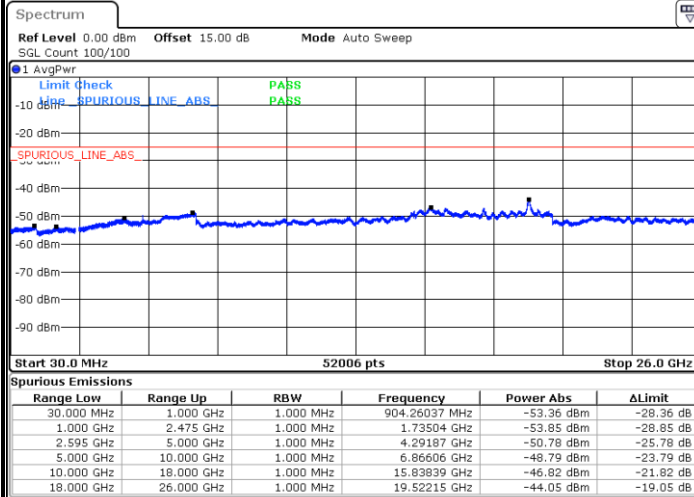




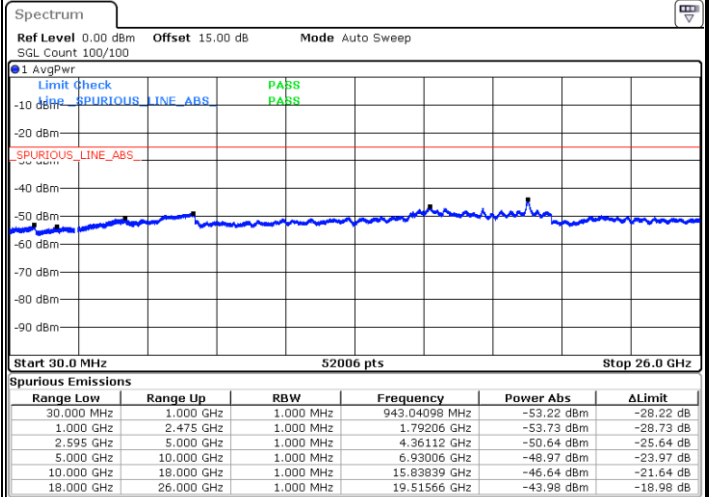
LTE Band 7 / 20MHz

Lowest Channel / QPSK



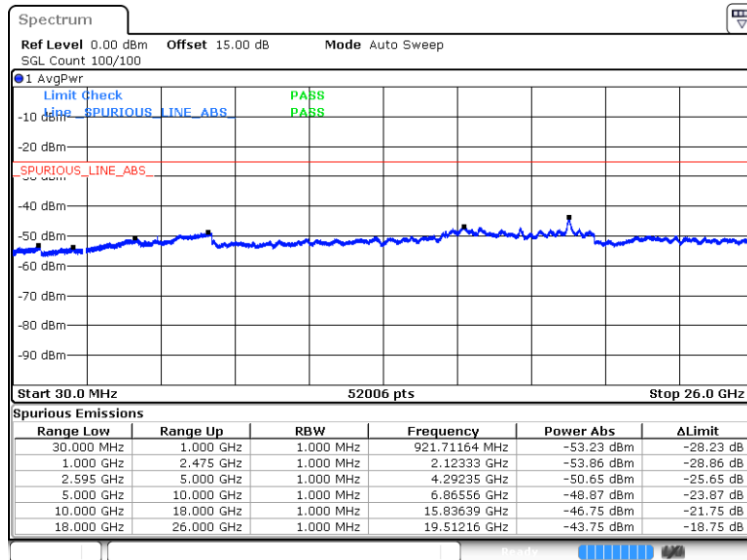
Date: 20 FEB 2025 01:06:22

Middle Channel / QPSK



Date: 20 FEB 2025 01:07:31

Highest Channel / QPSK



Date: 20 FEB 2025 01:16:02

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Note 2.
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	3.6	PASS
40	Normal Voltage	1.6	
30	Normal Voltage	2.6	
20(Ref.)	Normal Voltage	3.8	
10	Normal Voltage	4.5	
0	Normal Voltage	-1.5	
-10	Normal Voltage	2.9	
-20	Normal Voltage	-2.6	
-30	Normal Voltage	3.8	
20	Maximum Voltage	2.7	
20	Normal Voltage	3.5	
20	Battery End Point	1.9	

Note:

1. Normal Voltage = 3.91 V.; Battery End Point (BEP) = 3.45 V.; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

$$|\text{MAX}(\Delta f)| = 4.5\text{Hz}$$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	2500.262196	$\geq 2500 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	2569.738305	$\leq 2570 \text{ MHz}$	



LTE Band 12

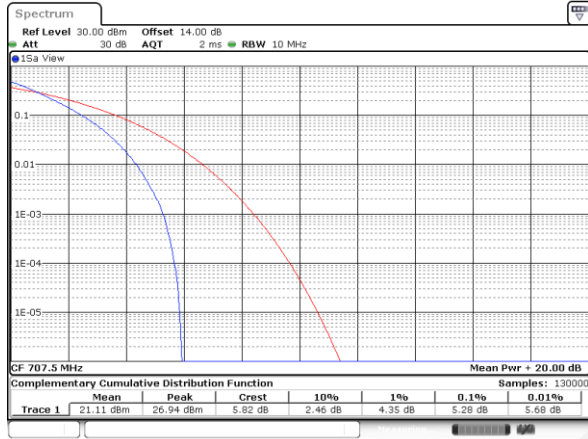
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.28	6.23	6.64	PASS



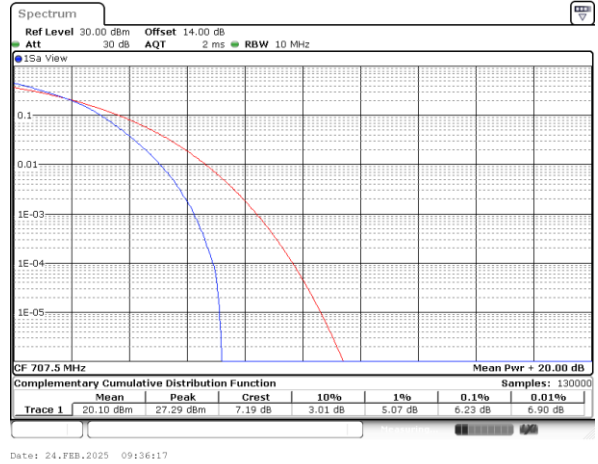
LTE Band 12 / 10MHz / QPSK

Middle Channel / Full RB



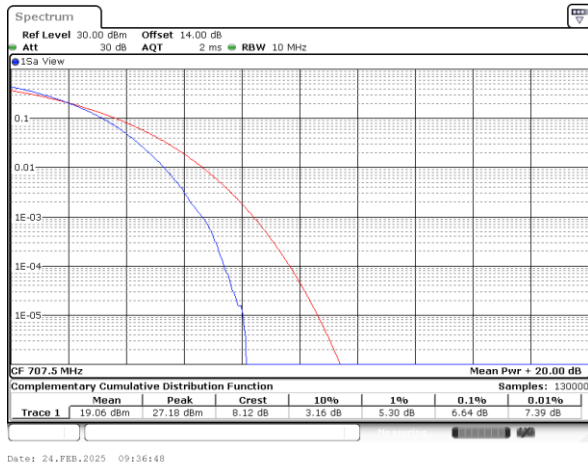
LTE Band 12 / 10MHz / 16QAM

Middle Channel / Full RB



LTE Band 12 / 10MHz / 64QAM

Middle Channel / Full RB





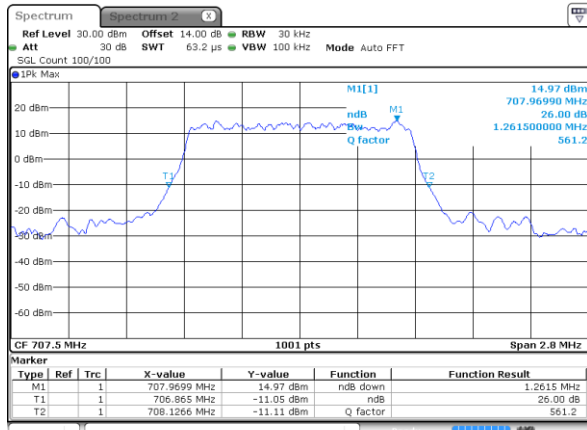
26dB Bandwidth

Mode	LTE Band 12 : 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	1.26	1.26	2.94	2.97	4.88	4.96	9.65	9.79	-	-	-	-



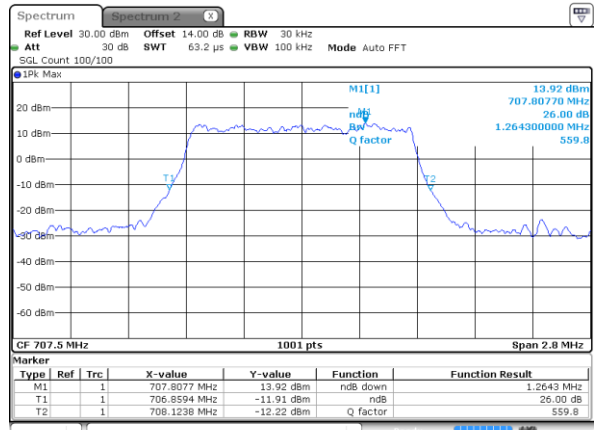
LTE Band 12

Middle Channel / 1.4MHz / QPSK



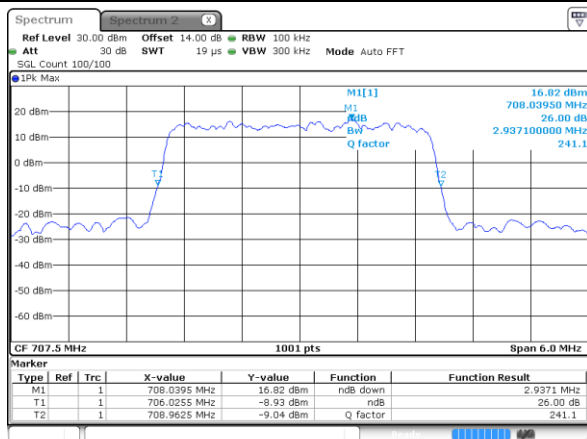
Date: 19 FEB 2025 13:12:01

Middle Channel / 1.4MHz / 16QAM



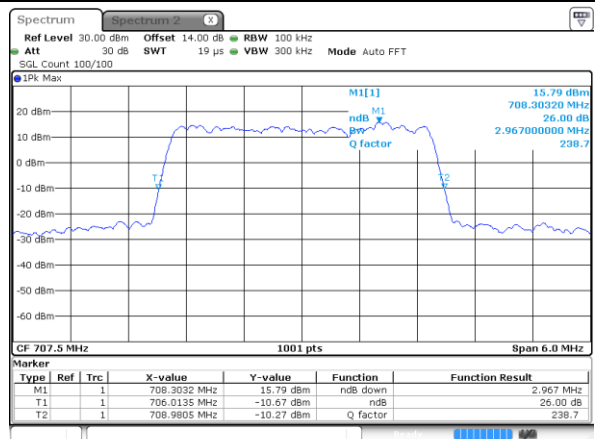
Date: 19 FEB 2025 13:12:40

Middle Channel / 3MHz / QPSK



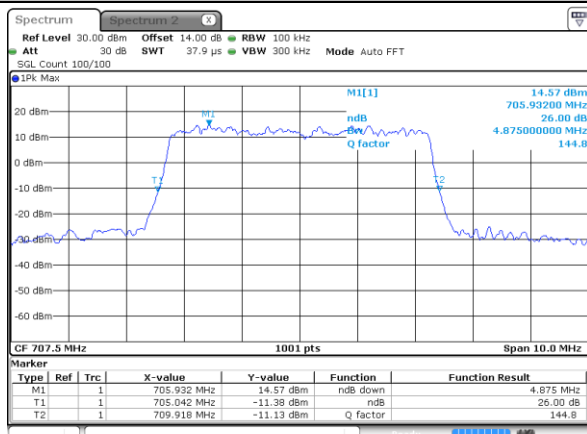
Date: 19 FEB 2025 13:31:00

Middle Channel / 3MHz / 16QAM



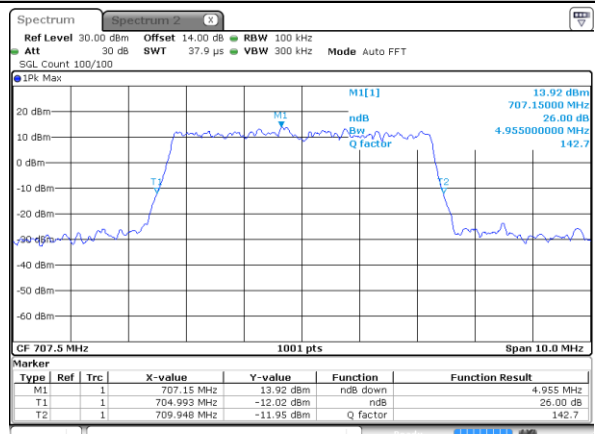
Date: 19 FEB 2025 13:31:42

Middle Channel / 5MHz / QPSK



Date: 19 FEB 2025 14:10:13

Middle Channel / 5MHz / 16QAM

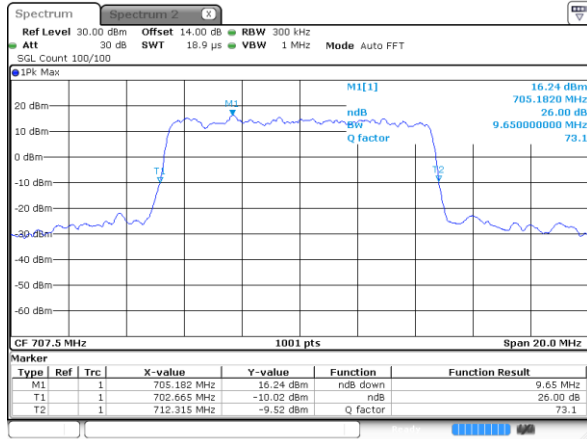


Date: 19 FEB 2025 14:10:55



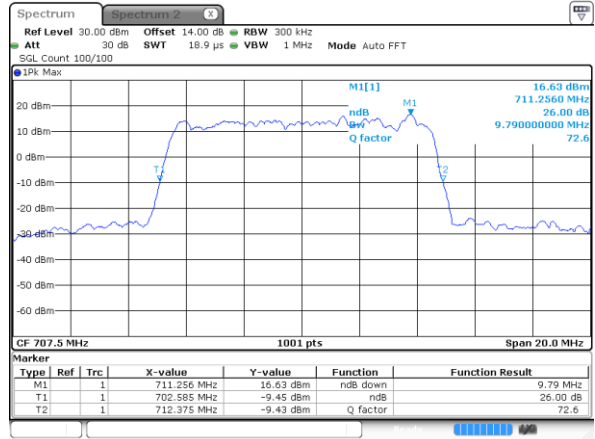
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 19 FEB 2025 14:24:56

