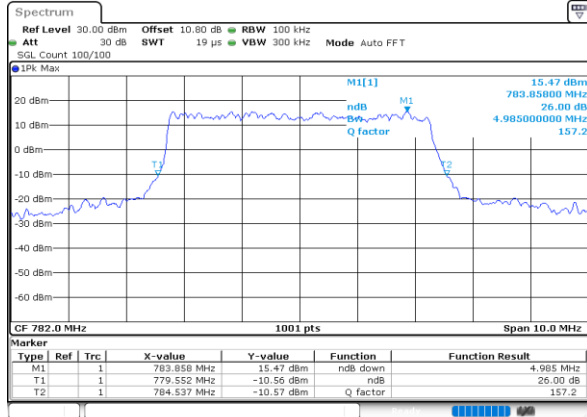


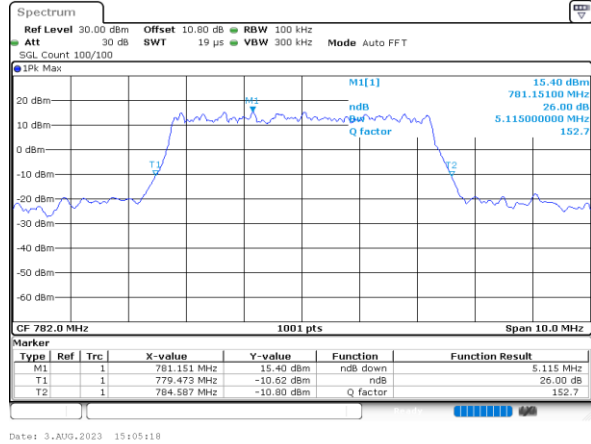


4G-LTE Band 13

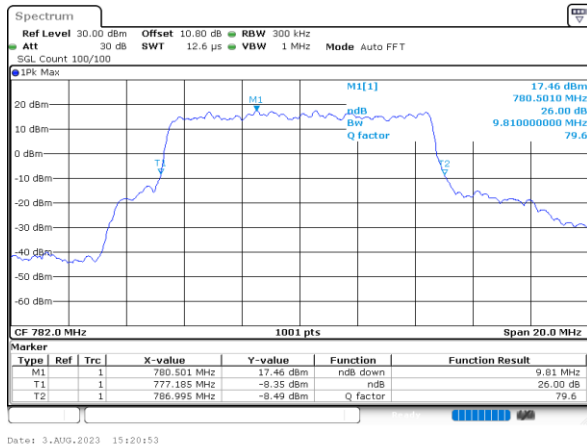
Middle Channel / 5MHz / QPSK



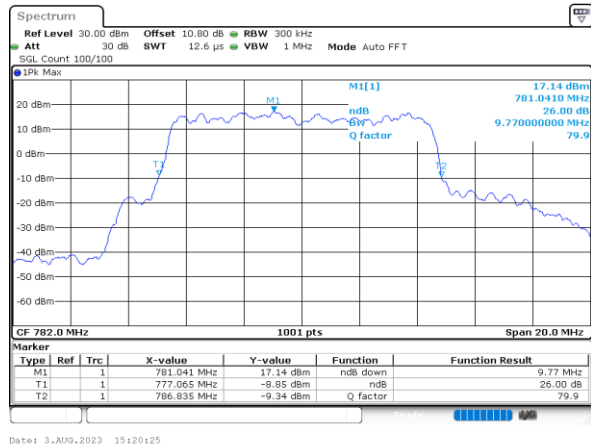
Middle Channel / 5MHz / 16QAM



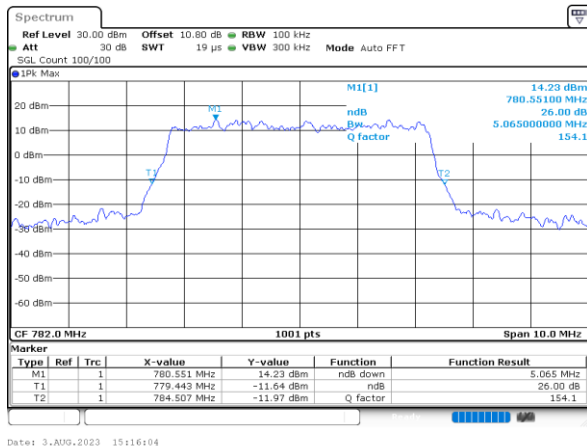
Middle Channel / 10MHz / QPSK



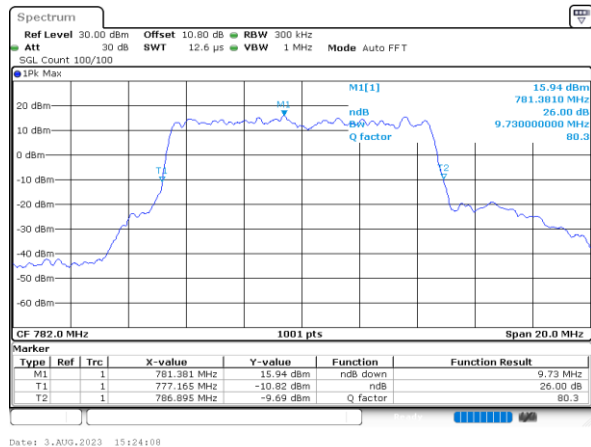
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



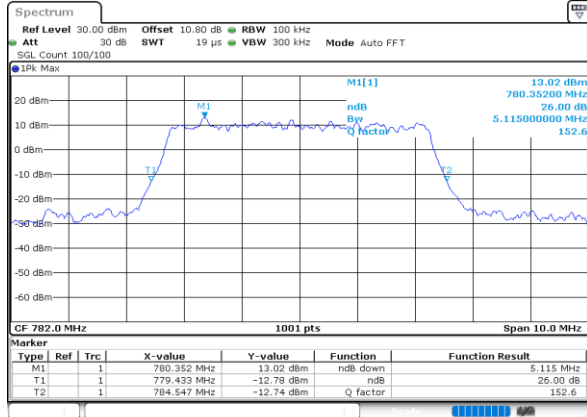
Middle Channel / 10MHz / 64QAM



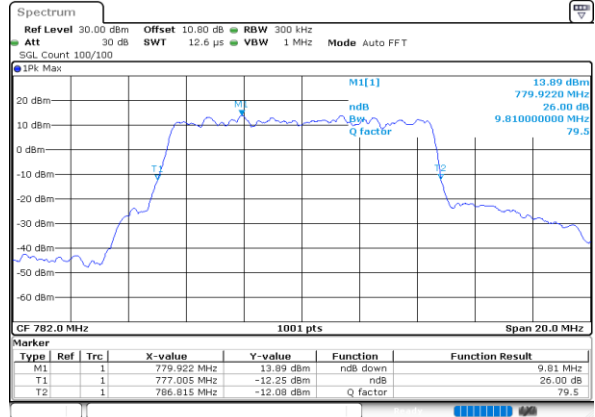


4G-LTE Band 13

Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM



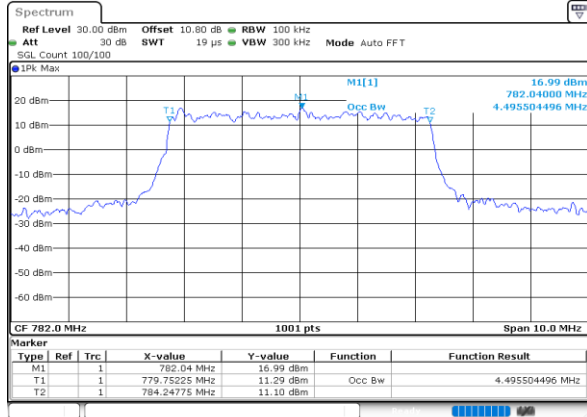
**Occupied Bandwidth**

Mode	4G-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
Middle CH	-	-	-	-	4.50	4.50	9.01	9.01	-	-	-	-
Mode	4G-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
Middle CH	-	-	-	-	4.49	4.50	9.03	9.07	-	-	-	-

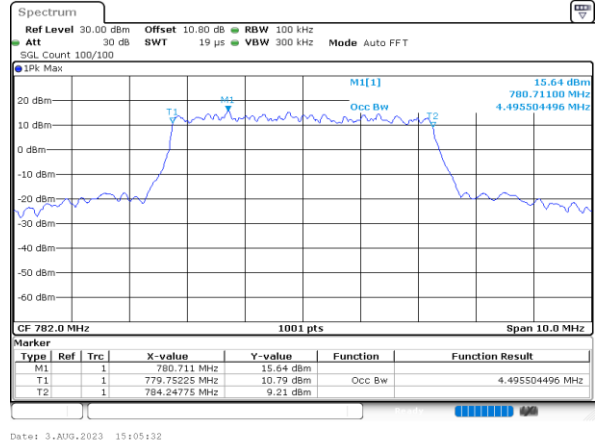


4G-LTE Band 13

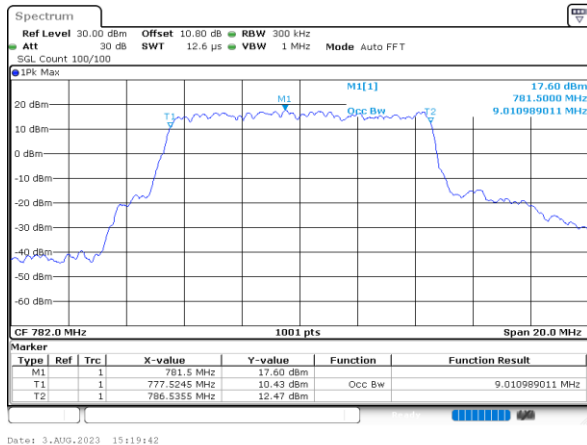
Middle Channel / 5MHz / QPSK



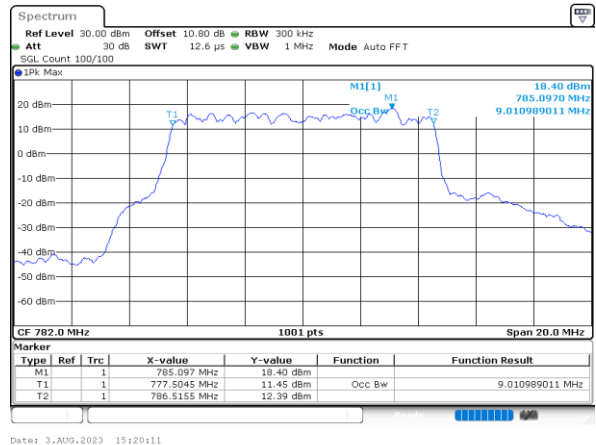
Middle Channel / 5MHz / 16QAM



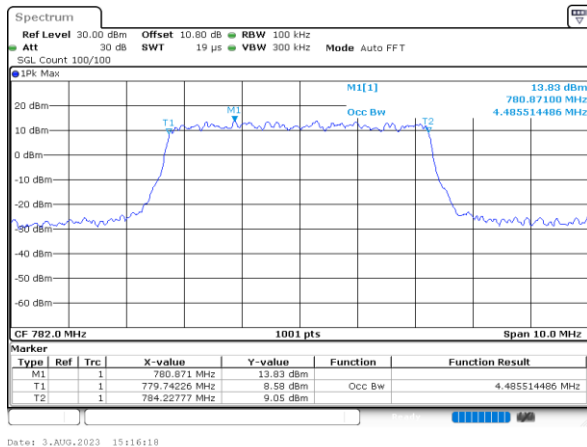
Middle Channel / 10MHz / QPSK



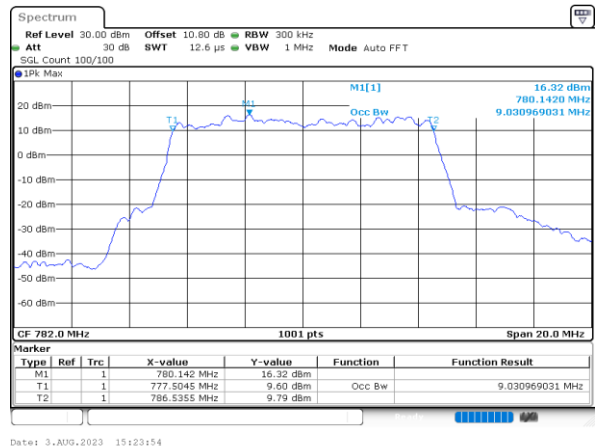
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



