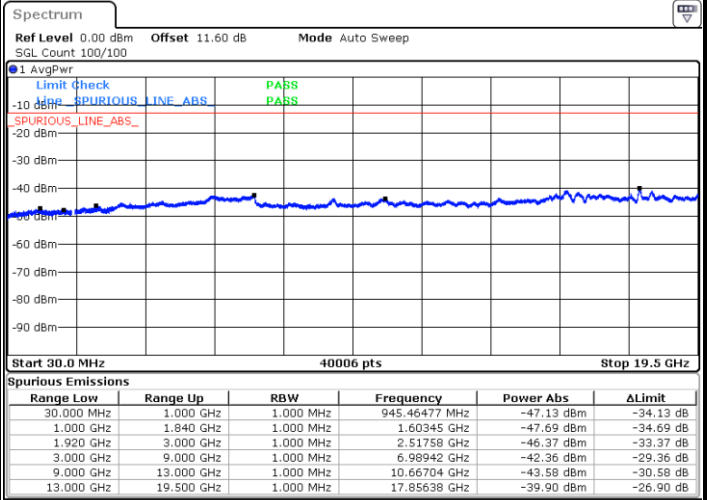
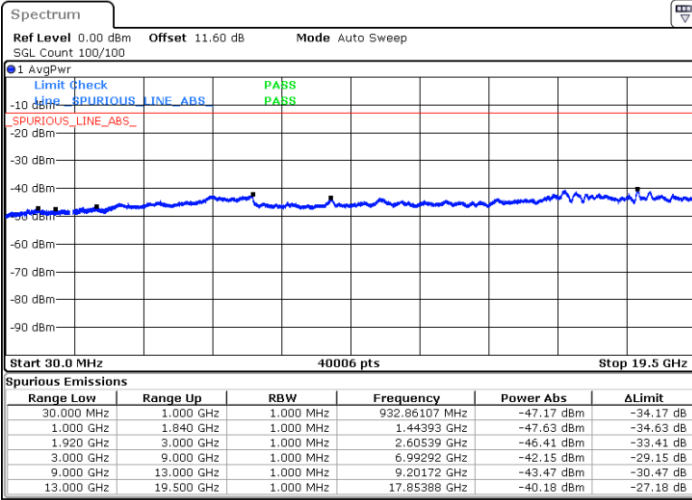




LTE Band 2 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

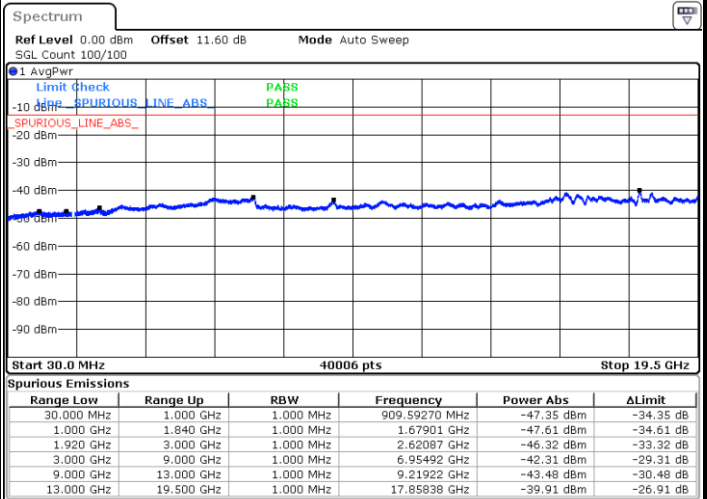
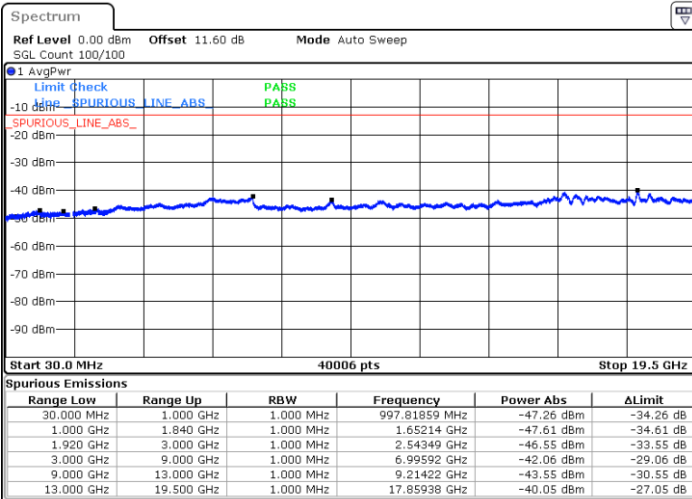


Date: 20.MAR.2020 05:55:17

Date: 20.MAR.2020 05:55:57

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 20.MAR.2020 06:01:24

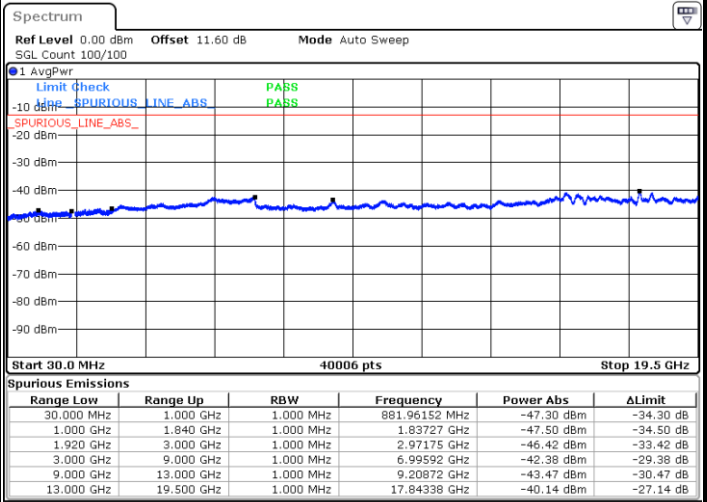
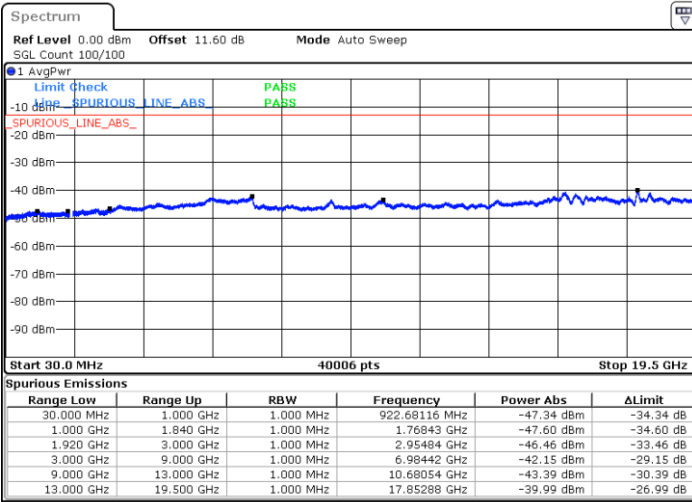
Date: 20.MAR.2020 06:02:05



LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

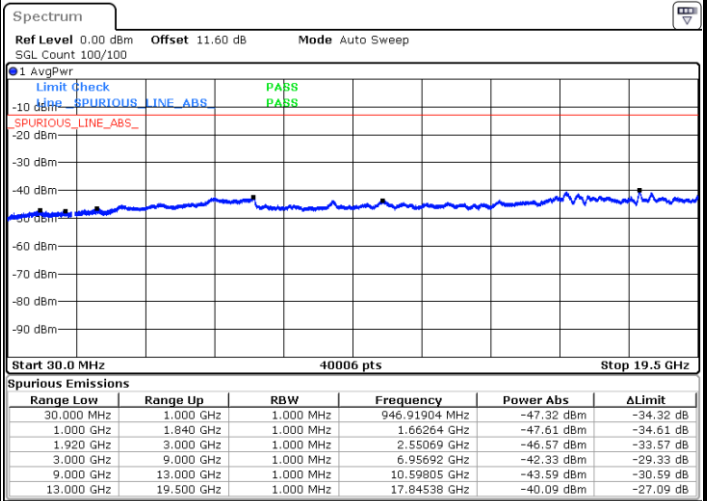
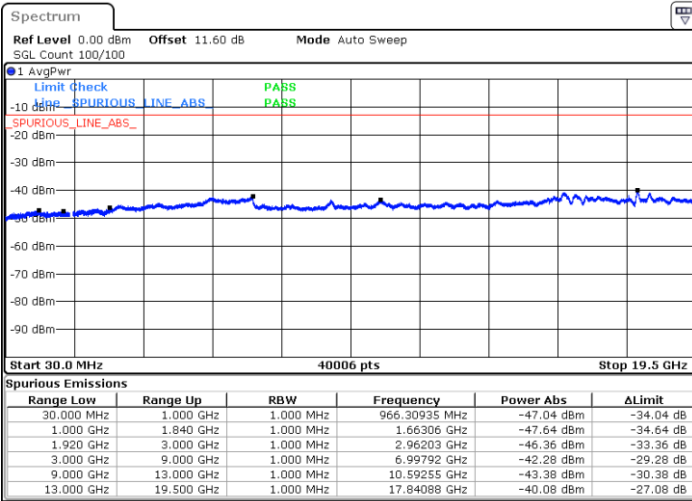


Date: 20.MAR.2020 06:07:32

Date: 20.MAR.2020 06:08:13

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 20.MAR.2020 06:09:38

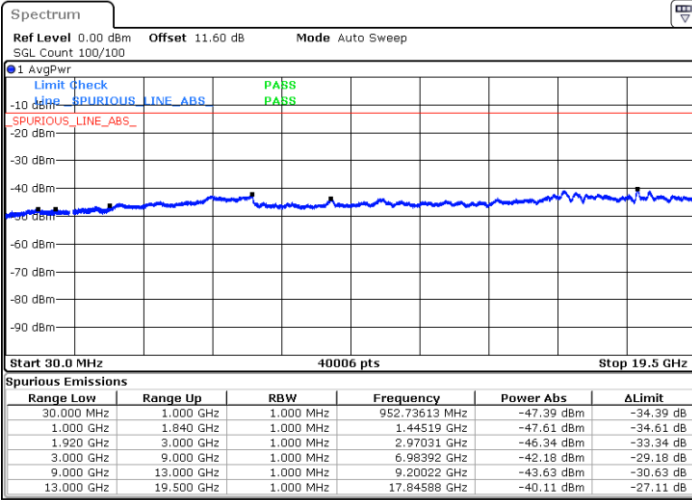
Date: 20.MAR.2020 06:10:17



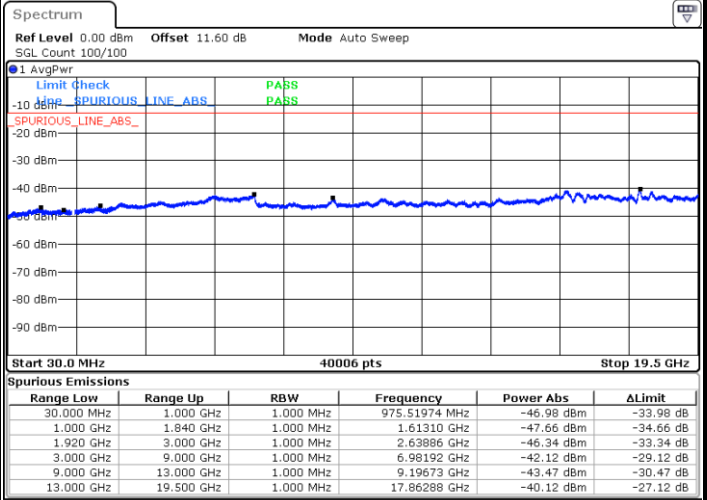
LTE Band 2 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 20.MAR.2020 06:15:44

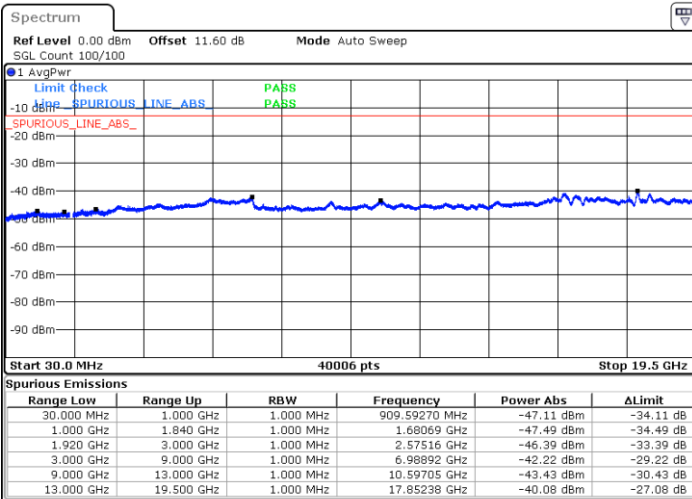


Date: 20.MAR.2020 06:16:25

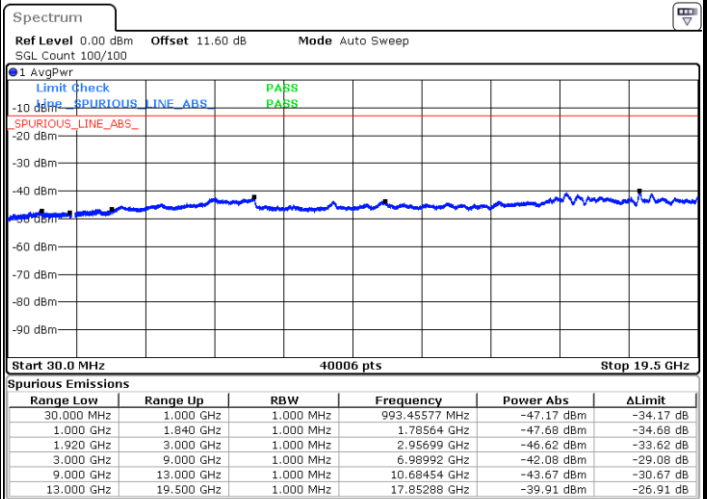
LTE Band 2 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 20.MAR.2020 06:21:53



