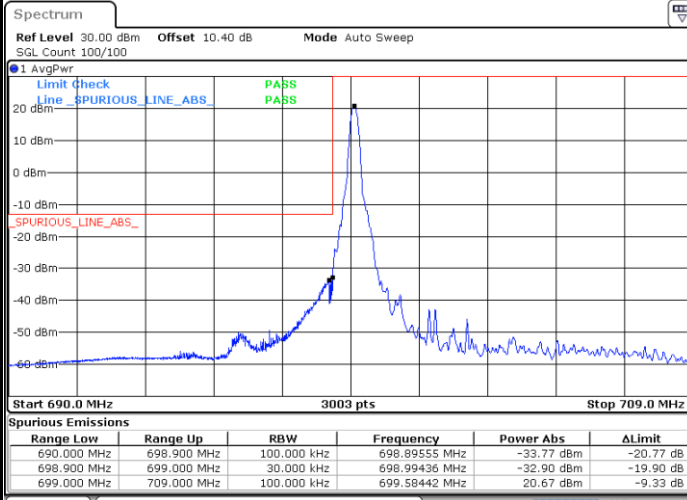




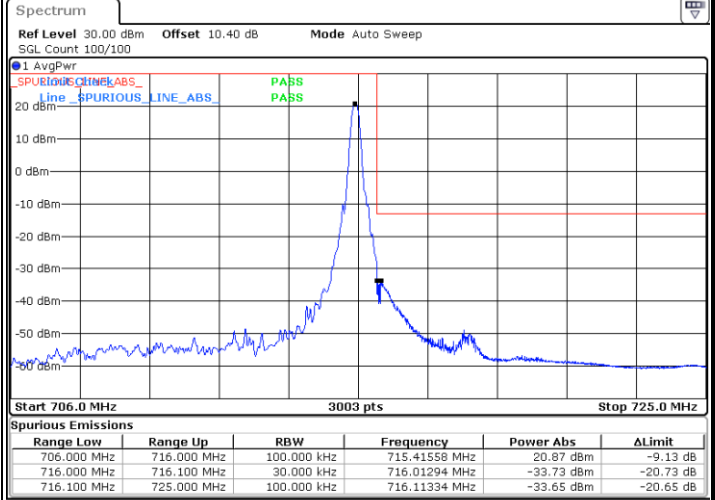
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



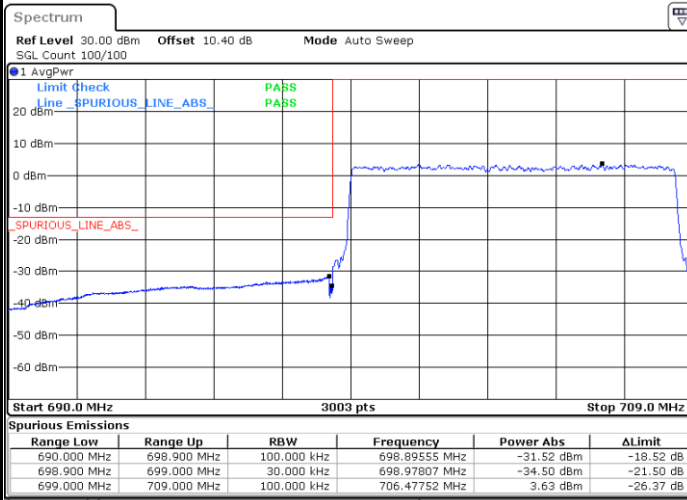
Date: 18.AUG.2022 15:06:29

Highest Band Edge / 1 RB



Date: 18.AUG.2022 15:14:07

Lowest Band Edge / Full RB



Date: 18.AUG.2022 15:05:35

Highest Band Edge / Full RB

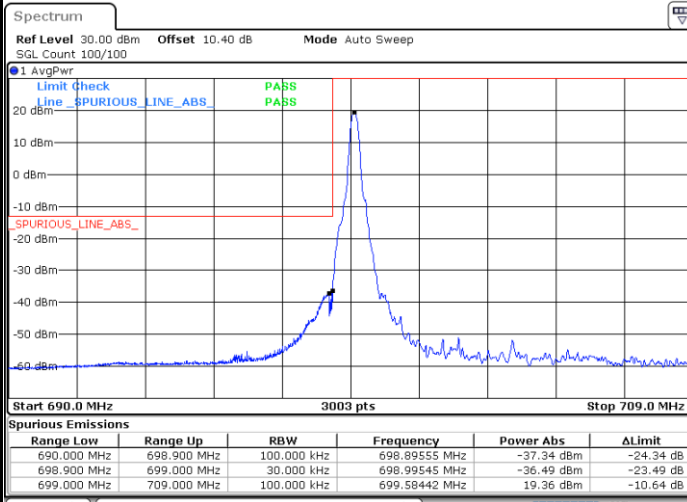


Date: 18.AUG.2022 15:13:13



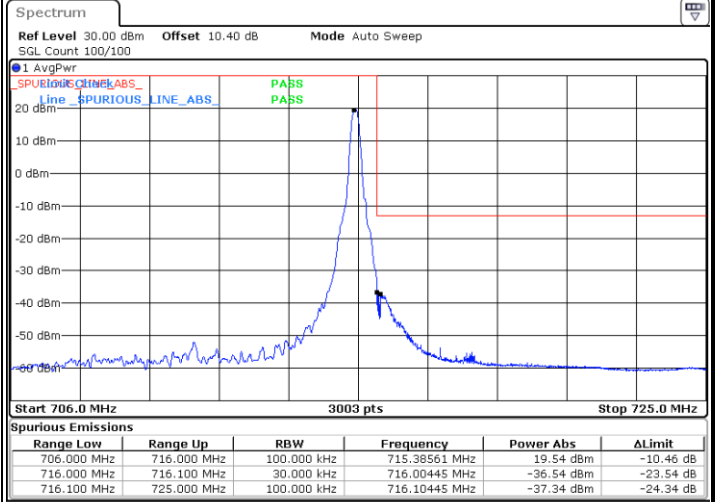
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