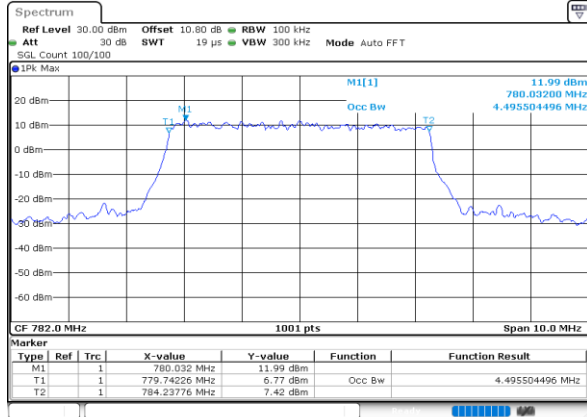
Middle Channel / 10MHz / 64QAM



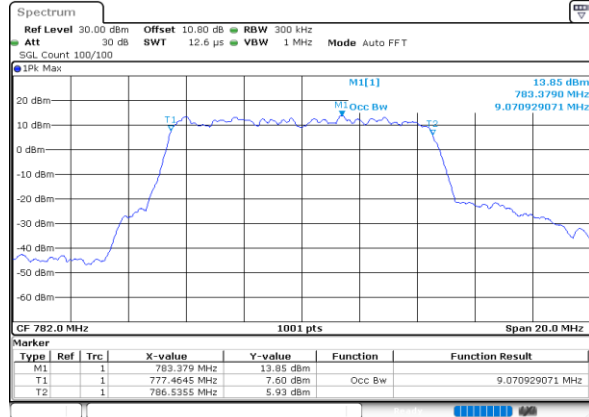


4G-LTE Band 13

Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM

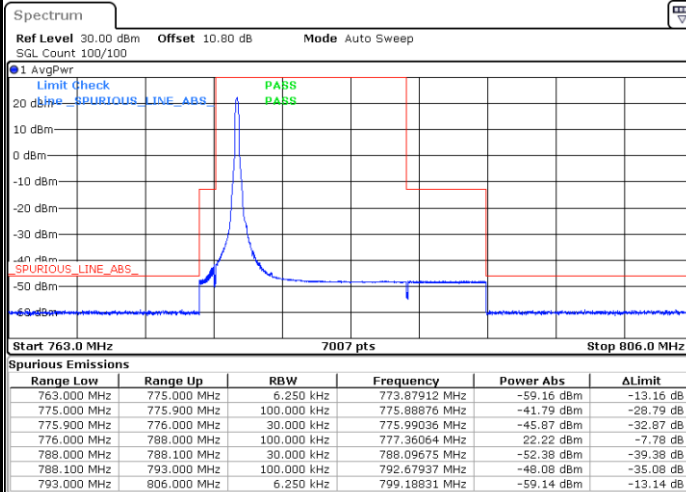




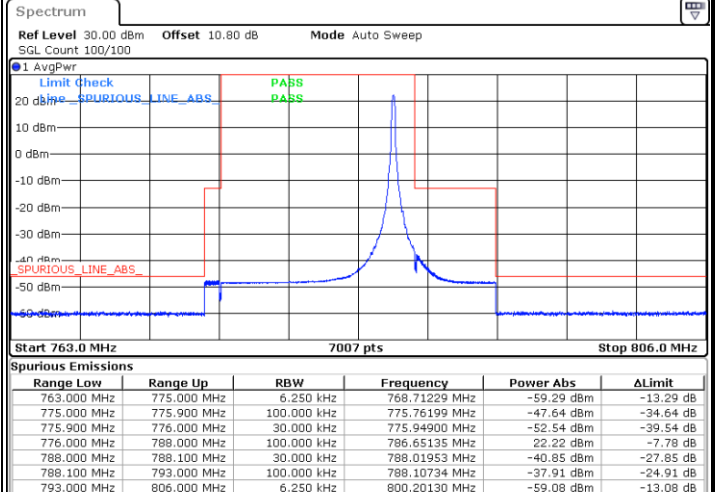
Conducted Band Edge

4G-LTE Band 13 / 5MHz / QPSK

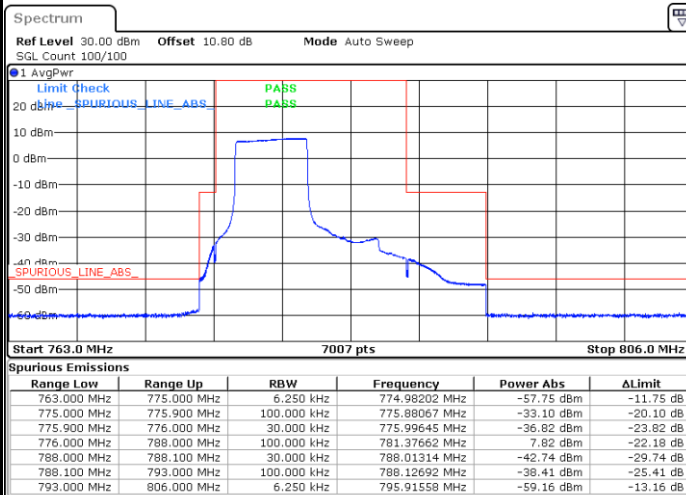
Lowest Band Edge / 1 RB



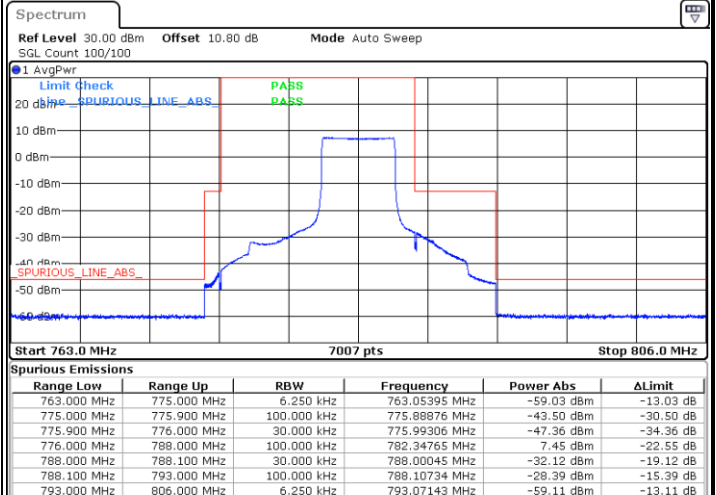
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



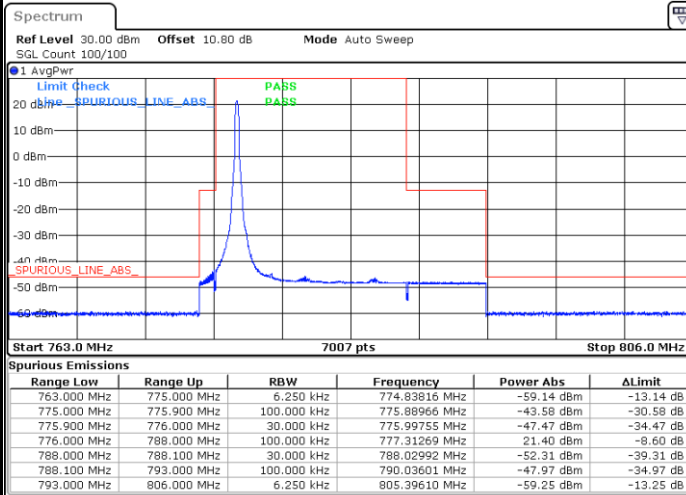
Highest Band Edge / Full RB





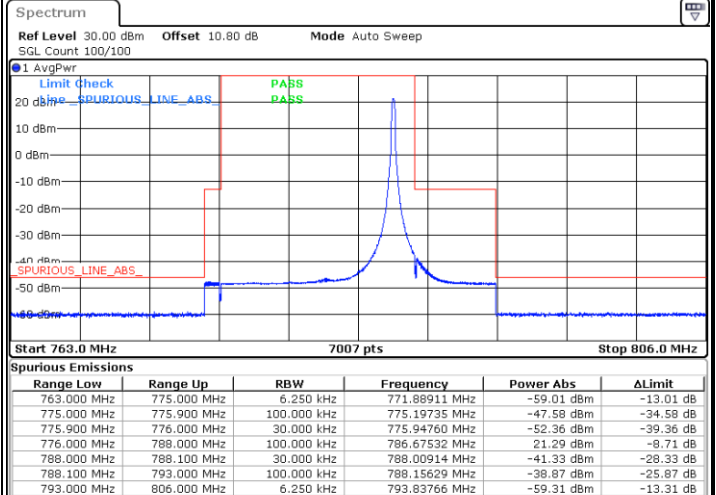
4G-LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



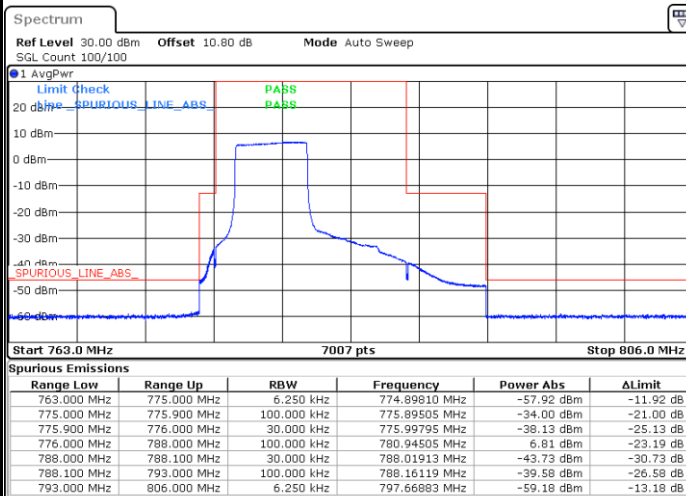
Date: 15.AUG.2023 11:12:20

Highest Band Edge / 1 RB



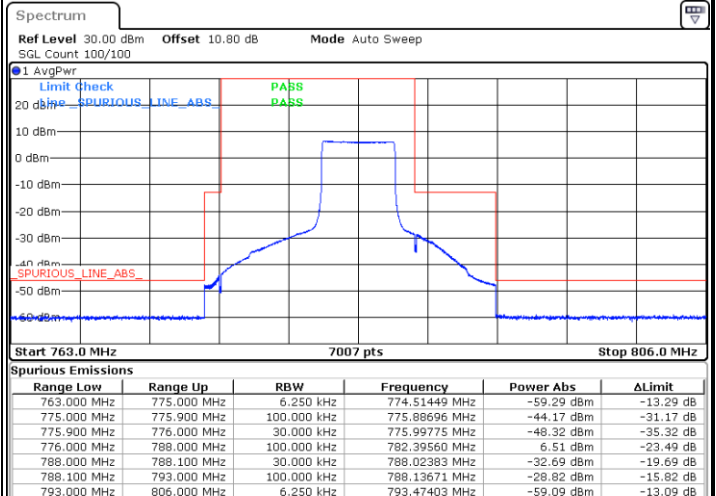
Date: 15.AUG.2023 11:18:38

Lowest Band Edge / Full RB



Date: 15.AUG.2023 11:10:46

Highest Band Edge / Full RB

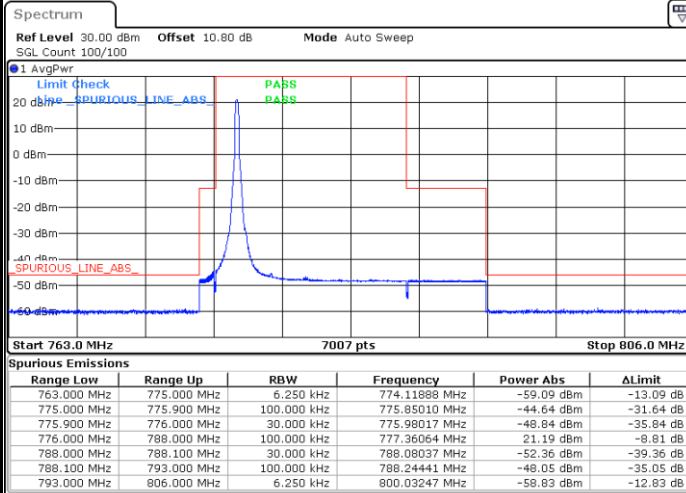


Date: 15.AUG.2023 11:17:04



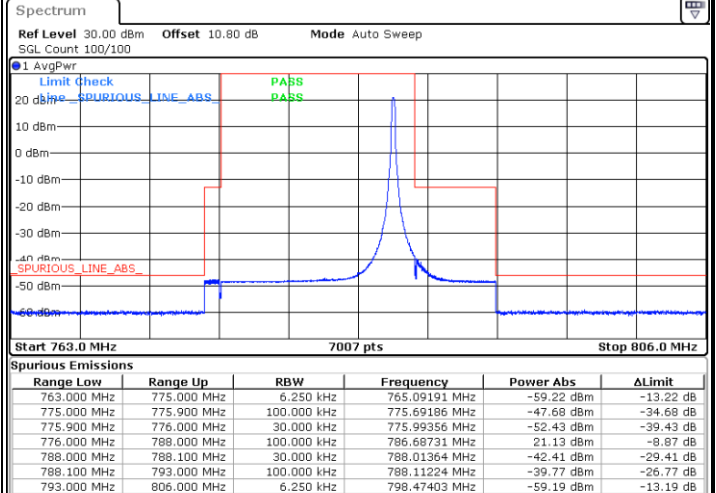
4G-LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



