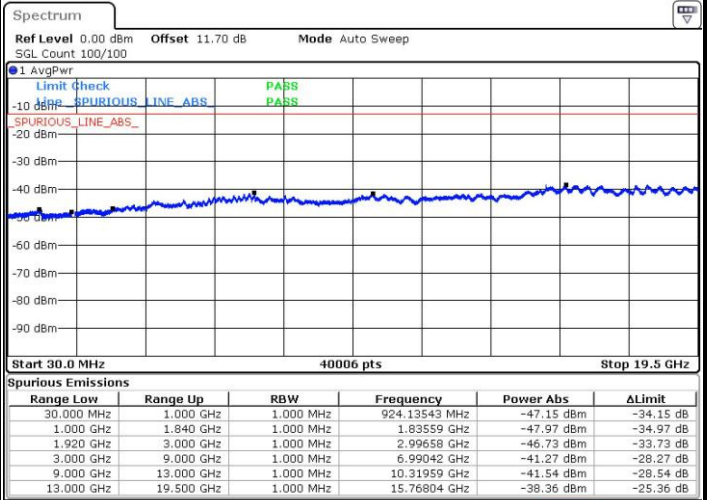
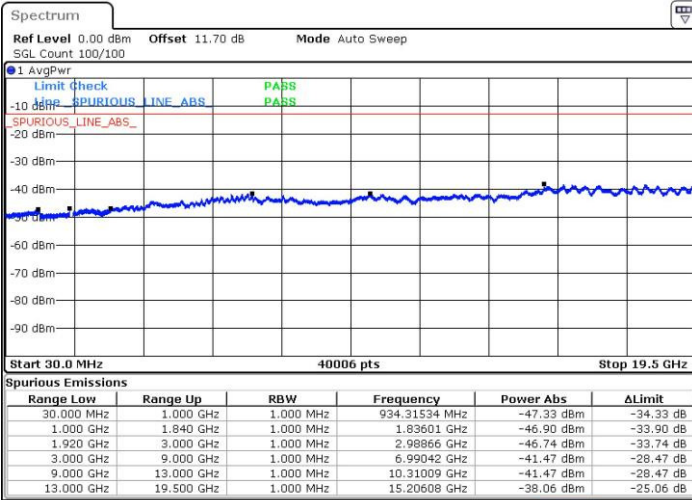




LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

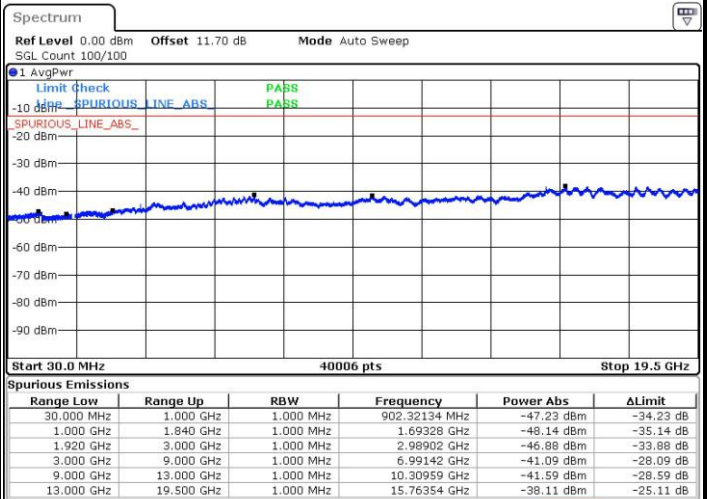
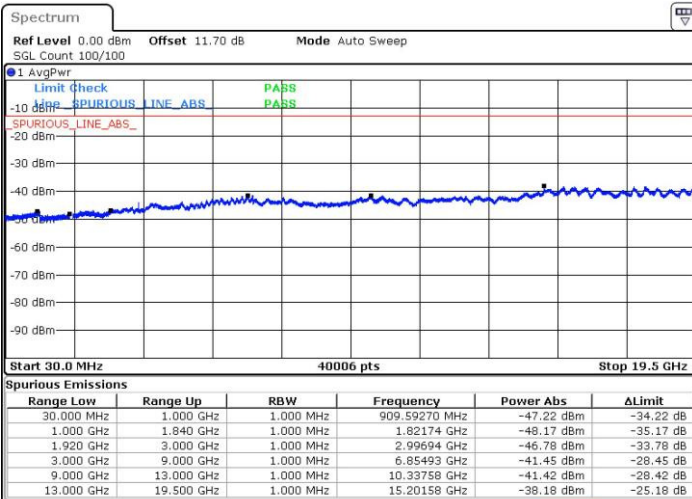


Date: 8 FEB 2017 22:47:32

Date: 8 FEB 2017 22:48:27

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 8 FEB 2017 22:54:40

Date: 8 FEB 2017 22:55:34



**Frequency Stability**

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0044	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0040	
-10	Normal Voltage	0.0031	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0036	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 4

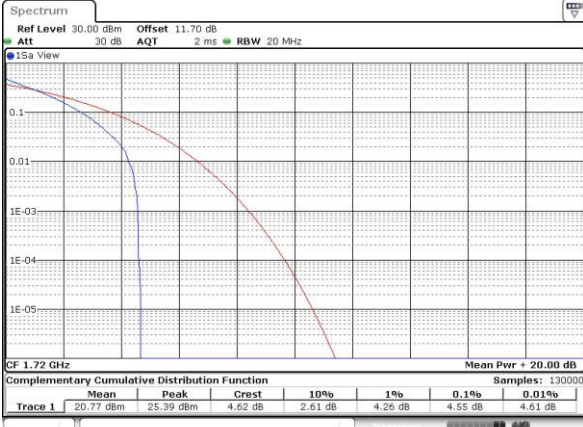
### Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.55	4.9	5.54	5.91	PASS
Middle CH	4.61	4.75	5.59	5.83	
Highest CH	4.35	4.75	5.25	5.77	



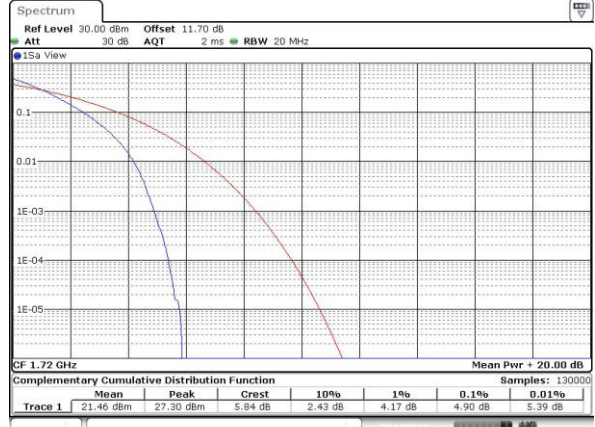
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



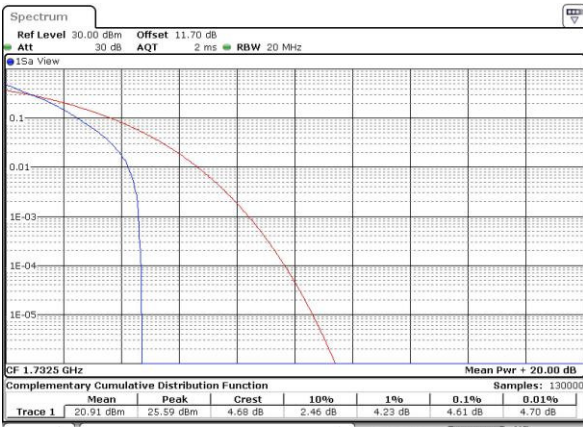
Date: 9 FEB 2017 18:14:38

Lowest Channel / Full RB



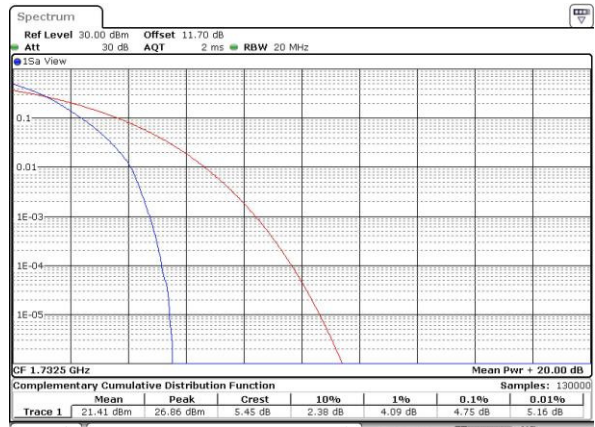
Date: 9 FEB 2017 18:15:12

Middle Channel / 1RB



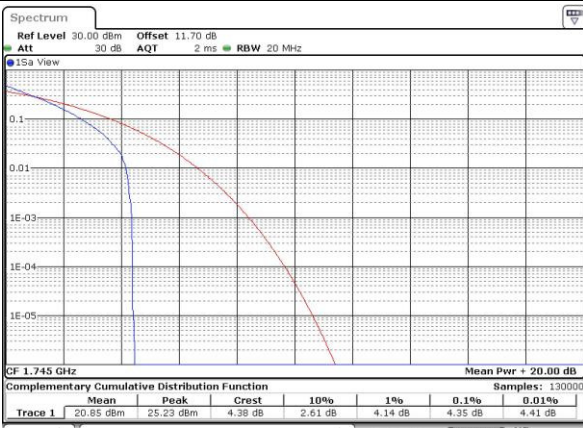
Date: 9 FEB 2017 18:16:00

Middle Channel / Full RB



Date: 9 FEB 2017 18:16:12

Highest Channel / 1RB



Date: 9 FEB 2017 18:16:27

Highest Channel / Full RB

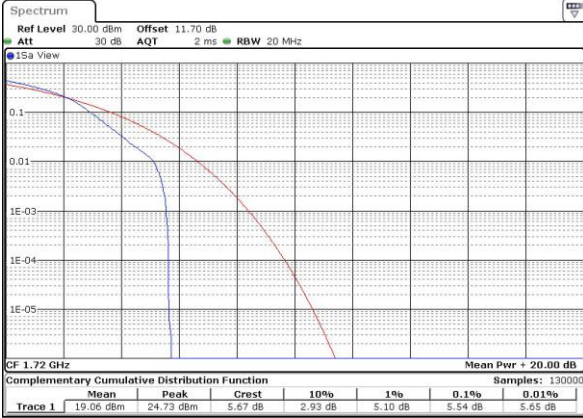


Date: 9 FEB 2017 18:16:40



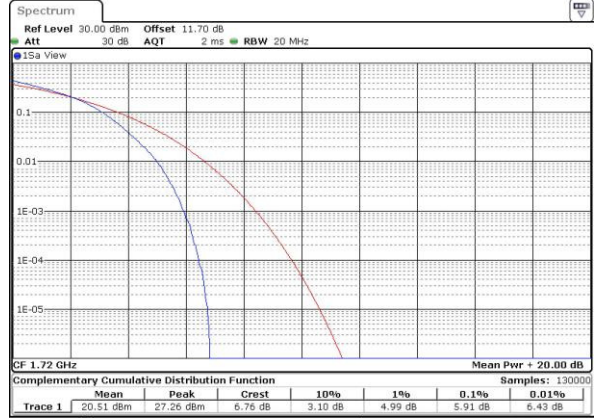
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



