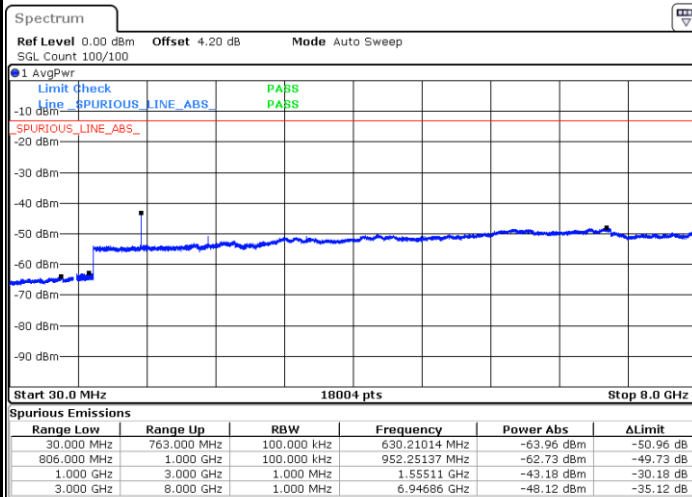




Conducted Spurious Emission

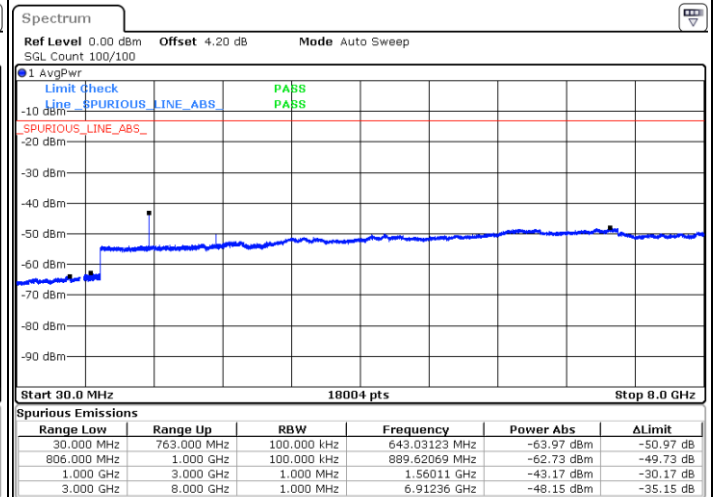
LTE Band 13 / 5MHz

Lowest Channel / QPSK



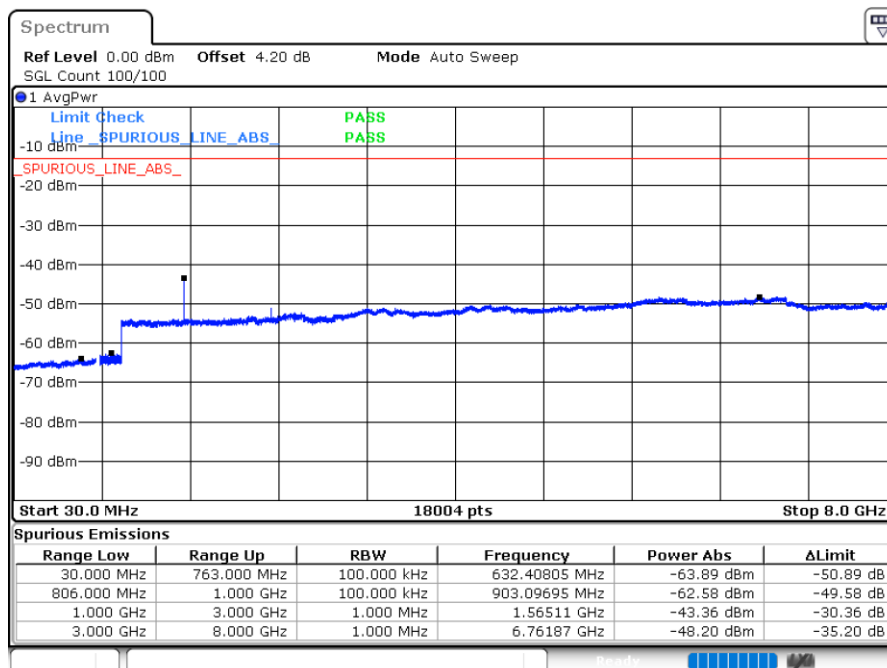
Date: 15.JUN.2022 15:03:46

Middle Channel / QPSK



Date: 15.JUN.2022 15:15:17

Highest Channel / QPSK

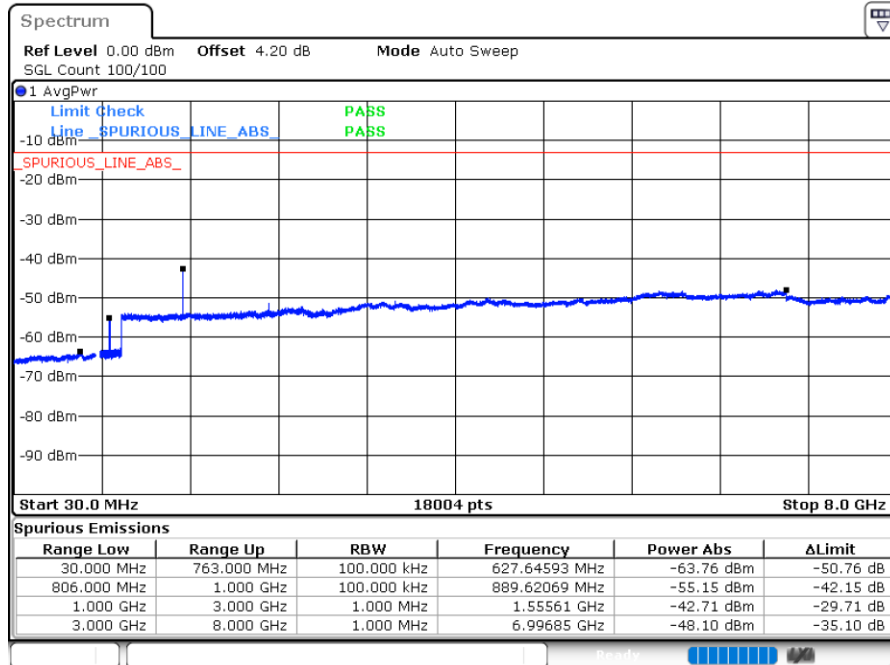


Date: 15.JUN.2022 15:15:50



LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 15 JUN 2022 15:27:24

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	0.0245	PASS
40	Normal Voltage	0.0036	
30	Normal Voltage	0.0252	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0211	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0264	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0026	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 38

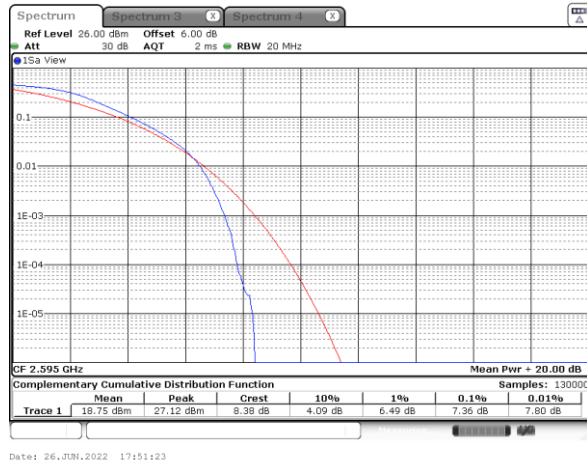
Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz			
RB Size	Full RB	Full RB	Full RB	Limit: 13dB
Mod.	QPSK	16QAM	64QAM	Result
Middle CH	7.36	6.49	7.25	PASS

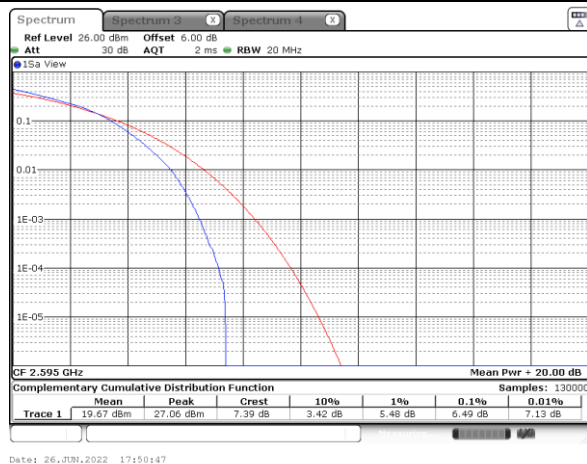


LTE Band 38 / 20MHz / Full RB

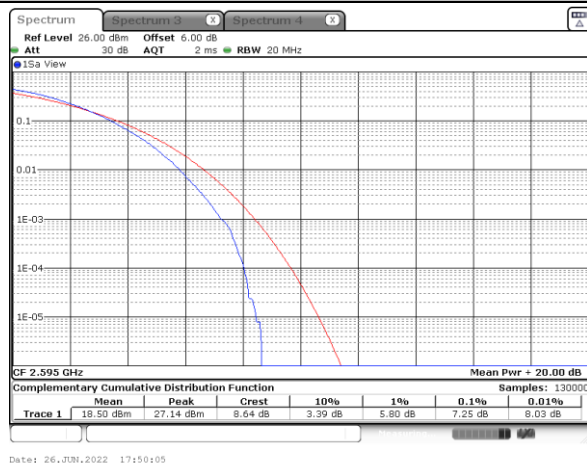
Middle Channel / QPSK



Middle Channel / 16QAM

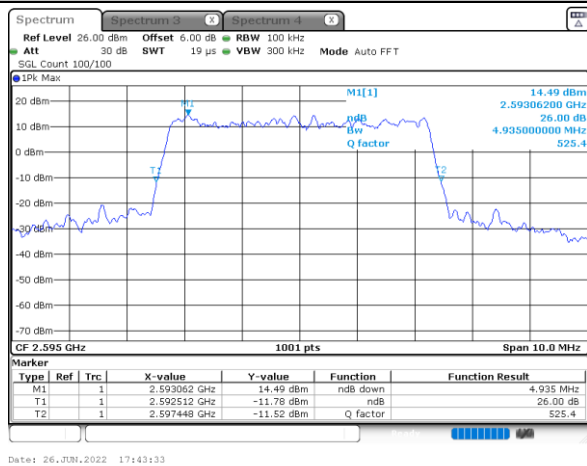
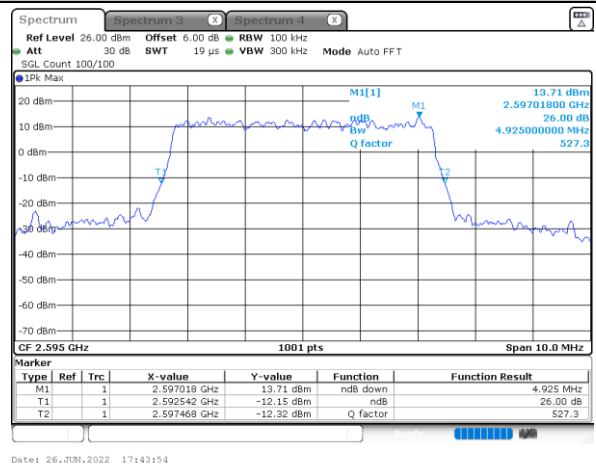
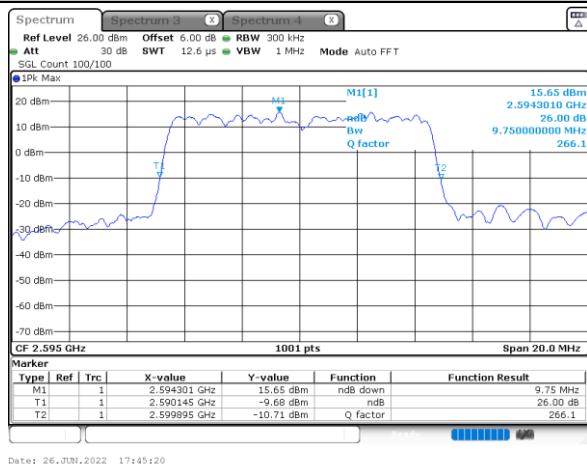
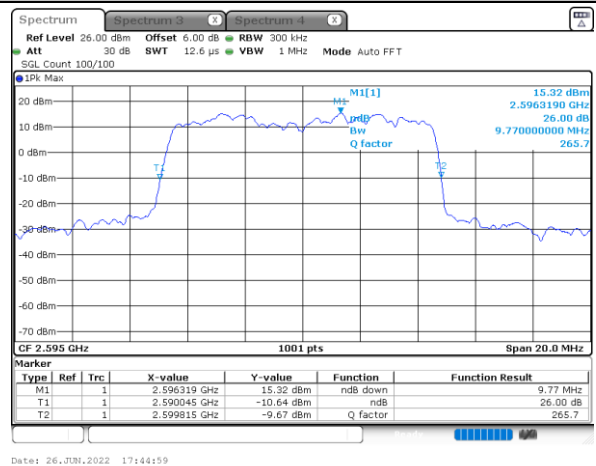


