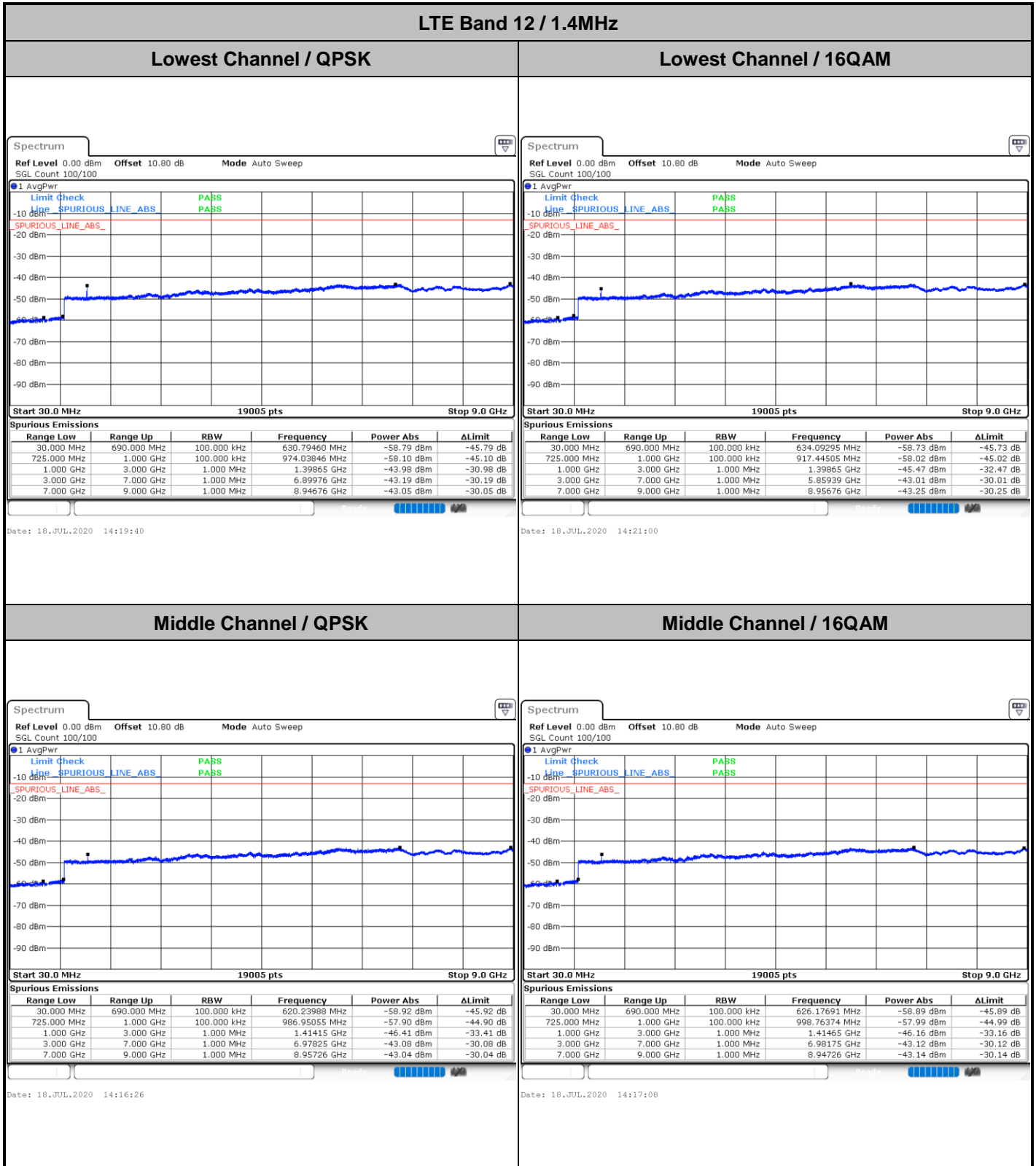




Conducted Spurious Emission

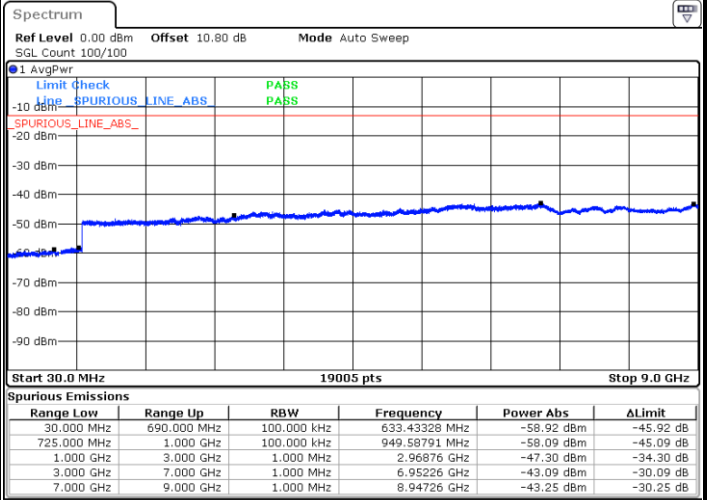
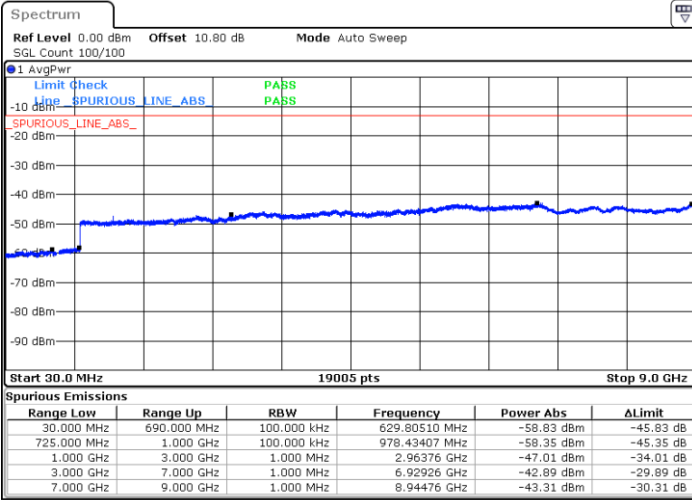




LTE Band 12 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



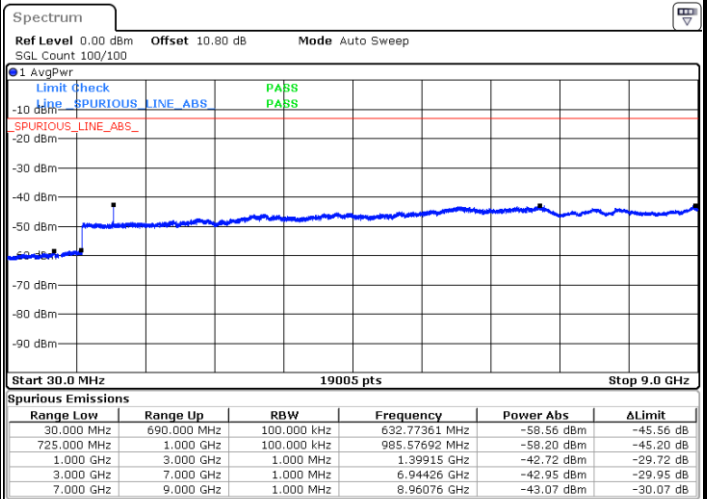
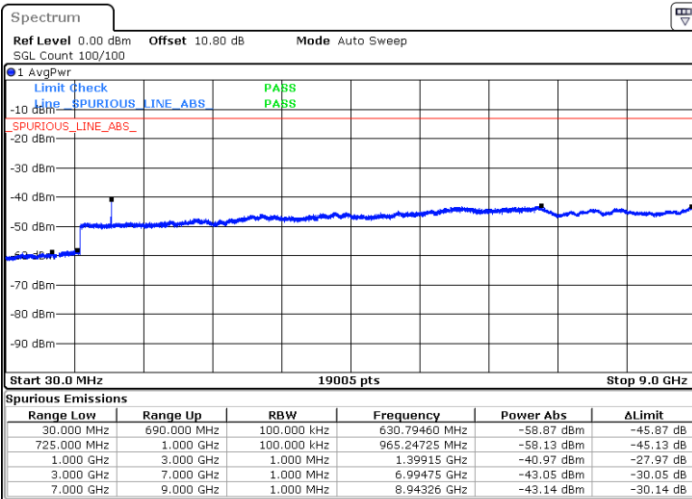
Date: 18.JUL.2020 14:22:56

Date: 18.JUL.2020 14:25:04

LTE Band 12 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 18.JUL.2020 14:31:08

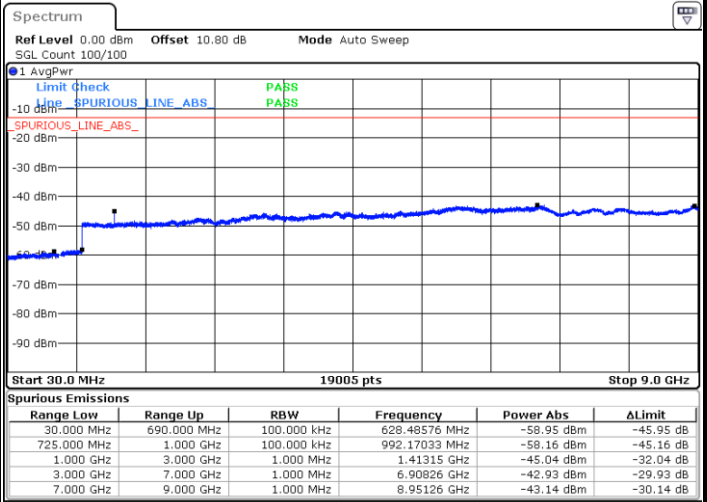
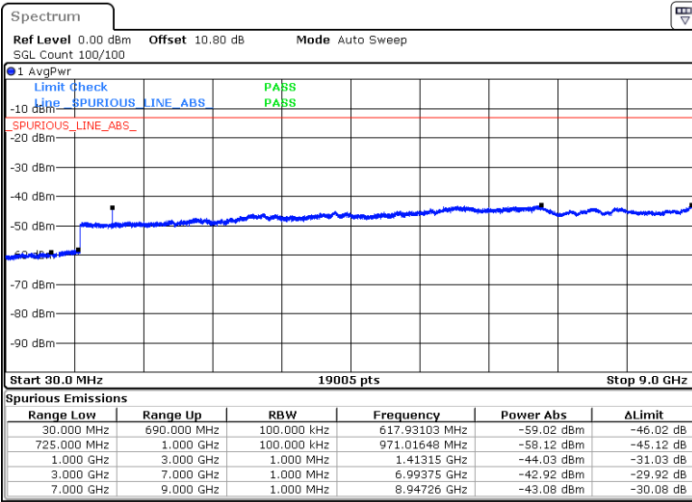
Date: 18.JUL.2020 14:33:27



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

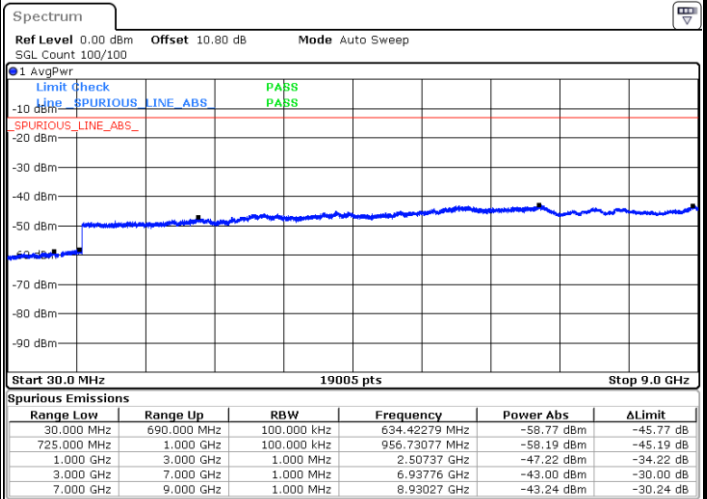
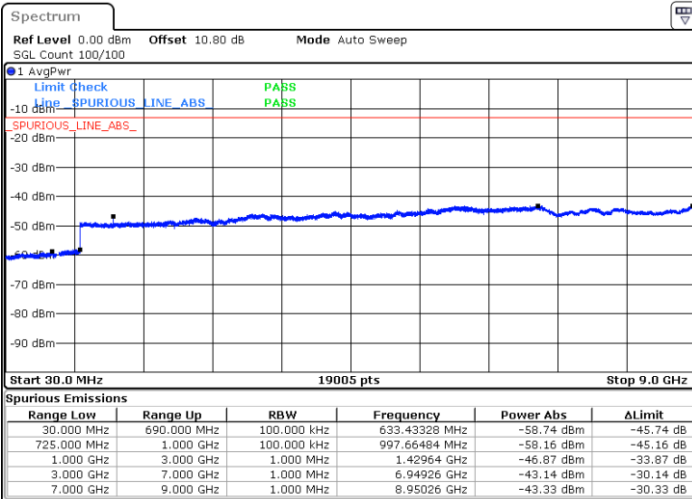