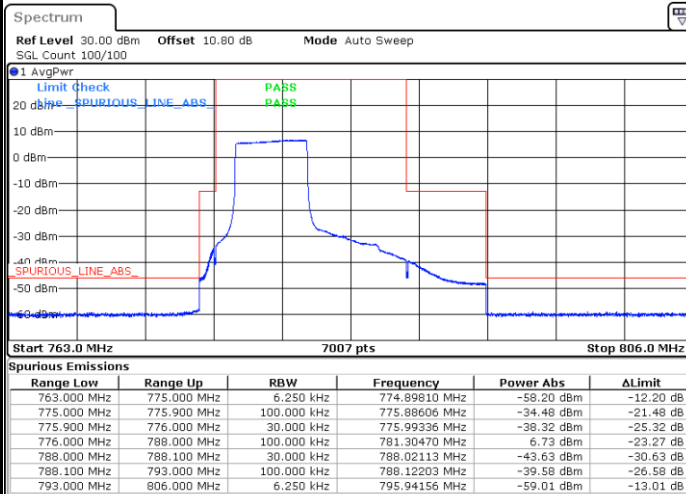
Date: 15.AUG.2023 11:23:20

Highest Band Edge / 1 RB



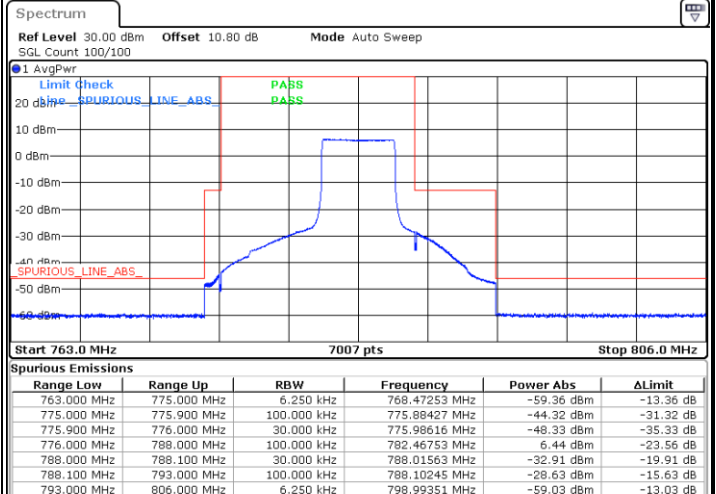
Date: 15.AUG.2023 11:26:29

Lowest Band Edge / Full RB



Date: 15.AUG.2023 11:21:46

Highest Band Edge / Full RB

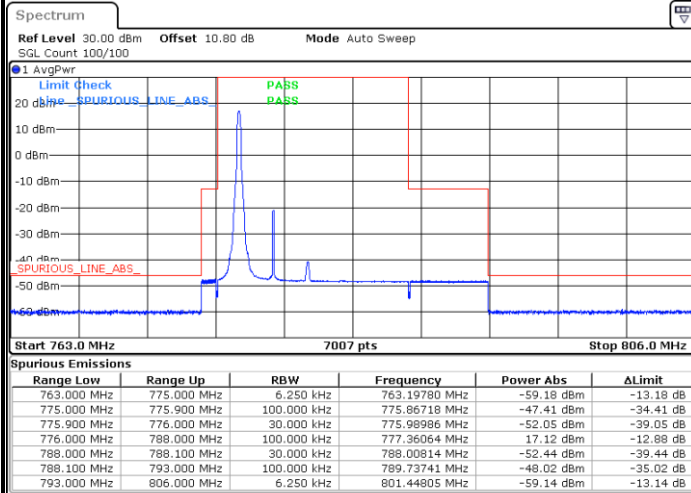


Date: 15.AUG.2023 11:24:55

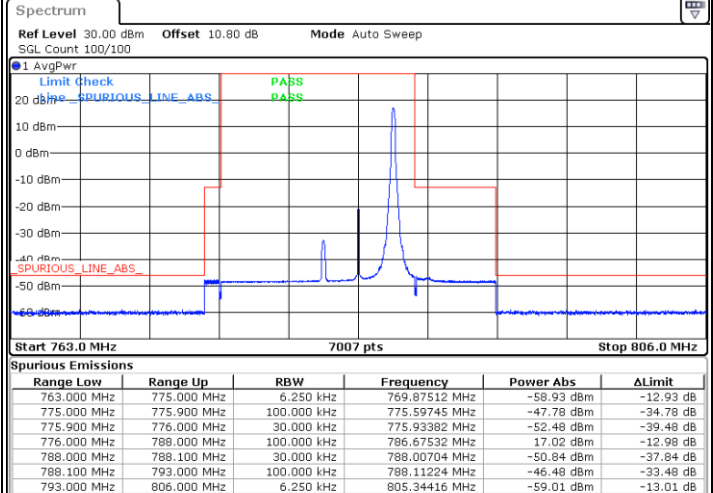


4G-LTE Band 13 / 5MHz / 256QAM

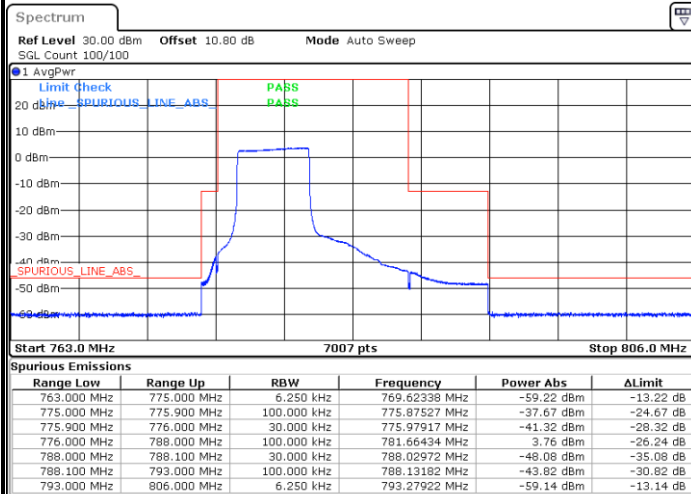
Lowest Band Edge / 1 RB



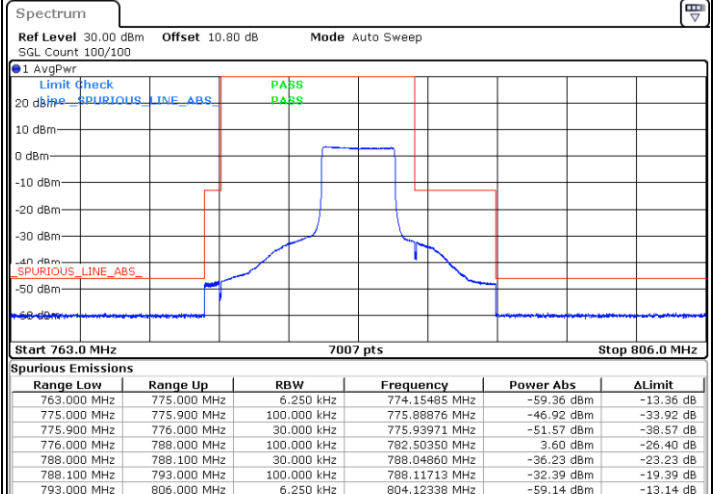
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



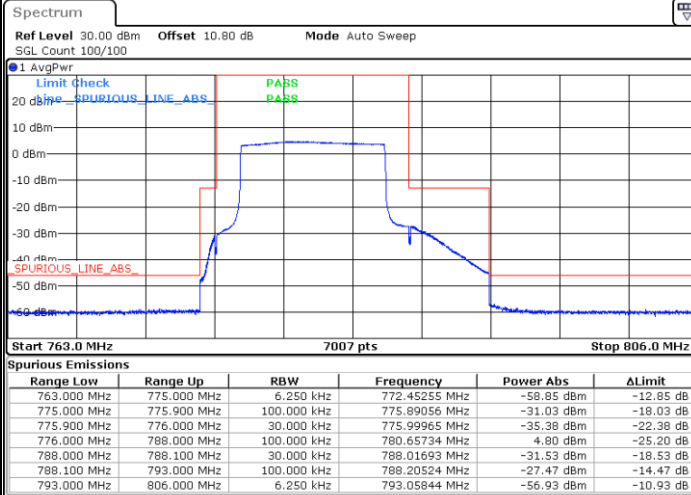
Highest Band Edge / Full RB





4G-LTE Band 13 / 10MHz / QPSK

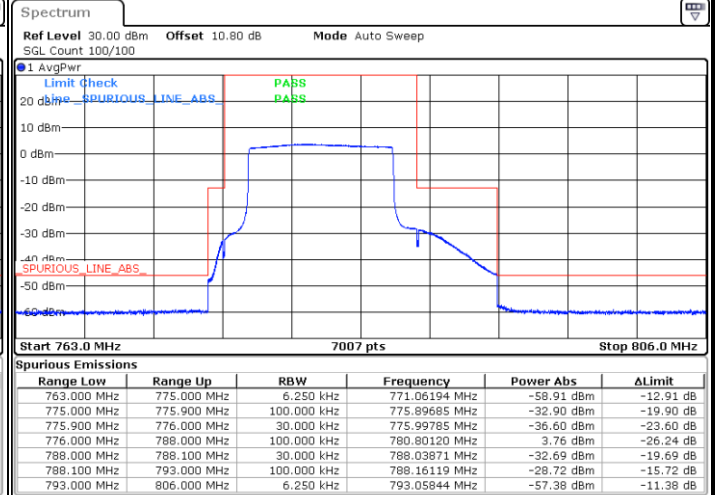
Band Edge / Full RB



Date: 15.AUG.2023 11:28:03

4G-LTE Band 13 / 10MHz / 16QAM

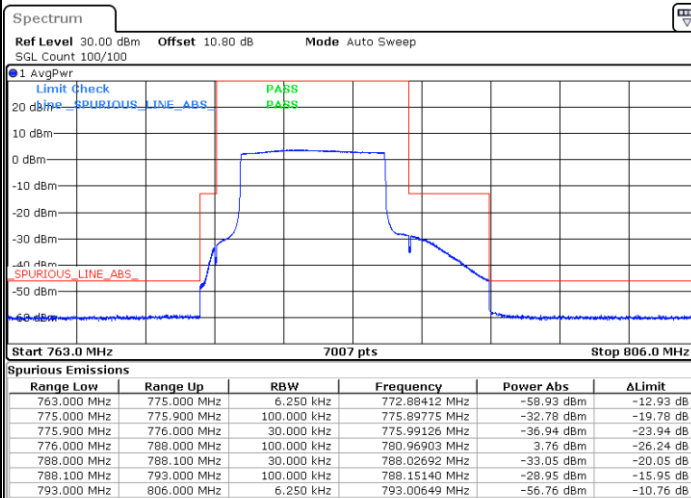
Band Edge / Full RB



Date: 15.AUG.2023 11:29:36

4G-LTE Band 13 / 10MHz / 64QAM

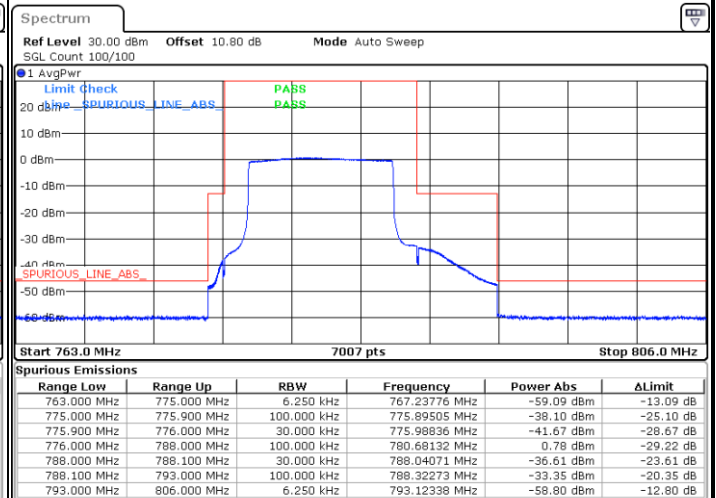
Band Edge / Full RB



Date: 15.AUG.2023 11:31:09

4G-LTE Band 13 / 10MHz / 256QAM

Band Edge / Full RB



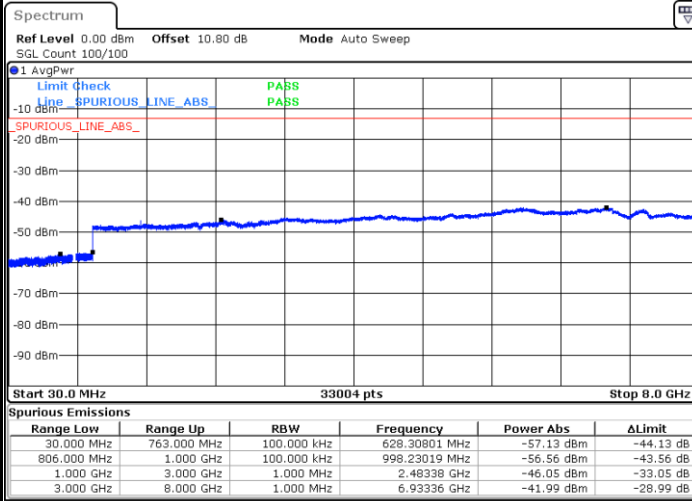
Date: 15.AUG.2023 12:25:58



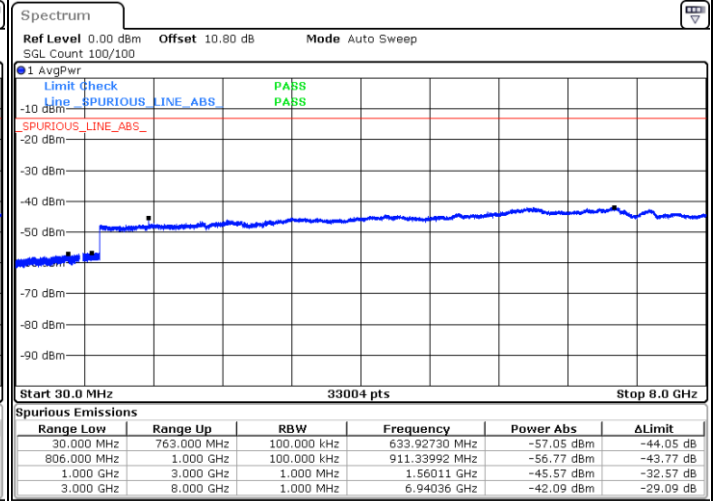
Conducted Spurious Emission

4G-LTE Band 13 / 5MHz

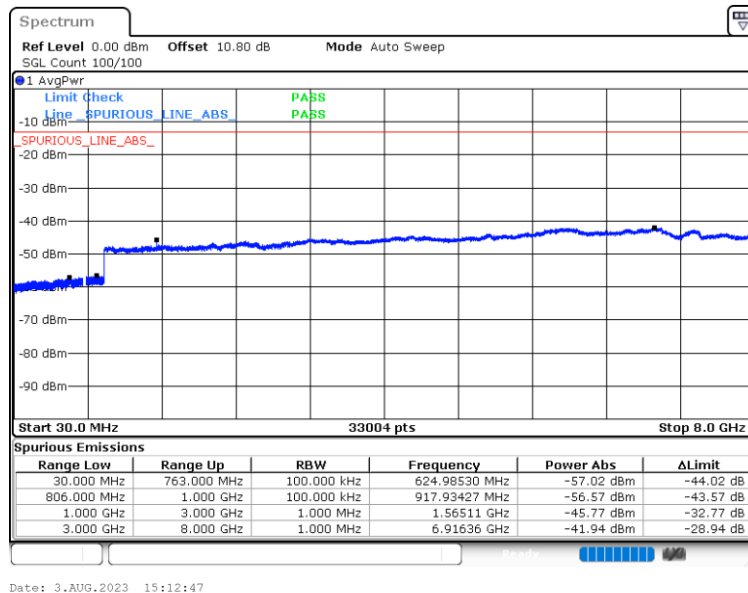
Lowest Channel / QPSK



Middle Channel / QPSK



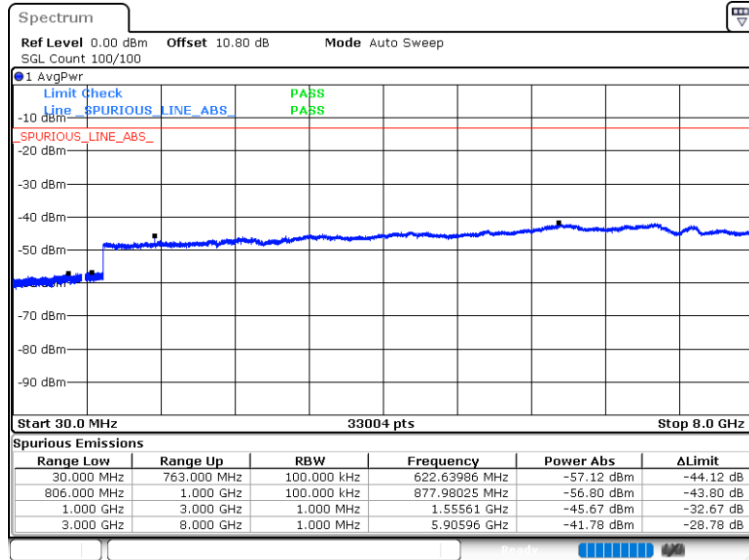
Highest Channel / QPSK





4G-LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 3.AUG.2023 15:36:20

Frequency Stability

Test Conditions		4G-LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0078	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0193	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0101	
0	Normal Voltage	0.0174	
-10	Normal Voltage	0.0046	
-20	Normal Voltage	0.0091	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0155	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0235	

Note:

