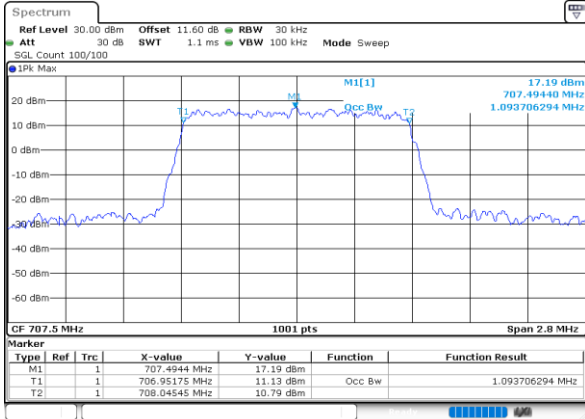


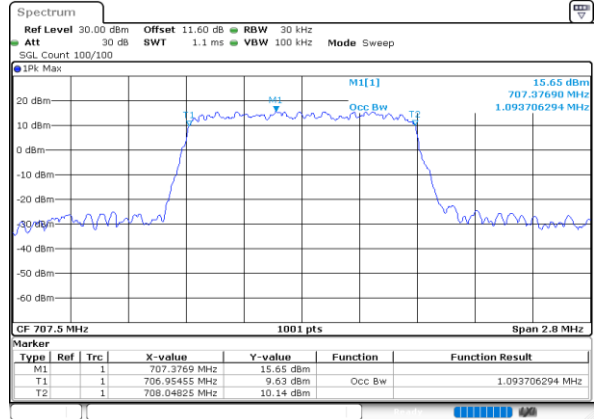


LTE Band 12

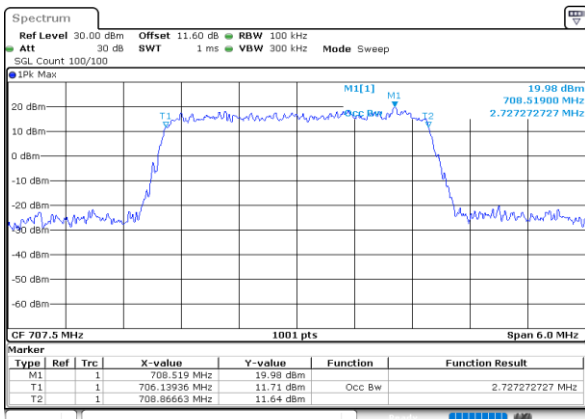
Middle Channel / 1.4MHz / QPSK



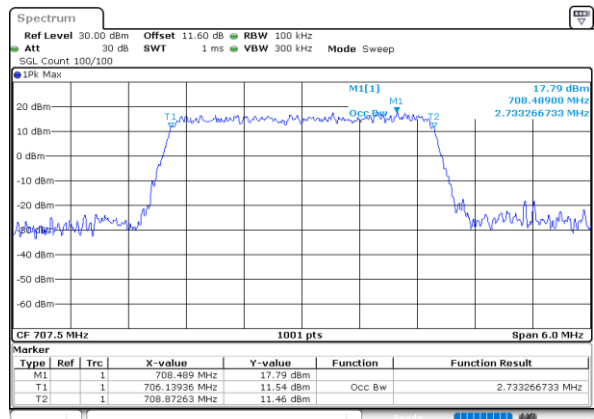
Middle Channel / 1.4MHz / 16QAM



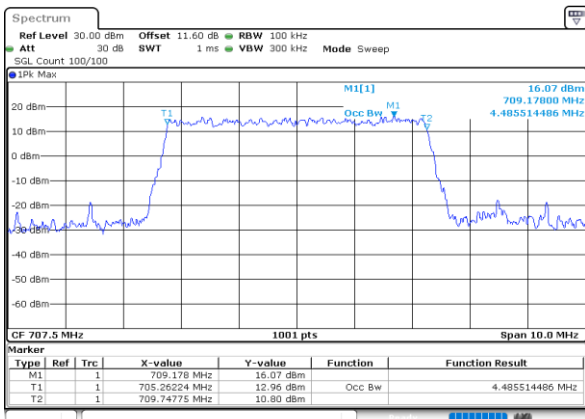
Middle Channel / 3MHz / QPSK



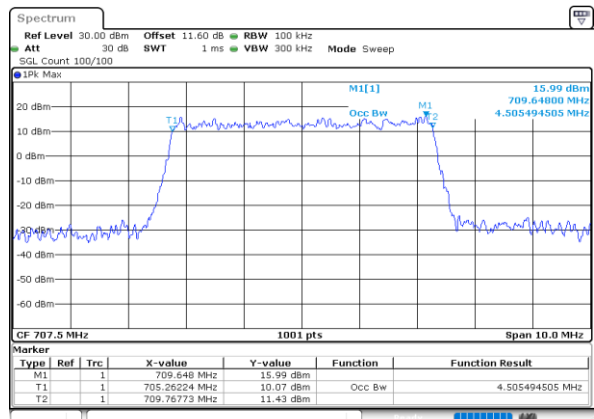
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



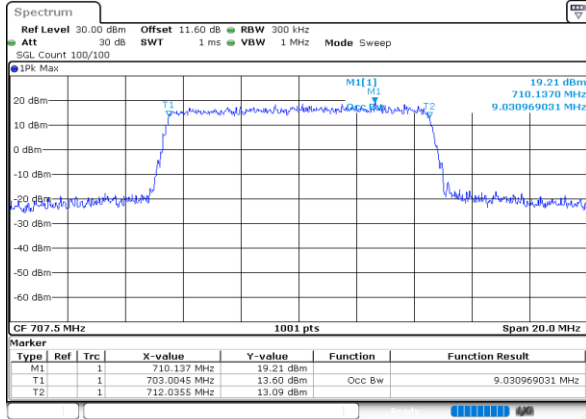
Middle Channel / 5MHz / 16QAM





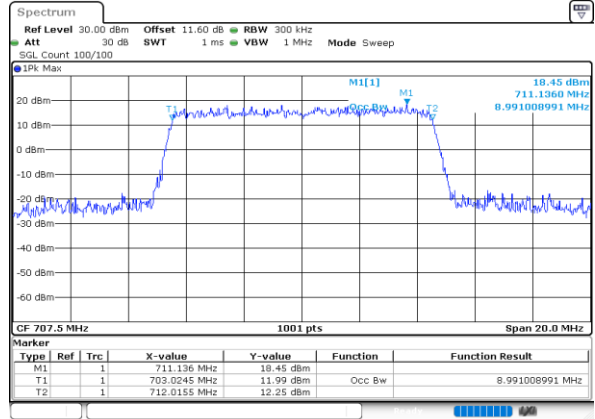
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 30\_JAN\_2024 19:25:13

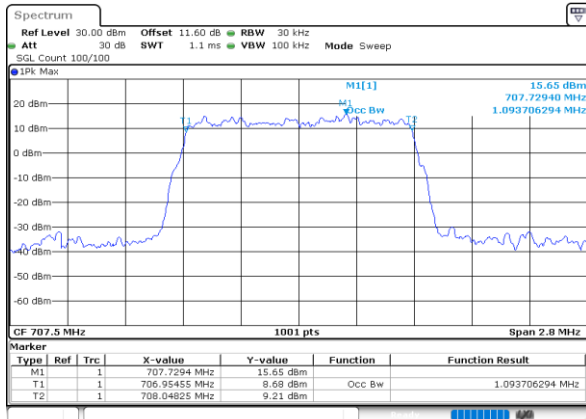
Middle Channel / 10MHz / 16QAM



Date: 30\_JAN\_2024 19:24:50

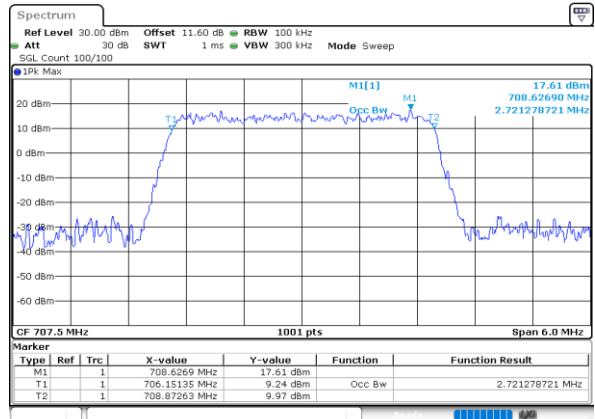
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