Date: 18.JUL.2020 14:27:44

Date: 18.JUL.2020 14:28:23

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 18.JUL.2020 14:35:18

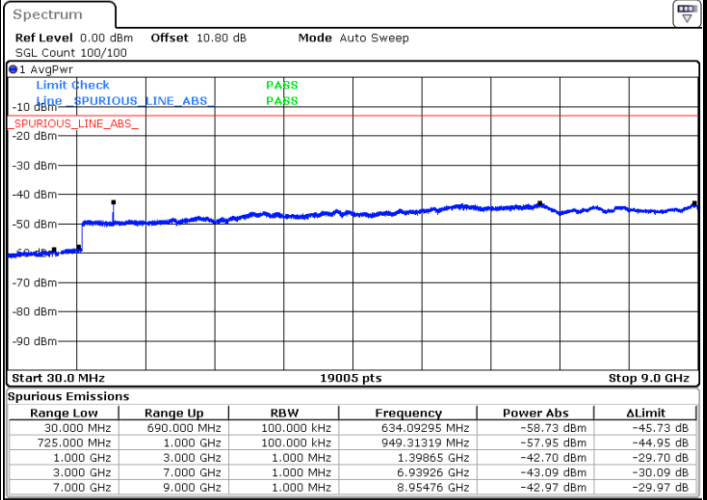
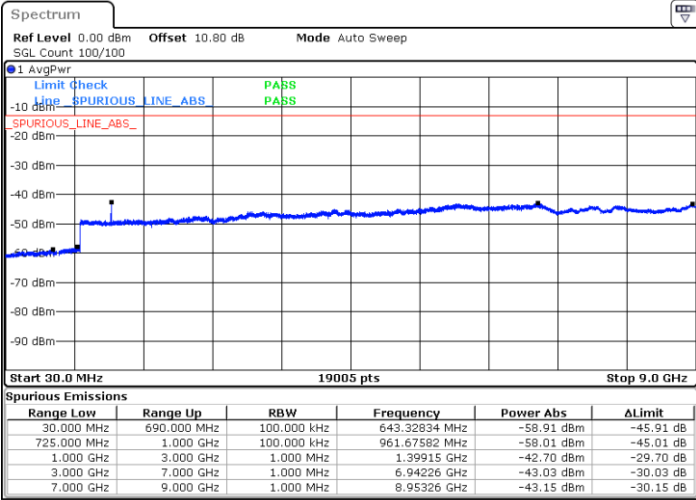
Date: 18.JUL.2020 14:37:32



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

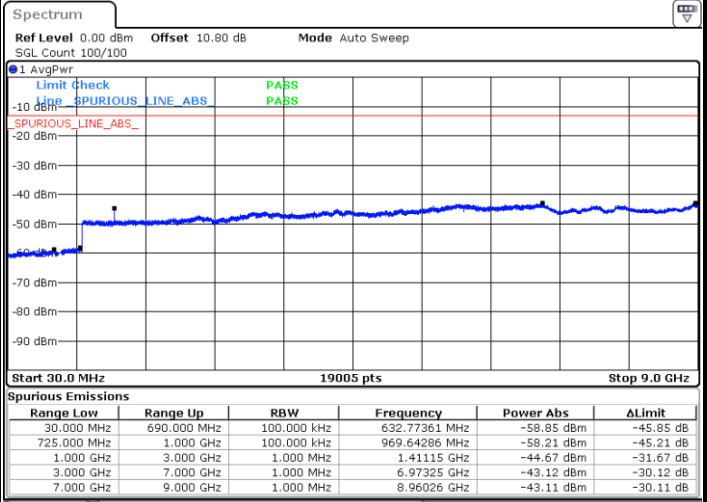
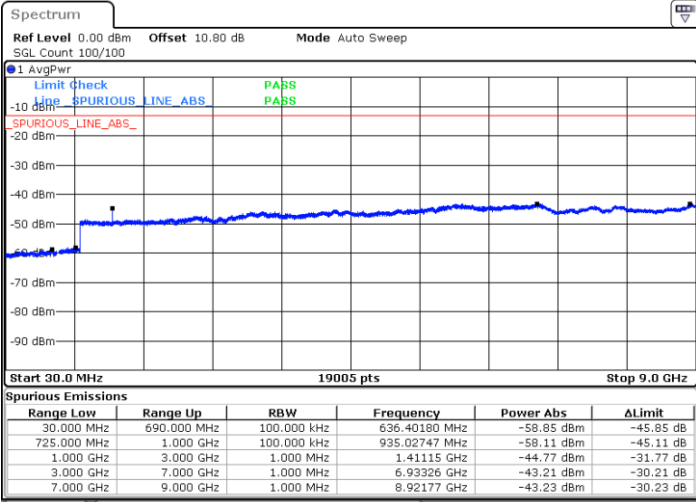


Date: 18.JUL.2020 14:44:23

Date: 18.JUL.2020 14:45:46

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 18.JUL.2020 14:42:23

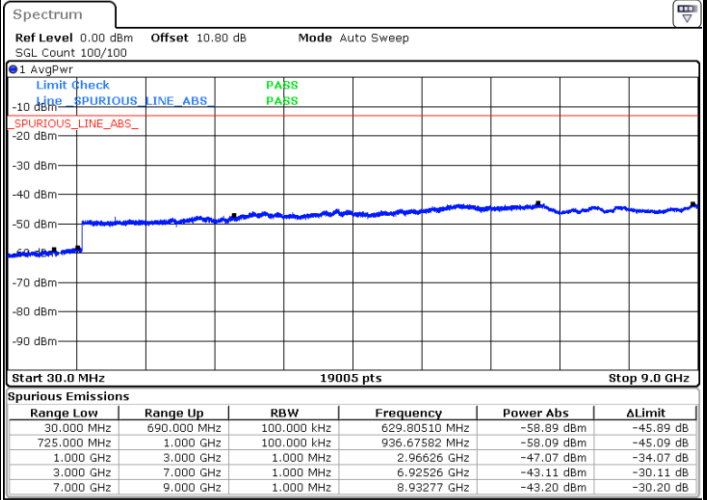
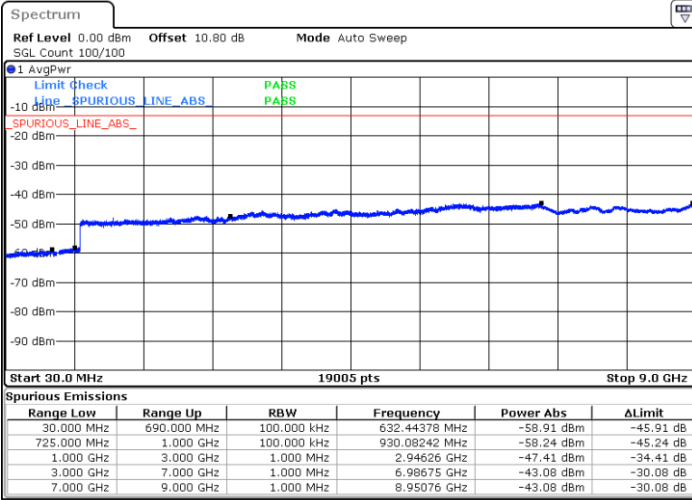
Date: 18.JUL.2020 14:40:27



LTE Band 12 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



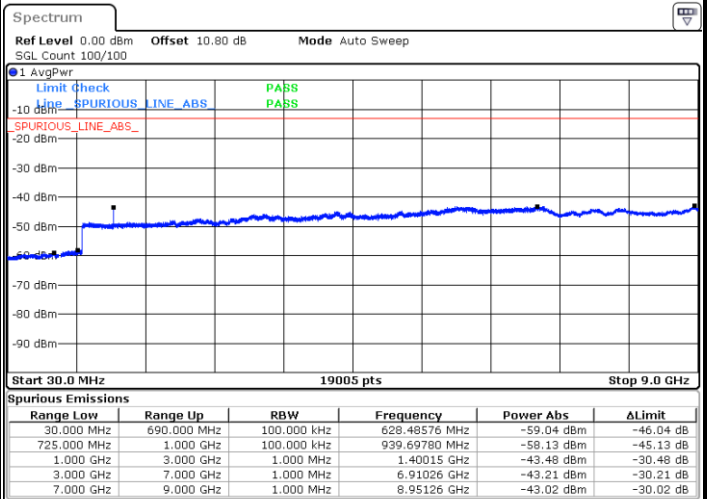
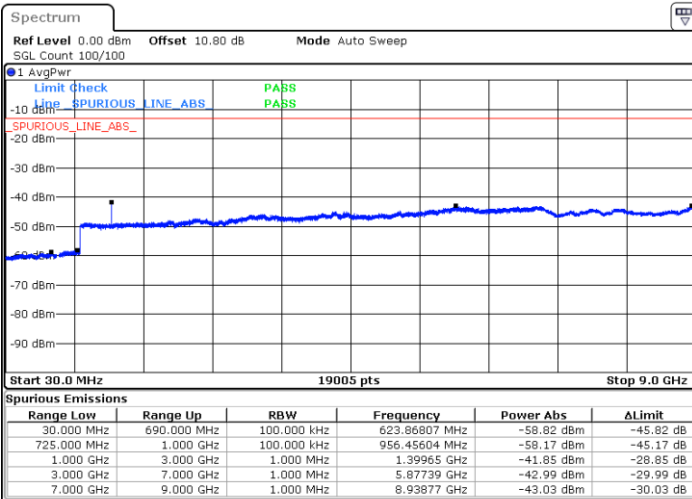
Date: 18.JUL.2020 14:47:40

Date: 18.JUL.2020 14:49:34

LTE Band 12 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 18.JUL.2020 14:07:53

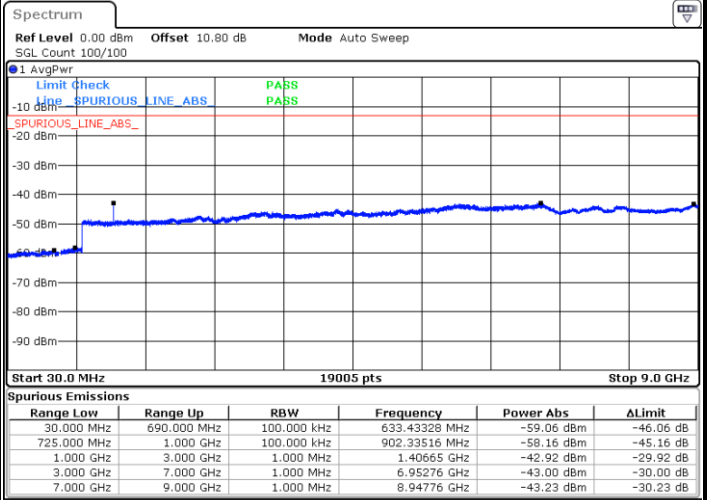
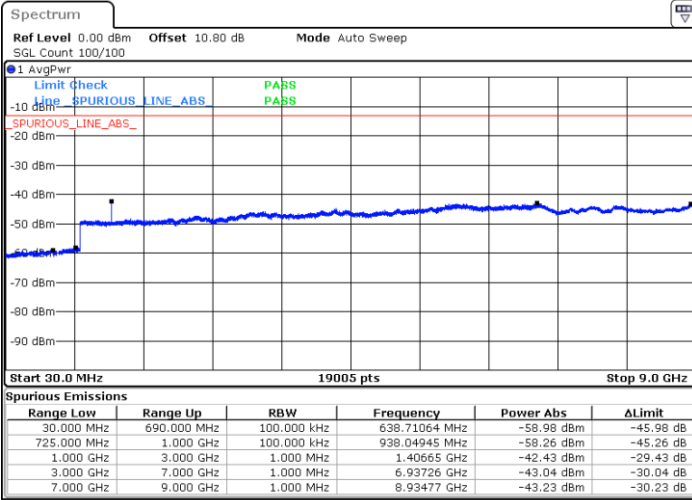
Date: 18.JUL.2020 14:09:28



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

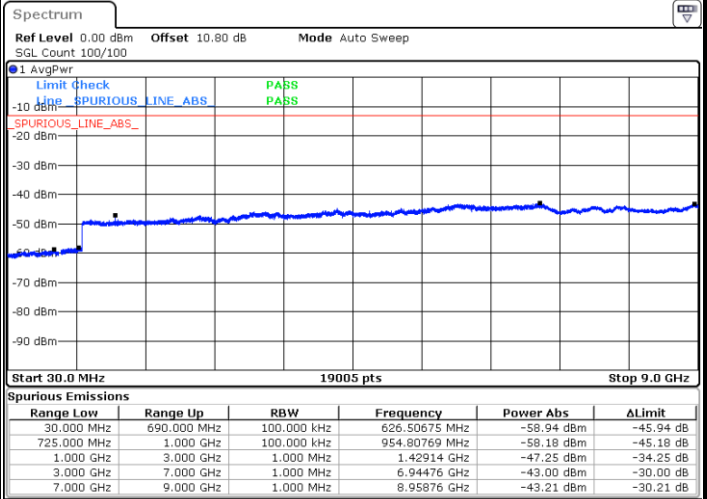
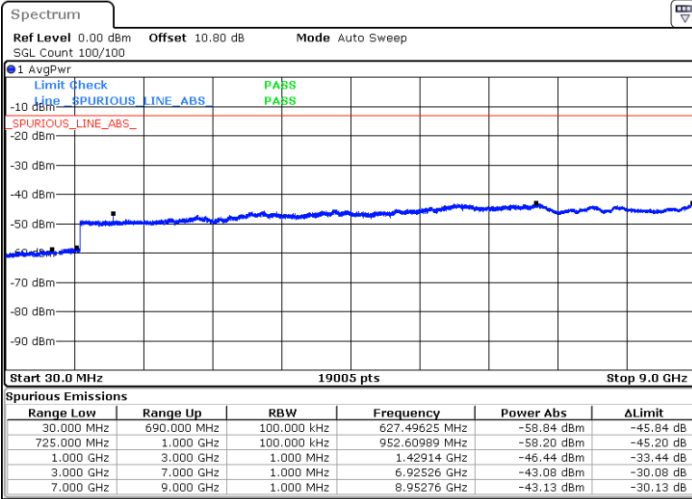


Date: 18.JUL.2020 14:02:24

Date: 18.JUL.2020 14:03:03

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 18.JUL.2020 14:11:47

Date: 18.JUL.2020 14:14:19



Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0254	PASS
40	Normal Voltage	0.0242	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0302	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0259	
-20	Normal Voltage	0.0277	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0252	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0236	

Note:

