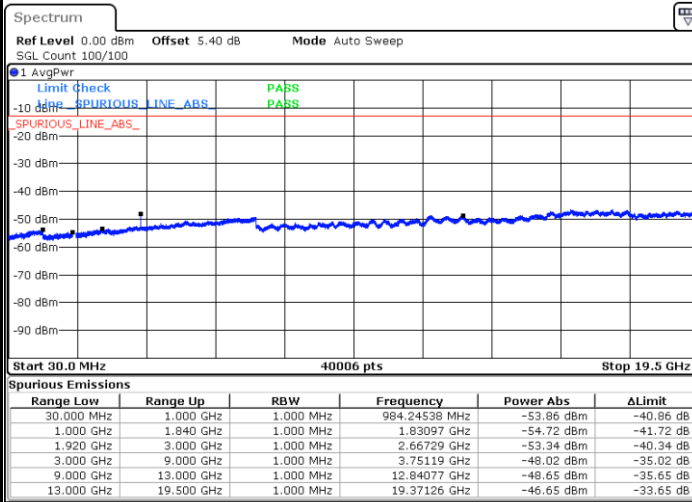




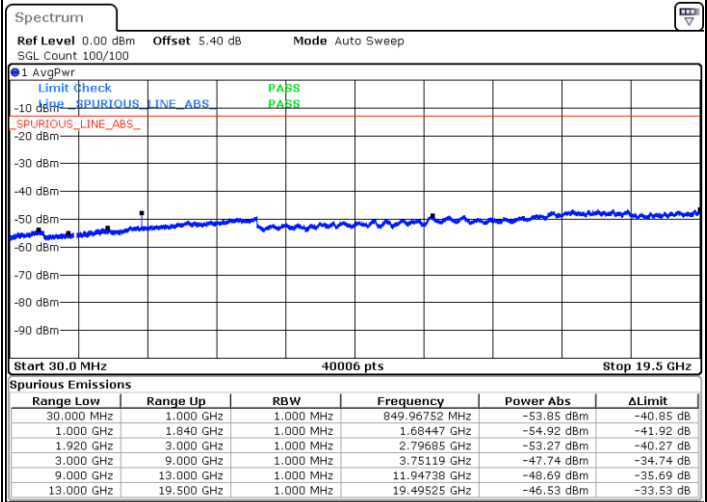
LTE Band 2 / 10MHz

Middle Channel / QPSK



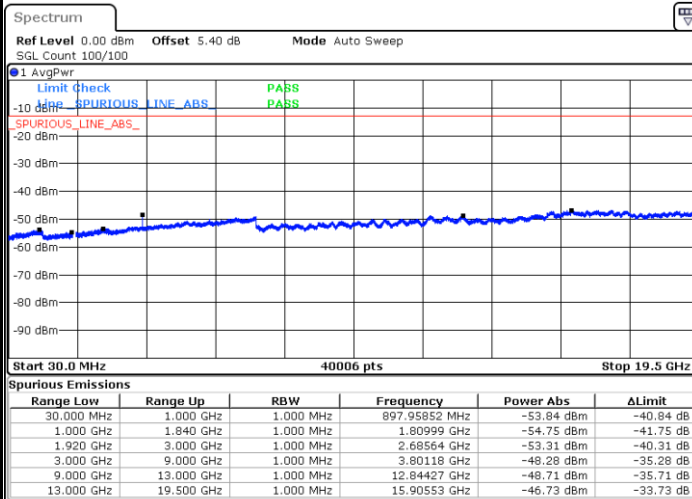
Date: 19 MAY 2020 12:59:37

Middle Channel / 16QAM



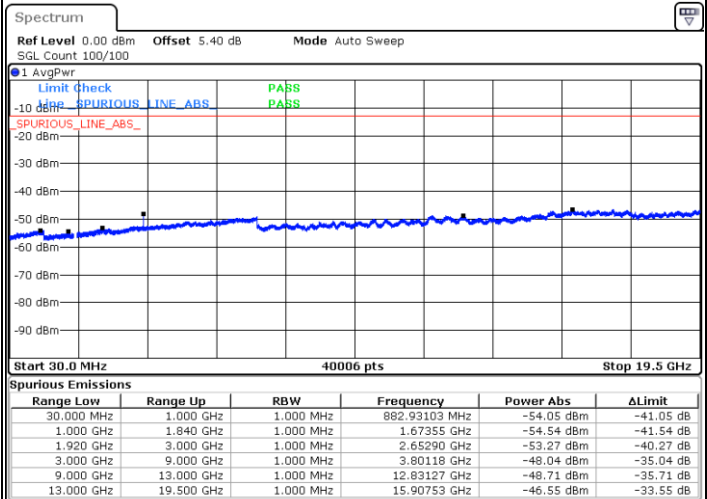
Date: 19 MAY 2020 13:00:32

Highest Channel / QPSK



Date: 19 MAY 2020 13:06:37

Highest Channel / 16QAM

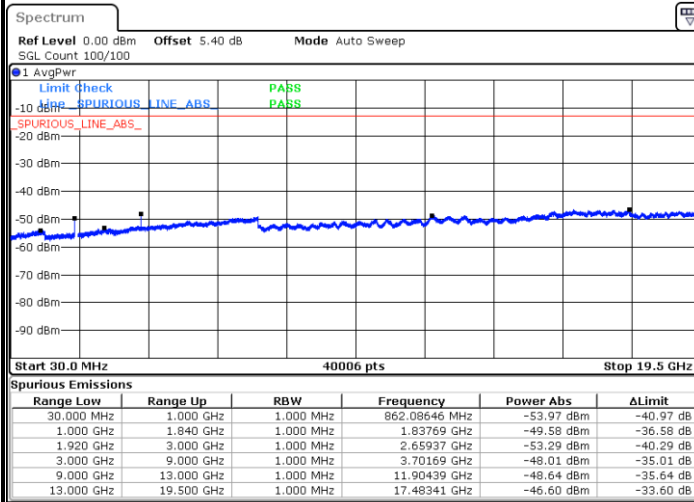


Date: 19 MAY 2020 13:07:32



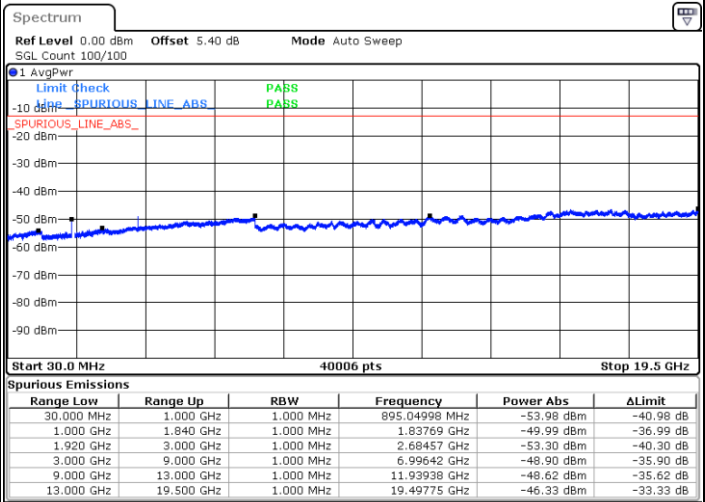
LTE Band 2 / 15MHz

Lowest Channel / QPSK



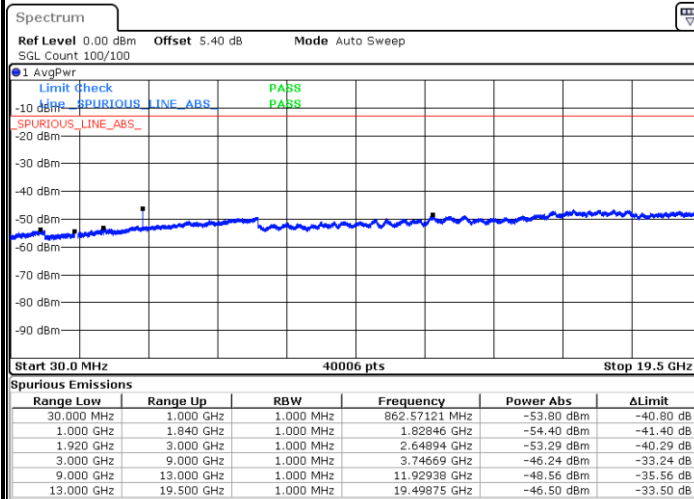
Date: 19 MAY 2020 13:13:38

Lowest Channel / 16QAM



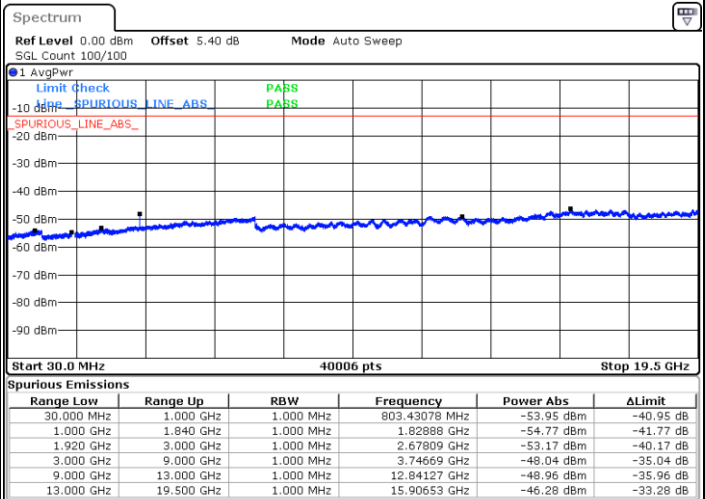
Date: 19 MAY 2020 13:14:33

Middle Channel / QPSK



Date: 19 MAY 2020 13:16:08

Middle Channel / 16QAM

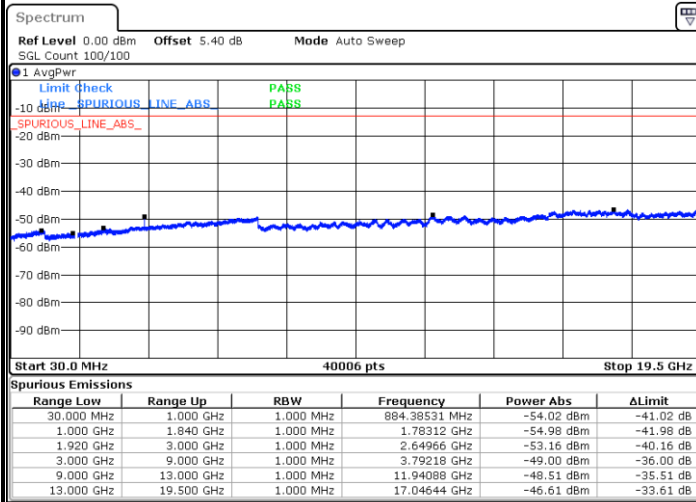


Date: 19 MAY 2020 13:17:03



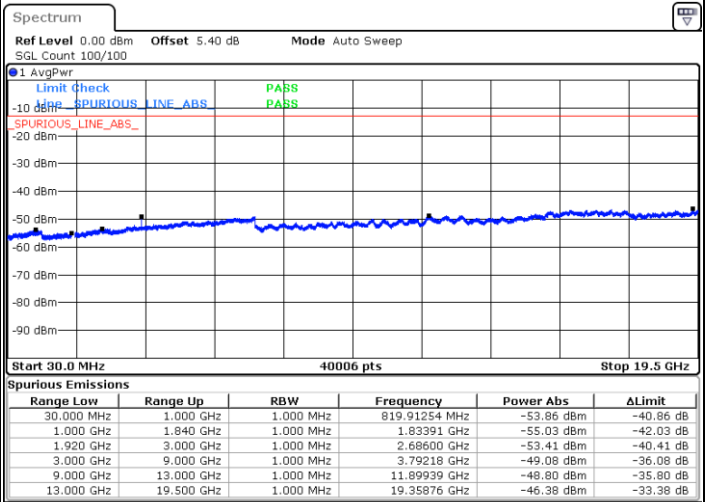
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 19 MAY 2020 13:23:09

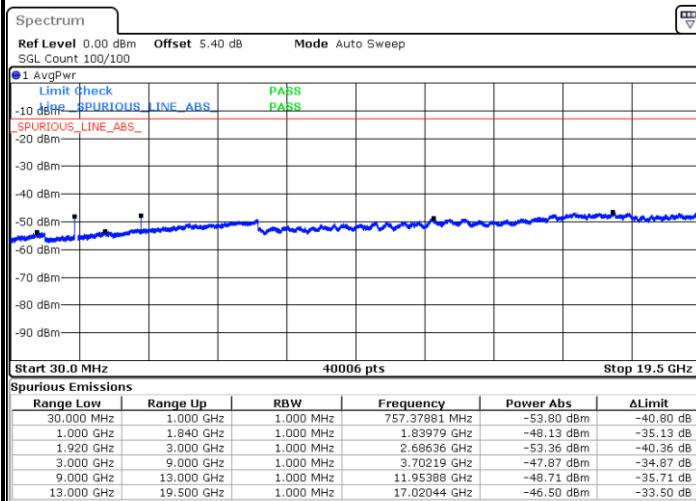
Highest Channel / 16QAM



Date: 19 MAY 2020 13:24:04

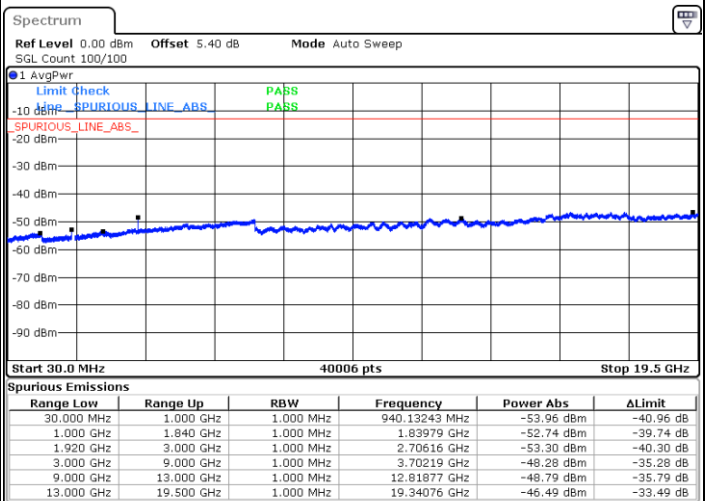
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 19 MAY 2020 13:30:10

