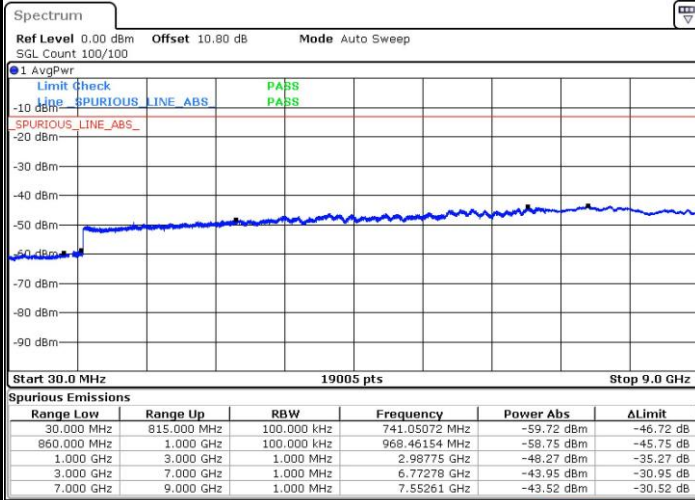




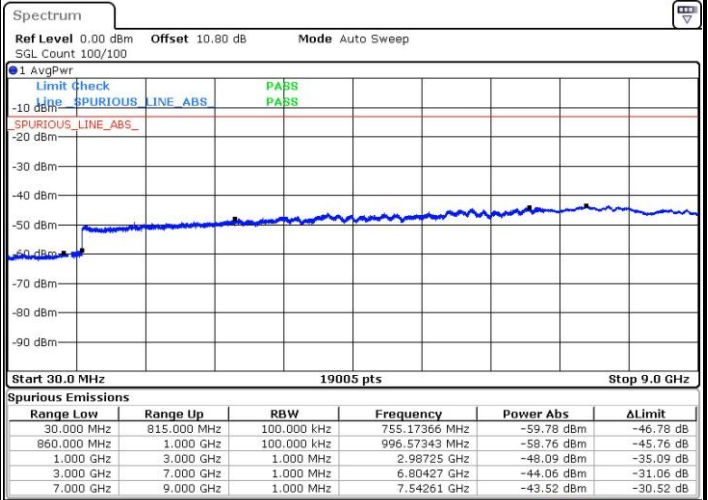
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

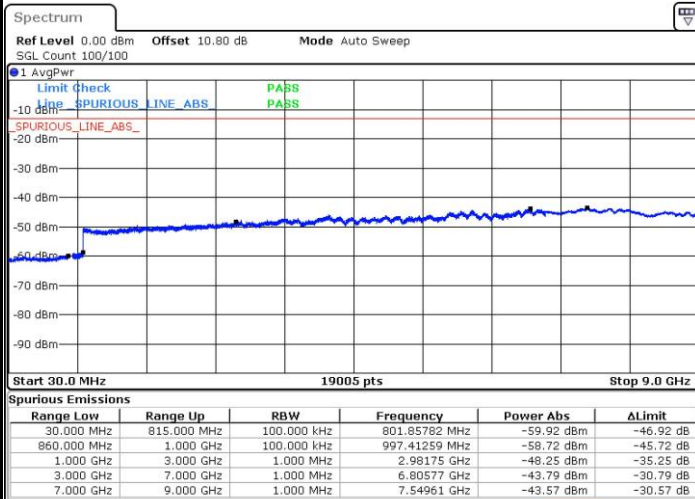


Date: 12 JUN 2018 22:09:41



Date: 12 JUN 2018 22:10:56

Highest Channel / 64QAM

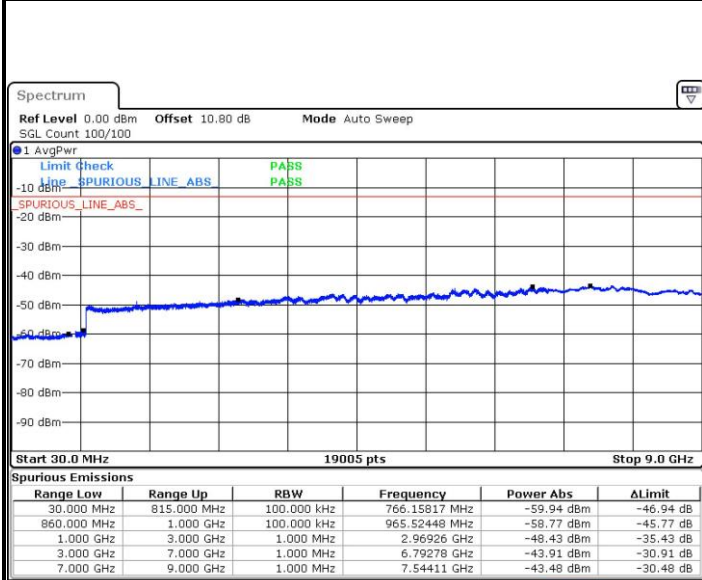


Date: 12 JUN 2018 22:15:30



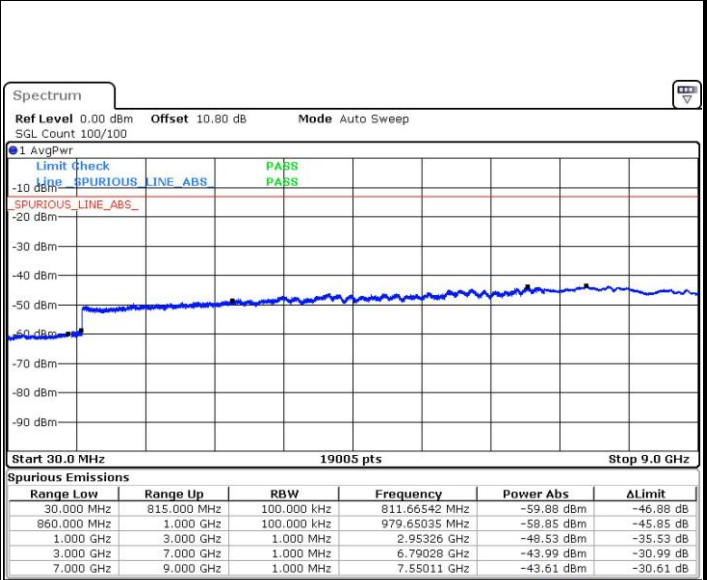
**LTE Band 5 / 3MHz**

**Lowest Channel / 64QAM**



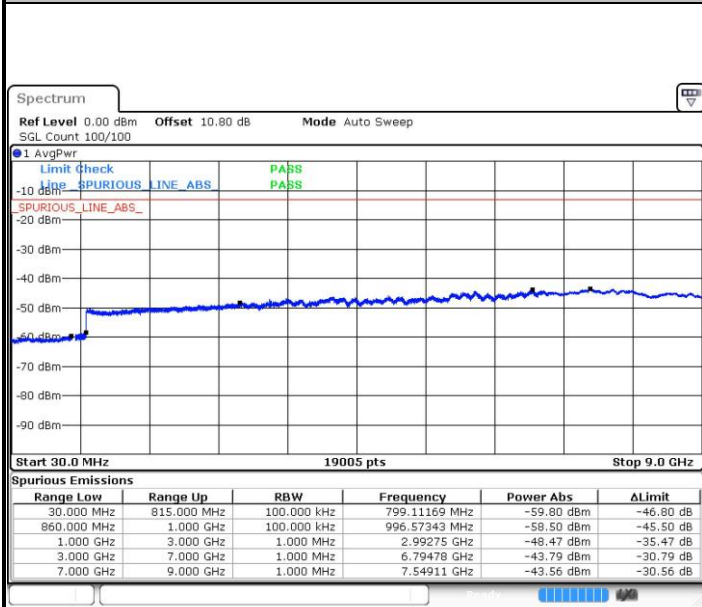
Date: 12 JUN 2018 21:37:08

**Middle Channel / 64QAM**



Date: 12 JUN 2018 21:38:23

**Highest Channel / 64QAM**



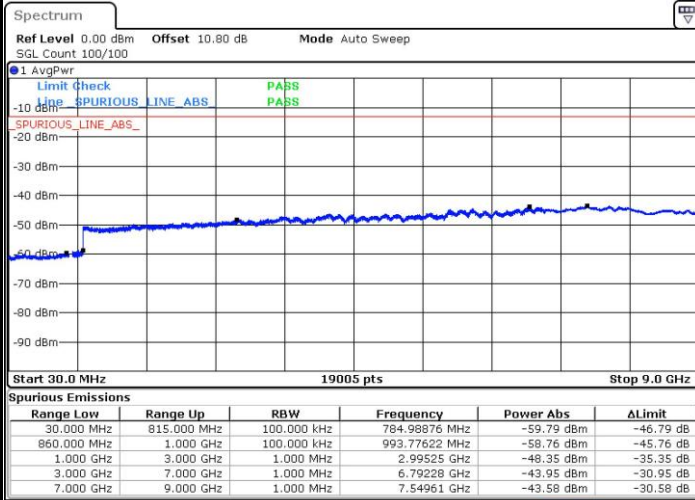
Date: 12 JUN 2018 21:42:57



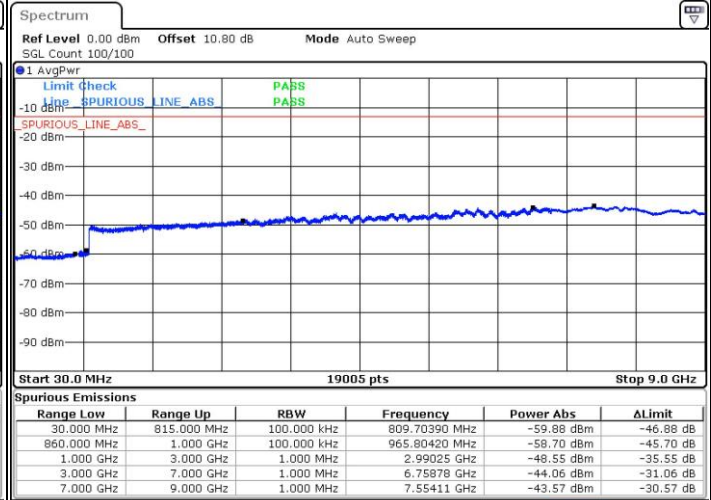
LTE Band 5 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

