FCC RF Test Report

APPLICANT	:	**BandRich Inc.**
EQUIPMENT	:	**LTE FDD&TDD WLAN VoIP Home Router**
BRAND NAME	:	**BandLuxe**
MODEL NAME	:	**R565**
FCC ID	:	**UZI-565R66**
STANDARD	:	**47 CFR Part 2, 27**
CLASSIFICATION	:	**Licensed Non-Broadcast Station Transmitter (TNB)**

The product was received on May 19, 2014 and testing was completed on Jun. 12, 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.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG451961	Rev. 01	Initial issue of report	Jun. 19, 2014
FG451961	Rev. 02	Revising LTE Band 4 & 41 emission designator in section 1.6.	Jun. 20, 2014
FG451961	Rev. 03	Revising classification.	Jun. 26, 2014

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	RSS-Gen(4.8) RSS-130(4.4) RSS-139 (6.4) RSS-199 (4.4)	Conducted Output Power	Reporting Only	PASS	-
3.2	§27.50(d)(5)	RSS-130(4.4) RSS-139 (6.4) RSS-199 (4.4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§27.50(c)(10)	N/A	Effective Radiated Power (Band 12) (Band 17)	ERP < 3 Watt	PASS	-
	N/A	RSS-130(4.4)	Equivalent Isotropic Radiated Power (Band 12) (Band 17)	EIRP < 5 Watt		
	§27.50(d)(4)	RSS-139 (6.4) SRSP-513(5.1.2)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		
	§27.50(h)(2)	RSS-199 (4.4)	Equivalent Isotropic Radiated Power (Band 41)	EIRP < 2Watt		
3.4	§2.1049 §27.53(g)(3) §27.53(l)(6)	RSS-GEN(4.6.1) RSS-139 (3.1) RSS-199 (4.2)	Occupied Bandwidth	Reporting Only	PASS	-
3.5	§2.1051 §27.53(f) §27.53(g) §27.53(l)(4)	RSS-GEN(4.9) RSS-130(4.6) RSS-139 (6.5) RSS-199 (4.5)	Conducted Band Edge Measurement (Band 4) (Band 12) (Band 17) (Band 41)	< 43+10log10(P[Watt])	PASS	-

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.6	§2.1051 §27.53(f) §27.53(g)	RSS-GEN(4.9) RSS-130(4.6) RSS-139 (6.5)	Conducted Spurious Emission (Band 4) (Band 12) (Band 17)	< $43+10\log_{10}$(P[Watts])	PASS	-
	§2.1051 §27.53(l)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Conducted Spurious Emission (Band 41)	< 55+10log10(P[Watts])		
3.7	§2.1053 §27.53(f) §27.53(g)	RSS-GEN(4.9) RSS-130(4.6) RSS-139 (6.5)	Radiated Spurious Emission (Band 4) (Band 12) (Band 17)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 3.63 dB at 7760.000 MHz
	§2.1053 §27.53(l)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Radiated Spurious Emission (Band 41)	< 55+10log10(P[Watts])		
3.8	§2.1055 §27.54	RSS-GEN(4.7) RSS-130(4.3) RSS-139 (6.3) RSS-199 (4.3)	Frequency Stability Temperature & Voltage	< 2.5 ppm	PASS	

1 General Description

1.1 Applicant

BandRich Inc.
6F., No. 71, Zhouzi St., Neihu Dist., Taipei City 11493, Taiwan (R.O.C.)

1.2 Manufacturer

FAIR GOAL ELECTRONIC CO.
1F., No.97-1, Haihu, Luzhu Township, Taoyuan County 338, Taiwan (R.O.C.)

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	LTE FDD&TDD WLAN VoIP Home Router
Brand Name	BandLuxe
Model Name	R565
FCC ID	UZI-565R66
EUT supports Radios application	LTE WLAN 11b/g/n HT20/HT40
HW Version	1.0
SW Version	AR_1_00000000_2_001_9961
EUT Stage	Production Unit

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 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 41 : 2498.5MHz ~ 2687.5 MHz
Rx Frequency	LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 41 : 2498.5MHz ~ 2687.5 MHz
Bandwidth	LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 4 : 22.99 dBm LTE Band 12 : 22.54 dBm LTE Band 17 : 22.53 dBm LTE Band 41 : 24.32 dBm
Antenna Type	Fixed Internal Antenna
Antenna Gain	LTE Band 4 : 4.00 dBi LTE Band 12 : 1.50 dBi LTE Band 17 : 1.50 dBi LTE Band 41 : 3.00 dBi
Type of Modulation	QPSK / 16QAM /64QAM(Downlink only)

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 27	LTE Band 12	QPSK	1.4 MHz	1M10G7D	-	0.10 W
Part 27	LTE Band 12	16QAM	1.4 MHz	1M10D7W	-	0.08 W
Part 27	LTE Band 12	QPSK	3 MHz	2M73G7D	-	-
Part 27	LTE Band 12	16QAM	3 MHz	2M74D7W	-	-
Part 27	LTE Band 12	QPSK	5 MHz	4M50G7D	-	0.10 W
Part 27	LTE Band 12	16QAM	5 MHz	4M50D7W	-	0.08 W
Part 27	LTE Band 12	QPSK	10 MHz	9M10G7D	0.01 ppm	-
Part 27	LTE Band 12	16QAM	10 MHz	9M04D7W	-	-
Part 27	LTE Band 17	QPSK	5MHz	4M51G7D	-	0.09 W
Part 27	LTE Band 17	16QAM	5MHz	4M50D7W	-	0.07 W
Part 27	LTE Band 17	QPSK	10MHz	9M08G7D	0.01 ppm	-
Part 27	LTE Band 17	16QAM	10MHz	9M06D7W	-	-

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP/EIRP
Part 27	LTE Band 4	QPSK	1.4 MHz	1M10G7D	-	0.47 W
Part 27	LTE Band 4	16QAM	1.4 MHz	1M11D7W	-	0.34 W
Part 27	LTE Band 4	QPSK	3 MHz	2M74G7D	-	-
Part 27	LTE Band 4	16QAM	3 MHz	2M74D7W	-	-
Part 27	LTE Band 4	QPSK	5MHz	4M51G7D	-	-
Part 27	LTE Band 4	16QAM	5MHz	4M51D7W	-	-
Part 27	LTE Band 4	QPSK	10MHz	9M10G7D	0.01 ppm	0.68 W
Part 27	LTE Band 4	16QAM	10MHz	9M08D7W	-	0.54 W
Part 27	LTE Band 4	QPSK	15MHz	13M5G7D	-	-
Part 27	LTE Band 4	16QAM	15MHz	13M5D7W	-	-
Part 27	LTE Band 4	QPSK	20MHz	18M6G7D	-	-
Part 27	LTE Band 4	16QAM	20MHz	18M6D7W	-	-
Part 27	LTE Band 41	QPSK	5MHz	4M52G7D	-	0.13 W
Part 27	LTE Band 41	16QAM	5MHz	4M51D7W	-	0.11 W
Part 27	LTE Band 41	QPSK	10MHz	9M10G7D	0.01 ppm	-
Part 27	LTE Band 41	16QAM	10MHz	9M08D7W	-	-
Part 27	LTE Band 41	QPSK	15MHz	13M5G7D	-	-
Part 27	LTE Band 41	16QAM	15MHz	13M5D7W	-	-
Part 27	LTE Band 41	QPSK	20MHz	18M6G7D	-	0.23 W
Part 27	LTE Band 41	16QAM	20MHz	18M6D7W	-	0.17 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, 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

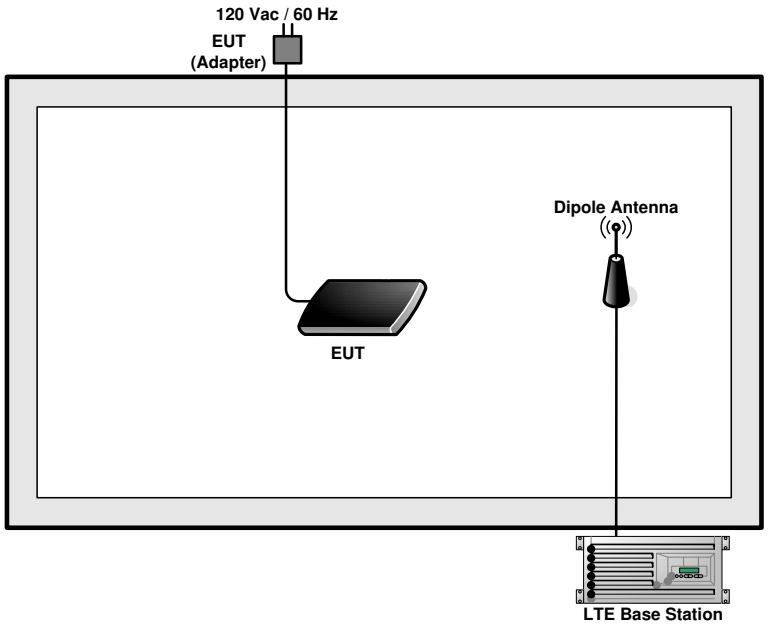
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

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	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	4						v		v	v		v	v	v	v
	12				v	-	-		v	v		v	v	v	v
	41	-	-				v		v	v		v	v	v	v
	17	-	-		v	-	-		v	v		v	v	v	v
26dB and 99% Bandwidth	4	v	v	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v			v	v	v	v
	17	-	-	v	v	-	-	v	v			v	v	v	v
Conducted Band Edge	4	v	v	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v		v	v		v
	17	-	-	v	v	-	-	v	v	v		v	v		v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	4	v	v	v	v	v	v	v	v	v				v	
	12	v	v	v	v	-	-	v	v	v				v	
	41	-	-	v	v	v	v	v	v	v				v	
	17	-	-	v	v	-	-	v	v	v				v	
Stability	4				v			v				v		v	
	12				v	-	-	v				v		v	
	41	-	-		v			v				v		v	
	17	-	-		v	-	-	v				v		v	
E.R.P./ E.I.R.P.	4	v			v			v	v	v			v	v	v
	12	v		v		-	-	v	v	v			v	v	v
	41	-	-	v			v	v	v	v			v	v	v
	17	-	-	v		-	-	v	v	v			v	v	v
Radiated Spurious Emission	4	v	v	v	v	v	v	v		v				v	
	12	v	v	v	v	-	-	v		v				v	
	41	-	-	v	v	v	v	v		v				v	
	17	-	-	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. For E.R.P/E.I.R.P. measurement, the widest bandwidth of each band is chosen for testing due to highest conducted power. Besides, the lowest bandwidth of each band is also measured for reporting only. 4. 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.

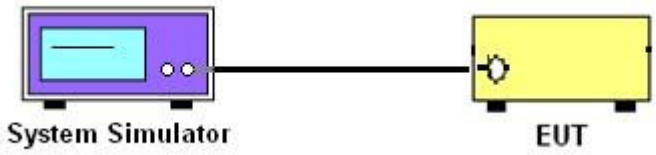
3.1.2 Measuring Instruments

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 4 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				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	22.82	21.78	22.62
20	QPSK	1	49	21.94	22.61	22.75
20	QPSK	1	99	22.32	22.46	22.58
20	QPSK	50	0	21.25	21.24	21.50
20	QPSK	50	24	20.93	21.44	21.43
20	QPSK	50	49	20.97	21.48	21.60
20	QPSK	100	0	21.15	21.34	21.55
20	16QAM	1	0	21.83	21.03	21.75
20	16QAM	1	49	21.04	21.36	21.69
20	16QAM	1	99	20.87	21.26	22.87
20	16QAM	50	0	20.27	20.20	20.48
20	16QAM	50	24	20.04	20.47	20.53
20	16QAM	50	49	19.99	20.49	20.72
20	16QAM	100	0	20.25	20.42	20.60
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	22.83	22.23	22.66
15	QPSK	1	37	22.07	22.56	22.69
15	QPSK	1	74	22.14	22.57	22.87
15	QPSK	36	0	21.45	21.39	21.36
15	QPSK	36	18	21.13	21.50	21.82
15	QPSK	36	37	20.84	21.64	21.58
15	QPSK	75	0	21.07	21.49	21.66
15	16QAM	1	0	21.92	21.34	21.14
15	16QAM	1	37	21.24	21.56	21.74
15	16QAM	1	74	21.14	21.18	22.54
15	16QAM	36	0	20.51	20.40	20.41
15	16QAM	36	18	20.22	20.52	20.84
15	16QAM	36	37	19.99	20.67	20.67
15	16QAM	75	0	20.16	20.47	20.60

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.90	22.44	22.92
10	QPSK	1	24	22.47	22.61	22.58
10	QPSK	1	49	21.99	22.66	22.71
10	QPSK	25	0	21.67	21.40	21.83
10	QPSK	25	12	21.43	21.60	21.73
10	QPSK	25	24	21.15	21.74	21.72
10	QPSK	50	0	21.28	21.45	21.71
10	16QAM	1	0	21.91	21.15	22.15
10	16QAM	1	24	21.18	21.39	21.65
10	16QAM	1	49	21.04	21.72	22.98
10	16QAM	25	0	20.69	20.49	21.03
10	16QAM	25	12	20.48	20.59	21.00
10	16QAM	25	24	20.16	20.66	20.80
10	16QAM	50	0	20.28	20.43	20.66
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.92	22.36	22.62
5	QPSK	1	12	22.74	22.61	22.77
5	QPSK	1	24	22.46	22.73	22.93
5	QPSK	12	0	21.75	21.55	21.84
5	QPSK	12	6	21.61	21.67	21.73
5	QPSK	12	11	21.65	21.74	21.83
5	QPSK	25	0	21.60	21.54	21.68
5	16QAM	1	0	22.00	21.18	21.66
5	16QAM	1	12	21.81	21.45	21.71
5	16QAM	1	24	21.36	21.66	21.89
5	16QAM	12	0	20.53	20.64	20.76
5	16QAM	12	6	20.84	20.67	20.74
5	16QAM	12	11	20.80	20.74	20.79
5	16QAM	25	0	20.67	20.62	20.73

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.93	22.57	22.77
3	QPSK	1	7	22.76	22.85	22.84
3	QPSK	1	14	22.70	22.73	22.88
3	QPSK	8	0	22.00	21.62	21.84
3	QPSK	8	4	21.49	21.68	21.86
3	QPSK	8	7	21.67	21.71	21.85
3	QPSK	15	0	21.50	21.64	21.83
3	16QAM	1	0	21.97	21.46	21.45
3	16QAM	1	7	21.78	21.48	21.76
3	16QAM	1	14	21.58	21.55	22.57
3	16QAM	8	0	20.59	20.64	20.80
3	16QAM	8	4	20.74	20.66	20.85
3	16QAM	8	7	20.69	20.71	20.84
3	16QAM	15	0	20.65	20.70	20.90
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.92	22.71	22.94
1.4	QPSK	1	2	22.87	22.55	22.99
1.4	QPSK	1	5	22.92	22.59	22.93
1.4	QPSK	3	0	22.94	22.49	22.98
1.4	QPSK	3	1	22.87	22.61	22.91
1.4	QPSK	3	2	22.89	22.64	22.91
1.4	QPSK	6	0	22.00	21.71	21.80
1.4	16QAM	1	0	21.95	21.34	21.90
1.4	16QAM	1	2	21.98	21.42	22.02
1.4	16QAM	1	5	22.00	21.47	21.95
1.4	16QAM	3	0	22.03	21.61	21.95
1.4	16QAM	3	1	21.96	21.50	22.59
1.4	16QAM	3	2	21.97	21.71	22.56
1.4	16QAM	6	0	20.63	20.76	20.90

<LTE Band 12 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				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	22.25	22.49	22.34
10	QPSK	1	24	22.50	22.35	22.16
10	QPSK	1	49	22.25	22.22	**22.51**
10	QPSK	25	0	21.30	21.33	21.21
10	QPSK	25	12	21.47	21.21	21.11
10	QPSK	25	24	21.25	21.20	21.17
10	QPSK	50	0	21.19	21.16	21.13
10	16QAM	1	0	21.19	21.42	21.43
10	16QAM	1	24	21.43	21.34	21.20
10	16QAM	1	49	21.26	21.15	**21.44**
10	16QAM	25	0	20.29	20.37	20.16
10	16QAM	25	12	20.47	20.26	20.11
10	16QAM	25	24	20.33	20.19	20.33
10	16QAM	50	0	20.26	20.16	20.13
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.27	22.20	22.18
5	QPSK	1	12	22.29	22.36	22.39
5	QPSK	1	24	22.51	22.17	**22.54**
5	QPSK	12	0	21.25	21.39	21.25
5	QPSK	12	6	21.33	21.35	21.34
5	QPSK	12	11	21.44	21.26	21.42
5	QPSK	25	0	21.40	21.24	21.18
5	16QAM	1	0	21.20	21.12	21.09
5	16QAM	1	12	21.21	21.36	21.31
5	16QAM	1	24	21.42	21.18	**21.47**
5	16QAM	12	0	20.30	20.41	20.30
5	16QAM	12	6	20.39	20.38	20.46
5	16QAM	12	11	20.47	20.29	20.43
5	16QAM	25	0	20.42	20.25	20.20

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.19	22.44	22.24
3	QPSK	1	7	22.31	22.36	22.41
3	QPSK	1	14	22.35	22.15	**22.51**
3	QPSK	8	0	21.34	21.40	21.35
3	QPSK	8	4	21.29	21.34	21.40
3	QPSK	8	7	21.36	21.27	21.38
3	QPSK	15	0	21.27	21.29	21.40
3	16QAM	1	0	21.20	21.42	21.20
3	16QAM	1	7	21.28	21.36	21.30
3	16QAM	1	14	21.30	21.25	**21.47**
3	16QAM	8	0	20.35	20.35	20.28
3	16QAM	8	4	20.28	20.32	20.34
3	16QAM	8	7	20.30	20.23	20.32
3	16QAM	15	0	20.31	20.35	20.43
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.23	22.38	22.40
1.4	QPSK	1	2	22.36	22.34	22.40
1.4	QPSK	1	5	22.40	22.24	**22.52**
1.4	QPSK	3	0	22.27	22.34	22.35
1.4	QPSK	3	1	22.28	22.36	22.37
1.4	QPSK	3	2	22.29	22.36	22.47
1.4	QPSK	6	0	21.38	21.26	21.51
1.4	16QAM	1	0	21.15	21.39	21.32
1.4	16QAM	1	2	21.22	21.34	21.35
1.4	16QAM	1	5	21.32	21.33	21.43
1.4	16QAM	3	0	21.33	21.39	21.40
1.4	16QAM	3	1	21.27	21.41	21.41
1.4	16QAM	3	2	21.28	21.43	**21.47**
1.4	16QAM	6	0	20.45	20.35	20.50

<LTE Band 17 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				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	22.23	22.35	22.50
10	QPSK	1	24	22.11	22.20	22.18
10	QPSK	1	49	22.32	22.42	22.44
10	QPSK	25	0	21.29	21.27	21.26
10	QPSK	25	12	21.21	21.24	21.16
10	QPSK	25	24	21.15	21.15	21.17
10	QPSK	50	0	21.07	21.14	21.10
10	16QAM	1	0	21.18	21.29	21.45
10	16QAM	1	24	21.23	21.24	21.17
10	16QAM	1	49	21.22	21.30	21.31
10	16QAM	25	0	20.29	20.30	20.26
10	16QAM	25	12	20.30	20.21	20.23
10	16QAM	25	24	20.25	20.25	20.29
10	16QAM	50	0	20.08	20.16	20.18
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.35	22.25	22.12
5	QPSK	1	12	22.53	22.16	22.32
5	QPSK	1	24	22.15	22.19	22.39
5	QPSK	12	0	21.29	21.17	21.26
5	QPSK	12	6	21.47	21.19	21.25
5	QPSK	12	11	21.41	21.16	21.42
5	QPSK	25	0	21.29	21.15	21.22
5	16QAM	1	0	21.31	21.32	21.09
5	16QAM	1	12	21.50	21.20	21.30
5	16QAM	1	24	21.23	21.14	21.30
5	16QAM	12	0	20.42	20.20	20.33
5	16QAM	12	6	20.60	20.28	20.36
5	16QAM	12	11	20.50	20.24	20.43
5	16QAM	25	0	20.34	20.23	20.25

<LTE Band 41 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				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	QPSK	1	0	19.89	21.42	**24.32**
20	QPSK	1	49	21.43	21.68	22.98
20	QPSK	1	99	21.71	22.08	21.80
20	QPSK	50	0	20.88	21.62	23.73
20	QPSK	50	24	21.31	21.72	23.04
20	QPSK	50	49	21.54	21.93	22.42
20	QPSK	100	0	21.16	21.76	23.07
20	16QAM	1	0	20.14	21.51	**23.74**
20	16QAM	1	49	21.58	21.73	22.42
20	16QAM	1	99	21.86	22.11	21.24
20	16QAM	50	0	21.06	21.63	23.12
20	16QAM	50	24	21.48	21.72	22.46
20	16QAM	50	49	21.71	21.93	21.77
20	16QAM	100	0	21.37	21.77	22.48
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	18.46	20.30	**22.96**
15	QPSK	1	37	19.93	20.79	22.18
15	QPSK	1	74	19.96	20.81	21.10
15	QPSK	36	0	19.37	20.60	22.61
15	QPSK	36	18	19.90	20.80	22.17
15	QPSK	36	37	20.06	20.87	21.60
15	QPSK	75	0	19.74	20.75	22.12
15	16QAM	1	0	18.91	20.45	**21.98**
15	16QAM	1	37	20.38	20.94	21.23
15	16QAM	1	74	20.42	20.94	20.15
15	16QAM	36	0	19.70	20.64	21.62
15	16QAM	36	18	20.23	20.84	21.15
15	16QAM	36	37	20.41	20.90	20.60
15	16QAM	75	0	20.13	20.83	21.16

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	18.89	20.87	**22.68**
10	QPSK	1	24	19.39	20.58	21.65
10	QPSK	1	49	20.30	21.23	21.50
10	QPSK	25	0	19.21	20.74	22.13
10	QPSK	25	12	19.50	20.71	21.71
10	QPSK	25	24	19.86	20.89	21.50
10	QPSK	50	0	19.58	20.84	21.80
10	16QAM	1	0	19.38	21.05	**21.75**
10	16QAM	1	24	19.87	20.75	20.71
10	16QAM	1	49	20.73	21.35	20.56
10	16QAM	25	0	19.63	20.84	21.19
10	16QAM	25	12	19.91	20.81	20.75
10	16QAM	25	24	20.27	20.98	20.57
10	16QAM	50	0	19.99	20.93	20.85
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	18.23	20.38	**21.52**
5	QPSK	1	12	18.84	20.47	21.21
5	QPSK	1	24	19.20	20.51	20.90
5	QPSK	12	0	18.59	20.48	21.36
5	QPSK	12	6	18.92	20.58	21.26
5	QPSK	12	11	19.06	20.57	21.09
5	QPSK	25	0	18.88	20.54	21.18
5	16QAM	1	0	18.70	20.53	20.53
5	16QAM	1	12	19.35	20.66	20.31
5	16QAM	1	24	19.73	**20.72**	20.02
5	16QAM	12	0	18.98	20.56	20.37
5	16QAM	12	6	19.31	20.65	20.27
5	16QAM	12	11	19.45	20.64	20.12
5	16QAM	25	0	19.31	20.66	20.26

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.

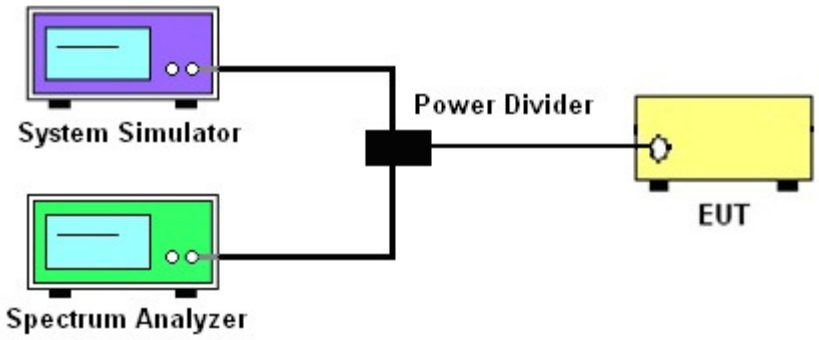
3.2.2 Measuring Instruments

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 4						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	16QAM	1	0	6.06	6.09	5.51
20	16QAM	100	0	6.22	6.03	6.12

LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	16QAM	1	0	6.44	6.35	7.02
10	16QAM	50	0	6.76	6.76	6.83

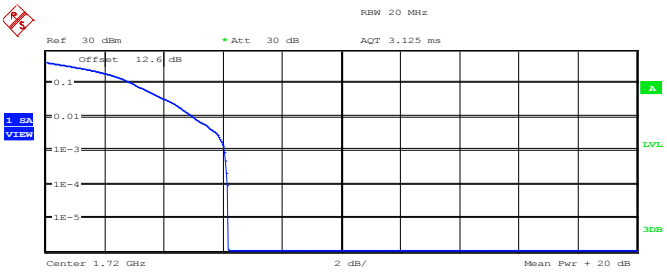
LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	16QAM	1	0	6.79	6.89	6.99
10	16QAM	50	0	6.83	6.83	6.83

LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	16QAM	1	0	7.95	7.95	7.98
20	16QAM	100	0	7.85	8.04	7.95

3.2.6 Peak to Average Power Ratio

Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20050 (1RB Size)



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

	Trace 1
Mean	21.33 dBm
Peak	27.49 dBm
Crest	6.17 dB
10 %	2.92 dB
1 %	4.97 dB
.1 %	6.06 dB
.01 %	6.15 dB

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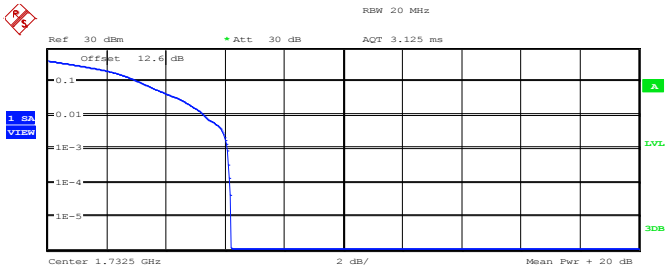
Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20175 (1RB Size)



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

	Trace 1
Mean	21.32 dBm
Peak	27.51 dBm
Crest	6.19 dB
10 %	3.08 dB
1 %	5.29 dB
.1 %	6.09 dB
.01 %	6.15 dB

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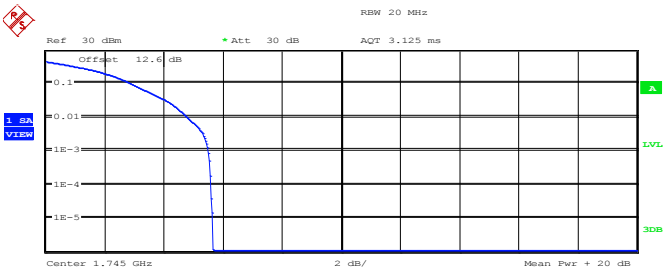
Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20300 (1RB Size)



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

	Trace 1
Mean	21.77 dBm
Peak	27.43 dBm
Crest	5.65 dB
10 %	2.85 dB
1 %	4.74 dB
.1 %	5.51 dB
.01 %	5.61 dB

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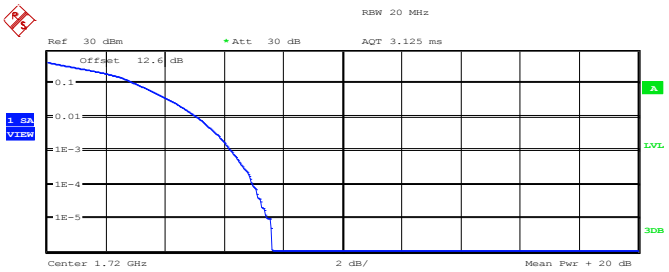
Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20050 (100RB Size)



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

	Trace 1
Mean	20.72 dBm
Peak	28.34 dBm
Crest	7.62 dB
10 %	2.98 dB
1 %	5.06 dB
.1 %	6.22 dB
.01 %	6.96 dB

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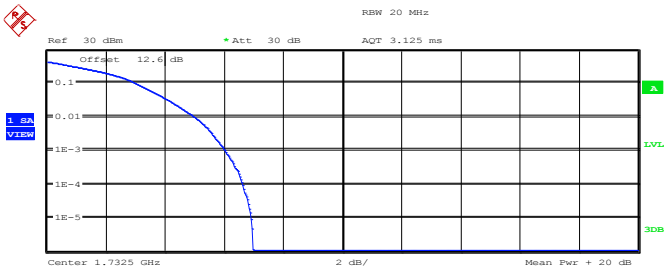
Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20175 (100RB Size)



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

	Trace 1
Mean	20.89 dBm
Peak	27.87 dBm
Crest	6.98 dB
10 %	3.01 dB
1 %	4.97 dB
.1 %	6.03 dB
.01 %	6.63 dB

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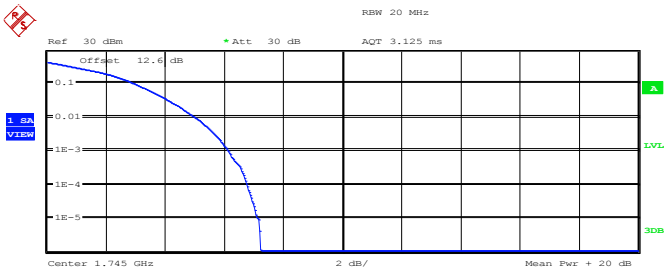
Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20300 (100RB Size)



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

	Trace 1
Mean	21.04 dBm
Peak	28.27 dBm
Crest	7.23 dB
10 %	2.95 dB
1 %	5.00 dB
.1 %	6.12 dB
.01 %	6.76 dB

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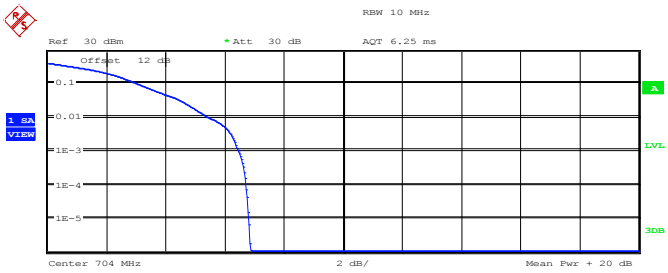
Peak-to-Average Ratio on LTE Band 12

10MHz / 16QAM in Ch. 23060 (1RB Size)



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

	Trace 1
Mean	21.61 dBm
Peak	28.48 dBm
Crest	6.86 dB
10 %	3.04 dB
1 %	5.45 dB
.1 %	6.44 dB
.01 %	6.73 dB

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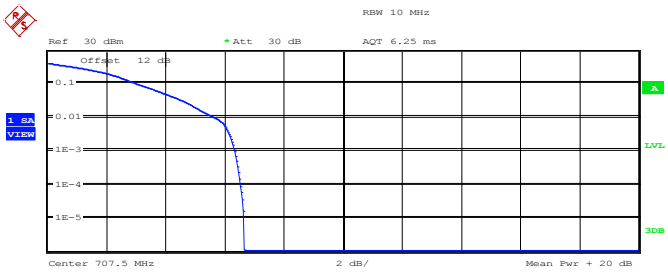
Peak-to-Average Ratio on LTE Band 12

10MHz / 16QAM in Ch. 23095 (1RB Size)



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

	Trace 1
Mean	22.00 dBm
Peak	28.65 dBm
Crest	6.65 dB
10 %	3.01 dB
1 %	5.64 dB
.1 %	6.35 dB
.01 %	6.54 dB

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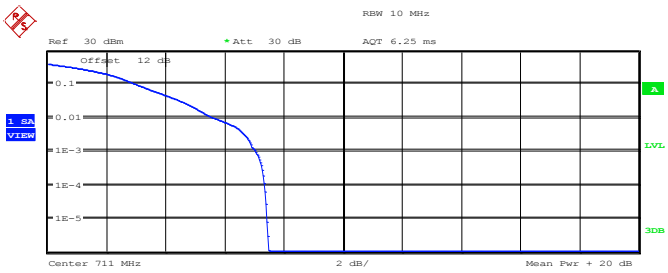
Peak-to-Average Ratio on LTE Band 12

10MHz / 16QAM in Ch. 23130 (1RB Size)



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

	Trace 1
Mean	21.99 dBm
Peak	29.46 dBm
Crest	7.48 dB
10 %	2.98 dB
1 %	5.61 dB
.1 %	7.02 dB
.01 %	7.34 dB

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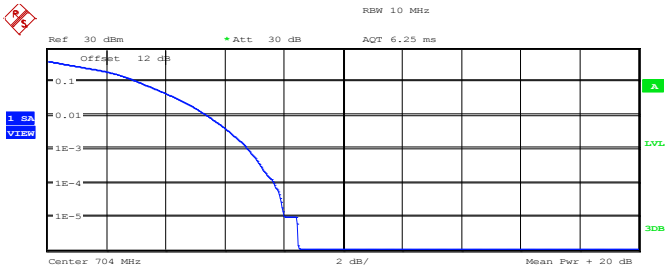
Peak-to-Average Ratio on LTE Band 12

10MHz / 16QAM in Ch. 23060 (50RB Size)



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

	Trace 1
Mean	20.83 dBm
Peak	29.32 dBm
Crest	8.49 dB
10 %	3.08 dB
1 %	5.38 dB
.1 %	6.76 dB
.01 %	7.66 dB

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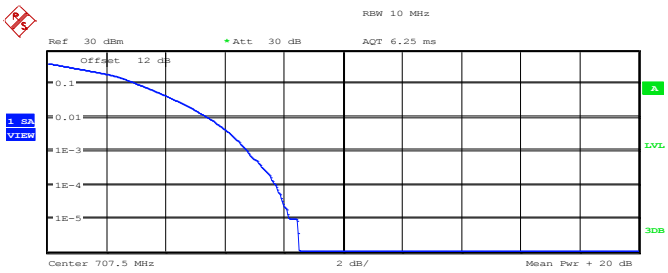
Peak-to-Average Ratio on LTE Band 12

10MHz / 16QAM in Ch. 23095 (50RB Size)



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

	Trace 1
Mean	20.78 dBm
Peak	29.29 dBm
Crest	8.50 dB
10 %	3.04 dB
1 %	5.42 dB
.1 %	6.76 dB
.01 %	7.69 dB

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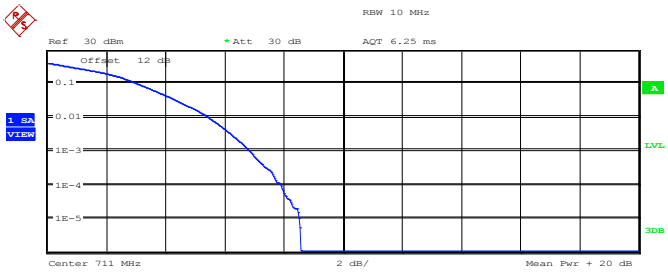
Peak-to-Average Ratio on LTE Band 12

10MHz / 16QAM in Ch. 23130 (50RB Size)



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

	Trace 1
Mean	20.81 dBm
Peak	29.39 dBm
Crest	8.58 dB
10 %	3.04 dB
1 %	5.45 dB
.1 %	6.83 dB
.01 %	7.88 dB

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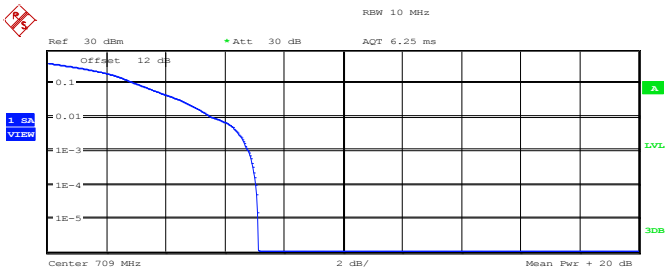
Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23780 (1RB Size)



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

	Trace 1
Mean	21.69 dBm
Peak	28.81 dBm
Crest	7.12 dB
10 %	3.01 dB
1 %	5.58 dB
.1 %	6.79 dB
.01 %	7.05 dB

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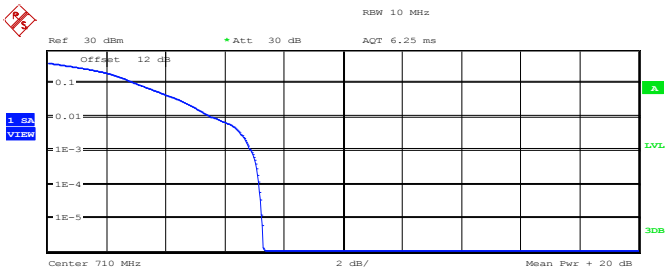
Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23790 (1RB Size)



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

	Trace 1
Mean	21.80 dBm
Peak	29.10 dBm
Crest	7.31 dB
10 %	3.01 dB
1 %	5.58 dB
.1 %	6.89 dB
.01 %	7.15 dB

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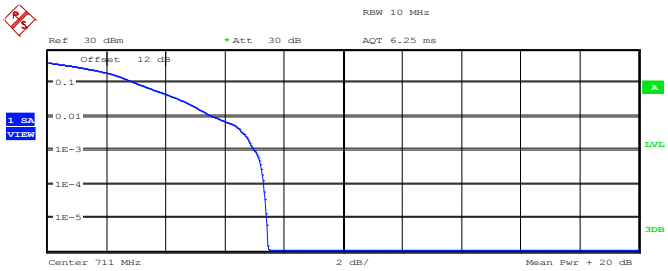
Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23800 (1RB Size)



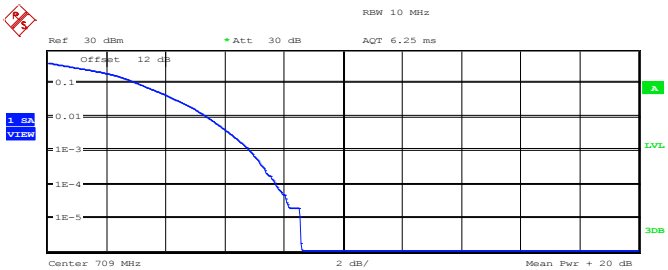
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	22.00 dBm
Peak	29.46 dBm
Crest	7.47 dB
10 %	2.98 dB
1 %	5.61 dB
.1 %	6.99 dB
.01 %	7.31 dB