Lowest Channel / 16QAM

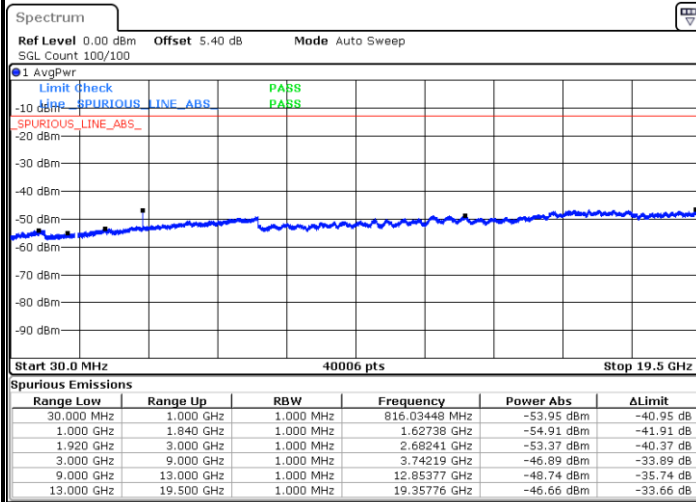


Date: 19 MAY 2020 13:31:05



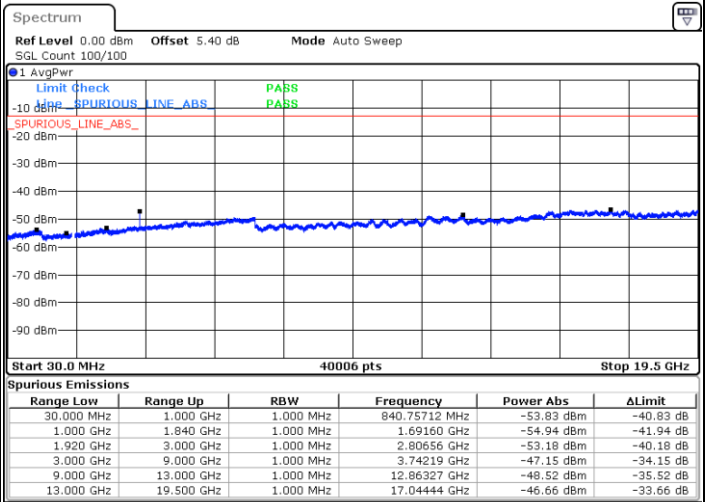
LTE Band 2 / 20MHz

Middle Channel / QPSK



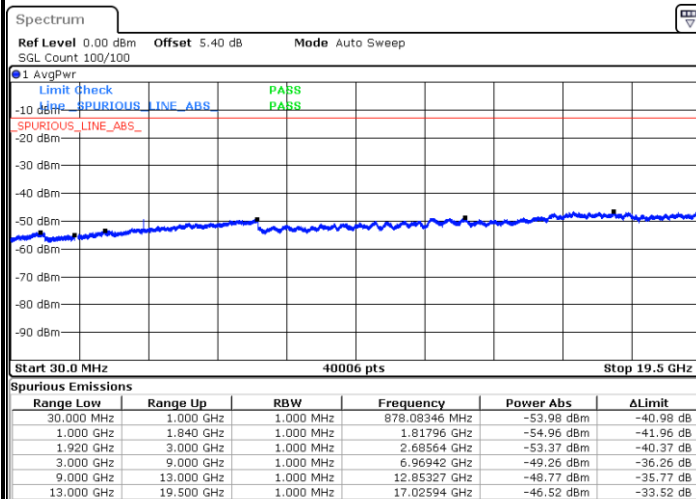
Date: 19 MAY 2020 13:32:40

Middle Channel / 16QAM



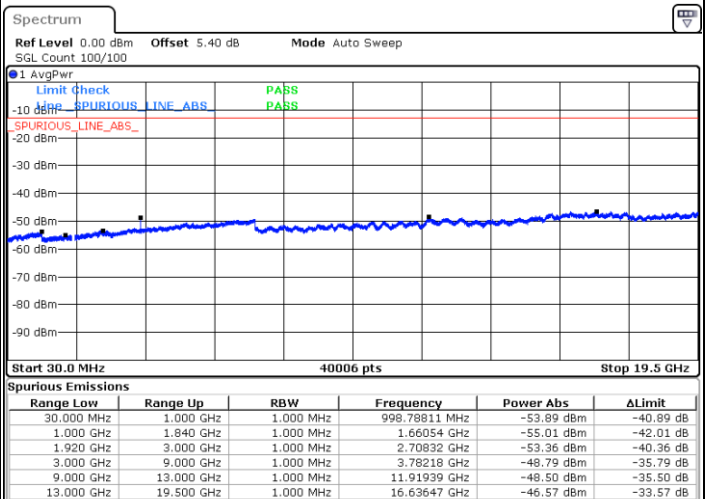
Date: 19 MAY 2020 13:33:35

Highest Channel / QPSK



Date: 19 MAY 2020 13:39:41

Highest Channel / 16QAM

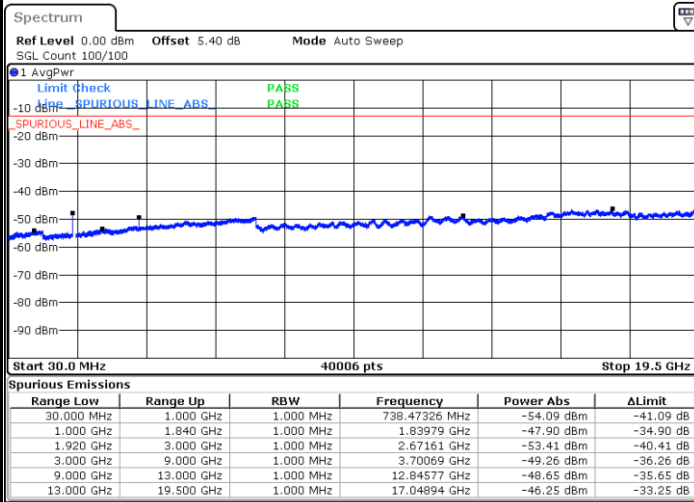


Date: 19 MAY 2020 13:40:36



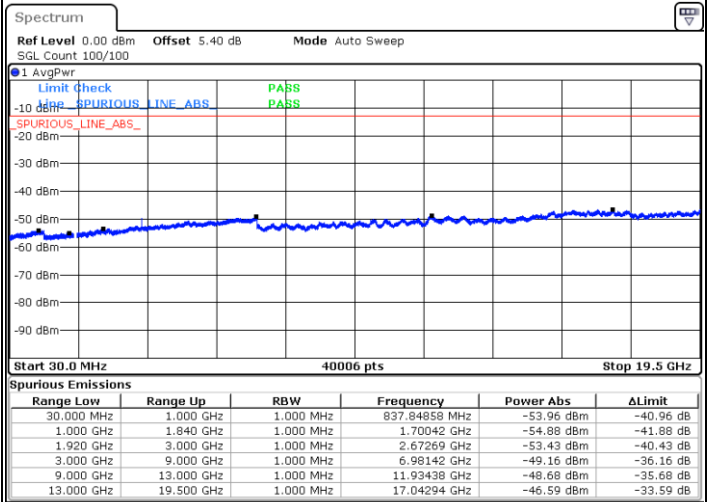
LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM