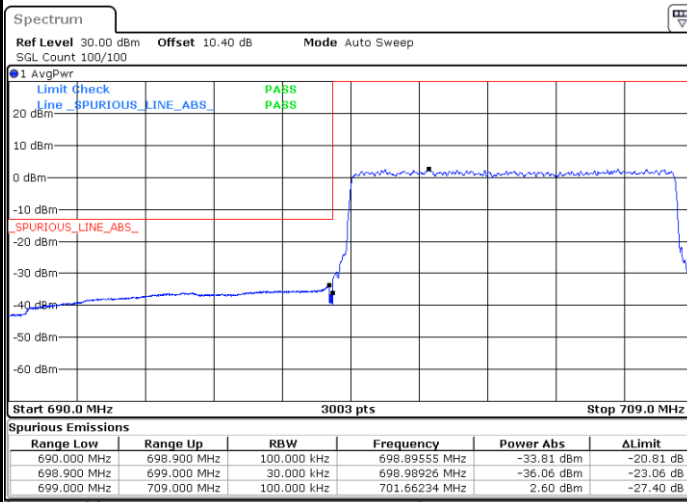
Date: 18.AUG.2022 15:18:07

Highest Band Edge / 1 RB



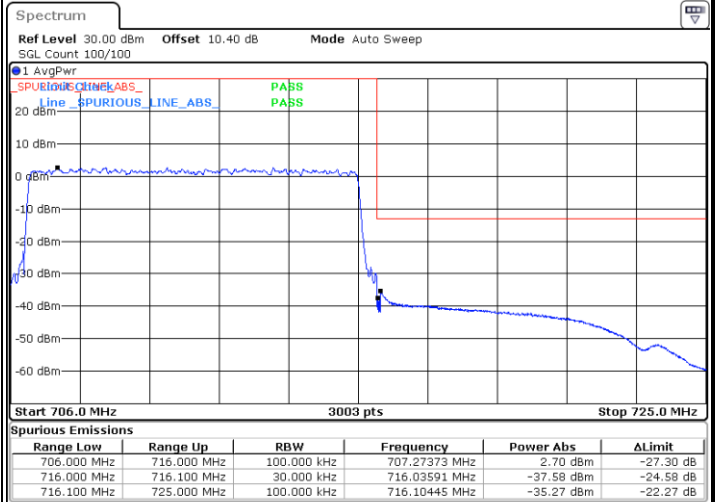
Date: 18.AUG.2022 15:20:37

Lowest Band Edge / Full RB



Date: 18.AUG.2022 15:17:13

Highest Band Edge / Full RB

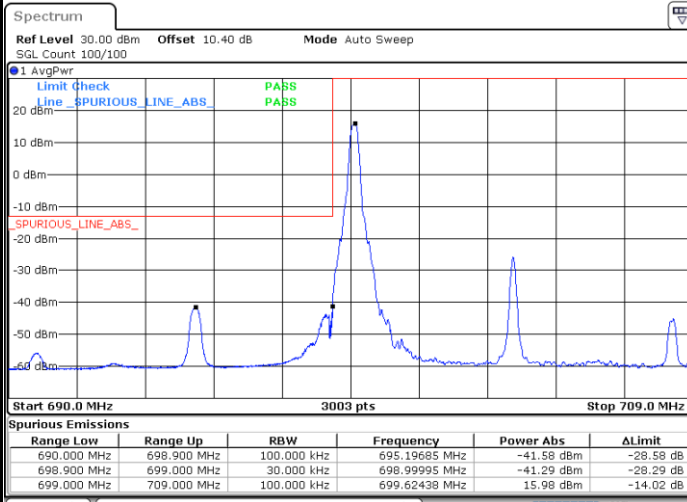


Date: 18.AUG.2022 15:19:43



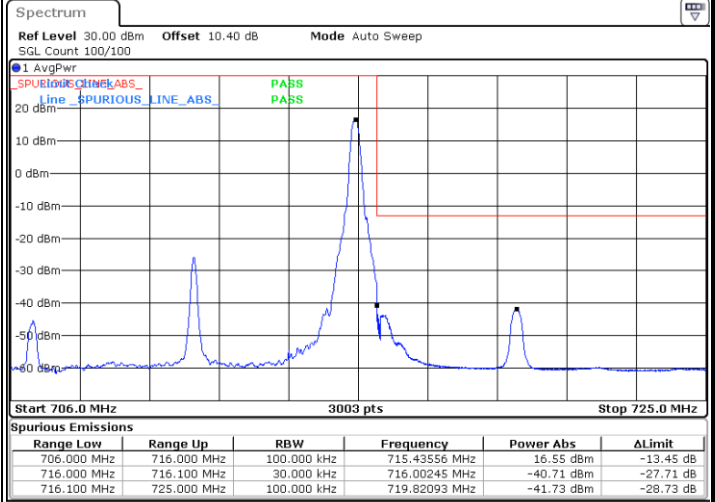
LTE Band 12 / 10MHz / 256QAM

Lowest Band Edge / 1 RB



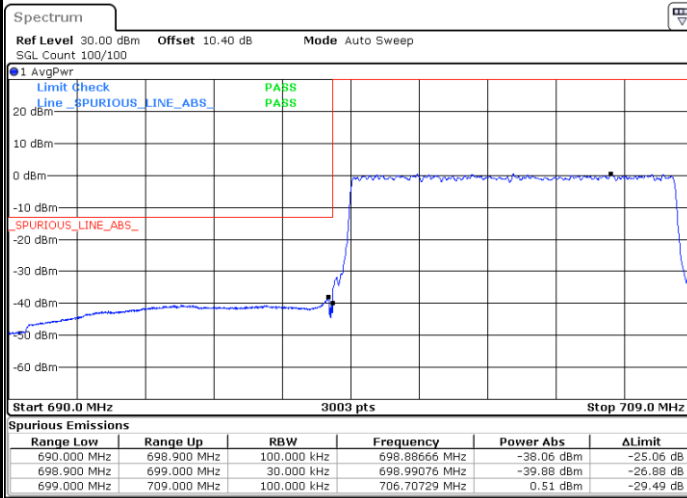
Date: 18.AUG.2022 15:37:33

Highest Band Edge / 1 RB



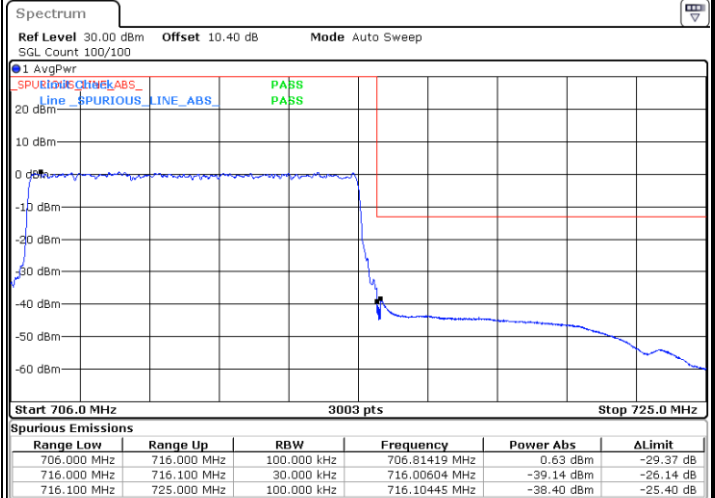
Date: 18.AUG.2022 15:40:06

Lowest Band Edge / Full RB



Date: 18.AUG.2022 15:36:36

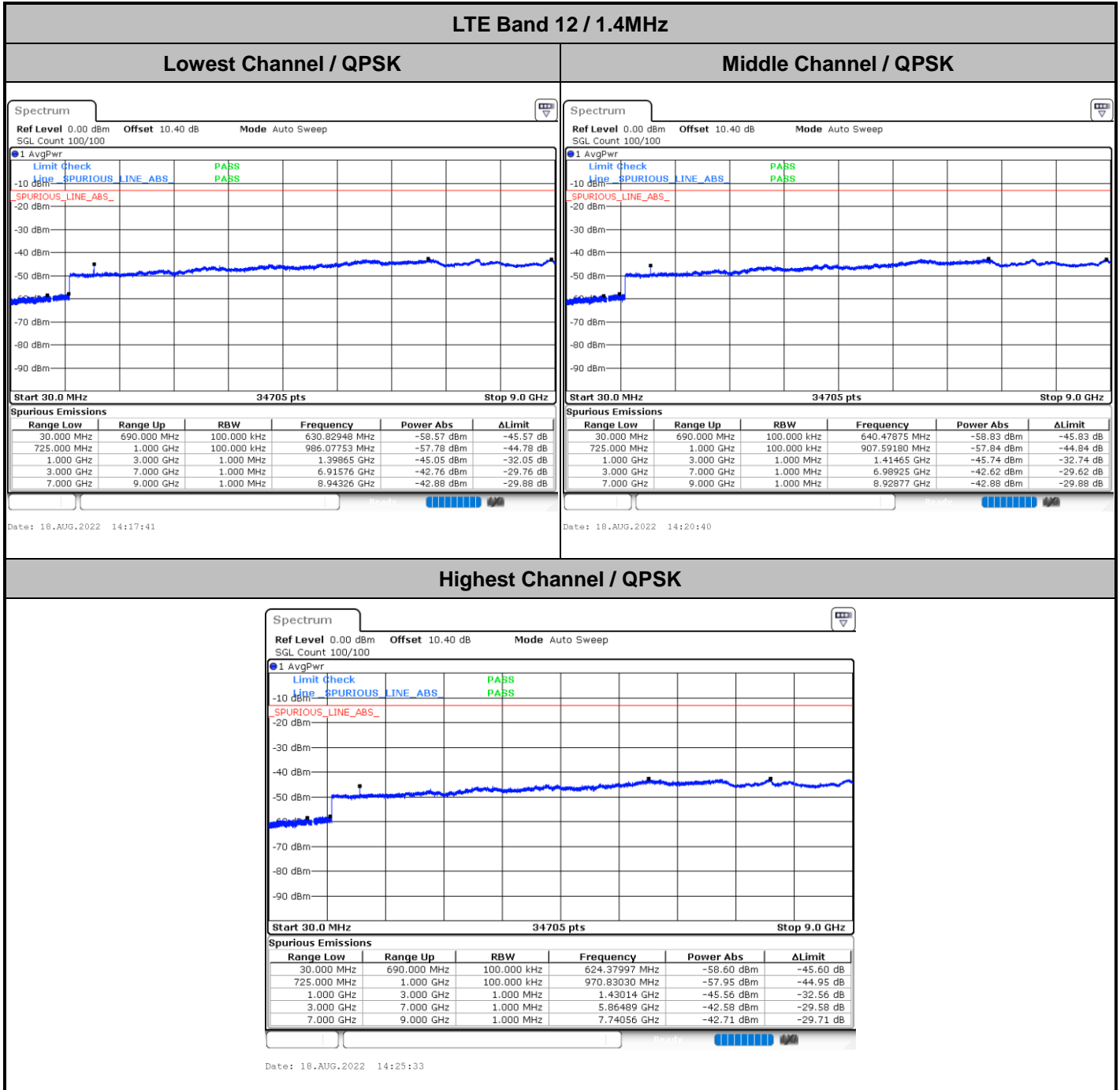
Highest Band Edge / Full RB



Date: 18.AUG.2022 15:39:09



# Conducted Spurious Emission

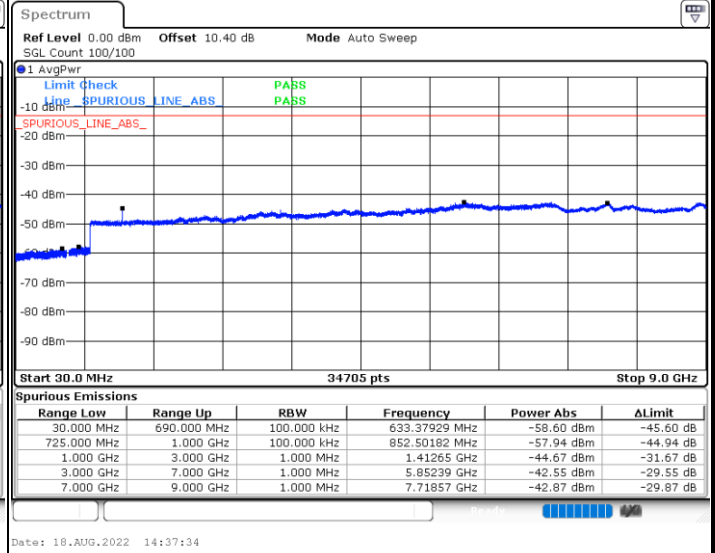
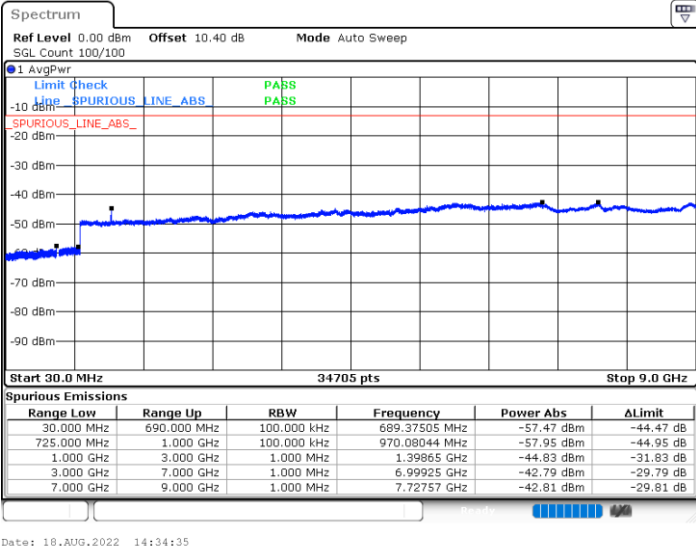




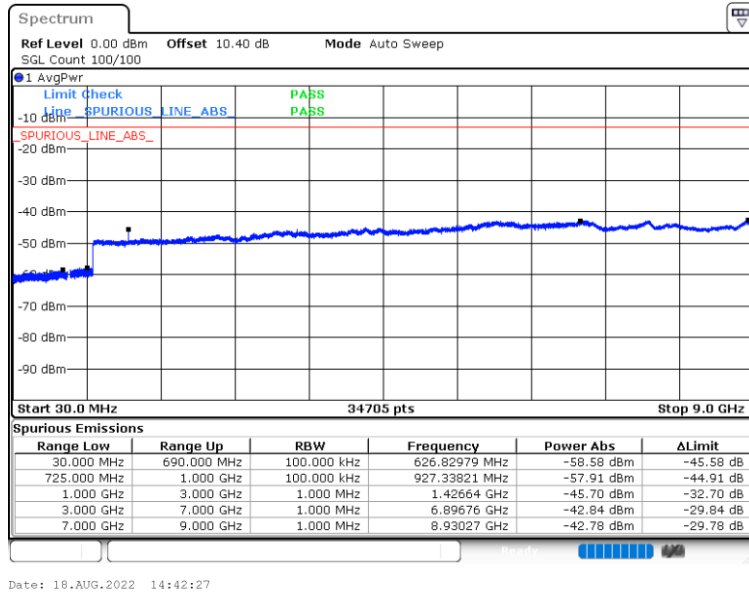
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

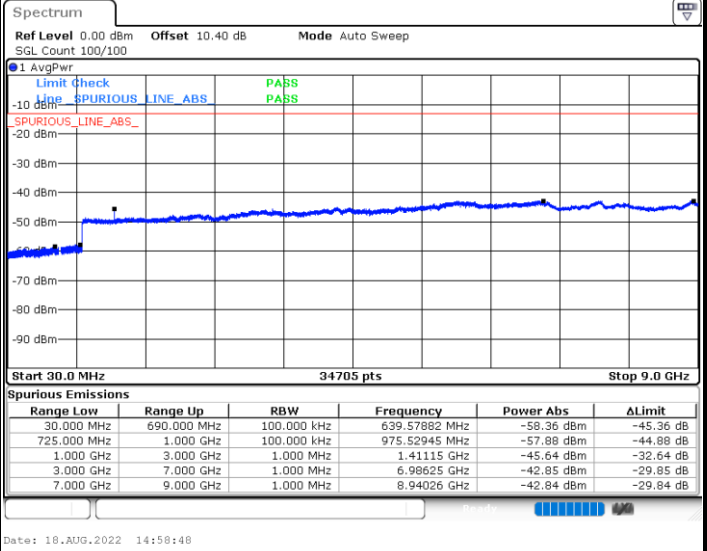
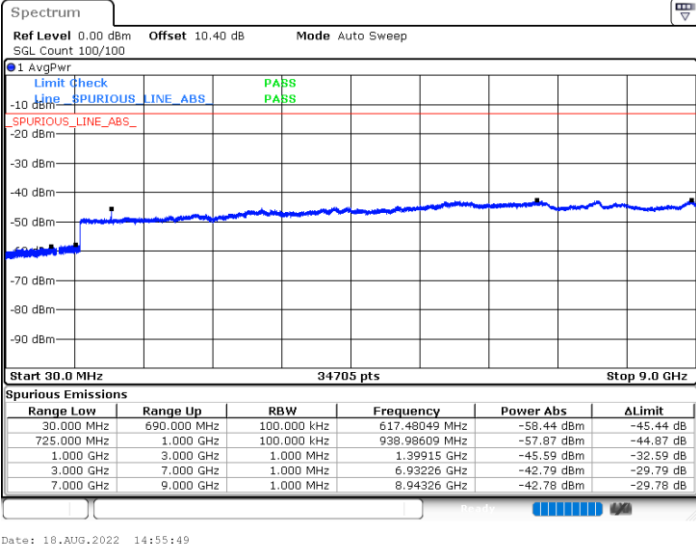




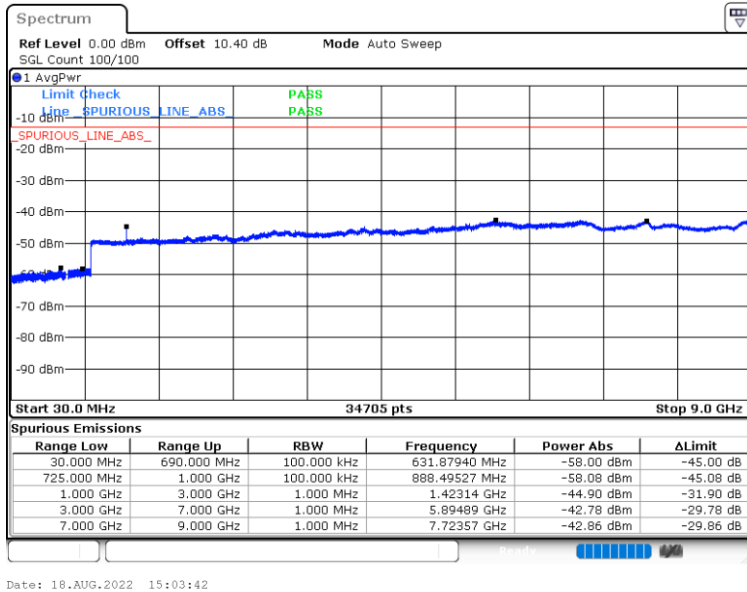
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

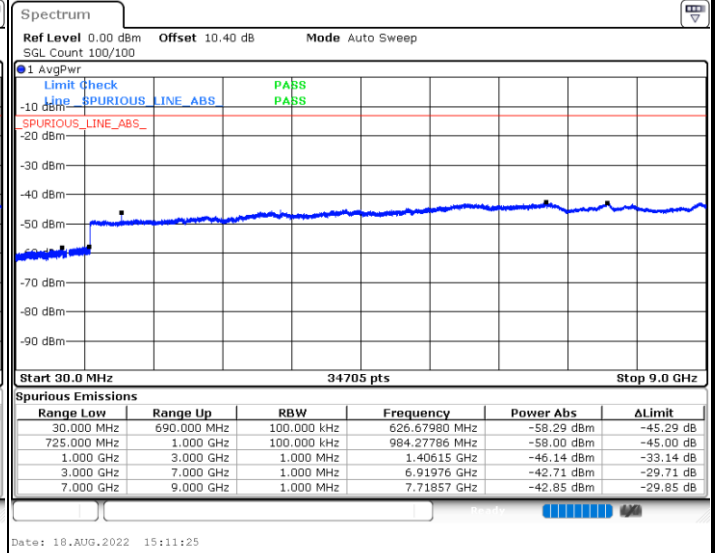
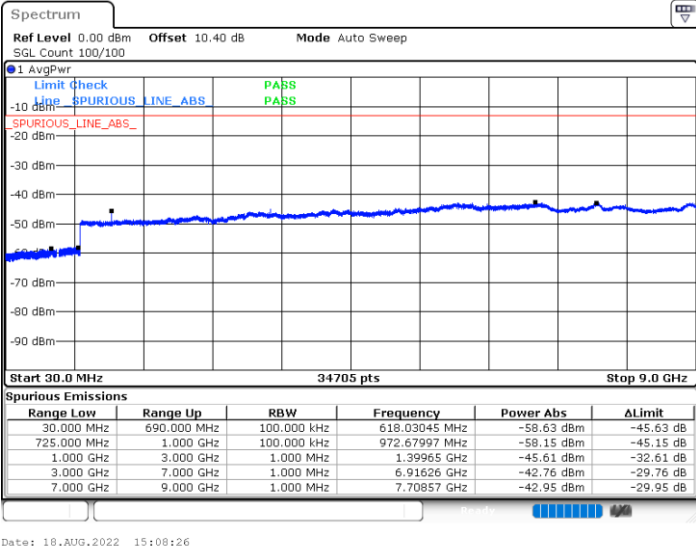




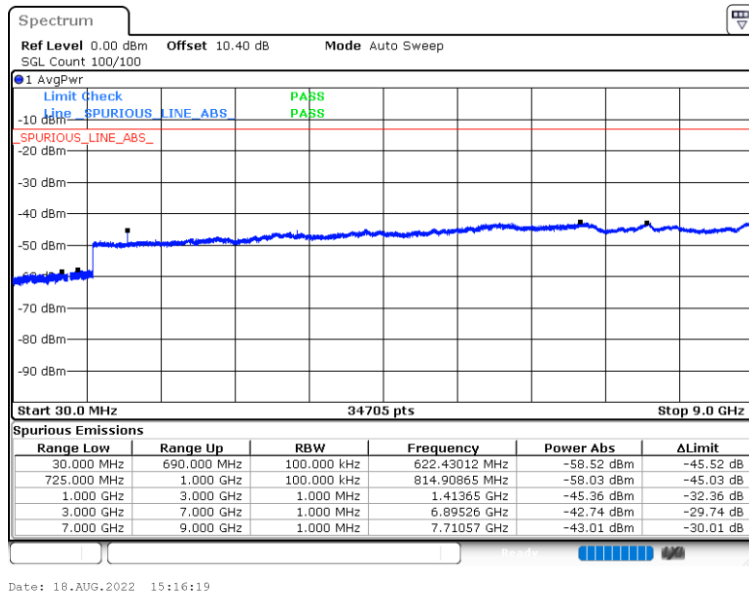
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





