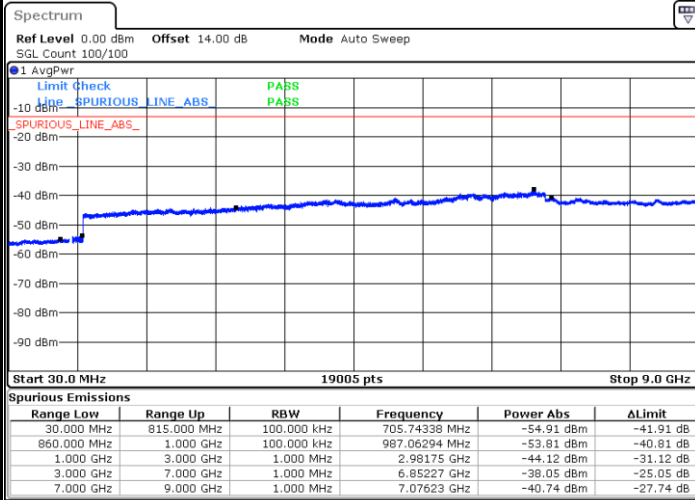




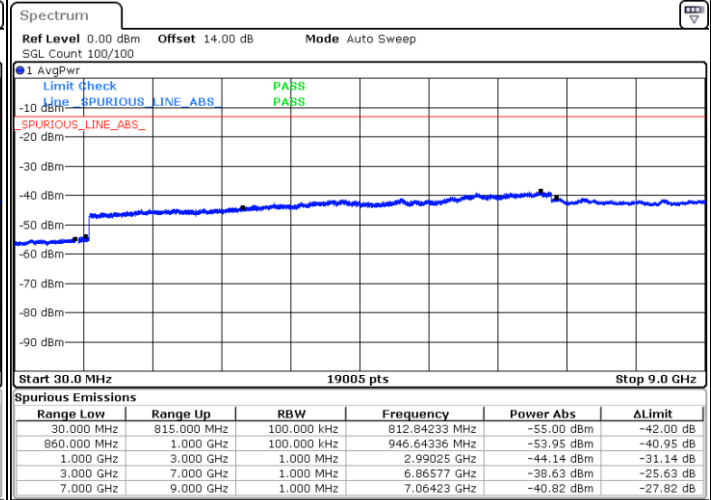
LTE Band 5 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

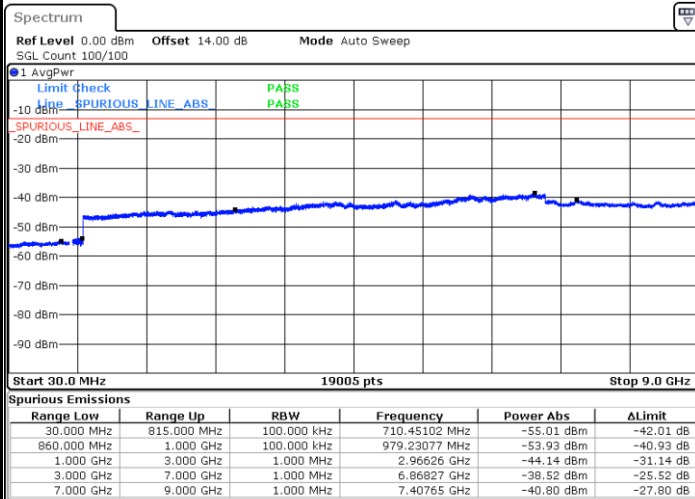


Date: 11.MAR.2020 03:10:54



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

Highest Channel / 64QAM



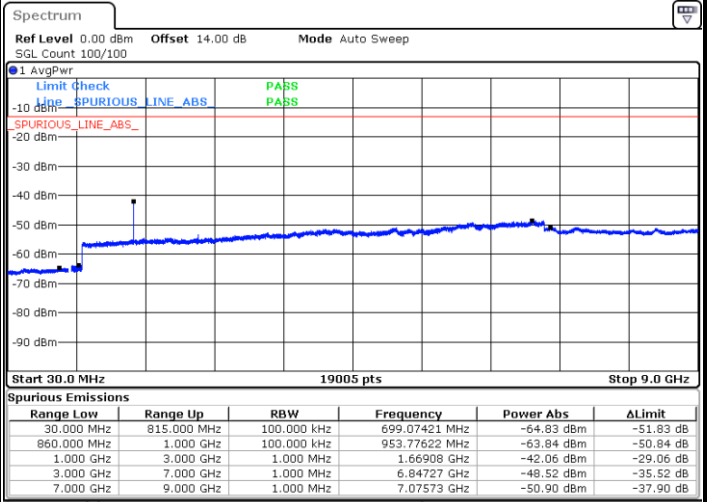
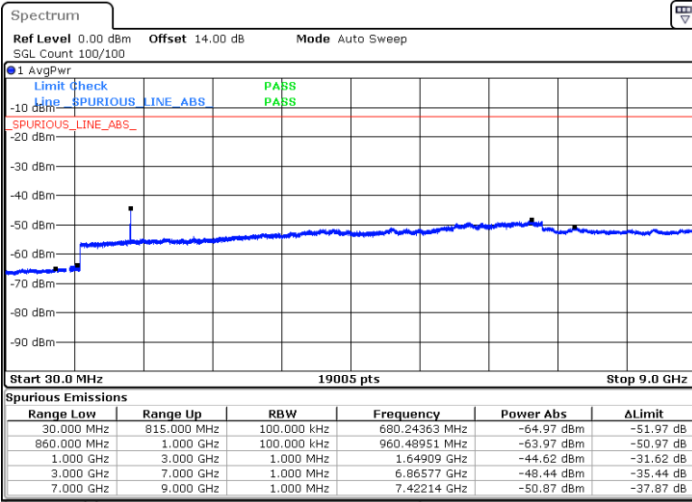
Date: 11.MAR.2020 03:32:14



LTE Band 5 / 5MHz

Lowest Channel / 64QAM

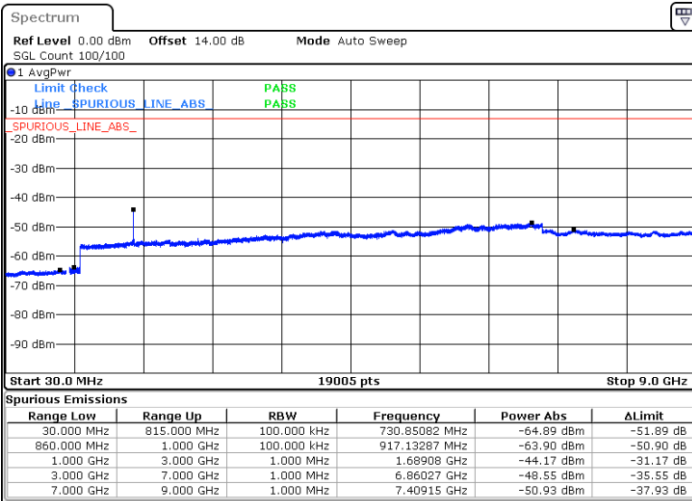
Middle Channel / 64QAM



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

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

Highest Channel / 64QAM



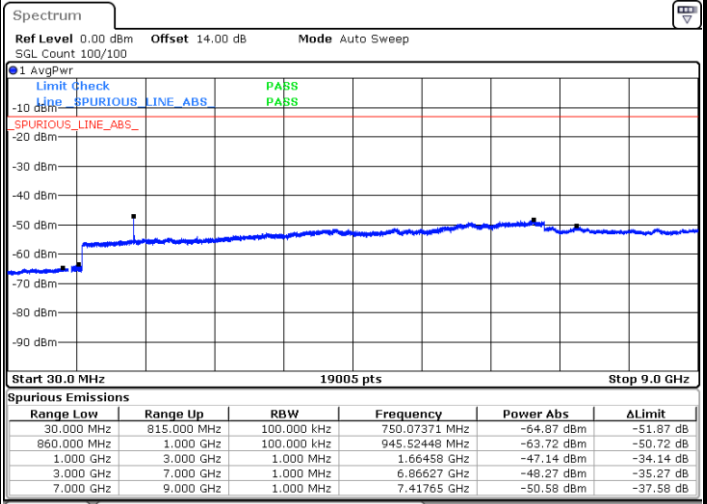
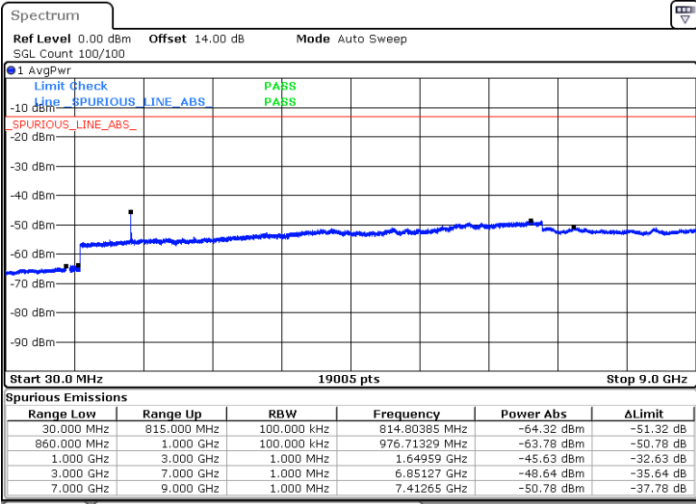
Date: 11.MAR.2020 04:37:48



LTE Band 5 / 10MHz

Lowest Channel / 64QAM

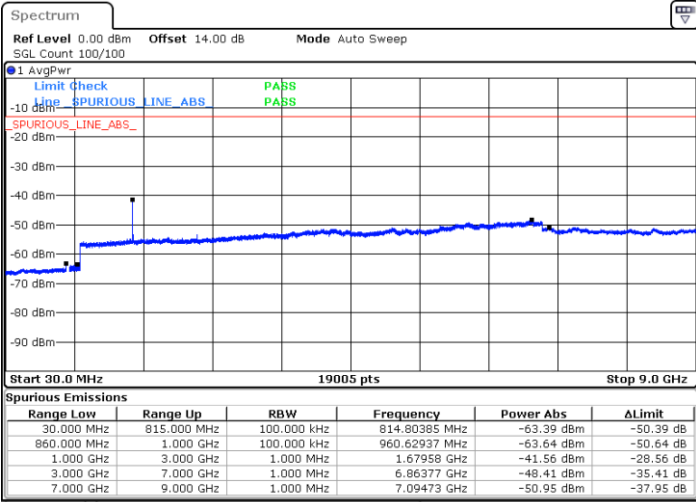
Middle Channel / 64QAM



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

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

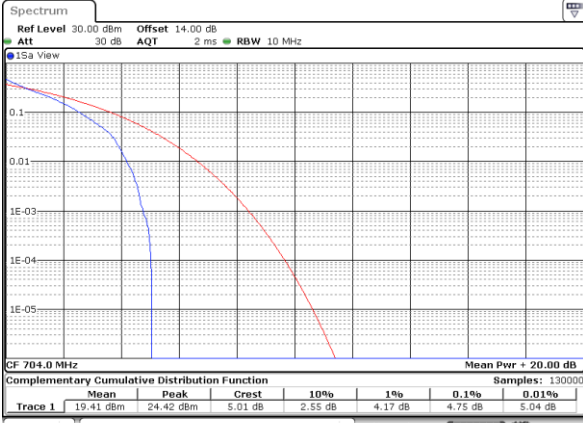
Peak-to-Average Ratio

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	-	-	



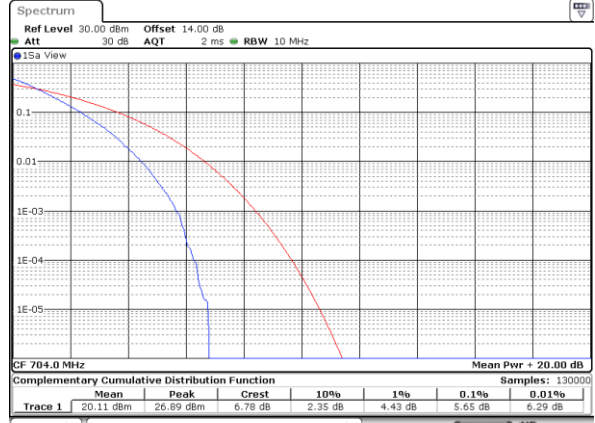
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



