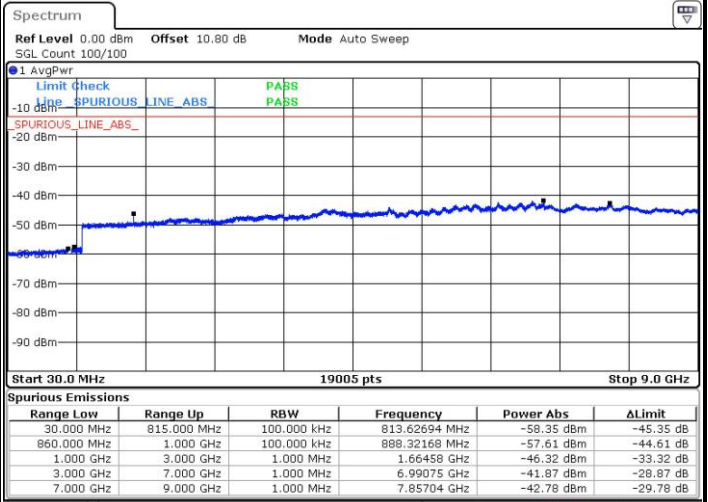
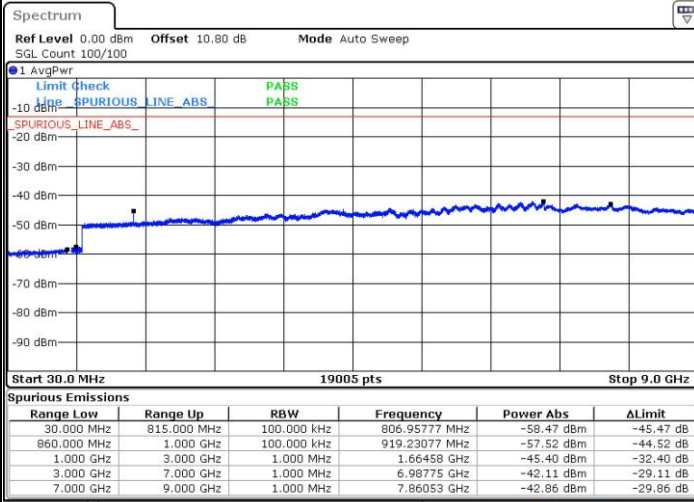




LTE Band 5 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

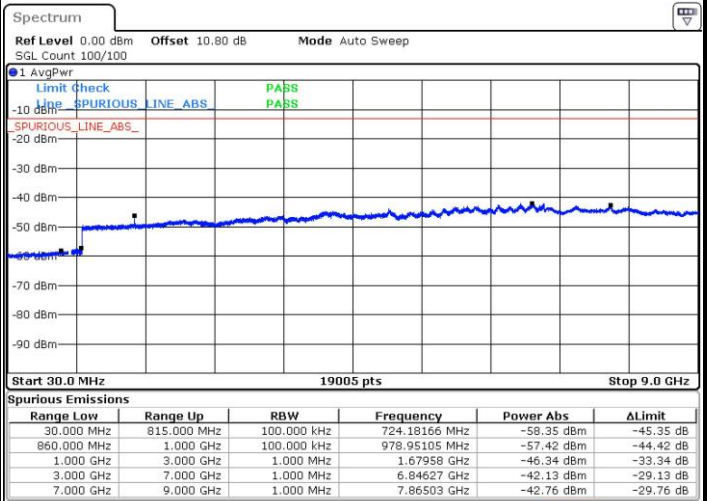
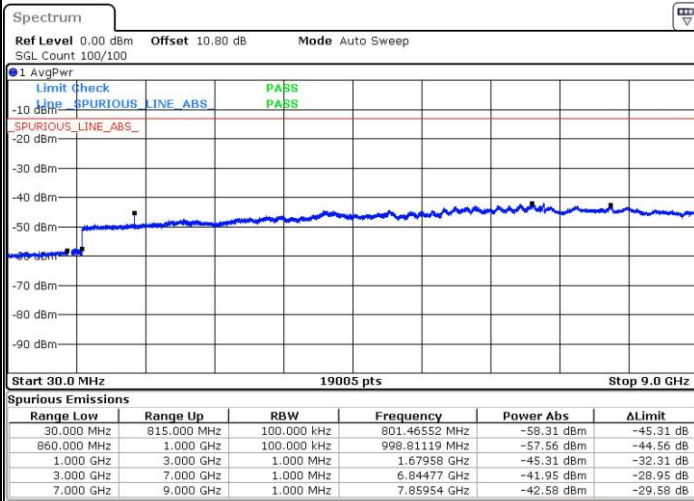


Date: 15.MAY.2017 17:22:09

Date: 15.MAY.2017 17:23:04

Highest Channel / QPSK

Highest Channel / 16QAM



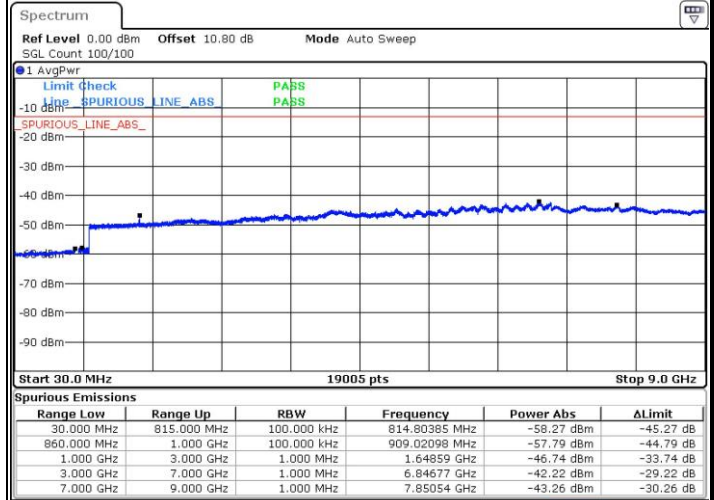
Date: 15.MAY.2017 17:31:15

Date: 15.MAY.2017 17:32:09



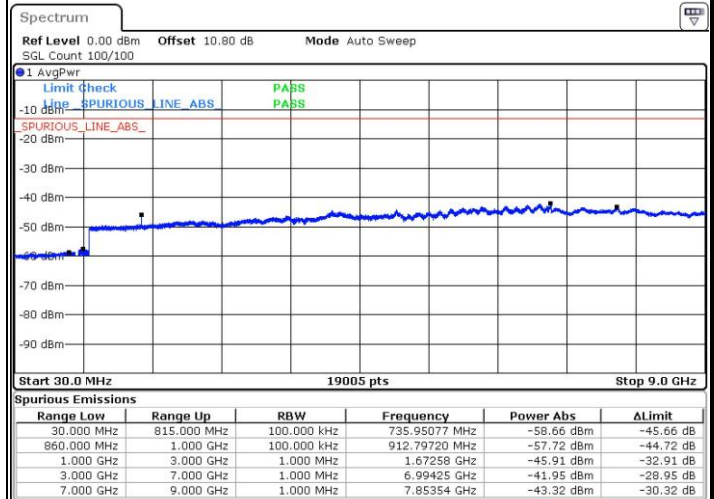
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