Date: 25.MAY.2014 09:56:59

Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23780 (50RB Size)



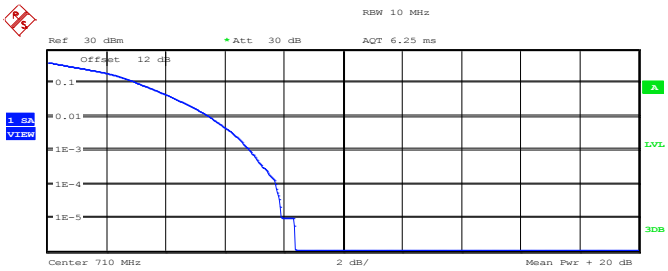
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	20.58 dBm
Peak	29.16 dBm
Crest	8.58 dB
10 %	3.04 dB
1 %	5.38 dB
.1 %	6.83 dB
.01 %	7.72 dB

Date: 25.MAY.2014 09:55:49

Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23790 (50RB Size)



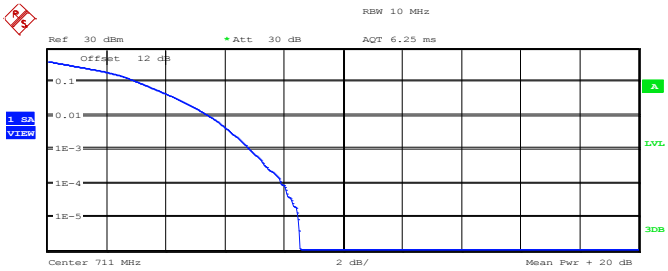
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	20.64 dBm
Peak	29.03 dBm
Crest	8.39 dB
10 %	3.04 dB
1 %	5.48 dB
.1 %	6.83 dB
.01 %	7.72 dB

Date: 25.MAY.2014 09:56:33

Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23800 (50RB Size)



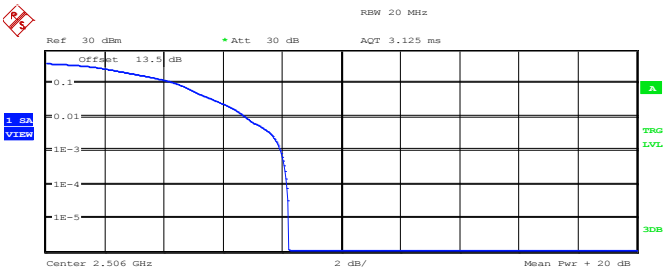
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	20.71 dBm
Peak	29.25 dBm
Crest	8.54 dB
10 %	3.04 dB
1 %	5.45 dB
.1 %	6.83 dB
.01 %	7.92 dB

Date: 25.MAY.2014 09:57:57

Peak-to-Average Ratio on LTE Band 41

20MHz / 16QAM in Ch. 39750 (1RB Size)



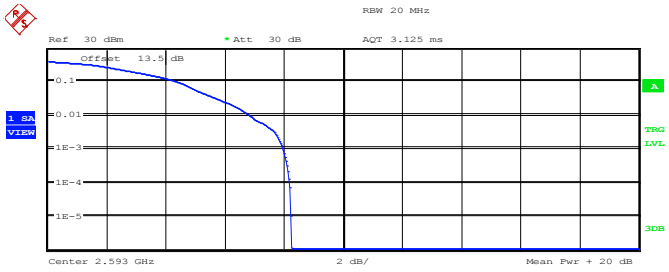
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	19.57 dBm
Peak	27.78 dBm
Crest	8.21 dB
10 %	4.42 dB
1 %	6.76 dB
.1 %	7.95 dB
.01 %	8.17 dB

Date: 3.JUN.2014 10:22:23

Peak-to-Average Ratio on LTE Band 41

20MHz / 16QAM in Ch. 40620 (1RB Size)



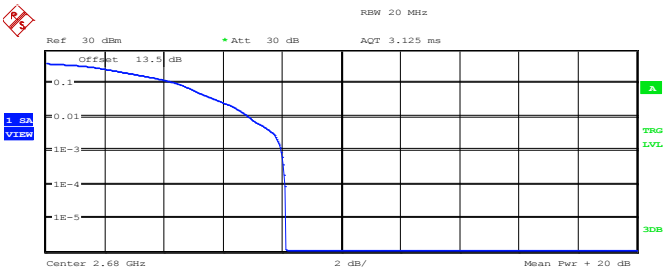
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	21.07 dBm
Peak	29.29 dBm
Crest	8.23 dB
10 %	4.39 dB
1 %	6.83 dB
.1 %	7.95 dB
.01 %	8.17 dB

Date: 3.JUN.2014 10:21:52

Peak-to-Average Ratio on LTE Band 41

20MHz / 16QAM in Ch. 41490 (1RB Size)



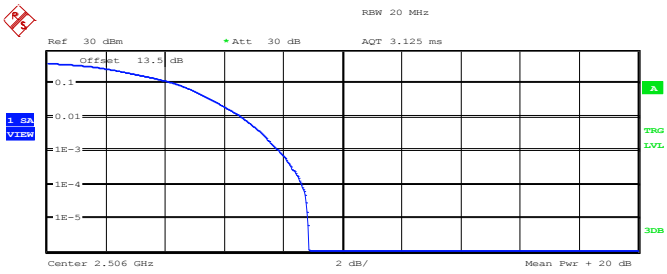
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	20.51 dBm
Peak	28.63 dBm
Crest	8.12 dB
10 %	4.46 dB
1 %	6.86 dB
.1 %	7.98 dB
.01 %	8.11 dB

Date: 3.JUN.2014 10:31:13

Peak-to-Average Ratio on LTE Band 41

20MHz / 16QAM in Ch. 39750 (100RB Size)



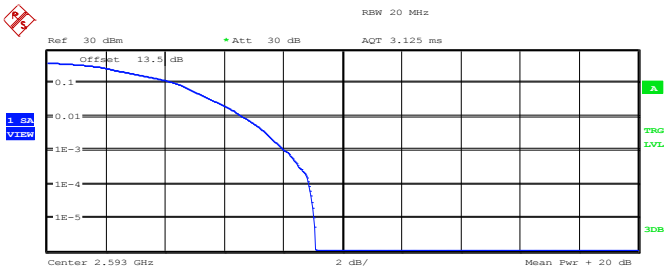
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	19.50 dBm
Peak	28.35 dBm
Crest	8.85 dB
10 %	4.36 dB
1 %	6.57 dB
.1 %	7.85 dB
.01 %	8.62 dB

Date: 3.JUN.2014 10:30:09

Peak-to-Average Ratio on LTE Band 41

20MHz / 16QAM in Ch. 40620 (100RB Size)



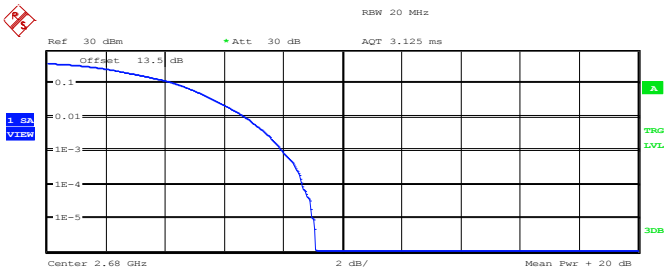
Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	20.13 dBm
Peak	29.22 dBm
Crest	9.09 dB
10 %	4.39 dB
1 %	6.63 dB
.1 %	8.04 dB
.01 %	8.88 dB

Date: 3.JUN.2014 10:21:20

Peak-to-Average Ratio on LTE Band 41

20MHz / 16QAM in Ch. 41490 (100RB Size)



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

	Trace 1
Mean	19.90 dBm
Peak	28.98 dBm
Crest	9.09 dB
10 %	4.36 dB
1 %	6.70 dB
.1 %	7.95 dB
.01 %	8.62 dB

Date: 3.JUN.2014 10:30:59

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 3 watts with LTE band 12 / 17.

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r01. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 41 and 1 watt with LTE band 4.

3.3.2 Measuring Instruments

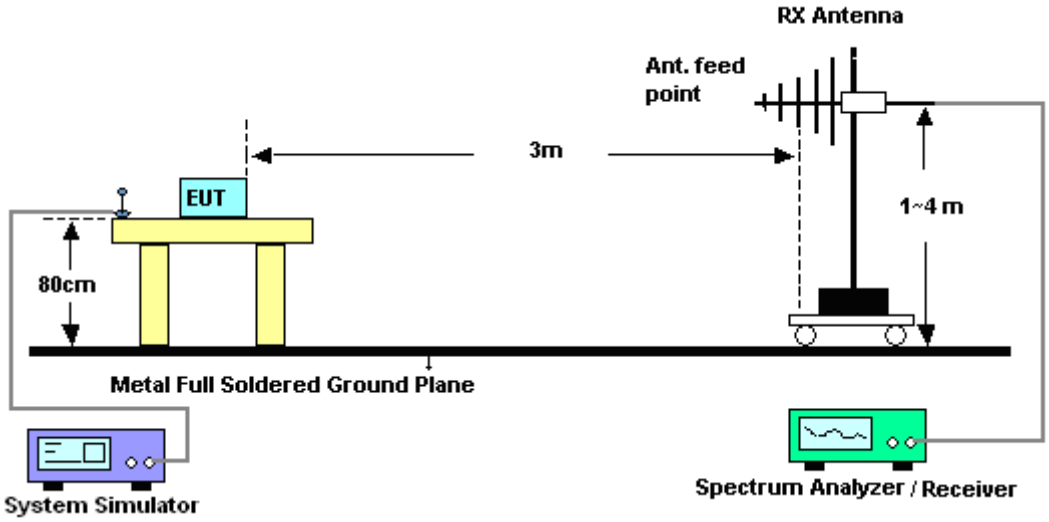
The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

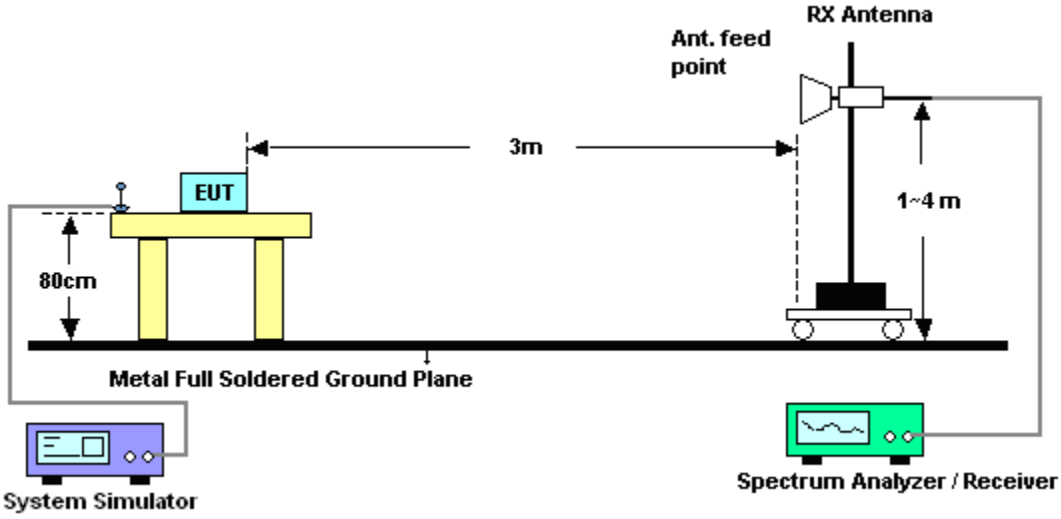
1. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01.
2. During the measurement, the 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 4 Radiated Power EIRP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-17.71	43.43	25.72	0.37
1732.50	-17.47	43.34	25.87	0.39
1754.30	-16.94	43.65	26.71	0.47
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-21.49	46.93	25.44	0.35
1732.50	-22.10	46.19	24.09	0.26
1754.30	-22.36	47.30	24.94	0.31

LTE Band 4 Radiated Power EIRP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-18.06	43.43	25.37	0.34
1732.50	-18.39	43.34	24.95	0.31
1754.30	-18.41	43.65	25.24	0.33
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1710.70	-22.62	46.93	24.31	0.27
1732.50	-21.27	46.19	24.92	0.31
1754.30	-22.11	47.30	25.19	0.33

LTE Band 4 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-17.32	42.22	24.90	0.31
1732.50	-17.06	43.34	26.28	0.42
1750.00	-17.98	44.37	26.39	0.44
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-19.04	45.79	26.75	0.47
1732.50	-18.47	46.19	27.72	0.59
1750.00	-18.89	47.21	28.32	0.68

LTE Band 4 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-18.45	42.22	23.77	0.24
1732.50	-18.13	43.34	25.21	0.33
1750.00	-18.58	44.37	25.79	0.38
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
1715.00	-19.91	45.79	25.88	0.39
1732.50	-19.24	46.19	26.95	0.50
1750.00	-19.90	47.21	27.31	0.54

LTE Band 12 Radiated Power ERP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
699.70	-19.72	32.74	10.87	0.01
707.50	-19.96	32.45	10.34	0.01
715.30	-18.27	32.03	11.61	0.01
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
699.70	-14.93	36.16	19.08	0.08
707.50	-14.98	36.04	18.91	0.08
715.30	-13.07	35.08	19.86	0.10

LTE Band 12 Radiated Power ERP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
699.70	-20.27	32.74	10.32	0.01
707.50	-20.06	32.45	10.24	0.01
715.30	-19.49	32.03	10.39	0.01
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
699.70	-15.35	36.16	18.66	0.07
707.50	-14.67	36.04	19.22	0.08
715.30	-14.19	35.08	18.74	0.07

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

LTE Band 12 Radiated Power ERP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
701.50	-19.50	32.83	11.18	0.01
707.50	-20.09	32.45	10.21	0.01
713.50	-18.50	32.07	11.42	0.01
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
701.50	-15.01	35.94	18.78	0.08
707.50	-15.17	36.04	18.72	0.07
713.50	-12.95	35.15	20.05	0.10

LTE Band 12 Radiated Power ERP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
701.50	-20.47	32.83	10.21	0.01
707.50	-20.98	32.45	9.32	0.01
713.50	-19.62	32.07	10.30	0.01
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
701.50	-16.04	35.94	17.75	0.06
707.50	-16.53	36.04	17.36	0.05
713.50	-14.22	35.15	18.78	0.08

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

LTE Band 17 Radiated Power ERP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-17.78	30.84	10.91	0.01
710.00	-20.18	30.86	8.53	0.01
713.50	-19.55	30.81	9.11	0.01
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-12.98	34.59	19.46	0.09
710.00	-15.85	34.03	16.03	0.04
713.50	-15.08	33.68	16.45	0.04

LTE Band 17 Radiated Power ERP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-19.06	30.84	9.63	0.01
710.00	-21.22	30.86	7.49	0.01
713.50	-20.85	30.81	7.81	0.01
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**ERP (W)**
706.50	-13.98	34.59	18.46	0.07
710.00	-16.79	34.03	15.09	0.03
713.50	-16.13	33.68	15.40	0.03

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

LTE Band 41 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2501.00	-23.21	46.52	21.16	0.13
2593.00	-24.10	47.40	21.15	0.13
2685.00	-25.06	47.19	19.98	0.10
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2501.00	-28.15	49.13	18.83	0.08
2593.00	-27.87	48.54	18.52	0.07
2685.00	-29.60	48.59	16.84	0.05

LTE Band 41 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2501.00	-23.92	46.52	20.45	0.11
2593.00	-25.37	47.40	19.88	0.10
2685.00	-26.57	47.19	18.47	0.07
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2501.00	-29.24	49.13	17.74	0.06
2593.00	-29.46	48.54	16.93	0.05
2685.00	-30.58	48.59	15.86	0.04

LTE Band 41 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2506.00	-21.47	47.16	23.54	0.23
2593.00	-23.32	47.36	21.89	0.15
2680.00	-23.52	46.94	21.27	0.13
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2506.00	-27.91	49.50	19.44	0.09
2593.00	-29.26	48.50	17.09	0.05
2680.00	-29.44	48.73	17.14	0.05

LTE Band 41 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2506.00	-22.65	47.16	22.36	0.17
2593.00	-23.74	47.36	21.47	0.14
2680.00	-24.33	46.94	20.46	0.11
Vertical Polarization				
Frequency (MHz)	**LVL (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (W)**
2506.00	-28.52	49.50	18.83	0.08
2593.00	-29.55	48.50	16.80	0.05
2680.00	-30.06	48.73	16.52	0.04

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.

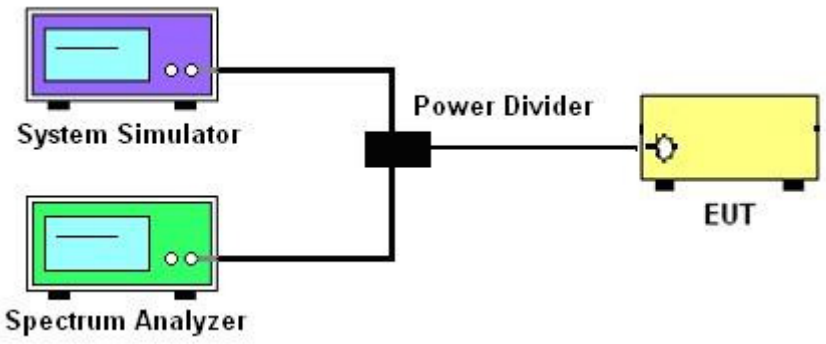
3.4.2 Measuring Instruments

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.

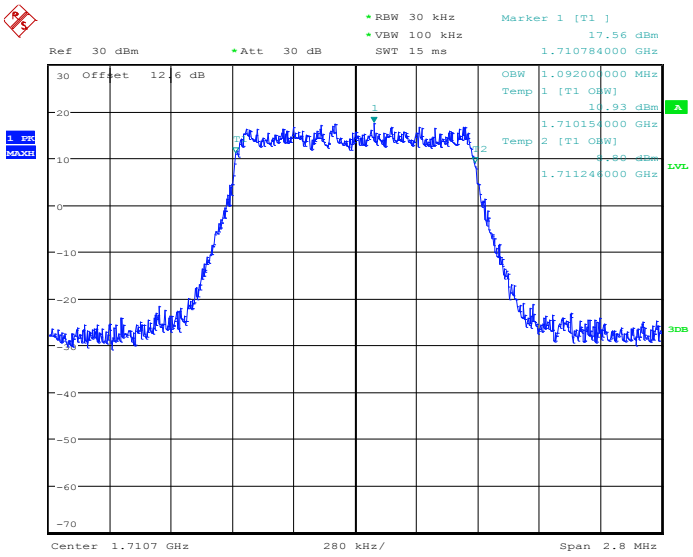
3.4.4 Test Setup



3.4.5 Test Result (Plots) of Occupied Bandwidth

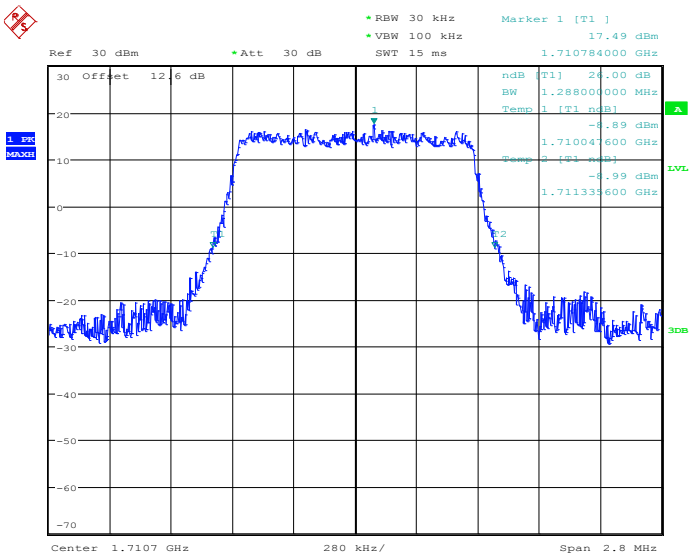
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 19957



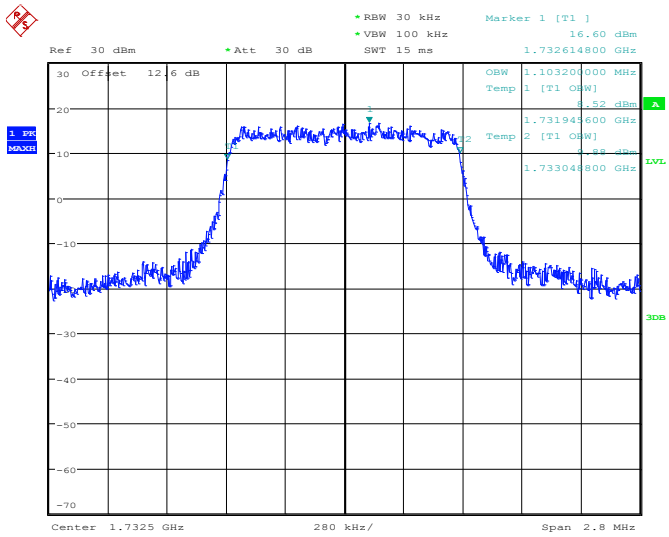
Date: 25.MAY.2014 07:40:15

26dB Bandwidth Plot on Channel 19957



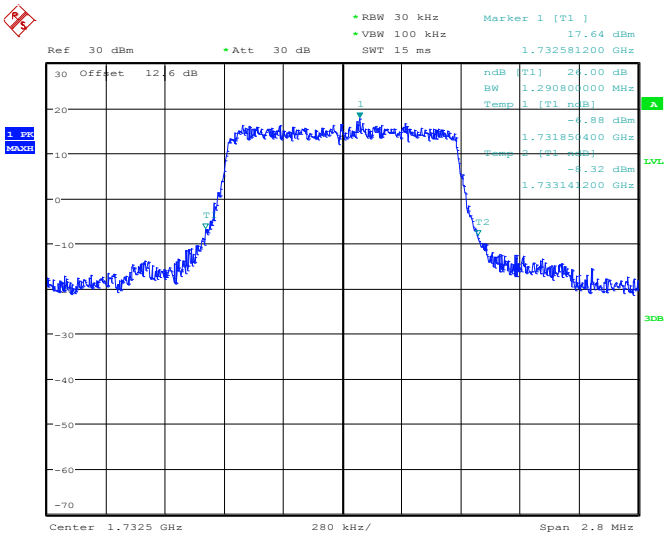
Date: 25.MAY.2014 07:40:50

99% Occupied Bandwidth Plot on Channel 20175



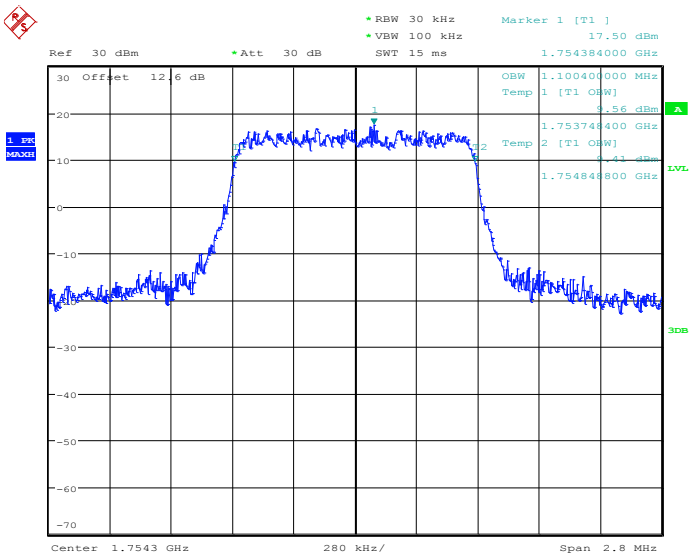
Date: 25.MAY.2014 07:46:34

26dB Bandwidth Plot on Channel 20175



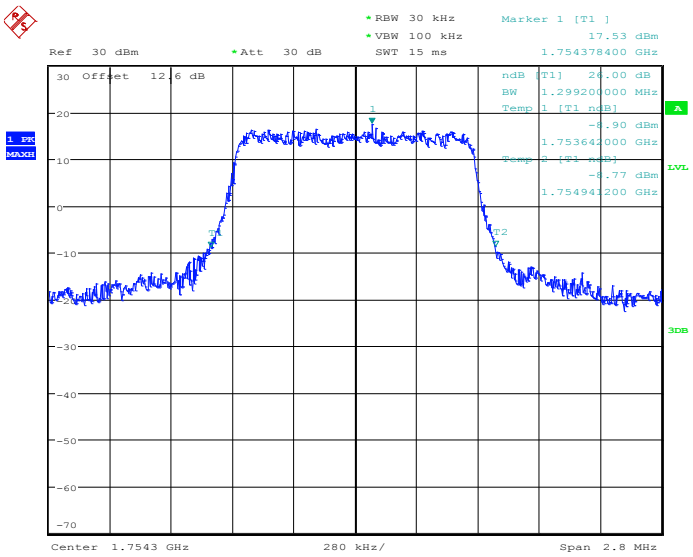
Date: 25.MAY.2014 07:47:08

99% Occupied Bandwidth Plot on Channel 20393



Date: 25.MAY.2014 07:49:43

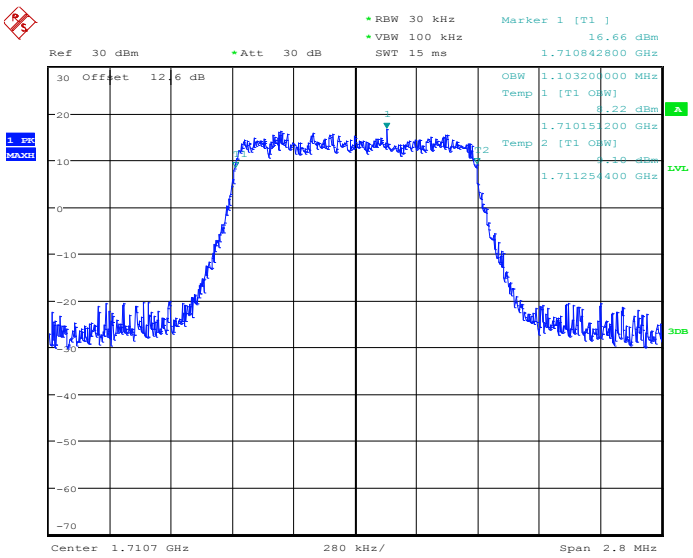
26dB Bandwidth Plot on Channel 20393



Date: 25.MAY.2014 07:50:17

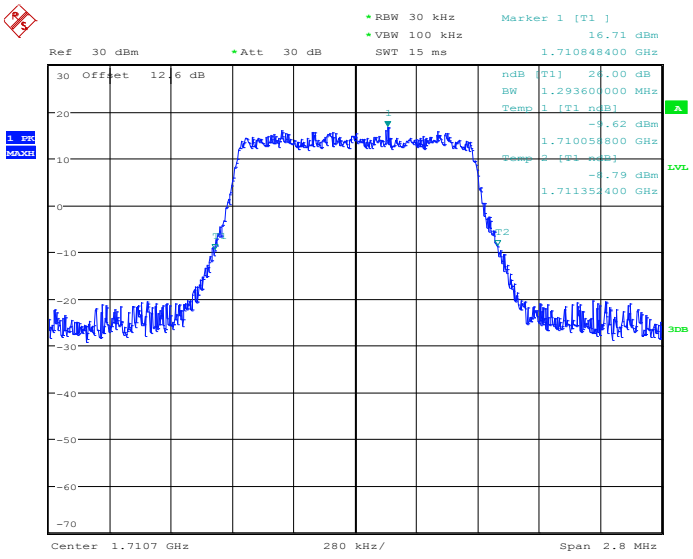
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 19957



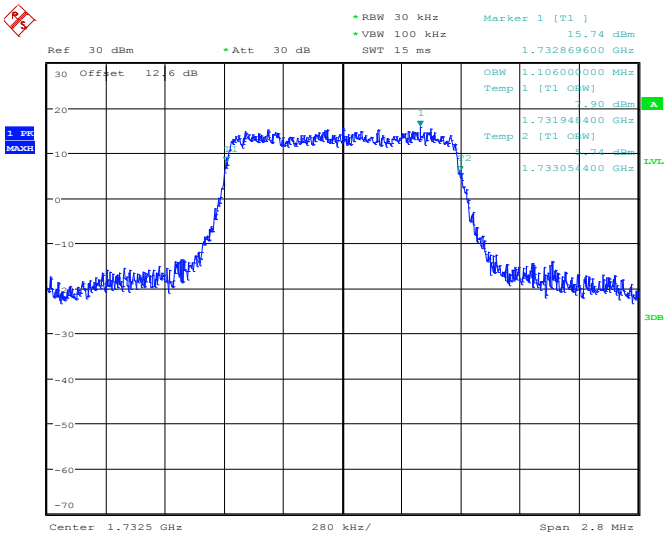
Date: 25.MAY.2014 07:40:32

26dB Bandwidth Plot on Channel 19957



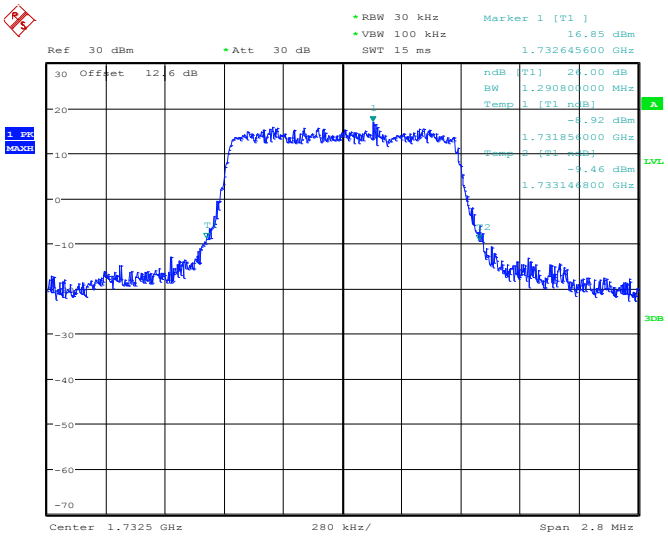
Date: 25.MAY.2014 07:41:08

99% Occupied Bandwidth Plot on Channel 20175



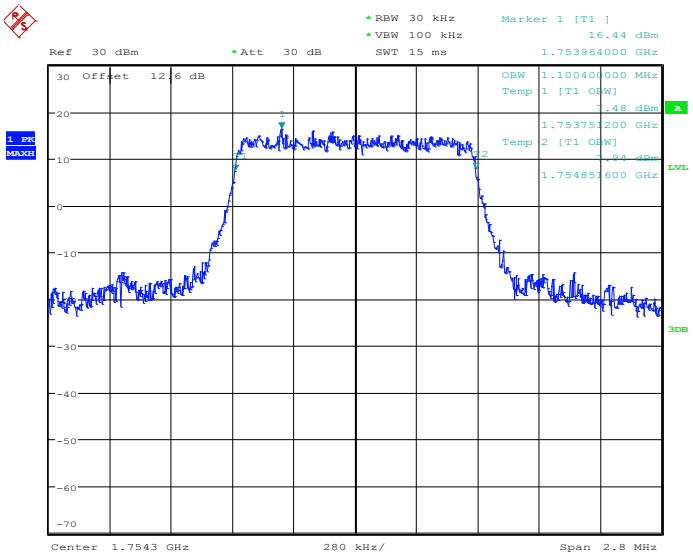
Date: 25.MAY.2014 07:46:50

26dB Bandwidth Plot on Channel 20175



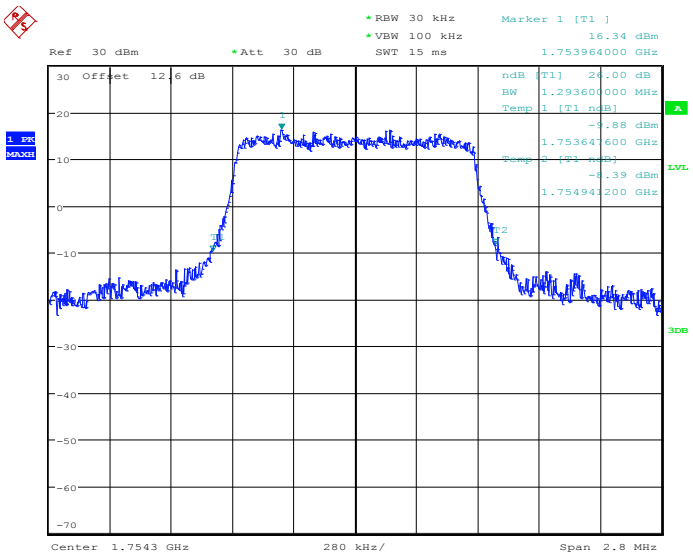
Date: 25.MAY.2014 07:47:26

99% Occupied Bandwidth Plot on Channel 20393



Date: 25.MAY.2014 07:49:59

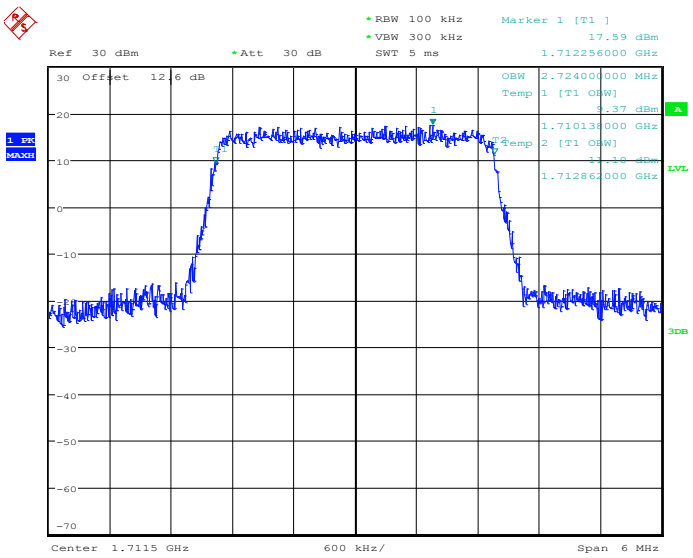
26dB Bandwidth Plot on Channel 20393



Date: 25.MAY.2014 07:50:35

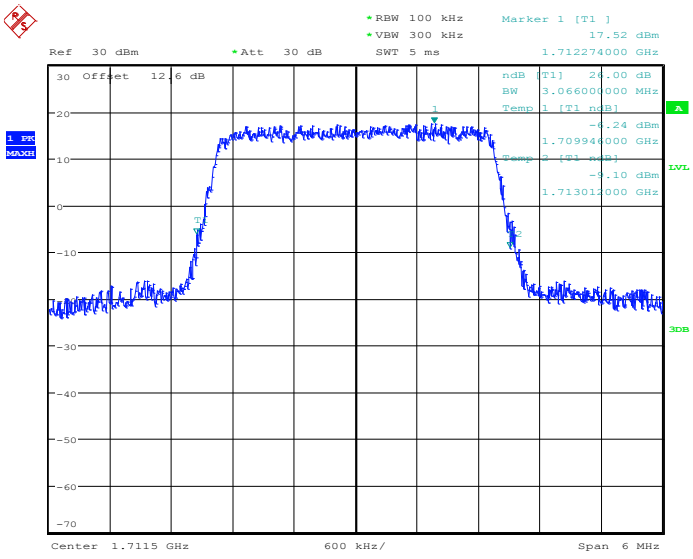
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 19965



