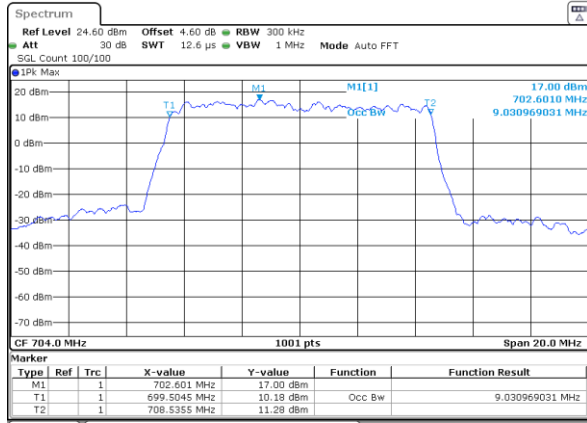


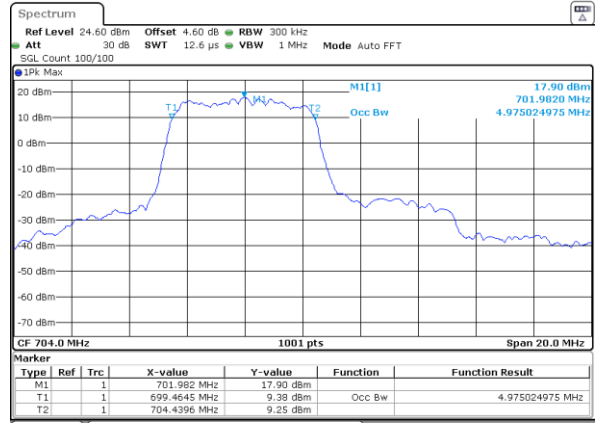


LTE Band 12

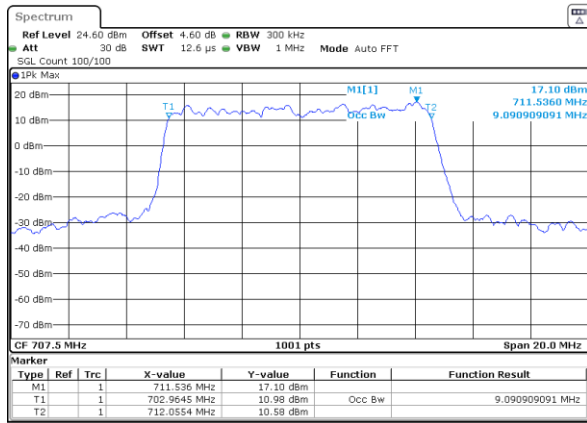
Lowest Channel / 10MHz / QPSK



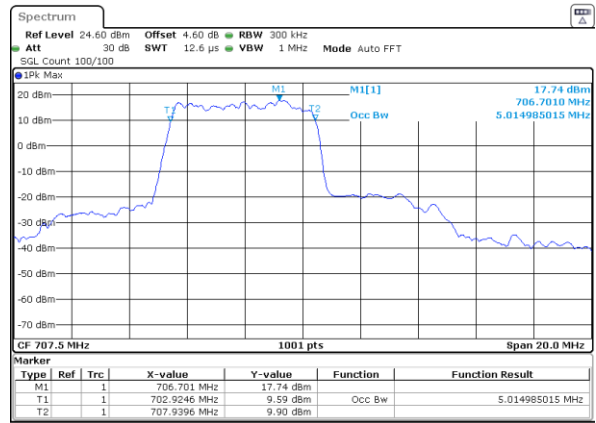
Lowest Channel / 10MHz / 16QAM



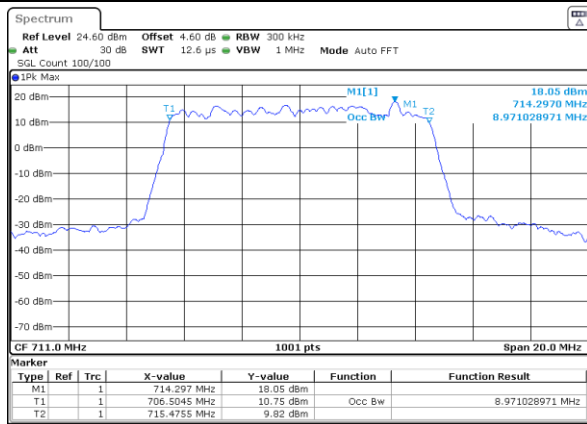
Middle Channel / 10MHz / QPSK



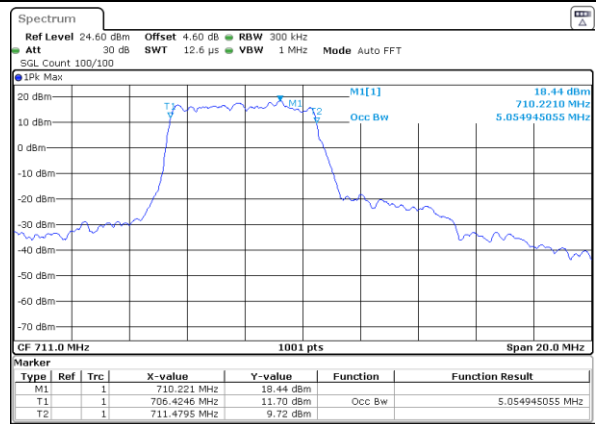
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM





Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



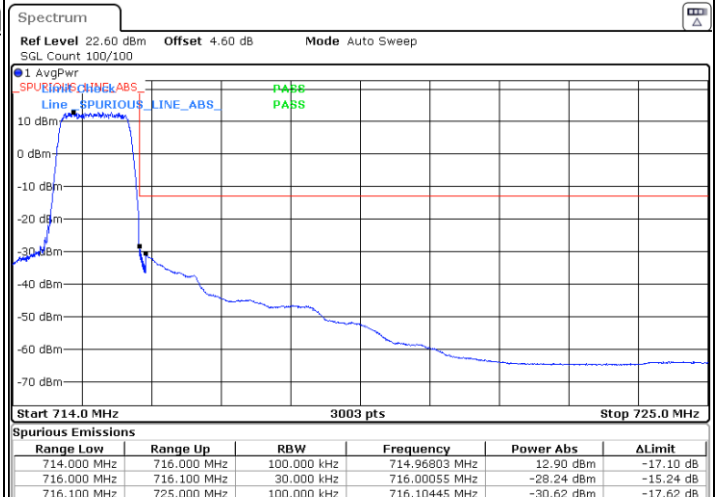
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



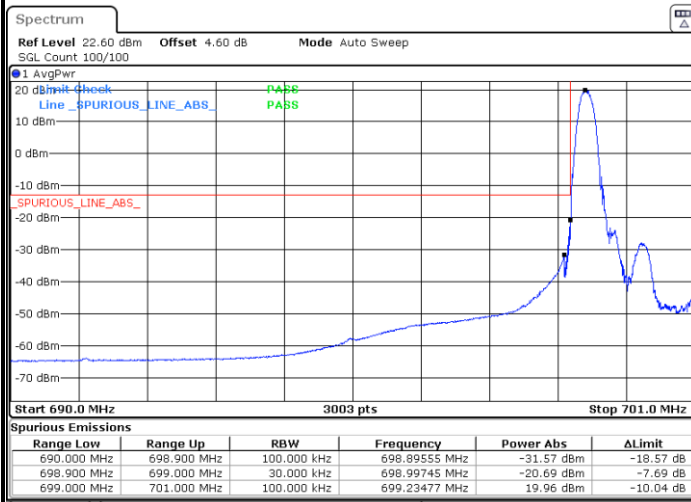
Highest Band Edge / Full RB





LTE Band 12 / 1.4MHz / 16QAM

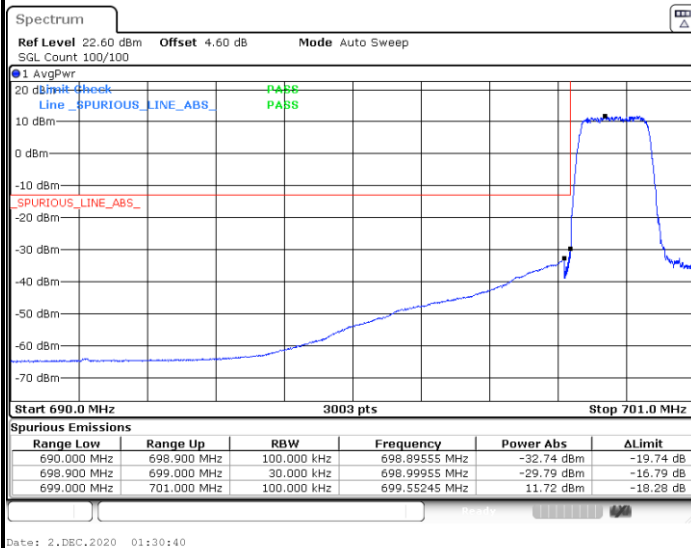
Lowest Band Edge / 1 RB



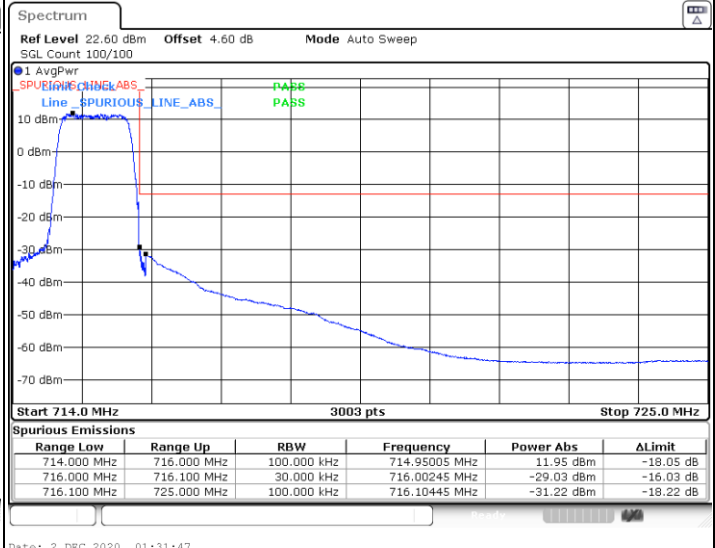
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



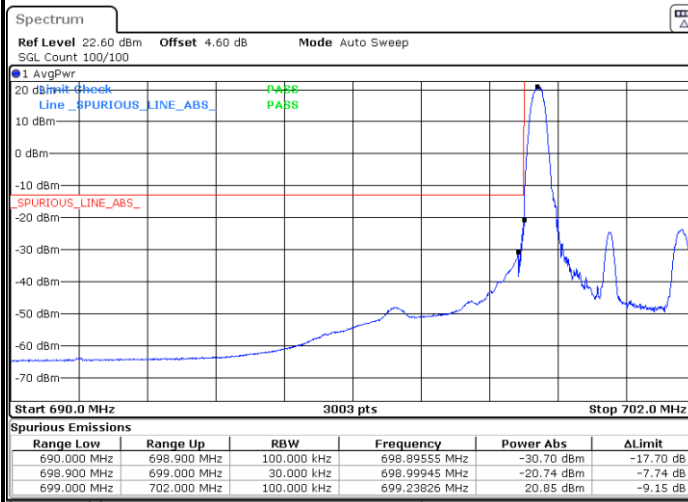
Highest Band Edge / Full RB



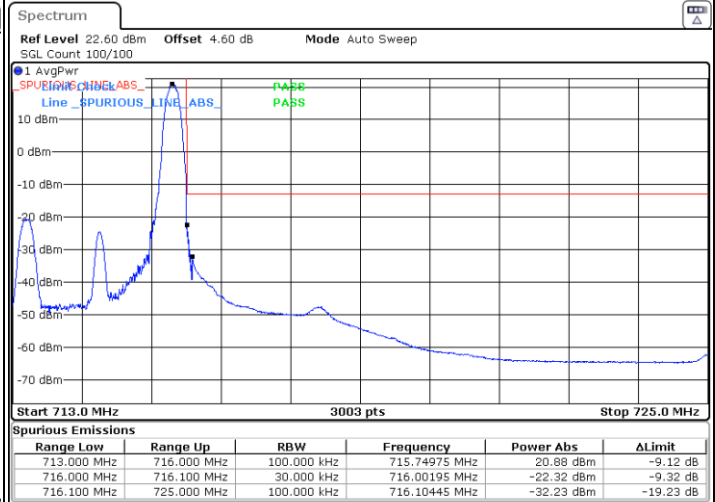


LTE Band 12 / 3MHz / QPSK

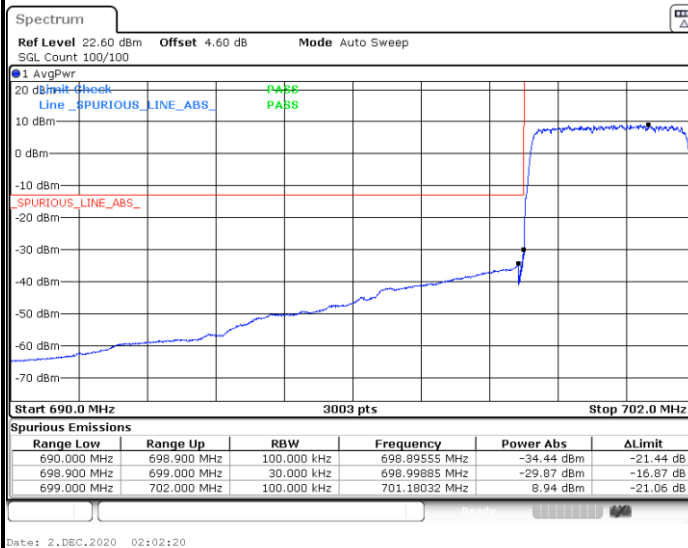
Lowest Band Edge / 1RB



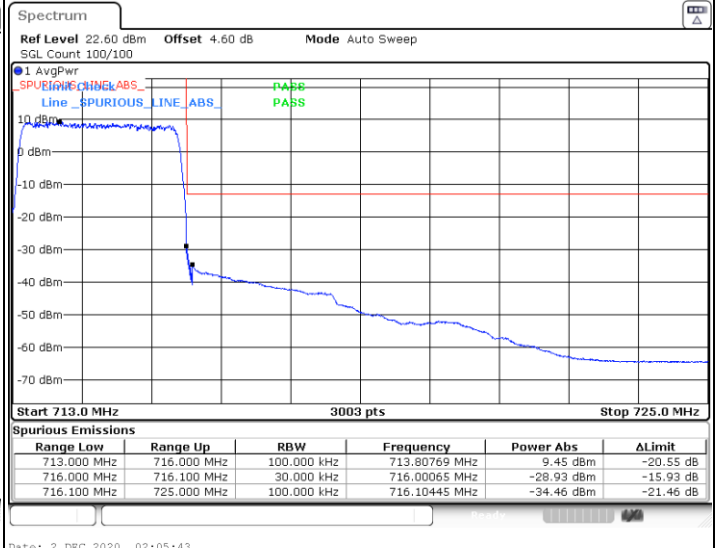
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