Date: 29.MAY.2017 11:44:01

Middle Channel / 64QAM

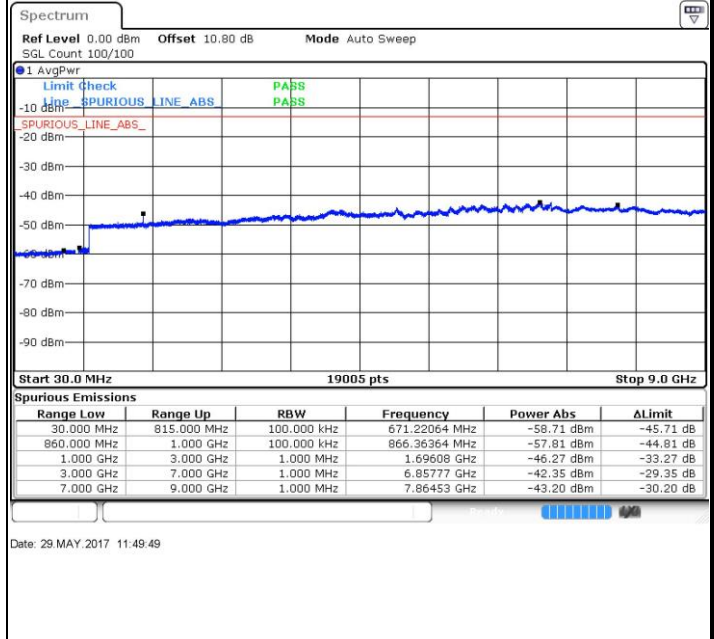


Date: 29.MAY.2017 11:45:16



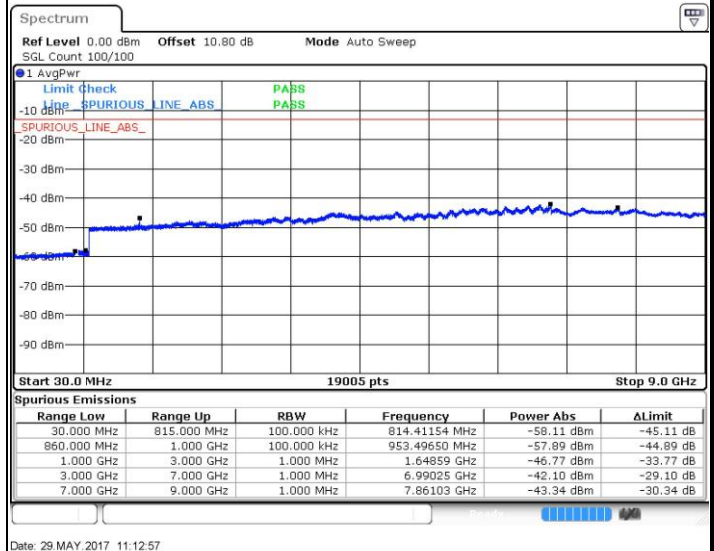
LTE Band 5 / 1.4MHz

Highest Channel / 64QAM



LTE Band 5 / 3MHz

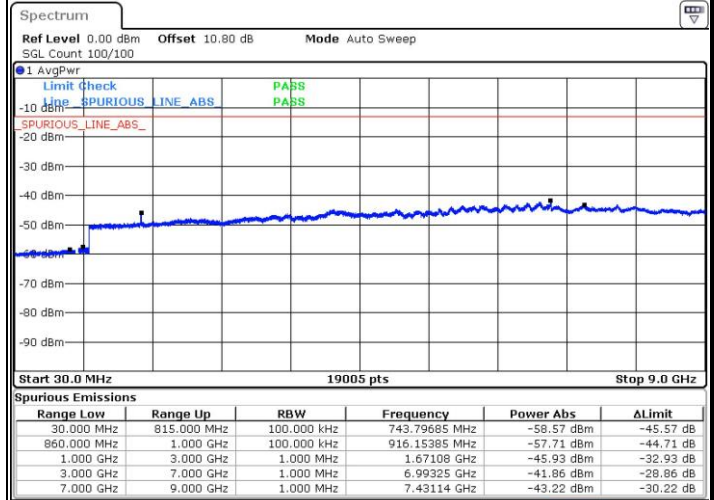
Lowest Channel / 64QAM





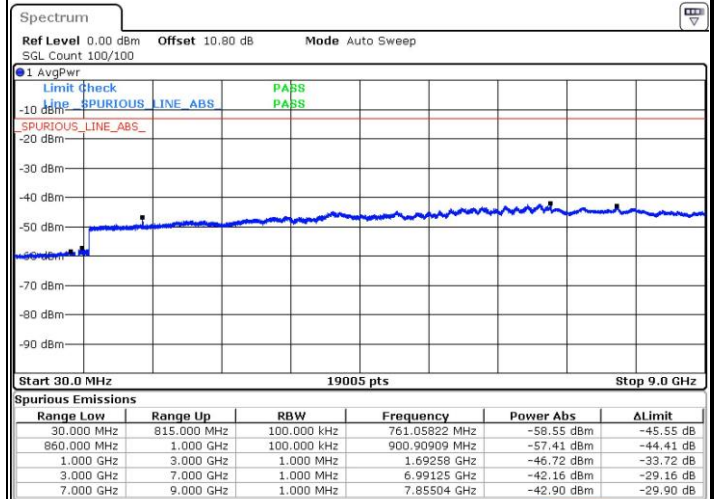
LTE Band 5 / 3MHz

Middle Channel / 64QAM



Date: 29.MAY.2017 11:14:12

Highest Channel / 64QAM

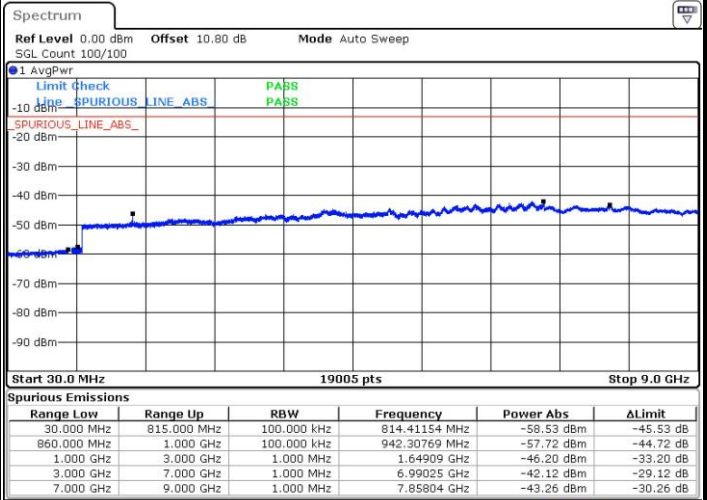


Date: 29.MAY.2017 11:18:45



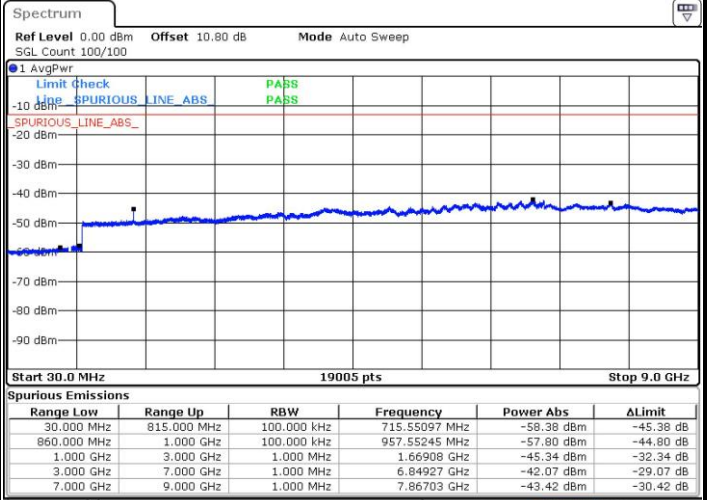
**LTE Band 5 / 5MHz**

**Lowest Channel / 64QAM**



Date: 29.MAY.2017 11:23:18

**Middle Channel / 64QAM**

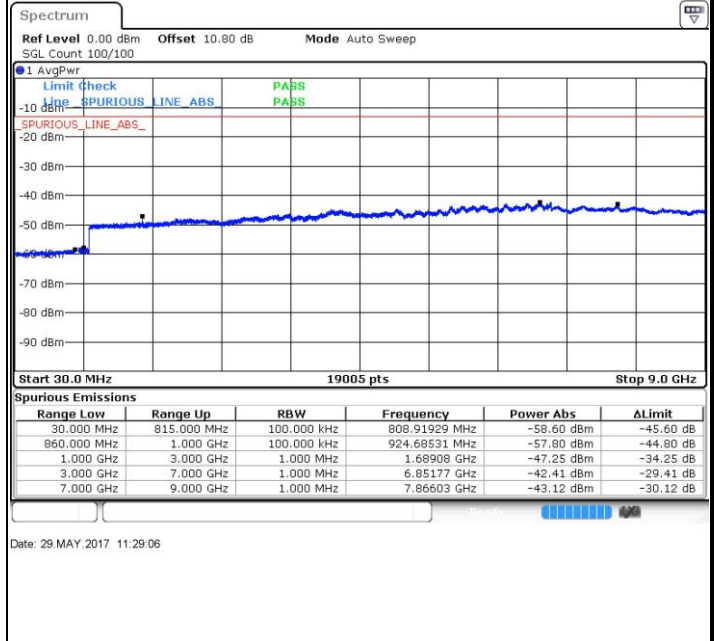


Date: 29.MAY.2017 11:24:33



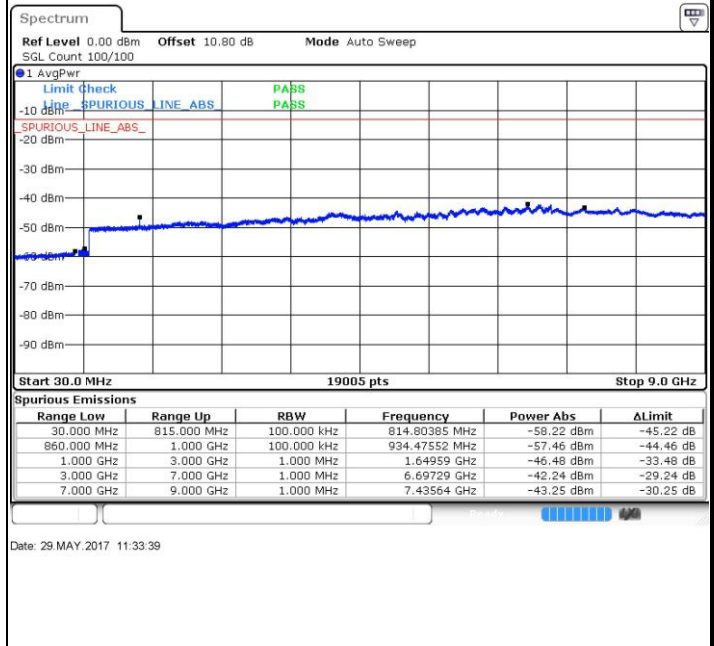
LTE Band 5 / 5MHz

Highest Channel / 64QAM



LTE Band 5 / 10MHz

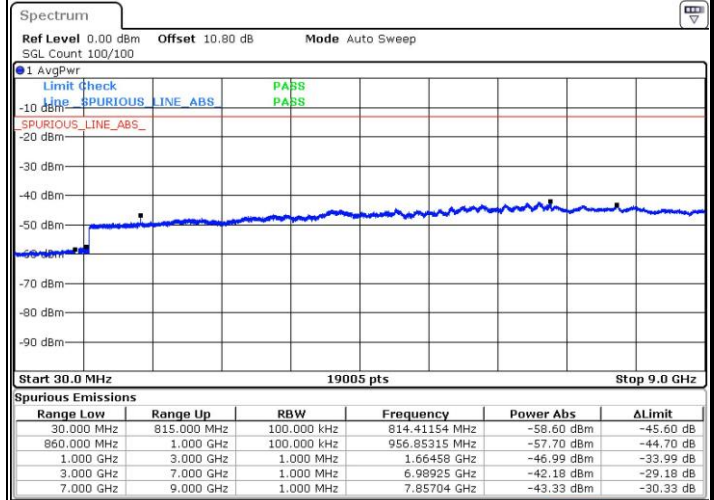
Lowest Channel / 64QAM





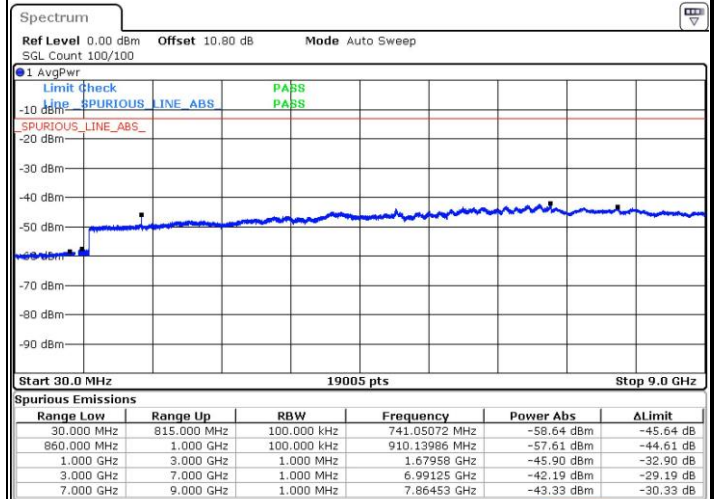
LTE Band 5 / 10MHz

Middle Channel / 64QAM



Date: 29.MAY.2017 11:34:54

Highest Channel / 64QAM



Date: 29.MAY.2017 11:39:27



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0146	
30	Normal Voltage	0.0112	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0155	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0114	
-20	Normal Voltage	0.0093	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0091	

