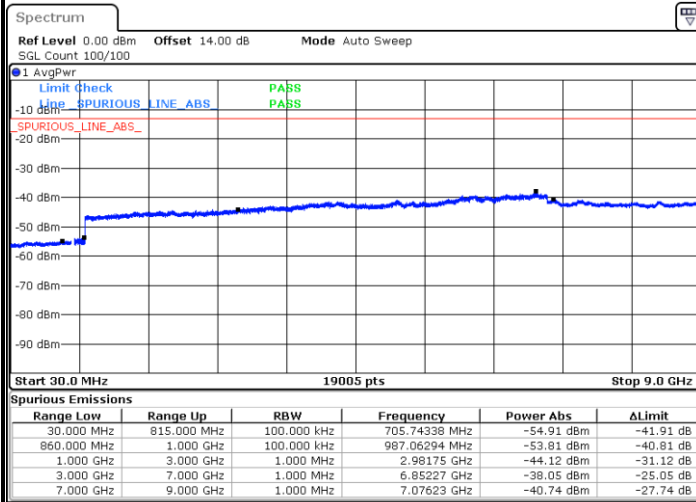




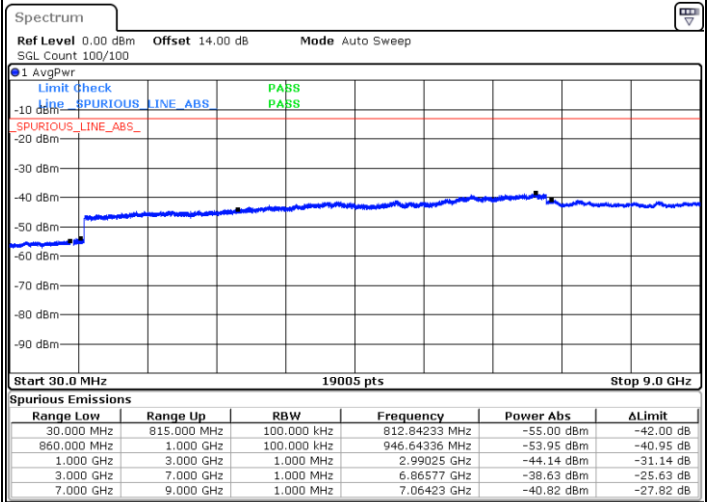
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



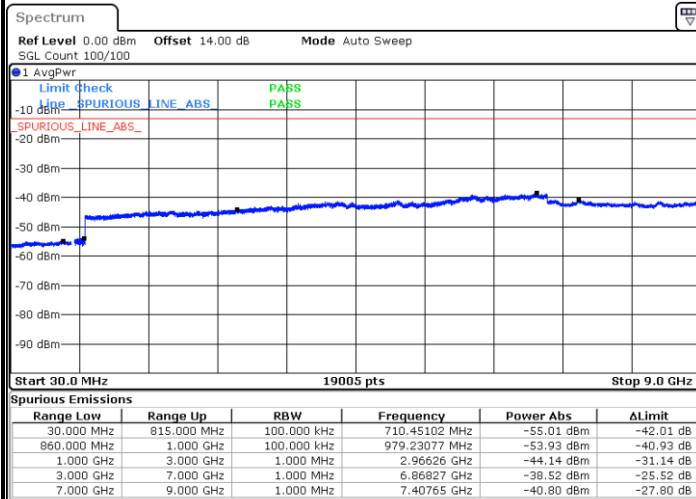
Date: 11.MAR.2020 03:10:54

Middle Channel / 64QAM



Date: 11.MAR.2020 03:15:50

Highest Channel / 64QAM

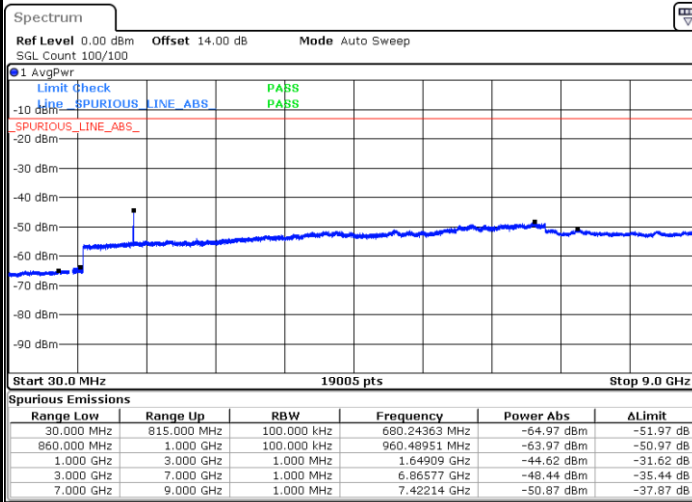


Date: 11.MAR.2020 03:32:14



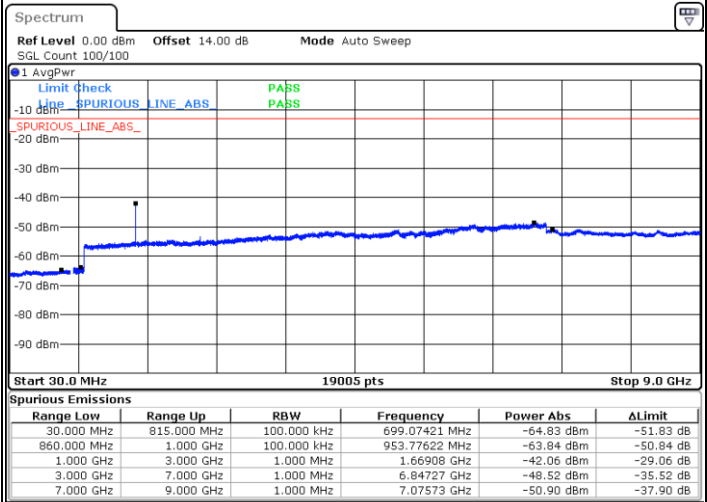
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



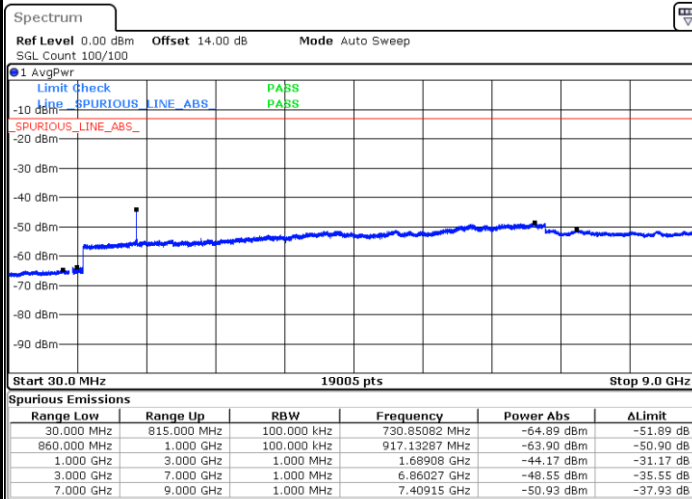
Date: 11.MAR.2020 04:11:04

Middle Channel / 64QAM



Date: 11.MAR.2020 04:24:23

Highest Channel / 64QAM

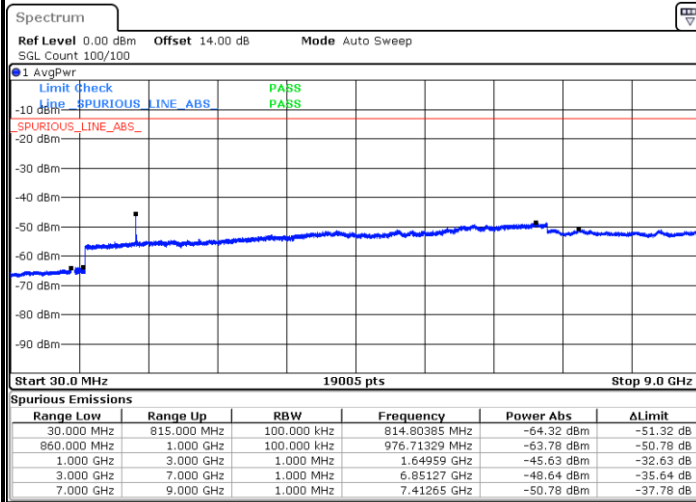


Date: 11.MAR.2020 04:37:48



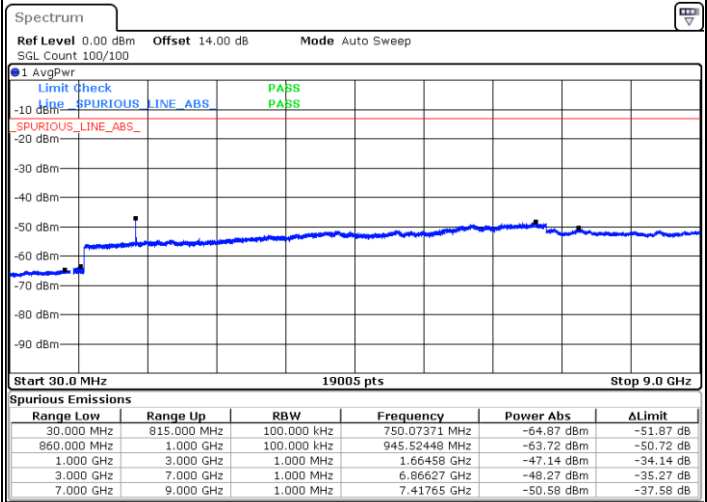
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



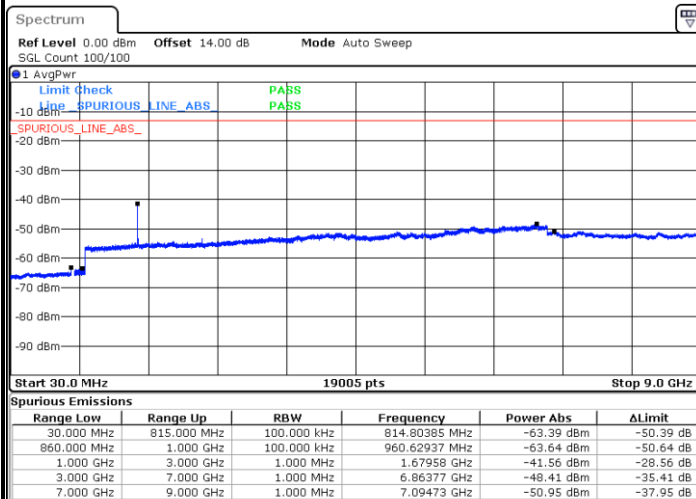
Date: 11.MAR.2020 05:05:50

Middle Channel / 64QAM



Date: 11.MAR.2020 05:07:58

Highest Channel / 64QAM



Date: 11.MAR.2020 05:45:20

**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	0.0007	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.



LTE Band 12

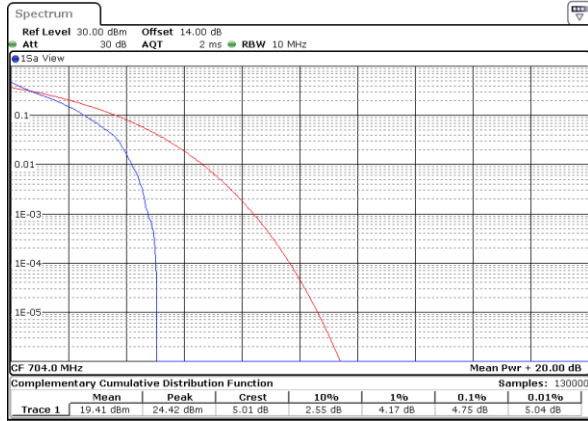
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.75	5.65	5.94	6.32	PASS
Middle CH	5.04	5.65	6.06	6.26	
Highest CH	4.90	5.45	6.09	6.32	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	5.86	6.32	-	-	PASS
Middle CH	5.39	6.41	-	-	
Highest CH	6.29	6.26	-	-	