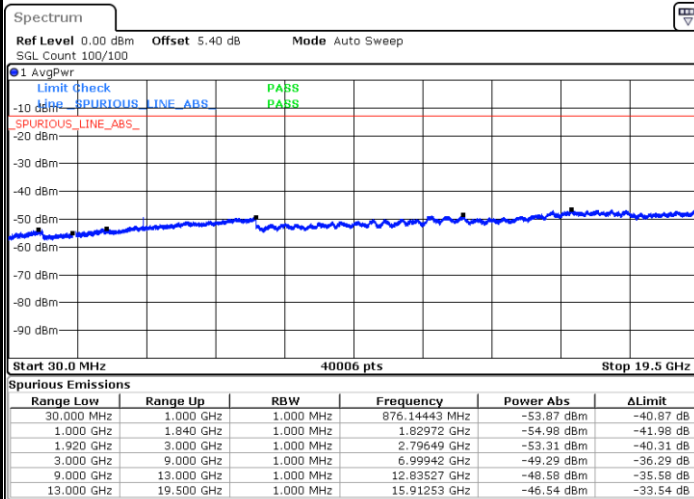
Date: 19 MAY 2020 14:14:38

Middle Channel / 64QAM



Date: 19 MAY 2020 14:15:32

Highest Channel / 64QAM

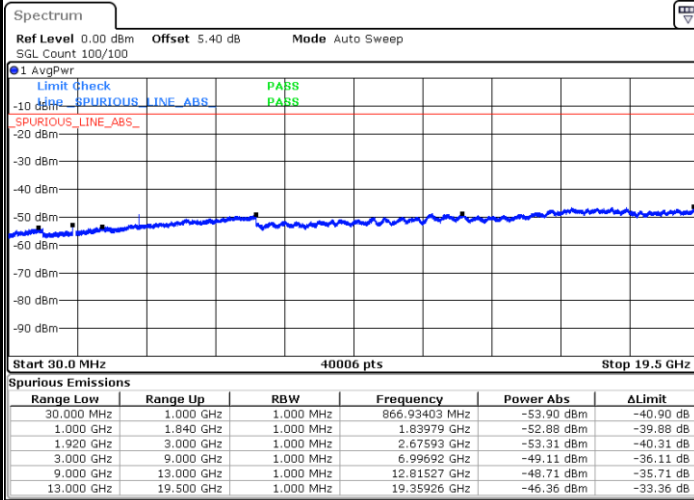


Date: 19 MAY 2020 14:16:27



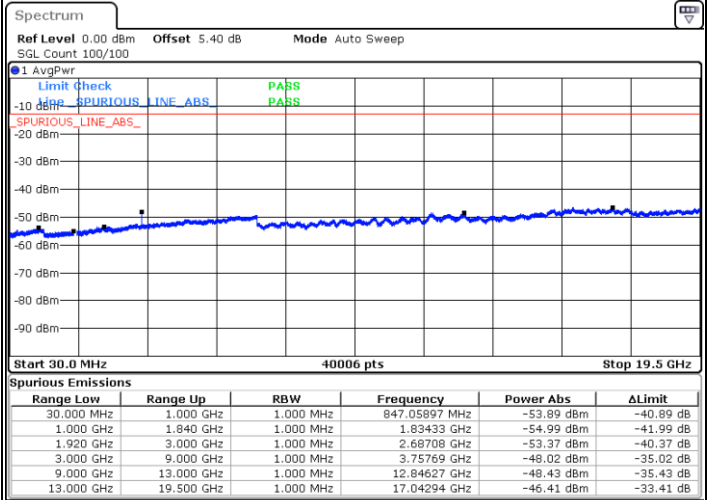
LTE Band 2 / 3MHz

Lowest Channel / 64QAM



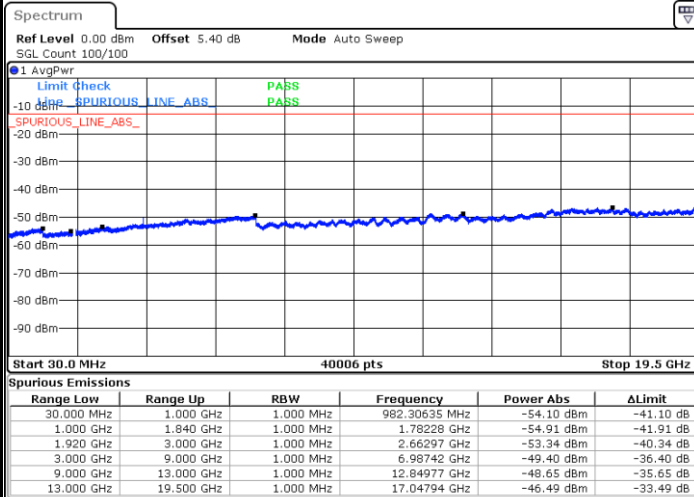
Date: 19 MAY 2020 14:17:22

Middle Channel / 64QAM



Date: 19 MAY 2020 14:18:17

Highest Channel / 64QAM

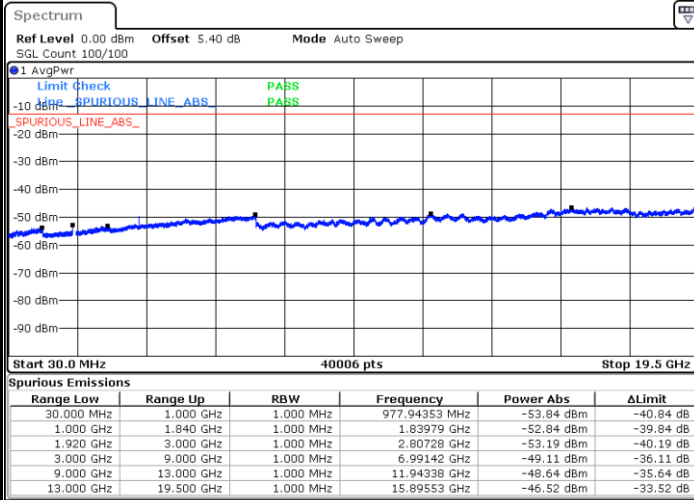


Date: 19 MAY 2020 14:19:12



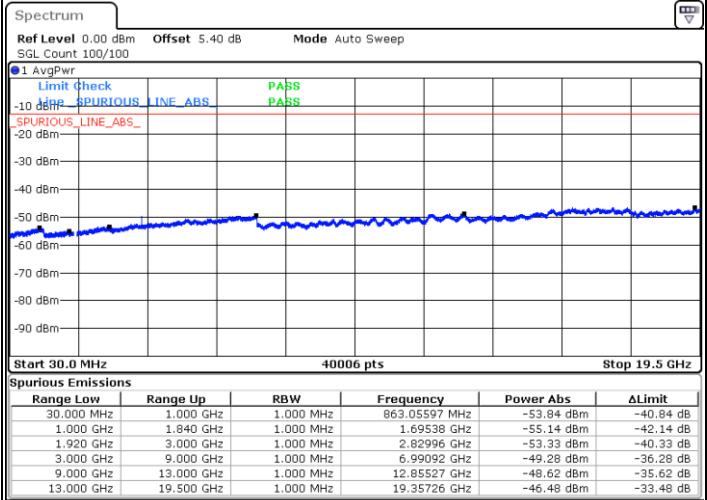
LTE Band 2 / 5MHz

Lowest Channel / 64QAM



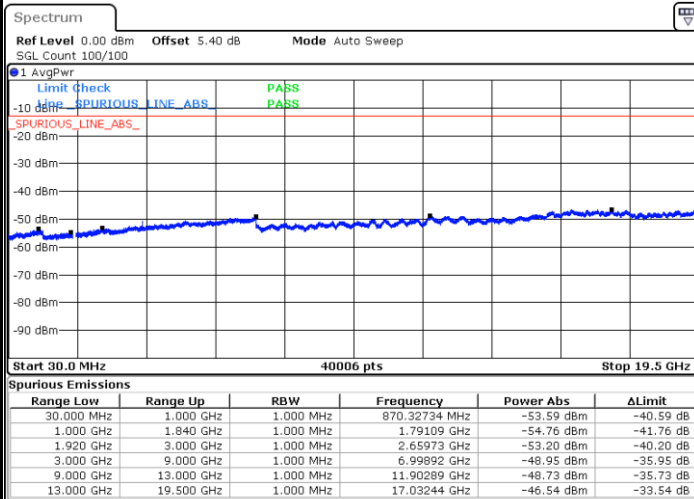
Date: 19 MAY 2020 14:20:07

Middle Channel / 64QAM



Date: 19 MAY 2020 14:21:02

Highest Channel / 64QAM

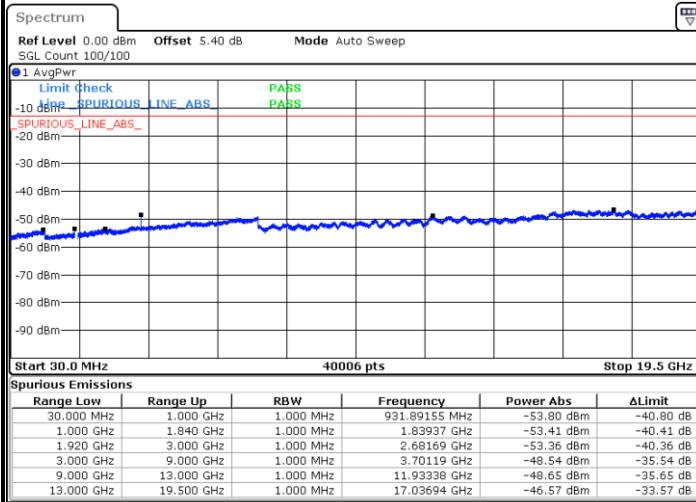


Date: 19 MAY 2020 14:21:57



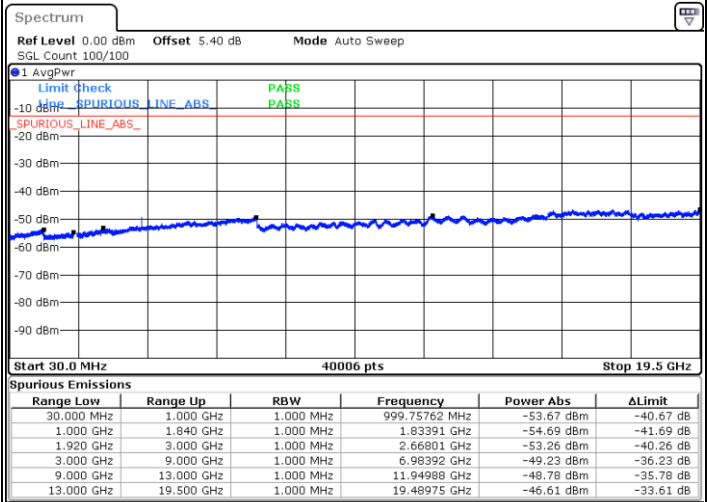
LTE Band 2 / 10MHz

Lowest Channel / 64QAM



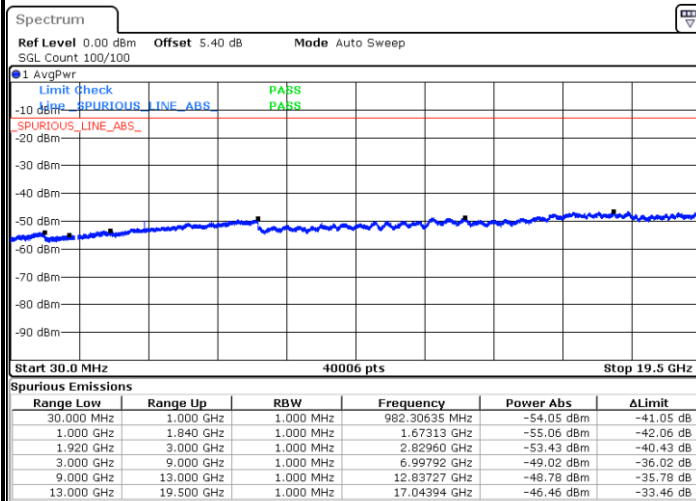
Date: 19 MAY 2020 14:22:52

Middle Channel / 64QAM



Date: 19 MAY 2020 14:23:47

Highest Channel / 64QAM

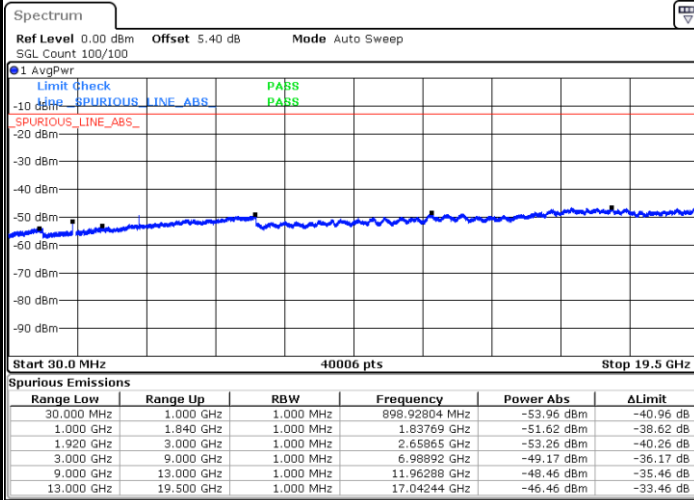


Date: 19 MAY 2020 14:24:41



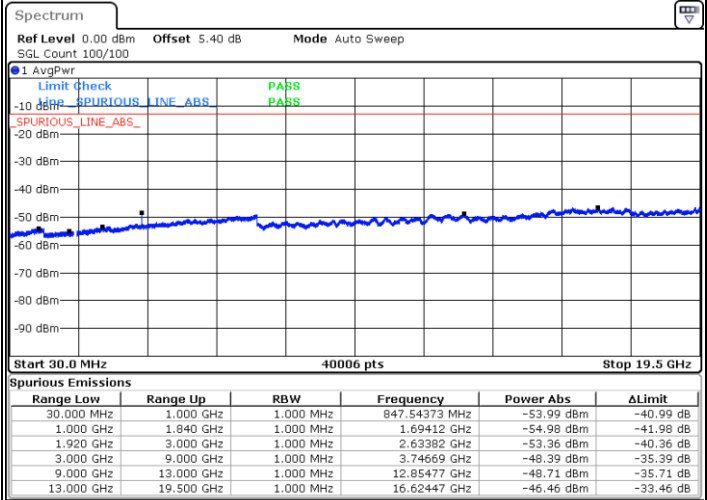
LTE Band 2 / 15MHz

Lowest Channel / 64QAM



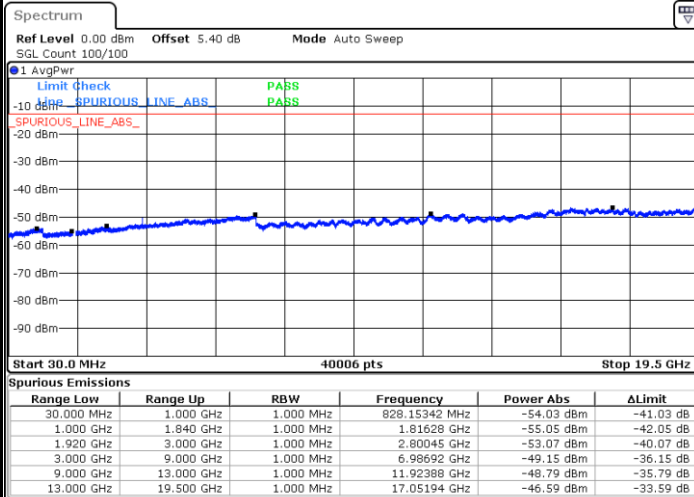
Date: 19 MAY 2020 14:25:36

Middle Channel / 64QAM



Date: 19 MAY 2020 14:26:31

Highest Channel / 64QAM

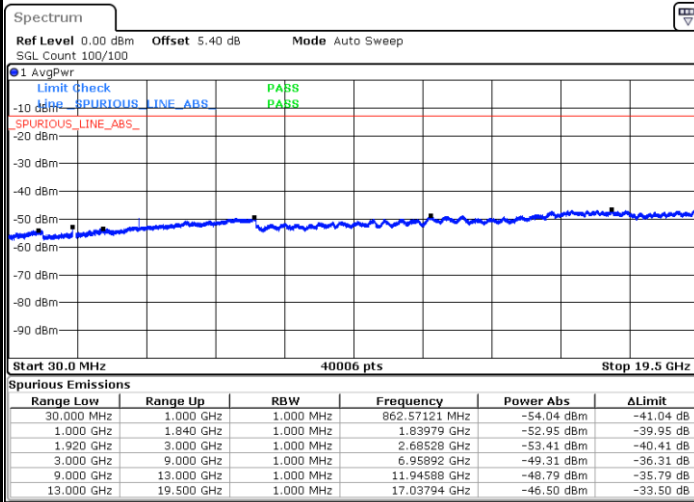


Date: 19 MAY 2020 14:27:26



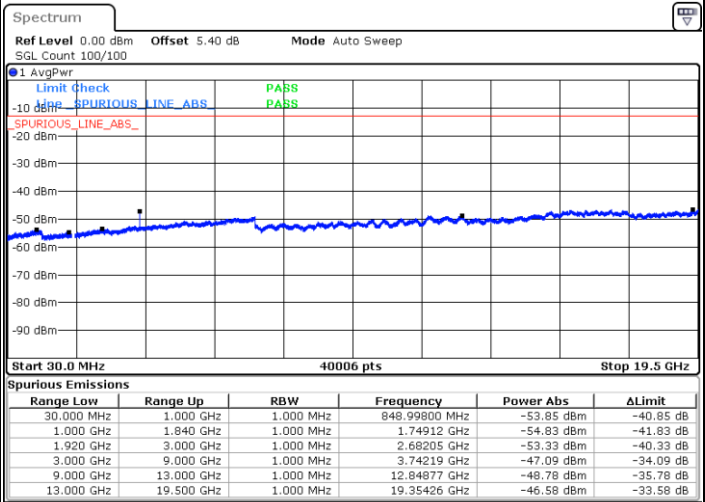
LTE Band 2 / 20MHz

Lowest Channel / 64QAM



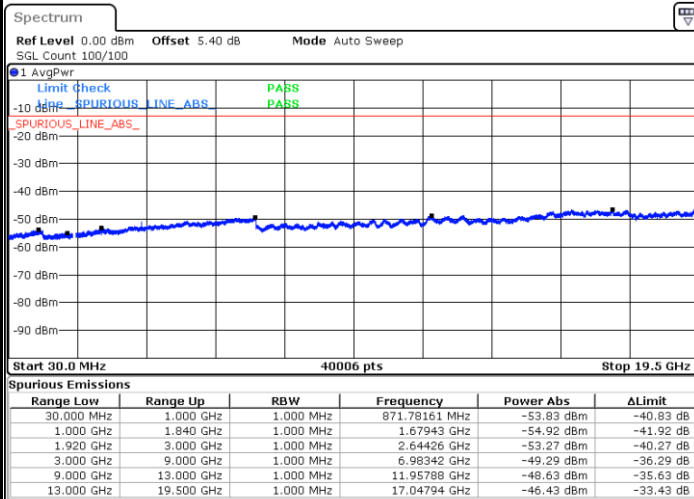
Date: 19 MAY 2020 14:28:21

Middle Channel / 64QAM



Date: 19 MAY 2020 14:29:16

Highest Channel / 64QAM



Date: 19 MAY 2020 14:30:11

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	0.0005	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 4

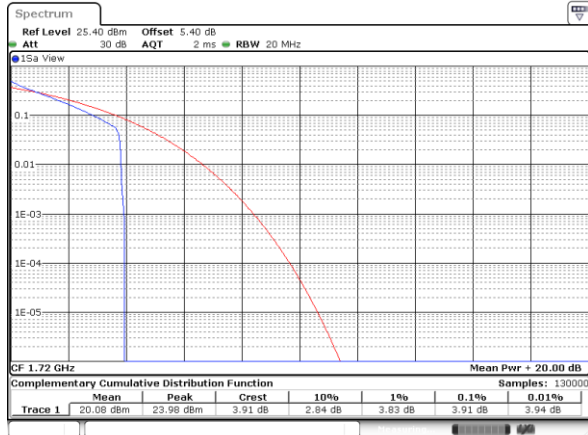
Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.91	4.81	6.23	5.68	PASS
Middle CH	3.59	5.28	5.59	6.06	
Highest CH	3.01	4.78	4.12	5.80	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.94	5.65	-	-	PASS
Middle CH	5.45	6.17	-	-	
Highest CH	4.38	5.74	-	-	

