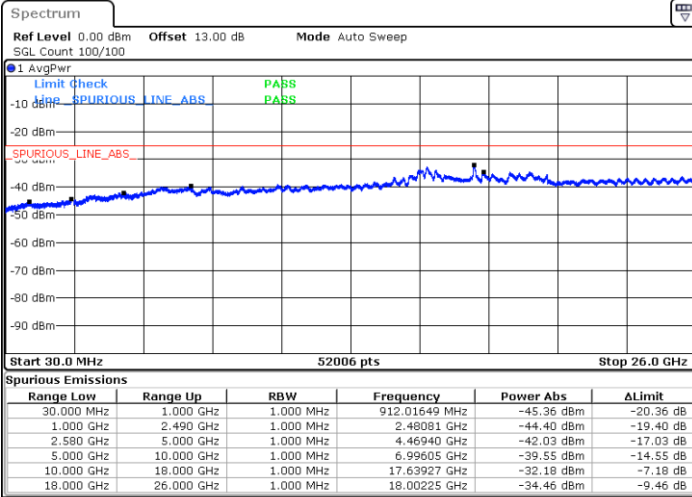




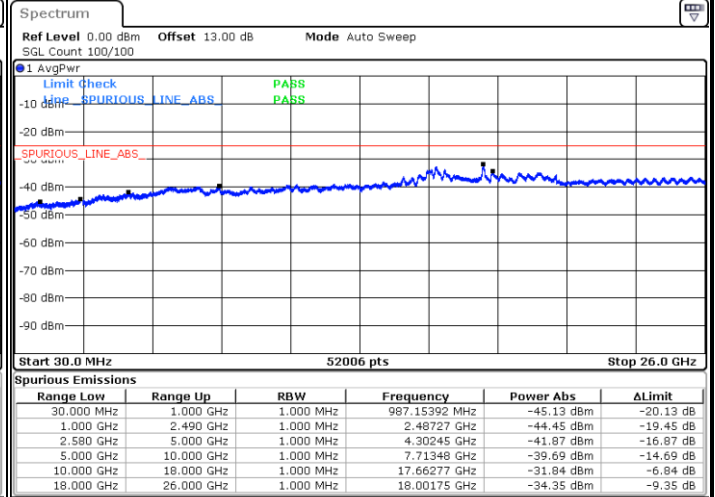
LTE Band 7 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

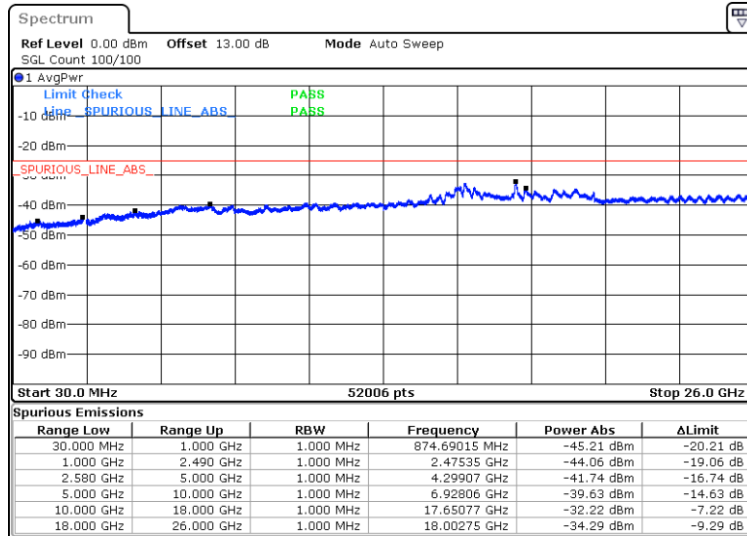


Date: 6.MAY.2024 12:29:26



Date: 6.MAY.2024 12:30:46

Highest Channel / QPSK



Date: 6.MAY.2024 12:32:08



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	0.0008	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0036	
0	Normal Voltage	0.0031	
-10	Normal Voltage	0.0045	
-20	Normal Voltage	0.0021	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0019	

Note:

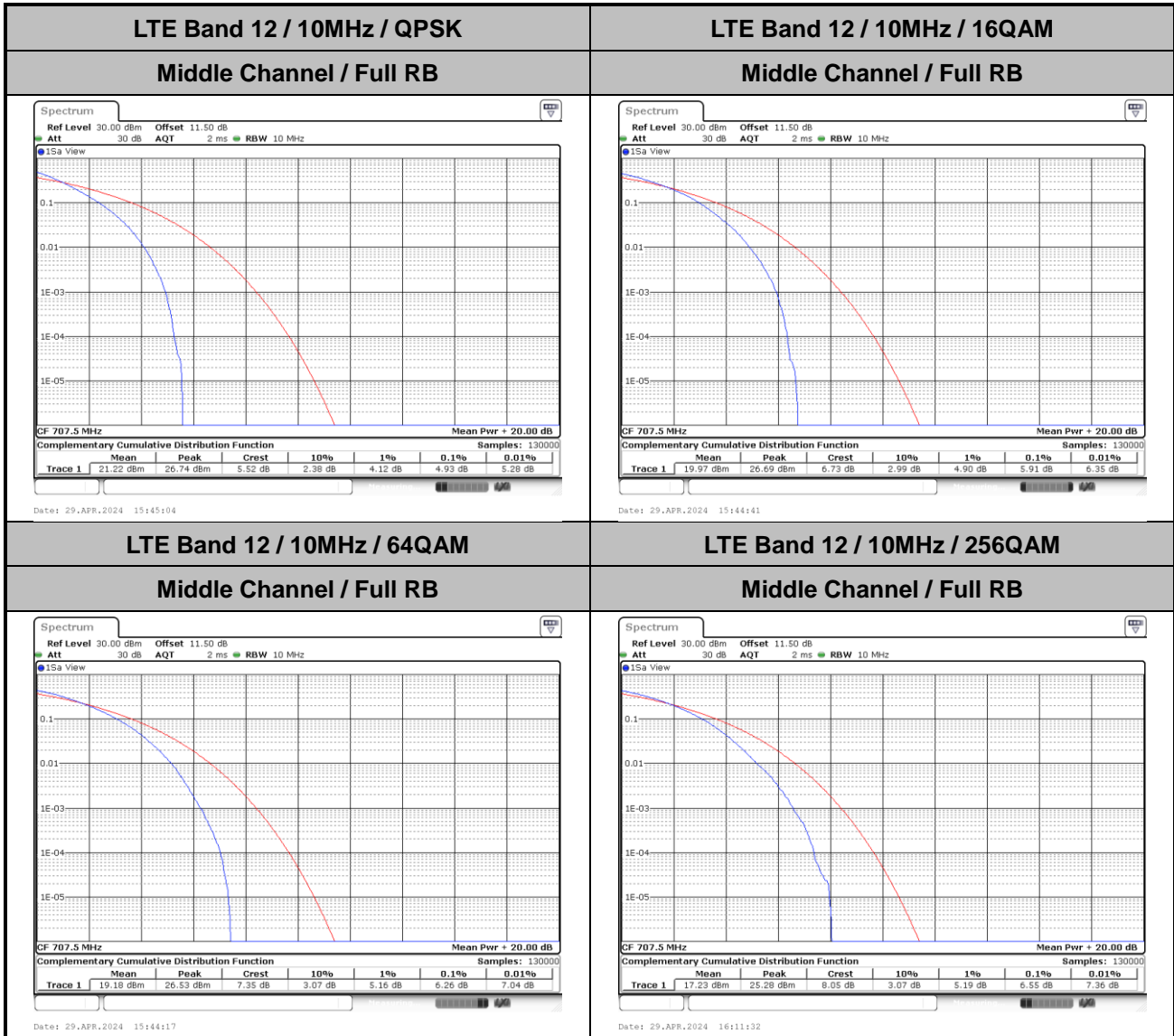
- 1. Normal Voltage = 3.86 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



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	4.93	5.91	6.26	6.55	PASS





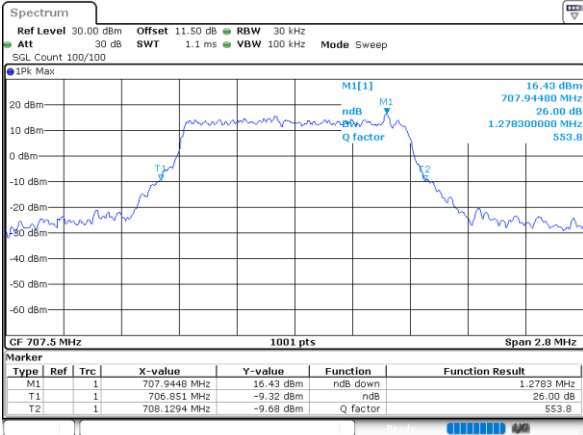
26dB Bandwidth

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	1.27	1.31	3.06	3.03	5.09	4.99	9.81	9.84	-	-	-	-
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	1.32	1.31	3.09	3.05	4.99	4.93	9.71	9.78	-	-	-	-