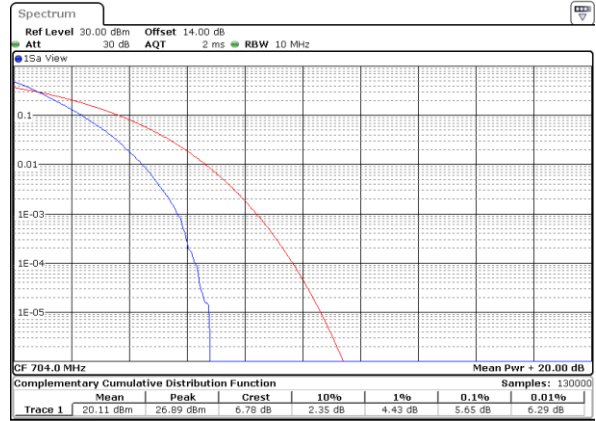


LTE Band 12 / 10MHz / QPSK

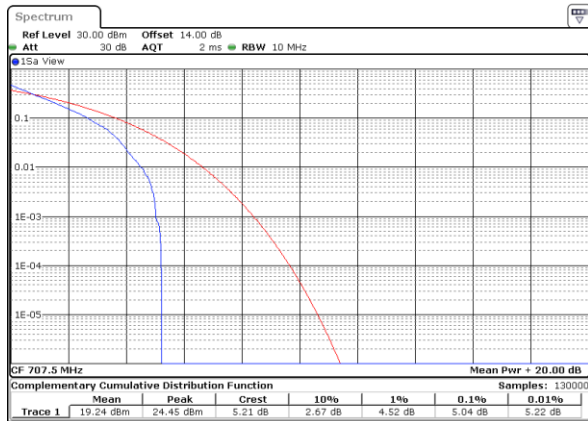
Lowest Channel / 1RB



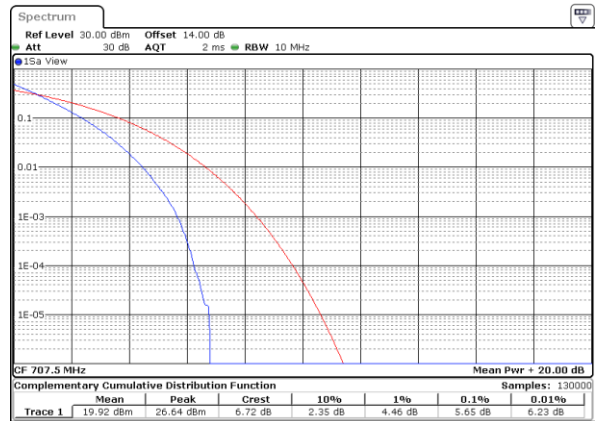
Lowest Channel / Full RB



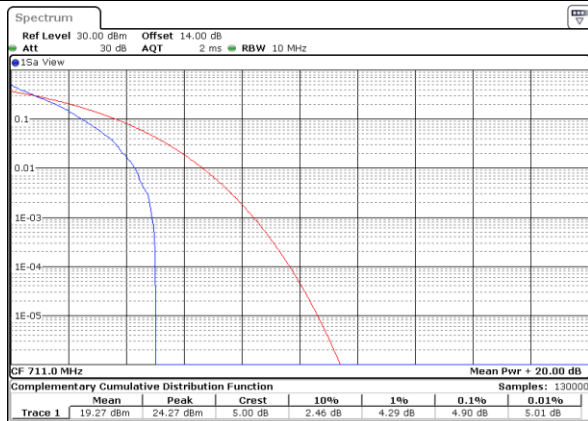
Middle Channel / 1RB



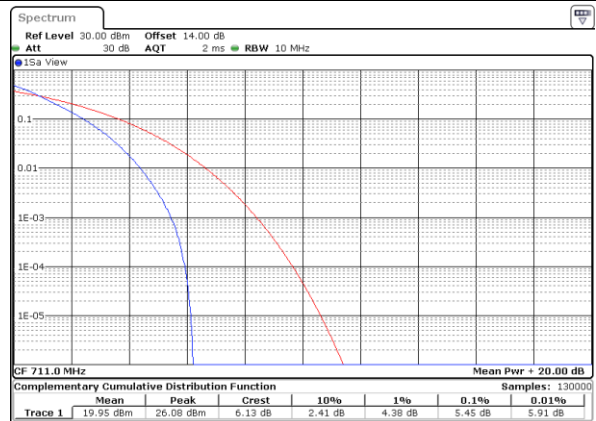
Middle Channel / Full RB



Highest Channel / 1RB

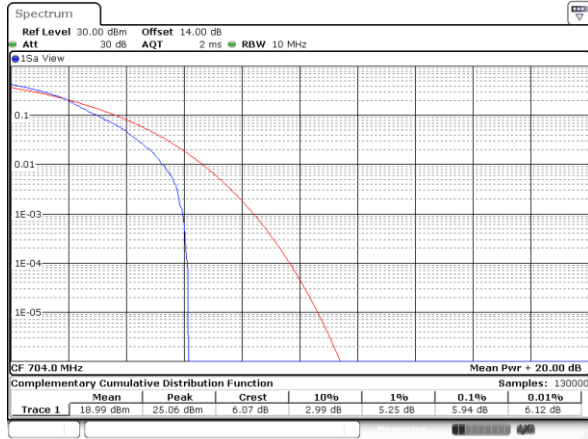


Highest Channel / Full RB



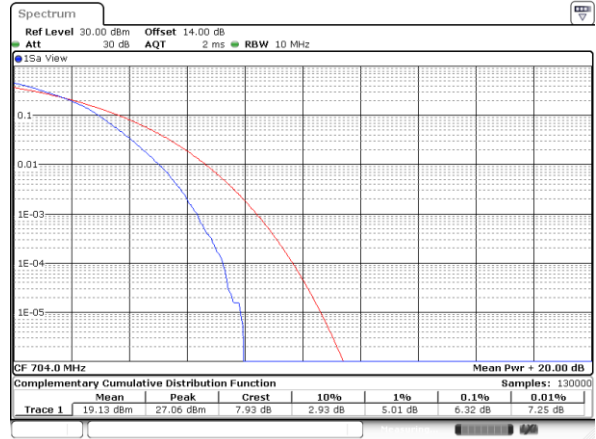
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



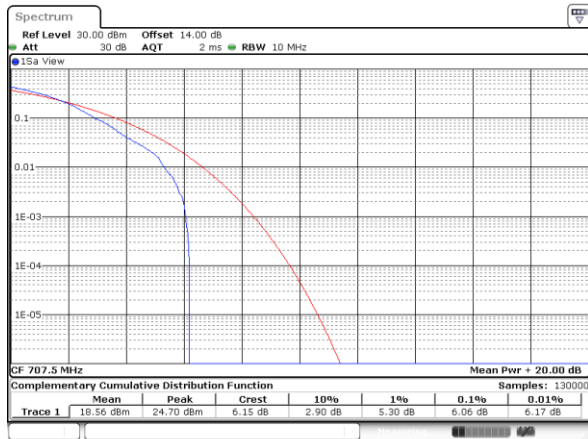
Date: 28 MAR 2020 17:27:00

Lowest Channel / Full RB



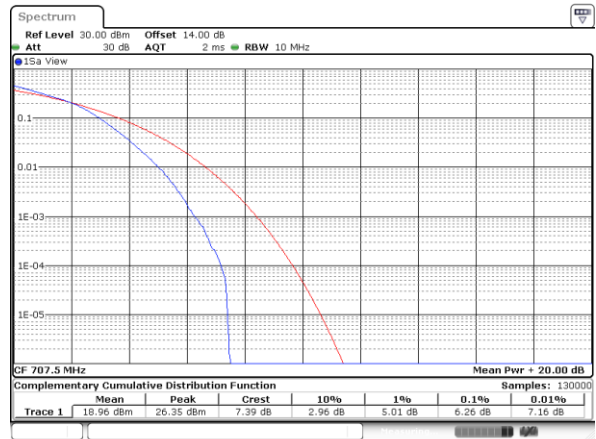
Date: 28 MAR 2020 17:26:43

Middle Channel / 1RB



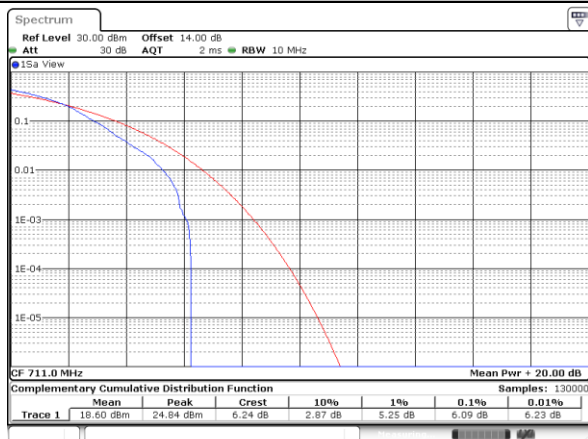
Date: 28 MAR 2020 17:27:17

Middle Channel / Full RB



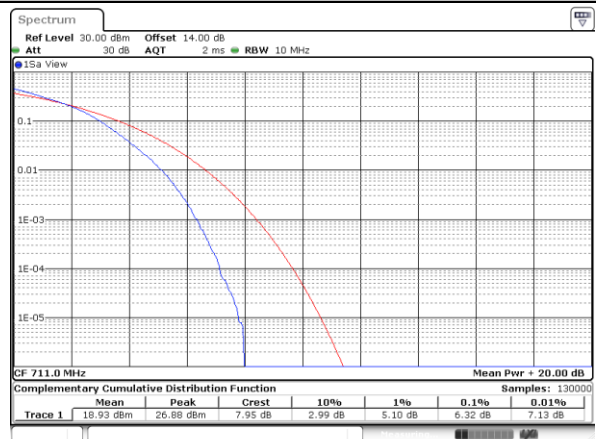
Date: 28 MAR 2020 17:27:33

Highest Channel / 1RB



Date: 28 MAR 2020 17:28:05

Highest Channel / Full RB

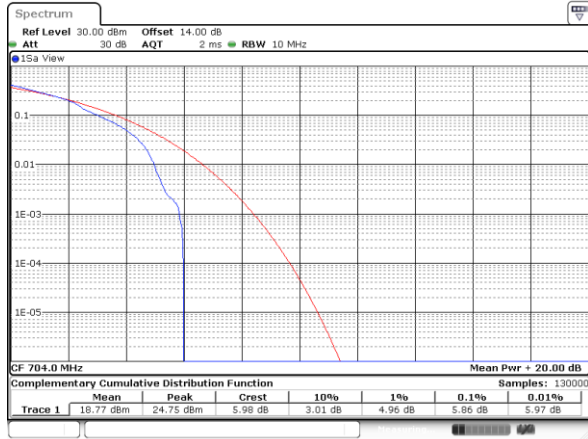


Date: 28 MAR 2020 17:27:49

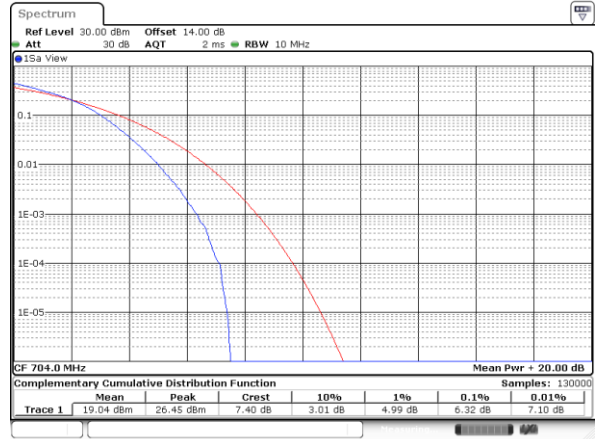


LTE Band 12 / 10MHz / 64QAM

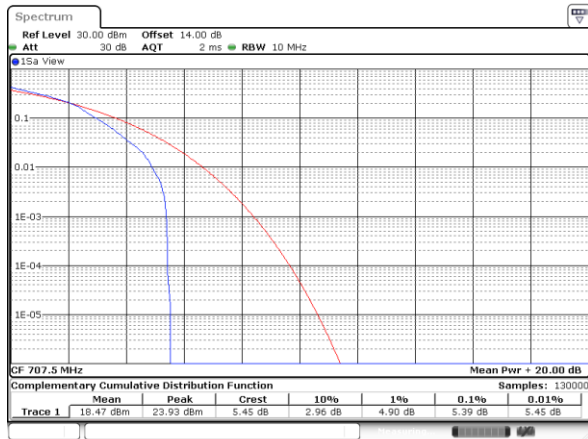
Lowest Channel / 1RB



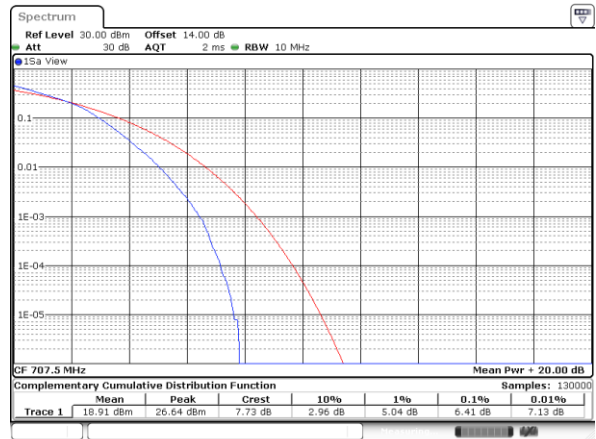
Lowest Channel / Full RB



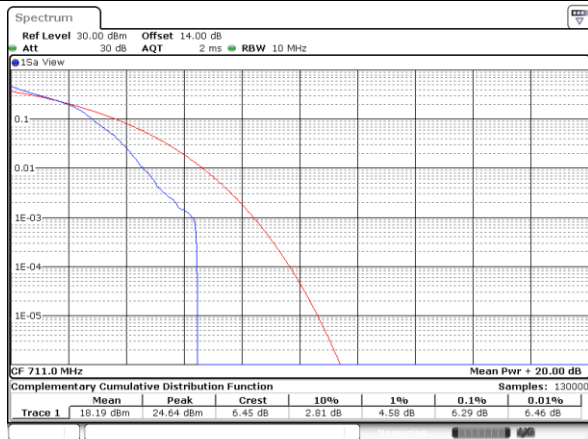
Middle Channel / 1RB



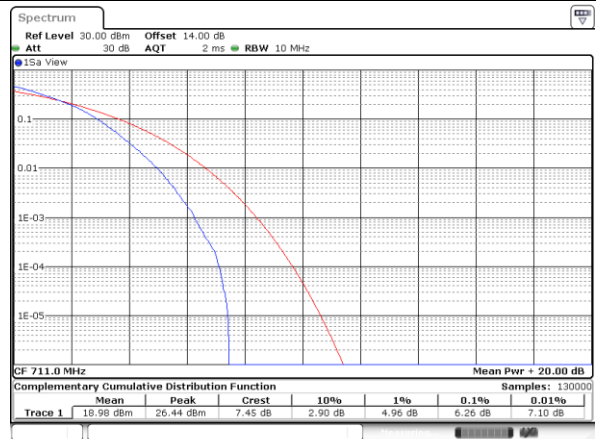
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



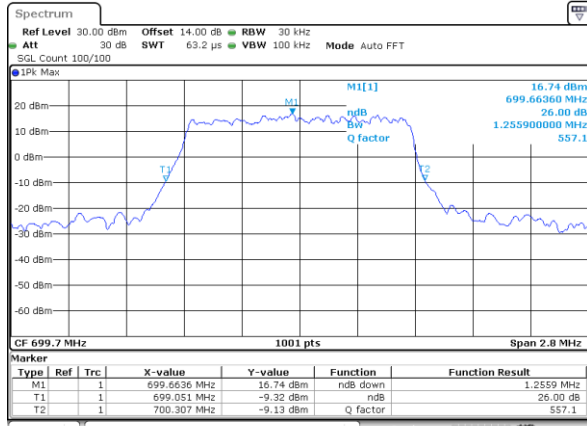
**26dB Bandwidth**

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	1.26	1.28	2.97	2.94	5.12	4.97	9.79	10.05	-	-	-	-
Middle CH	1.28	1.27	2.97	2.96	5.07	5.22	10.09	9.87	-	-	-	-
Highest CH	1.26	1.30	2.96	2.91	5.13	5.16	9.81	9.95	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Lowest CH	1.27	-	2.97	-	5.01	-	9.85	-	-	-	-	-
Middle CH	1.24	-	2.97	-	4.97	-	9.83	-	-	-	-	-
Highest CH	1.26	-	2.98	-	5.05	-	10.03	-	-	-	-	-



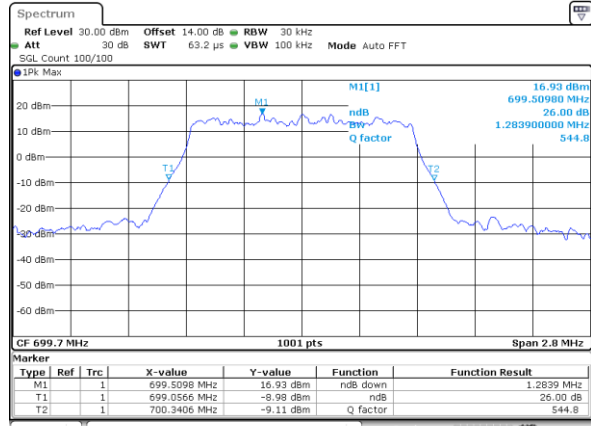
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



