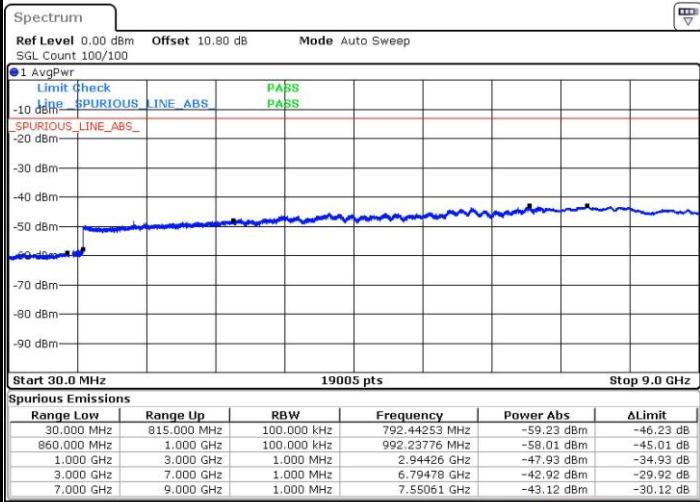




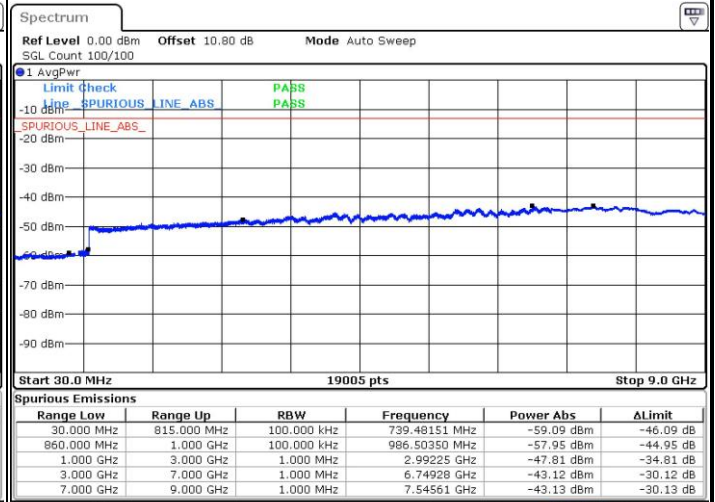
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

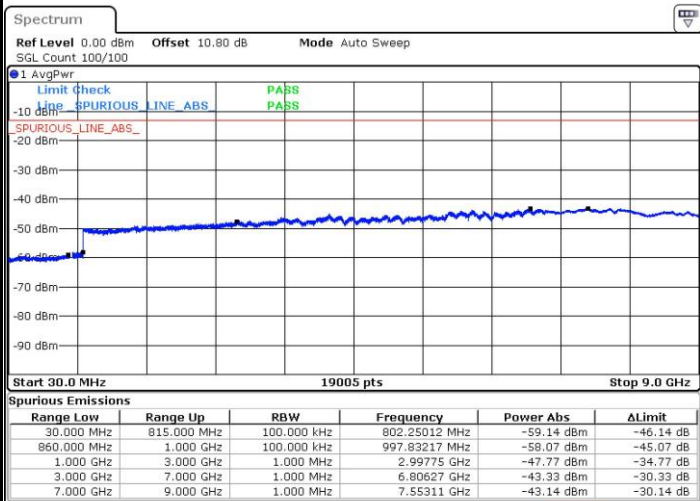


Date: 11.MAY.2019 04:28:05



Date: 11.MAY.2019 04:29:09

Highest Channel / 64QAM



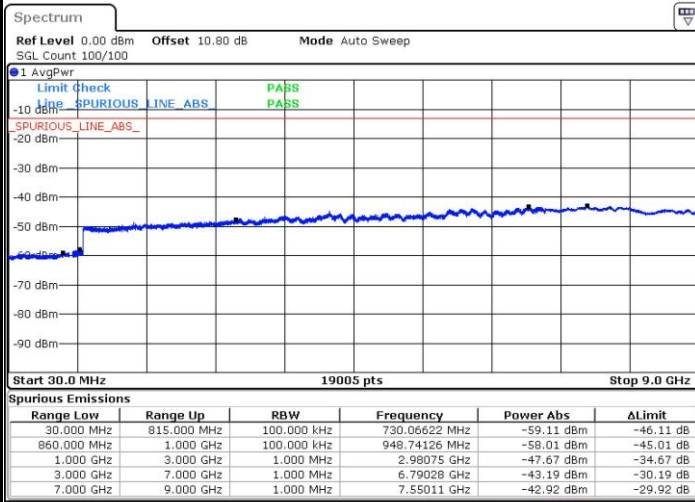
Date: 11.MAY.2019 04:33:37



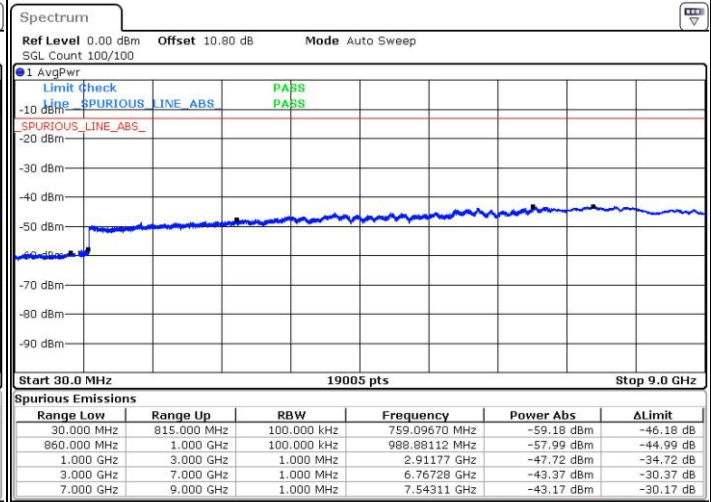
LTE Band 5 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

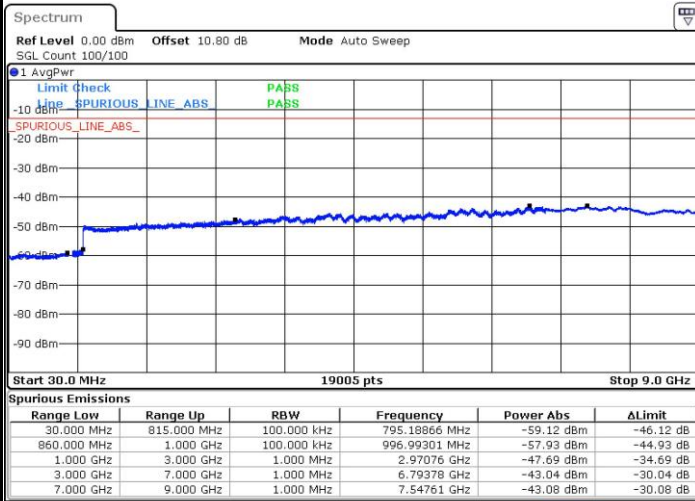


Date: 11.MAY.2019 03:48:48



Date: 11.MAY.2019 03:49:52

Highest Channel / 64QAM



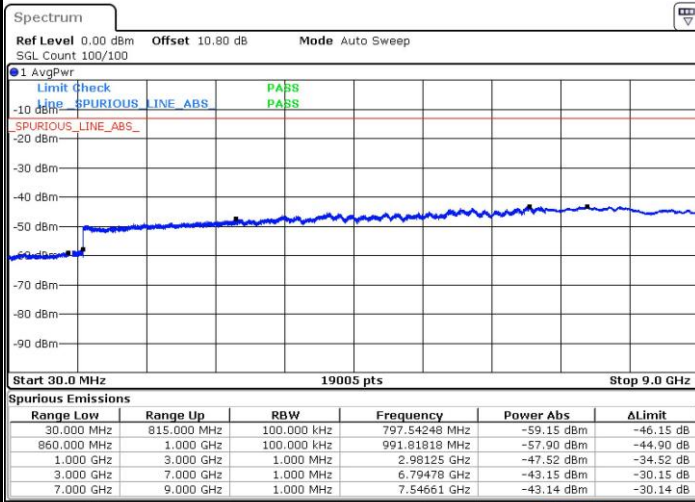
Date: 11.MAY.2019 03:54:20



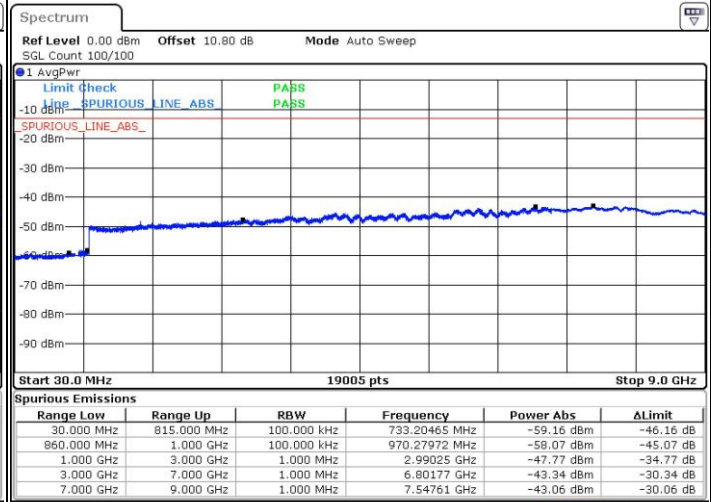
LTE Band 5 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