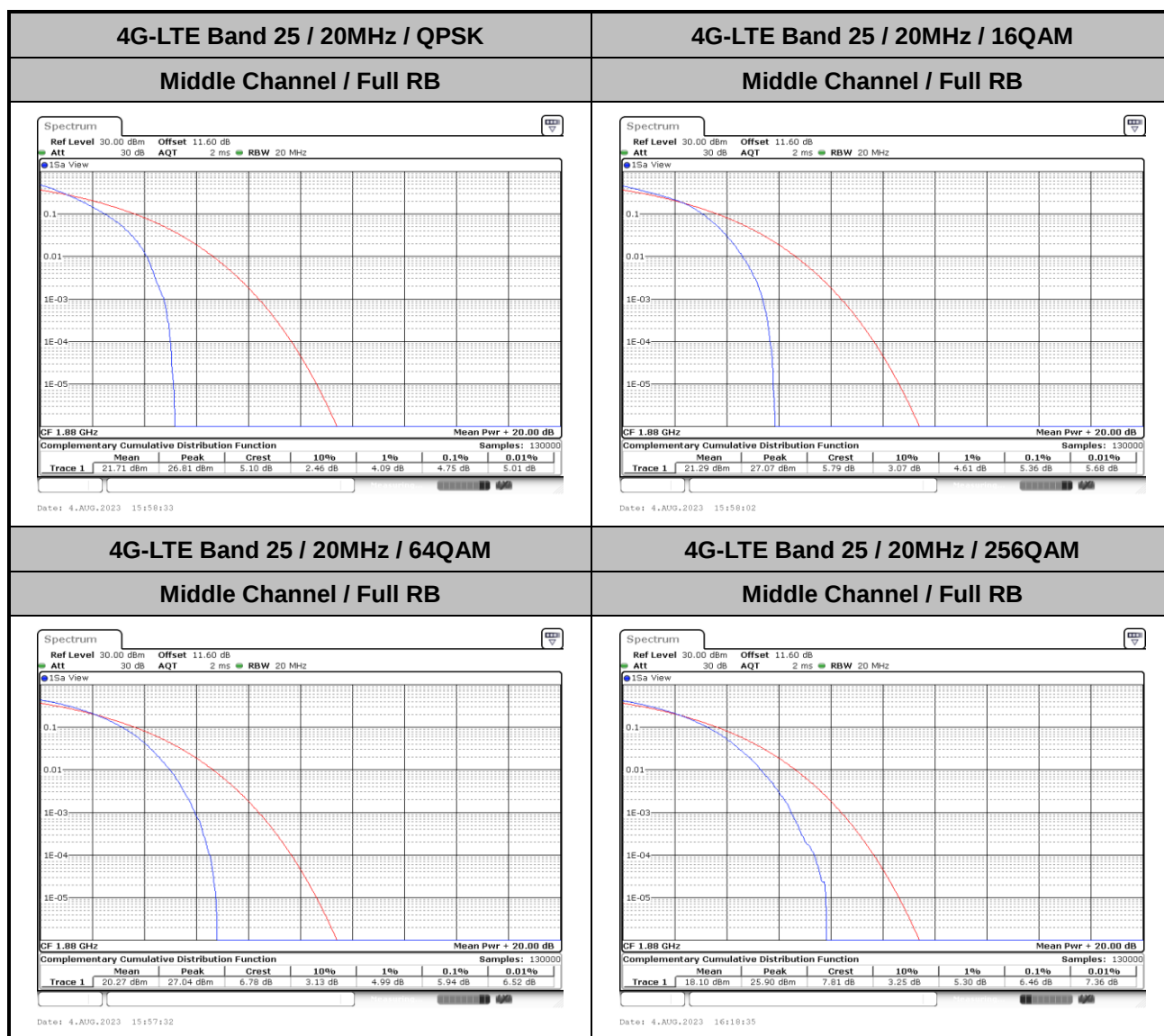
1. Normal Voltage =48 V. ; Minimum Voltage =42.5 V. ; Maximum Voltage =57 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



4G-LTE Band 25

Peak-to-Average Ratio

Mode	4G-LTE Band 25 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.75	5.36	5.94	6.46	PASS



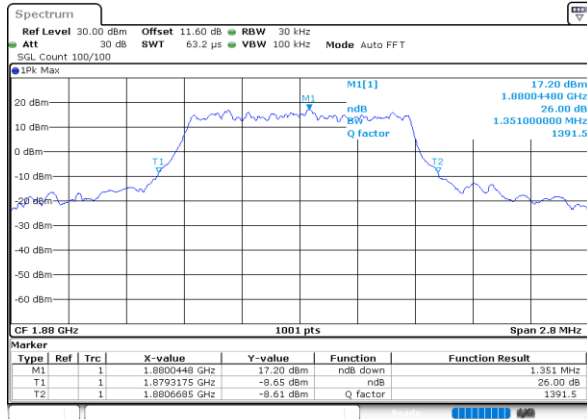
**26dB Bandwidth**

Mode	4G-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
Middle CH	1.35	1.33	3.05	3.21	5.07	5.03	10.17	9.79	14.27	14.51	19.02	19.10
Mode	4G-LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.35	1.33	3.08	3.02	5.06	4.99	9.77	10.01	14.60	14.42	19.22	19.46

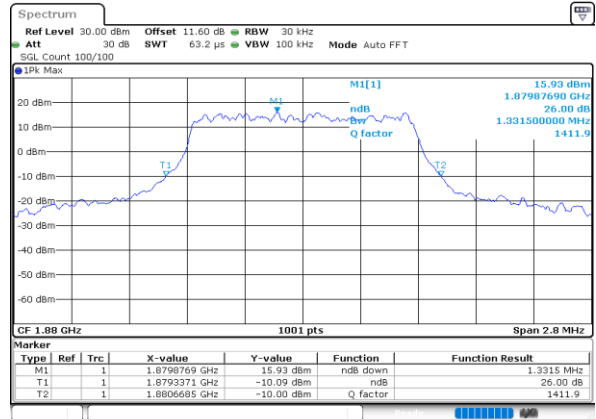


4G-LTE Band 25

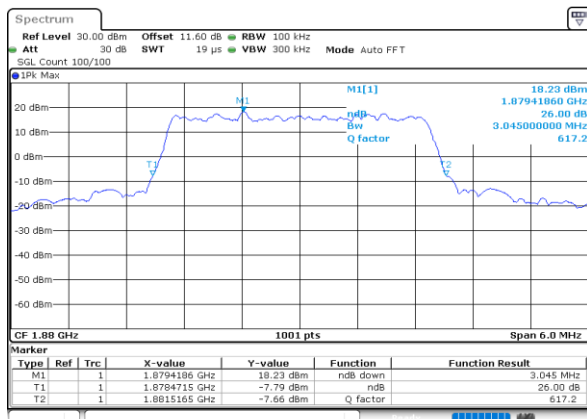
Middle Channel / 1.4MHz / QPSK



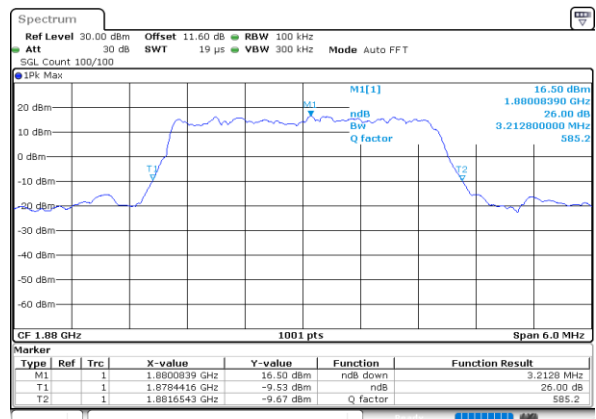
Middle Channel / 1.4MHz / 16QAM



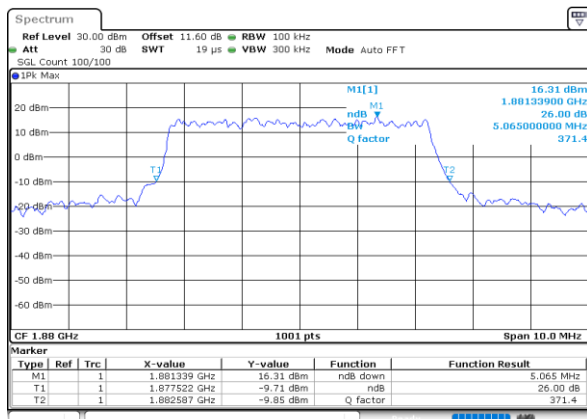
Middle Channel / 3MHz / QPSK



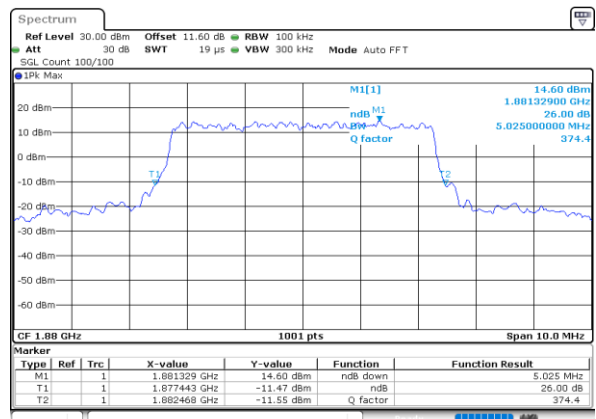
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



