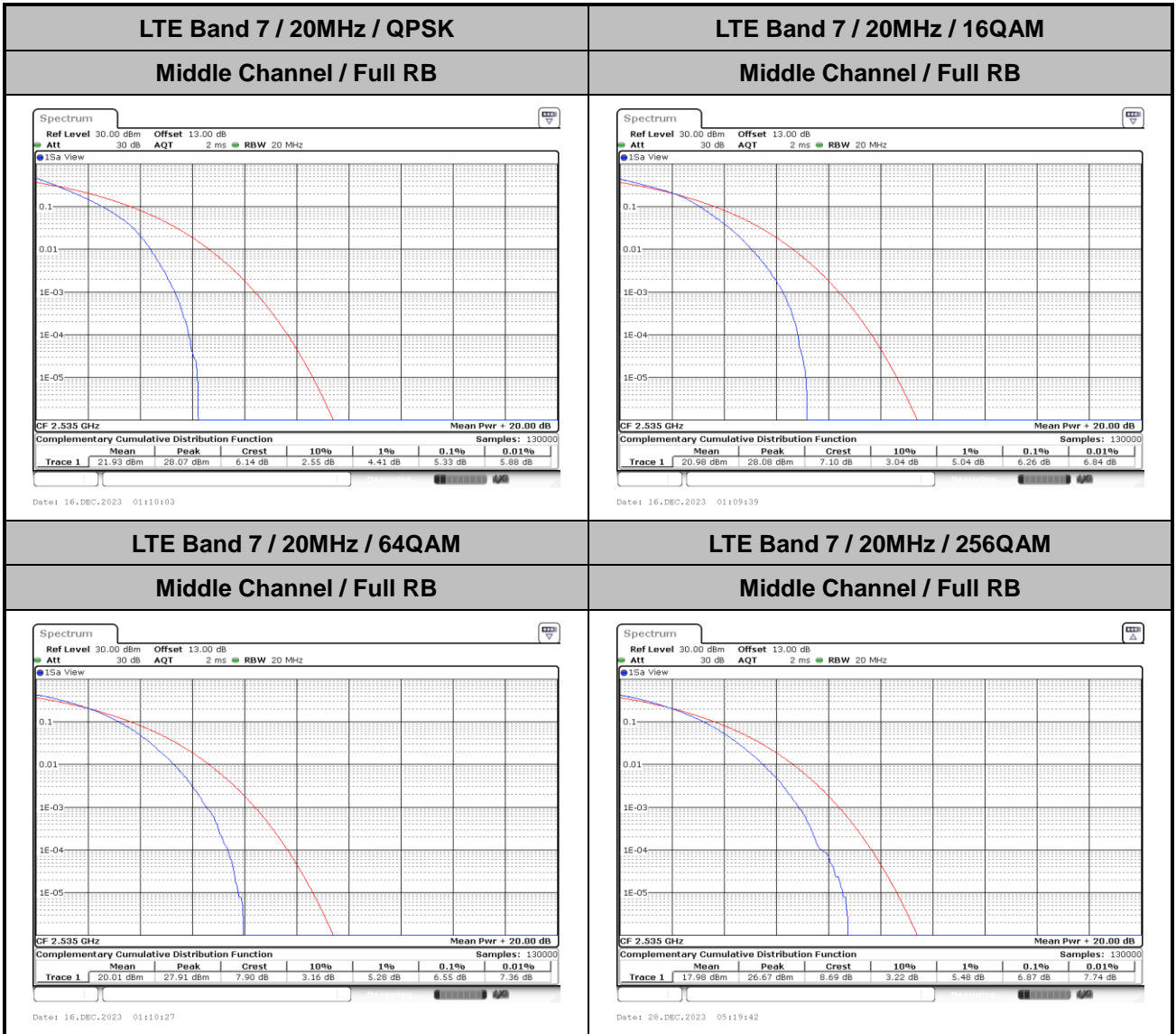




LTE Band 7

Peak-to-Average Ratio

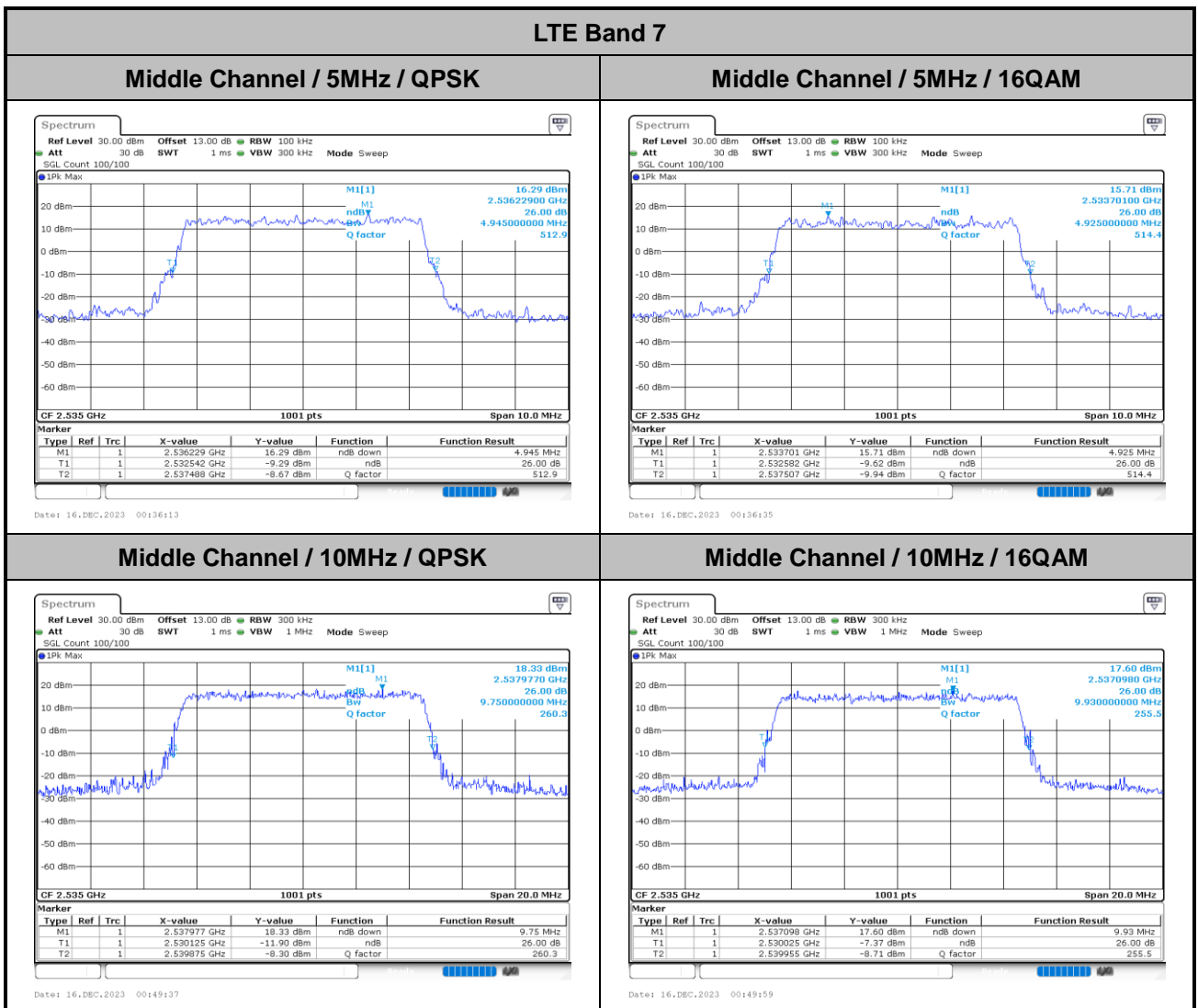
Mode	LTE Band 7 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.33	6.26	6.55	6.87	PASS





26dB Bandwidth

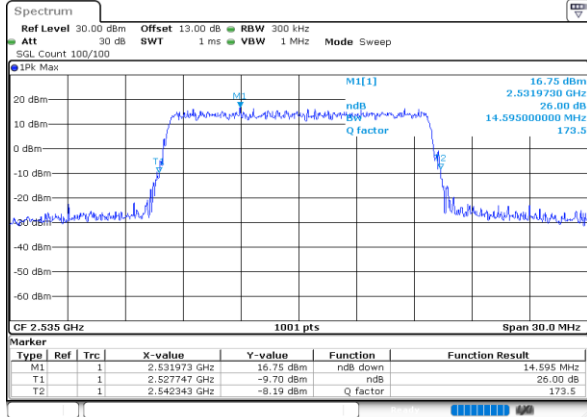
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.94	4.92	9.75	9.92	14.59	14.47	19.38	18.98
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.94	4.89	9.84	9.86	14.47	14.32	19.26	19.02





