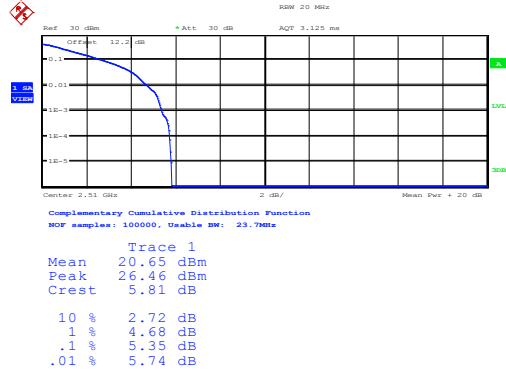




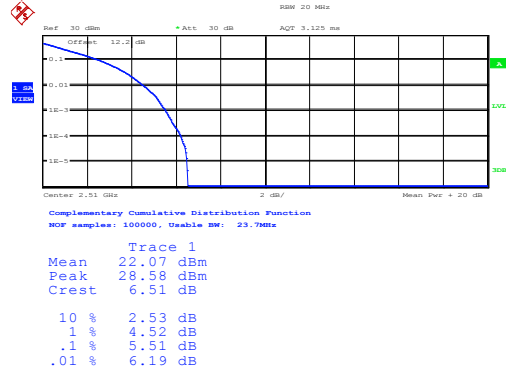
LTE Band 7

Peak-to-Average Ratio

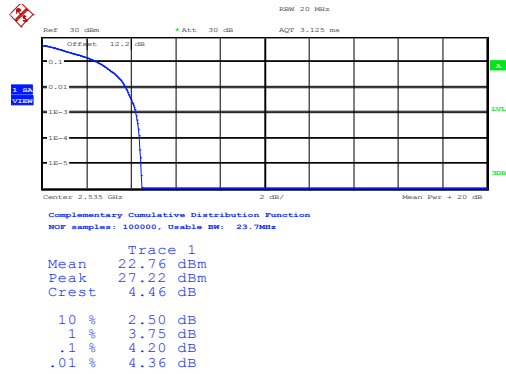
Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	RB Size	Result
Lowest CH	5.35	5.51	5.03	6.41	PASS
Middle CH	4.2	5.83	5	6.38	
Highest CH	5.67	5.48	5.71	6.47	

LTE Band 7 / 20MHz / QPSK
Lowest Channel / 1RB


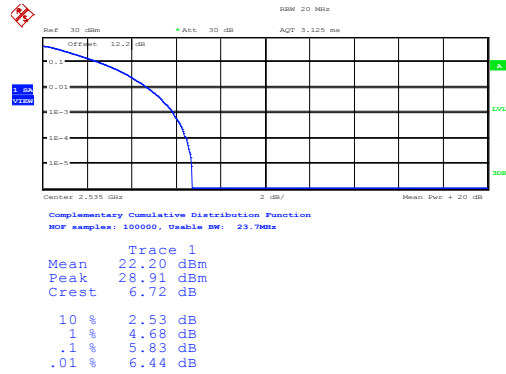
Date: 14.JAN.2015 00:07:23

Lowest Channel / Full RB


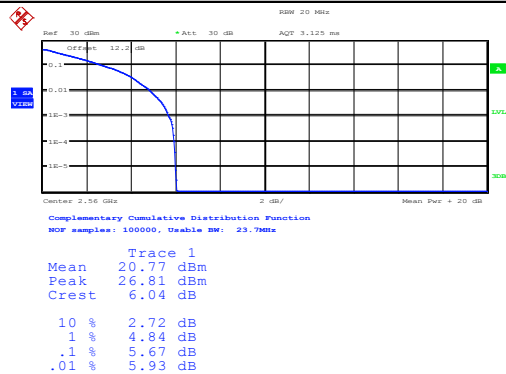
Date: 14.JAN.2015 00:07:36

Middle Channel / 1RB


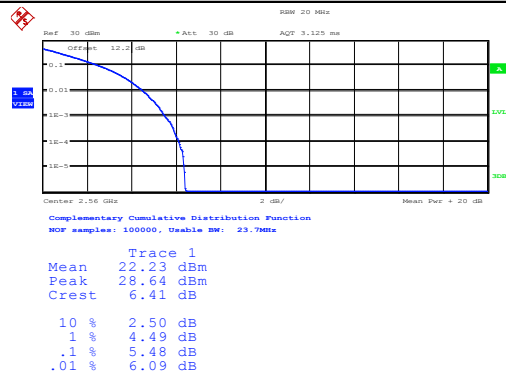
Date: 14.JAN.2015 00:07:51

Middle Channel / Full RB


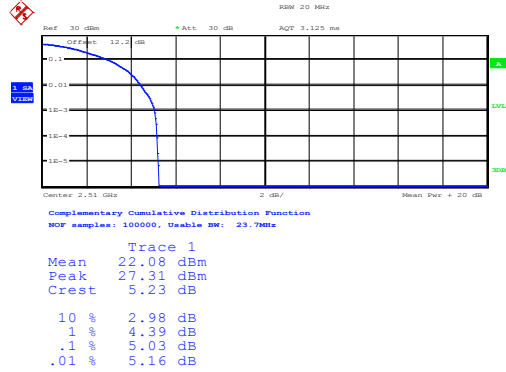
Date: 14.JAN.2015 00:08:06

Highest Channel / 1RB


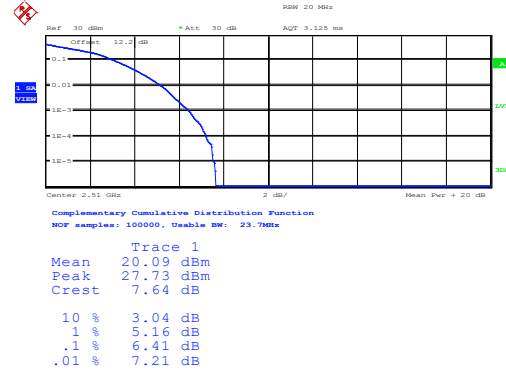
Date: 14.JAN.2015 00:08:20

Highest Channel / Full RB


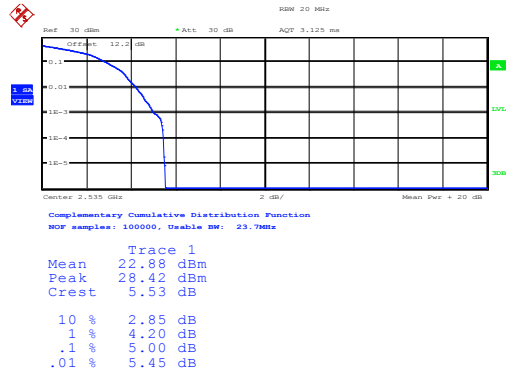
Date: 14.JAN.2015 00:08:35

LTE Band 7 / 20MHz / 16QAM
Lowest Channel / 1RB


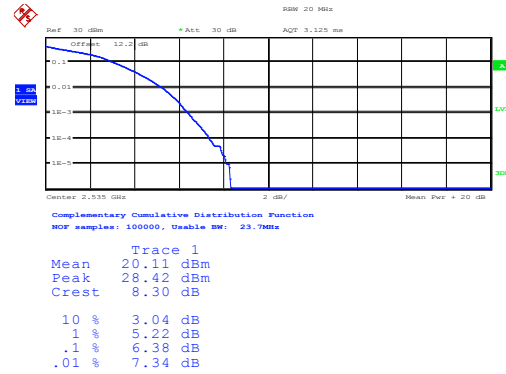
Date: 14.JAN.2015 00:06:03

Lowest Channel / Full RB


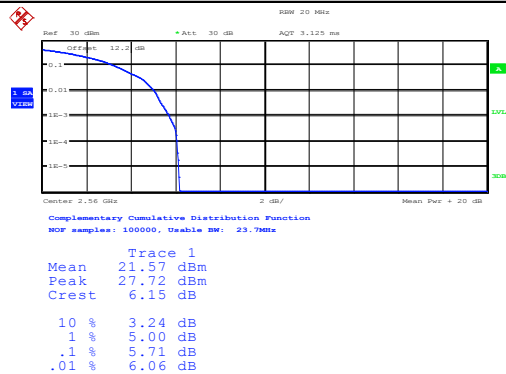
Date: 14.JAN.2015 00:06:17

Middle Channel / 1RB


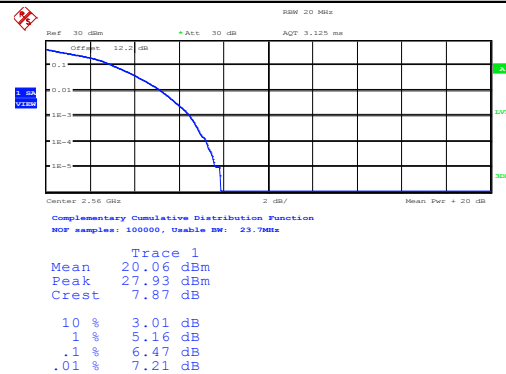
Date: 14.JAN.2015 00:06:30

Middle Channel / Full RB


Date: 14.JAN.2015 00:06:44

Highest Channel / 1RB


Date: 14.JAN.2015 00:06:57

Highest Channel / Full RB


Date: 14.JAN.2015 00:07:10

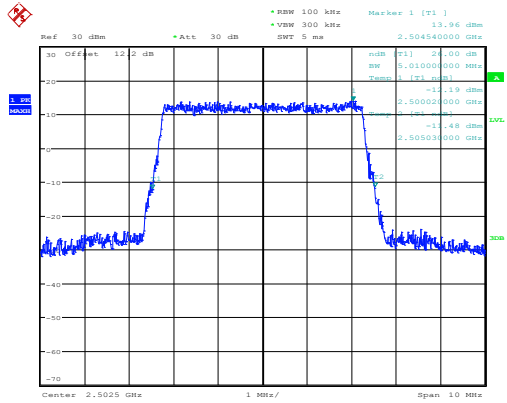


26dB Bandwidth

Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.01	4.98	10	9.98	14.67	14.55	21.04	21
Middle CH	-	-	-	-	4.96	4.96	10.02	10.1	14.67	14.73	20.88	21.08
Highest CH	-	-	-	-	4.94	4.93	10	9.98	14.64	14.73	20.92	21

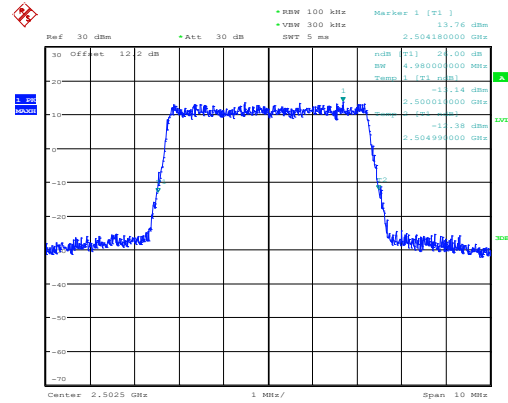
LTE Band 7

Lowest Channel / 5MHz / QPSK



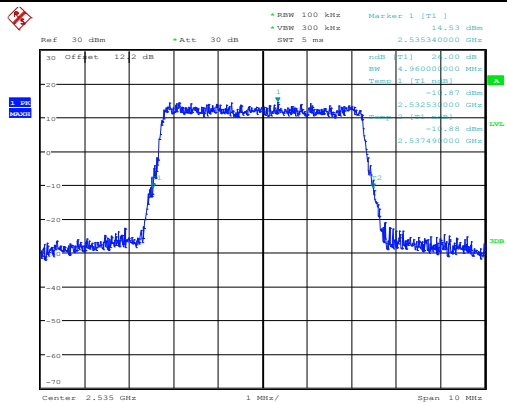
Date: 13.JAN.2015 22:49:10

Lowest Channel / 5MHz / 16QAM



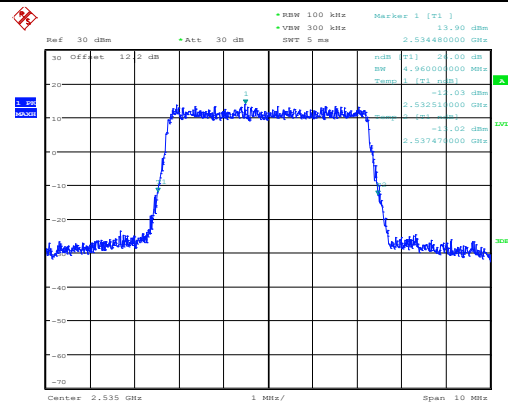
Date: 13.JAN.2015 22:49:22

Middle Channel / 5MHz / QPSK



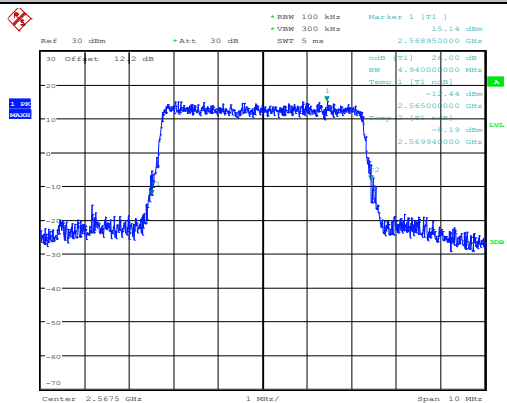
Date: 13.JAN.2015 22:56:53

Middle Channel / 5MHz / 16QAM



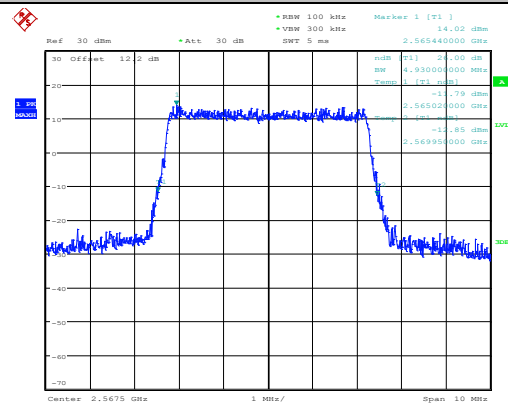
Date: 13.JAN.2015 22:57:06

Highest Channel / 5MHz / QPSK



Date: 13.JAN.2015 22:59:59

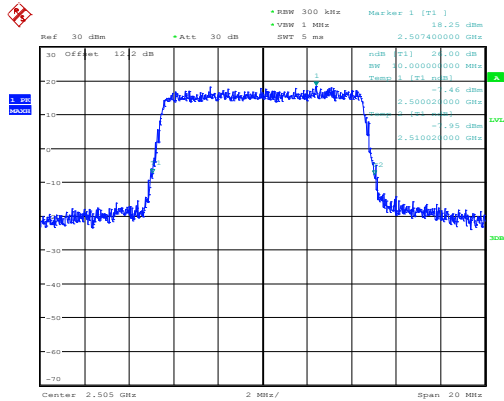
Highest Channel / 5MHz / 16QAM



Date: 13.JAN.2015 23:00:12

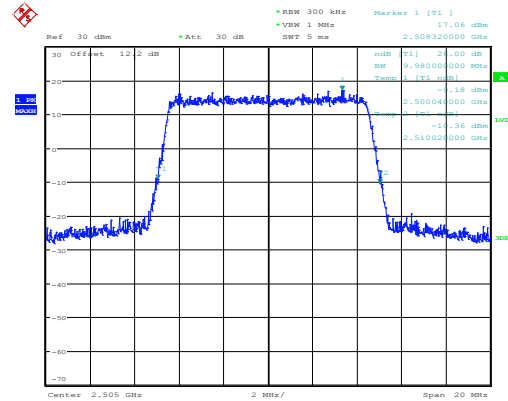
LTE Band 7

Lowest Channel / 10MHz / QPSK



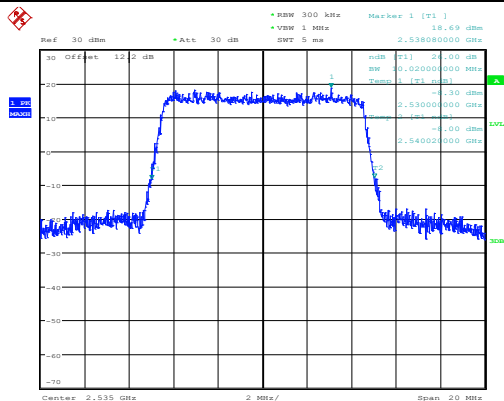
Date: 14.JAN.2015 00:11:02

Lowest Channel / 10MHz / 16QAM



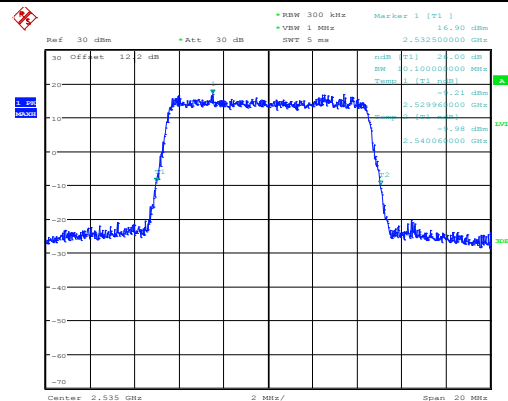
Date: 13.JAN.2015 23:08:00

Middle Channel / 10MHz / QPSK



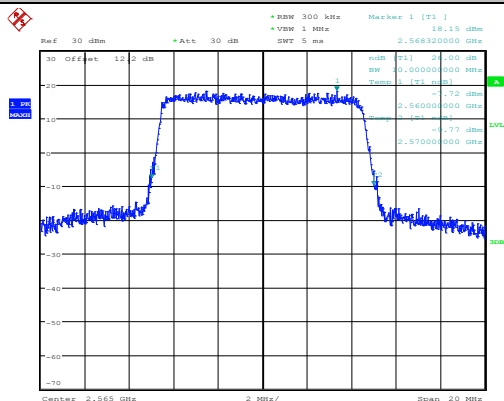
Date: 13.JAN.2015 23:15:32

Middle Channel / 10MHz / 16QAM



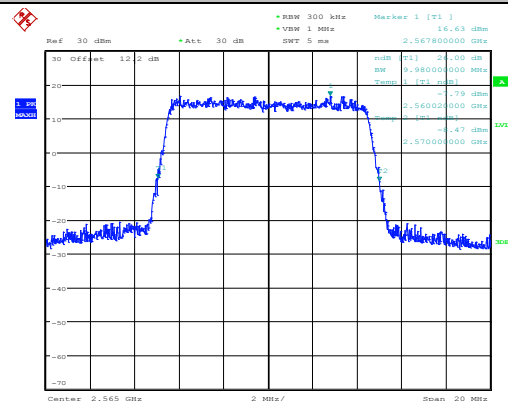
Date: 13.JAN.2015 23:15:45

Highest Channel / 10MHz / QPSK



Date: 13.JAN.2015 23:19:00

Highest Channel / 10MHz / 16QAM

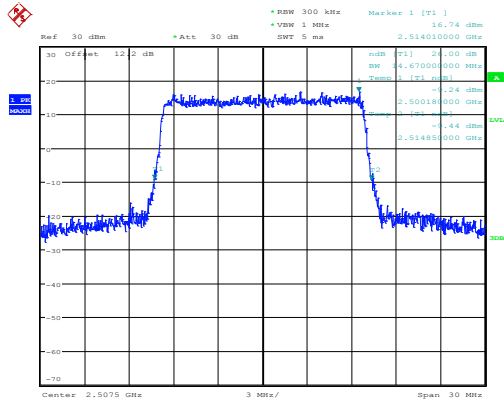


Date: 13.JAN.2015 23:19:13



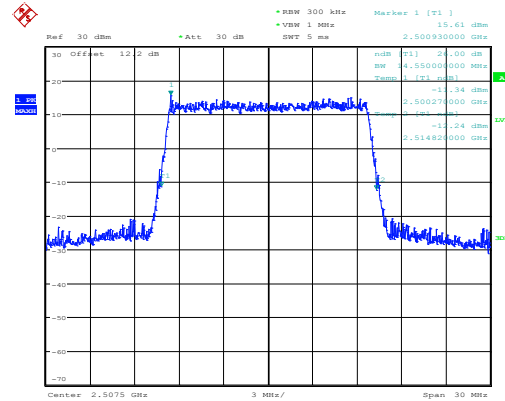
LTE Band 7

Lowest Channel / 15MHz / QPSK



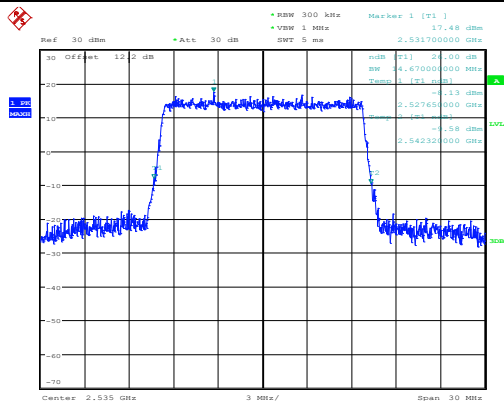
Date: 13.JAN.2015 23:26:48

Lowest Channel / 15MHz / 16QAM



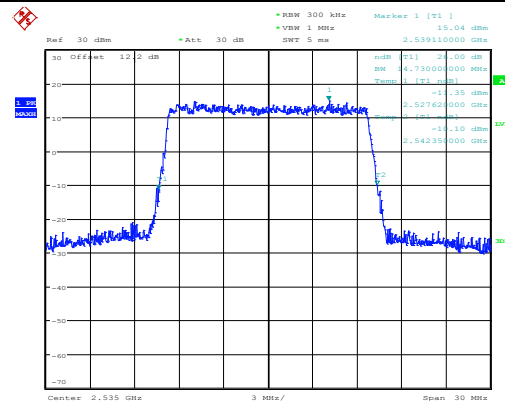
Date: 13.JAN.2015 23:27:01

Middle Channel / 15MHz / QPSK



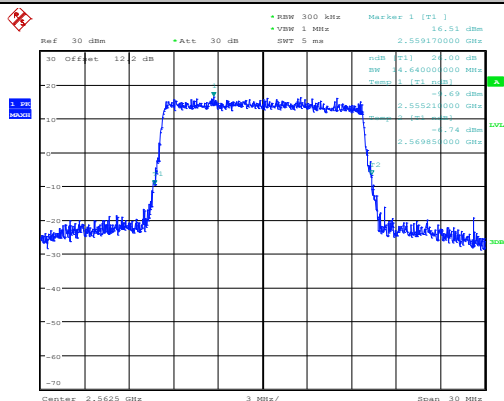
Date: 13.JAN.2015 23:34:32

Middle Channel / 15MHz / 16QAM



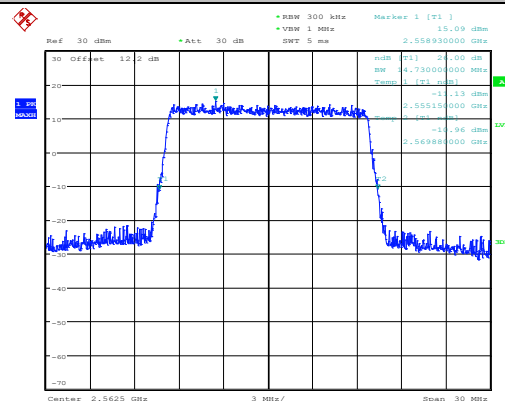
Date: 13.JAN.2015 23:34:45

Highest Channel / 15MHz / QPSK



Date: 14.JAN.2015 00:10:28

Highest Channel / 15MHz / 16QAM

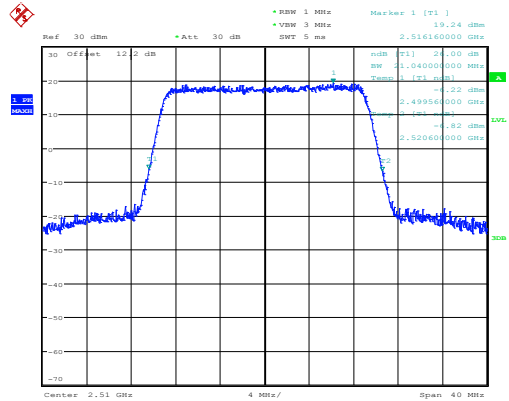


Date: 13.JAN.2015 23:37:51



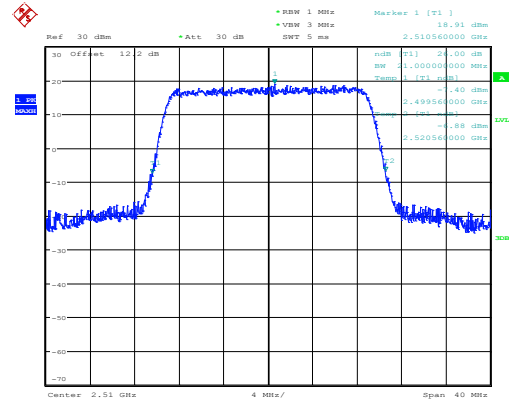
LTE Band 7

Lowest Channel / 20MHz / QPSK



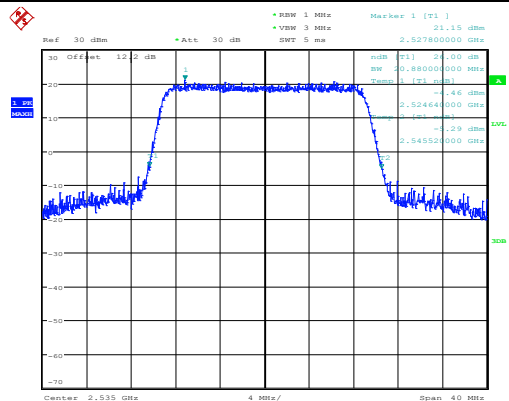
Date: 13.JAN.2015 23:47:30

Lowest Channel / 20MHz / 16QAM



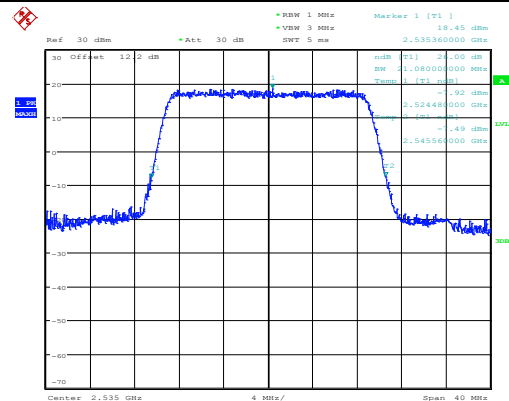
Date: 13.JAN.2015 23:47:43

Middle Channel / 20MHz / QPSK



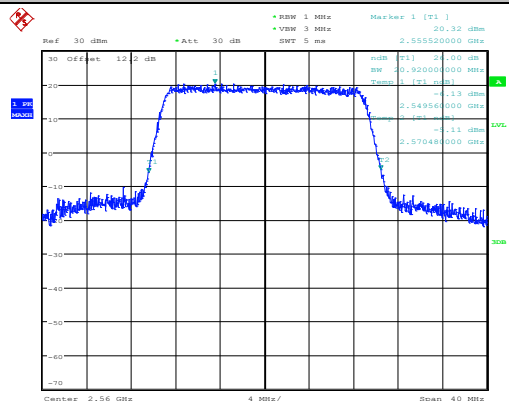
Date: 13.JAN.2015 23:55:13

Middle Channel / 20MHz / 16QAM



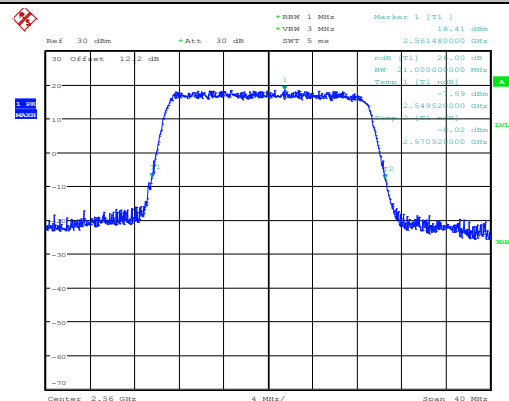
Date: 13.JAN.2015 23:55:26

Highest Channel / 20MHz / QPSK



Date: 13.JAN.2015 23:58:20

Highest Channel / 20MHz / 16QAM



Date: 13.JAN.2015 23:58:33



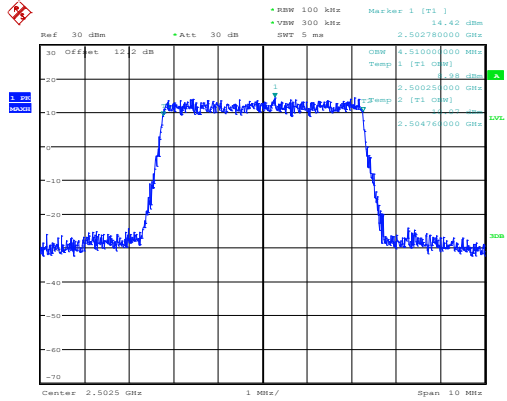
Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.51	4.51	9.04	9.04	13.5	13.5	18.56	18.56
Middle CH	-	-	-	-	4.52	4.51	9.04	9.04	13.47	13.5	18.56	18.56
Highest CH	-	-	-	-	4.49	4.5	9.06	9.02	13.47	13.47	18.52	18.48



