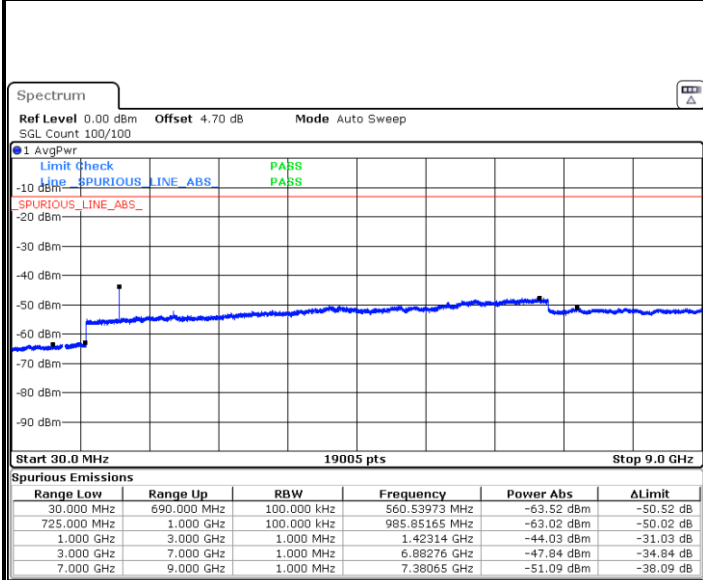




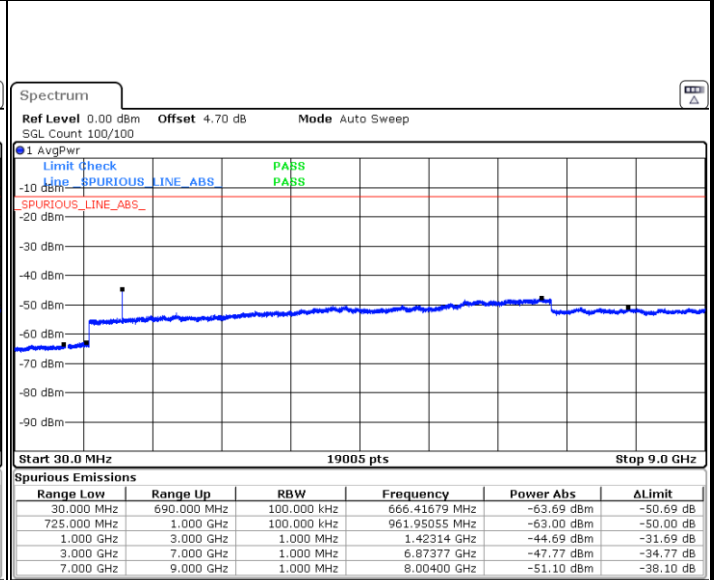
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 28.AUG.2020 17:53:40

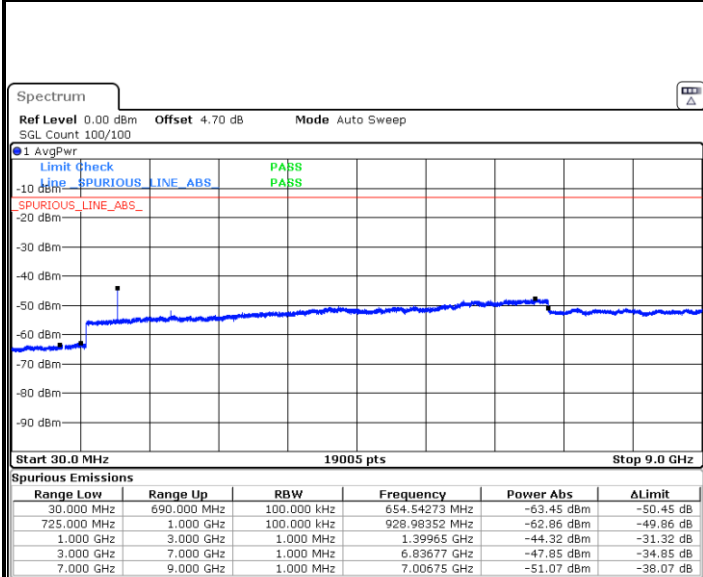
Highest Channel / 16QAM



Date: 28.AUG.2020 17:54:37

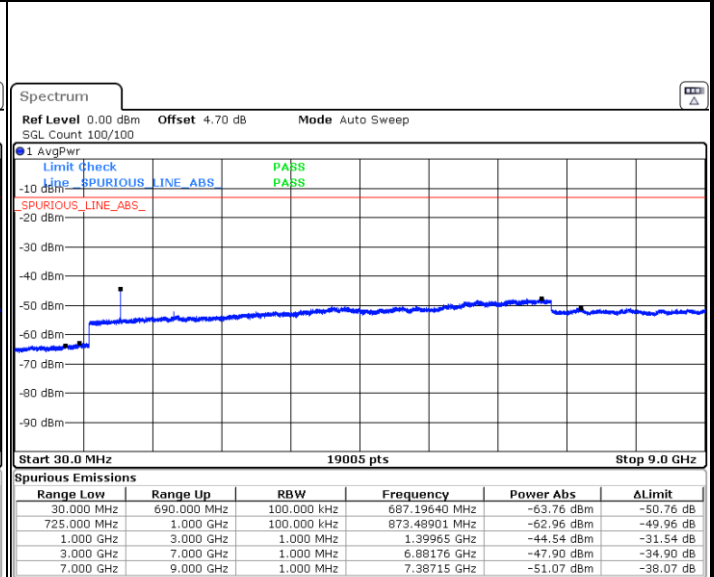
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 28.AUG.2020 18:38:04

Lowest Channel / 16QAM

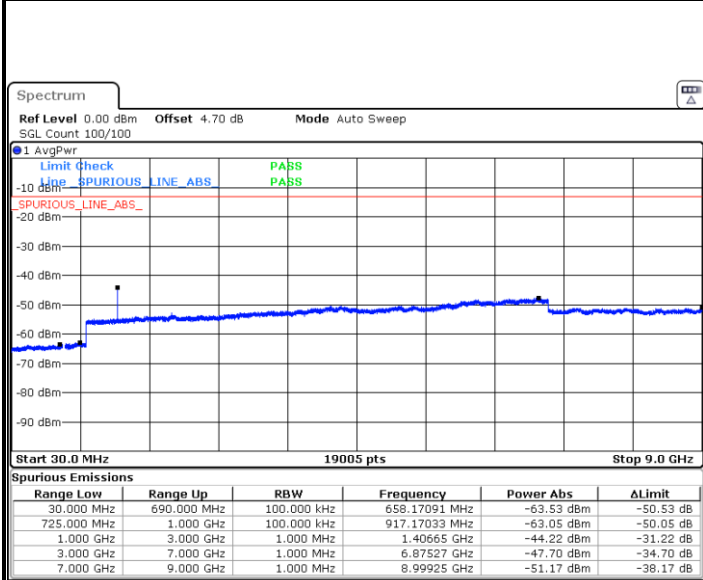


Date: 28.AUG.2020 18:39:01



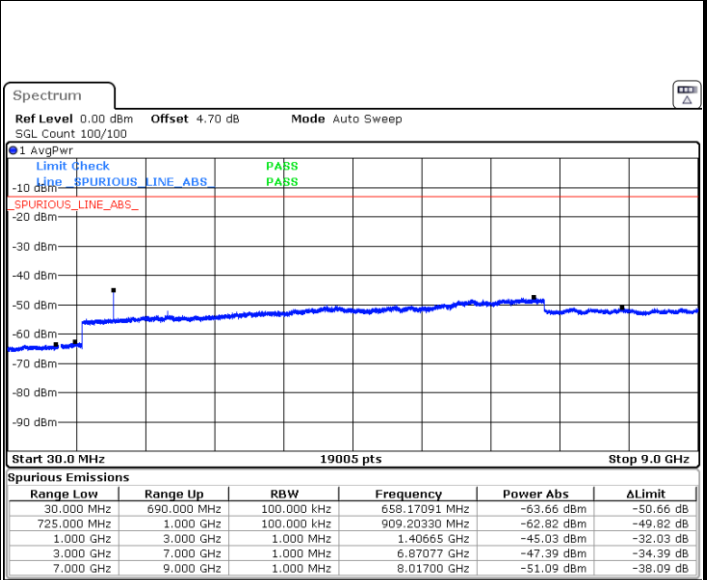
LTE Band 12 / 10MHz

Middle Channel / QPSK



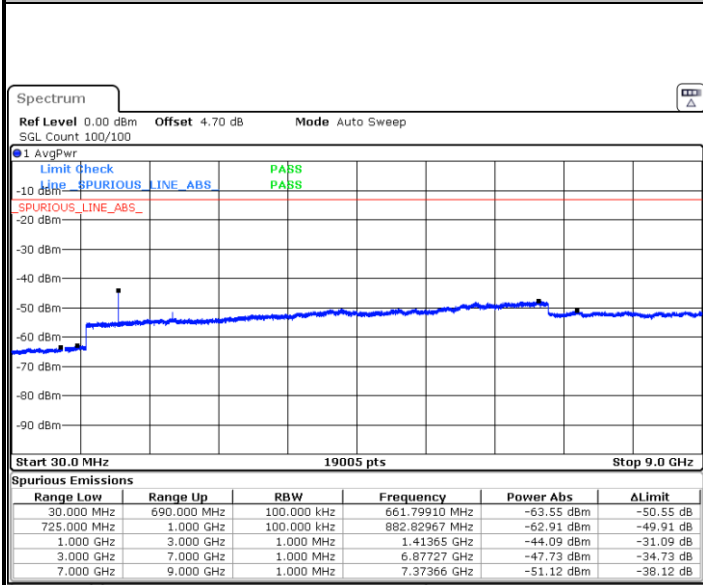
Date: 28.AUG.2020 18:40:54

Middle Channel / 16QAM



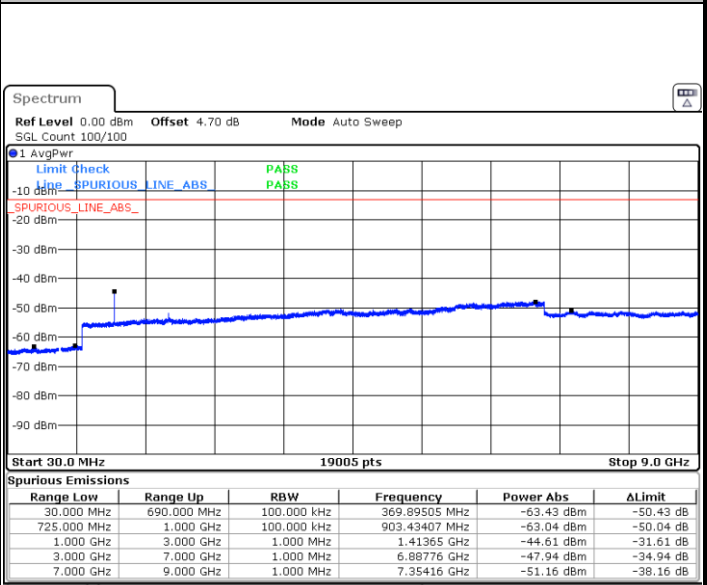
Date: 28.AUG.2020 18:39:58

Highest Channel / QPSK



Date: 28.AUG.2020 18:41:50

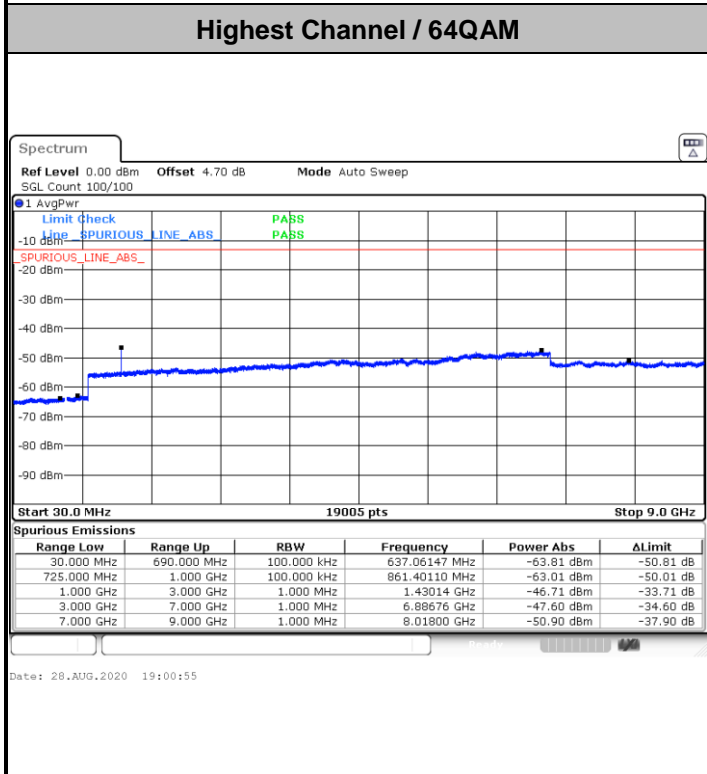
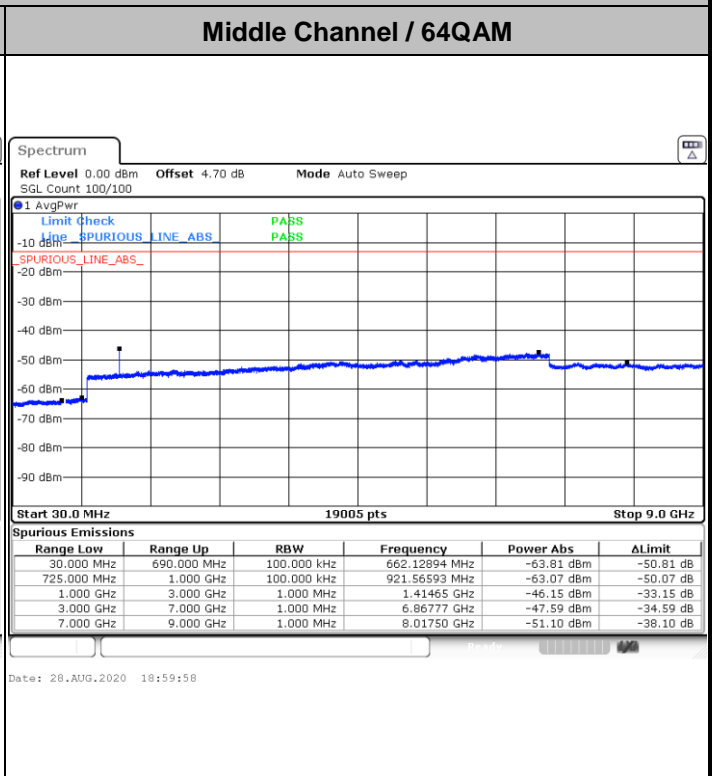
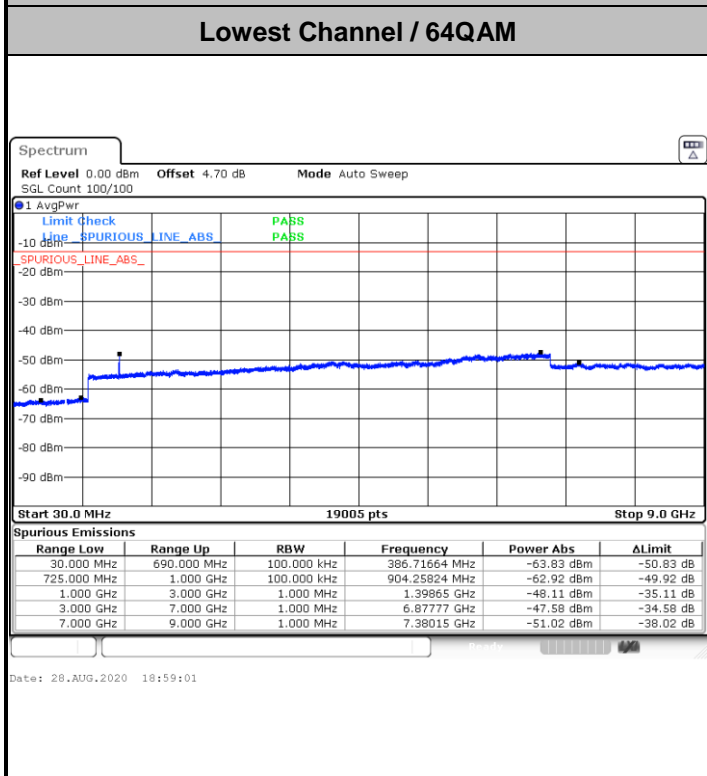
Highest Channel / 16QAM



