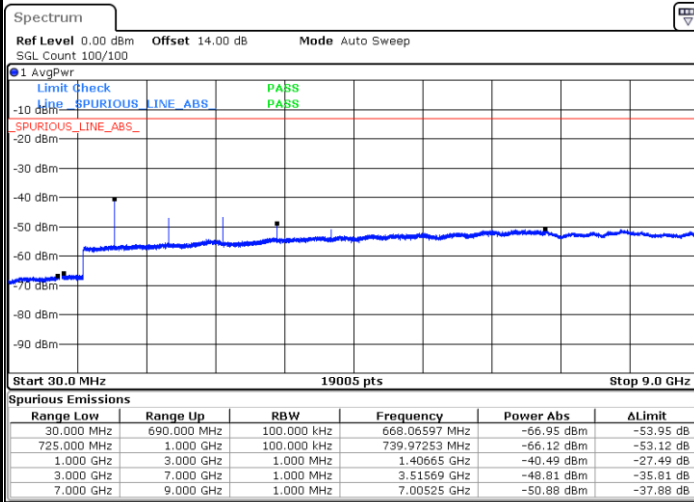




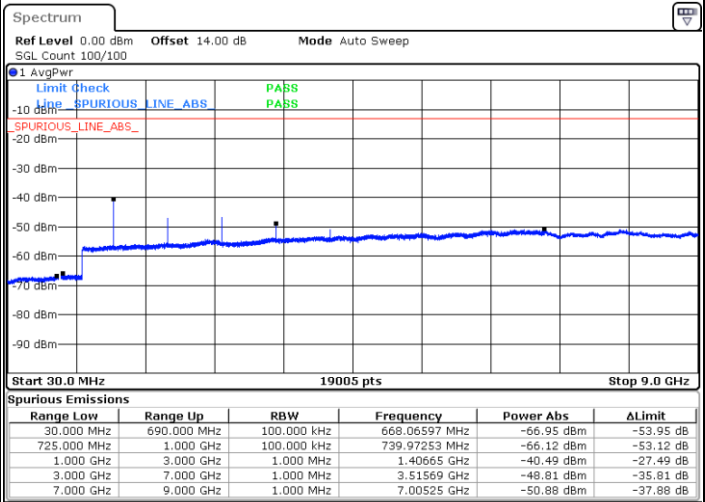
LTE Band 12 / 10MHz

Middle Channel / QPSK



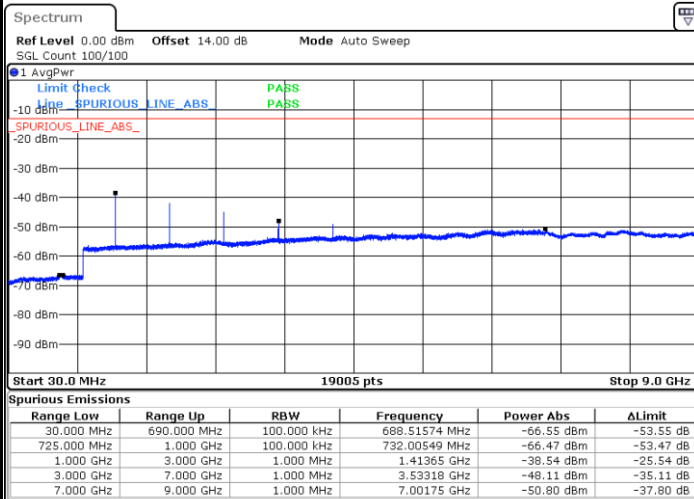
Date: 28.FEB.2020 16:27:16

Middle Channel / 16QAM



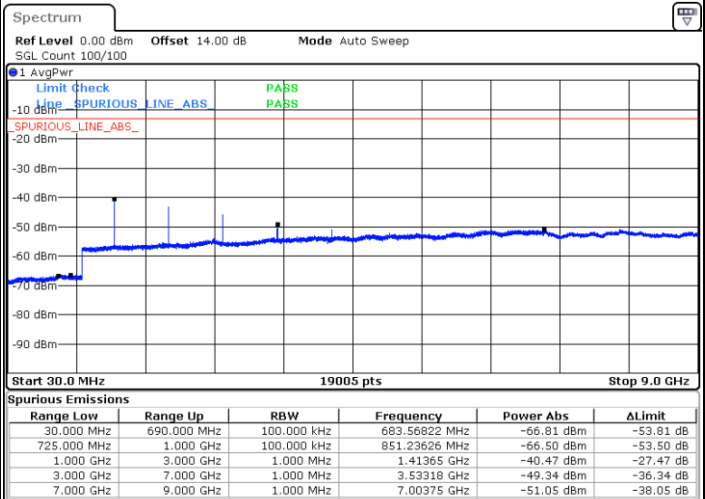
Date: 28.FEB.2020 16:27:16

Highest Channel / QPSK



Date: 28.FEB.2020 16:35:54

Highest Channel / 16QAM



Date: 28.FEB.2020 16:37:00

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	0.0004	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

1. Normal Voltage =12V. ; Battery End Point (BEP) =9V. ; Maximum Voltage =16V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

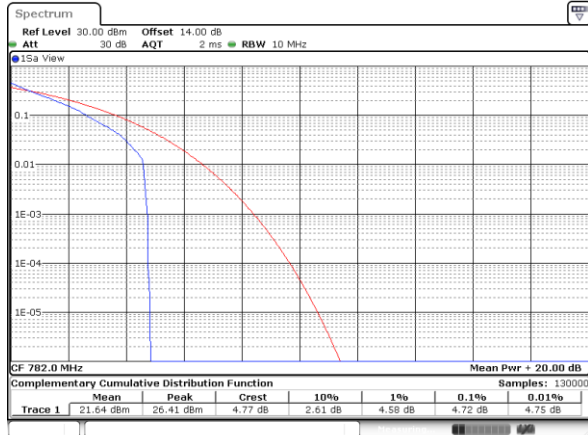
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.72	5.19	5.68	6.06	
Highest CH	-	-	-	-	

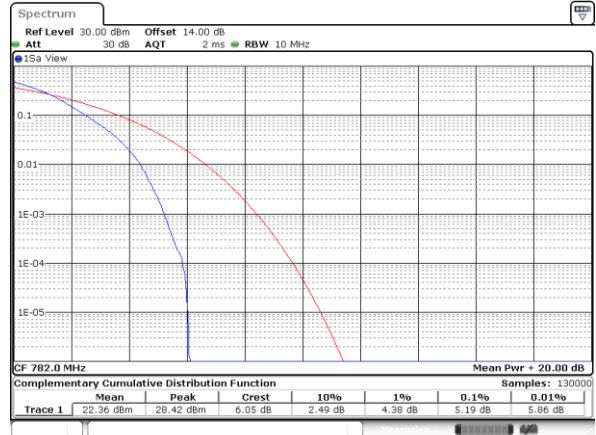


LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB

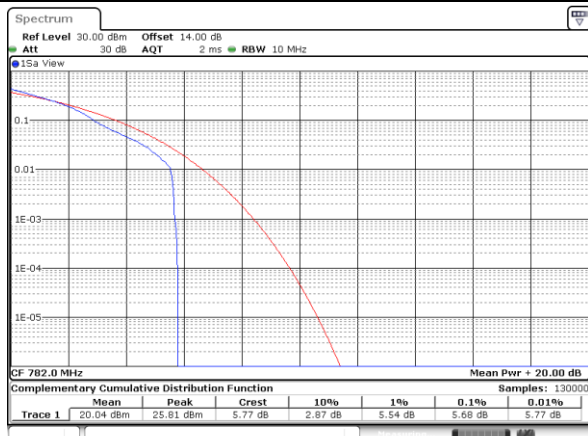


Middle Channel / Full RB

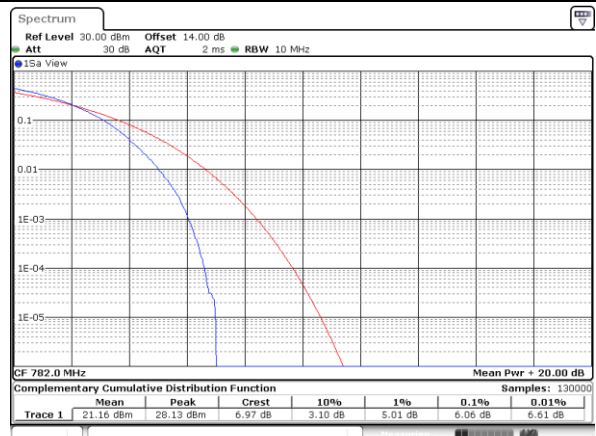


LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Middle Channel / Full RB





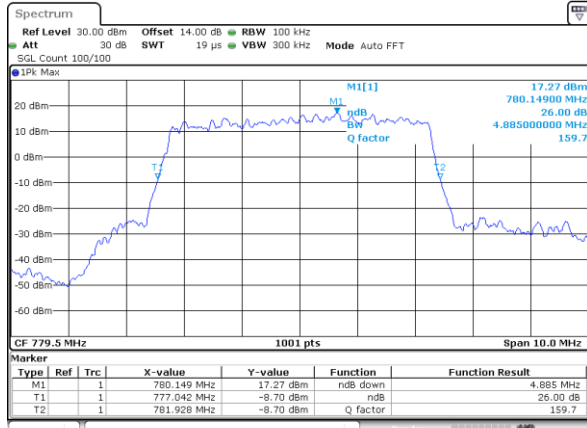
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.88	4.91	-	-	-	-	-	-
Middle CH	-	-	-	-	4.88	4.93	9.87	9.69	-	-	-	-
Highest CH	-	-	-	-	4.89	4.96	-	-	-	-	-	-

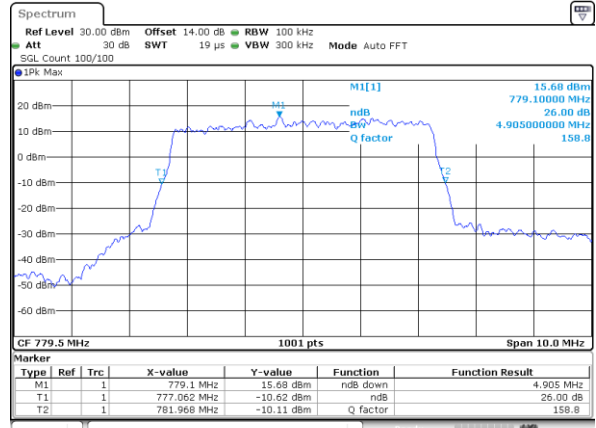


LTE Band 13

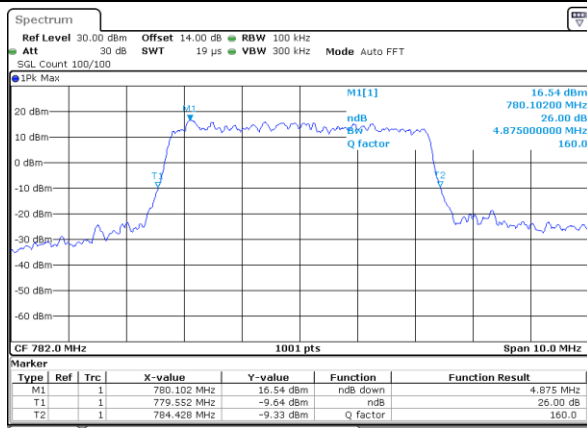
Lowest Channel / 5MHz / QPSK



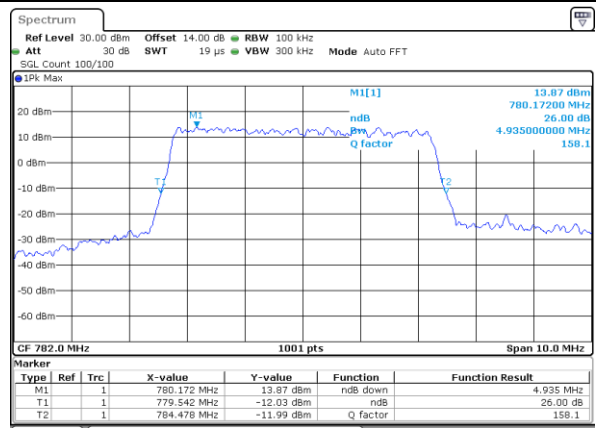
Lowest Channel / 5MHz / 16QAM



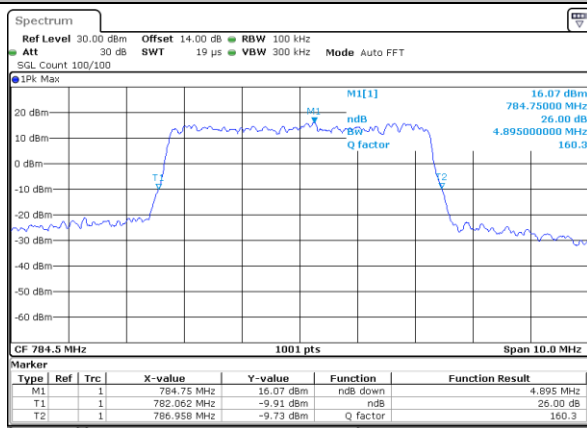
Middle Channel / 5MHz / QPSK



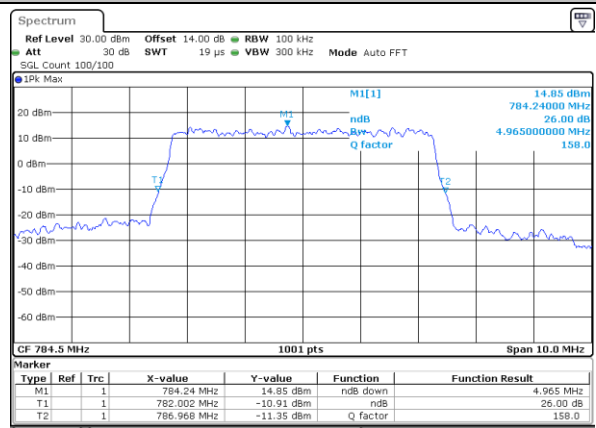
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