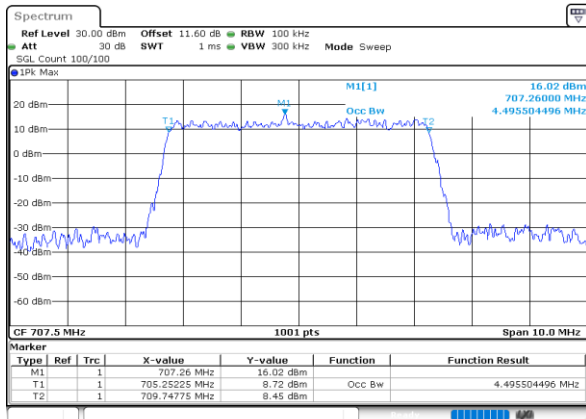
Date: 30\_JAN\_2024 19:05:40

Middle Channel / 3MHz / 64QAM



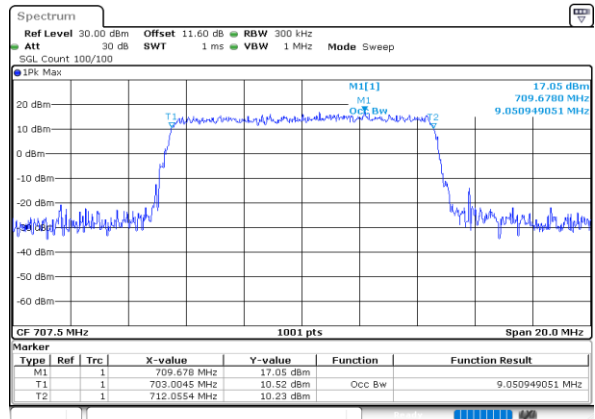
Date: 30\_JAN\_2024 19:14:00

Middle Channel / 5MHz / 64QAM



Date: 30\_JAN\_2024 19:16:30

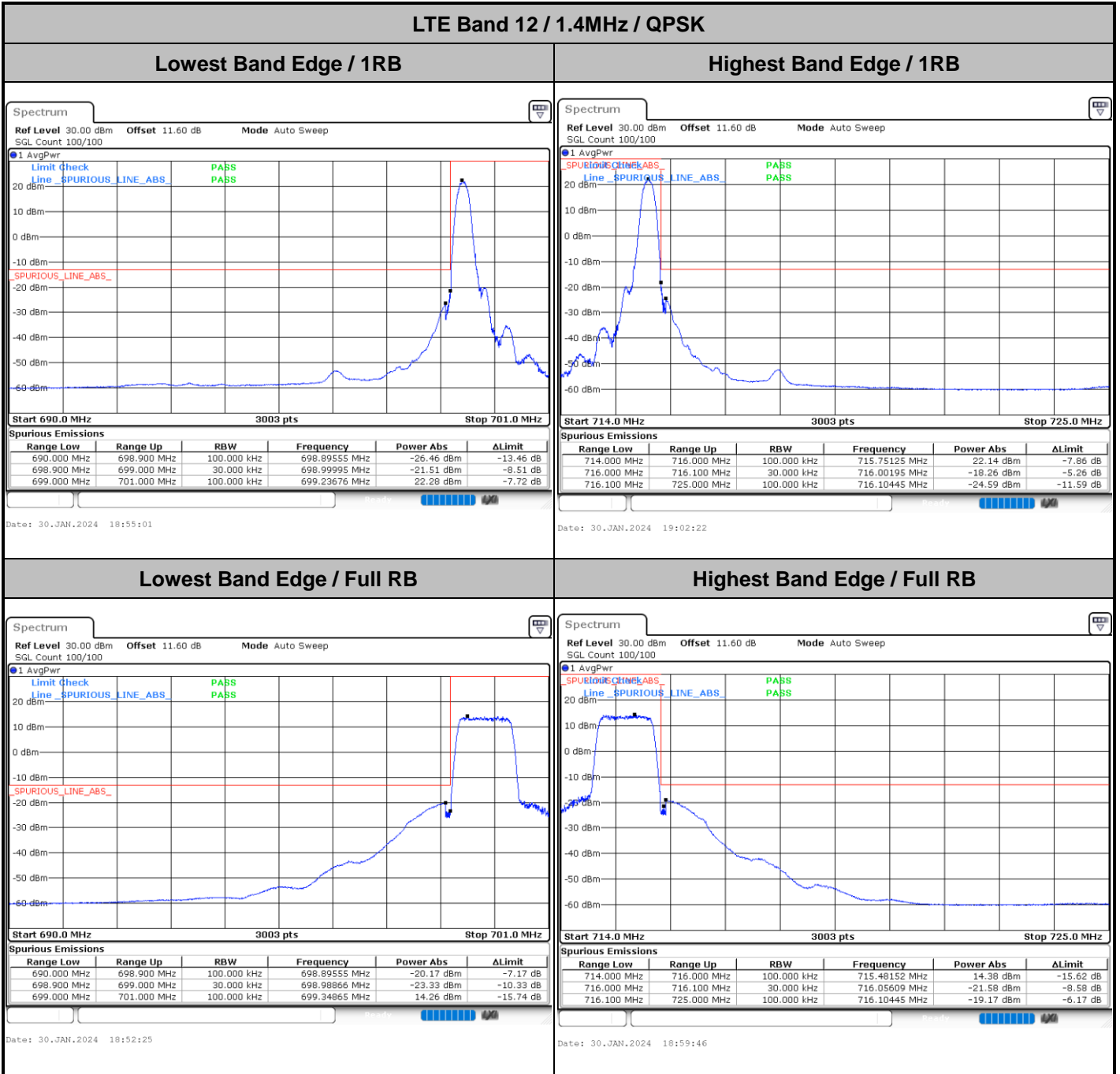
Middle Channel / 10MHz / 64QAM



Date: 30\_JAN\_2024 19:28:56



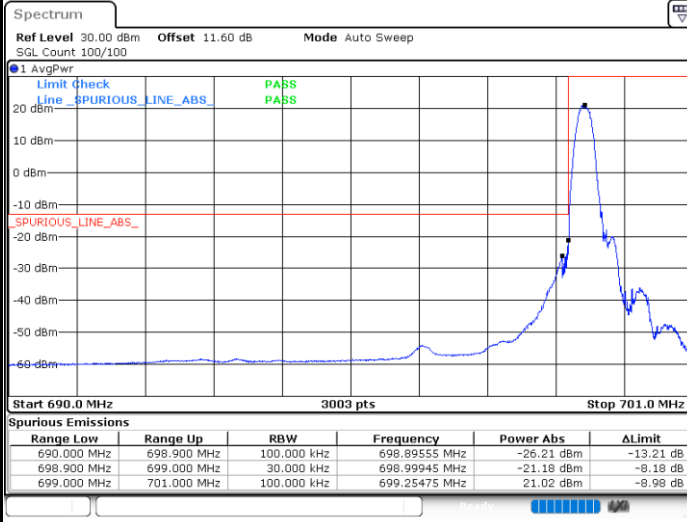
# Conducted Band Edge



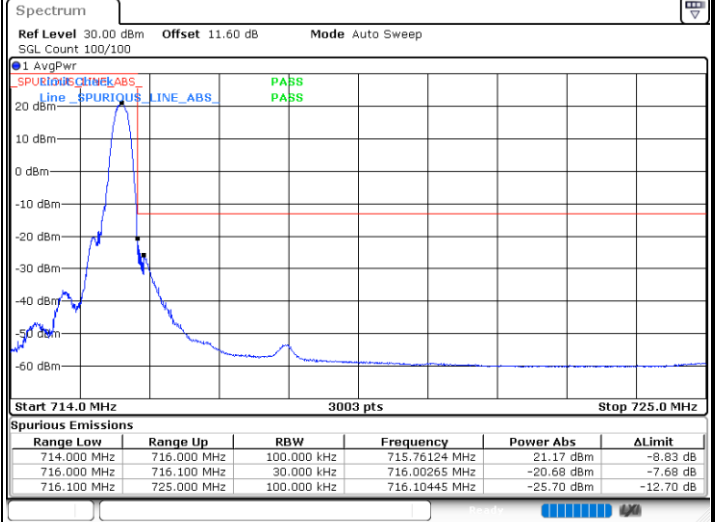


LTE Band 12 / 1.4MHz / 16QAM

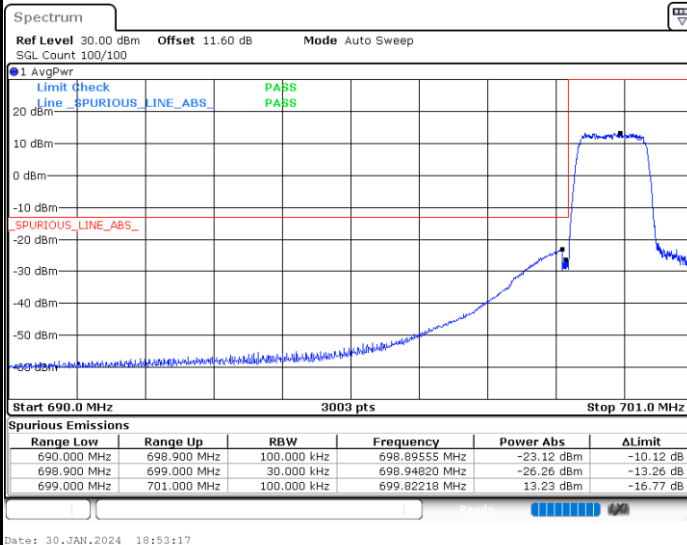
Lowest Band Edge / 1 RB



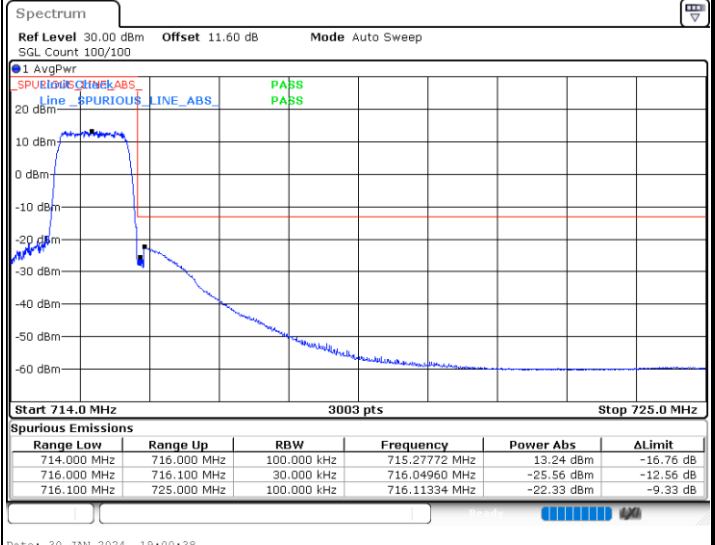
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



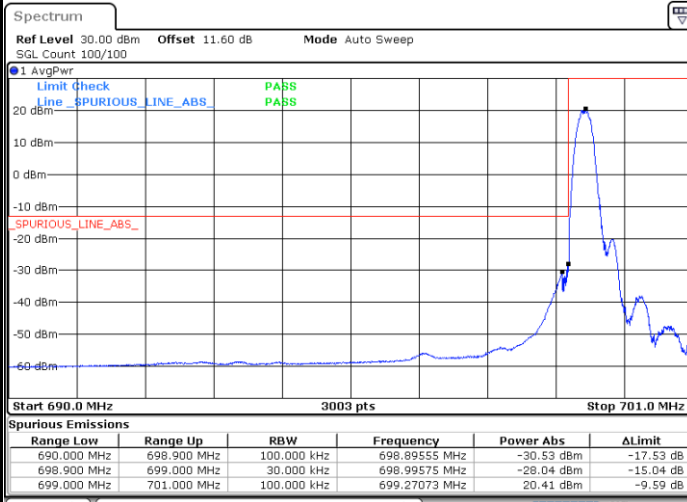
Highest Band Edge / Full RB





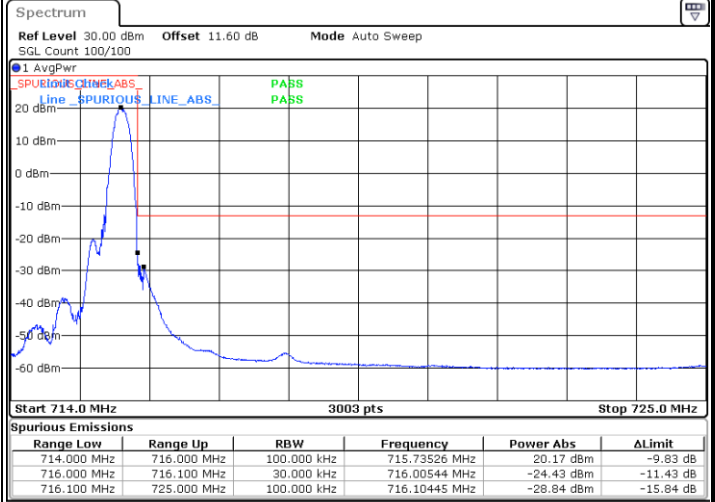
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



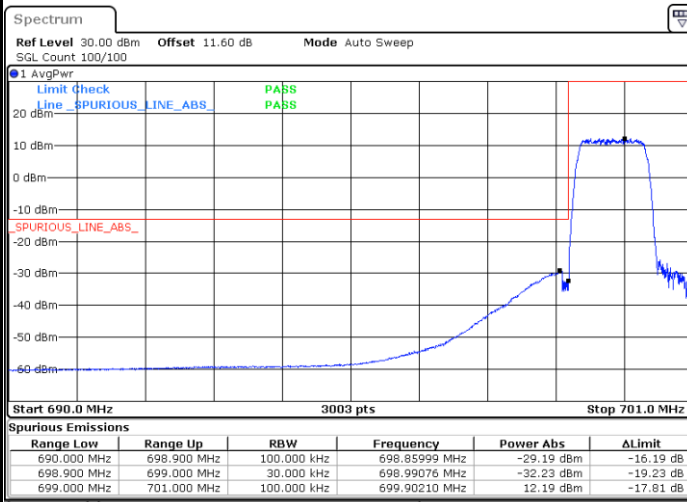
Date: 30.JAN.2024 19:05:17

Highest Band Edge / 1 RB



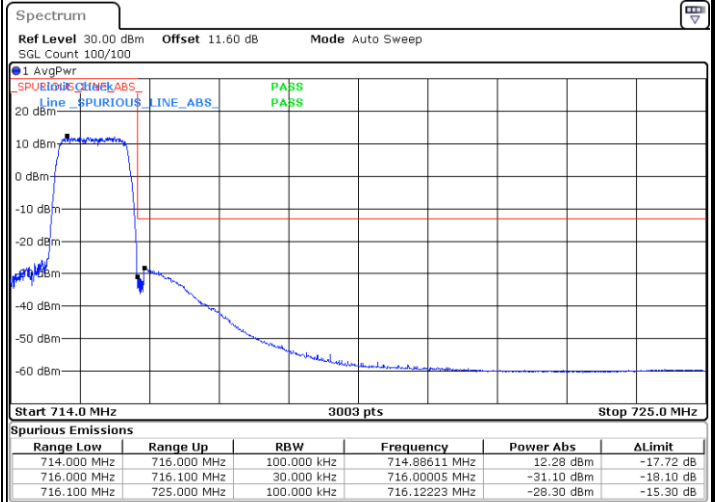
Date: 30.JAN.2024 19:07:46

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:04:25

Highest Band Edge / Full RB

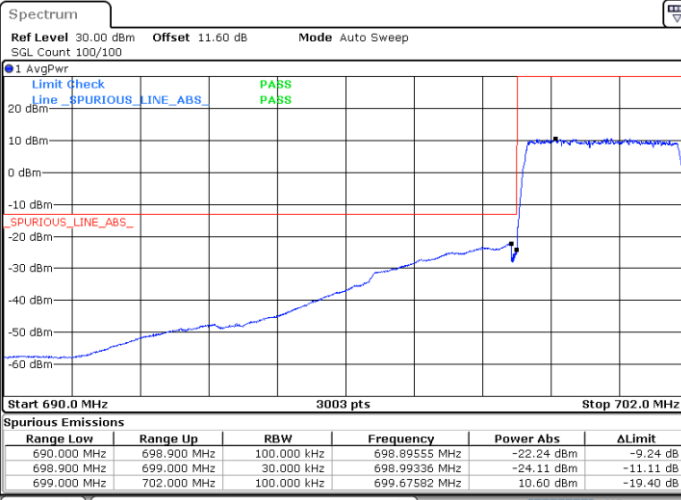


Date: 30.JAN.2024 19:06:54



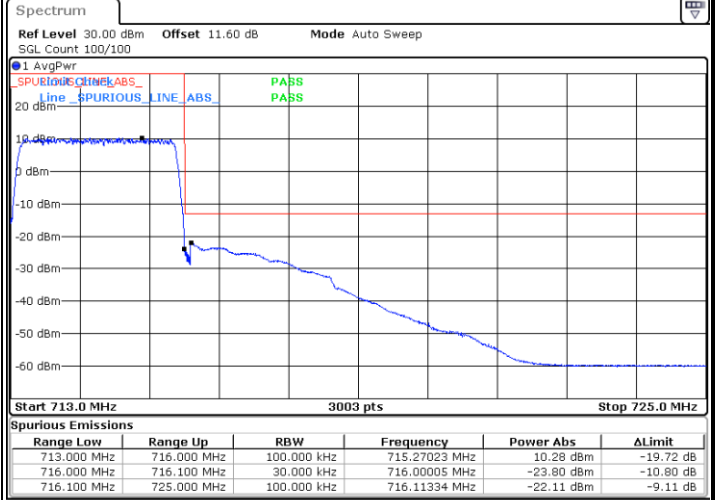
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:08:39

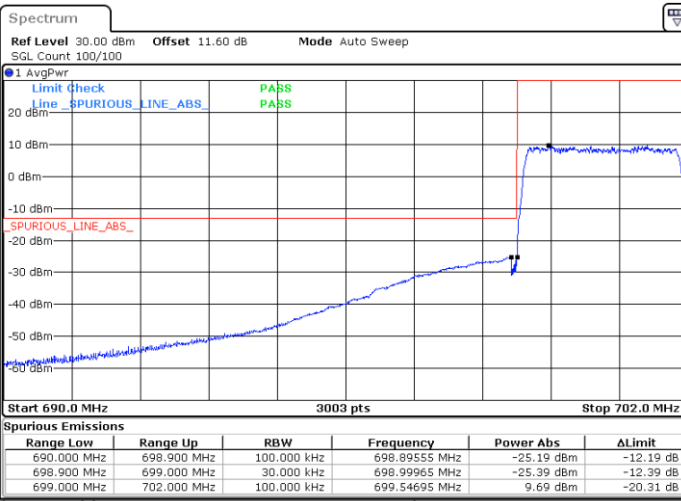
Highest Band Edge / Full RB



Date: 30.JAN.2024 19:11:53

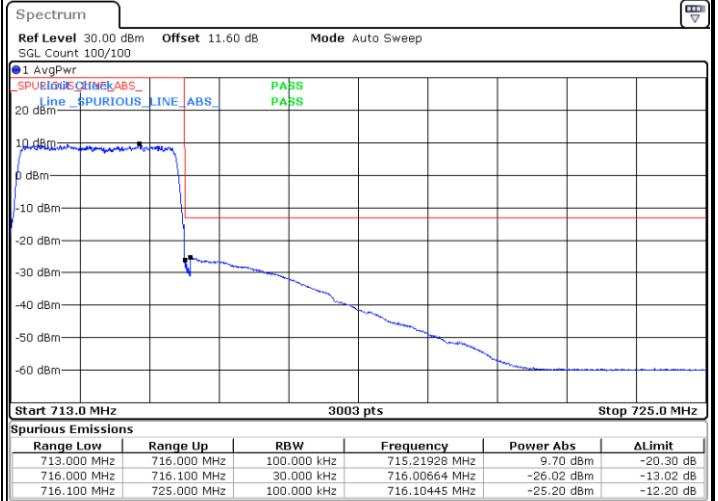
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / Full RB