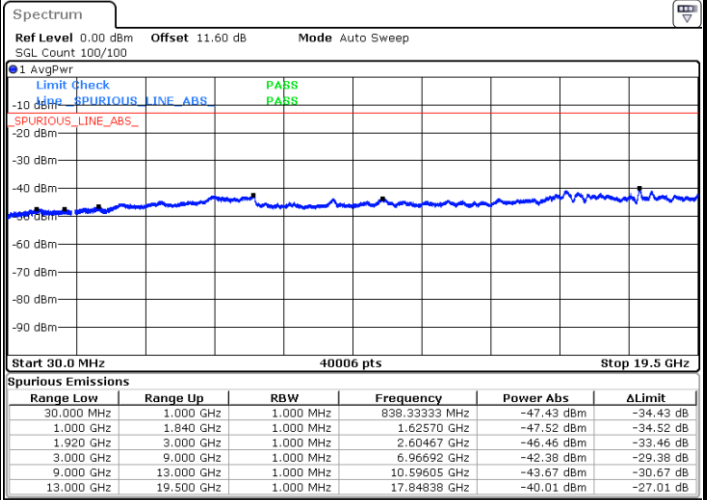
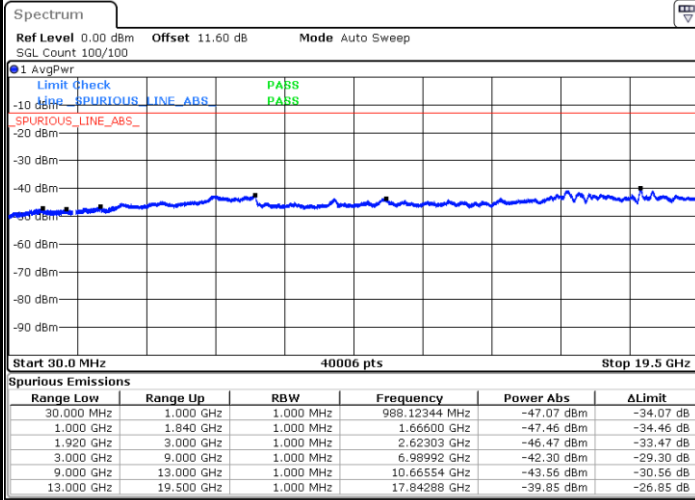
Date: 20.MAR.2020 06:22:33



LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

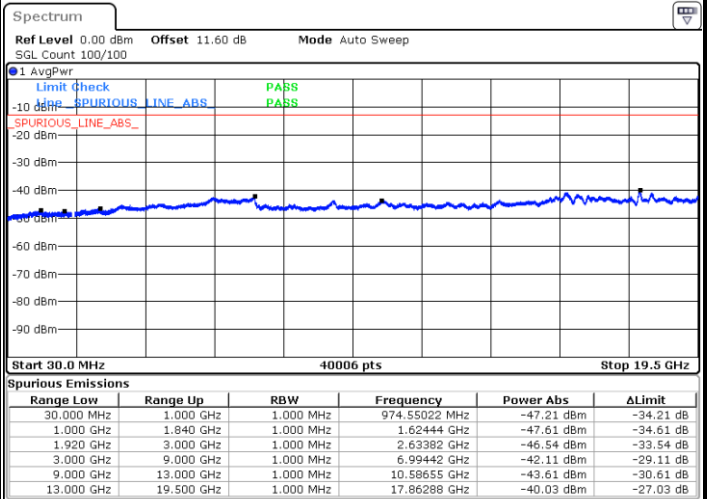
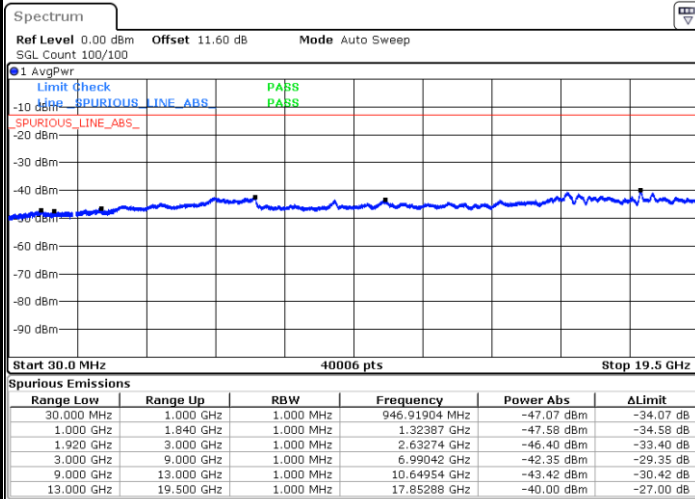


Date: 20.MAR.2020 06:23:58

Date: 20.MAR.2020 06:24:38

Highest Channel / QPSK

Highest Channel / 16QAM



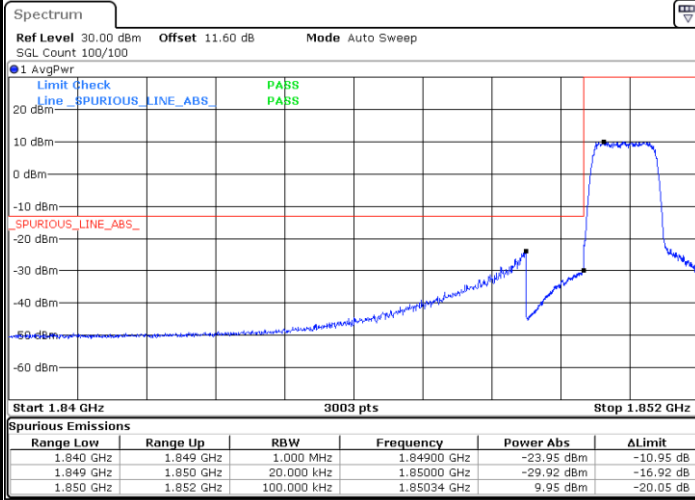
Date: 20.MAR.2020 06:30:05

Date: 20.MAR.2020 06:30:45



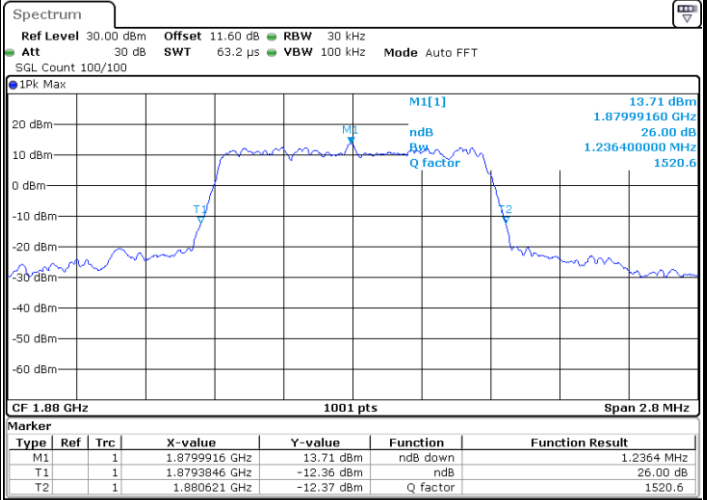
LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM



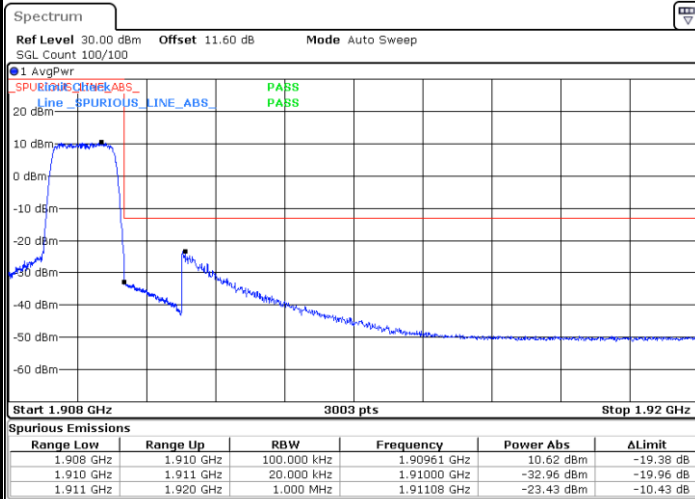
Date: 28.MAR.2020 18:14:10

Middle Channel / 64QAM



Date: 28.MAR.2020 18:15:24

Highest Channel / 64QAM



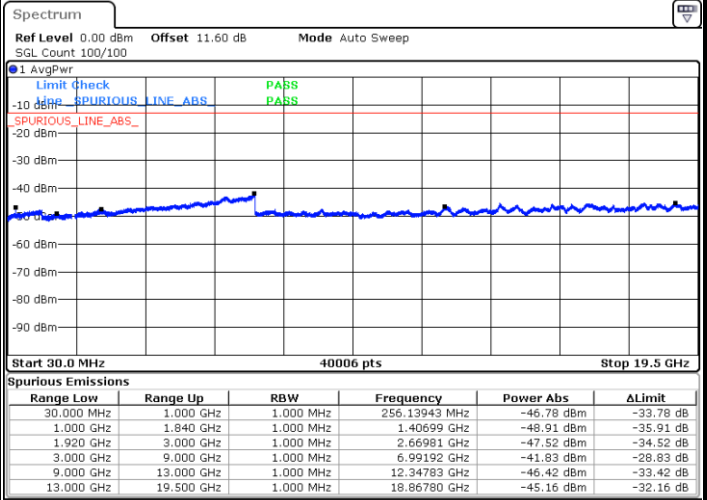
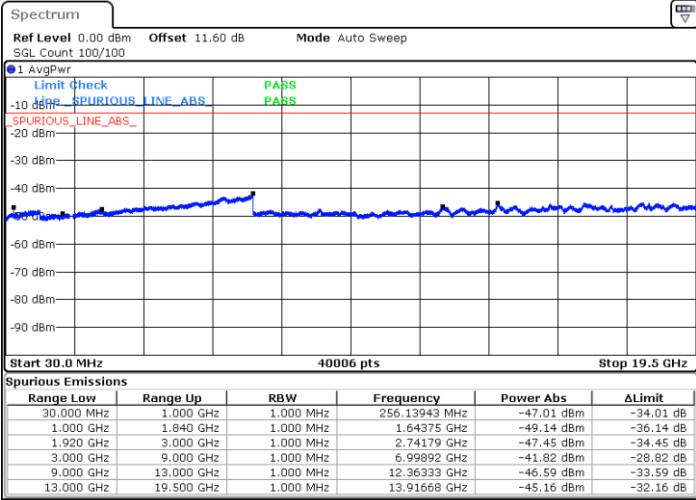
Date: 28.MAR.2020 18:18:45



LTE Band 2 / 3MHz

Lowest Channel / 64QAM

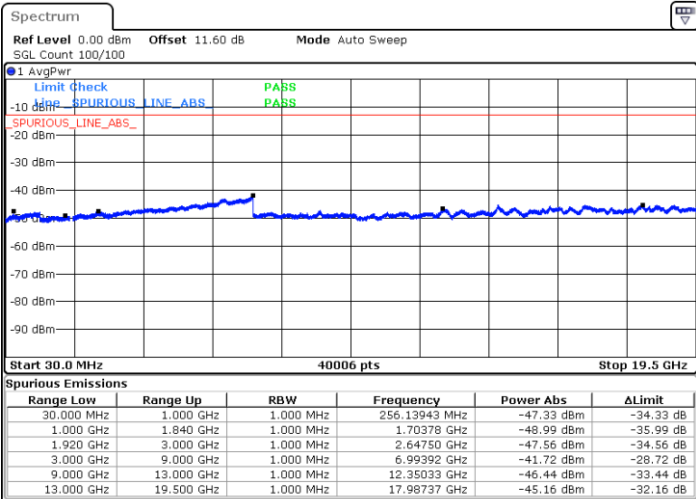
Middle Channel / 64QAM



Date: 28.MAR.2020 17:12:45

Date: 28.MAR.2020 17:14:11

Highest Channel / 64QAM



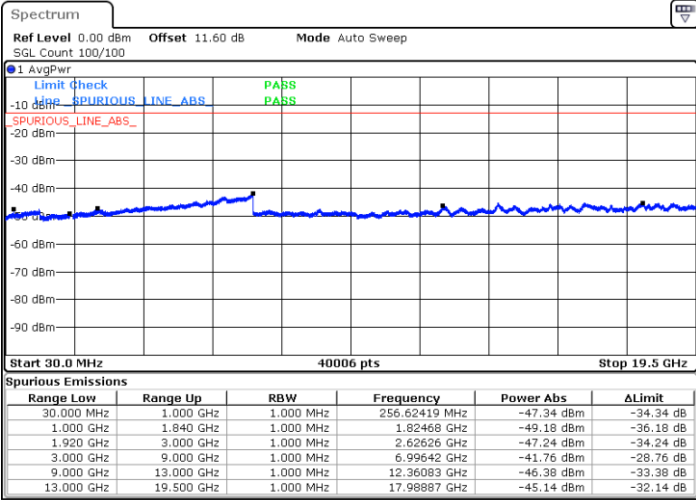
Date: 28.MAR.2020 17:16:56



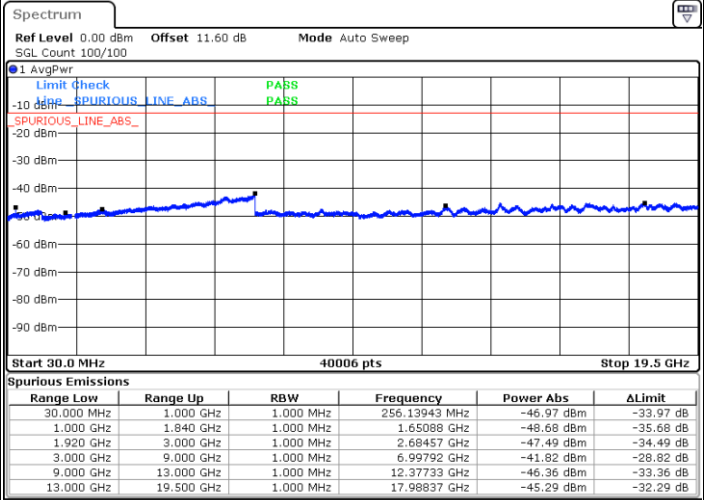
LTE Band 2 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