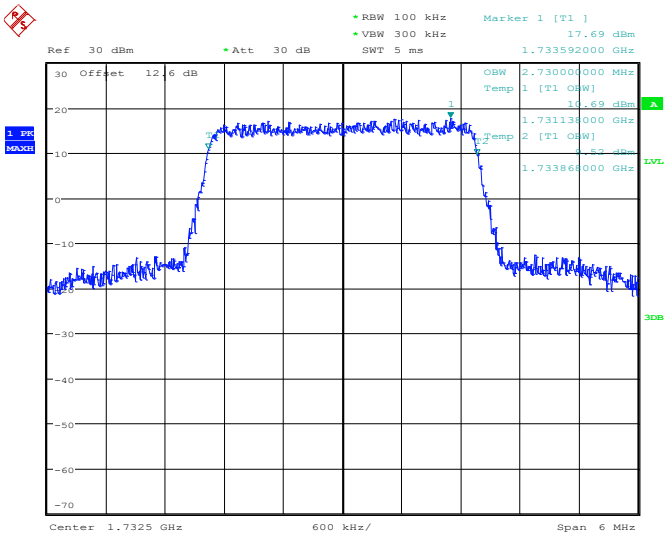
Date: 25.MAY.2014 07:56:06

26dB Bandwidth Plot on Channel 19965



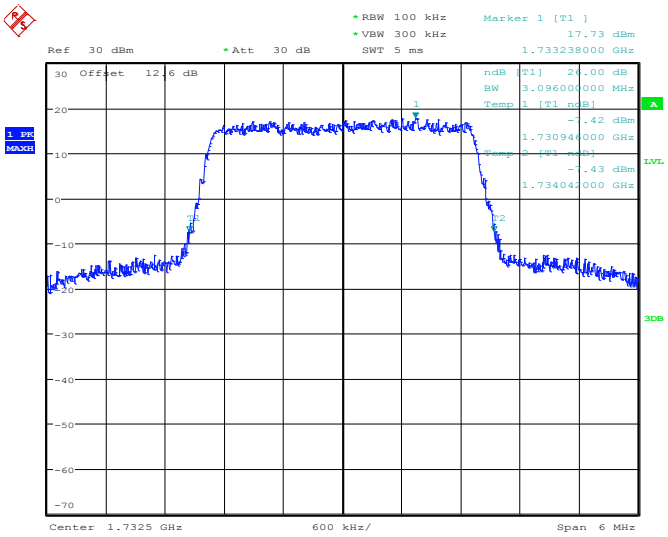
Date: 25.MAY.2014 07:56:40

99% Occupied Bandwidth Plot on Channel 20175



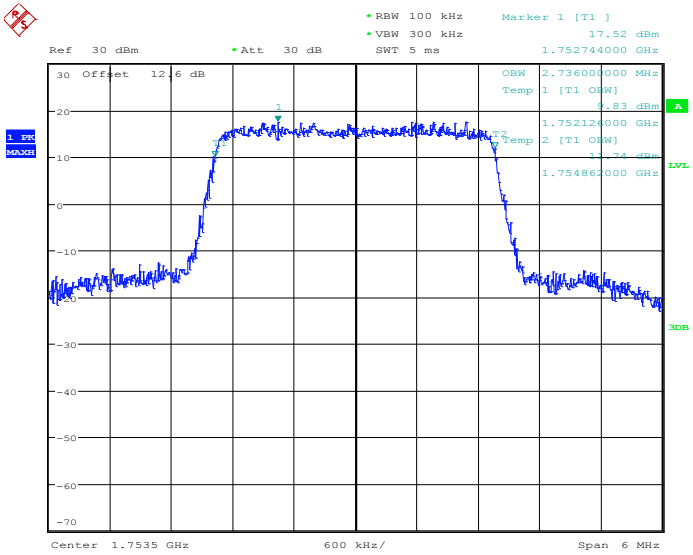
Date: 25.MAY.2014 08:02:24

26dB Bandwidth Plot on Channel 20175



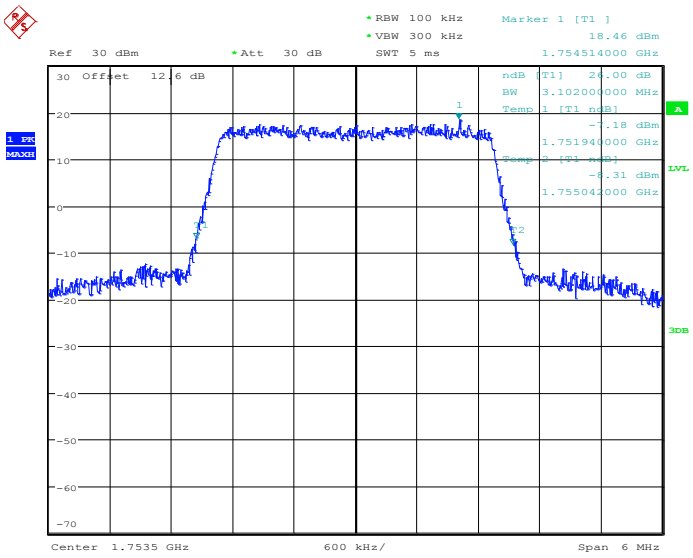
Date: 25.MAY.2014 08:02:58

99% Occupied Bandwidth Plot on Channel 20385



Date: 25.MAY.2014 08:05:34

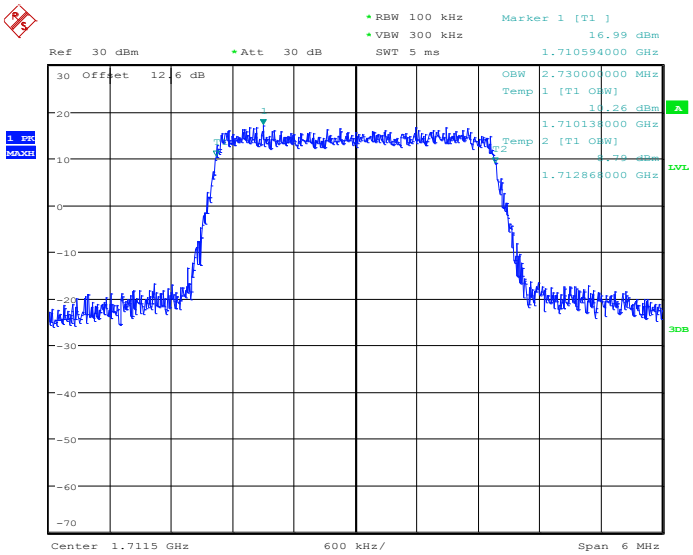
26dB Bandwidth Plot on Channel 20385



Date: 25.MAY.2014 08:06:09

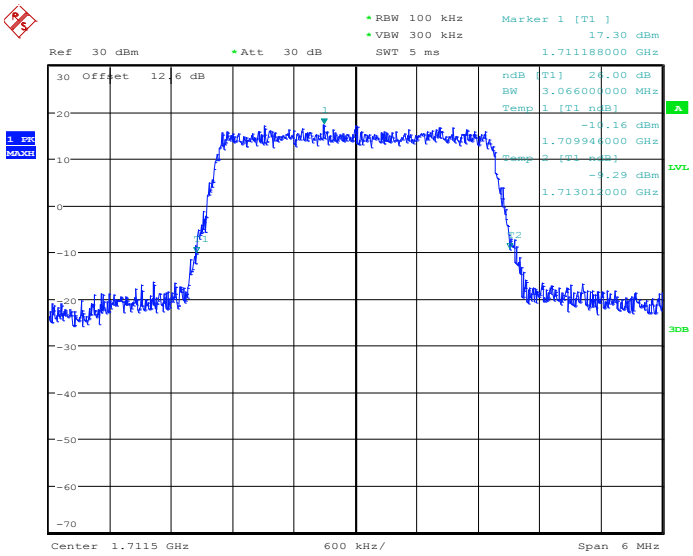
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 19965



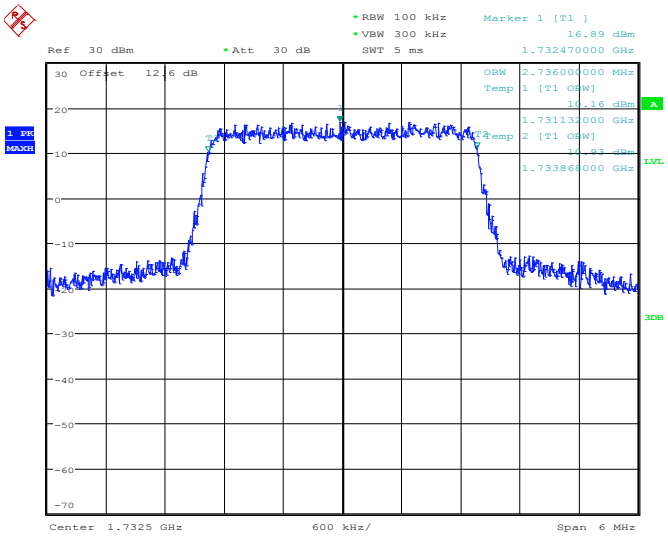
Date: 25.MAY.2014 07:56:22

26dB Bandwidth Plot on Channel 19965



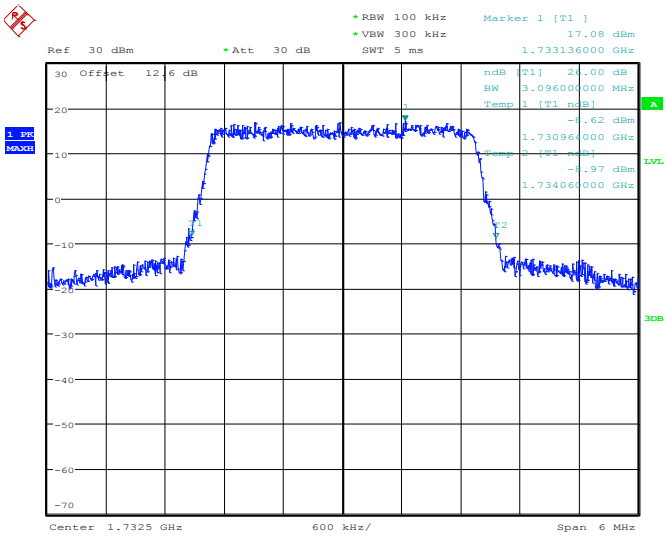
Date: 25.MAY.2014 07:56:58

99% Occupied Bandwidth Plot on Channel 20175



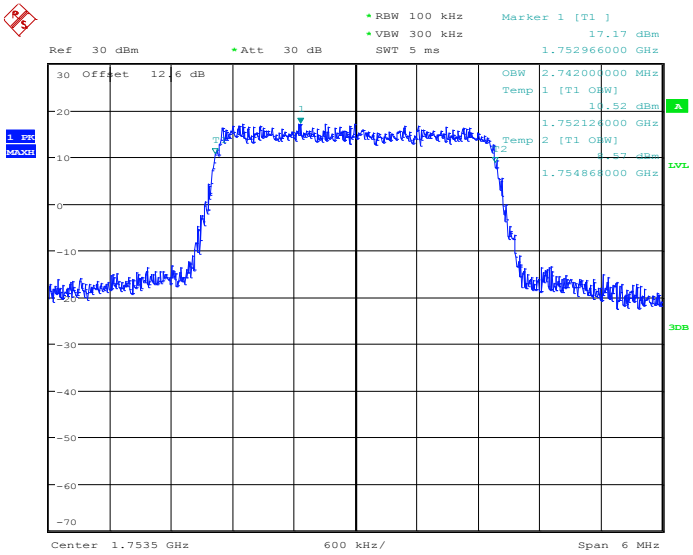
Date: 25.MAY.2014 08:02:40

26dB Bandwidth Plot on Channel 20175



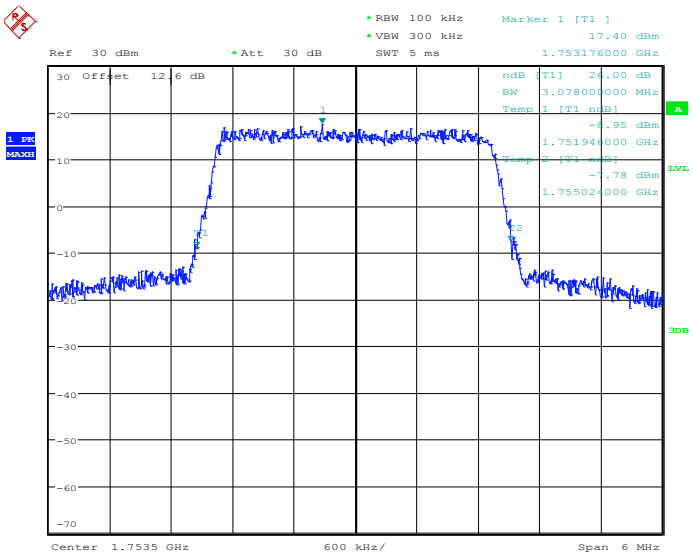
Date: 25.MAY.2014 08:03:16

99% Occupied Bandwidth Plot on Channel 20385



Date: 25.MAY.2014 08:05:51

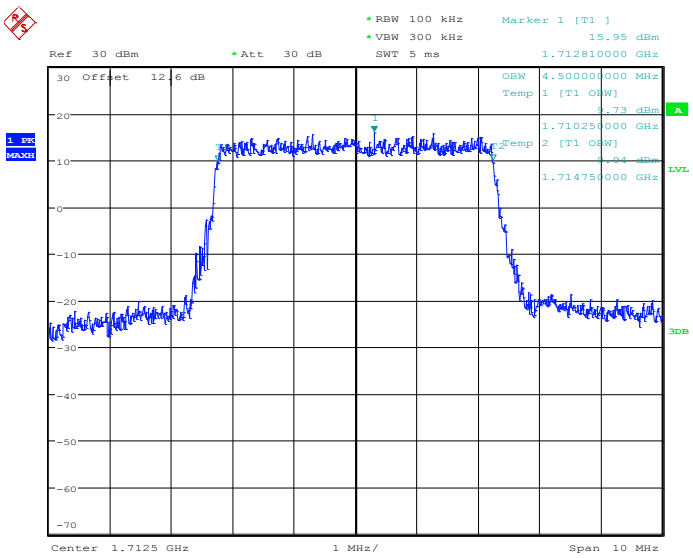
26dB Bandwidth Plot on Channel 20385



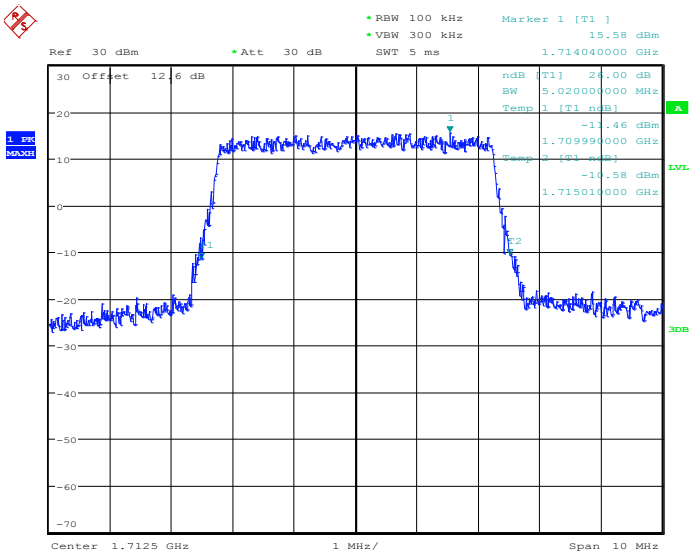
Date: 25.MAY.2014 08:06:27

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

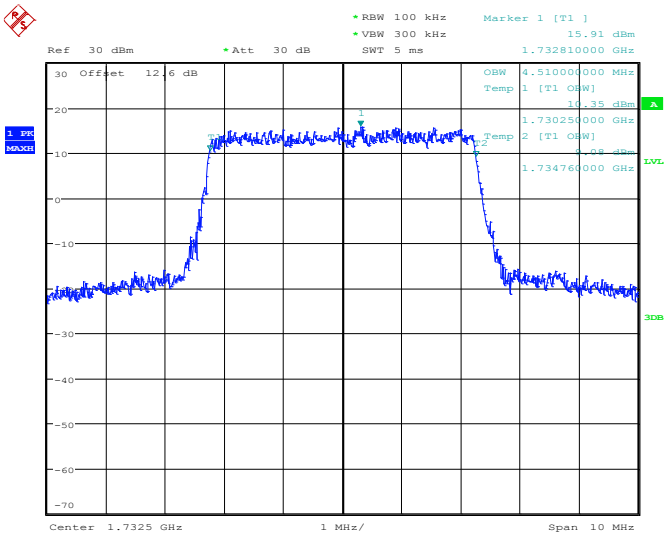
99% Occupied Bandwidth Plot on Channel 19975



26dB Bandwidth Plot on Channel 19975

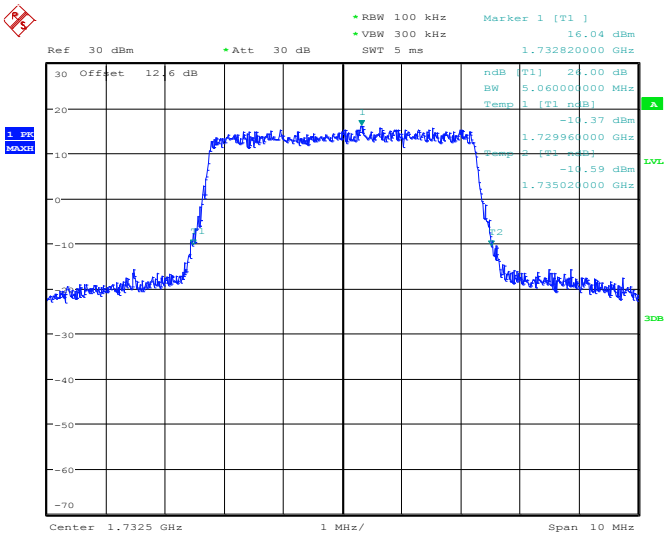


99% Occupied Bandwidth Plot on Channel 20175



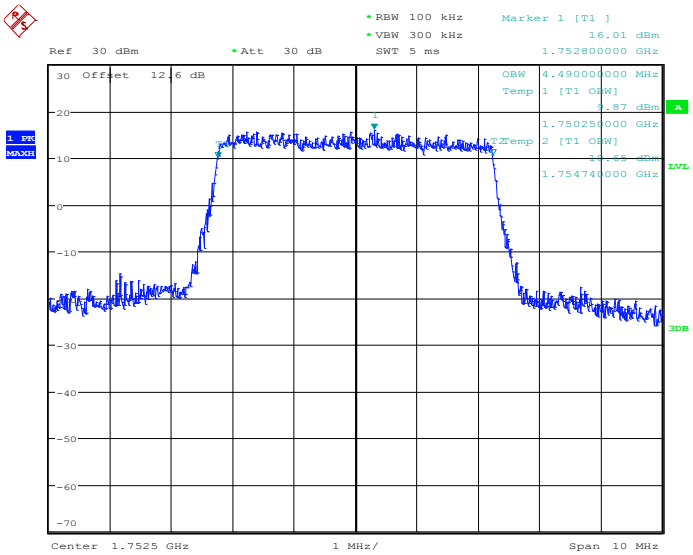
Date: 25.MAY.2014 08:18:18

26dB Bandwidth Plot on Channel 20175



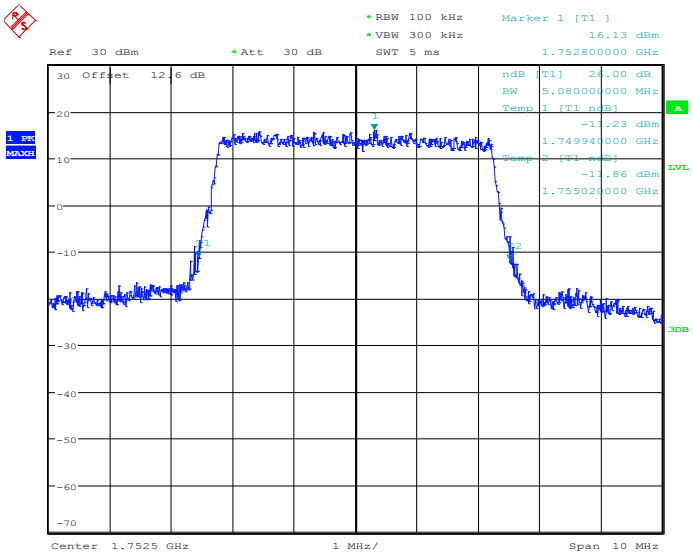
Date: 25.MAY.2014 08:18:53

99% Occupied Bandwidth Plot on Channel 20375



Date: 25.MAY.2014 08:21:28

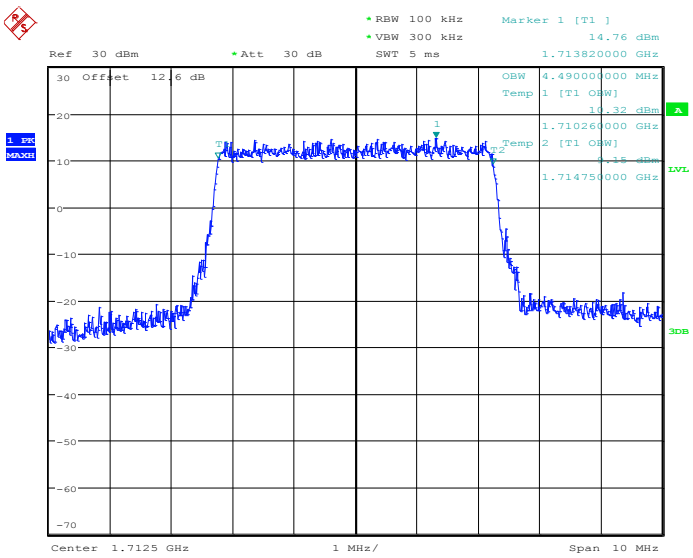
26dB Bandwidth Plot on Channel 20375



Date: 25.MAY.2014 08:22:02

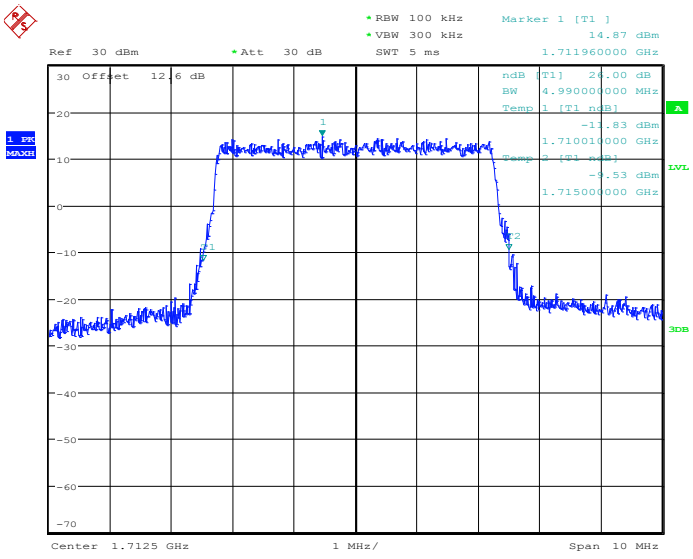
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 19975



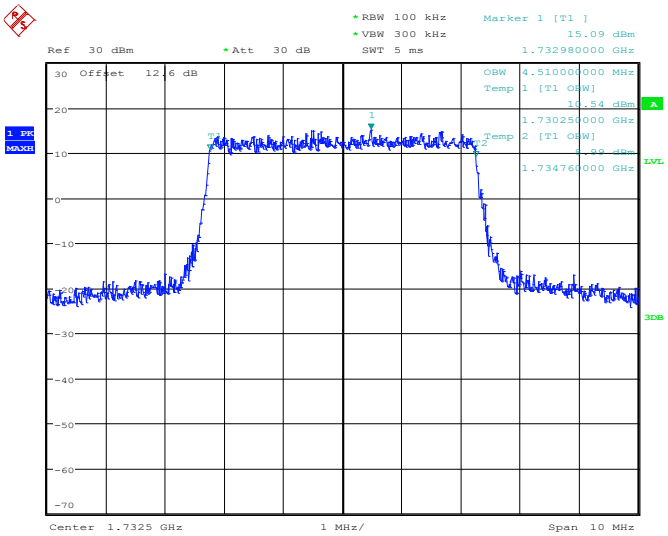
Date: 25.MAY.2014 08:12:16

26dB Bandwidth Plot on Channel 19975



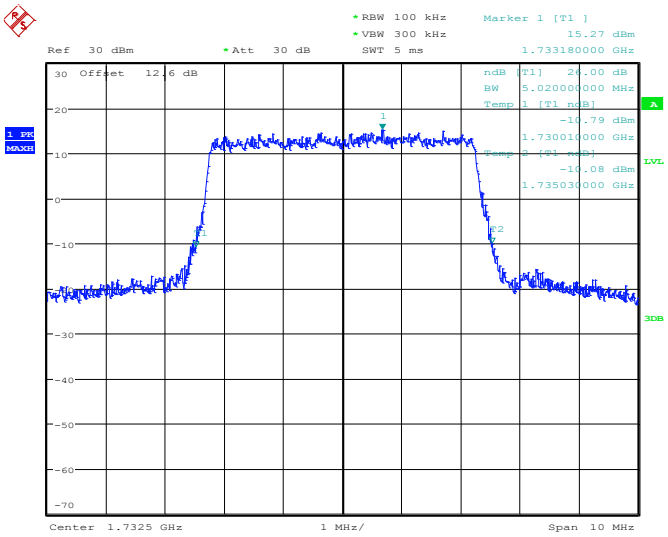
Date: 25.MAY.2014 08:12:51

99% Occupied Bandwidth Plot on Channel 20175



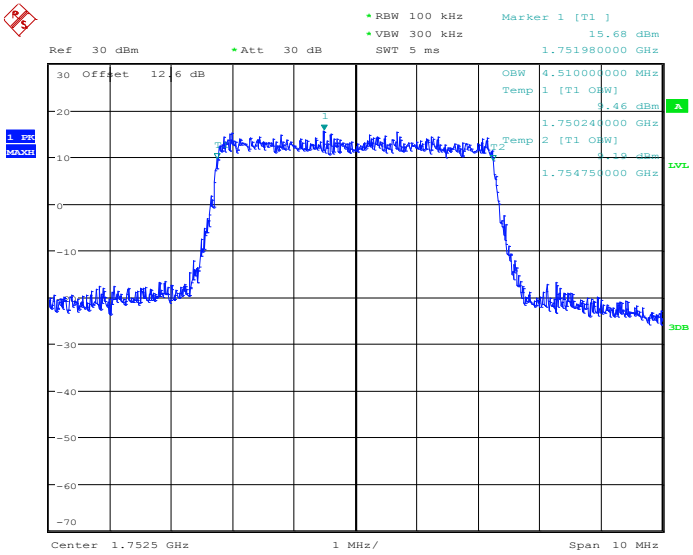
Date: 25.MAY.2014 08:18:35

26dB Bandwidth Plot on Channel 20175



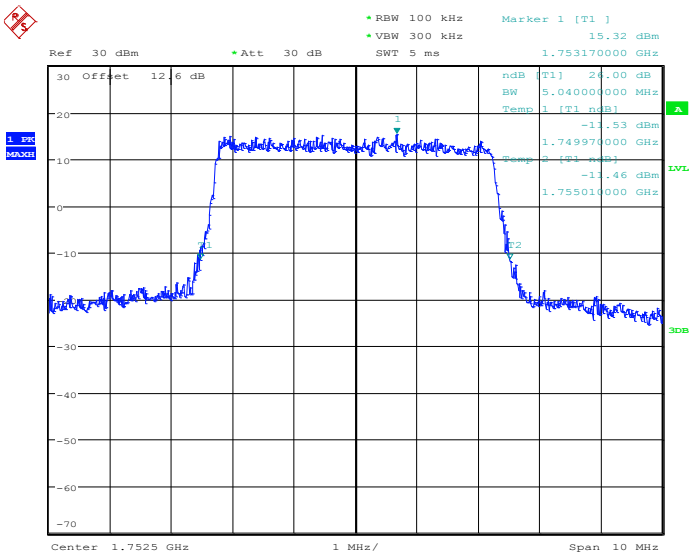
Date: 25.MAY.2014 08:19:11

99% Occupied Bandwidth Plot on Channel 20375



Date: 25.MAY.2014 08:21:44

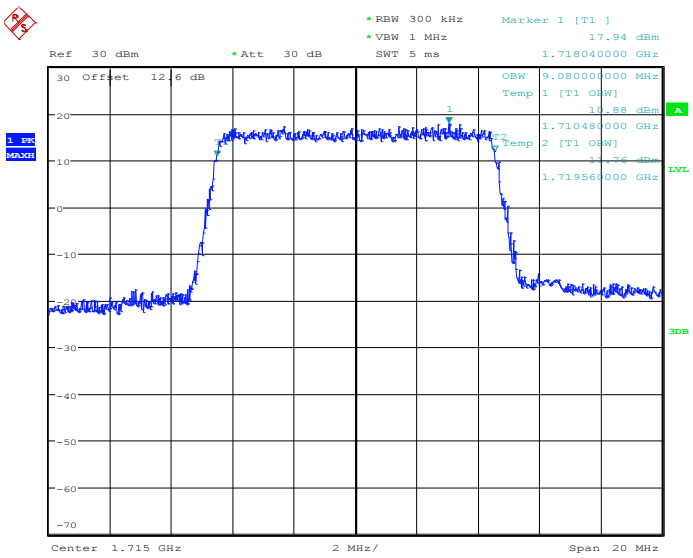
26dB Bandwidth Plot on Channel 20375



Date: 25.MAY.2014 08:22:20

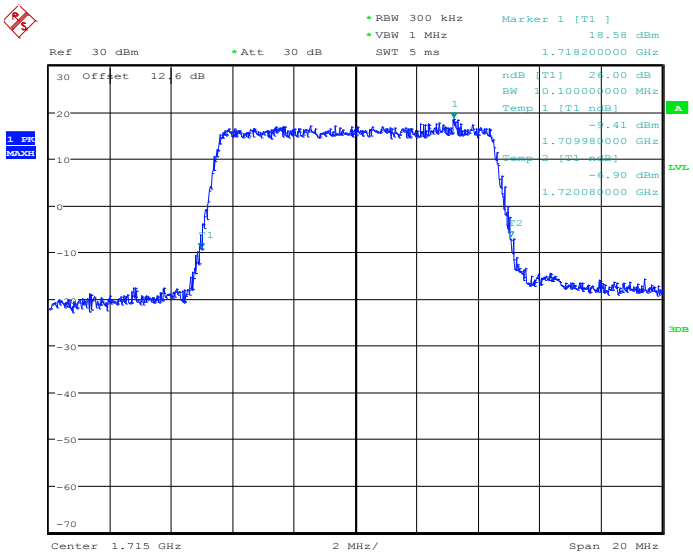
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20000



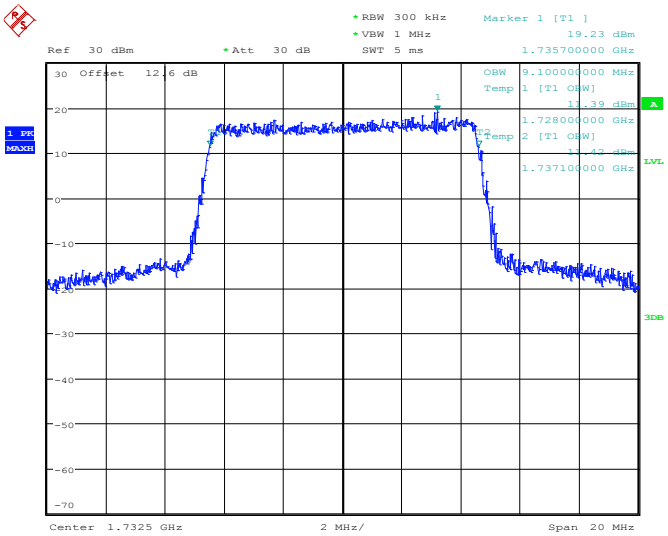
Date: 25.MAY.2014 08:27:52

26dB Bandwidth Plot on Channel 20000



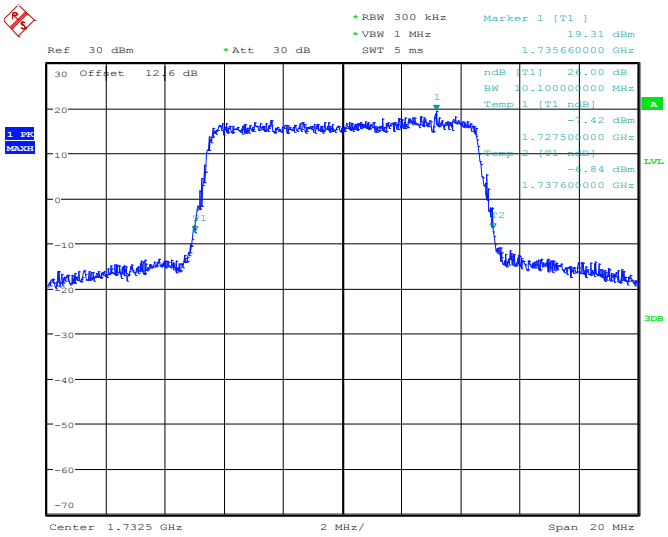
Date: 25.MAY.2014 08:28:26

99% Occupied Bandwidth Plot on Channel 20175



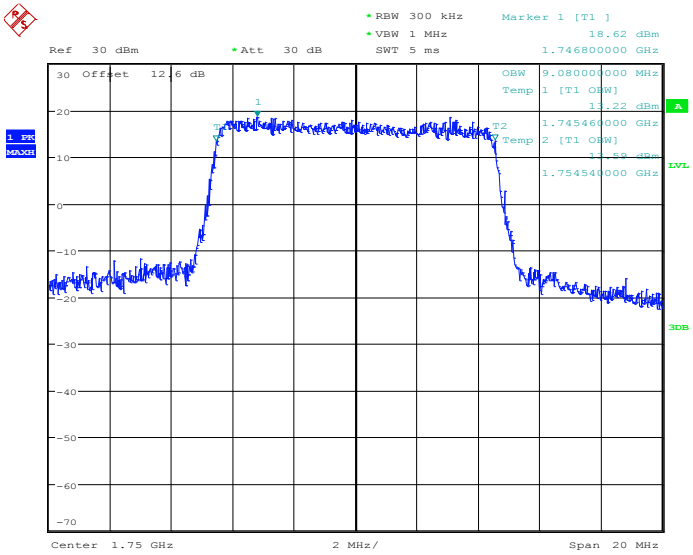
Date: 25.MAY.2014 08:34:10

26dB Bandwidth Plot on Channel 20175



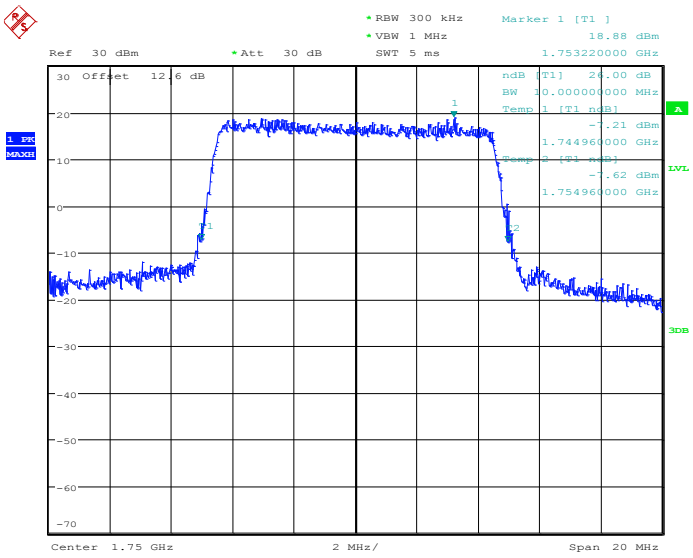
Date: 25.MAY.2014 08:34:44

99% Occupied Bandwidth Plot on Channel 20350



Date: 25.MAY.2014 08:37:19

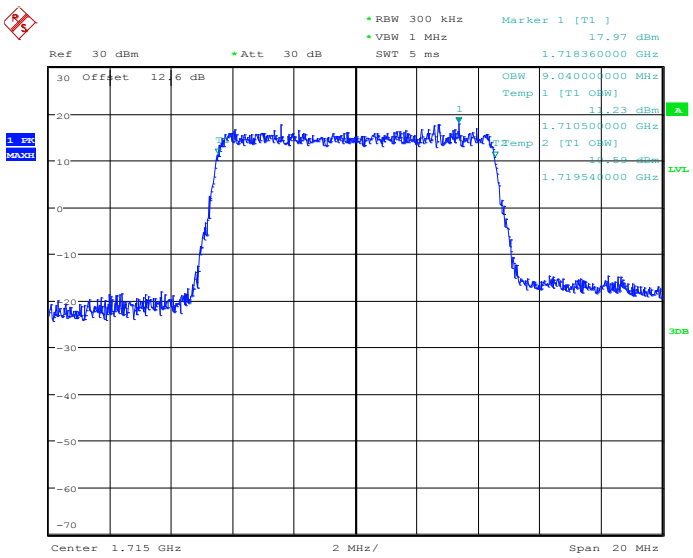
26dB Bandwidth Plot on Channel 20350



Date: 25.MAY.2014 08:37:53

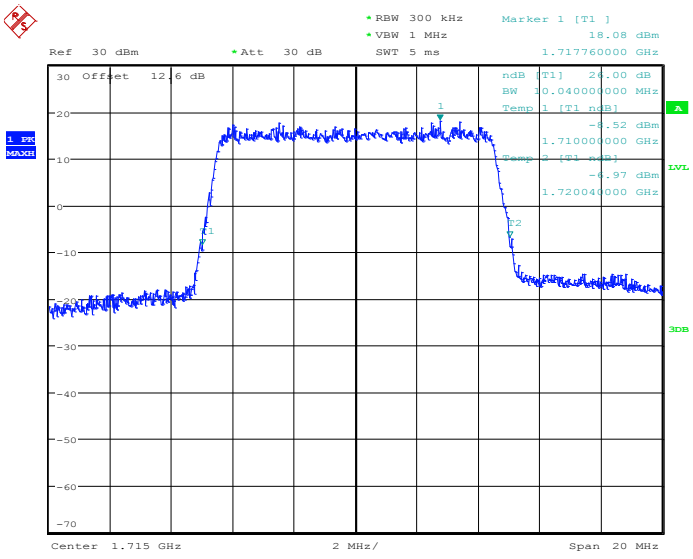
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20000



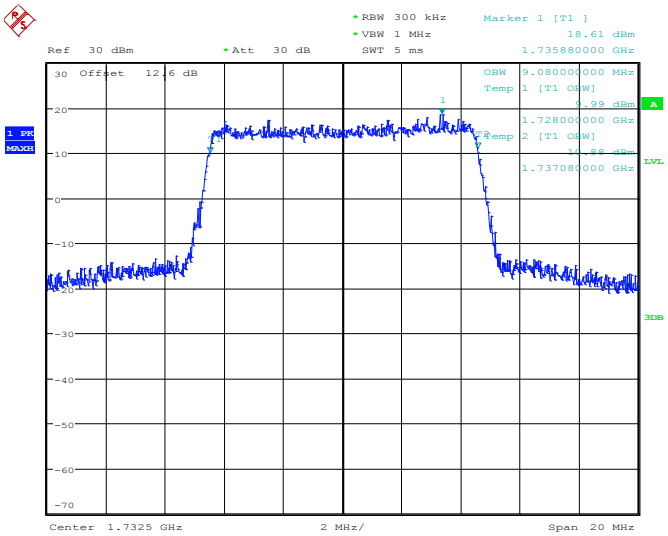
Date: 25.MAY.2014 08:28:08

26dB Bandwidth Plot on Channel 20000

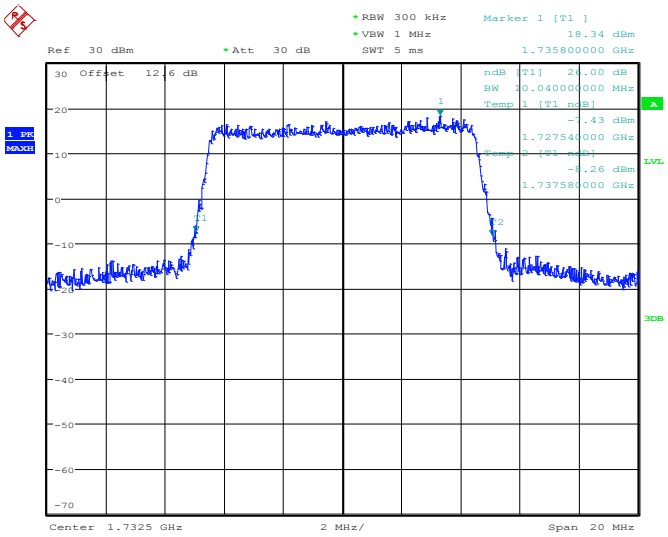


Date: 25.MAY.2014 08:28:44

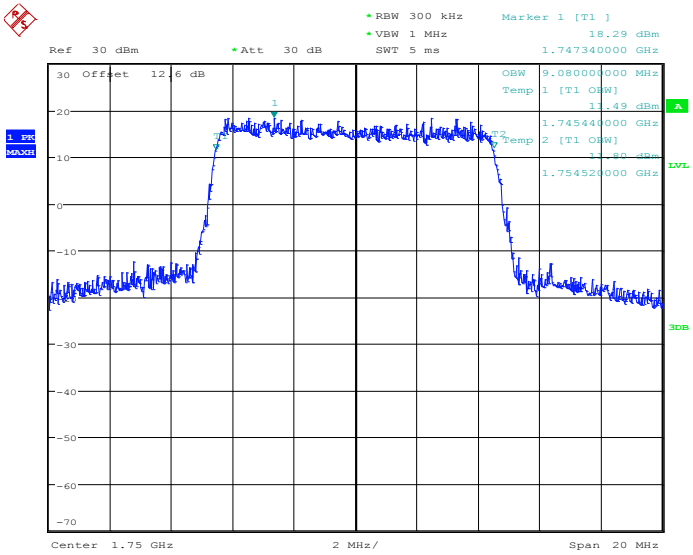
99% Occupied Bandwidth Plot on Channel 20175



