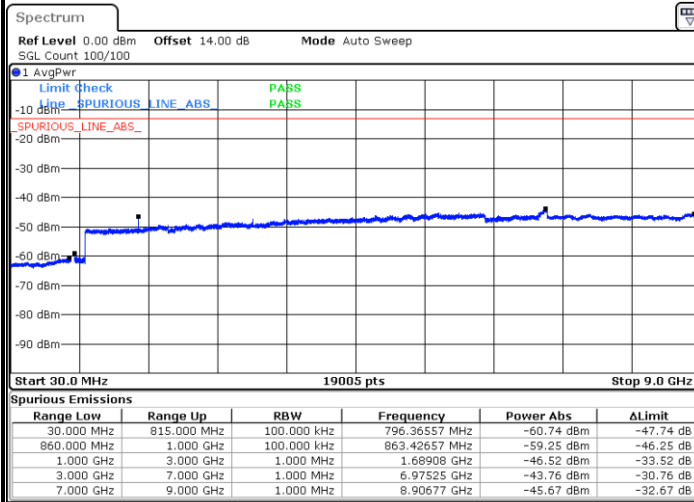




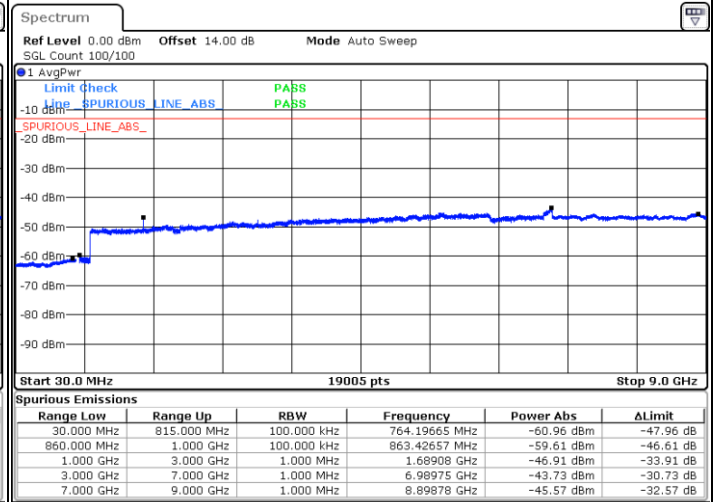
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 17.MAR.2020 13:11:53

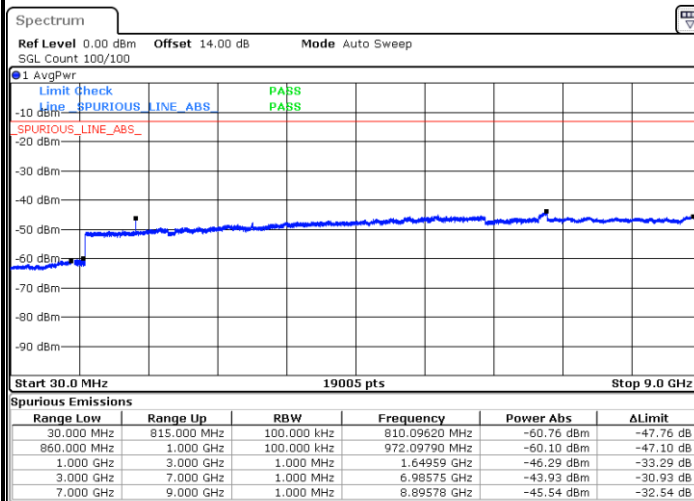
Highest Channel / 16QAM



Date: 17.MAR.2020 13:12:34

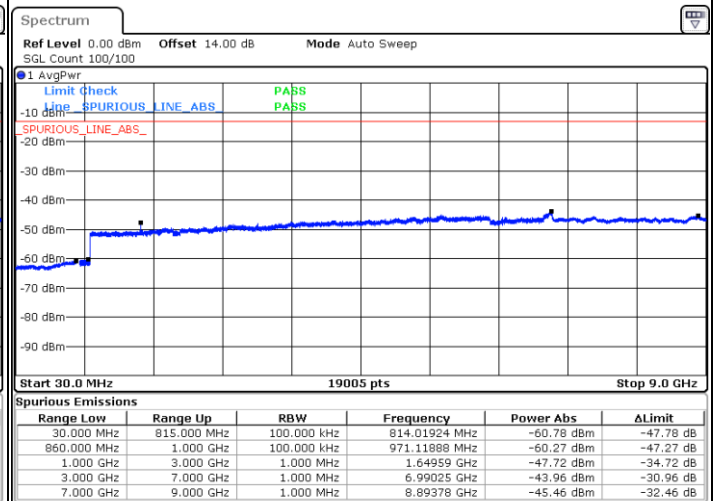
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 17.MAR.2020 13:22:24

Lowest Channel / 16QAM

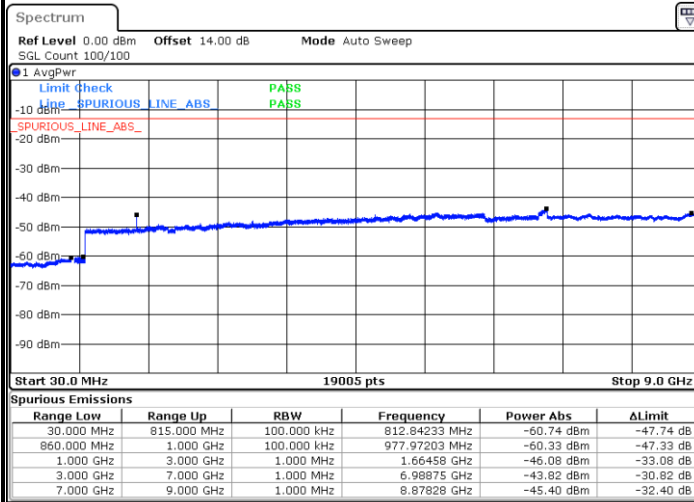


Date: 17.MAR.2020 13:23:04



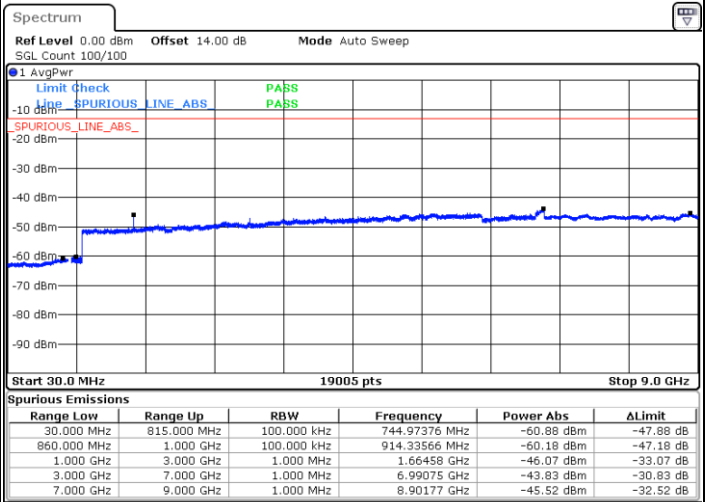
LTE Band 5 / 10MHz

Middle Channel / QPSK



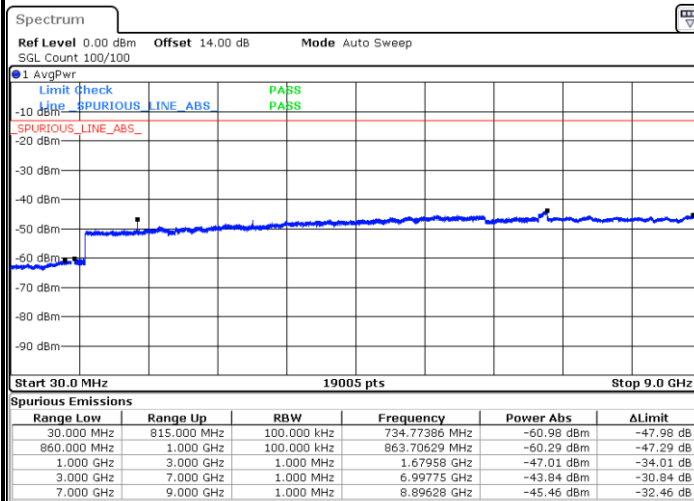
Date: 17.MAR.2020 13:24:29

Middle Channel / 16QAM



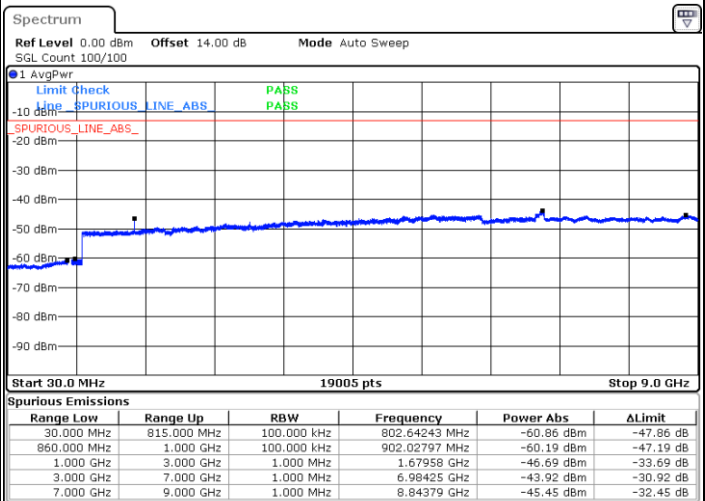
Date: 17.MAR.2020 13:25:10

Highest Channel / QPSK



Date: 17.MAR.2020 13:33:14

Highest Channel / 16QAM

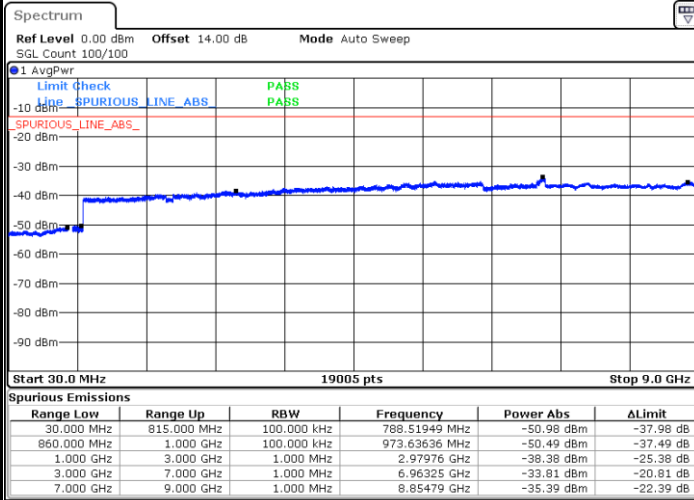


Date: 17.MAR.2020 13:33:55



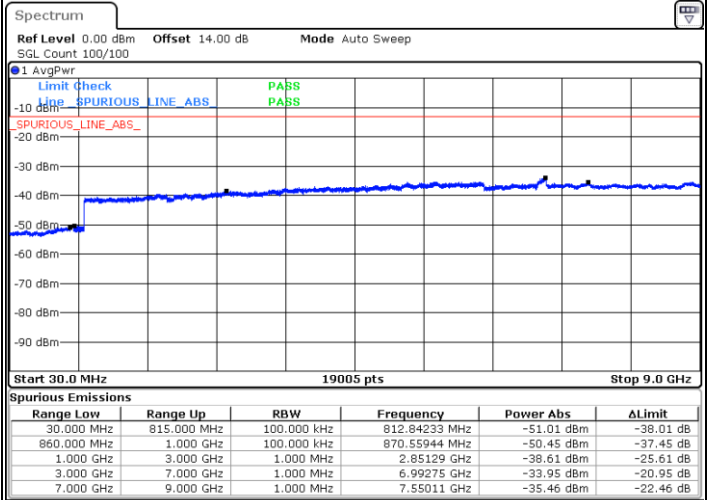
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