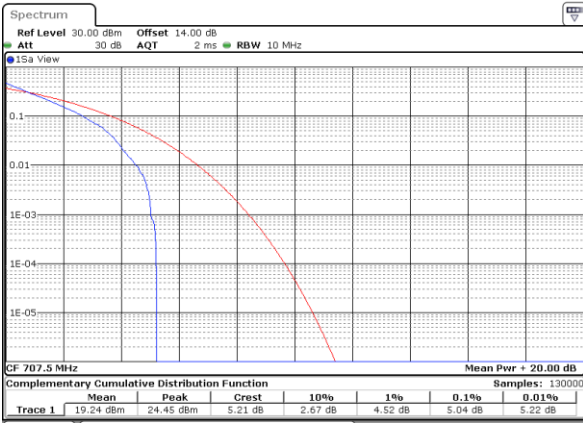
Date: 28 MAR 2020 17:28:35

Lowest Channel / Full RB



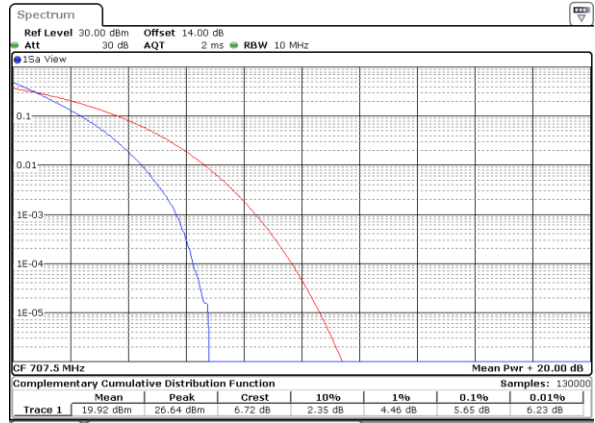
Date: 28 MAR 2020 17:28:19

Middle Channel / 1RB



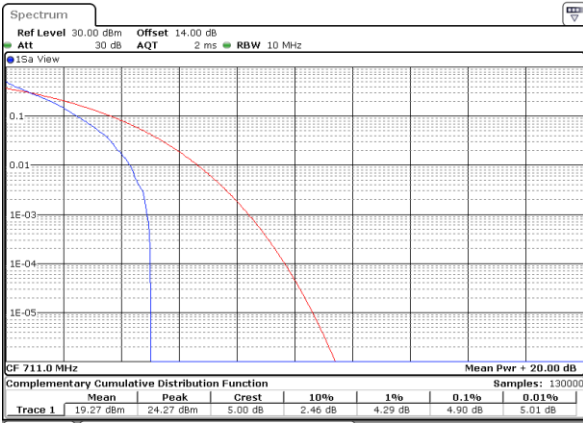
Date: 28 MAR 2020 17:28:53

Middle Channel / Full RB



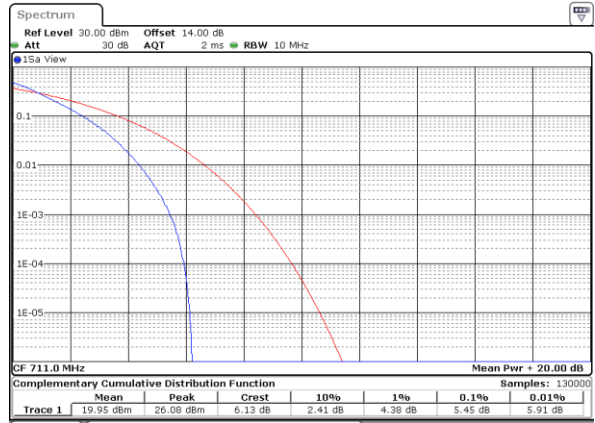
Date: 28 MAR 2020 17:29:09

Highest Channel / 1RB



Date: 28 MAR 2020 17:29:46

Highest Channel / Full RB

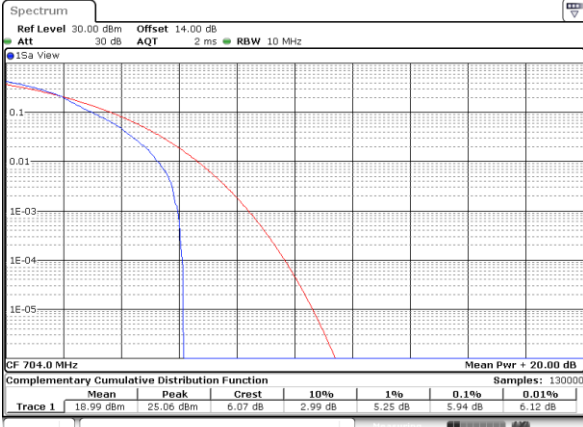


Date: 28 MAR 2020 17:29:27



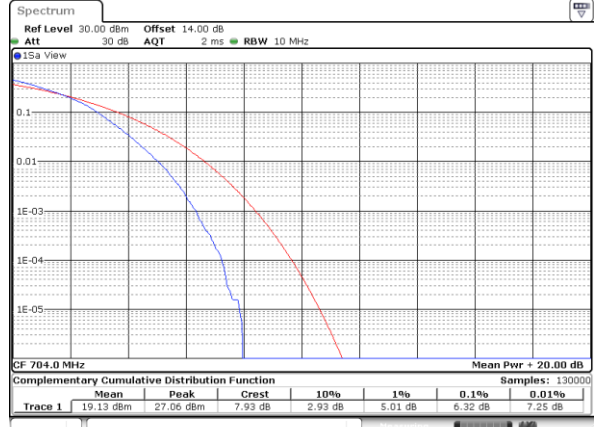
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



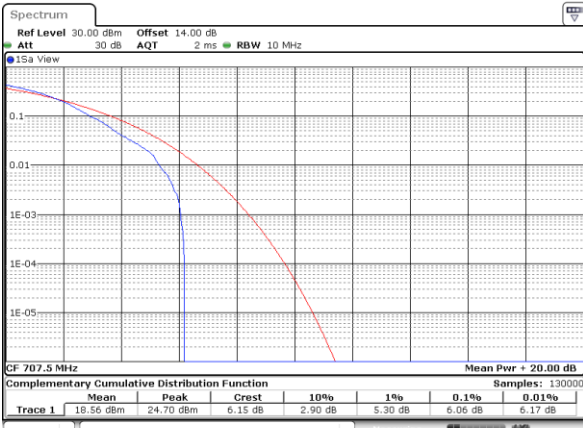
Date: 28 MAR 2020 17:27:00

Lowest Channel / Full RB



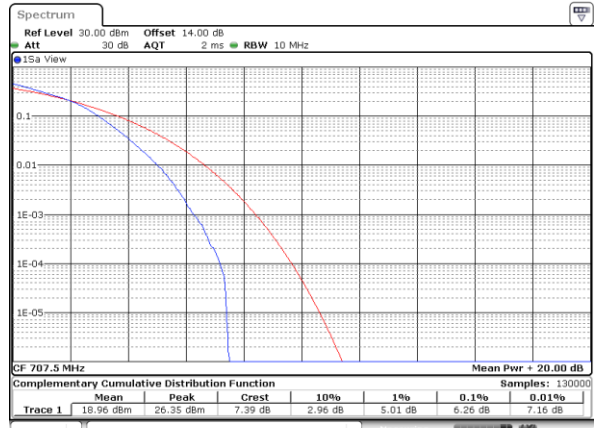
Date: 28 MAR 2020 17:26:43

Middle Channel / 1RB



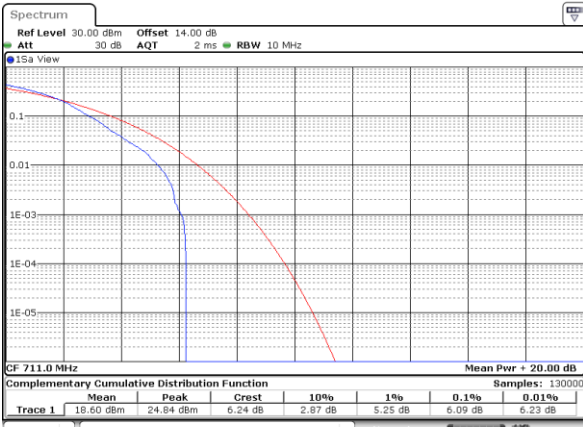
Date: 28 MAR 2020 17:27:17

Middle Channel / Full RB



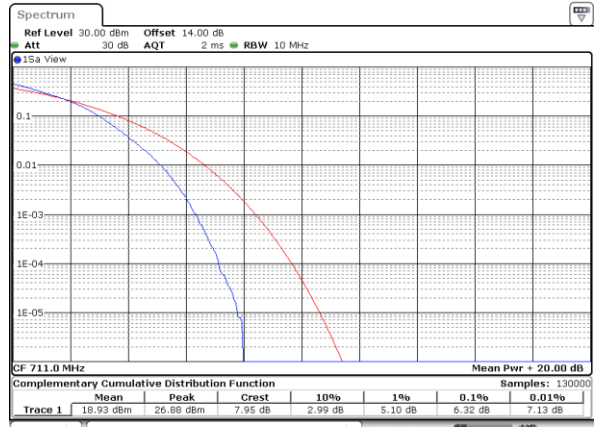
Date: 28 MAR 2020 17:27:33

Highest Channel / 1RB



Date: 28 MAR 2020 17:28:05

Highest Channel / Full RB

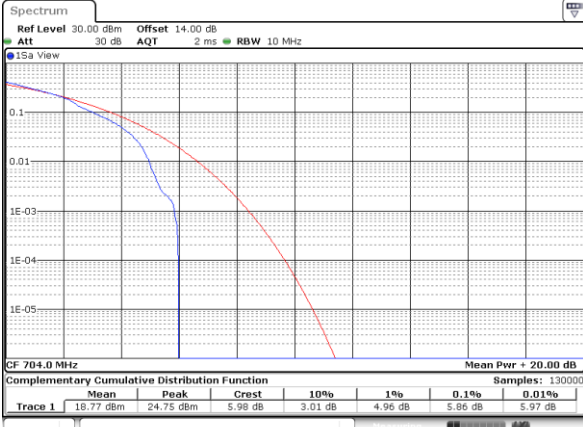


Date: 28 MAR 2020 17:27:49



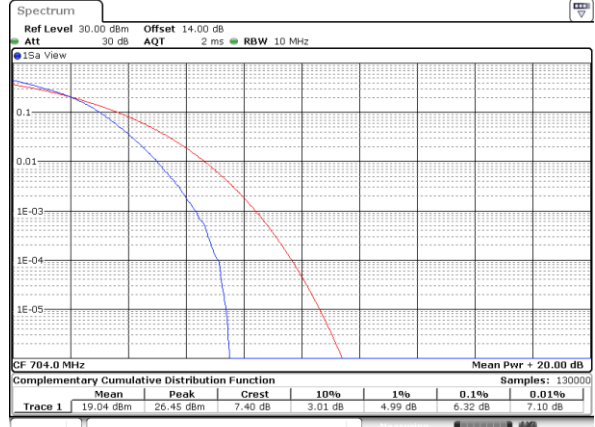
LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



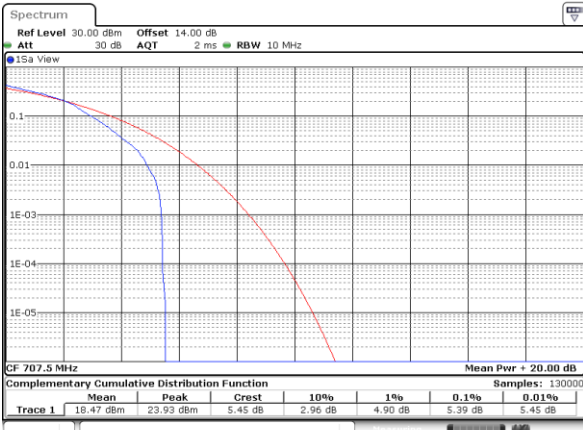
Date: 28 MAR 2020 17:25:26

Lowest Channel / Full RB



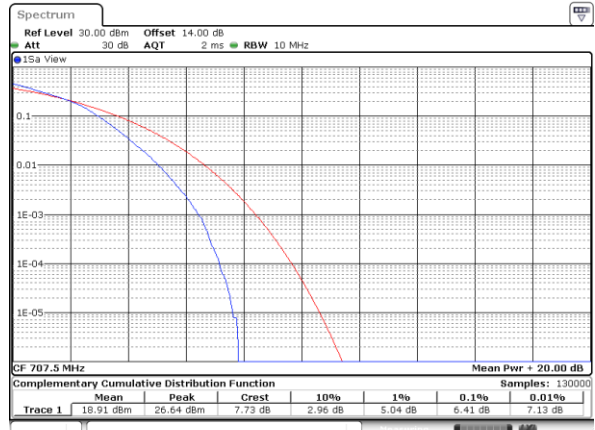
Date: 28 MAR 2020 17:24:52

Middle Channel / 1RB



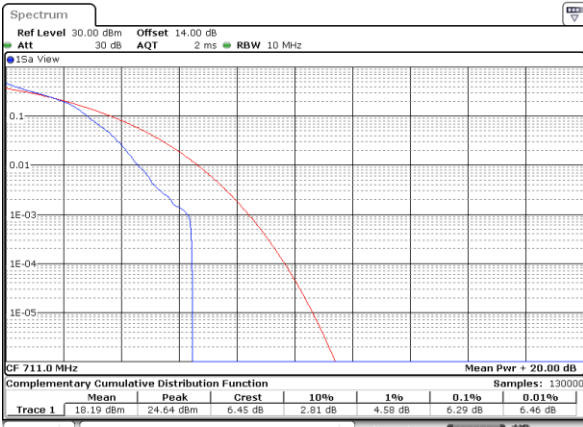
Date: 28 MAR 2020 17:25:43

Middle Channel / Full RB



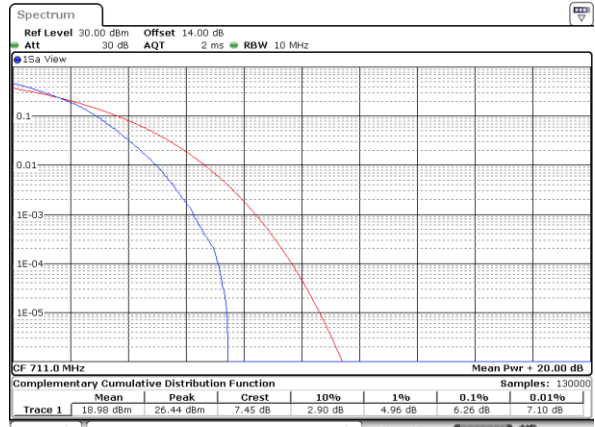
Date: 28 MAR 2020 17:25:58

Highest Channel / 1RB



Date: 28 MAR 2020 17:26:28

Highest Channel / Full RB



Date: 28 MAR 2020 17:26:14



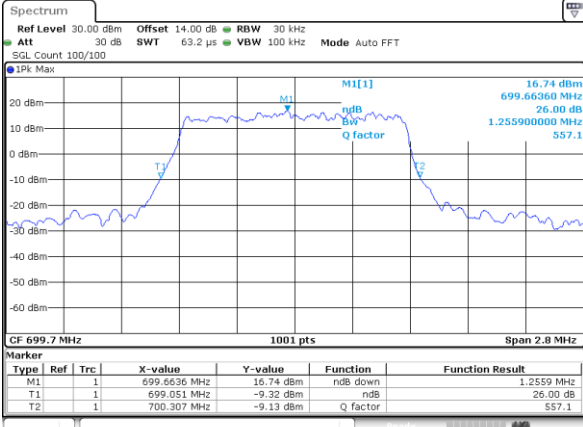
26dB Bandwidth

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	-	-	-	-	-



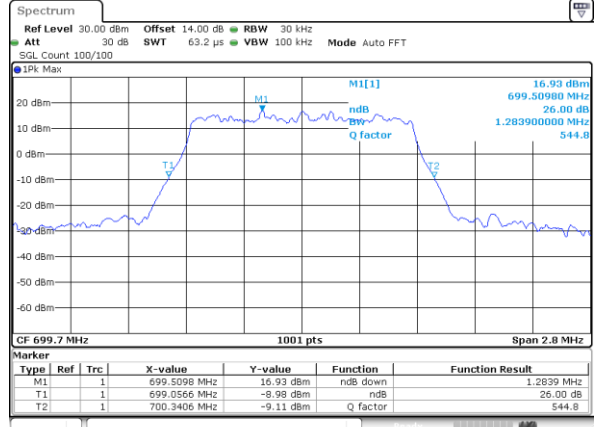
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



