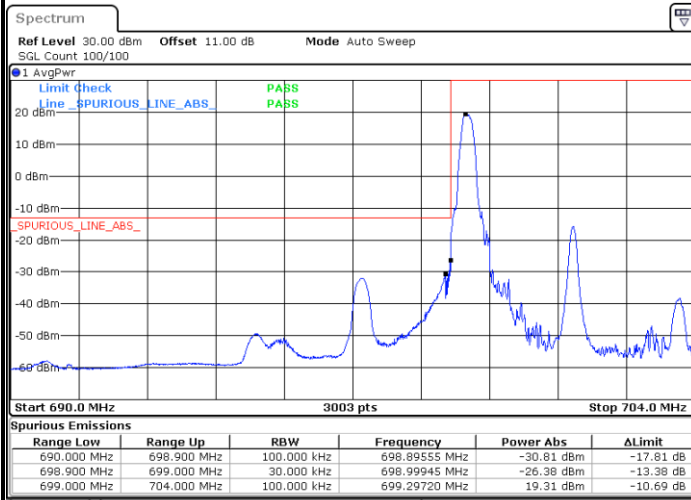


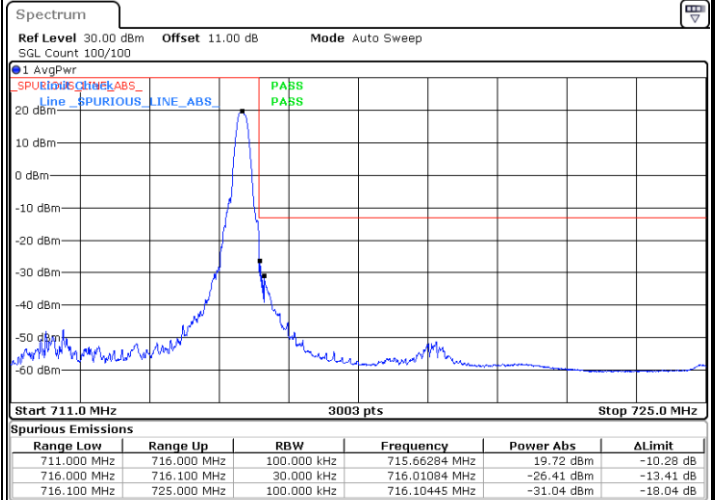


LTE Band 12 / 5MHz / 16QAM

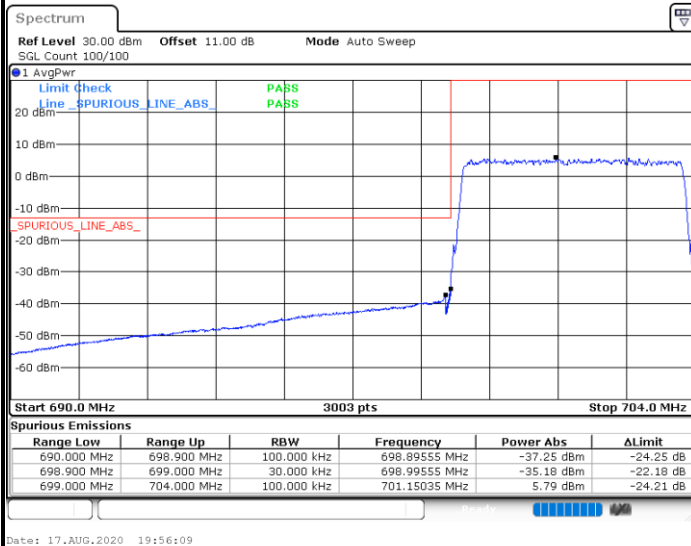
Lowest Band Edge / 1RB



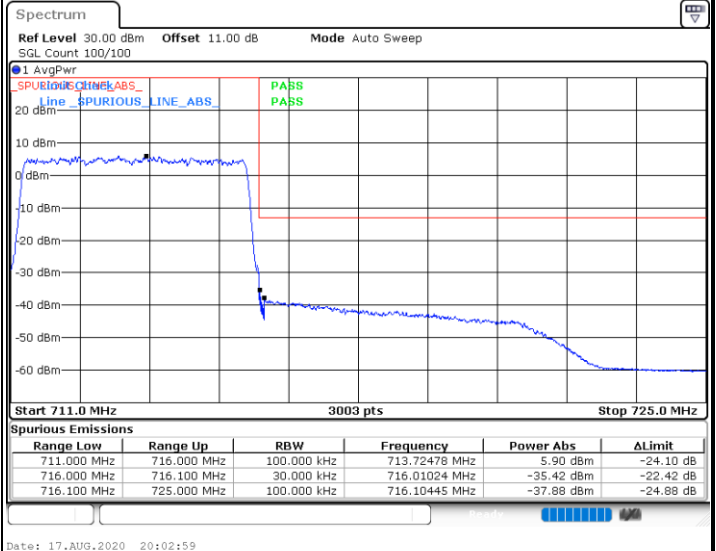
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



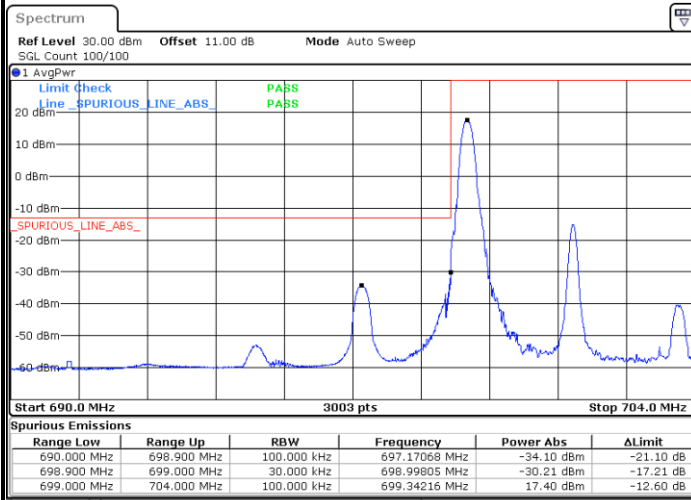
Highest Band Edge / Full RB



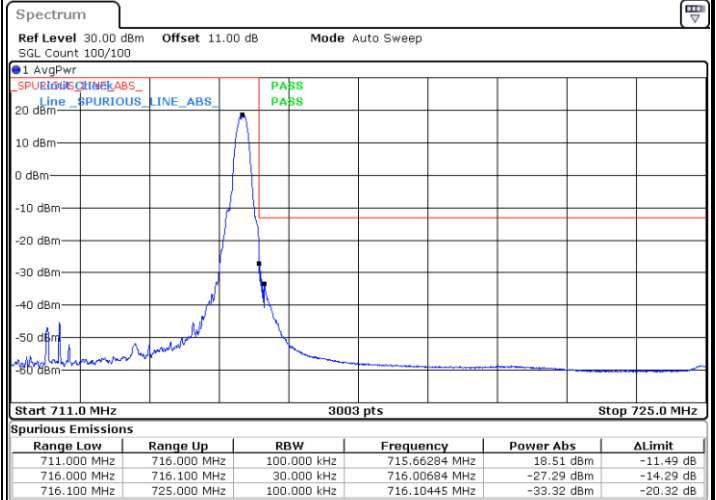


LTE Band 12 / 5MHz / 64QAM

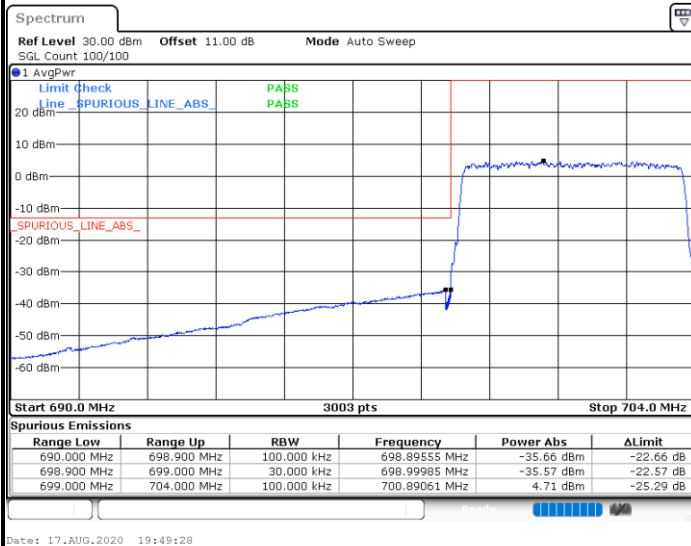
Lowest Band Edge / 1RB



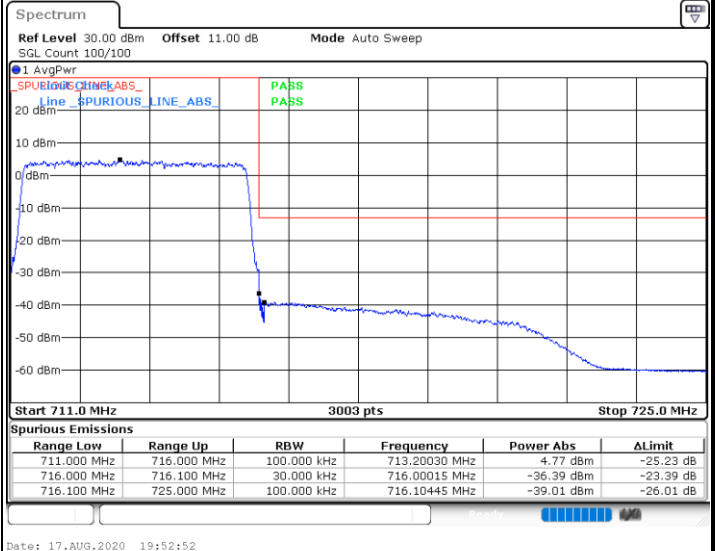
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



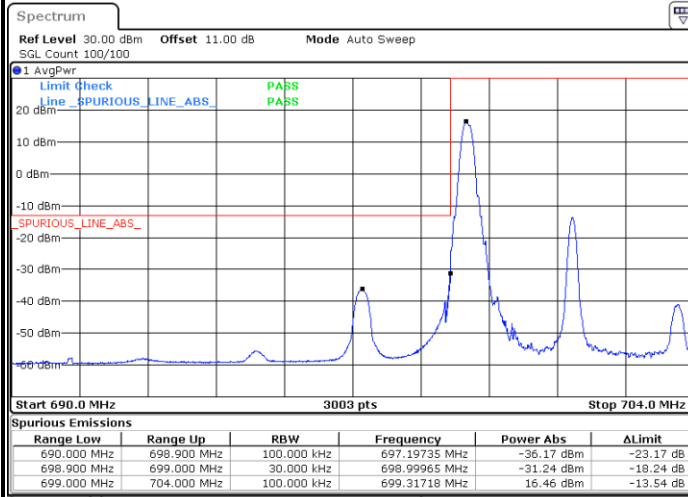
Highest Band Edge / Full RB



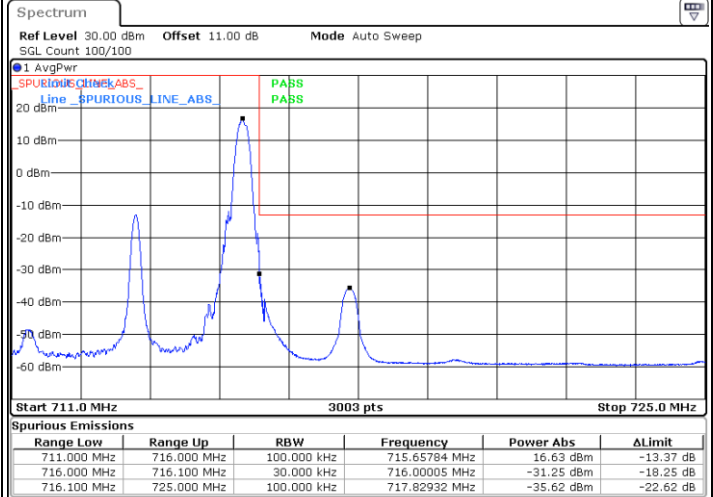


LTE Band 12 / 5MHz / 256QAM

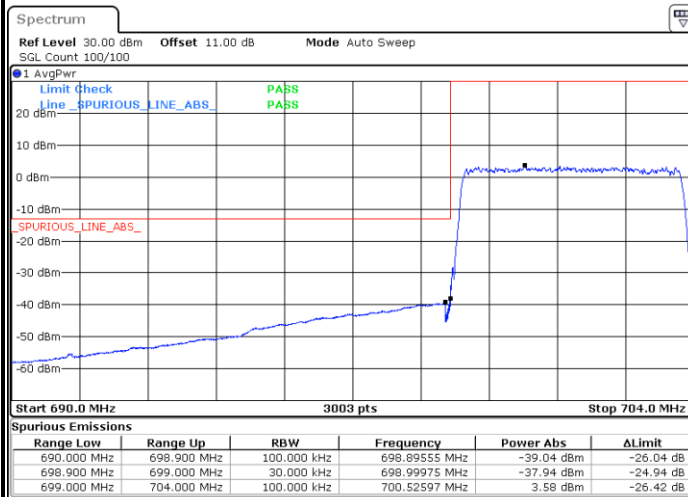
Lowest Band Edge / 1 RB



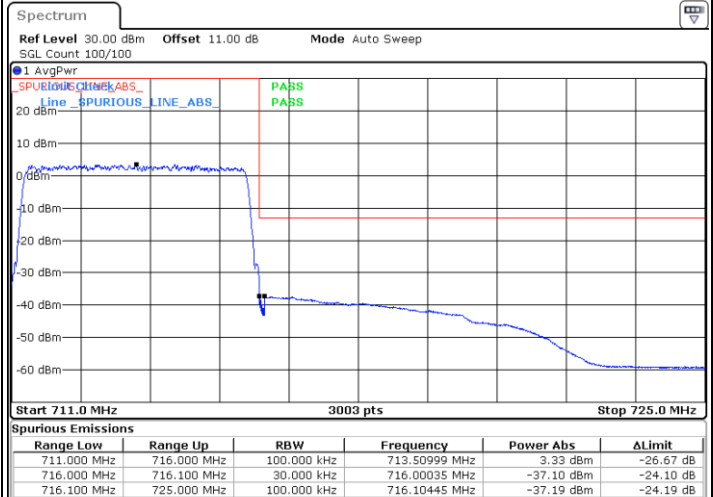
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