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 7

## Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.64	4.38	5.8	<b>PASS</b>
Middle CH	4.35	4.81	4.99	5.83	
Highest CH	4.26	4.64	5.45	5.8	
Mode	LTE Band 7 / 20MHz				
Mod.	-		64QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	4.29	5.71	<b>PASS</b>
Middle CH	-	-	5.19	5.88	
Highest CH	-	-	5.39	5.8	



LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 15 MAY 2017 23:11:40

Lowest Channel / Full RB



Date: 15 MAY 2017 23:11:51

Middle Channel / 1RB



Date: 15 MAY 2017 23:12:03

Middle Channel / Full RB



Date: 15 MAY 2017 23:12:13

Highest Channel / 1RB



Date: 15 MAY 2017 23:12:23

Highest Channel / Full RB



Date: 15 MAY 2017 23:12:36



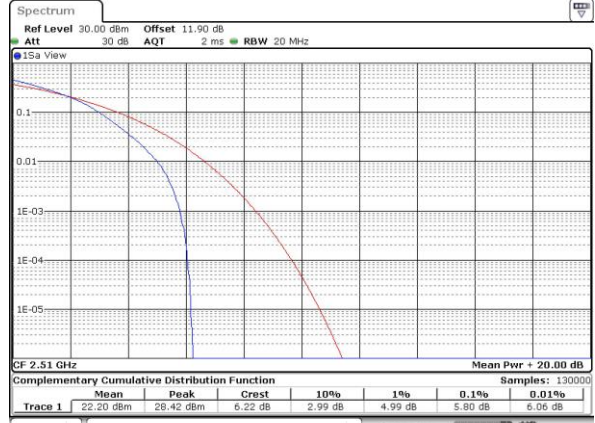
LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 15 MAY 2017 23:10:37

Lowest Channel / Full RB



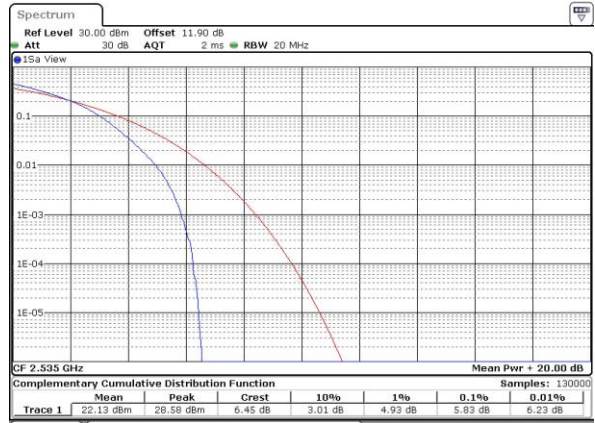
Date: 15 MAY 2017 23:10:48

Middle Channel / 1RB



Date: 15 MAY 2017 23:11:00

Middle Channel / Full RB



Date: 15 MAY 2017 23:11:10

Highest Channel / 1RB



Date: 15 MAY 2017 23:13:51

Highest Channel / Full RB



Date: 15 MAY 2017 23:13:30



LTE Band 7 / 20MHz / 64QAM

Lowest Channel / 1RB



Date: 29 MAY 2017 02:15:27

Lowest Channel / Full RB



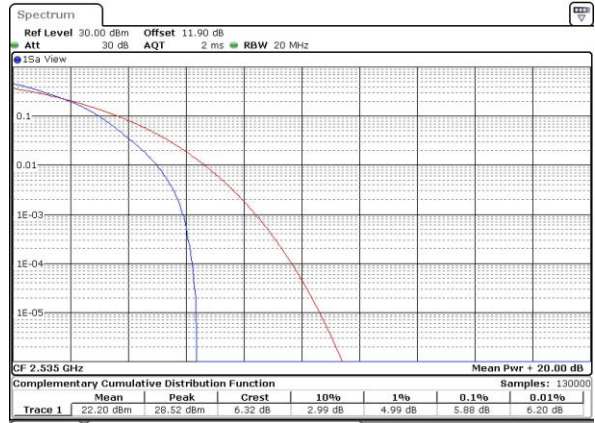
Date: 29 MAY 2017 02:15:36

Middle Channel / 1RB



Date: 29 MAY 2017 02:15:46

Middle Channel / Full RB



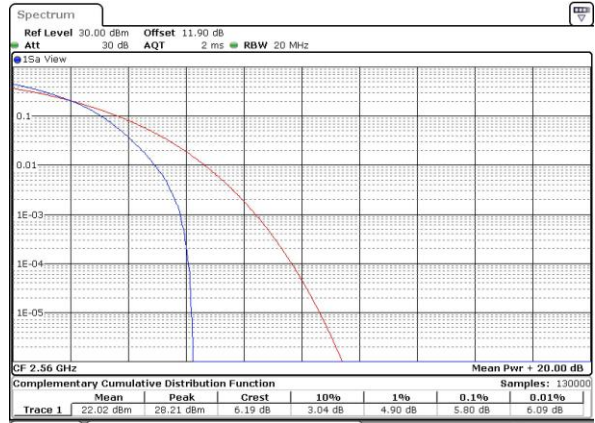
Date: 29 MAY 2017 02:15:55

Highest Channel / 1RB



Date: 29 MAY 2017 02:16:05

Highest Channel / Full RB



Date: 29 MAY 2017 02:16:15



**26dB Bandwidth**

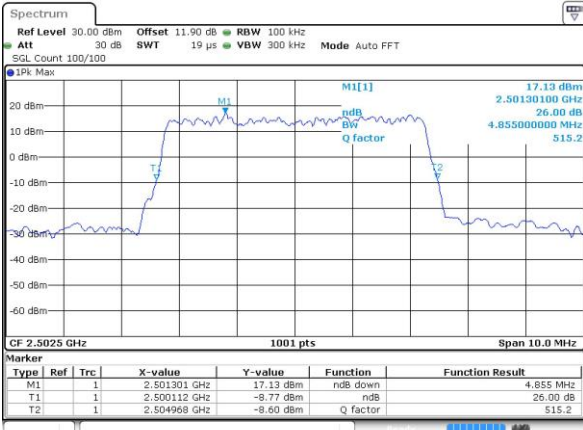
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.86	4.90	9.69	9.71	14.75	14.54	20.26	20.14
Middle CH	-	-	-	-	4.93	4.82	9.91	9.83	14.42	14.30	20.18	20.10
Highest CH	-	-	-	-	4.90	4.93	9.71	9.95	14.60	14.39	20.22	20.26
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM
Lowest CH	-	-	-	-	-	4.94	-	9.69	-	14.27	-	20.06
Middle CH	-	-	-	-	-	4.93	-	9.81	-	14.45	-	20.02
Highest CH	-	-	-	-	-	4.89	-	9.75	-	14.54	-	20.06





