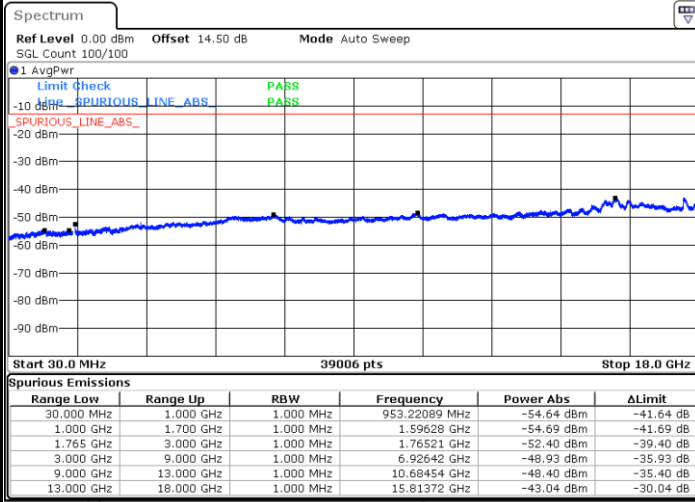




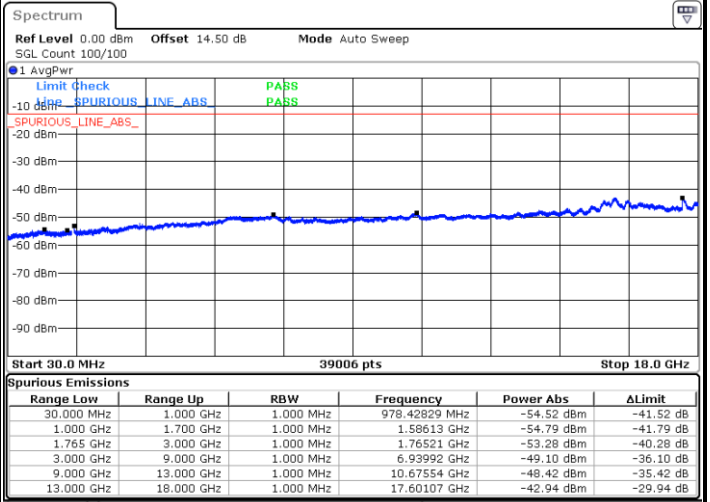
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 5.DEC.2022 18:38:50

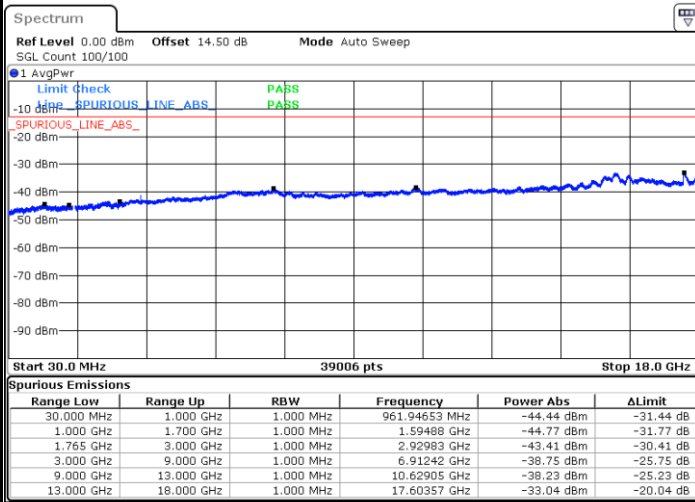
Highest Channel / 16QAM



Date: 5.DEC.2022 18:40:13

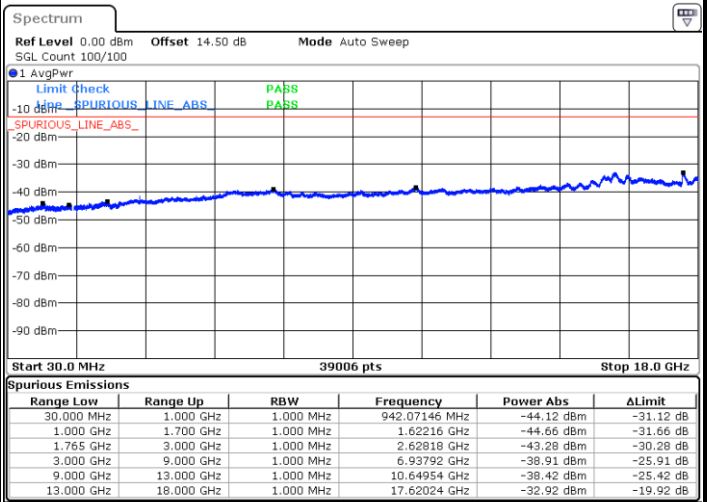
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 24.NOV.2022 10:05:56

Lowest Channel / 16QAM



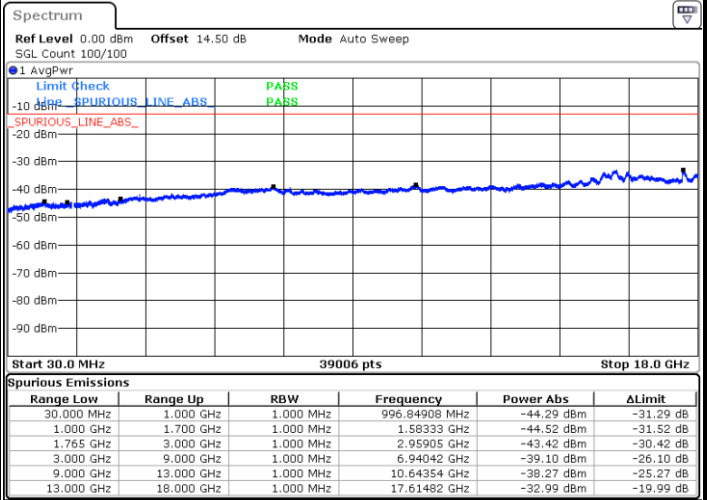
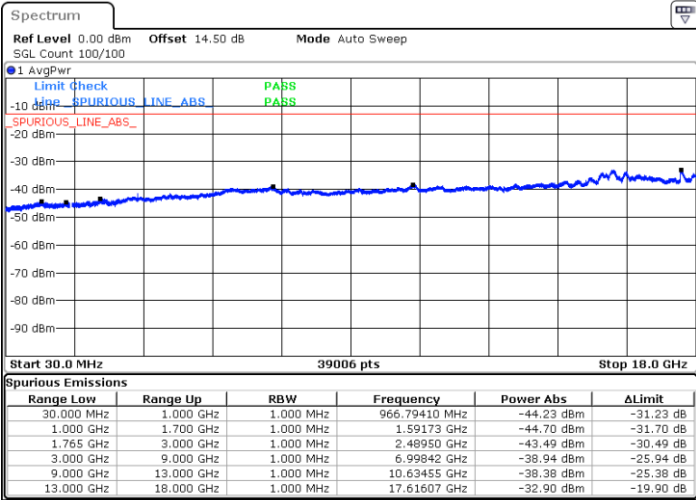
Date: 24.NOV.2022 10:07:13



LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

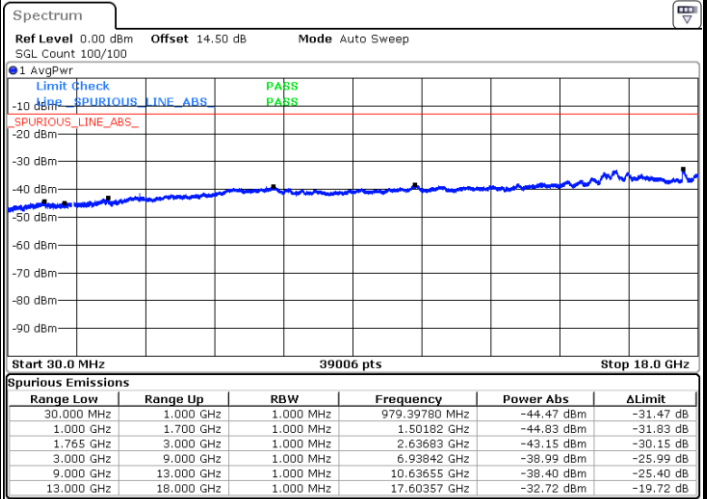
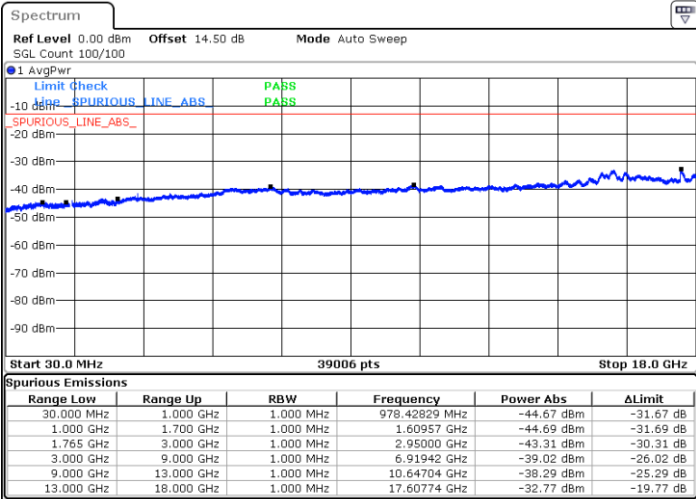


Date: 24.NOV.2022 10:10:04

Date: 24.NOV.2022 10:11:21

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24.NOV.2022 10:19:24

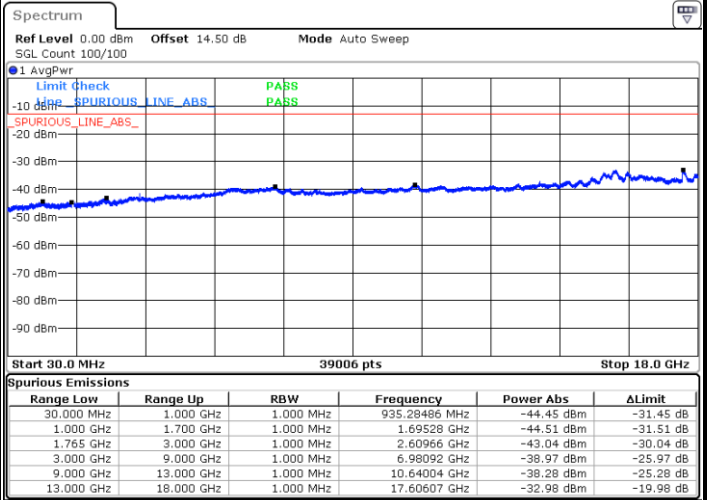
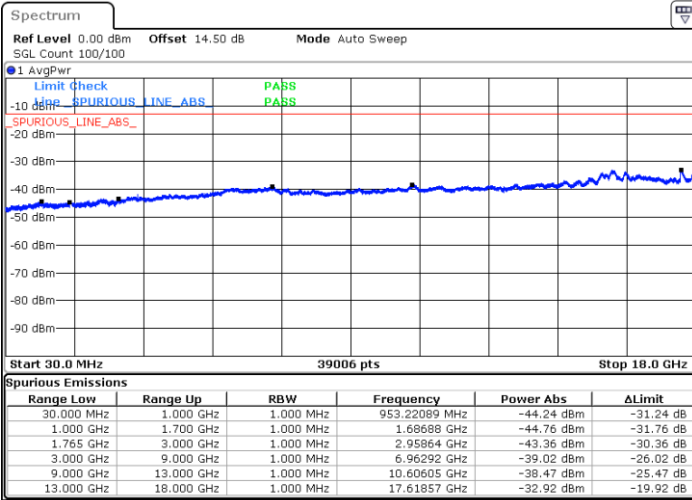
Date: 24.NOV.2022 10:20:41



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

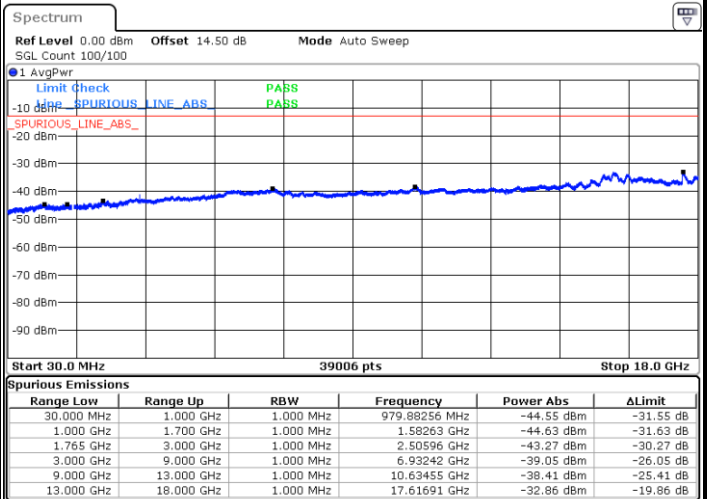
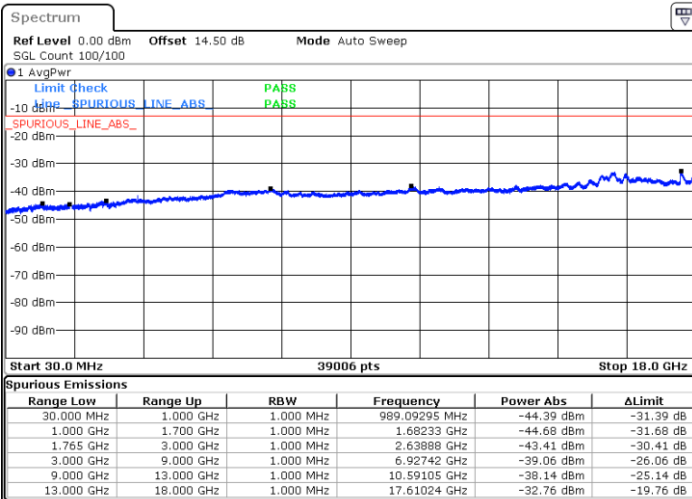


