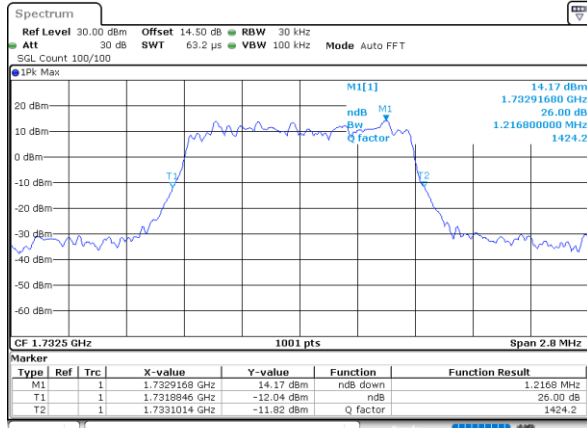




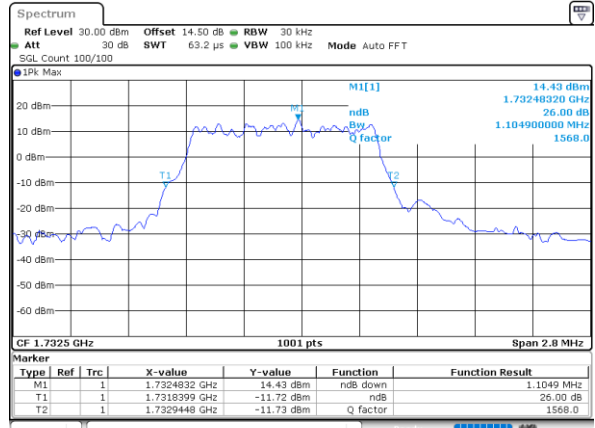
LTE Band 4

Middle Channel / 1.4MHz / QPSK



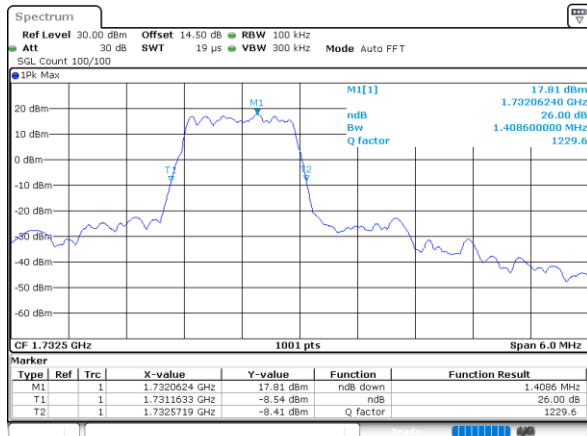
Date: 25.JUL.2024 15:41:33

Middle Channel / 1.4MHz / 16QAM



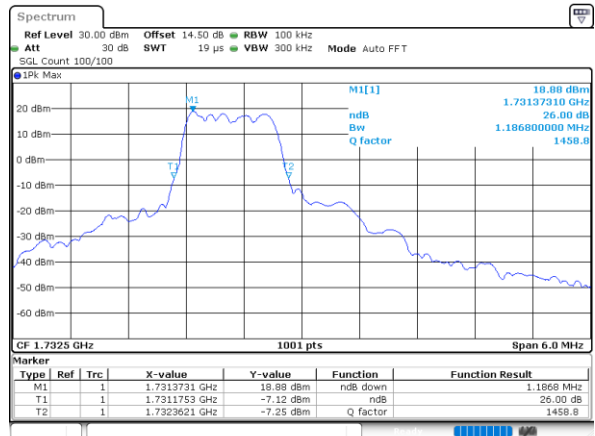
Date: 25.JUL.2024 15:43:53

Middle Channel / 3MHz / QPSK



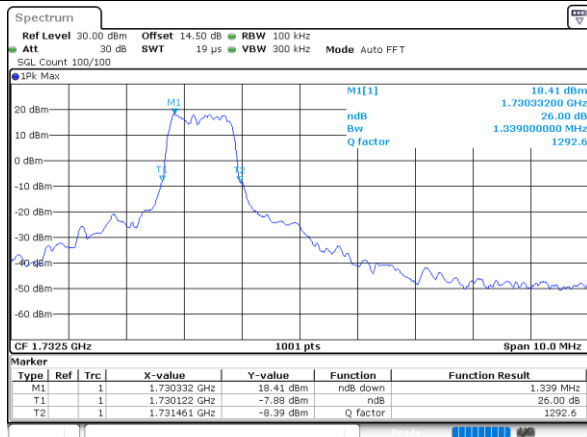
Date: 25.JUL.2024 16:08:53

Middle Channel / 3MHz / 16QAM



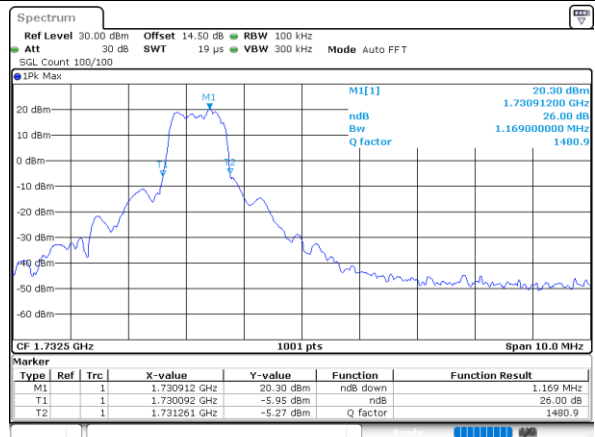
Date: 25.JUL.2024 16:10:14

Middle Channel / 5MHz / QPSK



Date: 25.JUL.2024 16:27:30

Middle Channel / 5MHz / 16QAM

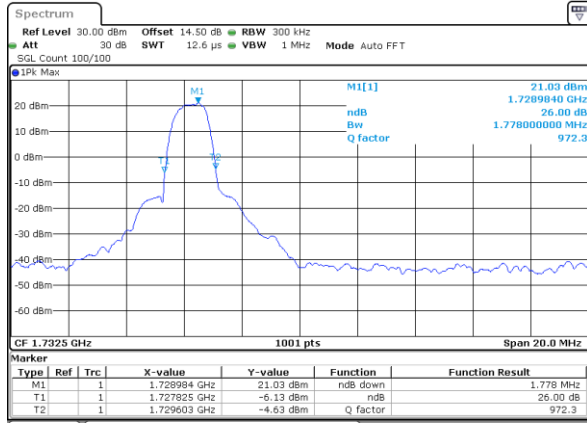


Date: 25.JUL.2024 16:29:22



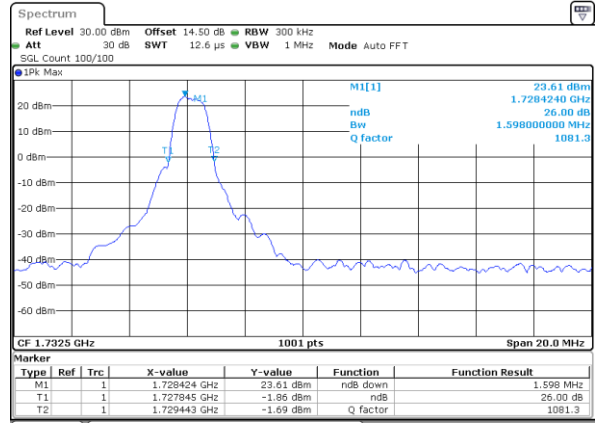
LTE Band 4

Middle Channel / 10MHz / QPSK



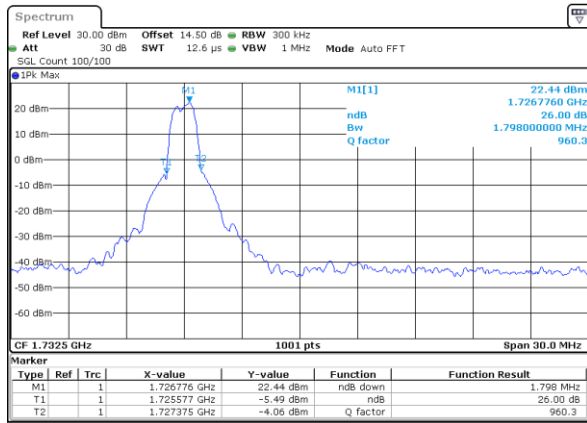
Date: 25.JUL.2024 16:37:40

Middle Channel / 10MHz / 16QAM



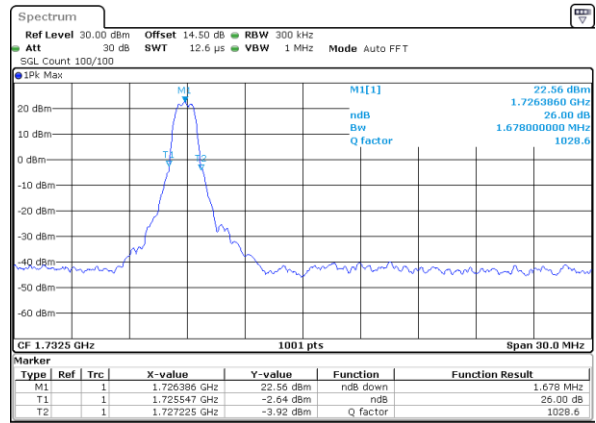
Date: 25.JUL.2024 16:43:26

Middle Channel / 15MHz / QPSK



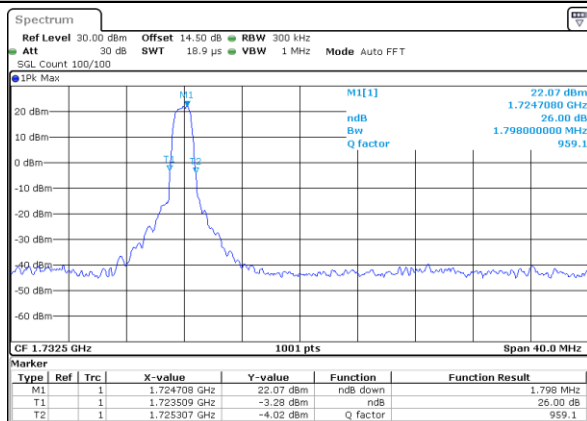
Date: 25.JUL.2024 16:56:24

Middle Channel / 15MHz / 16QAM



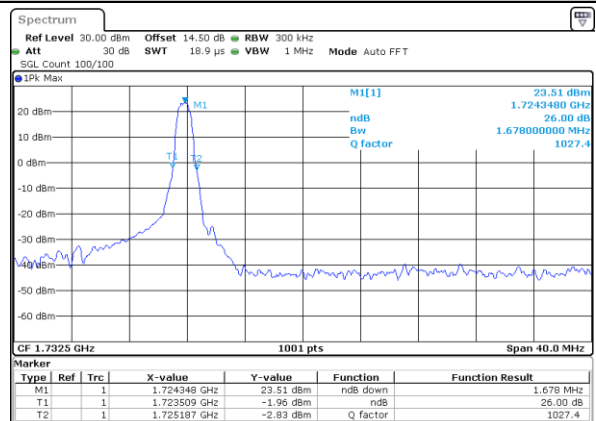
Date: 25.JUL.2024 16:52:03

Middle Channel / 20MHz / QPSK



Date: 25.JUL.2024 15:13:12

Middle Channel / 20MHz / 16QAM



Date: 25.JUL.2024 15:27:40



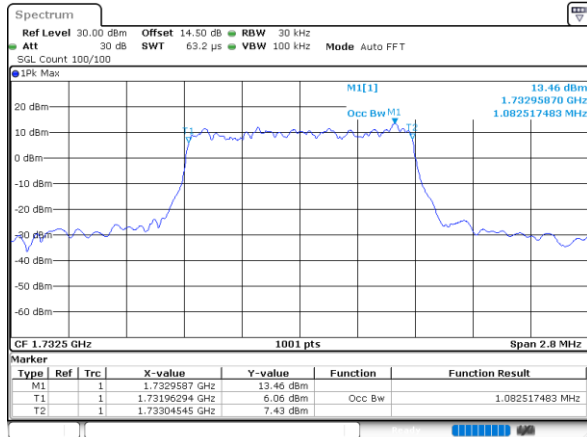
Occupied Bandwidth

Mode	LTE Band 4 : 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	1.083	0.920	1.169	0.983	1.169	0.969	1.419	1.279	1.439	1.289	1.479	1.319



