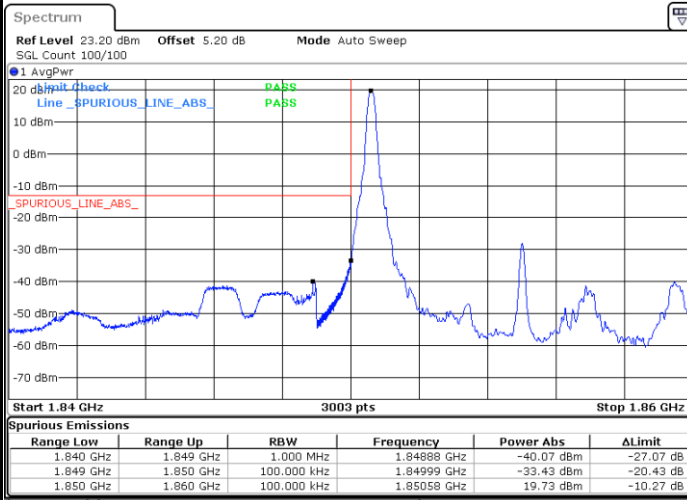




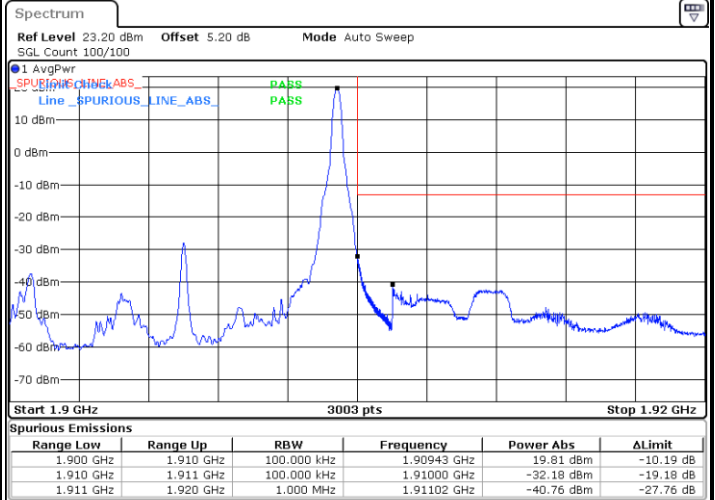
LTE Band 2 / 10MHz / QPSK

Lowest Band Edge / 1 RB



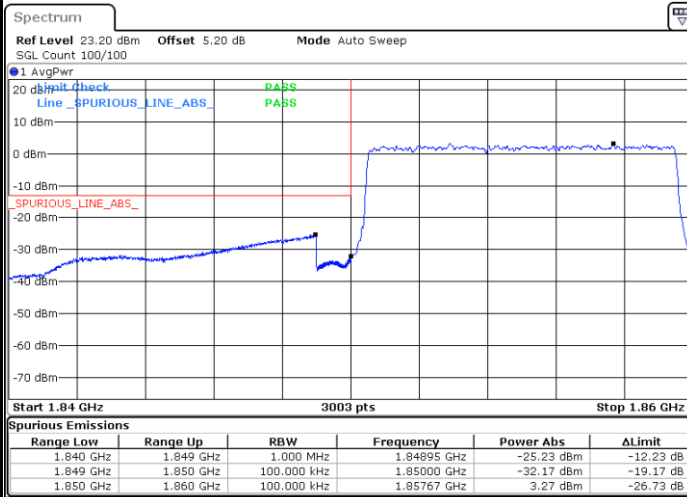
Date: 17.AUG.2020 19:01:31

Highest Band Edge / 1 RB



Date: 17.AUG.2020 19:11:01

Lowest Band Edge / Full RB



Date: 17.AUG.2020 19:03:46

Highest Band Edge / Full RB

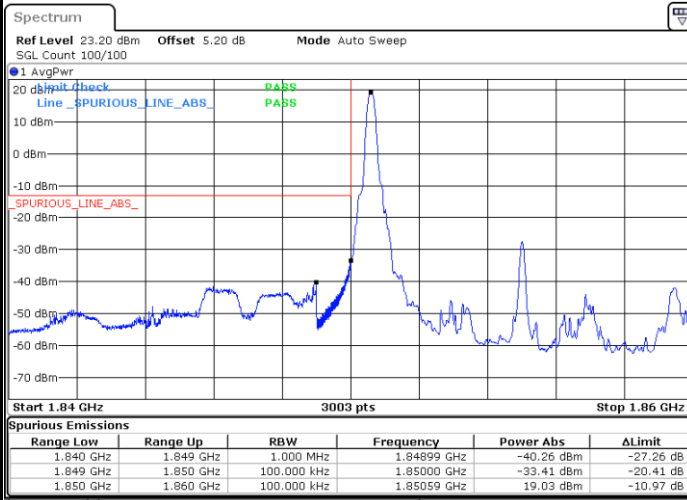


Date: 17.AUG.2020 19:13:17



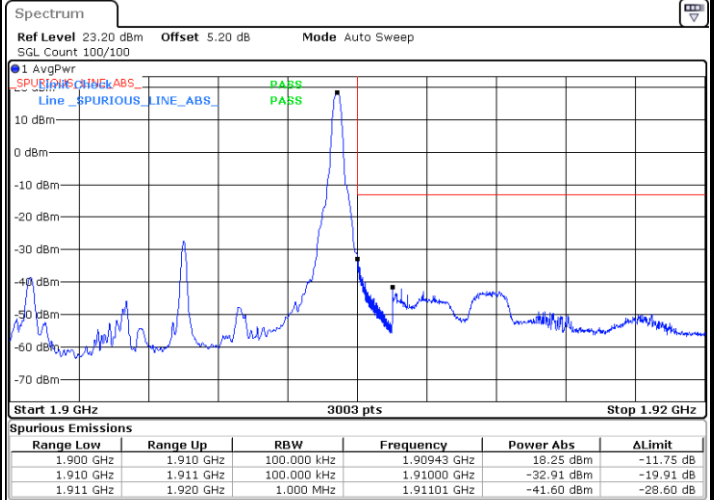
LTE Band 2 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



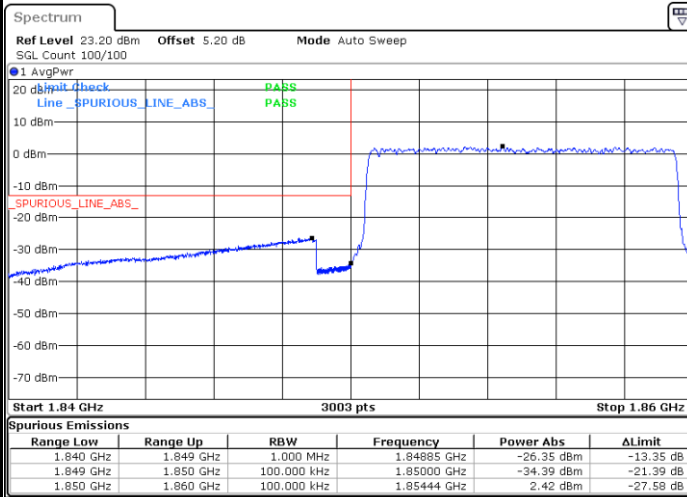
Date: 17.AUG.2020 19:02:39

Highest Band Edge / 1 RB



Date: 17.AUG.2020 19:12:09

Lowest Band Edge / Full RB



Date: 17.AUG.2020 19:04:54

Highest Band Edge / Full RB

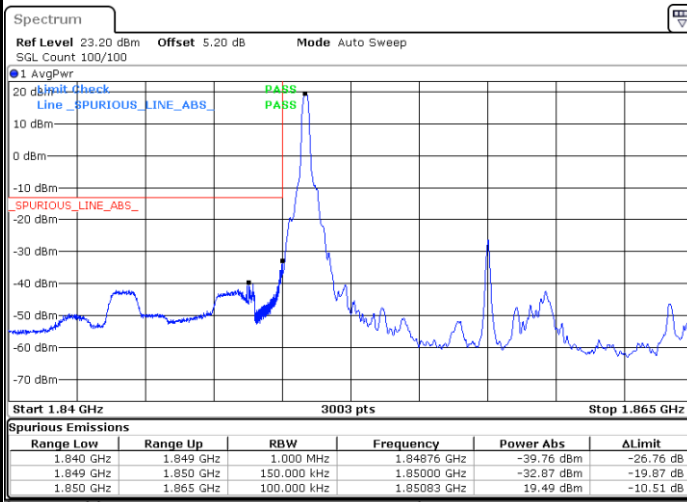


Date: 17.AUG.2020 19:14:24



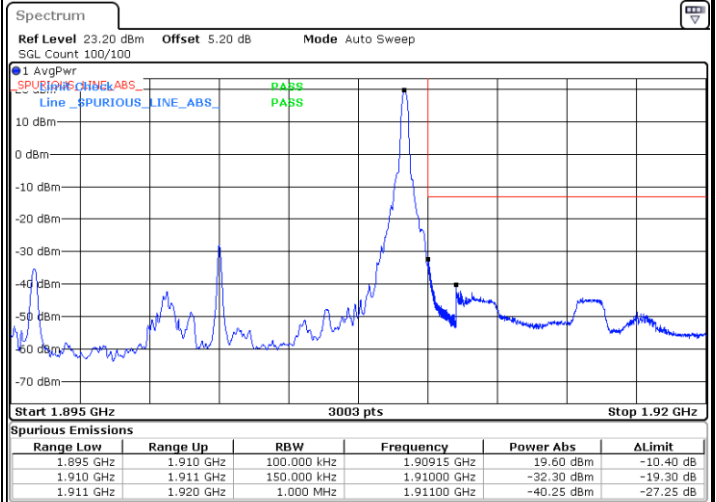
LTE Band 2 / 15MHz / QPSK

Lowest Band Edge / 1 RB



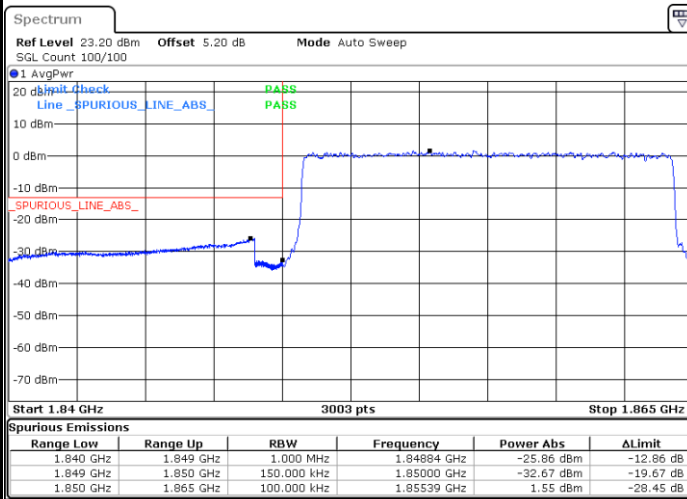
Date: 17.AUG.2020 19:18:02

Highest Band Edge / 1 RB



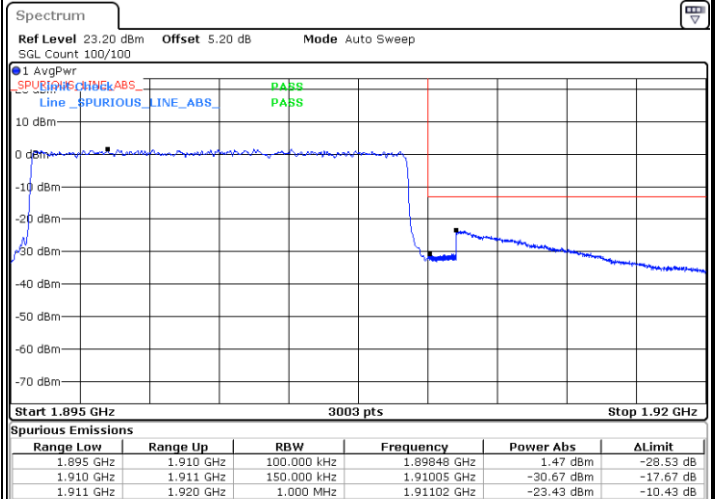
Date: 17.AUG.2020 19:27:33

Lowest Band Edge / Full RB



Date: 17.AUG.2020 19:20:17

Highest Band Edge / Full RB

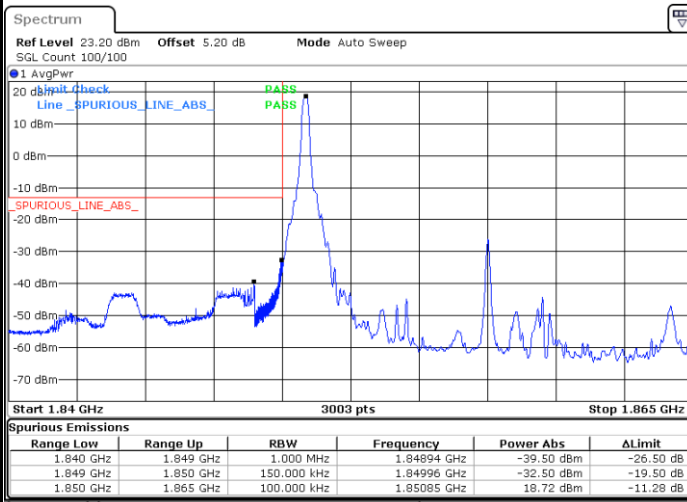


Date: 17.AUG.2020 19:29:48



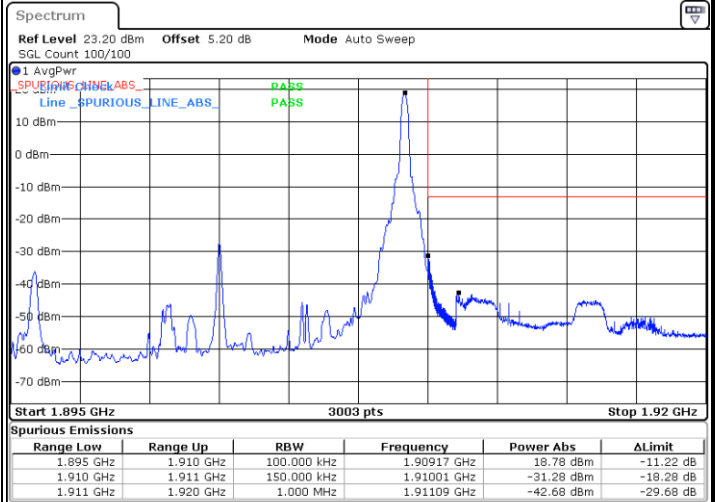
LTE Band 2 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



