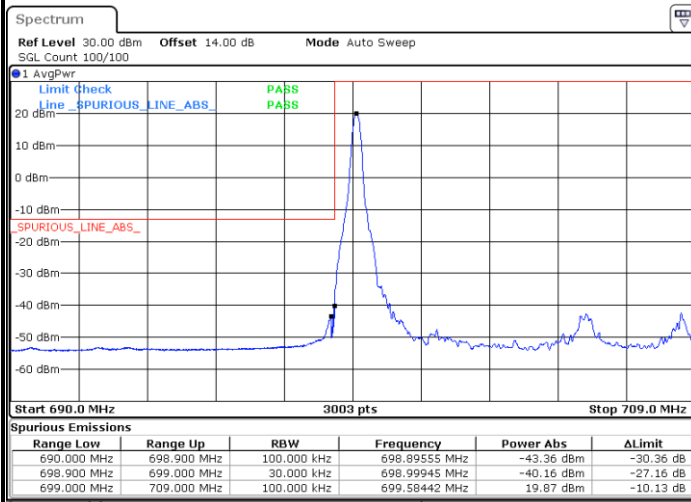


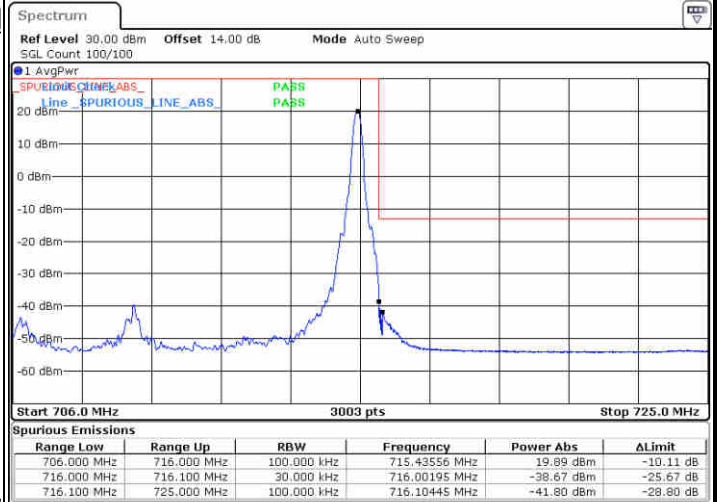


LTE Band 12 / 10MHz / QPSK

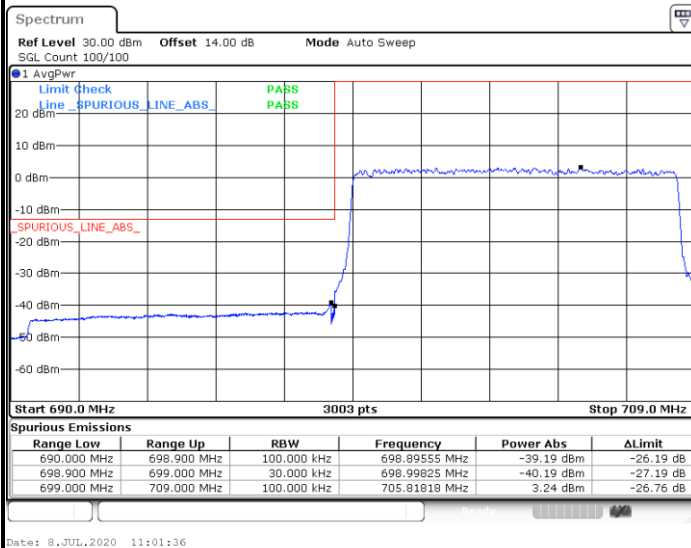
Lowest Band Edge / 1 RB



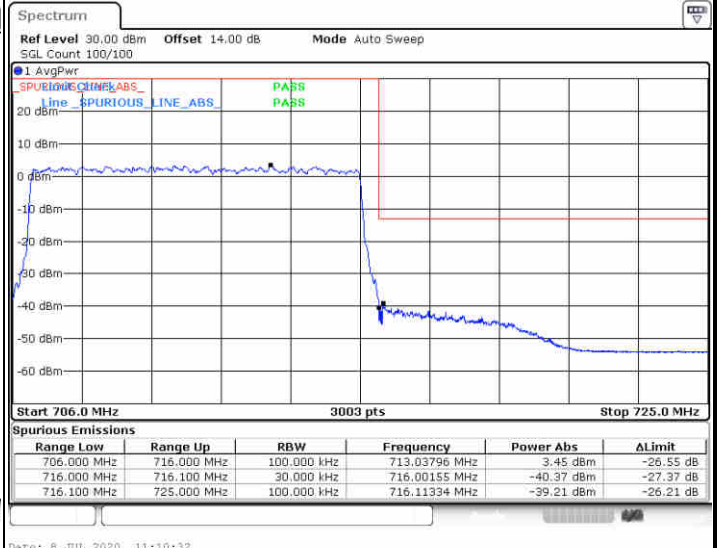
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



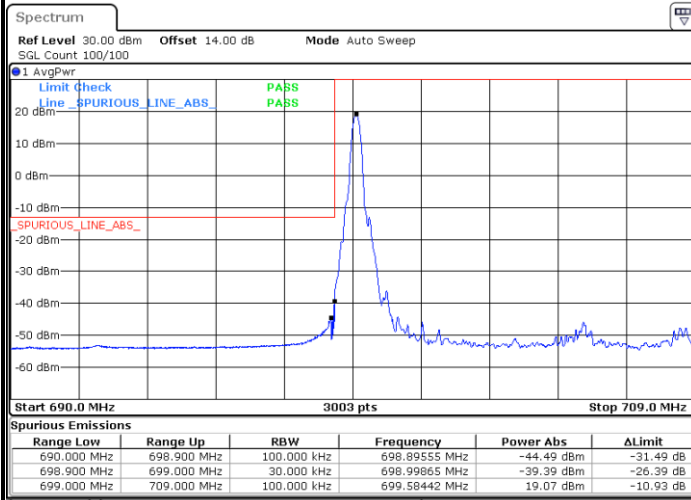
Highest Band Edge / Full RB





LTE Band 12 / 10MHz / 16QAM

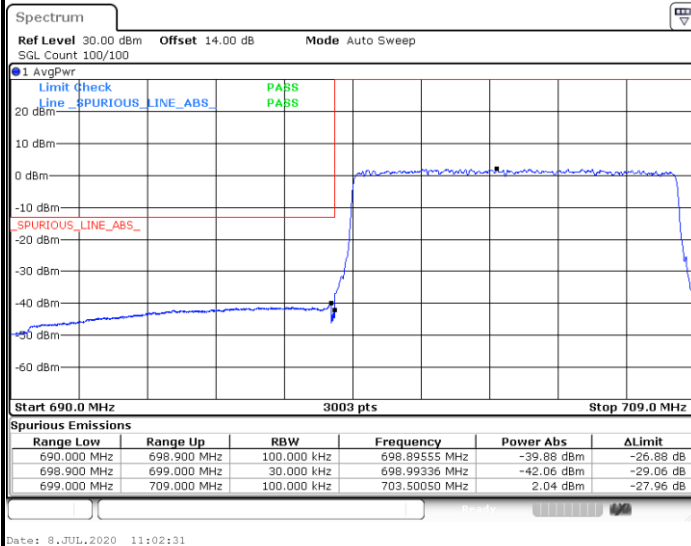
Lowest Band Edge / 1 RB



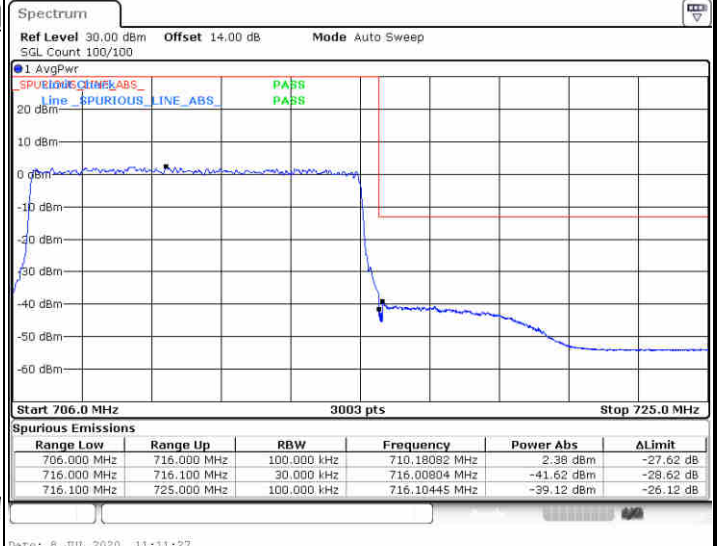
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



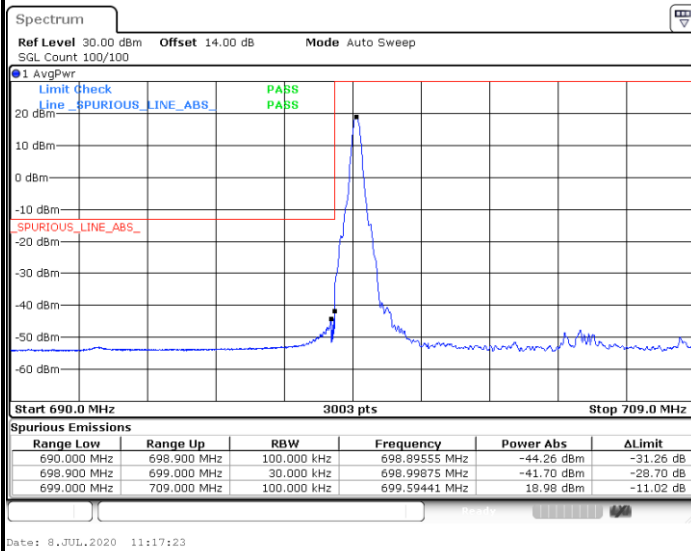
Highest Band Edge / Full RB



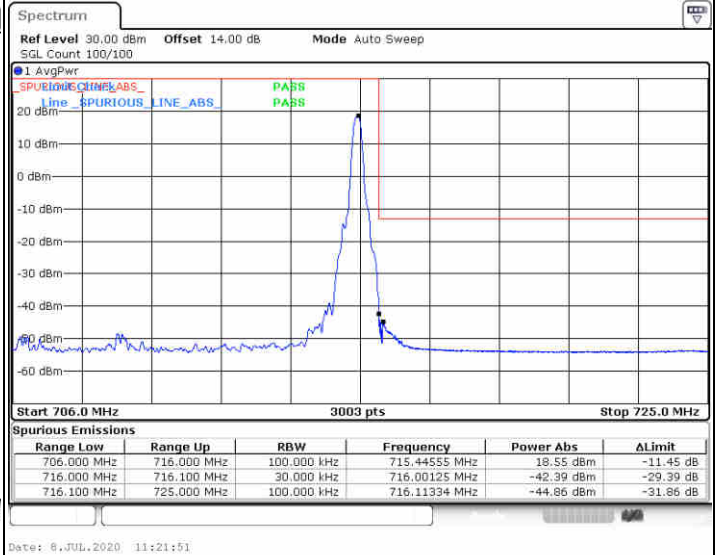


LTE Band 12 / 10MHz / 64QAM

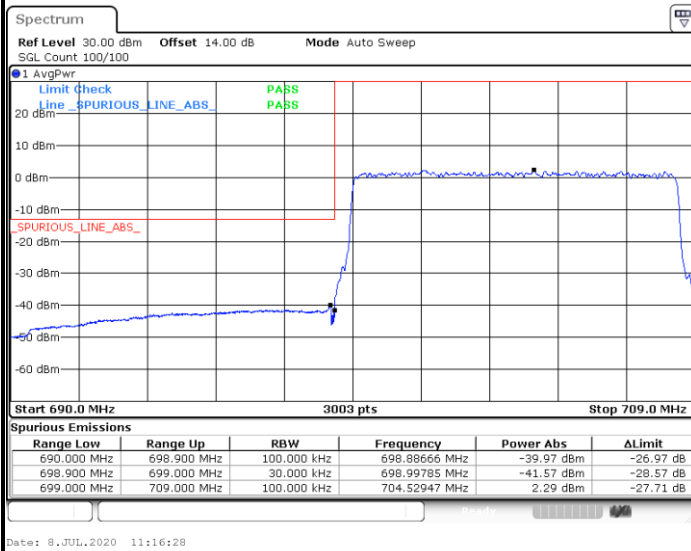
Lowest Band Edge / 1 RB



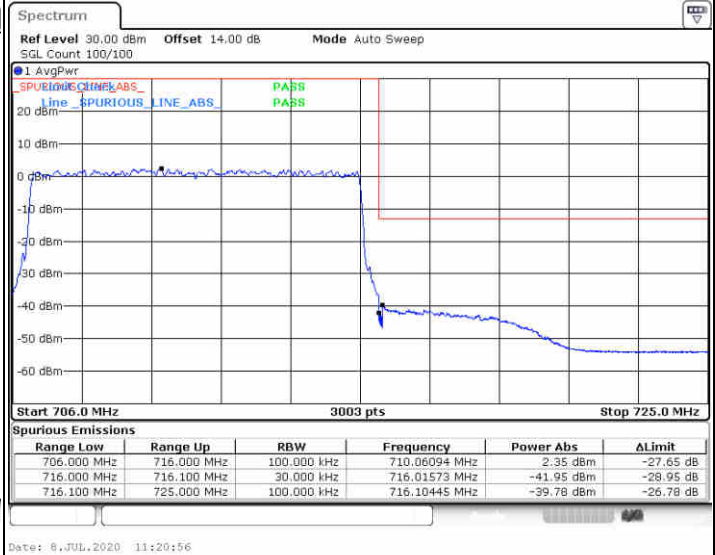
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