Date: 24.NOV.2022 10:28:44

Date: 24.NOV.2022 10:30:02

Middle Channel / QPSK

Middle Channel / 16QAM



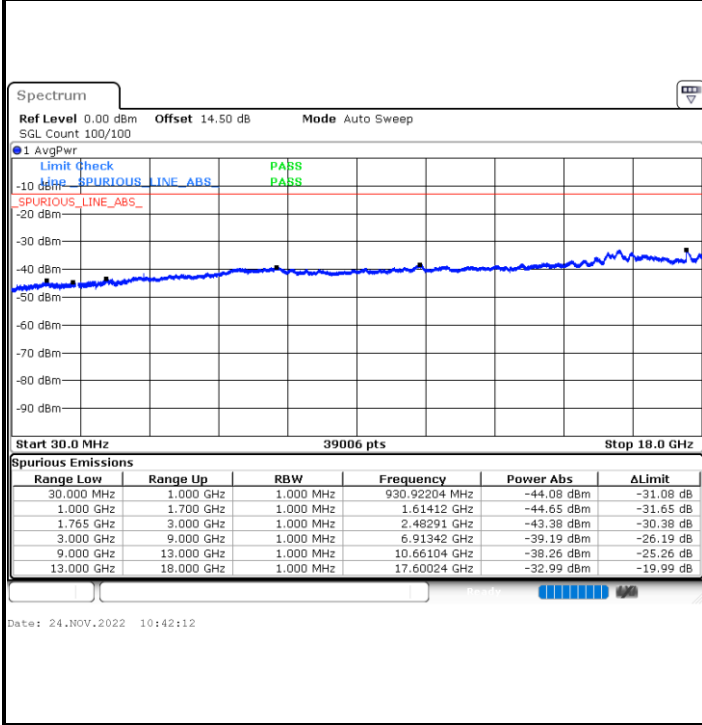
Date: 24.NOV.2022 10:32:53

Date: 24.NOV.2022 10:34:10

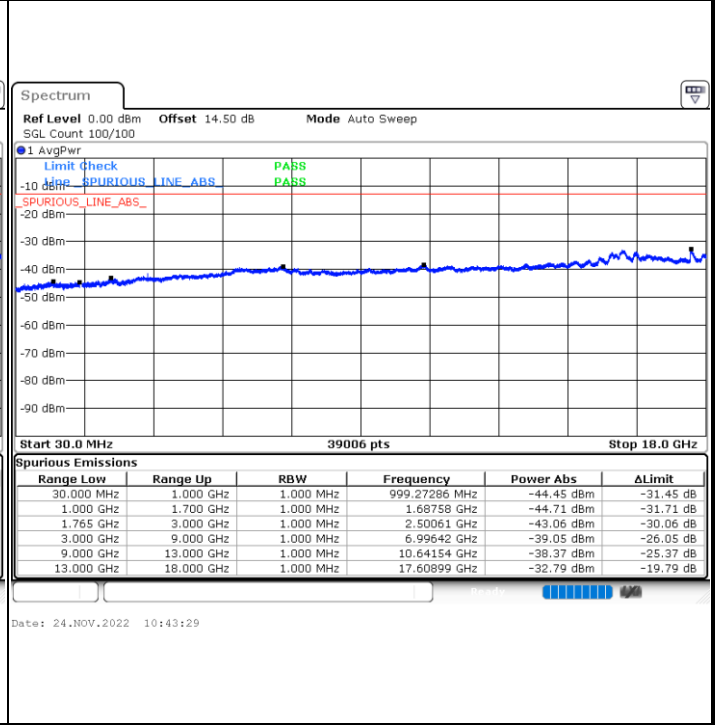


LTE Band 4 / 5MHz

Highest Channel / QPSK

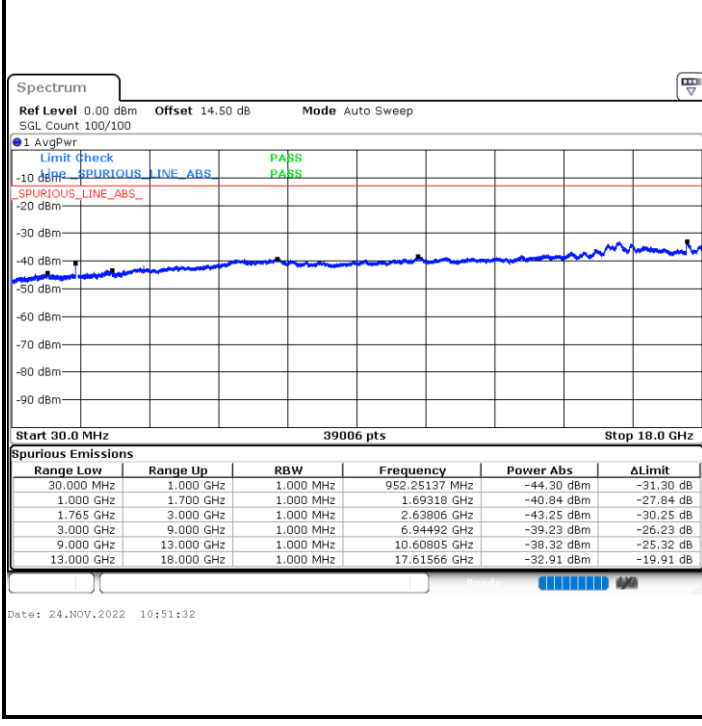


Highest Channel / 16QAM

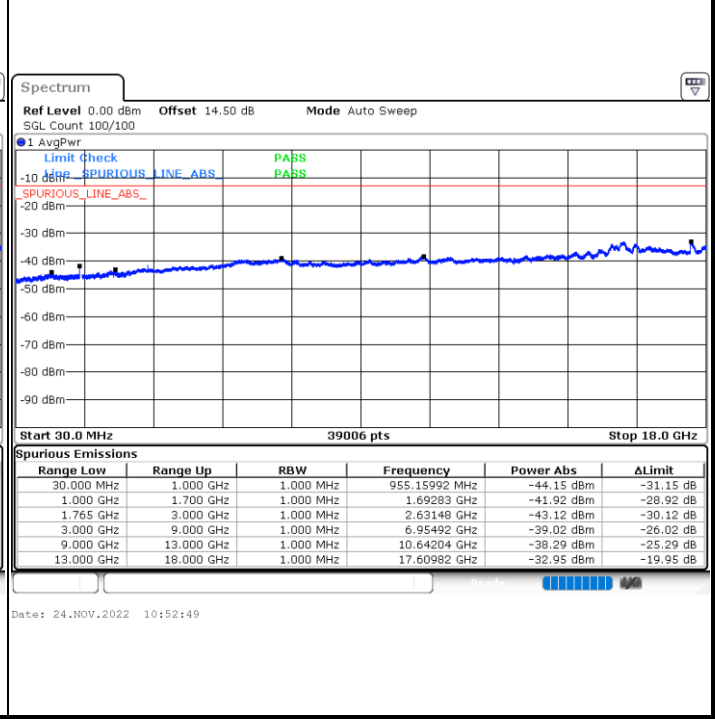


LTE Band 4 / 10MHz

Lowest Channel / QPSK



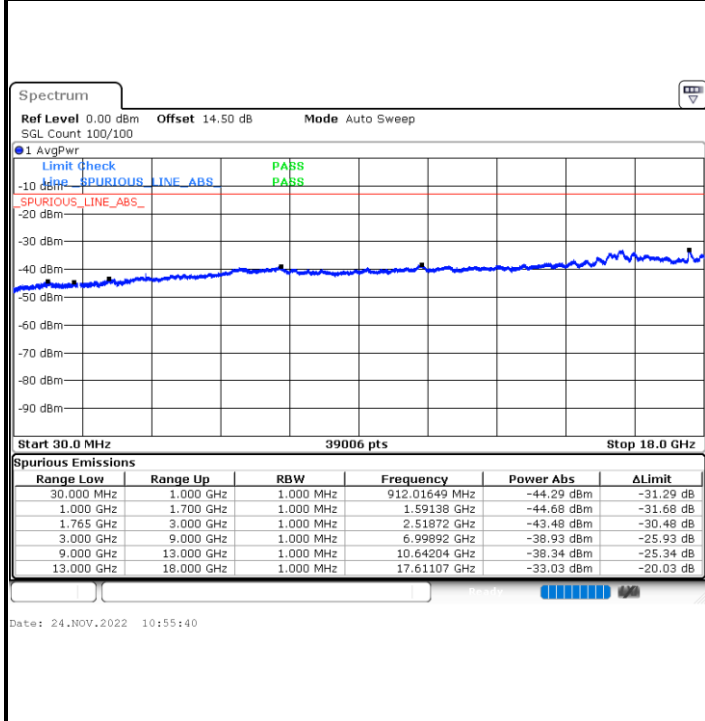
Lowest Channel / 16QAM



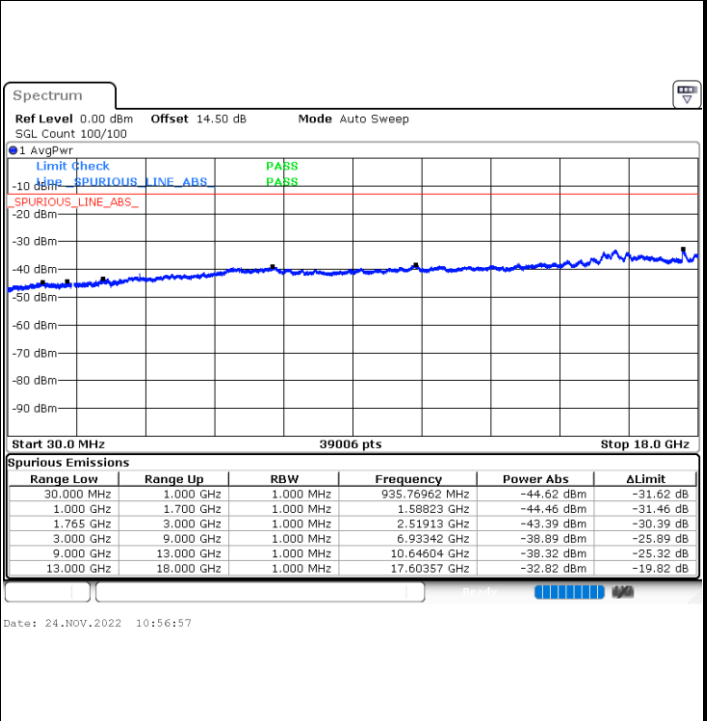


**LTE Band 4 / 10MHz**

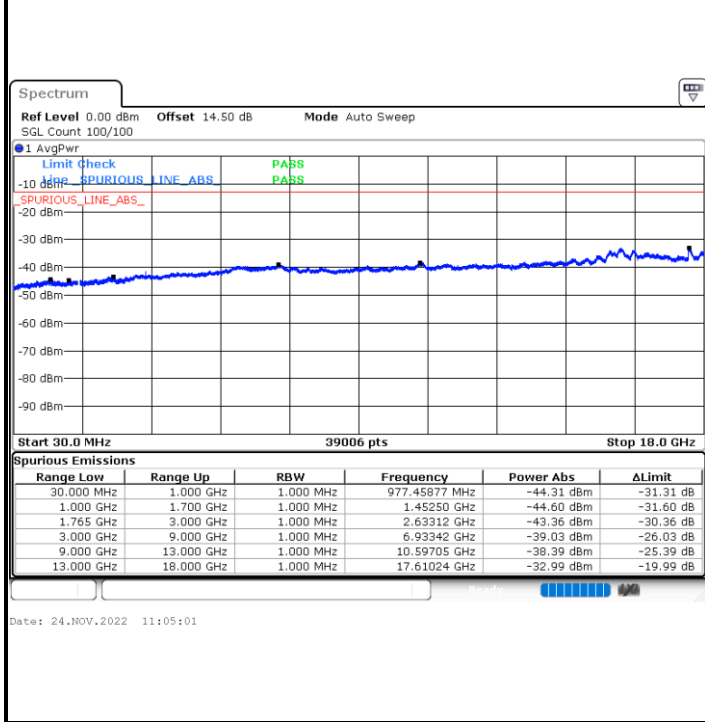
**Middle Channel / QPSK**



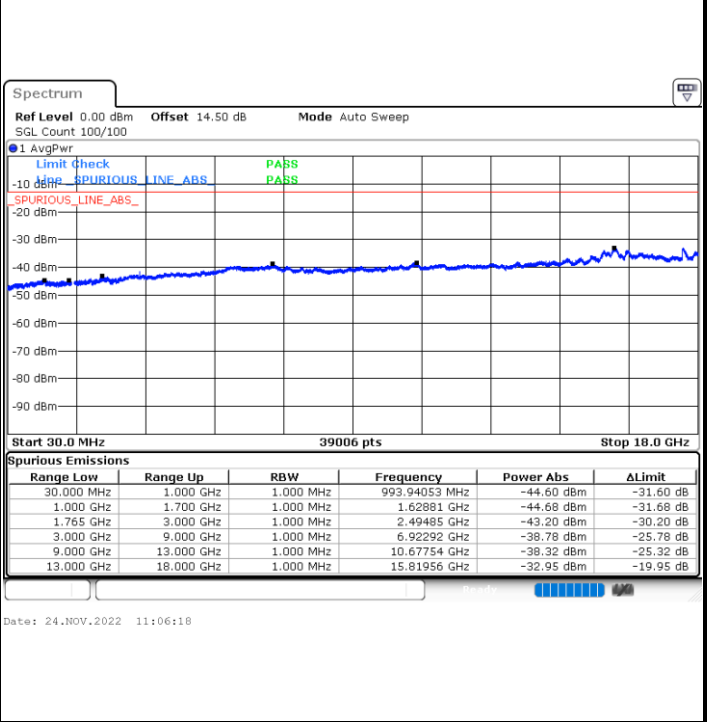
**Middle Channel / 16QAM**



**Highest Channel / QPSK**



**Highest Channel / 16QAM**

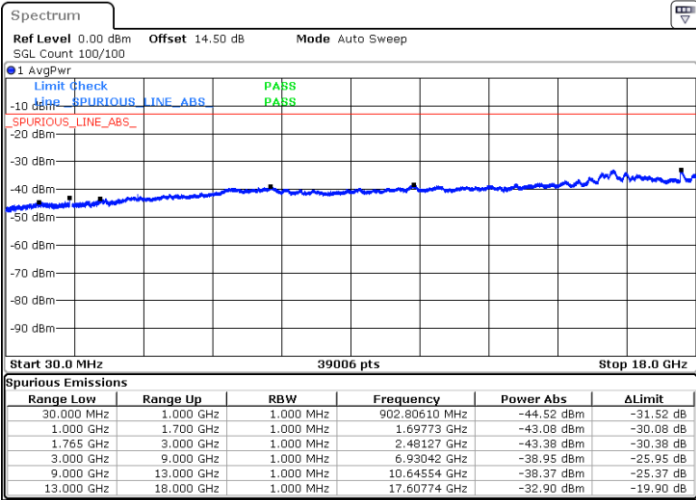




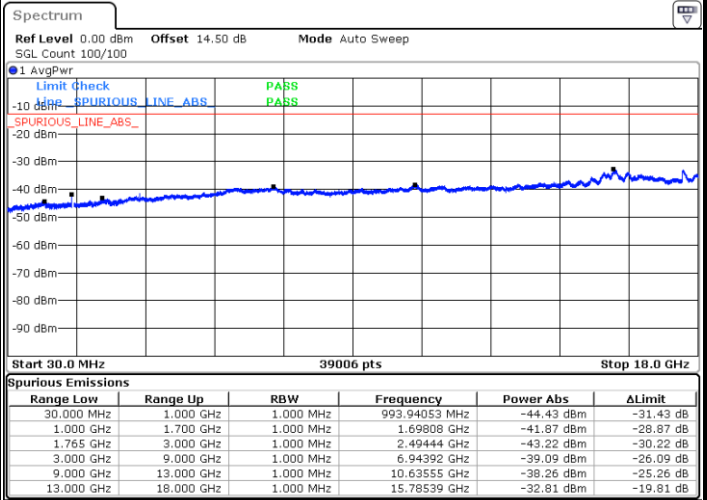
LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