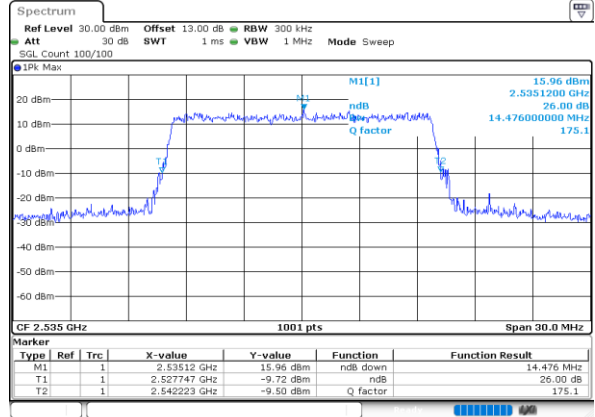
LTE Band 7

Middle Channel / 15MHz / QPSK



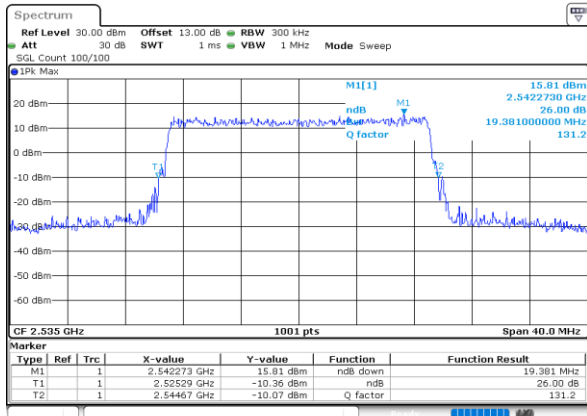
Date: 16.DEC.2023 00:57:08

Middle Channel / 15MHz / 16QAM



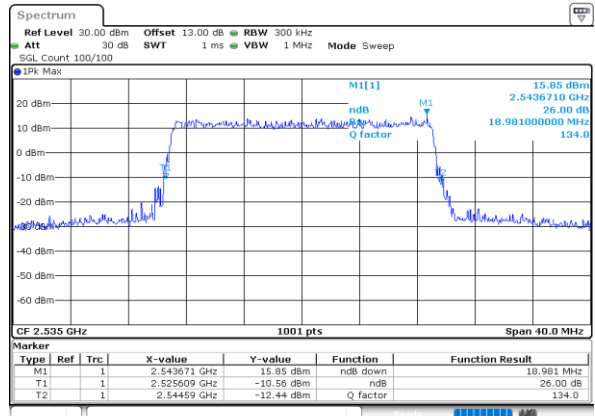
Date: 16.DEC.2023 00:57:31

Middle Channel / 20MHz / QPSK



Date: 16.DEC.2023 01:04:39

Middle Channel / 20MHz / 16QAM

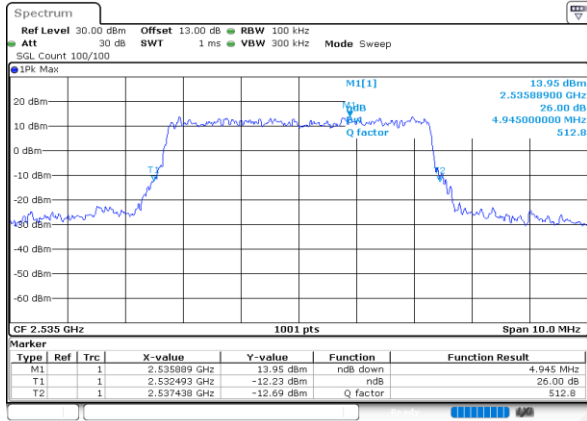


Date: 16.DEC.2023 01:05:01



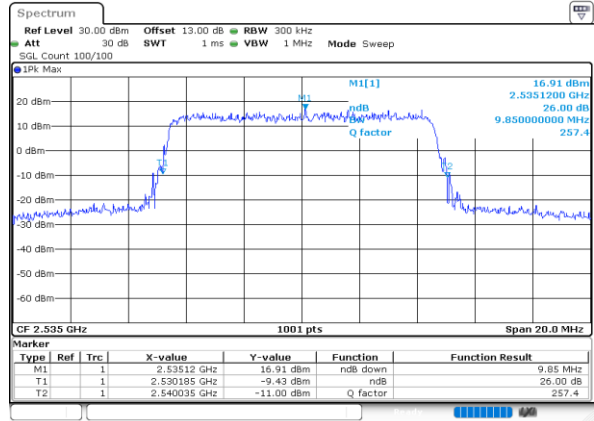
LTE Band 7

Middle Channel / 5MHz / 64QAM



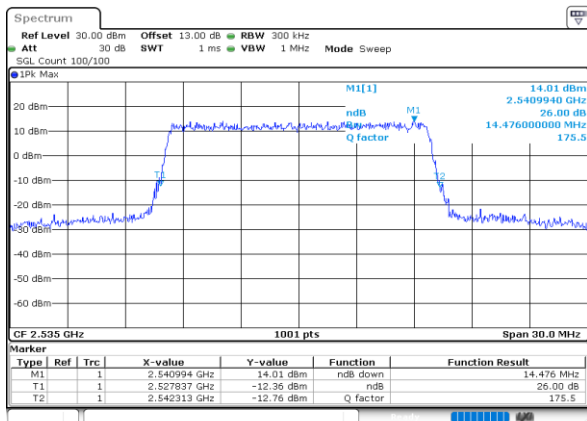
Date: 16.DEC.2023 00:44:57

Middle Channel / 10MHz / 64QAM



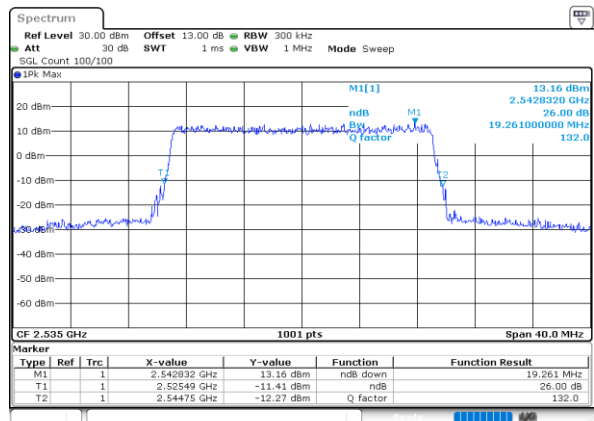
Date: 16.DEC.2023 00:15:21

Middle Channel / 15MHz / 64QAM



Date: 16.DEC.2023 01:00:53

Middle Channel / 20MHz / 64QAM

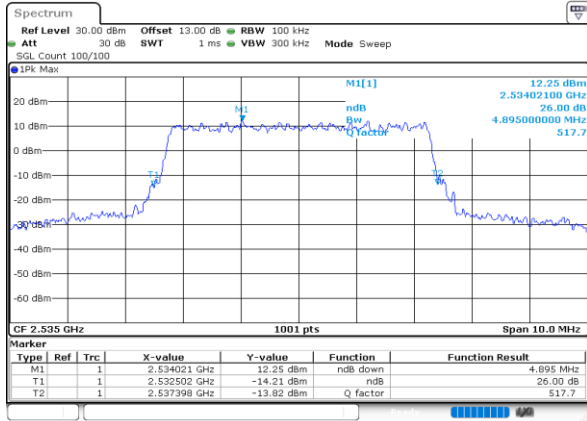


Date: 16.DEC.2023 01:08:24



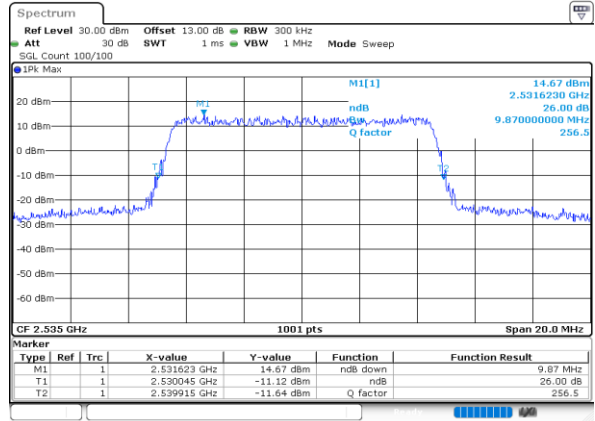
LTE Band 7

Middle Channel / 5MHz / 256QAM



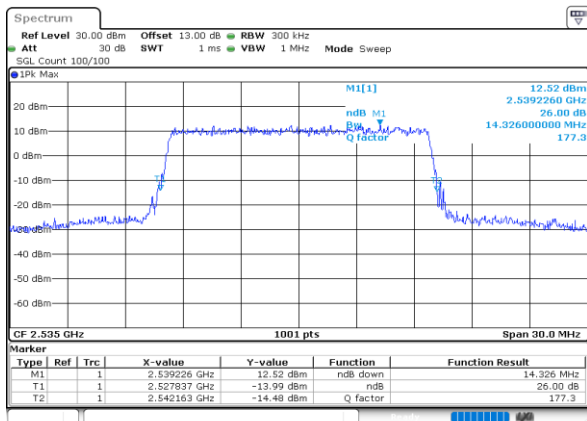
Date: 16.DEC.2023 01:13:18

Middle Channel / 10MHz / 256QAM



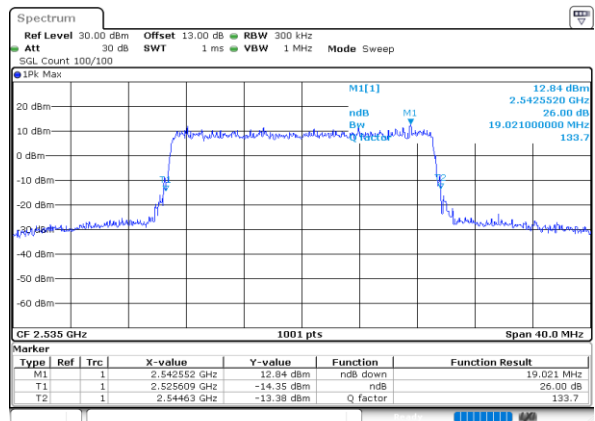
Date: 16.DEC.2023 01:13:129

Middle Channel / 15MHz / 256QAM



Date: 16.DEC.2023 01:13:21

Middle Channel / 20MHz / 256QAM

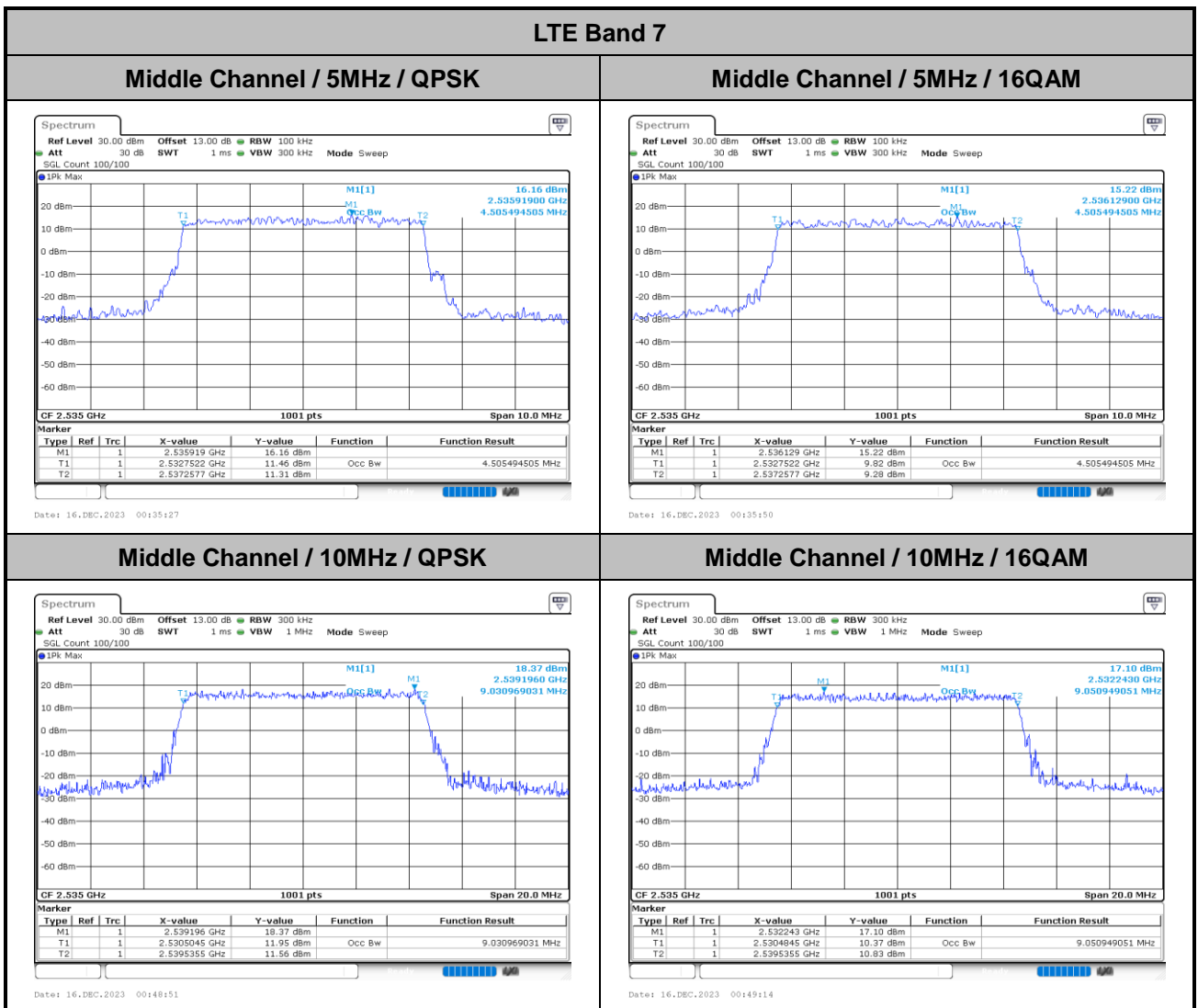


Date: 16.DEC.2023 01:14:523



Occupied Bandwidth

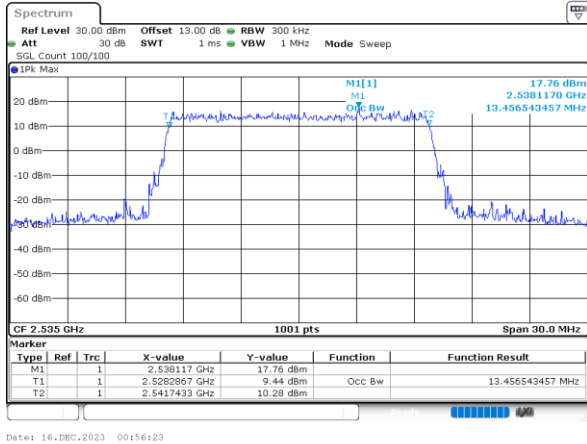
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.50	4.50	9.03	9.05	13.45	13.45	17.94	17.90
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.50	4.49	9.05	9.05	13.45	13.45	17.94	17.90