Middle Channel / 10MHz / 16QAM



Date: 19 FEB 2025 14:25:39



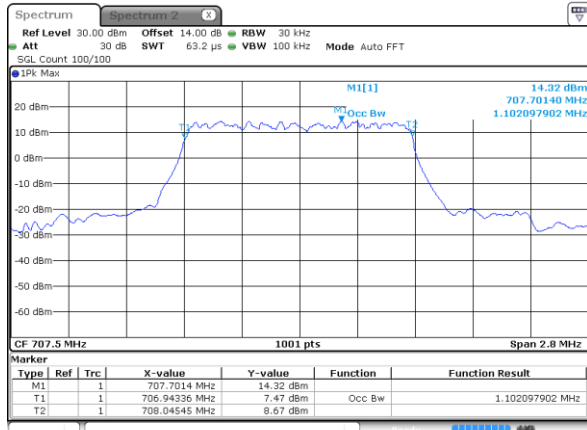
Occupied Bandwidth

Mode	LTE Band 12 : 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	1.10	1.09	2.70	2.73	4.50	4.51	9.09	8.97	-	-	-	-

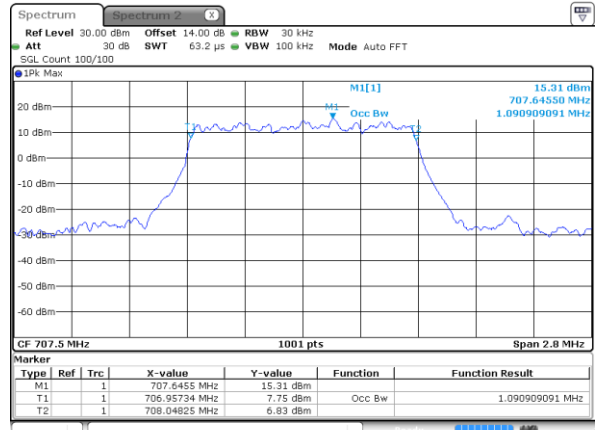


LTE Band 12

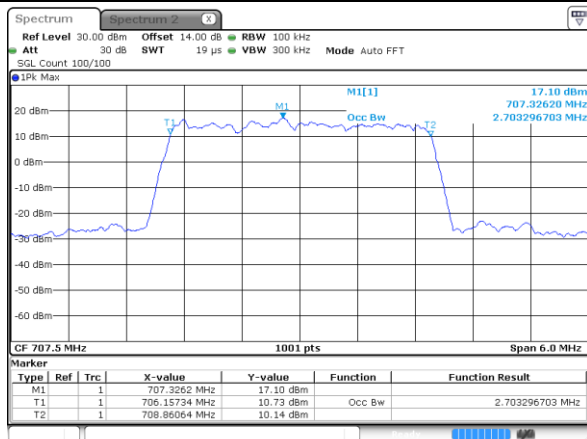
Middle Channel / 1.4MHz / QPSK



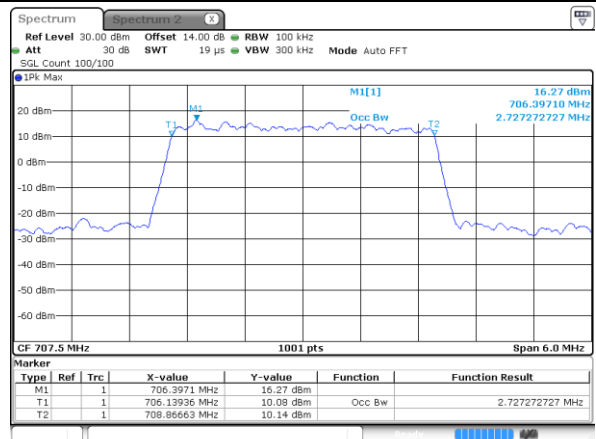
Middle Channel / 1.4MHz / 16QAM



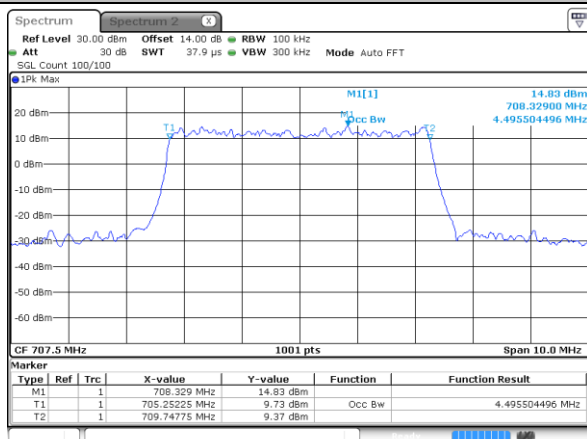
Middle Channel / 3MHz / QPSK



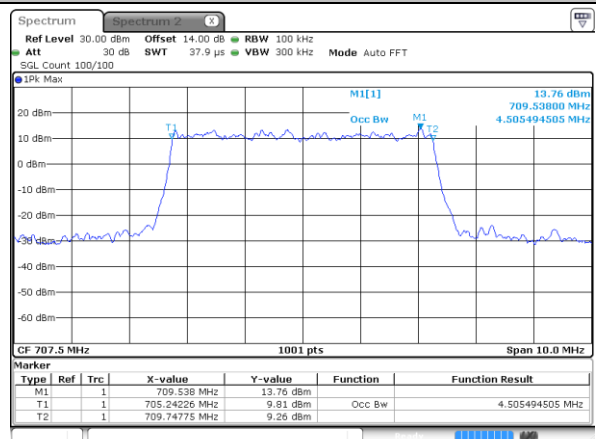
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



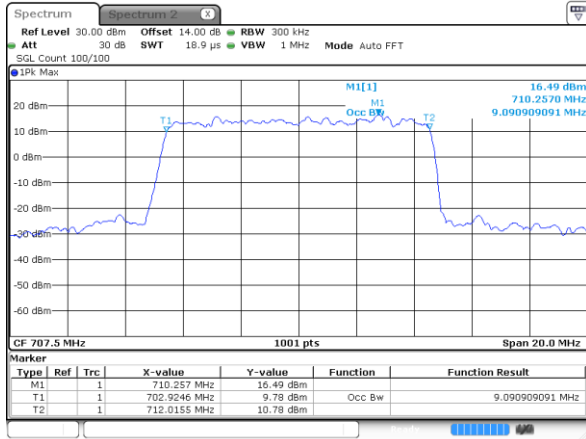
Middle Channel / 5MHz / 16QAM



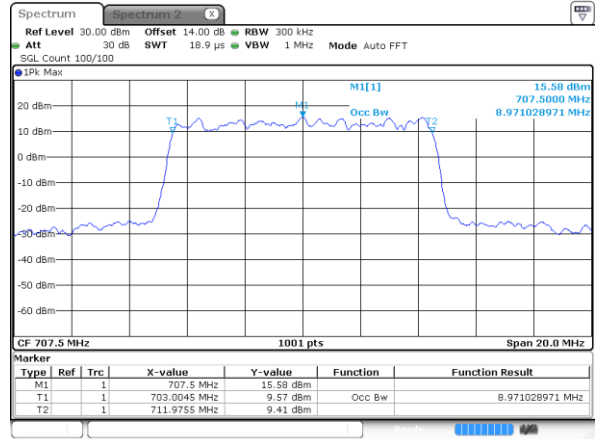


LTE Band 12

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

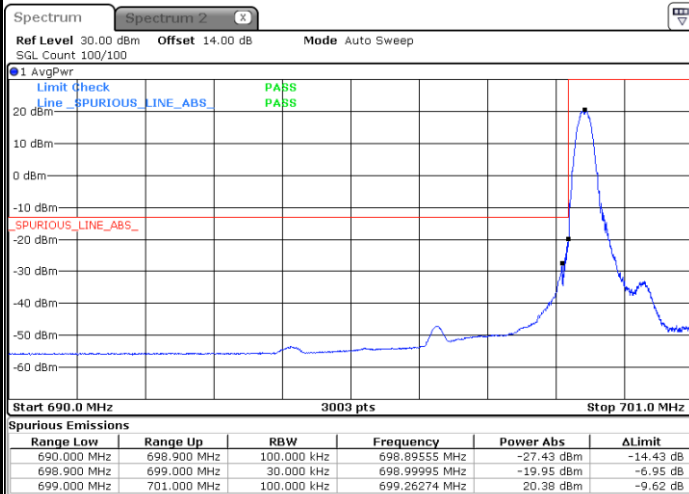




Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

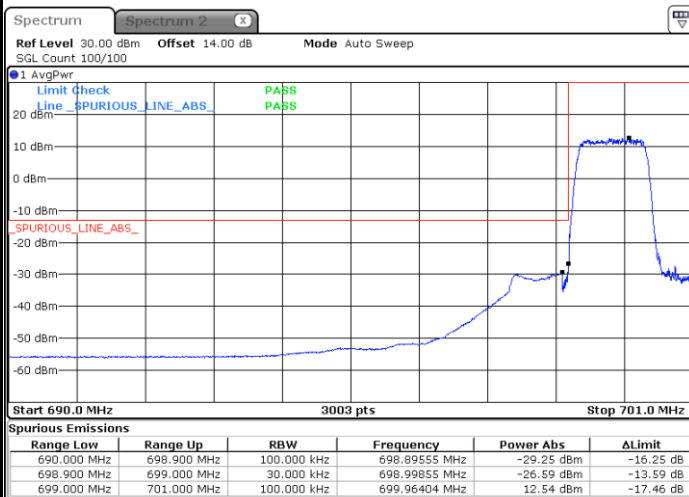
Lowest Band Edge / 1RB



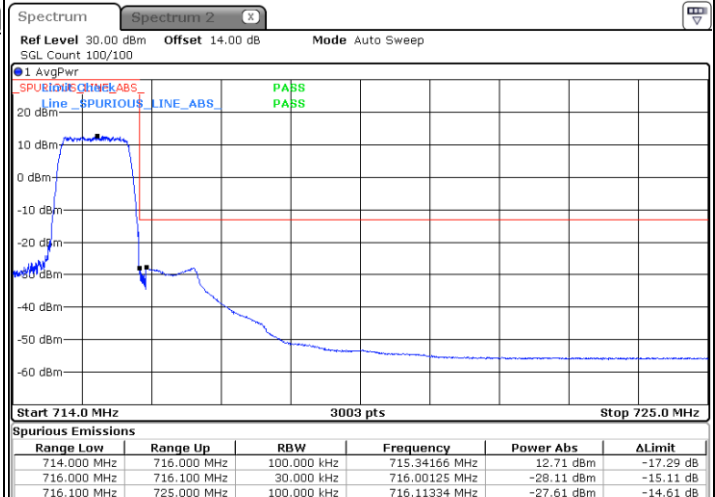
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



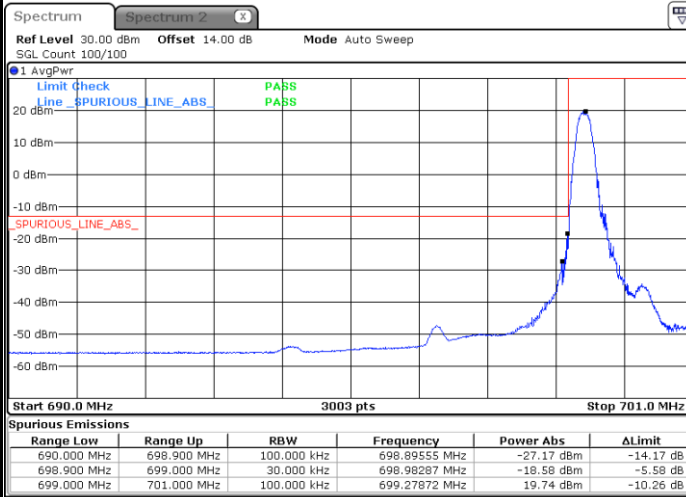
Highest Band Edge / Full RB





LTE Band 12 / 1.4MHz / 16QAM

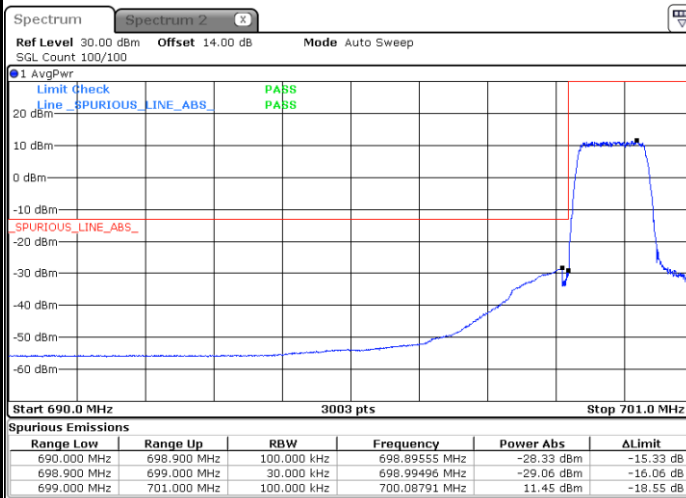
Lowest Band Edge / 1 RB



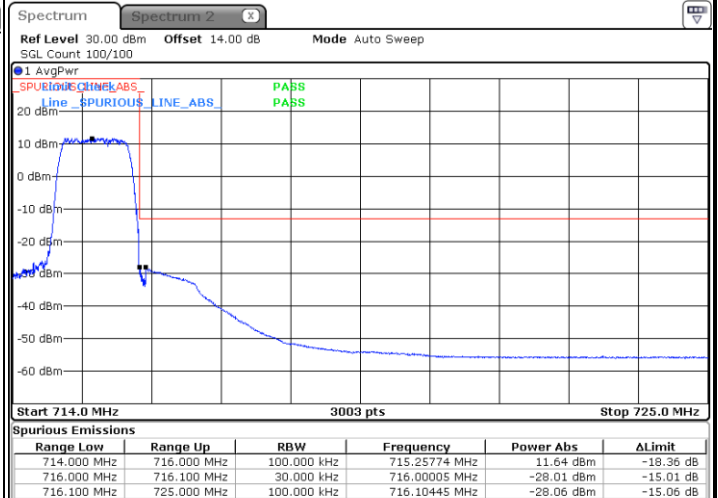
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