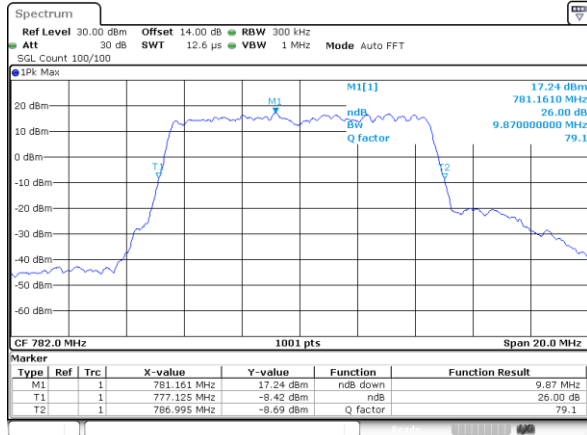
Highest Channel / 5MHz / 16QAM





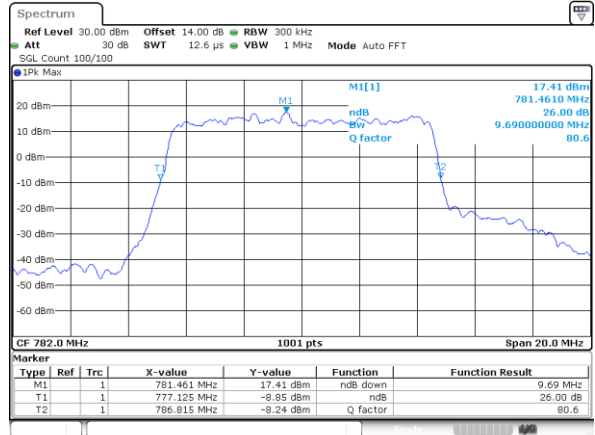
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 29.FEB.2020 10:39:44

Middle Channel / 10MHz / 16QAM



Date: 29.FEB.2020 09:10:12



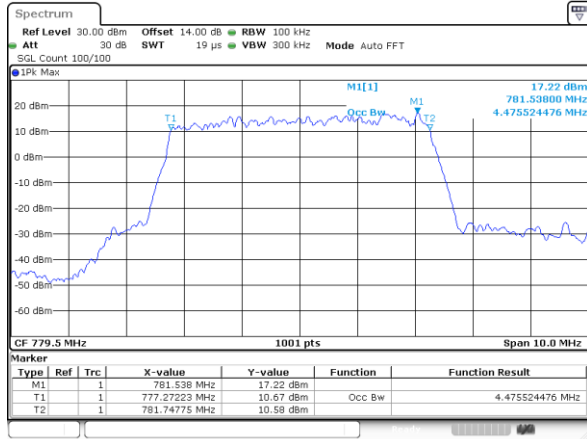
Occupied Bandwidth

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	-	-	-	-	4.48	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	4.48	8.89	8.97	-	-	-	-
Highest CH	-	-	-	-	4.5	4.51	-	-	-	-	-	-

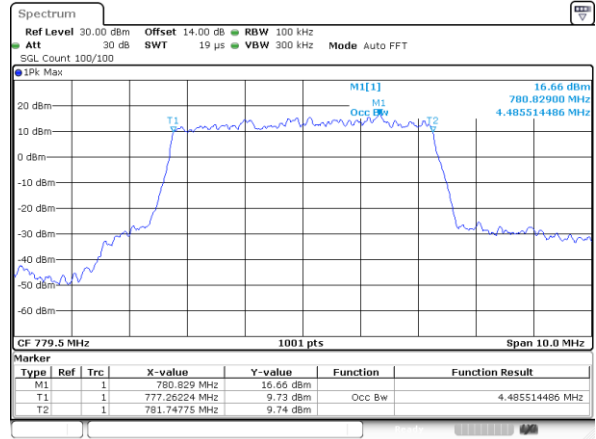


LTE Band 13

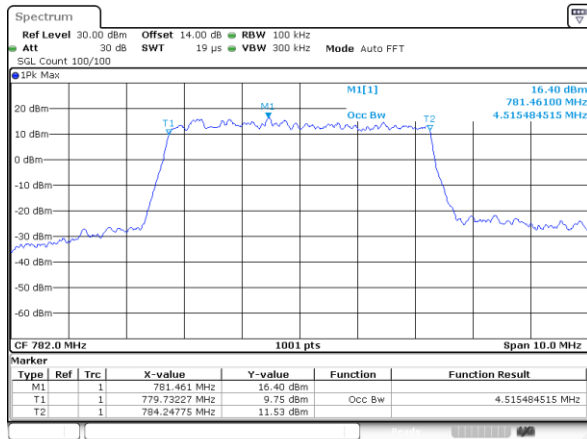
Lowest Channel / 5MHz / QPSK



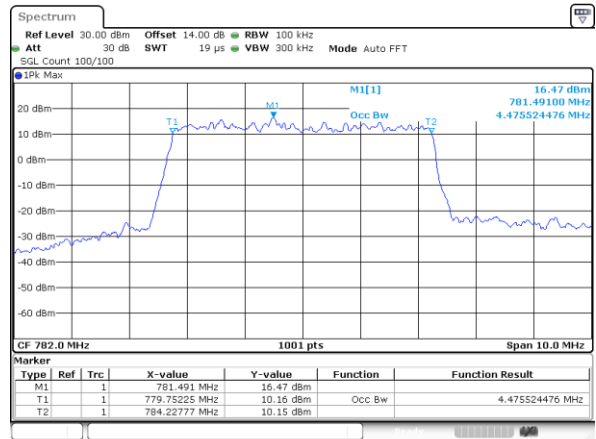
Lowest Channel / 5MHz / 16QAM



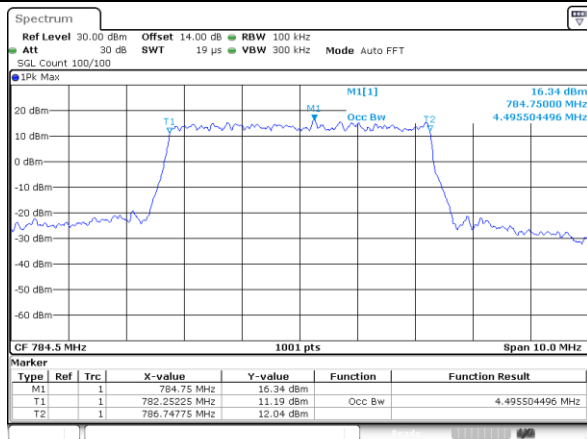
Middle Channel / 5MHz / QPSK



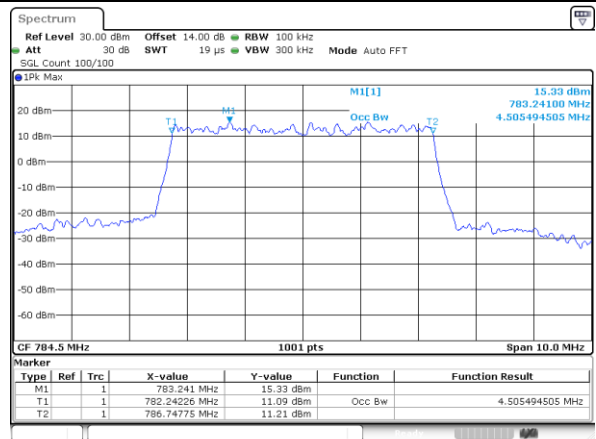
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



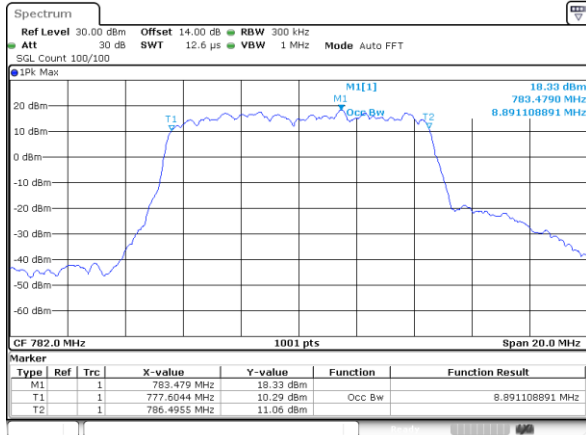
Highest Channel / 5MHz / 16QAM





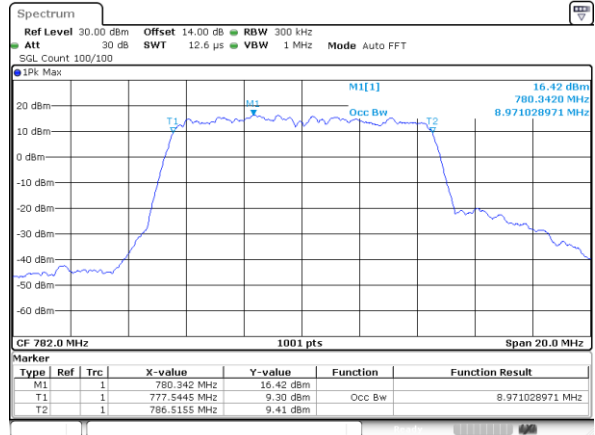
LTE Band 13

Middle Channel / 10MHz / QPSK

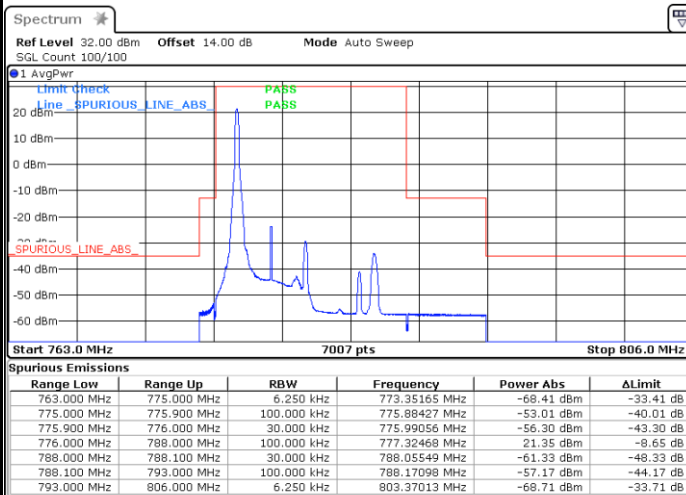
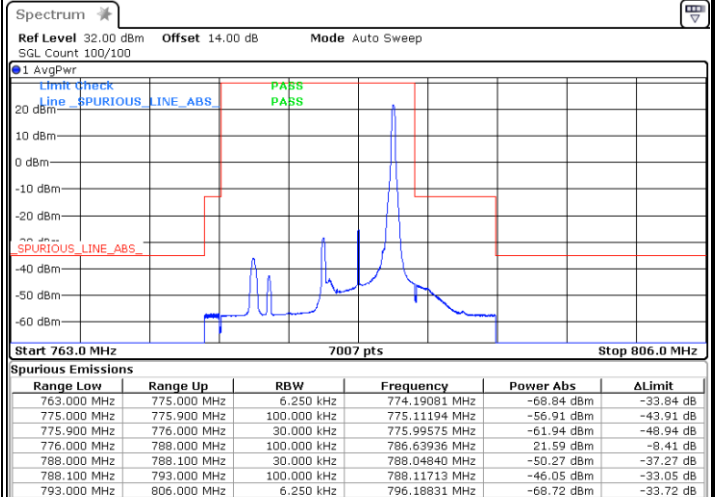
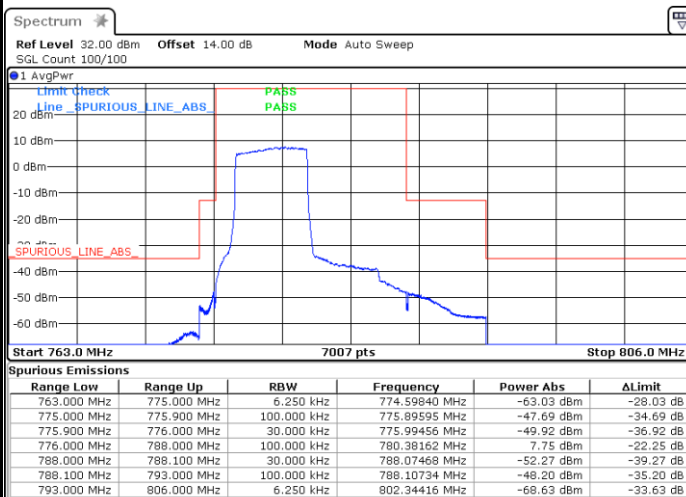
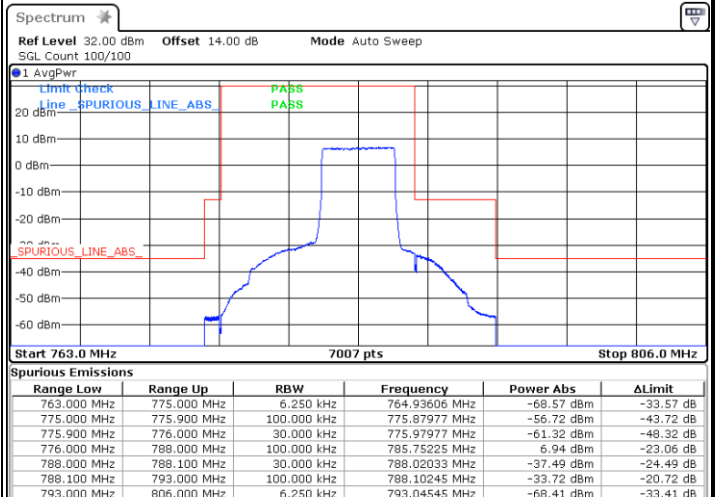