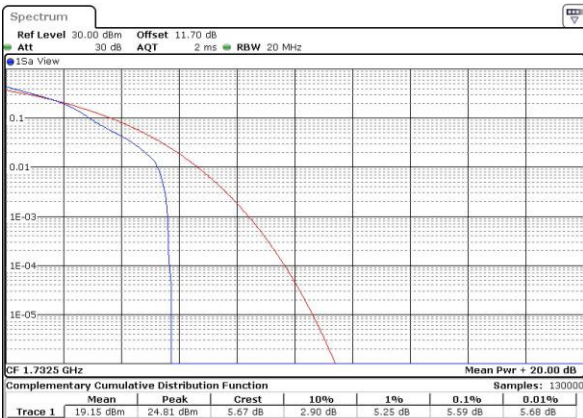
Date: 9 FEB 2017 18:13:24

Lowest Channel / Full RB



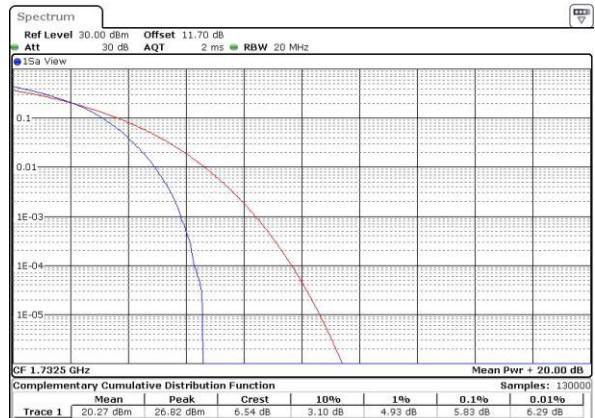
Date: 9 FEB 2017 18:13:35

Middle Channel / 1RB



Date: 9 FEB 2017 18:13:47

Middle Channel / Full RB



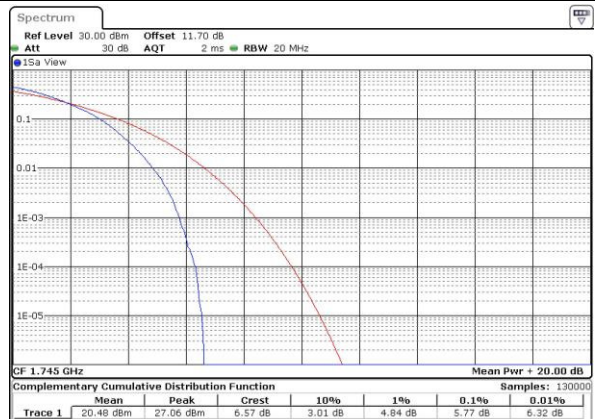
Date: 9 FEB 2017 18:13:58

Highest Channel / 1RB



Date: 9 FEB 2017 18:14:08

Highest Channel / Full RB



Date: 9 FEB 2017 18:14:24



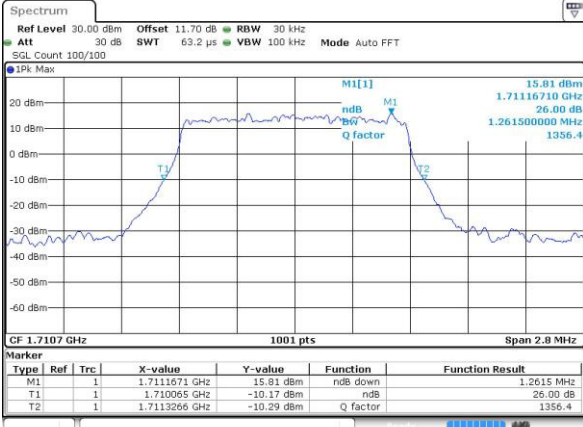
**26dB Bandwidth**

Mode	LTE Band 4 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.262	1.292	3.009	3.009	5.025	4.935	9.73	9.69	14.535	14.505	20.22	20.14
Middle CH	1.267	1.284	3.051	3.027	4.905	4.925	9.63	9.69	14.565	14.595	20.06	20.14
Highest CH	1.27	1.276	2.991	2.985	5.025	5.025	9.69	9.77	14.206	14.865	20.14	20.14



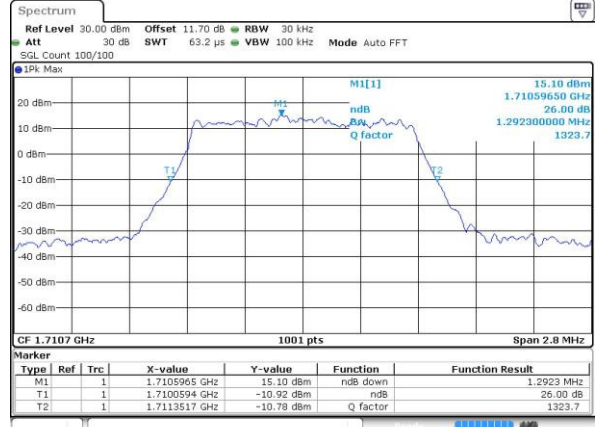
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