26dB Bandwidth Plot on Channel 20175

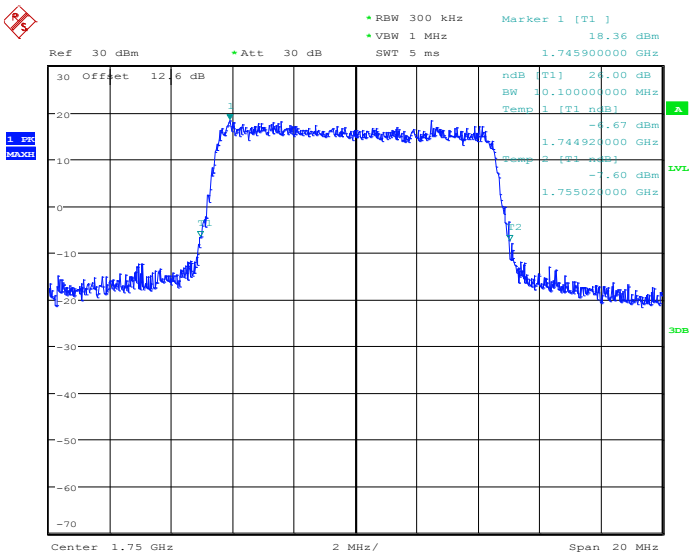


99% Occupied Bandwidth Plot on Channel 20350



Date: 25.MAY.2014 08:37:35

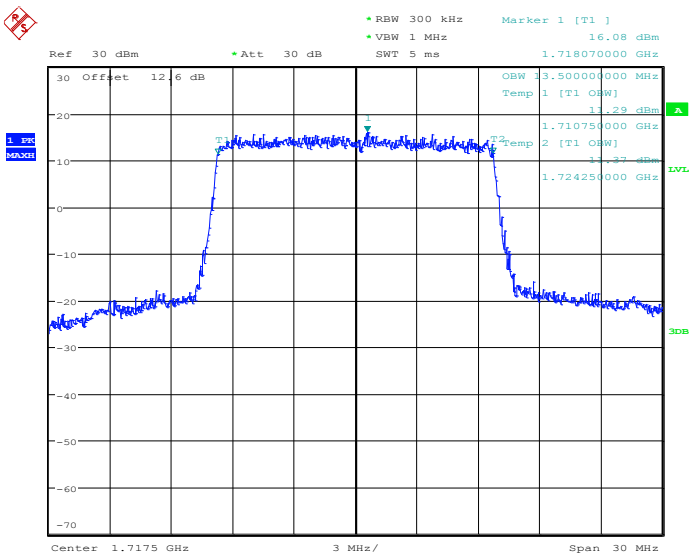
26dB Bandwidth Plot on Channel 20350



Date: 25.MAY.2014 08:38:11

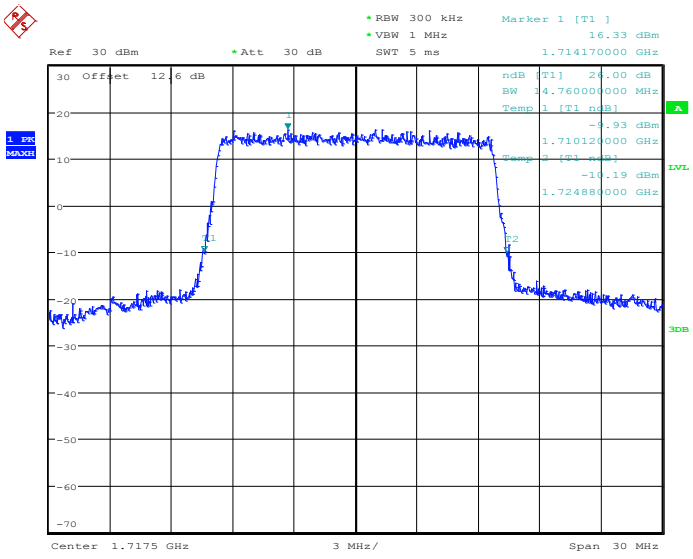
Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20025



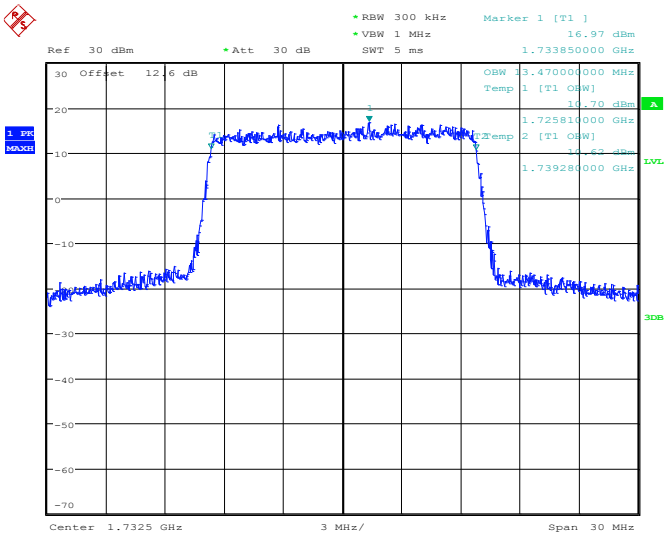
Date: 25.MAY.2014 08:43:43

26dB Bandwidth Plot on Channel 20025



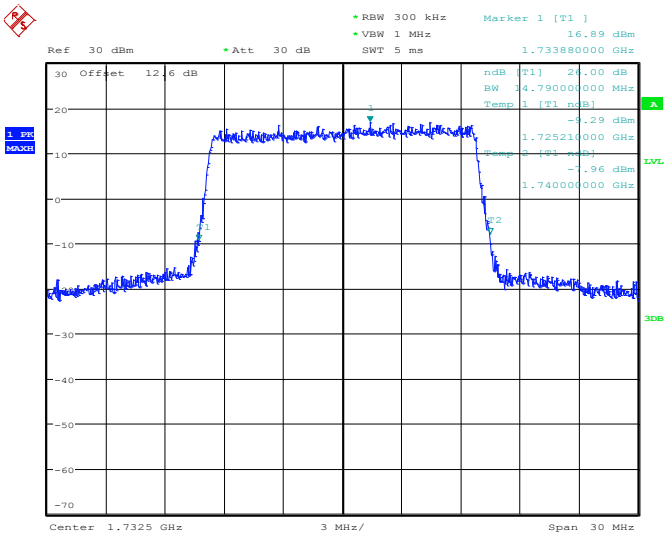
Date: 25.MAY.2014 08:44:18

99% Occupied Bandwidth Plot on Channel 20175



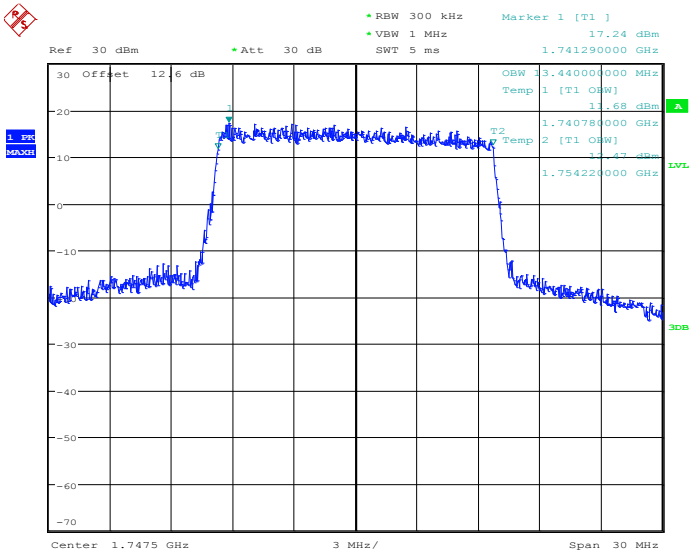
Date: 25.MAY.2014 08:50:02

26dB Bandwidth Plot on Channel 20175



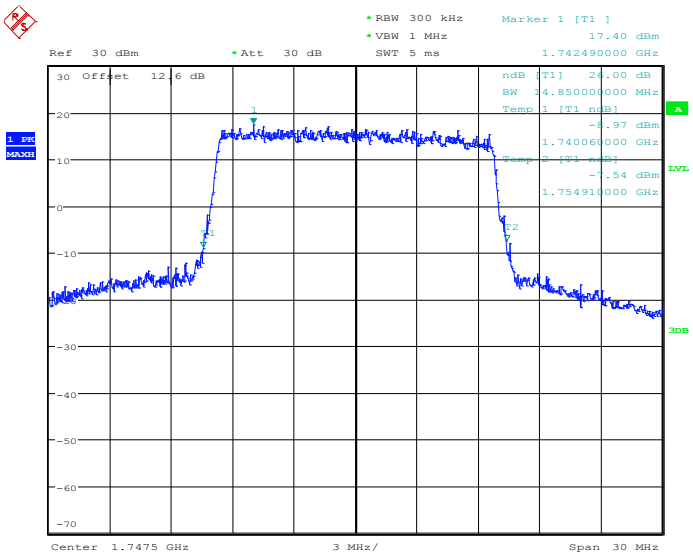
Date: 25.MAY.2014 08:50:37

99% Occupied Bandwidth Plot on Channel 20325



Date: 25.MAY.2014 08:53:12

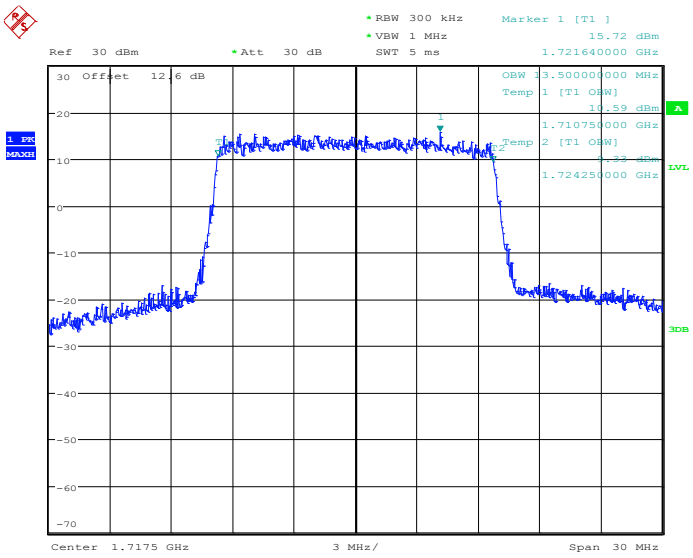
26dB Bandwidth Plot on Channel 20325



Date: 25.MAY.2014 08:53:46

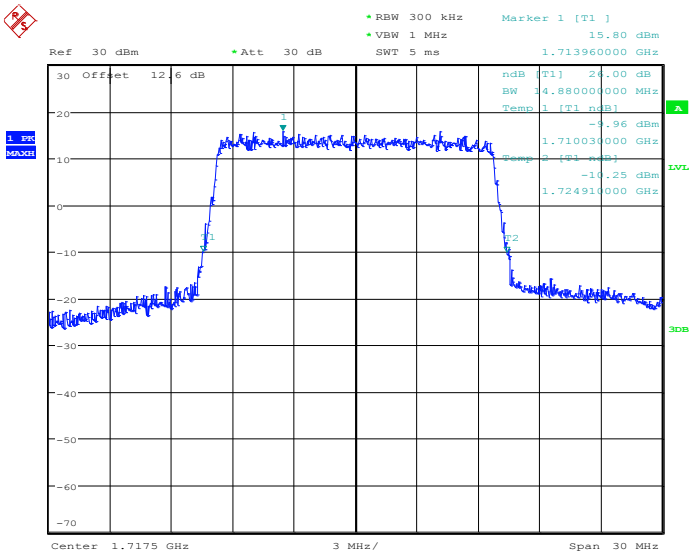
Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20025



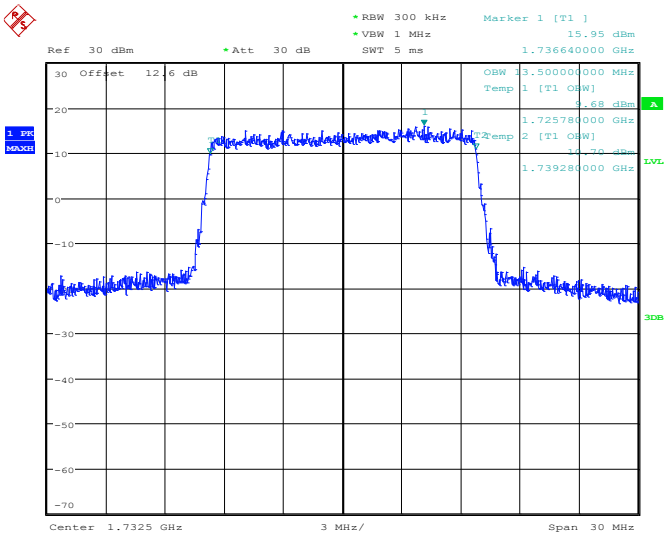
Date: 25.MAY.2014 08:44:00

26dB Bandwidth Plot on Channel 20025



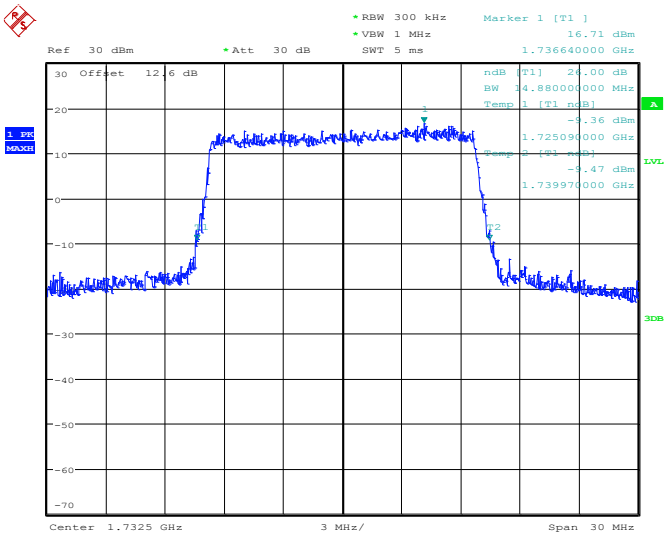
Date: 25.MAY.2014 08:44:36

99% Occupied Bandwidth Plot on Channel 20175



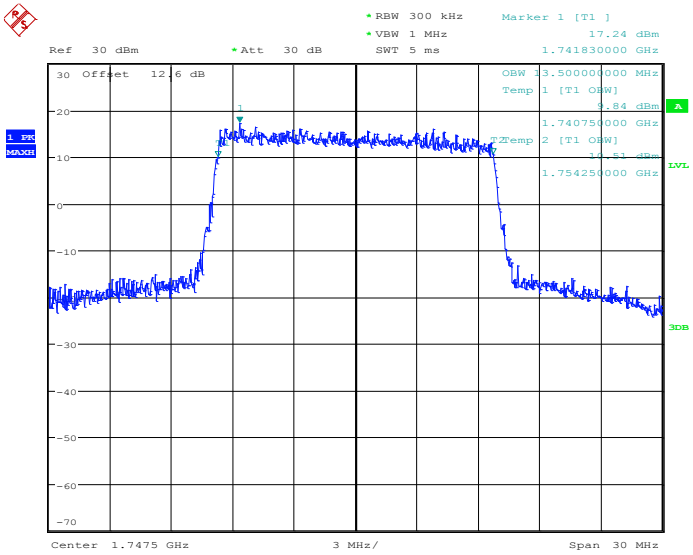
Date: 25.MAY.2014 08:50:19

26dB Bandwidth Plot on Channel 20175



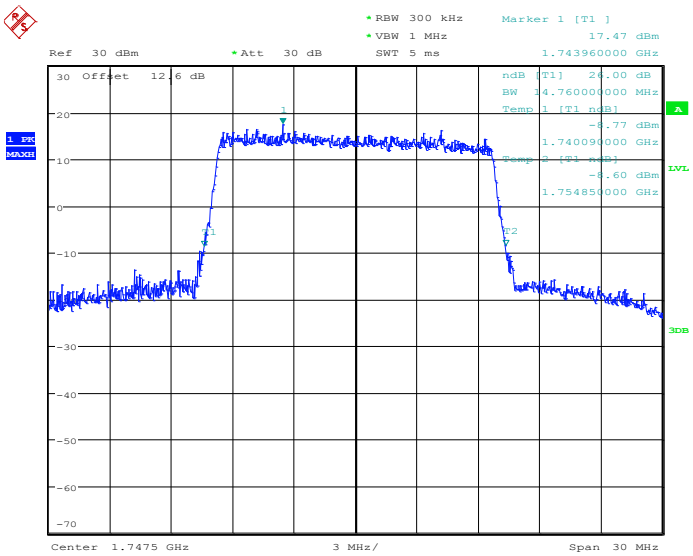
Date: 25.MAY.2014 08:50:55

99% Occupied Bandwidth Plot on Channel 20325



Date: 25.MAY.2014 08:53:28

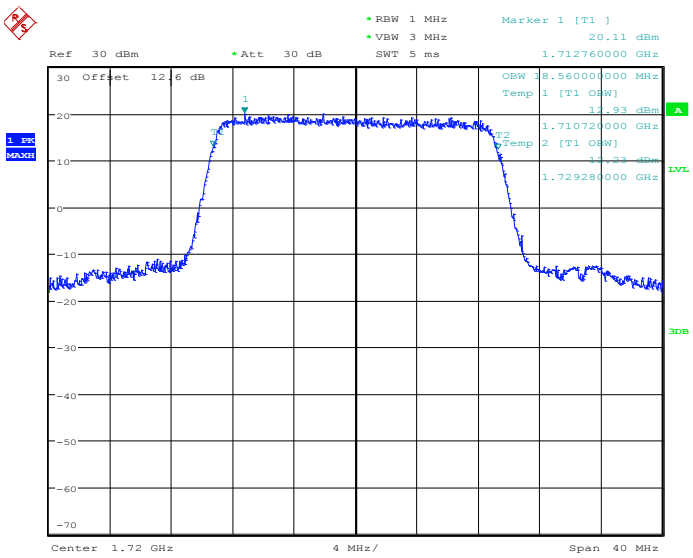
26dB Bandwidth Plot on Channel 20325



Date: 25.MAY.2014 08:54:04

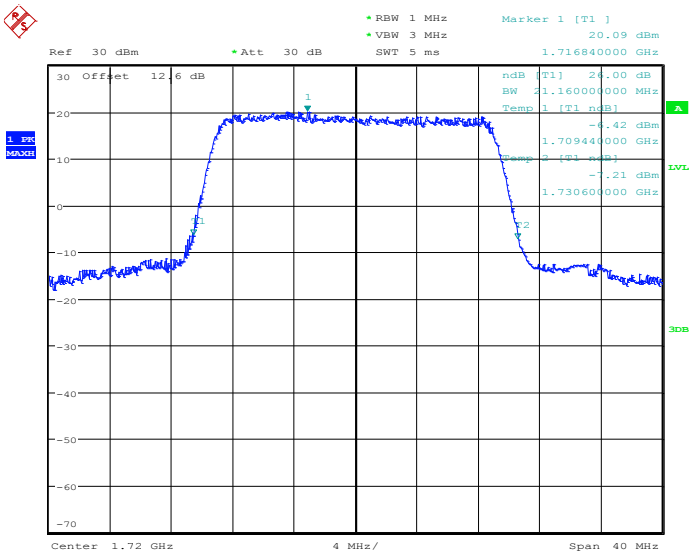
Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 20050



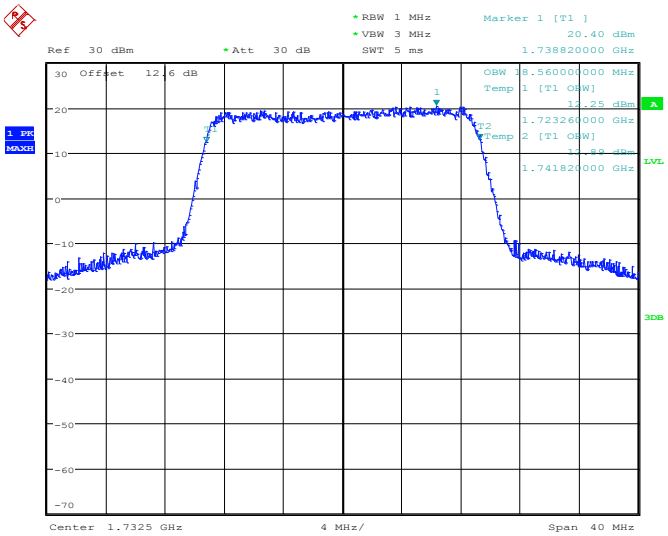
Date: 25.MAY.2014 08:59:36

26dB Bandwidth Plot on Channel 20050



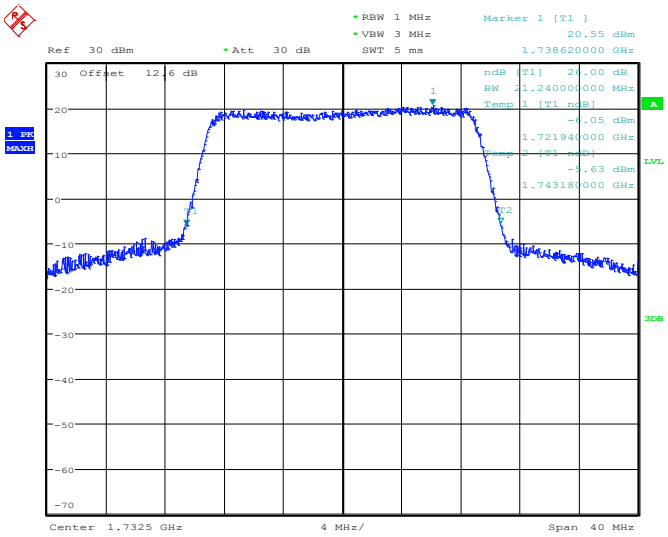
Date: 25.MAY.2014 09:00:10

99% Occupied Bandwidth Plot on Channel 20175



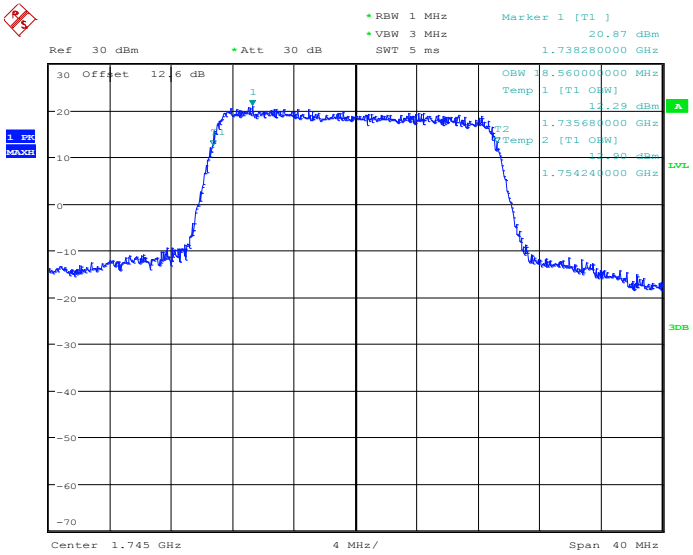
Date: 25.MAY.2014 09:05:55

26dB Bandwidth Plot on Channel 20175



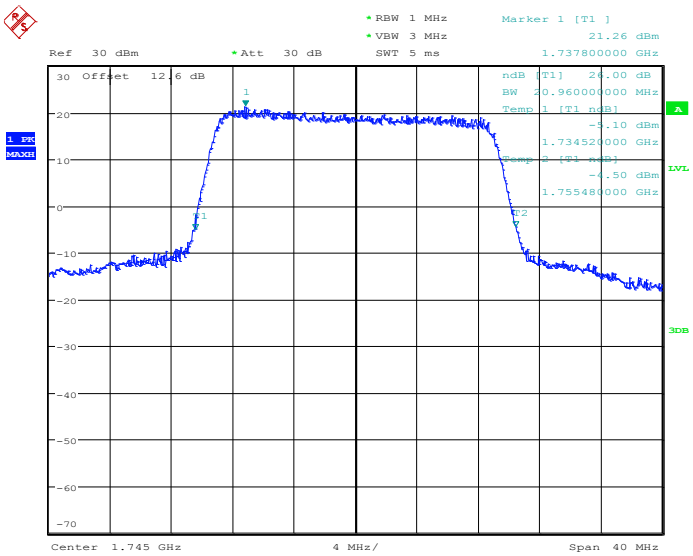
Date: 25.MAY.2014 09:06:29

99% Occupied Bandwidth Plot on Channel 20300



Date: 25.MAY.2014 09:09:04

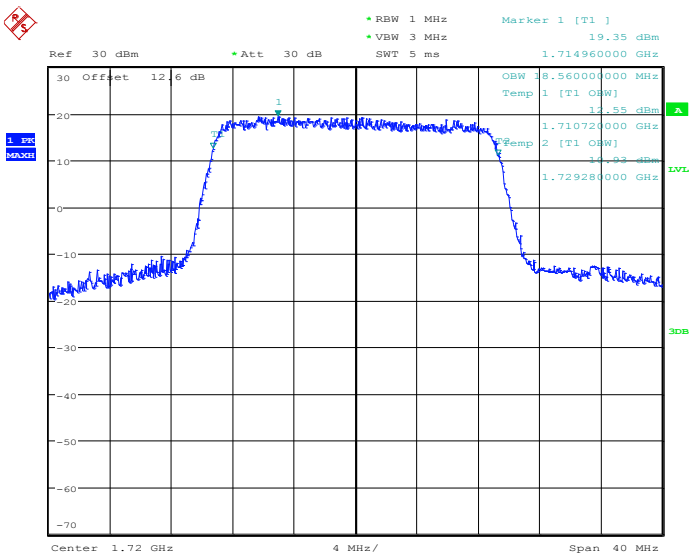
26dB Bandwidth Plot on Channel 20300



Date: 25.MAY.2014 09:09:39

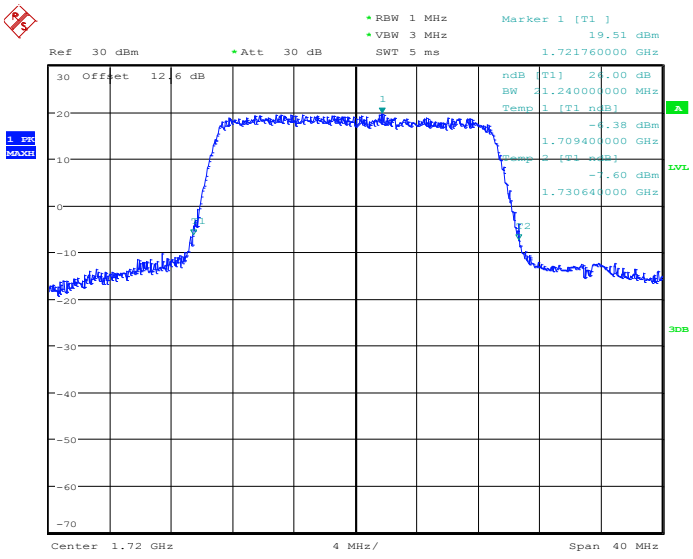
Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 20050



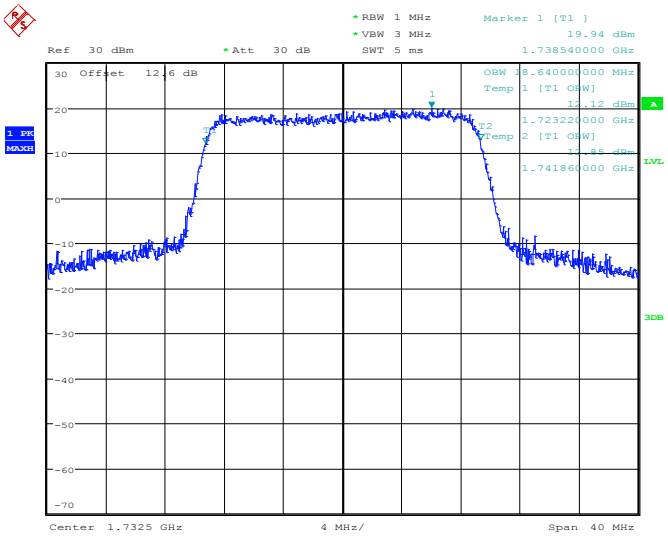
Date: 25.MAY.2014 08:59:52

26dB Bandwidth Plot on Channel 20050



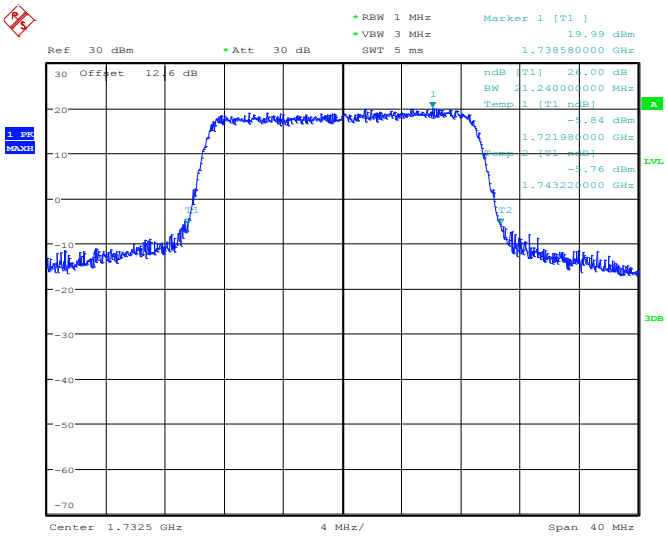
Date: 25.MAY.2014 09:00:28

99% Occupied Bandwidth Plot on Channel 20175



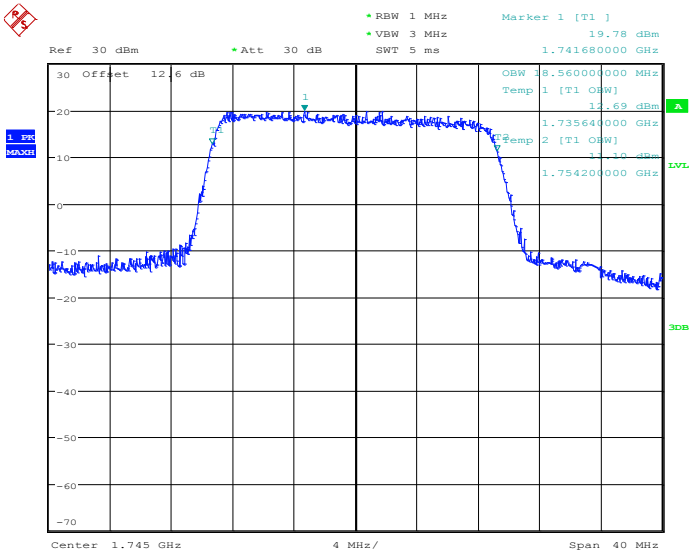
Date: 25.MAY.2014 09:06:11

26dB Bandwidth Plot on Channel 20175



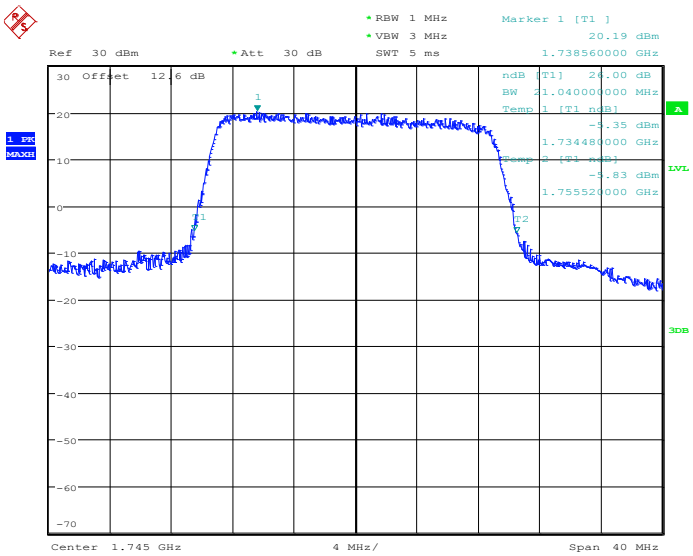
Date: 25.MAY.2014 09:06:47

99% Occupied Bandwidth Plot on Channel 20300



Date: 25.MAY.2014 09:09:21

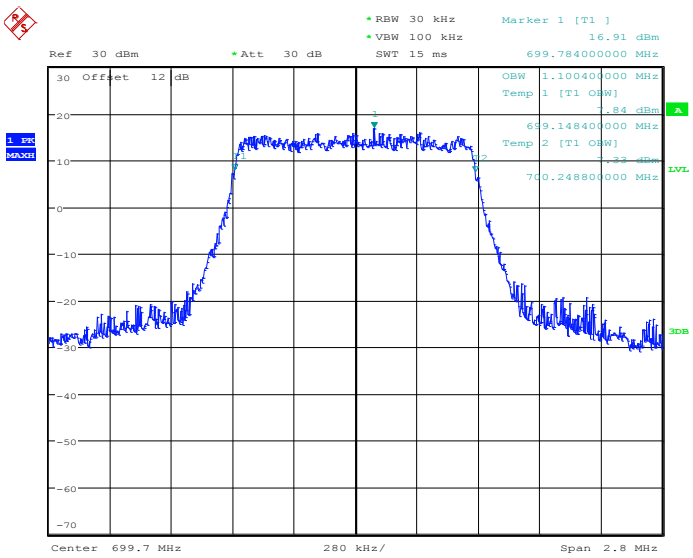
26dB Bandwidth Plot on Channel 20300



Date: 25.MAY.2014 09:09:57

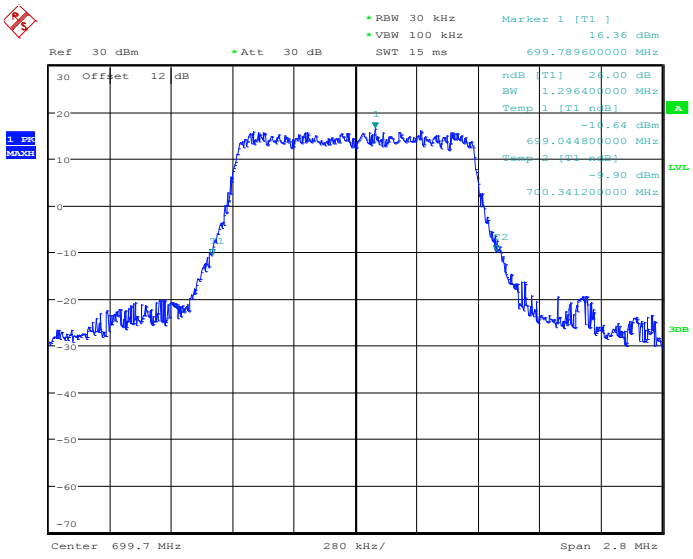
Band :	LTE Band 12	BW / Mod. :	1.4MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23017