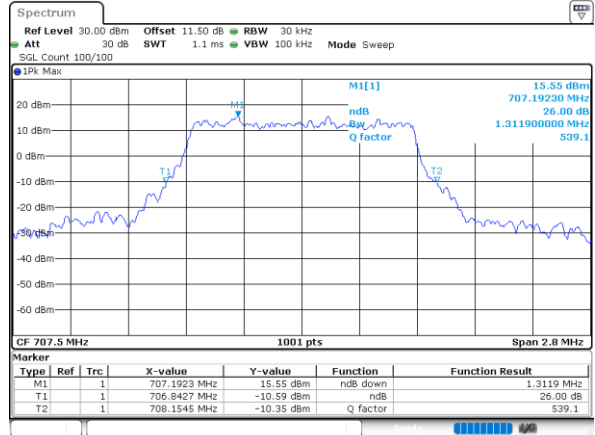
LTE Band 12

Middle Channel / 1.4MHz / QPSK



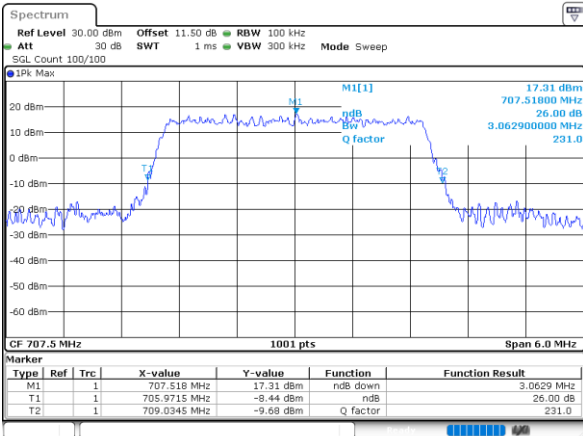
Date: 29_APR.2024 15:11:06

Middle Channel / 1.4MHz / 16QAM



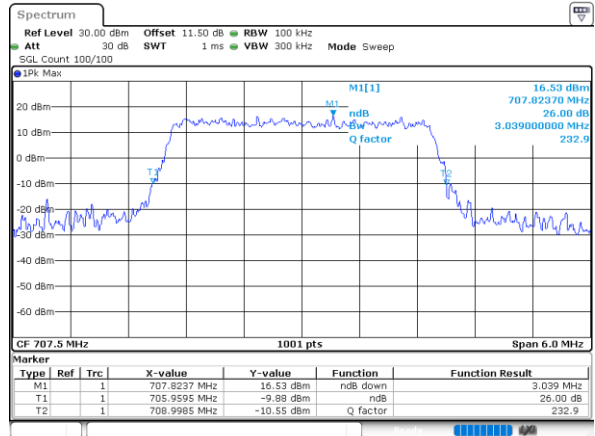
Date: 29_APR.2024 15:11:28

Middle Channel / 3MHz / QPSK



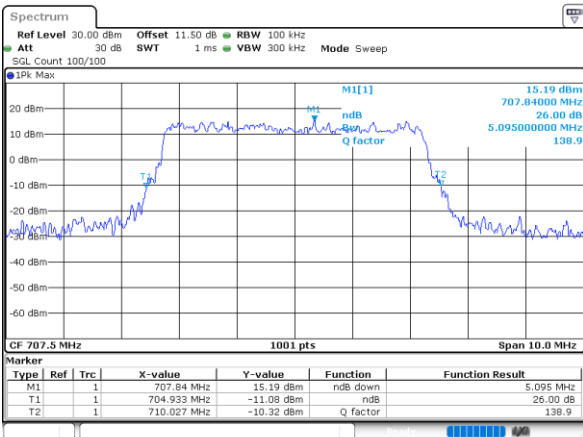
Date: 29_APR.2024 15:24:24

Middle Channel / 3MHz / 16QAM



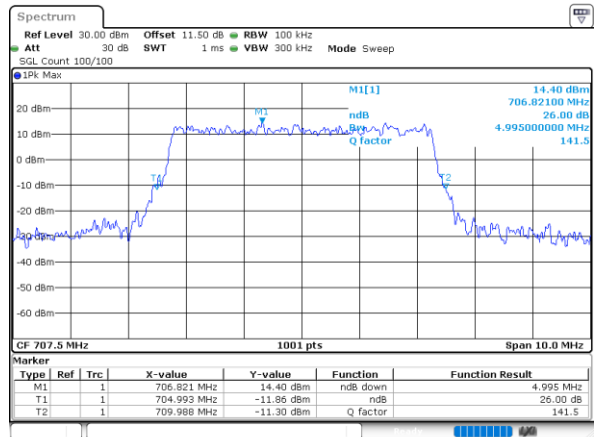
Date: 29_APR.2024 15:24:46

Middle Channel / 5MHz / QPSK



Date: 29_APR.2024 15:34:20

Middle Channel / 5MHz / 16QAM

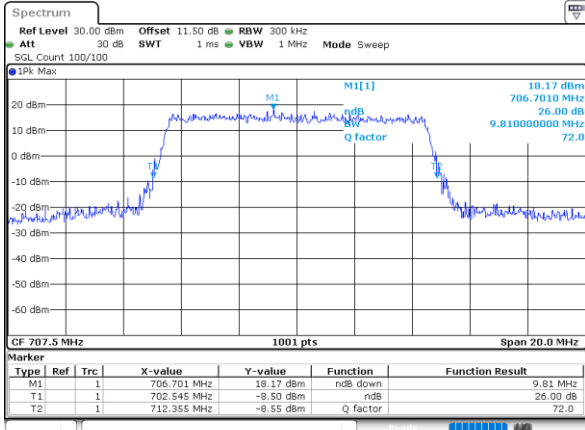


Date: 29_APR.2024 15:34:42

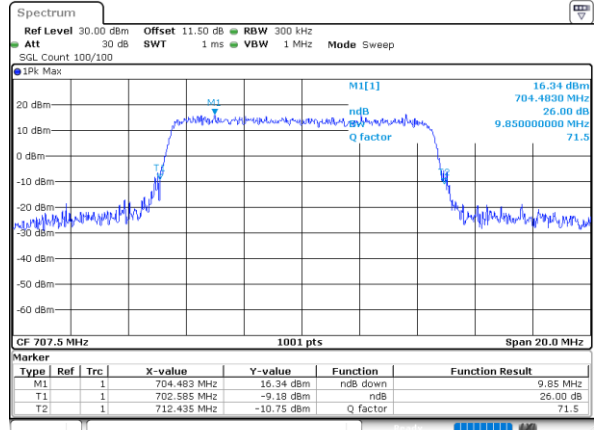


LTE Band 12

Middle Channel / 10MHz / QPSK

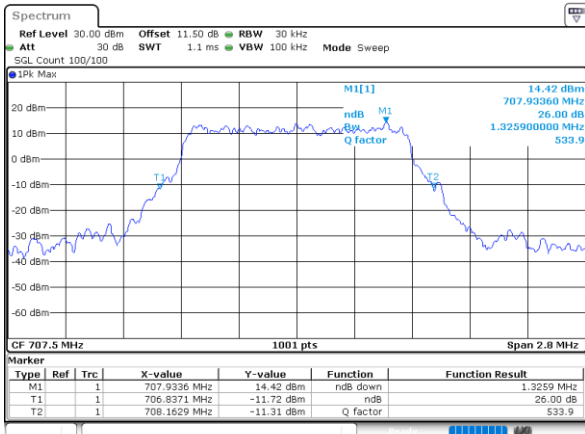


Middle Channel / 10MHz / 16QAM

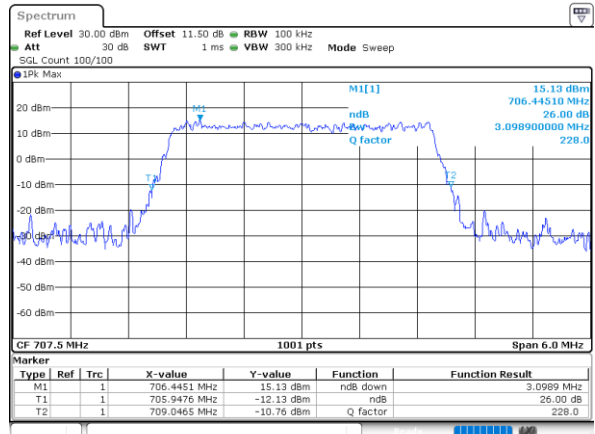


LTE Band 12

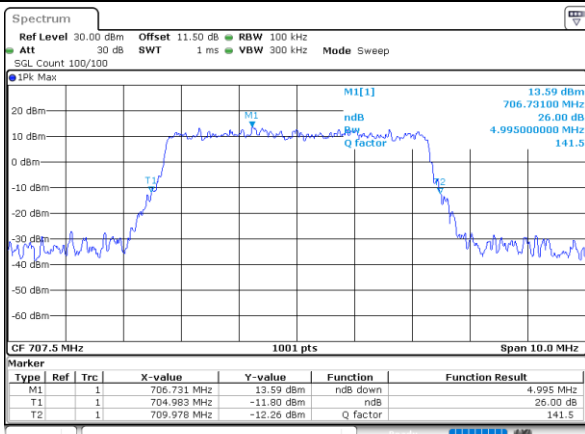
Middle Channel / 1.4MHz / 64QAM



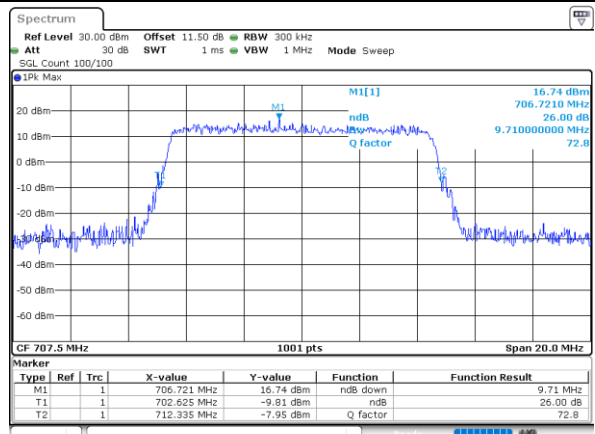
Middle Channel / 3MHz / 64QAM



Middle Channel / 5MHz / 64QAM



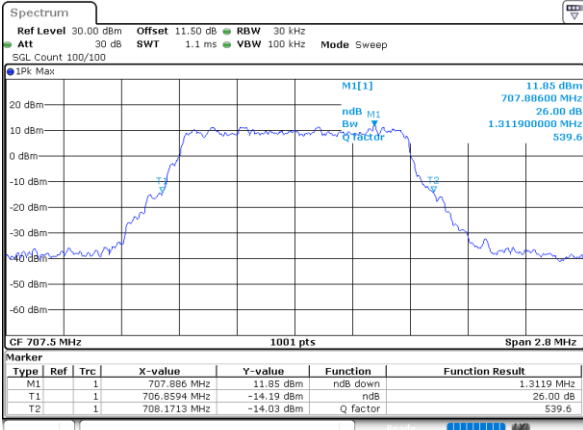
Middle Channel / 10MHz / 64QAM





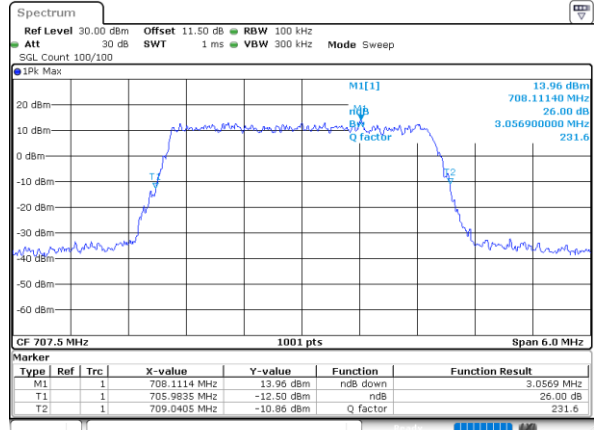
LTE Band 12

Middle Channel / 1.4MHz / 256QAM



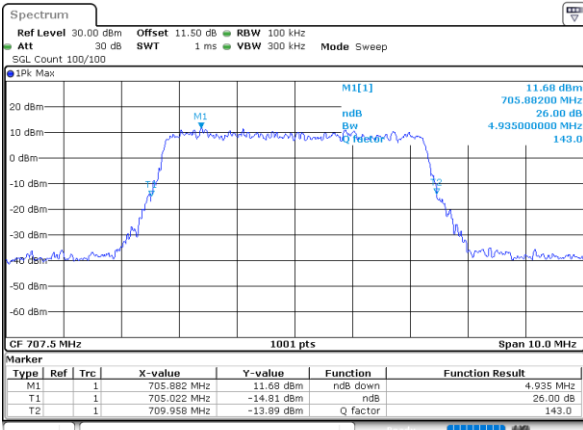
Date: 29.APR.2024 15:47:54

Middle Channel / 3MHz / 256QAM



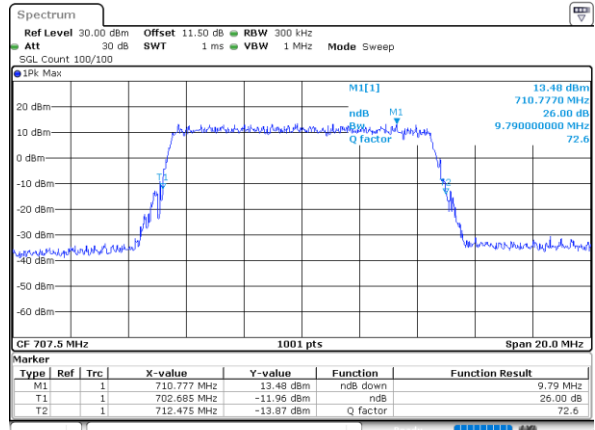
Date: 29.APR.2024 15:52:23

Middle Channel / 5MHz / 256QAM



Date: 29.APR.2024 16:05:00

Middle Channel / 10MHz / 256QAM



Date: 29.APR.2024 16:08:11



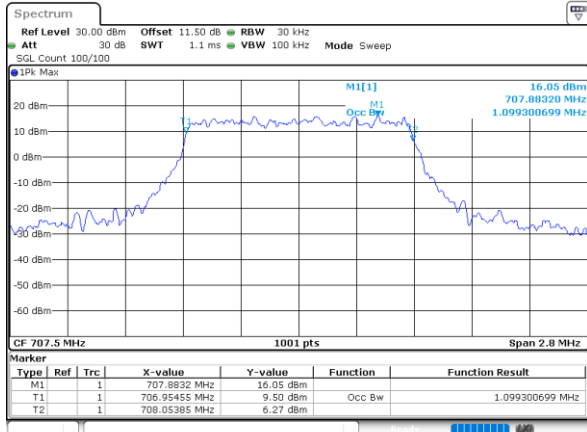
Occupied Bandwidth

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	1.09	1.09	2.73	2.73	4.48	4.49	9.03	9.05	-	-	-	-
Mode	LTE Band 12 : 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	1.09	1.09	2.73	2.73	4.49	4.49	9.03	9.03	-	-	-	-



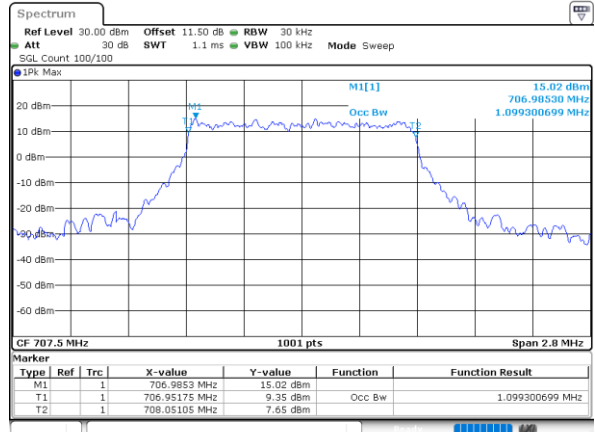
LTE Band 12

Middle Channel / 1.4MHz / QPSK



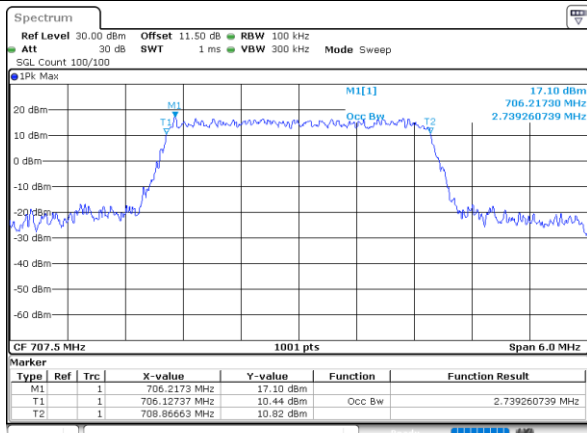
Date: 29.APR.2024 15:10:43

Middle Channel / 1.4MHz / 16QAM



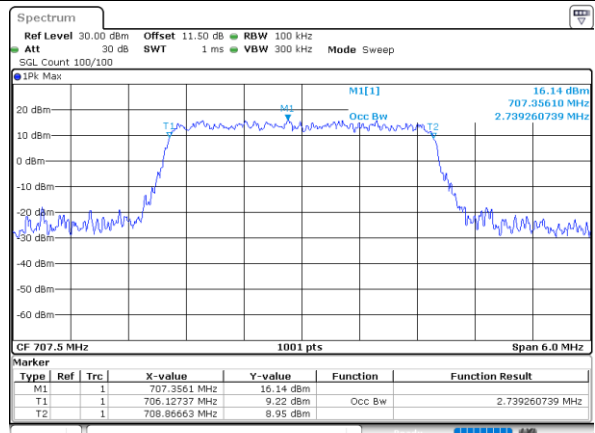
Date: 29.APR.2024 15:10:21

Middle Channel / 3MHz / QPSK



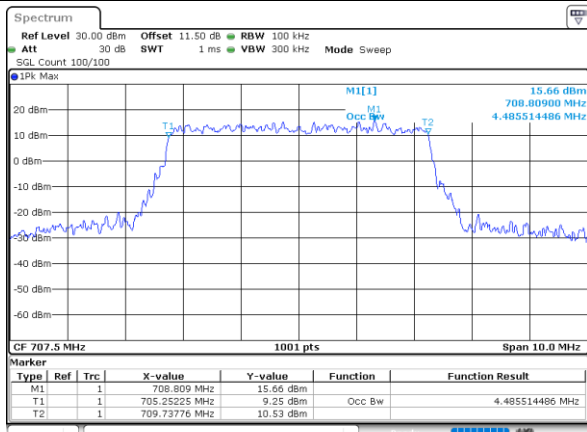
Date: 29.APR.2024 15:24:01

Middle Channel / 3MHz / 16QAM



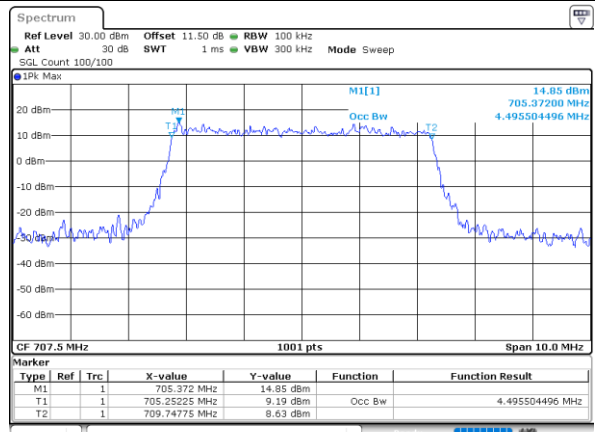
Date: 29.APR.2024 15:23:39

Middle Channel / 5MHz / QPSK



Date: 29.APR.2024 15:33:57

Middle Channel / 5MHz / 16QAM

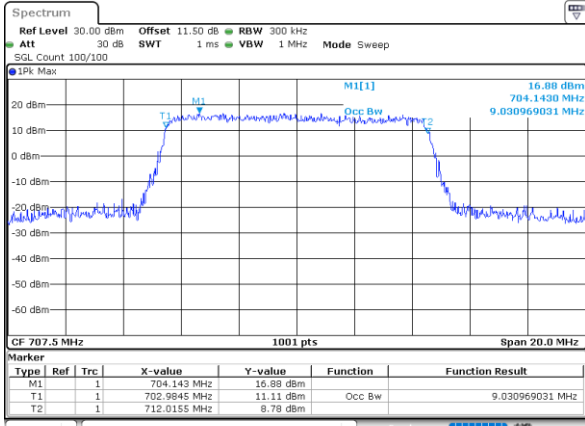


Date: 29.APR.2024 15:33:35



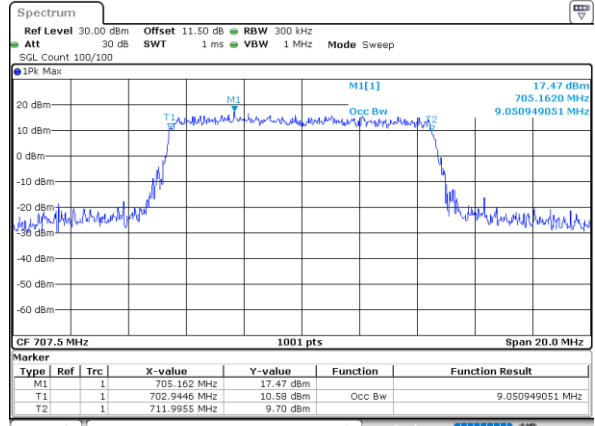
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 29_APR_2024 15:38:56