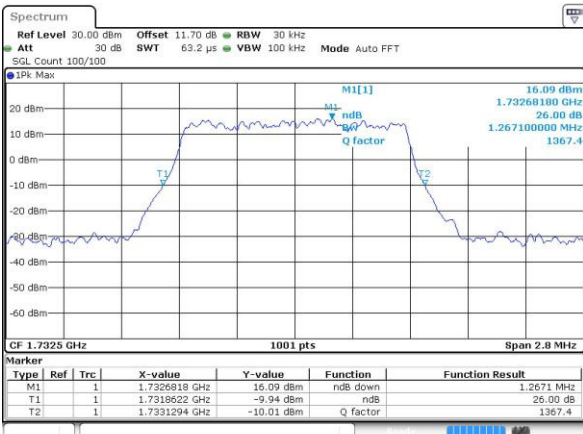
Date: 9 FEB 2017 17:53:12

Lowest Channel / 1.4MHz / 16QAM



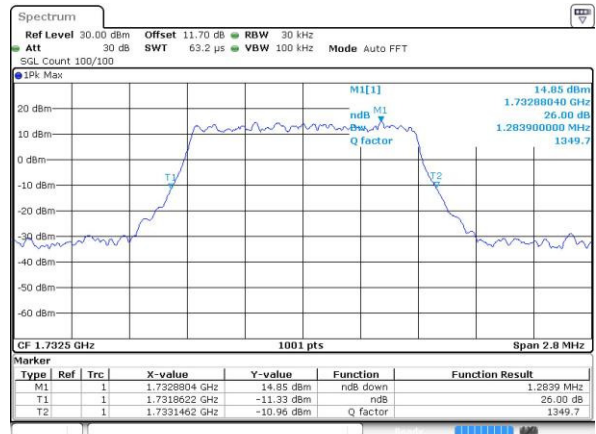
Date: 9 FEB 2017 17:53:23

Middle Channel / 1.4MHz / QPSK



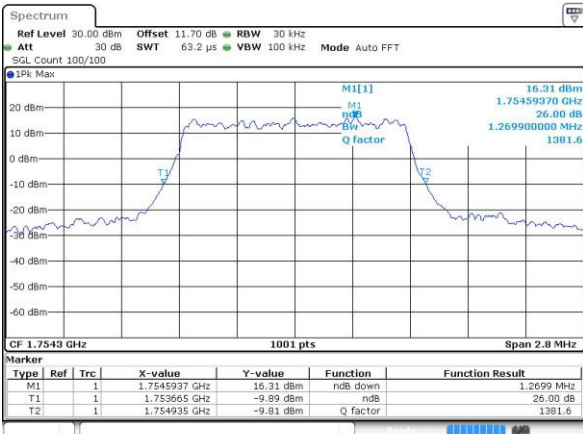
Date: 9 FEB 2017 18:00:20

Middle Channel / 1.4MHz / 16QAM



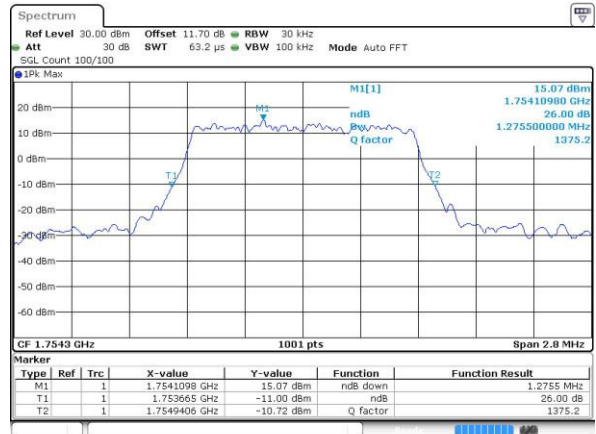
Date: 9 FEB 2017 18:00:30

Highest Channel / 1.4MHz / QPSK



Date: 9 FEB 2017 18:03:01

Highest Channel / 1.4MHz / 16QAM

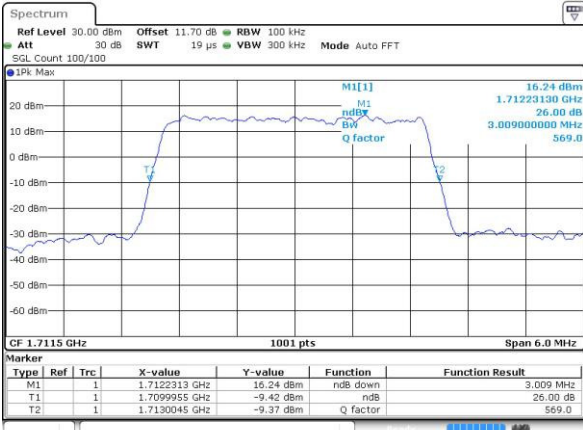


Date: 9 FEB 2017 18:03:12



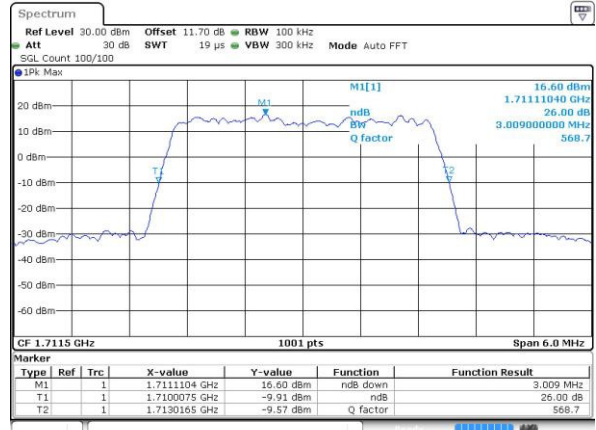
LTE Band 4

Lowest Channel / 3MHz / QPSK



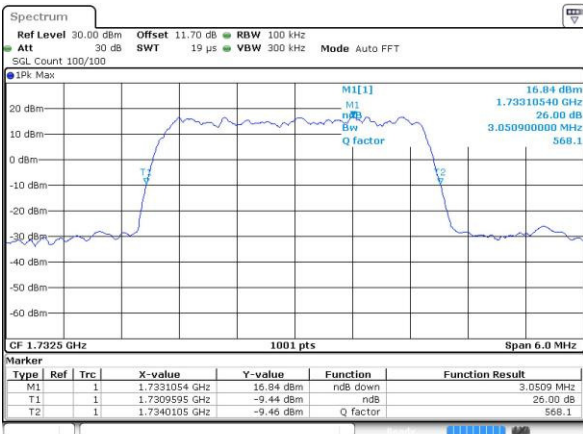
Date: 9 FEB 2017 16:27:55

Lowest Channel / 3MHz / 16QAM



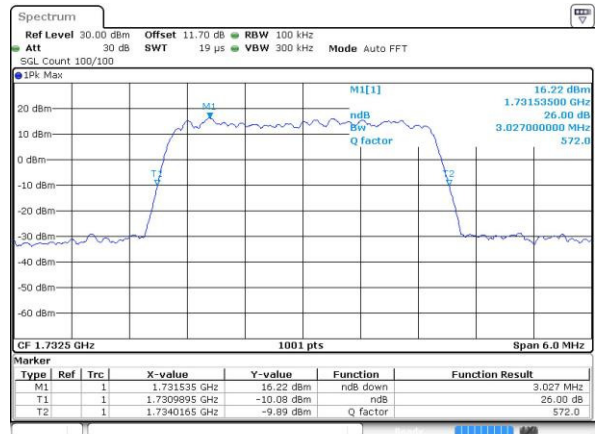
Date: 9 FEB 2017 16:28:05

Middle Channel / 3MHz / QPSK



Date: 9 FEB 2017 16:35:02

Middle Channel / 3MHz / 16QAM



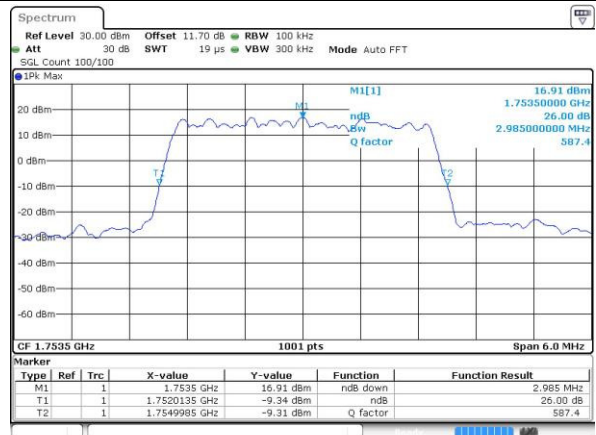
Date: 9 FEB 2017 16:35:12

Highest Channel / 3MHz / QPSK



Date: 9 FEB 2017 16:37:32

Highest Channel / 3MHz / 16QAM



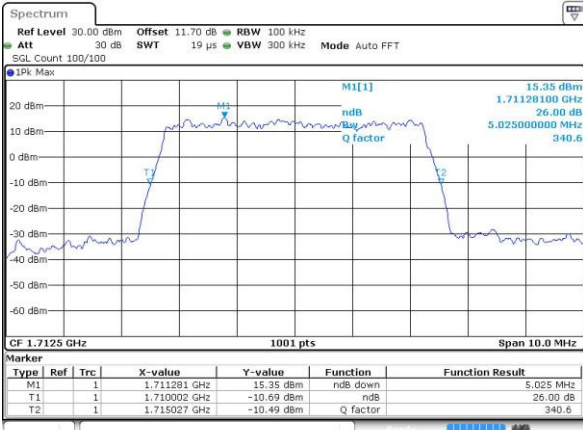
Date: 9 FEB 2017 16:37:42





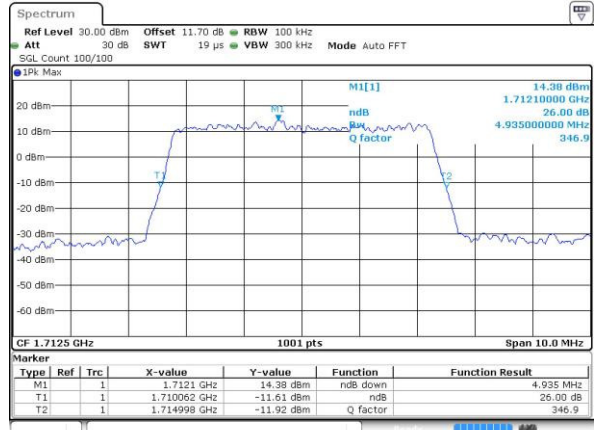
LTE Band 4

Lowest Channel / 5MHz / QPSK



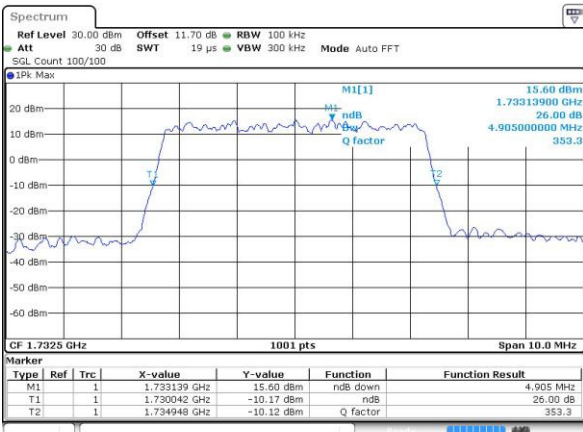
Date: 9 FEB 2017 16:44:38

Lowest Channel / 5MHz / 16QAM