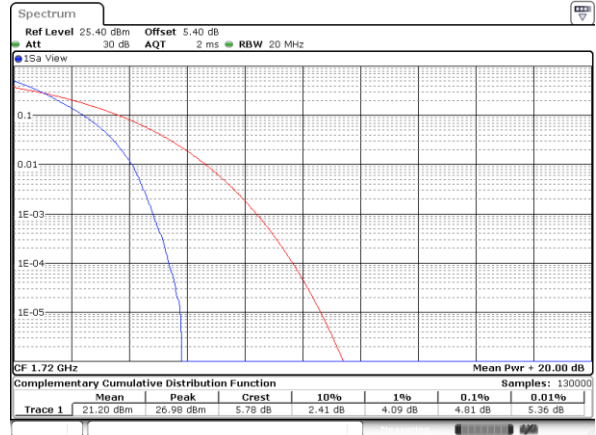


LTE Band 4 / 20MHz / QPSK

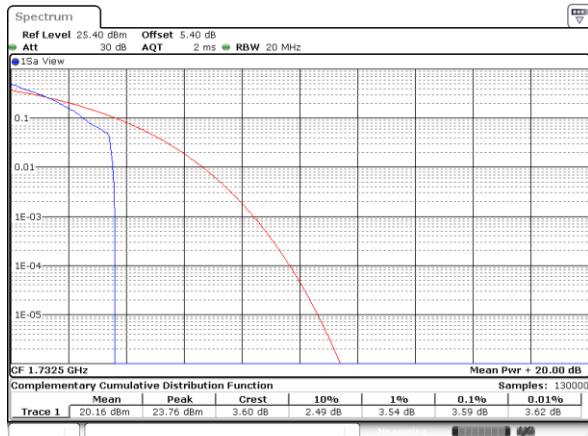
Lowest Channel / 1RB



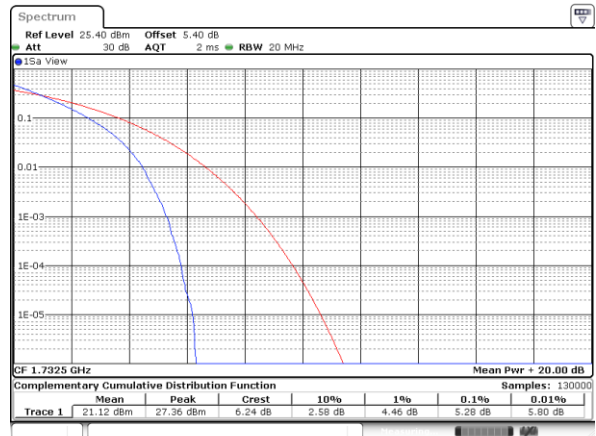
Lowest Channel / Full RB



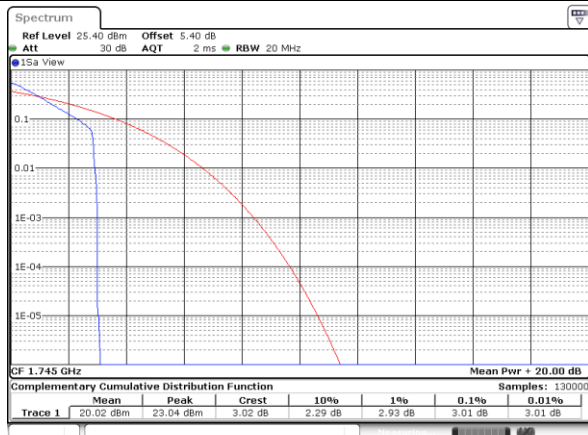
Middle Channel / 1RB



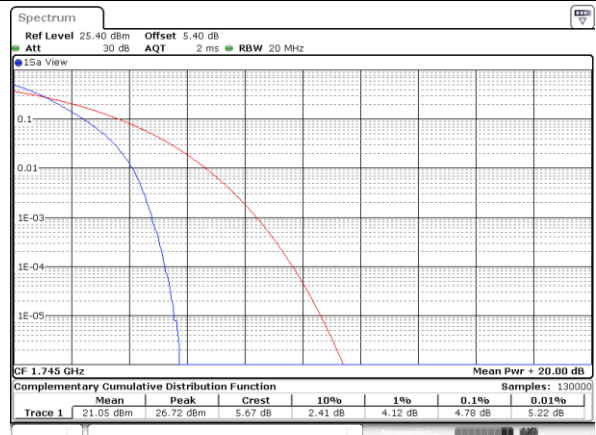
Middle Channel / Full RB



Highest Channel / 1RB



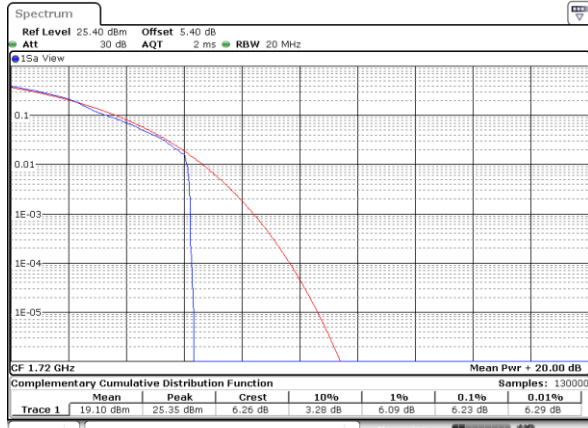
Highest Channel / Full RB



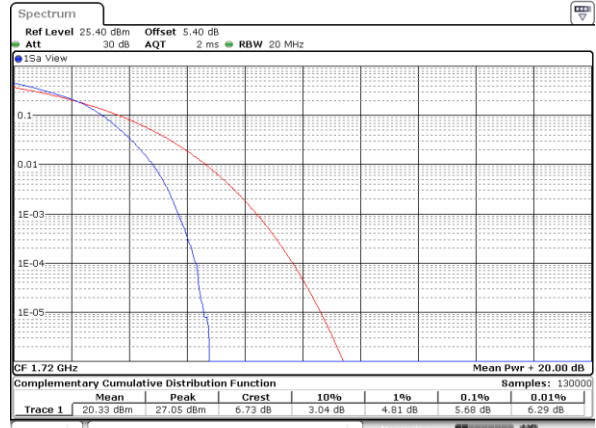


LTE Band 4 / 20MHz / 16QAM

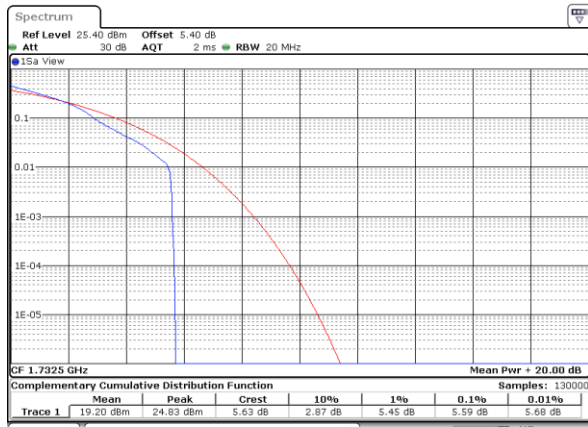
Lowest Channel / 1RB



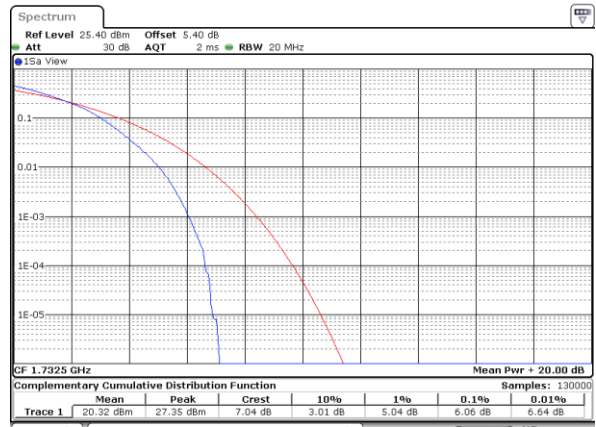
Lowest Channel / Full RB



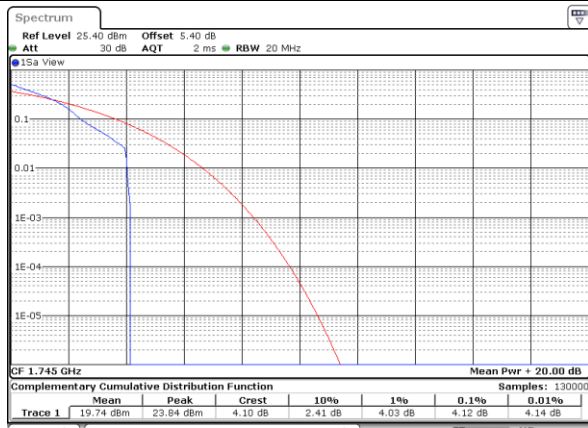
Middle Channel / 1RB



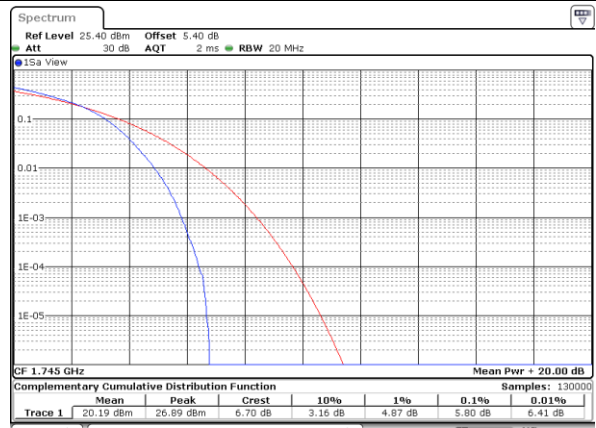
Middle Channel / Full RB

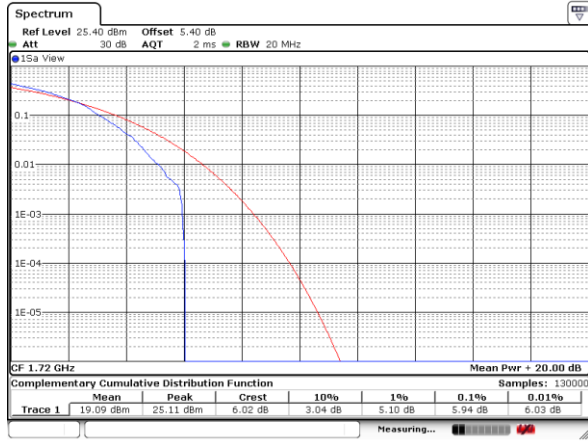
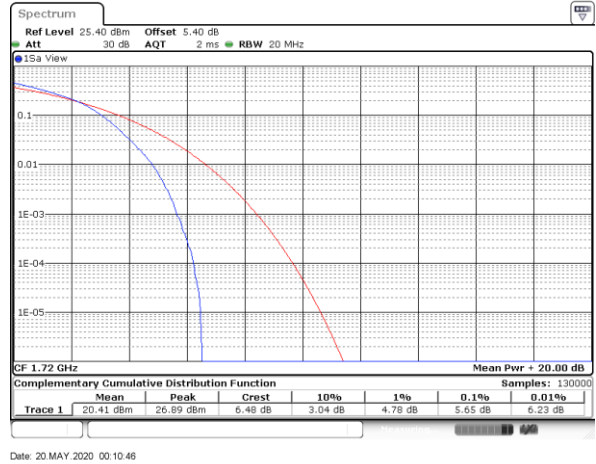
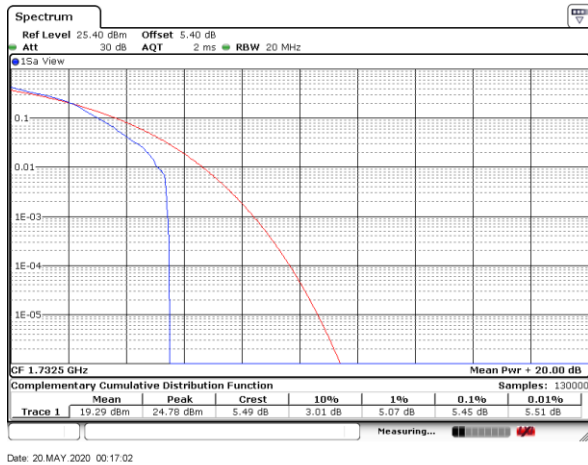
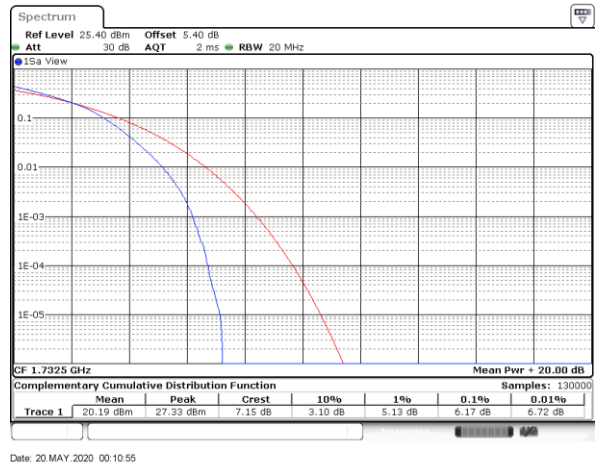
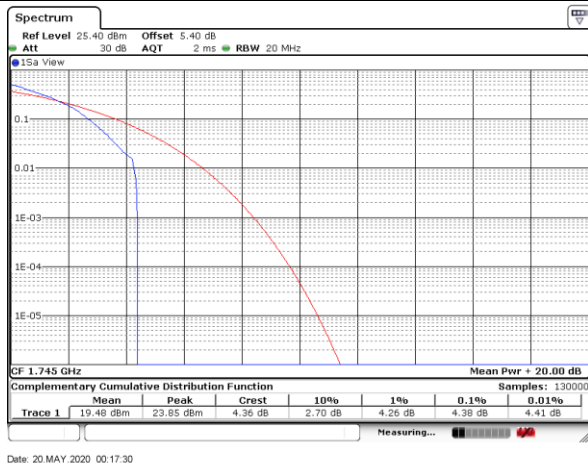
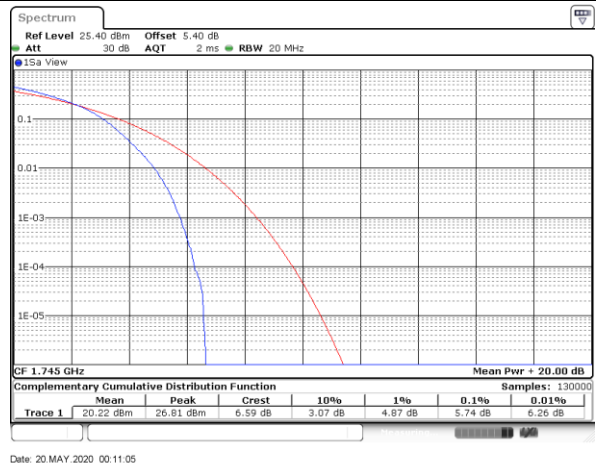


Highest Channel / 1RB



Highest Channel / Full RB



LTE Band 4 / 20MHz / 64QAM
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB


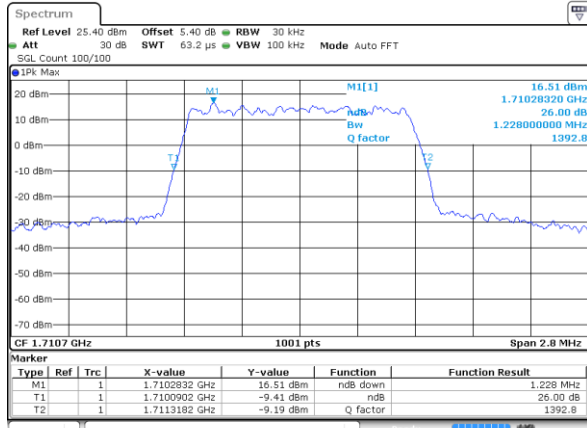
**26dB Bandwidth**

Mode	LTE Band 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	1.24	3.03	3.05	4.94	4.95	9.67	9.77	14.39	14.60	20.14	20.18
Middle CH	1.23	1.22	3.03	3.00	4.94	4.85	9.63	9.71	14.36	14.30	20.26	20.34
Highest CH	1.23	1.23	3.04	3.00	4.86	4.84	9.77	9.79	14.57	14.24	20.14	20.22
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	-	3.05	-	4.88	-	9.81	-	14.27	-	20.14	-
Middle CH	1.23	-	3.02	-	4.87	-	9.77	-	14.45	-	20.42	-
Highest CH	1.24	-	3.02	-	4.90	-	9.75	-	14.54	-	20.14	-



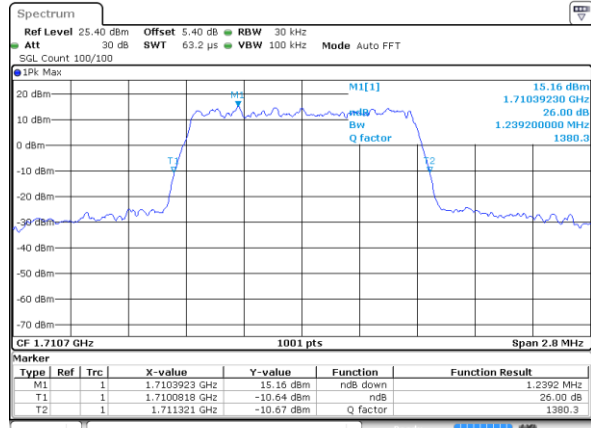
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