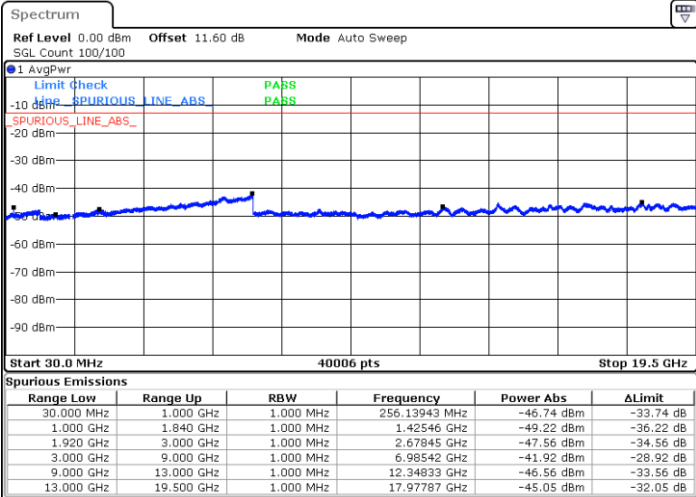


Date: 28.MAR.2020 17:19:43



Date: 28.MAR.2020 17:21:08

Highest Channel / 64QAM



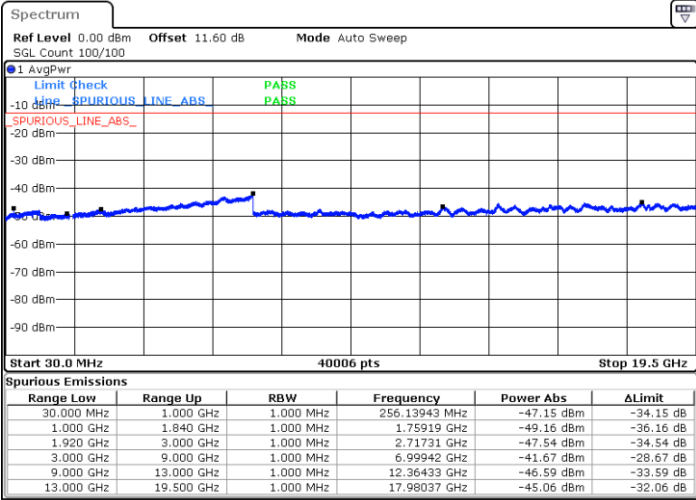
Date: 28.MAR.2020 17:23:54



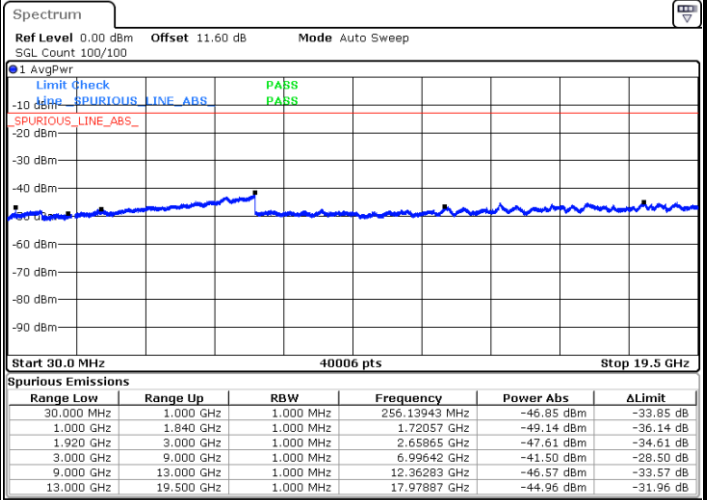
LTE Band 2 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

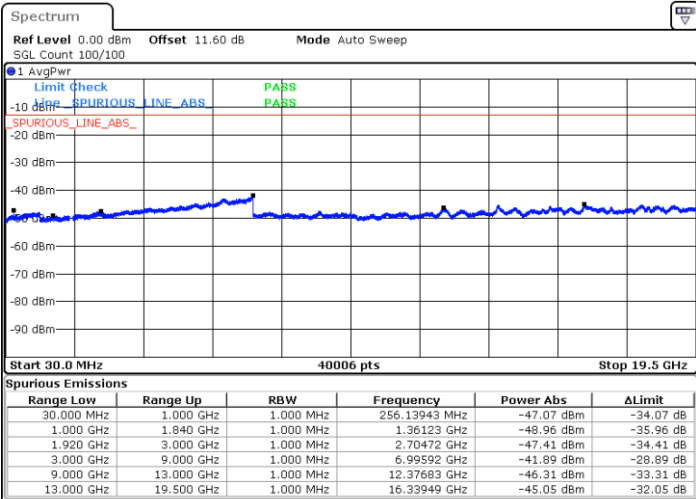


Date: 28.MAR.2020 17:26:41



Date: 28.MAR.2020 17:28:07

Highest Channel / 64QAM



Date: 28.MAR.2020 17:30:53

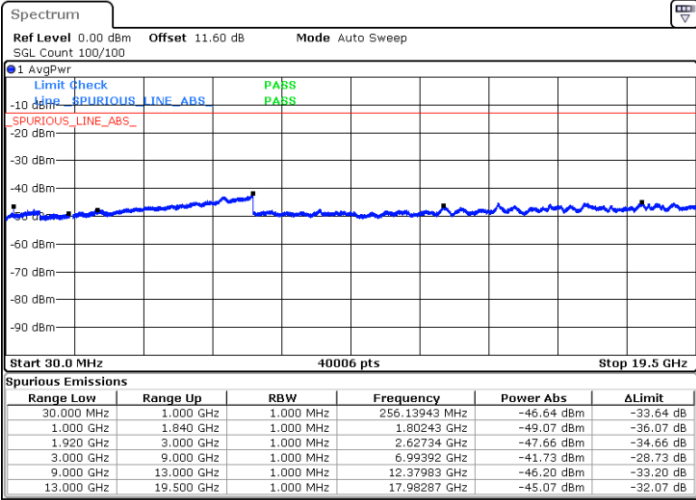




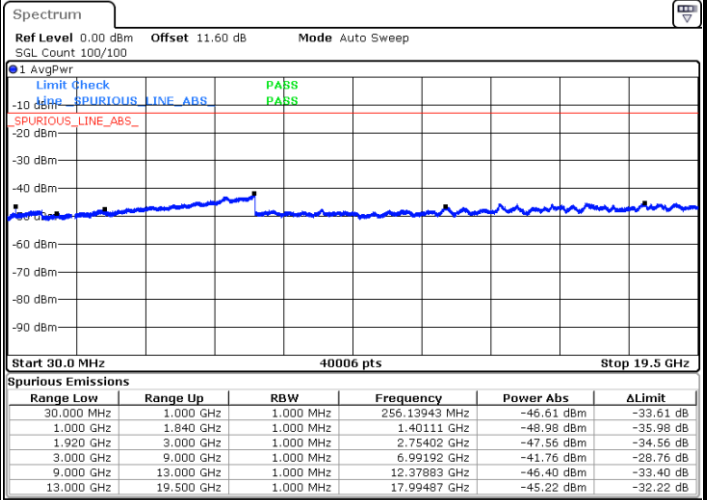
LTE Band 2 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

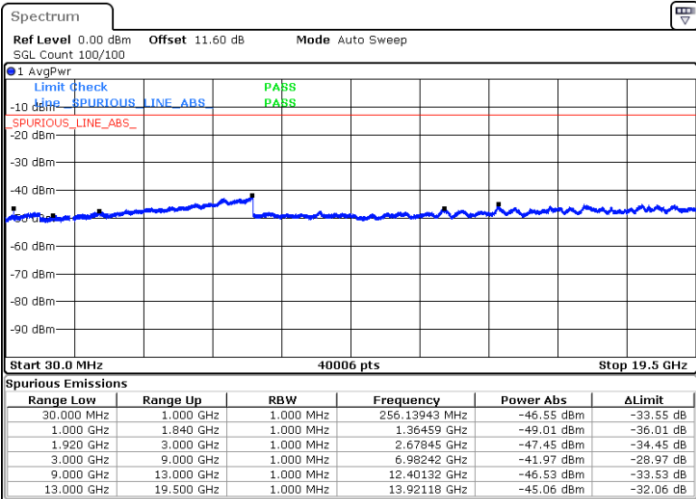


Date: 28.MAR.2020 17:33:40



Date: 28.MAR.2020 17:35:05

Highest Channel / 64QAM



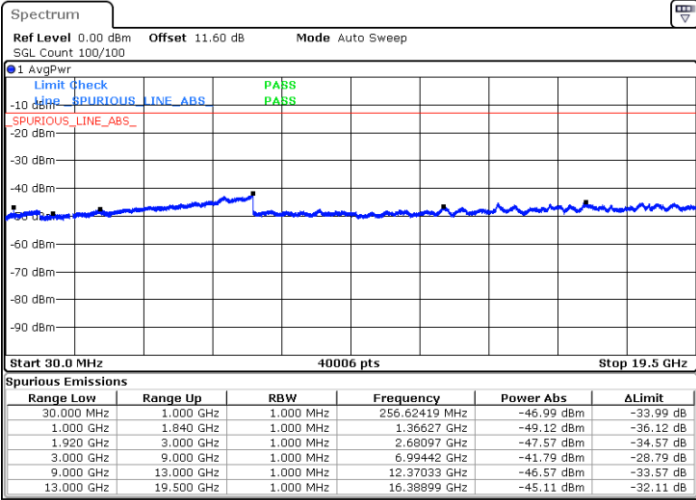
Date: 28.MAR.2020 17:37:51



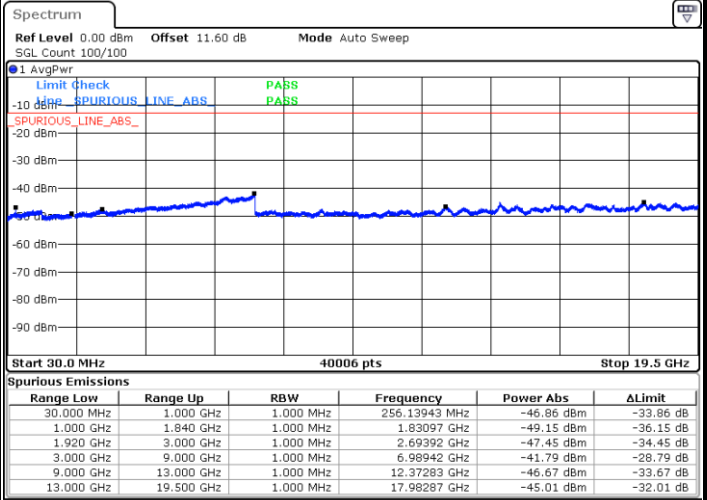
LTE Band 2 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

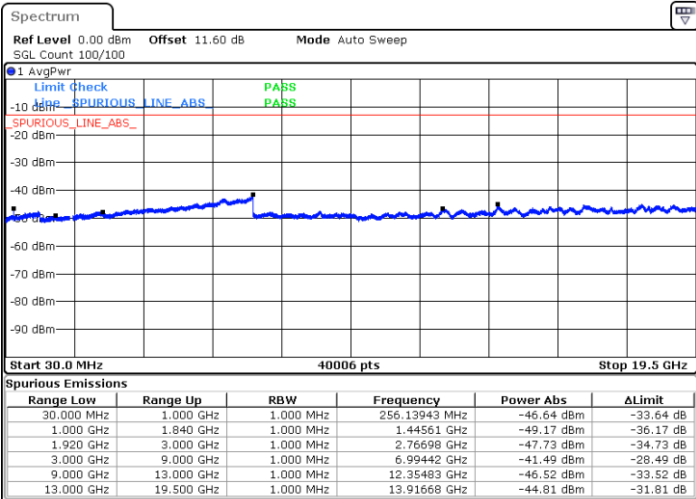


Date: 28.MAR.2020 17:40:38



Date: 28.MAR.2020 17:42:04

Highest Channel / 64QAM



Date: 28.MAR.2020 17:44:49



Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0007	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0039	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0039	
-10	Normal Voltage	0.0038	
-20	Normal Voltage	0.0030	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0028	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0020	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 4

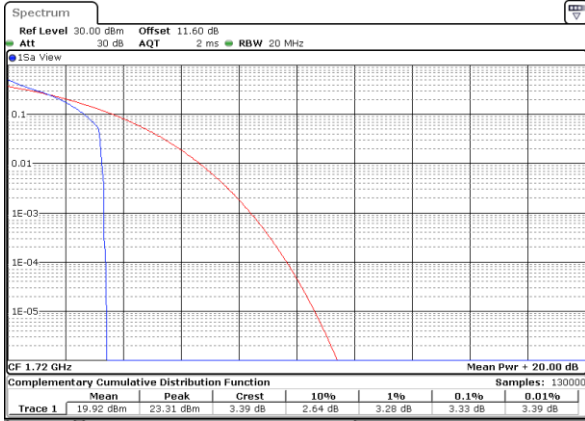
## Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.33	4.52	4.46	5.80	PASS
Middle CH	3.65	4.75	4.90	6.09	
Highest CH	3.80	4.64	5.19	5.97	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.80	6.49	-	-	PASS
Middle CH	5.94	6.78	-	-	
Highest CH	6.55	6.61	-	-	