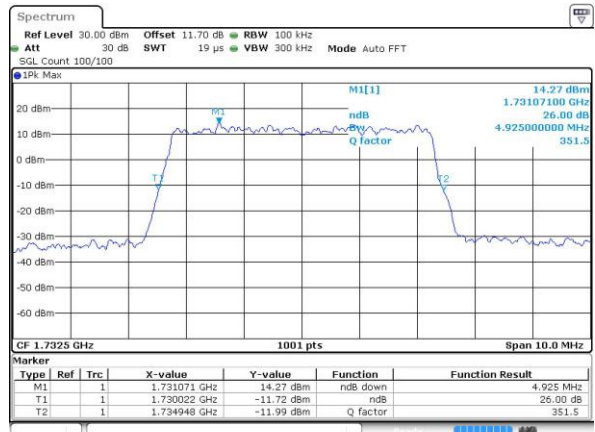
Date: 9 FEB 2017 16:44:49

Middle Channel / 5MHz / QPSK



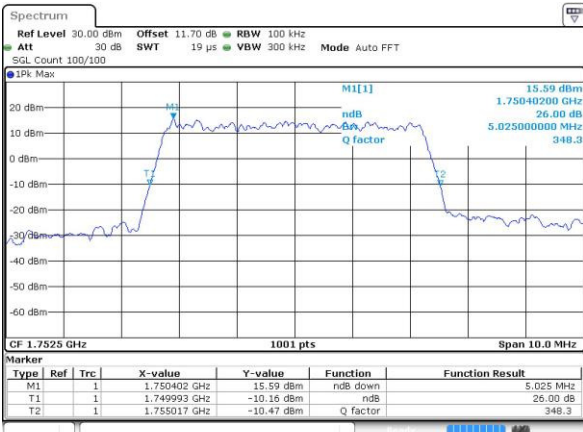
Date: 9 FEB 2017 16:51:46

Middle Channel / 5MHz / 16QAM



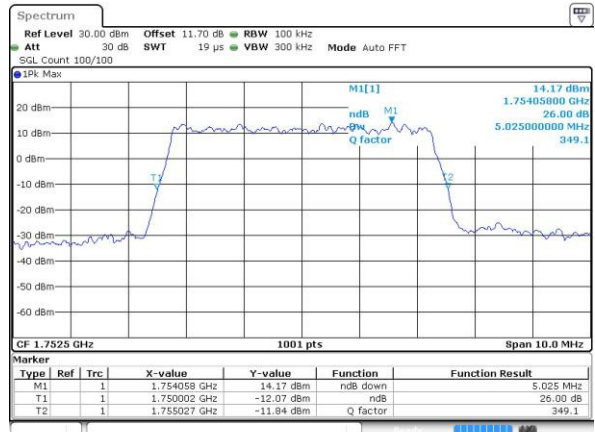
Date: 9 FEB 2017 16:51:56

Highest Channel / 5MHz / QPSK



Date: 9 FEB 2017 16:54:16

Highest Channel / 5MHz / 16QAM

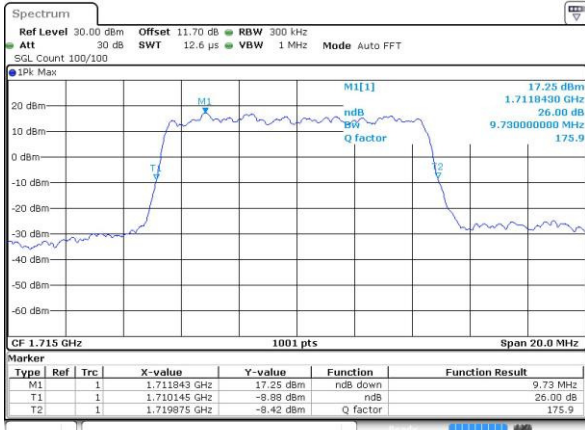


Date: 9 FEB 2017 16:54:26



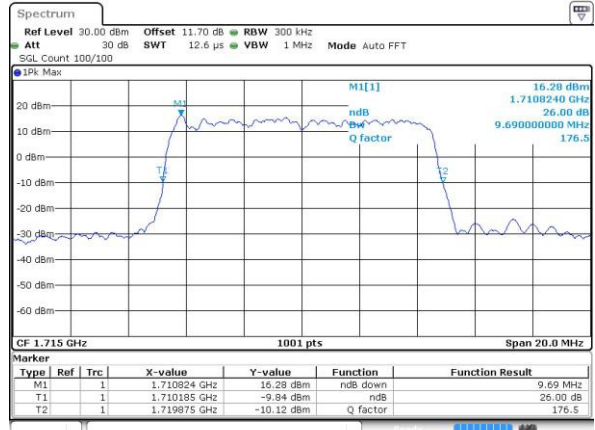
LTE Band 4

Lowest Channel / 10MHz / QPSK



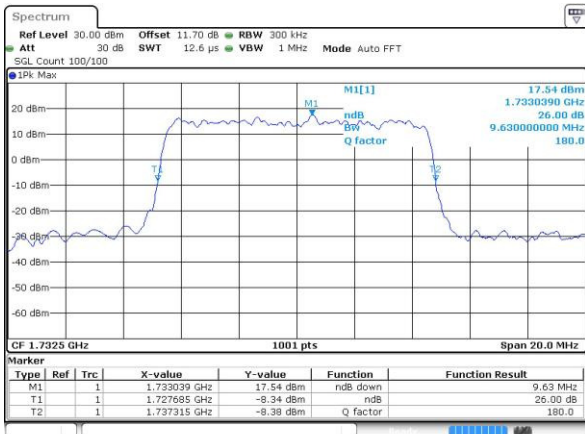
Date: 9 FEB 2017 17:01:22

Lowest Channel / 10MHz / 16QAM



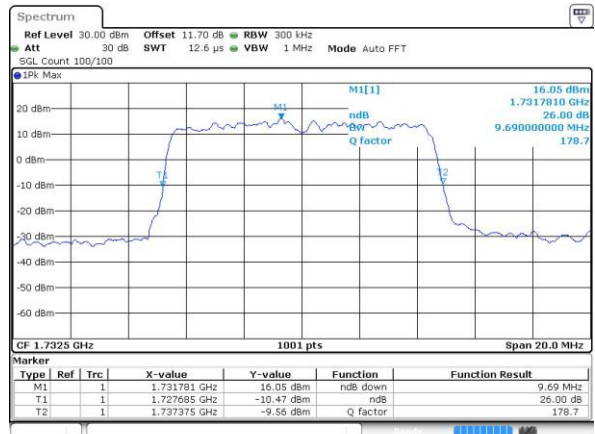
Date: 9 FEB 2017 17:01:32

Middle Channel / 10MHz / QPSK



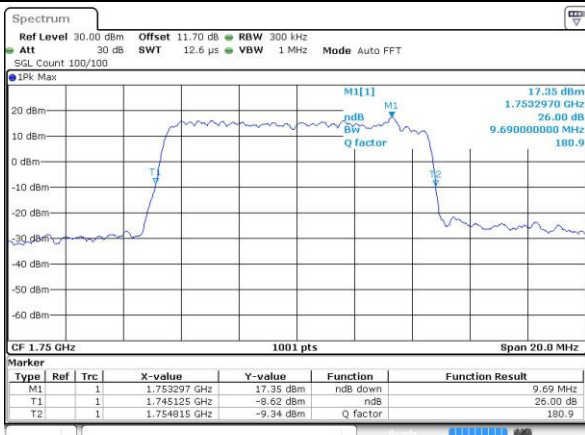
Date: 9 FEB 2017 17:08:28

Middle Channel / 10MHz / 16QAM



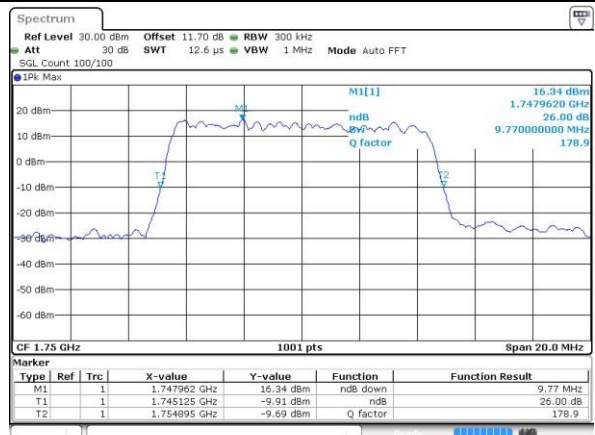
Date: 9 FEB 2017 17:08:38

Highest Channel / 10MHz / QPSK



Date: 9 FEB 2017 17:10:58

Highest Channel / 10MHz / 16QAM

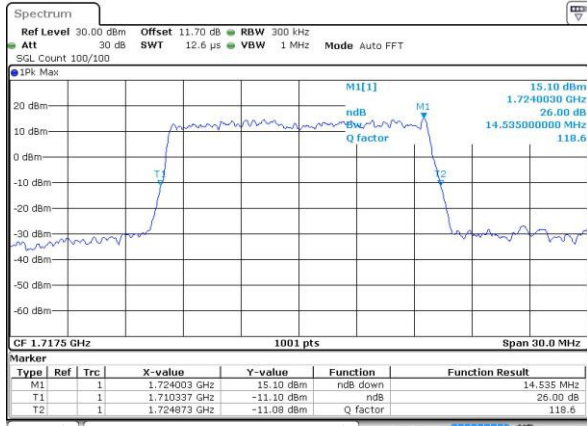


Date: 9 FEB 2017 17:11:08



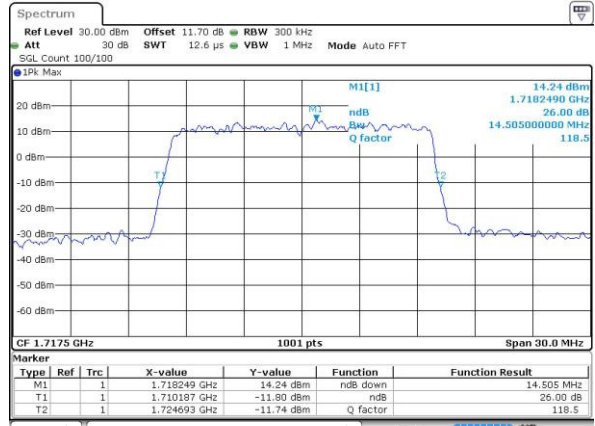
LTE Band 4

Lowest Channel / 15MHz / QPSK



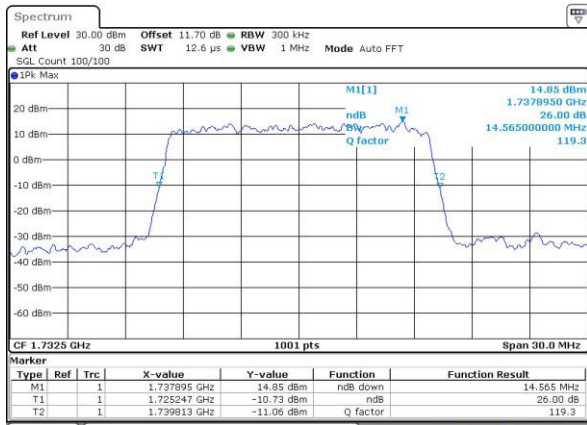
Date: 9 FEB 2017 17:18:04

Lowest Channel / 15MHz / 16QAM



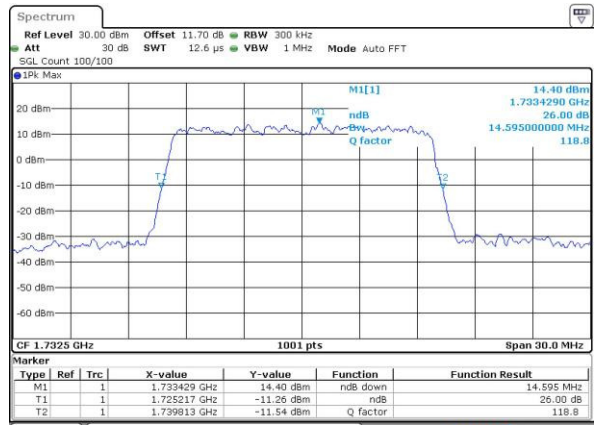
Date: 9 FEB 2017 17:18:14

Middle Channel / 15MHz / QPSK