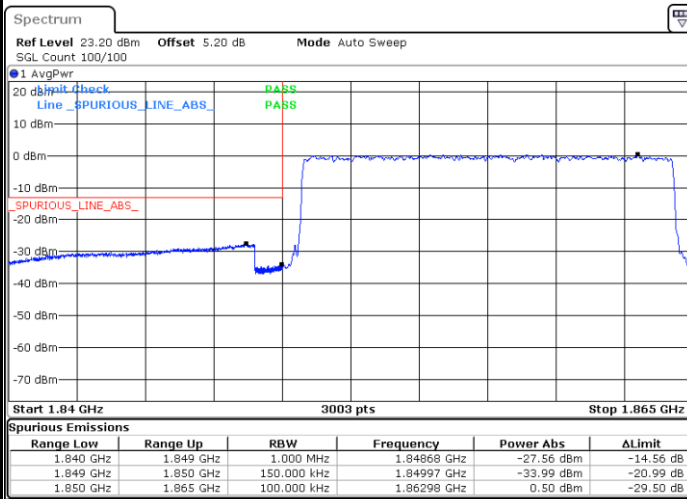
Date: 17.AUG.2020 19:19:10

Highest Band Edge / 1 RB



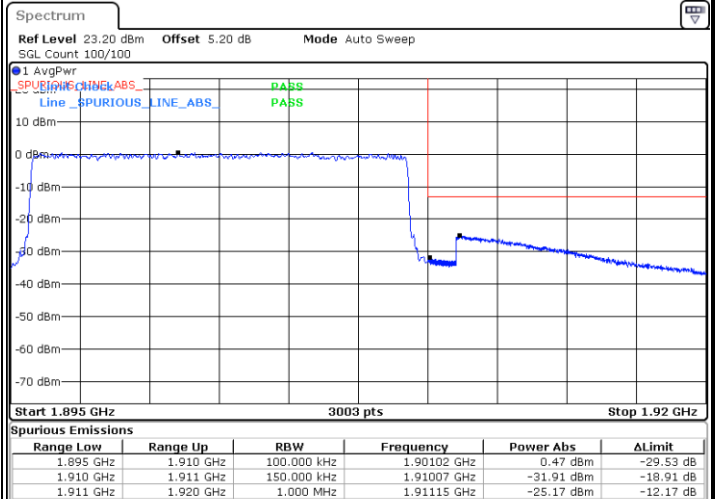
Date: 17.AUG.2020 19:28:41

Lowest Band Edge / Full RB



Date: 17.AUG.2020 19:21:25

Highest Band Edge / Full RB

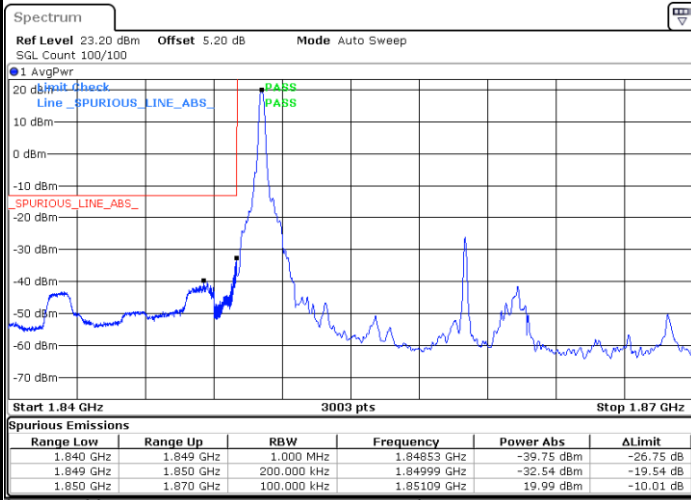


Date: 17.AUG.2020 19:30:56



LTE Band 2 / 20MHz / QPSK

Lowest Band Edge / 1 RB



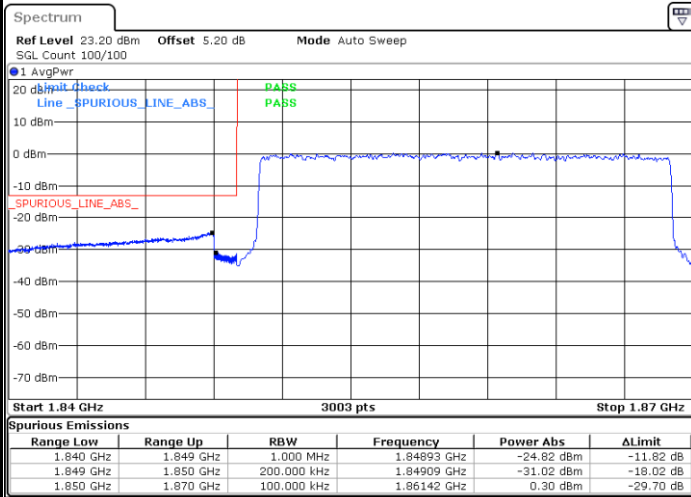
Date: 17.AUG.2020 19:34:33

Highest Band Edge / 1 RB



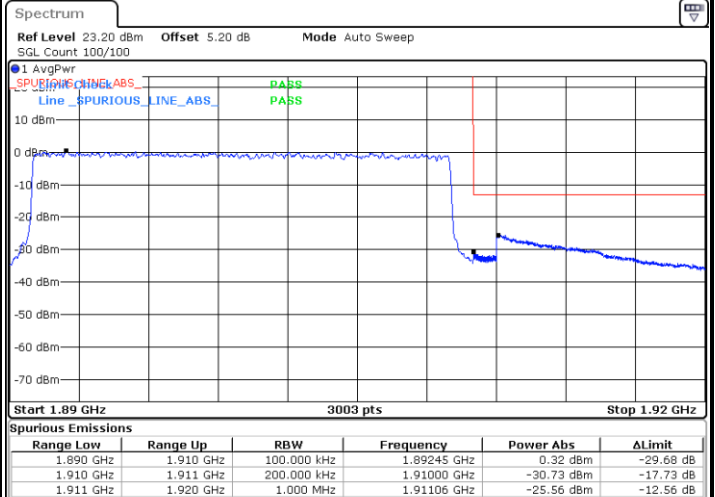
Date: 17.AUG.2020 19:44:03

Lowest Band Edge / Full RB



Date: 17.AUG.2020 19:36:49

Highest Band Edge / Full RB

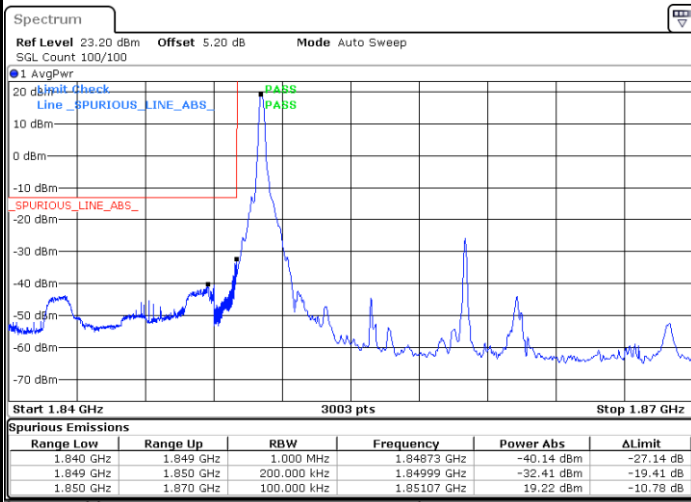


Date: 17.AUG.2020 19:46:19



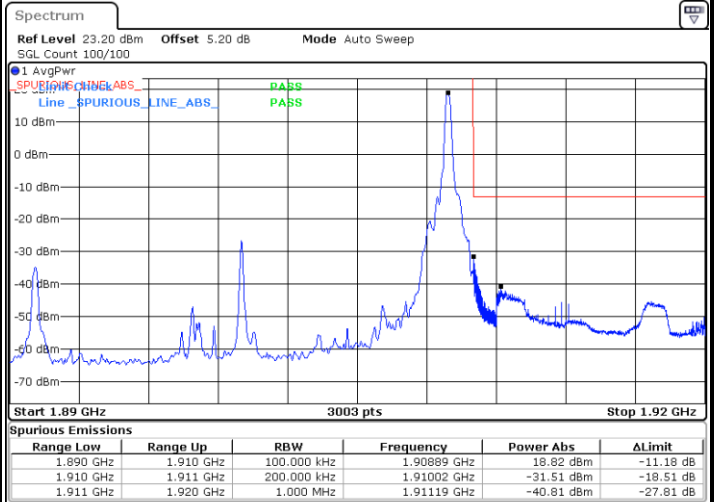
LTE Band 2 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