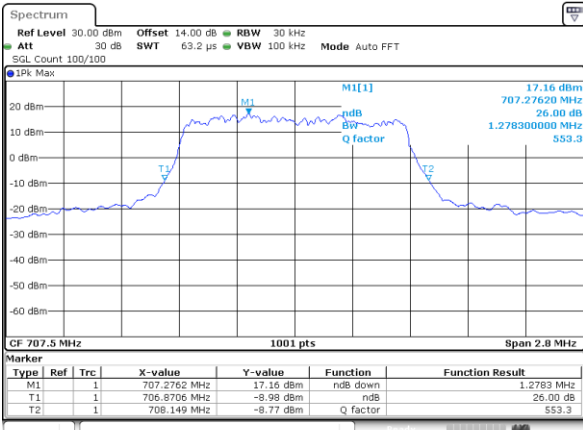
Date: 12_MAR_2020 00:38:01

Lowest Channel / 1.4MHz / 16QAM



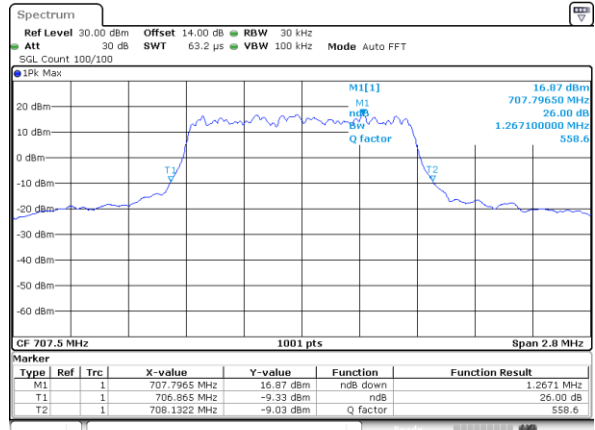
Date: 12_MAR_2020 00:39:50

Middle Channel / 1.4MHz / QPSK



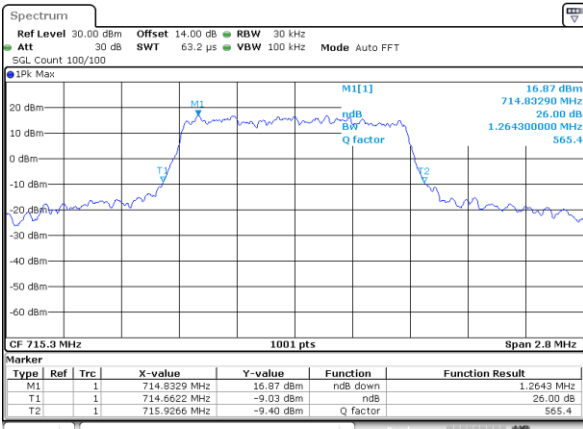
Date: 12_MAR_2020 01:04:47

Middle Channel / 1.4MHz / 16QAM



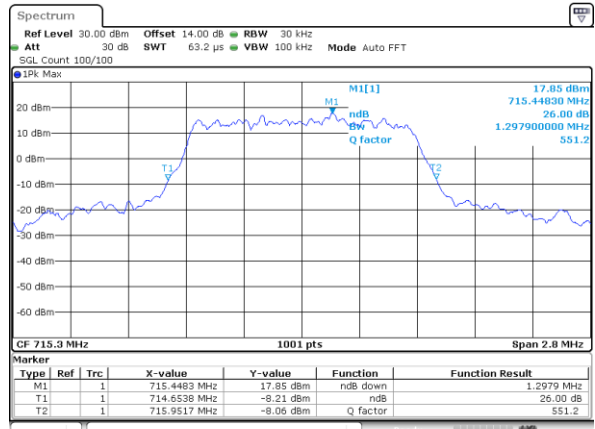
Date: 12_MAR_2020 01:13:30

Highest Channel / 1.4MHz / QPSK



Date: 12_MAR_2020 01:36:18

Highest Channel / 1.4MHz / 16QAM

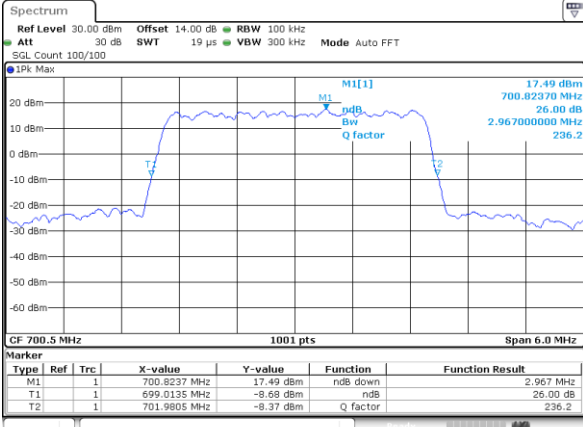


Date: 12_MAR_2020 01:35:37



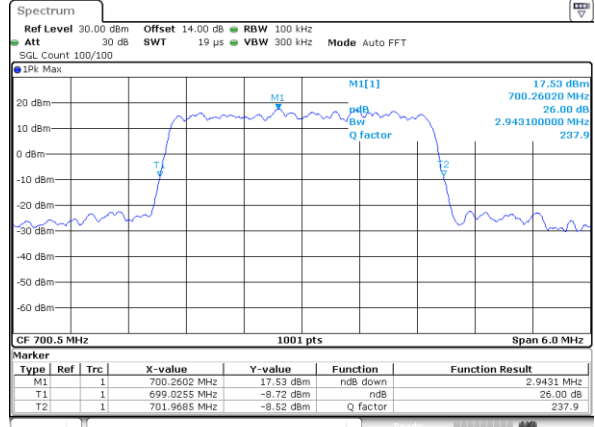
LTE Band 12

Lowest Channel / 3MHz / QPSK



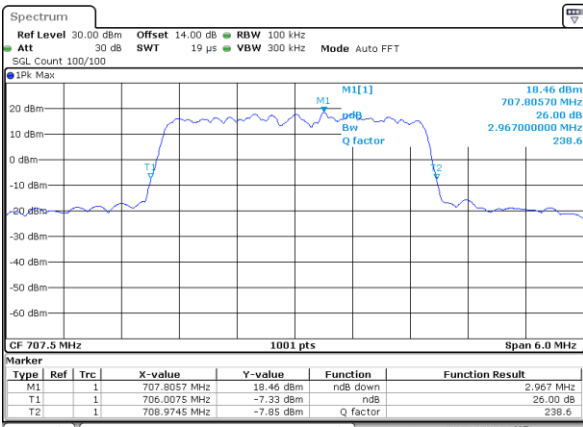
Date: 11.MAR.2020 21:43:59

Lowest Channel / 3MHz / 16QAM



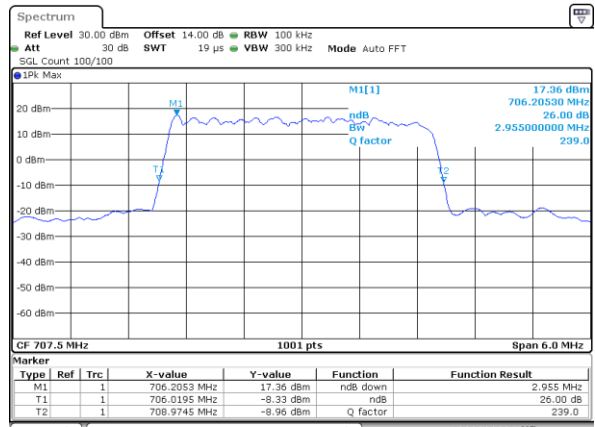
Date: 11.MAR.2020 21:31:39

Middle Channel / 3MHz / QPSK



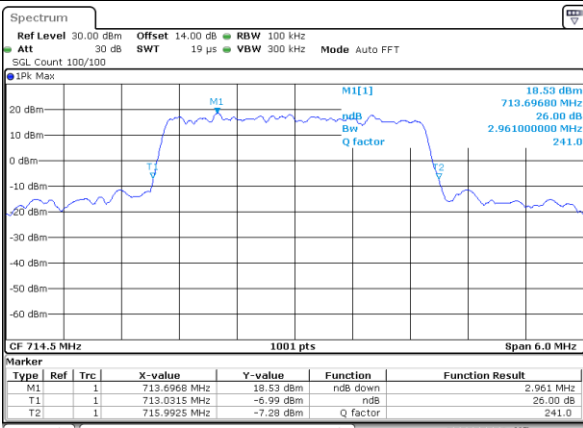
Date: 11.MAR.2020 22:01:16

Middle Channel / 3MHz / 16QAM



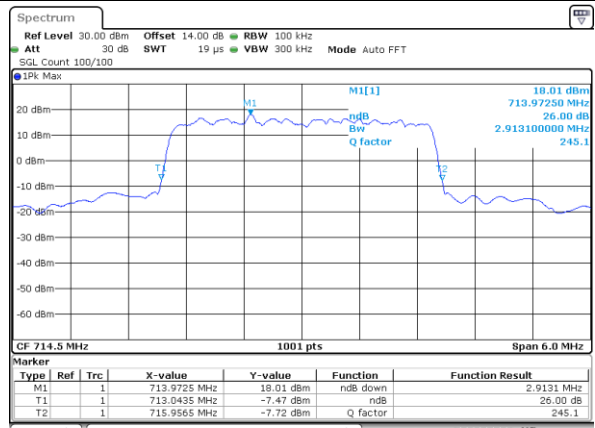
Date: 11.MAR.2020 22:01:41

Highest Channel / 3MHz / QPSK



Date: 11.MAR.2020 22:07:17

Highest Channel / 3MHz / 16QAM

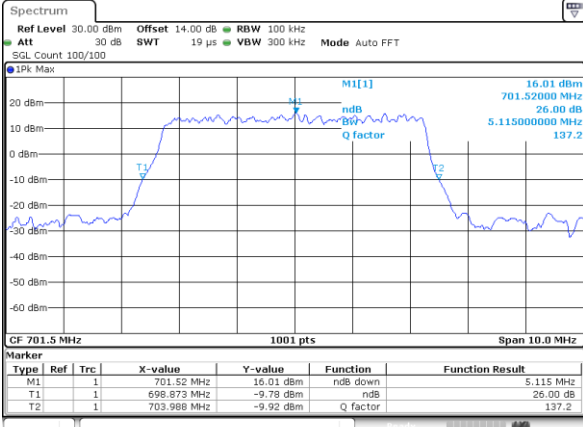


Date: 11.MAR.2020 22:05:06



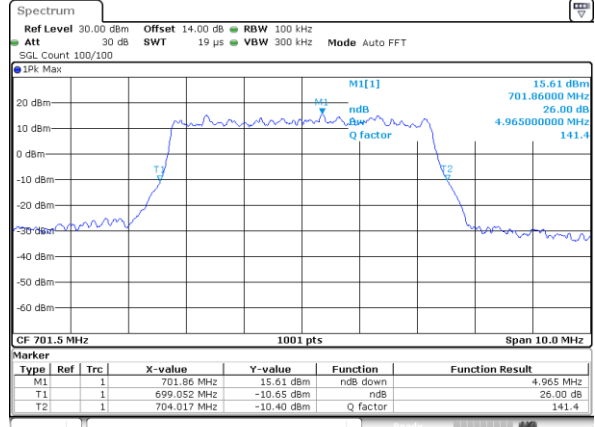
LTE Band 12

Lowest Channel / 5MHz / QPSK



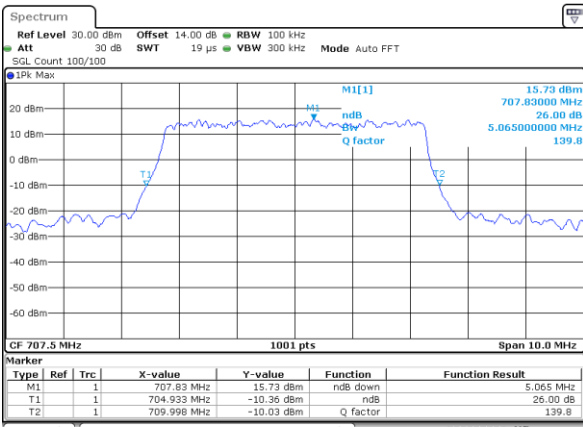
Date: 11.MAR.2020 20:21:17

Lowest Channel / 5MHz / 16QAM



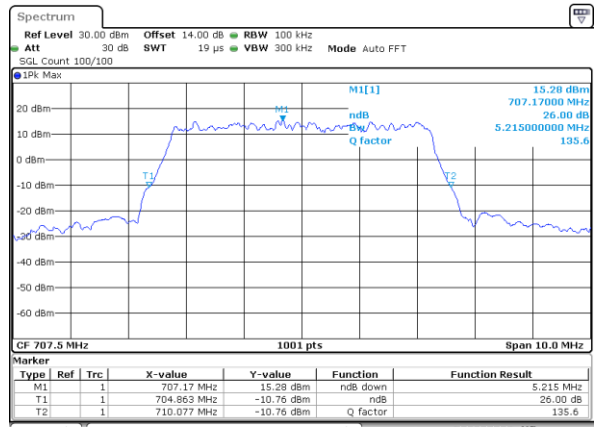
Date: 11.MAR.2020 20:19:59

Middle Channel / 5MHz / QPSK



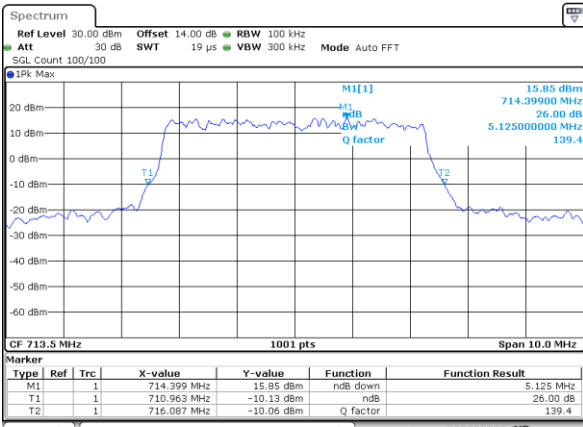
Date: 11.MAR.2020 19:06:25

Middle Channel / 5MHz / 16QAM



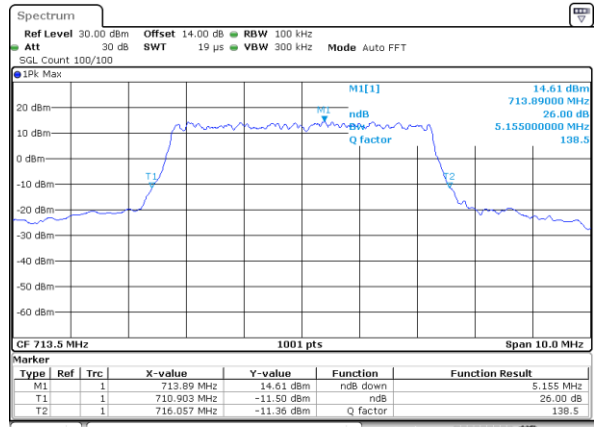
Date: 11.MAR.2020 19:07:12

Highest Channel / 5MHz / QPSK



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

Highest Channel / 5MHz / 16QAM

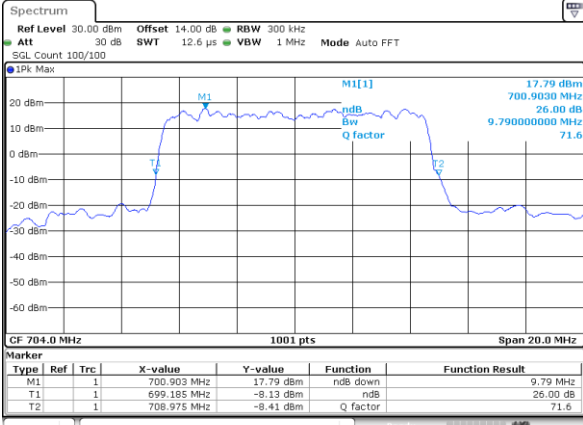


Date: 11.MAR.2020 20:26:09



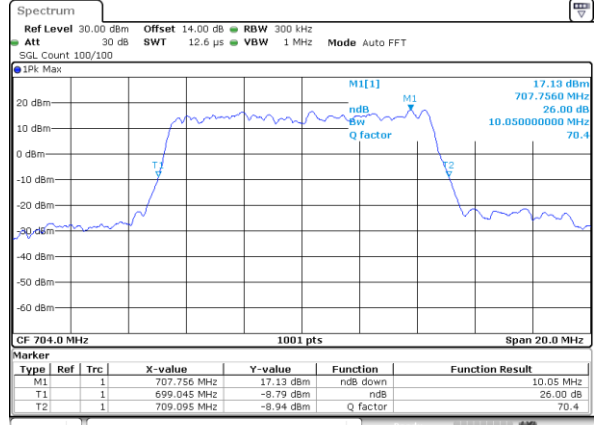
LTE Band 12

Lowest Channel / 10MHz / QPSK



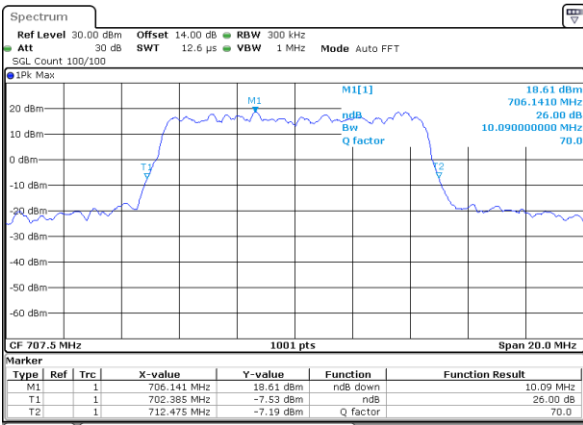
Date: 11.MAR.2020 21:19:54