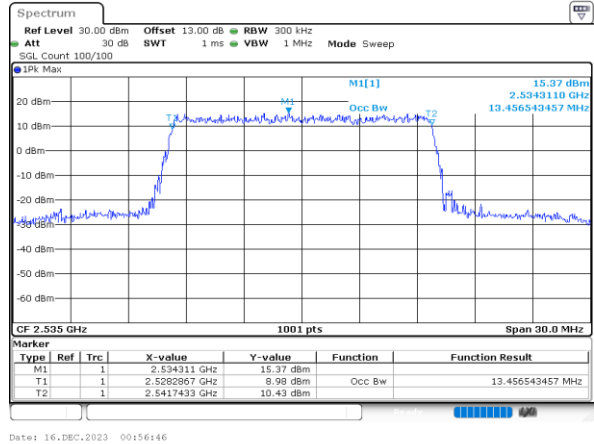


LTE Band 7

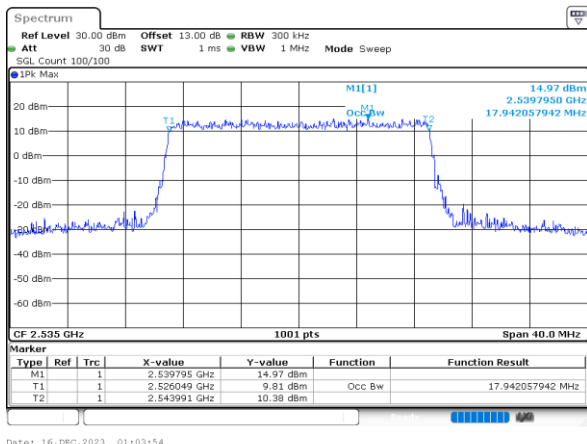
Middle Channel / 15MHz / QPSK



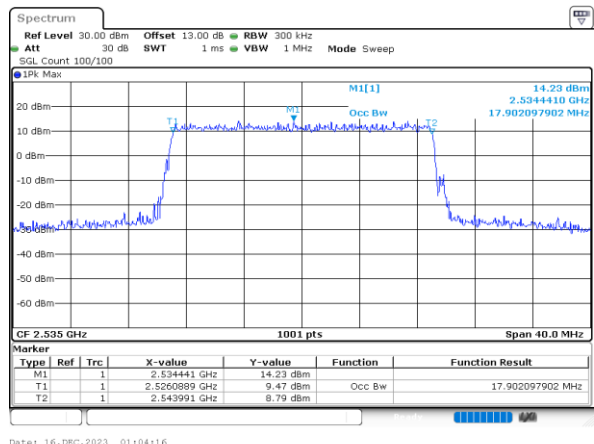
Middle Channel / 15MHz / 16QAM



Middle Channel / 20MHz / QPSK



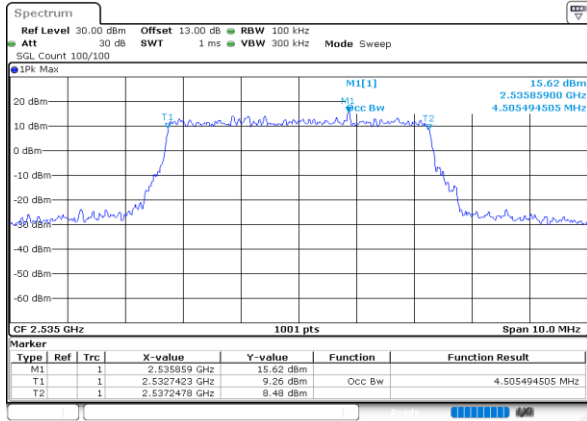
Middle Channel / 20MHz / 16QAM





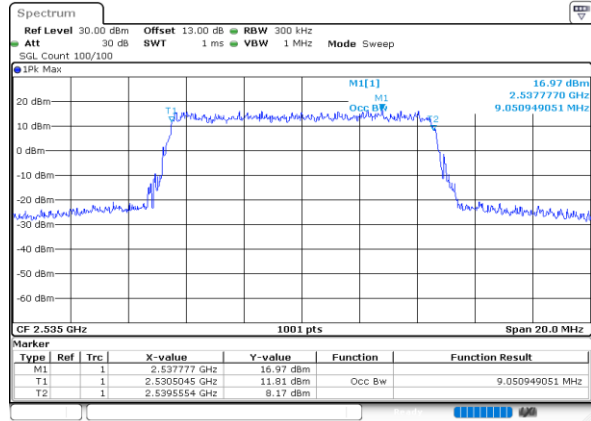
LTE Band 7

Middle Channel / 5MHz / 64QAM



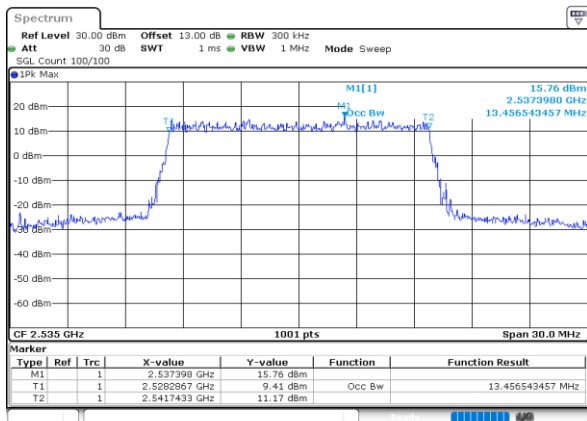
Date: 16.DEC.2023 00:44:34

Middle Channel / 10MHz / 64QAM



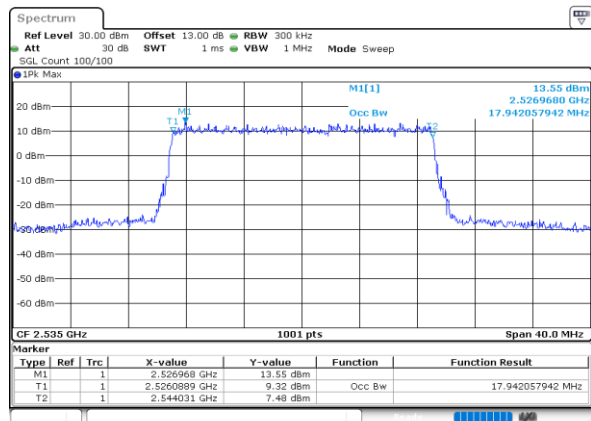
Date: 16.DEC.2023 00:52:59

Middle Channel / 15MHz / 64QAM



Date: 16.DEC.2023 01:00:30

Middle Channel / 20MHz / 64QAM

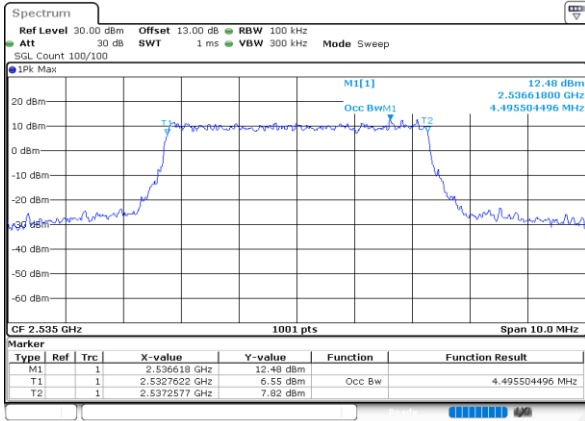


Date: 16.DEC.2023 01:08:01



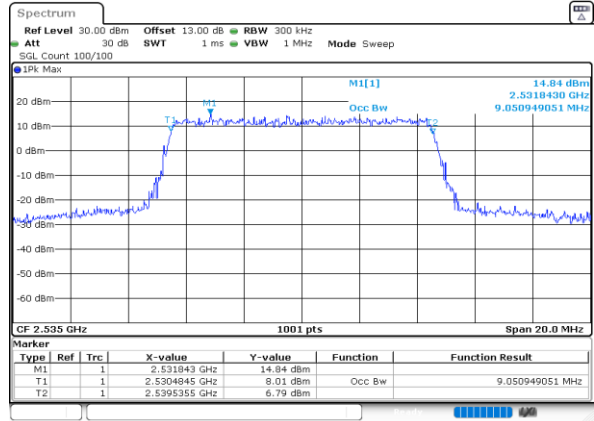
LTE Band 7

Middle Channel / 5MHz / 256QAM



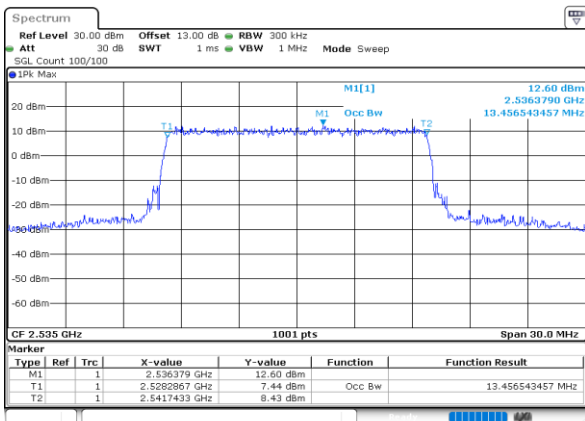
Date: 16.DEC.2023 01:12:56

Middle Channel / 10MHz / 256QAM



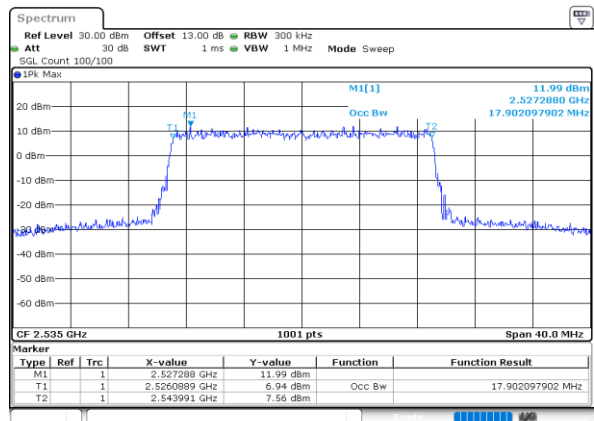
Date: 28.DEC.2023 05:13:20

Middle Channel / 15MHz / 256QAM



Date: 16.DEC.2023 01:38:59

Middle Channel / 20MHz / 256QAM



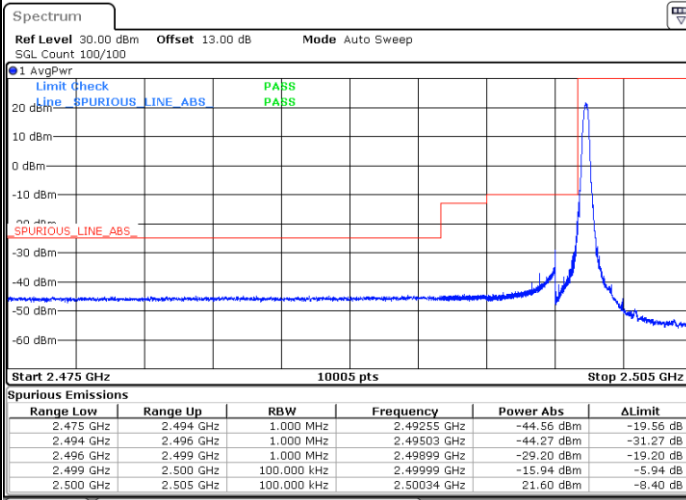
Date: 16.DEC.2023 01:43:51



Conducted Band Edge

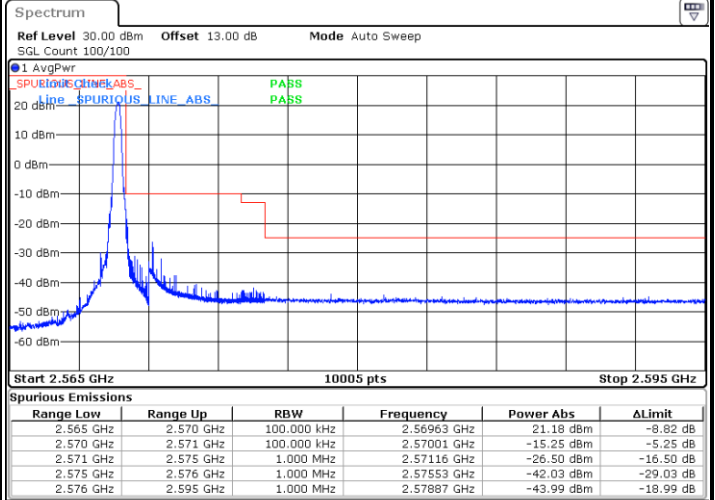
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



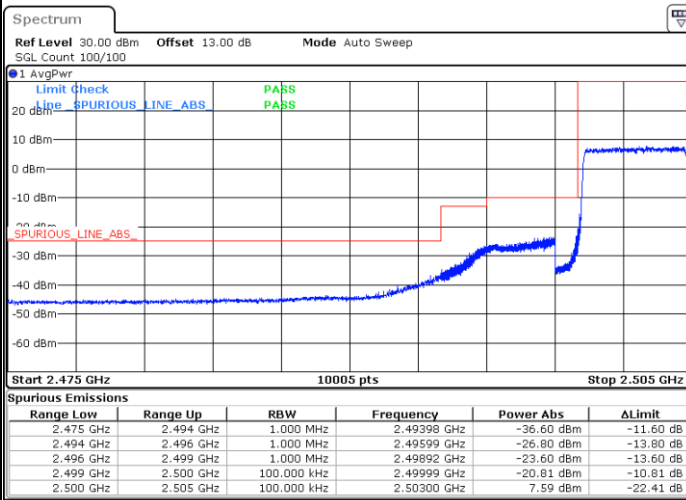
Date: 16.DEC.2023 00:31:15

Highest Band Edge / 1 RB



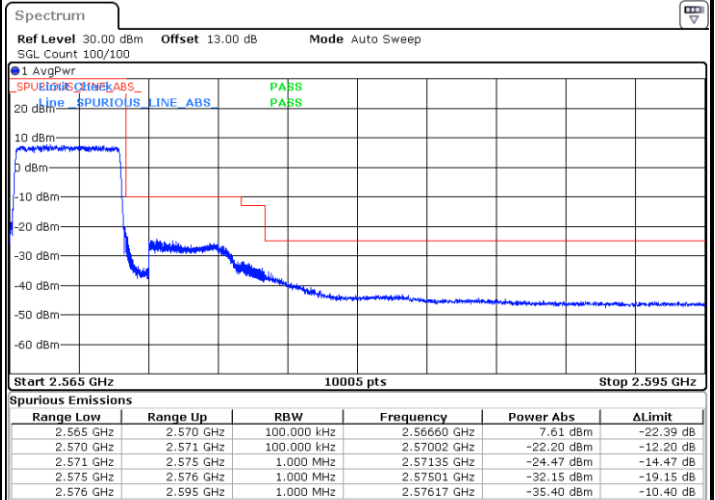
Date: 16.DEC.2023 00:38:38

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:33:00

Highest Band Edge / Full RB

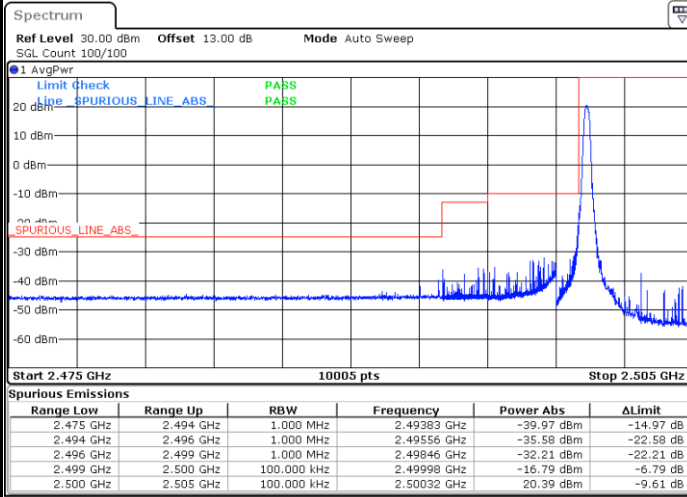


Date: 16.DEC.2023 00:40:22



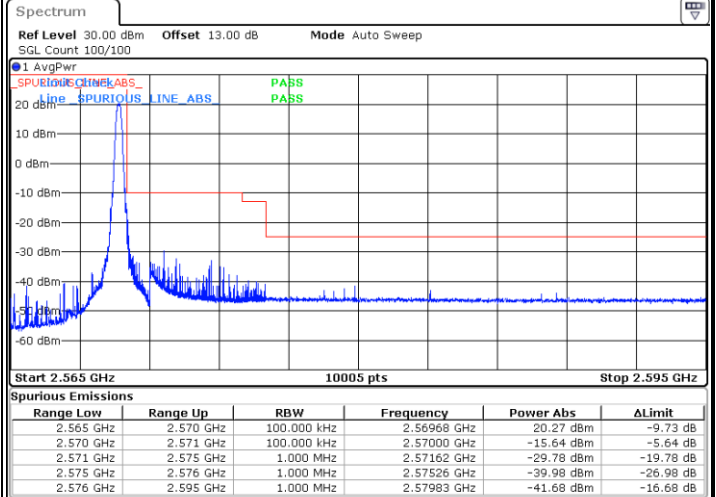
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



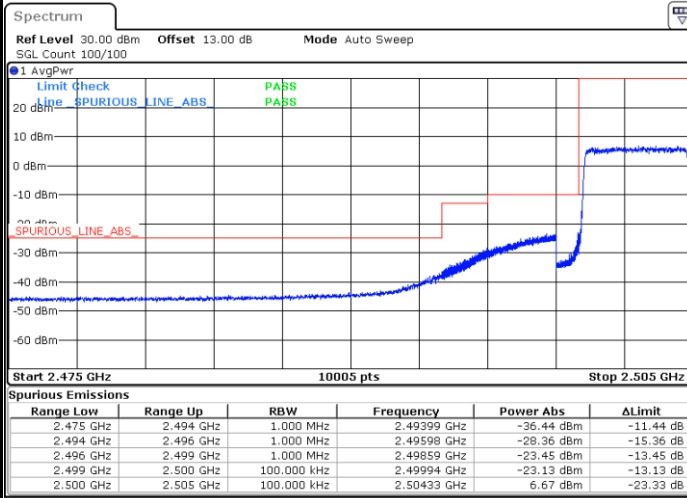
Date: 16.DEC.2023 00:32:07

Highest Band Edge / 1 RB



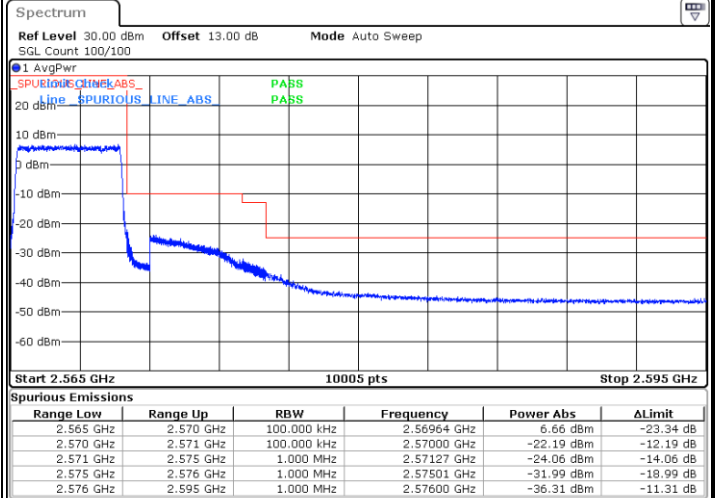
Date: 16.DEC.2023 00:39:30

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:33:52

Highest Band Edge / Full RB

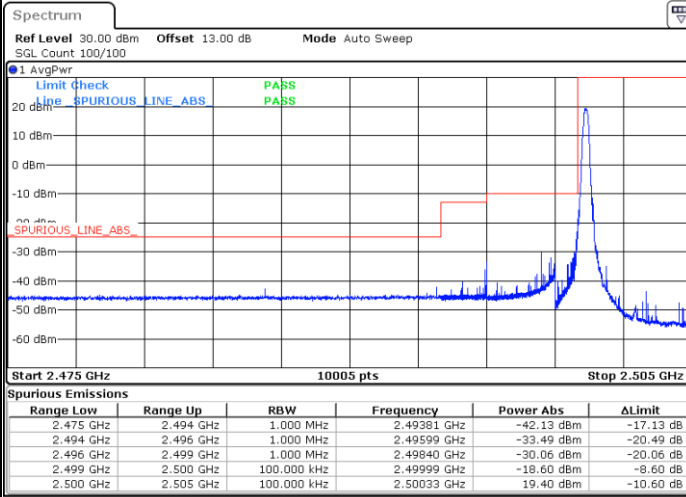


Date: 16.DEC.2023 00:41:15



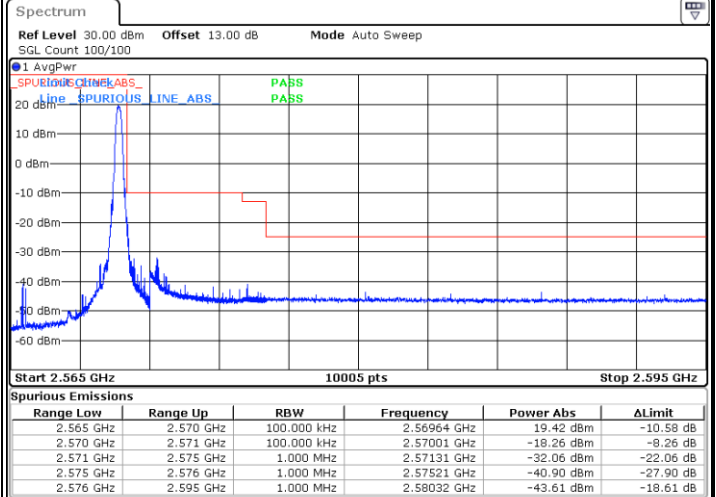
LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB