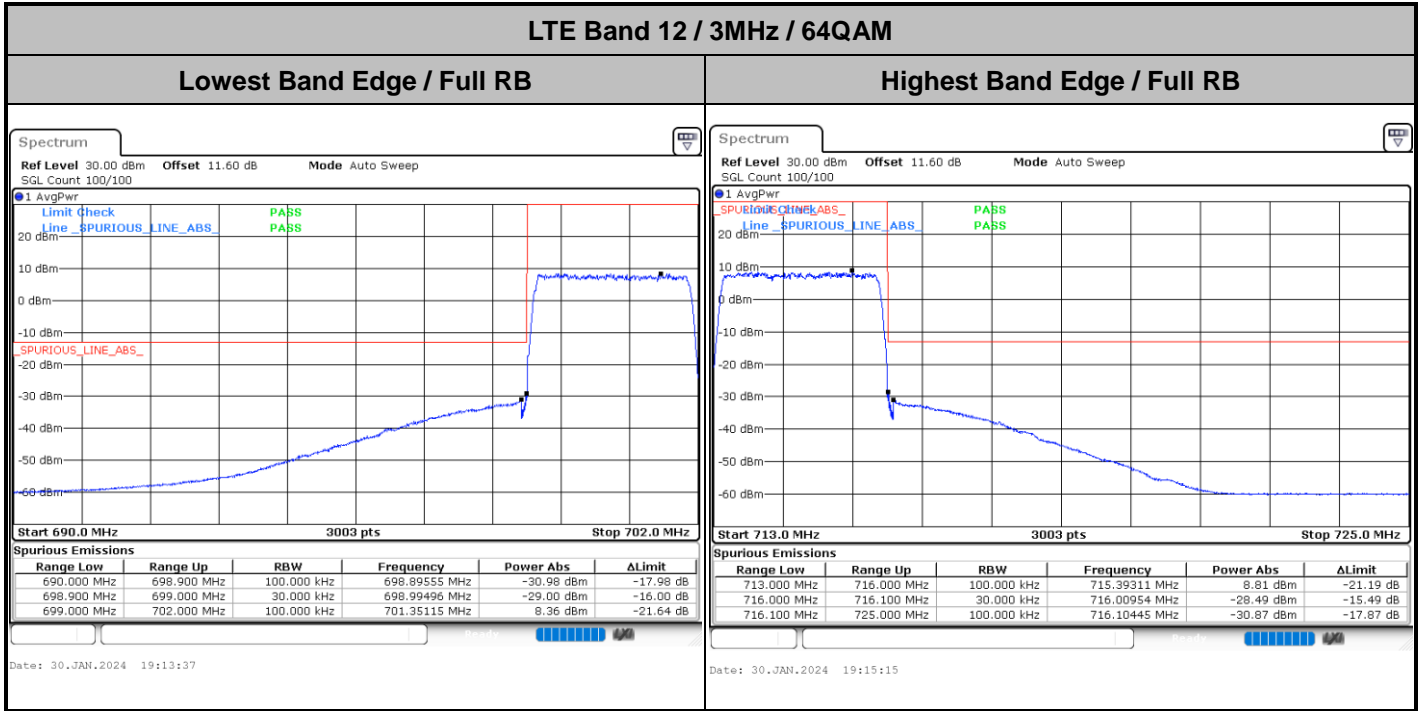


Date: 30.JAN.2024 19:09:31

Highest Band Edge / Full RB



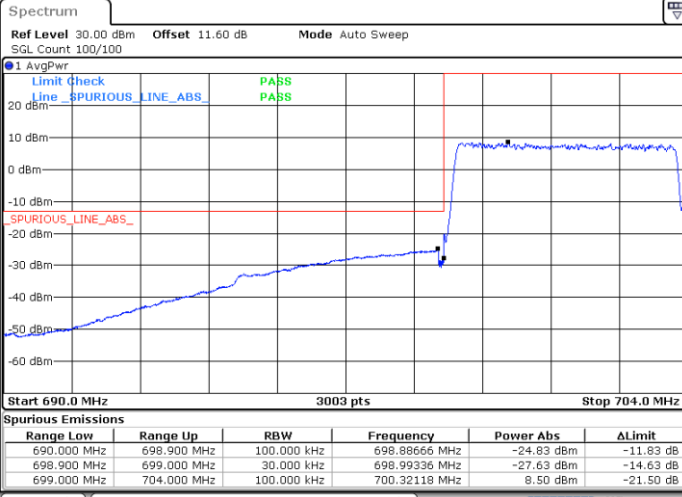
Date: 30.JAN.2024 19:12:45





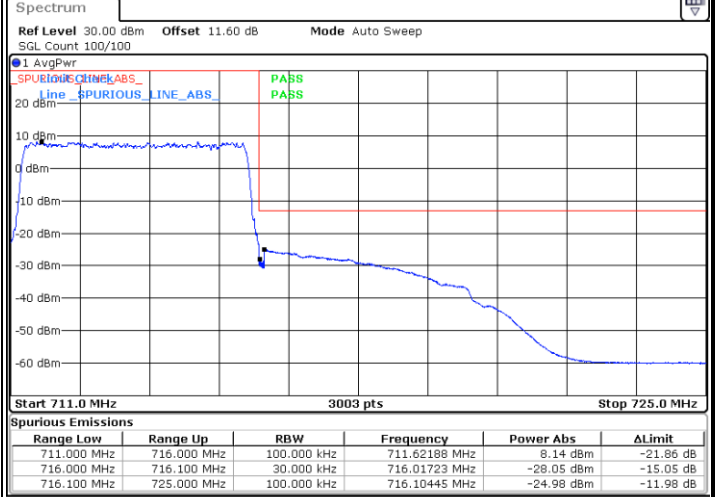
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:18:36

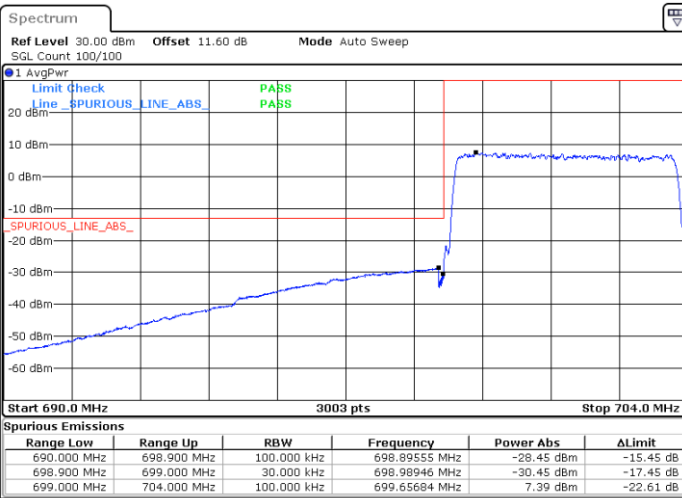
Highest Band Edge / Full RB



Date: 30.JAN.2024 19:21:51

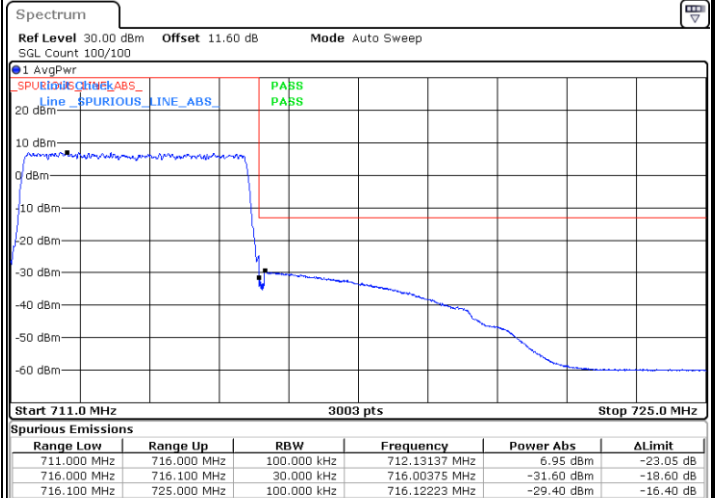
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:19:28

Highest Band Edge / Full RB



Date: 30.JAN.2024 19:22:43

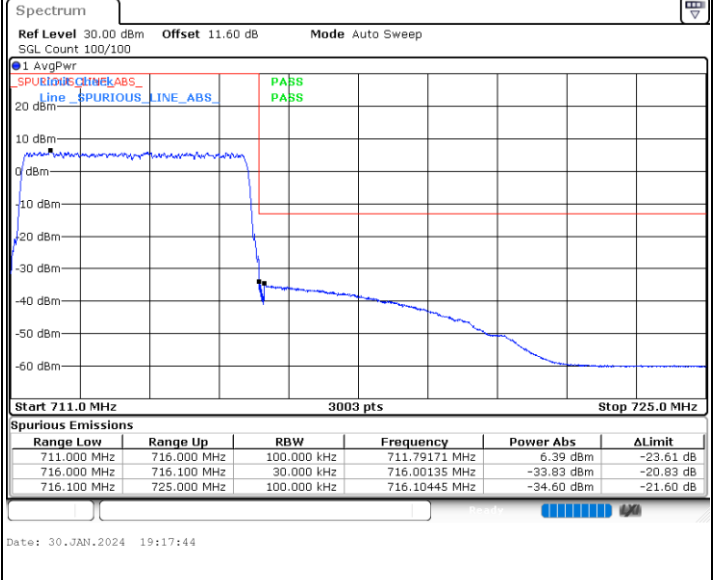
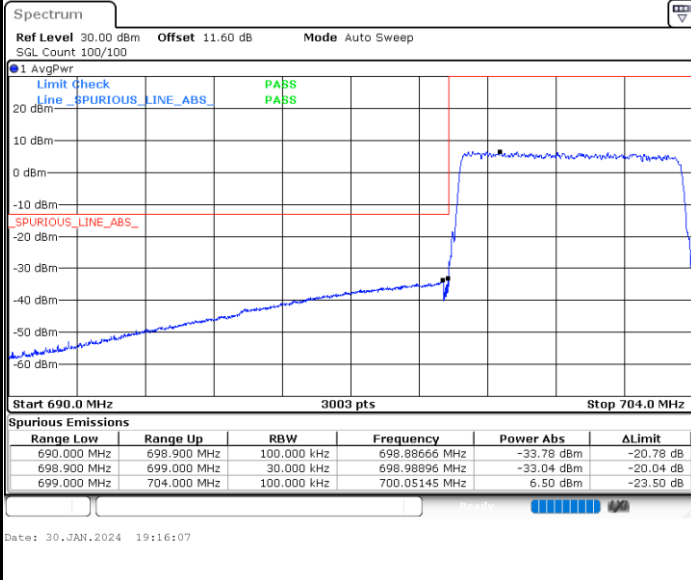




LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / Full RB

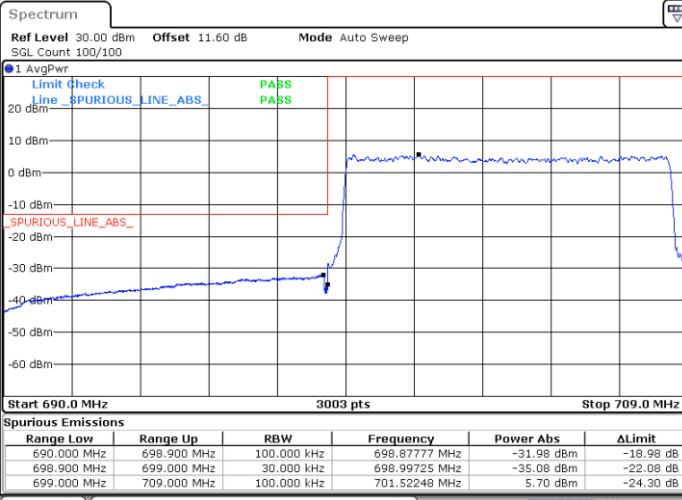
Highest Band Edge / Full RB





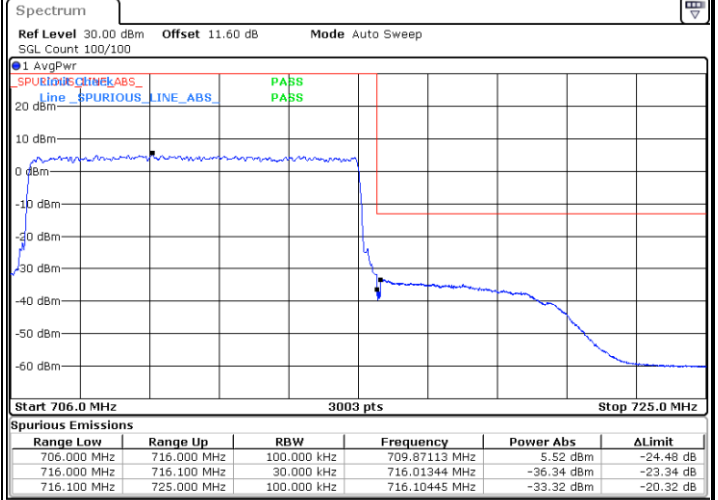
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:23:35

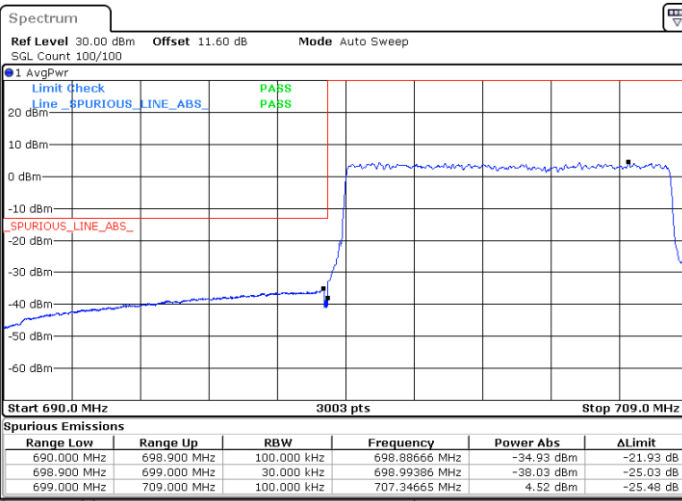
Highest Band Edge / Full RB



Date: 30.JAN.2024 19:26:49

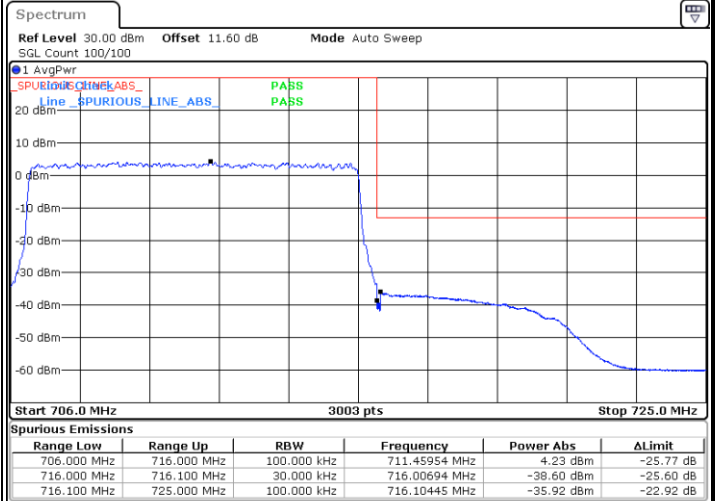
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:24:27