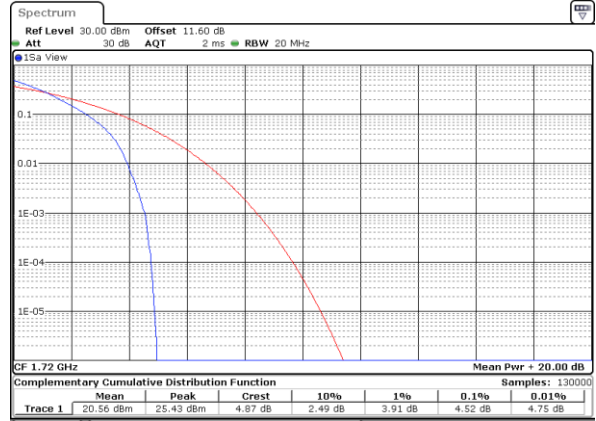
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



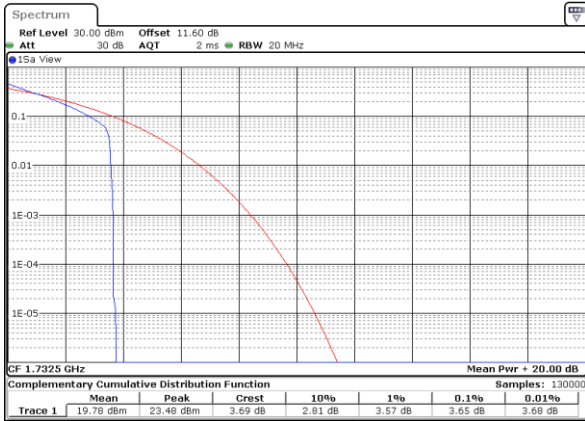
Date: 28.MAR.2020 19:26:20

Lowest Channel / Full RB



Date: 28.MAR.2020 19:26:31

Middle Channel / 1RB



Date: 28.MAR.2020 19:26:42

Middle Channel / Full RB



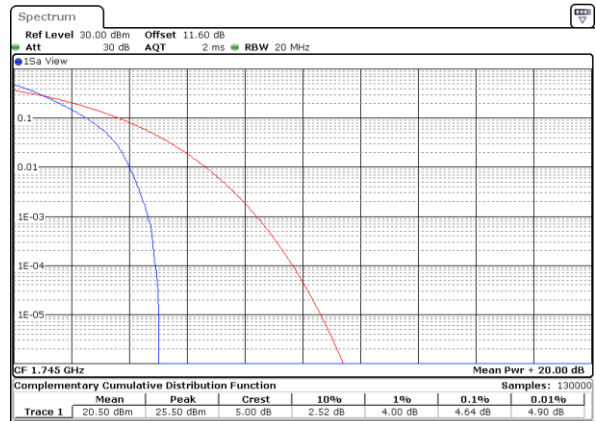
Date: 28.MAR.2020 19:26:53

Highest Channel / 1RB



Date: 28.MAR.2020 19:27:04

Highest Channel / Full RB



Date: 28.MAR.2020 19:27:15



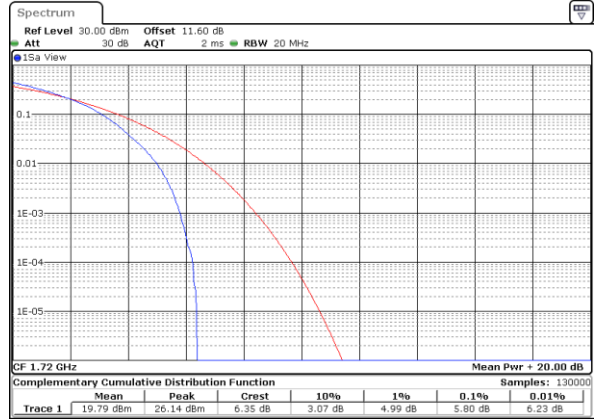
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



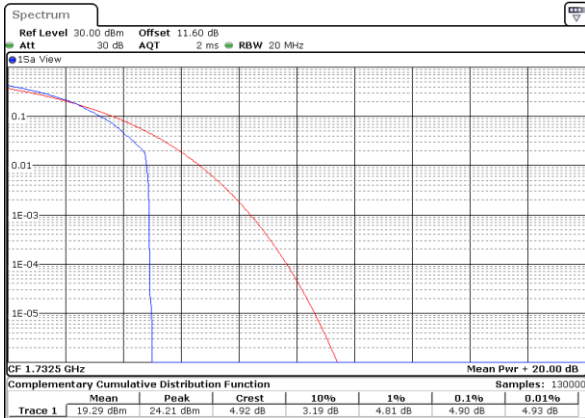
Date: 28.MAR.2020 19:25:16

Lowest Channel / Full RB



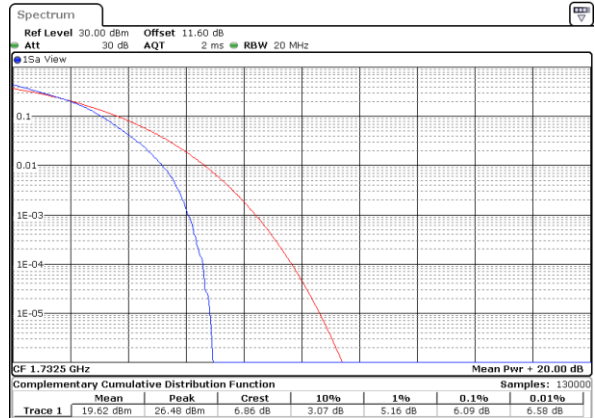
Date: 28.MAR.2020 19:25:27

Middle Channel / 1RB



Date: 28.MAR.2020 19:25:37

Middle Channel / Full RB



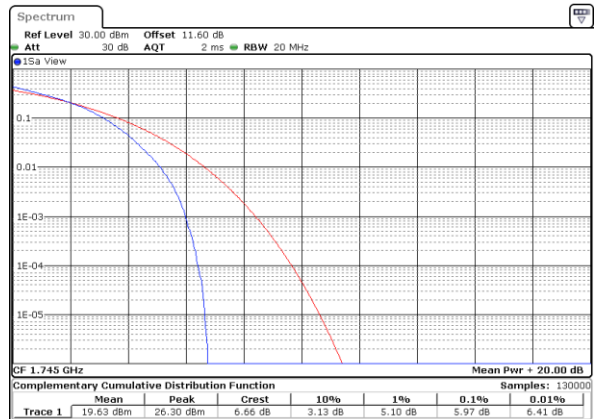
Date: 28.MAR.2020 19:25:48

Highest Channel / 1RB



Date: 28.MAR.2020 19:25:59

Highest Channel / Full RB

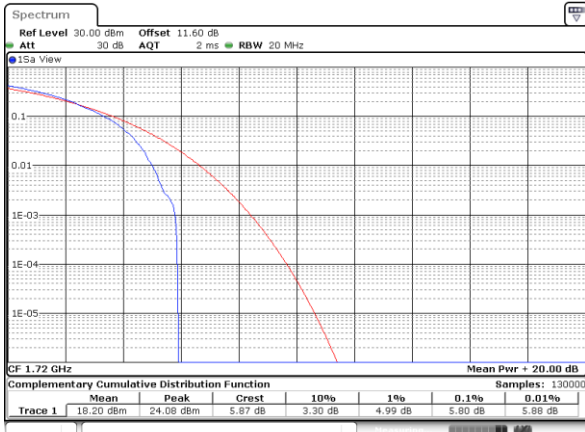


Date: 28.MAR.2020 19:26:10



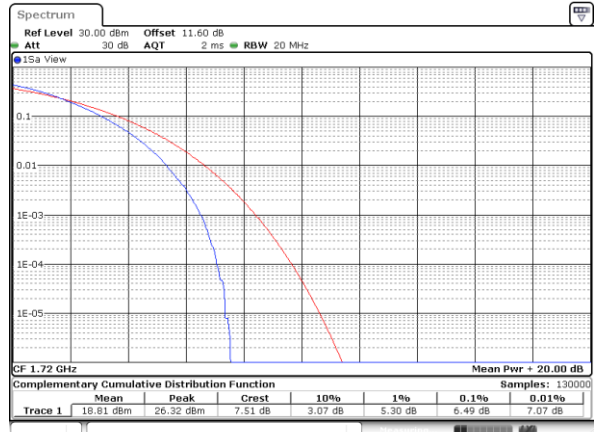
LTE Band 4 / 20MHz / 64QAM

Lowest Channel / 1RB



Date: 28.MAR.2020 19:23:26

Lowest Channel / Full RB



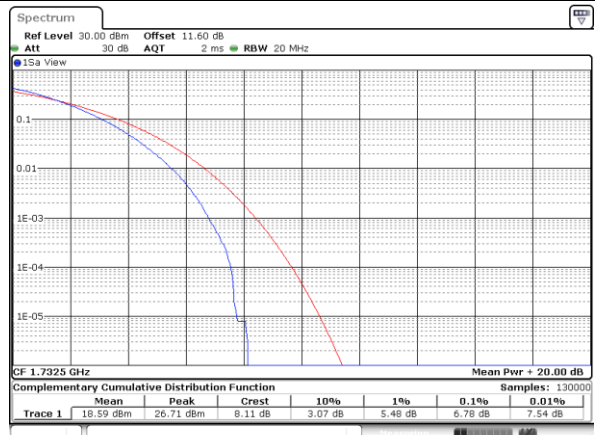
Date: 28.MAR.2020 19:23:38

Middle Channel / 1RB



Date: 28.MAR.2020 19:23:49

Middle Channel / Full RB



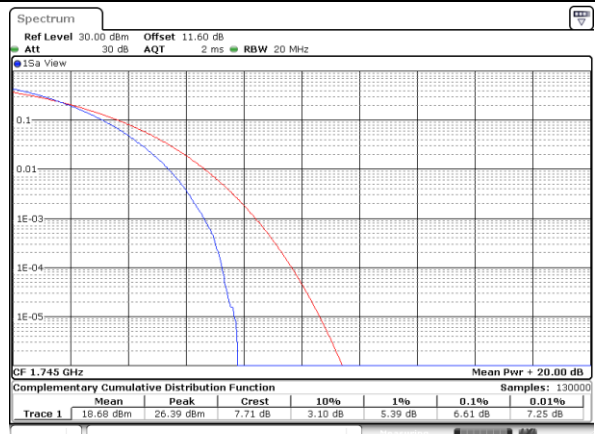
Date: 28.MAR.2020 19:24:01

Highest Channel / 1RB



Date: 28.MAR.2020 19:24:12

Highest Channel / Full RB



Date: 28.MAR.2020 19:24:23



**26dB Bandwidth**

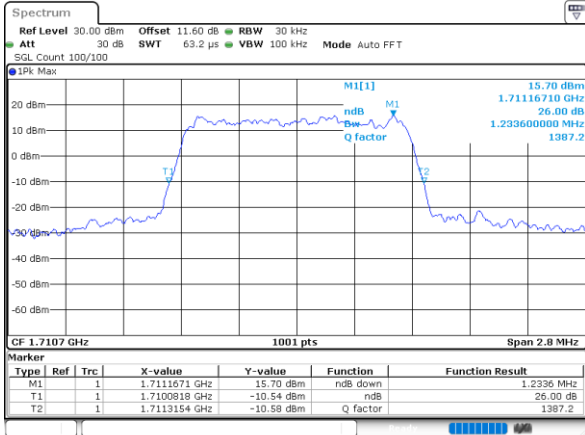
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.23	1.23	3.03	3.02	4.86	4.95	9.73	9.91	14.24	14.33	19.02	19.06
Middle CH	1.23	1.23	3.04	3.00	4.83	4.86	9.89	9.73	14.51	14.45	18.86	18.74
Highest CH	1.23	1.22	2.96	3.03	4.96	4.83	9.75	9.85	14.54	14.18	18.90	18.82
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.24	-	2.99	-	4.97	-	9.97	-	14.27	-	19.02	-
Middle CH	1.22	-	3.04	-	4.96	-	9.99	-	14.45	-	18.78	-
Highest CH	1.24	-	2.99	-	4.88	-	9.91	-	14.42	-	18.98	-





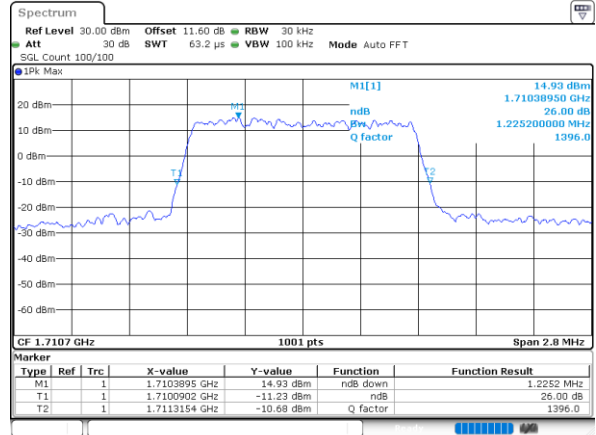
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