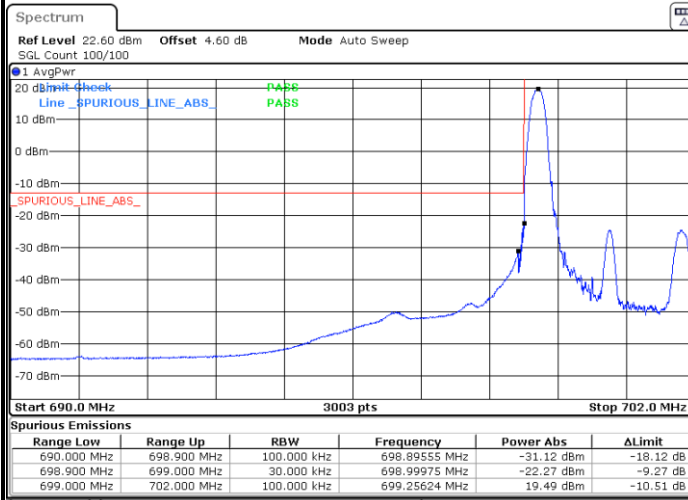
Highest Band Edge / Full RB



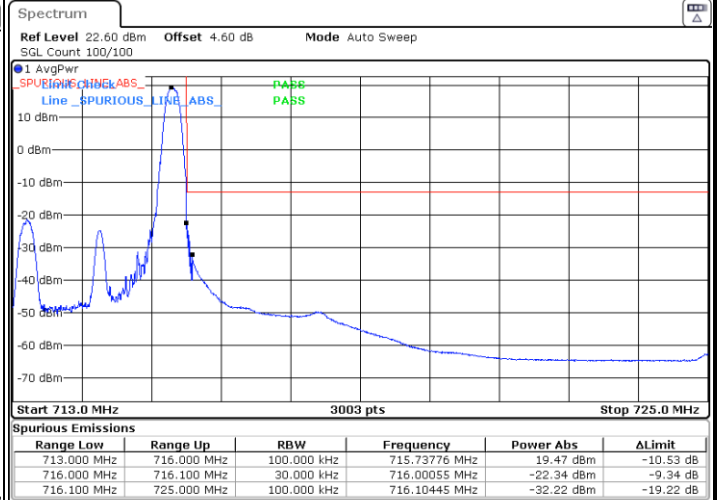


LTE Band 12 / 3MHz / 16QAM

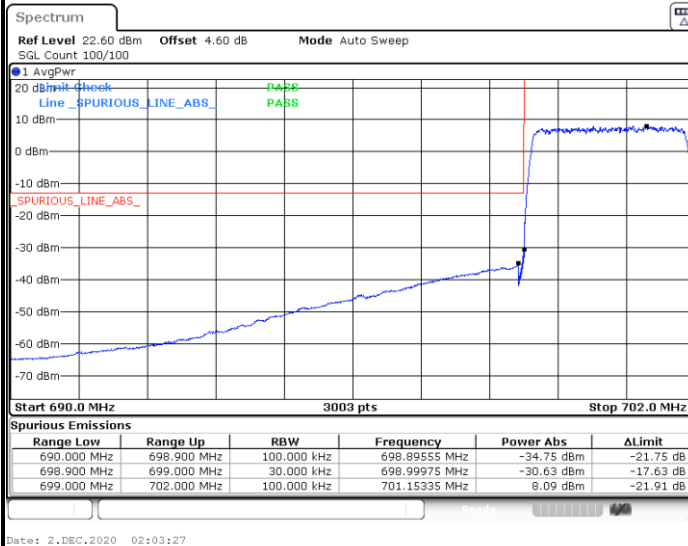
Lowest Band Edge / 1 RB



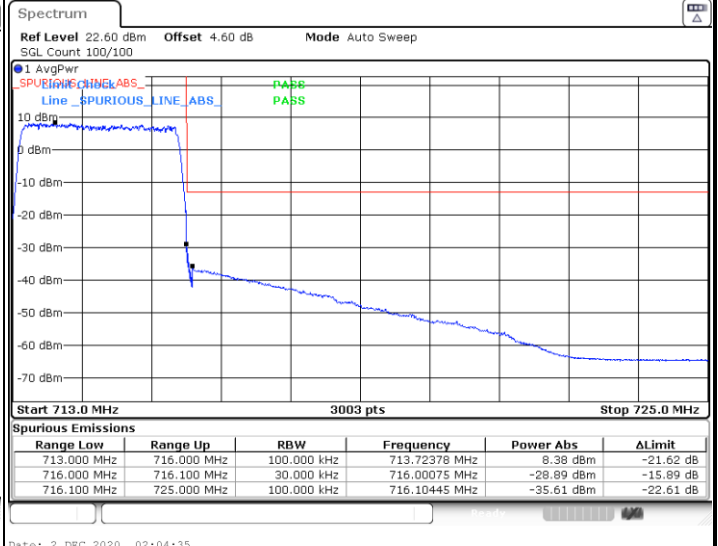
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



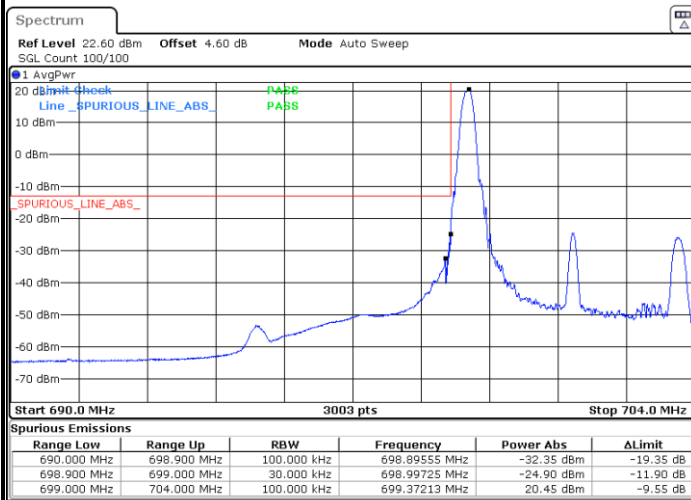
Highest Band Edge / Full RB



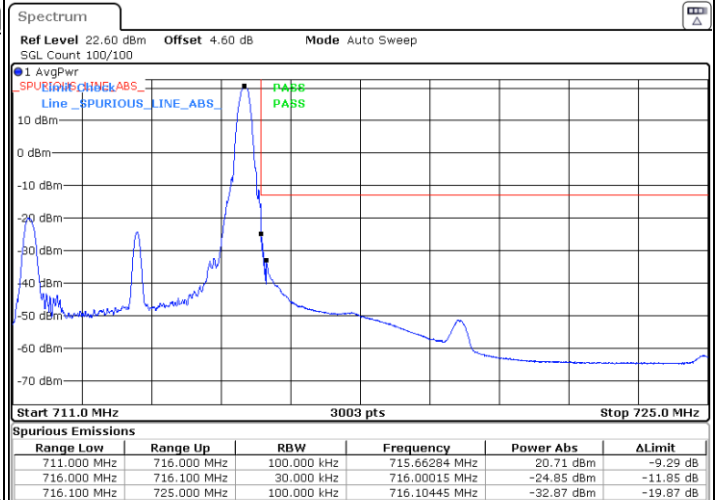


LTE Band 12 / 5MHz / QPSK

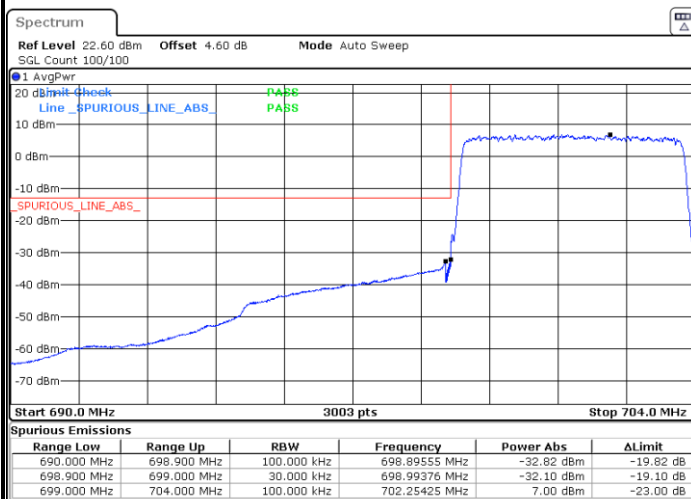
Lowest Band Edge / 1 RB



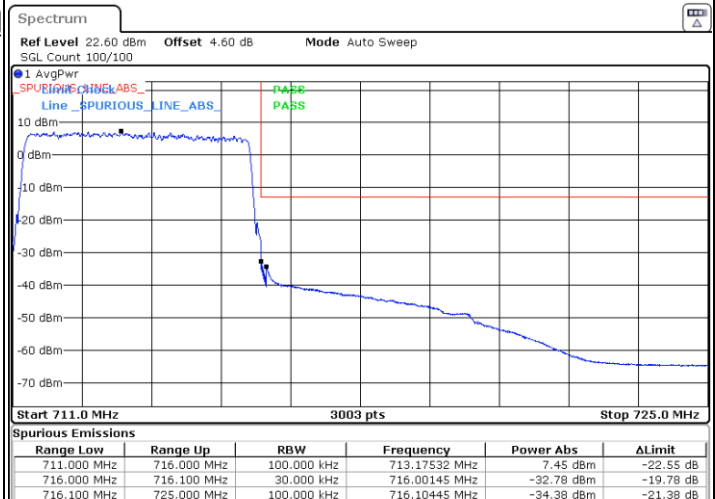
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



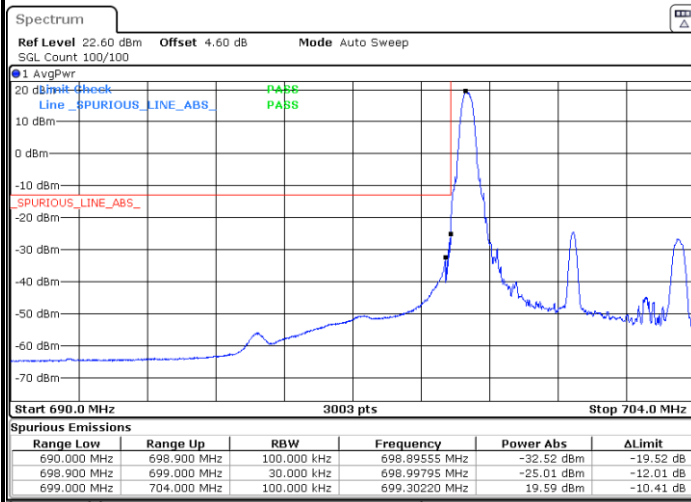
Highest Band Edge / Full RB



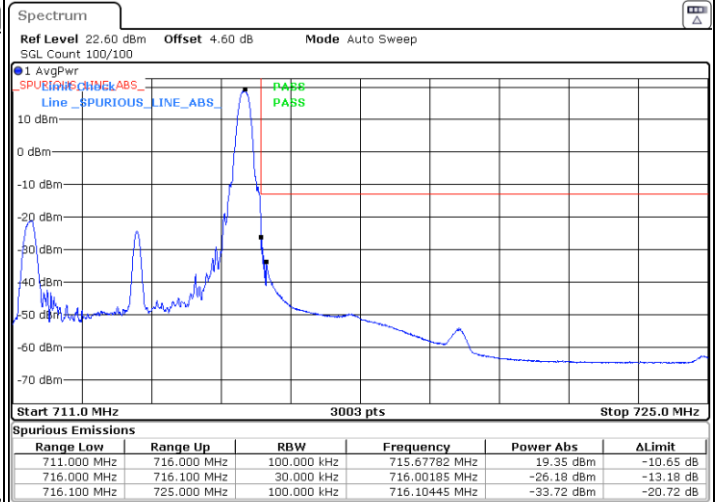


LTE Band 12 / 5MHz / 16QAM

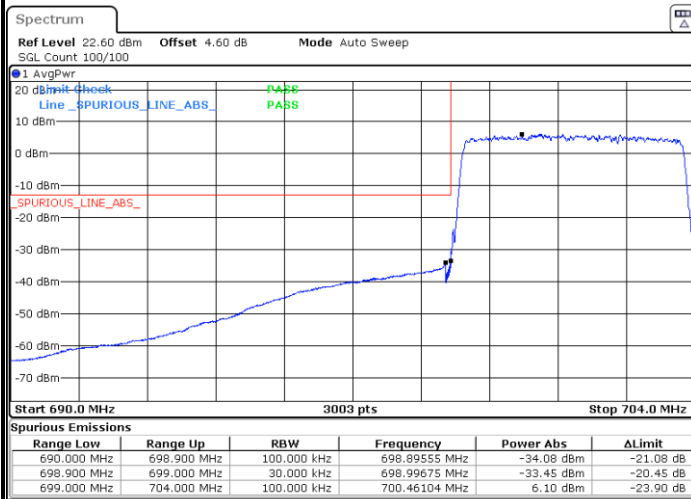
Lowest Band Edge / 1RB



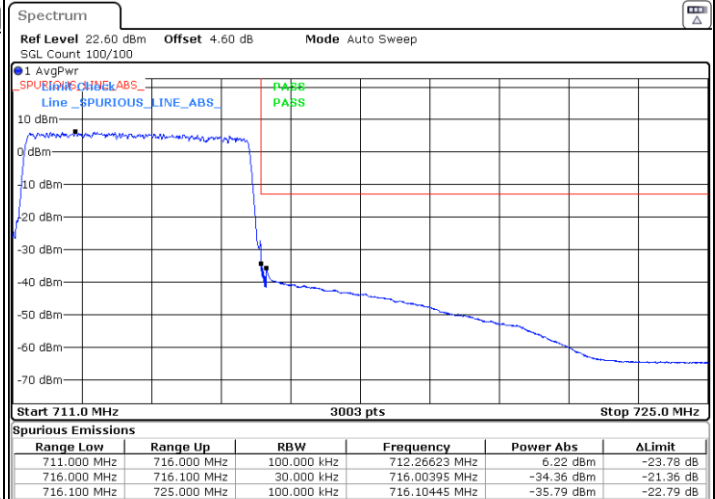
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