Highest Band Edge / Full RB



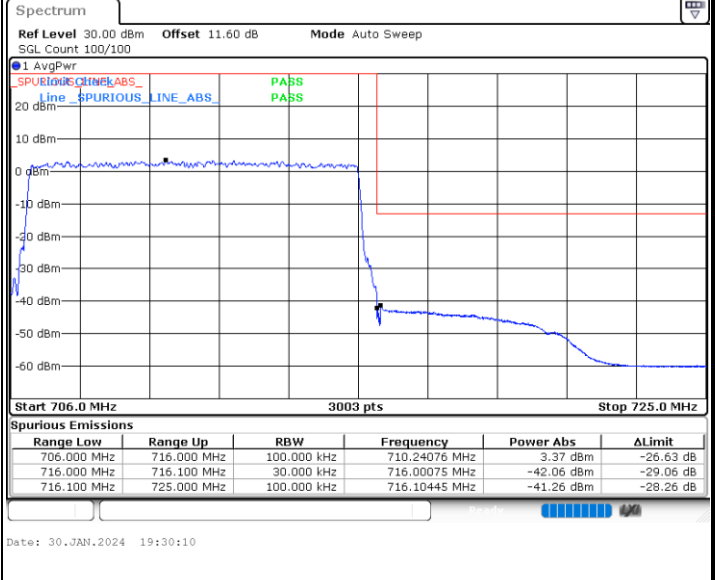
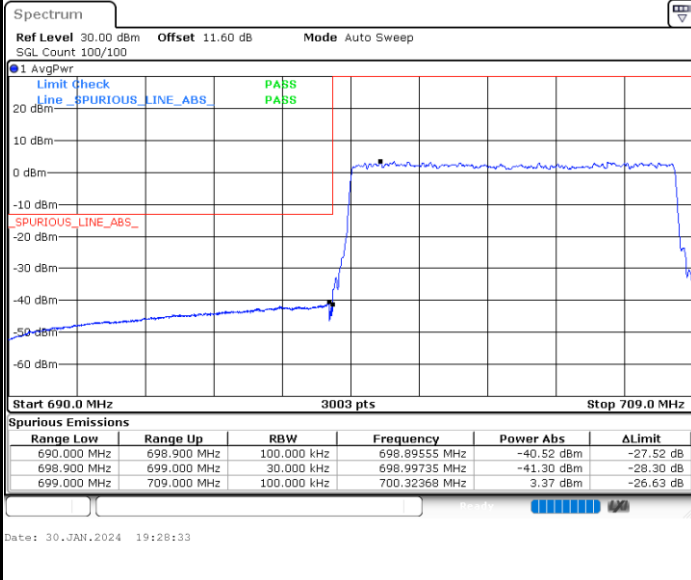
Date: 30.JAN.2024 19:27:41



LTE Band 12 / 10MHz / 64QAM

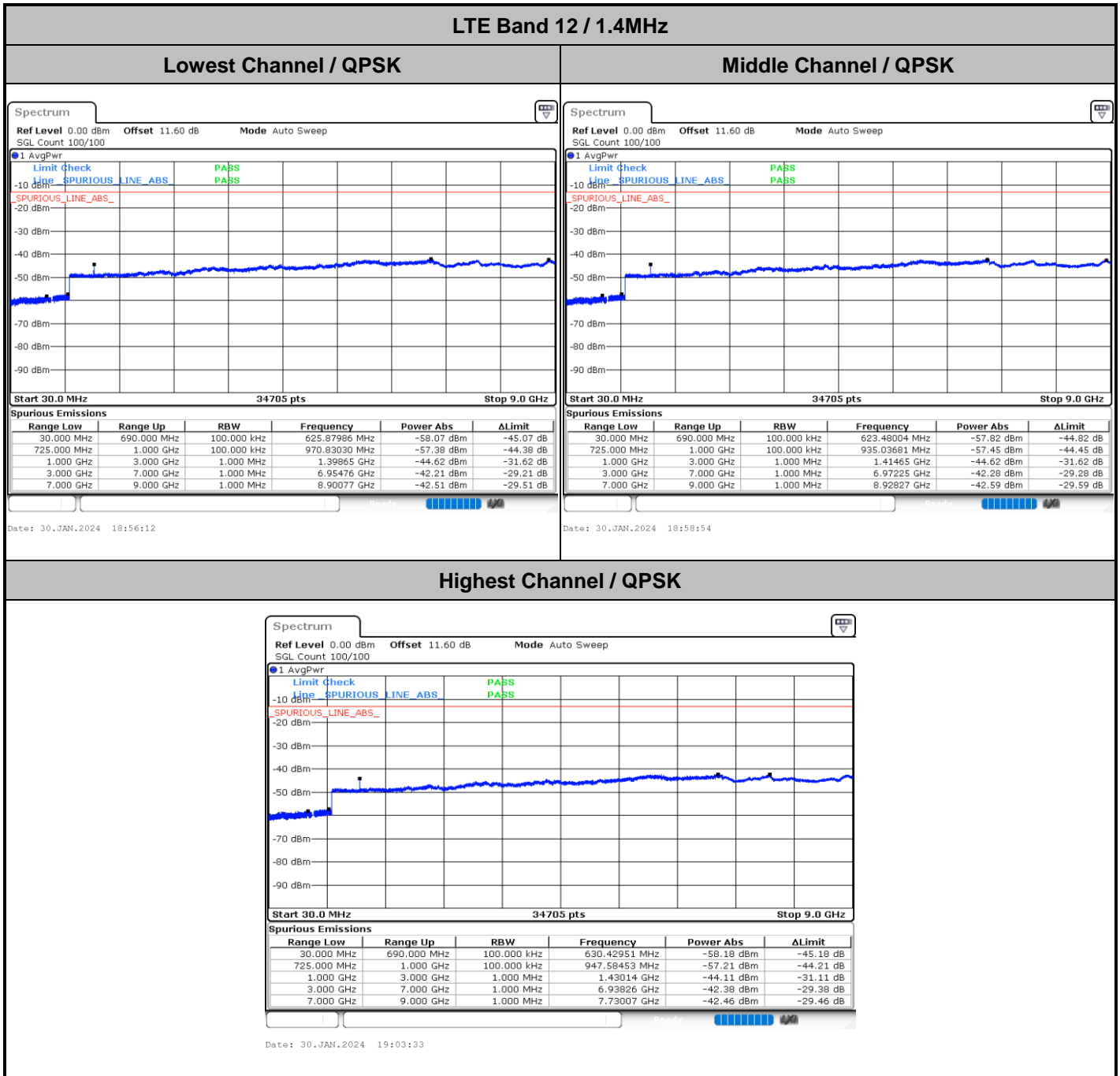
Lowest Band Edge / Full RB

Highest Band Edge / Full RB





# Conducted Spurious Emission

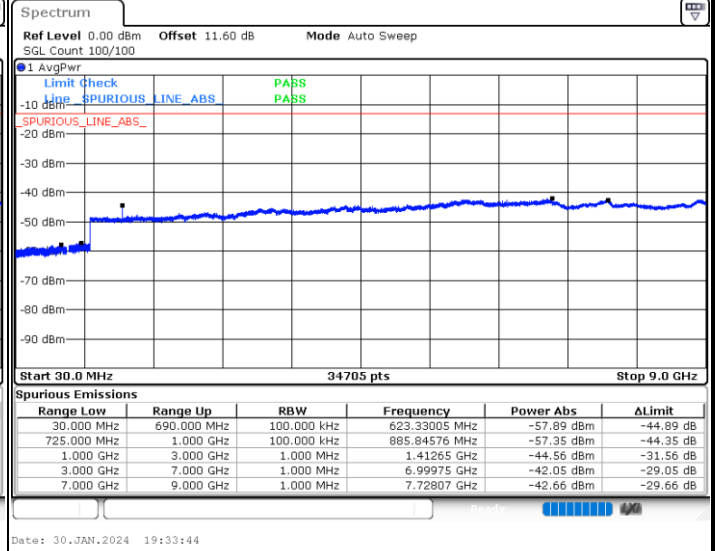
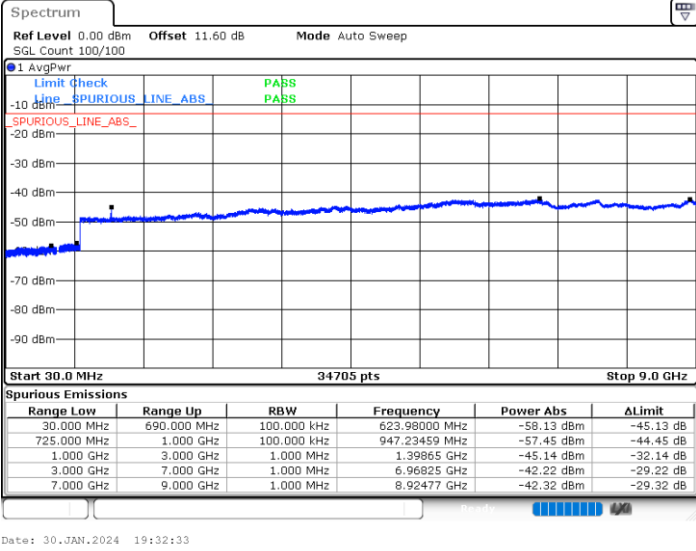




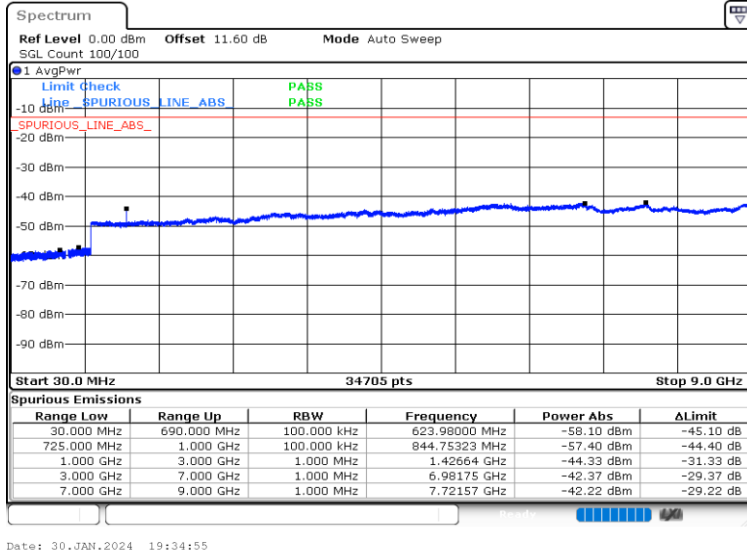
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

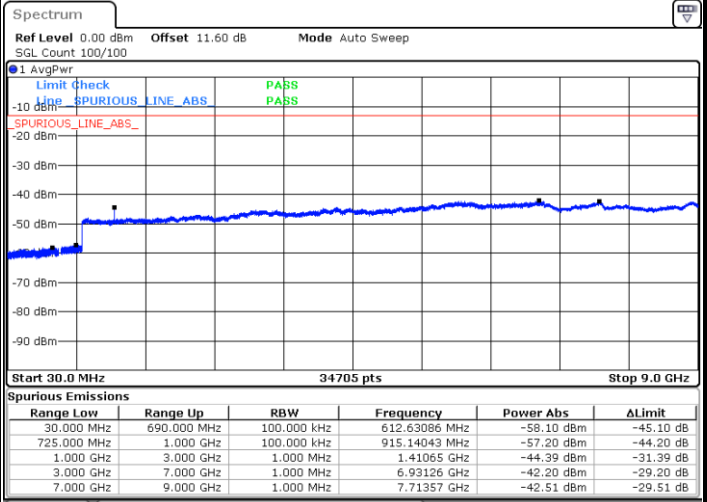
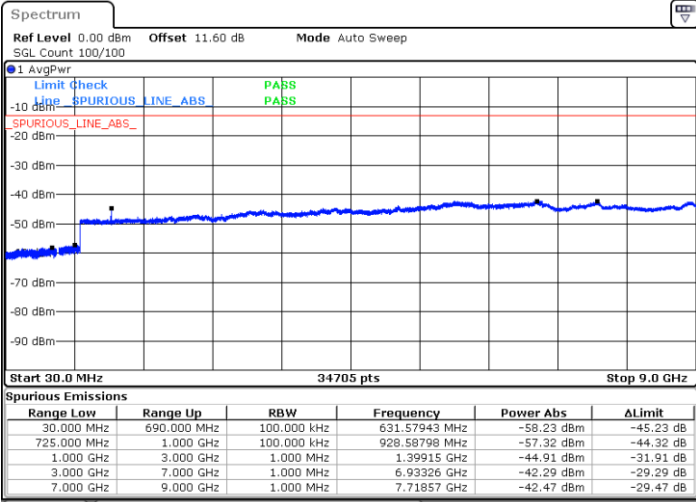




LTE Band 12 / 5MHz

Lowest Channel / QPSK

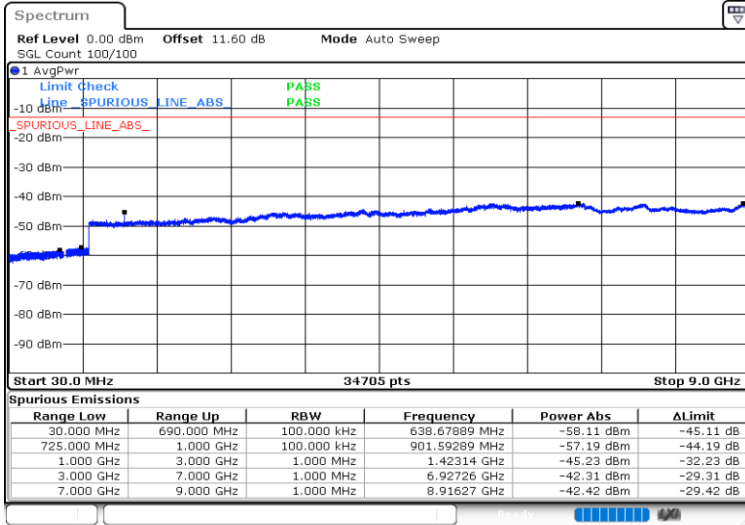
Middle Channel / QPSK



Date: 30.JAN.2024 19:36:07

Date: 30.JAN.2024 19:37:18

Highest Channel / QPSK



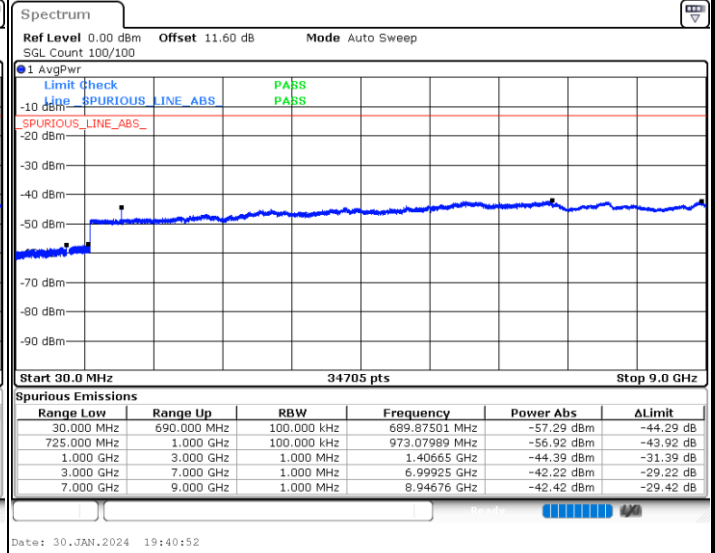
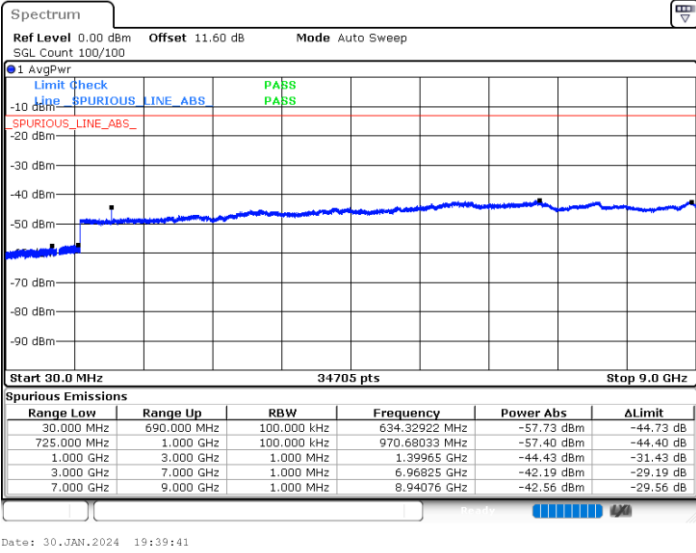
Date: 30.JAN.2024 19:38:29