Middle Channel / 64QAM



**26dB Bandwidth**

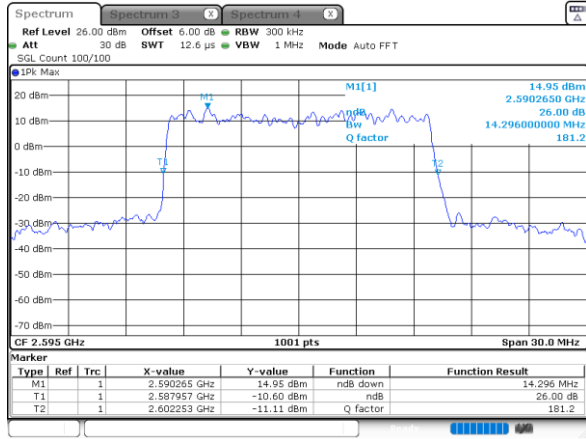
Mode	LTE Band 38 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.94	4.93	9.75	9.77	14.30	14.24	19.02	18.70

LTE Band 38**Middle Channel / 5MHz / QPSK****Middle Channel / 5MHz / 16QAM****Middle Channel / 10MHz / QPSK****Middle Channel / 10MHz / 16QAM**



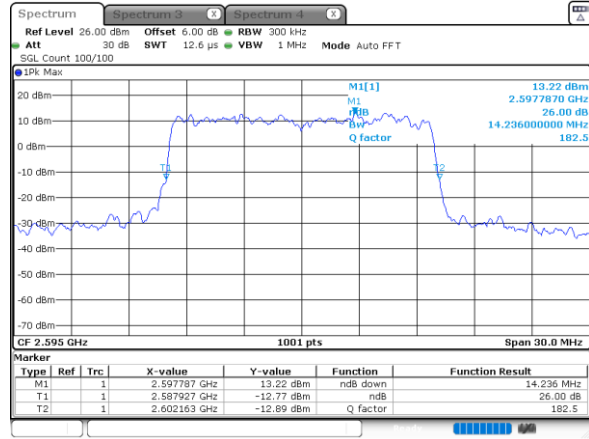
LTE Band 38

Middle Channel / 15MHz / QPSK



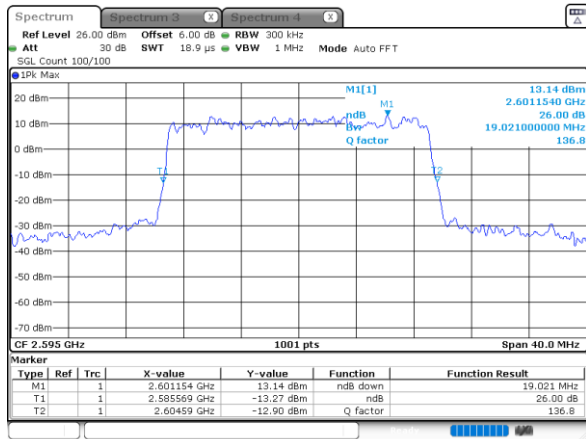
Date: 26 JUN 2022 17:46:24

Middle Channel / 15MHz / 16QAM



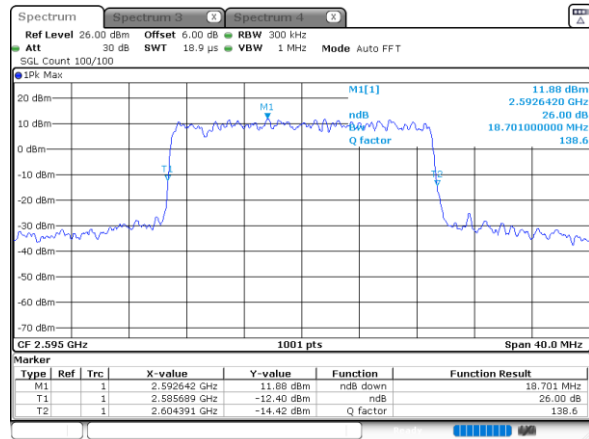
Date: 26 JUN 2022 17:46:45

Middle Channel / 20MHz / QPSK



Date: 26 JUN 2022 17:48:10

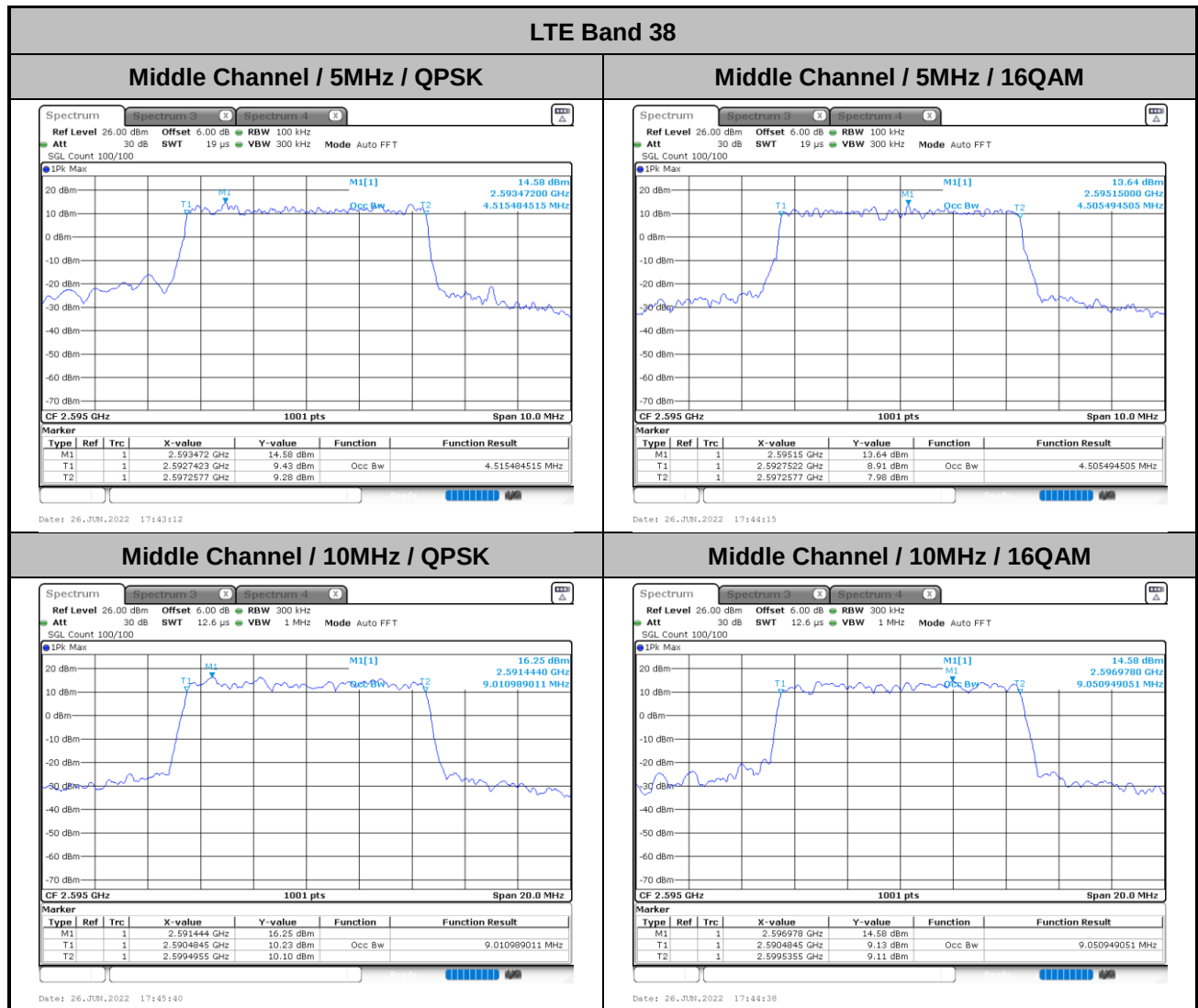
Middle Channel / 20MHz / 16QAM



Date: 26 JUN 2022 17:47:49

Occupied Bandwidth

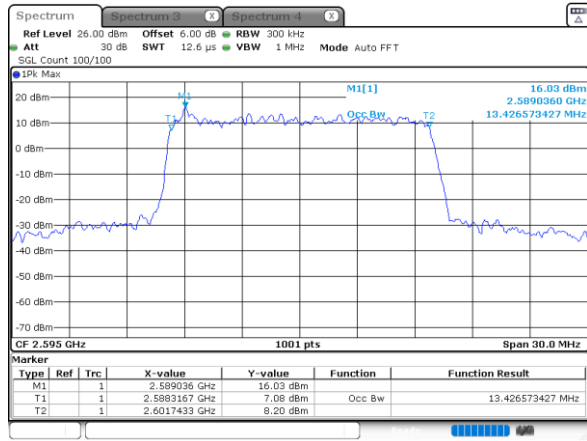
Mode	LTE Band 38 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.52	4.51	9.01	9.05	13.43	13.52	17.82	17.94