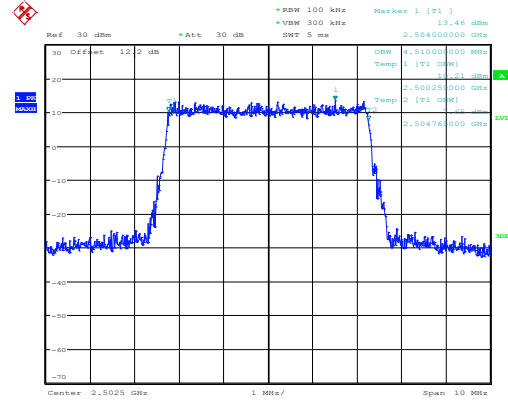
LTE Band 7

Lowest Channel / 5MHz / QPSK



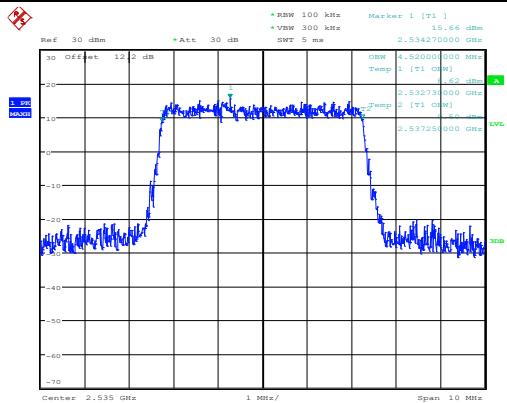
Date: 13.JAN.2015 22:48:46

Lowest Channel / 5MHz / 16QAM



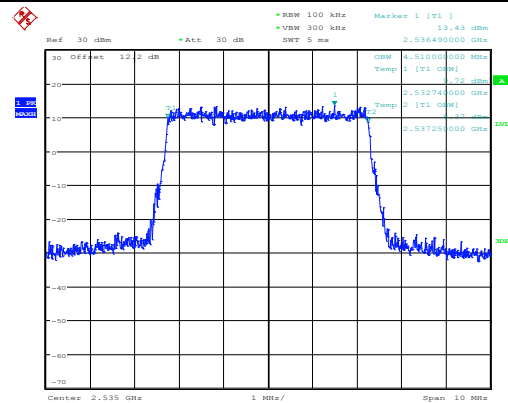
Date: 13.JAN.2015 22:48:57

Middle Channel / 5MHz / QPSK



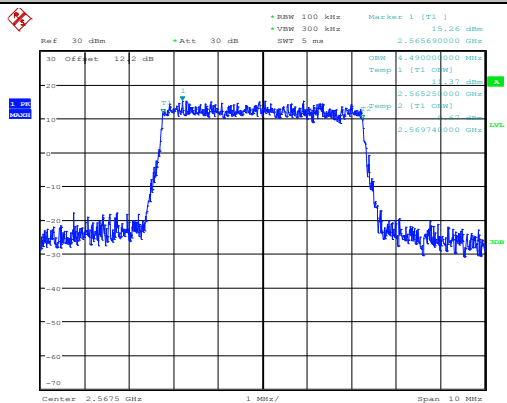
Date: 13.JAN.2015 22:56:30

Middle Channel / 5MHz / 16QAM



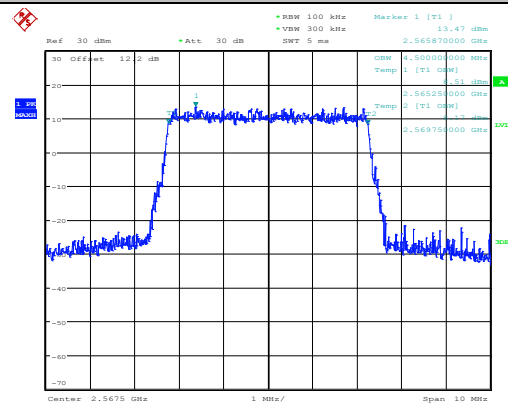
Date: 13.JAN.2015 22:56:40

Highest Channel / 5MHz / QPSK



Date: 13.JAN.2015 22:59:36

Highest Channel / 5MHz / 16QAM

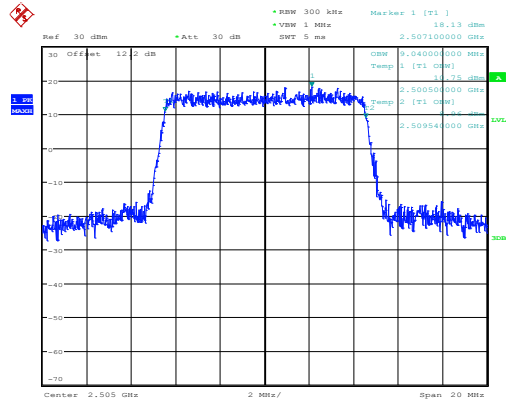


Date: 13.JAN.2015 22:59:47



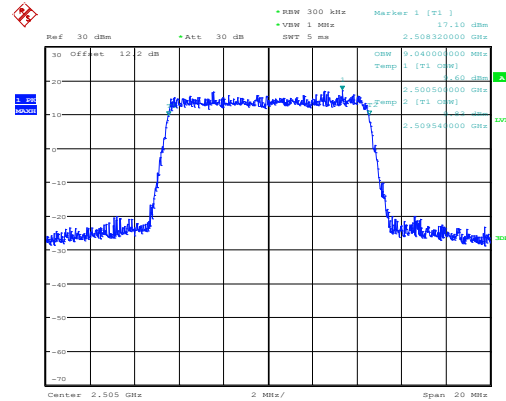
LTE Band 7

Lowest Channel / 10MHz / QPSK



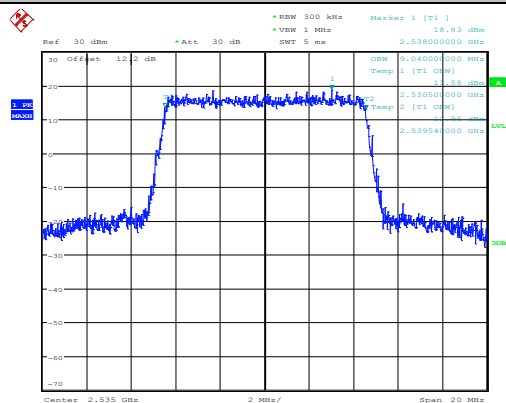
Date: 14.JAN.2015 00:11:41

Lowest Channel / 10MHz / 16QAM



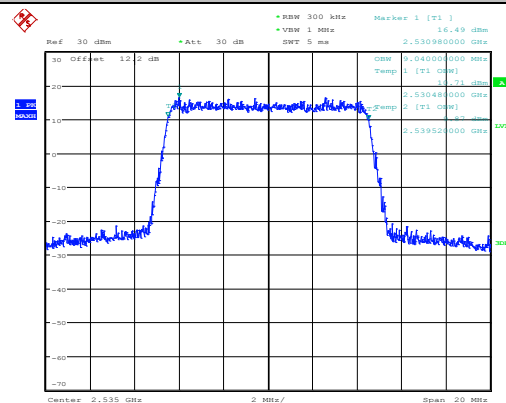
Date: 13.JAN.2015 23:07:34

Middle Channel / 10MHz / QPSK



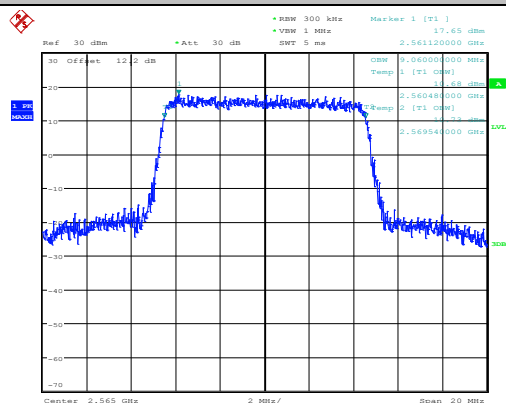
Date: 13.JAN.2015 23:15:08

Middle Channel / 10MHz / 16QAM



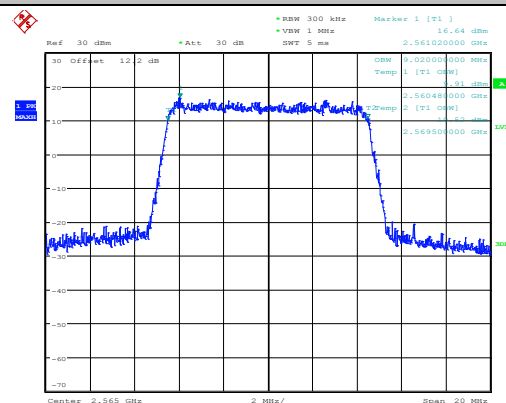
Date: 13.JAN.2015 23:15:19

Highest Channel / 10MHz / QPSK



Date: 13.JAN.2015 23:18:36

Highest Channel / 10MHz / 16QAM

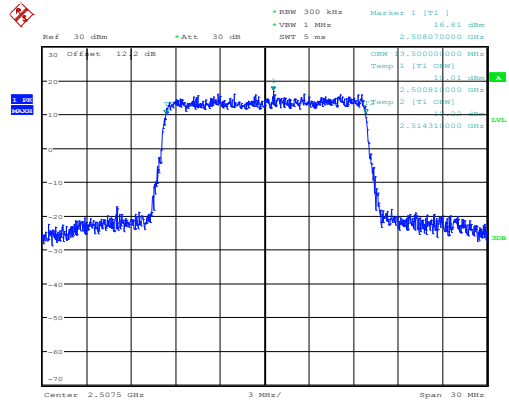


Date: 13.JAN.2015 23:18:47



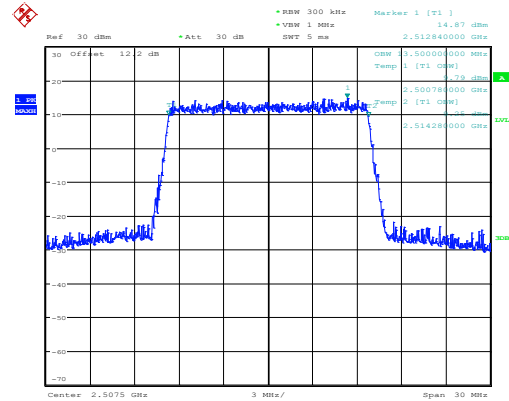
LTE Band 7

Lowest Channel / 15MHz / QPSK



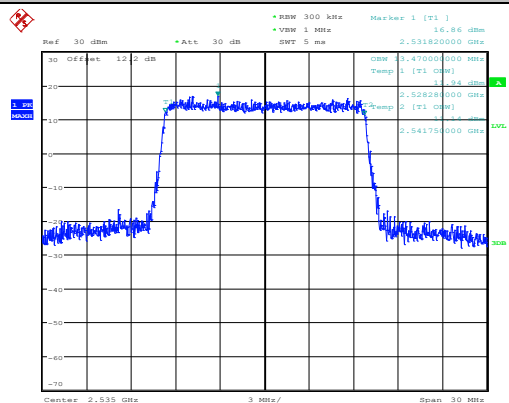
Date: 13.JAN.2015 23:26:24

Lowest Channel / 15MHz / 16QAM



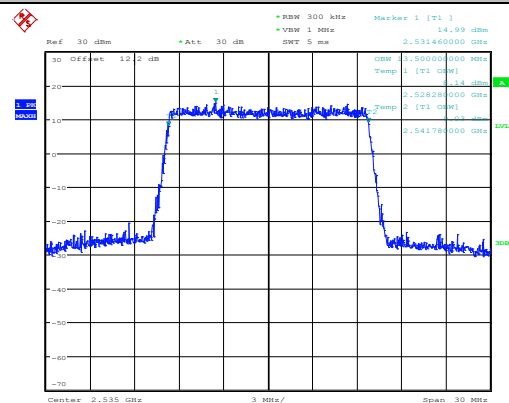
Date: 13.JAN.2015 23:26:35

Middle Channel / 15MHz / QPSK



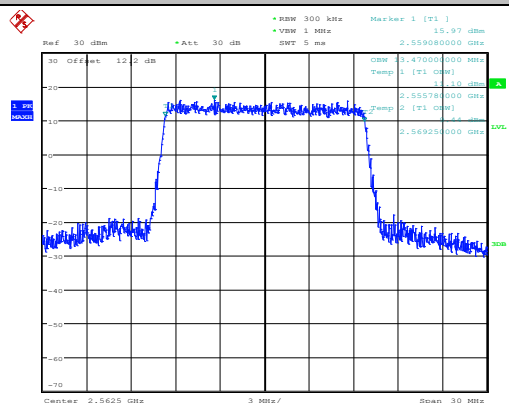
Date: 13.JAN.2015 23:34:08

Middle Channel / 15MHz / 16QAM



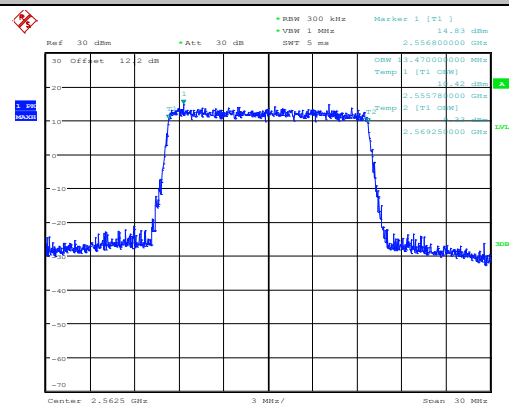
Date: 13.JAN.2015 23:34:19

Highest Channel / 15MHz / QPSK



Date: 13.JAN.2015 23:37:15

Highest Channel / 15MHz / 16QAM

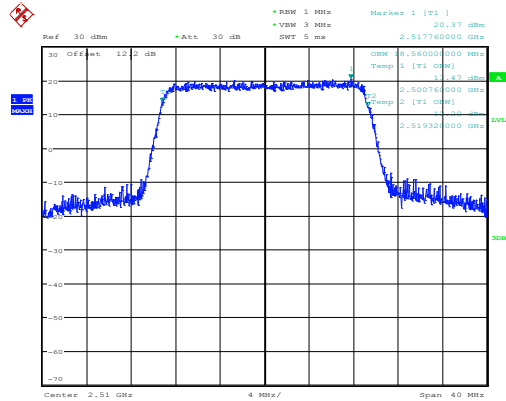


Date: 13.JAN.2015 23:37:26



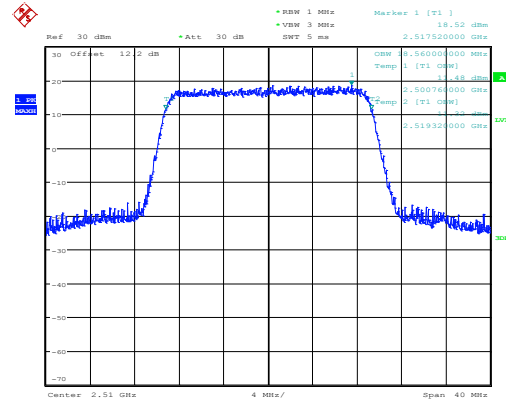
LTE Band 7

Lowest Channel / 20MHz / QPSK



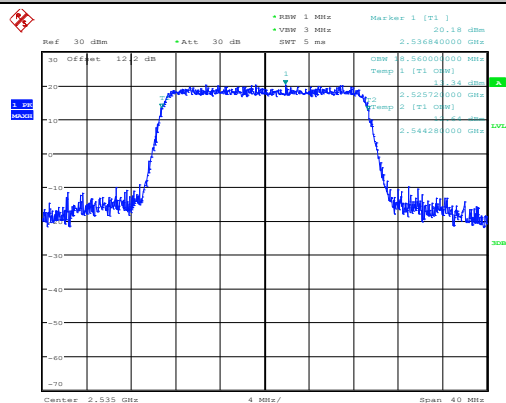
Date: 14.JAN.2015 00:09:22

Lowest Channel / 20MHz / 16QAM



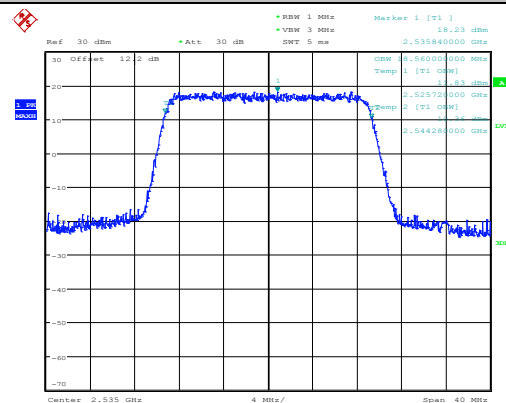
Date: 13.JAN.2015 23:47:17

Middle Channel / 20MHz / QPSK



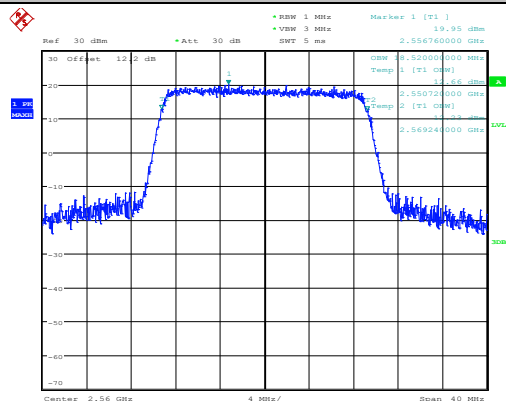
Date: 13.JAN.2015 23:54:50

Middle Channel / 20MHz / 16QAM



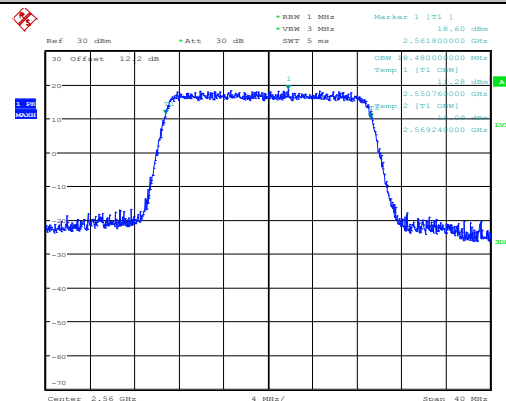
Date: 13.JAN.2015 23:55:00

Highest Channel / 20MHz / QPSK



Date: 13.JAN.2015 23:57:56

Highest Channel / 20MHz / 16QAM



Date: 13.JAN.2015 23:58:07

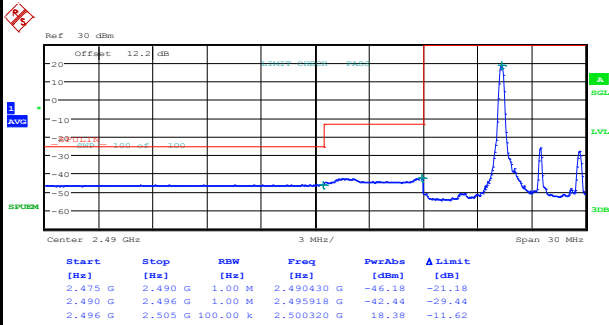


Conducted Band Edge



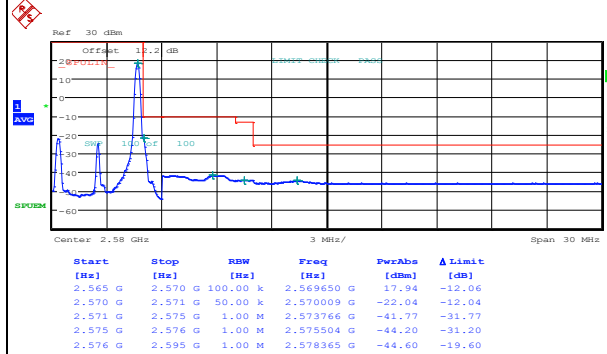
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



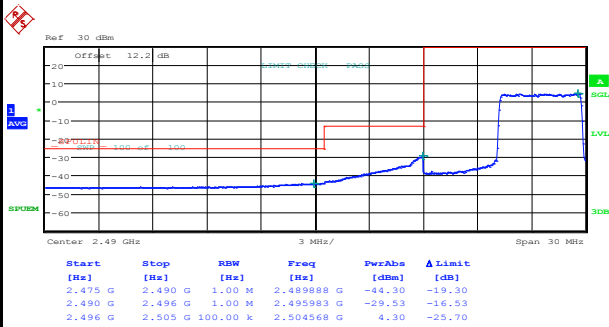
Date: 14.JAN.2015 00:15:08

Highest Band Edge / 1 RB



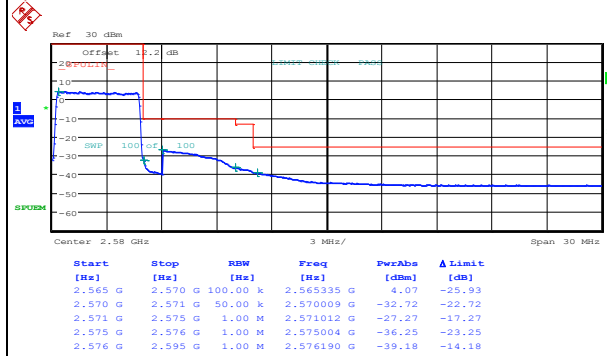
Date: 14.JAN.2015 00:20:00

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:17:34

Highest Band Edge / Full RB

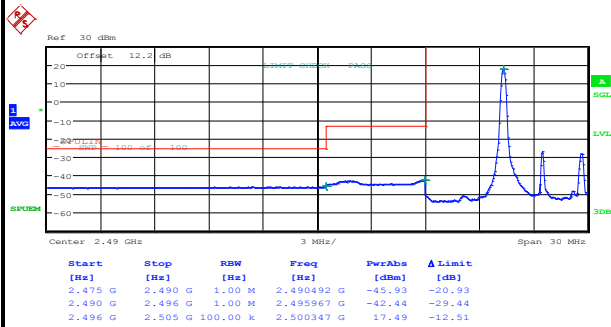


Date: 14.JAN.2015 00:22:27



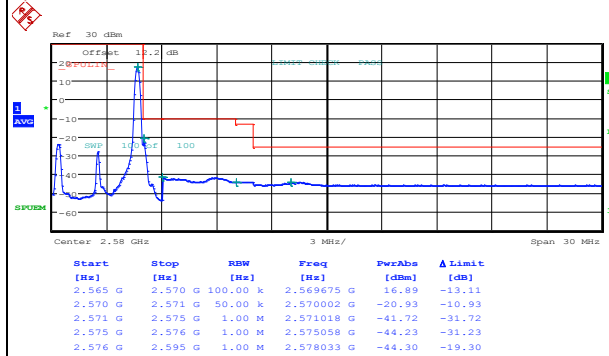
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



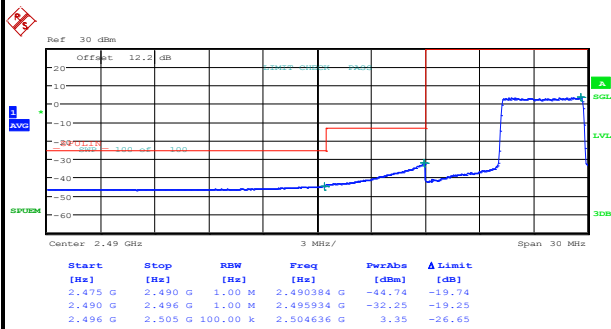
Date: 14.JAN.2015 00:16:21

Highest Band Edge / 1 RB



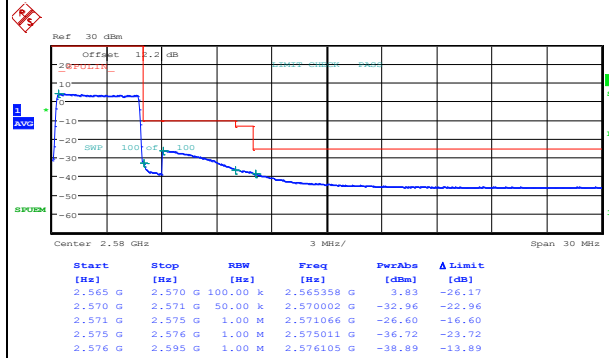
Date: 14.JAN.2015 00:21:13

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:18:47

Highest Band Edge / Full RB

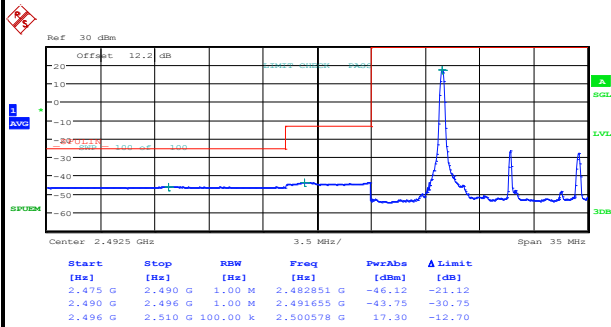


Date: 14.JAN.2015 00:23:40



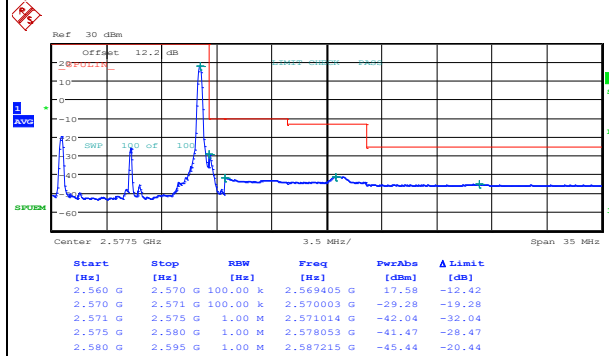
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