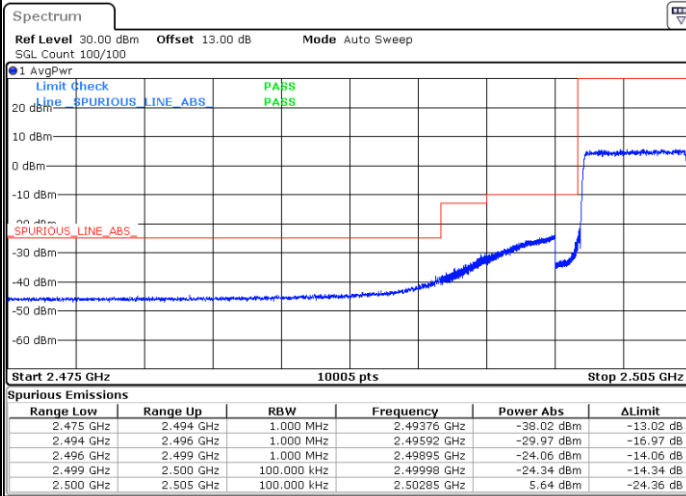
Date: 16.DEC.2023 00:43:18

Highest Band Edge / 1 RB



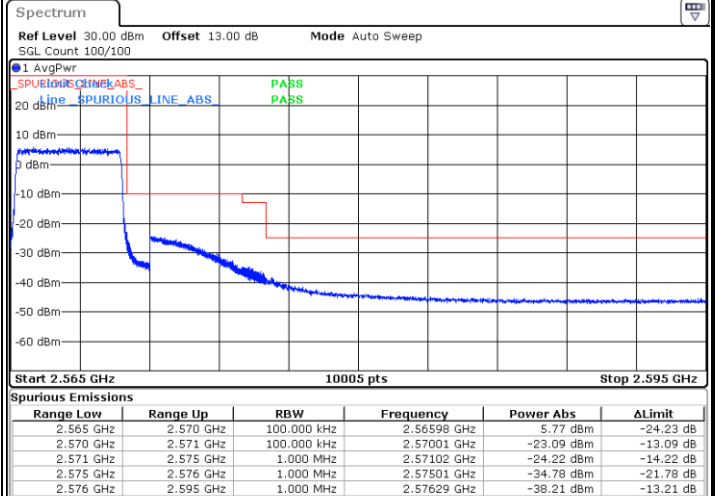
Date: 16.DEC.2023 00:45:49

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:44:11

Highest Band Edge / Full RB

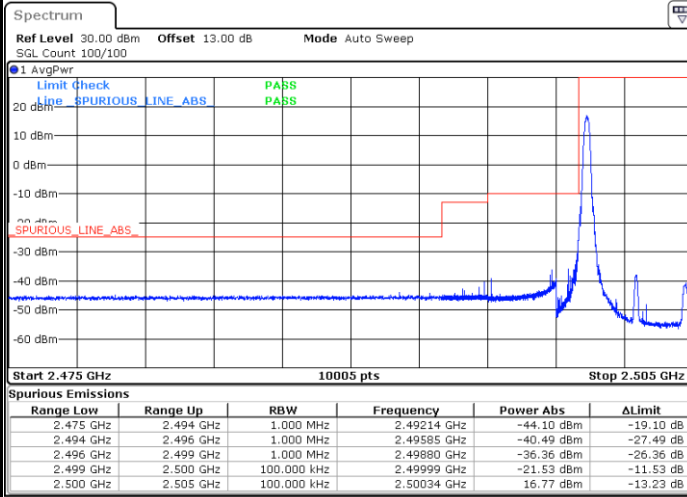


Date: 16.DEC.2023 00:46:41



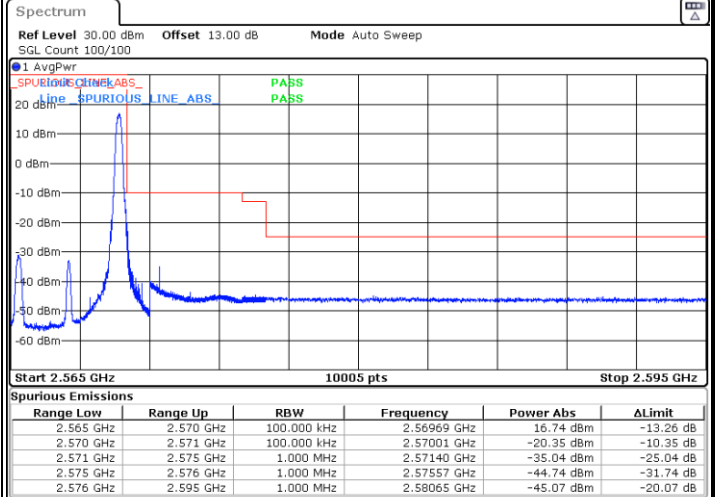
LTE Band 7 / 5MHz / 256QAM

Lowest Band Edge / 1RB



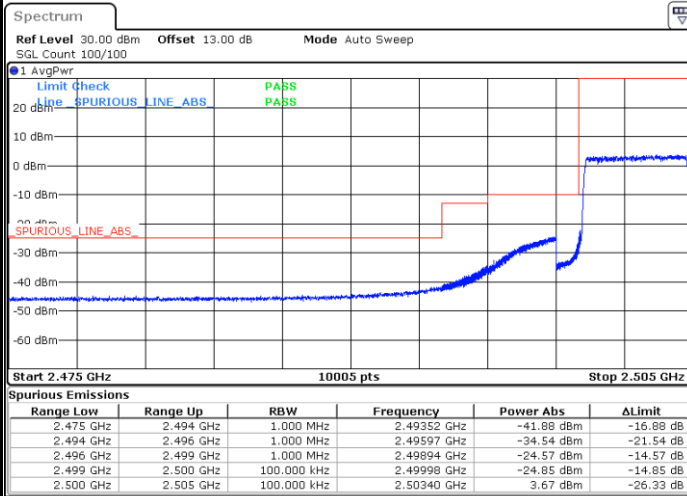
Date: 16.DEC.2023 01:11:20

Highest Band Edge / 1 RB



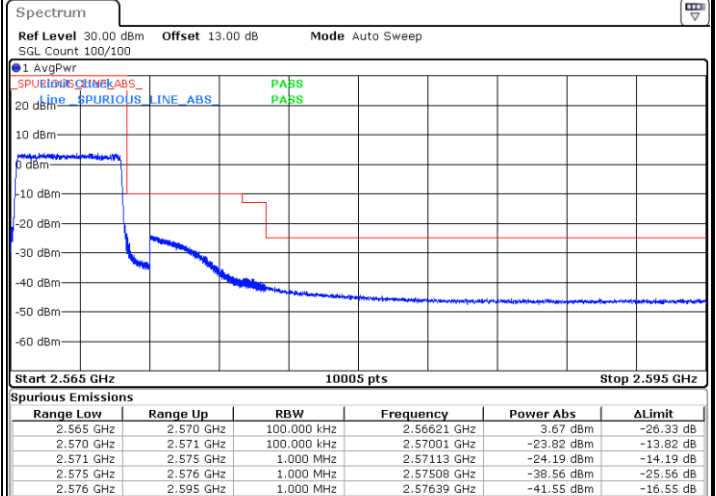
Date: 28.DEC.2023 05:11:43

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:12:15

Highest Band Edge / Full RB

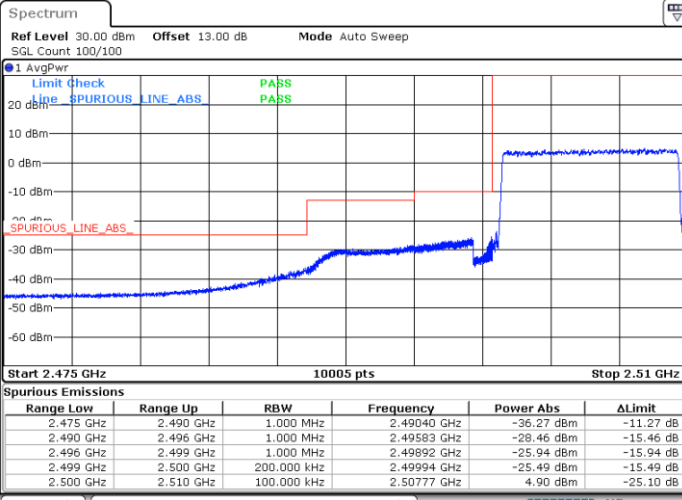


Date: 16.DEC.2023 01:32:43



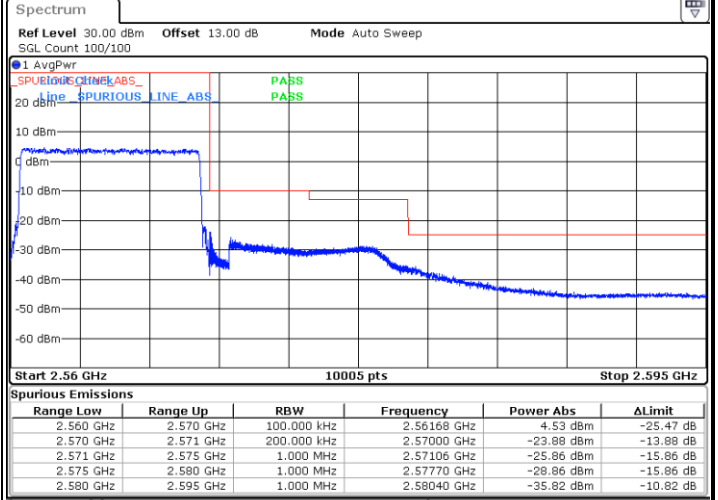
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:47:35

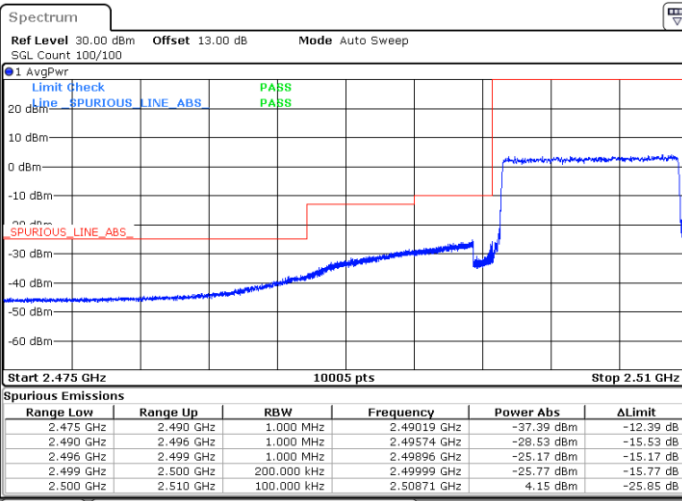
Highest Band Edge / Full RB



Date: 16.DEC.2023 00:50:51

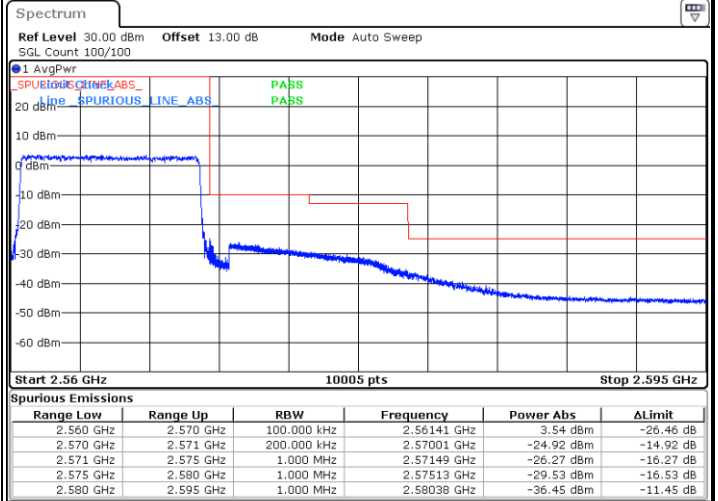
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:48:28