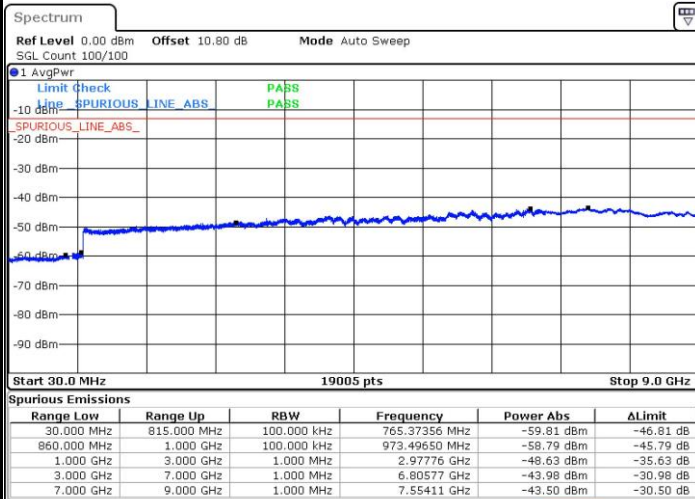


Date: 12 JUN 2018 21:47:31



Date: 12 JUN 2018 21:48:46

Highest Channel / 64QAM



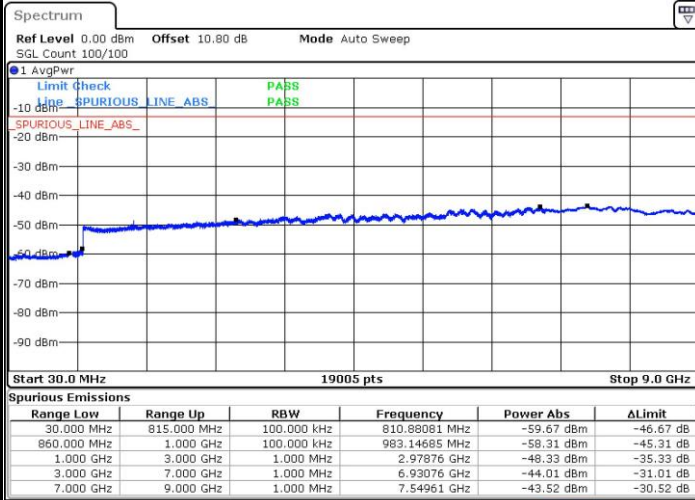
Date: 12 JUN 2018 21:53:19



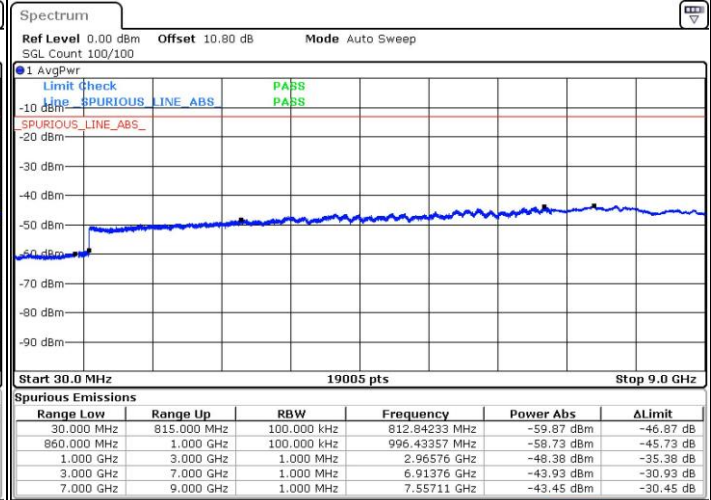
LTE Band 5 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

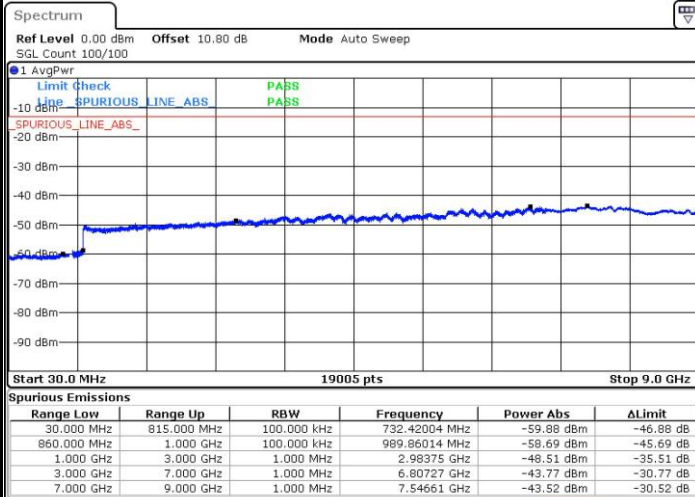


Date: 12 JUN 2018 21:57:53



Date: 12 JUN 2018 21:59:08

Highest Channel / 64QAM



Date: 12 JUN 2018 22:05:07



**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	0.0011	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0019	
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. 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	4.67	5.01	5.97	5.88	<b>PASS</b>
Middle CH	5.25	5.13	6.09	5.94	
Highest CH	4.7	5.28	5.94	6.26	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.58	6.06	-	-	<b>PASS</b>
Middle CH	6.67	6.09	-	-	
Highest CH	6.29	6.26	-	-	



LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 13 JUN 2018 00:43:49

Lowest Channel / Full RB



Date: 13 JUN 2018 00:44:00

Middle Channel / 1RB



Date: 13 JUN 2018 00:44:09

Middle Channel / Full RB



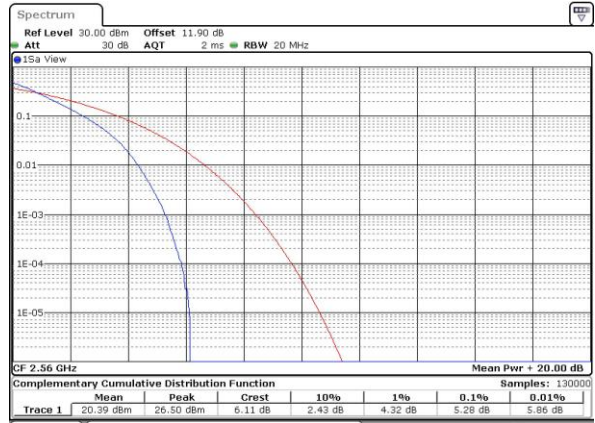
Date: 13 JUN 2018 00:44:19

Highest Channel / 1RB



Date: 13 JUN 2018 00:44:29

Highest Channel / Full RB



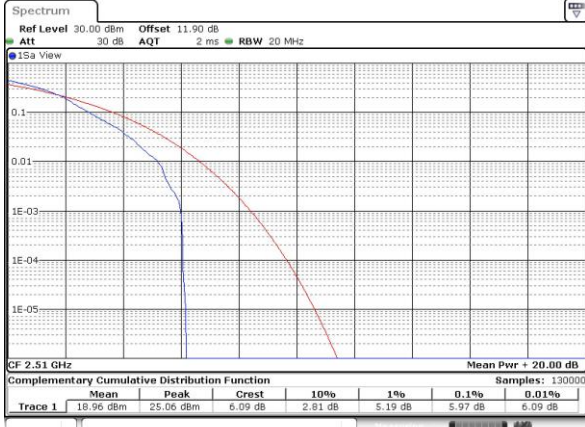
Date: 13 JUN 2018 00:44:38





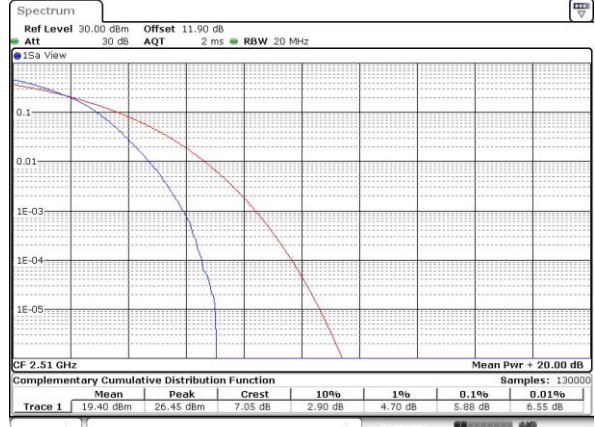
LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