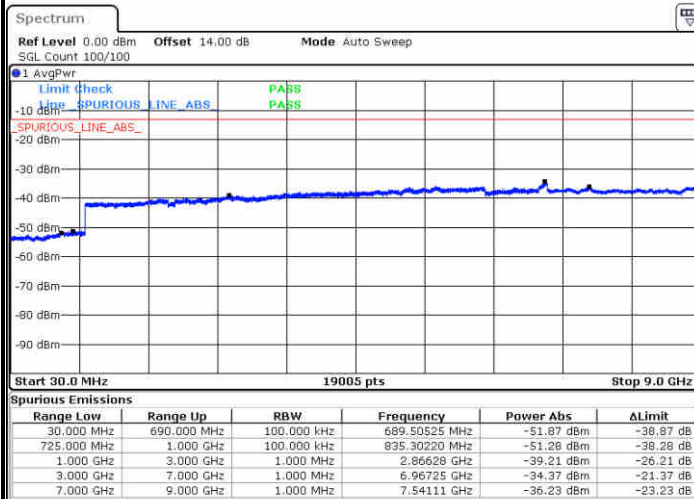




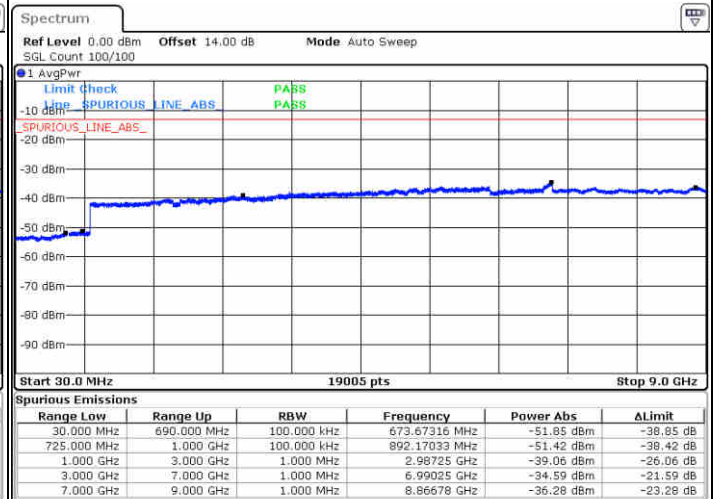
Conducted Spurious Emission

LTE Band 12 / 1.4MHz

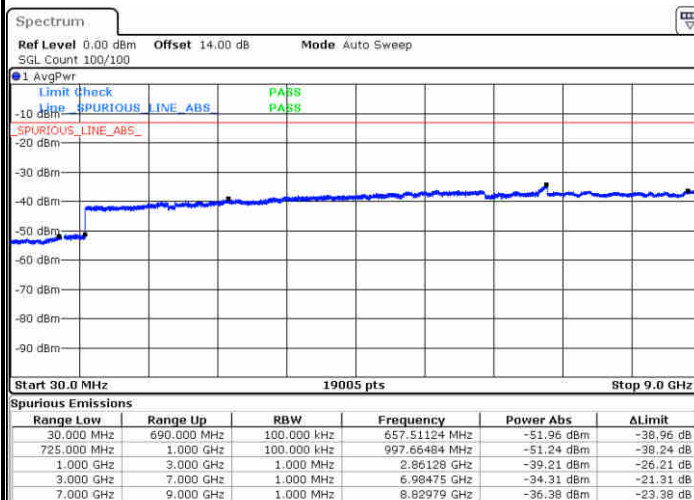
Lowest Channel / QPSK



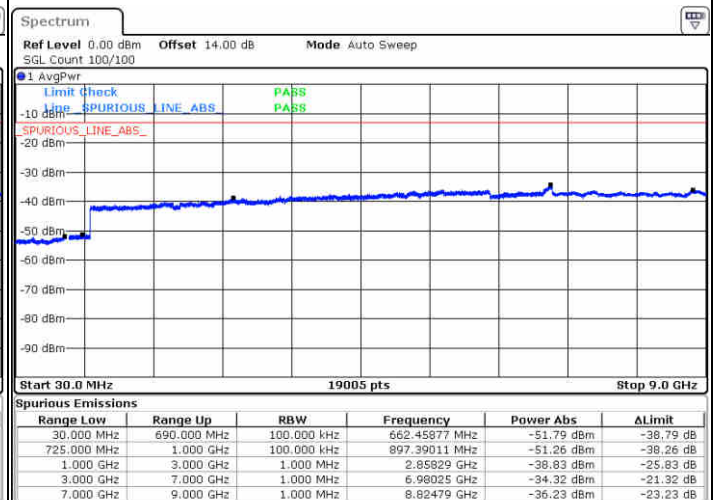
Lowest Channel / 16QAM



Middle Channel / QPSK



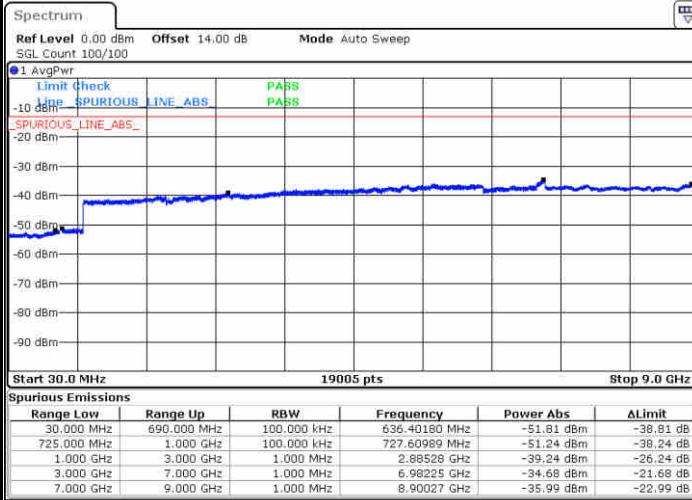
Middle Channel / 16QAM





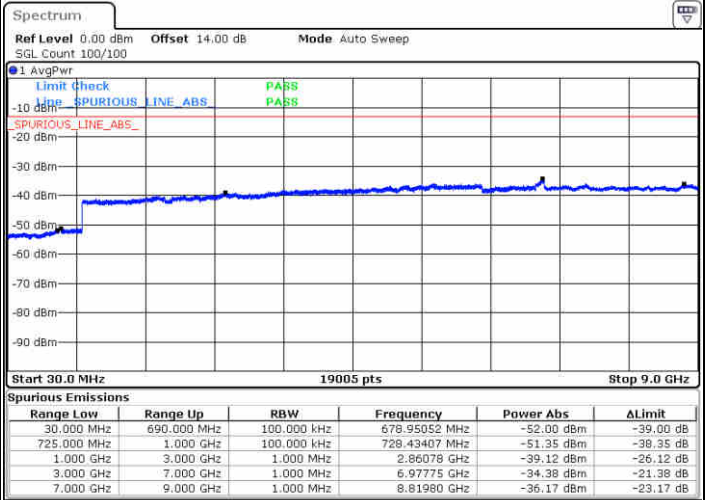
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 8 JUL 2020 11:41:36

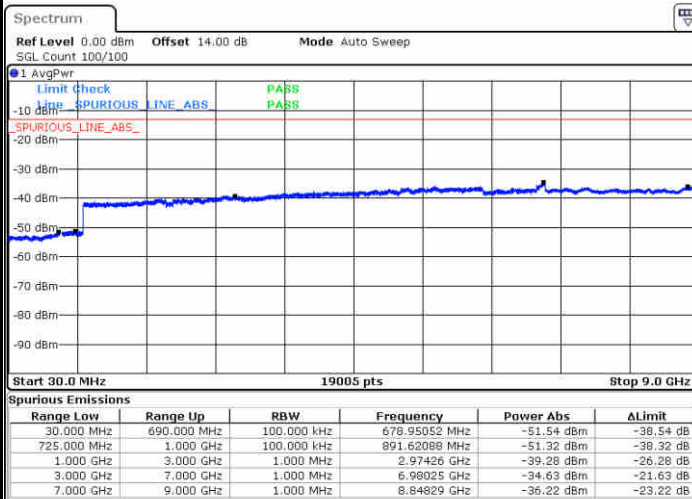
Highest Channel / 16QAM



Date: 8 JUL 2020 11:42:33

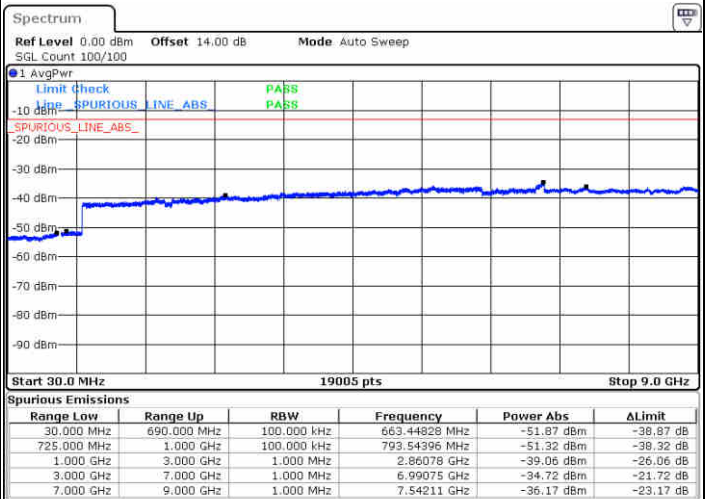
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 8 JUL 2020 10:19:33

Lowest Channel / 16QAM

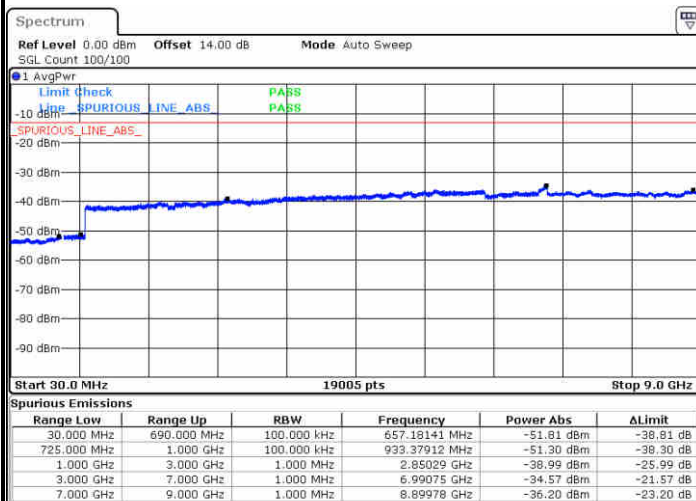


Date: 8 JUL 2020 10:20:30



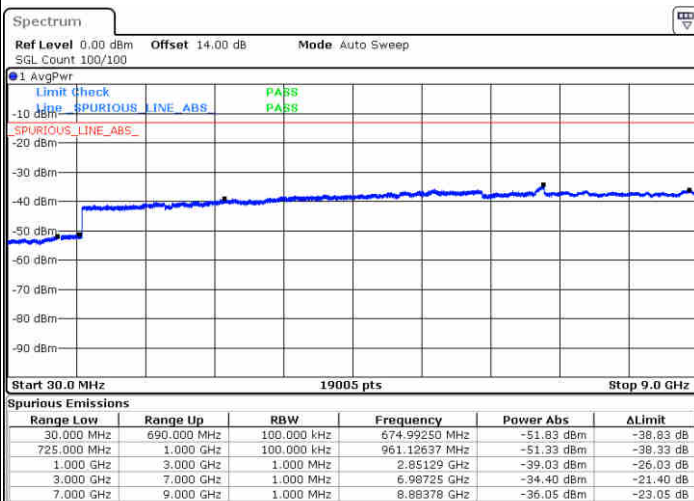
LTE Band 12 / 3MHz

Middle Channel / QPSK



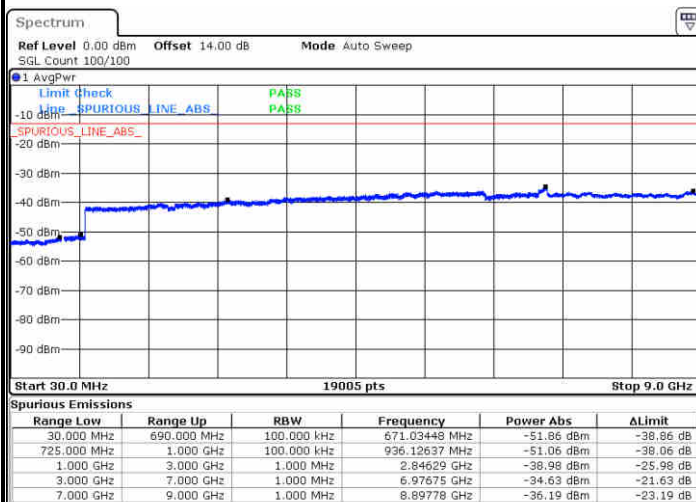
Date: 8 JUL 2020 10:23:08

Middle Channel / 16QAM



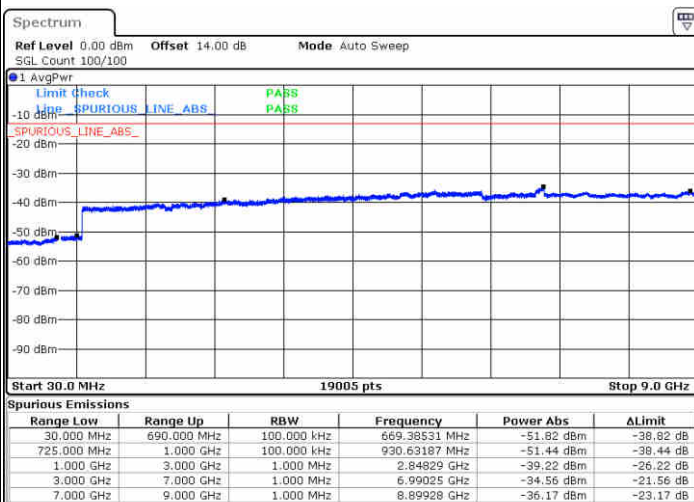
Date: 8 JUL 2020 10:22:11

Highest Channel / QPSK



Date: 8 JUL 2020 10:28:29

Highest Channel / 16QAM

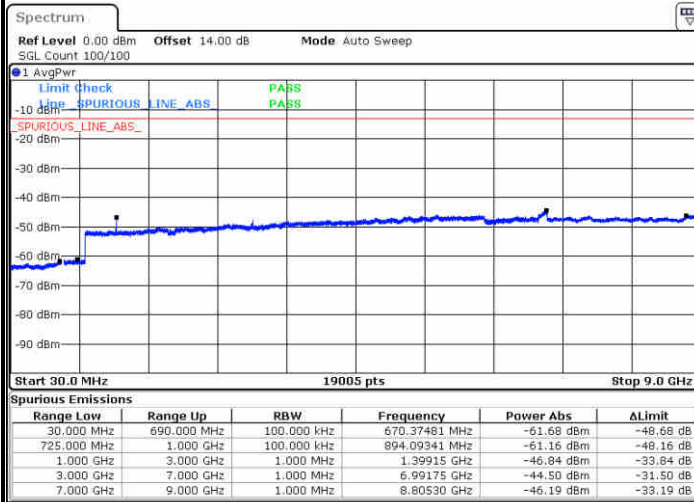


Date: 8 JUL 2020 10:29:26



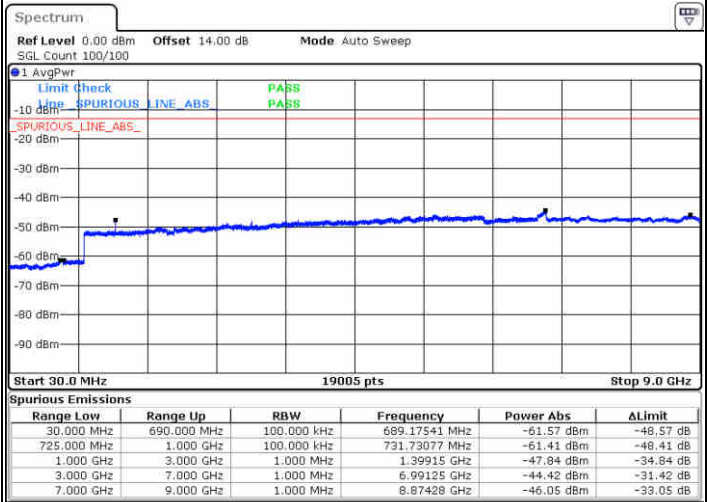
LTE Band 12 / 5MHz

Lowest Channel / QPSK



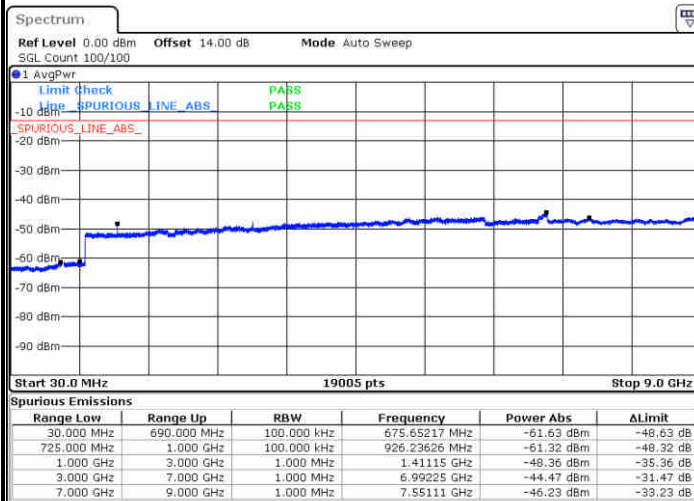
Date: 8 JUL 2020 10:50:03

Lowest Channel / 16QAM



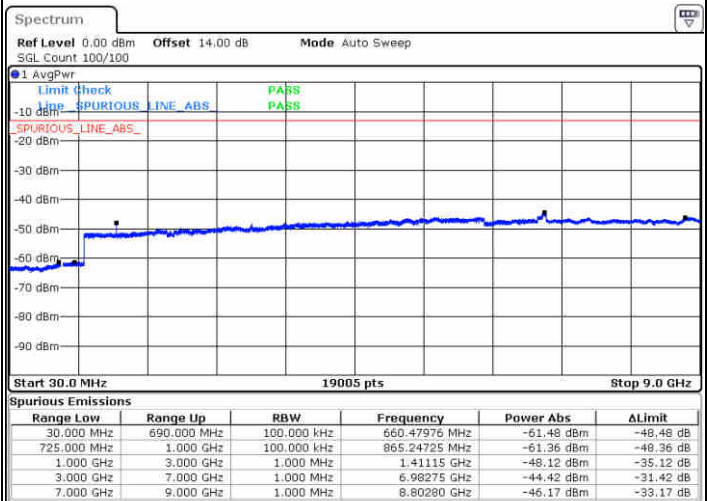
Date: 8 JUL 2020 10:51:00

Middle Channel / QPSK



Date: 8 JUL 2020 10:53:39

Middle Channel / 16QAM

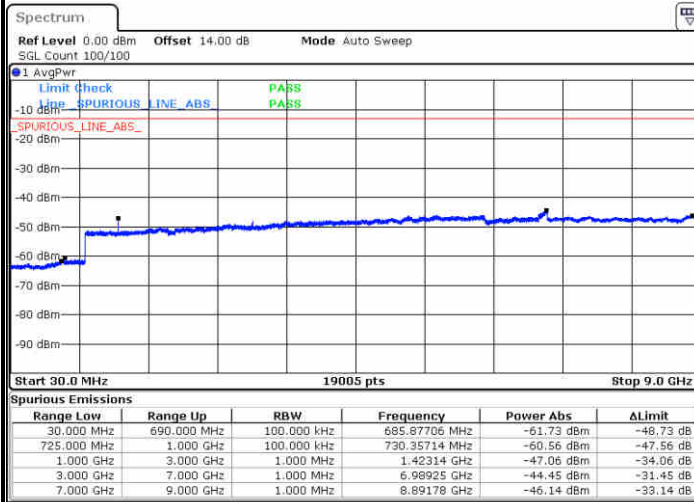


Date: 8 JUL 2020 10:52:42



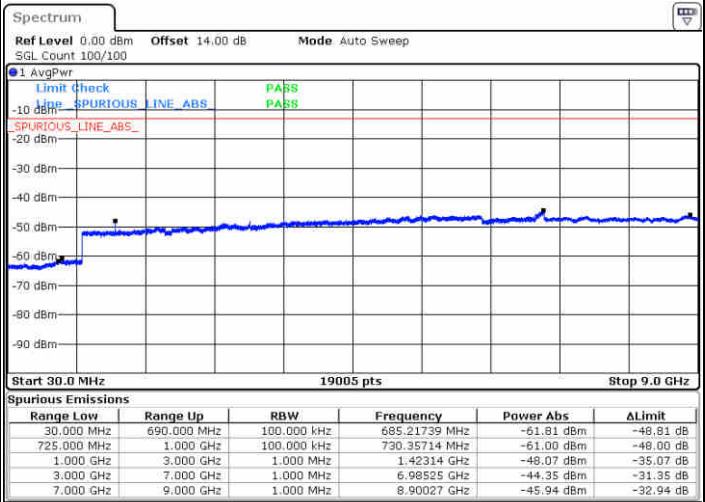
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 8.JUL.2020 10:59:57