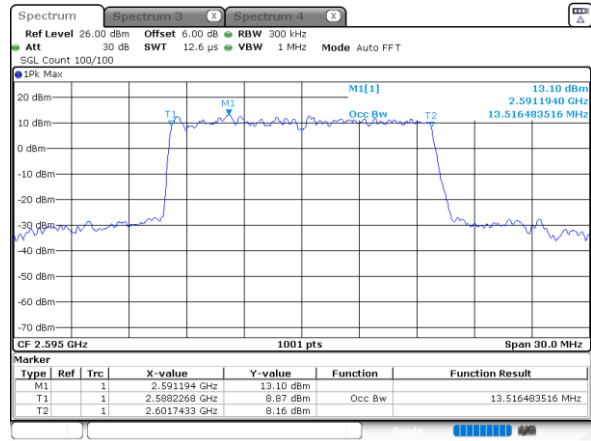
LTE Band 38

Middle Channel / 15MHz / QPSK



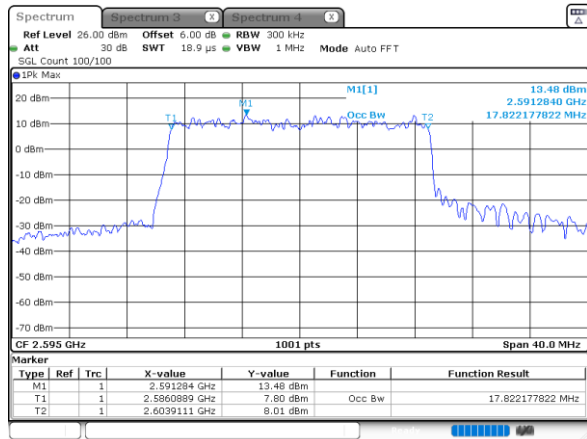
Date: 26 JUN 2022 17:46:03

Middle Channel / 15MHz / 16QAM



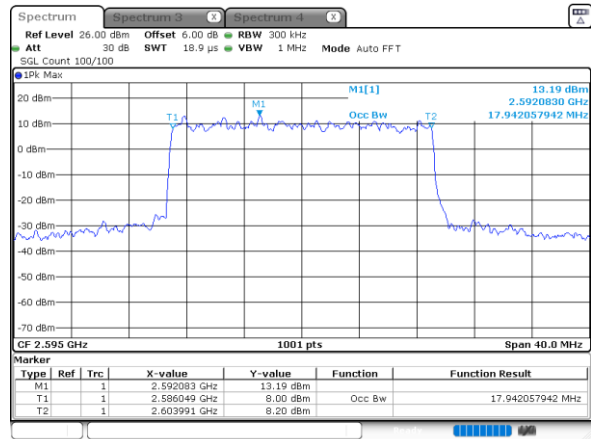
Date: 26 JUN 2022 17:47:06

Middle Channel / 20MHz / QPSK

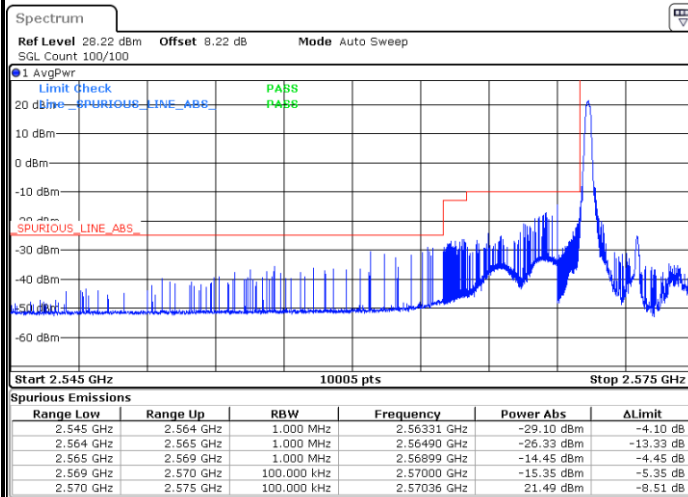
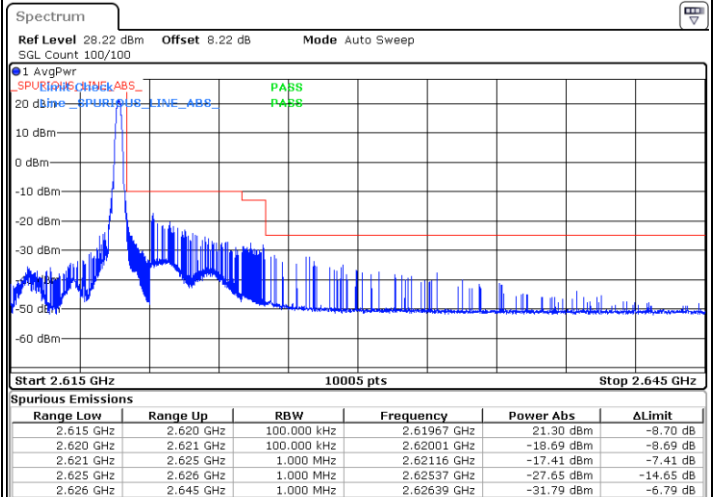
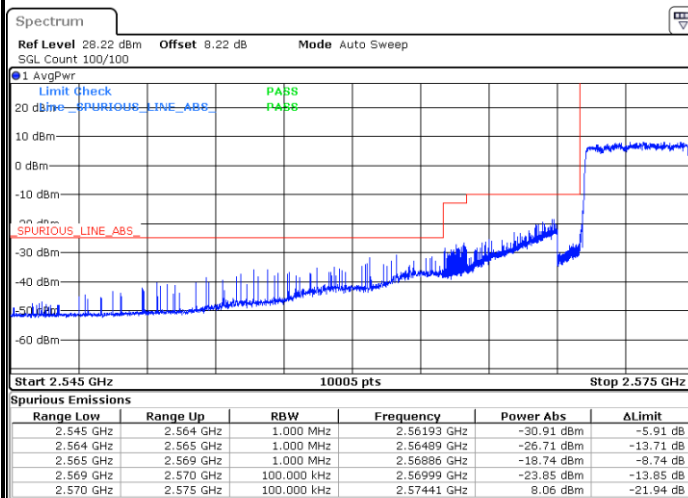
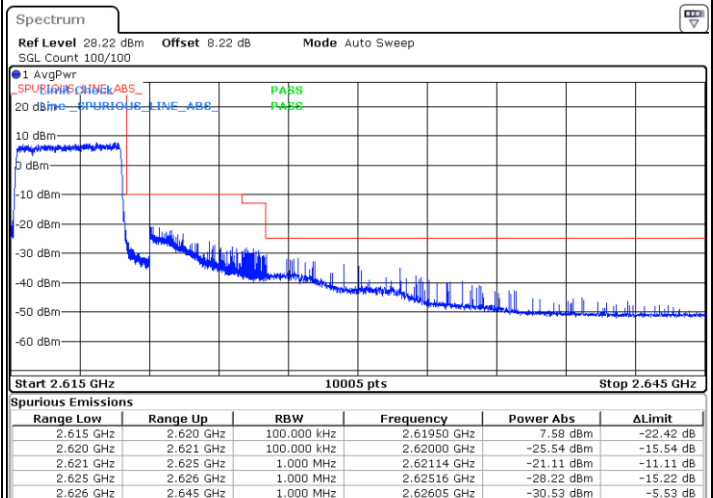


Date: 26 JUN 2022 17:48:31

Middle Channel / 20MHz / 16QAM



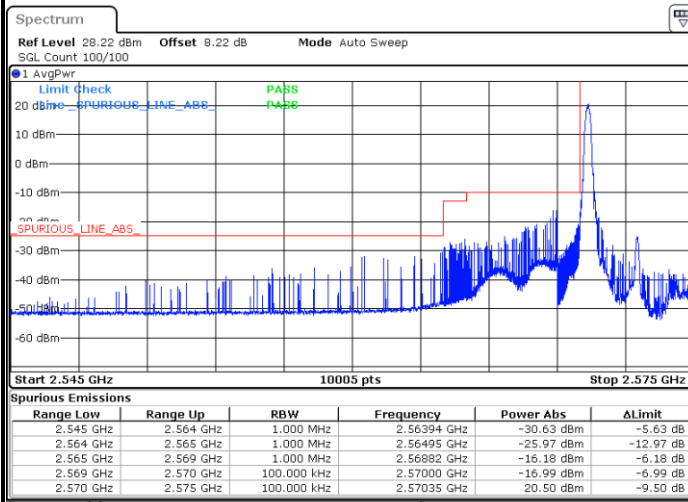
Date: 26 JUN 2022 17:47:28

**Conducted Band Edge****LTE Band 38 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

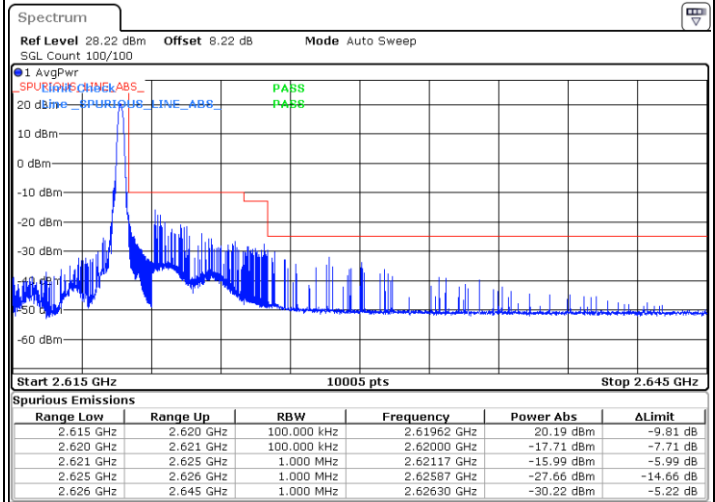


LTE Band 38 / 5MHz / 16QAM

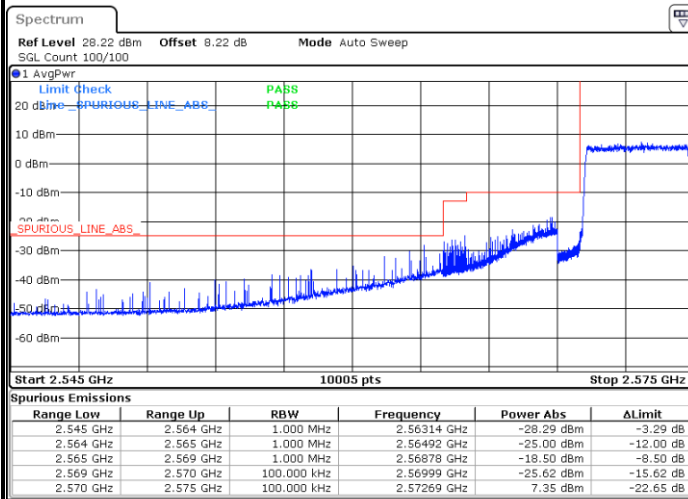
Lowest Band Edge / 1RB



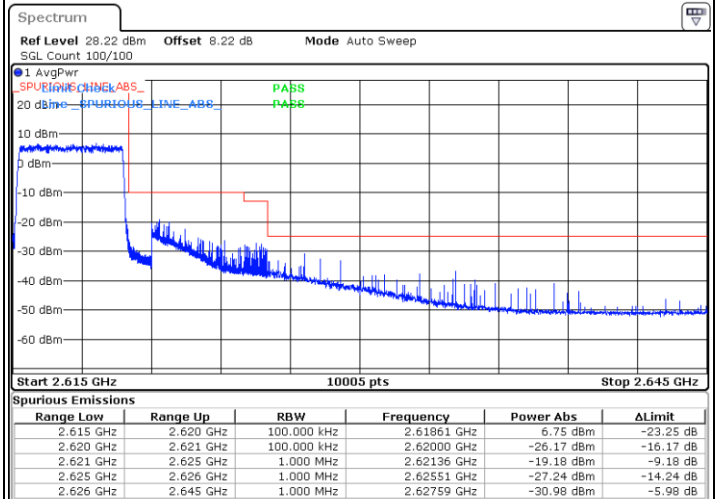
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



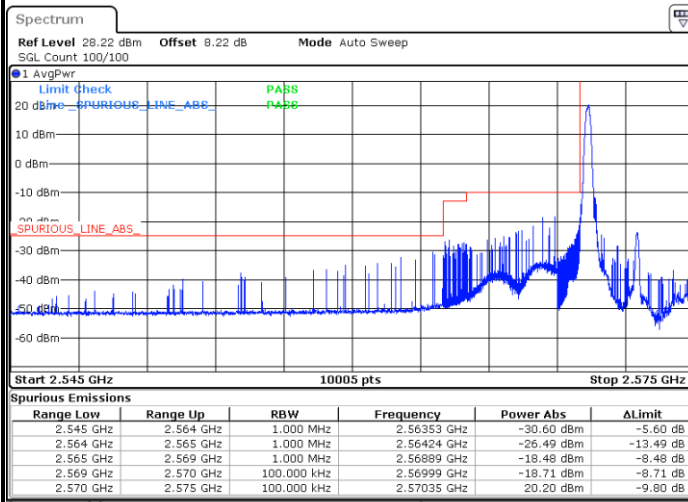
Highest Band Edge / Full RB



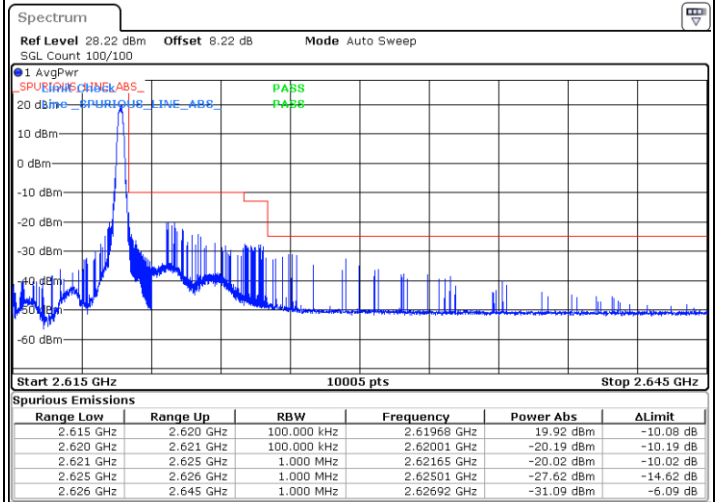


LTE Band 38 / 5MHz / 64QAM

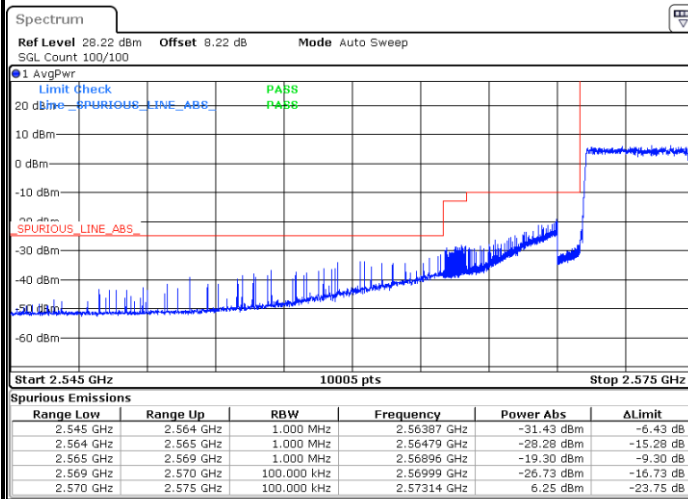
Lowest Band Edge / 1RB



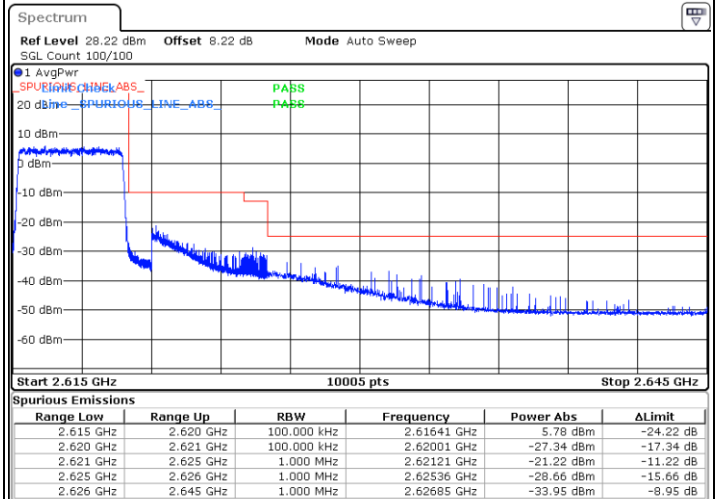
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