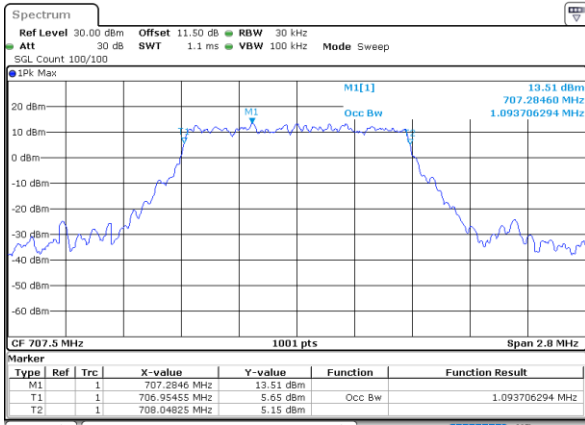
Middle Channel / 10MHz / 16QAM



Date: 29_APR_2024 15:38:33

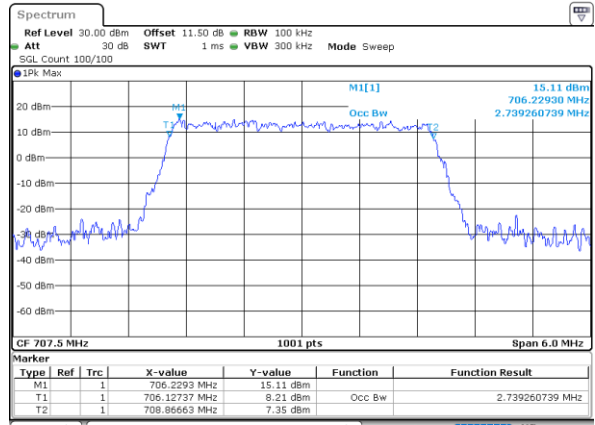
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



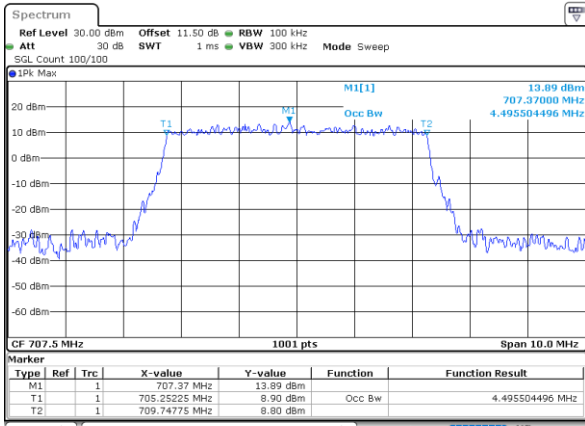
Date: 29_APR_2024 15:19:25

Middle Channel / 3MHz / 64QAM



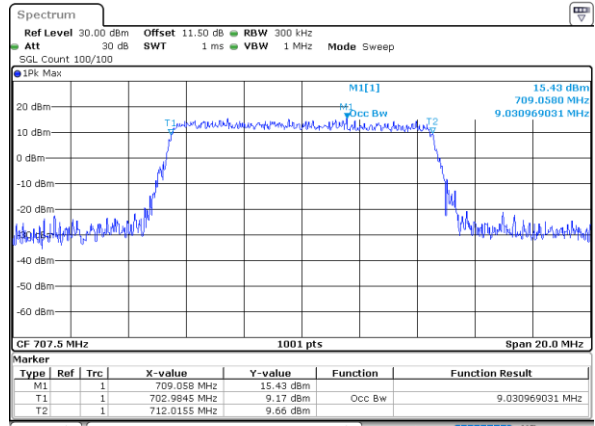
Date: 29_APR_2024 15:27:45

Middle Channel / 5MHz / 64QAM



Date: 29_APR_2024 15:30:14

Middle Channel / 10MHz / 64QAM

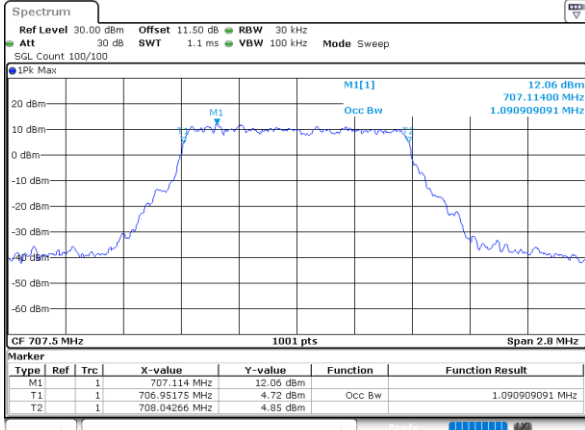


Date: 29_APR_2024 15:42:39



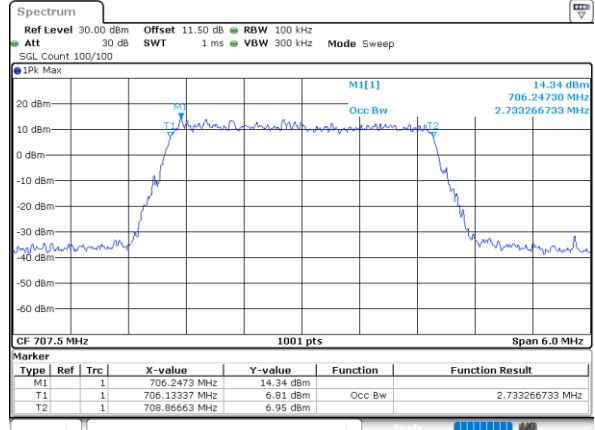
LTE Band 12

Middle Channel / 1.4MHz / 256QAM



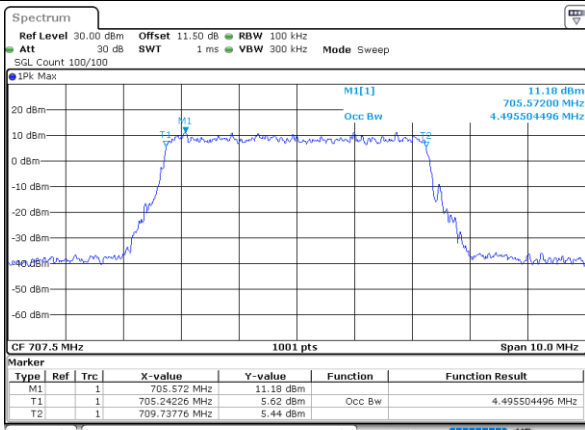
Date: 29.APR.2024 15:47:32

Middle Channel / 3MHz / 256QAM



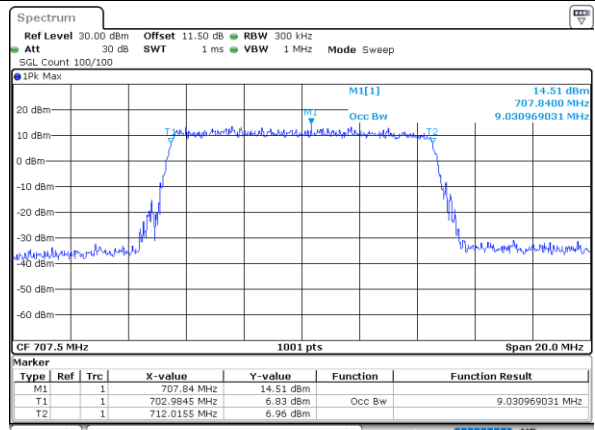
Date: 29.APR.2024 15:52:00

Middle Channel / 5MHz / 256QAM



Date: 29.APR.2024 16:04:38

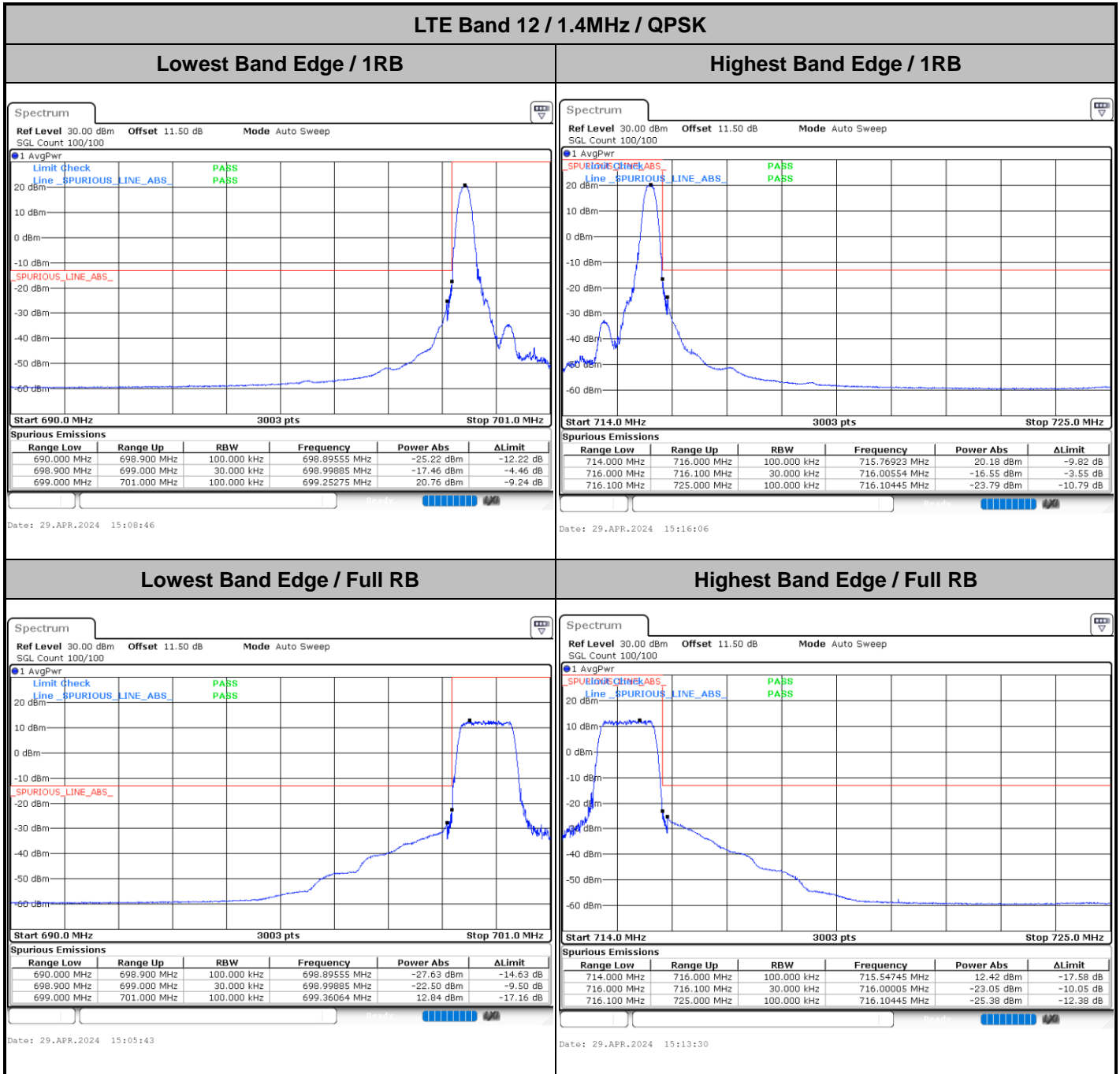
Middle Channel / 10MHz / 256QAM



Date: 29.APR.2024 16:08:48



Conducted Band Edge

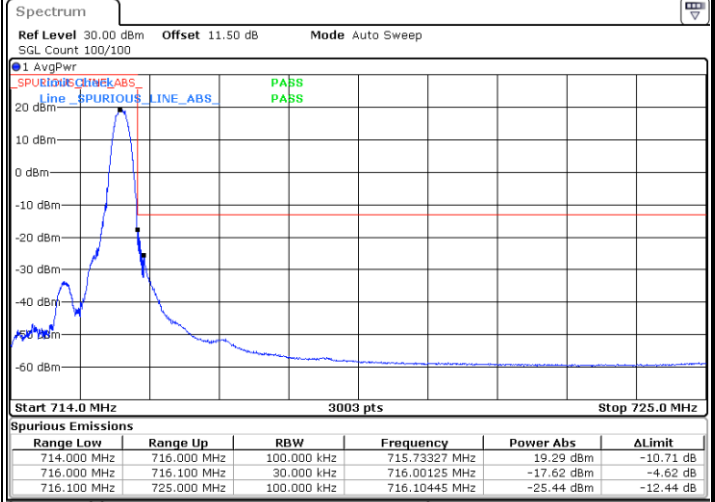
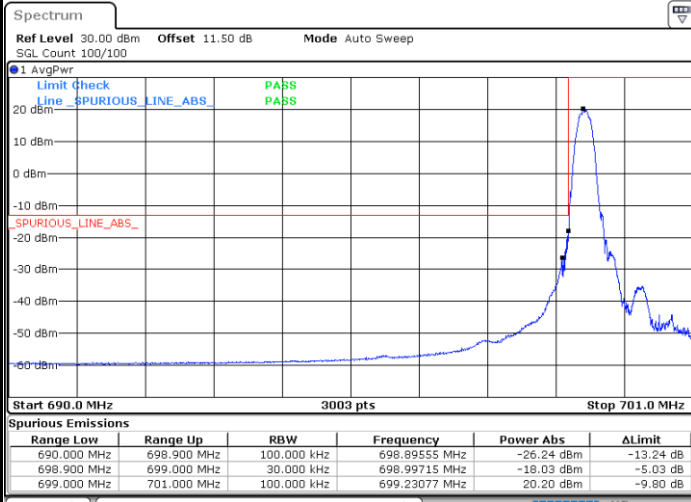




LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

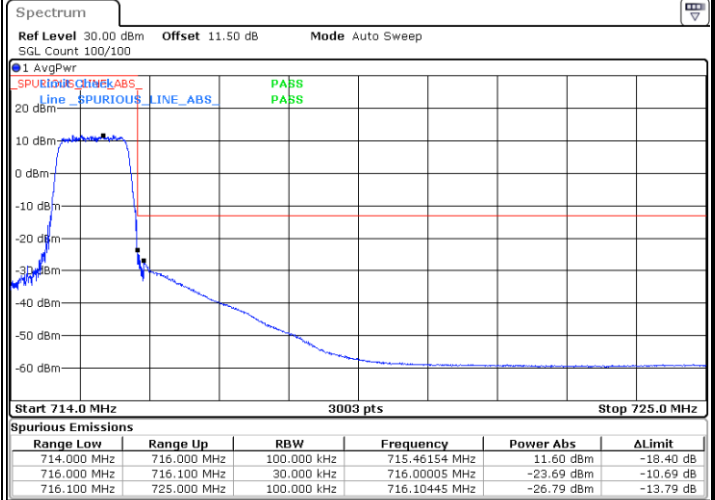
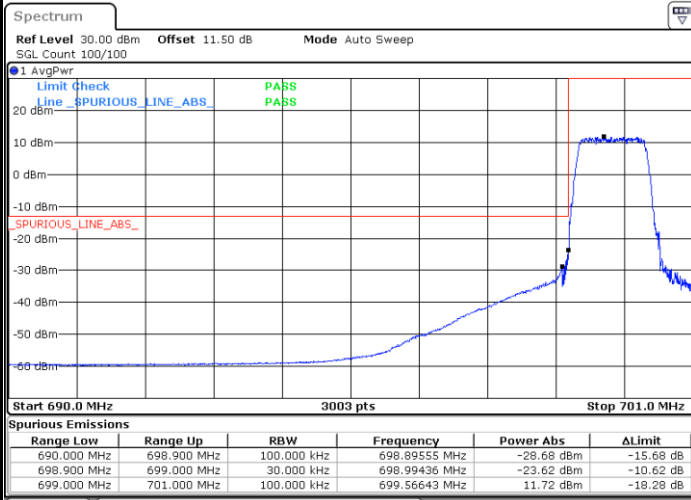


Date: 29.APR.2024 15:07:54

Date: 29.APR.2024 15:15:14

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



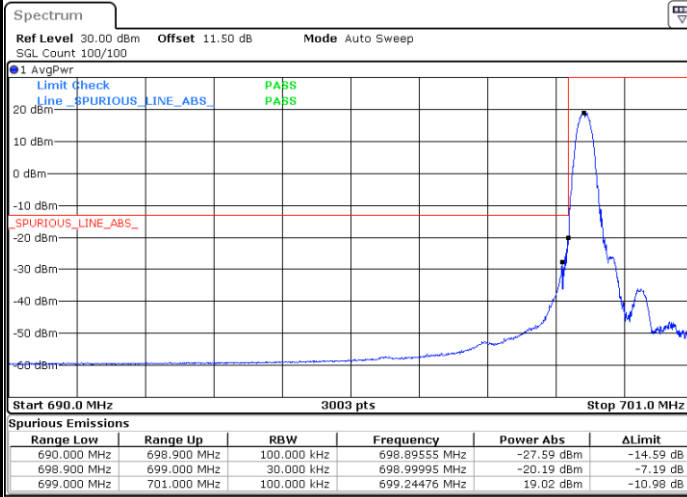
Date: 29.APR.2024 15:07:01

Date: 29.APR.2024 15:14:22



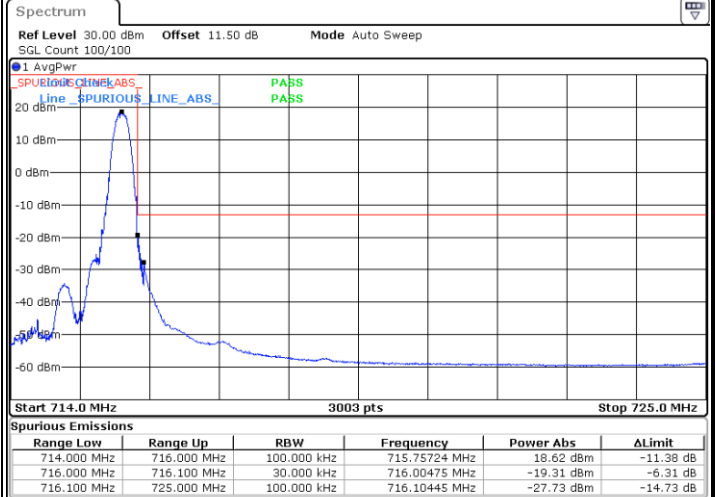
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



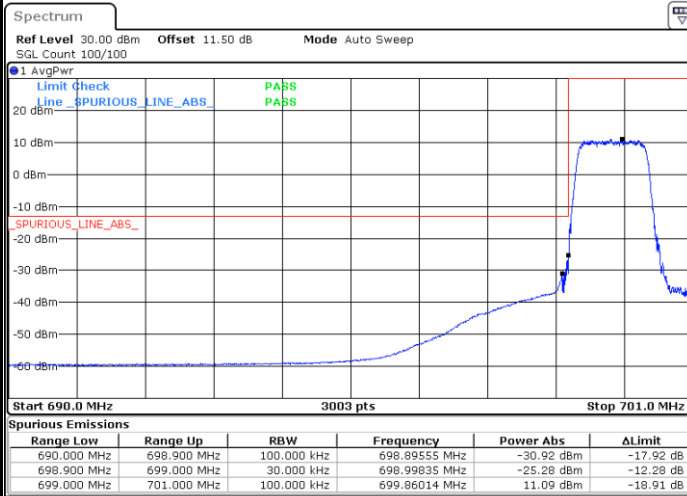
Date: 29.APR.2024 15:19:02

Highest Band Edge / 1 RB



Date: 29.APR.2024 15:21:31

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:18:10

Highest Band Edge / Full RB

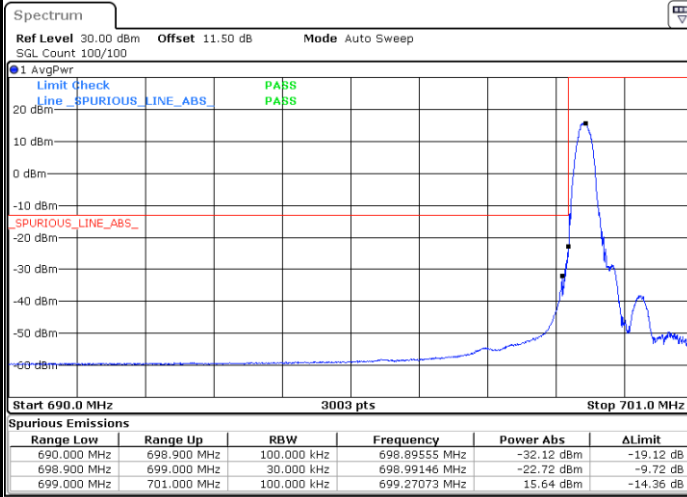


Date: 29.APR.2024 15:20:39



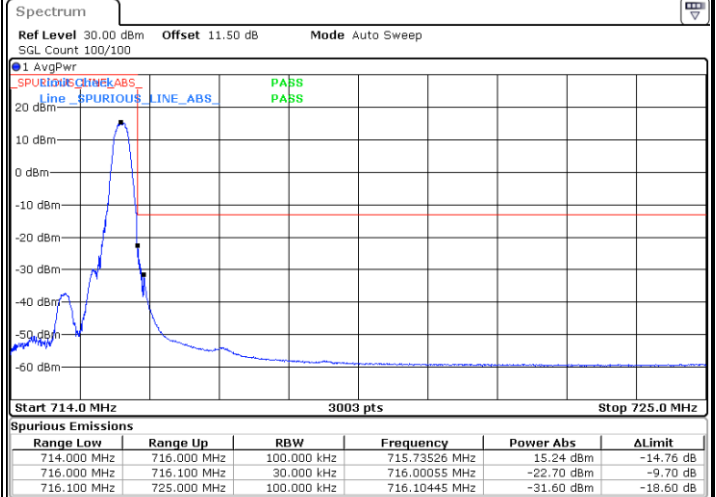
LTE Band 12 / 1.4MHz / 256QAM

Lowest Band Edge / 1 RB



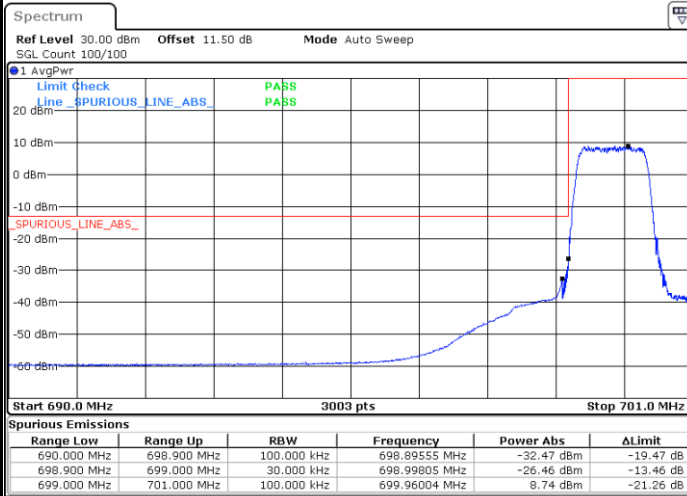
Date: 29.APR.2024 15:46:51

Highest Band Edge / 1 RB



Date: 29.APR.2024 15:49:44

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:45:56

Highest Band Edge / Full RB

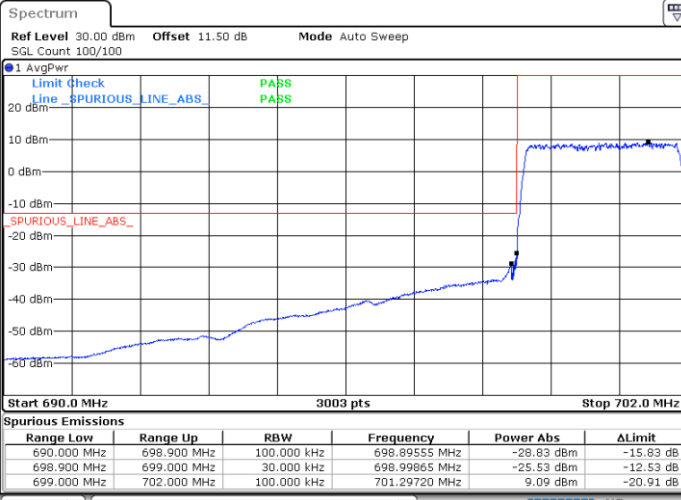


Date: 29.APR.2024 15:48:49



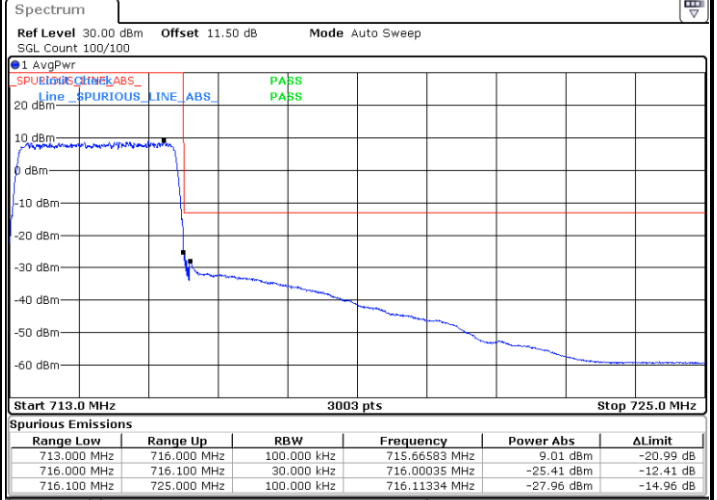
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:22:24

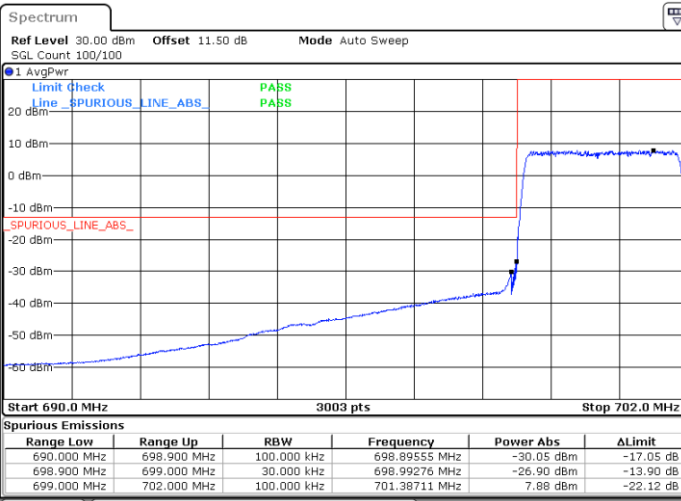
Highest Band Edge / Full RB



Date: 29.APR.2024 15:25:38

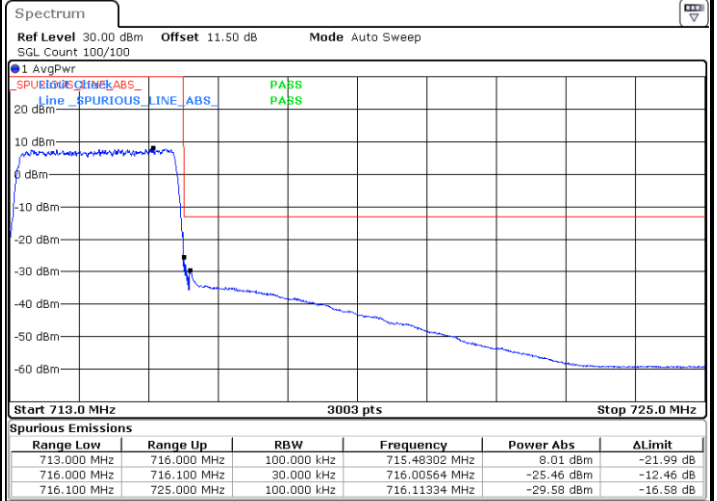
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:23:16