Date: 29.FEB.2020 10:39:32

Middle Channel / 10MHz / 16QAM



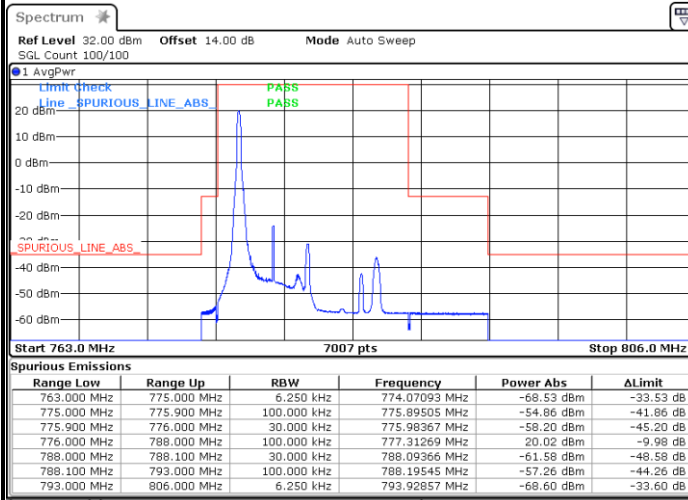
Date: 29.FEB.2020 09:10:00

**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**



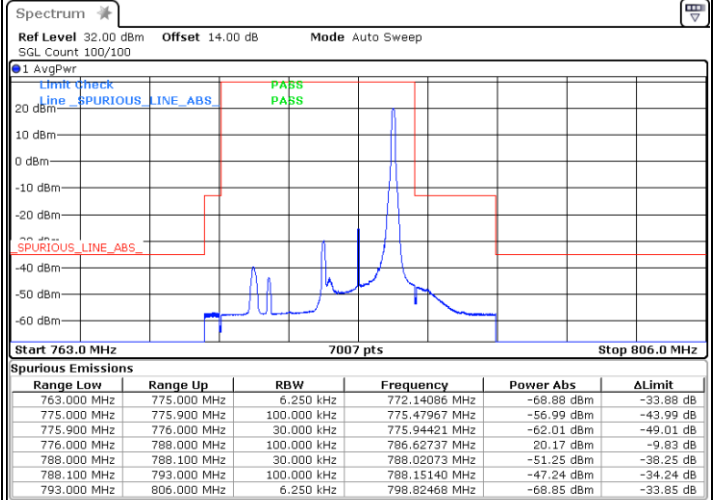
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



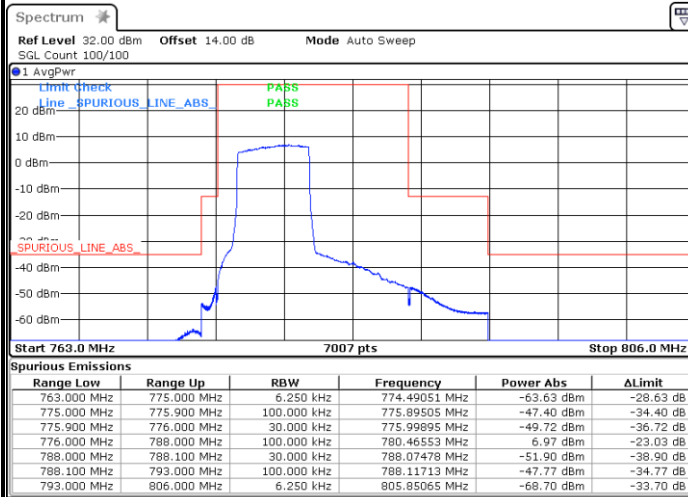
Date: 29.FEB.2020 09:22:34

Highest Band Edge / 1 RB



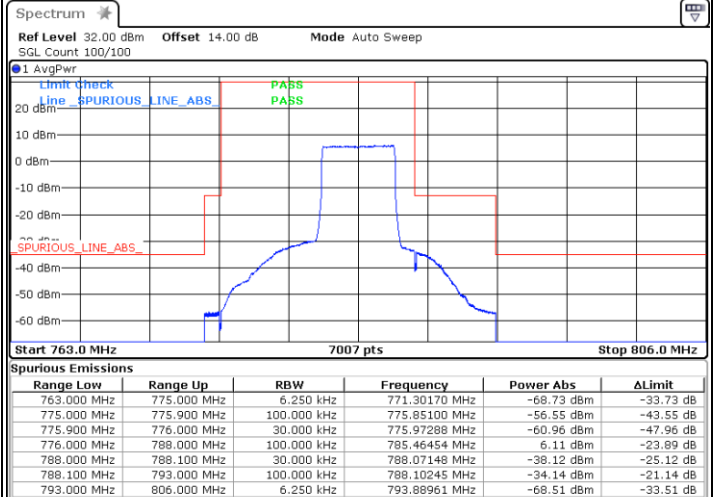
Date: 29.FEB.2020 09:08:42

Lowest Band Edge / Full RB



Date: 29.FEB.2020 09:00:02

Highest Band Edge / Full RB



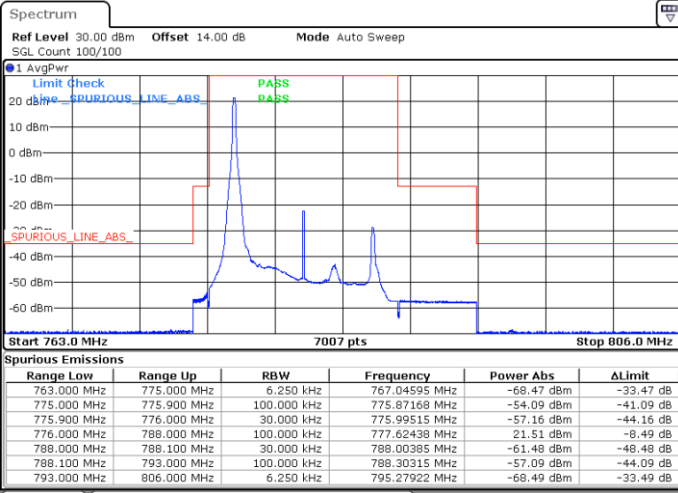
Date: 29.FEB.2020 09:06:58



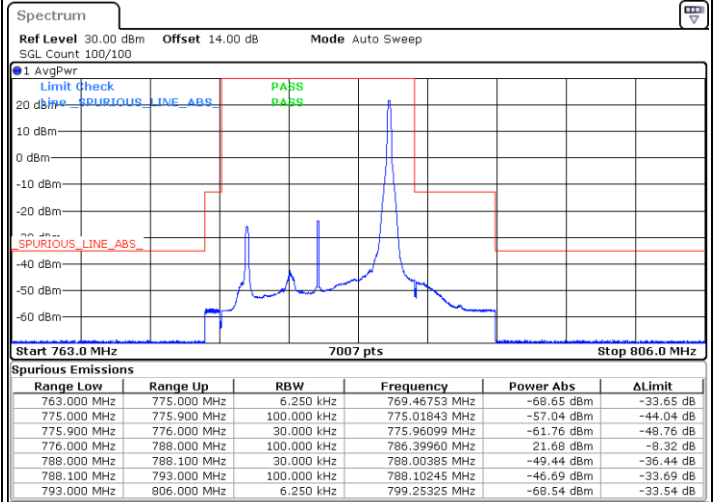
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

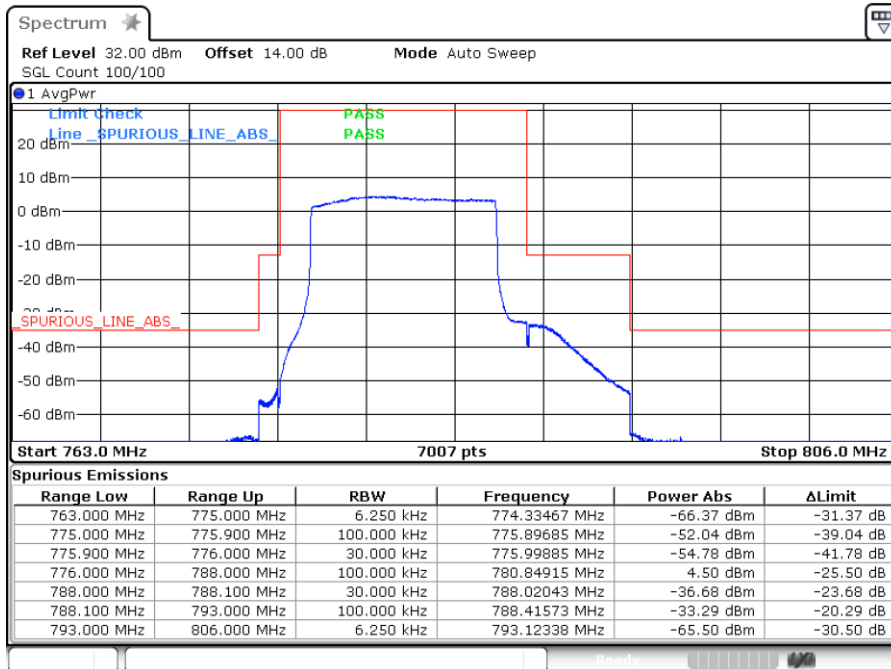


Date: 29.FEB.2020 10:43:10



Date: 11.MAR.2020 18:34:09

Band Edge / Full RB



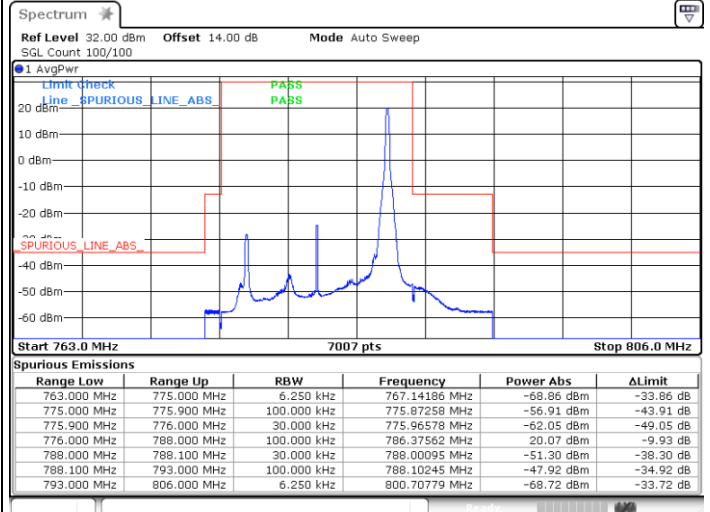
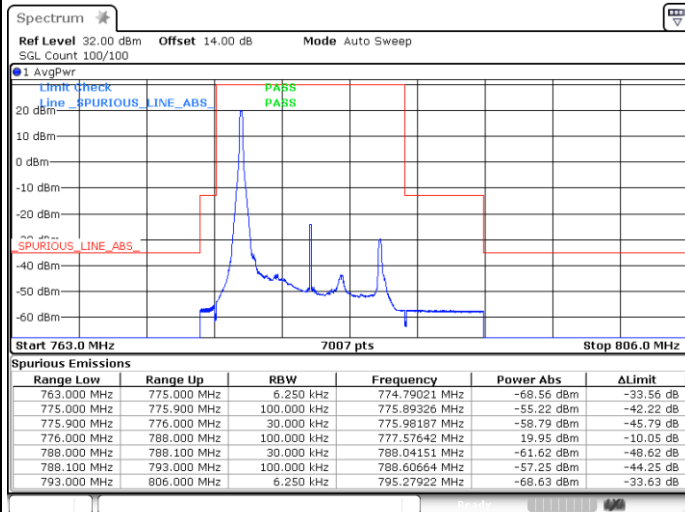
Date: 29.FEB.2020 10:59:38



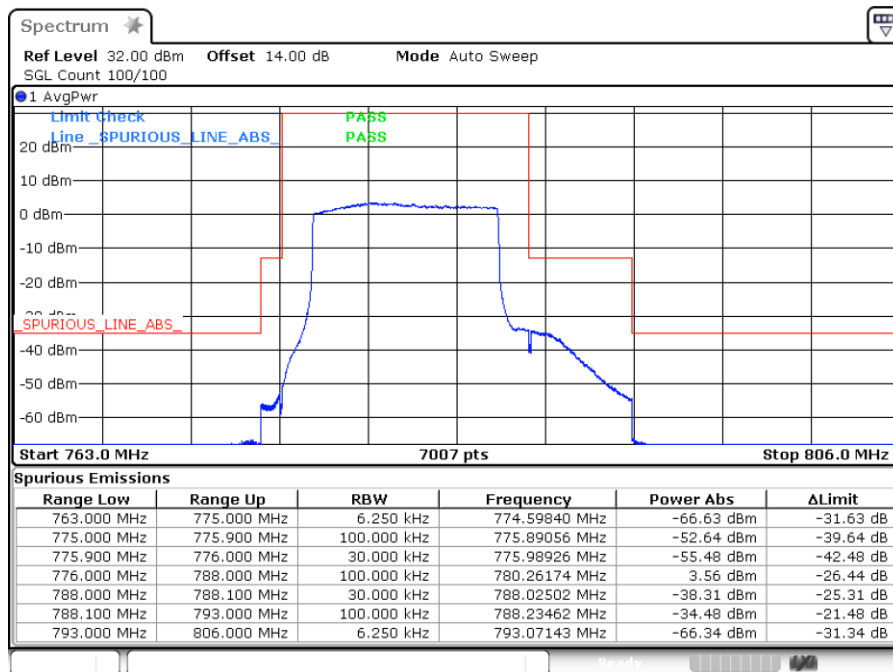
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