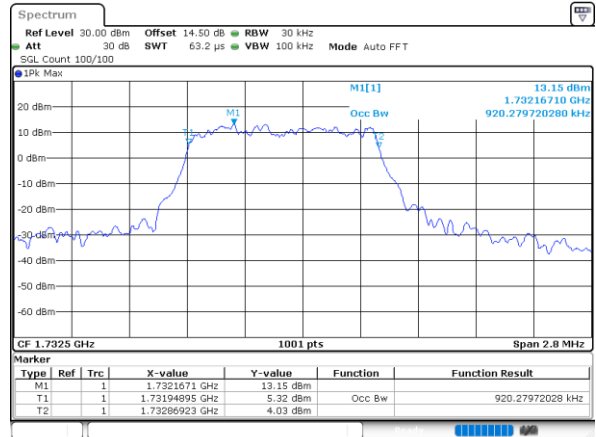
LTE Band 4

Middle Channel / 1.4MHz / QPSK



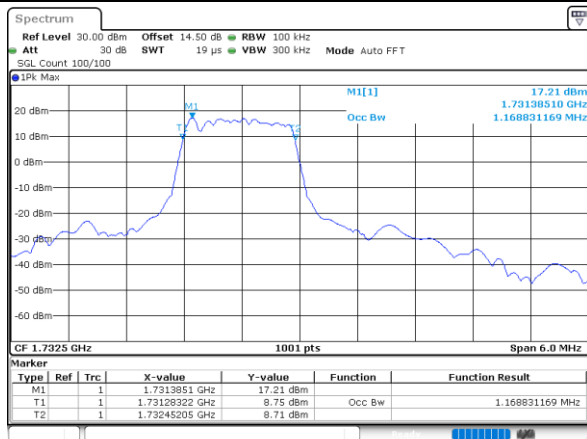
Date: 25.JUL.2024 15:41:11

Middle Channel / 1.4MHz / 16QAM



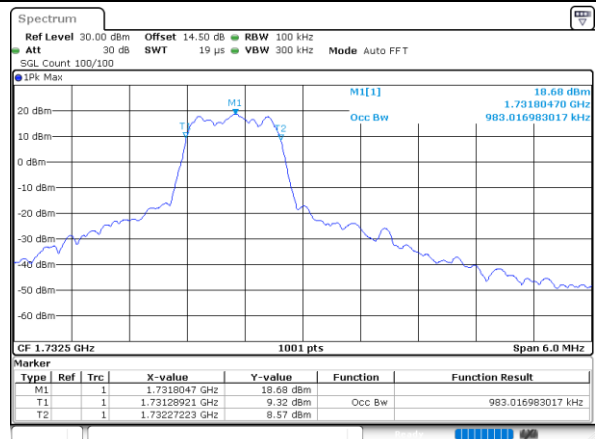
Date: 25.JUL.2024 15:43:43

Middle Channel / 3MHz / QPSK



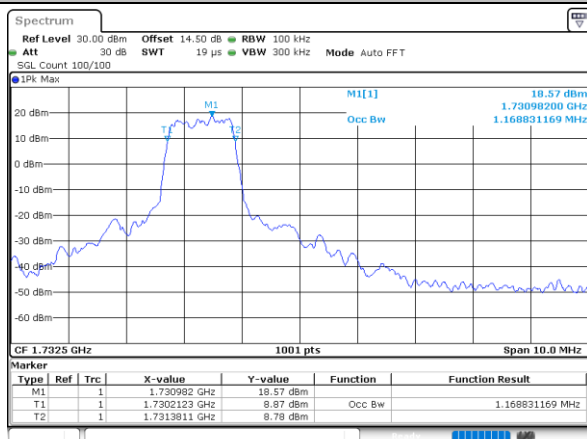
Date: 25.JUL.2024 16:07:52

Middle Channel / 3MHz / 16QAM



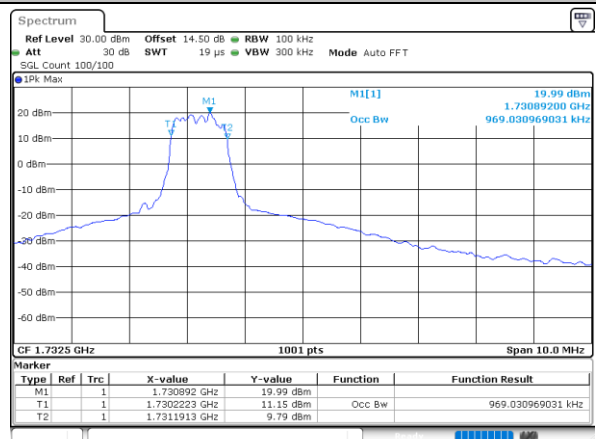
Date: 25.JUL.2024 16:10:05

Middle Channel / 5MHz / QPSK



Date: 25.JUL.2024 16:27:18

Middle Channel / 5MHz / 16QAM

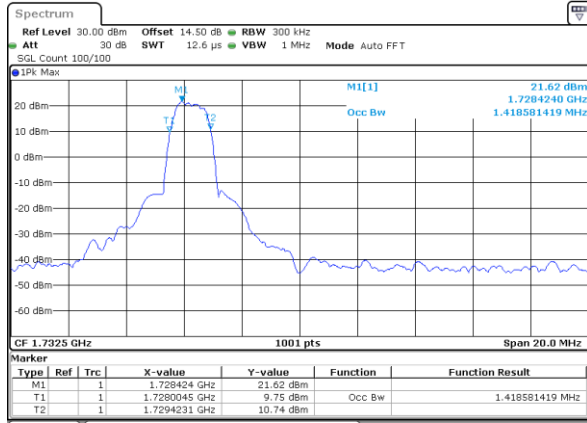


Date: 25.JUL.2024 16:29:11



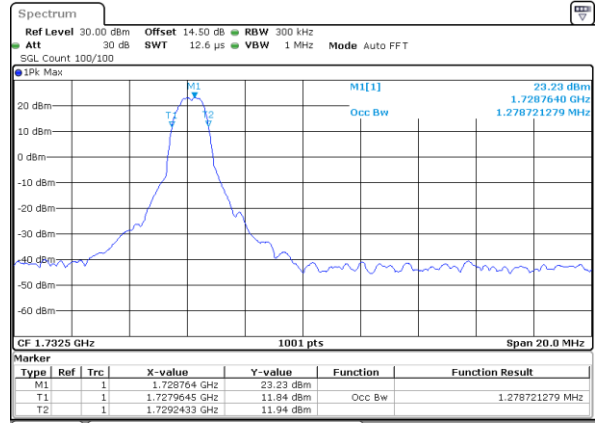
LTE Band 4

Middle Channel / 10MHz / QPSK



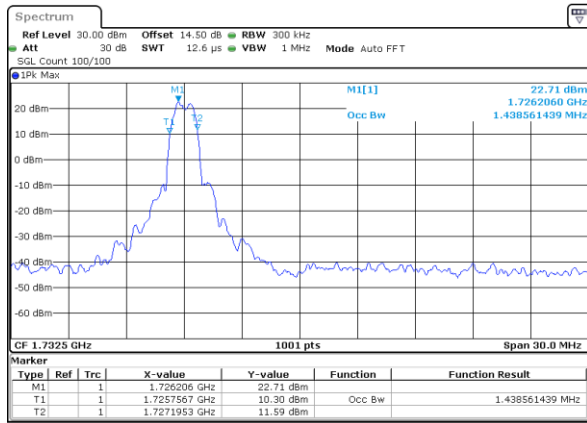
Date: 25.JUL.2024 16:37:19

Middle Channel / 10MHz / 16QAM



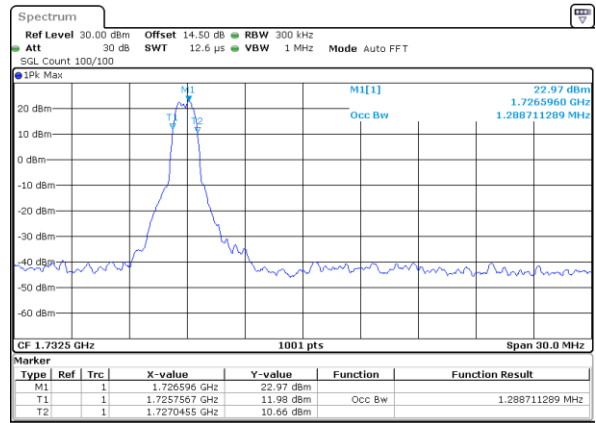
Date: 25.JUL.2024 16:42:53

Middle Channel / 15MHz / QPSK



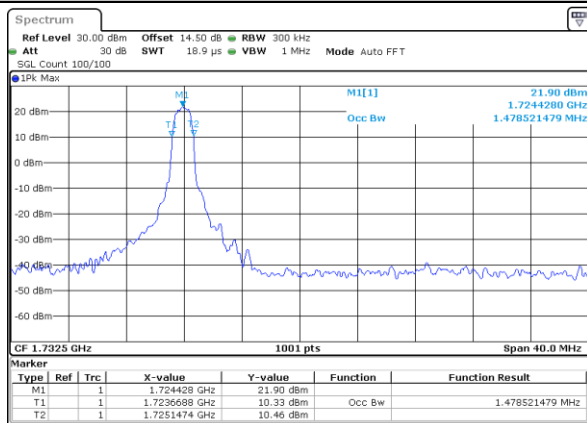
Date: 25.JUL.2024 16:56:15

Middle Channel / 15MHz / 16QAM



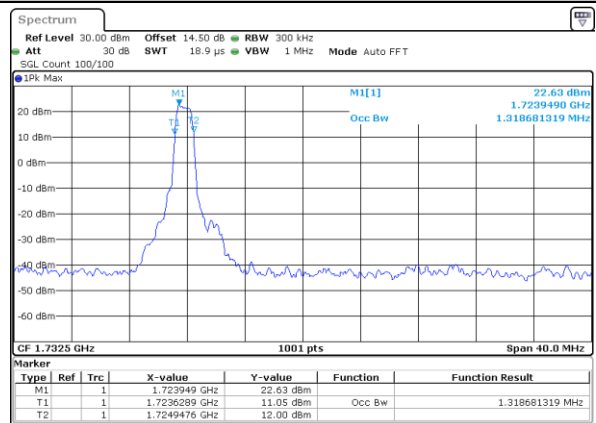
Date: 25.JUL.2024 16:51:54

Middle Channel / 20MHz / QPSK



Date: 25.JUL.2024 15:12:36

Middle Channel / 20MHz / 16QAM



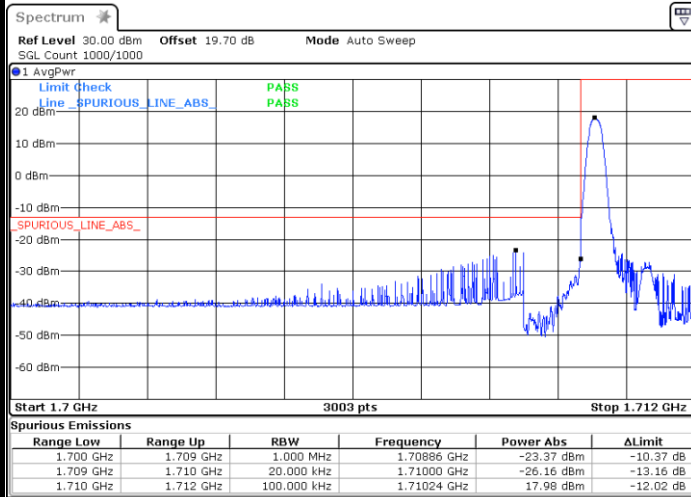
Date: 25.JUL.2024 15:27:27



Conducted Band Edge

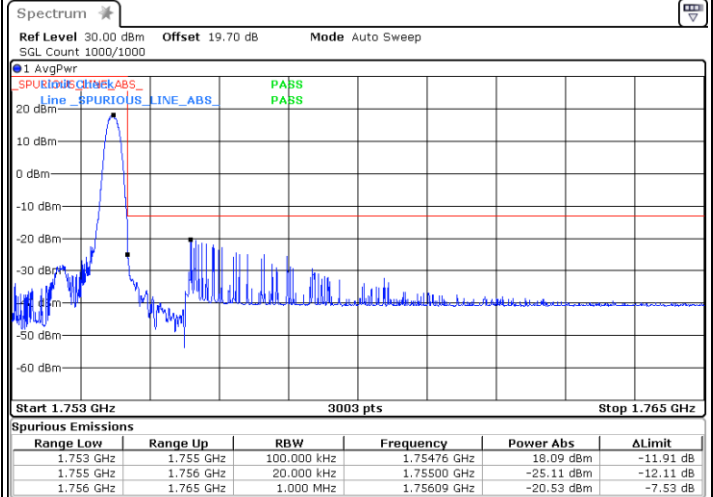
LTE Band 4 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



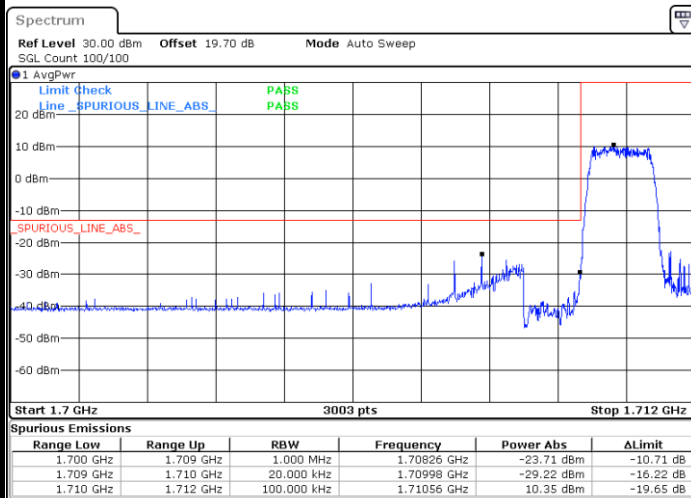
Date: 28.JUL.2024 14:11:12

Highest Band Edge / 1RB



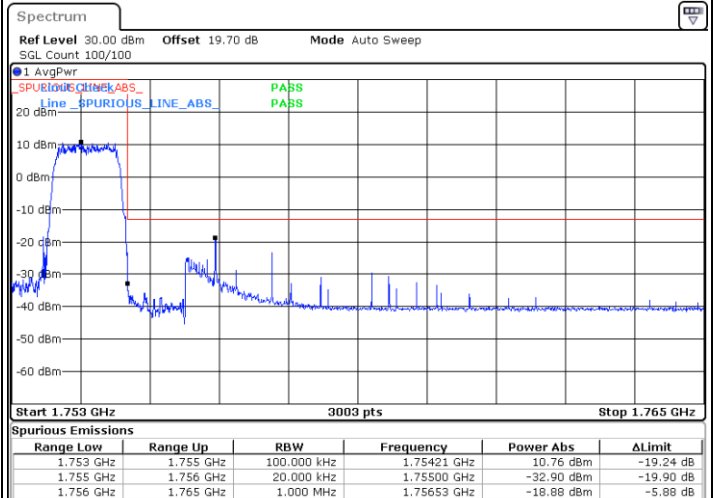
Date: 28.JUL.2024 14:18:36

Lowest Band Edge / Full RB



Date: 28.JUL.2024 14:09:17

Highest Band Edge / Full RB

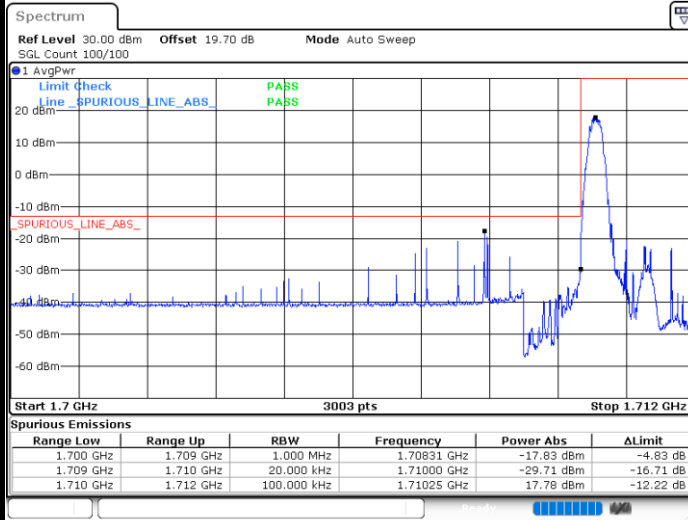


Date: 28.JUL.2024 14:15:40

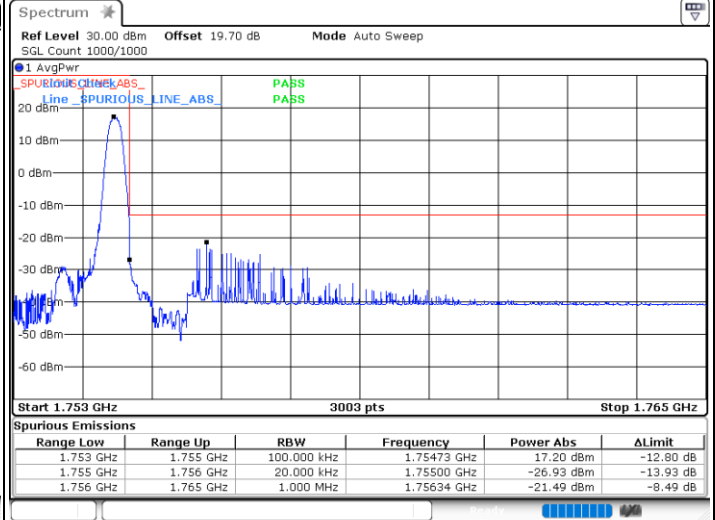


LTE Band 4 / 1.4MHz / 16QAM

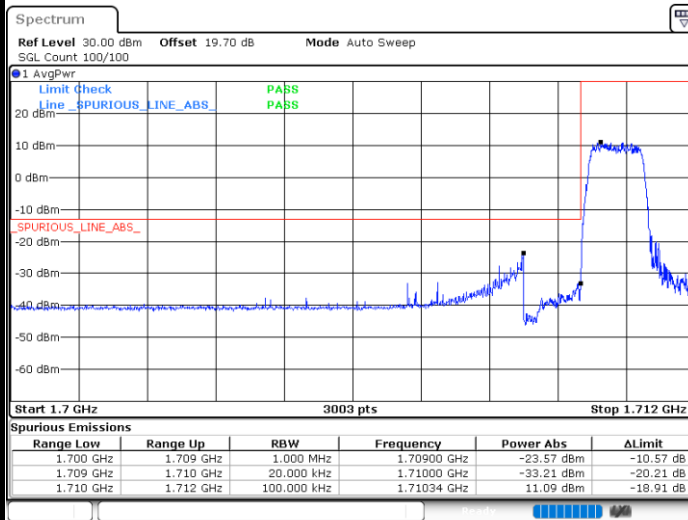
Lowest Band Edge / 1 RB



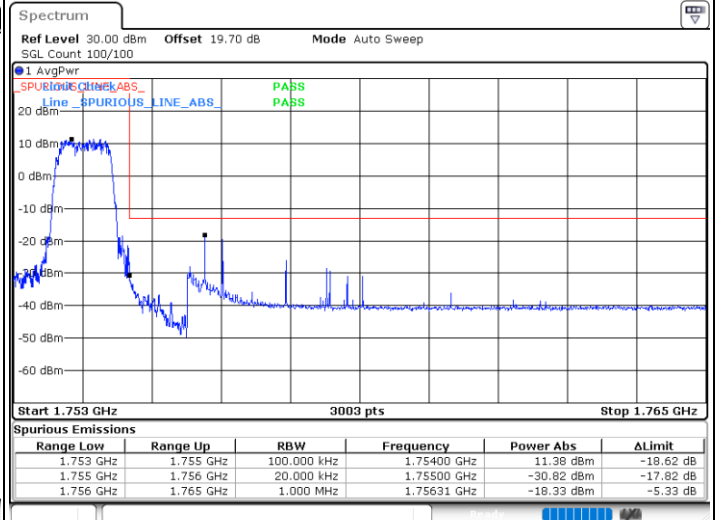
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