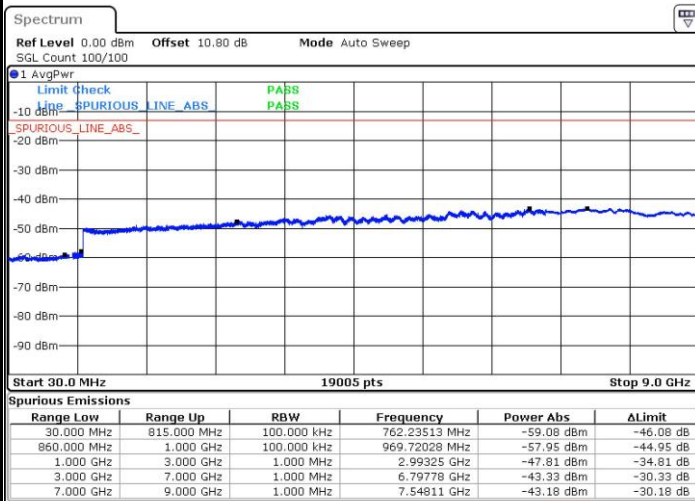


Date: 11.MAY.2019 03:58:48



Date: 11.MAY.2019 03:59:53

Highest Channel / 64QAM



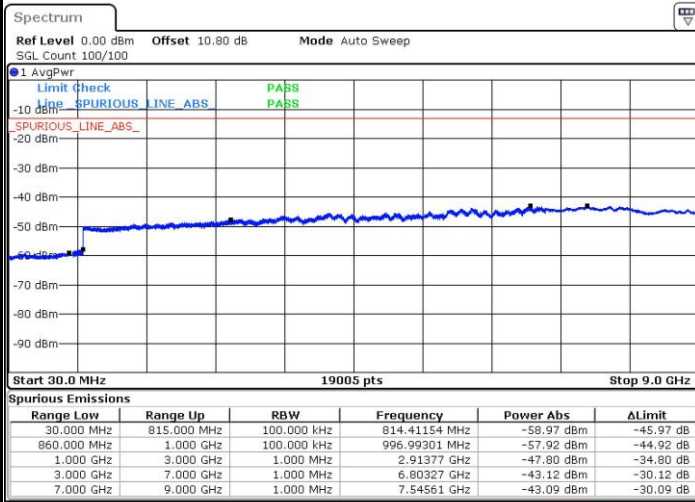
Date: 11.MAY.2019 04:04:20



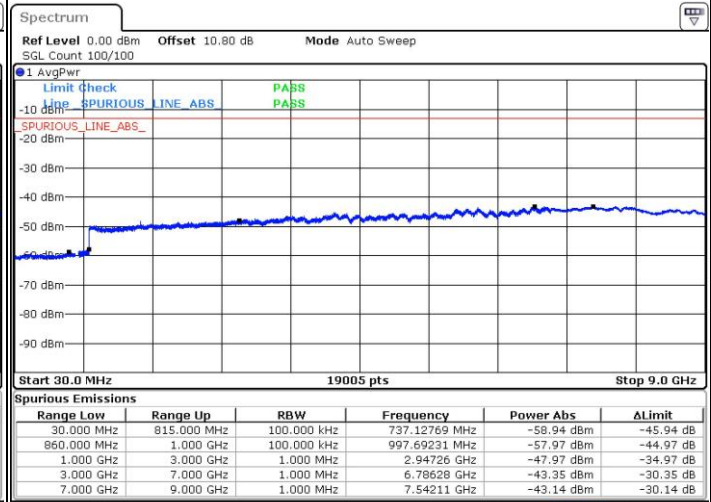
LTE Band 5 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

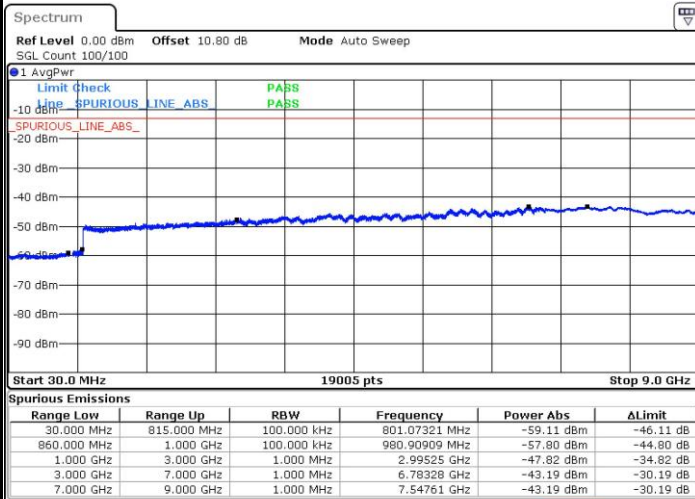


Date: 11.MAY.2019 04:08:49



Date: 11.MAY.2019 04:09:53

Highest Channel / 64QAM



Date: 11.MAY.2019 04:14:21



### 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	0.0002	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0148	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0126	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0133	
-20	Normal Voltage	0.0147	
-30	Normal Voltage	0.0030	
20	Maximum Voltage	0.0137	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0019	

**Note:**

- 1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 7

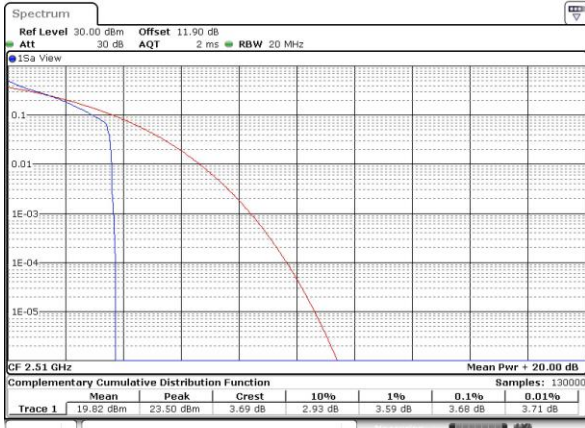
### Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.68	4.7	5.45	6.09	PASS
Middle CH	3.86	4.58	5.13	5.97	
Highest CH	3.74	4.55	5.71	5.94	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.87	6.72	-	-	PASS
Middle CH	6.72	6.46	-	-	
Highest CH	7.13	6.55	-	-	



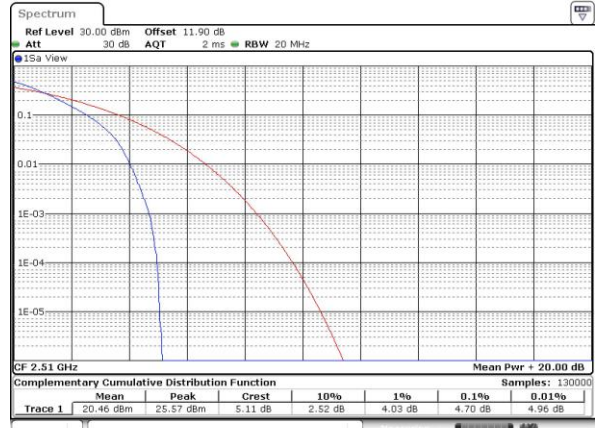
LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 13 MAY 2019 05:31:21