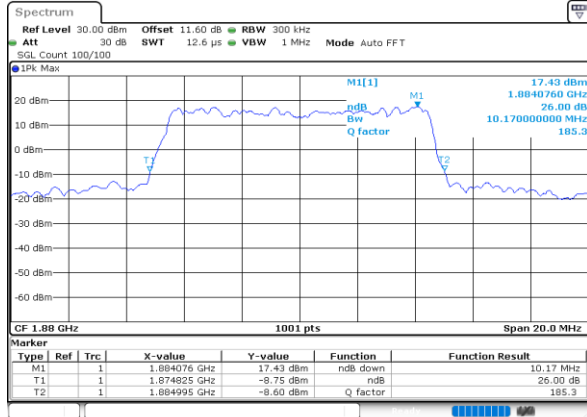
Middle Channel / 5MHz / 16QAM



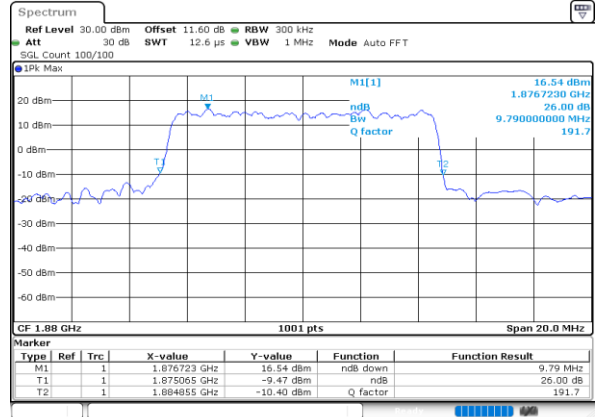


4G-LTE Band 25

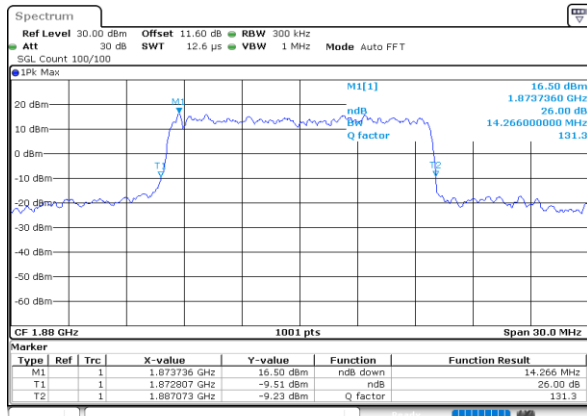
Middle Channel / 10MHz / QPSK



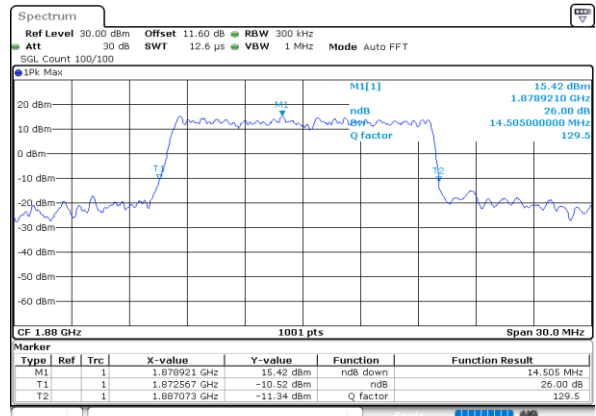
Middle Channel / 10MHz / 16QAM



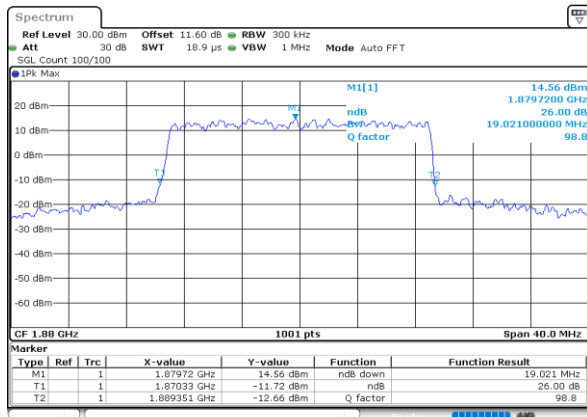
Middle Channel / 15MHz / QPSK



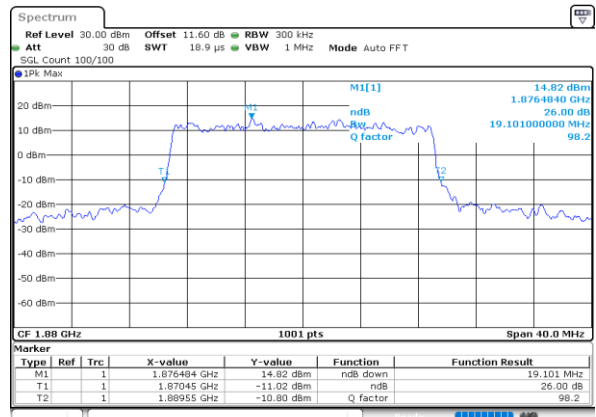
Middle Channel / 15MHz / 16QAM



Middle Channel / 20MHz / QPSK



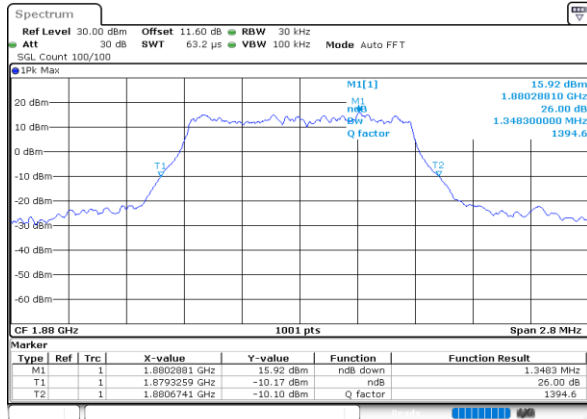
Middle Channel / 20MHz / 16QAM



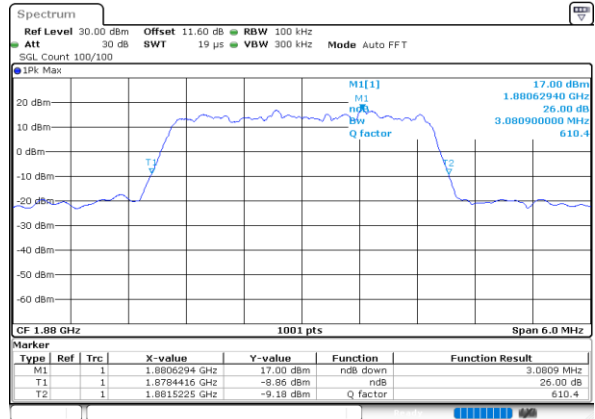


4G-LTE Band 25

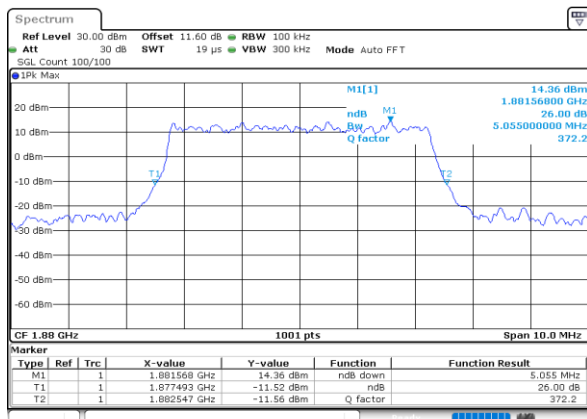
Middle Channel / 1.4MHz / 64QAM



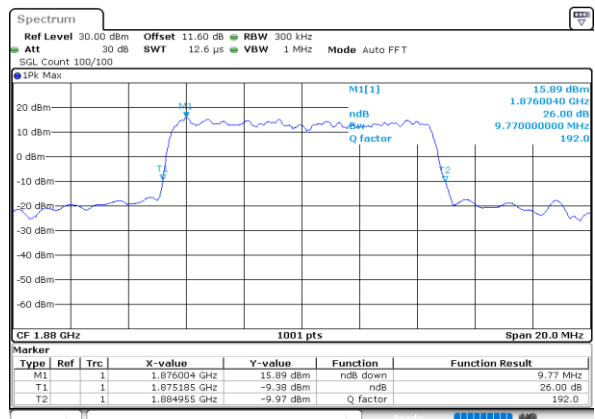
Middle Channel / 3MHz / 64QAM



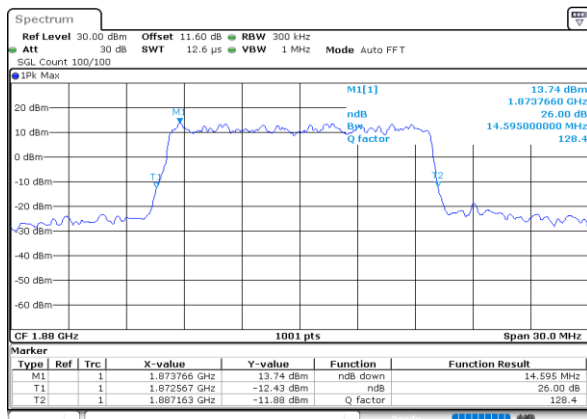
Middle Channel / 5MHz / 64QAM



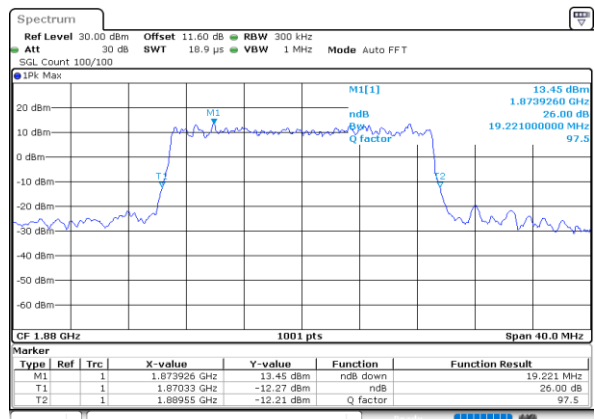
Middle Channel / 10MHz / 64QAM



Middle Channel / 15MHz / 64QAM



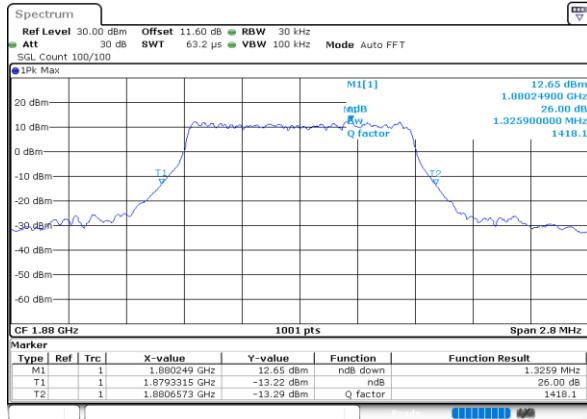
Middle Channel / 20MHz / 64QAM



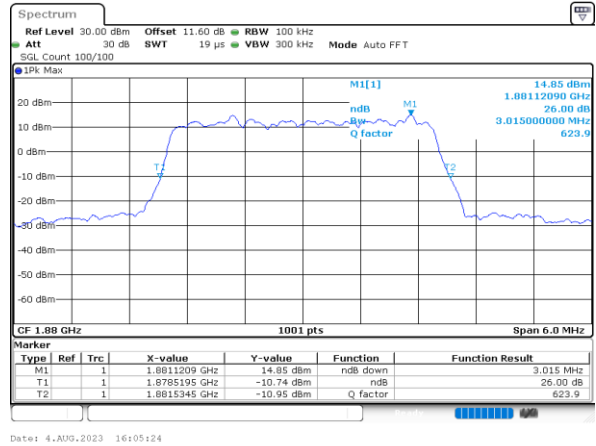


4G-LTE Band 25

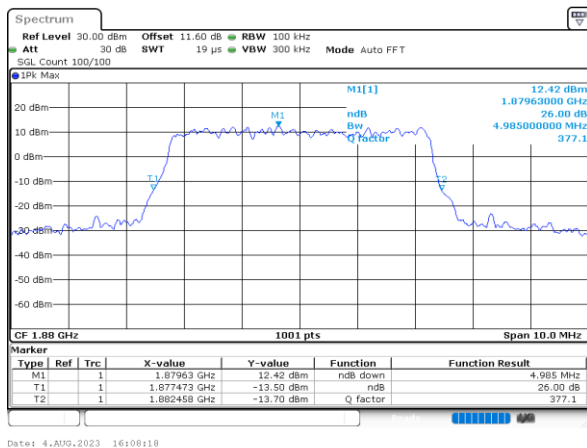
Middle Channel / 1.4MHz / 256QAM



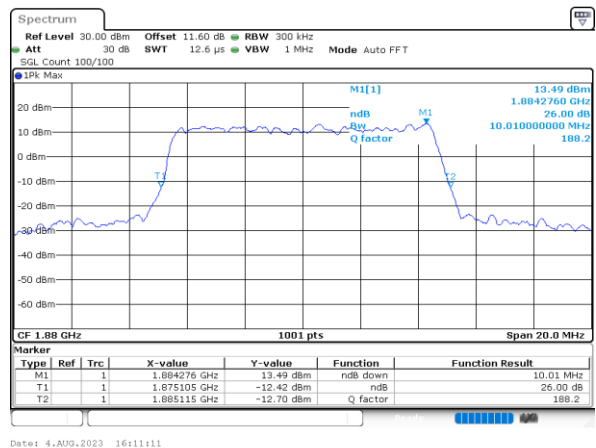
Middle Channel / 3MHz / 256QAM



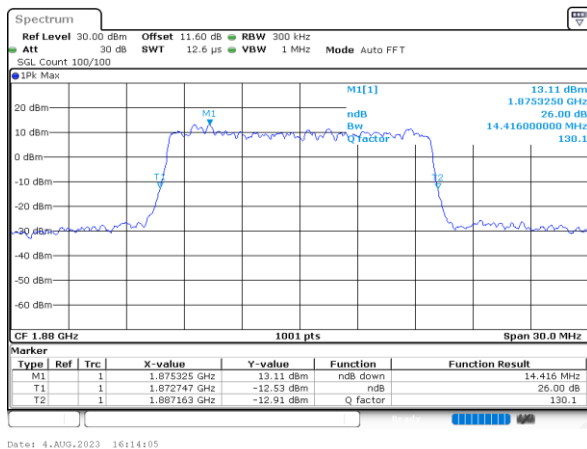
Middle Channel / 5MHz / 256QAM



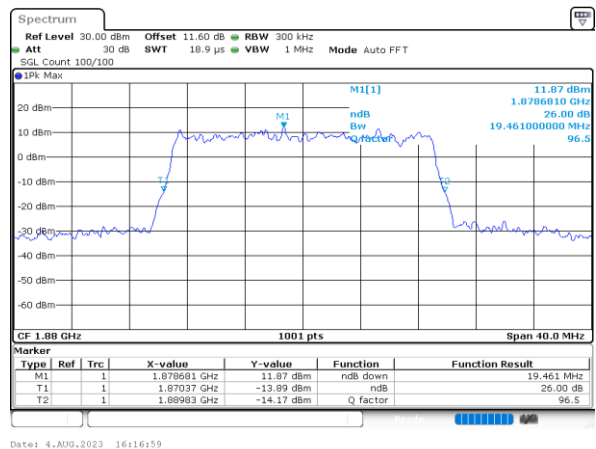
Middle Channel / 10MHz / 256QAM



Middle Channel / 15MHz / 256QAM



Middle Channel / 20MHz / 256QAM



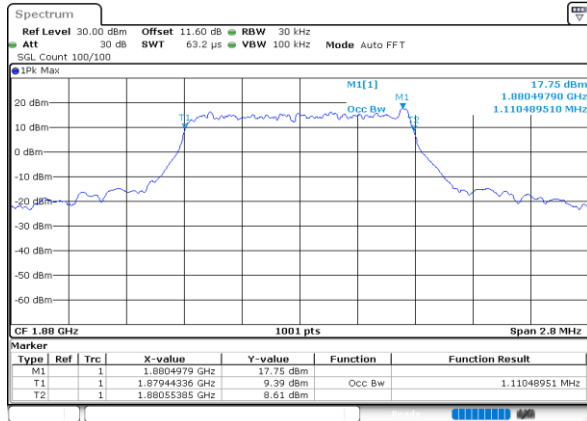
**Occupied Bandwidth**

Mode	4G-LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.11	1.10	2.73	2.76	4.50	4.52	9.01	9.07	13.49	13.40	17.90	17.94
Mode	4G-LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.10	1.10	2.73	2.73	4.49	4.50	9.05	9.07	13.43	13.49	17.94	17.94

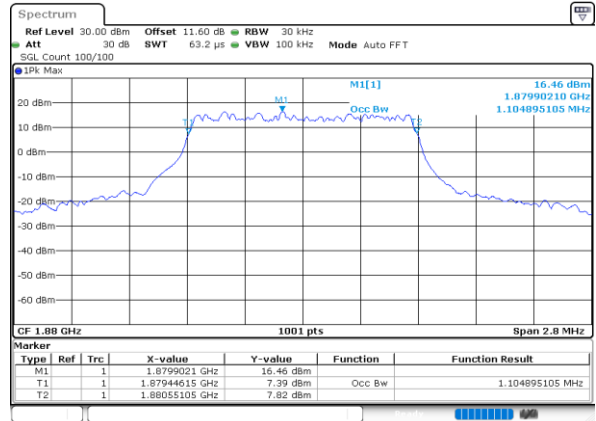


4G-LTE Band 25

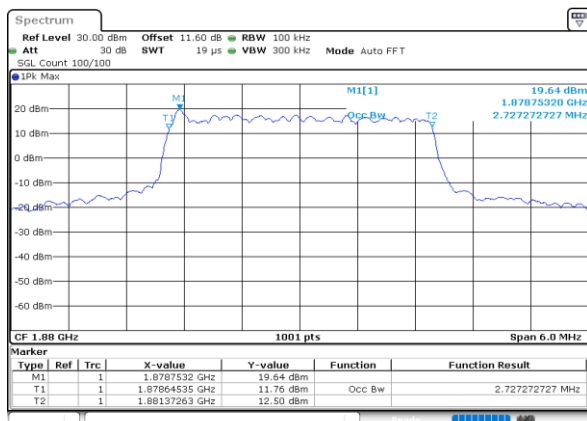
Middle Channel / 1.4MHz / QPSK



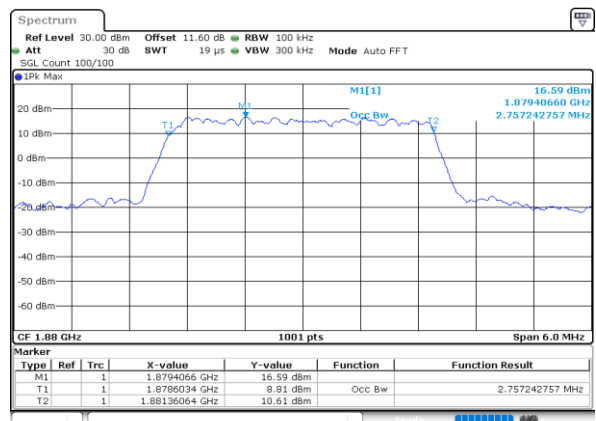
Middle Channel / 1.4MHz / 16QAM



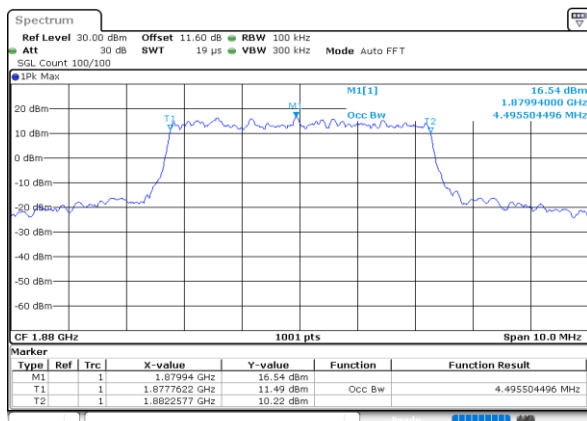
Middle Channel / 3MHz / QPSK



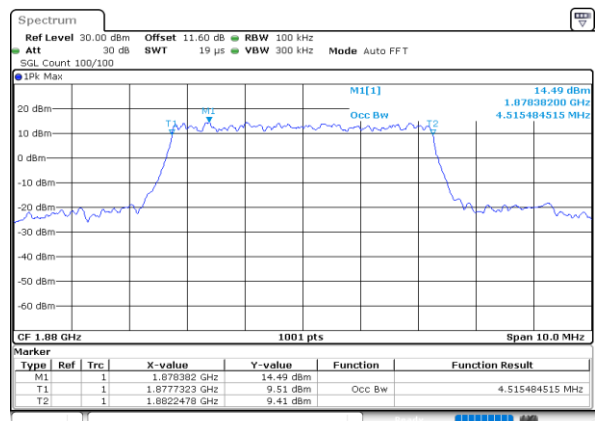
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



