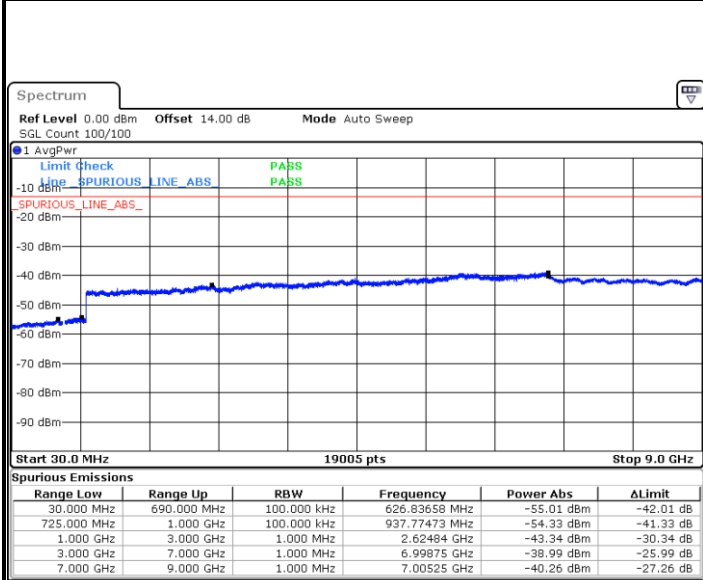




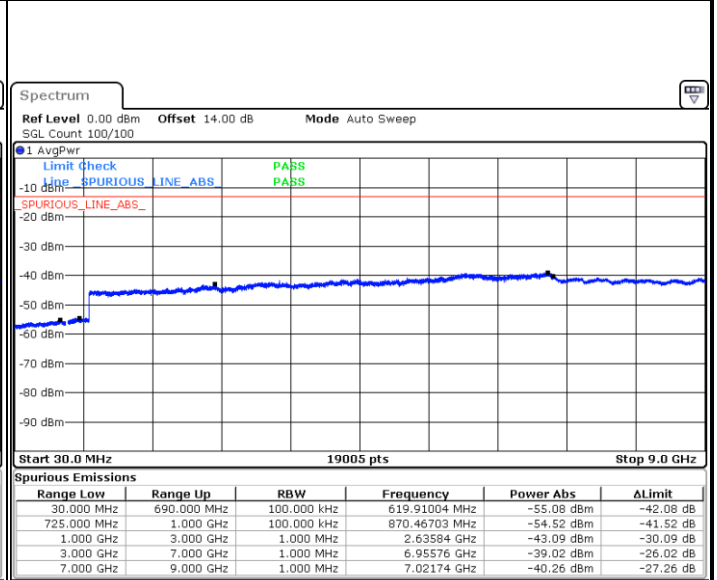
LTE Band 12 / 10MHz

Middle Channel / QPSK



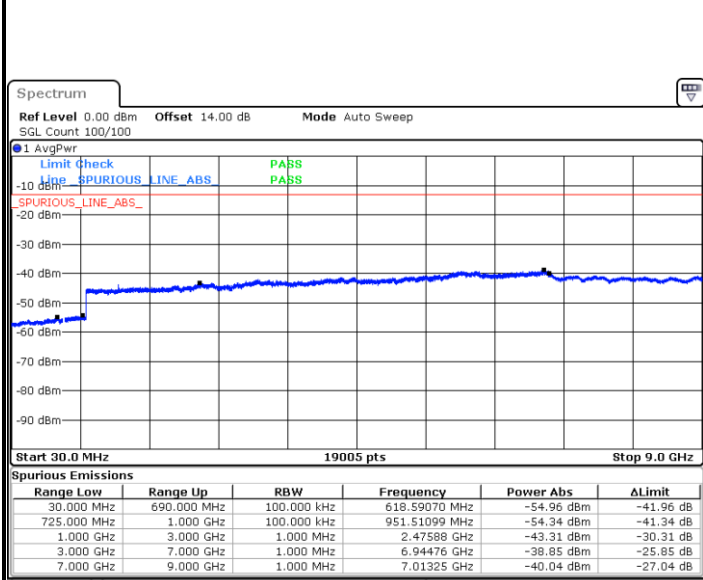
Date: 28.OCT.2021 15:55:16

Middle Channel / 16QAM