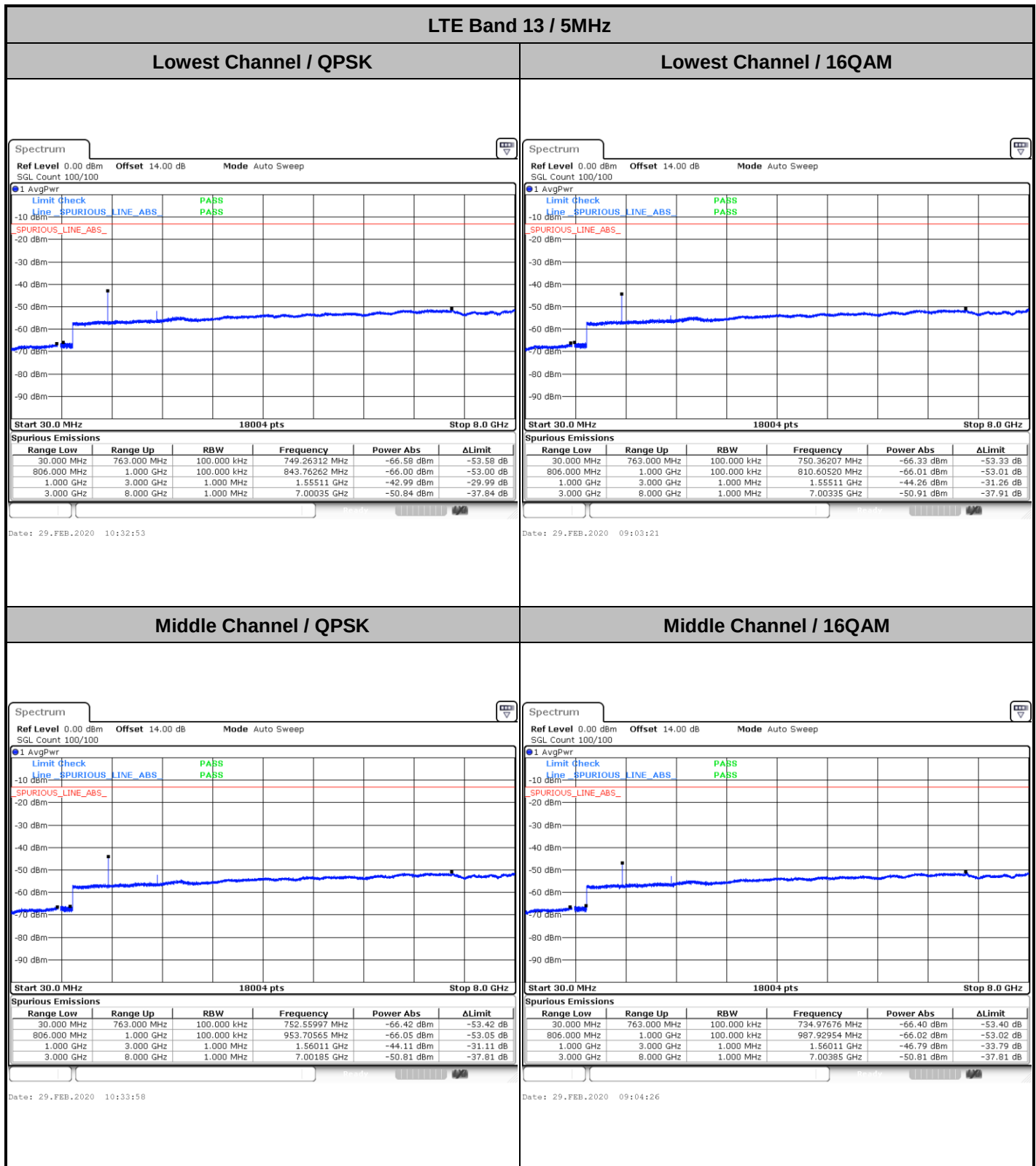


Band Edge / Full RB





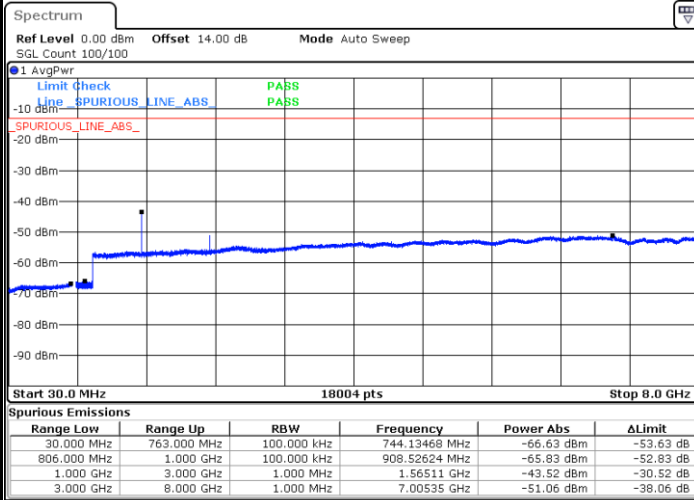
Conducted Spurious Emission





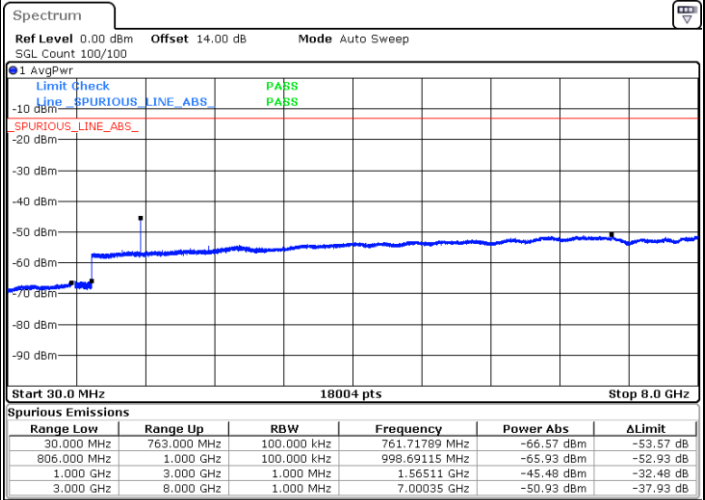
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 29.FEB.2020 10:39:20

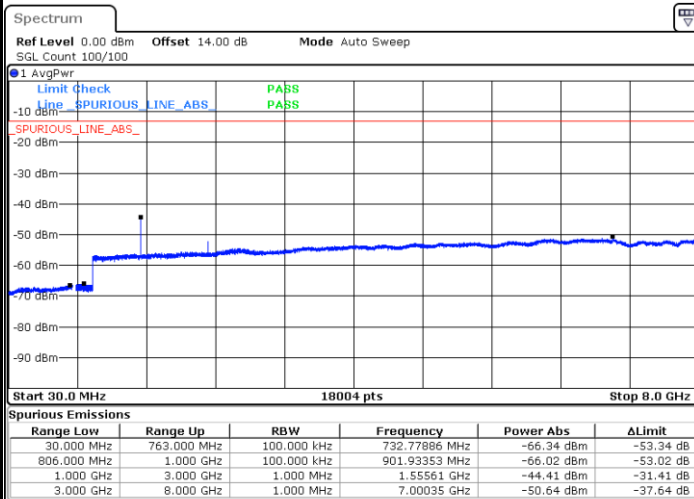
Highest Channel / 16QAM



Date: 29.FEB.2020 09:09:48

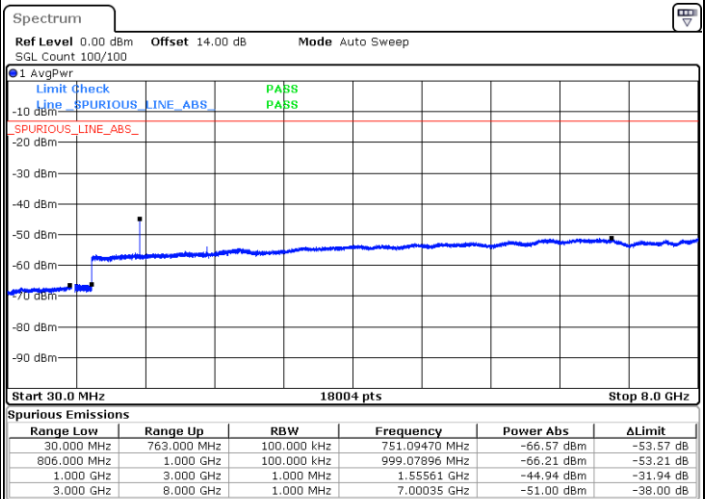
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 29.FEB.2020 10:51:07

Middle Channel / 16QAM



Date: 29.FEB.2020 09:17:43

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	0.0004	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

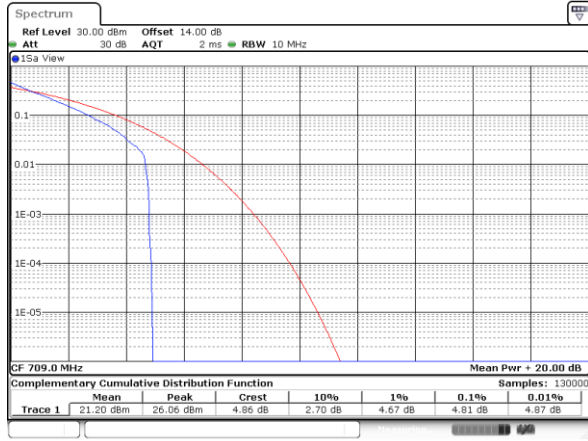
1. Normal Voltage =12V. ; Battery End Point (BEP) =9V. ; Maximum Voltage =16V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



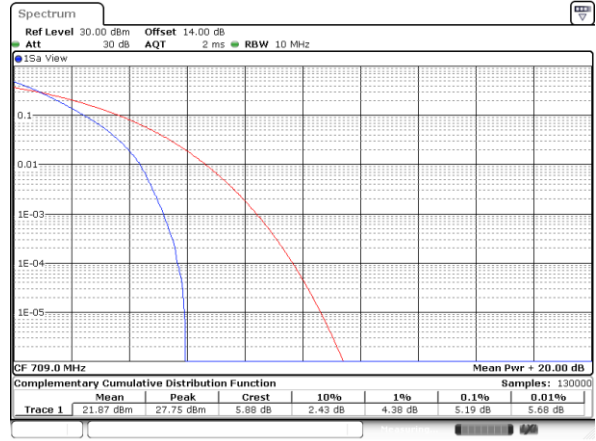
LTE Band 17

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	5.19	5.65	6	PASS
Middle CH	4.81	5.1	5.3	5.91	
Highest CH	4.81	4.96	5.42	5.88	