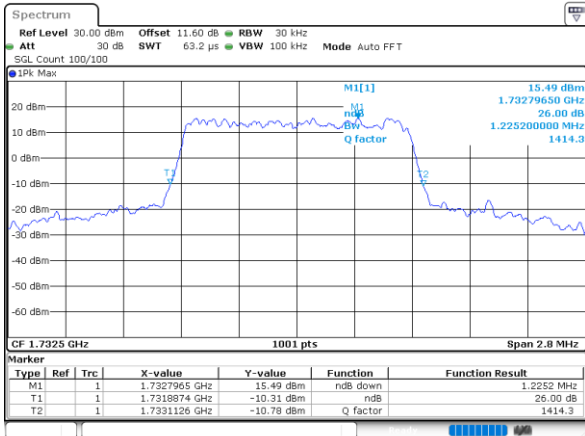
Date: 20.MAR.2020 08:03:30

Lowest Channel / 1.4MHz / 16QAM



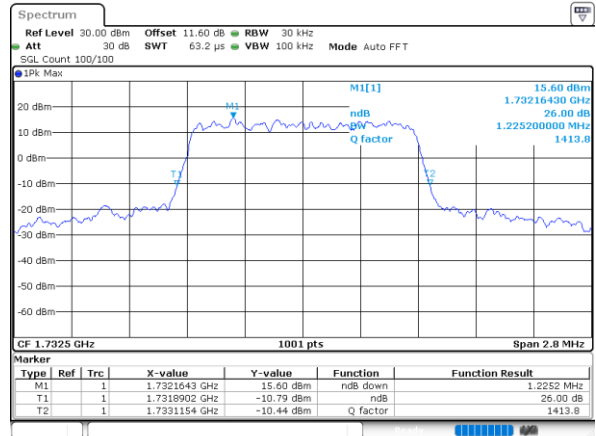
Date: 20.MAR.2020 08:03:41

Middle Channel / 1.4MHz / QPSK



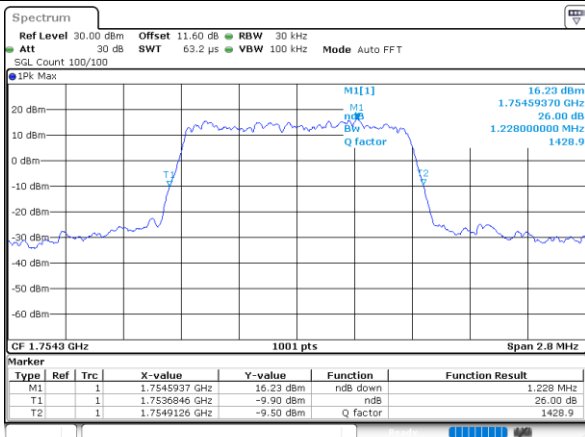
Date: 20.MAR.2020 08:09:48

Middle Channel / 1.4MHz / 16QAM



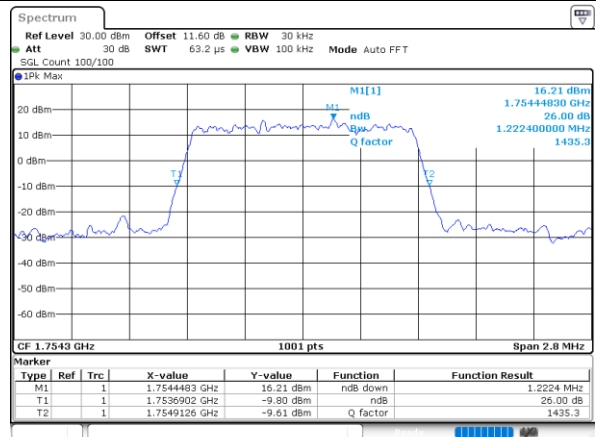
Date: 20.MAR.2020 08:10:00

Highest Channel / 1.4MHz / QPSK



Date: 20.MAR.2020 08:11:54

Highest Channel / 1.4MHz / 16QAM

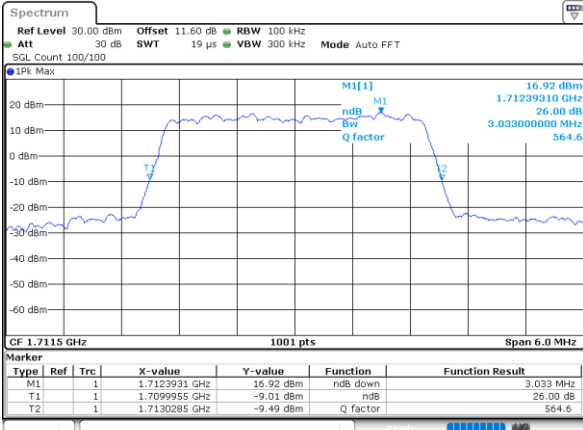


Date: 20.MAR.2020 08:12:06



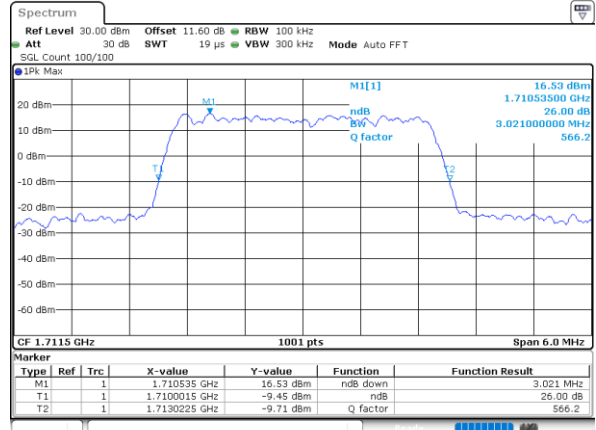
LTE Band 4

Lowest Channel / 3MHz / QPSK



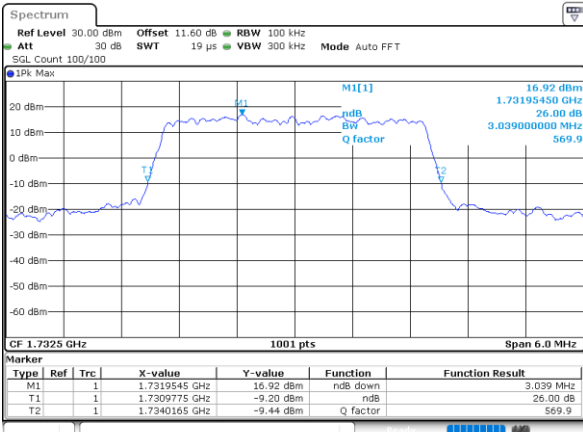
Date: 20\_MAR\_2020 07:47:41

Lowest Channel / 3MHz / 16QAM



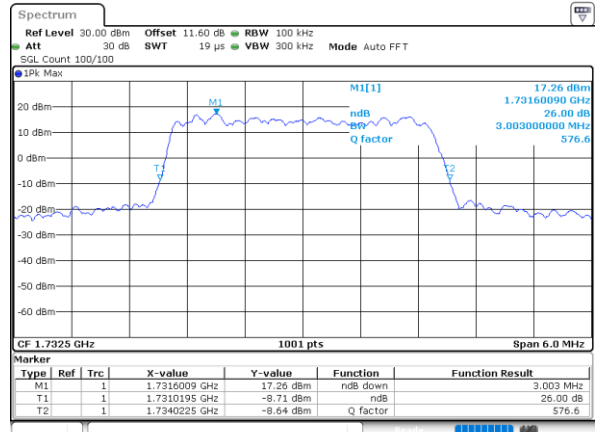
Date: 20\_MAR\_2020 07:47:53

Middle Channel / 3MHz / QPSK



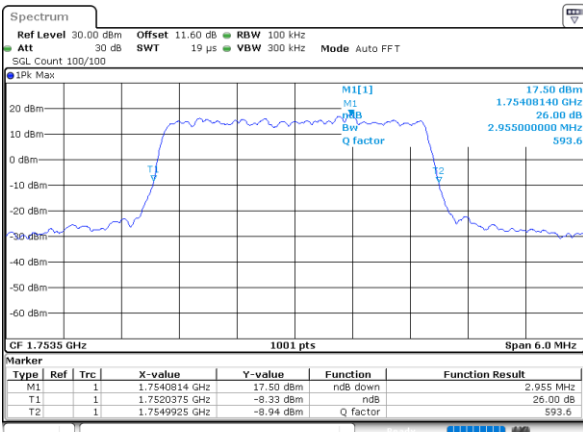
Date: 20\_MAR\_2020 07:55:15

Middle Channel / 3MHz / 16QAM



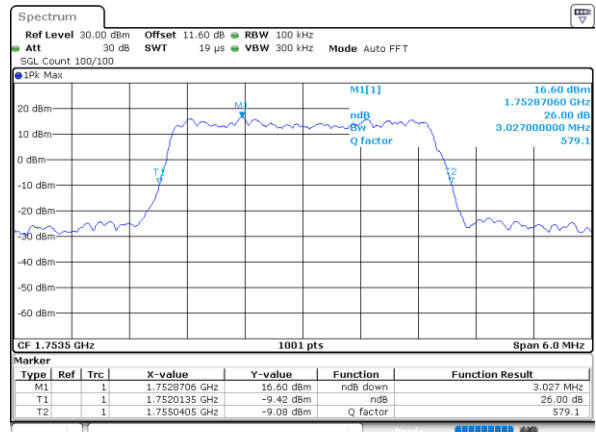
Date: 20\_MAR\_2020 07:55:27

Highest Channel / 3MHz / QPSK



Date: 20\_MAR\_2020 07:57:22

Highest Channel / 3MHz / 16QAM

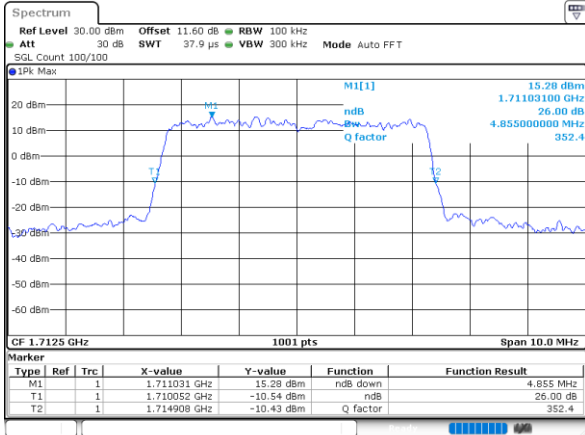


Date: 20\_MAR\_2020 07:57:33



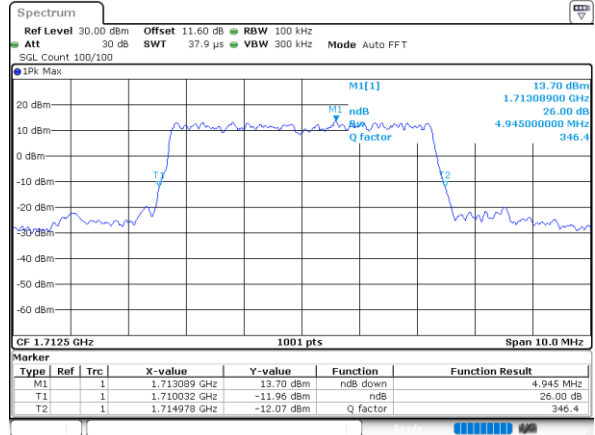
LTE Band 4

Lowest Channel / 5MHz / QPSK



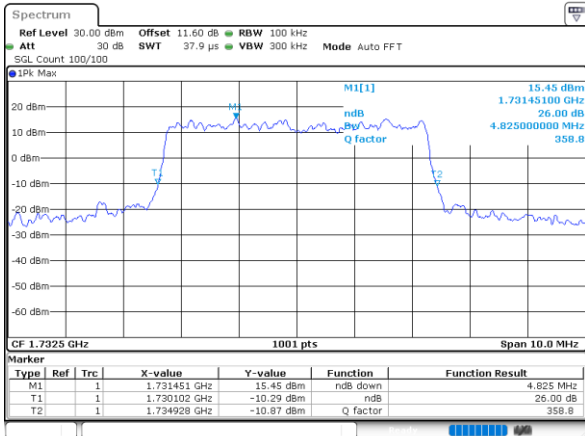
Date: 20.MAR.2020 07:00:02

Lowest Channel / 5MHz / 16QAM



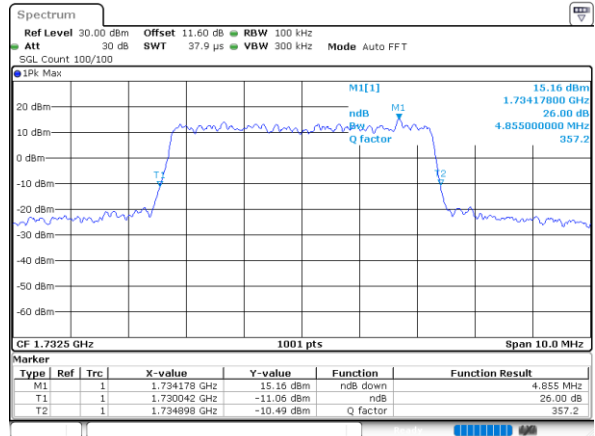
Date: 20.MAR.2020 07:00:14

Middle Channel / 5MHz / QPSK



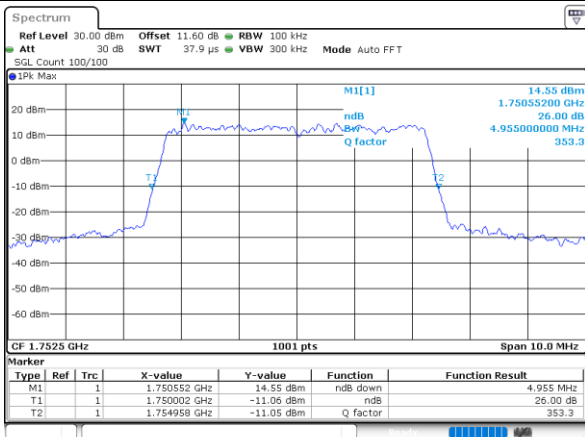
Date: 20.MAR.2020 07:04:48

Middle Channel / 5MHz / 16QAM



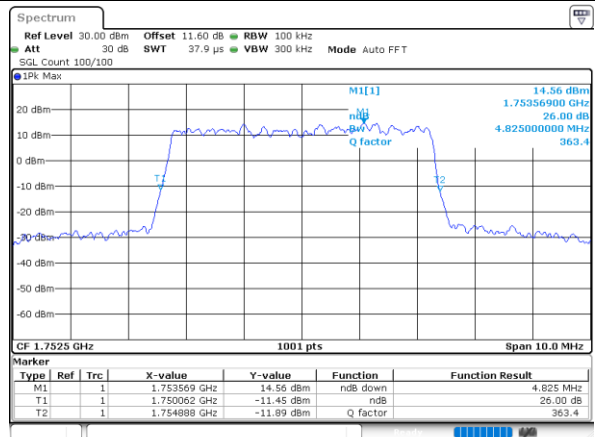
Date: 20.MAR.2020 07:05:00

Highest Channel / 5MHz / QPSK



Date: 20.MAR.2020 07:06:55

Highest Channel / 5MHz / 16QAM

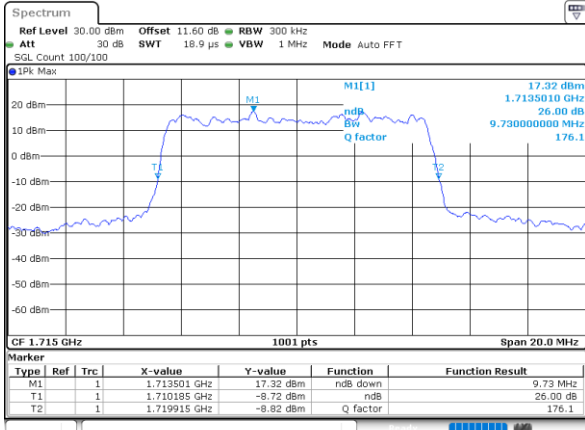


Date: 20.MAR.2020 07:07:07

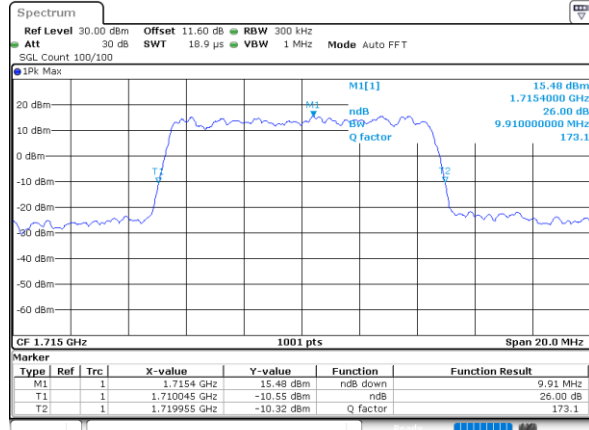


LTE Band 4

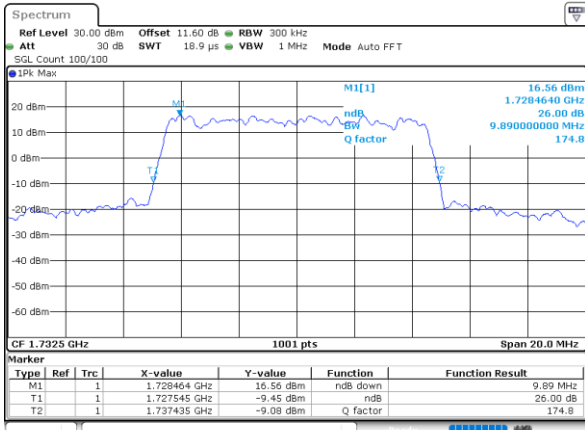
Lowest Channel / 10MHz / QPSK



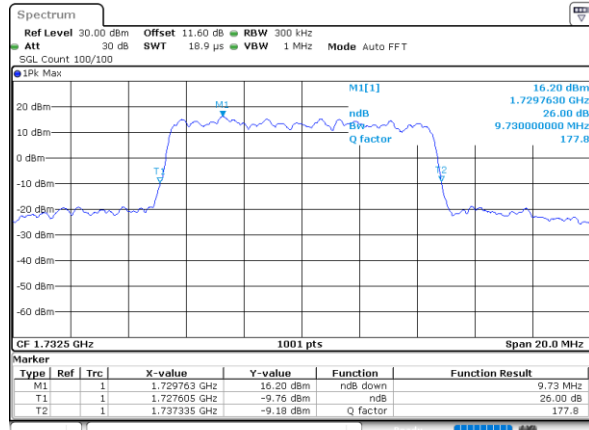
Lowest Channel / 10MHz / 16QAM



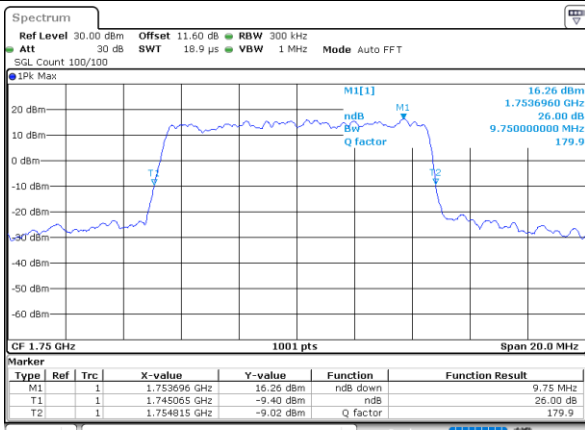
Middle Channel / 10MHz / QPSK



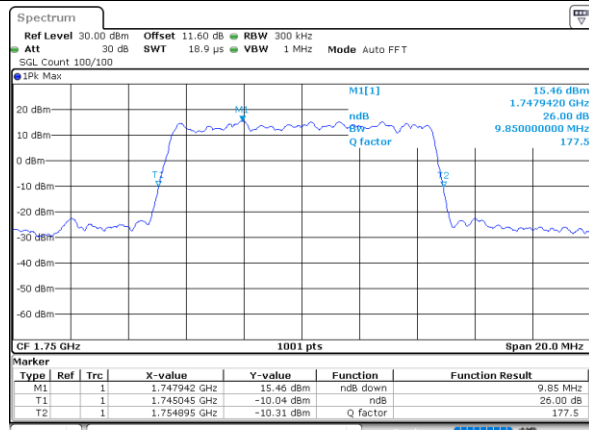
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