Highest Band Edge / Full RB

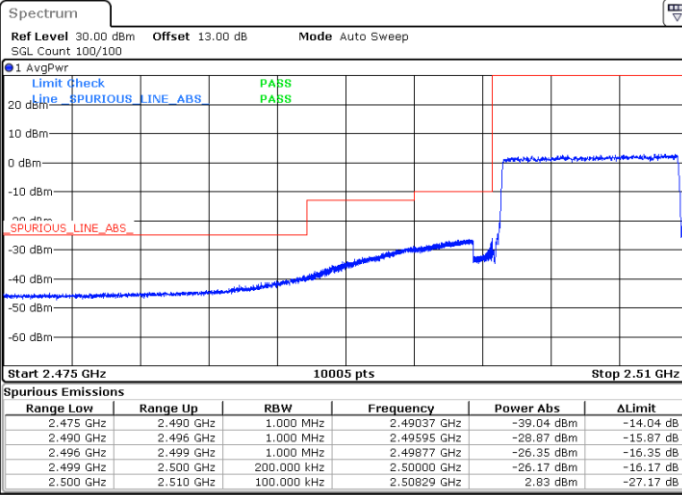


Date: 16.DEC.2023 00:51:43



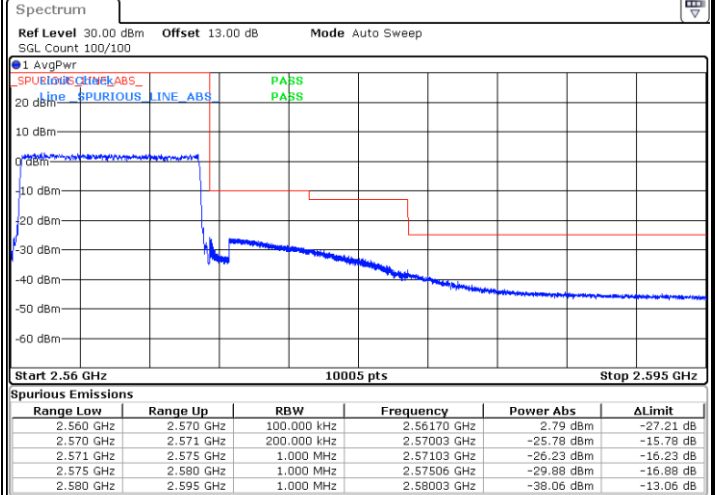
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:52:35

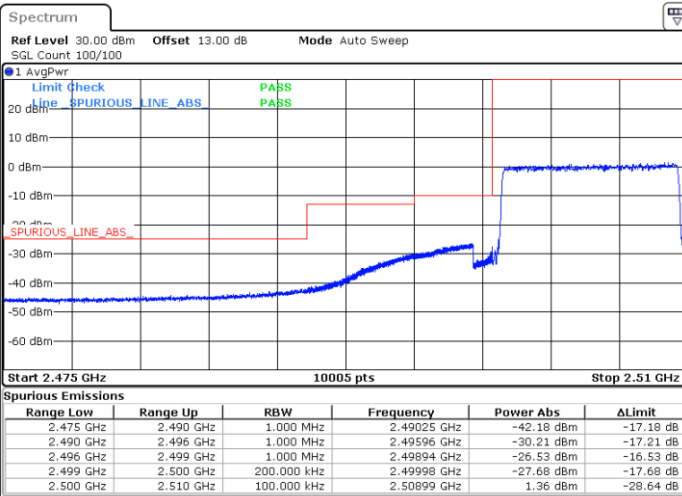
Highest Band Edge / Full RB



Date: 16.DEC.2023 00:54:13

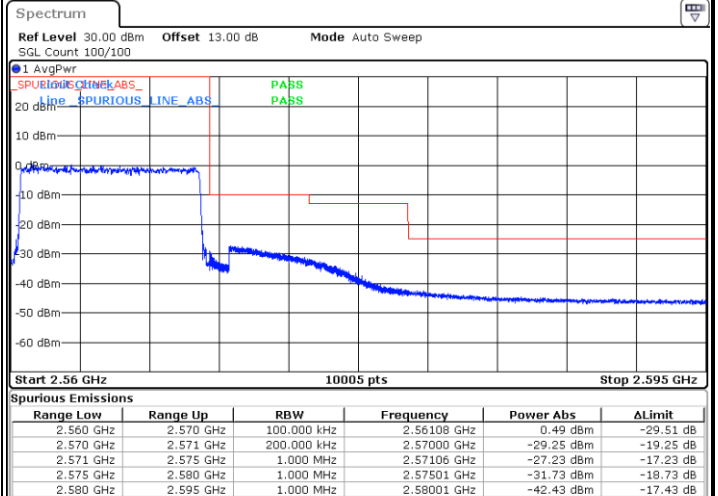
LTE Band 7 / 10MHz / 256QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:35:02

Highest Band Edge / Full RB

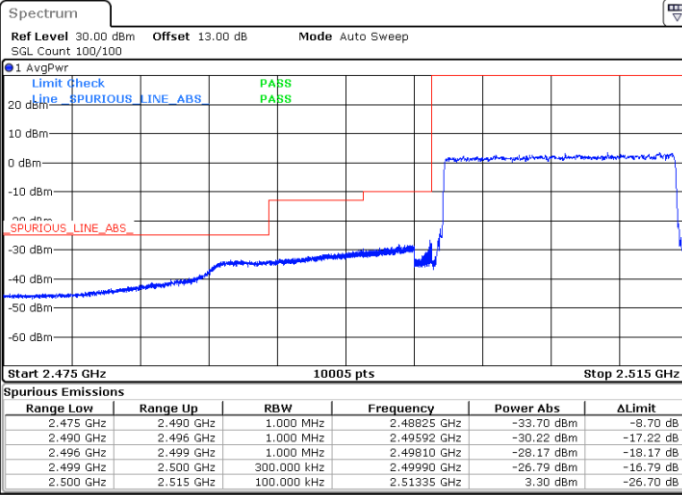


Date: 16.DEC.2023 01:37:23



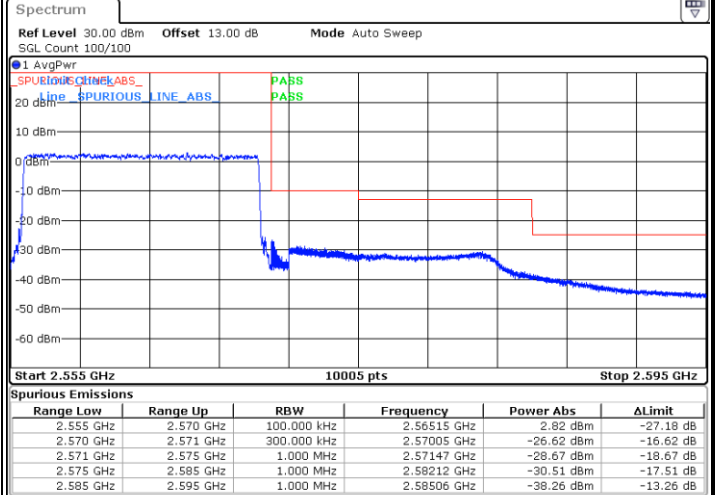
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:55:07

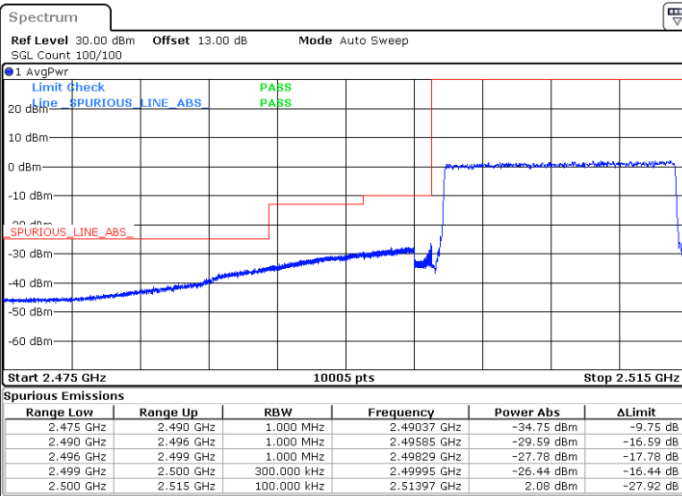
Highest Band Edge / Full RB



Date: 16.DEC.2023 00:58:22

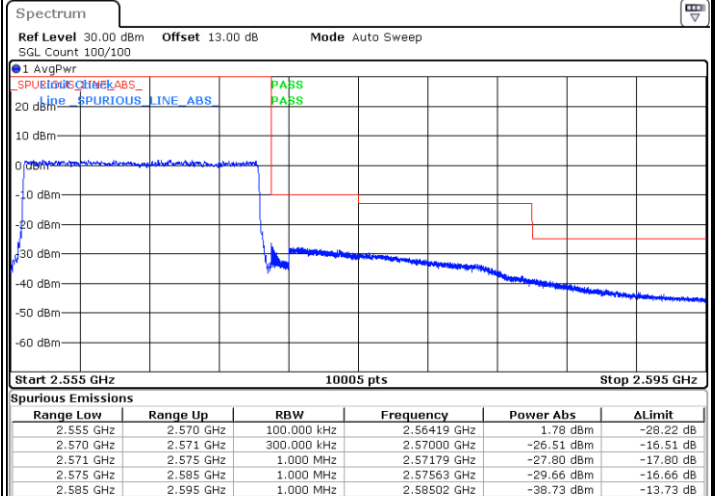
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 00:55:59

Highest Band Edge / Full RB

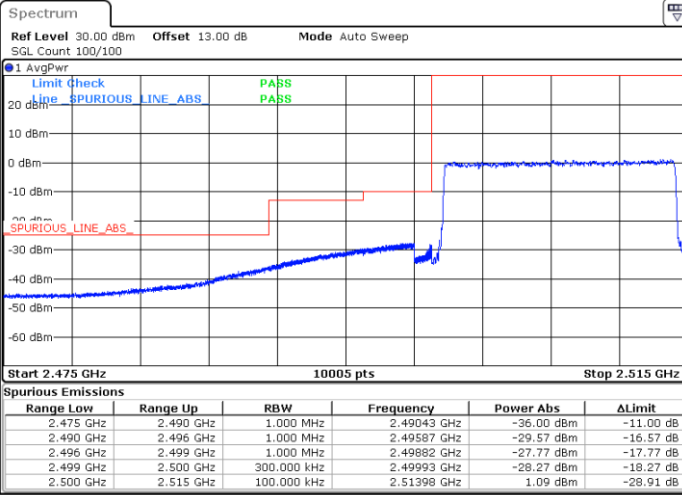


Date: 16.DEC.2023 00:59:14



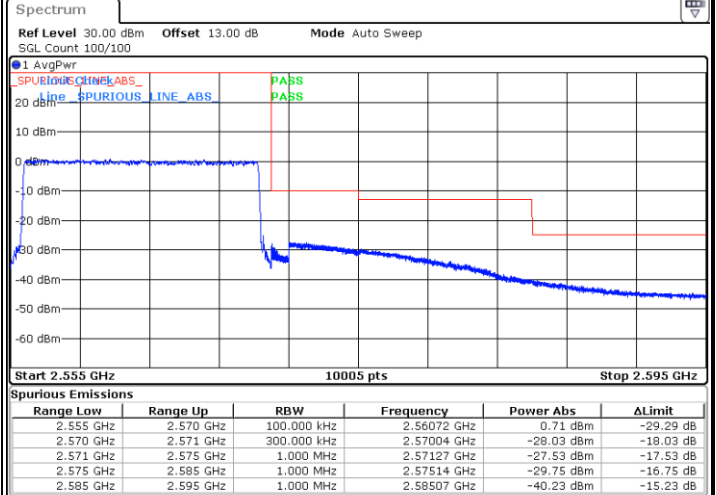
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:00:07

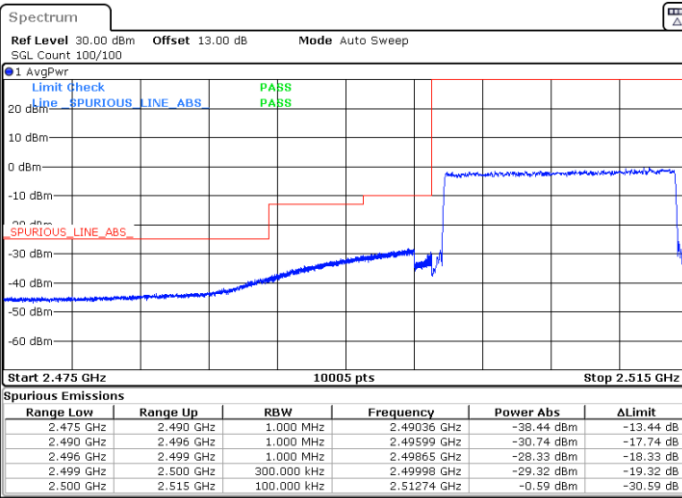
Highest Band Edge / Full RB



Date: 16.DEC.2023 01:01:44

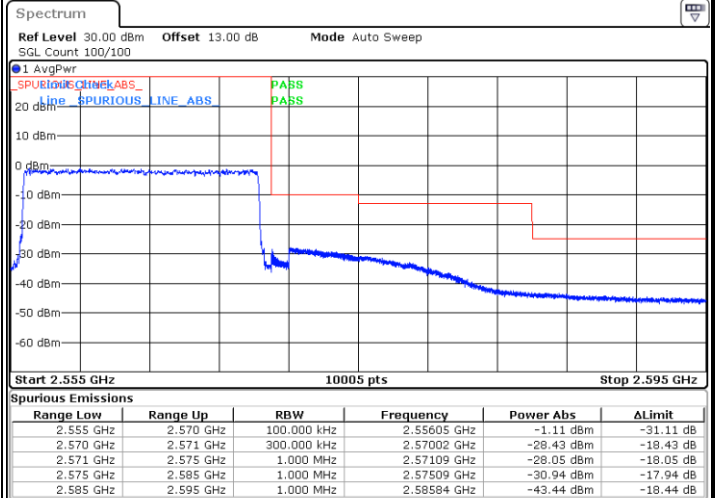
LTE Band 7 / 15MHz / 256QAM

Lowest Band Edge / Full RB



Date: 28.DEC.2023 05:18:39

Highest Band Edge / Full RB

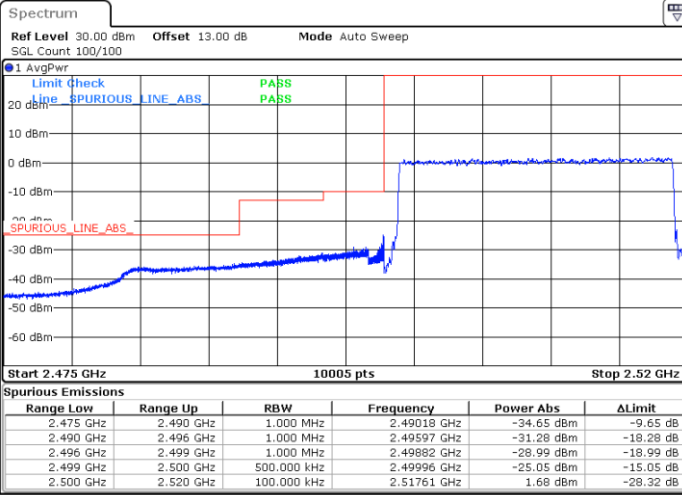


Date: 16.DEC.2023 01:41:00



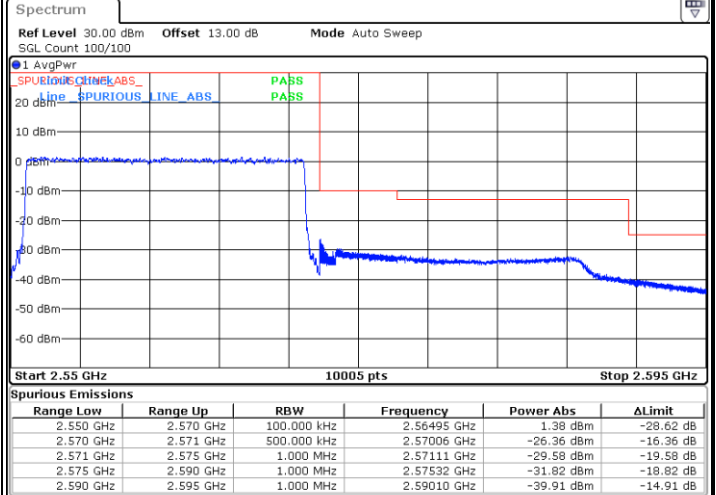
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:02:38