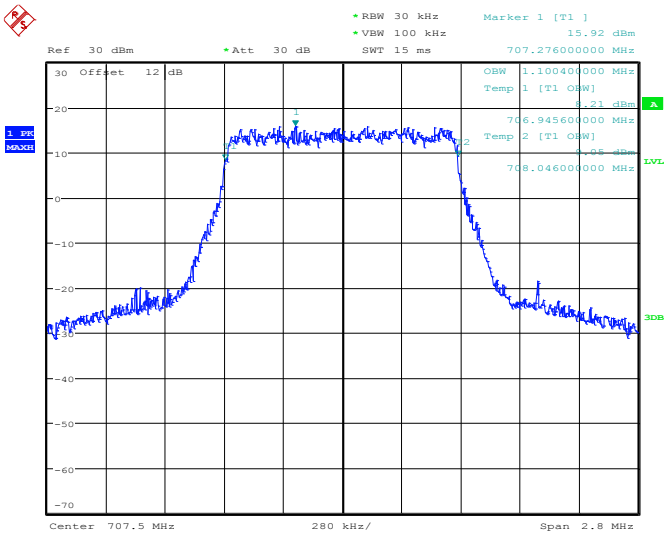
Date: 25.MAY.2014 09:59:32

26dB Bandwidth Plot on Channel 23017



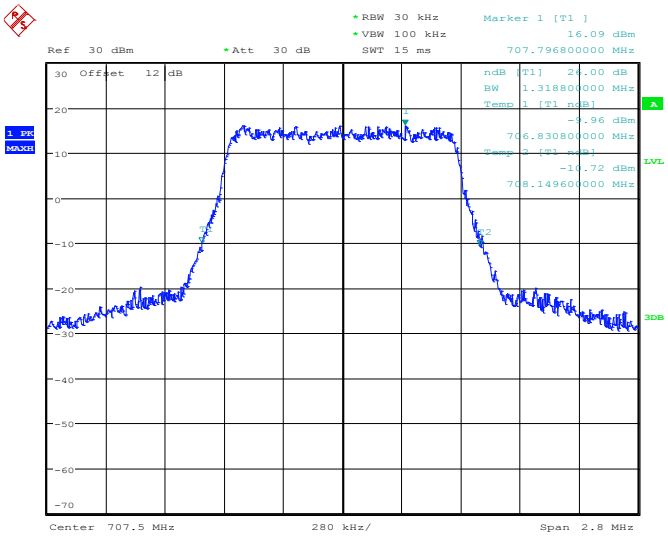
Date: 25.MAY.2014 10:00:24

99% Occupied Bandwidth Plot on Channel 23095



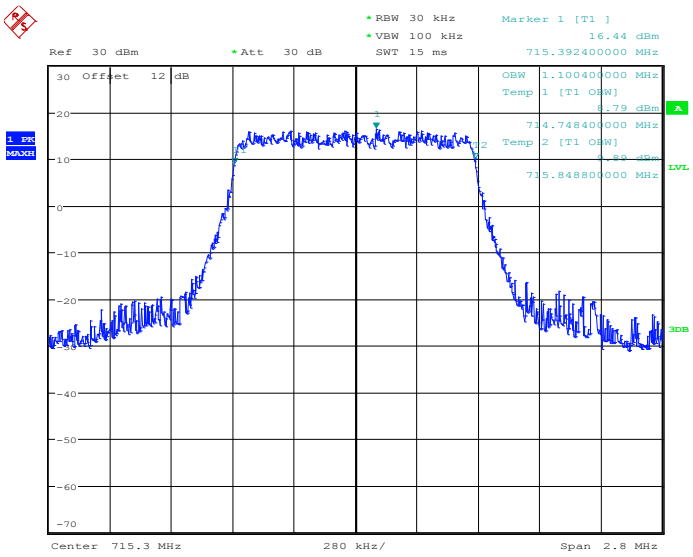
Date: 25.MAY.2014 10:28:58

26dB Bandwidth Plot on Channel 23095



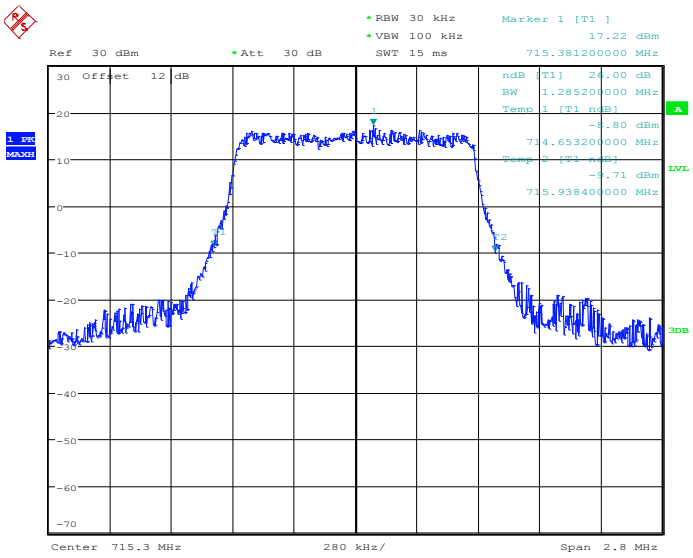
Date: 25.MAY.2014 10:29:16

99% Occupied Bandwidth Plot on Channel 23173



Date: 25.MAY.2014 10:31:51

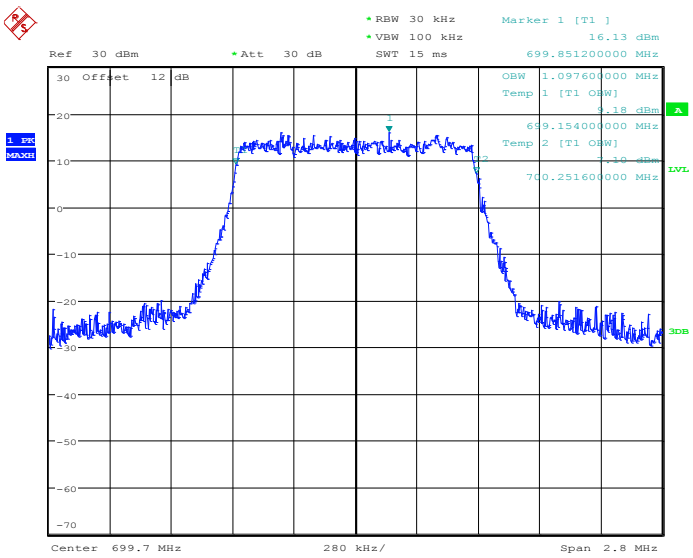
26dB Bandwidth Plot on Channel 23173



Date: 25.MAY.2014 10:32:43

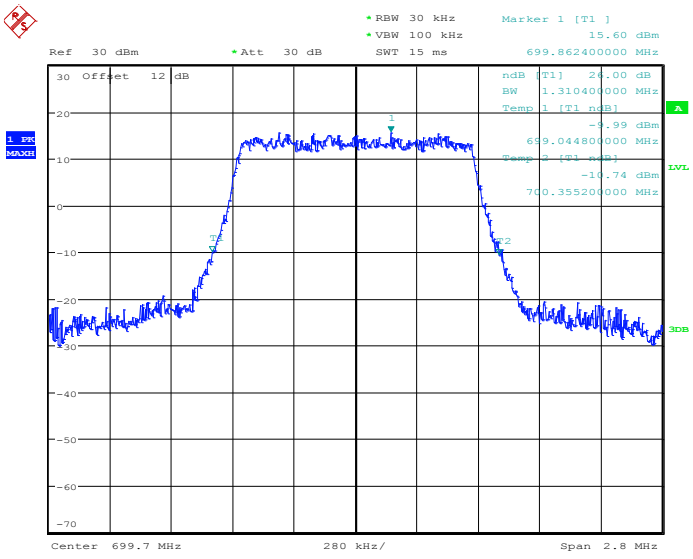
Band :	LTE Band 12	BW / Mod. :	1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23017



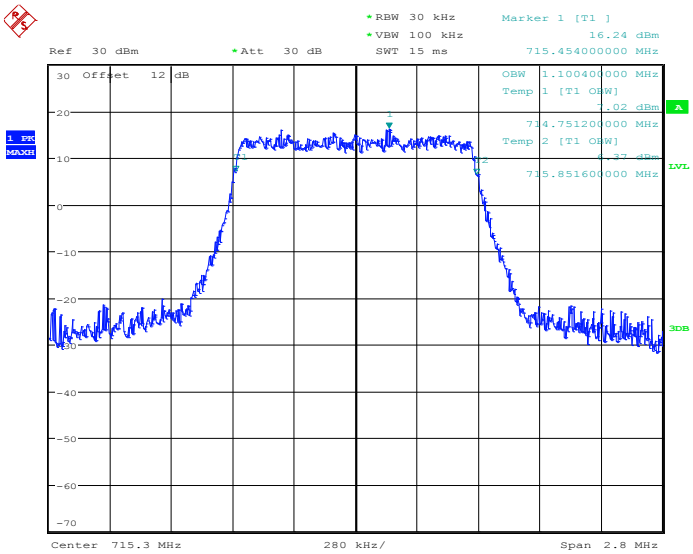
Date: 25.MAY.2014 09:59:48

26dB Bandwidth Plot on Channel 23017



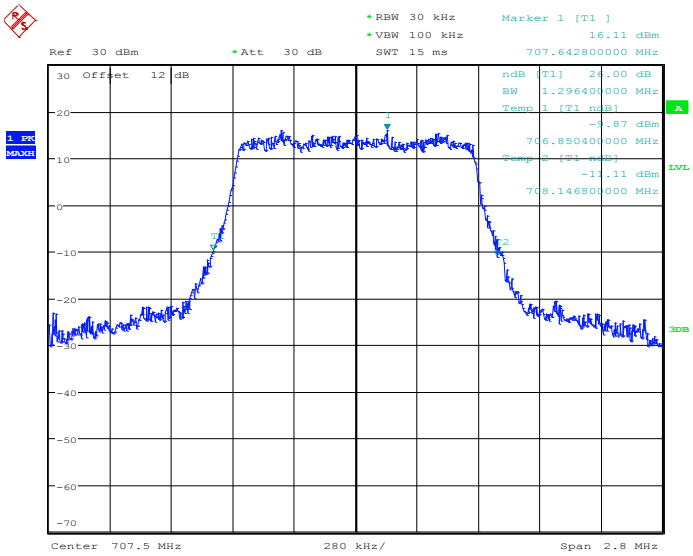
Date: 25.MAY.2014 10:00:06

99% Occupied Bandwidth Plot on Channel 23095



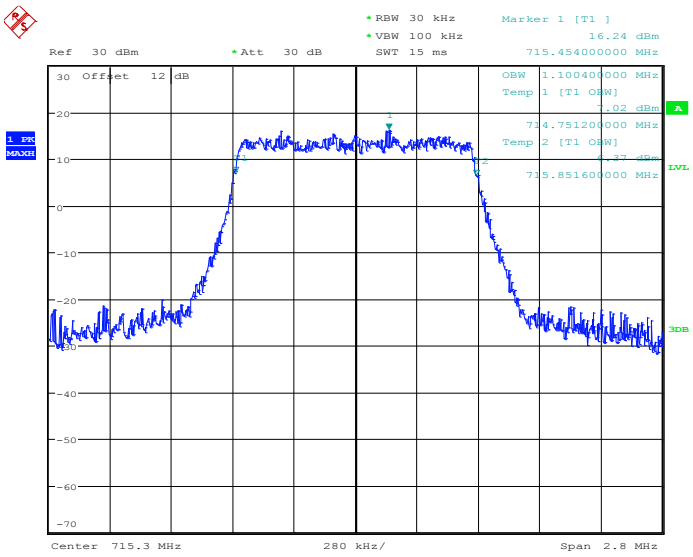
Date: 25.MAY.2014 10:32:07

26dB Bandwidth Plot on Channel 23095



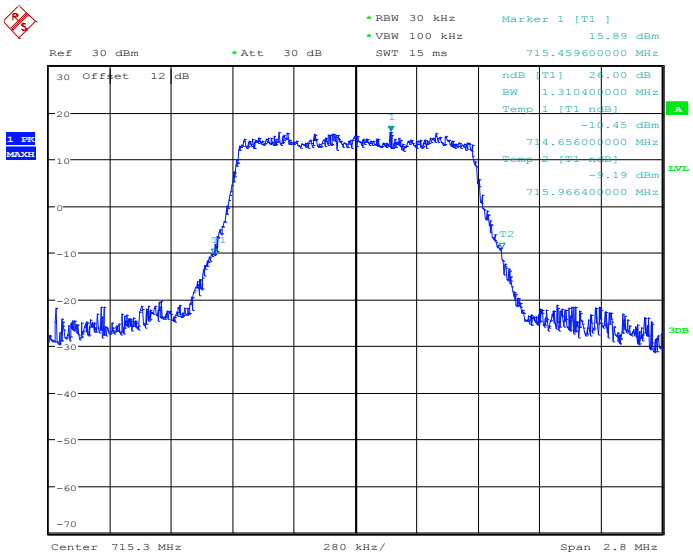
Date: 25.MAY.2014 10:29:34

99% Occupied Bandwidth Plot on Channel 23173



Date: 25.MAY.2014 10:32:07

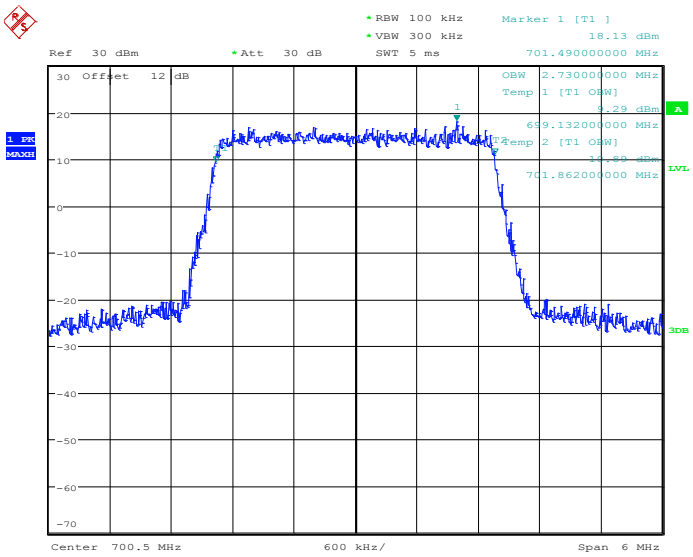
26dB Bandwidth Plot on Channel 23173



Date: 25.MAY.2014 10:32:25

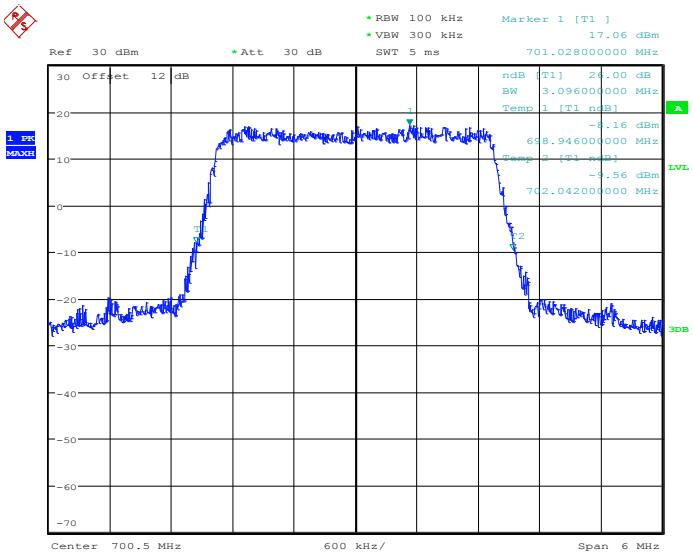
Band :	LTE Band 12	BW / Mod. :	3MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23025



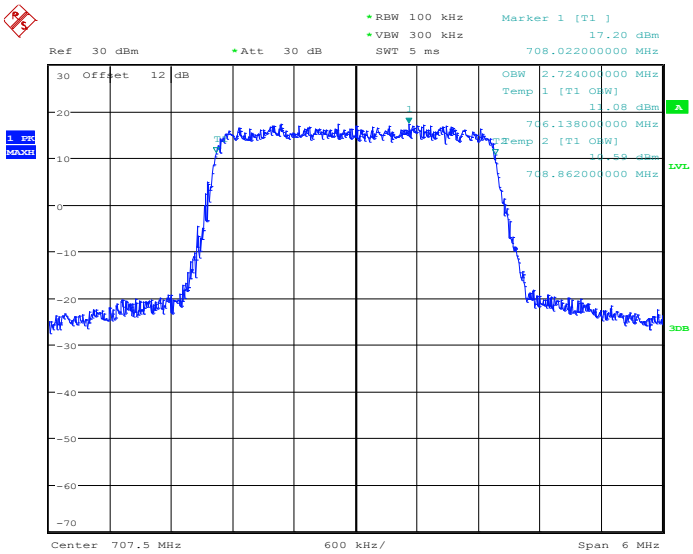
Date: 25.MAY.2014 10:38:17

26dB Bandwidth Plot on Channel 23025



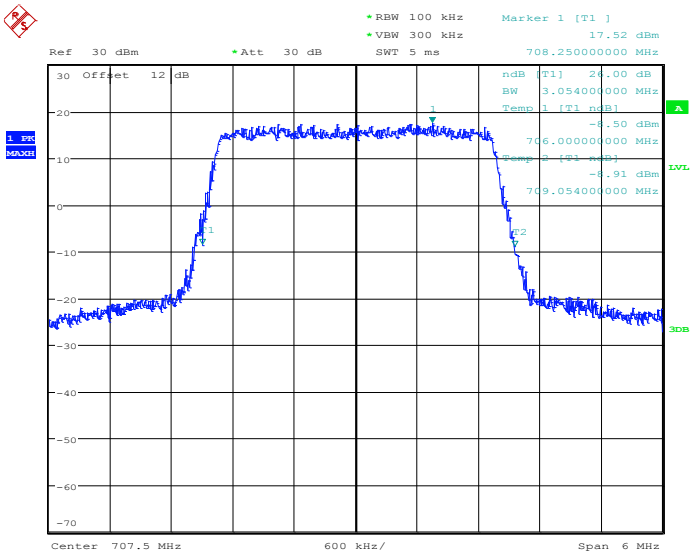
Date: 25.MAY.2014 10:39:09

99% Occupied Bandwidth Plot on Channel 23095



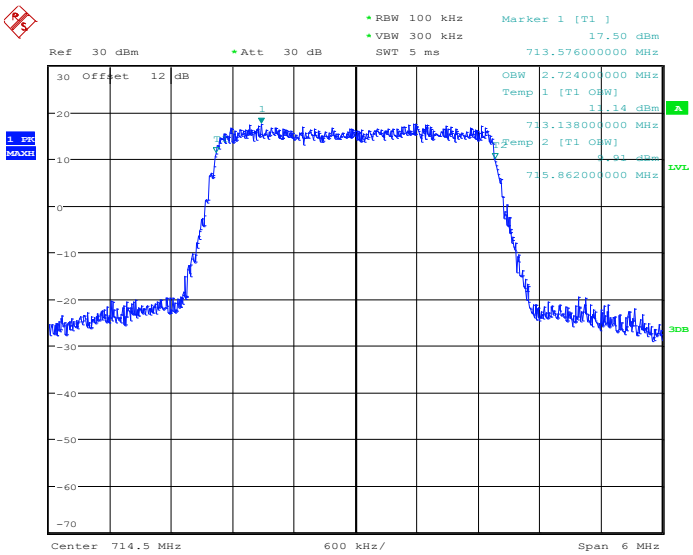
Date: 25.MAY.2014 10:45:59

26dB Bandwidth Plot on Channel 23095



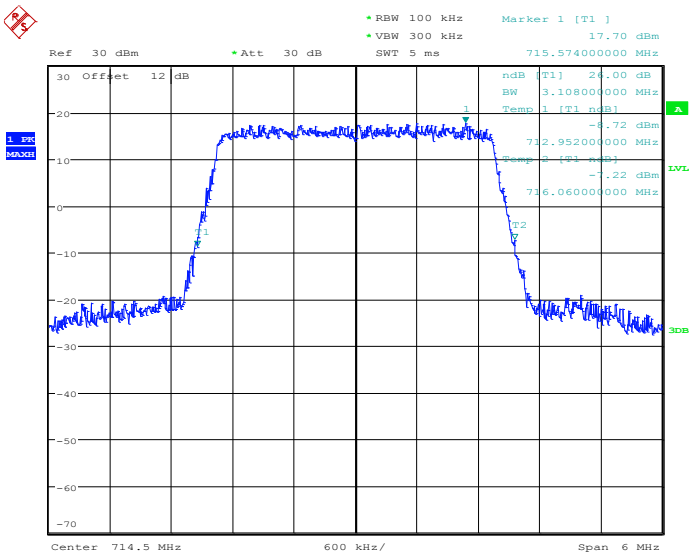
Date: 25.MAY.2014 10:46:17

99% Occupied Bandwidth Plot on Channel 23165



Date: 25.MAY.2014 10:48:52

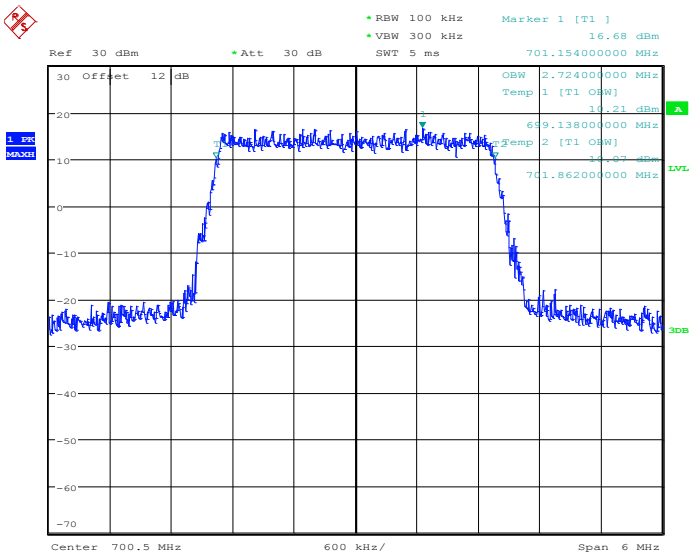
26dB Bandwidth Plot on Channel 23165



Date: 25.MAY.2014 10:49:44

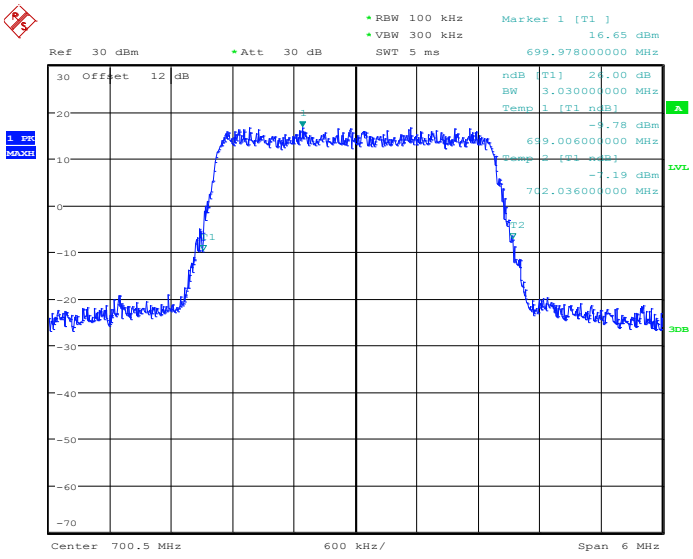
Band :	LTE Band 12	BW / Mod. :	3MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23025



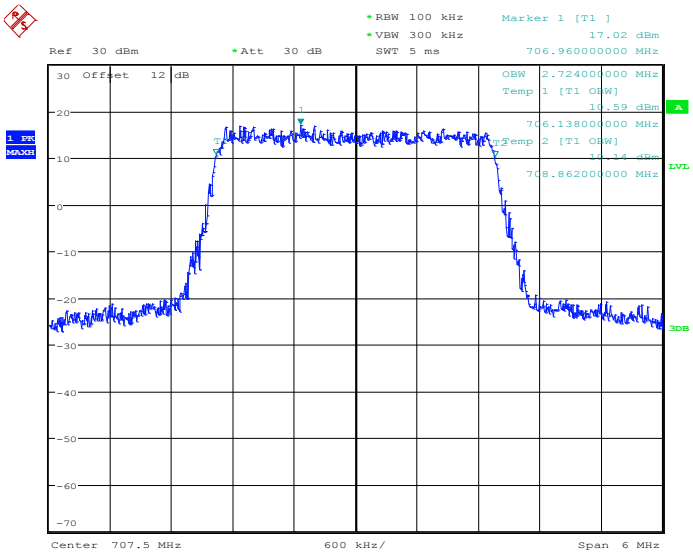
Date: 25.MAY.2014 10:38:33

26dB Bandwidth Plot on Channel 23025



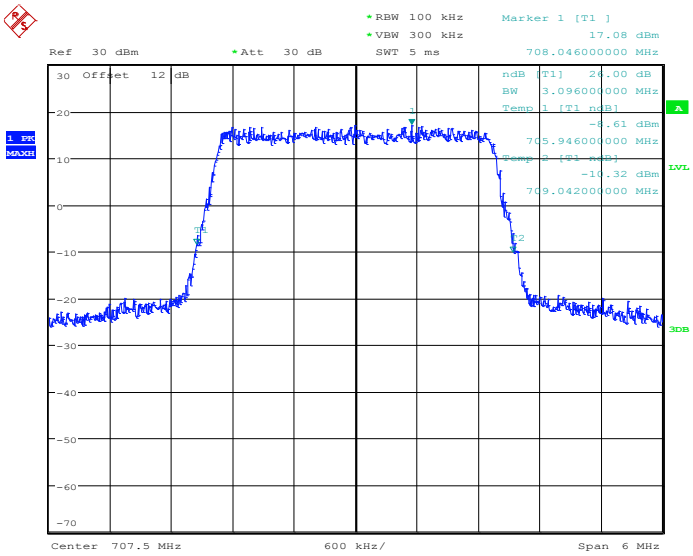
Date: 25.MAY.2014 10:38:51

99% Occupied Bandwidth Plot on Channel 23095



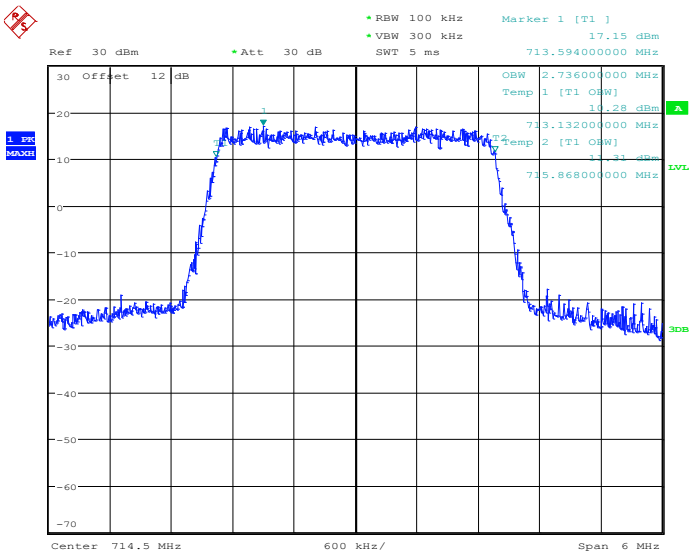
Date: 25.MAY.2014 10:45:43

26dB Bandwidth Plot on Channel 23095



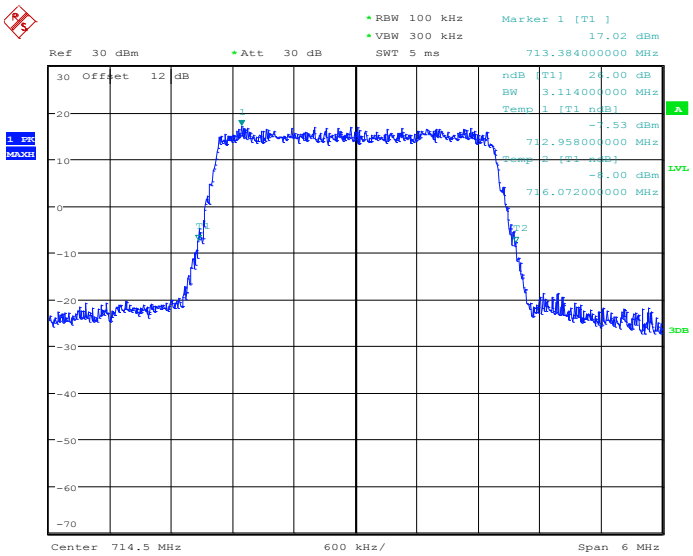
Date: 25.MAY.2014 10:46:35

99% Occupied Bandwidth Plot on Channel 23165



Date: 25.MAY.2014 10:49:08

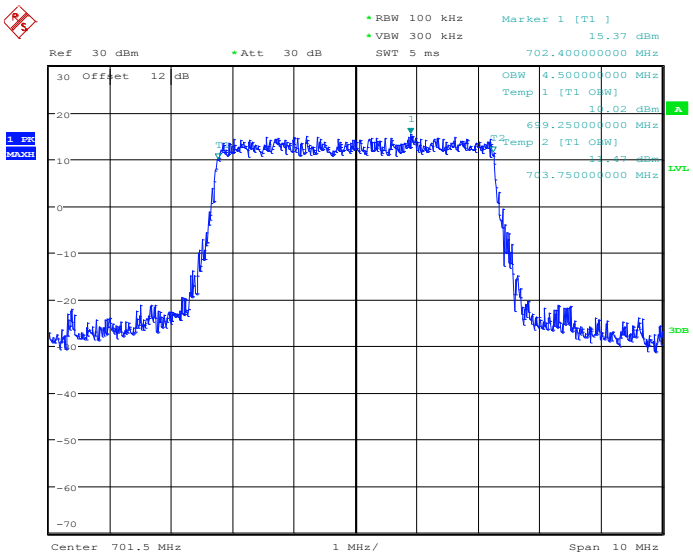
26dB Bandwidth Plot on Channel 23165



Date: 25.MAY.2014 10:49:26

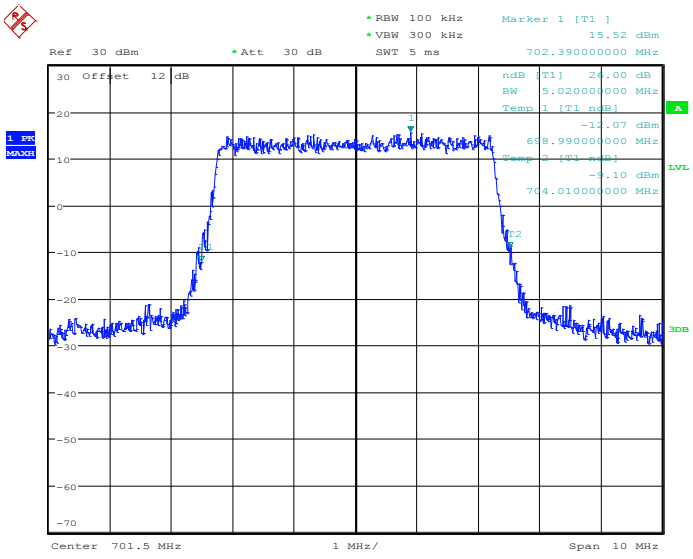
Band :	LTE Band 12	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23035



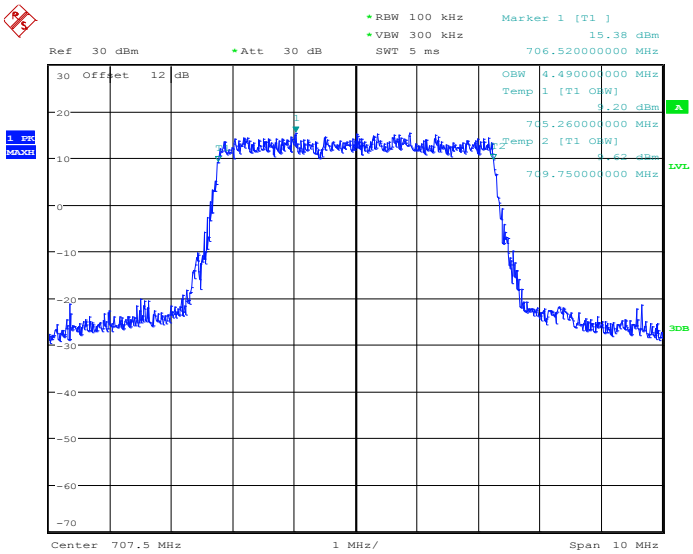
Date: 25.MAY.2014 10:55:21

26dB Bandwidth Plot on Channel 23035



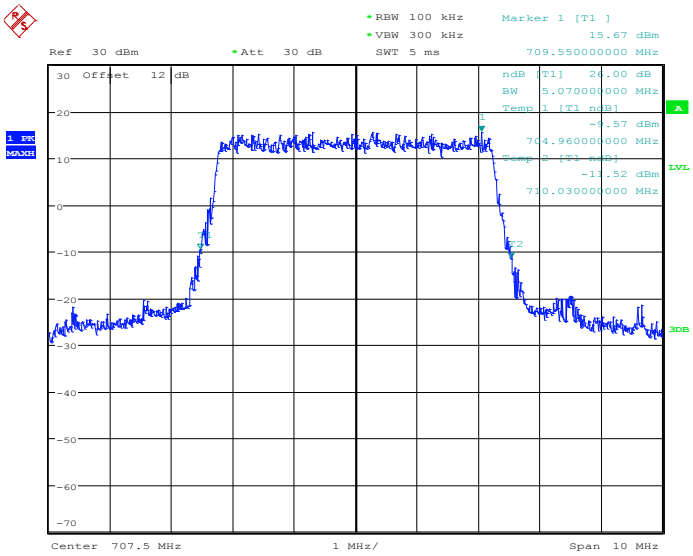
Date: 25.MAY.2014 10:56:13

99% Occupied Bandwidth Plot on Channel 23095



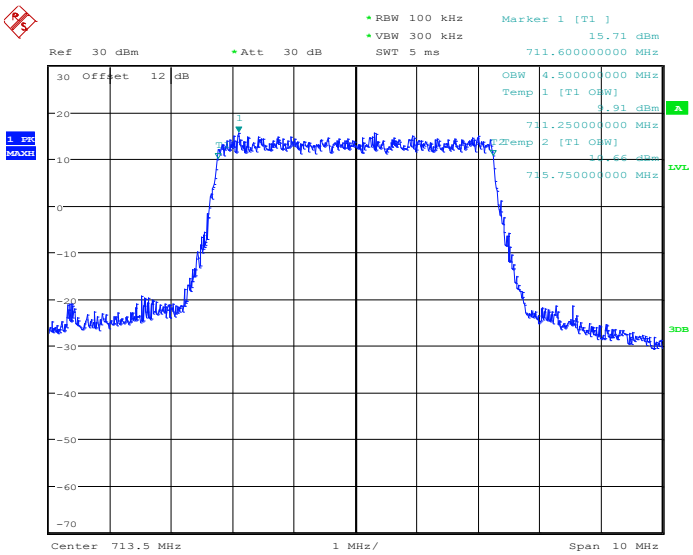
Date: 25.MAY.2014 11:02:27

26dB Bandwidth Plot on Channel 23095



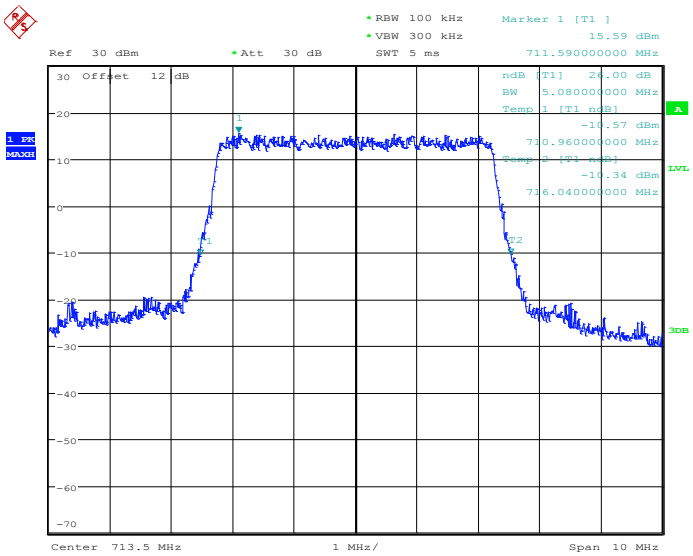
Date: 25.MAY.2014 11:02:45

99% Occupied Bandwidth Plot on Channel 23155



Date: 25.MAY.2014 11:05:20

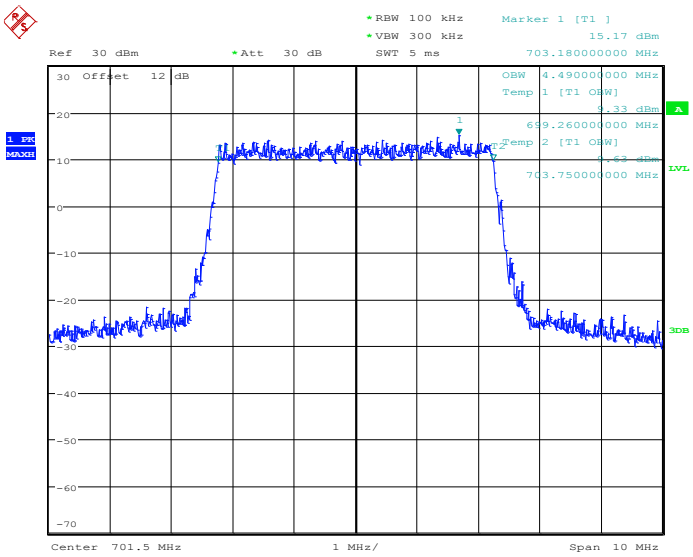
26dB Bandwidth Plot on Channel 23155



Date: 25.MAY.2014 11:06:13

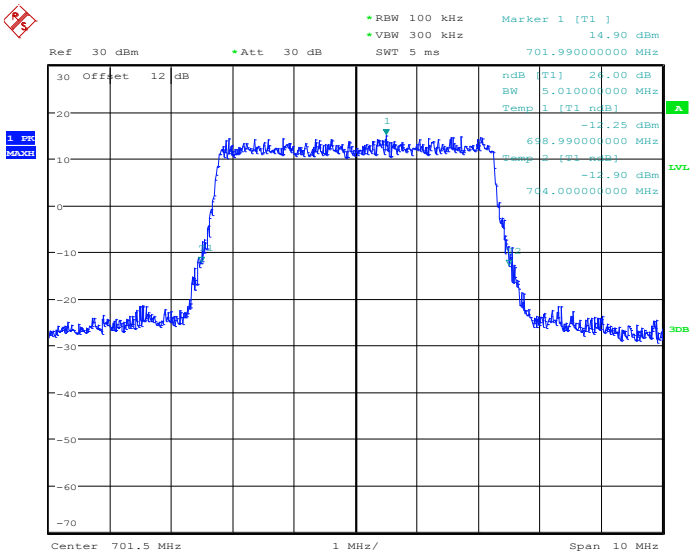
Band :	LTE Band 12	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23035