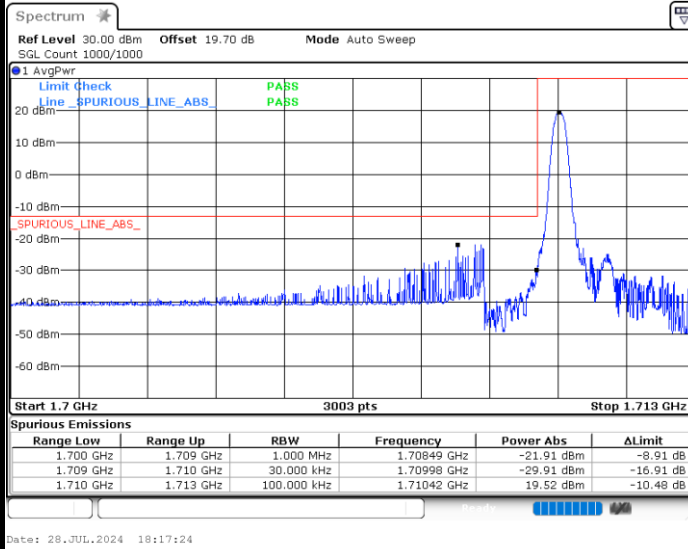
Highest Band Edge / Full RB



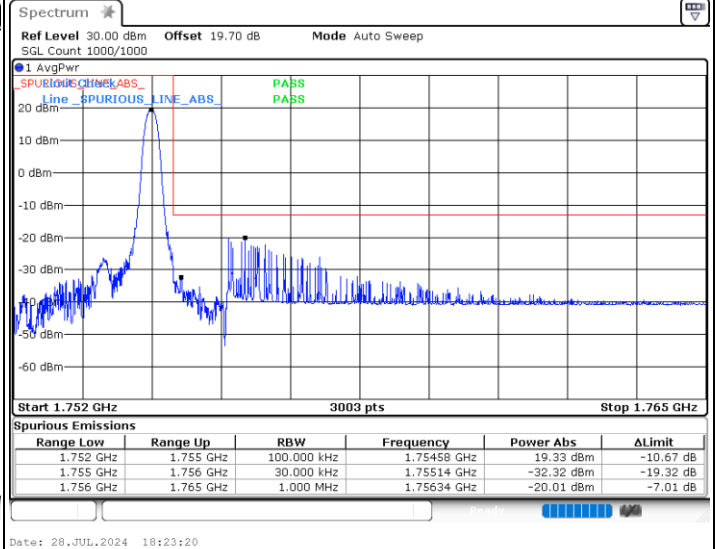


LTE Band 4 / 3MHz / QPSK

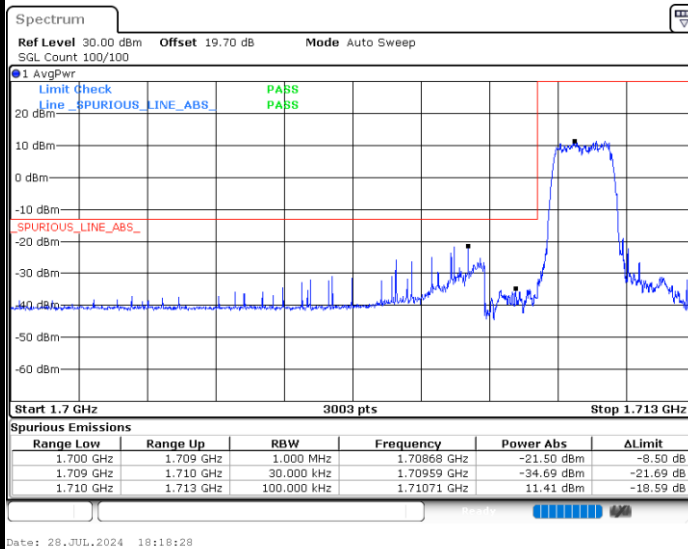
Lowest Band Edge / 1RB



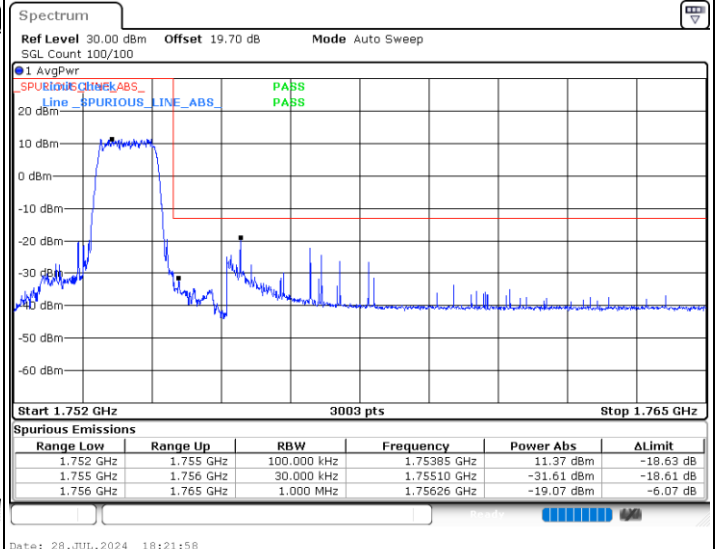
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



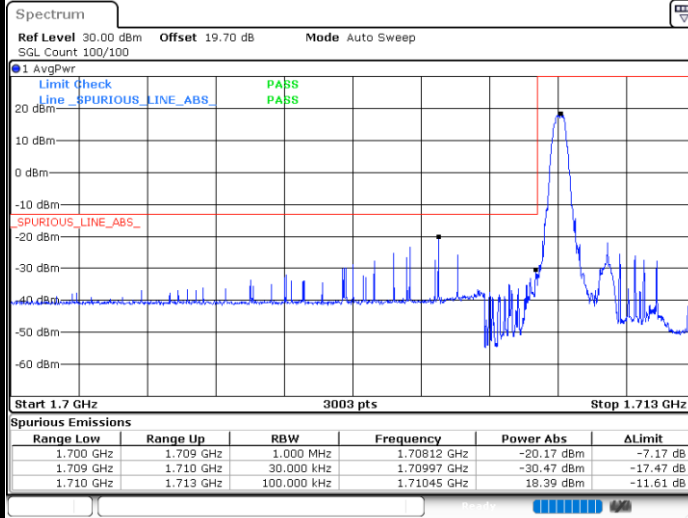
Highest Band Edge / Full RB



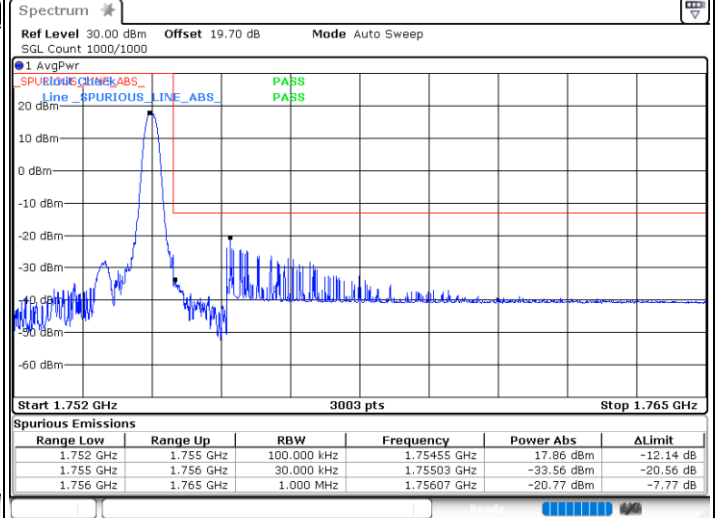


LTE Band 4 / 3MHz / 16QAM

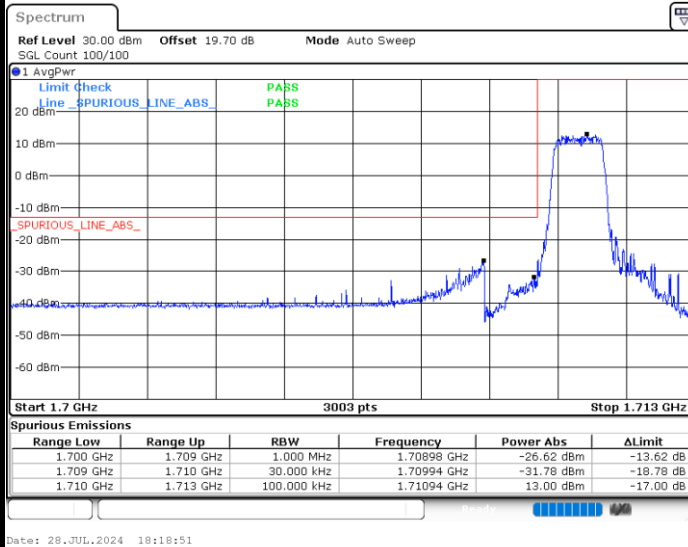
Lowest Band Edge / 1 RB



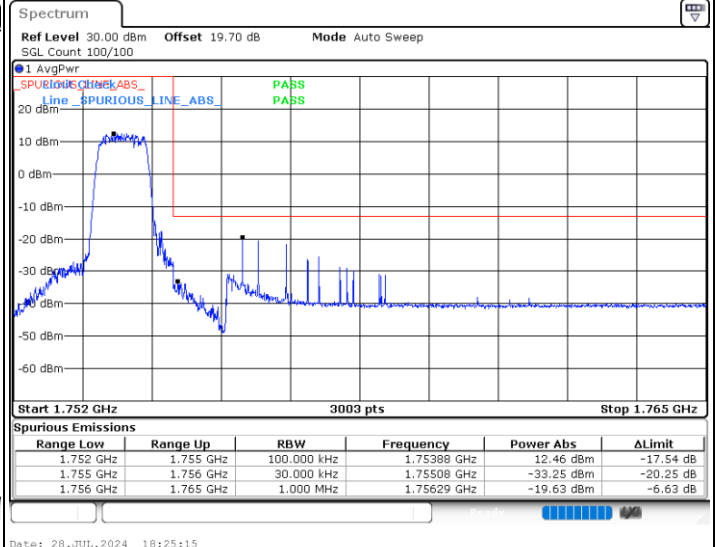
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



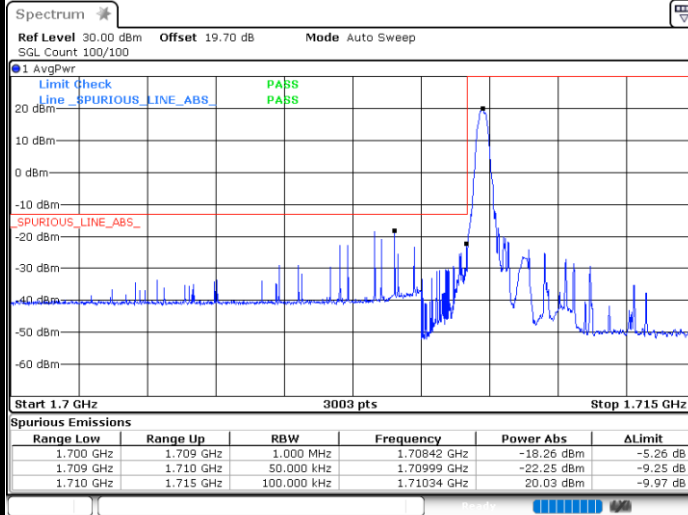
Highest Band Edge / Full RB





LTE Band 4 / 5MHz / QPSK

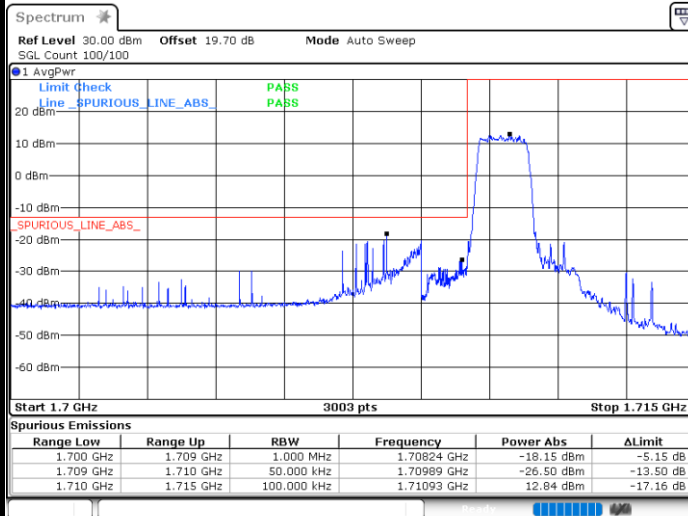
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