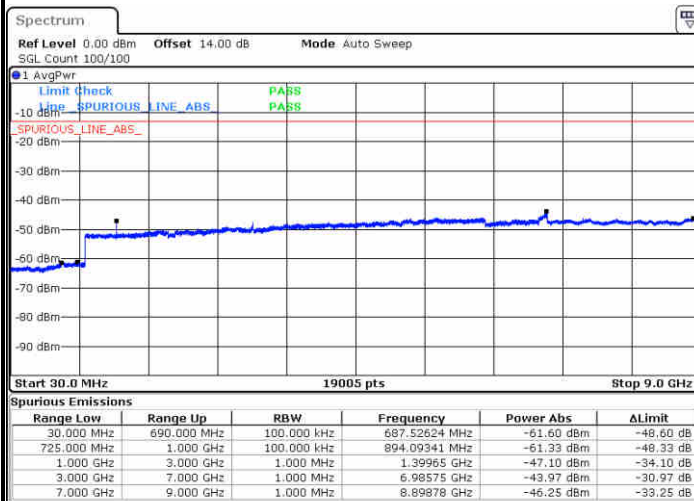
Highest Channel / 16QAM



Date: 8.JUL.2020 10:59:00

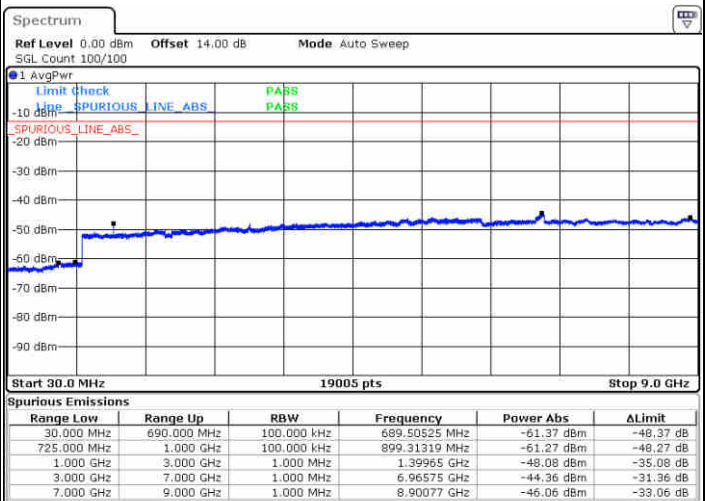
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 8.JUL.2020 11:05:19

Lowest Channel / 16QAM

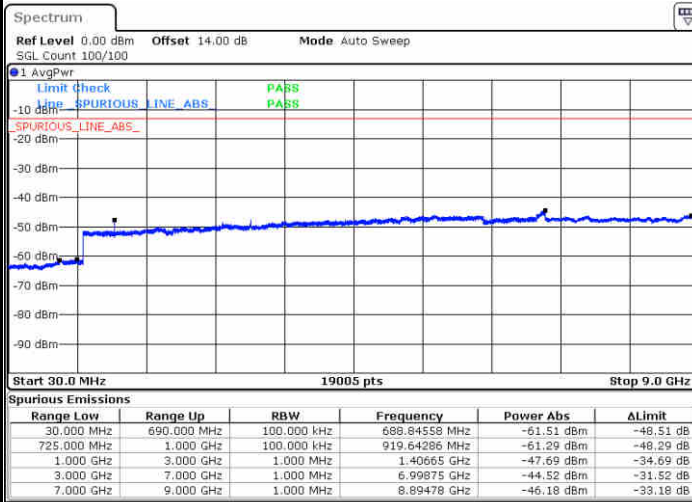


Date: 8.JUL.2020 11:06:16



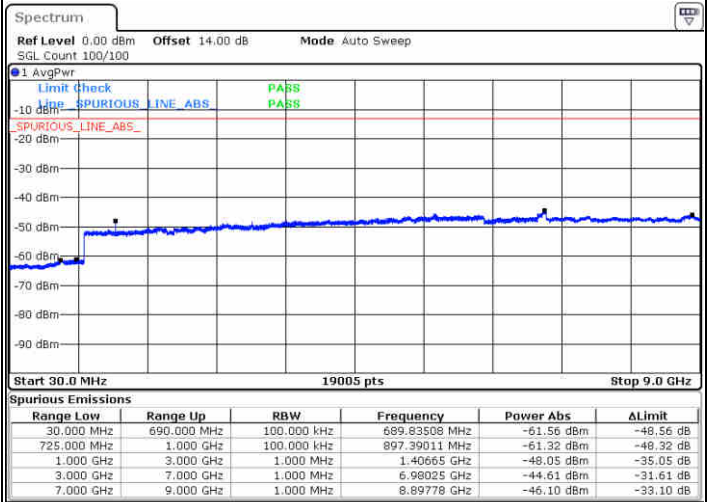
LTE Band 12 / 10MHz

Middle Channel / QPSK



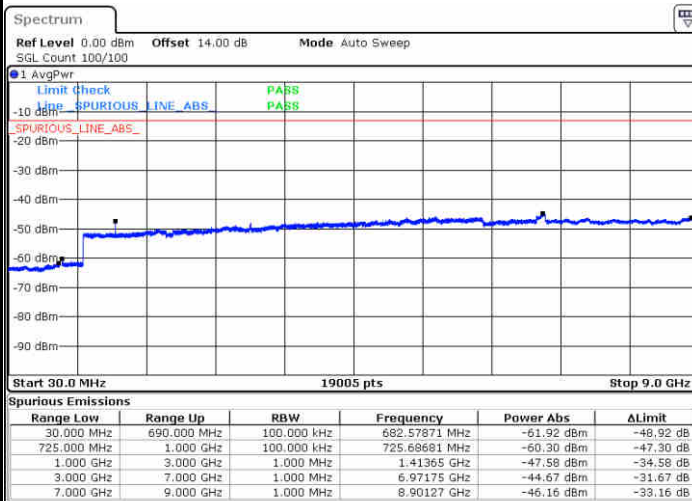
Date: 8 JUL 2020 11:08:54

Middle Channel / 16QAM



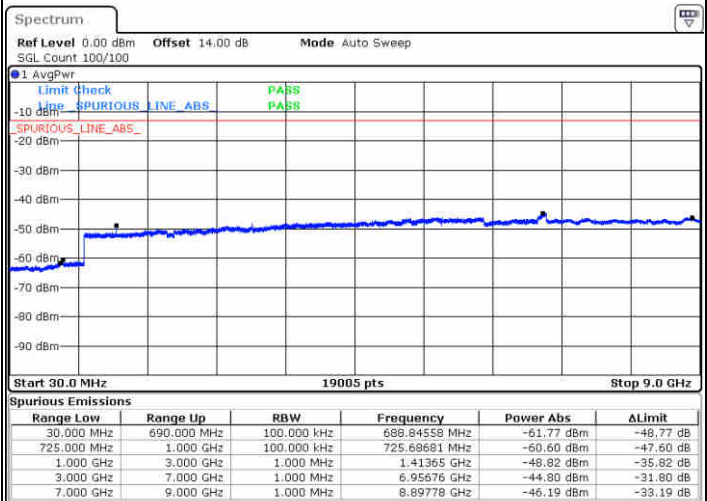
Date: 8 JUL 2020 11:07:57

Highest Channel / QPSK



Date: 8 JUL 2020 11:14:15

Highest Channel / 16QAM

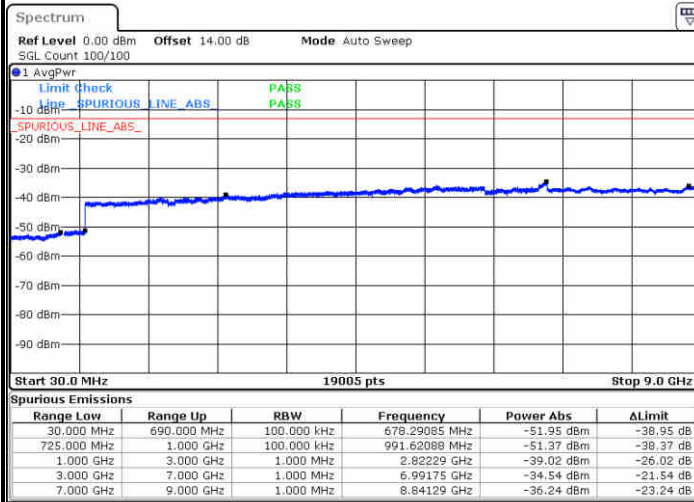


Date: 8 JUL 2020 11:15:12



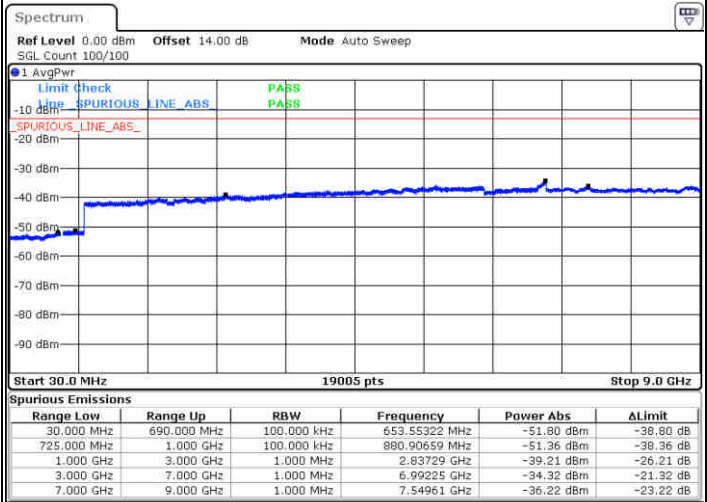
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



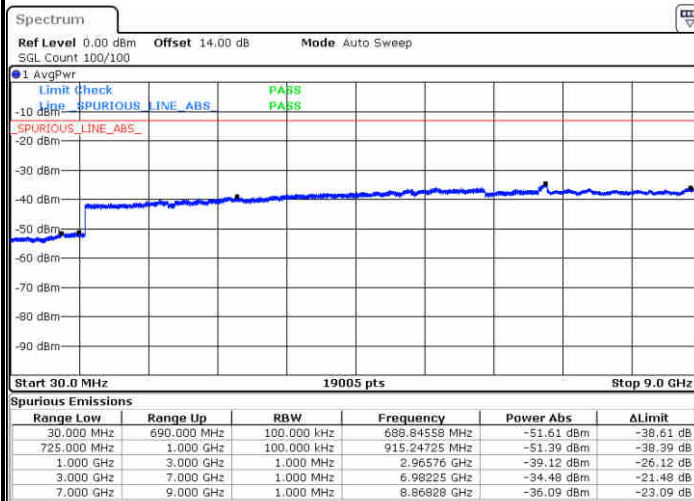
Date: 8 JUL 2020 11:45:42

Middle Channel / 64QAM



Date: 8 JUL 2020 11:47:01

Highest Channel / 64QAM

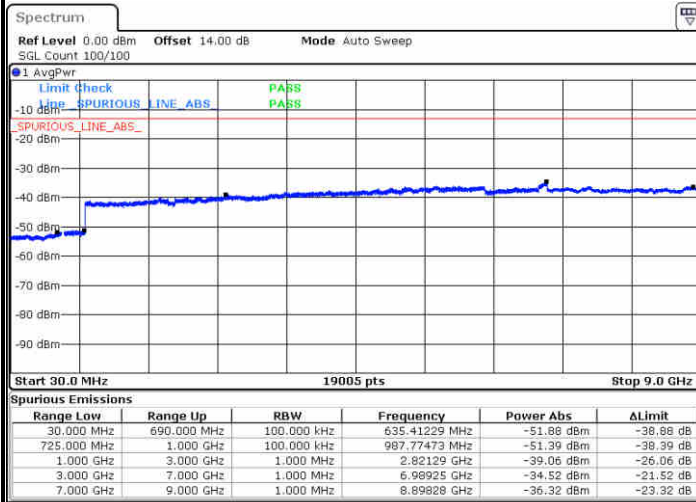


Date: 8 JUL 2020 11:50:10



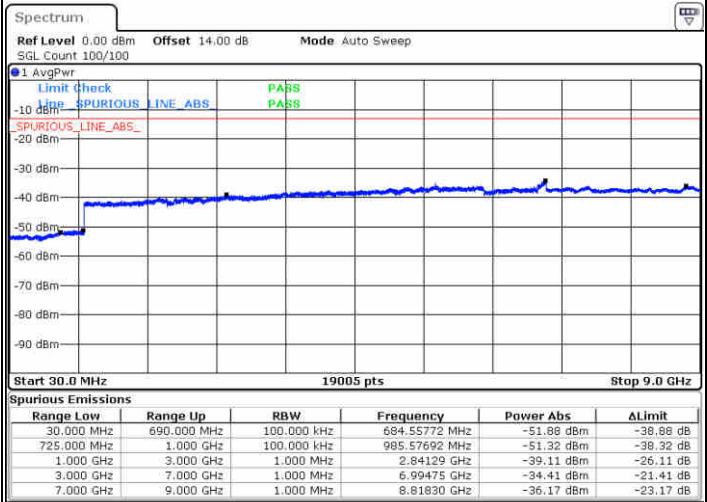
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



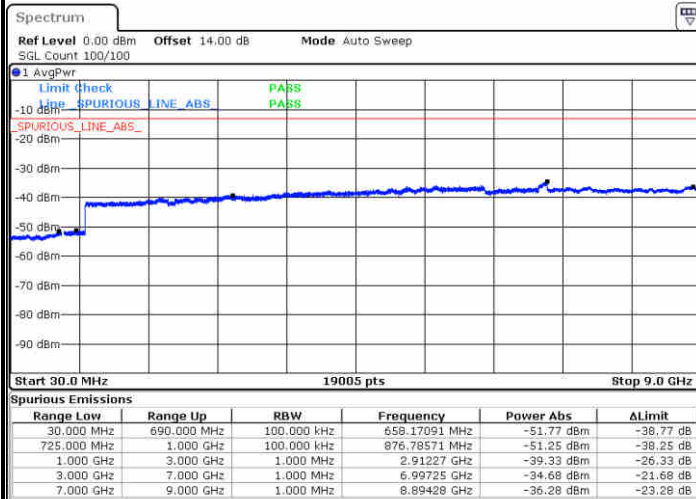
Date: 8 JUL 2020 10:32:35

Middle Channel / 64QAM



Date: 8 JUL 2020 10:33:55

Highest Channel / 64QAM

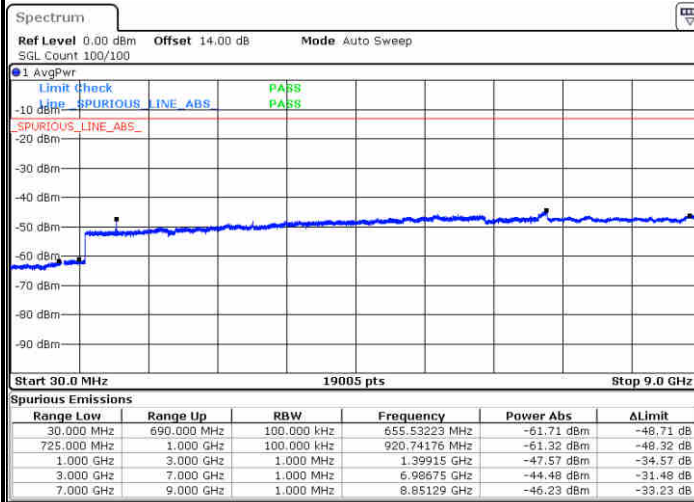


Date: 8 JUL 2020 10:37:04



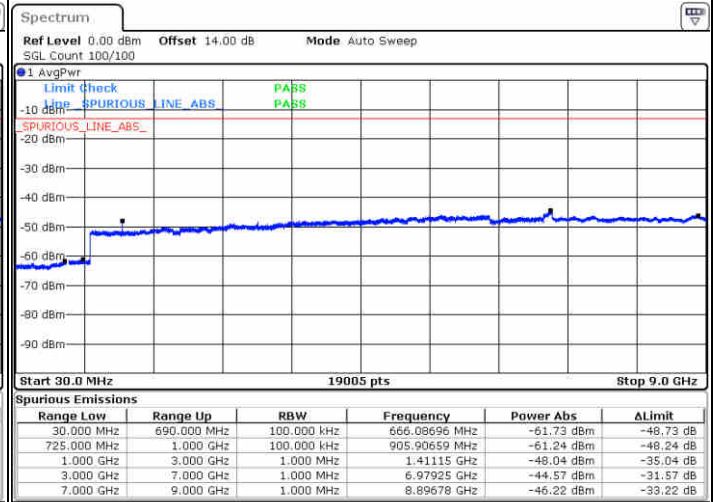
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