Highest Band Edge / Full RB

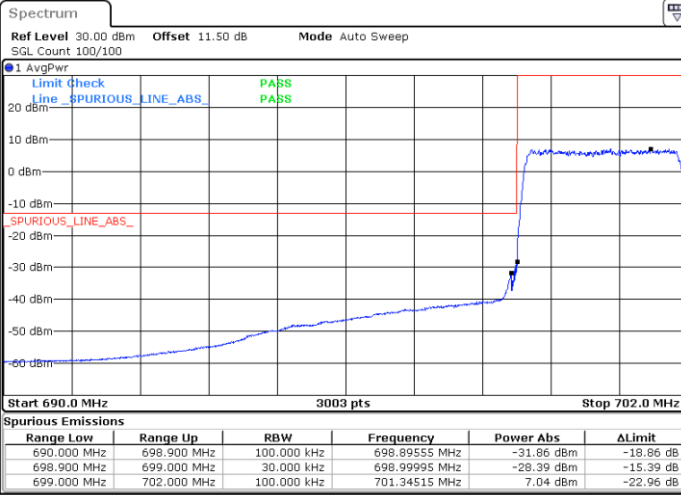


Date: 29.APR.2024 15:26:30



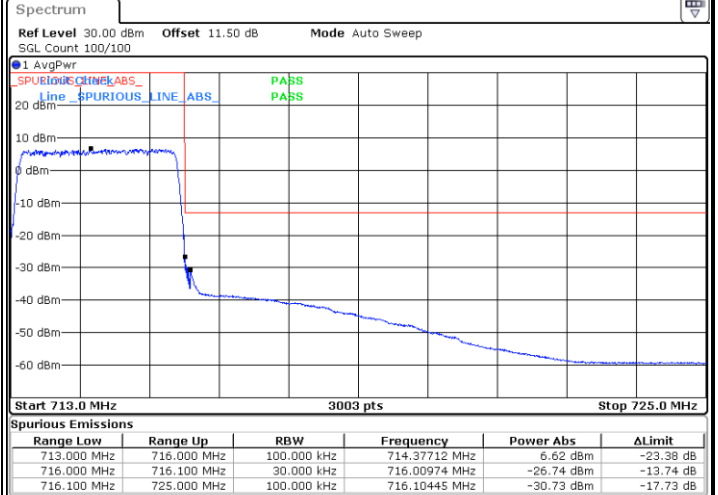
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:27:22

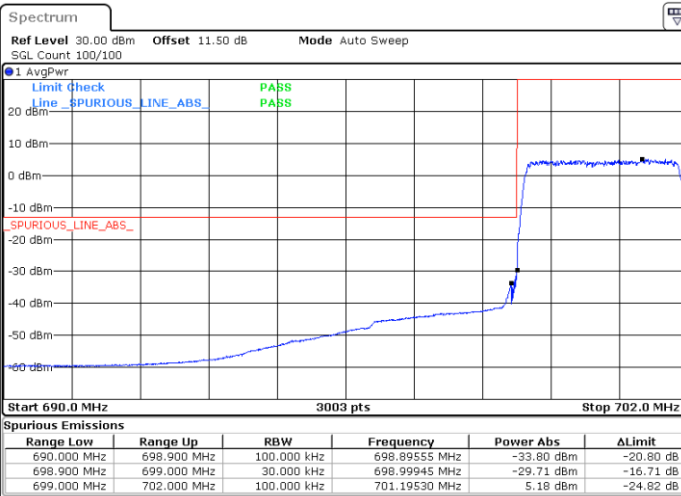
Highest Band Edge / Full RB



Date: 29.APR.2024 15:28:58

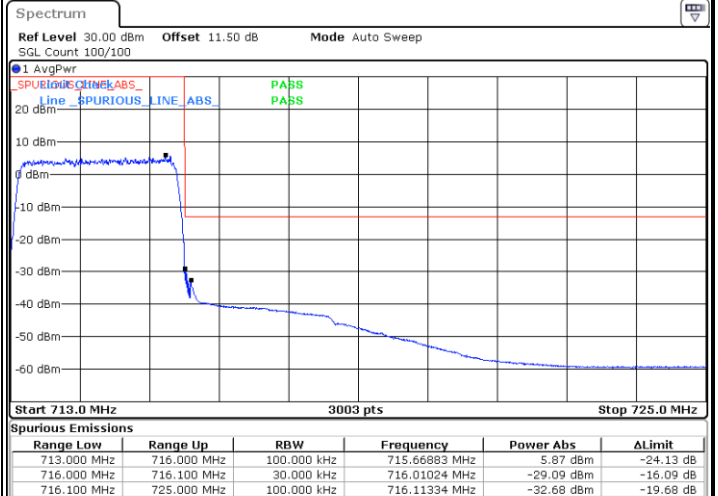
LTE Band 12 / 3MHz / 256QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:51:19

Highest Band Edge / Full RB

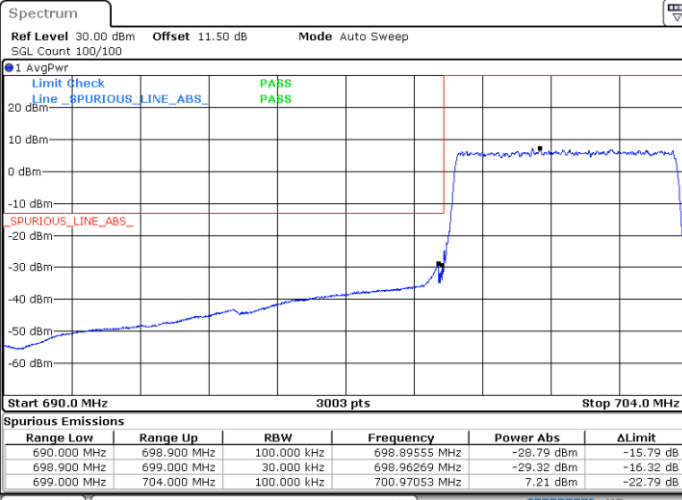


Date: 29.APR.2024 15:54:02



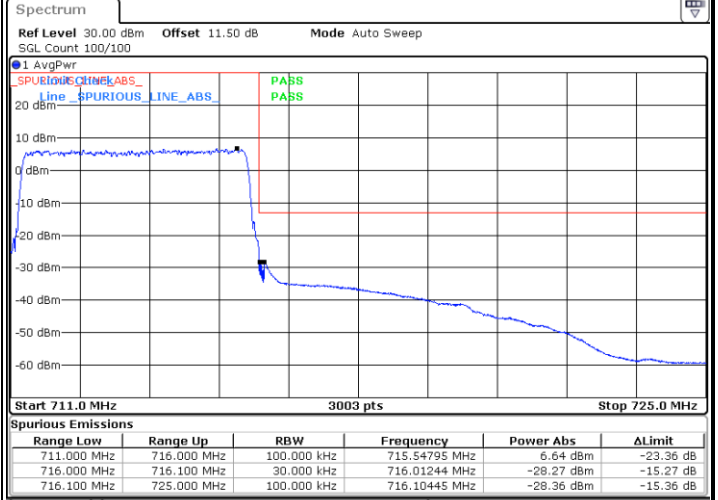
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:32:20

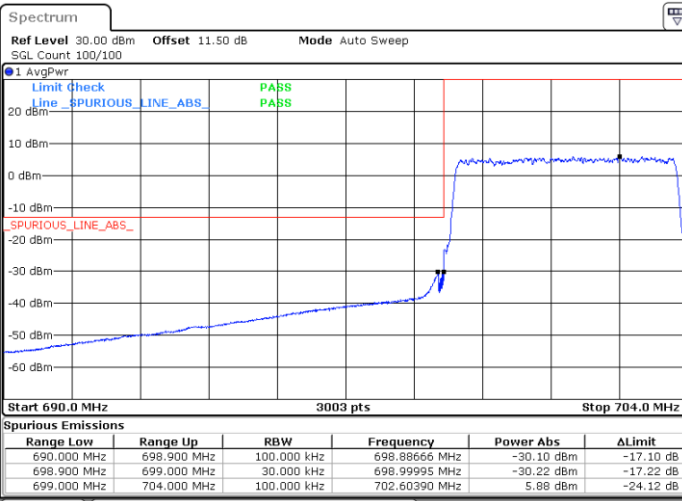
Highest Band Edge / Full RB



Date: 29.APR.2024 15:35:33

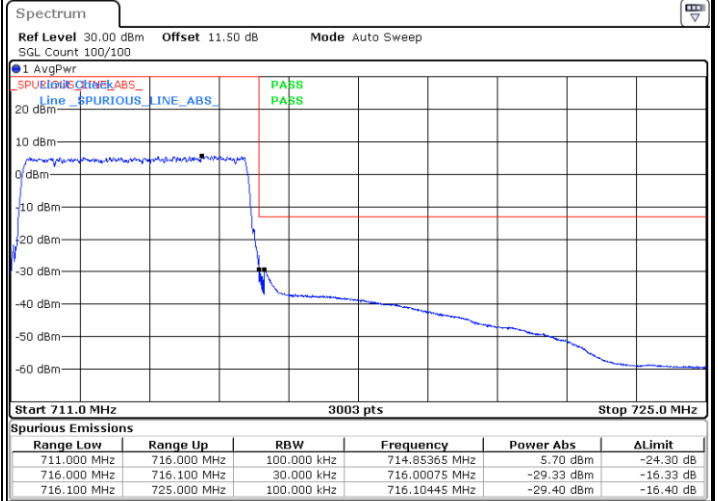
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:33:12

Highest Band Edge / Full RB

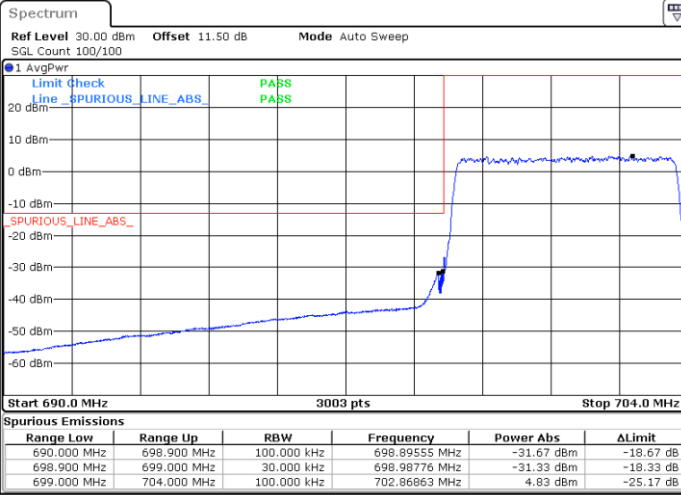


Date: 29.APR.2024 15:36:25



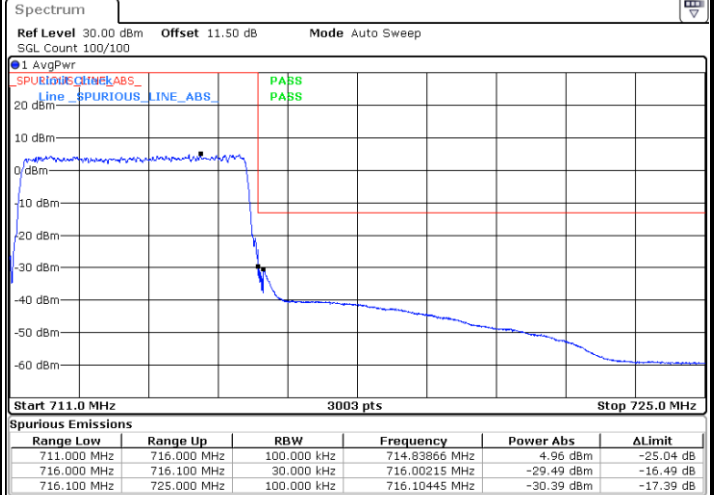
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:29:51

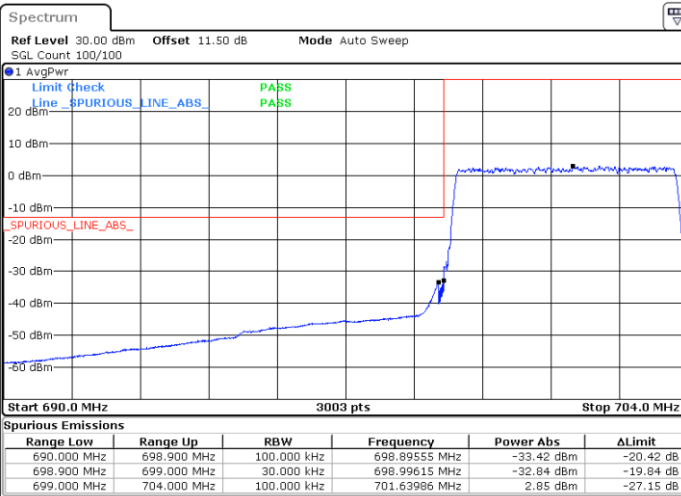
Highest Band Edge / Full RB



Date: 29.APR.2024 15:31:28

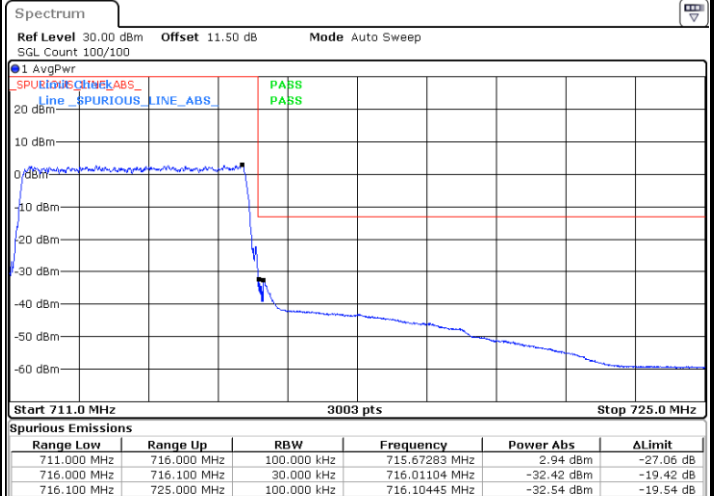
LTE Band 12 / 5MHz / 256QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 16:03:57