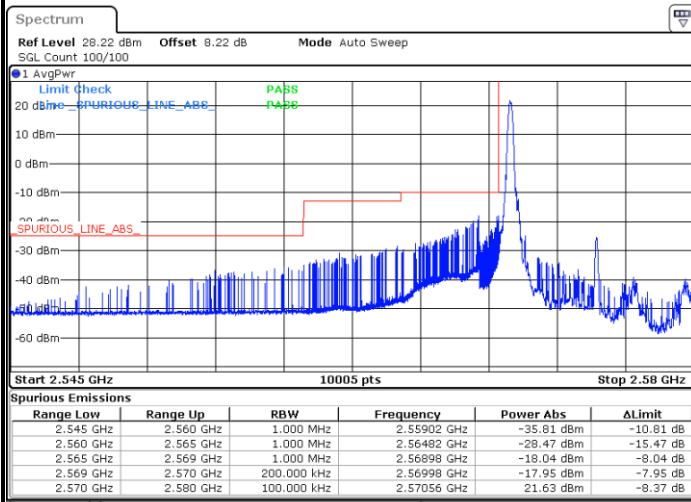
Highest Band Edge / Full RB



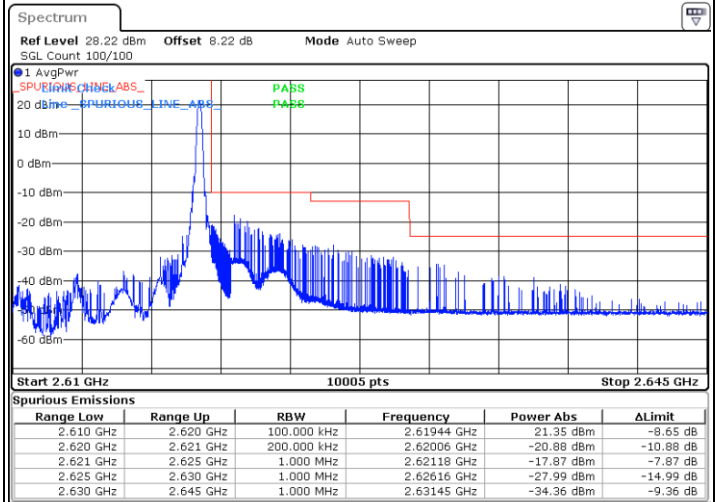


LTE Band 38 / 10MHz / QPSK

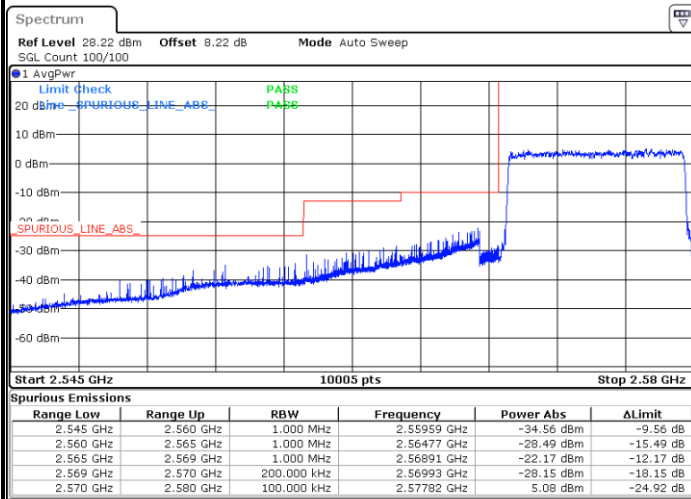
Lowest Band Edge / 1 RB



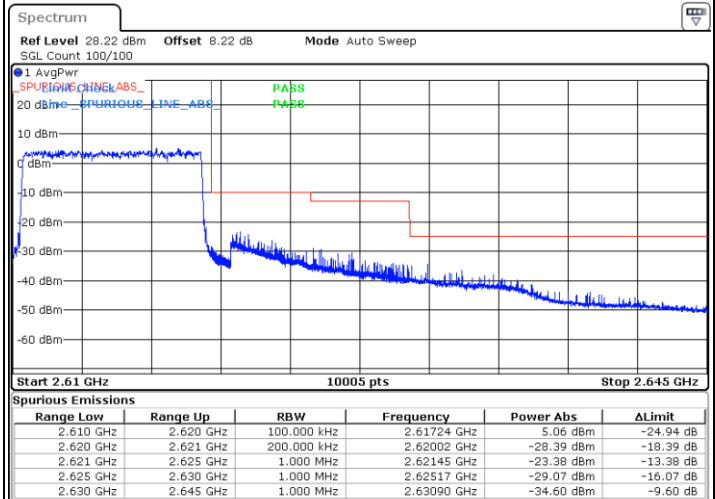
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



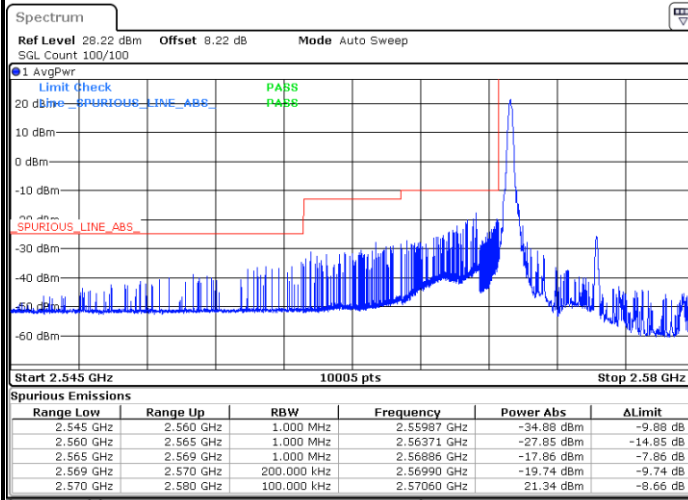
Highest Band Edge / Full RB



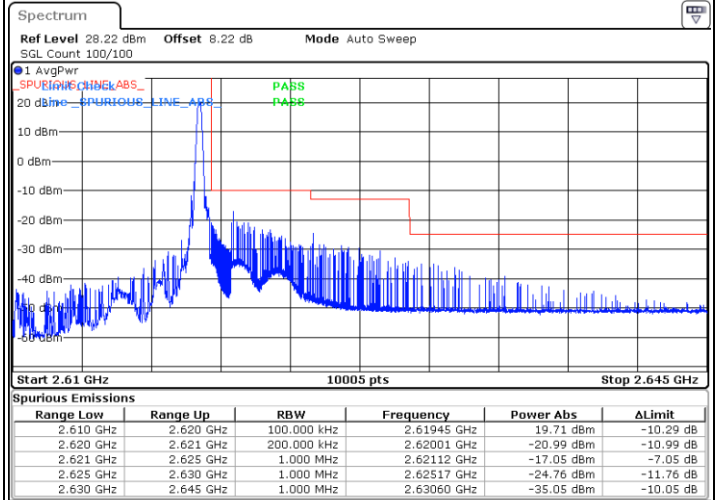


LTE Band 38 / 10MHz / 16QAM

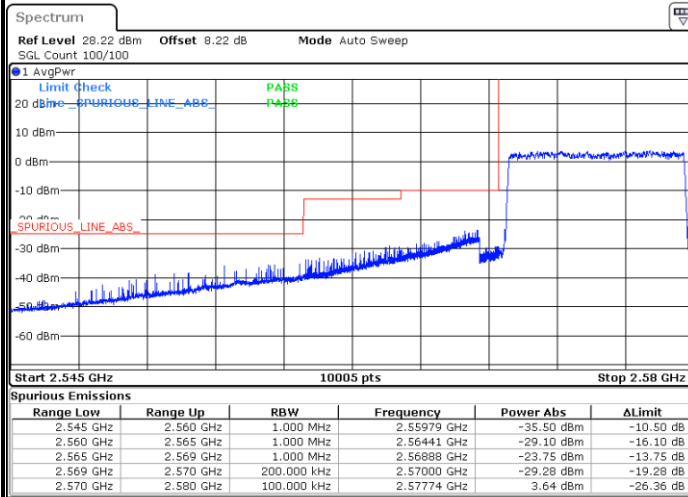
Lowest Band Edge / 1 RB



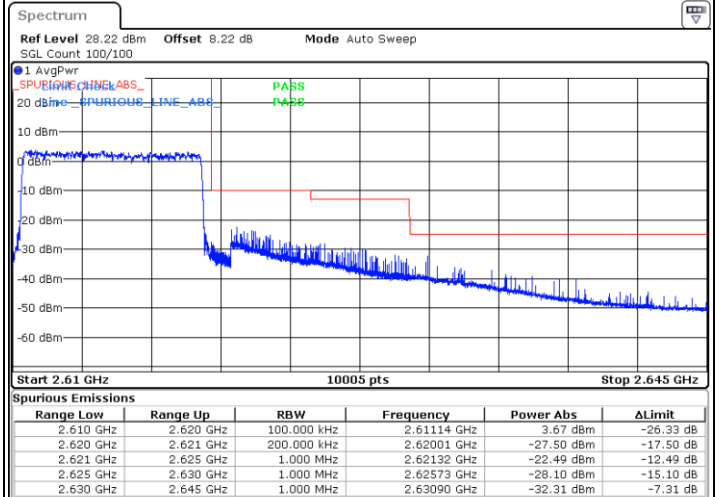
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