Lowest Channel / Full RB



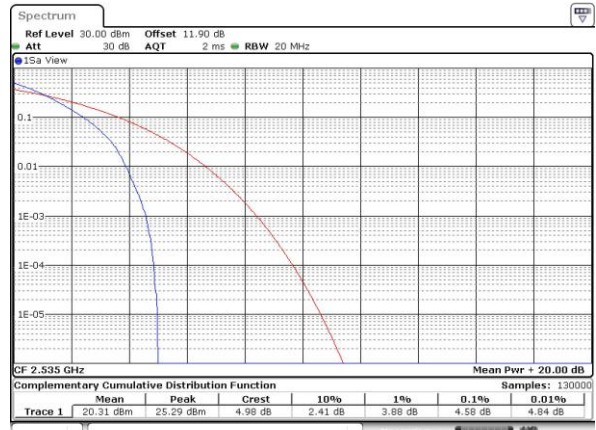
Date: 13 MAY 2019 05:31:33

Middle Channel / 1RB



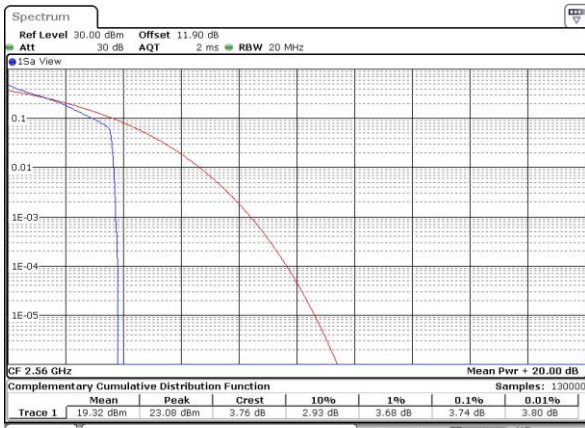
Date: 13 MAY 2019 05:31:56

Middle Channel / Full RB



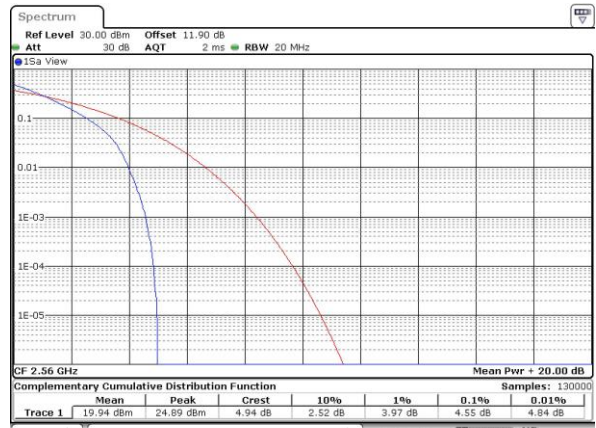
Date: 13 MAY 2019 05:32:08

Highest Channel / 1RB



Date: 13 MAY 2019 05:32:20

Highest Channel / Full RB

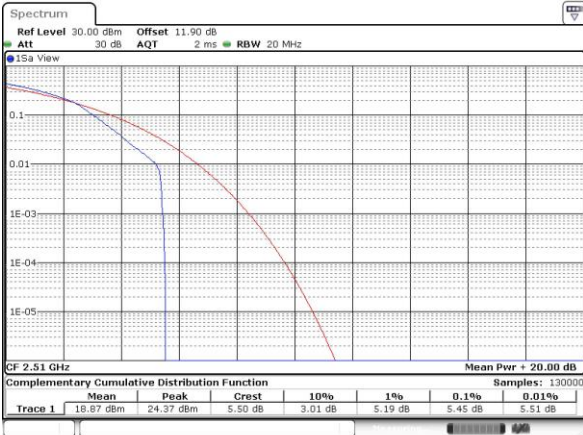


Date: 13 MAY 2019 05:32:31



LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



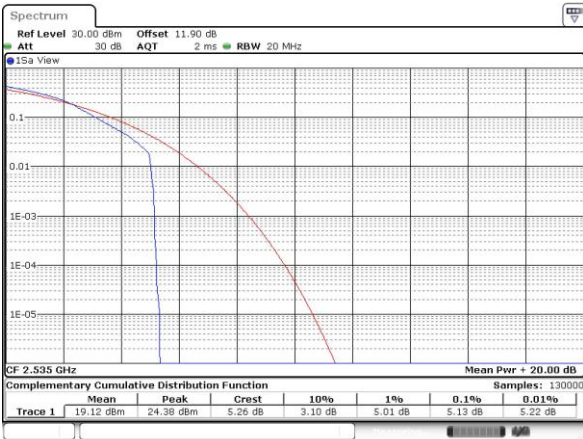
Date: 13 MAY 2019 05:30:10

Lowest Channel / Full RB



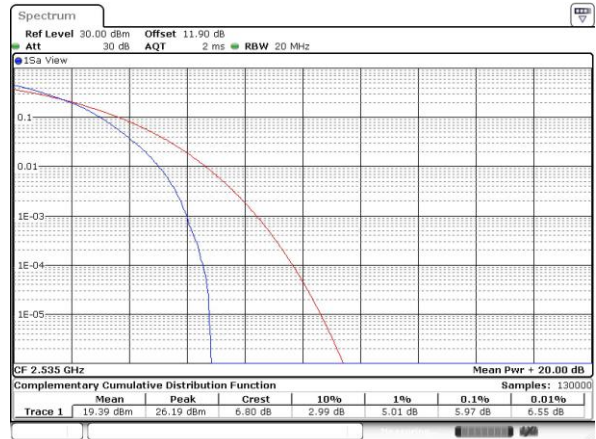
Date: 13 MAY 2019 05:30:23

Middle Channel / 1RB



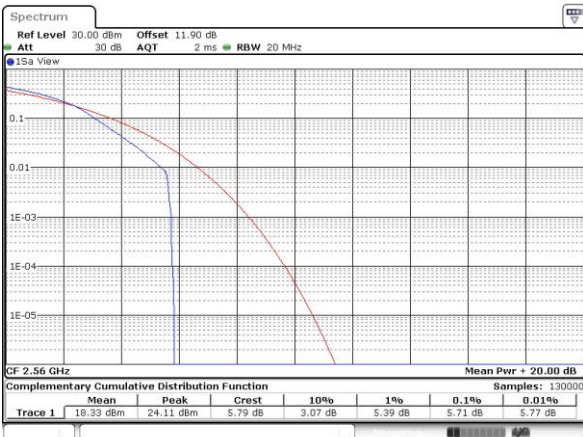
Date: 13 MAY 2019 05:30:35

Middle Channel / Full RB



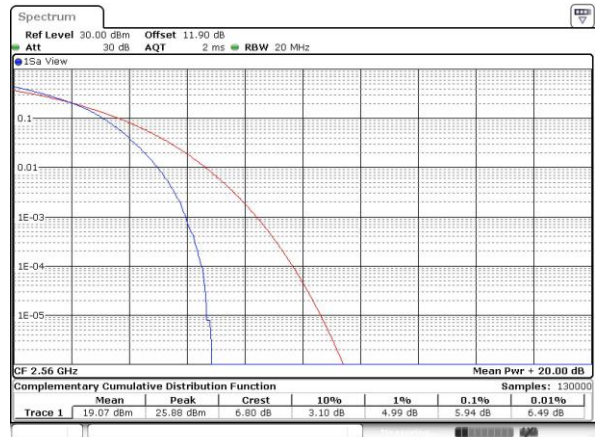
Date: 13 MAY 2019 05:30:46

Highest Channel / 1RB



Date: 13 MAY 2019 05:30:58

Highest Channel / Full RB



Date: 13 MAY 2019 05:31:09



LTE Band 7 / 20MHz / 64QAM

Lowest Channel / 1RB



Date: 13 MAY 2019 05:32:43

Lowest Channel / Full RB



Date: 13 MAY 2019 05:32:54

Middle Channel / 1RB



Date: 13 MAY 2019 05:33:06

Middle Channel / Full RB



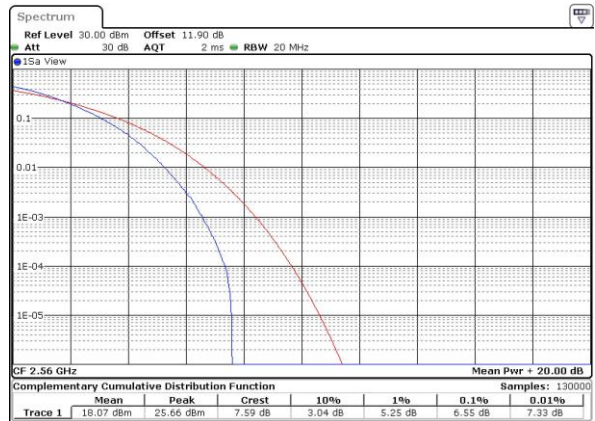
Date: 13 MAY 2019 05:33:29

Highest Channel / 1RB



Date: 13 MAY 2019 05:33:39

Highest Channel / Full RB



Date: 13 MAY 2019 05:33:51



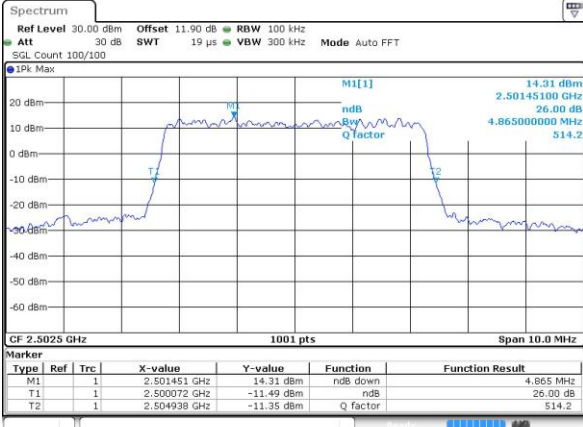
**26dB Bandwidth**

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	-	-	-	-	4.87	4.92	9.69	9.73	14.39	14.39	18.66	18.94
Middle CH	-	-	-	-	4.89	4.89	9.87	9.71	14.15	14.54	18.82	19.18
Highest CH	-	-	-	-	4.90	4.88	9.73	9.71	14.33	14.15	18.66	19.02
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.93	-	9.71	-	14.39	-	18.94	-
Middle CH	-	-	-	-	4.95	-	9.77	-	14.45	-	18.86	-
Highest CH	-	-	-	-	4.84	-	9.95	-	14.33	-	18.74	-