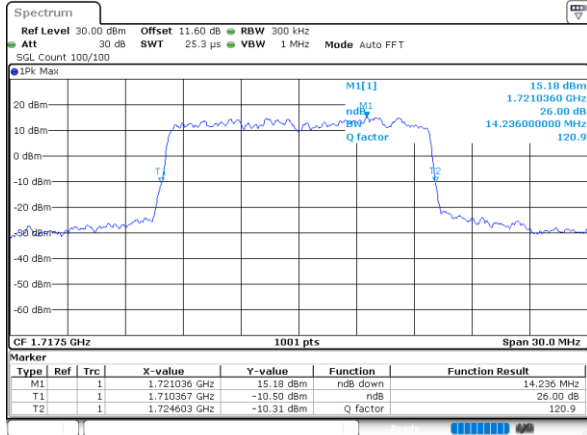
Highest Channel / 10MHz / 16QAM





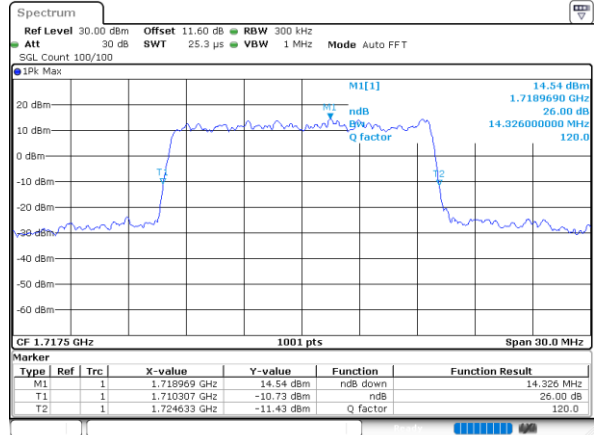
LTE Band 4

Lowest Channel / 15MHz / QPSK



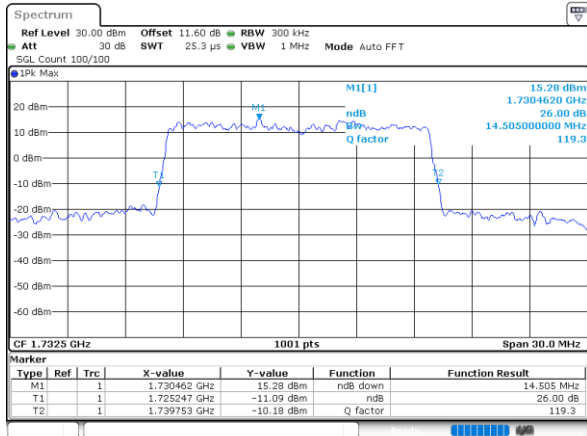
Date: 20.MAR.2020 07:23:14

Lowest Channel / 15MHz / 16QAM



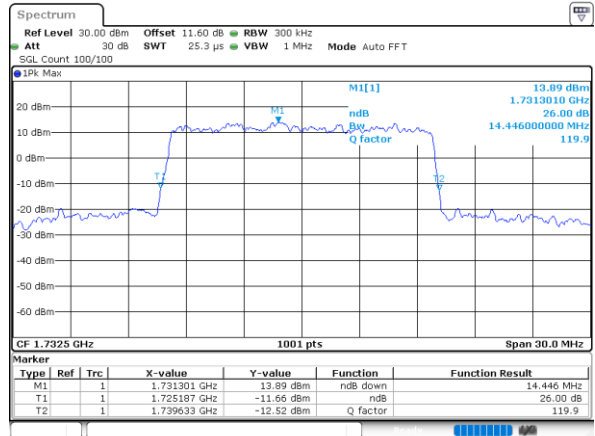
Date: 20.MAR.2020 07:23:16

Middle Channel / 15MHz / QPSK



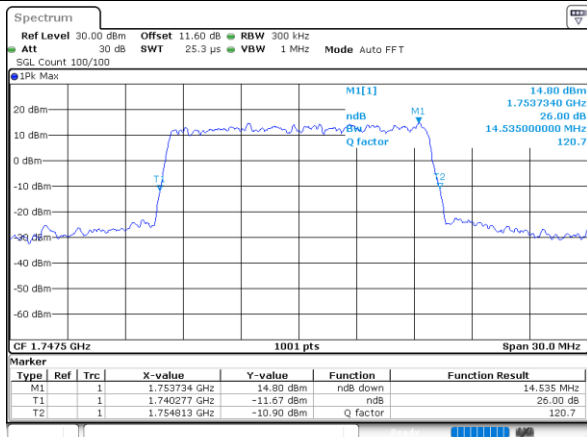
Date: 20.MAR.2020 07:28:10

Middle Channel / 15MHz / 16QAM



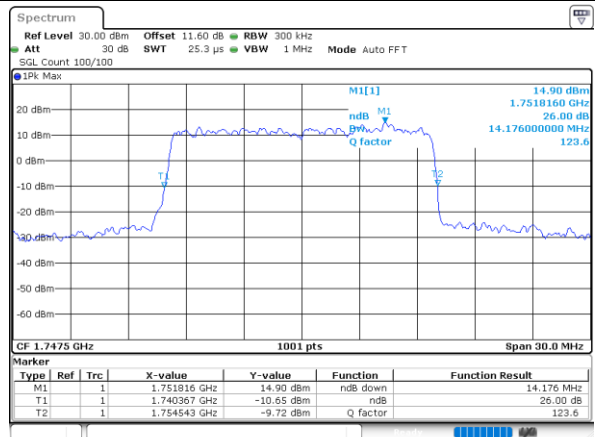
Date: 20.MAR.2020 07:28:21

Highest Channel / 15MHz / QPSK



Date: 20.MAR.2020 07:30:16

Highest Channel / 15MHz / 16QAM

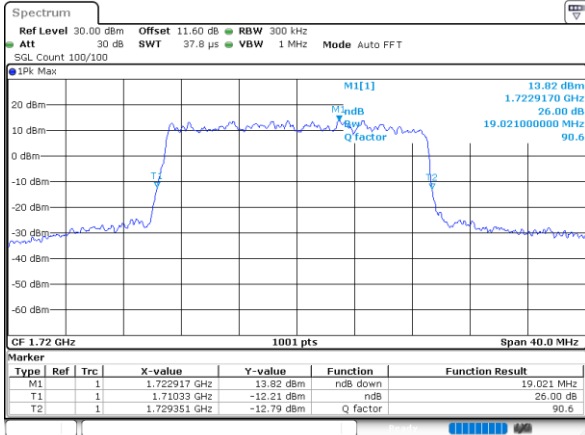


Date: 20.MAR.2020 07:30:28



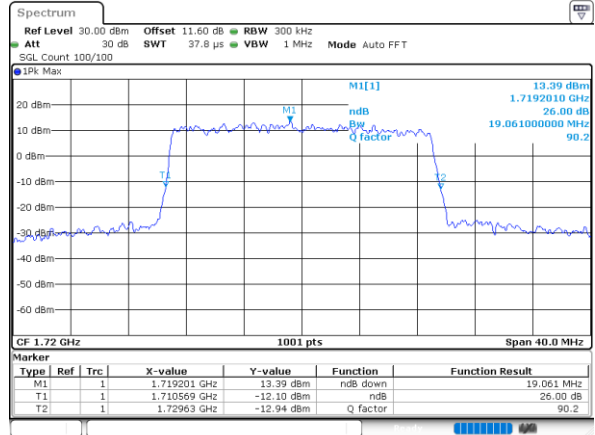
LTE Band 4

Lowest Channel / 20MHz / QPSK



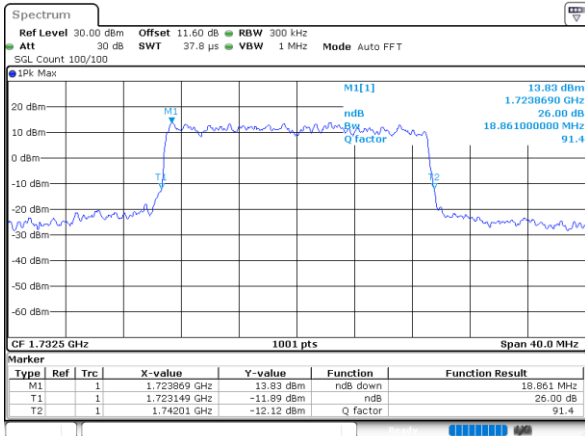
Date: 20.MAR.2020 07:13:05

Lowest Channel / 20MHz / 16QAM



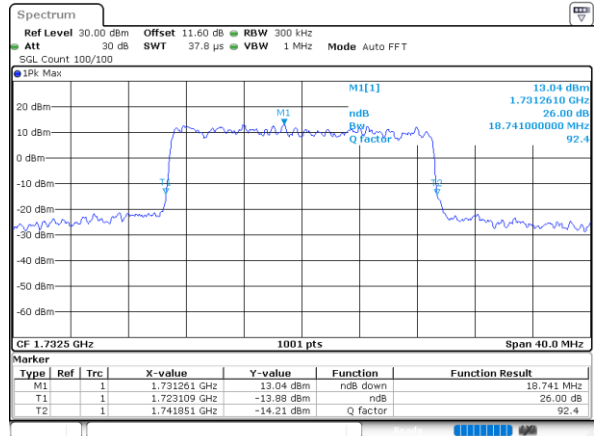
Date: 20.MAR.2020 07:13:17

Middle Channel / 20MHz / QPSK



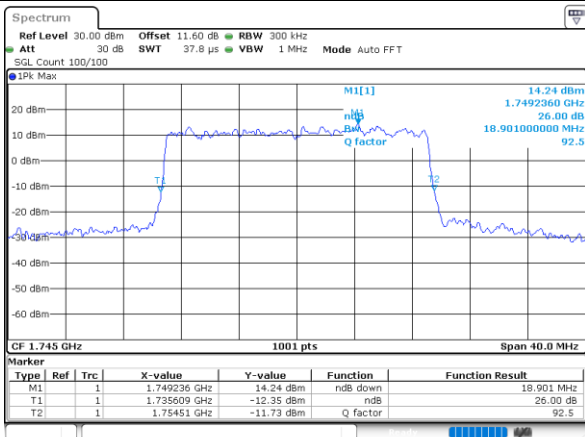
Date: 20.MAR.2020 07:13:51

Middle Channel / 20MHz / 16QAM



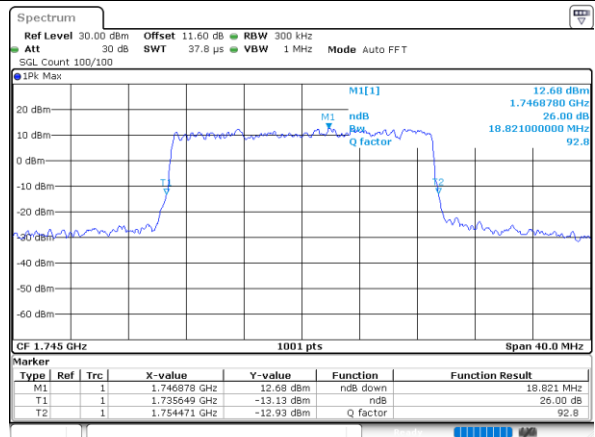
Date: 20.MAR.2020 07:14:03

Highest Channel / 20MHz / QPSK



Date: 20.MAR.2020 07:14:15

Highest Channel / 20MHz / 16QAM

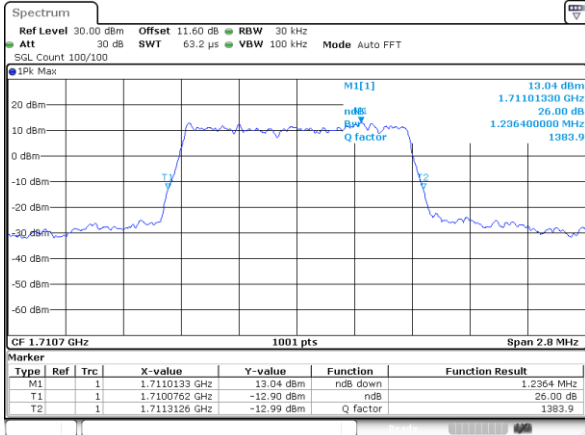


Date: 20.MAR.2020 07:14:21



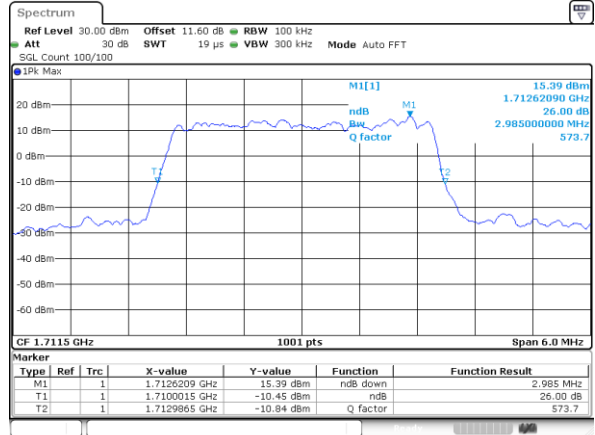
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