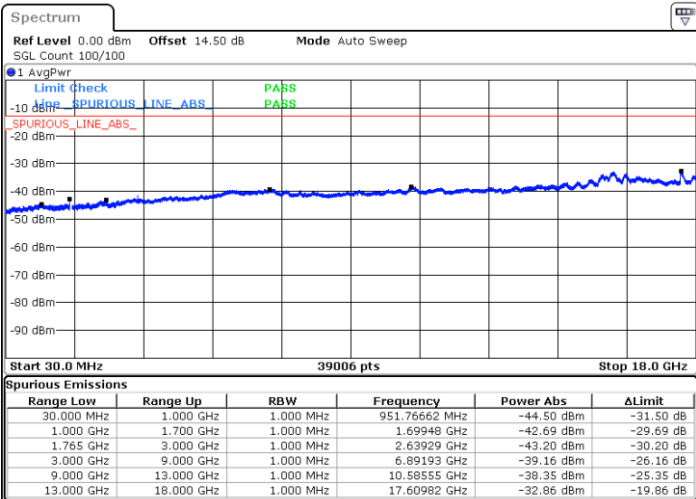
Date: 24.NOV.2022 11:14:17



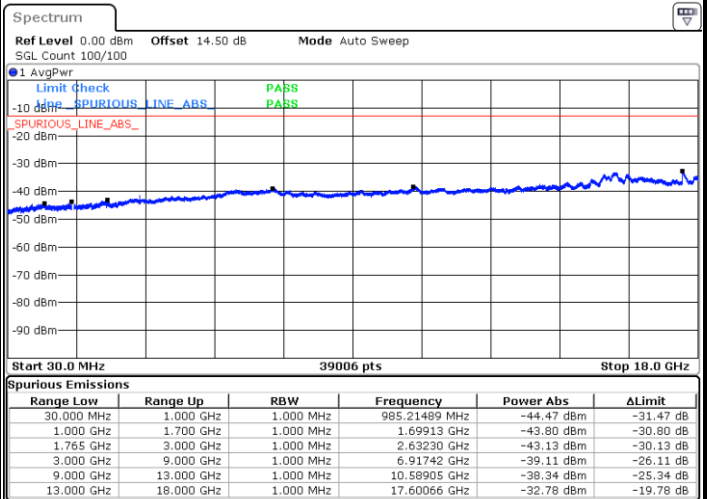
Date: 24.NOV.2022 11:15:30

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 24.NOV.2022 11:18:17



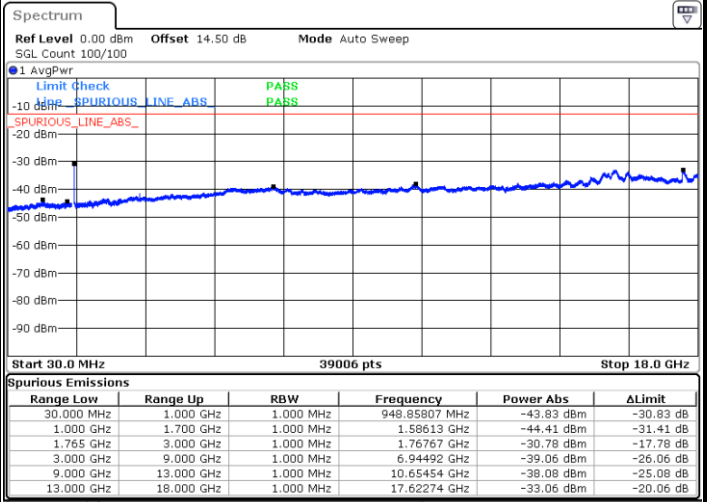
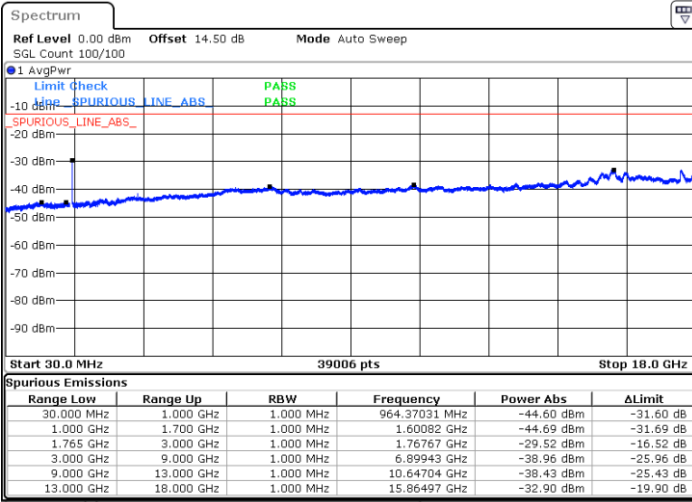
Date: 24.NOV.2022 11:19:29



LTE Band 4 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



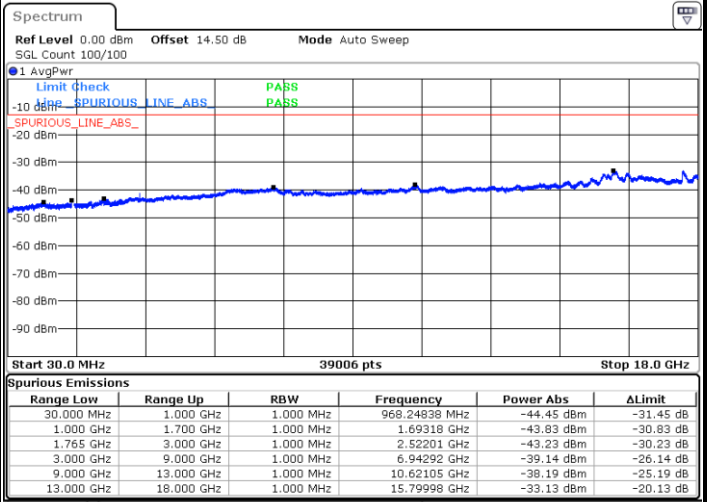
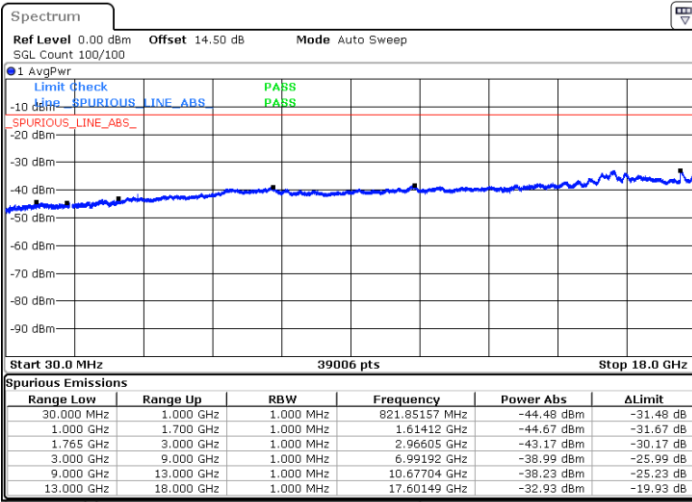
Date: 24.NOV.2022 11:25:37

Date: 24.NOV.2022 11:26:49

LTE Band 4 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 24.NOV.2022 11:32:47

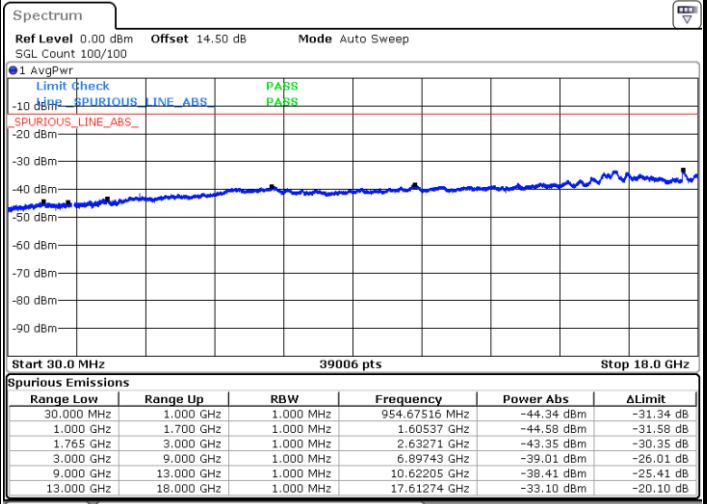
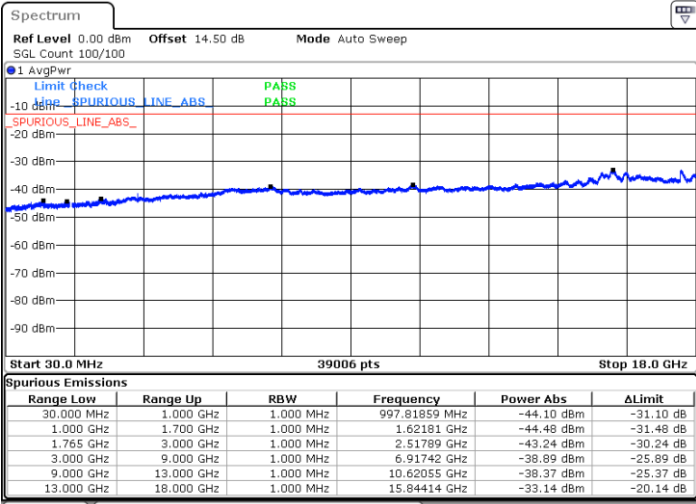
Date: 24.NOV.2022 11:34:00



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

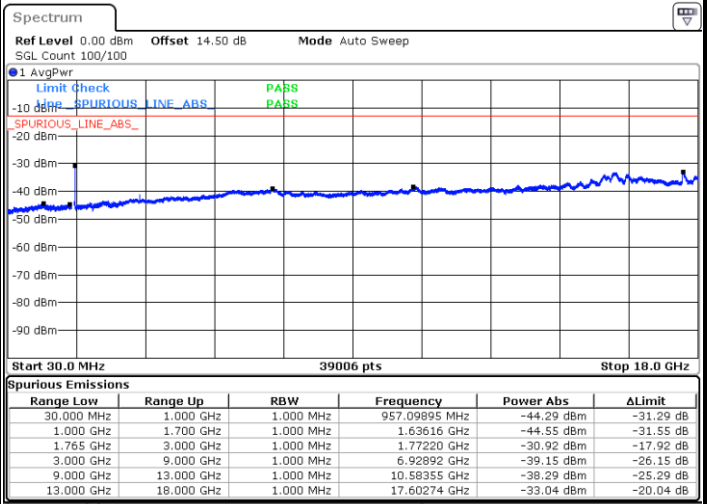
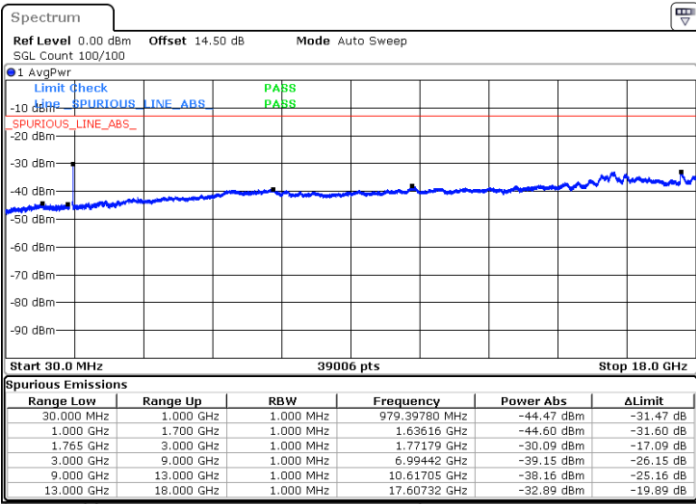


Date: 24.NOV.2022 11:36:34

Date: 24.NOV.2022 11:37:34

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24.NOV.2022 11:43:00

Date: 24.NOV.2022 11:44:00

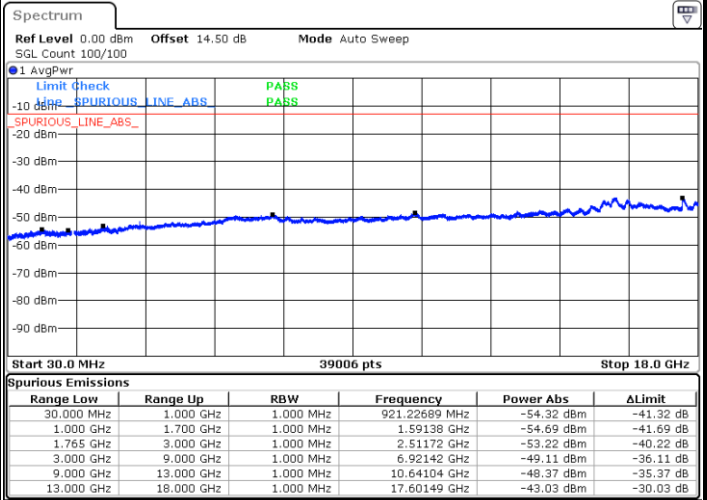
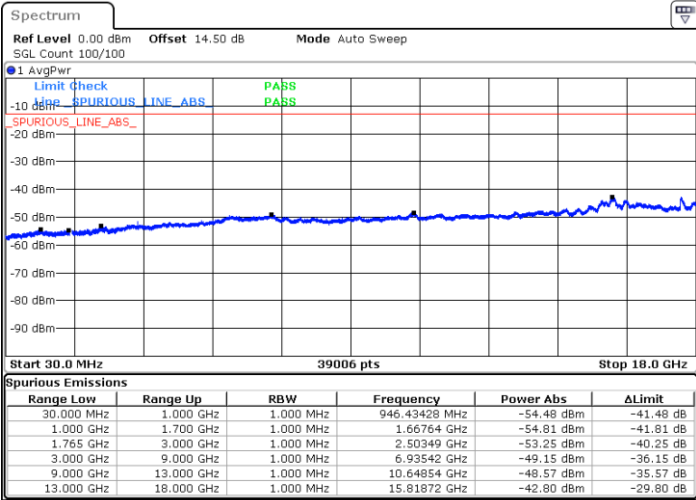




LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

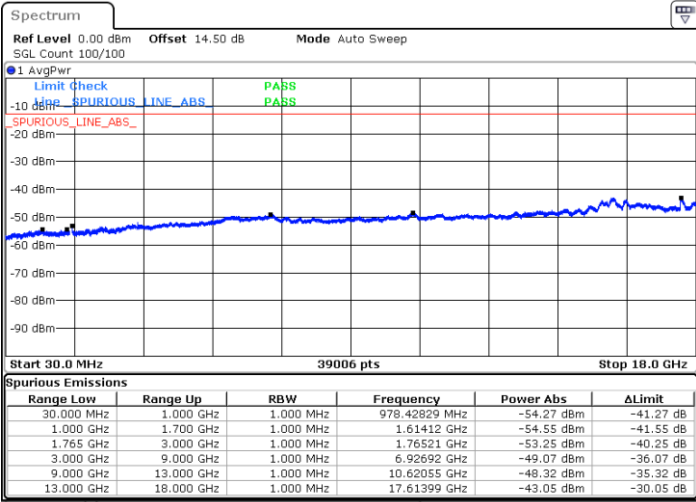


Date: 5.DEC.2022 18:07:50

Date: 5.DEC.2022 18:09:51

Highest Channel / 64QAM

N/A



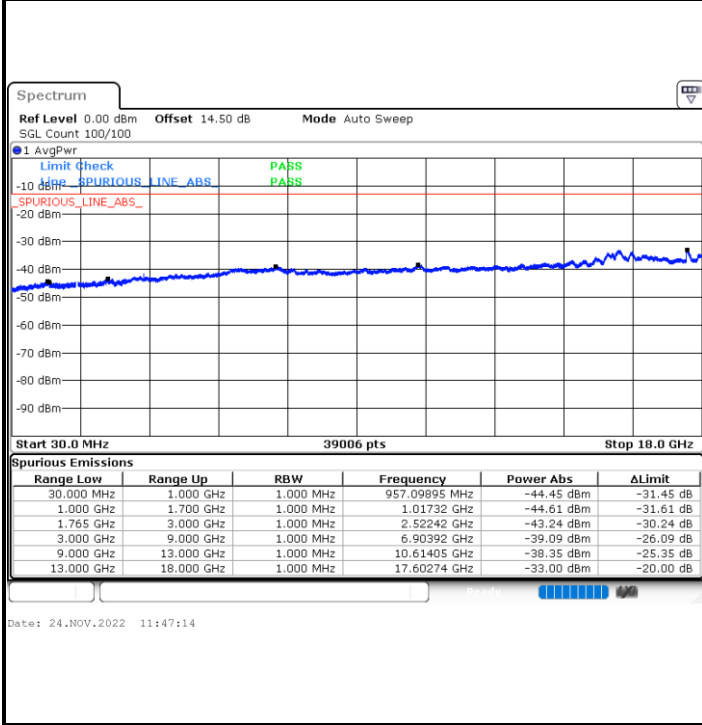
Date: 5.DEC.2022 18:14:56

N/A

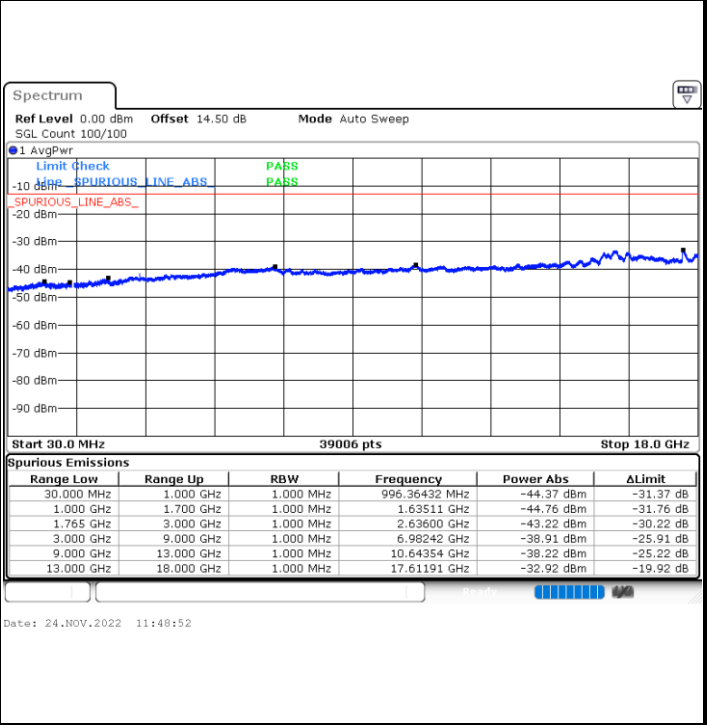


**LTE Band 4 / 3MHz**

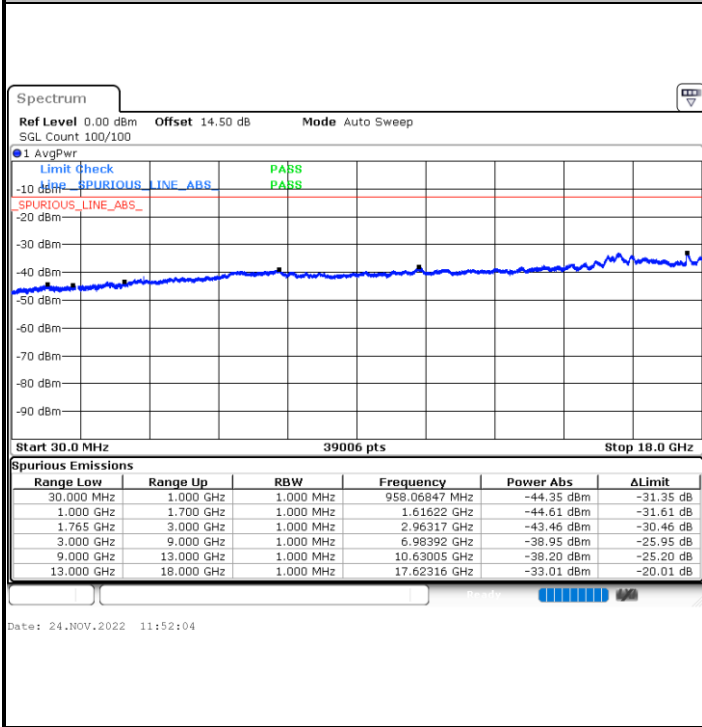
**Lowest Channel / 64QAM**



**Middle Channel / 64QAM**



**Highest Channel / 64QAM**



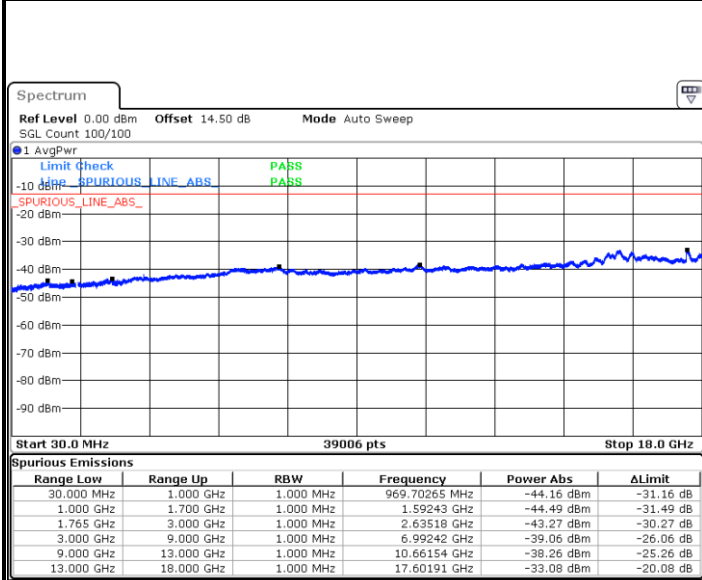
**N/A**

N/A



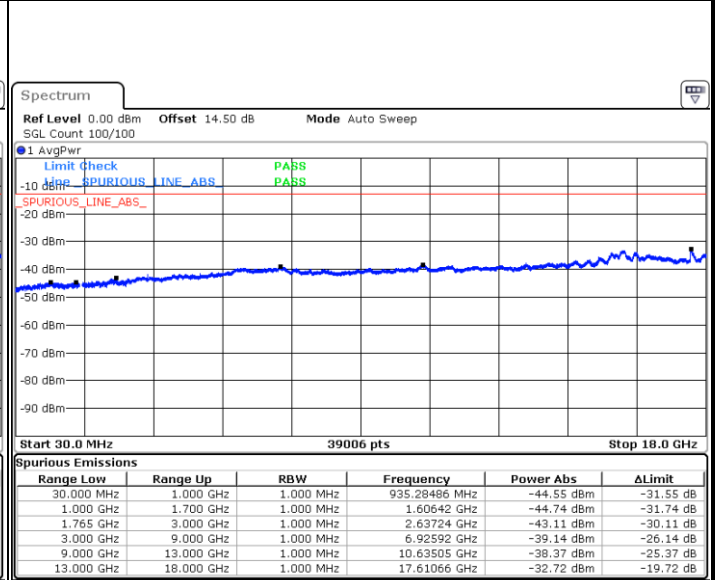
LTE Band 4 / 5MHz

Lowest Channel / 64QAM



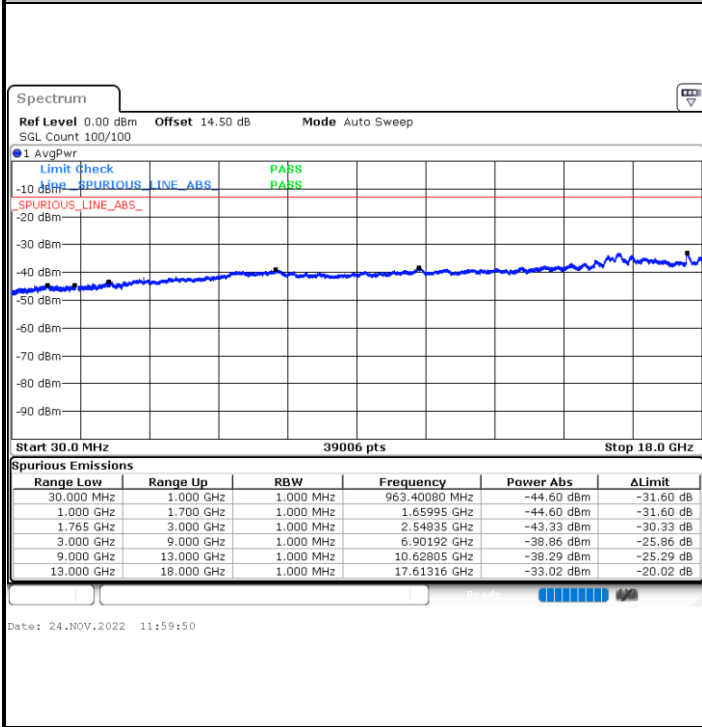
Date: 24.NOV.2022 11:55:08

Middle Channel / 64QAM



Date: 24.NOV.2022 11:56:47

Highest Channel / 64QAM



Date: 24.NOV.2022 11:59:50

N/A

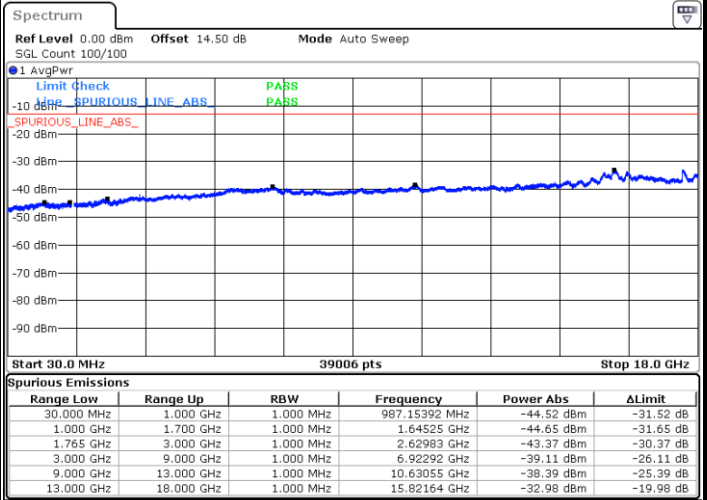
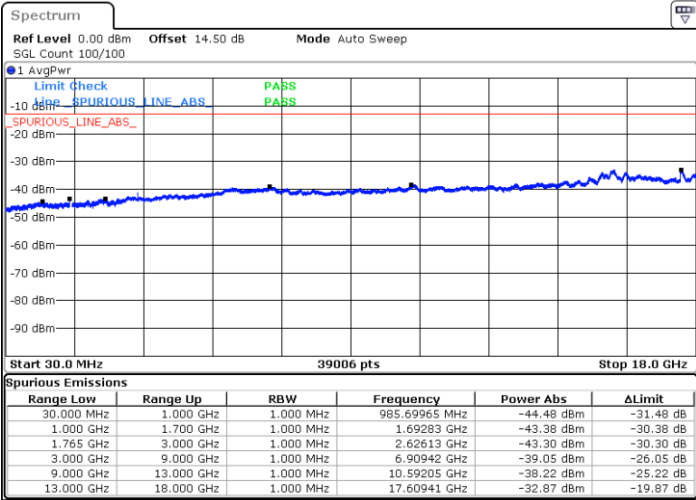
N/A



