000 G	9.000 G	1.00 M	8.194000 G	-45.14	-32.14

Date: 19.APR.2014 12:26:00

Band :	LTE Band 5	Channel :	CH20600 (High)
Band Width :	10MHz		

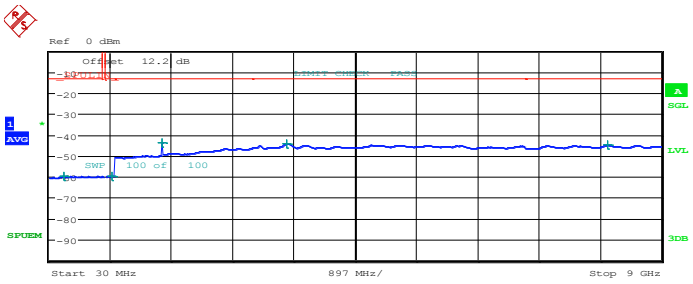
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	240.380000 M	-59.85	-46.85
860.000 M	1.000 G	100.00 k	911.100000 M	-59.71	-46.71
1.000 G	3.000 G	1.00 M	1.680000 G	-42.00	-29.00
3.000 G	7.000 G	1.00 M	3.500000 G	-44.37	-31.37
7.000 G	9.000 G	1.00 M	8.206000 G	-44.99	-31.99

Date: 19.APR.2014 12:30:07

16QAM (RB Size 1, RB Offset 0)



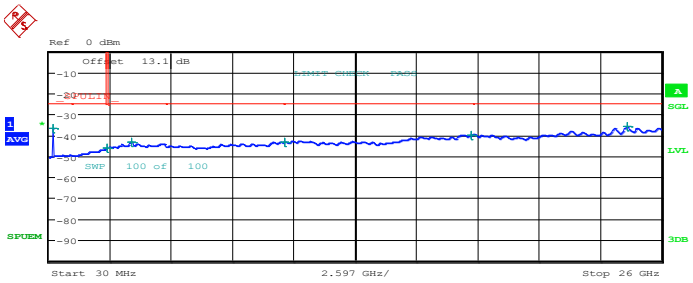
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	815.000 M	100.00 k	238.810000 M	-59.97	-46.97
860.000 M	1.000 G	100.00 k	944.840000 M	-59.68	-46.68
1.000 G	3.000 G	1.00 M	1.680000 G	-43.74	-30.74
3.000 G	7.000 G	1.00 M	3.508000 G	-44.39	-31.39
7.000 G	9.000 G	1.00 M	8.214000 G	-45.00	-32.00

Date: 19.APR.2014 12:31:07

Note: *The total loss is 12.2 dB of the RF cable and attenuator of LTE Band 5, and has been compensated to the spectrum analyzer offset.*

Band :	LTE Band 7	Channel :	CH20775 (Low)
Band Width :	5MHz		

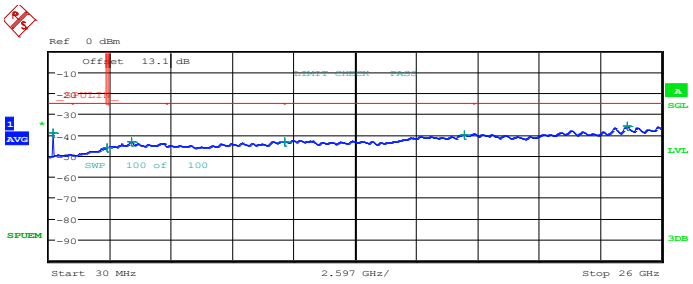
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	186.170000 M	-36.95	-11.95
1.000 G	2.490 G	1.00 M	2.487020 G	-46.40	-21.40
2.580 G	5.000 G	1.00 M	3.511700 G	-43.24	-18.24
5.000 G	10.000 G	1.00 M	10.000000 G	-43.34	-18.34
10.000 G	18.000 G	1.00 M	17.928000 G	-40.07	-15.07
18.000 G	26.000 G	1.00 M	24.552000 G	-36.04	-11.04

Date: 15.APR.2014 11:41:47

16QAM (RB Size 1, RB Offset 0)

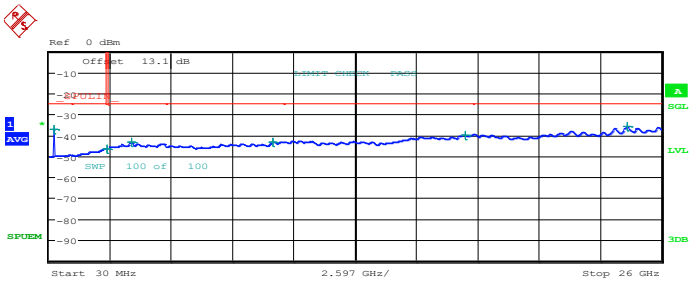


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	186.170000 M	-39.06	-14.06
1.000 G	2.490 G	1.00 M	2.487020 G	-46.42	-21.42
2.580 G	5.000 G	1.00 M	3.506860 G	-43.24	-18.24
5.000 G	10.000 G	1.00 M	10.000000 G	-43.32	-18.32
10.000 G	18.000 G	1.00 M	17.648000 G	-40.03	-15.03
18.000 G	26.000 G	1.00 M	24.552000 G	-36.14	-11.14

Date: 15.APR.2014 11:42:50

Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	5MHz		

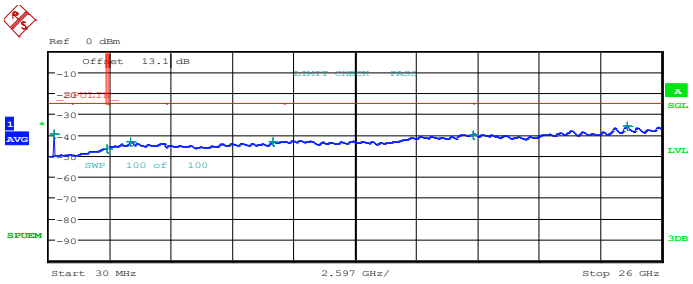
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	219.150000 M	-37.24	-12.24
1.000 G	2.490 G	1.00 M	2.466160 G	-46.49	-21.49
2.580 G	5.000 G	1.00 M	3.506860 G	-43.34	-18.34
5.000 G	10.000 G	1.00 M	9.525000 G	-43.32	-18.32
10.000 G	18.000 G	1.00 M	17.656000 G	-40.06	-15.06
18.000 G	26.000 G	1.00 M	24.536000 G	-36.05	-11.05

Date: 15.APR.2014 11:44:58

16QAM (RB Size 1, RB Offset 0)

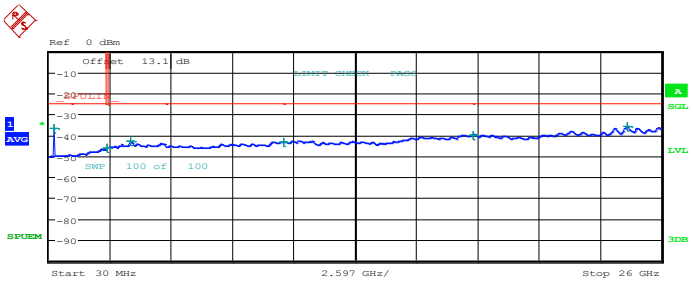


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	219.150000 M	-39.90	-14.90
1.000 G	2.490 G	1.00 M	2.484040 G	-46.52	-21.52
2.580 G	5.000 G	1.00 M	3.504440 G	-43.33	-18.33
5.000 G	10.000 G	1.00 M	9.535000 G	-43.31	-18.31
10.000 G	18.000 G	1.00 M	17.992000 G	-40.00	-15.00
18.000 G	26.000 G	1.00 M	24.560000 G	-36.04	-11.04

Date: 15.APR.2014 11:46:00

Band :	LTE Band 7	Channel :	CH21425 (High)
Band Width :	5MHz		

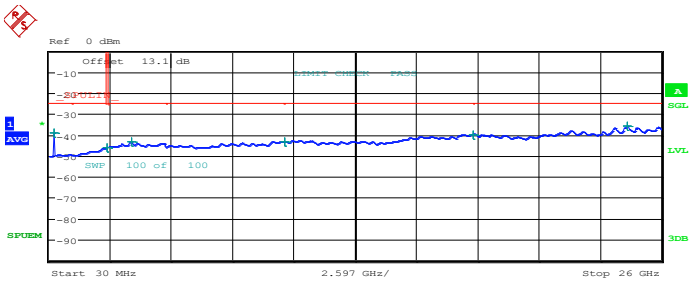
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	251.160000 M	-36.83	-11.83
1.000 G	2.490 G	1.00 M	2.487020 G	-46.36	-21.36
2.580 G	5.000 G	1.00 M	3.499600 G	-43.18	-18.18
5.000 G	10.000 G	1.00 M	9.985000 G	-43.30	-18.30
10.000 G	18.000 G	1.00 M	18.000000 G	-40.05	-15.05
18.000 G	26.000 G	1.00 M	24.528000 G	-36.05	-11.05

Date: 15.APR.2014 11:51:12

16QAM (RB Size 1, RB Offset 0)

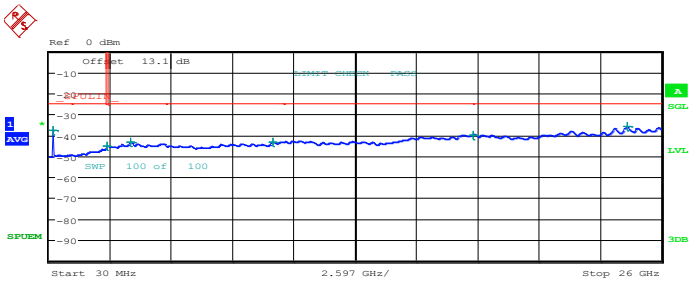


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	251.160000 M	-39.04	-14.04
1.000 G	2.490 G	1.00 M	2.476590 G	-46.44	-21.44
2.580 G	5.000 G	1.00 M	3.509280 G	-43.24	-18.24
5.000 G	10.000 G	1.00 M	10.000000 G	-43.32	-18.32
10.000 G	18.000 G	1.00 M	18.000000 G	-39.99	-14.99
18.000 G	26.000 G	1.00 M	24.552000 G	-36.05	-11.05

Date: 15.APR.2014 11:52:14

Band :	LTE Band 7	Channel :	CH20800 (Low)
Band Width :	10MHz		

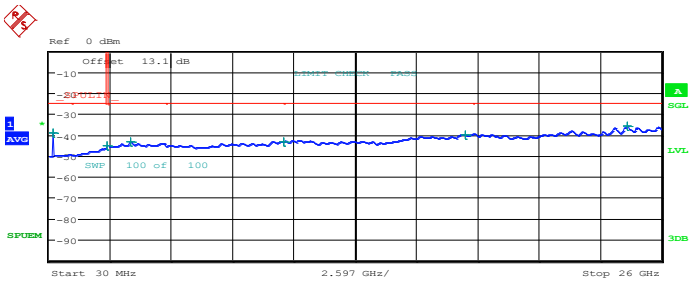
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	186.170000 M	-37.98	-12.98
1.000 G	2.490 G	1.00 M	2.484040 G	-45.09	-20.09
2.580 G	5.000 G	1.00 M	3.504440 G	-43.30	-18.30
5.000 G	10.000 G	1.00 M	9.535000 G	-43.27	-18.27
10.000 G	18.000 G	1.00 M	17.992000 G	-40.02	-15.02
18.000 G	26.000 G	1.00 M	24.560000 G	-36.12	-11.12

Date: 15.APR.2014 11:57:28

16QAM (RB Size 1, RB Offset 0)

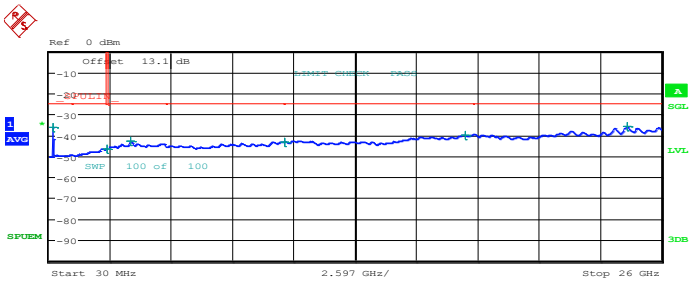


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	186.170000 M	-39.15	-14.15
1.000 G	2.490 G	1.00 M	2.484040 G	-45.29	-20.29
2.580 G	5.000 G	1.00 M	3.499600 G	-43.29	-18.29
5.000 G	10.000 G	1.00 M	9.995000 G	-43.30	-18.30
10.000 G	18.000 G	1.00 M	17.656000 G	-40.06	-15.06
18.000 G	26.000 G	1.00 M	24.544000 G	-36.08	-11.08

Date: 15.APR.2014 11:58:31

Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	10MHz		

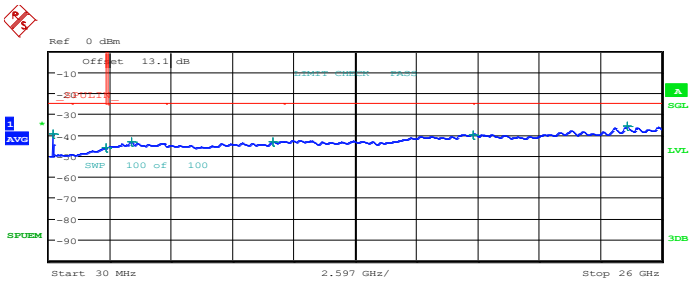
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	216.240000 M	-36.34	-11.34
1.000 G	2.490 G	1.00 M	2.473610 G	-46.50	-21.50
2.580 G	5.000 G	1.00 M	3.502020 G	-43.15	-18.15
5.000 G	10.000 G	1.00 M	10.000000 G	-43.32	-18.32
10.000 G	18.000 G	1.00 M	17.664000 G	-40.00	-15.00
18.000 G	26.000 G	1.00 M	24.552000 G	-36.00	-11.00

Date: 15.APR.2014 12:00:39

16QAM (RB Size 1, RB Offset 0)

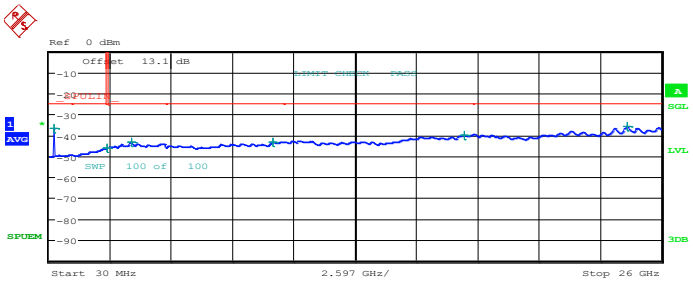


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	216.240000 M	-39.44	-14.44
1.000 G	2.490 G	1.00 M	2.461690 G	-46.46	-21.46
2.580 G	5.000 G	1.00 M	3.514120 G	-43.30	-18.30
5.000 G	10.000 G	1.00 M	9.525000 G	-43.19	-18.19
10.000 G	18.000 G	1.00 M	18.000000 G	-40.02	-15.02
18.000 G	26.000 G	1.00 M	24.528000 G	-36.10	-11.10

Date: 15.APR.2014 12:01:41

Band :	LTE Band 7	Channel :	CH21400 (High)
Band Width :	10MHz		

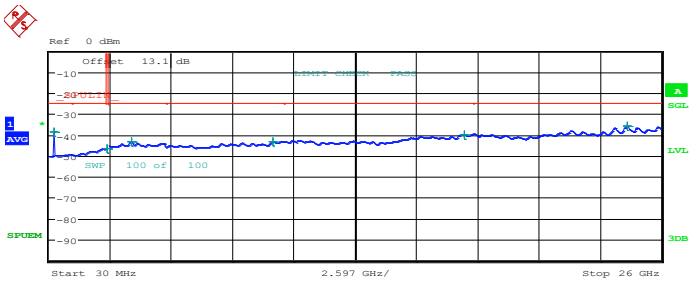
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	246.310000 M	-37.04	-12.04
1.000 G	2.490 G	1.00 M	2.469140 G	-46.36	-21.36
2.580 G	5.000 G	1.00 M	3.511700 G	-43.27	-18.27
5.000 G	10.000 G	1.00 M	9.535000 G	-43.36	-18.36
10.000 G	18.000 G	1.00 M	17.648000 G	-40.02	-15.02
18.000 G	26.000 G	1.00 M	24.552000 G	-36.06	-11.06

Date: 15.APR.2014 12:06:55

16QAM (RB Size 1, RB Offset 0)

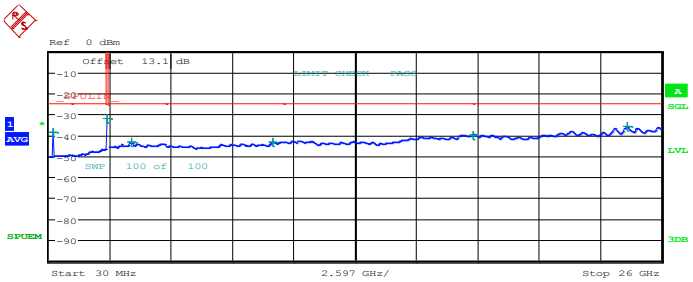


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	246.310000 M	-38.89	-13.89
1.000 G	2.490 G	1.00 M	2.478080 G	-46.48	-21.48
2.580 G	5.000 G	1.00 M	3.518960 G	-43.32	-18.32
5.000 G	10.000 G	1.00 M	9.530000 G	-43.38	-18.38
10.000 G	18.000 G	1.00 M	17.648000 G	-40.09	-15.09
18.000 G	26.000 G	1.00 M	24.552000 G	-36.09	-11.09

Date: 15.APR.2014 12:07:57

Band :	LTE Band 7	Channel :	CH20825 (Low)
Band Width :	15MHz		

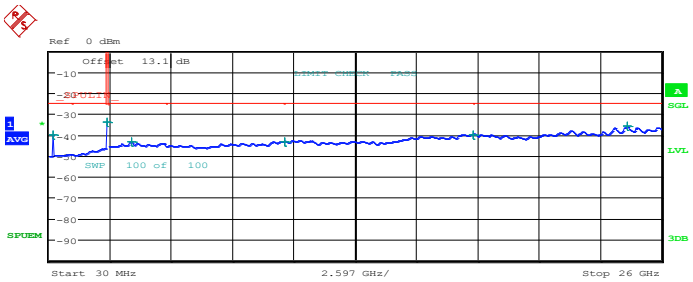
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	187.140000 M	-38.63	-13.63
1.000 G	2.490 G	1.00 M	2.488510 G	-32.12	-7.12
2.580 G	5.000 G	1.00 M	3.509280 G	-43.28	-18.28
5.000 G	10.000 G	1.00 M	9.520000 G	-43.30	-18.30
10.000 G	18.000 G	1.00 M	18.000000 G	-40.06	-15.06
18.000 G	26.000 G	1.00 M	24.544000 G	-36.05	-11.05

Date: 15.APR.2014 12:13:10

16QAM (RB Size 1, RB Offset 0)

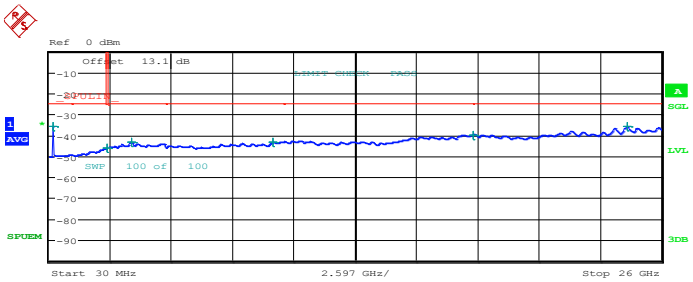


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	187.140000 M	-39.91	-14.91
1.000 G	2.490 G	1.00 M	2.488510 G	-34.12	-9.12
2.580 G	5.000 G	1.00 M	3.518960 G	-43.30	-18.30
5.000 G	10.000 G	1.00 M	10.000000 G	-43.31	-18.31
10.000 G	18.000 G	1.00 M	18.000000 G	-40.05	-15.05
18.000 G	26.000 G	1.00 M	24.544000 G	-36.07	-11.07

Date: 15.APR.2014 12:14:13

Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	15MHz		

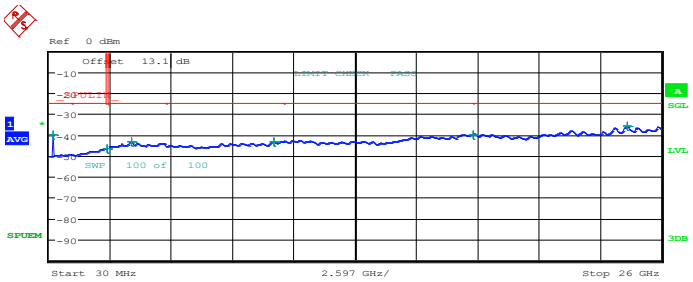
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	214.300000 M	-36.10	-11.10
1.000 G	2.490 G	1.00 M	2.469140 G	-46.42	-21.42
2.580 G	5.000 G	1.00 M	3.506860 G	-43.27	-18.27
5.000 G	10.000 G	1.00 M	9.530000 G	-43.33	-18.33
10.000 G	18.000 G	1.00 M	18.000000 G	-40.05	-15.05
18.000 G	26.000 G	1.00 M	24.552000 G	-36.05	-11.05