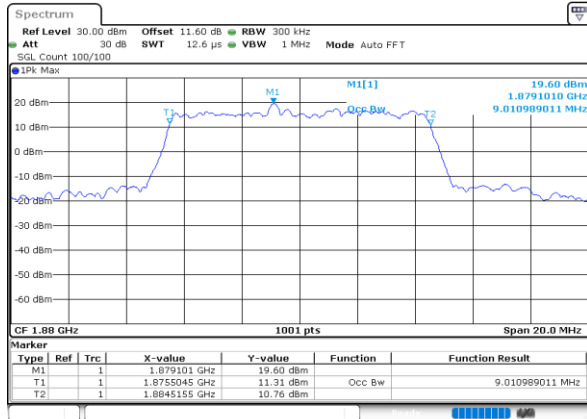
Middle Channel / 5MHz / 16QAM



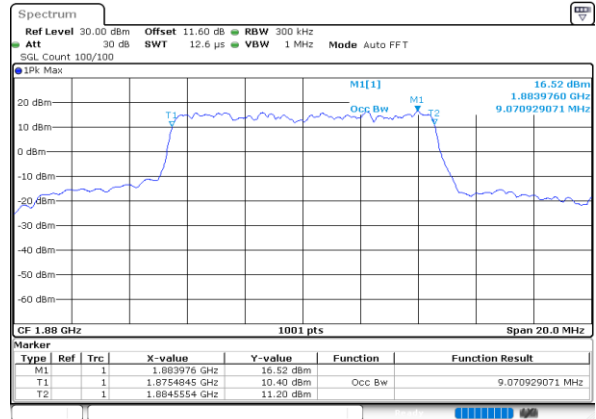


4G-LTE Band 25

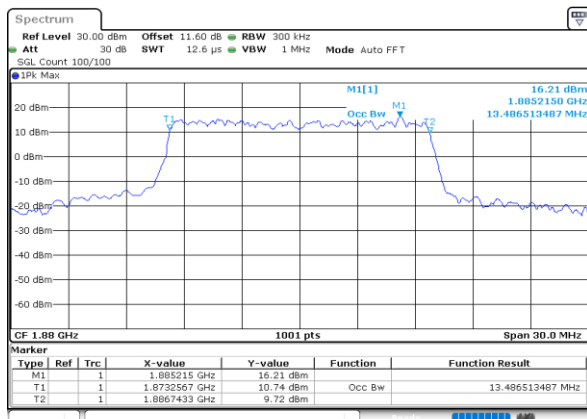
Middle Channel / 10MHz / QPSK



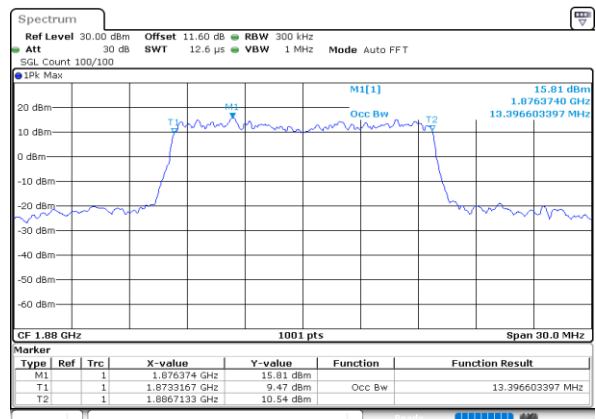
Middle Channel / 10MHz / 16QAM



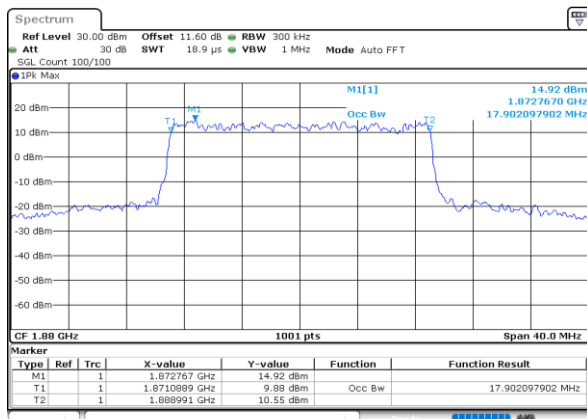
Middle Channel / 15MHz / QPSK



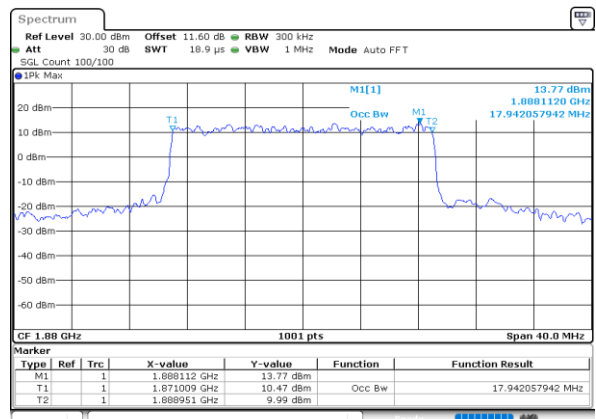
Middle Channel / 15MHz / 16QAM



Middle Channel / 20MHz / QPSK



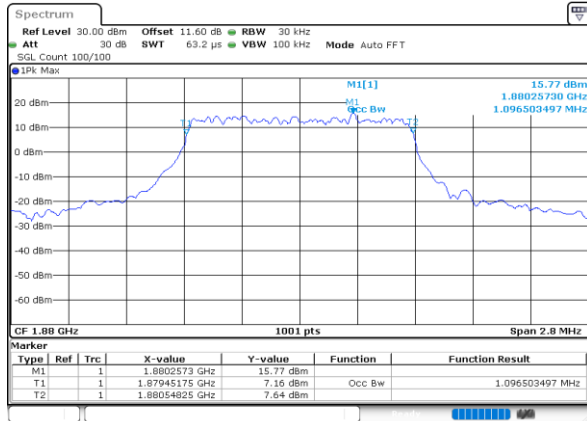
Middle Channel / 20MHz / 16QAM



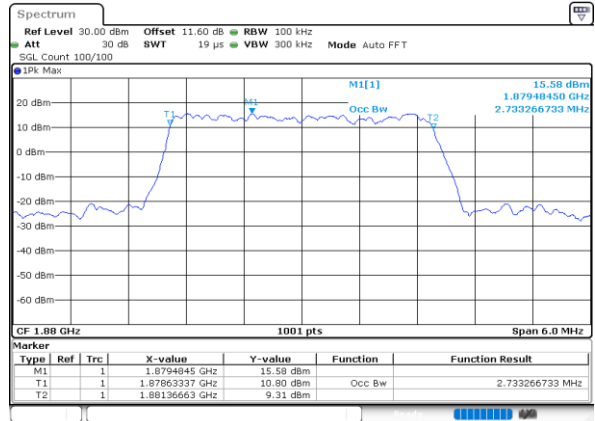


4G-LTE Band 25

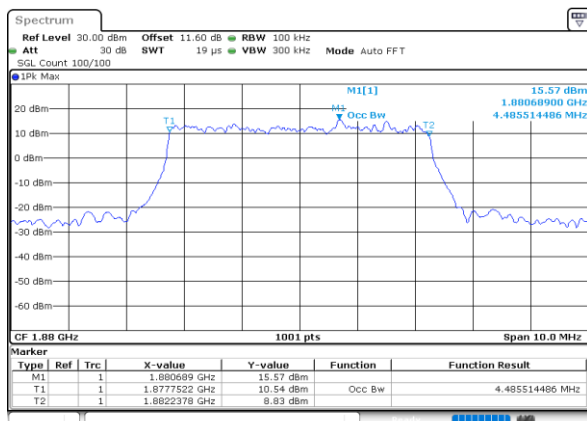
Middle Channel / 1.4MHz / 64QAM



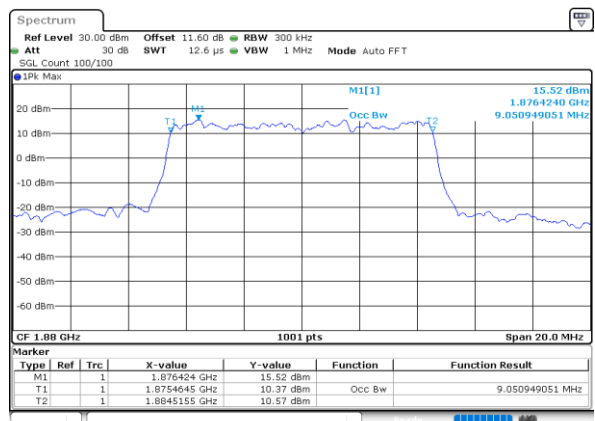
Middle Channel / 3MHz / 64QAM



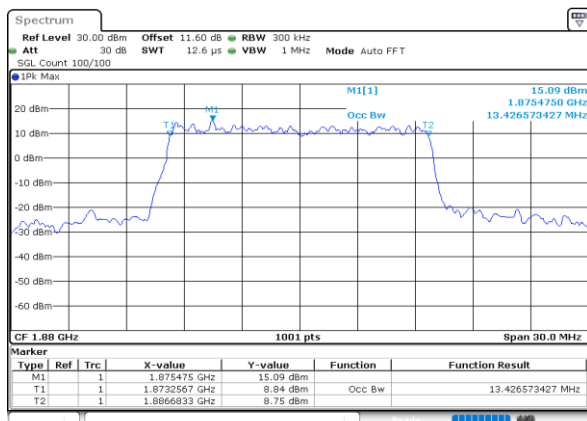
Middle Channel / 5MHz / 64QAM



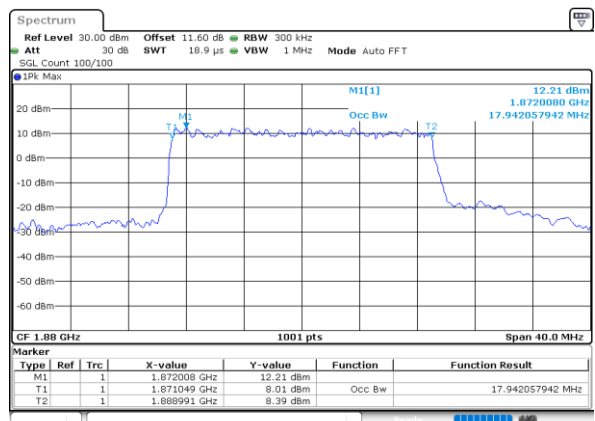
Middle Channel / 10MHz / 64QAM



Middle Channel / 15MHz / 64QAM



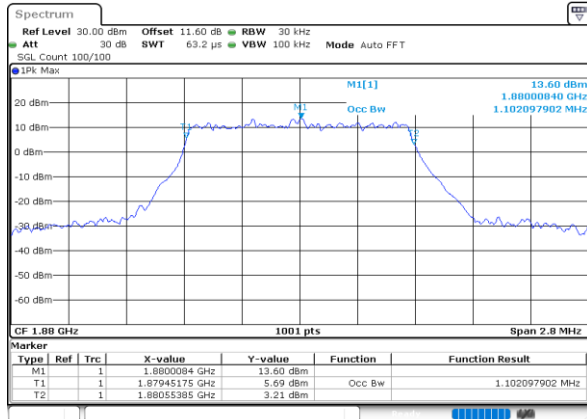
Middle Channel / 20MHz / 64QAM



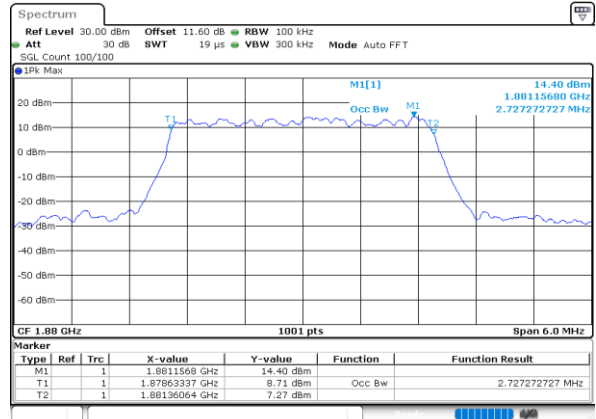


4G-LTE Band 25

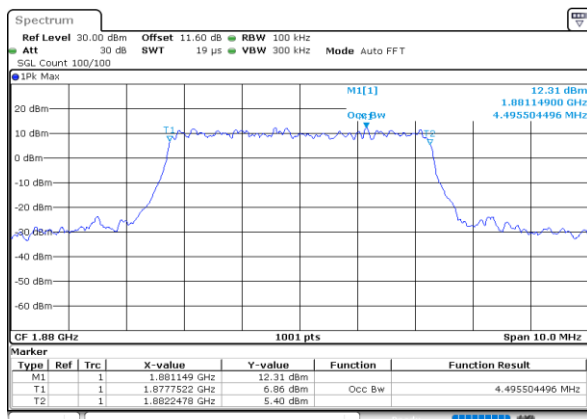
Middle Channel / 1.4MHz / 256QAM



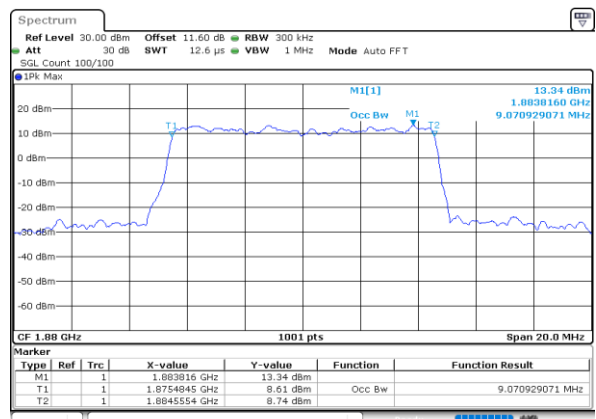