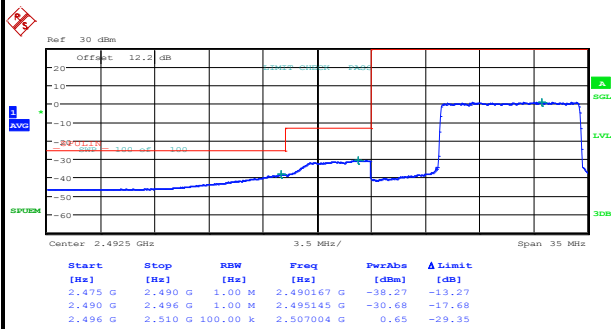
Date: 14.JAN.2015 00:24:58

Highest Band Edge / 1 RB



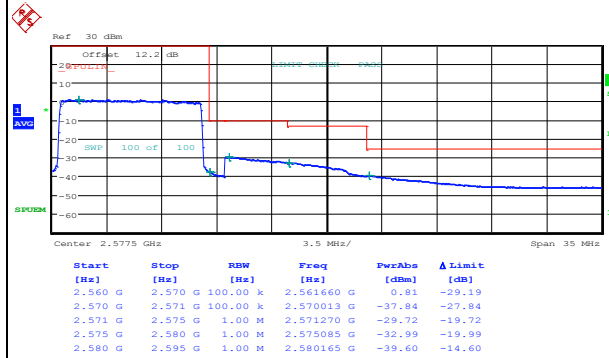
Date: 14.JAN.2015 00:29:55

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:27:26

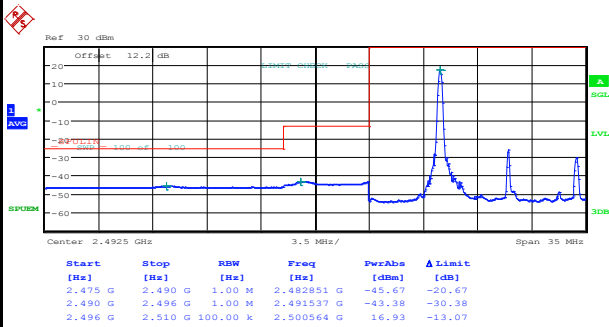
Highest Band Edge / Full RB



Date: 14.JAN.2015 00:32:24

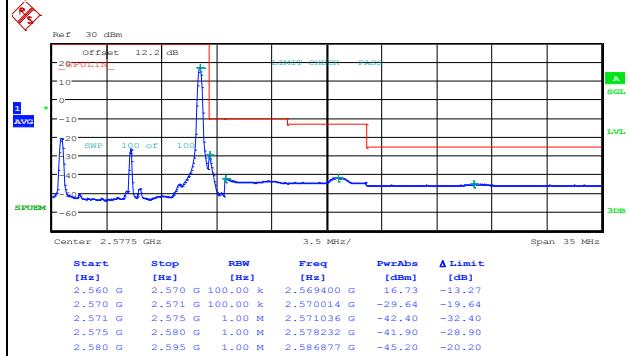
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



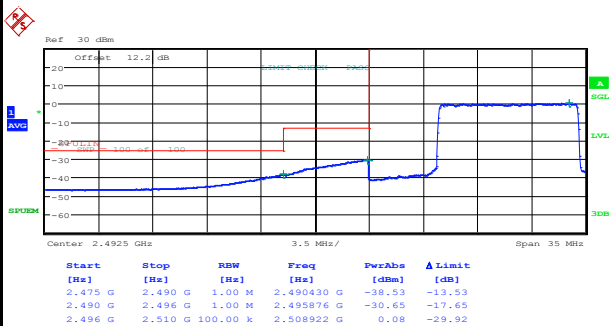
Date: 14.JAN.2015 00:26:12

Highest Band Edge / 1 RB



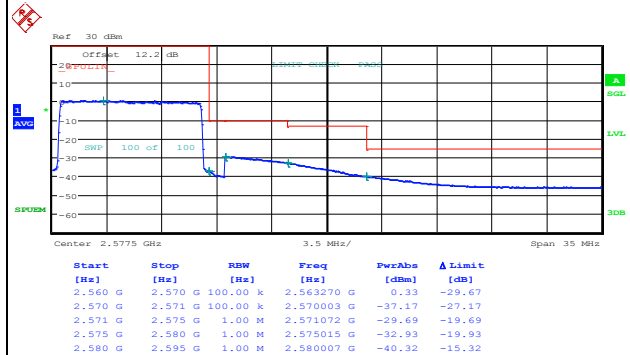
Date: 14.JAN.2015 00:31:09

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:28:40

Highest Band Edge / Full RB

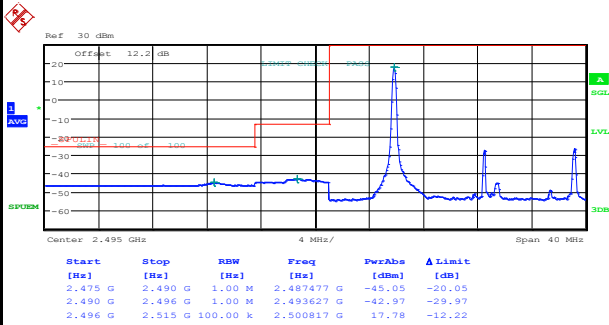


Date: 14.JAN.2015 00:33:38



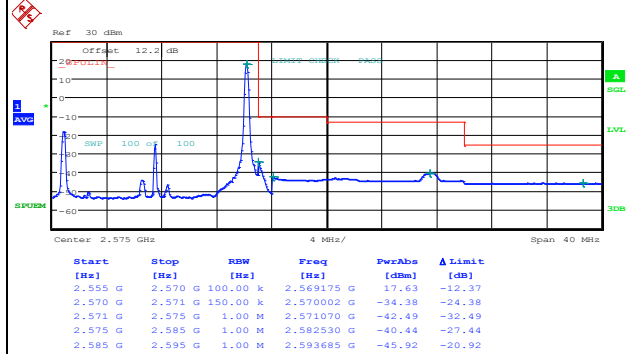
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



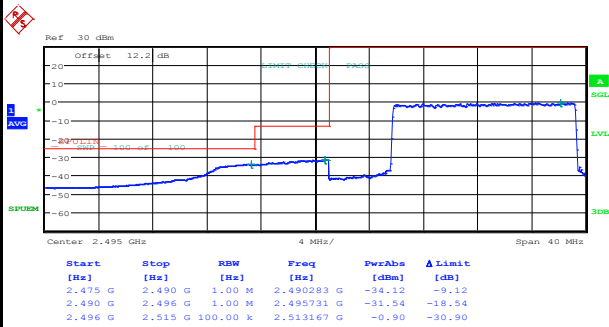
Date: 14.JAN.2015 00:34:57

Highest Band Edge / 1 RB



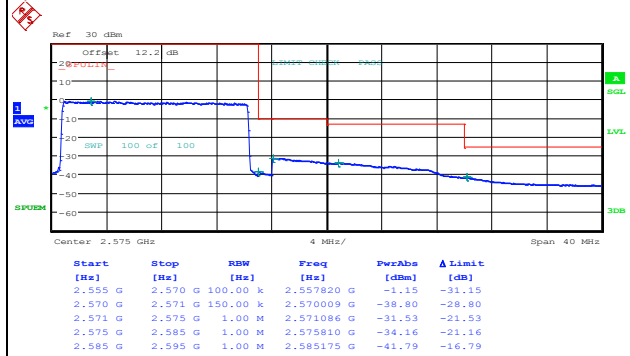
Date: 14.JAN.2015 00:39:58

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:37:27

Highest Band Edge / Full RB

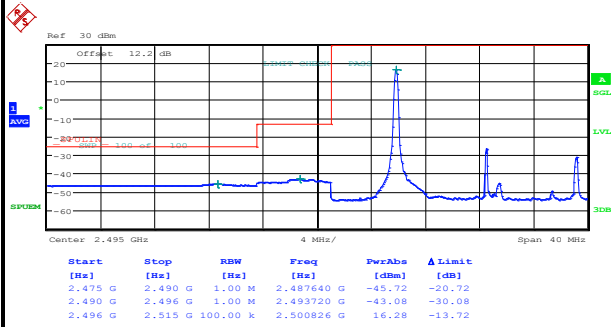


Date: 14.JAN.2015 00:42:29



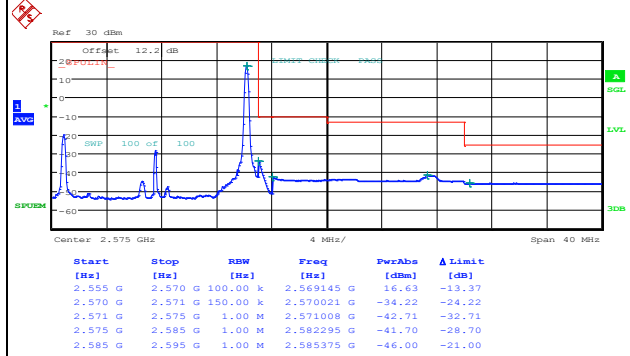
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



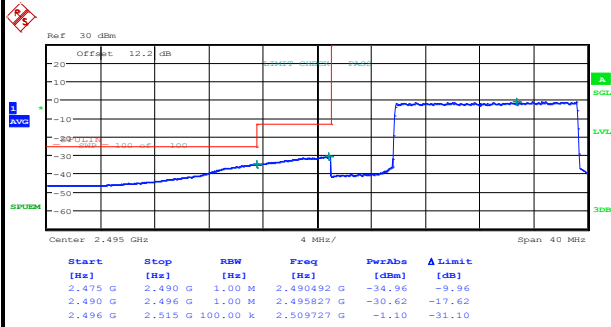
Date: 14.JAN.2015 00:36:12

Highest Band Edge / 1 RB



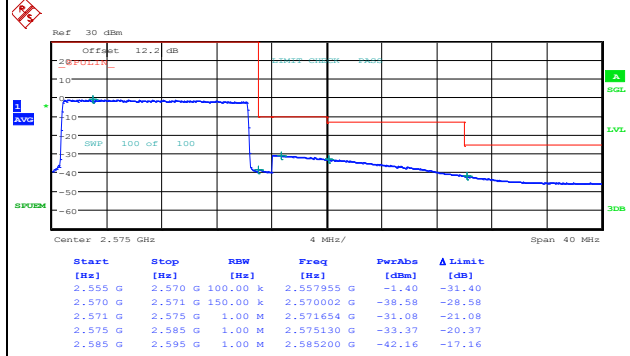
Date: 14.JAN.2015 00:41:14

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:38:43

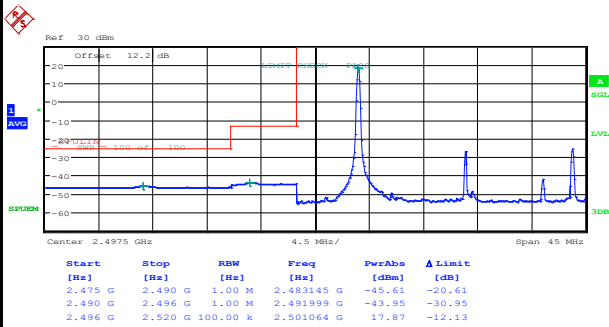
Highest Band Edge / Full RB



Date: 14.JAN.2015 00:43:45

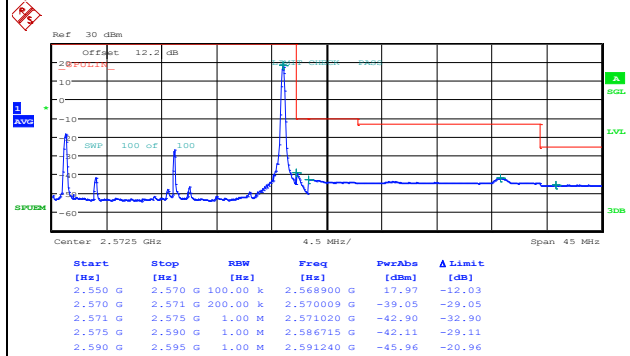
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



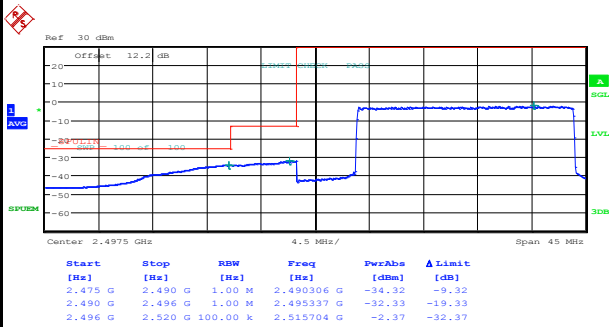
Date: 14.JAN.2015 00:45:05

Highest Band Edge / 1 RB



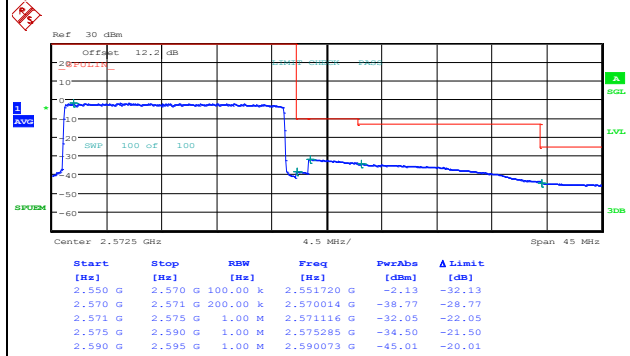
Date: 14.JAN.2015 00:50:10

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:47:37

Highest Band Edge / Full RB

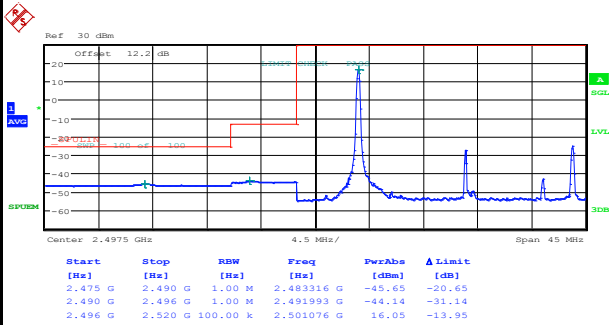


Date: 14.JAN.2015 00:53:59



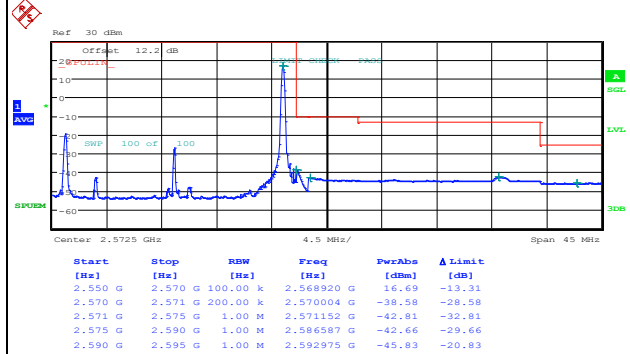
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



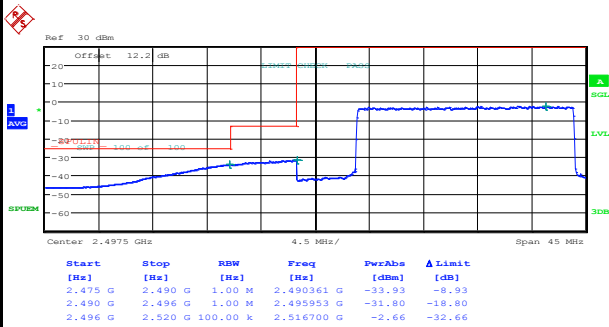
Date: 14.JAN.2015 00:46:21

Highest Band Edge / 1RB



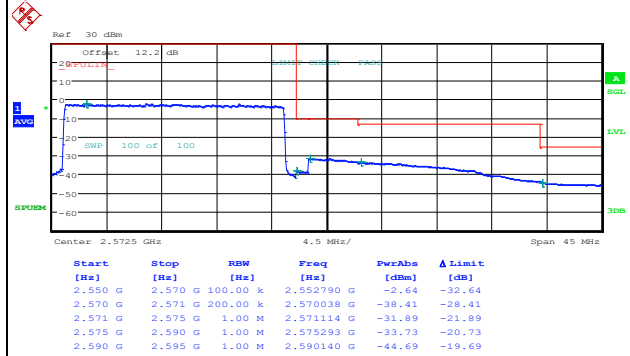
Date: 14.JAN.2015 00:51:26

Lowest Band Edge / Full RB



Date: 14.JAN.2015 00:48:54

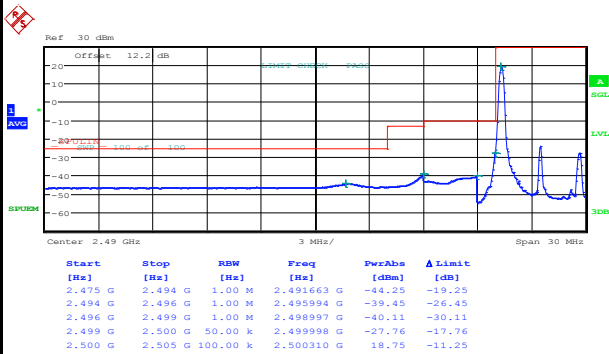
Highest Band Edge / Full RB



Date: 14.JAN.2015 00:52:43

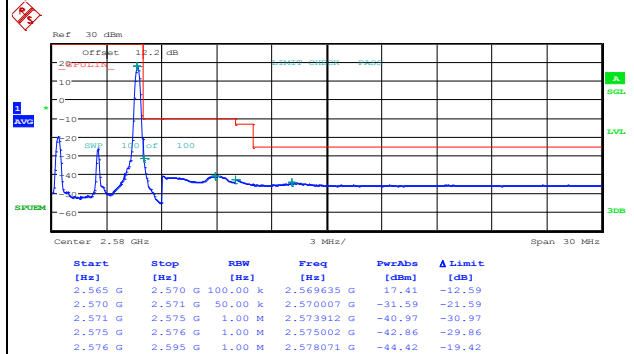
LTE Band 7 / 5MHz / QPSK (IC)

Lowest Band Edge / 1 RB



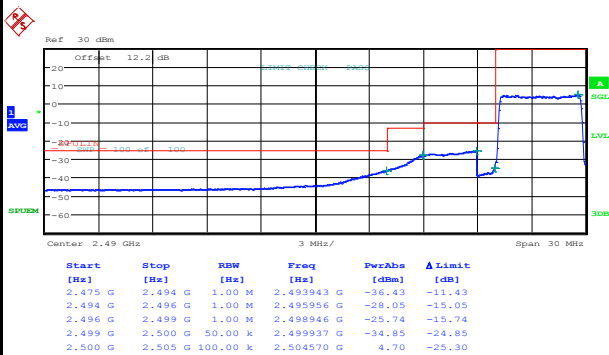
Date: 13.JAN.2015 22:50:32

Highest Band Edge / 1 RB



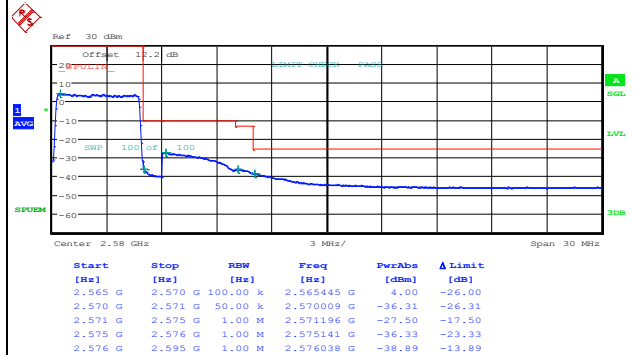
Date: 13.JAN.2015 23:01:21

Lowest Band Edge / Full RB



Date: 13.JAN.2015 22:52:50

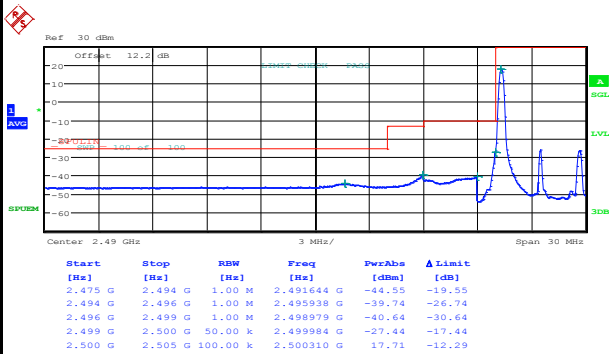
Highest Band Edge / Full RB



Date: 13.JAN.2015 23:03:40

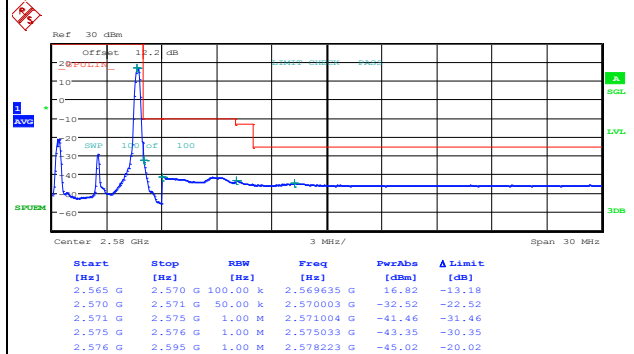
LTE Band 7 / 5MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



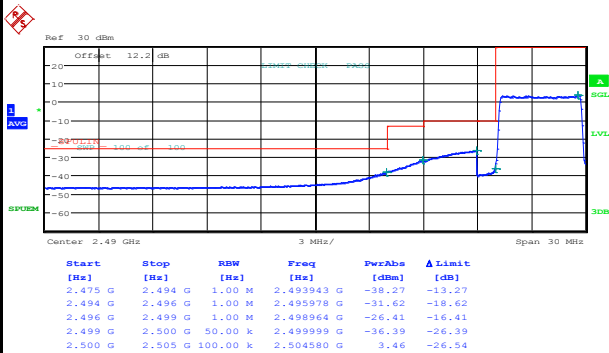
Date: 13.JAN.2015 22:51:41

Highest Band Edge / 1 RB



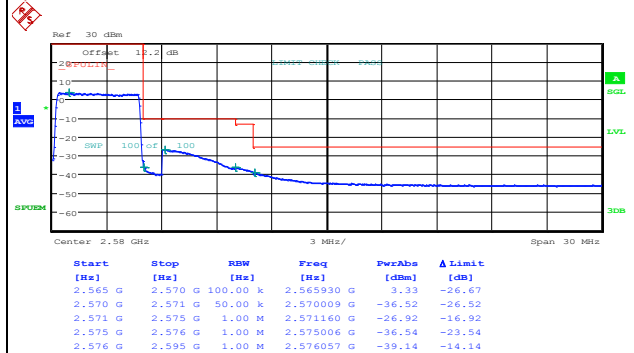
Date: 13.JAN.2015 23:02:31

Lowest Band Edge / Full RB



Date: 13.JAN.2015 22:54:00

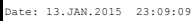
Highest Band Edge / Full RB



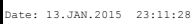
Date: 13.JAN.2015 23:04:49



Highest Band Edge / 1 RB



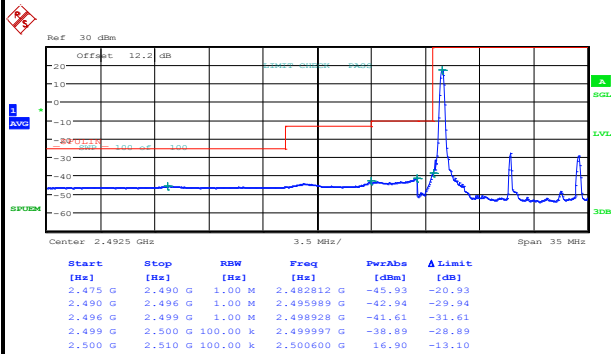
Highest Band Edge / Full RB





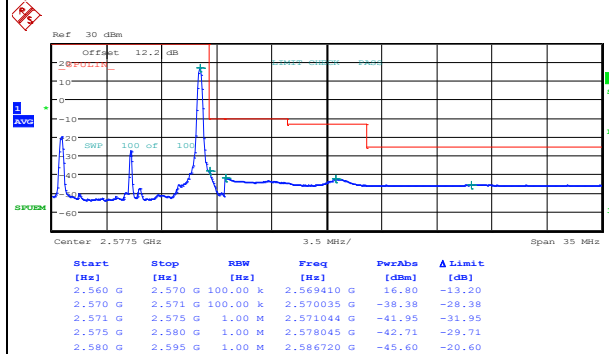
LTE Band 7 / 10MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



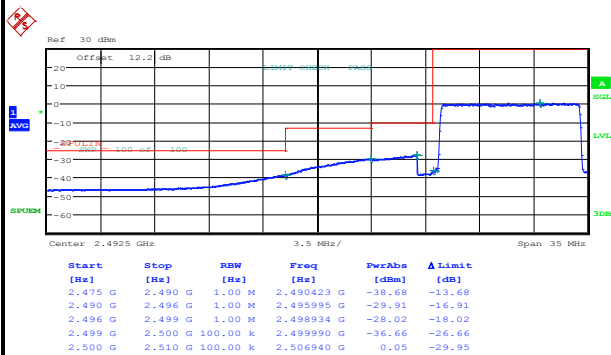
Date: 13.JAN.2015 23:10:19

Highest Band Edge / 1 RB



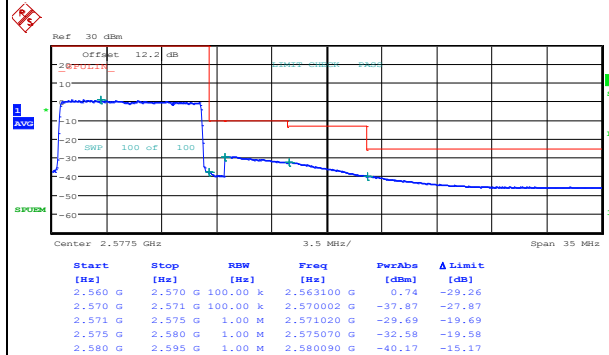
Date: 13.JAN.2015 23:21:32

Lowest Band Edge / Full RB



Date: 13.JAN.2015 23:12:37

Highest Band Edge / Full RB

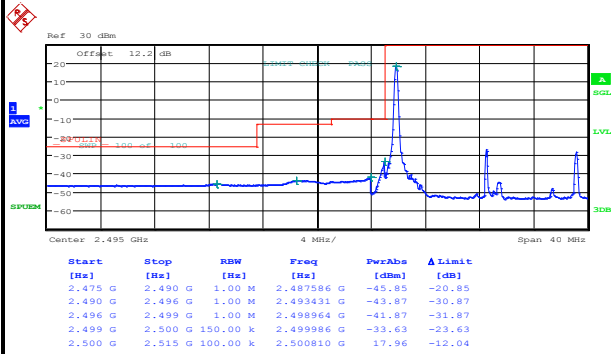


Date: 13.JAN.2015 23:23:50



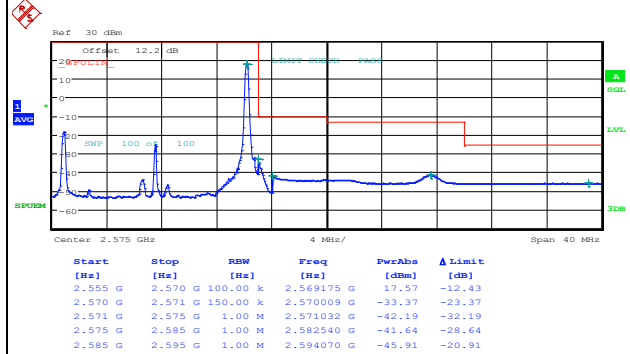
LTE Band 7 / 15MHz / QPSK (IC)