Date: 15.APR.2014 12:16:21

16QAM (RB Size 1, RB Offset 0)

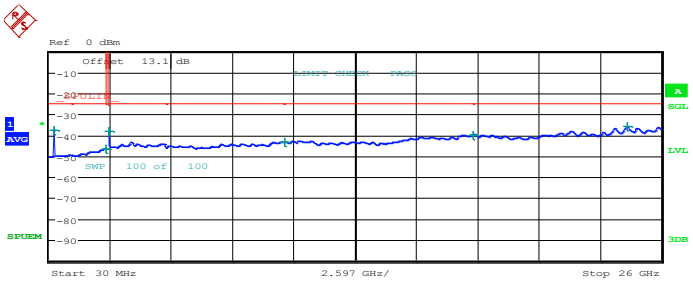


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	214.300000 M	-40.03	-15.03
1.000 G	2.490 G	1.00 M	2.472120 G	-46.54	-21.54
2.580 G	5.000 G	1.00 M	3.516540 G	-43.30	-18.30
5.000 G	10.000 G	1.00 M	9.540000 G	-43.31	-18.31
10.000 G	18.000 G	1.00 M	17.992000 G	-40.05	-15.05
18.000 G	26.000 G	1.00 M	24.552000 G	-36.12	-11.12

Date: 15.APR.2014 12:17:24

Band :	LTE Band 7	Channel :	CH21375 (High)
Band Width :	15MHz		

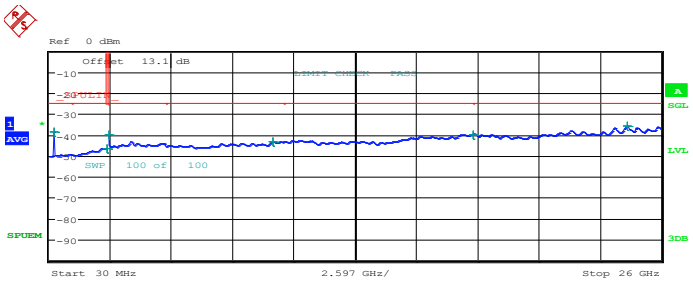
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	241.460000 M	-37.73	-12.73
1.000 G	2.490 G	1.00 M	2.460200 G	-46.49	-21.49
2.580 G	5.000 G	1.00 M	2.582420 G	-38.30	-13.30
5.000 G	10.000 G	1.00 M	10.000000 G	-43.30	-18.30
10.000 G	18.000 G	1.00 M	18.000000 G	-40.01	-15.01
18.000 G	26.000 G	1.00 M	24.560000 G	-36.05	-11.05

Date: 15.APR.2014 12:22:37

16QAM (RB Size 1, RB Offset 0)

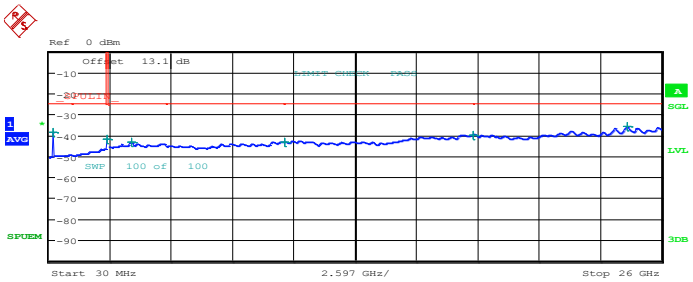


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	241.460000 M	-38.94	-13.94
1.000 G	2.490 G	1.00 M	2.487020 G	-46.49	-21.49
2.580 G	5.000 G	1.00 M	2.582420 G	-39.95	-14.95
5.000 G	10.000 G	1.00 M	9.520000 G	-43.24	-18.24
10.000 G	18.000 G	1.00 M	18.000000 G	-40.04	-15.04
18.000 G	26.000 G	1.00 M	24.552000 G	-36.06	-11.06

Date: 15.APR.2014 12:23:39

Band :	LTE Band 7	Channel :	CH20850 (Low)
Band Width :	20MHz		

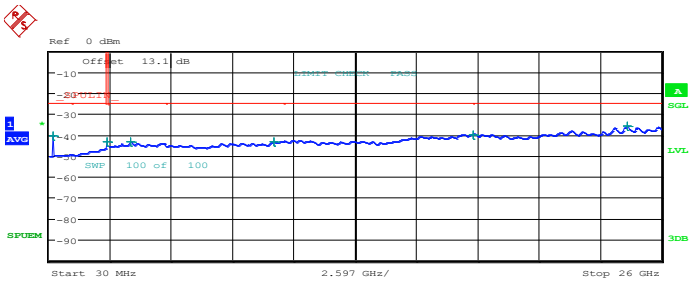
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	187.140000 M	-38.69	-13.69
1.000 G	2.490 G	1.00 M	2.484040 G	-41.93	-16.93
2.580 G	5.000 G	1.00 M	3.516540 G	-43.29	-18.29
5.000 G	10.000 G	1.00 M	10.000000 G	-43.33	-18.33
10.000 G	18.000 G	1.00 M	18.000000 G	-40.03	-15.03
18.000 G	26.000 G	1.00 M	24.544000 G	-36.08	-11.08

Date: 15.APR.2014 12:28:52

16QAM (RB Size 1, RB Offset 0)

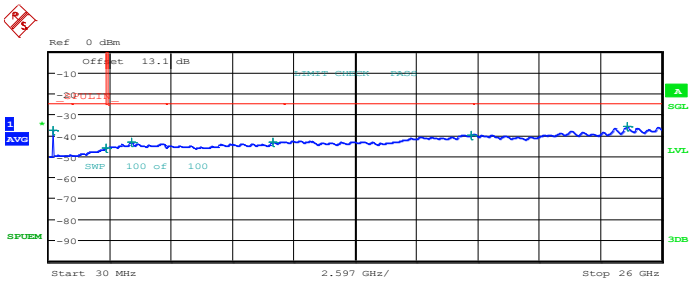


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	187.140000 M	-40.69	-15.69
1.000 G	2.490 G	1.00 M	2.484040 G	-43.50	-18.50
2.580 G	5.000 G	1.00 M	3.504440 G	-43.29	-18.29
5.000 G	10.000 G	1.00 M	9.540000 G	-43.33	-18.33
10.000 G	18.000 G	1.00 M	18.000000 G	-40.07	-15.07
18.000 G	26.000 G	1.00 M	24.560000 G	-36.12	-11.12

Date: 15.APR.2014 12:29:55

Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	20MHz		

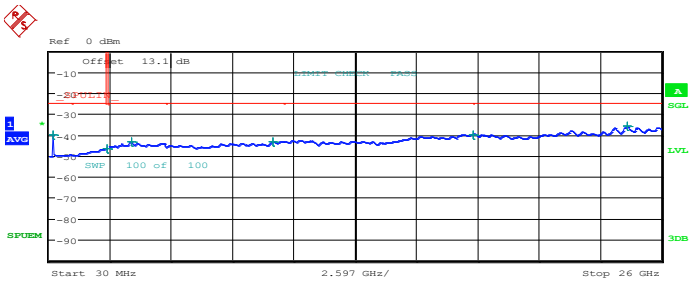
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	212.360000 M	-37.84	-12.84
1.000 G	2.490 G	1.00 M	2.445300 G	-46.32	-21.32
2.580 G	5.000 G	1.00 M	3.514120 G	-43.28	-18.28
5.000 G	10.000 G	1.00 M	9.535000 G	-43.29	-18.29
10.000 G	18.000 G	1.00 M	17.936000 G	-40.04	-15.04
18.000 G	26.000 G	1.00 M	24.552000 G	-36.06	-11.06

Date: 15.APR.2014 12:32:02

16QAM (RB Size 1, RB Offset 0)

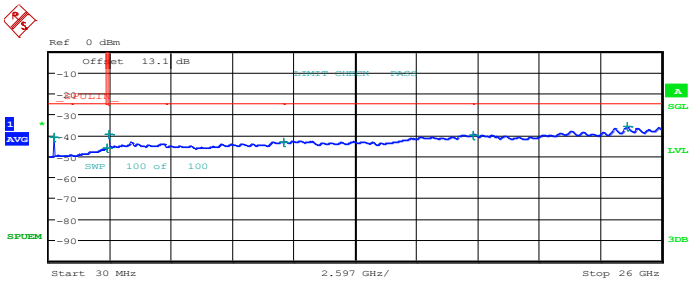


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	212.360000 M	-40.24	-15.24
1.000 G	2.490 G	1.00 M	2.487020 G	-46.51	-21.51
2.580 G	5.000 G	1.00 M	3.514120 G	-43.35	-18.35
5.000 G	10.000 G	1.00 M	9.535000 G	-43.32	-18.32
10.000 G	18.000 G	1.00 M	18.000000 G	-40.11	-15.11
18.000 G	26.000 G	1.00 M	24.544000 G	-36.08	-11.08

Date: 15.APR.2014 12:33:05

Band :	LTE Band 7	Channel :	CH21350 (High)
Band Width :	20MHz		

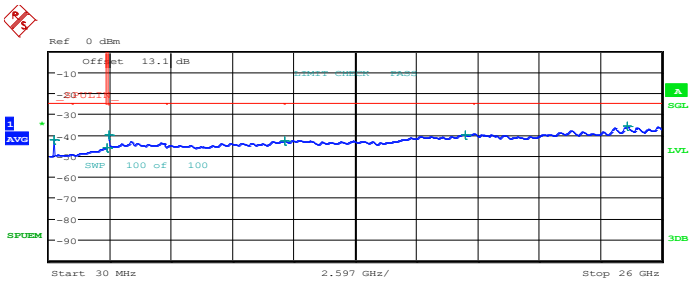
QPSK (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	236.610000 M	-41.25	-16.25
1.000 G	2.490 G	1.00 M	2.488510 G	-46.46	-21.46
2.580 G	5.000 G	1.00 M	2.584840 G	-39.46	-14.46
5.000 G	10.000 G	1.00 M	9.995000 G	-43.27	-18.27
10.000 G	18.000 G	1.00 M	18.000000 G	-40.04	-15.04
18.000 G	26.000 G	1.00 M	24.552000 G	-36.10	-11.10

Date: 15.APR.2014 12:38:17

16QAM (RB Size 1, RB Offset 0)



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
30.000 M	1.000 G	1.00 M	236.610000 M	-42.40	-17.40
1.000 G	2.490 G	1.00 M	2.484040 G	-46.45	-21.45
2.580 G	5.000 G	1.00 M	2.584840 G	-40.23	-15.23
5.000 G	10.000 G	1.00 M	10.000000 G	-43.19	-18.19
10.000 G	18.000 G	1.00 M	17.664000 G	-40.02	-15.02
18.000 G	26.000 G	1.00 M	24.552000 G	-36.06	-11.06

Date: 15.APR.2014 12:39:20

Note: *The total loss is 13.1 dB of the RF cable and attenuator of LTE Band 7, and has been compensated to the spectrum analyzer offset.*

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.

For Band 5

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.

For Band 7

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 55 + 10 log (P) dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.7.2 Measuring Instruments

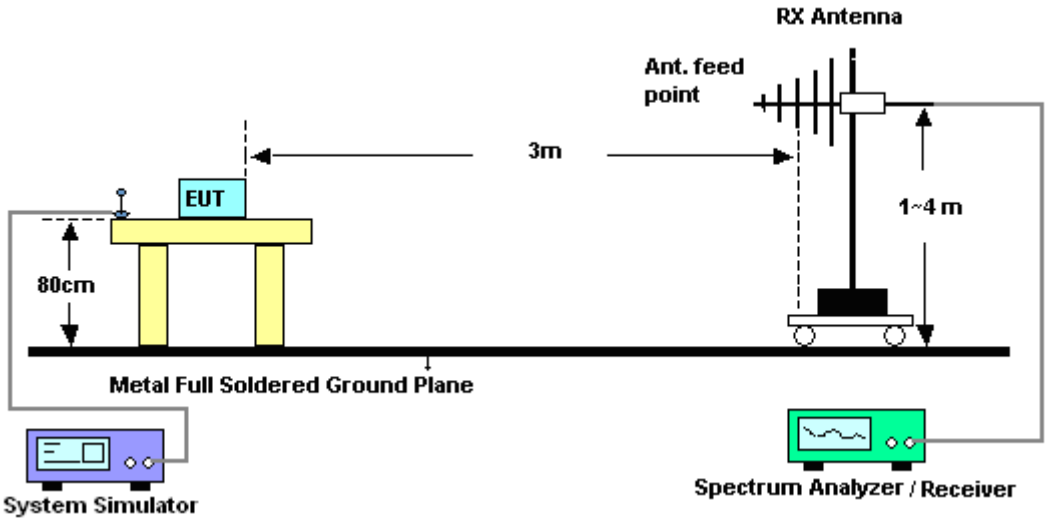
The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Procedures

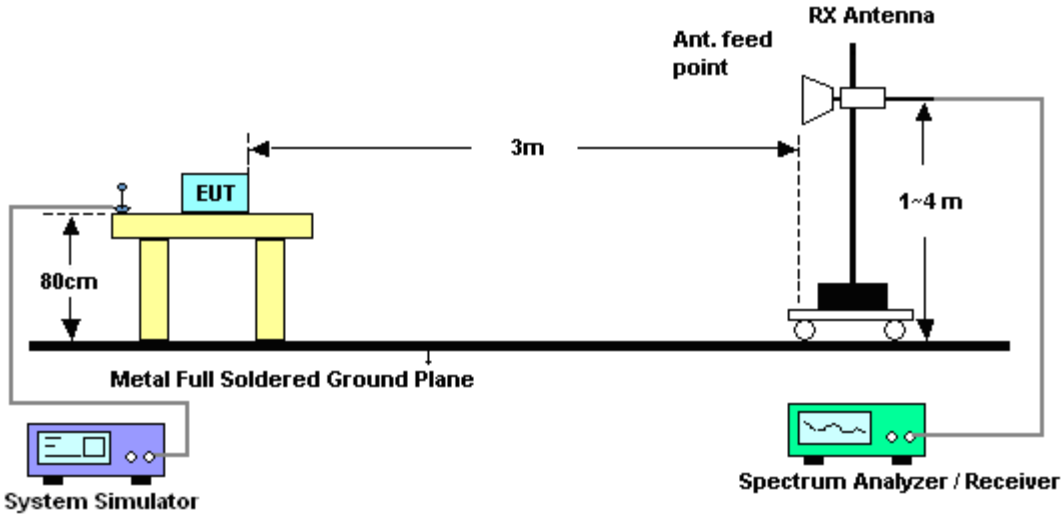
1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving 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.
    For Band 5
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
    For Band 7
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
12. ERP (dBm) = EIRP - 2.15

3.7.4 Test Setup

For radiated emissions from 30MHz to 1GHz



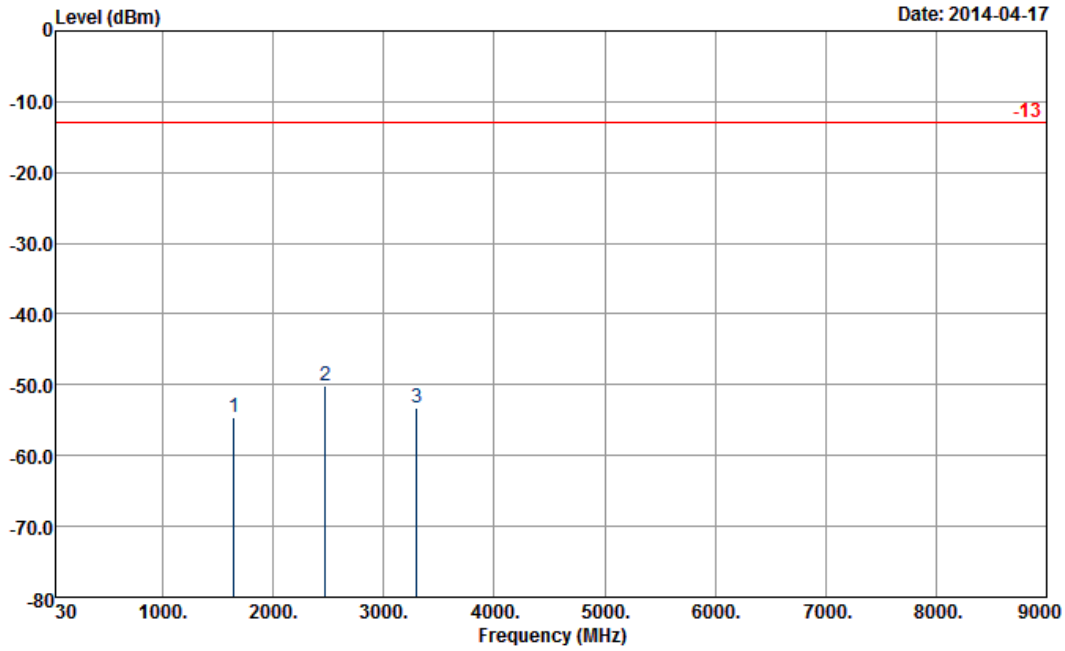
For radiated emissions above 1GHz



3.7.5 Test Result of Field Strength of Spurious Radiated

<Low Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20407		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

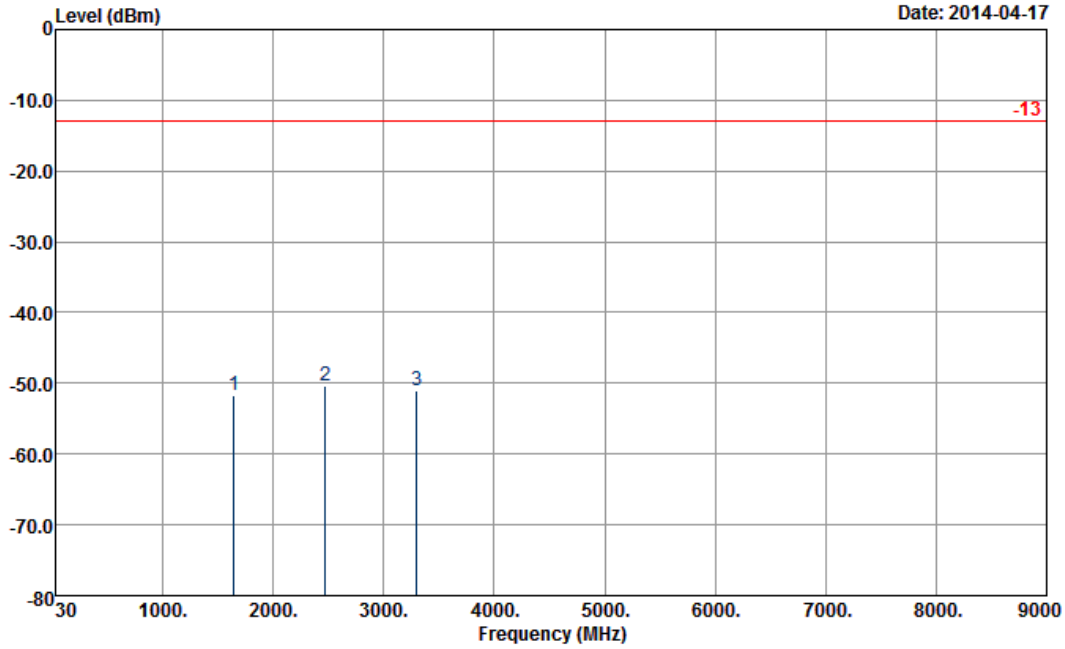


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1648	-54.61	-13	-41.61	-63.79	-58.5	1.61	5.50	H	Pass
2472	-50.15	-13	-37.15	-63.87	-54.3	2.09	6.24	H	Pass
3296	-53.24	-13	-40.24	-67.26	-58.25	3.08	8.09	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20407		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