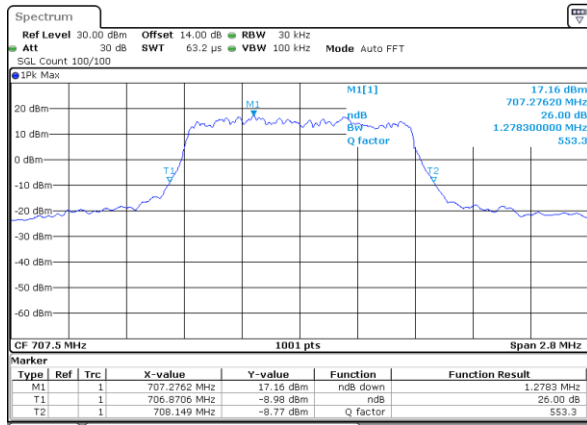
Date: 12, MAR, 2020 00:38:01

Lowest Channel / 1.4MHz / 16QAM



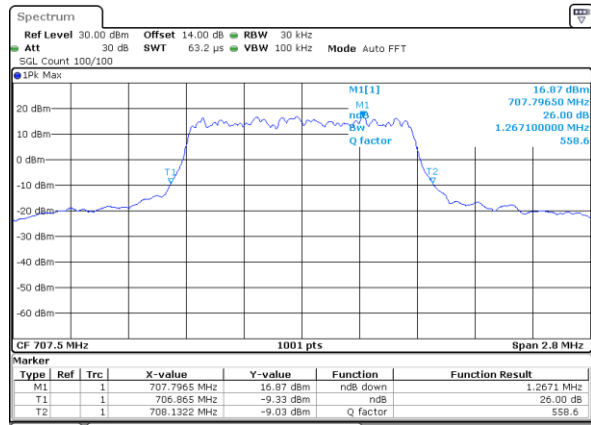
Date: 12, MAR, 2020 00:39:50

Middle Channel / 1.4MHz / QPSK



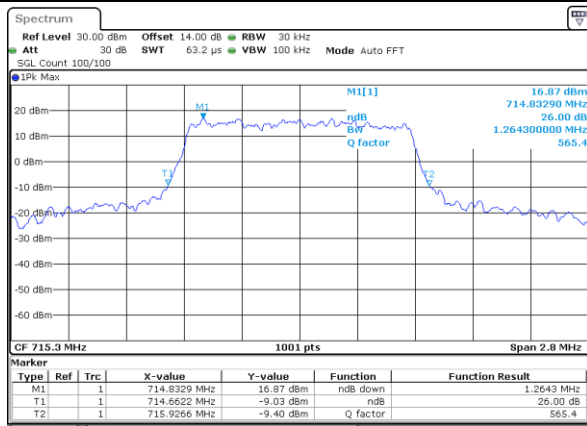
Date: 12, MAR, 2020 01:04:47

Middle Channel / 1.4MHz / 16QAM



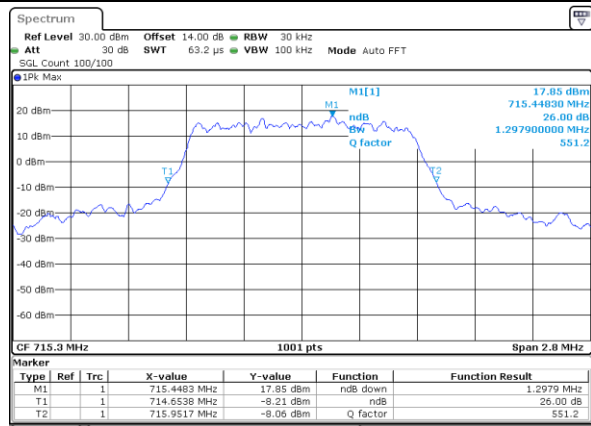
Date: 12, MAR, 2020 01:13:10

Highest Channel / 1.4MHz / QPSK



Date: 12, MAR, 2020 01:36:18

Highest Channel / 1.4MHz / 16QAM

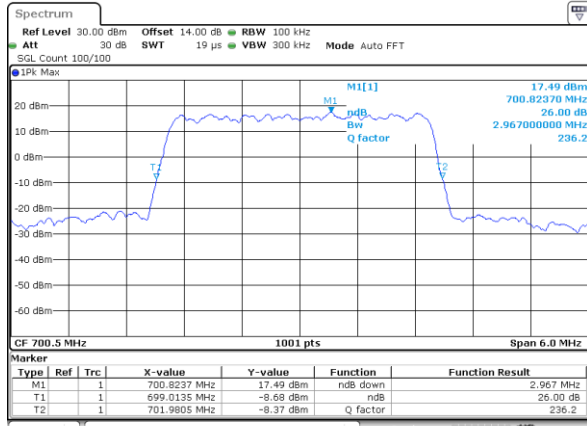


Date: 12, MAR, 2020 01:35:37

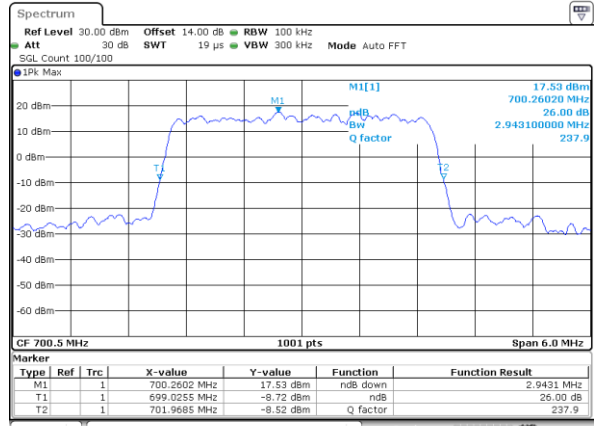


LTE Band 12

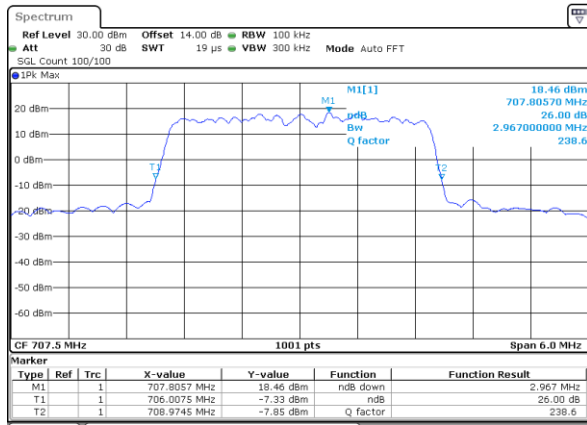
Lowest Channel / 3MHz / QPSK



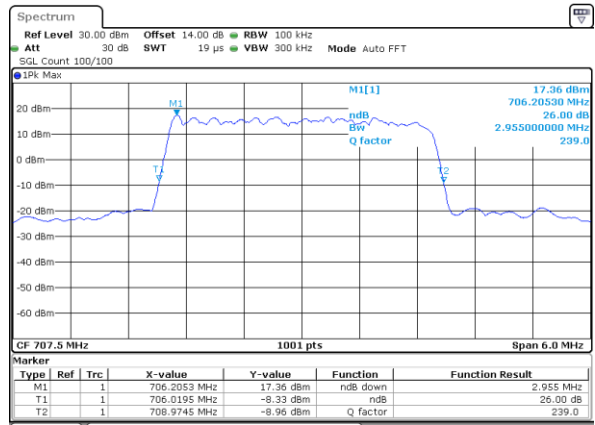
Lowest Channel / 3MHz / 16QAM



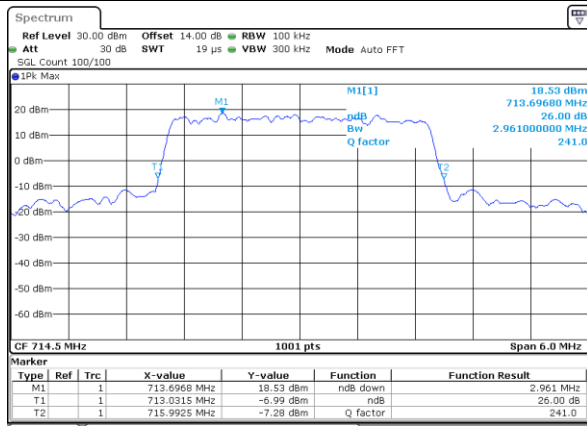
Middle Channel / 3MHz / QPSK



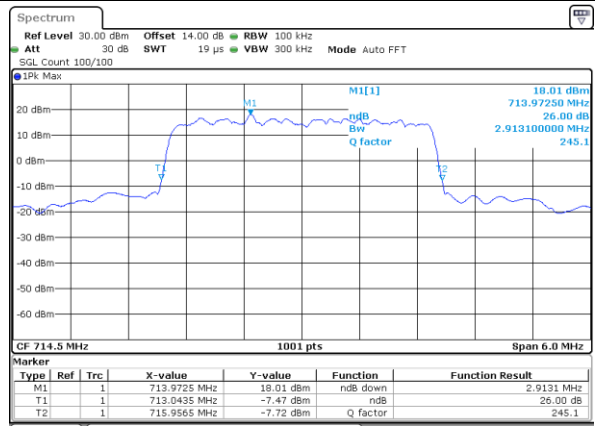
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