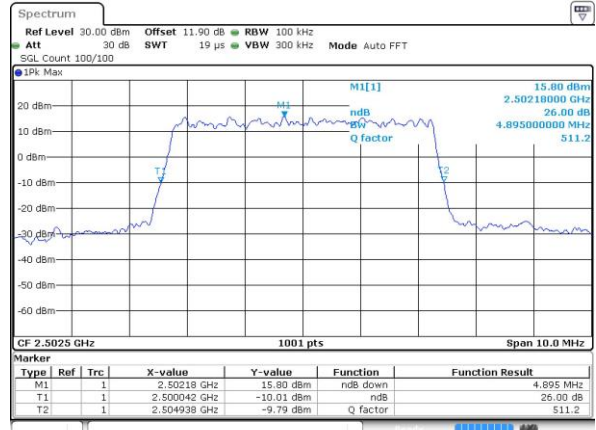
LTE Band 7

Lowest Channel / 5MHz / QPSK



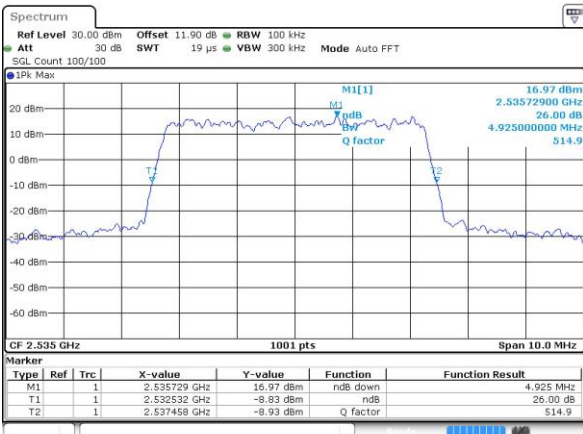
Date: 15 MAY 2017 22:03:44

Lowest Channel / 5MHz / 16QAM



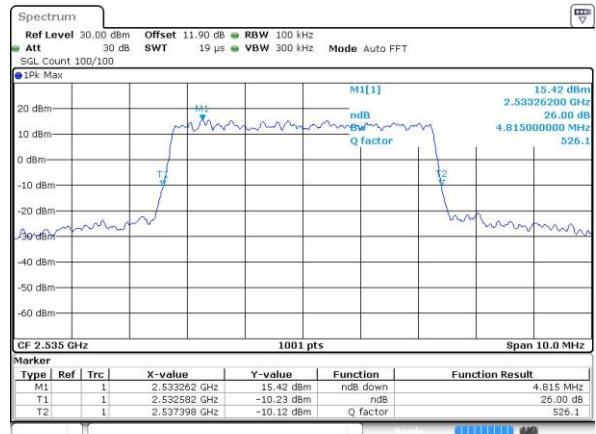
Date: 15 MAY 2017 22:03:54

Middle Channel / 5MHz / QPSK



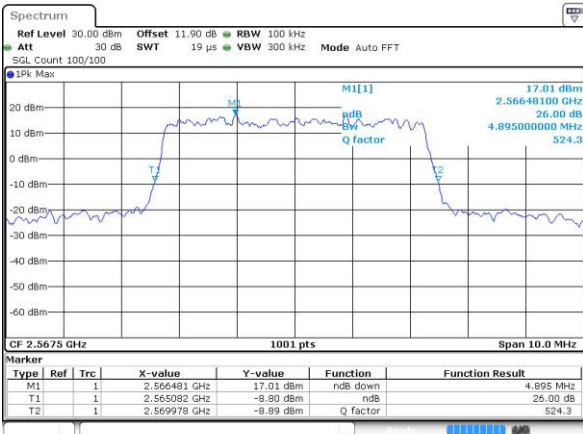
Date: 15 MAY 2017 22:10:51

Middle Channel / 5MHz / 16QAM



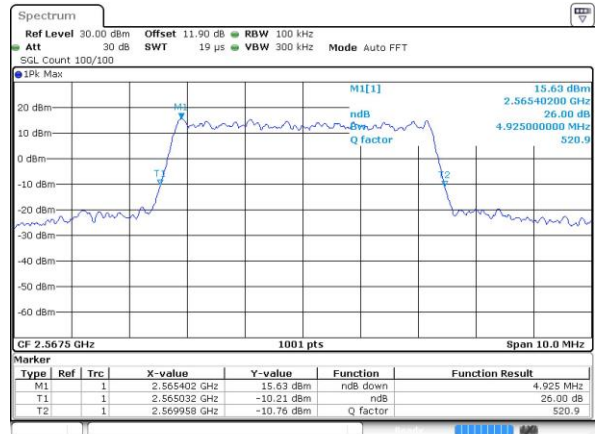
Date: 15 MAY 2017 22:11:02

Highest Channel / 5MHz / QPSK



Date: 15 MAY 2017 22:13:20

Highest Channel / 5MHz / 16QAM

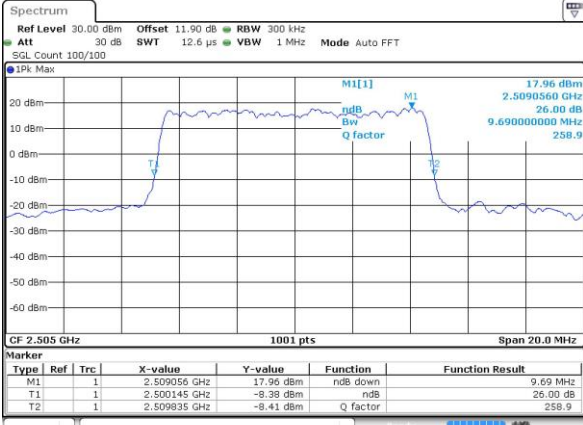


Date: 15 MAY 2017 22:13:31



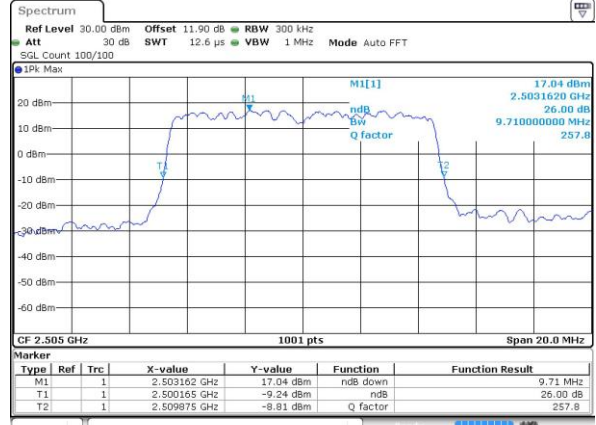
LTE Band 7

Lowest Channel / 10MHz / QPSK



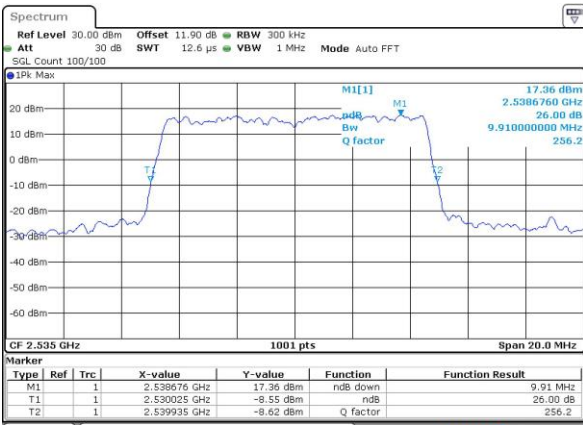
Date: 15 MAY 2017 22:20:28

Lowest Channel / 10MHz / 16QAM



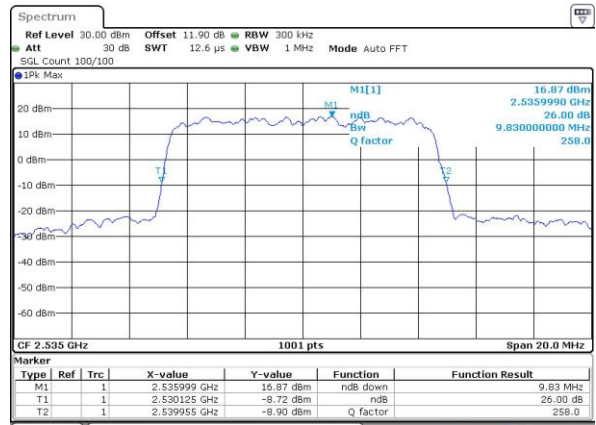
Date: 15 MAY 2017 22:20:39

Middle Channel / 10MHz / QPSK



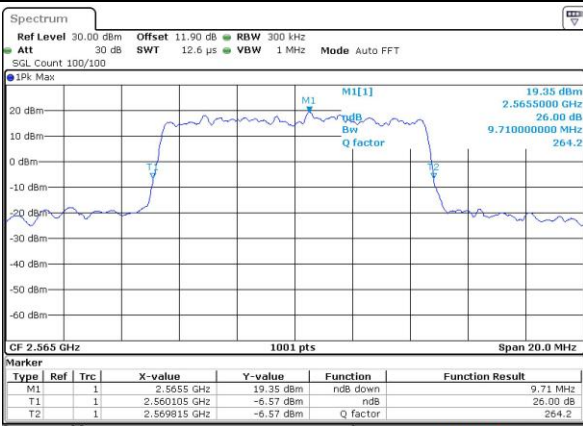
Date: 15 MAY 2017 22:27:36

Middle Channel / 10MHz / 16QAM



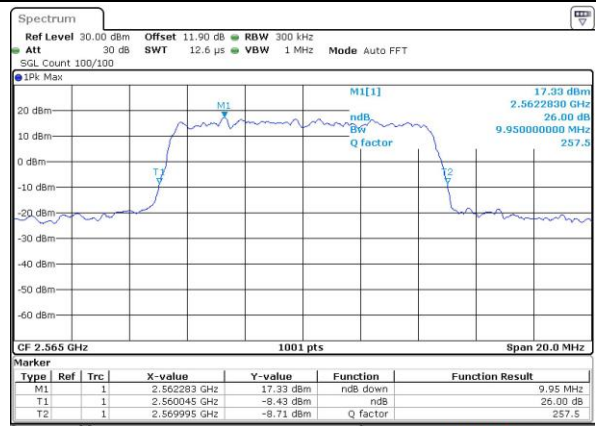
Date: 15 MAY 2017 22:27:47

Highest Channel / 10MHz / QPSK



Date: 15 MAY 2017 22:30:05

Highest Channel / 10MHz / 16QAM

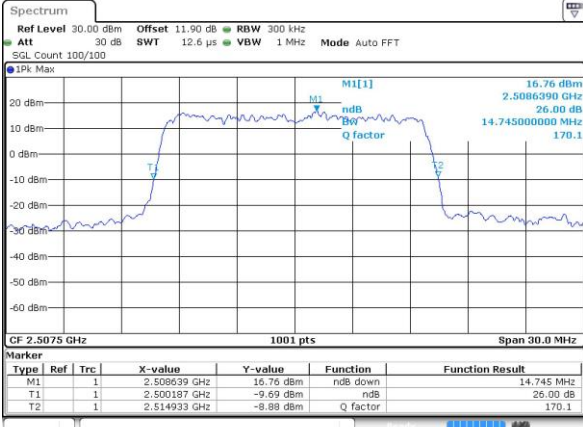


Date: 15 MAY 2017 22:30:15



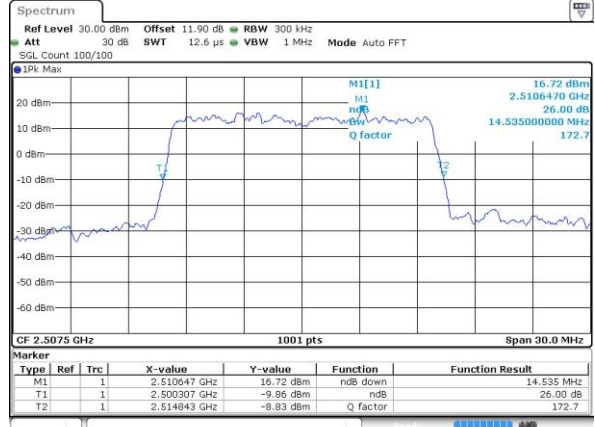
LTE Band 7

Lowest Channel / 15MHz / QPSK



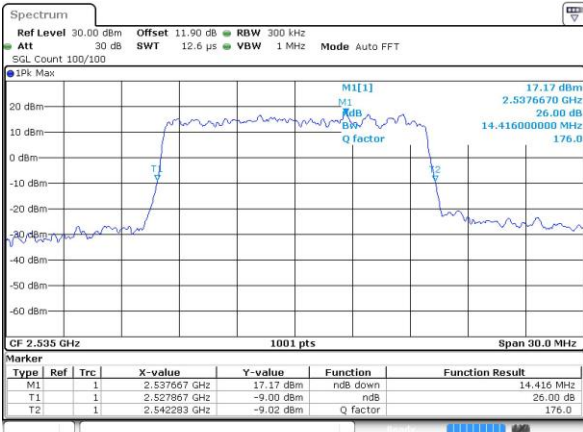