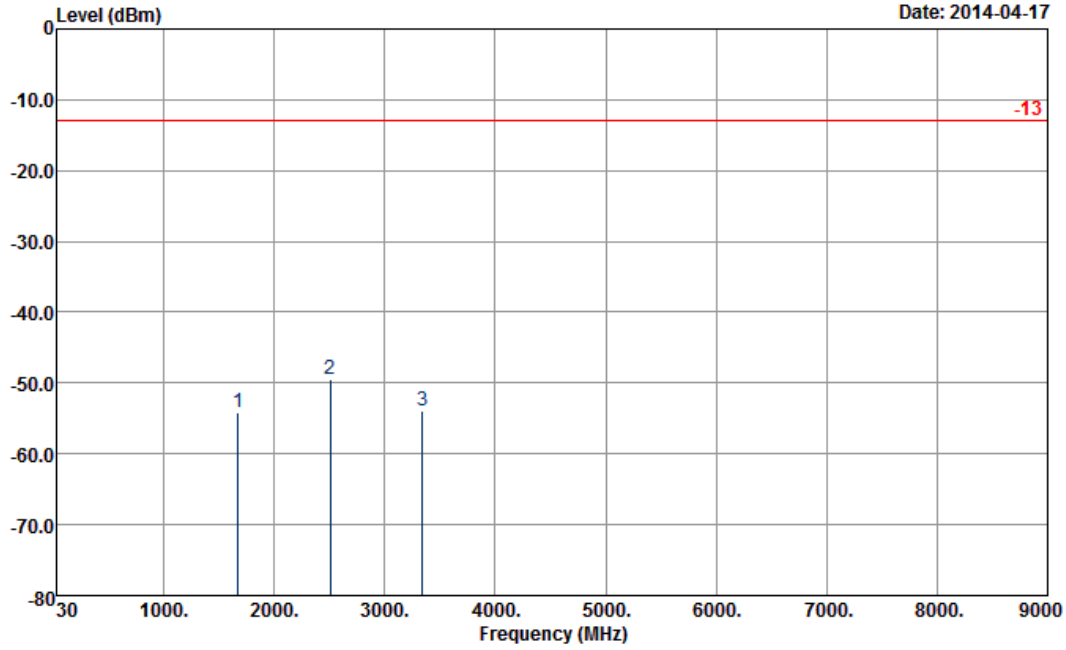
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1648	-51.81	-13	-38.81	-62.87	-55.7	1.61	5.50	V	Pass
2472	-50.35	-13	-37.35	-64.09	-54.5	2.09	6.24	V	Pass
3296	-51.09	-13	-38.09	-66.62	-56.1	3.08	8.09	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

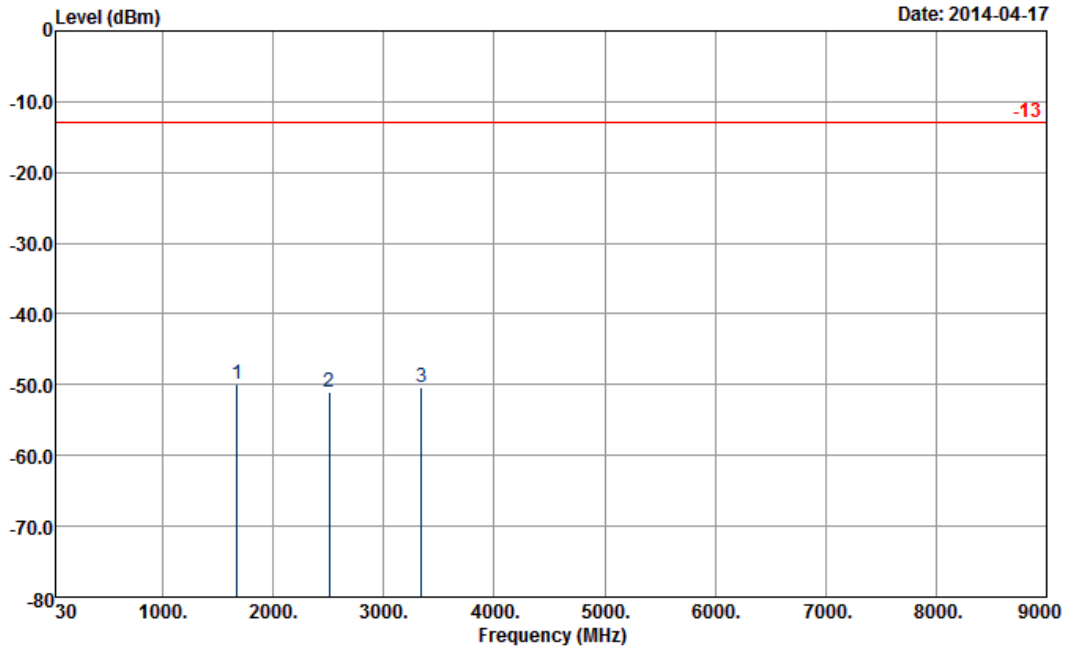


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1672	-54.23	-13	-41.23	-63.39	-58.1	1.62	5.49	H	Pass
2507	-49.58	-13	-36.58	-63	-53.7	2.1	6.22	H	Pass
3343	-53.86	-13	-40.86	-67.53	-58.9	3.03	8.07	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	Temperature :	23~25°C
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



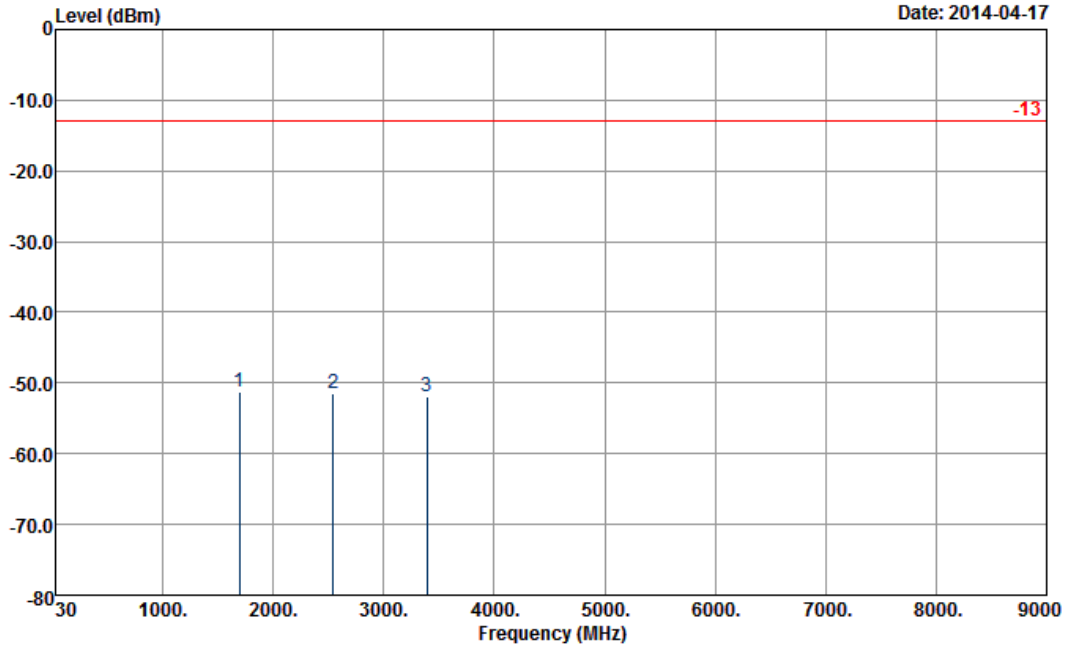
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1672	-49.93	-13	-36.93	-61.53	-53.8	1.62	5.49	V	Pass
2507	-50.98	-13	-37.98	-64.58	-55.1	2.1	6.22	V	Pass
3343	-50.36	-13	-37.36	-65.81	-55.4	3.03	8.07	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20643		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

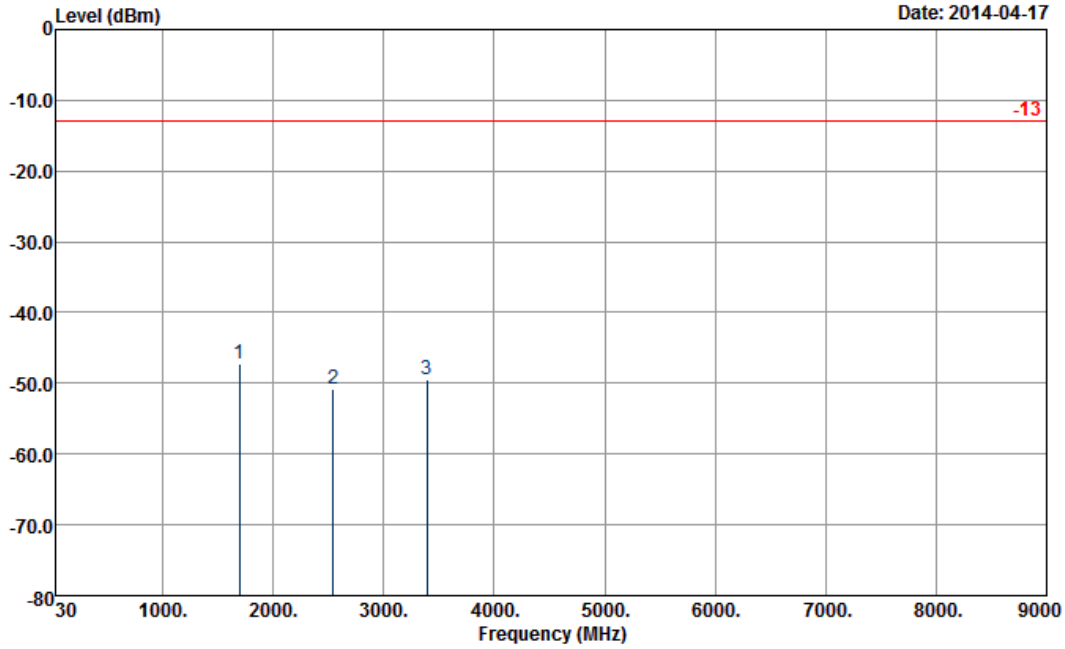


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1695	-51.31	-13	-38.31	-60.72	-55.2	1.58	5.47	H	Pass
2543	-51.42	-13	-38.42	-65	-55.7	2.03	6.31	H	Pass
3390	-51.98	-13	-38.98	-66.02	-57.9	2.31	8.23	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	Temperature :	23~25°C
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	20643		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



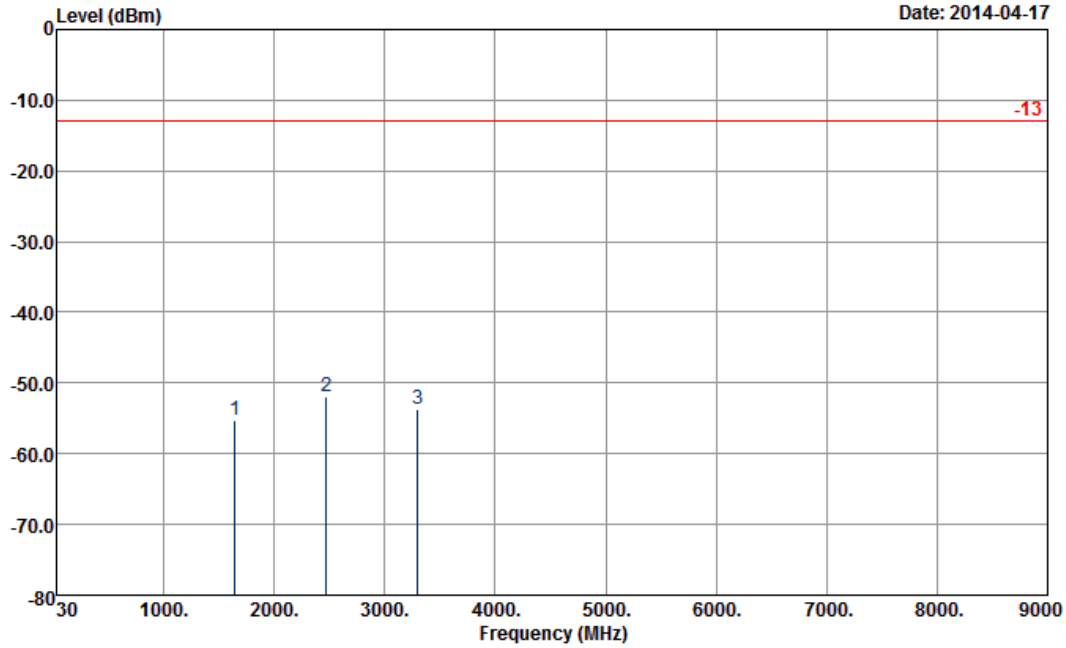
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1695	-47.31	-13	-34.31	-58.63	-51.2	1.58	5.47	V	Pass
2543	-50.72	-13	-37.72	-64.89	-55	2.03	6.31	V	Pass
3390	-49.48	-13	-36.48	-64.7	-55.4	2.31	8.23	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	3MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20415		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

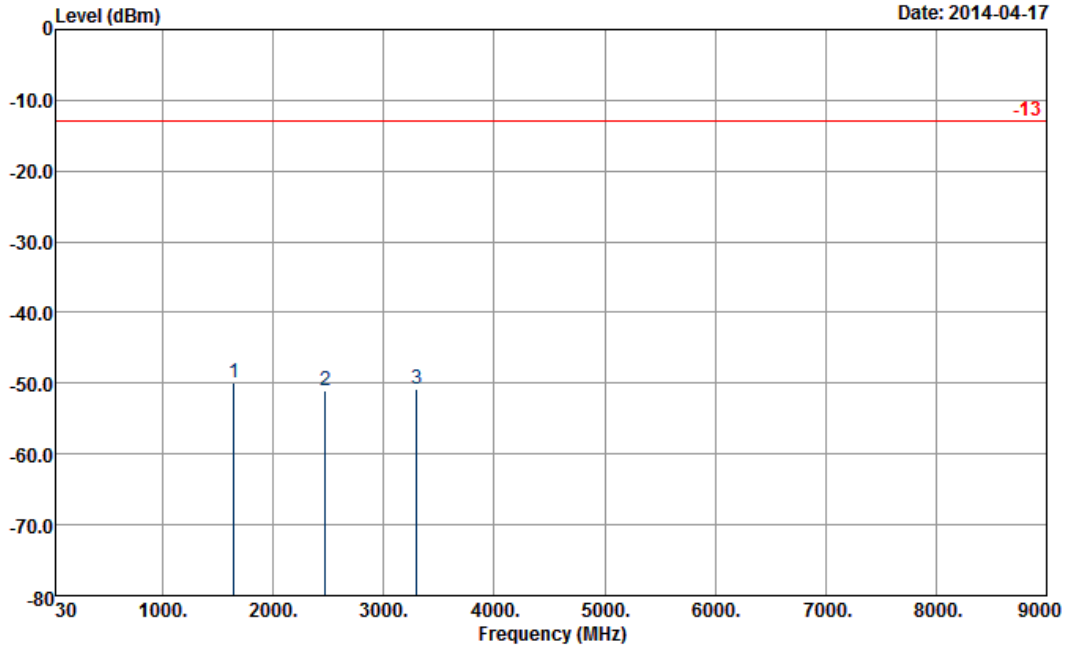


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1648	-55.21	-13	-42.21	-63.97	-59.1	1.6	5.49	H	Pass
2472	-52.02	-13	-39.02	-65.05	-56.2	2.08	6.26	H	Pass
3296	-53.68	-13	-40.68	-67.03	-58.7	3.09	8.11	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	3MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20415		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



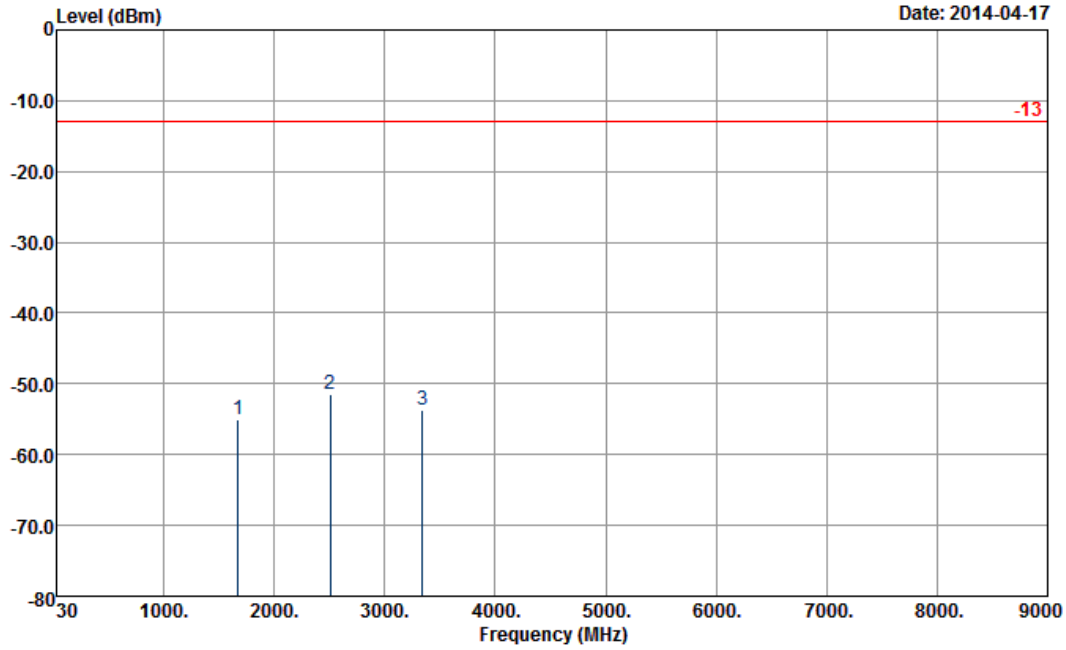
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1648	-49.91	-13	-36.91	-61.51	-53.8	1.6	5.49	V	Pass
2472	-51.02	-13	-38.02	-65.31	-55.2	2.08	6.26	V	Pass
3296	-50.78	-13	-37.78	-65.96	-55.8	3.09	8.11	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	3MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

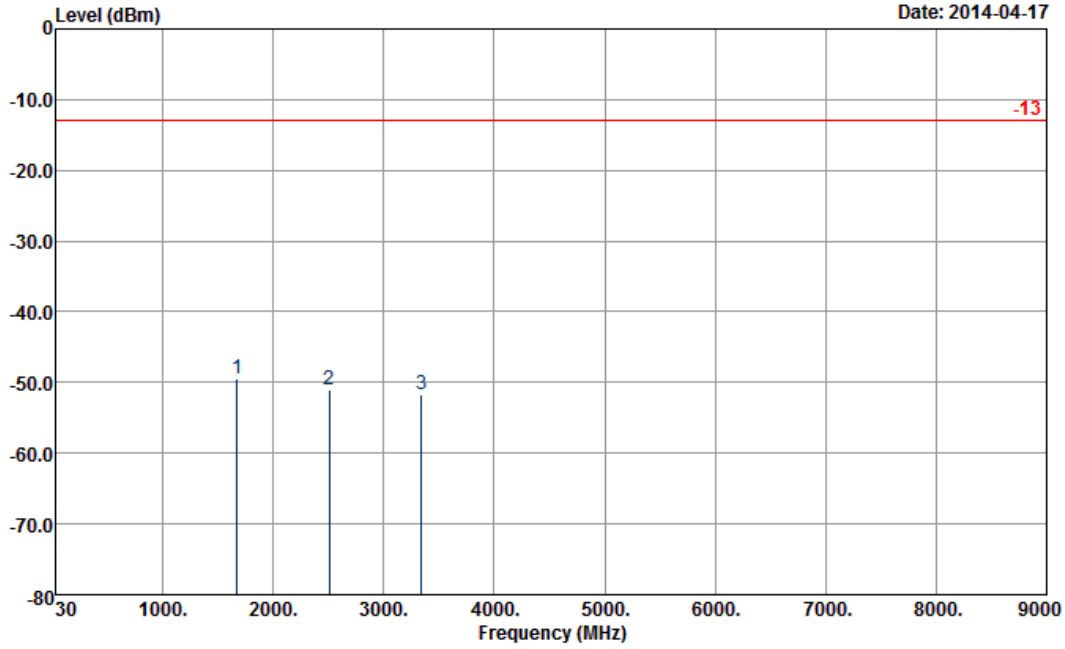


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1670	-55.03	-13	-42.03	-64.44	-58.9	1.62	5.49	H	Pass
2505	-51.38	-13	-38.38	-64.54	-55.5	2.1	6.22	H	Pass
3340	-53.66	-13	-40.66	-67.81	-58.7	3.03	8.07	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	3MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