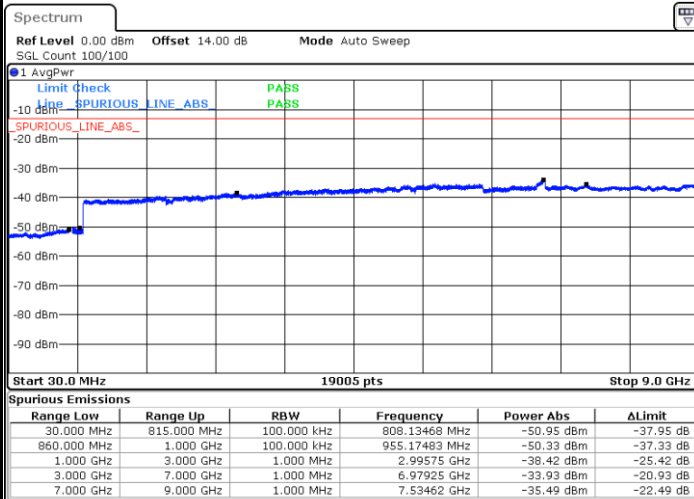
Date: 17.MAR.2020 12:27:55

Middle Channel / 64QAM



Date: 17.MAR.2020 12:25:40

Highest Channel / 64QAM

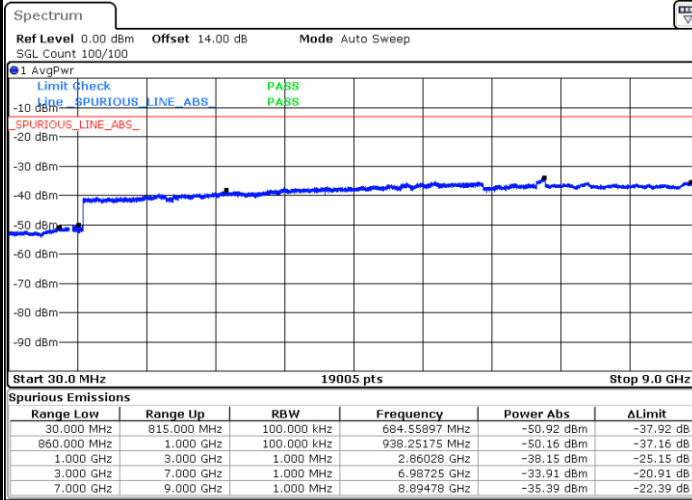


Date: 17.MAR.2020 12:20:10



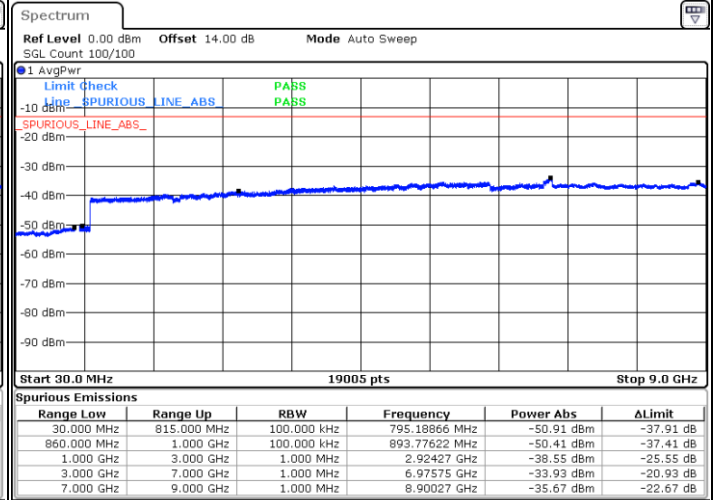
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



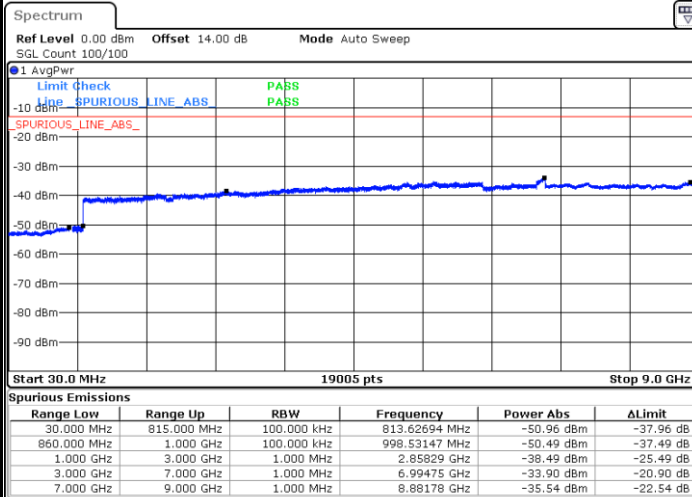
Date: 17.MAR.2020 13:44:54

Middle Channel / 64QAM



Date: 17.MAR.2020 13:45:57

Highest Channel / 64QAM

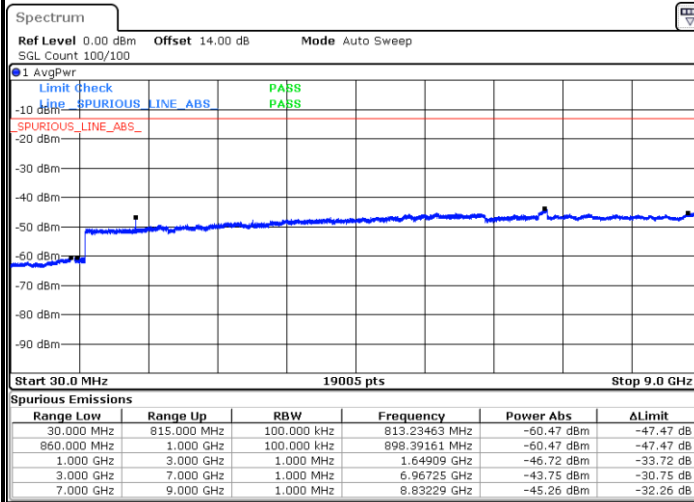


Date: 17.MAR.2020 13:50:20



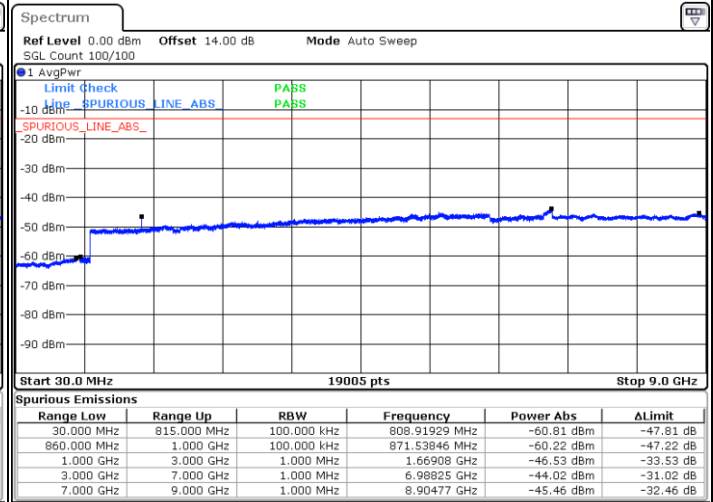
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



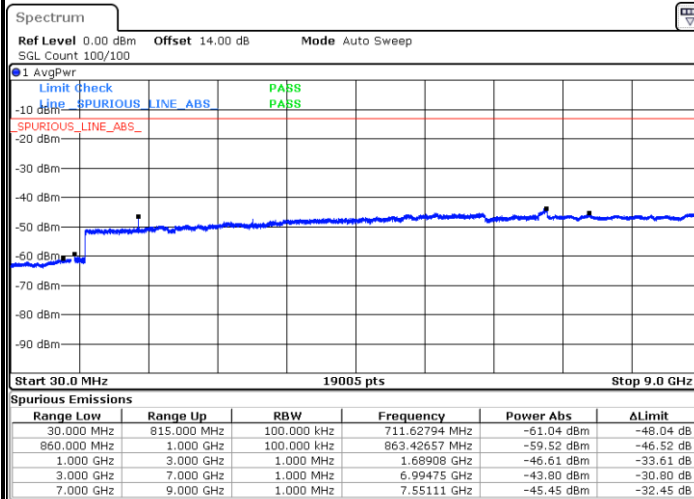
Date: 17.MAR.2020 13:54:42

Middle Channel / 64QAM



Date: 17.MAR.2020 13:55:45

Highest Channel / 64QAM

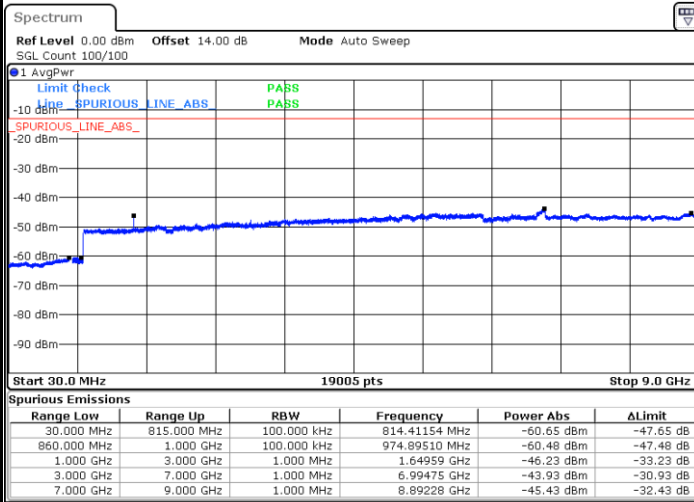


Date: 17.MAR.2020 14:00:08



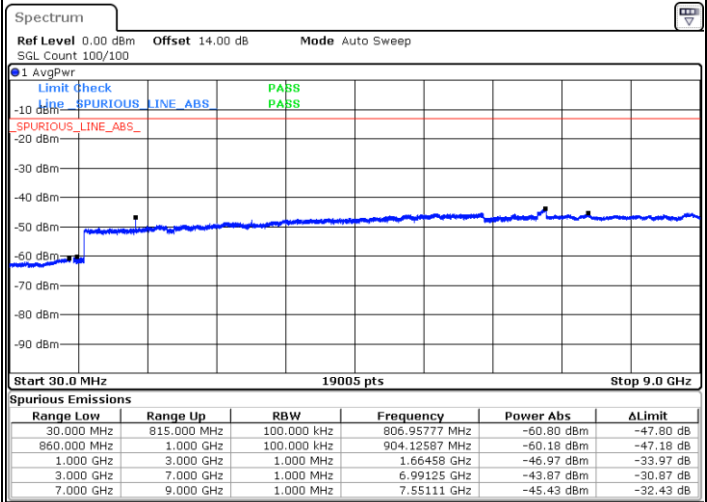
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



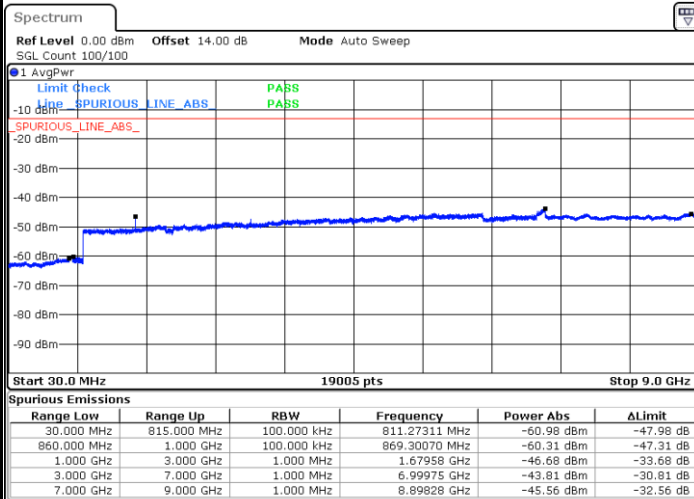
Date: 17.MAR.2020 14:04:30

Middle Channel / 64QAM



Date: 17.MAR.2020 14:05:34

Highest Channel / 64QAM



Date: 17.MAR.2020 14:09:56

**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	0.0039	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0043	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0047	
-20	Normal Voltage	0.0037	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0066	

Note:

1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.135 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



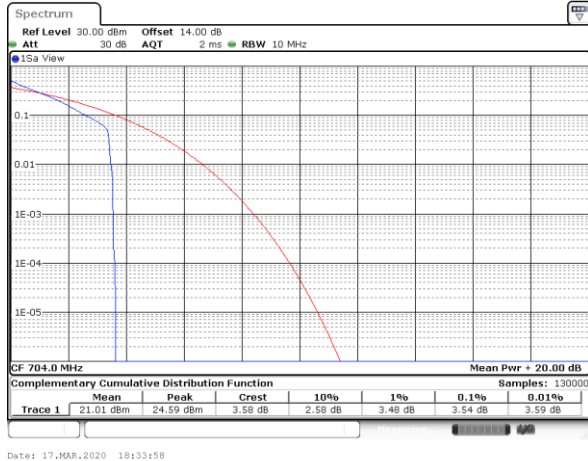
LTE Band 12

Peak-to-Average Ratio

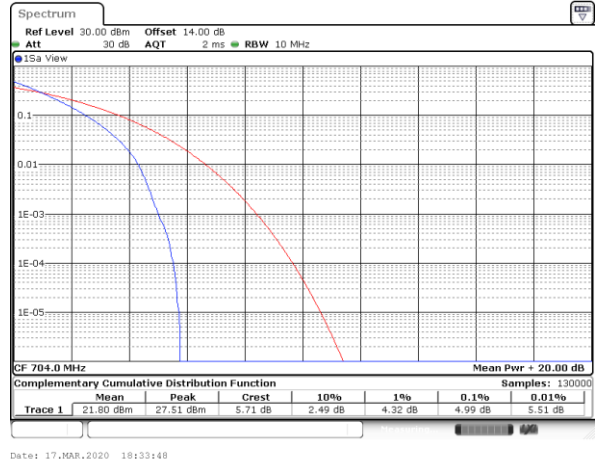
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.99	5.36	5.83	PASS
Middle CH	3.51	4.99	5.19	5.83	
Highest CH	3.59	5.04	5.36	5.83	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.39	5.91	-	-	PASS
Middle CH	5.48	5.86	-	-	
Highest CH	5.62	5.86	-	-	

