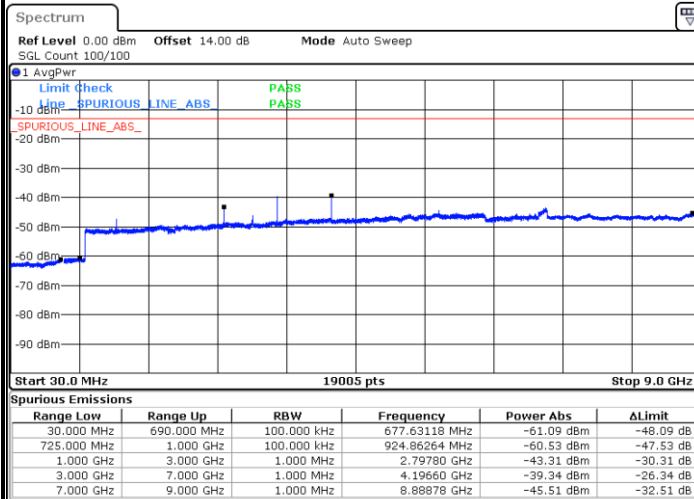




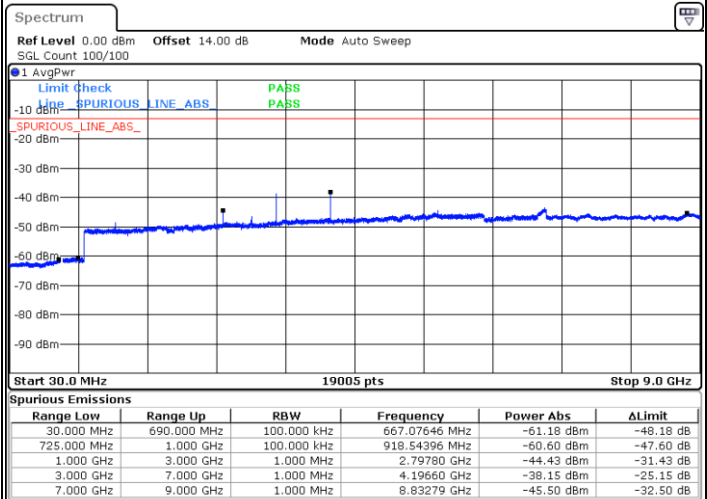
LTE Band 12 / 5MHz

Lowest Channel / QPSK



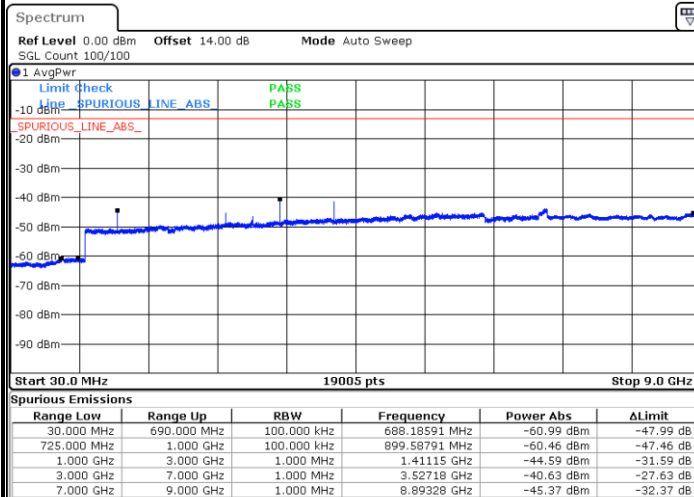
Date: 22.MAR.2020 03:05:30

Lowest Channel / 16QAM



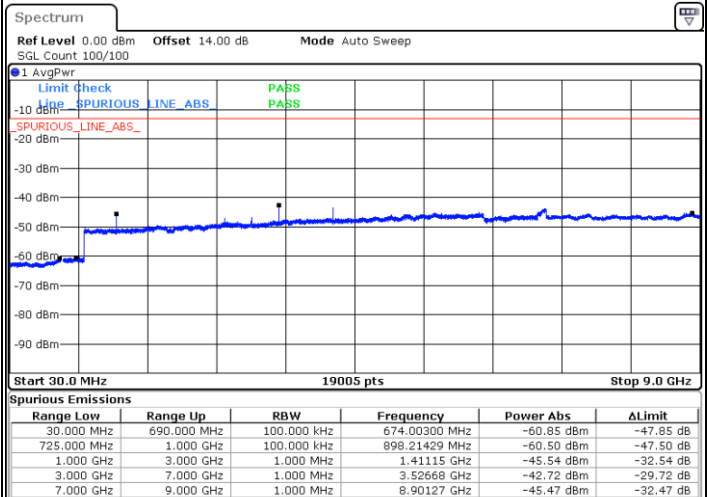
Date: 22.MAR.2020 03:06:11

Middle Channel / QPSK



Date: 22.MAR.2020 03:08:19

Middle Channel / 16QAM

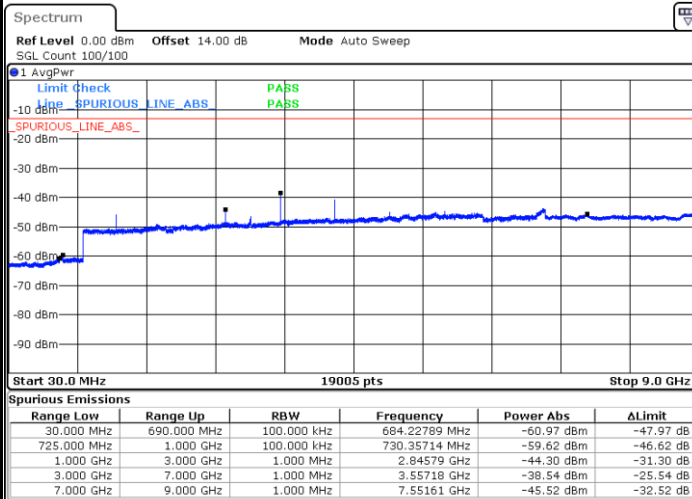


Date: 22.MAR.2020 03:07:38



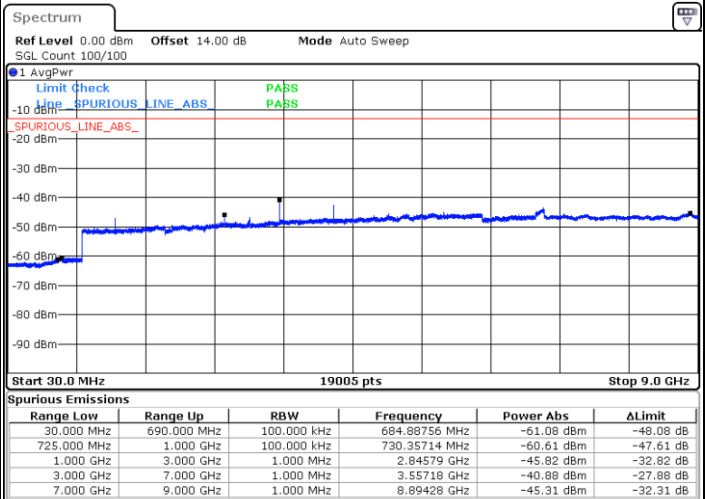
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 22.MAR.2020 03:14:27

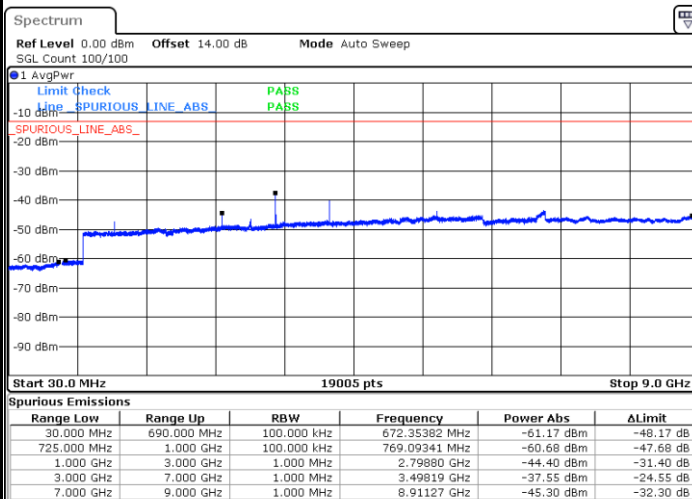
Highest Channel / 16QAM



Date: 22.MAR.2020 03:13:45

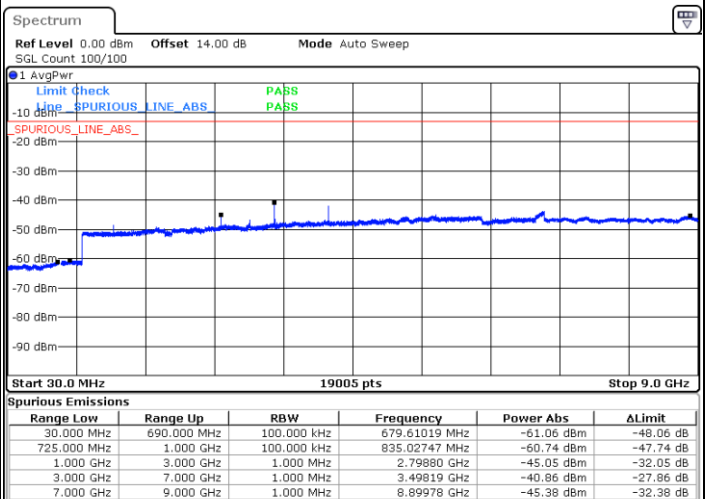
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 22.MAR.2020 03:19:52

Lowest Channel / 16QAM

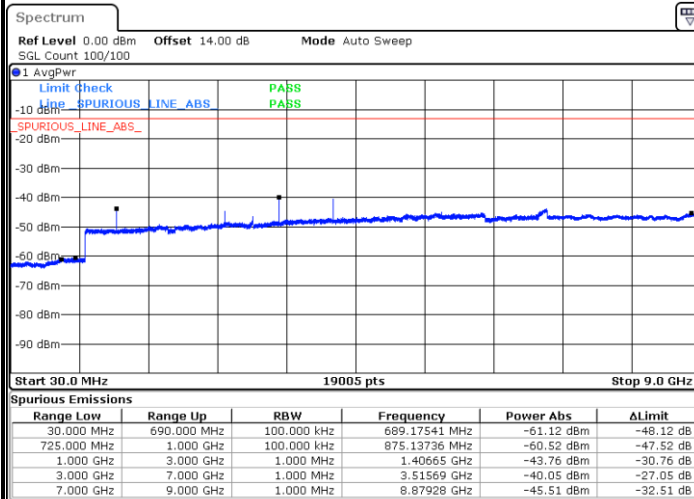


Date: 22.MAR.2020 03:20:34



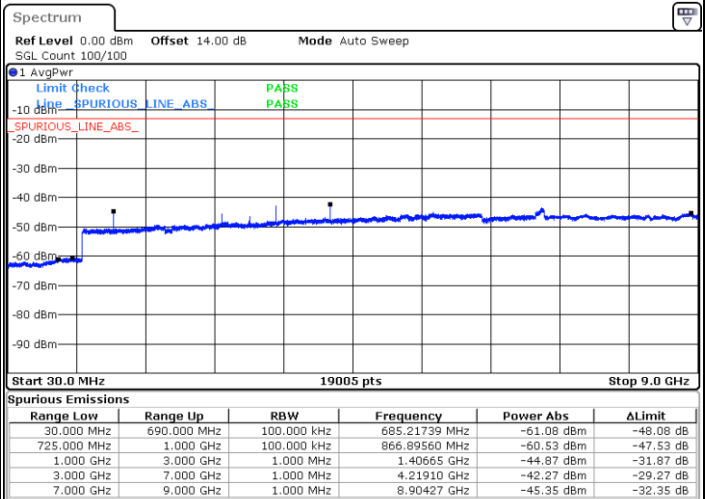
LTE Band 12 / 10MHz

Middle Channel / QPSK



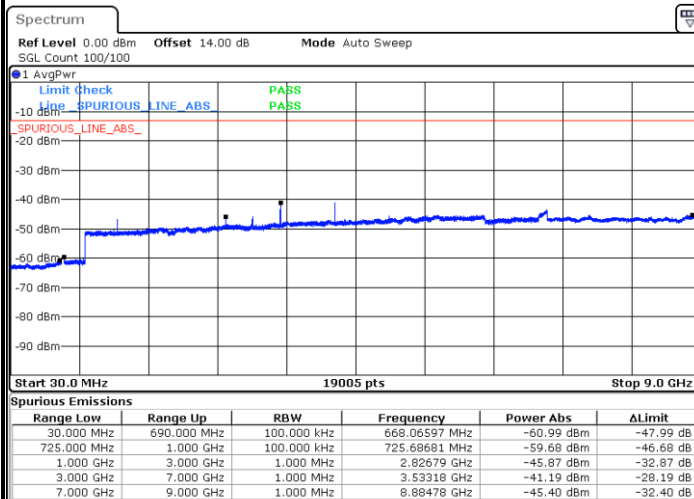
Date: 22.MAR.2020 03:22:41

Middle Channel / 16QAM



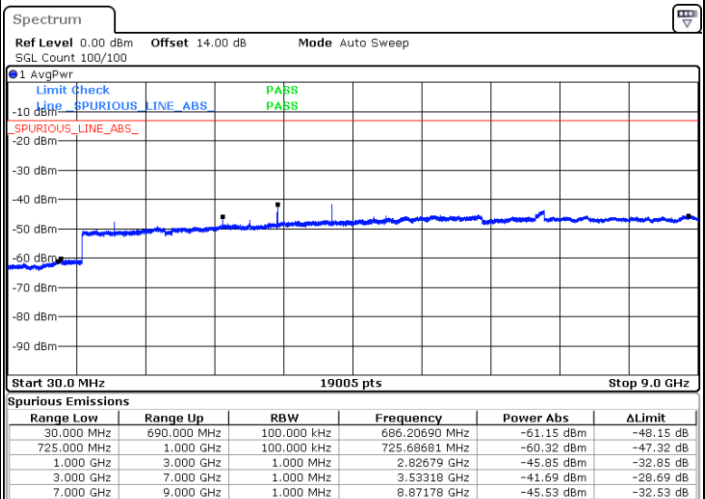
Date: 22.MAR.2020 03:22:00

Highest Channel / QPSK



Date: 22.MAR.2020 03:28:07

Highest Channel / 16QAM



Date: 22.MAR.2020 03:28:49

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	0.0002	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