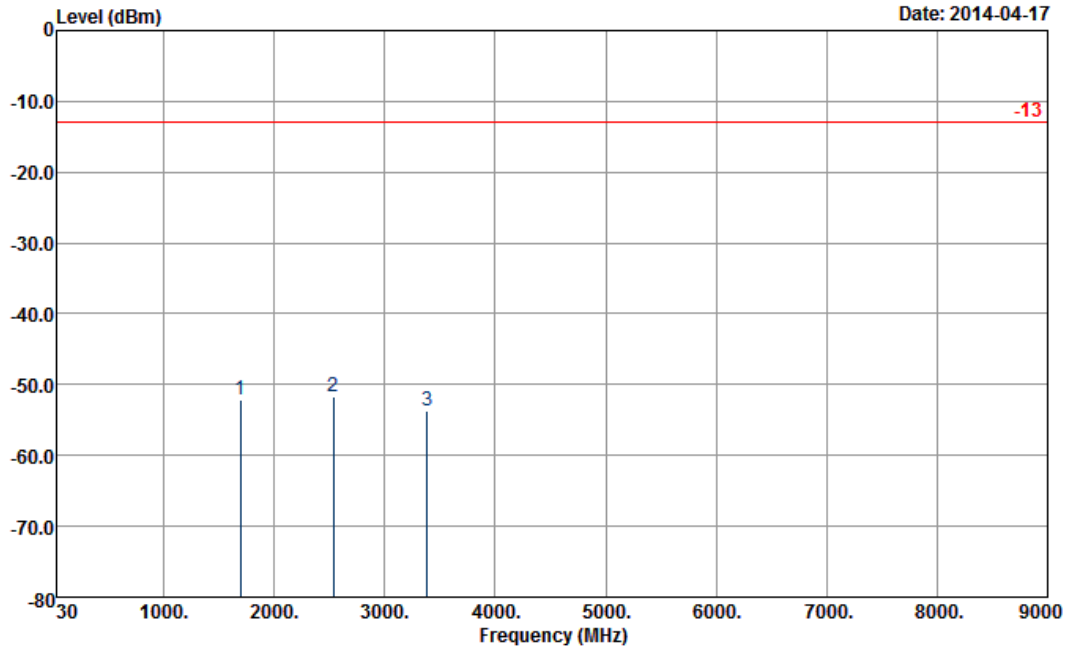
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1670	-49.43	-13	-36.43	-61.09	-53.3	1.62	5.49	V	Pass
2505	-50.98	-13	-37.98	-64.65	-55.1	2.1	6.22	V	Pass
3340	-51.76	-13	-38.76	-66.91	-56.8	3.03	8.07	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	3MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20635		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

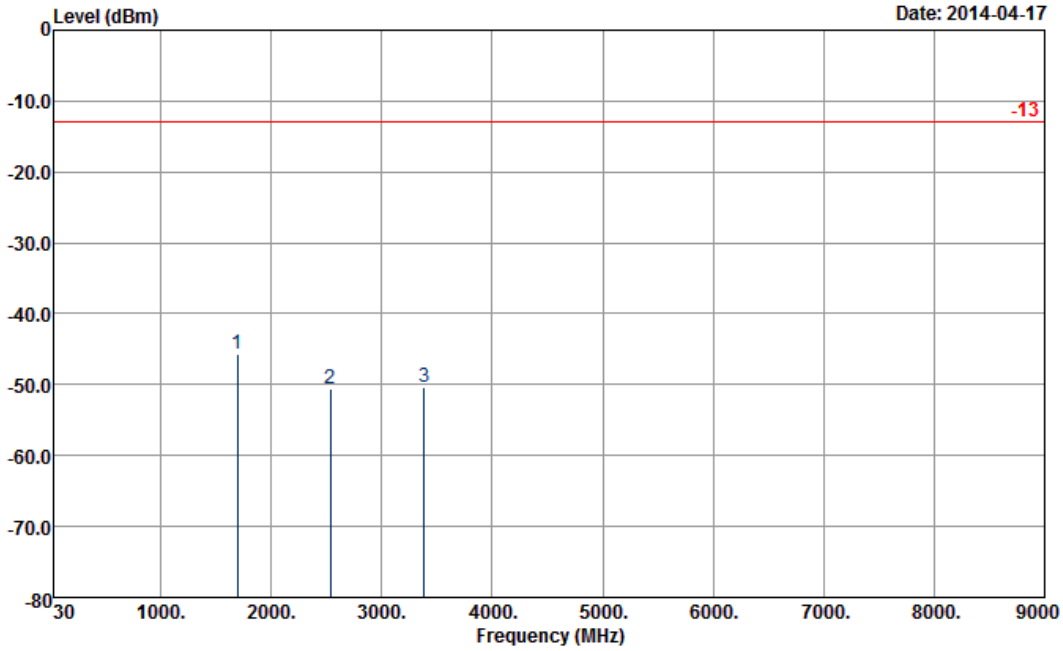


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1692	-52.21	-13	-39.21	-61.5	-56.1	1.56	5.45	H	Pass
2538	-51.64	-13	-38.64	-65.59	-55.9	2.02	6.28	H	Pass
3384	-53.70	-13	-40.70	-67.33	-59.6	2.29	8.19	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	3MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20635		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



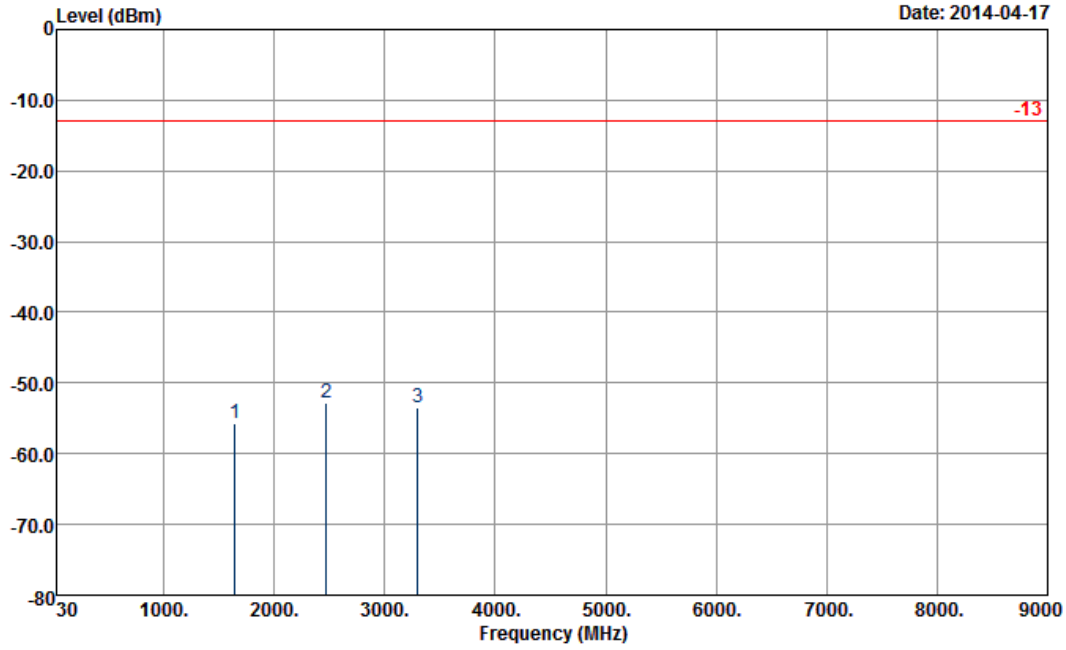
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1692	-45.61	-13	-32.61	-56.96	-49.5	1.56	5.45	V	Pass
2538	-50.54	-13	-37.54	-65.3	-54.8	2.02	6.28	V	Pass
3384	-50.40	-13	-37.40	-65.78	-56.3	2.29	8.19	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20425		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

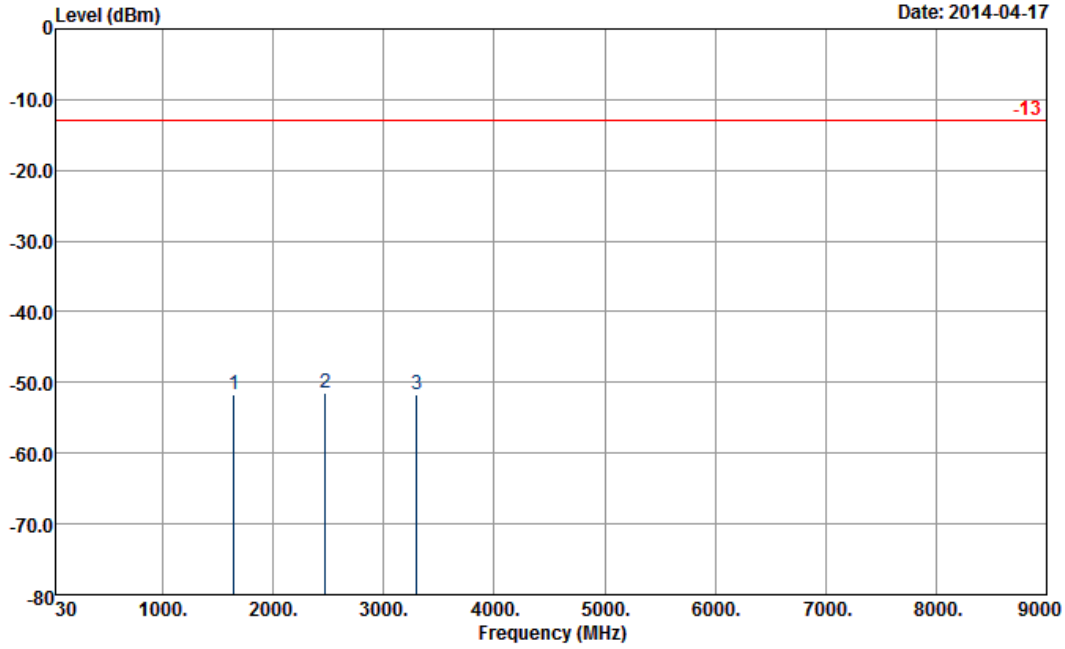


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1648	-55.60	-13	-42.60	-64.59	-59.5	1.61	5.51	H	Pass
2472	-52.84	-13	-39.84	-65.49	-57	2.1	6.26	H	Pass
3296	-53.40	-13	-40.40	-67.1	-58.4	3.12	8.12	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20425		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



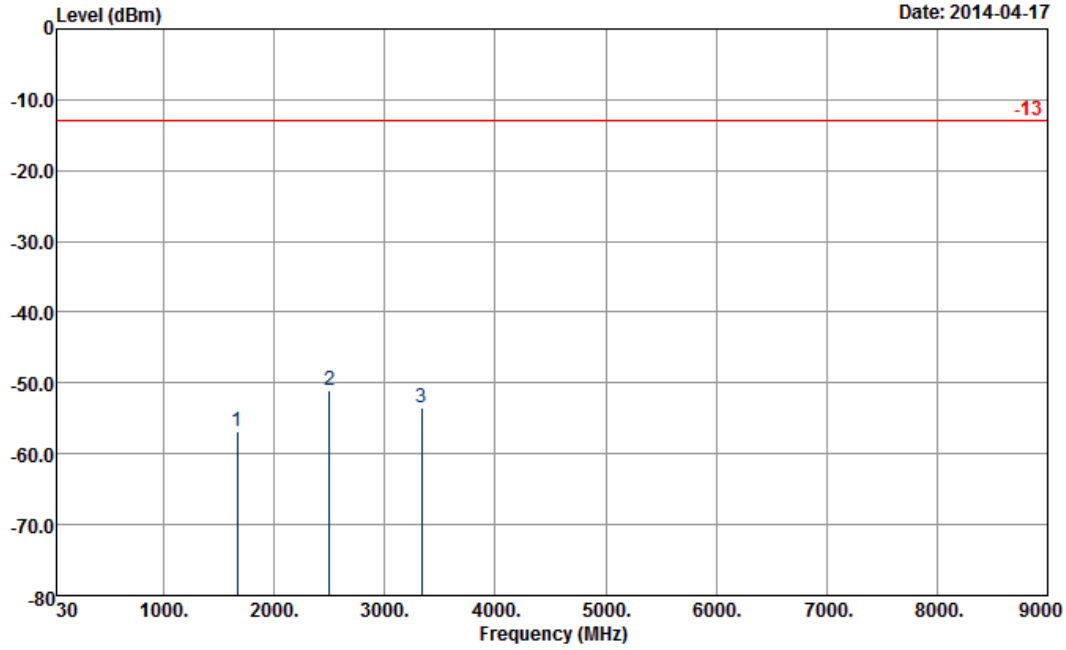
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1648	-51.70	-13	-38.70	-62.95	-55.6	1.61	5.51	V	Pass
2472	-51.54	-13	-38.54	-65.06	-55.7	2.1	6.26	V	Pass
3296	-51.80	-13	-38.80	-67.03	-56.8	3.12	8.12	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

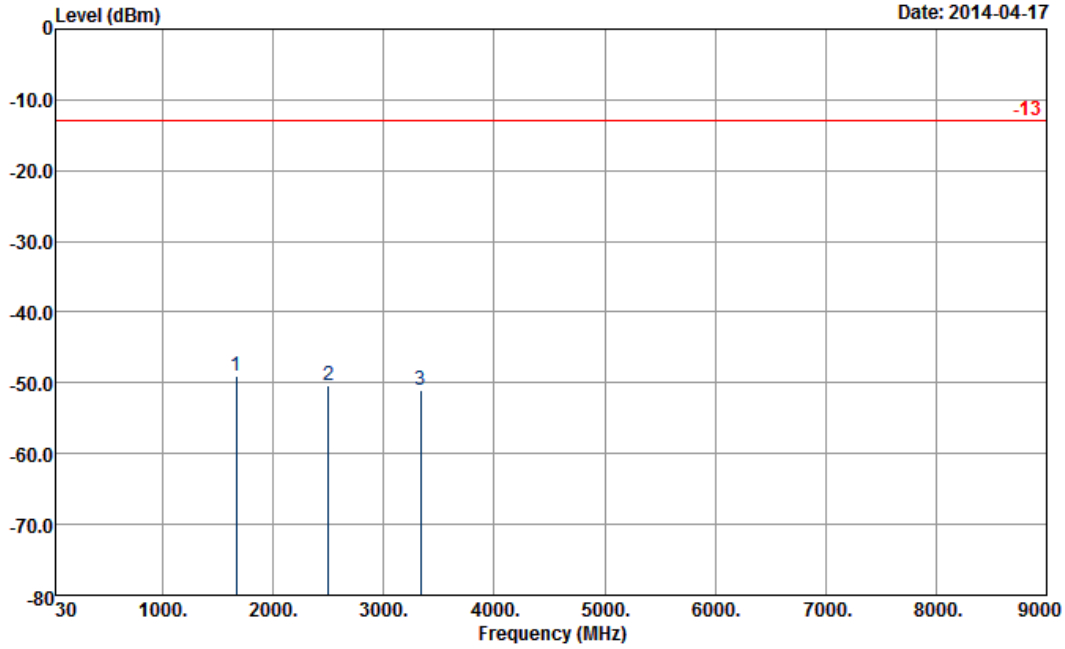


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1668	-56.83	-13	-43.83	-66.02	-60.7	1.62	5.49	H	Pass
2502	-50.98	-13	-37.98	-64.63	-55.1	2.1	6.22	H	Pass
3336	-53.46	-13	-40.46	-67.68	-58.5	3.03	8.07	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



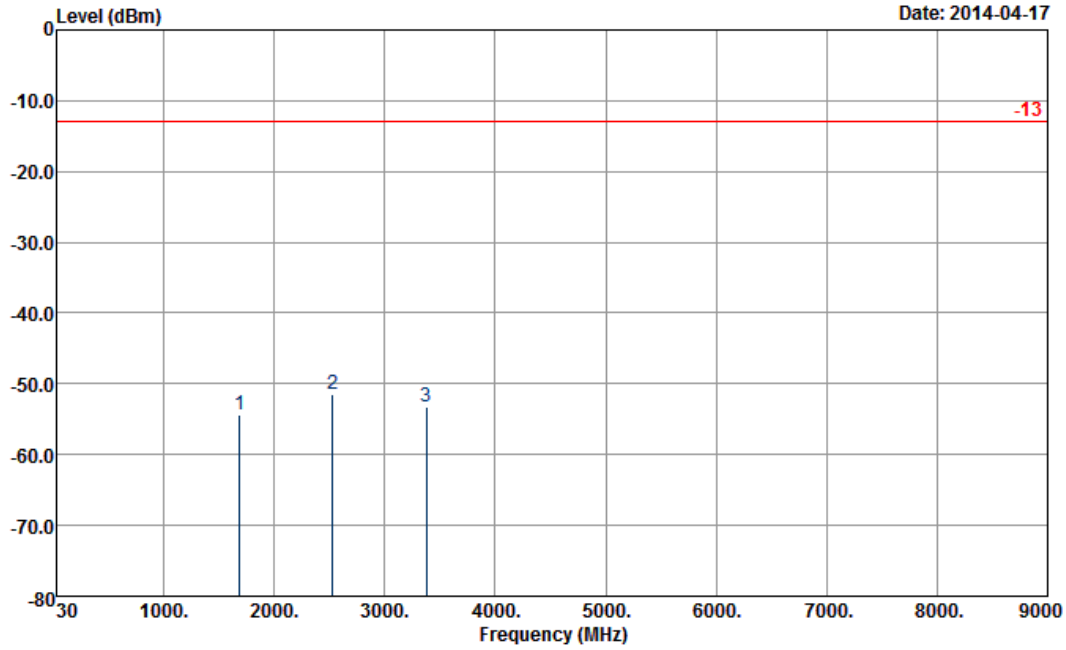
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1668	-49.03	-13	-36.03	-60.67	-52.9	1.62	5.49	V	Pass
2502	-50.38	-13	-37.38	-64.21	-54.5	2.1	6.22	V	Pass
3336	-50.96	-13	-37.96	-66.82	-56	3.03	8.07	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20625		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

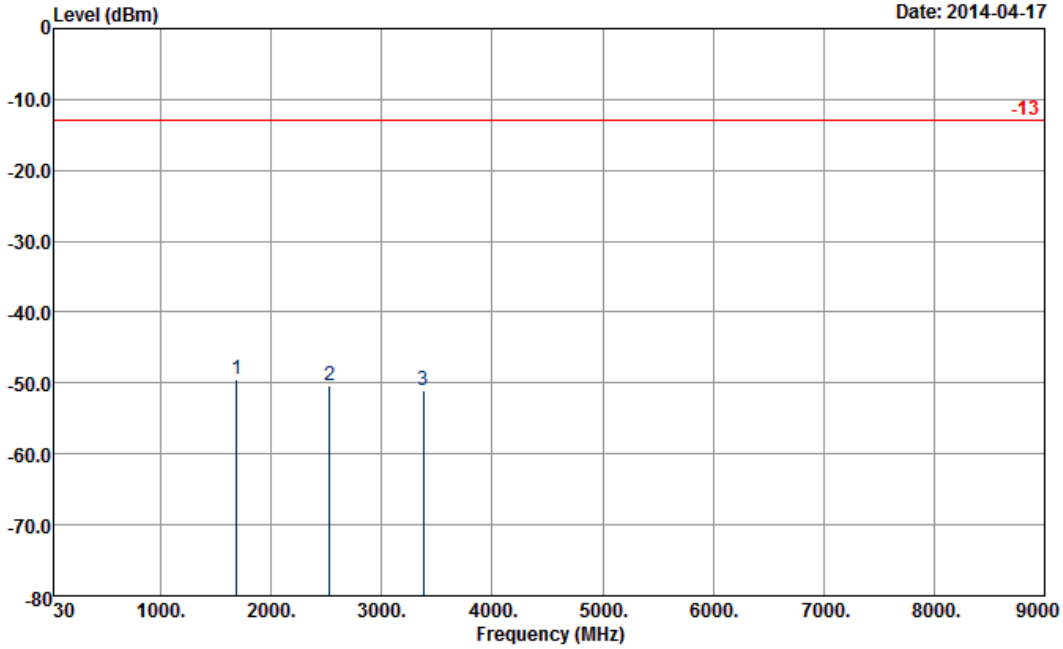


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1688	-54.40	-13	-41.40	-63.39	-58.3	1.54	5.44	H	Pass
2532	-51.44	-13	-38.44	-65.05	-55.7	2.01	6.27	H	Pass
3376	-53.20	-13	-40.20	-67.73	-59.2	2.18	8.18	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20625		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