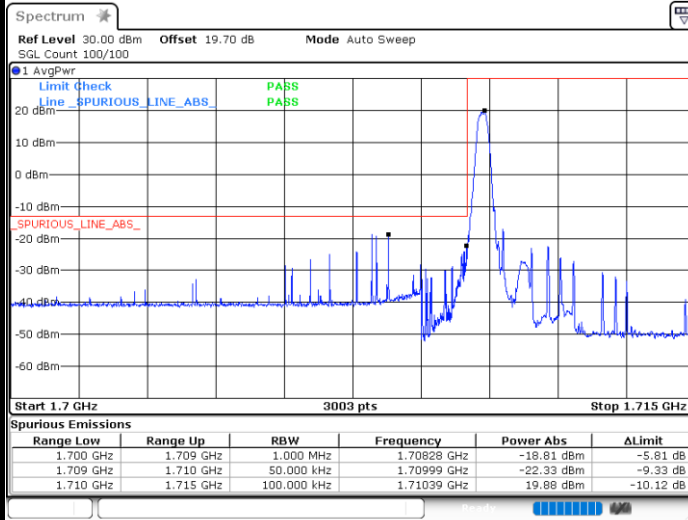
Highest Band Edge / Full RB



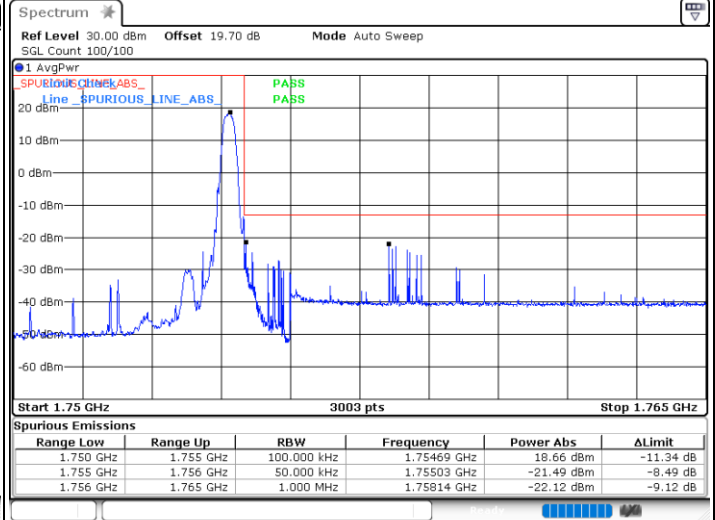


LTE Band 4 / 5MHz / 16QAM

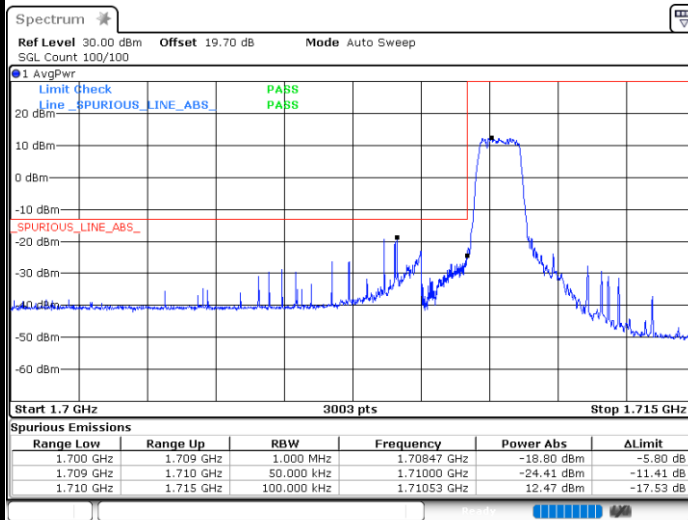
Lowest Band Edge / 1 RB



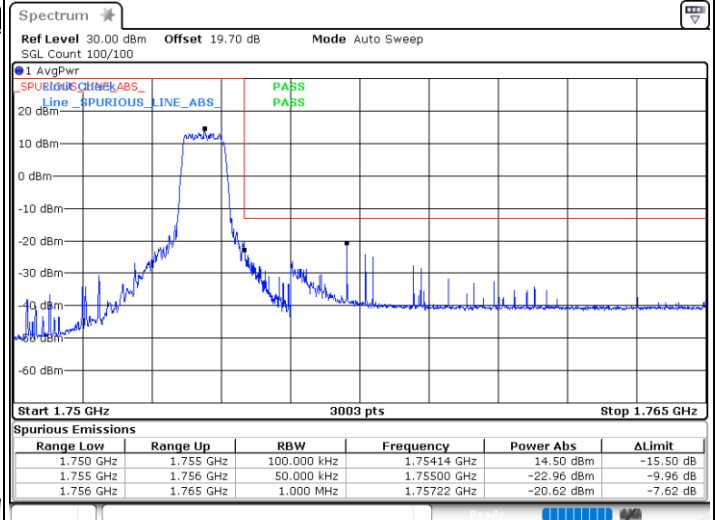
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



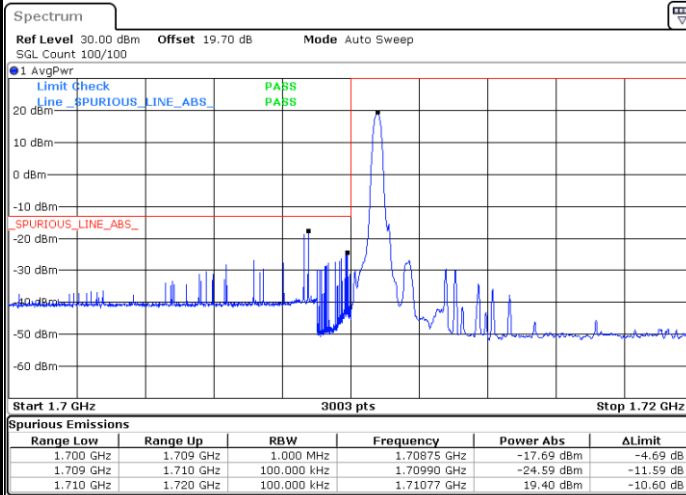
Highest Band Edge / Full RB



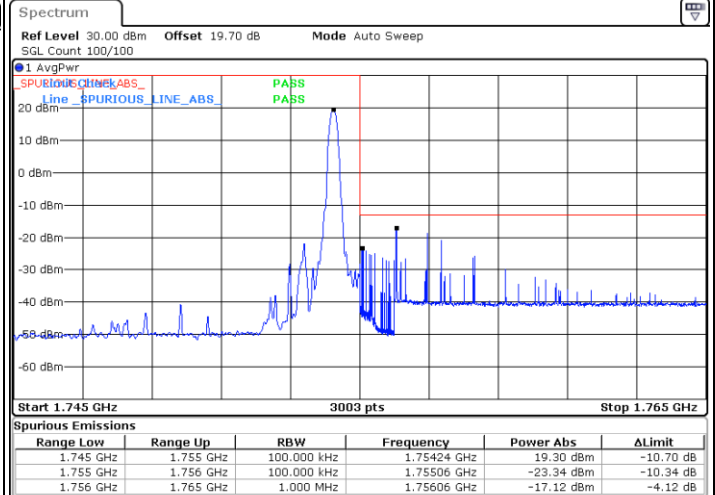


LTE Band 4 / 10MHz / QPSK

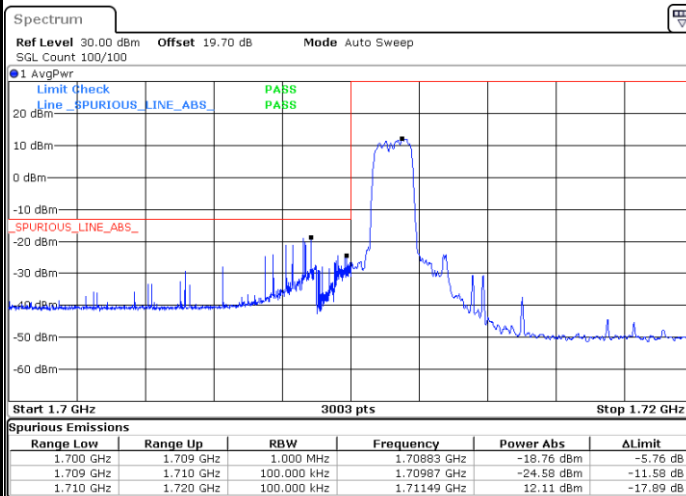
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



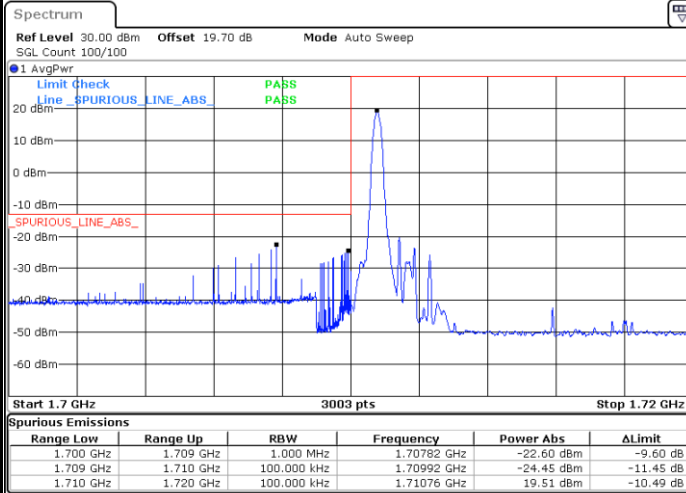
Highest Band Edge / Full RB



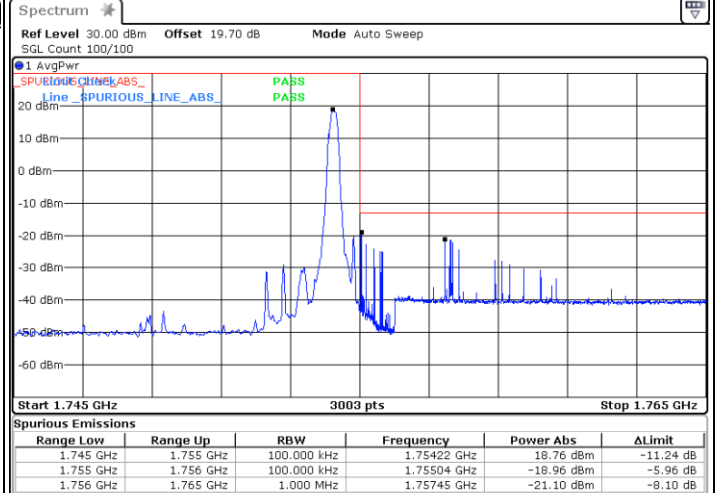


LTE Band 4 / 10MHz / 16QAM

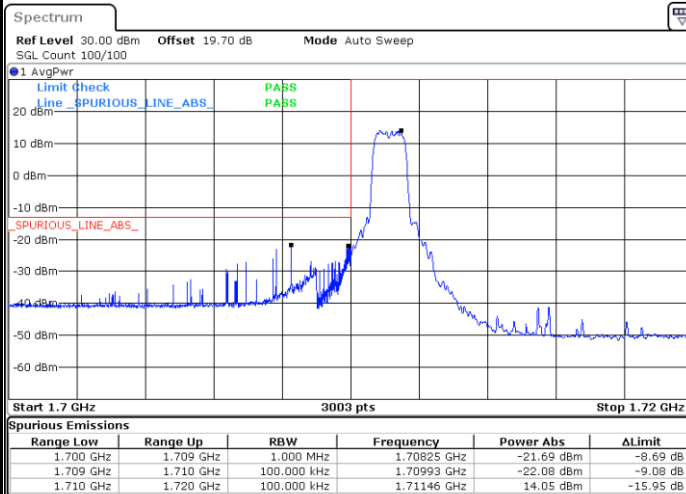
Lowest Band Edge / 1 RB



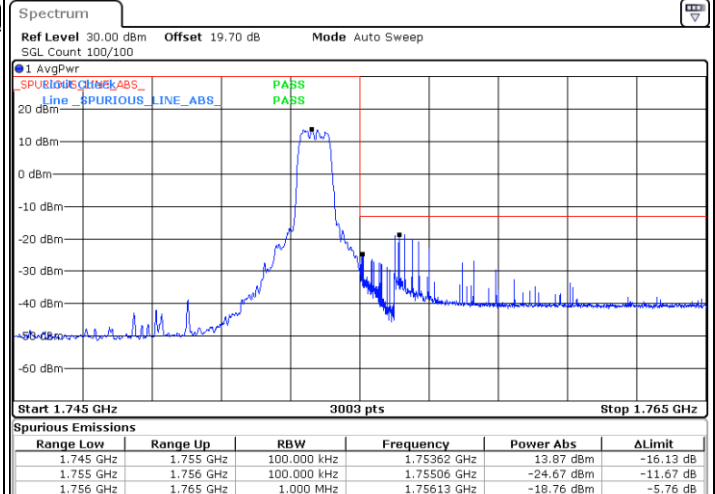
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



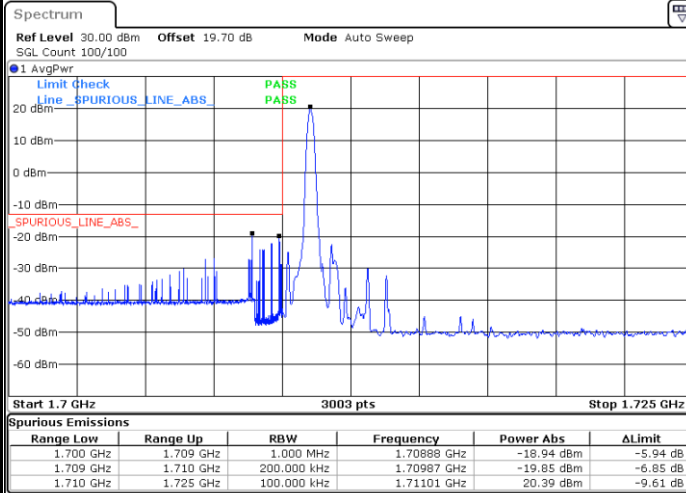
Highest Band Edge / Full RB



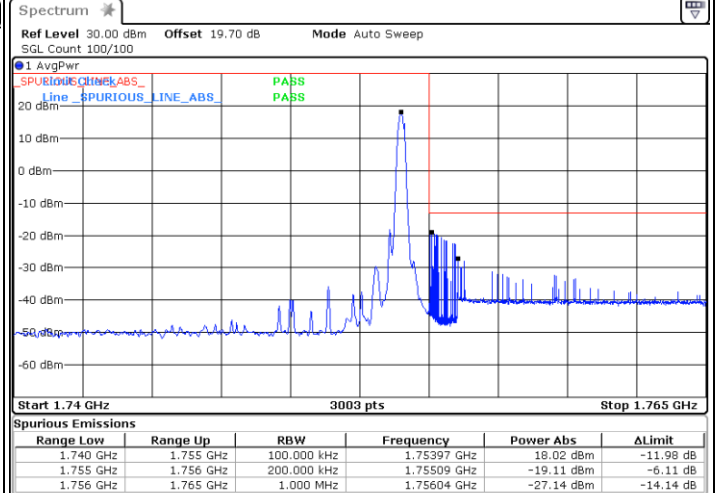


LTE Band 4 / 15MHz / QPSK

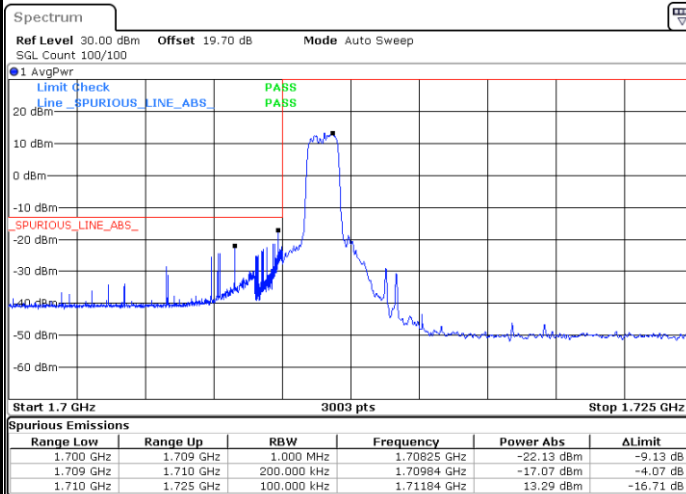
Lowest Band Edge / 1RB



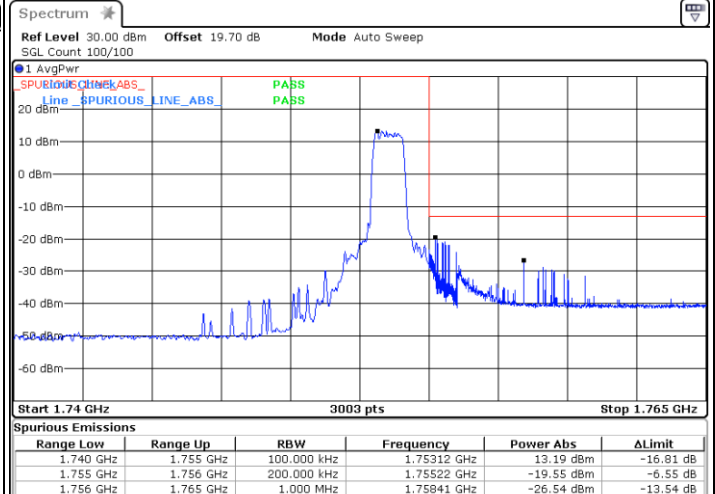
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