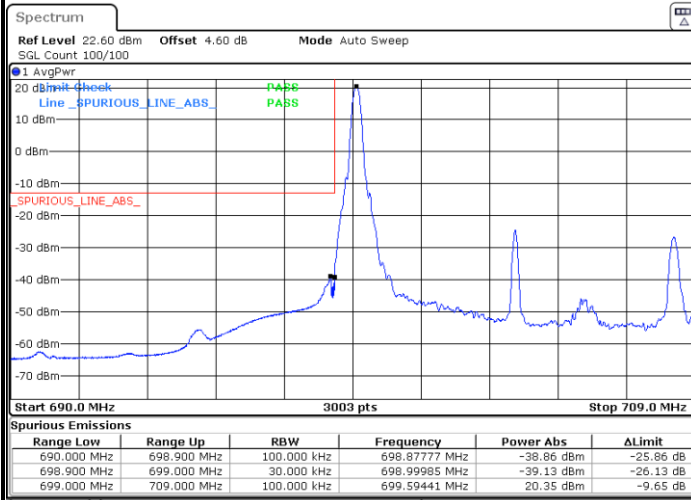
Highest Band Edge / Full RB



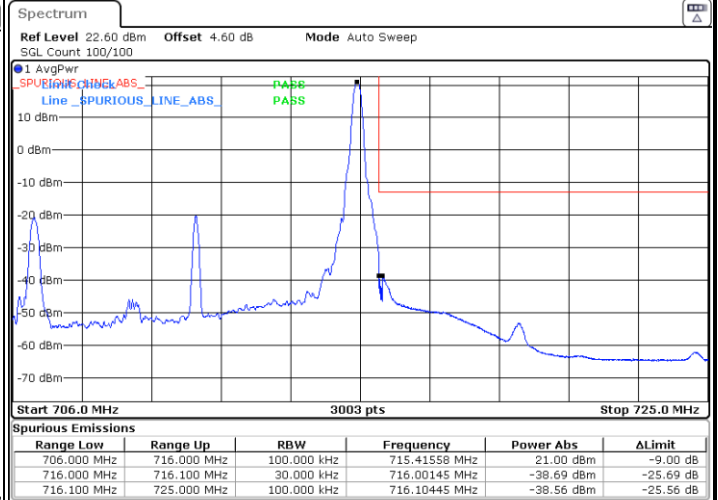


LTE Band 12 / 10MHz / QPSK

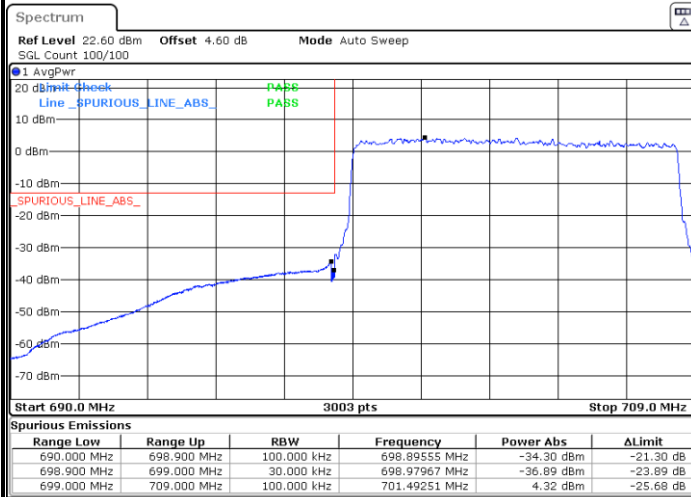
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



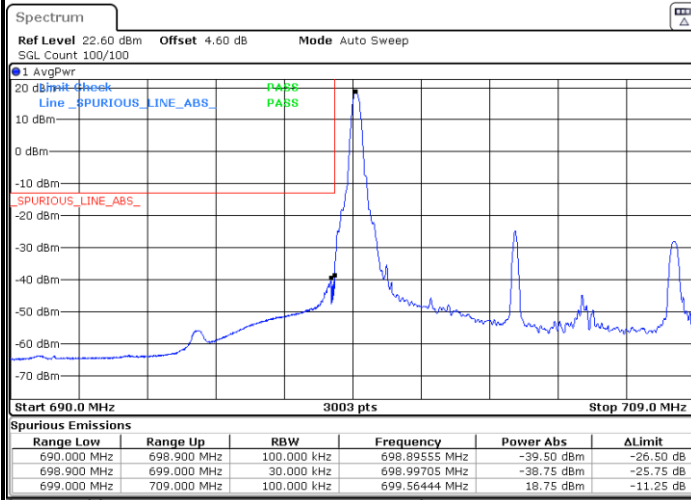
Highest Band Edge / Full RB



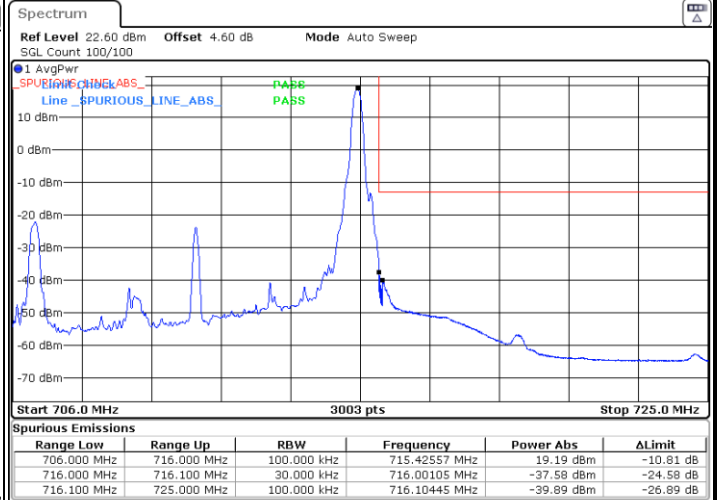


LTE Band 12 / 10MHz / 16QAM

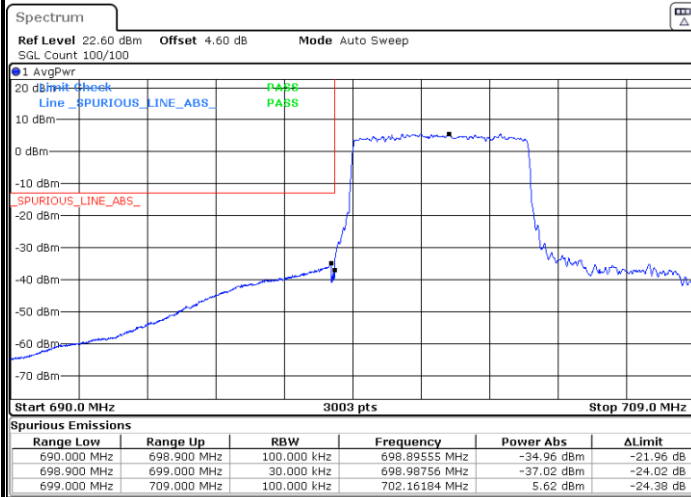
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

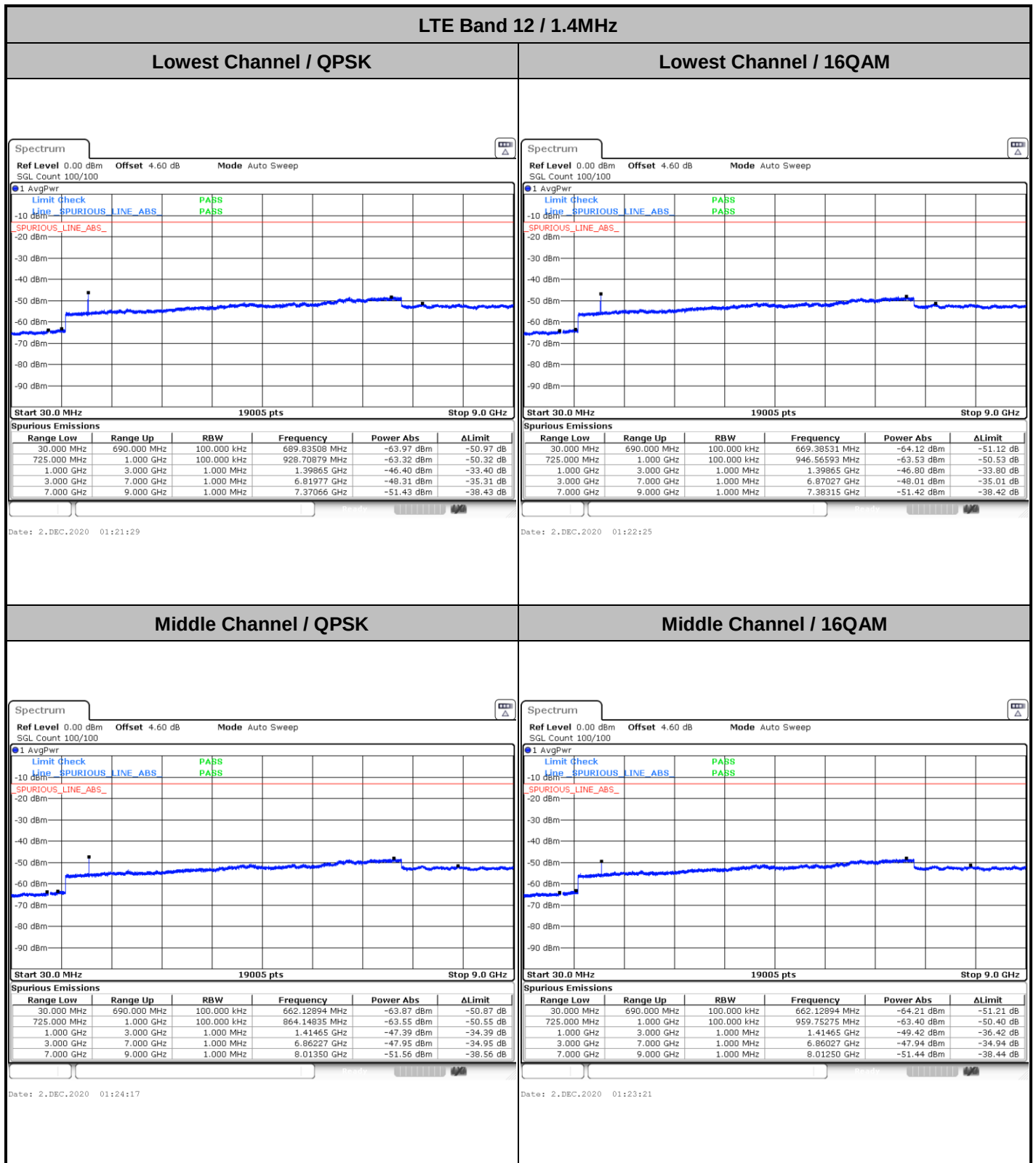


Highest Band Edge / Full RB





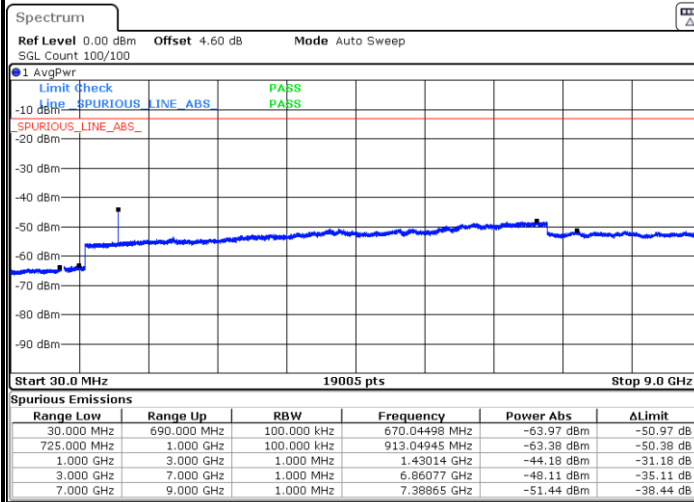
Conducted Spurious Emission





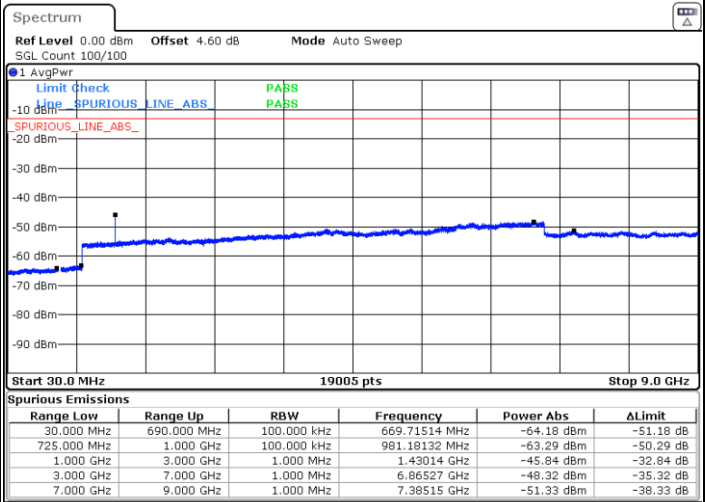
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 2.DEC.2020 01:25:13

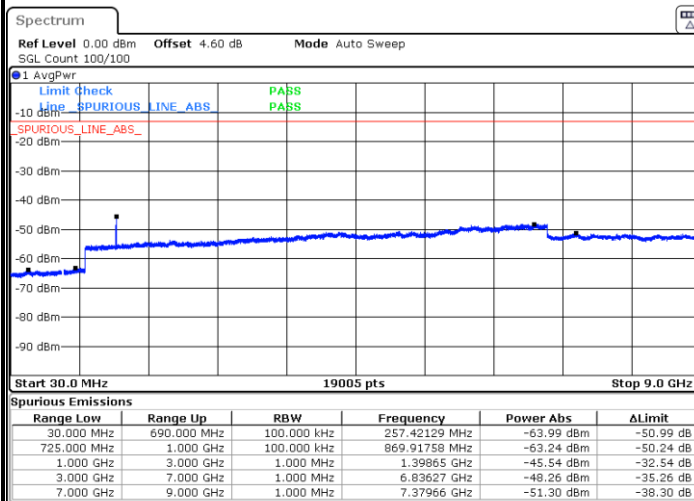
Highest Channel / 16QAM



Date: 2.DEC.2020 01:26:08

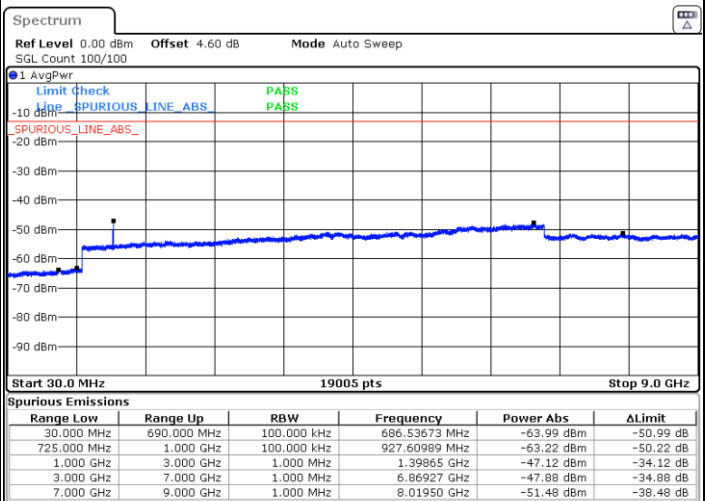
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 2.DEC.2020 01:54:17