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	0.0141	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0153	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0189	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0163	
-20	Normal Voltage	0.0150	
-30	Normal Voltage	0.0052	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0038	

Note:

1. Normal Voltage = 3.30 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 3.63 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

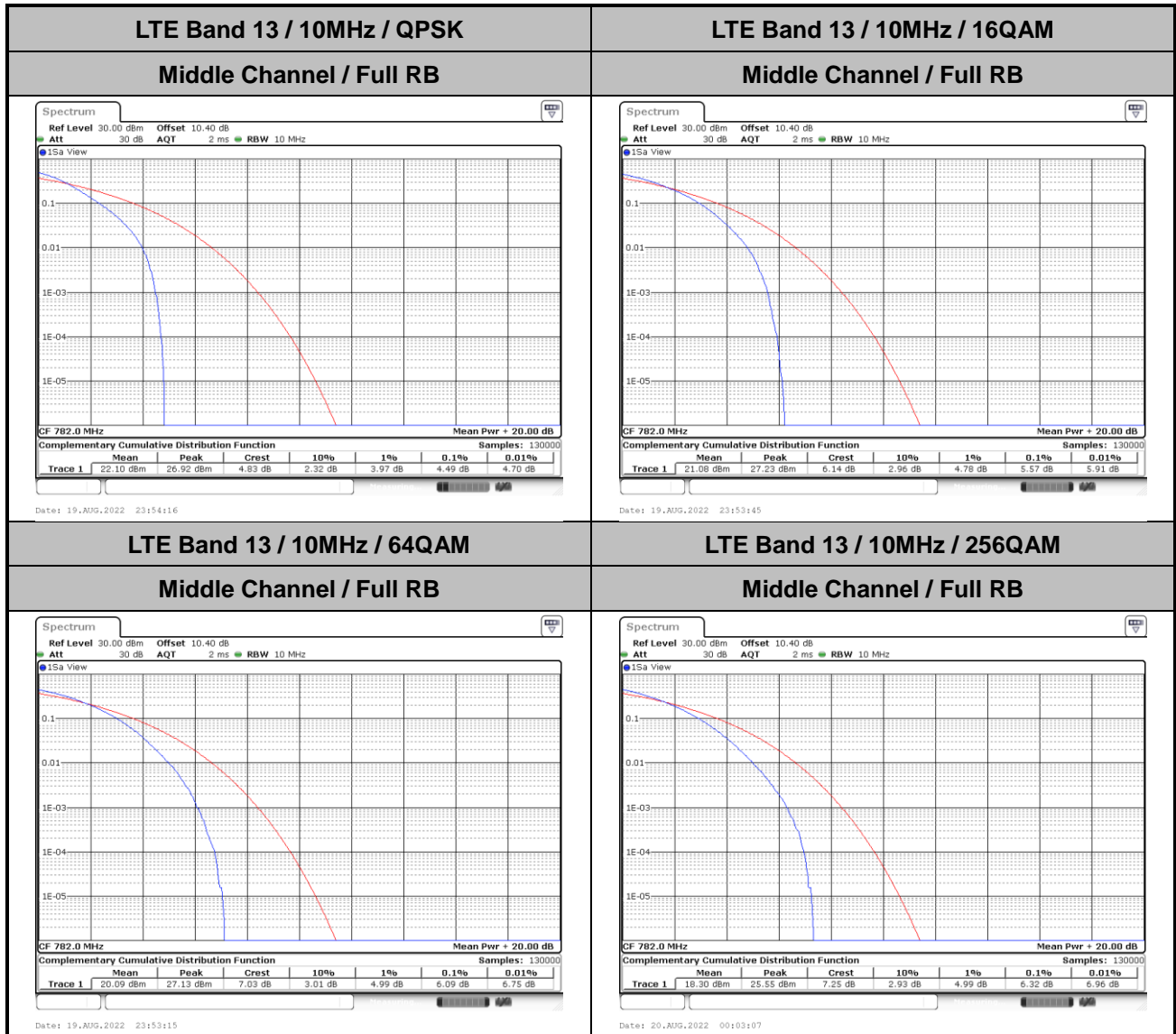




## LTE Band 13

### Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.49	5.57	6.09	6.32	<b>PASS</b>





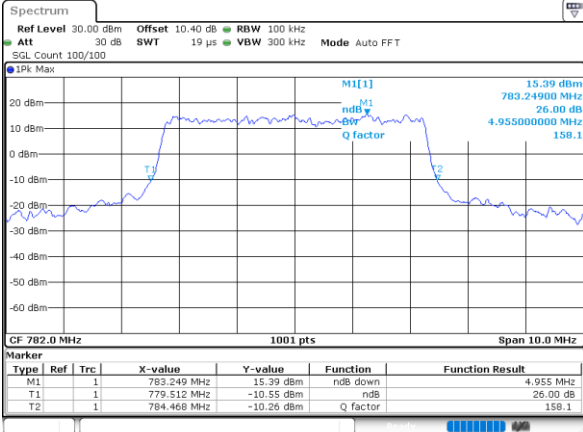
**26dB Bandwidth**

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
Middle CH	-	-	-	-	4.96	5.12	9.99	9.93	-	-	-	-
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
Middle CH	-	-	-	-	5.03	5.00	10.01	9.85	-	-	-	-



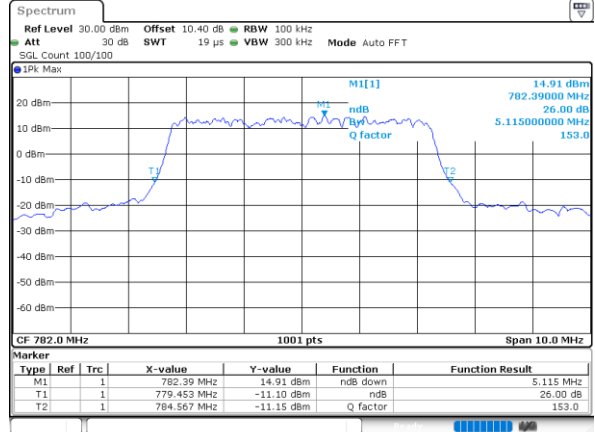
LTE Band 13

Middle Channel / 5MHz / QPSK



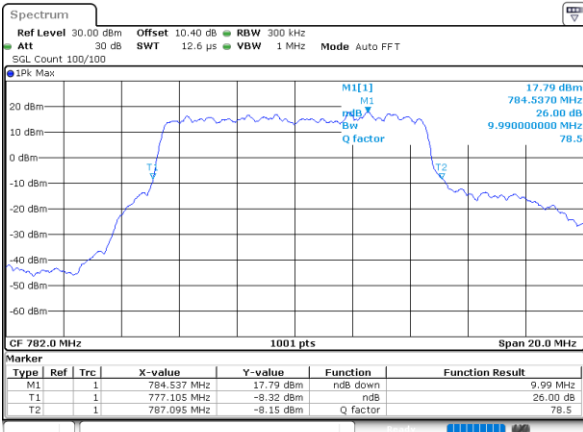
Date: 19\_AUG.2022 23:29:31

Middle Channel / 5MHz / 16QAM



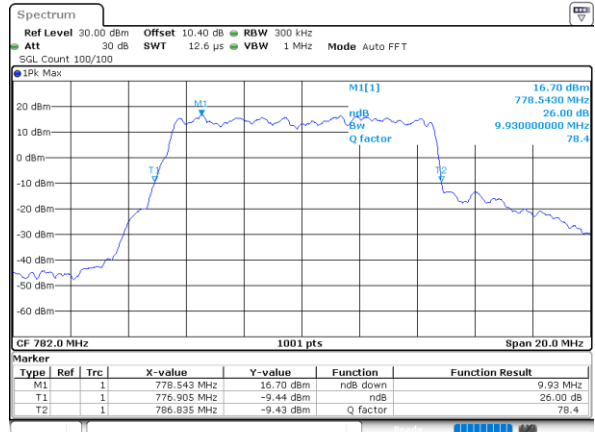
Date: 19\_AUG.2022 23:30:00

Middle Channel / 10MHz / QPSK



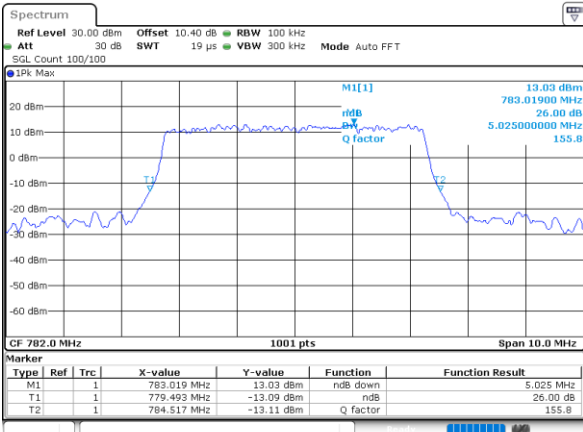
Date: 19\_AUG.2022 23:42:24

Middle Channel / 10MHz / 16QAM



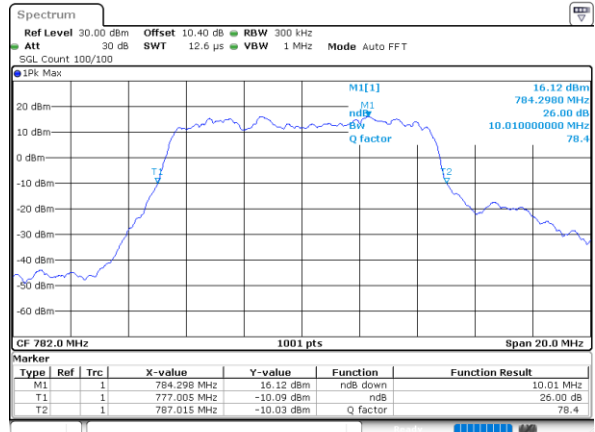
Date: 19\_AUG.2022 23:41:55

Middle Channel / 5MHz / 64QAM



Date: 19\_AUG.2022 23:38:26

Middle Channel / 10MHz / 64QAM



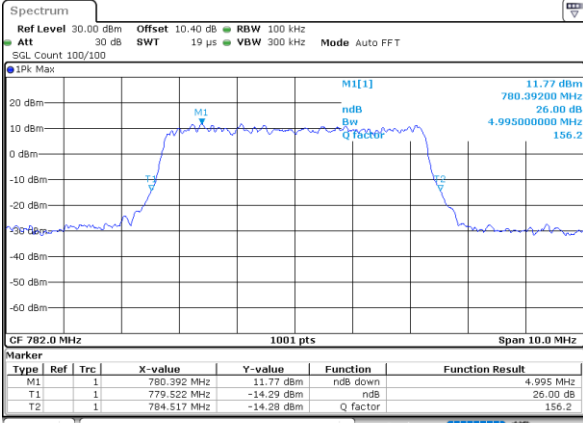
Date: 19\_AUG.2022 23:50:03



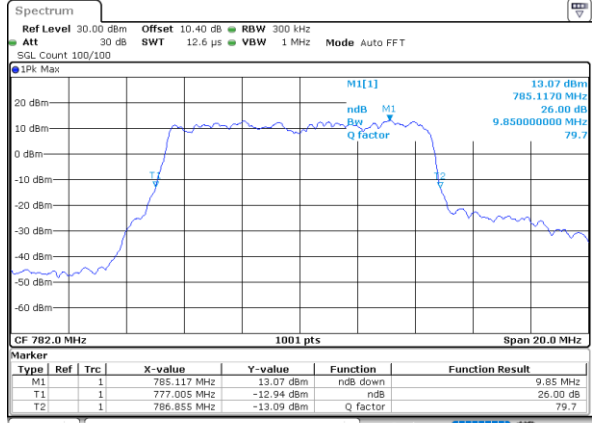
LTE Band 13

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 19\_AUG.2022 23:56:52



Date: 19\_AUG.2022 23:59:56



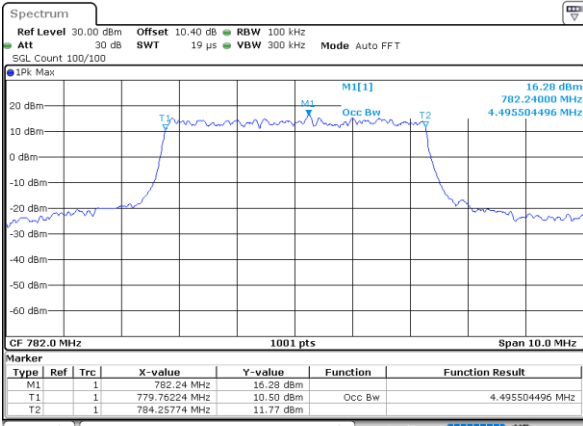
**Occupied Bandwidth**

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
Middle CH	-	-	-	-	4.50	4.50	9.03	9.01	-	-	-	-
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
Middle CH	-	-	-	-	4.50	4.53	8.97	9.03	-	-	-	-