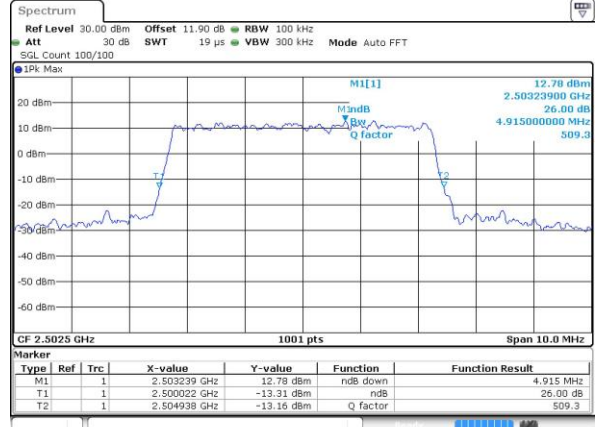
LTE Band 7

Lowest Channel / 5MHz / QPSK



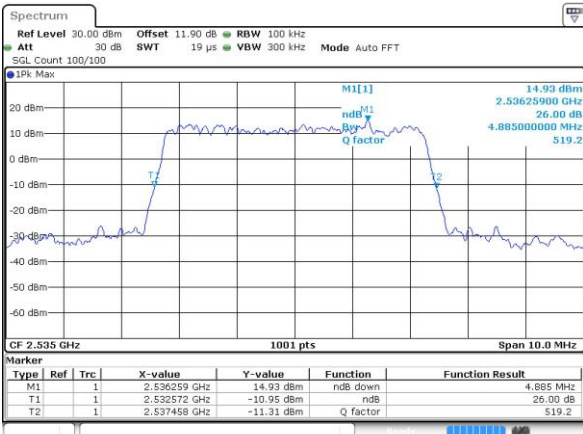
Date: 13 MAY 2019 04:01:10

Lowest Channel / 5MHz / 16QAM



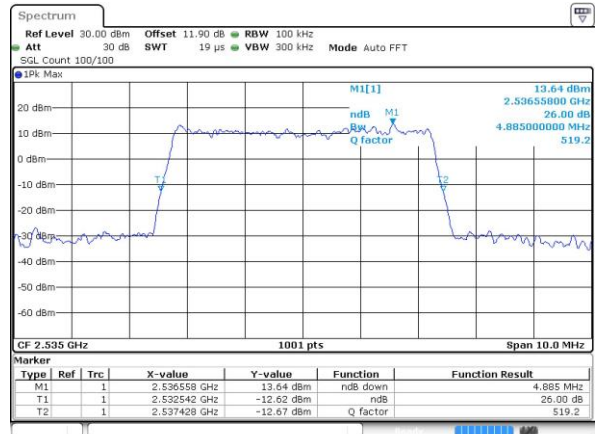
Date: 13 MAY 2019 04:01:22

Middle Channel / 5MHz / QPSK



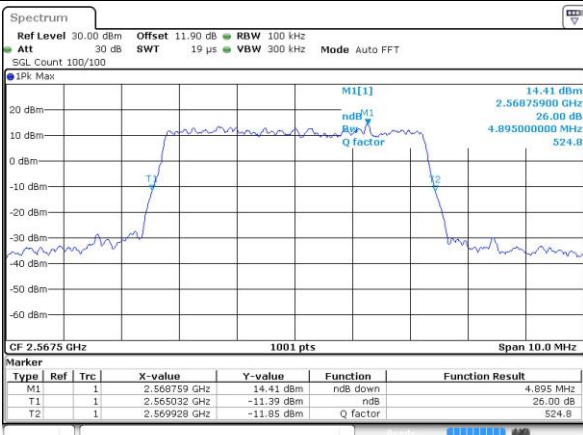
Date: 13 MAY 2019 04:06:46

Middle Channel / 5MHz / 16QAM



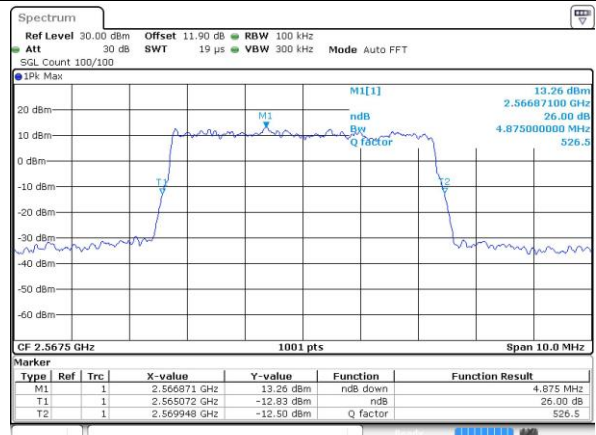
Date: 13 MAY 2019 04:06:57

Highest Channel / 5MHz / QPSK



Date: 13 MAY 2019 04:09:34

Highest Channel / 5MHz / 16QAM

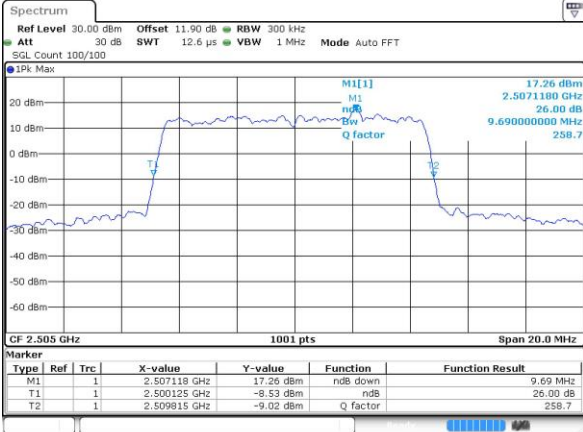


Date: 13 MAY 2019 04:09:46



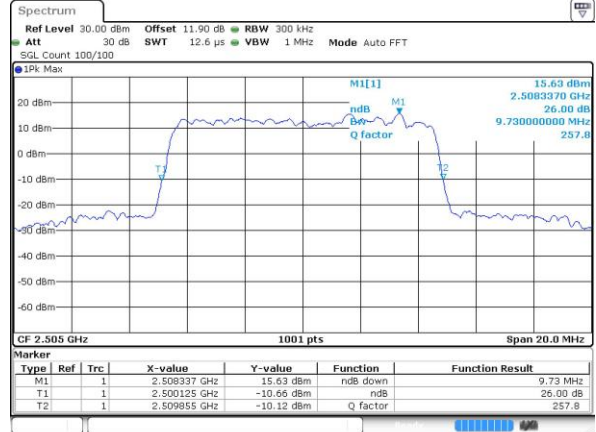
LTE Band 7

Lowest Channel / 10MHz / QPSK



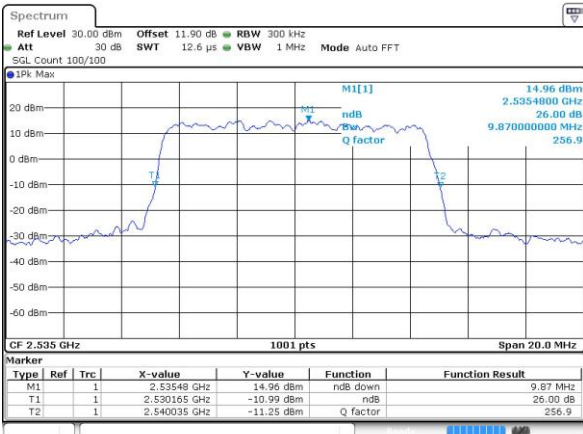
Date: 13 MAY 2019 04:22:13

Lowest Channel / 10MHz / 16QAM



Date: 13 MAY 2019 04:22:26

Middle Channel / 10MHz / QPSK



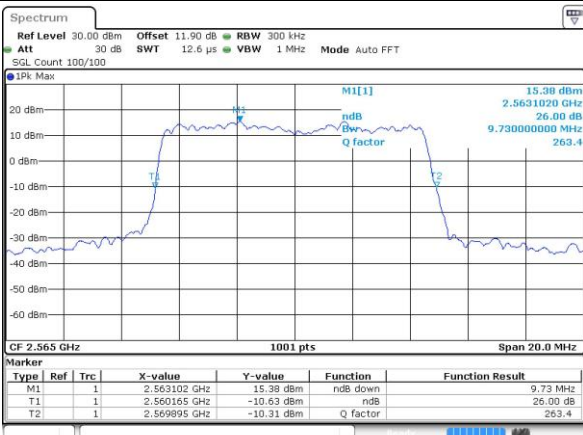
Date: 13 MAY 2019 04:27:49

Middle Channel / 10MHz / 16QAM



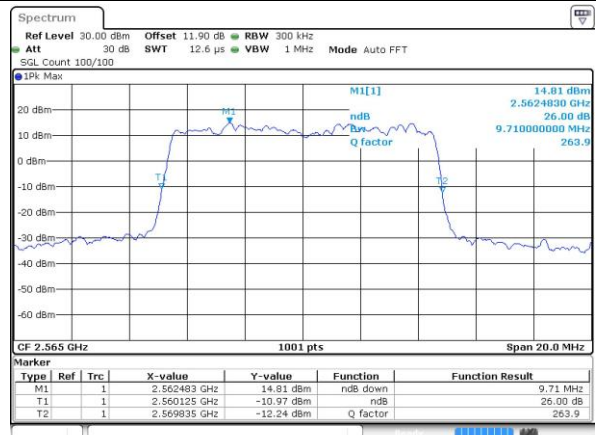
Date: 13 MAY 2019 04:28:01

Highest Channel / 10MHz / QPSK



Date: 13 MAY 2019 04:30:38

Highest Channel / 10MHz / 16QAM

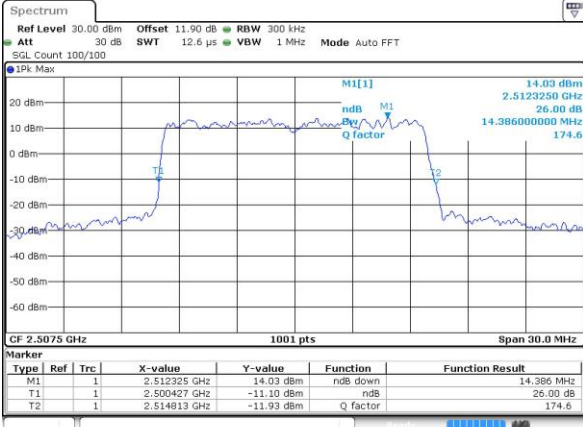


Date: 13 MAY 2019 04:30:50



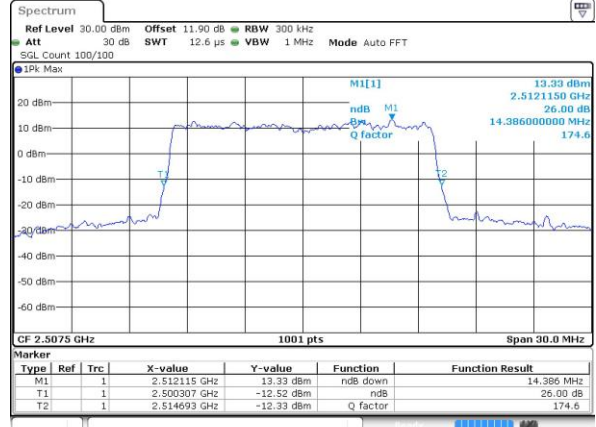
LTE Band 7

Lowest Channel / 15MHz / QPSK



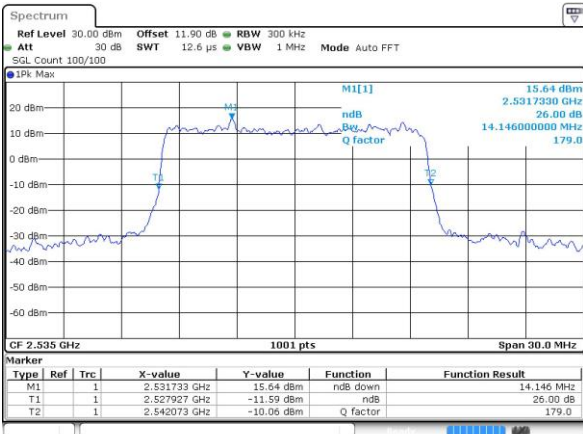
Date: 13 MAY 2019 04:43:19