Lowest Channel / 16QAM

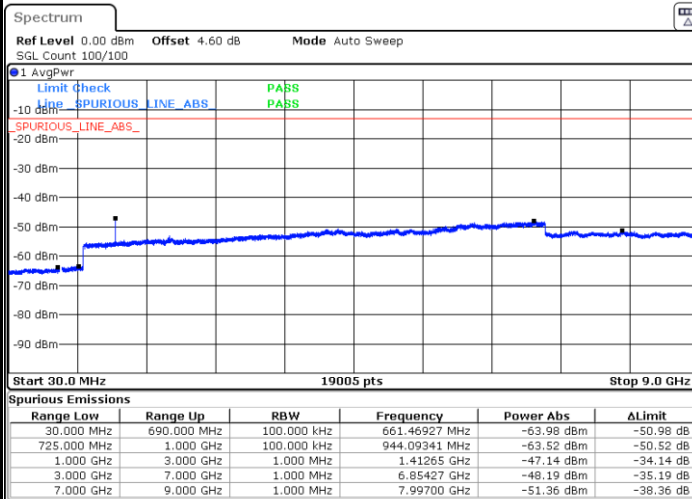


Date: 2.DEC.2020 01:55:13



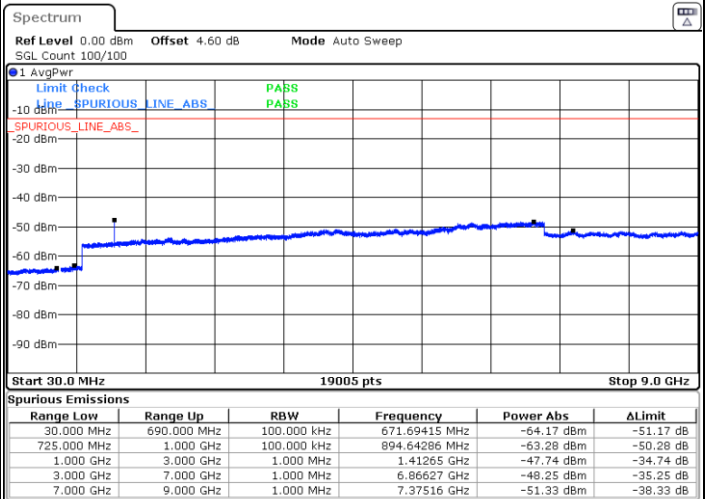
LTE Band 12 / 3MHz

Middle Channel / QPSK



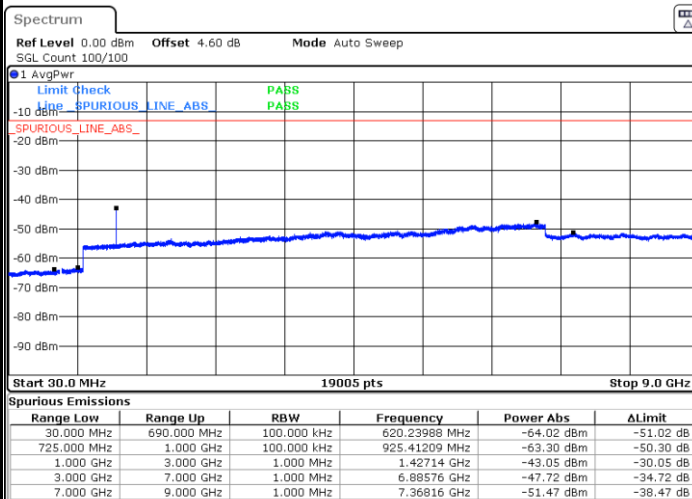
Date: 2.DEC.2020 01:57:05

Middle Channel / 16QAM



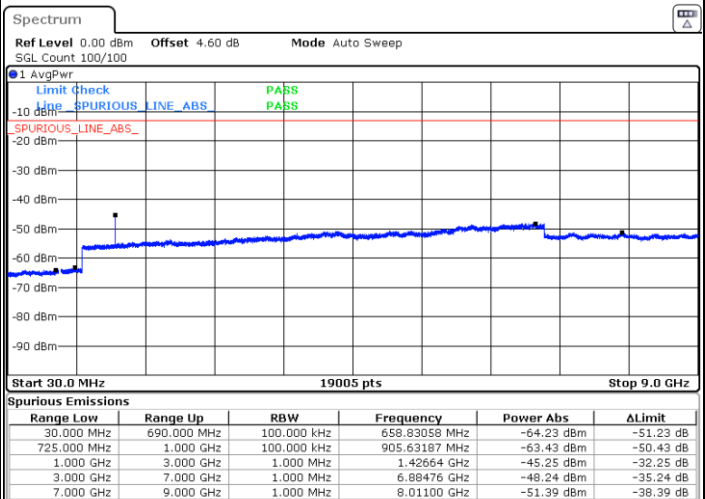
Date: 2.DEC.2020 01:56:09

Highest Channel / QPSK



Date: 2.DEC.2020 01:58:01

Highest Channel / 16QAM

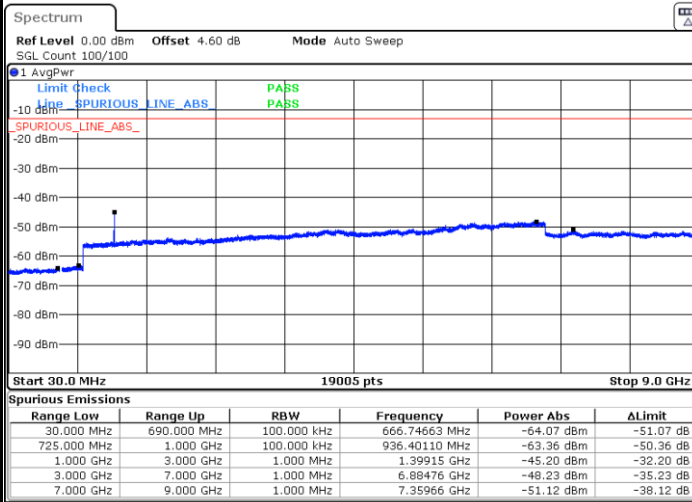


Date: 2.DEC.2020 01:58:56



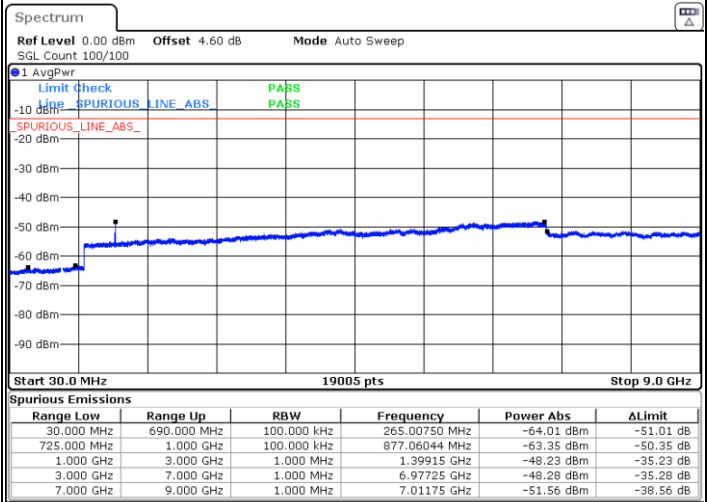
LTE Band 12 / 5MHz

Lowest Channel / QPSK



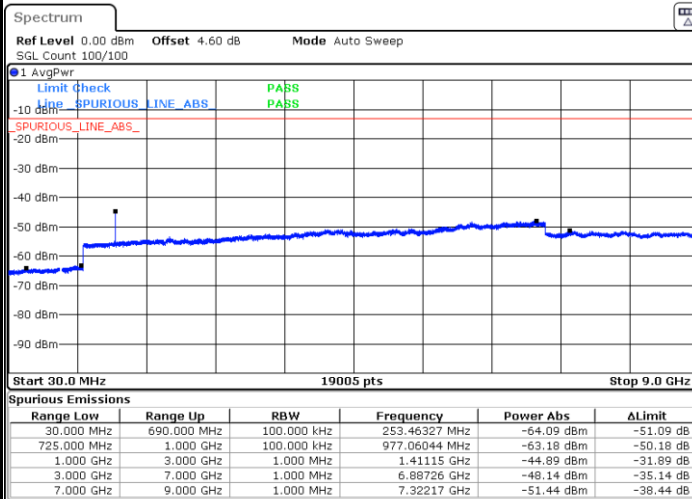
Date: 2.DEC.2020 02:11:48

Lowest Channel / 16QAM



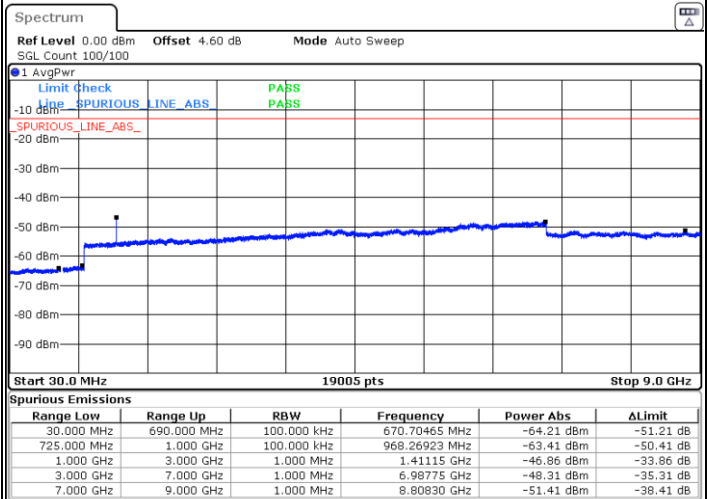
Date: 2.DEC.2020 02:40:20

Middle Channel / QPSK



Date: 2.DEC.2020 02:42:12

Middle Channel / 16QAM

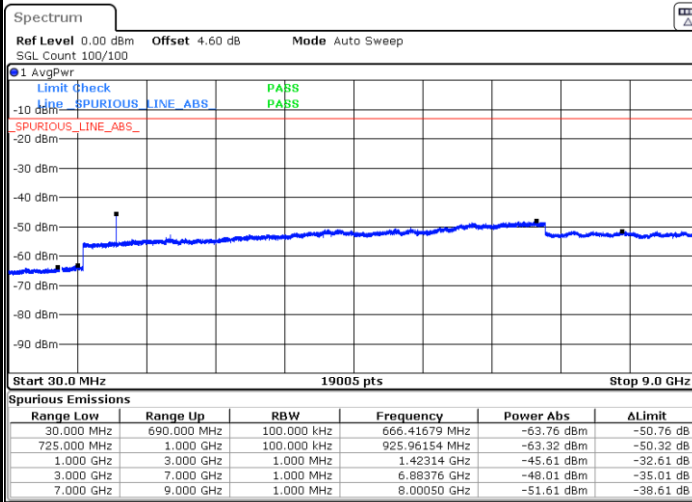


Date: 2.DEC.2020 02:41:16



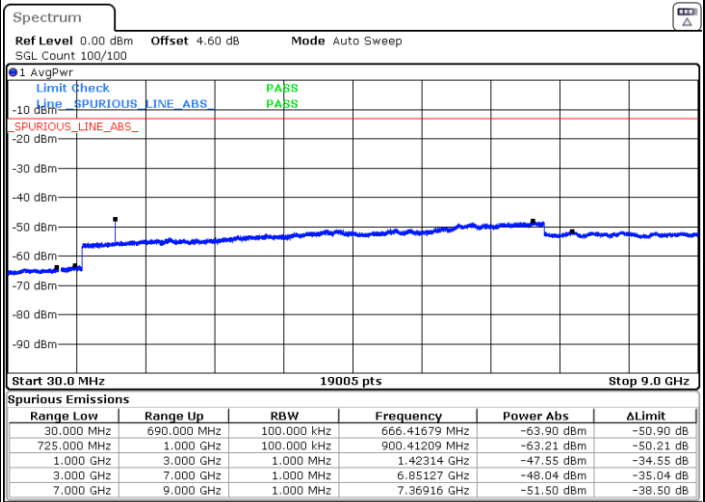
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 2.DEC.2020 02:43:08

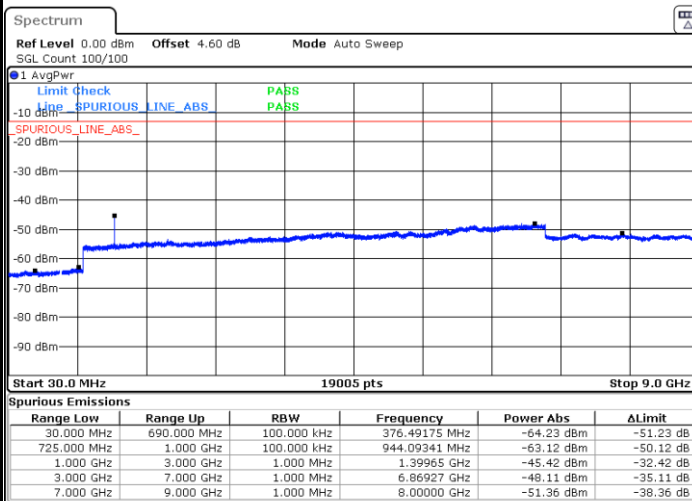
Highest Channel / 16QAM



Date: 2.DEC.2020 02:44:03

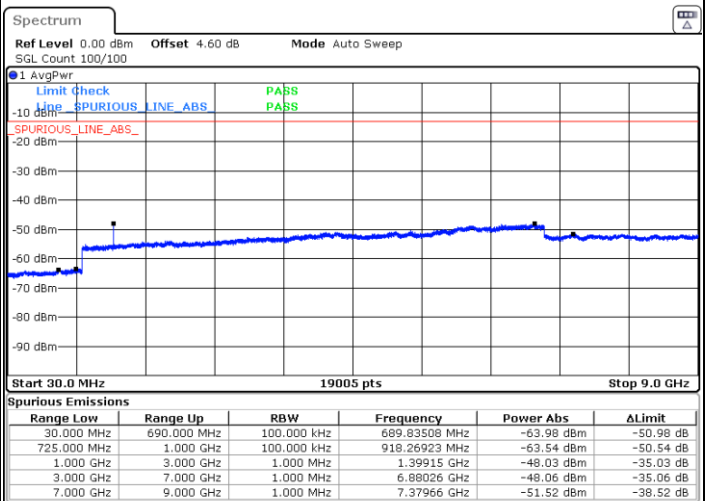
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 2.DEC.2020 03:00:59