LTE Band 17 / 10MHz / QPSK
Lowest Channel / 1RB


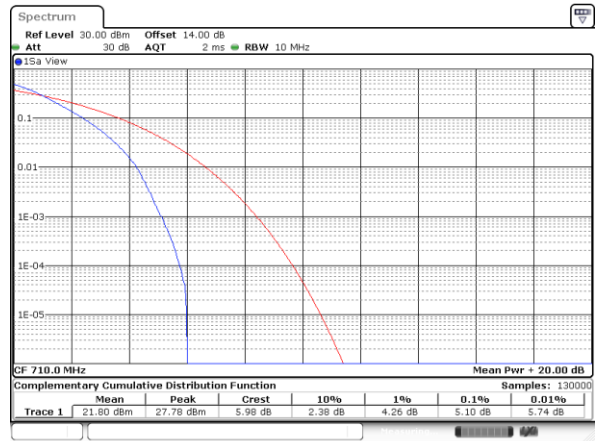
Date: 29.FEB.2020 10:19:34

Lowest Channel / Full RB


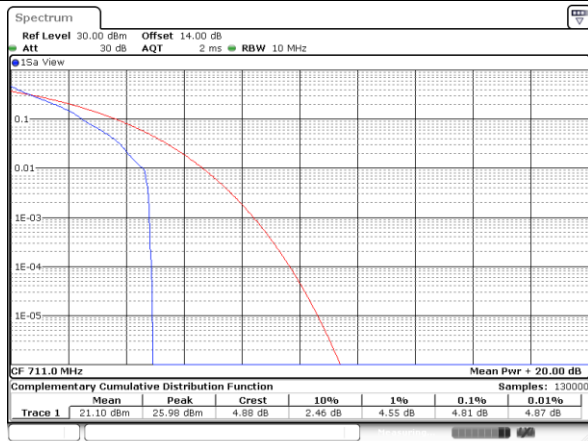
Date: 29.FEB.2020 10:19:45

Middle Channel/ 1RB

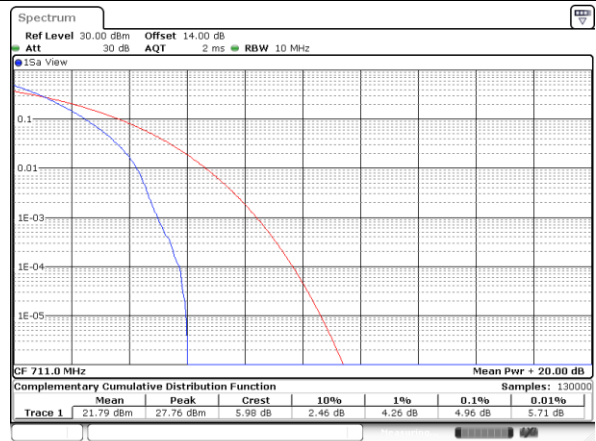

Date: 29.FEB.2020 10:19:58

Middle Channel / Full RB


Date: 29.FEB.2020 10:20:12

Highest Channel/ 1RB


Date: 29.FEB.2020 10:20:27

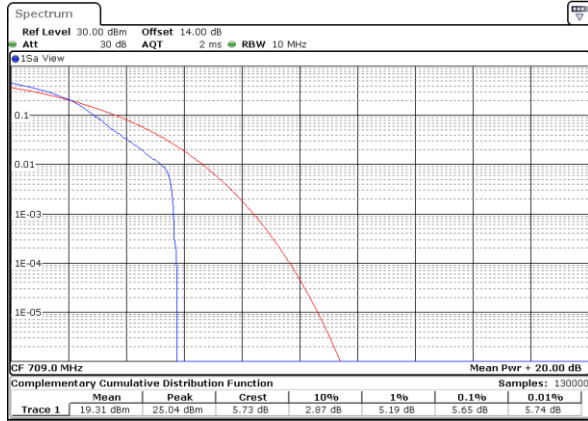
Highest Channel / Full RB


Date: 29.FEB.2020 10:20:41

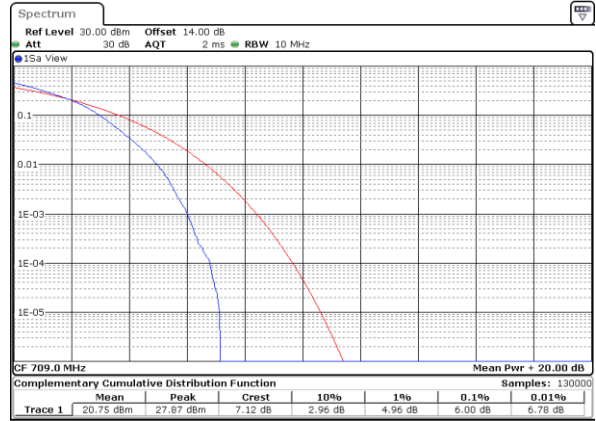


LTE Band 17 / 10MHz / 16QAM

Lowest Channel / 1RB



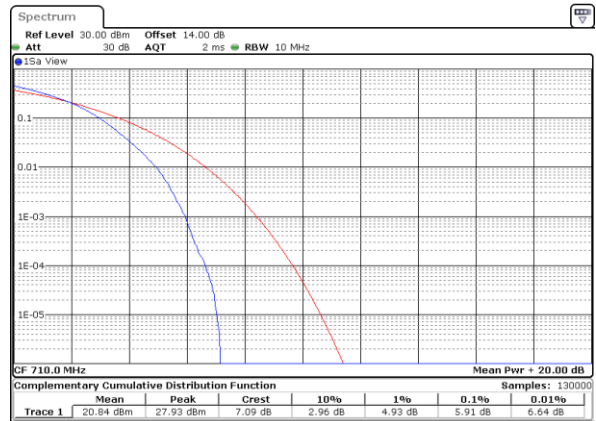
Lowest Channel / Full RB



Middle Channel/ 1RB



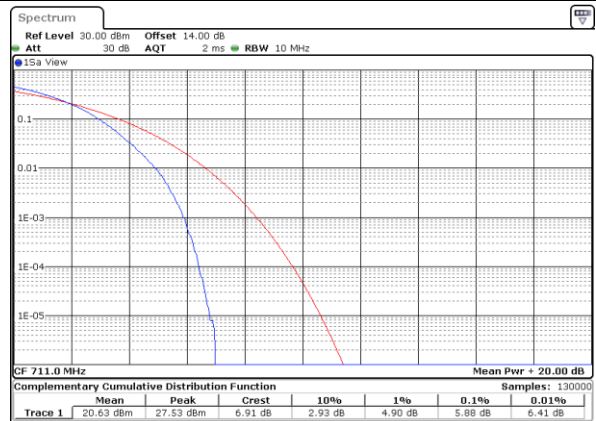
Middle Channel / Full RB



Highest Channel/ 1RB



Highest Channel / Full RB





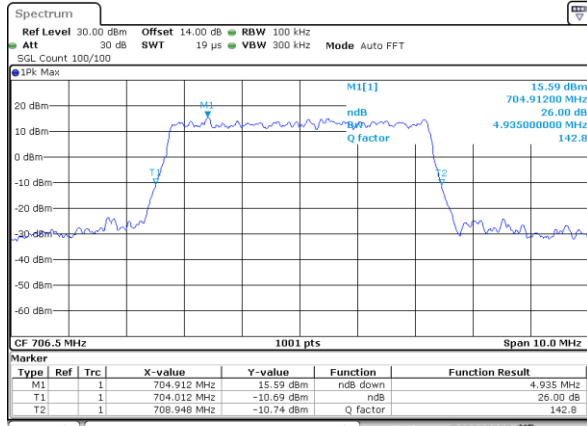
26dB Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	4.93	4.87	9.69	9.87	-	-	-	-
Middle CH	-	-	-	-	4.95	4.88	9.89	9.77	-	-	-	-
Highest CH	-	-	-	-	4.86	4.84	9.79	9.83	-	-	-	-



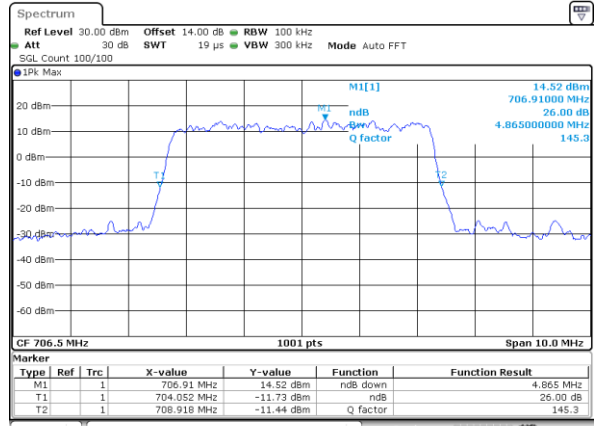
LTE Band 17

Lowest Channel / 5MHz / QPSK



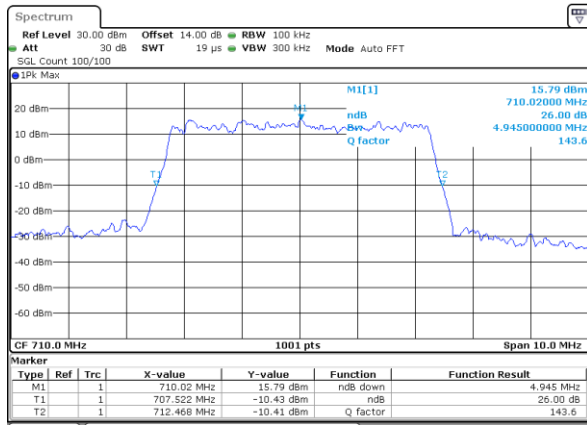
Date: 29.FEB.2020 09:59:09

Lowest Channel / 5MHz / 16QAM



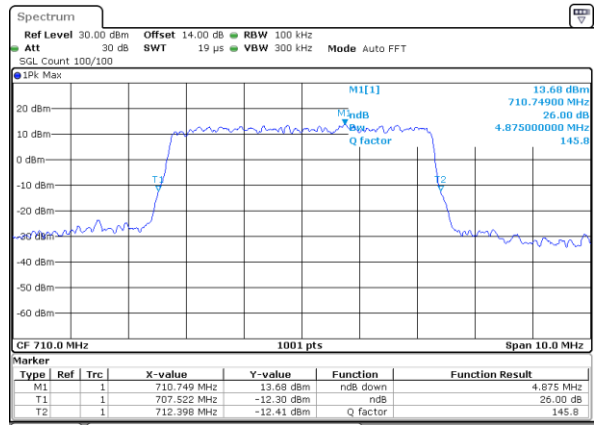
Date: 29.FEB.2020 09:29:24

Middle Channel / 5MHz / QPSK



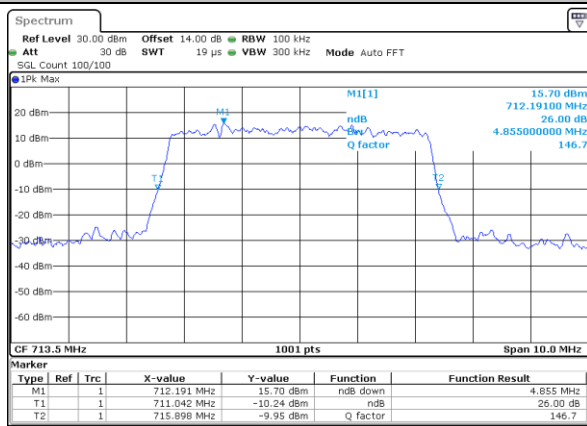
Date: 29.FEB.2020 10:03:26

Middle Channel / 5MHz / 16QAM



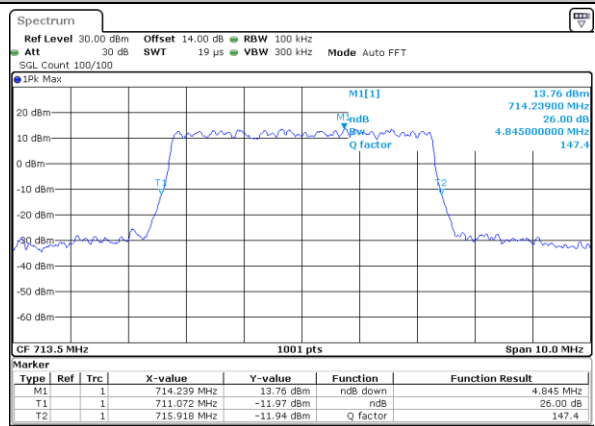
Date: 29.FEB.2020 09:33:42

Highest Channel / 5MHz / QPSK



Date: 29.FEB.2020 10:05:21

Highest Channel / 5MHz / 16QAM

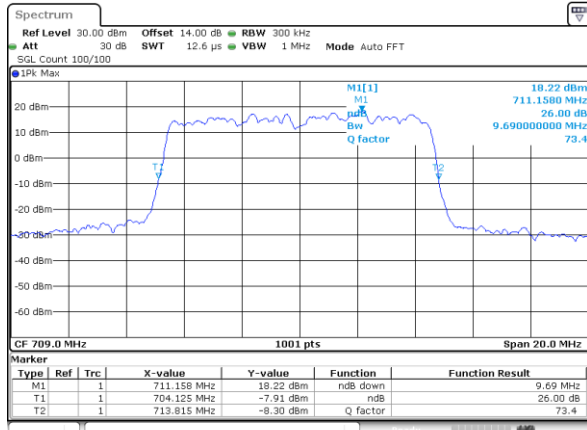


Date: 29.FEB.2020 09:35:12

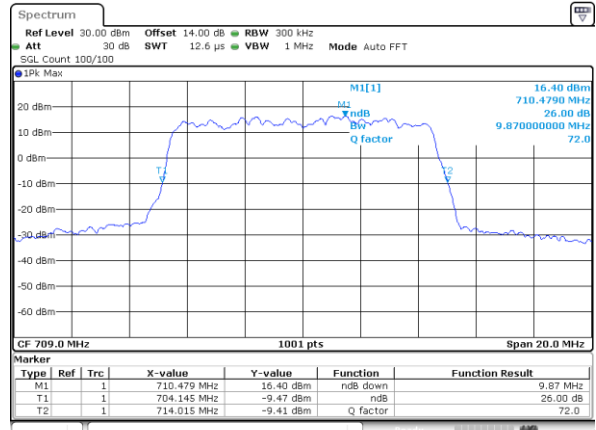


LTE Band 17

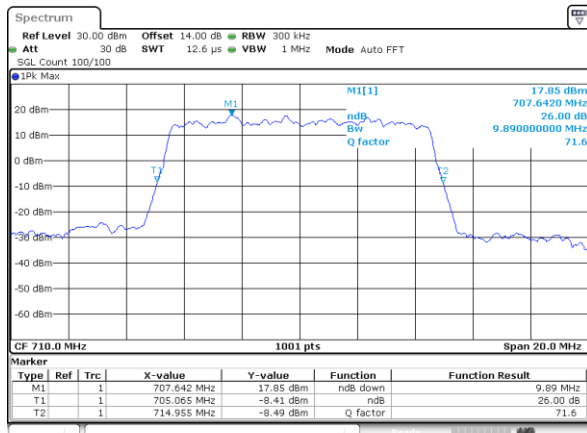
Lowest Channel / 10MHz / QPSK



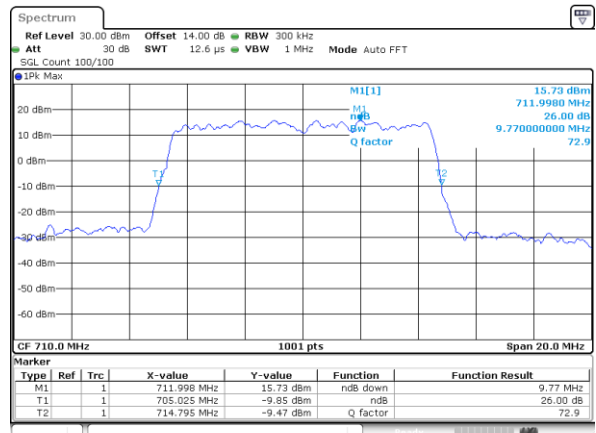
Lowest Channel / 10MHz / 16QAM



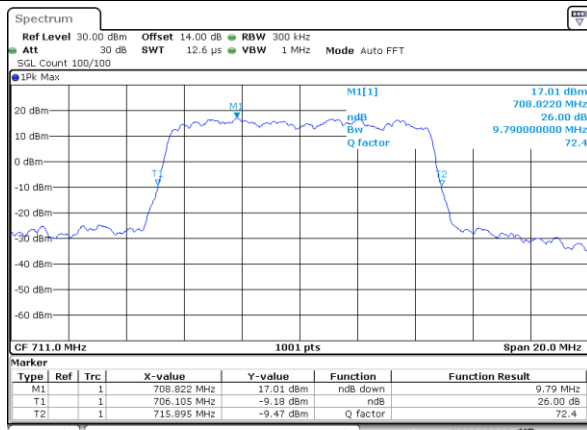
Middle Channel / 10MHz / QPSK



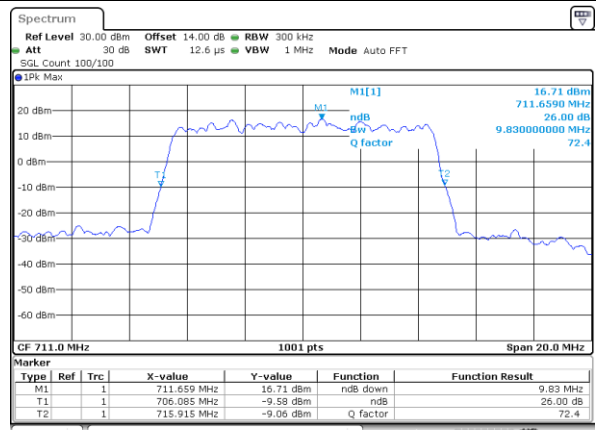
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM





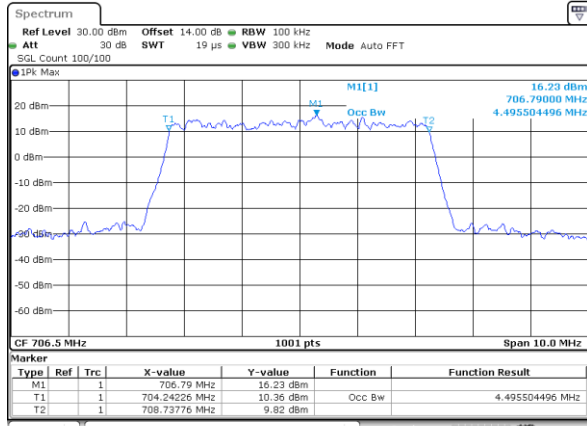
Occupied Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	4.5	4.51	9.03	8.99	-	-	-	-
Middle CH	-	-	-	-	4.5	4.49	8.99	8.97	-	-	-	-
Highest CH	-	-	-	-	4.48	4.49	9.01	8.97	-	-	-	-