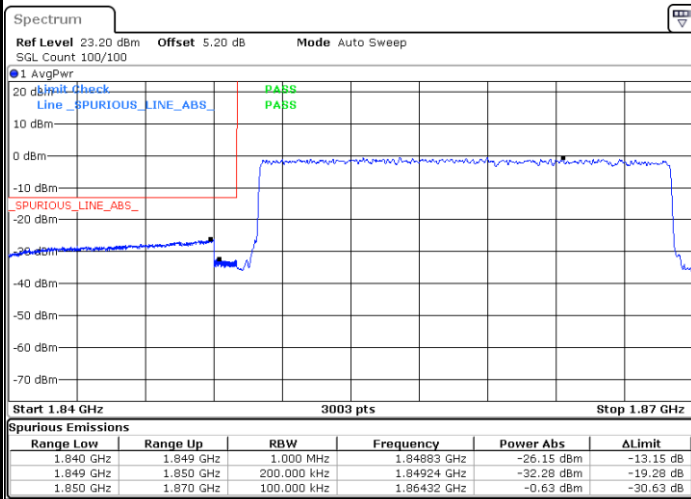
Date: 17.AUG.2020 19:35:41

Highest Band Edge / 1 RB



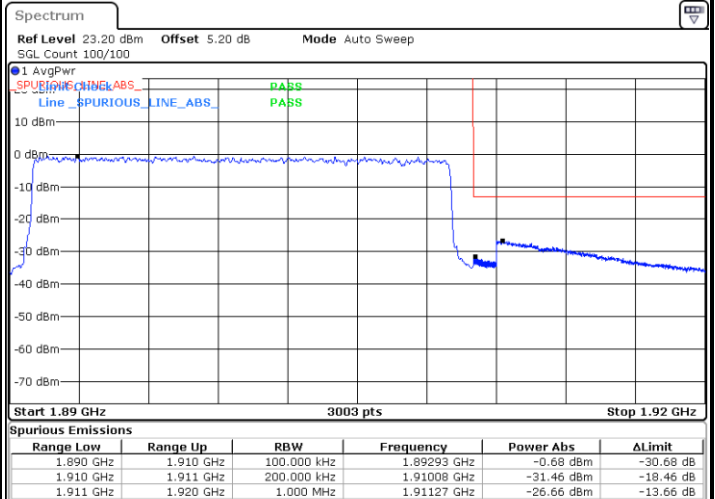
Date: 17.AUG.2020 19:45:11

Lowest Band Edge / Full RB



Date: 17.AUG.2020 19:37:56

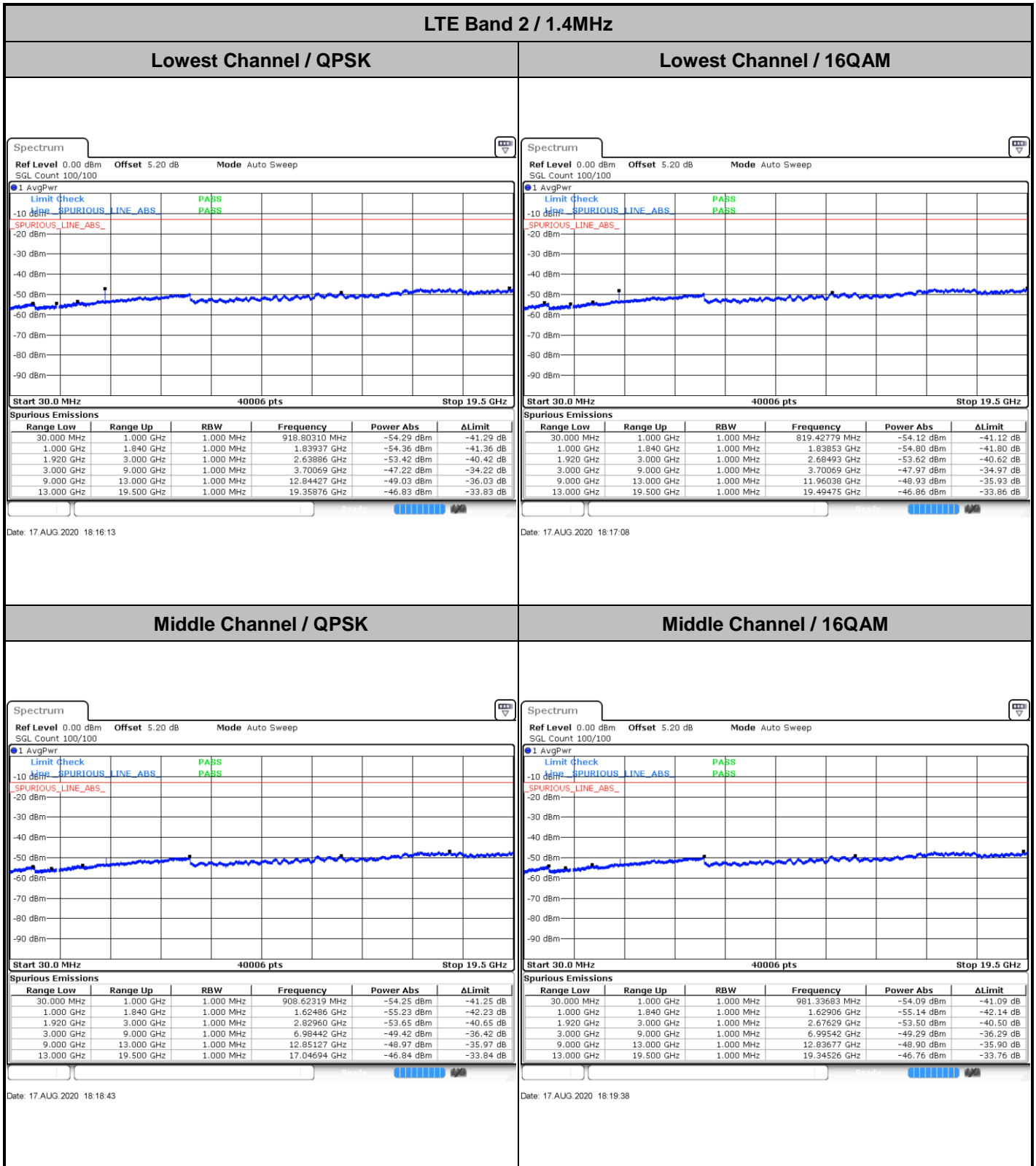
Highest Band Edge / Full RB



Date: 17.AUG.2020 19:47:26



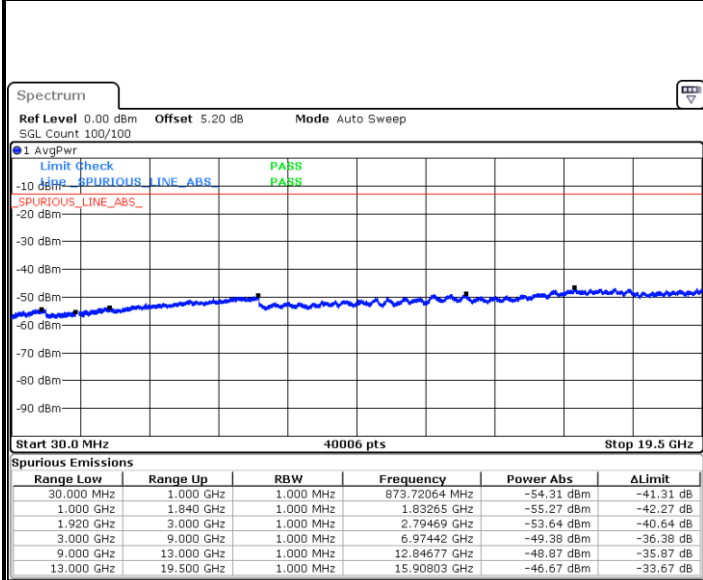
# Conducted Spurious Emission





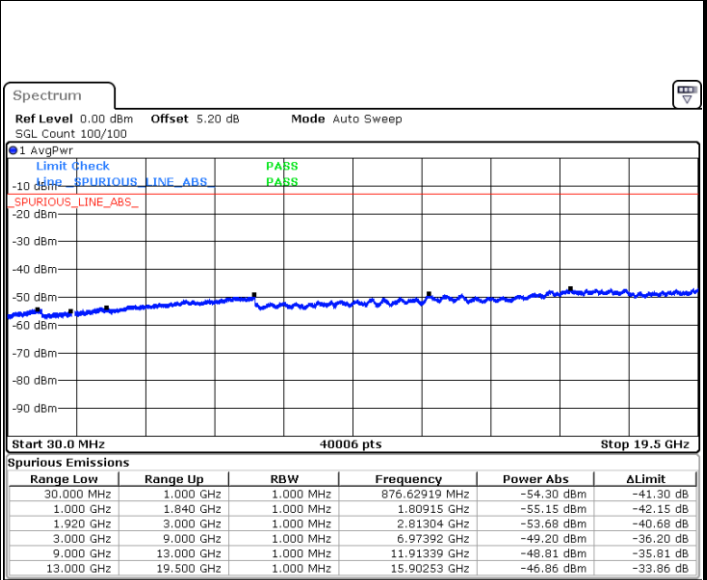
LTE Band 2 / 1.4MHz

Highest Channel / QPSK



Date: 17.AUG.2020 18:25:44

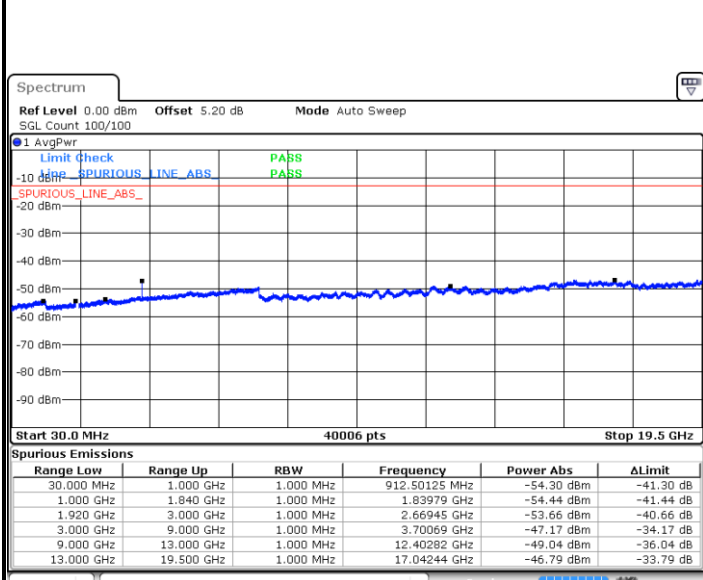
Highest Channel / 16QAM



Date: 17.AUG.2020 18:26:39

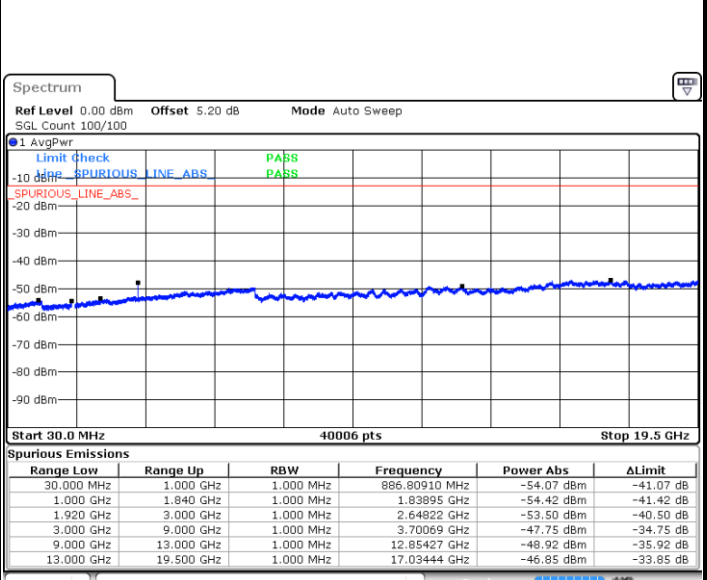
LTE Band 2 / 3MHz

Lowest Channel / QPSK



Date: 17.AUG.2020 18:32:45

Lowest Channel / 16QAM



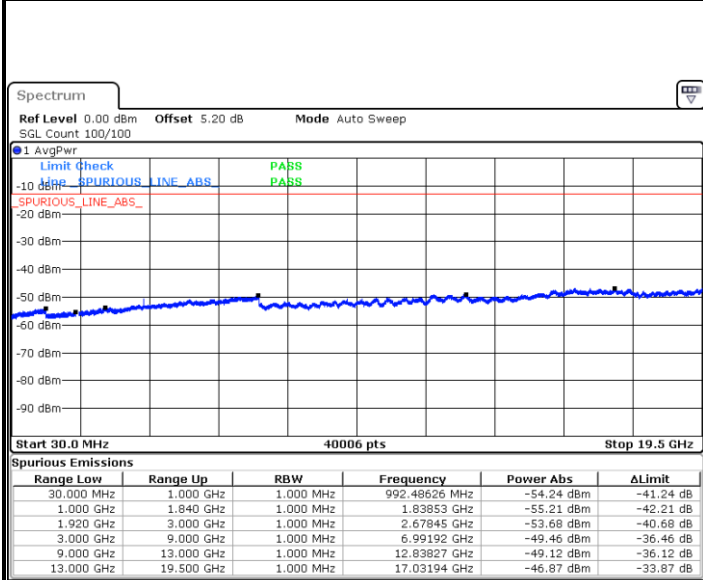
Date: 17.AUG.2020 18:33:40





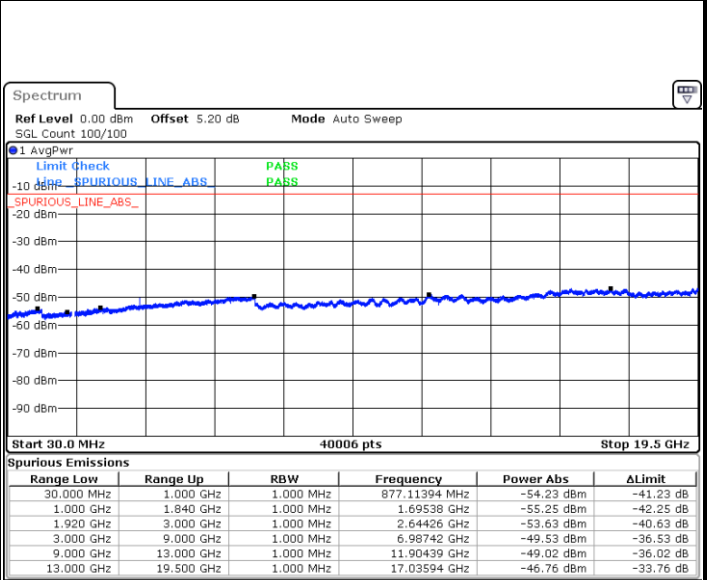
LTE Band 2 / 3MHz

Middle Channel / QPSK



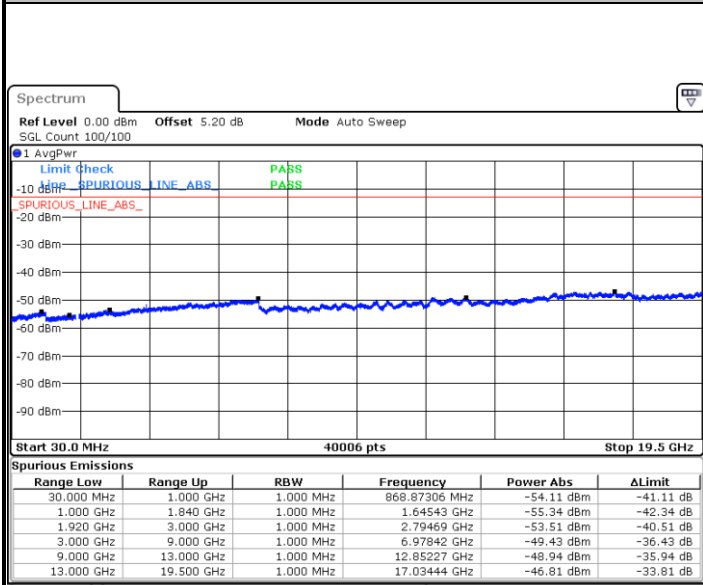
Date: 17.AUG.2020 18:35:15

Middle Channel / 16QAM



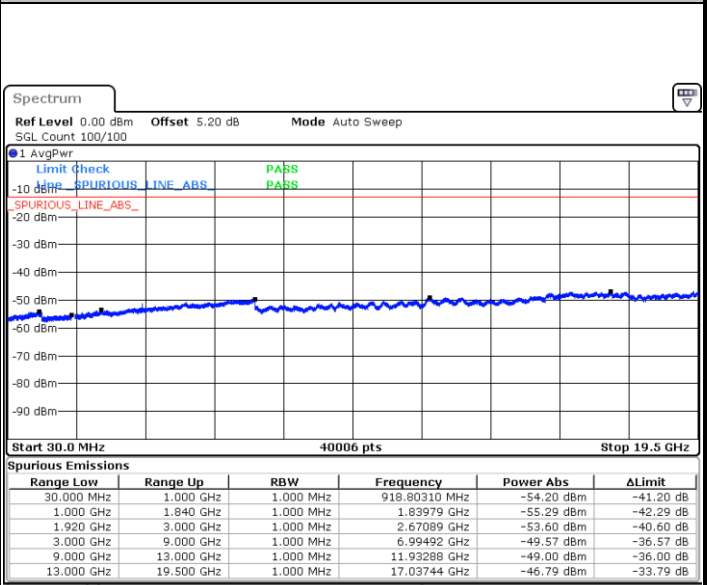
Date: 17.AUG.2020 18:36:10

Highest Channel / QPSK



Date: 17.AUG.2020 18:42:16

Highest Channel / 16QAM



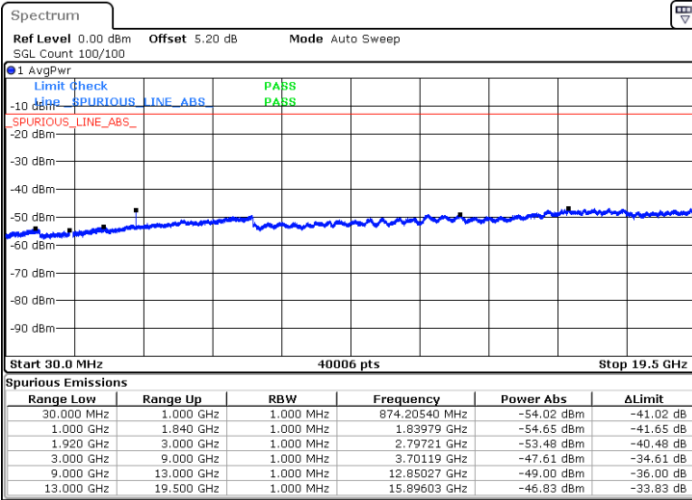
Date: 17.AUG.2020 18:43:11



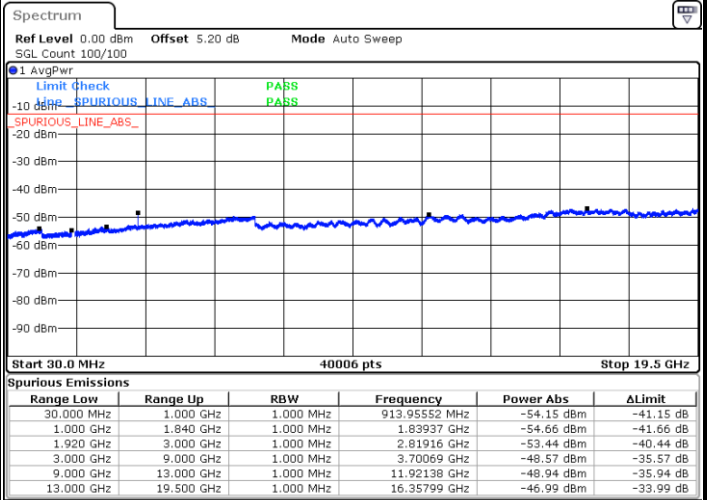
LTE Band 2 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