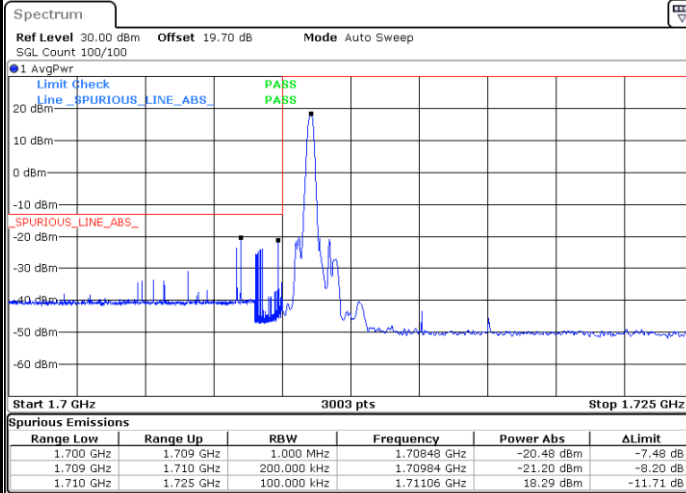
Highest Band Edge / Full RB



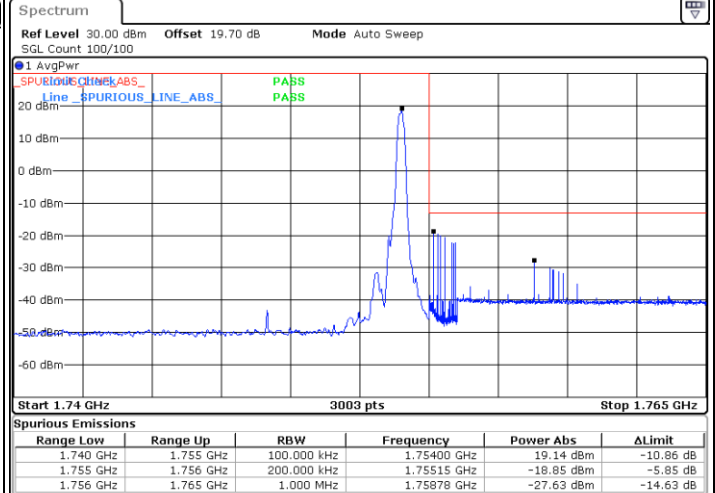


LTE Band 4 / 15MHz / 16QAM

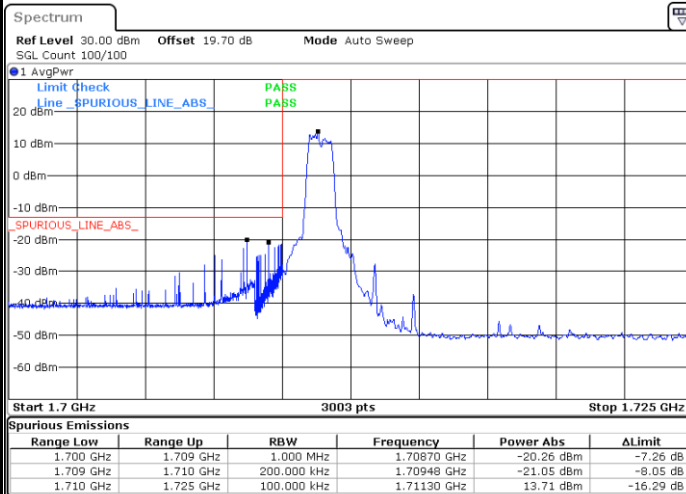
Lowest Band Edge / 1 RB



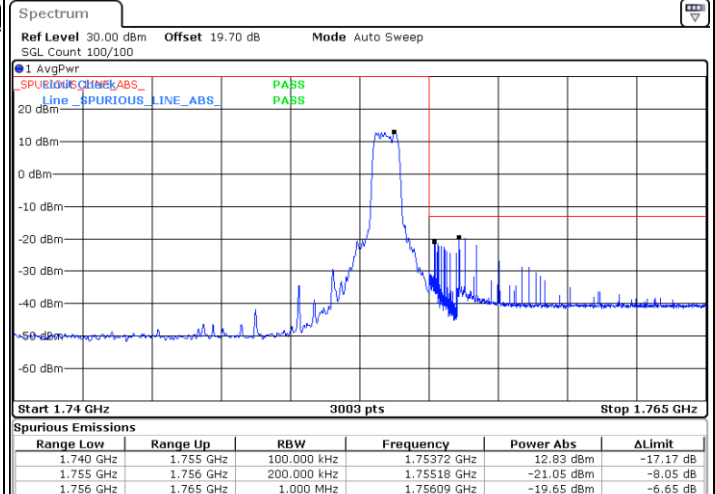
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



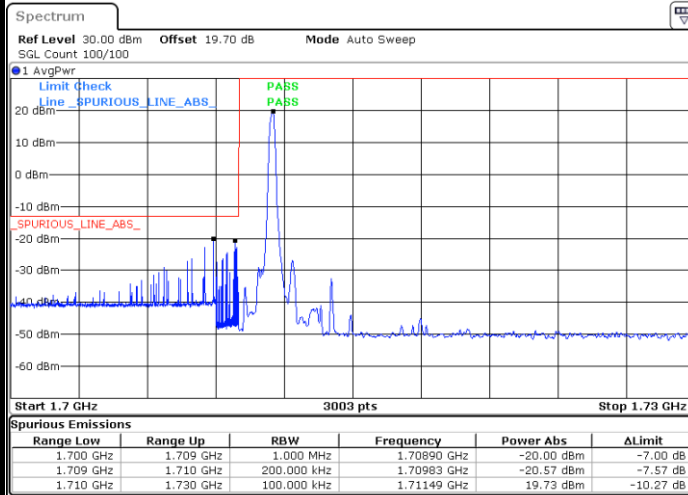
Highest Band Edge / Full RB



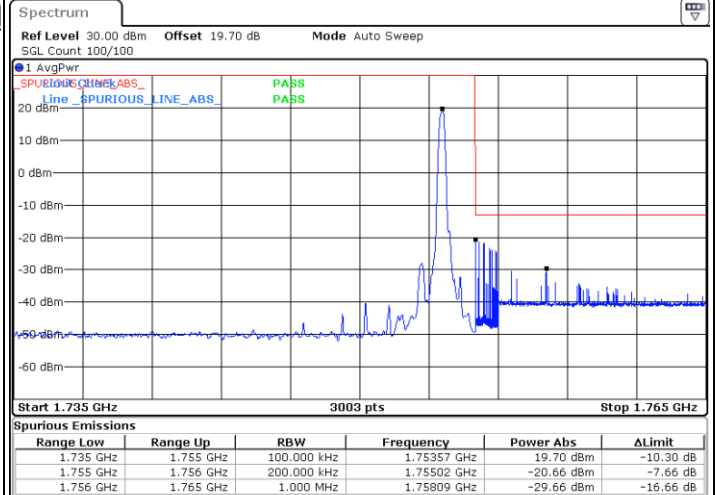


LTE Band 4 / 20MHz / QPSK

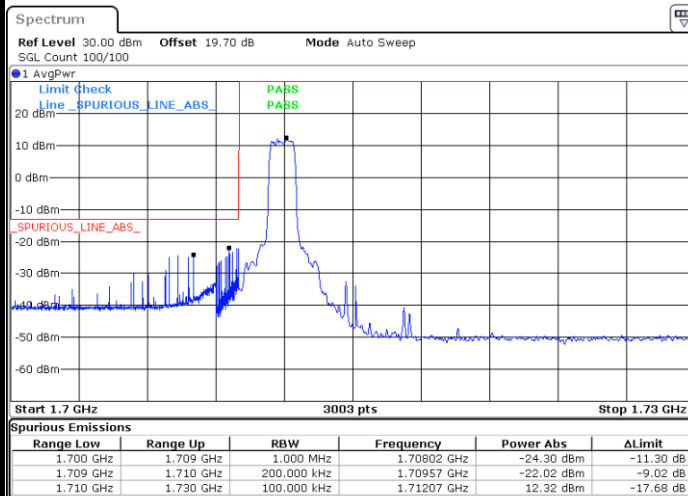
Lowest Band Edge / 1RB



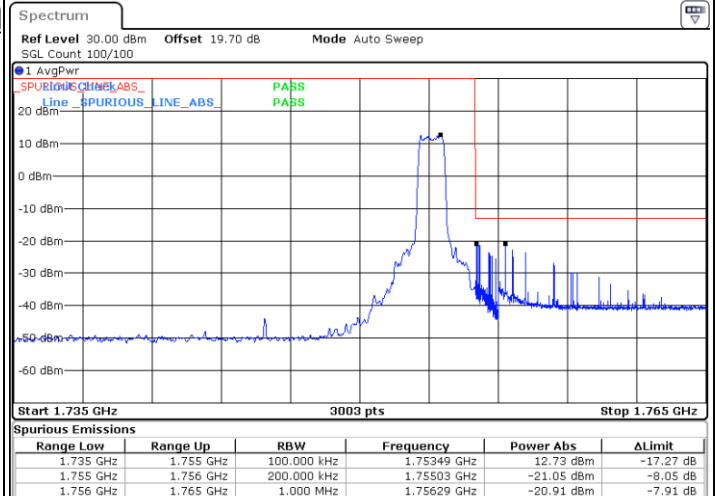
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



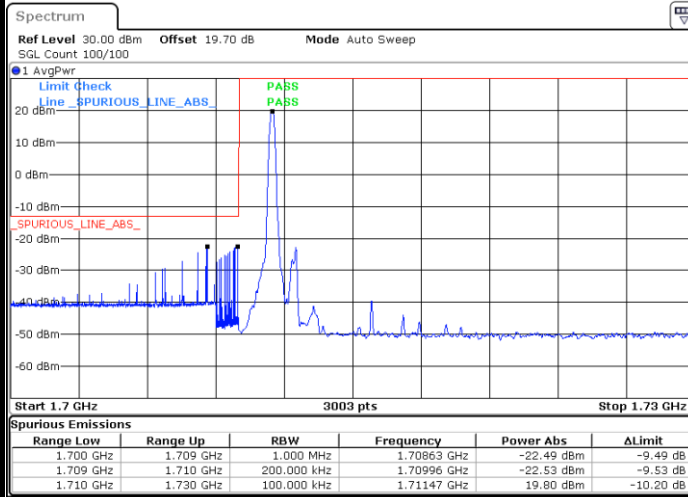
Highest Band Edge / Full RB



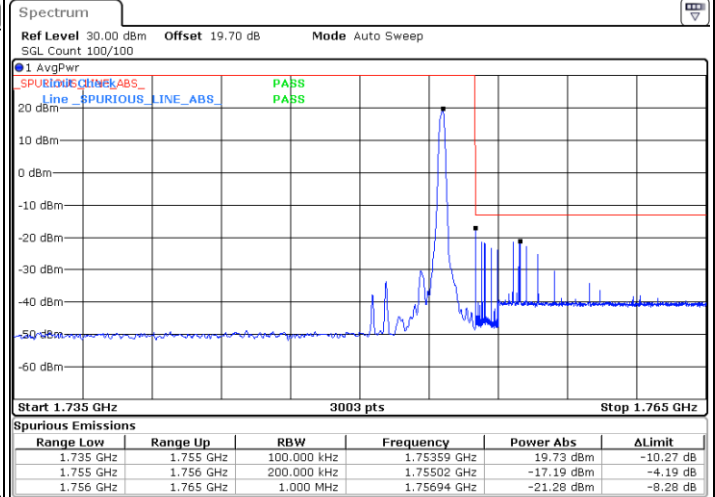


LTE Band 4 / 20MHz / 16QAM

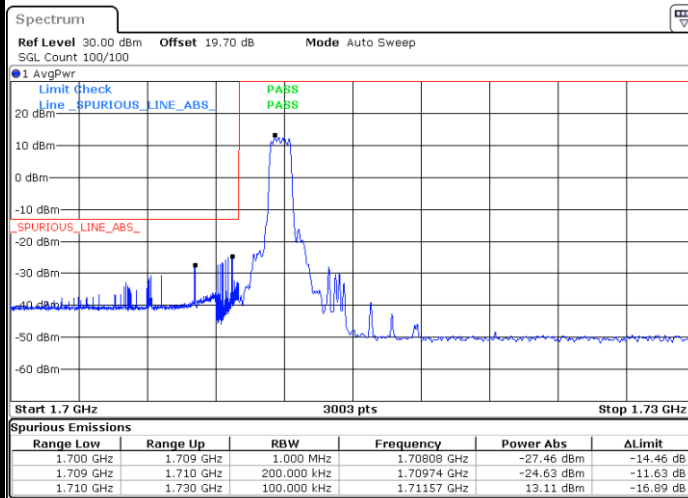
Lowest Band Edge / 1 RB



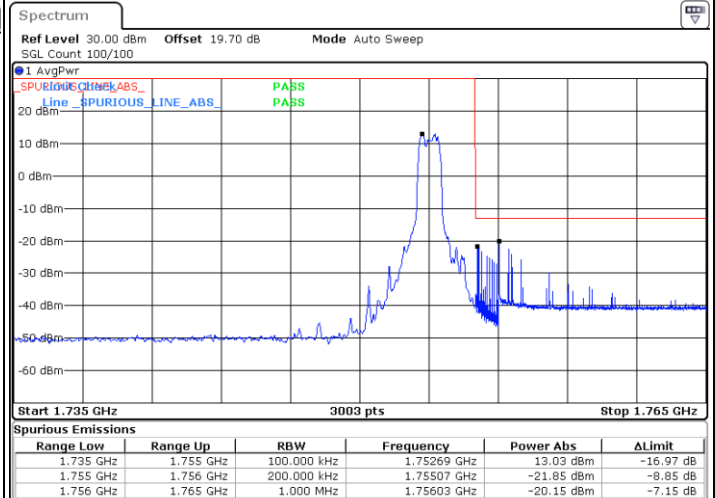
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