Date: 28.AUG.2020 18:42:47



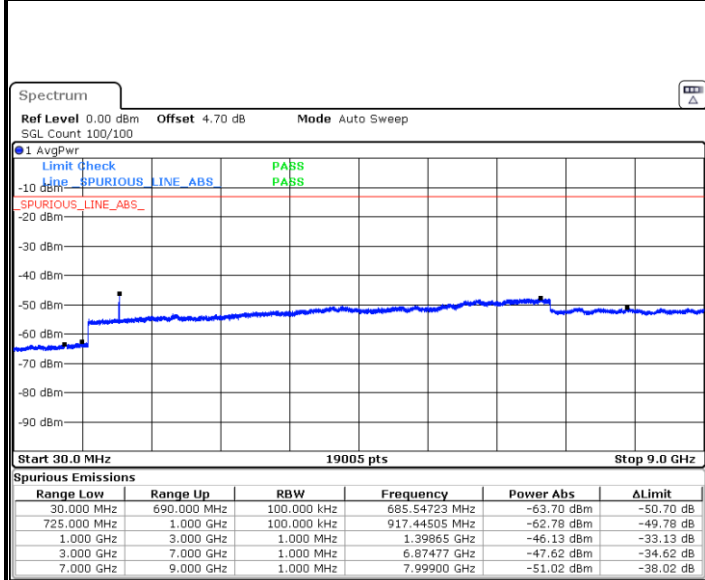
LTE Band 12 / 1.4MHz





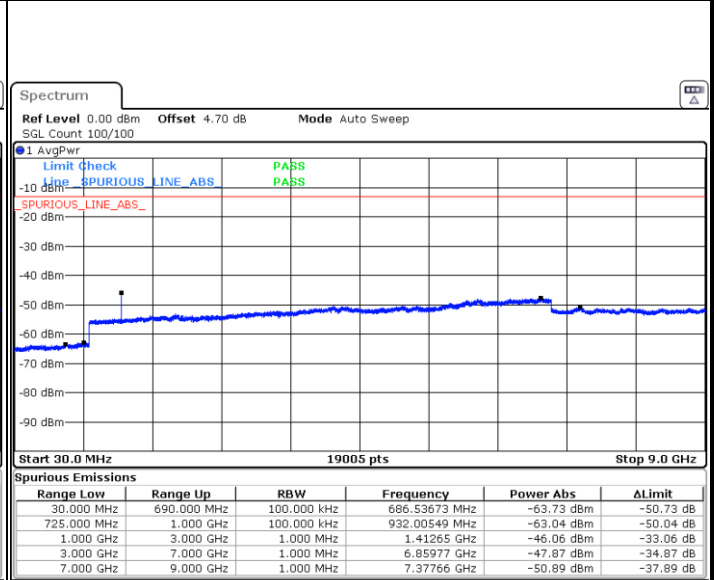
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



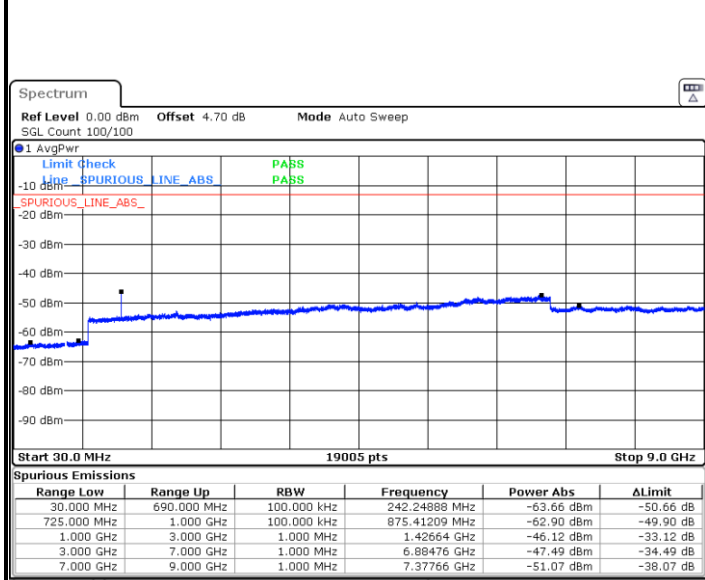
Date: 28.AUG.2020 19:02:15

Middle Channel / 64QAM



Date: 28.AUG.2020 19:03:12

Highest Channel / 64QAM



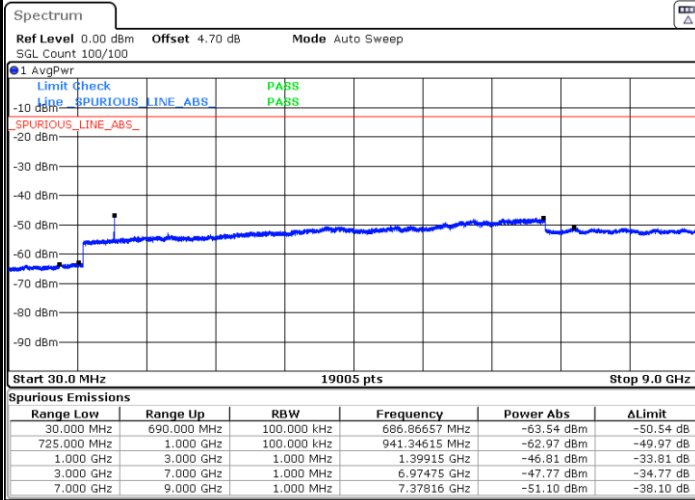
Date: 28.AUG.2020 19:04:08



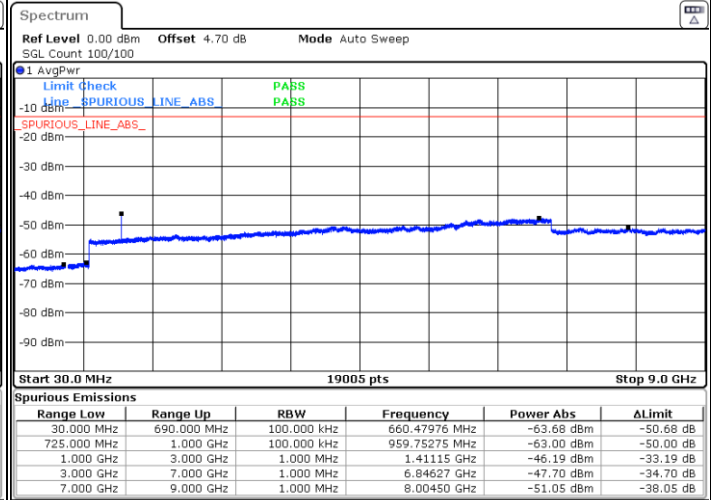
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

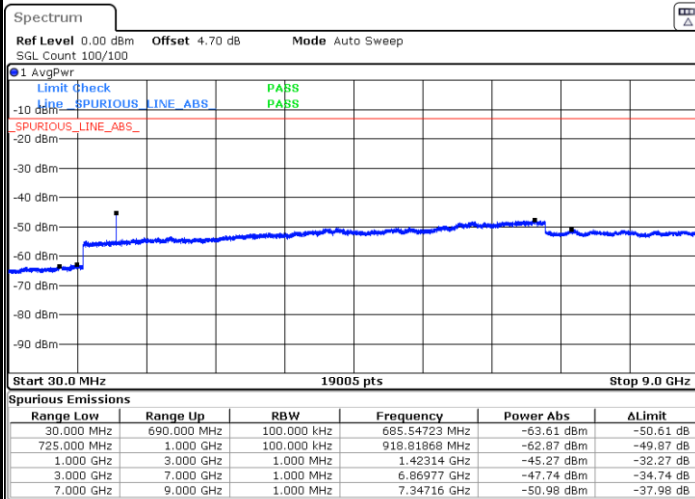


Date: 28.AUG.2020 19:16:30



Date: 28.AUG.2020 19:17:26

Highest Channel / 64QAM



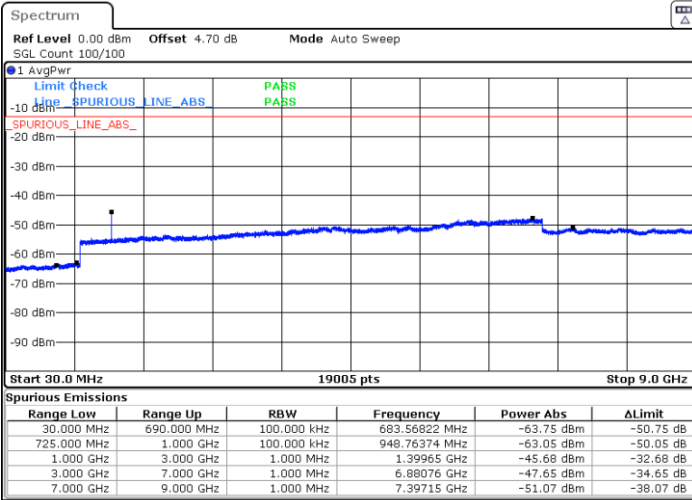
Date: 28.AUG.2020 19:18:23



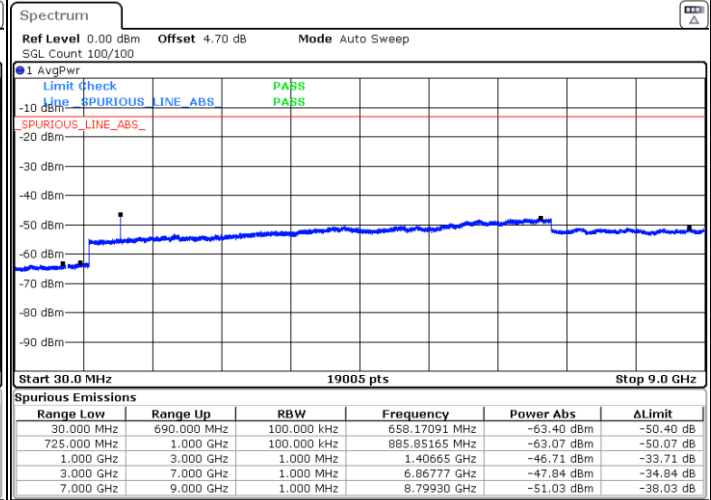
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

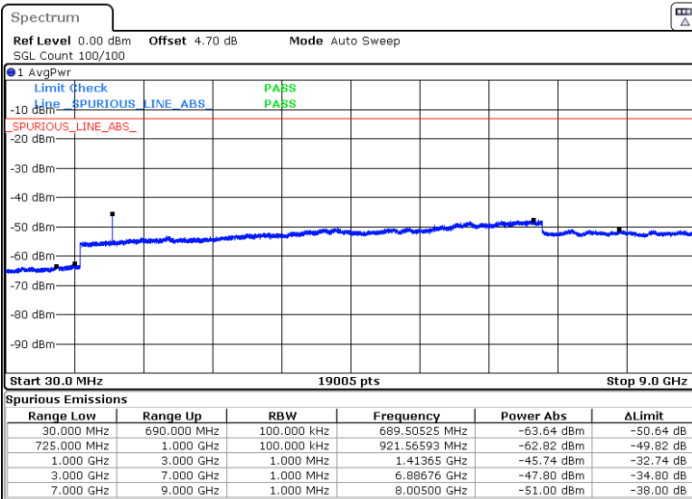


Date: 28.AUG.2020 19:20:27



Date: 28.AUG.2020 19:21:24

Highest Channel / 64QAM



Date: 28.AUG.2020 19:22:21



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	0.0006	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0085	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0099	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0071	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0102	

Note:

1. Normal Voltage = 3.8 V ; Battery End Point (BEP) = 3.4V. ; Maximum Voltage =4.4V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

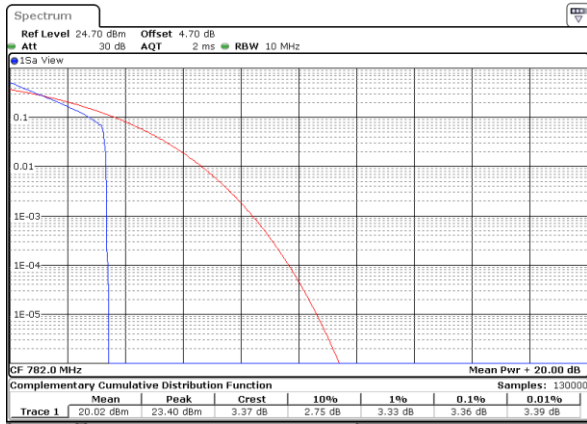
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.36	5.07	4.32	5.97	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.03	6.52	-	-	
Highest CH	-	-	-	-	



LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 30 AUG 2020 01:06:56

Middle Channel / Full RB



Date: 30 AUG 2020 01:07:26

LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 30 AUG 2020 01:07:07

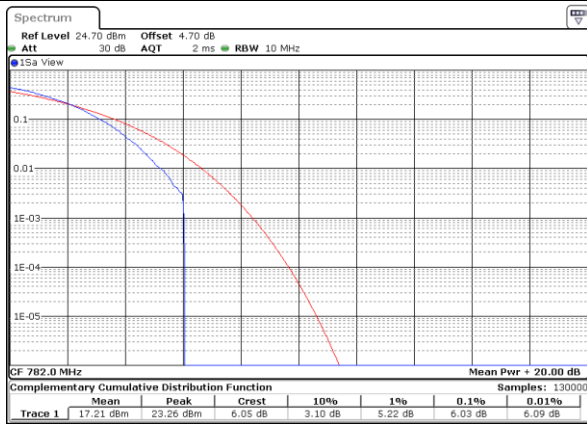
Middle Channel / Full RB



Date: 30 AUG 2020 01:07:17

LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 30 AUG 2020 01:35:29

Middle Channel / Full RB



Date: 30 AUG 2020 01:35:41



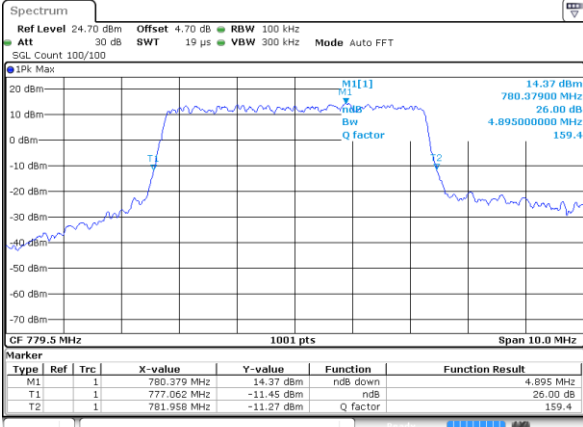
26dB Bandwidth

Mode	LTE Band 13 : 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	-	-	-	-	4.90	4.85	-	-	-	-	-	-
Middle CH	-	-	-	-	4.93	4.87	9.73	9.73	-	-	-	-
Highest CH	-	-	-	-	4.83	4.76	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.90	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.87	-	9.81	-	-	-	-	-
Highest CH	-	-	-	-	4.89	-	-	-	-	-	-	-



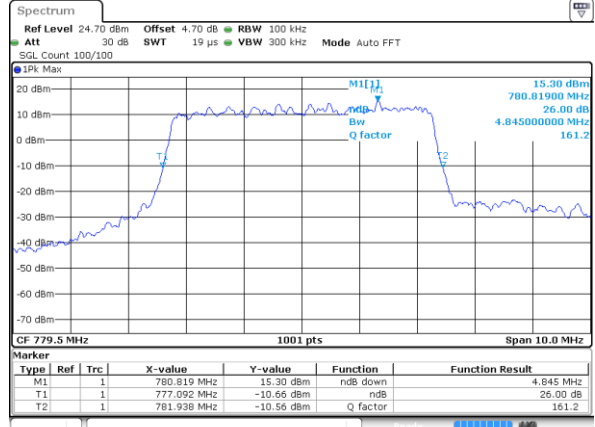
LTE Band 13

Lowest Channel / 5MHz / QPSK



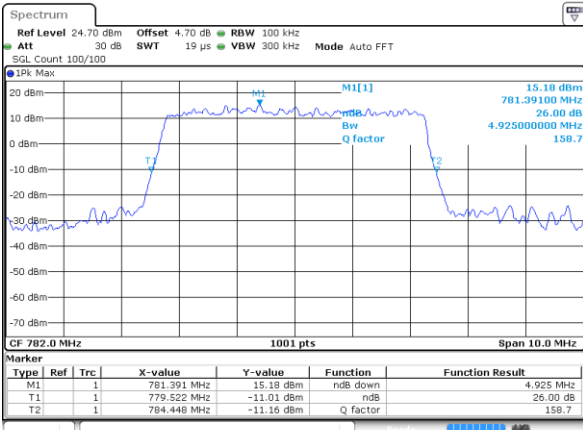
Date: 30 AUG 2020 00:15:28

Lowest Channel / 5MHz / 16QAM



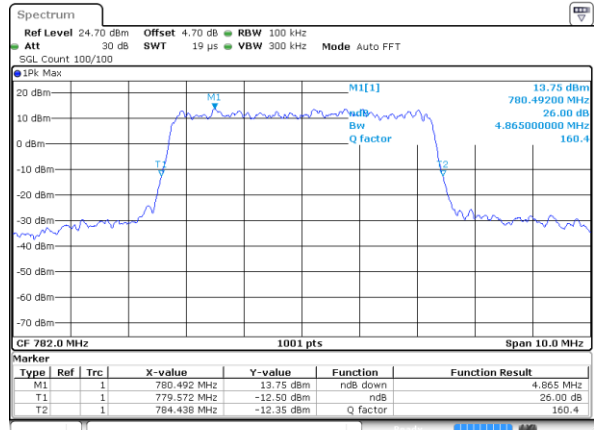
Date: 30 AUG 2020 00:15:38

Middle Channel / 5MHz / QPSK



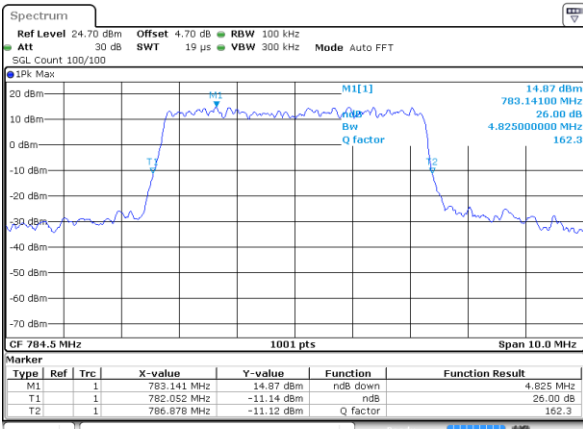
Date: 30 AUG 2020 00:26:28

Middle Channel / 5MHz / 16QAM



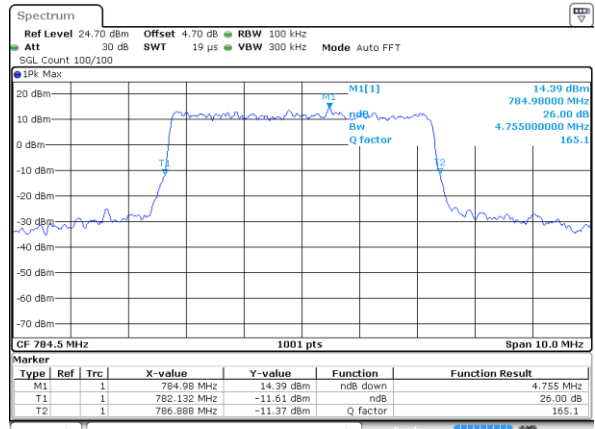
Date: 30 AUG 2020 00:26:38

Highest Channel / 5MHz / QPSK



Date: 30 AUG 2020 00:29:07

Highest Channel / 5MHz / 16QAM

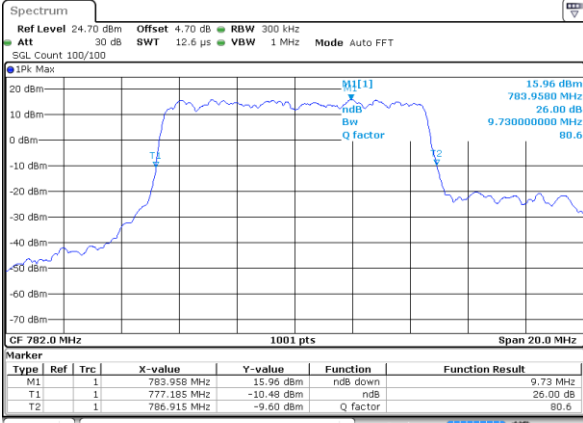


Date: 30 AUG 2020 00:28:57



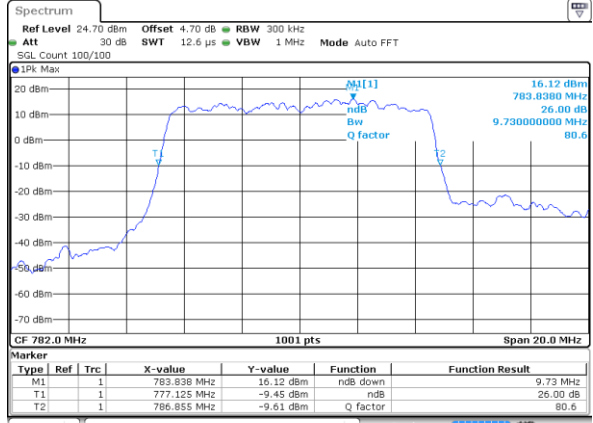
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 30 AUG 2020 00:51:28

Middle Channel / 10MHz / 16QAM

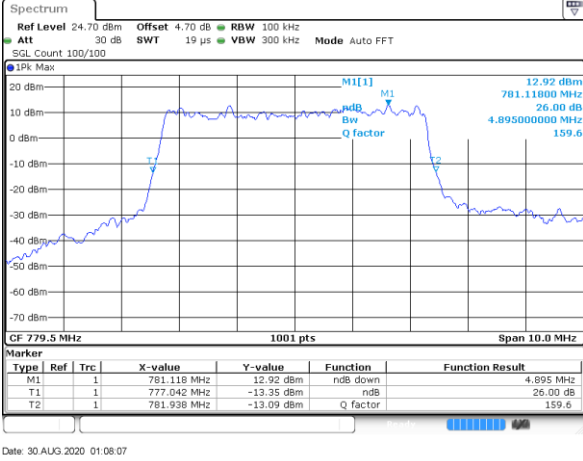


Date: 30 AUG 2020 00:51:16

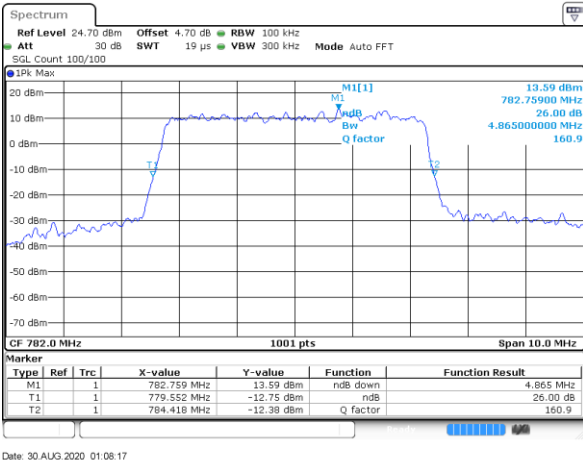


LTE Band 13

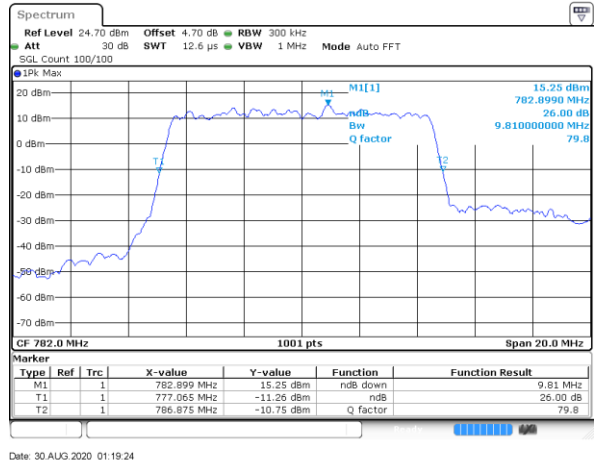
Lowest Channel / 5MHz / 64QAM



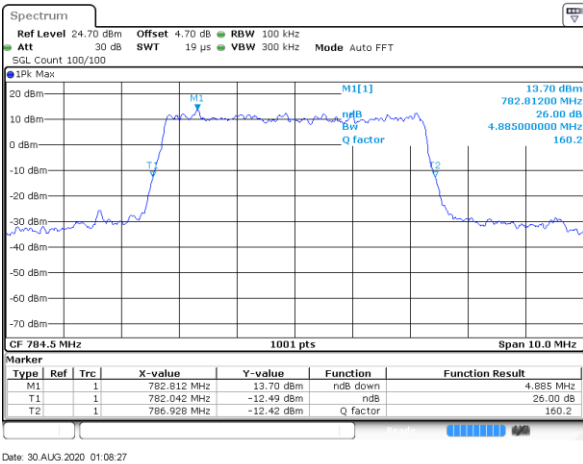
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM





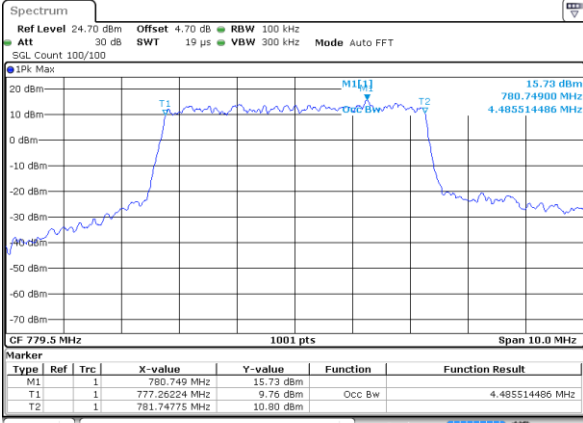
Occupied Bandwidth

Mode	LTE Band 13 : 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	-	-	-	-	4.49	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	4.48	9.07	8.99	-	-	-	-
Highest CH	-	-	-	-	4.50	4.50	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.51	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	-	8.93	-	-	-	-	-
Highest CH	-	-	-	-	4.51	-	-	-	-	-	-	-