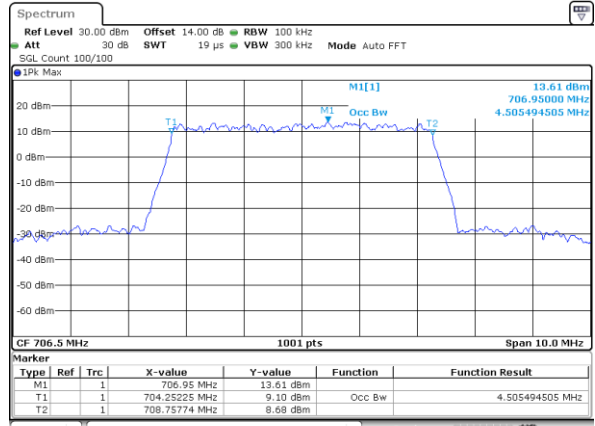
LTE Band 17

Lowest Channel / 5MHz / QPSK



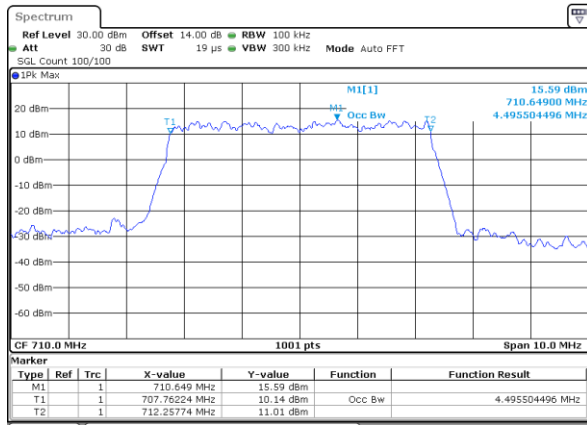
Date: 29.FEB.2020 09:58:57

Lowest Channel / 5MHz / 16QAM



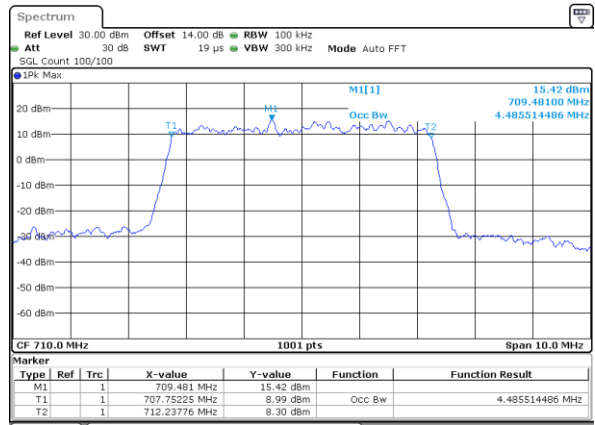
Date: 29.FEB.2020 09:29:12

Middle Channel / 5MHz / QPSK



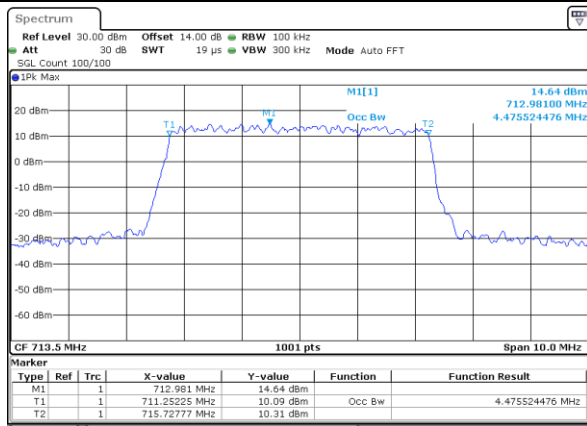
Date: 29.FEB.2020 10:03:14

Middle Channel / 5MHz / 16QAM



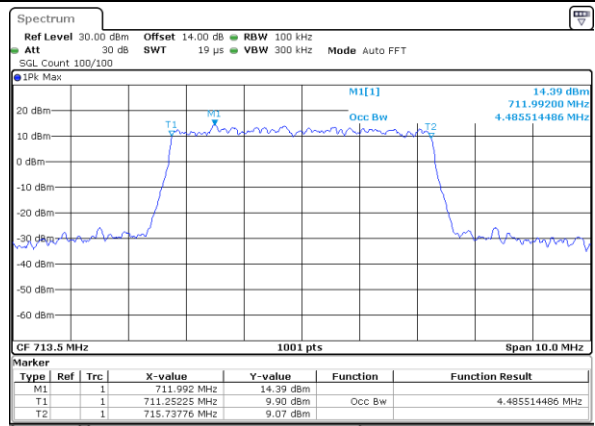
Date: 29.FEB.2020 09:33:30

Highest Channel / 5MHz / QPSK



Date: 29.FEB.2020 10:05:09

Highest Channel / 5MHz / 16QAM

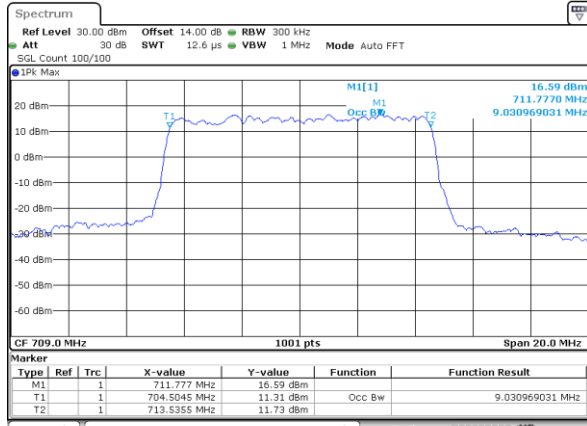


Date: 29.FEB.2020 09:35:00



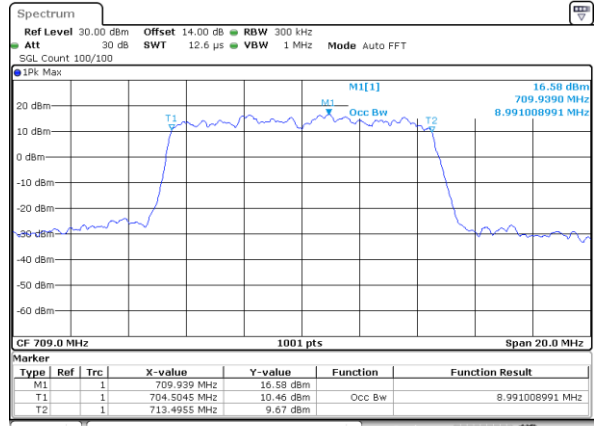
LTE Band 17

Lowest Channel / 10MHz / QPSK



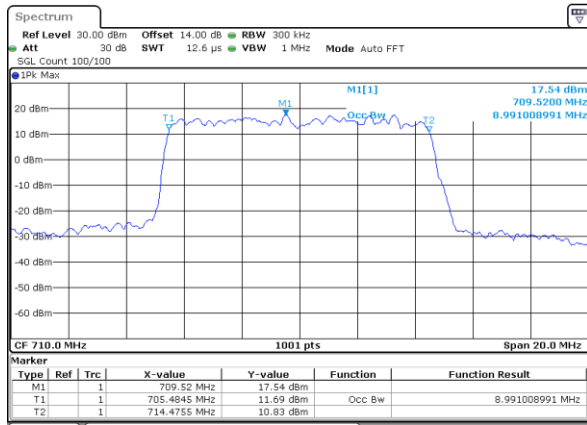
Date: 29.FEB.2020 10:09:27

Lowest Channel / 10MHz / 16QAM



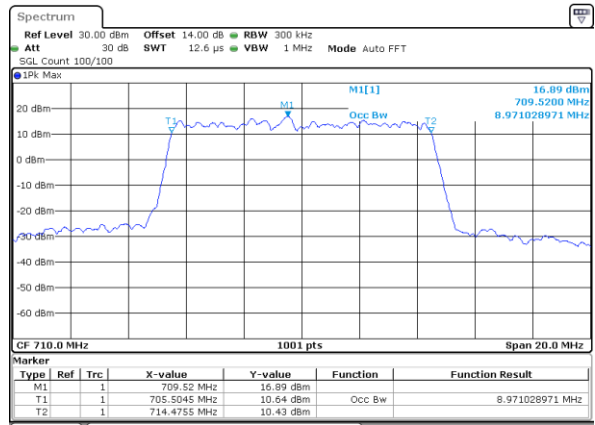
Date: 29.FEB.2020 09:13:17

Middle Channel / 10MHz / QPSK



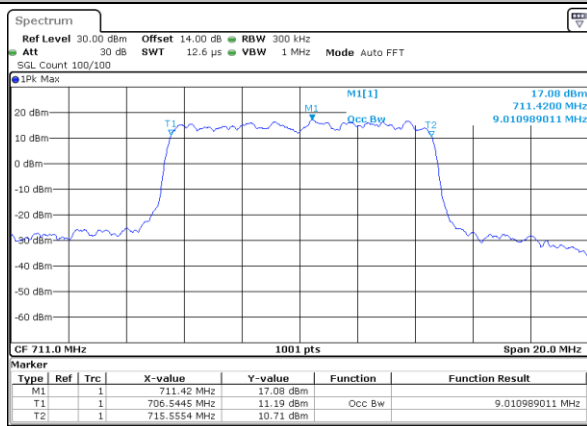
Date: 29.FEB.2020 10:13:44

Middle Channel / 10MHz / 16QAM



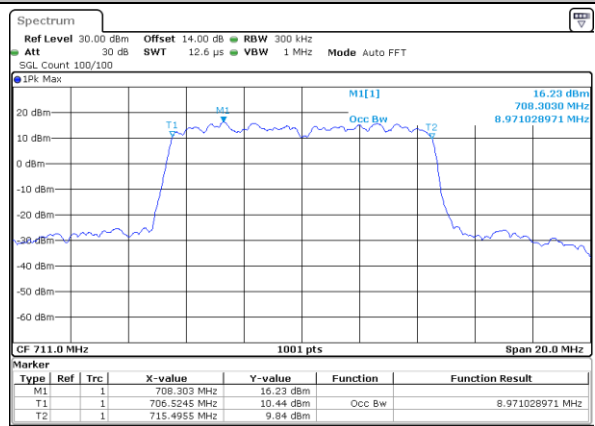
Date: 29.FEB.2020 09:43:35

Highest Channel / 10MHz / QPSK



Date: 29.FEB.2020 10:15:14

Highest Channel / 10MHz / 16QAM



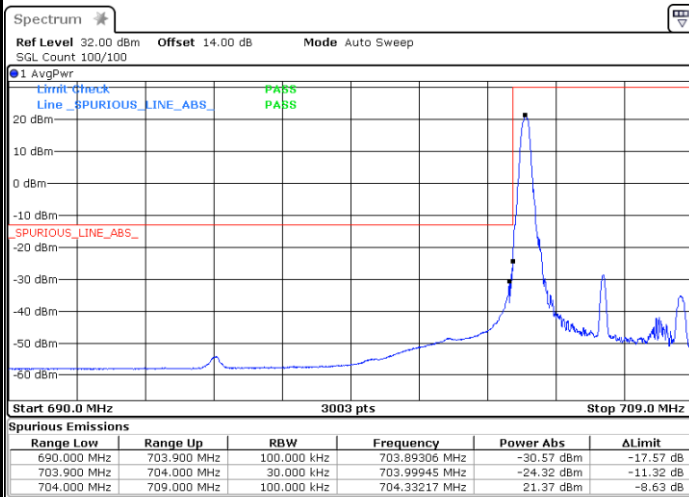
Date: 29.FEB.2020 09:45:05



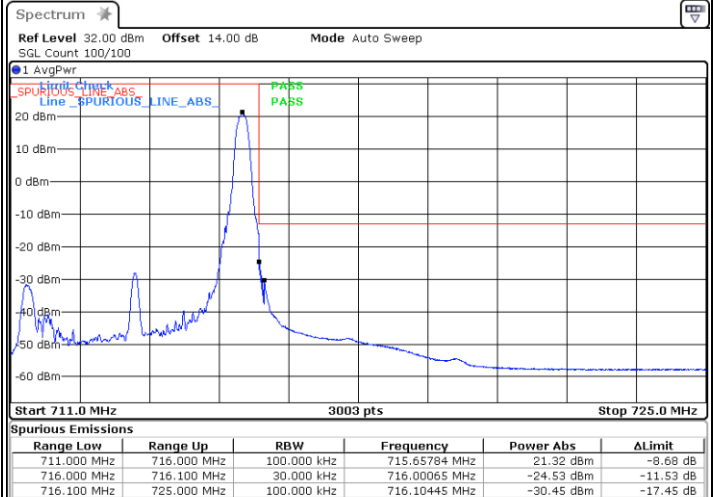
Conducted Band Edge

LTE Band 17 / 5MHz / QPSK

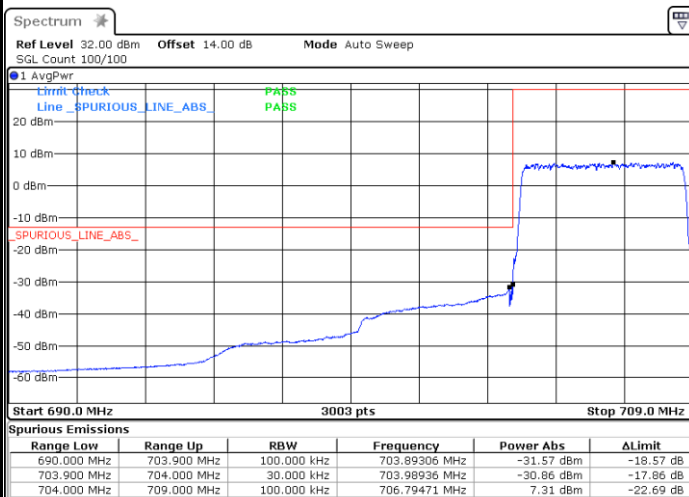
Lowest Band Edge / 1 RB



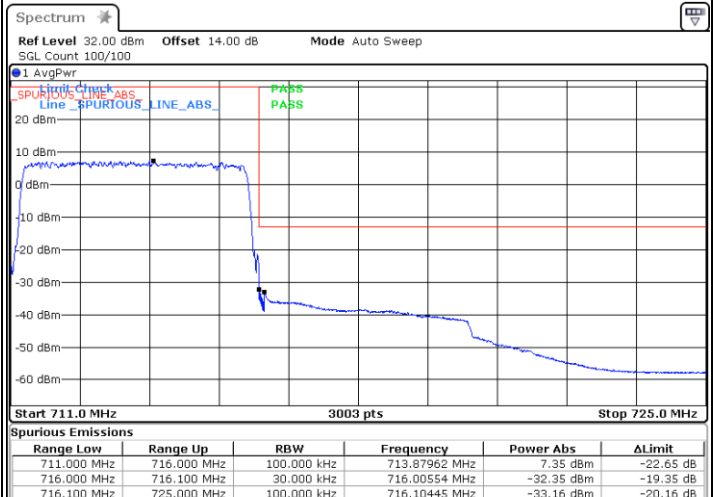
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