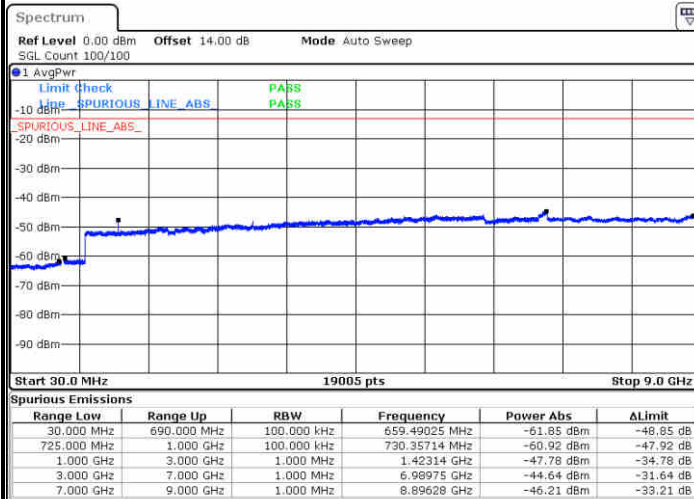
Date: 8 JUL 2020 10:40:13

Middle Channel / 64QAM



Date: 8 JUL 2020 10:41:32

Highest Channel / 64QAM

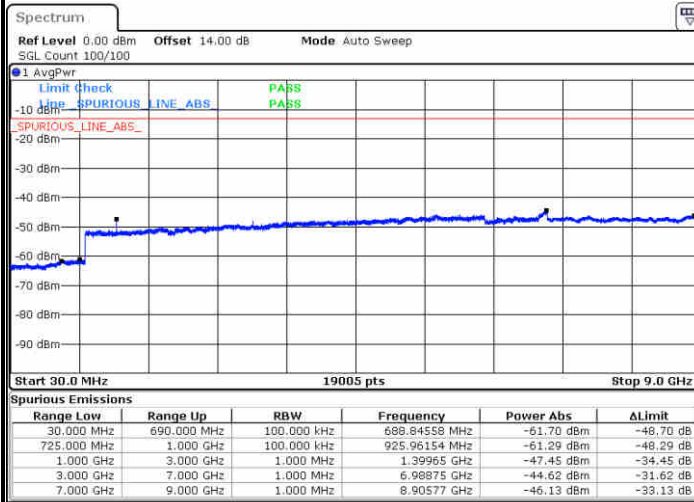


Date: 8 JUL 2020 10:44:42



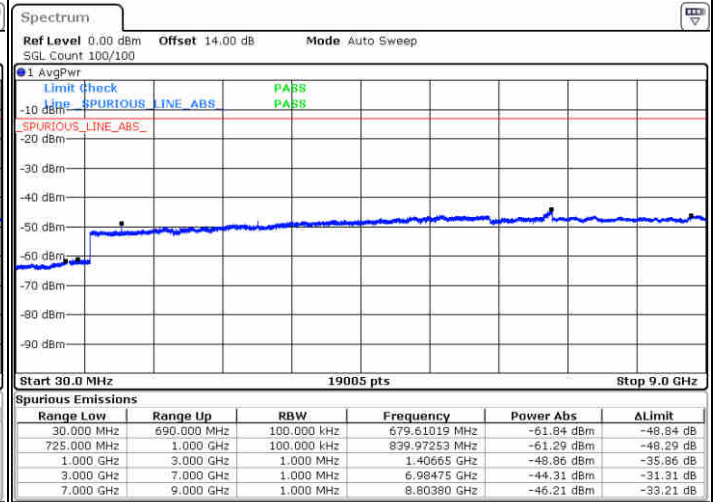
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



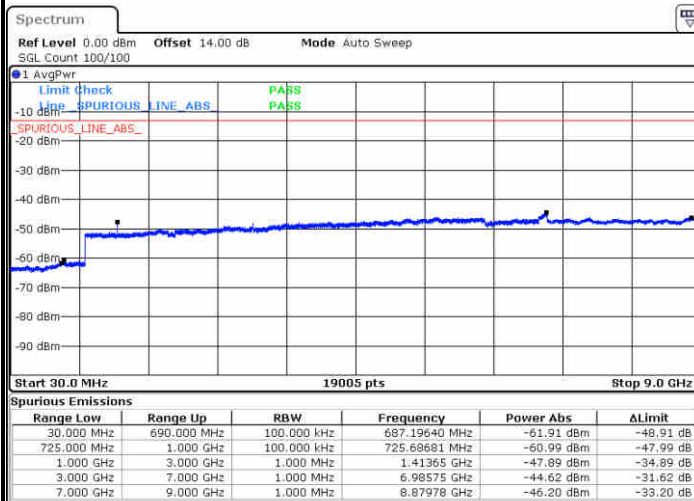
Date: 8 JUL 2020 11:18:21

Middle Channel / 64QAM



Date: 8 JUL 2020 11:19:40

Highest Channel / 64QAM



Date: 8 JUL 2020 11:22:49

**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	0.0037	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.2 V. ; Maximum Voltage =8.9 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

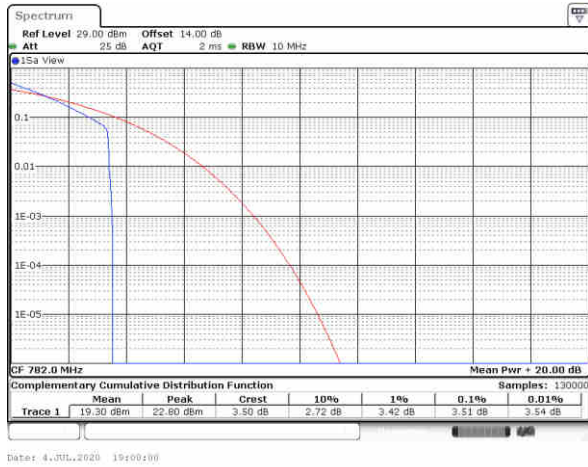
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.51	4.96	4.23	5.97	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.17	6.41	-	-	
Highest CH	-	-	-	-	

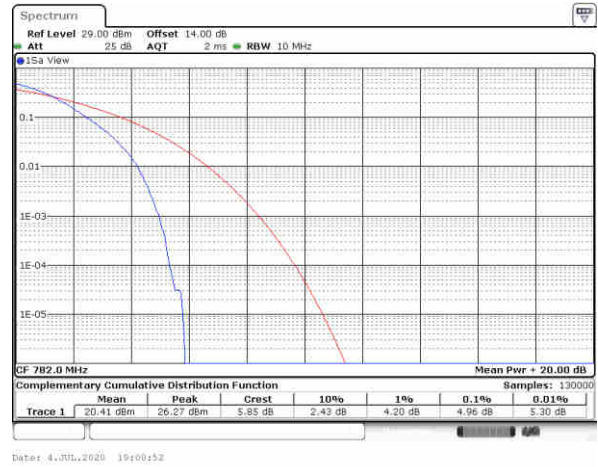


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

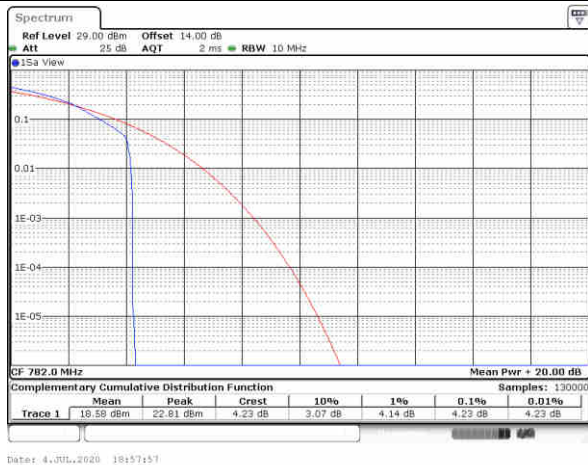


Middle Channel / Full RB

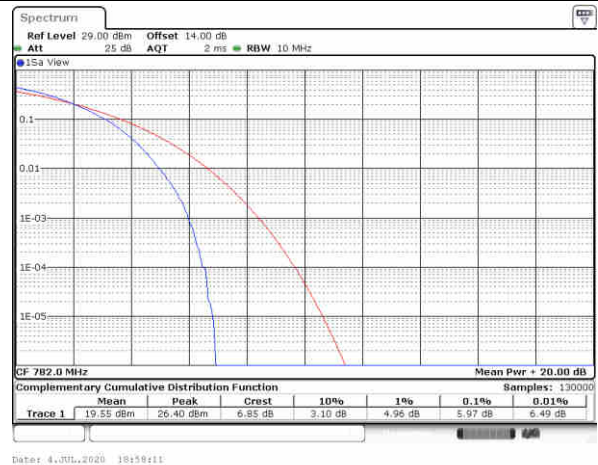


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

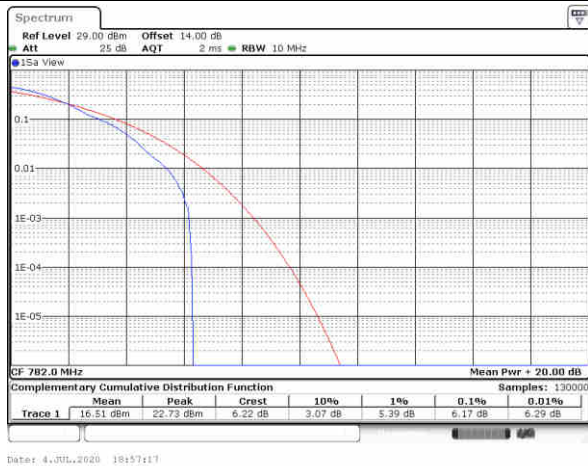


Middle Channel / Full RB

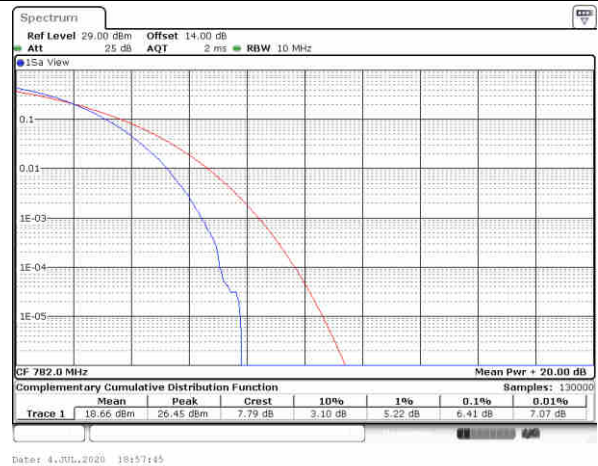


LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



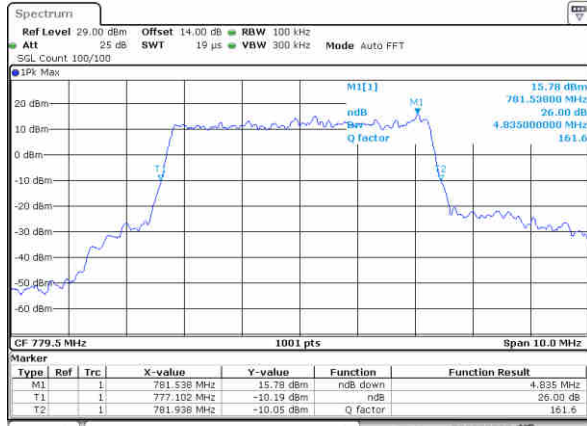
**26dB Bandwidth**

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	-	-	-	-	4.84	4.88	-	-	-	-	-	-
Middle CH	-	-	-	-	4.89	4.93	9.73	9.69	-	-	-	-
Highest CH	-	-	-	-	4.88	4.87	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.85	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.92	-	9.79	-	-	-	-	-
Highest CH	-	-	-	-	4.92	-	-	-	-	-	-	-

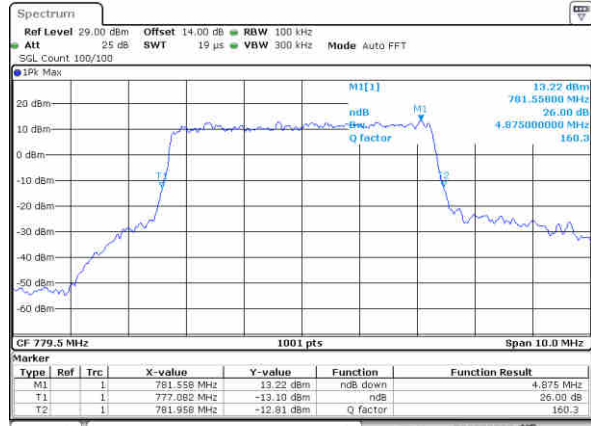


LTE Band 13

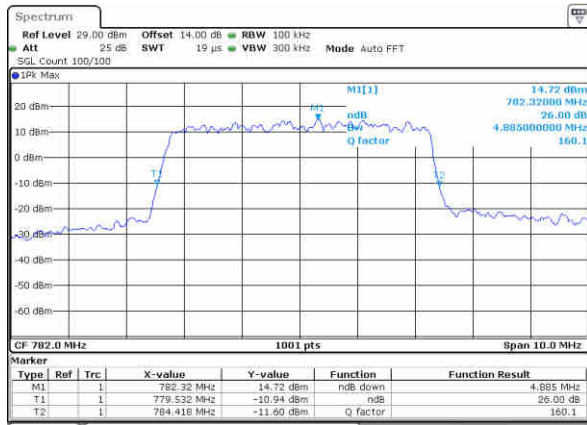
Lowest Channel / 5MHz / QPSK



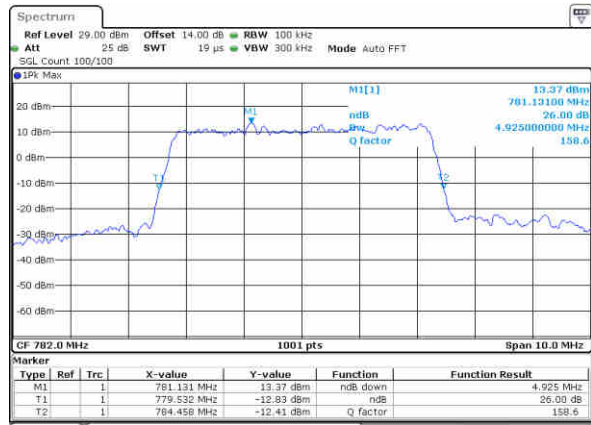
Lowest Channel / 5MHz / 16QAM



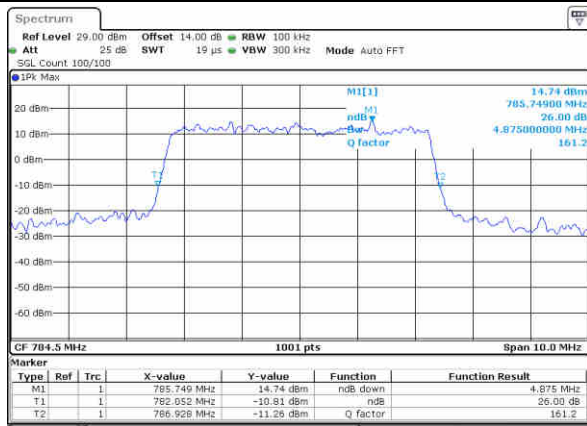
Middle Channel / 5MHz / QPSK



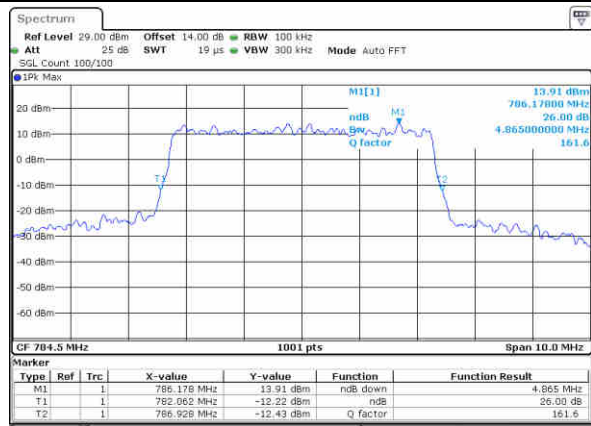
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



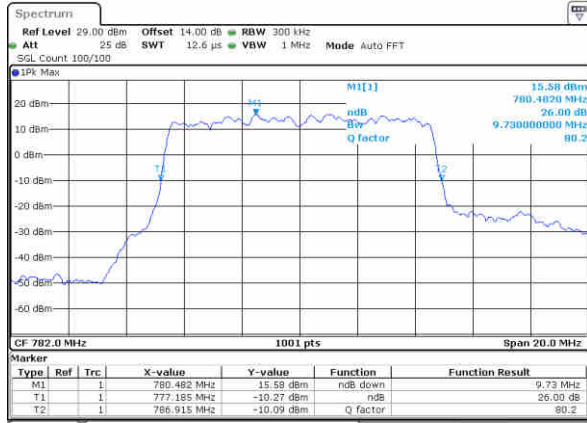
Highest Channel / 5MHz / 16QAM





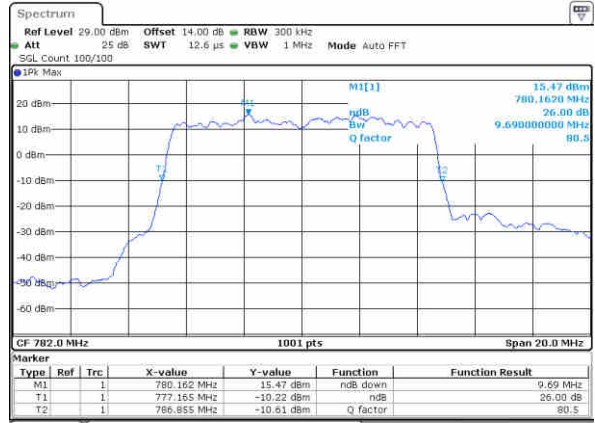
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 4.JUL.2020 18:29:40