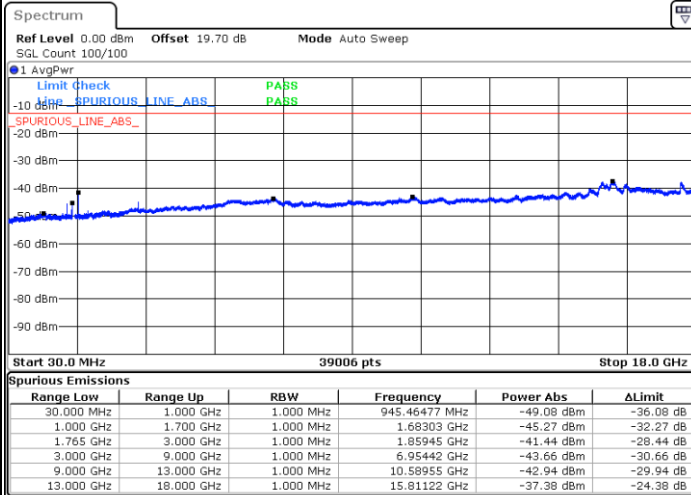




Conducted Spurious Emission

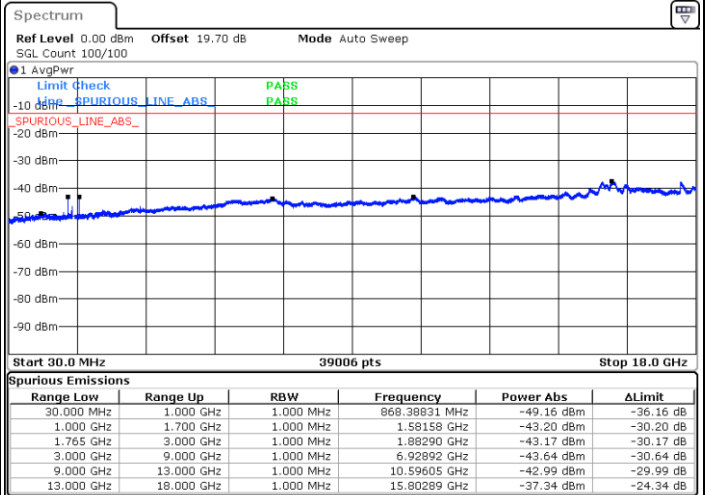
LTE Band 4 / 1.4MHz

Lowest Channel / QPSK



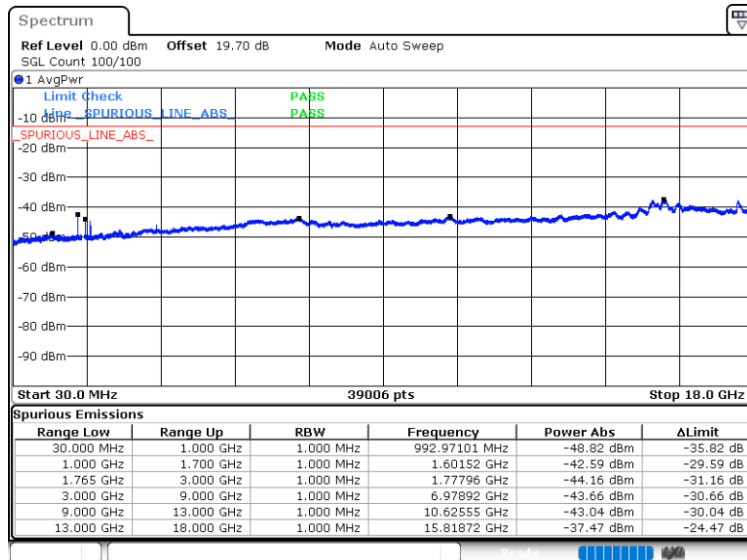
Date: 28.JUL.2024 14:11:51

Middle Channel / QPSK



Date: 28.JUL.2024 14:14:39

Highest Channel / QPSK

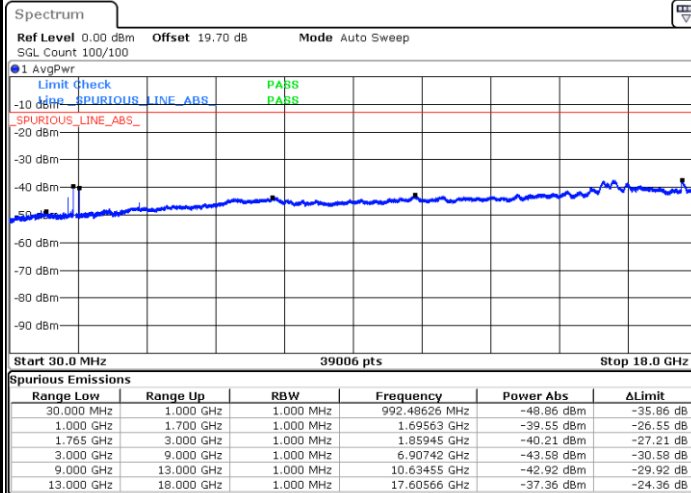


Date: 28.JUL.2024 14:16:24



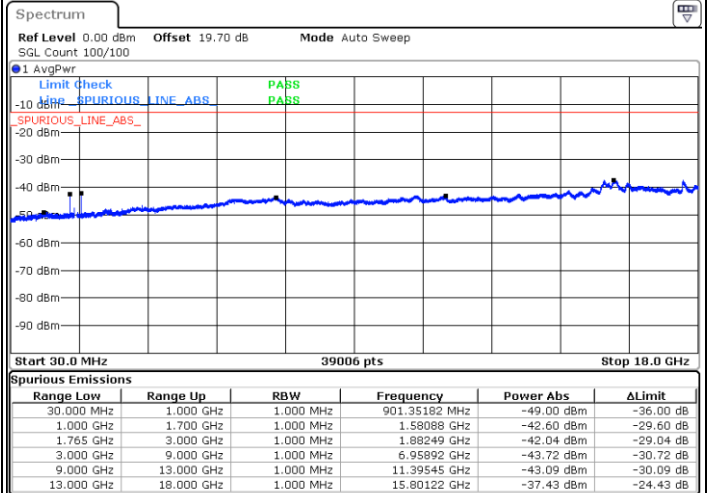
LTE Band 4 / 3MHz

Lowest Channel / QPSK



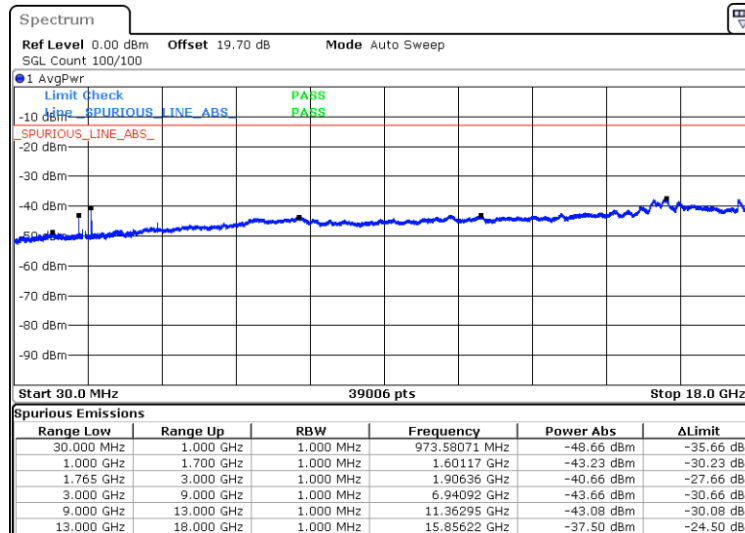
Date: 28.JUL.2024 18:18:04

Middle Channel / QPSK



Date: 28.JUL.2024 18:14:55

Highest Channel / QPSK



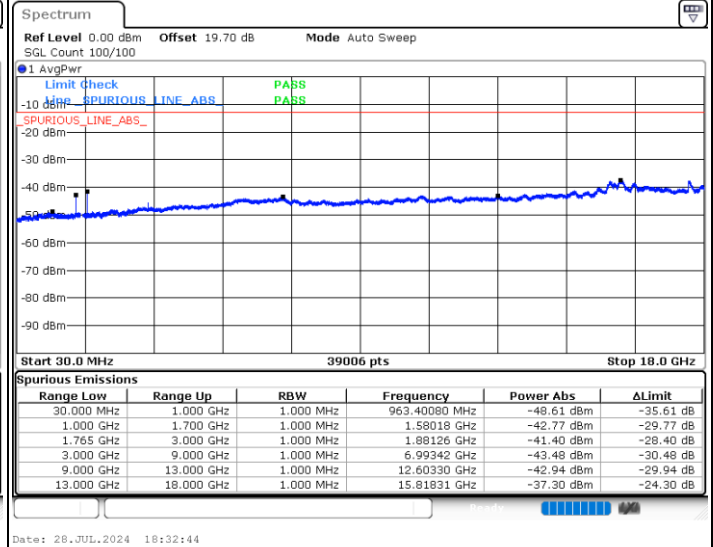
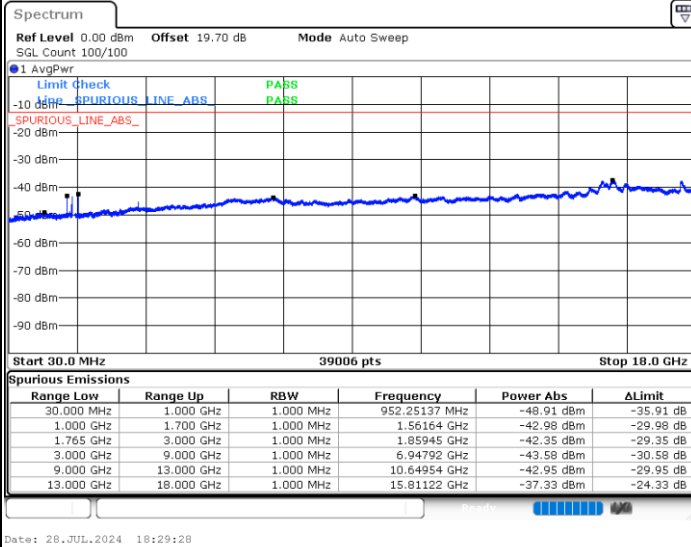
Date: 28.JUL.2024 18:22:39



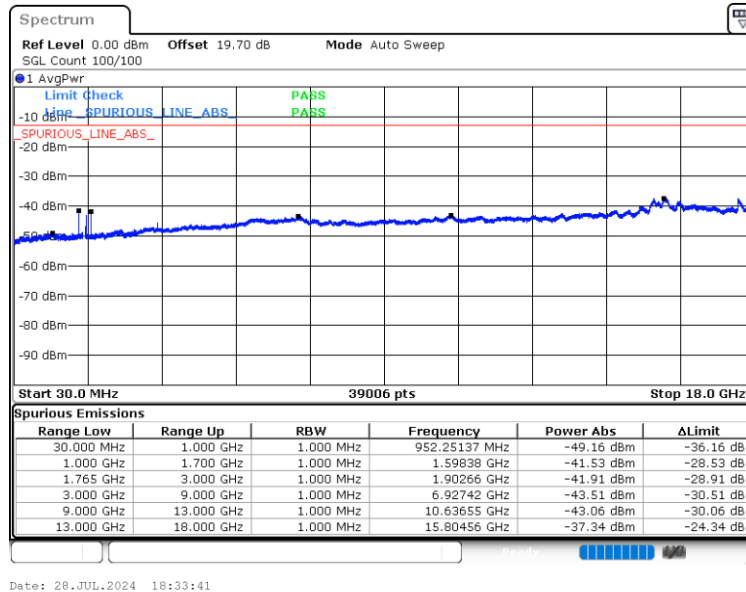
LTE Band 4 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK



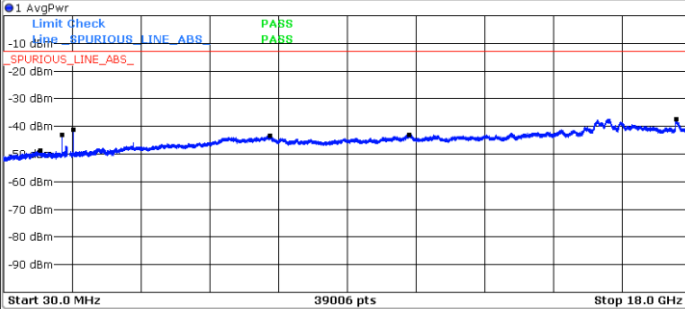


LTE Band 4 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

Spectrum

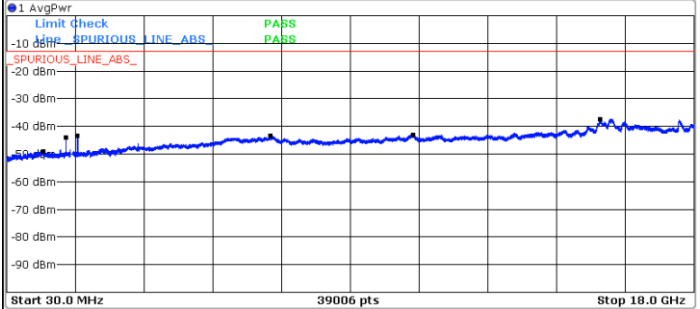
Ref Level 0.00 dBm Offset 19.70 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	991.03198 MHz	-48.80 dBm	-35.80 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.56234 GHz	-43.23 dBm	-30.23 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.85986 GHz	-41.24 dBm	-28.24 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99042 GHz	-43.50 dBm	-30.50 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.63255 GHz	-42.97 dBm	-29.97 dB
13.000 GHz	18.000 GHz	1.000 MHz	17.61316 GHz	-37.42 dBm	-24.42 dB

Date: 28.JUL.2024 18:38:39

Spectrum

Ref Level 0.00 dBm Offset 19.70 dB Mode Auto Sweep
SGL Count 100/100

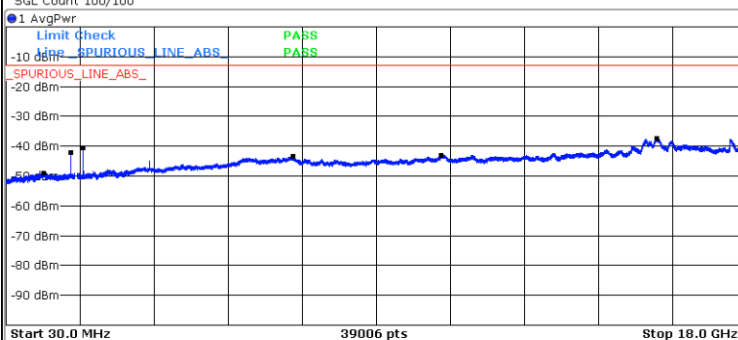
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	979.39780 MHz	-49.00 dBm	-36.00 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.58578 GHz	-44.07 dBm	-31.07 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.87920 GHz	-43.51 dBm	-30.51 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.92442 GHz	-43.48 dBm	-30.48 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.65054 GHz	-43.10 dBm	-30.10 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.55125 GHz	-37.39 dBm	-24.39 dB

Date: 28.JUL.2024 18:40:25

Highest Channel / QPSK

Spectrum

Ref Level 0.00 dBm Offset 19.70 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	950.31234 MHz	-48.97 dBm	-35.97 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.60117 GHz	-42.21 dBm	-29.21 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.90595 GHz	-40.71 dBm	-27.71 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.98192 GHz	-43.47 dBm	-30.47 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.59105 GHz	-42.98 dBm	-29.98 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.81247 GHz	-37.53 dBm	-24.53 dB

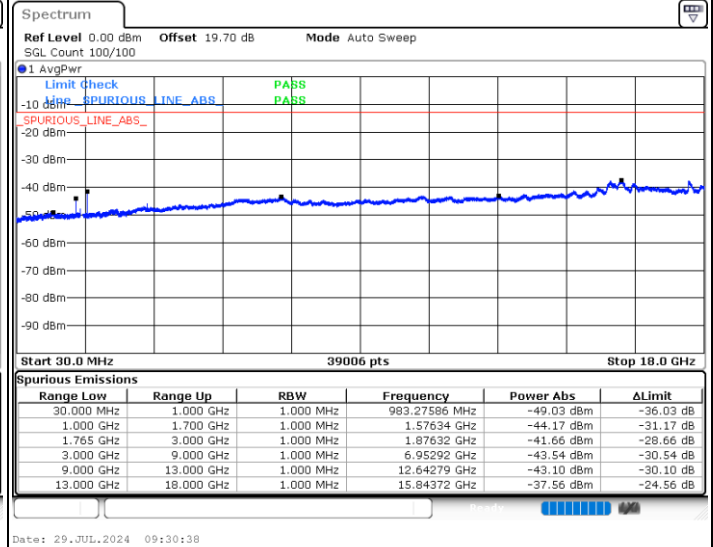
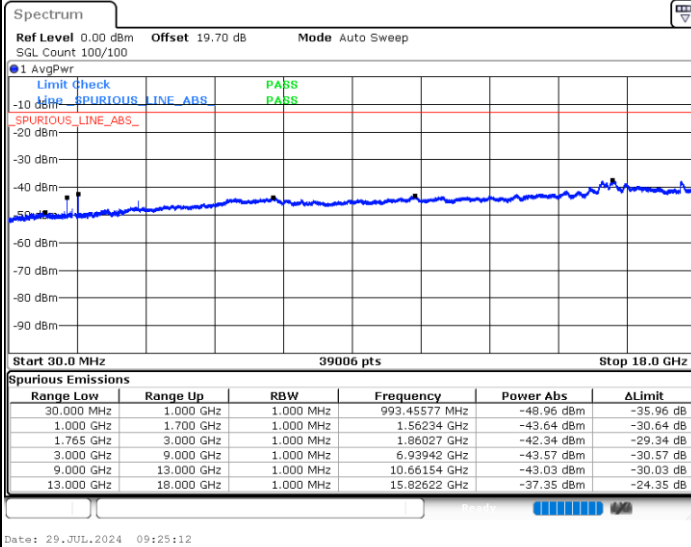
Date: 28.JUL.2024 18:43:26