1. Normal Voltage =3.6 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =3.7 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

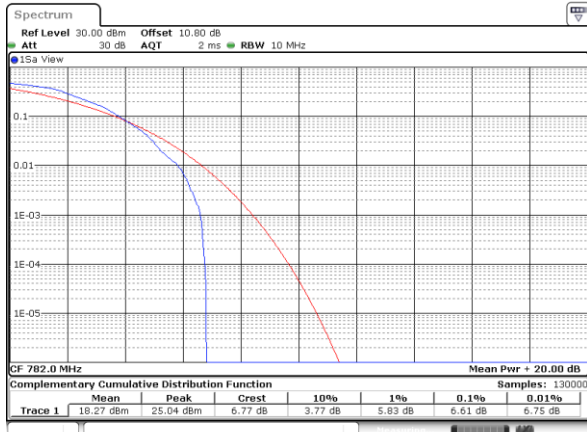
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.61	8.29	7.04	6.72	
Highest CH	-	-	-	-	



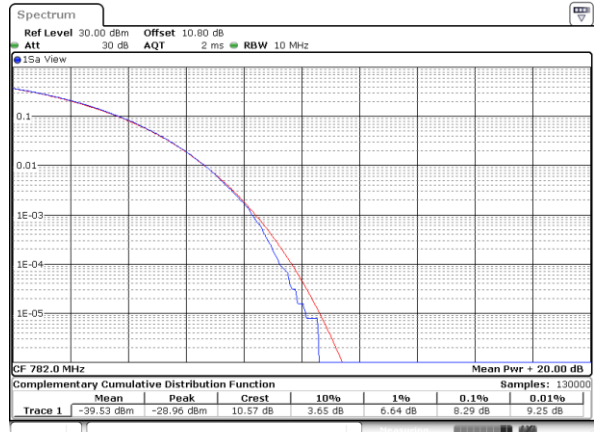
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 18_JUL_2020 15:51:58

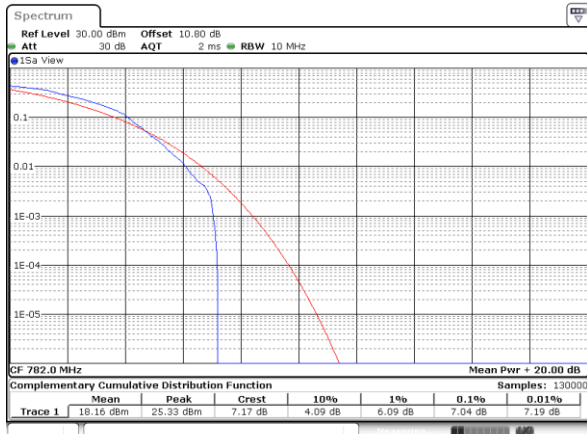
Middle Channel / Full RB



Date: 18_JUL_2020 15:51:11

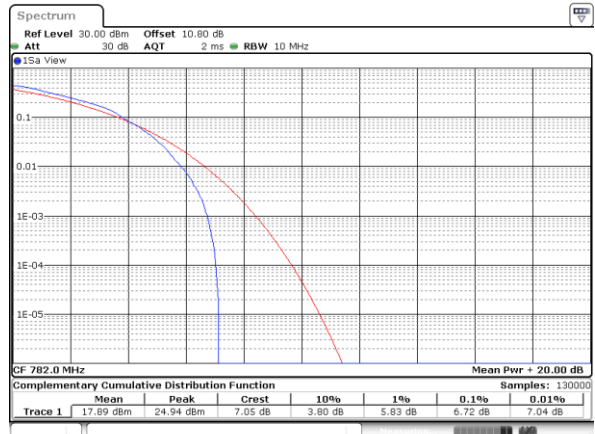
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 18_JUL_2020 15:57:59

Middle Channel / Full RB



Date: 21_JUL_2020 11:43:44



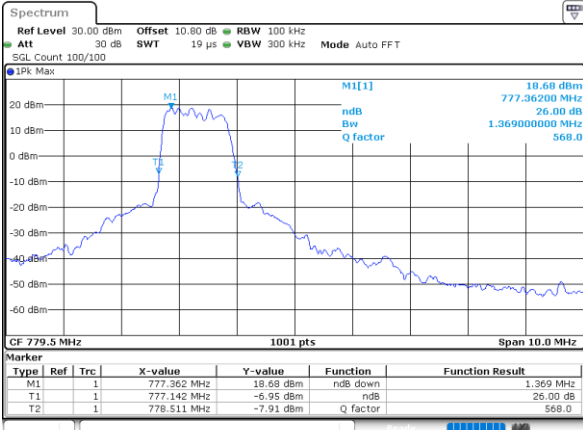
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	1.37	1.20	-	-	-	-	-	-
Middle CH	-	-	-	-	1.40	1.41	1.76	1.72	-	-	-	-
Highest CH	-	-	-	-	1.42	1.34	-	-	-	-	-	-



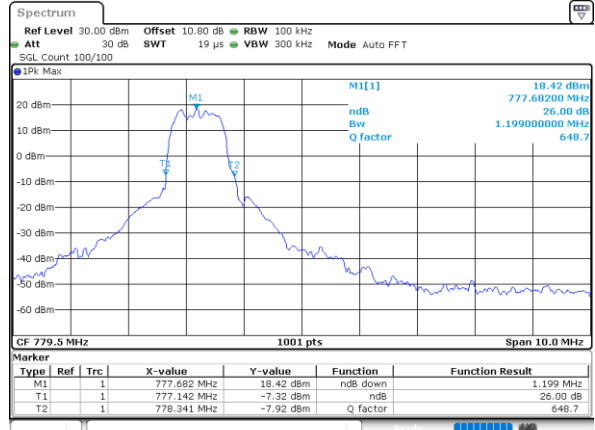
LTE Band 13

Lowest Channel / 5MHz / QPSK



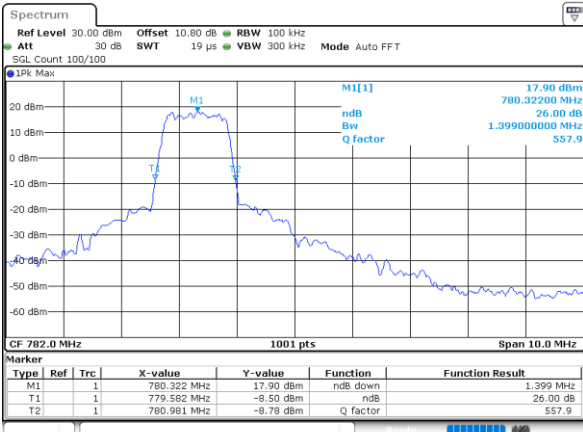
Date: 18_JUL_2020 15:03:21

Lowest Channel / 5MHz / 16QAM



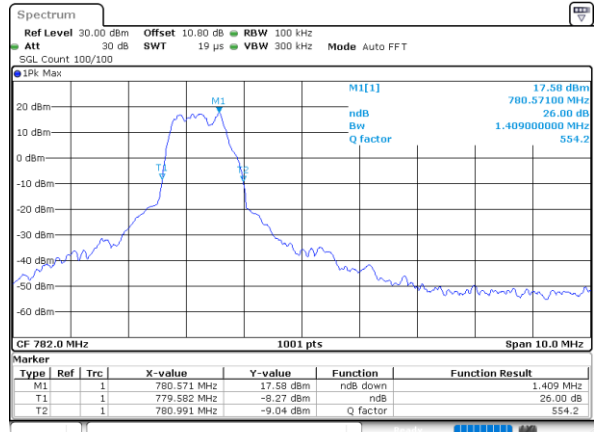
Date: 21_JUL_2020 13:45:05

Middle Channel / 5MHz / QPSK



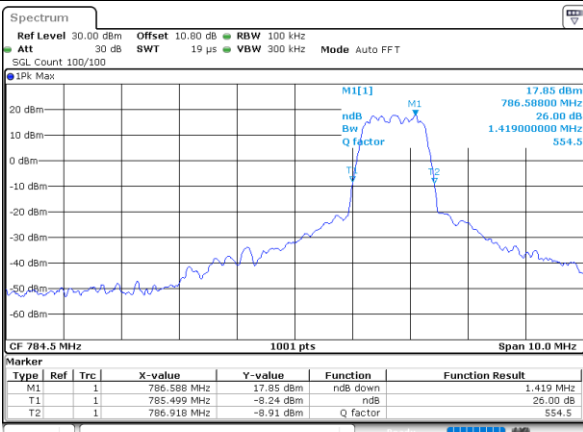
Date: 18_JUL_2020 14:53:04

Middle Channel / 5MHz / 16QAM



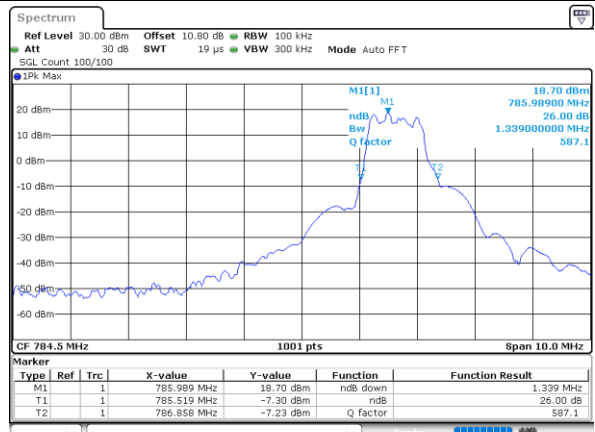
Date: 21_JUL_2020 13:43:13

Highest Channel / 5MHz / QPSK



Date: 18_JUL_2020 15:37:48

Highest Channel / 5MHz / 16QAM

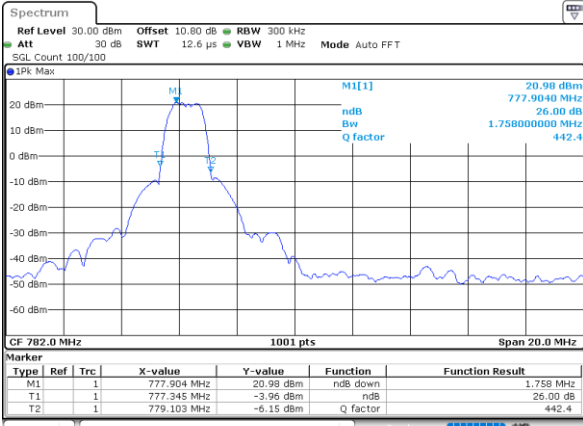


Date: 21_JUL_2020 13:48:58

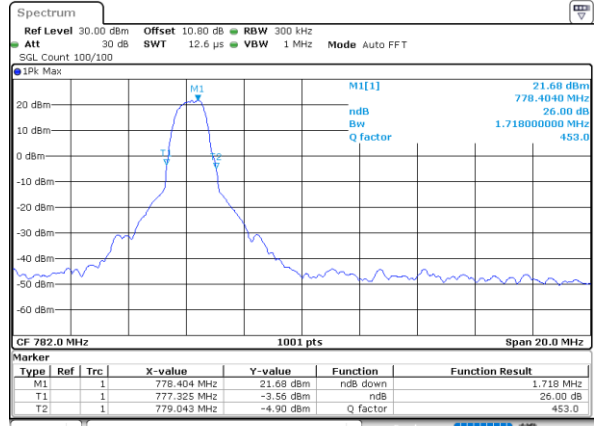


LTE Band 13

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM





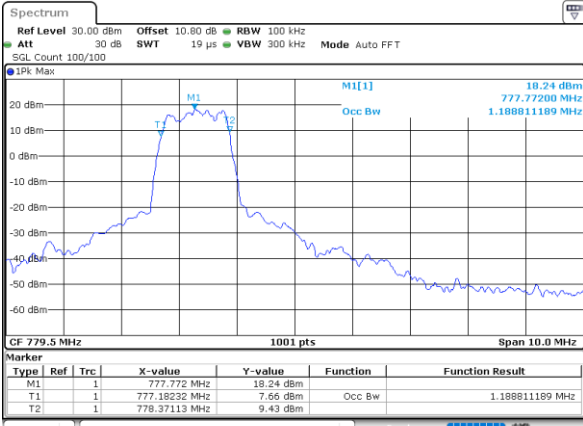
Occupied Bandwidth

Mode	LTE Band 13 : 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	-	-	-	-	1.19	1.02	-	-	-	-	-	-
Middle CH	-	-	-	-	1.18	1.04	1.42	1.30	-	-	-	-
Highest CH	-	-	-	-	1.19	1.04	-	-	-	-	-	-