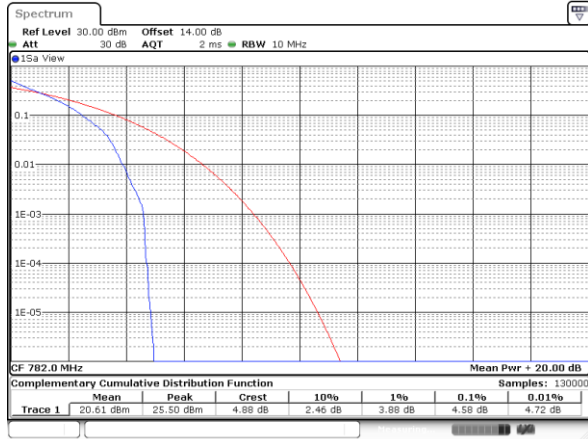
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.58	5.25	6.12	6.03	
Highest CH	-	-	-	-	

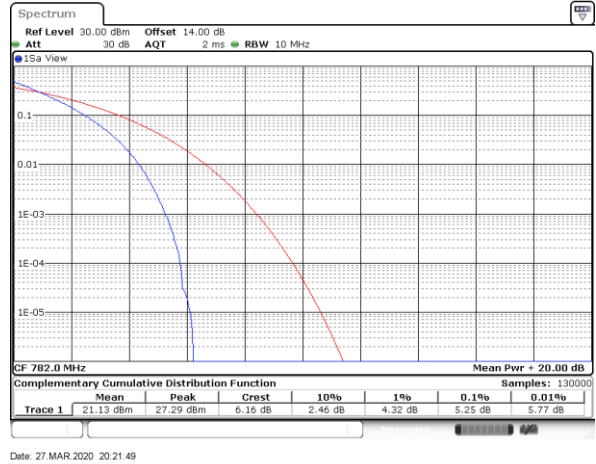


LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB

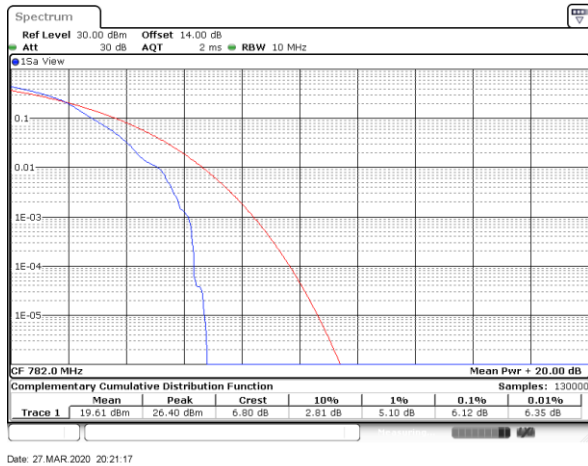


Middle Channel / Full RB

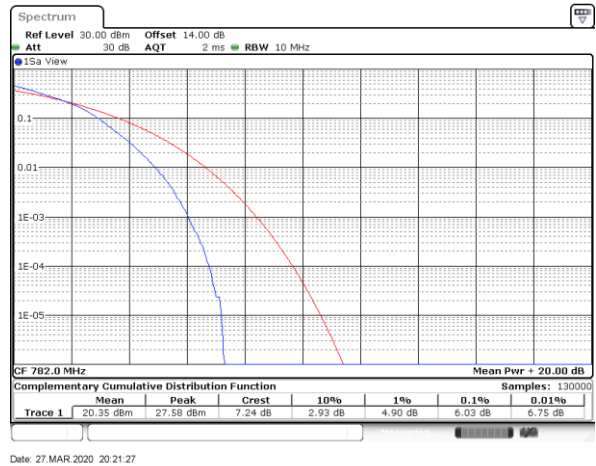


LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Middle Channel / Full RB





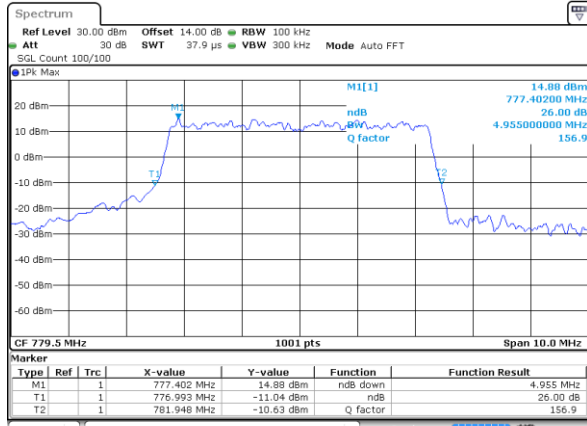
26dB Bandwidth

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	-	-	-	-	4.96	4.97	-	-	-	-	-	-
Middle CH	-	-	-	-	4.91	5.15	9.97	9.89	-	-	-	-
Highest CH	-	-	-	-	4.98	4.86	-	-	-	-	-	-



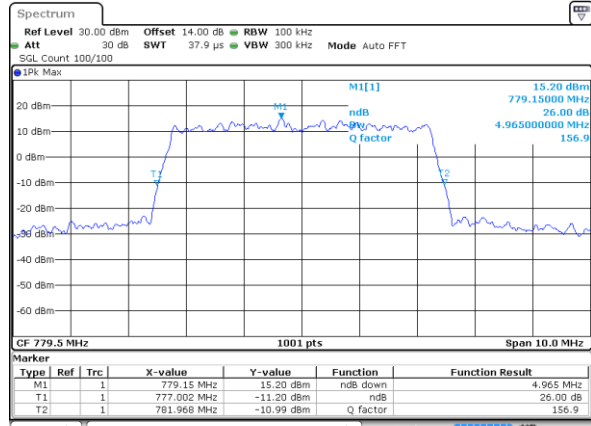
LTE Band 13

Lowest Channel / 5MHz / QPSK



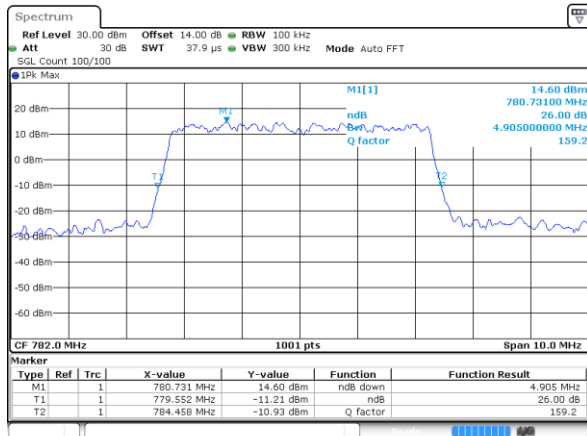
Date: 27 MAR 2020 19:49:51

Lowest Channel / 5MHz / 16QAM



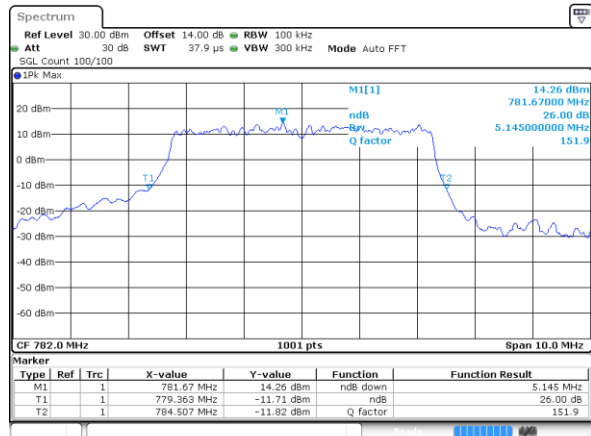
Date: 27 MAR 2020 19:49:40

Middle Channel / 5MHz / QPSK



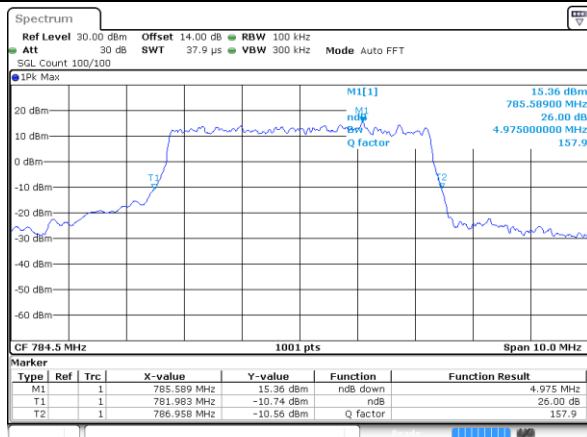
Date: 27 MAR 2020 19:59:35

Middle Channel / 5MHz / 16QAM



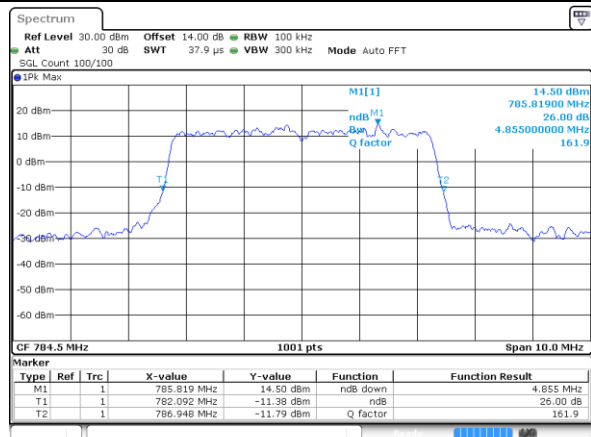
Date: 27 MAR 2020 19:59:46

Highest Channel / 5MHz / QPSK



Date: 27 MAR 2020 20:00:51

Highest Channel / 5MHz / 16QAM

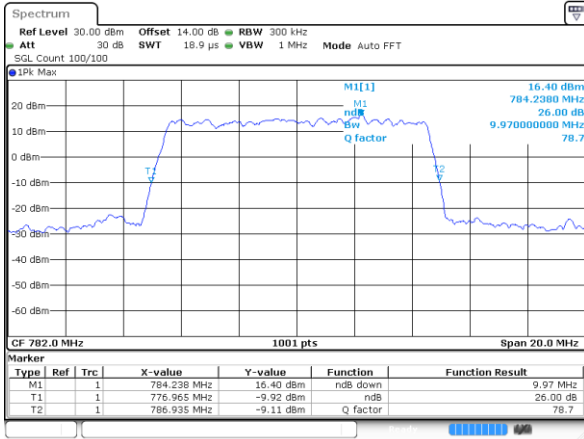


Date: 27 MAR 2020 20:00:40

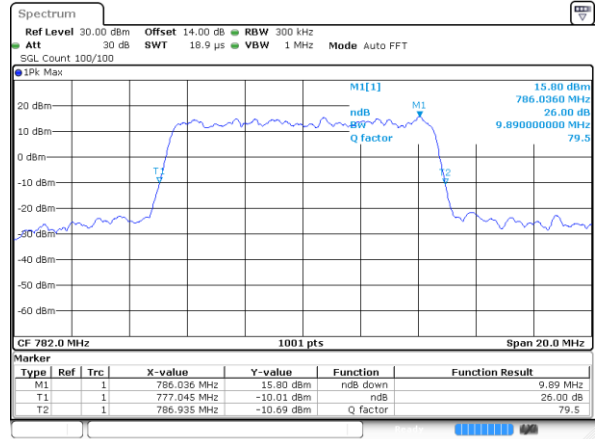


LTE Band 13

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM





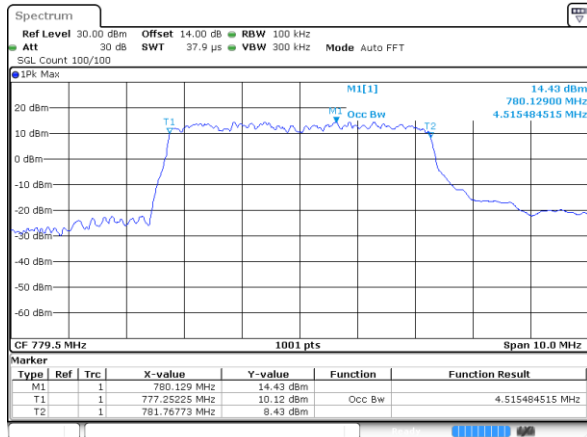
Occupied Bandwidth

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	-	-	-	-	4.52	4.50	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	4.52	9.07	8.97	-	-	-	-
Highest CH	-	-	-	-	4.49	4.48	-	-	-	-	-	-

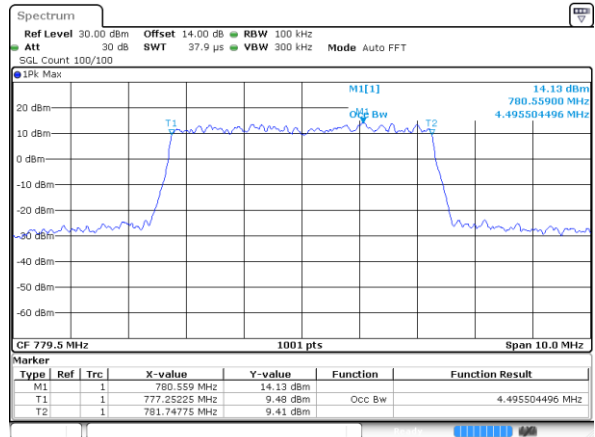


LTE Band 13

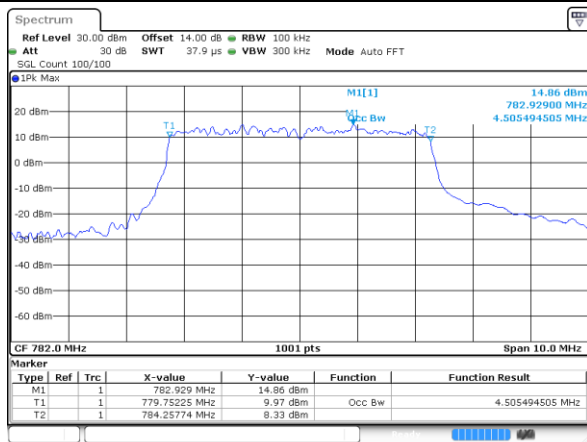
Lowest Channel / 5MHz / QPSK



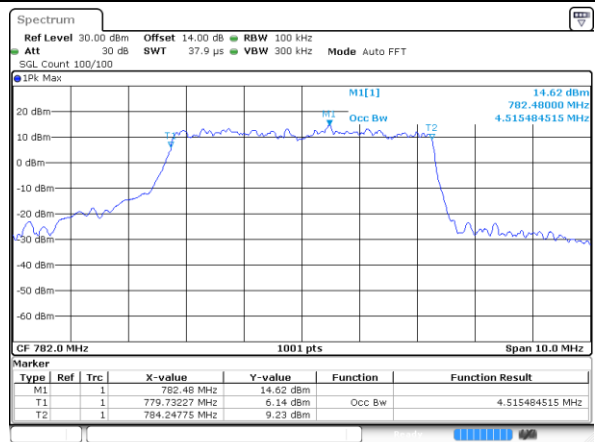
Lowest Channel / 5MHz / 16QAM



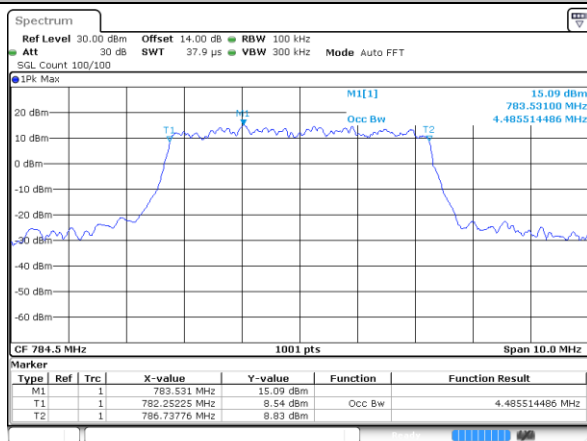
Middle Channel / 5MHz / QPSK



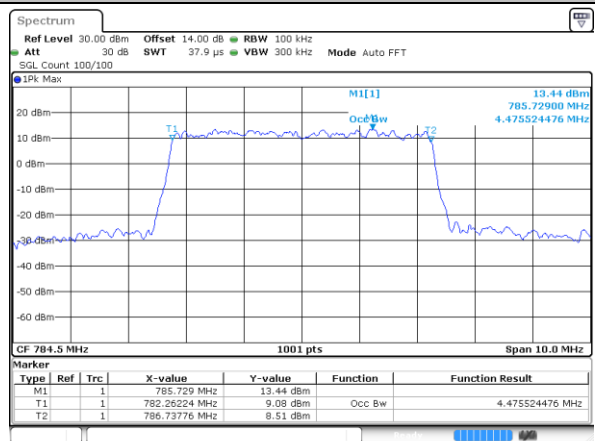
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