Lowest Channel / 15MHz / 16QAM



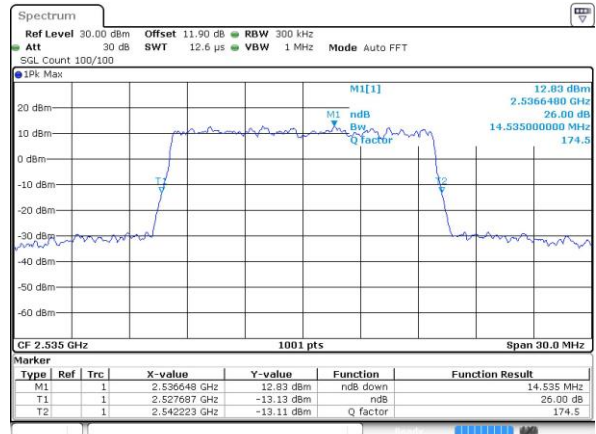
Date: 13 MAY 2019 04:43:31

Middle Channel / 15MHz / QPSK



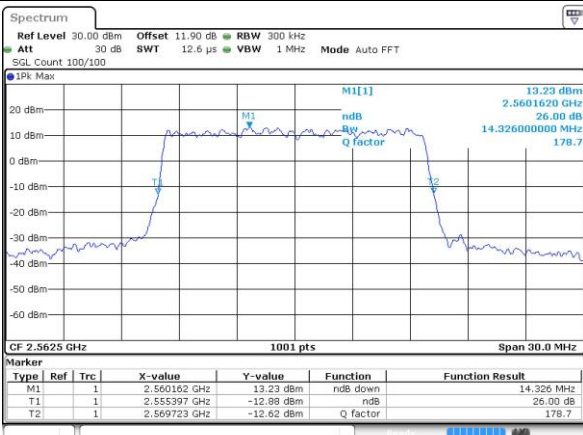
Date: 13 MAY 2019 04:48:55

Middle Channel / 15MHz / 16QAM



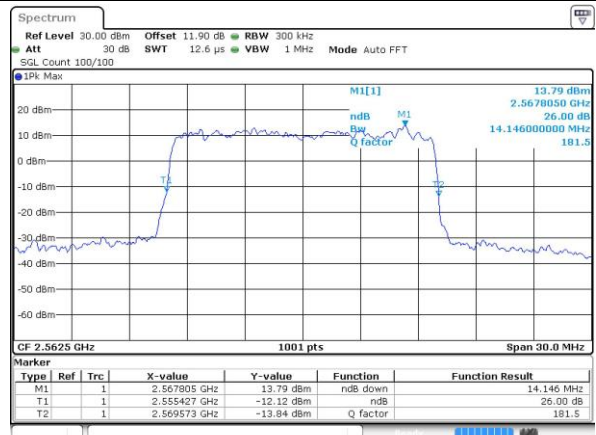
Date: 13 MAY 2019 04:49:07

Highest Channel / 15MHz / QPSK



Date: 13 MAY 2019 04:51:44

Highest Channel / 15MHz / 16QAM

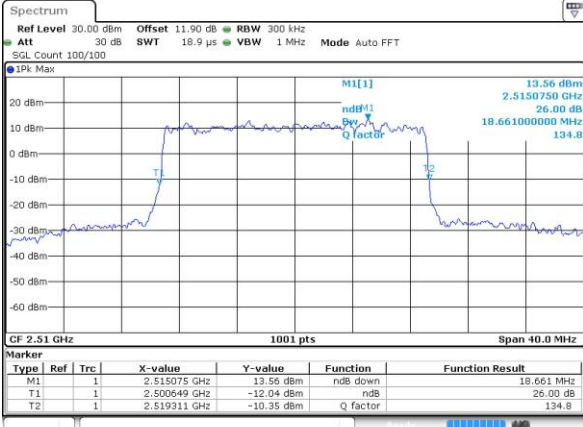


Date: 13 MAY 2019 04:51:56



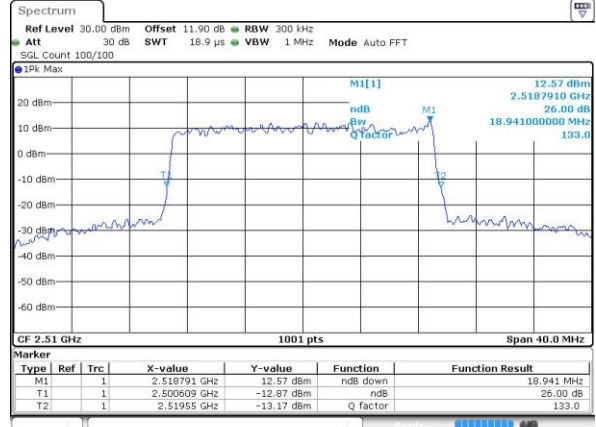
LTE Band 7

Lowest Channel / 20MHz / QPSK



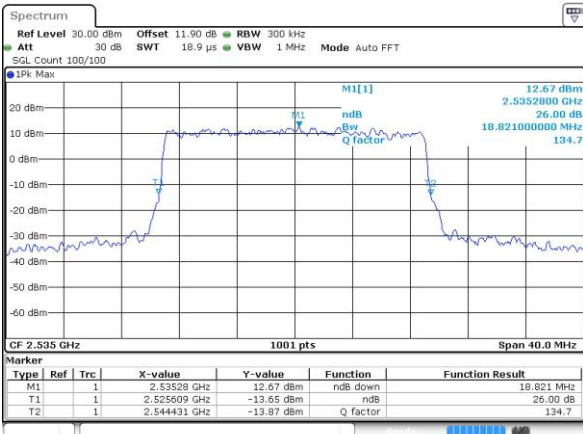
Date: 13 MAY 2019 05:04:24

Lowest Channel / 20MHz / 16QAM



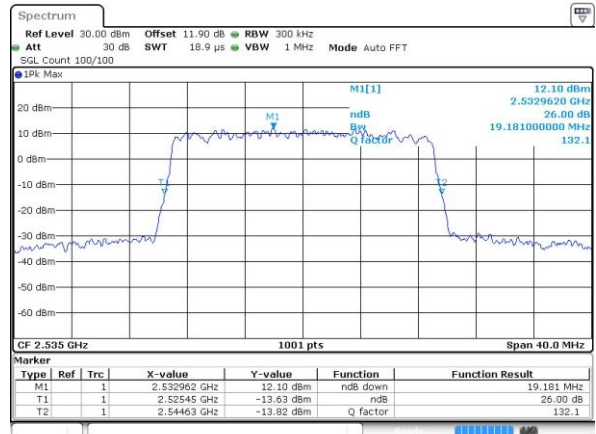
Date: 13 MAY 2019 05:04:36

Middle Channel / 20MHz / QPSK



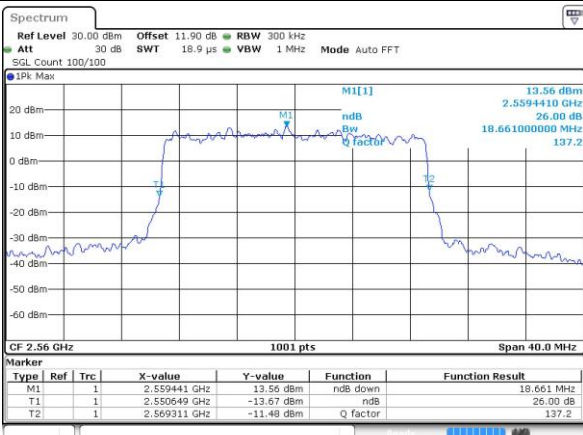
Date: 13 MAY 2019 05:10:00

Middle Channel / 20MHz / 16QAM



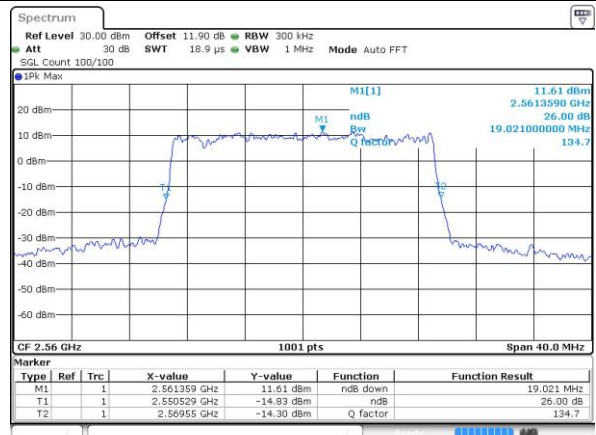
Date: 13 MAY 2019 05:10:11

Highest Channel / 20MHz / QPSK



Date: 13 MAY 2019 05:12:49

Highest Channel / 20MHz / 16QAM

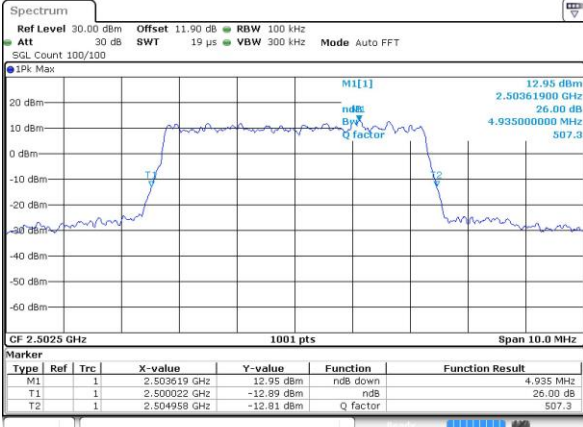


Date: 13 MAY 2019 05:13:01



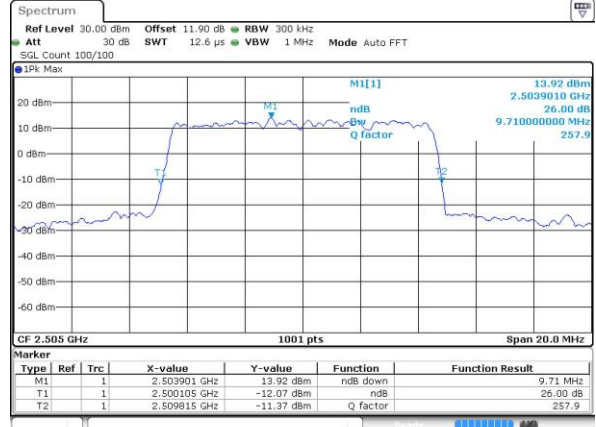
LTE Band 7

Lowest Channel / 5MHz / 64QAM



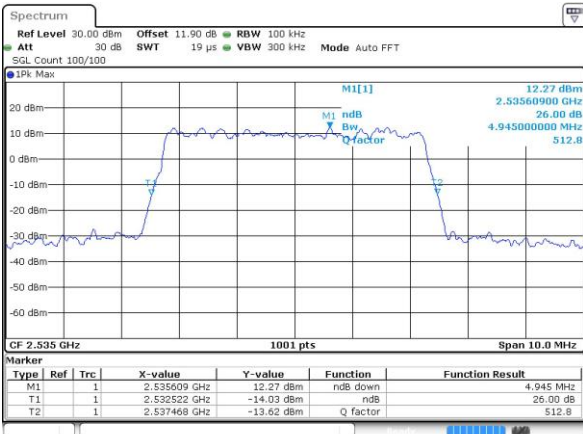
Date: 13 MAY 2019 04:15:00

Lowest Channel / 10MHz / 64QAM



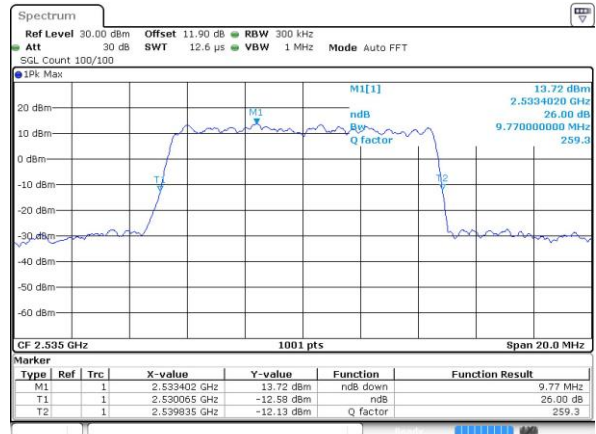
Date: 13 MAY 2019 04:36:04