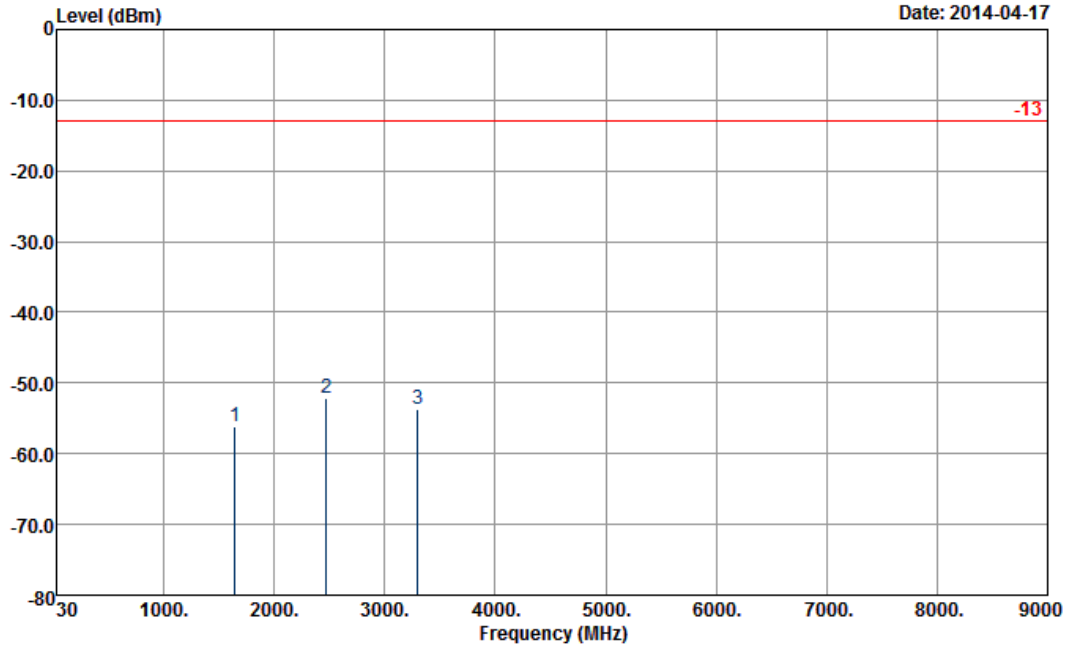
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1688	-49.40	-13	-36.40	-60.82	-53.3	1.54	5.44	V	Pass
2532	-50.44	-13	-37.44	-64.41	-54.7	2.01	6.27	V	Pass
3376	-51.10	-13	-38.10	-66.98	-57.1	2.18	8.18	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20450		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

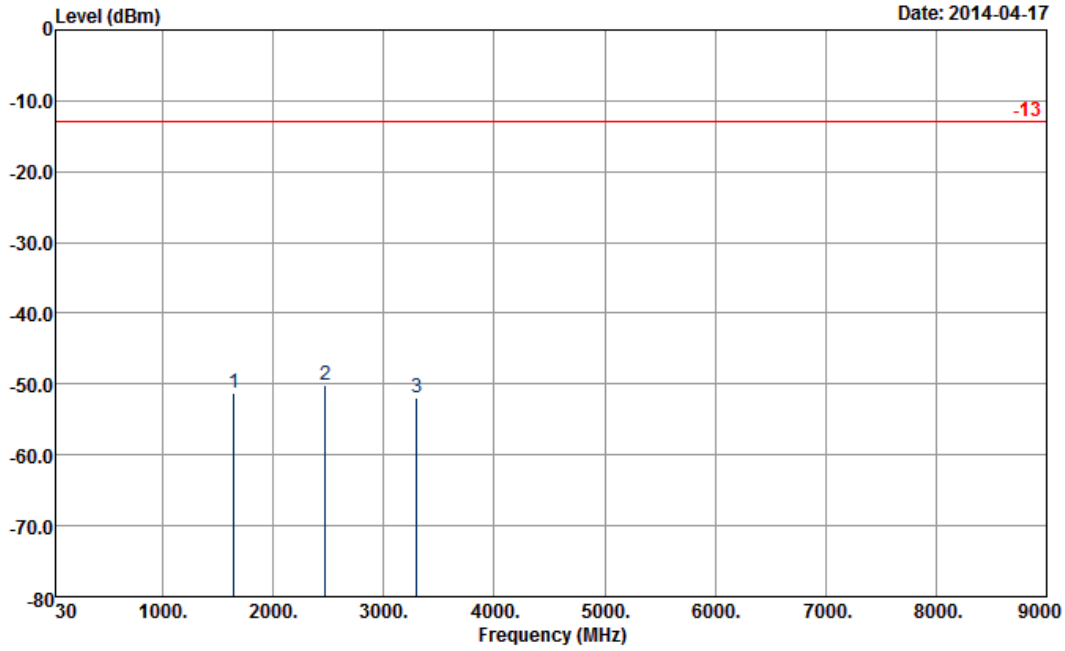


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1648	-56.15	-13	-43.15	-65.01	-60.1	1.63	5.58	H	Pass
2472	-52.10	-13	-39.10	-65.09	-56.2	2.21	6.31	H	Pass
3296	-53.77	-13	-40.77	-67.73	-58.8	3.1	8.13	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20450		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



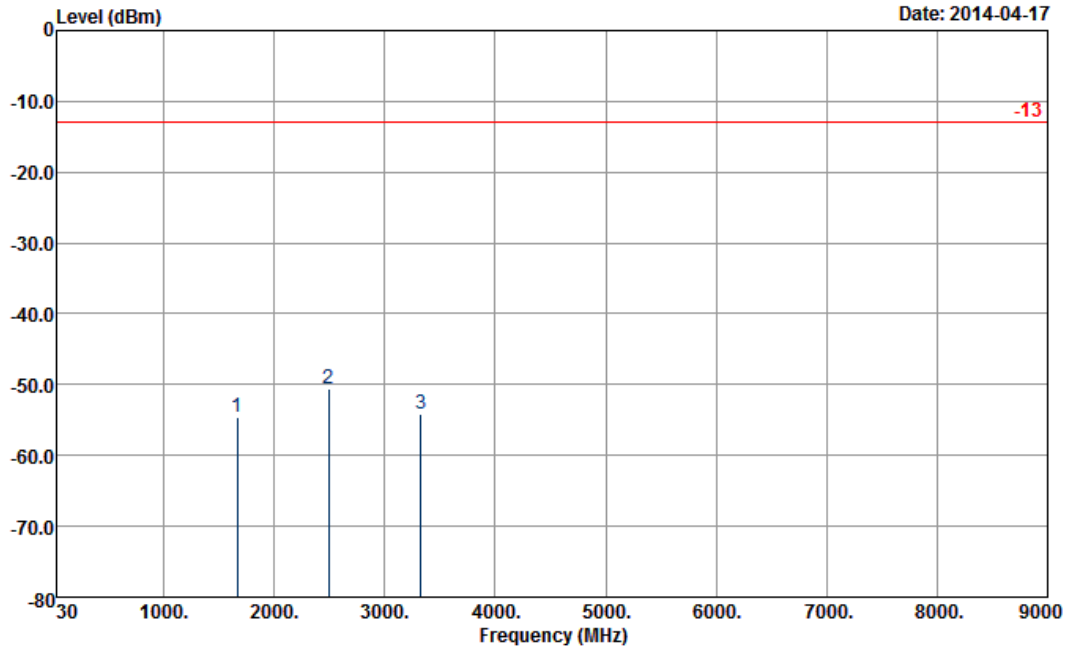
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1648	-51.15	-13	-38.15	-62.48	-55.1	1.63	5.58	V	Pass
2472	-50.10	-13	-37.10	-64.18	-54.2	2.21	6.31	V	Pass
3296	-51.87	-13	-38.87	-67.32	-56.9	3.1	8.13	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

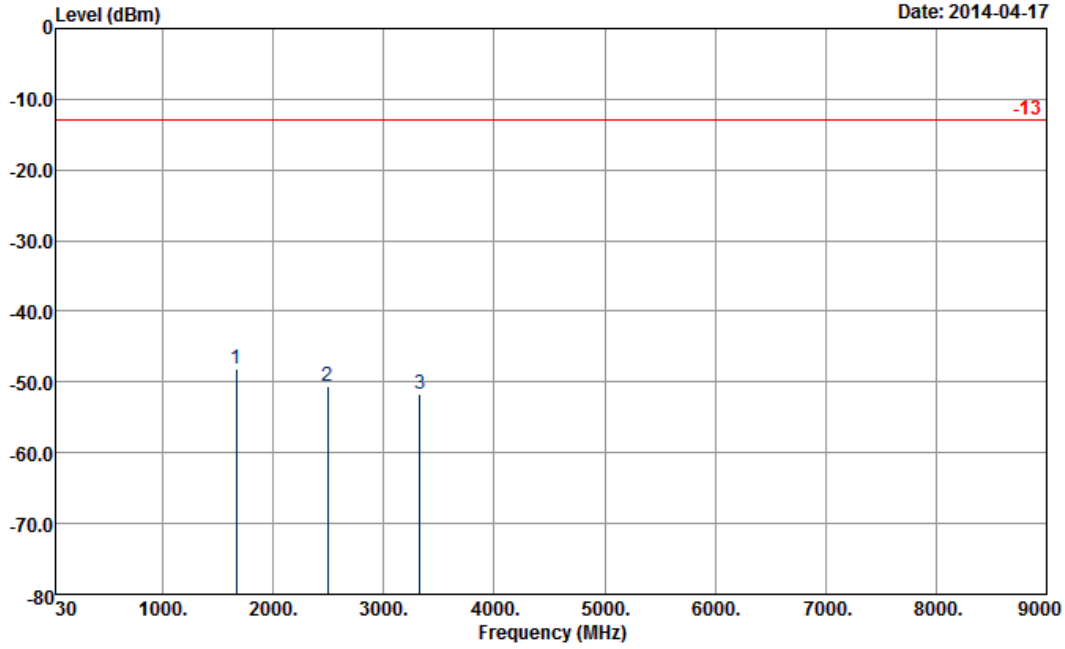


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1663	-54.63	-13	-41.63	-63.91	-58.5	1.62	5.49	H	Pass
2495	-50.68	-13	-37.68	-63.78	-54.8	2.1	6.22	H	Pass
3326	-54.16	-13	-41.16	-68	-59.2	3.03	8.07	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20525		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



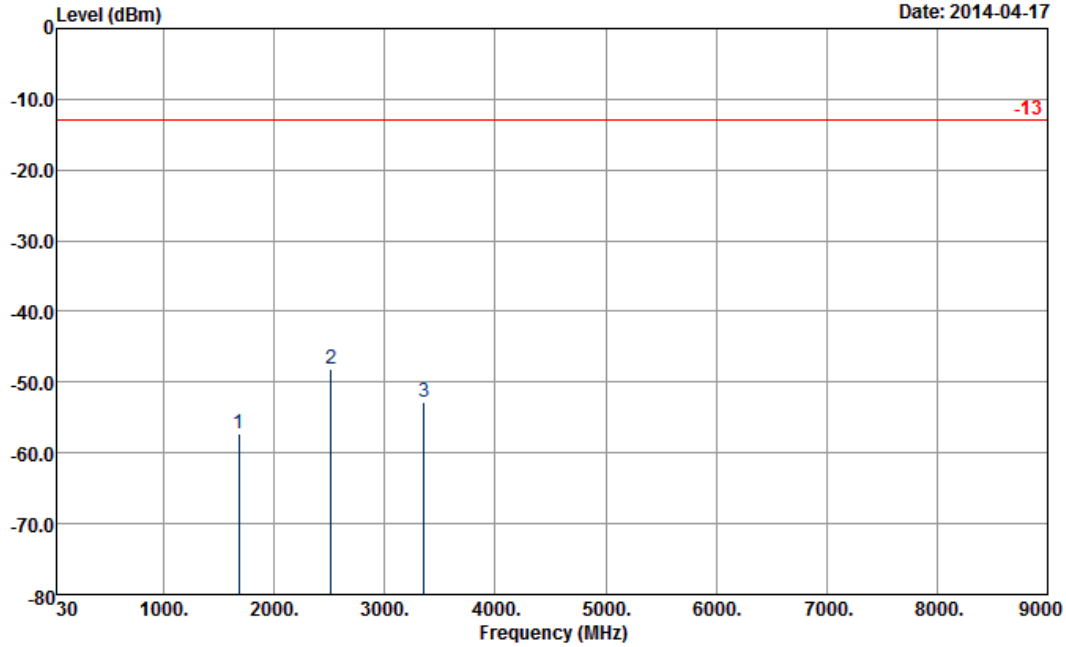
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1663	-48.23	-13	-35.23	-59.65	-52.1	1.62	5.49	V	Pass
2495	-50.48	-13	-37.48	-64.27	-54.6	2.1	6.22	V	Pass
3326	-51.76	-13	-38.76	-67.28	-56.8	3.03	8.07	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20600		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

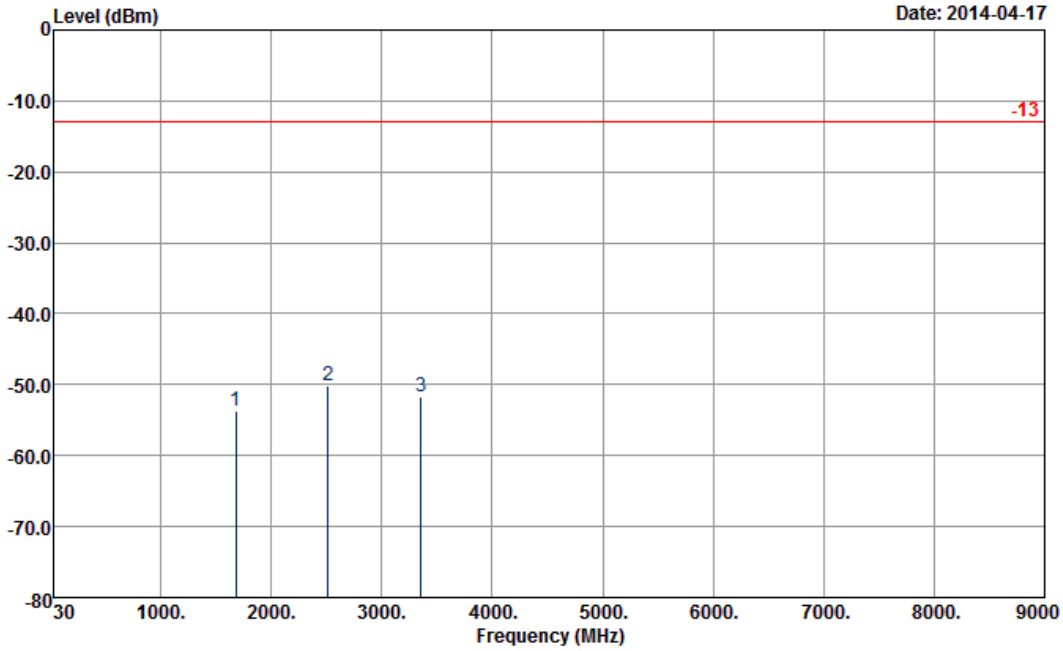


Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	ERP (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
1678	-57.20	-13	-44.20	-66.15	-61.1	1.52	5.42	H	Pass
2517	-48.04	-13	-35.04	-61.47	-52.3	1.99	6.25	H	Pass
3356	-52.80	-13	-39.80	-66.94	-58.8	2.14	8.14	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 5	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20600		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



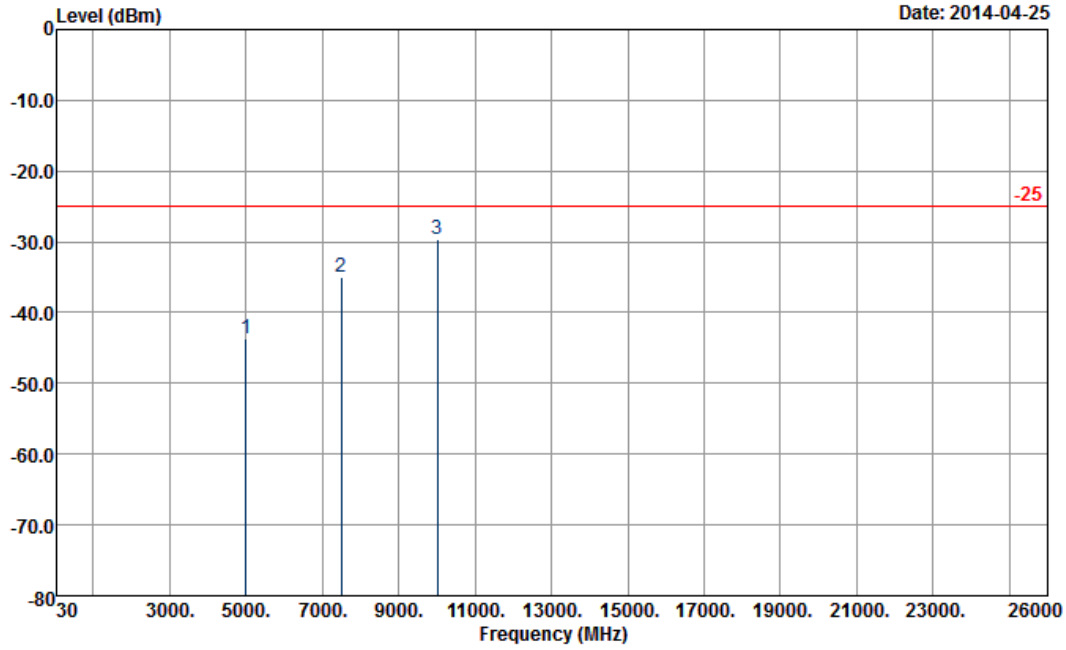
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	ERP (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
1678	-53.60	-13	-40.60	-65.14	-57.5	1.52	5.42	V	Pass
2517	-50.24	-13	-37.24	-64.03	-54.5	1.99	6.25	V	Pass
3356	-51.80	-13	-38.80	-67.12	-57.8	2.14	8.14	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20775		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5^{th}, 6^{th}, 7^{th},…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

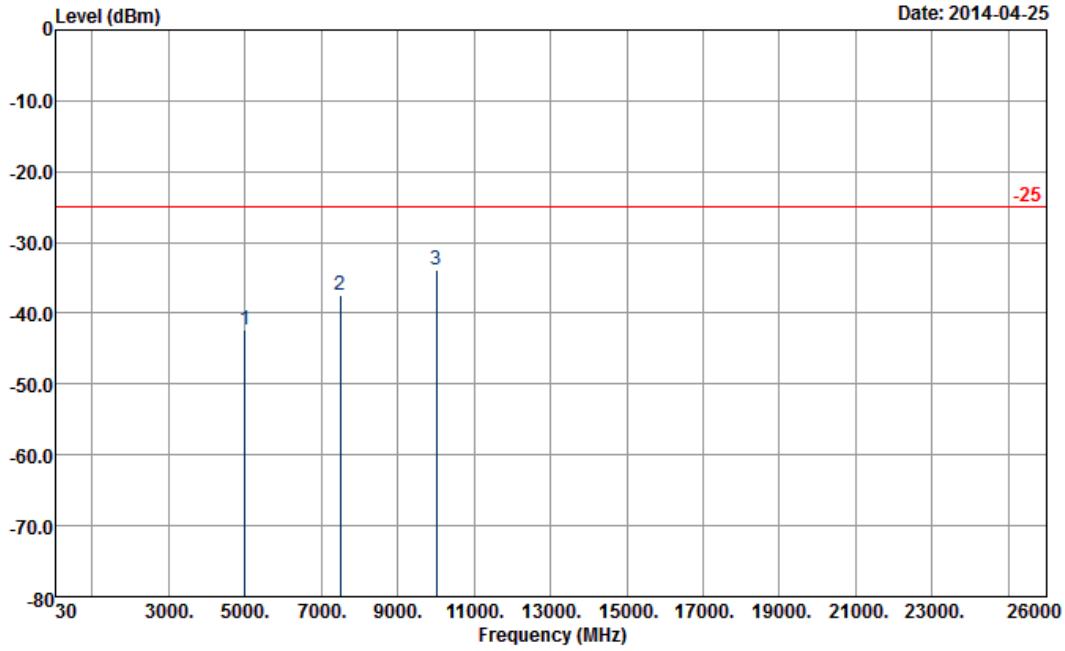


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
4998	-43.73	-25	-18.73	-61.36	-47.29	6.78	10.34	H	Pass
7500	-35.02	-25	-10.02	-62.77	-38.06	9.22	12.26	H	Pass
10002	-29.66	-25	-4.66	-57.75	-34	8.51	12.85	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	Temperature :	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	20775		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5^{th}, 6^{th}, 7^{th},…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