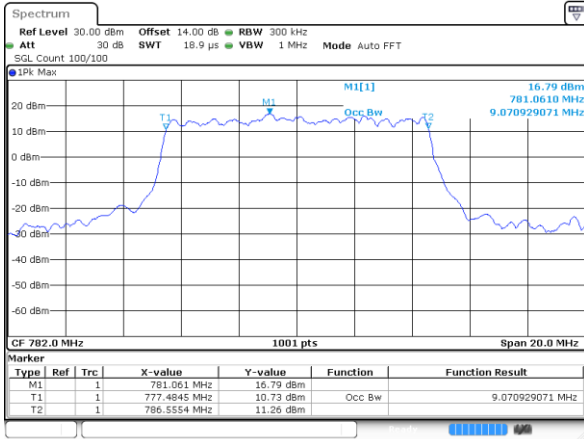
Highest Channel / 5MHz / 16QAM





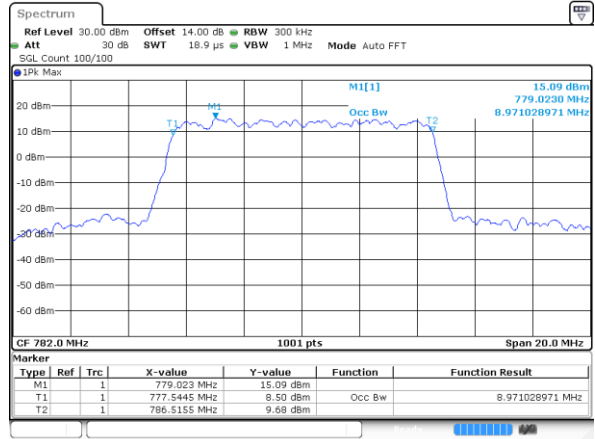
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 27 MAR 2020 20:09:07

Middle Channel / 10MHz / 16QAM



Date: 27 MAR 2020 20:09:18

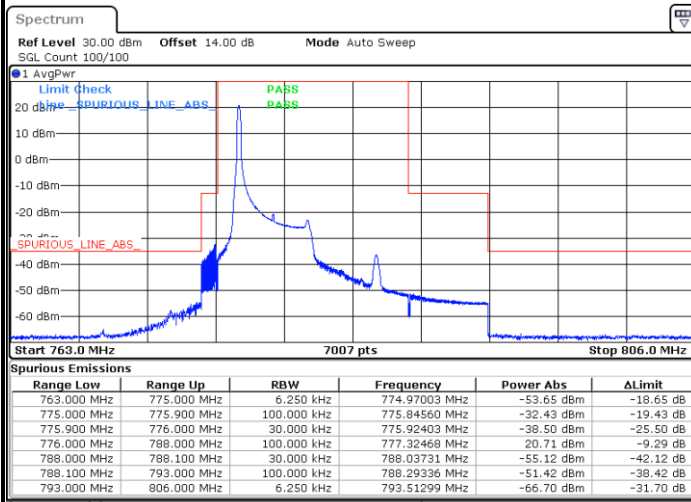


Conducted Band Edge

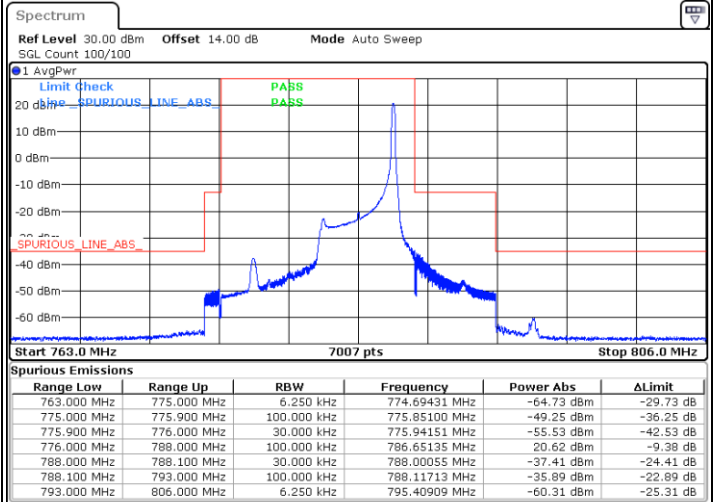


LTE Band 13 / 5MHz / QPSK

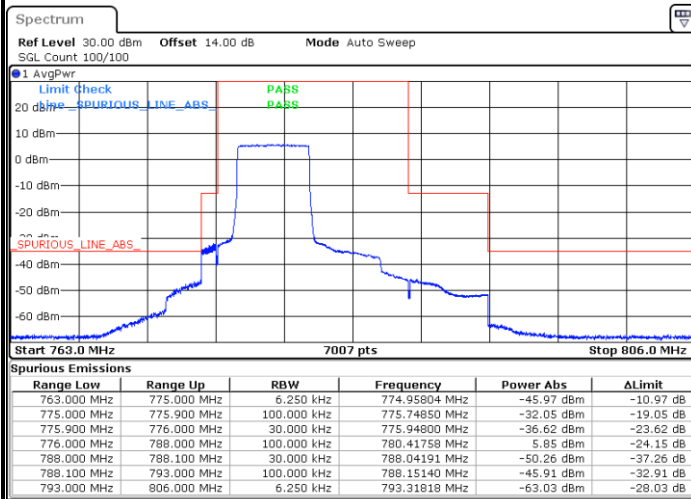
Lowest Band Edge / 1 RB



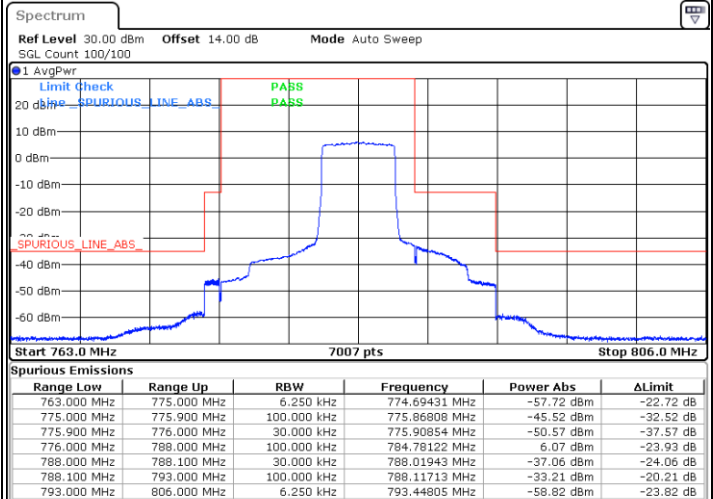
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



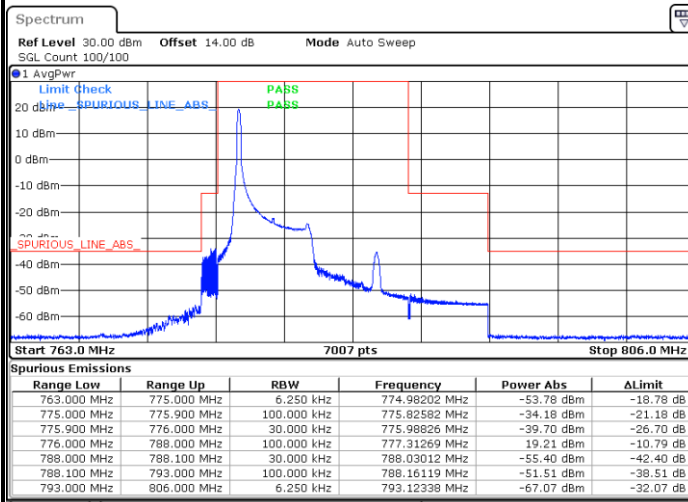
Highest Band Edge / Full RB



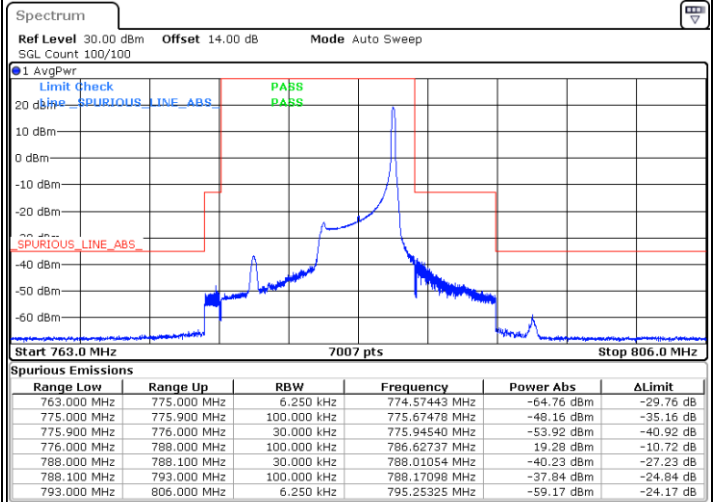


LTE Band 13 / 5MHz / 16QAM

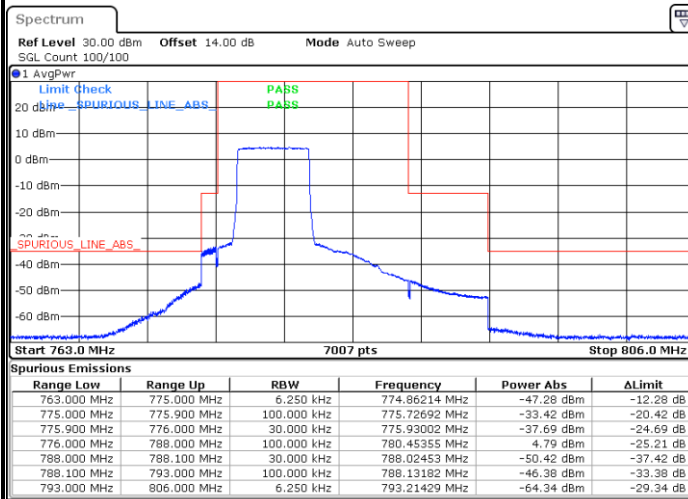
Lowest Band Edge / 1 RB



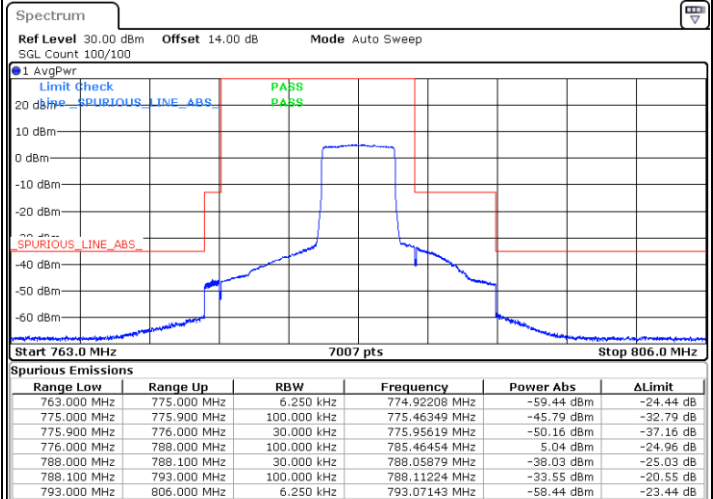
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



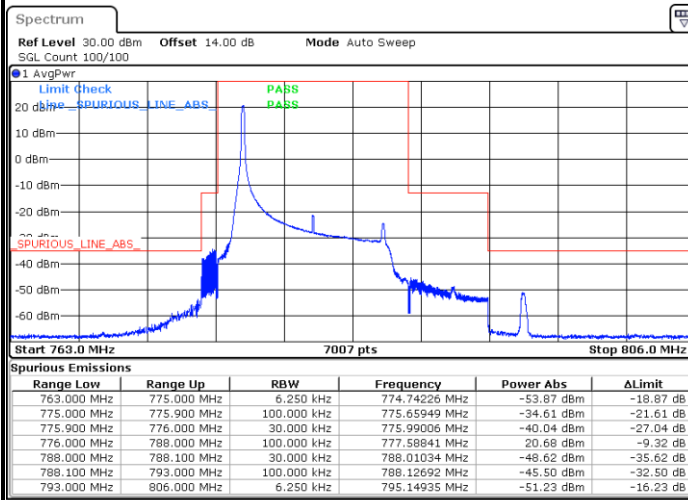
Highest Band Edge / Full RB





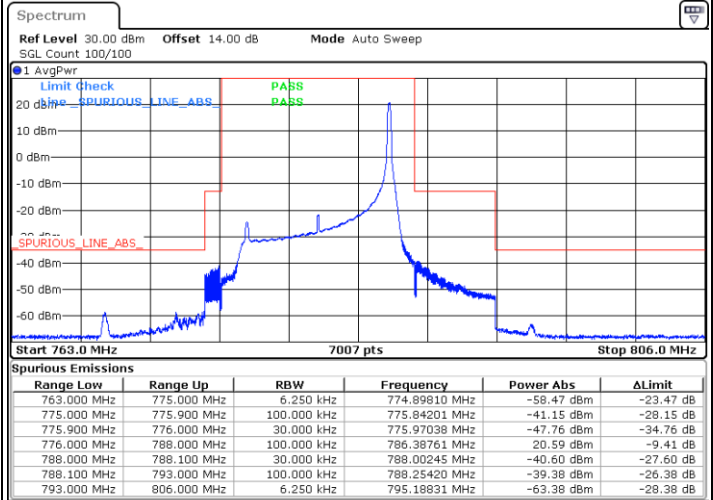
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