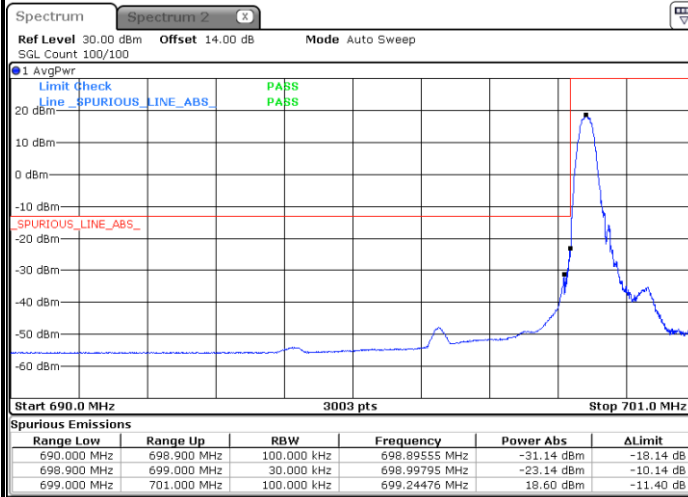
Highest Band Edge / Full RB



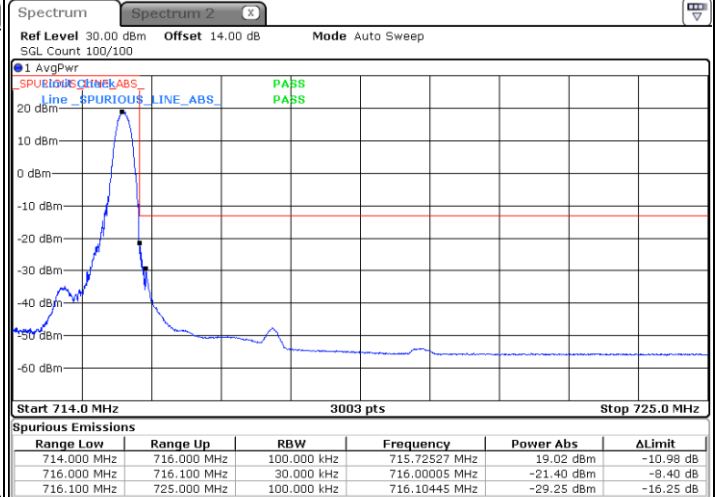


LTE Band 12 / 1.4MHz / 64QAM

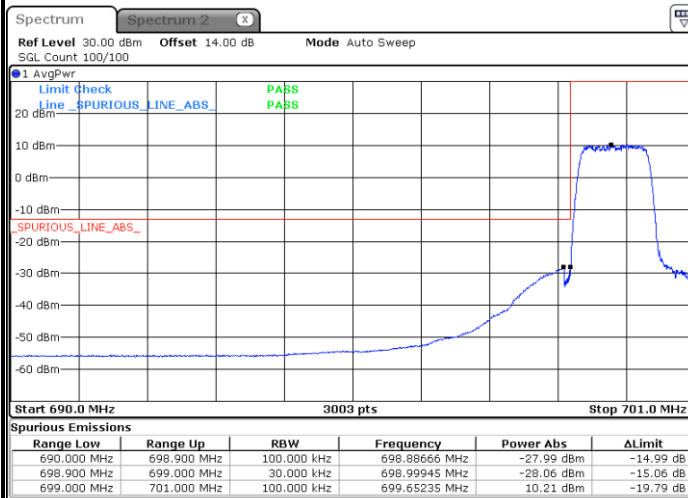
Lowest Band Edge / 1 RB



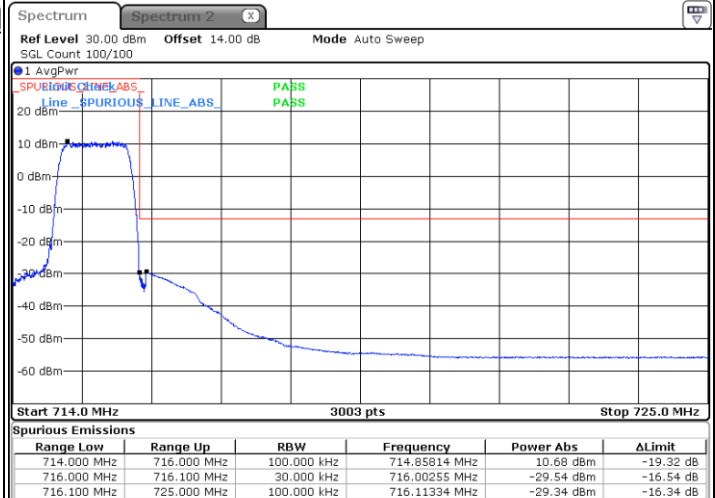
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



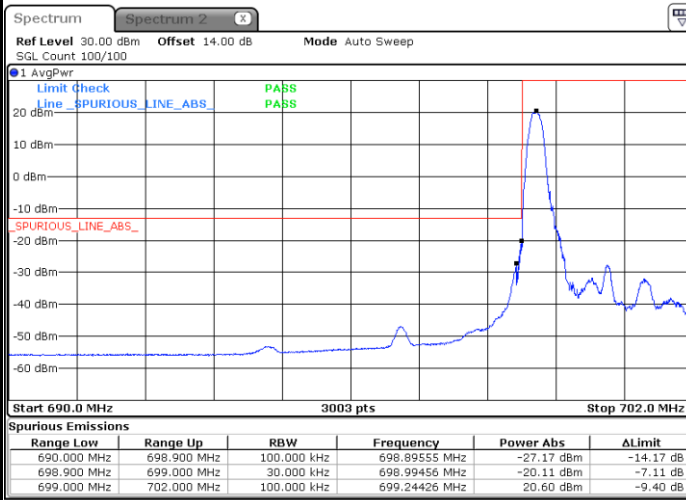
Highest Band Edge / Full RB



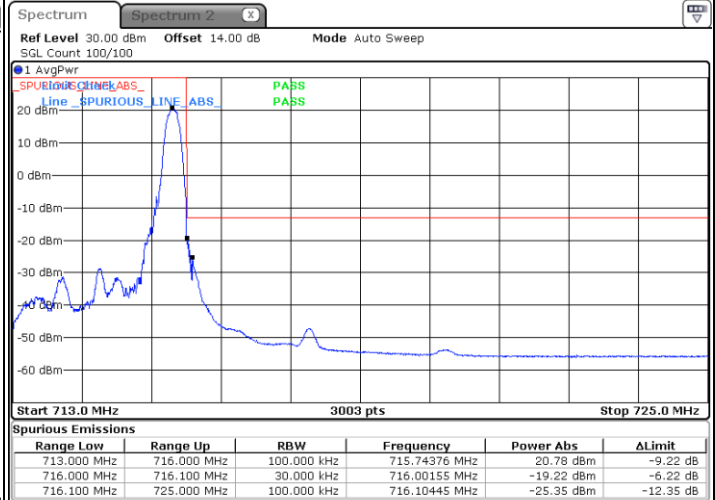


LTE Band 12 / 3MHz / QPSK

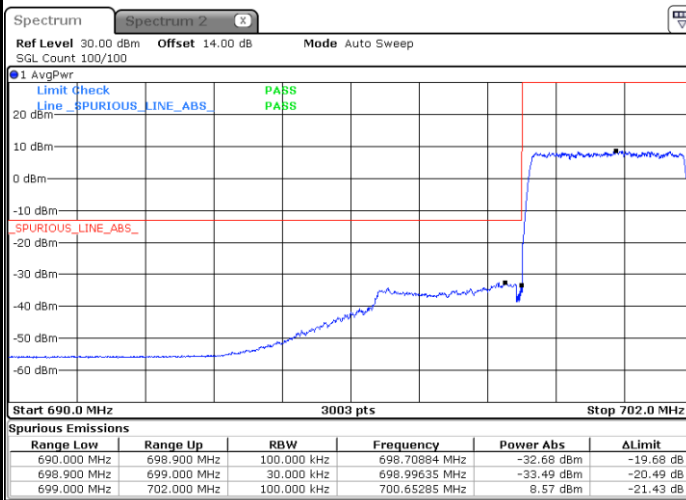
Lowest Band Edge / 1RB



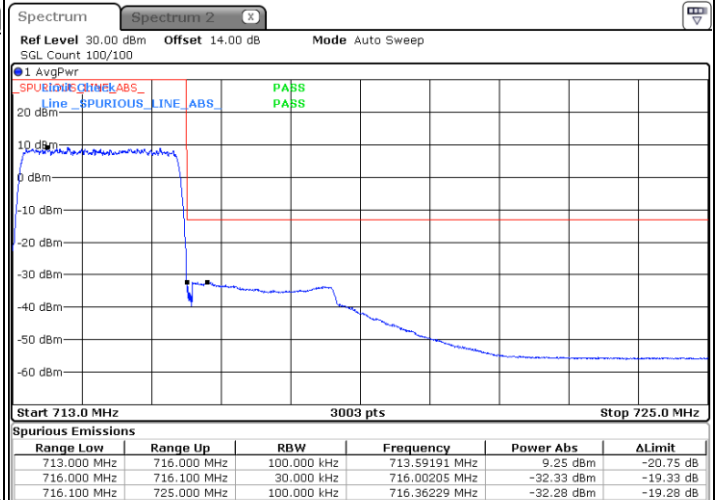
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



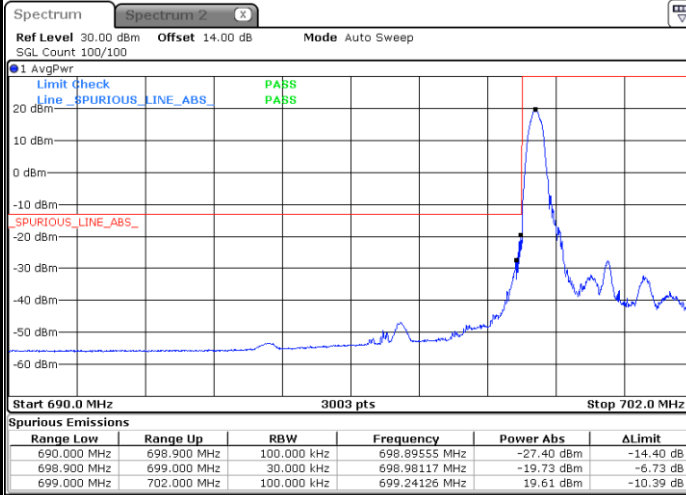
Highest Band Edge / Full RB



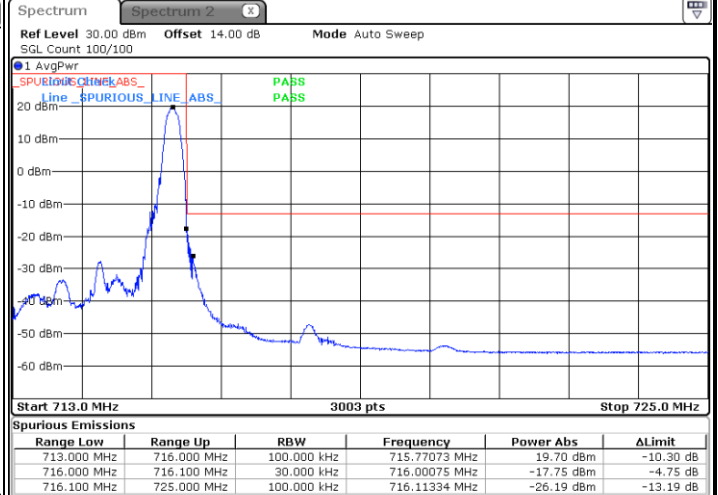


LTE Band 12 / 3MHz / 16QAM

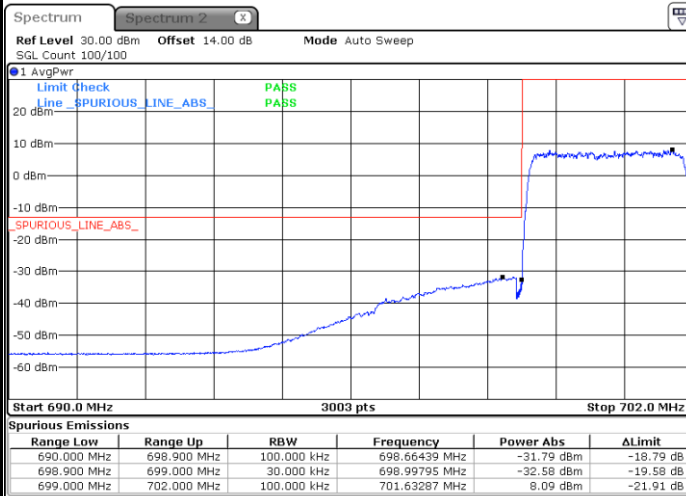
Lowest Band Edge / 1 RB



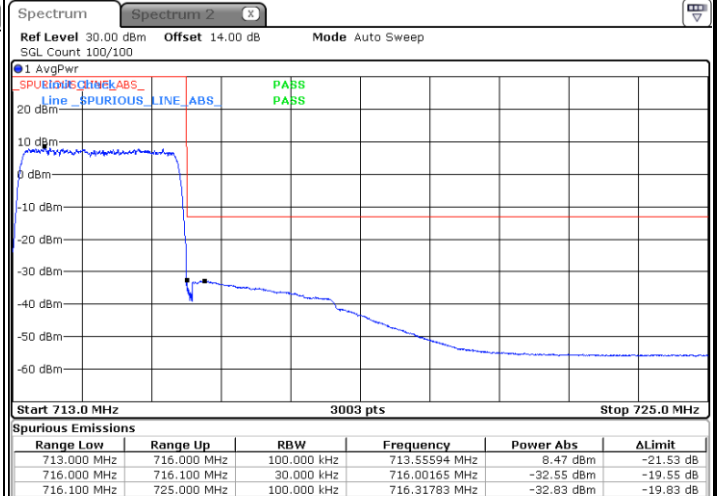
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