LTE Band 4 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

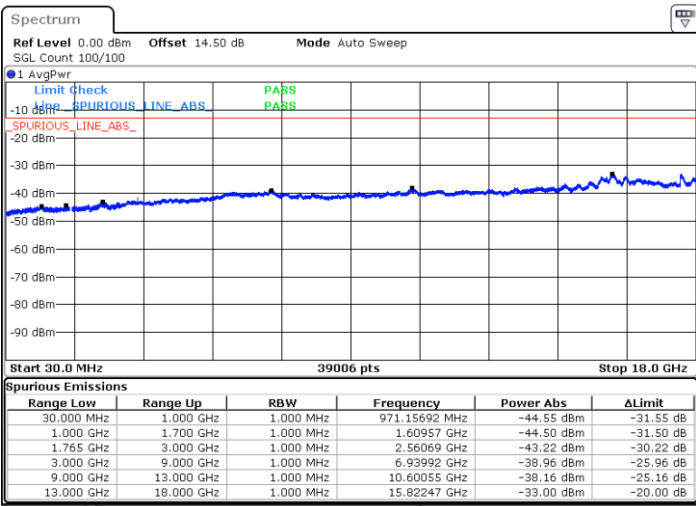


Date: 24.NOV.2022 12:02:52

Date: 24.NOV.2022 12:04:27

Highest Channel / 64QAM

N/A



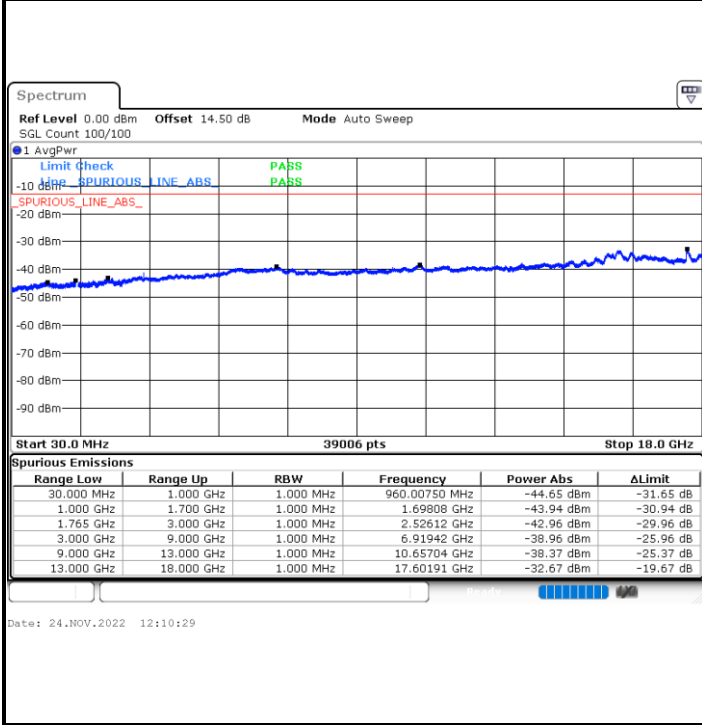
N/A

Date: 24.NOV.2022 12:07:28

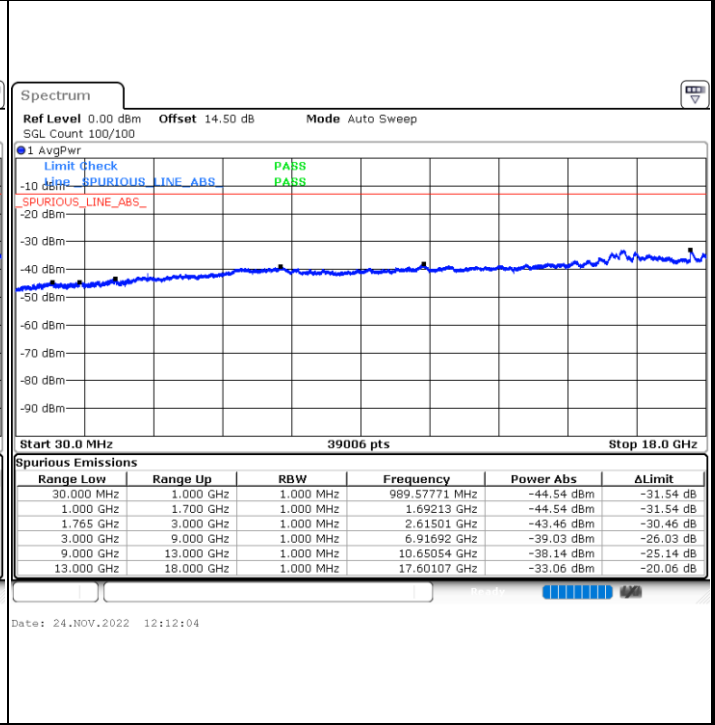


**LTE Band 4 / 15MHz**

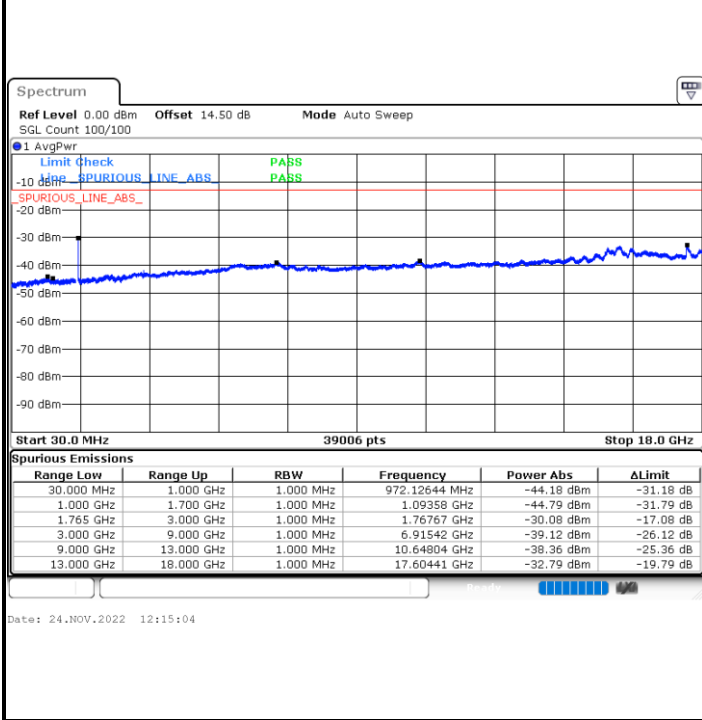
**Lowest Channel / 64QAM**



**Middle Channel / 64QAM**



**Highest Channel / 64QAM**



**N/A**

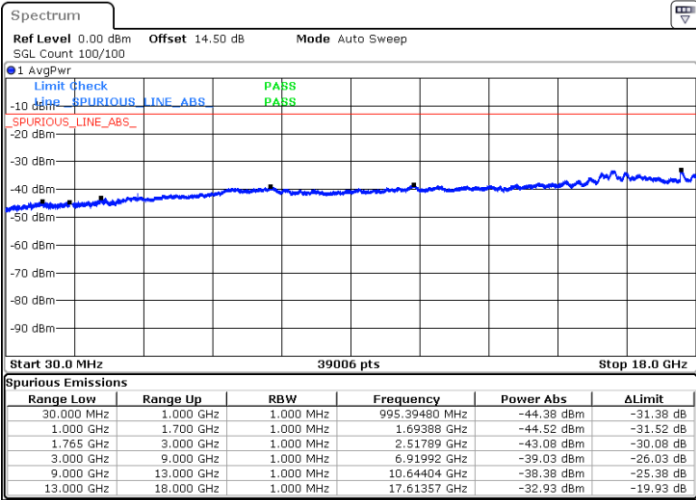
N/A



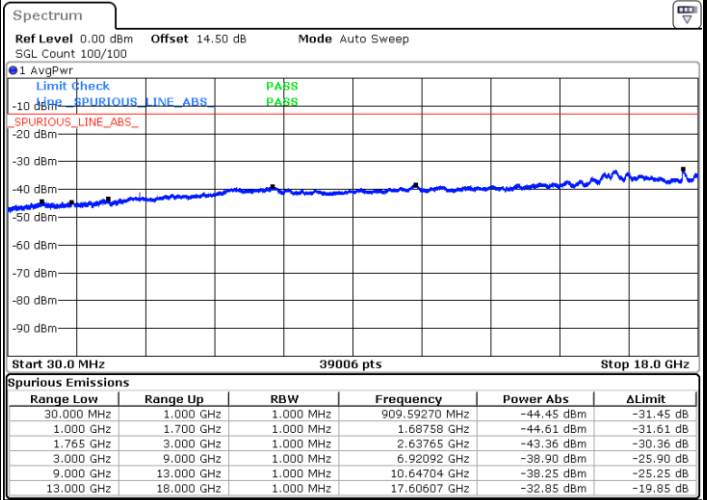
LTE Band 4 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



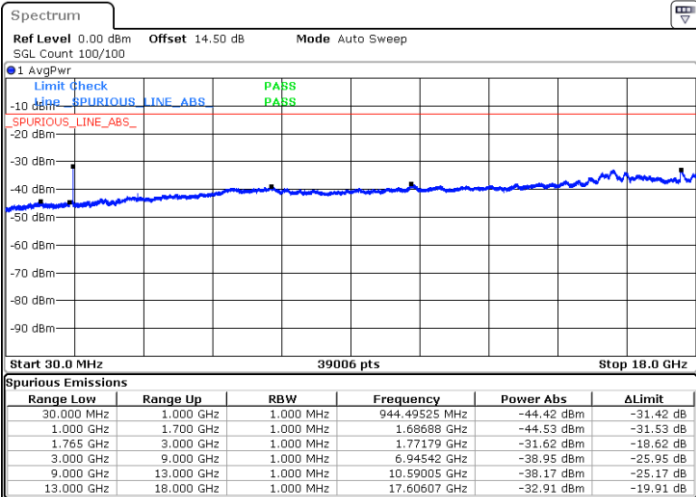
Date: 24.NOV.2022 12:18:06



Date: 24.NOV.2022 12:19:41

Highest Channel / 64QAM

N/A



Date: 24.NOV.2022 12:22:41

N/A



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	0.0024	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0097	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0103	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 5

## Peak-to-Average Ratio

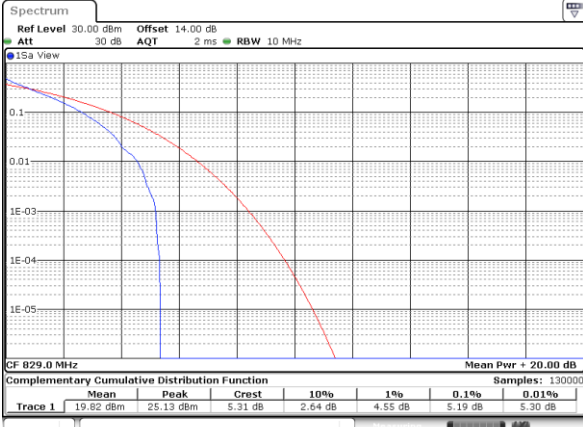
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.19	5.39	6.49	6.26	PASS
Middle CH	4.96	5.48	6.20	6.20	
Highest CH	4.78	5.16	6.52	6.09	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.67	6.41	-	-	PASS
Middle CH	6.81	6.35	-	-	
Highest CH	6.72	6.41	-	-	





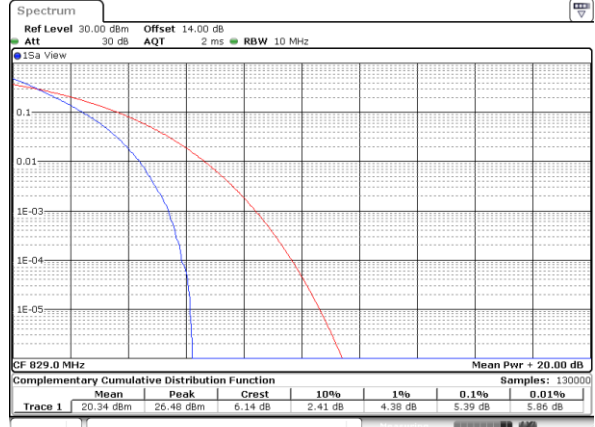
LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



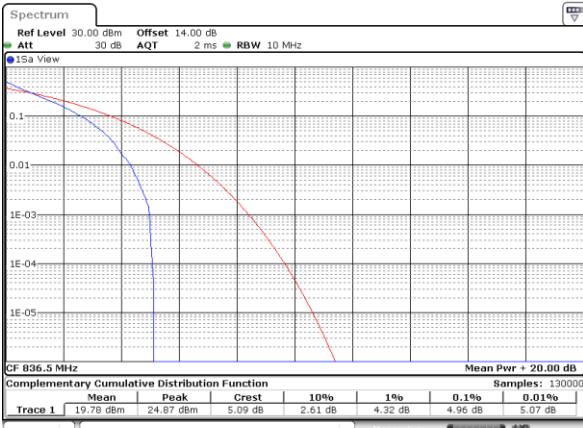
Date: 28.NOV.2022 12:04:51

Lowest Channel / Full RB



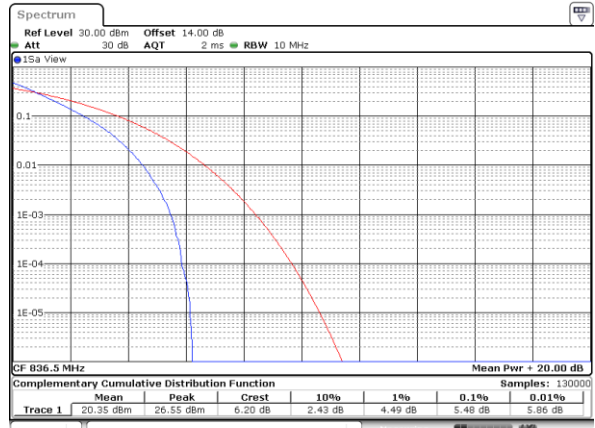
Date: 28.NOV.2022 12:05:16

Middle Channel / 1RB



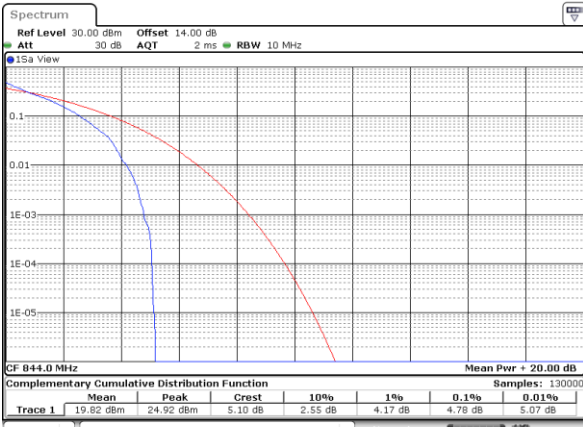
Date: 28.NOV.2022 12:05:41

Middle Channel / Full RB



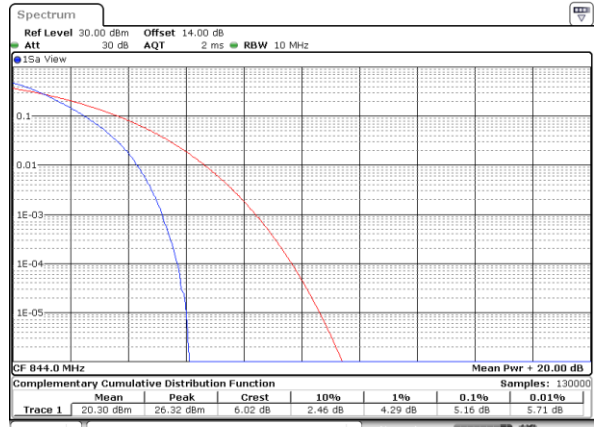
Date: 28.NOV.2022 12:06:06

Highest Channel / 1RB



Date: 28.NOV.2022 12:06:31

Highest Channel / Full RB

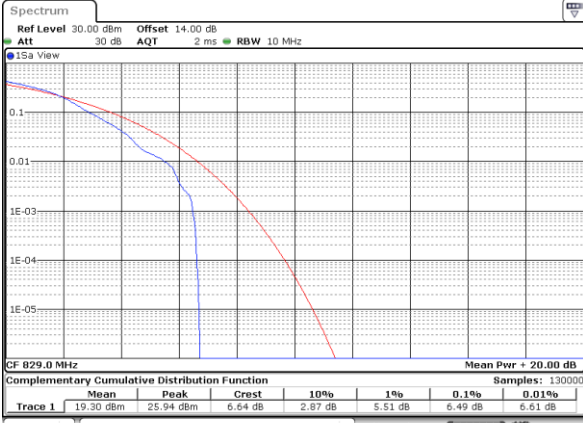


Date: 28.NOV.2022 12:06:56



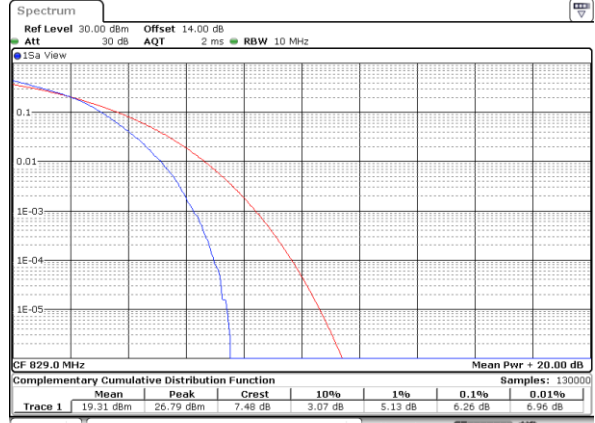
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