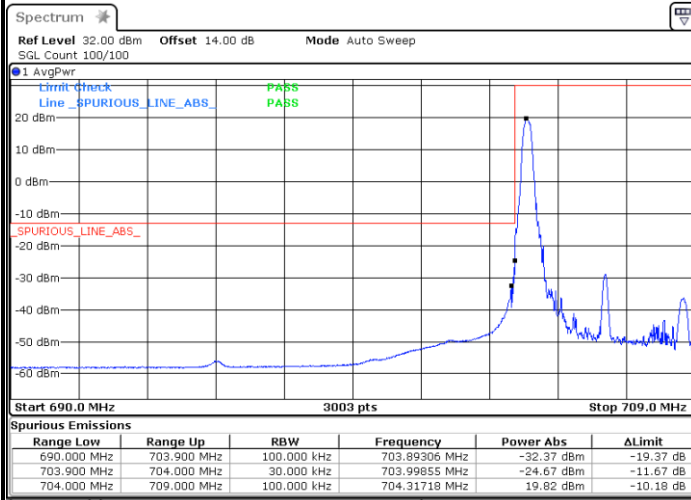
Highest Band Edge / Full RB



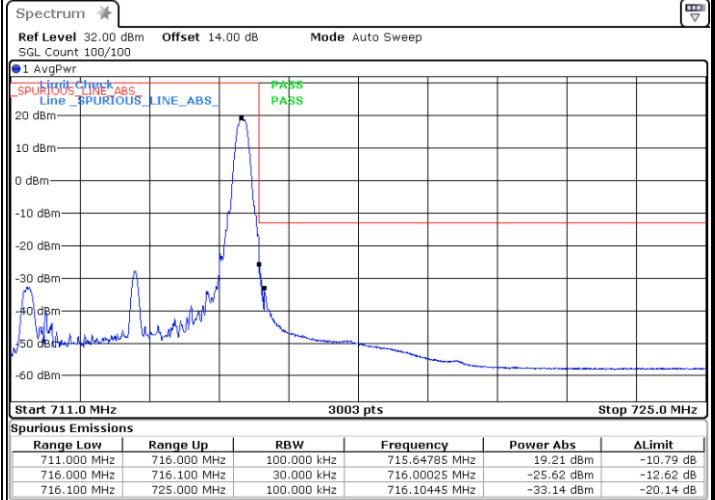


LTE Band 17 / 5MHz / 16QAM

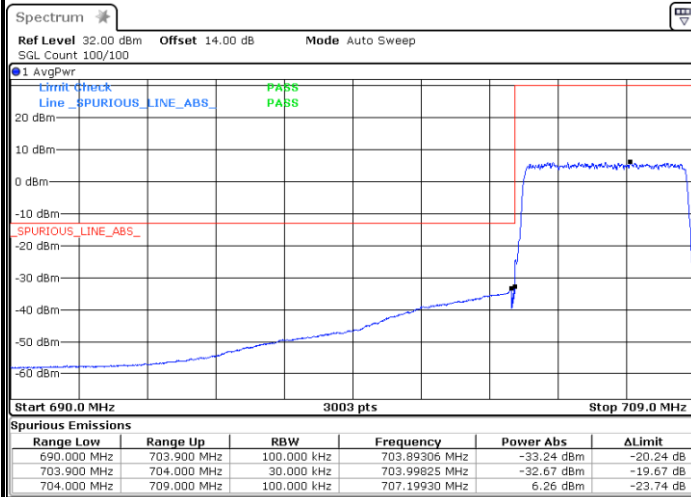
Lowest Band Edge / 1 RB



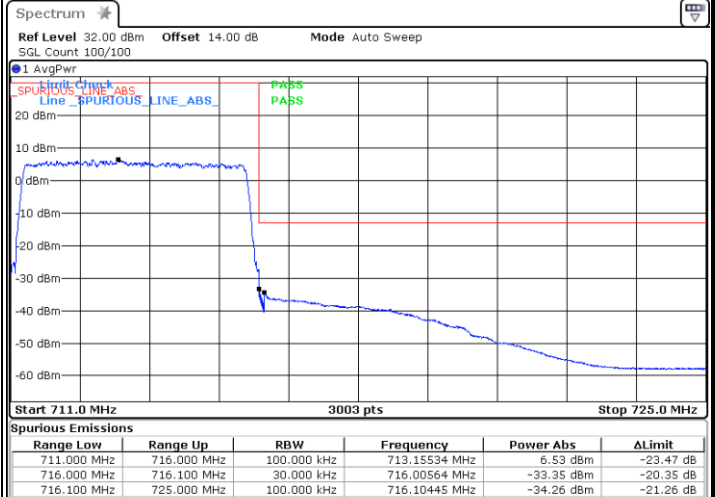
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



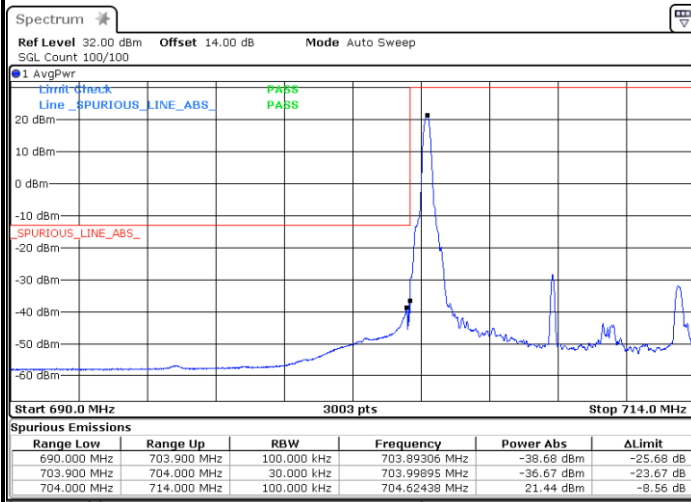
Highest Band Edge / Full RB



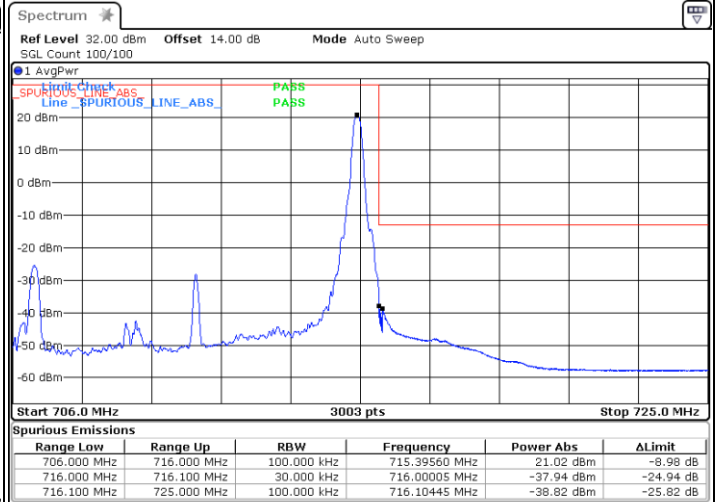


LTE Band 17 / 10MHz / QPSK

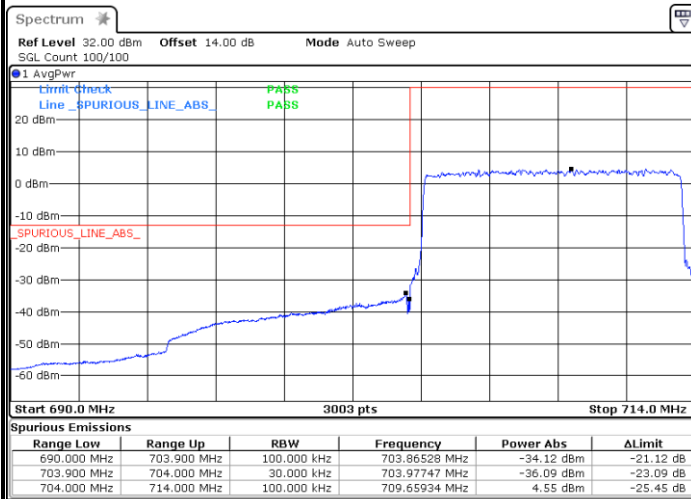
Lowest Band Edge / 1 RB



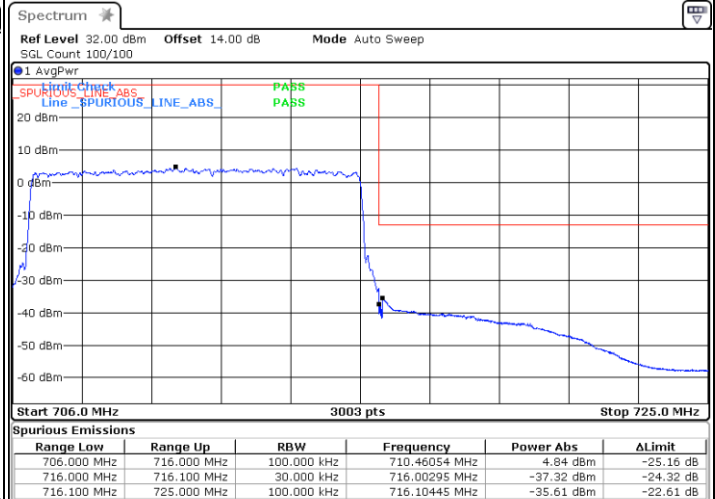
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



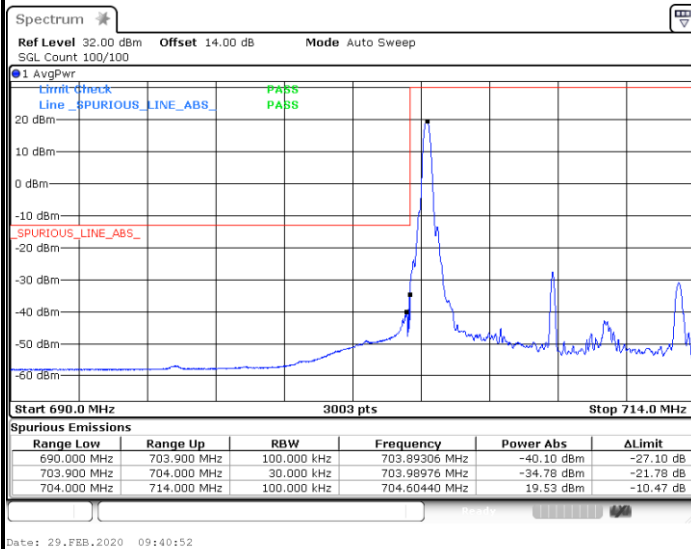
Highest Band Edge / Full RB



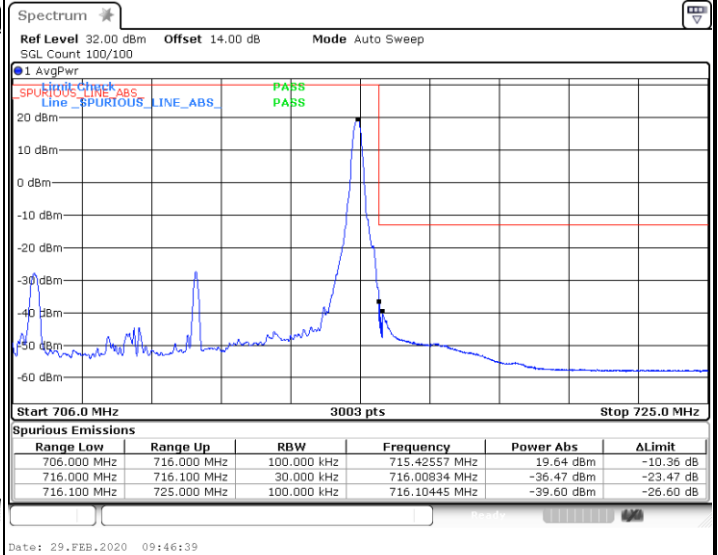


LTE Band 17 / 10MHz / 16QAM

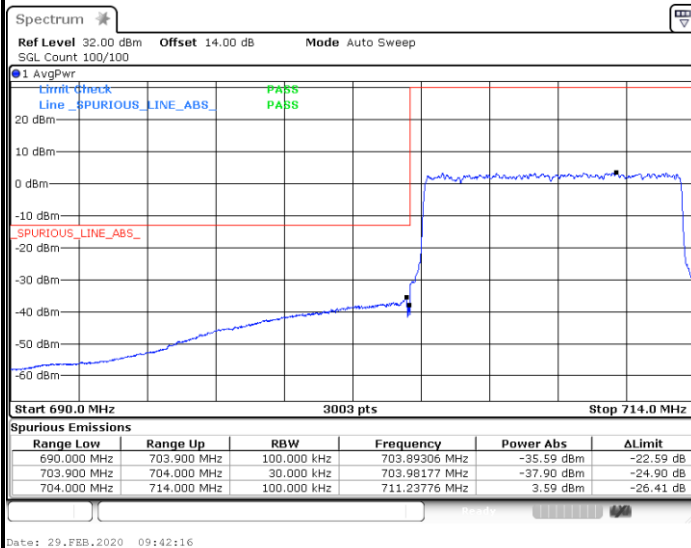
Lowest Band Edge / 1 RB



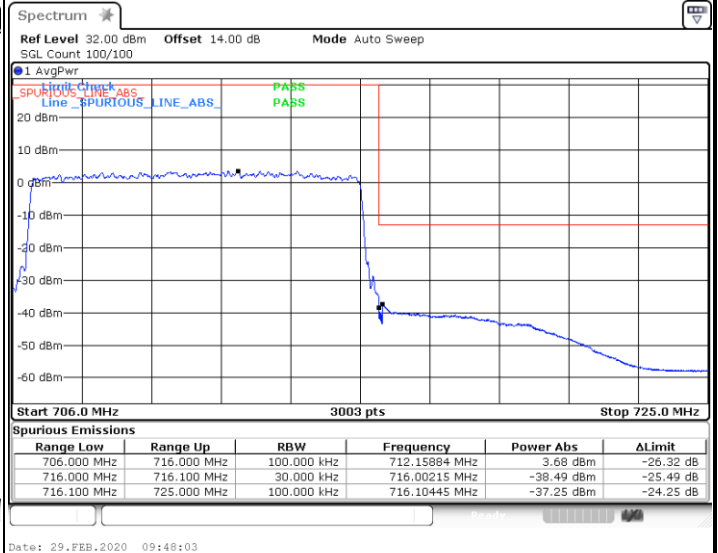
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