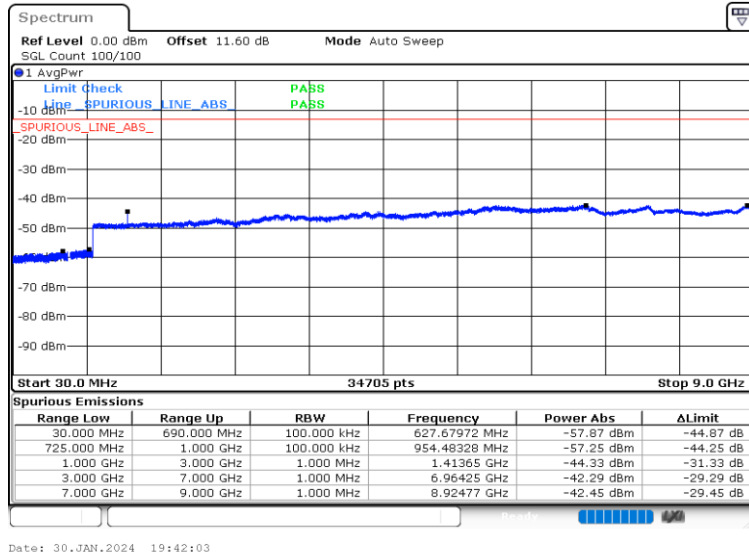
LTE Band 12 / 10MHz

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	0.0000	PASS
40	Normal Voltage	0.0178	
30	Normal Voltage	0.0055	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0085	
-10	Normal Voltage	0.0044	
-20	Normal Voltage	0.0260	
-30	Normal Voltage	0.0127	
20	Maximum Voltage	0.0112	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0114	

Note:

1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

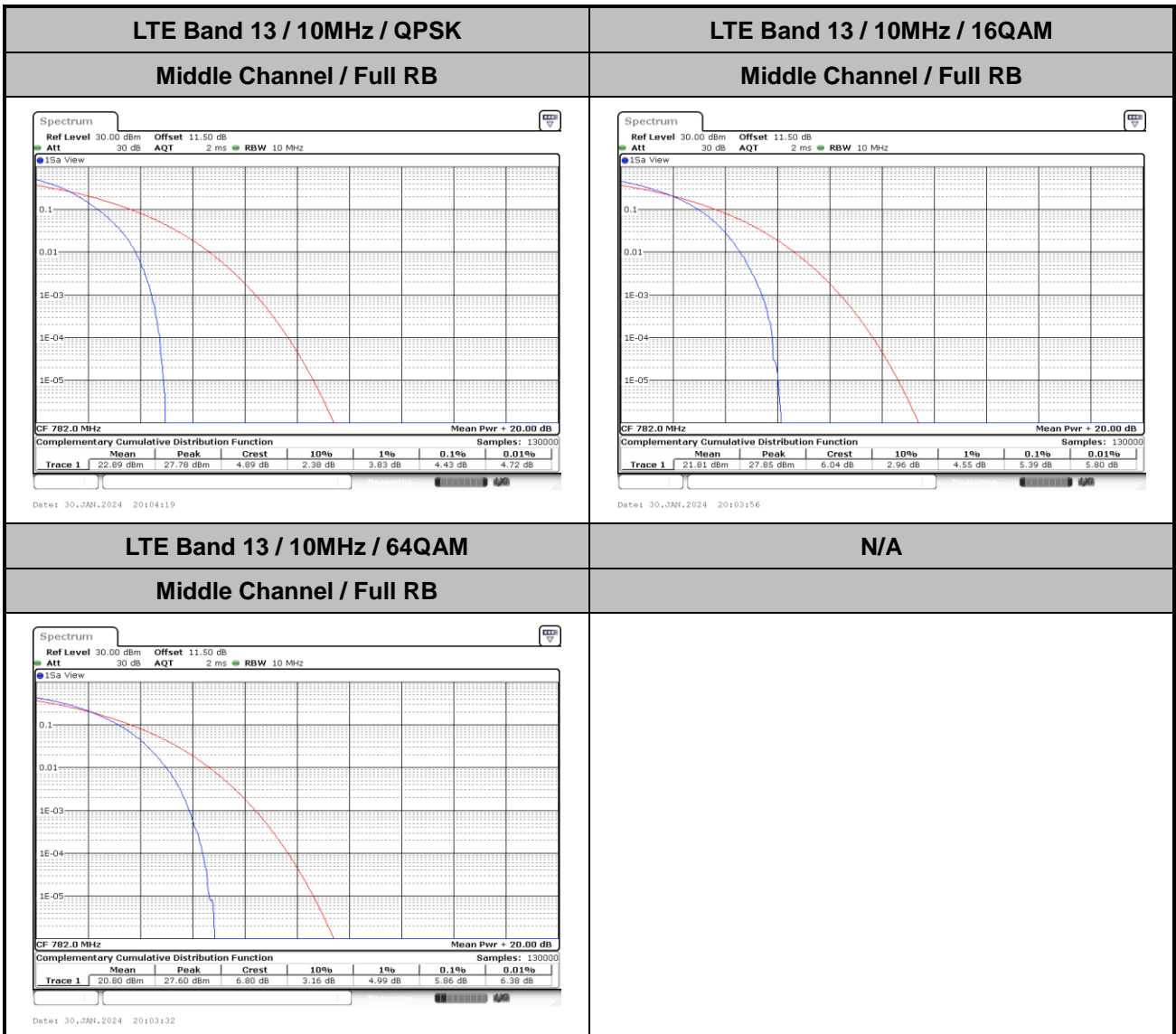




# LTE Band 13

## 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	4.43	5.39	5.86	-	PASS





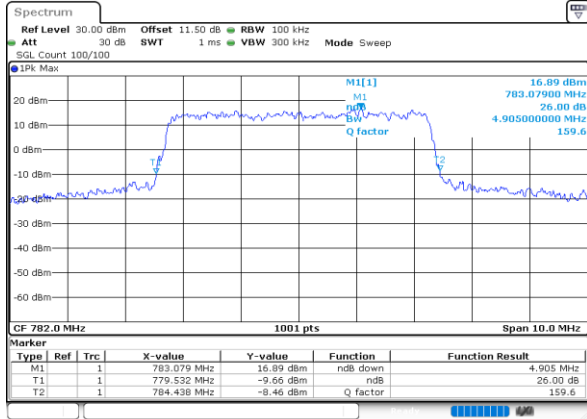
**26dB Bandwidth**

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	-	-	-	-	4.90	4.91	9.78	9.78	-	-	-	-
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	-	-	-	-	4.89	-	9.68	-	-	-	-	-



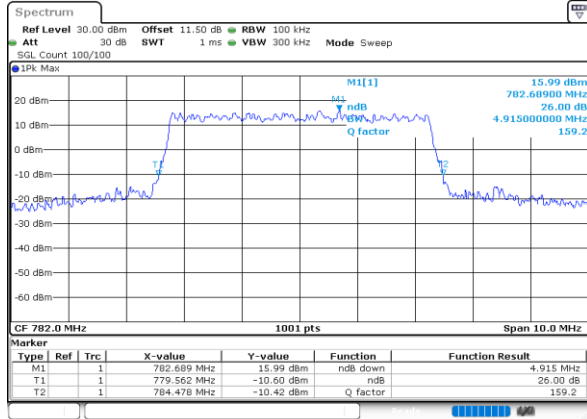
LTE Band 13

Middle Channel / 5MHz / QPSK



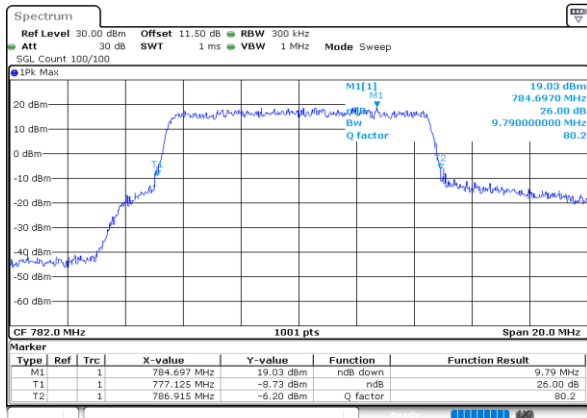
Date: 30\_JAN.2024 19:48:17

Middle Channel / 5MHz / 16QAM



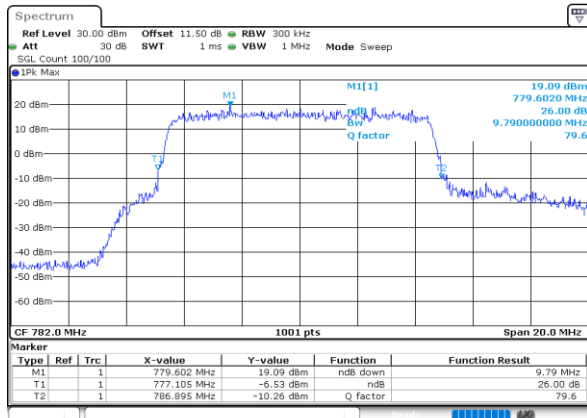
Date: 30\_JAN.2024 19:48:40

Middle Channel / 10MHz / QPSK



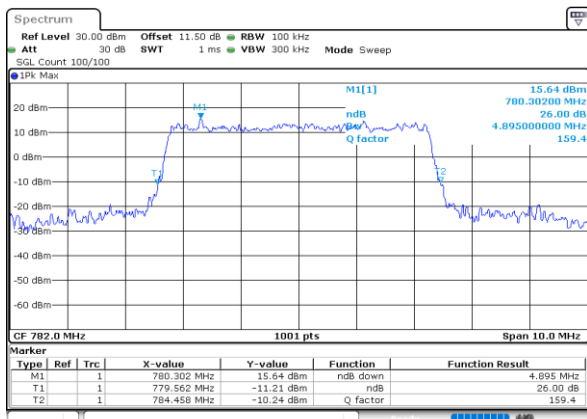
Date: 30\_JAN.2024 19:59:49

Middle Channel / 10MHz / 16QAM



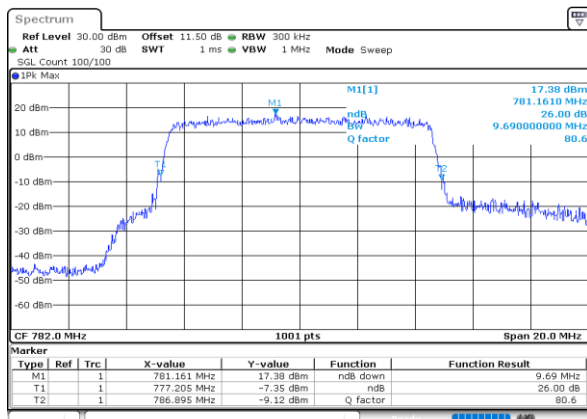
Date: 30\_JAN.2024 19:59:27

Middle Channel / 5MHz / 64QAM



Date: 30\_JAN.2024 19:56:12

Middle Channel / 10MHz / 64QAM



Date: 30\_JAN.2024 20:02:17



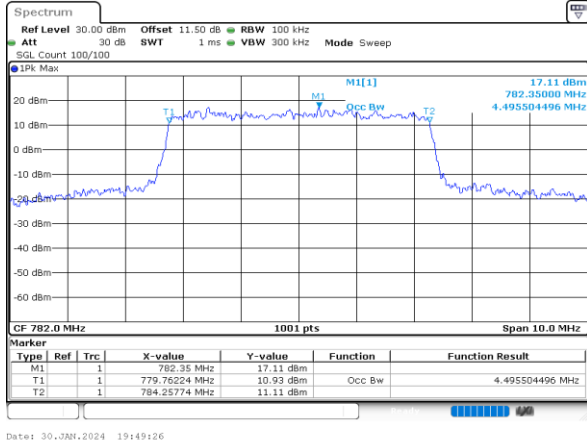
**Occupied Bandwidth**

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	4.51	8.99	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	-	-	-	-	4.51	-	8.99	-	-	-	-	-

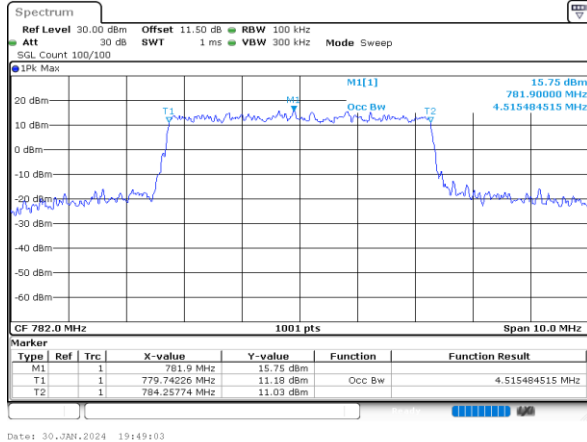


LTE Band 13

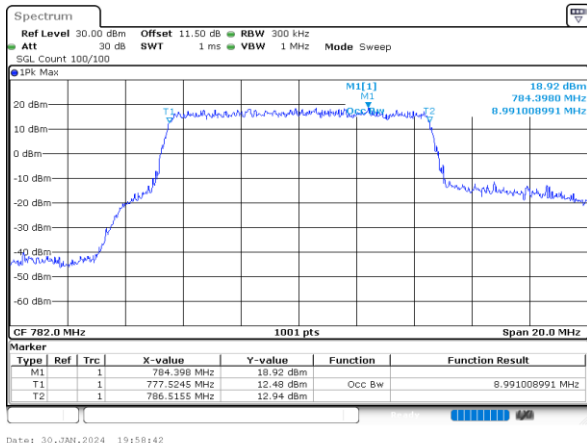
Middle Channel / 5MHz / QPSK



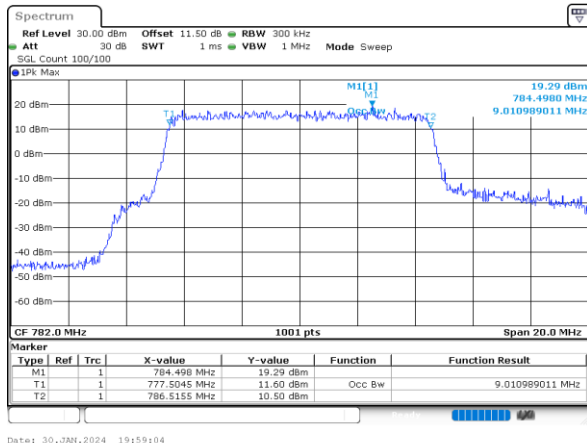
Middle Channel / 5MHz / 16QAM



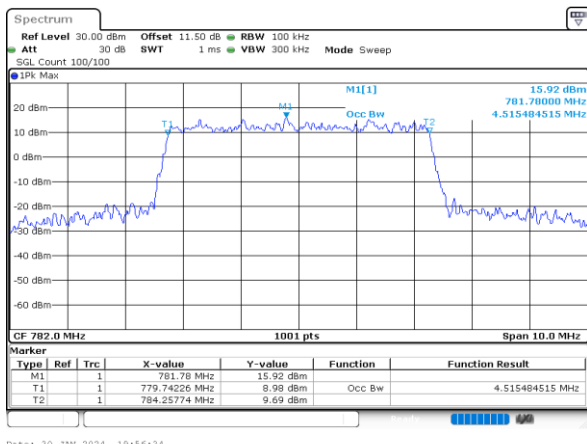
Middle Channel / 10MHz / QPSK



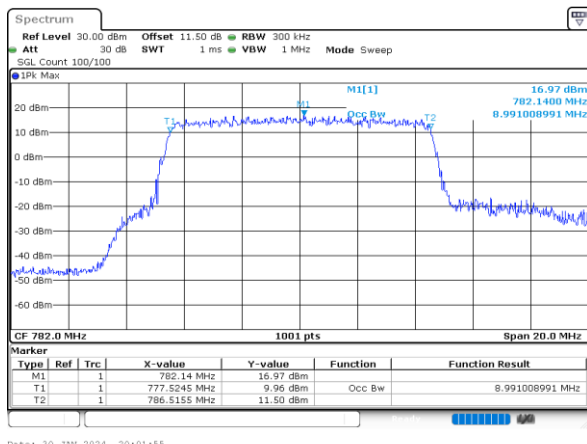
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