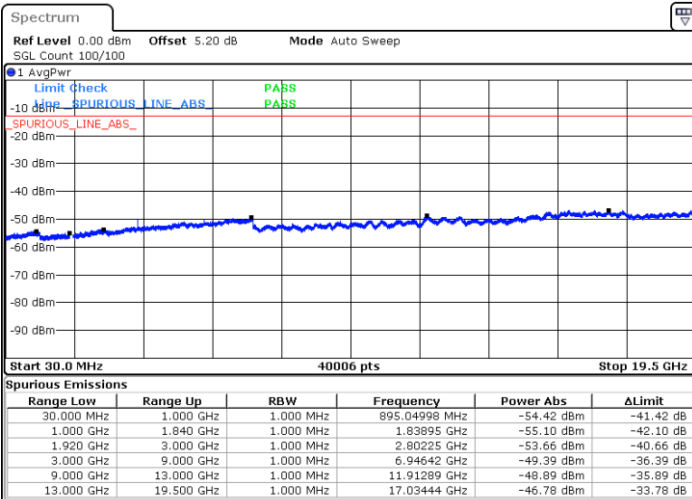
Date: 17.AUG.2020 18:49:16



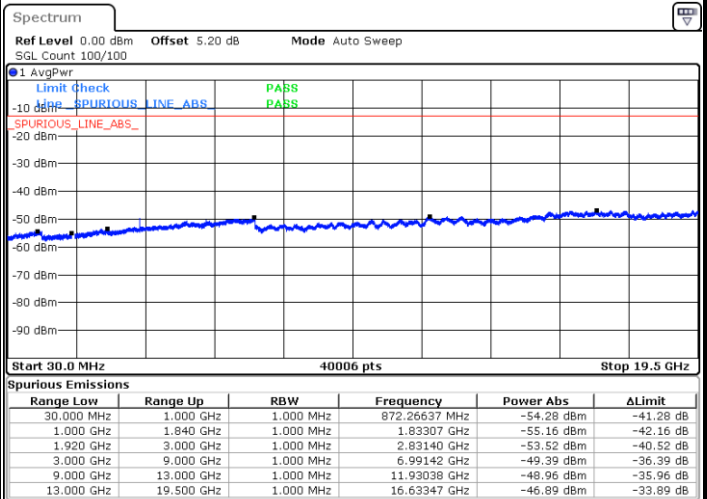
Date: 17.AUG.2020 18:50:11

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 17.AUG.2020 18:51:46

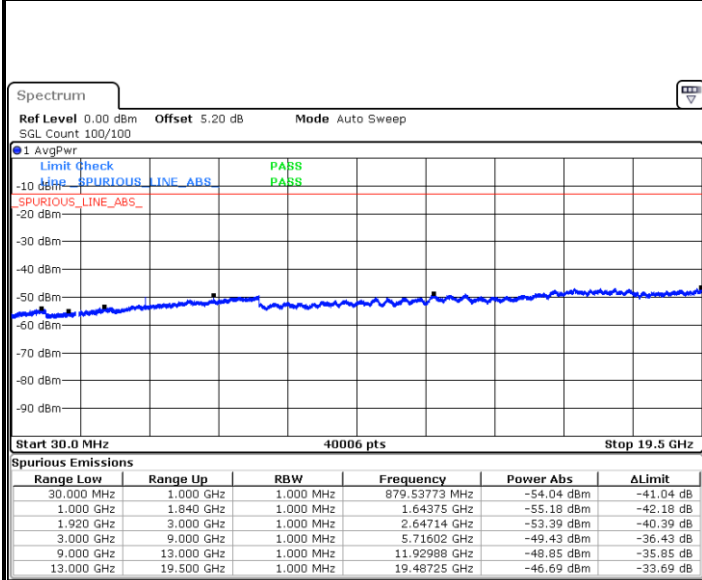


Date: 17.AUG.2020 18:52:41



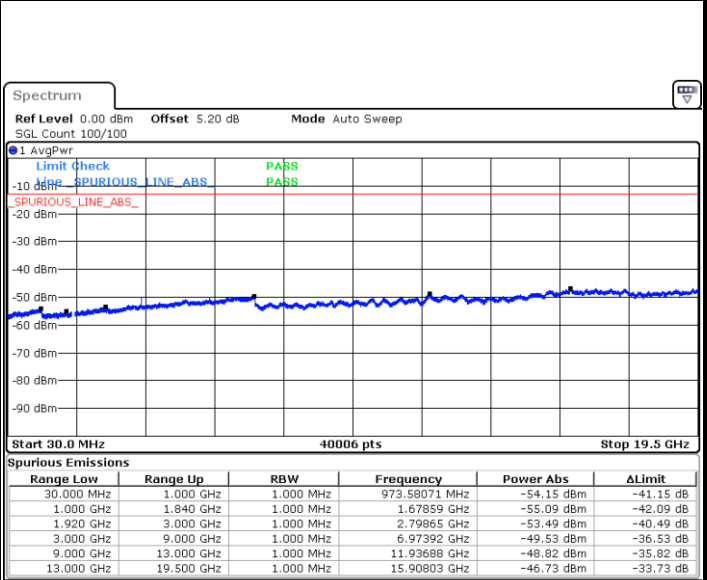
LTE Band 2 / 5MHz

Highest Channel / QPSK



Date: 17.AUG.2020 18:58:47

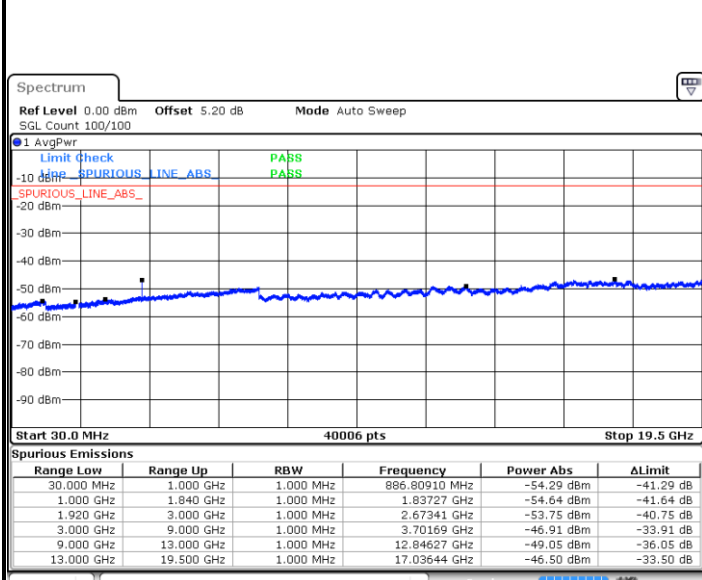
Highest Channel / 16QAM



Date: 17.AUG.2020 18:59:42

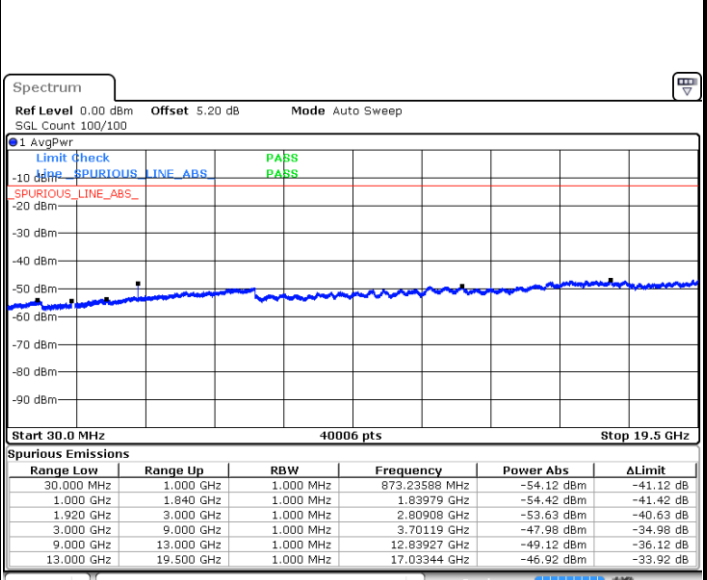
LTE Band 2 / 10MHz

Lowest Channel / QPSK



Date: 17.AUG.2020 19:05:48

Lowest Channel / 16QAM



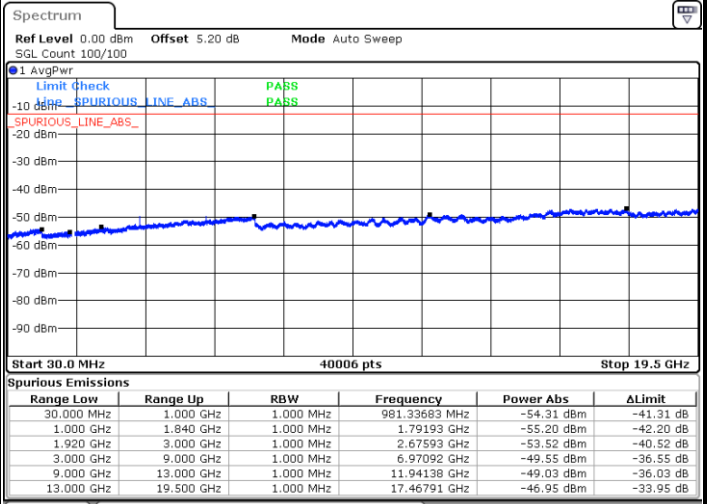
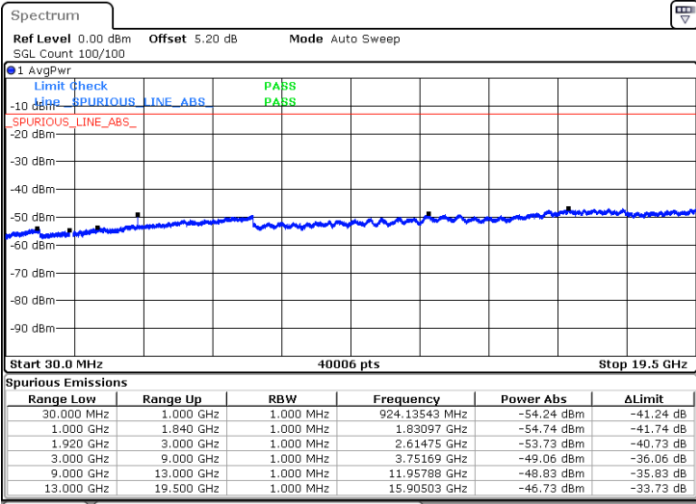
Date: 17.AUG.2020 19:06:42



LTE Band 2 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

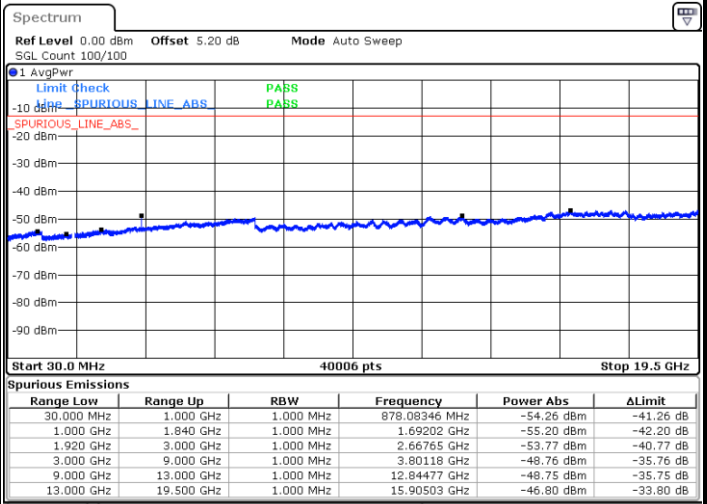
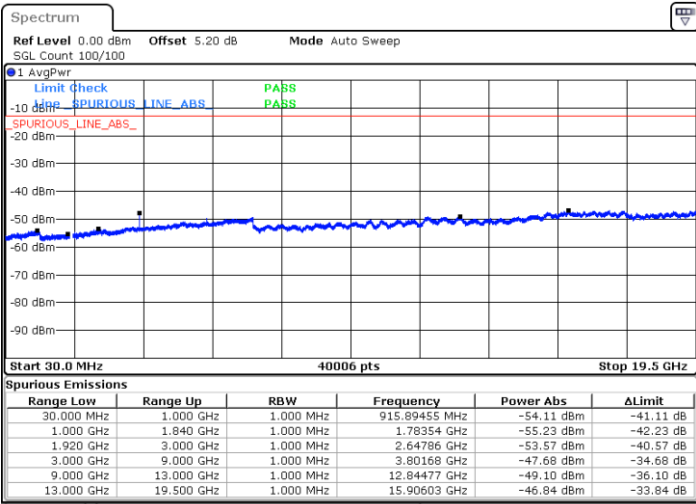


Date: 17.AUG.2020 19:08:18

Date: 17.AUG.2020 19:09:12

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17.AUG.2020 19:15:18

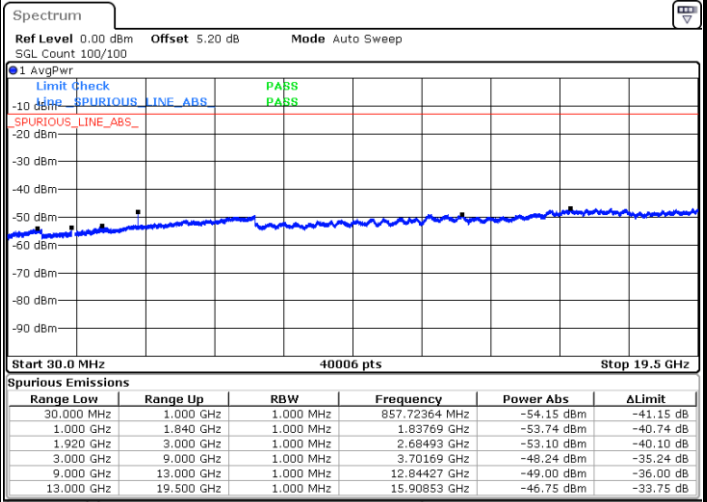
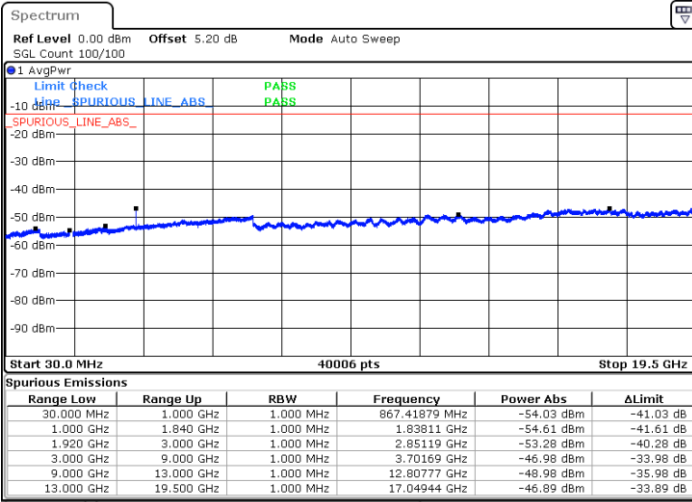
Date: 17.AUG.2020 19:16:13



LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

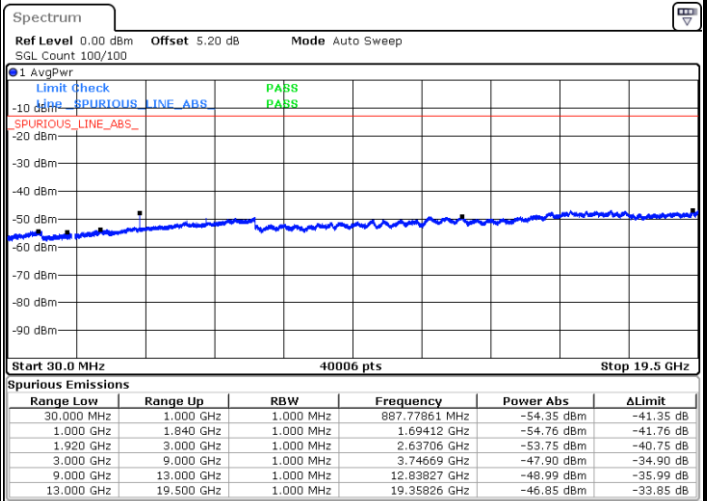
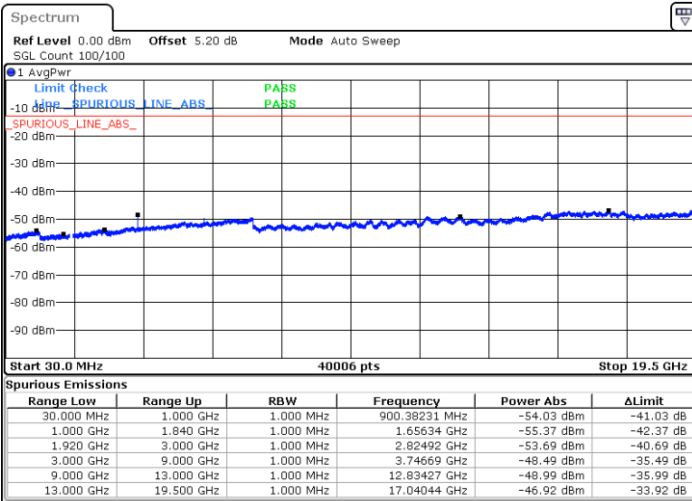