Lowest Band Edge / 1 RB



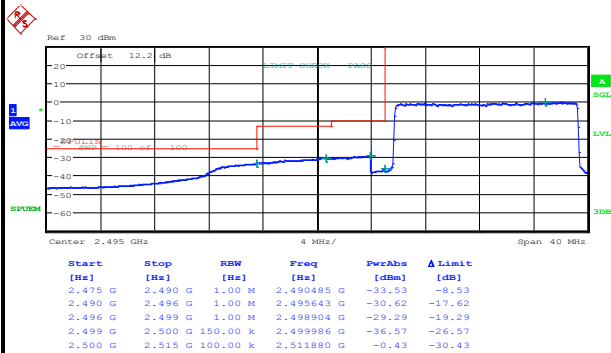
Date: 13.JAN.2015 23:28:10

Highest Band Edge / 1 RB



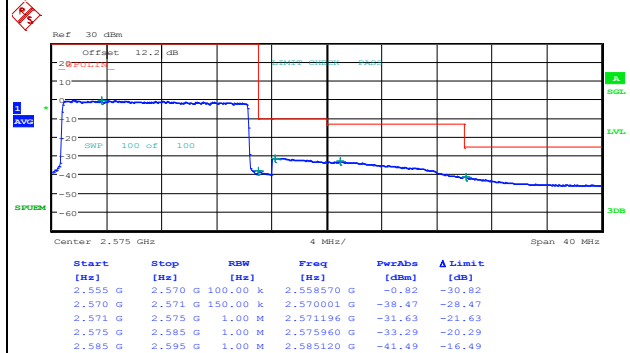
Date: 13.JAN.2015 23:39:00

Lowest Band Edge / Full RB



Date: 13.JAN.2015 23:30:29

Highest Band Edge / Full RB

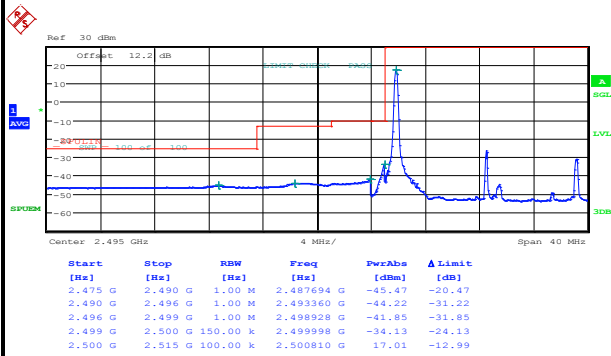


Date: 13.JAN.2015 23:41:19



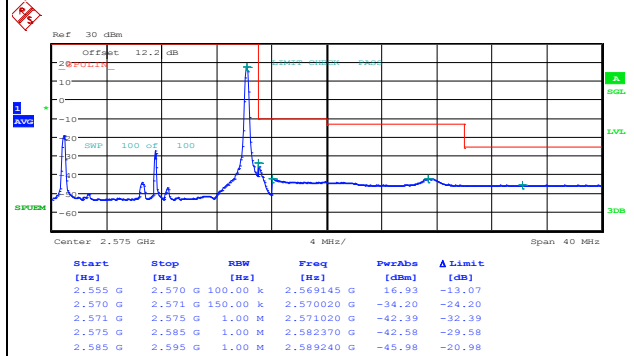
LTE Band 7 / 15MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



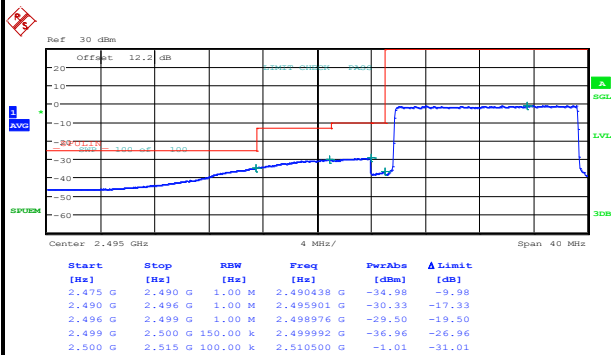
Date: 13.JAN.2015 23:29:20

Highest Band Edge / 1 RB



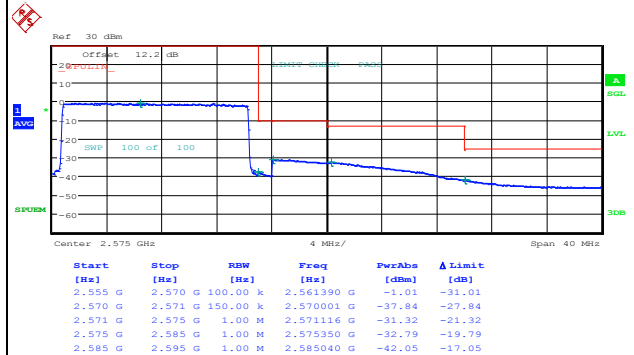
Date: 13.JAN.2015 23:40:10

Lowest Band Edge / Full RB



Date: 13.JAN.2015 23:31:38

Highest Band Edge / Full RB

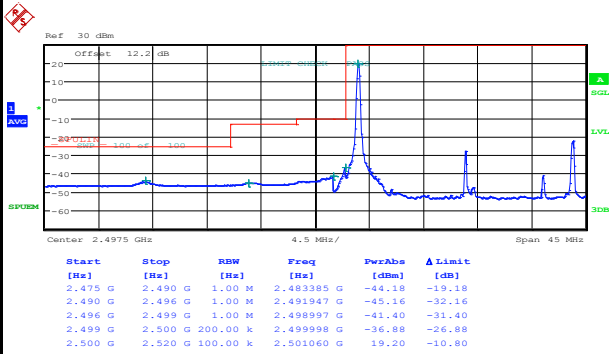


Date: 13.JAN.2015 23:42:29



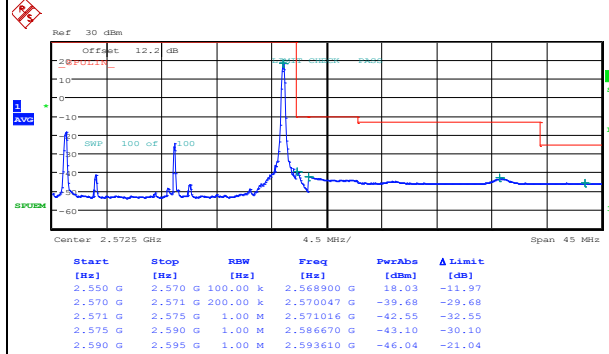
LTE Band 7 / 20MHz / QPSK (IC)

Lowest Band Edge / 1 RB



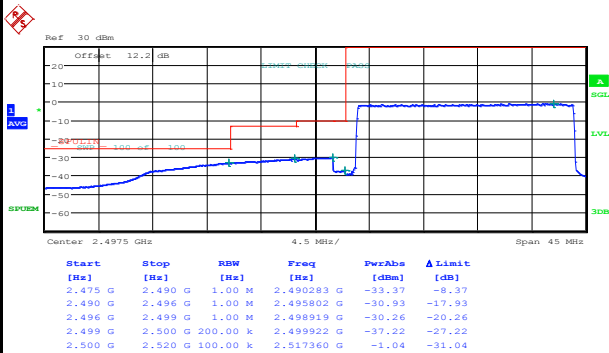
Date: 13.JAN.2015 23:48:52

Highest Band Edge / 1 RB



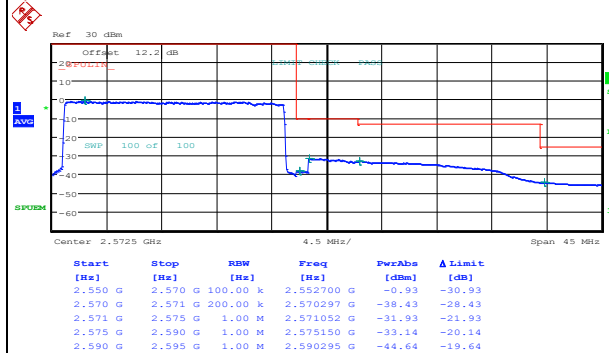
Date: 13.JAN.2015 23:59:42

Lowest Band Edge / Full RB



Date: 13.JAN.2015 23:51:11

Highest Band Edge / Full RB

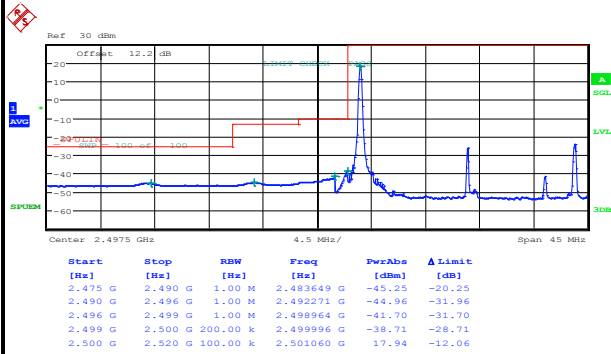


Date: 14.JAN.2015 00:03:12



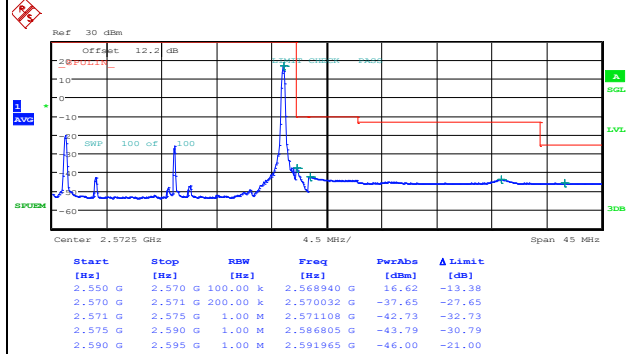
LTE Band 7 / 20MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



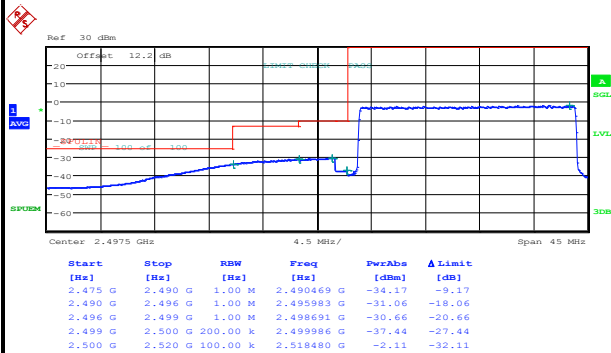
Date: 13.JAN.2015 23:50:01

Highest Band Edge / 1RB



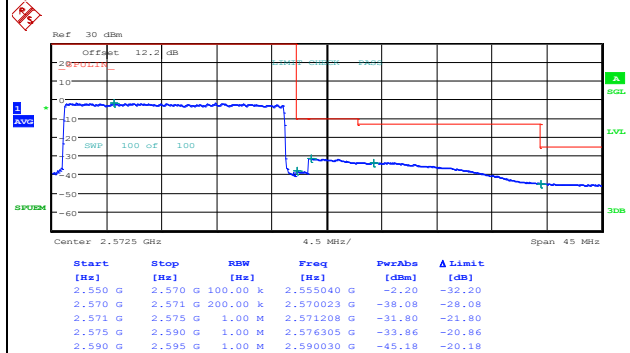
Date: 14.JAN.2015 00:00:52

Lowest Band Edge / Full RB



Date: 13.JAN.2015 23:52:20

Highest Band Edge / Full RB



Date: 14.JAN.2015 00:02:02

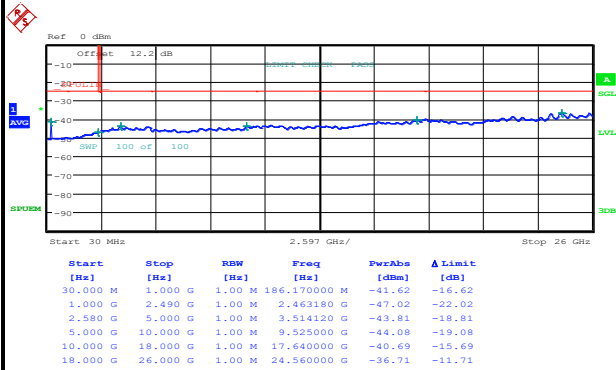


Conducted Spurious Emission



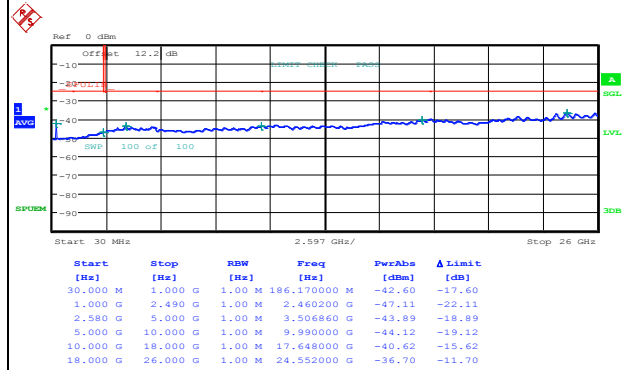
LTE Band 7 / 5MHz

Lowest Channel / QPSK



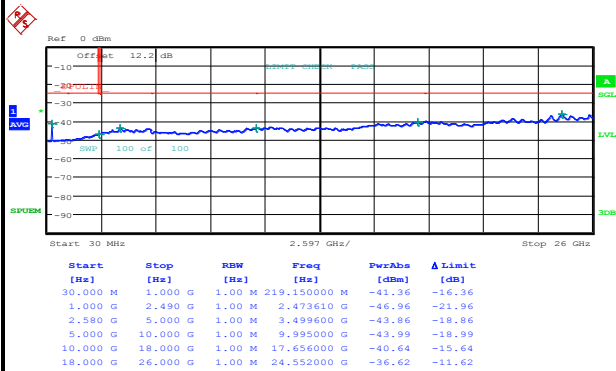
Date: 13.JAN.2015 22:55:09

Lowest Channel / 16QAM



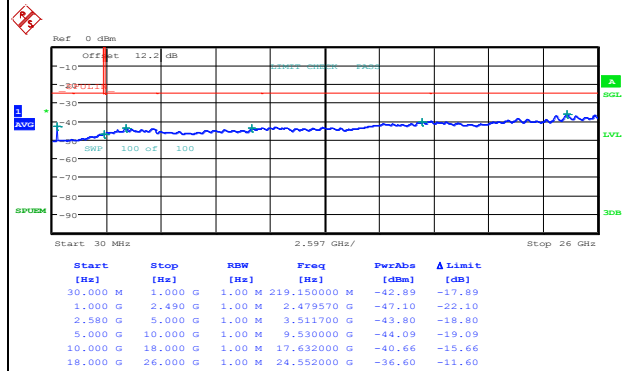
Date: 13.JAN.2015 22:56:19

Middle Channel / QPSK



Date: 13.JAN.2015 22:58:15

Middle Channel / 16QAM

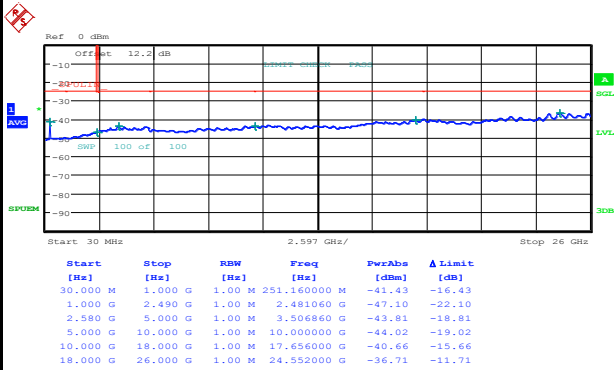


Date: 13.JAN.2015 22:59:25



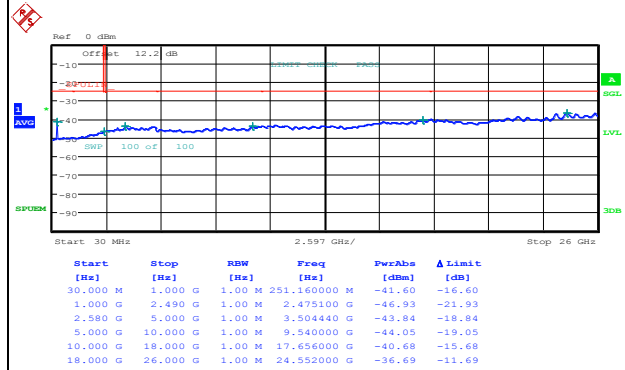
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 13.JAN.2015 23:05:59

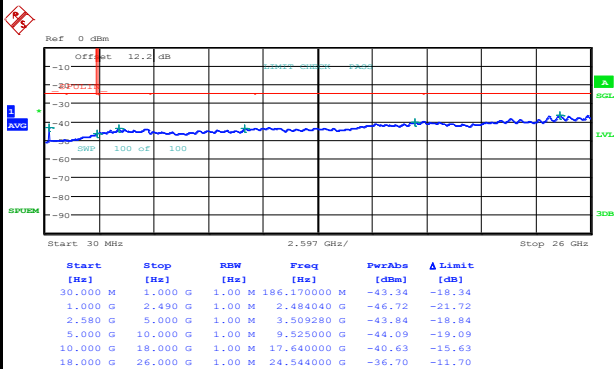
Highest Channel / 16QAM



Date: 13.JAN.2015 23:07:08

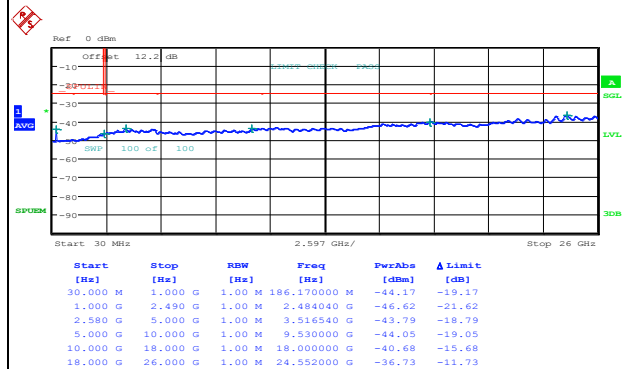
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 13.JAN.2015 23:13:47

Lowest Channel / 16QAM

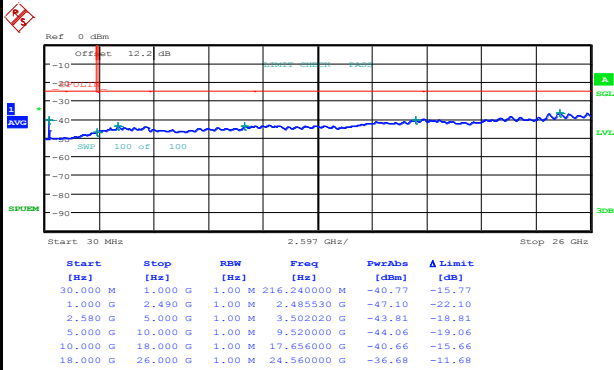


Date: 13.JAN.2015 23:14:56



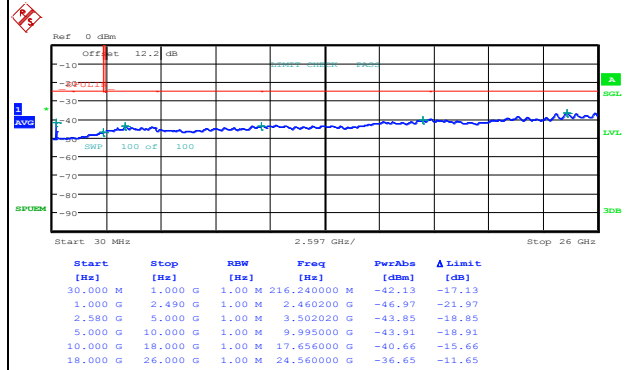
LTE Band 7 / 10MHz

Middle Channel / QPSK



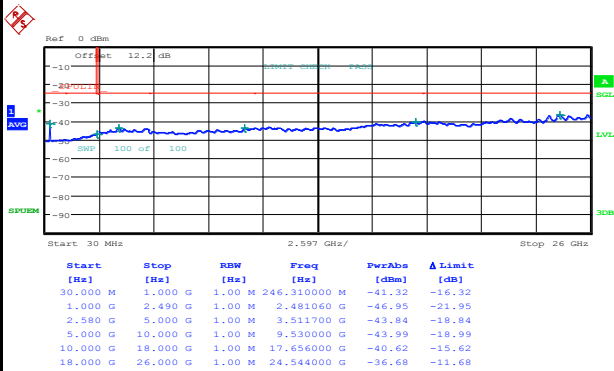
Date: 13.JAN.2015 23:17:16

Middle Channel / 16QAM



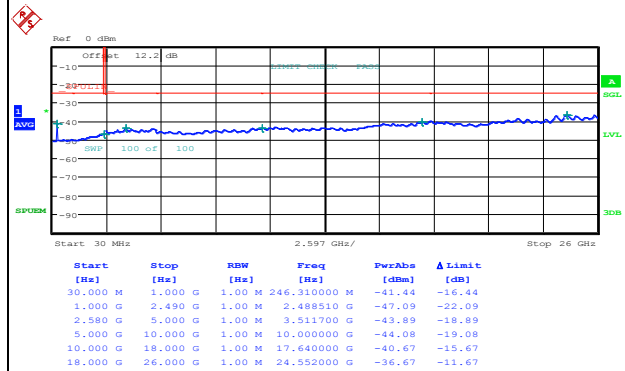
Date: 13.JAN.2015 23:18:25

Highest Channel / QPSK



Date: 13.JAN.2015 23:24:59

Highest Channel / 16QAM

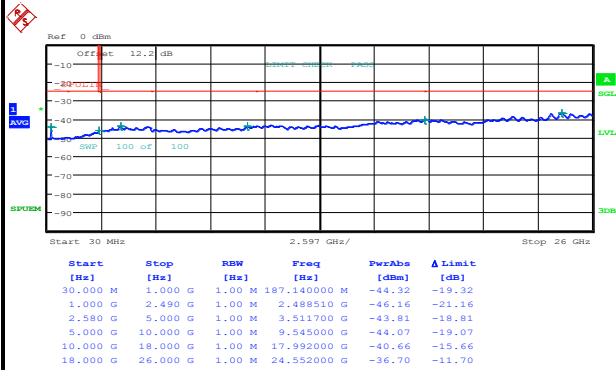


Date: 13.JAN.2015 23:26:09



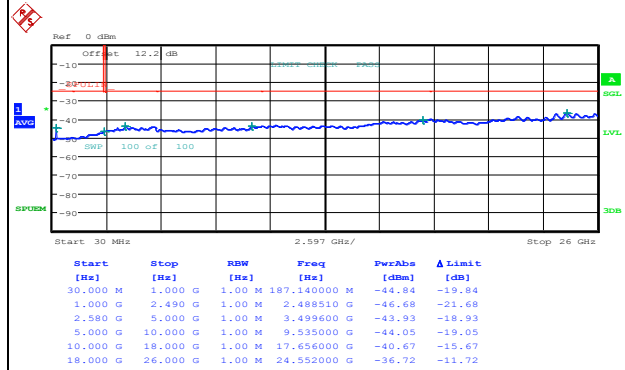
LTE Band 7 / 15MHz

Lowest Channel / QPSK



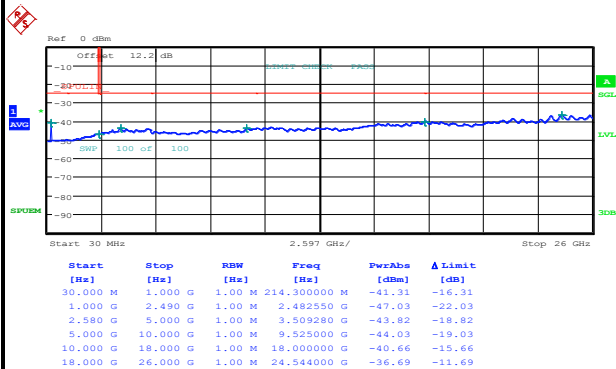
Date: 13.JAN.2015 23:32:48

Lowest Channel / 16QAM



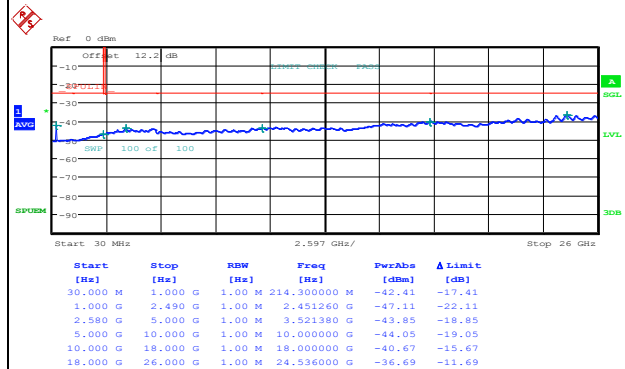
Date: 13.JAN.2015 23:33:57

Middle Channel / QPSK



Date: 13.JAN.2015 23:35:54

Middle Channel / 16QAM

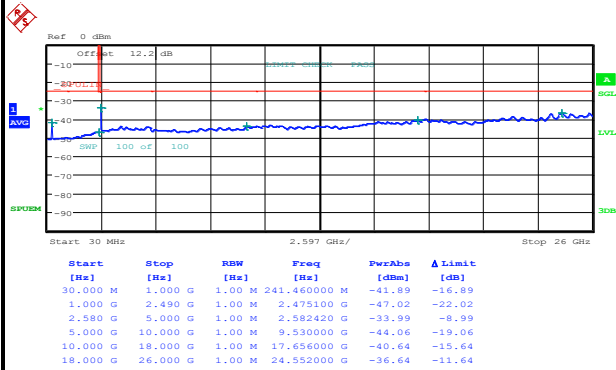


Date: 13.JAN.2015 23:37:04



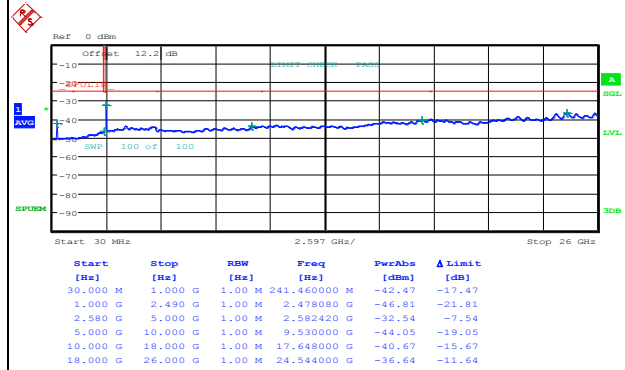
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 13.JAN.2015 23:43:38