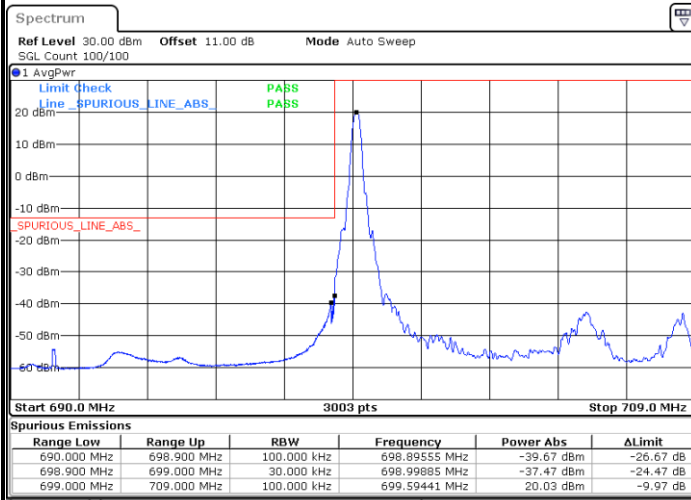
Highest Band Edge / Full RB



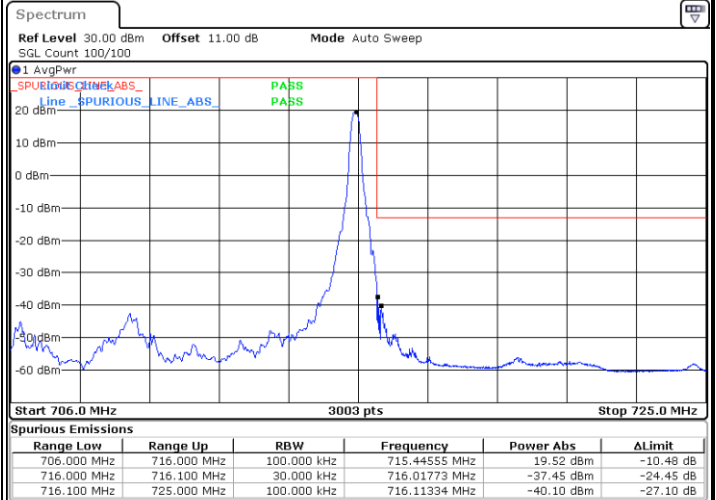


LTE Band 12 / 10MHz / QPSK

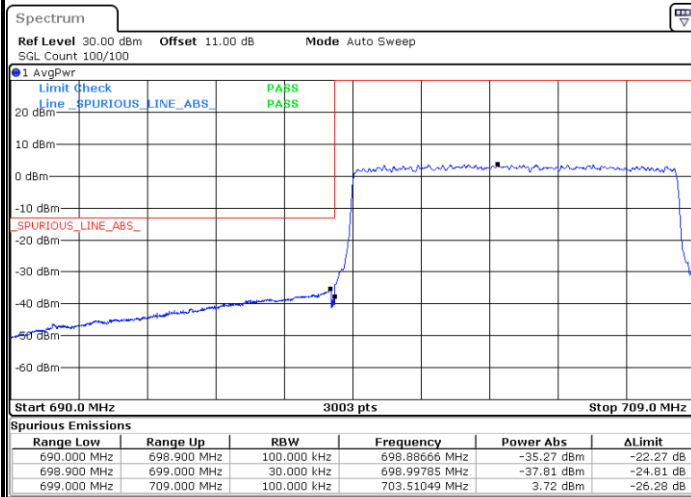
Lowest Band Edge / 1 RB



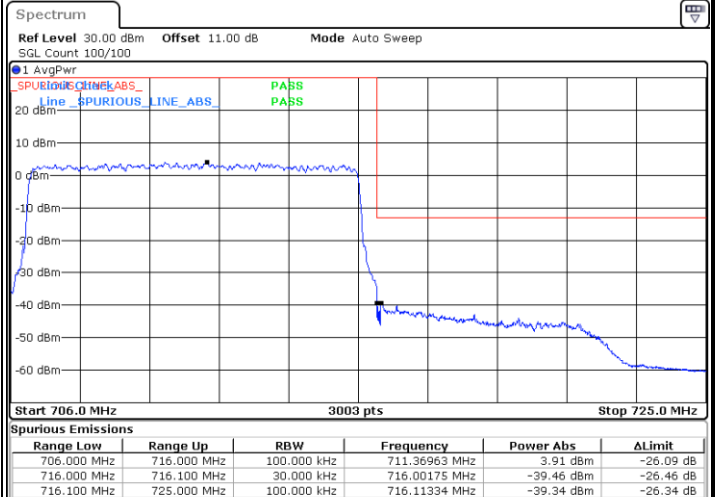
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



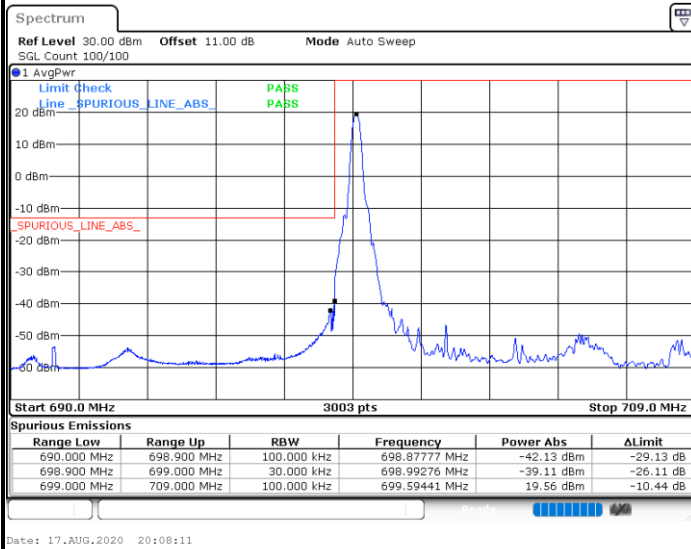
Highest Band Edge / Full RB



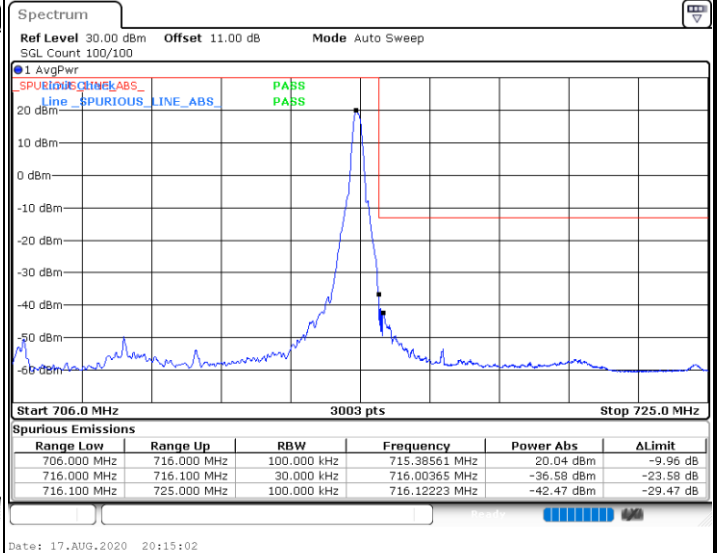


LTE Band 12 / 10MHz / 16QAM

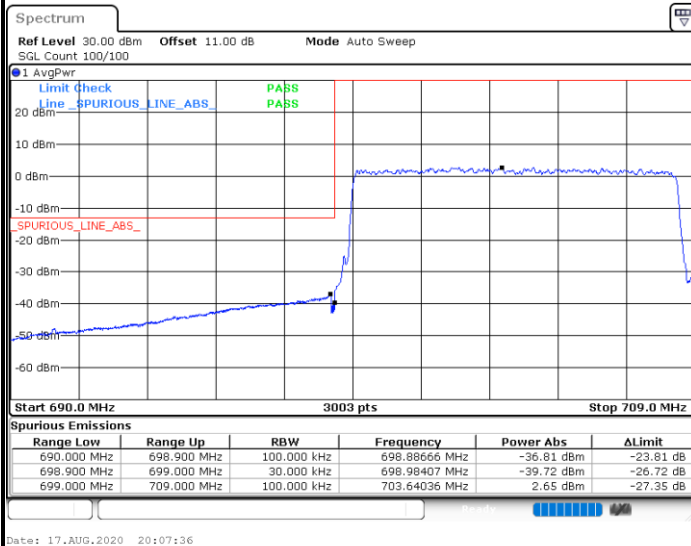
Lowest Band Edge / 1 RB



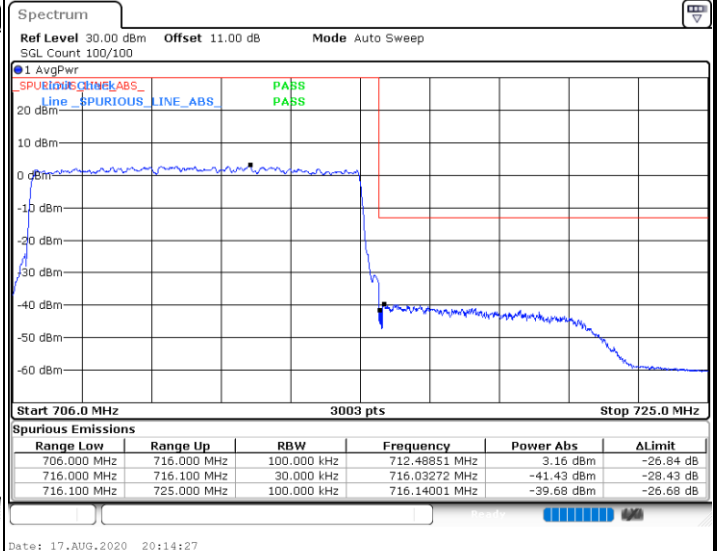
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



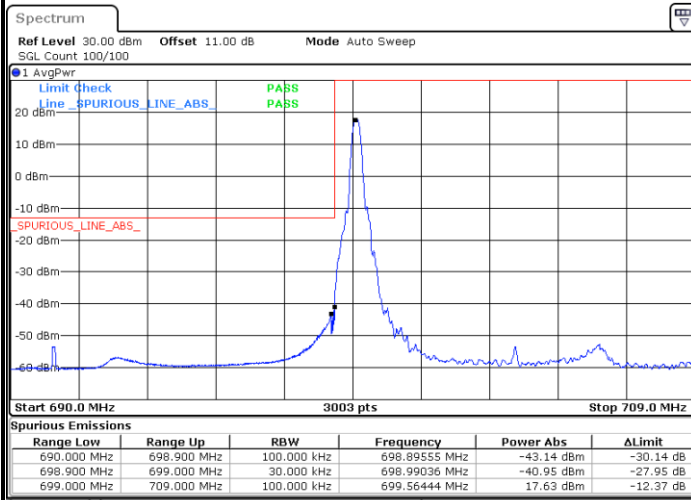
Highest Band Edge / Full RB



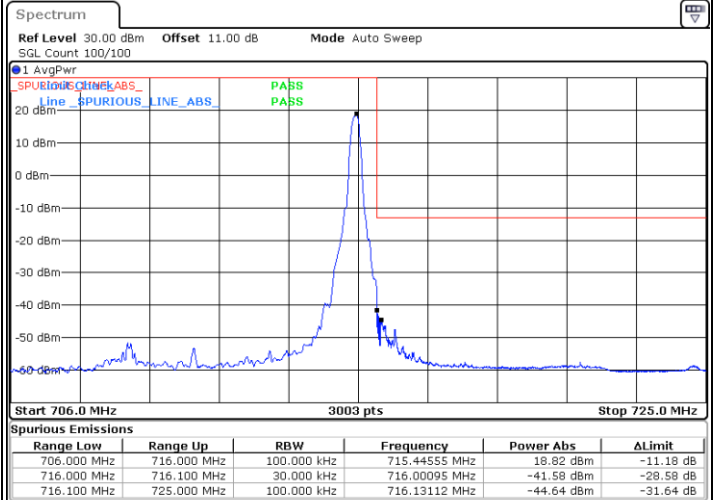


LTE Band 12 / 10MHz / 64QAM

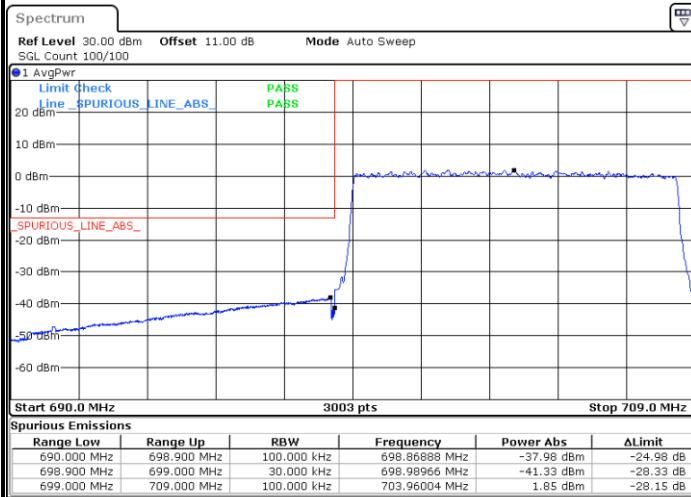
Lowest Band Edge / 1 RB



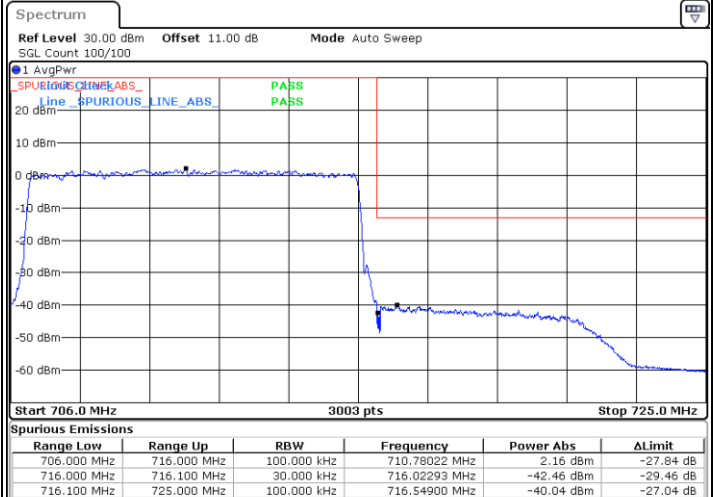
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