Date: 17.AUG.2020 19:22:19

Date: 17.AUG.2020 19:23:14

Middle Channel / QPSK

Middle Channel / 16QAM



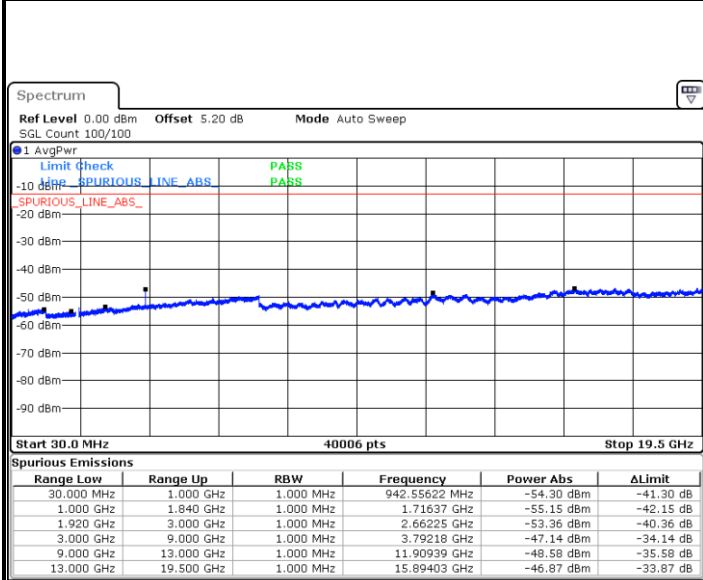
Date: 17.AUG.2020 19:24:49

Date: 17.AUG.2020 19:25:44



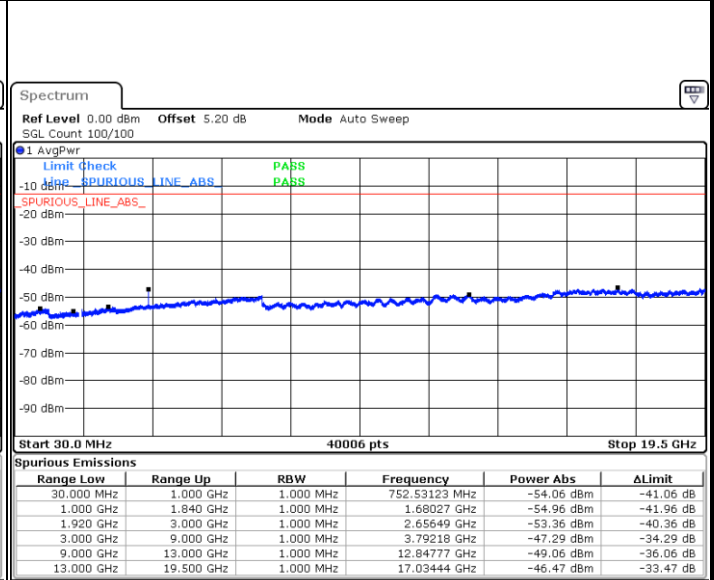
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 17.AUG.2020 19:31:49

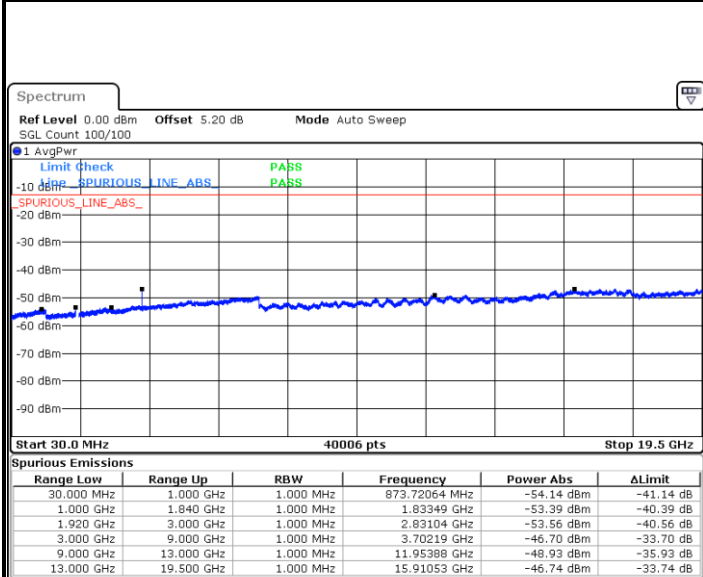
Highest Channel / 16QAM



Date: 17.AUG.2020 19:32:44

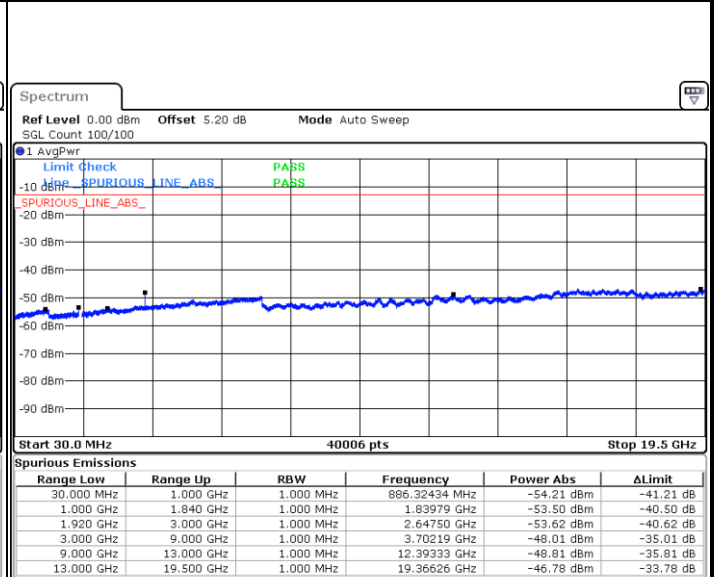
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 17.AUG.2020 19:38:50

Lowest Channel / 16QAM



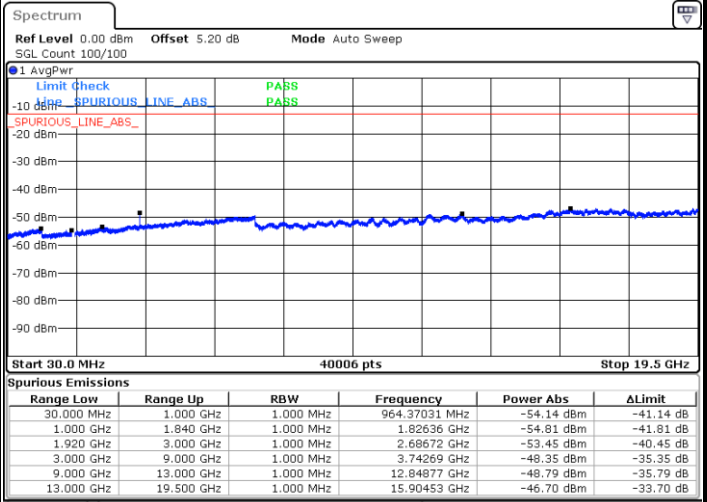
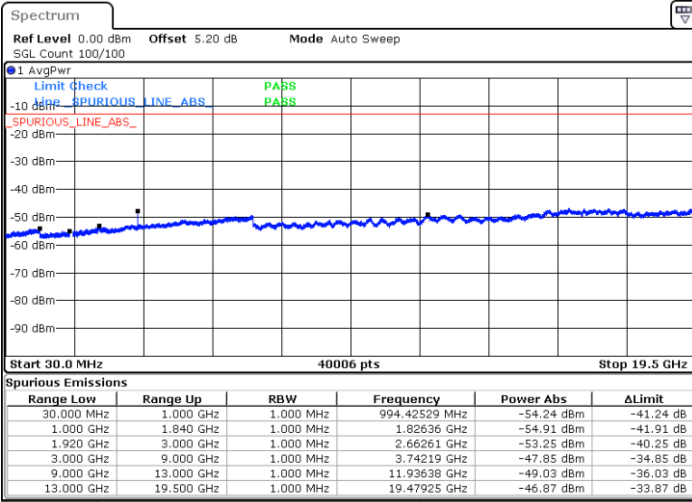
Date: 17.AUG.2020 19:39:44



LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

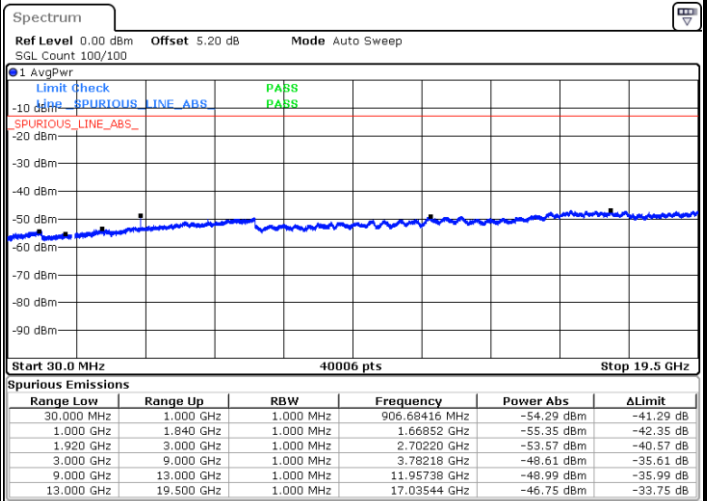
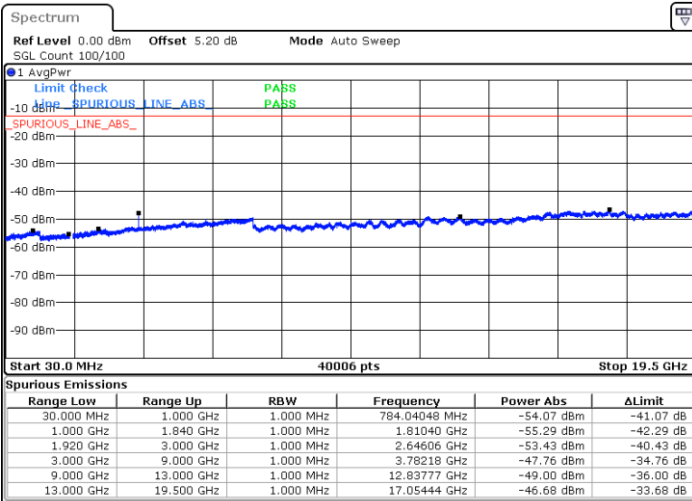


Date: 17.AUG.2020 19:41:19

Date: 17.AUG.2020 19:42:14

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17.AUG.2020 19:48:20

Date: 17.AUG.2020 19:49:15



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	0.0006	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0016	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.





## LTE Band 4

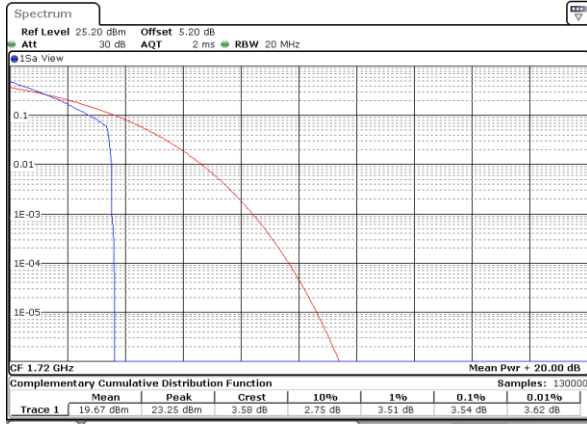
### Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.64	4.99	6.00	PASS
Middle CH	3.65	4.64	5.36	6.06	
Highest CH	3.62	4.41	5.19	5.62	



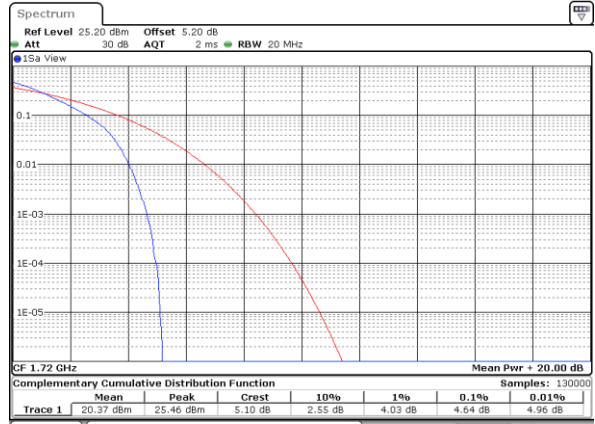
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