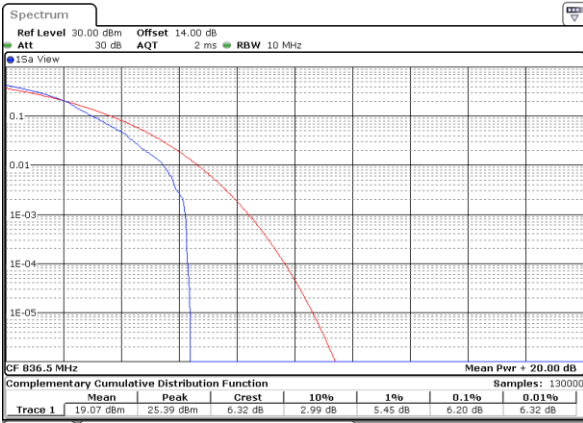
Date: 28.NOV.2022 12:02:20

Lowest Channel / Full RB



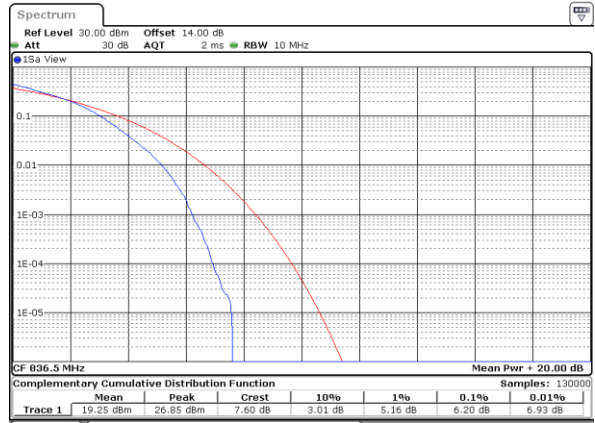
Date: 28.NOV.2022 12:02:45

Middle Channel / 1RB



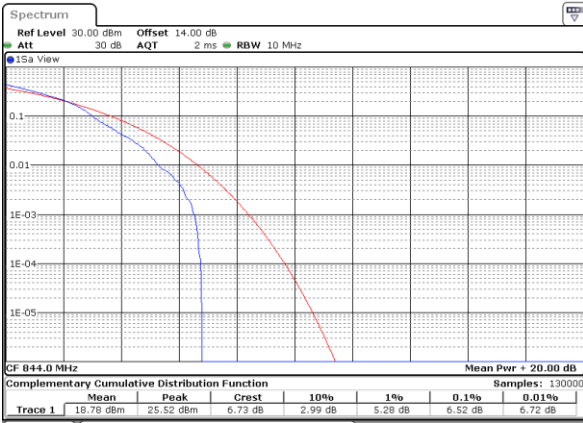
Date: 28.NOV.2022 12:03:11

Middle Channel / Full RB



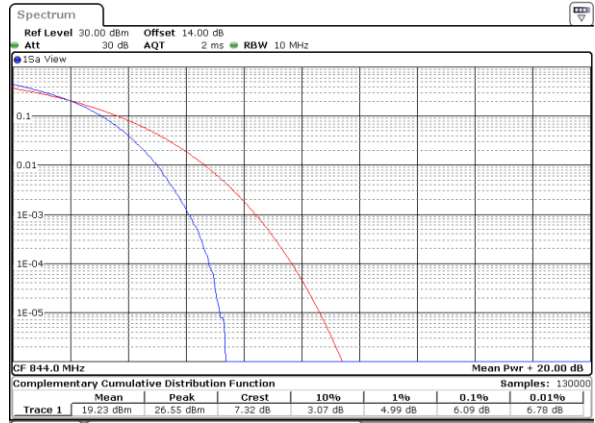
Date: 28.NOV.2022 12:03:35

Highest Channel / 1RB



Date: 28.NOV.2022 12:04:00

Highest Channel / Full RB

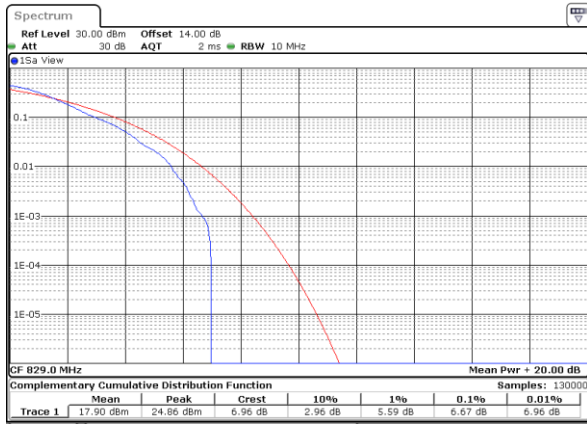


Date: 28.NOV.2022 12:04:26



LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB



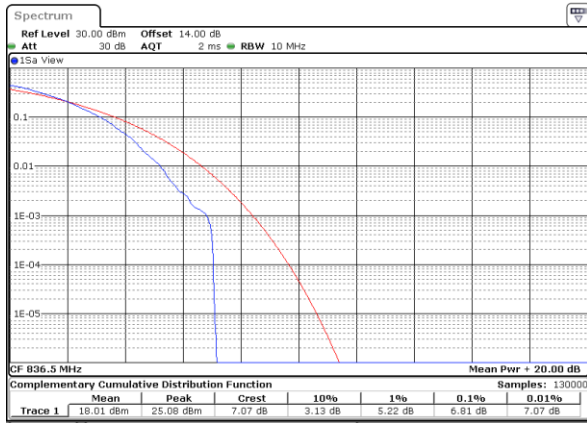
Date: 28\_NOV,2022 12:07:22

Lowest Channel / Full RB



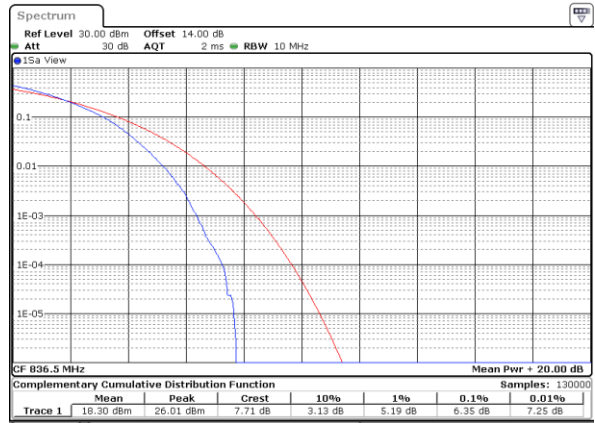
Date: 28\_NOV,2022 12:07:47

Middle Channel / 1RB



Date: 28\_NOV,2022 12:08:12

Middle Channel / Full RB



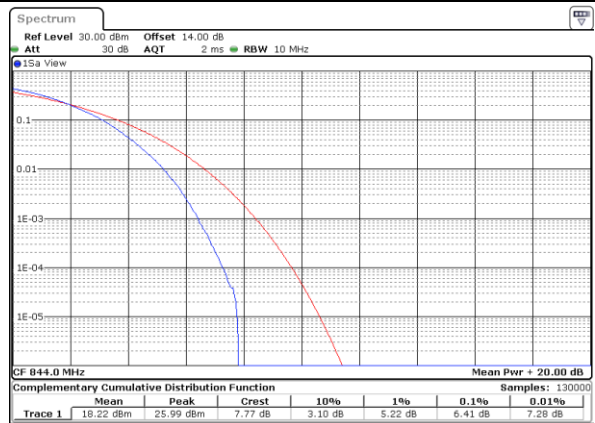
Date: 28\_NOV,2022 12:08:37

Highest Channel / 1RB



Date: 28\_NOV,2022 12:09:02

Highest Channel / Full RB



Date: 28\_NOV,2022 12:09:27



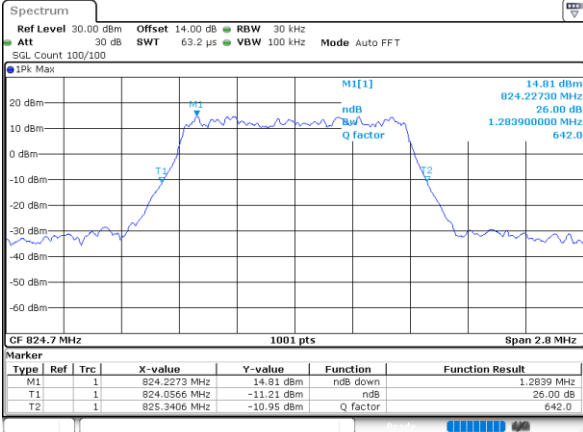
26dB Bandwidth

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.28	1.29	2.99	2.94	4.86	4.93	9.79	9.77	-	-	-	-
Middle CH	1.27	1.29	2.96	2.94	4.88	4.84	9.77	9.79	-	-	-	-
Highest CH	1.27	1.27	2.97	2.99	4.91	4.84	9.95	9.75	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.27	-	2.98	-	4.90	-	9.81	-	-	-	-	-
Middle CH	1.28	-	2.97	-	4.93	-	9.83	-	-	-	-	-
Highest CH	1.28	-	3.00	-	4.87	-	9.69	-	-	-	-	-



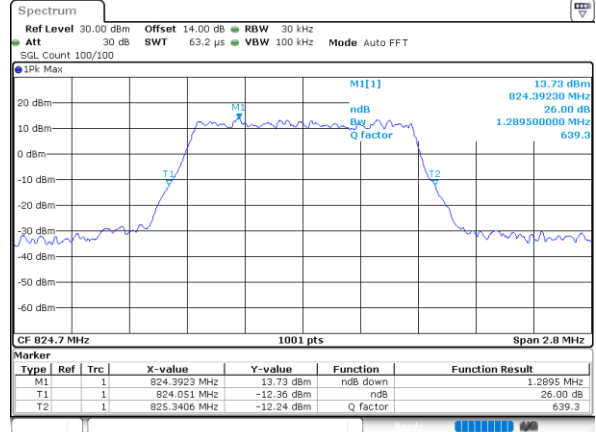
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