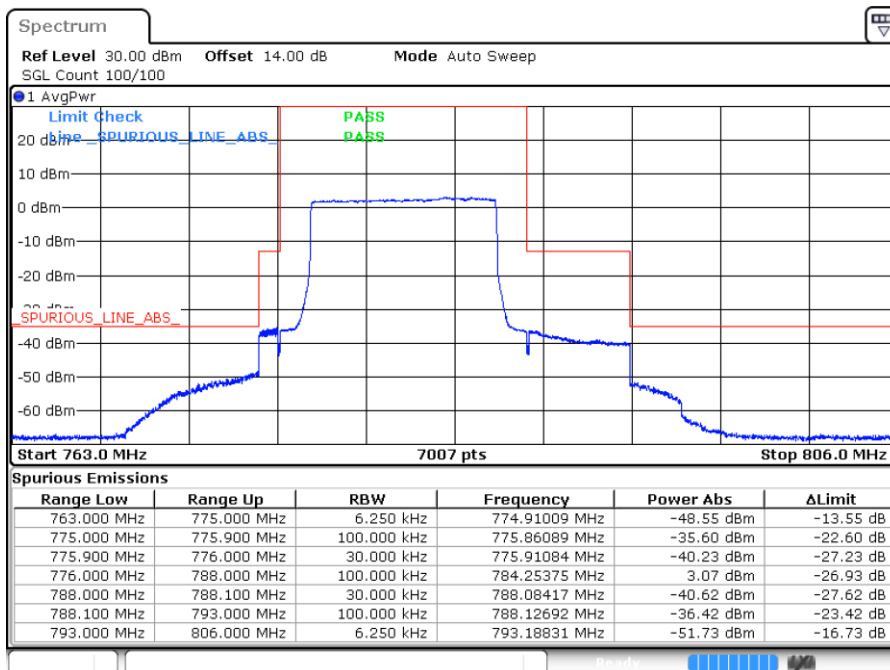
Date: 27.MAR.2020 20:16:16

Highest Band Edge / 1 RB



Date: 27.MAR.2020 20:17:55

Band Edge / Full RB

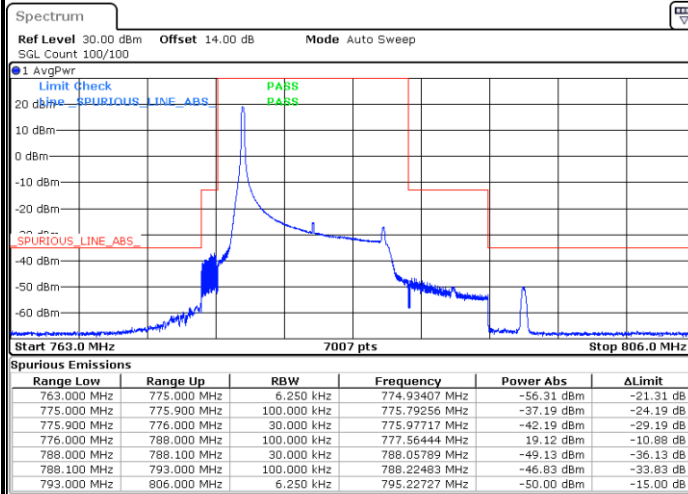


Date: 27.MAR.2020 20:11:18



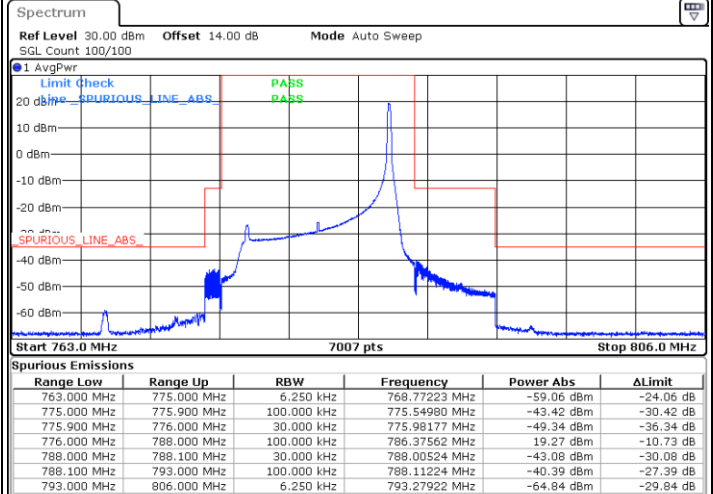
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



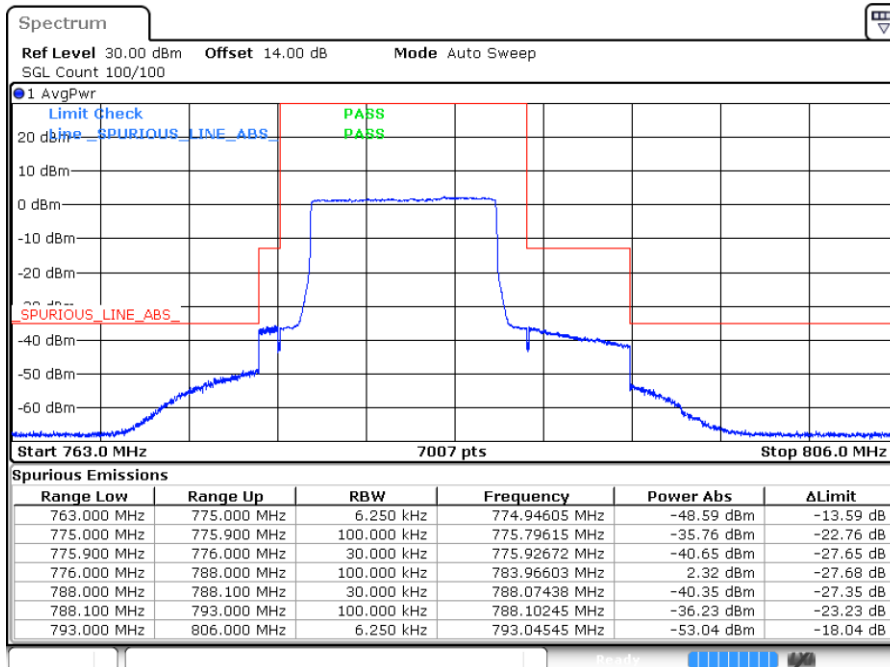
Date: 27.MAR.2020 20:14:37

Highest Band Edge / 1 RB



Date: 27.MAR.2020 20:19:34

Band Edge / Full RB



Date: 27.MAR.2020 20:12:57

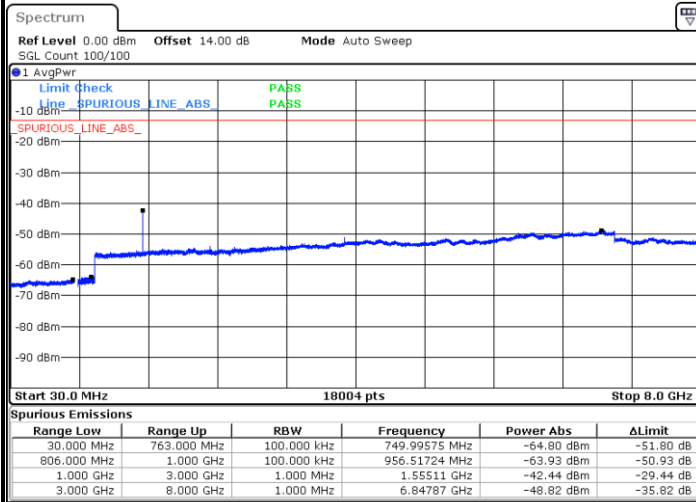


Conducted Spurious Emission



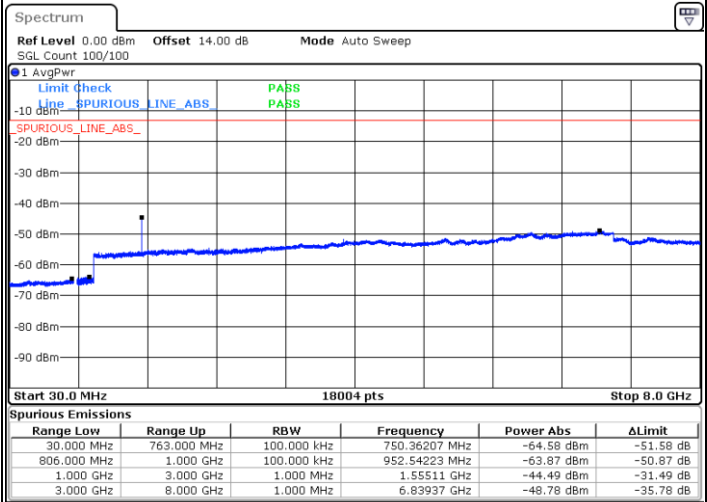
LTE Band 13 / 5MHz

Lowest Channel / QPSK



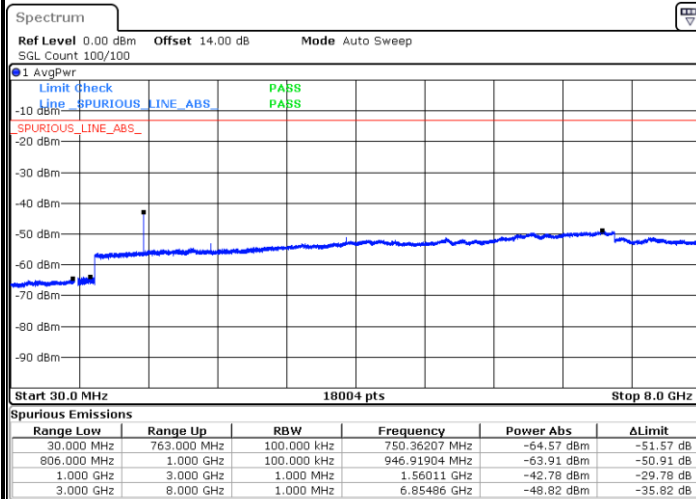
Date: 27 MAR 2020 19:57:12

Lowest Channel / 16QAM



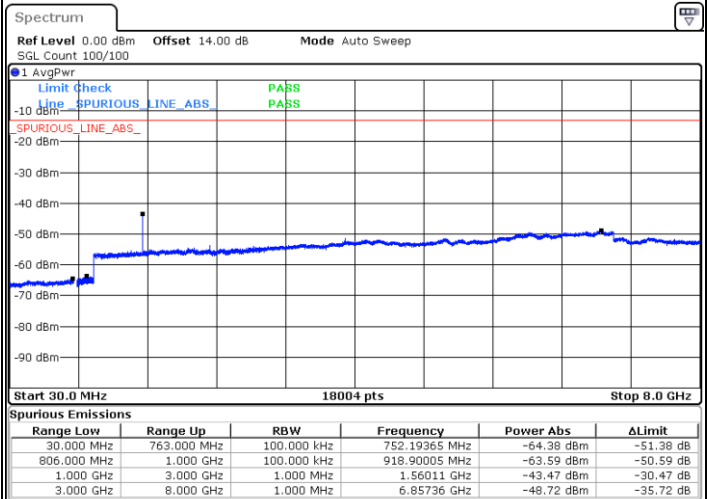
Date: 27 MAR 2020 19:57:56

Middle Channel / QPSK



Date: 27 MAR 2020 19:59:24

Middle Channel / 16QAM

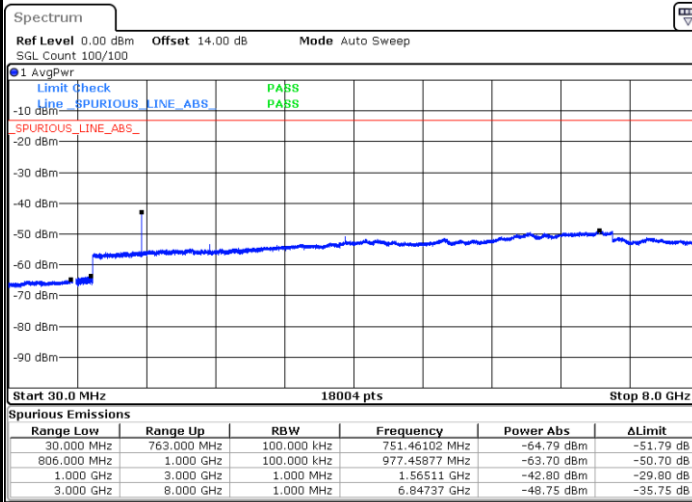


Date: 27 MAR 2020 19:58:40



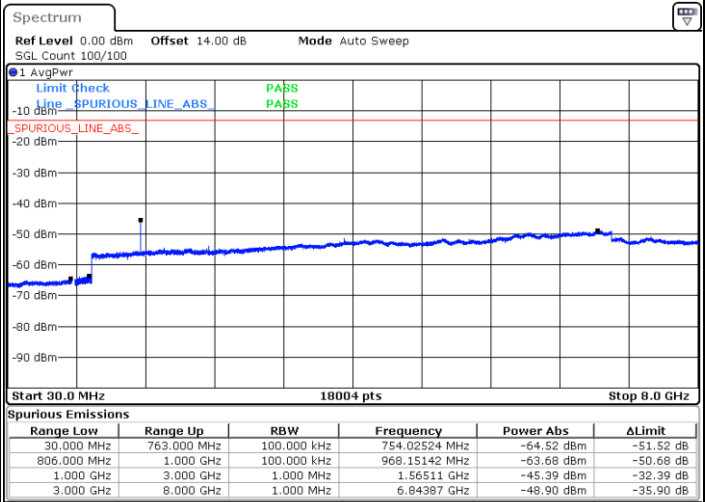
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 27 MAR 2020 20:08:12