Lowest Channel / 16QAM

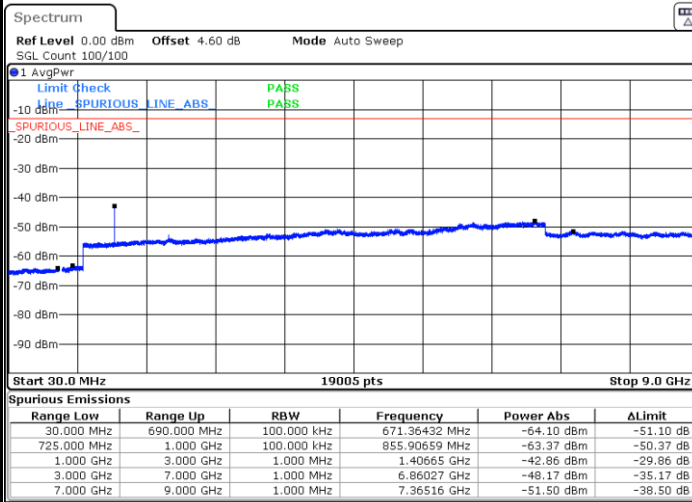


Date: 2.DEC.2020 02:59:48



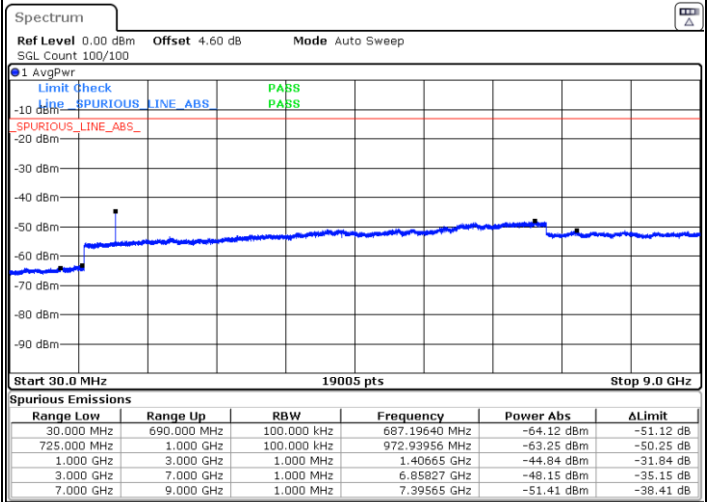
LTE Band 12 / 10MHz

Middle Channel / QPSK



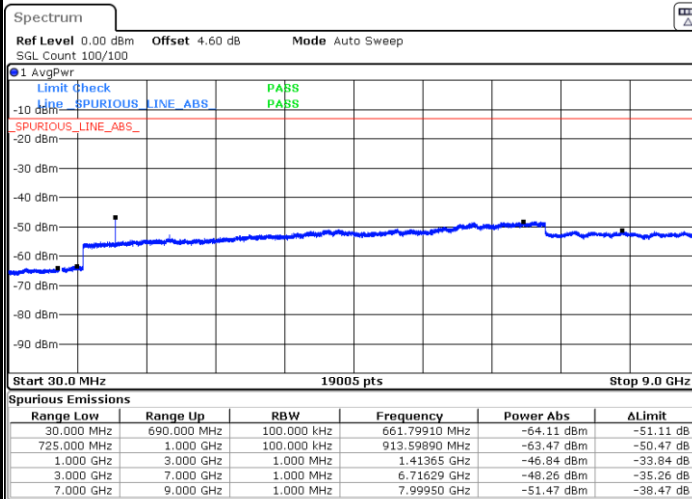
Date: 2.DEC.2020 03:02:19

Middle Channel / 16QAM



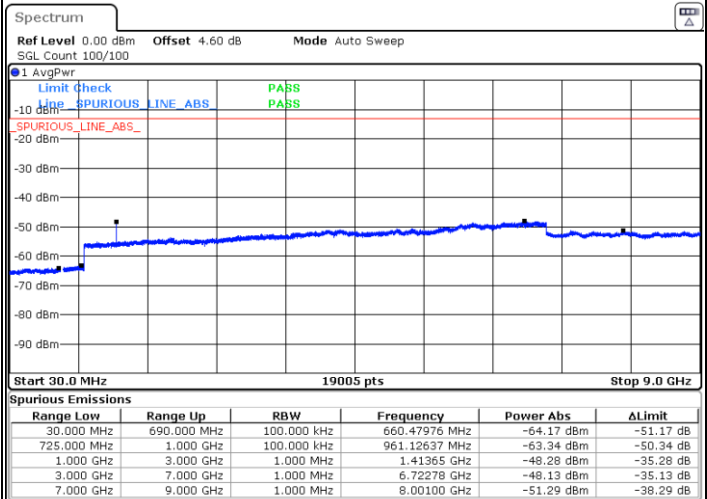
Date: 2.DEC.2020 03:03:26

Highest Channel / QPSK



Date: 2.DEC.2020 03:09:34

Highest Channel / 16QAM



Date: 2.DEC.2020 03:08:37

**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	0.0005	PASS
40	Normal Voltage	0.0000	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0052	
-30	Normal Voltage	0.0044	
20	Maximum Voltage	0.0054	
20	Normal Voltage	0.0027	
20	Battery End Point	0.0054	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3V. ; Maximum Voltage =4.3V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

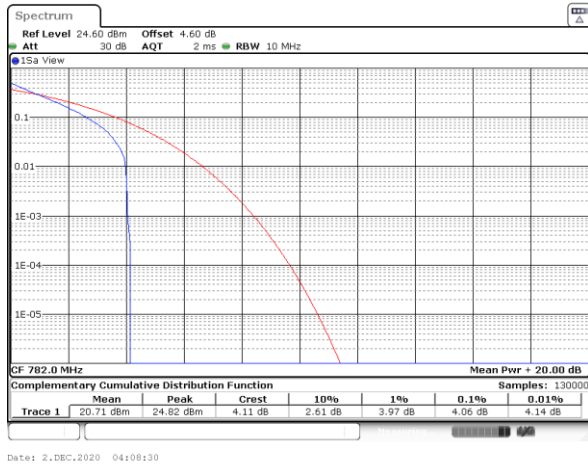
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.06	4.93	5.25	5.86	
Highest CH	-	-	-	-	

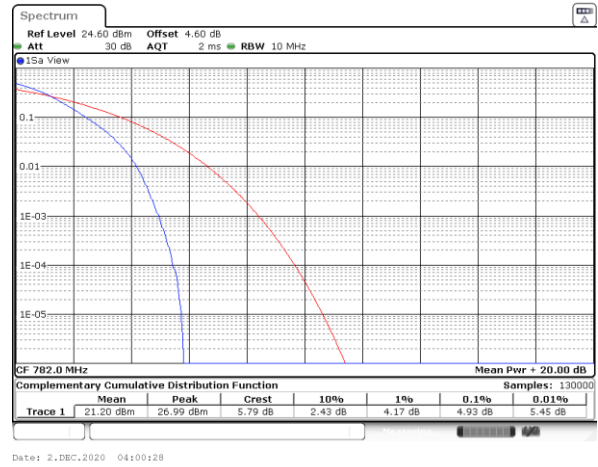


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

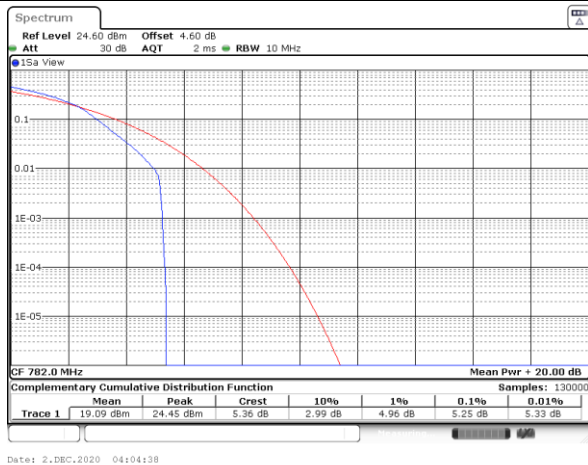


Middle Channel / Full RB

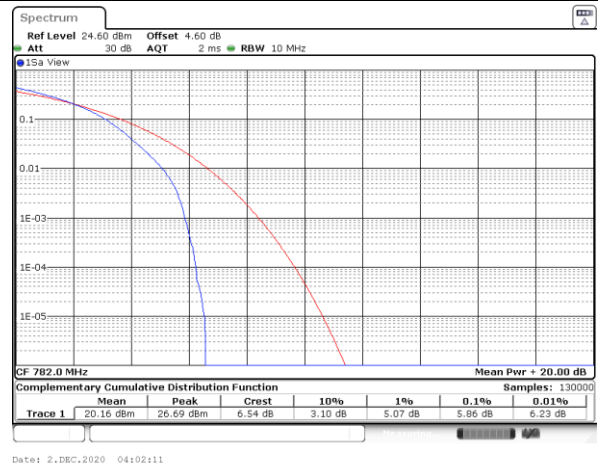


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Middle Channel / Full RB





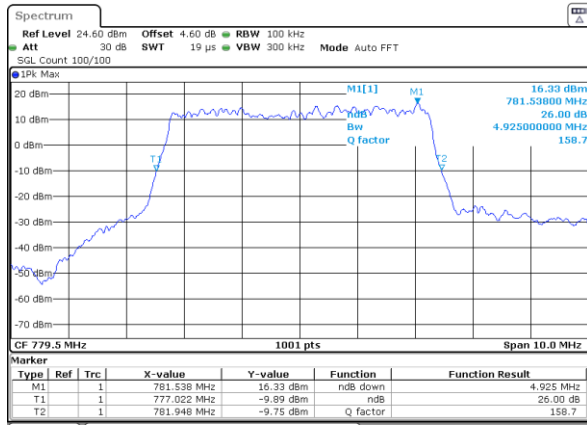
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
BW					5MHz		10MHz					
Mod.					QPSK	16QAM	QPSK	16QAM				
Lowest CH	-	-	-	-	4.93	4.93	-	-	-	-	-	-
Middle CH	-	-	-	-	5.04	4.86	9.79	6.03	-	-	-	-
Highest CH	-	-	-	-	4.96	4.94	-	-	-	-	-	-



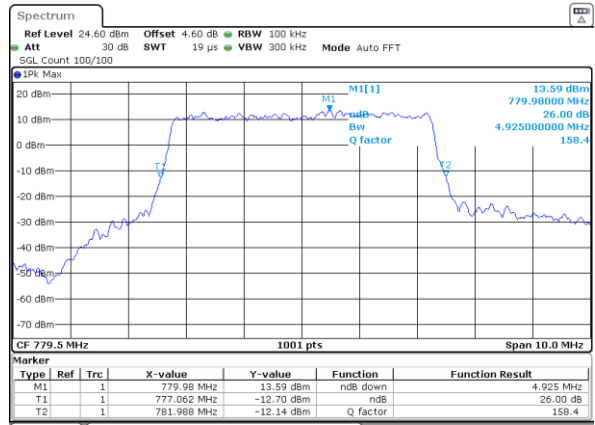
LTE Band 13

Lowest Channel / 5MHz / QPSK



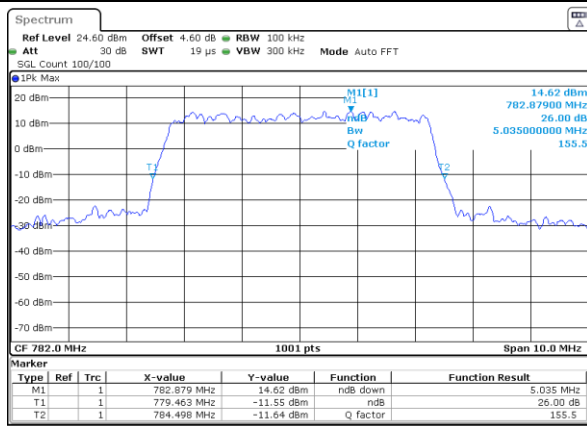
Date: 2,DEC,2020 03:29:25

Lowest Channel / 5MHz / 16QAM



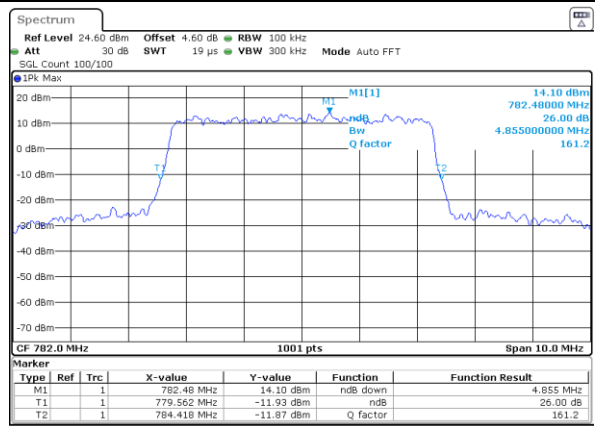
Date: 2,DEC,2020 03:29:35

Middle Channel / 5MHz / QPSK



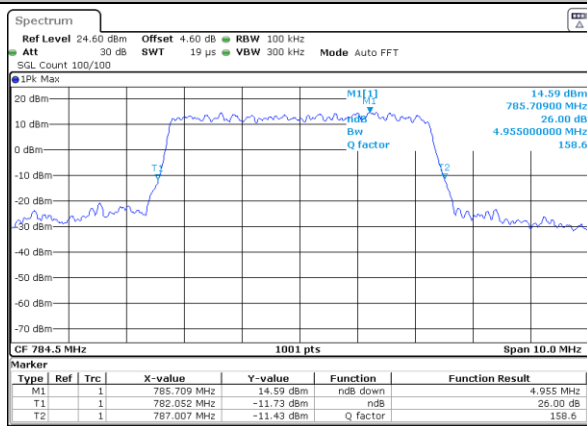
Date: 2,DEC,2020 03:38:27

Middle Channel / 5MHz / 16QAM



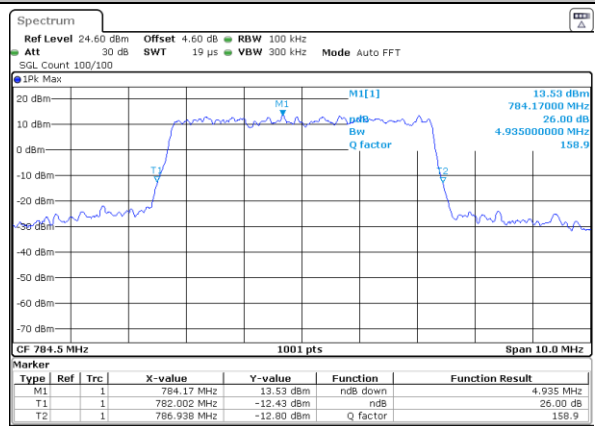
Date: 2,DEC,2020 03:38:37

Highest Channel / 5MHz / QPSK



Date: 2,DEC,2020 03:41:08

Highest Channel / 5MHz / 16QAM

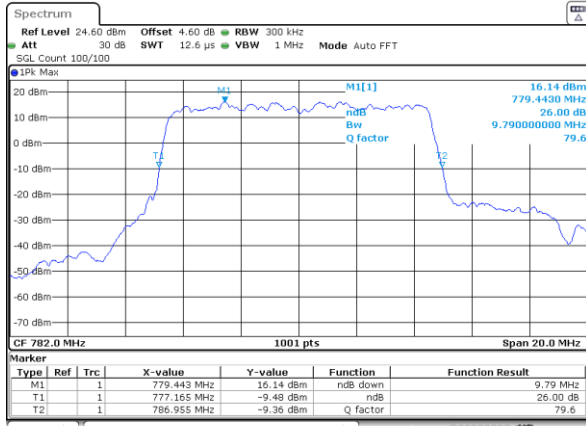


Date: 2,DEC,2020 03:40:58



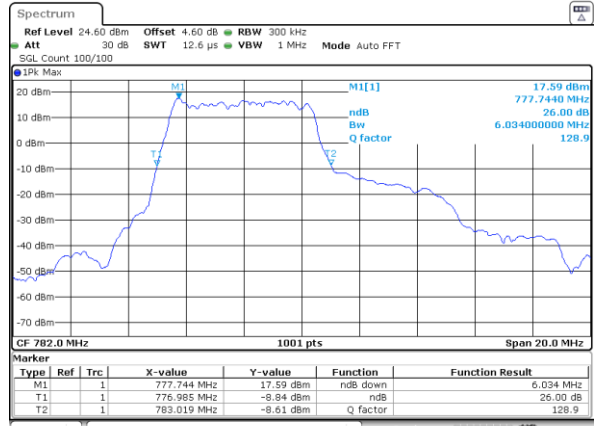
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 2.DEC.2020 03:59:17