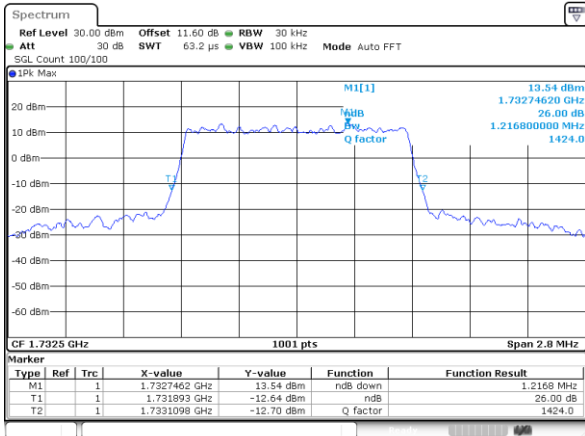
Date: 28.MAR.2020 19:15:44

Lowest Channel / 3MHz / 64QAM



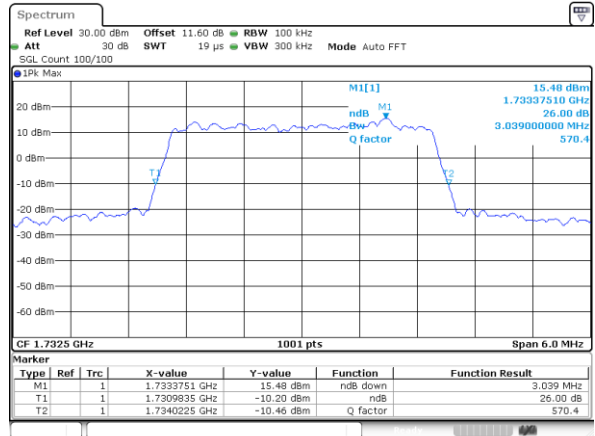
Date: 28.MAR.2020 18:28:51

Middle Channel / 1.4MHz / 64QAM



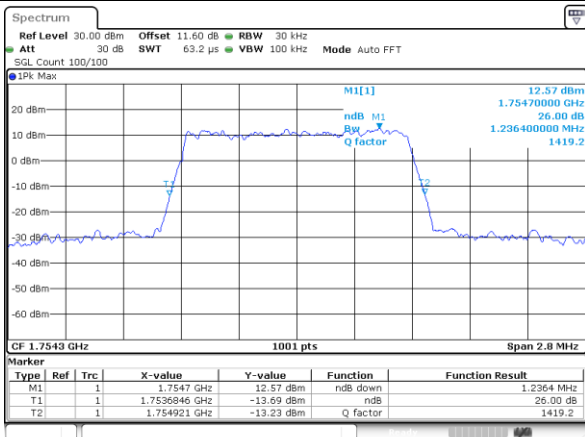
Date: 28.MAR.2020 19:19:03

Middle Channel / 3MHz / 64QAM



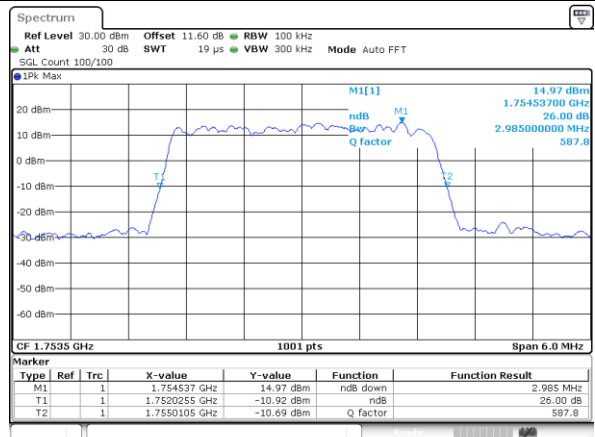
Date: 28.MAR.2020 18:32:04

Highest Channel / 1.4MHz / 64QAM



Date: 28.MAR.2020 19:20:16

Highest Channel / 3MHz / 64QAM

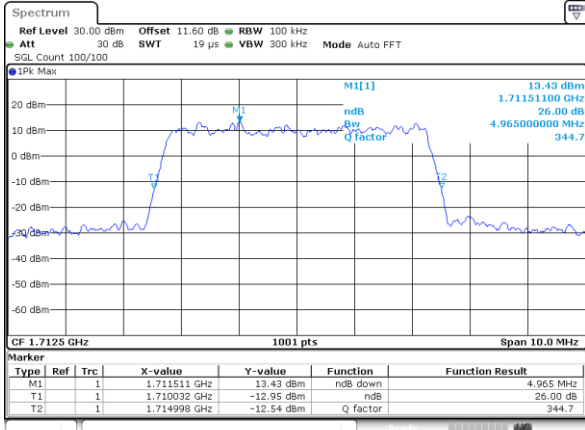


Date: 28.MAR.2020 18:33:17



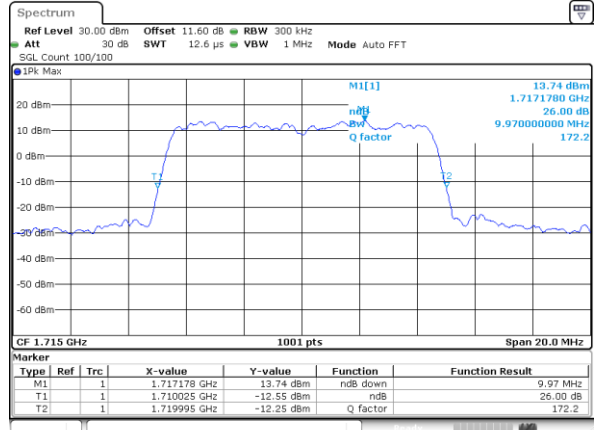
LTE Band 4

Lowest Channel / 5MHz / 64QAM



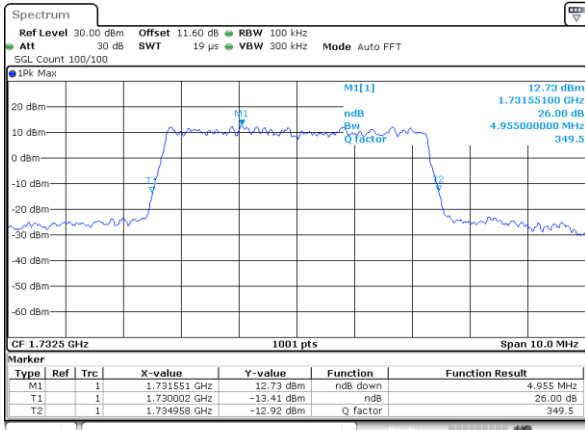
Date: 28.MAR.2020 18:36:32

Lowest Channel / 10MHz / 64QAM



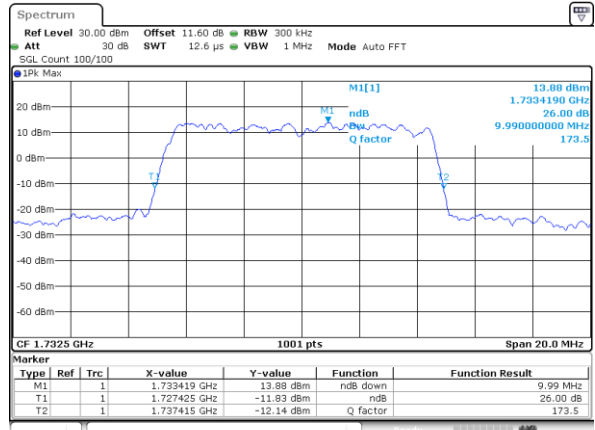
Date: 28.MAR.2020 18:52:40

Middle Channel / 5MHz / 64QAM



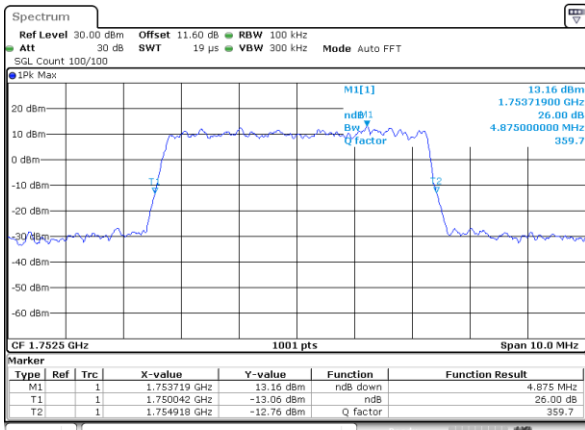
Date: 28.MAR.2020 18:48:12

Middle Channel / 10MHz / 64QAM



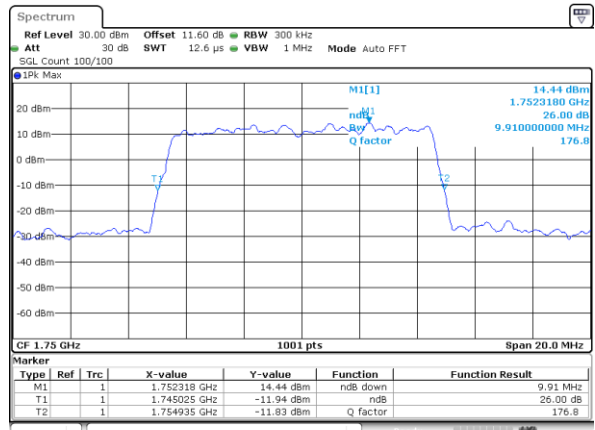
Date: 28.MAR.2020 18:55:53

Highest Channel / 5MHz / 64QAM



Date: 28.MAR.2020 18:49:25

Highest Channel / 10MHz / 64QAM



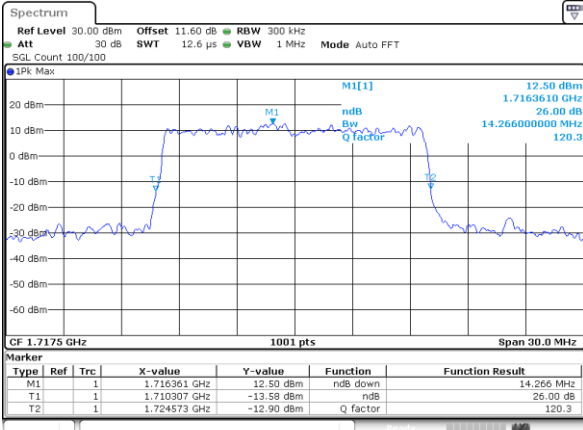
Date: 28.MAR.2020 18:57:06





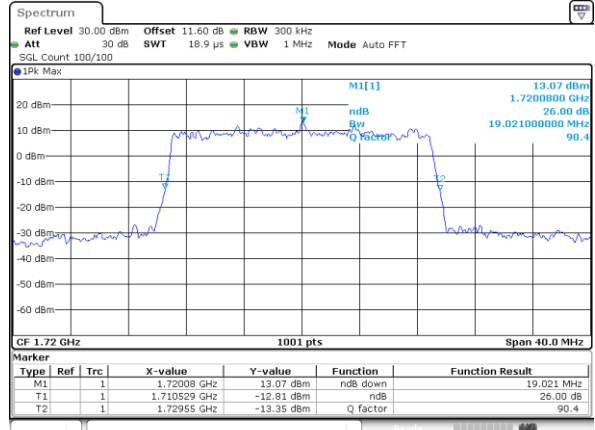
LTE Band 4

Lowest Channel / 15MHz / 64QAM



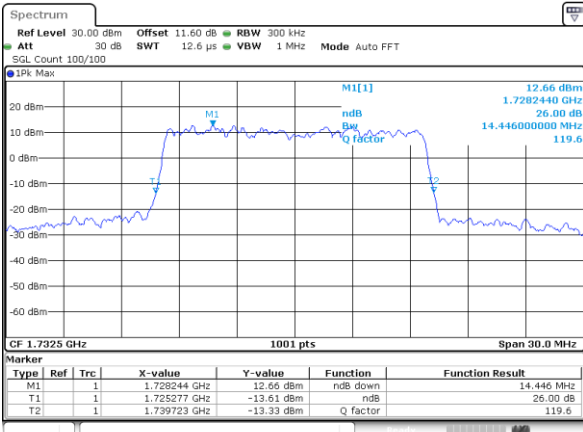
Date: 28.MAR.2020 19:00:22

Lowest Channel / 20MHz / 64QAM



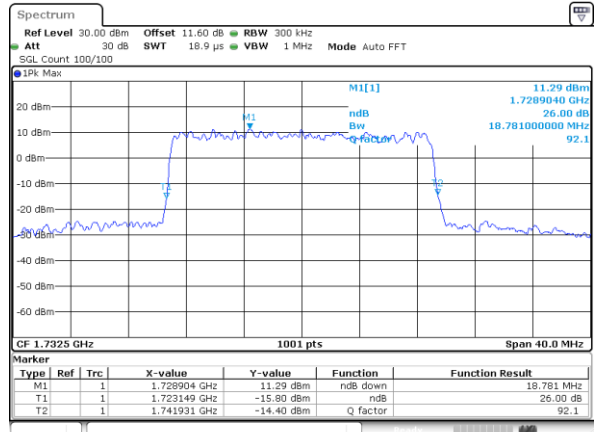
Date: 28.MAR.2020 19:08:03

Middle Channel / 15MHz / 64QAM



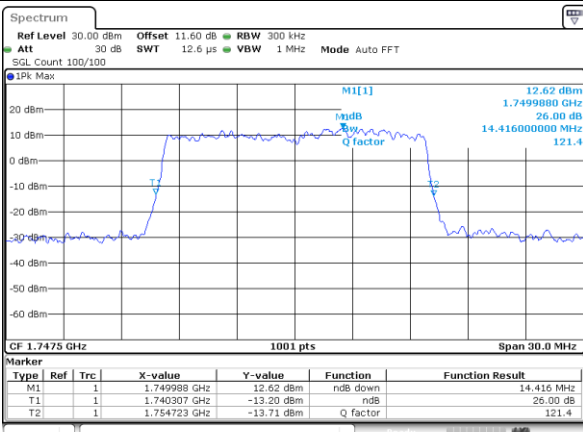