LTE Band 12 / 10MHz / QPSK

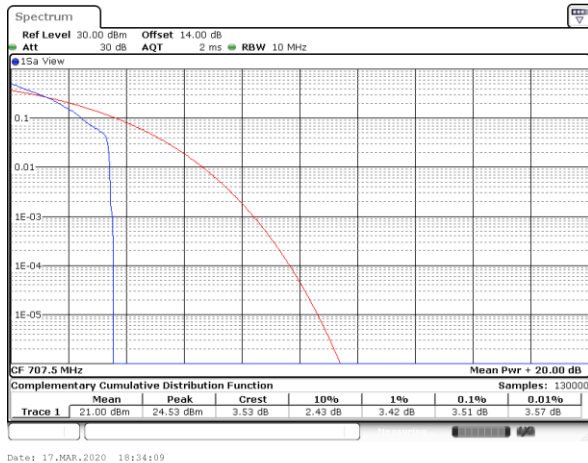
Lowest Channel / 1RB



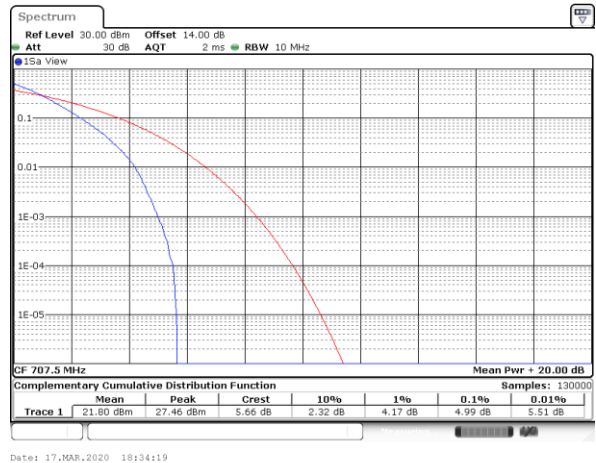
Lowest Channel / Full RB



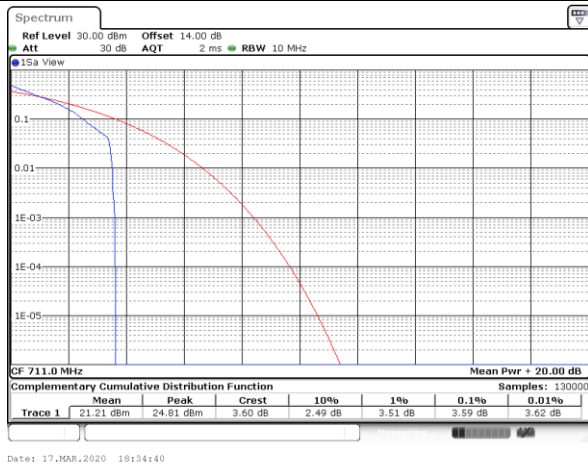
Middle Channel / 1RB



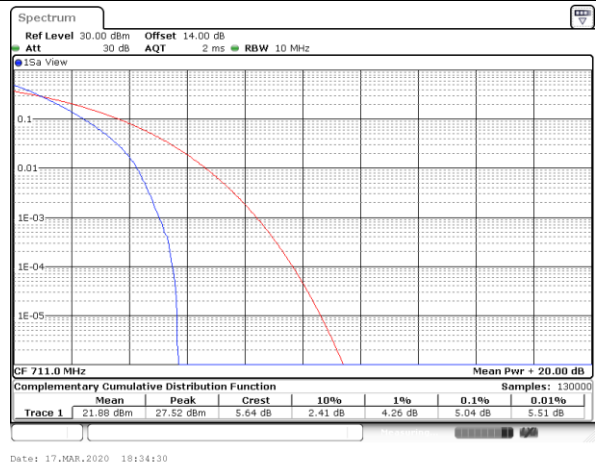
Middle Channel / Full RB



Highest Channel / 1RB



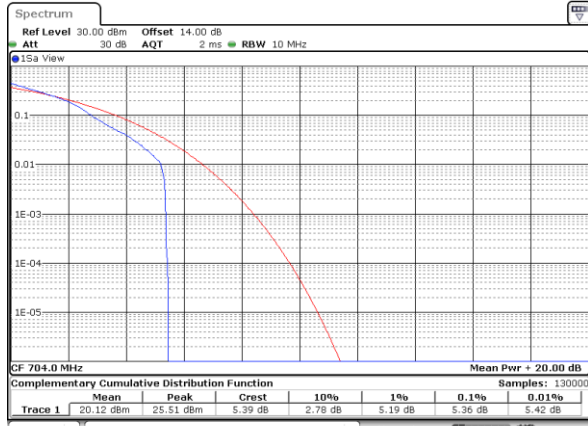
Highest Channel / Full RB



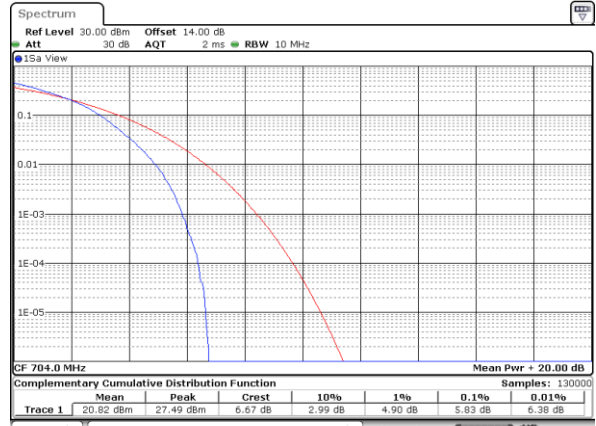


LTE Band 12 / 10MHz / 16QAM

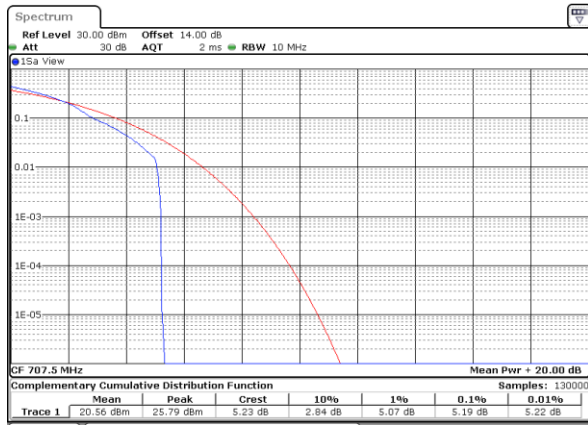
Lowest Channel / 1RB



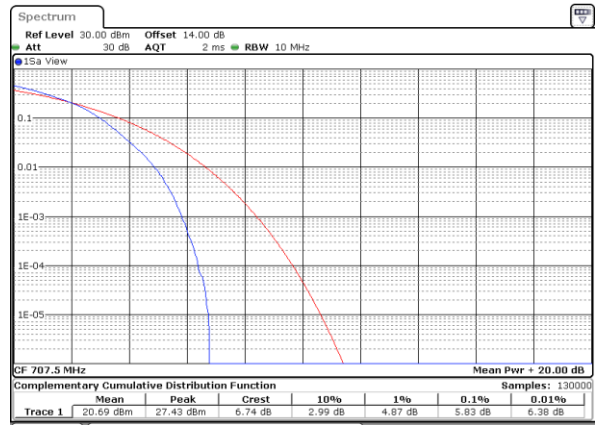
Lowest Channel / Full RB



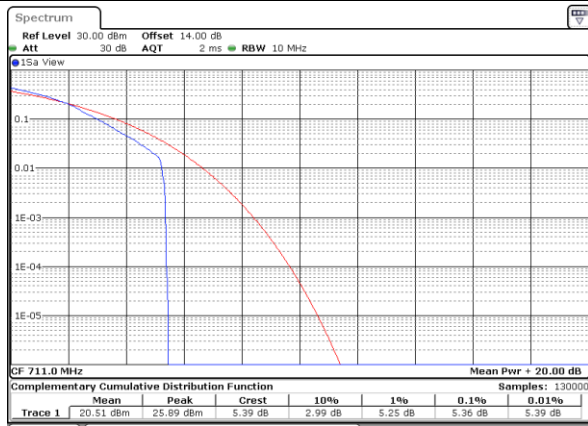
Middle Channel / 1RB



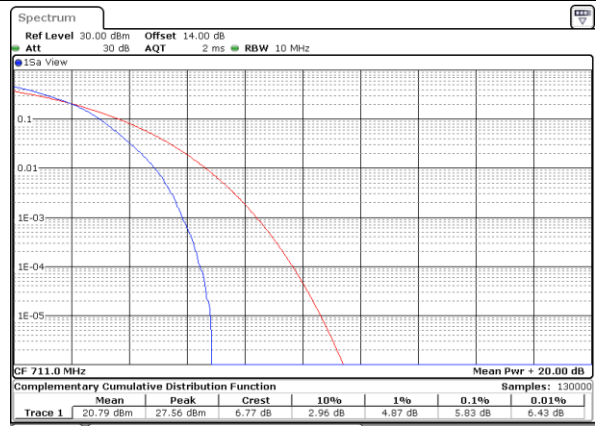
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



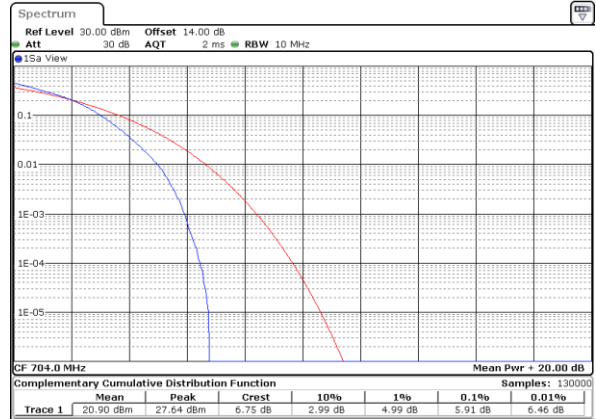
LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



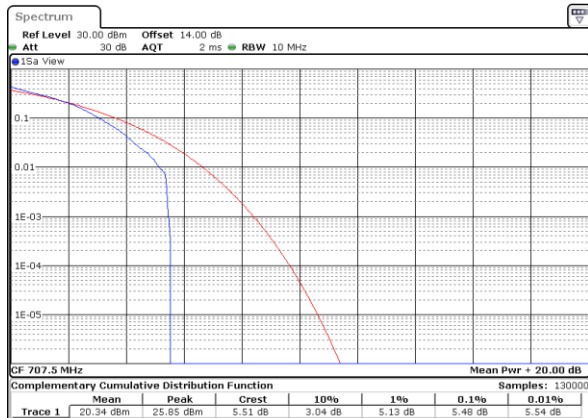
Date: 17_MAR_2020 19:05:40

Lowest Channel / Full RB



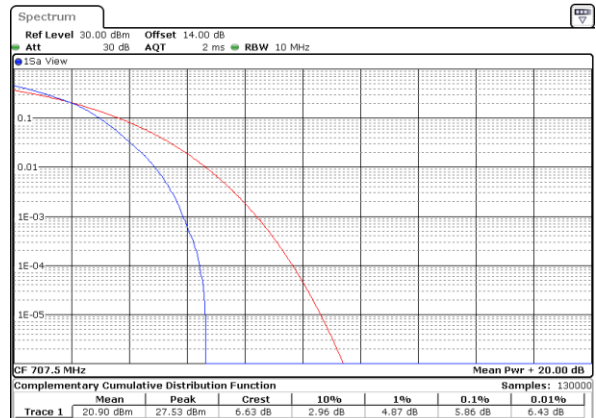
Date: 17_MAR_2020 19:05:36

Middle Channel / 1RB



Date: 17_MAR_2020 19:05:08

Middle Channel / Full RB



Date: 17_MAR_2020 19:06:08

Highest Channel / 1RB



Date: 17_MAR_2020 19:06:29

Highest Channel / Full RB



Date: 17_MAR_2020 19:06:19

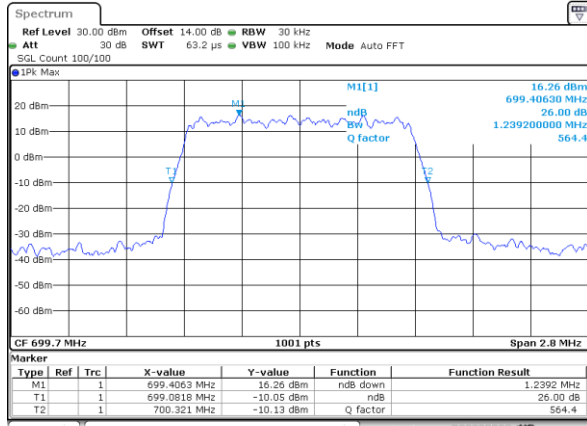
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.24	1.22	3.02	3.02	4.90	4.92	9.73	9.87	-	-	-	-
Middle CH	1.23	1.23	3.05	3.00	4.91	4.97	9.73	9.83	-	-	-	-
Highest CH	1.23	1.23	3.01	3.05	4.83	4.87	9.83	9.79	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.24	-	3.05	-	4.87	-	9.83	-	-	-	-	-
Middle CH	1.23	-	3.04	-	4.91	-	9.87	-	-	-	-	-
Highest CH	1.23	-	3.03	-	4.86	-	9.83	-	-	-	-	-



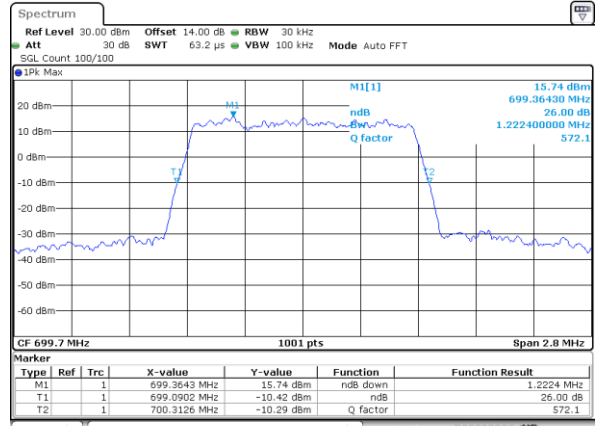
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