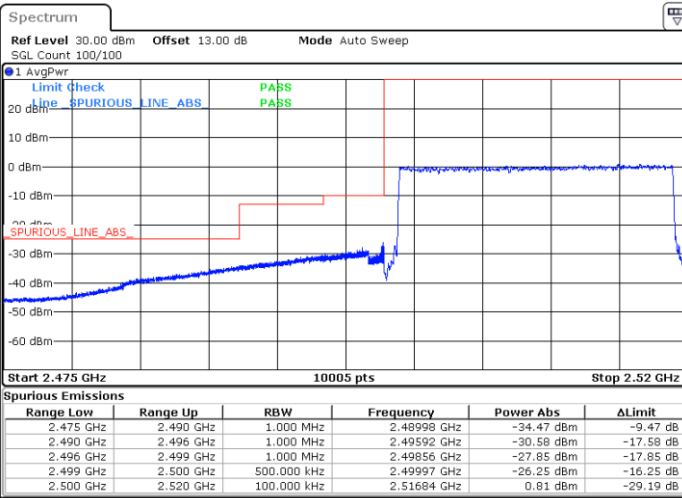
Highest Band Edge / Full RB



Date: 16.DEC.2023 01:06:45

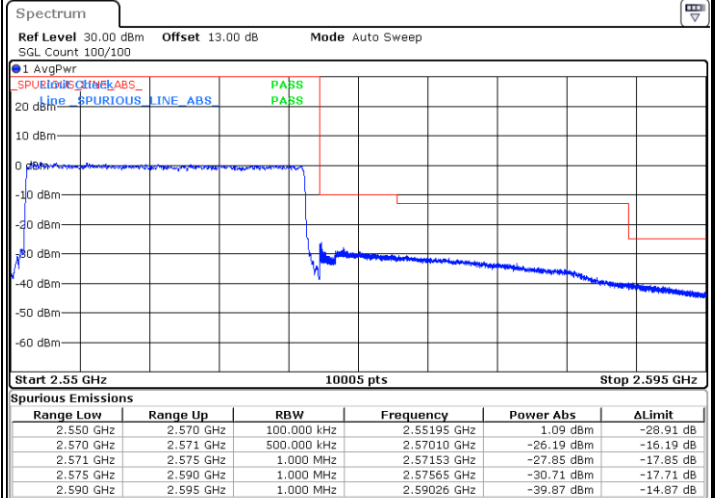
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:03:30

Highest Band Edge / Full RB

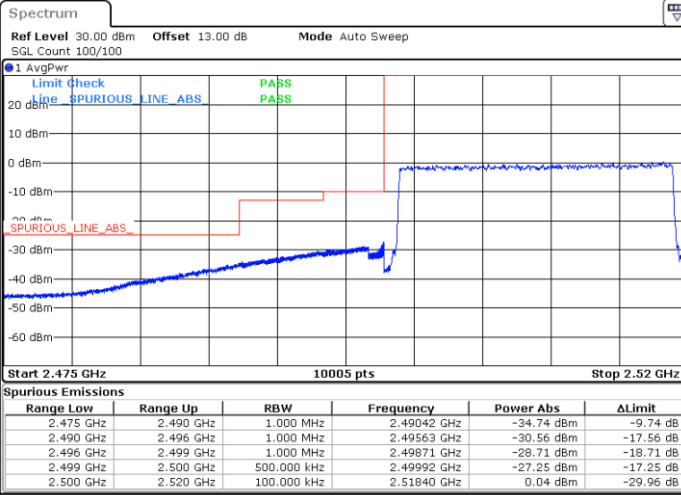


Date: 16.DEC.2023 01:05:53



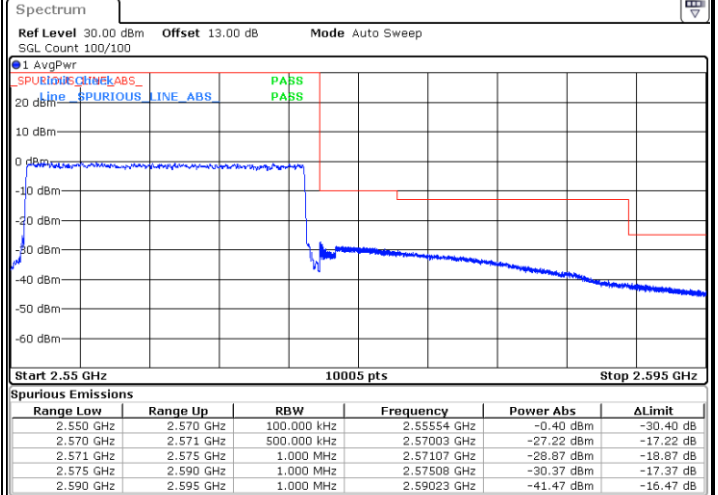
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:07:37

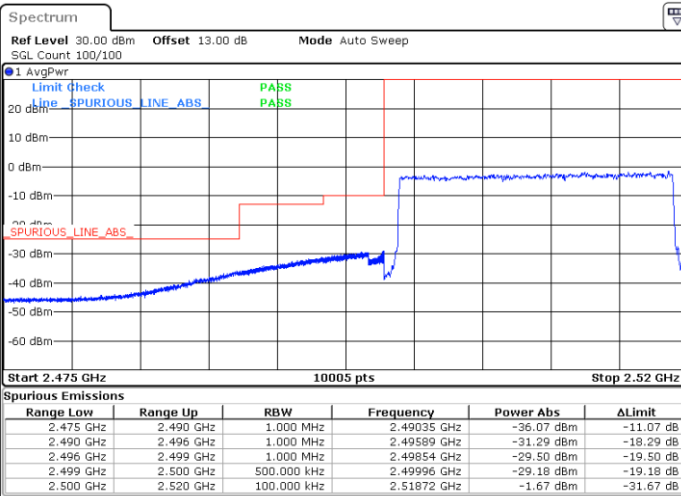
Highest Band Edge / Full RB



Date: 16.DEC.2023 01:09:15

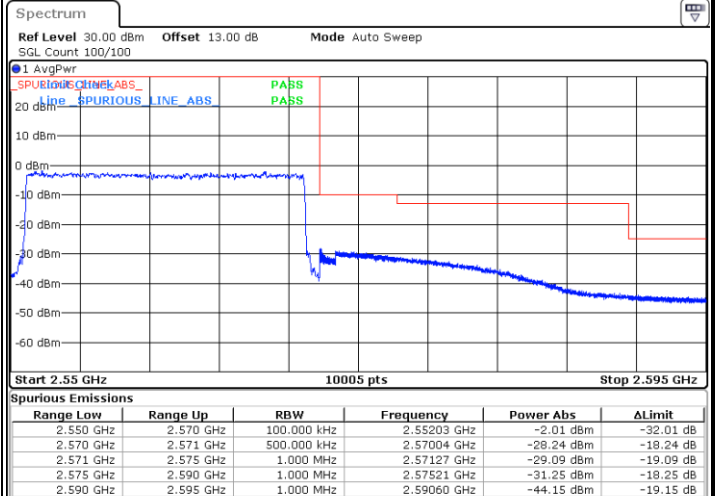
LTE Band 7 / 20MHz / 256QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 01:43:10

Highest Band Edge / Full RB



Date: 16.DEC.2023 01:48:36

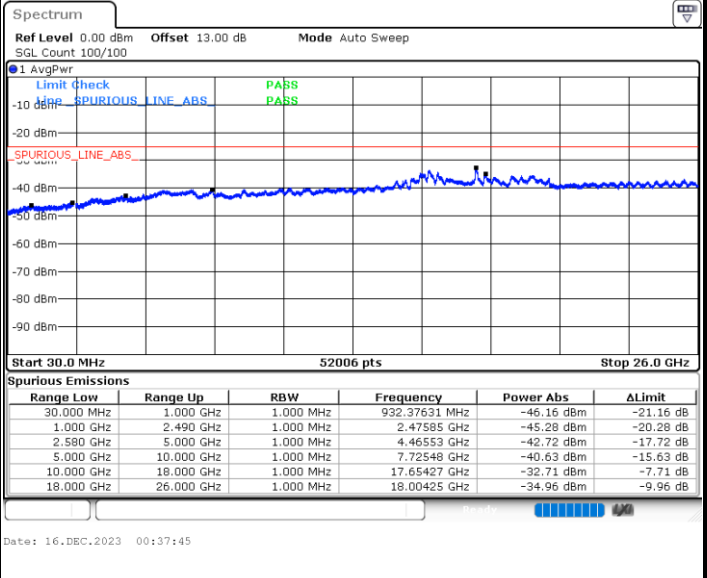
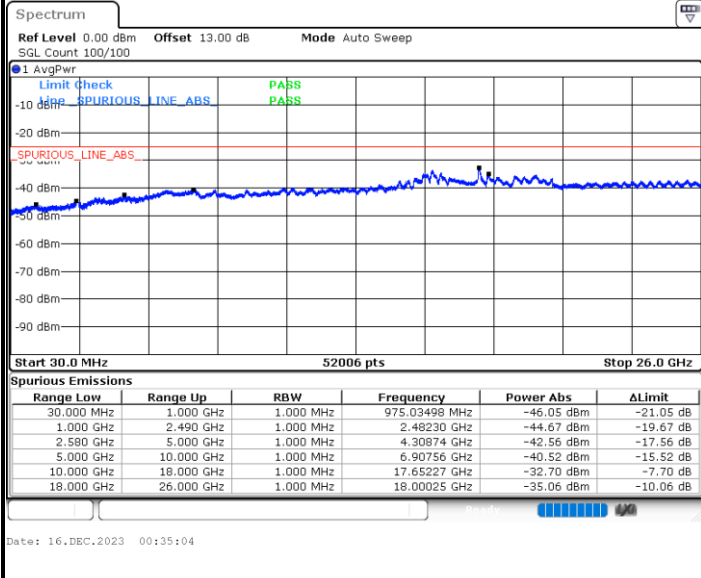


Conducted Spurious Emission

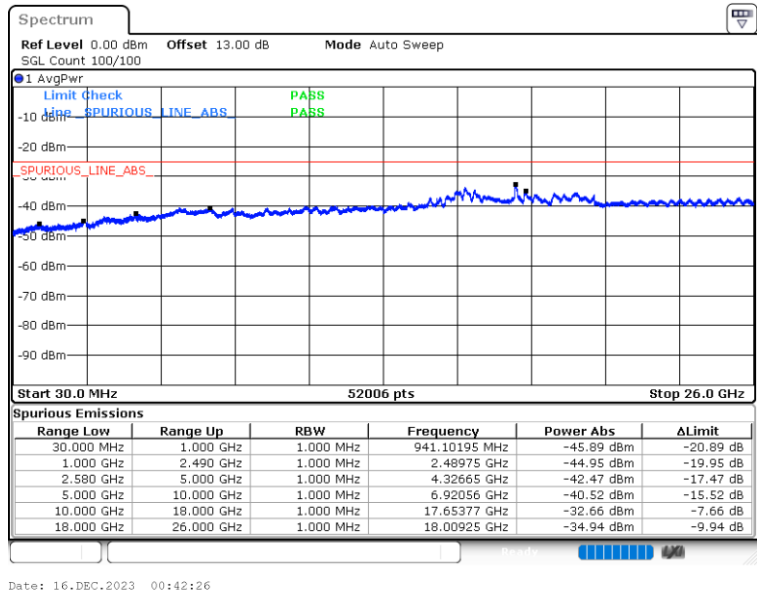
LTE Band 7 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