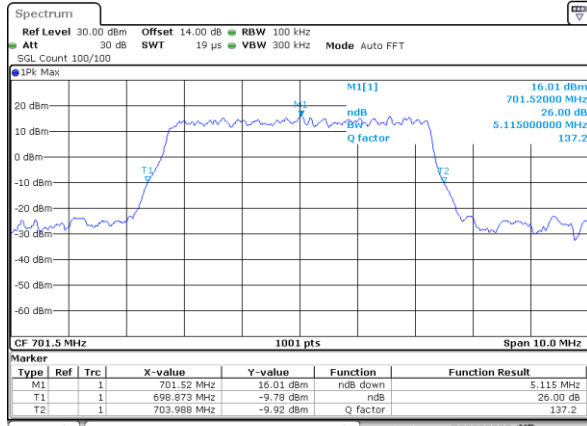
Highest Channel / 3MHz / 16QAM





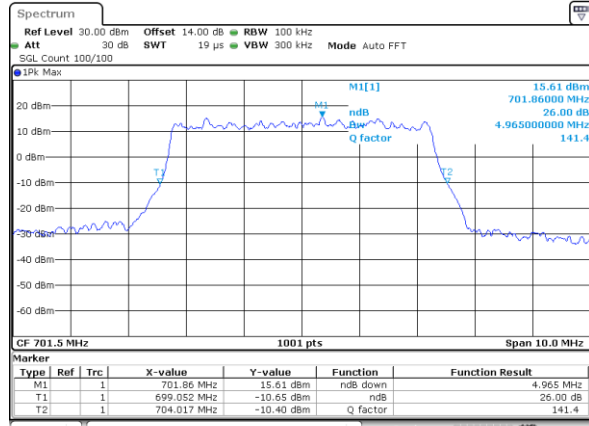
LTE Band 12

Lowest Channel / 5MHz / QPSK



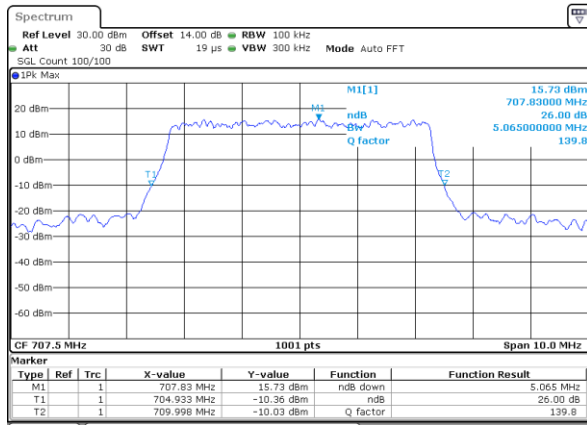
Date: 11.MAR.2020 20:21:17

Lowest Channel / 5MHz / 16QAM



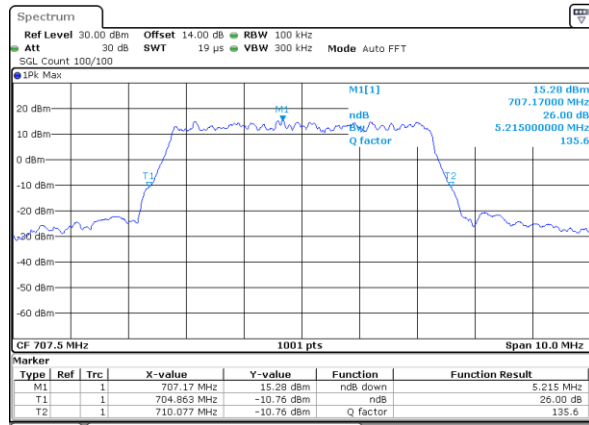
Date: 11.MAR.2020 20:19:59

Middle Channel / 5MHz / QPSK



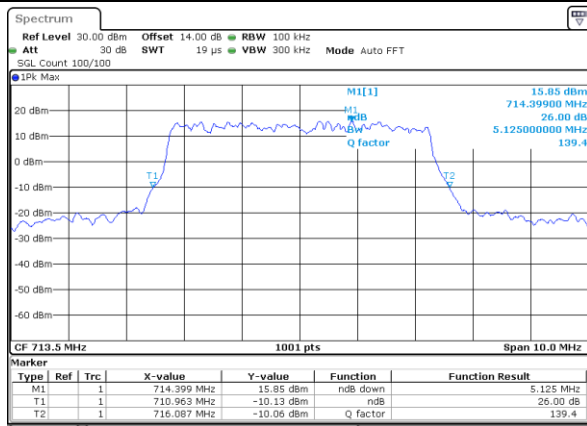
Date: 11.MAR.2020 19:06:25

Middle Channel / 5MHz / 16QAM



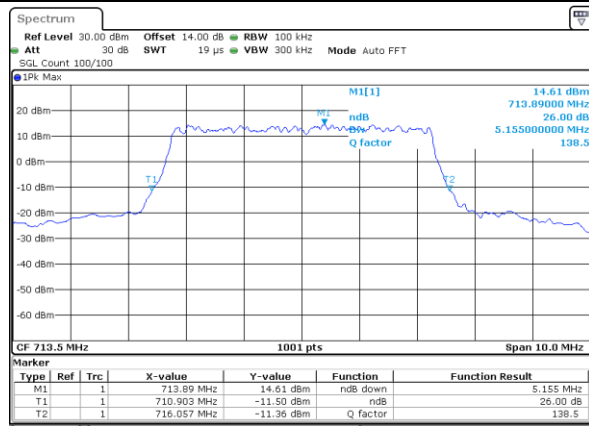
Date: 11.MAR.2020 19:07:12

Highest Channel / 5MHz / QPSK



Date: 11.MAR.2020 20:27:24

Highest Channel / 5MHz / 16QAM

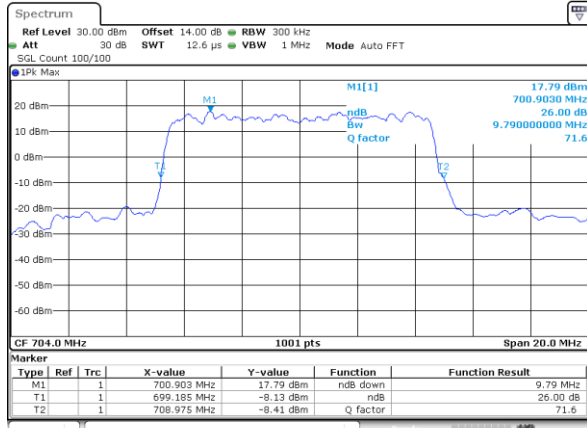


Date: 11.MAR.2020 20:26:09



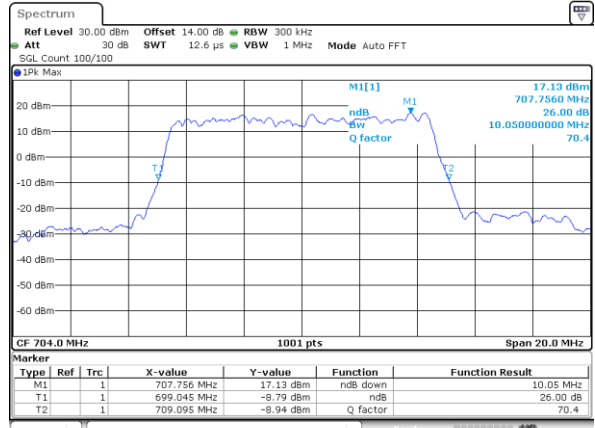
LTE Band 12

Lowest Channel / 10MHz / QPSK



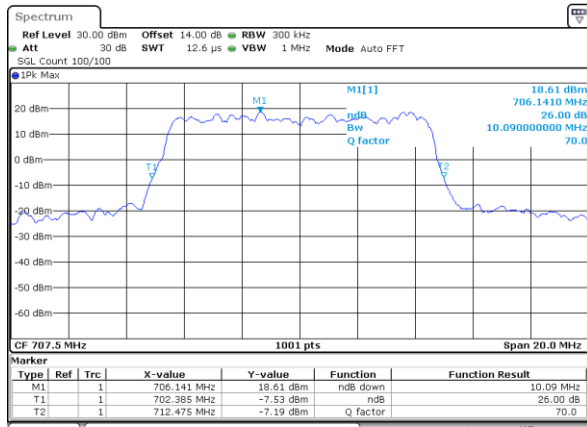
Date: 11.MAR.2020 21:19:54

Lowest Channel / 10MHz / 16QAM



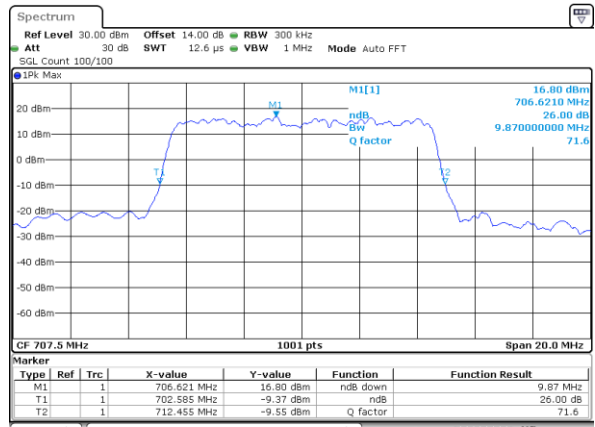
Date: 11.MAR.2020 21:21:59

Middle Channel / 10MHz / QPSK



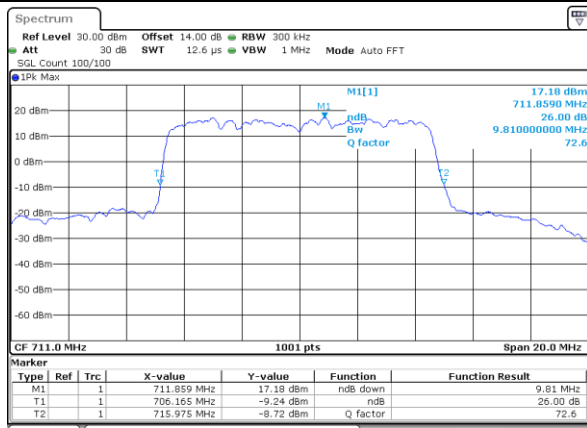
Date: 11.MAR.2020 21:05:07

Middle Channel / 10MHz / 16QAM



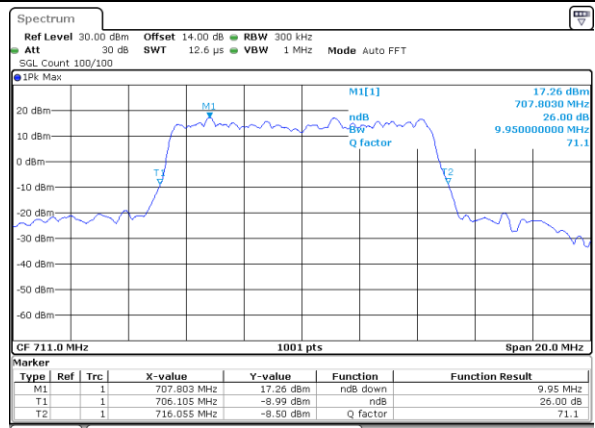
Date: 11.MAR.2020 21:04:44

Highest Channel / 10MHz / QPSK



Date: 11.MAR.2020 20:59:26

Highest Channel / 10MHz / 16QAM

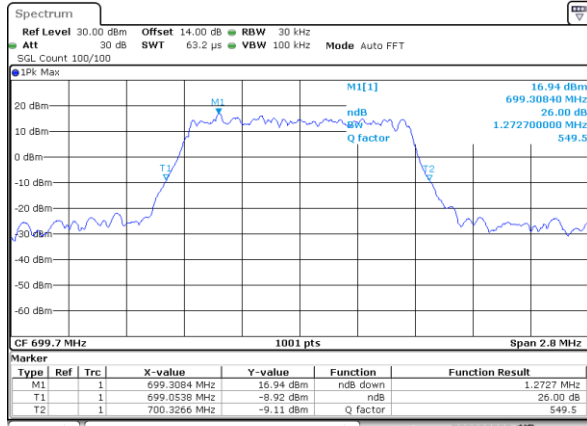


Date: 11.MAR.2020 21:00:33



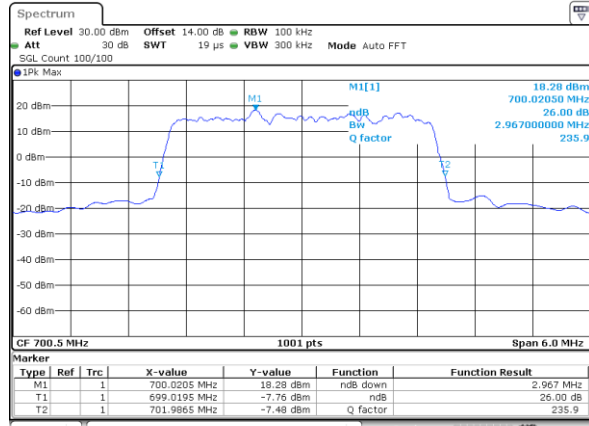
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



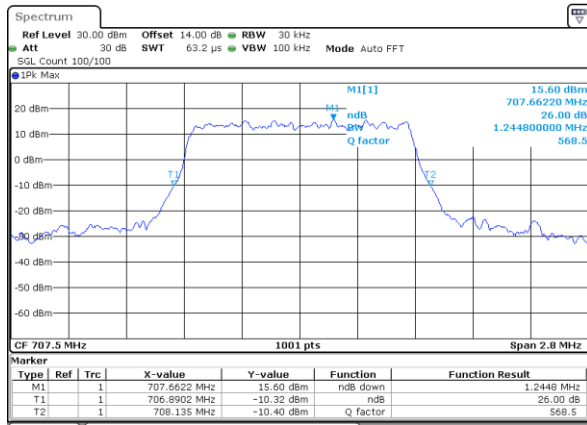
Date: 12.MAR.2020 00:41:37

Lowest Channel / 3MHz / 64QAM



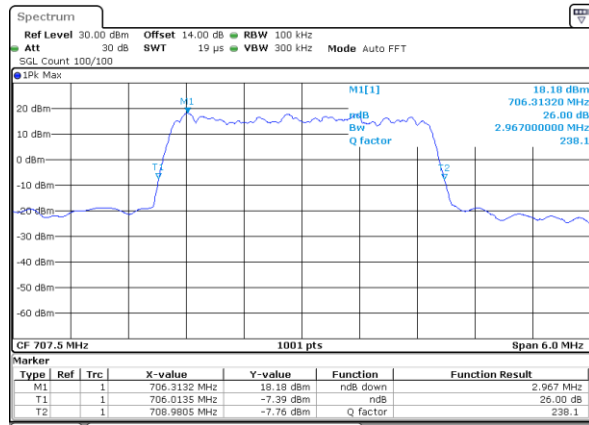
Date: 11.MAR.2020 21:27:31

Middle Channel / 1.4MHz / 64QAM



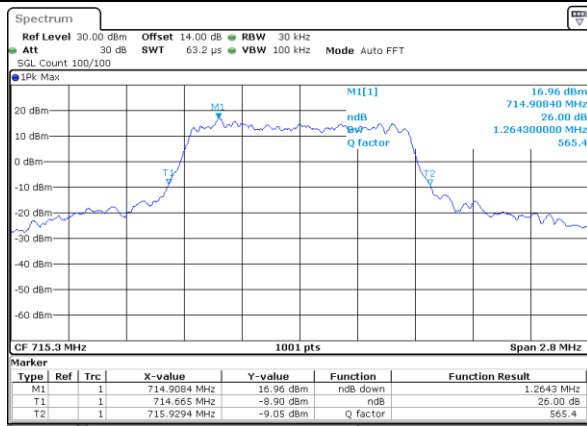
Date: 12.MAR.2020 01:32:13

Middle Channel / 3MHz / 64QAM



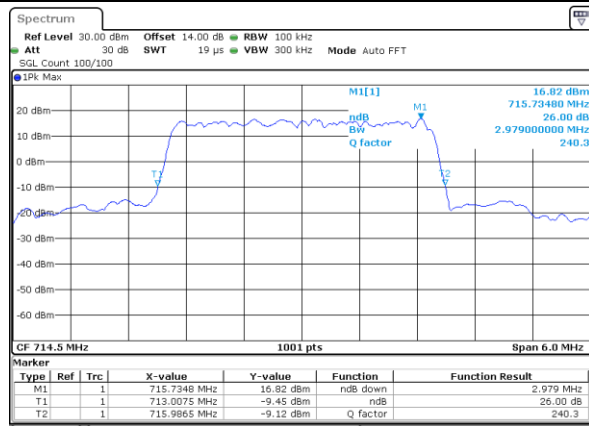
Date: 11.MAR.2020 22:02:30

Highest Channel / 1.4MHz / 64QAM



Date: 12.MAR.2020 01:33:06

Highest Channel / 3MHz / 64QAM

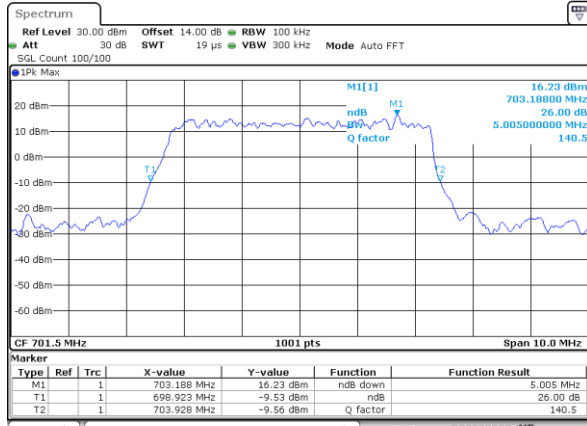


Date: 11.MAR.2020 22:03:23

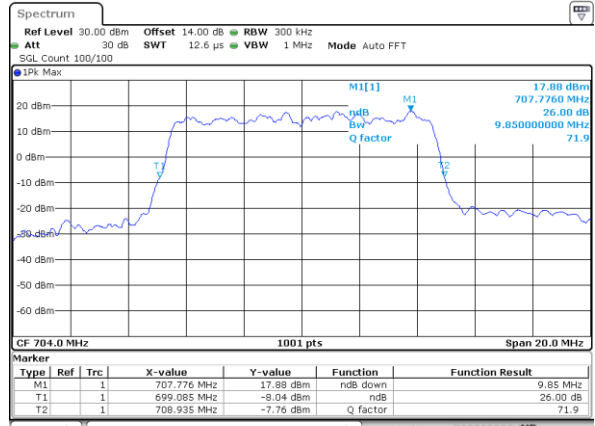


LTE Band 12

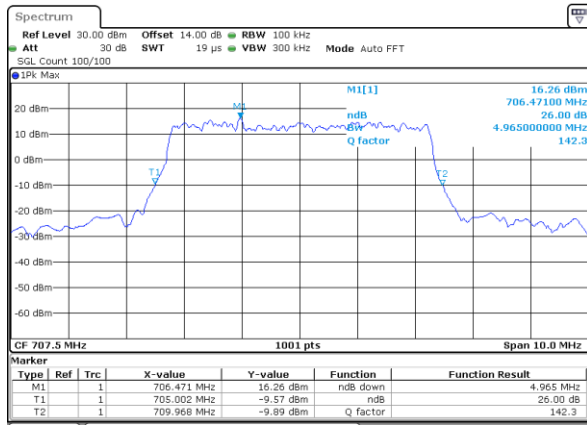
Lowest Channel / 5MHz / 64QAM



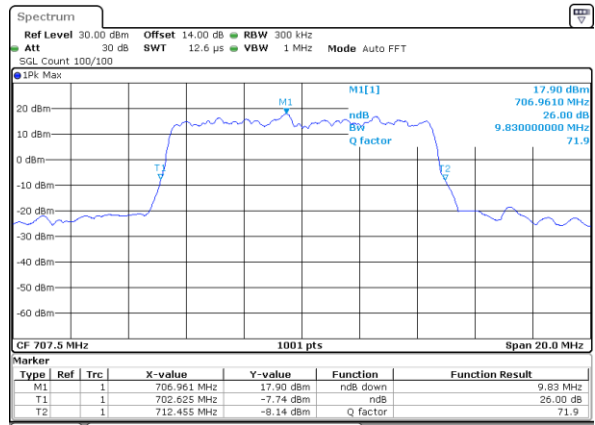
Lowest Channel / 10MHz / 64QAM



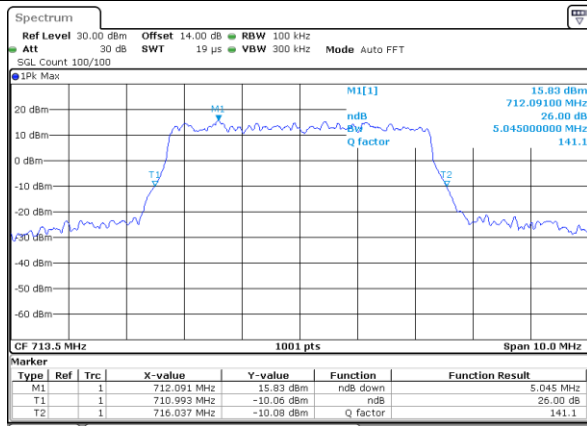
Middle Channel / 5MHz / 64QAM



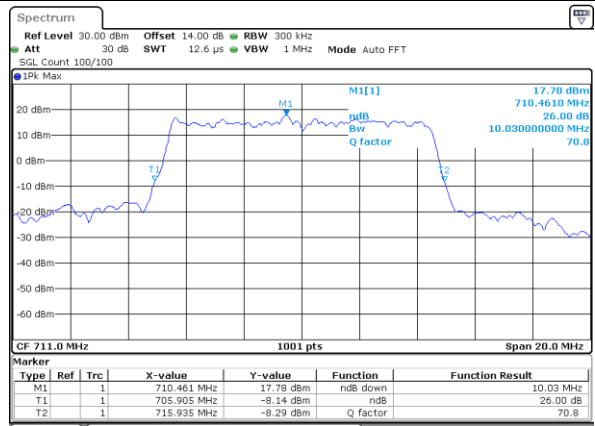
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