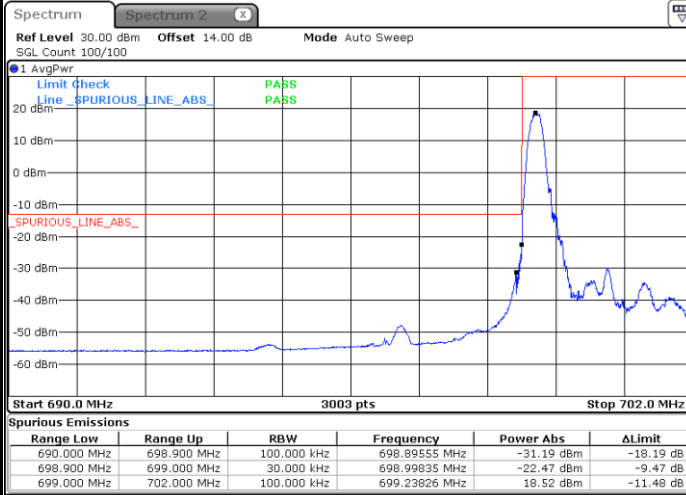
Highest Band Edge / Full RB



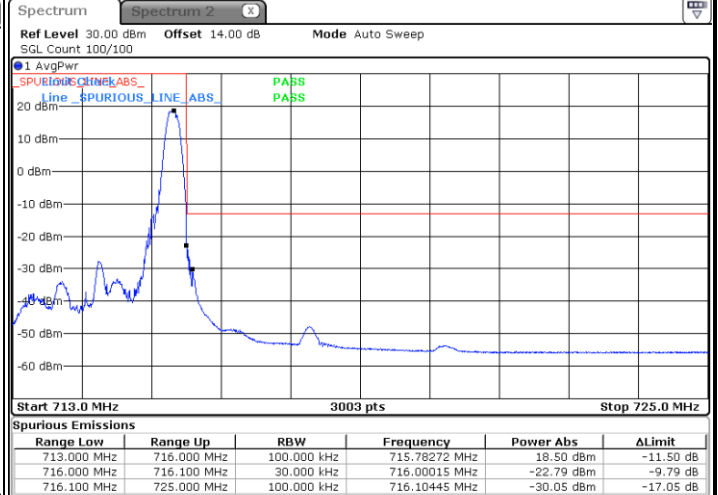


LTE Band 12 / 3MHz / 64QAM

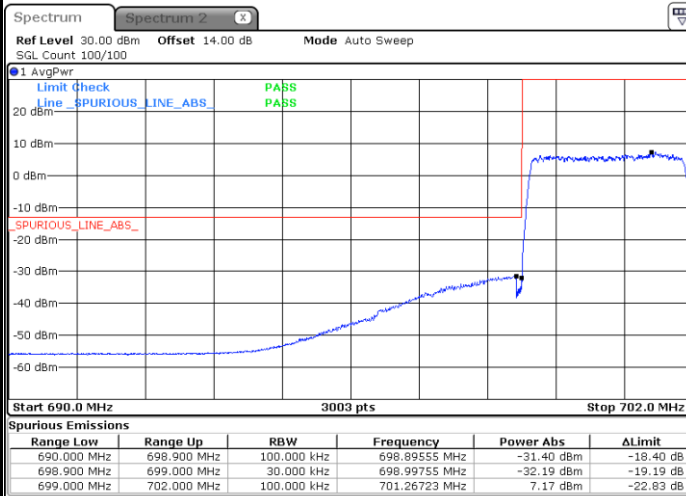
Lowest Band Edge / 1 RB



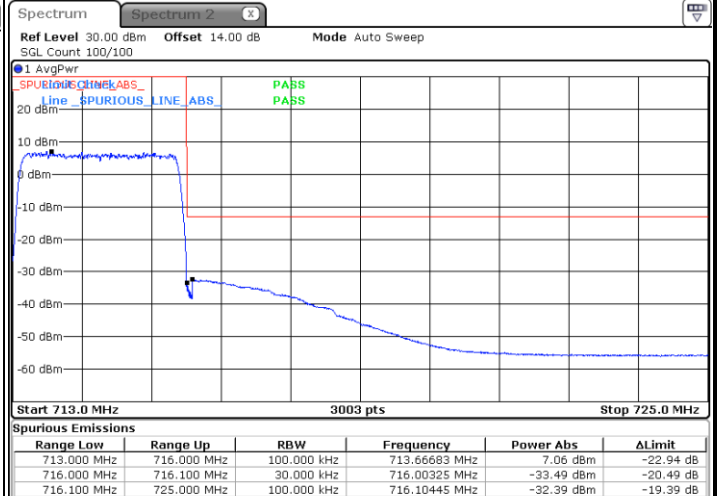
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



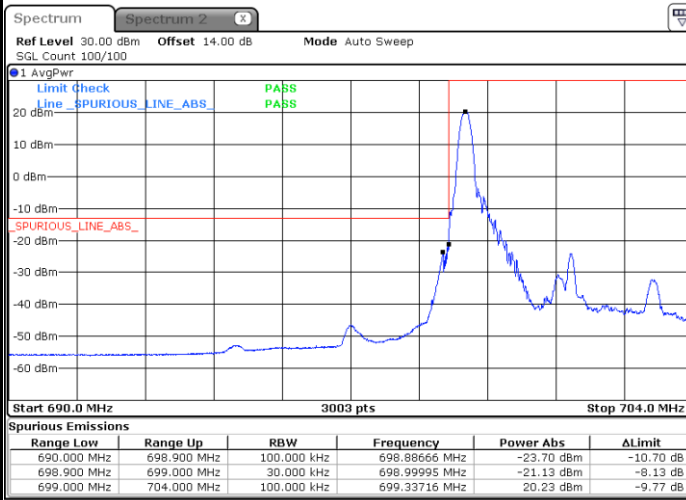
Highest Band Edge / Full RB





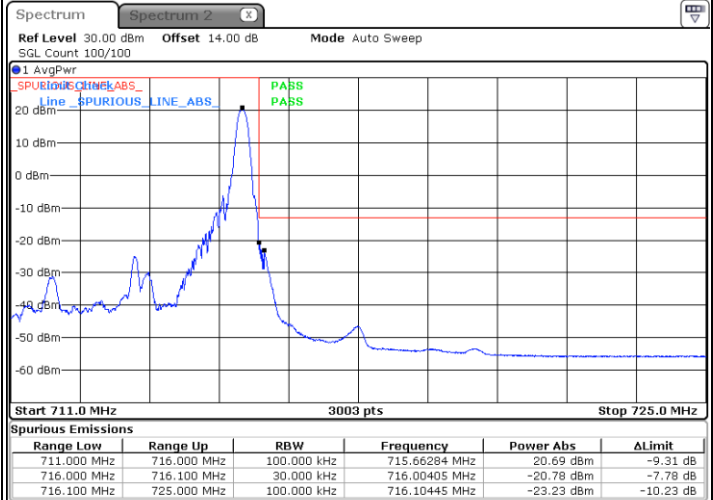
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1RB



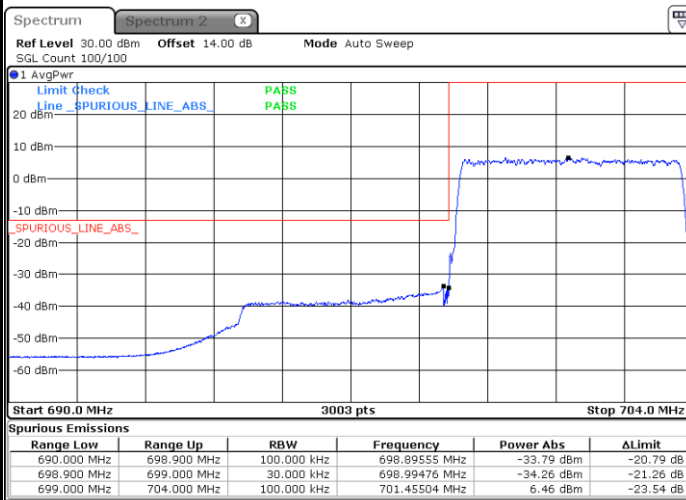
Date: 19 FEB 2025 14:03:09

Highest Band Edge / 1RB



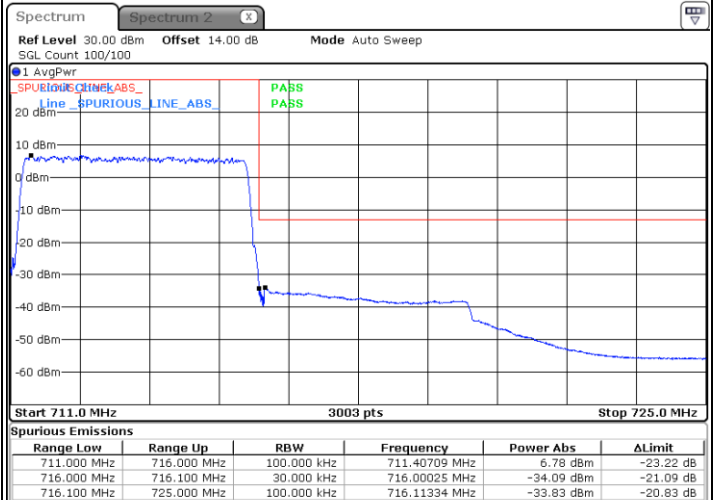
Date: 19 FEB 2025 14:11:43

Lowest Band Edge / Full RB



Date: 19 FEB 2025 14:05:36

Highest Band Edge / Full RB

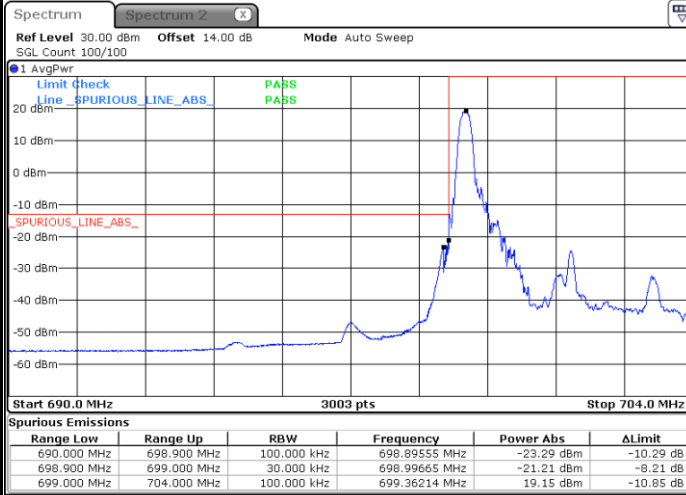


Date: 19 FEB 2025 14:14:10

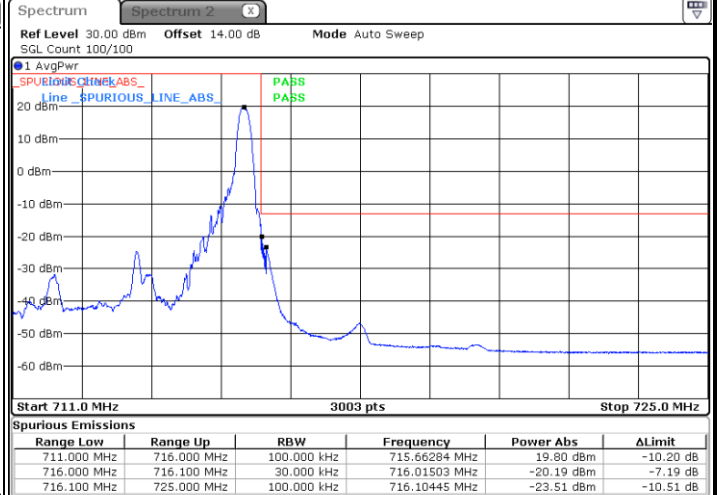


LTE Band 12 / 5MHz / 16QAM

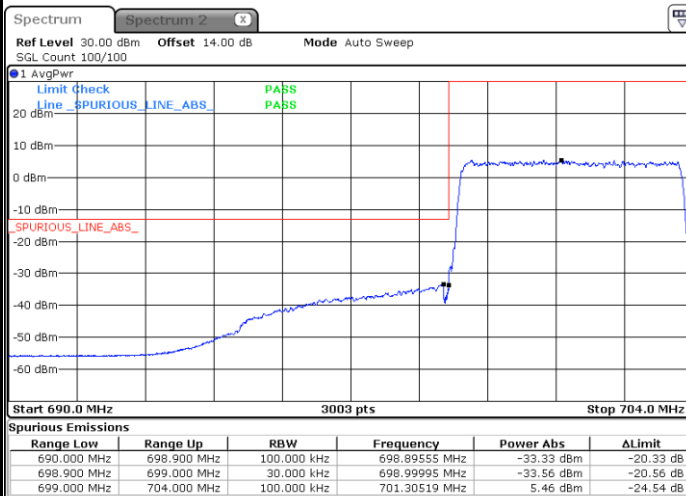
Lowest Band Edge / 1 RB



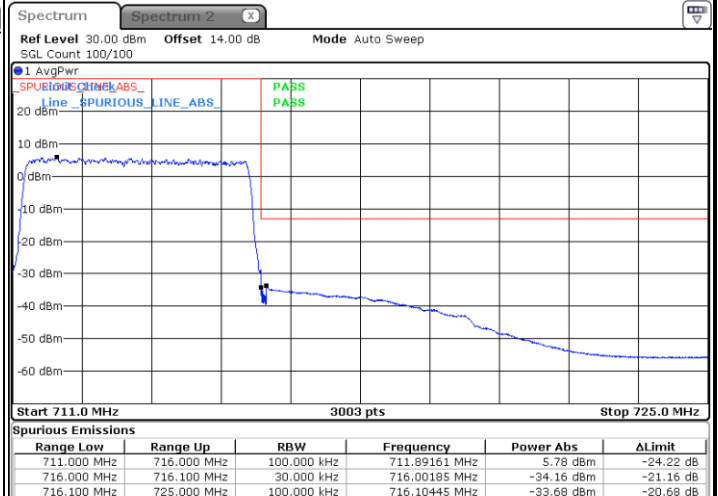
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