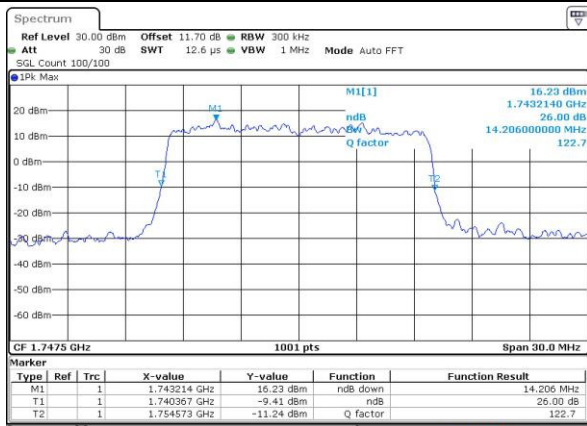
Date: 9 FEB 2017 17:25:10

Middle Channel / 15MHz / 16QAM



Date: 9 FEB 2017 17:25:21

Highest Channel / 15MHz / QPSK



Date: 9 FEB 2017 17:27:41

Highest Channel / 15MHz / 16QAM

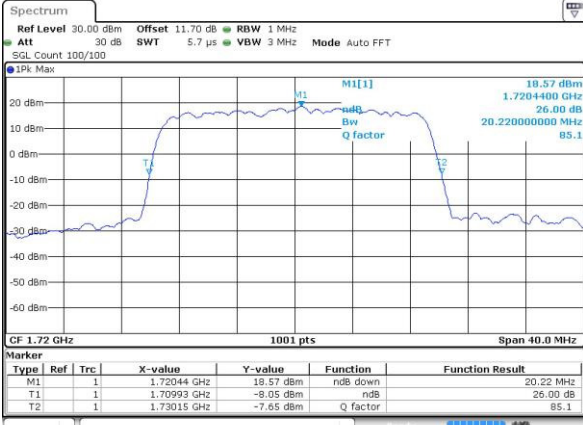


Date: 9 FEB 2017 17:27:51



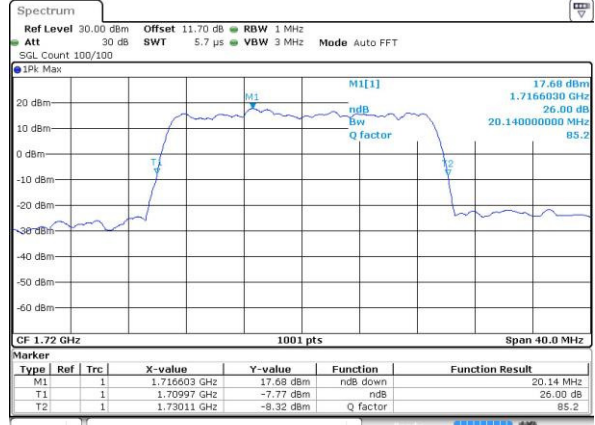
LTE Band 4

Lowest Channel / 20MHz / QPSK



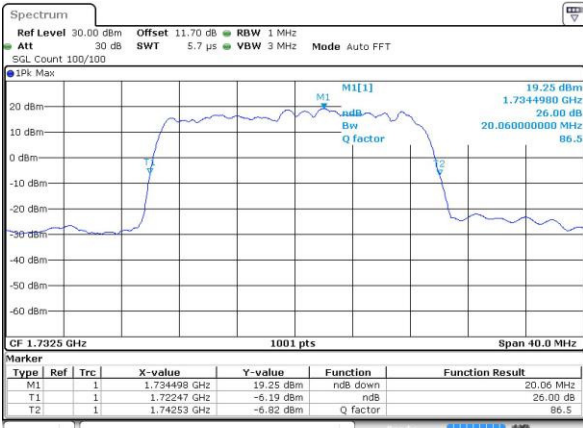
Date: 9 FEB 2017 17:34:47

Lowest Channel / 20MHz / 16QAM



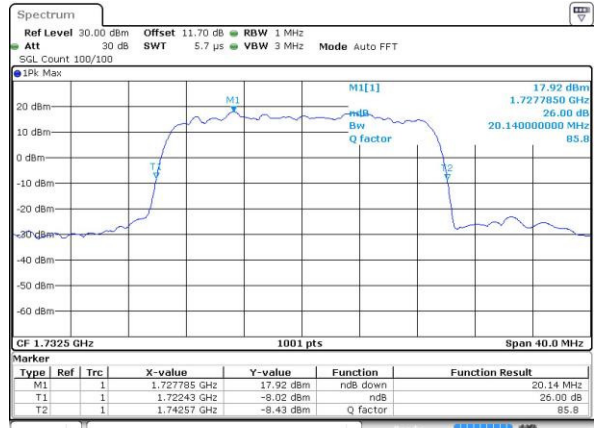
Date: 9 FEB 2017 17:34:57

Middle Channel / 20MHz / QPSK



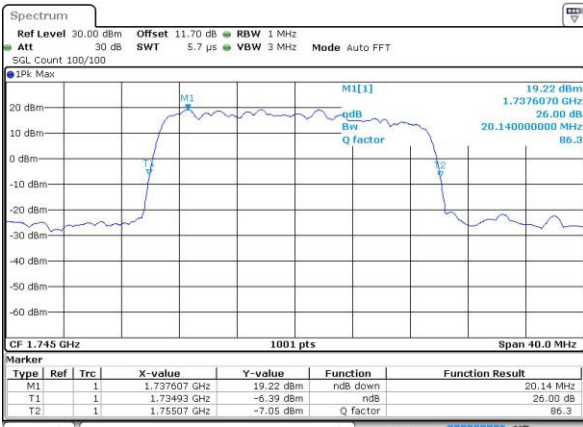
Date: 9 FEB 2017 17:41:53

Middle Channel / 20MHz / 16QAM



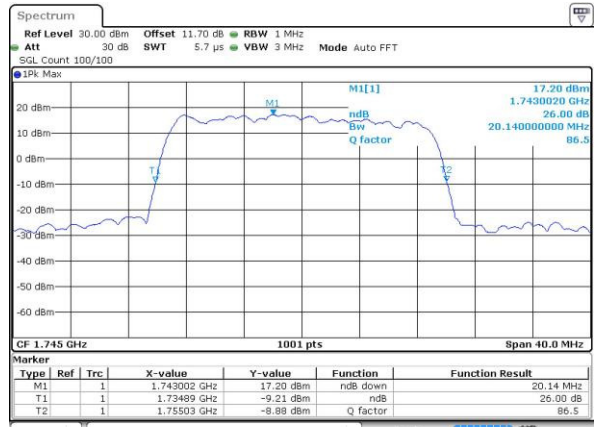
Date: 9 FEB 2017 17:42:04

Highest Channel / 20MHz / QPSK



Date: 9 FEB 2017 17:44:23

Highest Channel / 20MHz / 16QAM



Date: 9 FEB 2017 17:44:34



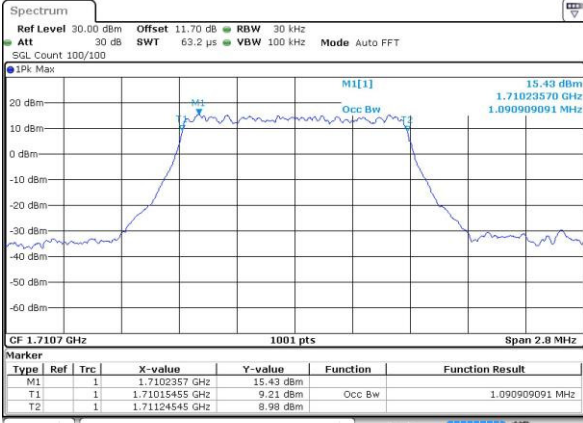
### Occupied Bandwidth

Mode	LTE Band 4 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.1	2.72	2.73	4.49	4.51	9.01	9.01	13.4	13.43	18.34	18.3
Middle CH	1.1	1.09	2.71	2.72	4.52	4.5	9.01	8.93	13.34	13.34	18.26	18.3
Highest CH	1.09	1.1	2.72	2.73	4.48	4.49	9.01	8.99	13.43	13.49	18.06	18.22



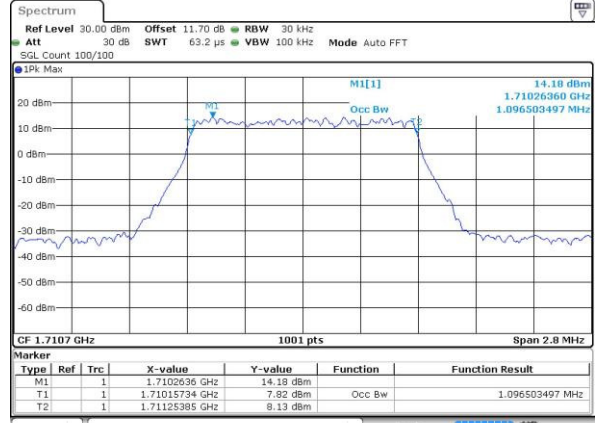
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