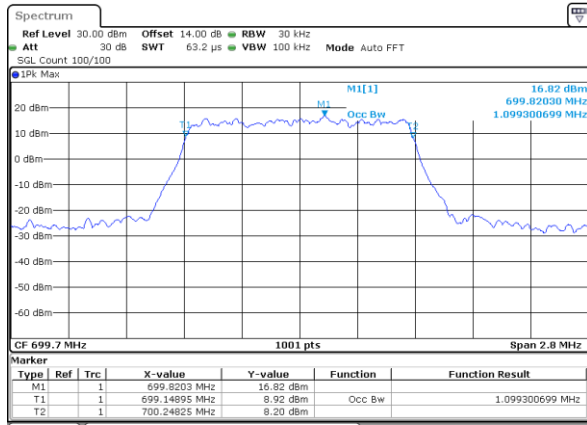
**Occupied Bandwidth**

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	1.10	1.09	2.72	2.70	4.51	4.52	9.01	9.03	-	-	-	-
Middle CH	1.09	1.09	2.72	2.70	4.50	4.51	9.05	9.03	-	-	-	-
Highest CH	1.09	1.08	2.71	2.72	4.49	4.50	9.07	9.03	-	-	-	-
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	-	2.71	-	4.49	-	8.97	-	-	-	-	-
Middle CH	1.08	-	2.73	-	4.52	-	9.03	-	-	-	-	-
Highest CH	1.09	-	2.74	-	4.51	-	9.09	-	-	-	-	-

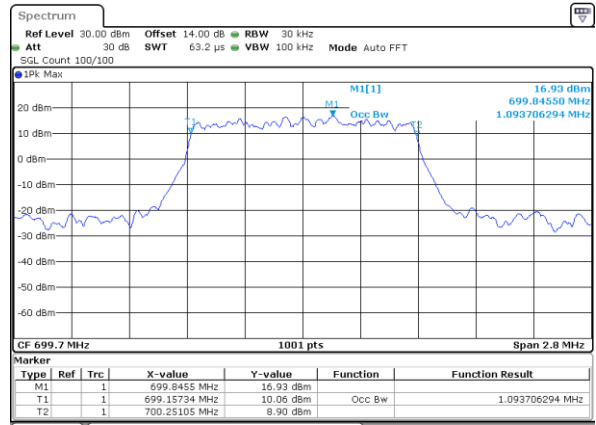


LTE Band 12

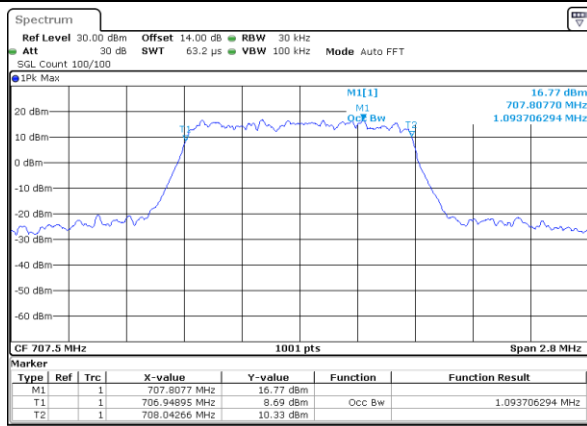
Lowest Channel / 1.4MHz / QPSK



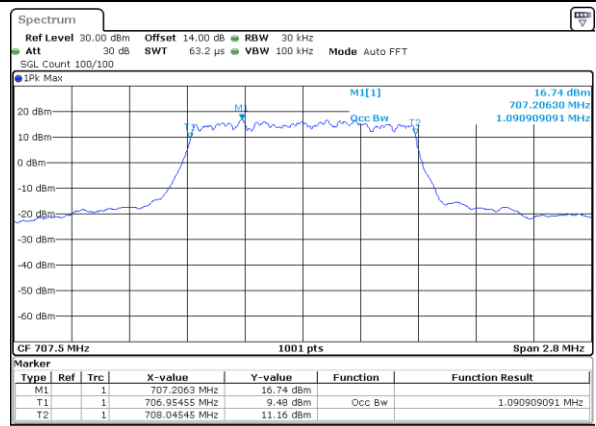
Lowest Channel / 1.4MHz / 16QAM



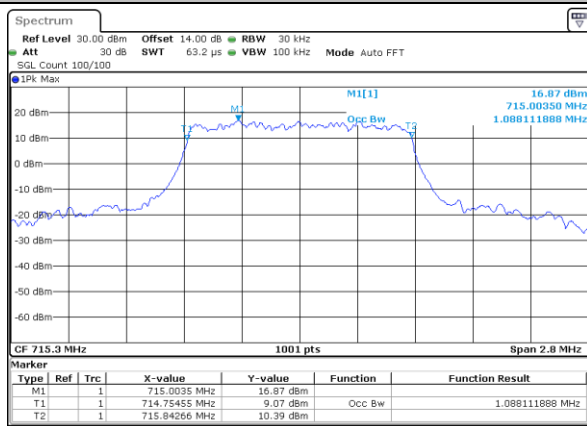
Middle Channel / 1.4MHz / QPSK



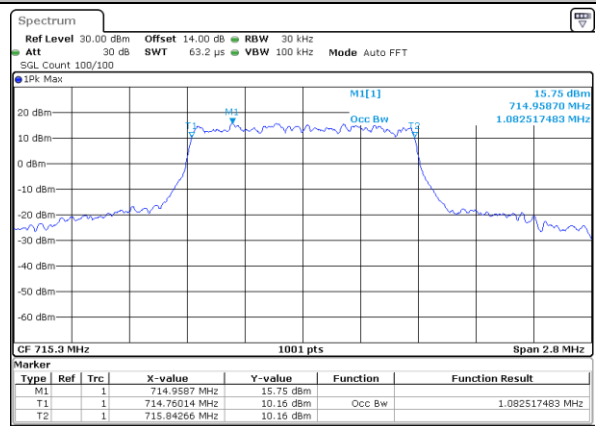
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