Middle Channel / 10MHz / 16QAM



Date: 2.DEC.2020 04:00:53



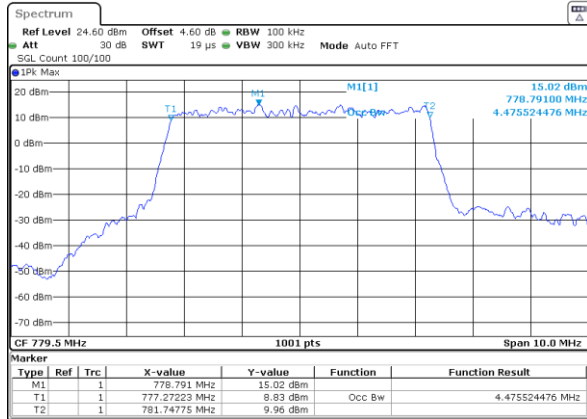
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
BW					5MHz		10MHz					
Mod.					QPSK	16QAM	QPSK	16QAM				
Lowest CH	-	-	-	-	4.48	4.51	-	-				
Middle CH	-	-	-	-	4.49	4.49	9.01	5.03	-	-	-	-
Highest CH	-	-	-	-	4.48	4.46	-	-	-	-	-	-



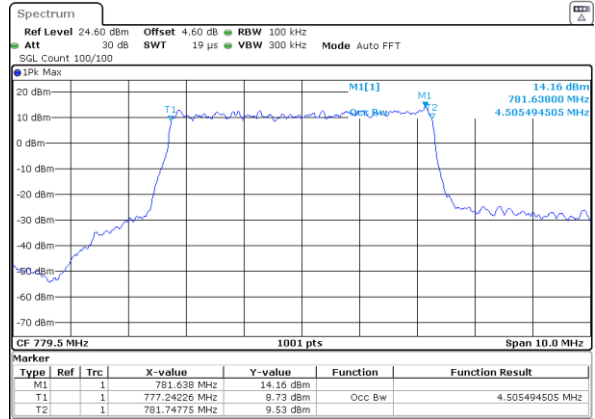
LTE Band 13

Lowest Channel / 5MHz / QPSK



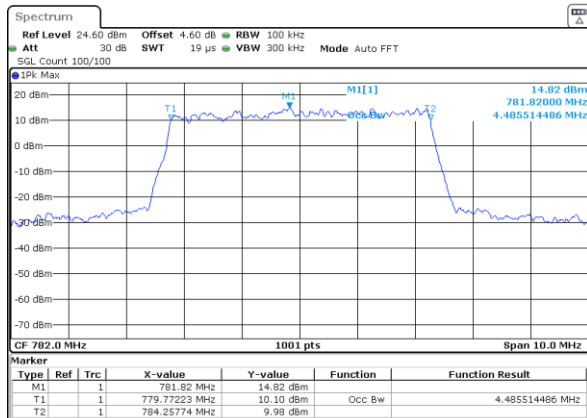
Date: 2,DEC,2020 03:29:55

Lowest Channel / 5MHz / 16QAM



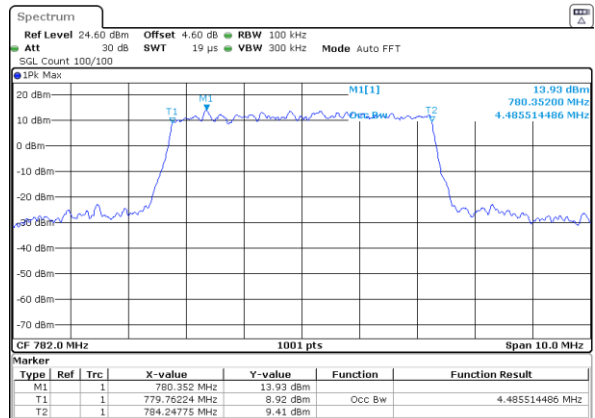
Date: 2,DEC,2020 03:29:45

Middle Channel / 5MHz / QPSK



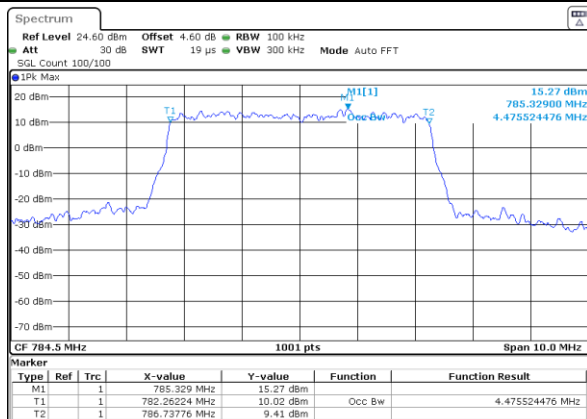
Date: 2,DEC,2020 03:38:47

Middle Channel / 5MHz / 16QAM



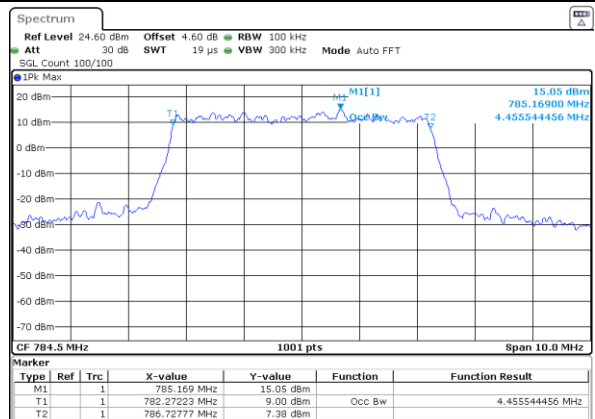
Date: 2,DEC,2020 03:38:57

Highest Channel / 5MHz / QPSK



Date: 2,DEC,2020 03:41:18

Highest Channel / 5MHz / 16QAM

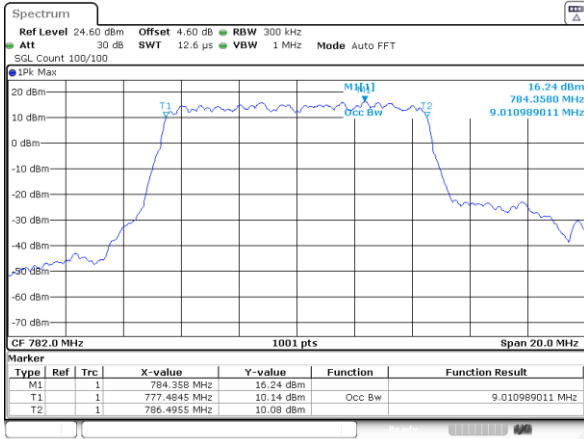


Date: 2,DEC,2020 03:41:28

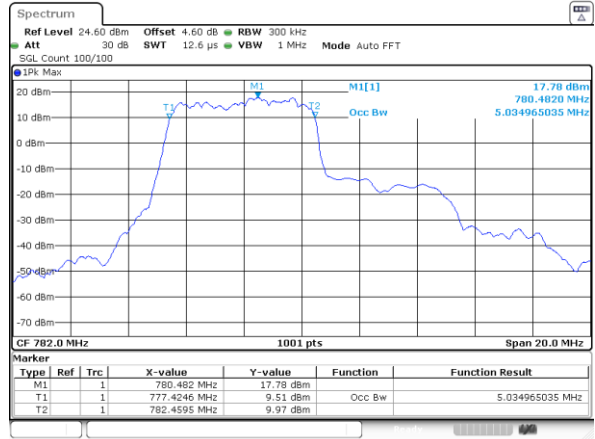


LTE Band 13

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

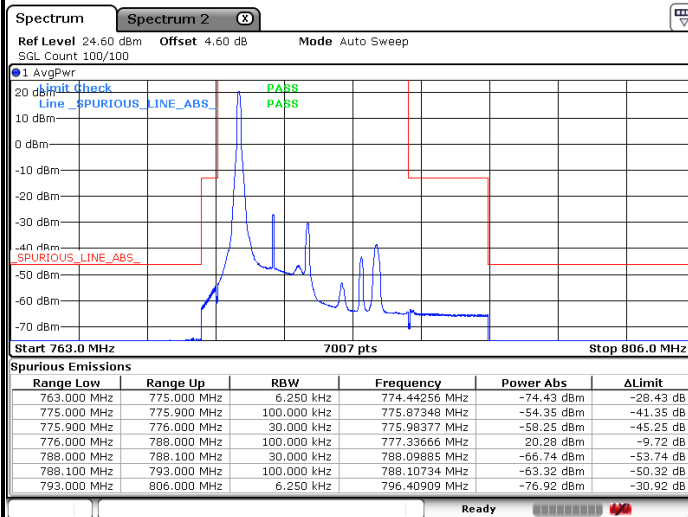




Conducted Band Edge

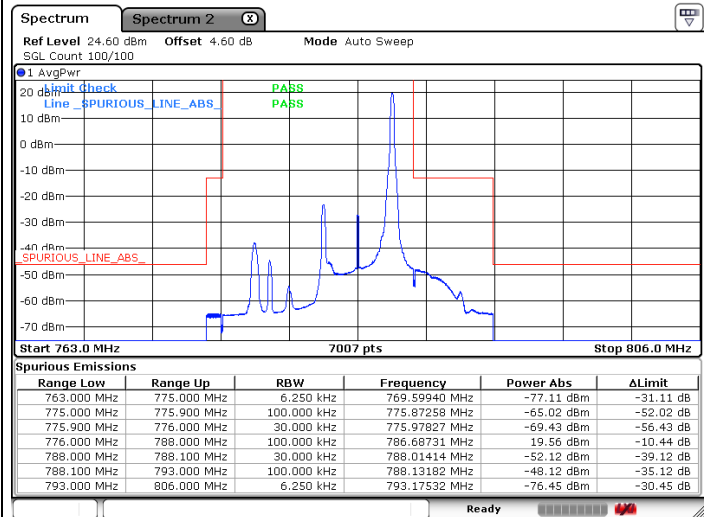
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



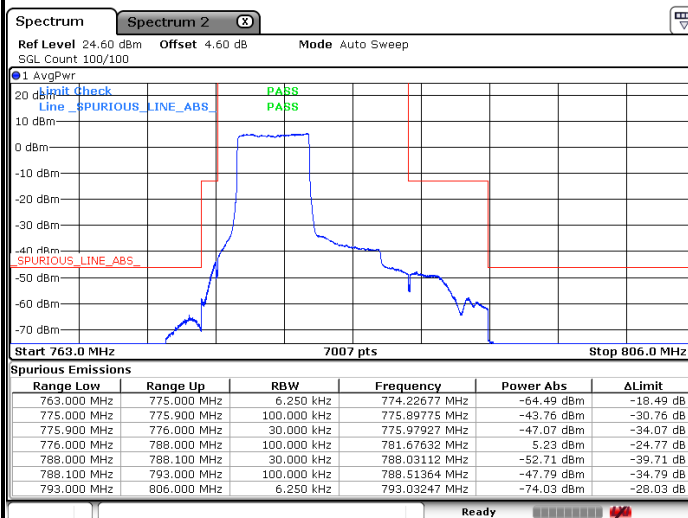
Date:10 DEC 2020 21:15:17

Highest Band Edge / 1 RB



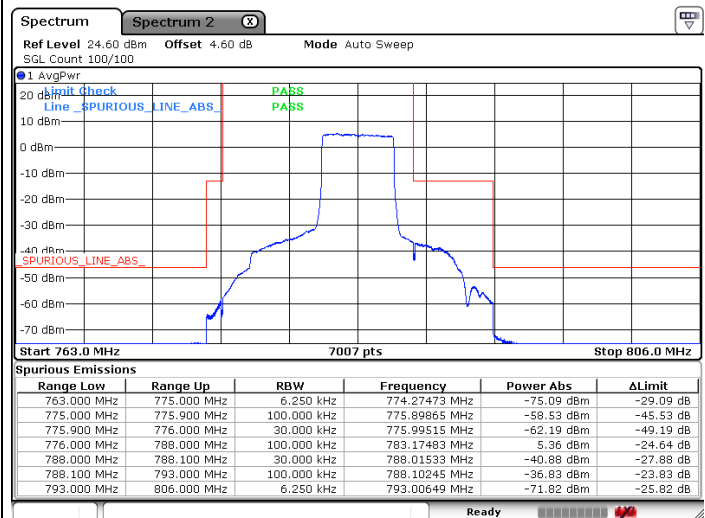
Date:10 DEC 2020 21:22:55

Lowest Band Edge / Full RB



Date:10 DEC 2020 21:18:57

Highest Band Edge / Full RB

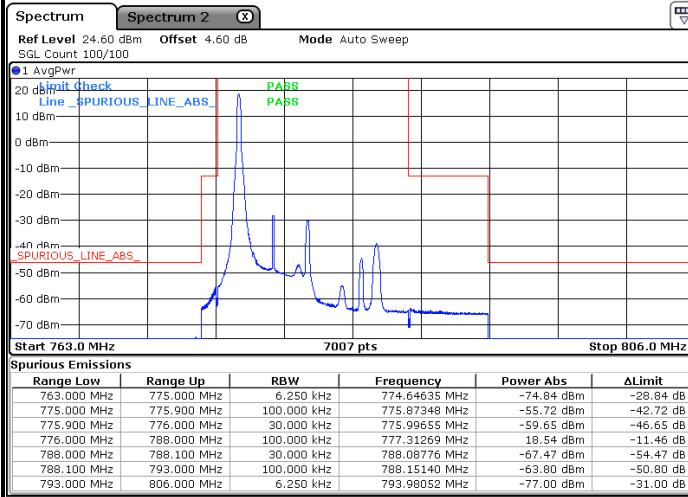


Date:10 DEC 2020 21:20:27

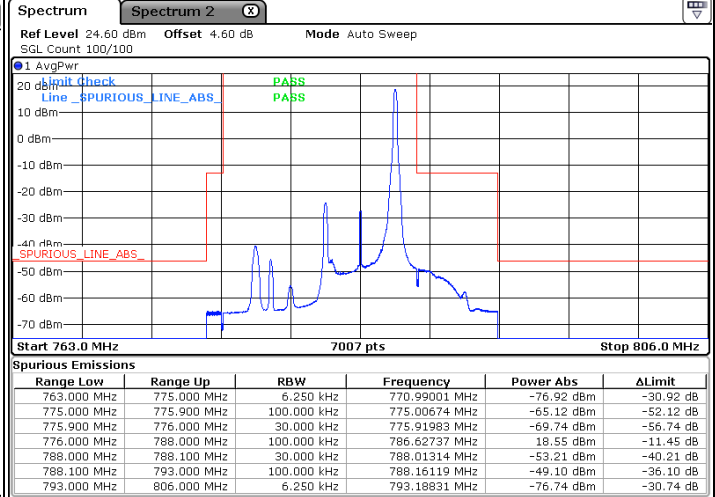


LTE Band 13 / 5MHz / 16QAM

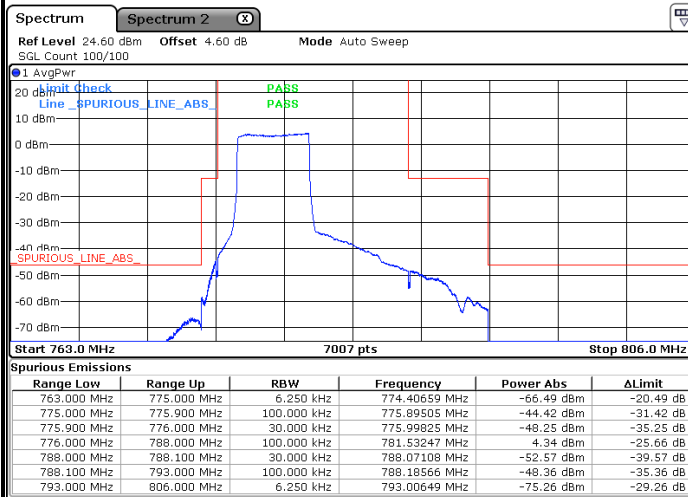
Lowest Band Edge / 1 RB



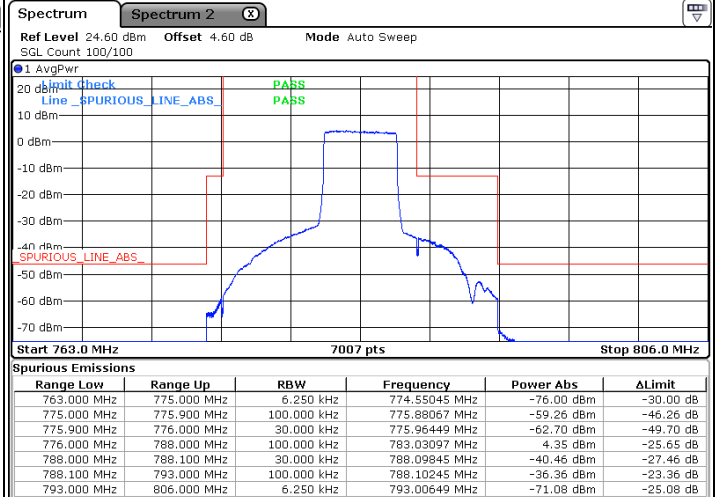
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