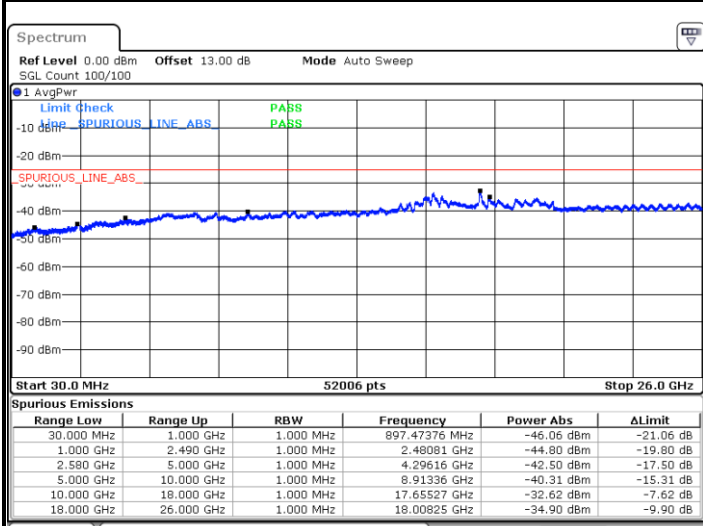
Highest Channel / QPSK





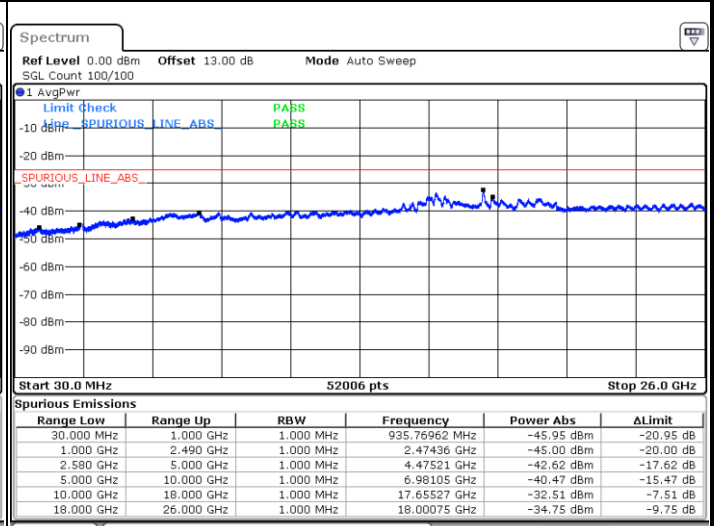
LTE Band 7 / 10MHz

Lowest Channel / QPSK



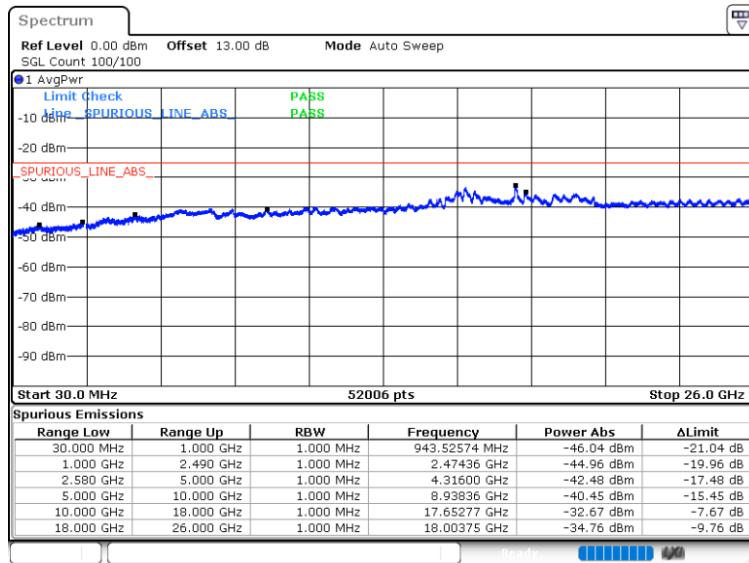
Date: 16.DEC.2023 01:50:49

Middle Channel / QPSK



Date: 16.DEC.2023 01:51:59

Highest Channel / QPSK

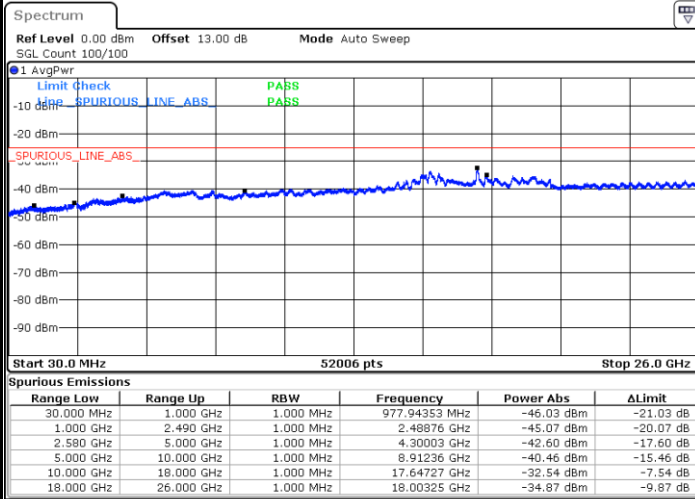


Date: 16.DEC.2023 01:53:10



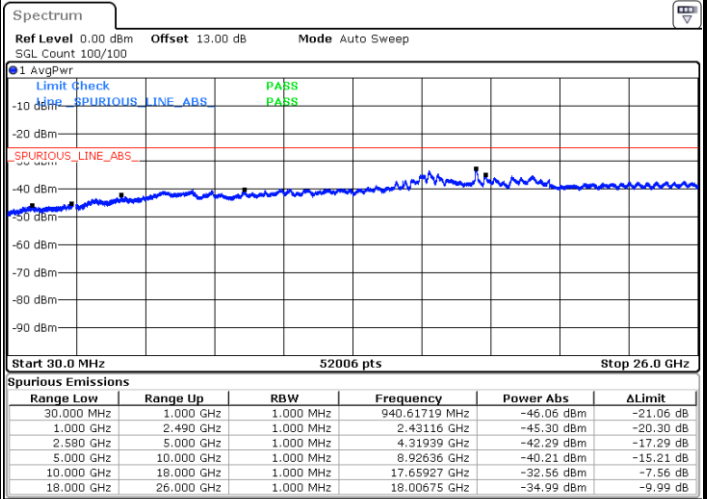
LTE Band 7 / 15MHz

Lowest Channel / QPSK



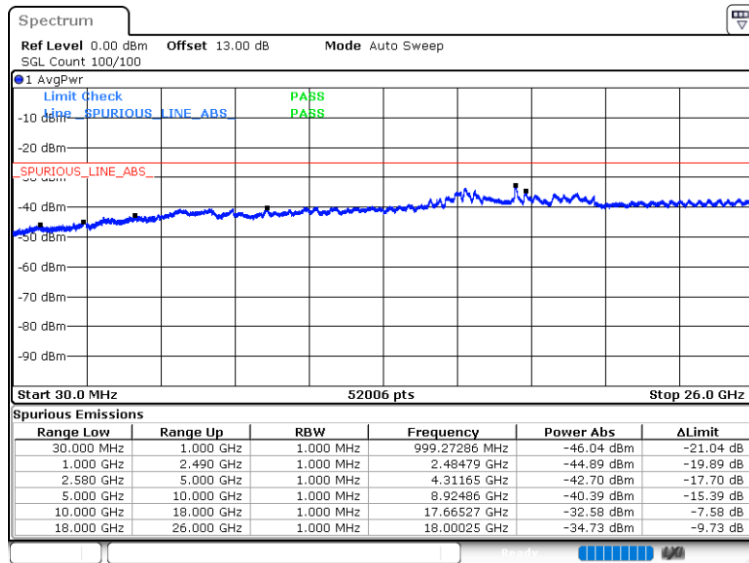
Date: 16.DEC.2023 01:54:21

Middle Channel / QPSK



Date: 16.DEC.2023 01:55:32

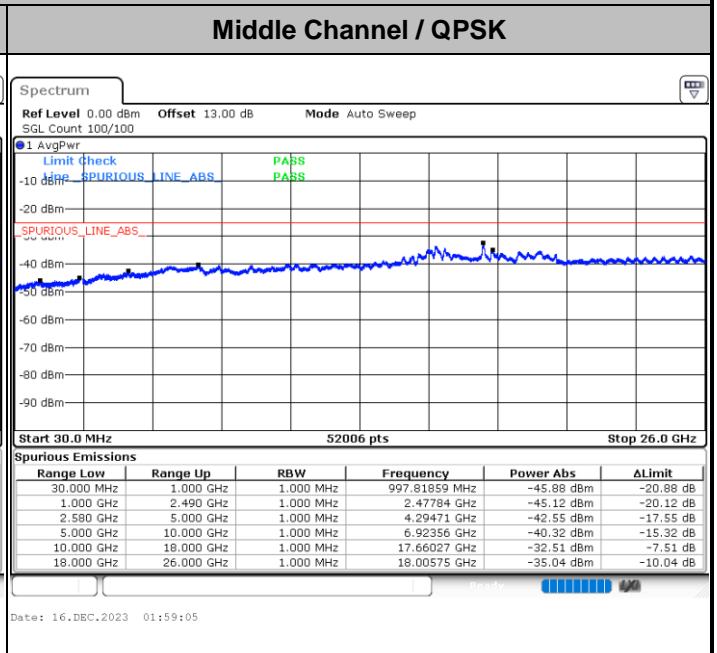
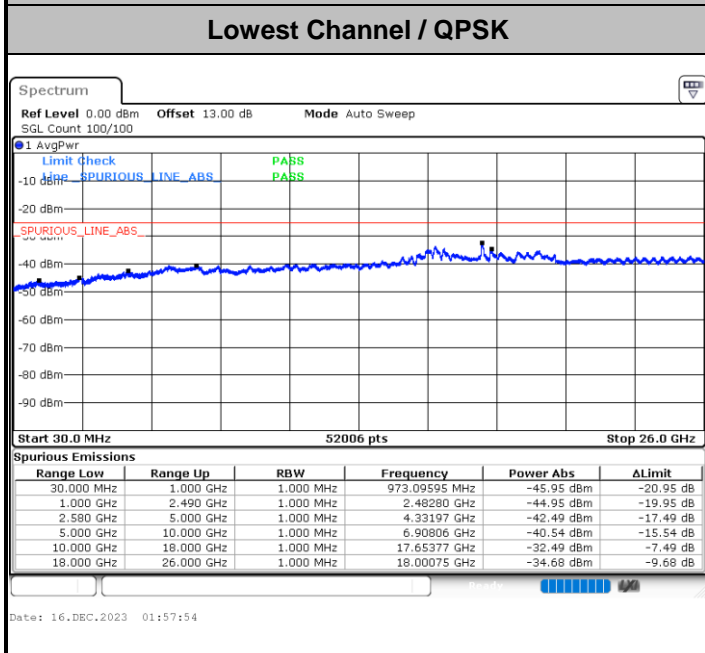
Highest Channel / QPSK



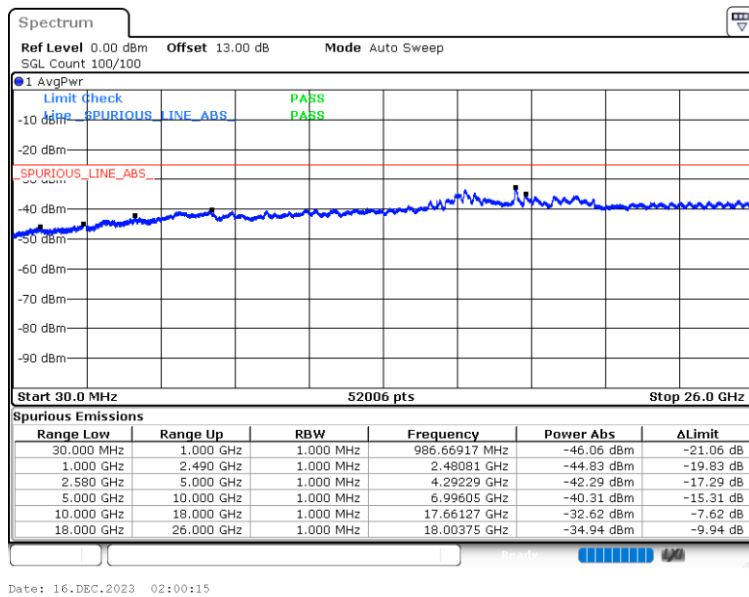
Date: 16.DEC.2023 01:56:43



LTE Band 7 / 20MHz



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0034	PASS
40	Normal Voltage	0.0060	
30	Normal Voltage	0.0023	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0029	
0	Normal Voltage	0.0071	
-10	Normal Voltage	0.0026	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0038	

Note:

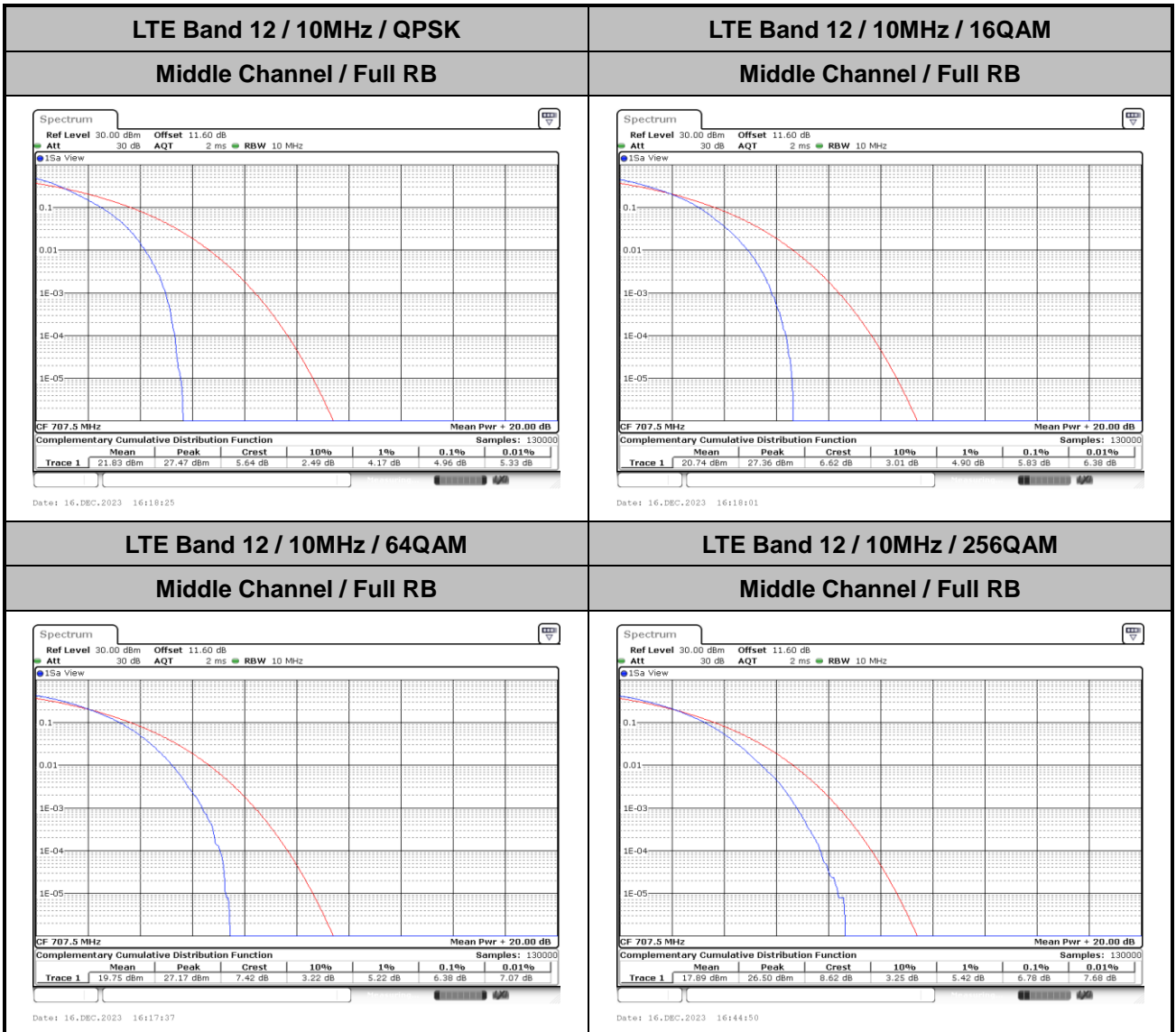
- 1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.2 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