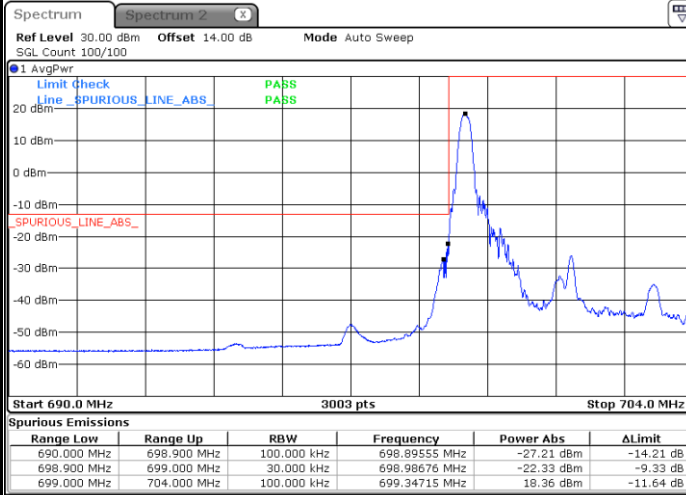
Highest Band Edge / Full RB



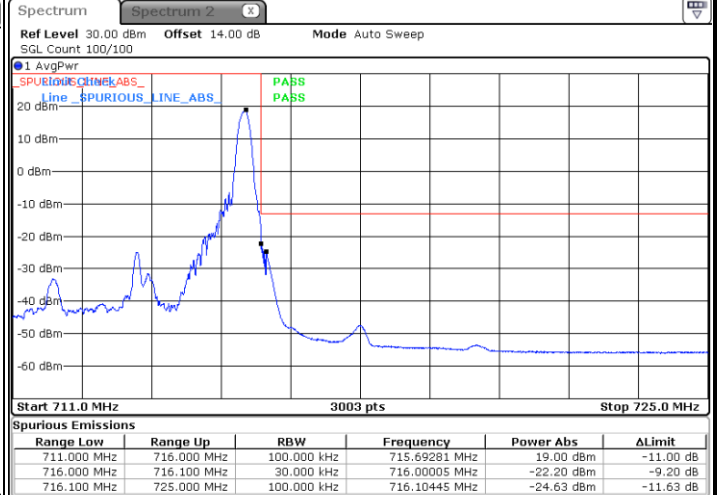


LTE Band 12 / 5MHz / 64QAM

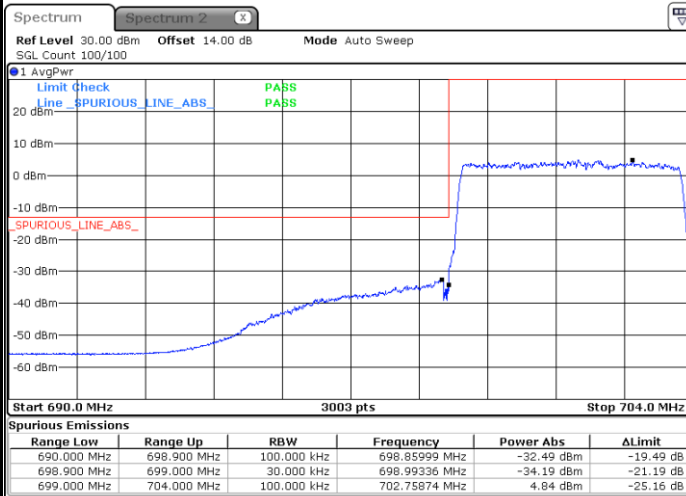
Lowest Band Edge / 1 RB



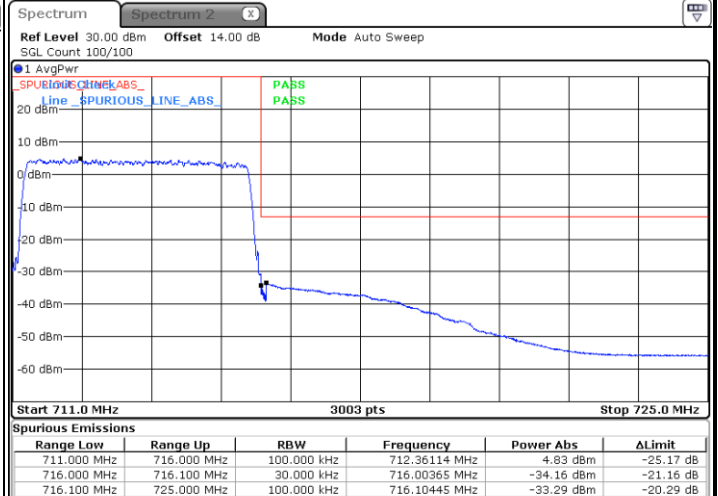
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



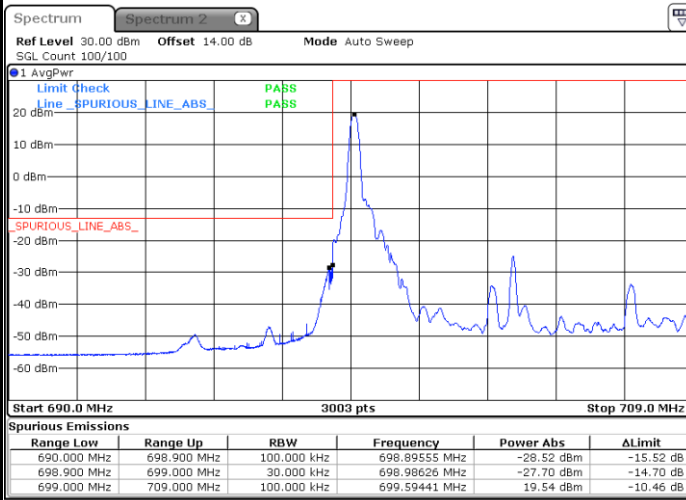
Highest Band Edge / Full RB





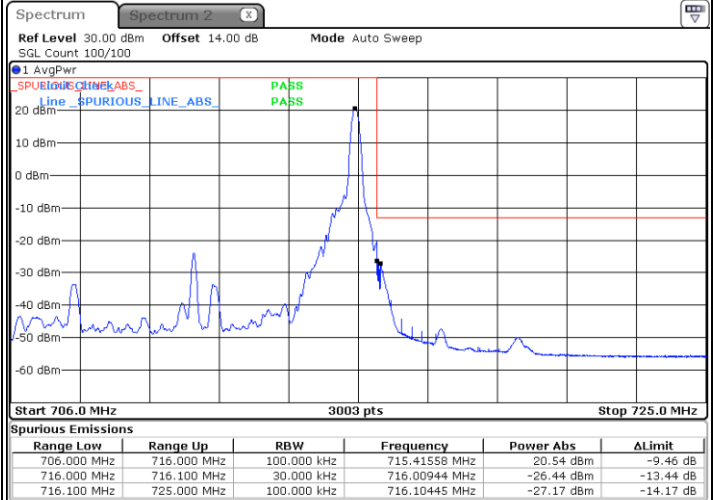
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1RB



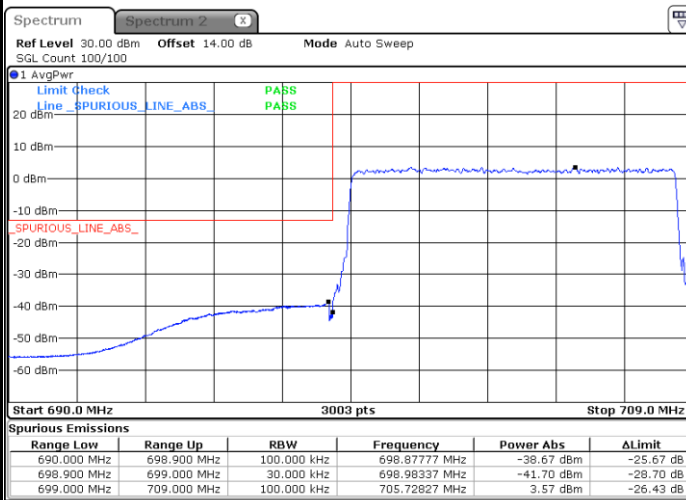
Date: 19 FEB 2025 14:17:51

Highest Band Edge / 1RB



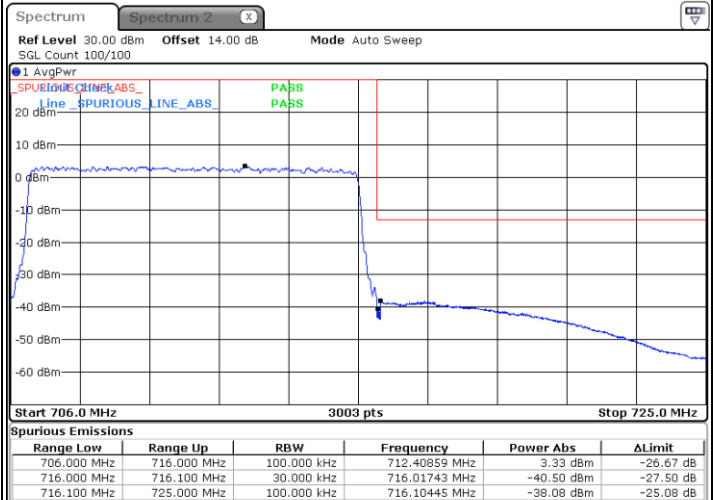
Date: 19 FEB 2025 14:26:27

Lowest Band Edge / Full RB



Date: 19 FEB 2025 14:20:19

Highest Band Edge / Full RB

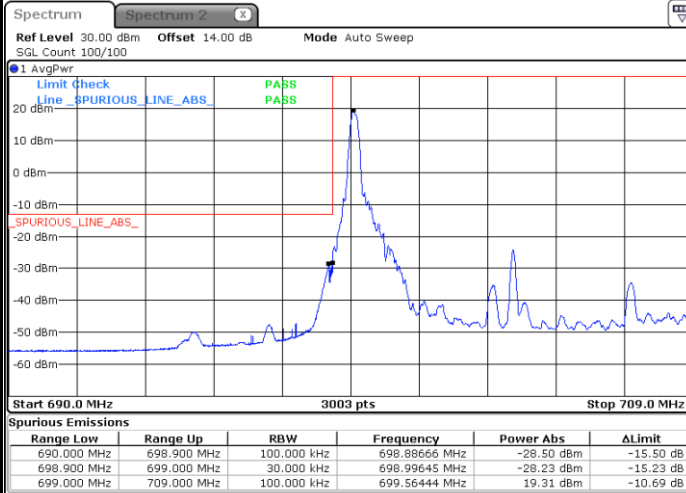


Date: 19 FEB 2025 14:28:55

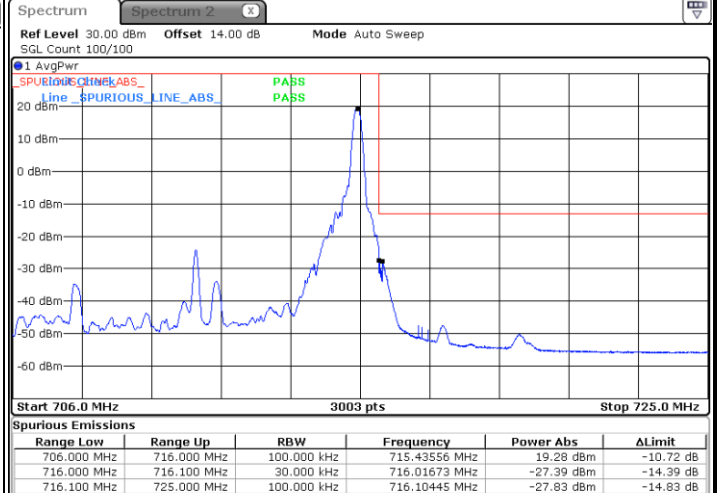


LTE Band 12 / 10MHz / 16QAM

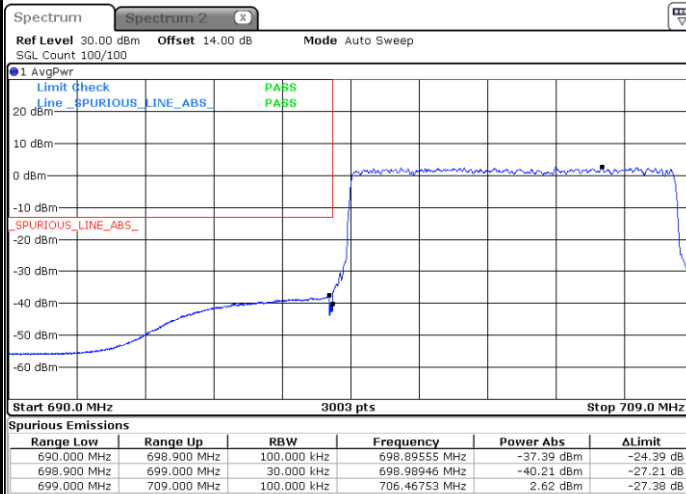
Lowest Band Edge / 1 RB



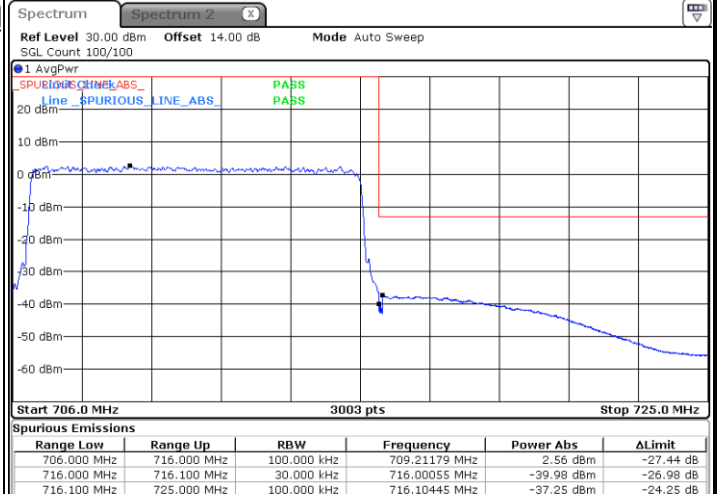
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