Middle Channel / 10MHz / 16QAM

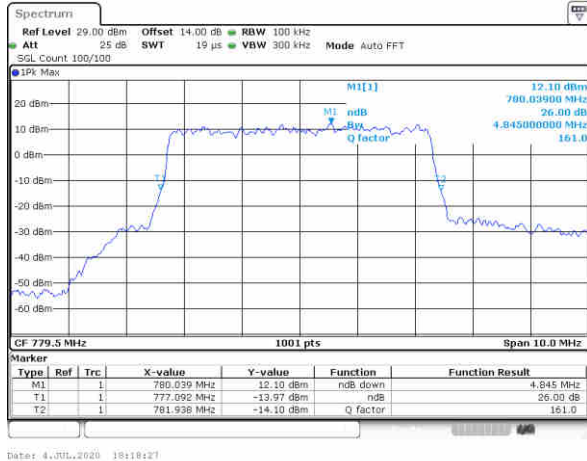


Date: 4.JUL.2020 18:29:29

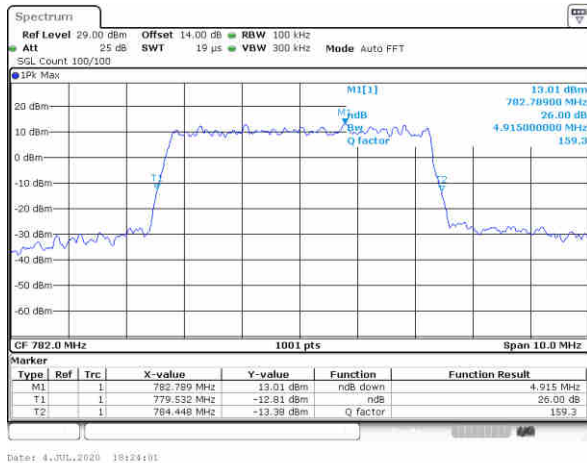


LTE Band 13

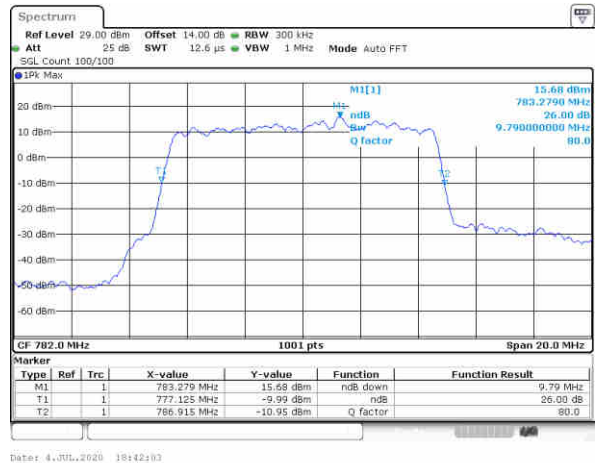
Lowest Channel / 5MHz / 64QAM



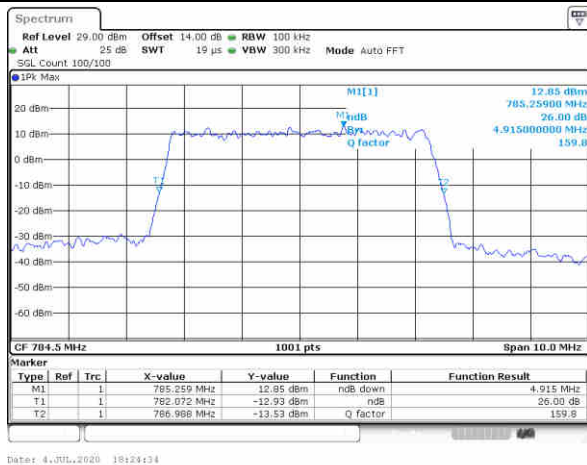
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



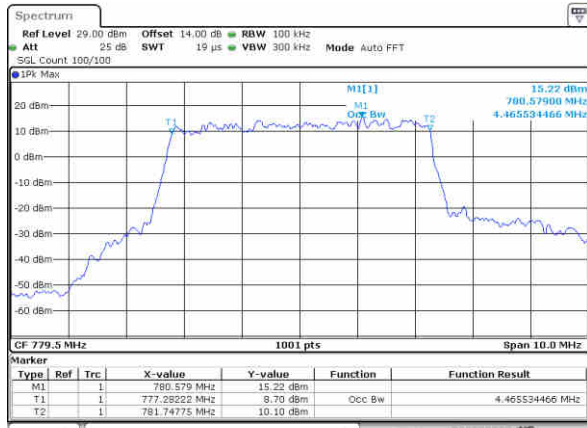
**Occupied Bandwidth**

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	-	-	-	-	4.47	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.50	8.95	8.91	-	-	-	-
Highest CH	-	-	-	-	4.48	4.48	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	8.97	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-

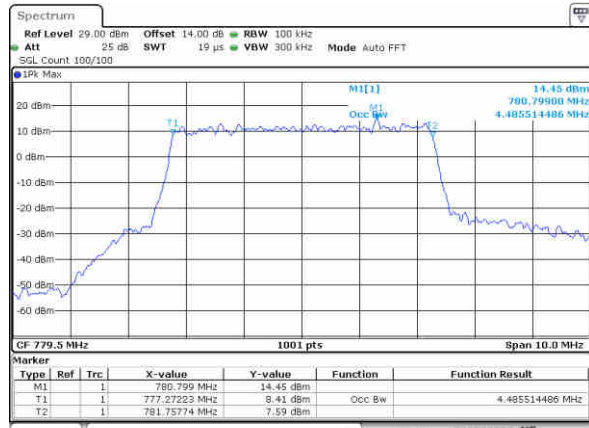


LTE Band 13

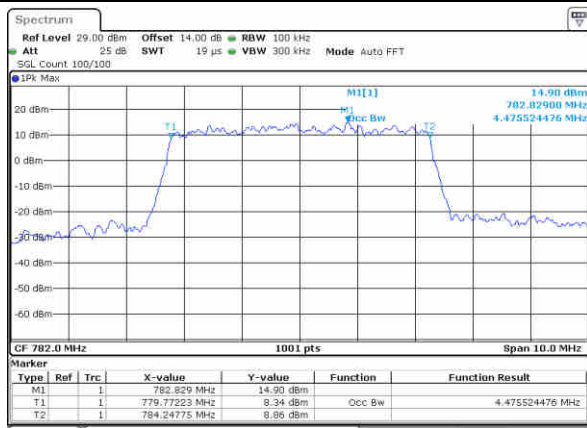
Lowest Channel / 5MHz / QPSK



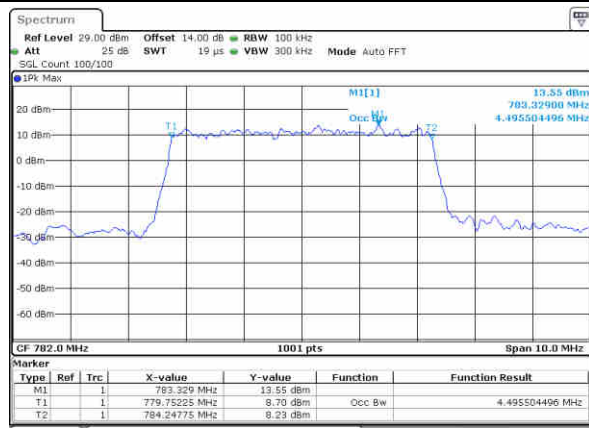
Lowest Channel / 5MHz / 16QAM



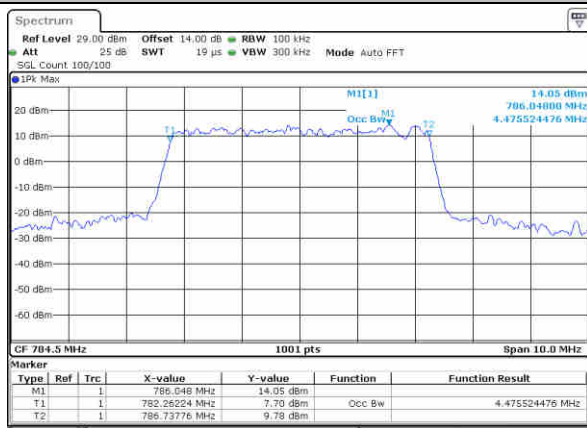
Middle Channel / 5MHz / QPSK



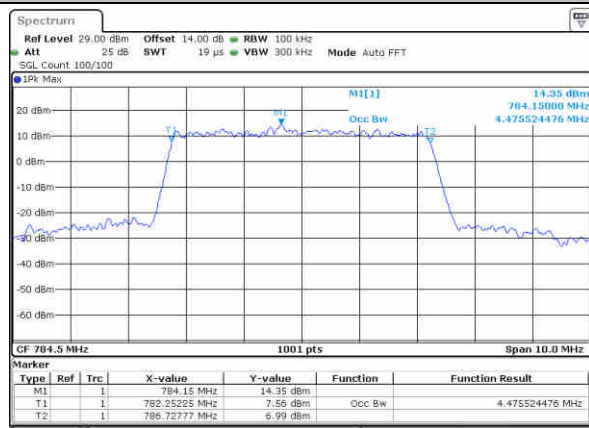
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



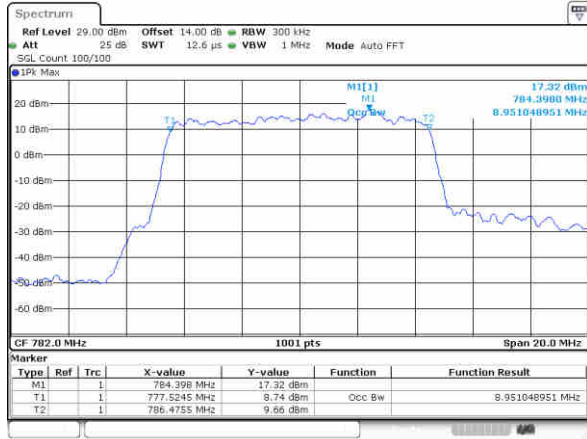
Highest Channel / 5MHz / 16QAM



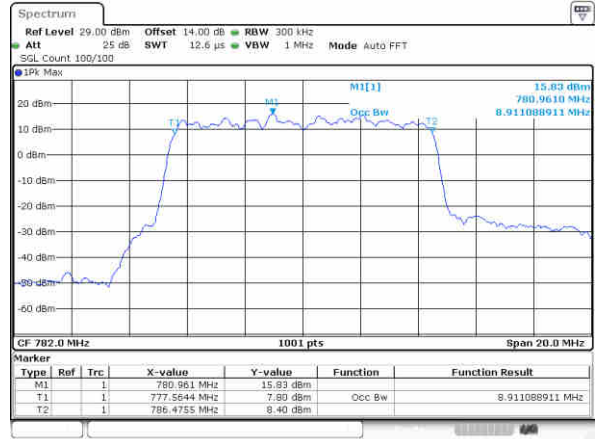


LTE Band 13

Middle Channel / 10MHz / QPSK



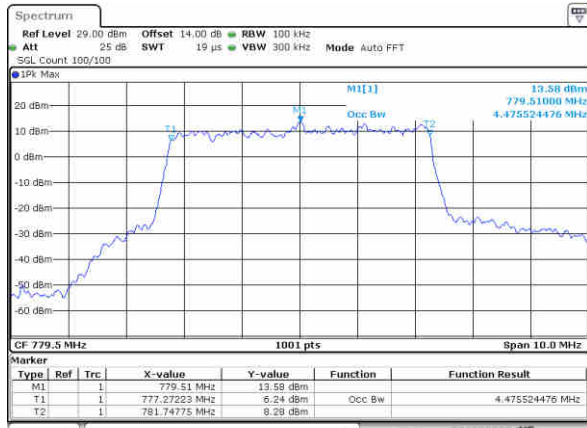
Middle Channel / 10MHz / 16QAM



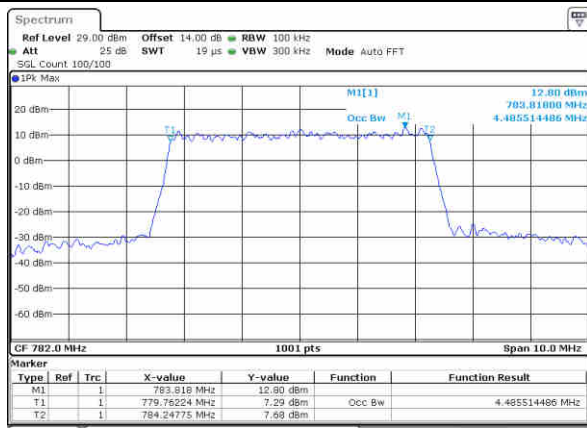


LTE Band 13

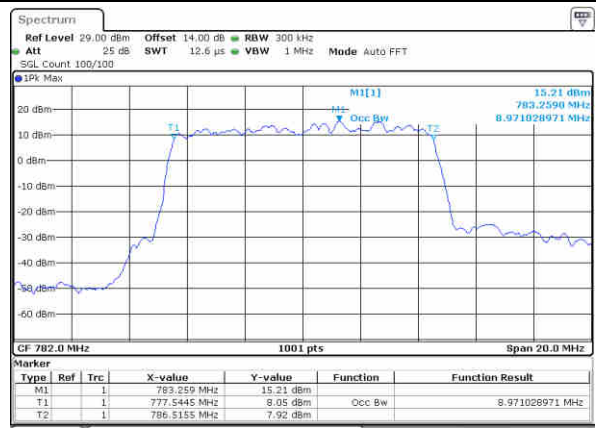
Lowest Channel / 5MHz / 64QAM



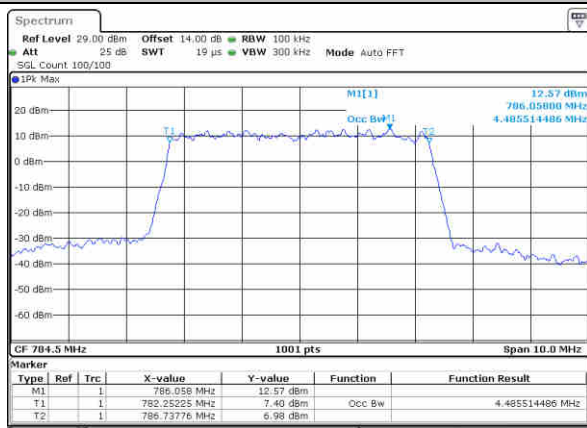
Middle Channel / 5MHz / 64QAM

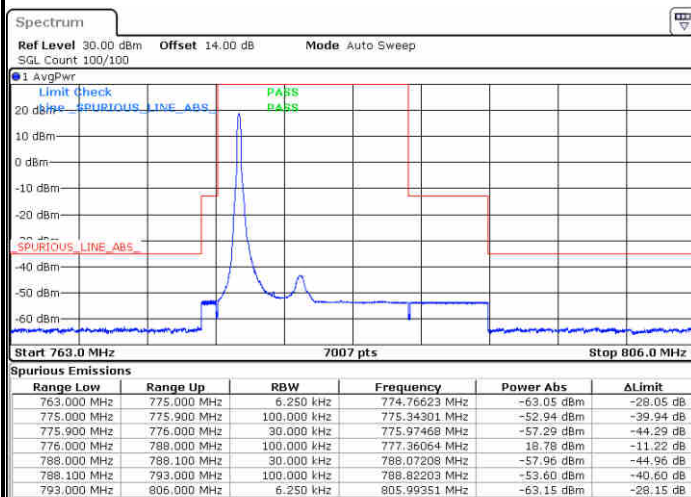
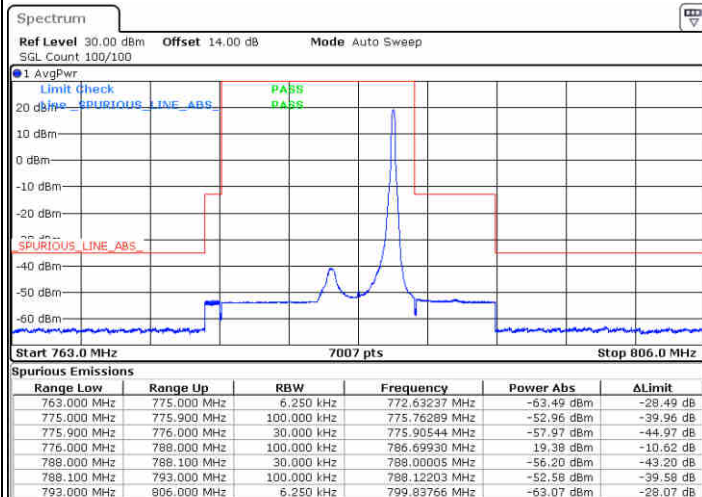
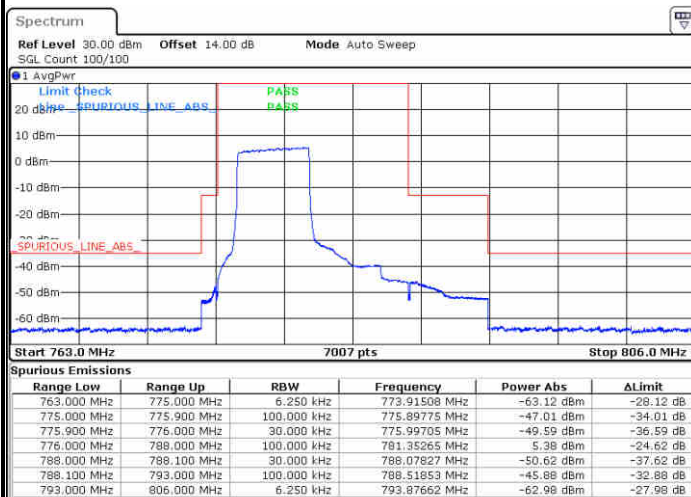
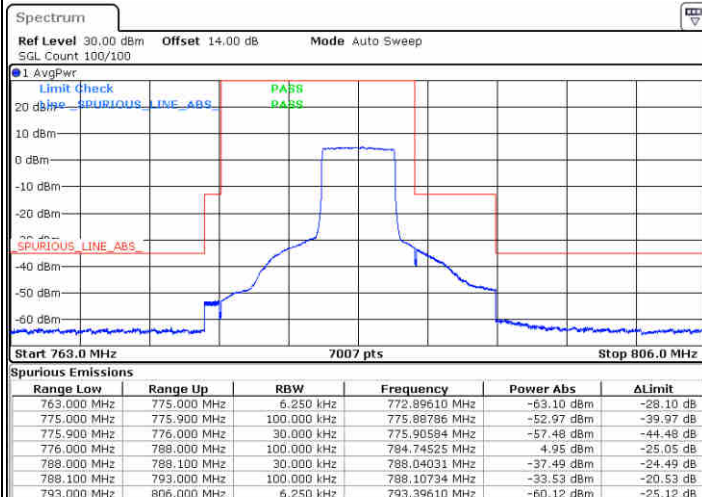


Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

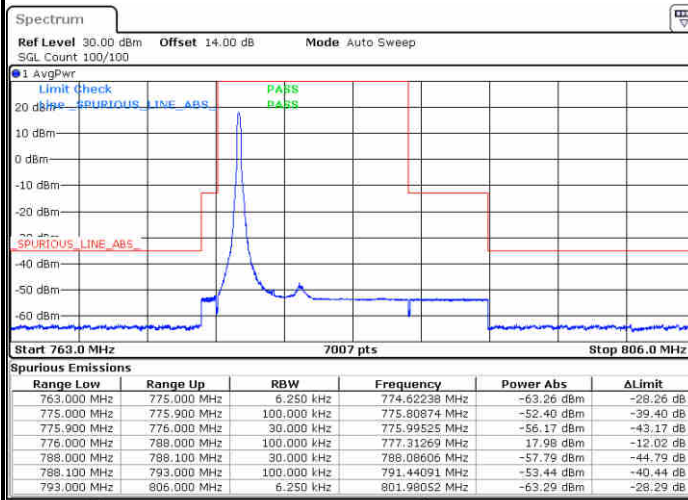


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

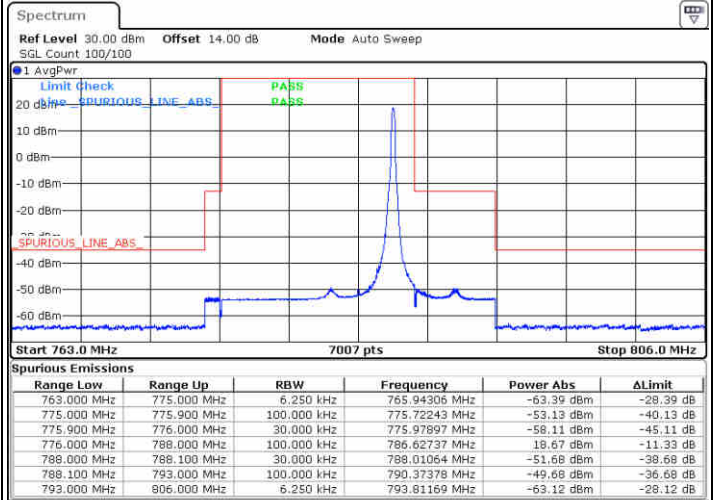


LTE Band 13 / 5MHz / 16QAM

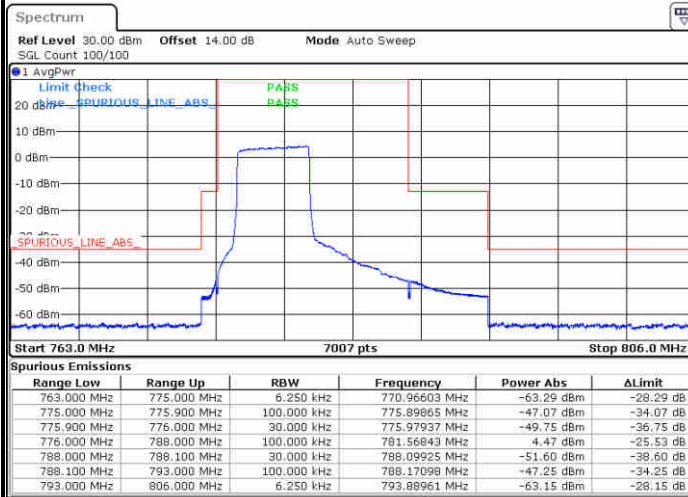
Lowest Band Edge / 1 RB



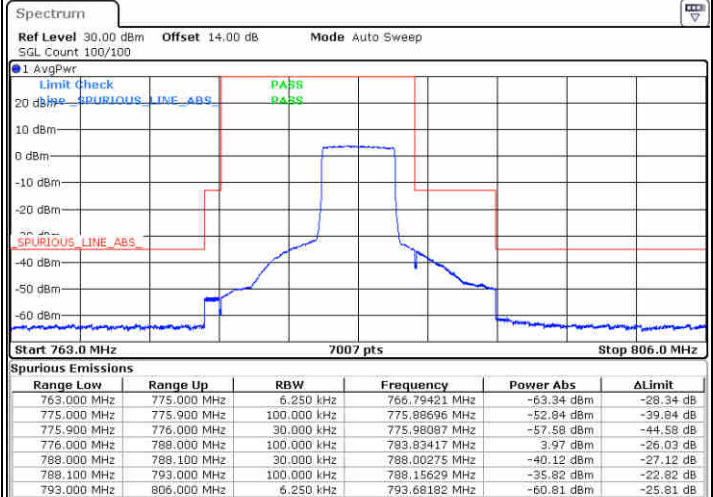
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



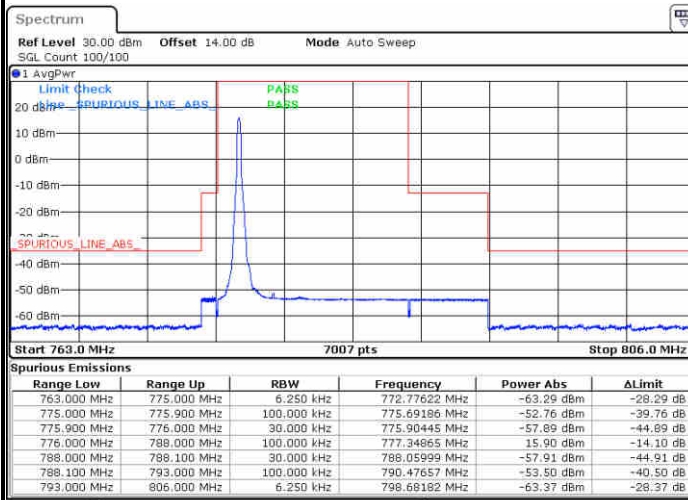
Highest Band Edge / Full RB



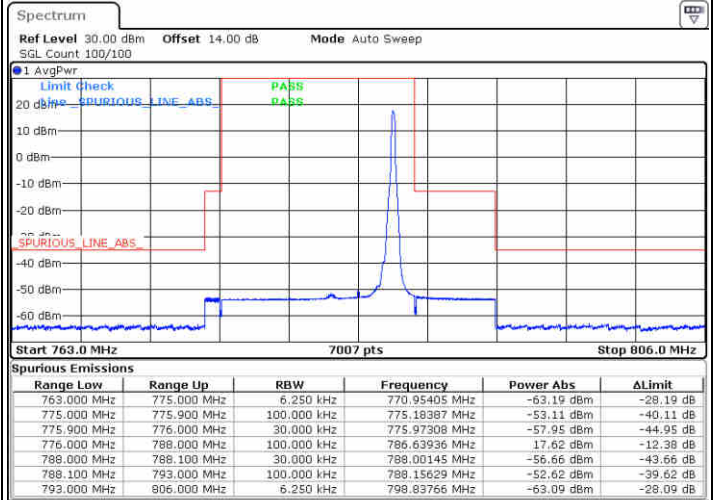


LTE Band 13 / 5MHz / 64QAM

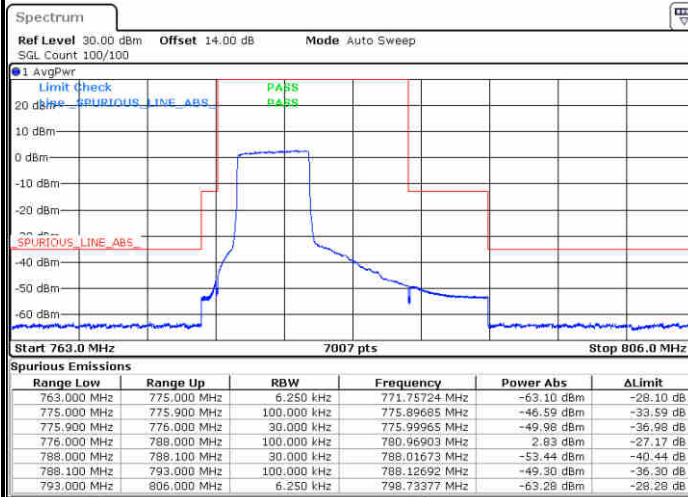
Lowest Band Edge / 1 RB



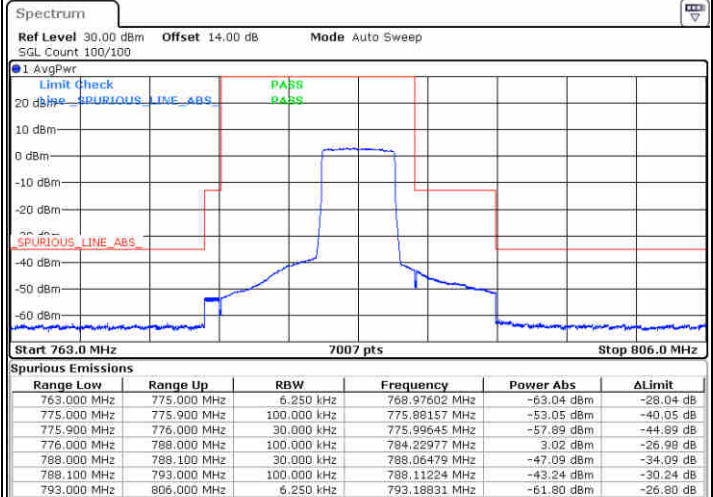
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



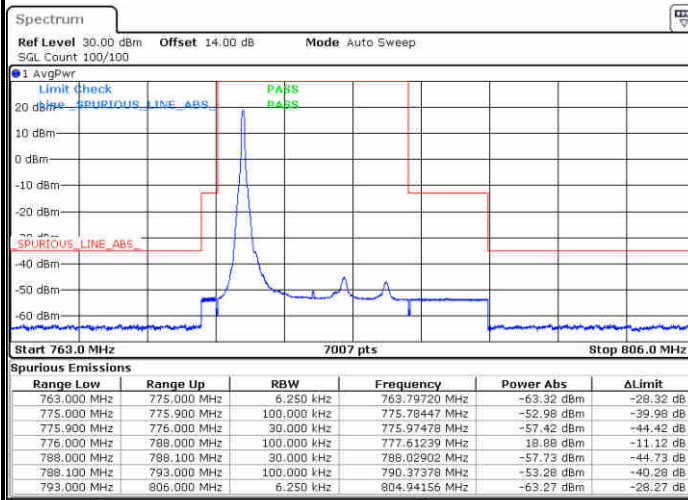
Highest Band Edge / Full RB



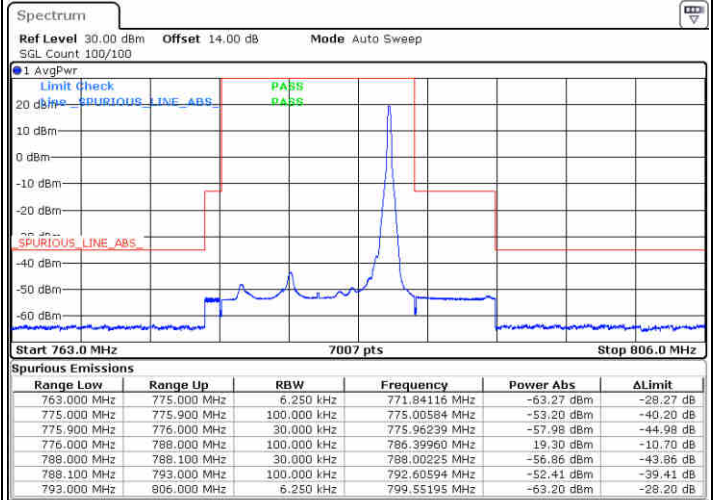


LTE Band 13 / 10MHz / QPSK

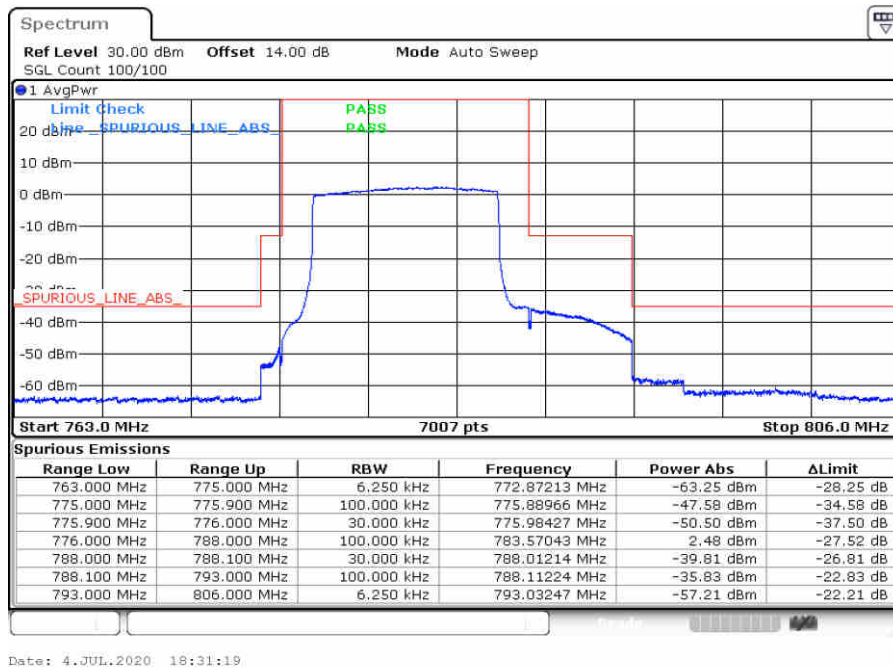
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



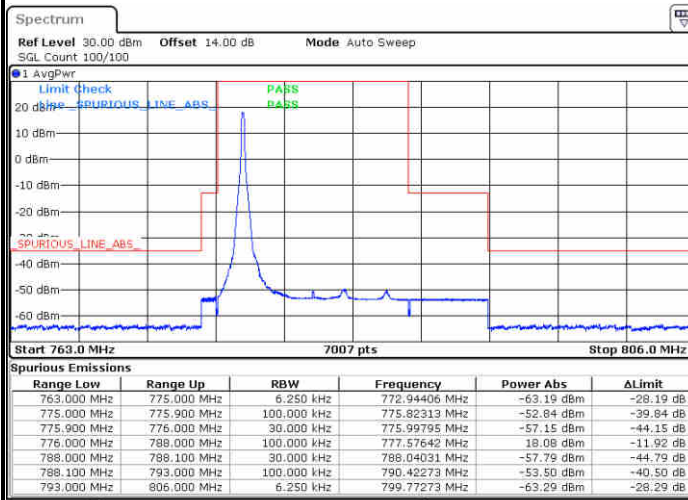
Band Edge / Full RB





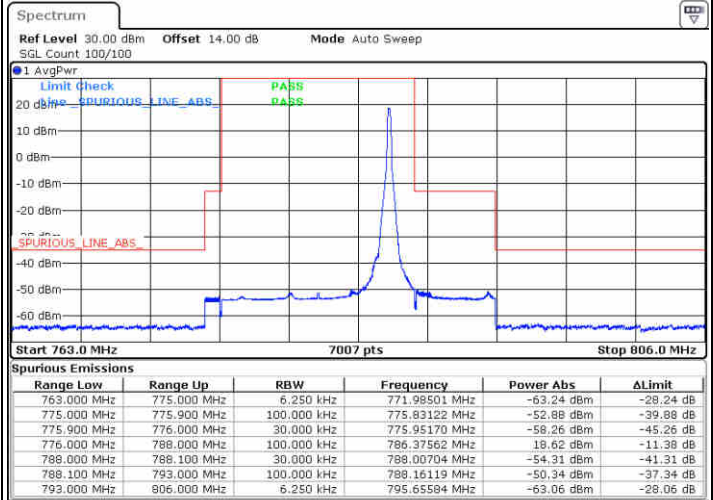
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