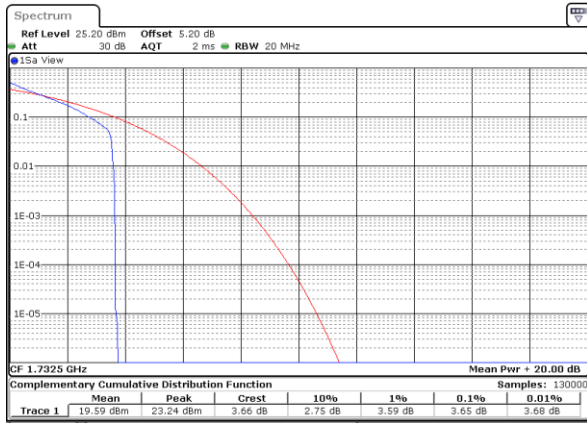
Date: 17 AUG 2020 22:05:06

Lowest Channel / Full RB



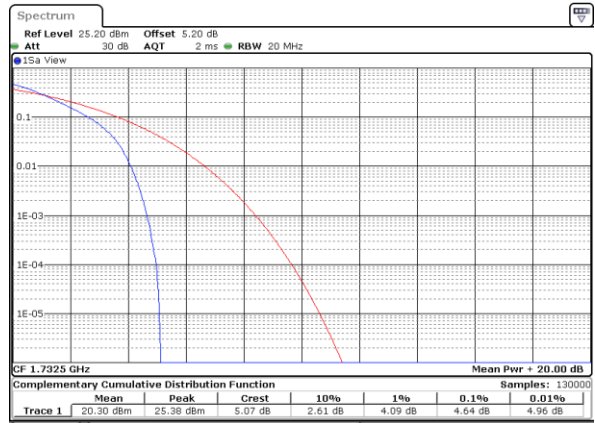
Date: 17 AUG 2020 22:05:15

Middle Channel / 1RB



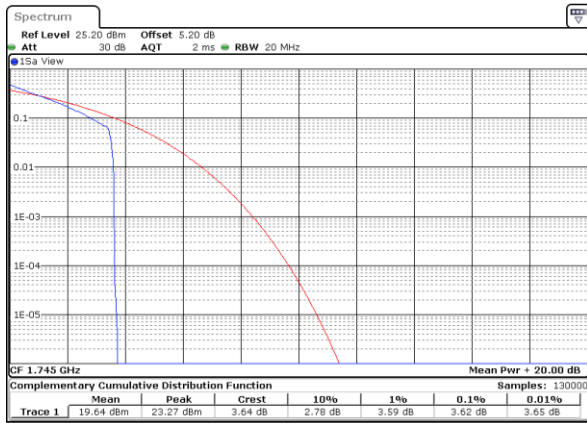
Date: 17 AUG 2020 22:05:25

Middle Channel / Full RB



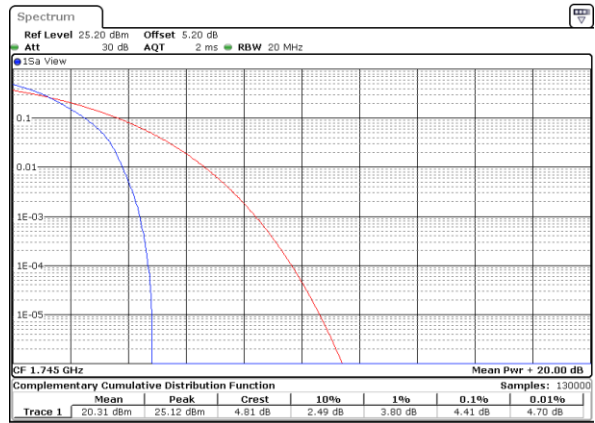
Date: 17 AUG 2020 22:05:34

Highest Channel / 1RB



Date: 17 AUG 2020 22:05:46

Highest Channel / Full RB

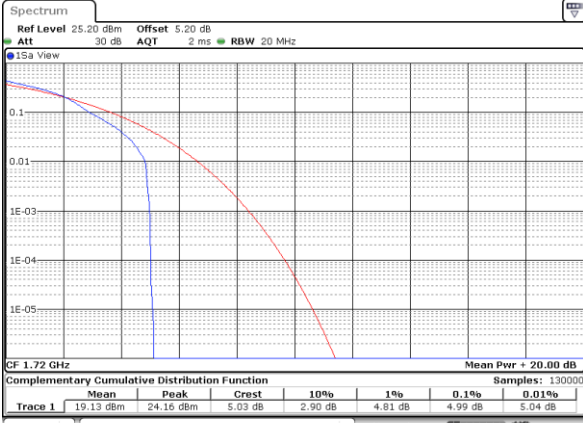


Date: 17 AUG 2020 22:05:55



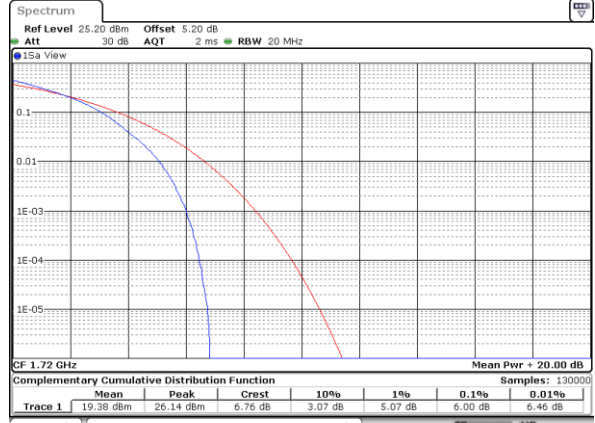
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 17 AUG 2020 22:04:11

Lowest Channel / Full RB



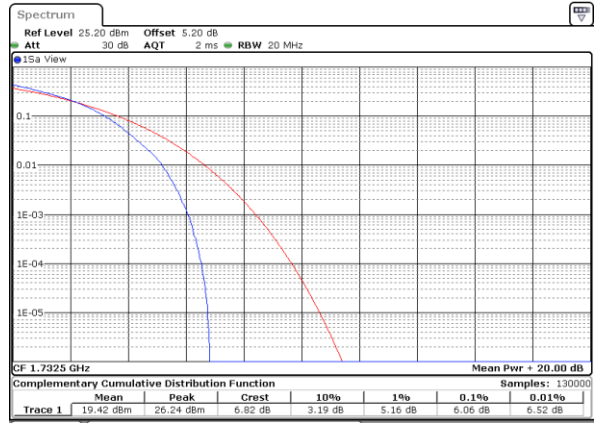
Date: 17 AUG 2020 22:04:19

Middle Channel / 1RB



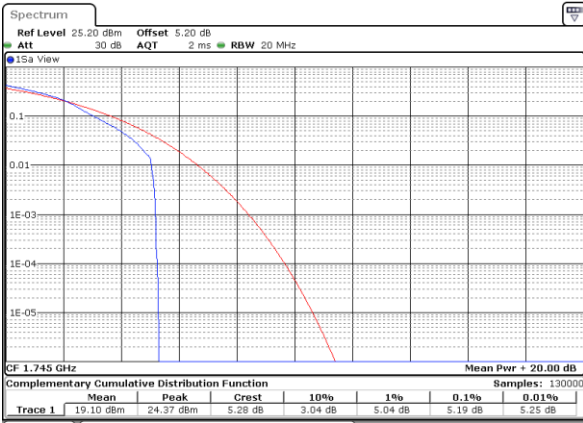
Date: 17 AUG 2020 22:04:28

Middle Channel / Full RB



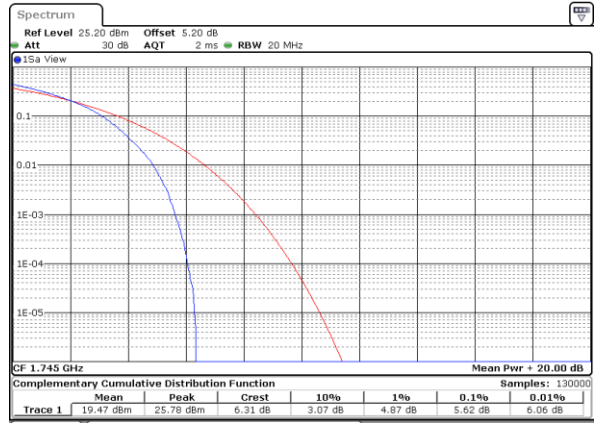
Date: 17 AUG 2020 22:04:37

Highest Channel / 1RB



Date: 17 AUG 2020 22:04:47

Highest Channel / Full RB



Date: 17 AUG 2020 22:04:56



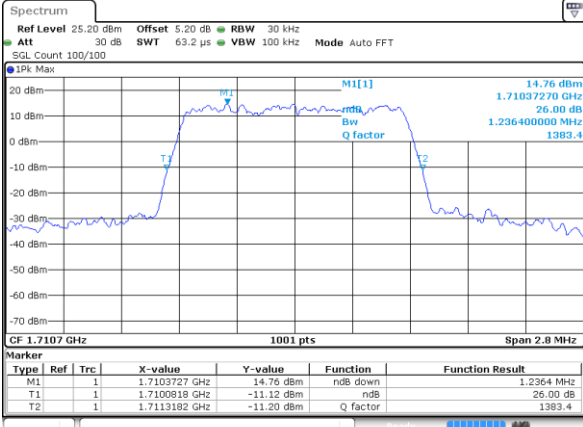
**26dB Bandwidth**

Mode	LTE Band 4 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.24	1.23	3.00	3.01	4.91	4.87	9.75	9.81	14.30	14.27	20.50	20.10
Middle CH	1.23	1.23	2.99	3.02	4.97	4.85	9.75	9.85	14.27	14.51	20.18	20.02
Highest CH	1.23	1.22	3.05	3.05	4.86	4.93	9.95	9.85	14.36	14.36	20.14	20.14



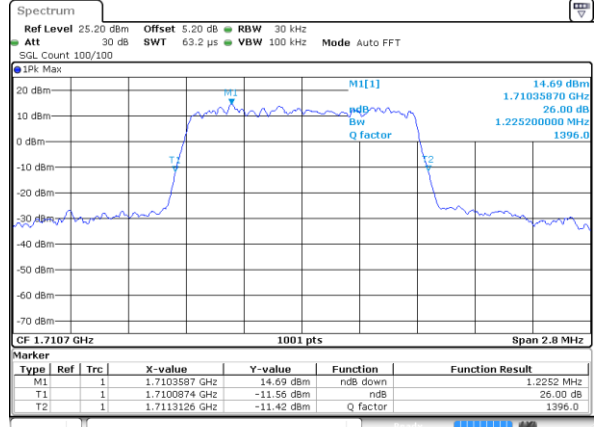
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