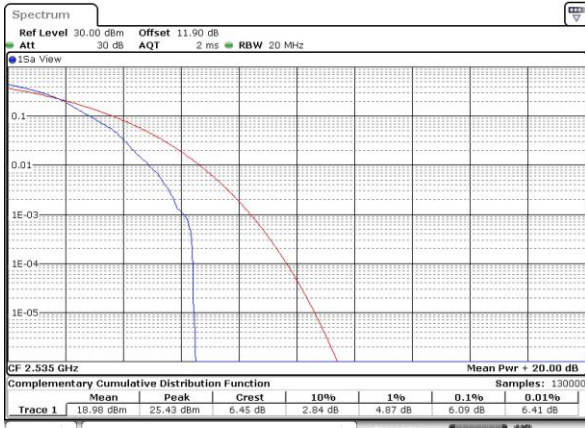
Date: 13 JUN 2018 00:42:43

Lowest Channel / Full RB



Date: 13 JUN 2018 00:42:53

Middle Channel / 1RB



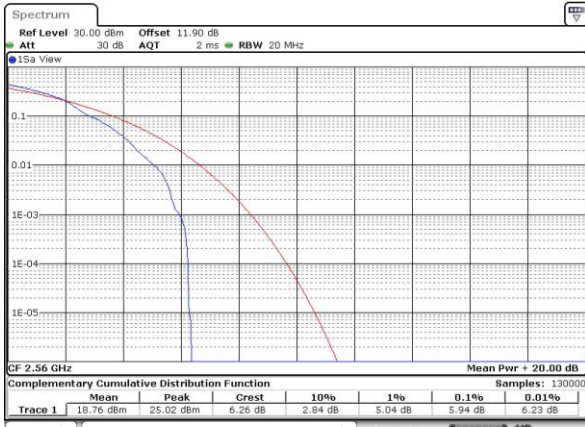
Date: 13 JUN 2018 00:43:03

Middle Channel / Full RB



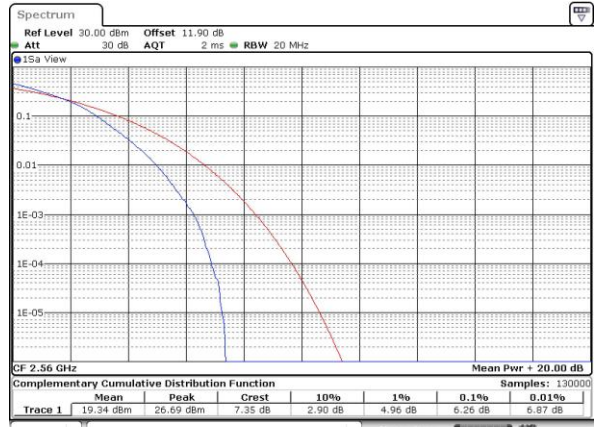
Date: 13 JUN 2018 00:43:19

Highest Channel / 1RB



Date: 13 JUN 2018 00:43:29

Highest Channel / Full RB



Date: 13 JUN 2018 00:43:39





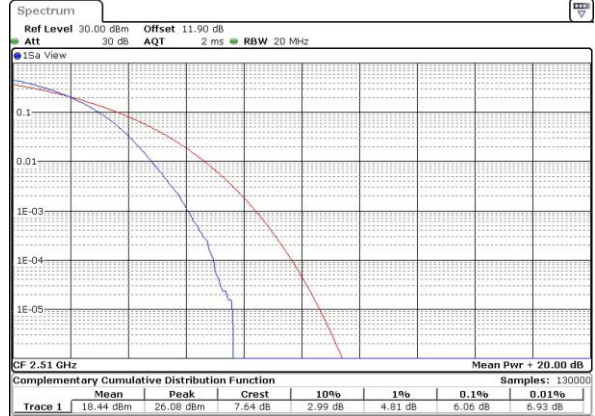
LTE Band 7 / 20MHz / 64QAM

Lowest Channel / 1RB



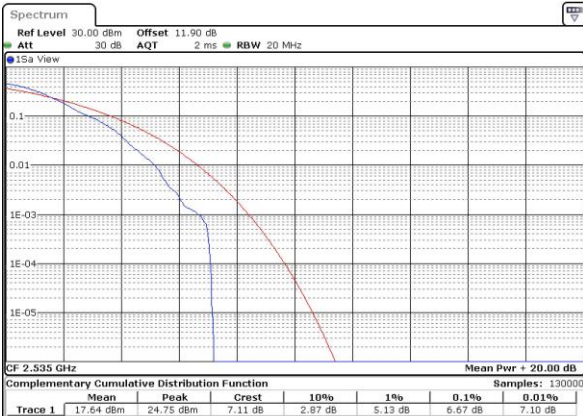
Date: 13 JUN 2018 00:44:48

Lowest Channel / Full RB



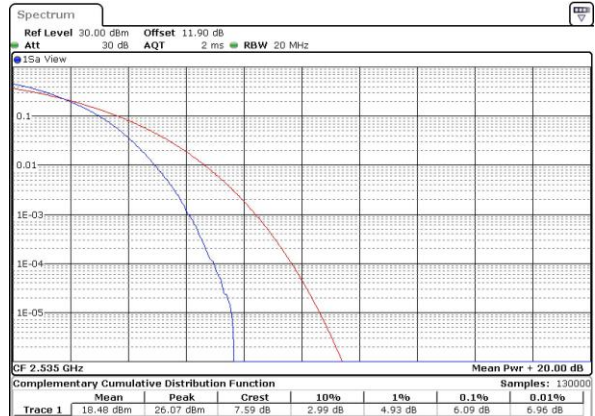
Date: 13 JUN 2018 00:45:01

Middle Channel / 1RB



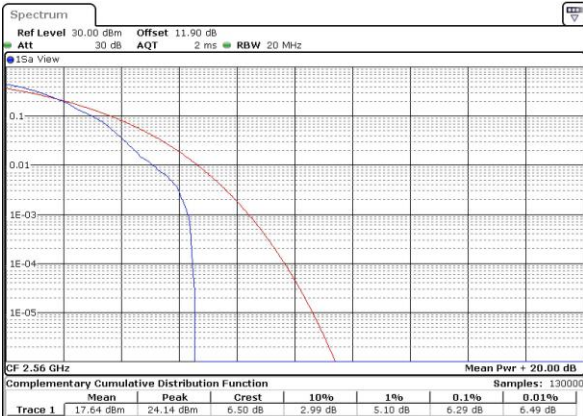
Date: 13 JUN 2018 00:45:12

Middle Channel / Full RB



Date: 13 JUN 2018 00:45:25

Highest Channel / 1RB



Date: 13 JUN 2018 00:45:35

Highest Channel / Full RB



Date: 13 JUN 2018 00:45:47



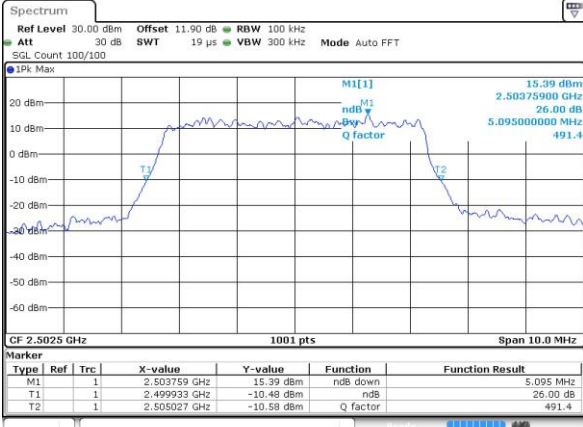
**26dB Bandwidth**

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	-	-	-	-	5.10	4.95	9.73	9.85	14.60	14.72	20.14	20.22
Middle CH	-	-	-	-	5.12	5.03	9.65	9.89	14.69	14.63	20.30	20.30
Highest CH	-	-	-	-	5.08	5.05	9.67	10.05	14.51	14.87	20.10	20.18
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.09	-	9.85	-	14.75	-	20.26	-
Middle CH	-	-	-	-	5.00	-	9.73	-	14.54	-	20.14	-
Highest CH	-	-	-	-	4.98	-	9.99	-	14.93	-	20.30	-