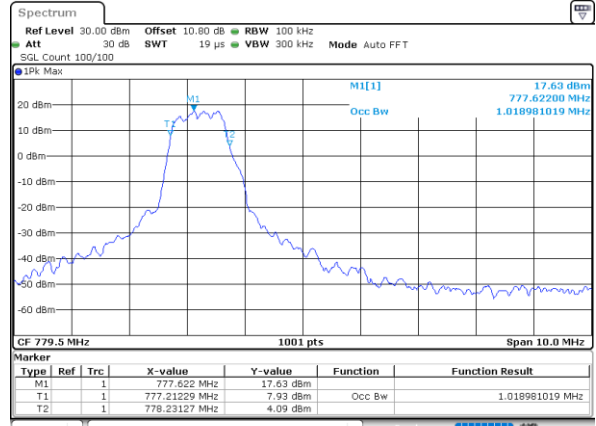


LTE Band 13

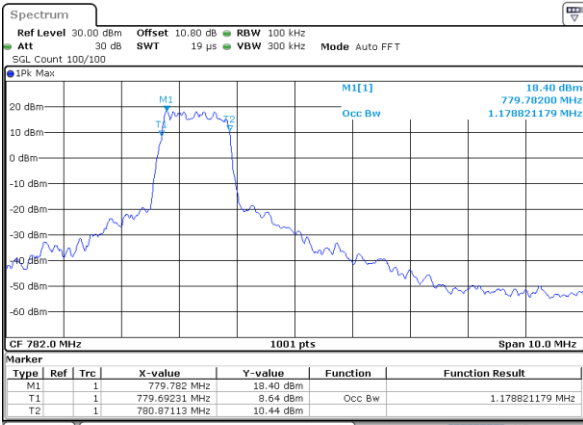
Lowest Channel / 5MHz / QPSK



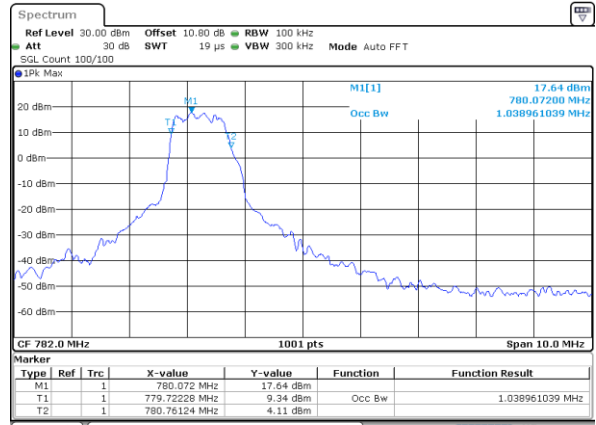
Lowest Channel / 5MHz / 16QAM



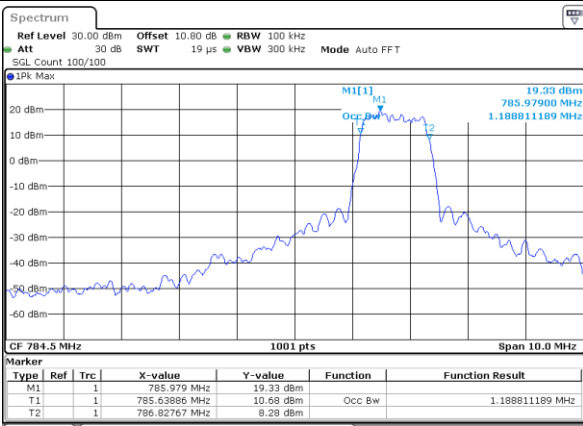
Middle Channel / 5MHz / QPSK



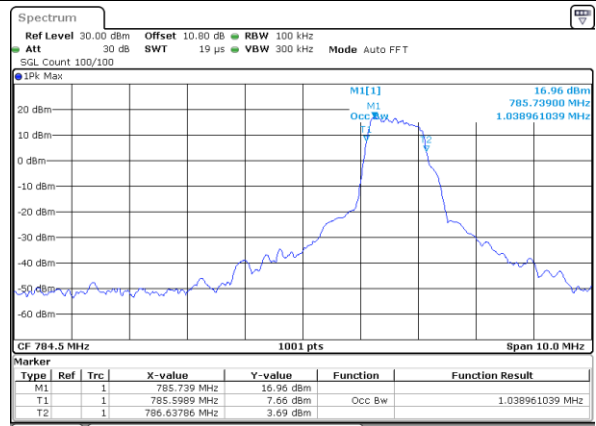
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



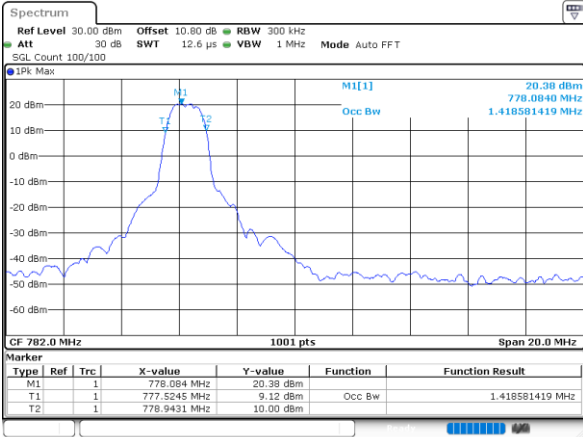
Highest Channel / 5MHz / 16QAM



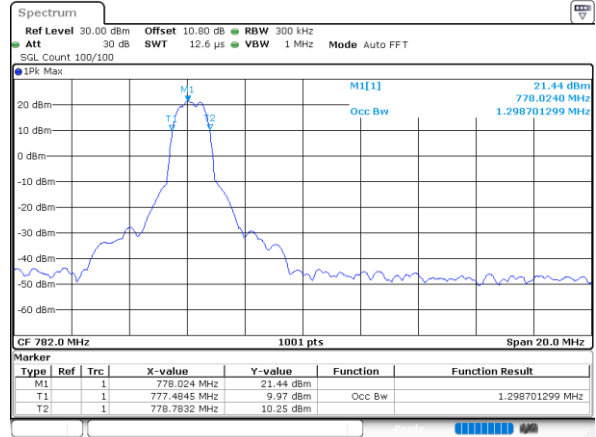


LTE Band 13

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



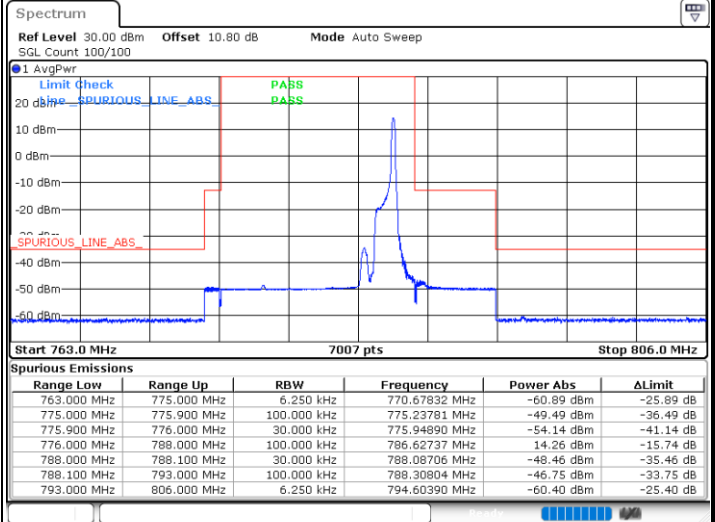
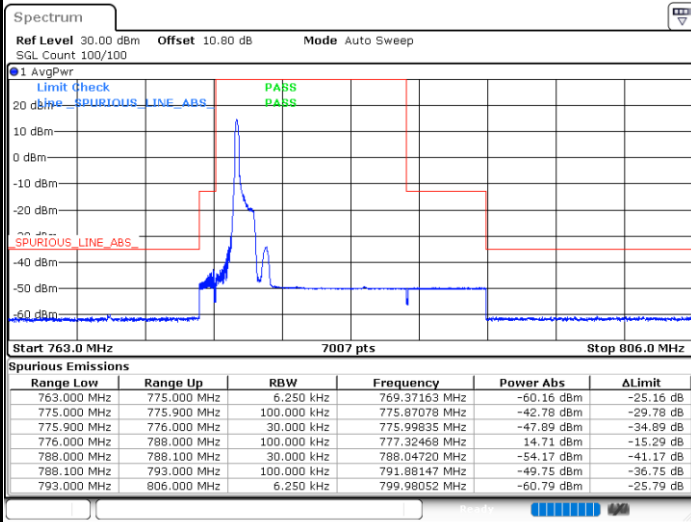


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

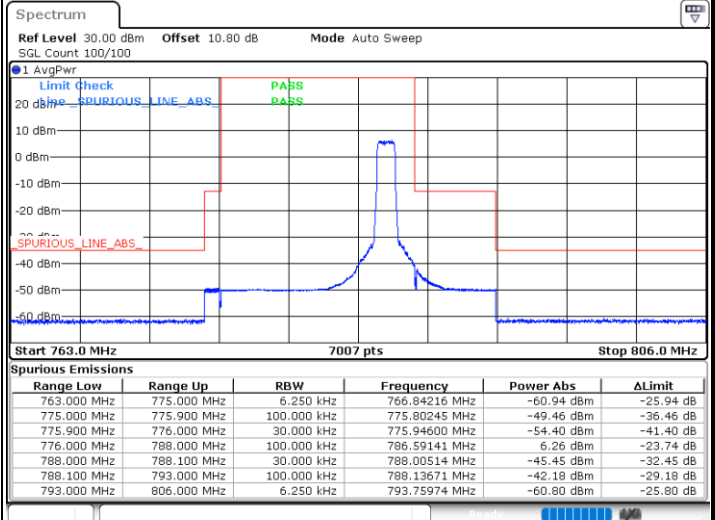
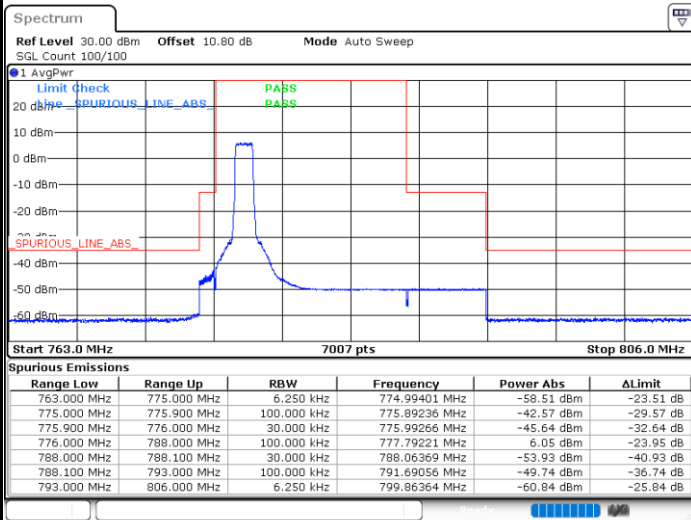


Date: 18.JUL.2020 15:07:32

Date: 18.JUL.2020 15:43:32

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18.JUL.2020 15:04:21

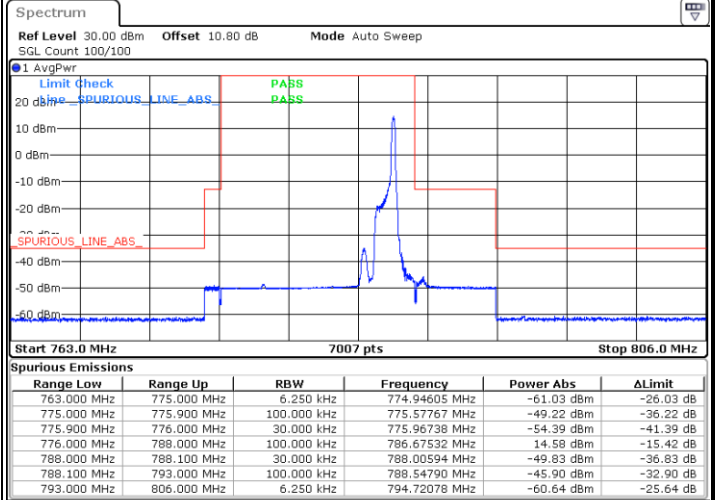
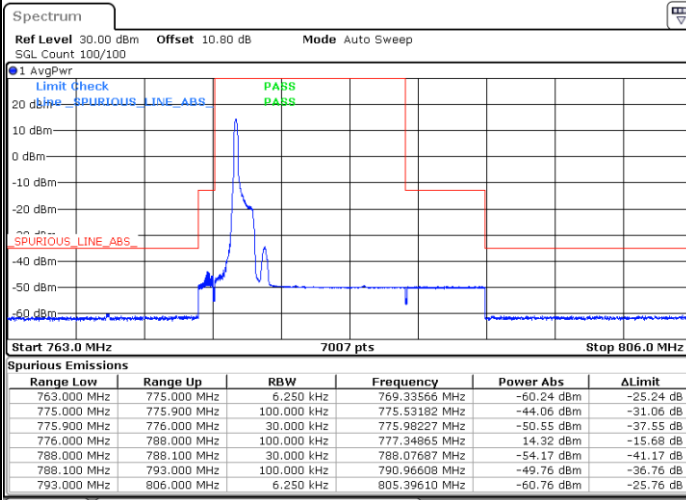
Date: 18.JUL.2020 15:38:53



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

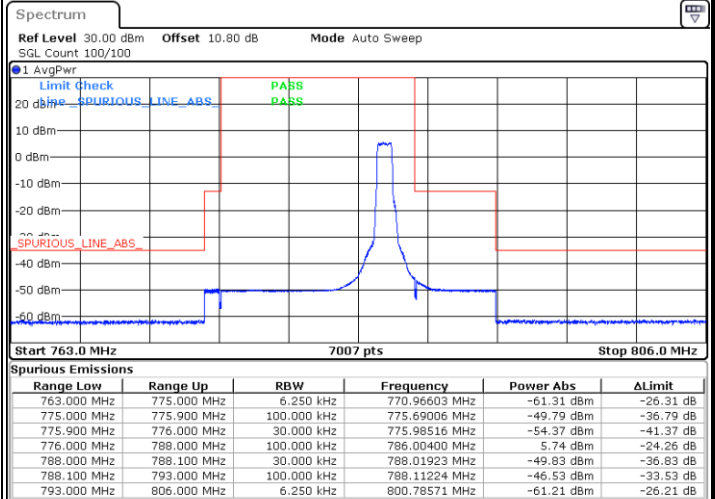
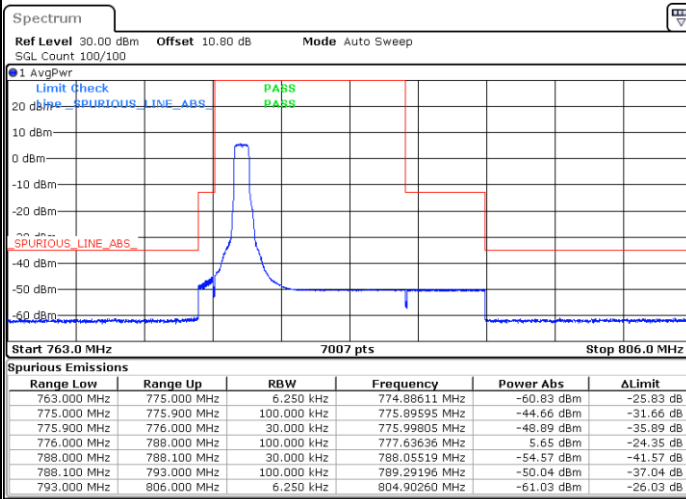