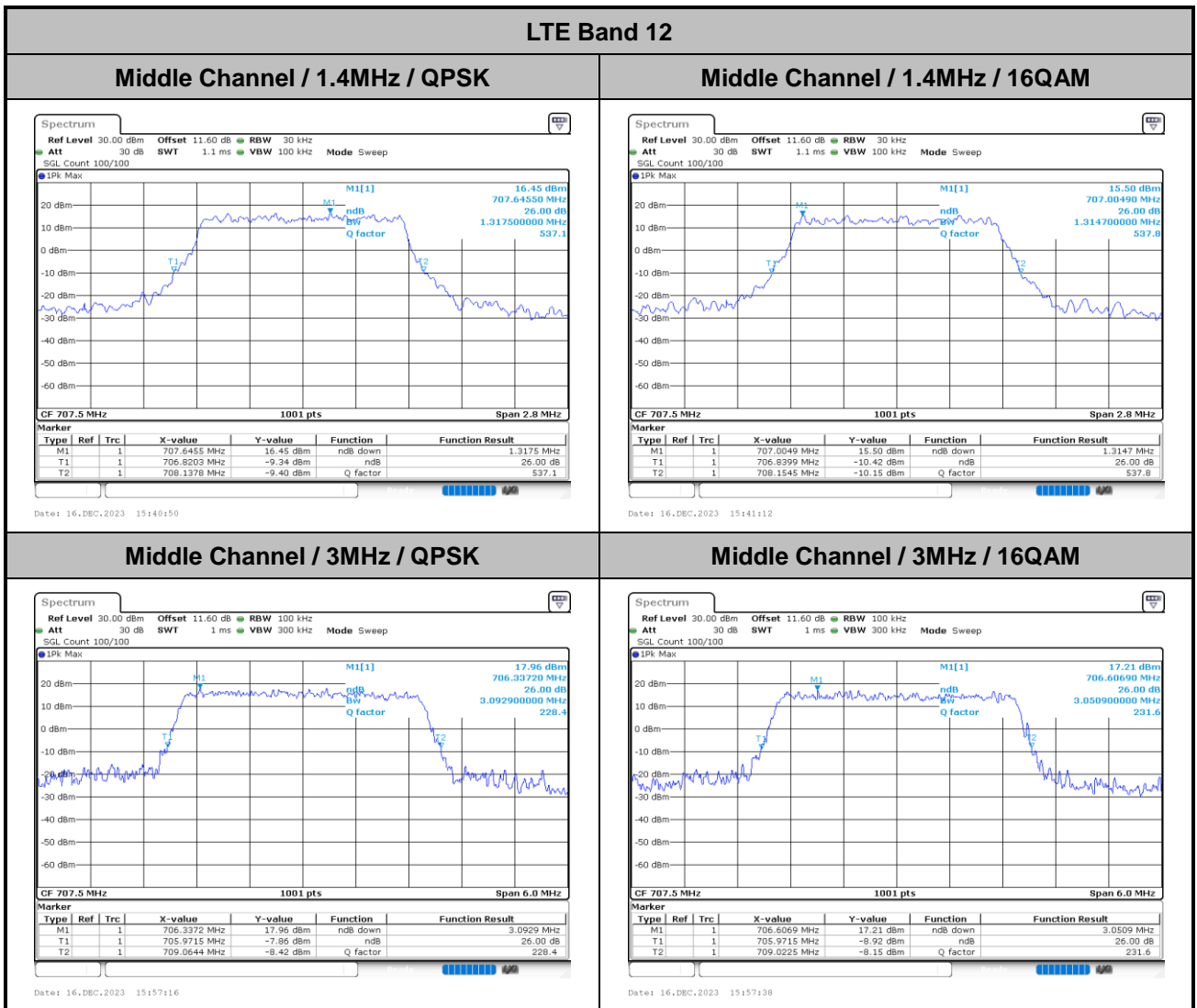
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.83	6.38	6.78	PASS





26dB Bandwidth

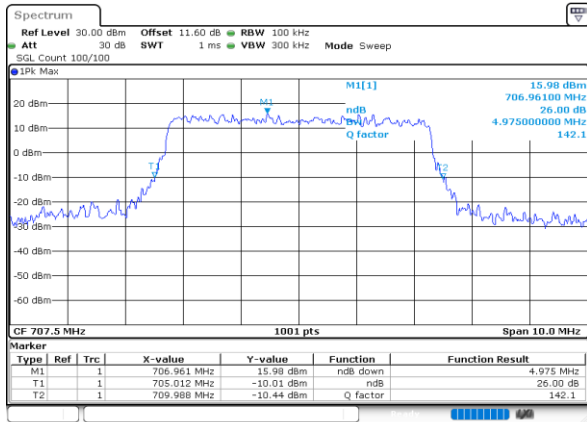
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.31	1.31	3.09	3.05	4.97	5.03	9.89	9.78	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.33	1.33	3.06	3.07	4.91	4.88	9.89	9.84	-	-	-	-





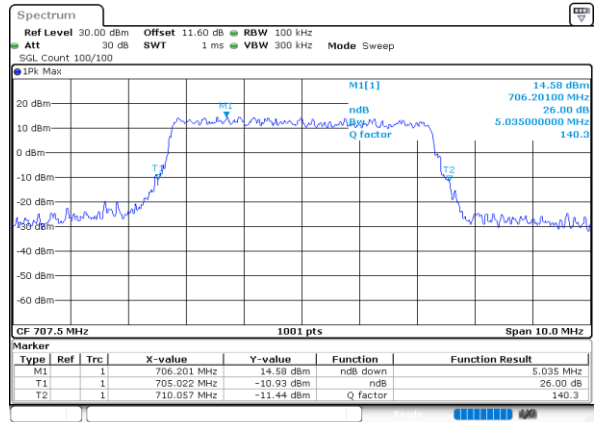
LTE Band 12

Middle Channel / 5MHz / QPSK



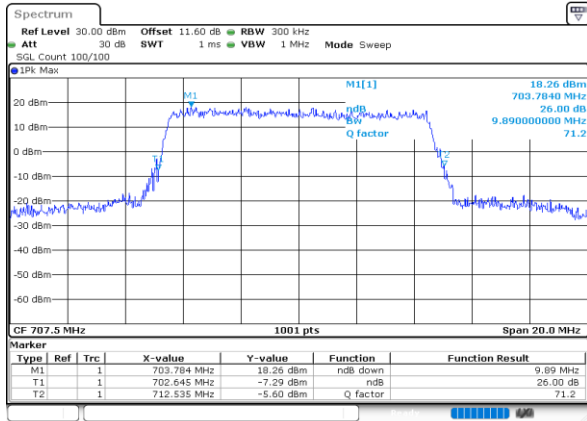
Date: 16.DEC.2023 16:07:37

Middle Channel / 5MHz / 16QAM



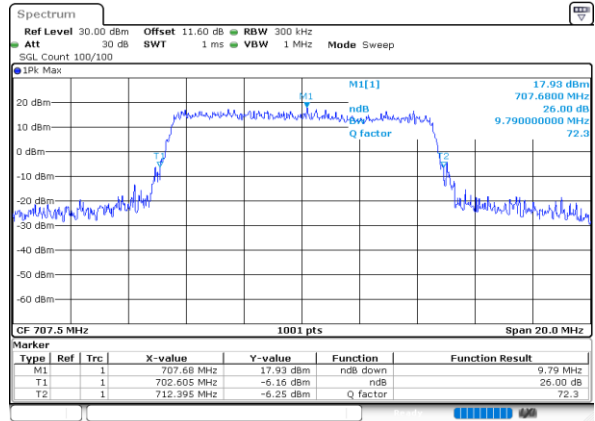
Date: 16.DEC.2023 16:07:59

Middle Channel / 10MHz / QPSK



Date: 16.DEC.2023 16:12:37

Middle Channel / 10MHz / 16QAM

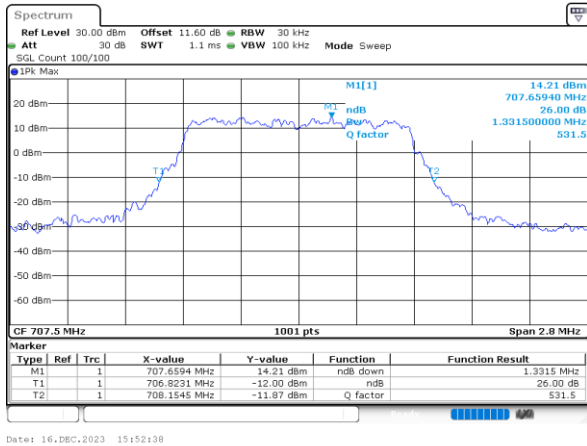


Date: 16.DEC.2023 16:13:00



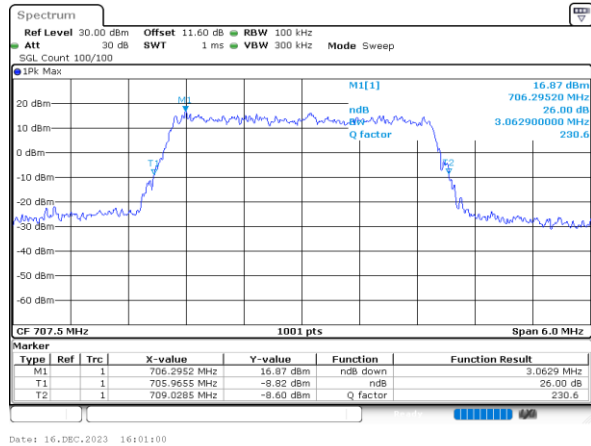
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



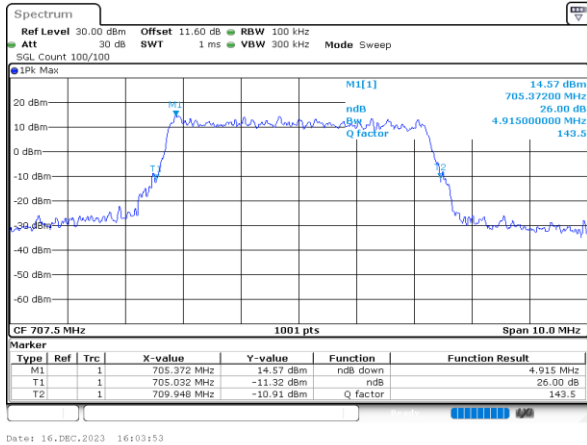
Date: 16, DEC, 2023 15:52:38

Middle Channel / 3MHz / 64QAM



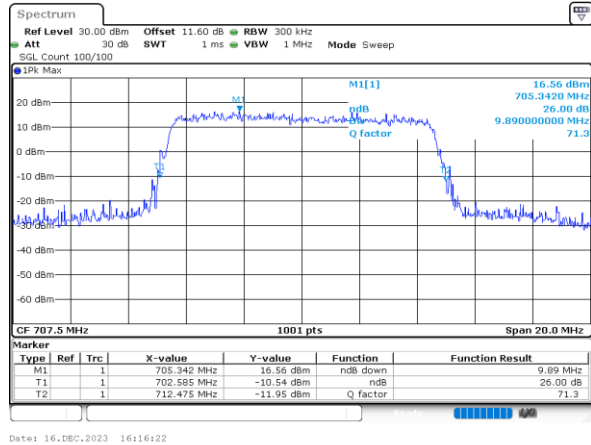
Date: 16, DEC, 2023 16:01:00

Middle Channel / 5MHz / 64QAM



Date: 16, DEC, 2023 16:03:53

Middle Channel / 10MHz / 64QAM

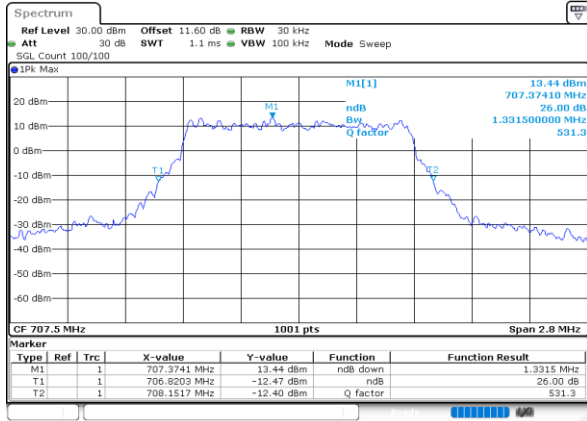


Date: 16, DEC, 2023 16:11:22



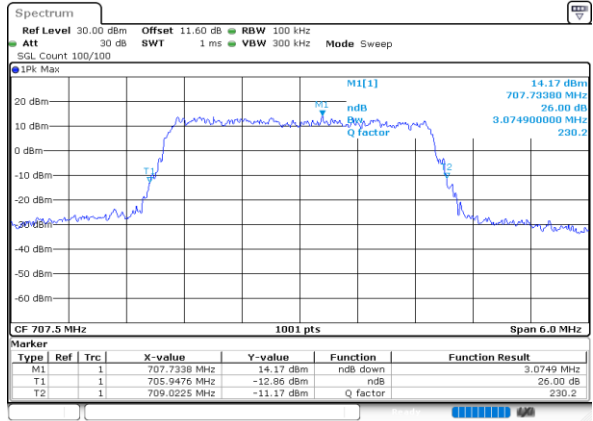
LTE Band 12

Middle Channel / 1.4MHz / 256QAM



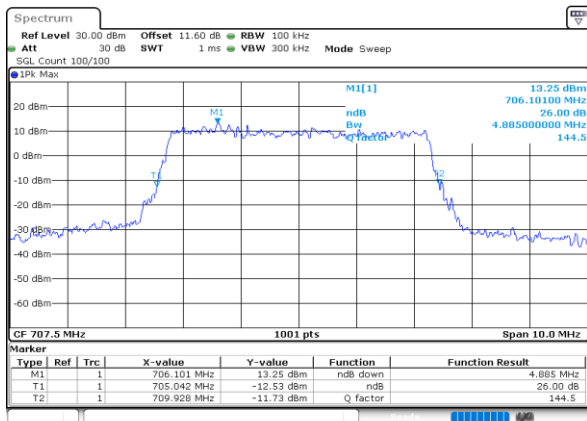
Date: 16, DEC, 2023 16:22:53

Middle Channel / 3MHz / 256QAM



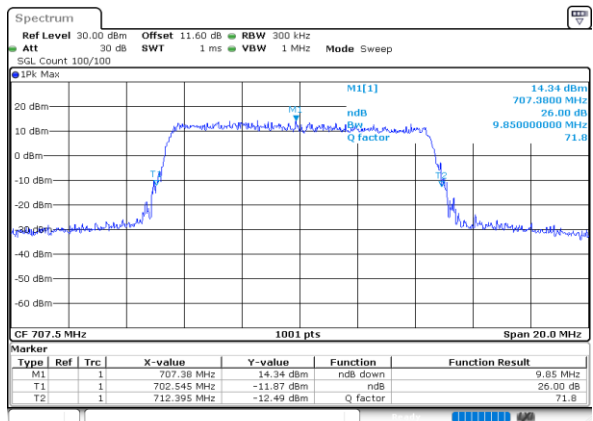
Date: 16, DEC, 2023 16:30:01

Middle Channel / 5MHz / 256QAM



Date: 16, DEC, 2023 16:35:50

Middle Channel / 10MHz / 256QAM



Date: 16, DEC, 2023 16:42:29