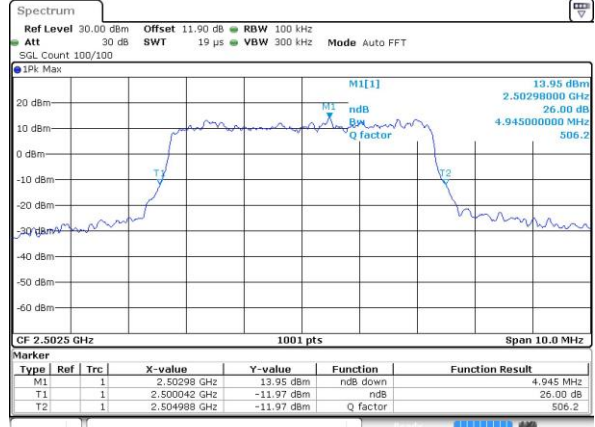
LTE Band 7

Lowest Channel / 5MHz / QPSK



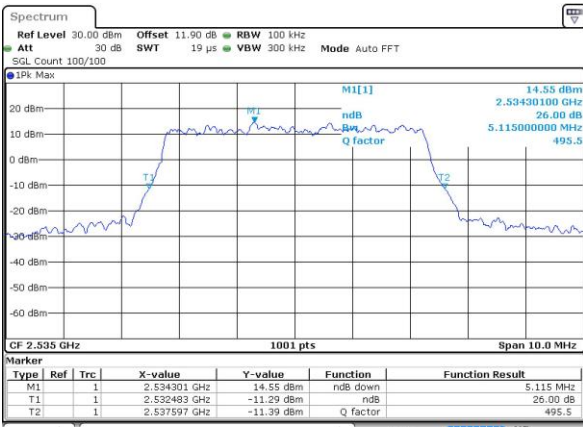
Date: 12 JUN 2018 22:51:22

Lowest Channel / 5MHz / 16QAM



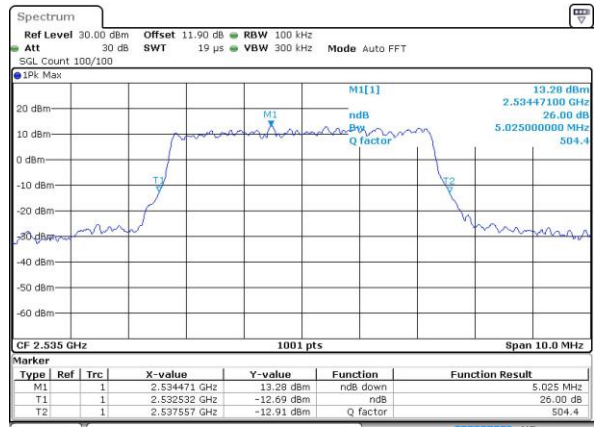
Date: 12 JUN 2018 22:51:33

Middle Channel / 5MHz / QPSK



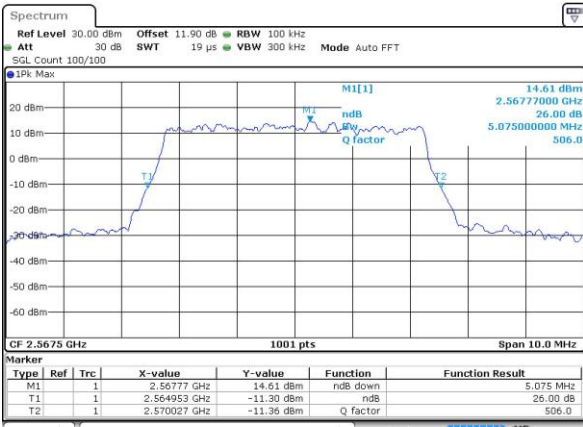
Date: 12 JUN 2018 22:58:31

Middle Channel / 5MHz / 16QAM



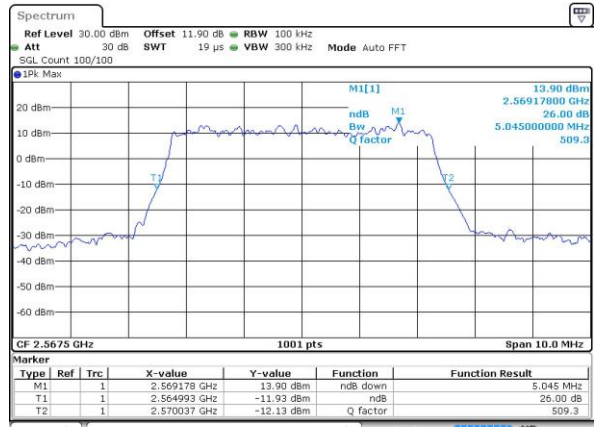
Date: 12 JUN 2018 22:58:42

Highest Channel / 5MHz / QPSK



Date: 12 JUN 2018 23:01:01

Highest Channel / 5MHz / 16QAM

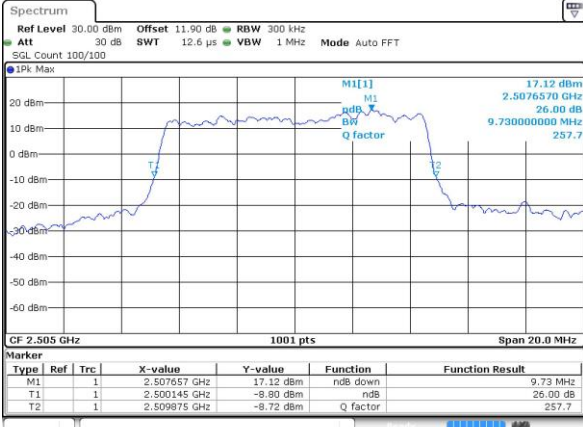


Date: 12 JUN 2018 23:01:12



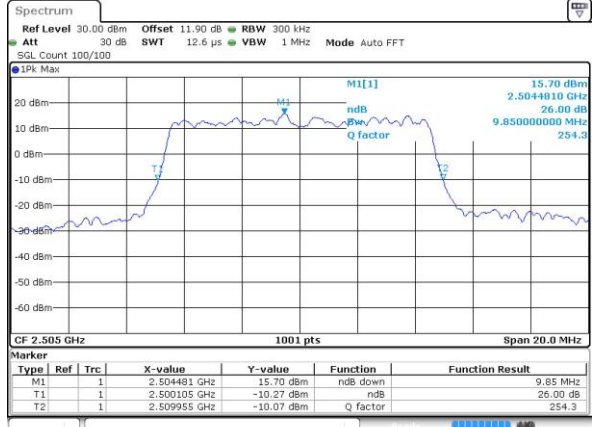
LTE Band 7

Lowest Channel / 10MHz / QPSK



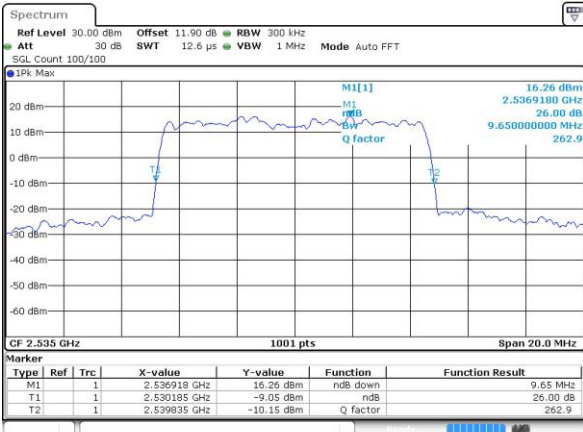
Date: 12 JUN 2018 23:18:00

Lowest Channel / 10MHz / 16QAM



Date: 12 JUN 2018 23:18:10

Middle Channel / 10MHz / QPSK



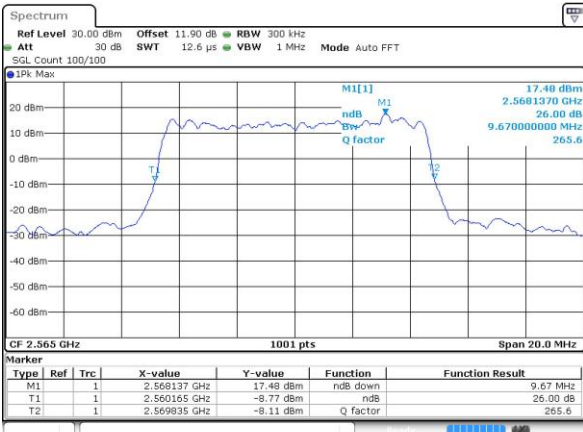
Date: 12 JUN 2018 23:25:09

Middle Channel / 10MHz / 16QAM



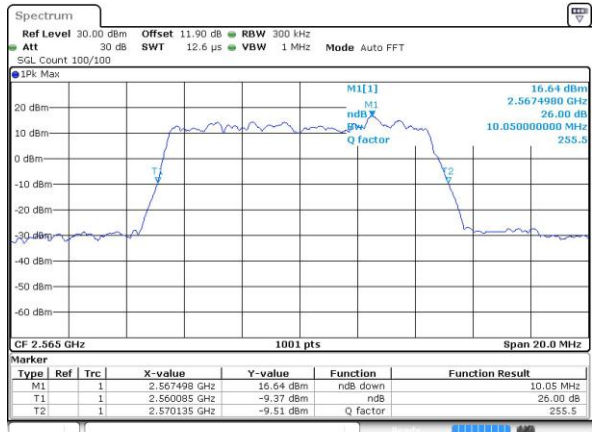
Date: 12 JUN 2018 23:25:19

Highest Channel / 10MHz / QPSK



Date: 12 JUN 2018 23:27:38

Highest Channel / 10MHz / 16QAM

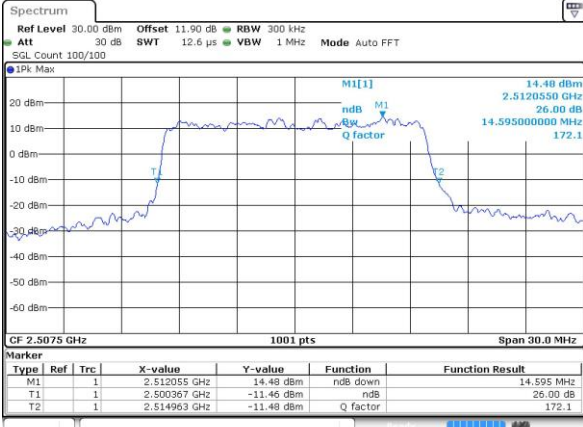


Date: 12 JUN 2018 23:27:49



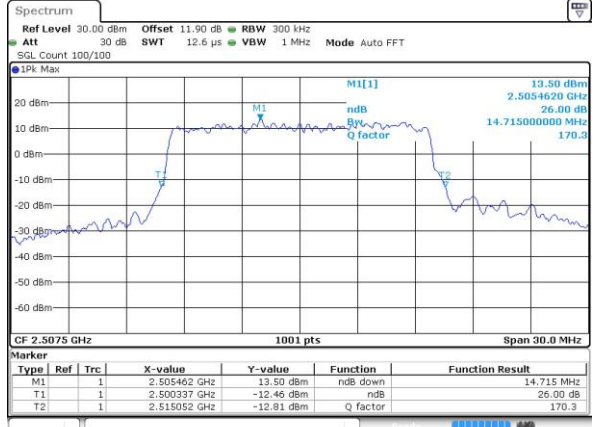
LTE Band 7

Lowest Channel / 15MHz / QPSK



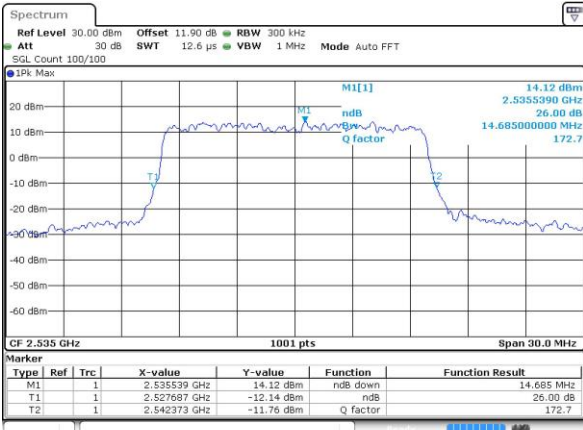
Date: 12 JUN 2018 23:43:11