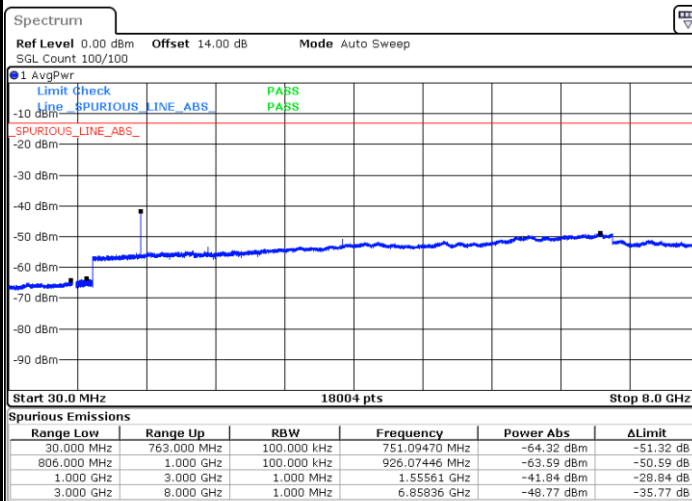
Highest Channel / 16QAM



Date: 27 MAR 2020 20:08:56

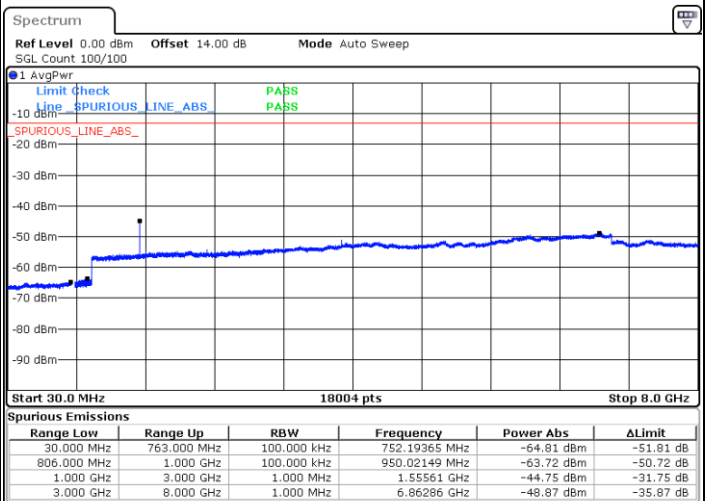
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 27 MAR 2020 20:21:03

Middle Channel / 16QAM



Date: 27 MAR 2020 20:20:18

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	0.0115	PASS
40	Normal Voltage	0.0102	
30	Normal Voltage	0.0097	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0099	
0	Normal Voltage	0.0111	
-10	Normal Voltage	0.0104	
-20	Normal Voltage	0.0135	
-30	Normal Voltage	0.0136	
20	Maximum Voltage	0.0140	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0141	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



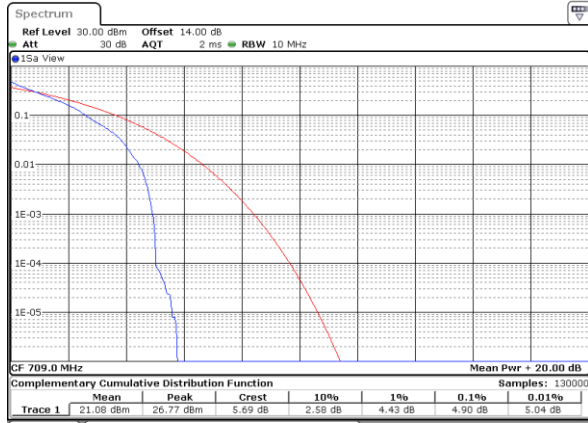
LTE Band 17

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	4.9	5.59	5.71	6.32	PASS
Middle CH	4.87	5.42	5.97	6.43	
Highest CH	4.93	5.39	6.09	6.26	

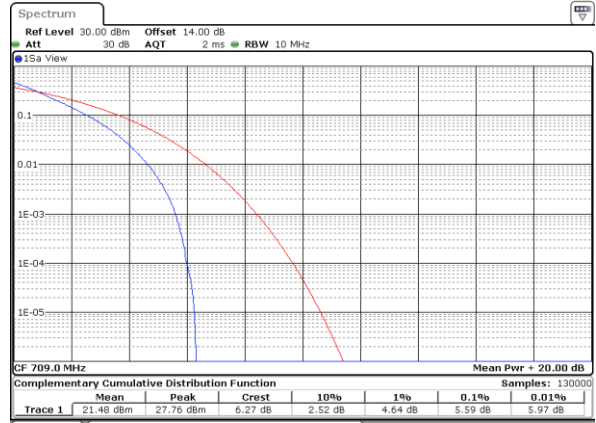
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



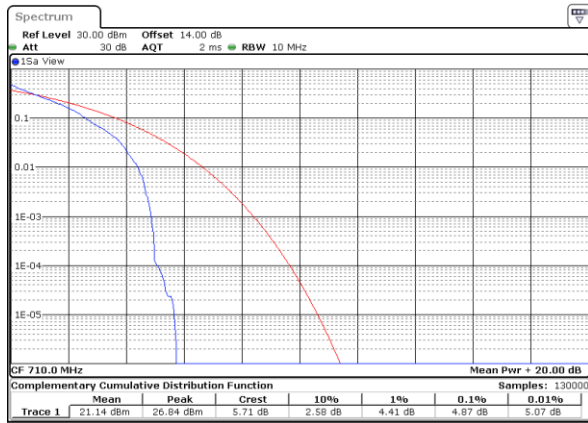
Date: 22 MAR 2020 15:41:16

Lowest Channel / Full RB



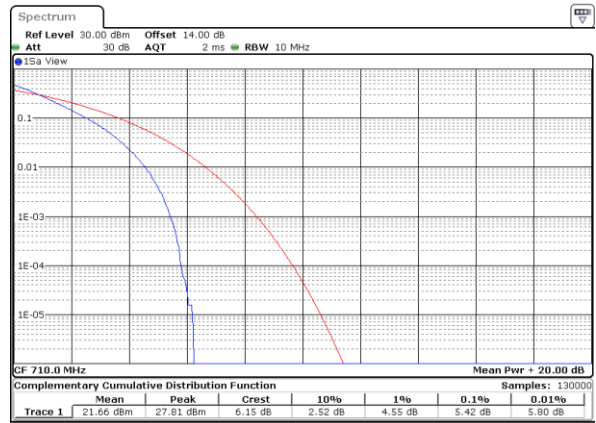
Date: 22 MAR 2020 15:41:28

Middle Channel/ 1RB



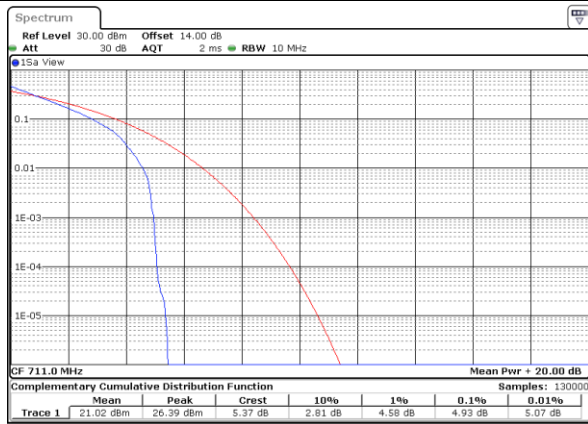
Date: 22 MAR 2020 15:41:38

Middle Channel / Full RB



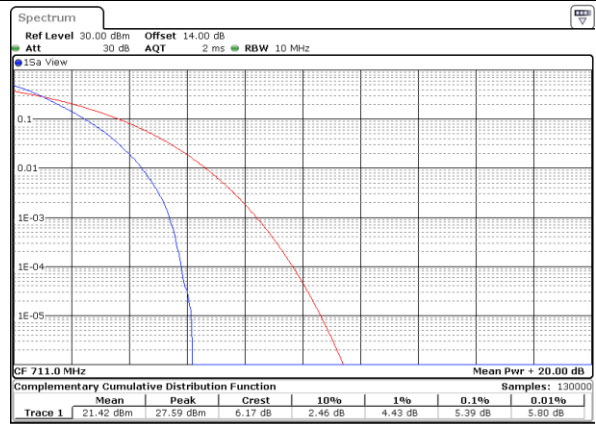
Date: 22 MAR 2020 15:41:49

Highest Channel/ 1RB



Date: 22 MAR 2020 15:42:11

Highest Channel / Full RB

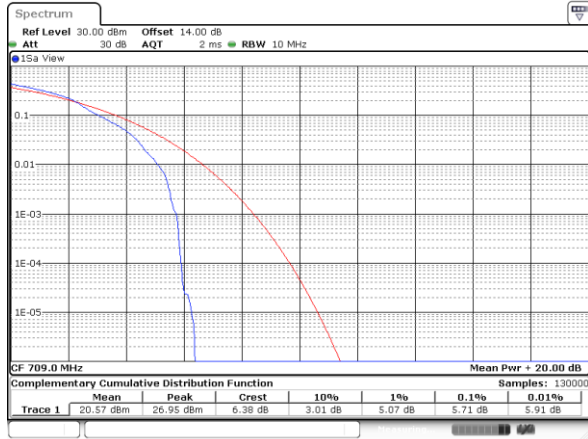


Date: 22 MAR 2020 15:42:29

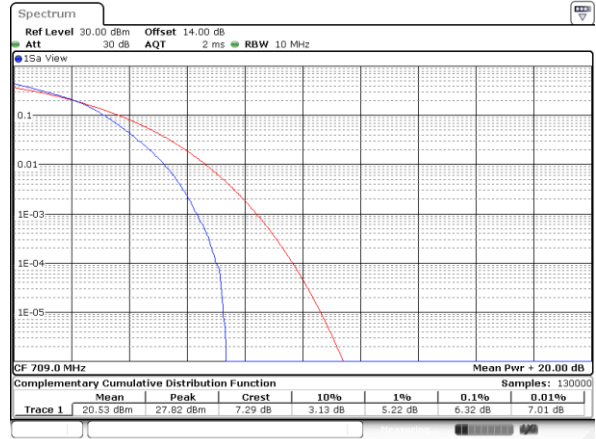


LTE Band 17 / 10MHz / 16QAM

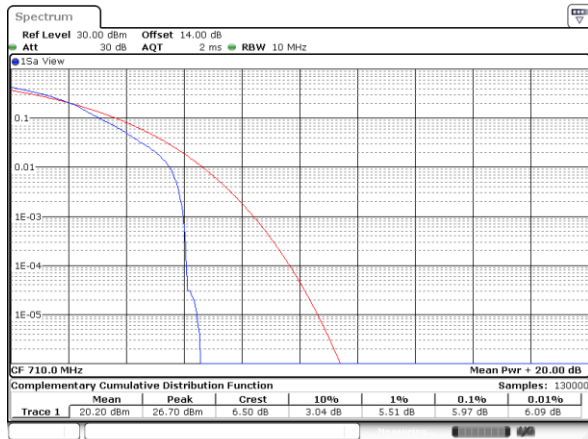
Lowest Channel / 1RB



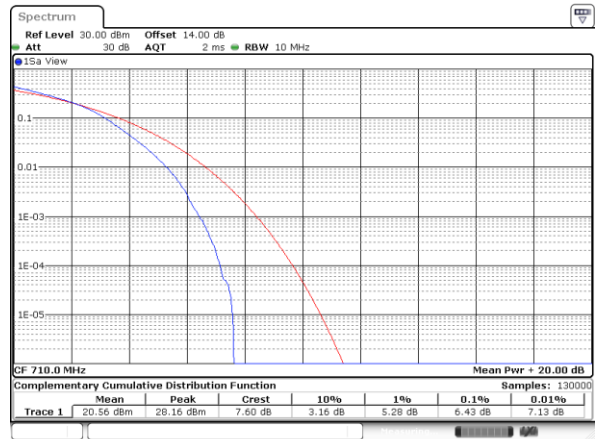
Lowest Channel / Full RB



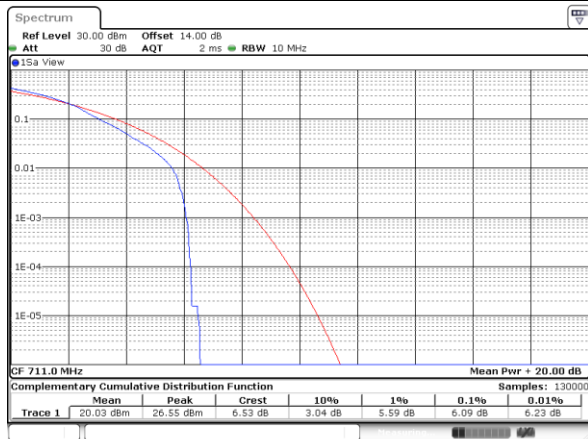
Middle Channel/ 1RB



Middle Channel / Full RB



Highest Channel/ 1RB



Highest Channel / Full RB





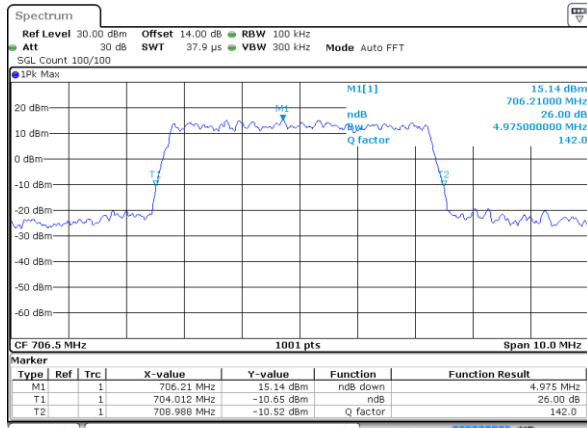
26dB Bandwidth

Mode	LTE Band 17 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.98	4.91	9.87	10.11
Middle CH	4.99	5.08	9.69	9.81
Highest CH	5.03	4.88	9.79	9.89