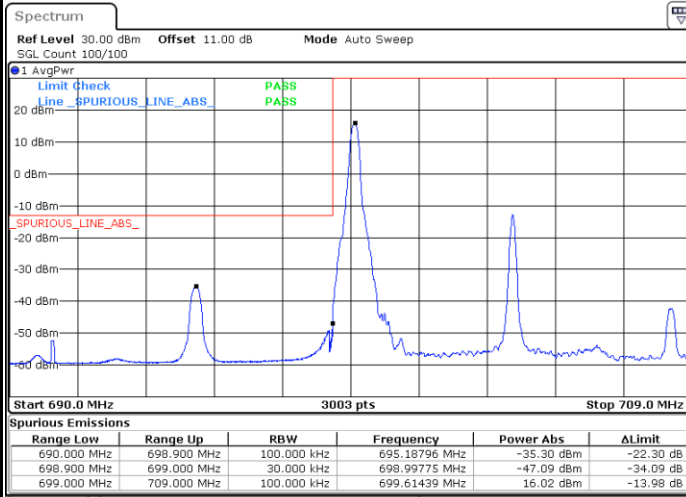
Highest Band Edge / Full RB



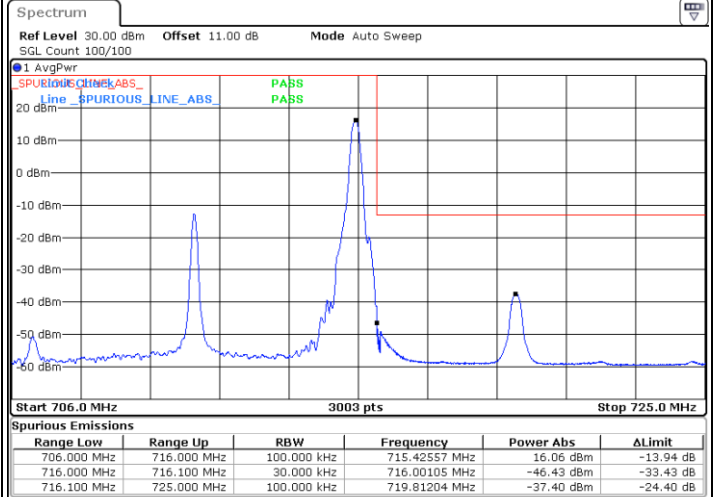


LTE Band 12 / 10MHz / 256QAM

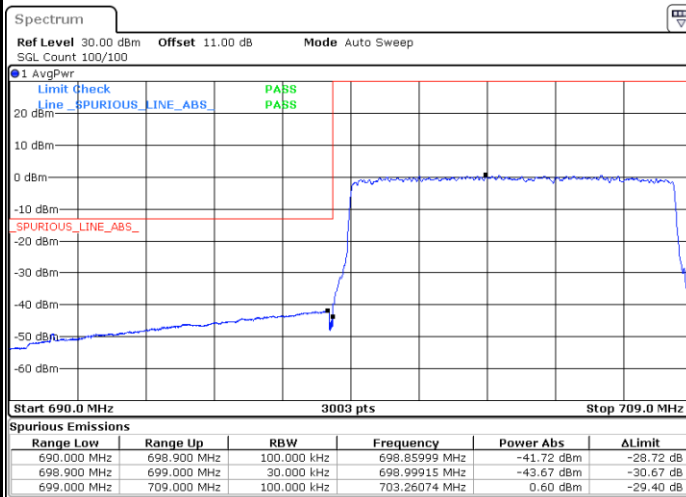
Lowest Band Edge / 1 RB



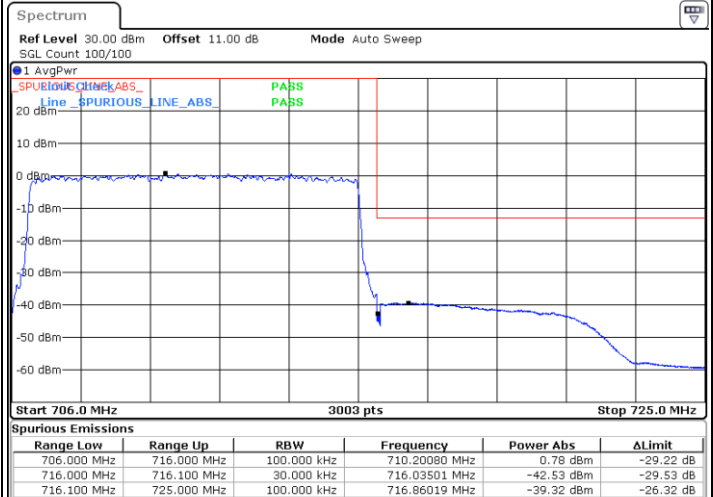
Highest Band Edge / 1 RB

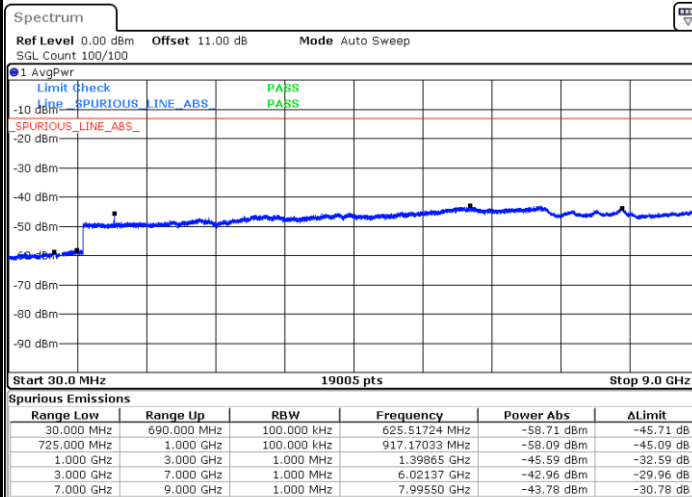


Lowest Band Edge / Full RB

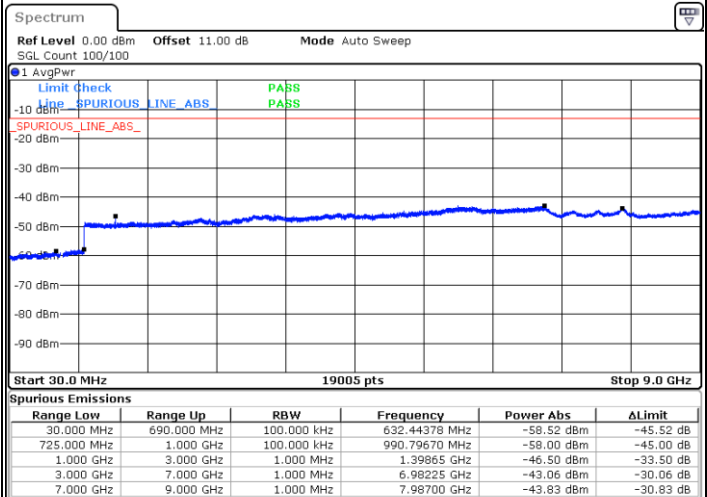


Highest Band Edge / Full RB

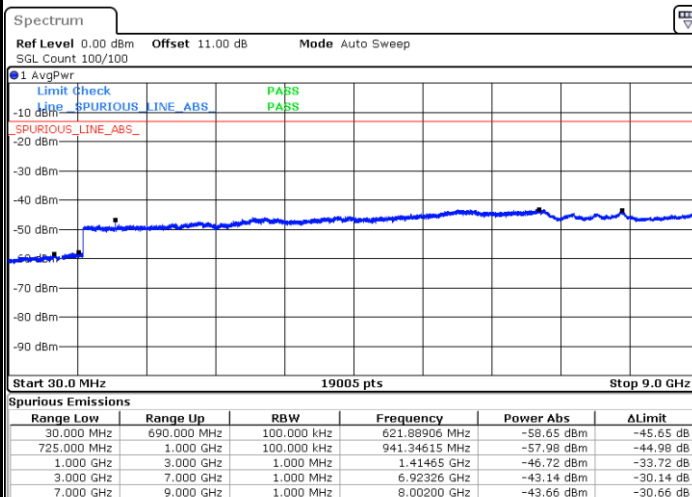


**Conducted Spurious Emission****LTE Band 12 / 1.4MHz****Lowest Channel / QPSK**

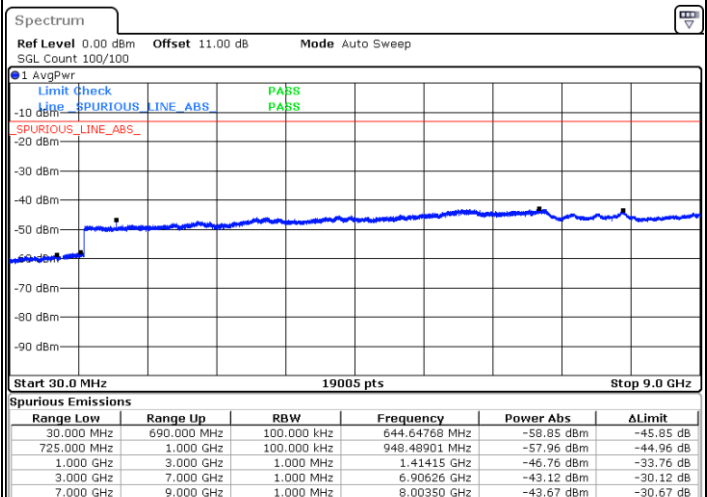
Date: 17.AUG.2020 19:29:36

Lowest Channel / 16QAM

Date: 17.AUG.2020 19:30:21

Middle Channel / QPSK

Date: 17.AUG.2020 19:32:36

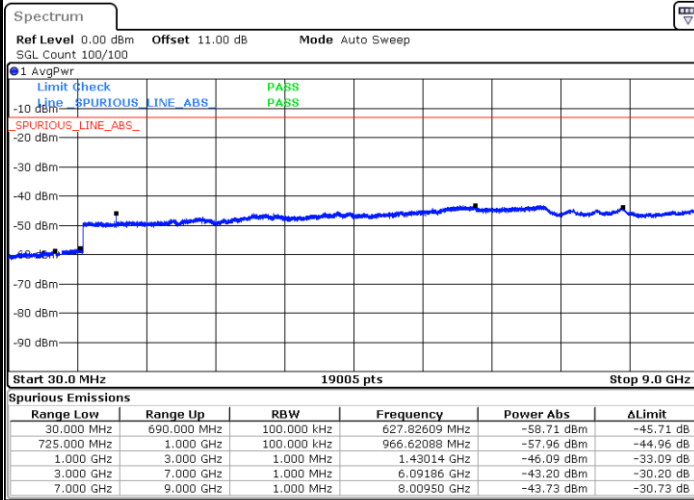
Middle Channel / 16QAM

Date: 17.AUG.2020 19:31:51



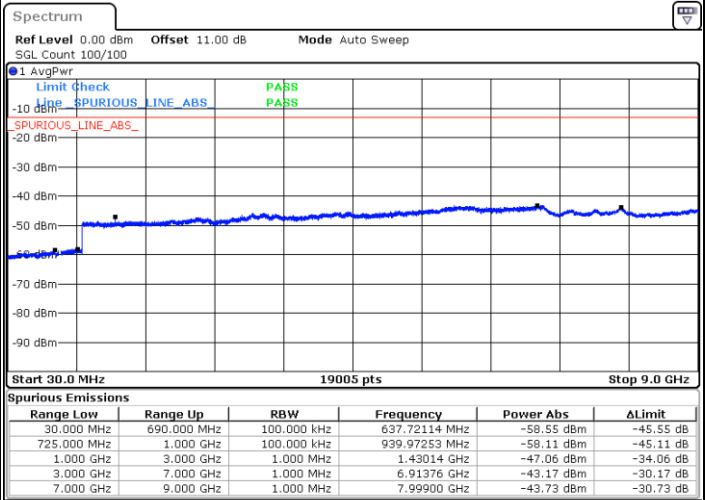
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 17.AUG.2020 19:34:08

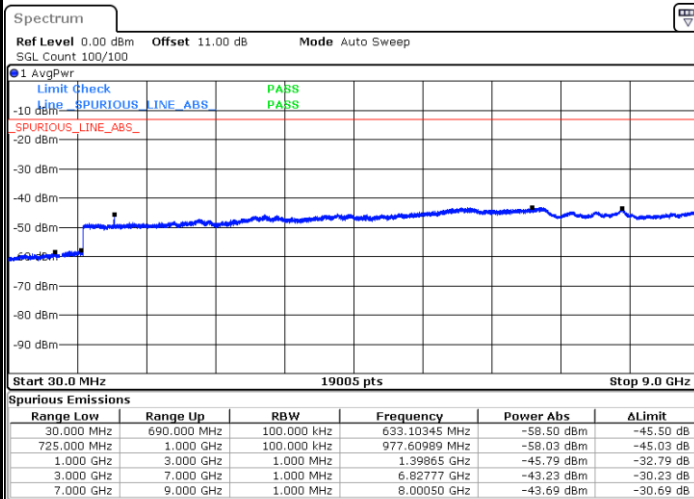
Highest Channel / 16QAM



Date: 17.AUG.2020 19:34:53

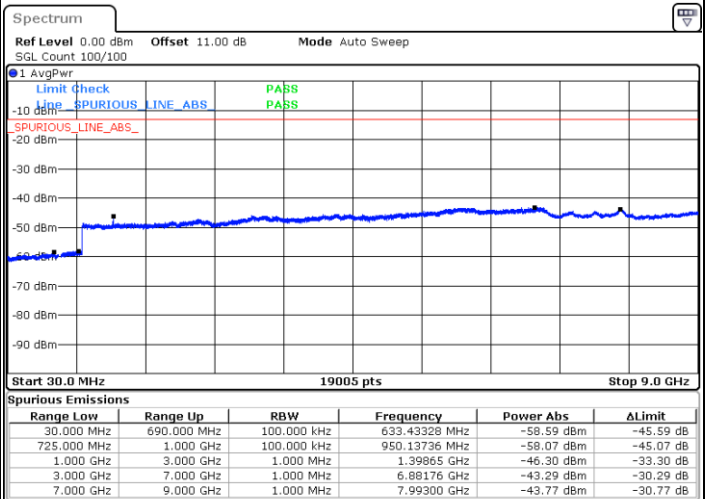
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 17.AUG.2020 19:39:49