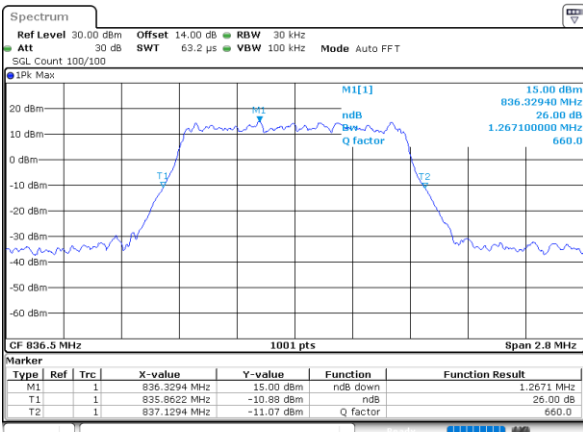
Date: 28\_Nov.2022 09:09:33

Lowest Channel / 1.4MHz / 16QAM



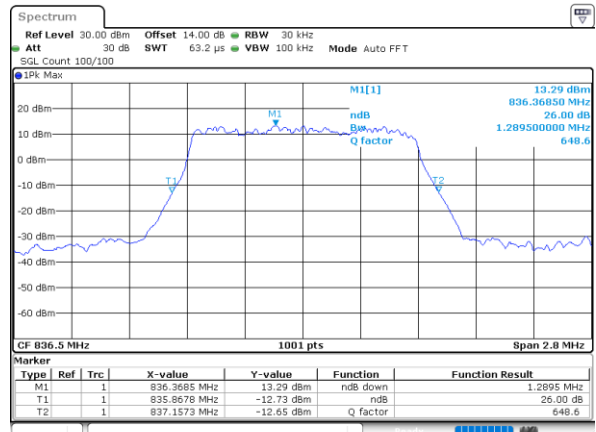
Date: 28\_Nov.2022 09:10:09

Middle Channel / 1.4MHz / QPSK



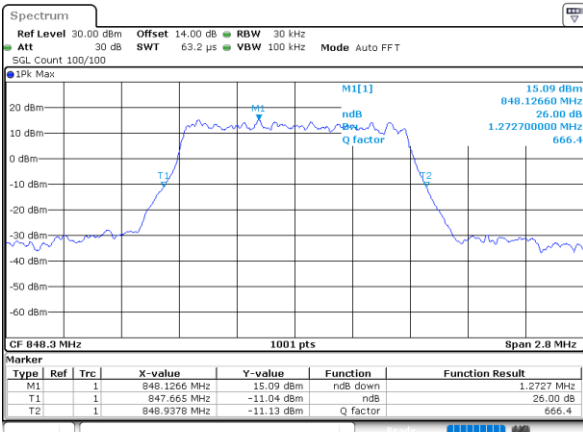
Date: 28\_Nov.2022 09:20:38

Middle Channel / 1.4MHz / 16QAM



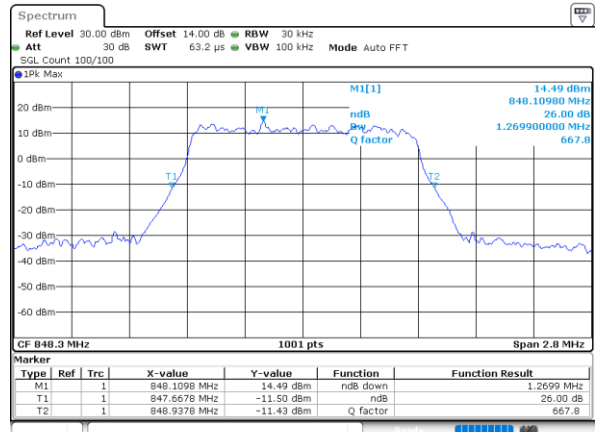
Date: 28\_Nov.2022 09:21:02

Highest Channel / 1.4MHz / QPSK



Date: 28\_Nov.2022 09:24:37

Highest Channel / 1.4MHz / 16QAM

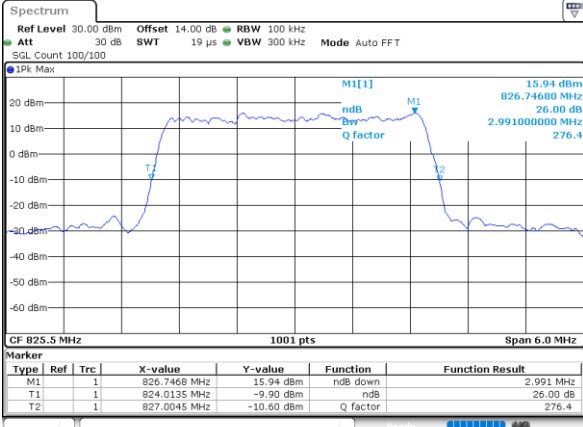


Date: 28\_Nov.2022 09:25:01



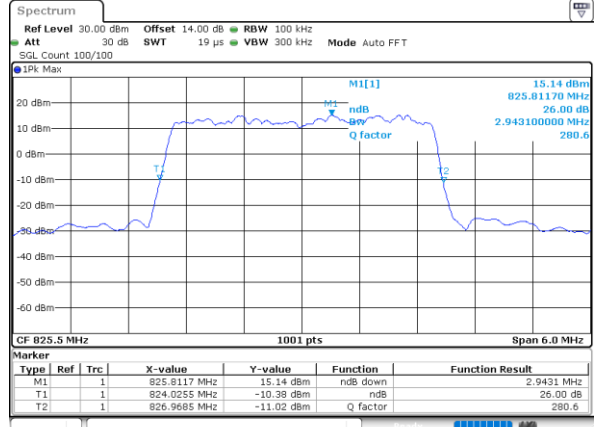
LTE Band 5

Lowest Channel / 3MHz / QPSK



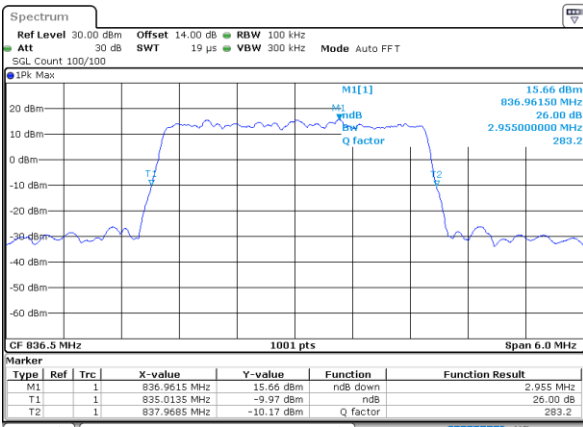
Date: 28.NOV.2022 09:48:50

Lowest Channel / 3MHz / 16QAM



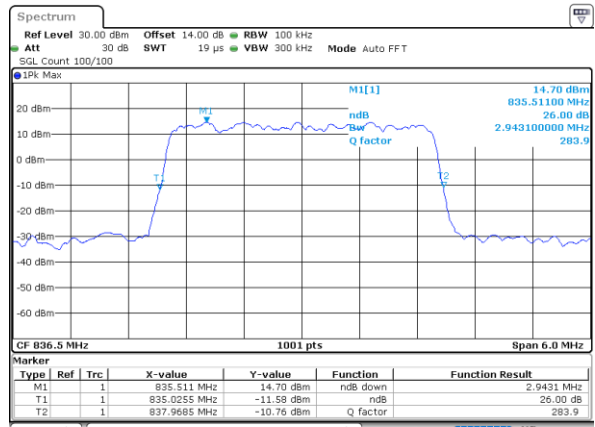
Date: 28.NOV.2022 09:49:22

Middle Channel / 3MHz / QPSK



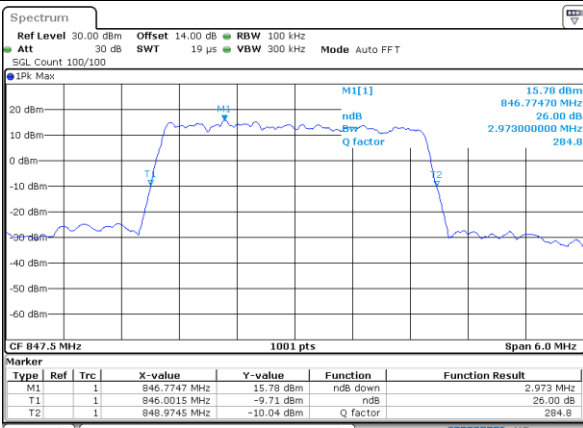
Date: 28.NOV.2022 10:00:27

Middle Channel / 3MHz / 16QAM



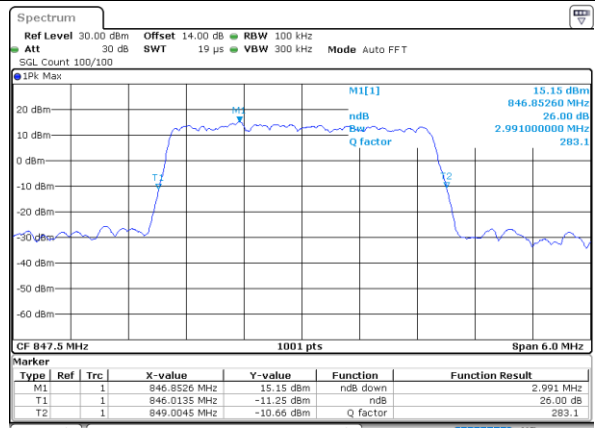
Date: 28.NOV.2022 10:00:51

Highest Channel / 3MHz / QPSK



Date: 28.NOV.2022 10:04:26

Highest Channel / 3MHz / 16QAM

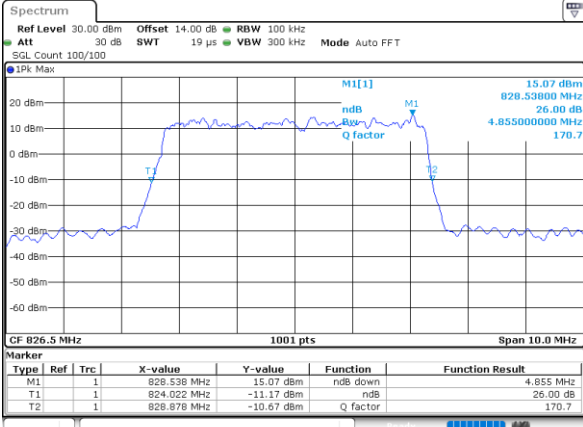


Date: 28.NOV.2022 10:04:50



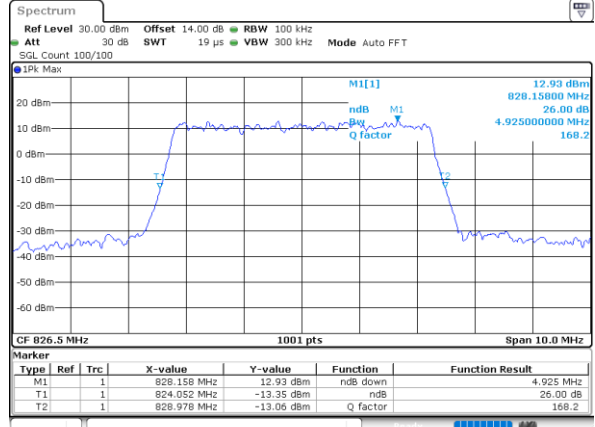
LTE Band 5

Lowest Channel / 5MHz / QPSK



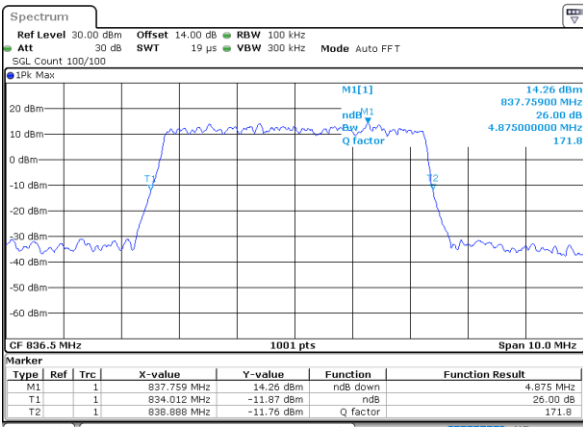
Date: 28.NOV.2022 10:28:58

Lowest Channel / 5MHz / 16QAM



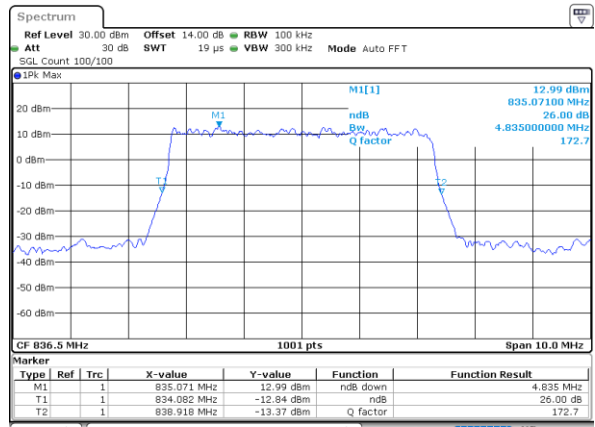
Date: 28.NOV.2022 10:29:22

Middle Channel / 5MHz / QPSK



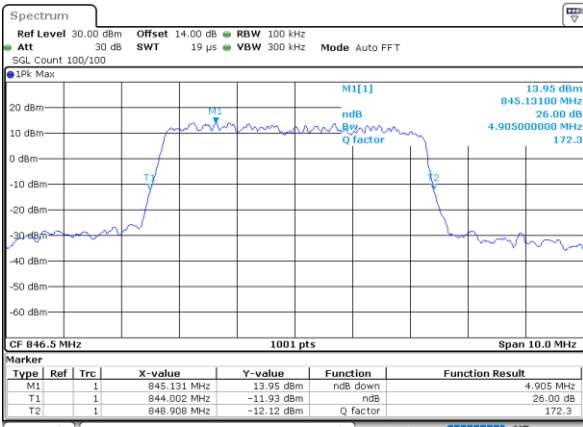
Date: 28.NOV.2022 10:40:27

Middle Channel / 5MHz / 16QAM



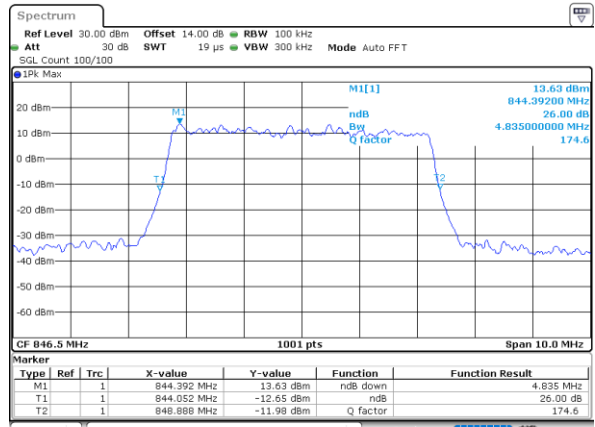
Date: 28.NOV.2022 10:40:50

Highest Channel / 5MHz / QPSK



Date: 28.NOV.2022 10:44:26

Highest Channel / 5MHz / 16QAM

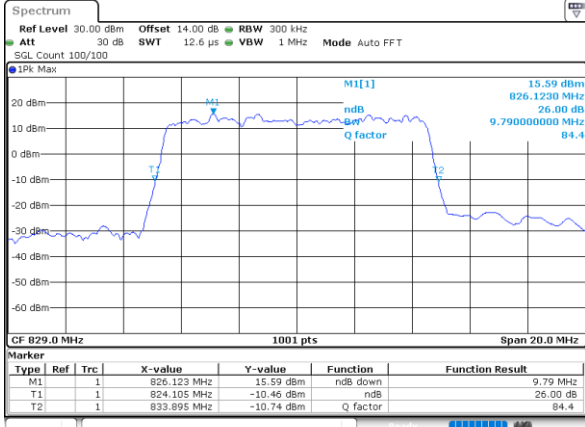


Date: 28.NOV.2022 10:44:51



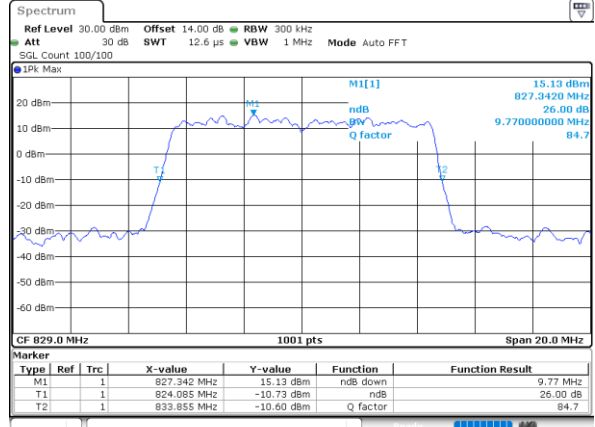
LTE Band 5

Lowest Channel / 10MHz / QPSK



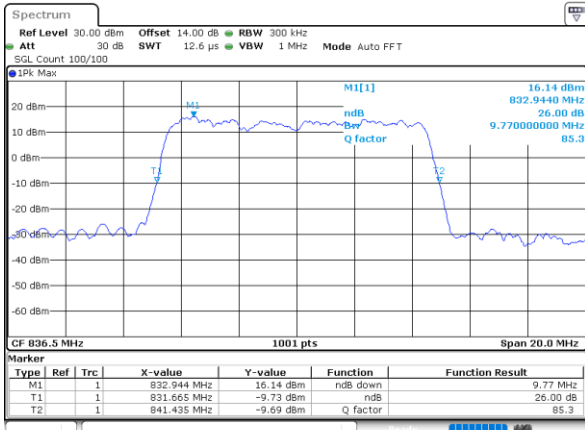
Date: 28\_NOV.2022 11:07:47

Lowest Channel / 10MHz / 16QAM



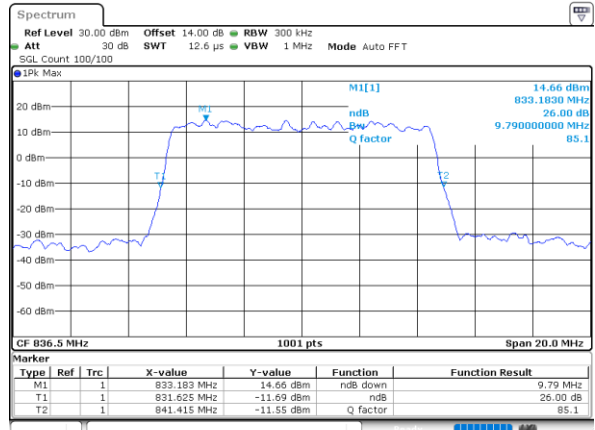
Date: 28\_NOV.2022 11:08:11

Middle Channel / 10MHz / QPSK



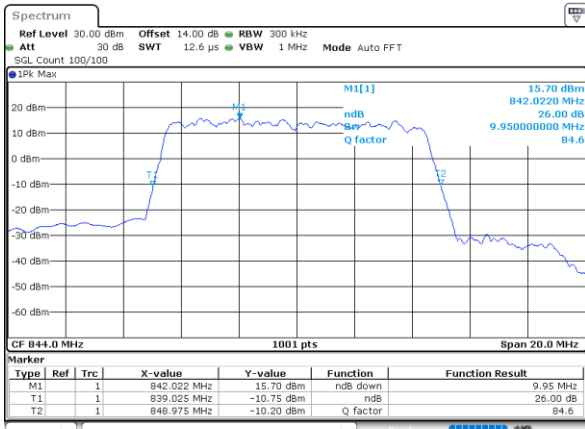
Date: 28\_NOV.2022 11:19:17

Middle Channel / 10MHz / 16QAM



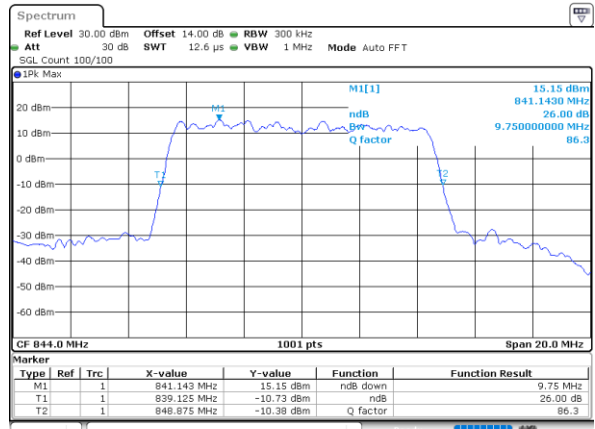
Date: 28\_NOV.2022 11:19:41

Highest Channel / 10MHz / QPSK



Date: 28\_NOV.2022 11:23:16

Highest Channel / 10MHz / 16QAM



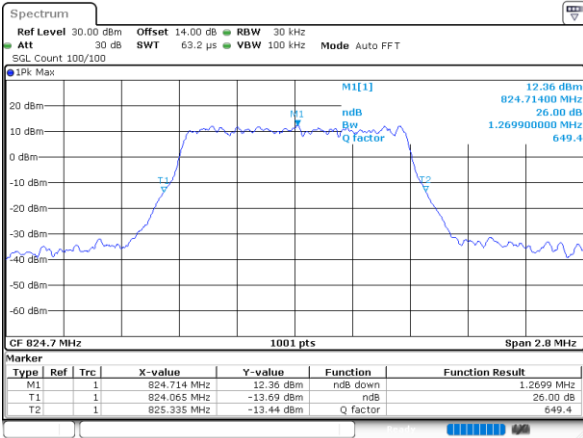
Date: 28\_NOV.2022 11:23:40





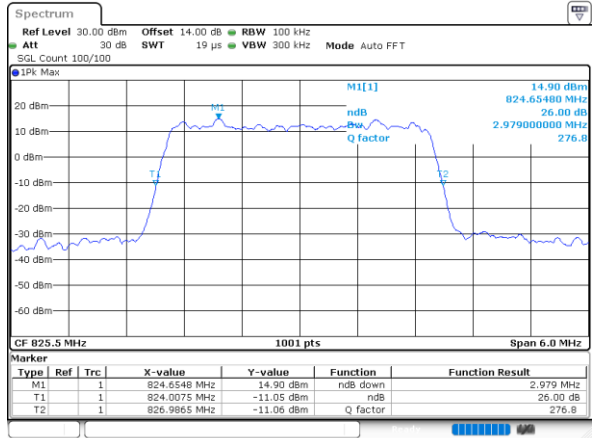
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