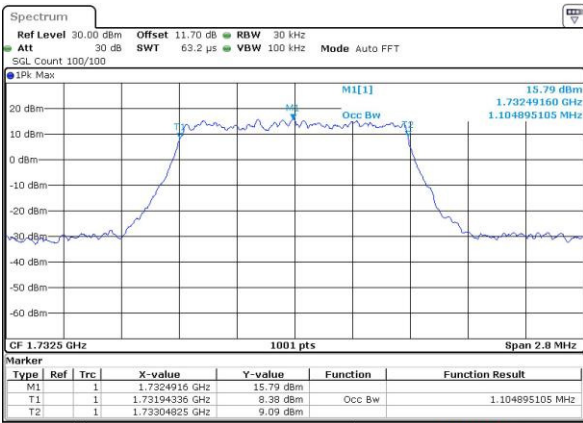
Date: 9 FEB 2017 17:52:51

Lowest Channel / 1.4MHz / 16QAM



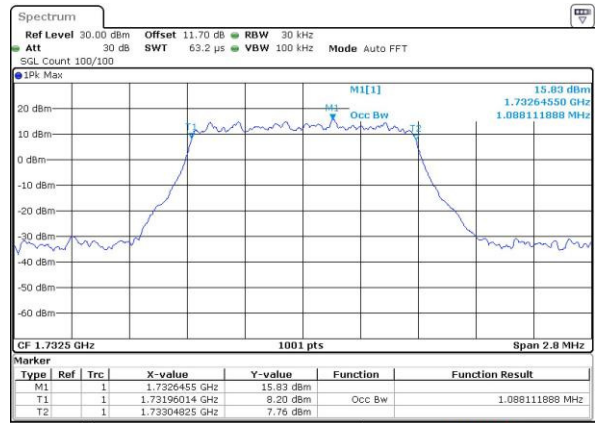
Date: 9 FEB 2017 17:53:02

Middle Channel / 1.4MHz / QPSK



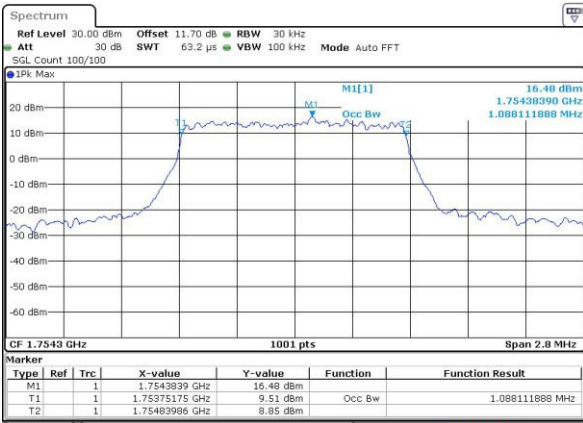
Date: 9 FEB 2017 17:59:59

Middle Channel / 1.4MHz / 16QAM



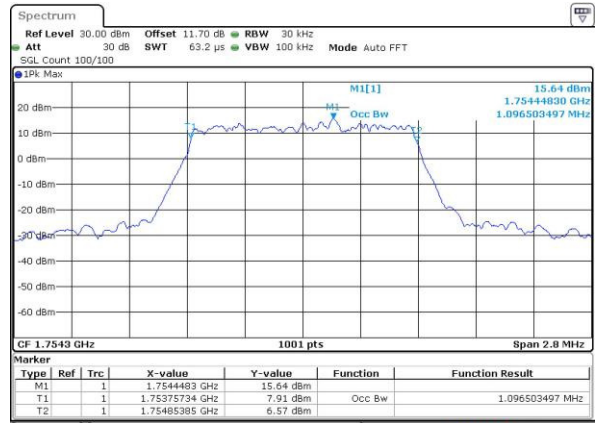
Date: 9 FEB 2017 18:00:09

Highest Channel / 1.4MHz / QPSK



Date: 9 FEB 2017 18:02:29

Highest Channel / 1.4MHz / 16QAM

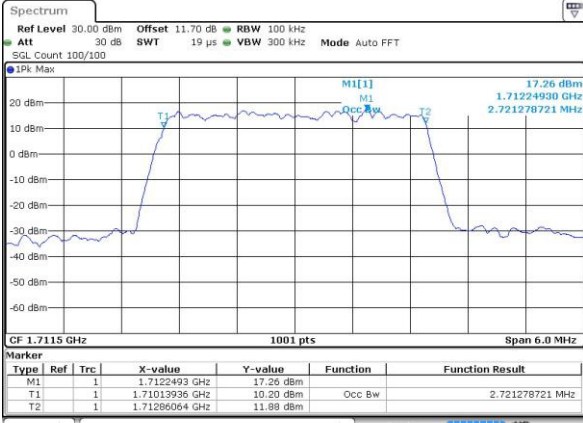


Date: 9 FEB 2017 18:17:28



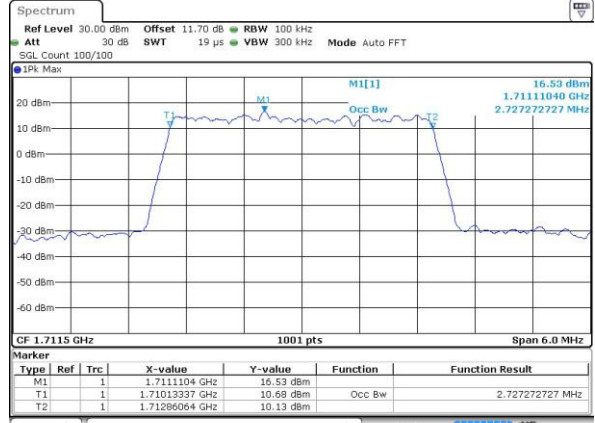
LTE Band 4

Lowest Channel / 3MHz / QPSK



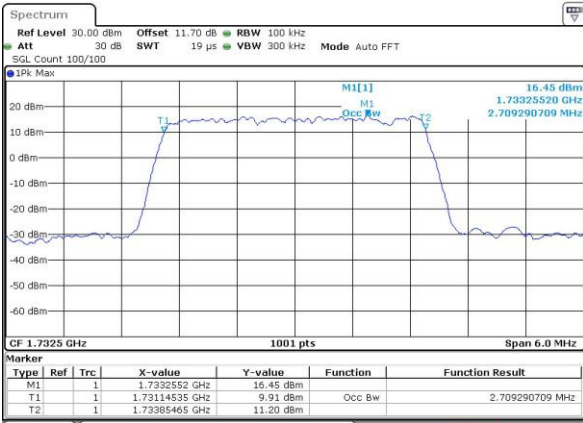
Date: 9 FEB 2017 16:27:34

Lowest Channel / 3MHz / 16QAM



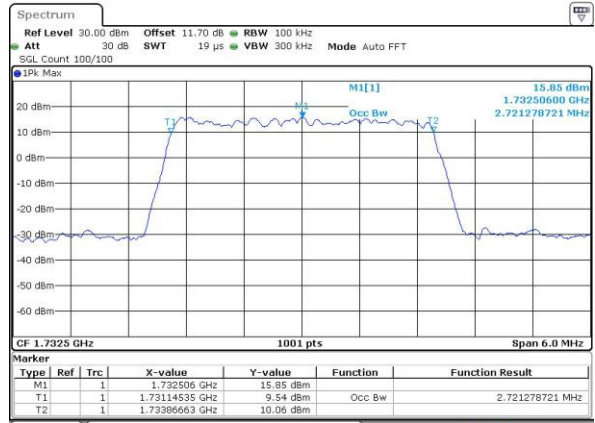
Date: 9 FEB 2017 16:27:44

Middle Channel / 3MHz / QPSK



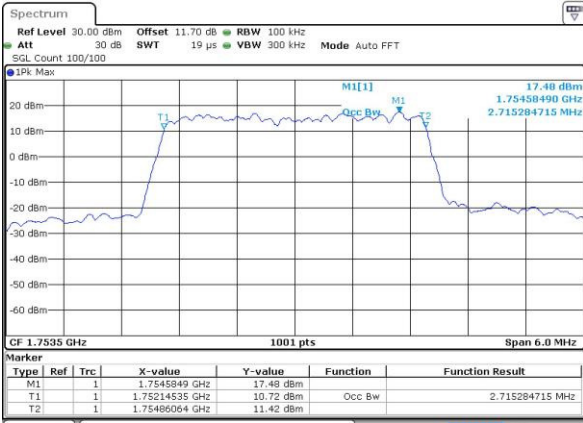
Date: 9 FEB 2017 16:34:41

Middle Channel / 3MHz / 16QAM



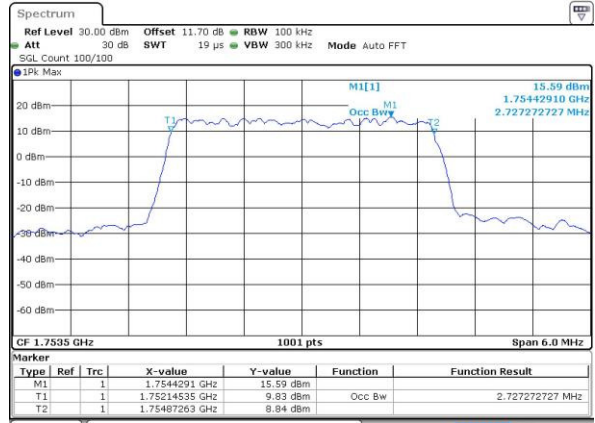
Date: 9 FEB 2017 16:34:52

Highest Channel / 3MHz / QPSK



Date: 9 FEB 2017 16:37:11

Highest Channel / 3MHz / 16QAM

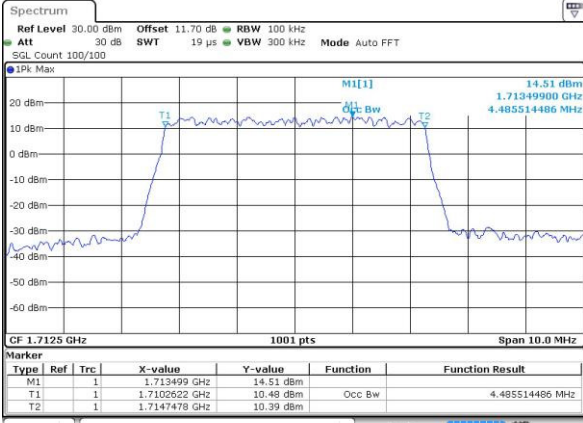


Date: 9 FEB 2017 16:37:22



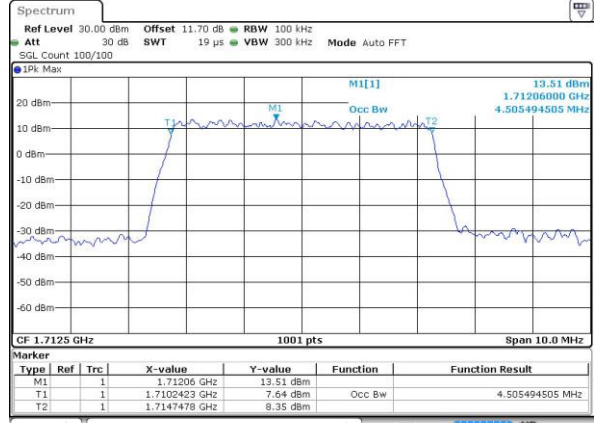
LTE Band 4

Lowest Channel / 5MHz / QPSK



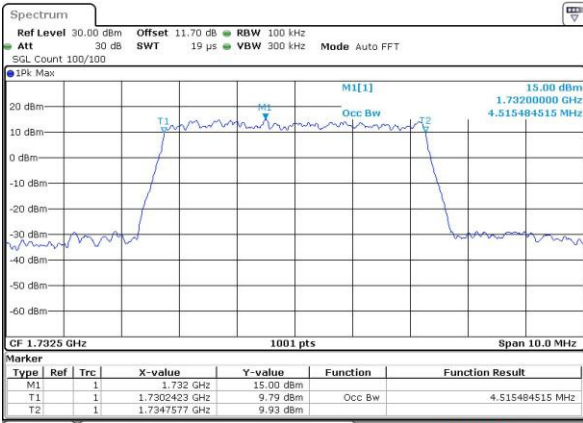
Date: 9 FEB 2017 16:44:18

Lowest Channel / 5MHz / 16QAM



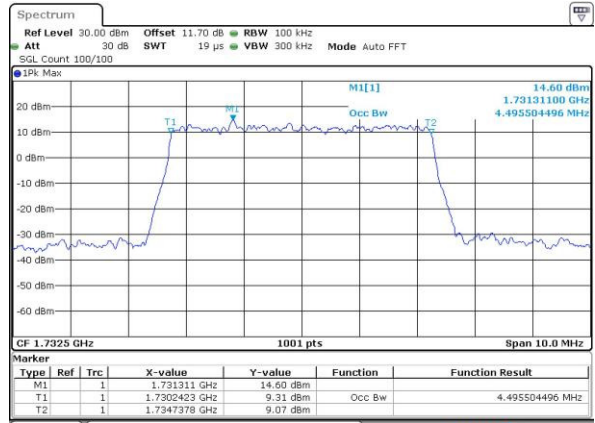
Date: 9 FEB 2017 16:44:28