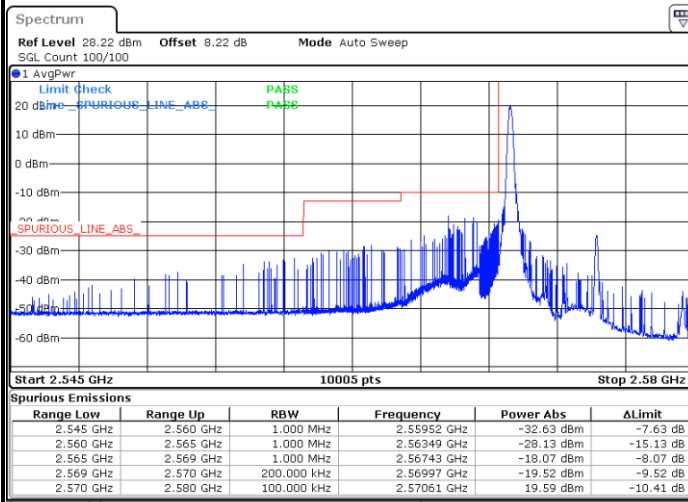
Highest Band Edge / Full RB



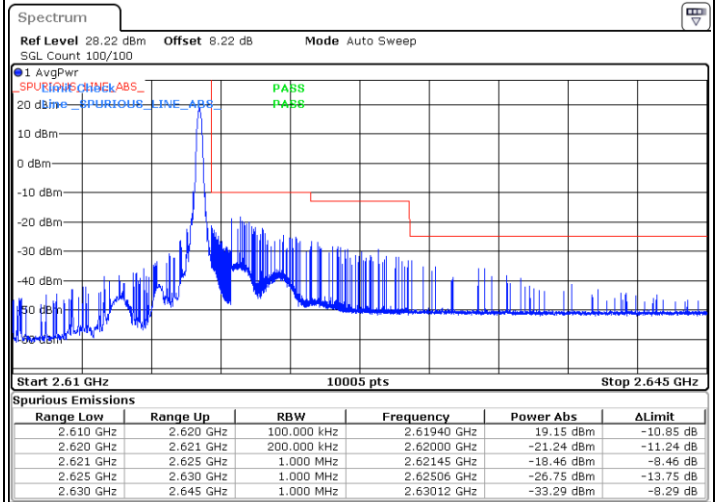


LTE Band 38 / 10MHz / 64QAM

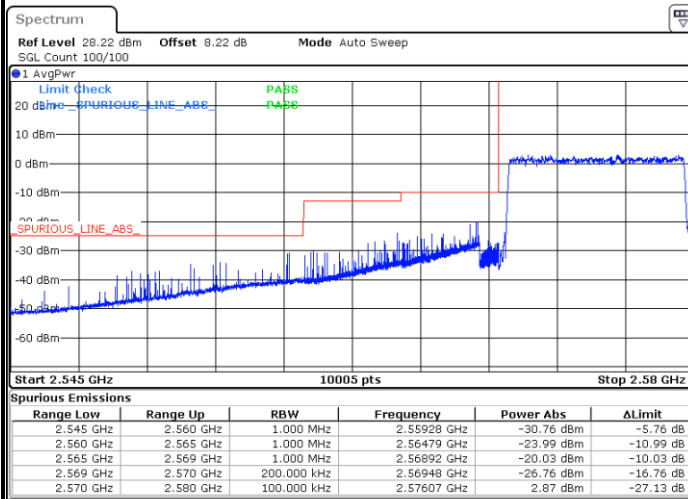
Lowest Band Edge / 1 RB



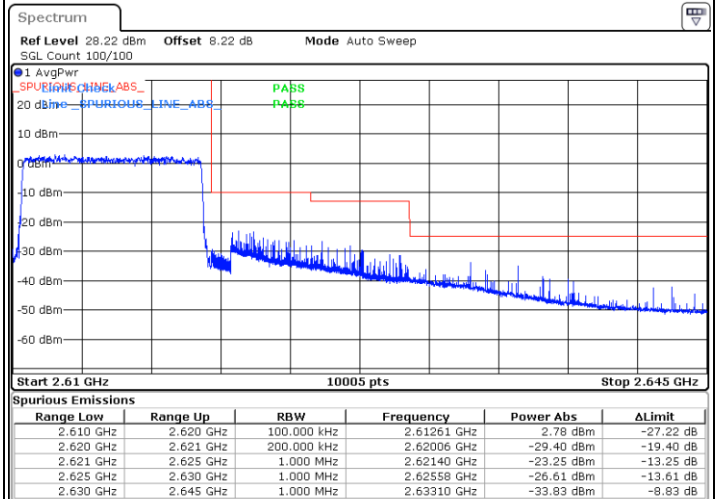
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



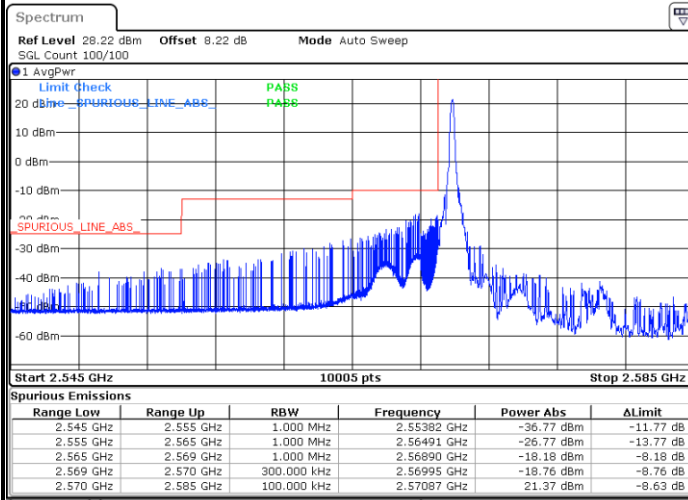
Highest Band Edge / Full RB



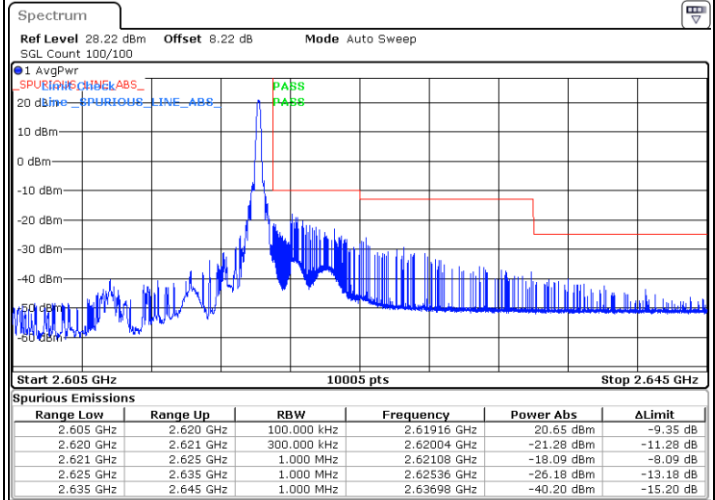


LTE Band 38 / 15MHz / QPSK

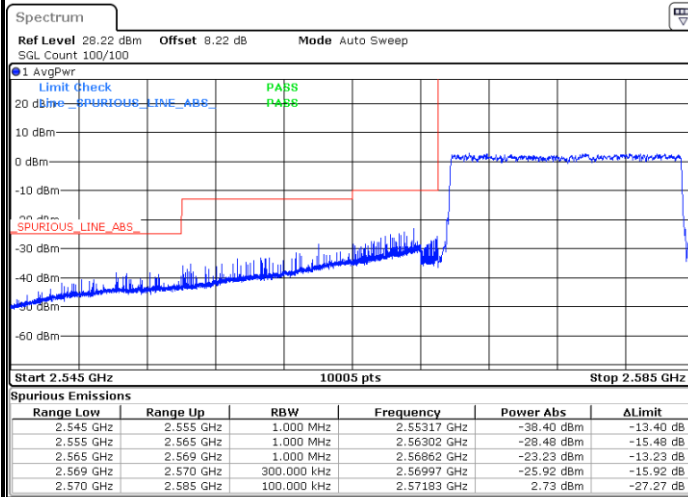
Lowest Band Edge / 1 RB



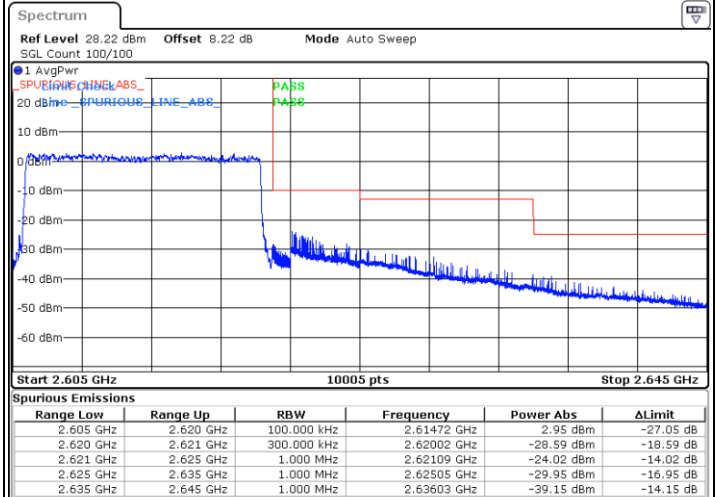
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



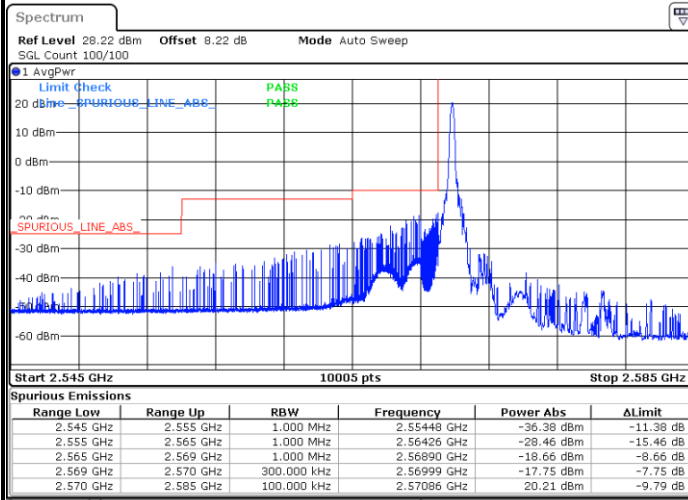
Highest Band Edge / Full RB



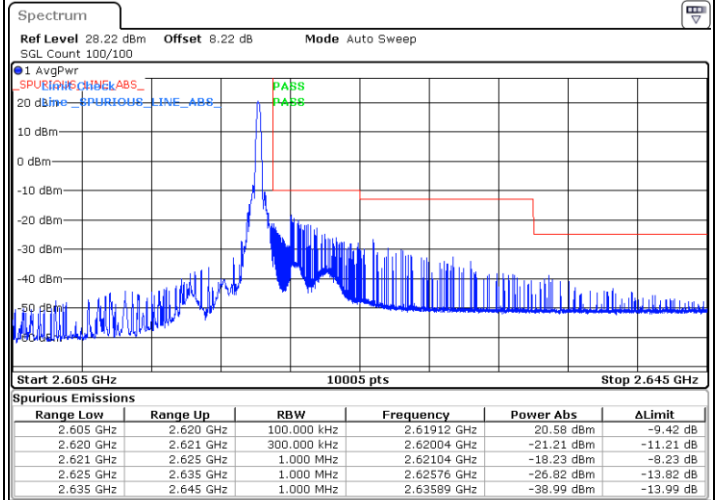


LTE Band 38 / 15MHz / 16QAM

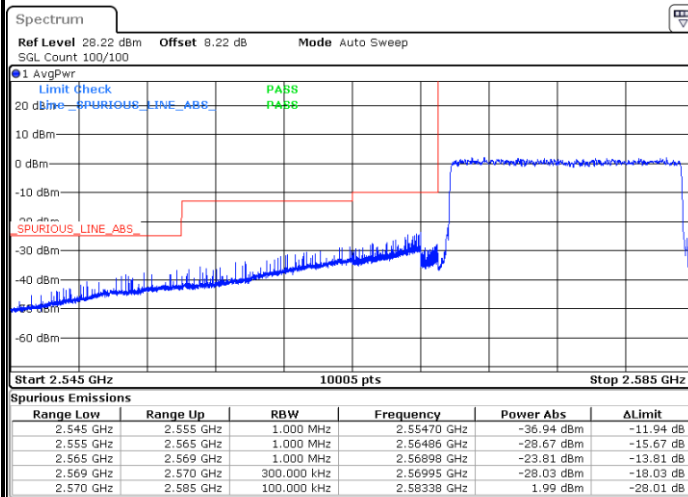
Lowest Band Edge / 1 RB



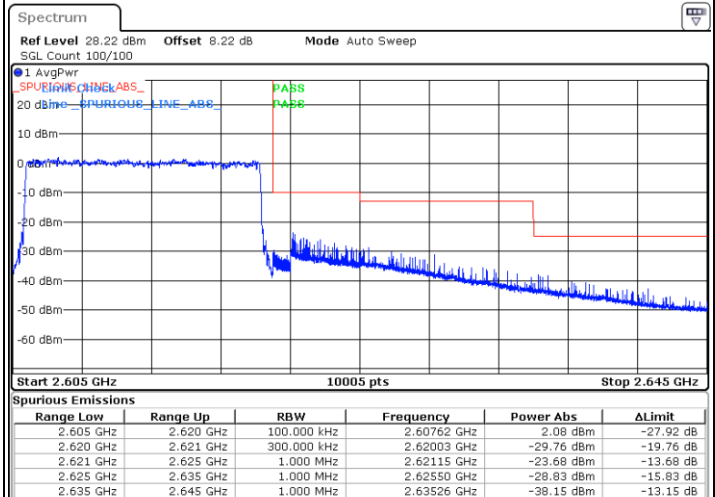
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