Middle Channel / 3MHz / 256QAM



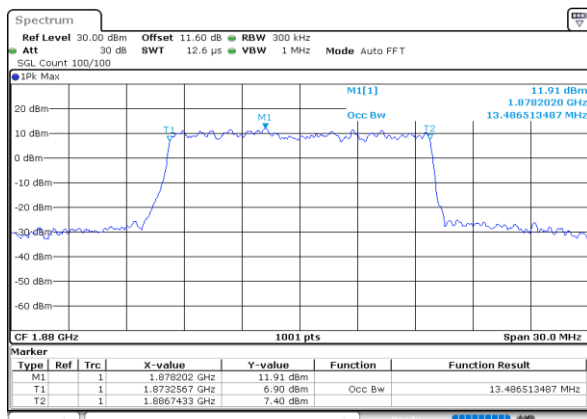
Middle Channel / 5MHz / 256QAM



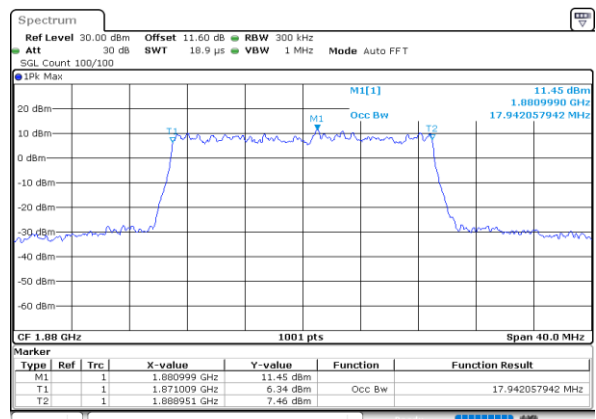
Middle Channel / 10MHz / 256QAM



Middle Channel / 15MHz / 256QAM



Middle Channel / 20MHz / 256QAM

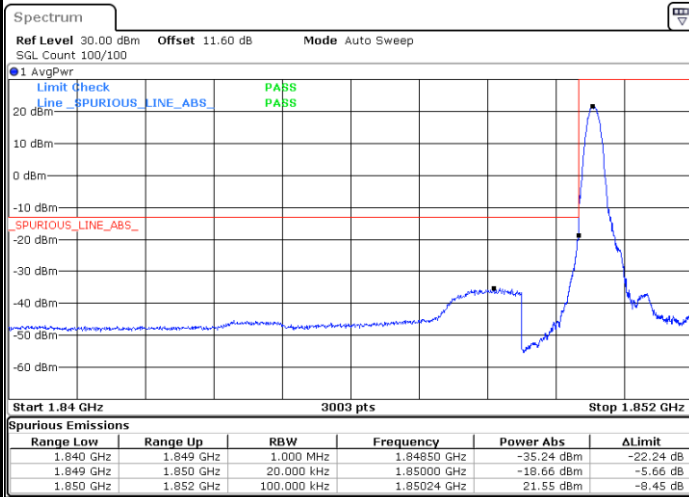




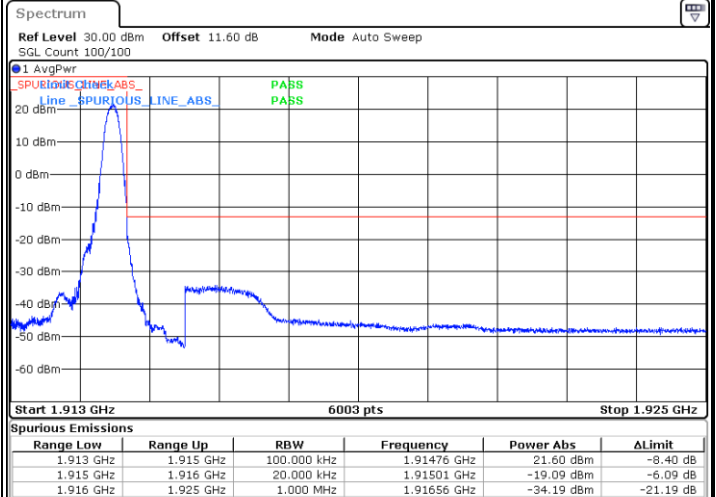
Conducted Band Edge

4G-LTE Band 25 / 1.4MHz / QPSK

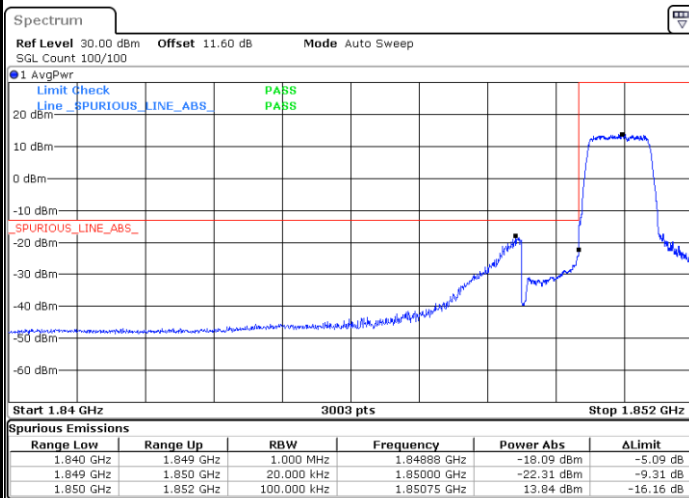
Lowest Band Edge / 1RB



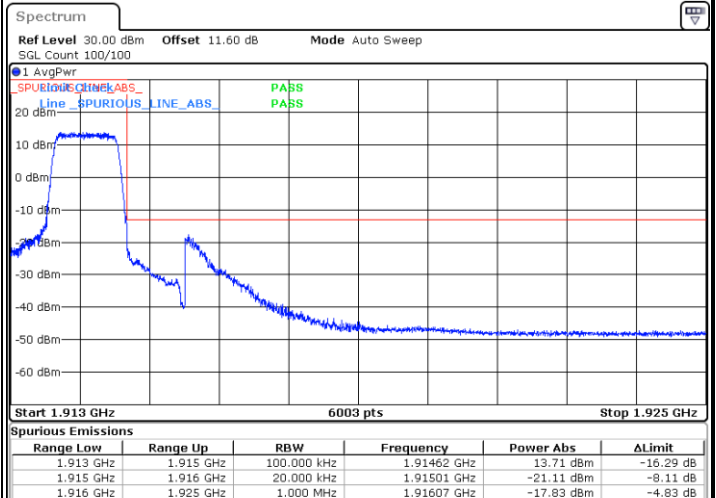
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



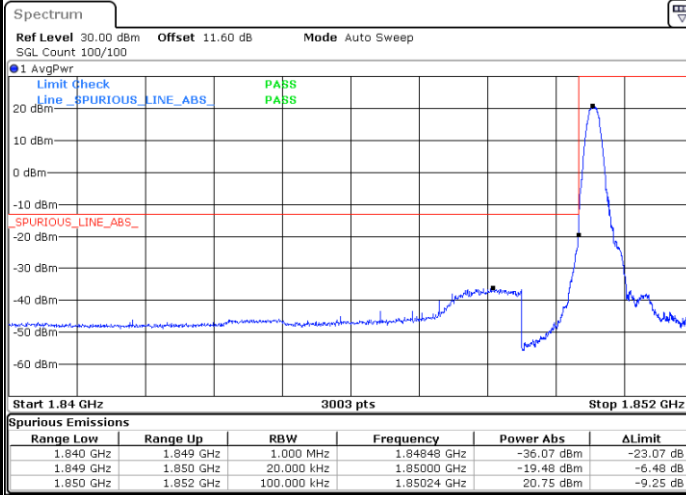
Highest Band Edge / Full RB



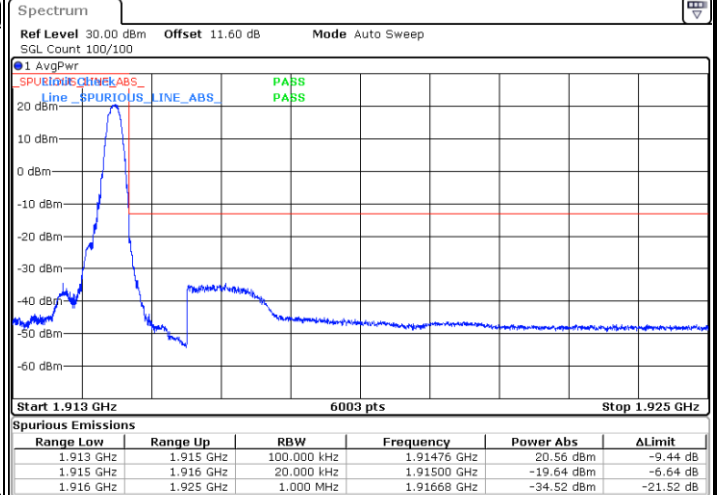


4G-LTE Band 25 / 1.4MHz / 16QAM

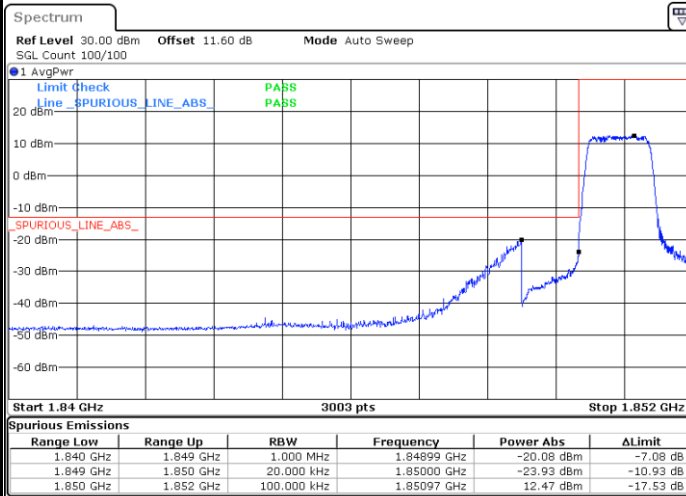
Lowest Band Edge / 1 RB



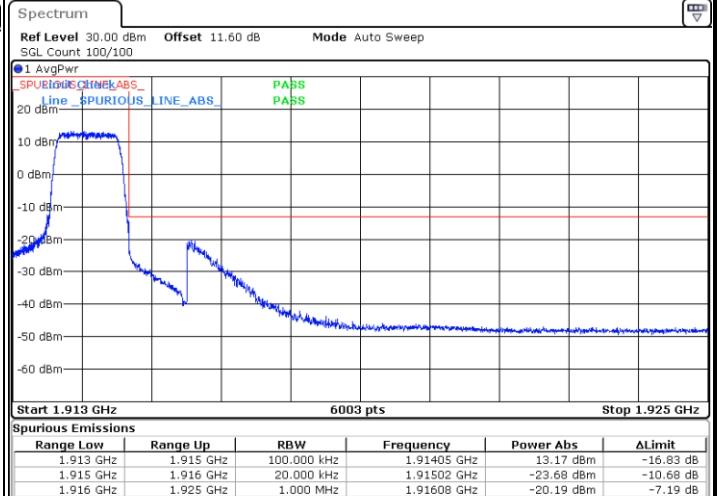
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



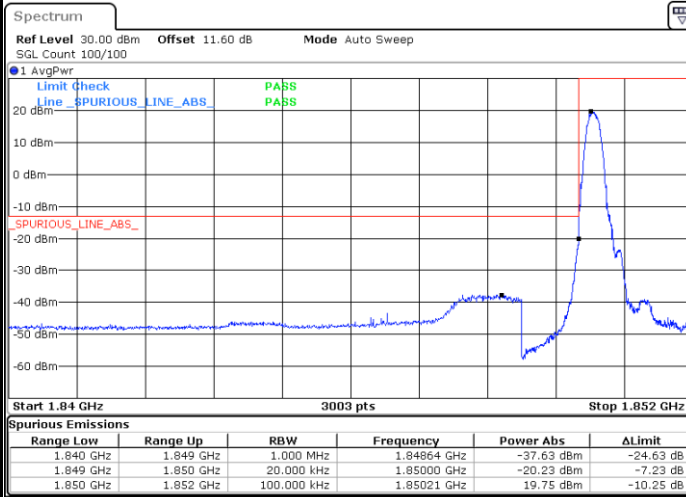
Highest Band Edge / Full RB



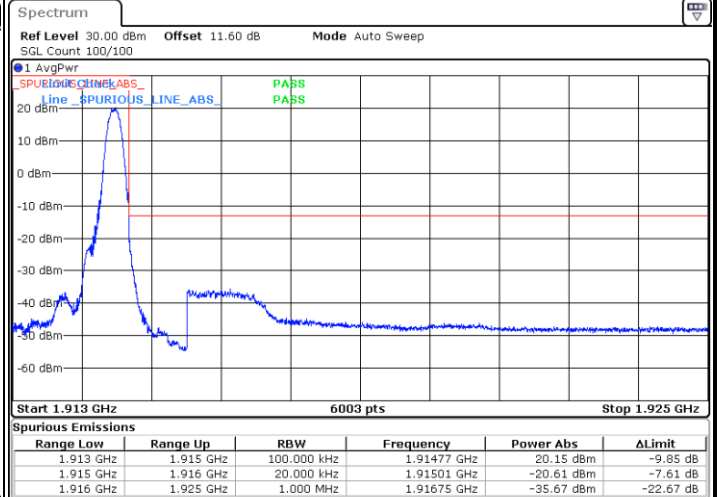


4G-LTE Band 25 / 1.4MHz / 64QAM

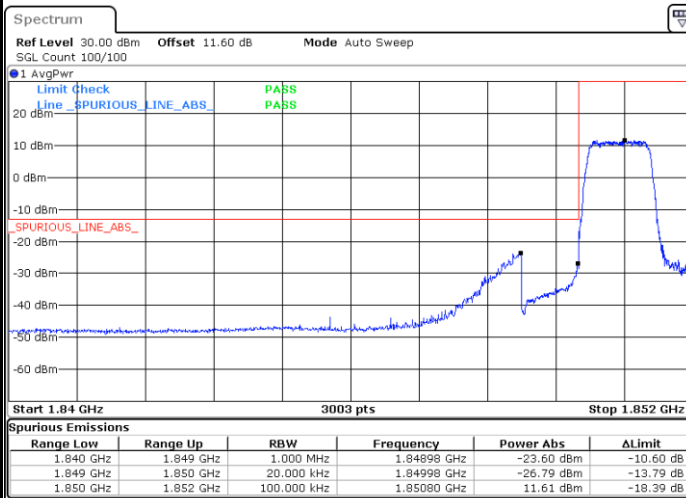
Lowest Band Edge / 1 RB



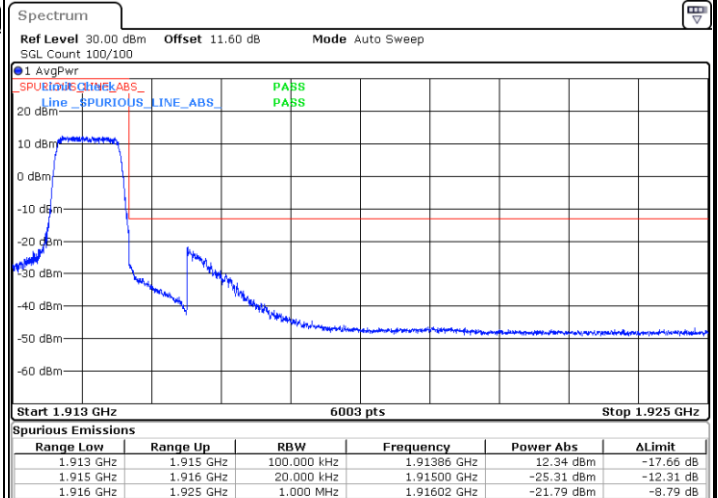
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