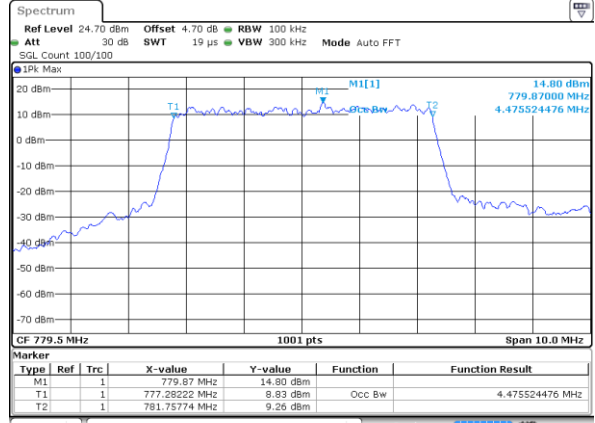
LTE Band 13

Lowest Channel / 5MHz / QPSK



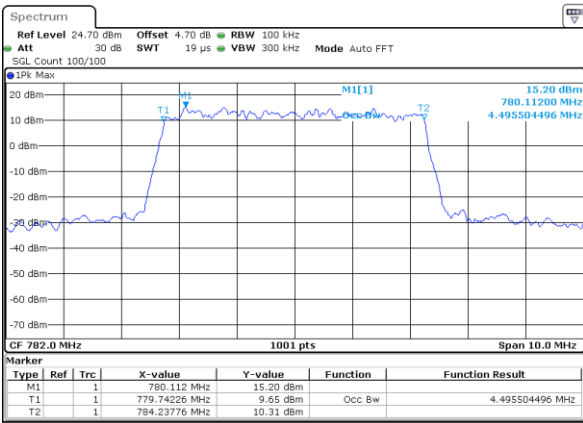
Date: 30 AUG 2020 00:15:58

Lowest Channel / 5MHz / 16QAM



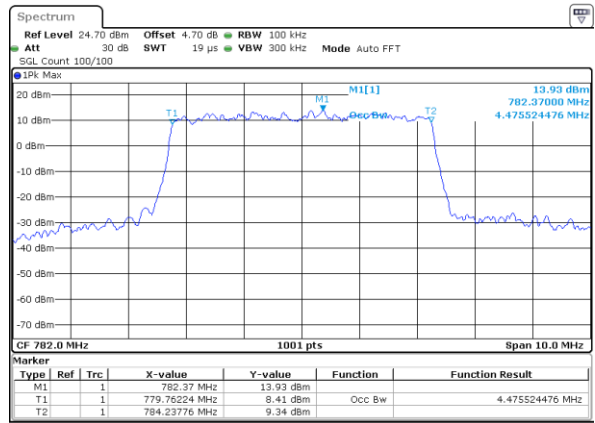
Date: 30 AUG 2020 00:15:48

Middle Channel / 5MHz / QPSK



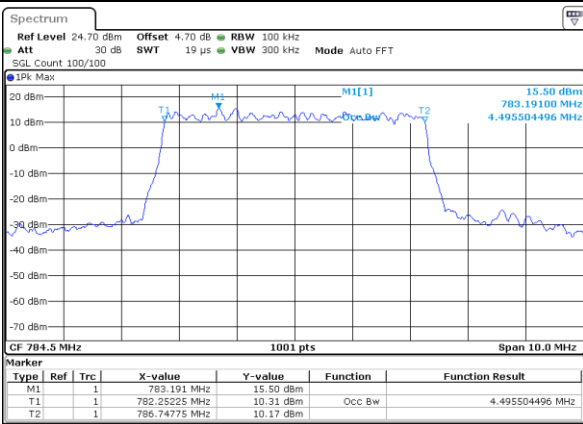
Date: 30 AUG 2020 00:26:48

Middle Channel / 5MHz / 16QAM



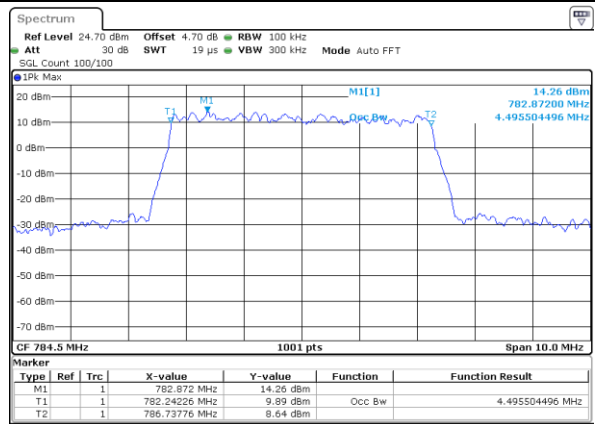
Date: 30 AUG 2020 00:26:58

Highest Channel / 5MHz / QPSK



Date: 30 AUG 2020 00:29:17

Highest Channel / 5MHz / 16QAM

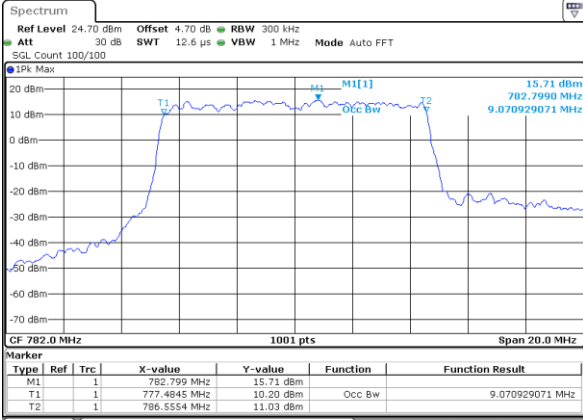


Date: 30 AUG 2020 00:29:27



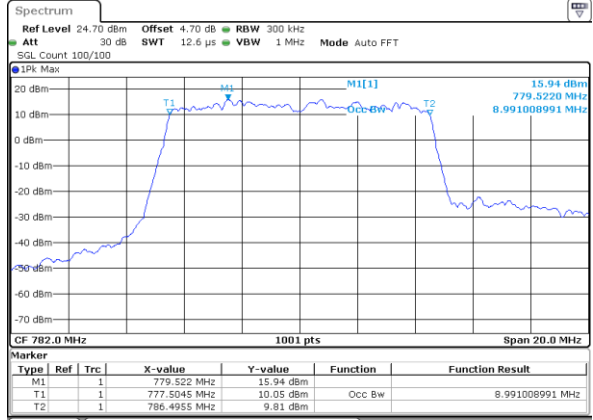
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 30 AUG 2020 00:51:36

Middle Channel / 10MHz / 16QAM

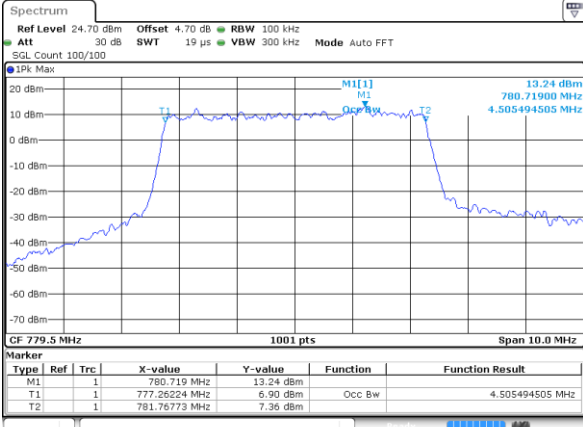


Date: 30 AUG 2020 00:51:46



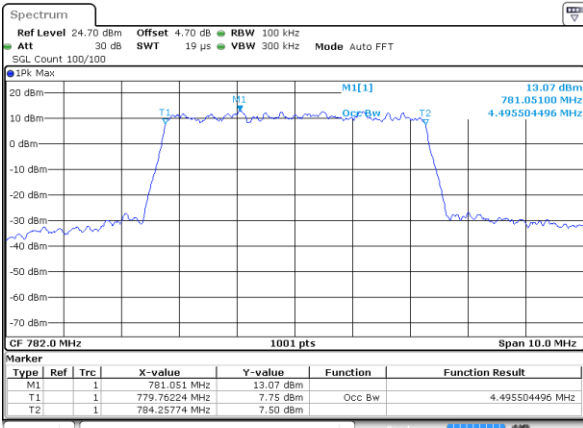
LTE Band 13

Lowest Channel / 5MHz / 64QAM



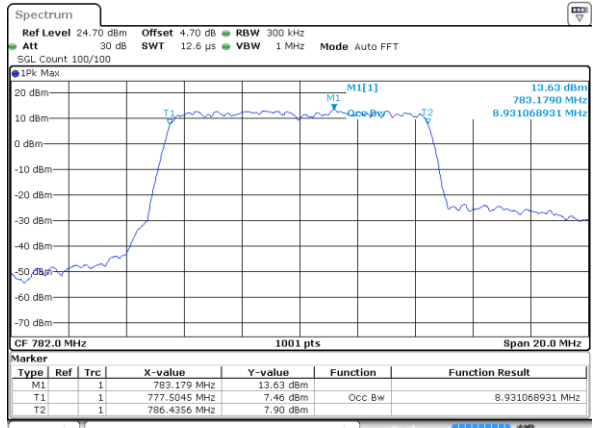
Date: 30 AUG 2020 01:07:37

Middle Channel / 5MHz / 64QAM



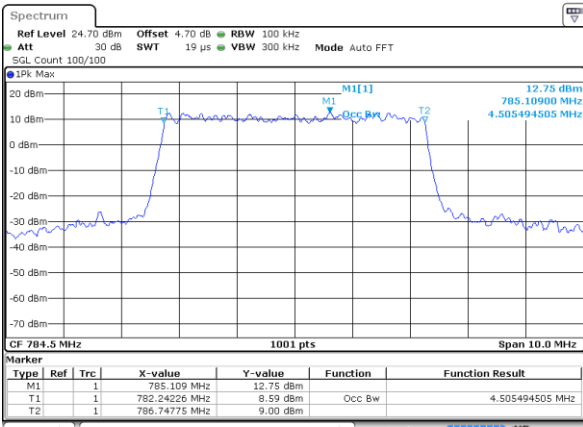
Date: 30 AUG 2020 01:07:47

Middle Channel / 10MHz / 64QAM



Date: 30 AUG 2020 01:19:14

Highest Channel / 5MHz / 64QAM



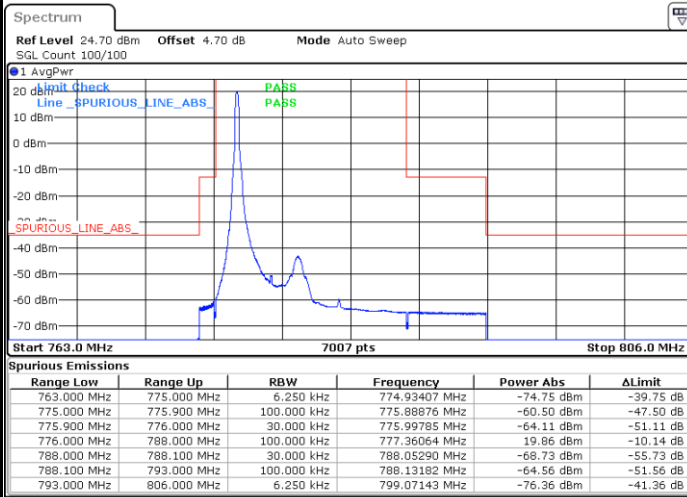
Date: 30 AUG 2020 01:07:57



Conducted Band Edge

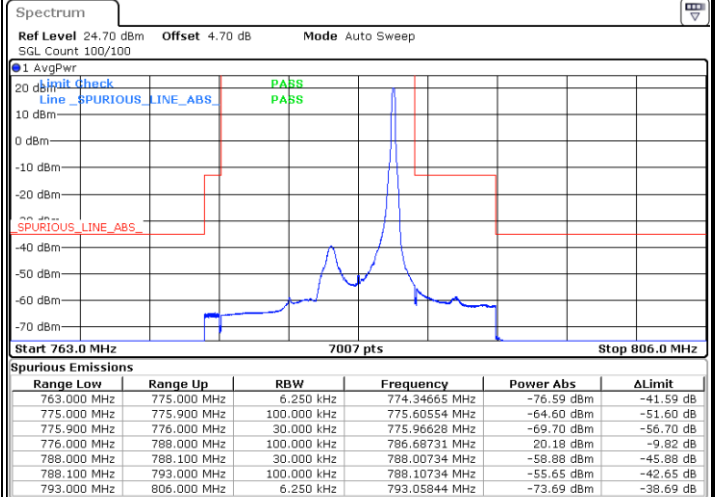
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



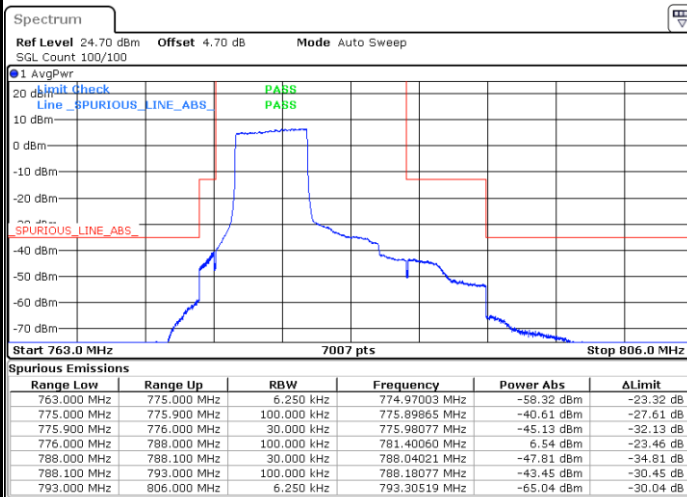
Date: 30 AUG 2020 00:22:52

Highest Band Edge / 1 RB



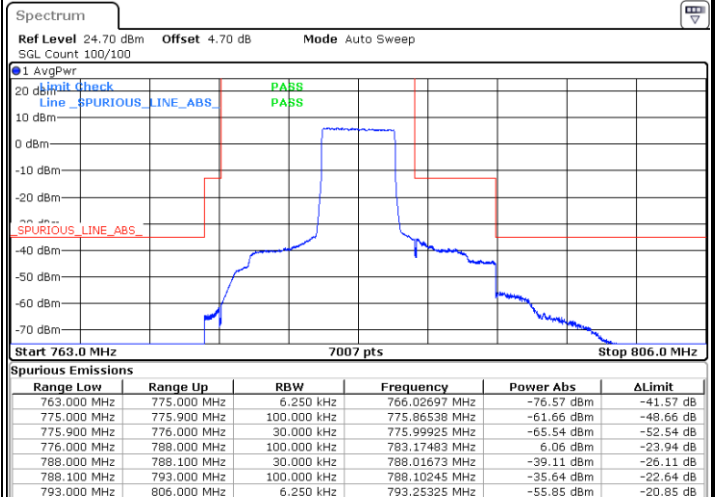
Date: 30 AUG 2020 00:34:21

Lowest Band Edge / Full RB



Date: 30 AUG 2020 00:21:14

Highest Band Edge / Full RB



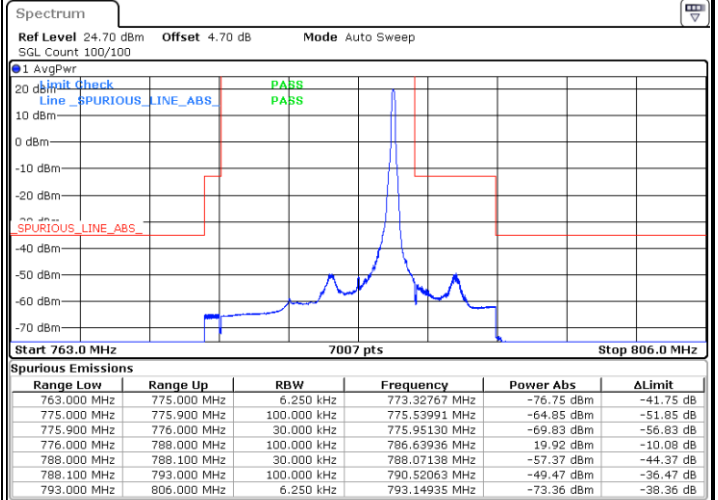
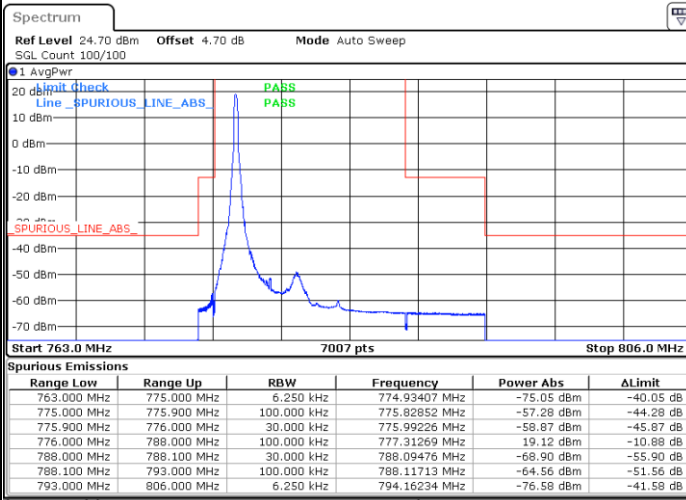
Date: 30 AUG 2020 00:32:43