Lowest Channel / 10MHz / 16QAM



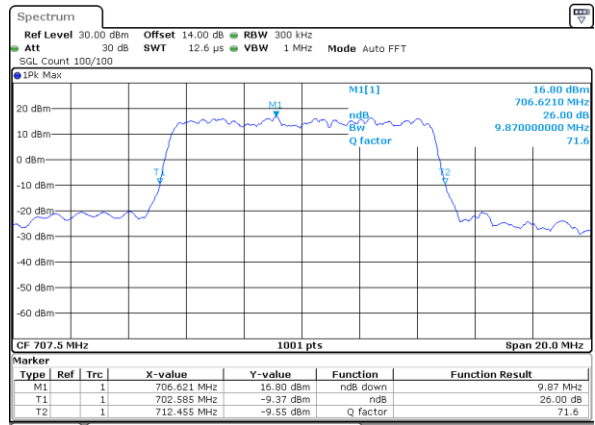
Date: 11.MAR.2020 21:21:59

Middle Channel / 10MHz / QPSK



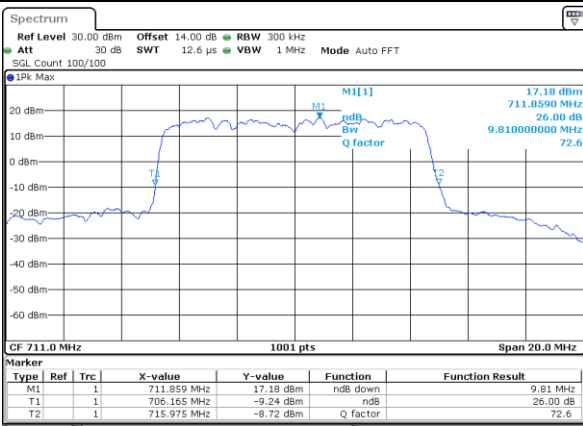
Date: 11.MAR.2020 21:05:07

Middle Channel / 10MHz / 16QAM



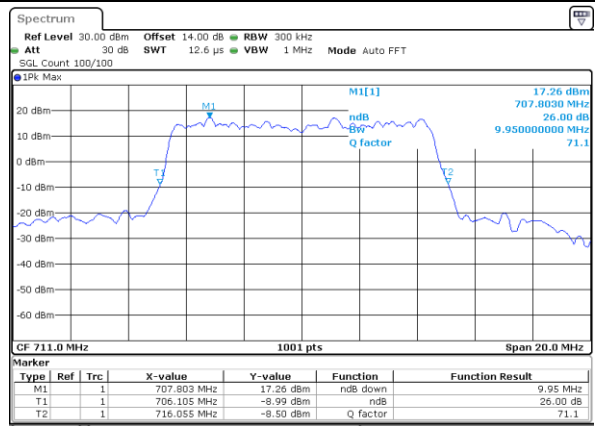
Date: 11.MAR.2020 21:04:44

Highest Channel / 10MHz / QPSK



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

Highest Channel / 10MHz / 16QAM

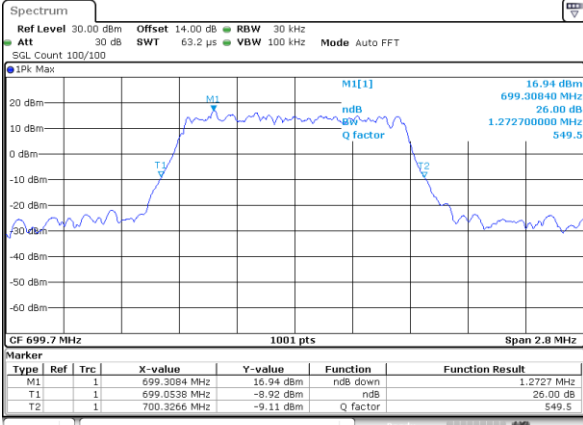


Date: 11.MAR.2020 21:00:33



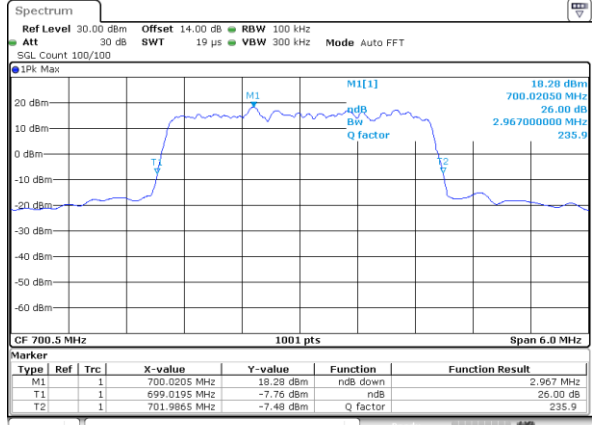
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



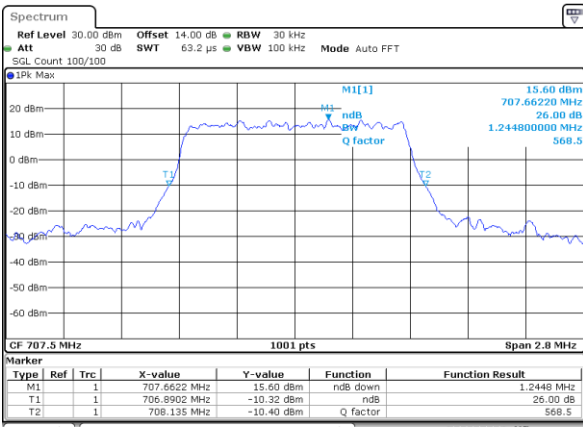
Date: 12.MAR.2020 00:41:37

Lowest Channel / 3MHz / 64QAM



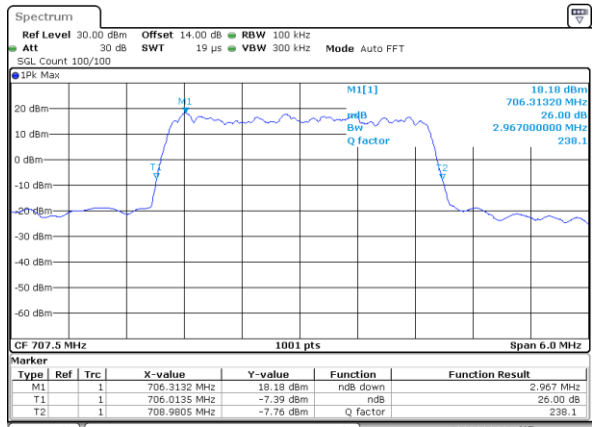
Date: 11.MAR.2020 21:27:31

Middle Channel / 1.4MHz / 64QAM



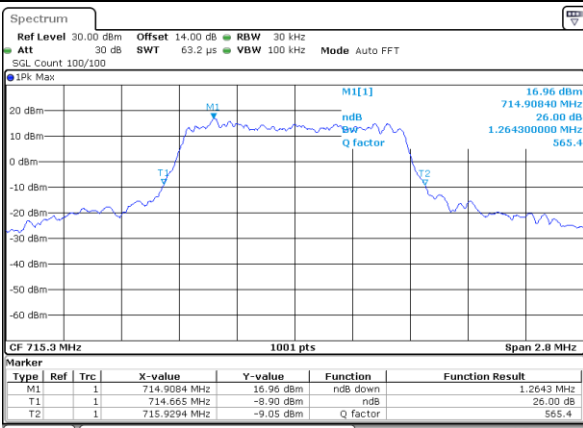
Date: 12.MAR.2020 01:32:13

Middle Channel / 3MHz / 64QAM



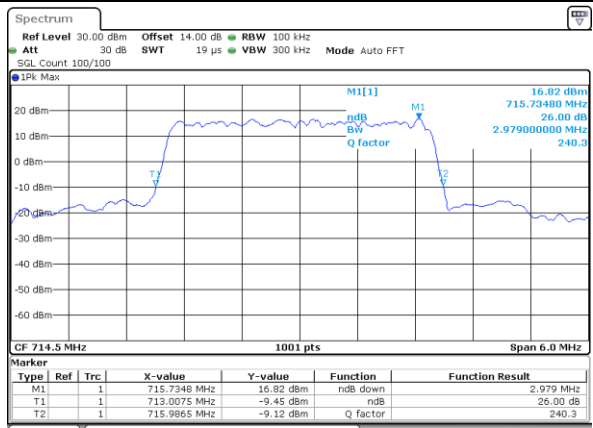
Date: 11.MAR.2020 22:10:30

Highest Channel / 1.4MHz / 64QAM



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

Highest Channel / 3MHz / 64QAM

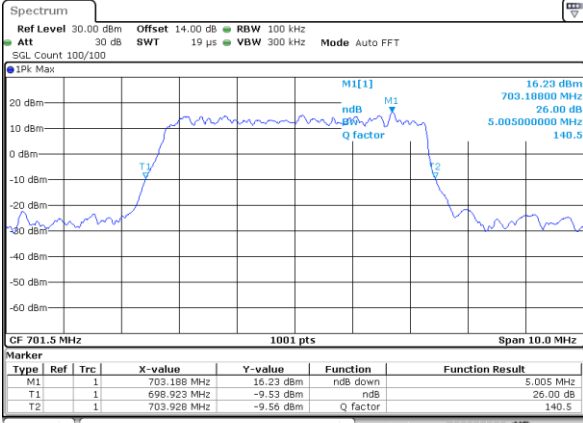


Date: 11.MAR.2020 22:10:32



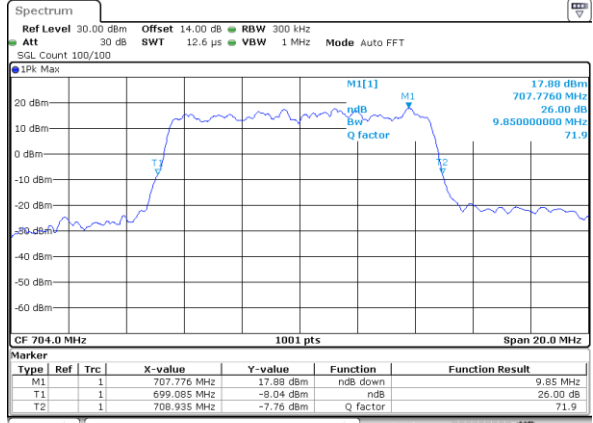
LTE Band 12

Lowest Channel / 5MHz / 64QAM



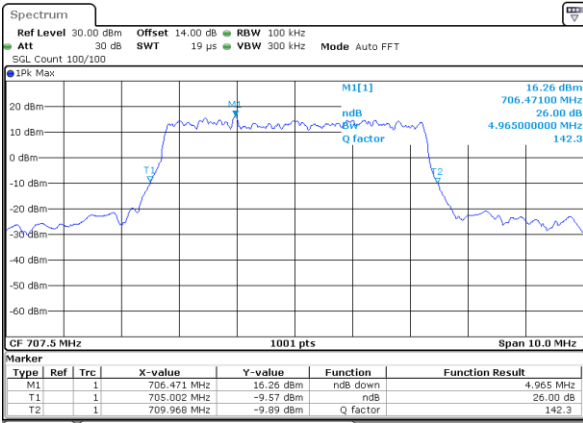
Date: 11.MAR.2020 20:20:51

Lowest Channel / 10MHz / 64QAM



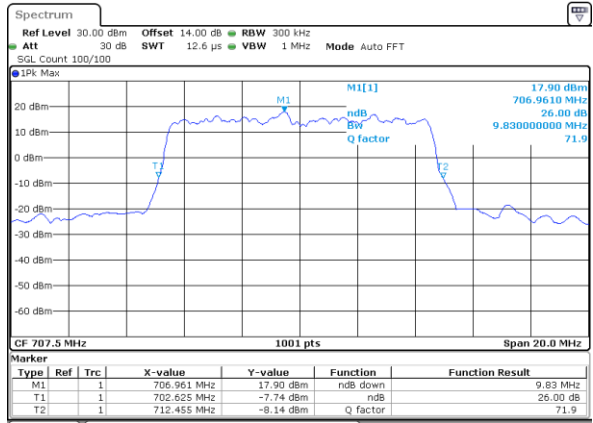
Date: 11.MAR.2020 21:24:36

Middle Channel / 5MHz / 64QAM



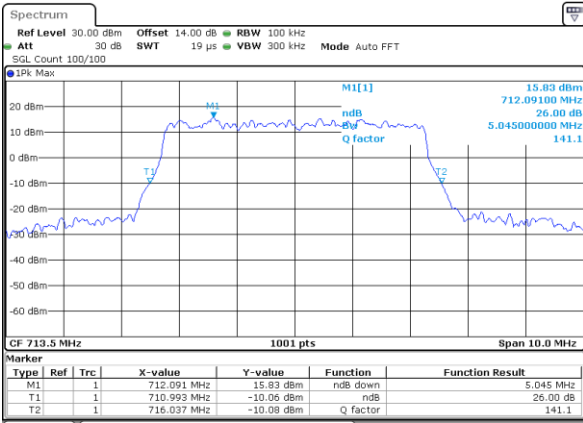
Date: 11.MAR.2020 19:07:51

Middle Channel / 10MHz / 64QAM



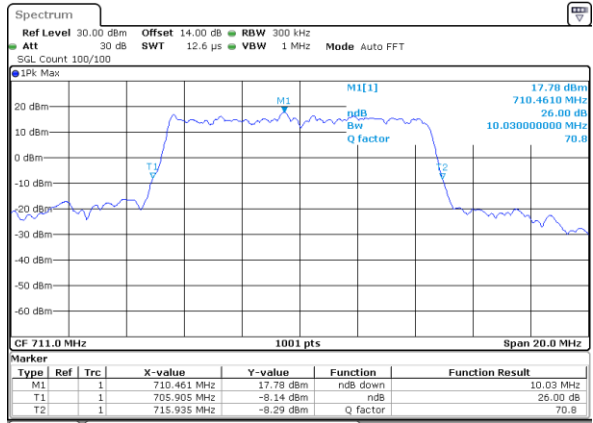
Date: 11.MAR.2020 21:04:16

Highest Channel / 5MHz / 64QAM



Date: 11.MAR.2020 20:24:51

Highest Channel / 10MHz / 64QAM



Date: 11.MAR.2020 21:02:14



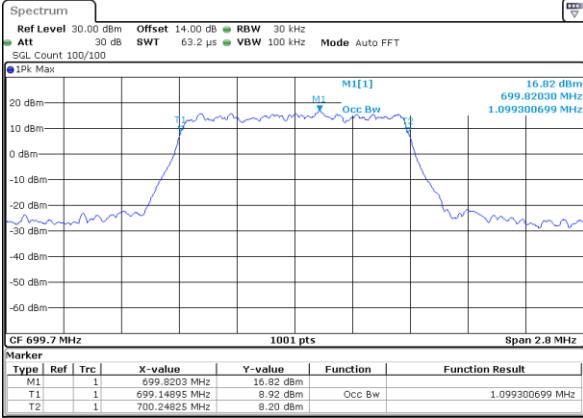
Occupied Bandwidth

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	-	-	-	-	-



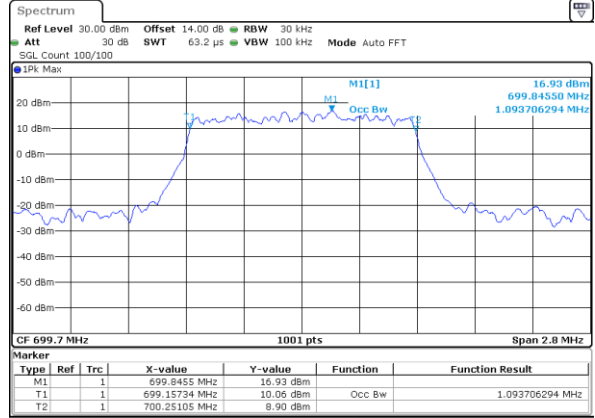
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