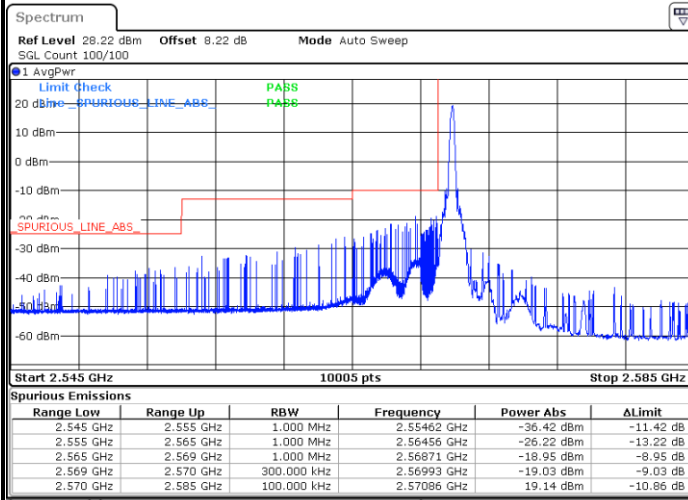
Highest Band Edge / Full RB



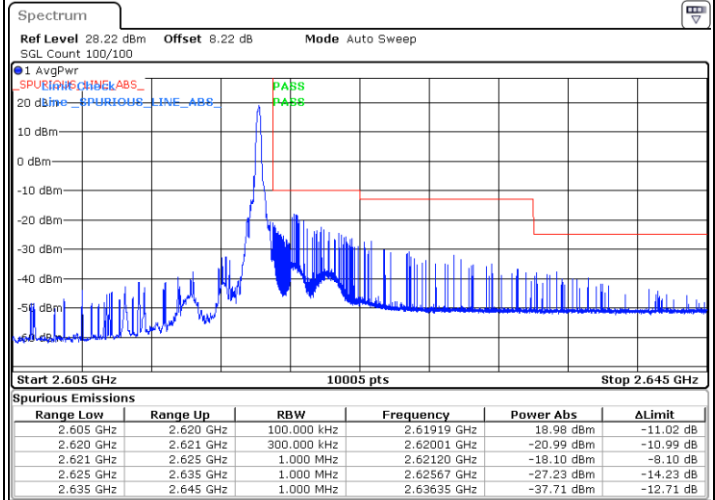


LTE Band 38 / 15MHz / 64QAM

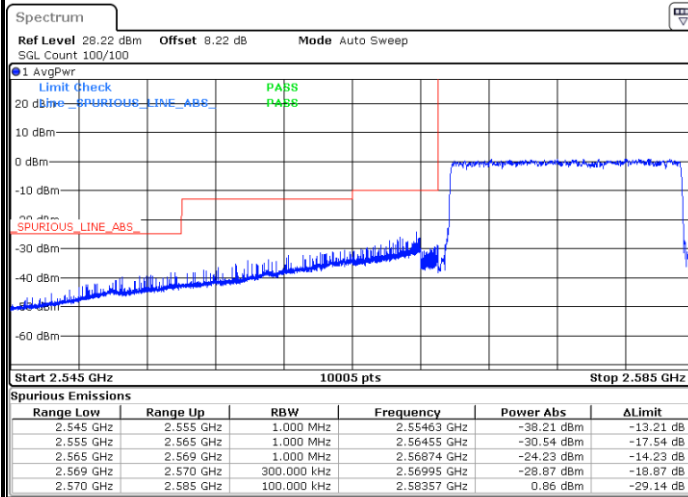
Lowest Band Edge / 1 RB



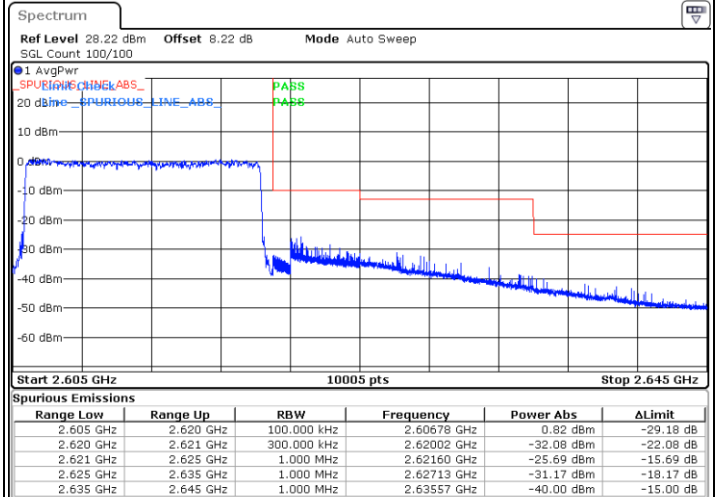
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



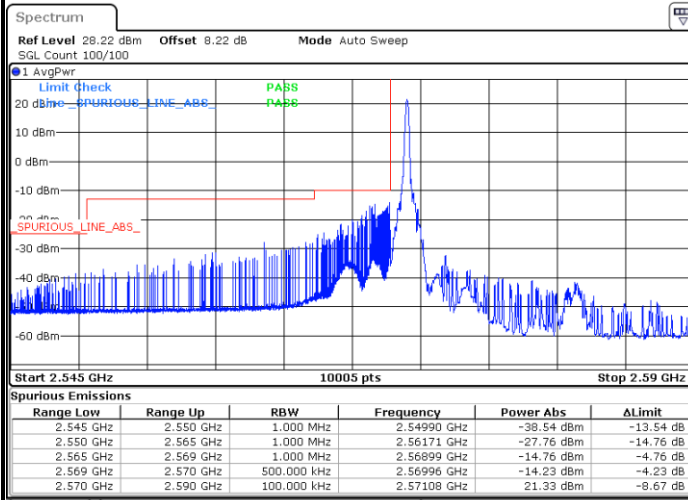
Highest Band Edge / Full RB



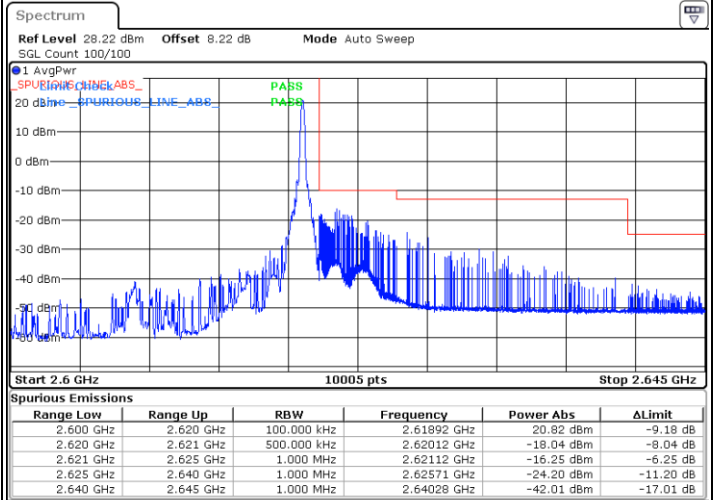


LTE Band 38 / 20MHz / QPSK

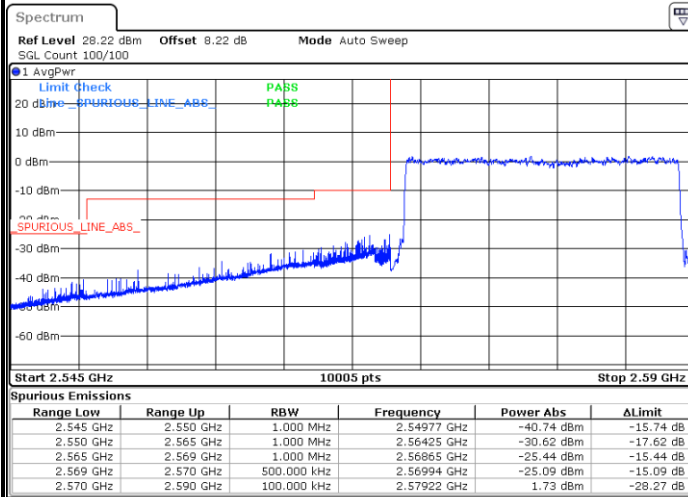
Lowest Band Edge / 1 RB



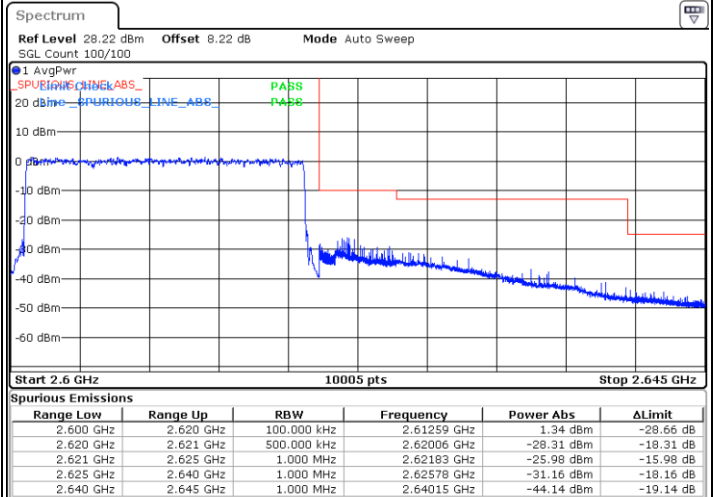
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



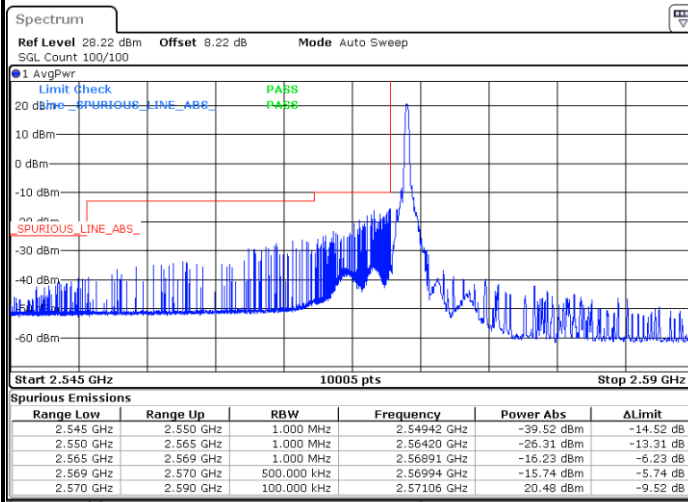
Highest Band Edge / Full RB



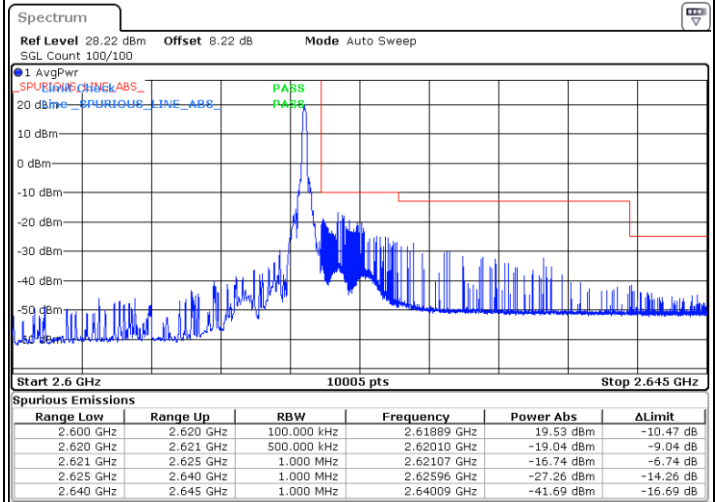


LTE Band 38 / 20MHz / 16QAM

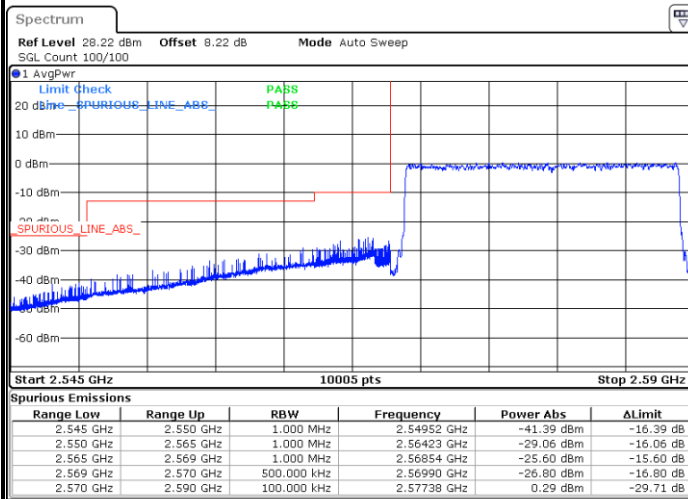
Lowest Band Edge / 1 RB



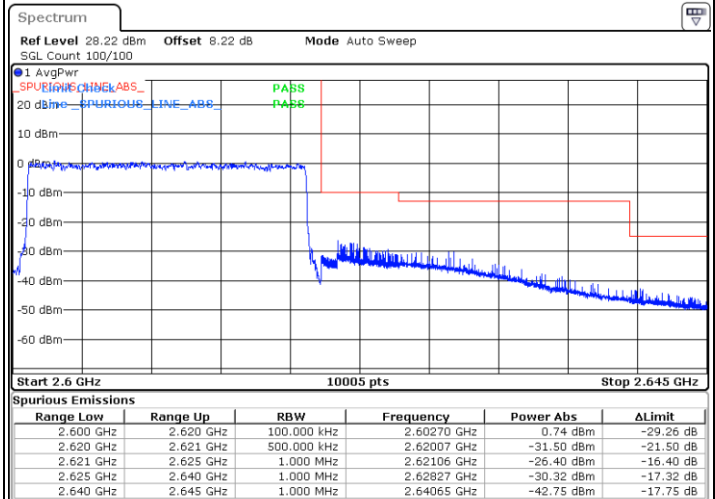
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