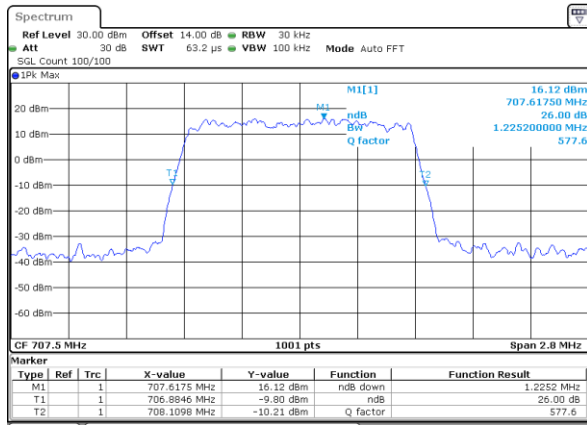
Date: 17_MAR_2020 18:18:57

Lowest Channel / 1.4MHz / 16QAM



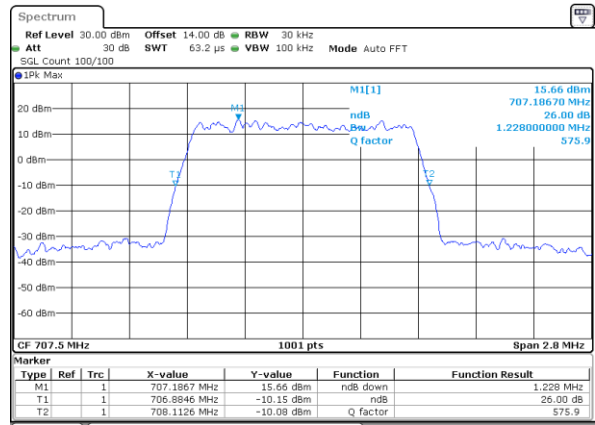
Date: 17_MAR_2020 18:18:46

Middle Channel / 1.4MHz / QPSK



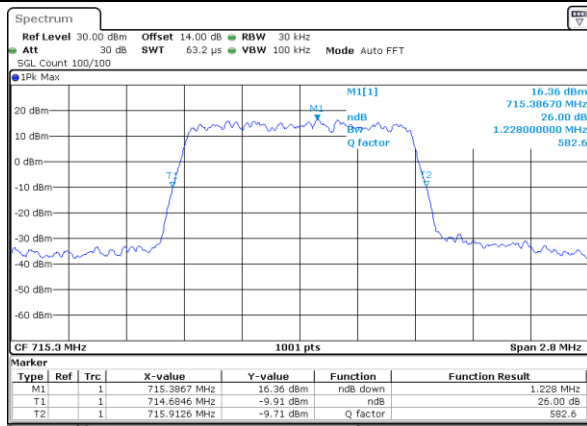
Date: 17_MAR_2020 18:24:50

Middle Channel / 1.4MHz / 16QAM



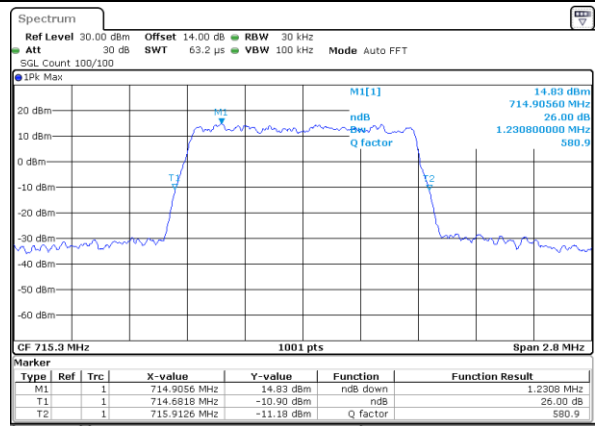
Date: 17_MAR_2020 18:25:02

Highest Channel / 1.4MHz / QPSK



Date: 17_MAR_2020 18:27:07

Highest Channel / 1.4MHz / 16QAM

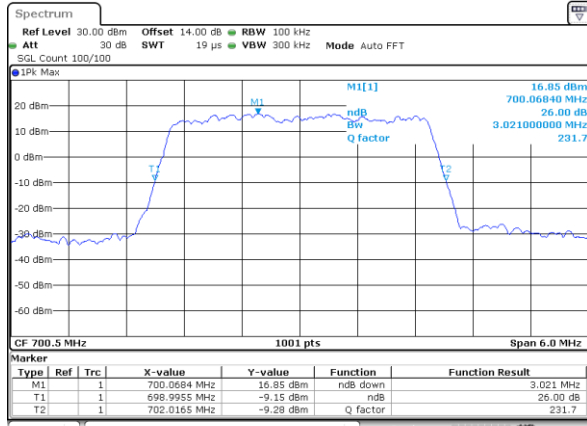


Date: 17_MAR_2020 18:26:56

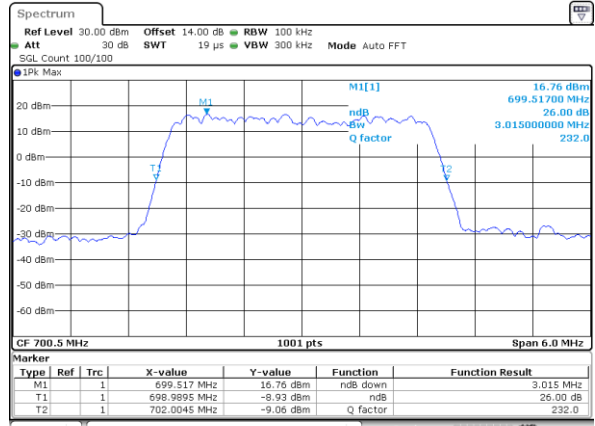


LTE Band 12

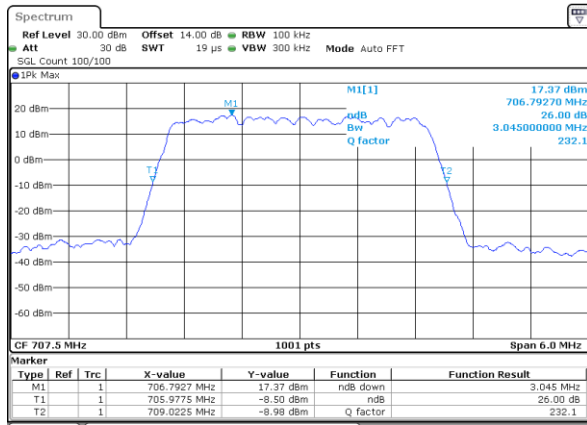
Lowest Channel / 3MHz / QPSK



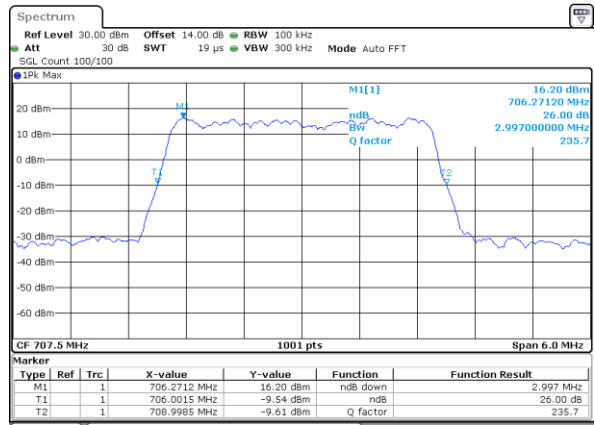
Lowest Channel / 3MHz / 16QAM



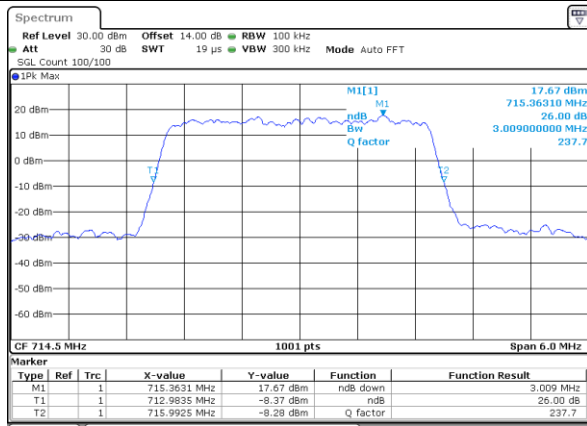
Middle Channel / 3MHz / QPSK



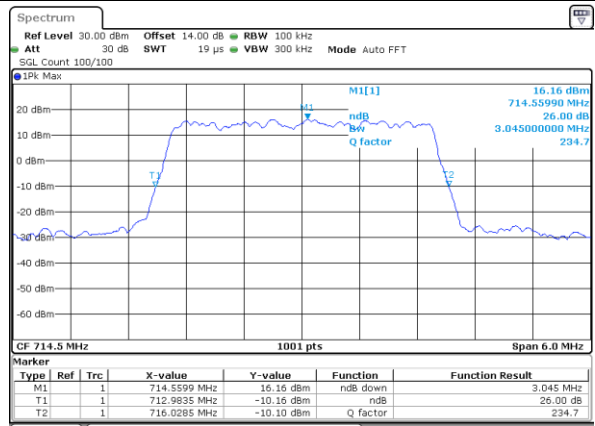
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