Date: 18.JUL.2020 15:10:03

Date: 18.JUL.2020 15:45:53

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



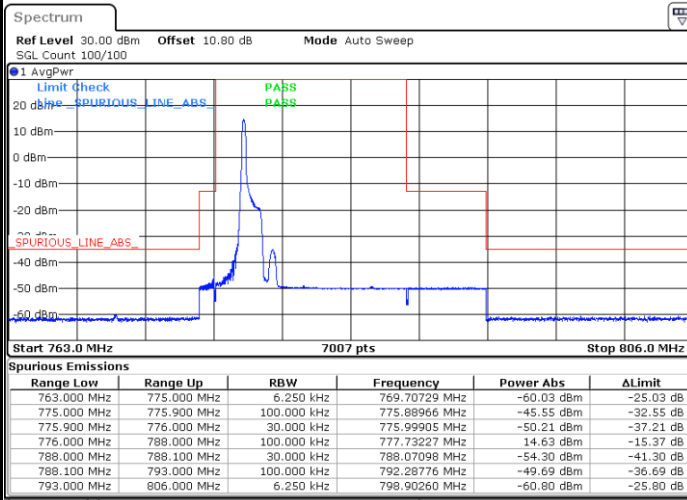
Date: 21.JUL.2020 13:46:38

Date: 21.JUL.2020 13:51:17



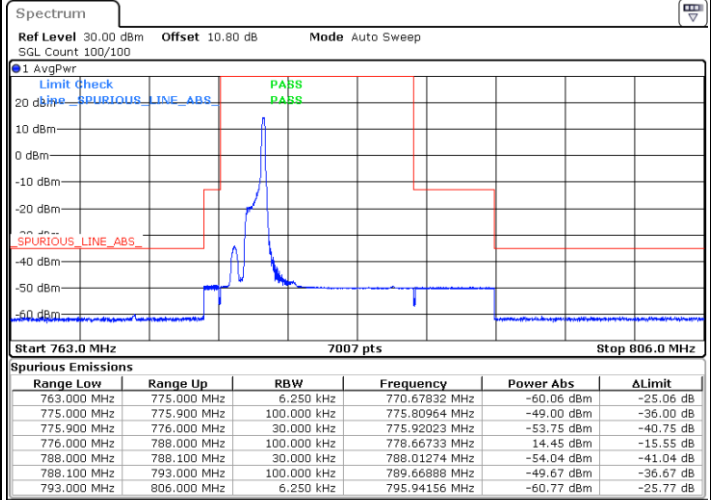
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



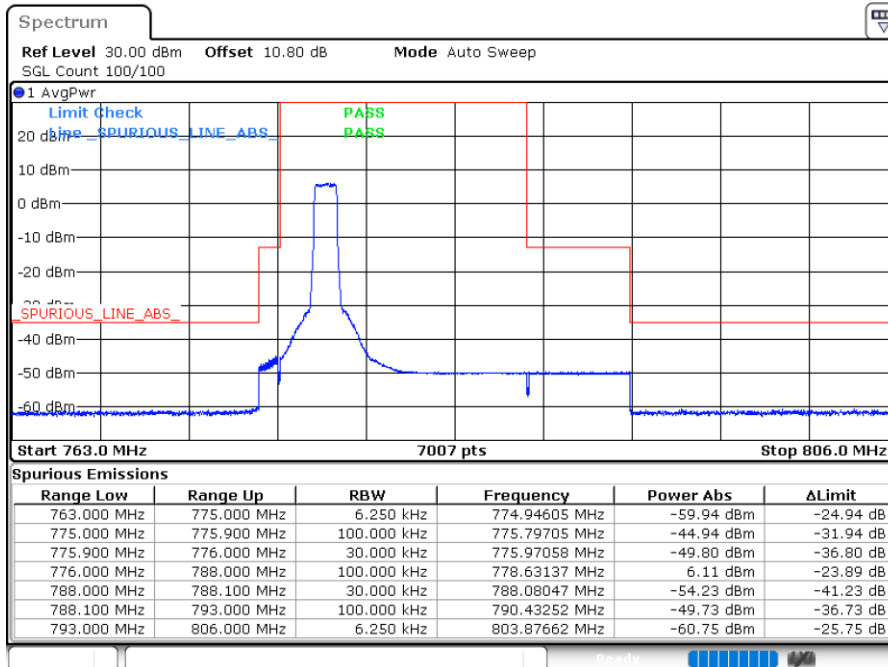
Date: 18.JUL.2020 15:53:04

Highest Band Edge / 1 RB



Date: 18.JUL.2020 15:56:41

Band Edge / Full RB



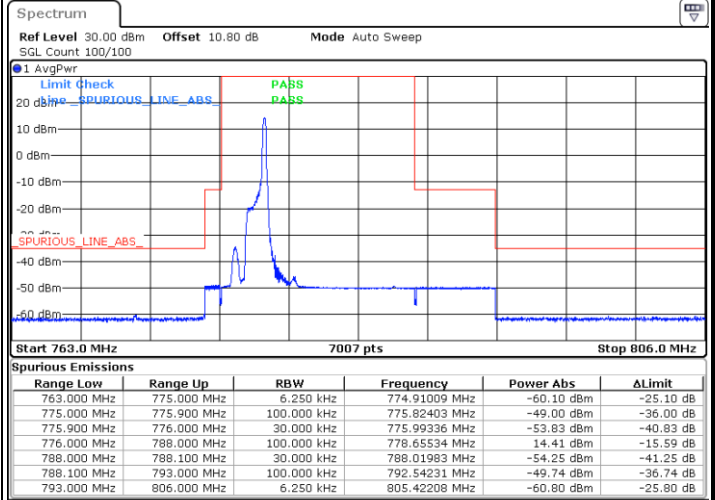
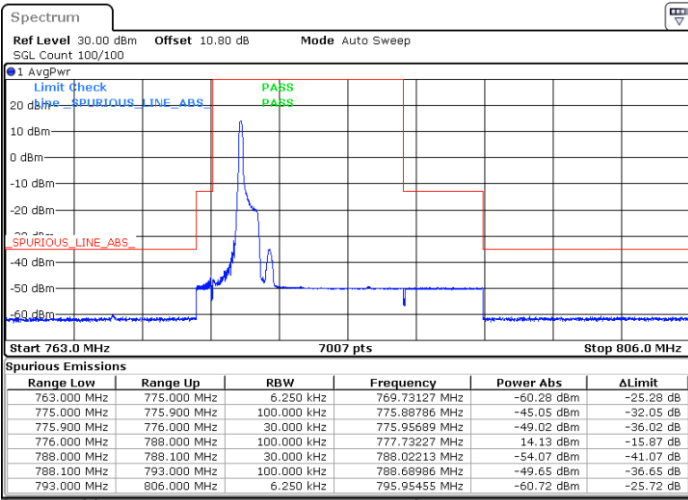
Date: 18.JUL.2020 15:49:57



LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

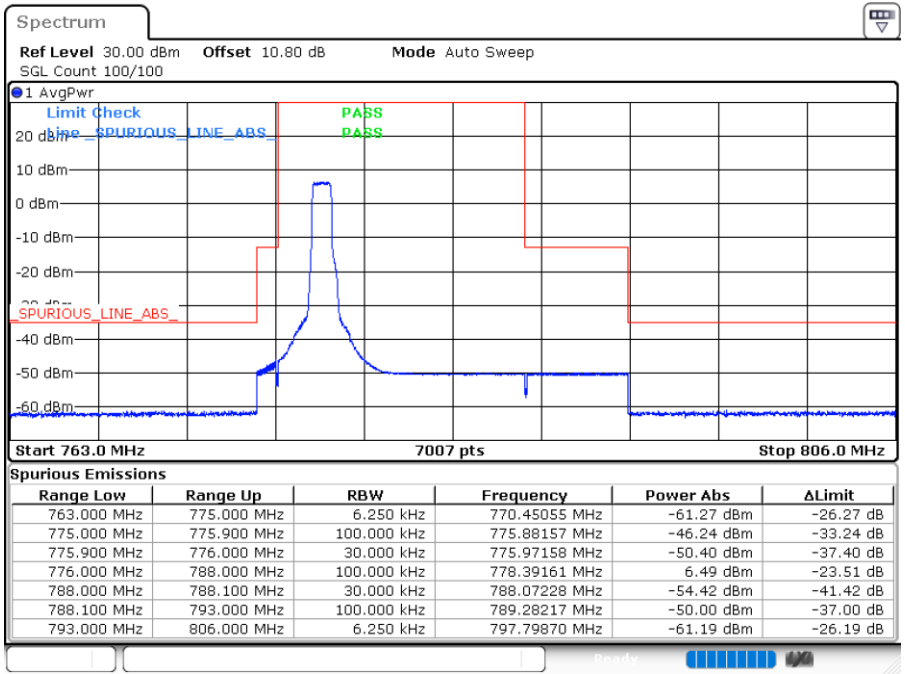
Highest Band Edge / 1 RB



Date: 18.JUL.2020 15:59:02

Date: 18.JUL.2020 16:02:29

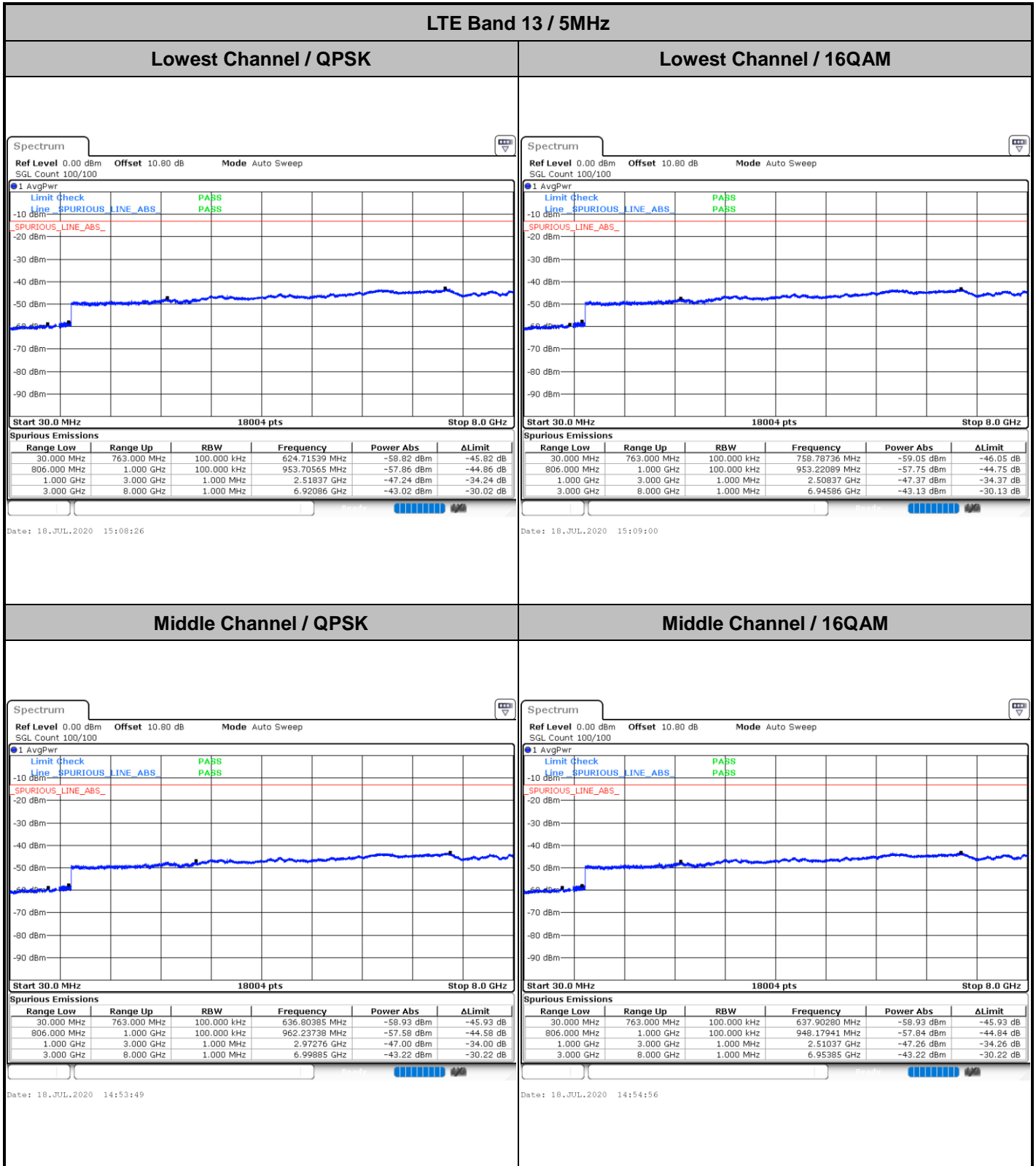
Band Edge / Full RB



Date: 21.JUL.2020 11:43:33



Conducted Spurious Emission

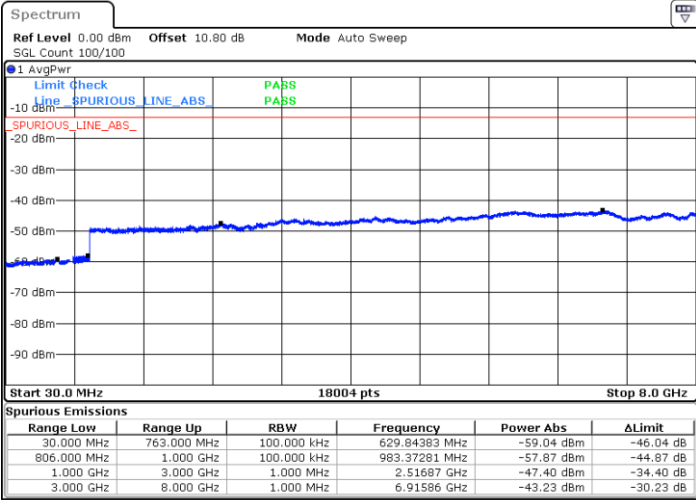




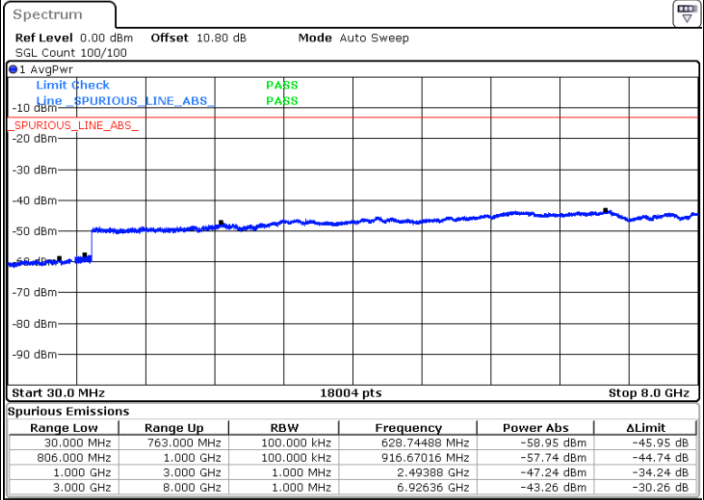
LTE Band 13 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 18.JUL.2020 15:40:43