Lowest Channel / 15MHz / 16QAM



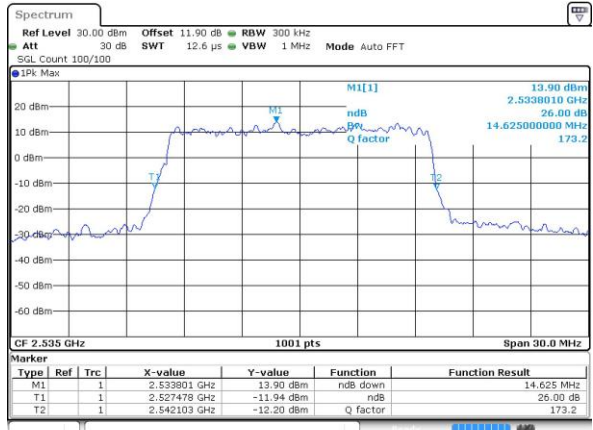
Date: 12 JUN 2018 23:43:21

Middle Channel / 15MHz / QPSK



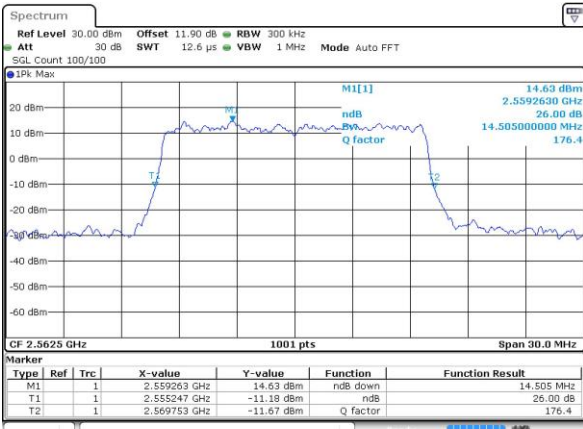
Date: 12 JUN 2018 23:50:20

Middle Channel / 15MHz / 16QAM



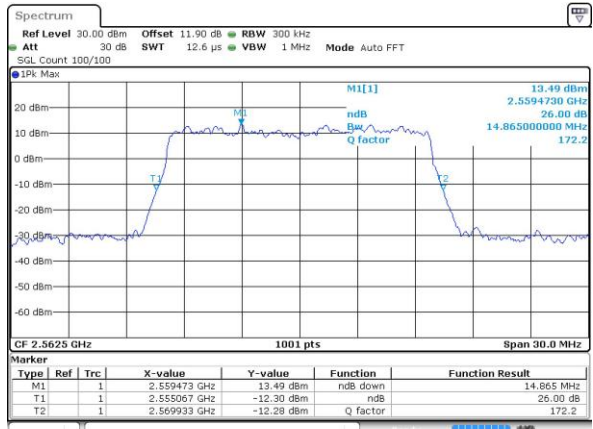
Date: 12 JUN 2018 23:50:30

Highest Channel / 15MHz / QPSK



Date: 12 JUN 2018 23:52:49

Highest Channel / 15MHz / 16QAM



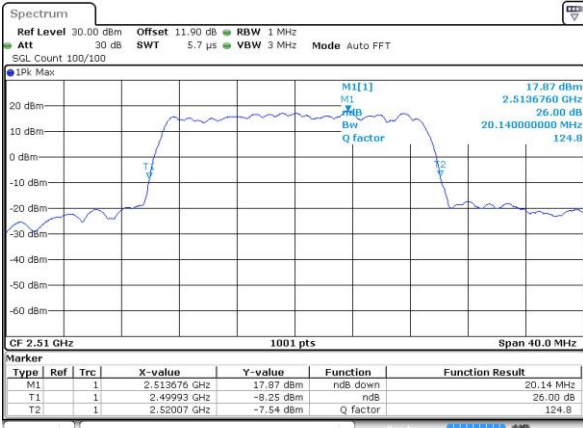
Date: 12 JUN 2018 23:53:00





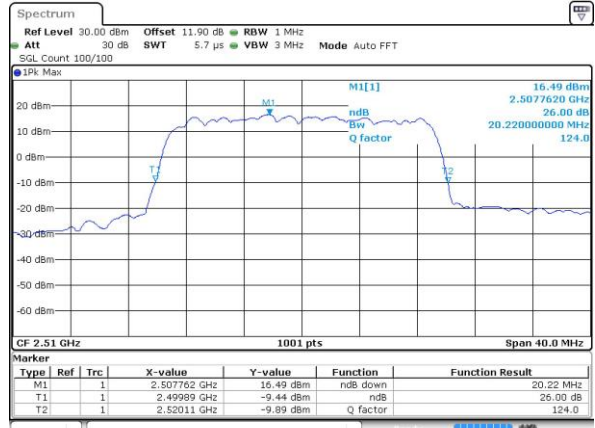
LTE Band 7

Lowest Channel / 20MHz / QPSK



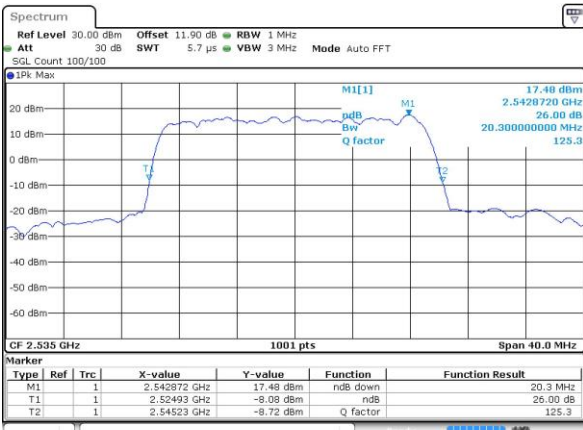
Date: 13 JUN 2018 00:12:19

Lowest Channel / 20MHz / 16QAM



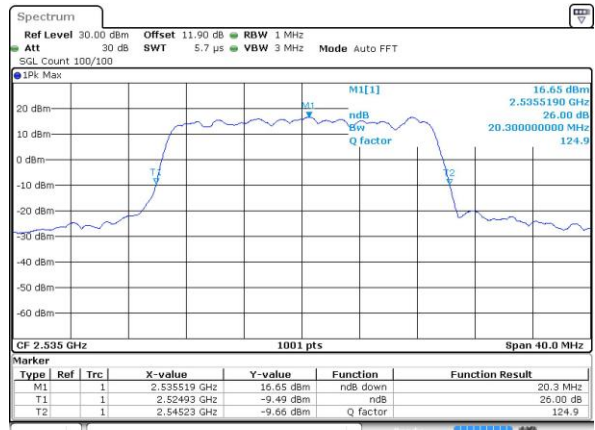
Date: 13 JUN 2018 00:12:30

Middle Channel / 20MHz / QPSK



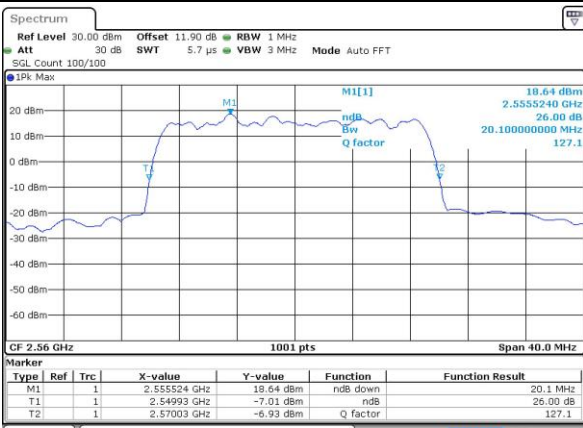
Date: 13 JUN 2018 00:19:28

Middle Channel / 20MHz / 16QAM



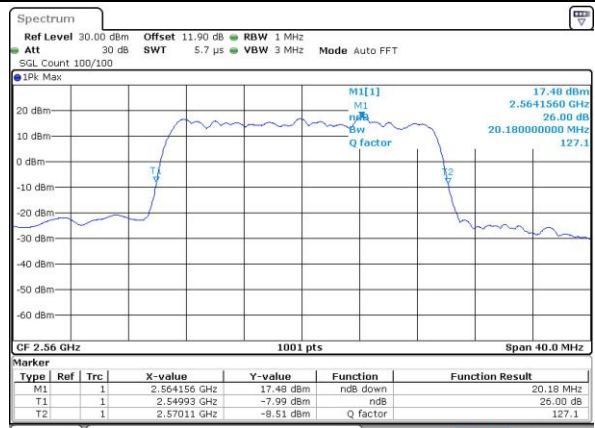
Date: 13 JUN 2018 00:19:38

Highest Channel / 20MHz / QPSK



Date: 13 JUN 2018 00:21:57

Highest Channel / 20MHz / 16QAM



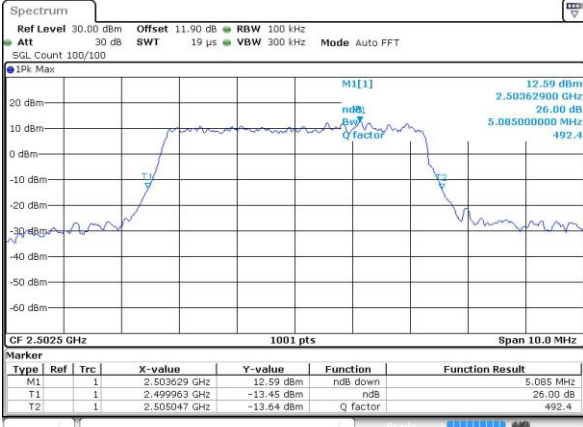
Date: 13 JUN 2018 00:22:07





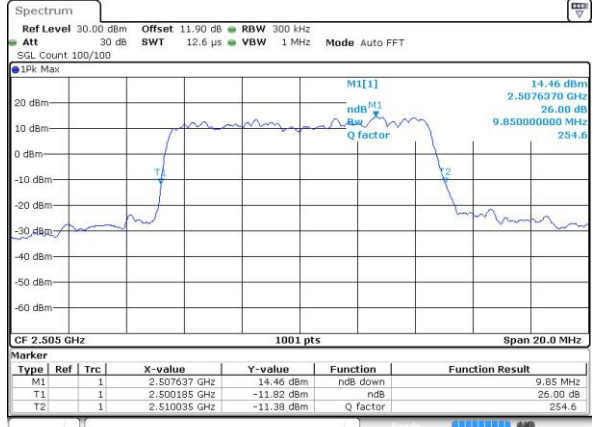
LTE Band 7

Lowest Channel / 5MHz / 64QAM



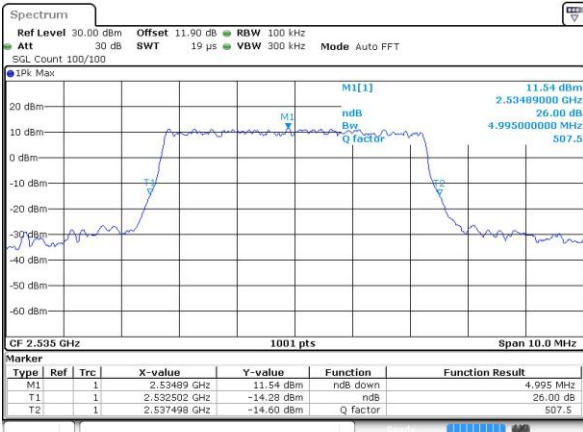
Date: 12 JUN 2018 23:09:26

Lowest Channel / 10MHz / 64QAM



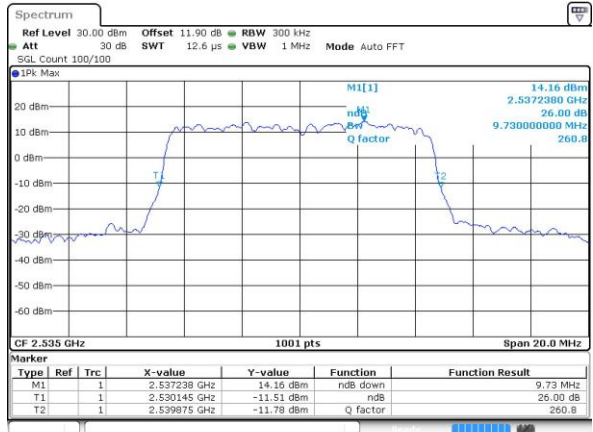
Date: 12 JUN 2018 23:34:37