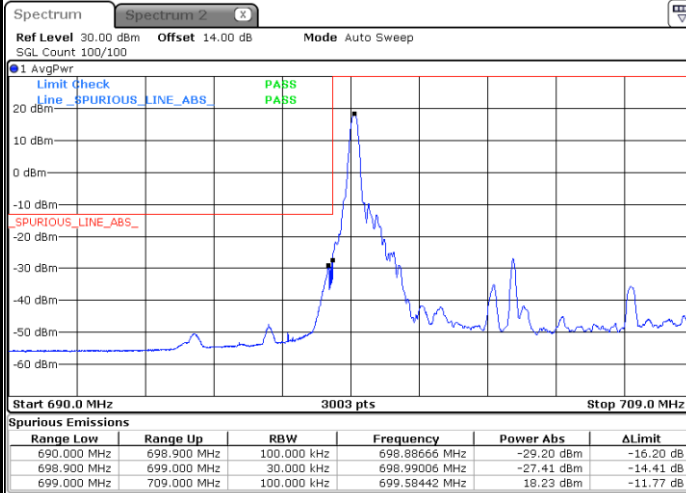
Highest Band Edge / Full RB



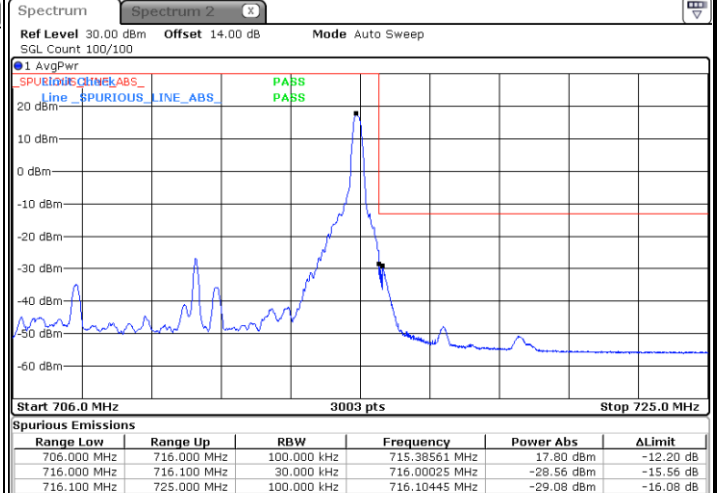


LTE Band 12 / 10MHz / 64QAM

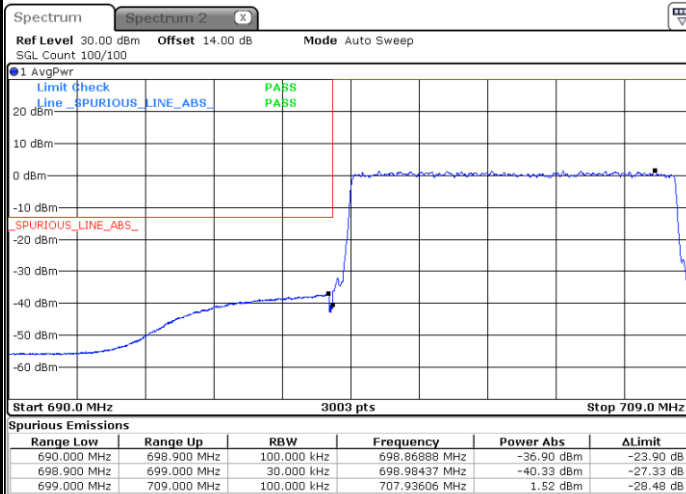
Lowest Band Edge / 1 RB



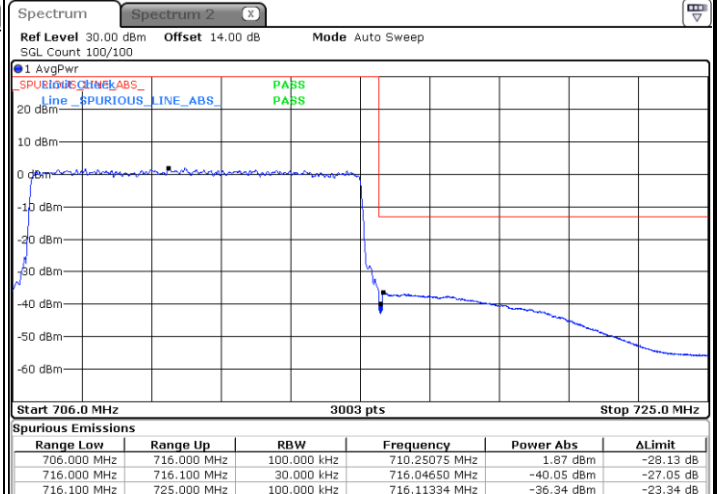
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

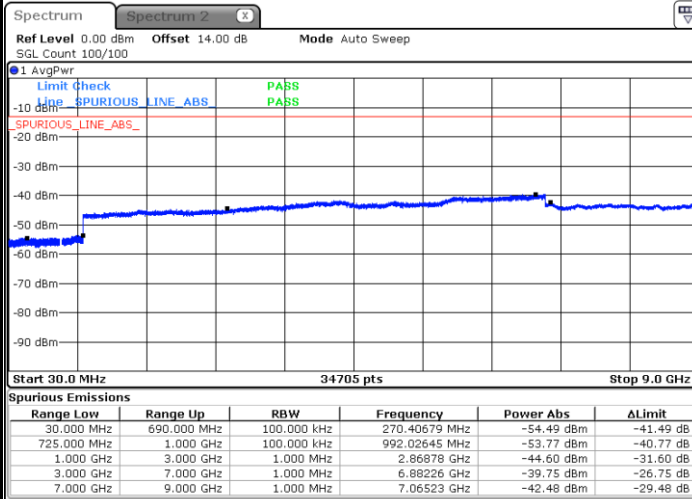




Conducted Spurious Emission

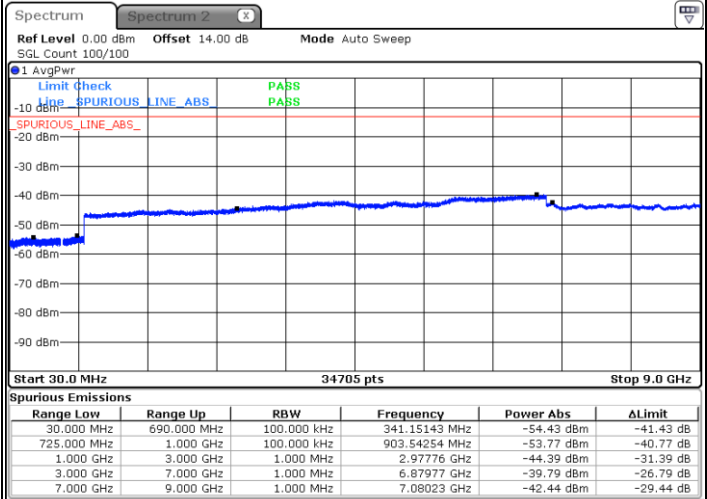
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