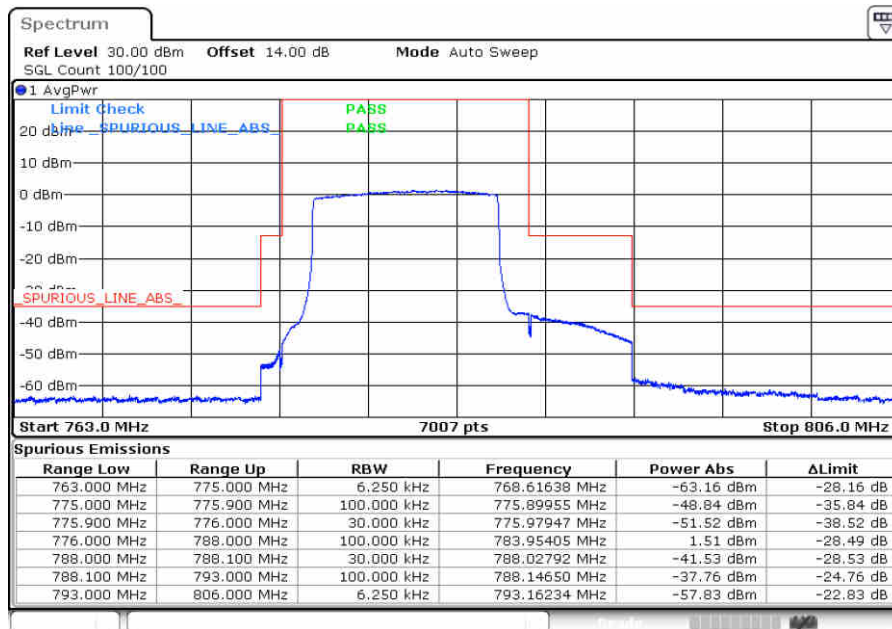
Date: 4.JUL.2020 18:24:39

Highest Band Edge / 1 RB



Date: 4.JUL.2020 18:29:38

Band Edge / Full RB

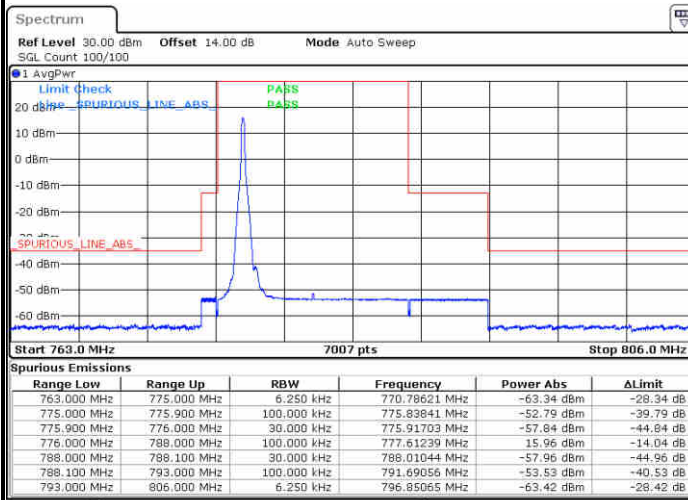


Date: 4.JUL.2020 18:32:59



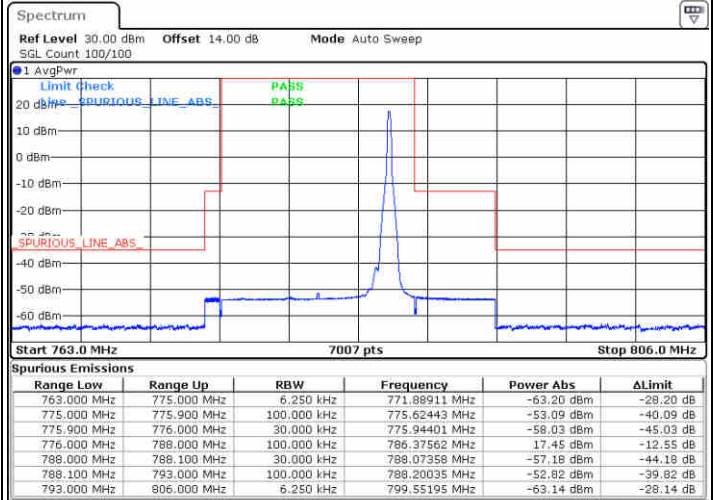
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



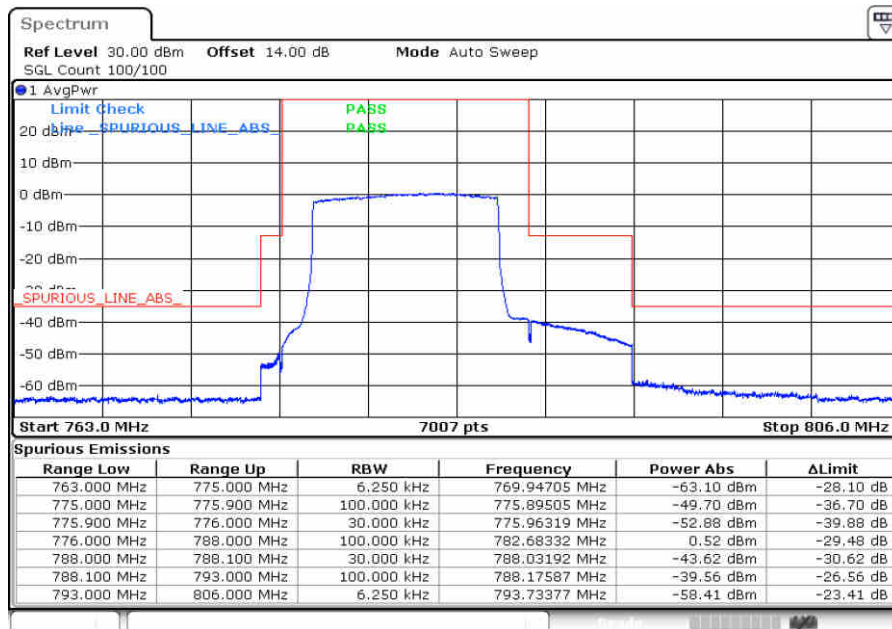
Date: 4.JUL.2020 18:45:22

Highest Band Edge / 1 RB

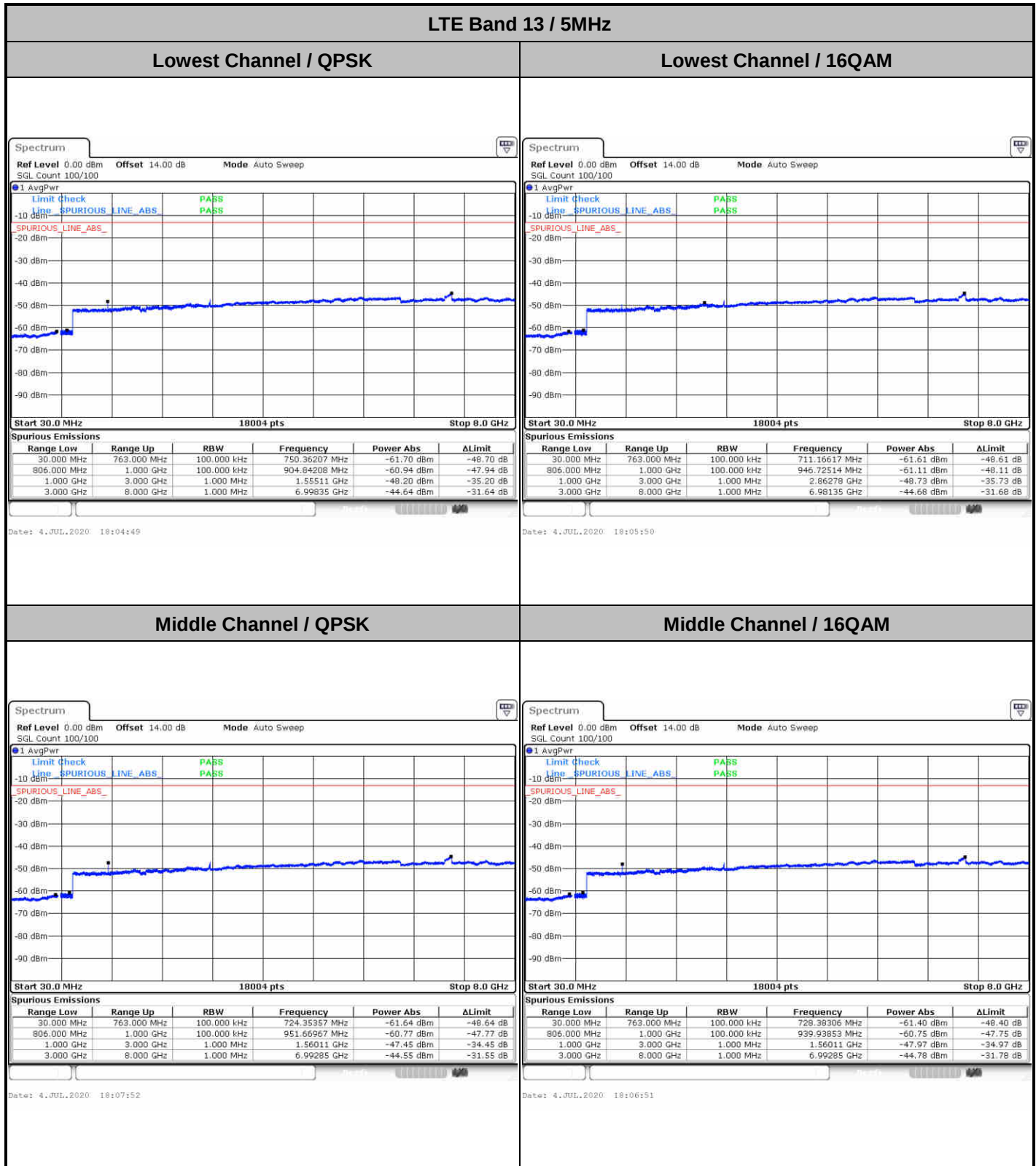


Date: 4.JUL.2020 18:47:02

Band Edge / Full RB



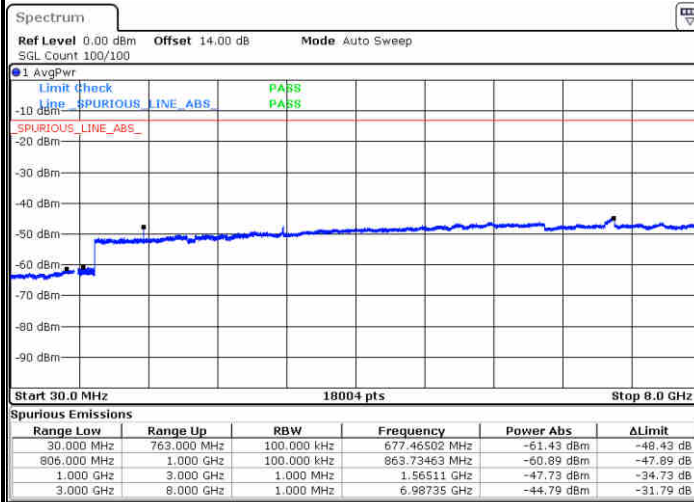
Date: 4.JUL.2020 18:43:42

**Conducted Spurious Emission**



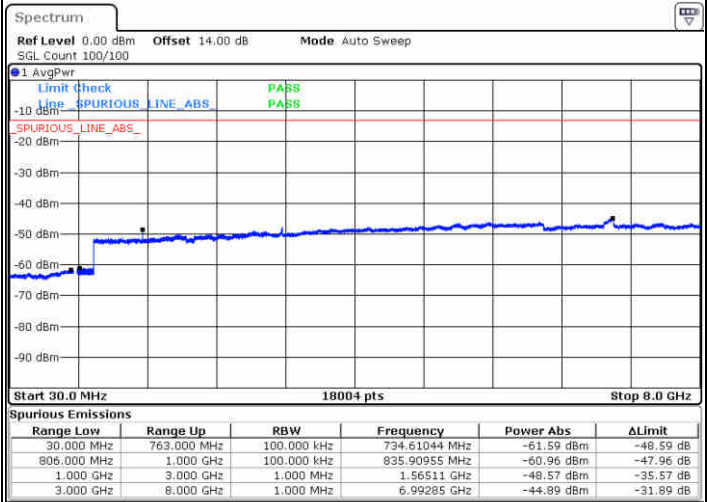
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 4.JUL.2020 18:17:04

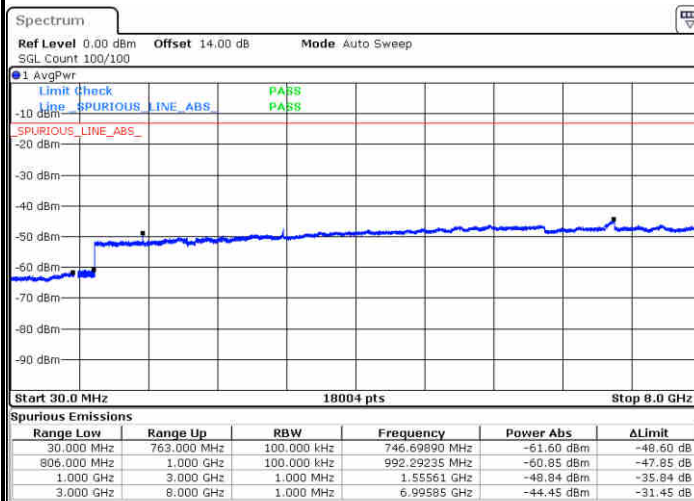
Highest Channel / 16QAM



Date: 4.JUL.2020 18:18:05

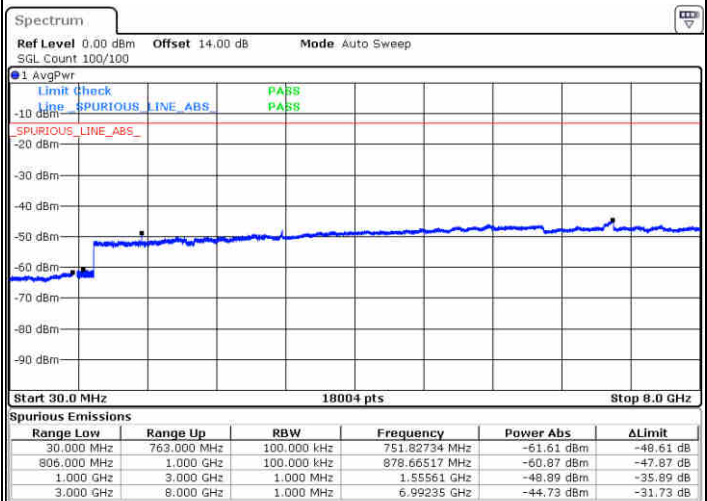
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 4.JUL.2020 18:41:41

Middle Channel / 16QAM

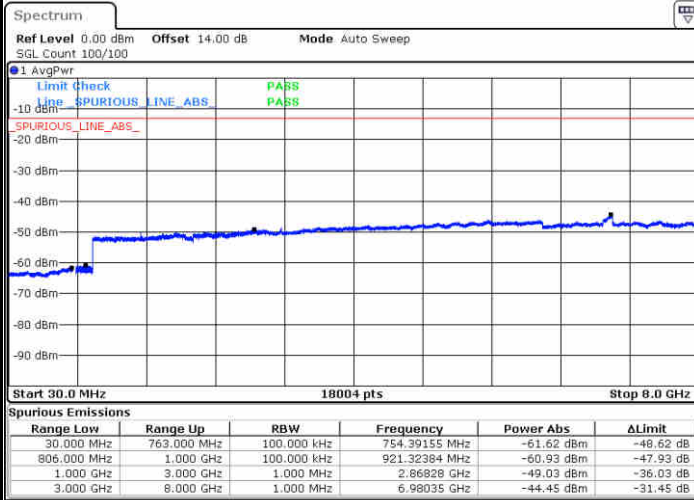


Date: 4.JUL.2020 18:40:40



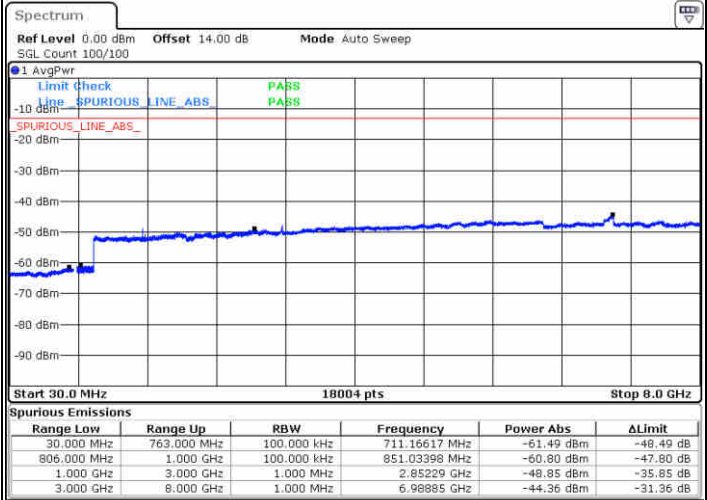
LTE Band 13 / 5MHz

Lowest Channel / 64QAM



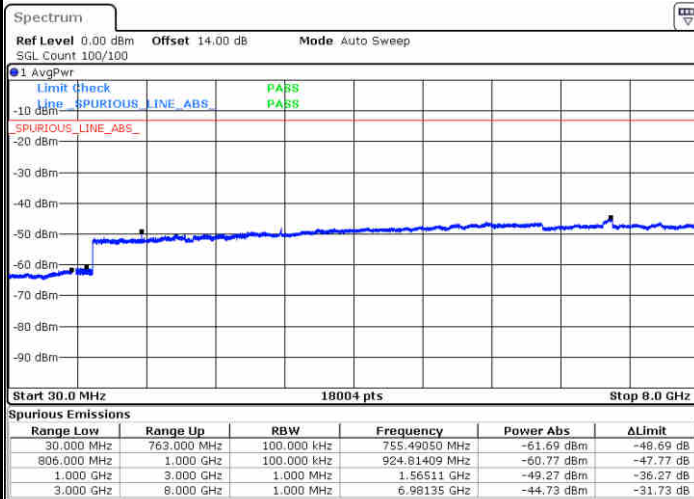
Date: 4.JUL.2020 18:22:49

Middle Channel / 64QAM



Date: 4.JUL.2020 18:23:50

Highest Channel / 64QAM

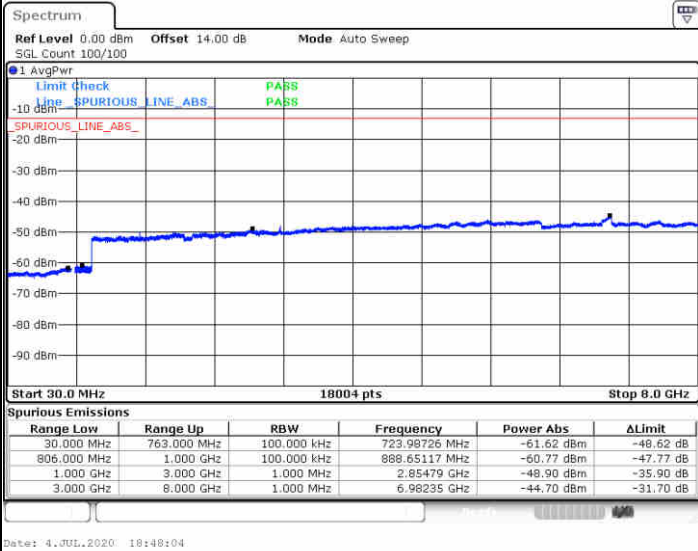


Date: 4.JUL.2020 18:28:56



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	0.0022	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0020	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0224	
0	Normal Voltage	0.0033	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0237	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0235	