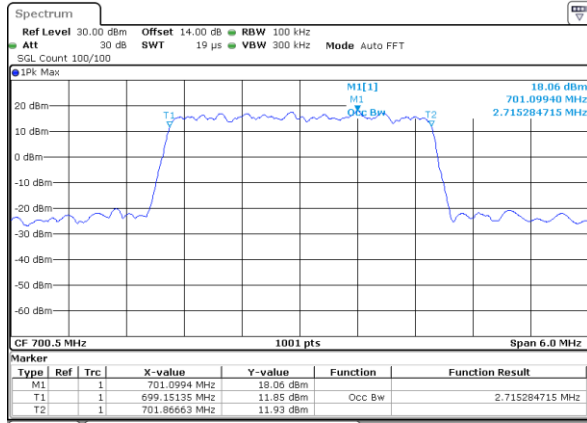
Highest Channel / 1.4MHz / 16QAM





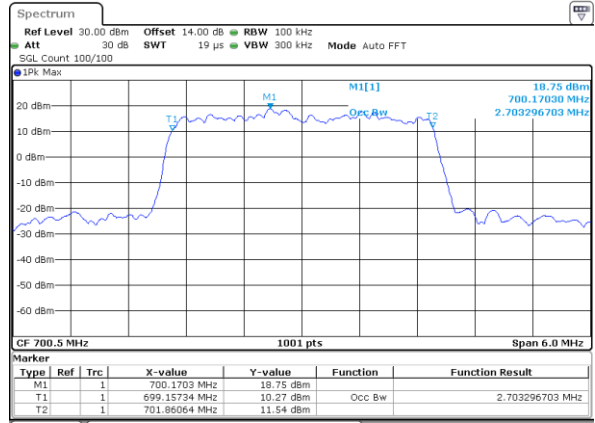
LTE Band 12

Lowest Channel / 3MHz / QPSK



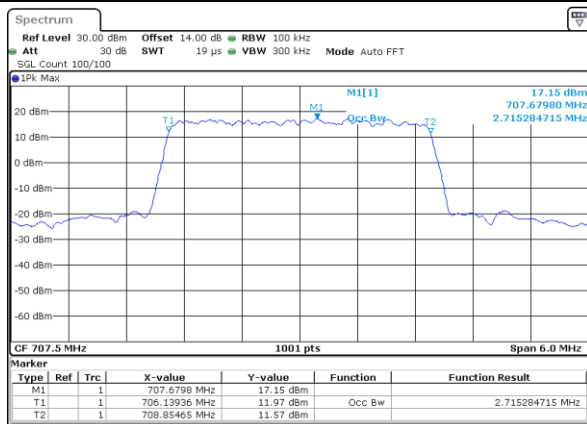
Date: 11.MAR.2020 21:43:47

Lowest Channel / 3MHz / 16QAM



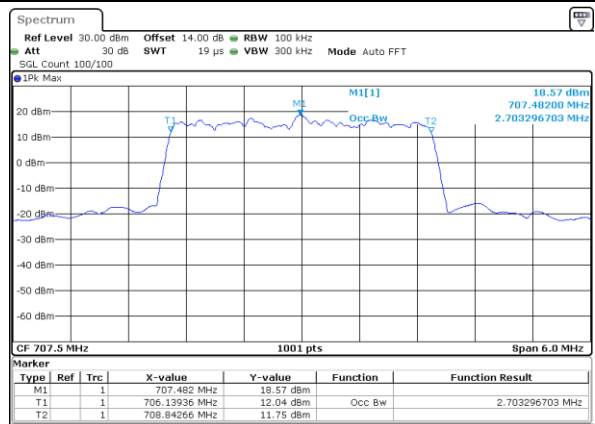
Date: 11.MAR.2020 21:31:31

Middle Channel / 3MHz / QPSK



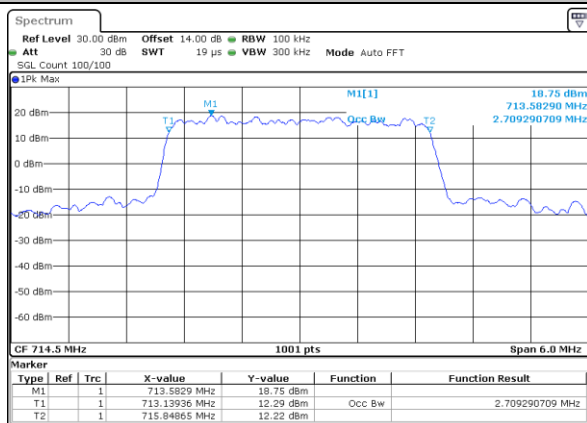
Date: 11.MAR.2020 22:01:04

Middle Channel / 3MHz / 16QAM



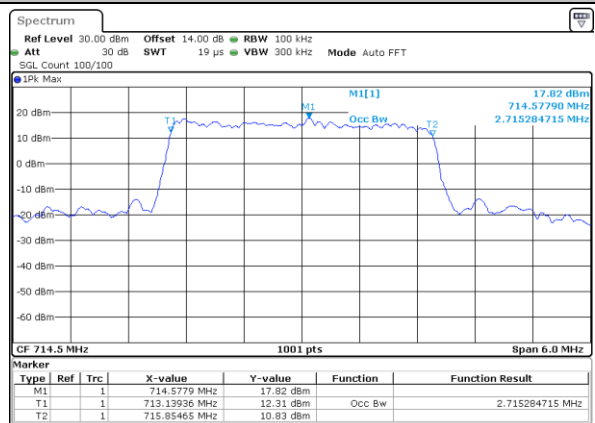
Date: 11.MAR.2020 22:01:32

Highest Channel / 3MHz / QPSK



Date: 11.MAR.2020 22:07:09

Highest Channel / 3MHz / 16QAM

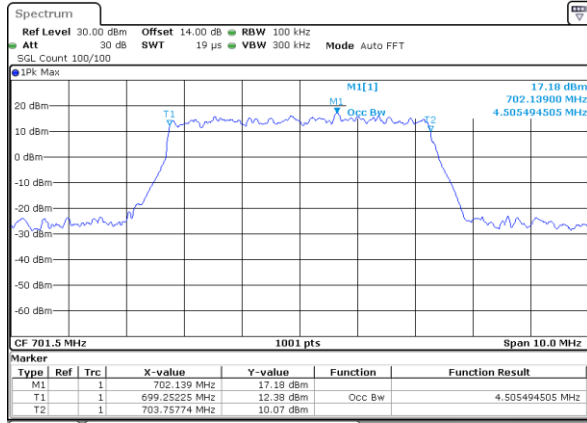


Date: 11.MAR.2020 22:04:57



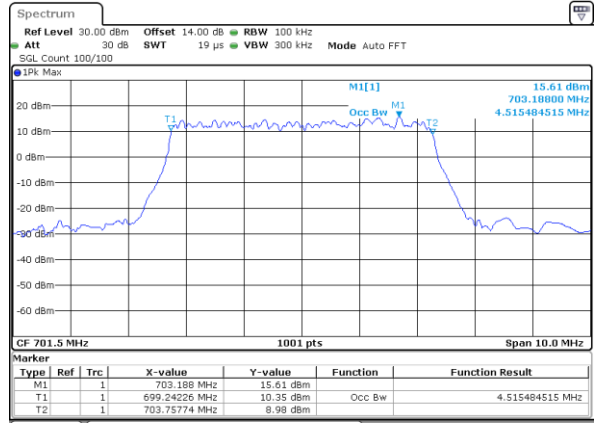
LTE Band 12

Lowest Channel / 5MHz / QPSK



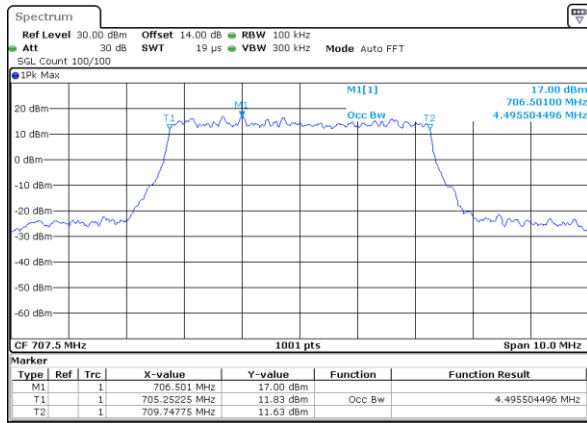
Date: 11.MAR.2020 20:21:09

Lowest Channel / 5MHz / 16QAM



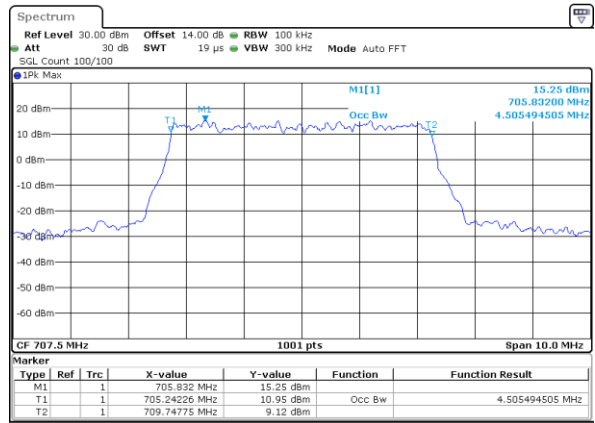
Date: 11.MAR.2020 20:19:50

Middle Channel / 5MHz / QPSK



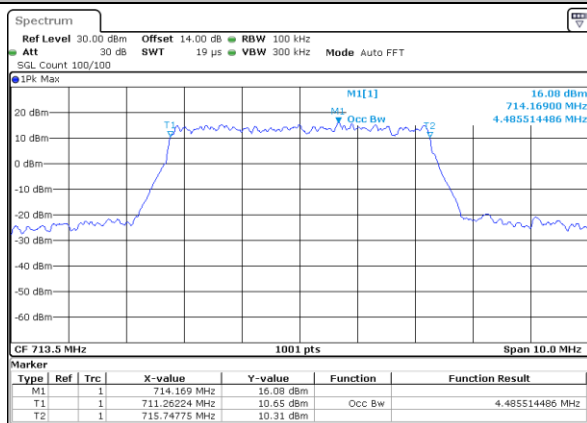
Date: 11.MAR.2020 19:06:16

Middle Channel / 5MHz / 16QAM



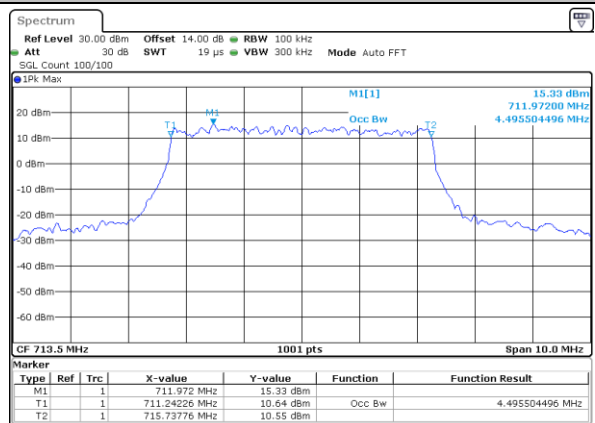
Date: 11.MAR.2020 19:07:04

Highest Channel / 5MHz / QPSK



Date: 11.MAR.2020 20:27:16

Highest Channel / 5MHz / 16QAM

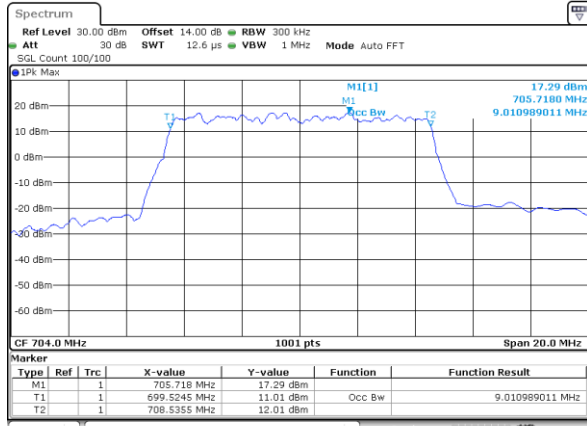


Date: 11.MAR.2020 20:26:01



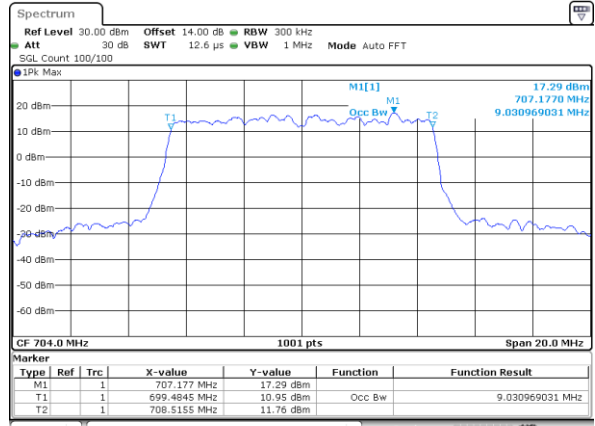
LTE Band 12

Lowest Channel / 10MHz / QPSK



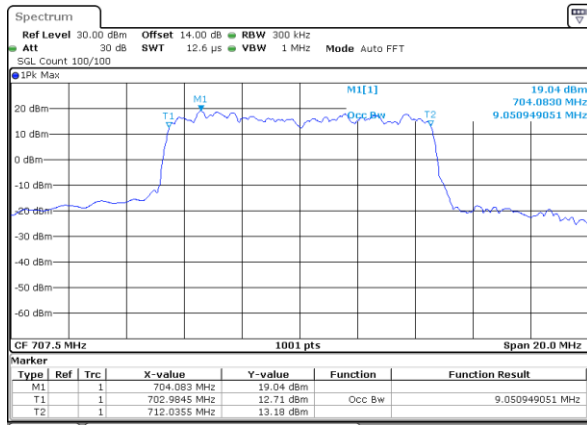
Date: 11.MAR.2020 21:19:44

Lowest Channel / 10MHz / 16QAM



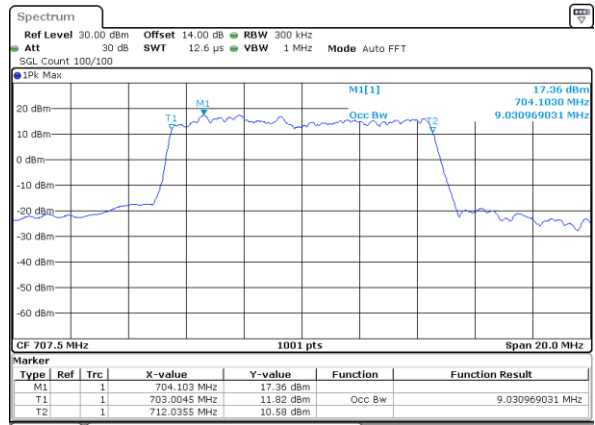
Date: 11.MAR.2020 21:21:19

Middle Channel / 10MHz / QPSK



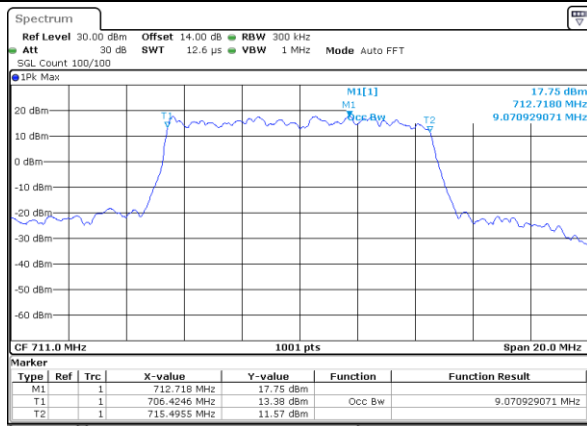
Date: 11.MAR.2020 21:04:59

Middle Channel / 10MHz / 16QAM



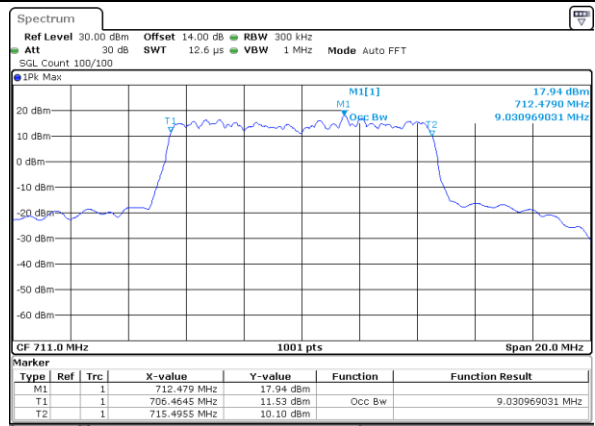
Date: 11.MAR.2020 21:04:37

Highest Channel / 10MHz / QPSK



Date: 11.MAR.2020 20:59:15

Highest Channel / 10MHz / 16QAM

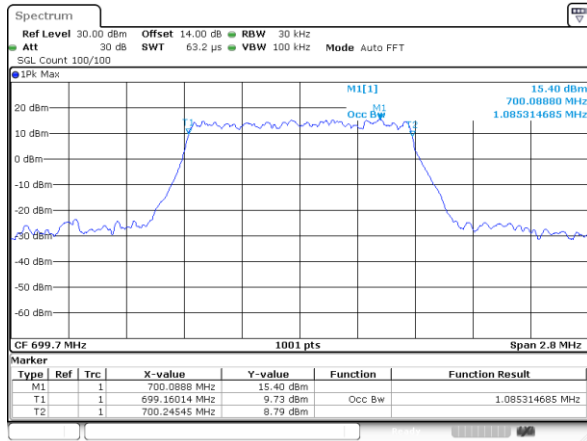


Date: 11.MAR.2020 21:00:24

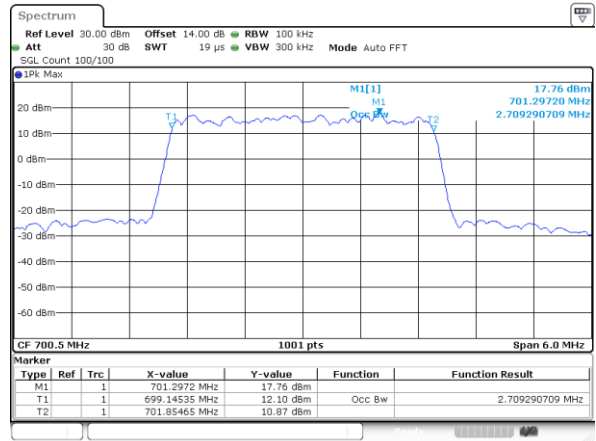


LTE Band 12

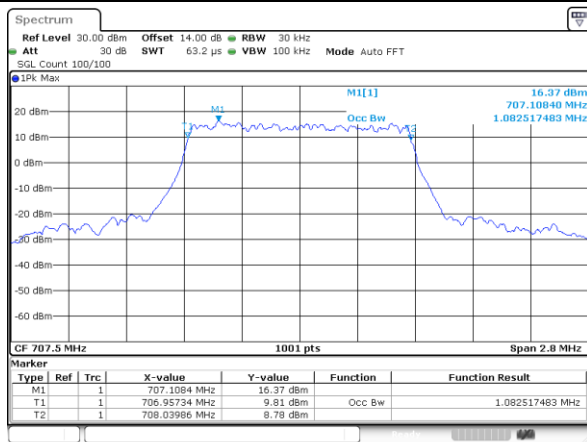
Lowest Channel / 1.4MHz / 64QAM



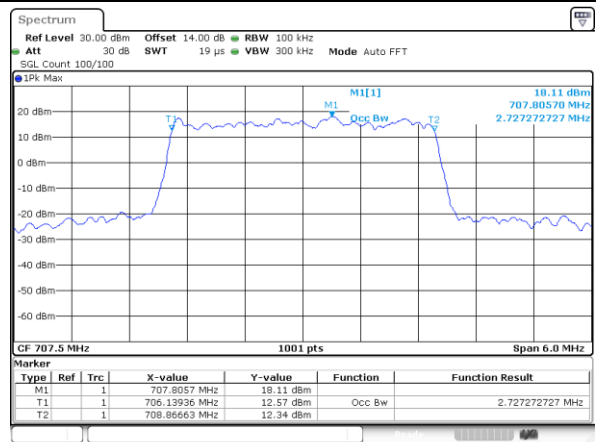
Lowest Channel / 3MHz / 64QAM



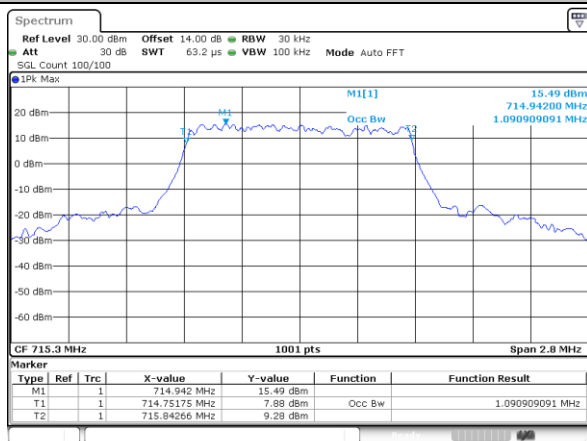
Middle Channel / 1.4MHz / 64QAM



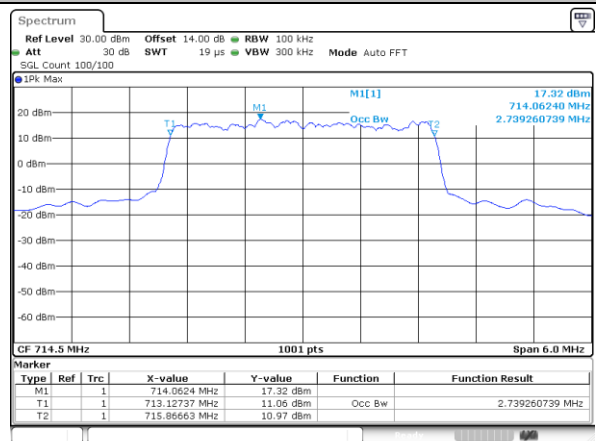
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