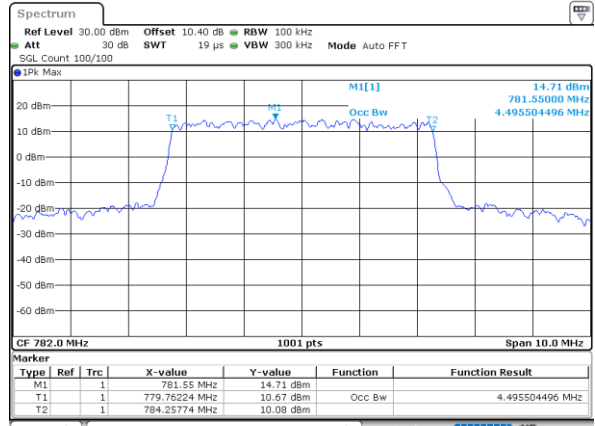
LTE Band 13

Middle Channel / 5MHz / QPSK



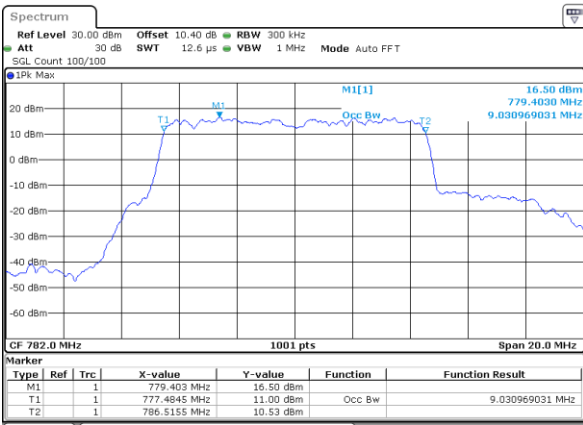
Date: 19\_AUG.2022 23:30:43

Middle Channel / 5MHz / 16QAM



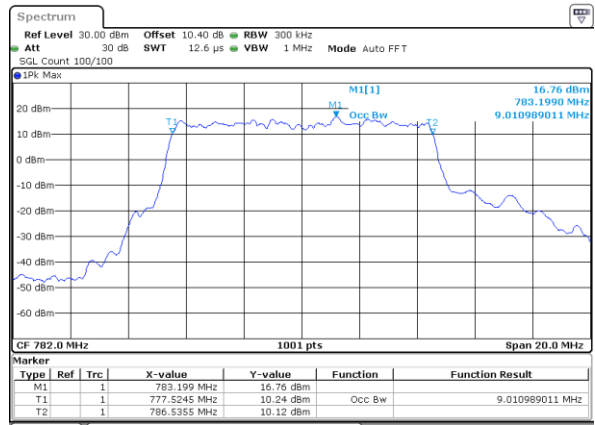
Date: 19\_AUG.2022 23:30:14

Middle Channel / 10MHz / QPSK



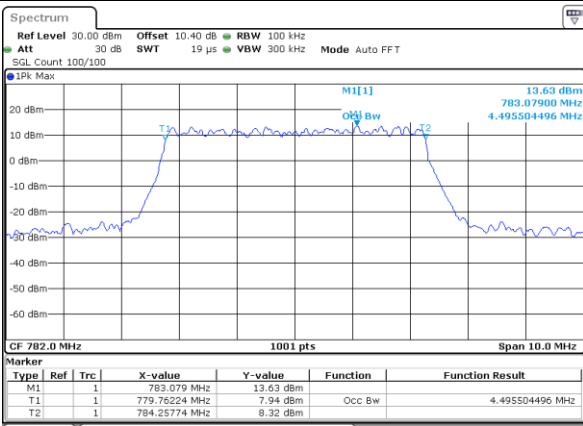
Date: 19\_AUG.2022 23:41:12

Middle Channel / 10MHz / 16QAM



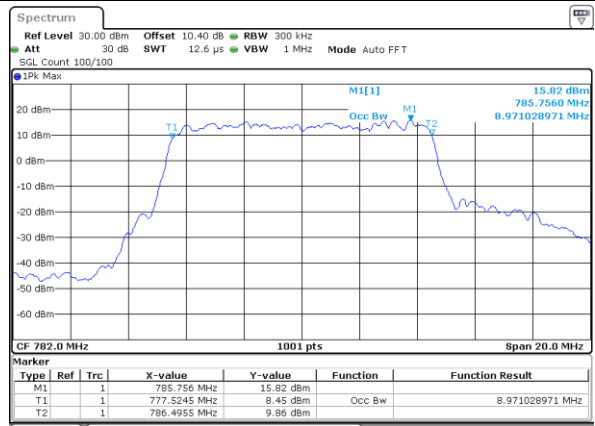
Date: 19\_AUG.2022 23:41:41

Middle Channel / 5MHz / 64QAM



Date: 19\_AUG.2022 23:38:40

Middle Channel / 10MHz / 64QAM



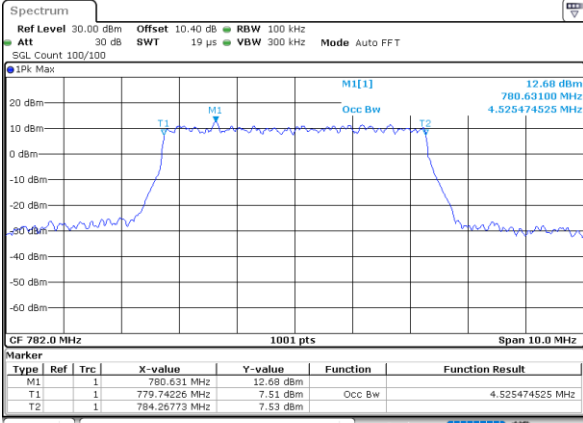
Date: 19\_AUG.2022 23:49:49



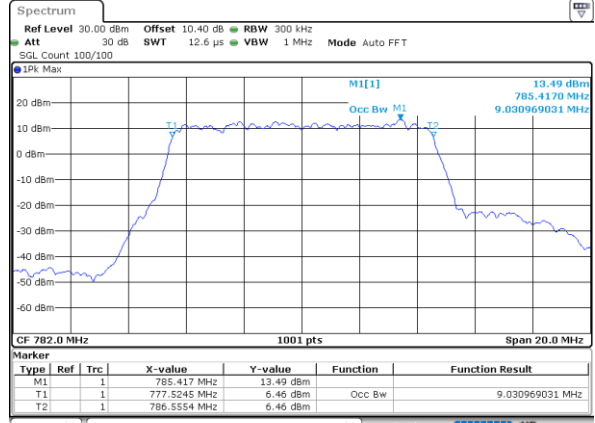
LTE Band 13

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 19\_AUG.2022 23:57:06



Date: 19\_AUG.2022 23:59:42



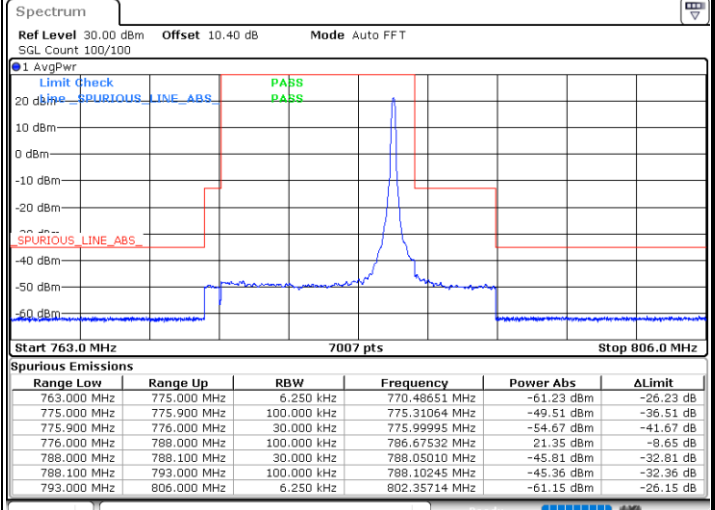
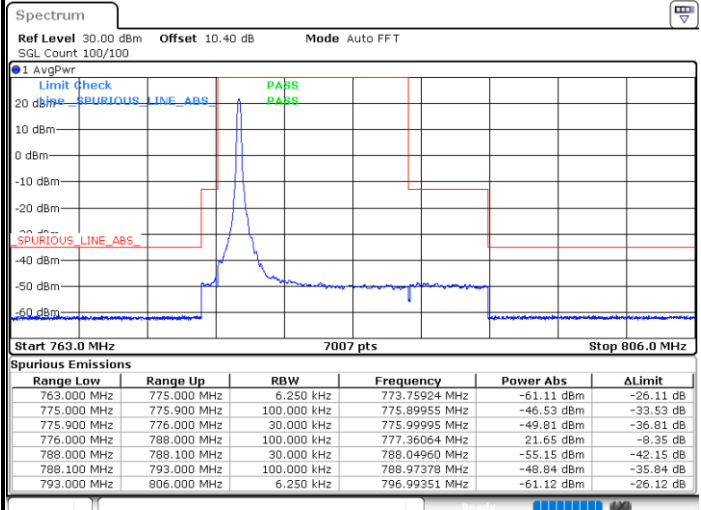


# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB

### Highest Band Edge / 1 RB

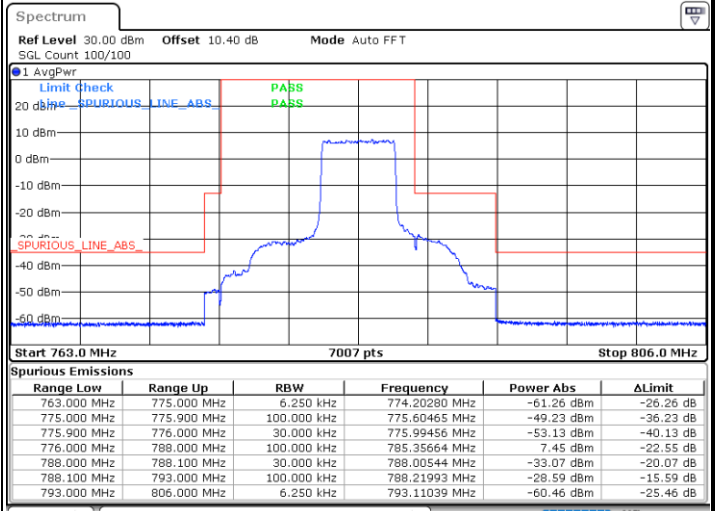
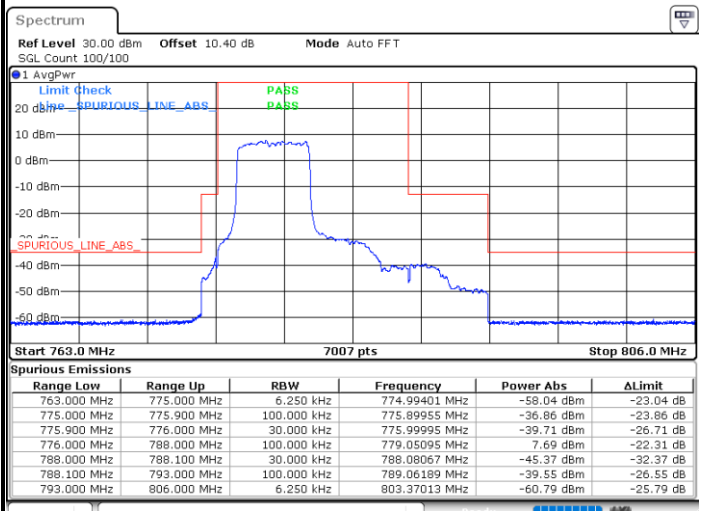


Date: 19.AUG.2022 23:26:40

Date: 19.AUG.2022 23:34:39

### Lowest Band Edge / Full RB

### Highest Band Edge / Full RB



Date: 19.AUG.2022 23:23:42

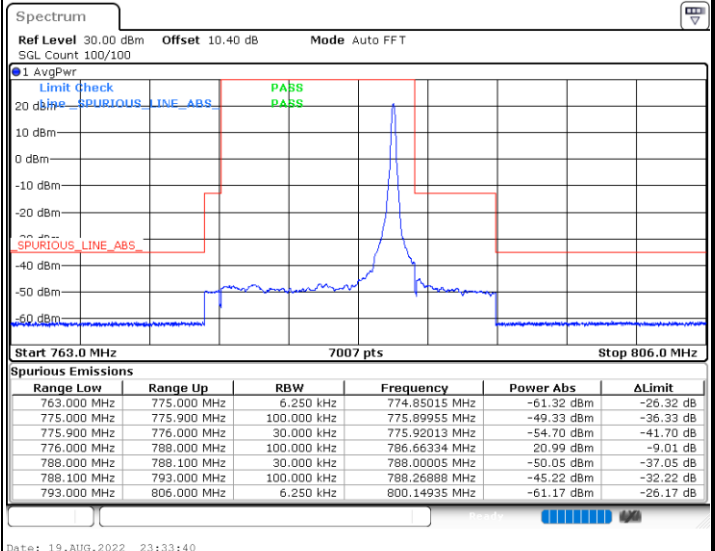
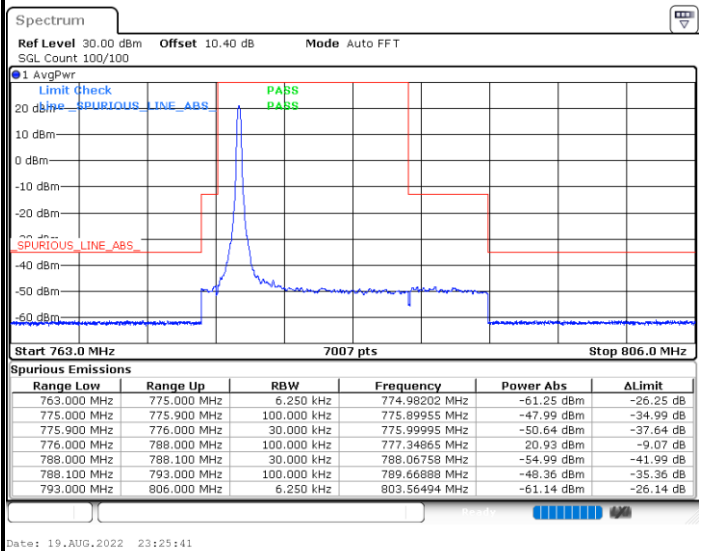
Date: 19.AUG.2022 23:31:41