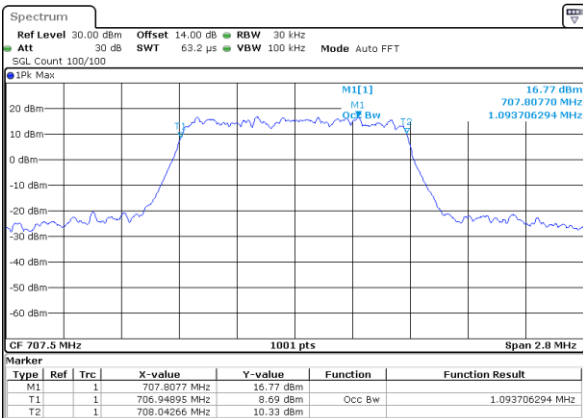
Date: 12.MAR.2020 00:14:13

Lowest Channel / 1.4MHz / 16QAM



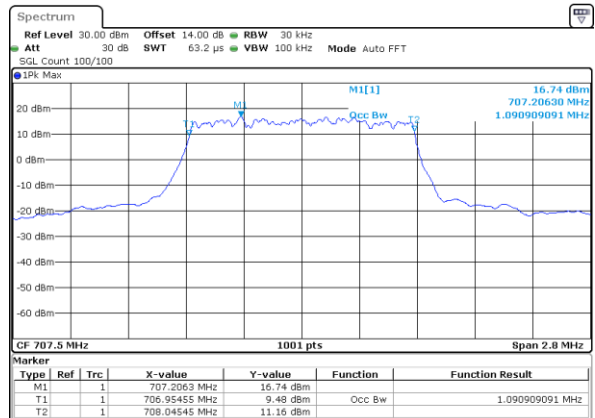
Date: 12.MAR.2020 00:13:41

Middle Channel / 1.4MHz / QPSK



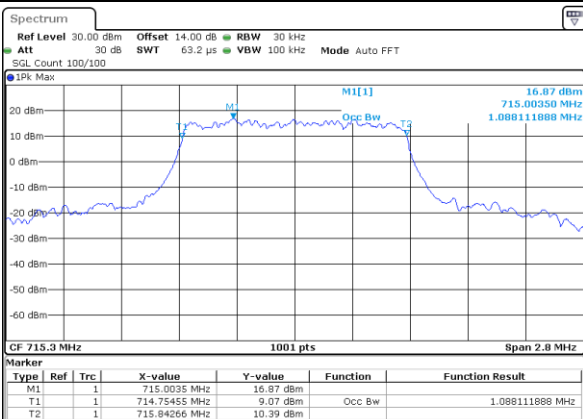
Date: 12.MAR.2020 01:03:21

Middle Channel / 1.4MHz / 16QAM



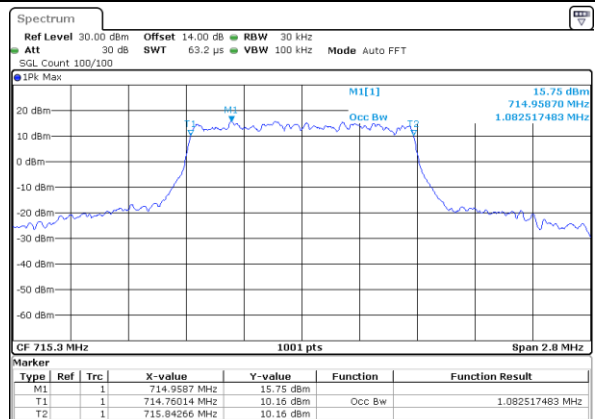
Date: 12.MAR.2020 01:13:22

Highest Channel / 1.4MHz / QPSK



Date: 12.MAR.2020 01:16:10

Highest Channel / 1.4MHz / 16QAM

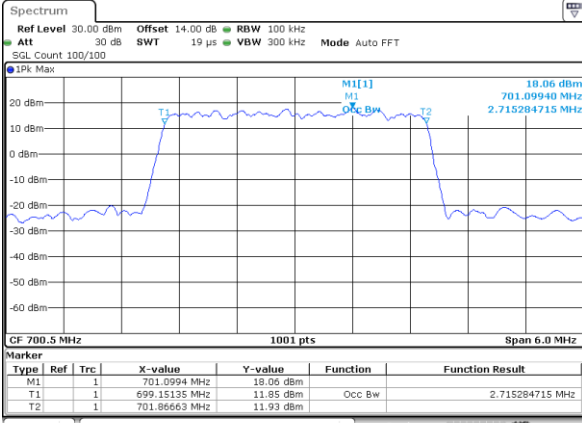


Date: 12.MAR.2020 01:13:45



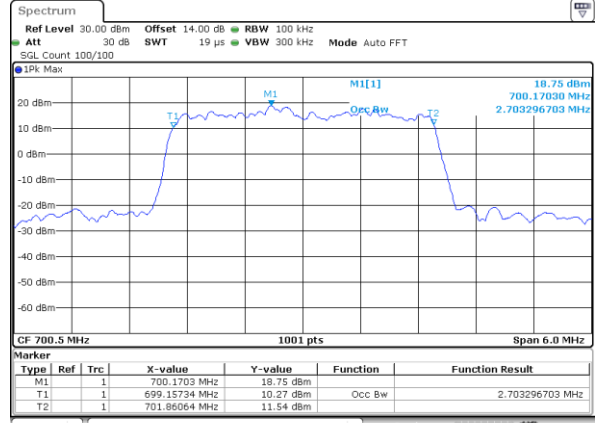
LTE Band 12

Lowest Channel / 3MHz / QPSK



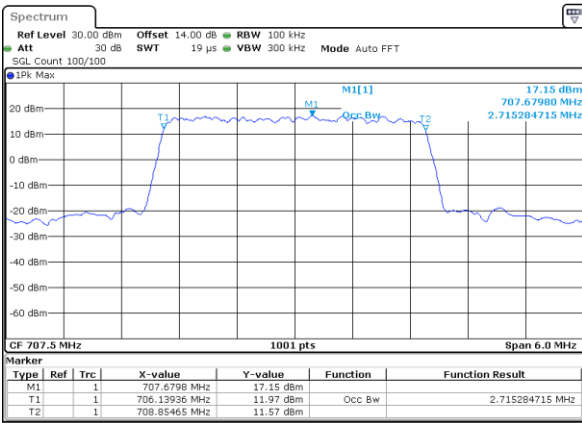
Date: 11.MAR.2020 21:43:47

Lowest Channel / 3MHz / 16QAM



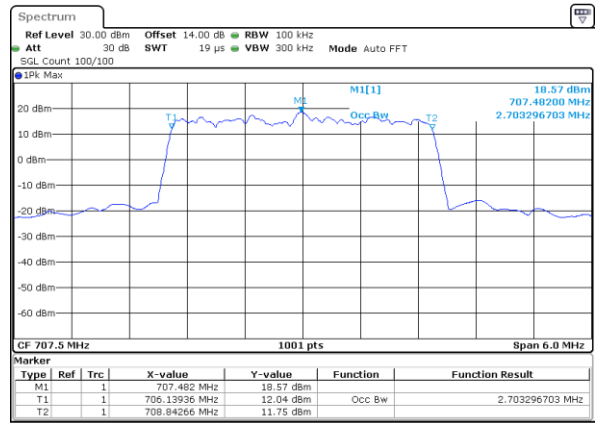
Date: 11.MAR.2020 21:31:31

Middle Channel / 3MHz / QPSK



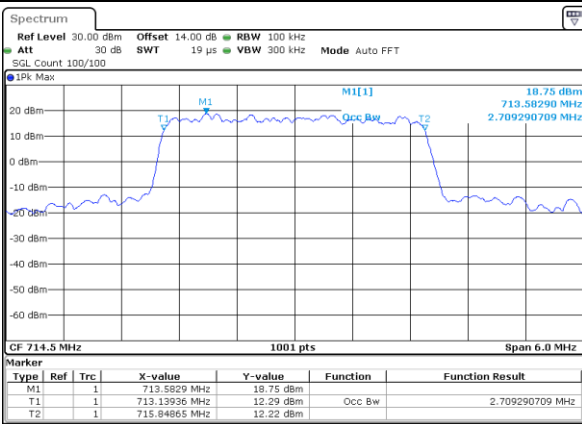
Date: 11.MAR.2020 22:01:04

Middle Channel / 3MHz / 16QAM



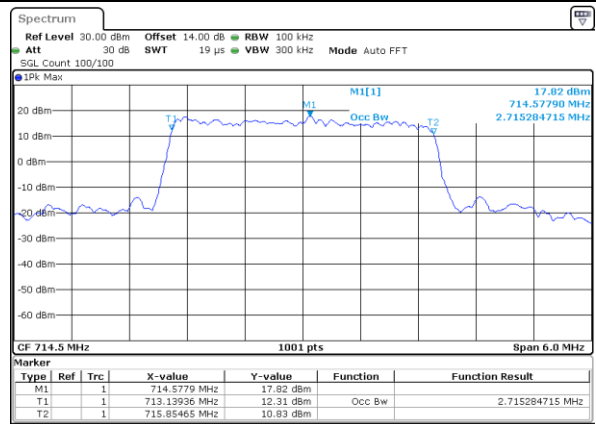
Date: 11.MAR.2020 22:01:32

Highest Channel / 3MHz / QPSK



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

Highest Channel / 3MHz / 16QAM

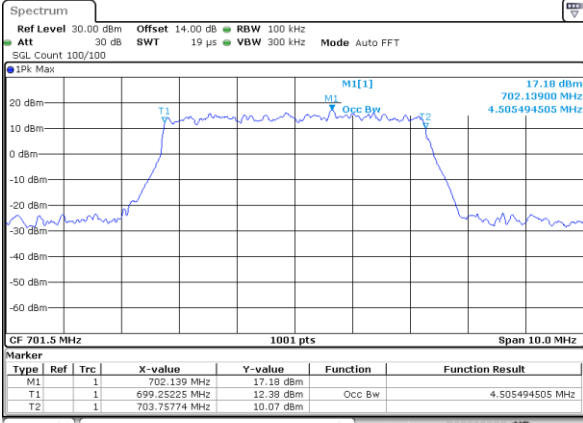


Date: 11.MAR.2020 22:04:57



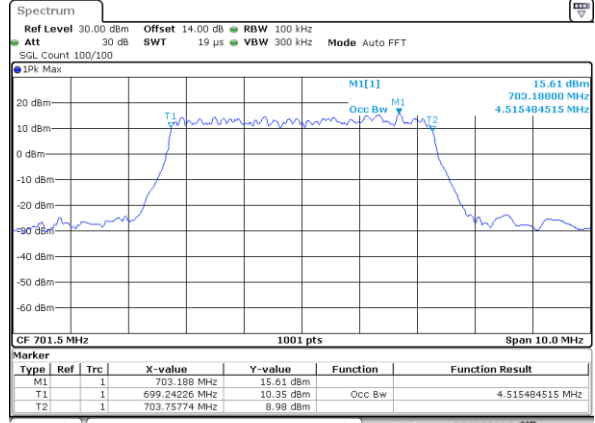
LTE Band 12

Lowest Channel / 5MHz / QPSK



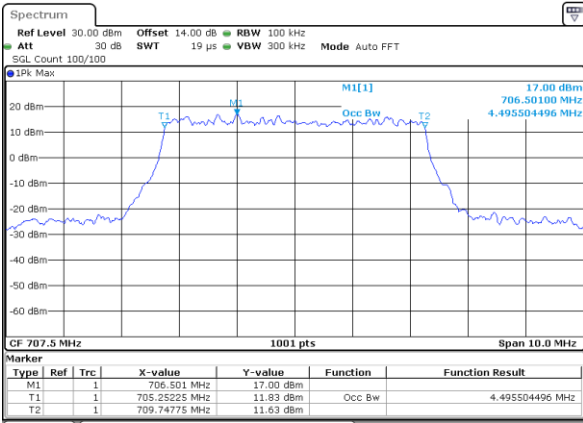
Date: 11.MAR.2020 20:21:09

Lowest Channel / 5MHz / 16QAM



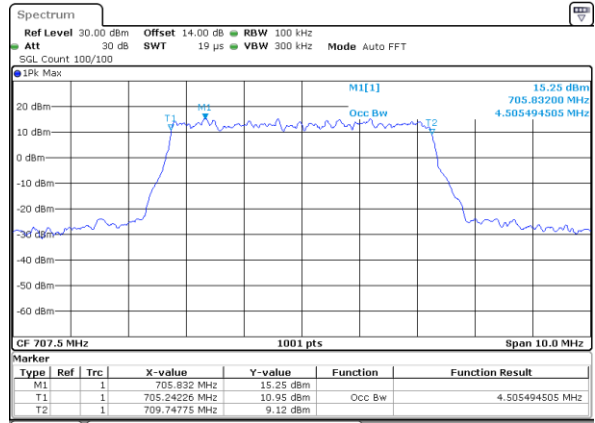
Date: 11.MAR.2020 20:19:50

Middle Channel / 5MHz / QPSK



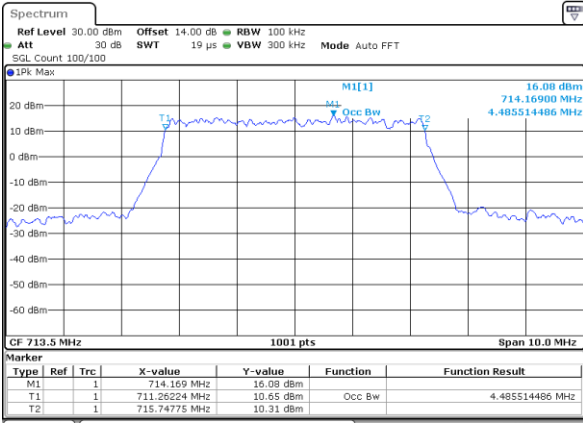
Date: 11.MAR.2020 19:06:16

Middle Channel / 5MHz / 16QAM



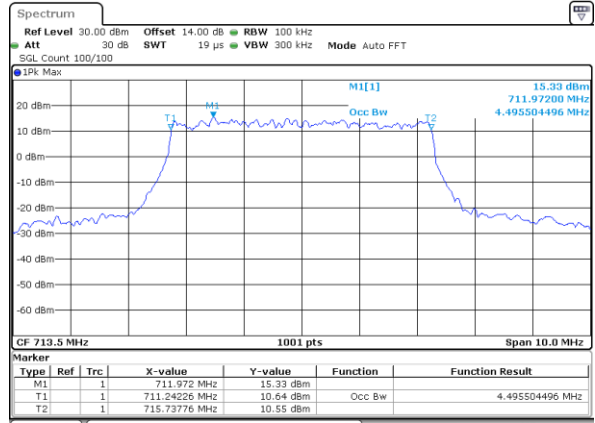
Date: 11.MAR.2020 19:07:04

Highest Channel / 5MHz / QPSK



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

Highest Channel / 5MHz / 16QAM

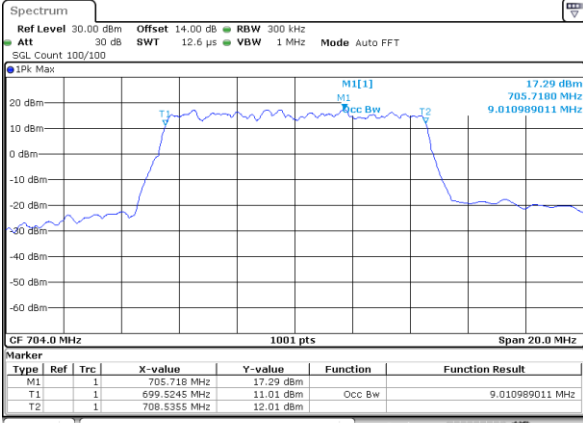


Date: 11.MAR.2020 20:26:01



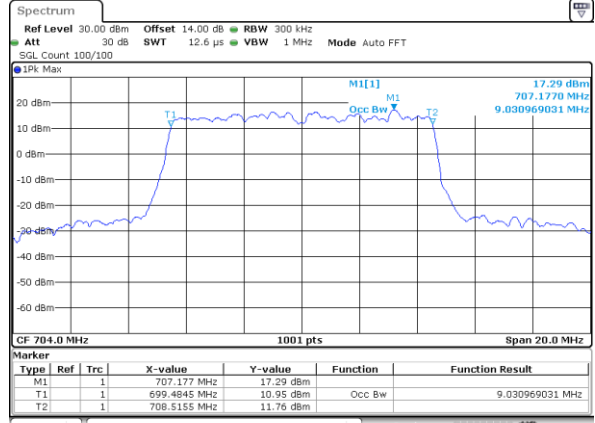
LTE Band 12

Lowest Channel / 10MHz / QPSK



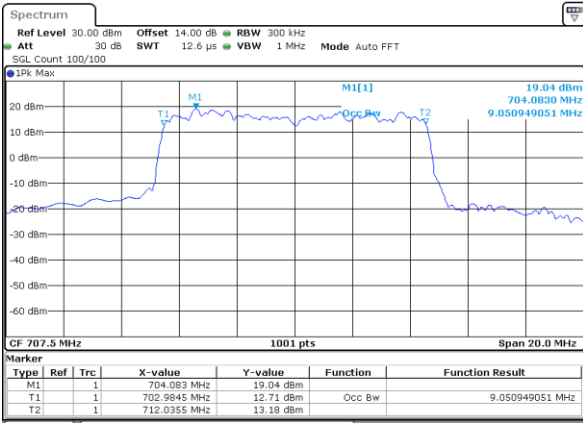
Date: 11.MAR.2020 21:19:44

Lowest Channel / 10MHz / 16QAM



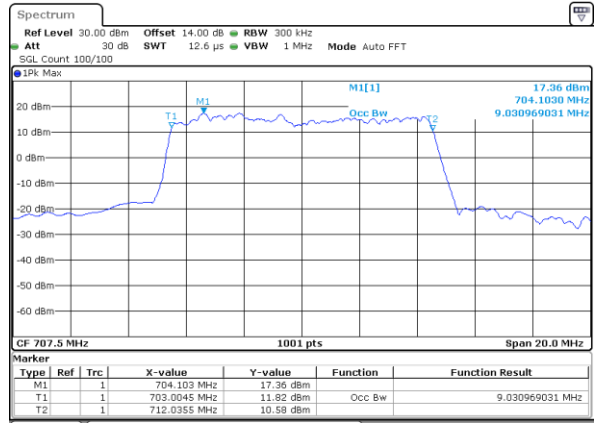
Date: 11.MAR.2020 21:21:19

Middle Channel / 10MHz / QPSK



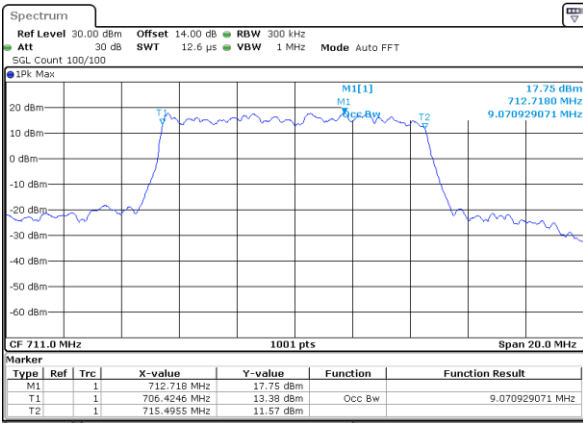
Date: 11.MAR.2020 21:04:59

Middle Channel / 10MHz / 16QAM



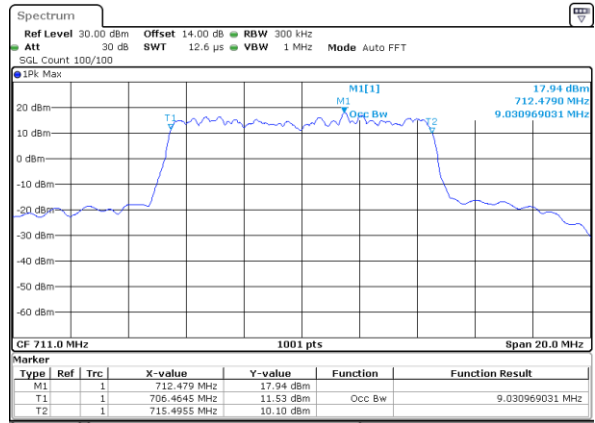
Date: 11.MAR.2020 21:04:37

Highest Channel / 10MHz / QPSK



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

Highest Channel / 10MHz / 16QAM

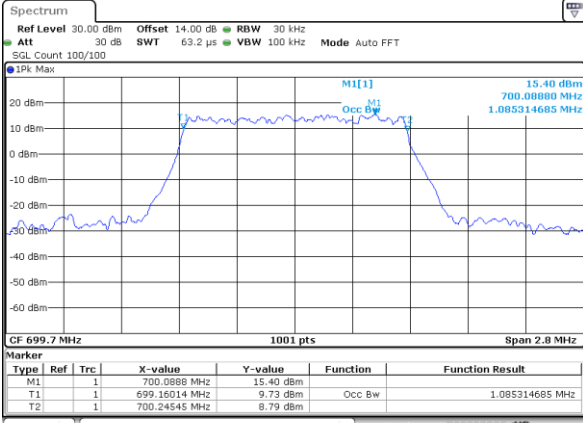


Date: 11.MAR.2020 21:00:24



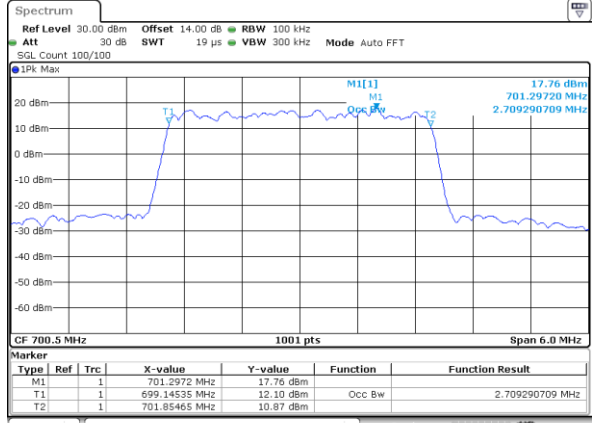
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