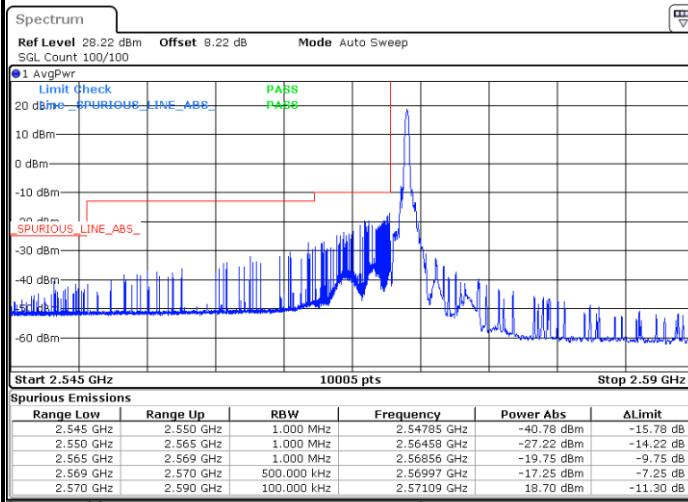
Highest Band Edge / Full RB



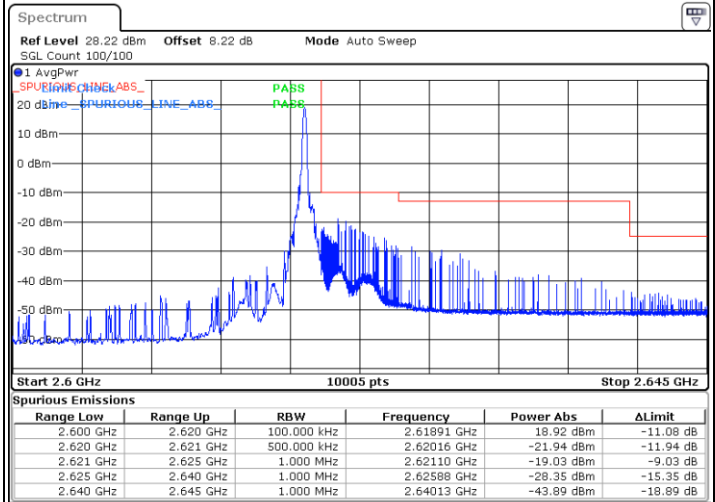


LTE Band 38 / 20MHz / 64QAM

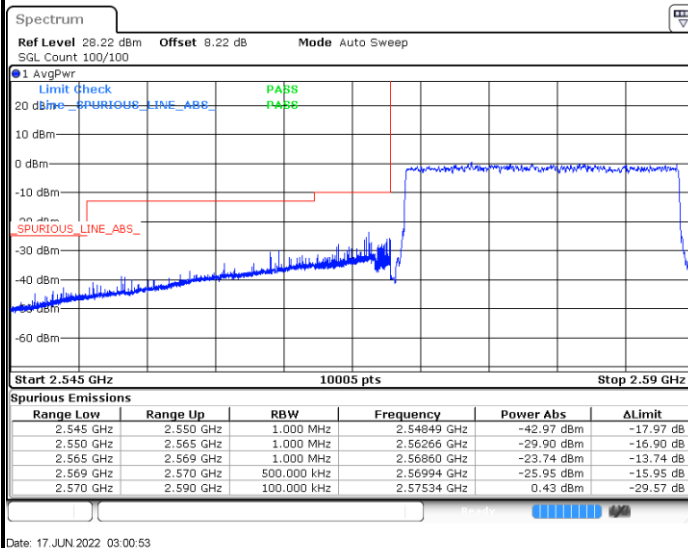
Lowest Band Edge / 1 RB



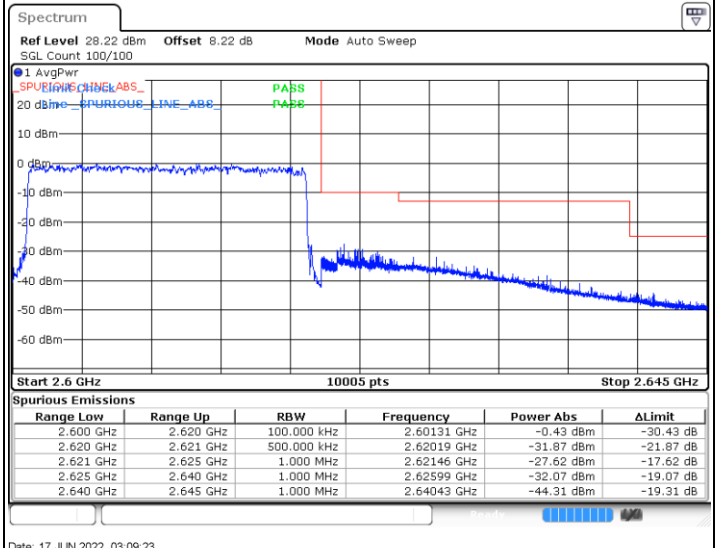
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