LTE Band 13 / 5MHz / 16QAM

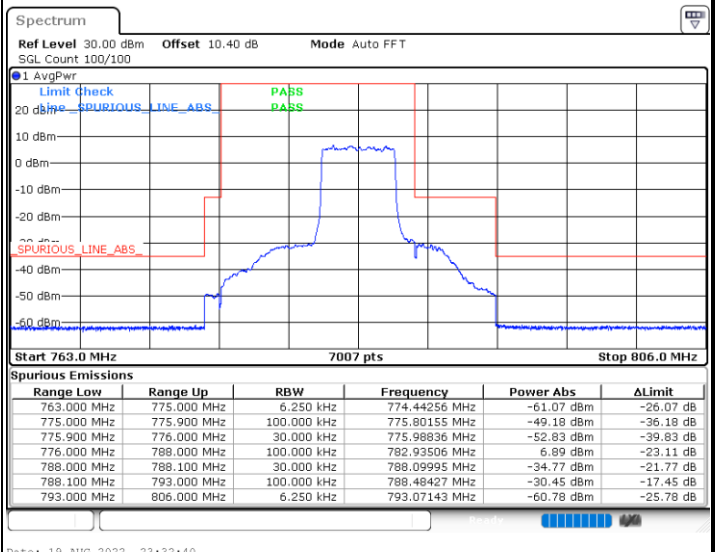
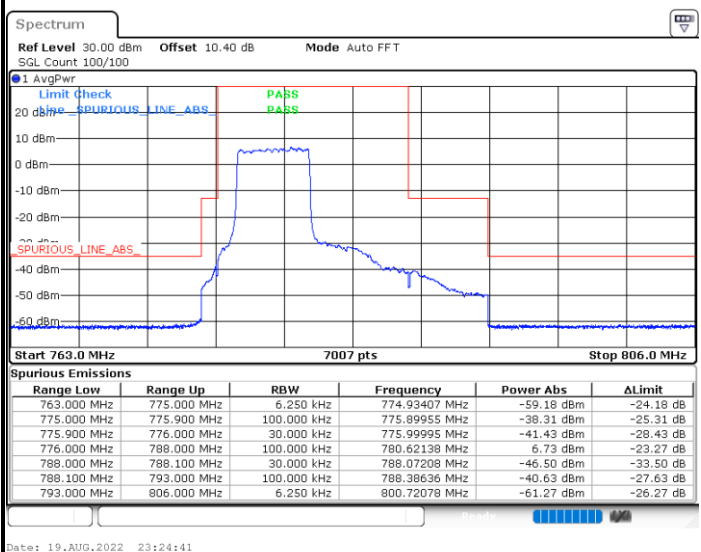
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

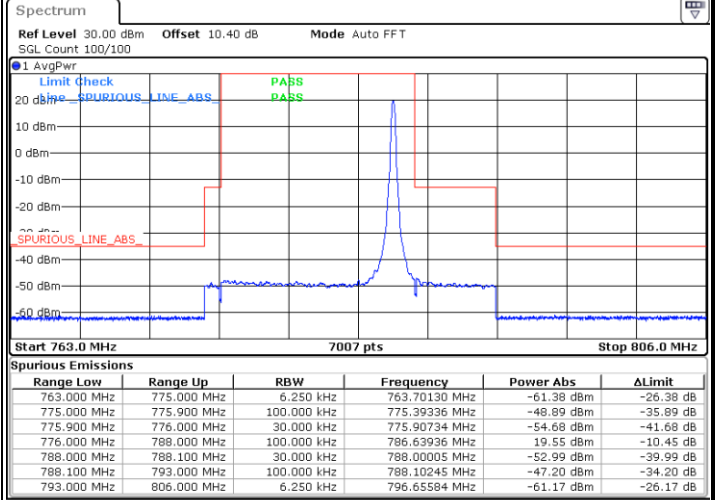
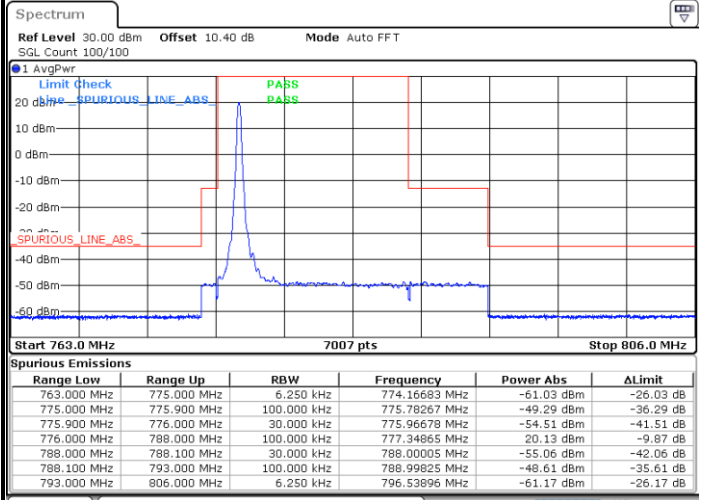




LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

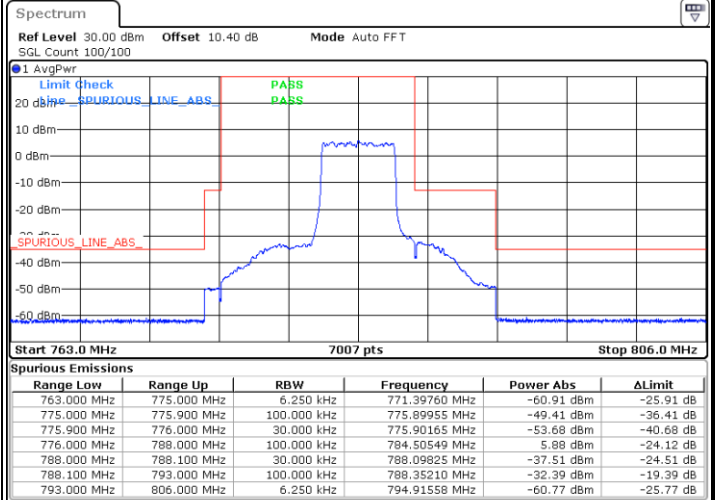
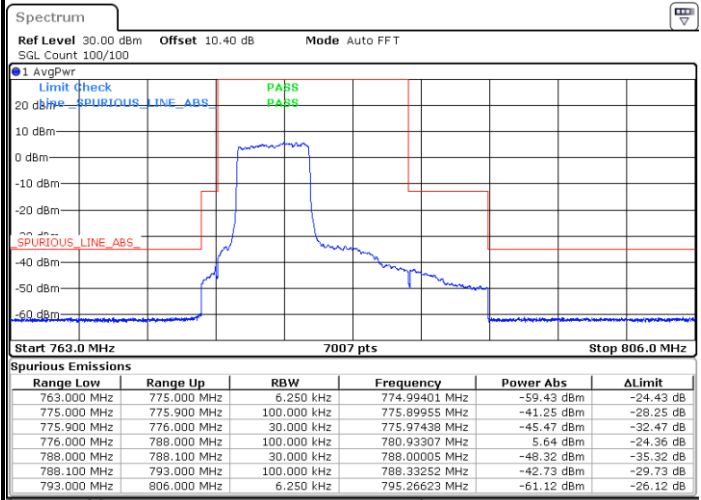


Date: 19.AUG.2022 23:37:56

Date: 19.AUG.2022 23:40:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



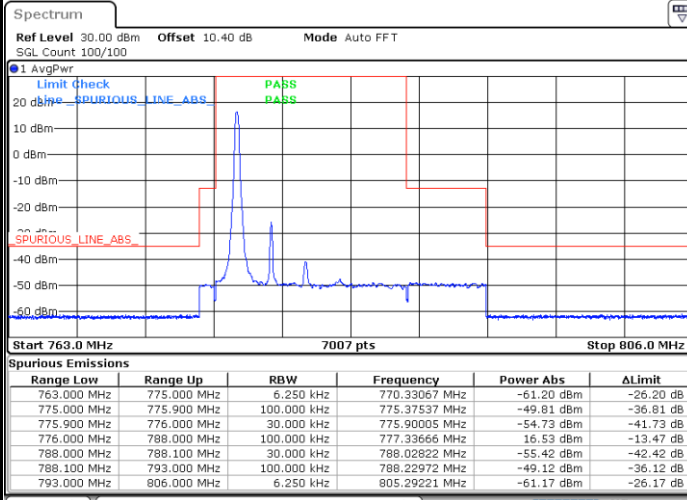
Date: 19.AUG.2022 23:36:57

Date: 19.AUG.2022 23:39:38



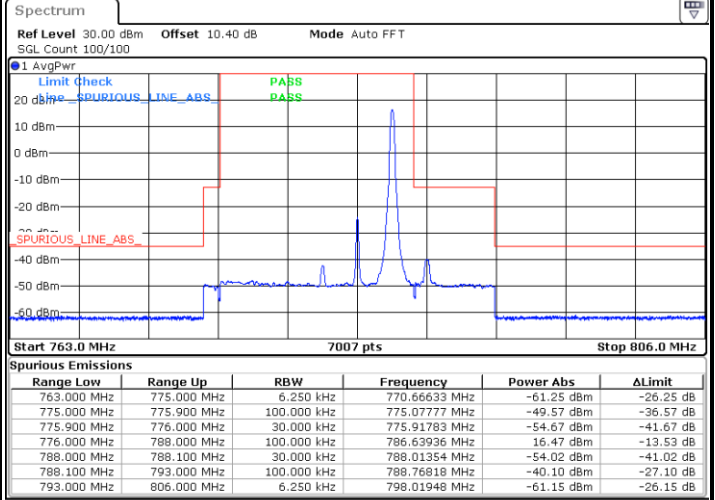
LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



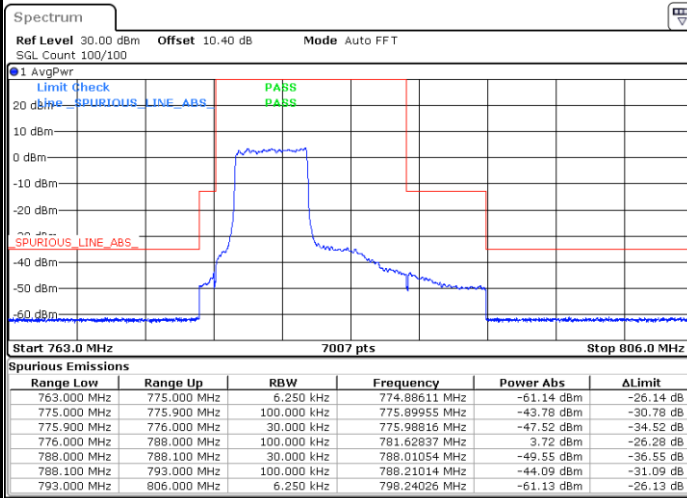
Date: 19.AUG.2022 23:56:22

Highest Band Edge / 1 RB



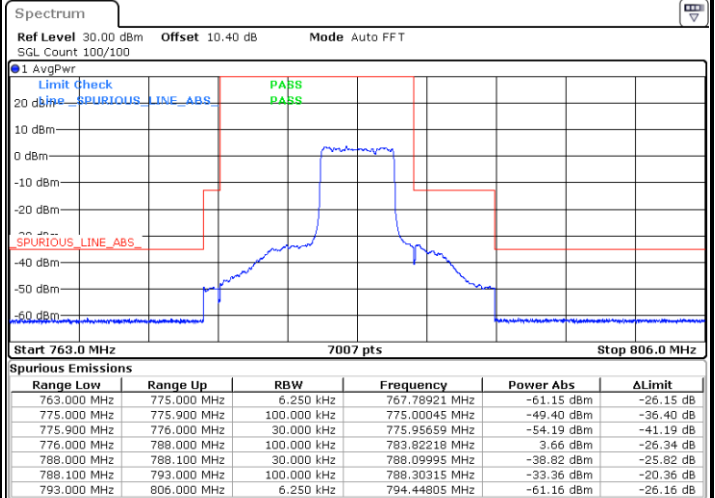
Date: 19.AUG.2022 23:59:07

Lowest Band Edge / Full RB



Date: 19.AUG.2022 23:55:20

Highest Band Edge / Full RB



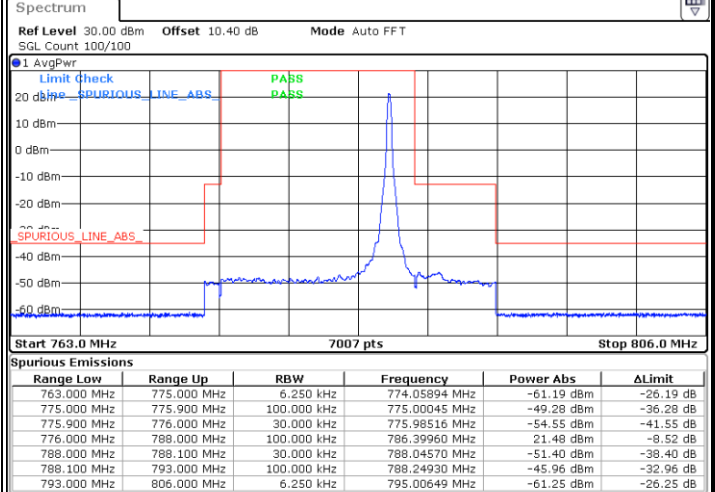
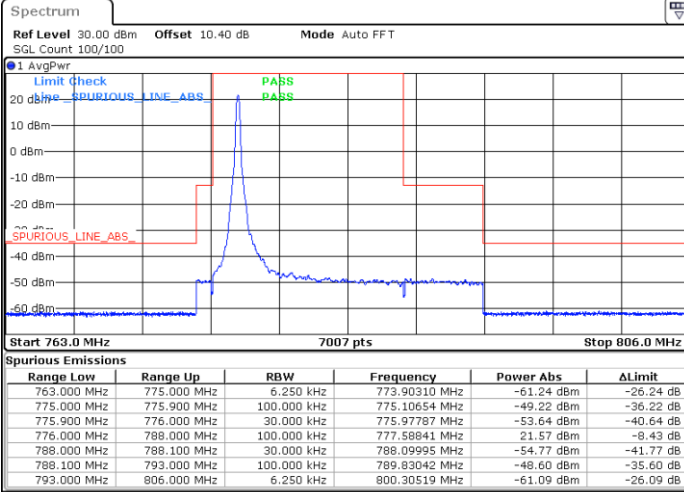
Date: 19.AUG.2022 23:58:04



LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

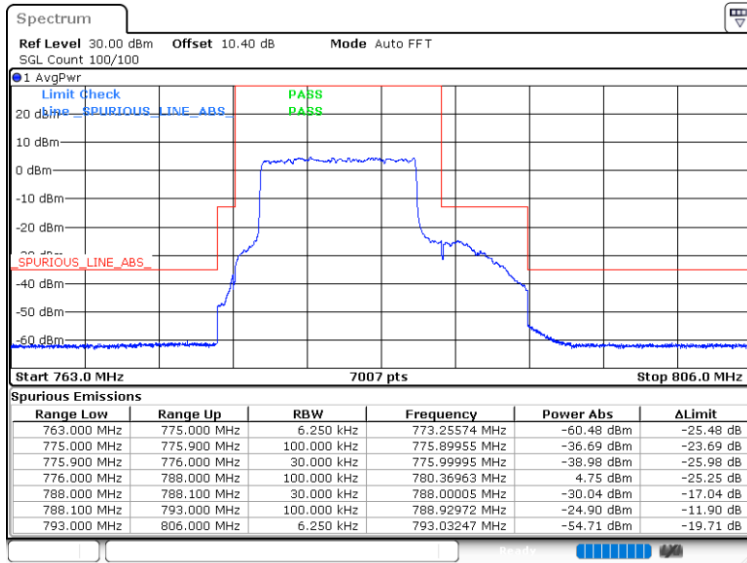
Highest Band Edge / 1 RB



Date: 19.AUG.2022 23:46:04

Date: 19.AUG.2022 23:47:02

Band Edge / Full RB



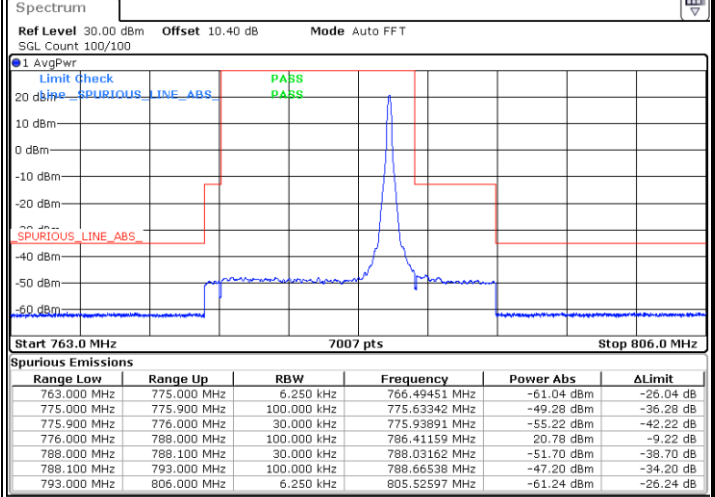
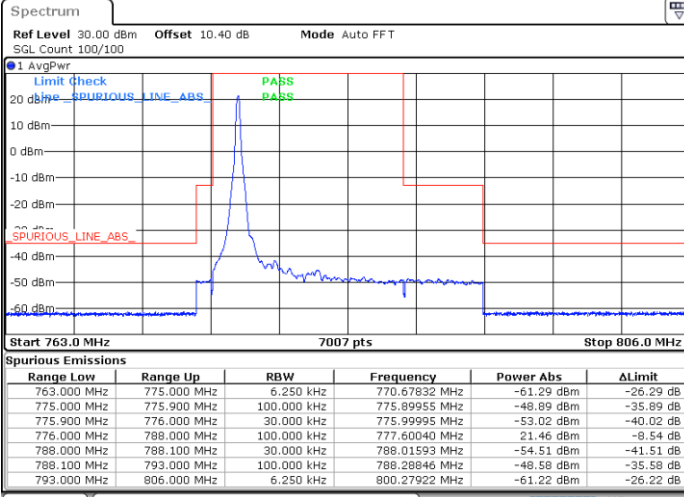
Date: 19.AUG.2022 23:43:07



LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

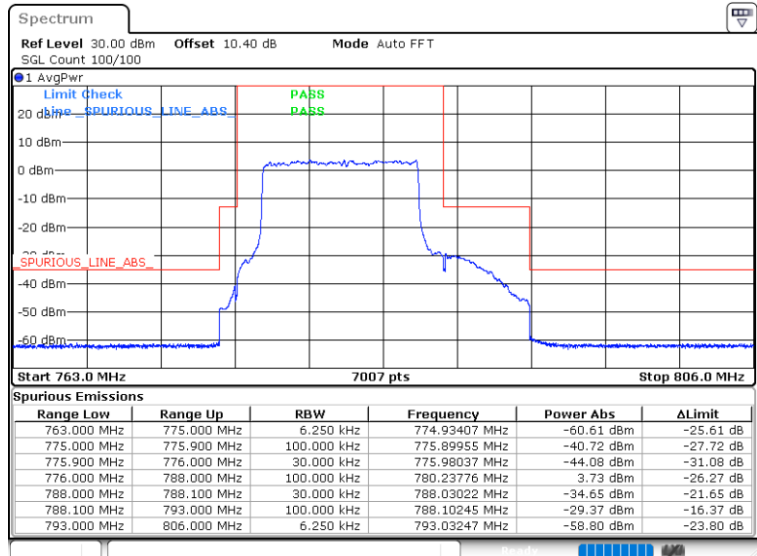
Highest Band Edge / 1 RB



Date: 19.AUG.2022 23:45:05

Date: 19.AUG.2022 23:48:01

Band Edge / Full RB



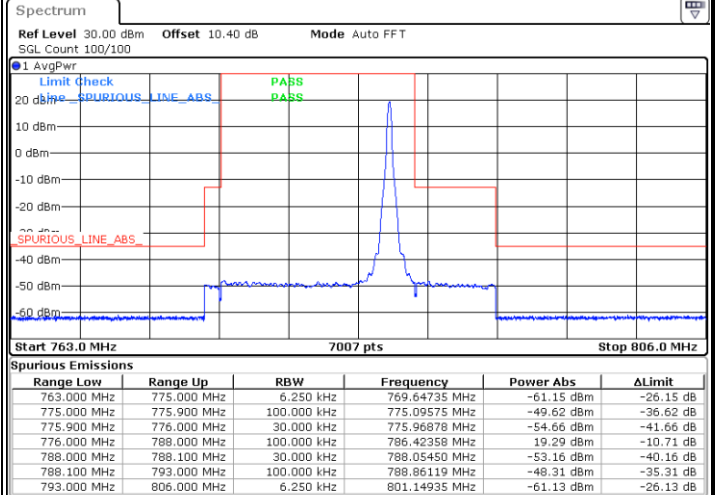
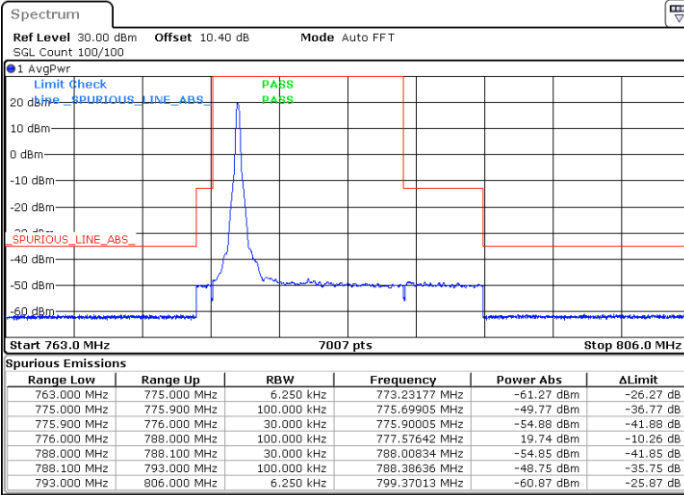
Date: 19.AUG.2022 23:44:06



LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

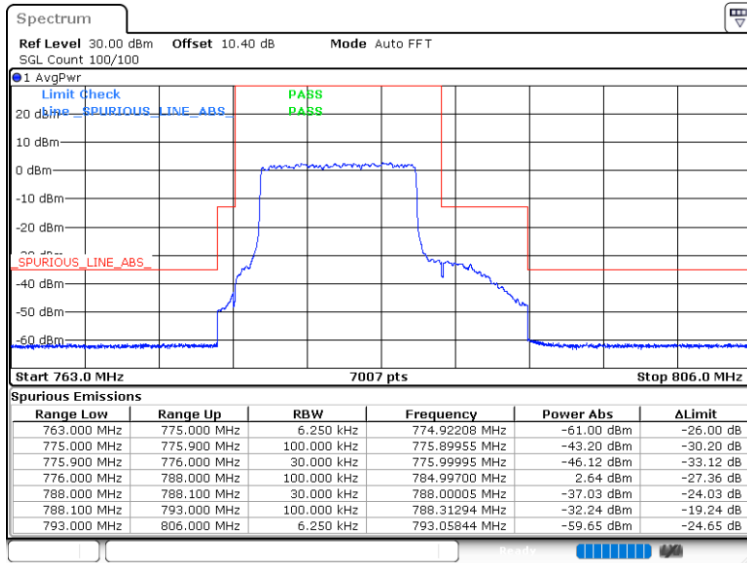
Highest Band Edge / 1 RB



Date: 19.AUG.2022 23:51:46

Date: 19.AUG.2022 23:52:44

Band Edge / Full RB



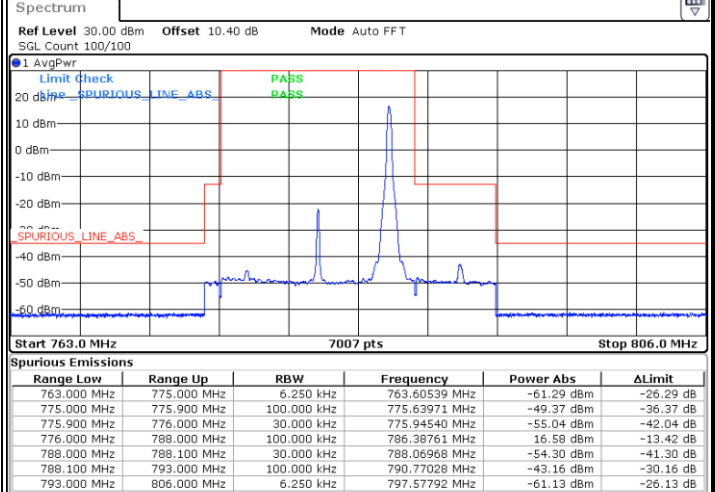
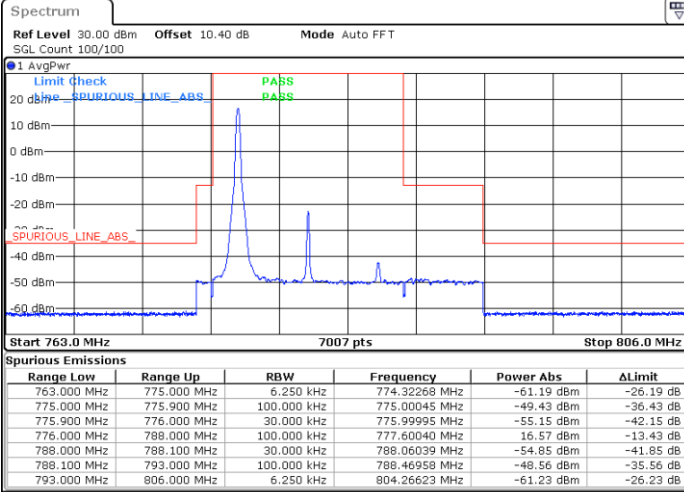
Date: 19.AUG.2022 23:50:47



LTE Band 13 / 10MHz / 256QAM

Lowest Band Edge / 1 RB

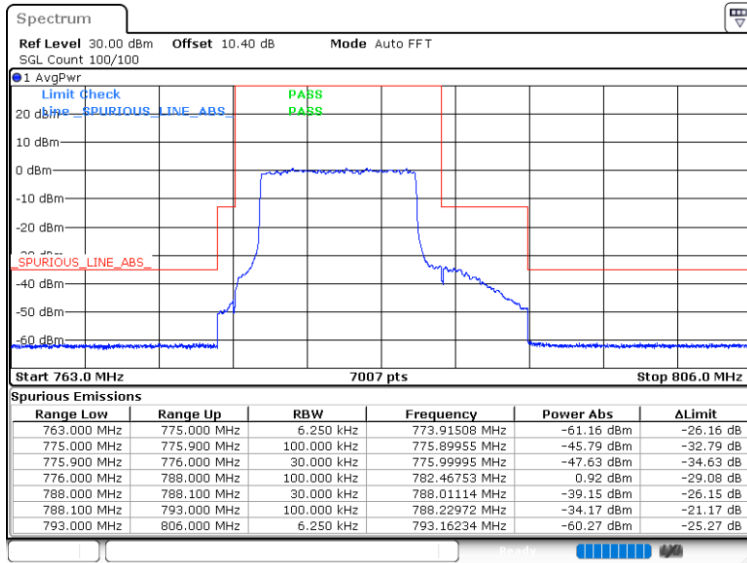
Highest Band Edge / 1 RB



Date: 20.AUG.2022 00:01:38

Date: 20.AUG.2022 00:02:37

Band Edge / Full RB



Date: 20.AUG.2022 00:00:39





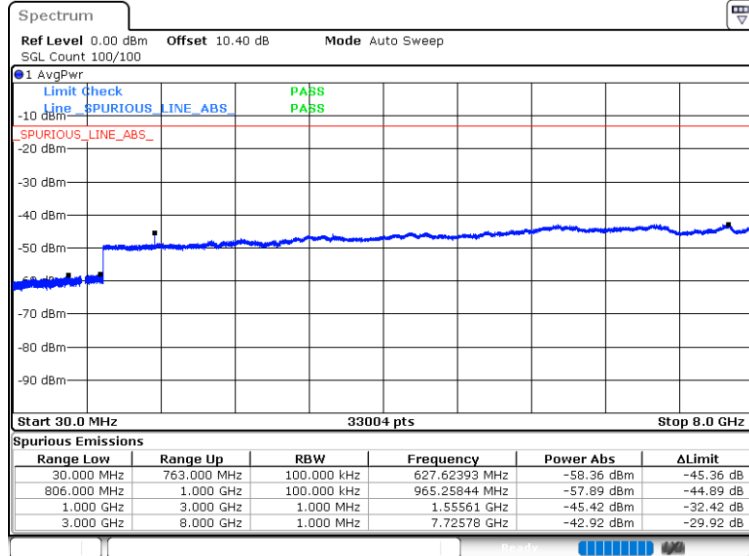
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 19.AUG.2022 23:49:20



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	0.0070	PASS
40	Normal Voltage	0.0065	
30	Normal Voltage	0.0194	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0136	
-10	Normal Voltage	0.0092	
-20	Normal Voltage	0.0193	
-30	Normal Voltage	0.0055	
20	Maximum Voltage	0.0035	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0026	

Note:

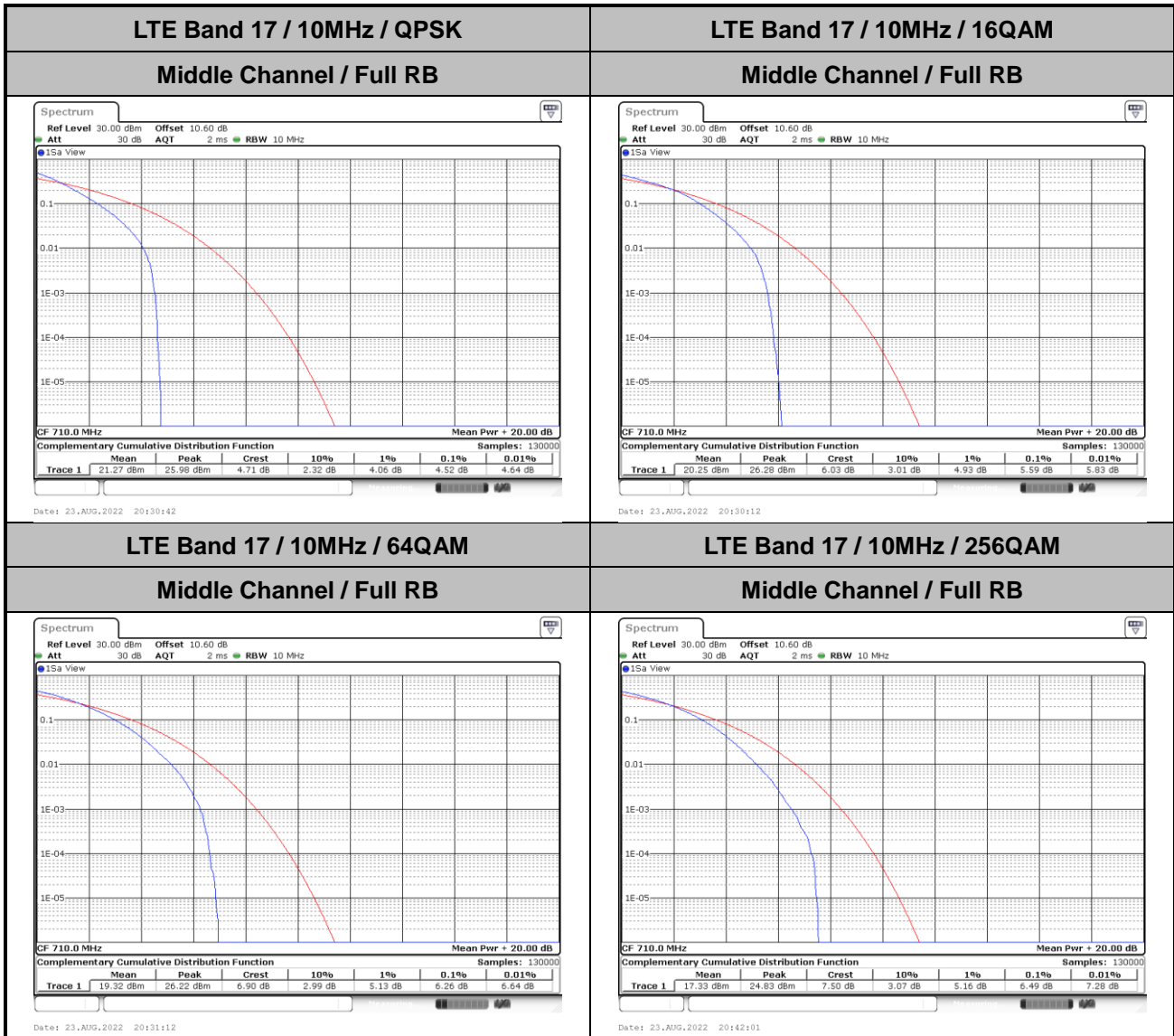
1. Normal Voltage =3.30 V. ; Battery End Point (BEP) =3.135 V. ; Maximum Voltage =3.63 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 17

### Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.52	5.59	6.26	6.49	<b>PASS</b>





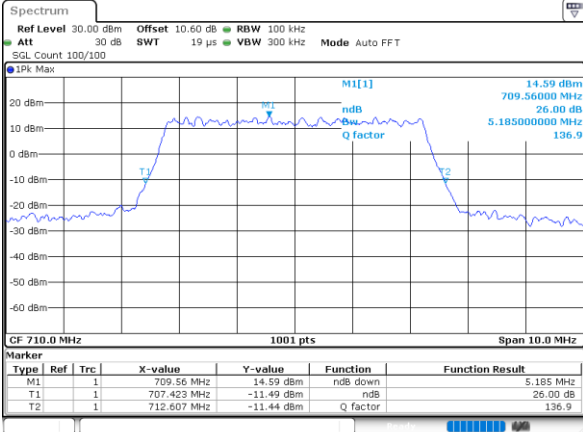
**26dB Bandwidth**

Mode	LTE Band 17 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	5.19	5.12	10.07	10.13	-	-	-	-
Mode	LTE Band 17 : 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	-	-	-	-	5.00	5.14	9.99	9.79	-	-	-	-



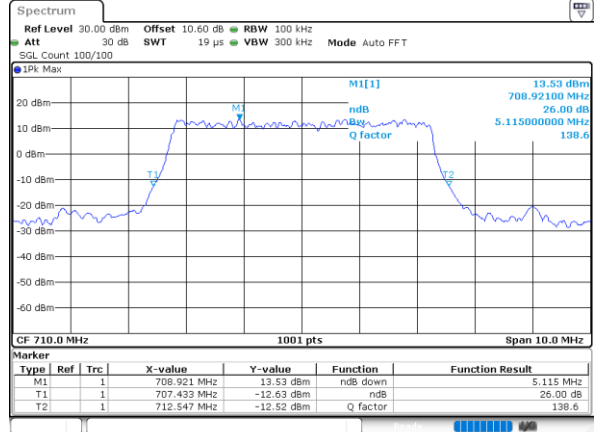
LTE Band 17

Middle Channel / 5MHz / QPSK



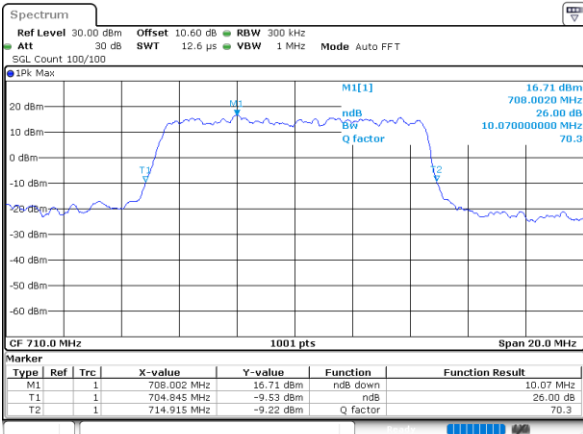
Date: 23\_AUG.2022 19:57:50

Middle Channel / 5MHz / 16QAM



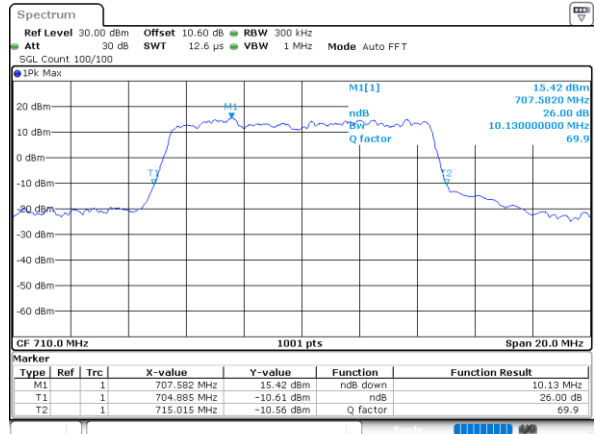
Date: 23\_AUG.2022 19:58:19

Middle Channel / 10MHz / QPSK



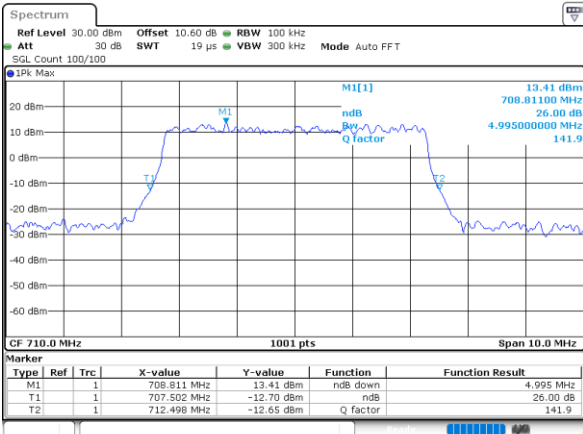
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Middle Channel / 10MHz / 16QAM



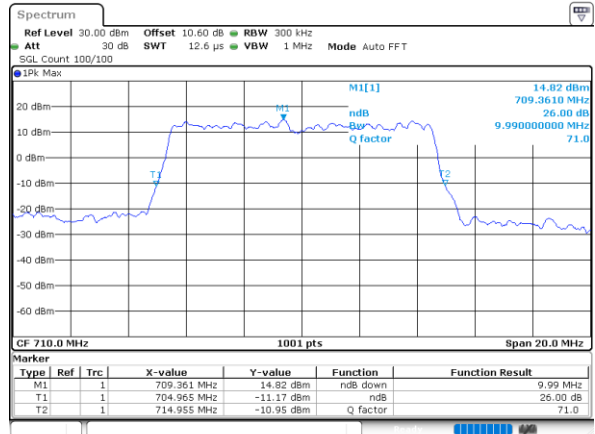
Date: 23\_AUG.2022 20:12:44

Middle Channel / 5MHz / 64QAM



Date: 23\_AUG.2022 20:22:31

Middle Channel / 10MHz / 64QAM



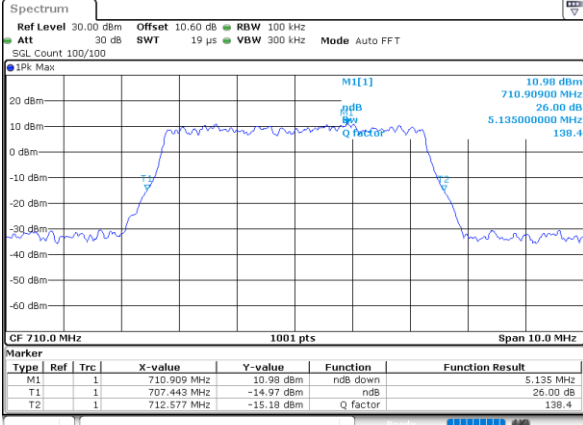
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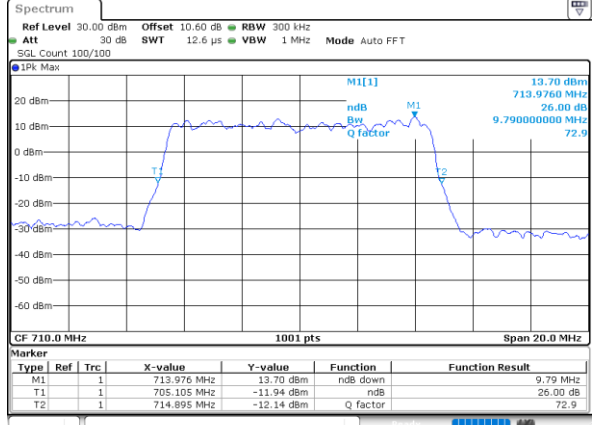
LTE Band 17

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 23\_AUG.2022 20:34:12



Date: 23\_AUG.2022 20:39:20





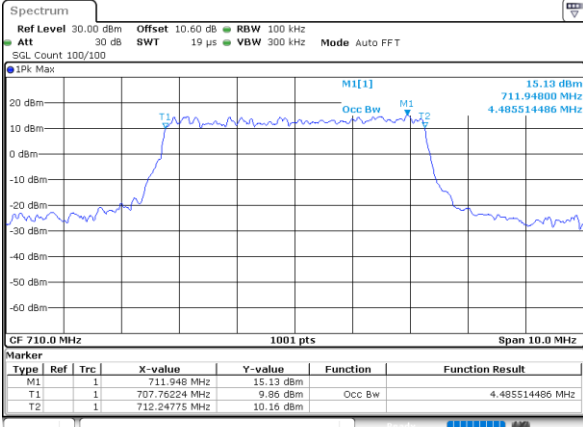
**Occupied Bandwidth**

Mode	LTE Band 17 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.49	9.09	9.03	-	-	-	-
Mode	LTE Band 17 : 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	-	-	-	-	4.51	4.51	9.05	8.97	-	-	-	-



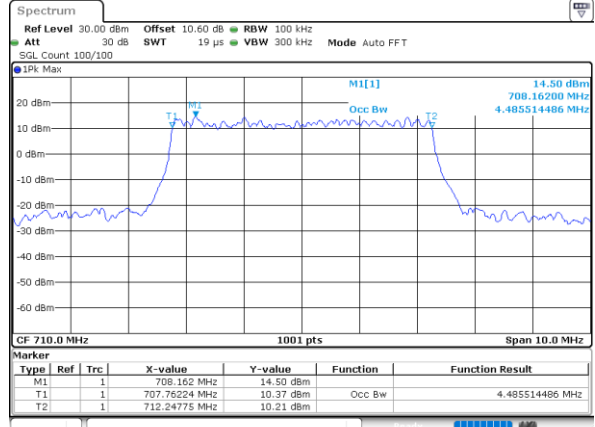
LTE Band 17

Middle Channel / 5MHz / QPSK



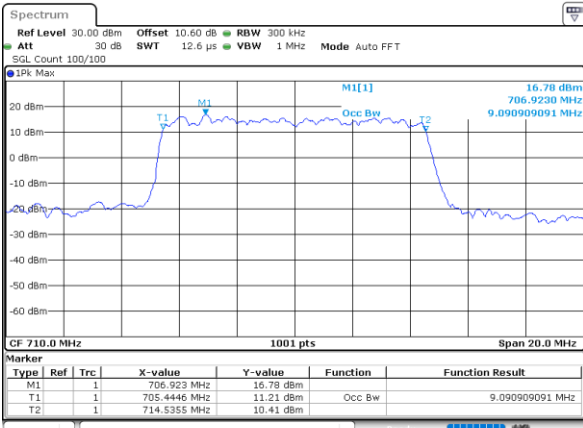
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Middle Channel / 5MHz / 16QAM