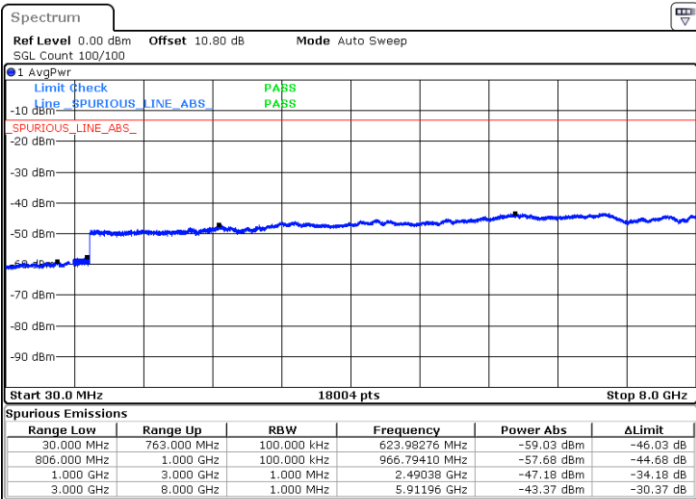


Date: 18.JUL.2020 15:44:22

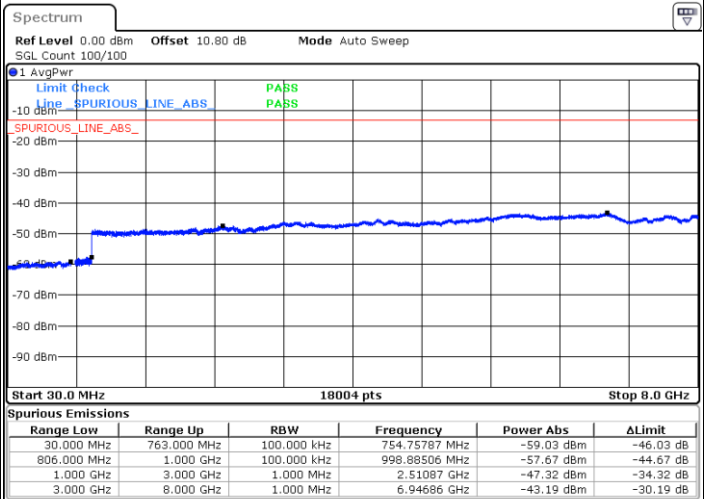
LTE Band 13 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 18.JUL.2020 15:51:44



Date: 18.JUL.2020 15:57:51



Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0008	PASS
40	Normal Voltage	0.0031	
30	Normal Voltage	0.0020	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0130	
0	Normal Voltage	0.0137	
-10	Normal Voltage	0.0125	
-20	Normal Voltage	0.0035	
-30	Normal Voltage	0.0146	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0125	

Note:

- 1. Normal Voltage =3.6 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =3.7 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 17

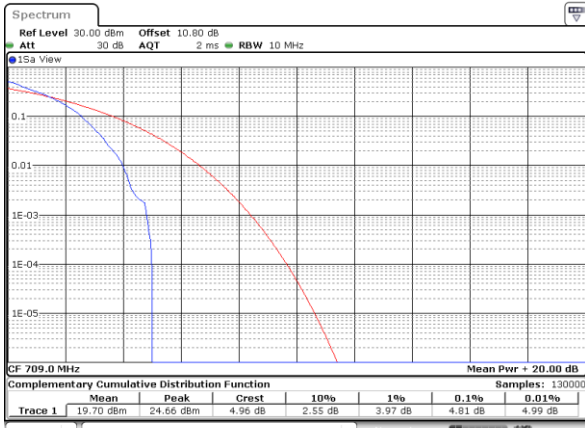
Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.81	8.52	8.35	5.88	PASS
Middle CH	4.49	5.51	8.38	8.43	
Highest CH	4.14	6.32	7.39	8.72	



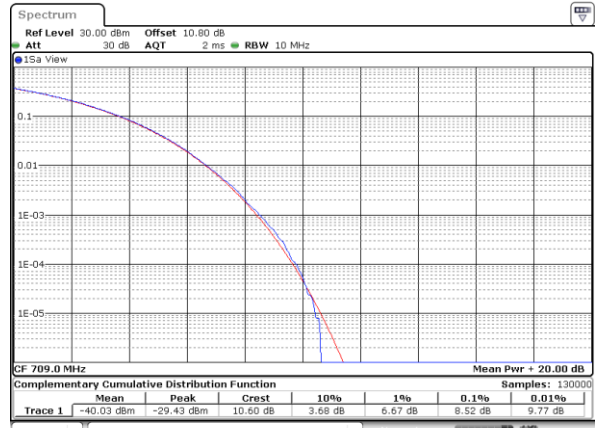
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