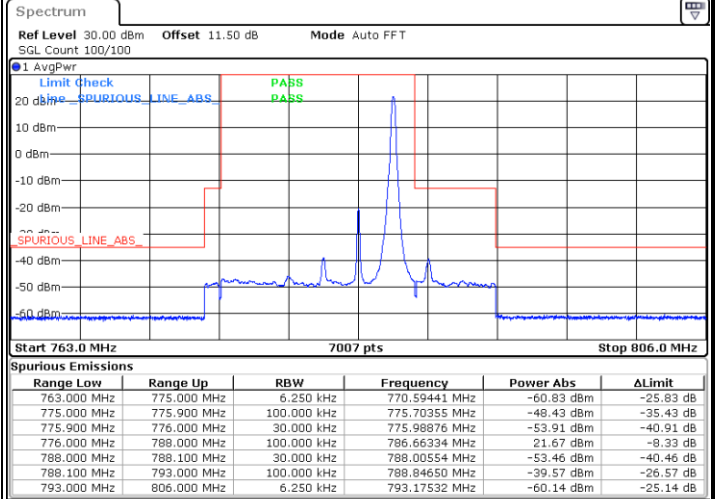
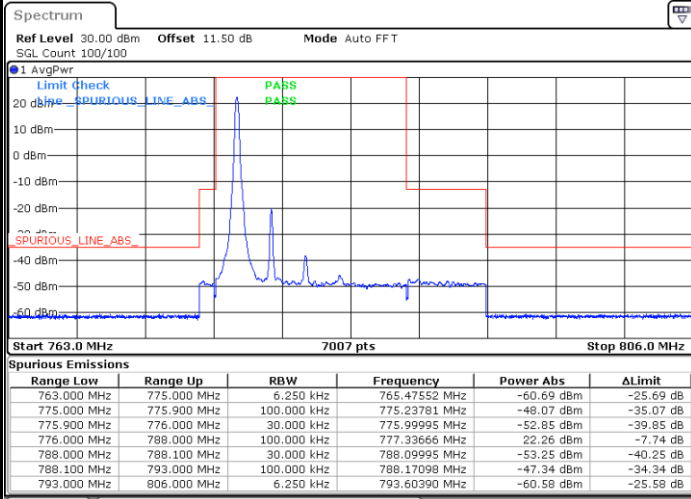


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

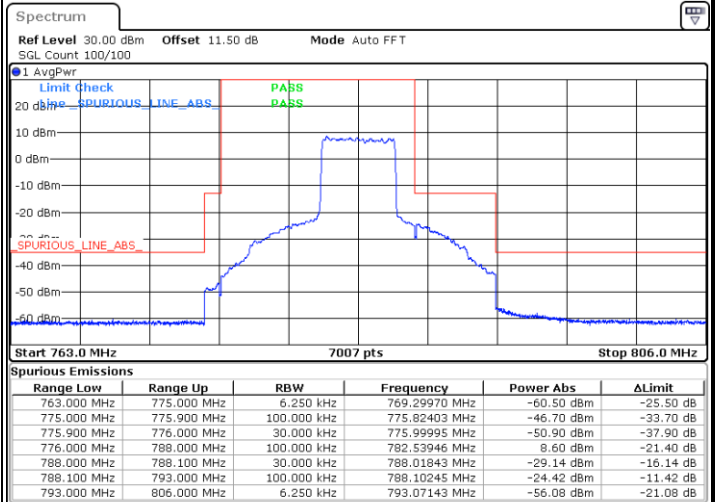
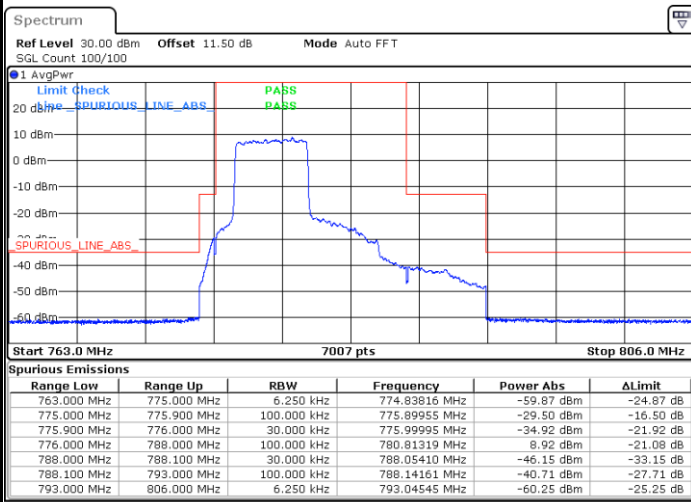


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Date: 30.JAN.2024 19:52:53

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.JAN.2024 19:42:56

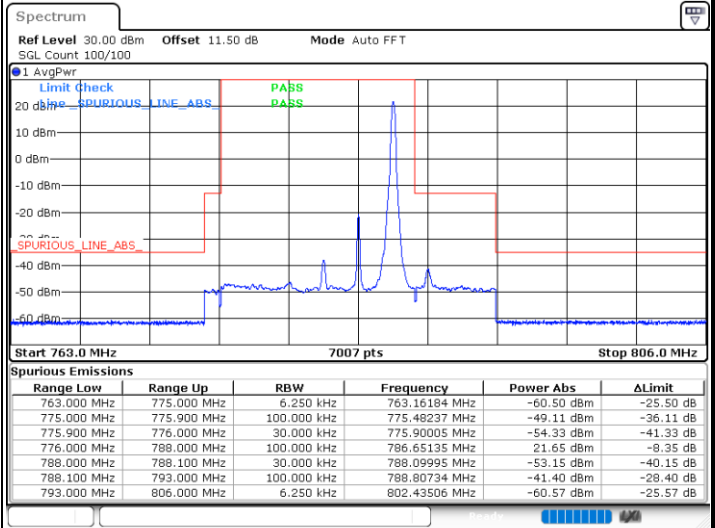
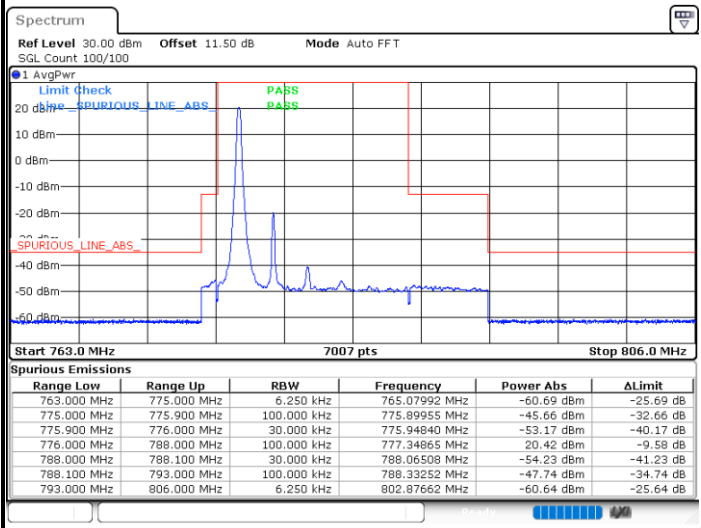
Date: 30.JAN.2024 19:50:17



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

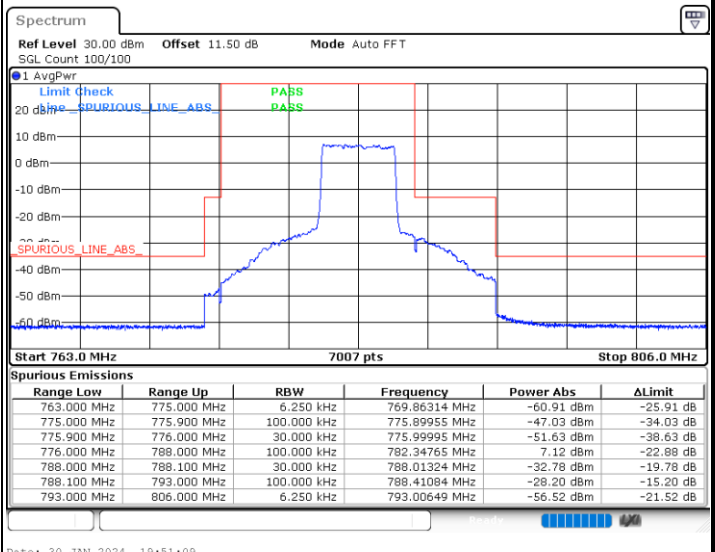
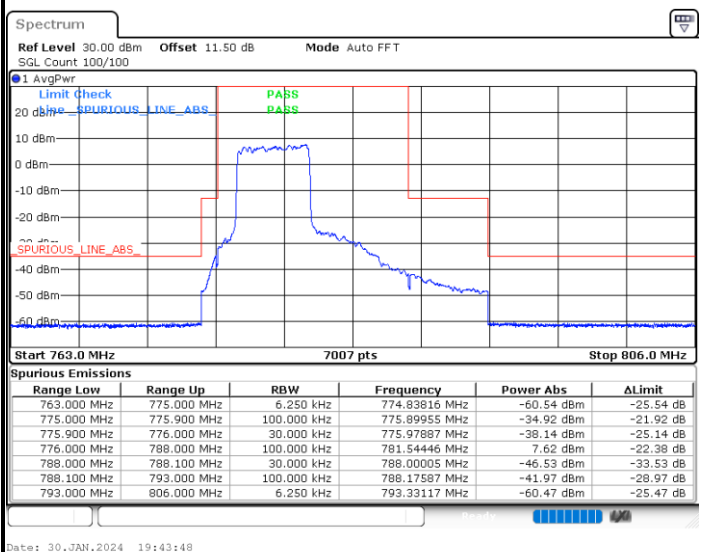


Date: 30.JAN.2024 19:44:40

Date: 30.JAN.2024 19:52:01

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.JAN.2024 19:43:48

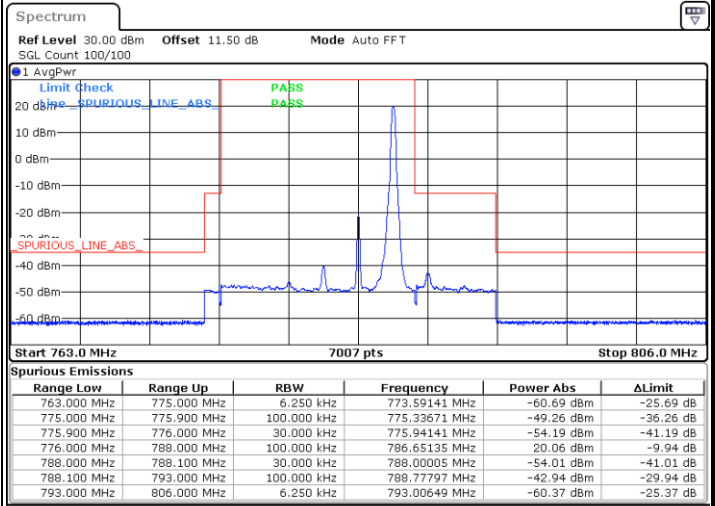
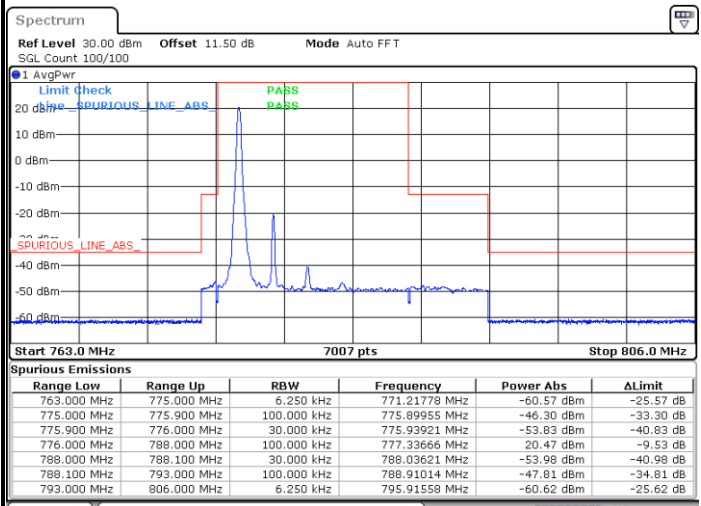
Date: 30.JAN.2024 19:51:09