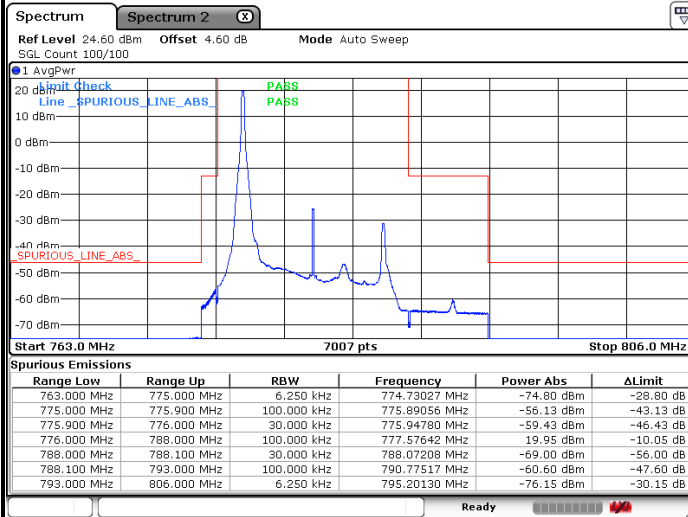
Highest Band Edge / Full RB



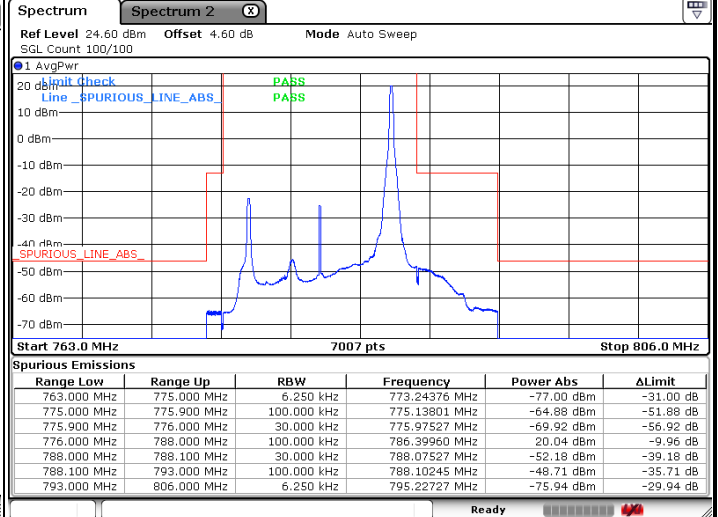


LTE Band 13 / 10MHz / QPSK

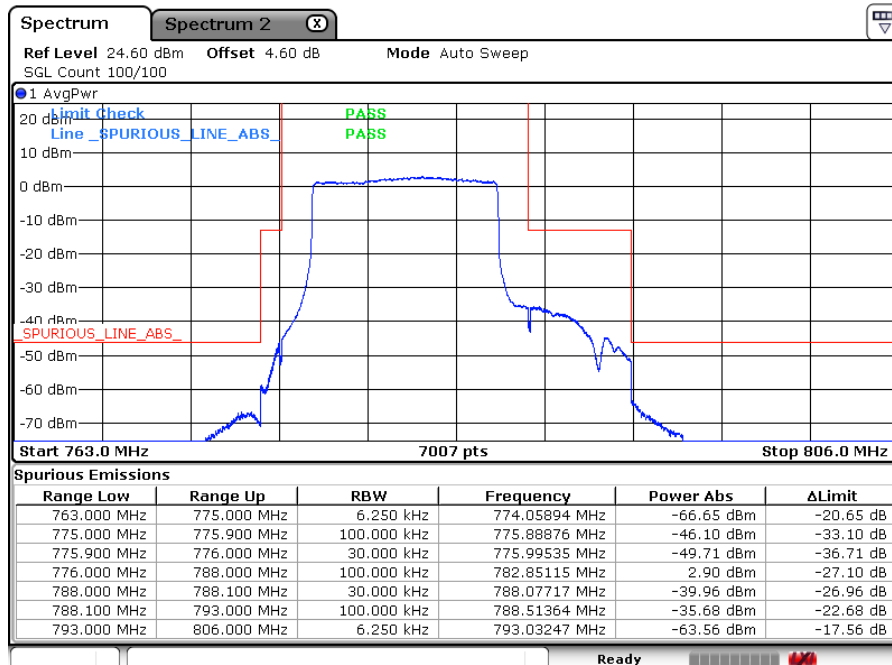
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



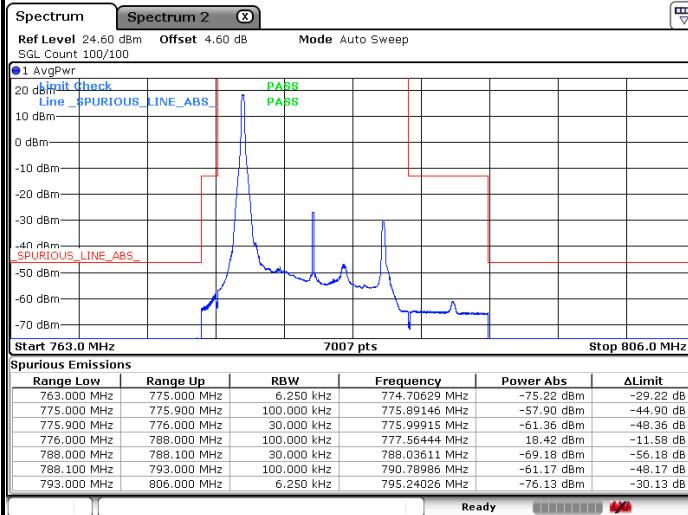
Band Edge / Full RB



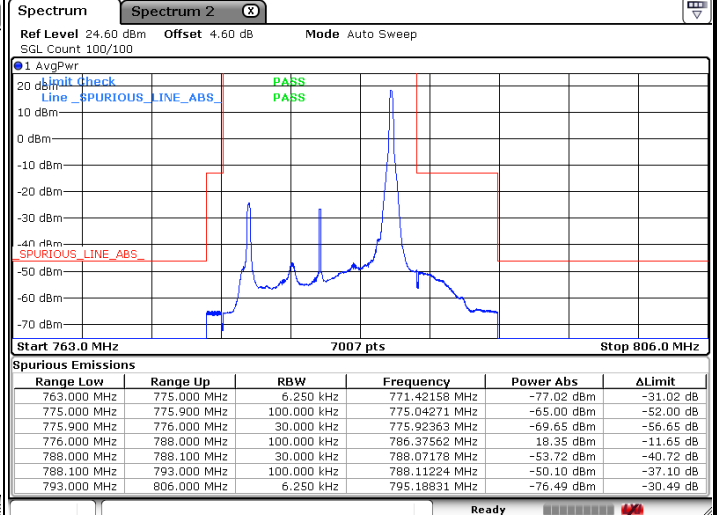


LTE Band 13 / 10MHz / 16QAM

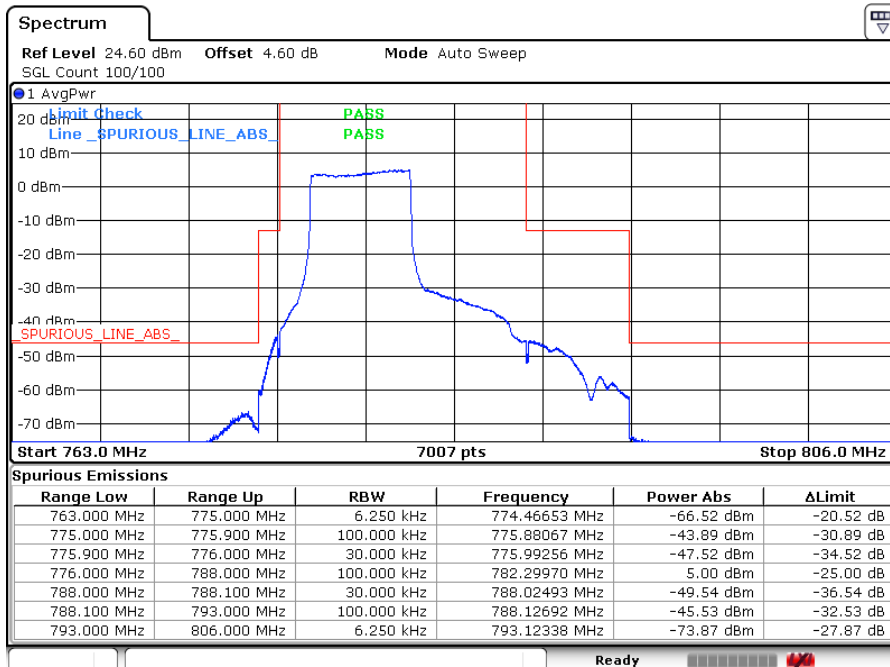
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

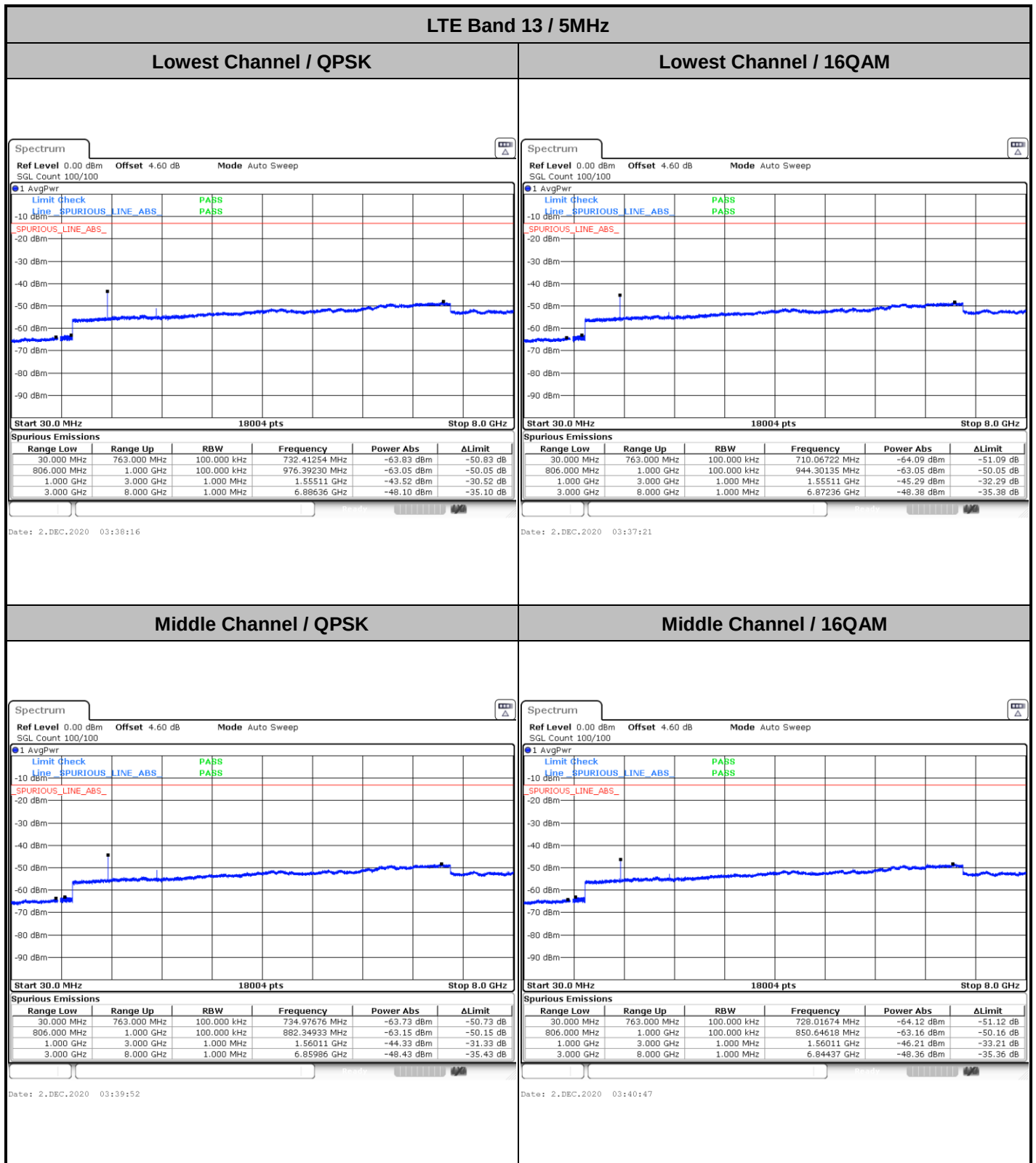


Band Edge / Full RB





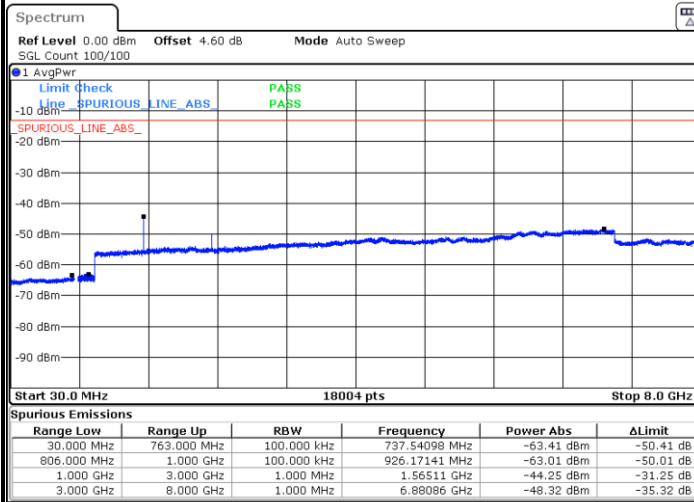
Conducted Spurious Emission





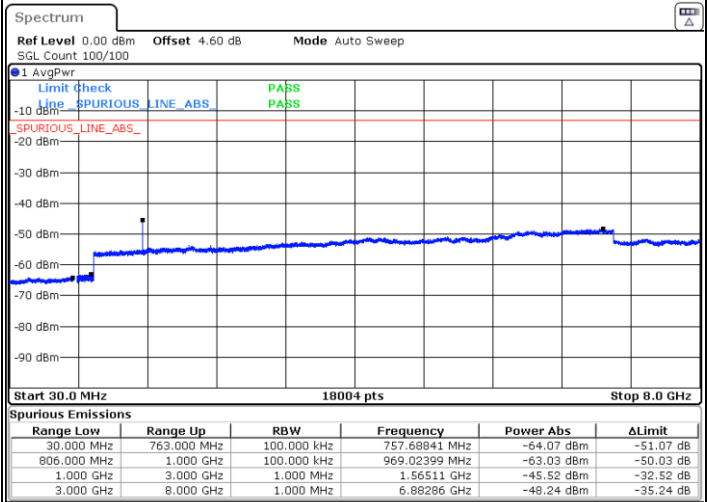
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 2.DEC.2020 03:49:49