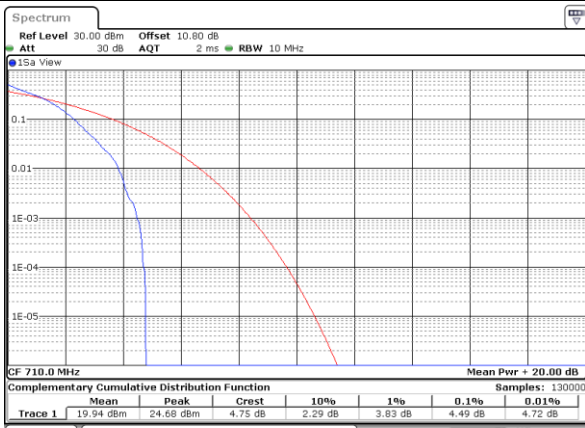
Date: 18_JUL_2020 16:32:44

Lowest Channel / Full RB



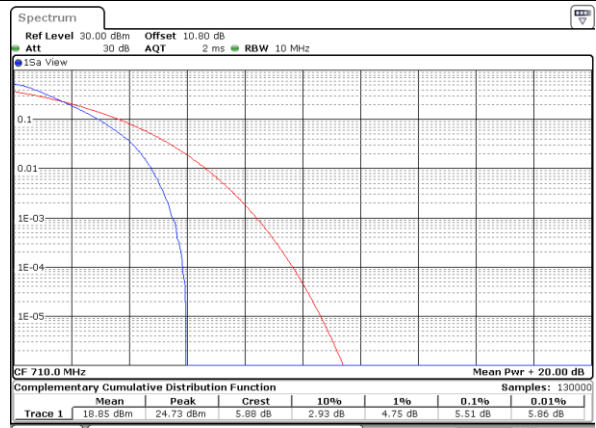
Date: 18_JUL_2020 16:31:42

Middle Channel/ 1RB



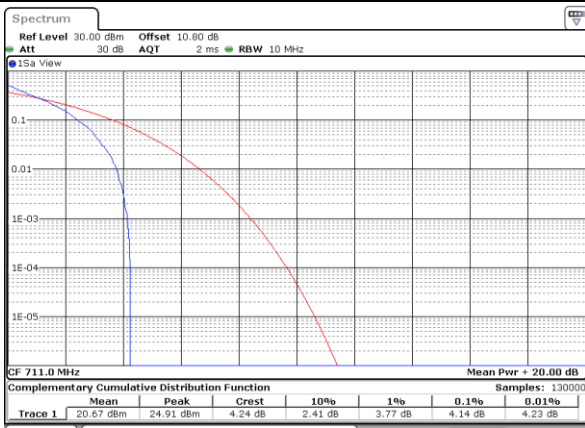
Date: 18_JUL_2020 16:30:11

Middle Channel / Full RB



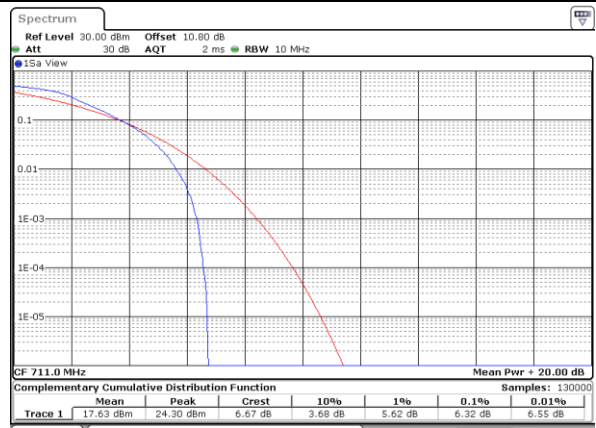
Date: 18_JUL_2020 16:30:53

Highest Channel/ 1RB



Date: 18_JUL_2020 16:42:46

Highest Channel / Full RB

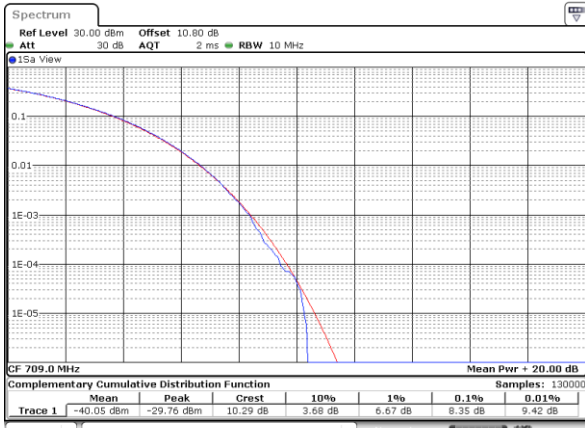


Date: 18_JUL_2020 16:41:23



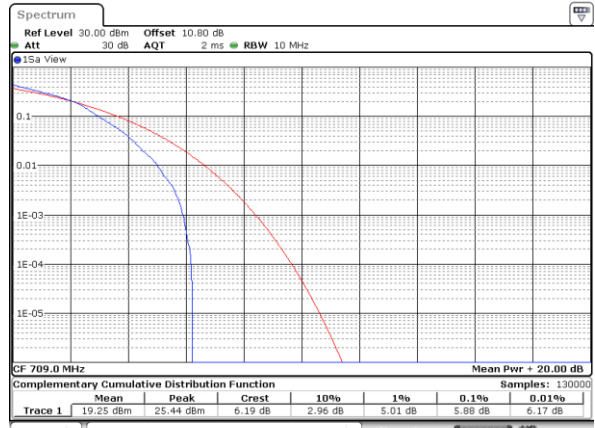
LTE Band 17 / 10MHz / 16QAM

Lowest Channel / 1RB



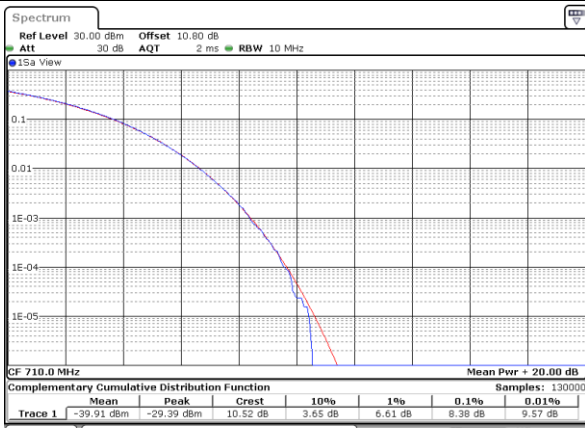
Date: 18_JUL.2020 16:34:24

Lowest Channel / Full RB



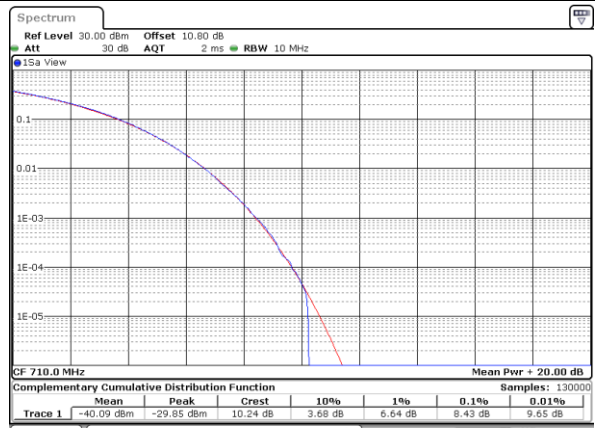
Date: 21_JUL.2020 13:59:57

Middle Channel/ 1RB



Date: 18_JUL.2020 16:28:28

Middle Channel / Full RB



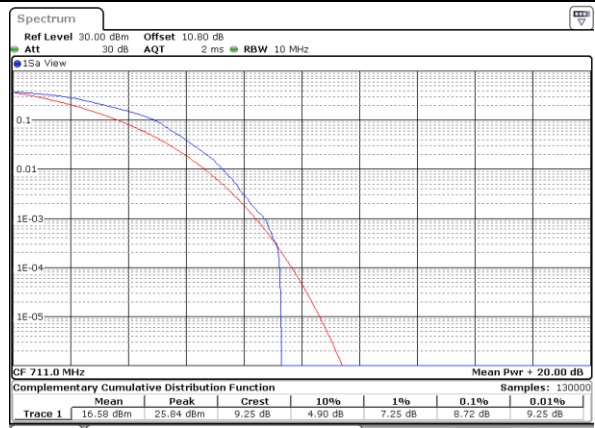
Date: 21_JUL.2020 13:58:22

Highest Channel/ 1RB



Date: 18_JUL.2020 16:45:01

Highest Channel / Full RB



Date: 21_JUL.2020 14:01:04



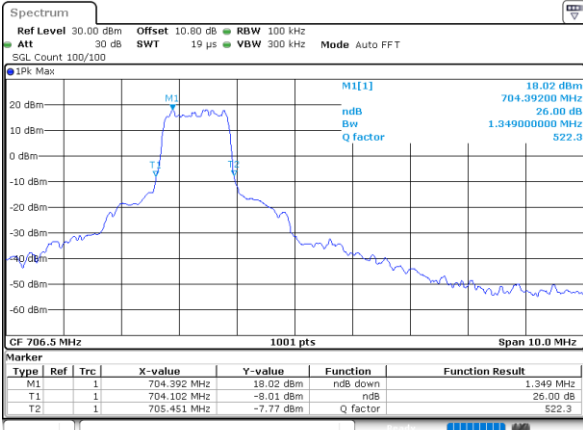
26dB Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	1.35	1.33	1.76	1.70	-	-	-	-
Middle CH	-	-	-	-	1.33	1.35	1.80	1.74	-	-	-	-
Highest CH	-	-	-	-	1.40	1.33	1.80	1.76	-	-	-	-



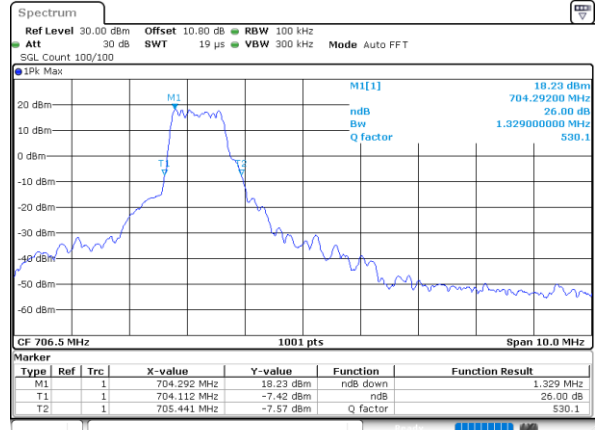
LTE Band 17

Lowest Channel / 5MHz / QPSK



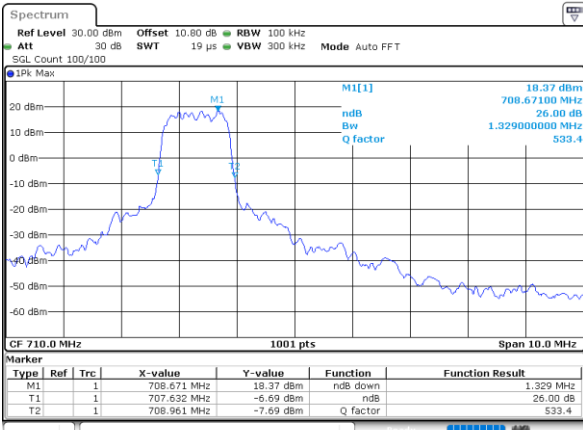
Date: 18_JUL_2020 16:13:42

Lowest Channel / 5MHz / 16QAM



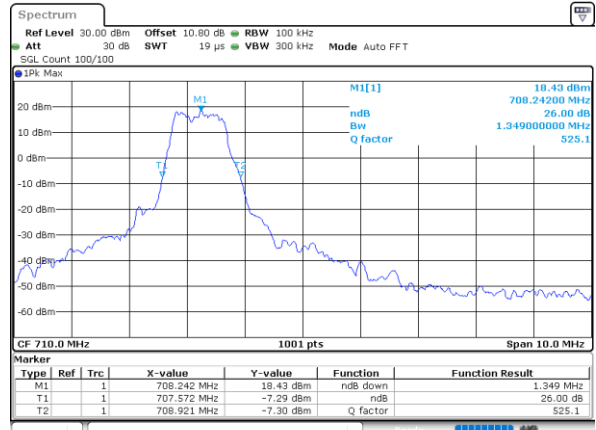
Date: 21_JUL_2020 13:53:28

Middle Channel / 5MHz / QPSK



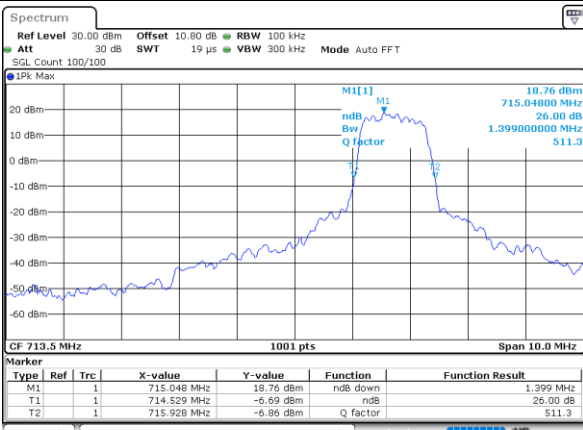
Date: 18_JUL_2020 16:07:19

Middle Channel / 5MHz / 16QAM



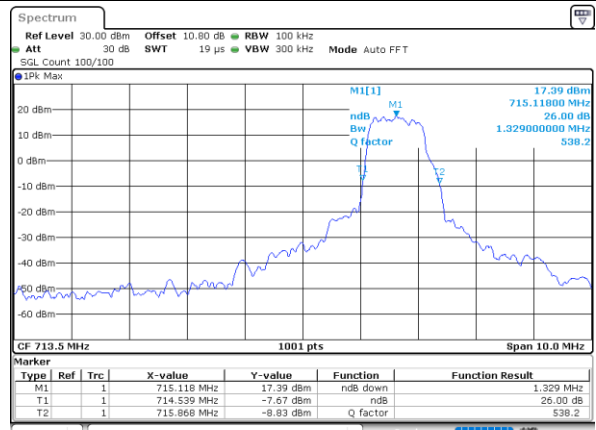
Date: 21_JUL_2020 13:53:04

Highest Channel / 5MHz / QPSK



Date: 18_JUL_2020 16:19:57

Highest Channel / 5MHz / 16QAM

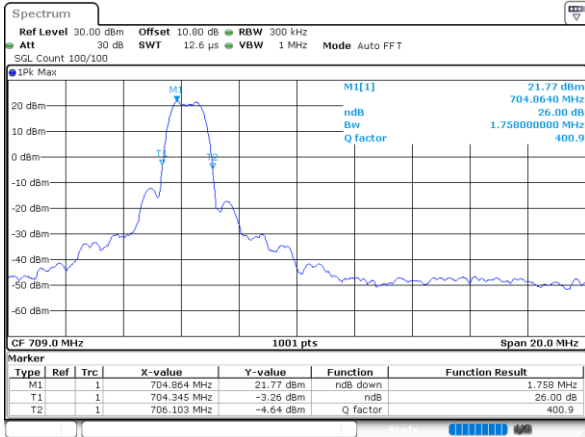


Date: 21_JUL_2020 13:54:37



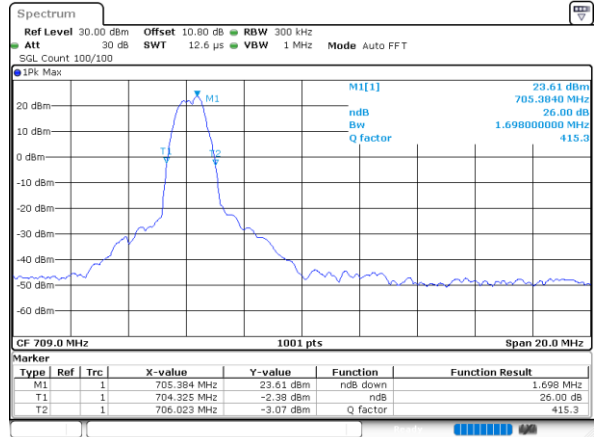
LTE Band 17

Lowest Channel / 10MHz / QPSK



Date: 19_JUL_2020 16:31:21

Lowest Channel / 10MHz / 16QAM



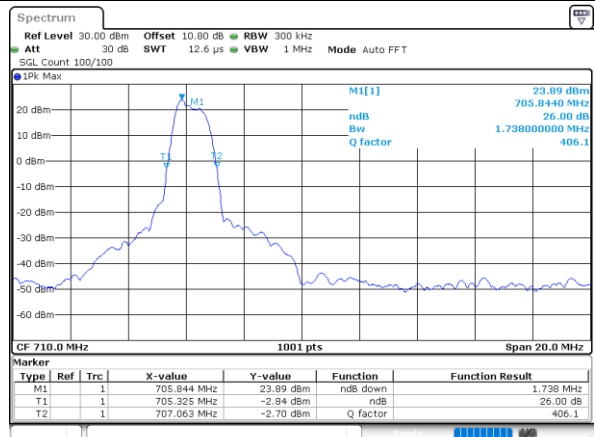
Date: 21_JUL_2020 13:58:57

Middle Channel / 10MHz / QPSK



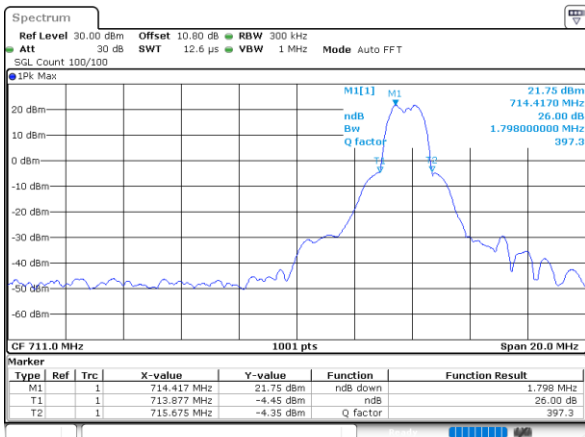
Date: 19_JUL_2020 16:26:04

Middle Channel / 10MHz / 16QAM



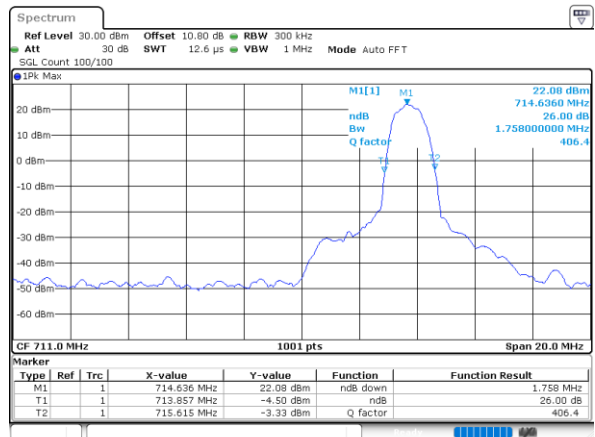
Date: 21_JUL_2020 13:58:11

Highest Channel / 10MHz / QPSK



Date: 19_JUL_2020 16:41:12

Highest Channel / 10MHz / 16QAM



Date: 21_JUL_2020 14:00:53



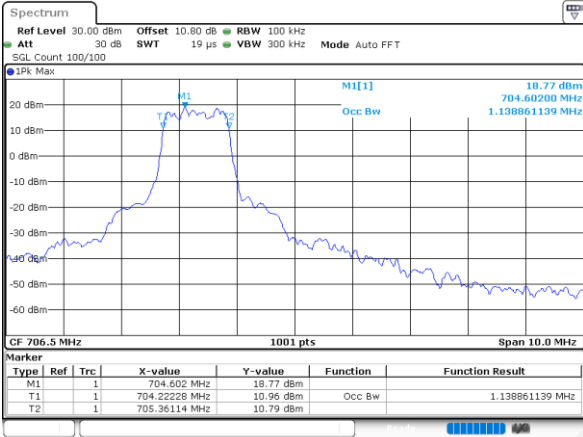
Occupied Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	1.14	1.02	1.48	1.32	-	-	-	-
Middle CH	-	-	-	-	1.22	1.13	1.50	1.28	-	-	-	-
Highest CH	-	-	-	-	1.18	1.06	1.46	1.32	-	-	-	-