Highest Band Edge / Full RB



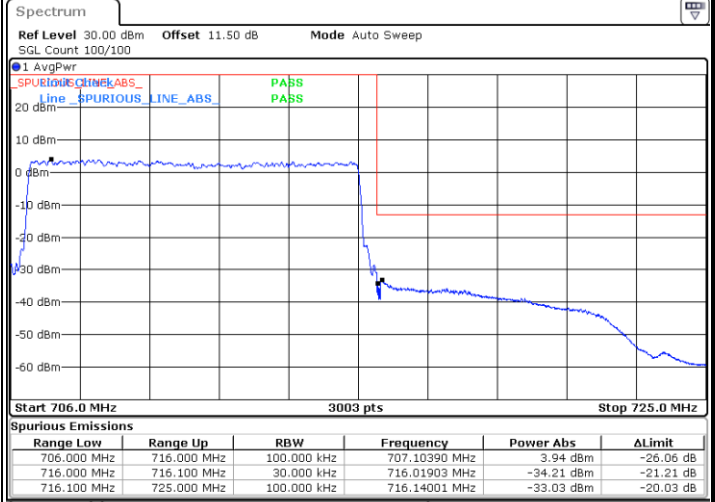
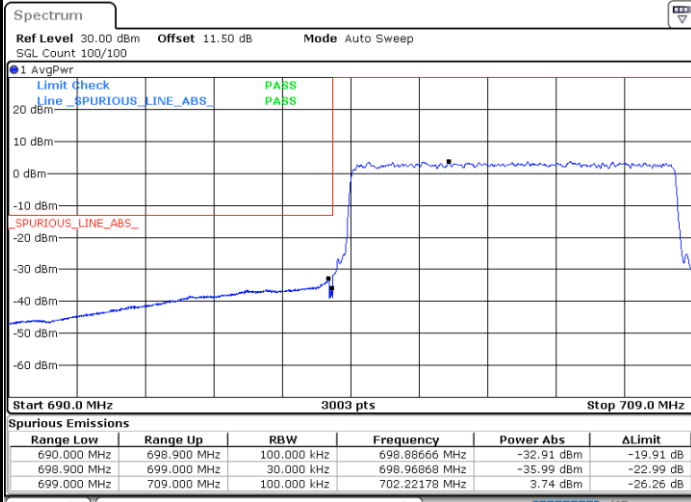
Date: 29.APR.2024 16:06:39



LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



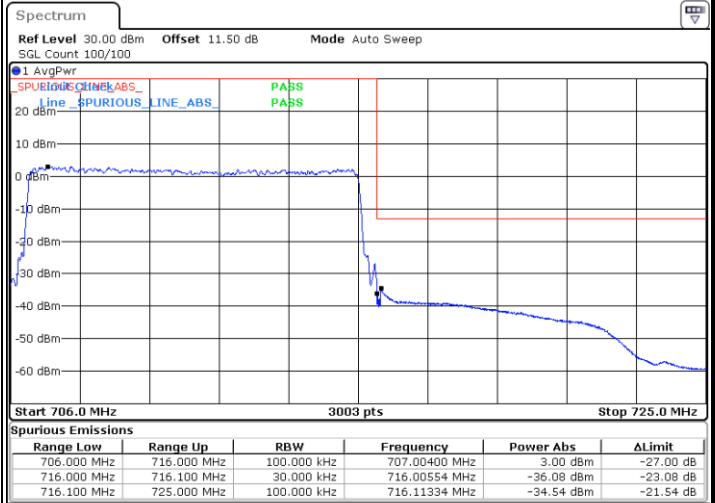
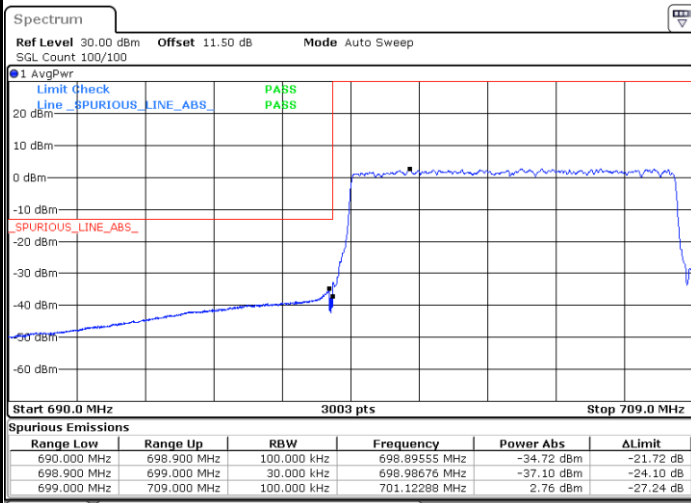
Date: 29.APR.2024 15:37:18

Date: 29.APR.2024 15:40:32

LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



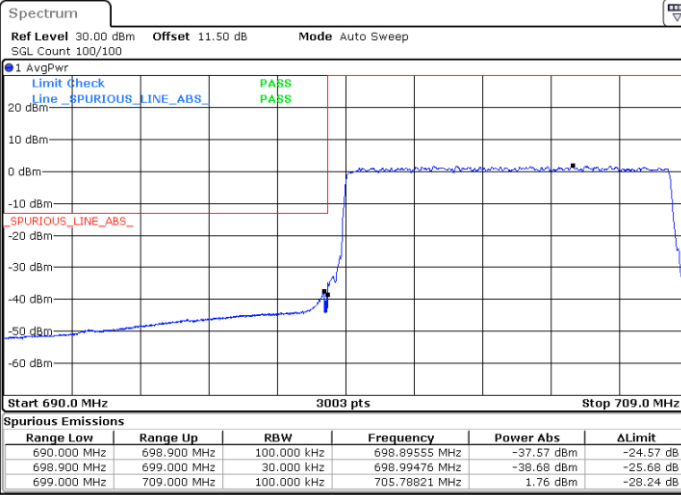
Date: 29.APR.2024 15:38:10

Date: 29.APR.2024 15:41:24



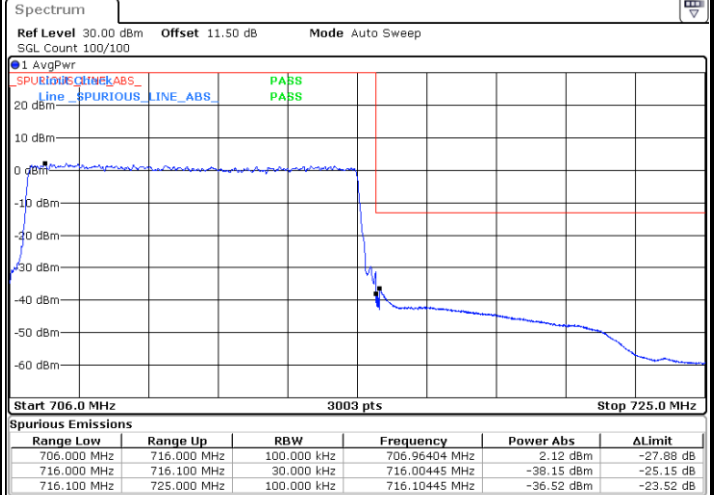
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 15:42:16

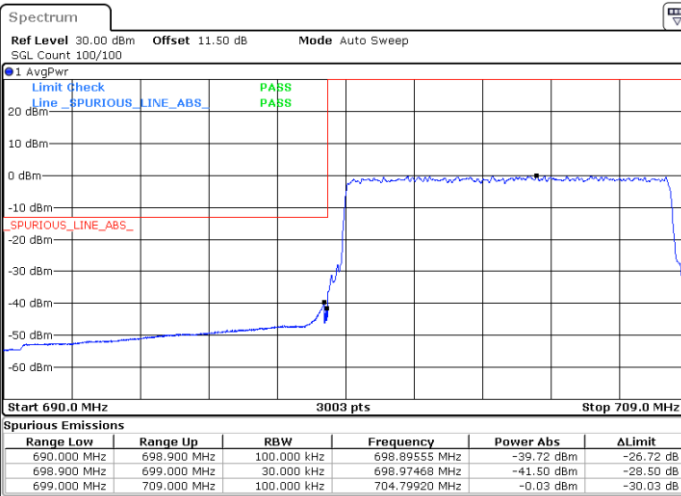
Highest Band Edge / Full RB



Date: 29.APR.2024 15:43:53

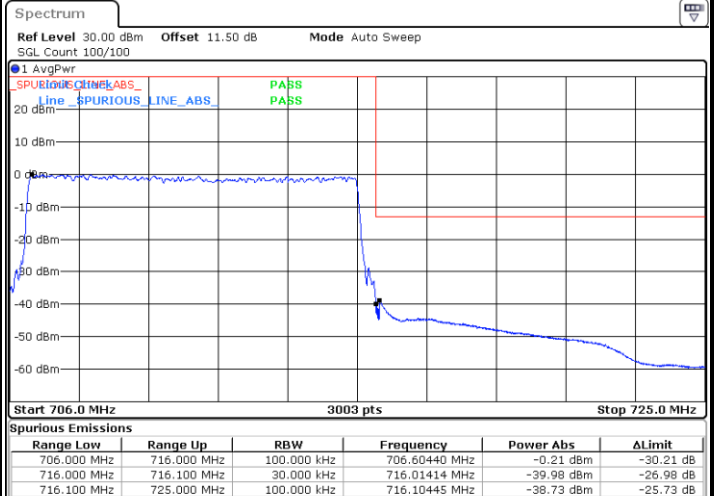
LTE Band 12 / 10MHz / 256QAM

Lowest Band Edge / Full RB



Date: 29.APR.2024 16:08:08

Highest Band Edge / Full RB



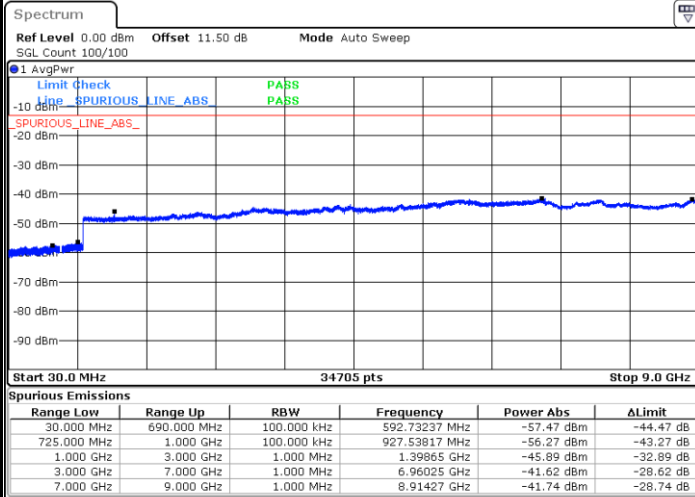
Date: 29.APR.2024 16:10:49



Conducted Spurious Emission

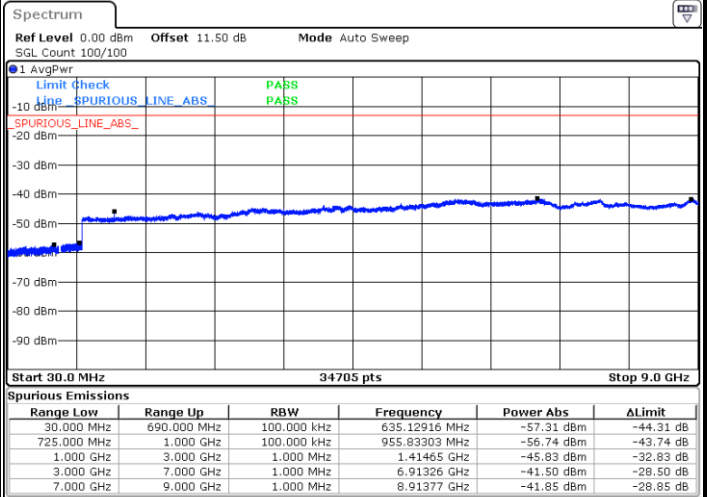
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