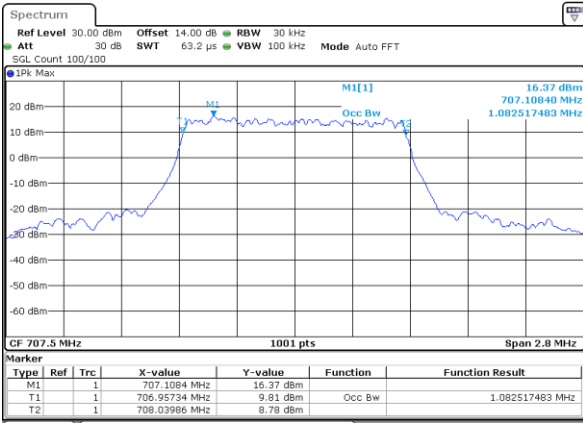
Date: 12.MAR.2020 00:41:45

Lowest Channel / 3MHz / 64QAM



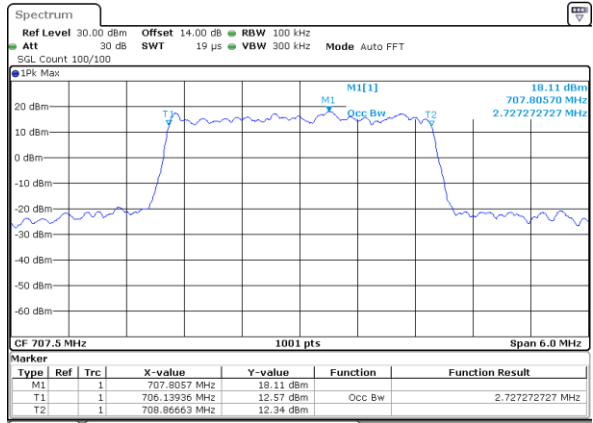
Date: 11.MAR.2020 21:27:15

Middle Channel / 1.4MHz / 64QAM



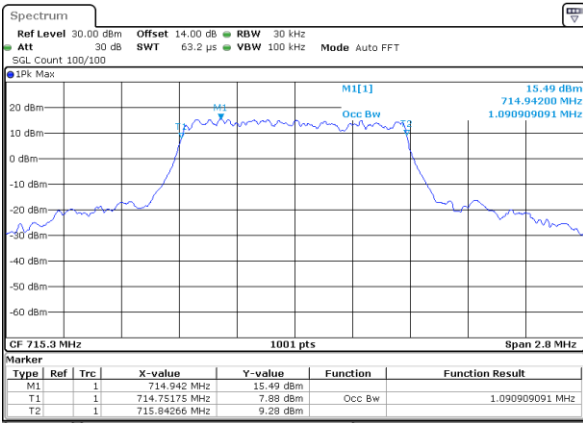
Date: 12.MAR.2020 01:32:00

Middle Channel / 3MHz / 64QAM



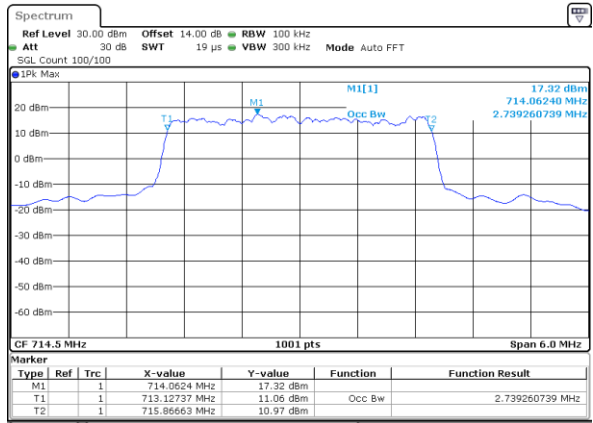
Date: 11.MAR.2020 22:02:13

Highest Channel / 1.4MHz / 64QAM



Date: 12.MAR.2020 01:32:46

Highest Channel / 3MHz / 64QAM

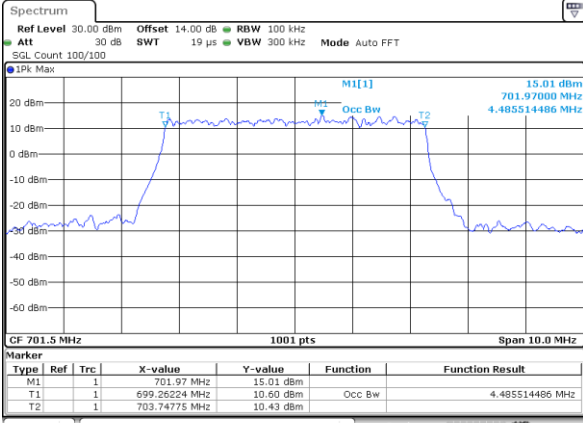


Date: 11.MAR.2020 22:03:07



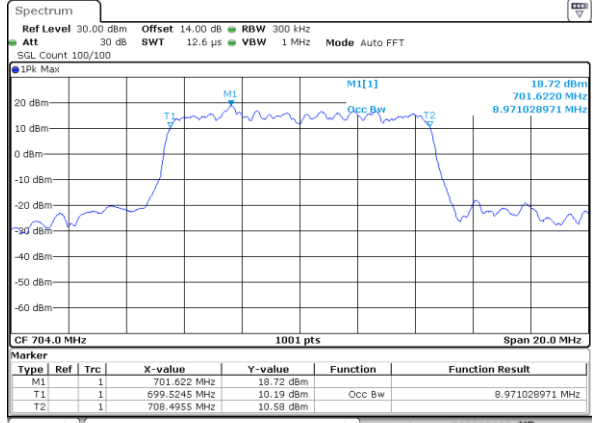
LTE Band 12

Lowest Channel / 5MHz / 64QAM



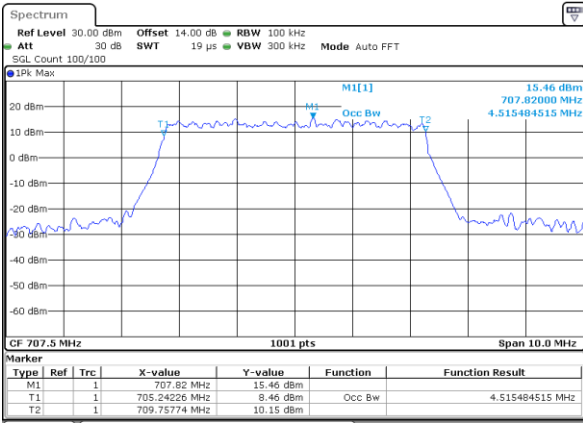
Date: 11.MAR.2020 20:20:28

Lowest Channel / 10MHz / 64QAM



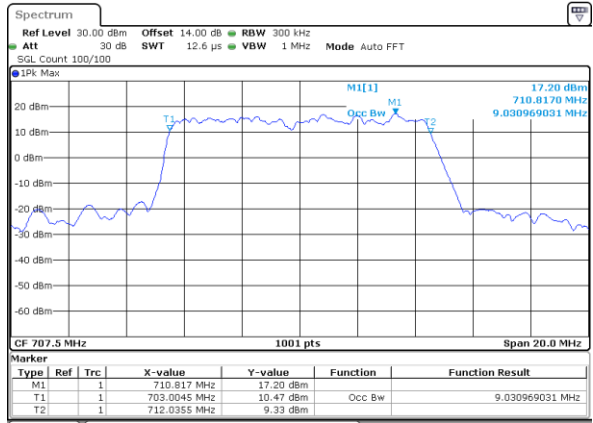
Date: 11.MAR.2020 21:24:22

Middle Channel / 5MHz / 64QAM



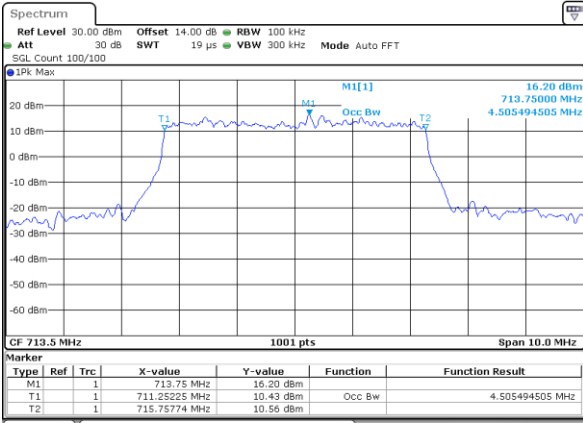
Date: 11.MAR.2020 19:07:05

Middle Channel / 10MHz / 64QAM



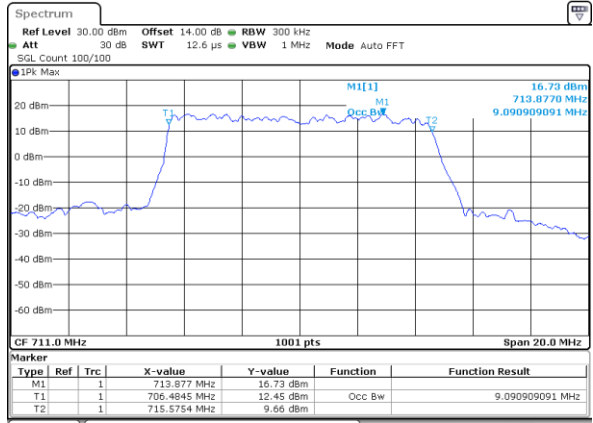
Date: 11.MAR.2020 21:04:05

Highest Channel / 5MHz / 64QAM



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