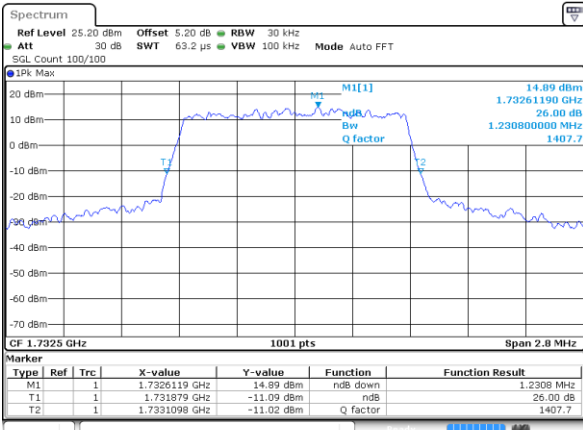
Date: 17 AUG 2020 20:20:05

Lowest Channel / 1.4MHz / 16QAM



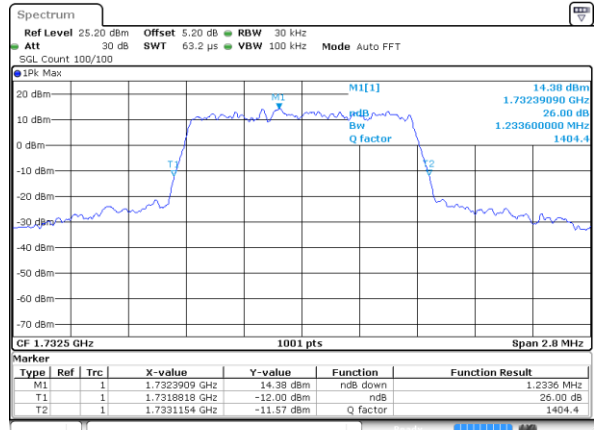
Date: 17 AUG 2020 20:20:15

Middle Channel / 1.4MHz / QPSK



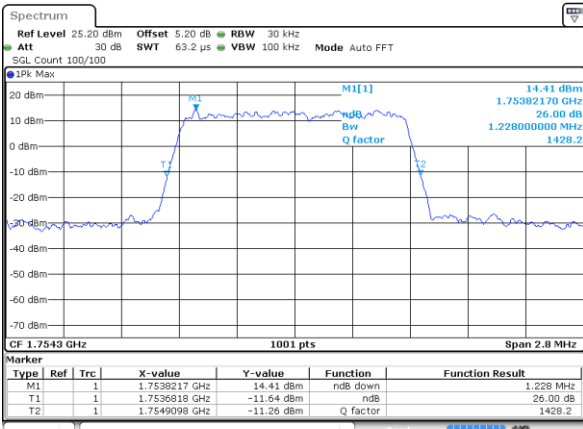
Date: 17 AUG 2020 20:27:05

Middle Channel / 1.4MHz / 16QAM



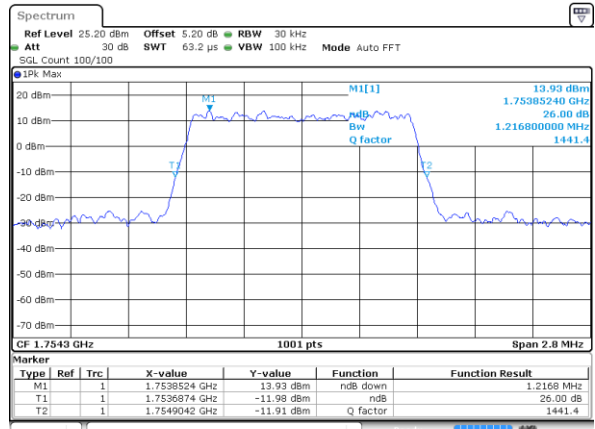
Date: 17 AUG 2020 20:27:16

Highest Channel / 1.4MHz / QPSK



Date: 17 AUG 2020 20:29:36

Highest Channel / 1.4MHz / 16QAM

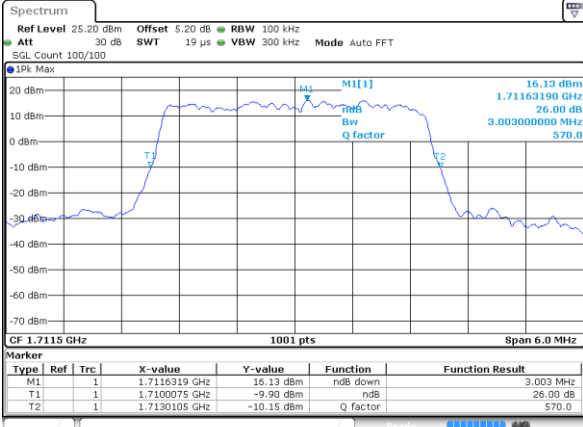


Date: 17 AUG 2020 20:29:46



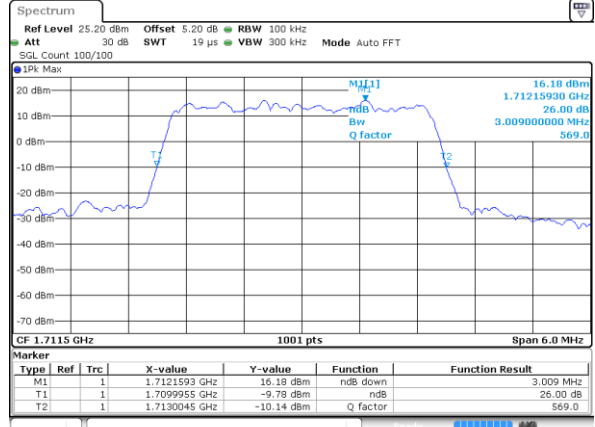
LTE Band 4

Lowest Channel / 3MHz / QPSK



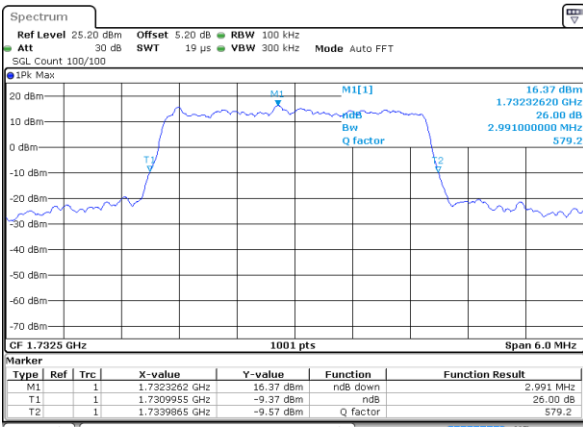
Date: 17 AUG 2020 20:36:36

Lowest Channel / 3MHz / 16QAM



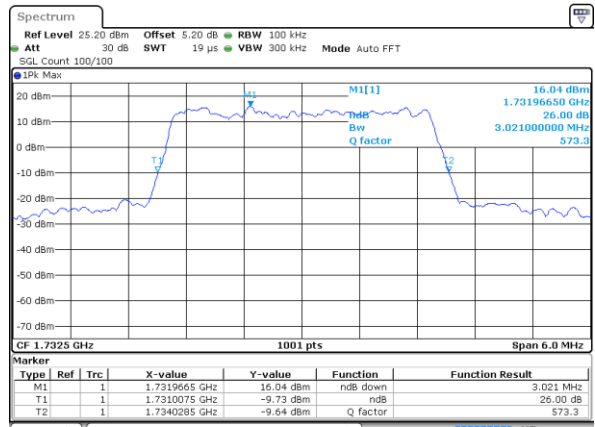
Date: 17 AUG 2020 20:36:46

Middle Channel / 3MHz / QPSK



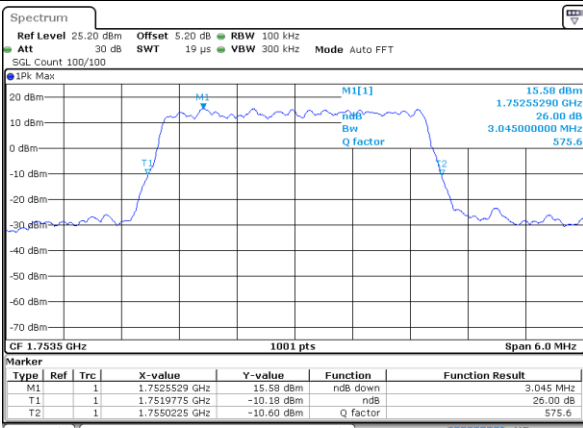
Date: 17 AUG 2020 20:43:37

Middle Channel / 3MHz / 16QAM



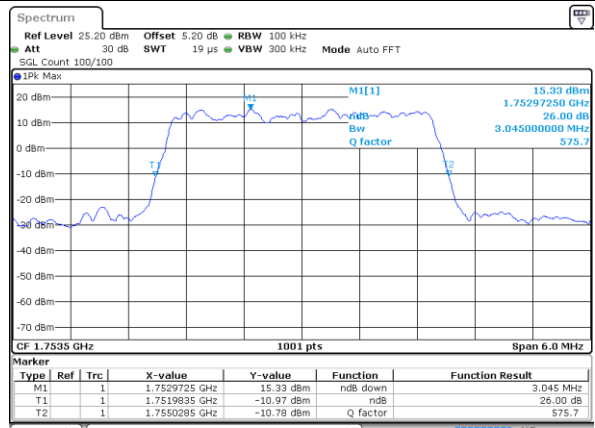
Date: 17 AUG 2020 20:43:47

Highest Channel / 3MHz / QPSK



Date: 17 AUG 2020 20:46:07

Highest Channel / 3MHz / 16QAM

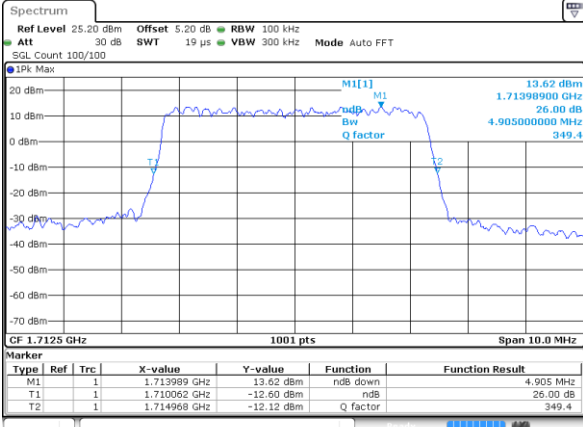


Date: 17 AUG 2020 20:46:17



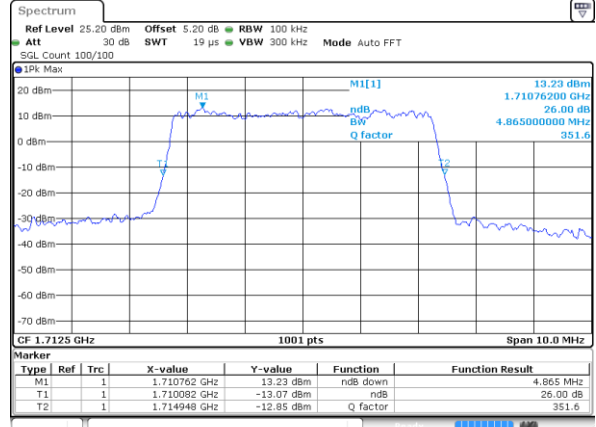
LTE Band 4

Lowest Channel / 5MHz / QPSK



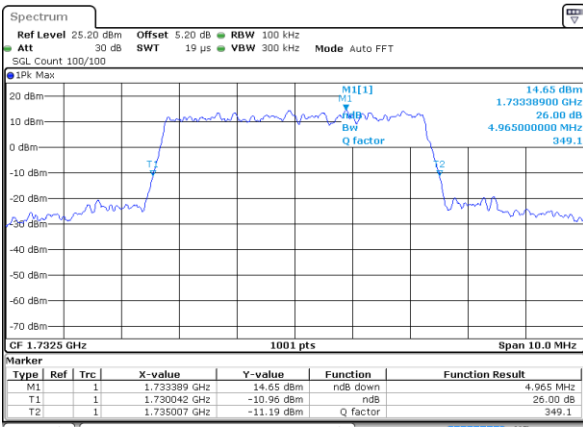
Date: 17 AUG 2020 20:53:08

Lowest Channel / 5MHz / 16QAM



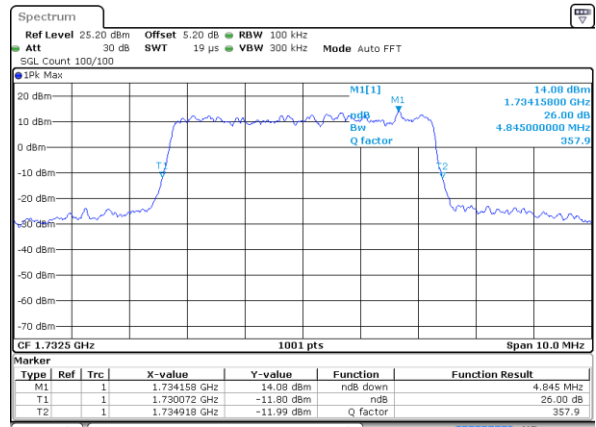
Date: 17 AUG 2020 20:53:18

Middle Channel / 5MHz / QPSK



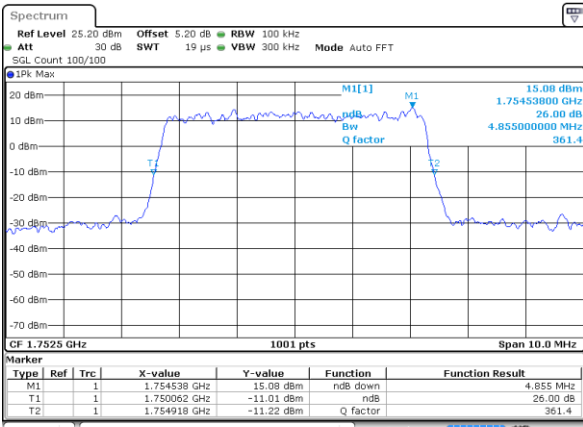
Date: 17 AUG 2020 21:00:08

Middle Channel / 5MHz / 16QAM



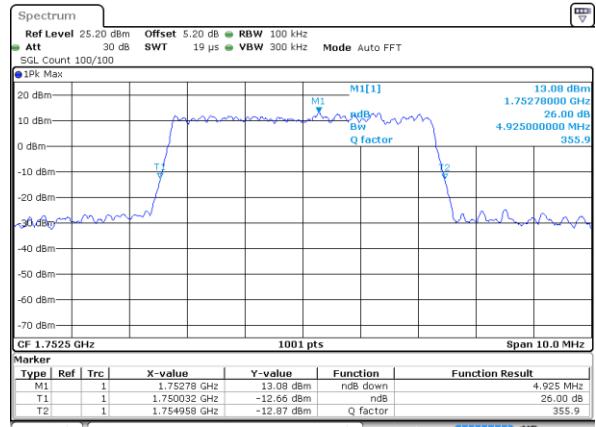
Date: 17 AUG 2020 21:00:18

Highest Channel / 5MHz / QPSK



Date: 17 AUG 2020 21:02:39

Highest Channel / 5MHz / 16QAM

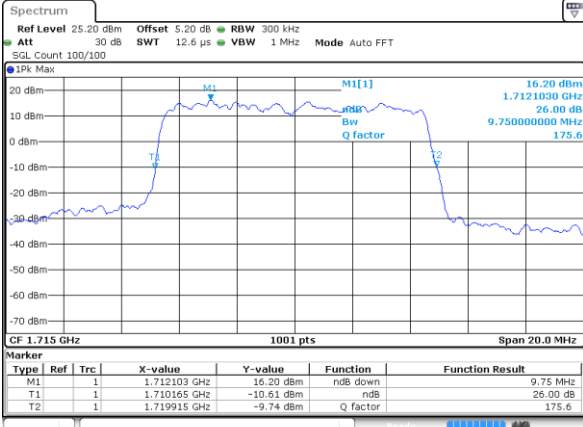


Date: 17 AUG 2020 21:02:49



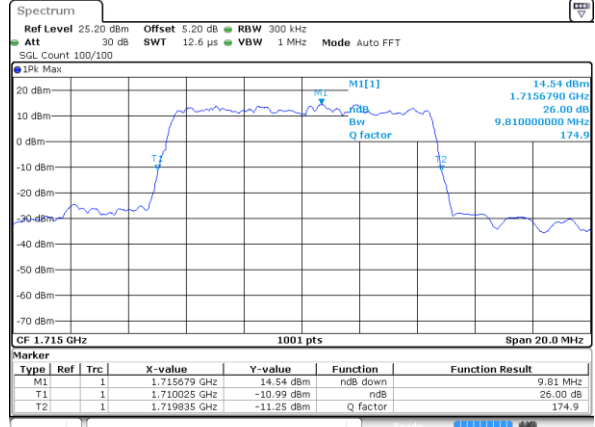
LTE Band 4

Lowest Channel / 10MHz / QPSK



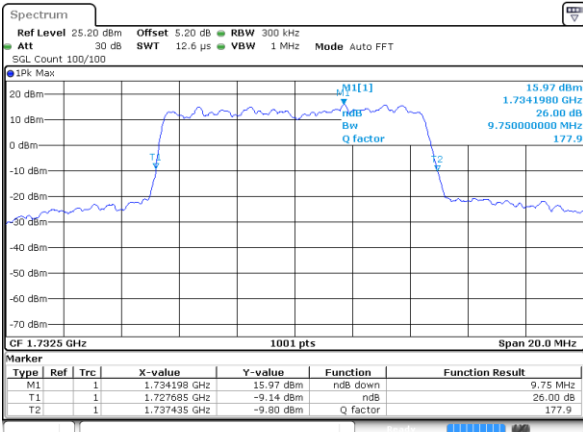
Date: 17 AUG 2020 21:09:39

Lowest Channel / 10MHz / 16QAM



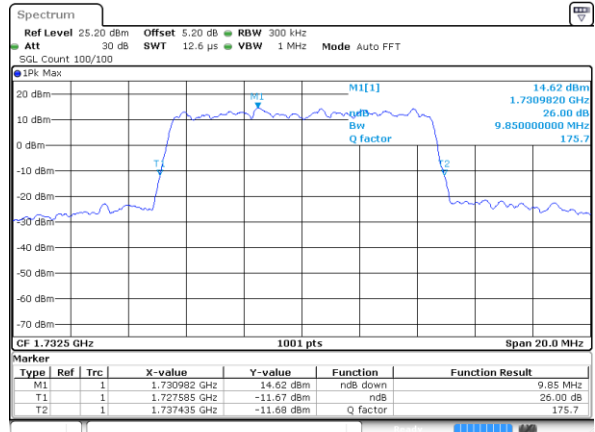
Date: 17 AUG 2020 21:09:49

Middle Channel / 10MHz / QPSK



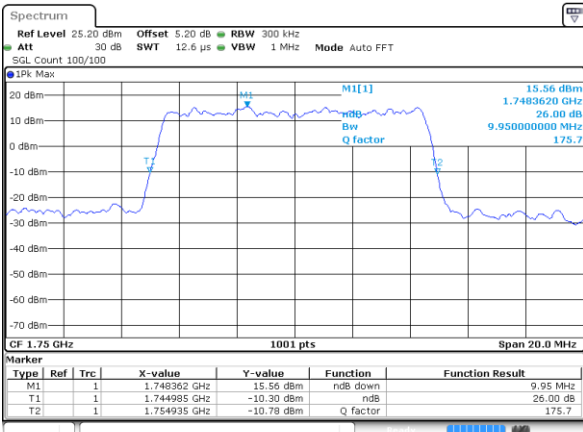
Date: 17 AUG 2020 21:16:40

Middle Channel / 10MHz / 16QAM



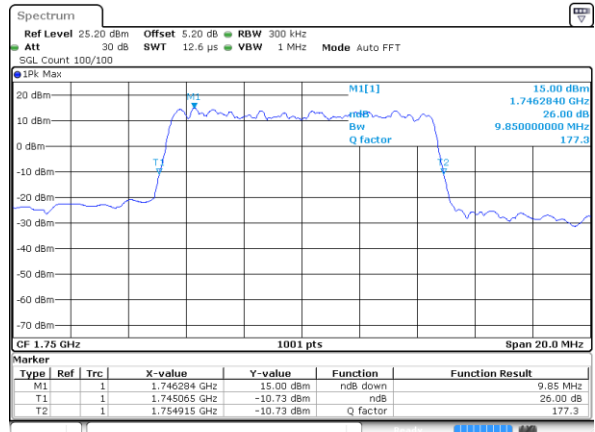
Date: 17 AUG 2020 21:16:50

Highest Channel / 10MHz / QPSK