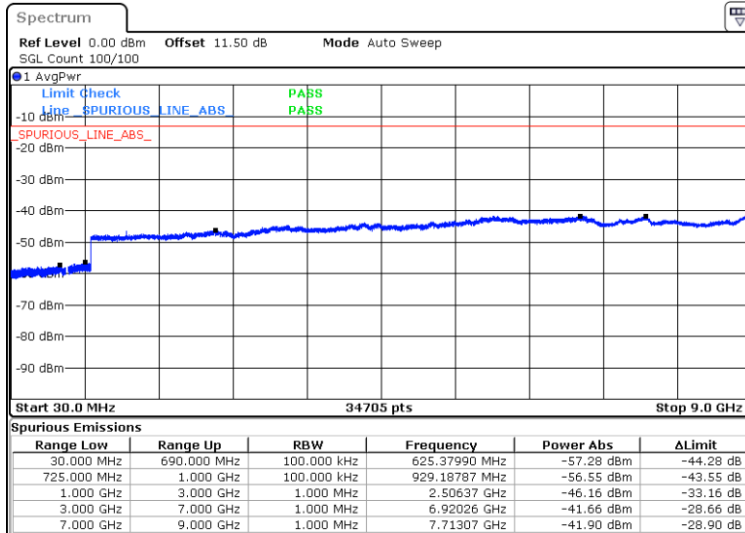
Date: 29.APR.2024 15:09:58

Middle Channel / QPSK



Date: 29.APR.2024 15:12:38

Highest Channel / QPSK



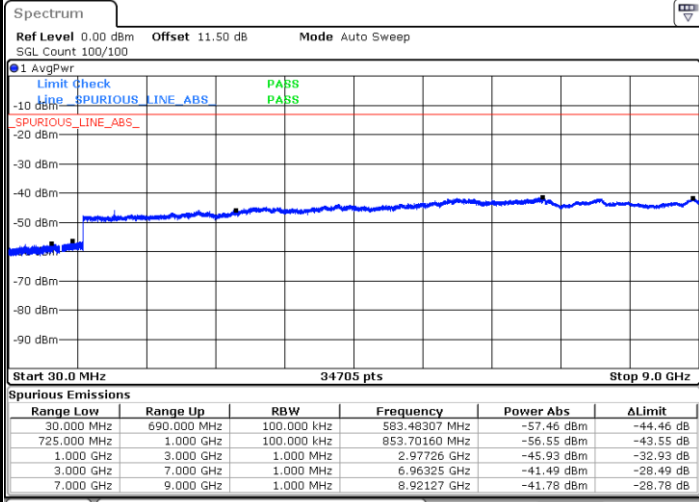
Date: 29.APR.2024 15:17:18



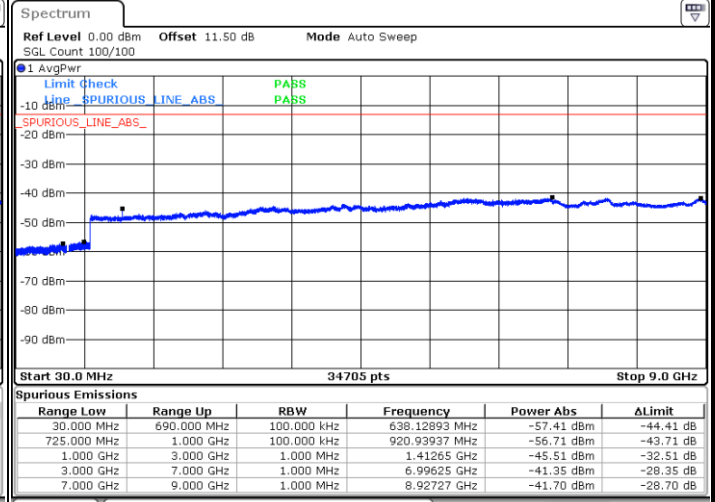
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

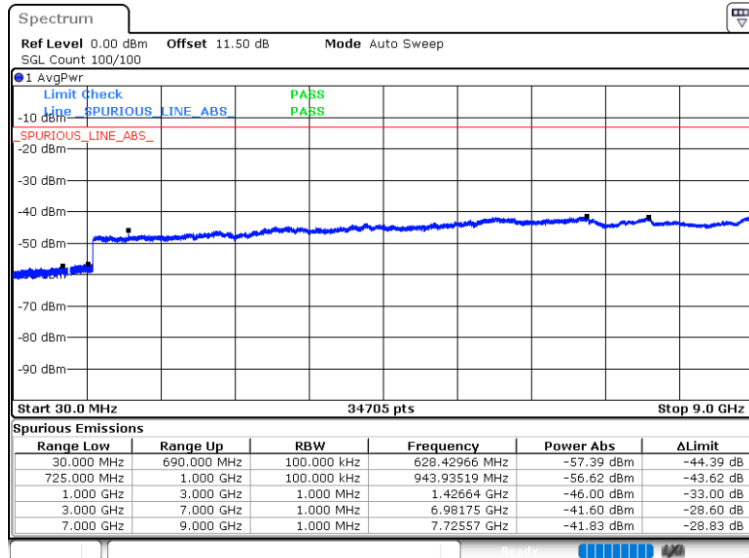


Date: 29.APR.2024 16:12:44



Date: 29.APR.2024 16:13:55

Highest Channel / QPSK



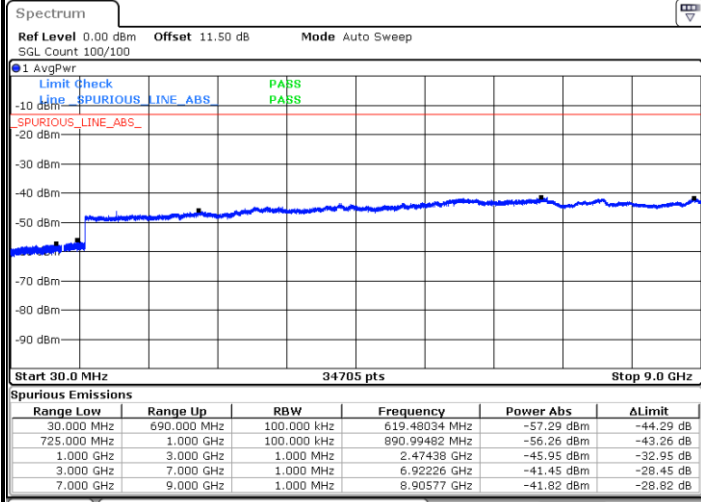
Date: 29.APR.2024 16:15:06



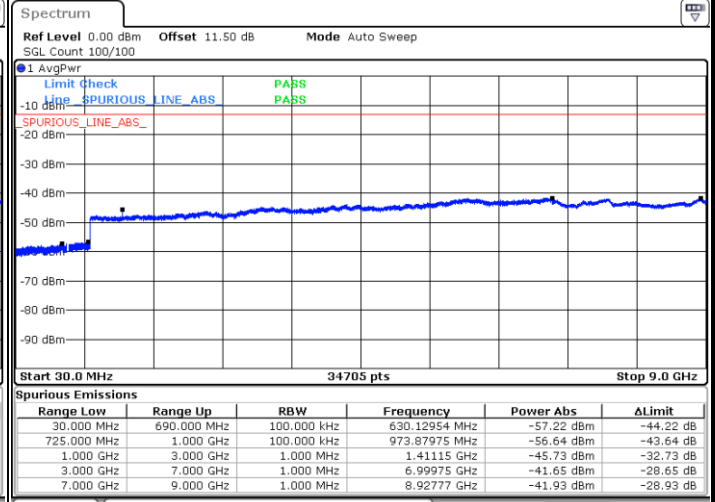
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

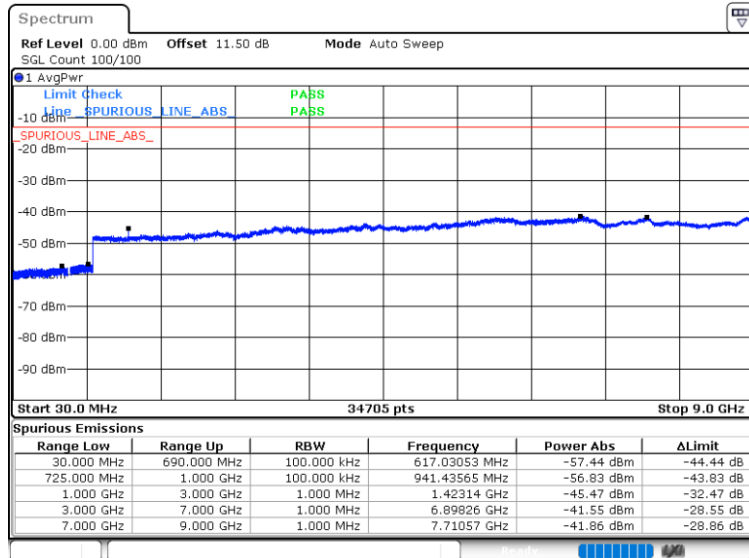


Date: 29.APR.2024 16:16:18



Date: 29.APR.2024 16:17:29

Highest Channel / QPSK



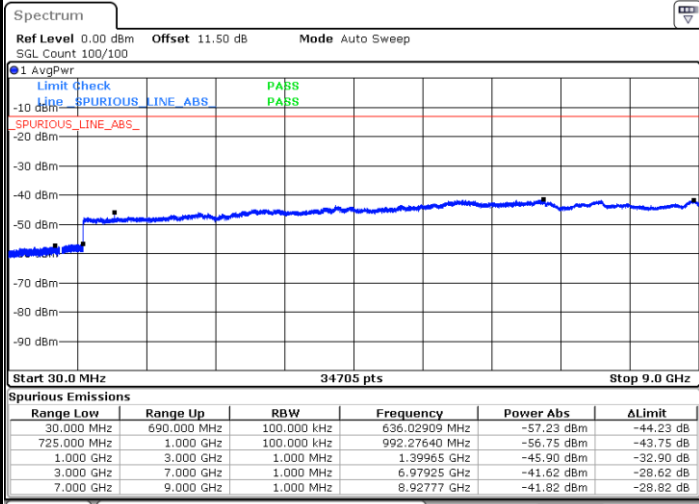
Date: 29.APR.2024 16:18:40



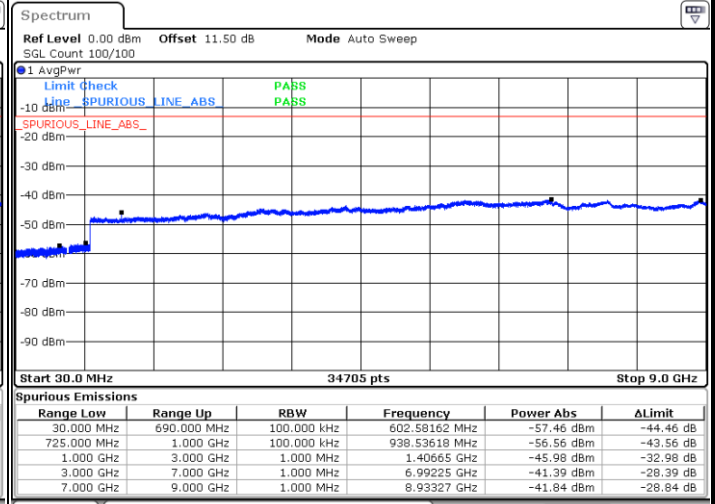
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

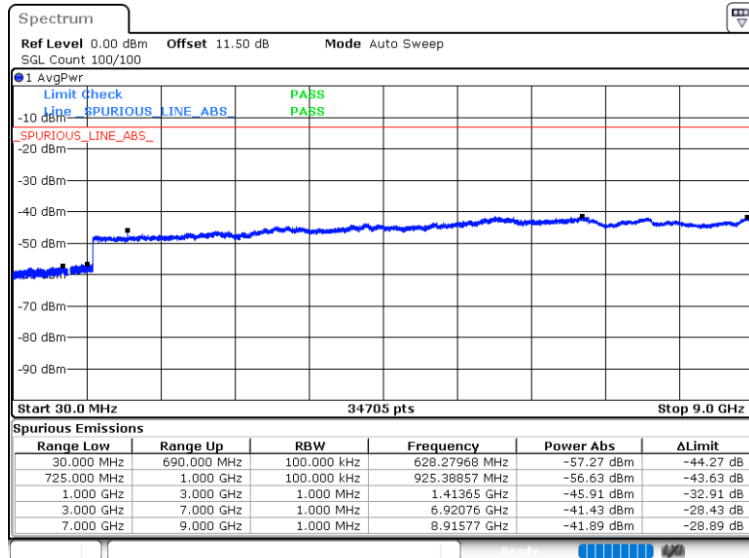


Date: 29.APR.2024 16:19:51



Date: 29.APR.2024 16:21:02

Highest Channel / QPSK



Date: 29.APR.2024 16:22:13



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	0.0025	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0114	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0068	
0	Normal Voltage	0.0092	
-10	Normal Voltage	0.0126	
-20	Normal Voltage	0.0049	
20	Maximum Voltage	0.0058	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0044	

Note:

1. Normal Voltage = 3.86 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

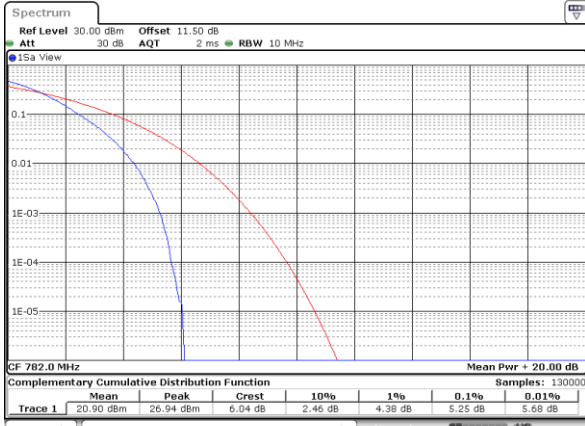
Peak-to-Average Ratio

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	5.25	6.17	6.35	6.67	PASS



LTE Band 13 / 10MHz / QPSK

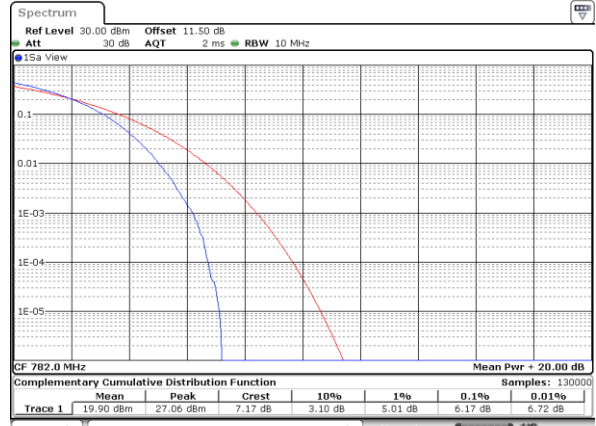
Middle Channel / Full RB



Date: 29.APR.2024 16:53:41

LTE Band 13 / 10MHz / 16QAM

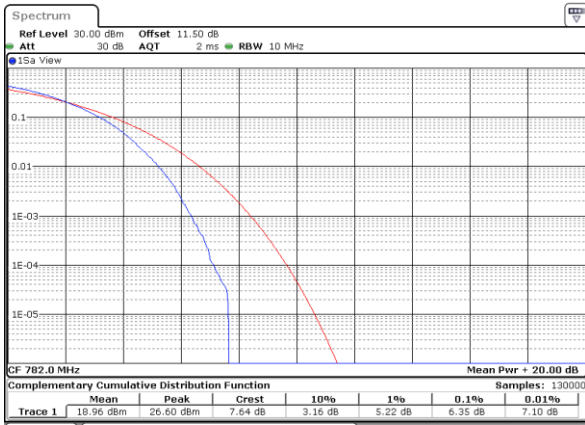
Middle Channel / Full RB



Date: 29.APR.2024 16:53:18

LTE Band 13 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 29.APR.2024 16:52:54