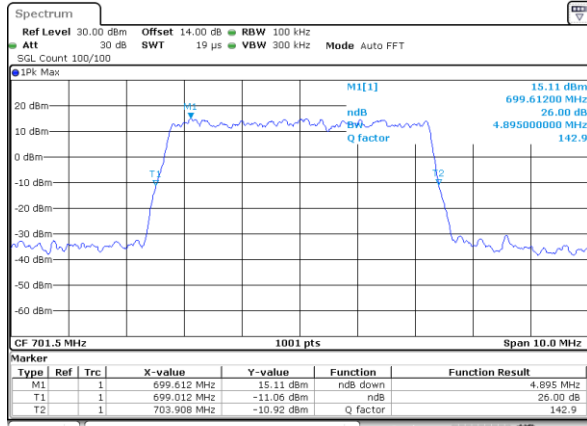
Highest Channel / 3MHz / 16QAM





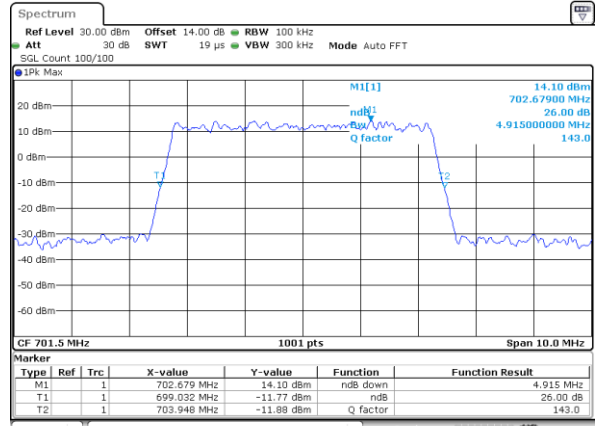
LTE Band 12

Lowest Channel / 5MHz / QPSK



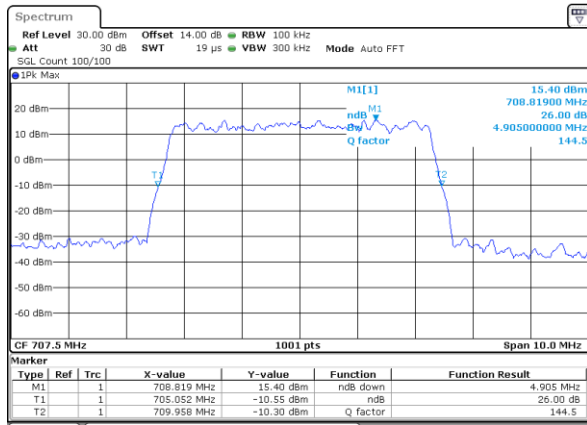
Date: 17_MAR_2020 17:50:27

Lowest Channel / 5MHz / 16QAM



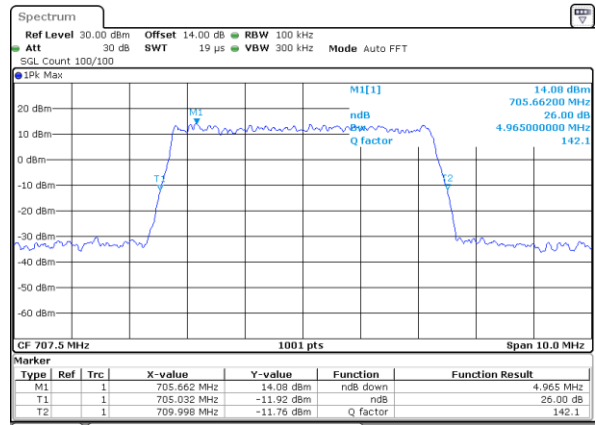
Date: 17_MAR_2020 17:50:16

Middle Channel / 5MHz / QPSK



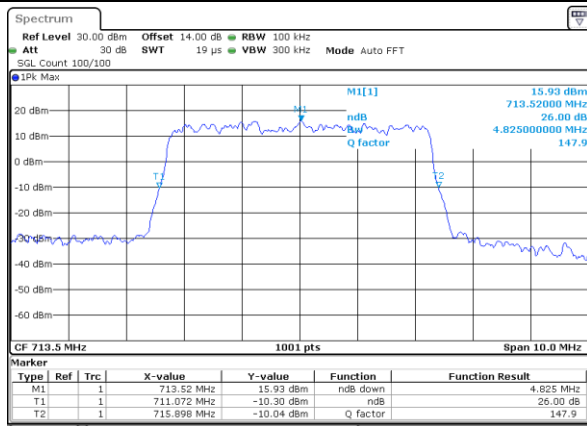
Date: 17_MAR_2020 17:56:21

Middle Channel / 5MHz / 16QAM



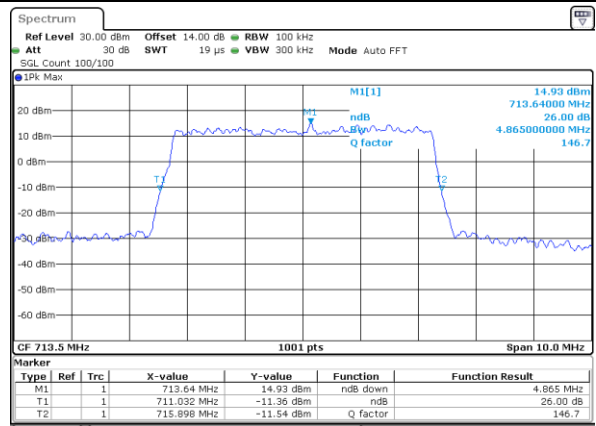
Date: 17_MAR_2020 17:56:32

Highest Channel / 5MHz / QPSK



Date: 17_MAR_2020 17:58:37

Highest Channel / 5MHz / 16QAM

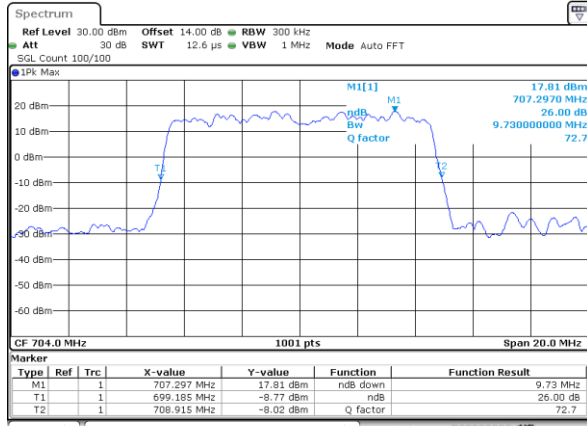


Date: 17_MAR_2020 17:58:26



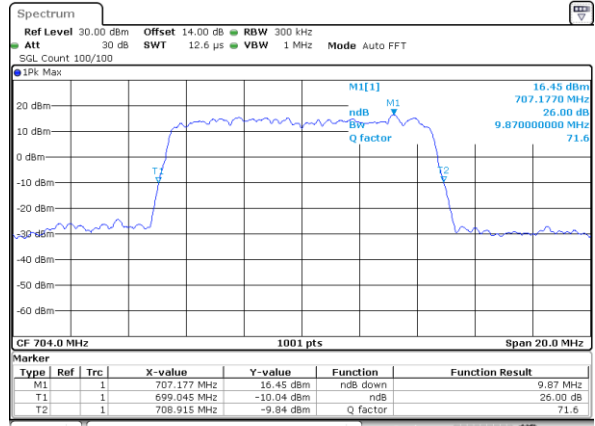
LTE Band 12

Lowest Channel / 10MHz / QPSK



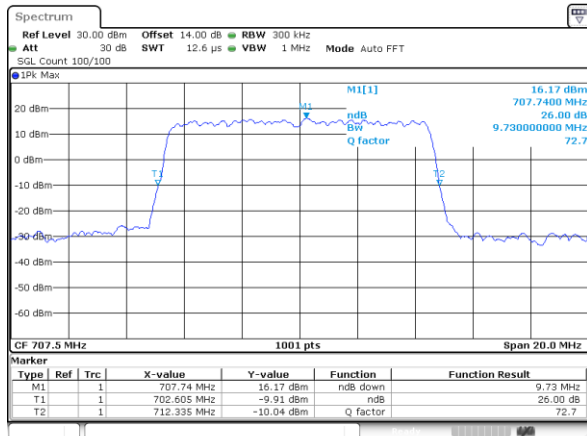
Date: 17_MAR_2020 18:04:11

Lowest Channel / 10MHz / 16QAM



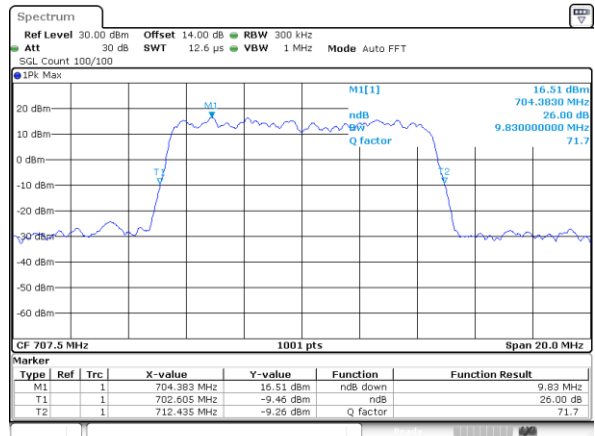
Date: 17_MAR_2020 18:04:30

Middle Channel / 10MHz / QPSK



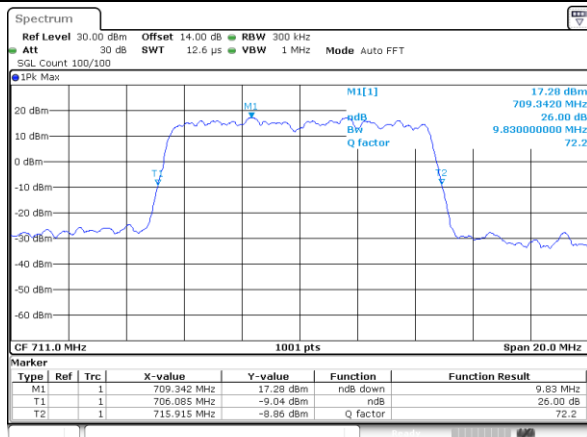
Date: 17_MAR_2020 18:10:36

Middle Channel / 10MHz / 16QAM



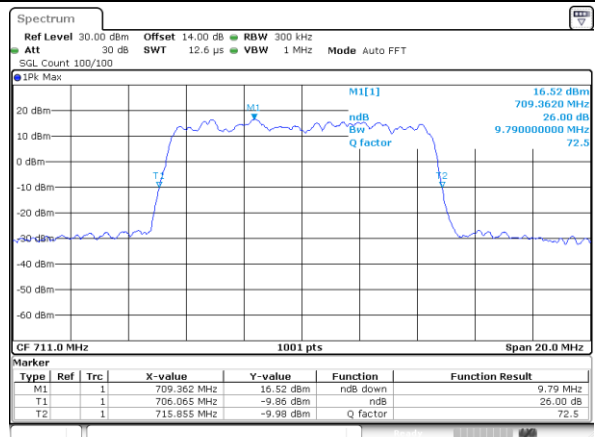
Date: 17_MAR_2020 18:10:47

Highest Channel / 10MHz / QPSK



Date: 17_MAR_2020 18:12:53

Highest Channel / 10MHz / 16QAM

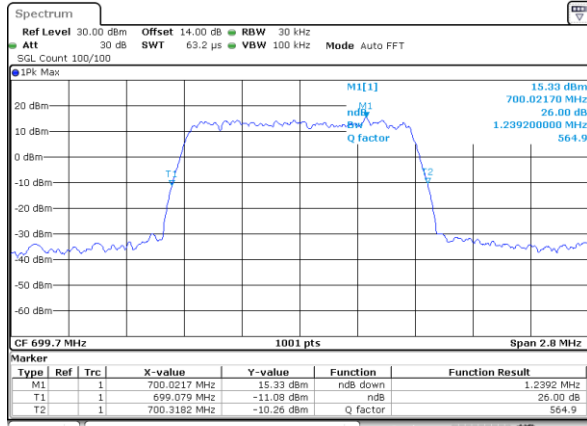


Date: 17_MAR_2020 18:12:41



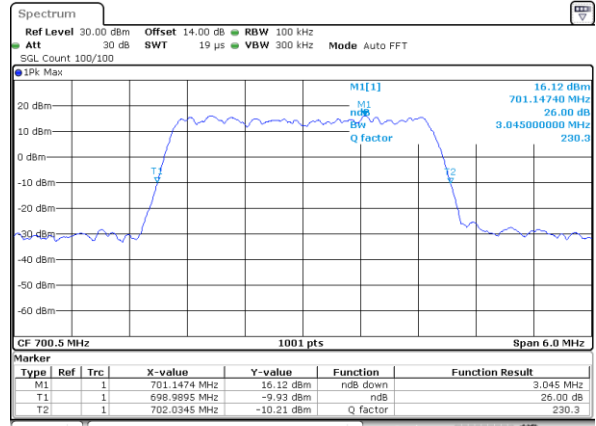
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