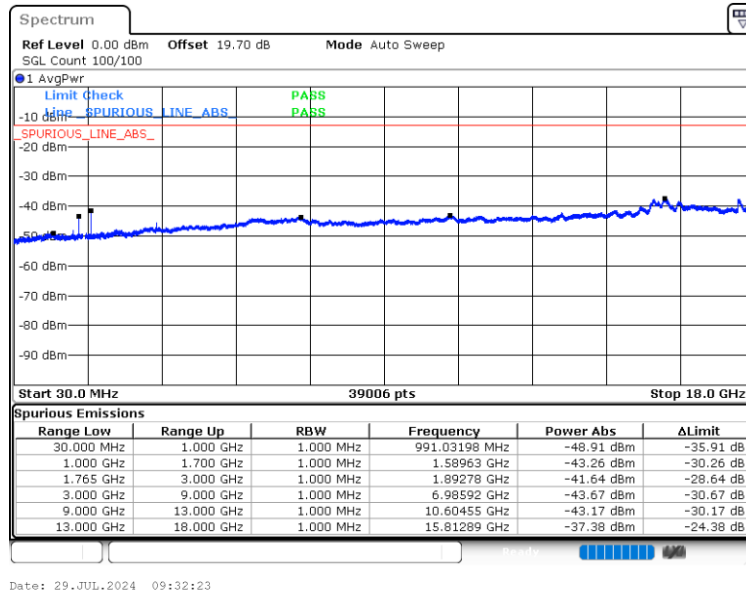
LTE Band 4 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



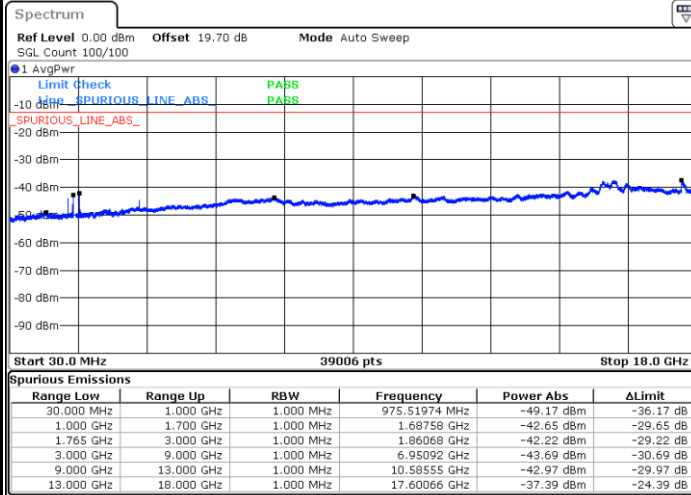
Highest Channel / QPSK





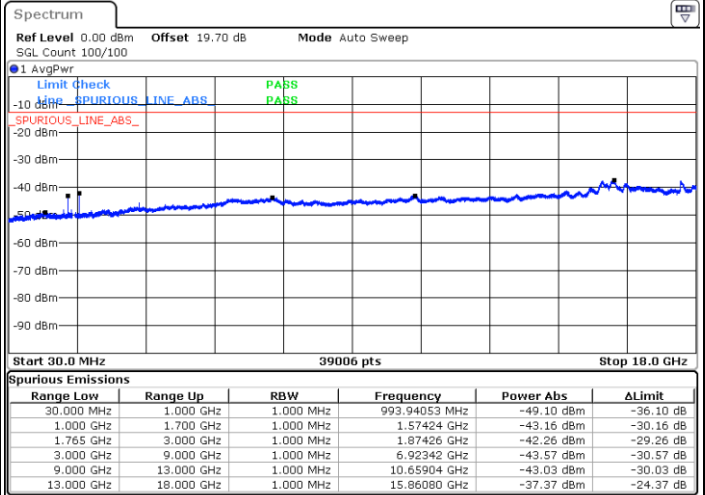
LTE Band 4 / 20MHz

Lowest Channel / QPSK



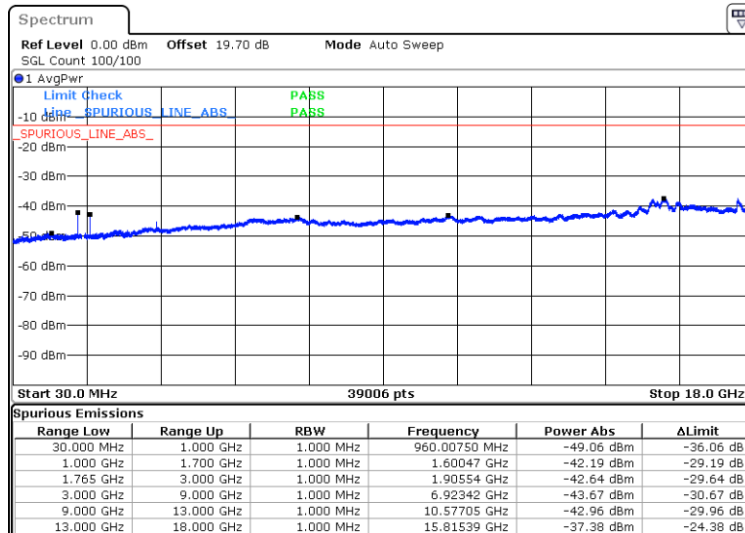
Date: 28.JUL.2024 18:04:21

Middle Channel / QPSK



Date: 28.JUL.2024 18:02:13

Highest Channel / QPSK



Date: 28.JUL.2024 18:08:34

Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0072	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0073	

Note:

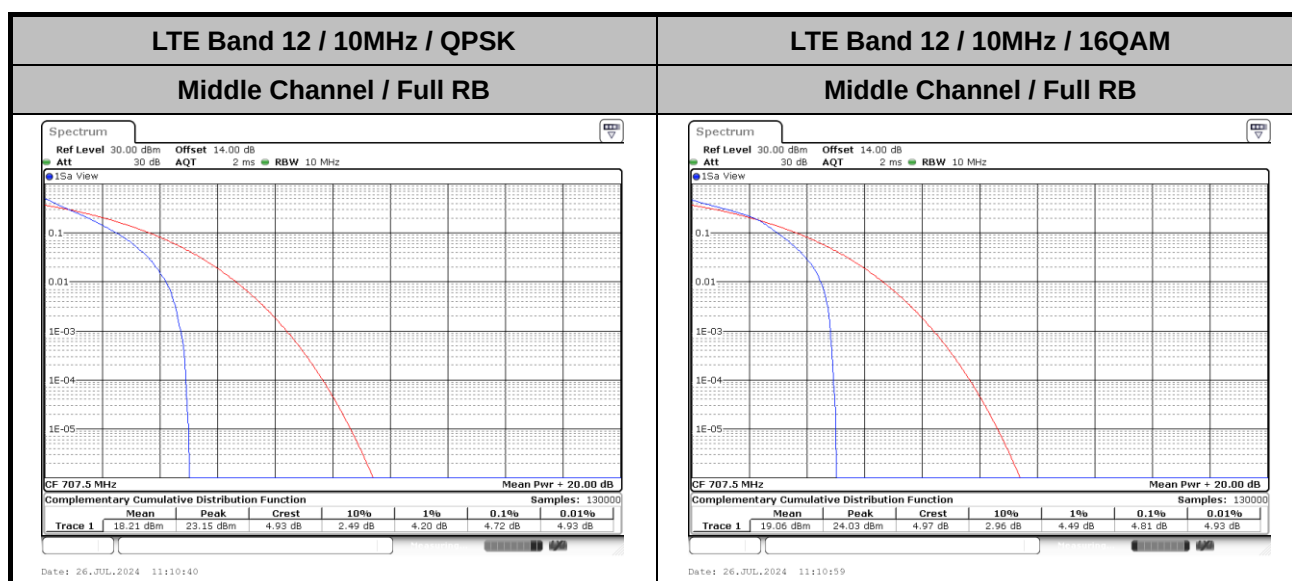
1. Normal Voltage = 6.0 V. ; Battery End Point (BEP) = 4.8 V. ; Maximum Voltage = 6.6 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

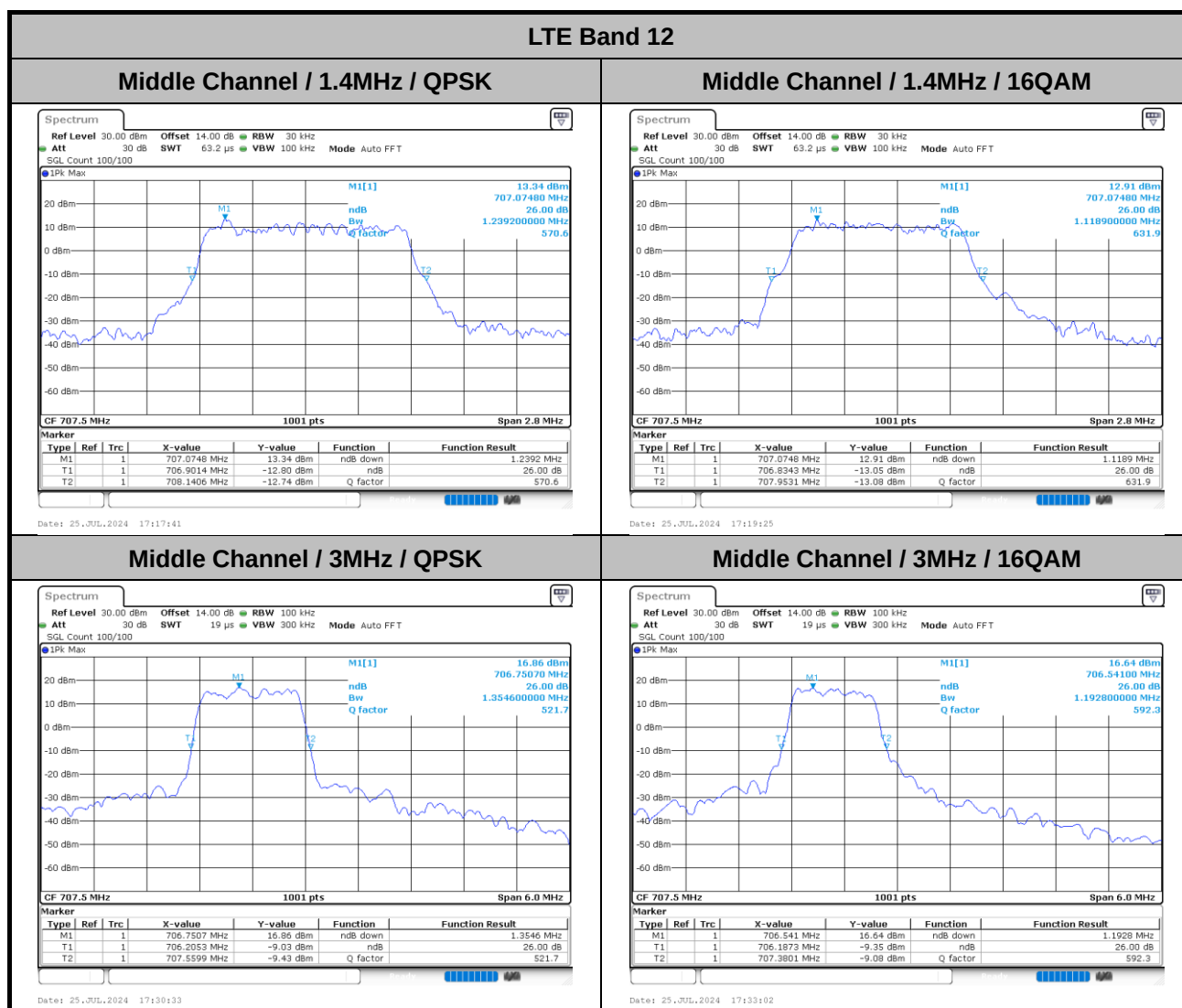
Mode	LTE Band 12 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.72	4.81	PASS





26dB Bandwidth

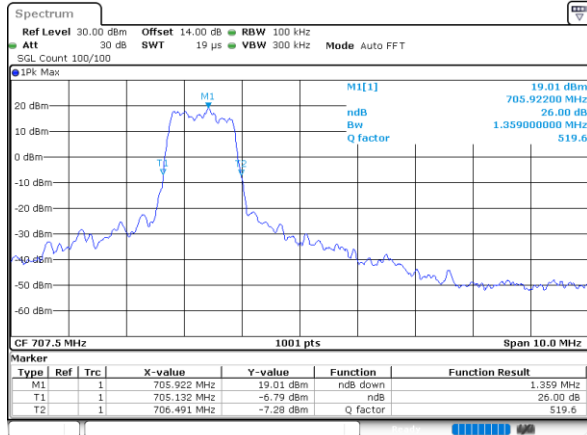
Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.24	1.12	1.35	1.19	1.36	1.18	1.78	1.64



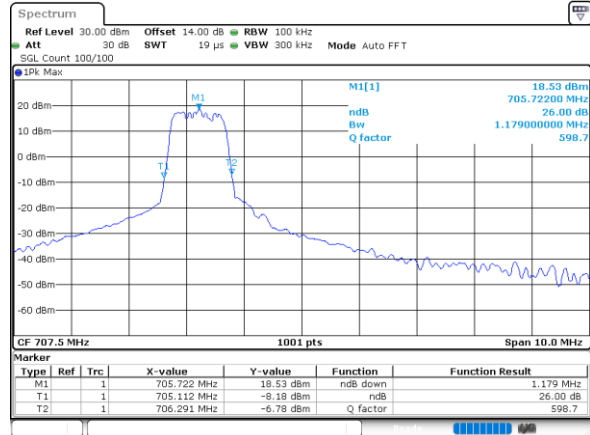


LTE Band 12

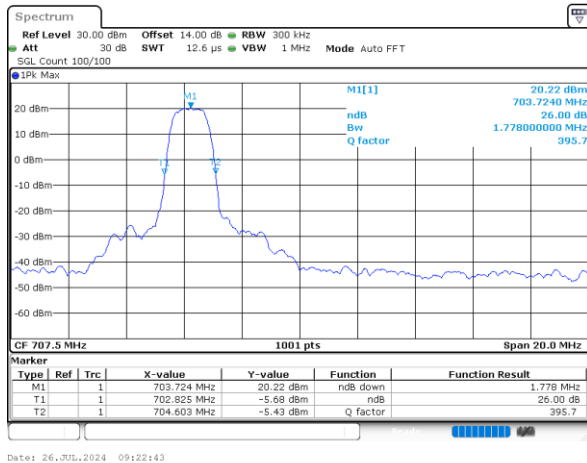
Middle Channel / 5MHz / QPSK



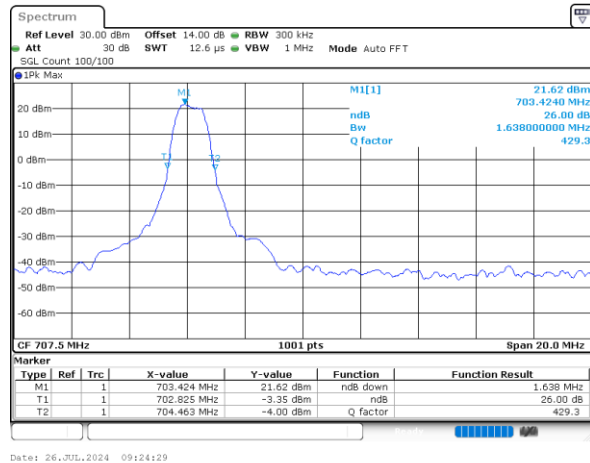
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