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

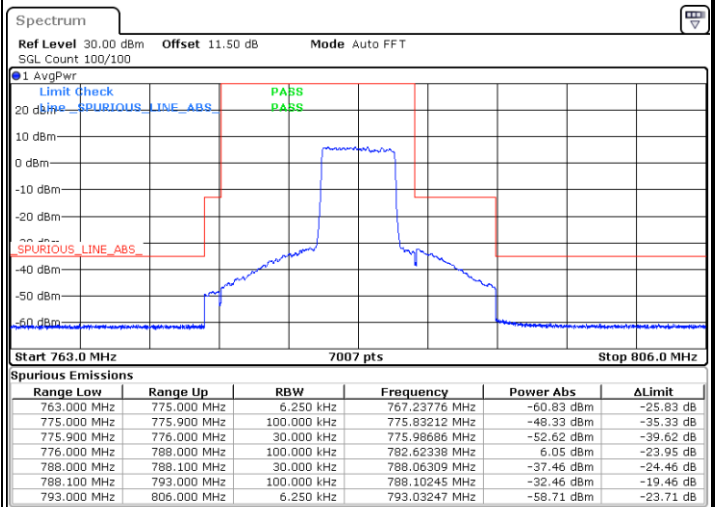
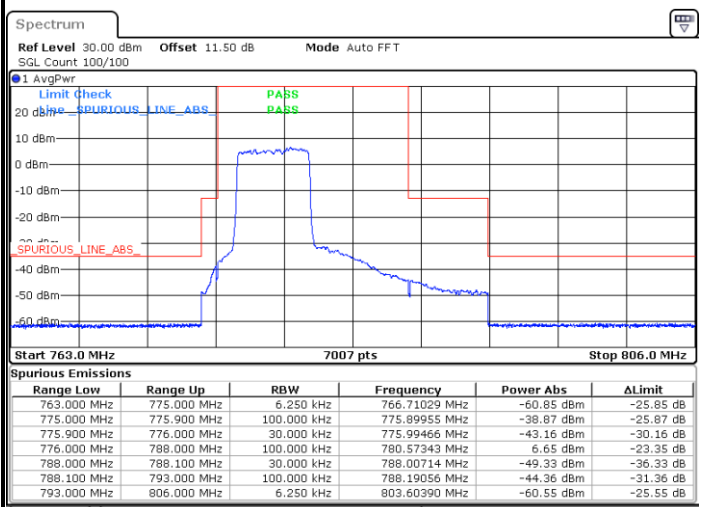


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Date: 30.JAN.2024 19:58:18

Lowest Band Edge / Full RB

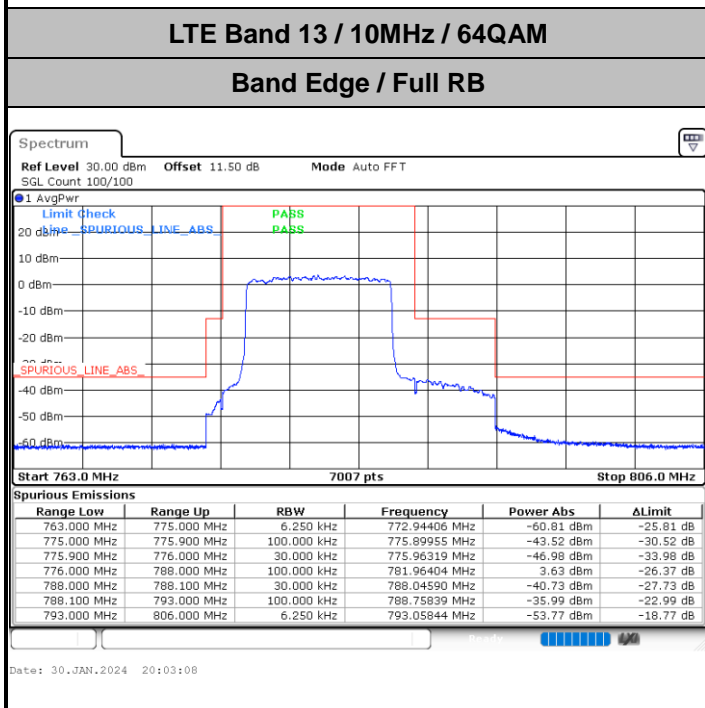
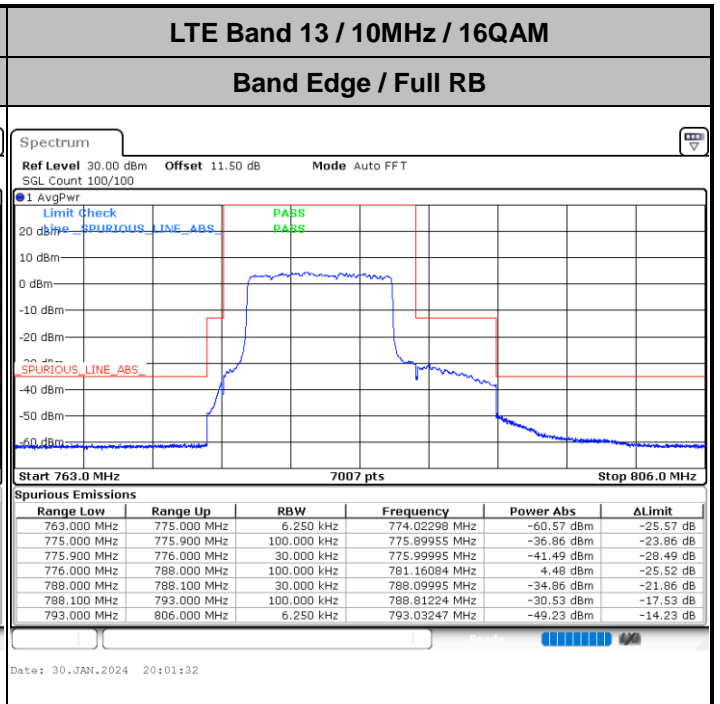
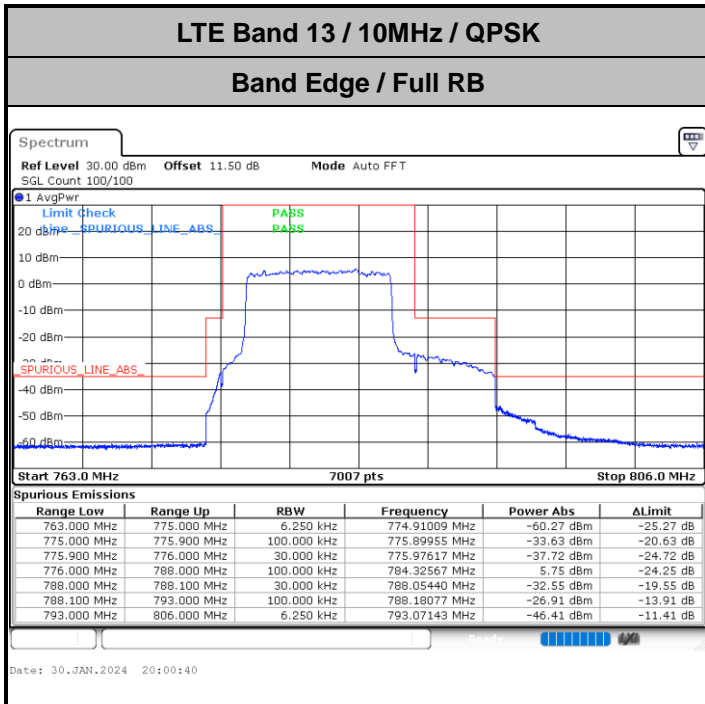
Highest Band Edge / Full RB



Date: 30.JAN.2024 19:54:56

Date: 30.JAN.2024 19:57:26

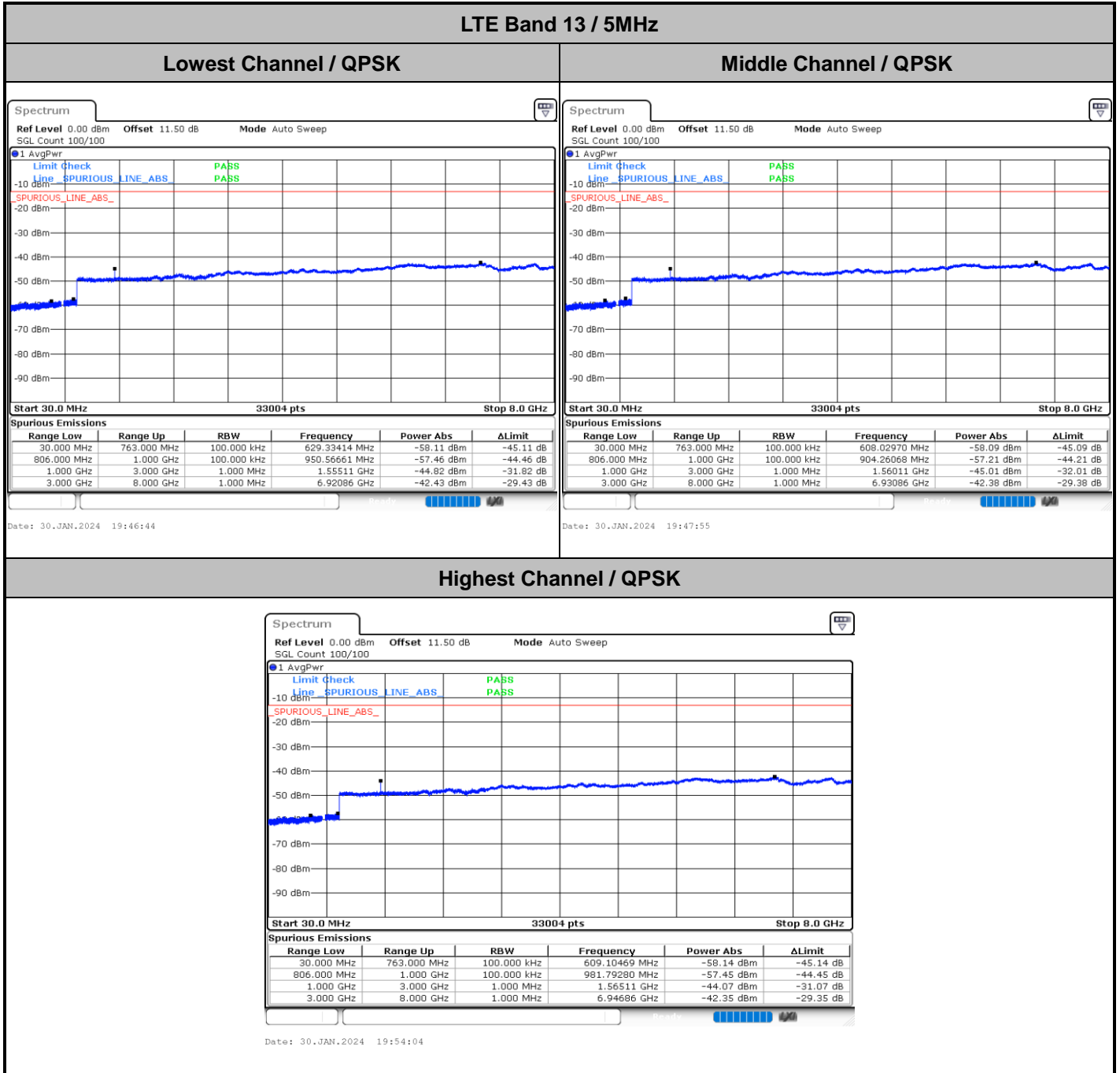




N/A



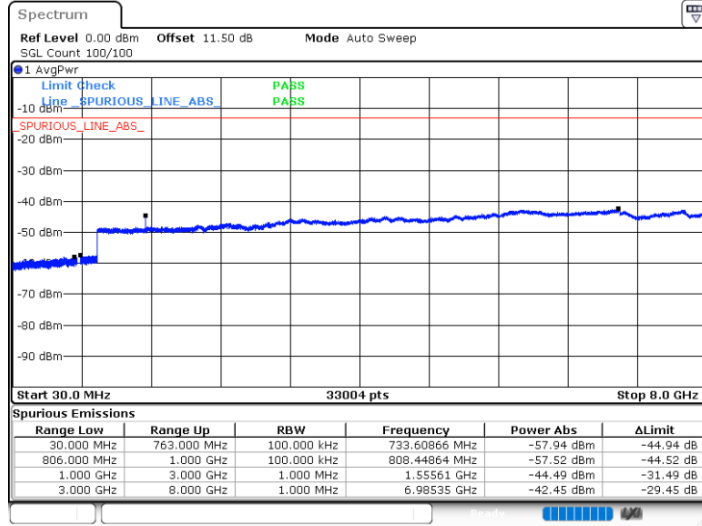
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 31.JAN.2024 13:41:49



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	0.0000	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0125	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0111	
-20	Normal Voltage	0.0141	
-30	Normal Voltage	0.0178	
20	Maximum Voltage	0.0147	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0100	

Note:

1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



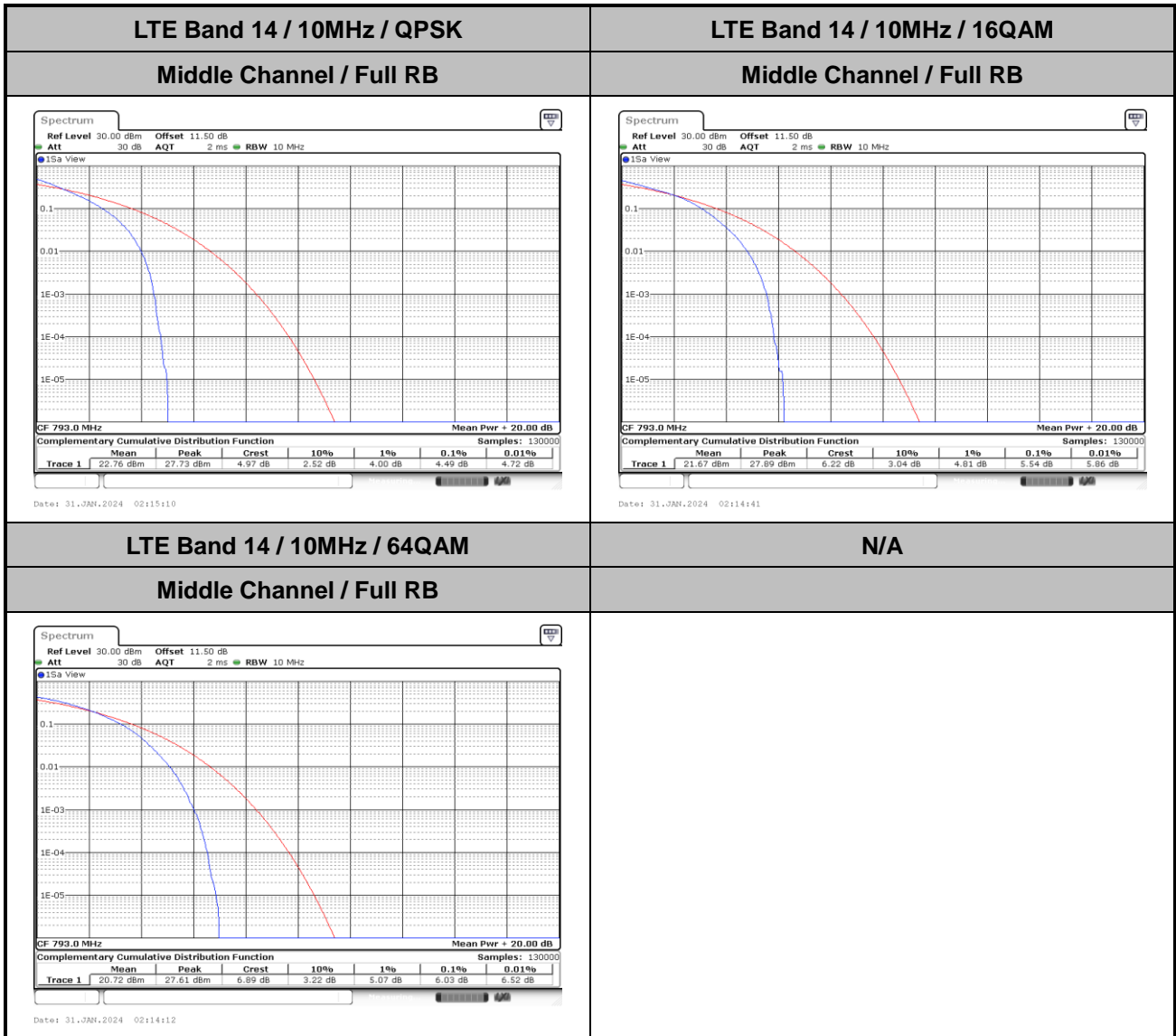
## LTE Band 14

### Peak-to-Average Ratio

Mode	LTE Band 14 / 5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.41	5.59	6.17	.	PASS
Mode	LTE Band 14 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.49	5.54	6.03	.	PASS