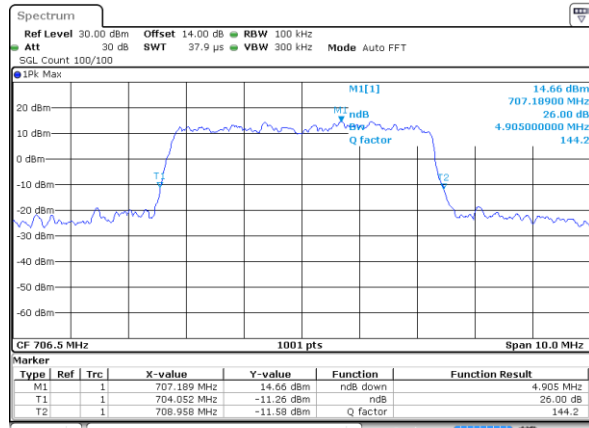
LTE Band 17

Lowest Channel / 5MHz / QPSK



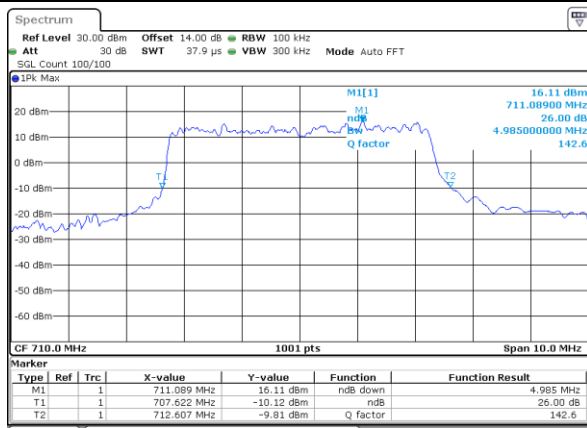
Date: 22 MAR 2020 14:59:10

Lowest Channel / 5MHz / 16QAM



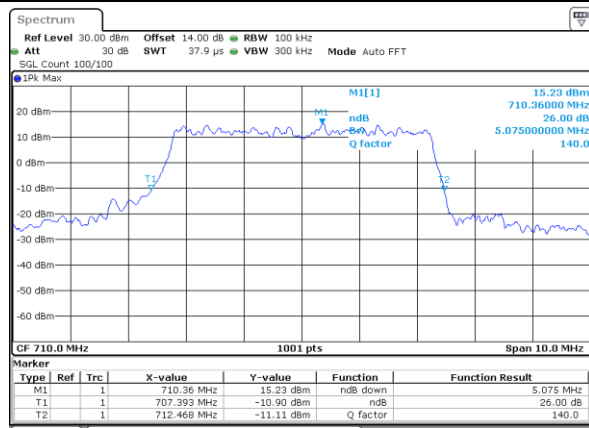
Date: 22 MAR 2020 14:59:21

Middle Channel / 5MHz / QPSK



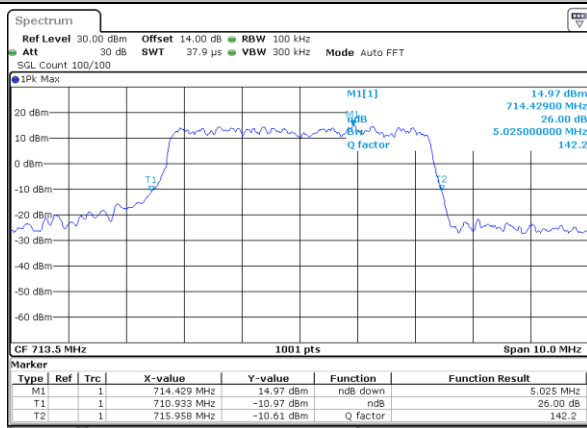
Date: 22 MAR 2020 15:04:42

Middle Channel / 5MHz / 16QAM



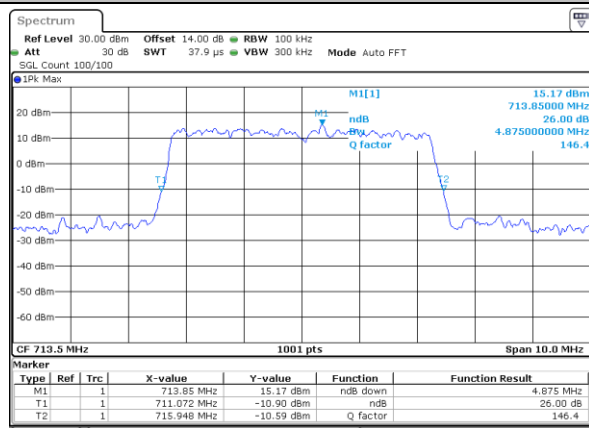
Date: 22 MAR 2020 15:04:53

Highest Channel / 5MHz / QPSK



Date: 22 MAR 2020 15:07:24

Highest Channel / 5MHz / 16QAM

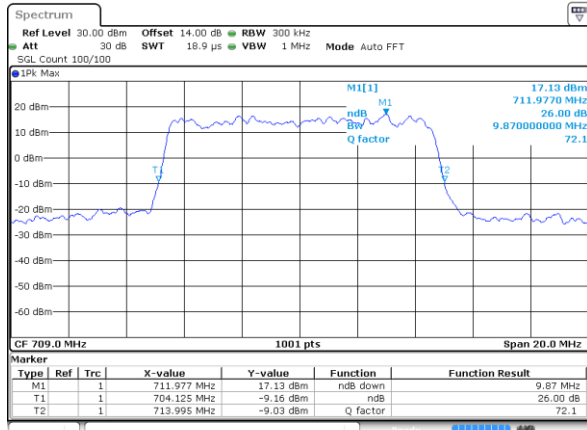


Date: 22 MAR 2020 15:07:35

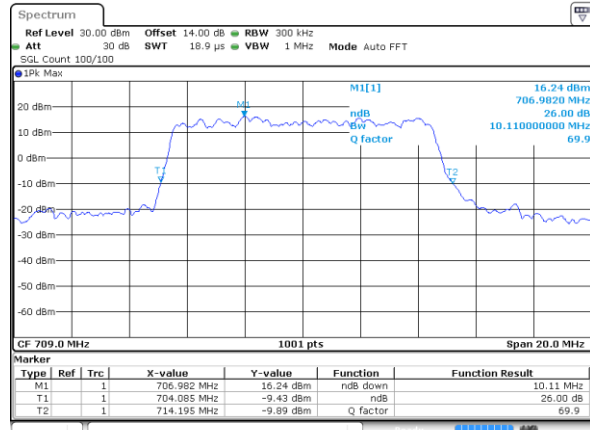


LTE Band 17

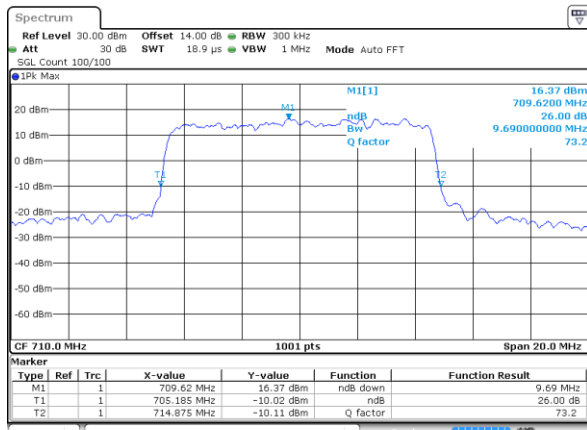
Lowest Channel / 10MHz / QPSK



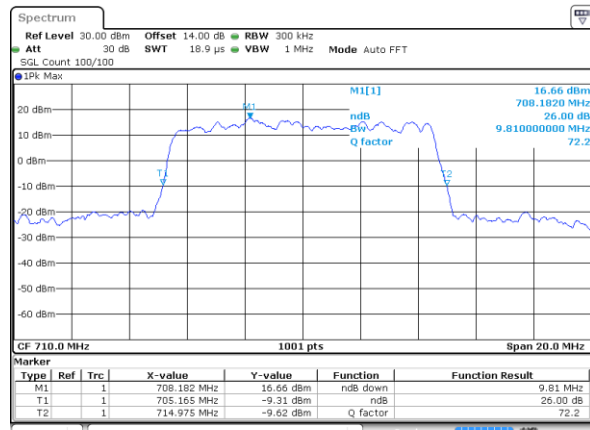
Lowest Channel / 10MHz / 16QAM



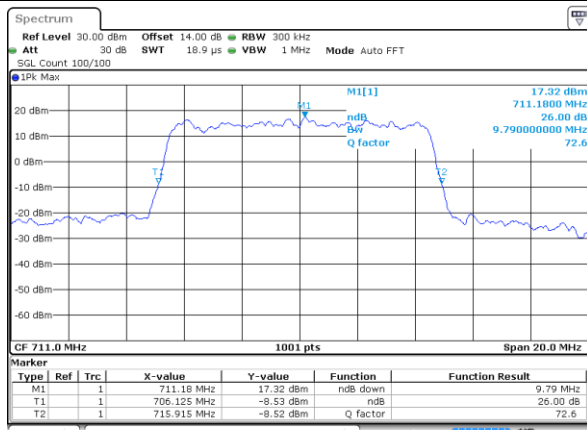
Middle Channel / 10MHz / QPSK



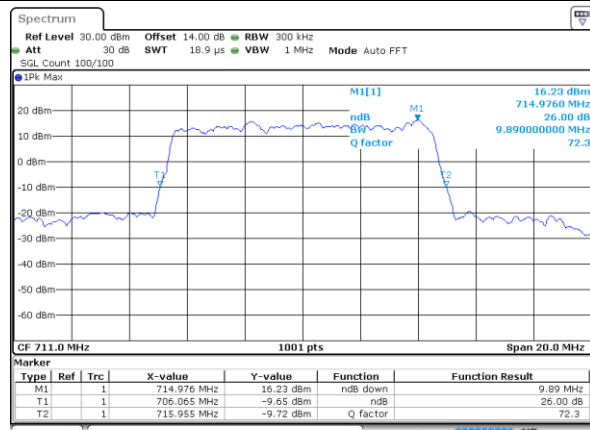
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM





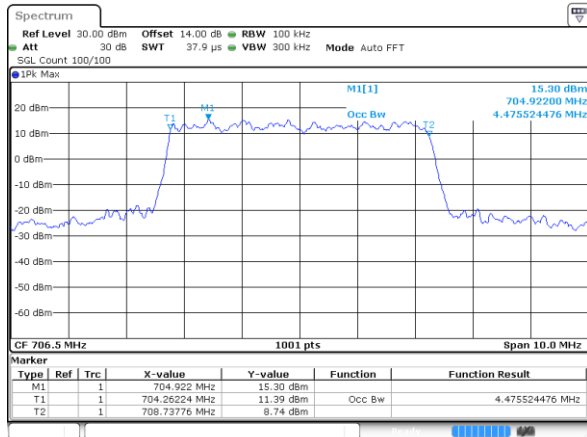
Occupied Bandwidth

Mode	LTE Band 17 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.48	4.49	9.15	9.03
Middle CH	4.51	4.52	9.05	9.05
Highest CH	4.47	4.51	9.03	8.99

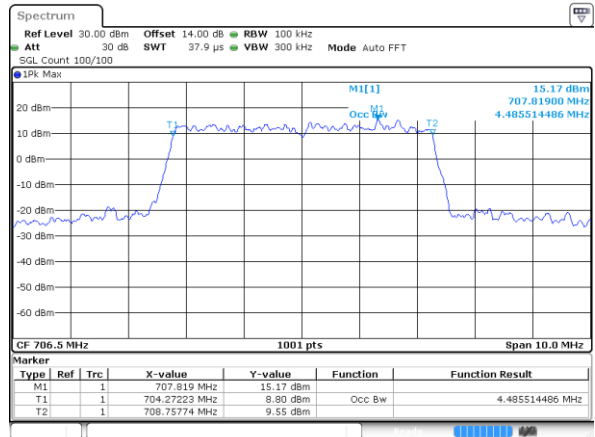


LTE Band 17

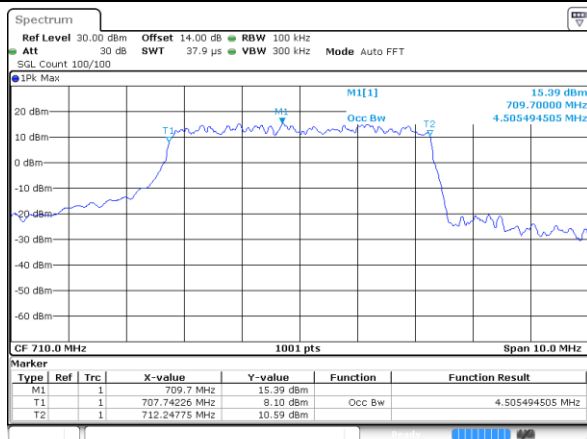
Lowest Channel / 5MHz / QPSK



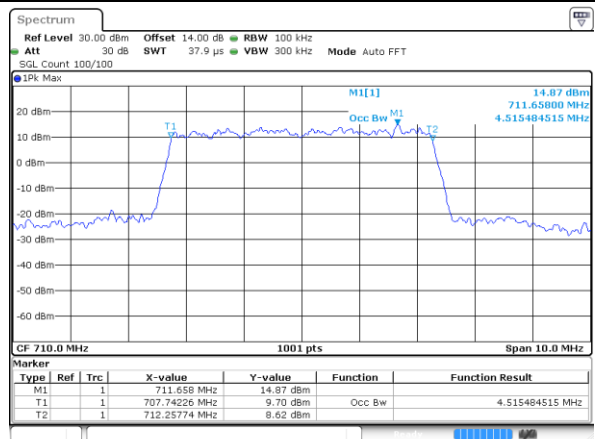
Lowest Channel / 5MHz / 16QAM



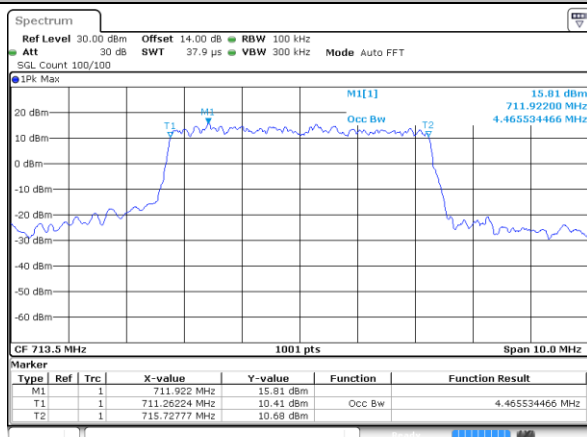
Middle Channel / 5MHz / QPSK



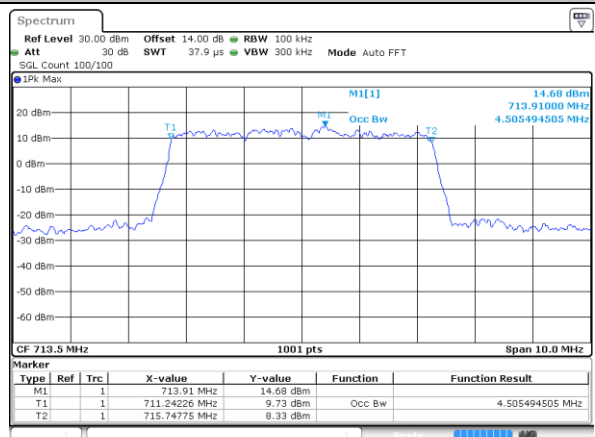
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