Lowest Channel / 16QAM

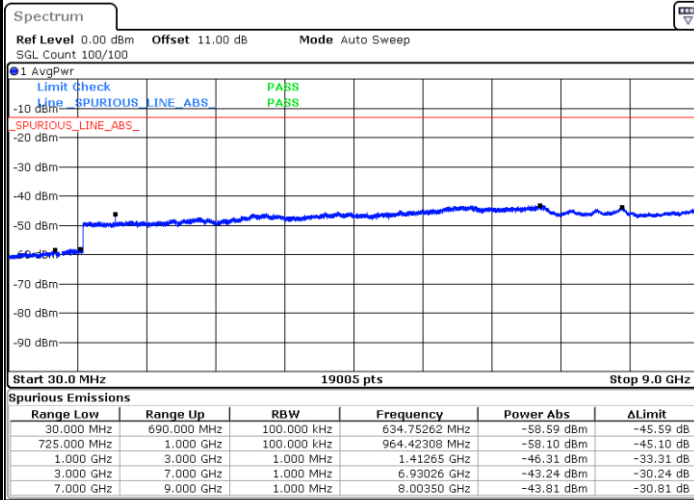


Date: 17.AUG.2020 19:40:34



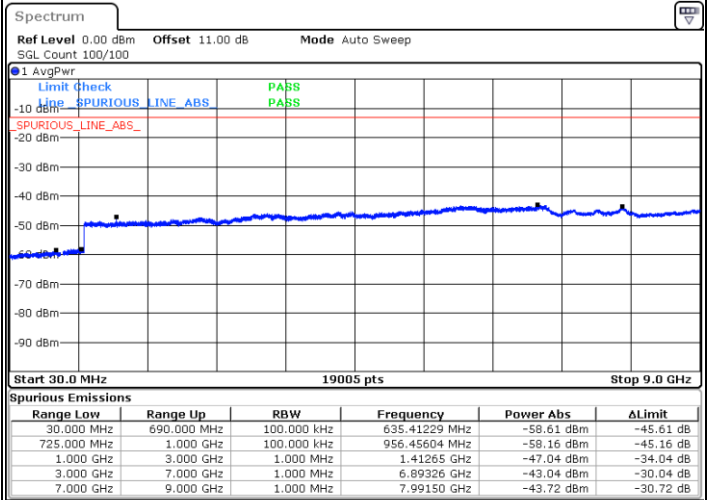
LTE Band 12 / 3MHz

Middle Channel / QPSK



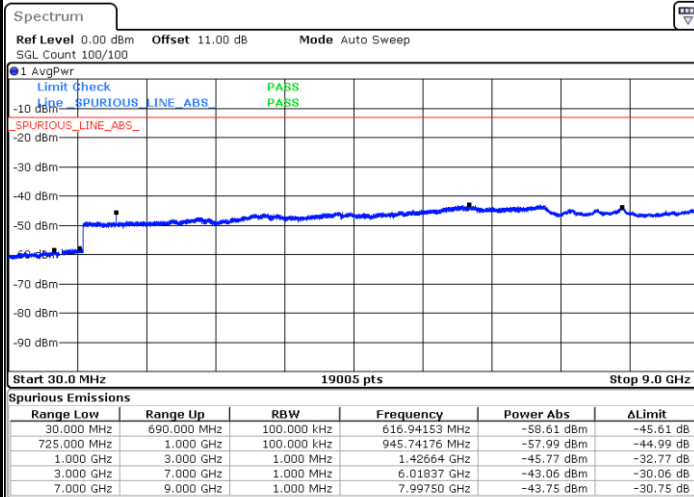
Date: 17.AUG.2020 19:42:48

Middle Channel / 16QAM



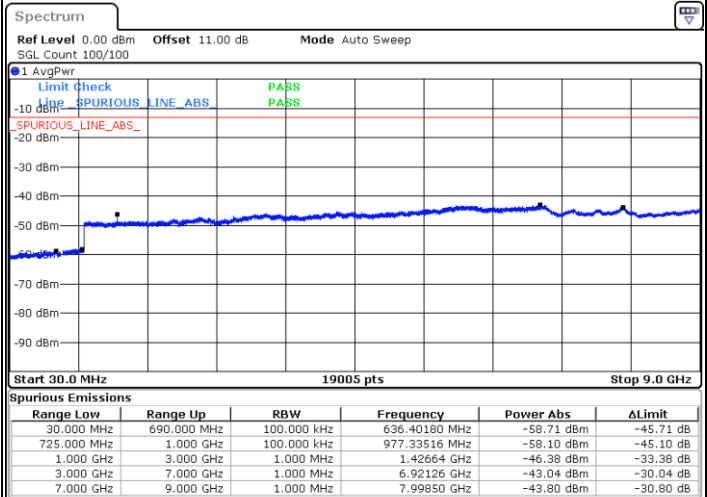
Date: 17.AUG.2020 19:42:04

Highest Channel / QPSK



Date: 17.AUG.2020 19:44:20

Highest Channel / 16QAM

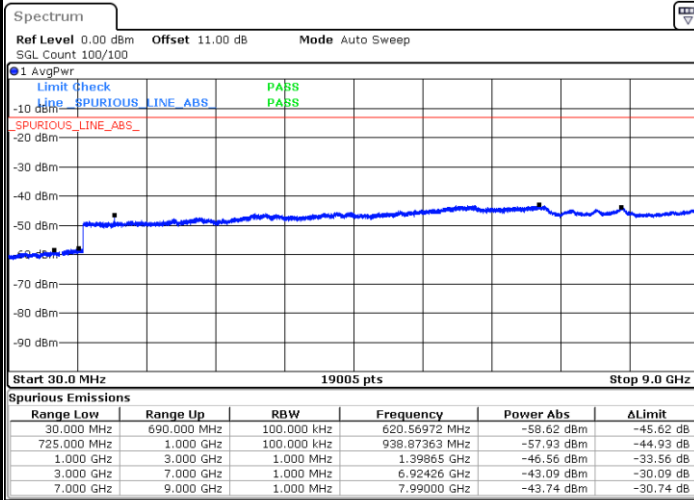


Date: 17.AUG.2020 19:45:05



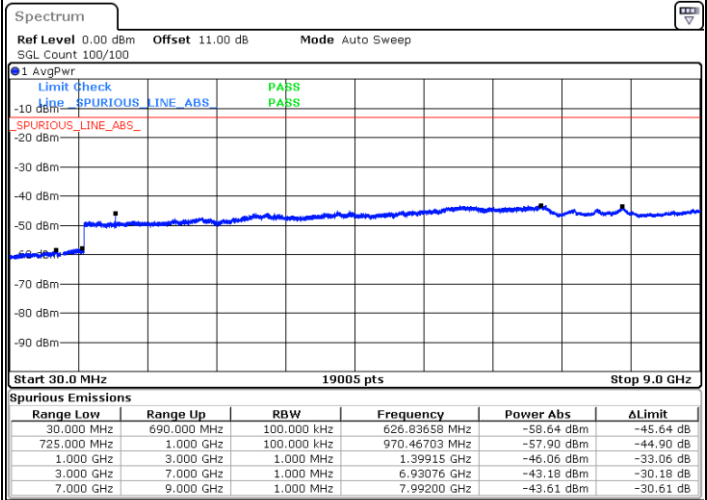
LTE Band 12 / 5MHz

Lowest Channel / QPSK



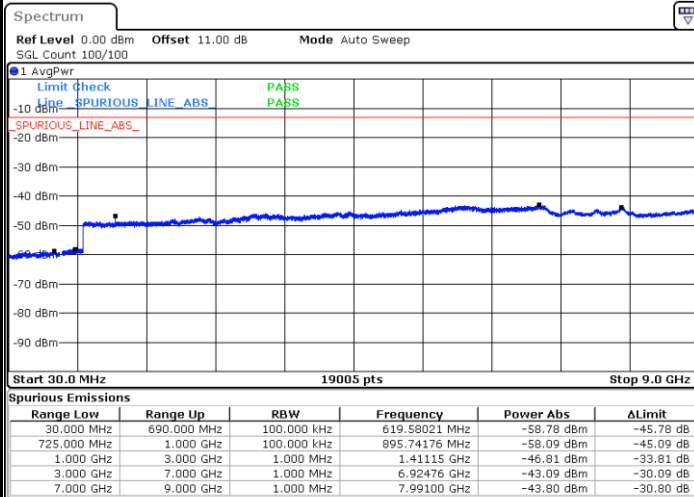
Date: 17.AUG.2020 19:58:04

Lowest Channel / 16QAM



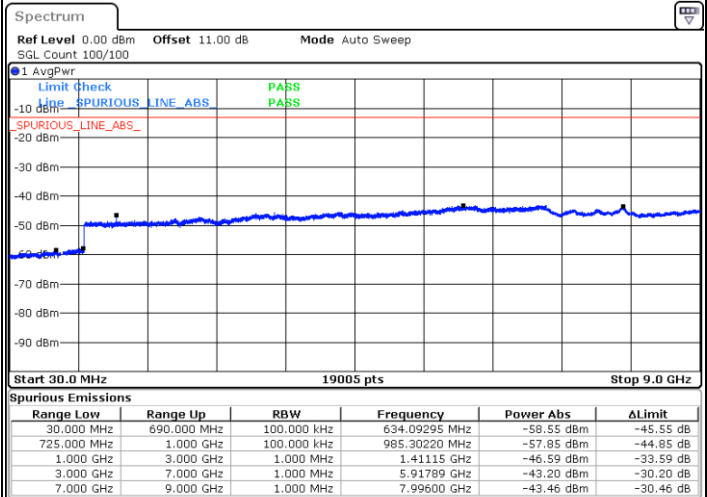
Date: 17.AUG.2020 19:58:49

Middle Channel / QPSK



Date: 17.AUG.2020 20:01:03

Middle Channel / 16QAM

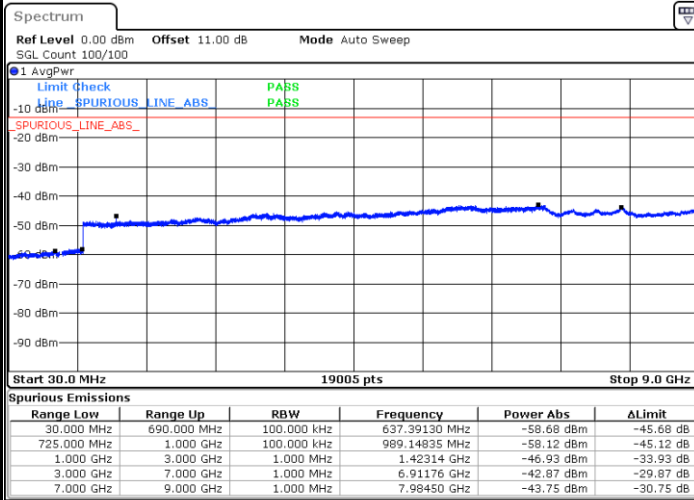


Date: 17.AUG.2020 20:00:19



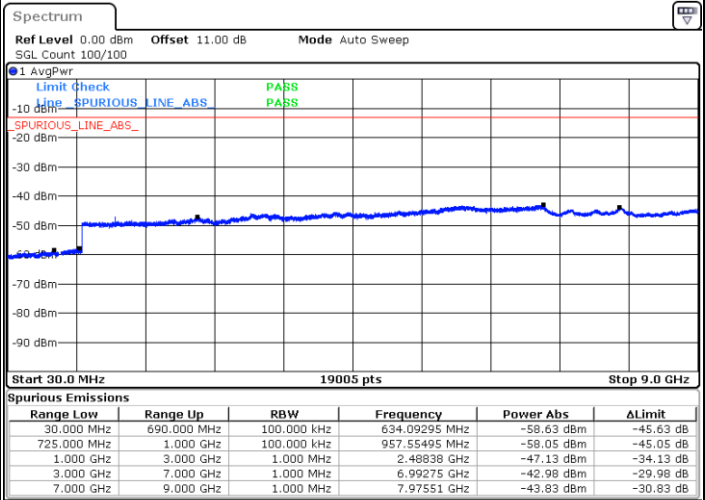
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 17.AUG.2020 20:05:39

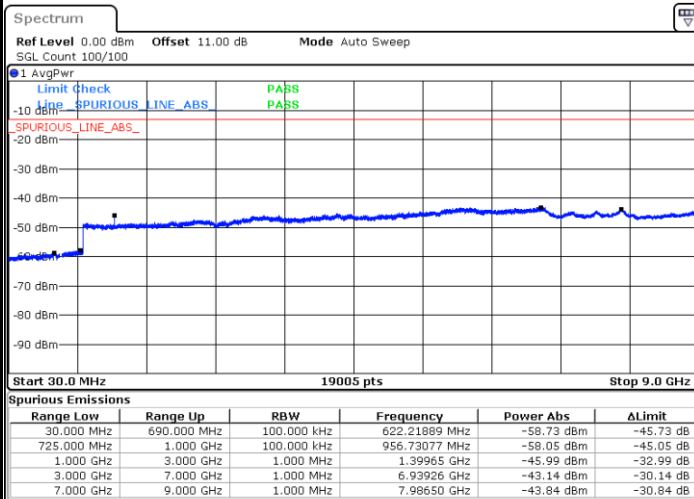
Highest Channel / 16QAM



Date: 17.AUG.2020 20:04:54

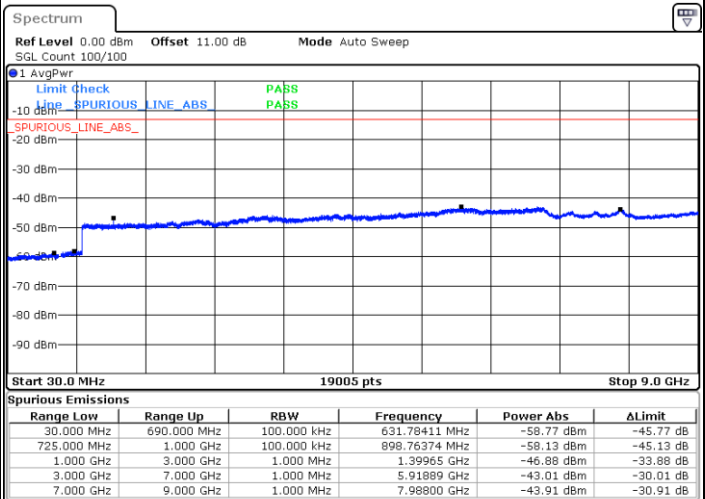
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 17.AUG.2020 20:09:31