Middle Channel / 5MHz / QPSK



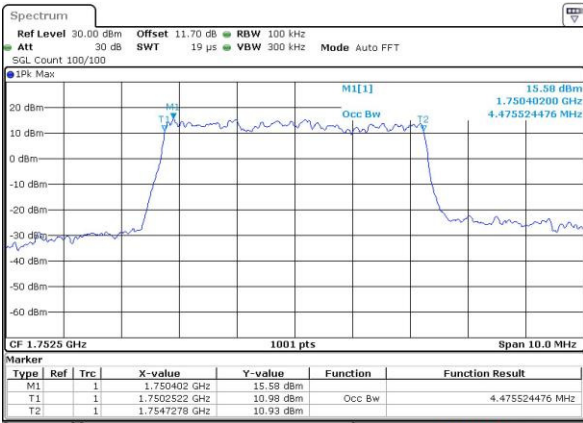
Date: 9 FEB 2017 16:51:25

Middle Channel / 5MHz / 16QAM



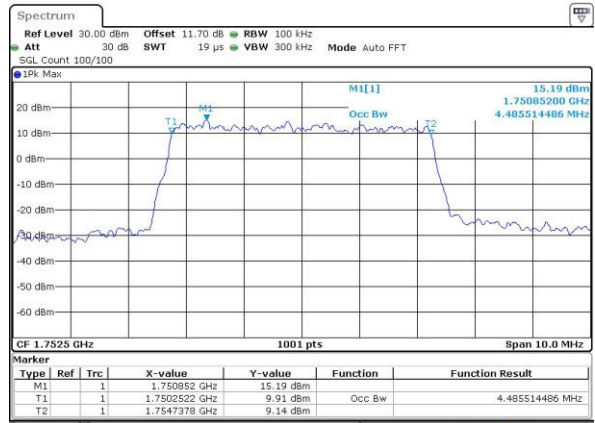
Date: 9 FEB 2017 16:51:35

Highest Channel / 5MHz / QPSK



Date: 9 FEB 2017 16:53:55

Highest Channel / 5MHz / 16QAM



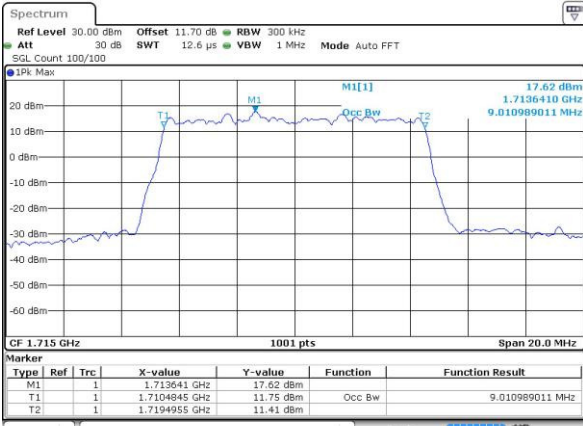
Date: 9 FEB 2017 16:54:05





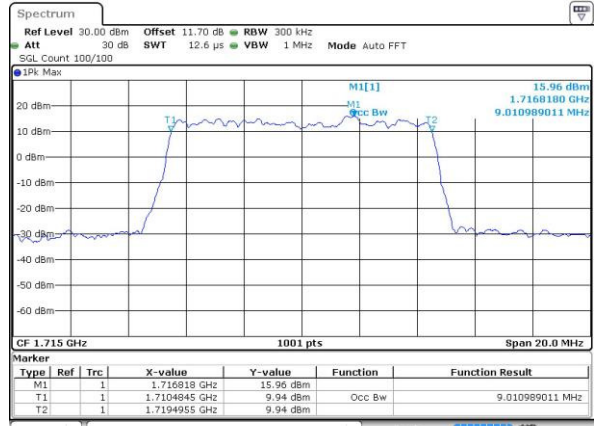
LTE Band 4

Lowest Channel / 10MHz / QPSK



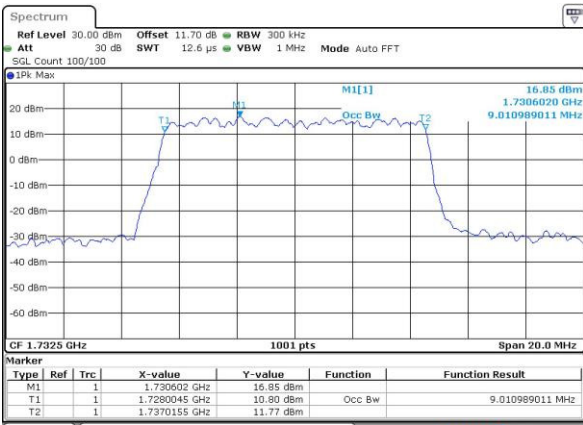
Date: 9 FEB 2017 17:01:01

Lowest Channel / 10MHz / 16QAM



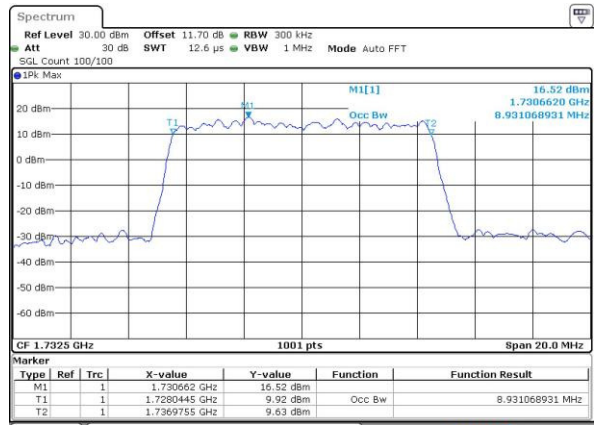
Date: 9 FEB 2017 17:01:12

Middle Channel / 10MHz / QPSK



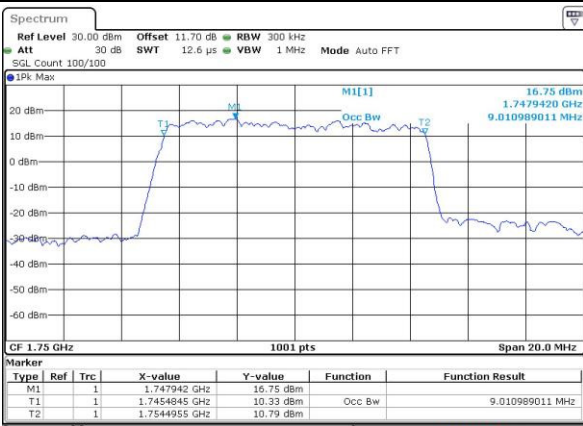
Date: 9 FEB 2017 17:08:07

Middle Channel / 10MHz / 16QAM



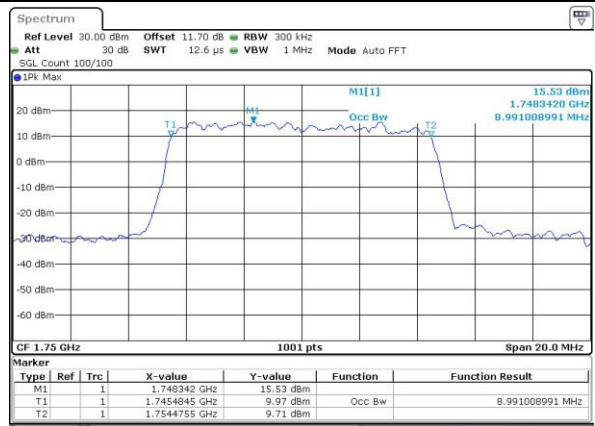
Date: 9 FEB 2017 17:08:18

Highest Channel / 10MHz / QPSK



Date: 9 FEB 2017 17:10:37

Highest Channel / 10MHz / 16QAM

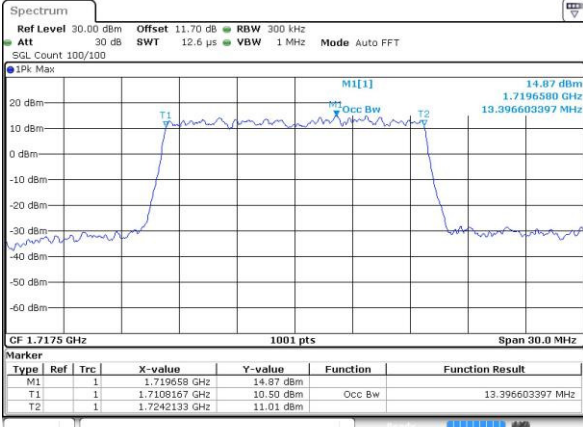


Date: 9 FEB 2017 17:10:47



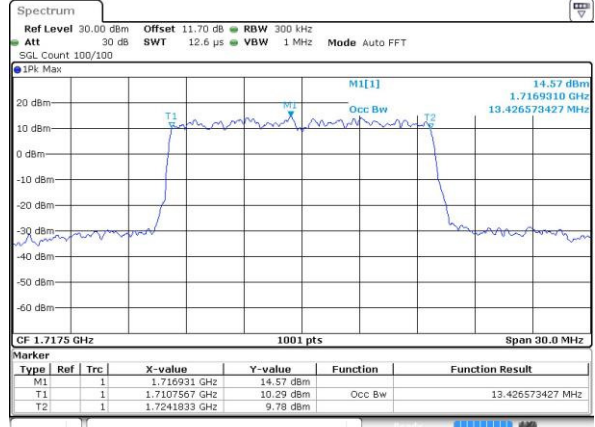
LTE Band 4

Lowest Channel / 15MHz / QPSK



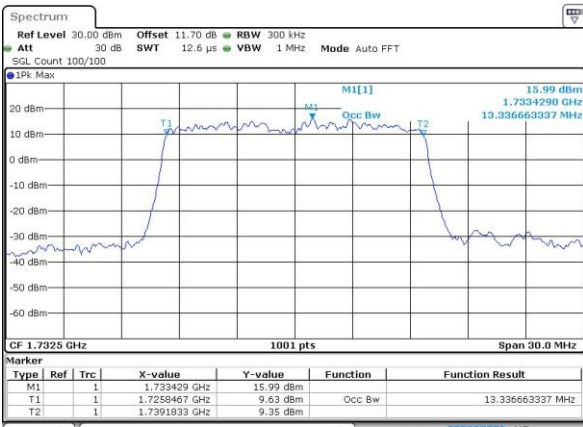
Date: 9 FEB 2017 17:17:43

Lowest Channel / 15MHz / 16QAM



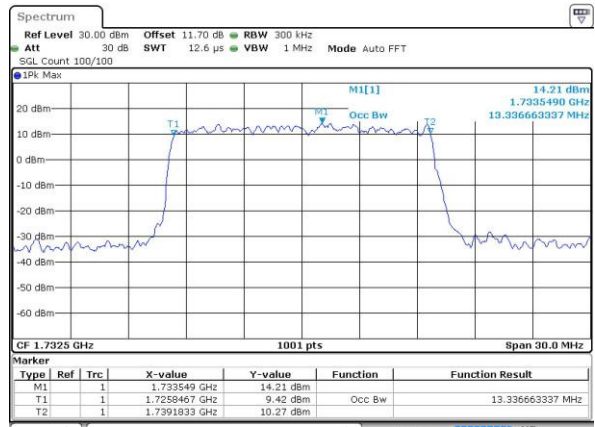
Date: 9 FEB 2017 17:17:54

Middle Channel / 15MHz / QPSK



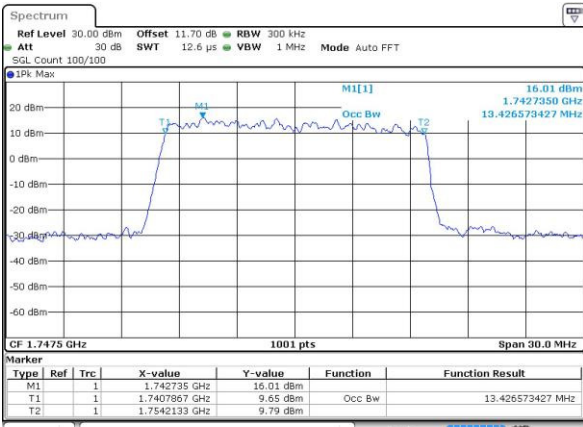
Date: 9 FEB 2017 17:24:50

Middle Channel / 15MHz / 16QAM



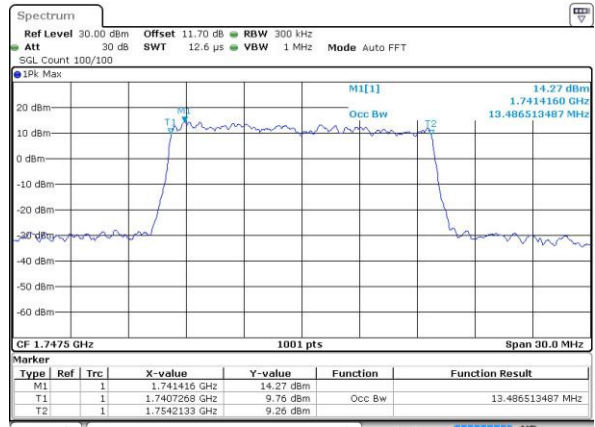