Note:

1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.2 V. ; Maximum Voltage =8.9 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 25

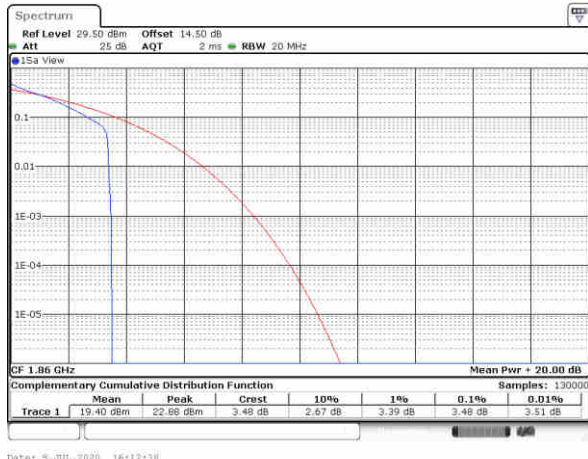
Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.48	4.99	5.16	5.88	PASS
Middle CH	3.54	4.96	4.93	5.94	
Highest CH	3.45	4.96	5.22	5.91	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.67	6.49	-	-	PASS
Middle CH	6.58	6.43	-	-	
Highest CH	6.84	6.43	-	-	

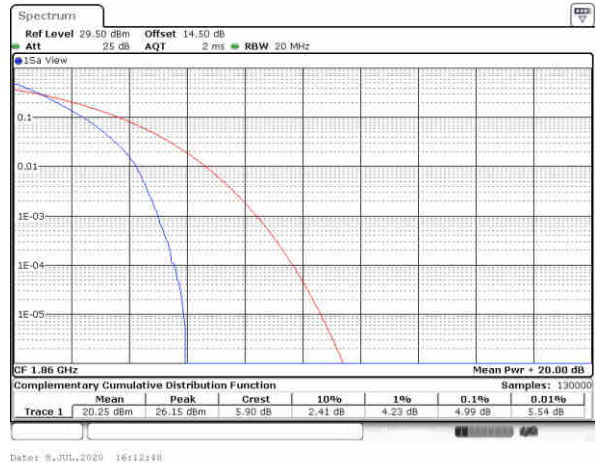


LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



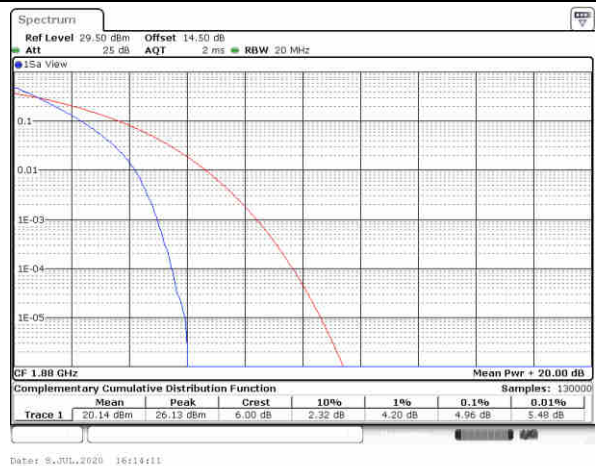
Lowest Channel / Full RB



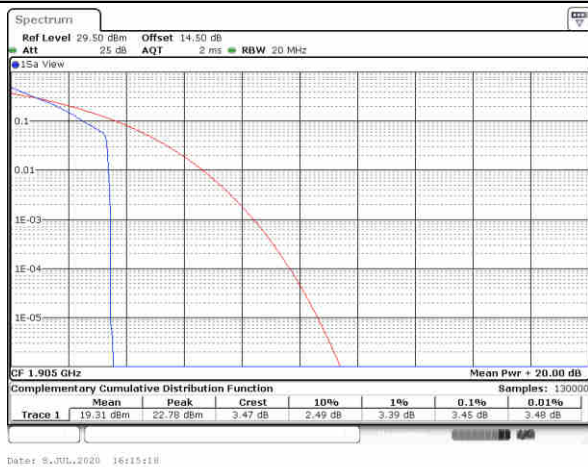
Middle Channel / 1RB



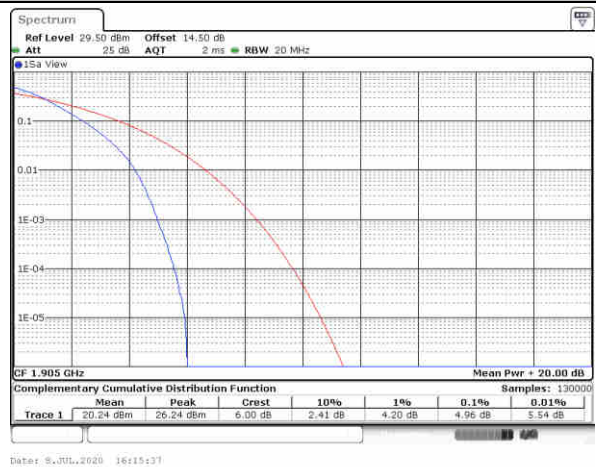
Middle Channel / Full RB



Highest Channel / 1RB



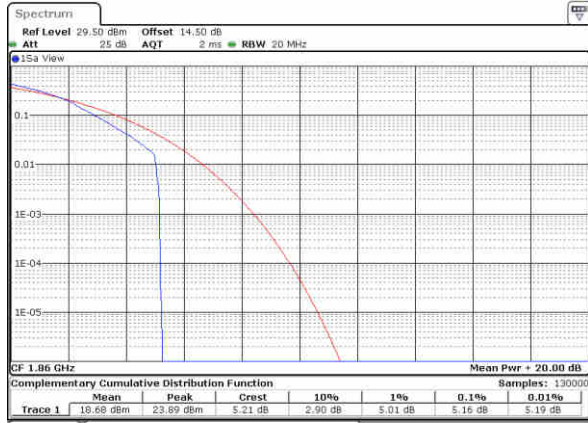
Highest Channel / Full RB



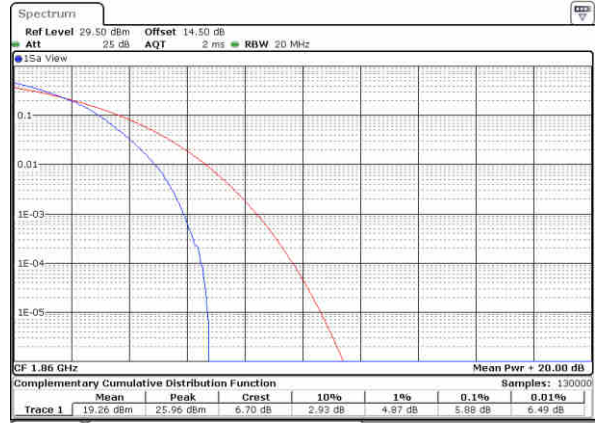


LTE Band 25 / 20MHz / 16QAM

Lowest Channel / 1RB



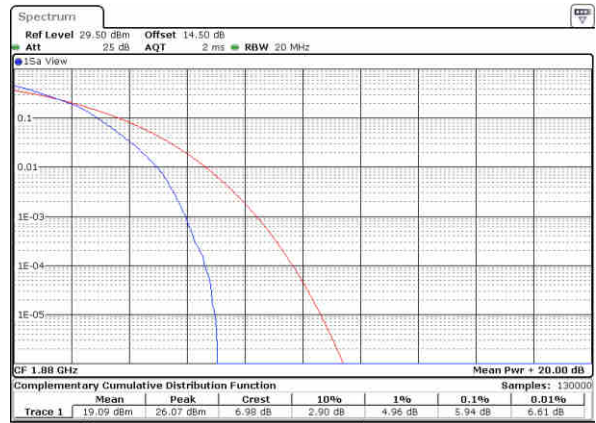
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



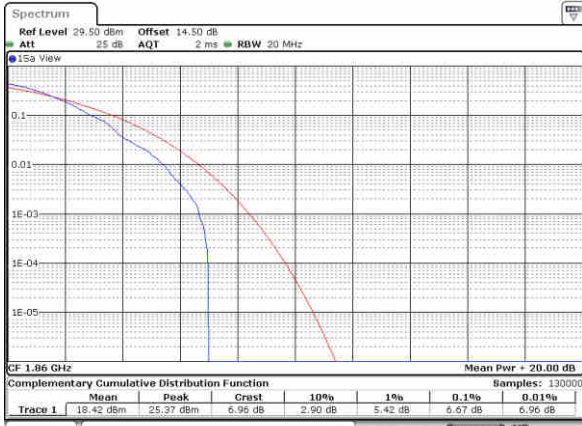
Highest Channel / Full RB



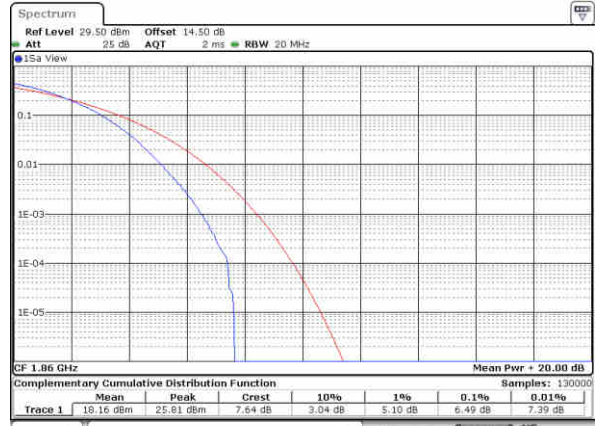


LTE Band 25 / 20MHz / 64QAM

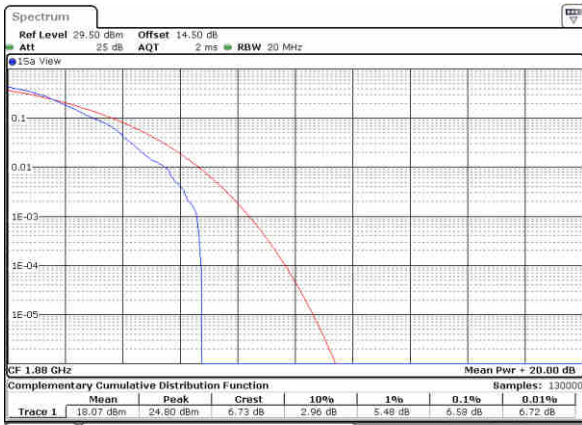
Lowest Channel / 1RB



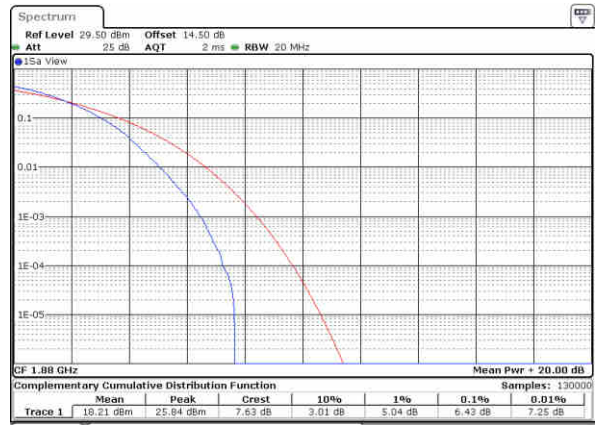
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



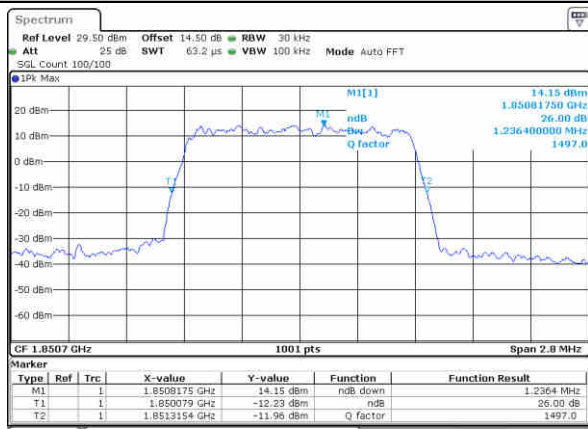
**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.24	1.23	3.02	2.97	4.95	4.89	9.73	9.75	14.51	14.48	19.10	18.70
Middle CH	1.23	1.23	2.97	3.06	4.94	4.94	9.69	9.91	14.27	14.21	19.02	19.02
Highest CH	1.23	1.23	3.02	3.08	4.89	4.97	9.81	9.69	14.63	14.27	19.02	19.02
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	2.98	-	4.87	-	9.71	-	14.42	-	18.78	-
Middle CH	1.23	-	3.00	-	4.90	-	9.89	-	14.36	-	19.26	-
Highest CH	1.23	-	3.01	-	4.86	-	9.79	-	14.12	-	18.70	-

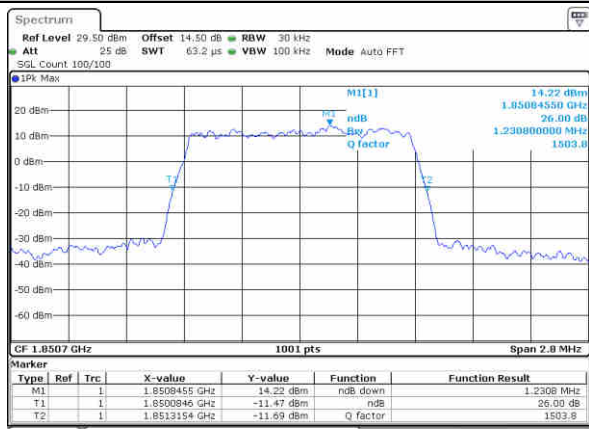


LTE Band 25

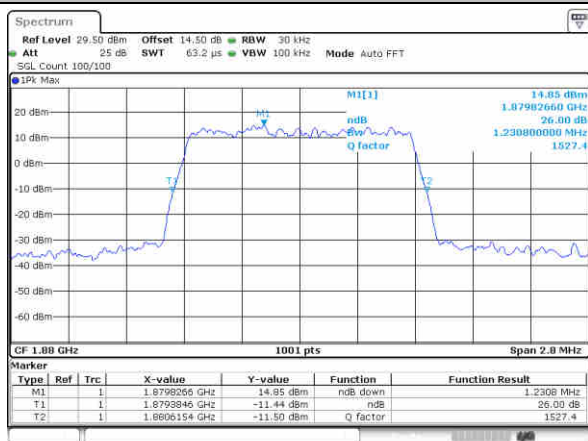
Lowest Channel / 1.4MHz / QPSK



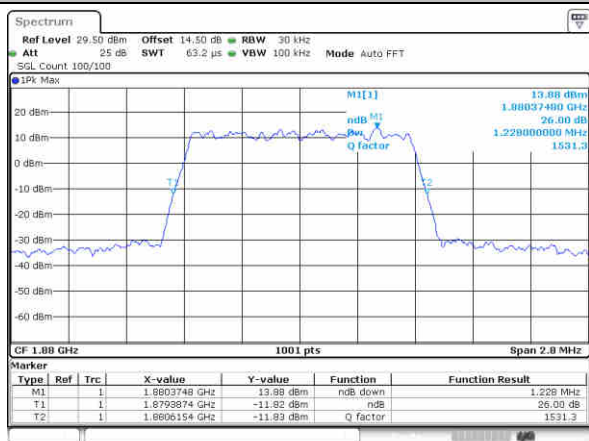
Lowest Channel / 1.4MHz / 16QAM



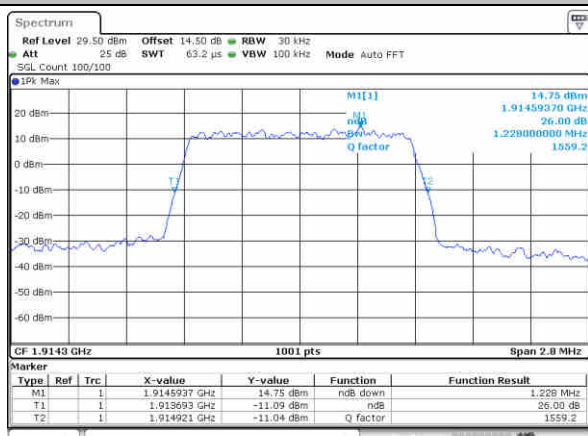
Middle Channel / 1.4MHz / QPSK



Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



Highest Channel / 1.4MHz / 16QAM