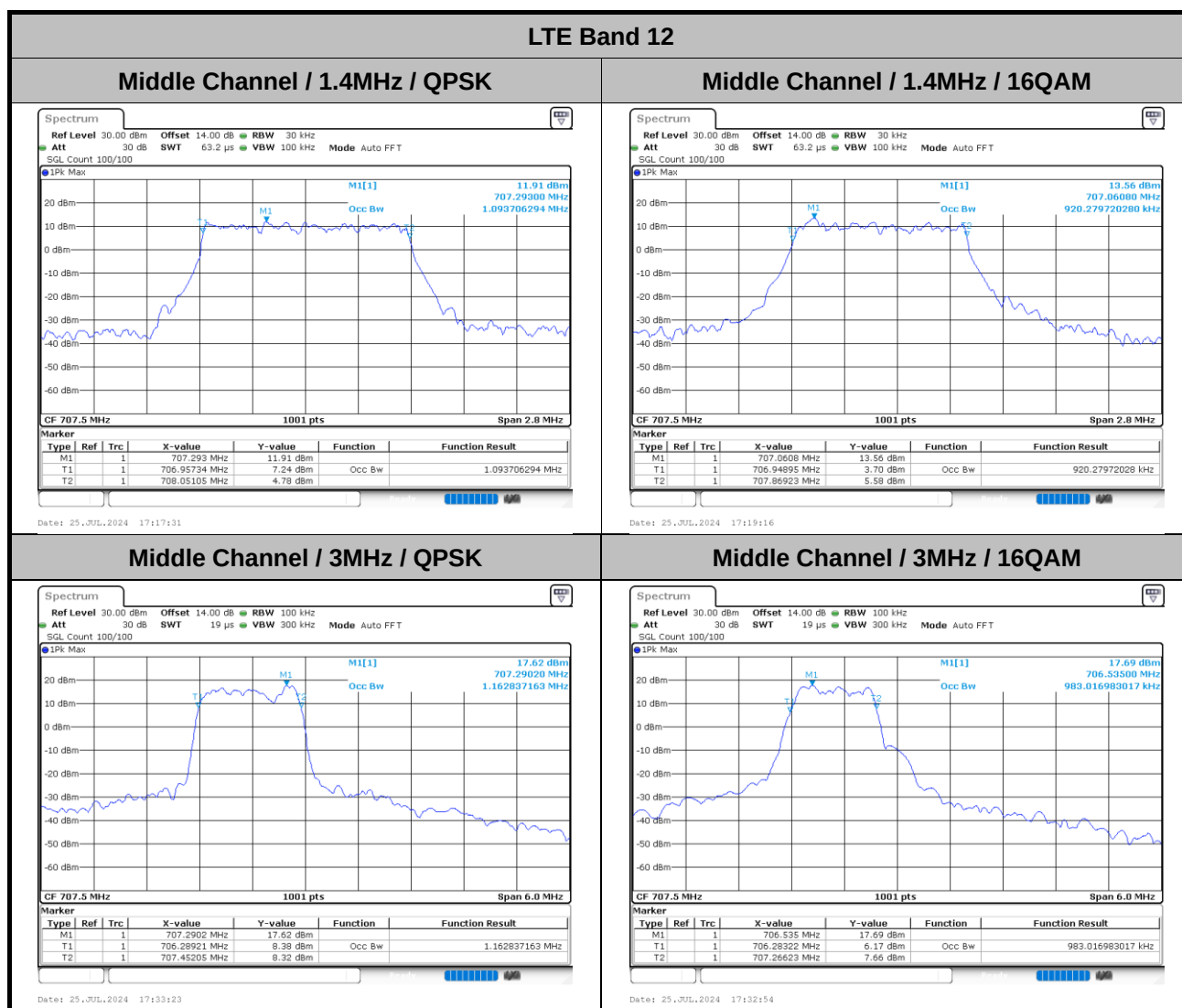
Middle Channel / 10MHz / 16QAM





Occupied Bandwidth

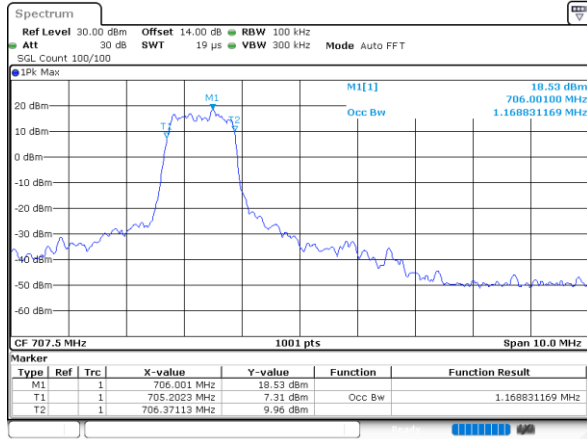
Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.094	0.920	1.163	0.983	1.169	0.979	1.419	1.299



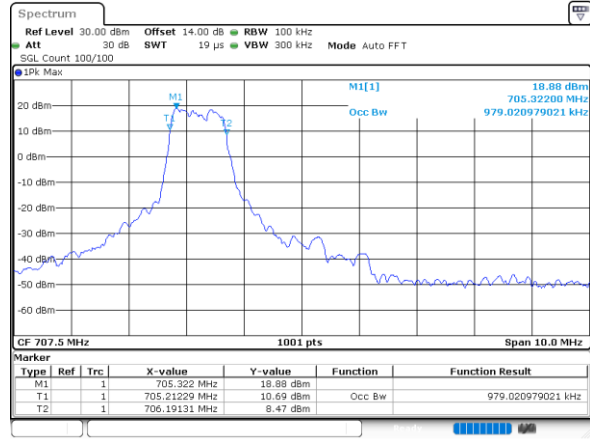


LTE Band 12

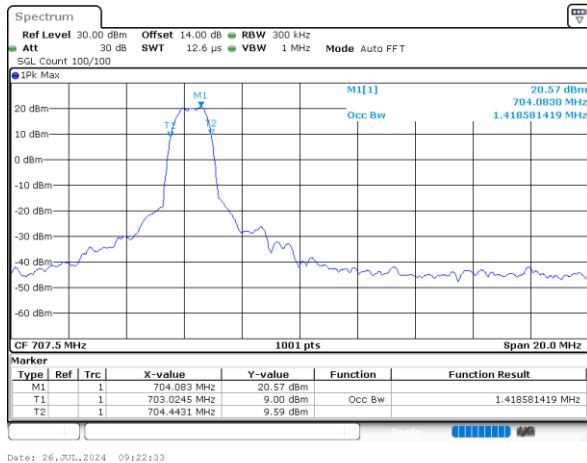
Middle Channel / 5MHz / QPSK



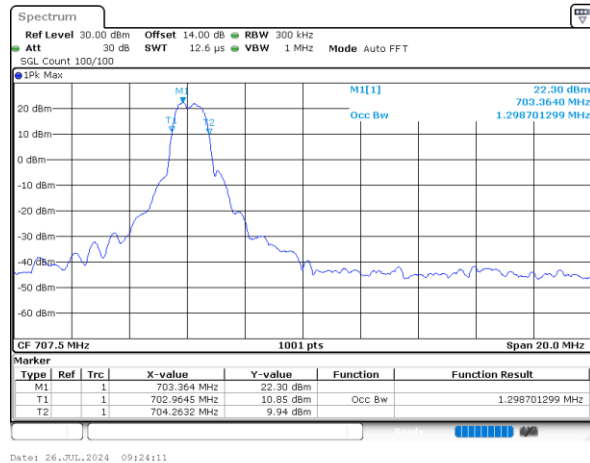
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

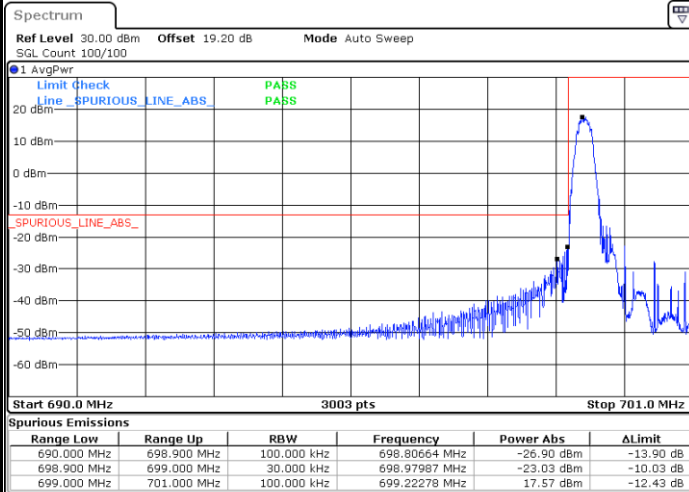




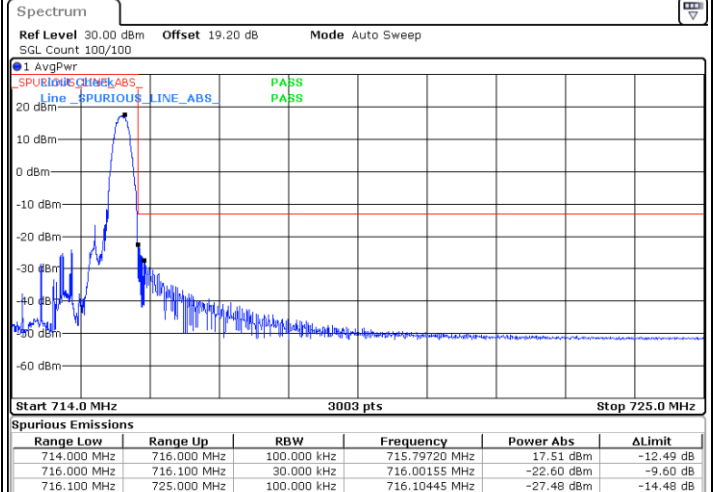
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

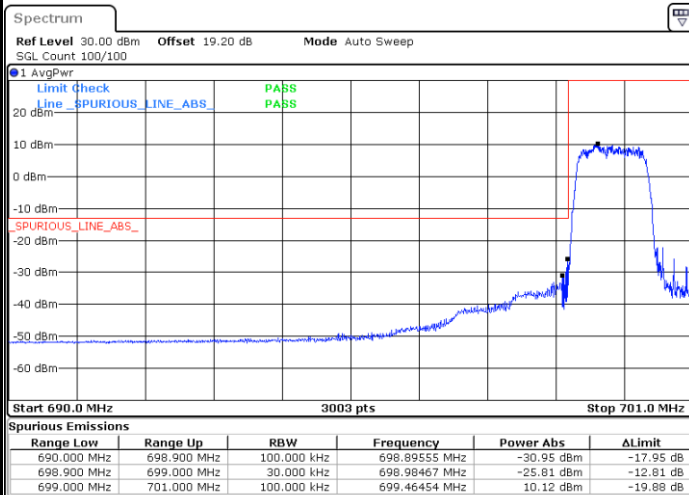
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



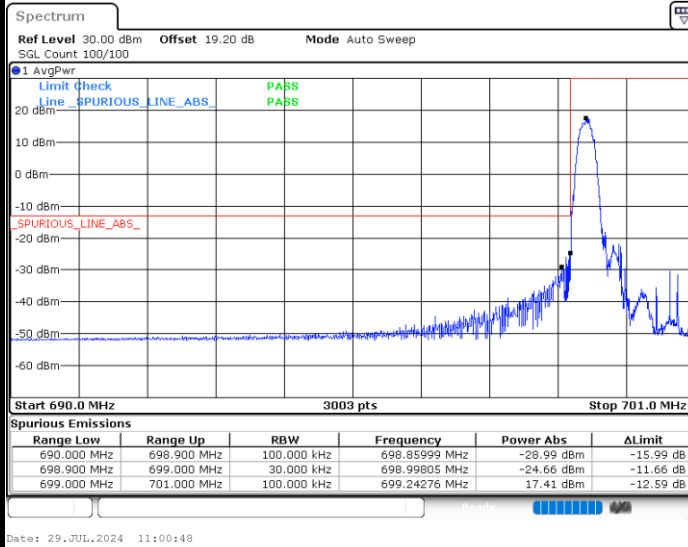
Highest Band Edge / Full RB



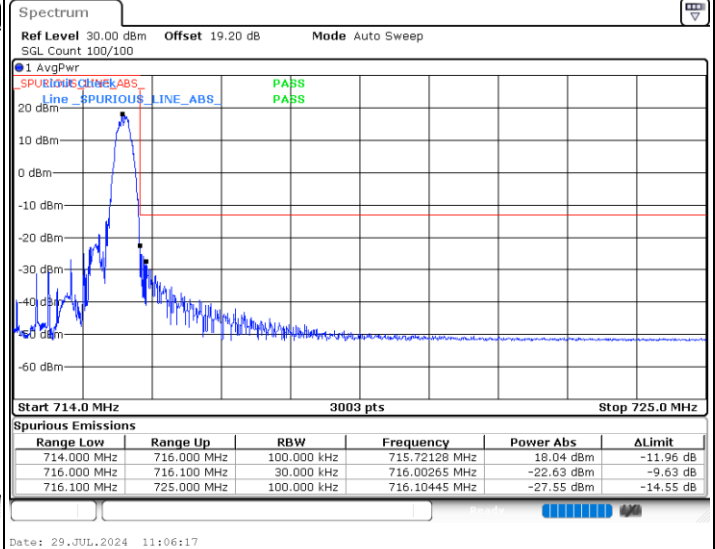


LTE Band 12 / 1.4MHz / 16QAM

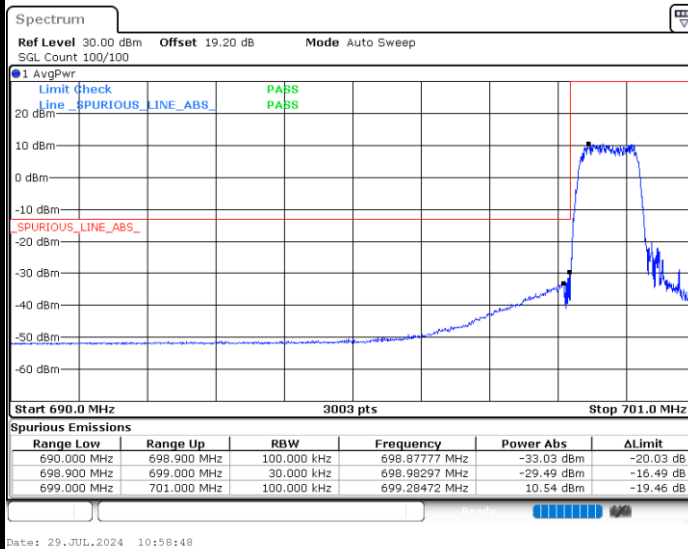
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