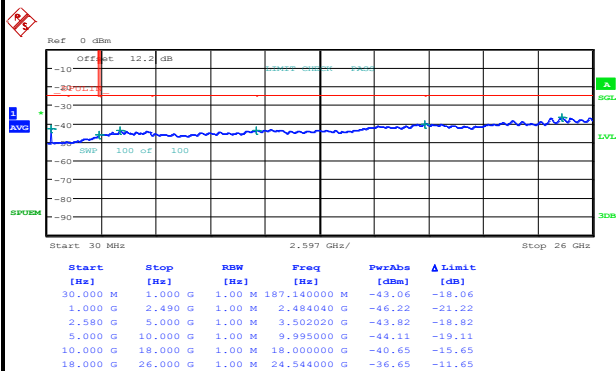
Highest Channel / 16QAM



Date: 13.JAN.2015 23:44:48

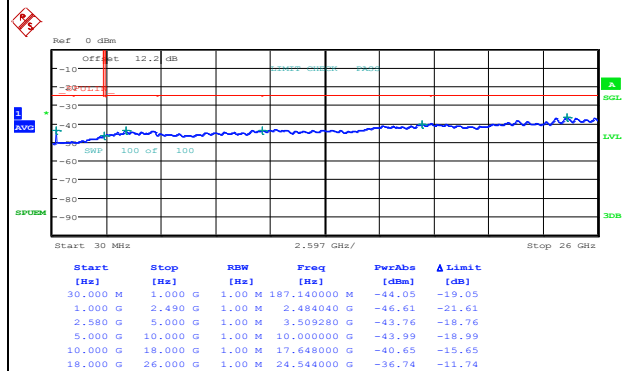
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 13.JAN.2015 23:53:29

Lowest Channel / 16QAM

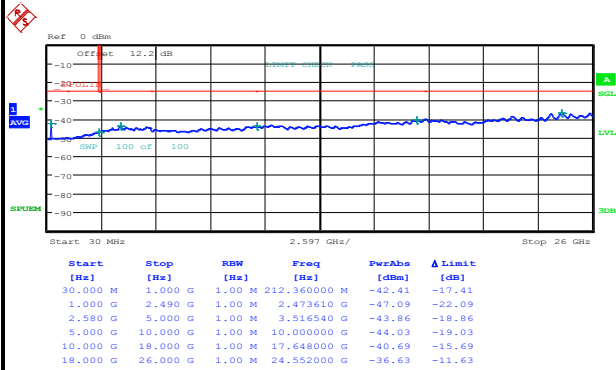


Date: 13.JAN.2015 23:54:39



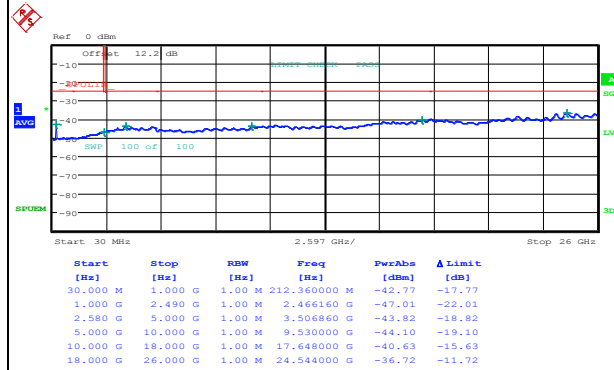
LTE Band 7 / 20MHz

Middle Channel / QPSK



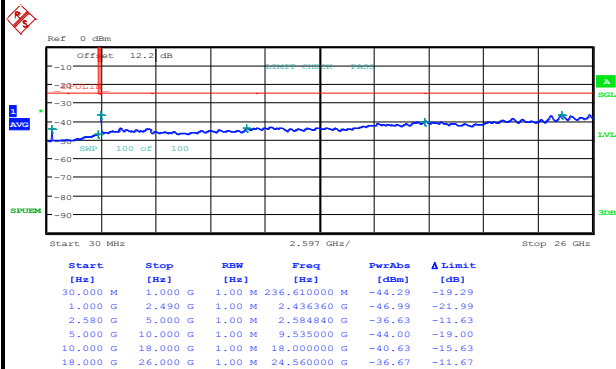
Date: 13.JAN.2015 23:56:35

Middle Channel / 16QAM



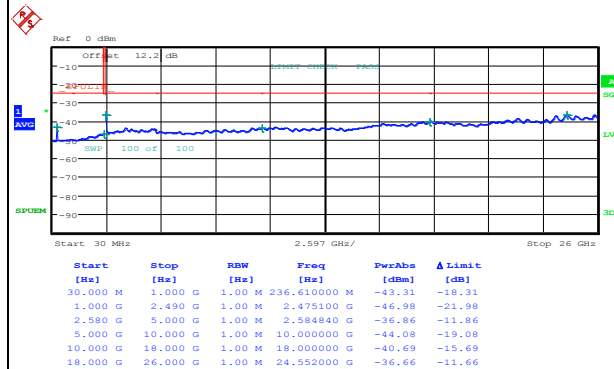
Date: 13.JAN.2015 23:57:45

Highest Channel / QPSK



Date: 14.JAN.2015 00:04:22

Highest Channel / 16QAM



Date: 14.JAN.2015 00:05:32

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0088	PASS
40	Normal Voltage	0.0103	
30	Normal Voltage	0.0100	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0098	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.1 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Within Band
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	-22.2	PASS
40	Normal Voltage	-26.1	
30	Normal Voltage	-25.3	
20(Ref.)	Normal Voltage	0	
10	Normal Voltage	-0.3	
0	Normal Voltage	-1.4	
-10	Normal Voltage	0.4	
-20	Normal Voltage	-2.9	
-30	Normal Voltage	1.9	
20	Maximum Voltage	-24.8	
20	Normal Voltage	0	
20	Battery End Point	1.2	

$|\text{MAX}(\Delta f)| = 26.1\text{Hz}$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	2500.149986	$\geq 2500 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	2569.834015	$\leq 2570 \text{ MHz}$	



LTE Band 12

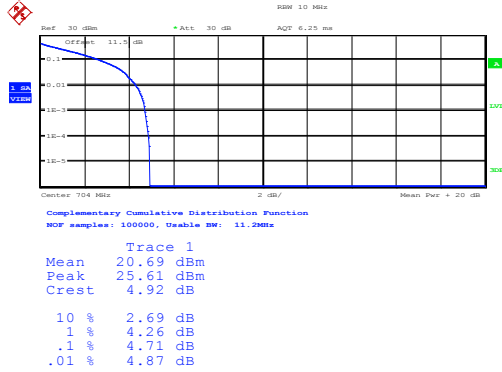
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	RB Size	Result
Lowest CH	4.71	6.19	5.96	6.92	PASS
Middle CH	5.38	6.25	6.63	7.08	
Highest CH	5.61	6.12	6.7	6.79	



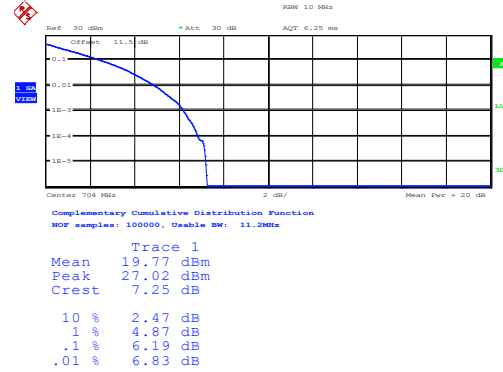
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



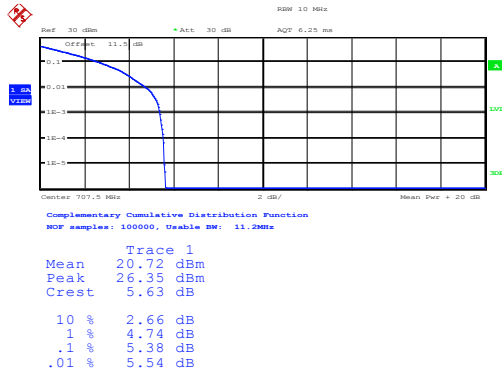
Date: 14.JAN.2015 13:48:57

Lowest Channel / Full RB



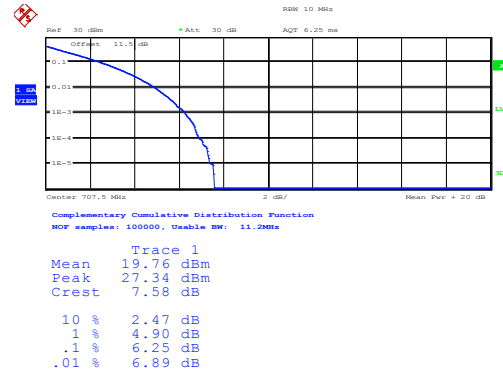
Date: 14.JAN.2015 13:48:38

Middle Channel / 1RB



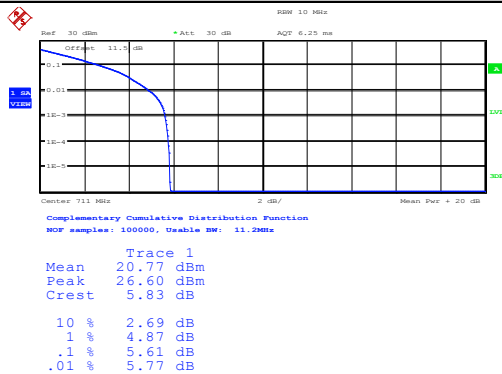
Date: 14.JAN.2015 13:49:17

Middle Channel / Full RB



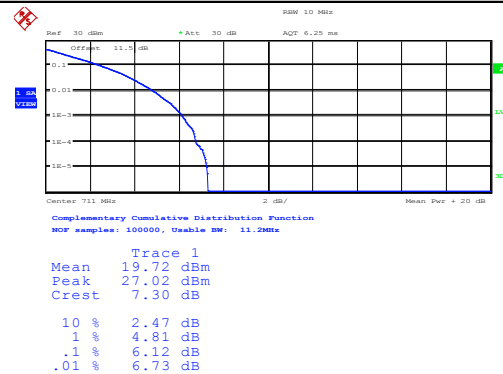
Date: 14.JAN.2015 13:49:34

Highest Channel / 1RB



Date: 14.JAN.2015 13:50:12

Highest Channel / Full RB

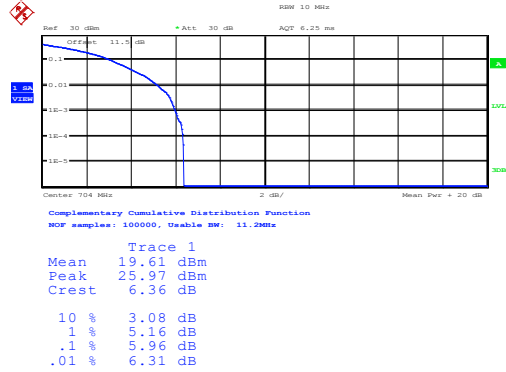


Date: 14.JAN.2015 13:49:52



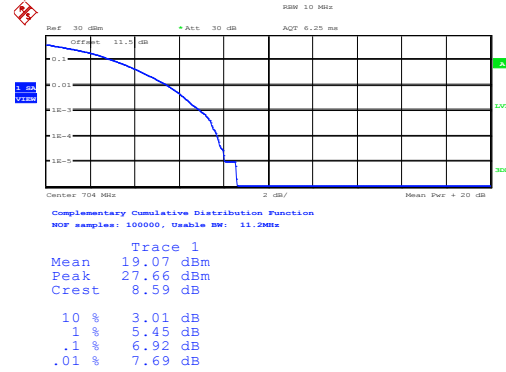
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



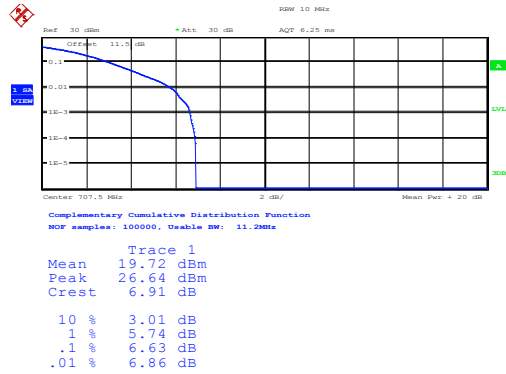
Date: 14.JAN.2015 13:44:27

Lowest Channel / Full RB



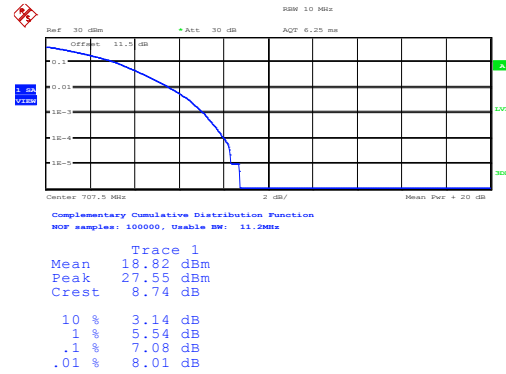
Date: 14.JAN.2015 13:44:08

Middle Channel / 1RB



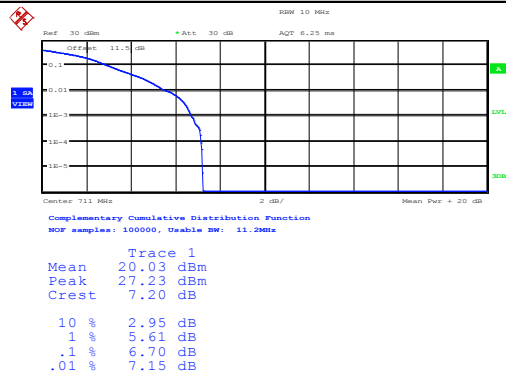
Date: 14.JAN.2015 13:44:54

Middle Channel / Full RB



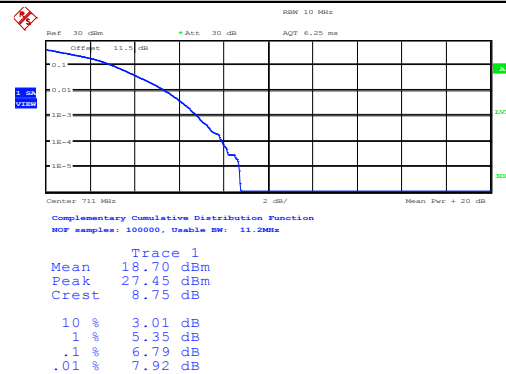
Date: 14.JAN.2015 13:45:19

Highest Channel / 1RB



Date: 14.JAN.2015 13:48:14

Highest Channel / Full RB



Date: 14.JAN.2015 13:47:50



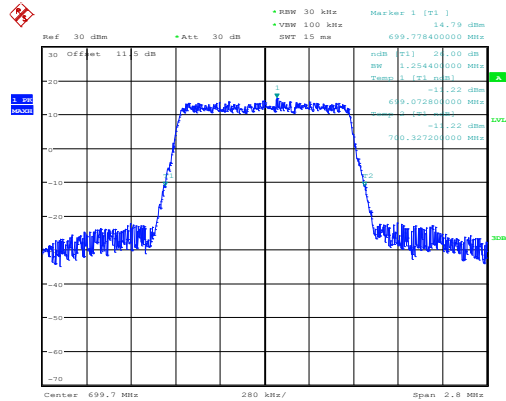
26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.25	1.28	3.01	2.97	4.97	4.98	10.12	10	-	-	-	-
Middle CH	1.26	1.26	2.98	3.02	5.04	5	10.06	10.06	-	-	-	-
Highest CH	1.25	1.27	3.02	3.02	5.04	5.01	10.04	10.06	-	-	-	-



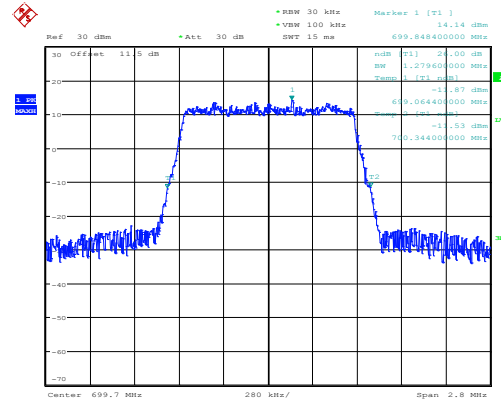
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