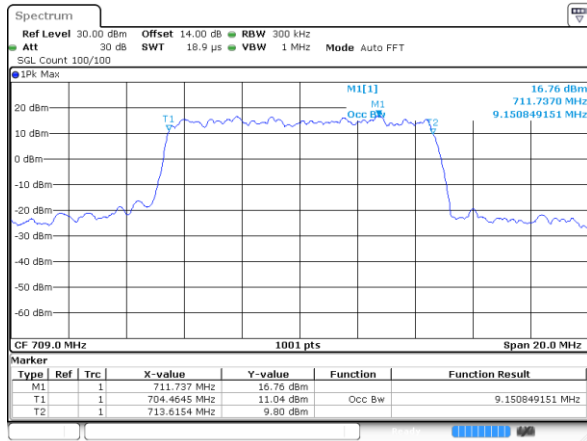
Highest Channel / 5MHz / 16QAM



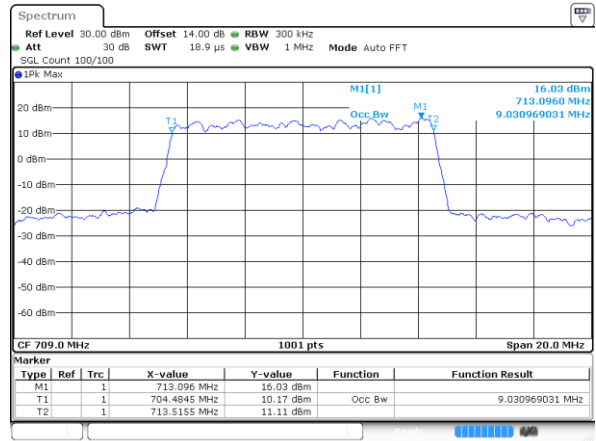


LTE Band 17

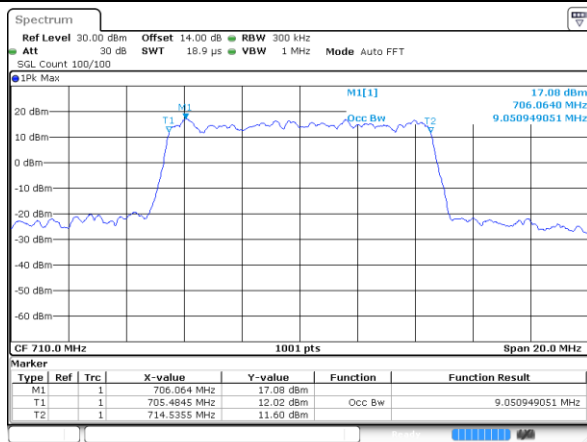
Lowest Channel / 10MHz / QPSK



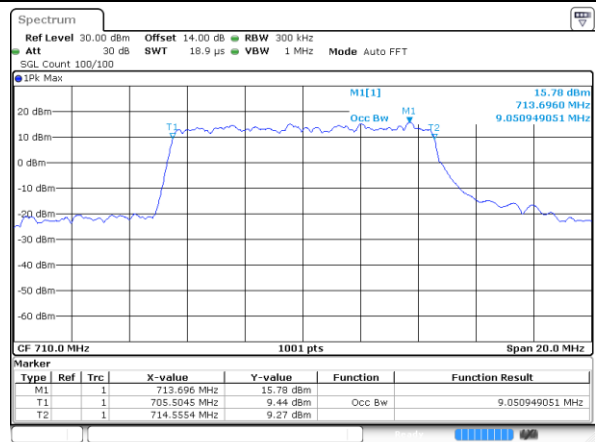
Lowest Channel / 10MHz / 16QAM



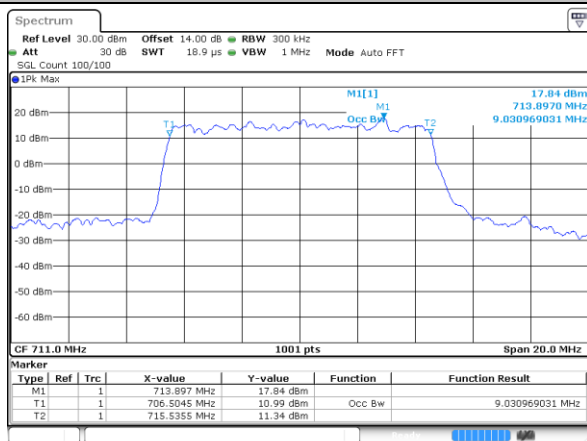
Middle Channel / 10MHz / QPSK



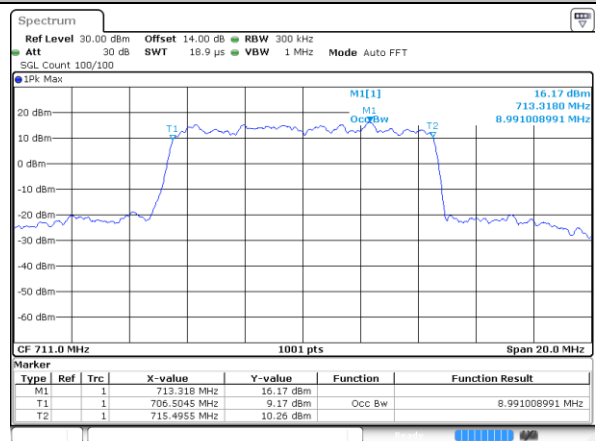
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM



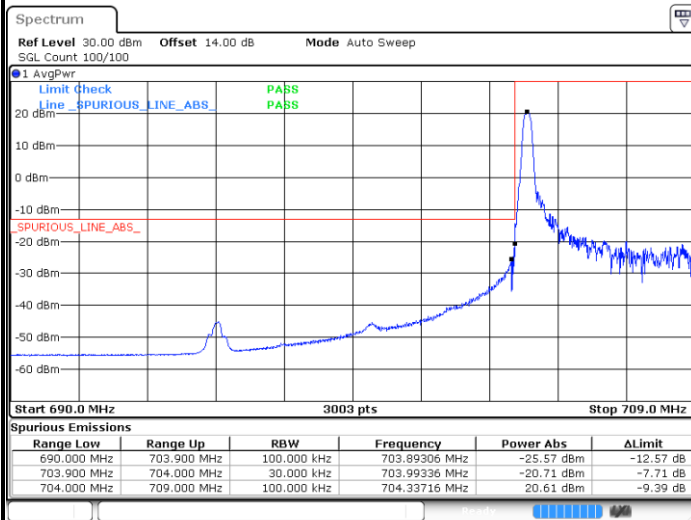


Conducted Band Edge

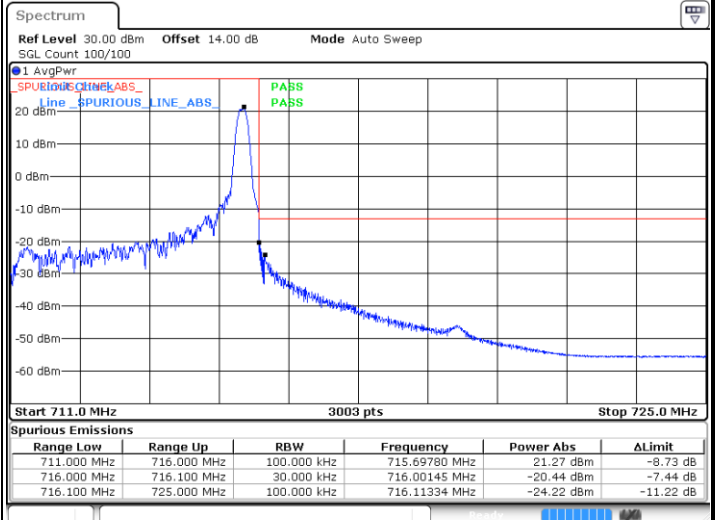


LTE Band 17 / 5MHz / QPSK

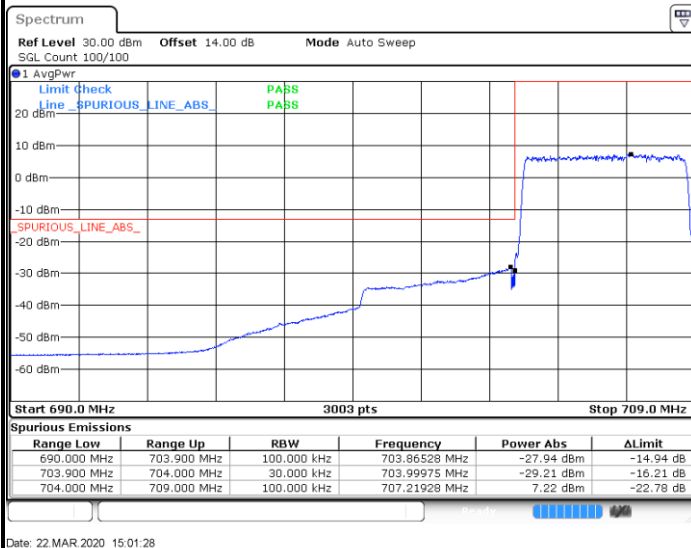
Lowest Band Edge / 1 RB



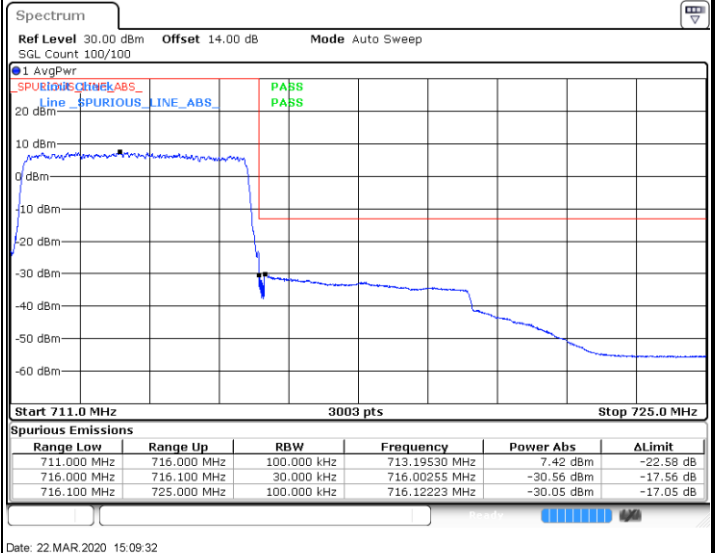
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



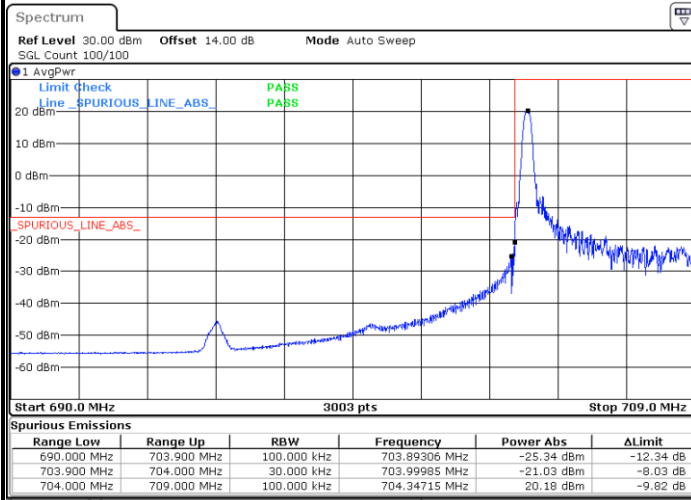
Highest Band Edge / Full RB



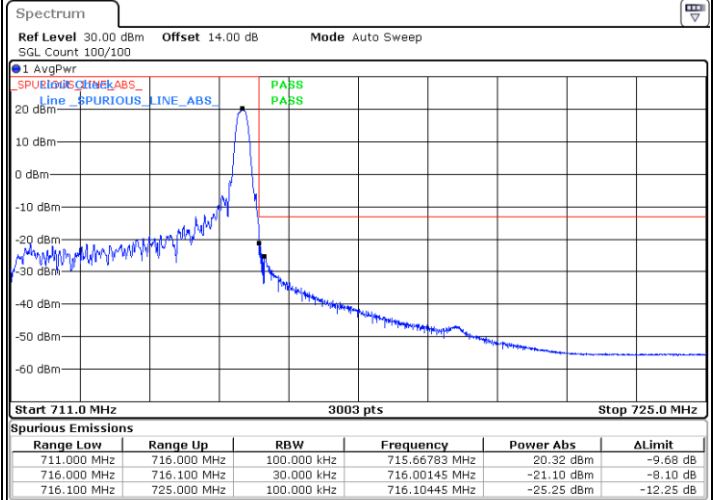


LTE Band 17 / 5MHz / 16QAM

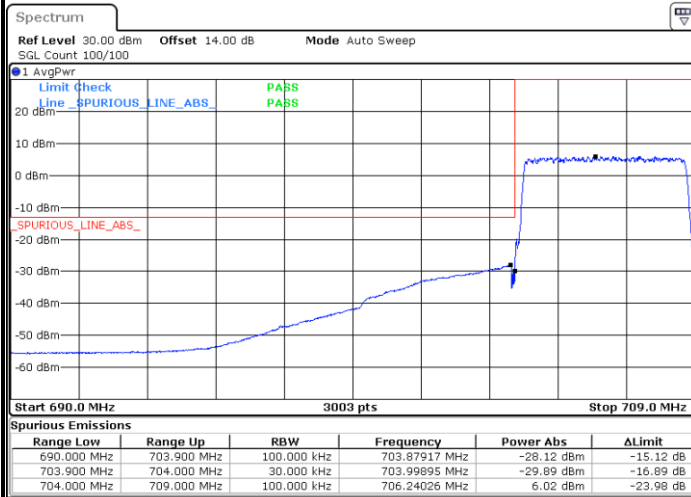
Lowest Band Edge / 1 RB



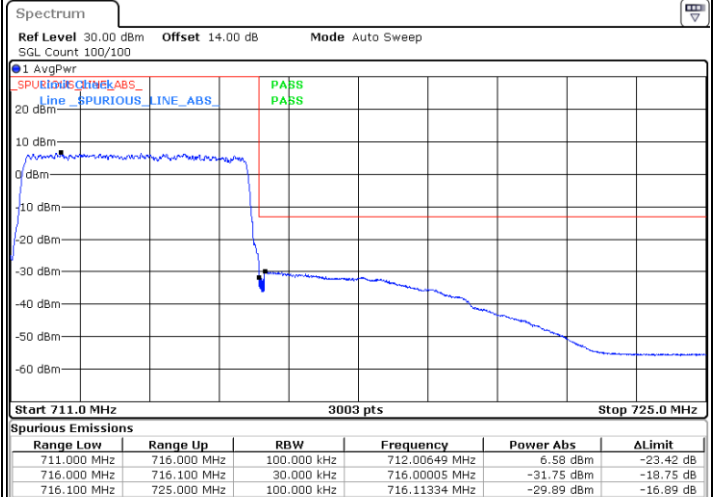
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