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

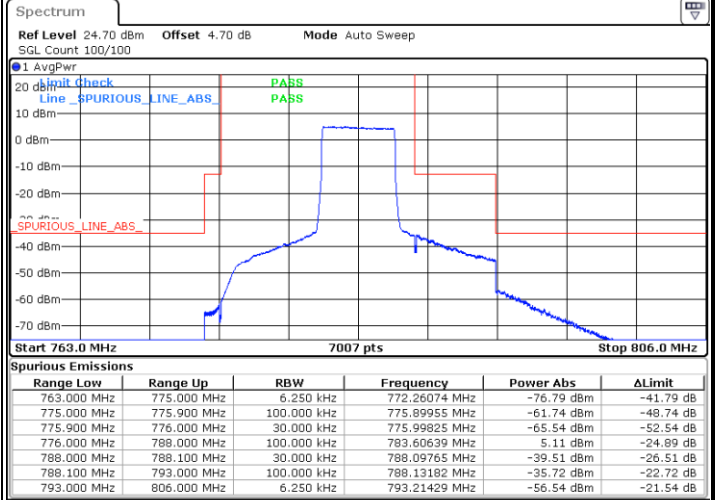
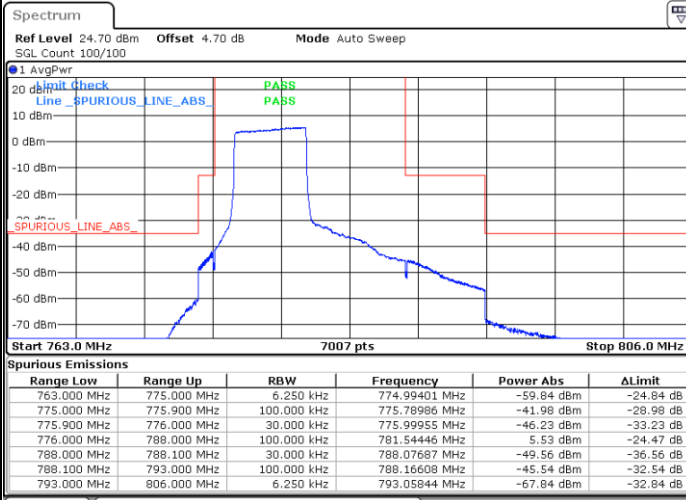


Date: 30 AUG 2020 00:24:29

Date: 30 AUG 2020 00:35:58

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30 AUG 2020 00:17:36

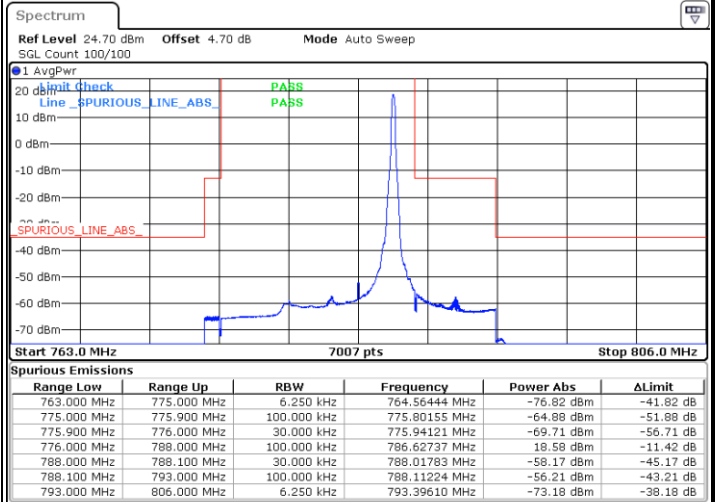
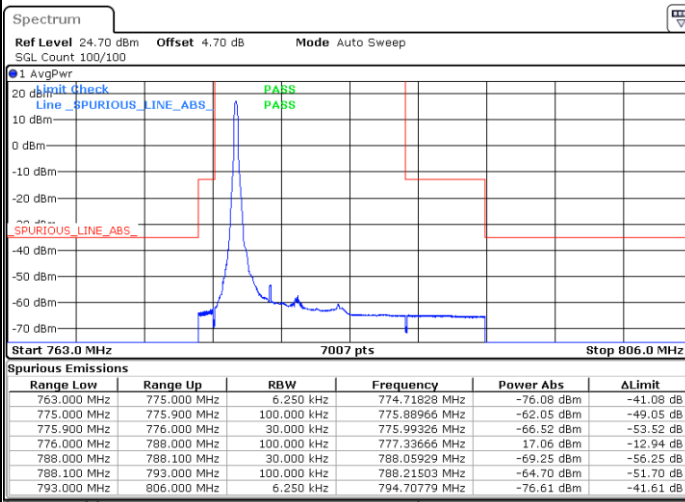
Date: 30 AUG 2020 00:31:05



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

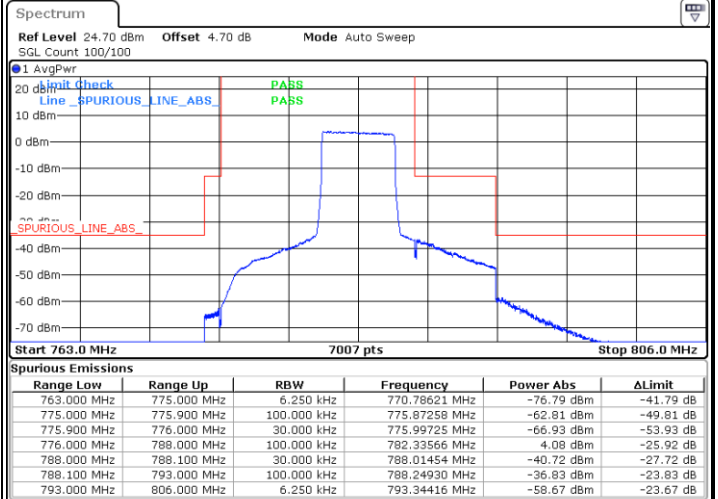
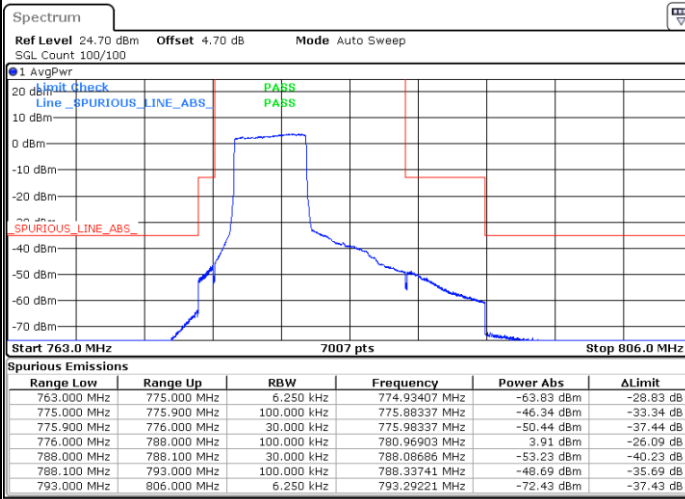


Date: 30 AUG 2020 01:10:05

Date: 30 AUG 2020 01:14:58

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



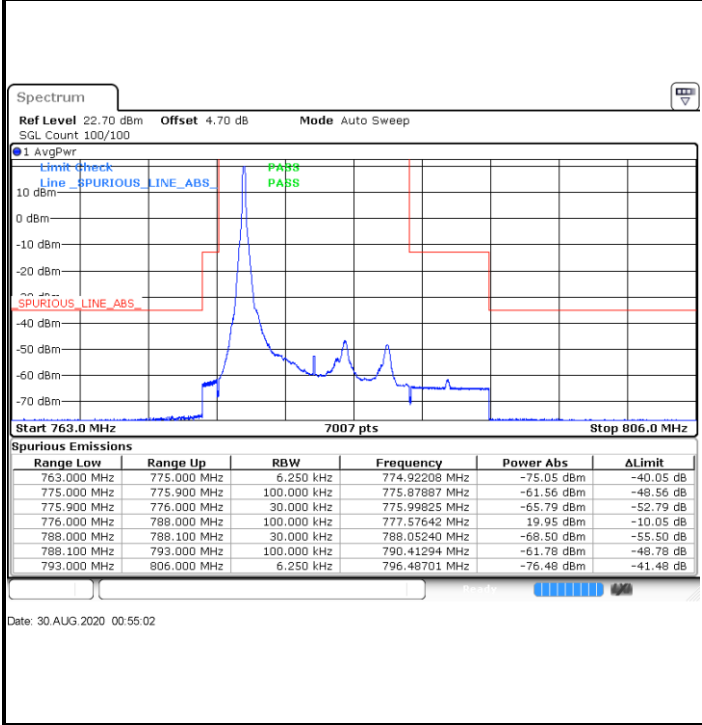
Date: 30 AUG 2020 01:11:43

Date: 30 AUG 2020 01:13:21

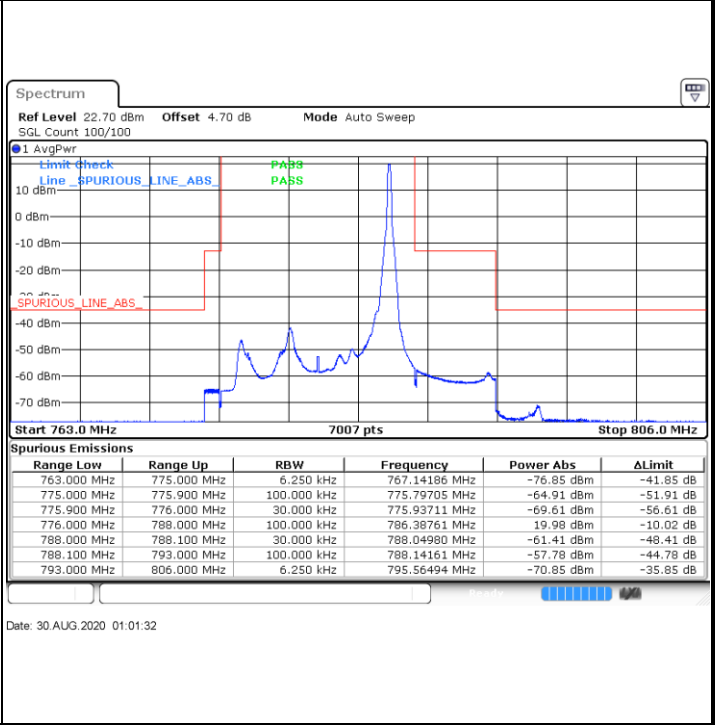


LTE Band 13 / 10MHz / QPSK

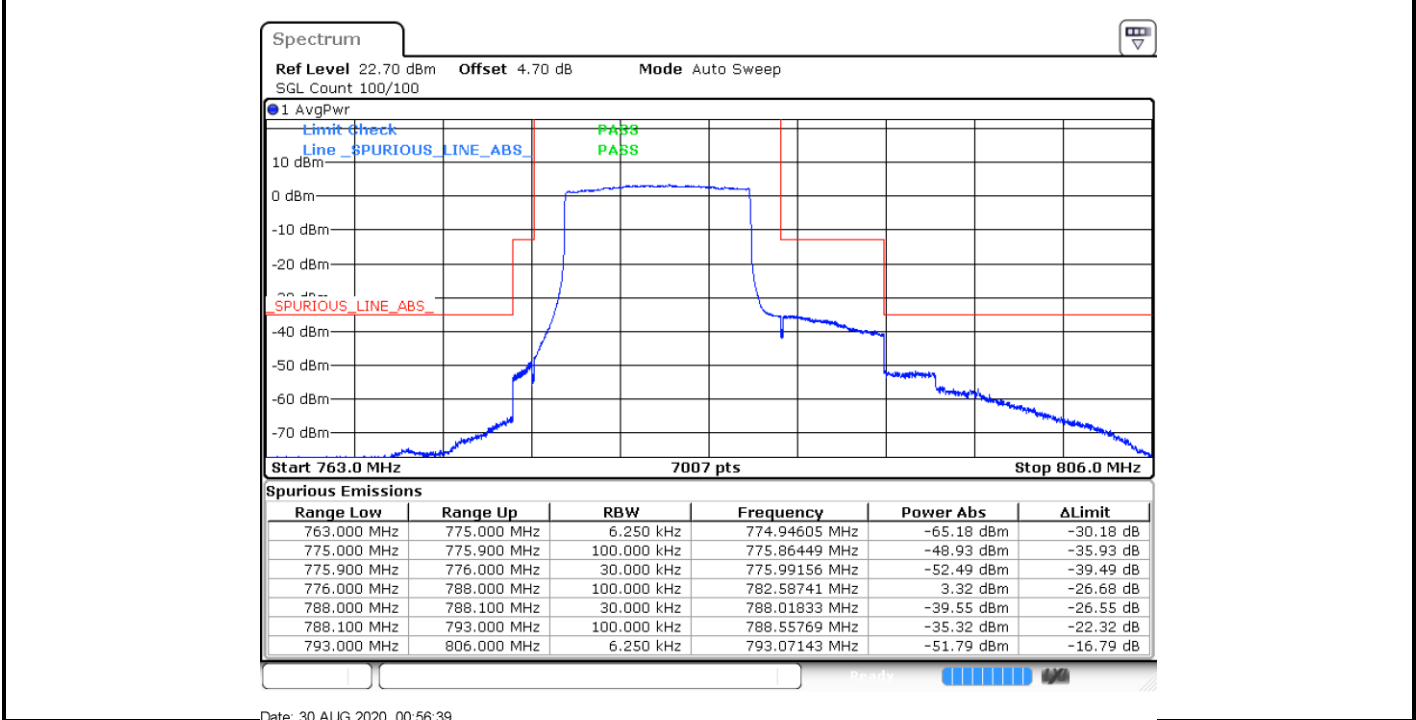
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



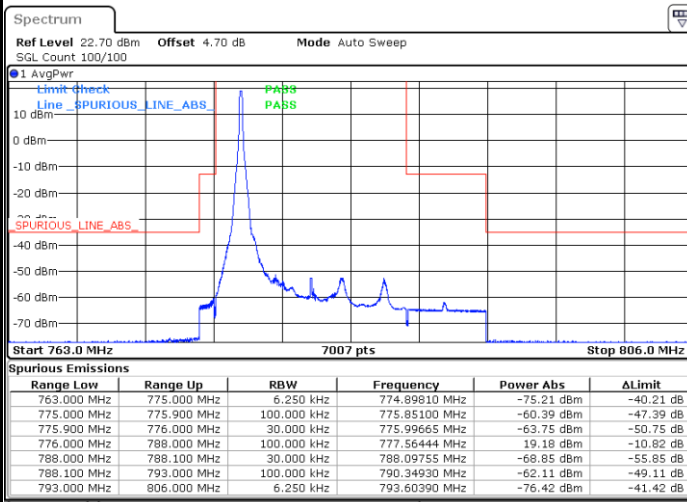
Band Edge / Full RB





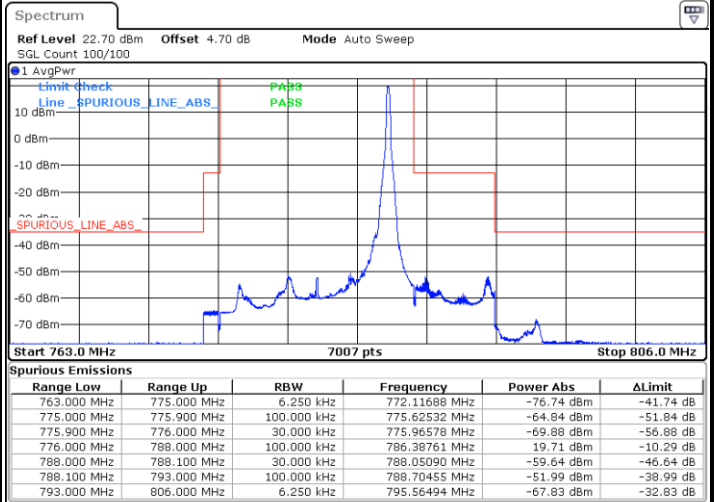
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