Lowest Channel / 16QAM

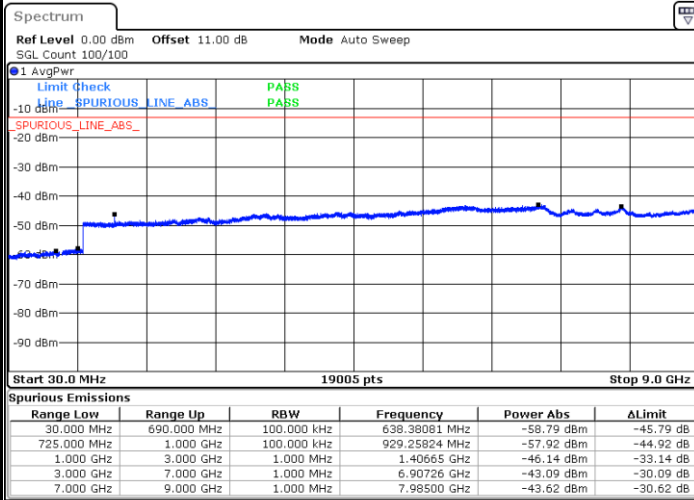


Date: 17.AUG.2020 20:10:16



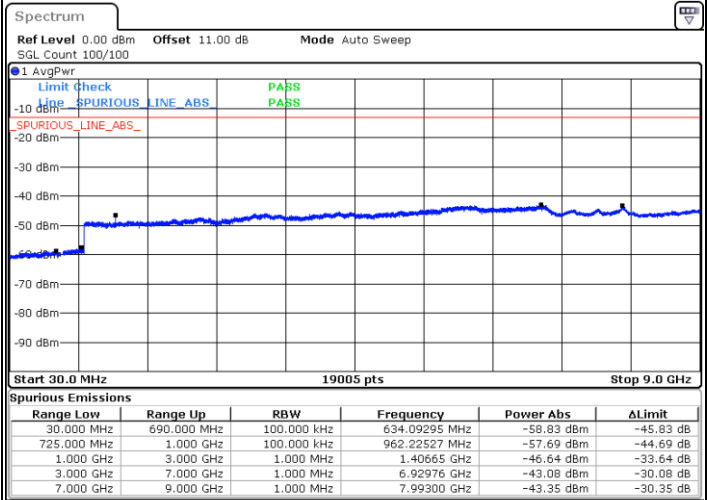
LTE Band 12 / 10MHz

Middle Channel / QPSK



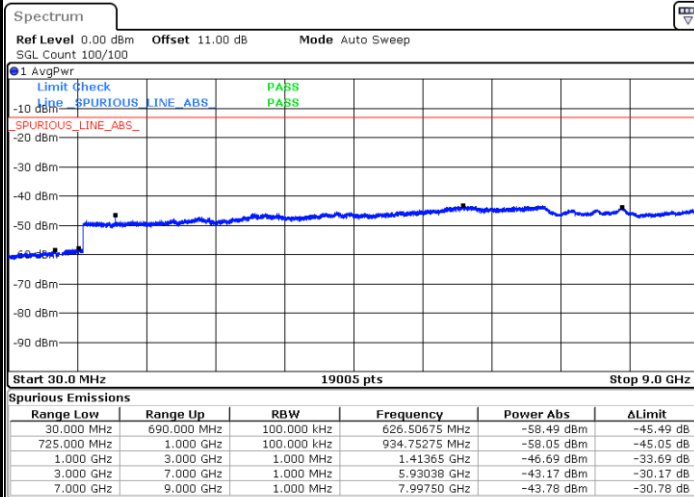
Date: 17.AUG.2020 20:12:30

Middle Channel / 16QAM



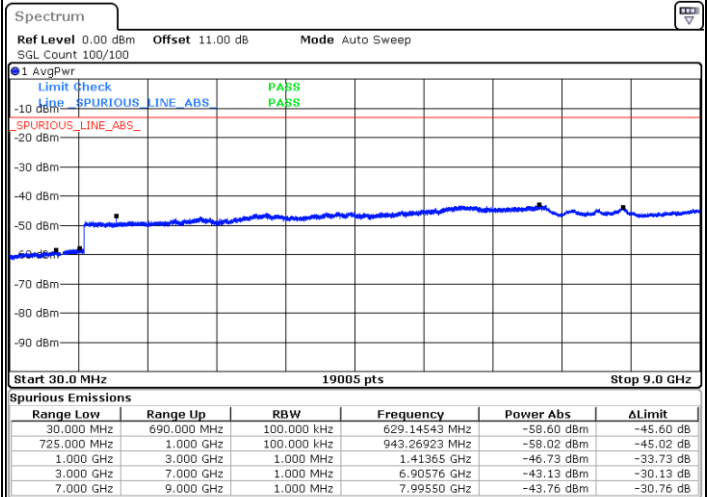
Date: 17.AUG.2020 20:11:46

Highest Channel / QPSK



Date: 17.AUG.2020 20:16:22

Highest Channel / 16QAM

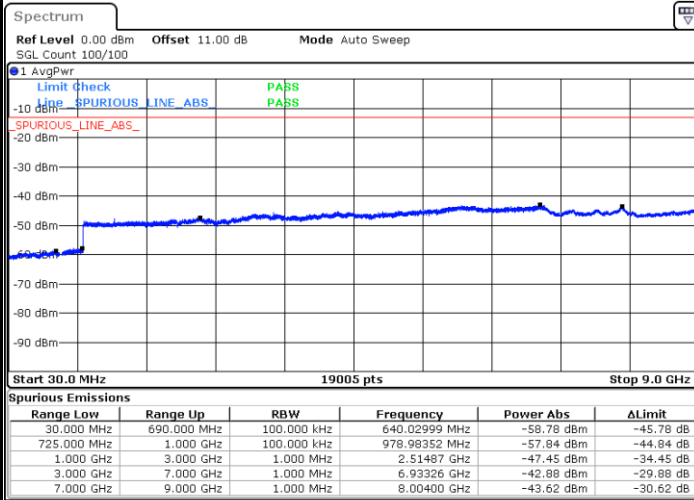


Date: 17.AUG.2020 20:17:07



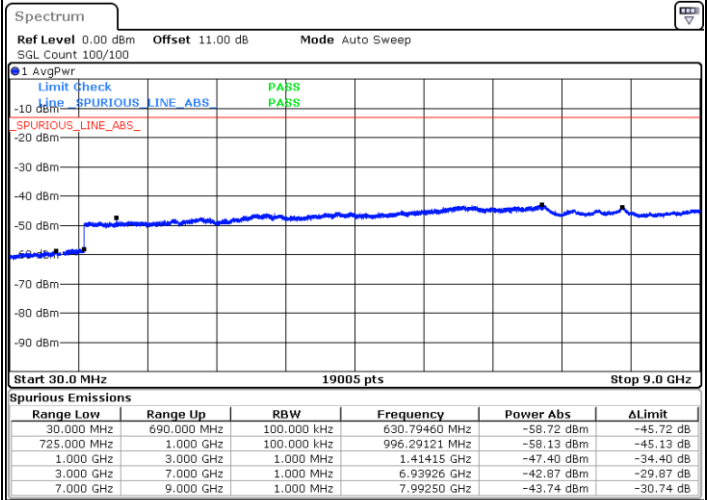
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



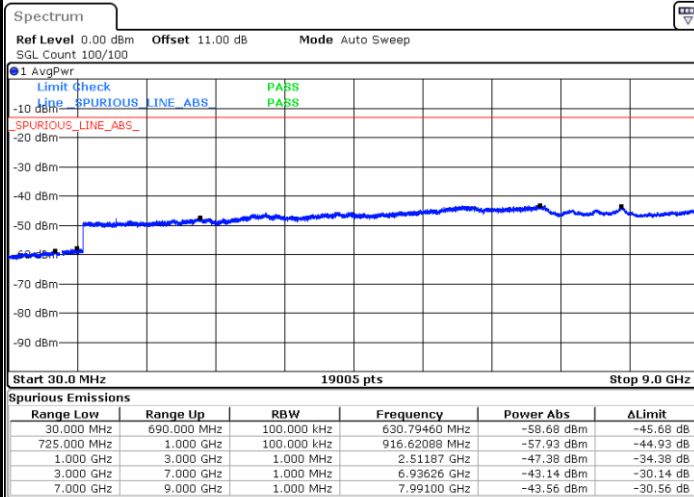
Date: 17.AUG.2020 19:36:01

Middle Channel / 64QAM



Date: 17.AUG.2020 19:37:08

Highest Channel / 64QAM

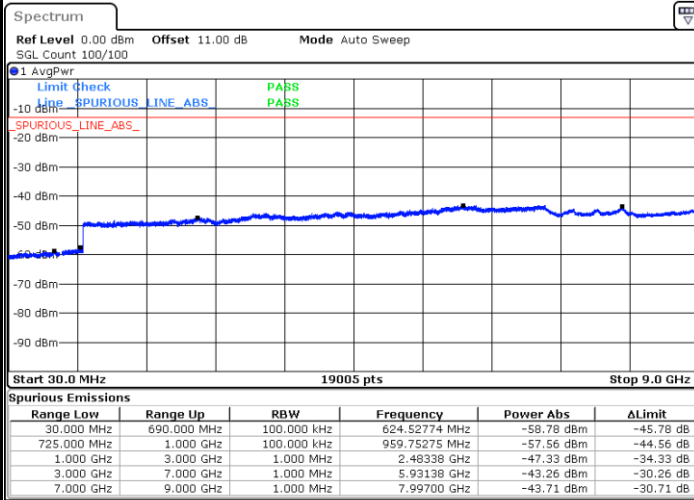


Date: 17.AUG.2020 19:38:17



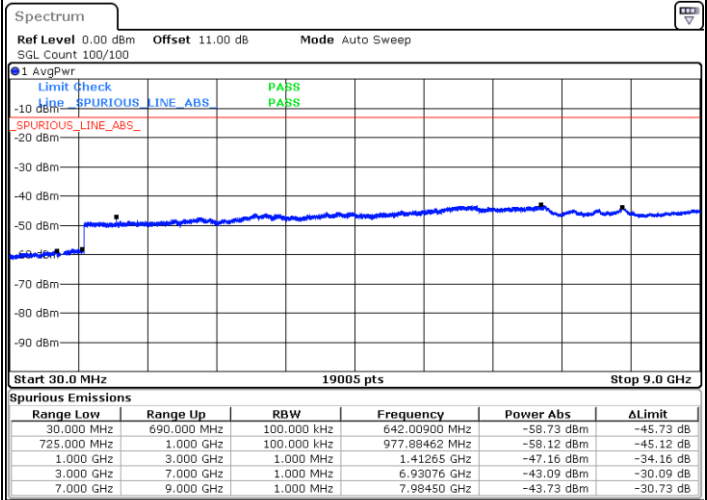
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



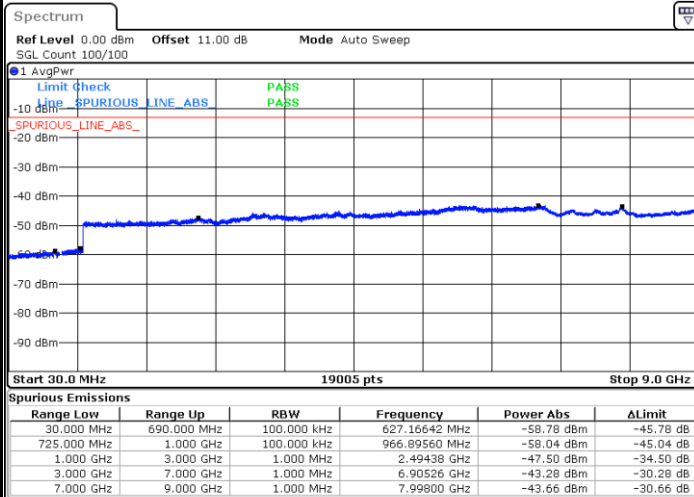
Date: 17.AUG.2020 19:46:14

Middle Channel / 64QAM



Date: 17.AUG.2020 19:47:21

Highest Channel / 64QAM

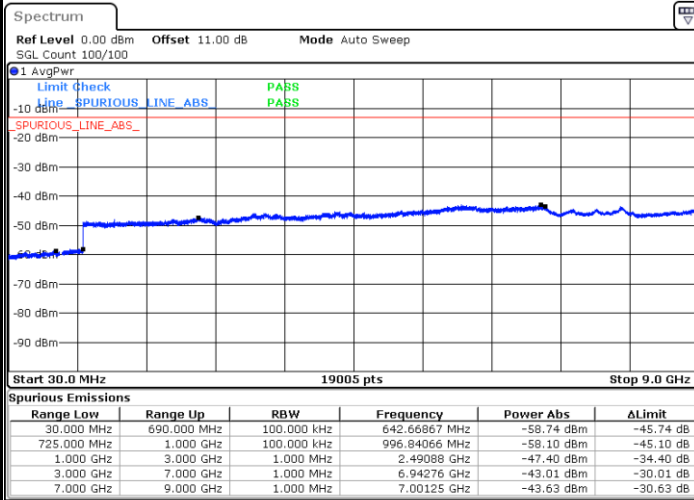


Date: 17.AUG.2020 19:48:29



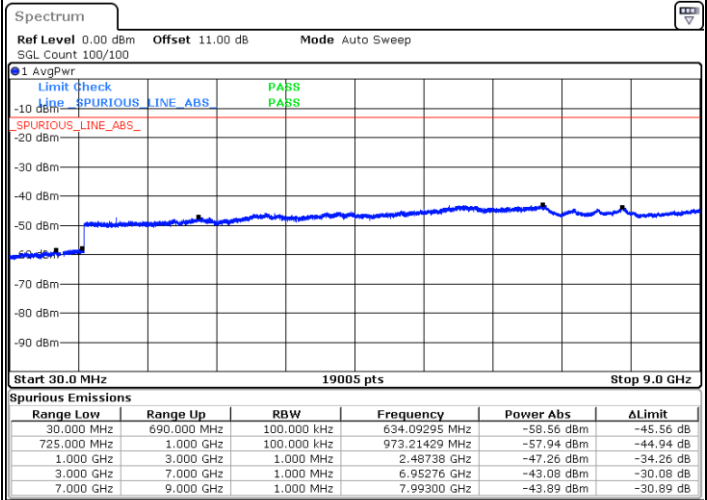
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