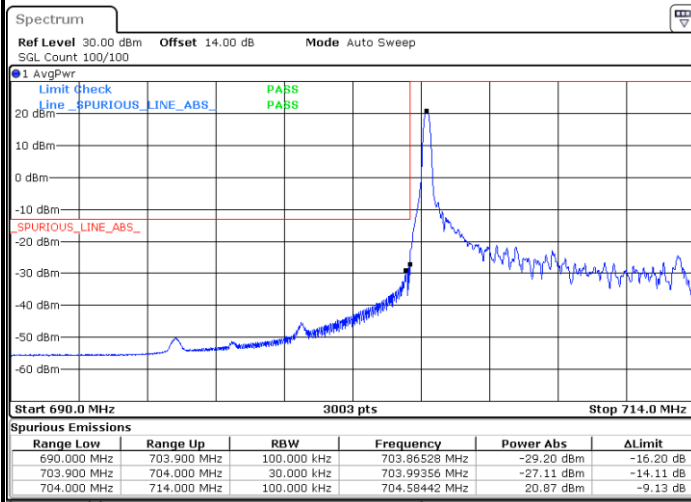
Highest Band Edge / Full RB



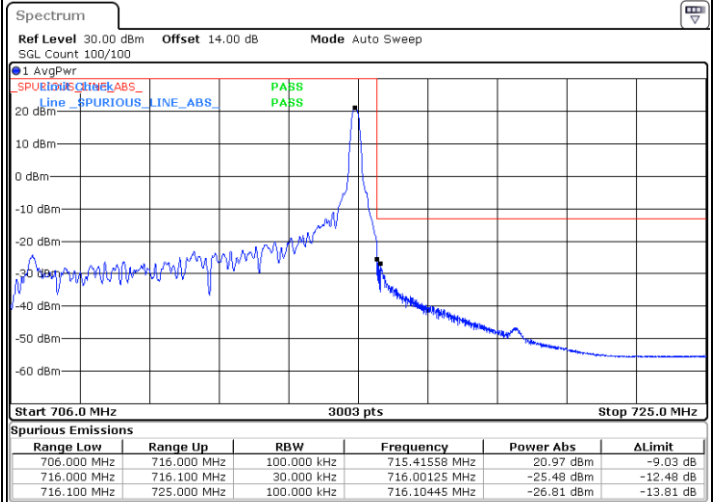


LTE Band 17 / 10MHz / QPSK

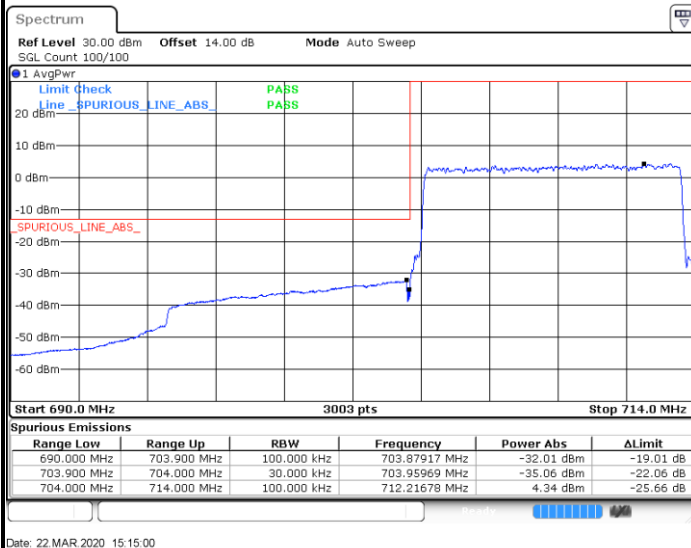
Lowest Band Edge / 1 RB



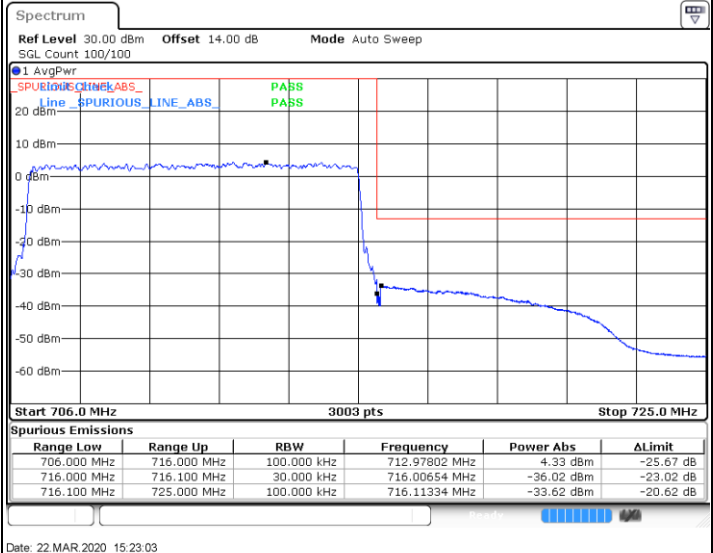
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



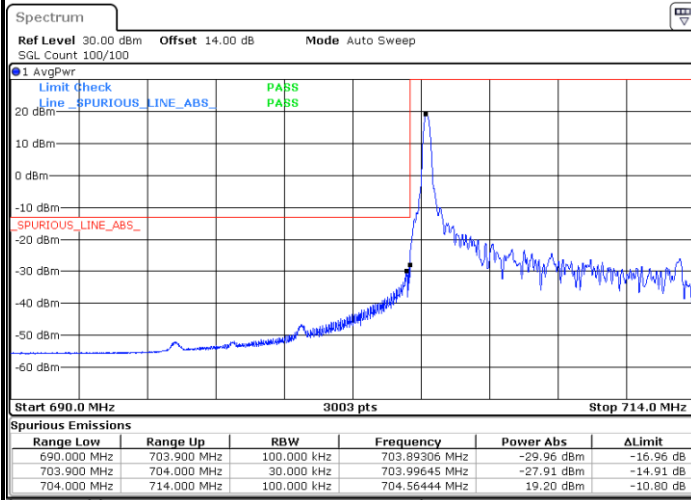
Highest Band Edge / Full RB



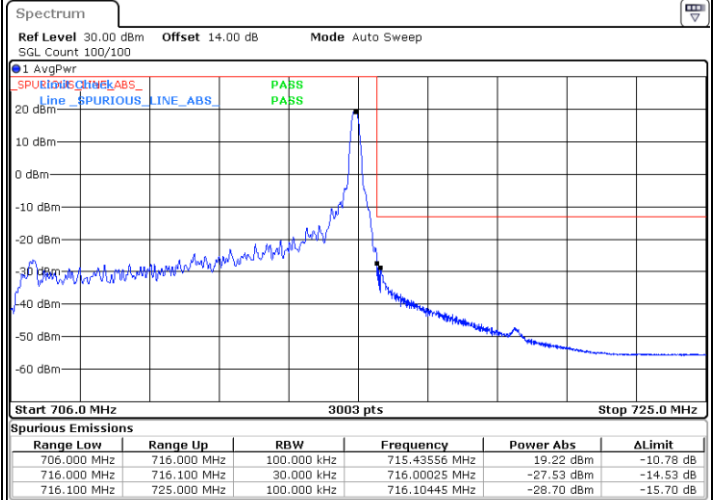


LTE Band 17 / 10MHz / 16QAM

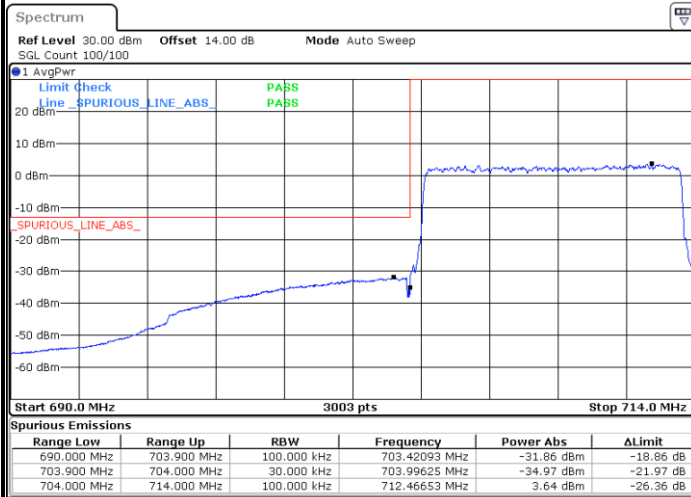
Lowest Band Edge / 1 RB



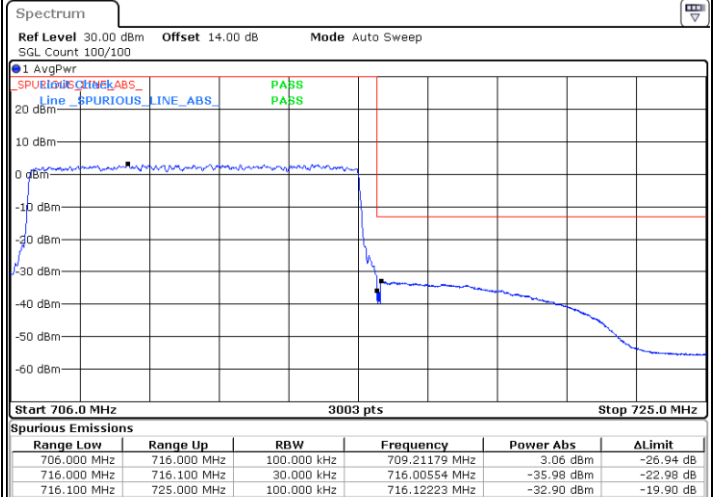
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



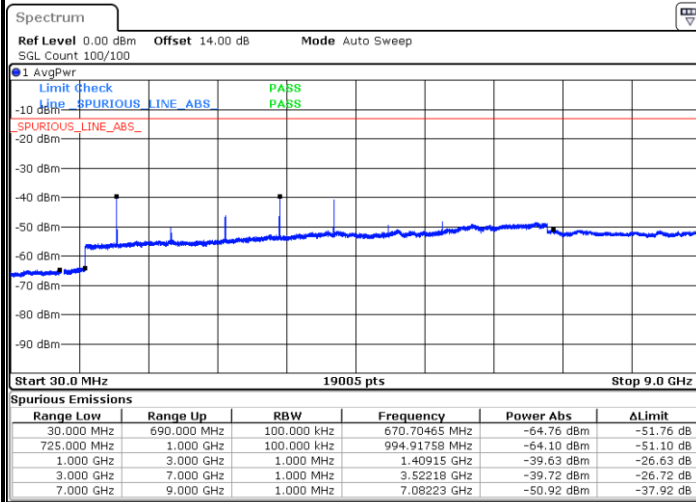


Conducted Spurious Emission



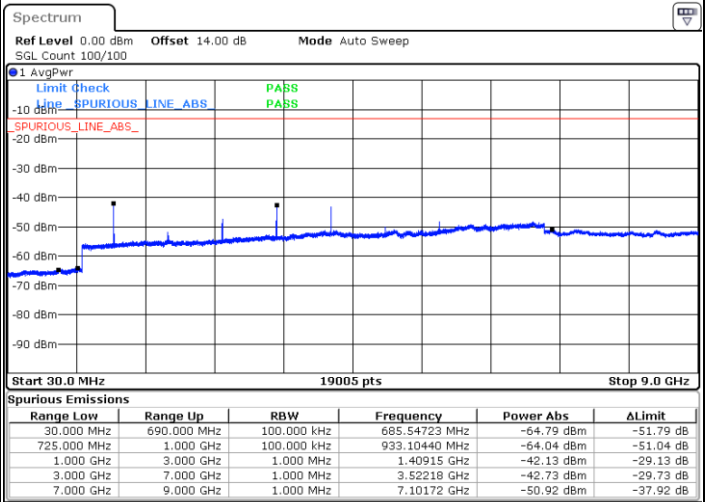
LTE Band 17 / 5MHz

Lowest Channel / QPSK



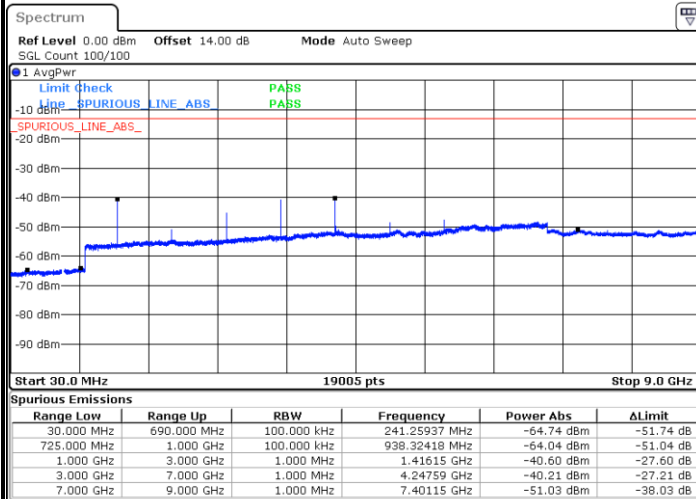
Date: 22 MAR 2020 15:03:10

Lowest Channel / 16QAM



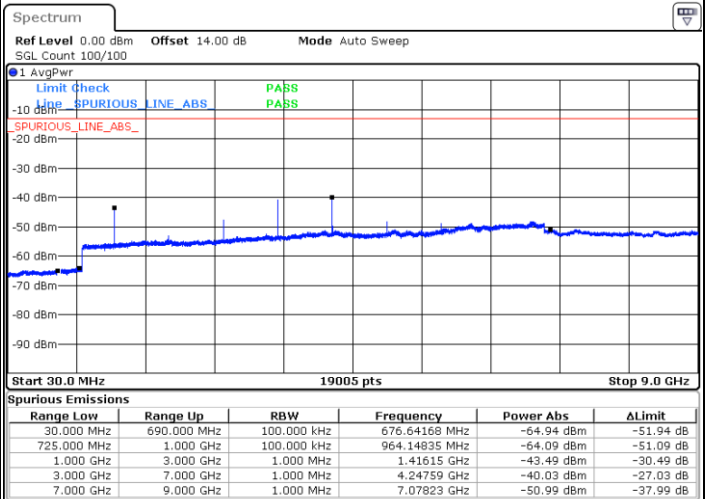
Date: 22 MAR 2020 15:04:10

Middle Channel / QPSK



Date: 22 MAR 2020 15:05:53

Middle Channel / 16QAM



Date: 22 MAR 2020 15:06:52