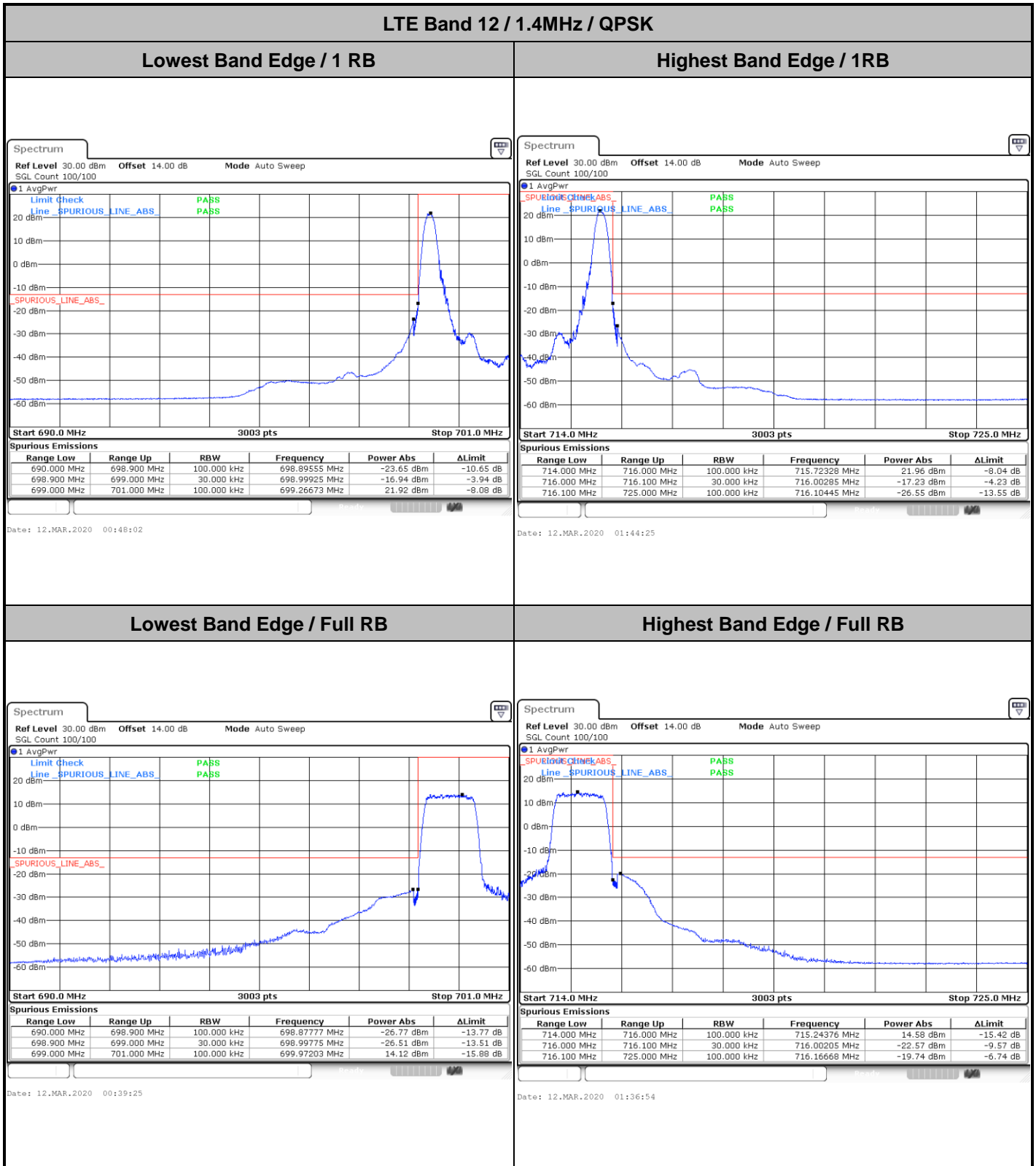
Highest Channel / 10MHz / 64QAM



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



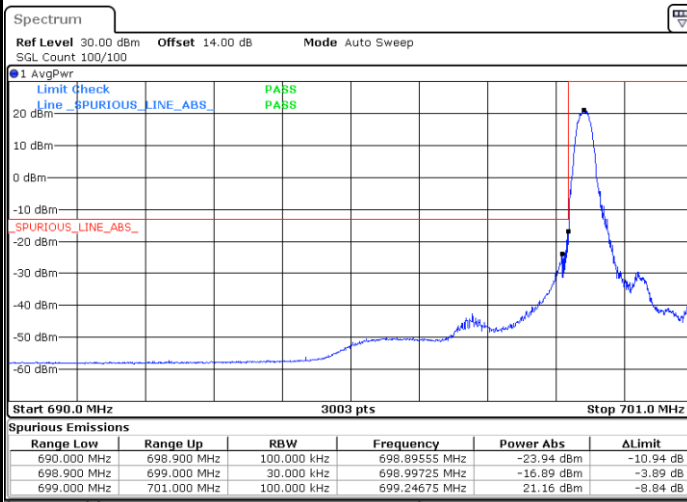
Conducted Band Edge





LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



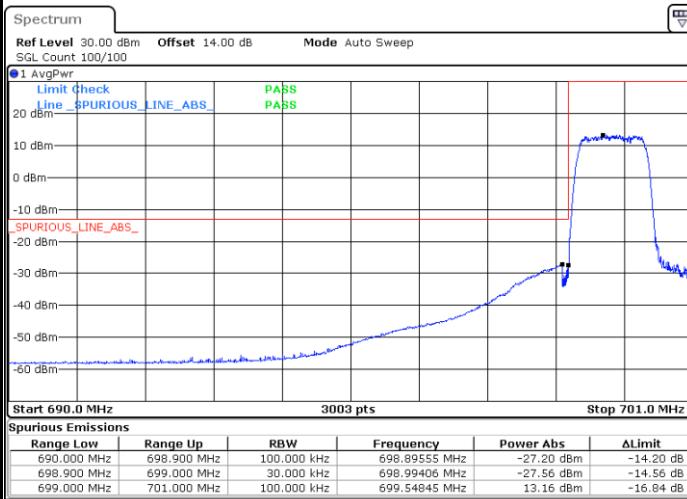
Date: 12.MAR.2020 00:44:52

Highest Band Edge / 1 RB



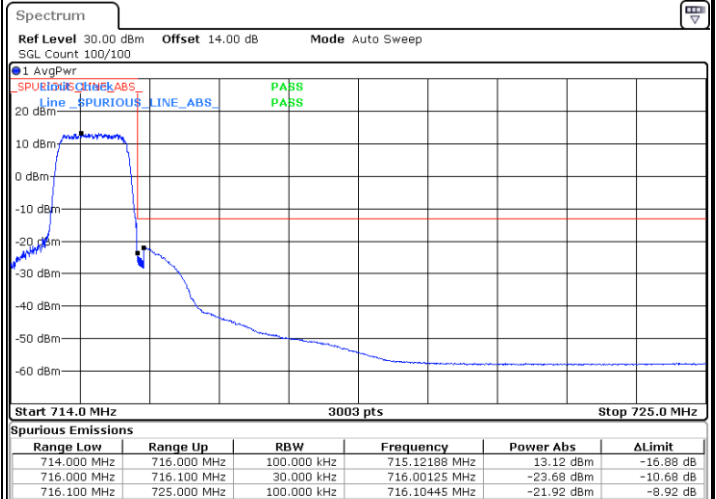
Date: 12.MAR.2020 01:43:40

Lowest Band Edge / Full RB



Date: 12.MAR.2020 00:40:42

Highest Band Edge / Full RB

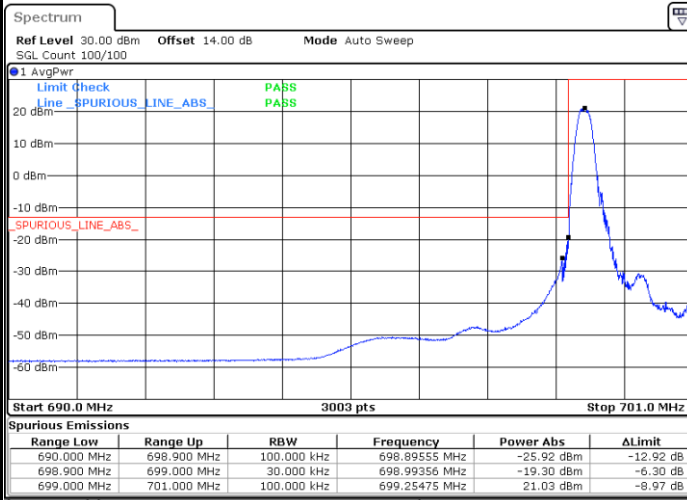


Date: 12.MAR.2020 01:35:28



LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



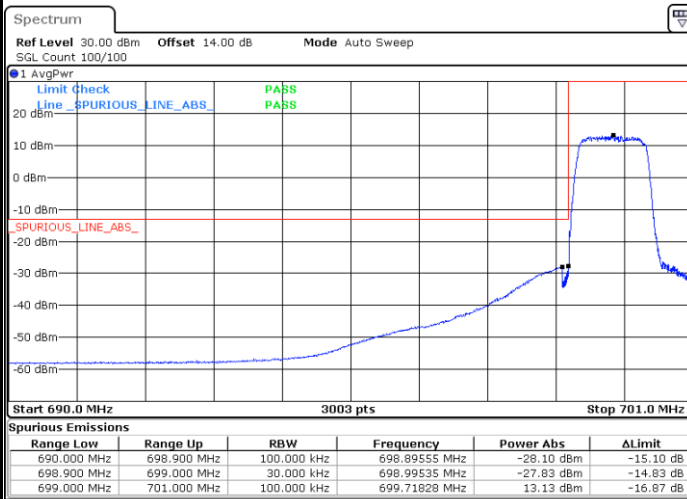
Date: 12.MAR.2020 00:42:44

Highest Band Edge / 1 RB



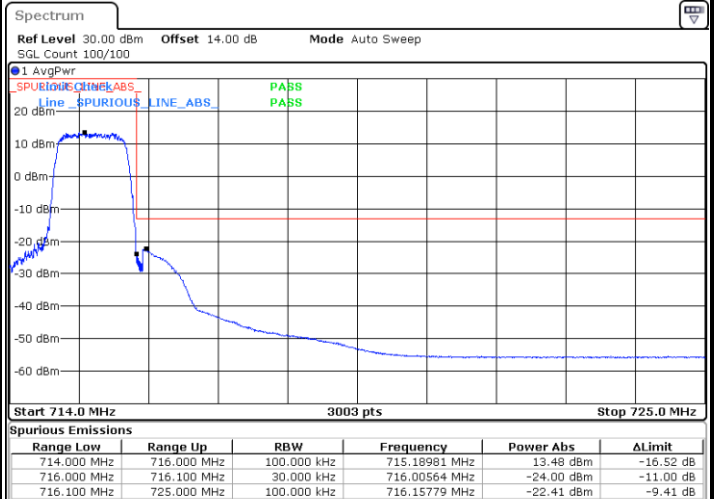
Date: 27.MAR.2020 18:48:26

Lowest Band Edge / Full RB



Date: 12.MAR.2020 00:41:27

Highest Band Edge / Full RB

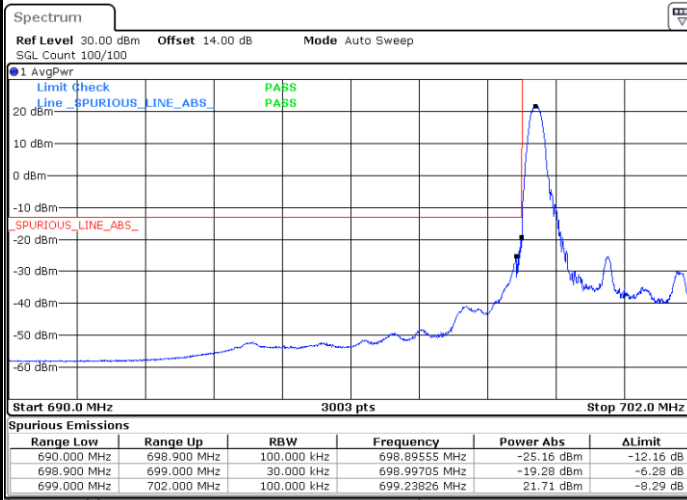


Date: 27.MAR.2020 18:49:21



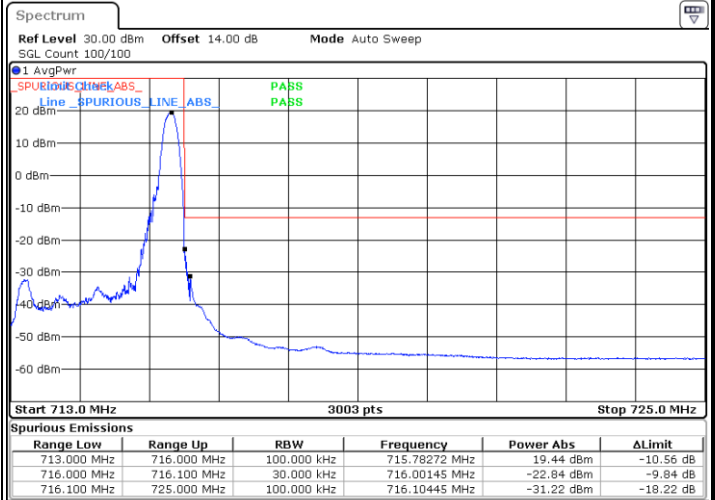
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