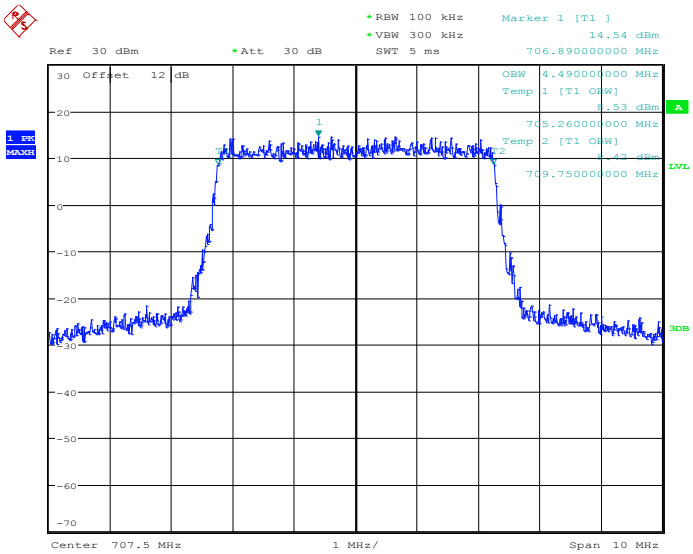
Date: 25.MAY.2014 10:55:37

26dB Bandwidth Plot on Channel 23035



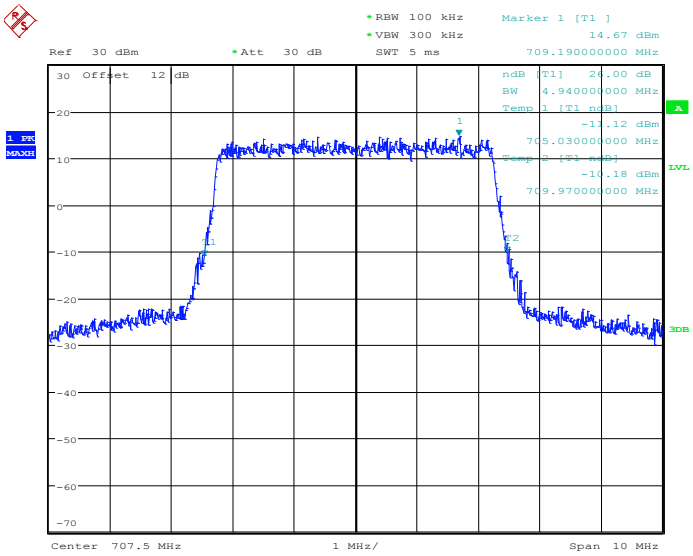
Date: 25.MAY.2014 10:55:55

99% Occupied Bandwidth Plot on Channel 23095



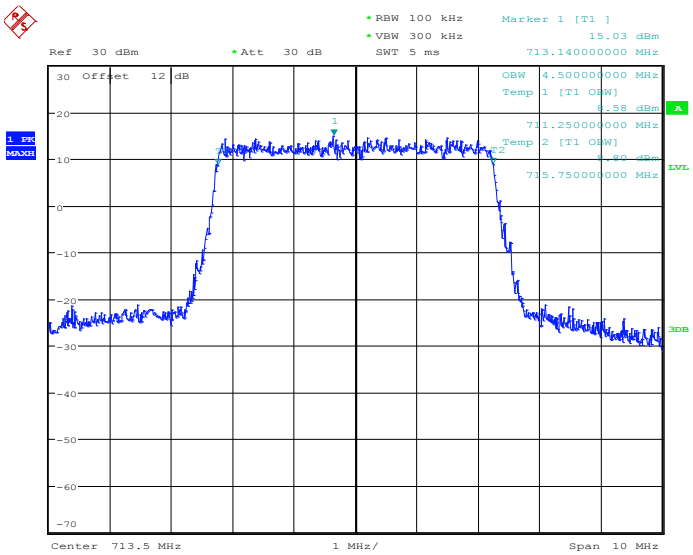
Date: 25.MAY.2014 11:02:11

26dB Bandwidth Plot on Channel 23095



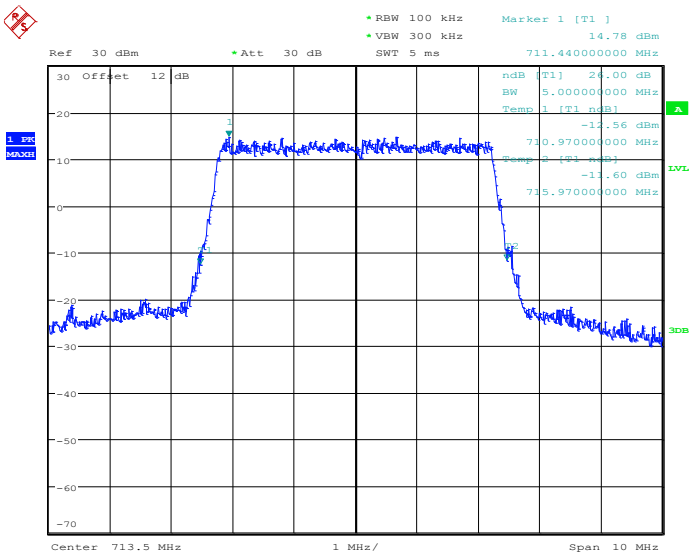
Date: 25.MAY.2014 11:03:03

99% Occupied Bandwidth Plot on Channel 23155



Date: 25.MAY.2014 11:05:37

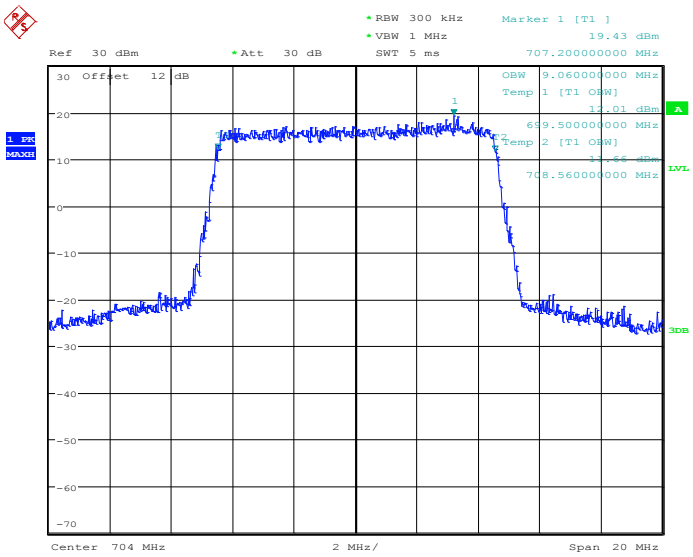
26dB Bandwidth Plot on Channel 23155



Date: 25.MAY.2014 11:05:55

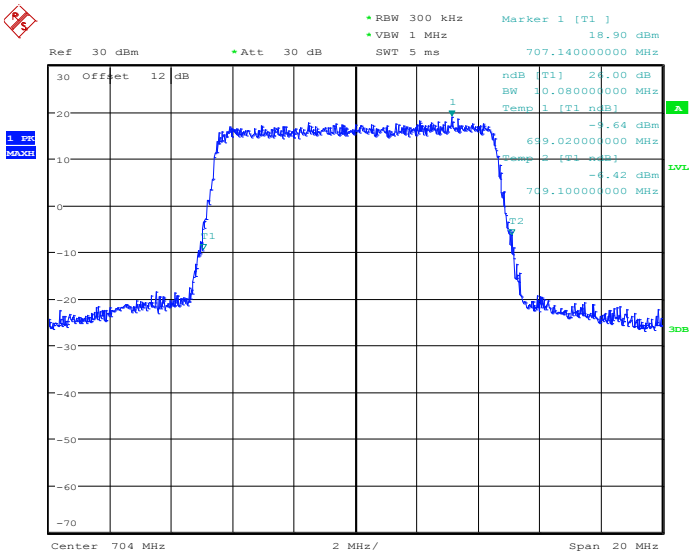
Band :	LTE Band 12	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23060



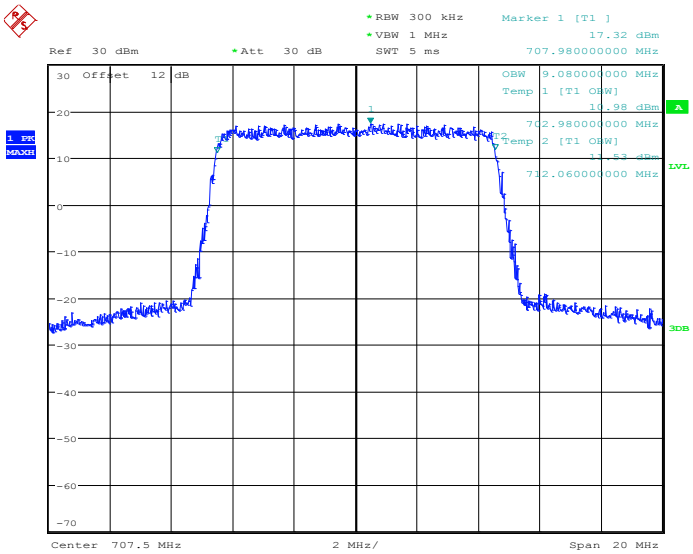
Date: 25.MAY.2014 11:36:28

26dB Bandwidth Plot on Channel 23060



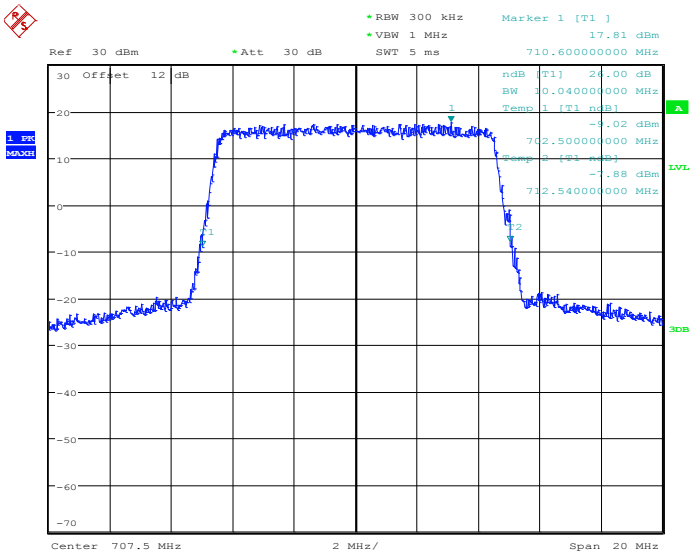
Date: 25.MAY.2014 11:37:21

99% Occupied Bandwidth Plot on Channel 23095



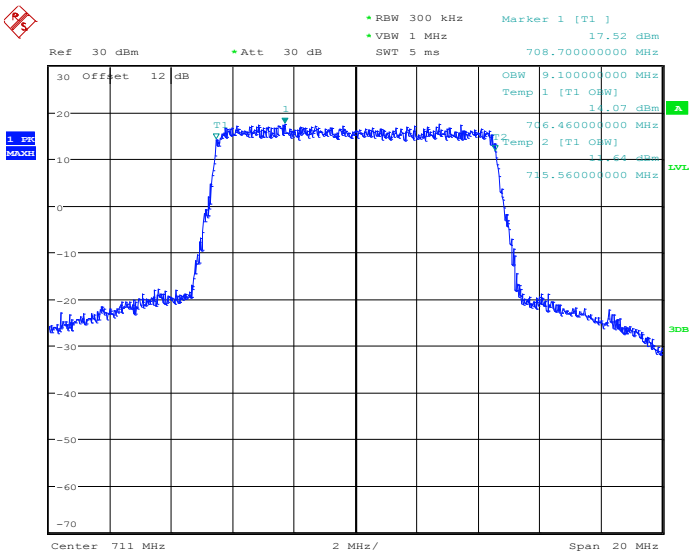
Date: 25.MAY.2014 11:37:53

26dB Bandwidth Plot on Channel 23095



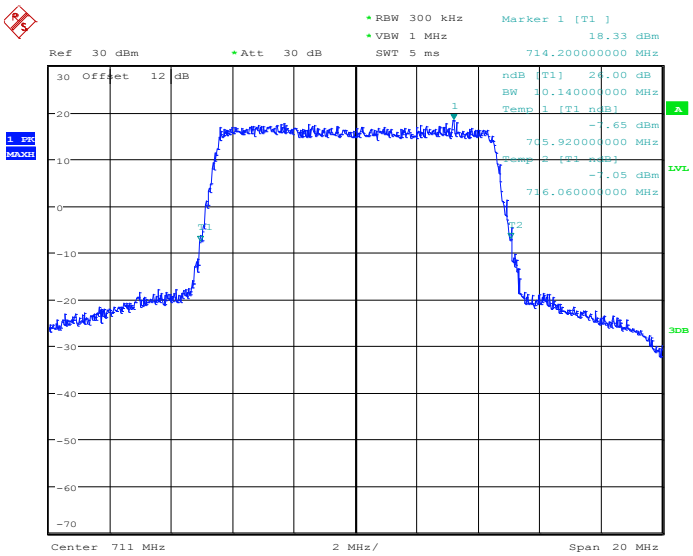
Date: 25.MAY.2014 11:38:12

99% Occupied Bandwidth Plot on Channel 23130



Date: 25.MAY.2014 11:38:46

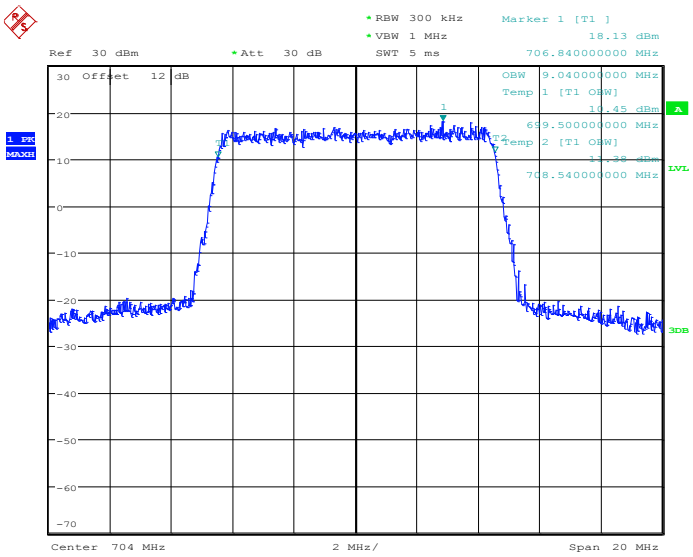
26dB Bandwidth Plot on Channel 23130



Date: 25.MAY.2014 11:39:40

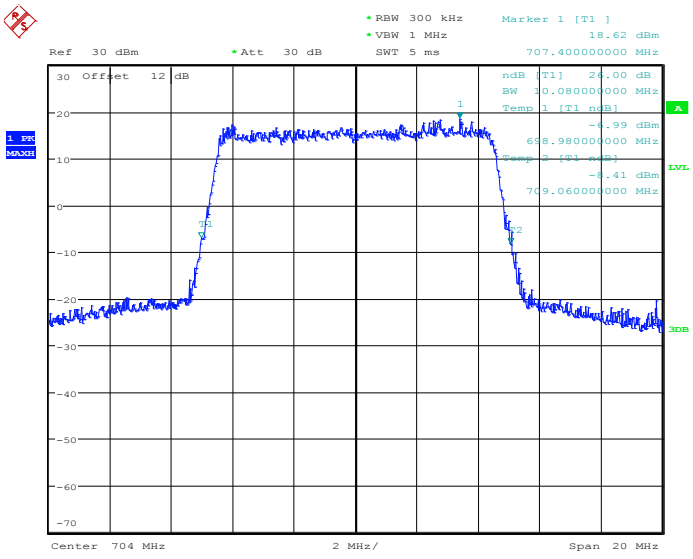
Band :	LTE Band 12	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23060



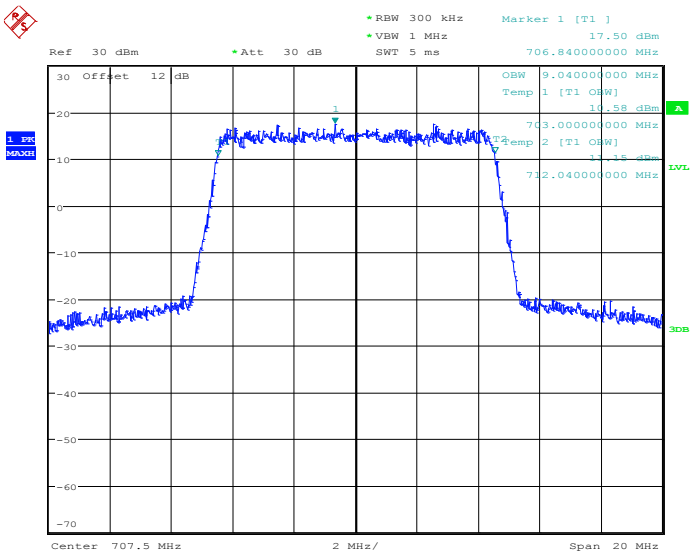
Date: 25.MAY.2014 11:36:45

26dB Bandwidth Plot on Channel 23060



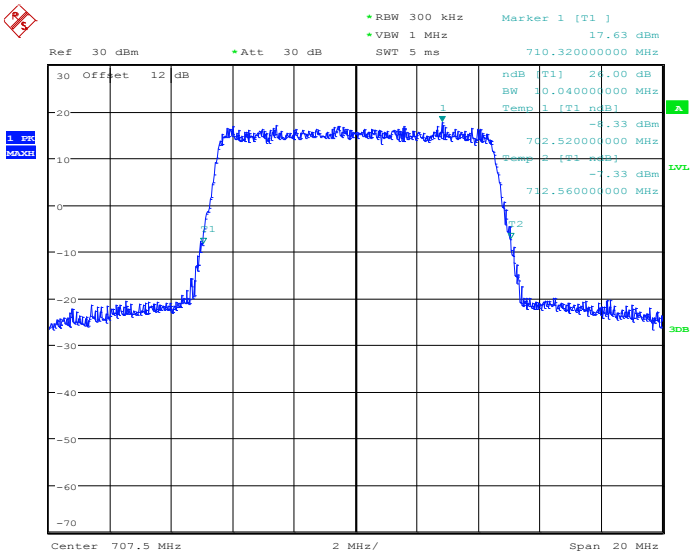
Date: 25.MAY.2014 11:37:03

99% Occupied Bandwidth Plot on Channel 23095



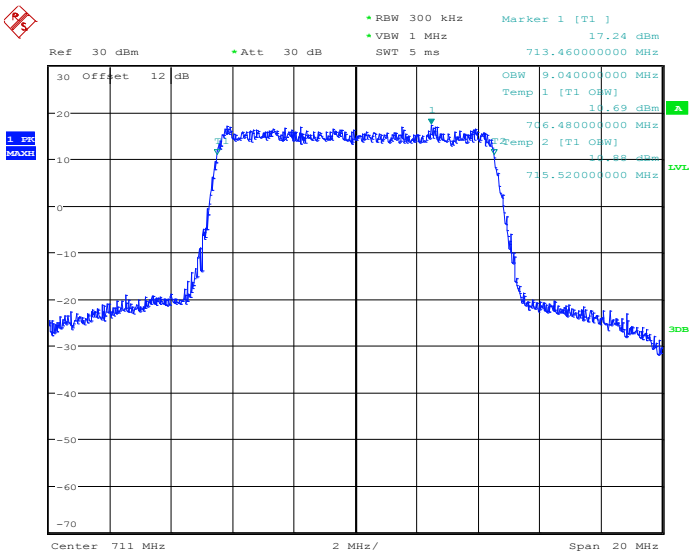
Date: 25.MAY.2014 11:37:37

26dB Bandwidth Plot on Channel 23095



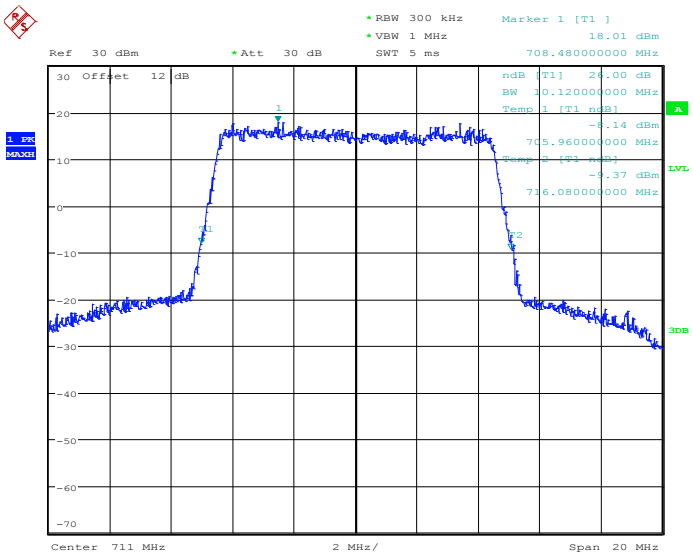
Date: 25.MAY.2014 11:38:30

99% Occupied Bandwidth Plot on Channel 23130



Date: 25.MAY.2014 11:39:03

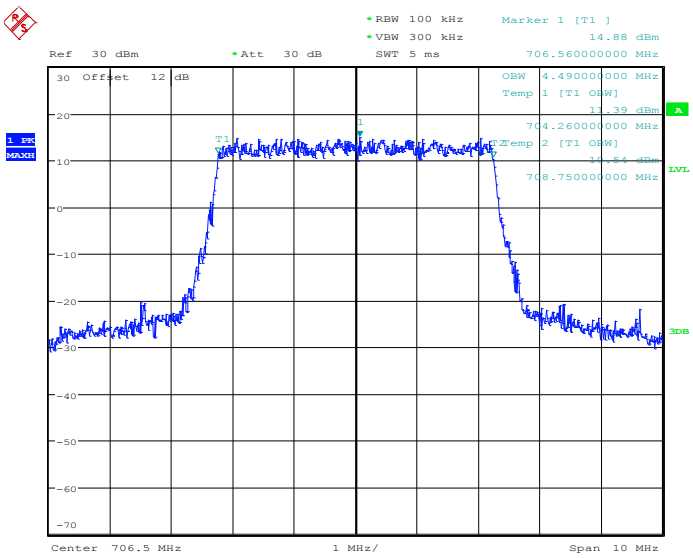
26dB Bandwidth Plot on Channel 23130



Date: 25.MAY.2014 11:39:21

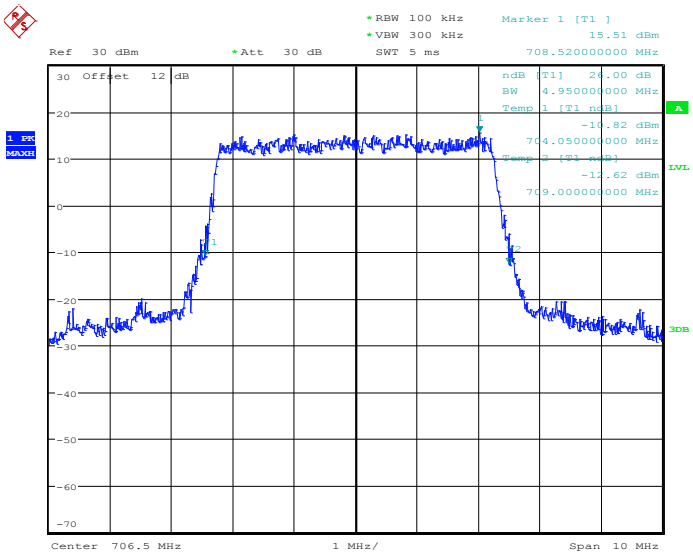
Band :	LTE Band 17	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23755



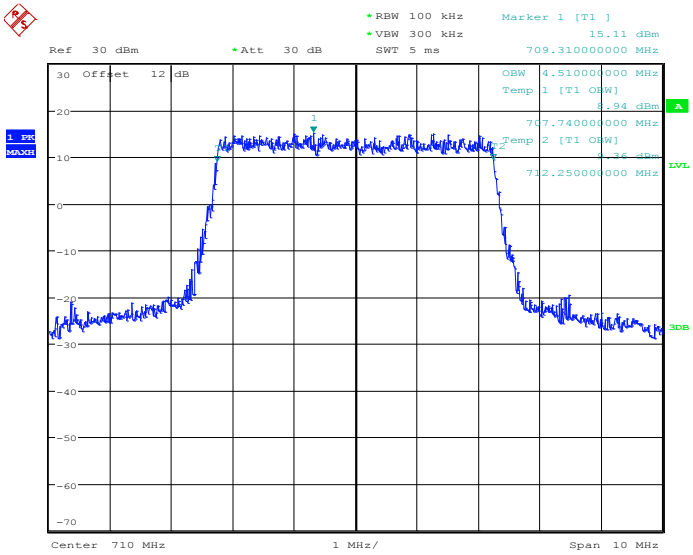
Date: 25.MAY.2014 09:23:17

26dB Bandwidth Plot on Channel 23755



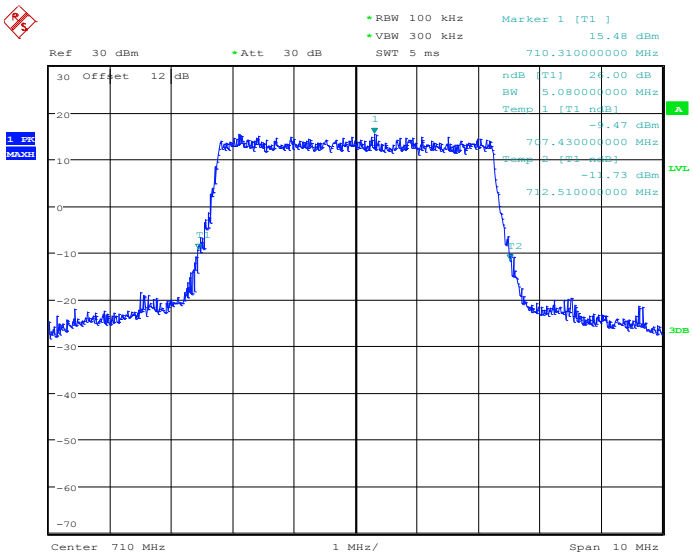
Date: 25.MAY.2014 09:23:51

99% Occupied Bandwidth Plot on Channel 23790



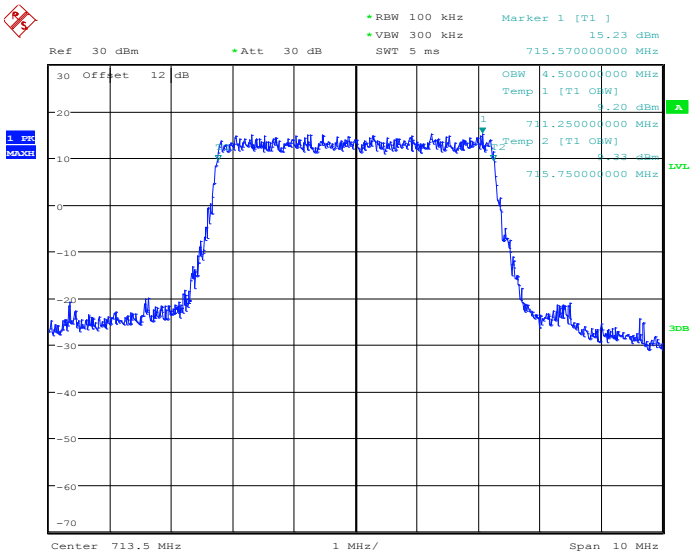
Date: 25.MAY.2014 09:29:36

26dB Bandwidth Plot on Channel 23790

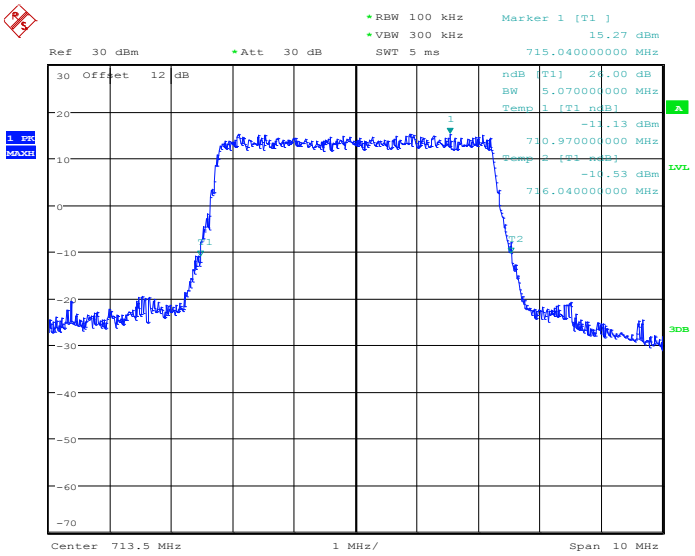


Date: 25.MAY.2014 09:30:10

99% Occupied Bandwidth Plot on Channel 23825

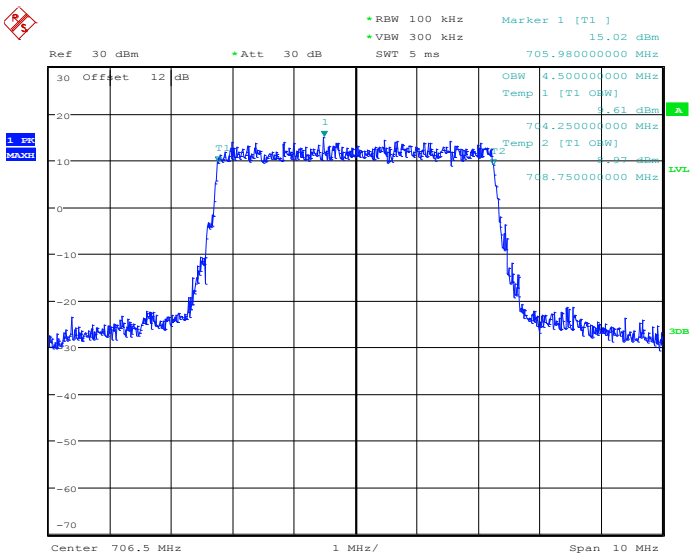


26dB Bandwidth Plot on Channel 23825

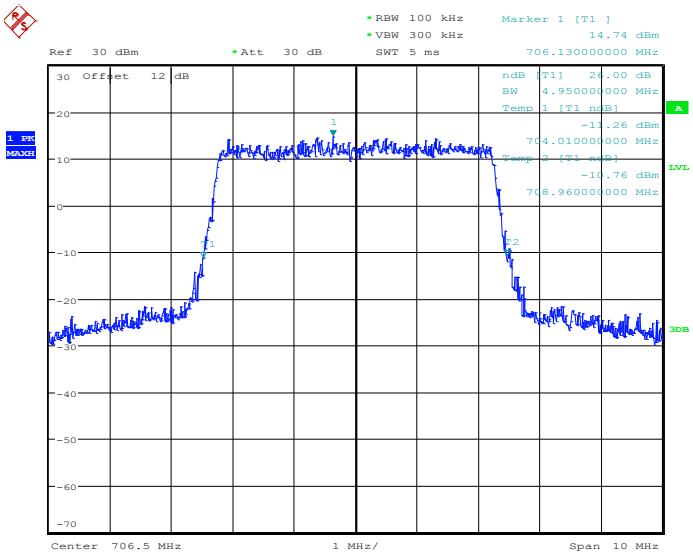


Band :	LTE Band 17	BW / Mod. :	5MHz / 16QAM

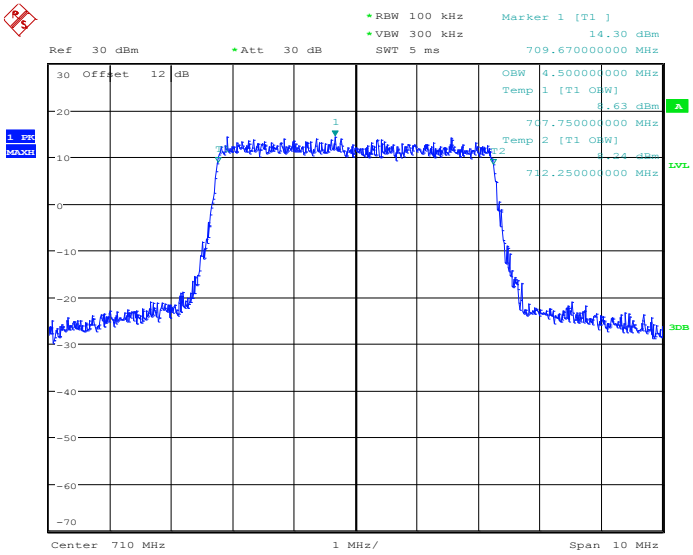
99% Occupied Bandwidth Plot on Channel 23755



26dB Bandwidth Plot on Channel 23755

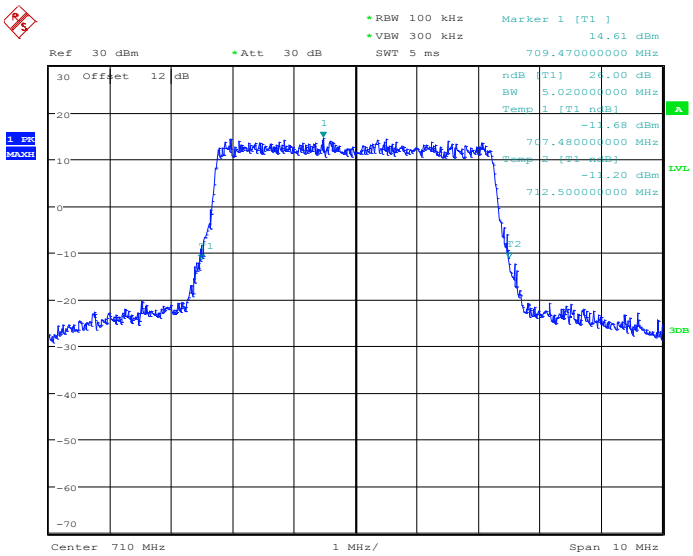


99% Occupied Bandwidth Plot on Channel 23790



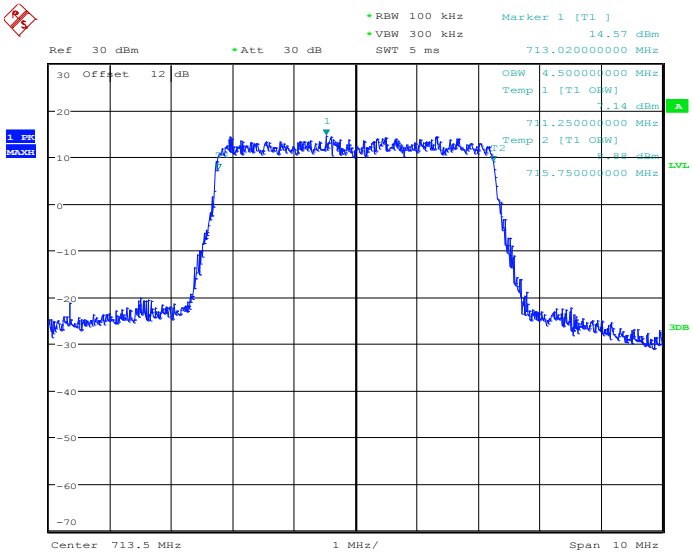
Date: 25.MAY.2014 09:29:52

26dB Bandwidth Plot on Channel 23790



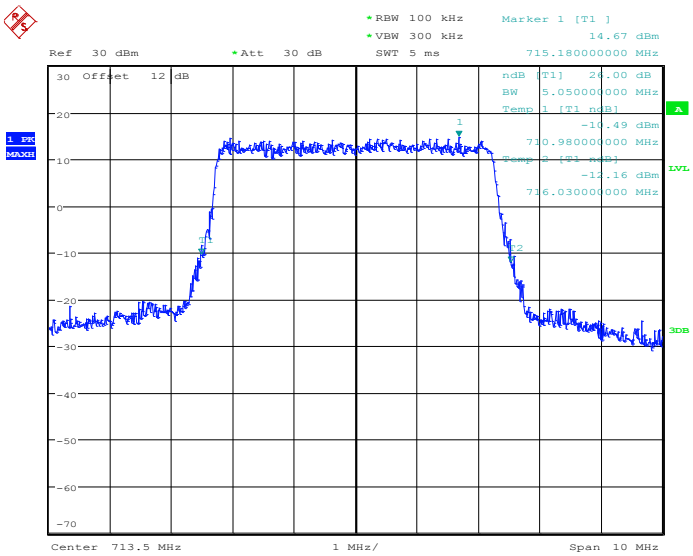
Date: 25.MAY.2014 09:30:28

99% Occupied Bandwidth Plot on Channel 23855



Date: 25.MAY.2014 09:33:01

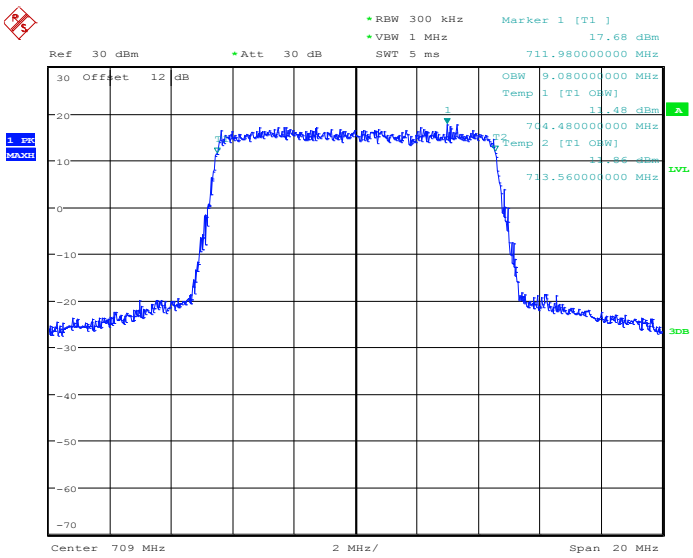
26dB Bandwidth Plot on Channel 23855



Date: 25.MAY.2014 09:33:37

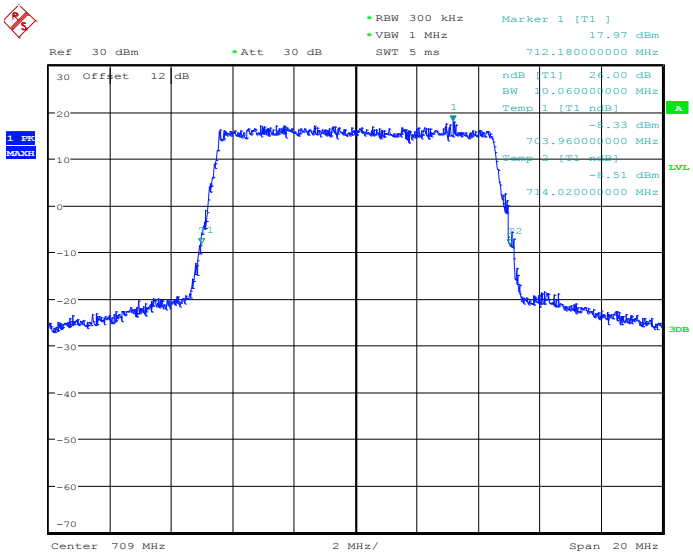
Band :	LTE Band 17	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 23780