Date: 15 MAY 2017 22:37:13

Lowest Channel / 15MHz / 16QAM



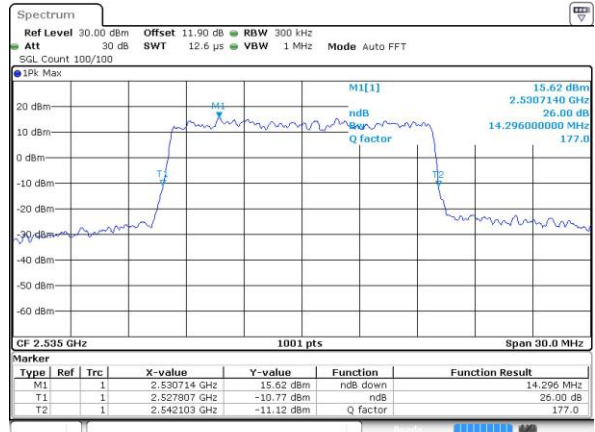
Date: 15 MAY 2017 22:37:23

Middle Channel / 15MHz / QPSK



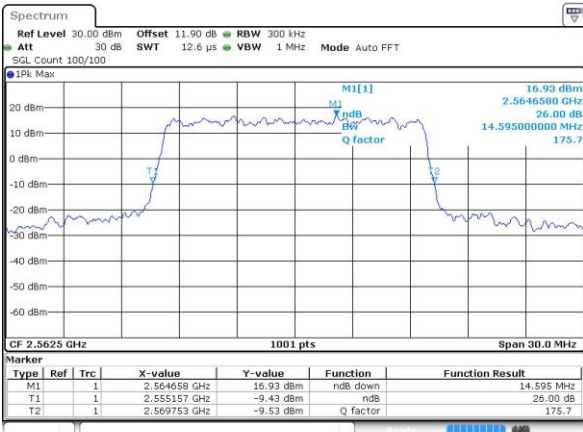
Date: 15 MAY 2017 22:44:21

Middle Channel / 15MHz / 16QAM



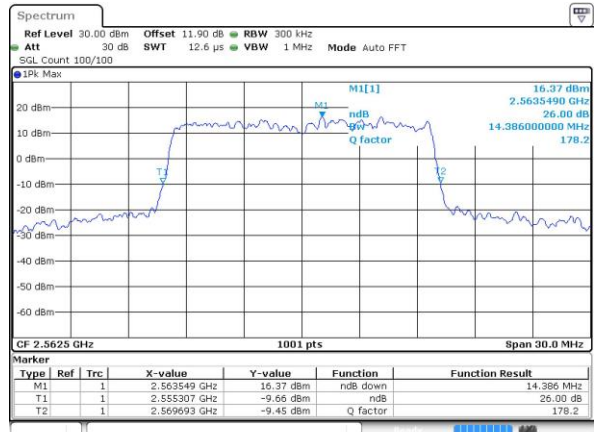
Date: 15 MAY 2017 22:44:31

Highest Channel / 15MHz / QPSK



Date: 15 MAY 2017 22:46:50

Highest Channel / 15MHz / 16QAM



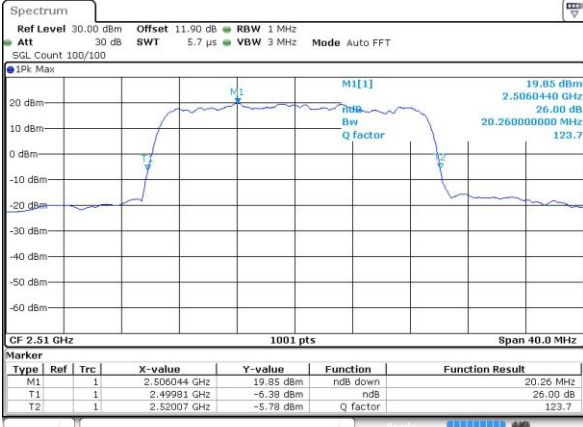
Date: 15 MAY 2017 22:47:00





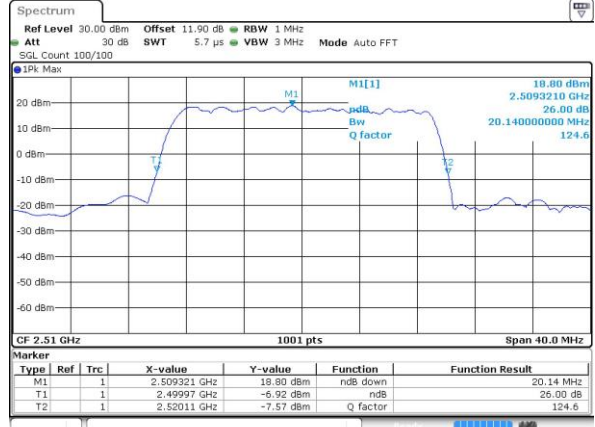
LTE Band 7

Lowest Channel / 20MHz / QPSK



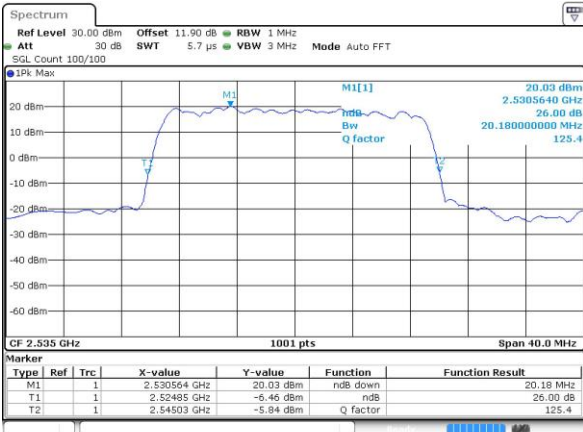
Date: 15 MAY 2017 22:53:57

Lowest Channel / 20MHz / 16QAM



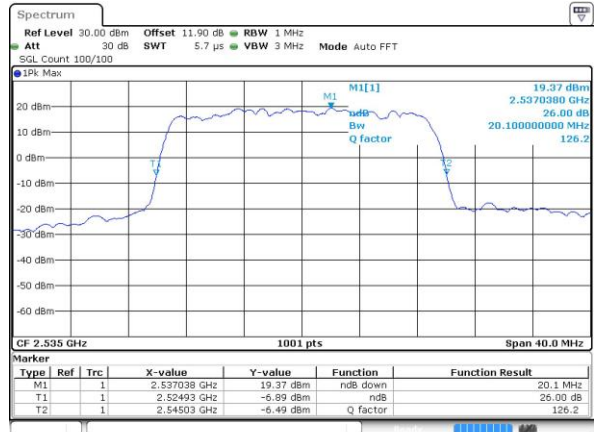
Date: 15 MAY 2017 22:54:08

Middle Channel / 20MHz / QPSK



Date: 15 MAY 2017 23:01:05

Middle Channel / 20MHz / 16QAM



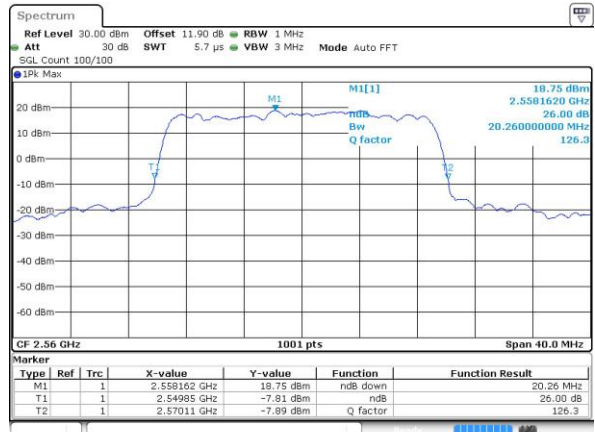
Date: 15 MAY 2017 23:01:15

Highest Channel / 20MHz / QPSK



Date: 15 MAY 2017 23:03:34

Highest Channel / 20MHz / 16QAM

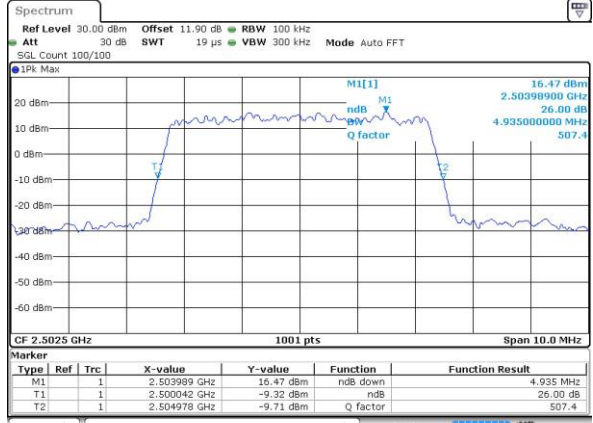


Date: 15 MAY 2017 23:03:44



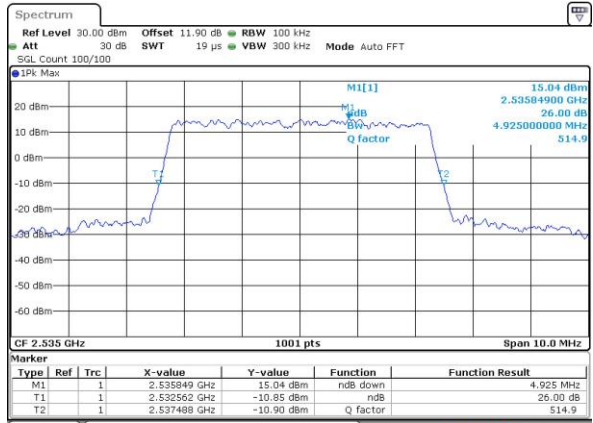
LTE Band 7

Lowest Channel / 5MHz / 64QAM



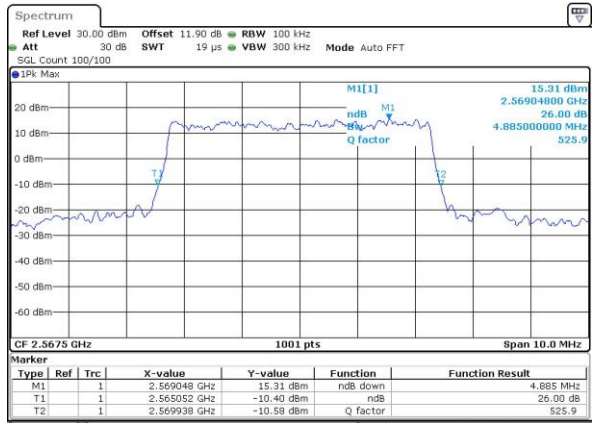
Date: 29 MAY 2017 01:41:25

Middle Channel / 5MHz / 64QAM



Date: 29 MAY 2017 01:44:59

Highest Channel / 5MHz / 64QAM

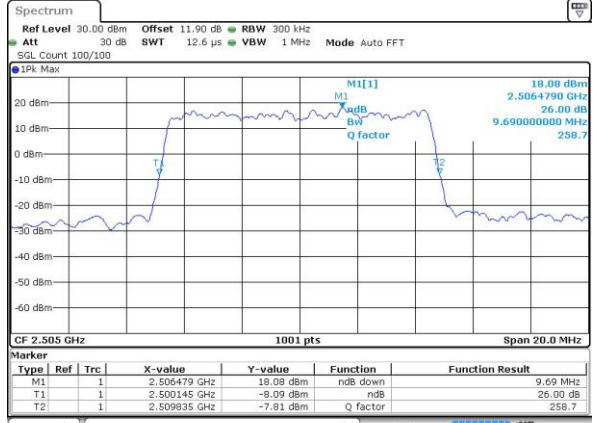


Date: 29 MAY 2017 01:46:13