LTE Band 14 / 5MHz / QPSK	LTE Band 14 / 5MHz / 16QAM																												
Middle Channel / Full RB	Middle Channel / Full RB																												
<table border="1"> <thead> <tr> <th>Mean</th> <th>Peak</th> <th>Crest</th> <th>10%</th> <th>1%</th> <th>0.1%</th> <th>0.01%</th> </tr> </thead> <tbody> <tr> <td>22.86 dBm</td> <td>27.75 dBm</td> <td>4.90 dB</td> <td>2.43 dB</td> <td>3.88 dB</td> <td>4.41 dB</td> <td>4.67 dB</td> </tr> </tbody> </table> <p>Date: 31.JAN.2024 02:16:43</p>	Mean	Peak	Crest	10%	1%	0.1%	0.01%	22.86 dBm	27.75 dBm	4.90 dB	2.43 dB	3.88 dB	4.41 dB	4.67 dB	<table border="1"> <thead> <tr> <th>Mean</th> <th>Peak</th> <th>Crest</th> <th>10%</th> <th>1%</th> <th>0.1%</th> <th>0.01%</th> </tr> </thead> <tbody> <tr> <td>21.55 dBm</td> <td>27.72 dBm</td> <td>6.17 dB</td> <td>2.99 dB</td> <td>4.75 dB</td> <td>5.59 dB</td> <td>5.97 dB</td> </tr> </tbody> </table> <p>Date: 31.JAN.2024 02:16:14</p>	Mean	Peak	Crest	10%	1%	0.1%	0.01%	21.55 dBm	27.72 dBm	6.17 dB	2.99 dB	4.75 dB	5.59 dB	5.97 dB
Mean	Peak	Crest	10%	1%	0.1%	0.01%																							
22.86 dBm	27.75 dBm	4.90 dB	2.43 dB	3.88 dB	4.41 dB	4.67 dB																							
Mean	Peak	Crest	10%	1%	0.1%	0.01%																							
21.55 dBm	27.72 dBm	6.17 dB	2.99 dB	4.75 dB	5.59 dB	5.97 dB																							
LTE Band 14 / 5MHz / 64QAM	N/A																												
Middle Channel / Full RB																													
<table border="1"> <thead> <tr> <th>Mean</th> <th>Peak</th> <th>Crest</th> <th>10%</th> <th>1%</th> <th>0.1%</th> <th>0.01%</th> </tr> </thead> <tbody> <tr> <td>20.53 dBm</td> <td>27.65 dBm</td> <td>7.11 dB</td> <td>3.16 dB</td> <td>5.10 dB</td> <td>6.17 dB</td> <td>6.78 dB</td> </tr> </tbody> </table> <p>Date: 31.JAN.2024 02:15:45</p>	Mean	Peak	Crest	10%	1%	0.1%	0.01%	20.53 dBm	27.65 dBm	7.11 dB	3.16 dB	5.10 dB	6.17 dB	6.78 dB															
Mean	Peak	Crest	10%	1%	0.1%	0.01%																							
20.53 dBm	27.65 dBm	7.11 dB	3.16 dB	5.10 dB	6.17 dB	6.78 dB																							





**26dB Bandwidth**

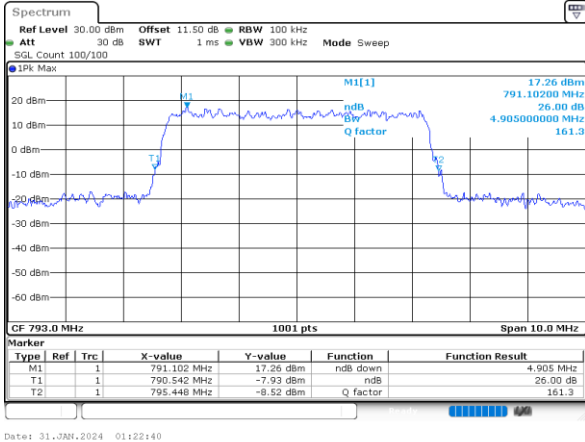
Mode	LTE Band 14 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.90	4.93	9.86	9.76	-	-	-	-
Mode	LTE Band 14 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.89	-	9.81	-	-	-	-	-



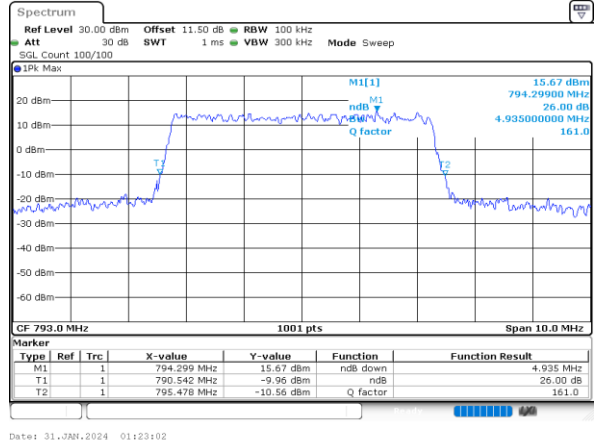


LTE Band 14

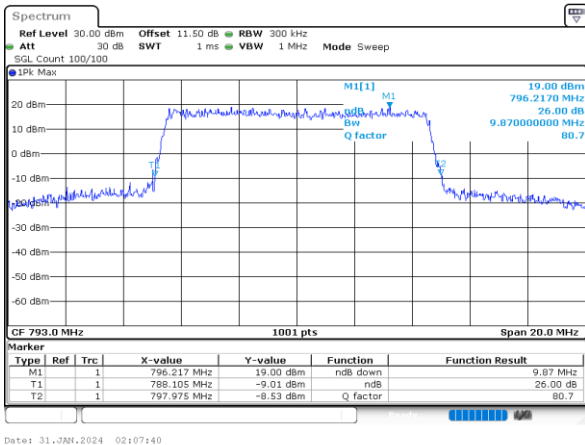
Middle Channel / 5MHz / QPSK



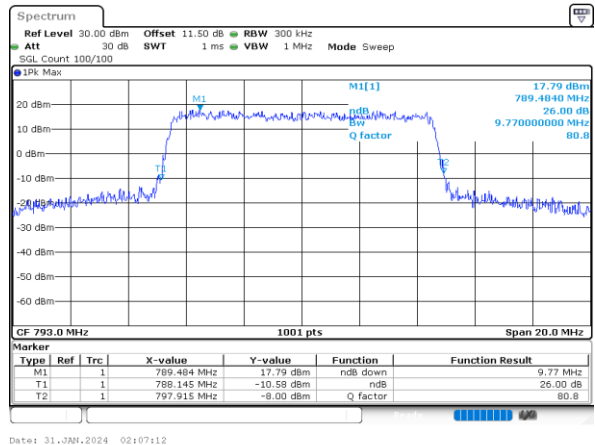
Middle Channel / 5MHz / 16QAM



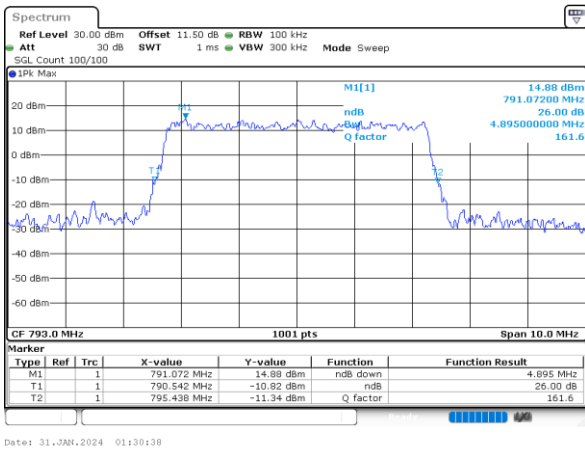
Middle Channel / 10MHz / QPSK



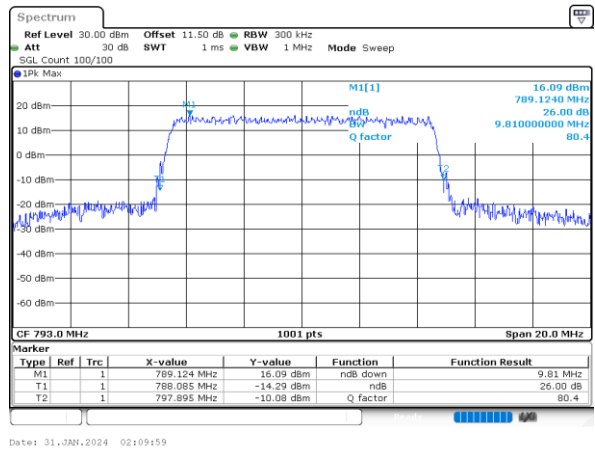
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM





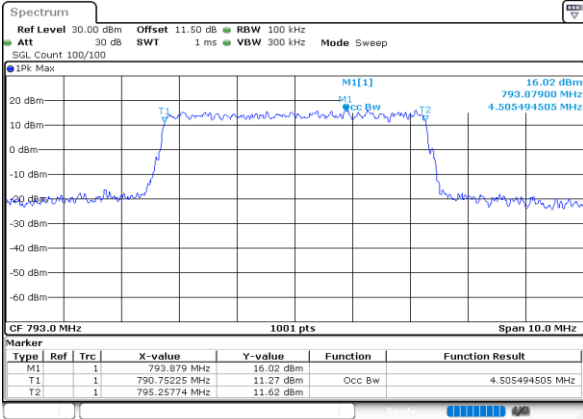
**Occupied Bandwidth**

Mode	LTE Band 14 : 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	9.03	-	-	-	-
Mode	LTE Band 14 : 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	-	9.05	-	-	-	-	-



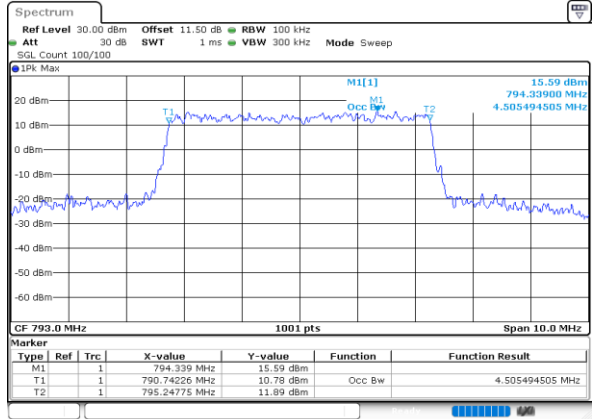
LTE Band 14

Middle Channel / 5MHz / QPSK



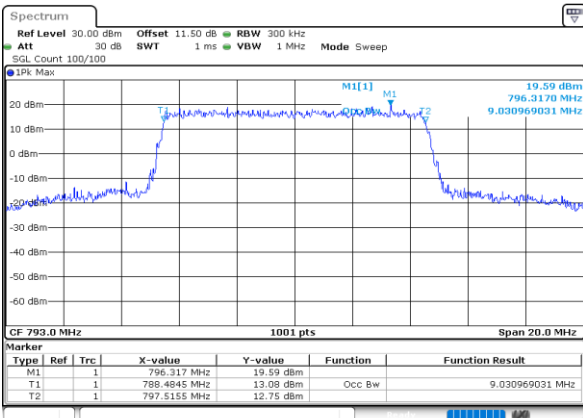
Date: 31.JAN.2024 01:23:47

Middle Channel / 5MHz / 16QAM



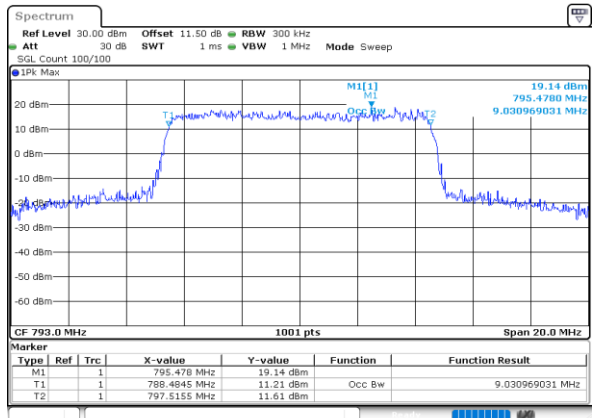
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Middle Channel / 10MHz / QPSK



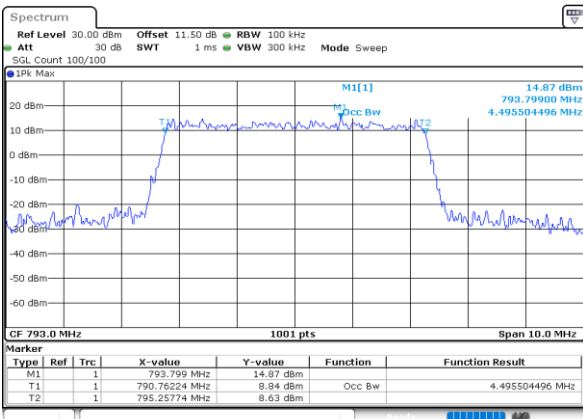
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Middle Channel / 10MHz / 16QAM



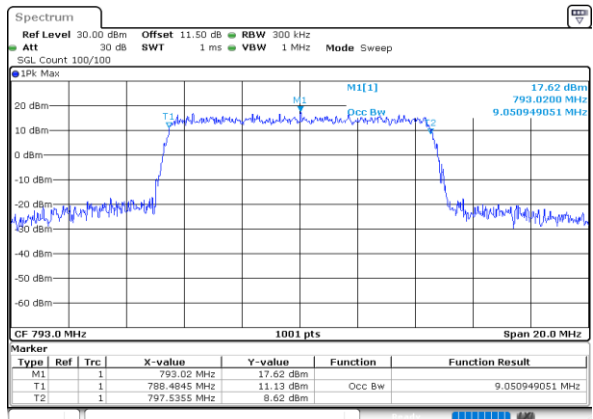
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Middle Channel / 5MHz / 64QAM



Date: 31.JAN.2024 01:31:00

Middle Channel / 10MHz / 64QAM



Date: 31.JAN.2024 02:10:46