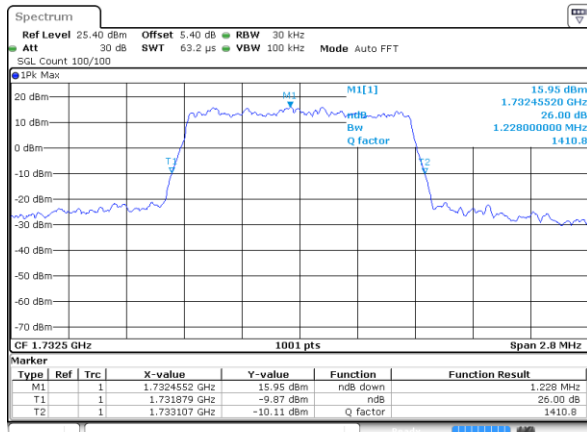
Date: 19 MAY 2020 21:36:09

Lowest Channel / 1.4MHz / 16QAM



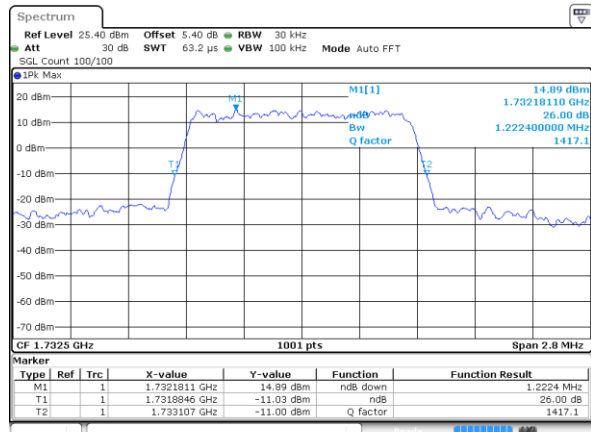
Date: 19 MAY 2020 21:36:30

Middle Channel / 1.4MHz / QPSK



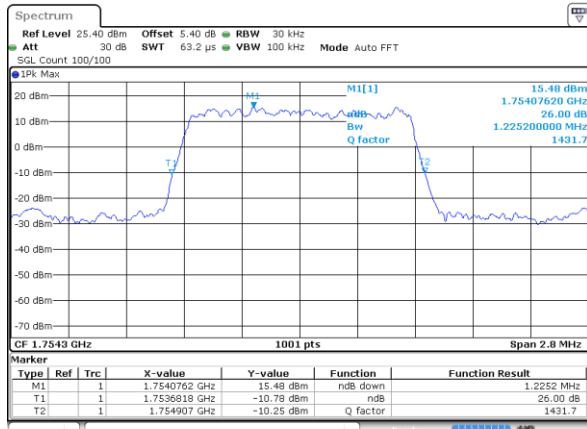
Date: 19 MAY 2020 21:36:50

Middle Channel / 1.4MHz / 16QAM



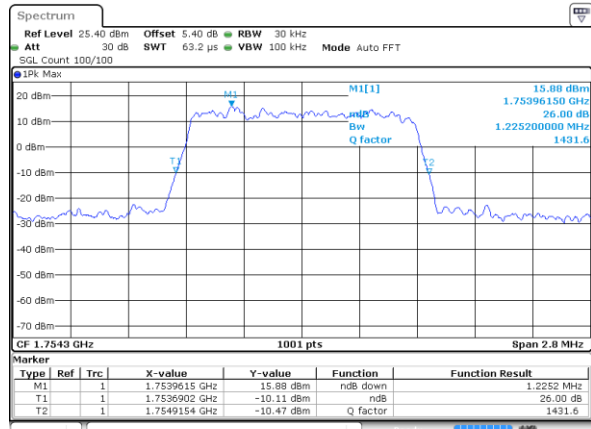
Date: 19 MAY 2020 21:37:10

Highest Channel / 1.4MHz / QPSK



Date: 19 MAY 2020 21:37:31

Highest Channel / 1.4MHz / 16QAM

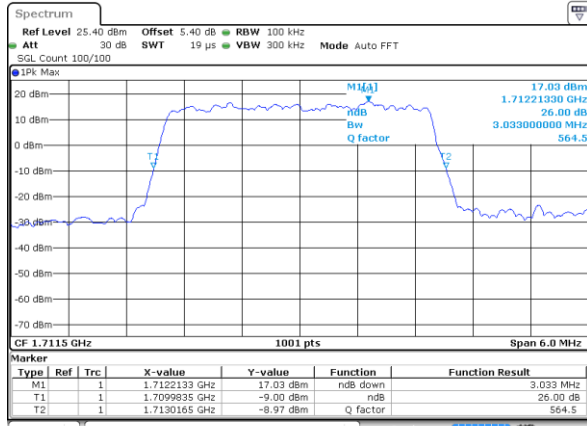


Date: 19 MAY 2020 21:37:51



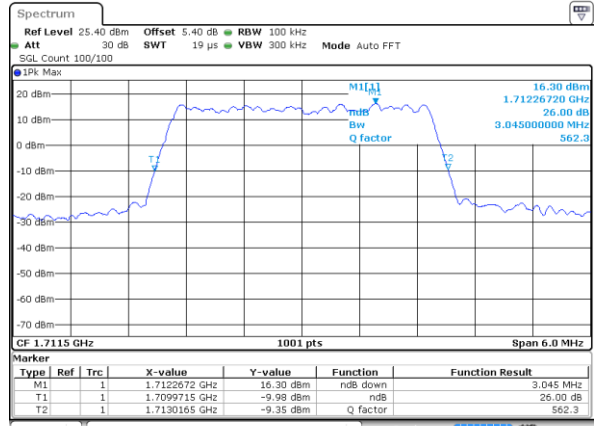
LTE Band 4

Lowest Channel / 3MHz / QPSK



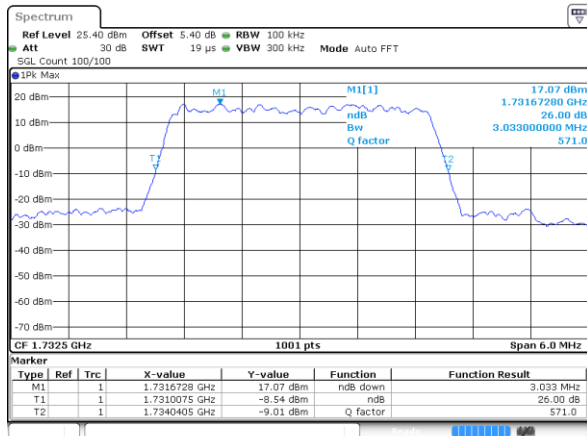
Date: 19 MAY 2020 21:38:11

Lowest Channel / 3MHz / 16QAM



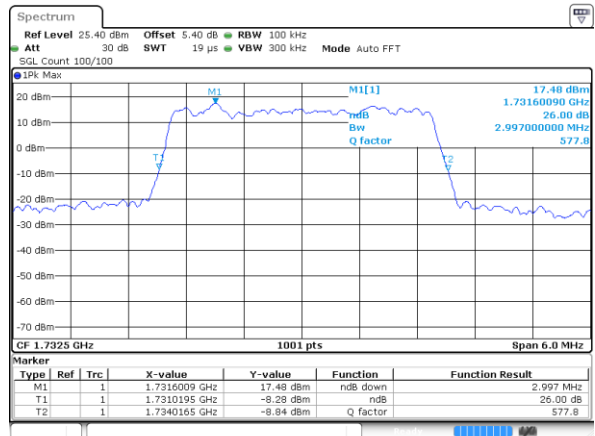
Date: 19 MAY 2020 21:38:31

Middle Channel / 3MHz / QPSK



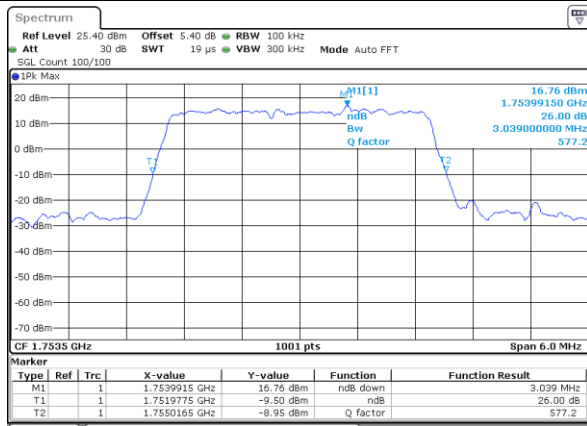
Date: 19 MAY 2020 21:38:52

Middle Channel / 3MHz / 16QAM



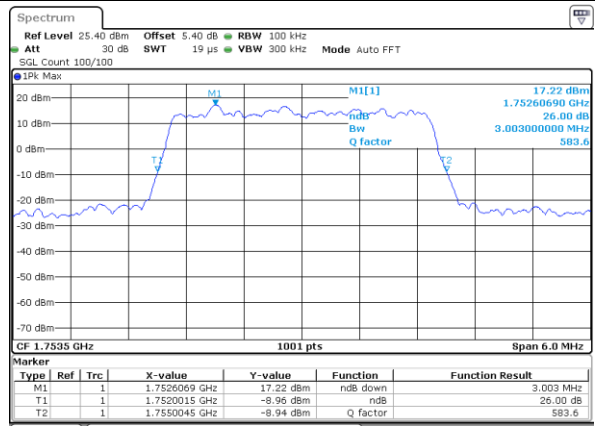
Date: 19 MAY 2020 21:38:12

Highest Channel / 3MHz / QPSK



Date: 19 MAY 2020 21:39:32

Highest Channel / 3MHz / 16QAM

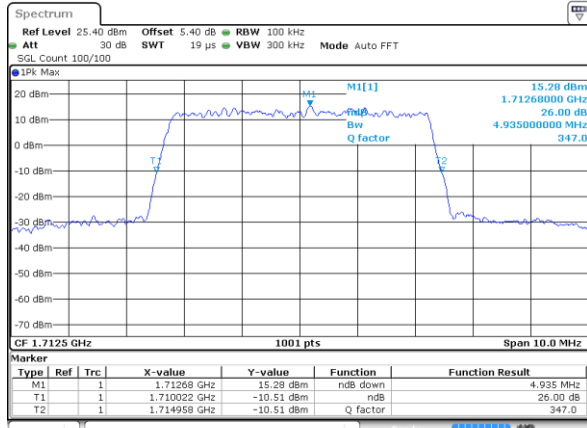


Date: 19 MAY 2020 21:39:52



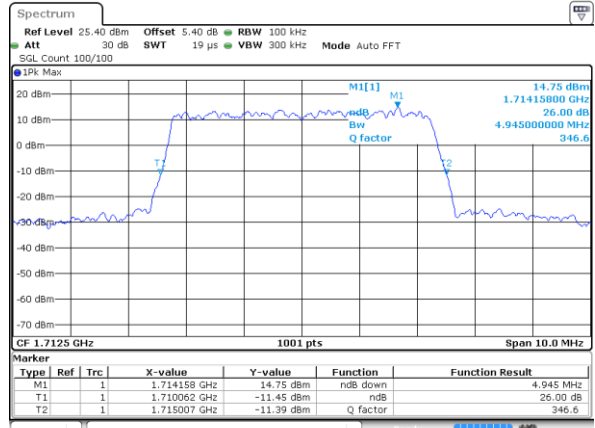
LTE Band 4

Lowest Channel / 5MHz / QPSK



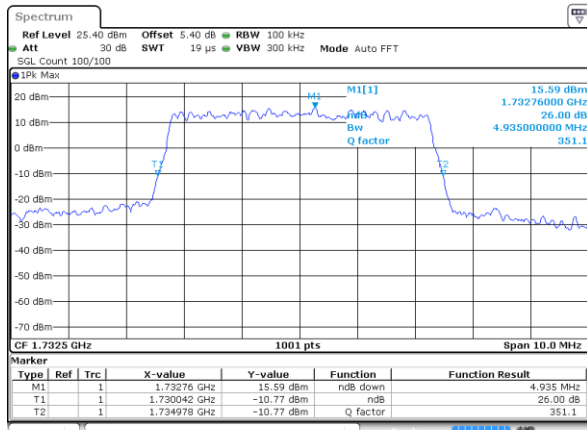
Date: 19 MAY 2020 21:40:12

Lowest Channel / 5MHz / 16QAM



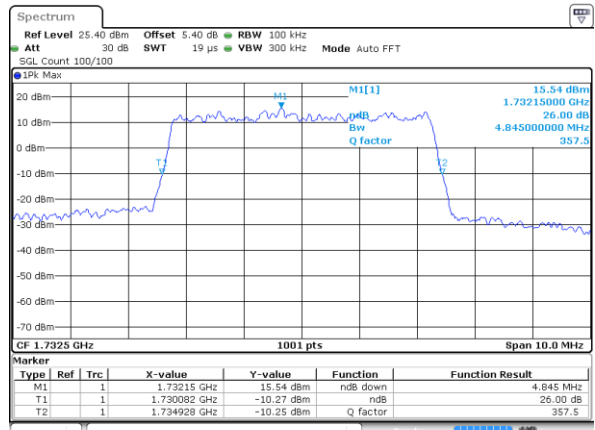
Date: 19 MAY 2020 21:40:32

Middle Channel / 5MHz / QPSK



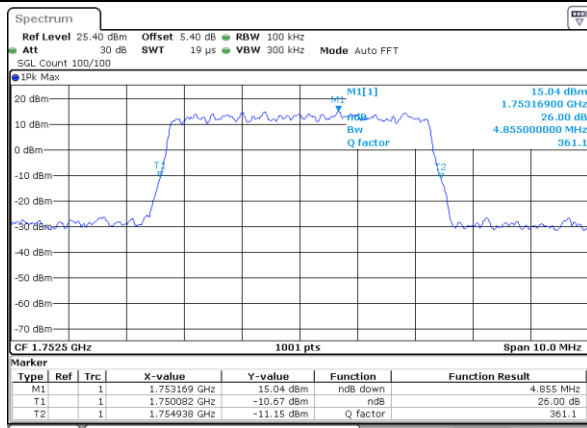
Date: 19 MAY 2020 21:40:52

Middle Channel / 5MHz / 16QAM



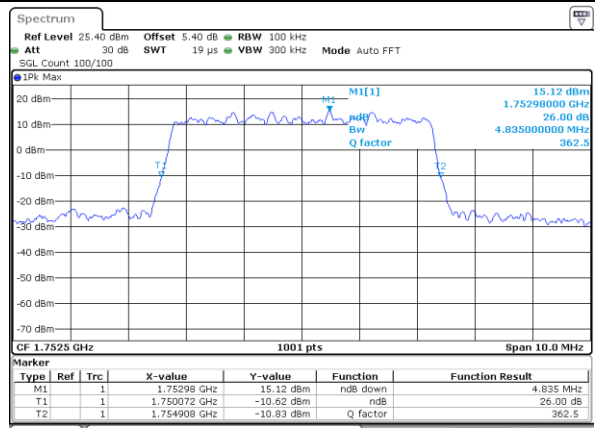
Date: 19 MAY 2020 21:41:12

Highest Channel / 5MHz / QPSK



Date: 19 MAY 2020 21:41:32

Highest Channel / 5MHz / 16QAM

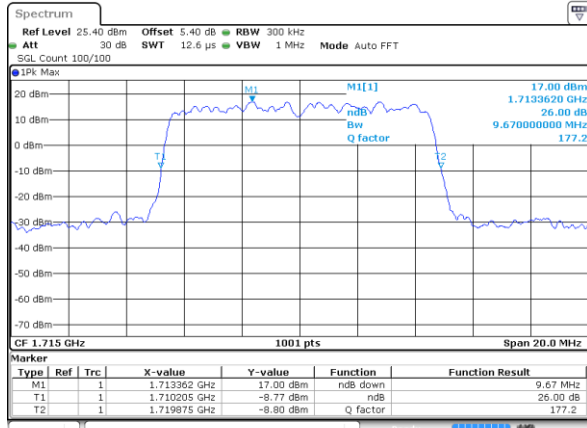


Date: 19 MAY 2020 21:41:52

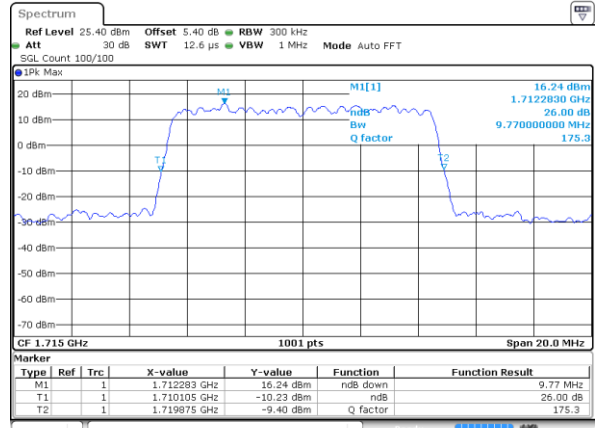


LTE Band 4

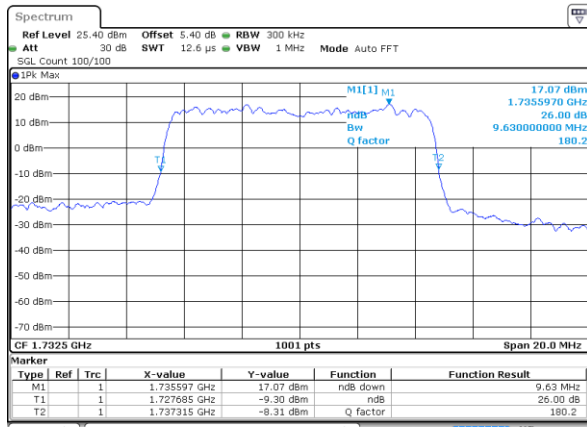
Lowest Channel / 10MHz / QPSK



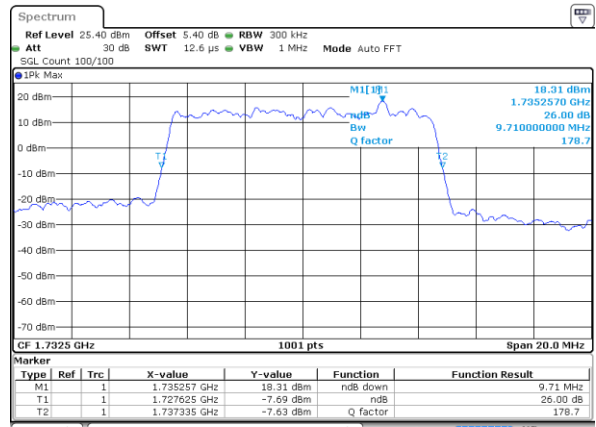
Lowest Channel / 10MHz / 16QAM



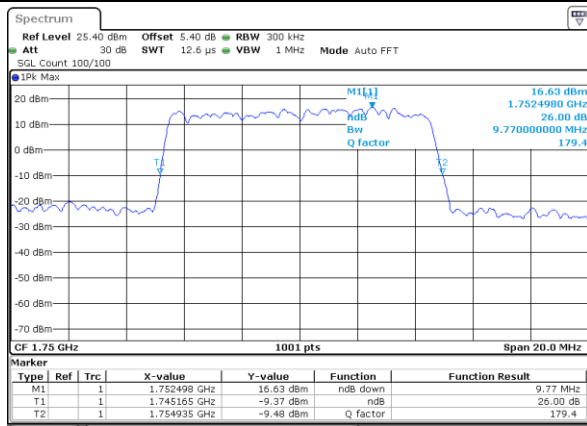
Middle Channel / 10MHz / QPSK



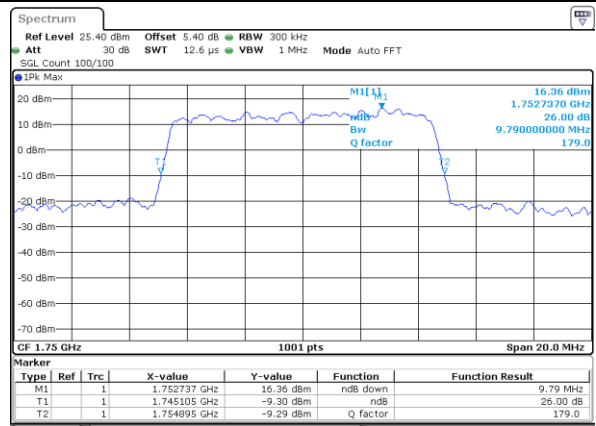
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