Date: 17 AUG 2020 21:19:10

Highest Channel / 10MHz / 16QAM



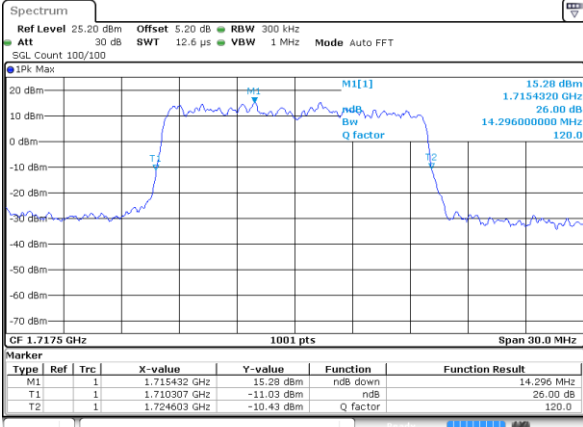
Date: 17 AUG 2020 21:19:20





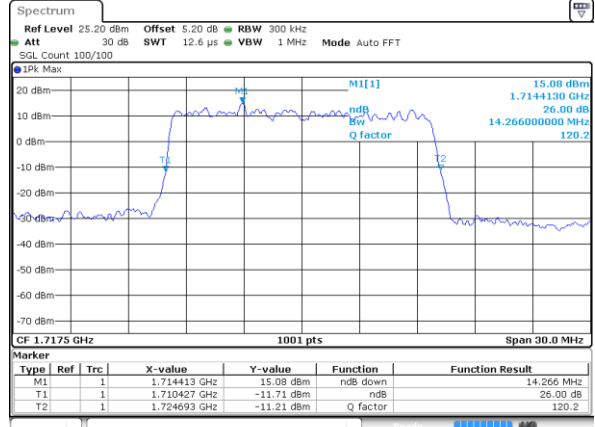
LTE Band 4

Lowest Channel / 15MHz / QPSK



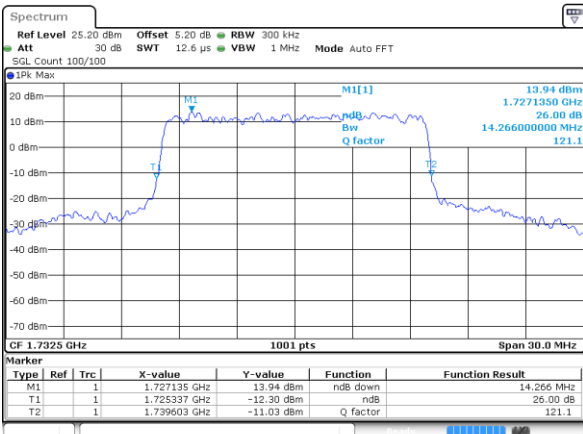
Date: 17 AUG 2020 21:26:10

Lowest Channel / 15MHz / 16QAM



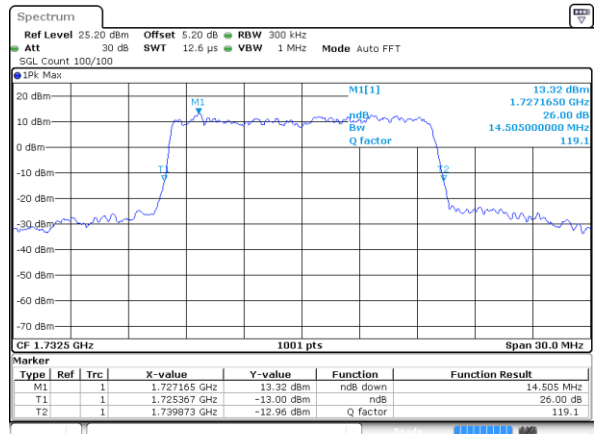
Date: 17 AUG 2020 21:26:20

Middle Channel / 15MHz / QPSK



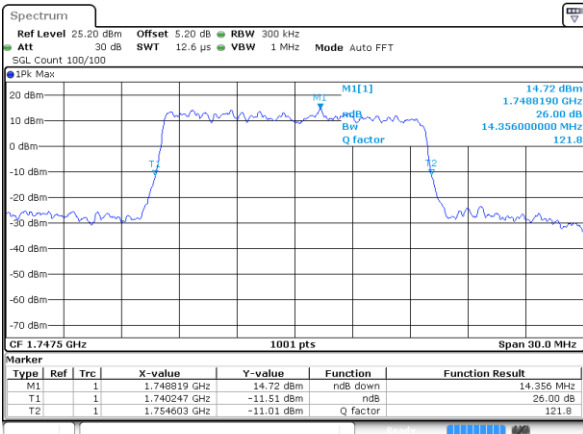
Date: 17 AUG 2020 21:33:11

Middle Channel / 15MHz / 16QAM



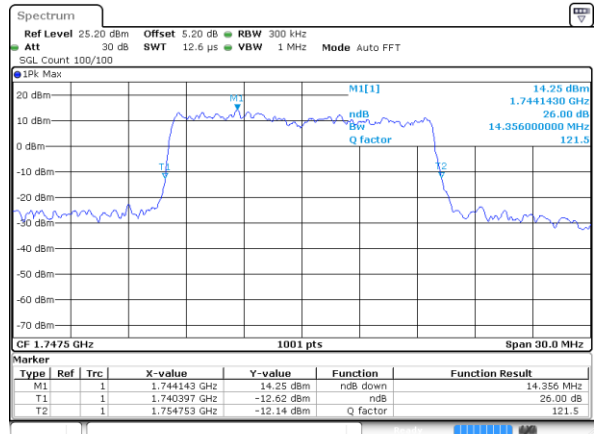
Date: 17 AUG 2020 21:33:21

Highest Channel / 15MHz / QPSK



Date: 17 AUG 2020 21:35:42

Highest Channel / 15MHz / 16QAM

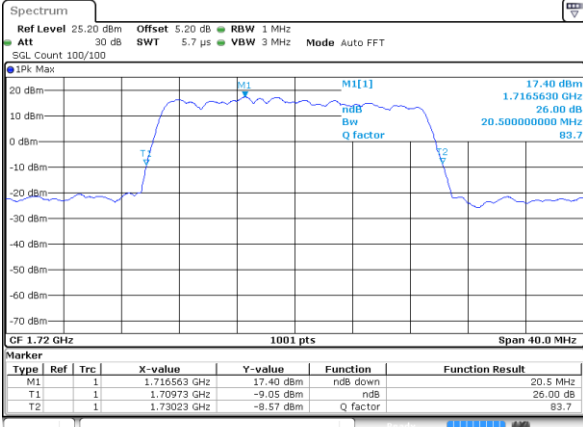


Date: 17 AUG 2020 21:35:52



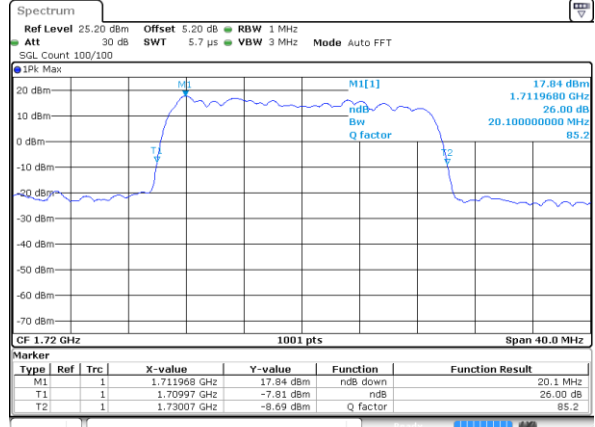
LTE Band 4

Lowest Channel / 20MHz / QPSK



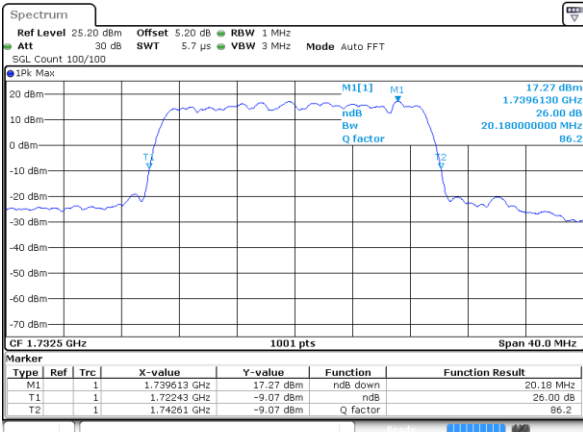
Date: 17 AUG 2020 21:42:42

Lowest Channel / 20MHz / 16QAM



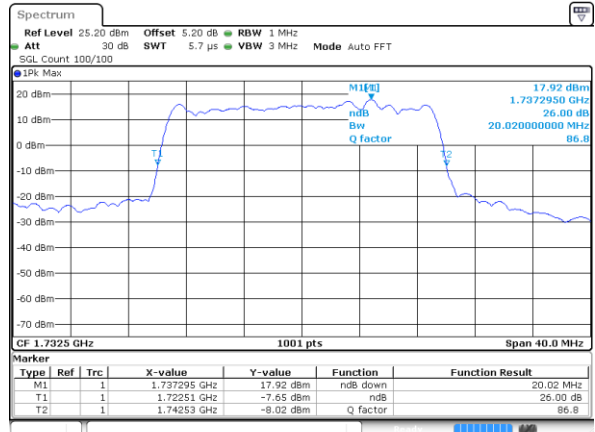
Date: 17 AUG 2020 21:42:52

Middle Channel / 20MHz / QPSK



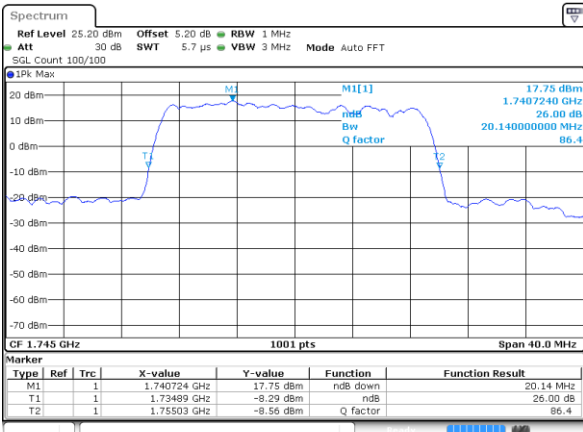
Date: 17 AUG 2020 21:49:43

Middle Channel / 20MHz / 16QAM



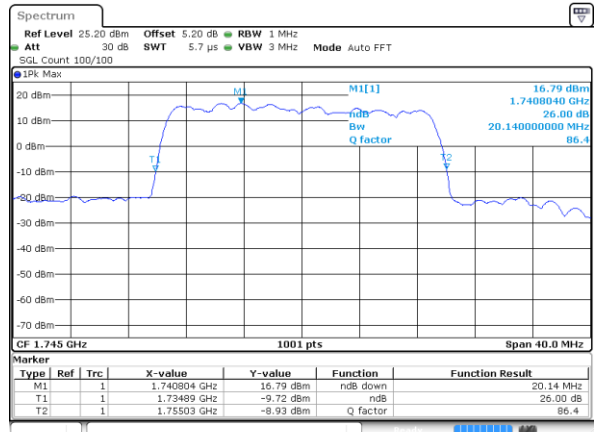
Date: 17 AUG 2020 21:49:53

Highest Channel / 20MHz / QPSK



Date: 17 AUG 2020 21:52:13

Highest Channel / 20MHz / 16QAM



Date: 17 AUG 2020 21:52:23



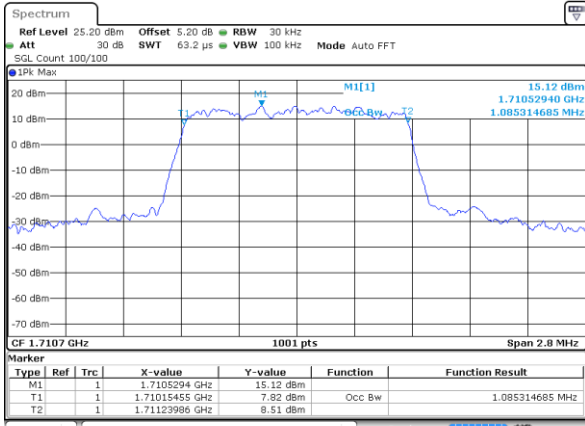
## Occupied Bandwidth

Mode	LTE Band 4 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.08	2.73	2.72	4.50	4.48	9.03	9.05	13.46	13.40	18.30	18.30
Middle CH	1.09	1.09	2.74	2.73	4.52	4.51	9.07	8.99	13.49	13.46	18.34	18.50
Highest CH	1.09	1.09	2.72	2.70	4.49	4.49	8.99	9.05	13.43	13.46	18.22	18.26



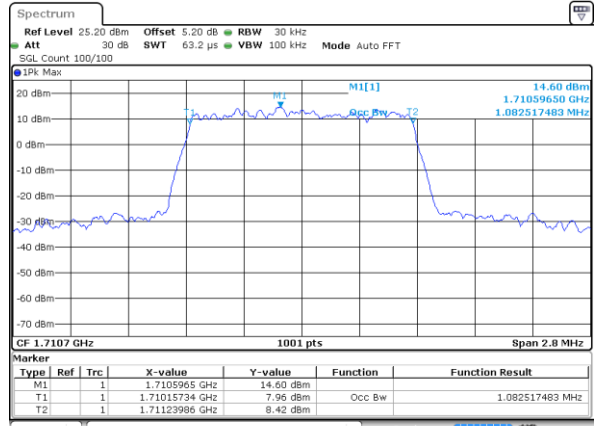
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



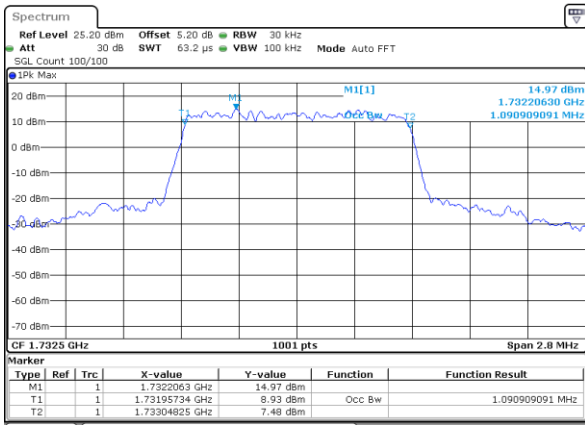
Date: 17 AUG 2020 20:19:44

Lowest Channel / 1.4MHz / 16QAM



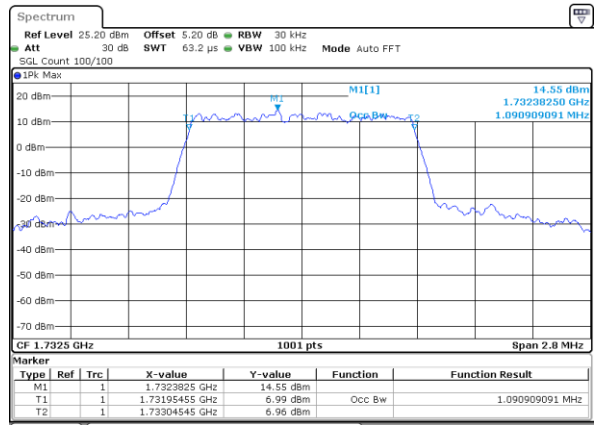
Date: 17 AUG 2020 20:19:55

Middle Channel / 1.4MHz / QPSK



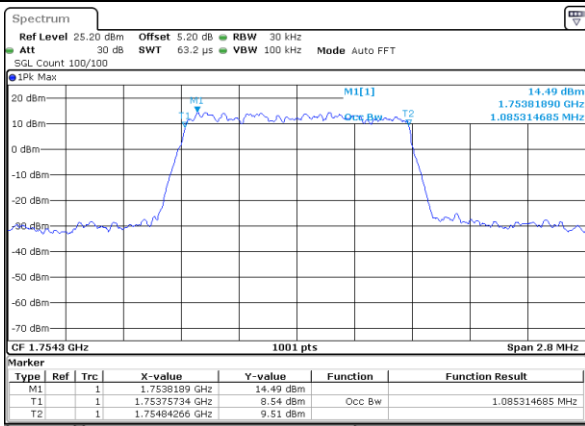
Date: 17 AUG 2020 20:26:45

Middle Channel / 1.4MHz / 16QAM



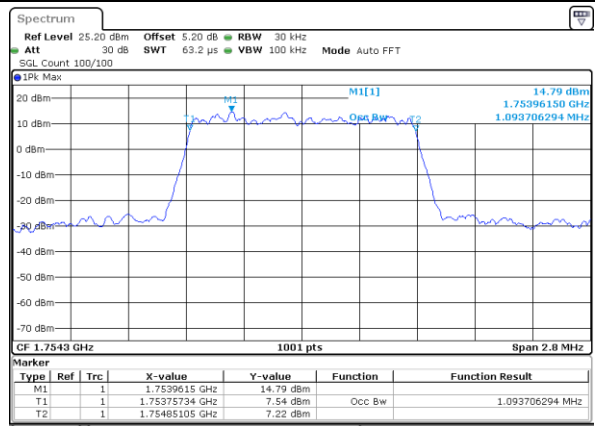
Date: 17 AUG 2020 20:26:55

Highest Channel / 1.4MHz / QPSK



Date: 17 AUG 2020 20:29:16

Highest Channel / 1.4MHz / 16QAM



Date: 17 AUG 2020 20:29:26