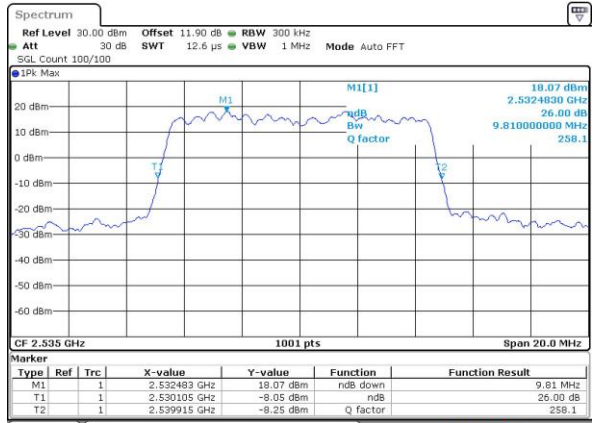
LTE Band 7

Lowest Channel / 10MHz / 64QAM



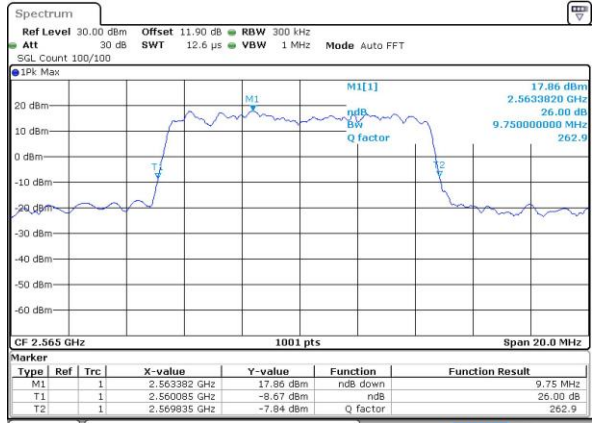
Date: 29 MAY 2017 01:48:47

Middle Channel / 10MHz / 64QAM



Date: 29 MAY 2017 01:53:21

Highest Channel / 10MHz / 64QAM

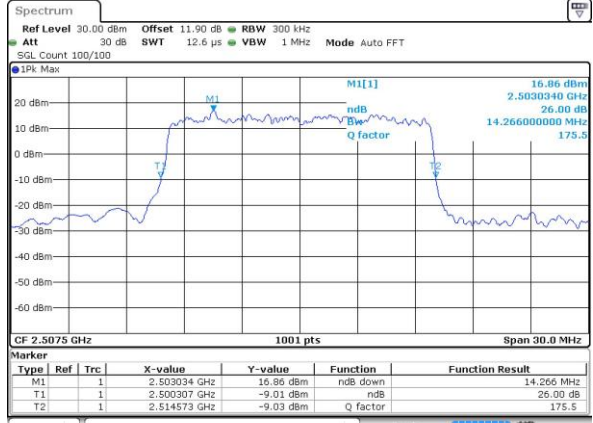


Date: 29 MAY 2017 01:54:35



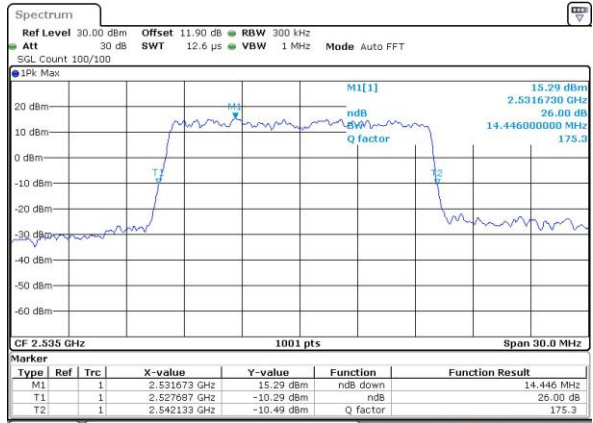
LTE Band 7

Lowest Channel / 15MHz / 64QAM



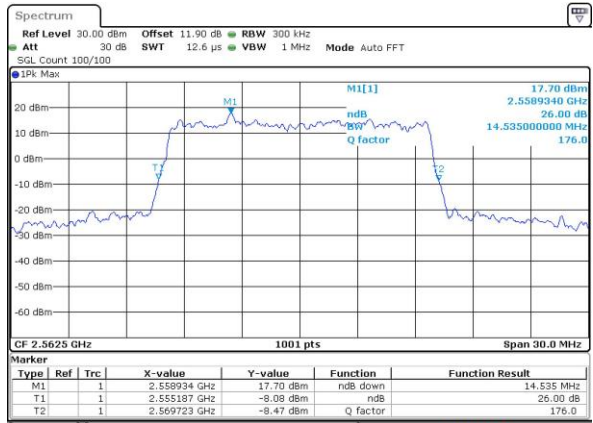
Date: 29 MAY 2017 01:58:09

Middle Channel / 15MHz / 64QAM



Date: 29 MAY 2017 02:01:43

Highest Channel / 15MHz / 64QAM

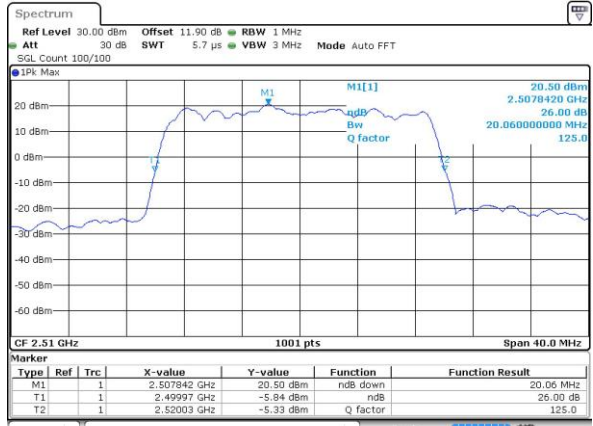


Date: 29 MAY 2017 02:02:57



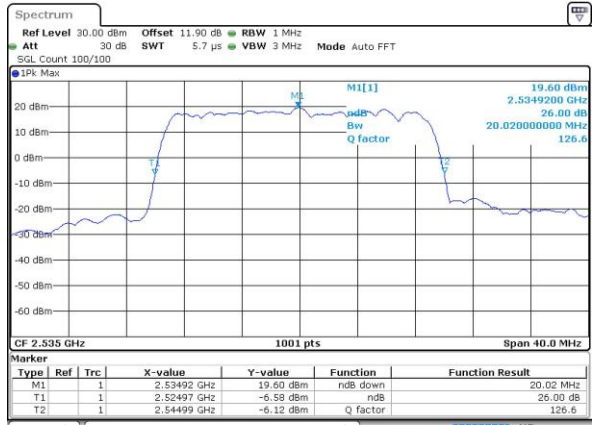
LTE Band 7

Lowest Channel / 20MHz / 64QAM



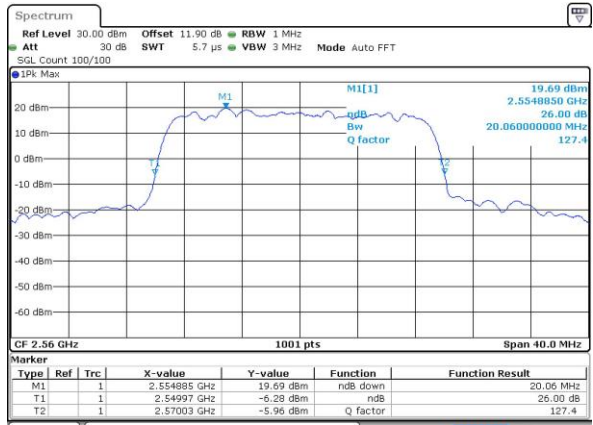
Date: 29 MAY 2017 02:06:31

Middle Channel / 20MHz / 64QAM



Date: 29 MAY 2017 02:10:05

Highest Channel / 20MHz / 64QAM



Date: 29 MAY 2017 02:11:19



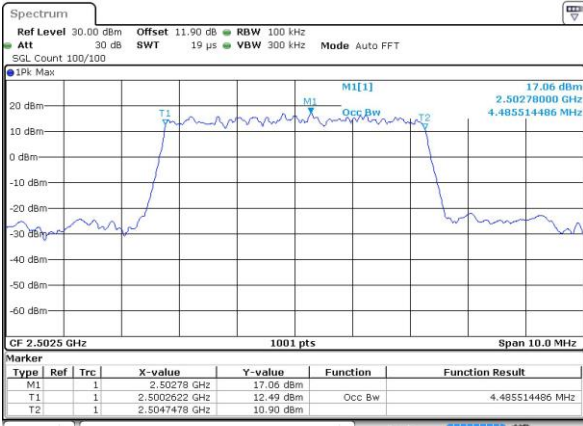
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.49	9.11	9.01	13.43	13.49	18.5	18.42
Middle CH	-	-	-	-	4.48	4.48	9.05	9.05	13.43	13.4	18.26	18.42
Highest CH	-	-	-	-	4.52	4.48	9.01	9.01	13.43	13.37	18.34	18.3
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM
Lowest CH	-	-	-	-	-	4.48	-	9.03	-	13.43	-	18.42
Middle CH	-	-	-	-	-	4.5	-	9.01	-	13.37	-	18.26
Highest CH	-	-	-	-	-	4.5	-	8.97	-	13.46	-	18.34