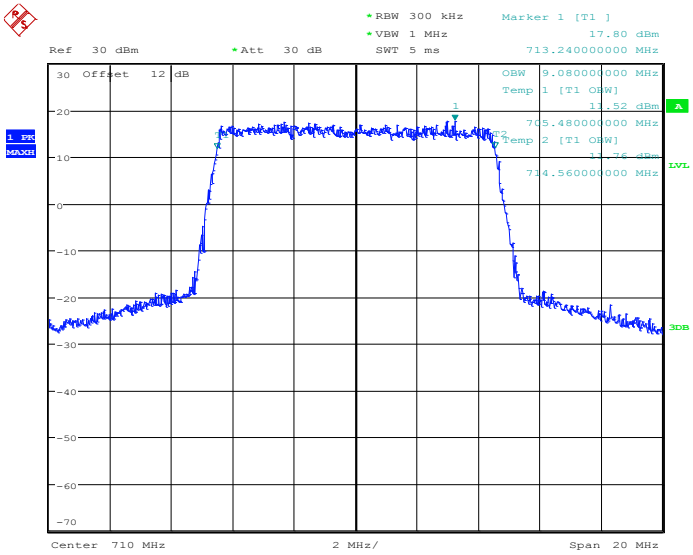
Date: 25.MAY.2014 09:39:09

26dB Bandwidth Plot on Channel 23780



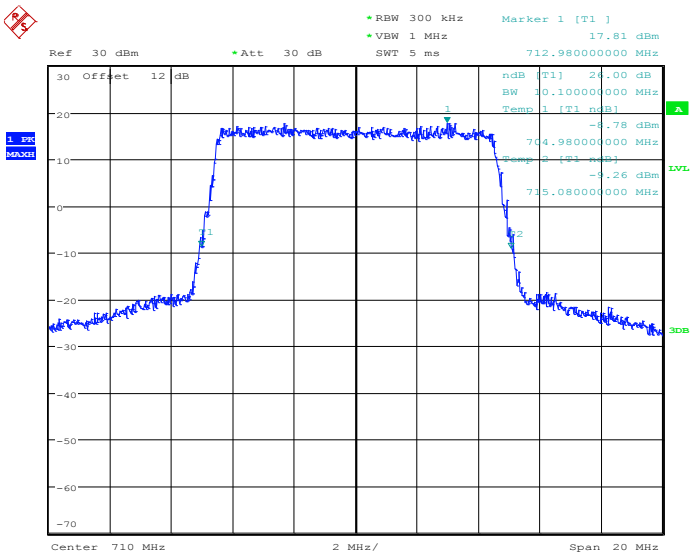
Date: 25.MAY.2014 09:39:43

99% Occupied Bandwidth Plot on Channel 23790



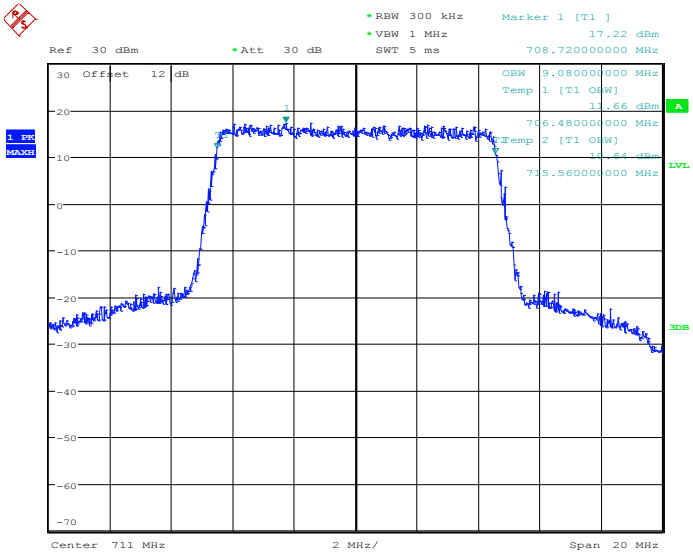
Date: 25.MAY.2014 09:45:30

26dB Bandwidth Plot on Channel 23790



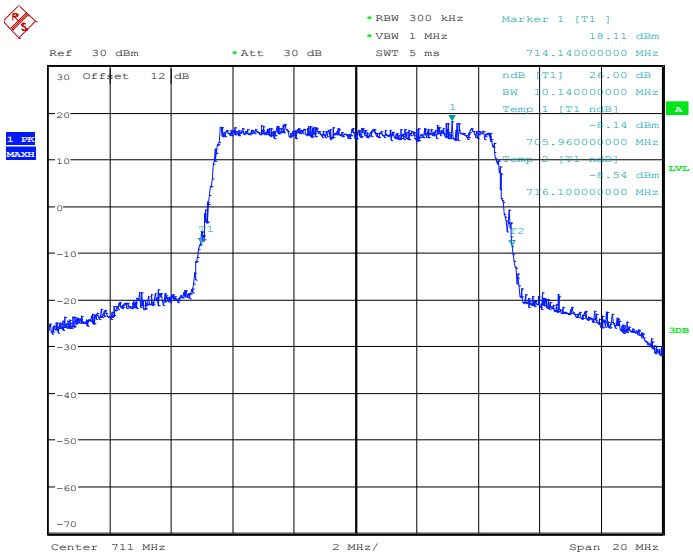
Date: 25.MAY.2014 09:46:04

99% Occupied Bandwidth Plot on Channel 23800



Date: 25.MAY.2014 09:48:39

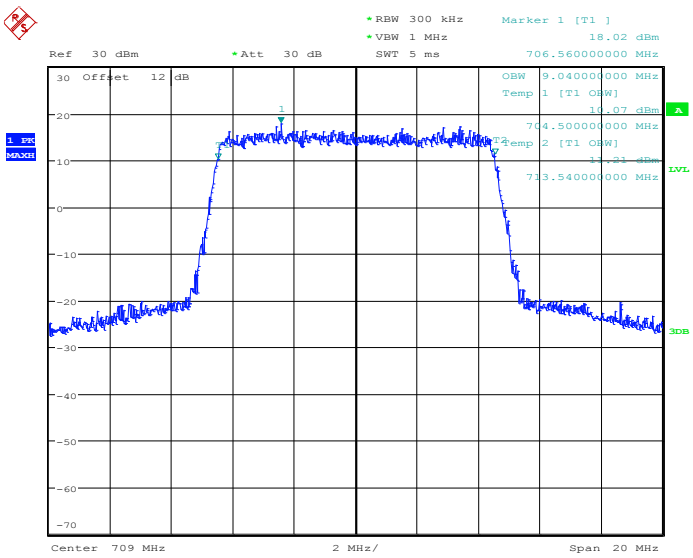
26dB Bandwidth Plot on Channel 23800



Date: 25.MAY.2014 09:49:13

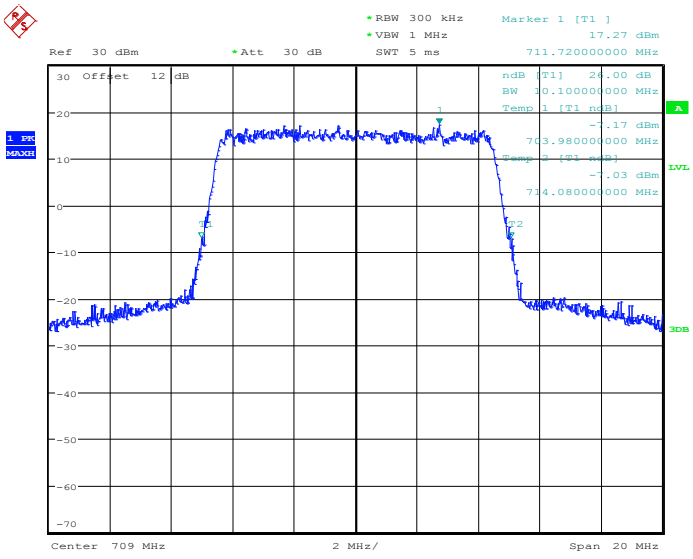
Band :	LTE Band 17	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 23780



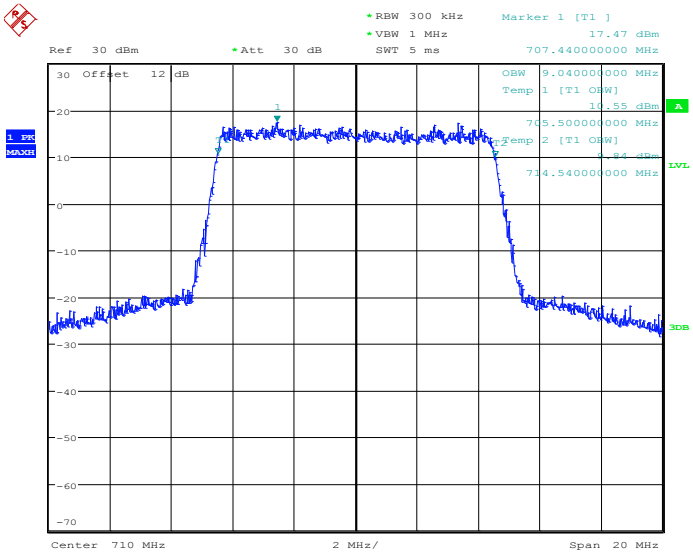
Date: 25.MAY.2014 09:39:25

26dB Bandwidth Plot on Channel 23780



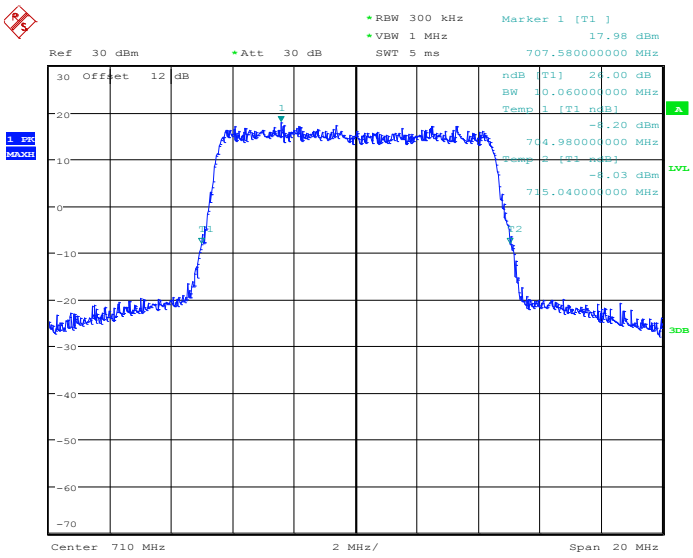
Date: 25.MAY.2014 09:40:01

99% Occupied Bandwidth Plot on Channel 23790



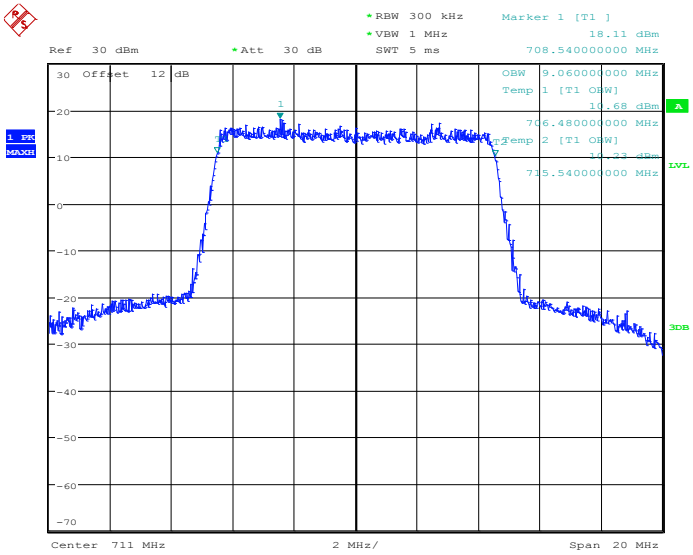
Date: 25.MAY.2014 09:45:46

26dB Bandwidth Plot on Channel 23790



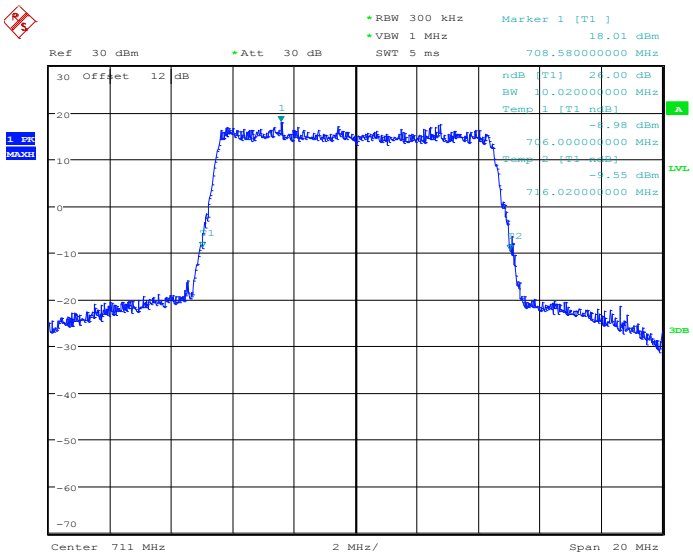
Date: 25.MAY.2014 09:46:22

99% Occupied Bandwidth Plot on Channel 23800



Date: 25.MAY.2014 09:48:55

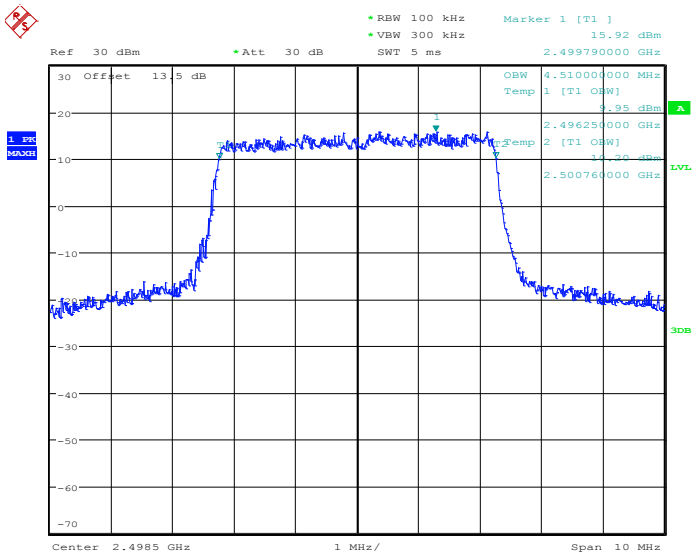
26dB Bandwidth Plot on Channel 23800



Date: 25.MAY.2014 09:49:31

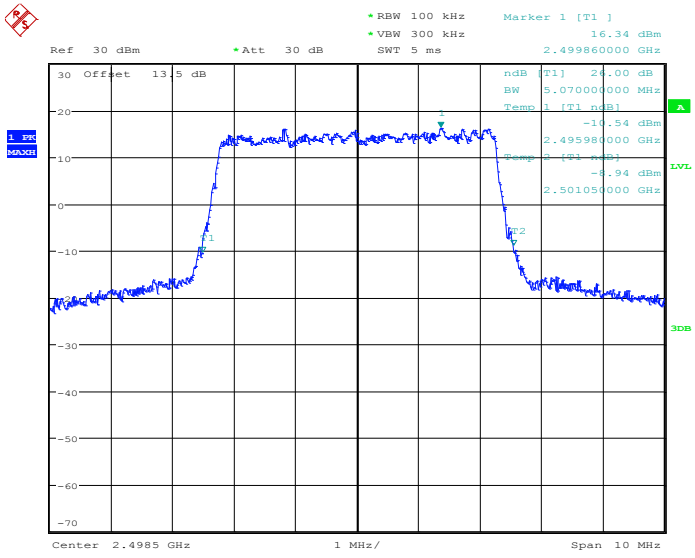
Band :	LTE Band 41	BW / Mod. :	5MHz / QPSK

99% Occupied Bandwidth Plot on Channel 36975



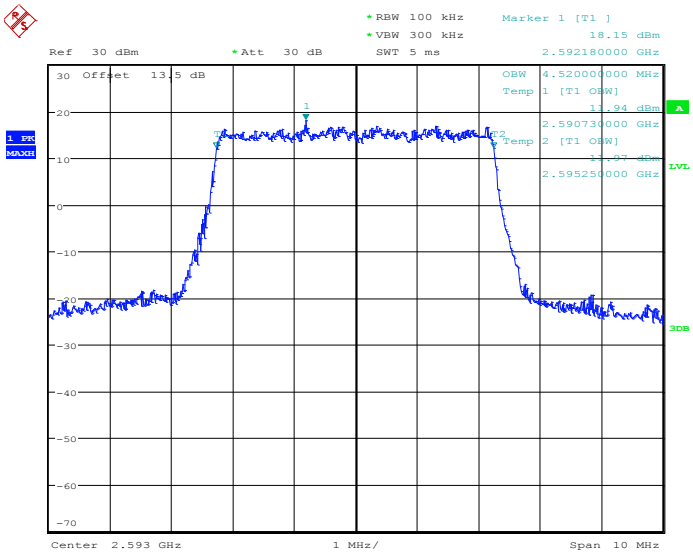
Date: 25.MAY.2014 13:23:51

26dB Bandwidth Plot on Channel 36975



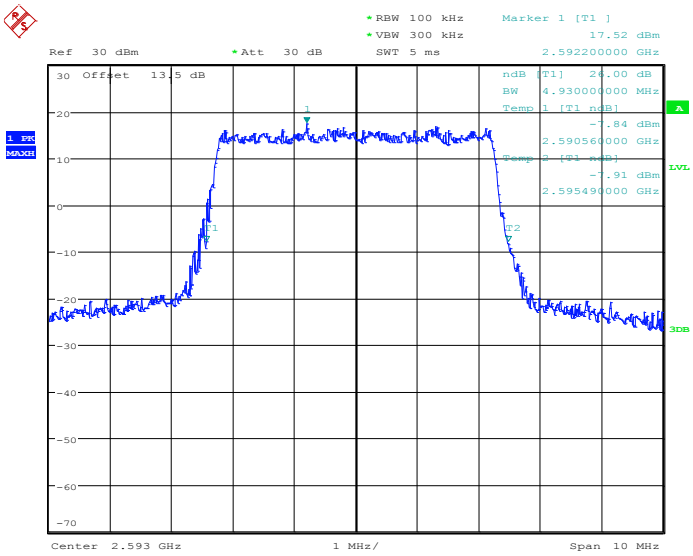
Date: 25.MAY.2014 13:26:48

99% Occupied Bandwidth Plot on Channel 40620



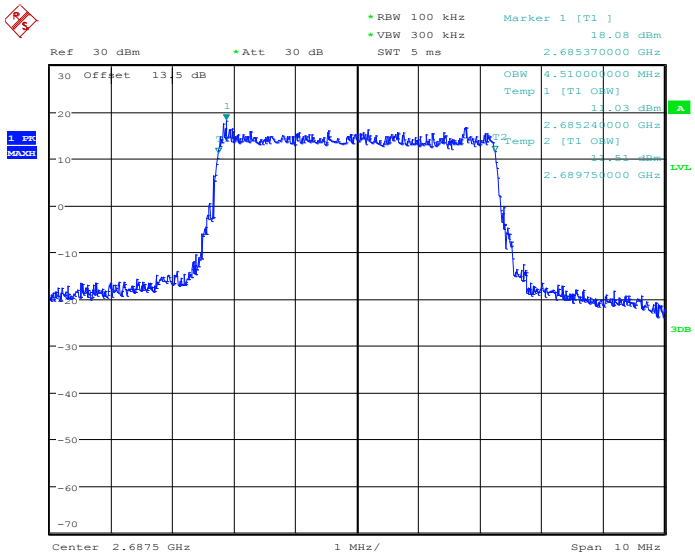
Date: 25.MAY.2014 13:22:27

26dB Bandwidth Plot on Channel 40620



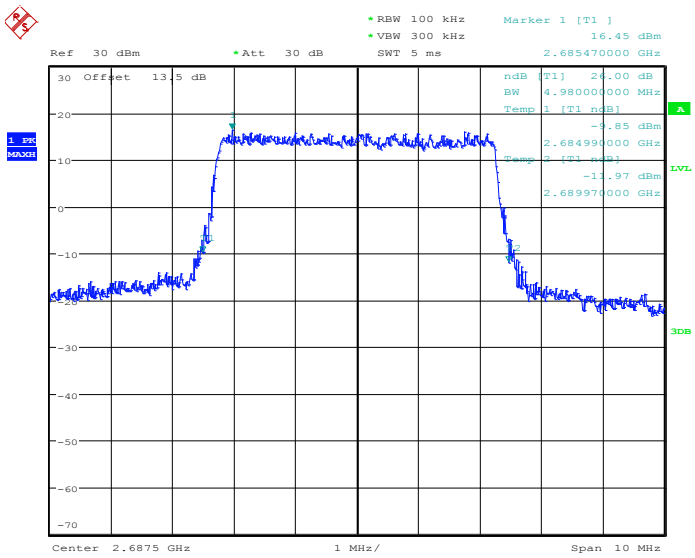
Date: 25.MAY.2014 13:27:47

99% Occupied Bandwidth Plot on Channel 41565



Date: 25.MAY.2014 13:25:09

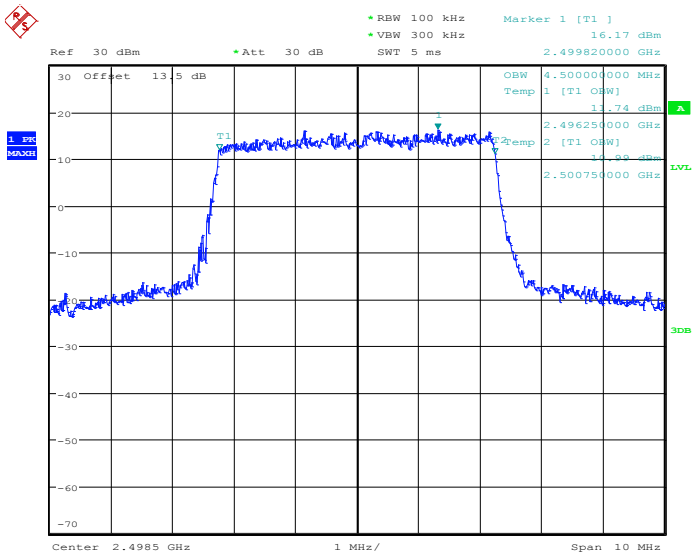
26dB Bandwidth Plot on Channel 41565



Date: 25.MAY.2014 13:26:05

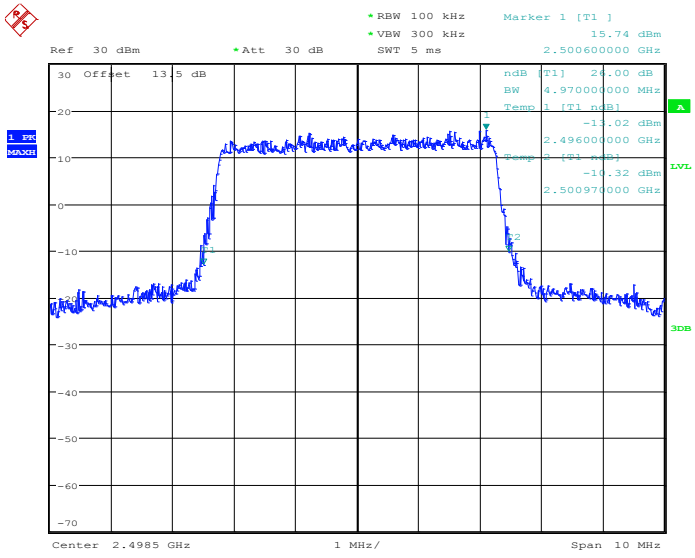
Band :	LTE Band 41	BW / Mod. :	5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 36975



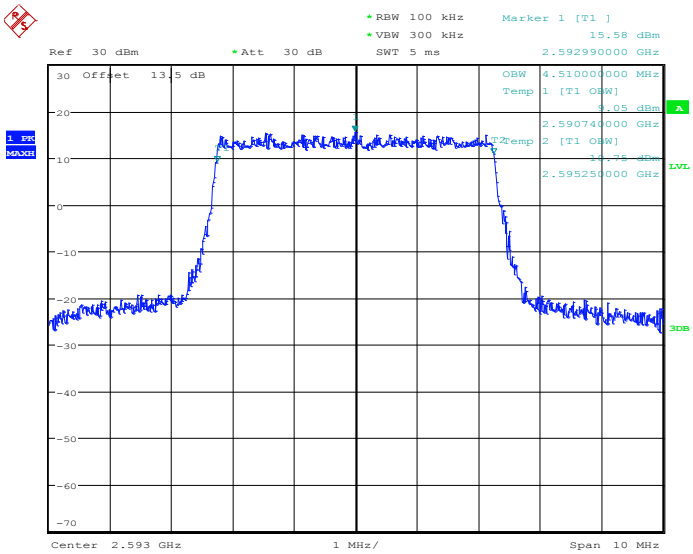
Date: 25.MAY.2014 13:23:29

26dB Bandwidth Plot on Channel 36975



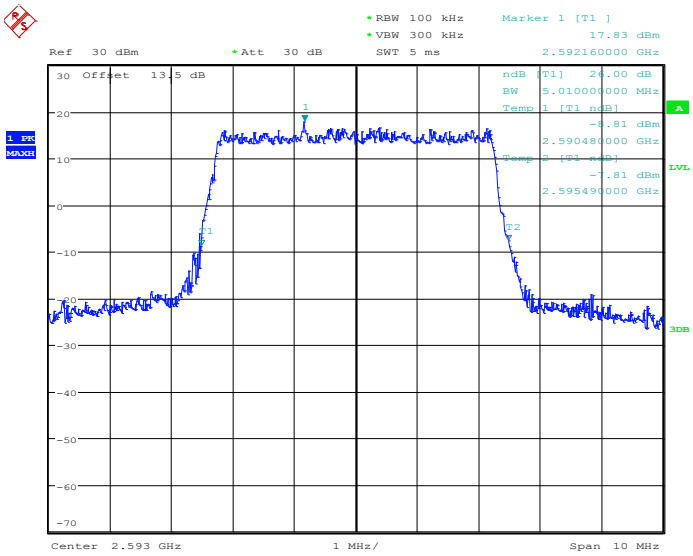
Date: 25.MAY.2014 13:27:04

99% Occupied Bandwidth Plot on Channel 40620



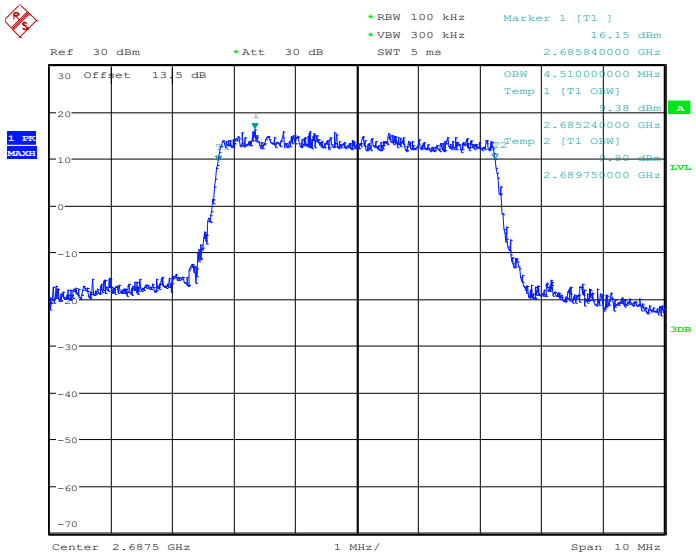
Date: 25.MAY.2014 13:22:48

26dB Bandwidth Plot on Channel 40620



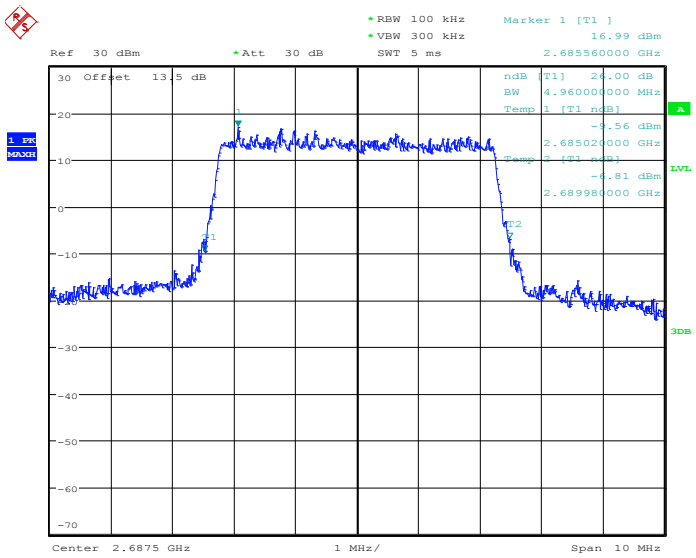
Date: 25.MAY.2014 13:27:27

99% Occupied Bandwidth Plot on Channel 41565



Date: 25.MAY.2014 13:25:29

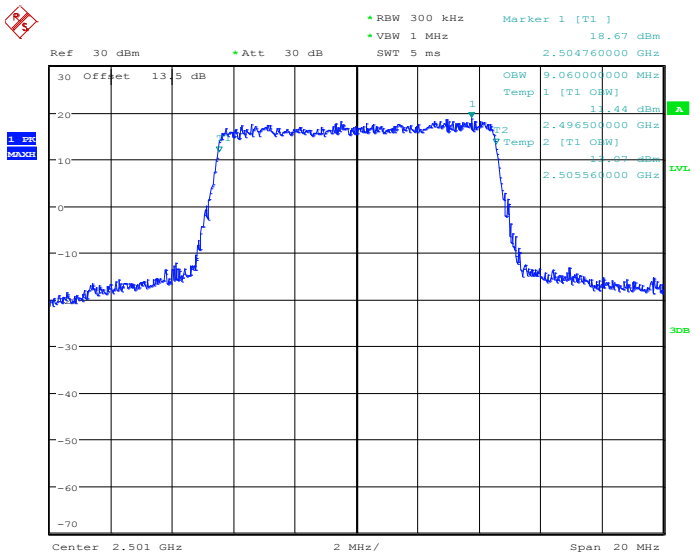
26dB Bandwidth Plot on Channel 41565



Date: 25.MAY.2014 13:25:50

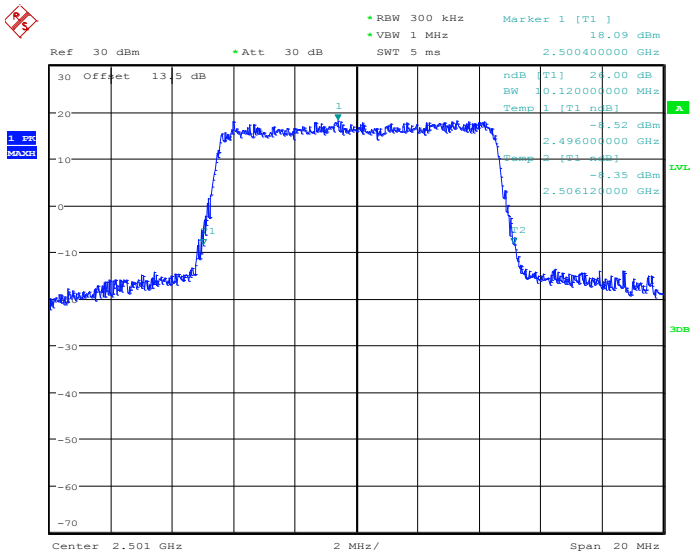
Band :	LTE Band 41	BW / Mod. :	10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 39700



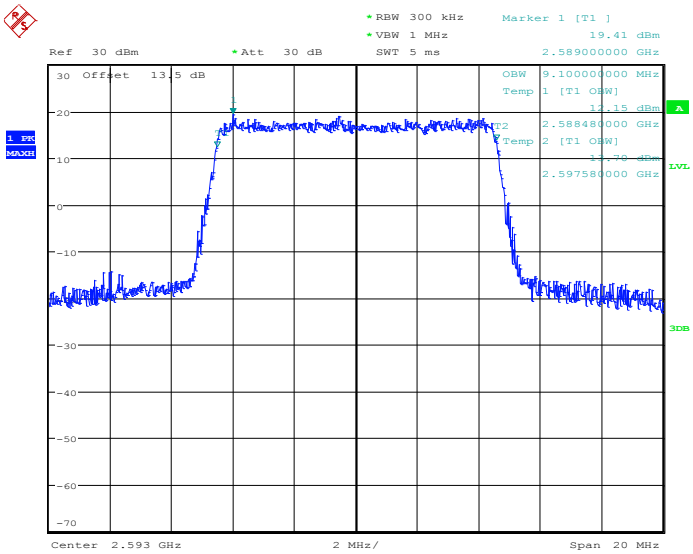
Date: 25.MAY.2014 13:38:17

26dB Bandwidth Plot on Channel 39700



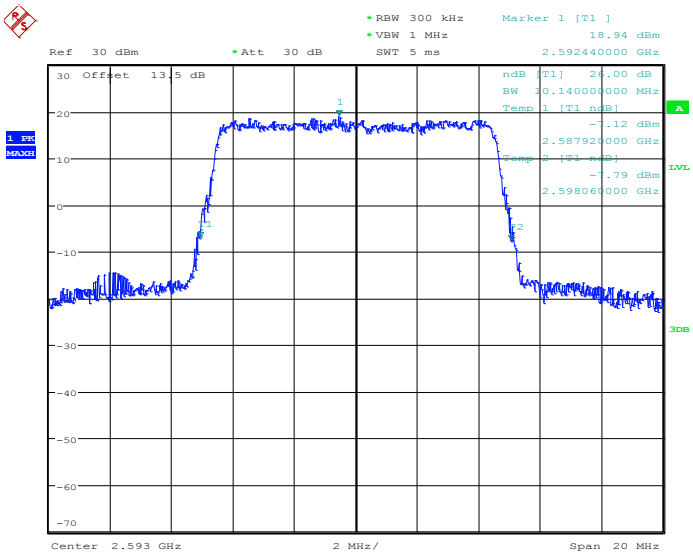
Date: 25.MAY.2014 13:34:34

99% Occupied Bandwidth Plot on Channel 40620



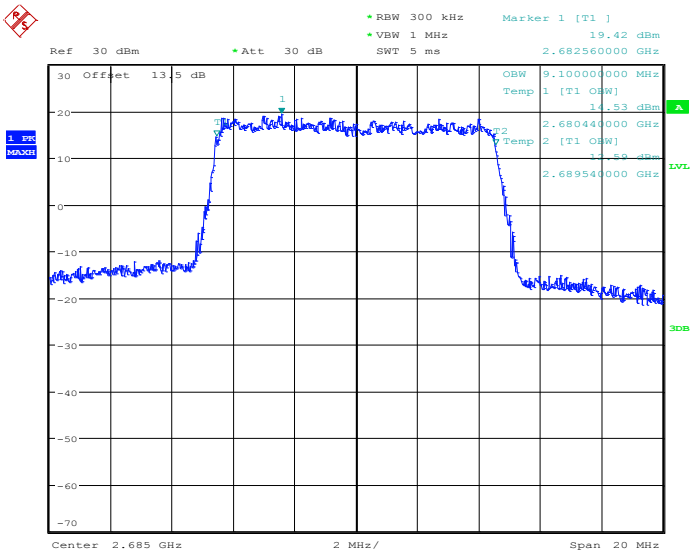
Date: 25.MAY.2014 13:39:04

26dB Bandwidth Plot on Channel 40620



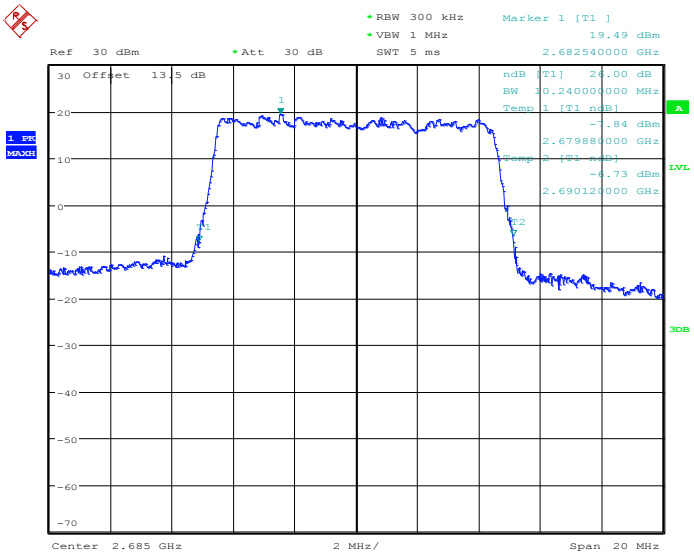
Date: 25.MAY.2014 13:30:27

99% Occupied Bandwidth Plot on Channel 41540



Date: 25.MAY.2014 13:37:19

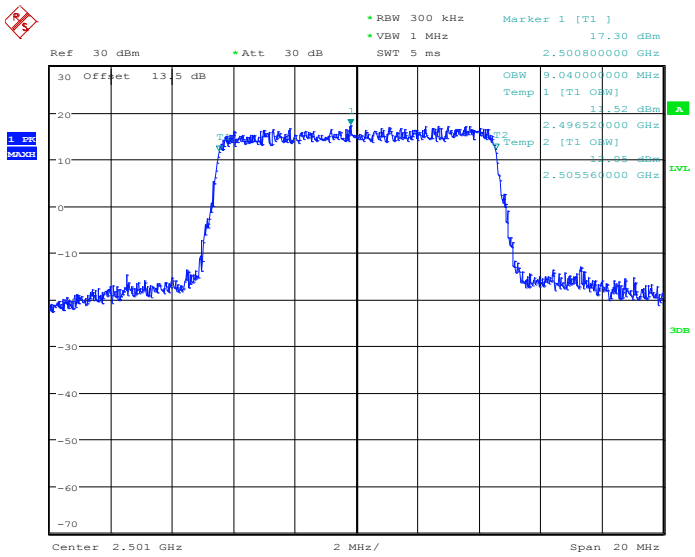
26dB Bandwidth Plot on Channel 41540



Date: 25.MAY.2014 13:36:32

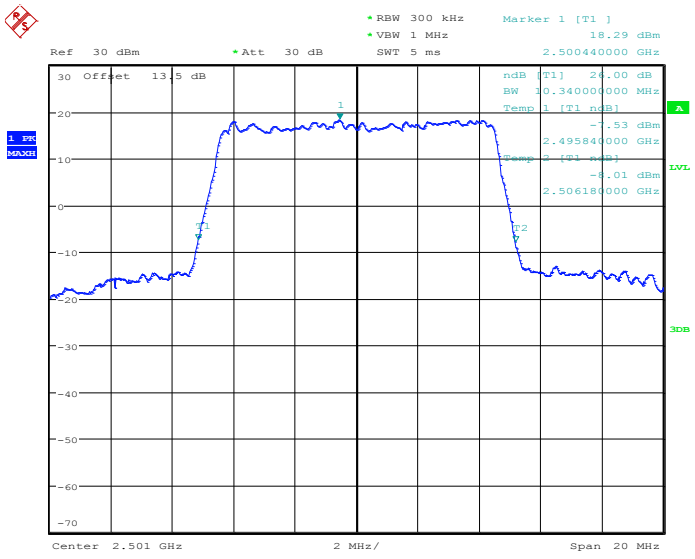
Band :	LTE Band 41	BW / Mod. :	10MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 39700