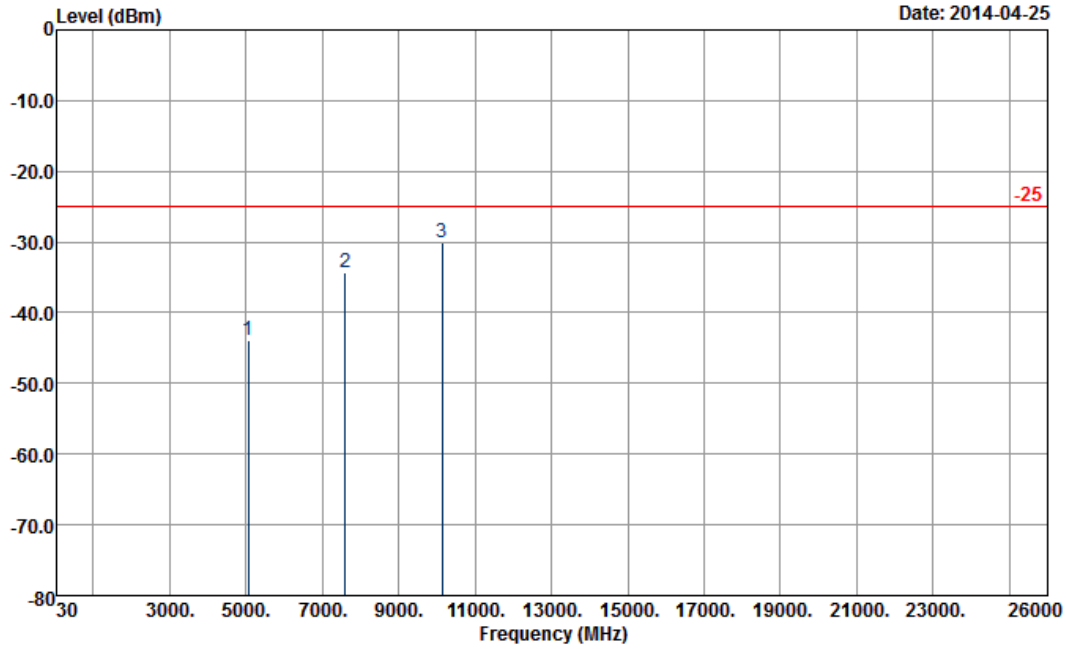
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
4998	-42.44	-25	-17.44	-56.53	-46	6.78	10.34	V	Pass
7500	-37.49	-25	-12.49	-65.24	-40.53	9.22	12.26	V	Pass
10002	-33.97	-25	-8.97	-61.92	-38.31	8.51	12.85	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

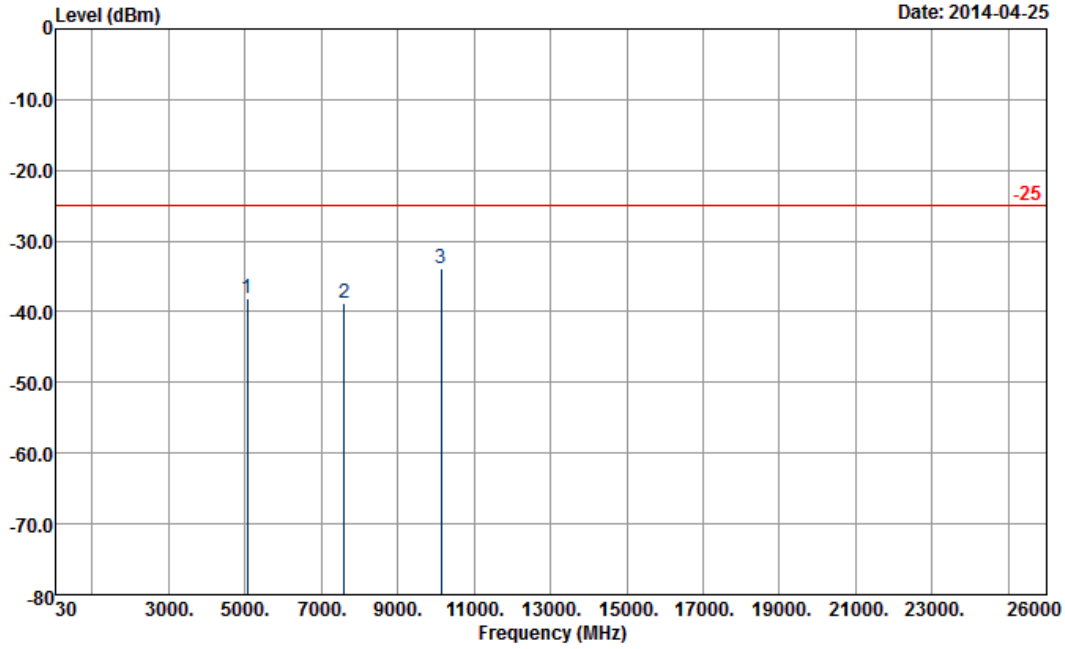


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5064	-43.84	-25	-18.84	-62.05	-47.33	6.86	10.35	H	Pass
7596	-34.39	-25	-9.39	-61.17	-37.28	9.34	12.23	H	Pass
10128	-30.08	-25	-5.08	-58.89	-34.18	8.64	12.74	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



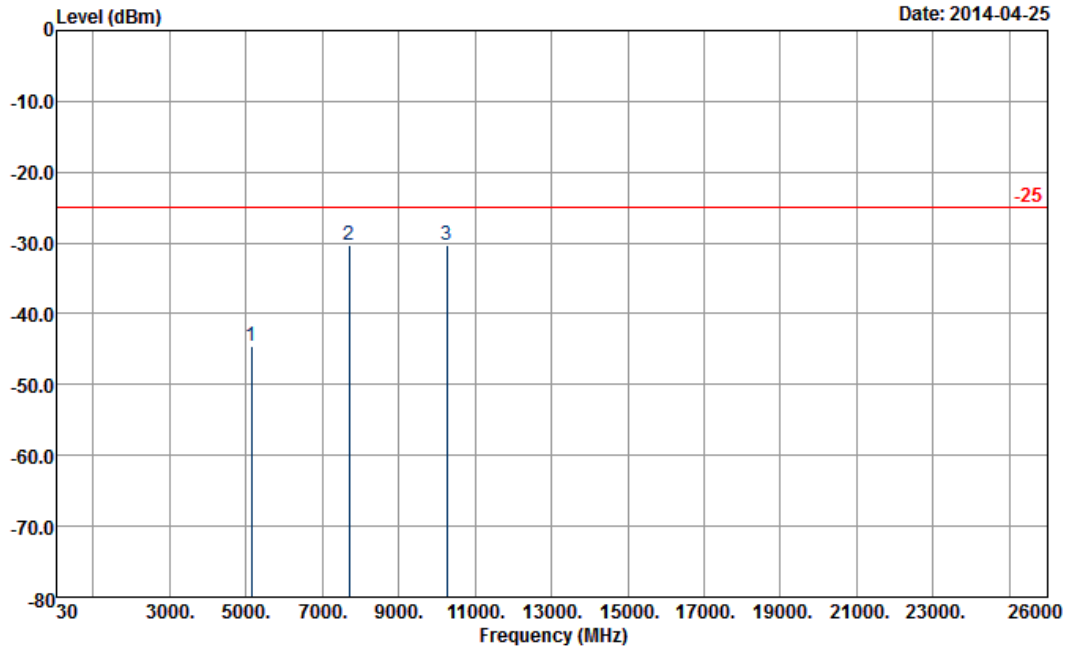
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5064	-38.02	-25	-13.02	-56.36	-41.51	6.86	10.35	V	Pass
7596	-38.80	-25	-13.80	-65.32	-41.69	9.34	12.23	V	Pass
10128	-33.91	-25	-8.91	-61.77	-38.01	8.64	12.74	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21425		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

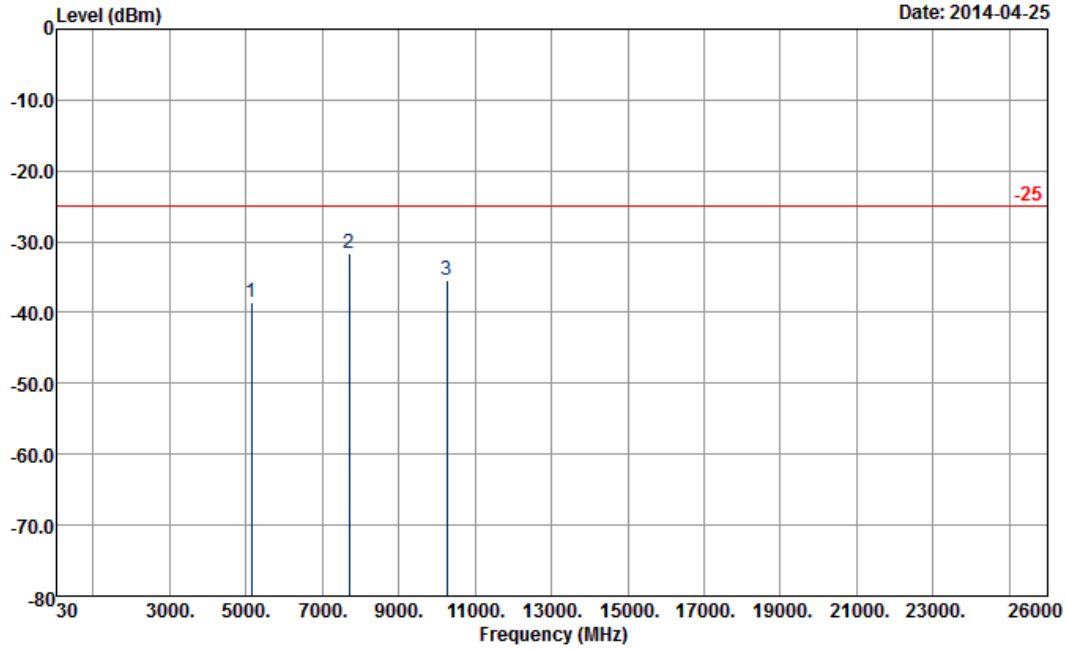


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5130	-44.57	-25	-19.57	-63.28	-48.1	6.9	10.43	H	Pass
7698	-30.27	-25	-5.27	-55.69	-33.2	9.39	12.32	H	Pass
10260	-30.36	-25	-5.36	-59.47	-34.5	8.71	12.85	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	Temperature :	23~25°C
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	21425		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



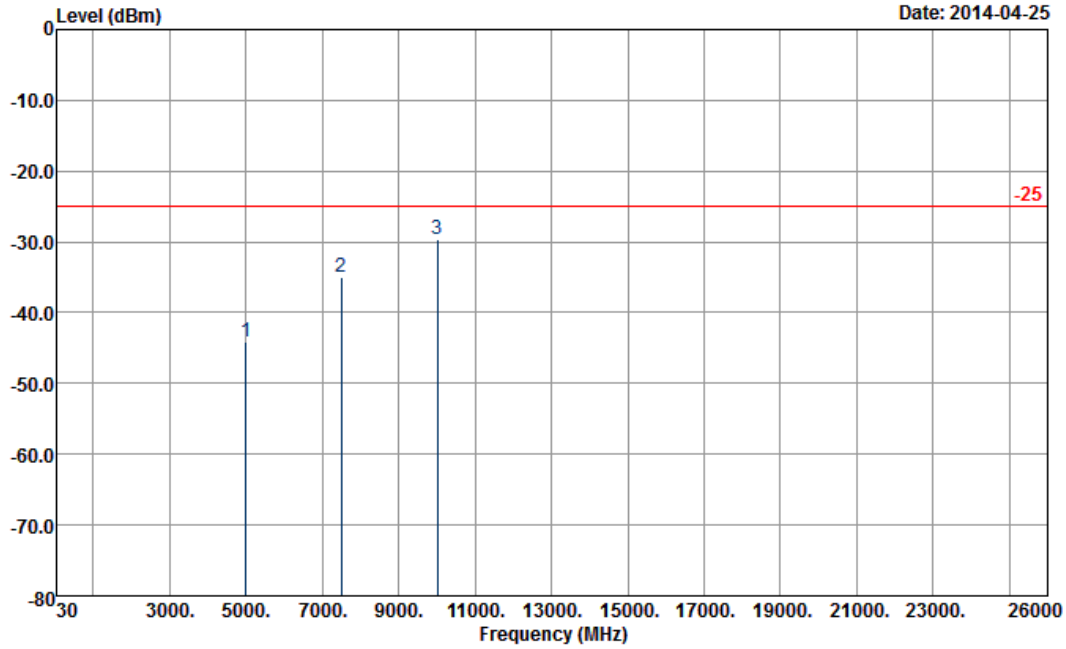
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5130	-38.57	-25	-13.57	-57.49	-42.1	6.9	10.43	V	Pass
7698	-31.57	-25	-6.57	-57.47	-34.5	9.39	12.32	V	Pass
10260	-35.46	-25	-10.46	-63.73	-39.6	8.71	12.85	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20800		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

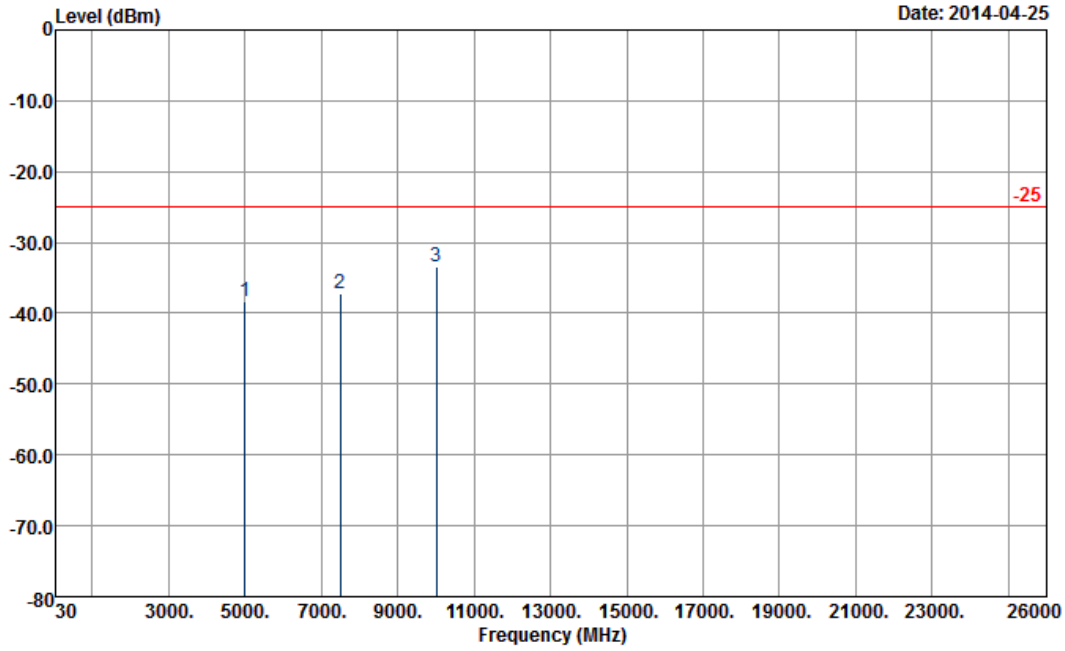


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
4998	-44.09	-25	-19.09	-62.3	-47.63	6.81	10.35	H	Pass
7500	-34.88	-25	-9.88	-62.54	-37.86	9.26	12.24	H	Pass
10002	-29.69	-25	-4.69	-58.13	-33.98	8.54	12.83	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	Temperature :	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	20800		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



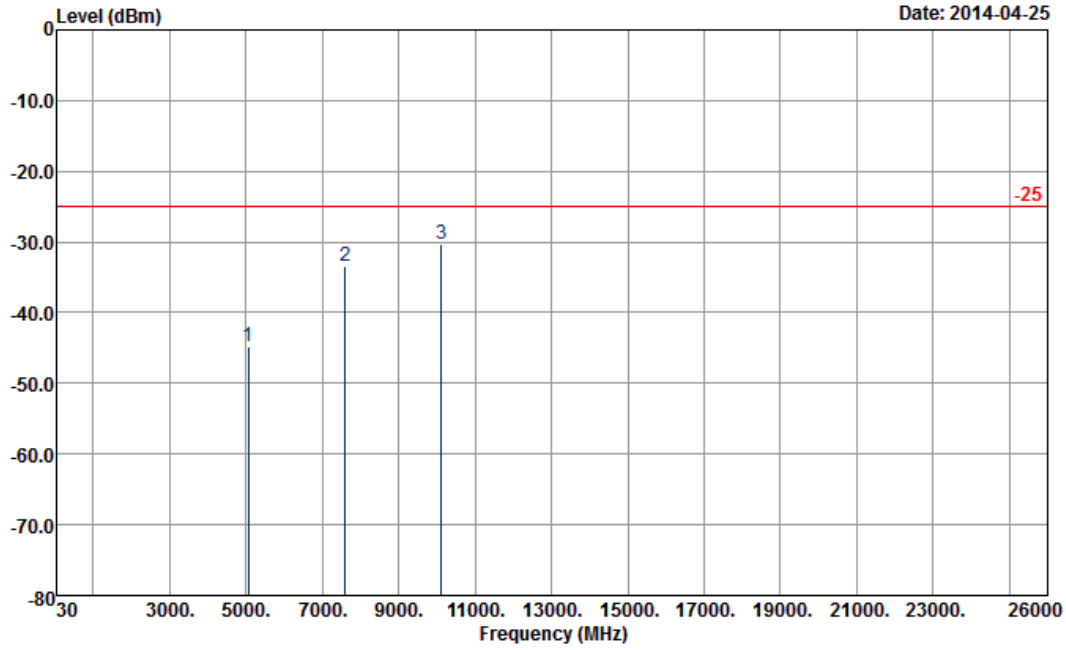
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
4998	-38.31	-25	-13.31	-56.81	-41.85	6.81	10.35	V	Pass
7500	-37.31	-25	-12.31	-64.79	-40.29	9.26	12.24	V	Pass
10002	-33.33	-25	-8.33	-61.2	-37.62	8.54	12.83	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5^{th}, 6^{th}, 7^{th},…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

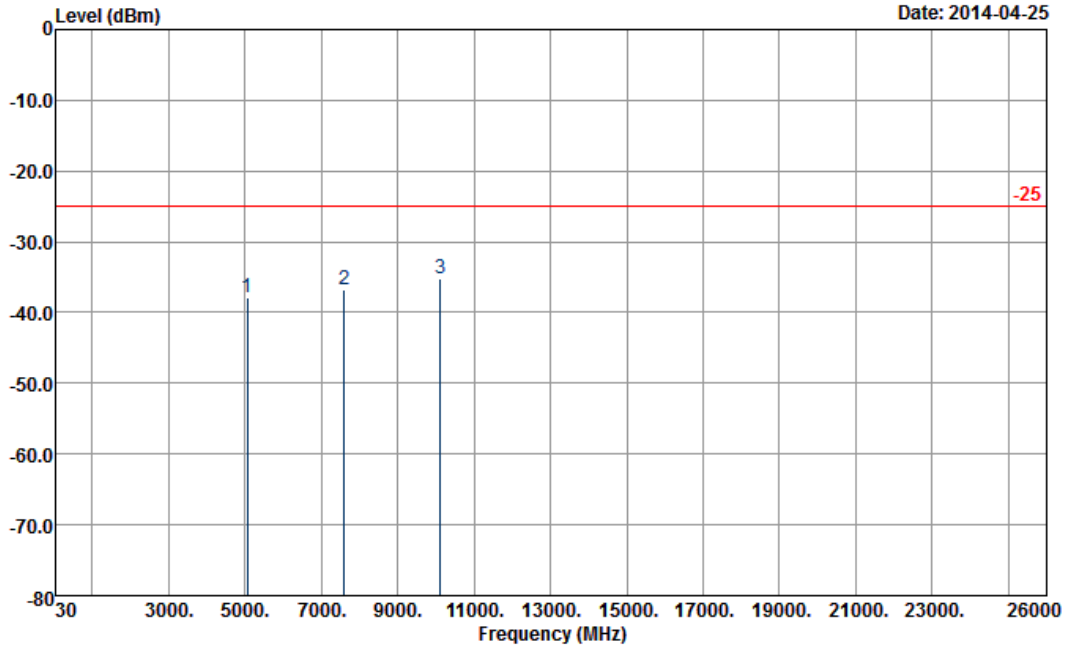


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5060	-44.88	-25	-19.88	-62.29	-48.37	6.86	10.35	H	Pass
7592	-33.43	-25	-8.43	-60.59	-36.32	9.34	12.23	H	Pass
10124	-30.31	-25	-5.31	-59.56	-34.41	8.64	12.74	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	Temperature :	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