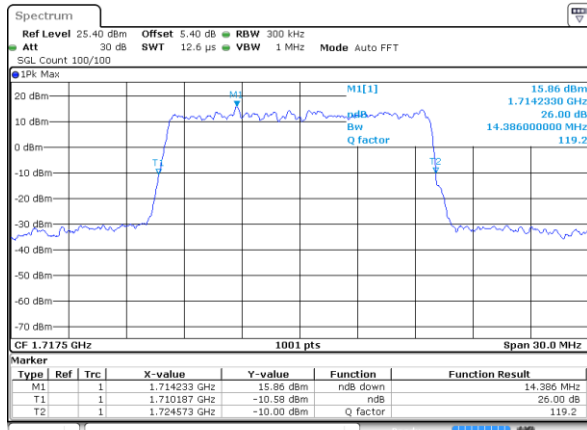
Highest Channel / 10MHz / 16QAM





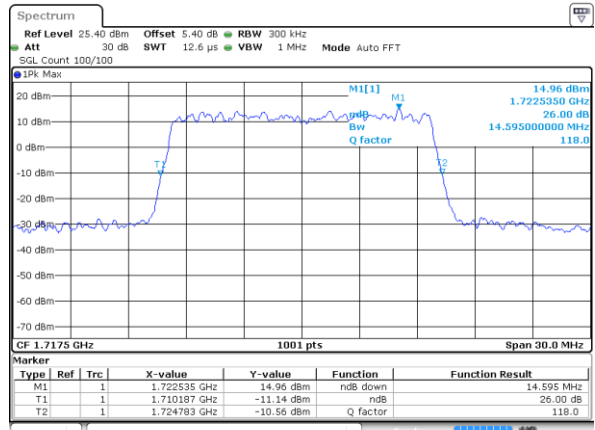
LTE Band 4

Lowest Channel / 15MHz / QPSK



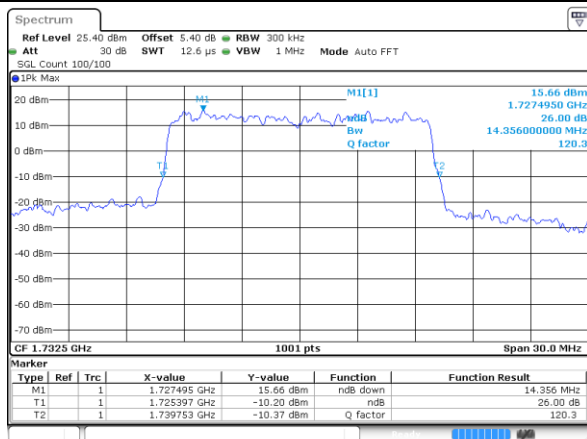
Date: 19 MAY 2020 21:44:14

Lowest Channel / 15MHz / 16QAM



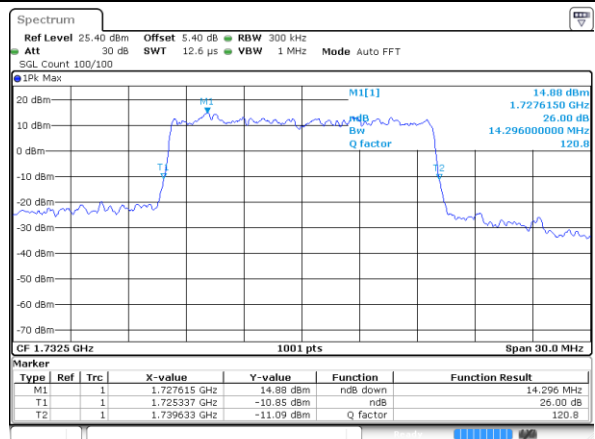
Date: 19 MAY 2020 21:44:34

Middle Channel / 15MHz / QPSK



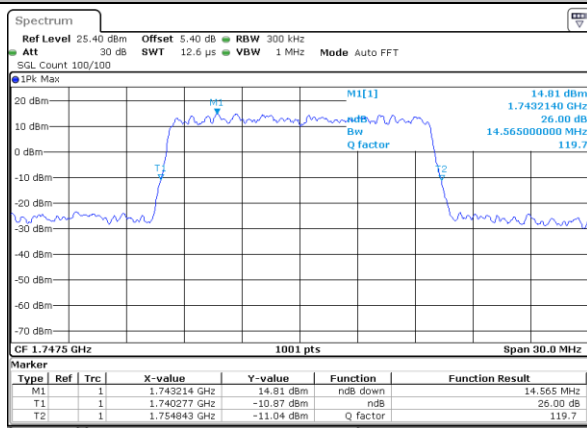
Date: 19 MAY 2020 21:44:54

Middle Channel / 15MHz / 16QAM



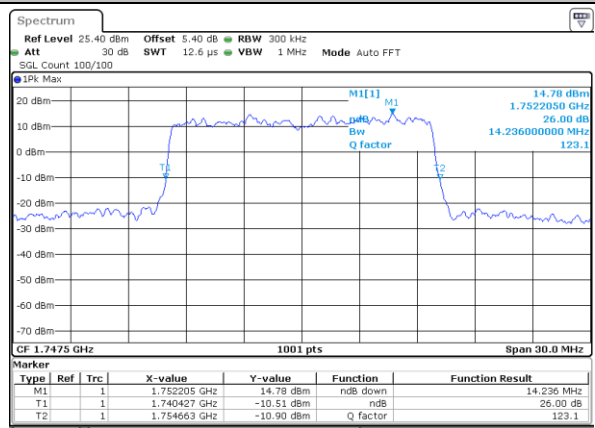
Date: 19 MAY 2020 21:45:15

Highest Channel / 15MHz / QPSK



Date: 19 MAY 2020 21:45:35

Highest Channel / 15MHz / 16QAM

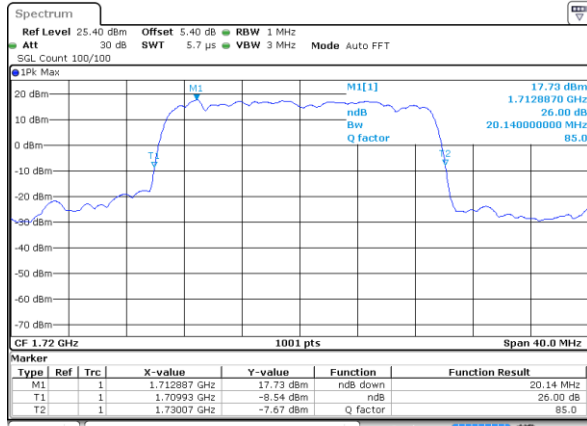


Date: 19 MAY 2020 21:45:55



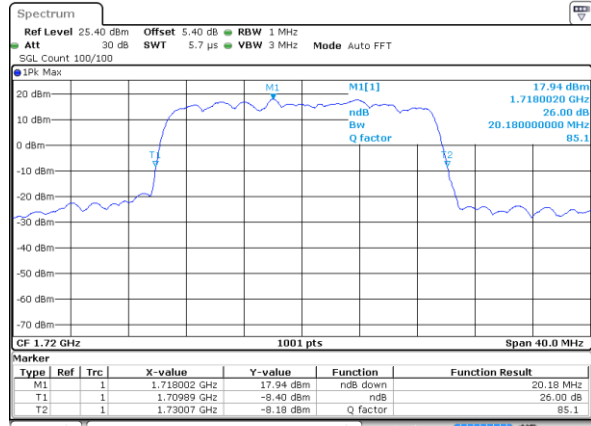
LTE Band 4

Lowest Channel / 20MHz / QPSK



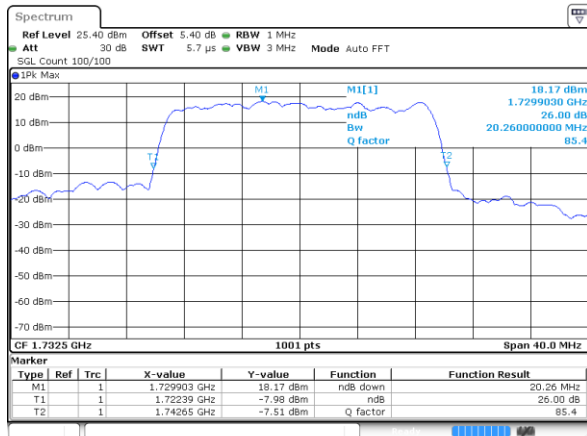
Date: 19 MAY 2020 21:46:15

Lowest Channel / 20MHz / 16QAM



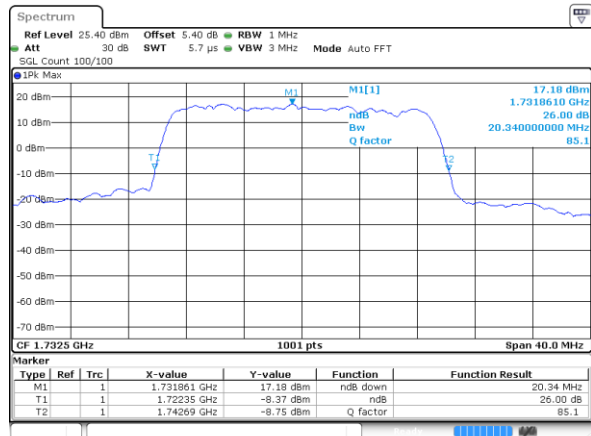
Date: 19 MAY 2020 21:46:35

Middle Channel / 20MHz / QPSK



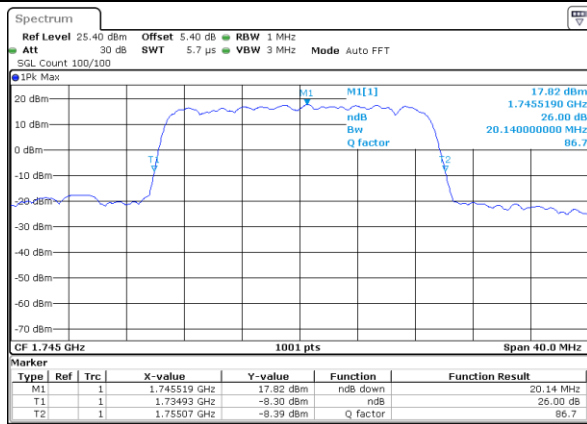
Date: 19 MAY 2020 21:46:56

Middle Channel / 20MHz / 16QAM



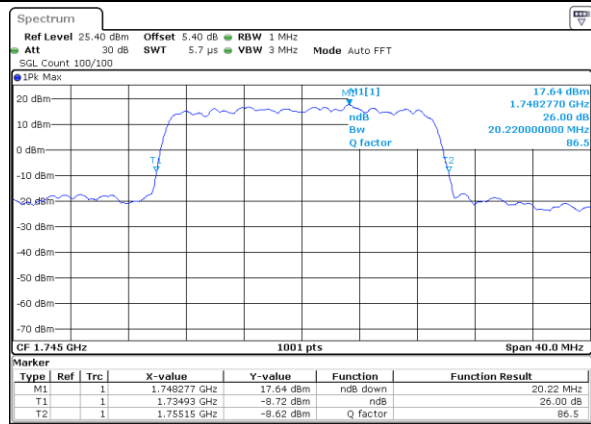
Date: 19 MAY 2020 21:46:16