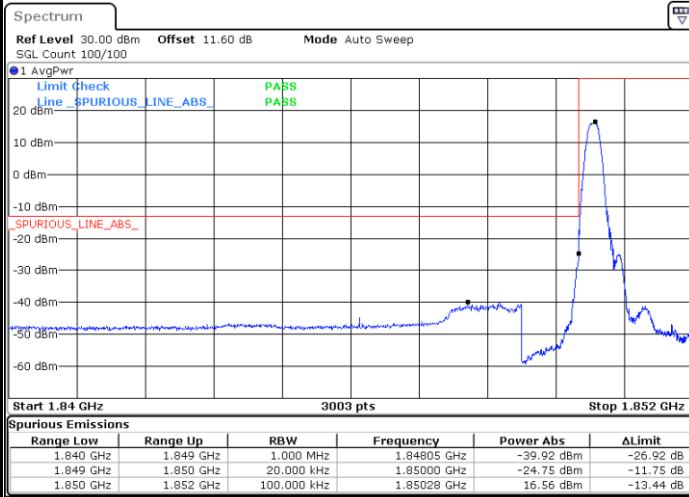
Highest Band Edge / Full RB



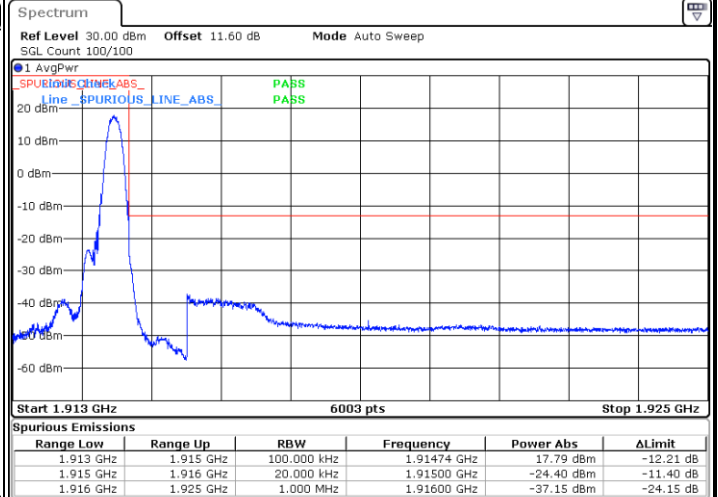


4G-LTE Band 25 / 1.4MHz / 256QAM

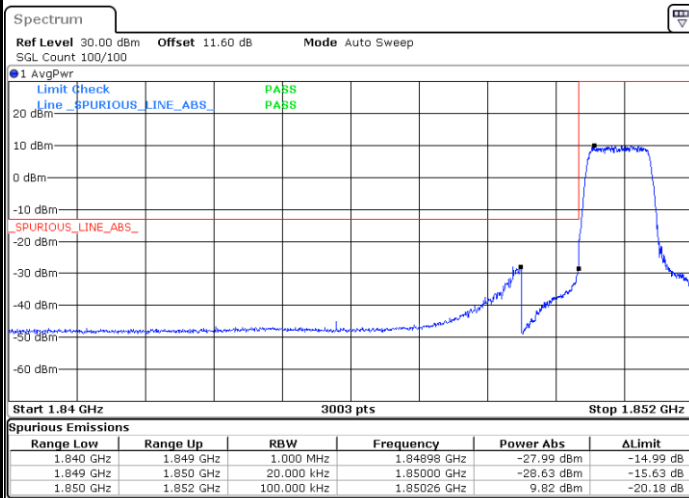
Lowest Band Edge / 1 RB



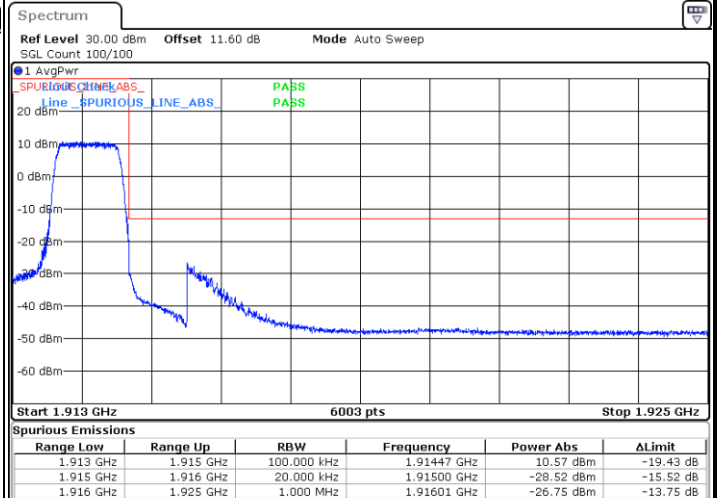
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



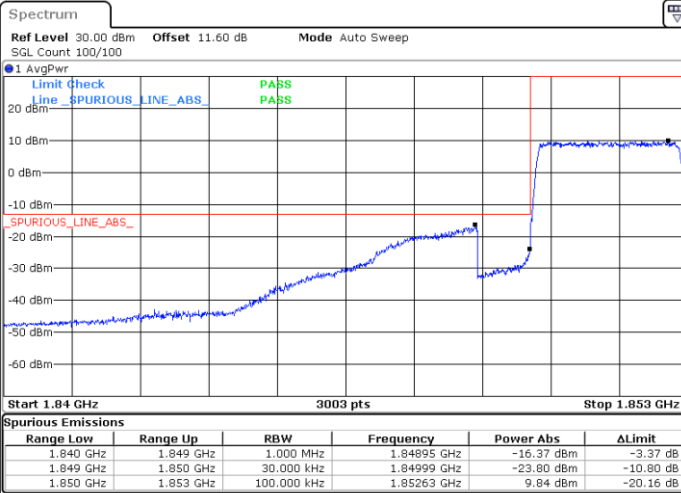
Highest Band Edge / Full RB



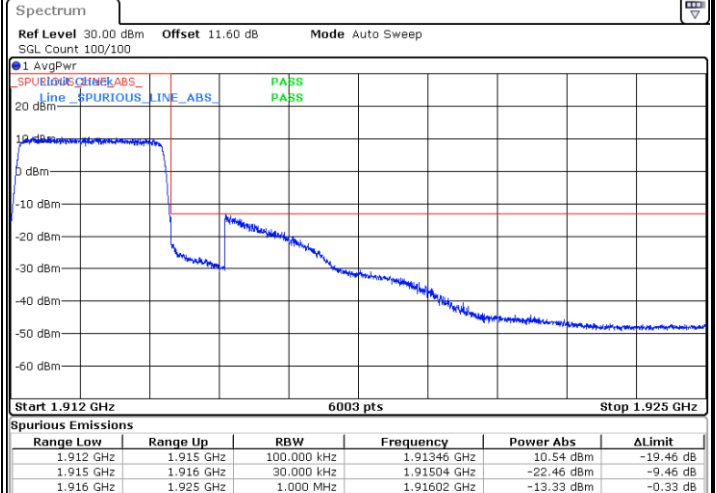


4G-LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / Full RB

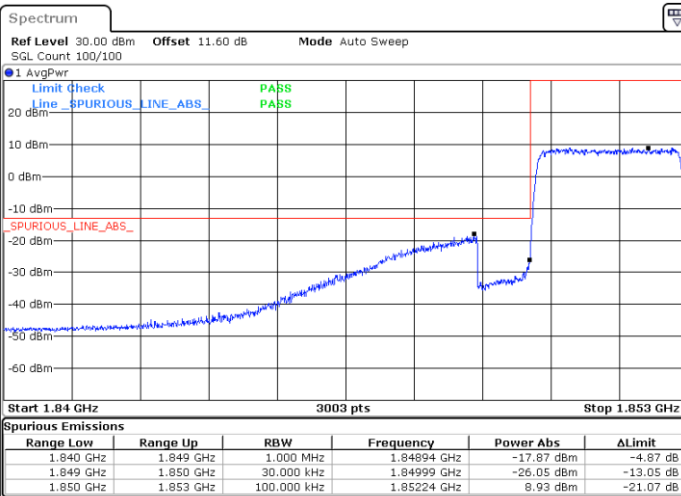


Highest Band Edge / Full RB

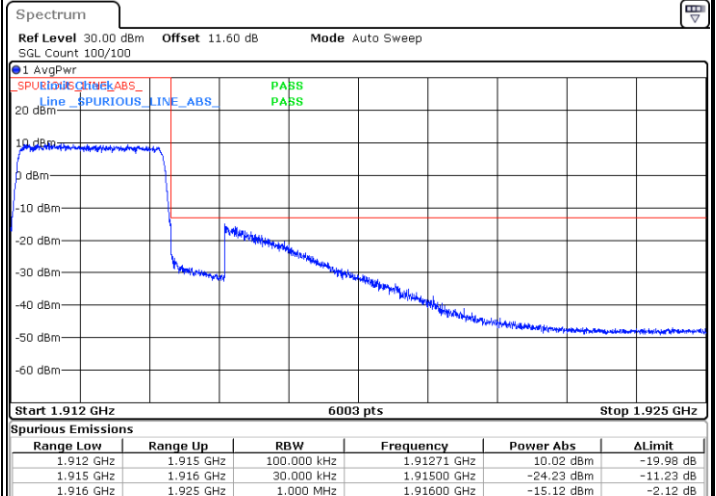


4G-LTE Band 25 / 3MHz / 16QAM

Lowest Band Edge / Full RB



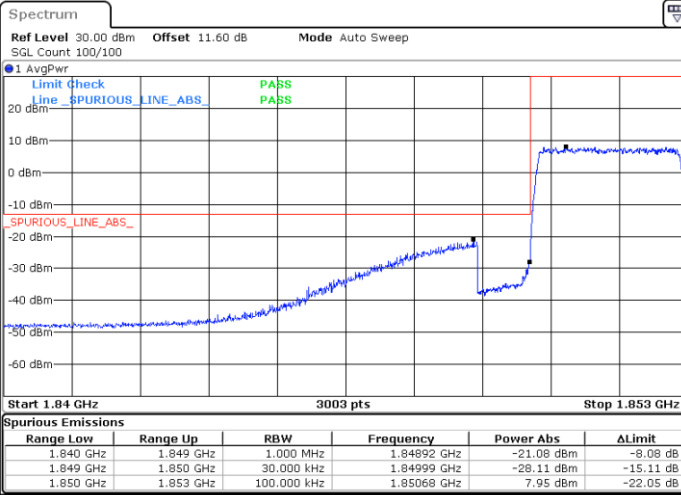
Highest Band Edge / Full RB



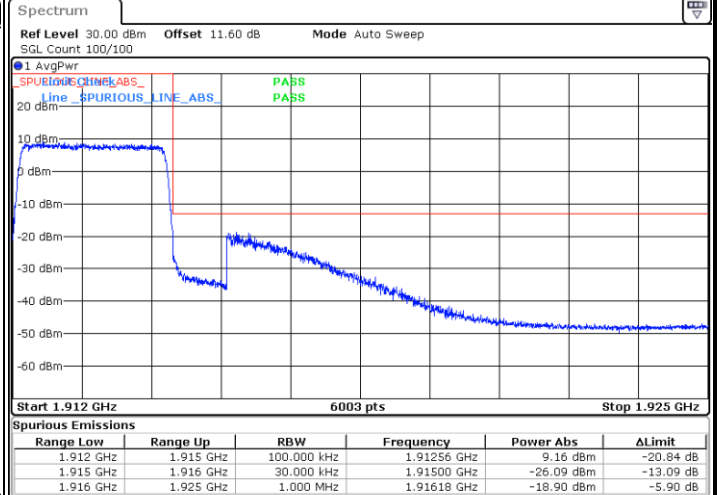


4G-LTE Band 25 / 3MHz / 64QAM

Lowest Band Edge / Full RB

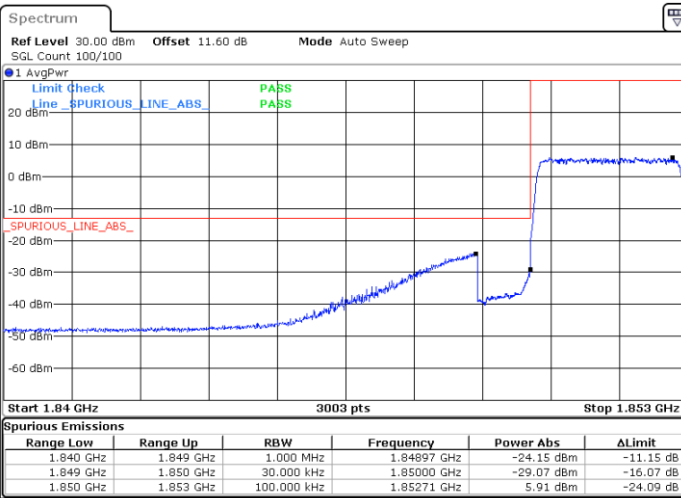


Highest Band Edge / Full RB



4G-LTE Band 25 / 3MHz / 256QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