Middle Channel / 5MHz / 64QAM



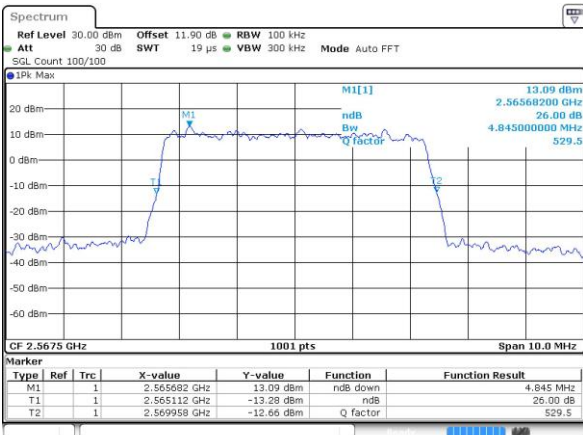
Date: 13 MAY 2019 04:17:47

Middle Channel / 10MHz / 64QAM



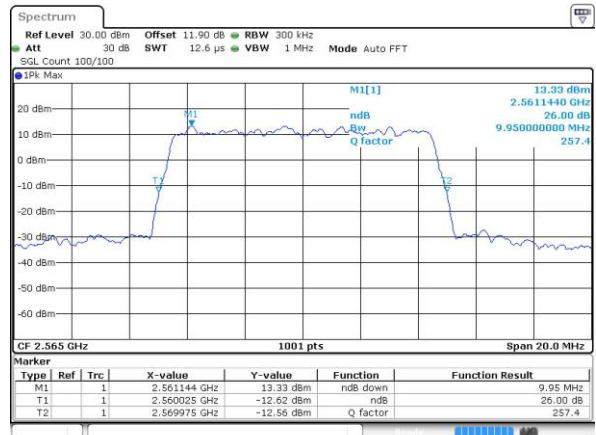
Date: 13 MAY 2019 04:38:52

Highest Channel / 5MHz / 64QAM



Date: 13 MAY 2019 04:19:11

Highest Channel / 10MHz / 64QAM

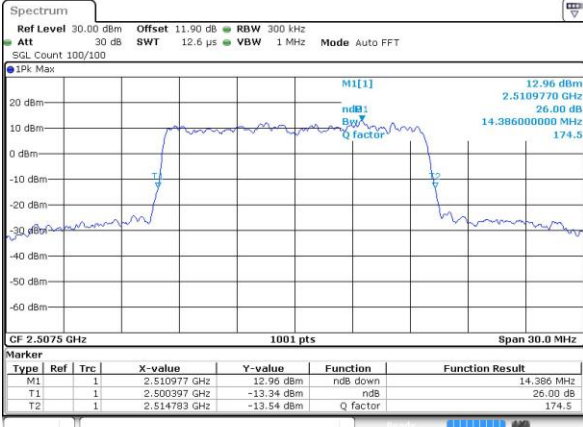


Date: 13 MAY 2019 04:40:17



LTE Band 7

Lowest Channel / 15MHz / 64QAM



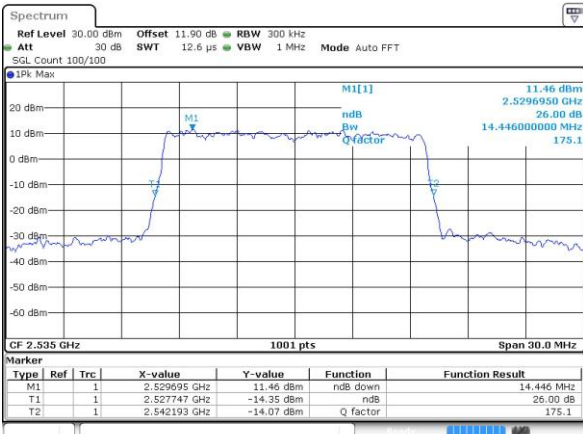
Date: 13 MAY 2019 04:57:10

Lowest Channel / 20MHz / 64QAM



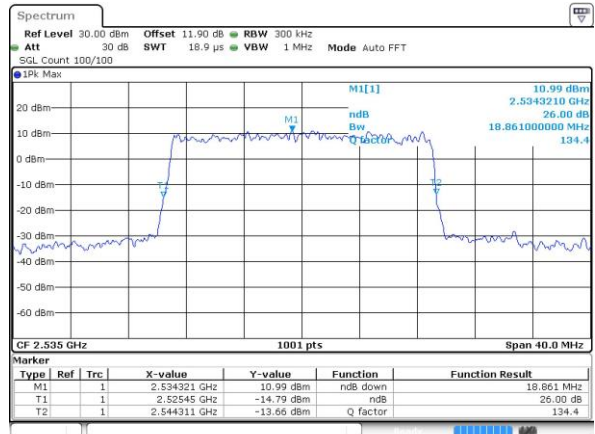
Date: 13 MAY 2019 05:18:14

Middle Channel / 15MHz / 64QAM



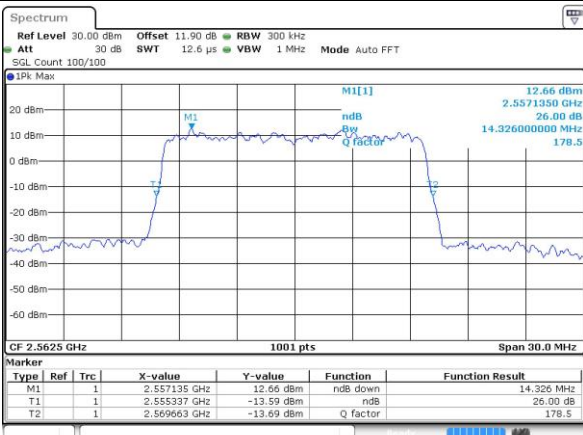
Date: 13 MAY 2019 04:59:58

Middle Channel / 20MHz / 64QAM



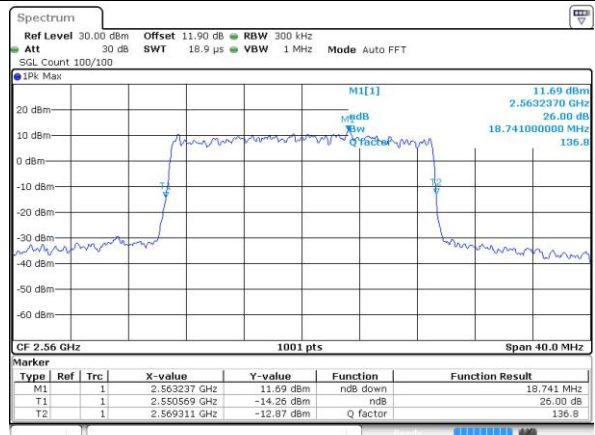
Date: 13 MAY 2019 05:21:02

Highest Channel / 15MHz / 64QAM



Date: 13 MAY 2019 05:01:22

Highest Channel / 20MHz / 64QAM



Date: 13 MAY 2019 05:27:26



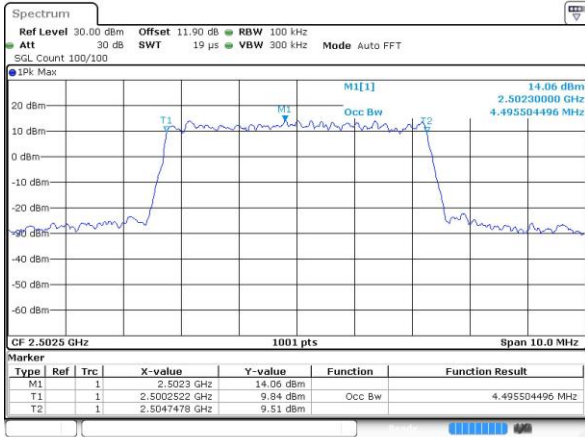
Occupied Bandwidth

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	-	-	-	-	4.5	4.48	9.15	9.05	13.37	13.49	17.9	17.86
Middle CH	-	-	-	-	4.48	4.49	9.05	8.97	13.43	13.46	17.82	17.86
Highest CH	-	-	-	-	4.52	4.49	9.05	8.97	13.46	13.52	17.9	17.9
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	9.01	-	13.43	-	17.82	-
Middle CH	-	-	-	-	4.51	-	9.05	-	13.37	-	17.86	-
Highest CH	-	-	-	-	4.53	-	9.01	-	13.46	-	17.82	-