Highest Channel / 20MHz / QPSK



Date: 19 MAY 2020 21:47:36

Highest Channel / 20MHz / 16QAM

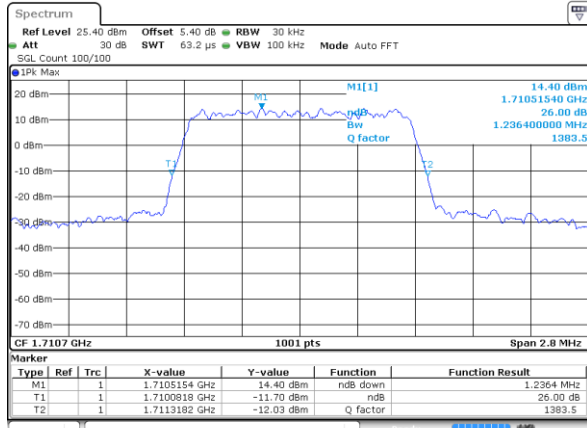


Date: 19 MAY 2020 21:47:56



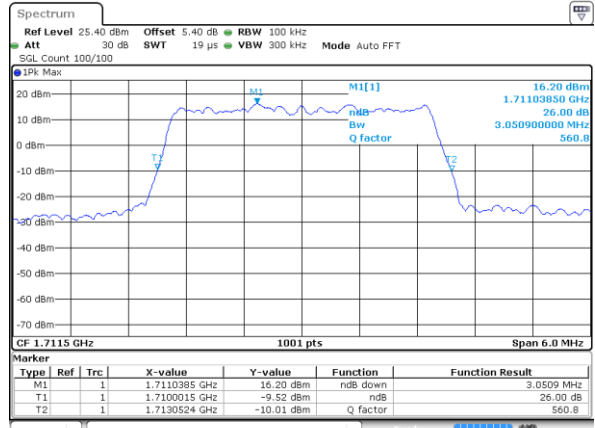
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



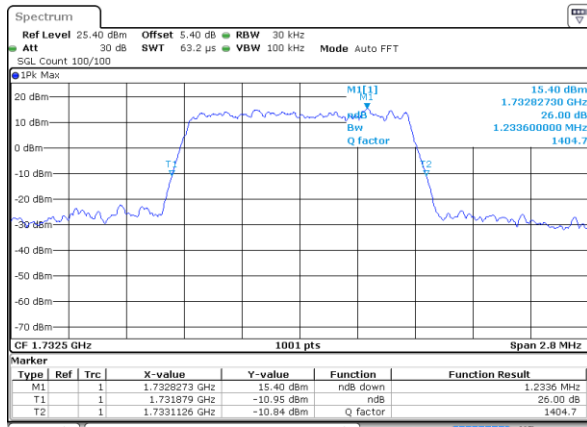
Date: 19 MAY 2020 23:18:36

Lowest Channel / 3MHz / 64QAM



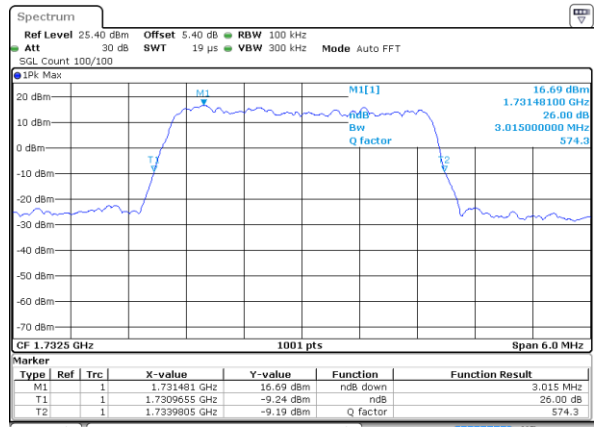
Date: 19 MAY 2020 23:19:37

Middle Channel / 1.4MHz / 64QAM



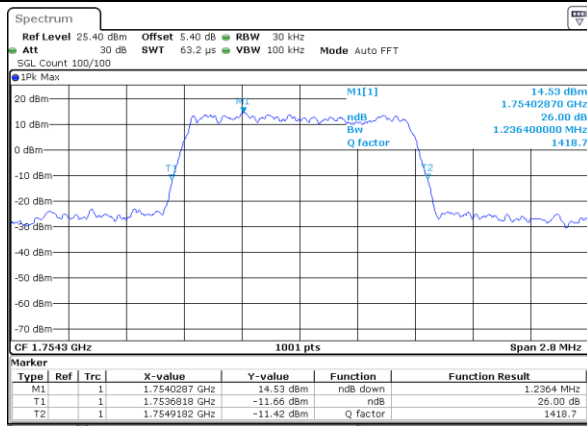
Date: 19 MAY 2020 23:18:56

Middle Channel / 3MHz / 64QAM



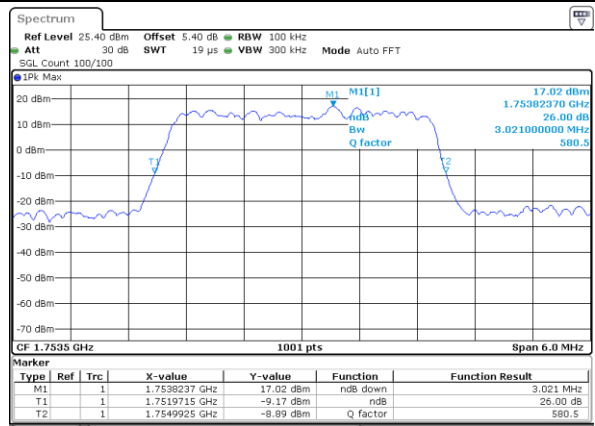
Date: 19 MAY 2020 23:19:57

Highest Channel / 1.4MHz / 64QAM



Date: 19 MAY 2020 23:19:17

Highest Channel / 3MHz / 64QAM

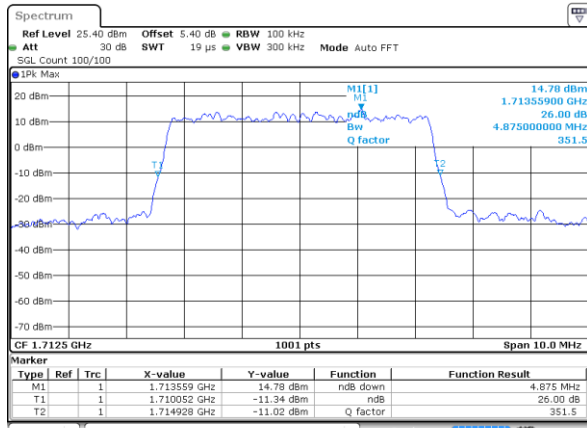


Date: 19 MAY 2020 23:20:17

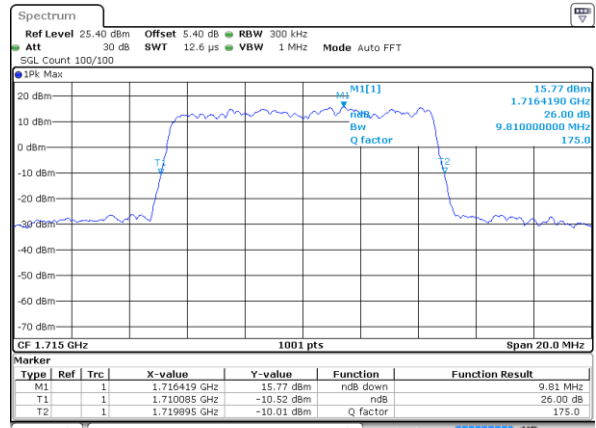


LTE Band 4

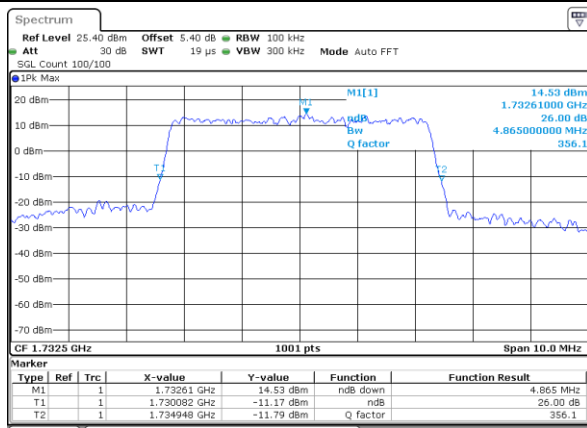
Lowest Channel / 5MHz / 64QAM



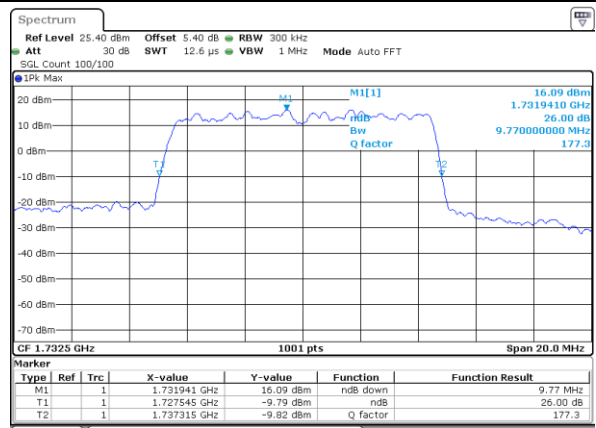
Lowest Channel / 10MHz / 64QAM



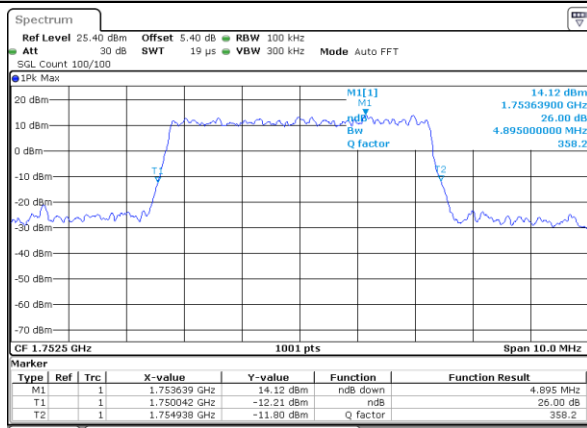
Middle Channel / 5MHz / 64QAM



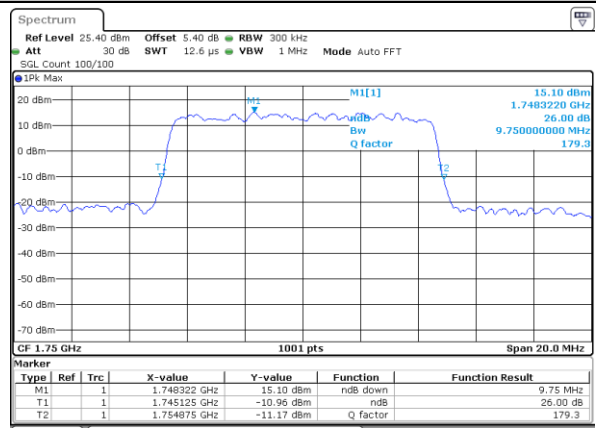
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