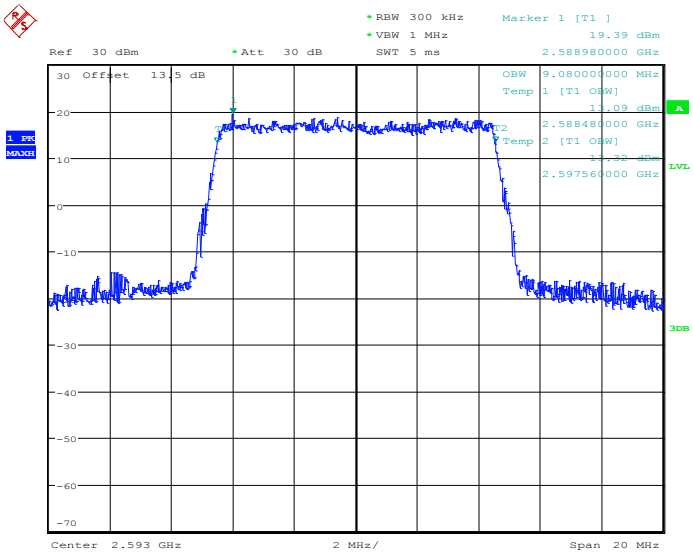
Date: 25.MAY.2014 13:38:29

26dB Bandwidth Plot on Channel 39700



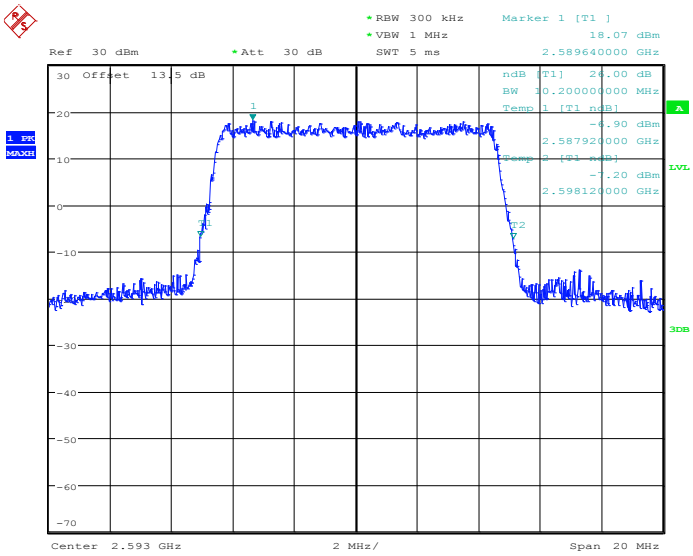
Date: 25.MAY.2014 13:34:16

99% Occupied Bandwidth Plot on Channel 40620



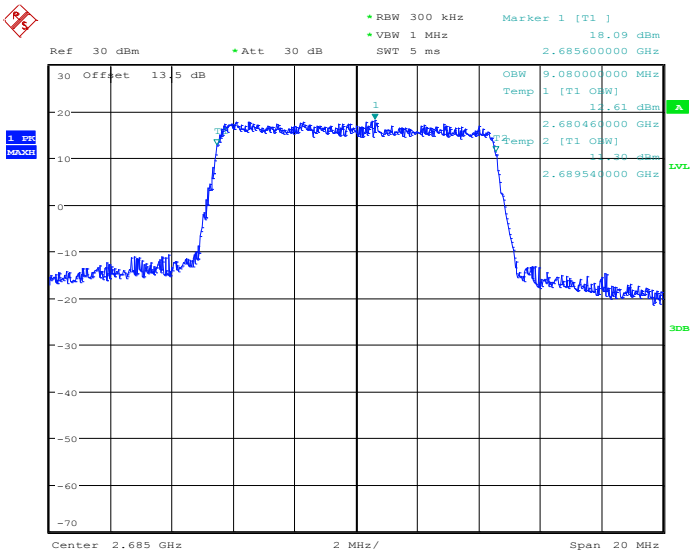
Date: 25.MAY.2014 13:38:50

26dB Bandwidth Plot on Channel 40620



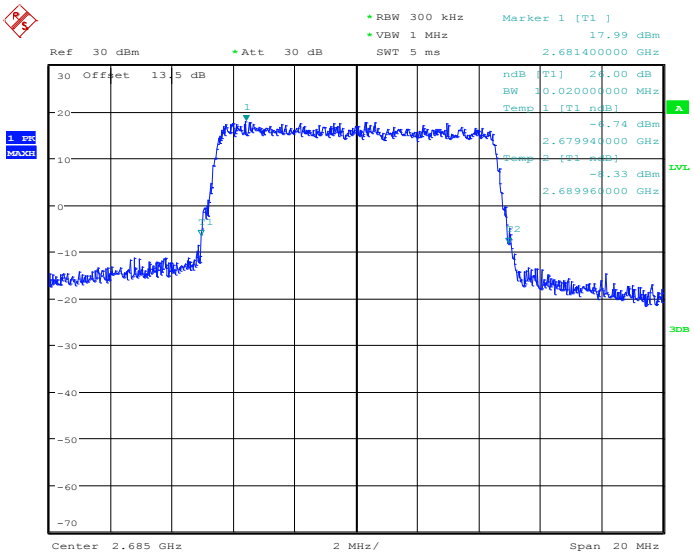
Date: 25.MAY.2014 13:30:51

99% Occupied Bandwidth Plot on Channel 41540



Date: 25.MAY.2014 13:37:05

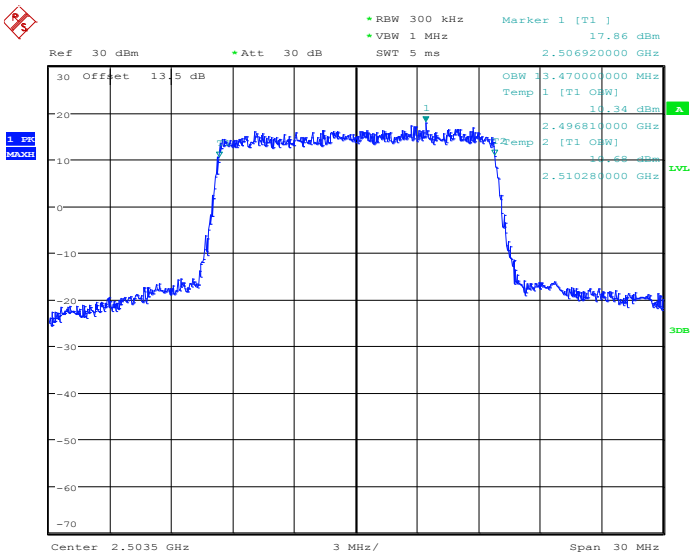
26dB Bandwidth Plot on Channel 41540



Date: 25.MAY.2014 13:36:44

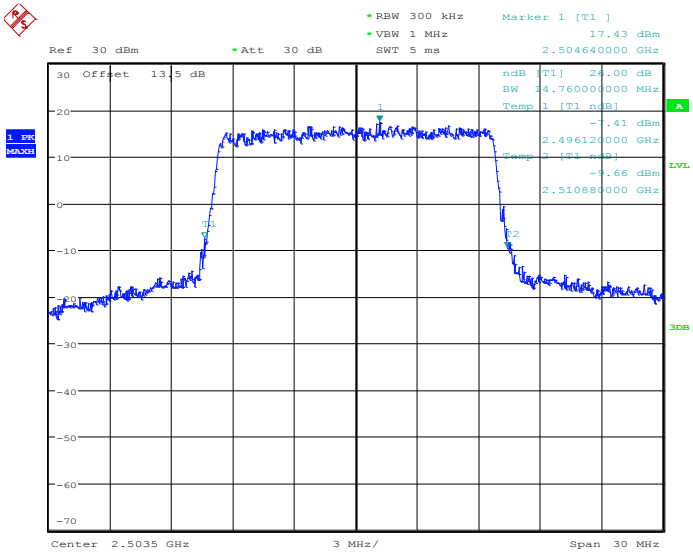
Band :	LTE Band 41	BW / Mod. :	15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 39725



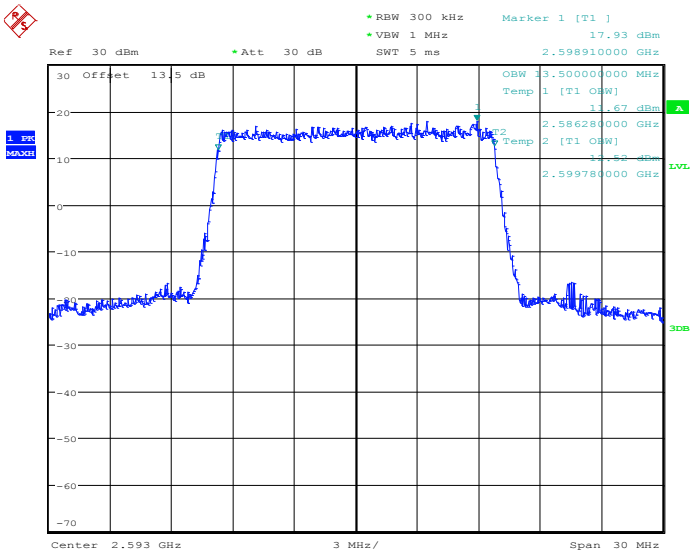
Date: 25.MAY.2014 13:43:26

26dB Bandwidth Plot on Channel 39725



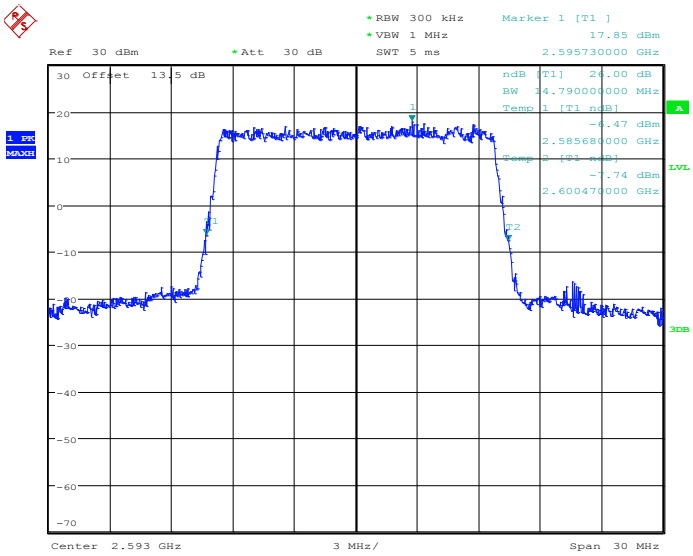
Date: 25.MAY.2014 13:47:26

99% Occupied Bandwidth Plot on Channel 40620



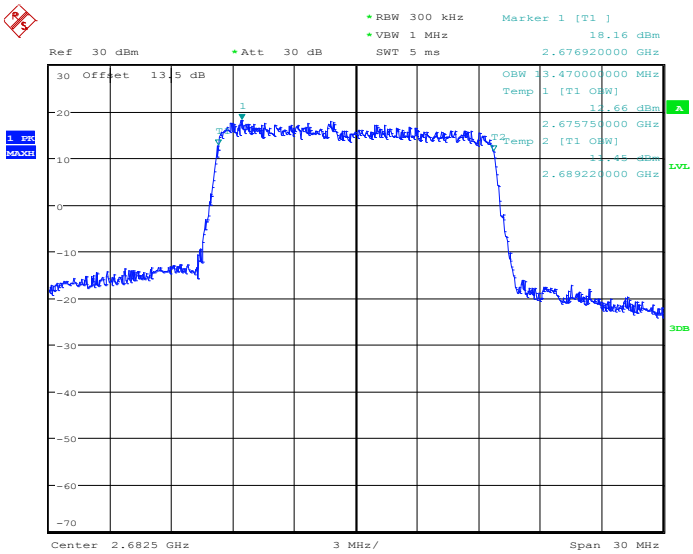
Date: 25.MAY.2014 13:40:17

26dB Bandwidth Plot on Channel 40620



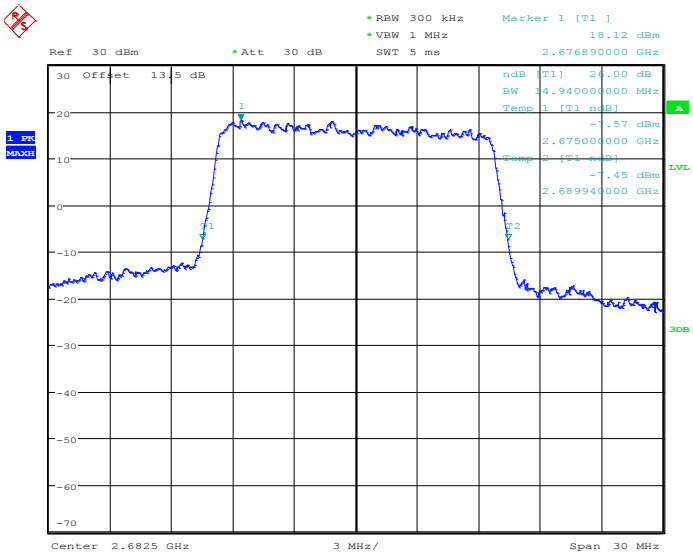
Date: 25.MAY.2014 13:48:39

99% Occupied Bandwidth Plot on Channel 41515



Date: 25.MAY.2014 13:44:04

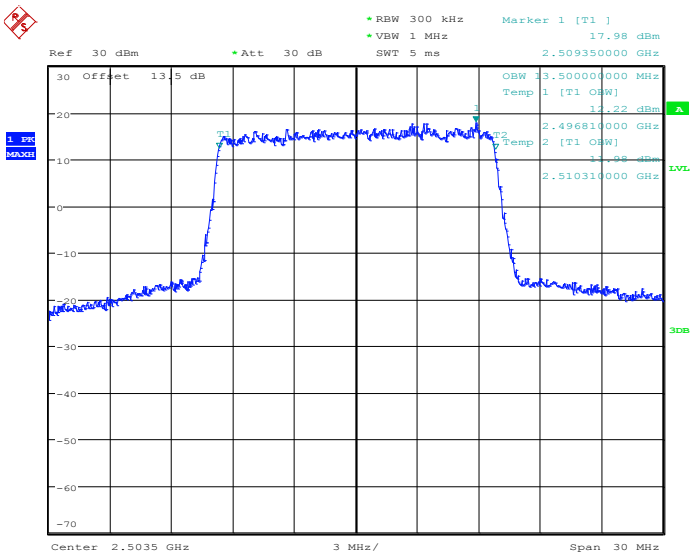
26dB Bandwidth Plot on Channel 41515



Date: 25.MAY.2014 13:46:48

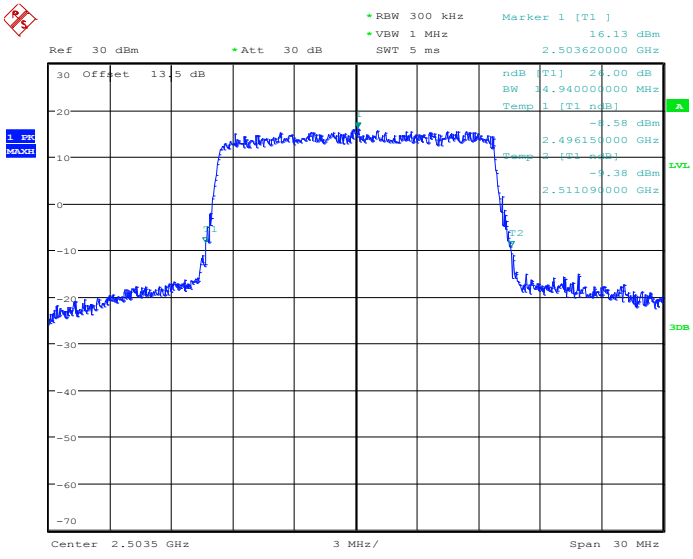
Band :	LTE Band 41	BW / Mod. :	15MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 39725



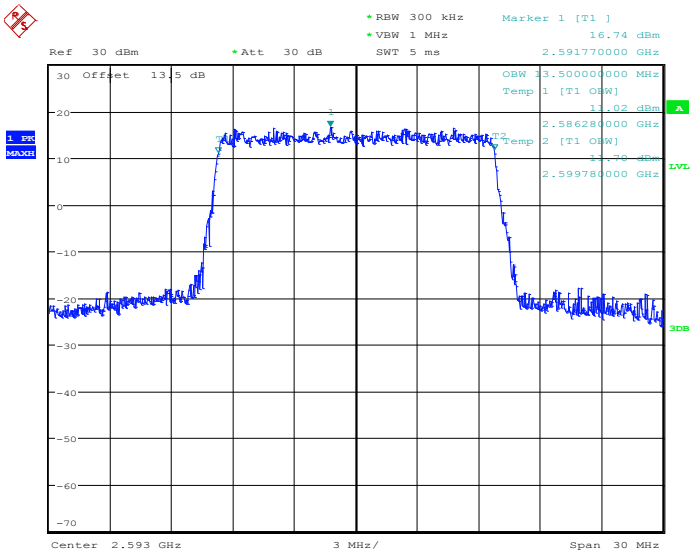
Date: 25.MAY.2014 13:41:07

26dB Bandwidth Plot on Channel 39725



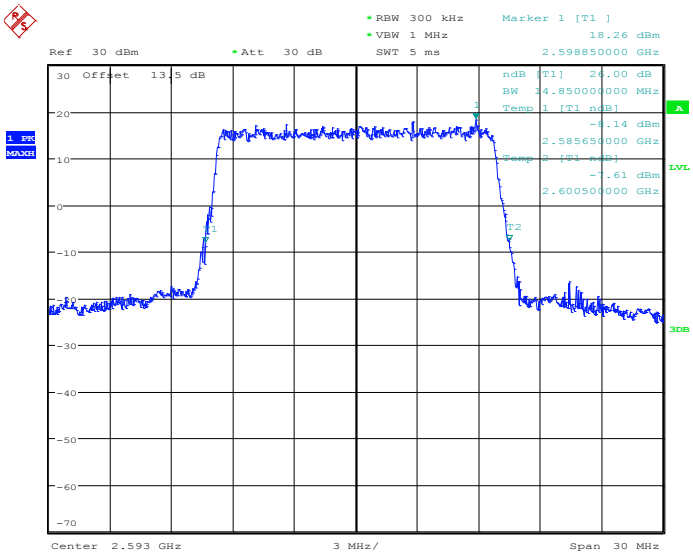
Date: 25.MAY.2014 13:48:02

99% Occupied Bandwidth Plot on Channel 40620



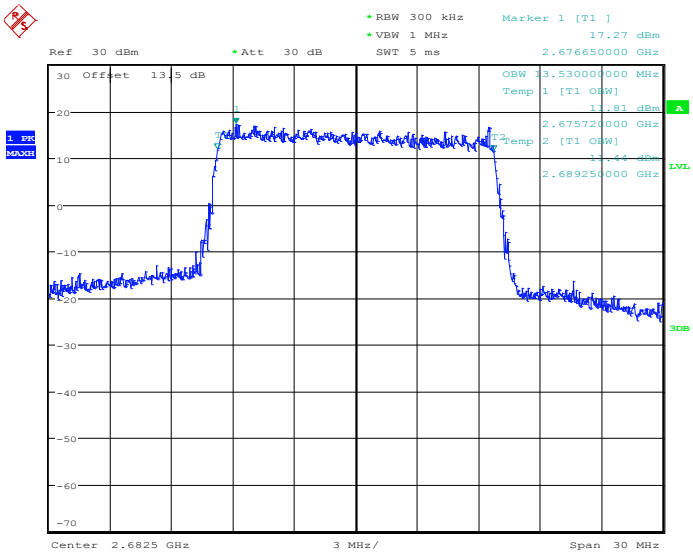
Date: 25.MAY.2014 13:40:33

26dB Bandwidth Plot on Channel 40620



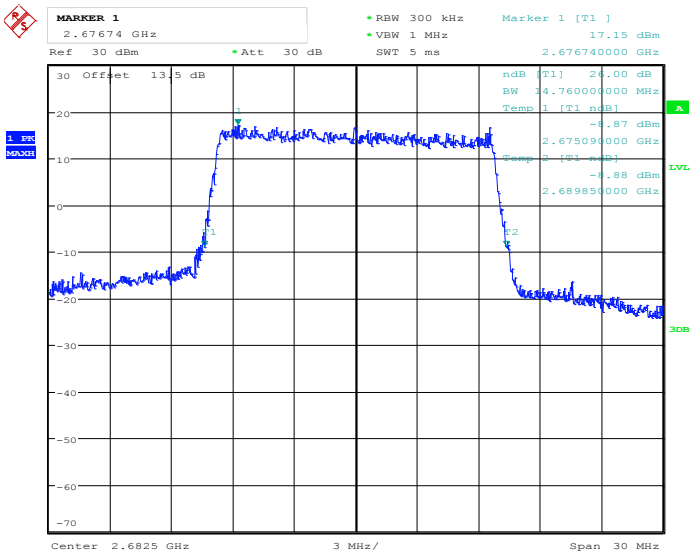
Date: 25.MAY.2014 13:48:24

99% Occupied Bandwidth Plot on Channel 41515



Date: 25.MAY.2014 13:44:20

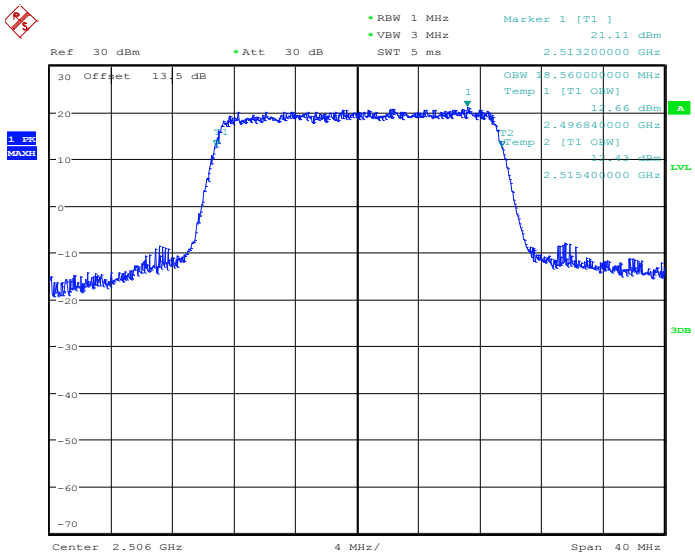
26dB Bandwidth Plot on Channel 41515



Date: 25.MAY.2014 13:44:43

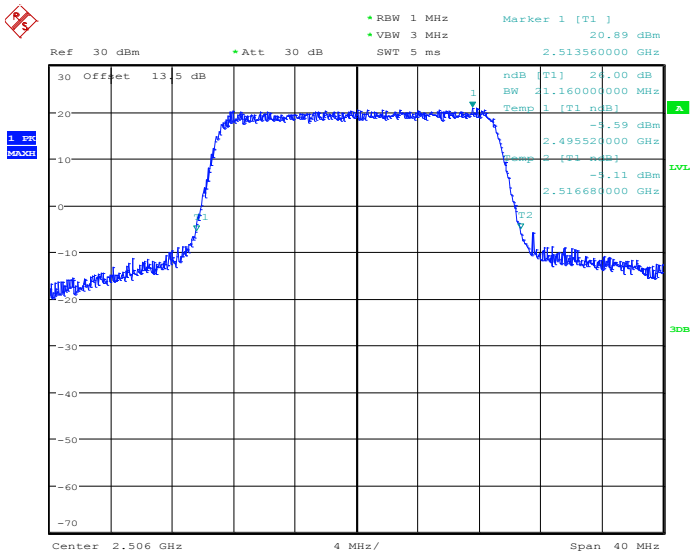
Band :	LTE Band 41	BW / Mod. :	20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 39750



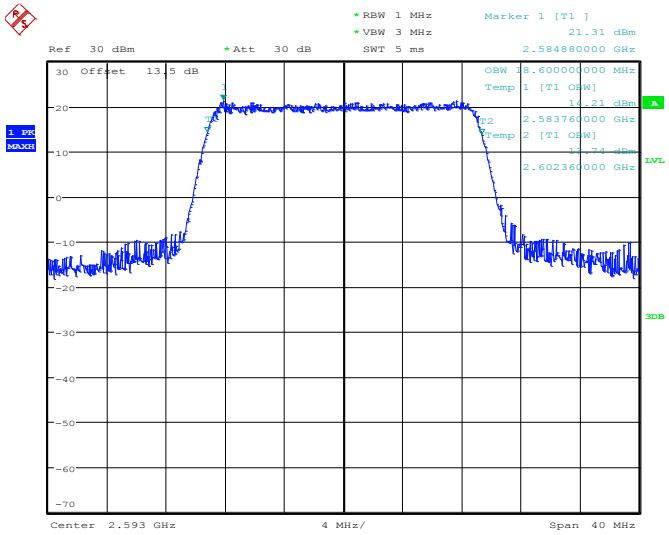
Date: 25.MAY.2014 13:52:07

26dB Bandwidth Plot on Channel 39750



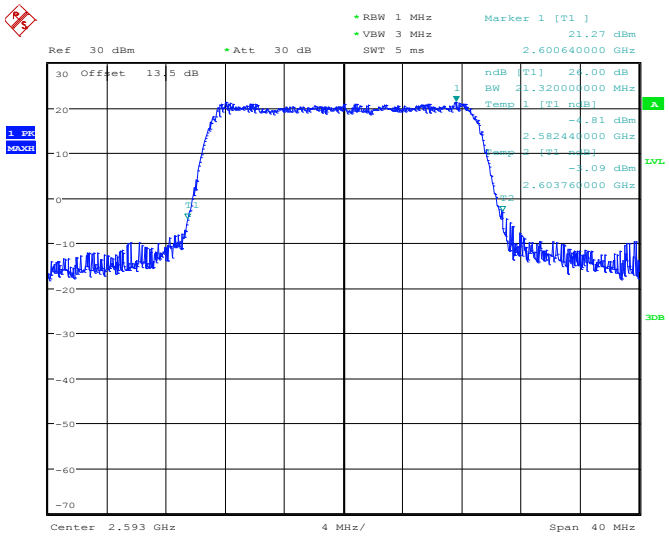
Date: 25.MAY.2014 13:50:44

99% Occupied Bandwidth Plot on Channel 40620



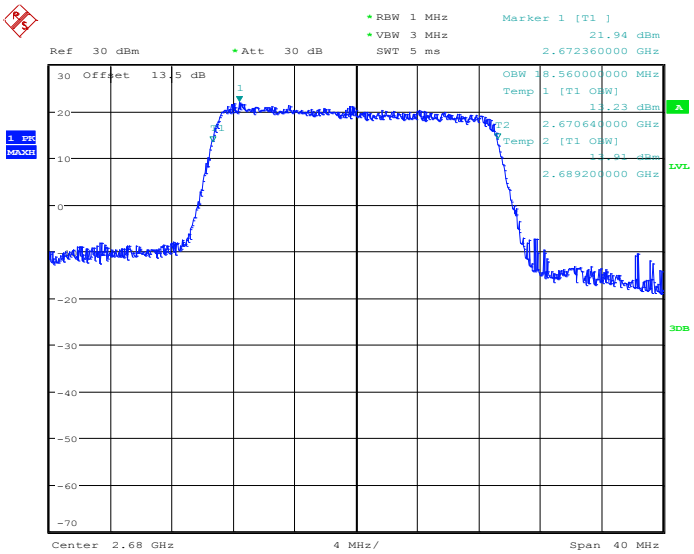
Date: 25.MAY.2014 13:52:50

26dB Bandwidth Plot on Channel 40620



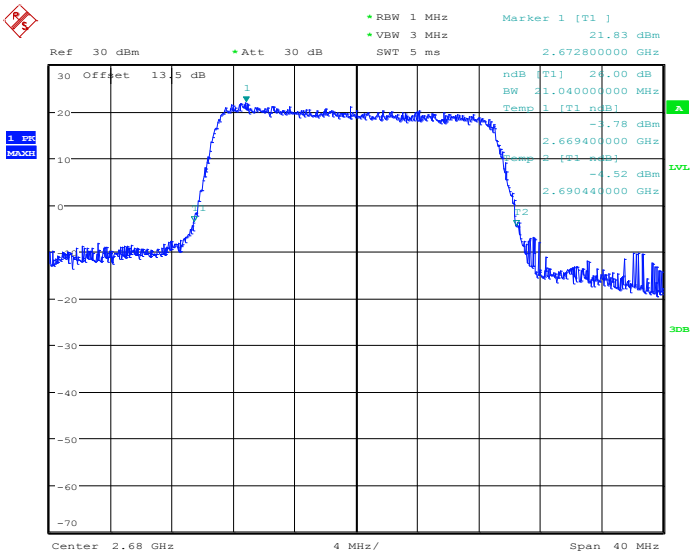
Date: 25.MAY.2014 13:49:52

99% Occupied Bandwidth Plot on Channel 41490



Date: 25.MAY.2014 13:51:47

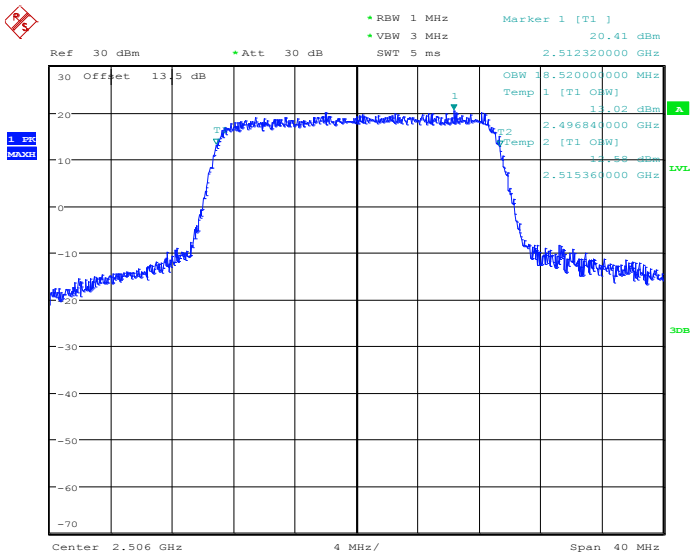
26dB Bandwidth Plot on Channel 41490



Date: 25.MAY.2014 13:51:01

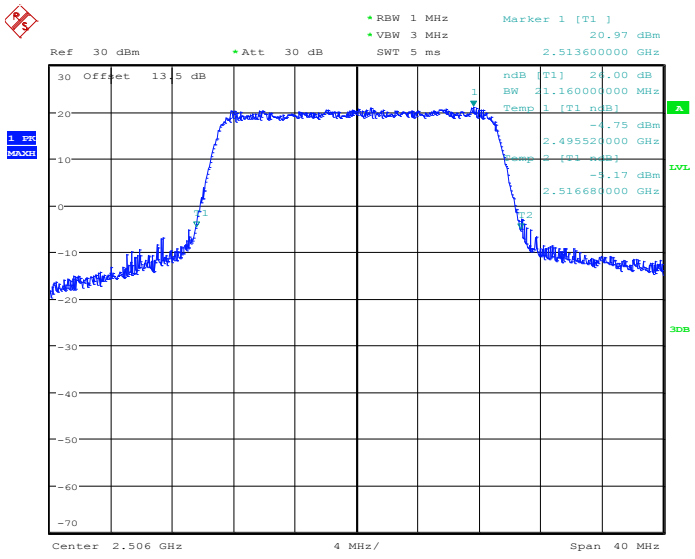
Band :	LTE Band 41	BW / Mod. :	20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 39750



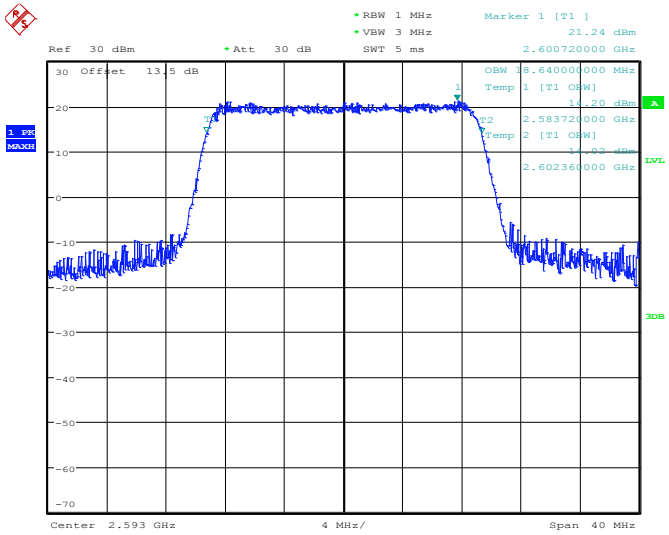
Date: 25.MAY.2014 13:52:18

26dB Bandwidth Plot on Channel 39750



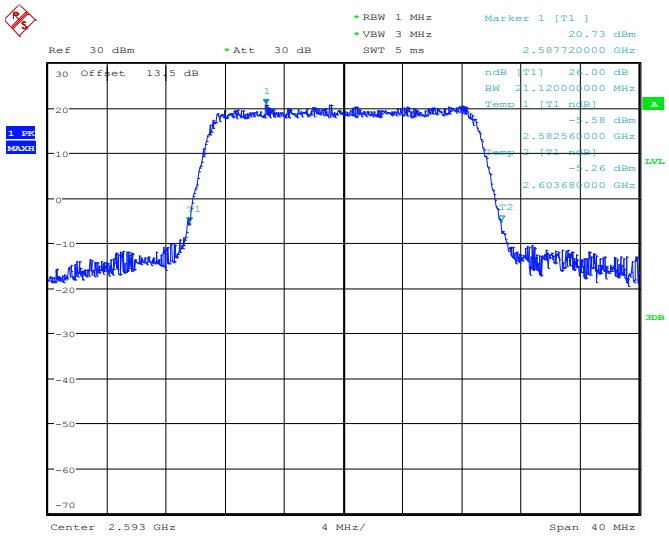
Date: 25.MAY.2014 13:50:31

99% Occupied Bandwidth Plot on Channel 40620



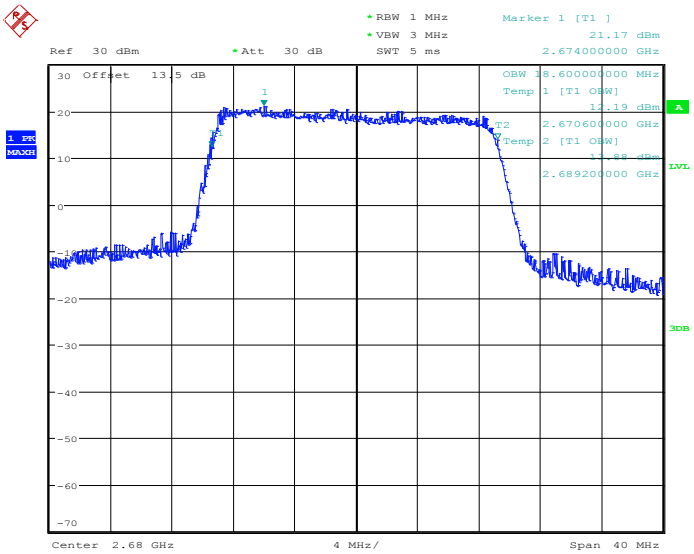
Date: 25.MAY.2014 13:52:34

26dB Bandwidth Plot on Channel 40620



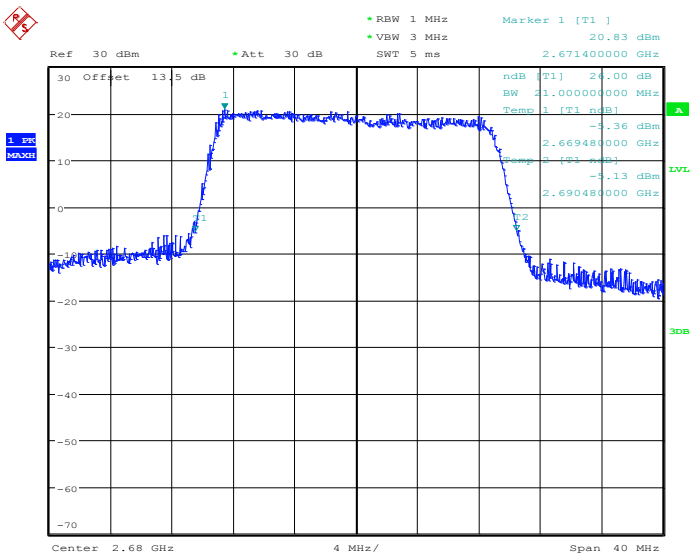
Date: 25.MAY.2014 13:50:07

99% Occupied Bandwidth Plot on Channel 41490



Date: 25.MAY.2014 13:51:32

26dB Bandwidth Plot on Channel 41490



Date: 25.MAY.2014 13:51:15