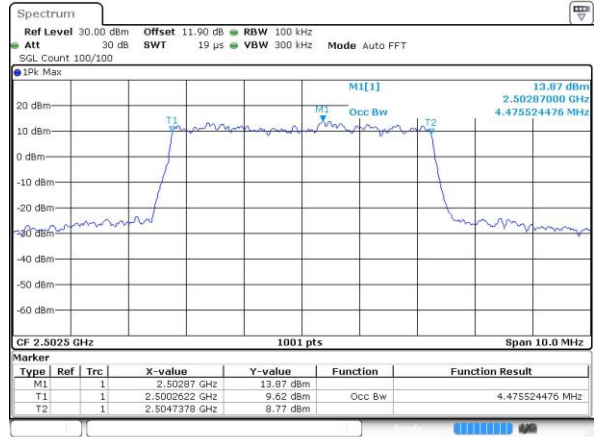
LTE Band 7

Lowest Channel / 5MHz / QPSK



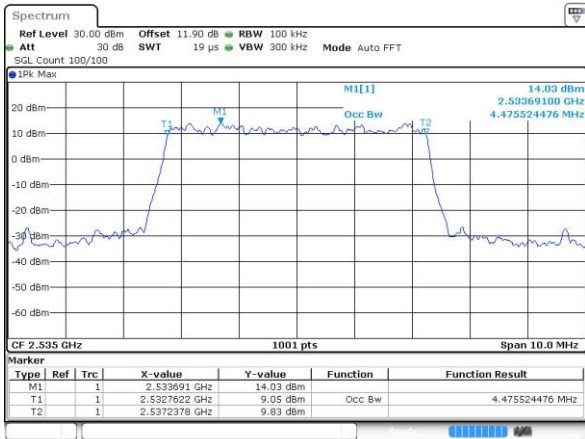
Date: 13 MAY 2019 04:00:45

Lowest Channel / 5MHz / 16QAM



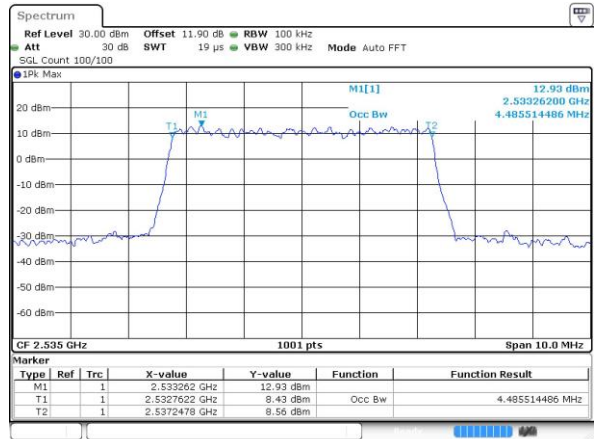
Date: 13 MAY 2019 04:00:57

Middle Channel / 5MHz / QPSK



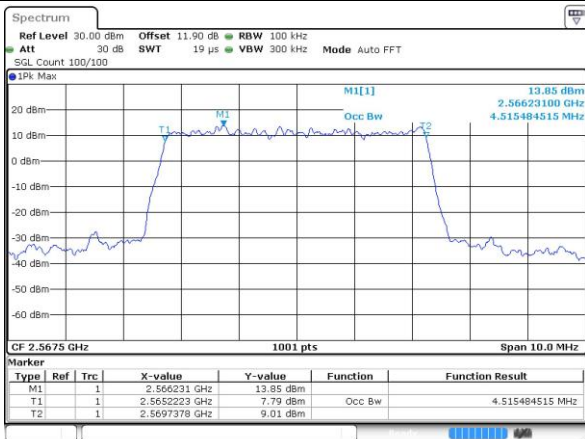
Date: 13 MAY 2019 04:06:22

Middle Channel / 5MHz / 16QAM



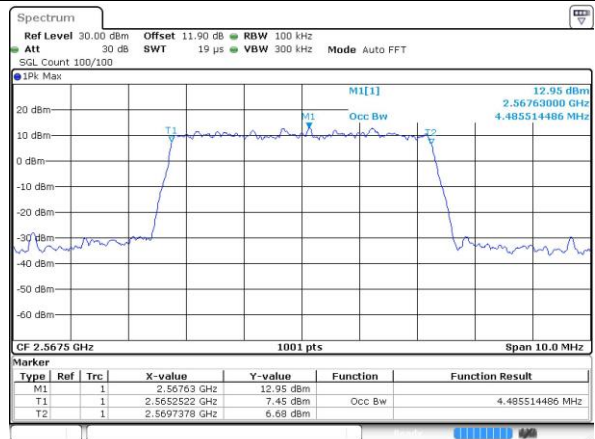
Date: 13 MAY 2019 04:06:34

Highest Channel / 5MHz / QPSK



Date: 13 MAY 2019 04:09:09

Highest Channel / 5MHz / 16QAM

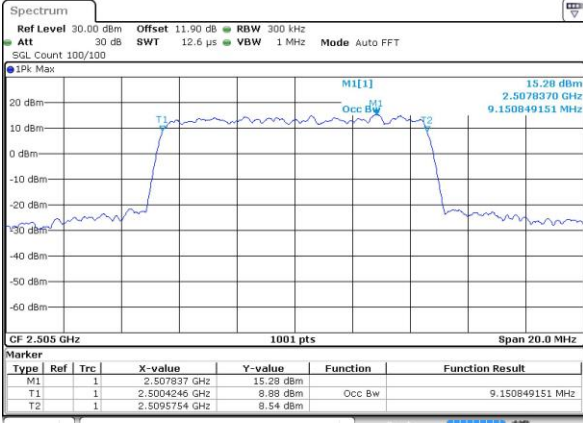


Date: 13 MAY 2019 04:09:22



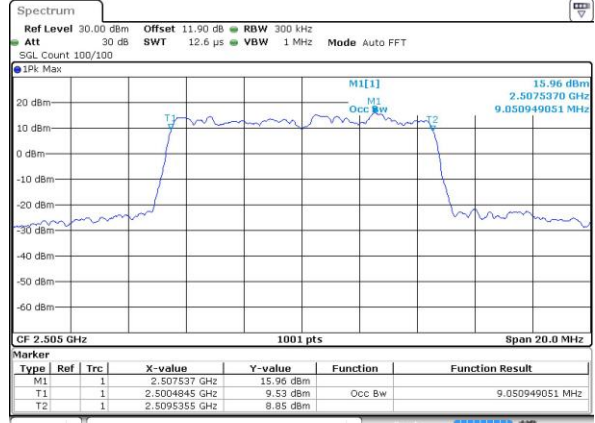
LTE Band 7

Lowest Channel / 10MHz / QPSK



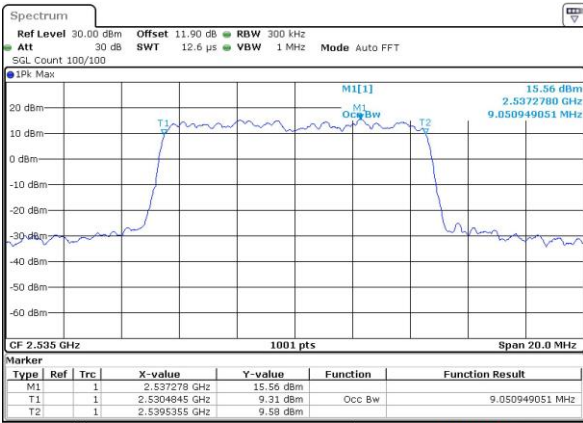
Date: 13 MAY 2019 04:21:49

Lowest Channel / 10MHz / 16QAM



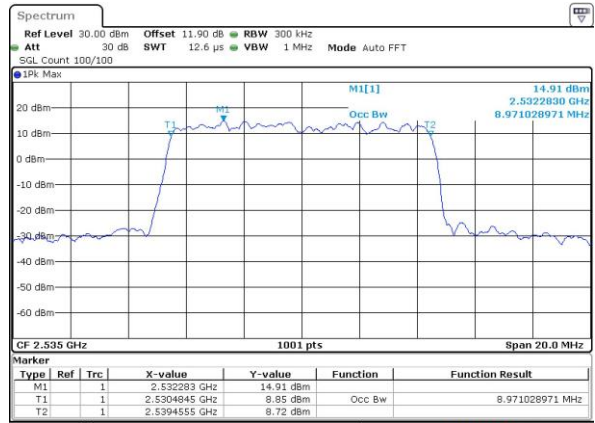
Date: 13 MAY 2019 04:22:01

Middle Channel / 10MHz / QPSK



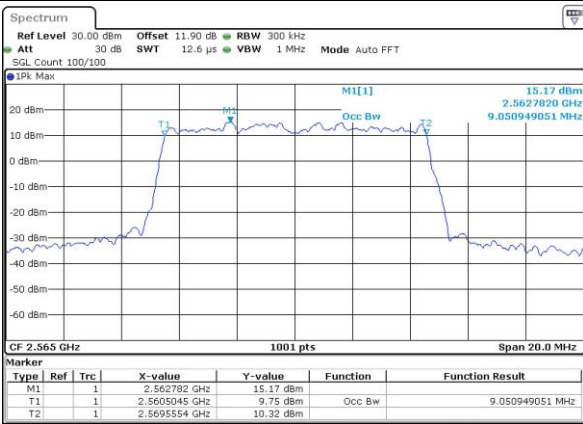
Date: 13 MAY 2019 04:27:26

Middle Channel / 10MHz / 16QAM



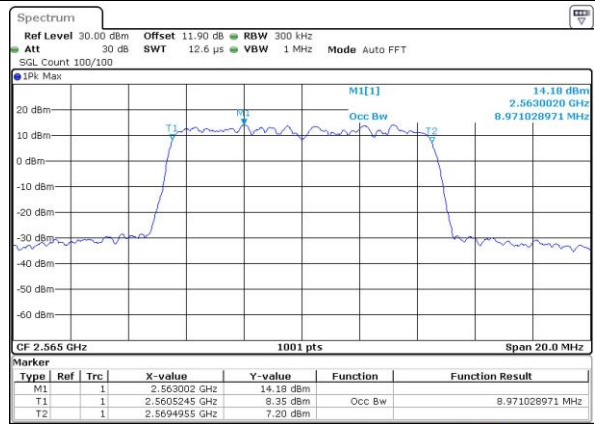
Date: 13 MAY 2019 04:27:38

Highest Channel / 10MHz / QPSK



Date: 13 MAY 2019 04:30:13

Highest Channel / 10MHz / 16QAM

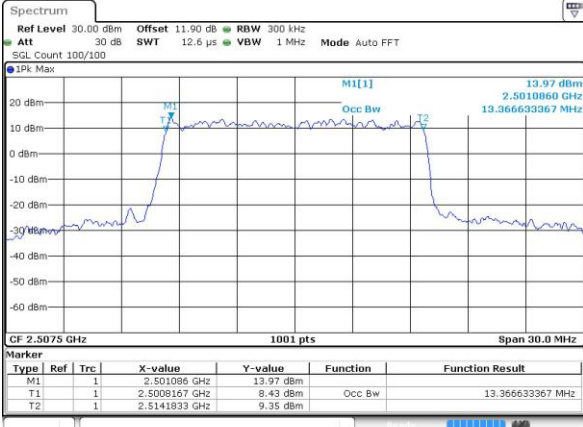