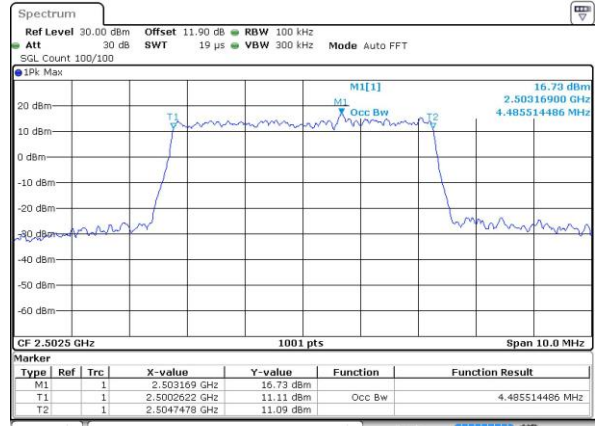
LTE Band 7

Lowest Channel / 5MHz / QPSK



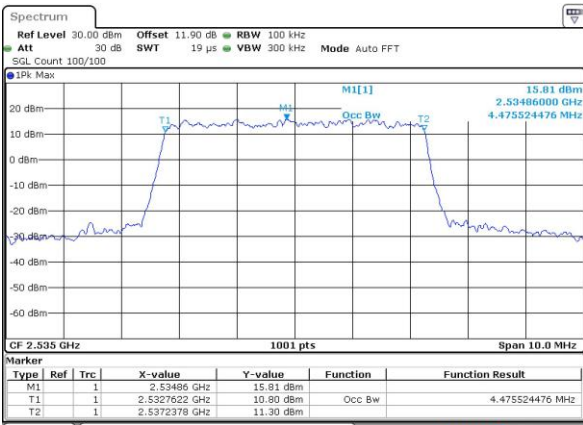
Date: 15 MAY 2017 22:03:23

Lowest Channel / 5MHz / 16QAM



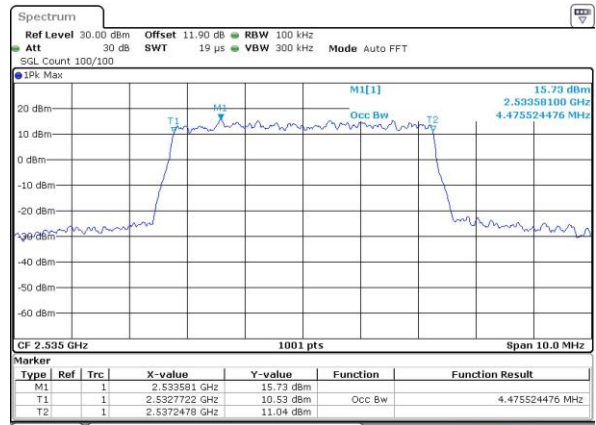
Date: 15 MAY 2017 22:03:33

Middle Channel / 5MHz / QPSK



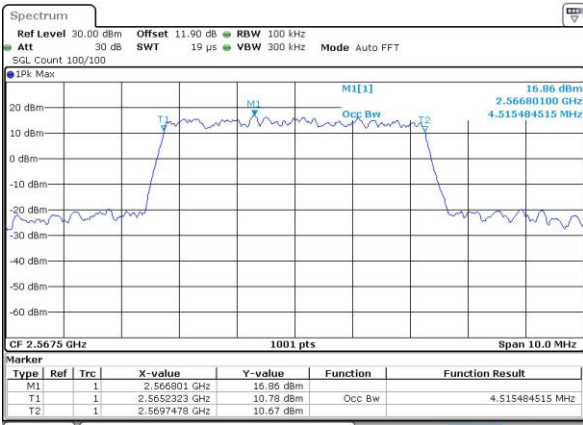
Date: 15 MAY 2017 22:10:31

Middle Channel / 5MHz / 16QAM



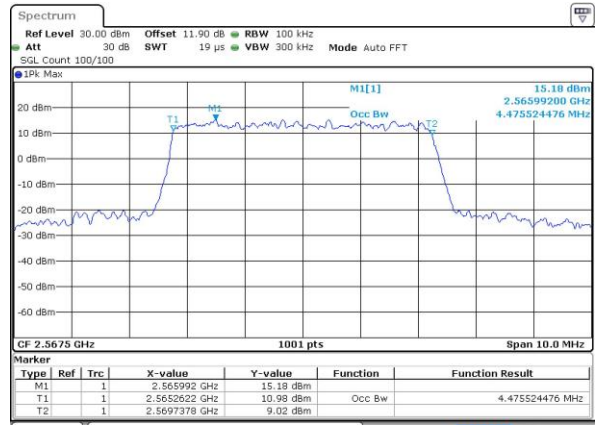
Date: 15 MAY 2017 22:10:41

Highest Channel / 5MHz / QPSK



Date: 15 MAY 2017 22:13:00

Highest Channel / 5MHz / 16QAM



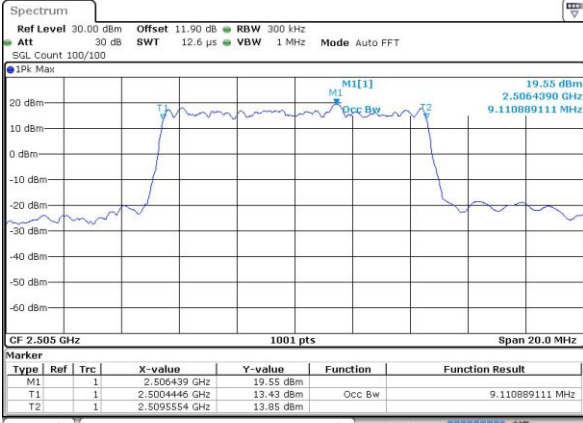
Date: 15 MAY 2017 22:13:10





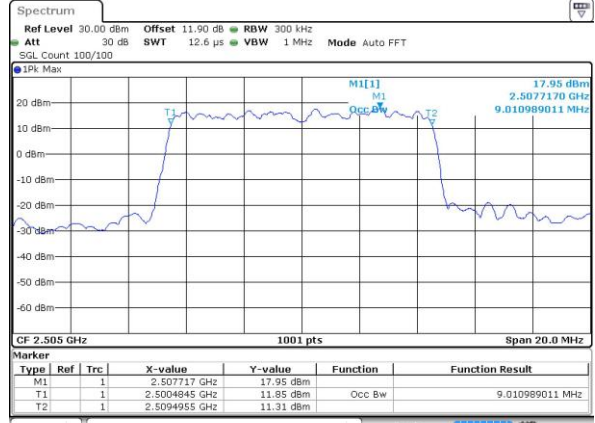
LTE Band 7

Lowest Channel / 10MHz / QPSK



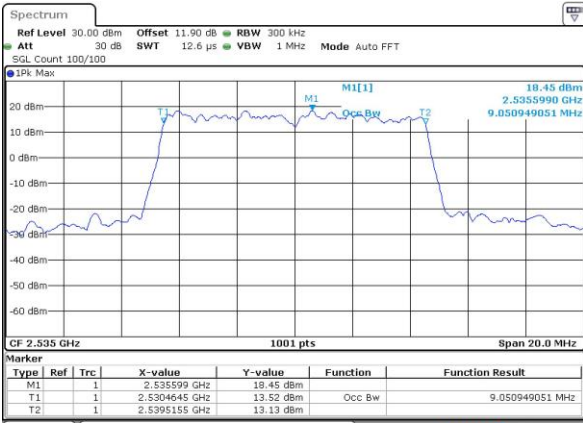
Date: 15 MAY 2017 22:20:08

Lowest Channel / 10MHz / 16QAM



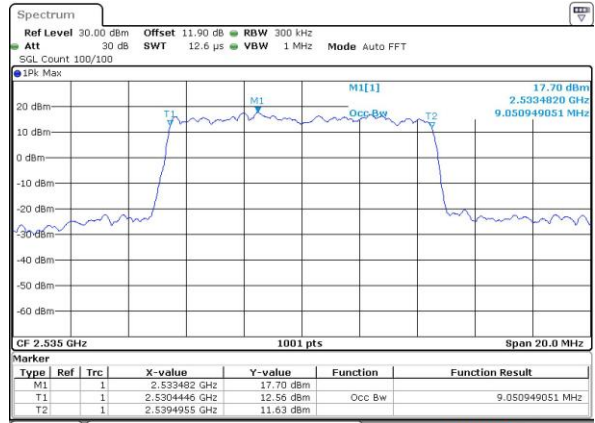
Date: 15 MAY 2017 22:20:18

Middle Channel / 10MHz / QPSK