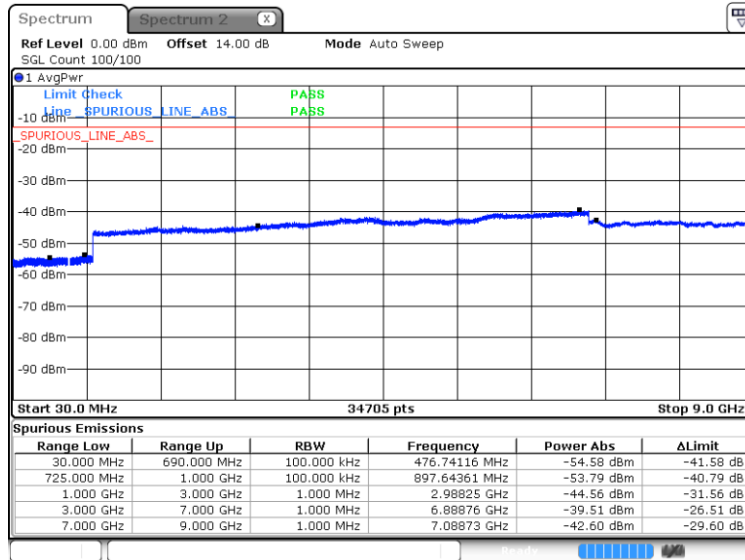
Date: 19 FEB 2025 13:10:22

Middle Channel / QPSK



Date: 19 FEB 2025 13:11:21

Highest Channel / QPSK

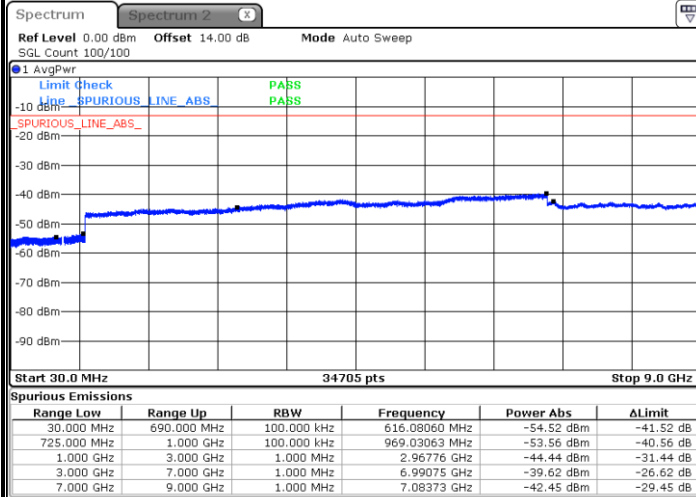


Date: 19 FEB 2025 13:18:05



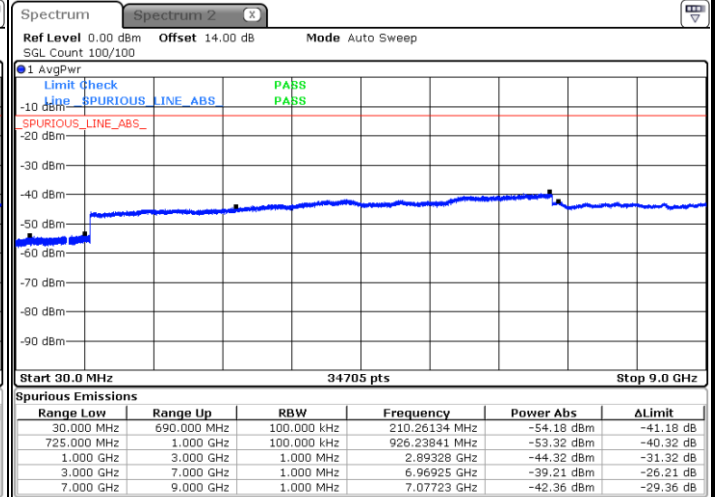
LTE Band 12 / 3MHz

Lowest Channel / QPSK



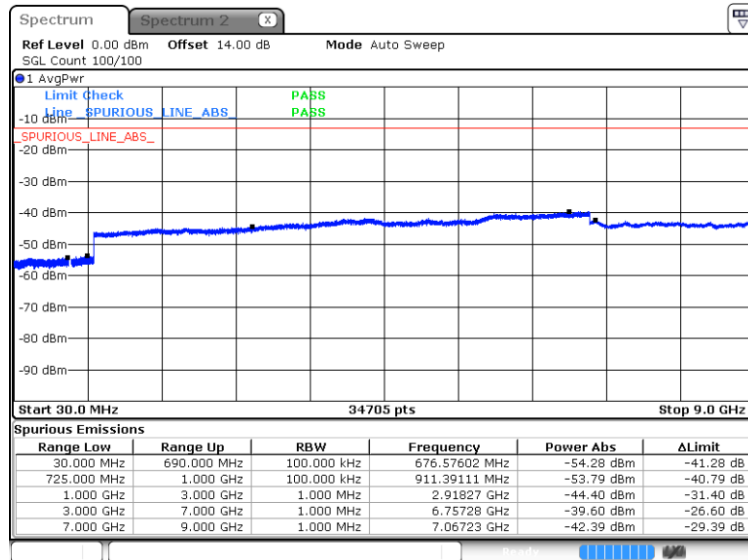
Date: 19 FEB 2025 13:29:14

Middle Channel / QPSK



Date: 19 FEB 2025 13:30:16

Highest Channel / QPSK

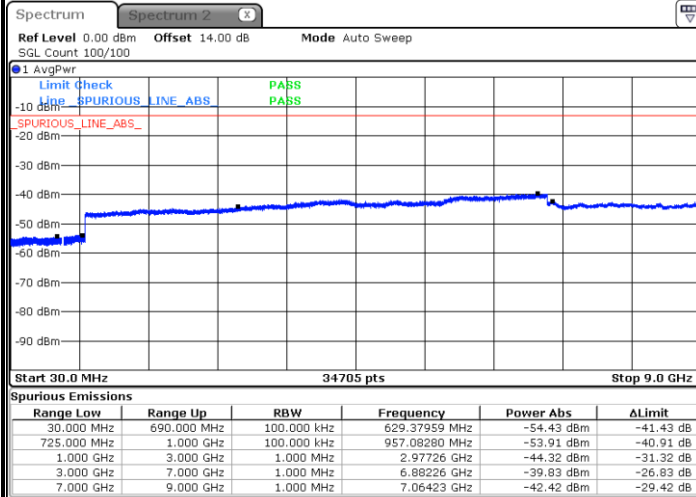


Date: 19 FEB 2025 13:37:30



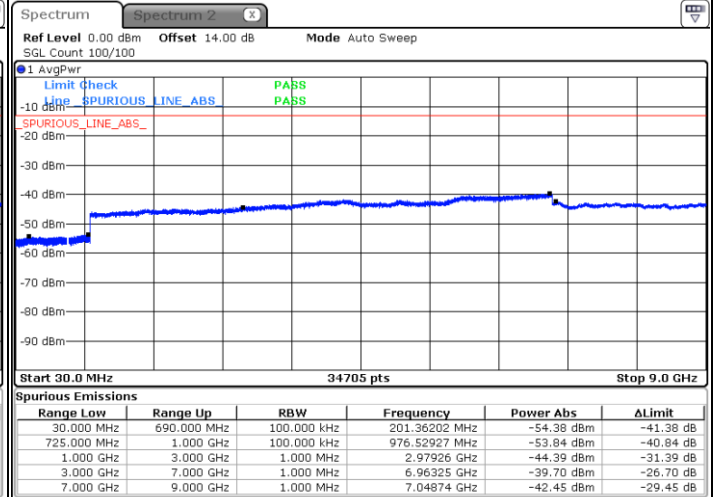
LTE Band 12 / 5MHz

Lowest Channel / QPSK



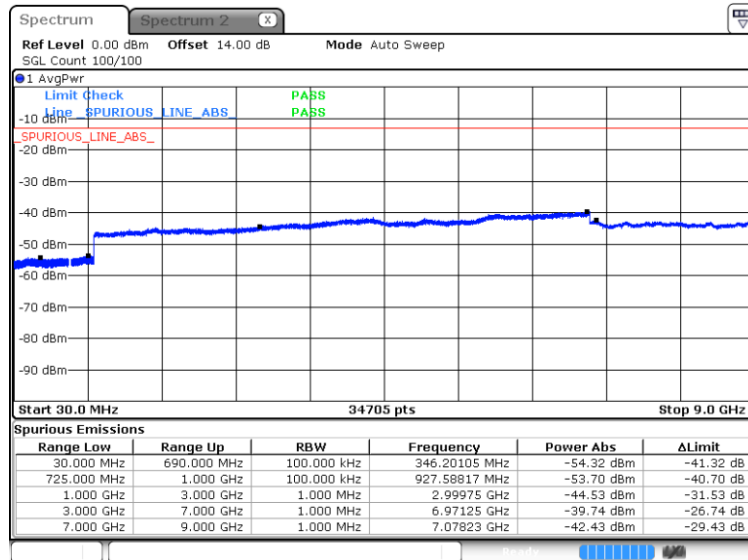
Date: 19 FEB 2025 14:08:23

Middle Channel / QPSK



Date: 19 FEB 2025 14:09:30

Highest Channel / QPSK

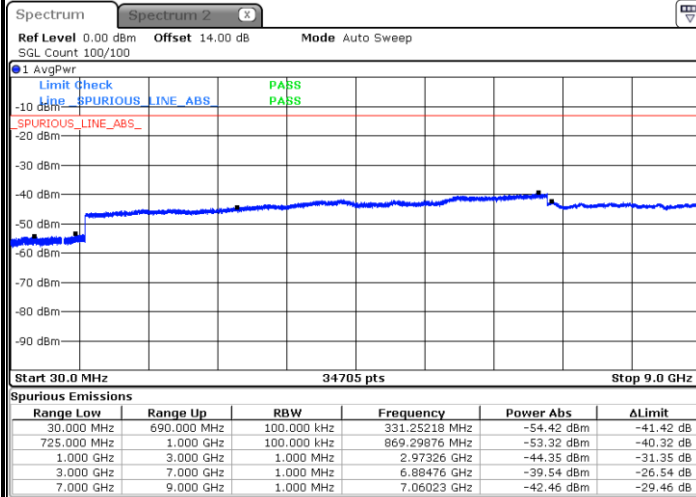


Date: 19 FEB 2025 14:16:57



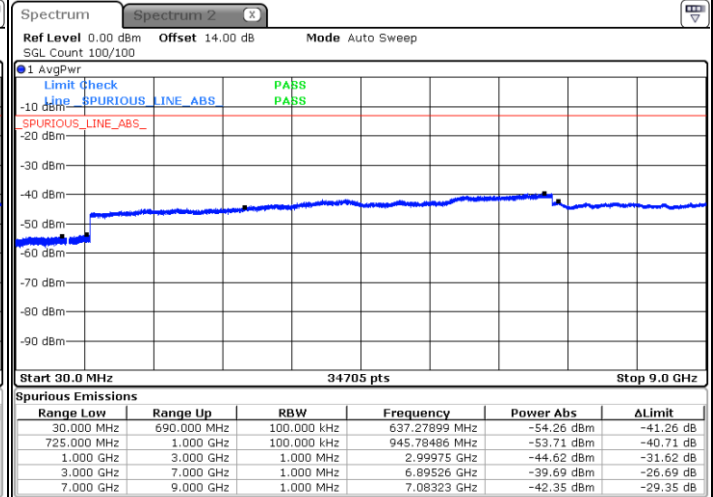
LTE Band 12 / 10MHz

Lowest Channel / QPSK



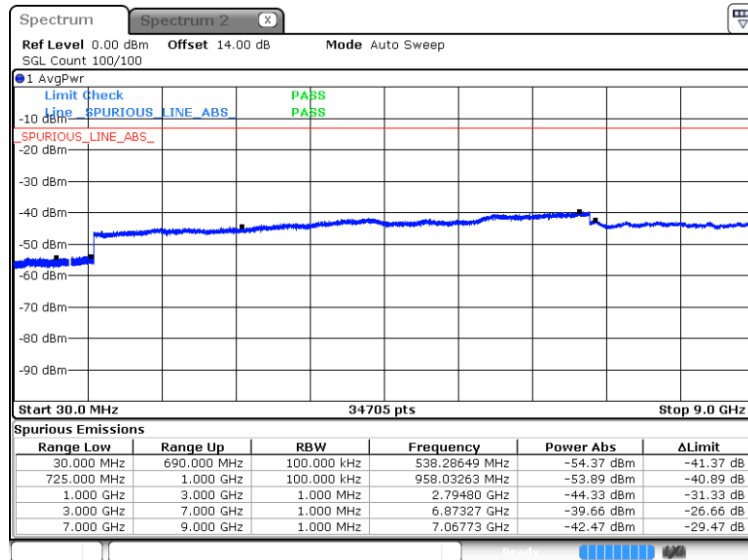
Date: 19 FEB 2025 14:23:06

Middle Channel / QPSK



Date: 19 FEB 2025 14:24:13

Highest Channel / QPSK



Date: 19 FEB 2025 14:31:41

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 1.4MHz	Note 2.
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	4.2	PASS
40	Normal Voltage	3.2	
30	Normal Voltage	-1.6	
20(Ref.)	Normal Voltage	3.3	
10	Normal Voltage	2.8	
0	Normal Voltage	-2.6	
-10	Normal Voltage	2.4	
-20	Normal Voltage	-2.9	
-30	Normal Voltage	4.1	
20	Maximum Voltage	1.9	
20	Normal Voltage	2.6	
20	Battery End Point	-2.2	

Note:

1. Normal Voltage = 3.91 V.; Battery End Point (BEP) = 3.45 V.; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

$$|\text{MAX}(\Delta f)| = 4.2\text{Hz}$$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	699.157336	$\geq 699 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	715.845454	$\leq 716 \text{ MHz}$	



LTE Band 13

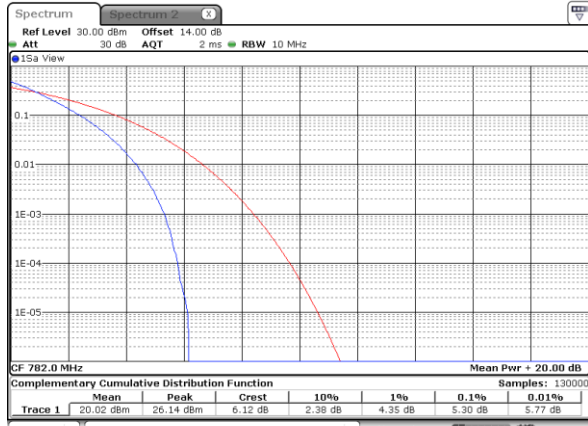
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.30	6.14	6.46	PASS



LTE Band 13 / 10MHz / QPSK

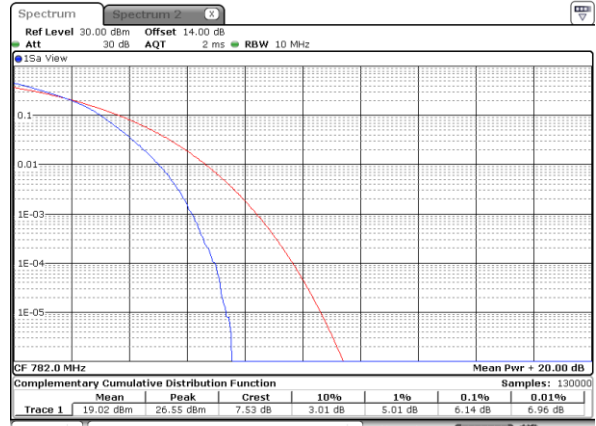
Middle Channel / Full RB



Date: 19 FEB 2025 14:58:20

LTE Band 13 / 10MHz / 16QAM

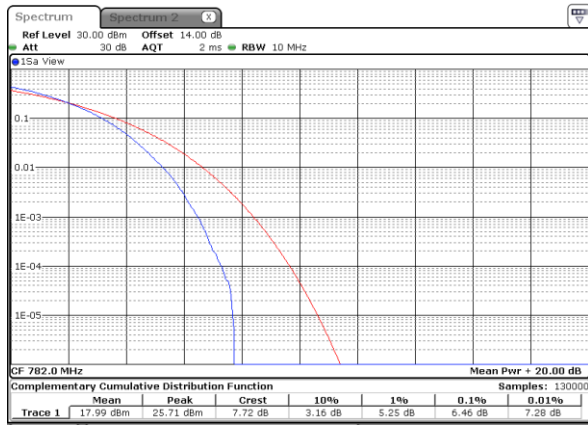
Middle Channel / Full RB



Date: 19 FEB 2025 14:58:50

LTE Band 13 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 19 FEB 2025 14:59:20



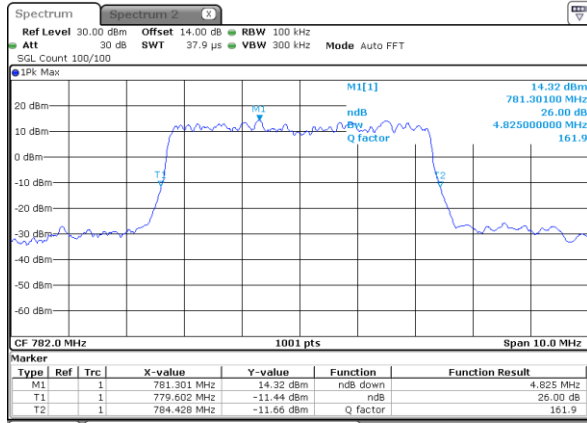
26dB Bandwidth

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	-	-	-	-	4.83	4.81	9.63	9.71	-	-	-	-

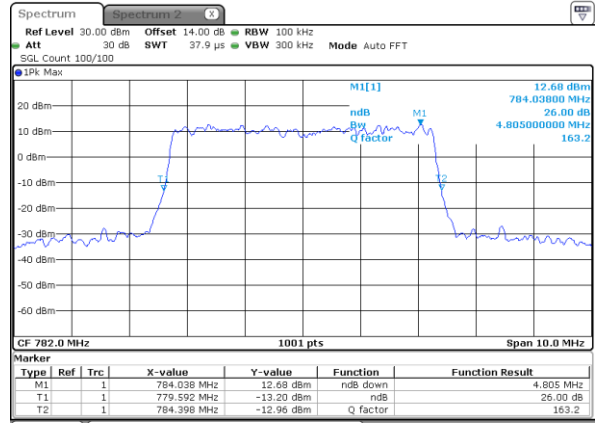


LTE Band 13

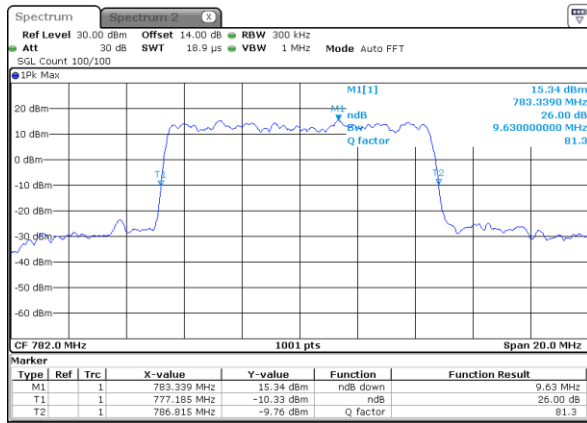
Middle Channel / 5MHz / QPSK



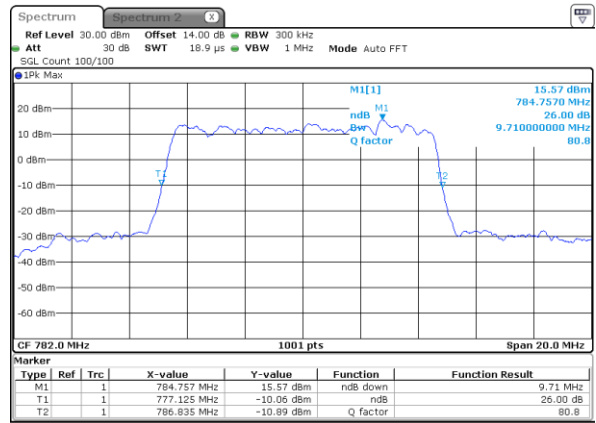
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM





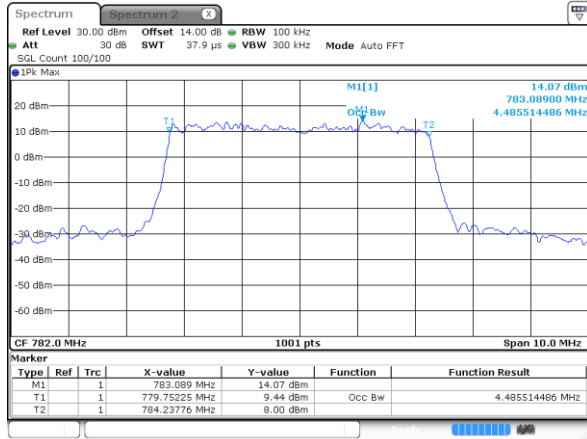
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.49	9.05	9.01	-	-	-	-

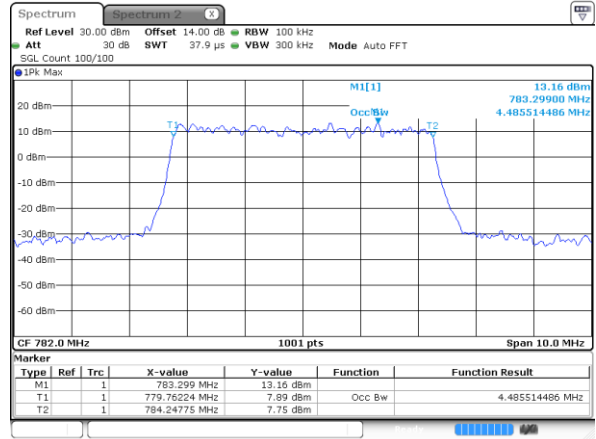


LTE Band 13

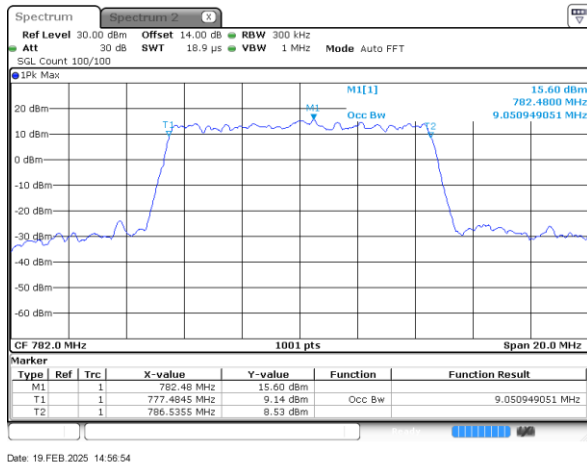
Middle Channel / 5MHz / QPSK



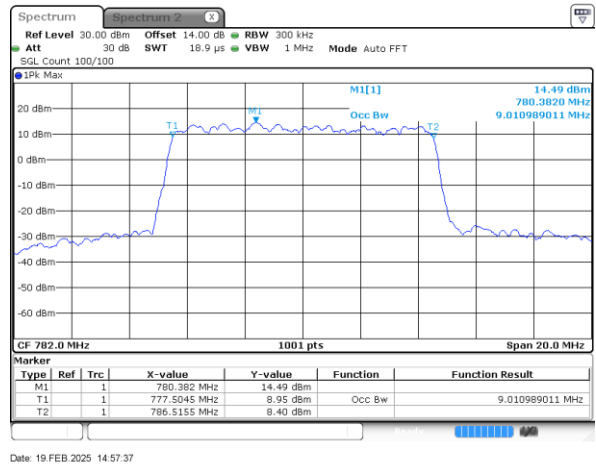
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

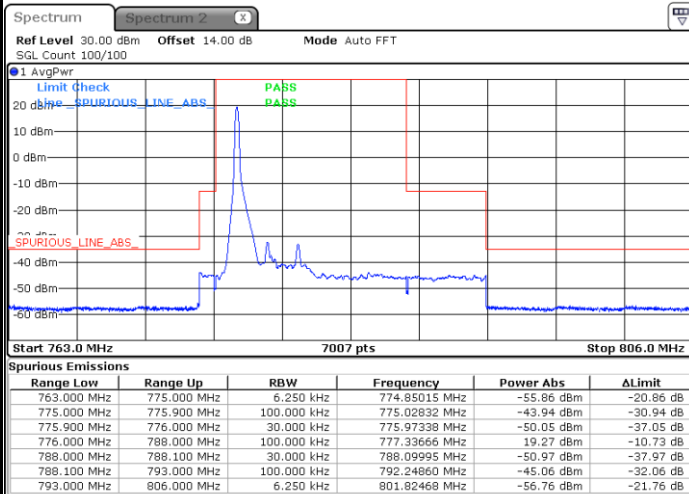




Conducted Band Edge

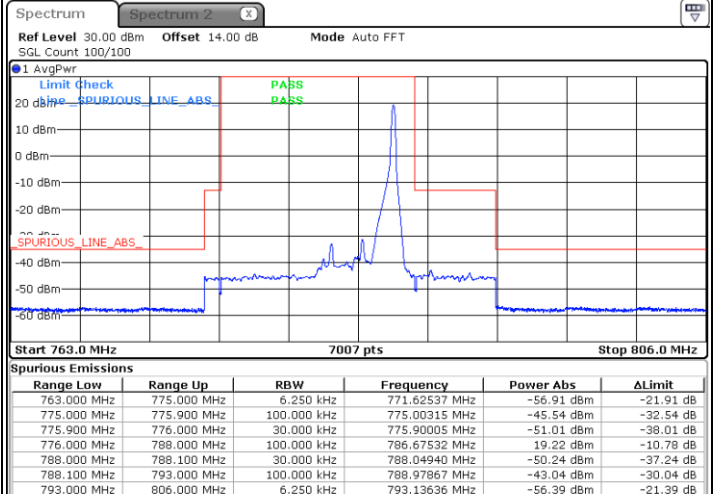
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



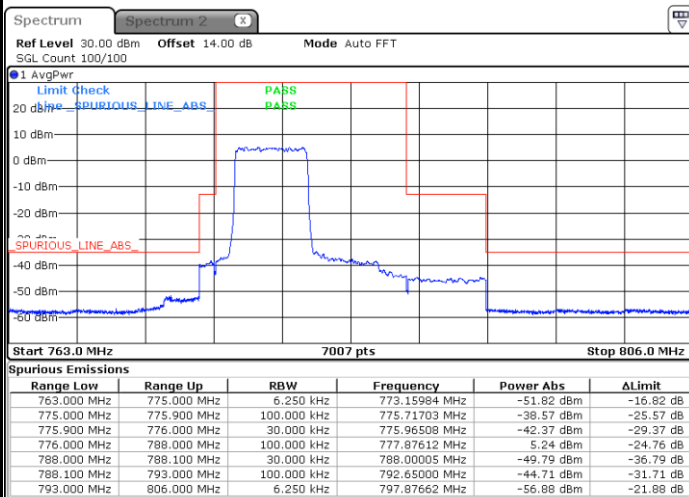
Date: 19 FEB 2025 14:34:34

Highest Band Edge / 1 RB



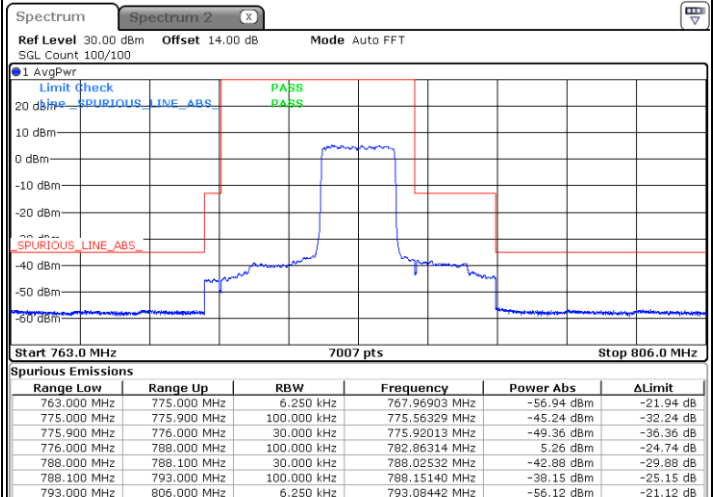
Date: 19 FEB 2025 14:43:00

Lowest Band Edge / Full RB



Date: 19 FEB 2025 14:36:58

Highest Band Edge / Full RB

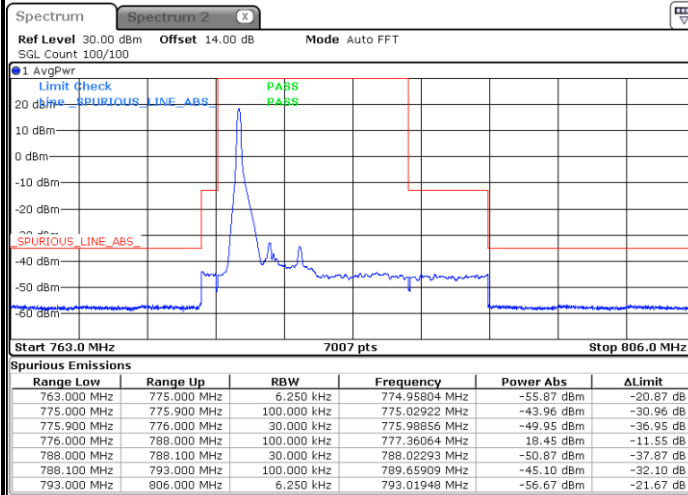


Date: 19 FEB 2025 14:45:24



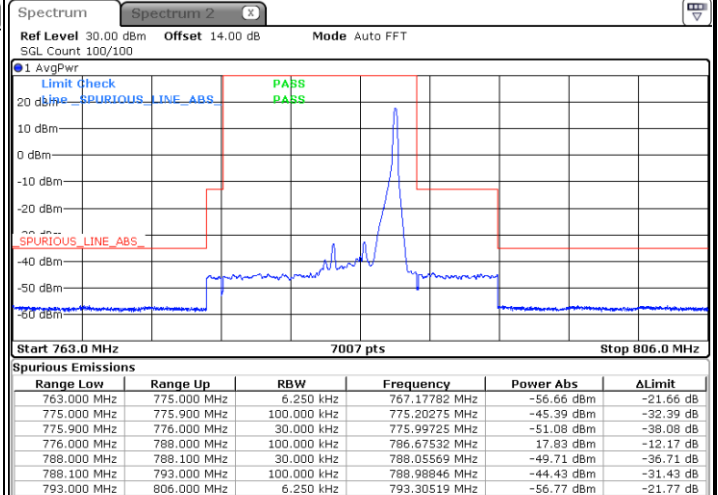
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



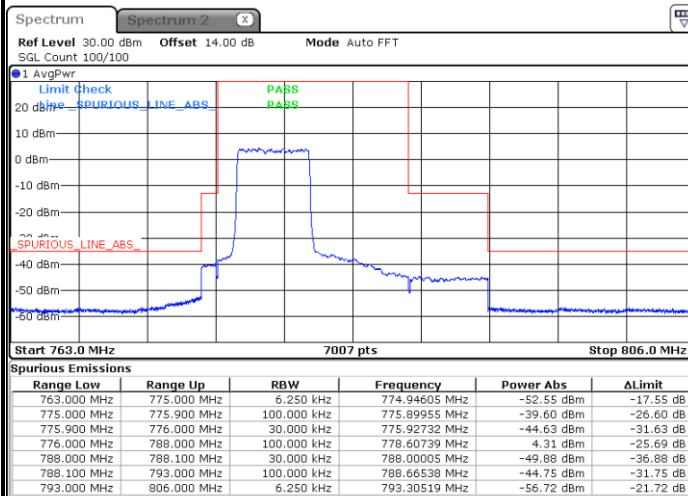
Date: 19 FEB 2025 14:35:22

Highest Band Edge / 1 RB



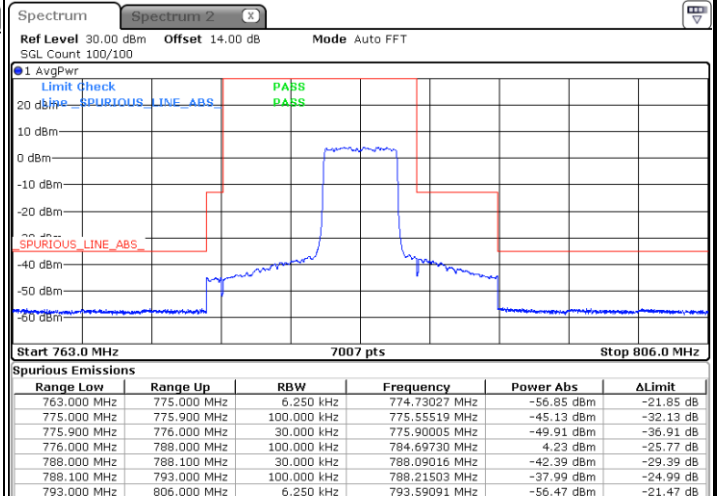
Date: 19 FEB 2025 14:43:48

Lowest Band Edge / Full RB



Date: 19 FEB 2025 14:37:45

Highest Band Edge / Full RB



Date: 19 FEB 2025 14:46:11