Date: 13 MAY 2019 04:30:26



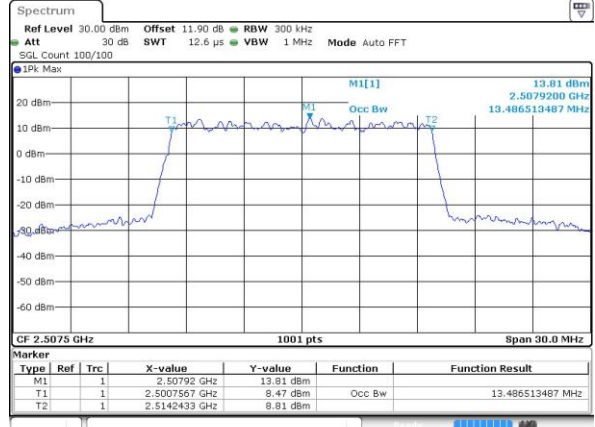
LTE Band 7

Lowest Channel / 15MHz / QPSK



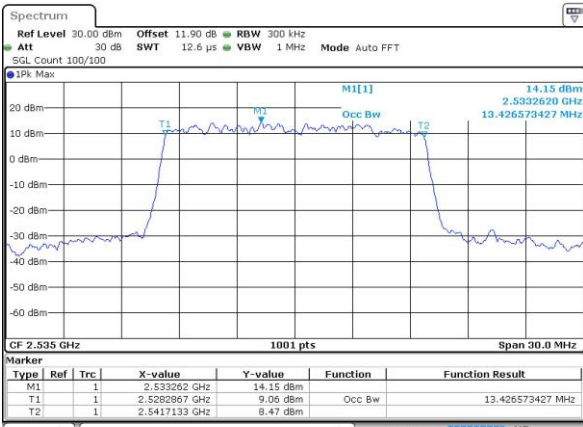
Date: 13 MAY 2019 04:42:54

Lowest Channel / 15MHz / 16QAM



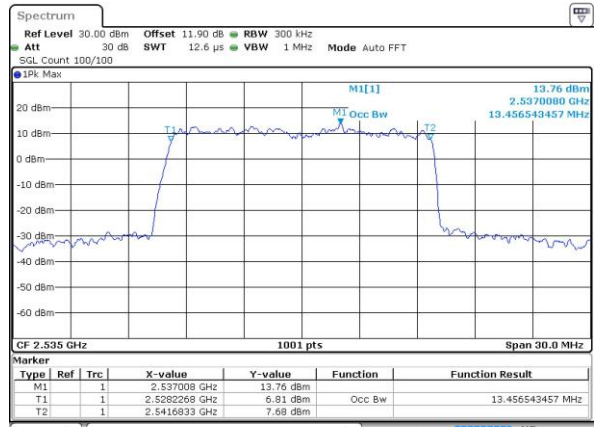
Date: 13 MAY 2019 04:43:06

Middle Channel / 15MHz / QPSK



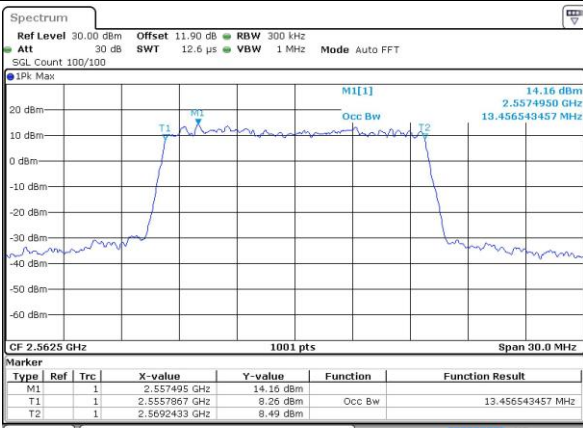
Date: 13 MAY 2019 04:48:31

Middle Channel / 15MHz / 16QAM



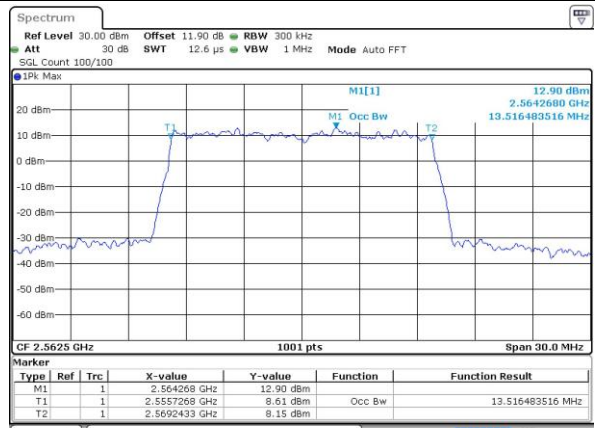
Date: 13 MAY 2019 04:48:43

Highest Channel / 15MHz / QPSK



Date: 13 MAY 2019 04:51:19

Highest Channel / 15MHz / 16QAM

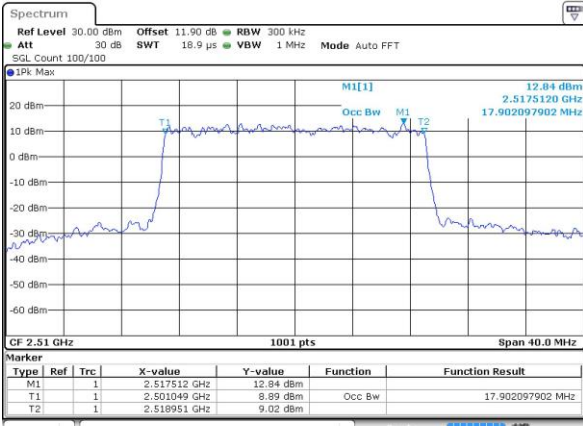


Date: 13 MAY 2019 04:51:31



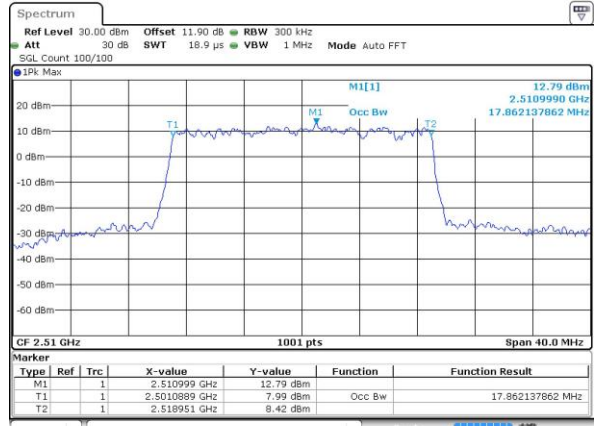
LTE Band 7

Lowest Channel / 20MHz / QPSK



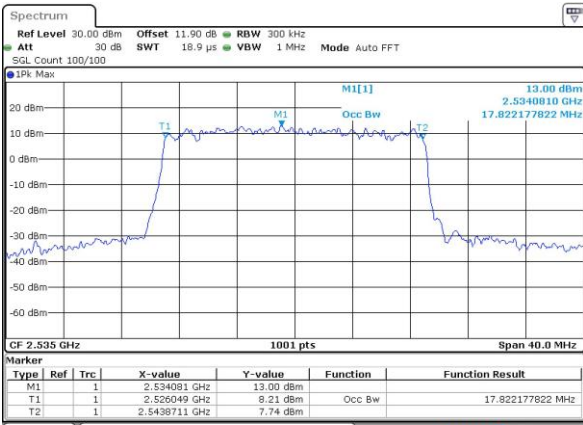
Date: 13 MAY 2019 05:03:59

Lowest Channel / 20MHz / 16QAM



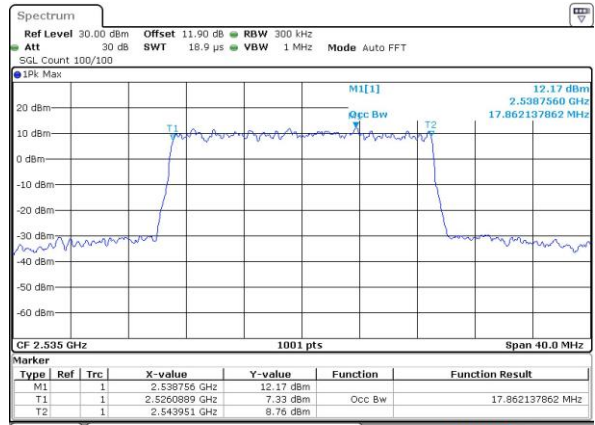
Date: 13 MAY 2019 05:04:11

Middle Channel / 20MHz / QPSK



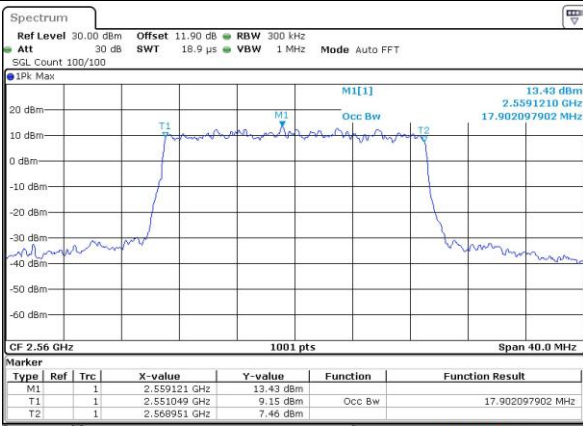
Date: 13 MAY 2019 05:09:36

Middle Channel / 20MHz / 16QAM



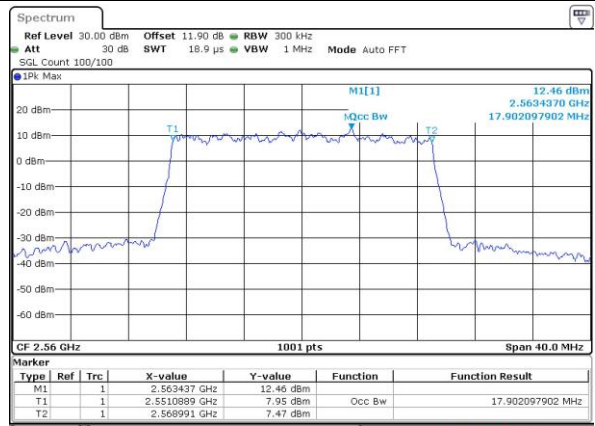
Date: 13 MAY 2019 05:09:48

Highest Channel / 20MHz / QPSK



Date: 13 MAY 2019 05:12:24

Highest Channel / 20MHz / 16QAM



Date: 13 MAY 2019 05:12:36