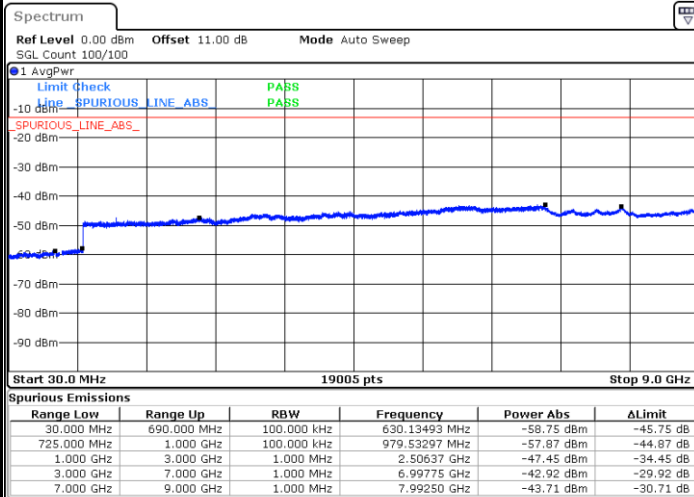
Date: 17.AUG.2020 19:50:48

Middle Channel / 64QAM



Date: 17.AUG.2020 19:51:55

Highest Channel / 64QAM

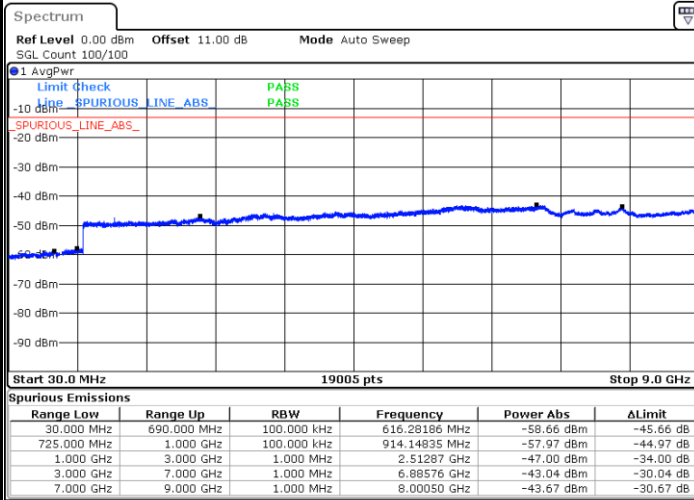


Date: 17.AUG.2020 19:54:13



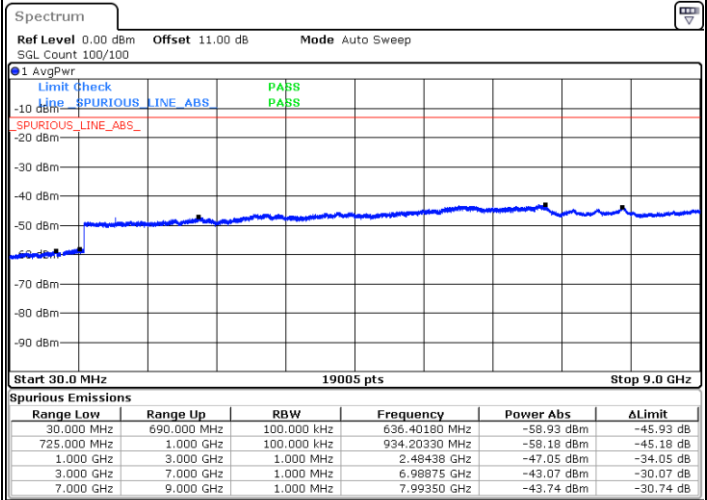
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