LTE Band 13 / 10MHz / 256QAM

Middle Channel / Full RB



Date: 29.APR.2024 17:07:17



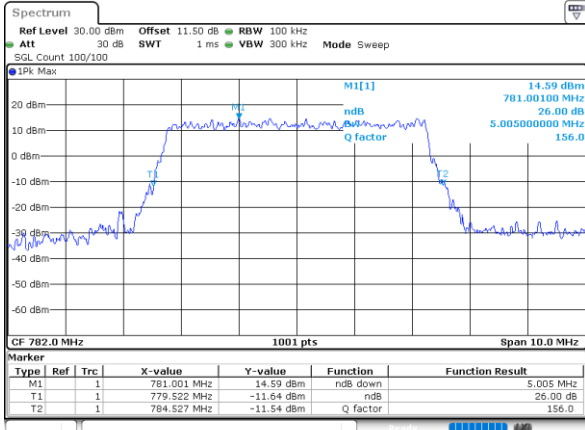
26dB Bandwidth

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	-	-	-	-	5.00	4.79	9.97	9.89	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	5.00	5.00	9.94	9.81	-	-	-	-



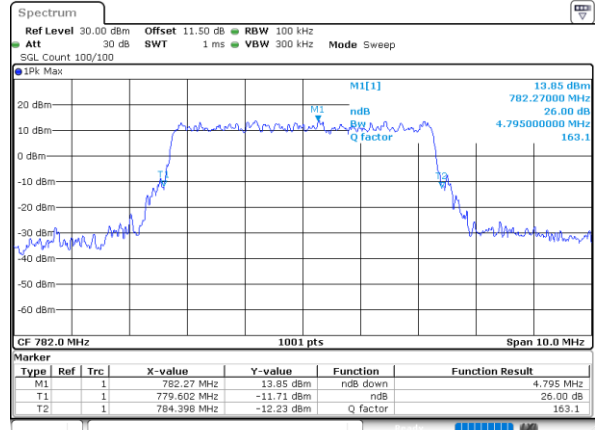
LTE Band 13

Middle Channel / 5MHz / QPSK



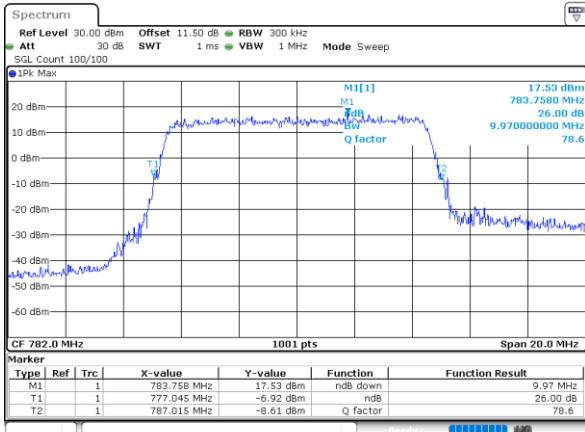
Date: 29_APR.2024 16:37:41

Middle Channel / 5MHz / 16QAM



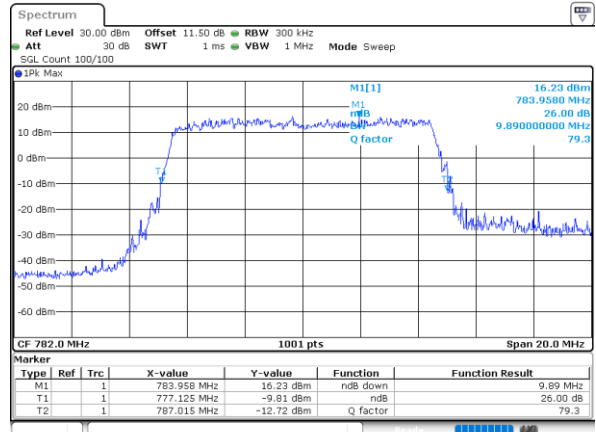
Date: 29_APR.2024 16:38:03

Middle Channel / 10MHz / QPSK



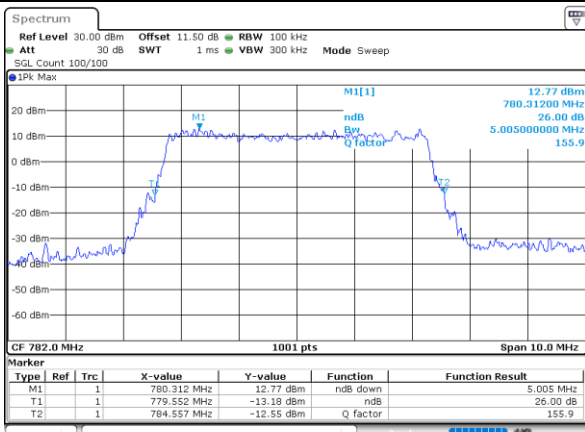
Date: 29_APR.2024 16:49:12

Middle Channel / 10MHz / 16QAM



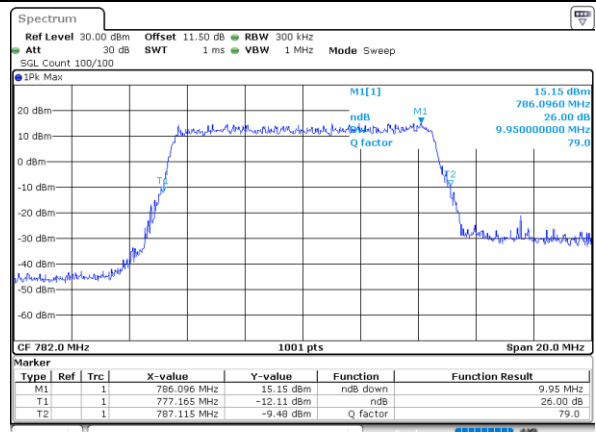
Date: 29_APR.2024 16:48:49

Middle Channel / 5MHz / 64QAM



Date: 29_APR.2024 16:45:35

Middle Channel / 10MHz / 64QAM

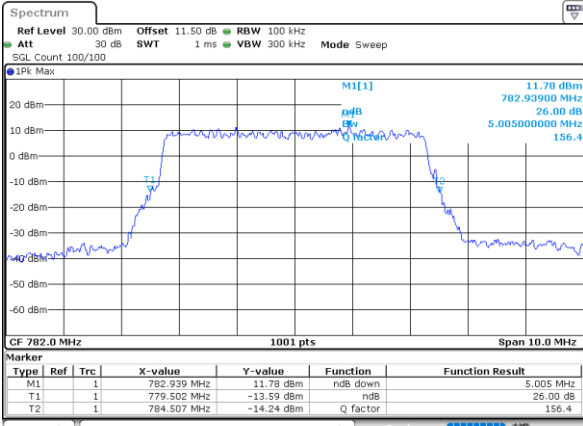


Date: 29_APR.2024 16:51:39



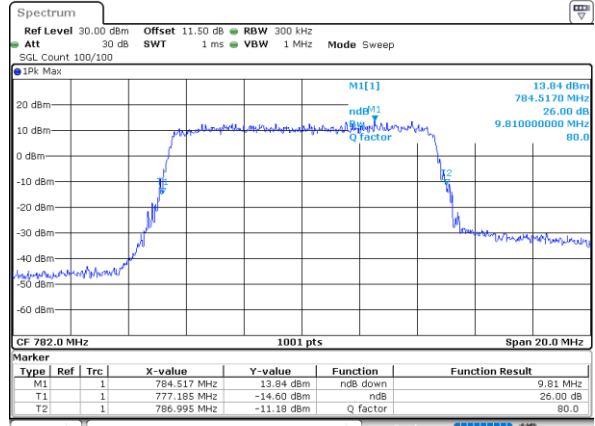
LTE Band 13

Middle Channel / 5MHz / 256QAM



Date: 29_APR.2024 16:58:05

Middle Channel / 10MHz / 256QAM



Date: 29_APR.2024 17:06:02



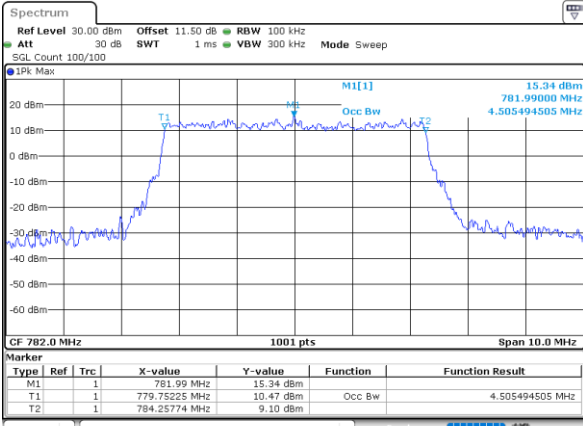
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.50	4.52	8.99	9.03	-	-	-	-
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	-	-	-	-	4.49	4.51	9.05	8.99	-	-	-	-



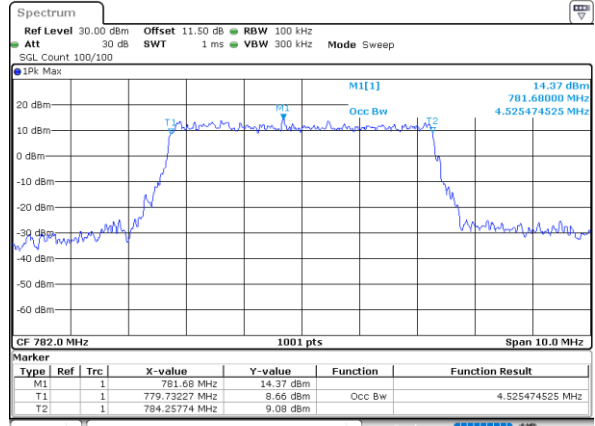
LTE Band 13

Middle Channel / 5MHz / QPSK



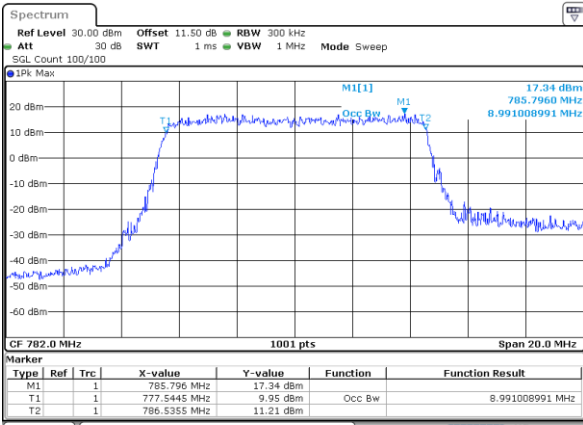
Date: 29_APR.2024 16:38:48

Middle Channel / 5MHz / 16QAM



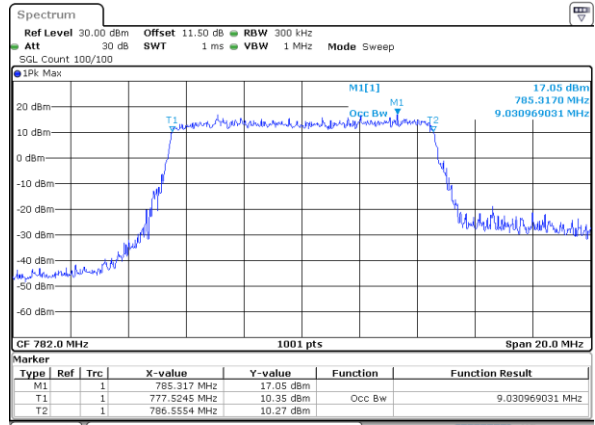
Date: 29_APR.2024 16:38:26

Middle Channel / 10MHz / QPSK



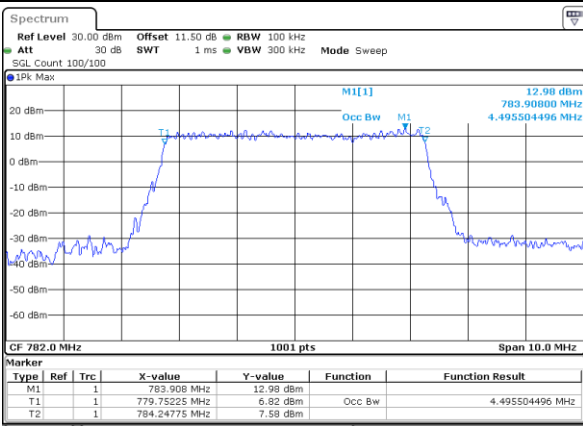
Date: 29_APR.2024 16:48:04

Middle Channel / 10MHz / 16QAM



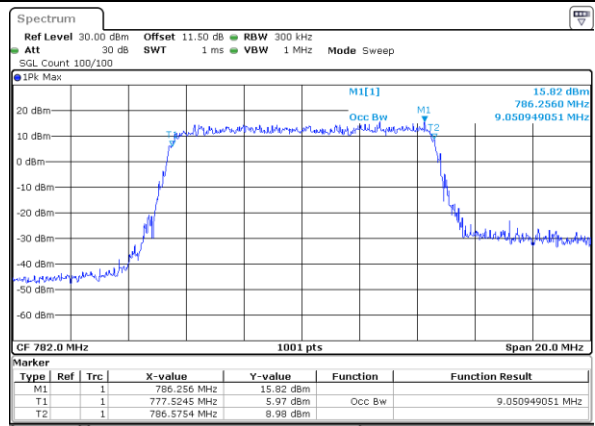
Date: 29_APR.2024 16:48:27

Middle Channel / 5MHz / 64QAM



Date: 29_APR.2024 16:45:57

Middle Channel / 10MHz / 64QAM

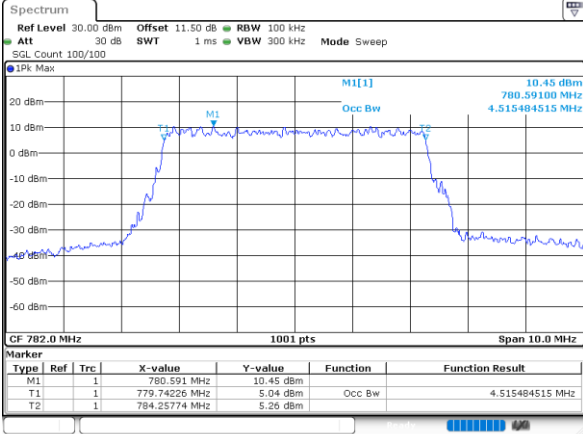


Date: 29_APR.2024 16:51:17



LTE Band 13

Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM