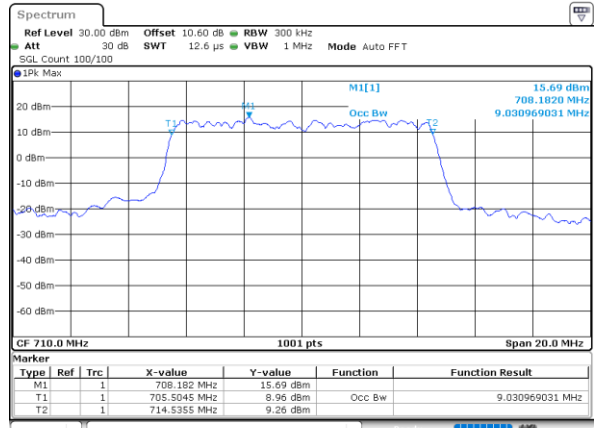
Date: 23.AUG.2022 19:57:121

Middle Channel / 10MHz / QPSK



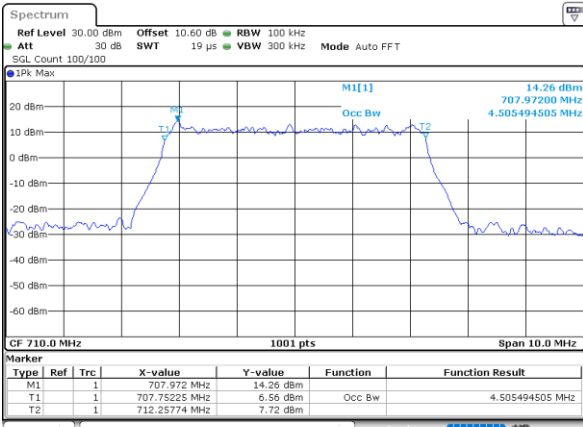
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Middle Channel / 10MHz / 16QAM



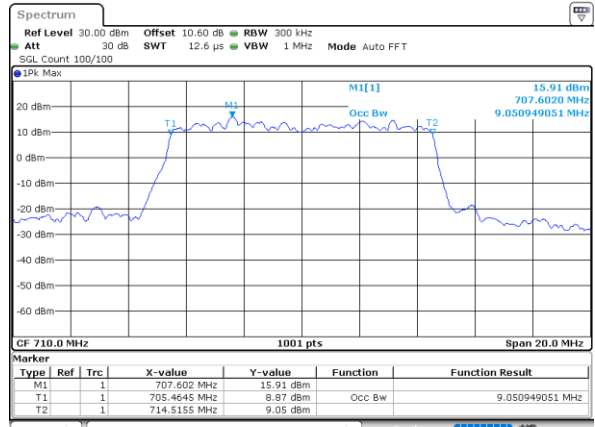
Date: 23.AUG.2022 20:11:146

Middle Channel / 5MHz / 64QAM



Date: 23.AUG.2022 20:22:17

Middle Channel / 10MHz / 64QAM



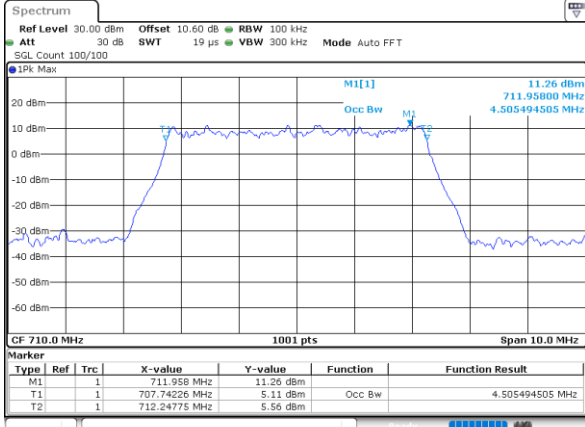
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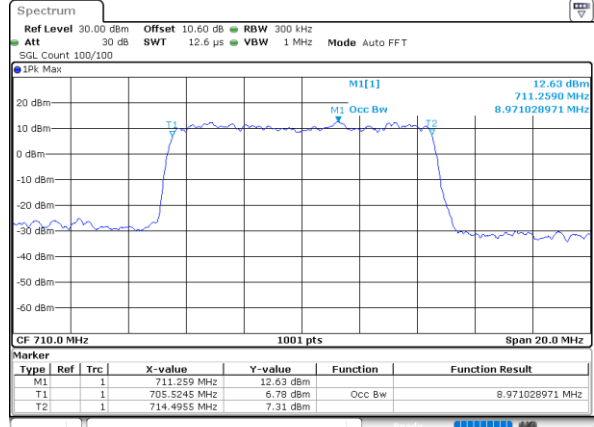
LTE Band 17

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 23.AUG.2022 20:33:58



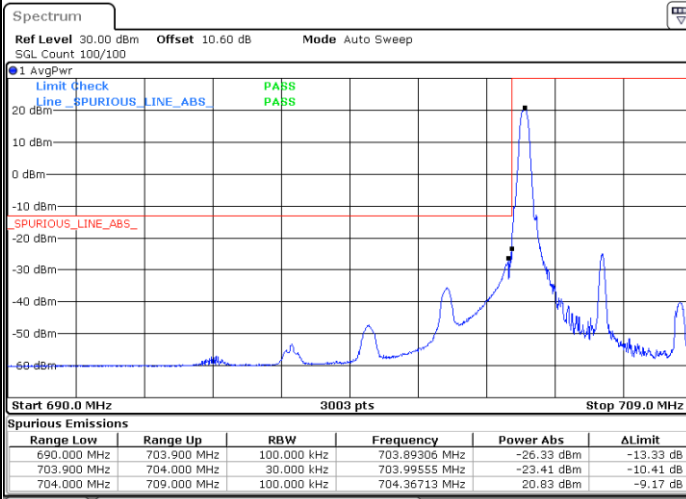
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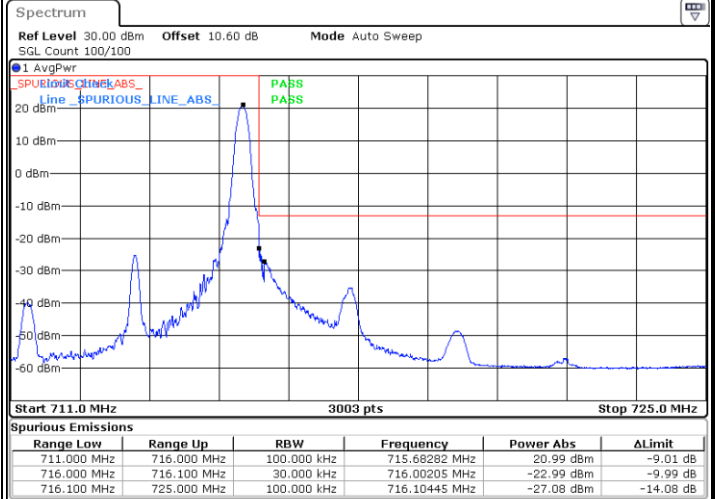
# Conducted Band Edge

## LTE Band 17 / 5MHz / QPSK

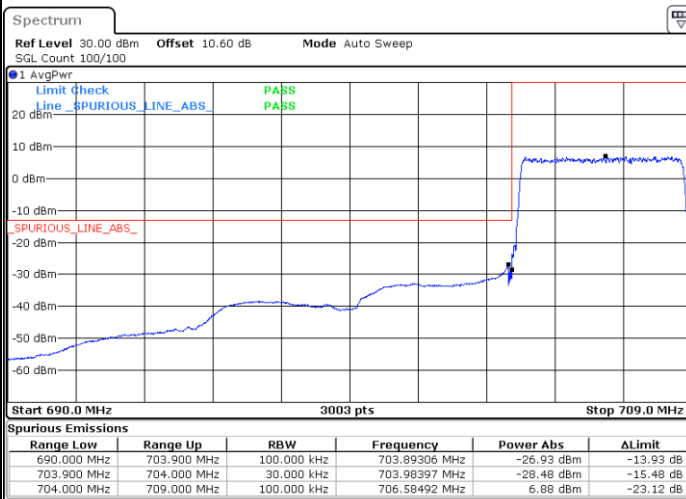
### Lowest Band Edge / 1 RB



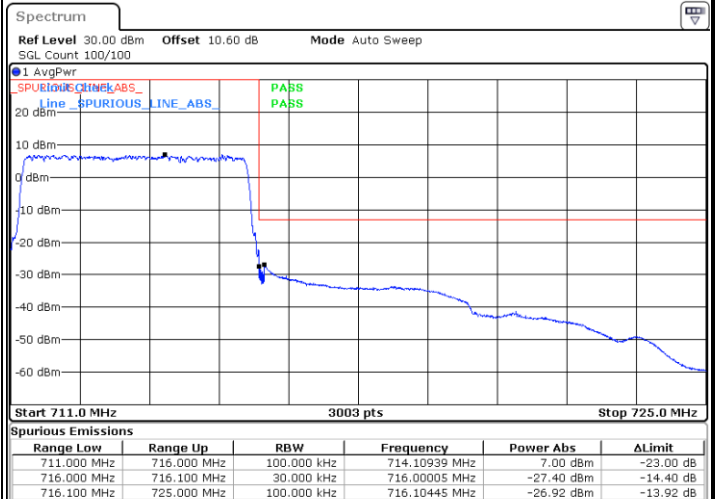
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



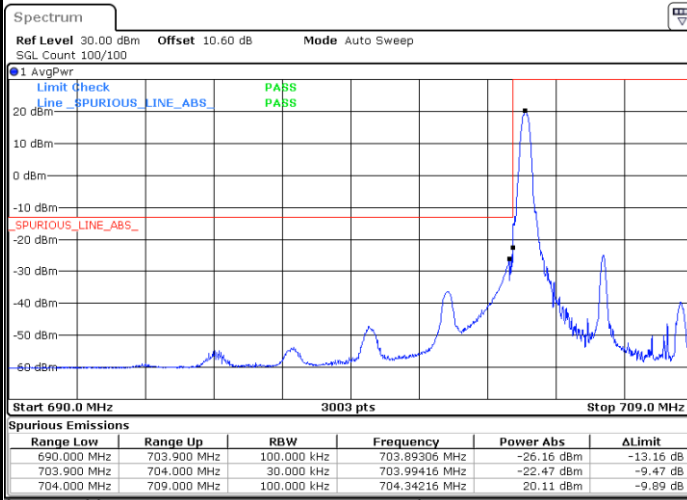
### Highest Band Edge / Full RB





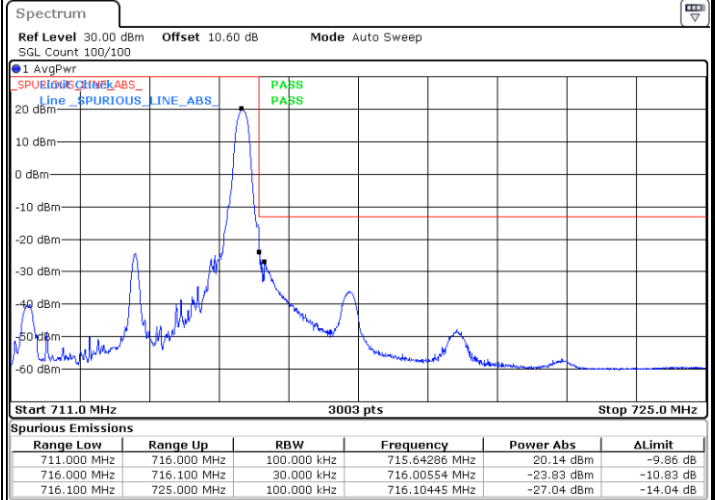
LTE Band 17 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



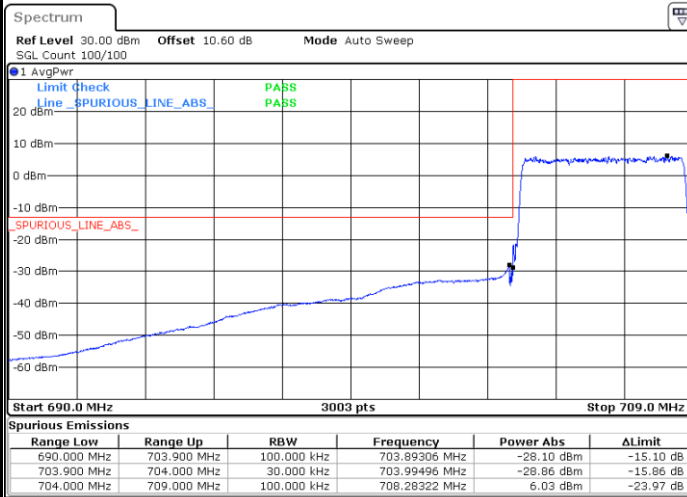
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Highest Band Edge / 1 RB



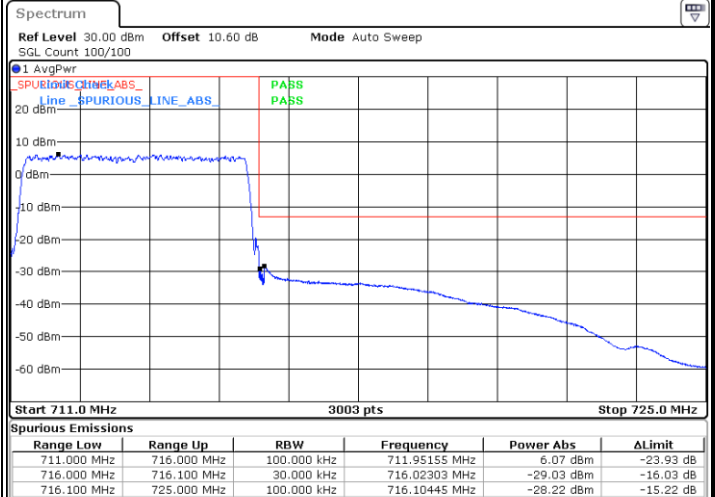
Date: 23.AUG.2022 20:01:43

Lowest Band Edge / Full RB



Date: 23.AUG.2022 19:55:04

Highest Band Edge / Full RB



Date: 23.AUG.2022 20:03:51