Middle Channel / 5MHz / 64QAM



Date: 12 JUN 2018 23:13:00

Middle Channel / 10MHz / 64QAM



Date: 12 JUN 2018 23:38:11

Highest Channel / 5MHz / 64QAM



Date: 12 JUN 2018 23:14:15

Highest Channel / 10MHz / 64QAM

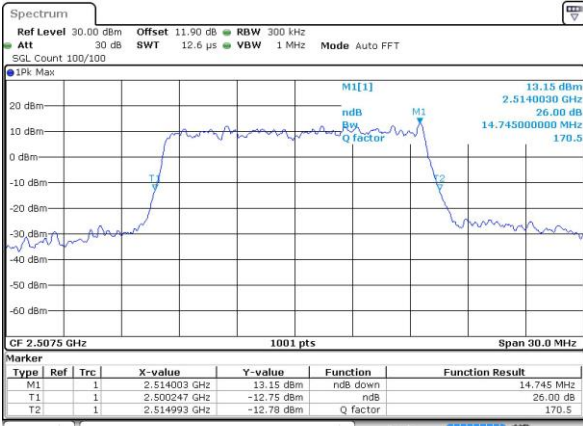


Date: 12 JUN 2018 23:39:26



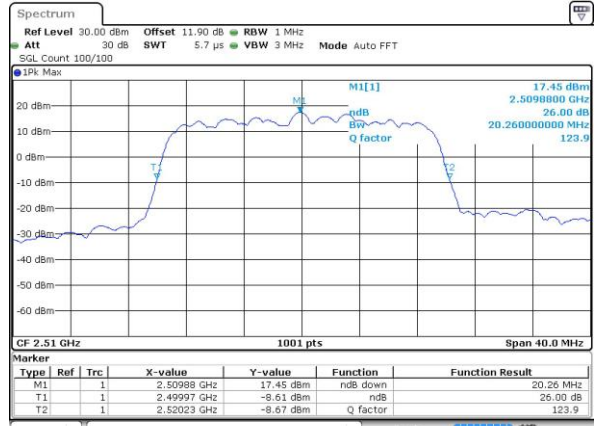
LTE Band 7

Lowest Channel / 15MHz / 64QAM



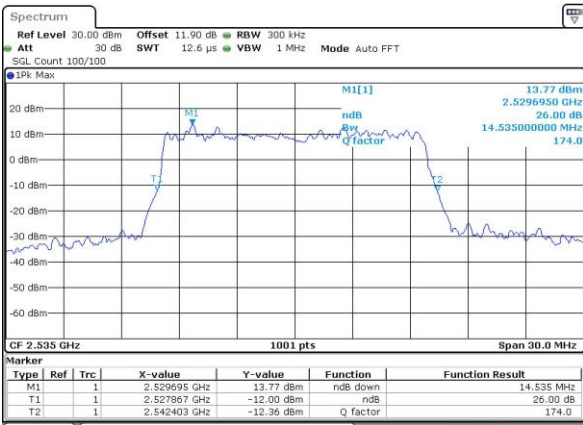
Date: 12 JUN 2018 23:59:48

Lowest Channel / 20MHz / 64QAM



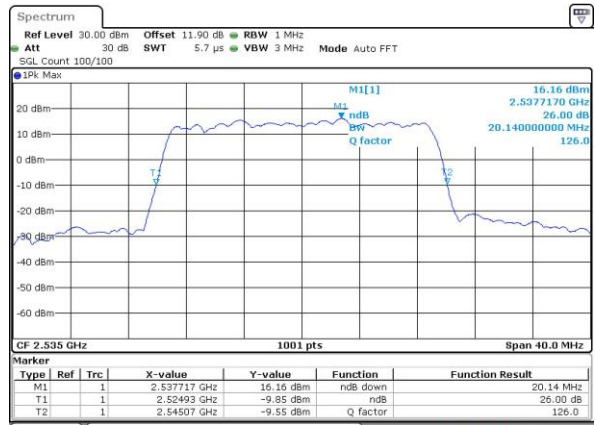
Date: 13 JUN 2018 00:28:56

Middle Channel / 15MHz / 64QAM



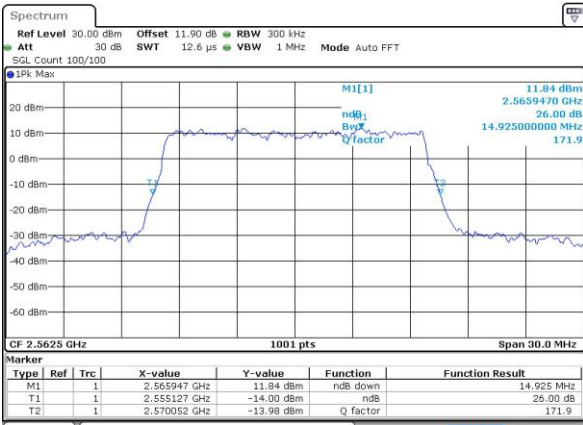
Date: 13 JUN 2018 00:03:22

Middle Channel / 20MHz / 64QAM



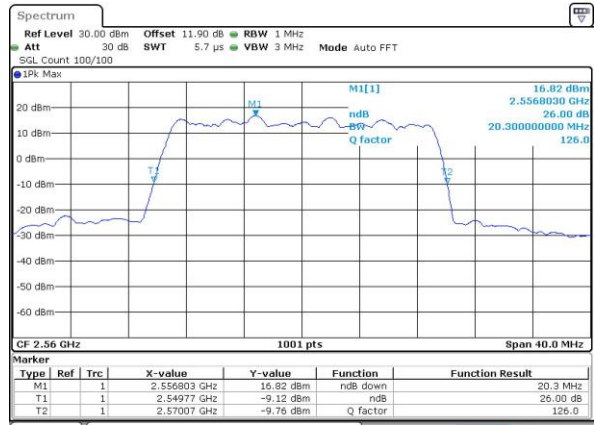
Date: 13 JUN 2018 00:37:57

Highest Channel / 15MHz / 64QAM



Date: 13 JUN 2018 00:04:37

Highest Channel / 20MHz / 64QAM



Date: 13 JUN 2018 00:39:12



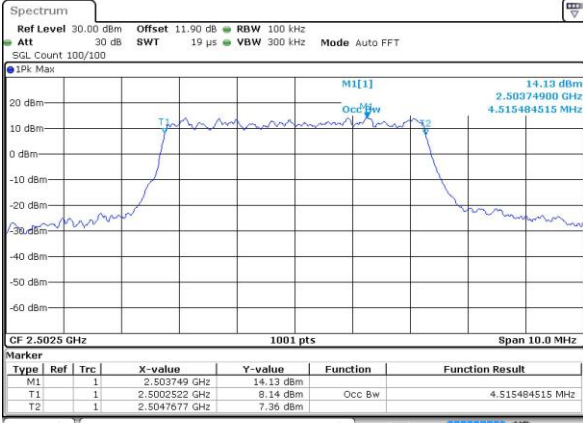
**Occupied Bandwidth**

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	-	-	-	-	4.52	4.51	9.11	9.03	13.46	13.49	18.42	18.26
Middle CH	-	-	-	-	4.51	4.5	9.01	8.97	13.52	13.52	18.42	18.22
Highest CH	-	-	-	-	4.5	4.51	9.13	8.99	13.4	13.43	18.34	18.5
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.52	-	8.99	-	13.43	-	18.34	-
Middle CH	-	-	-	-	4.52	-	9.09	-	13.40	-	18.22	-
Highest CH	-	-	-	-	4.47	-	9.03	-	13.49	-	18.26	-