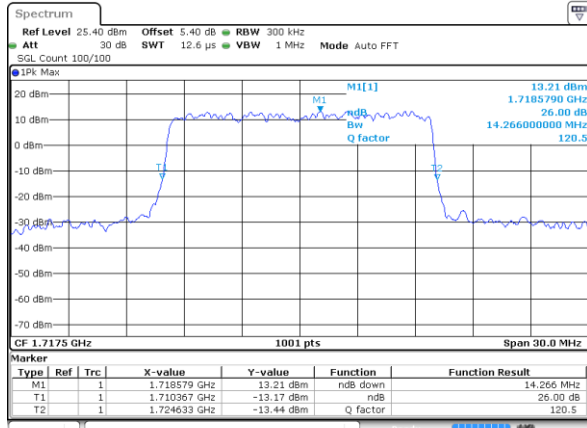
Highest Channel / 10MHz / 64QAM



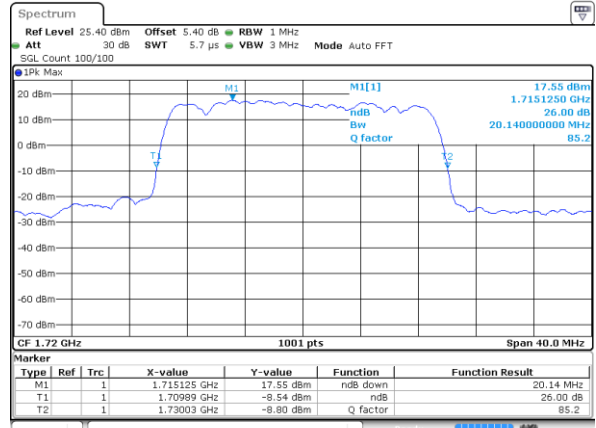


LTE Band 4

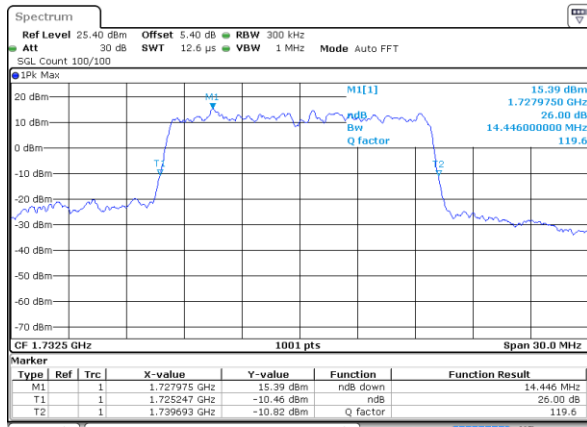
Lowest Channel / 15MHz / 64QAM



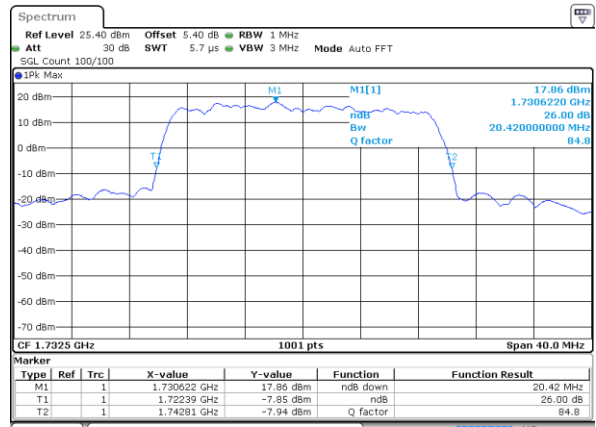
Lowest Channel / 20MHz / 64QAM



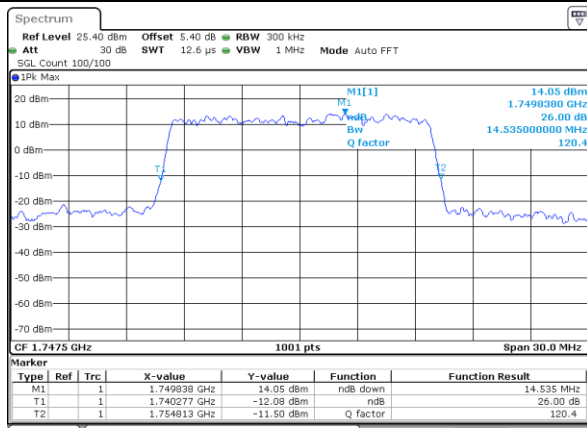
Middle Channel / 15MHz / 64QAM



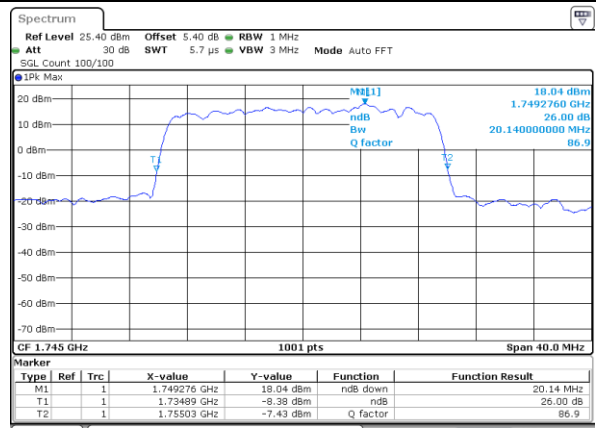
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM



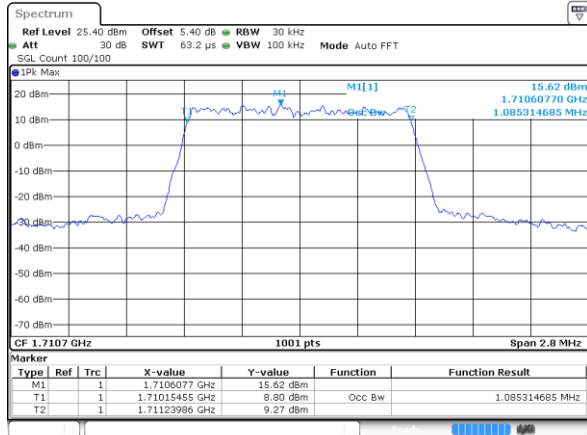
**Occupied Bandwidth**

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	1.10	2.72	2.73	4.49	4.47	8.99	9.03	13.40	13.43	18.26	18.30
Middle CH	1.09	1.10	2.71	2.71	4.48	4.51	8.99	8.97	13.49	13.49	18.46	18.30
Highest CH	1.09	1.09	2.70	2.72	4.49	4.48	8.99	8.99	13.49	13.40	18.34	18.34
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	-	2.73	-	4.46	-	8.99	-	13.40	-	18.22	-
Middle CH	1.09	-	2.72	-	4.46	-	8.97	-	13.37	-	18.46	-
Highest CH	1.08	-	2.72	-	4.49	-	9.03	-	13.37	-	18.34	-

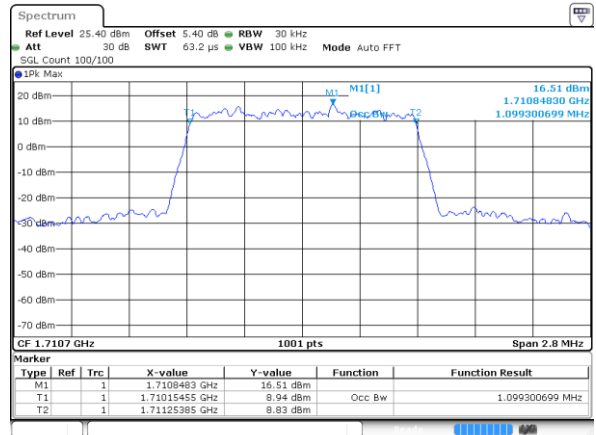


LTE Band 4

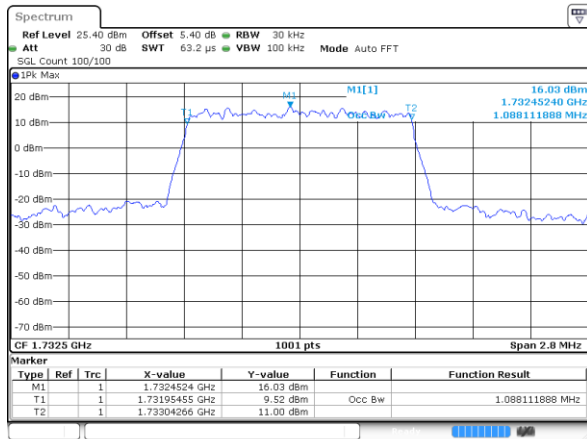
Lowest Channel / 1.4MHz / QPSK



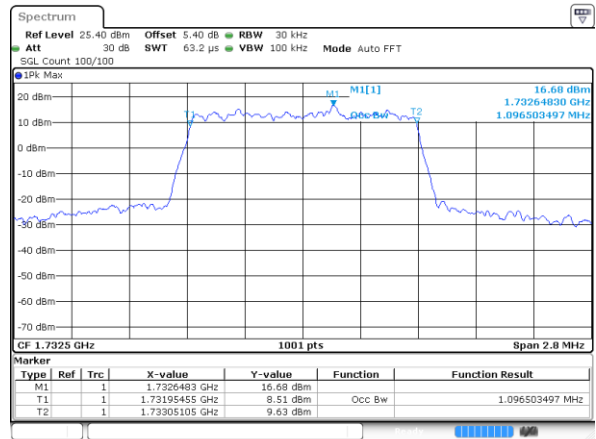
Lowest Channel / 1.4MHz / 16QAM



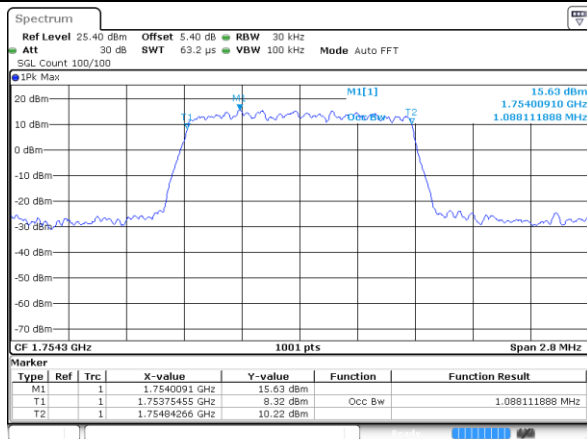
Middle Channel / 1.4MHz / QPSK



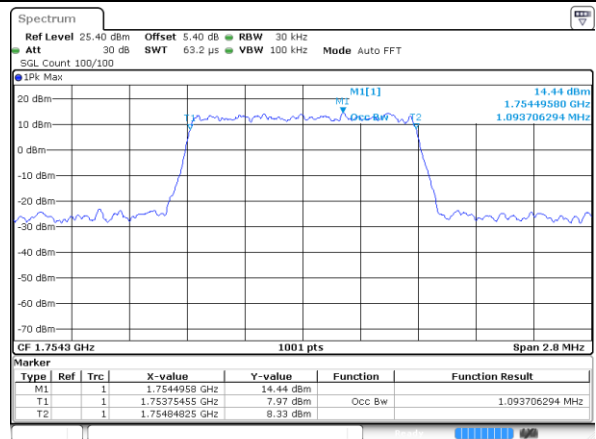
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



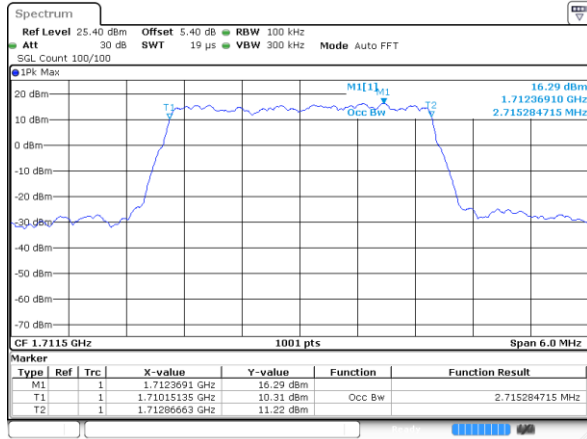
Highest Channel / 1.4MHz / 16QAM





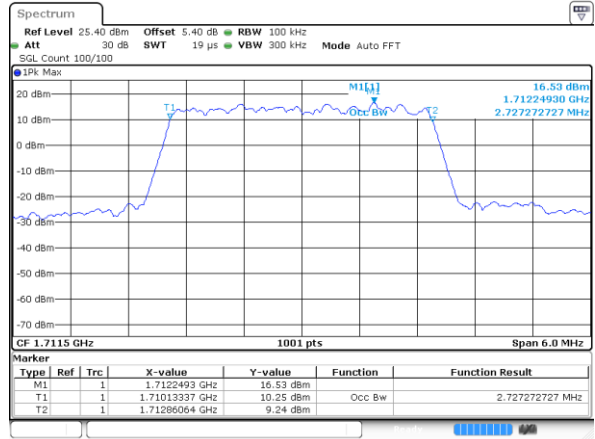
LTE Band 4

Lowest Channel / 3MHz / QPSK



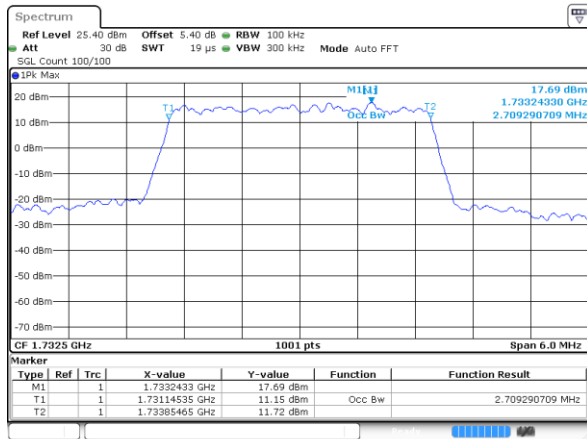
Date: 19 MAY 2020 21:38:01

Lowest Channel / 3MHz / 16QAM



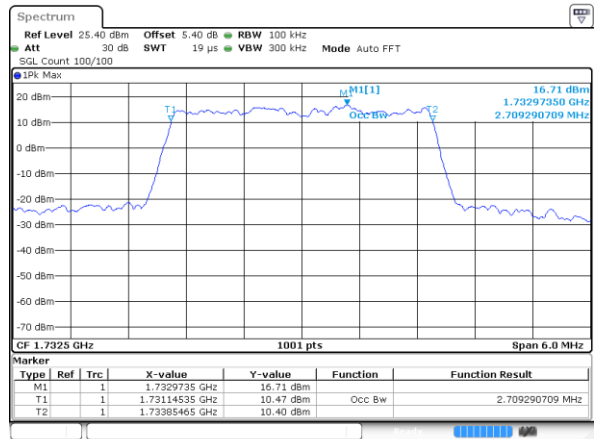
Date: 19 MAY 2020 21:38:21

Middle Channel / 3MHz / QPSK



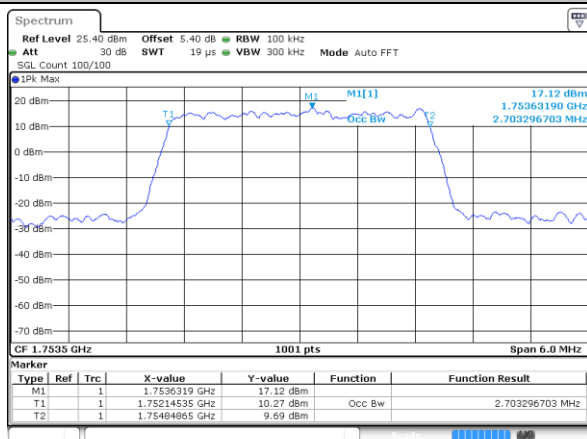
Date: 19 MAY 2020 21:38:42

Middle Channel / 3MHz / 16QAM



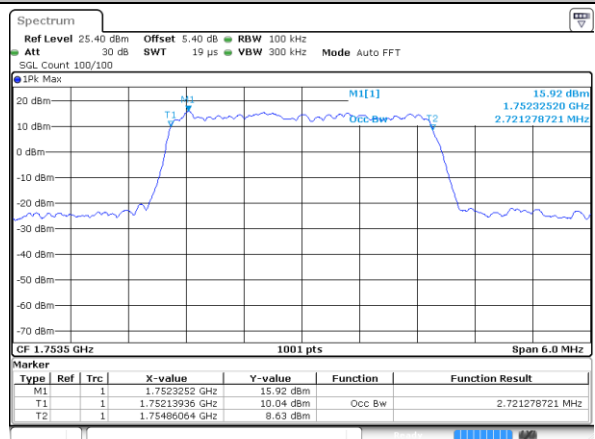
Date: 19 MAY 2020 21:38:02

Highest Channel / 3MHz / QPSK



Date: 19 MAY 2020 21:39:22

Highest Channel / 3MHz / 16QAM



Date: 19 MAY 2020 21:39:42