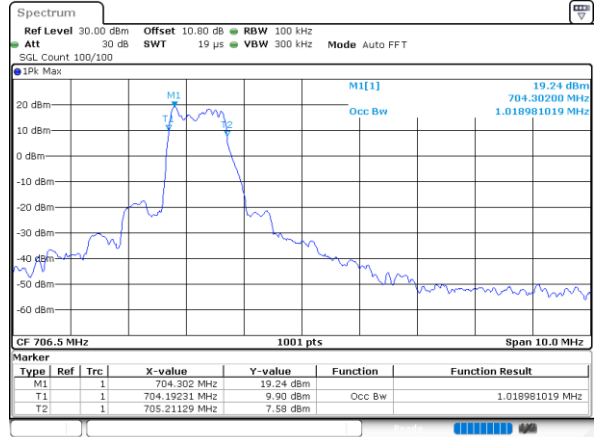
LTE Band 17

Lowest Channel / 5MHz / QPSK



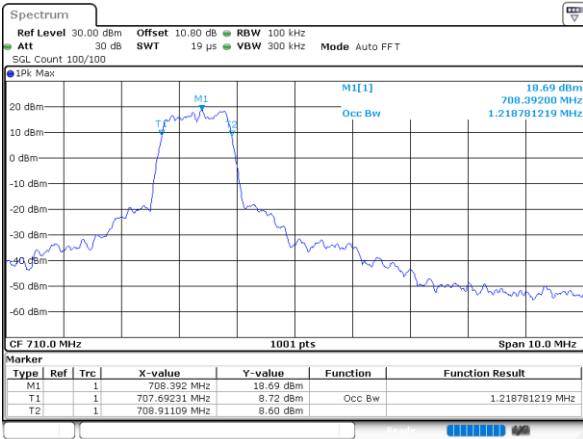
Date: 18_JUL_2020 16:13:30

Lowest Channel / 5MHz / 16QAM



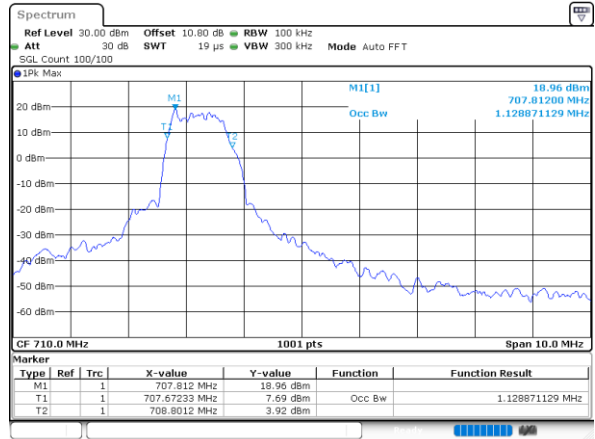
Date: 21_JUL_2020 13:53:22

Middle Channel / 5MHz / QPSK



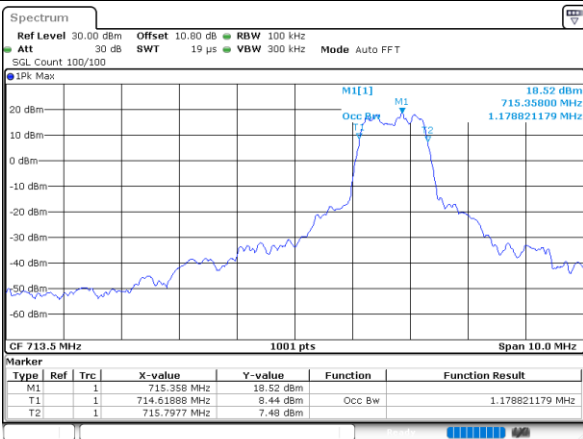
Date: 18_JUL_2020 16:07:13

Middle Channel / 5MHz / 16QAM



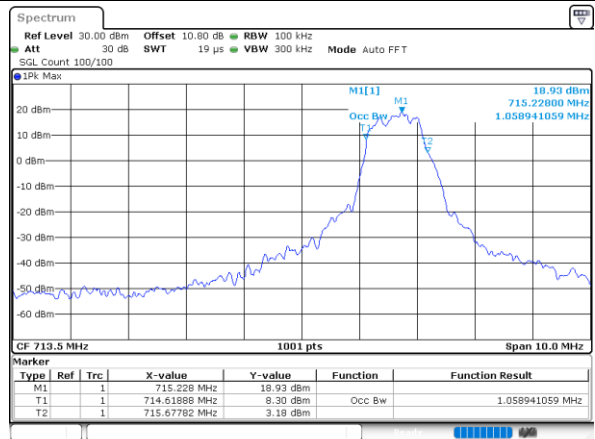
Date: 21_JUL_2020 13:52:35

Highest Channel / 5MHz / QPSK



Date: 18_JUL_2020 16:19:50

Highest Channel / 5MHz / 16QAM

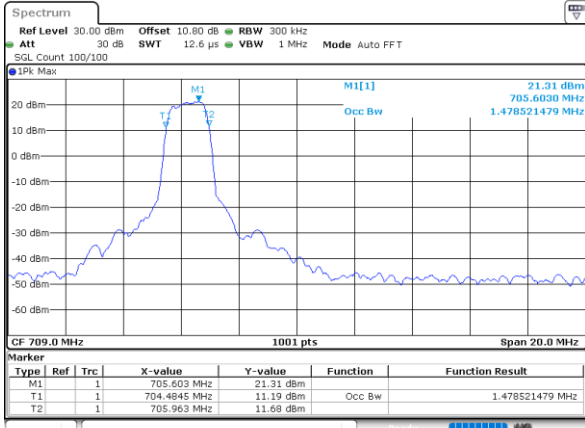


Date: 21_JUL_2020 13:54:31



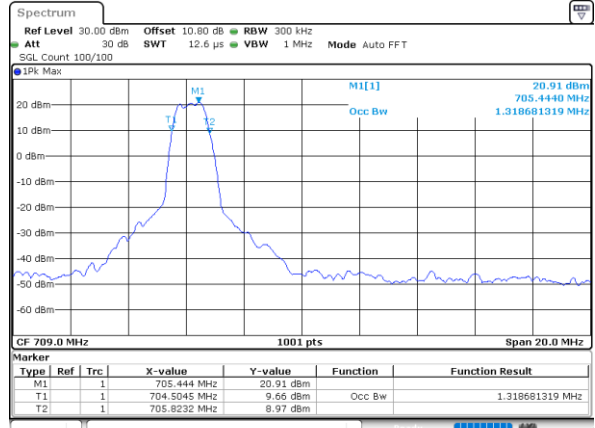
LTE Band 17

Lowest Channel / 10MHz / QPSK



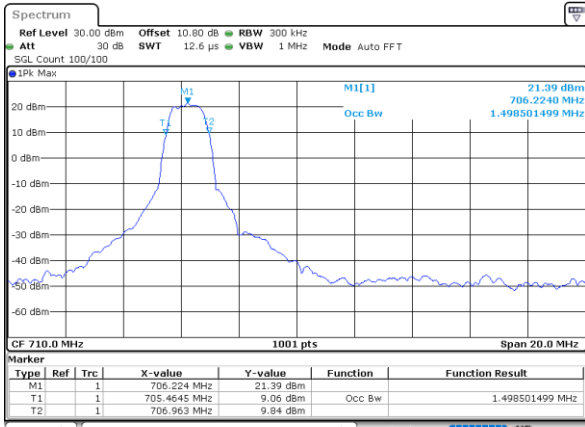
Date: 18_JUL.2020 16:31:15

Lowest Channel / 10MHz / 16QAM



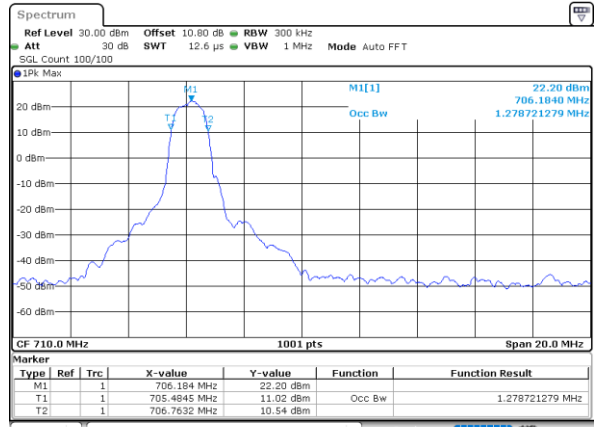
Date: 21_JUL.2020 13:58:50

Middle Channel / 10MHz / QPSK



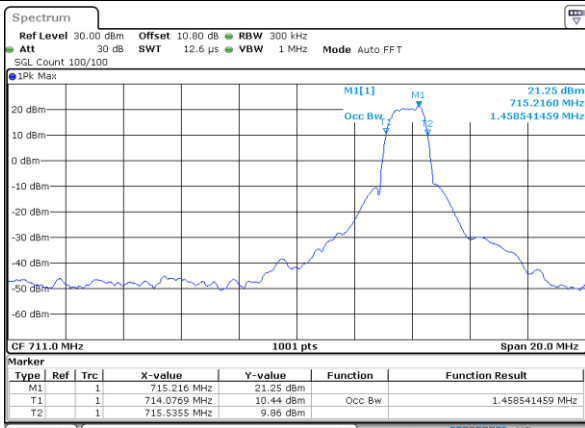
Date: 18_JUL.2020 16:25:54

Middle Channel / 10MHz / 16QAM



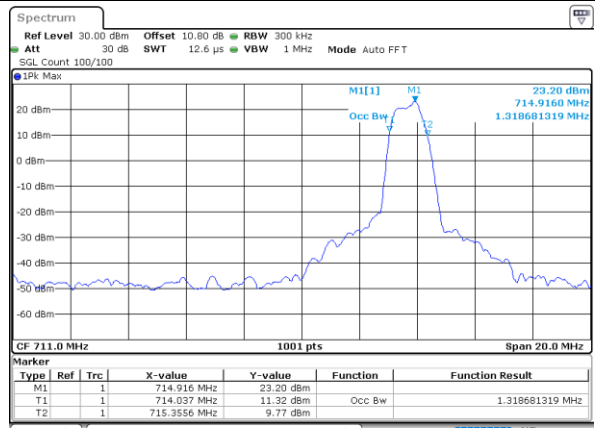
Date: 21_JUL.2020 13:58:04

Highest Channel / 10MHz / QPSK



Date: 18_JUL.2020 16:41:07

Highest Channel / 10MHz / 16QAM



Date: 21_JUL.2020 14:00:46



Conducted Band Edge

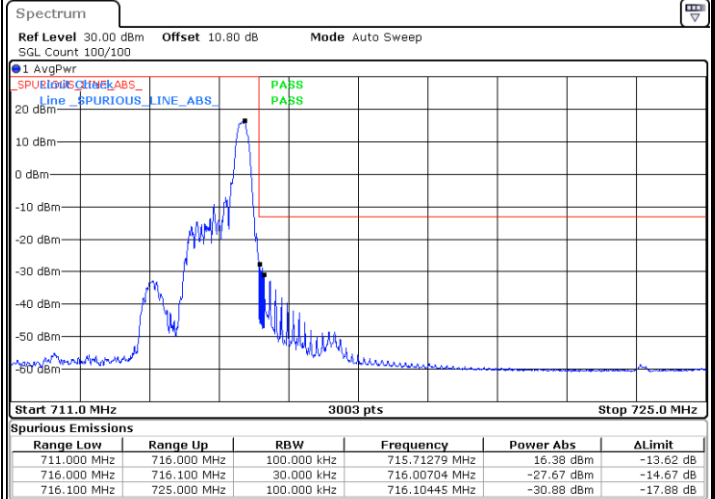
LTE Band 17 / 5MHz / QPSK

Lowest Band Edge / 1 RB



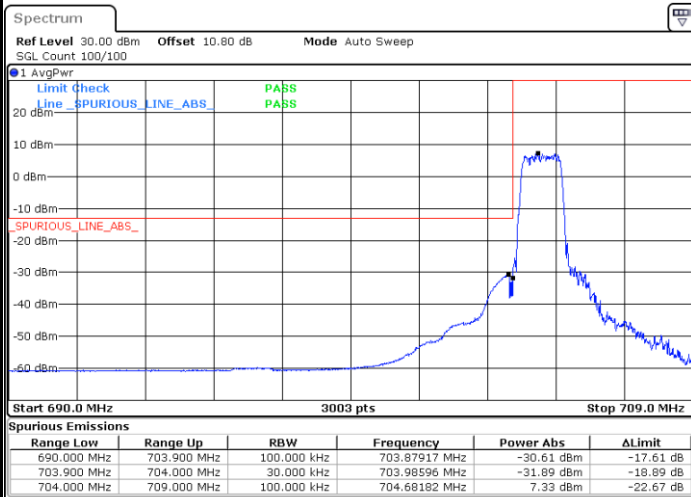
Date: 18.JUL.2020 16:16:57

Highest Band Edge / 1 RB



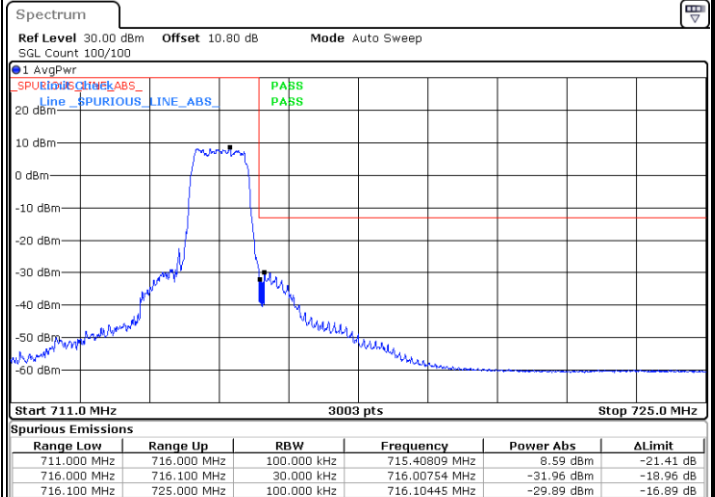
Date: 18.JUL.2020 16:22:12

Lowest Band Edge / Full RB



Date: 18.JUL.2020 16:16:06

Highest Band Edge / Full RB



Date: 18.JUL.2020 16:20:47