Date: 9 FEB 2017 17:25:00

Highest Channel / 15MHz / QPSK



Date: 9 FEB 2017 17:27:20

Highest Channel / 15MHz / 16QAM



Date: 9 FEB 2017 17:27:30



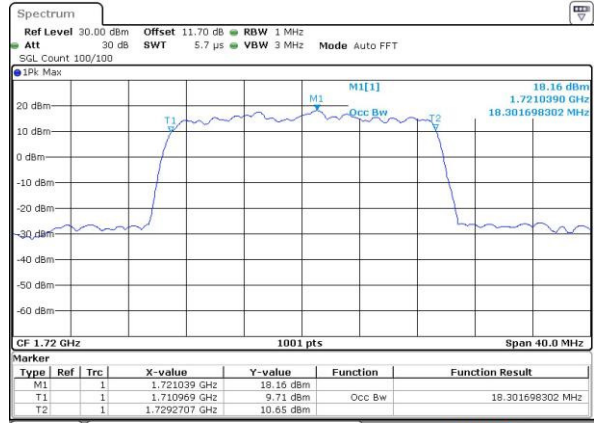
LTE Band 4

Lowest Channel / 20MHz / QPSK



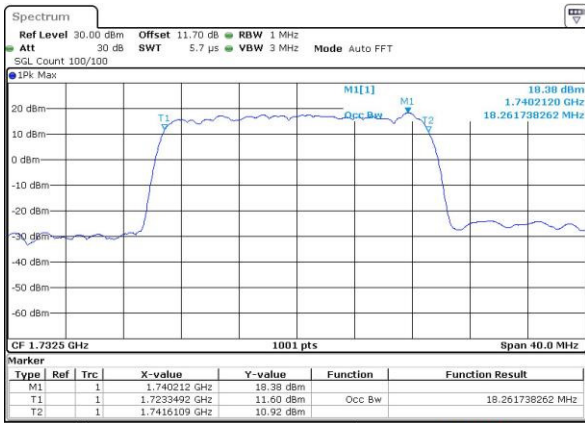
Date: 9 FEB 2017 17:34:26

Lowest Channel / 20MHz / 16QAM



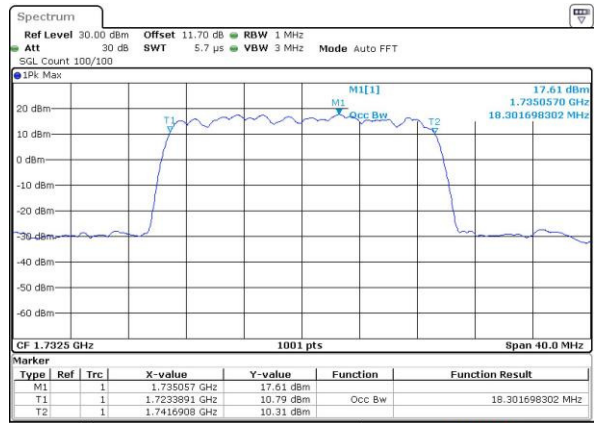
Date: 9 FEB 2017 17:34:37

Middle Channel / 20MHz / QPSK



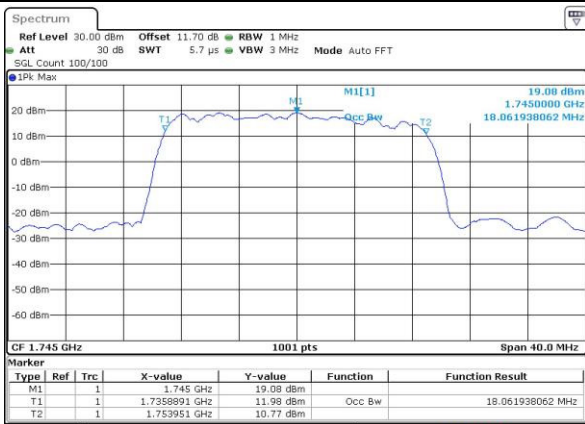
Date: 9 FEB 2017 17:41:33

Middle Channel / 20MHz / 16QAM



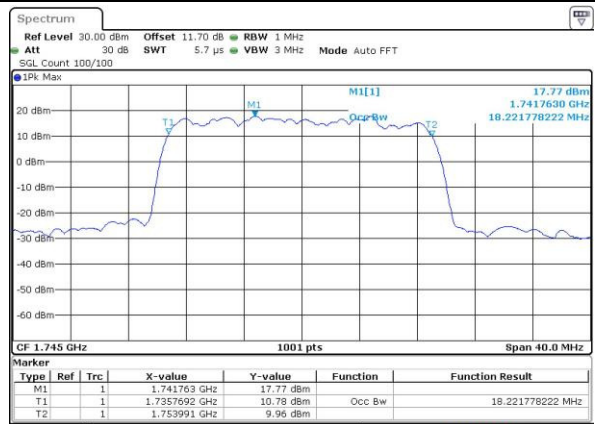
Date: 9 FEB 2017 17:41:43

Highest Channel / 20MHz / QPSK



Date: 9 FEB 2017 17:44:03

Highest Channel / 20MHz / 16QAM



Date: 9 FEB 2017 17:44:13

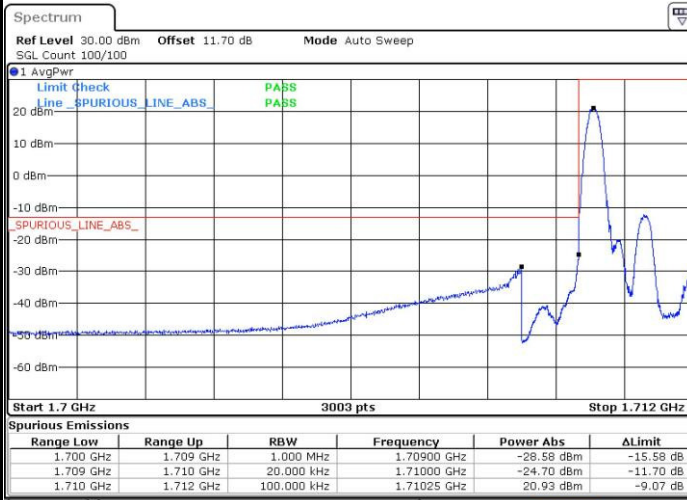


**Conducted Band Edge**



LTE Band 4 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



Date: 9 FEB 2017 17:54:31

Highest Band Edge / 1RB



Date: 9 FEB 2017 18:04:32

Lowest Band Edge / Full RB



Date: 9 FEB 2017 17:56:50

Highest Band Edge / Full RB

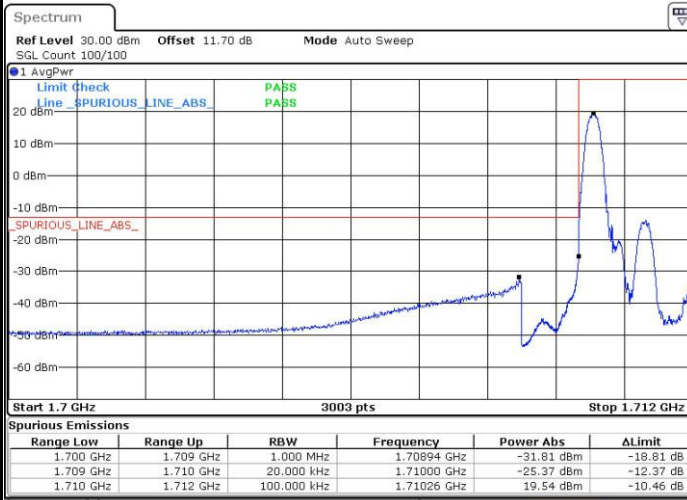


Date: 9 FEB 2017 18:06:50



LTE Band 4 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



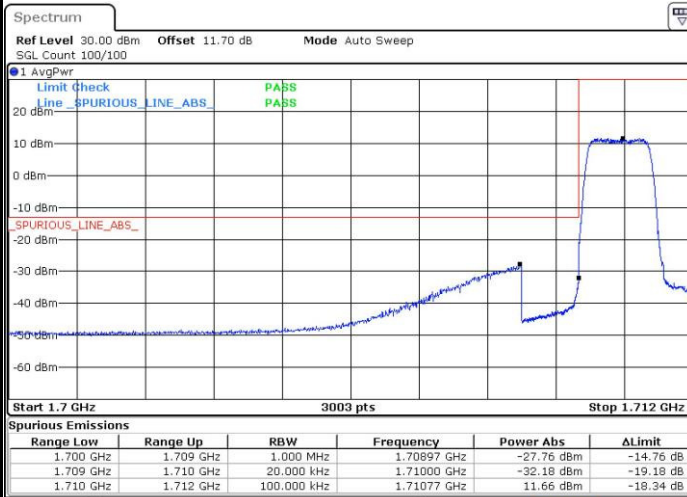
Date: 9 FEB 2017 17:55:41

Highest Band Edge / 1 RB



Date: 9 FEB 2017 18:05:41

Lowest Band Edge / Full RB



Date: 9 FEB 2017 17:57:59

Highest Band Edge / Full RB



Date: 9 FEB 2017 18:07:59