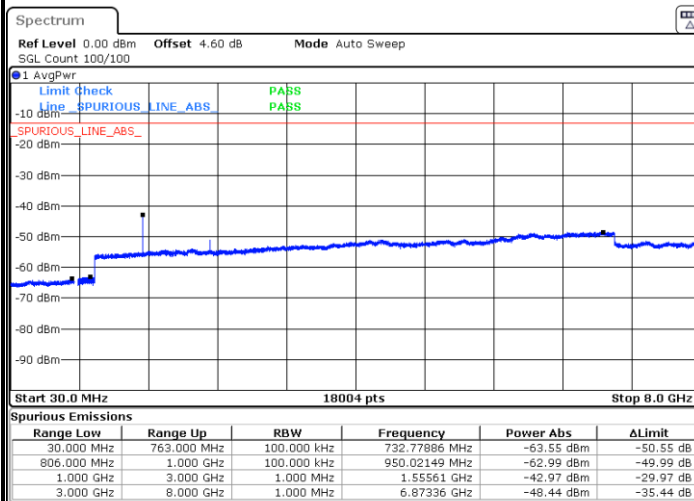
Highest Channel / 16QAM



Date: 2.DEC.2020 03:48:53

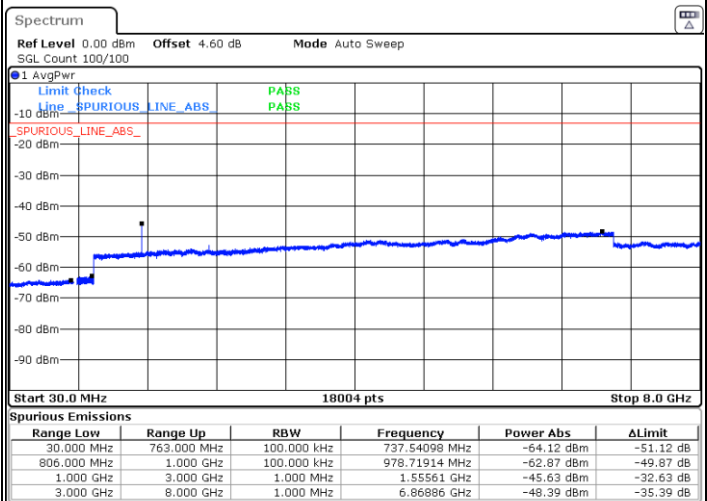
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 2.DEC.2020 04:08:21

Middle Channel / 16QAM



Date: 2.DEC.2020 04:04:26

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	0.0013	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0074	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0072	
20	Normal Voltage	0.0077	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3V. ; Maximum Voltage =4.3V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 66

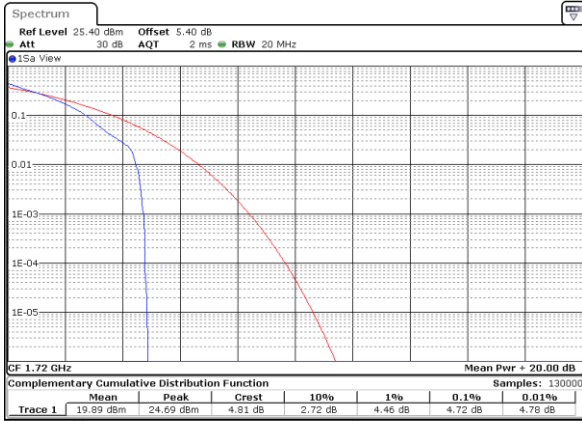
Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.72	5.01	5.57	6.20	PASS
Middle CH	4.64	5.10	5.39	6.06	
Highest CH	4.84	5.19	5.42	6.23	



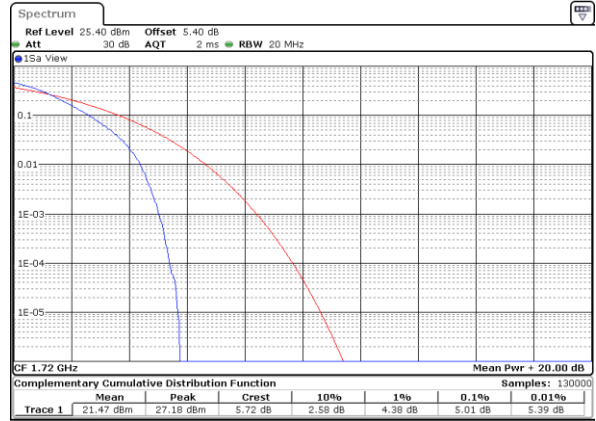
LTE Band 66 / 20MHz / QPSK

Lowest Channel / 1RB



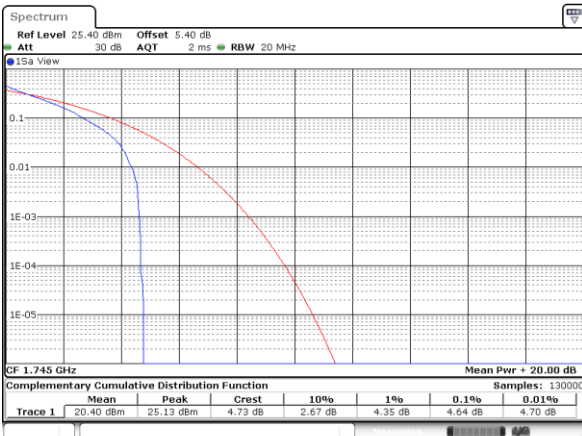
Date: 7 DEC 2020 13:56:17

Lowest Channel / Full RB



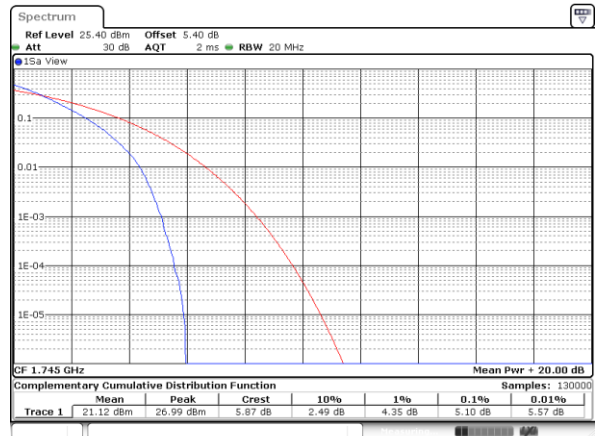
Date: 2 DEC 2020 14:39:39

Middle Channel / 1RB



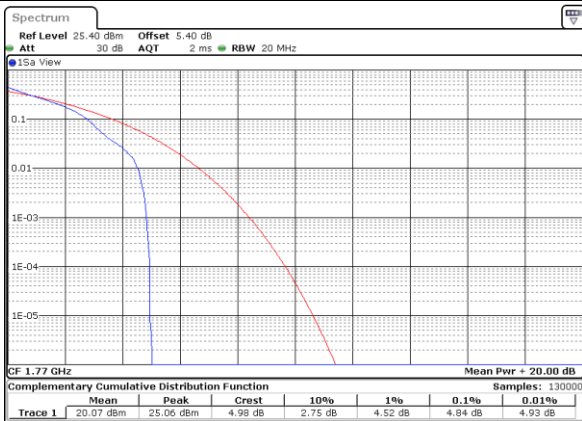
Date: 2 DEC 2020 14:38:23

Middle Channel / Full RB



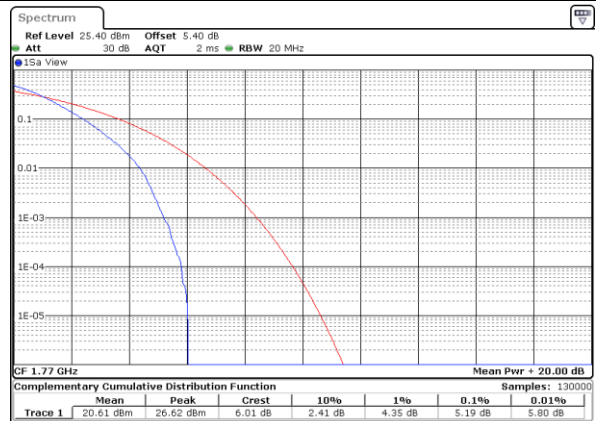
Date: 2 DEC 2020 14:36:24

Highest Channel / 1RB



Date: 7 DEC 2020 14:02:04

Highest Channel / Full RB

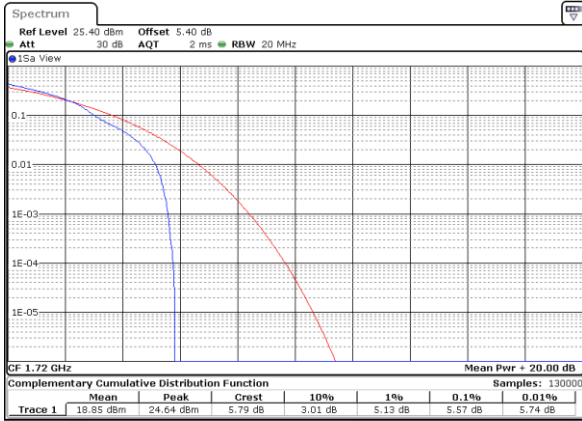


Date: 2 DEC 2020 14:43:28



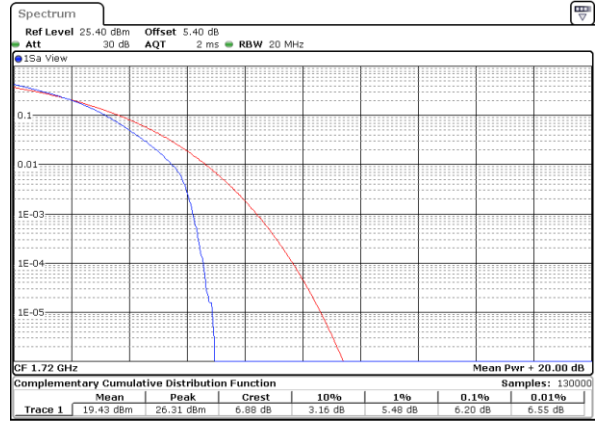
LTE Band 66 / 20MHz / 16QAM

Lowest Channel / 1RB



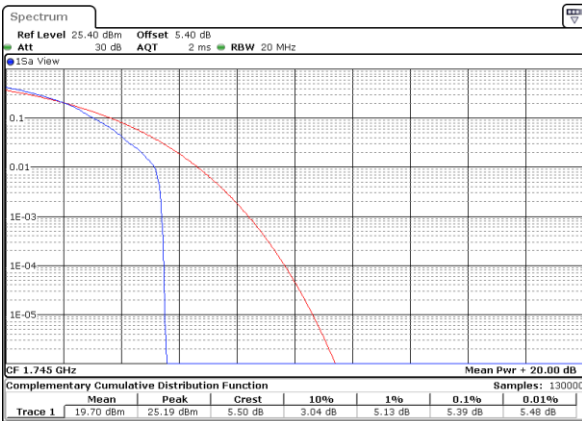
Date: 7 DEC 2020 13:58:06

Lowest Channel / Full RB



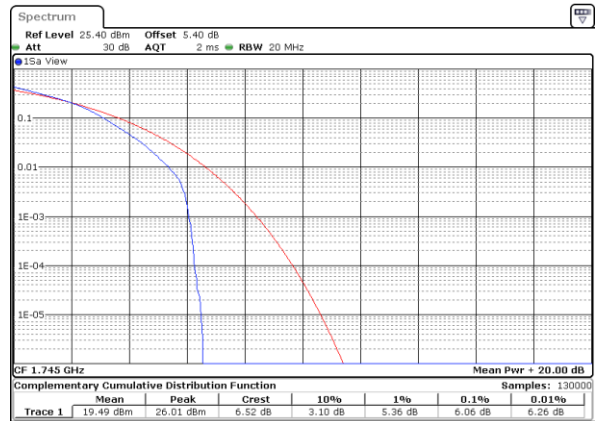
Date: 2 DEC 2020 14:40:29

Middle Channel / 1RB



Date: 2 DEC 2020 14:37:59

Middle Channel / Full RB



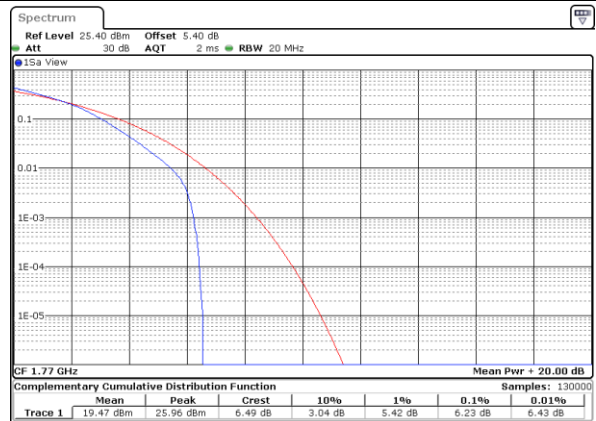
Date: 2 DEC 2020 14:37:17

Highest Channel / 1RB



Date: 7 DEC 2020 14:02:25

Highest Channel / Full RB



Date: 2 DEC 2020 14:44:08



26dB Bandwidth

Mode	LTE Band 66 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.28	1.29	3.04	2.98	4.93	4.89	9.93	5.73	14.30	5.72	20.10	7.03
Middle CH	1.28	1.28	2.97	3.00	4.95	4.94	9.81	5.65	14.39	5.90	20.30	7.23
Highest CH	1.27	1.31	3.05	3.00	4.95	4.92	9.75	5.65	14.45	5.87	20.34	7.23