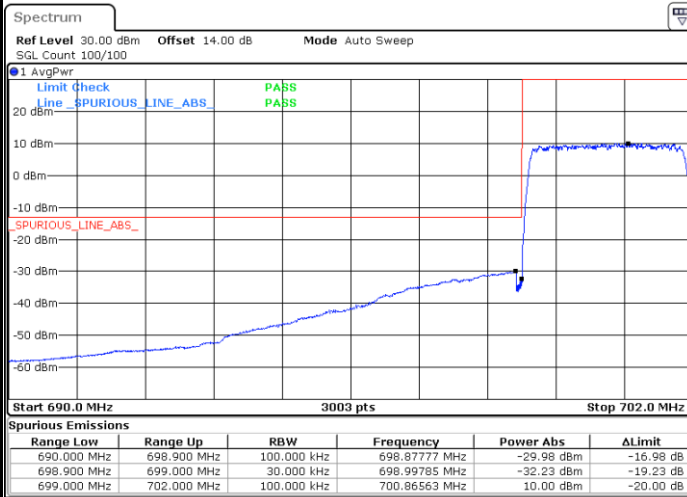
Date: 11.MAR.2020 21:47:52

Highest Band Edge / 1 RB



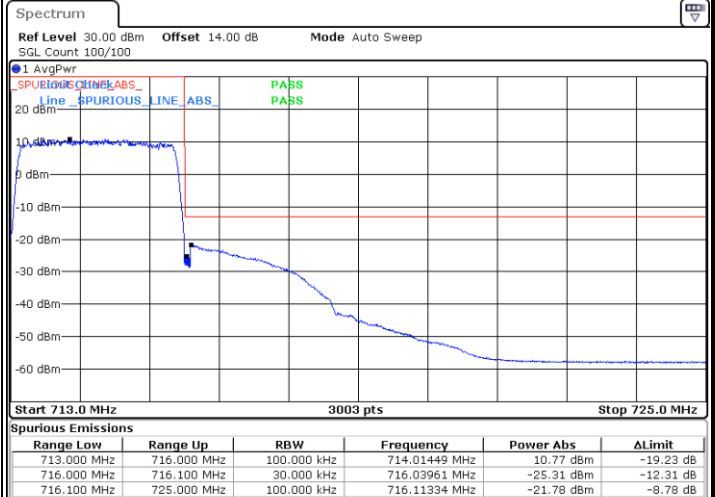
Date: 28.MAR.2020 18:11:58

Lowest Band Edge / Full RB



Date: 11.MAR.2020 21:45:42

Highest Band Edge / Full RB

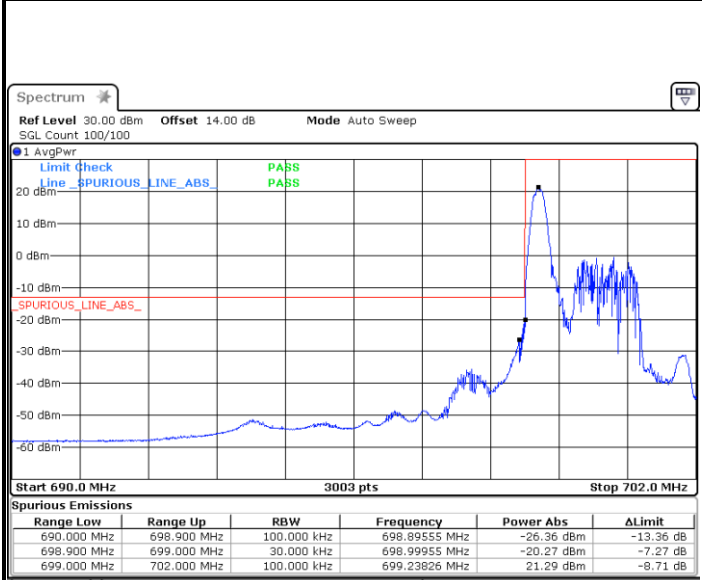


Date: 11.MAR.2020 22:08:26



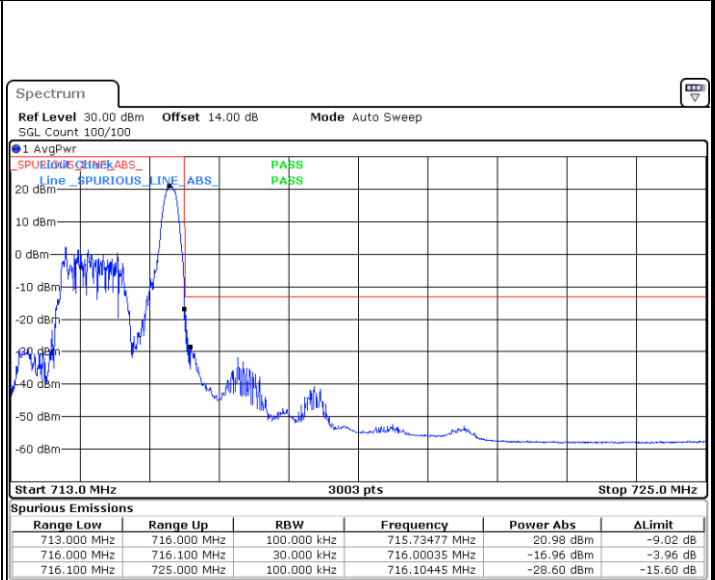
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



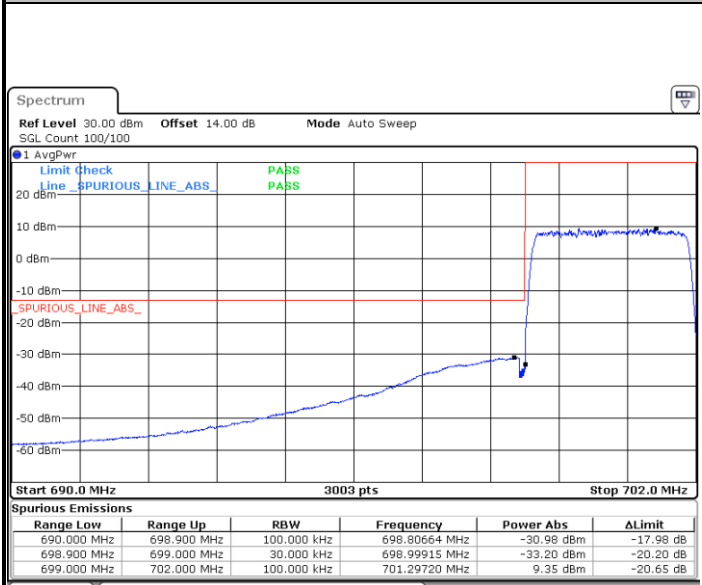
Date: 11.MAR.2020 21:50:51

Highest Band Edge / 1 RB



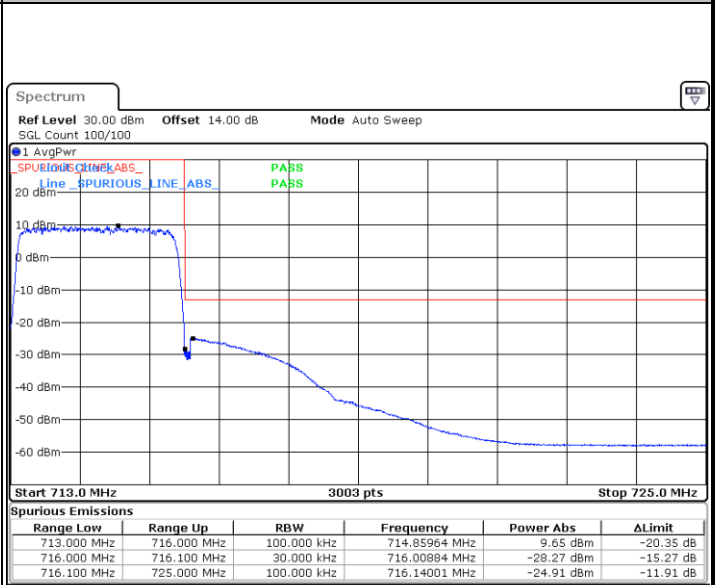
Date: 11.MAR.2020 22:19:38

Lowest Band Edge / Full RB



Date: 11.MAR.2020 21:32:17

Highest Band Edge / Full RB

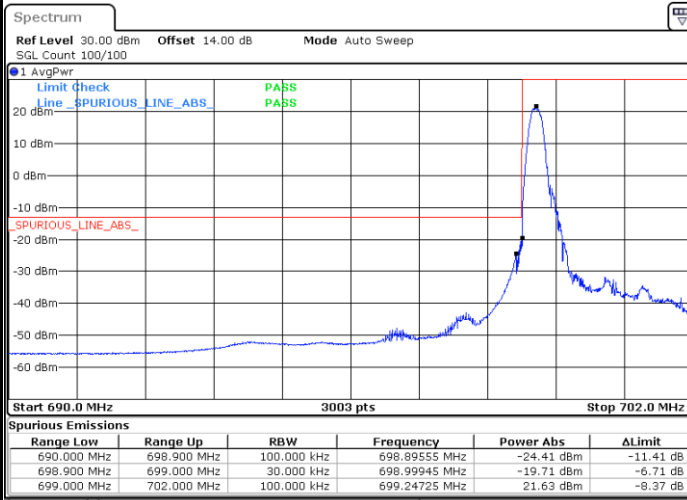


Date: 11.MAR.2020 22:06:45



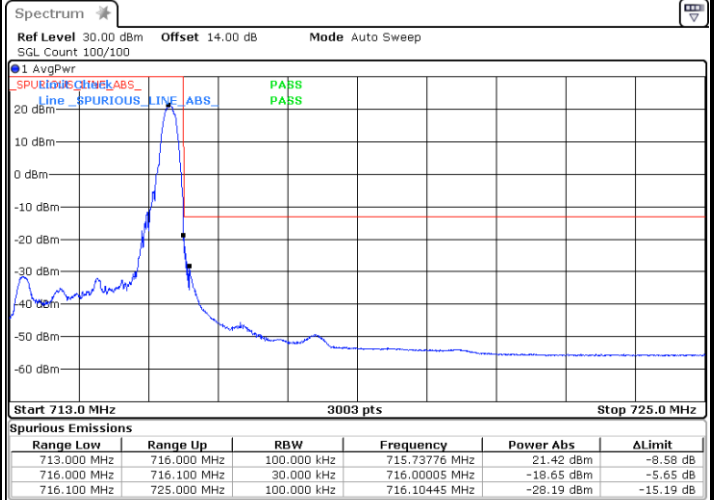
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



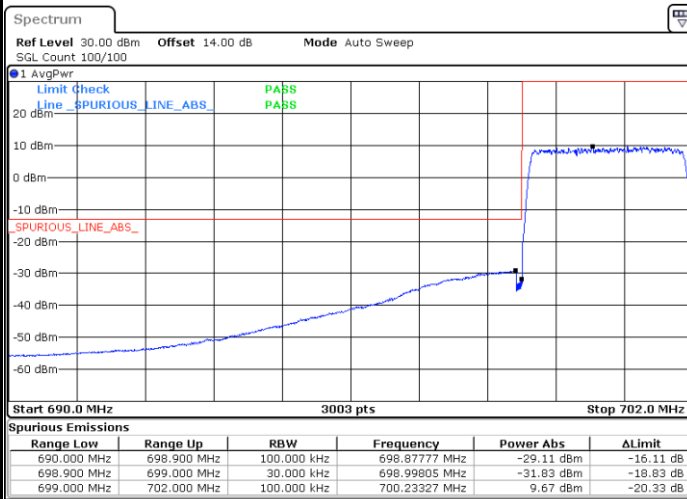
Date: 27.MAR.2020 18:53:55

Highest Band Edge / 1 RB



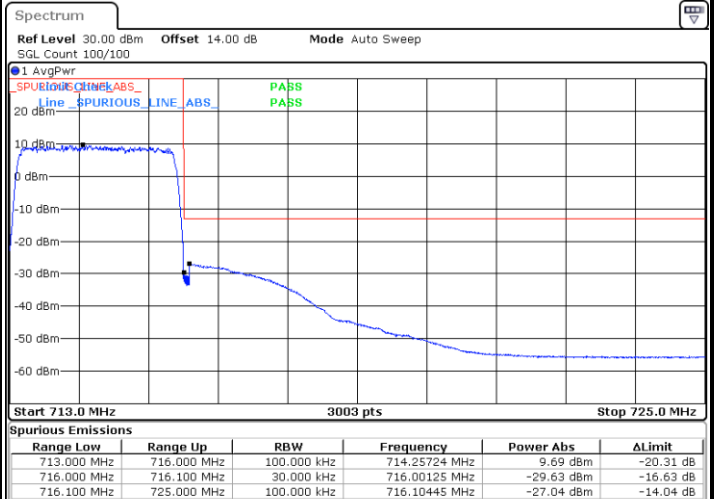
Date: 27.MAR.2020 18:52:02

Lowest Band Edge / Full RB



Date: 27.MAR.2020 18:54:54

Highest Band Edge / Full RB

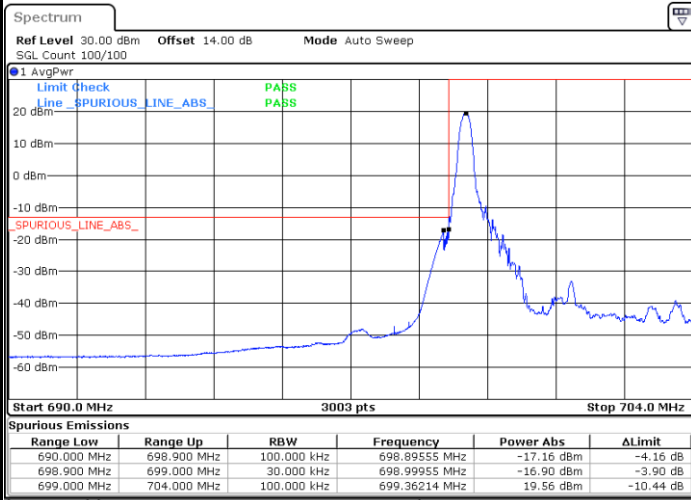


Date: 27.MAR.2020 18:53:12



LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



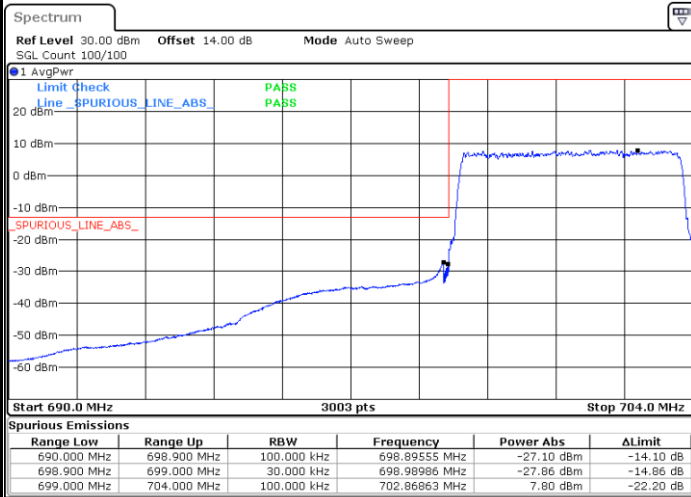
Date: 28.MAR.2020 15:37:59

Highest Band Edge / 1 RB



Date: 28.MAR.2020 15:41:45

Lowest Band Edge / Full RB



Date: 11.MAR.2020 20:22:02

Highest Band Edge / Full RB



Date: 11.MAR.2020 20:28:36