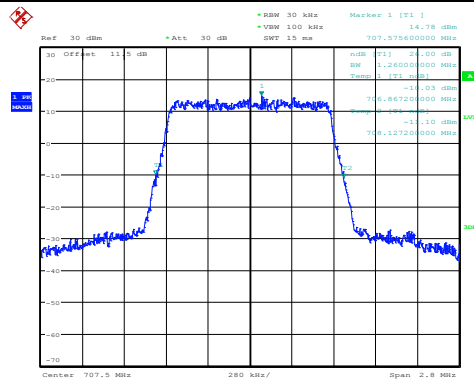
Date: 14.JAN.2015 12:12:24

Lowest Channel / 1.4MHz / 16QAM



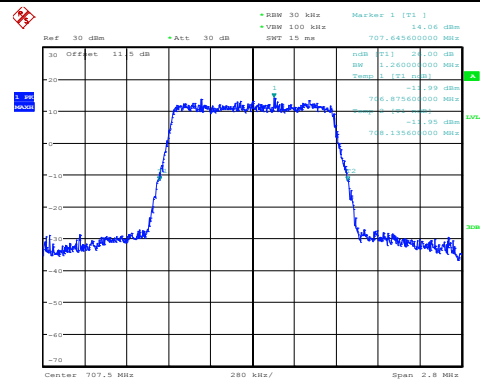
Date: 14.JAN.2015 12:12:05

Middle Channel / 1.4MHz / QPSK



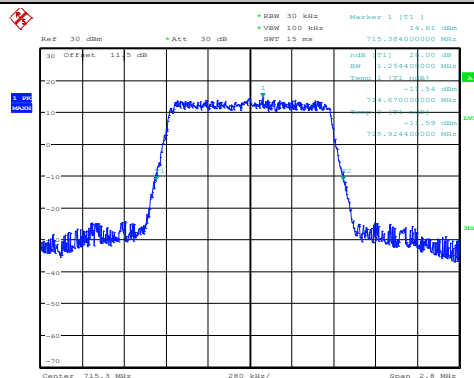
Date: 14.JAN.2015 12:21:49

Middle Channel / 1.4MHz / 16QAM



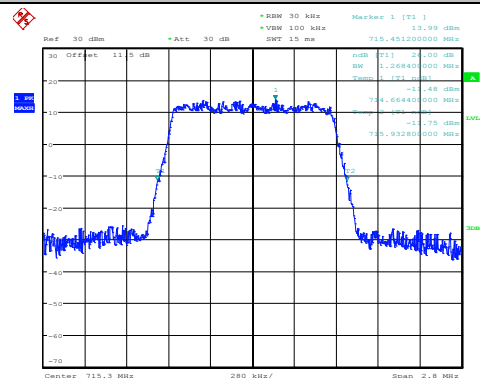
Date: 14.JAN.2015 12:22:09

Highest Channel / 1.4MHz / QPSK



Date: 14.JAN.2015 12:25:55

Highest Channel / 1.4MHz / 16QAM

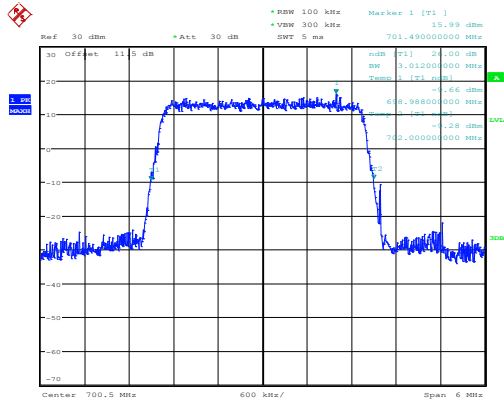


Date: 14.JAN.2015 12:25:35



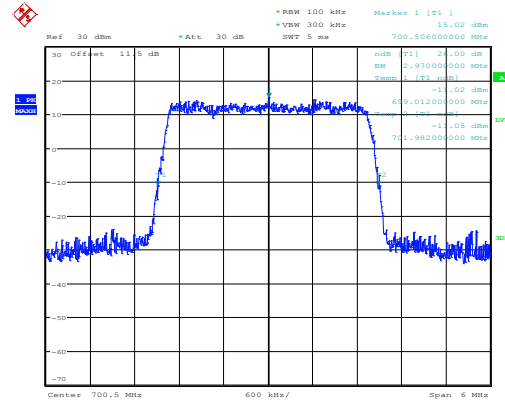
LTE Band 12

Lowest Channel / 3MHz / QPSK



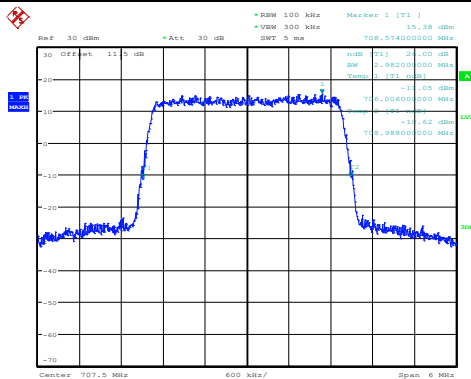
Date: 14.JAN.2015 10:19:14

Lowest Channel / 3MHz / 16QAM



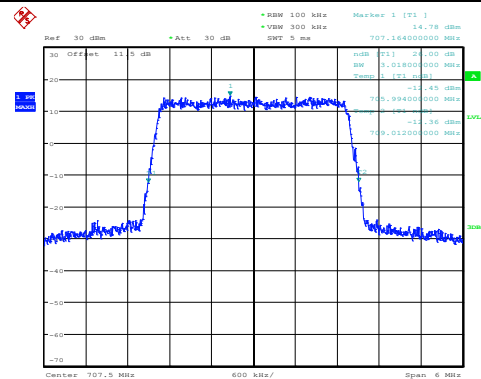
Date: 14.JAN.2015 10:18:55

Middle Channel / 3MHz / QPSK



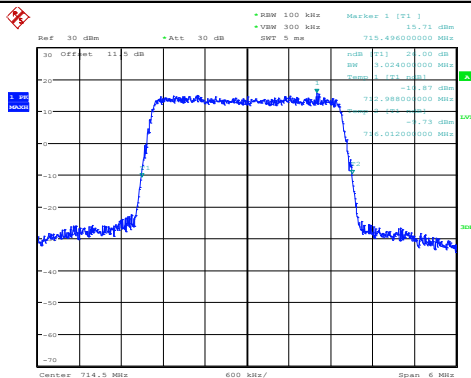
Date: 14.JAN.2015 10:31:38

Middle Channel /3MHz / 16QAM



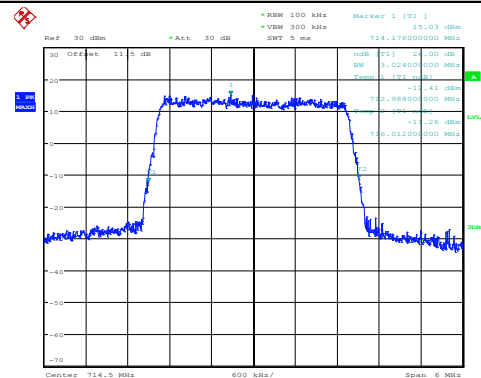
Date: 14.JAN.2015 10:31:58

Highest Channel /3MHz / QPSK



Date: 14.JAN.2015 10:35:44

Highest Channel /3MHz / 16QAM

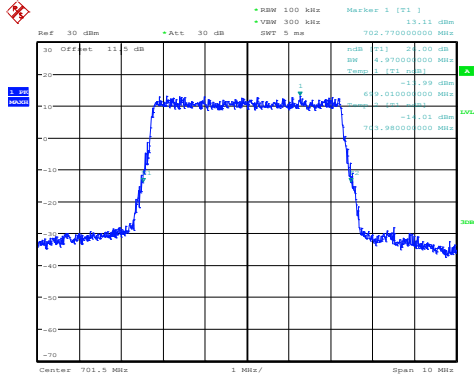


Date: 14.JAN.2015 10:35:24



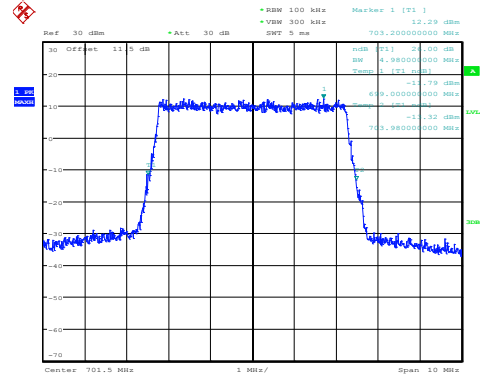
LTE Band 12

Lowest Channel / 5MHz / QPSK



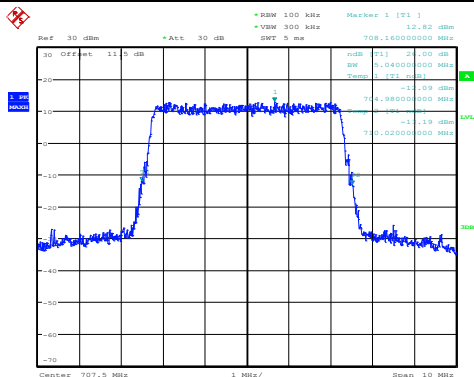
Date: 14.JAN.2015 10:44:40

Lowest Channel / 5MHz / 16QAM



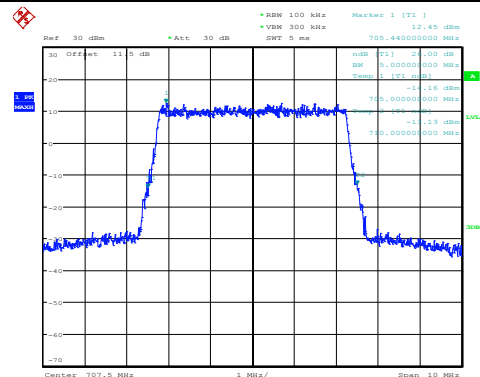
Date: 14.JAN.2015 10:44:21

Middle Channel / 5MHz / QPSK



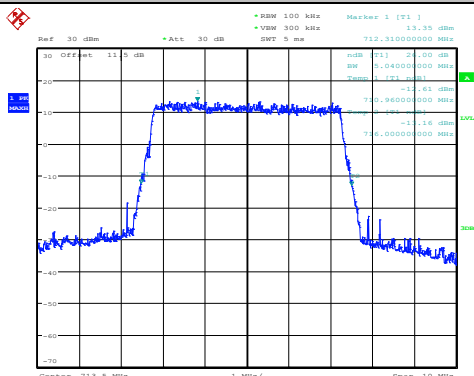
Date: 14.JAN.2015 10:53:11

Middle Channel / 5MHz / 16QAM



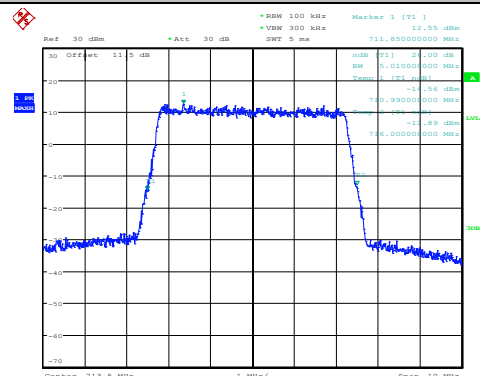
Date: 14.JAN.2015 10:53:31

Highest Channel / 5MHz / QPSK



Date: 14.JAN.2015 10:57:16

Highest Channel / 5MHz / 16QAM

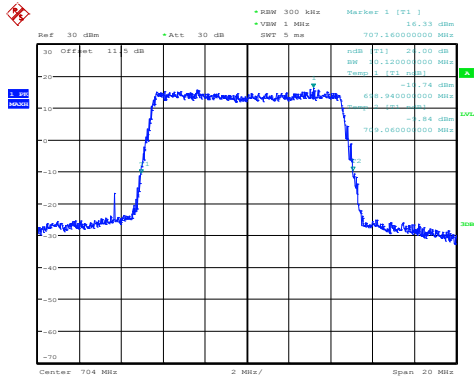


Date: 14.JAN.2015 10:56:57



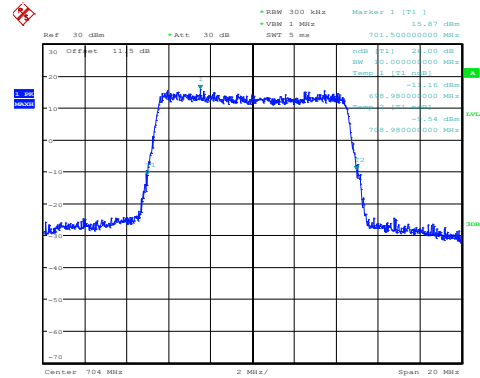
LTE Band 12

Lowest Channel / 10MHz / QPSK



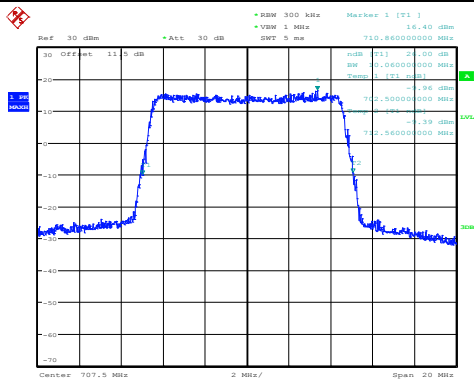
Date: 14.JAN.2015 11:06:13

Lowest Channel / 10MHz / 16QAM



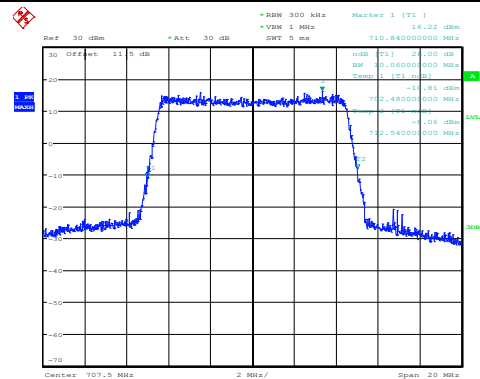
Date: 14.JAN.2015 11:05:53

Middle Channel / 10MHz / QPSK



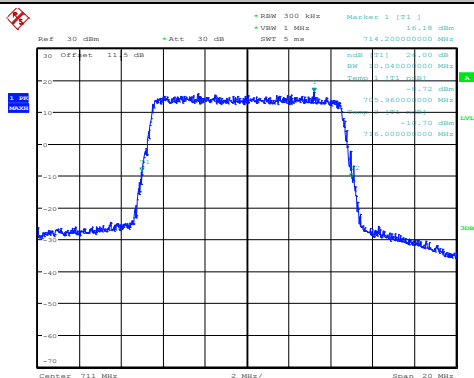
Date: 14.JAN.2015 11:15:46

Middle Channel / 10MHz / 16QAM



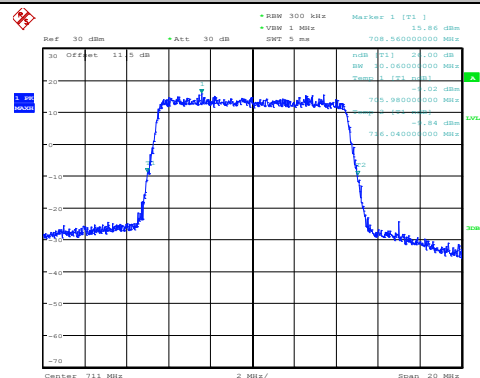
Date: 14.JAN.2015 11:16:05

Highest Channel / 10MHz / QPSK



Date: 14.JAN.2015 11:19:52

Highest Channel / 10MHz / 16QAM



Date: 14.JAN.2015 11:19:33



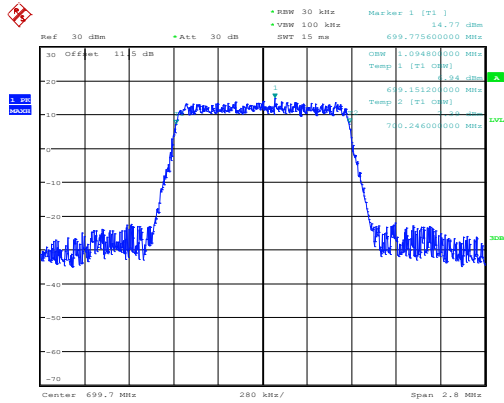
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.72	4.51	4.51	9.1	9.06	-	-	-	-
Middle CH	1.1	1.1	2.72	2.72	4.51	4.51	9.1	9.06	-	-	-	-
Highest CH	1.1	1.1	2.72	2.72	4.5	4.51	9.06	9.04	-	-	-	-



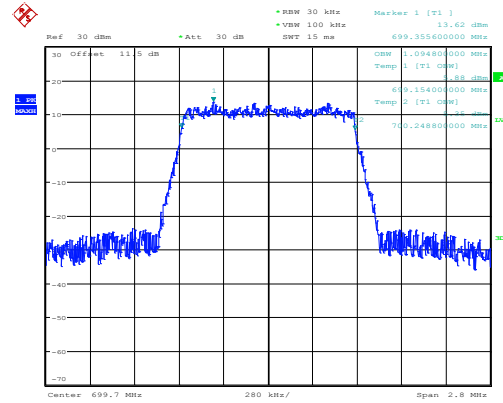
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



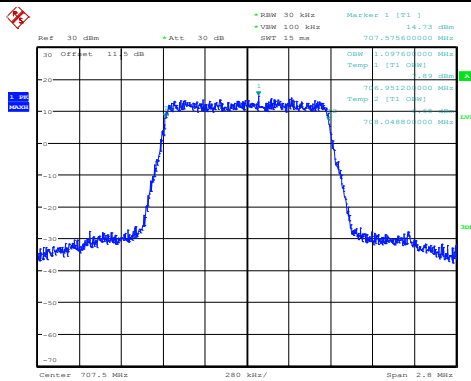
Date: 14.JAN.2015 12:11:28

Lowest Channel / 1.4MHz / 16QAM



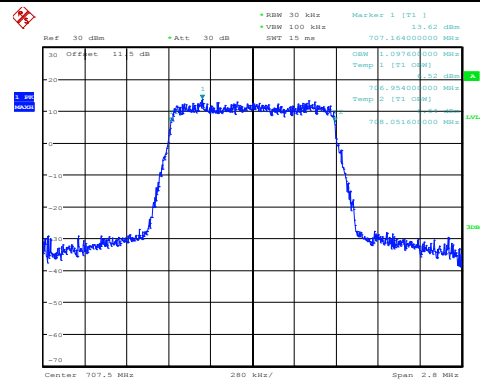
Date: 14.JAN.2015 12:11:45

Middle Channel / 1.4MHz / QPSK



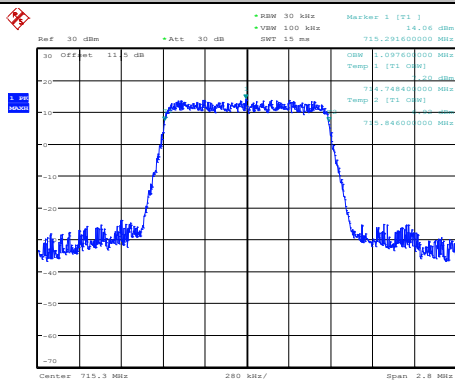
Date: 14.JAN.2015 12:21:29

Middle Channel / 1.4MHz / 16QAM



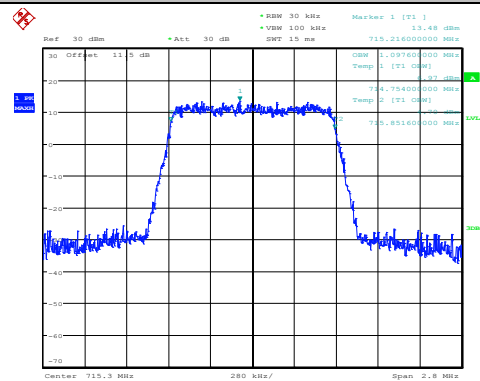
Date: 14.JAN.2015 12:21:11

Highest Channel / 1.4MHz / QPSK



Date: 14.JAN.2015 12:24:59

Highest Channel / 1.4MHz / 16QAM

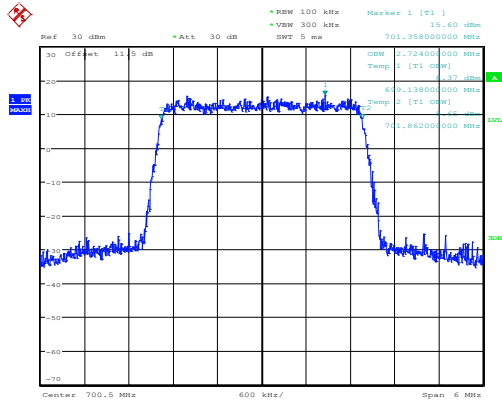


Date: 14.JAN.2015 12:25:16



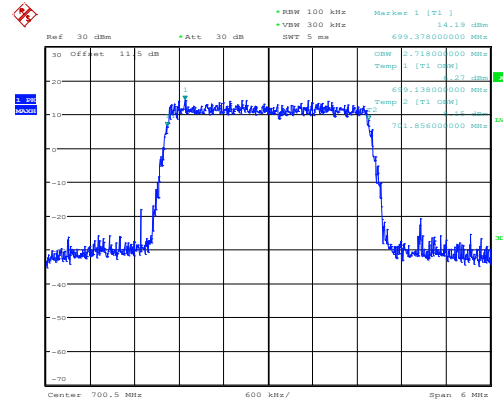
LTE Band 12

Lowest Channel / 3MHz / QPSK



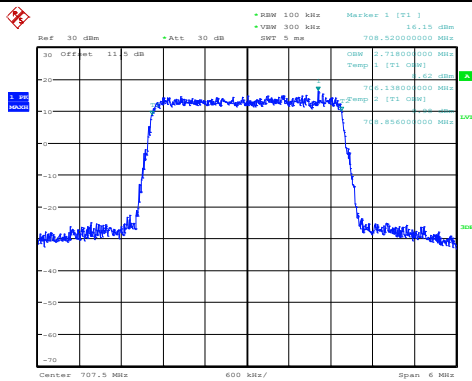
Date: 14.JAN.2015 10:17:25

Lowest Channel / 3MHz / 16QAM



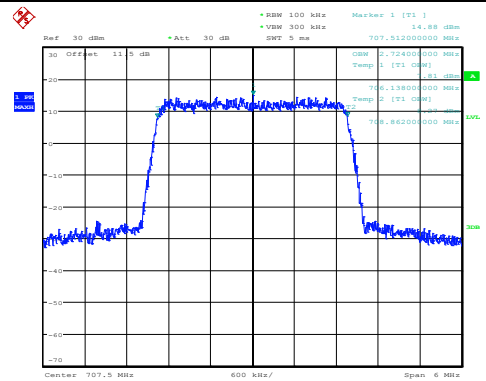
Date: 14.JAN.2015 10:18:31

Middle Channel / 3MHz / QPSK



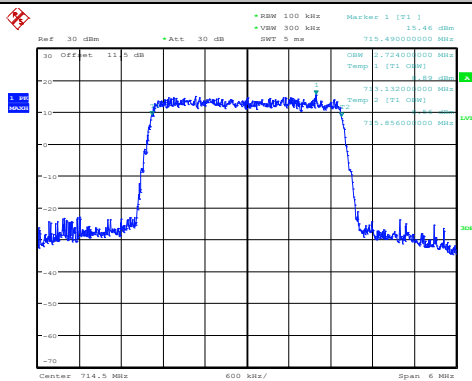
Date: 14.JAN.2015 10:31:19

Middle Channel / 3MHz / 16QAM



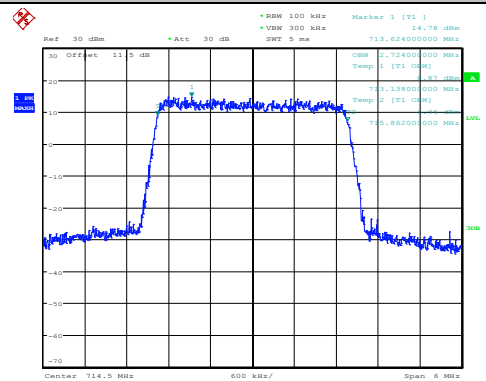
Date: 14.JAN.2015 10:31:02

Highest Channel / 3MHz / QPSK



Date: 14.JAN.2015 10:34:47

Highest Channel / 3MHz / 16QAM

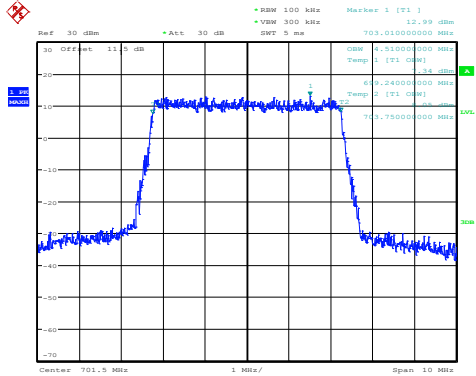


Date: 14.JAN.2015 10:35:05



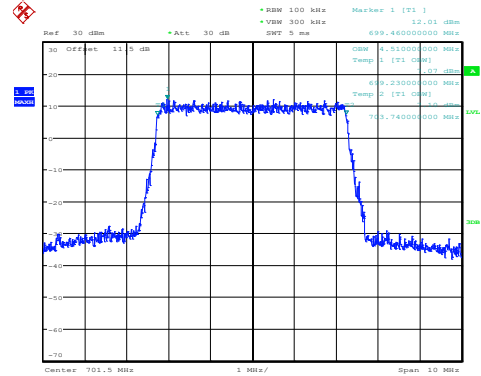
LTE Band 12

Lowest Channel / 5MHz / QPSK



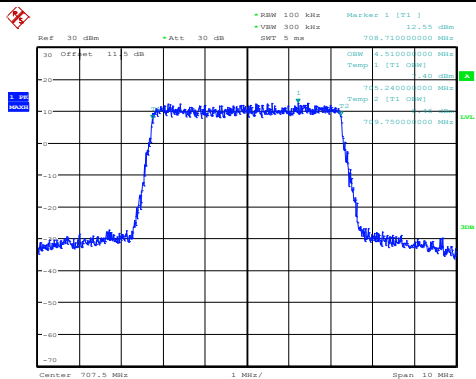
Date: 14.JAN.2015 10:43:44

Lowest Channel / 5MHz / 16QAM



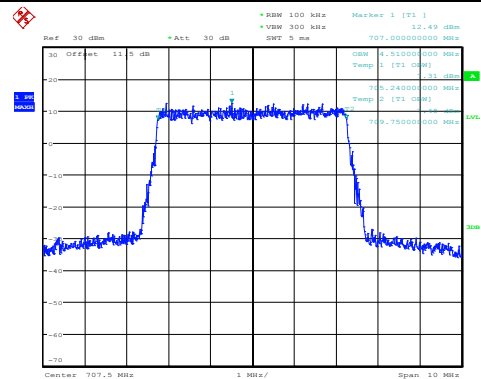
Date: 14.JAN.2015 10:44:01

Middle Channel / 5MHz / QPSK



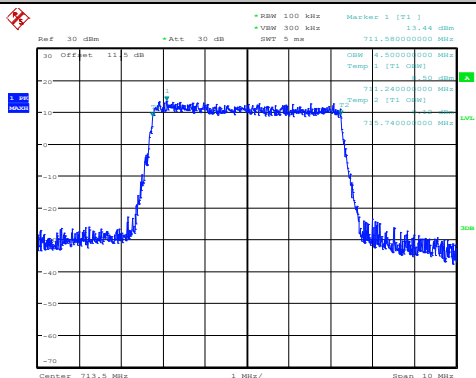
Date: 14.JAN.2015 10:52:52

Middle Channel / 5MHz / 16QAM



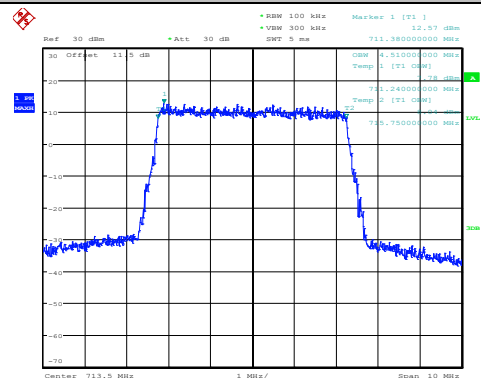
Date: 14.JAN.2015 10:52:35

Highest Channel / 5MHz / QPSK



Date: 14.JAN.2015 10:56:21

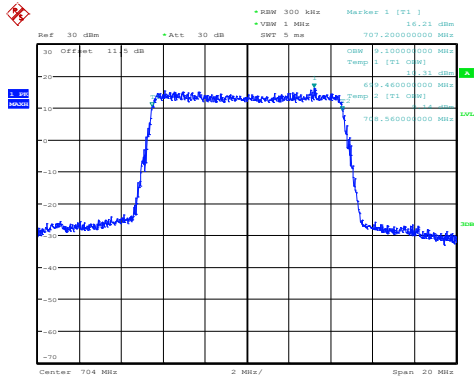
Highest Channel / 5MHz / 16QAM



Date: 14.JAN.2015 10:56:38

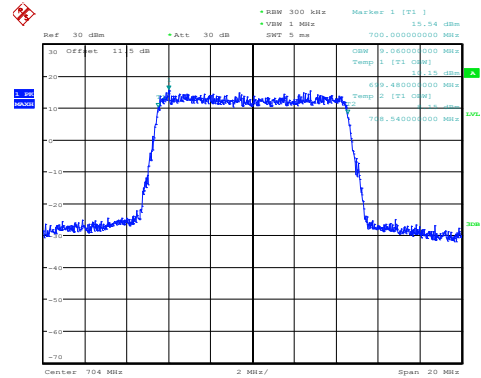
LTE Band 12

Lowest Channel / 10MHz / QPSK



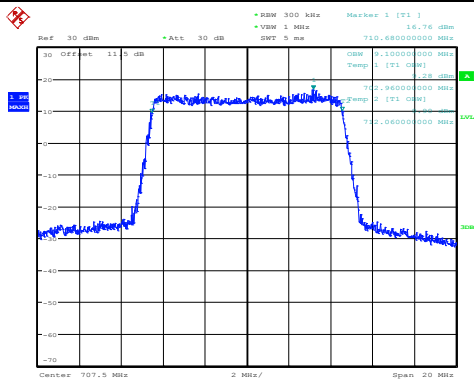
Date: 14.JAN.2015 11:05:15

Lowest Channel / 10MHz / 16QAM



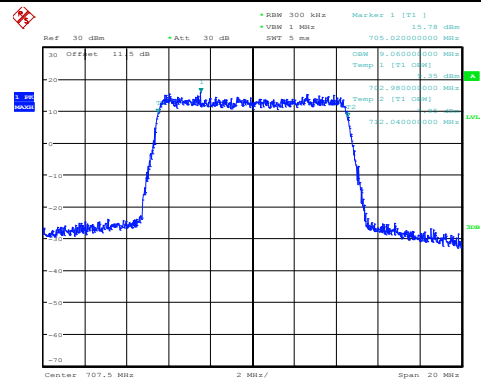
Date: 14.JAN.2015 11:05:33

Middle Channel / 10MHz / QPSK



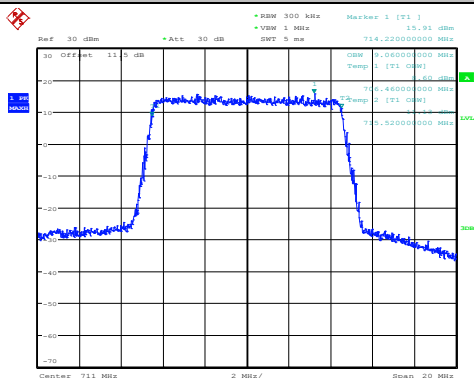
Date: 14.JAN.2015 11:15:27

Middle Channel / 10MHz / 16QAM



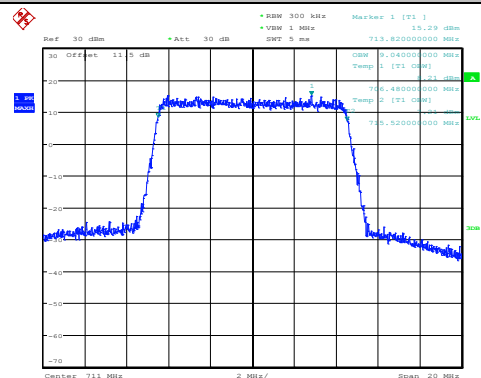
Date: 14.JAN.2015 11:15:10

Highest Channel / 10MHz / QPSK



Date: 14.JAN.2015 11:18:55

Highest Channel / 10MHz / 16QAM



Date: 14.JAN.2015 11:19:13

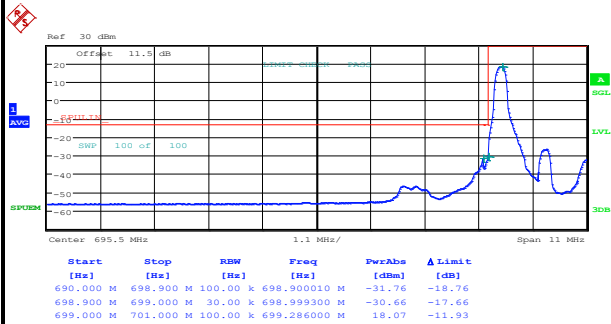


Conducted Band Edge



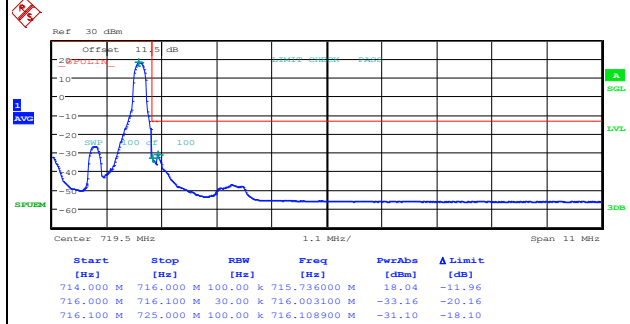
LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



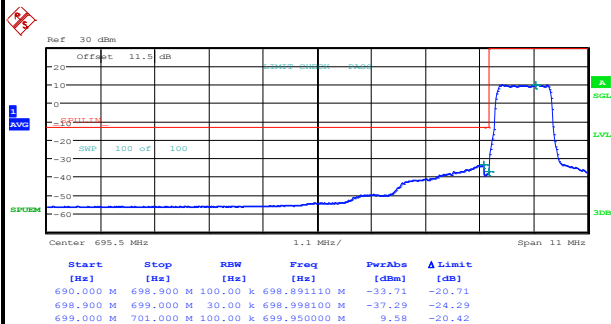
Date: 14.JAN.2015 12:17:58

Highest Band Edge / 1RB



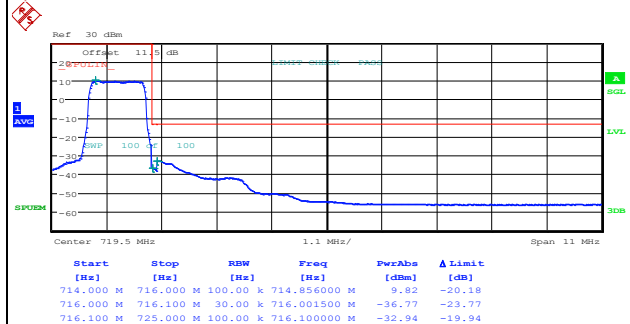
Date: 14.JAN.2015 12:30:59

Lowest Band Edge / Full RB



Date: 14.JAN.2015 12:13:40

Highest Band Edge / Full RB

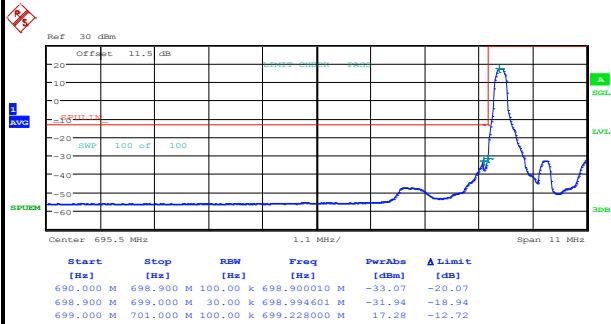


Date: 14.JAN.2015 12:27:11



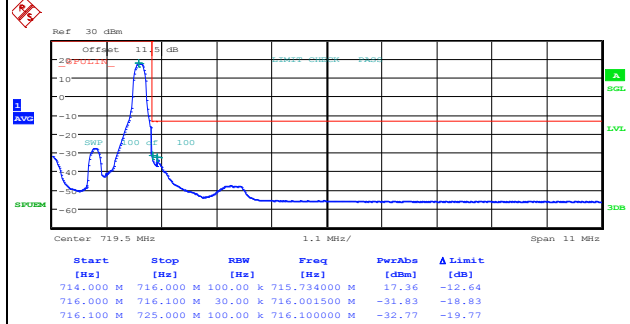
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