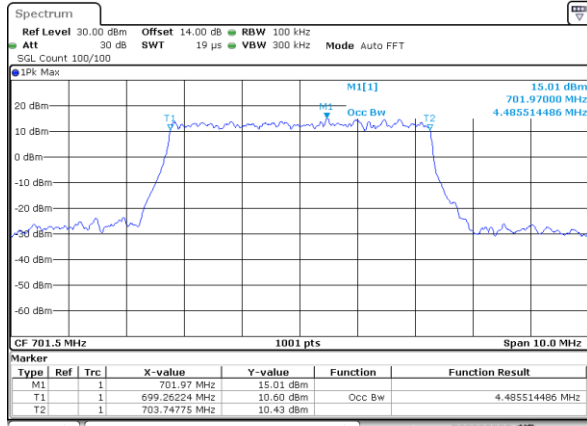
Highest Channel / 3MHz / 64QAM





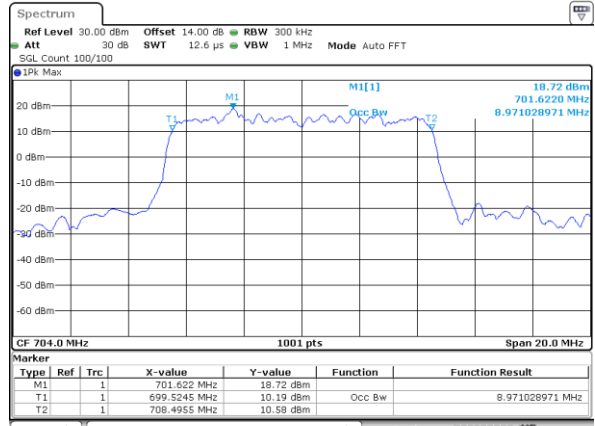
LTE Band 12

Lowest Channel / 5MHz / 64QAM



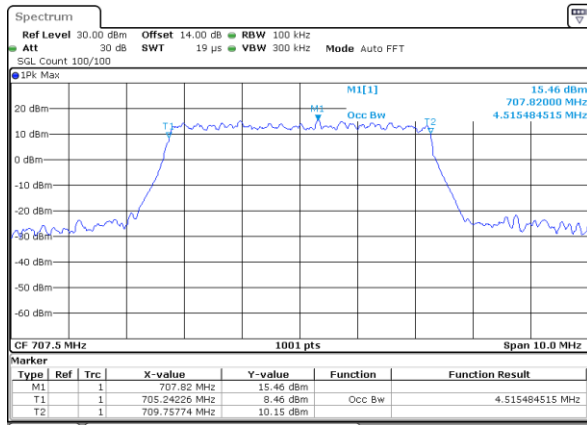
Date: 11.MAR.2020 20:20:20

Lowest Channel / 10MHz / 64QAM



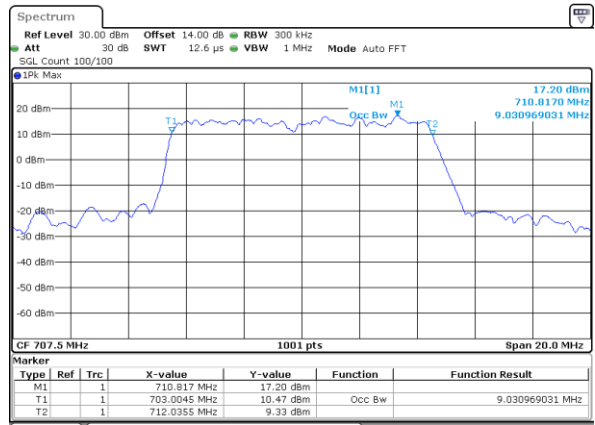
Date: 11.MAR.2020 21:24:22

Middle Channel / 5MHz / 64QAM



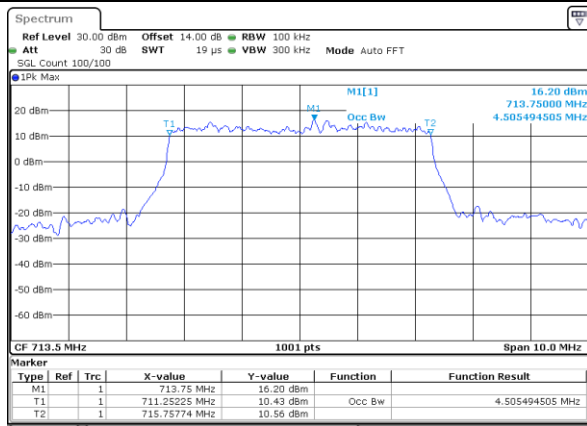
Date: 11.MAR.2020 19:07:35

Middle Channel / 10MHz / 64QAM



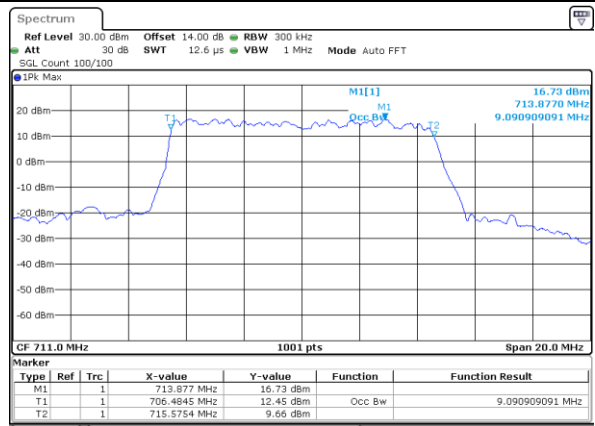
Date: 11.MAR.2020 21:04:05

Highest Channel / 5MHz / 64QAM



Date: 11.MAR.2020 20:24:38

Highest Channel / 10MHz / 64QAM



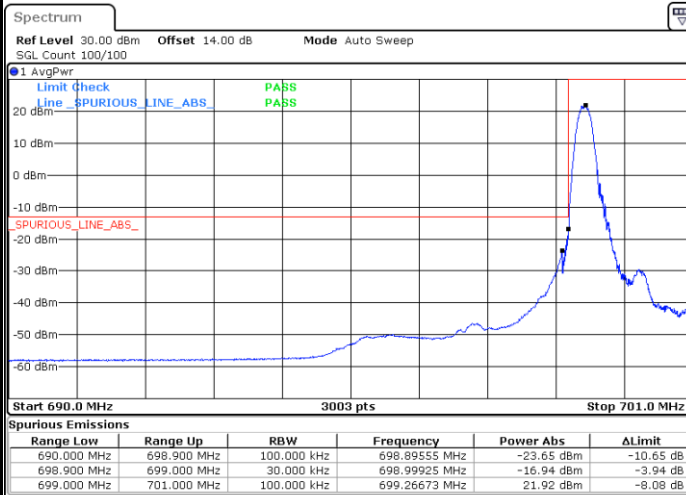
Date: 11.MAR.2020 21:01:58



Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

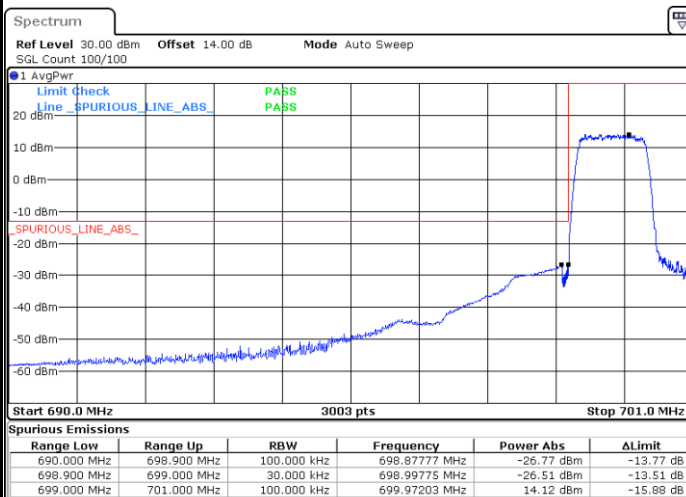
Lowest Band Edge / 1 RB



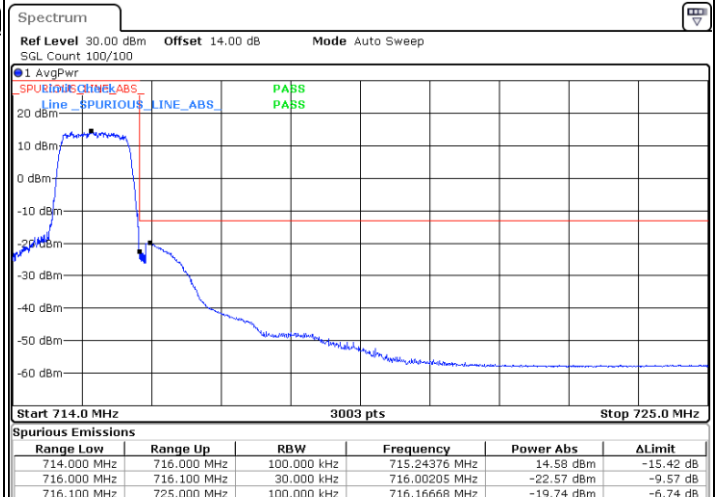
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



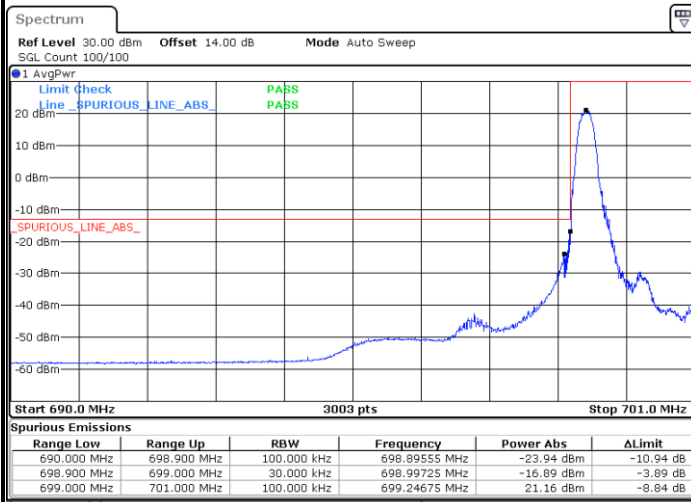
Highest Band Edge / Full RB



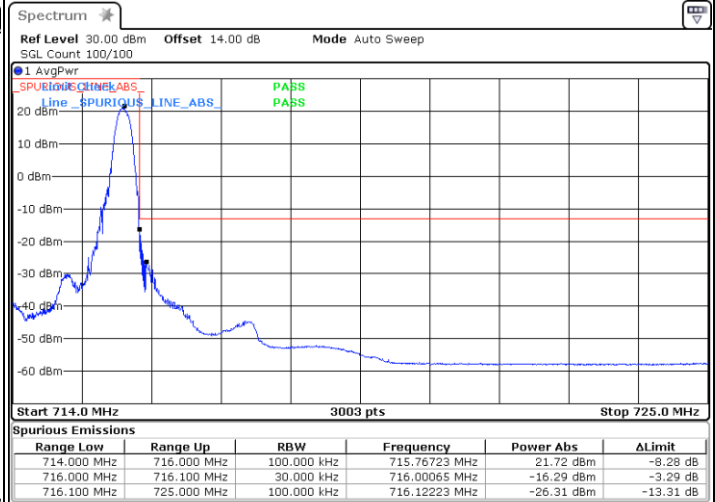


LTE Band 12 / 1.4MHz / 16QAM

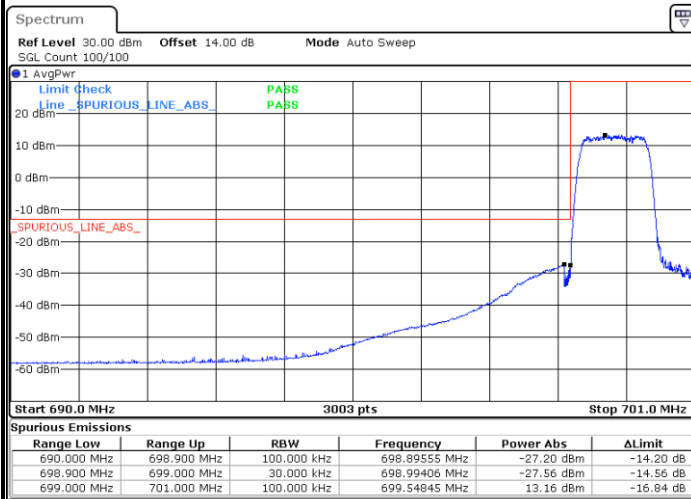
Lowest Band Edge / 1 RB



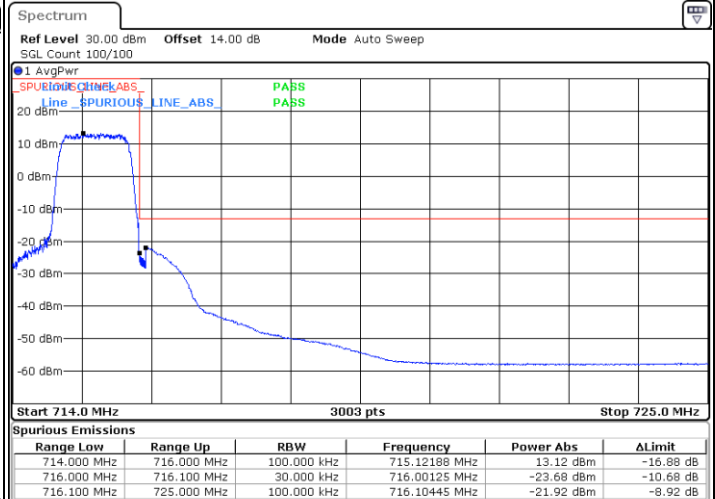
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



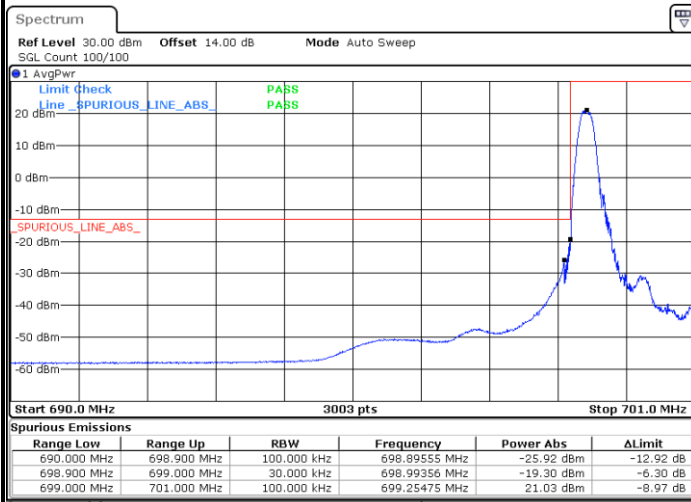
Highest Band Edge / Full RB



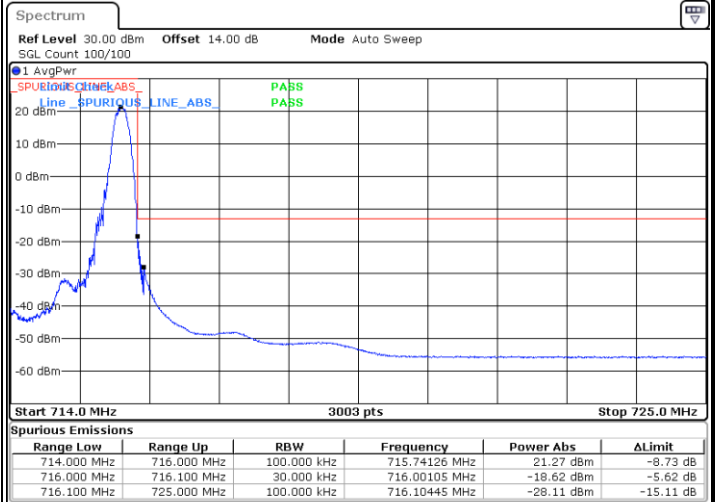


LTE Band 12 / 1.4MHz / 64QAM

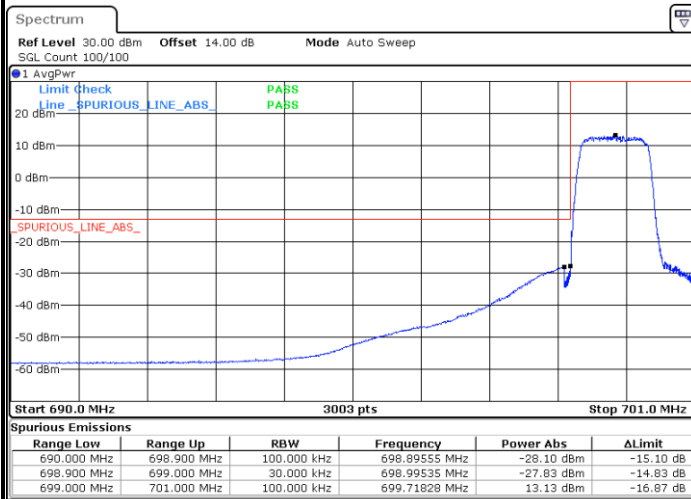
Lowest Band Edge / 1 RB



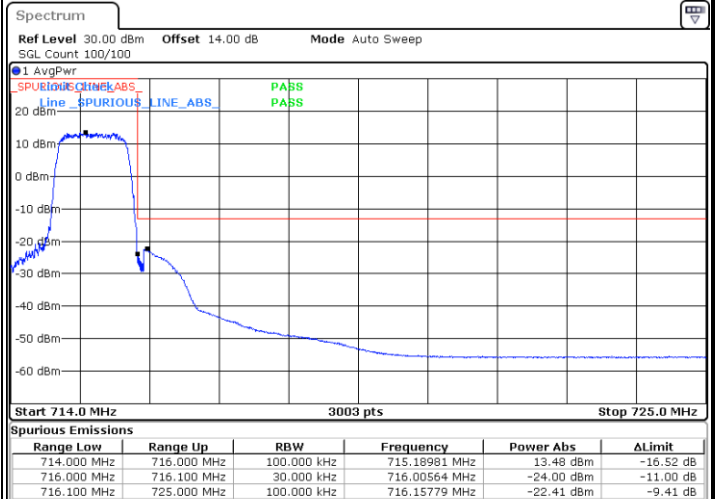
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