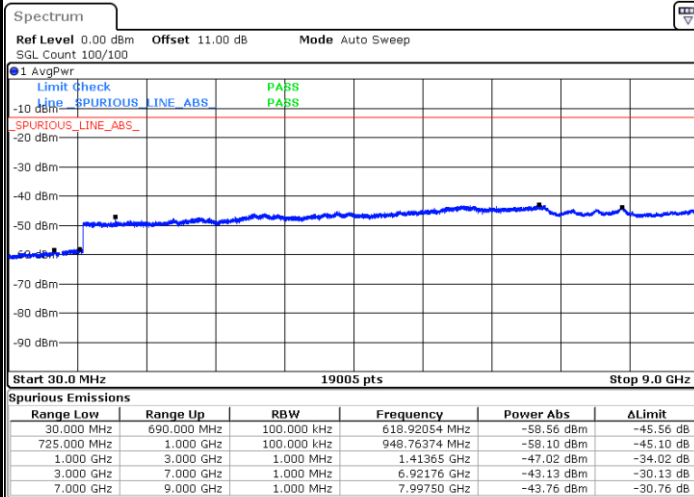
Date: 17.AUG.2020 20:19:25

Middle Channel / 64QAM



Date: 17.AUG.2020 20:20:32

Highest Channel / 64QAM

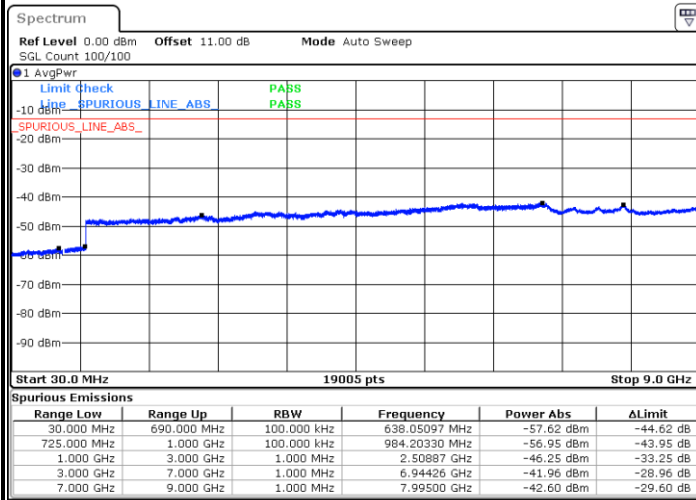


Date: 17.AUG.2020 20:22:50



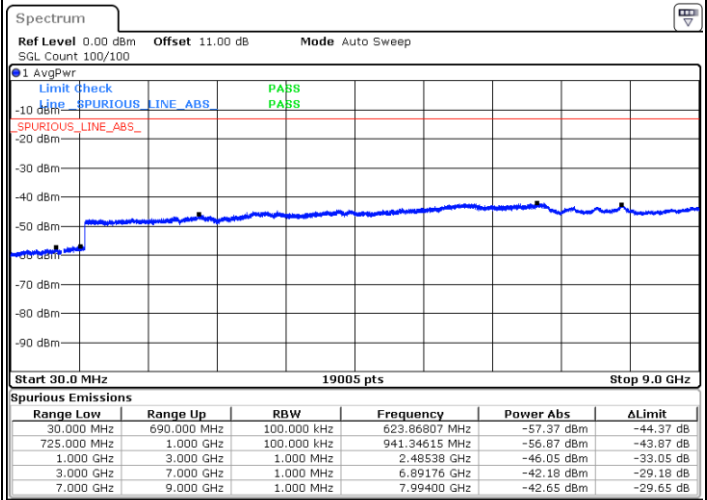
LTE Band 12 / 1.4MHz

Lowest Channel / 256QAM



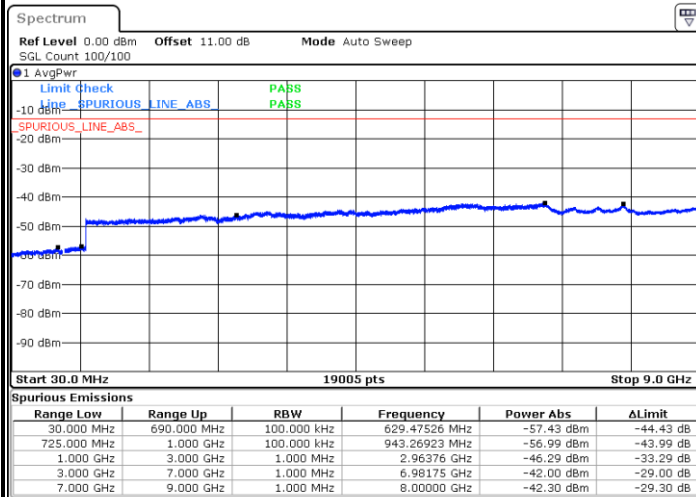
Date: 19.AUG.2020 09:57:24

Middle Channel / 256QAM



Date: 19.AUG.2020 09:55:27

Highest Channel / 256QAM

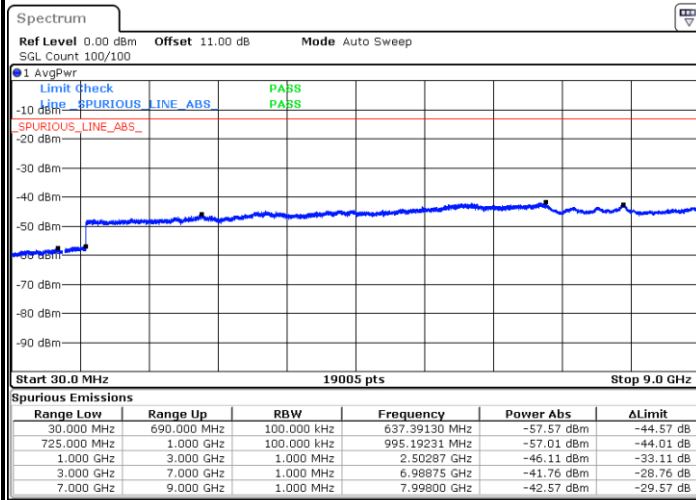


Date: 19.AUG.2020 10:00:06



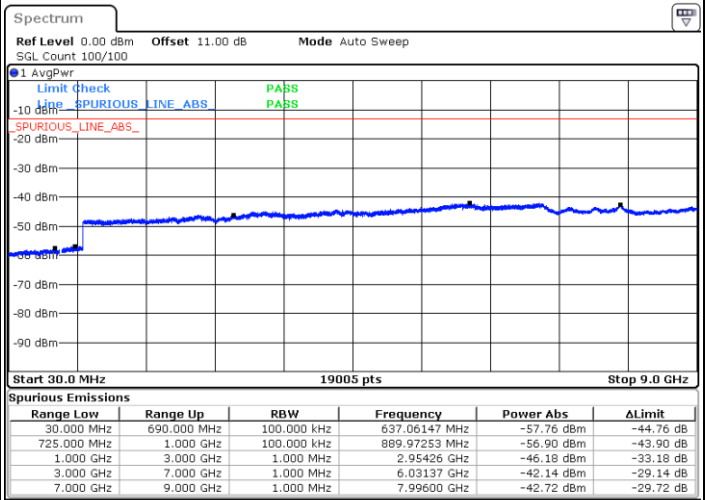
LTE Band 12 / 3MHz

Lowest Channel / 256QAM



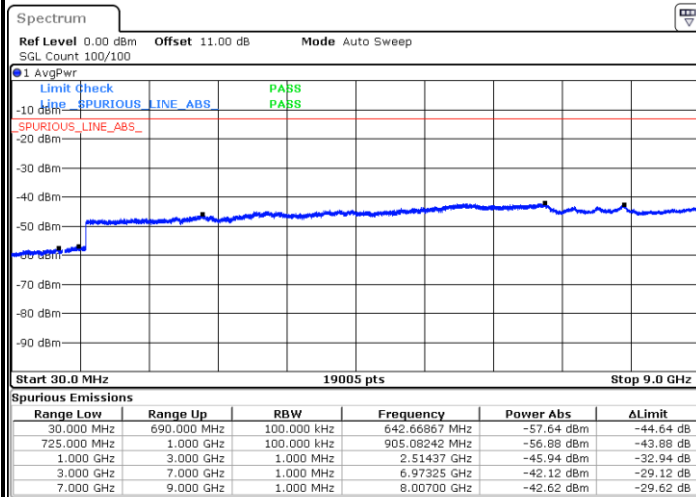
Date: 19.AUG.2020 10:42:45

Middle Channel / 256QAM



Date: 19.AUG.2020 10:38:56

Highest Channel / 256QAM

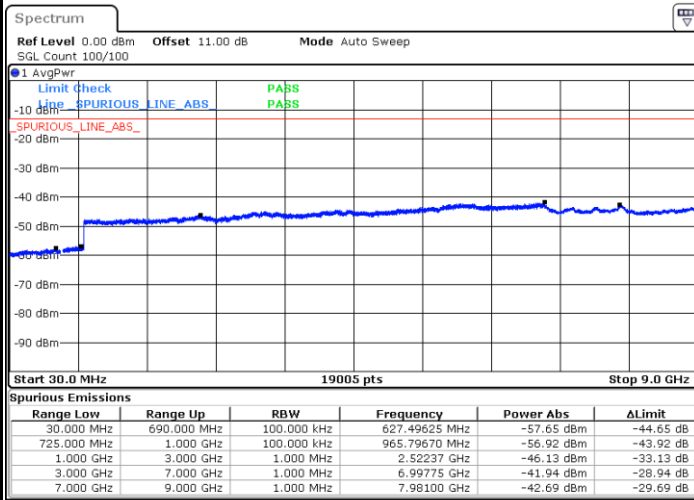


Date: 19.AUG.2020 10:45:39



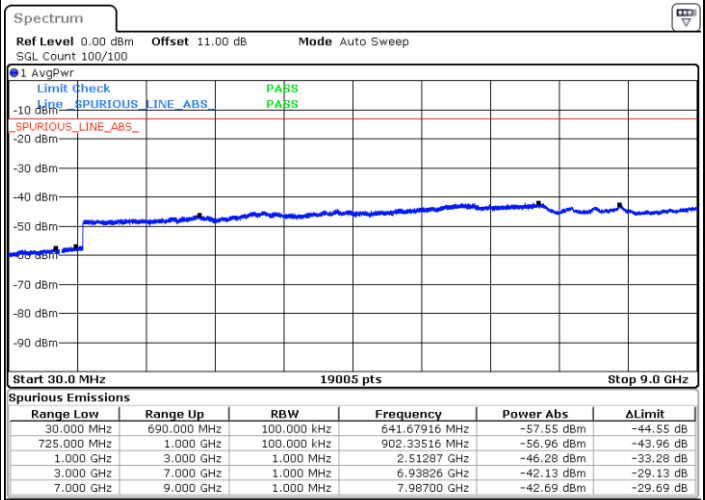
LTE Band 12 / 5MHz

Lowest Channel / 256QAM



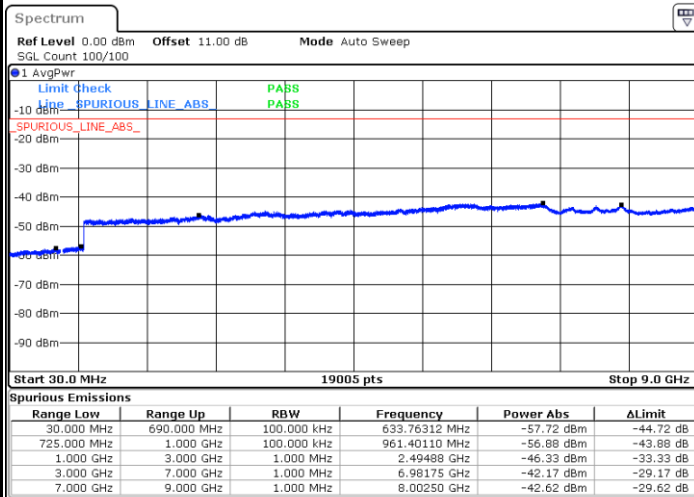
Date: 19.AUG.2020 10:49:44

Middle Channel / 256QAM



Date: 19.AUG.2020 10:47:28

Highest Channel / 256QAM

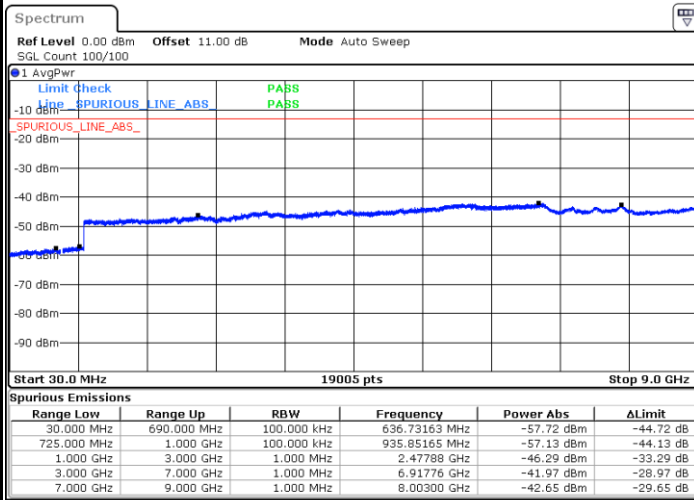


Date: 19.AUG.2020 10:51:34



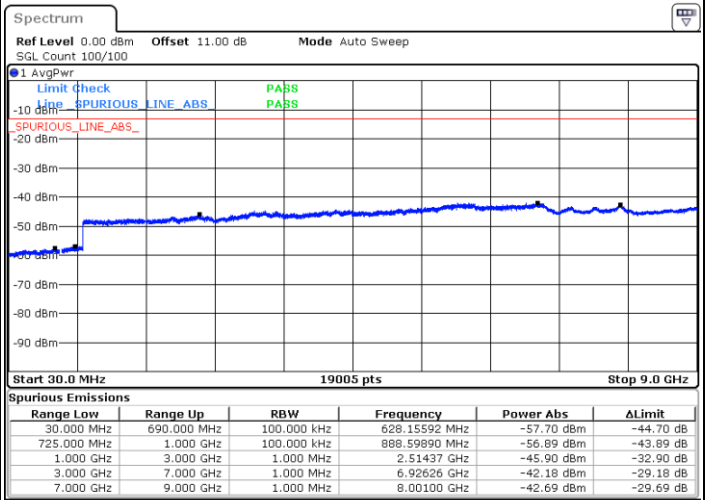
LTE Band 12 / 10MHz

Lowest Channel / 256QAM



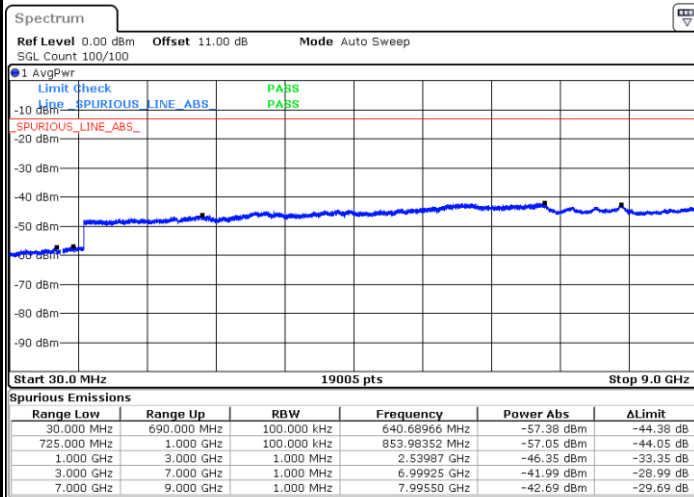
Date: 19.AUG.2020 10:56:48

Middle Channel / 256QAM



Date: 19.AUG.2020 10:53:40

Highest Channel / 256QAM



Date: 19.AUG.2020 10:58:53

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	0.0129	PASS
40	Normal Voltage	0.0151	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0038	
0	Normal Voltage	0.0230	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0045	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

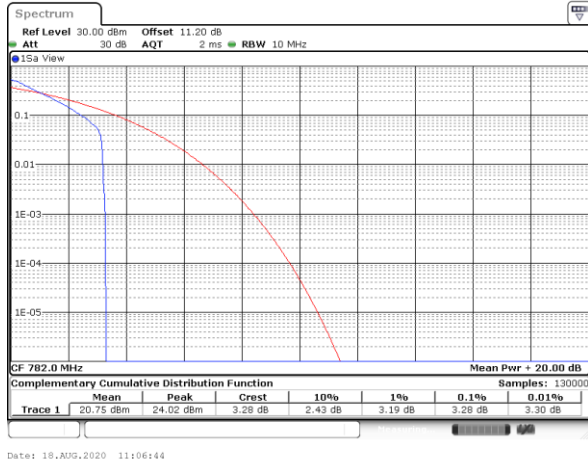
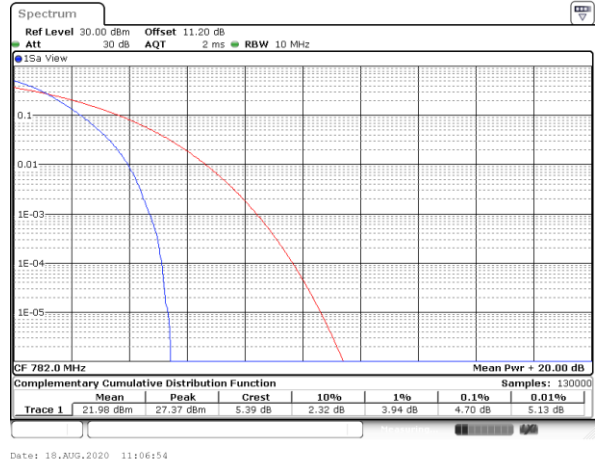
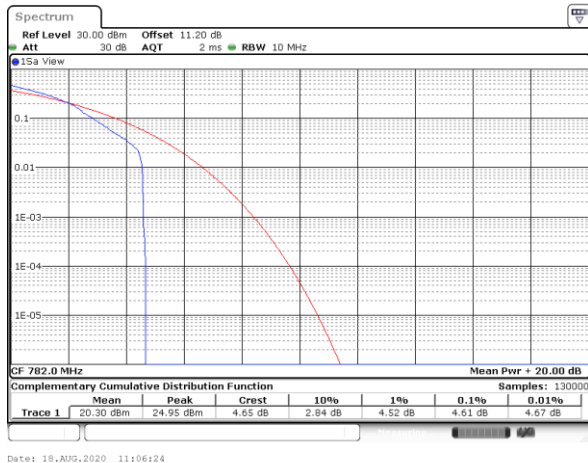
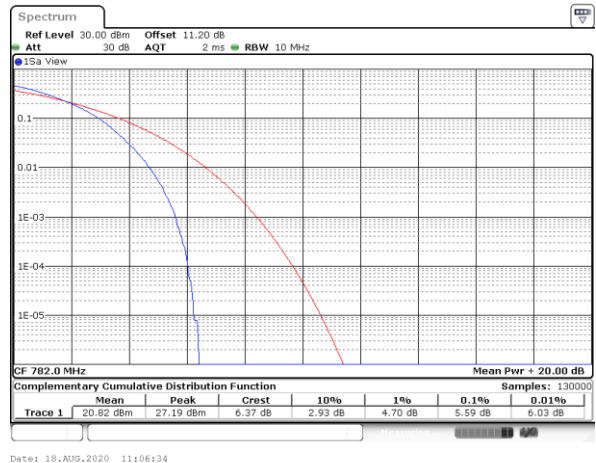
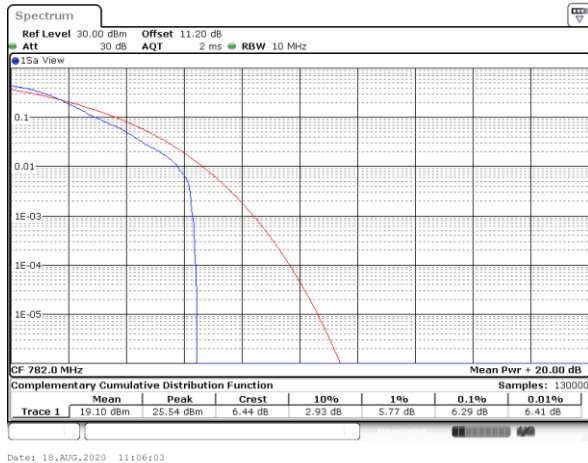
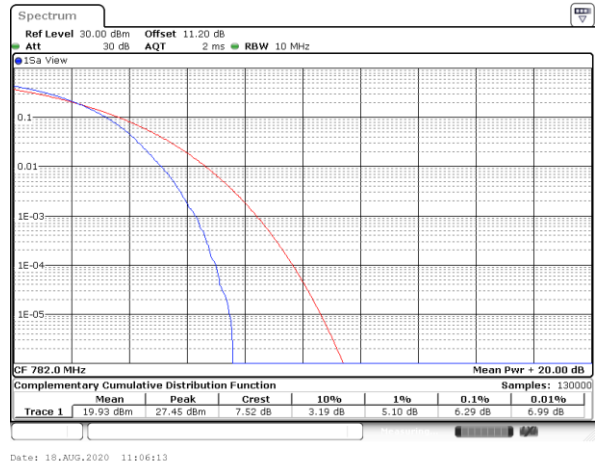
Note:

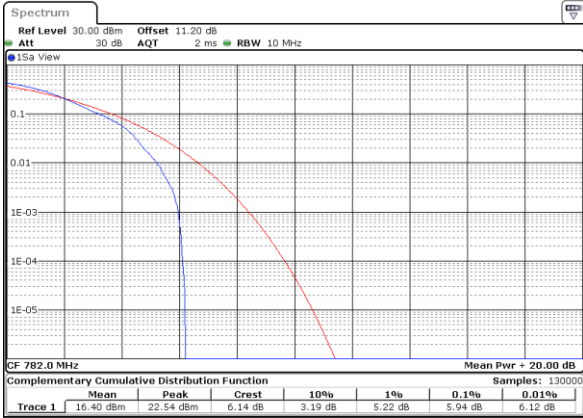
1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 13

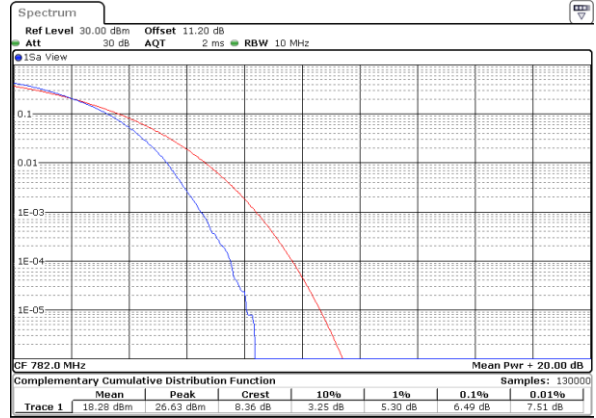
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.28	4.70	4.61	5.59	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM		256QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.29	6.29	5.94	6.49	
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


LTE Band 13 / 10MHz / 256QAM
Middle Channel / 1RB


Date: 19.AUG.2020 11:11:27

Middle Channel / Full RB


Date: 19.AUG.2020 11:09:57

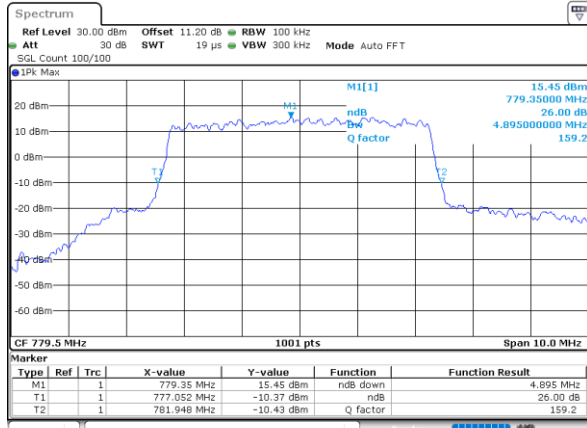
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.90	4.83	-	-	-	-	-	-
Middle CH	-	-	-	-	4.88	4.85	9.89	9.77	-	-	-	-
Highest CH	-	-	-	-	4.79	4.88	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	-	-	-	-	4.83	4.89	-	-	-	-	-	-
Middle CH	-	-	-	-	4.91	4.81	9.69	9.91	-	-	-	-
Highest CH	-	-	-	-	4.91	4.93	-	-	-	-	-	-