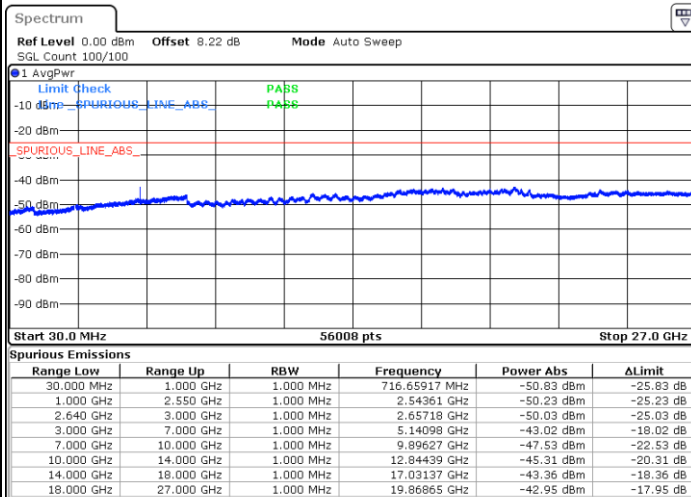




Conducted Spurious Emission

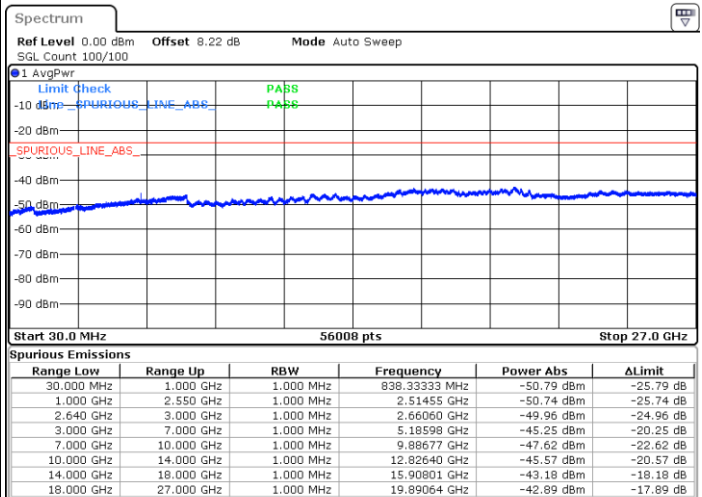
LTE Band 38 / 5MHz

Lowest Channel / QPSK



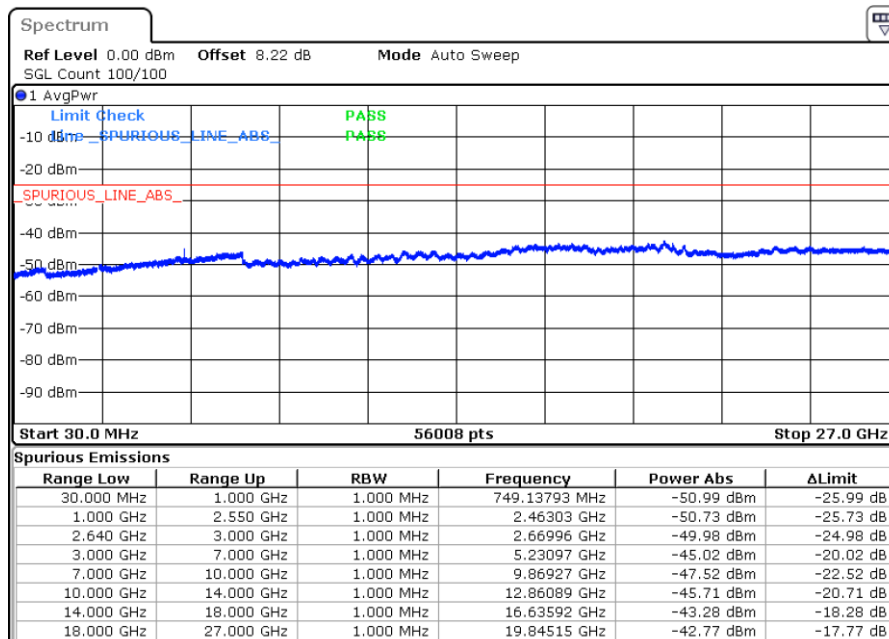
Date: 17 JUN 2022 03:16:49

Middle Channel / QPSK



Date: 17 JUN 2022 03:18:00

Highest Channel / QPSK

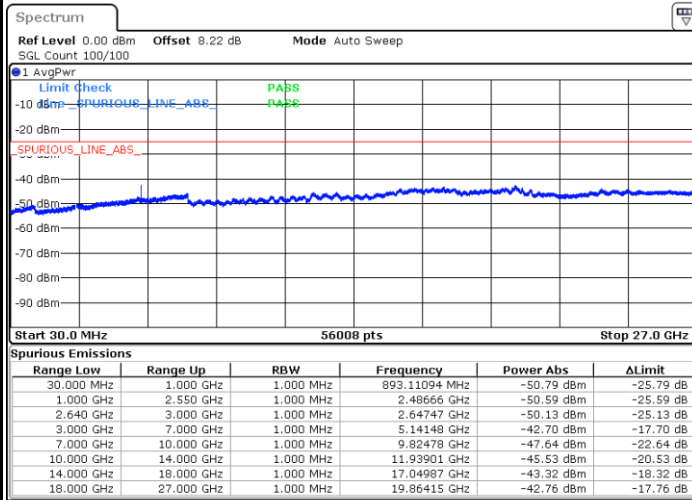


Date: 17 JUN 2022 03:19:12



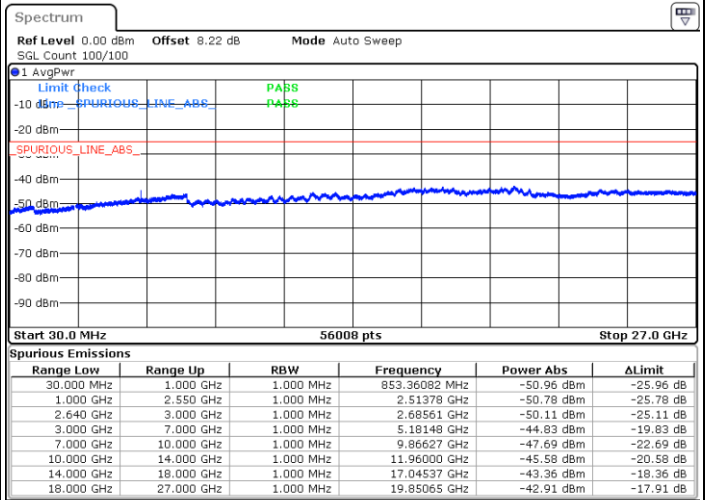
LTE Band 38 / 10MHz

Lowest Channel / QPSK



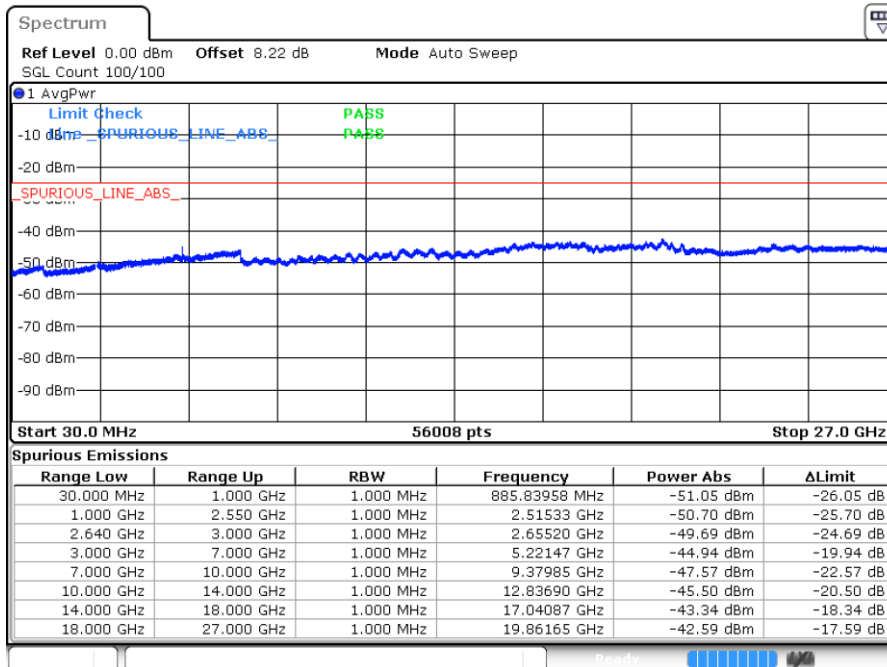
Date: 17 JUN 2022 02:29:27

Middle Channel / QPSK



Date: 17 JUN 2022 02:30:49

Highest Channel / QPSK

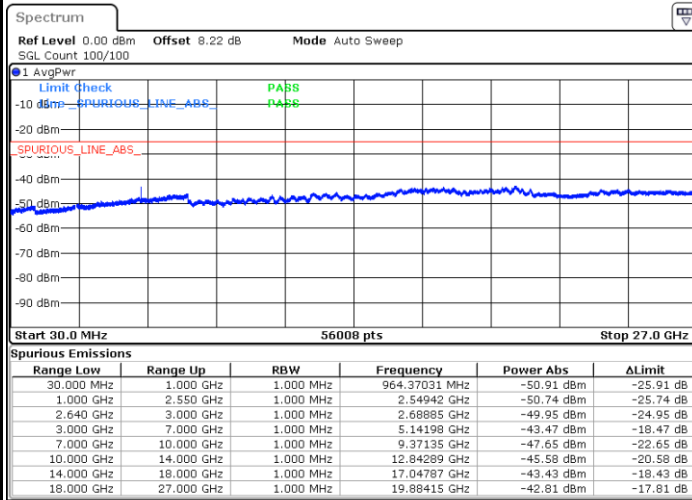


Date: 17 JUN 2022 02:32:10



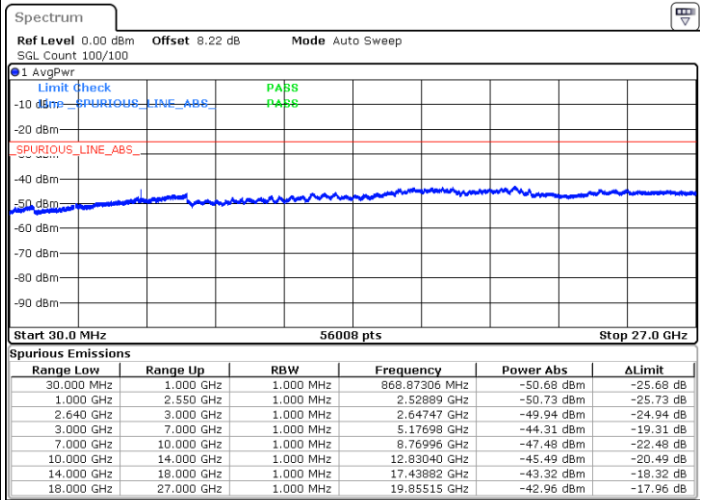
LTE Band 38 / 15MHz

Lowest Channel / QPSK



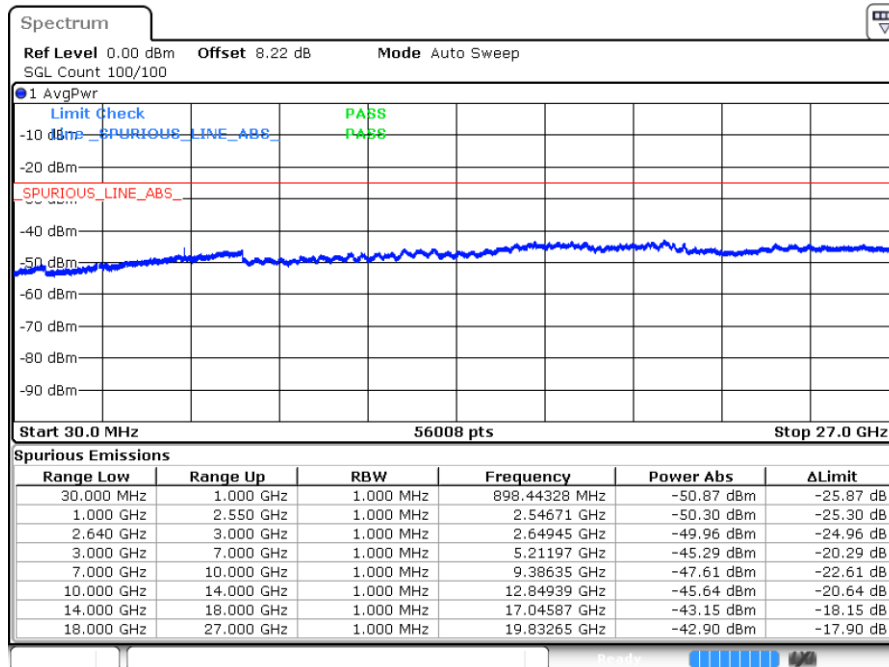
Date: 17 JUN 2022 02:50:08

Middle Channel / QPSK



Date: 17 JUN 2022 02:51:19

Highest Channel / QPSK

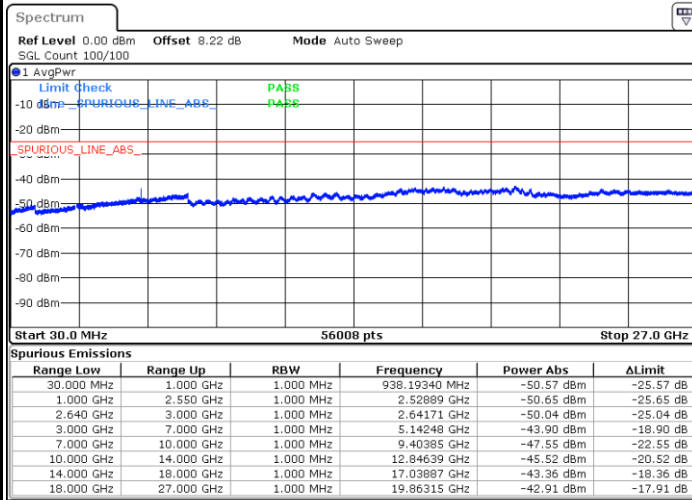


Date: 17 JUN 2022 02:52:30



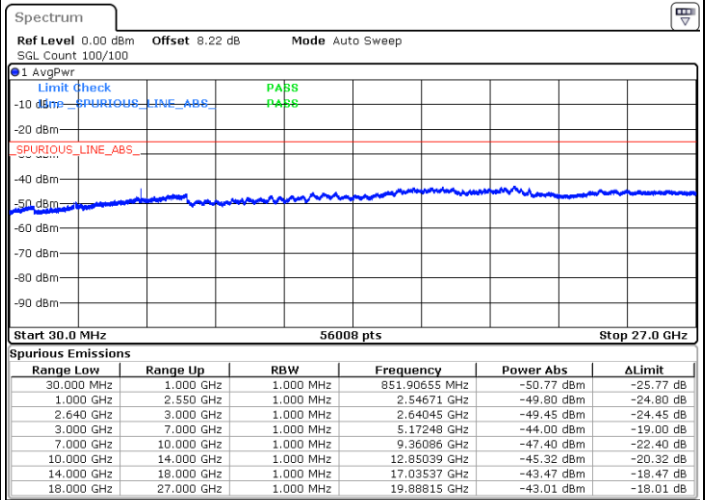
LTE Band 38 / 20MHz

Lowest Channel / QPSK



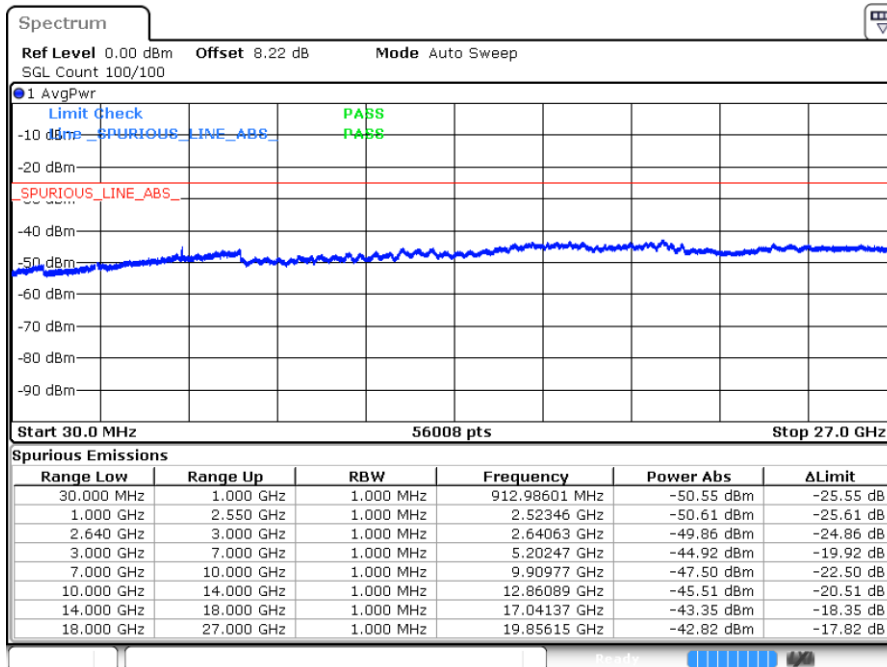
Date: 17 JUN 2022 03:03:28

Middle Channel / QPSK



Date: 17 JUN 2022 03:04:39

Highest Channel / QPSK



Date: 17 JUN 2022 03:05:52

Frequency Stability

Test Conditions		LTE Band 38 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0028	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0019	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0014	

Note:

1. Normal Voltage =3.87V. ; Battery End Point (BEP) =3.55V. ; Maximum Voltage =4.45V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



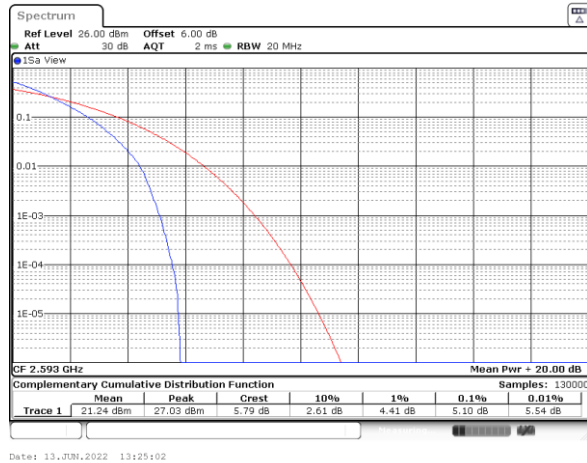
LTE Band 41

Peak-to-Average Ratio

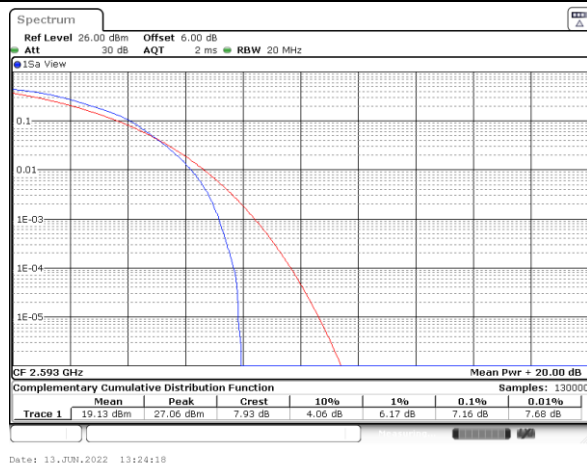
Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.1	7.16	6.70	PASS

LTE Band 41 / 20MHz / Full RB

LMiddle Channel / QPSK



Middle Channel /16QAM



Middle Channel /64QAM