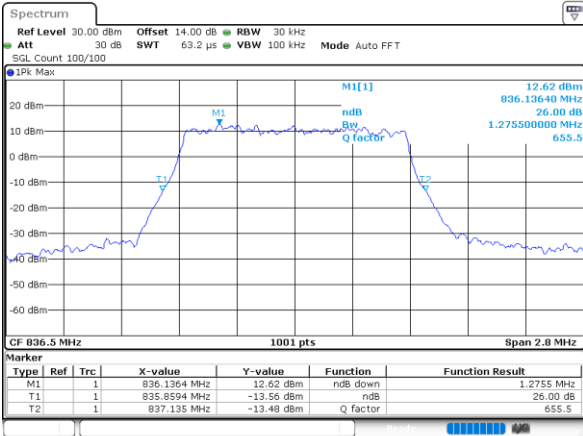
Date: 28.NOV.2022 09:35:14

Lowest Channel / 3MHz / 64QAM



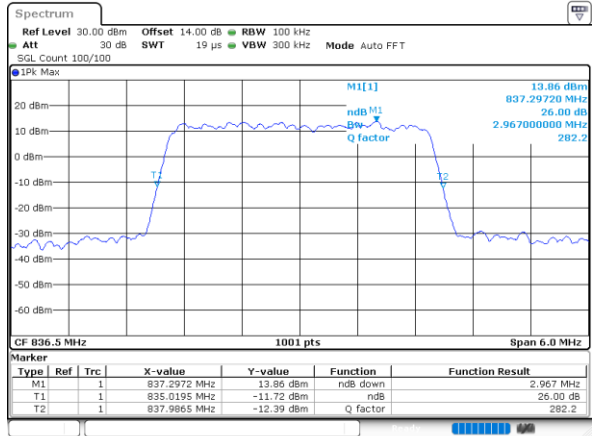
Date: 28.NOV.2022 10:15:23

Middle Channel / 1.4MHz / 64QAM



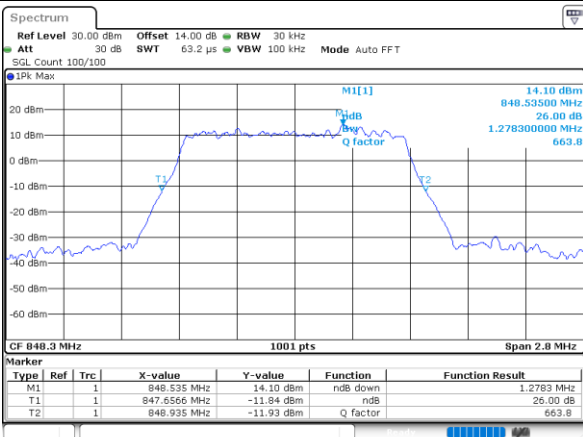
Date: 28.NOV.2022 09:41:08

Middle Channel / 3MHz / 64QAM



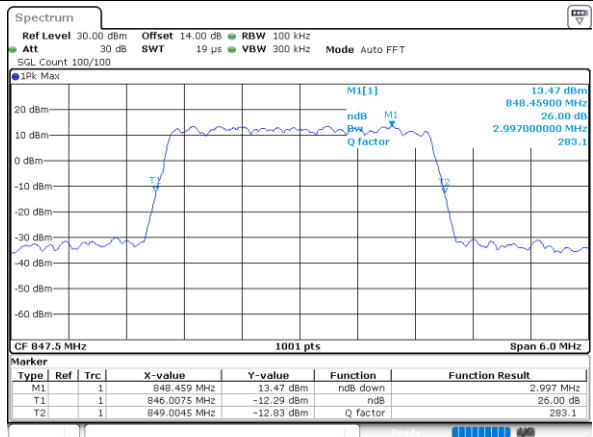
Date: 28.NOV.2022 10:22:58

Highest Channel / 1.4MHz / 64QAM



Date: 28.NOV.2022 09:42:59

Highest Channel / 3MHz / 64QAM

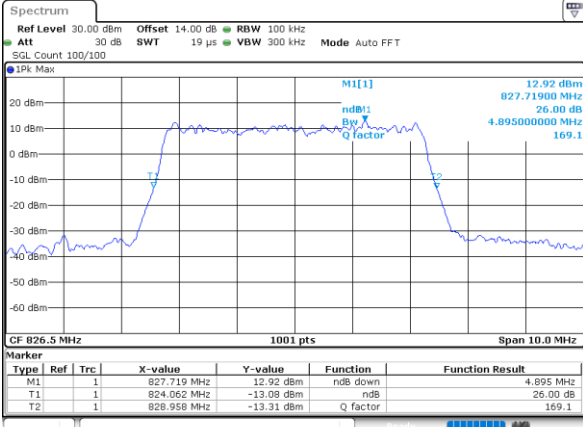


Date: 28.NOV.2022 10:22:49



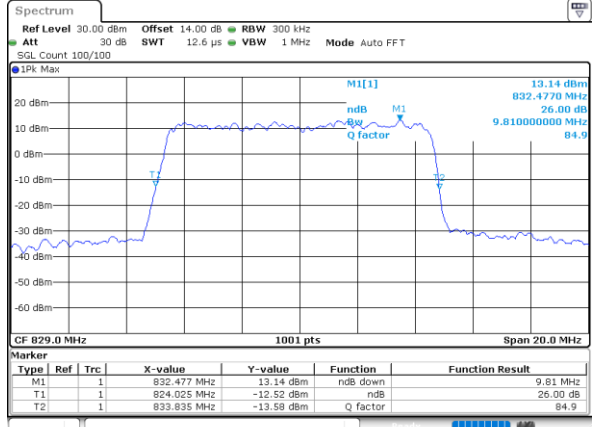
LTE Band 5

Lowest Channel / 5MHz / 64QAM



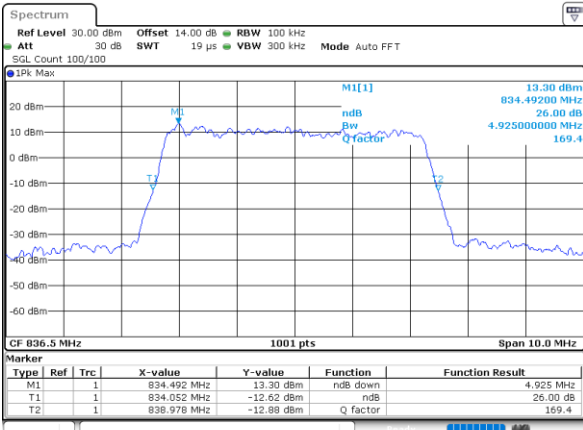
Date: 28.NOV.2022 10:55:24

Lowest Channel / 10MHz / 64QAM



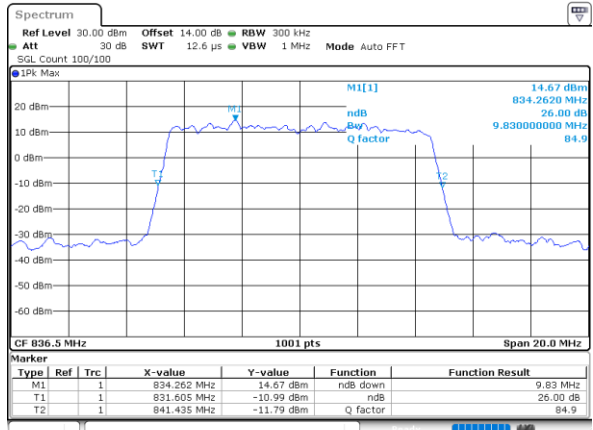
Date: 28.NOV.2022 11:35:27

Middle Channel / 5MHz / 64QAM



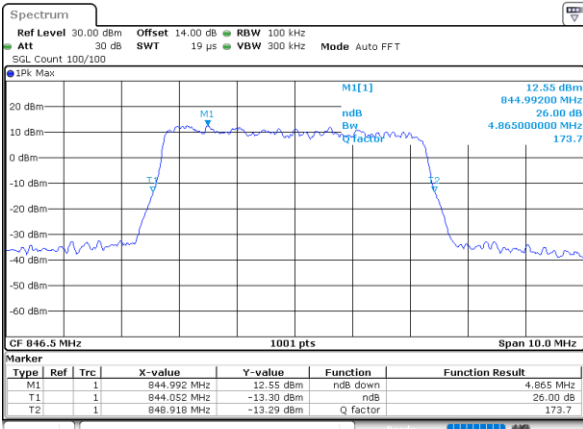
Date: 28.NOV.2022 11:00:59

Middle Channel / 10MHz / 64QAM



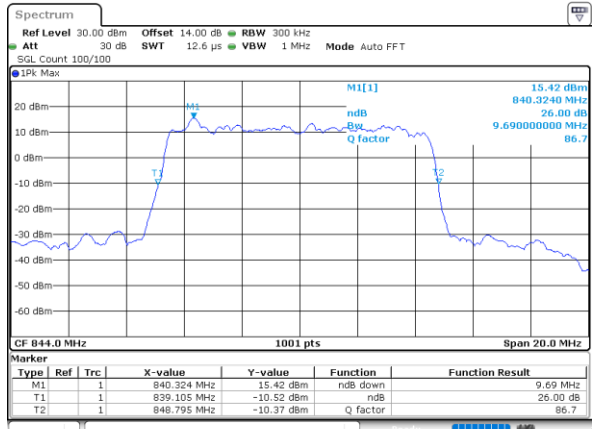
Date: 28.NOV.2022 11:41:02

Highest Channel / 5MHz / 64QAM



Date: 28.NOV.2022 11:02:50

Highest Channel / 10MHz / 64QAM



Date: 28.NOV.2022 11:42:53



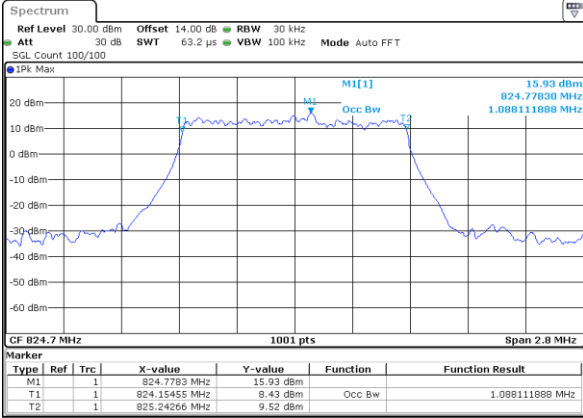
Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.72	2.72	4.50	4.47	9.05	8.99	-	-	-	-
Middle CH	1.09	1.09	2.71	2.73	4.50	4.49	8.99	9.09	-	-	-	-
Highest CH	1.09	1.09	2.71	2.73	4.47	4.49	9.03	8.97	-	-	-	-
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.72	-	4.50	-	9.03	-	-	-	-	-
Middle CH	1.10	-	2.69	-	4.47	-	9.01	-	-	-	-	-
Highest CH	1.09	-	2.71	-	4.49	-	8.97	-	-	-	-	-



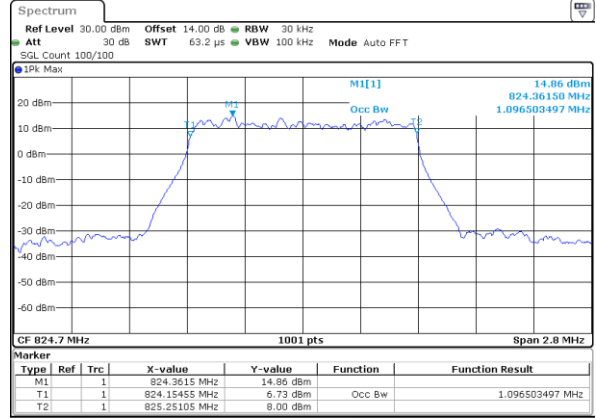
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



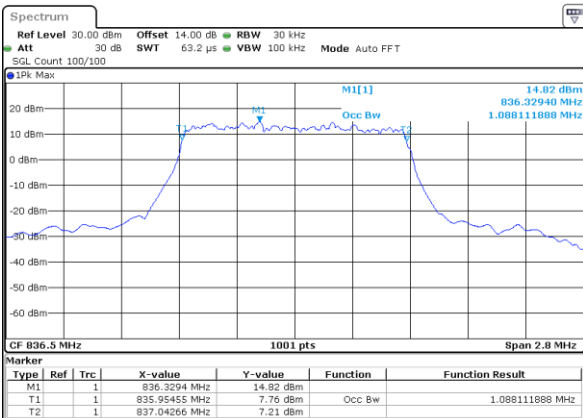
Date: 28.NOV.2022 09:08:30

Lowest Channel / 1.4MHz / 16QAM



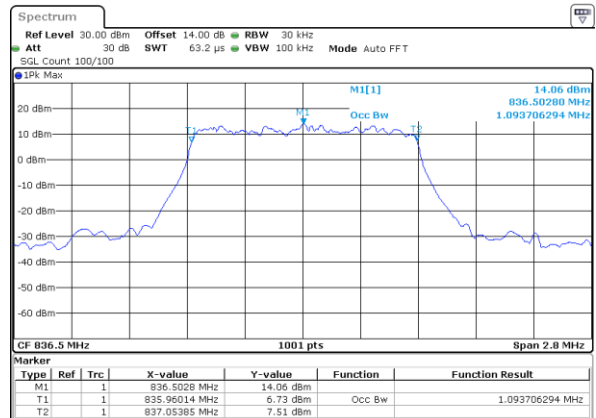
Date: 28.NOV.2022 09:10:54

Middle Channel / 1.4MHz / QPSK



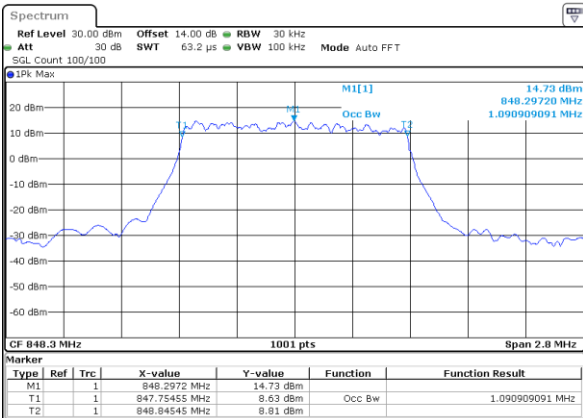
Date: 28.NOV.2022 09:19:51

Middle Channel / 1.4MHz / 16QAM



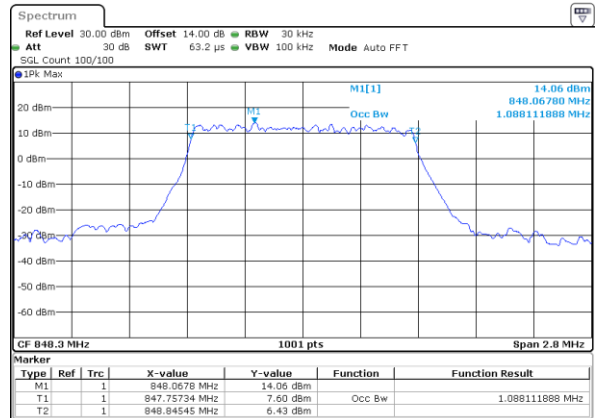
Date: 28.NOV.2022 09:20:15

Highest Channel / 1.4MHz / QPSK



Date: 28.NOV.2022 09:23:49

Highest Channel / 1.4MHz / 16QAM



Date: 28.NOV.2022 09:24:13