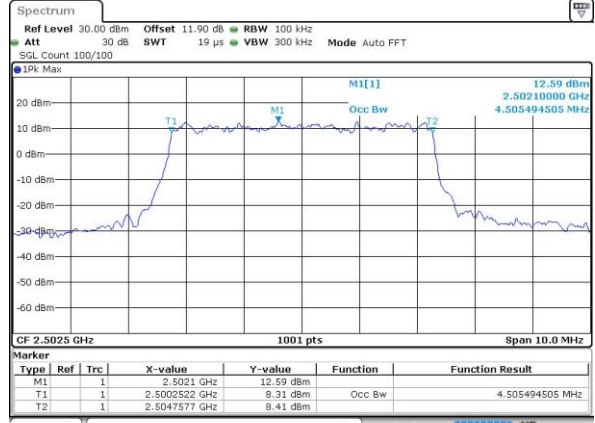
LTE Band 7

Lowest Channel / 5MHz / QPSK



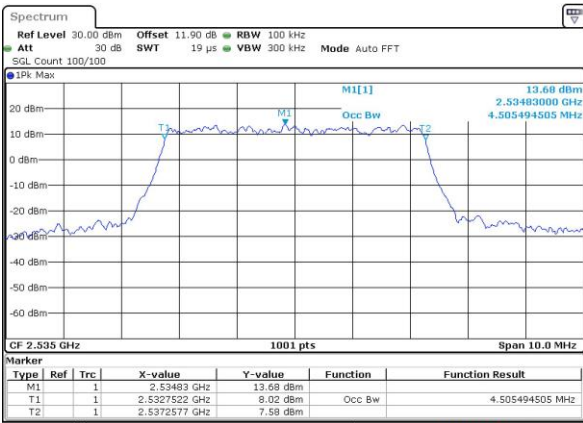
Date: 12 JUN 2018 22:51:01

Lowest Channel / 5MHz / 16QAM



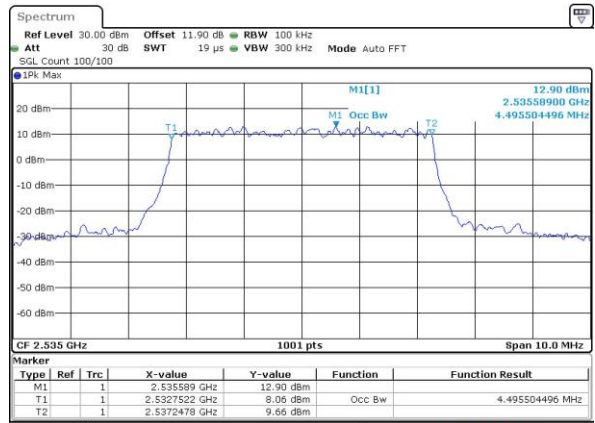
Date: 12 JUN 2018 22:51:12

Middle Channel / 5MHz / QPSK



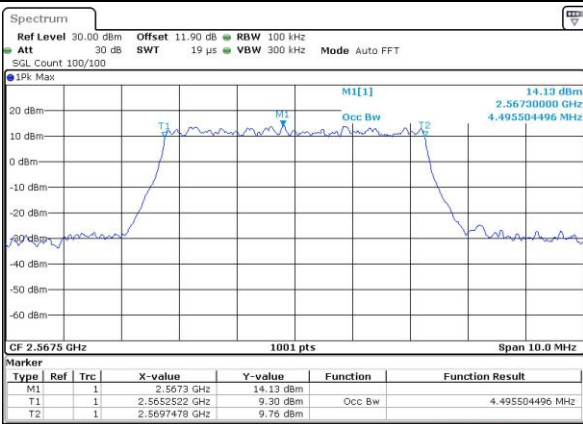
Date: 12 JUN 2018 22:58:10

Middle Channel / 5MHz / 16QAM



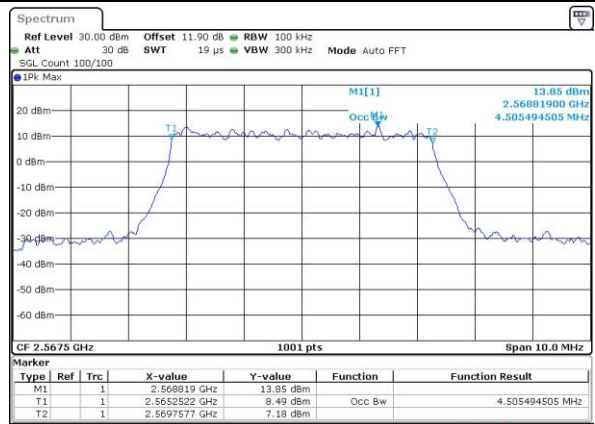
Date: 12 JUN 2018 22:58:21

Highest Channel / 5MHz / QPSK



Date: 12 JUN 2018 23:00:40

Highest Channel / 5MHz / 16QAM

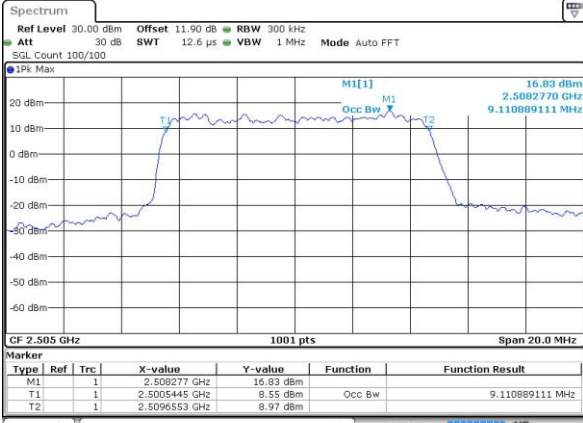


Date: 12 JUN 2018 23:00:51



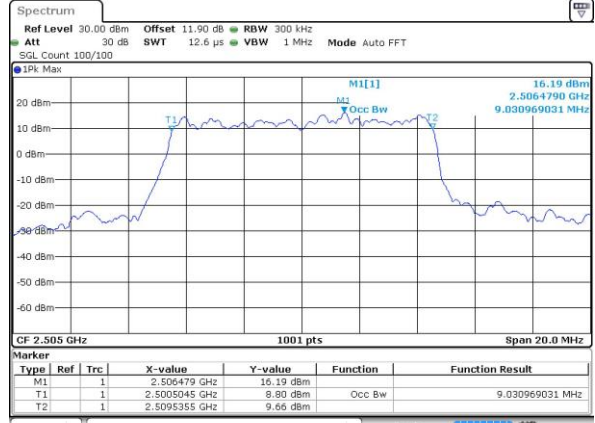
LTE Band 7

Lowest Channel / 10MHz / QPSK



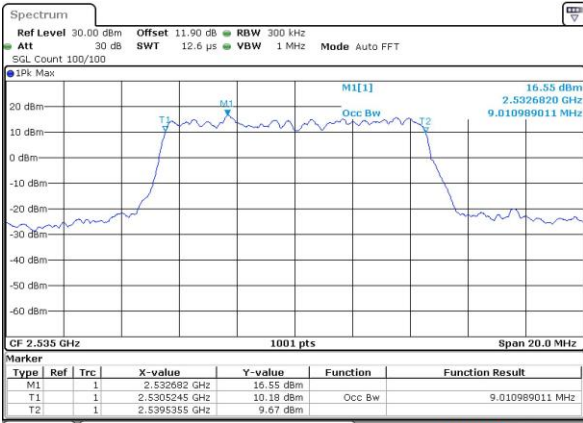
Date: 12 JUN 2018 23:17:39

Lowest Channel / 10MHz / 16QAM



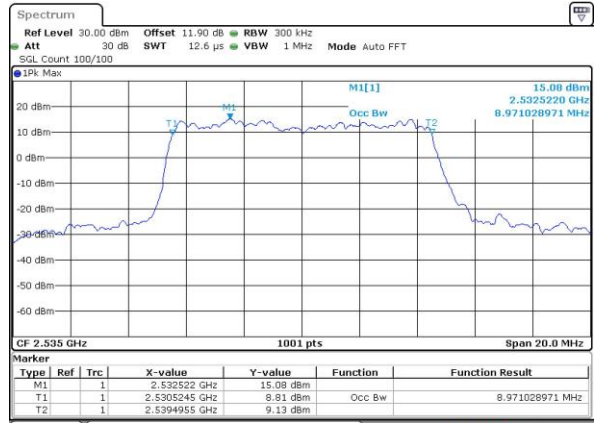
Date: 12 JUN 2018 23:17:49

Middle Channel / 10MHz / QPSK



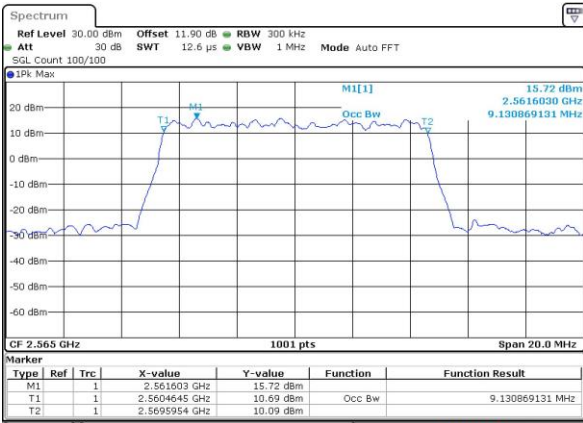
Date: 12 JUN 2018 23:24:48

Middle Channel / 10MHz / 16QAM



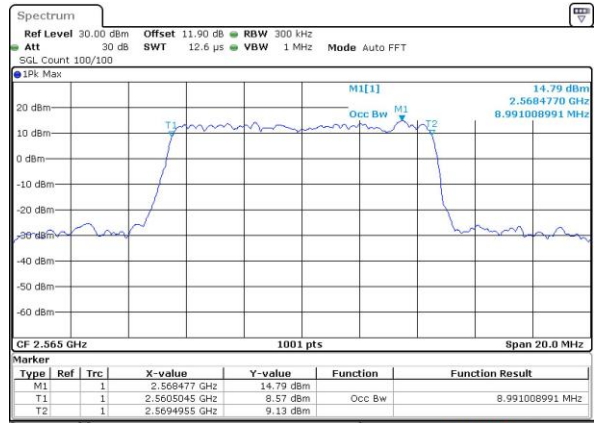
Date: 12 JUN 2018 23:24:58

Highest Channel / 10MHz / QPSK



Date: 12 JUN 2018 23:27:17

Highest Channel / 10MHz / 16QAM

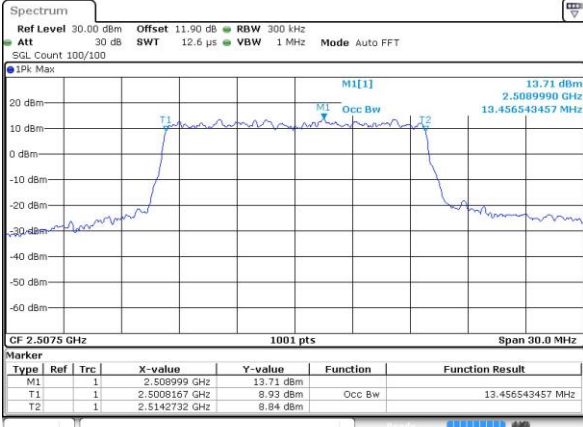