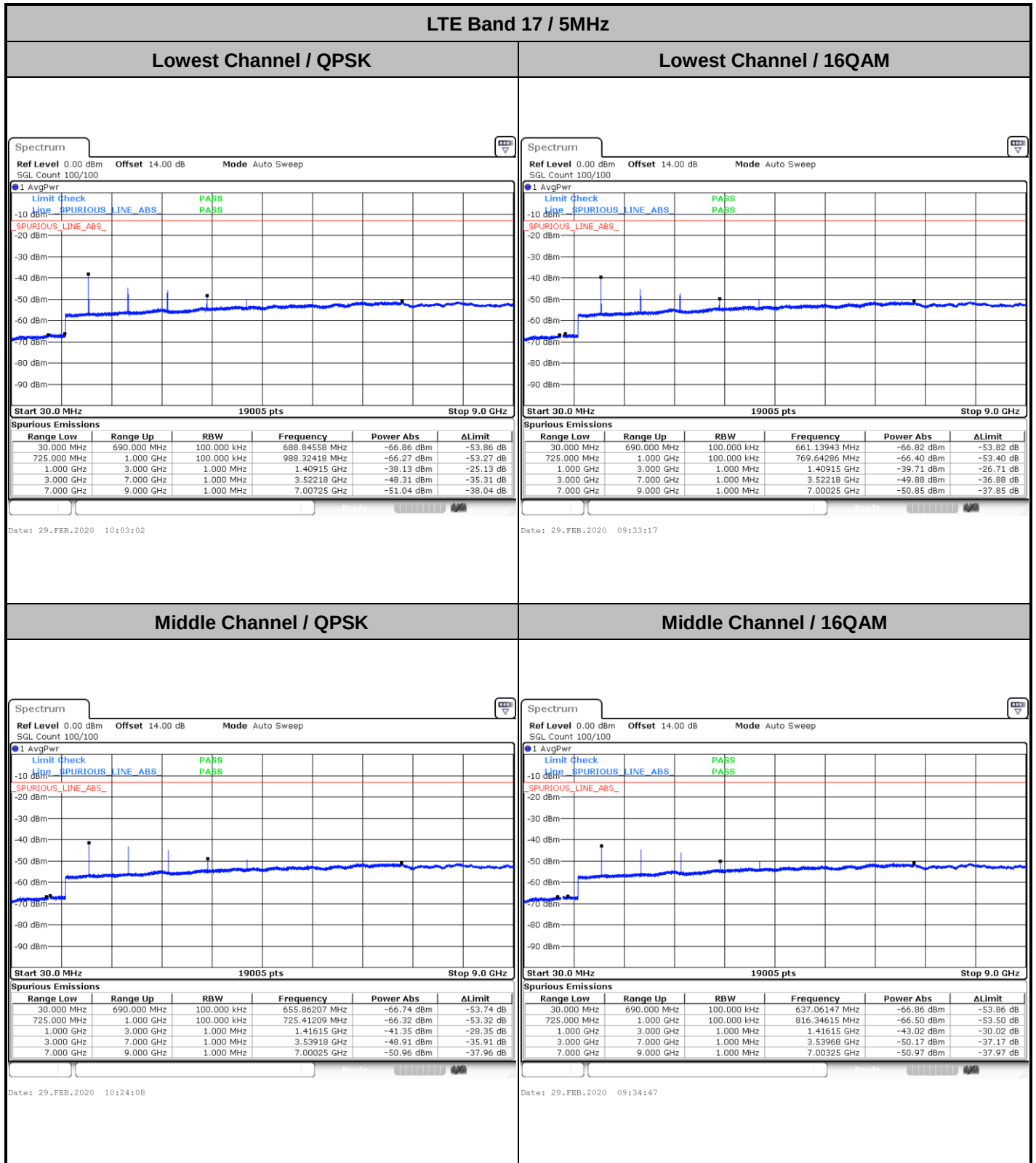


Highest Band Edge / Full RB





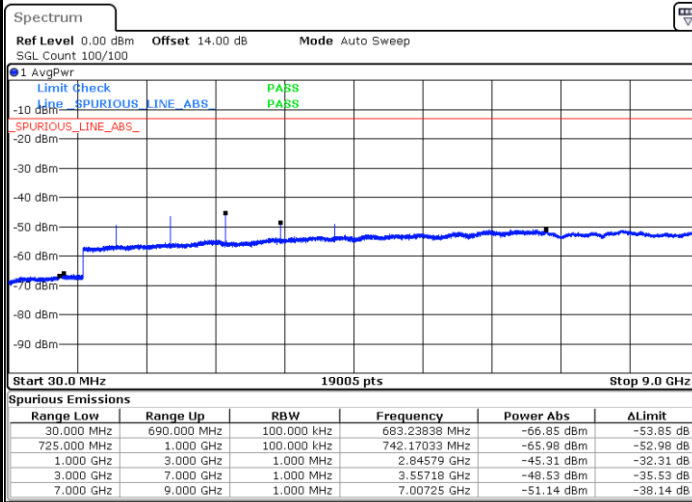
Conducted Spurious Emission





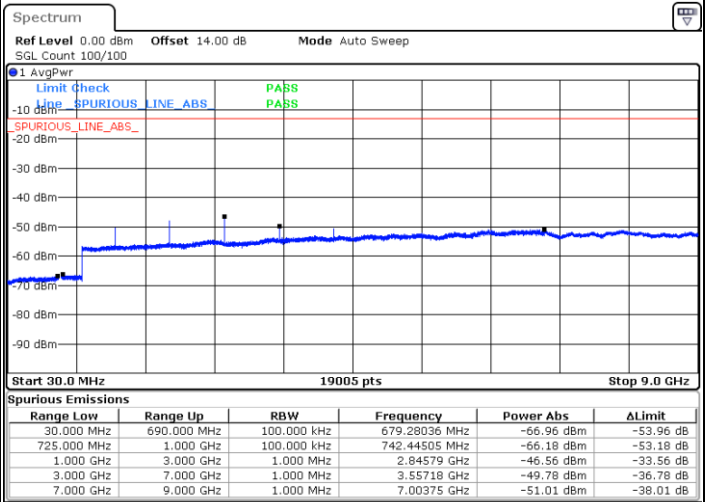
LTE Band 17 / 5MHz

Highest Channel / QPSK



Date: 29.FEB.2020 10:09:15

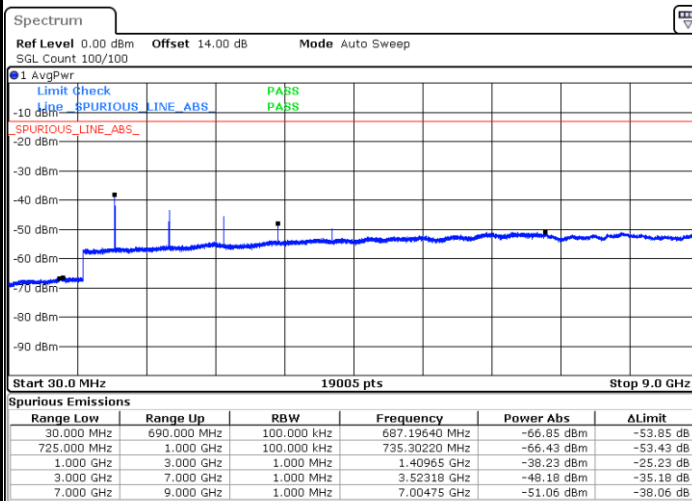
Highest Channel / 16QAM



Date: 29.FEB.2020 09:39:05

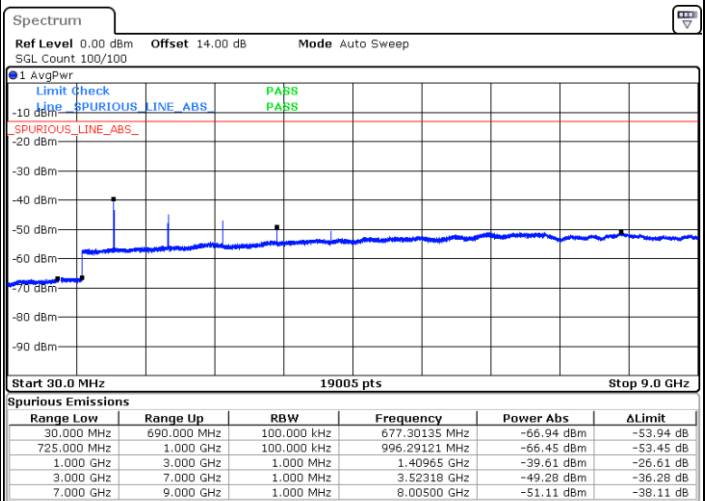
LTE Band 17 / 10MHz

Lowest Channel / QPSK



Date: 29.FEB.2020 10:13:32

Lowest Channel / 16QAM

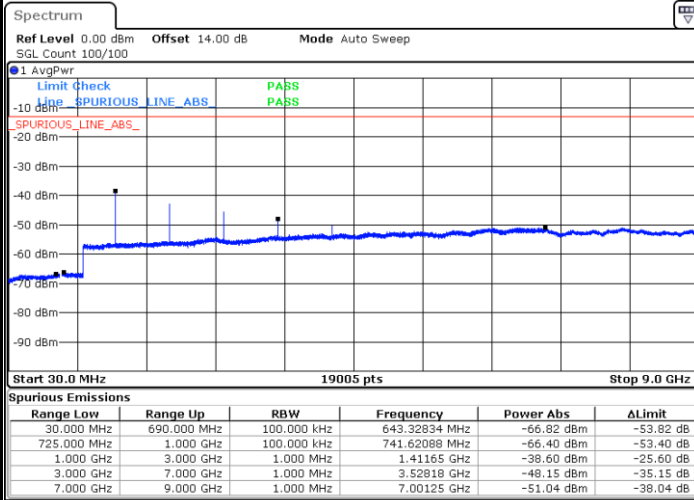


Date: 29.FEB.2020 09:43:23



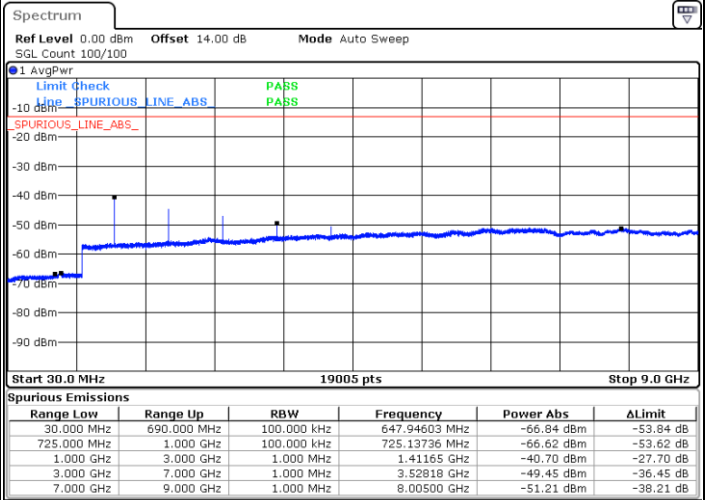
LTE Band 17 / 10MHz

Middle Channel / QPSK



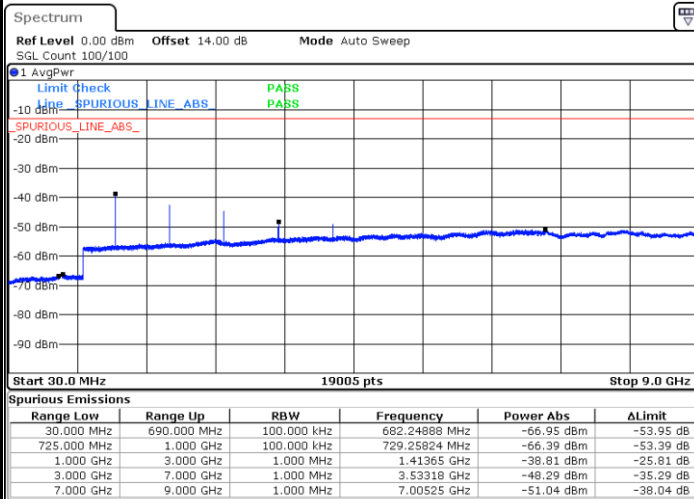
Date: 29.FEB.2020 10:15:01

Middle Channel / 16QAM



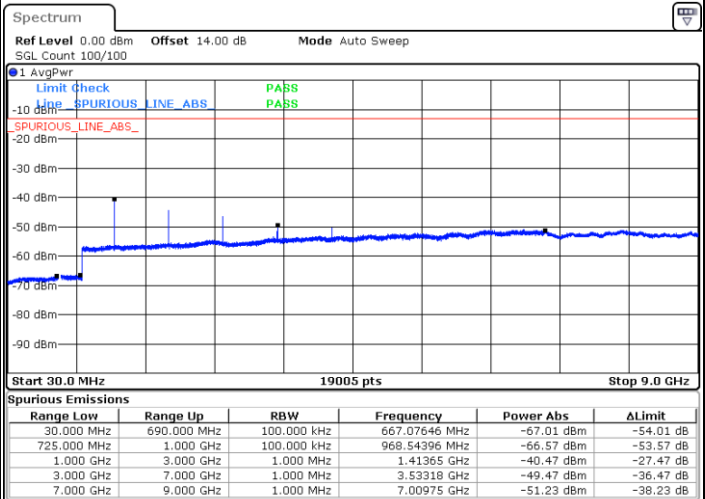
Date: 29.FEB.2020 09:44:53

Highest Channel / QPSK



Date: 29.FEB.2020 10:19:18

Highest Channel / 16QAM



Date: 29.FEB.2020 09:49:10

**Frequency Stability**

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =12V. ; Battery End Point (BEP) =9V. ; Maximum Voltage =16V.
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	3.83	4.41	4.43	5.30	PASS
Middle CH	3.54	4.29	4.35	5.28	
Highest CH	3.30	4.12	4.32	5.10	