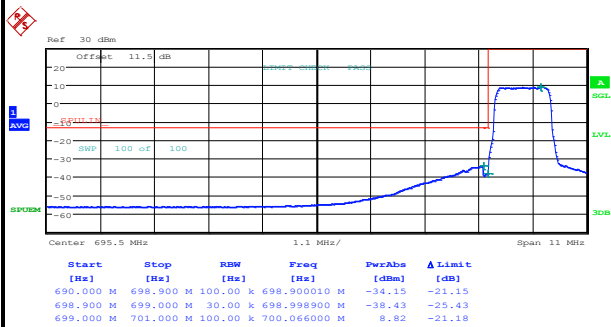
Date: 14.JAN.2015 12:16:35

Highest Band Edge / 1 RB



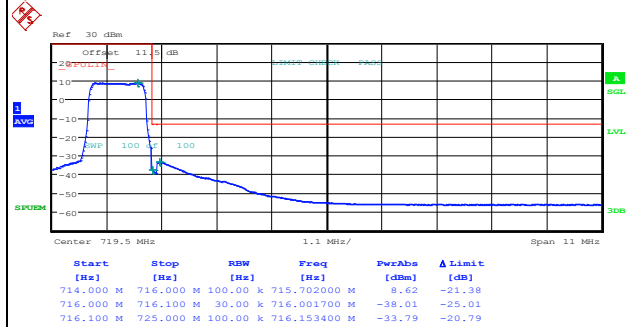
Date: 14.JAN.2015 12:29:43

Lowest Band Edge / Full RB



Date: 14.JAN.2015 12:14:57

Highest Band Edge / Full RB

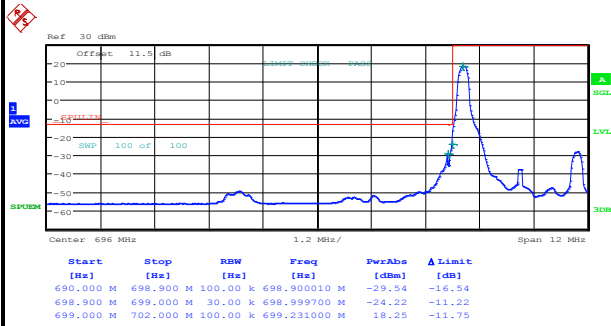


Date: 14.JAN.2015 12:28:27



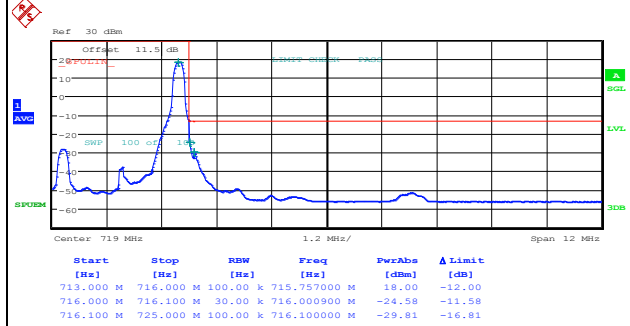
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



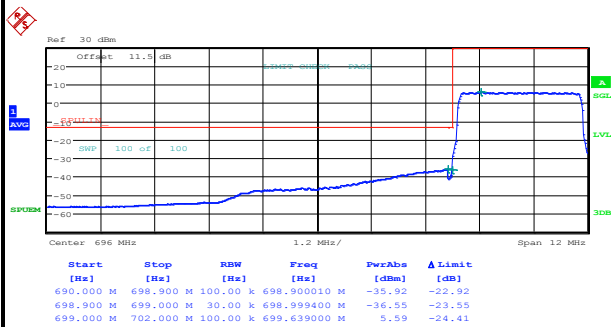
Date: 14.JAN.2015 10:24:26

Highest Band Edge / 1 RB



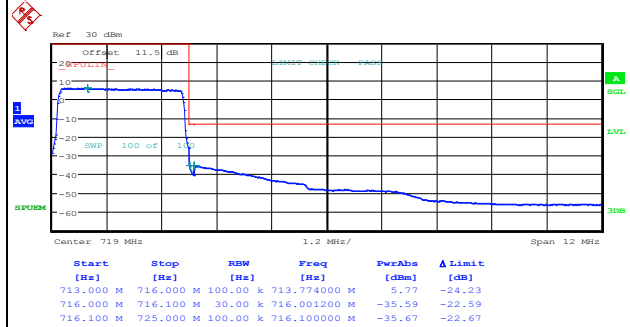
Date: 14.JAN.2015 10:40:49

Lowest Band Edge / Full RB



Date: 14.JAN.2015 10:20:22

Highest Band Edge / Full RB

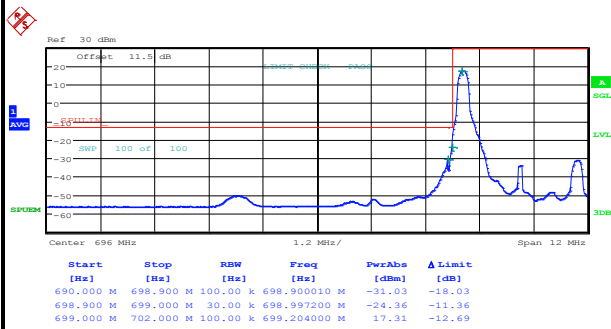


Date: 14.JAN.2015 10:37:00



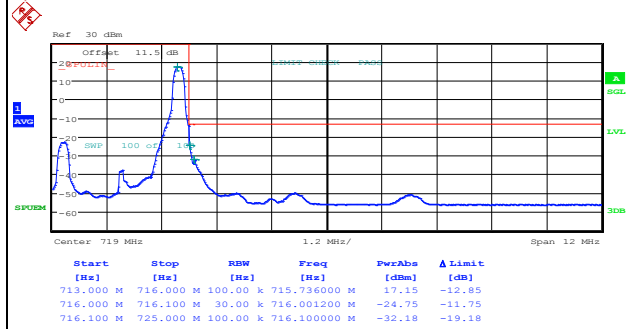
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



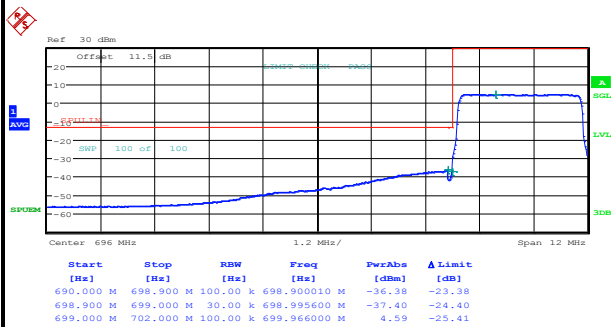
Date: 14.JAN.2015 10:23:06

Highest Band Edge / 1 RB



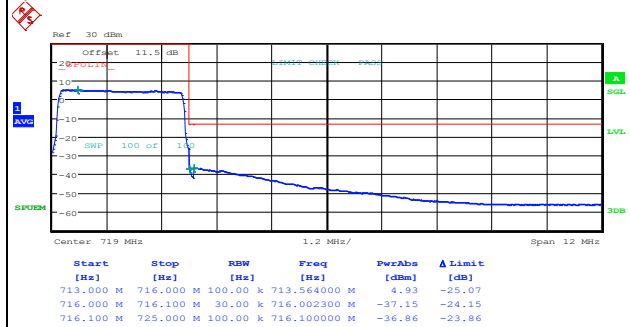
Date: 14.JAN.2015 10:39:33

Lowest Band Edge / Full RB



Date: 14.JAN.2015 10:21:49

Highest Band Edge / Full RB

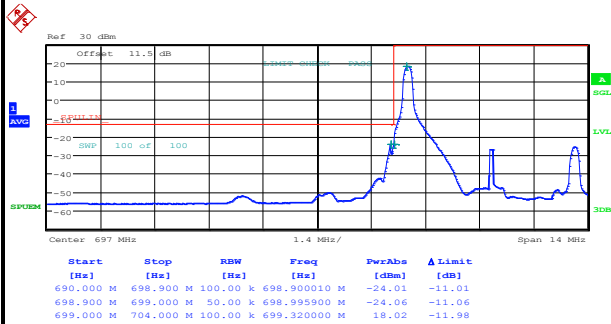


Date: 14.JAN.2015 10:38:17



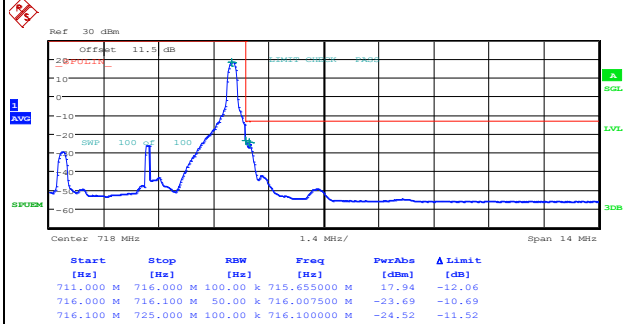
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



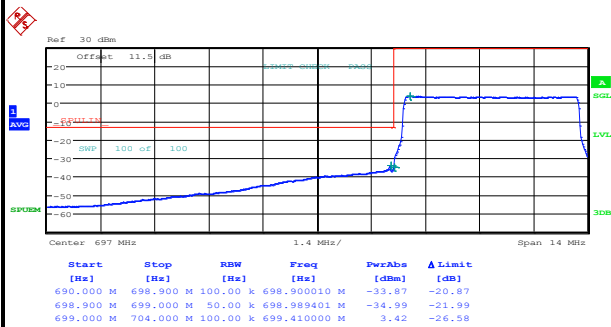
Date: 14.JAN.2015 10:49:45

Highest Band Edge / 1 RB



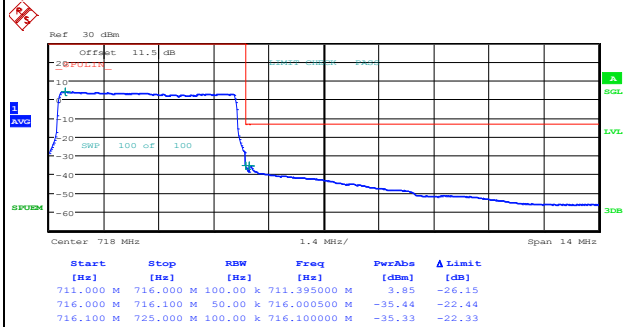
Date: 14.JAN.2015 11:01:04

Lowest Band Edge / Full RB



Date: 14.JAN.2015 10:45:56

Highest Band Edge / Full RB

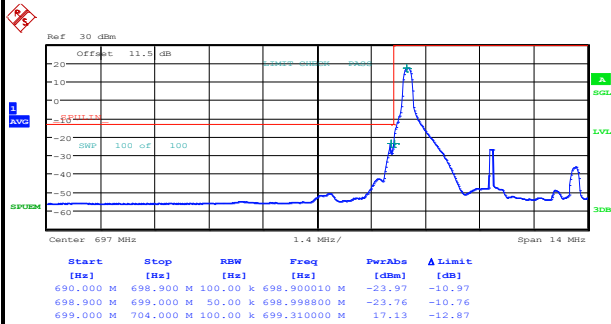


Date: 14.JAN.2015 10:58:32



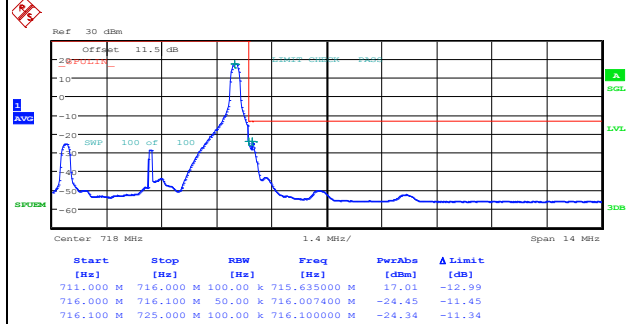
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



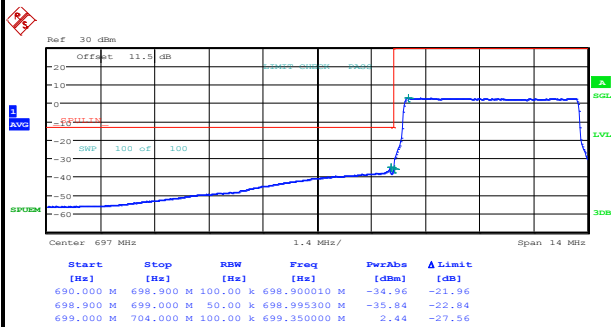
Date: 14.JAN.2015 10:48:29

Highest Band Edge / 1 RB



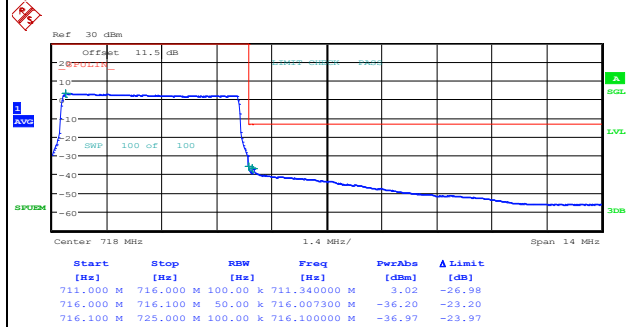
Date: 14.JAN.2015 11:02:21

Lowest Band Edge / Full RB



Date: 14.JAN.2015 10:47:13

Highest Band Edge / Full RB

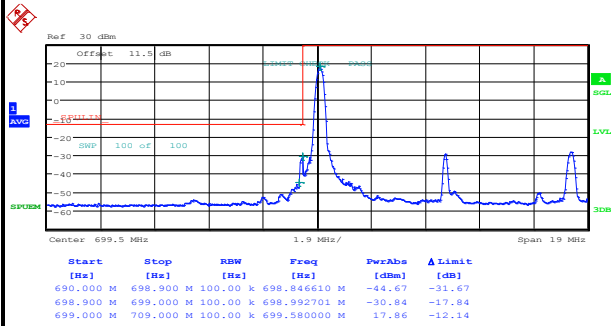


Date: 14.JAN.2015 10:59:49



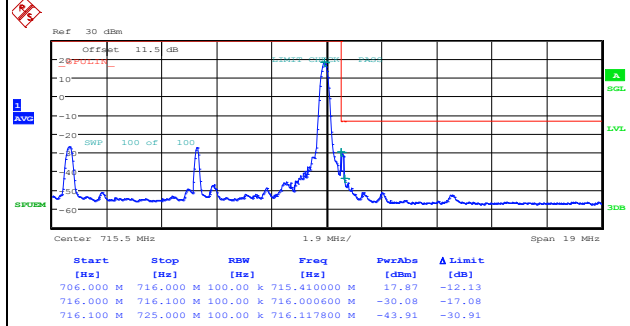
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



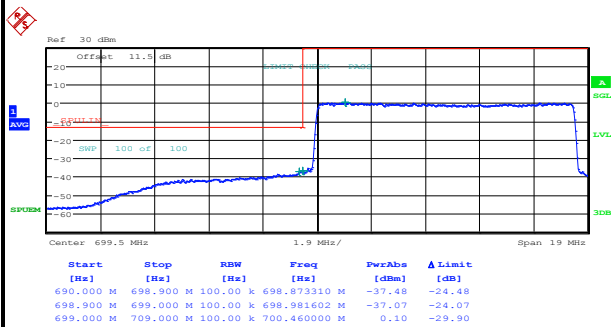
Date: 14.JAN.2015 11:11:19

Highest Band Edge / 1 RB



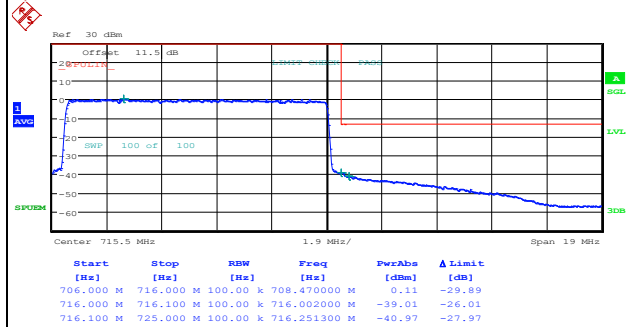
Date: 14.JAN.2015 11:27:24

Lowest Band Edge / Full RB



Date: 14.JAN.2015 11:07:29

Highest Band Edge / Full RB

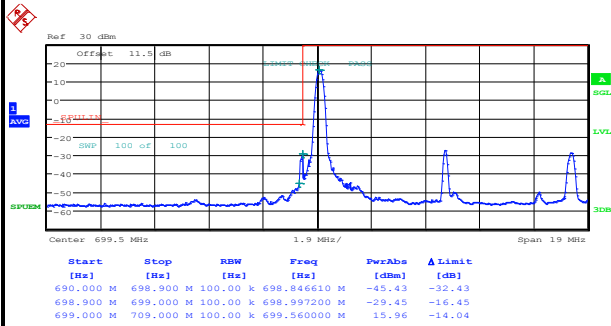


Date: 14.JAN.2015 13:53:32



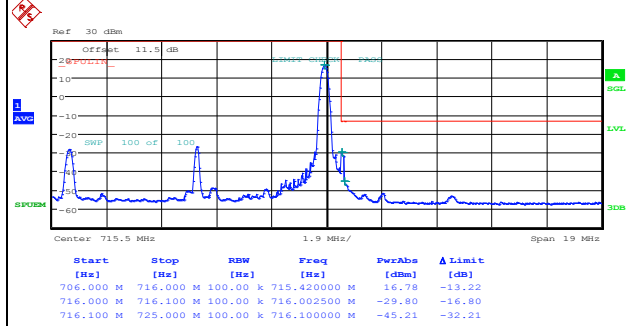
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



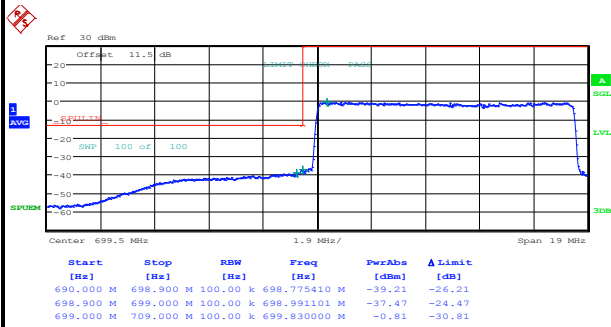
Date: 14.JAN.2015 11:10:02

Highest Band Edge / 1 RB



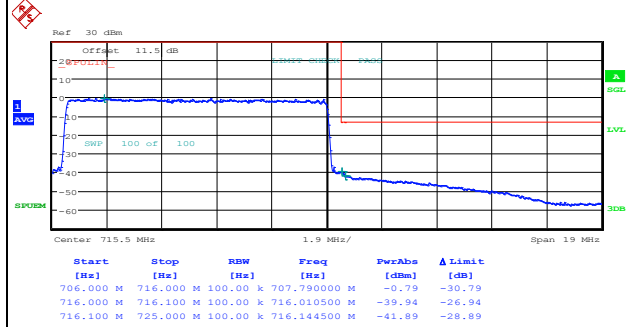
Date: 14.JAN.2015 11:26:07

Lowest Band Edge / Full RB



Date: 14.JAN.2015 11:08:46

Highest Band Edge / Full RB



Date: 14.JAN.2015 11:24:50

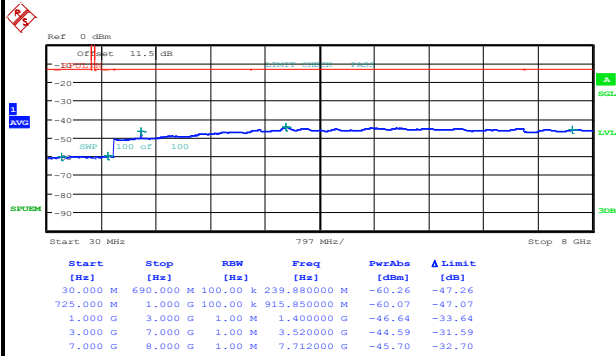


Conducted Spurious Emission



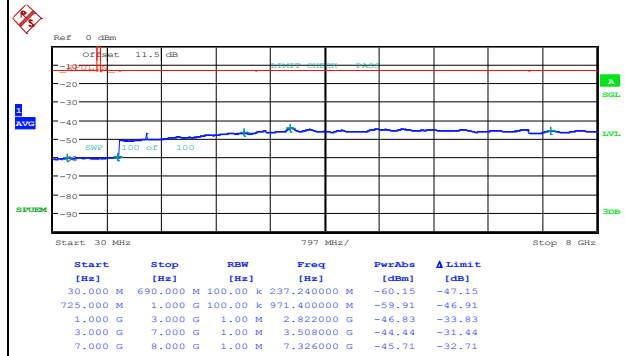
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



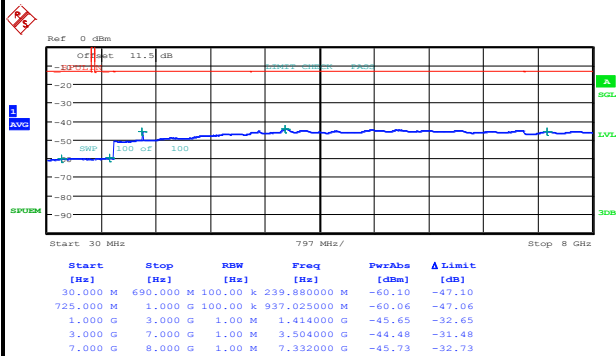
Date: 14.JAN.2015 12:19:21

Lowest Channel / 16QAM



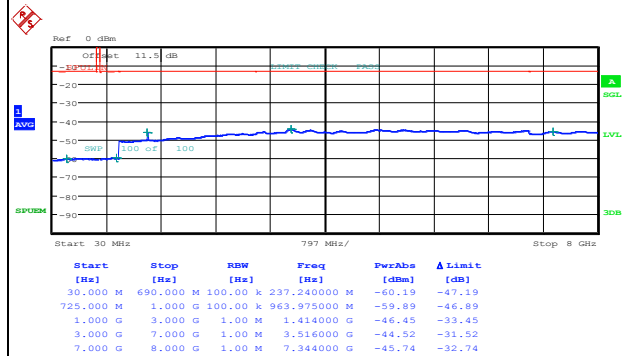
Date: 14.JAN.2015 12:20:42

Middle Channel / QPSK



Date: 14.JAN.2015 12:24:41

Middle Channel / 16QAM

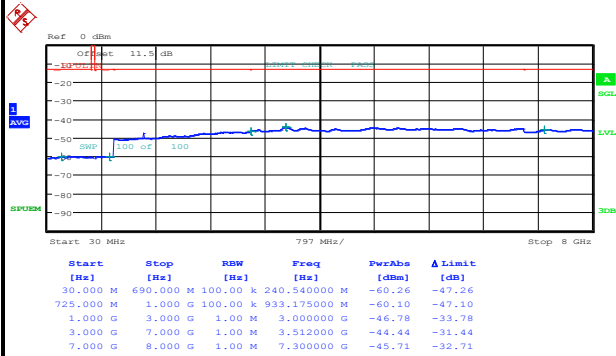


Date: 14.JAN.2015 12:23:25



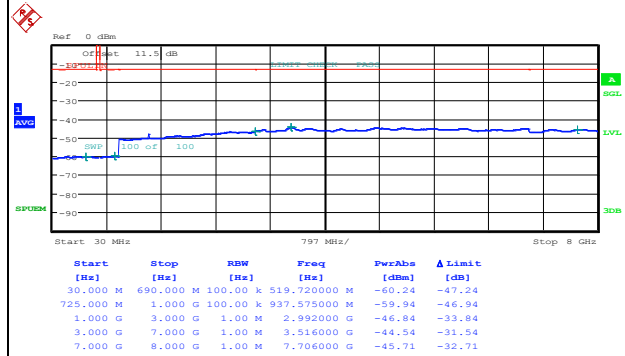
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 14.JAN.2015 12:32:16

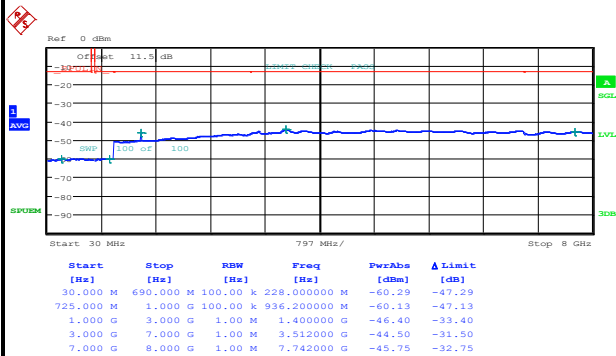
Highest Channel / 16QAM



Date: 14.JAN.2015 12:33:32

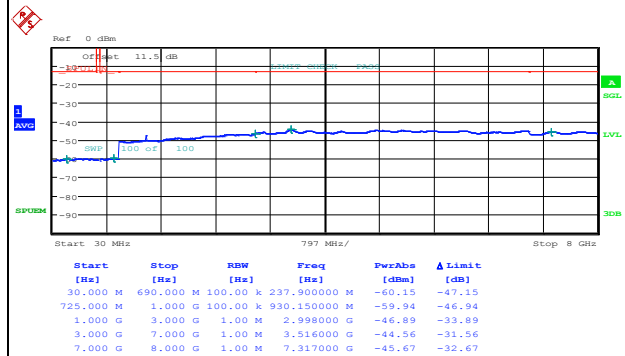
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 14.JAN.2015 13:52:11