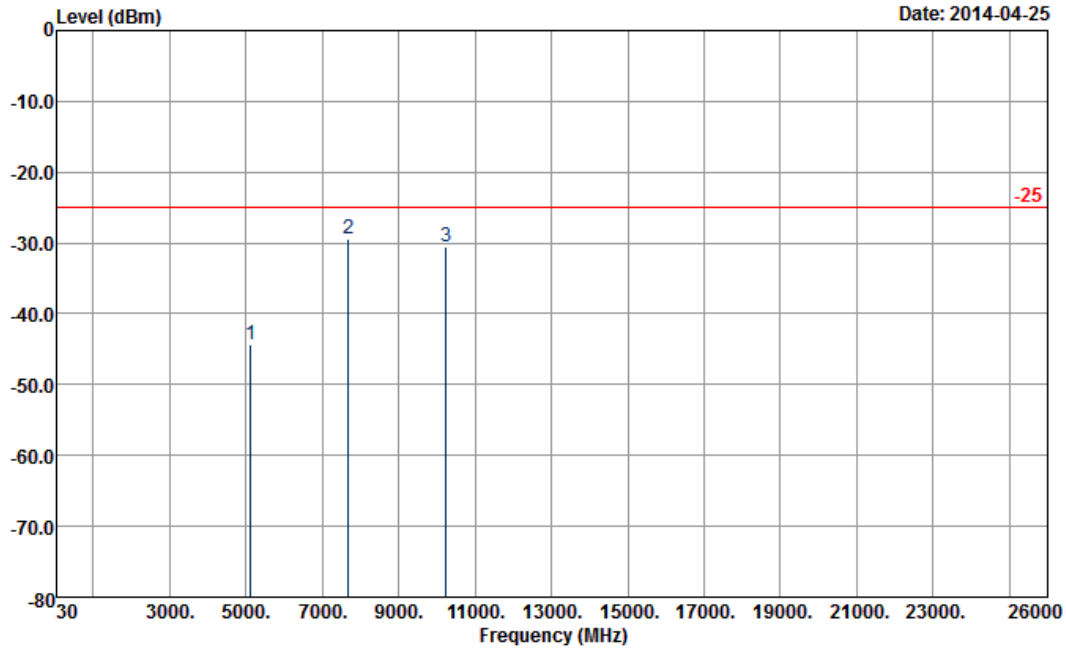
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5060	-37.86	-25	-12.86	-56.44	-41.35	6.86	10.35	V	Pass
7592	-36.79	-25	-11.79	-63.06	-39.68	9.34	12.23	V	Pass
10124	-35.14	-25	-10.14	-63.45	-39.24	8.64	12.74	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21400		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5^{th}, 6^{th}, 7^{th},…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

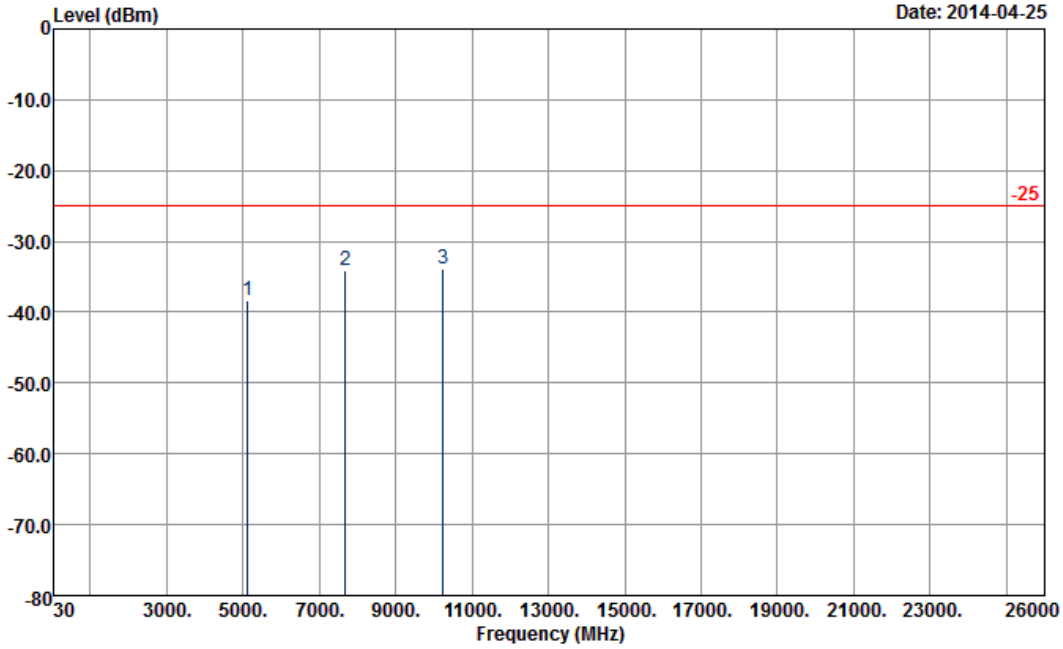


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5118	-44.32	-25	-19.32	-62.65	-47.86	6.88	10.42	H	Pass
7680	-29.39	-25	-4.39	-55.56	-32.33	9.37	12.31	H	Pass
10242	-30.64	-25	-5.64	-59.67	-34.83	8.64	12.83	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	10MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	21400		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



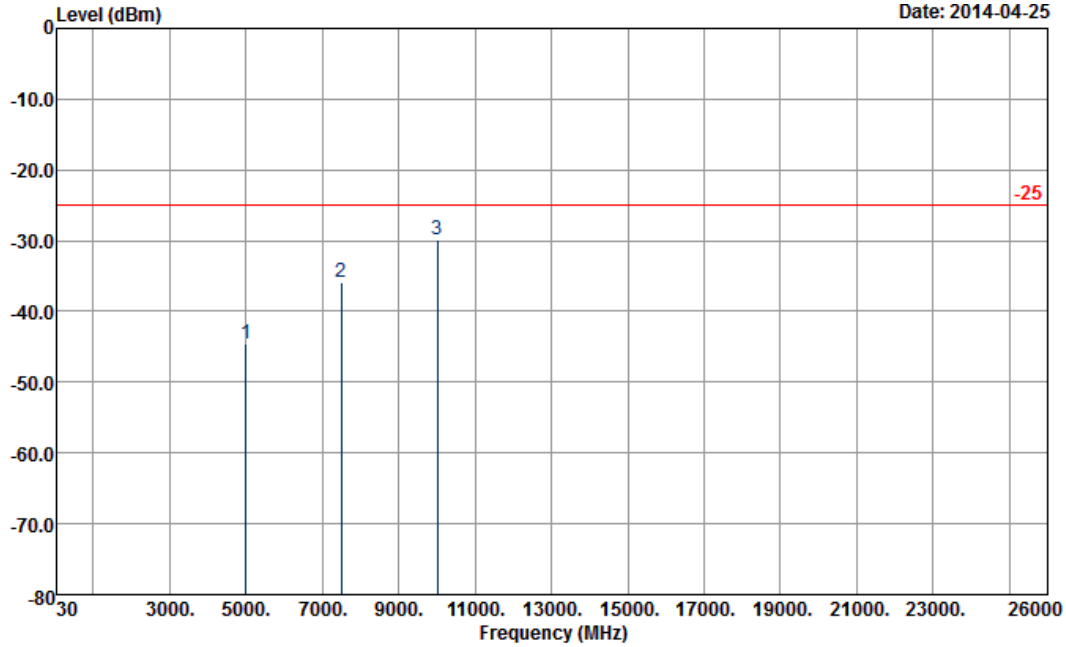
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5118	-38.42	-25	-13.42	-56.78	-41.96	6.88	10.42	V	Pass
7680	-34.18	-25	-9.18	-60.03	-37.12	9.37	12.31	V	Pass
10242	-33.83	-25	-8.83	-61.9	-38.02	8.64	12.83	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	15MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20825		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

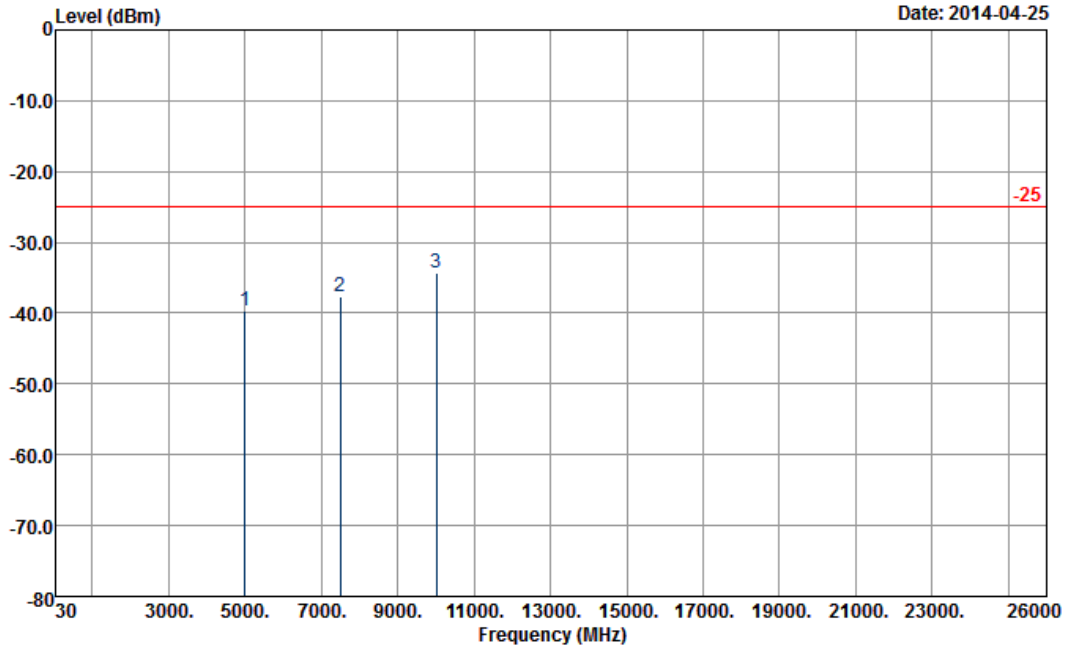


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5004	-44.59	-25	-19.59	-62.46	-48.14	6.82	10.37	H	Pass
7500	-35.88	-25	-10.88	-63.41	-38.87	9.27	12.26	H	Pass
10002	-29.96	-25	-4.96	-58.66	-34.29	8.55	12.88	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	15MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	20825		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



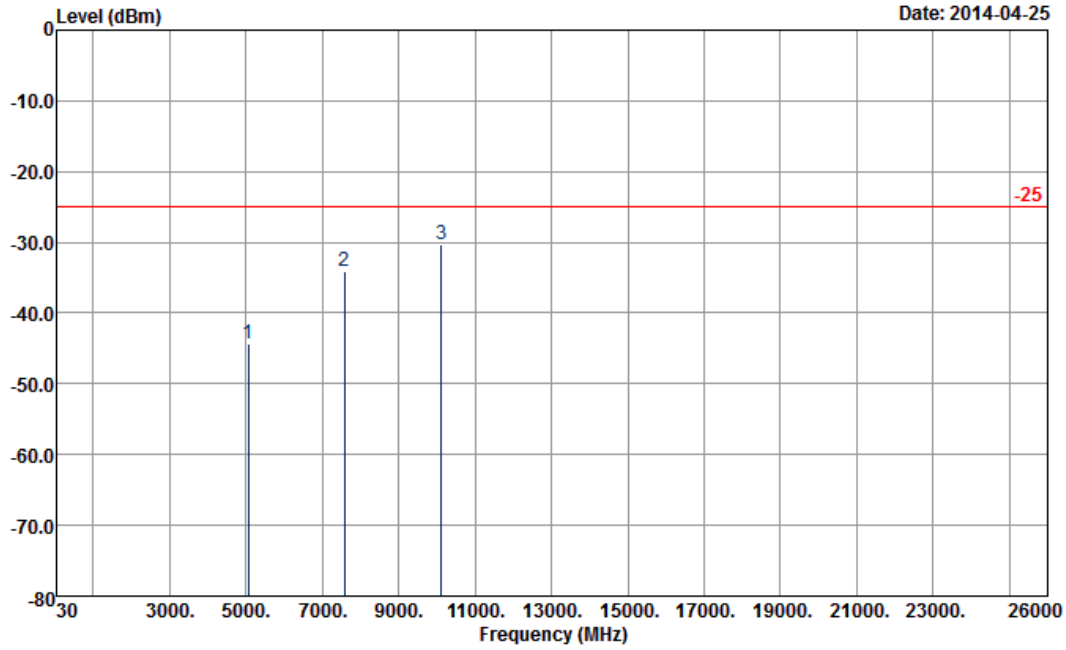
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
4998	-39.60	-25	-14.60	-57.65	-43.15	6.82	10.37	V	Pass
7500	-37.72	-25	-12.72	-65.01	-40.71	9.27	12.26	V	Pass
10002	-34.34	-25	-9.34	-62.11	-38.67	8.55	12.88	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	15MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

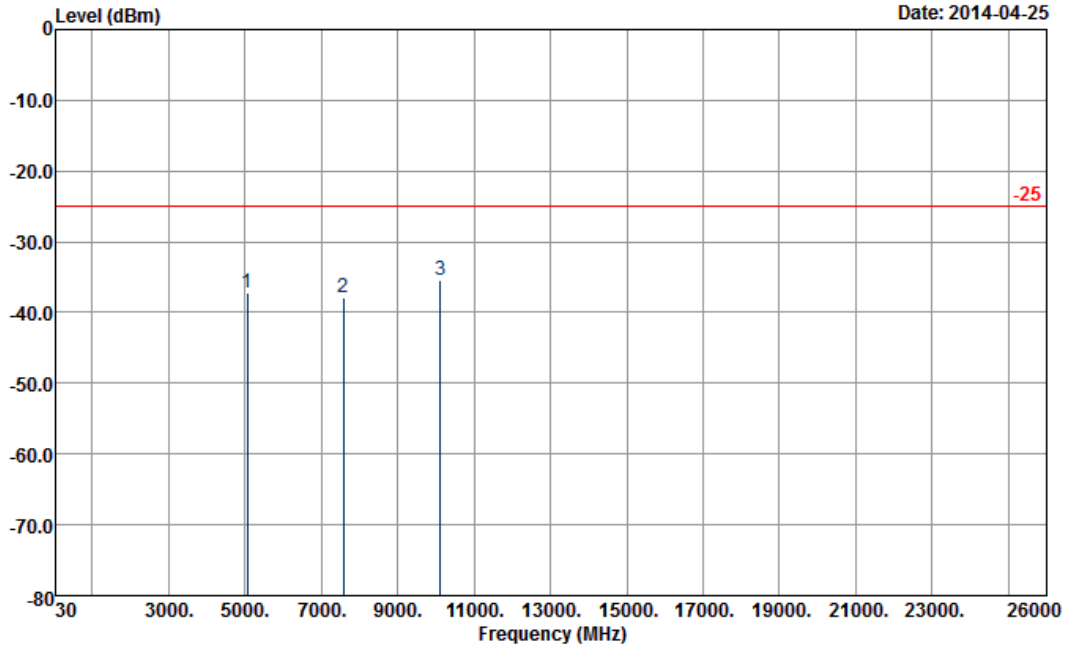


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5058	-44.27	-25	-19.27	-62.46	-47.76	6.86	10.35	H	Pass
7584	-34.06	-25	-9.06	-60.92	-36.95	9.34	12.23	H	Pass
10110	-30.32	-25	-5.32	-59.17	-34.42	8.64	12.74	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	15MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



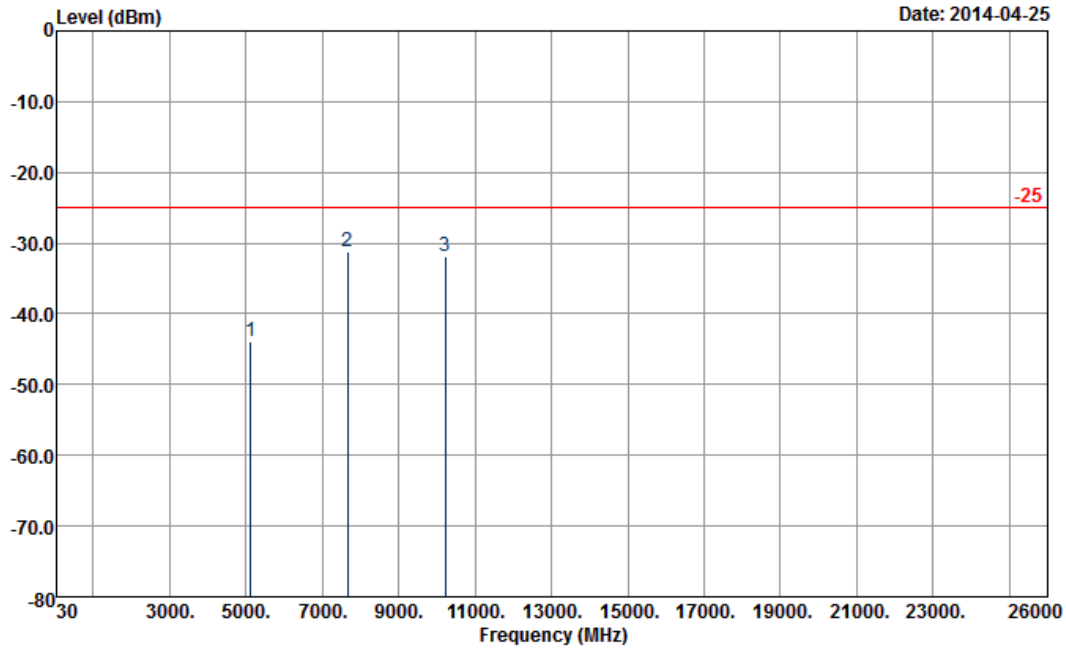
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5058	-37.22	-25	-12.22	-55.53	-40.71	6.86	10.35	V	Pass
7584	-37.79	-25	-12.79	-64.56	-40.68	9.34	12.23	V	Pass
10110	-35.33	-25	-10.33	-63.19	-39.43	8.64	12.74	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	15MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21375		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5^{th}, 6^{th}, 7^{th},…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

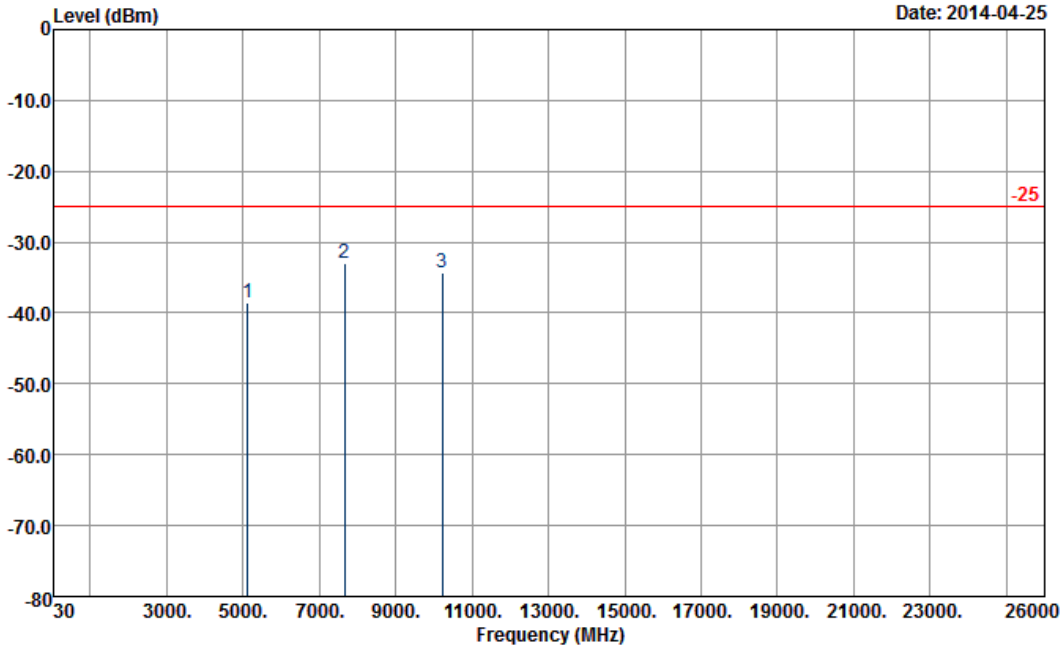


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5112	-43.92	-25	-18.92	-62.32	-47.46	6.87	10.41	H	Pass
7668	-31.17	-25	-6.17	-57.34	-34.12	9.35	12.30	H	Pass
10224	-31.82	-25	-6.82	-60.71	-36.01	8.63	12.82	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	15MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	21375		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