Date: 28.MAR.2020 19:03:34

Middle Channel / 20MHz / 64QAM



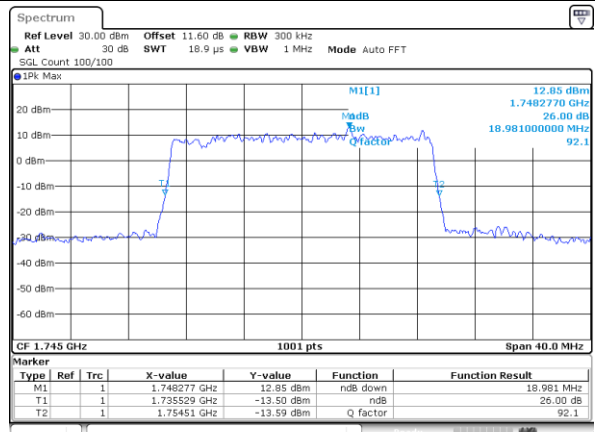
Date: 28.MAR.2020 19:11:15

Highest Channel / 15MHz / 64QAM



Date: 28.MAR.2020 19:04:48

Highest Channel / 20MHz / 64QAM



Date: 28.MAR.2020 19:12:29



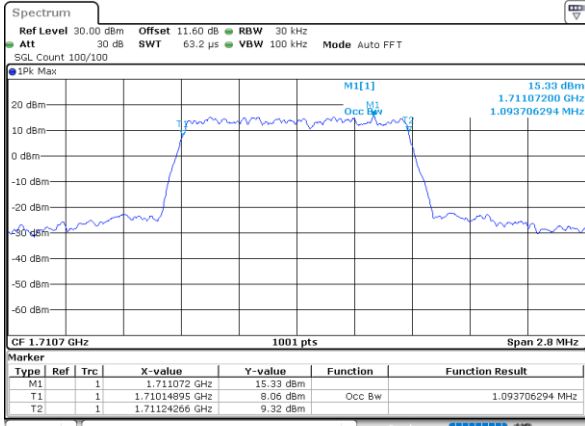
Occupied Bandwidth

Mode		LTE Band 4 : 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	1.09	2.72	2.71	4.53	4.50	9.11	9.03	13.40	13.43	17.86	17.86	
Middle CH	1.09	1.09	2.72	2.73	4.51	4.49	8.99	9.07	13.37	13.46	17.86	17.94	
Highest CH	1.09	1.09	2.71	2.71	4.50	4.49	9.01	9.03	13.43	13.43	17.82	17.86	
Mode		LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz		
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM		
Lowest CH	1.09	-	2.72	-	4.52	-	9.03	-	13.40	-	17.82	-	
Middle CH	1.09	-	2.73	-	4.49	-	9.05	-	13.46	-	17.86	-	
Highest CH	1.09	-	2.73	-	4.49	-	9.05	-	13.46	-	17.86	-	



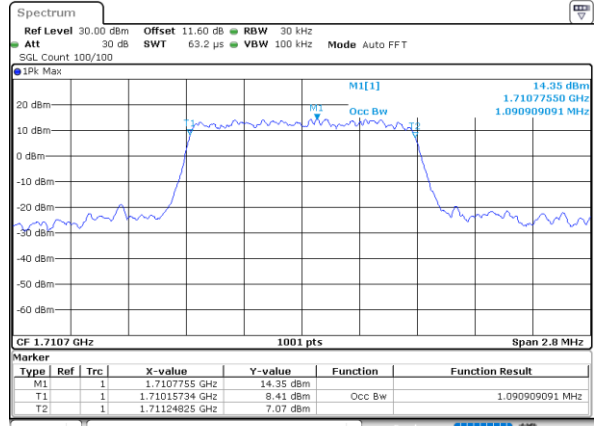
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



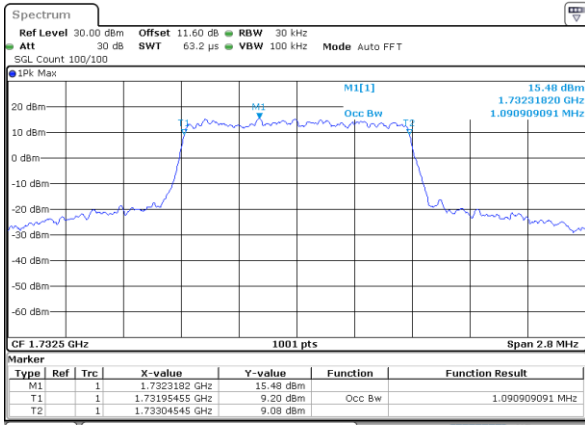
Date: 20.MAR.2020 08:03:06

Lowest Channel / 1.4MHz / 16QAM



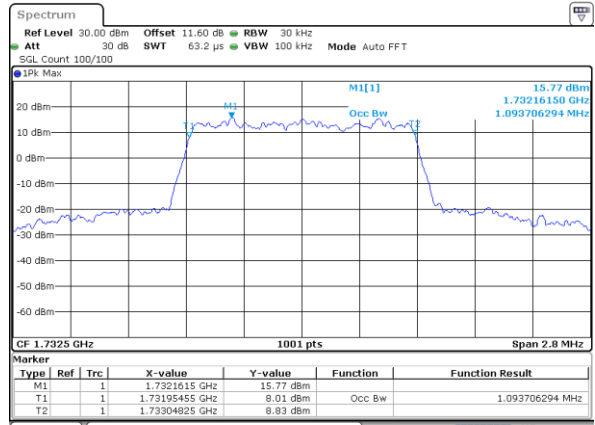
Date: 20.MAR.2020 08:03:18

Middle Channel / 1.4MHz / QPSK



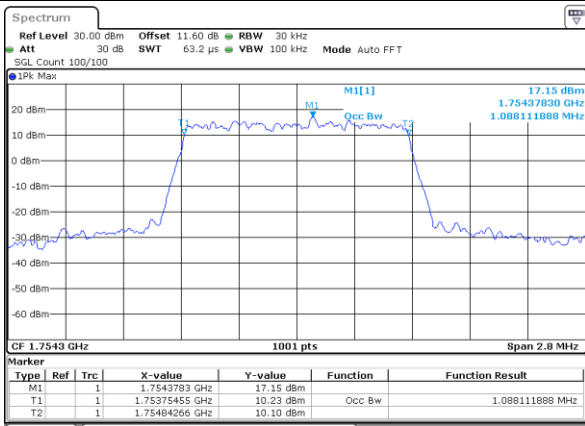
Date: 20.MAR.2020 08:09:26

Middle Channel / 1.4MHz / 16QAM



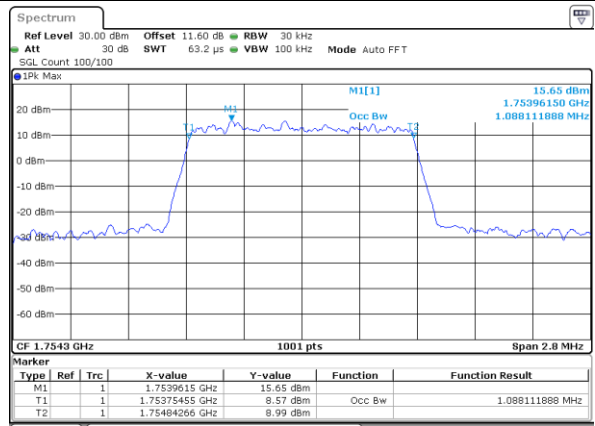
Date: 20.MAR.2020 08:09:37

Highest Channel / 1.4MHz / QPSK



Date: 20.MAR.2020 08:11:31

Highest Channel / 1.4MHz / 16QAM



Date: 20.MAR.2020 08:11:42