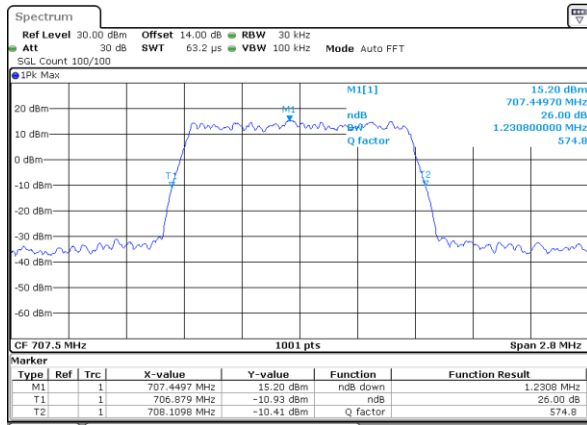
Date: 17_MAR_2020 18:58:38

Lowest Channel / 3MHz / 64QAM



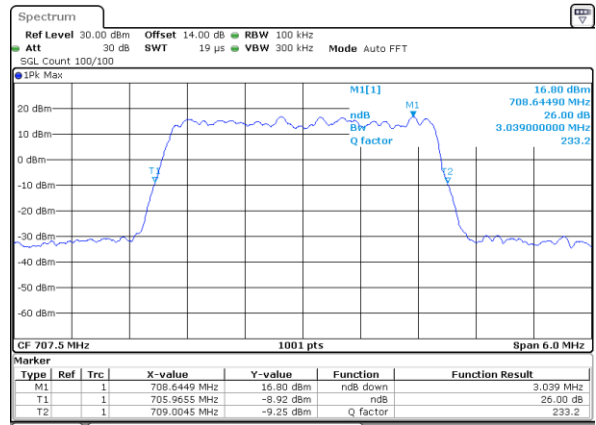
Date: 17_MAR_2020 18:57:13

Middle Channel / 1.4MHz / 64QAM



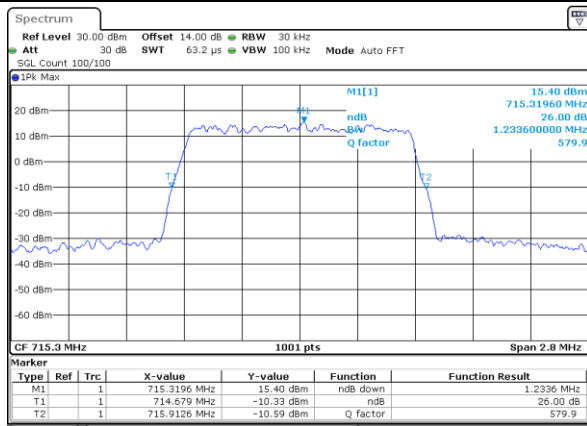
Date: 17_MAR_2020 19:01:40

Middle Channel / 3MHz / 64QAM



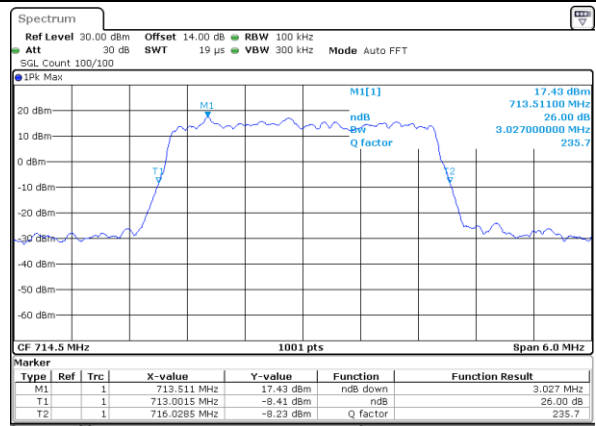
Date: 17_MAR_2020 18:40:15

Highest Channel / 1.4MHz / 64QAM



Date: 17_MAR_2020 19:02:42

Highest Channel / 3MHz / 64QAM

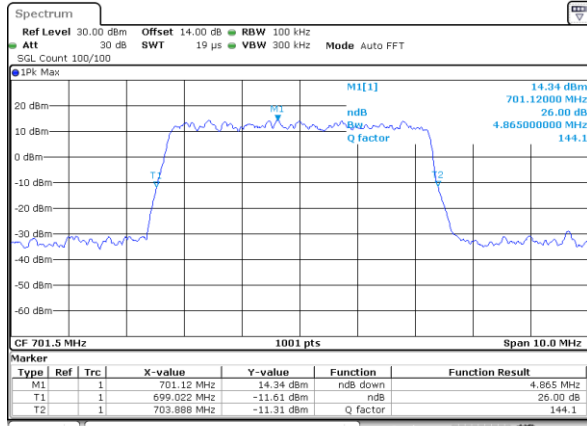


Date: 17_MAR_2020 18:41:18

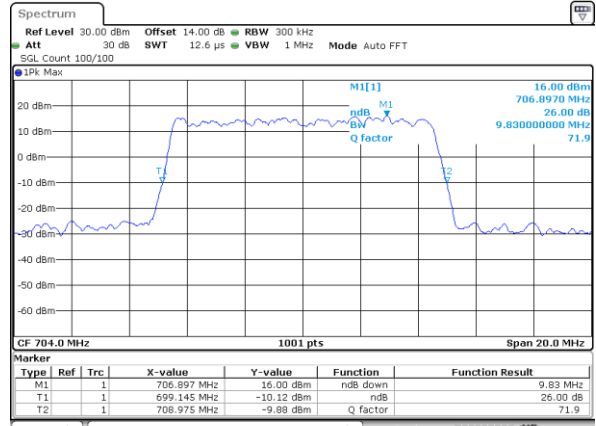


LTE Band 12

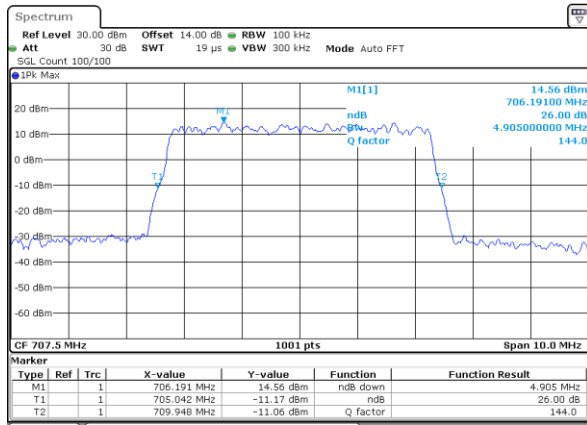
Lowest Channel / 5MHz / 64QAM



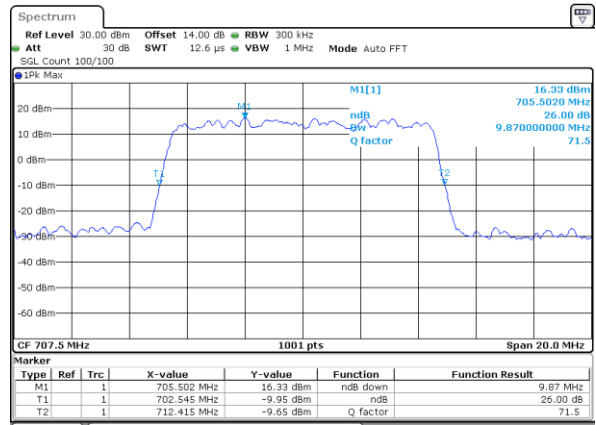
Lowest Channel / 10MHz / 64QAM



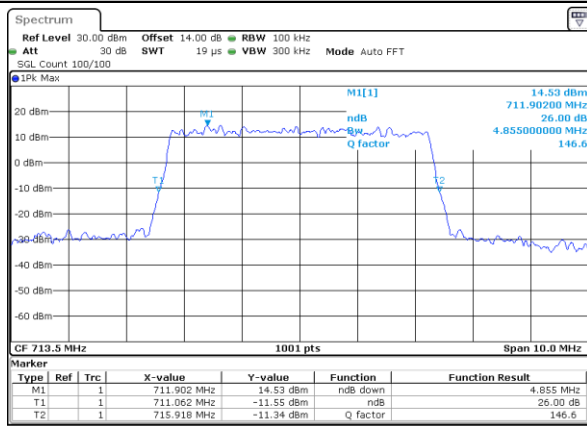
Middle Channel / 5MHz / 64QAM



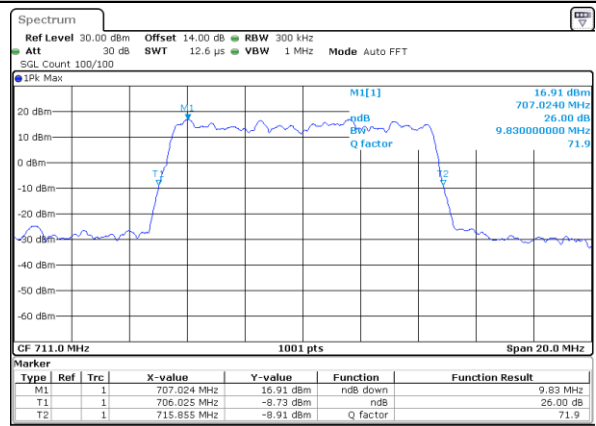
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



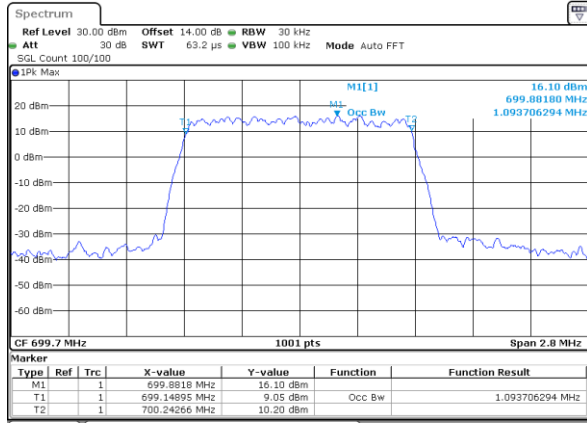
**Occupied Bandwidth**

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.71	2.73	4.51	4.50	8.97	9.01	-	-	-	-
Middle CH	1.09	1.09	2.70	2.72	4.49	4.47	9.01	8.97	-	-	-	-
Highest CH	1.10	1.09	2.73	2.70	4.49	4.50	9.07	9.01	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.49	-	8.99	-	-	-	-	-
Middle CH	1.09	-	2.73	-	4.50	-	9.05	-	-	-	-	-
Highest CH	1.09	-	2.74	-	4.48	-	9.01	-	-	-	-	-

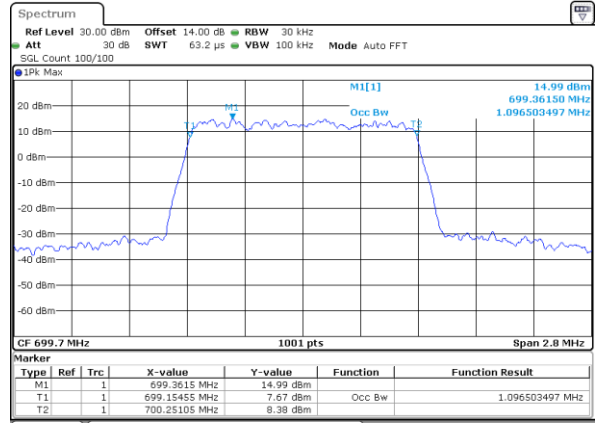


LTE Band 12

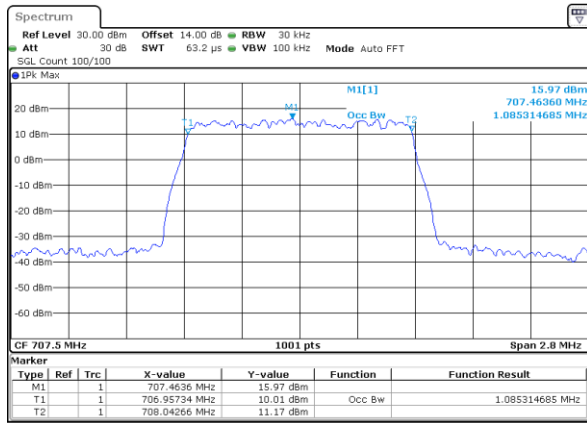
Lowest Channel / 1.4MHz / QPSK



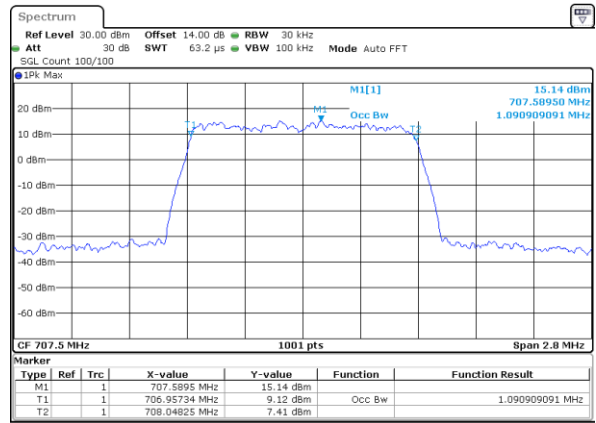
Lowest Channel / 1.4MHz / 16QAM



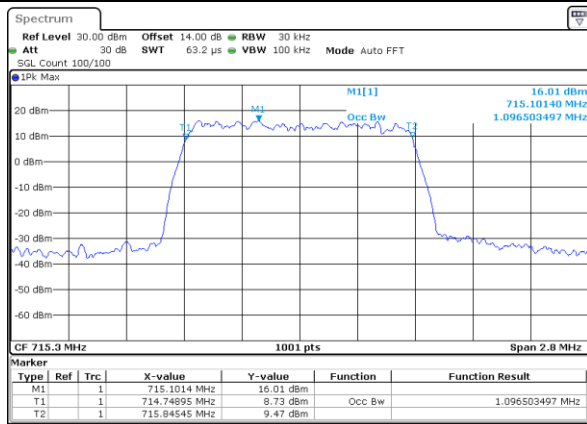
Middle Channel / 1.4MHz / QPSK



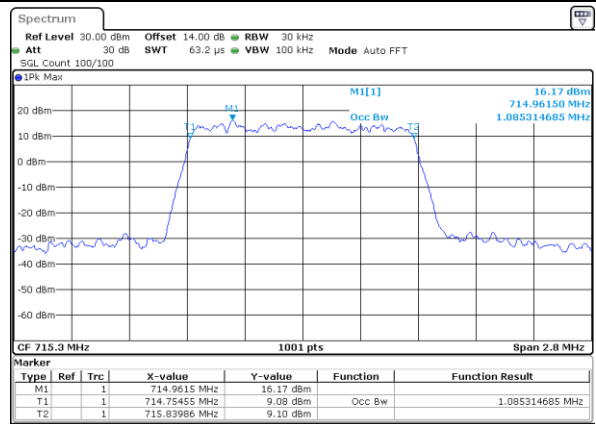
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