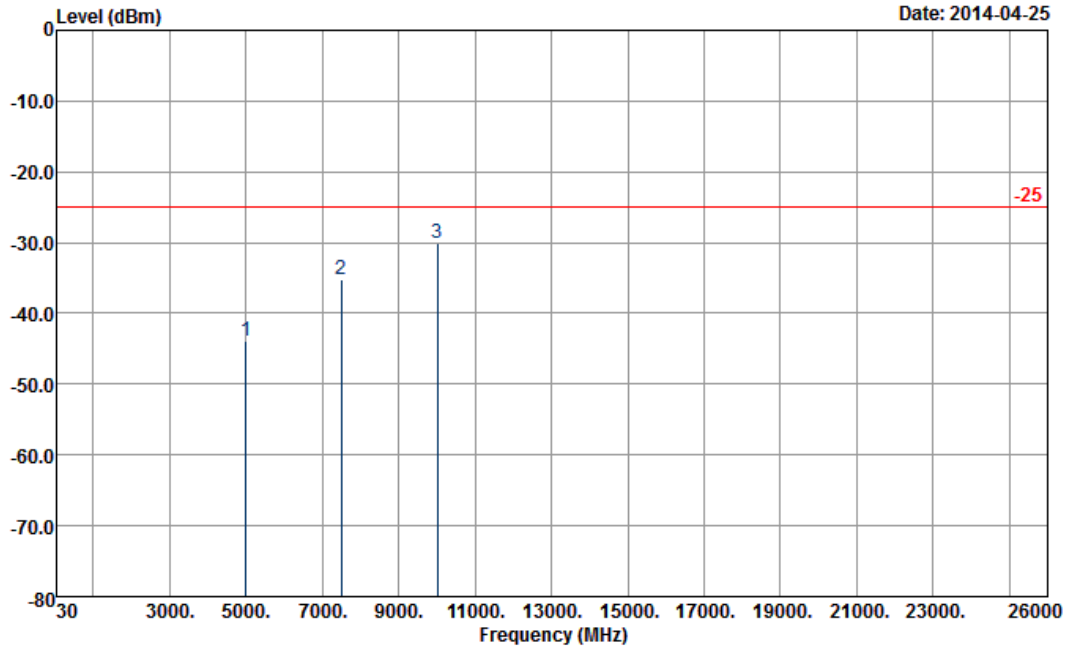
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5112	-38.65	-25	-13.65	-57.1	-42.19	6.87	10.41	V	Pass
7668	-32.90	-25	-7.90	-58.99	-35.85	9.35	12.30	V	Pass
10224	-34.36	-25	-9.36	-62.3	-38.55	8.63	12.82	V	Pass

Other harmonics are lower than background noise

<Low Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	20MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	20850		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5^{th}, 6^{th}, 7^{th},…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

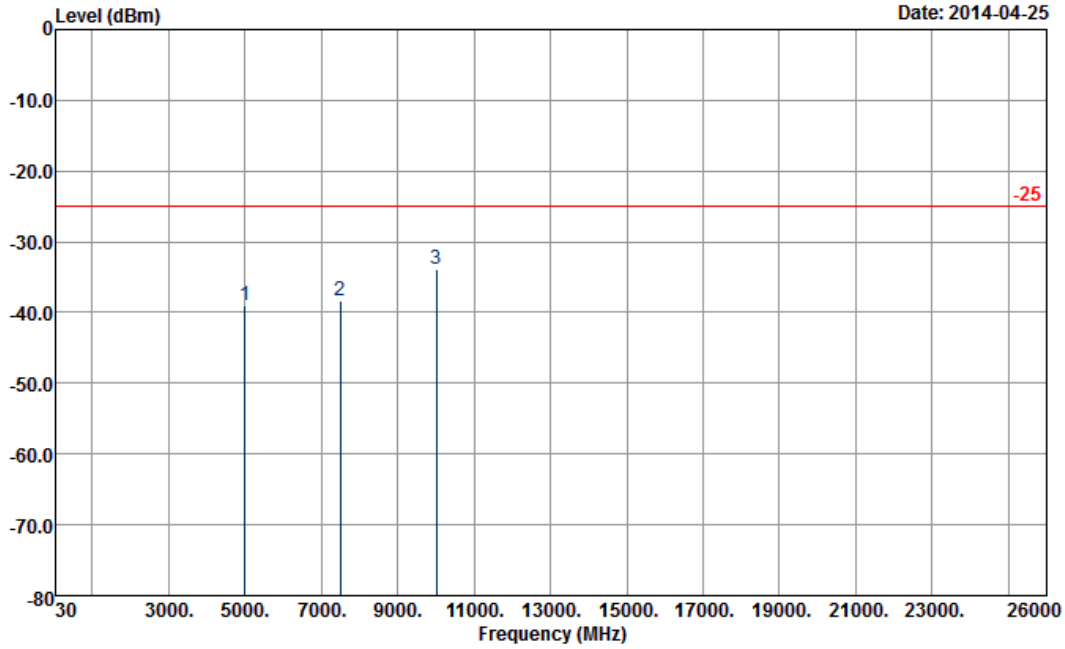


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5000	-43.82	-25	-18.82	-61.69	-47.37	6.83	10.38	H	Pass
7500	-35.27	-25	-10.27	-62.78	-38.24	9.28	12.25	H	Pass
10004	-30.00	-25	-5.00	-58.76	-34.35	8.54	12.89	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	Temperature :	23~25°C
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	44~48%
Test Engineer :	Stan Hsieh	Polarization :	Vertical
Channel :	20850		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



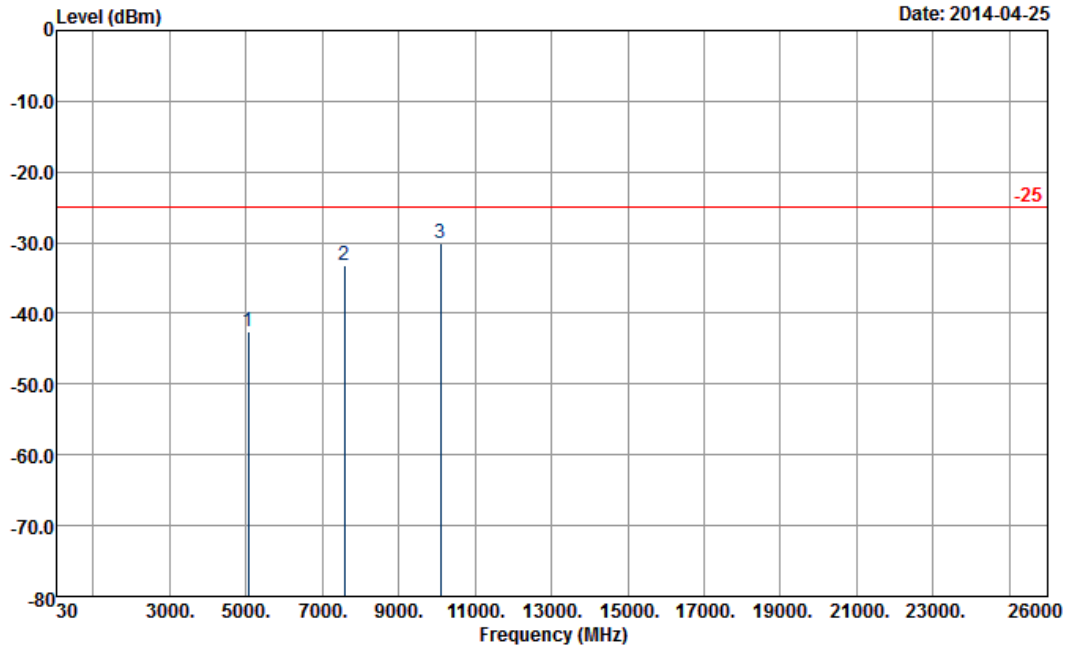
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5004	-38.90	-25	-13.90	-57.05	-42.45	6.83	10.38	V	Pass
7500	-38.24	-25	-13.24	-65.53	-41.21	9.28	12.25	V	Pass
10004	-33.89	-25	-8.89	-61.75	-38.24	8.54	12.89	V	Pass

Other harmonics are lower than background noise

<Middle Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	20MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

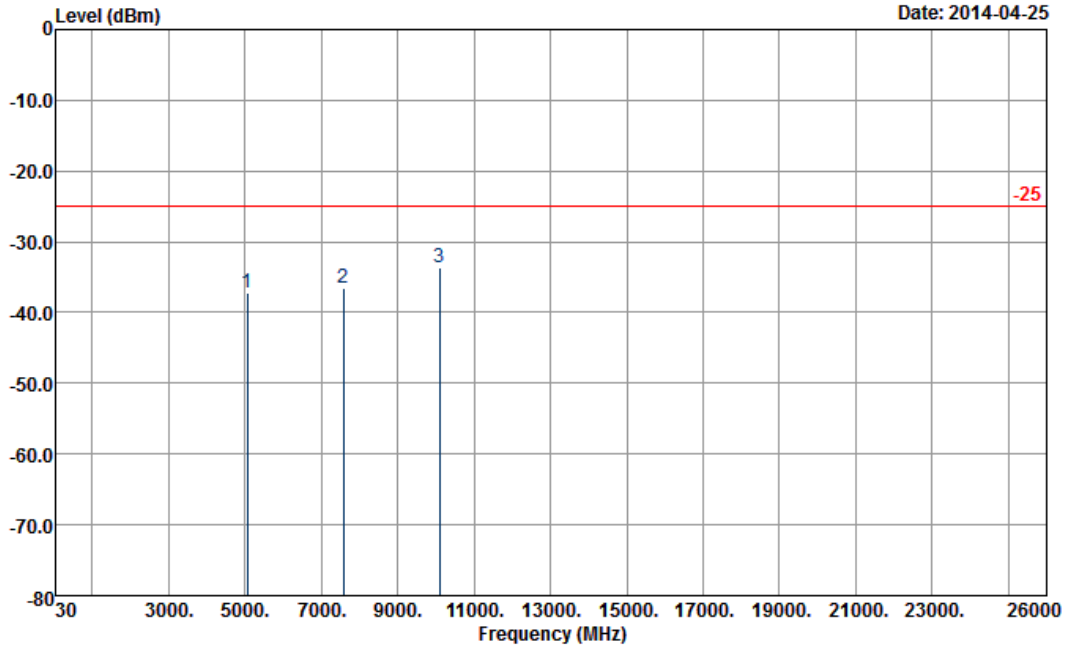


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5052	-42.52	-25	-17.52	-60.57	-46.01	6.86	10.35	H	Pass
7576	-33.11	-25	-8.11	-59.96	-36	9.34	12.23	H	Pass
10104	-30.09	-25	-5.09	-58.86	-34.19	8.64	12.74	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	20MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	21100		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



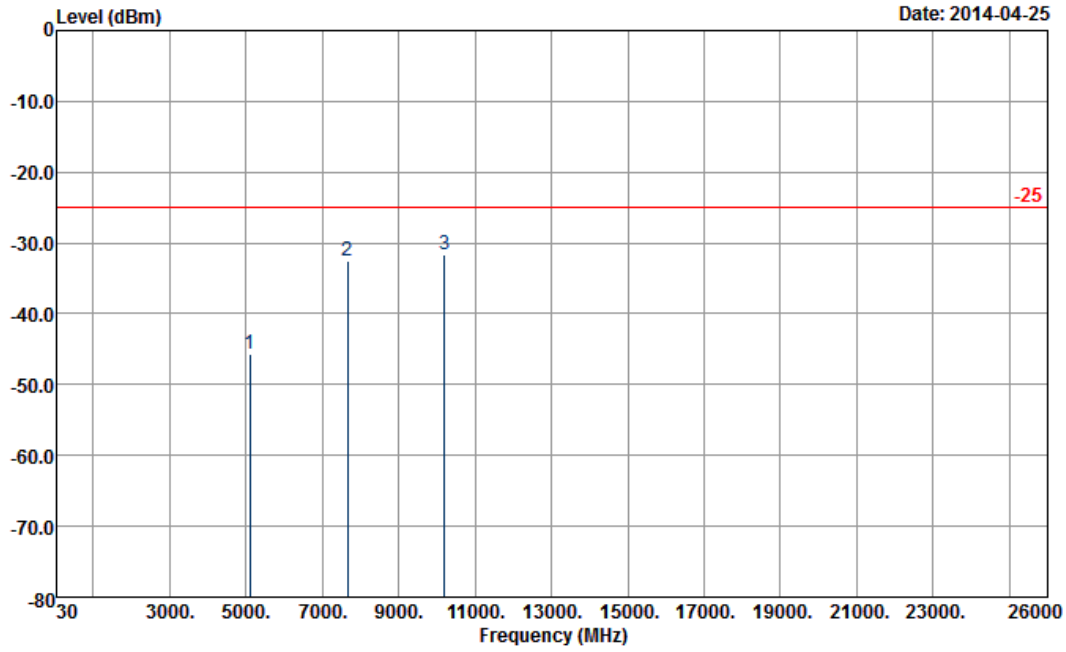
Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) VERTICAL

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
5052	-37.17	-25	-12.17	-55.37	-40.66	6.86	10.35	V	Pass
7576	-36.52	-25	-11.52	-63.21	-39.41	9.34	12.23	V	Pass
10104	-33.58	-25	-8.58	-61.47	-37.68	8.64	12.74	V	Pass

Other harmonics are lower than background noise

<High Channel>

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	20MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Horizontal
Channel :	21350		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

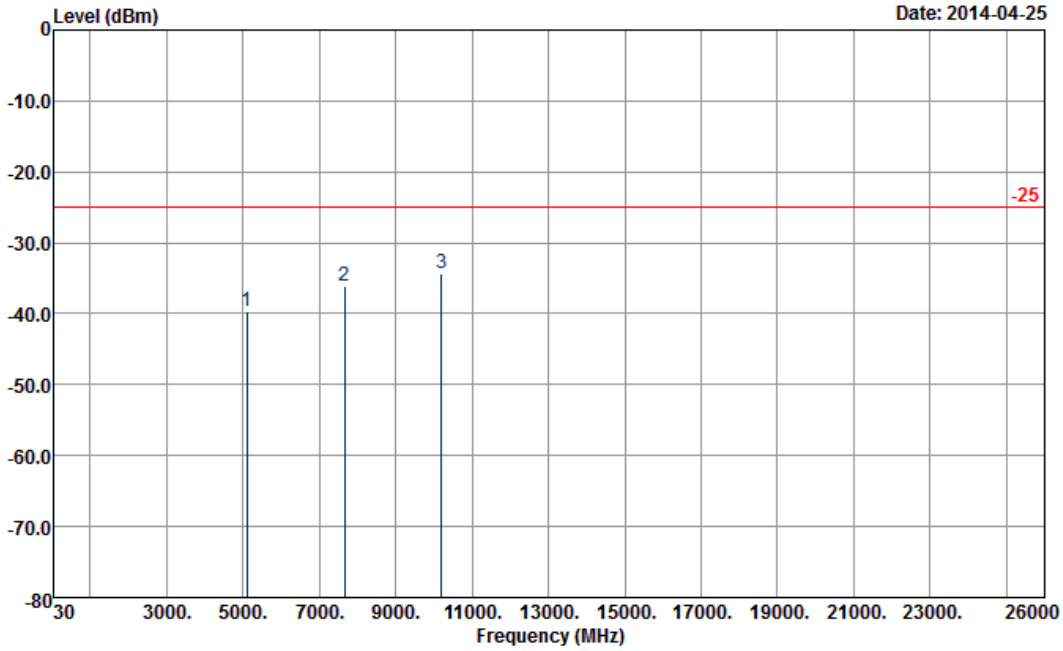


Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) HORIZONTAL

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
5104	-45.78	-25	-20.78	-64.06	-50.32	5.84	10.38	H	Pass
7652	-32.60	-25	-7.60	-58.86	-35.54	9.33	12.27	H	Pass
10204	-31.74	-25	-6.74	-60.69	-35.94	8.6	12.80	H	Pass

Other harmonics are lower than background noise

Band :	LTE Band 7	**Temperature :**	23~25°C
Test Mode :	20MHz QPSK RB Size 1 Offset 0	**Relative Humidity :**	44~48%
Test Engineer :	Stan Hsieh	**Polarization :**	Vertical
Channel :	21350		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5th, 6th, 7th,…etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



Site : 03CH07-HY
Condition : -25 HF-EIRP(080306) 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
5104	-39.58	-25	-14.58	-58.09	-44.12	5.84	10.38	V	Pass
7652	-36.09	-25	-11.09	-62.32	-39.03	9.33	12.27	V	Pass
10204	-34.24	-25	-9.24	-62.24	-38.44	8.6	12.80	V	Pass

Other harmonics are lower than background noise

3.8 Frequency Stability Measurement

3.8.1 Description of Frequency Stability Measurement

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

3.8.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

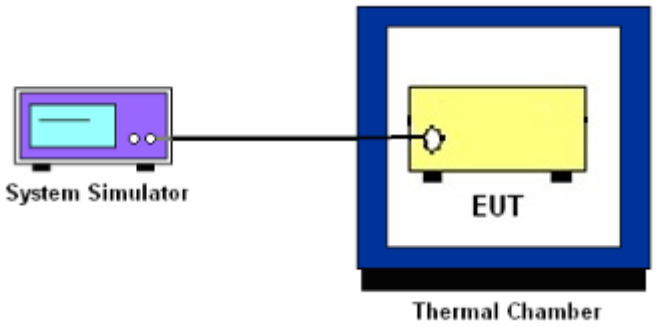
3.8.3 Test Procedures for Temperature Variation

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.

3.8.4 Test Procedures for Voltage Variation

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

3.8.5 Test Setup


System Simulator
EUT
Thermal Chamber

3.8.6 Test Result of Temperature Variation

Band :	LTE Band 5 (QPSK)	Limit (ppm) :	2.5

Temperature (°C)	BW 10MHz	Result
	Deviation (ppm)	
50	0.0014	PASS
40	0.0043	
30	0.0025	
20	0.0007	
10	0.0010	
0	0.0013	
-10	0.0045	
-20	0.0054	
-30	0.0062	

Band :	LTE Band 7 (QPSK)	Limit (ppm) :	2.5

Temperature (°C)	BW 10MHz	Result
	Deviation (ppm)	
50	0.0018	PASS
40	0.0021	
30	0.0010	
20	0.0007	
10	0.0003	
0	0.0003	
-10	0.0005	
-20	0.0015	
-30	0.0002	

3.8.7 Test Result of Voltage Variation

Band	Bandwidth	Voltage (Volt)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 5	10M	4.20	0.0002	2.5	PASS
		Normal	0.0011		
		3.40	0.0018		
LTE Band 7	10M	4.20	0.0003	2.5	PASS
		Normal	0.0006		
		3.40	0.0009		

Remark:

1. Normal Voltage = 3.80V.
2. The manufacturer declared that the EUT could work properly between voltage 3.40V ~ 4.20V.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LTE Base Station	Anritsu	MT8820C	6201026480	MIMO FDD	Jan. 07, 2014	Apr. 15, 2014 ~ Apr. 24, 2014	Jan. 06, 2015	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 07, 2013	Apr. 15, 2014 ~ Apr. 24, 2014	Jun. 06, 2014	Conducted (TH02-HY)
Thermal Chamber	Ten Billion	TTH-D3SP	TBN-930701	N/A	Jul. 19, 2013	Apr. 15, 2014 ~ Apr. 24, 2014	Jul. 18, 2014	Conducted (TH02-HY)
RF cable	WOKEN	SMA(M)-SMA (M) for SS405 Cable Assembly	S05-130703-32	N/A	Jul. 09, 2013	Apr. 15, 2014 ~ Apr. 24, 2014	Jul. 08, 2014	Conducted (TH02-HY)
Hygrometer	Testo	608-H1	34897199	N/A	May 07, 2013	Apr. 15, 2014 ~ Apr. 24, 2014	May 06, 2014	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9KHz ~ 30GHz	Nov. 20, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 19, 2014	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Oct. 10, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Oct. 09, 2014	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 22, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Aug. 21, 2014	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz- 40GHz	Oct. 03, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Oct. 02, 2014	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	30MHz~1GHz	Mar. 17, 2014	Apr. 17, 2014 ~ Apr. 25, 2014	Mar. 16, 2015	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Nov. 29, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 28, 2014	Radiation (03CH07-HY)
Filter	Microwave Circuits	H1G013G1	SN477215	1GHz HPF	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Filter	Wainwright Instruments	WHKX1.5G/15G-10SS	SN32	1.5GHz HPF	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Filter	Wainwright Instruments	WLKS1200-8SS	SN3	1.2GHz LPF	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Filter	Microwave Circuits	H3G018G1	SN477220	3GHz HPF	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT 2500/2700-10/20-10	SN3	LTE Band 7	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCG 824/849/814/859-40 8SS	SN35	LTE Band 5	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Apr. 17, 2014 ~ Apr. 25, 2014	N/A	Radiation (03CH07-HY)

Antenna Mast	ChainTek	ChainTek 3000	N/A	N/A	N/A	Apr. 17, 2014 ~ Apr. 25, 2014	N/A	Radiation (03CH07-HY)
HF RF Cable	HUBER SUHNER	SUCOFLEX 104	38411/6	1GHz ~ 18GHz	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
LF RF Cable	Warison+HUBER SUHNER	WCBA-WC04NM.NM2	N/A	30MHz ~ 1GHz	Nov. 28, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Test Software	Audix	E3	Version 6.2009-08-24	N/A	N/A	Apr. 17, 2014 ~ Apr. 25, 2014	N/A	Radiation (03CH07-HY)
Hygrometer	Testo	608-H1	34897197	N/A	May 07, 2013	Apr. 17, 2014 ~ Apr. 25, 2014	May 06, 2014	Radiation (03CH07-HY)

Note: Test equipment calibration is traceable to the procedure of ISO17025.

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.50**