Date: 12 JUN 2018 23:27:28



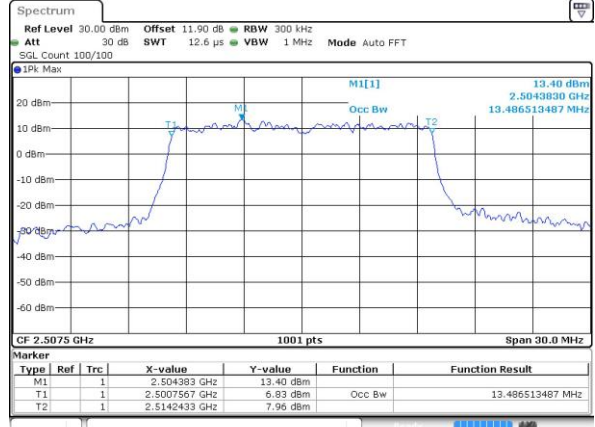
LTE Band 7

Lowest Channel / 15MHz / QPSK



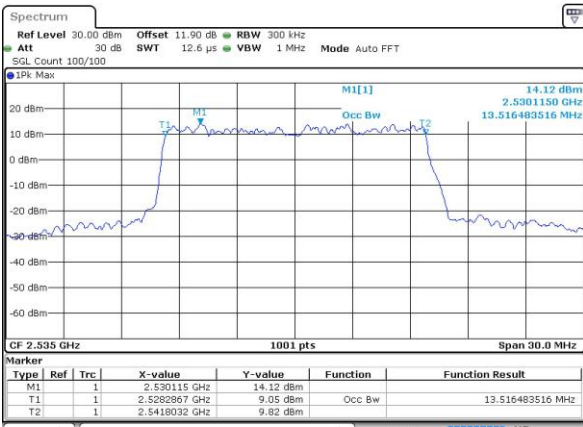
Date: 12 JUN 2018 23:42:50

Lowest Channel / 15MHz / 16QAM



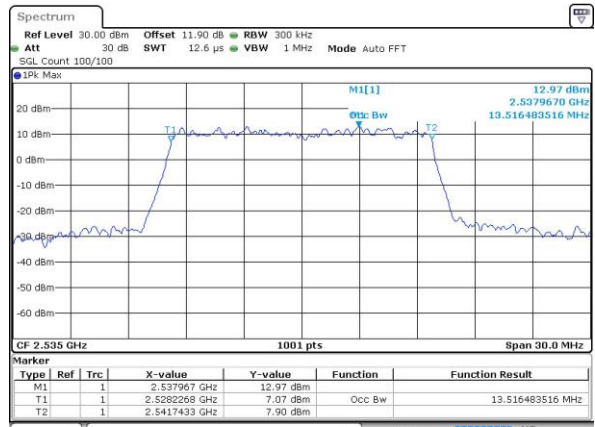
Date: 12 JUN 2018 23:43:01

Middle Channel / 15MHz / QPSK



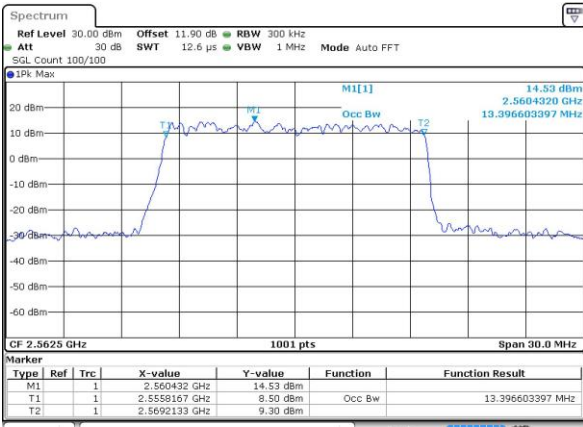
Date: 12 JUN 2018 23:49:59

Middle Channel / 15MHz / 16QAM



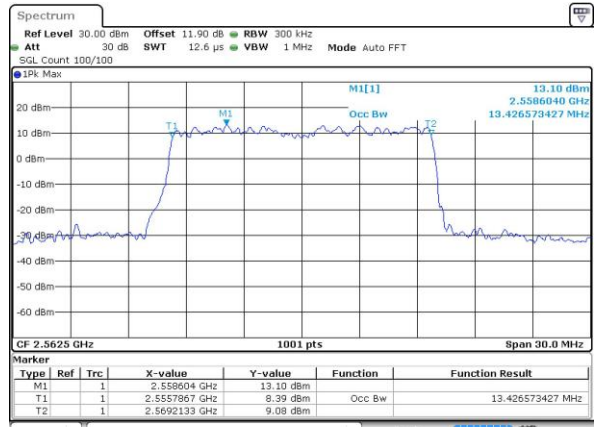
Date: 12 JUN 2018 23:50:09

Highest Channel / 15MHz / QPSK



Date: 12 JUN 2018 23:52:28

Highest Channel / 15MHz / 16QAM



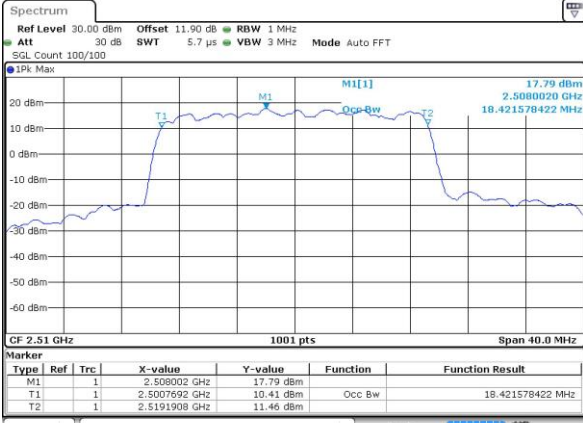
Date: 12 JUN 2018 23:52:39





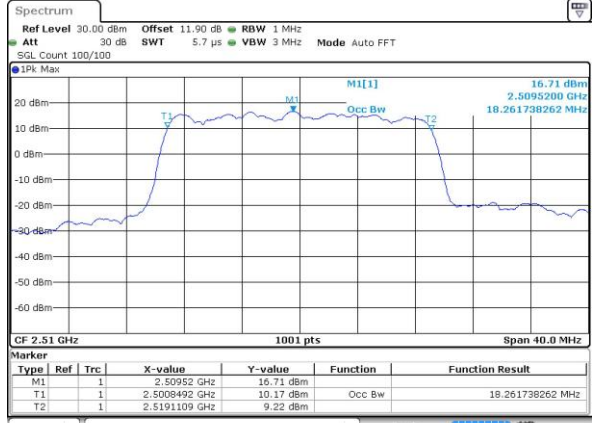
LTE Band 7

Lowest Channel / 20MHz / QPSK



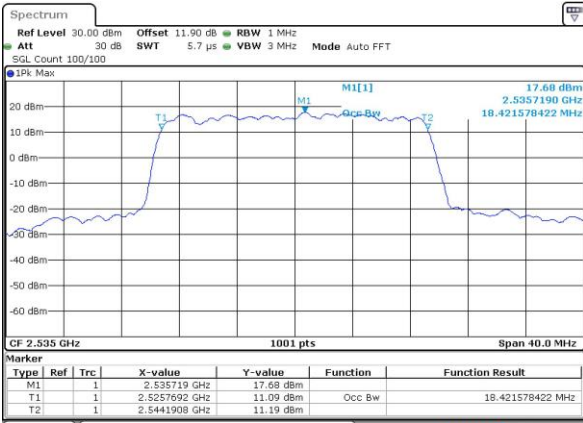
Date: 13 JUN 2018 00:11:58

Lowest Channel / 20MHz / 16QAM



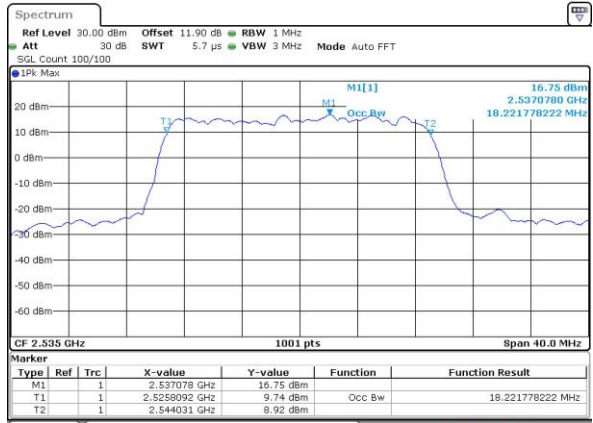
Date: 13 JUN 2018 00:12:09

Middle Channel / 20MHz / QPSK



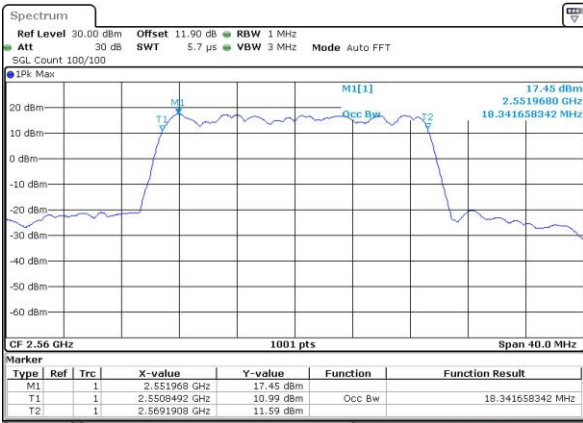
Date: 13 JUN 2018 00:19:07

Middle Channel / 20MHz / 16QAM



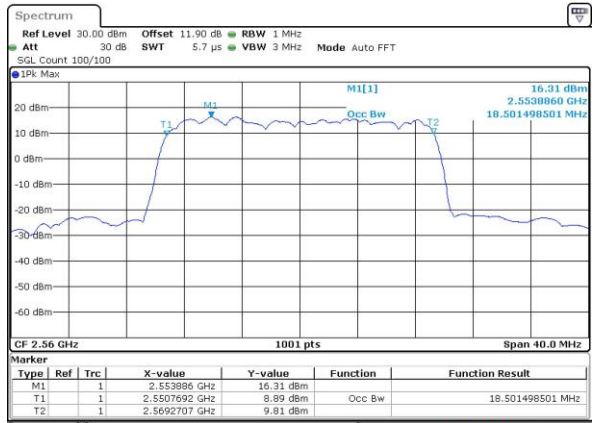
Date: 13 JUN 2018 00:19:17

Highest Channel / 20MHz / QPSK



Date: 13 JUN 2018 00:21:36

Highest Channel / 20MHz / 16QAM



Date: 13 JUN 2018 00:21:47