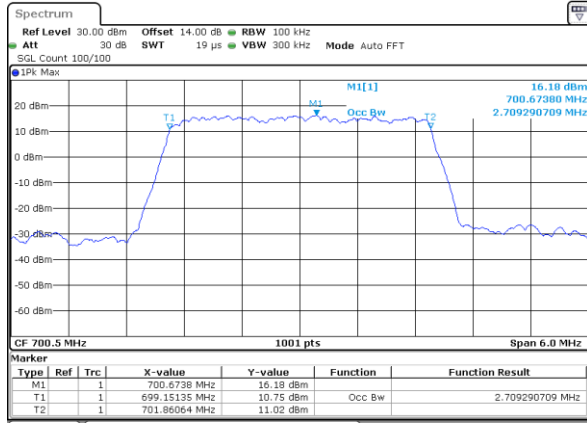
Highest Channel / 1.4MHz / 16QAM





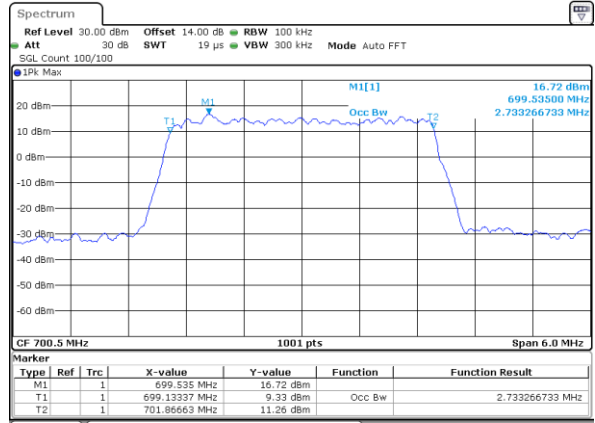
LTE Band 12

Lowest Channel / 3MHz / QPSK



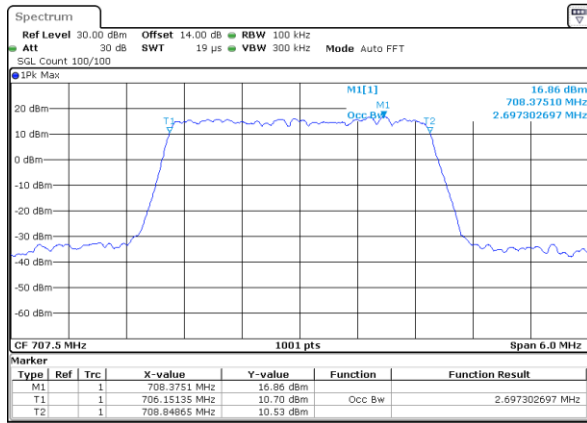
Date: 17, MAR, 2020 17:35:39

Lowest Channel / 3MHz / 16QAM



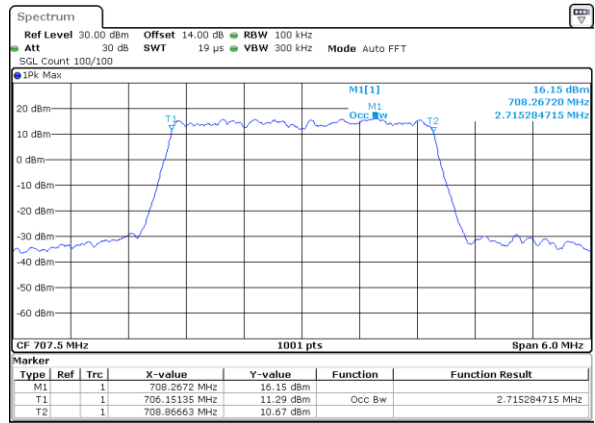
Date: 17, MAR, 2020 17:35:50

Middle Channel / 3MHz / QPSK



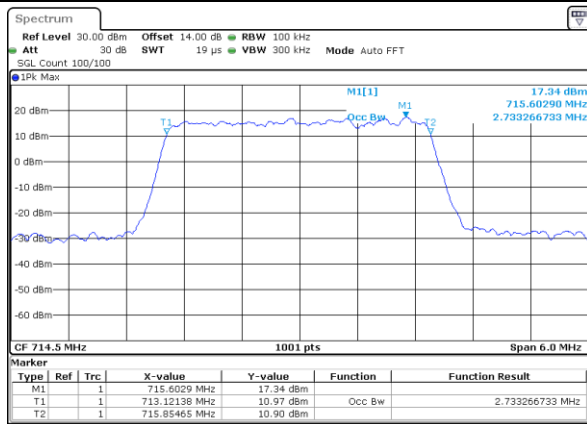
Date: 17, MAR, 2020 17:41:54

Middle Channel / 3MHz / 16QAM



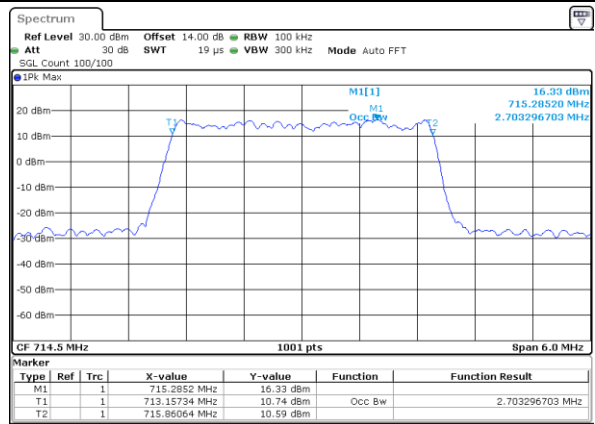
Date: 17, MAR, 2020 17:41:43

Highest Channel / 3MHz / QPSK



Date: 17, MAR, 2020 17:43:48

Highest Channel / 3MHz / 16QAM

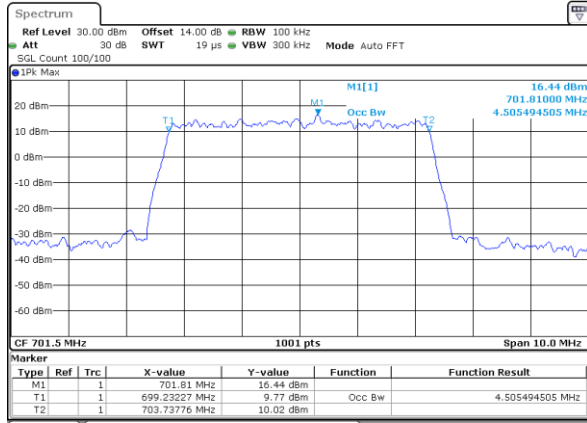


Date: 17, MAR, 2020 17:43:59



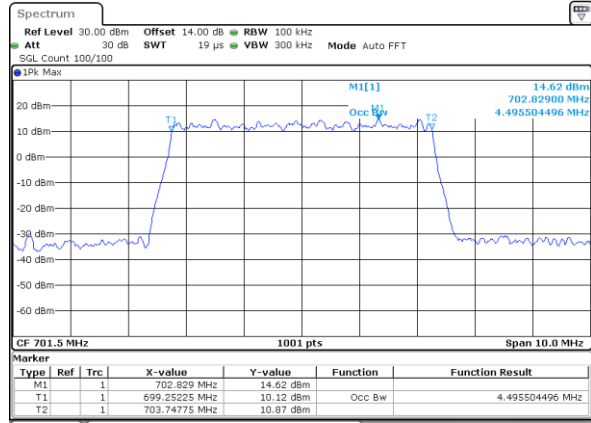
LTE Band 12

Lowest Channel / 5MHz / QPSK



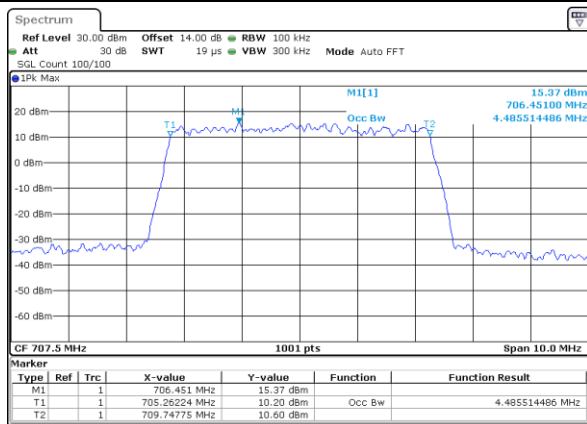
Date: 17.MAR.2020 17:49:53

Lowest Channel / 5MHz / 16QAM



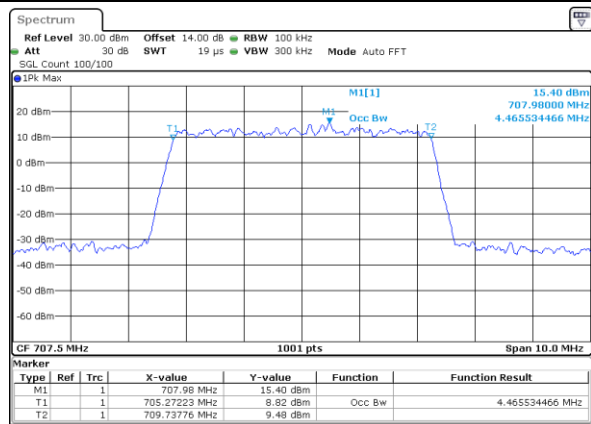
Date: 17.MAR.2020 17:50:05

Middle Channel / 5MHz / QPSK



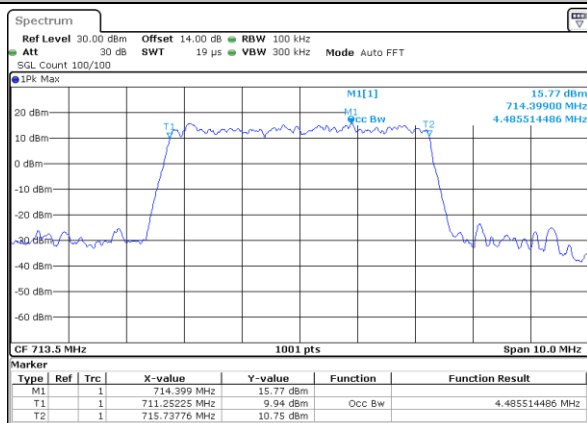
Date: 17.MAR.2020 17:56:09

Middle Channel / 5MHz / 16QAM



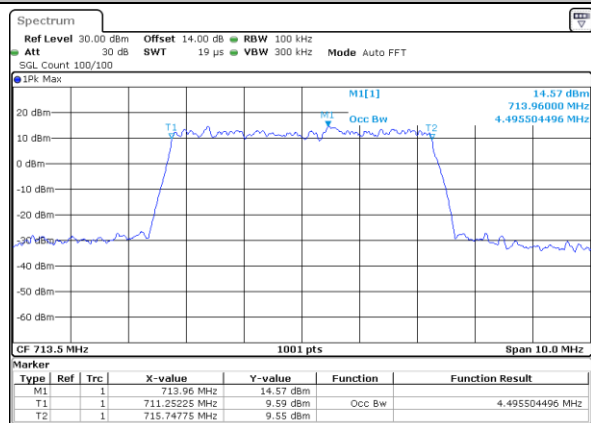
Date: 17.MAR.2020 17:55:58

Highest Channel / 5MHz / QPSK



Date: 17.MAR.2020 17:58:04

Highest Channel / 5MHz / 16QAM

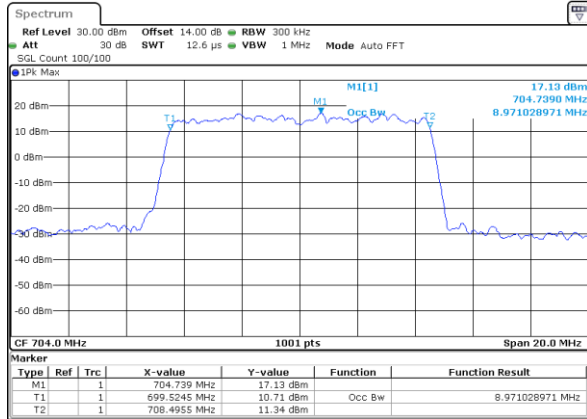


Date: 17.MAR.2020 17:58:15



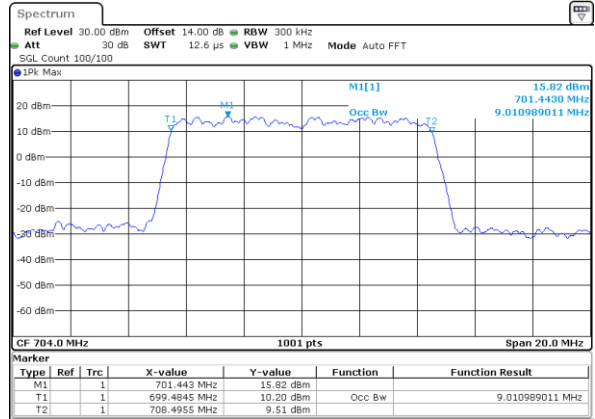
LTE Band 12

Lowest Channel / 10MHz / QPSK



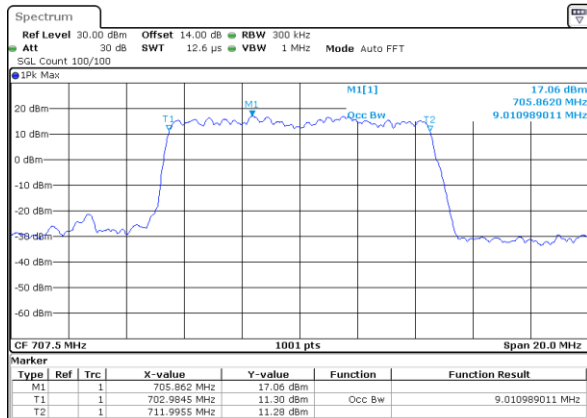
Date: 17.MAR.2020 18:04:08