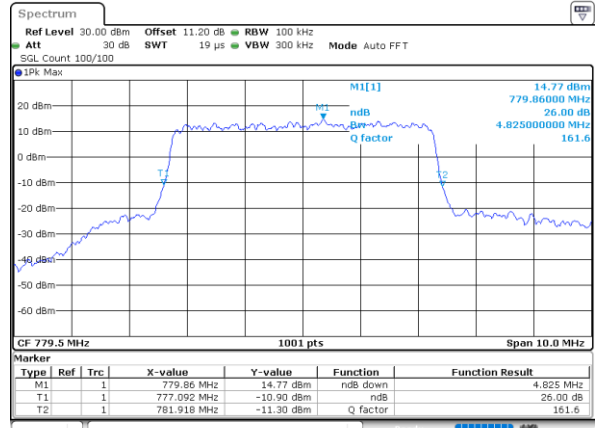


LTE Band 13

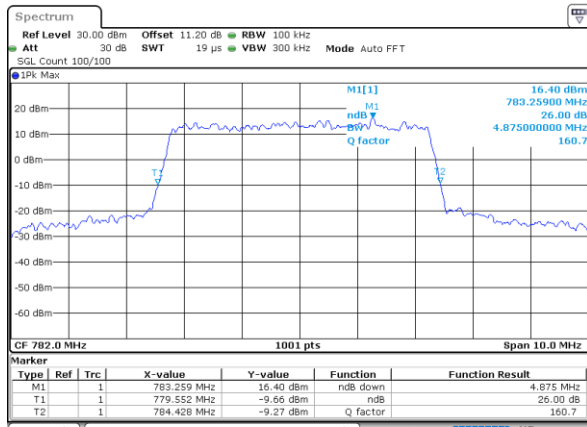
Lowest Channel / 5MHz / QPSK



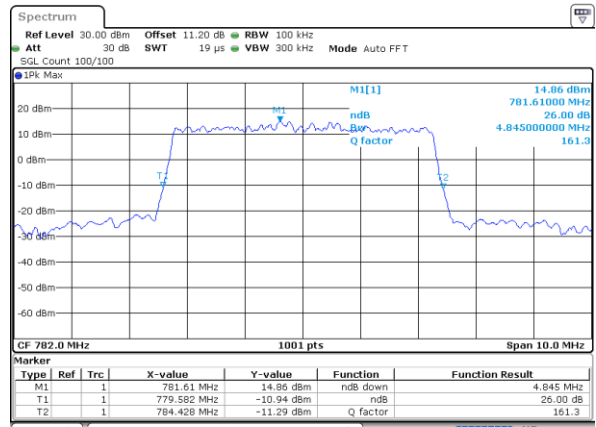
Lowest Channel / 5MHz / 16QAM



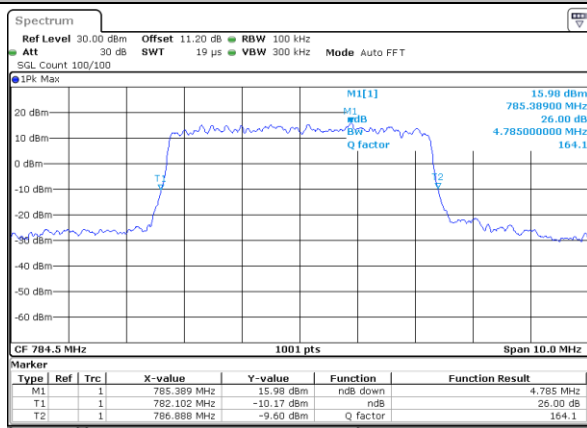
Middle Channel / 5MHz / QPSK



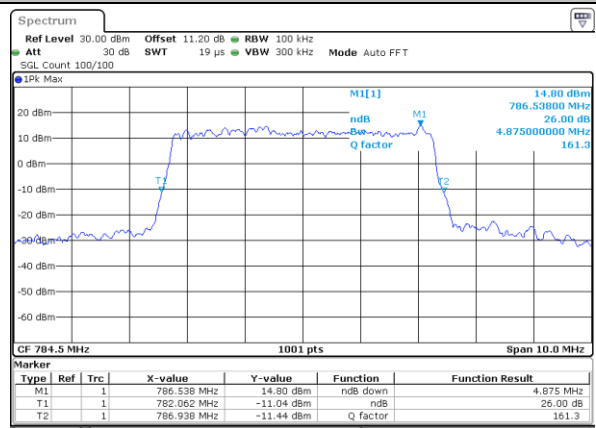
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



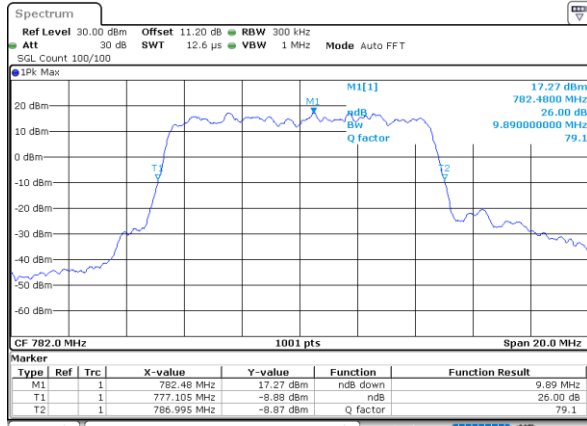
Highest Channel / 5MHz / 16QAM





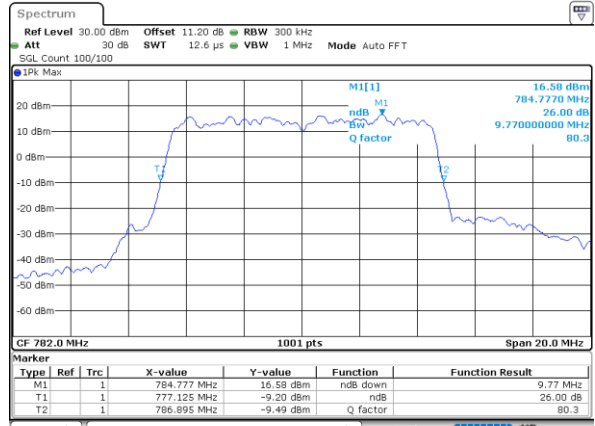
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 18.AUG.2020 10:47:20

Middle Channel / 10MHz / 16QAM

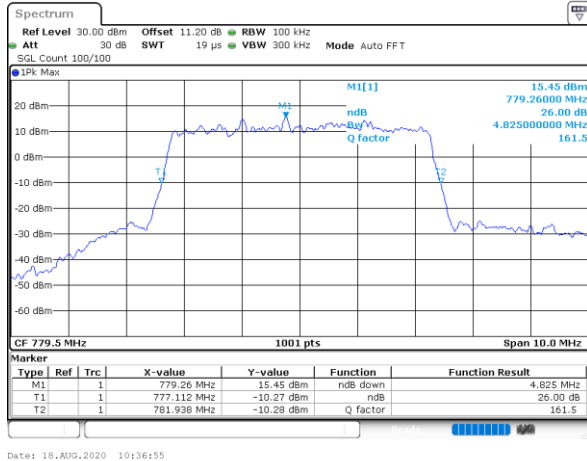


Date: 18.AUG.2020 10:47:09

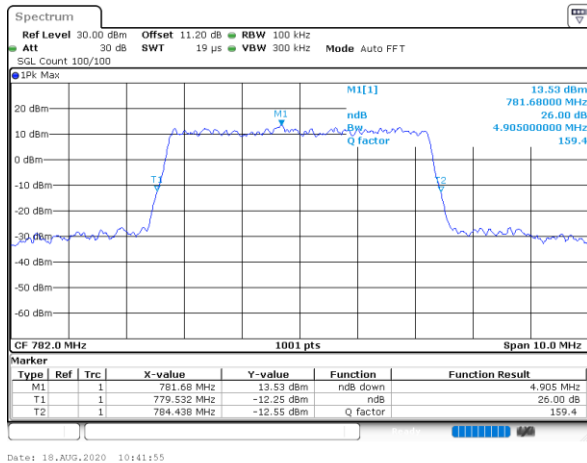


LTE Band 13

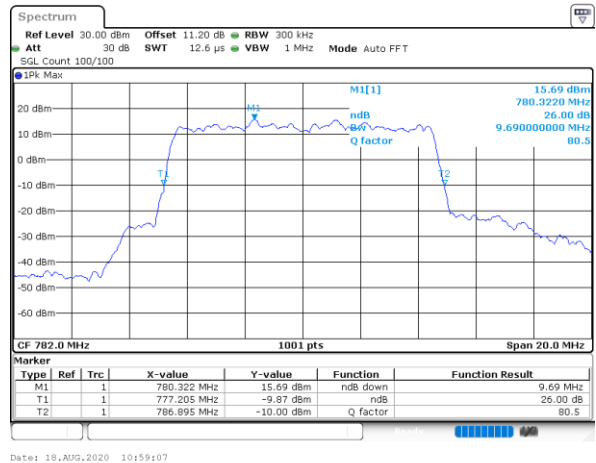
Lowest Channel / 5MHz / 64QAM



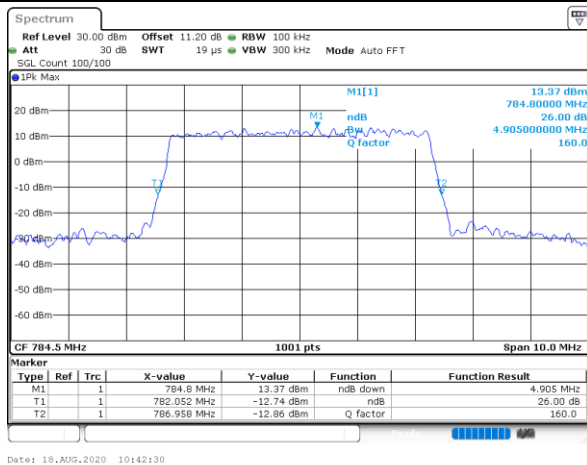
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



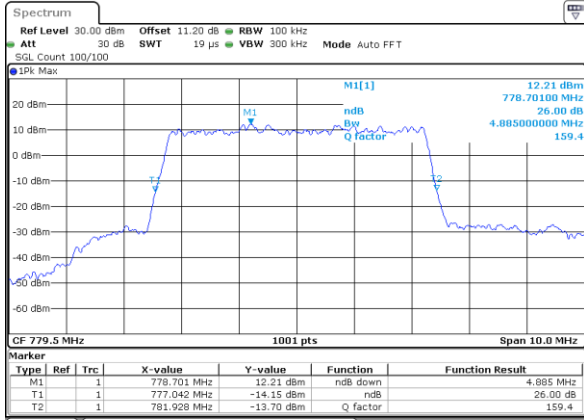
Highest Channel / 5MHz / 64QAM



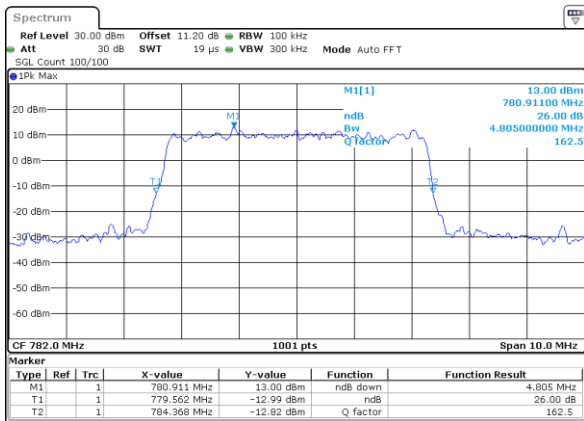


LTE Band 13

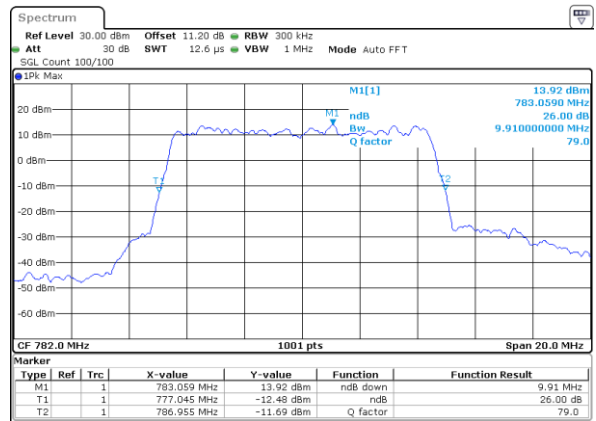
Lowest Channel / 5MHz / 256QAM



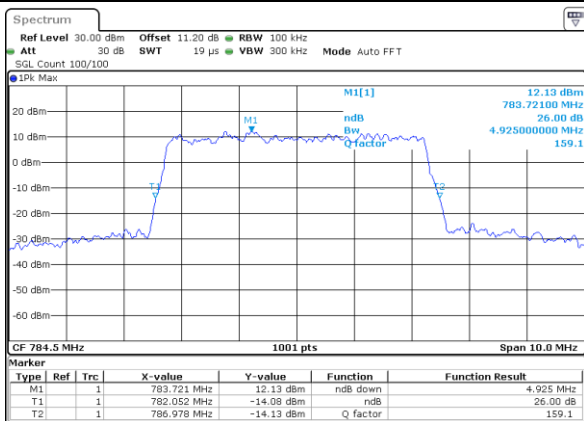
Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM



Highest Channel / 5MHz / 256QAM



**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	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.46	4.48	9.11	8.99	-	-	-	-
Highest CH	-	-	-	-	4.49	4.47	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	-	-	-	-	4.47	4.47	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.50	8.95	8.95	-	-	-	-
Highest CH	-	-	-	-	4.51	4.48	-	-	-	-	-	-