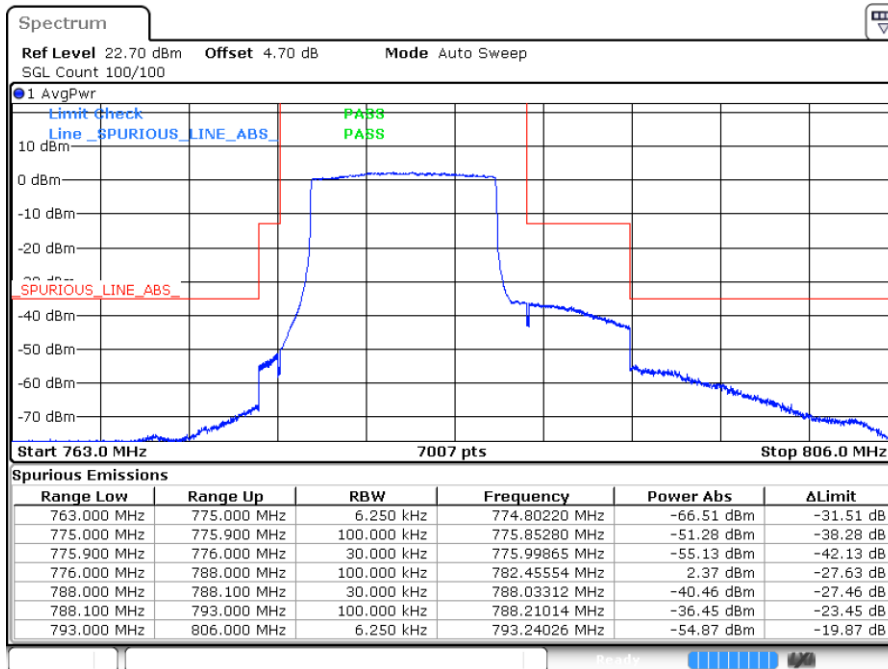
Date: 30 AUG 2020 00:53:24

Highest Band Edge / 1 RB



Date: 30 AUG 2020 00:59:54

Band Edge / Full RB

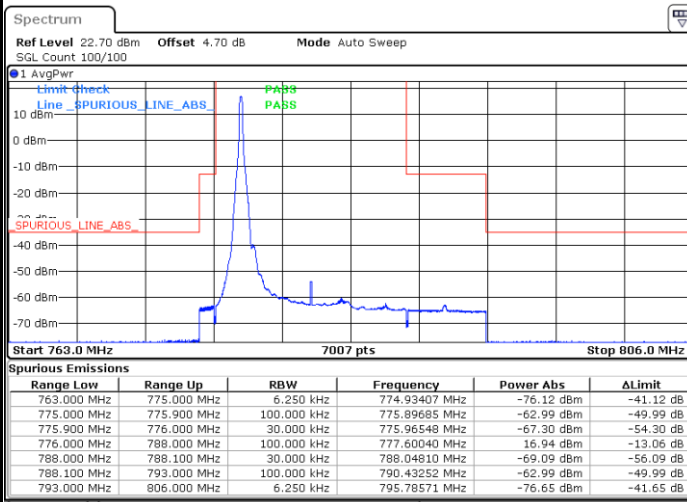


Date: 30 AUG 2020 00:58:17



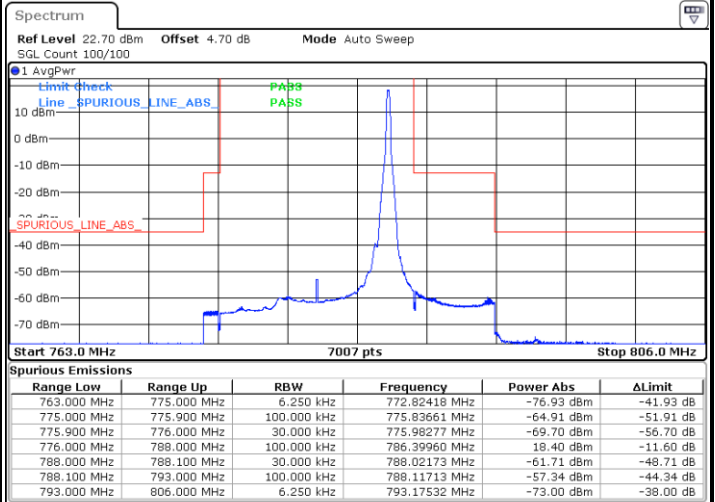
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