Lowest Channel / 10MHz / 16QAM



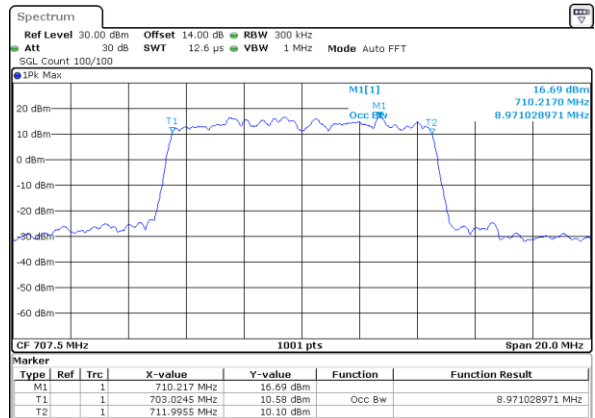
Date: 17.MAR.2020 18:04:19

Middle Channel / 10MHz / QPSK



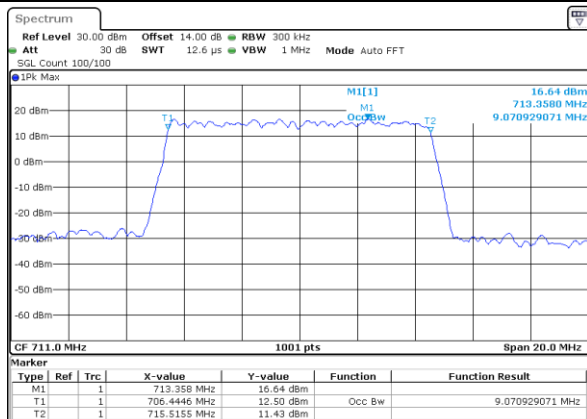
Date: 17.MAR.2020 18:10:25

Middle Channel / 10MHz / 16QAM



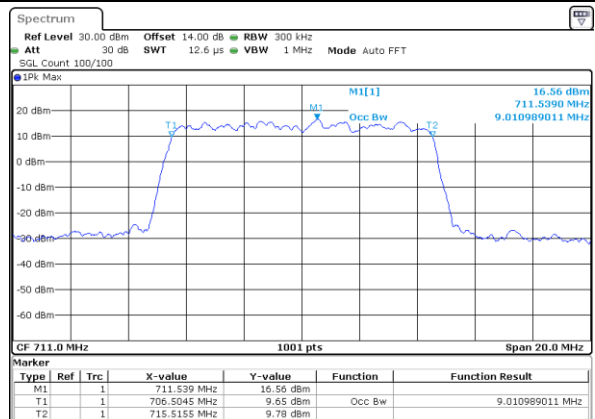
Date: 17.MAR.2020 18:10:14

Highest Channel / 10MHz / QPSK



Date: 17.MAR.2020 18:12:19

Highest Channel / 10MHz / 16QAM

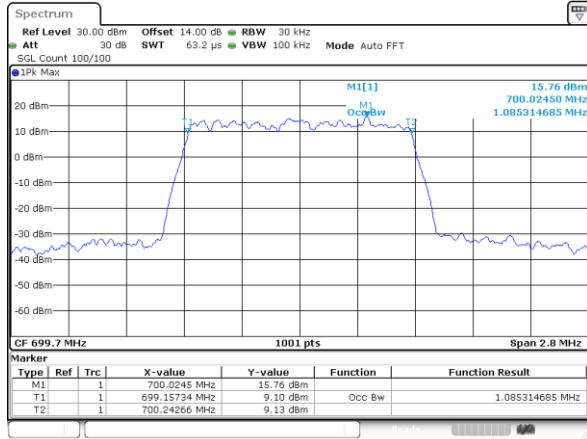


Date: 17.MAR.2020 18:12:30

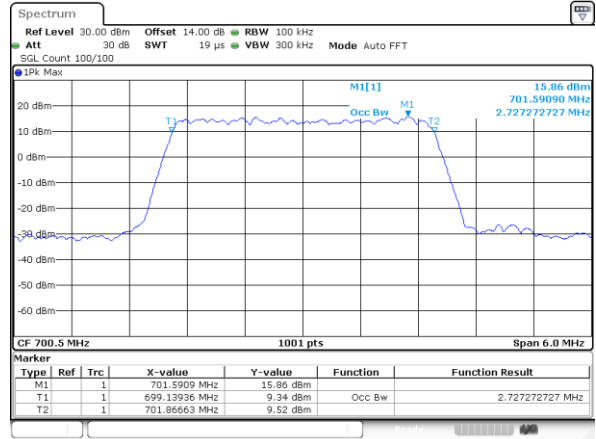


LTE Band 12

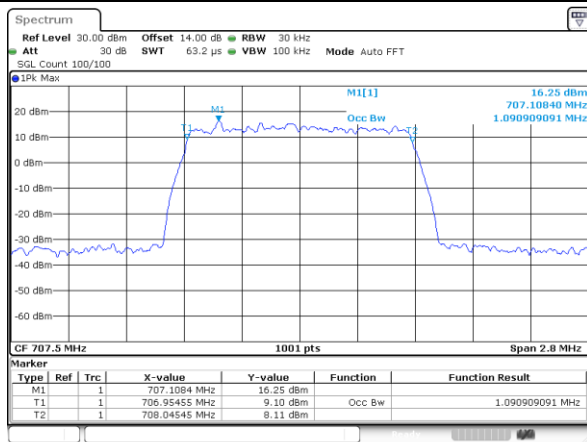
Lowest Channel / 1.4MHz / 64QAM



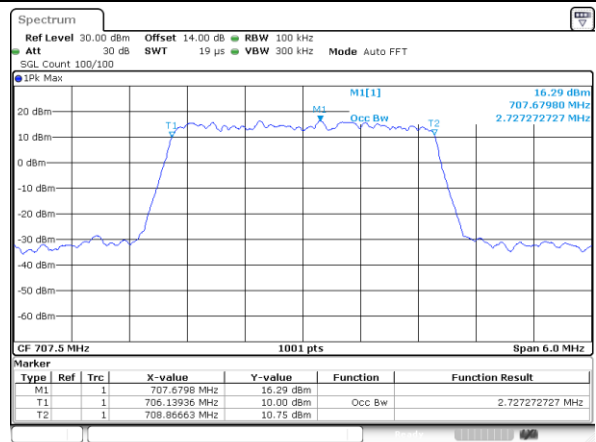
Lowest Channel / 3MHz / 64QAM



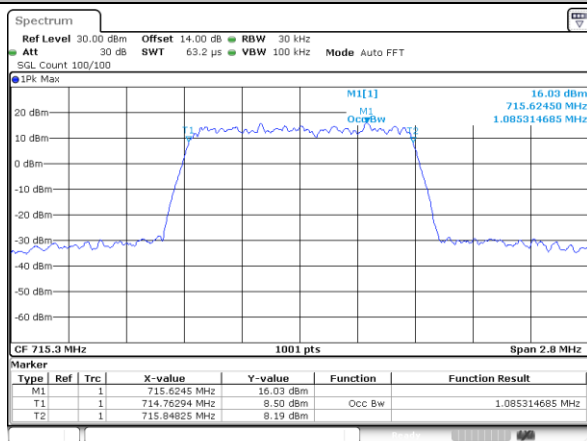
Middle Channel / 1.4MHz / 64QAM



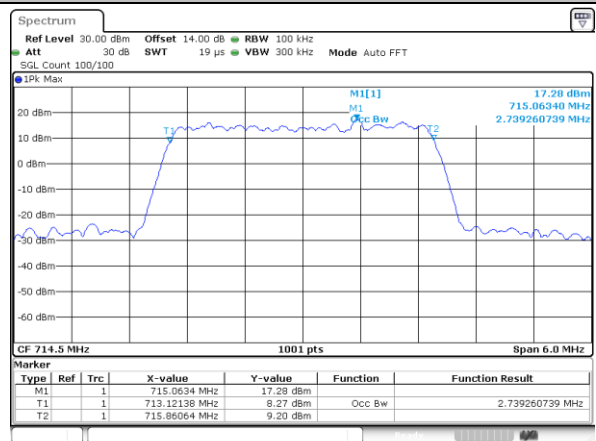
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



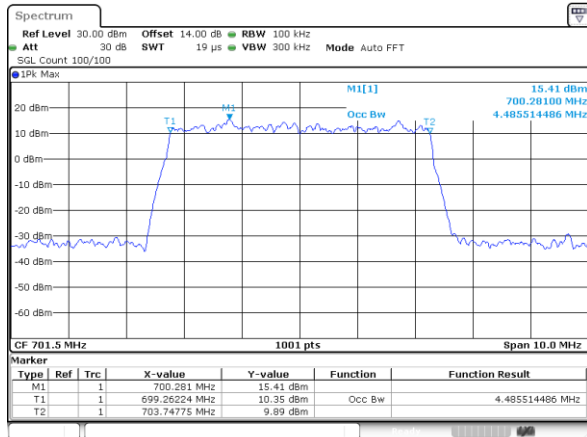
Highest Channel / 3MHz / 64QAM



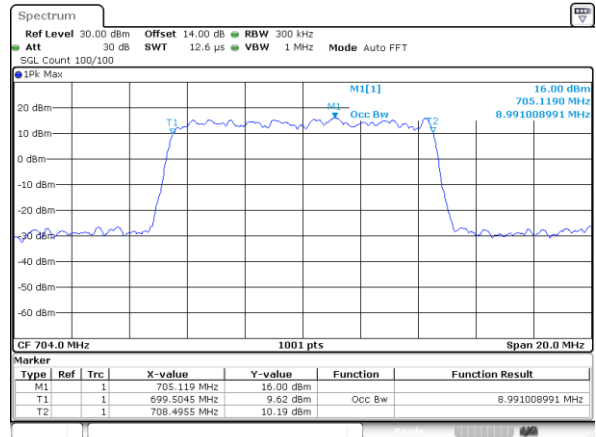


LTE Band 12

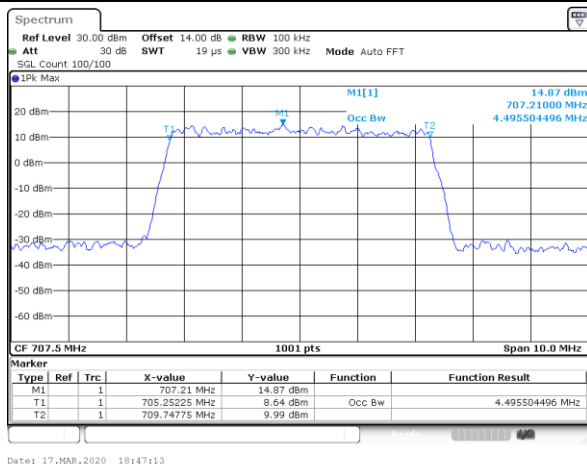
Lowest Channel / 5MHz / 64QAM



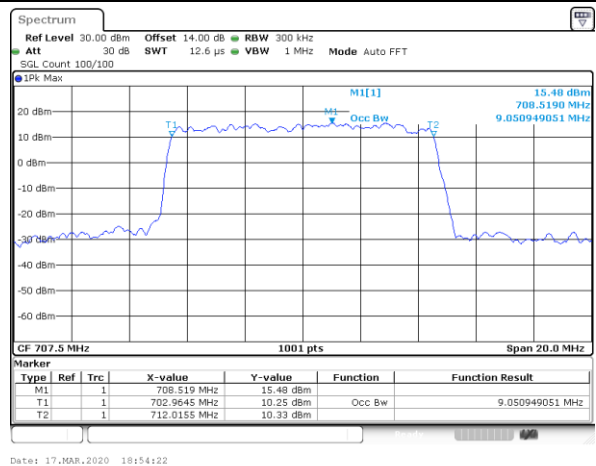
Lowest Channel / 10MHz / 64QAM



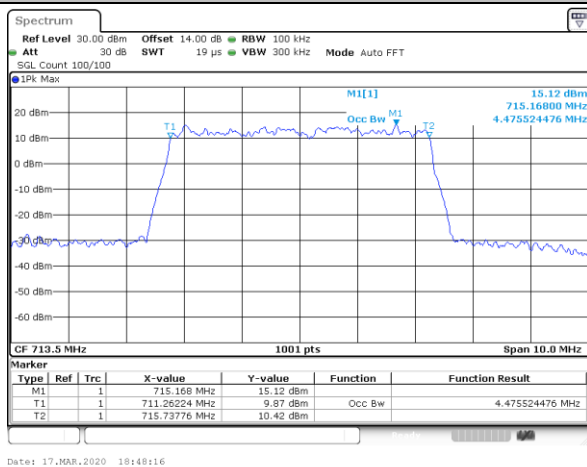
Middle Channel / 5MHz / 64QAM



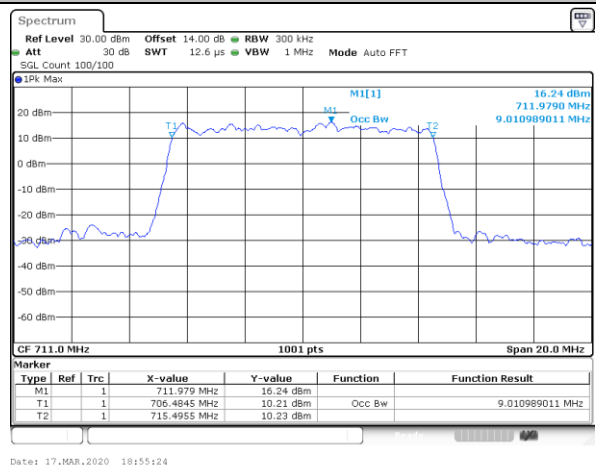
Middle Channel / 10MHz / 64QAM

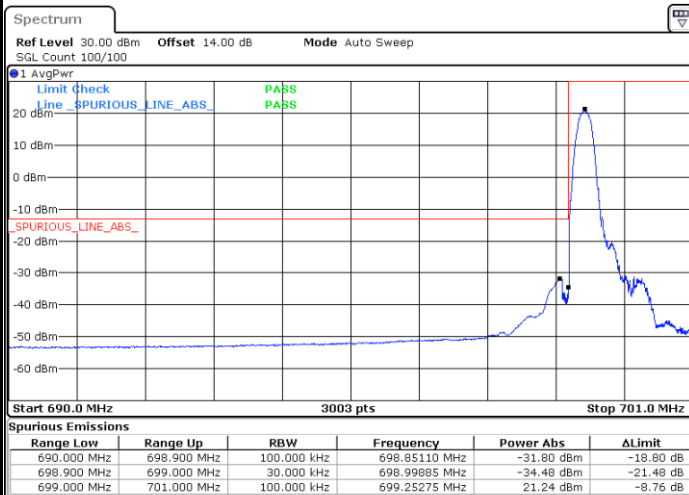
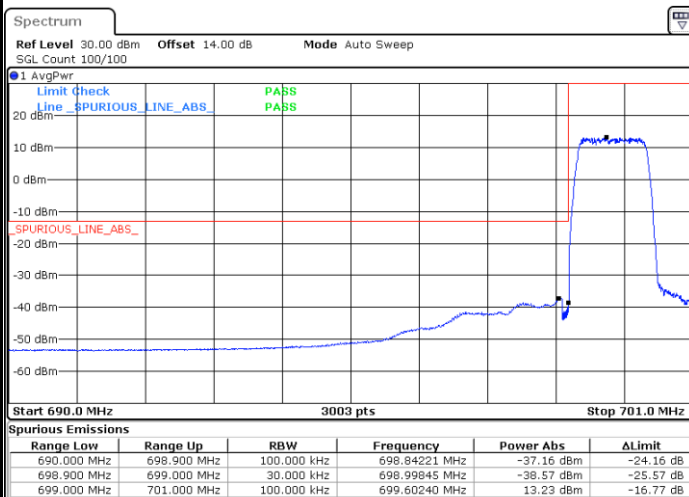


Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



**Conducted Band Edge****LTE Band 12 / 1.4MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**