Lowest Channel / 16QAM

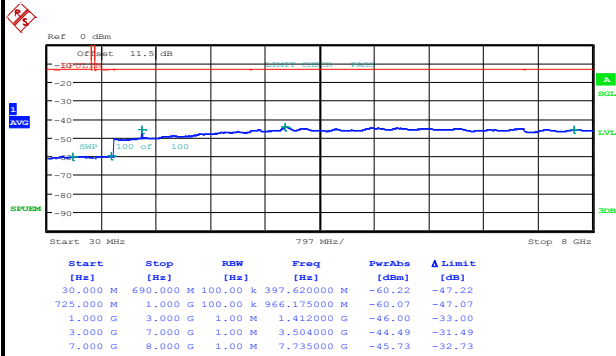


Date: 14.JAN.2015 10:30:44



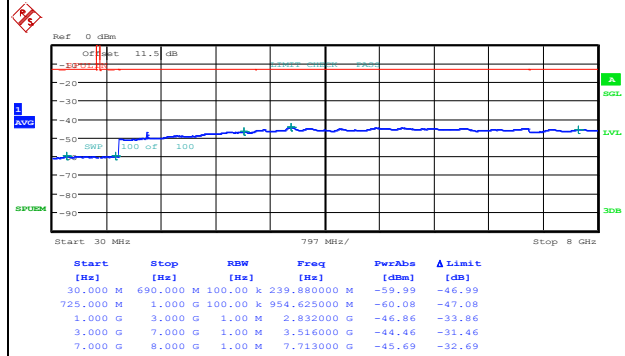
LTE Band 12 / 3MHz

Middle Channel / QPSK



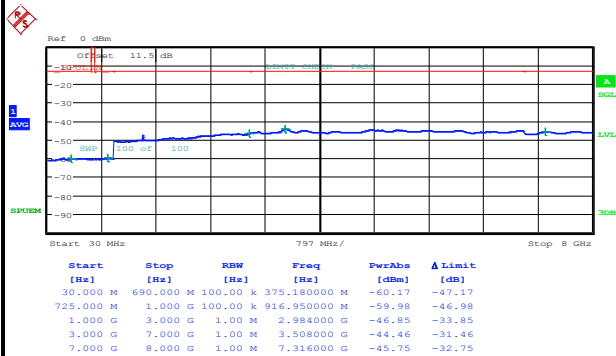
Date: 14.JAN.2015 10:34:30

Middle Channel / 16QAM



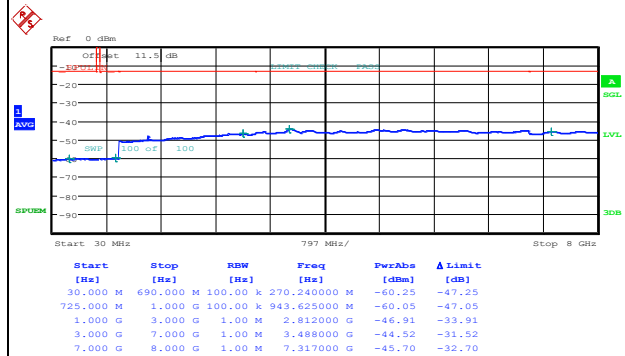
Date: 14.JAN.2015 10:33:14

Highest Channel / QPSK



Date: 14.JAN.2015 10:42:06

Highest Channel / 16QAM

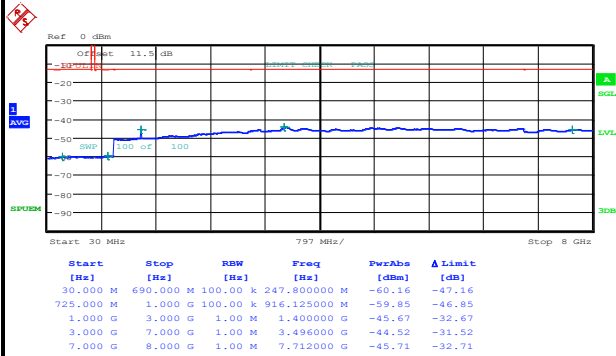


Date: 14.JAN.2015 10:43:22



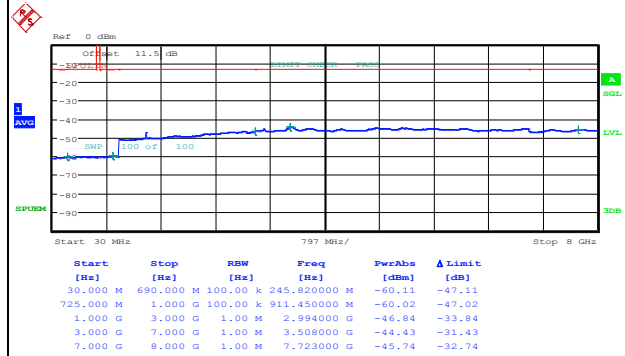
LTE Band 12 / 5MHz

Lowest Channel / QPSK



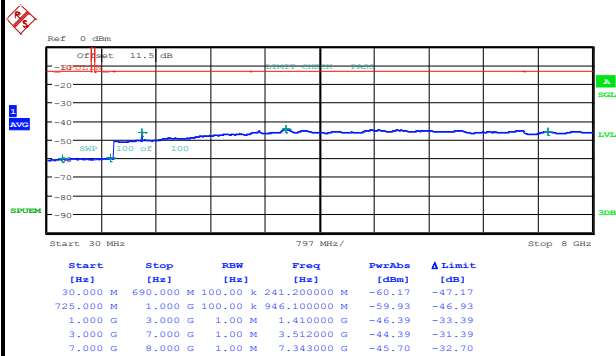
Date: 14.JAN.2015 10:51:01

Lowest Channel / 16QAM



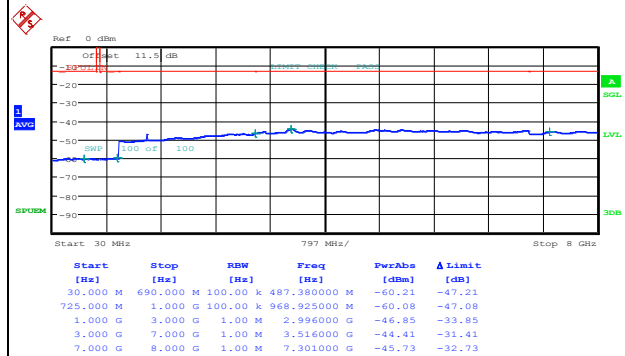
Date: 14.JAN.2015 10:52:18

Middle Channel / QPSK



Date: 14.JAN.2015 10:56:03

Middle Channel / 16QAM

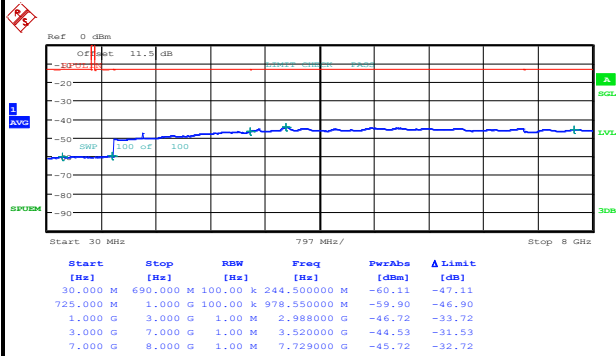


Date: 14.JAN.2015 10:54:47



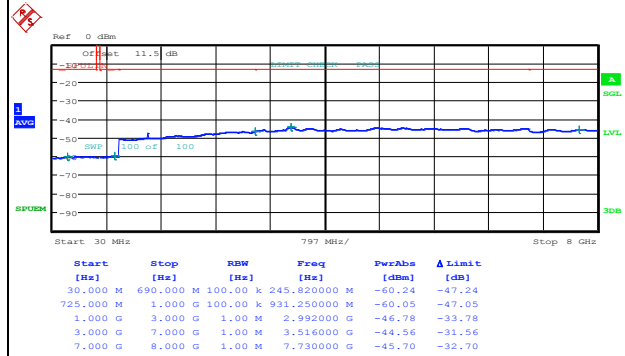
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 14.JAN.2015 11:04:53

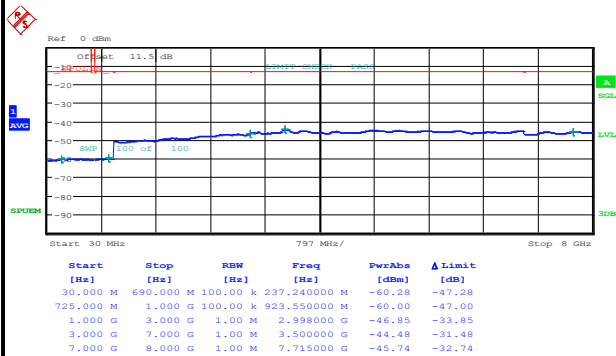
Highest Channel / 16QAM



Date: 14.JAN.2015 11:03:37

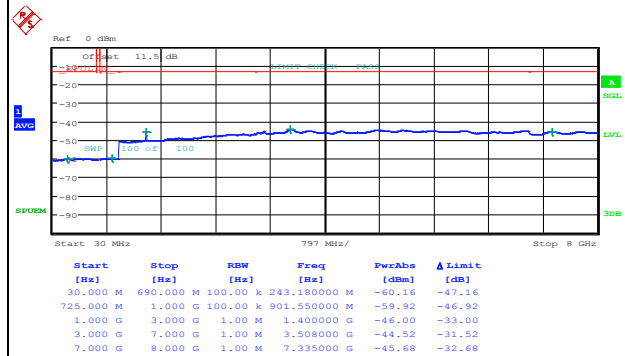
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 14.JAN.2015 11:12:36

Lowest Channel / 16QAM

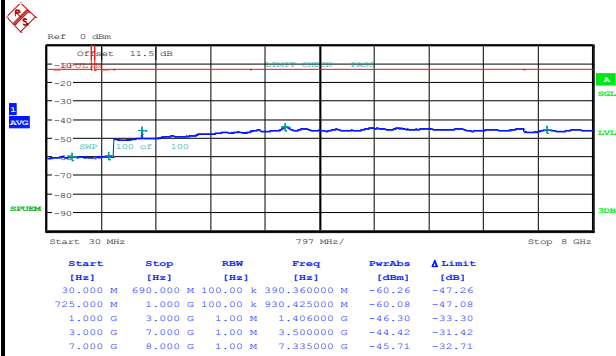


Date: 14.JAN.2015 11:14:52



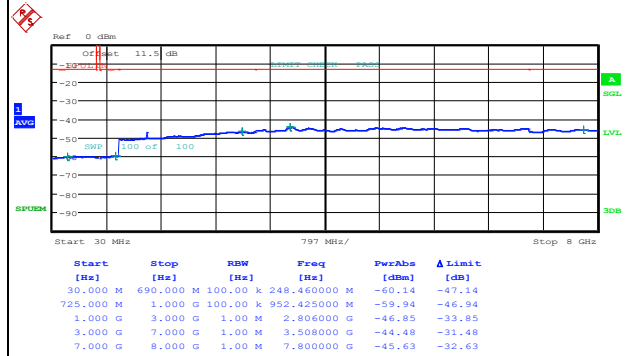
LTE Band 12 / 10MHz

Middle Channel / QPSK



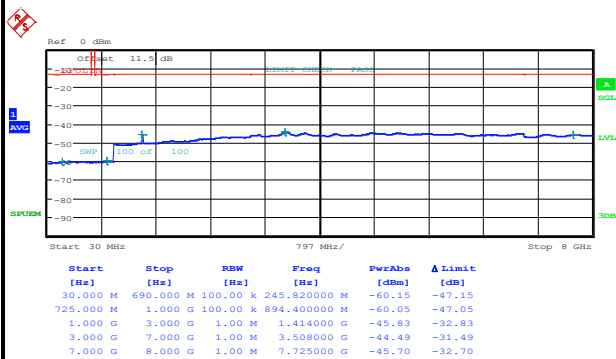
Date: 14.JAN.2015 11:18:37

Middle Channel / 16QAM



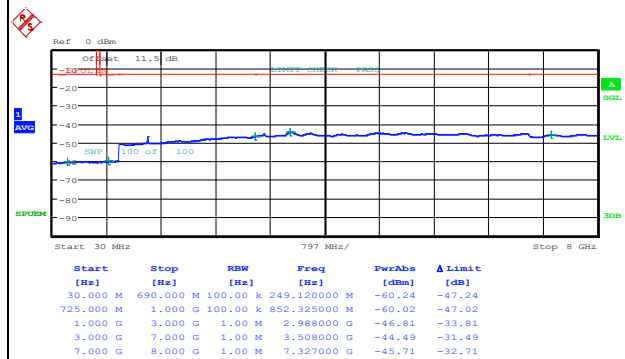
Date: 14.JAN.2015 11:17:21

Highest Channel / QPSK



Date: 14.JAN.2015 11:28:41

Highest Channel / 16QAM



Date: 14.JAN.2015 11:29:57

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0124	
30	Normal Voltage	0.0117	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0105	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0134	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.1 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Within Band
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	-0.4	PASS
40	Normal Voltage	8.8	
30	Normal Voltage	8.3	
20(Ref.)	Normal Voltage	0	
10	Normal Voltage	7.4	
0	Normal Voltage	0	
-10	Normal Voltage	0.5	
-20	Normal Voltage	0.9	
-30	Normal Voltage	9.5	
20	Maximum Voltage	-0.3	
20	Normal Voltage	0	
20	Battery End Point	0.3	

$|\text{MAX}(\Delta f)| = 9.5\text{Hz}$

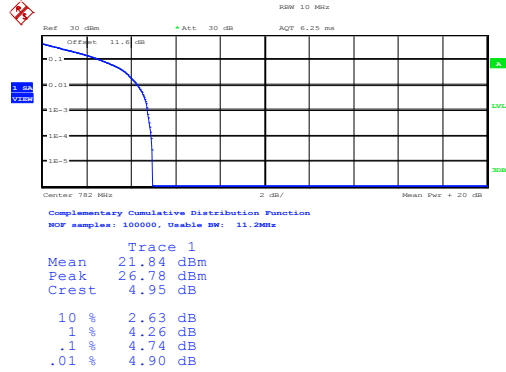
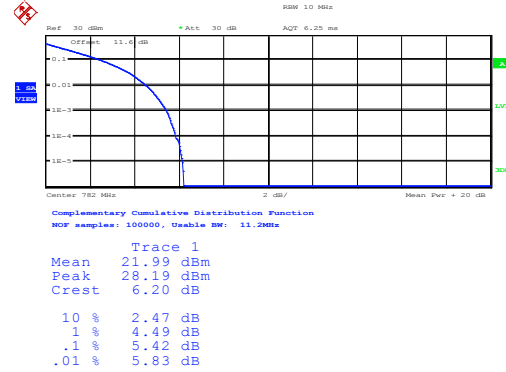
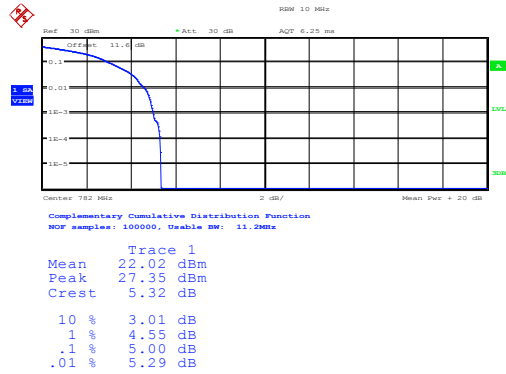
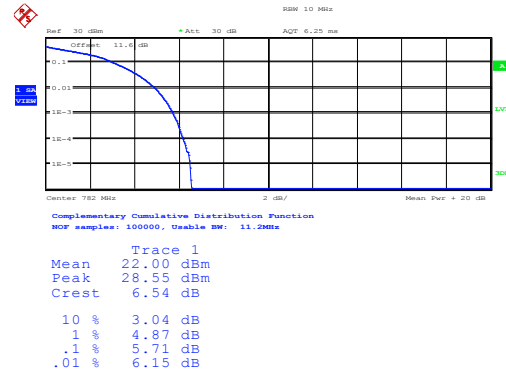
Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	699.119994	$\geq 698 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	715.875006	$\leq 716 \text{ MHz}$	



LTE Band 13

Peak-to-Average Ratio

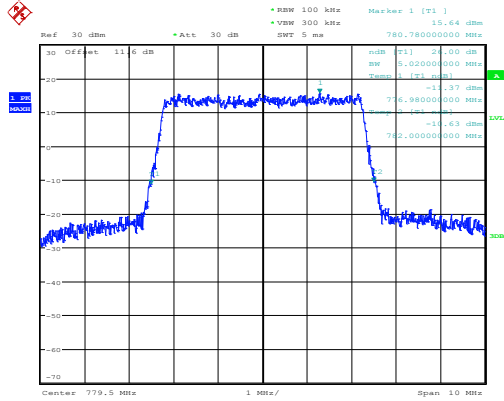
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	RB Size	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.74	5.42	5	5.71	
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK
Middle Channel/ 1RB

Middle Channel / Full RB

LTE Band 13 / 10MHz / 16QAM
Middle Channel/ 1RB

Middle Channel / Full RB


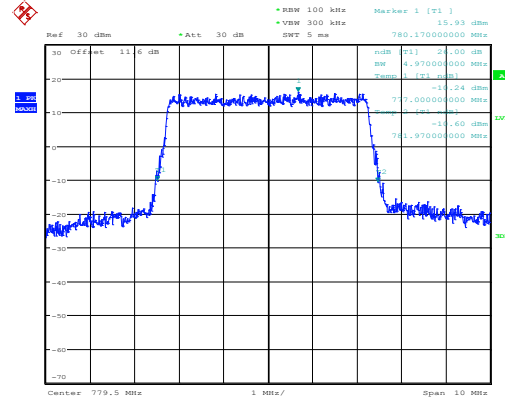


26dB Bandwidth

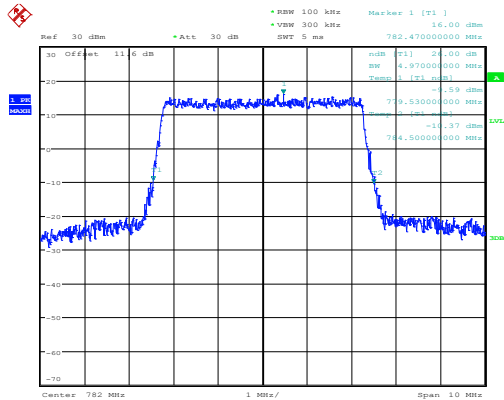
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.02	4.97	-	-	-	-	-	-
Middle CH	-	-	-	-	4.97	4.99	10.1	10	-	-	-	-
Highest CH	-	-	-	-	4.95	4.96	-	-	-	-	-	-

LTE Band 13
Lowest Channel / 5MHz / QPSK


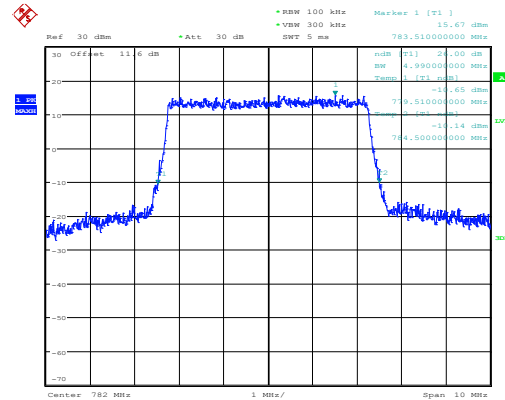
Date: 12.JAN.2015 16:47:30

Lowest Channel / 5MHz / 16QAM


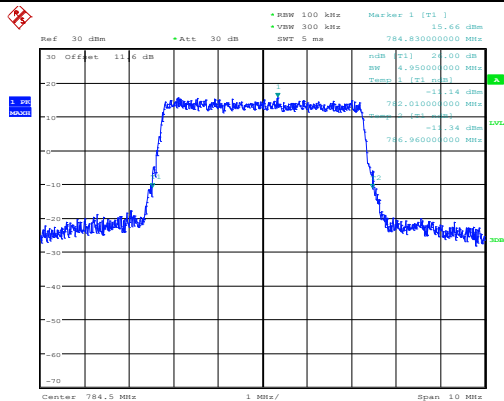
Date: 12.JAN.2015 16:47:18

Middle Channel / 5MHz / QPSK


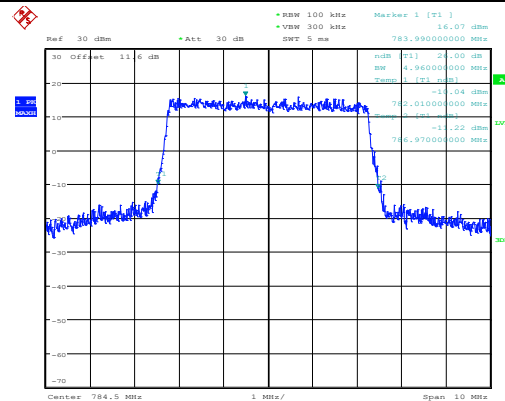
Date: 12.JAN.2015 16:52:24

Middle Channel / 5MHz / 16QAM


Date: 12.JAN.2015 16:52:36

Highest Channel / 5MHz / QPSK


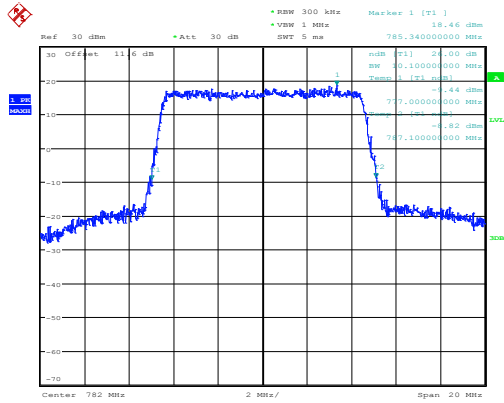
Date: 12.JAN.2015 16:53:45

Highest Channel / 5MHz / 16QAM


Date: 12.JAN.2015 16:53:32

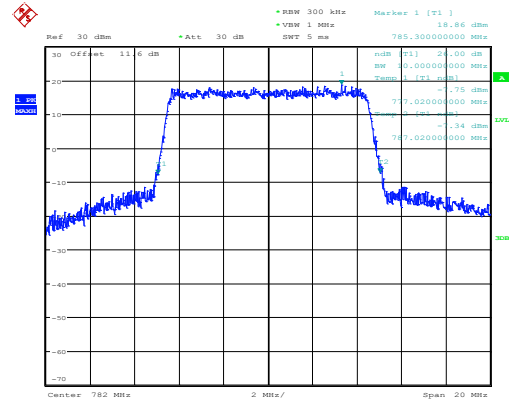
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 12.JAN.2015 16:56:56

Middle Channel / 10MHz / 16QAM



Date: 12.JAN.2015 16:56:43



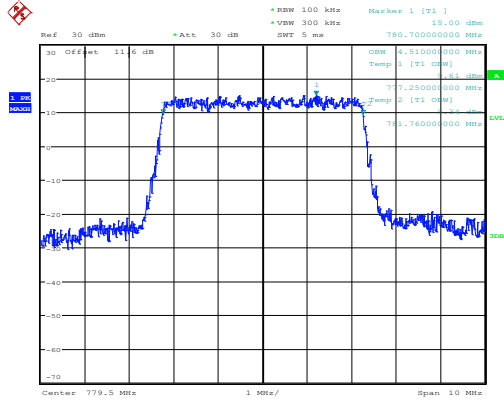
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.51	4.51	-	-	-	-	-	-
Middle CH	-	-	-	-	4.5	4.51	9.08	9.04	-	-	-	-
Highest CH	-	-	-	-	4.51	4.51	-	-	-	-	-	-



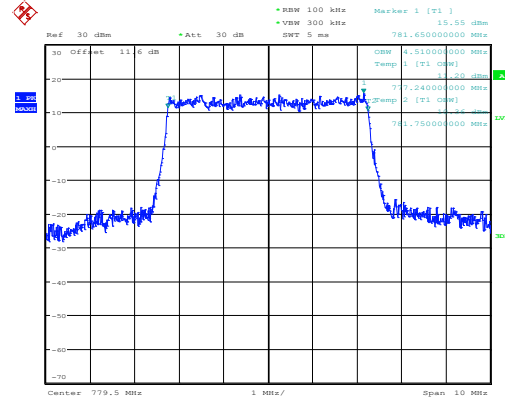
LTE Band 13

Lowest Channel / 5MHz / QPSK



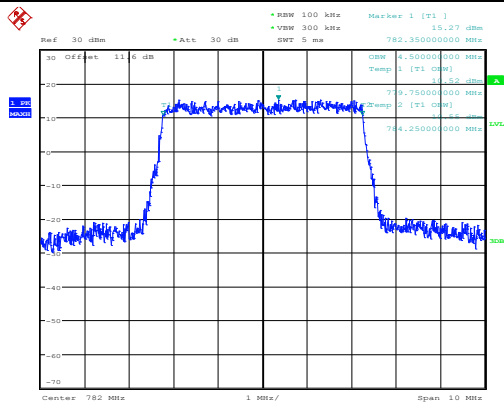
Date: 12.JAN.2015 16:46:54

Lowest Channel / 5MHz / 16QAM



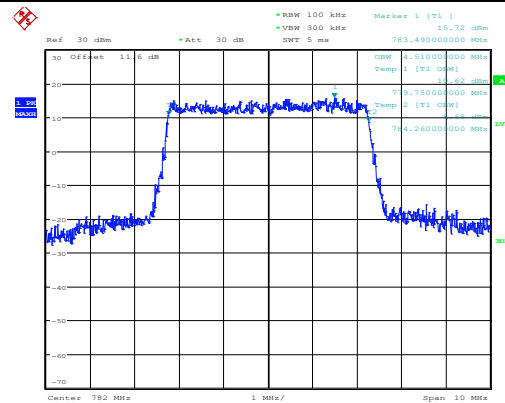
Date: 12.JAN.2015 16:47:05

Middle Channel / 5MHz / QPSK



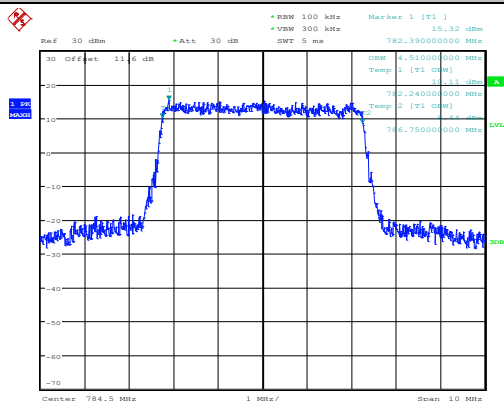
Date: 12.JAN.2015 16:52:58

Middle Channel / 5MHz / 16QAM



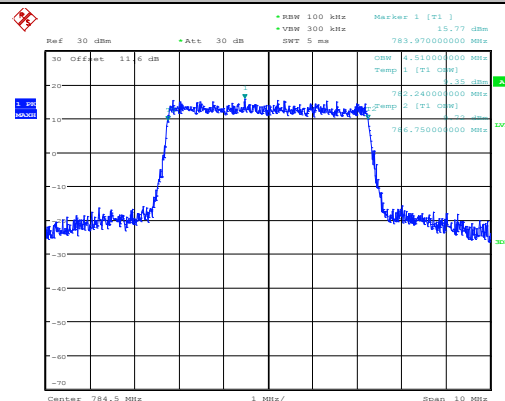
Date: 12.JAN.2015 16:52:47

Highest Channel / 5MHz / QPSK



Date: 12.JAN.2015 16:53:09

Highest Channel / 5MHz / 16QAM

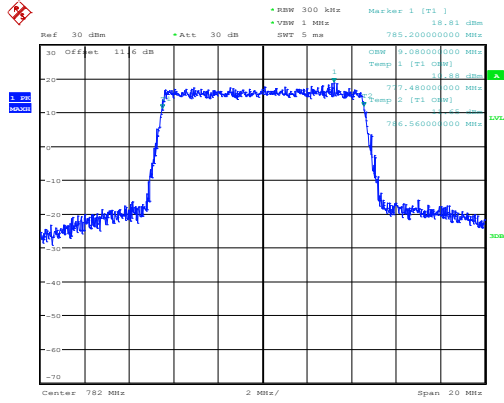


Date: 12.JAN.2015 16:53:19



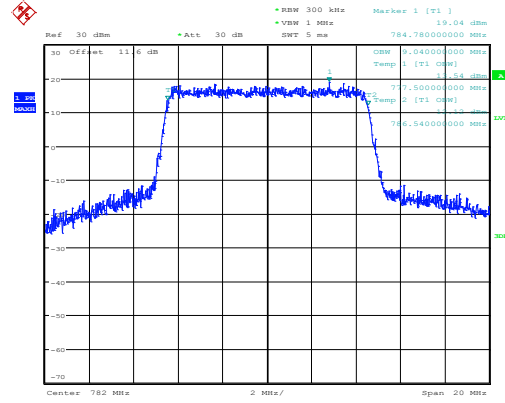
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 12.JAN.2015 16:56:20

Middle Channel / 10MHz / 16QAM



Date: 12.JAN.2015 16:56:30