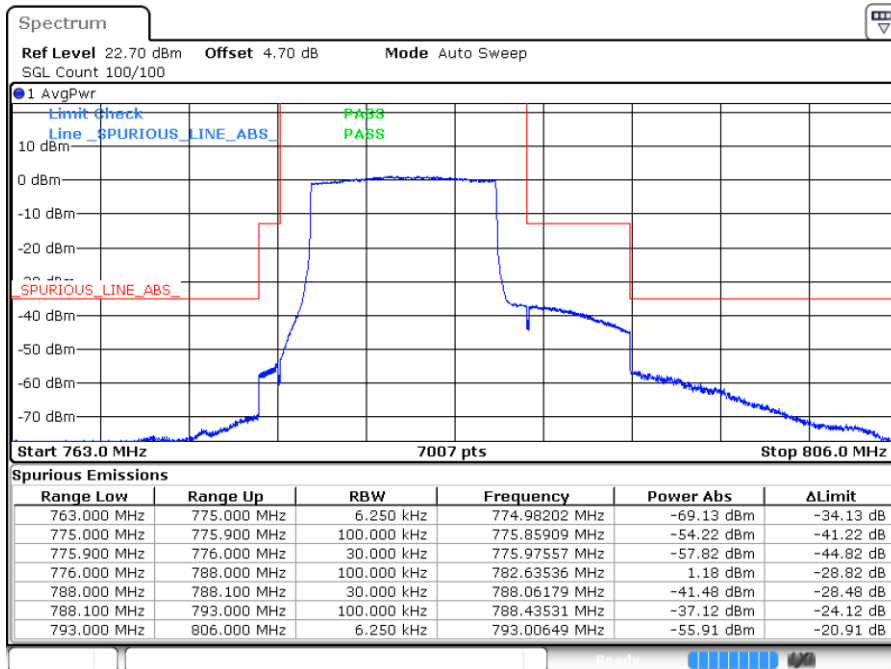
Date: 30 AUG 2020 01:21:02

Highest Band Edge / 1 RB



Date: 30 AUG 2020 01:22:39

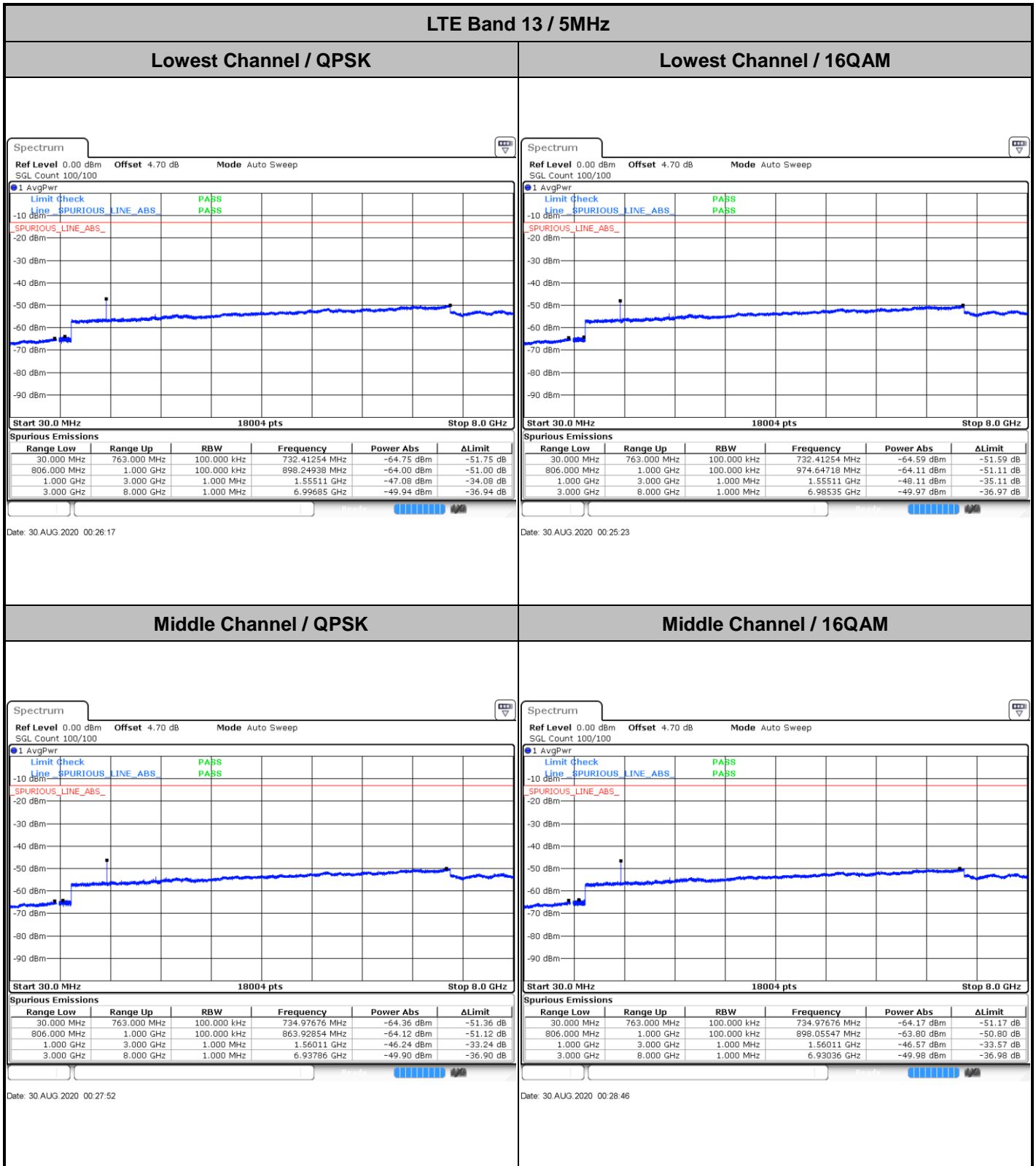
Band Edge / Full RB



Date: 30 AUG 2020 01:24:17



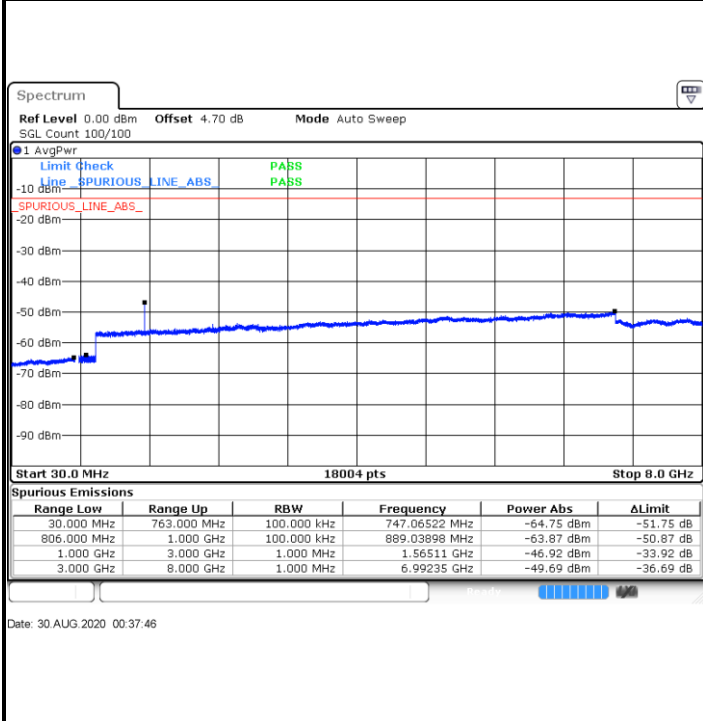
Conducted Spurious Emission



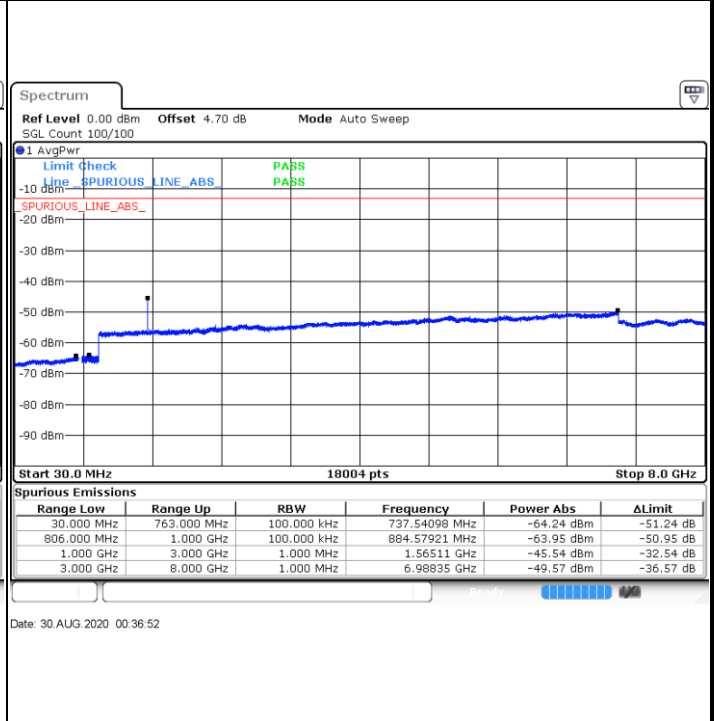


LTE Band 13 / 5MHz

Highest Channel / QPSK

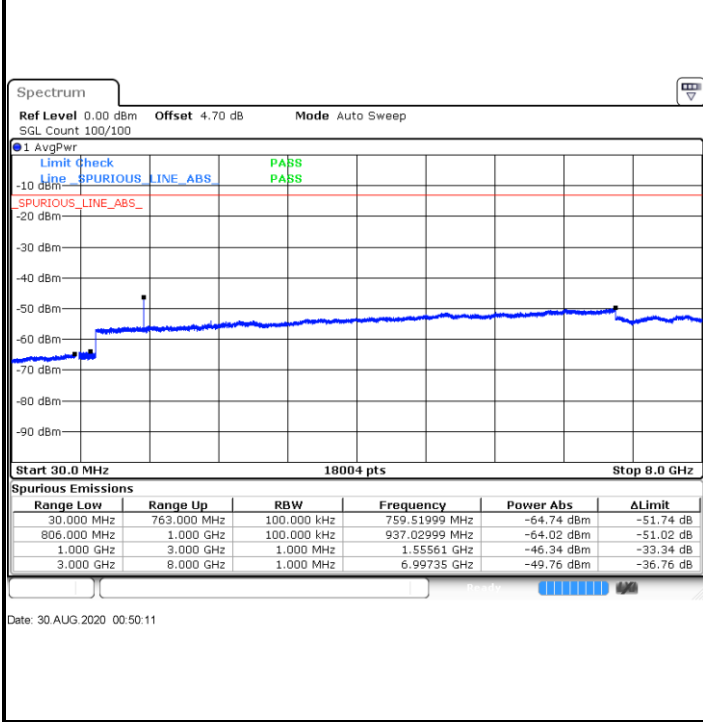


Highest Channel / 16QAM

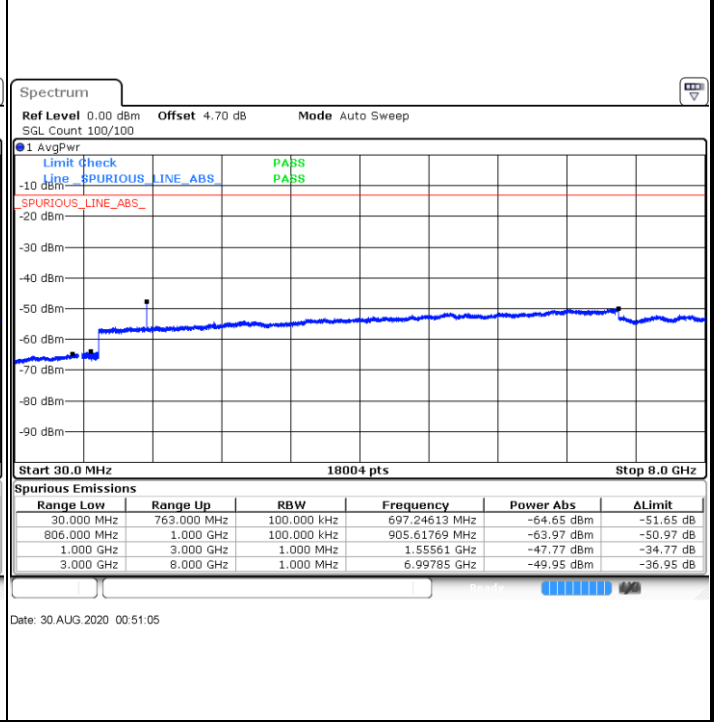


LTE Band 13 / 10MHz

Middle Channel / QPSK



Middle Channel / 16QAM

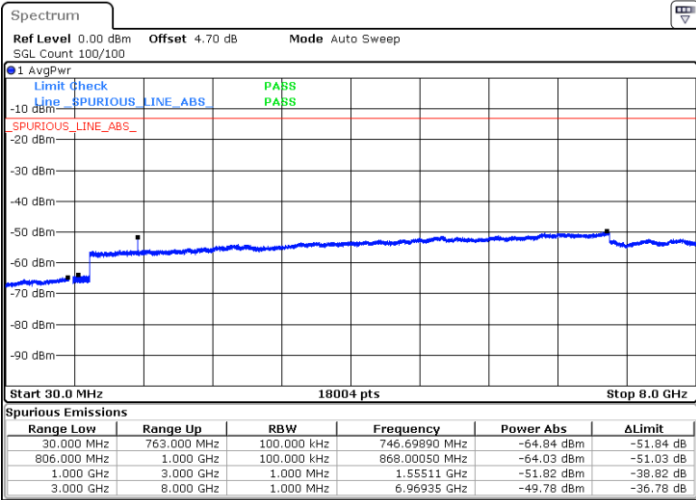




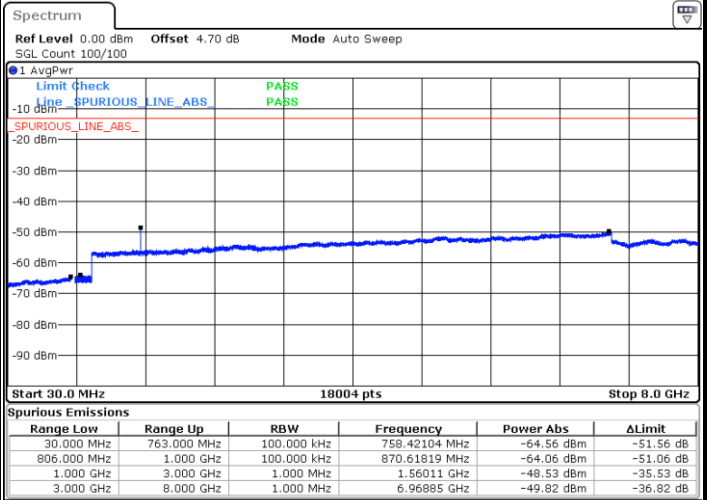
LTE Band 13 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

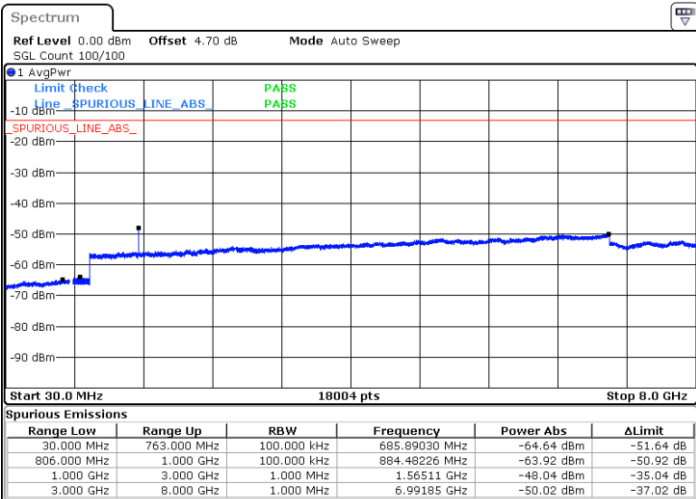


Date: 30 AUG 2020 01:15:52



Date: 30 AUG 2020 01:16:46

Highest Channel / 64QAM

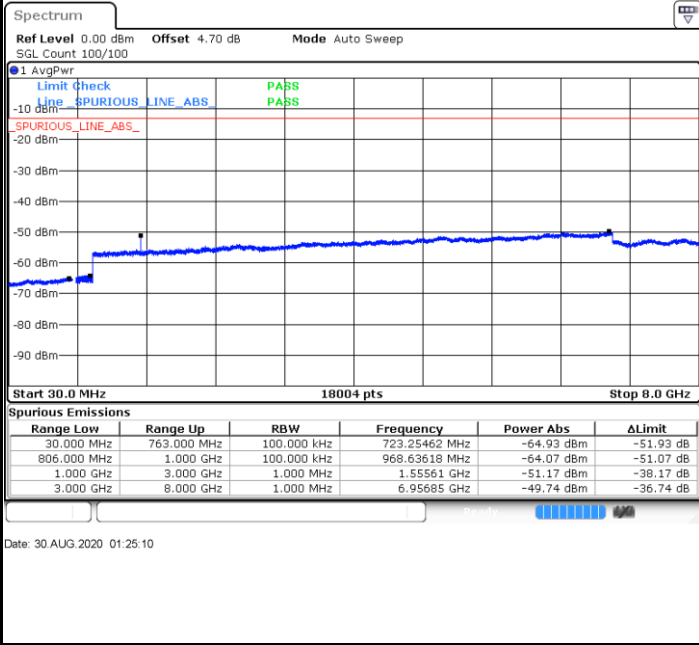


Date: 30 AUG 2020 01:17:40



LTE Band 13 / 10MHz

Middle Channel / 64QAM





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	0.0015	
30	Normal Voltage	0.0082	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0091	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0071	
-30	Normal Voltage	0.0062	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0102	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41

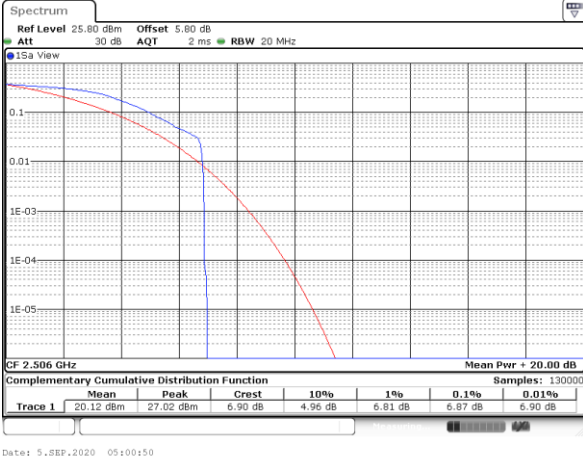
Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	6.87	7.86	5.48	6.14	PASS
Middle CH	6.81	5.48	6.99	6.41	
Highest CH	5.48	5.19	7.74	7.28	
Mode	LTE Band 41 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.51	6.64	-	-	PASS
Middle CH	7.01	7.07	-	-	
Highest CH	7.13	7.62	-	-	