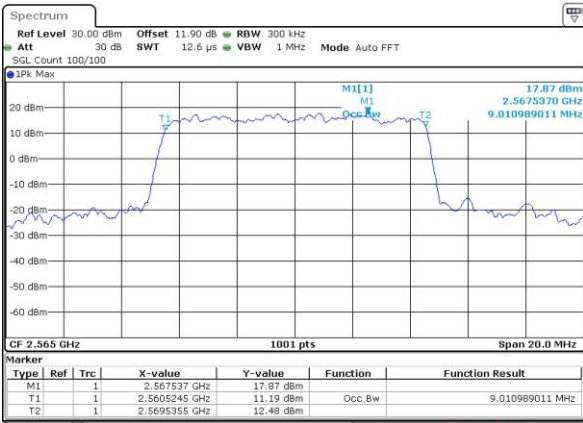
Date: 15 MAY 2017 22:27:15

Middle Channel / 10MHz / 16QAM



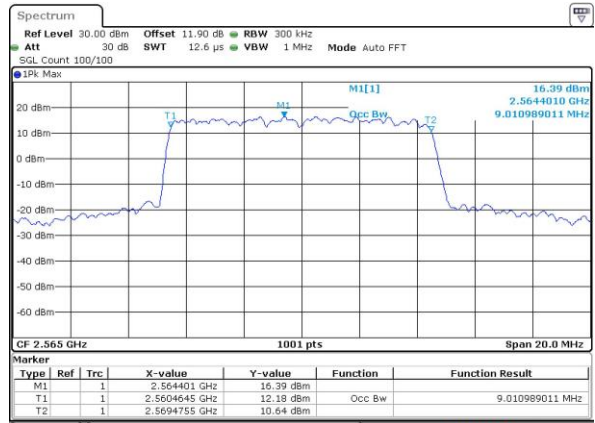
Date: 15 MAY 2017 22:27:26

Highest Channel / 10MHz / QPSK



Date: 15 MAY 2017 22:29:44

Highest Channel / 10MHz / 16QAM



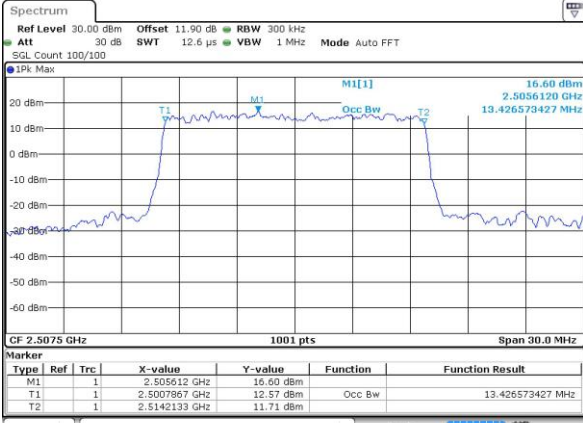
Date: 15 MAY 2017 22:29:55





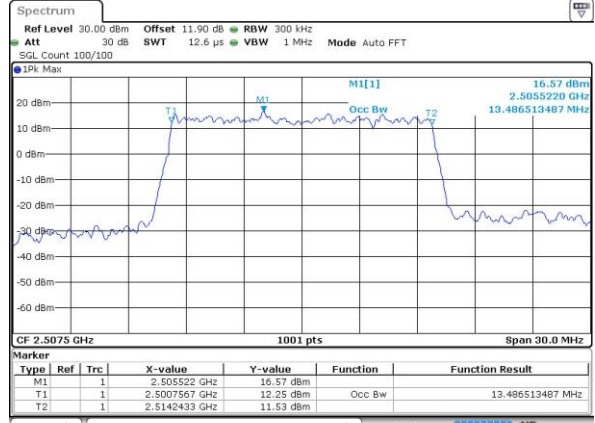
LTE Band 7

Lowest Channel / 15MHz / QPSK



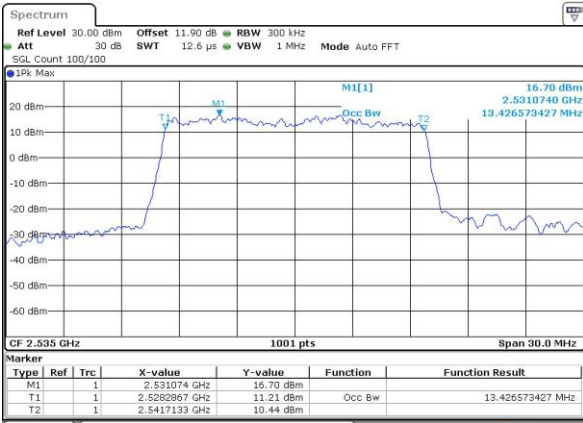
Date: 15 MAY 2017 22:36:52

Lowest Channel / 15MHz / 16QAM



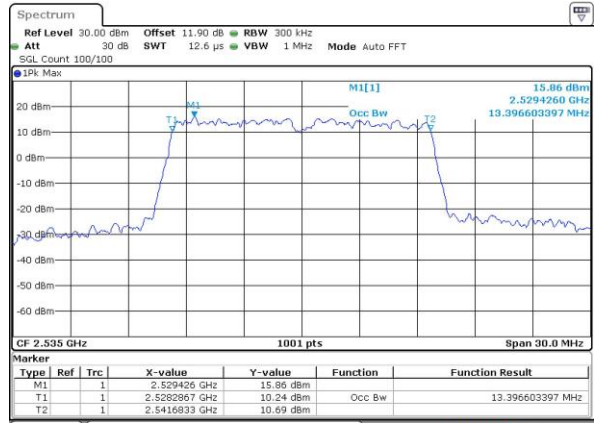
Date: 15 MAY 2017 22:37:03

Middle Channel / 15MHz / QPSK



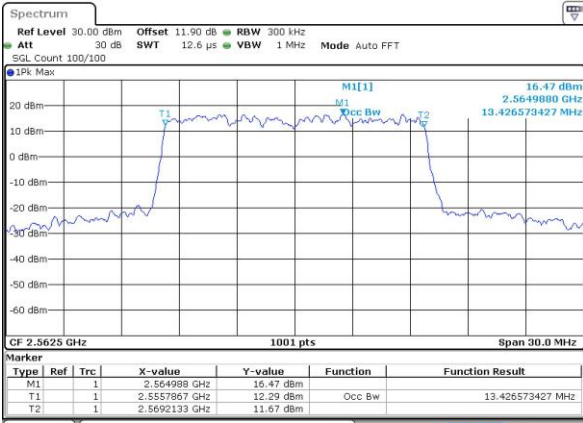
Date: 15 MAY 2017 22:44:00

Middle Channel / 15MHz / 16QAM



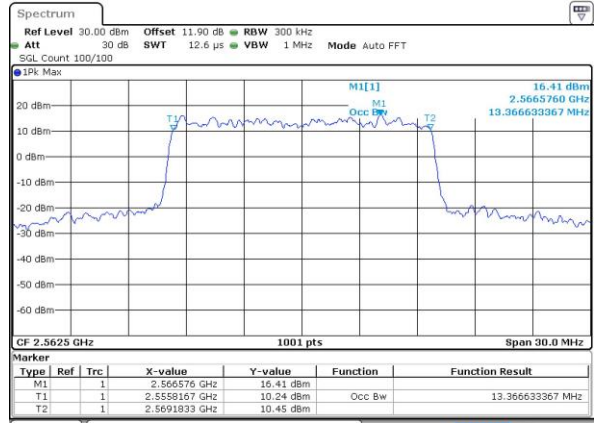
Date: 15 MAY 2017 22:44:10

Highest Channel / 15MHz / QPSK



Date: 15 MAY 2017 22:46:29

Highest Channel / 15MHz / 16QAM



Date: 15 MAY 2017 22:46:39