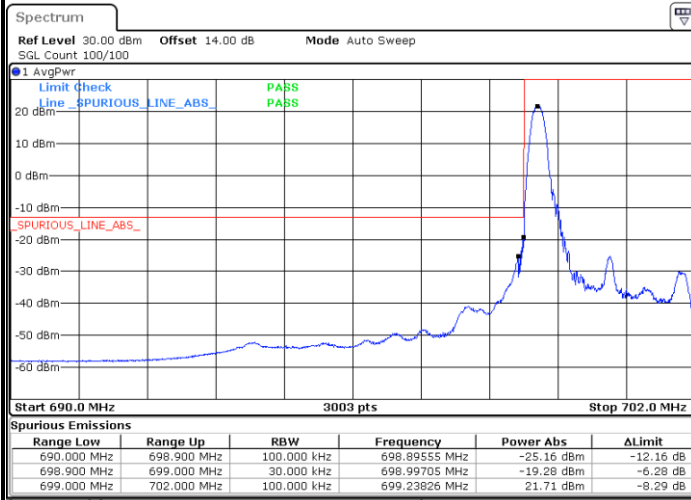
Highest Band Edge / Full RB



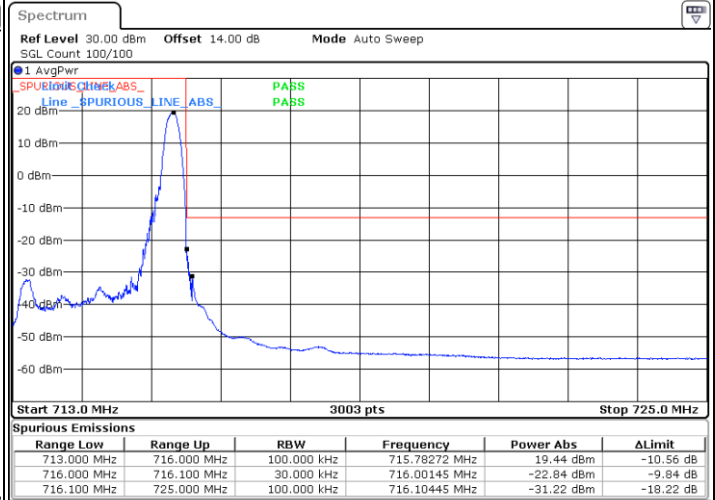


LTE Band 12 / 3MHz / QPSK

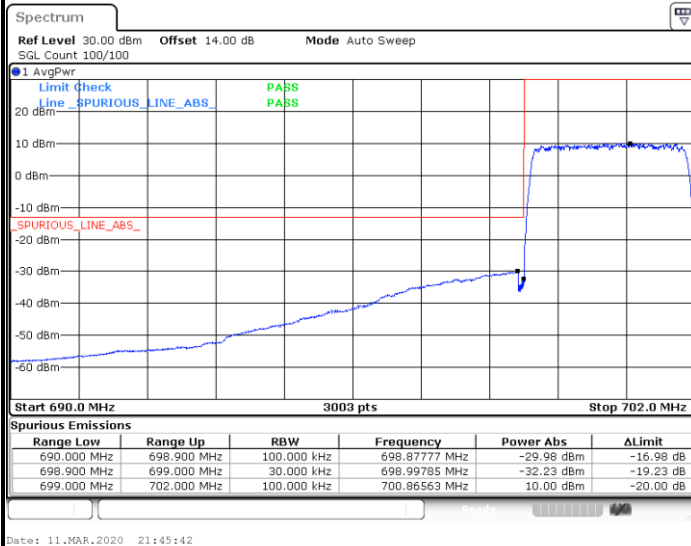
Lowest Band Edge / 1RB



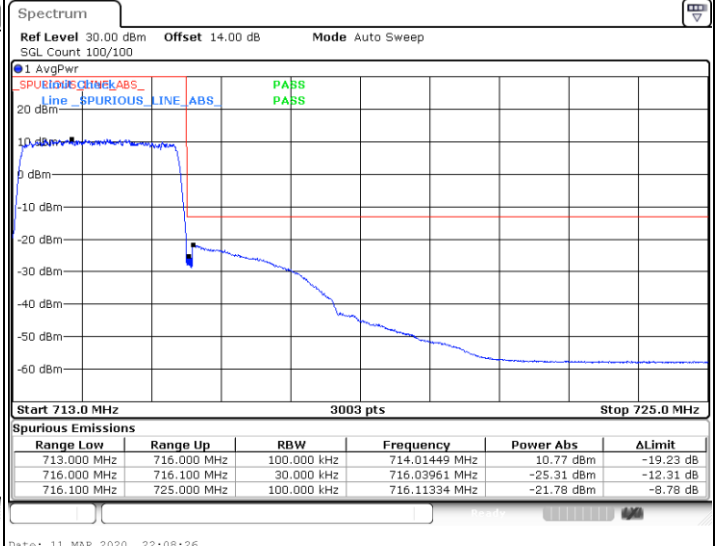
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB





LTE Band 12 / 3MHz / 16QAM

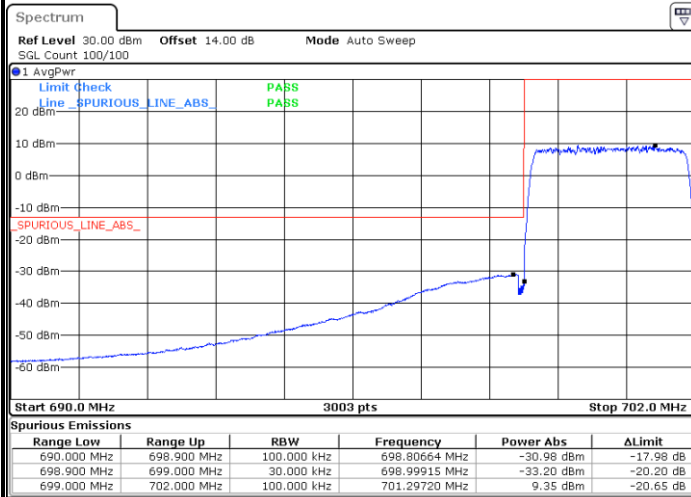
Lowest Band Edge / 1 RB



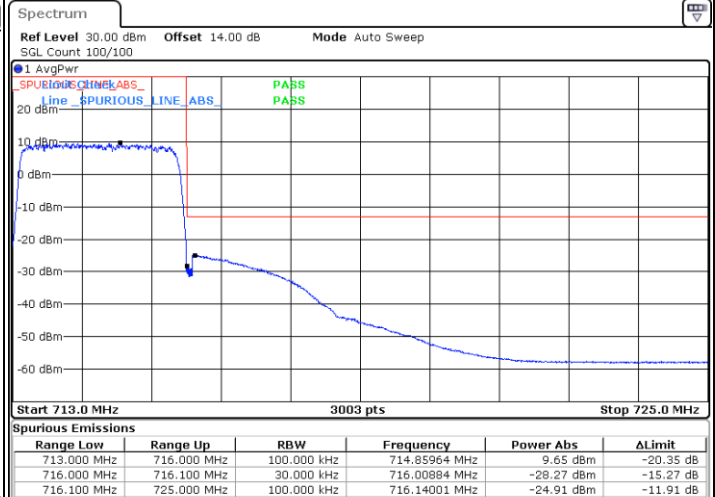
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



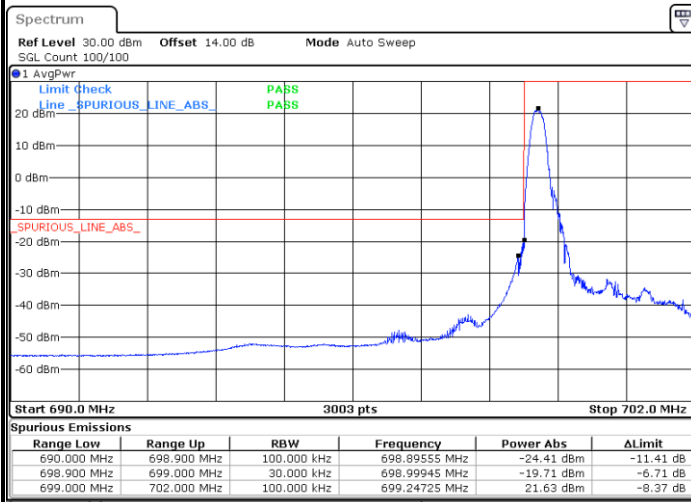
Highest Band Edge / Full RB



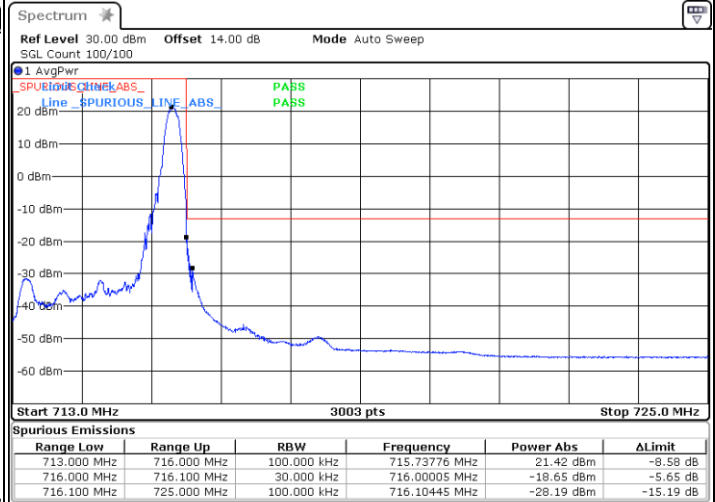


LTE Band 12 / 3MHz / 64QAM

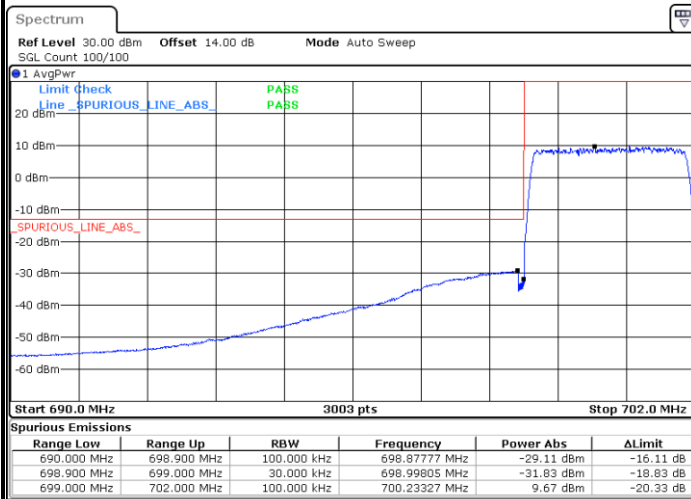
Lowest Band Edge / 1 RB



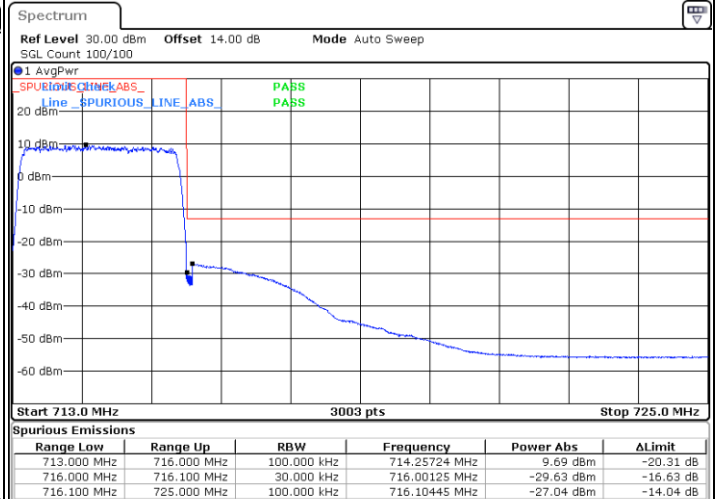
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



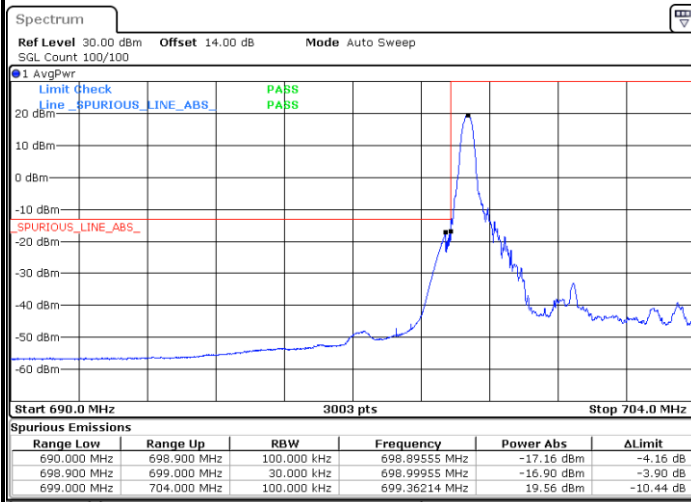
Highest Band Edge / Full RB



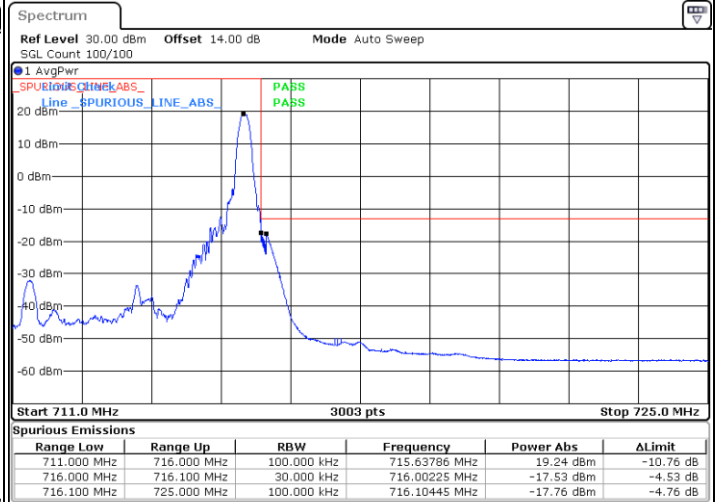


LTE Band 12 / 5MHz / QPSK

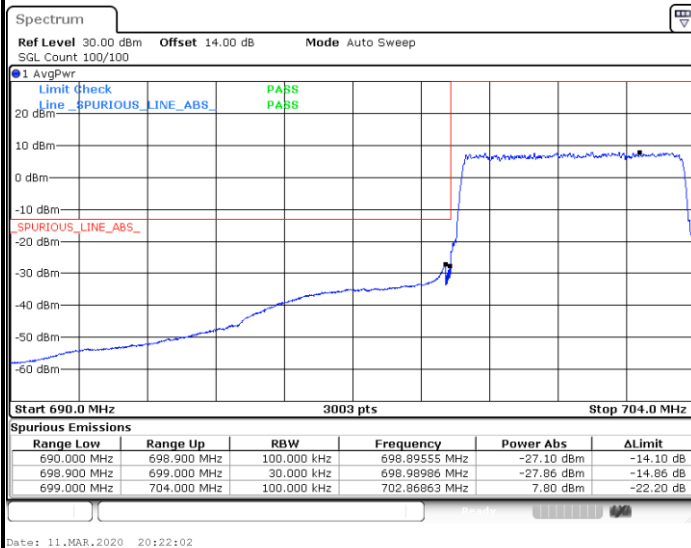
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