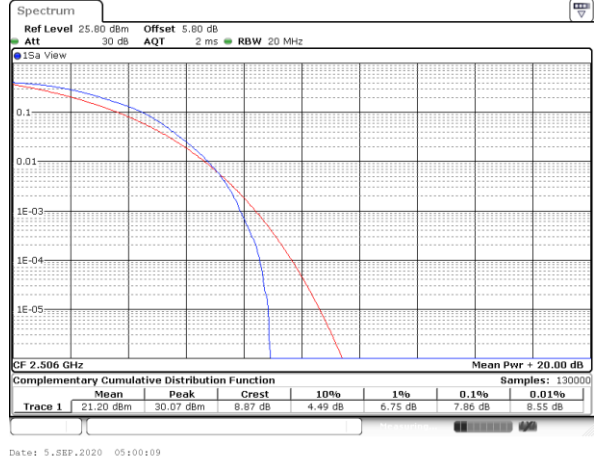


LTE Band 41 / 20MHz / QPSK

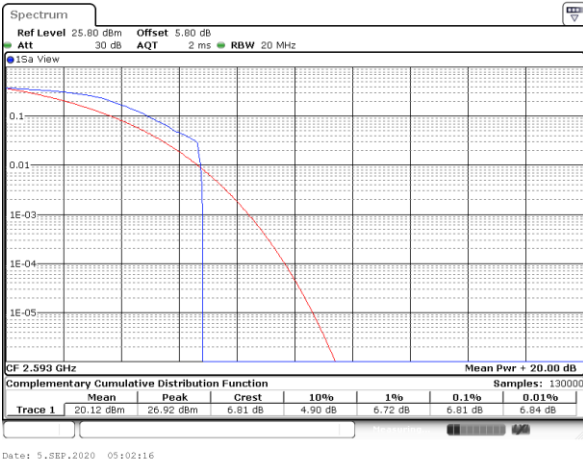
Lowest Channel / 1RB



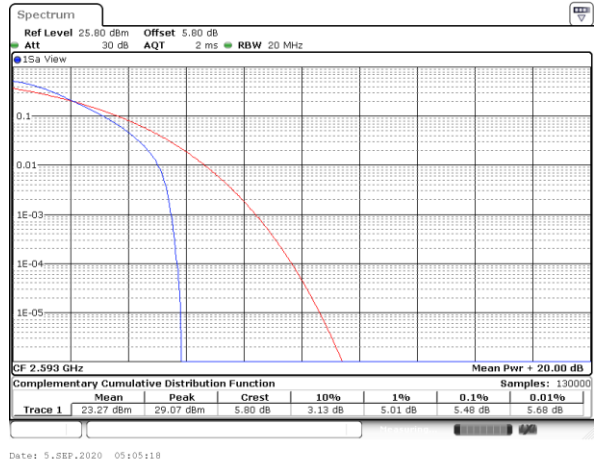
Lowest Channel / Full RB



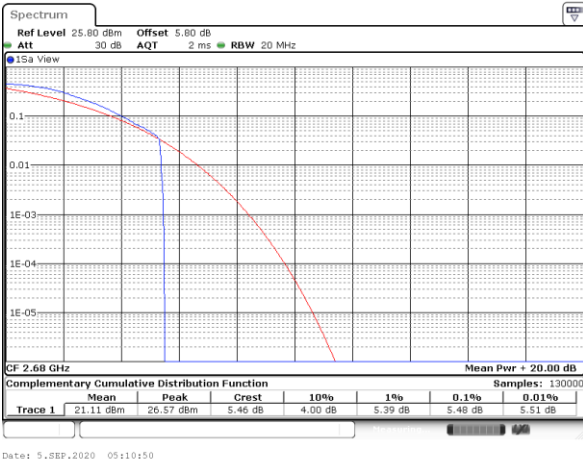
Middle Channel / 1RB



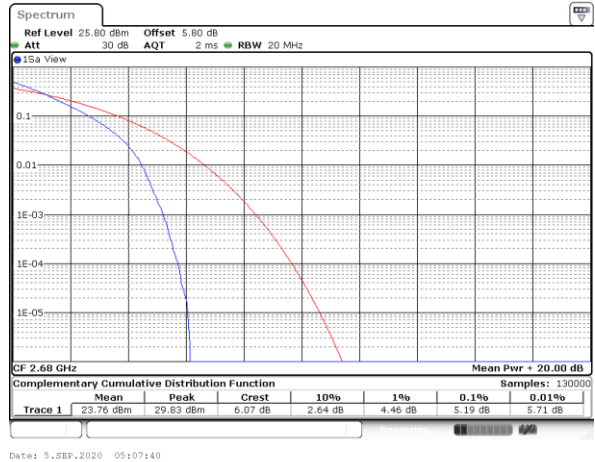
Middle Channel / Full RB



Highest Channel / 1RB



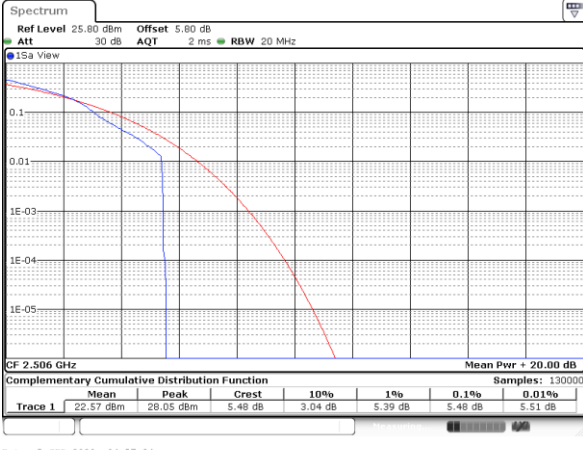
Highest Channel / Full RB





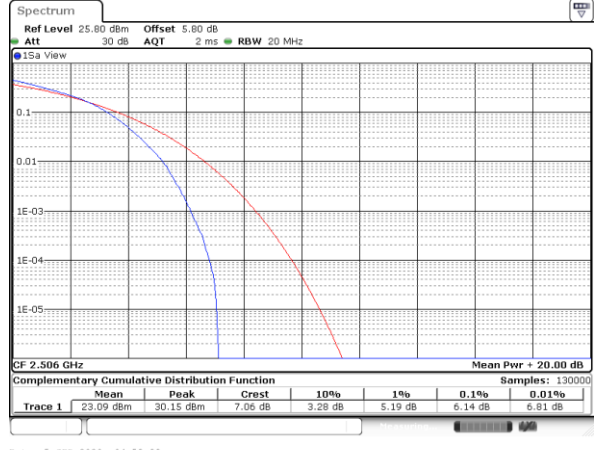
LTE Band 41 / 20MHz / 16QAM

Lowest Channel / 1RB



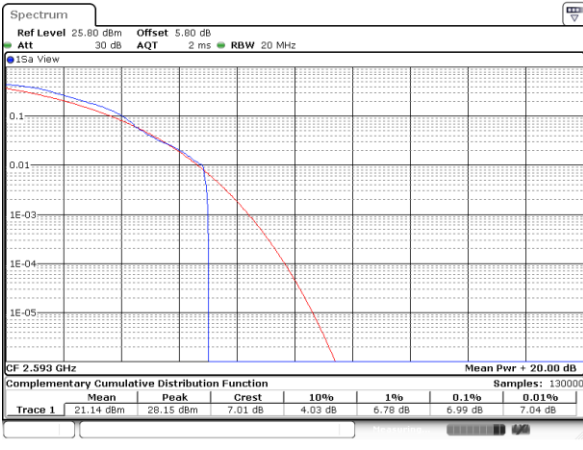
Date: 5,SEP,2020 04:57:134

Lowest Channel / Full RB



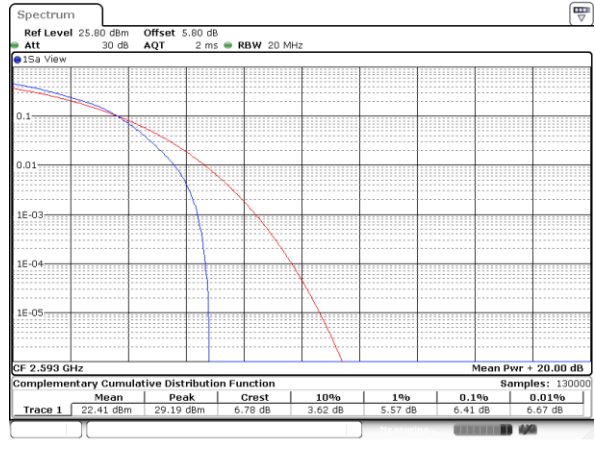
Date: 5,SEP,2020 04:59:33

Middle Channel / 1RB



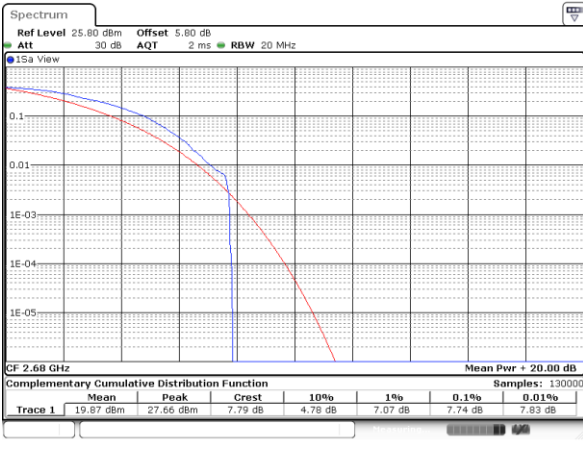
Date: 5,SEP,2020 05:02:132

Middle Channel / Full RB



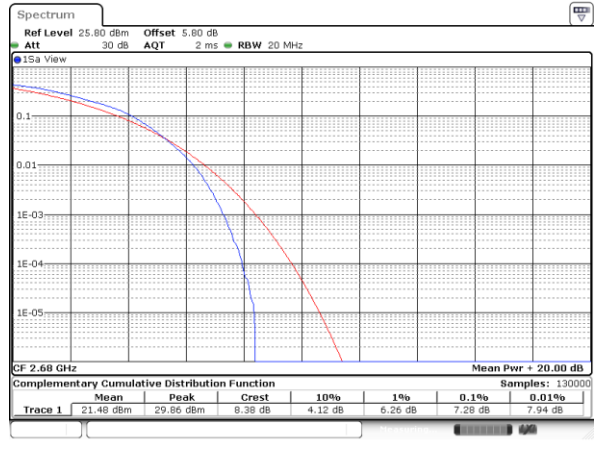
Date: 5,SEP,2020 05:04:36

Highest Channel / 1RB



Date: 5,SEP,2020 05:10:124

Highest Channel / Full RB

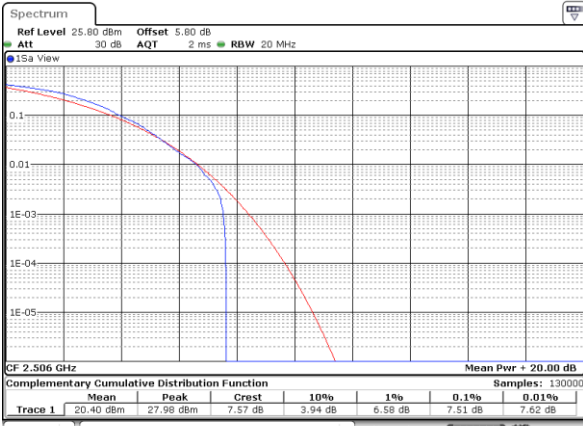


Date: 5,SEP,2020 05:08:11



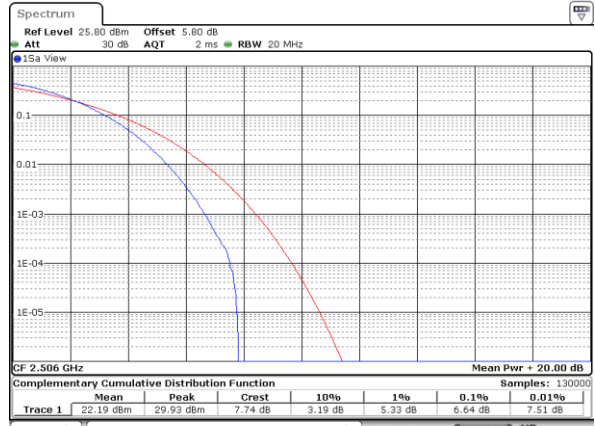
LTE Band 41 / 20MHz / 64QAM

Lowest Channel / 1RB



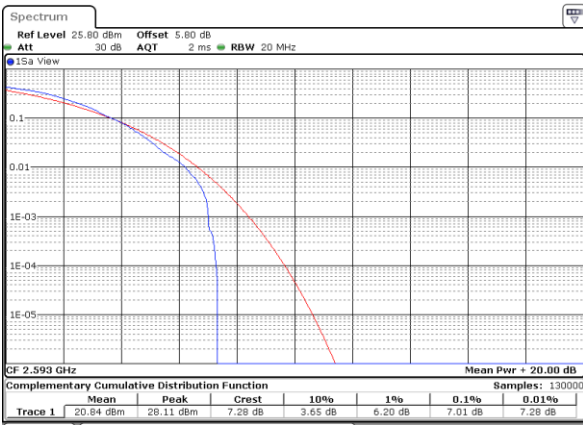
Date: 5,SEP,2020 04:58:09

Lowest Channel / Full RB



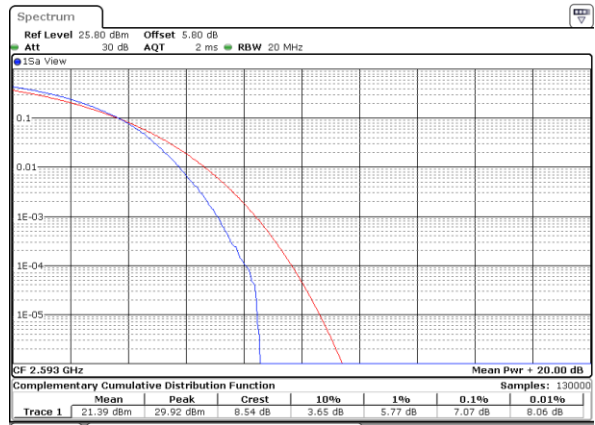
Date: 5,SEP,2020 04:58:43

Middle Channel / 1RB



Date: 5,SEP,2020 05:03:05

Middle Channel / Full RB



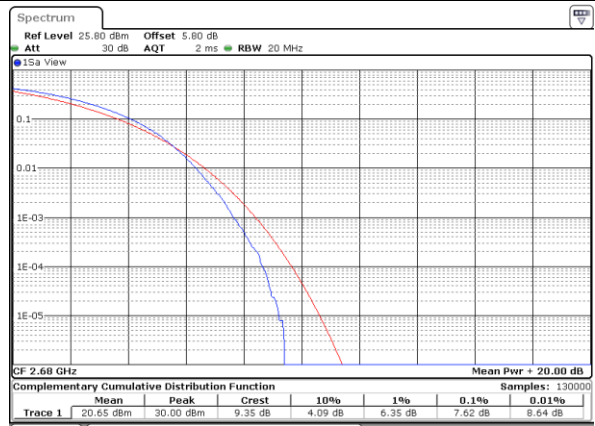
Date: 5,SEP,2020 05:03:52

Highest Channel / 1RB



Date: 5,SEP,2020 05:10:04

Highest Channel / Full RB



Date: 5,SEP,2020 05:08:57



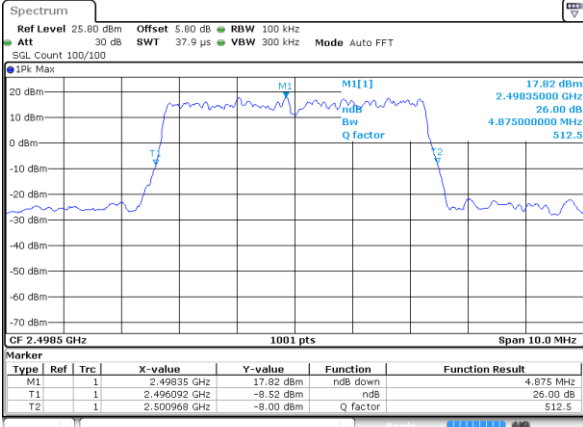
26dB Bandwidth

Mode	LTE Band 41 : 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	-	-	-	-	4.88	4.77	9.65	9.63	14.15	14.15	20.30	20.14
Middle CH	-	-	-	-	4.89	4.86	9.83	9.67	14.27	14.27	20.26	20.18
Highest CH	-	-	-	-	5.06	4.99	9.81	9.77	14.36	14.27	20.30	20.18
Mode	LTE Band 41 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.87	-	9.67	-	14.54	-	20.22	-
Middle CH	-	-	-	-	4.84	-	9.67	-	14.15	-	20.26	-
Highest CH	-	-	-	-	4.94	-	9.61	-	14.33	-	20.22	-



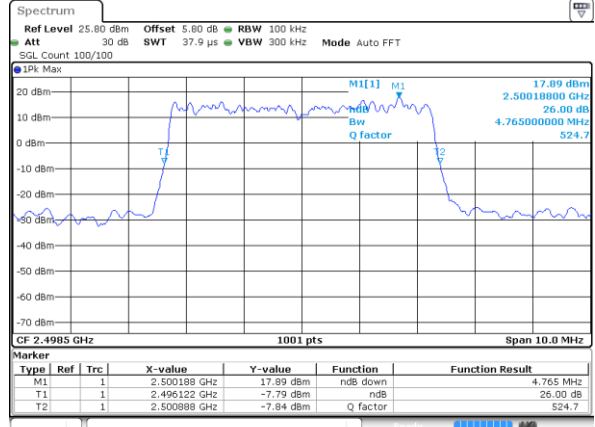
LTE Band 41

Lowest Channel / 5MHz / QPSK



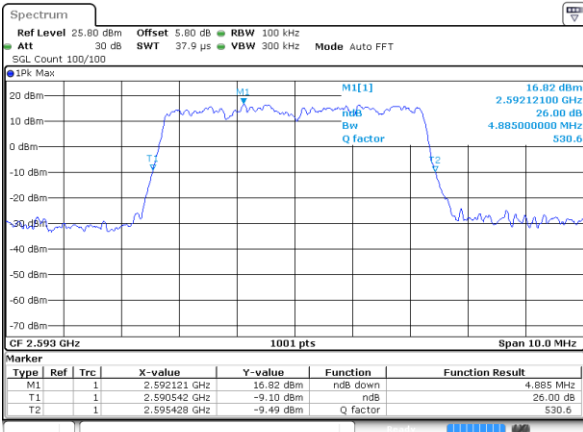
Date: 5 SEP 2020 03:18:43

Lowest Channel / 5MHz / 16QAM



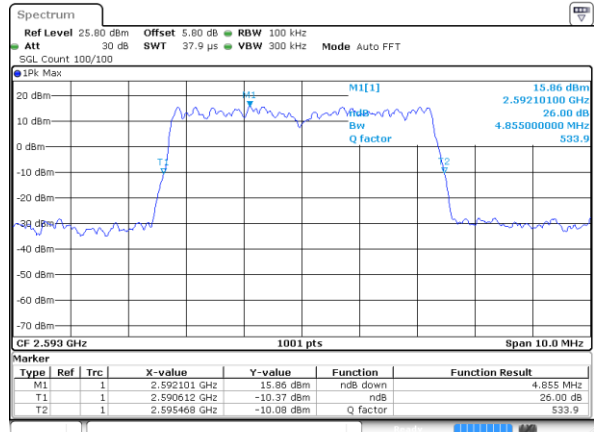
Date: 5 SEP 2020 03:24:00

Middle Channel / 5MHz / QPSK



Date: 5 SEP 2020 03:40:31

Middle Channel / 5MHz / 16QAM



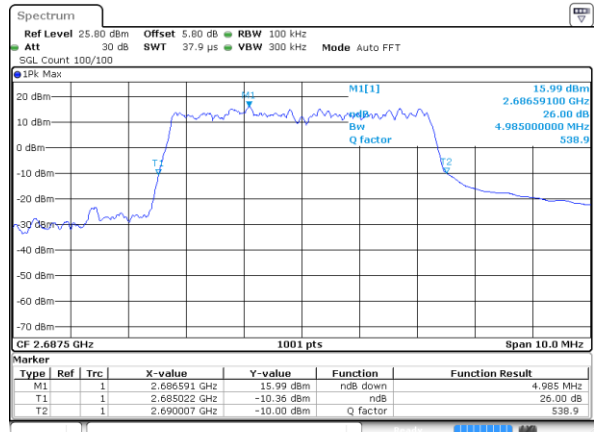
Date: 5 SEP 2020 03:40:02

Highest Channel / 5MHz / QPSK



Date: 5 SEP 2020 03:48:23

Highest Channel / 5MHz / 16QAM



Date: 5 SEP 2020 03:48:44