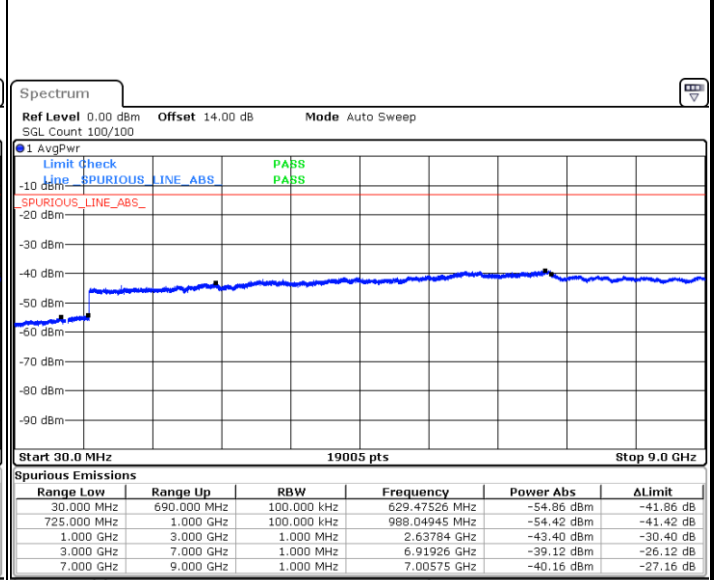
Date: 28.OCT.2021 15:54:23

Highest Channel / QPSK



Date: 28.OCT.2021 16:04:11

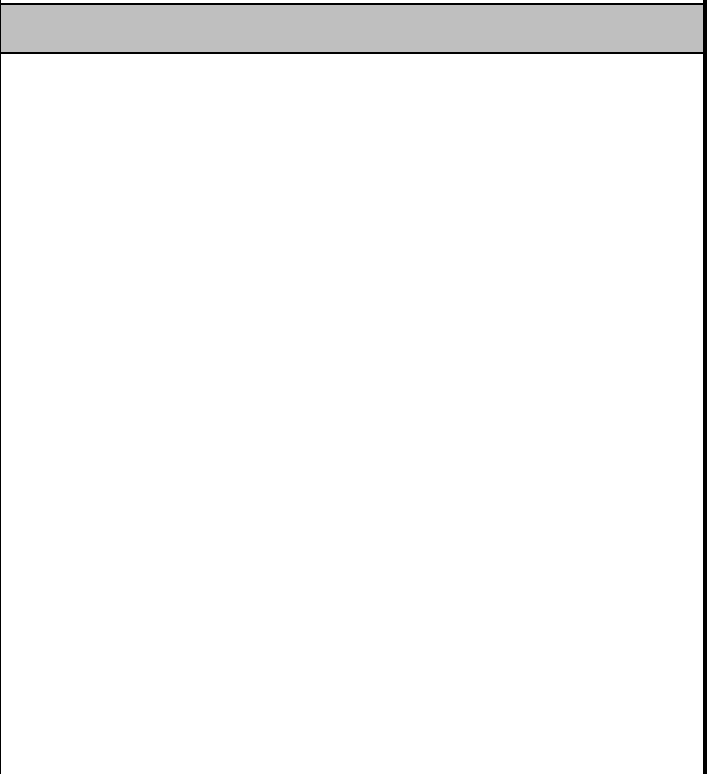
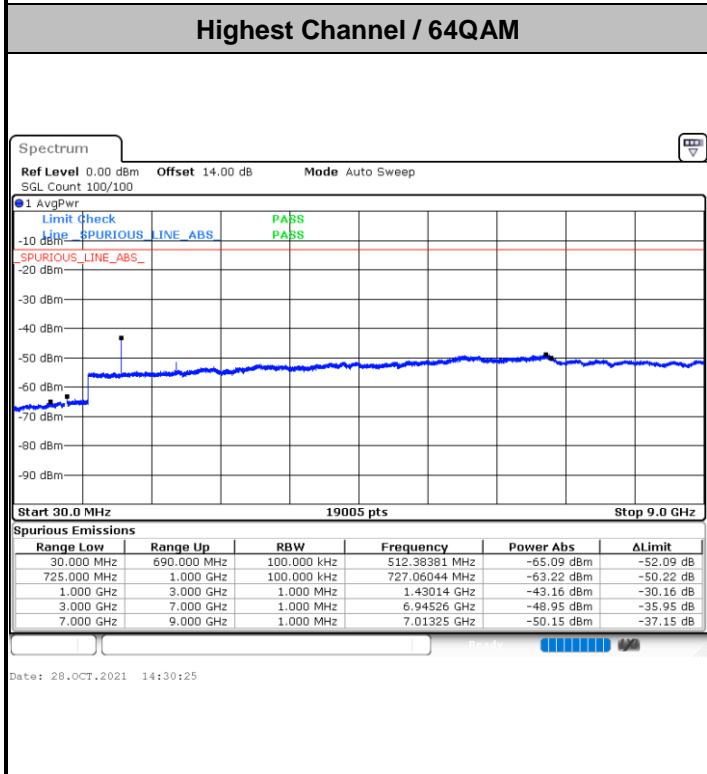
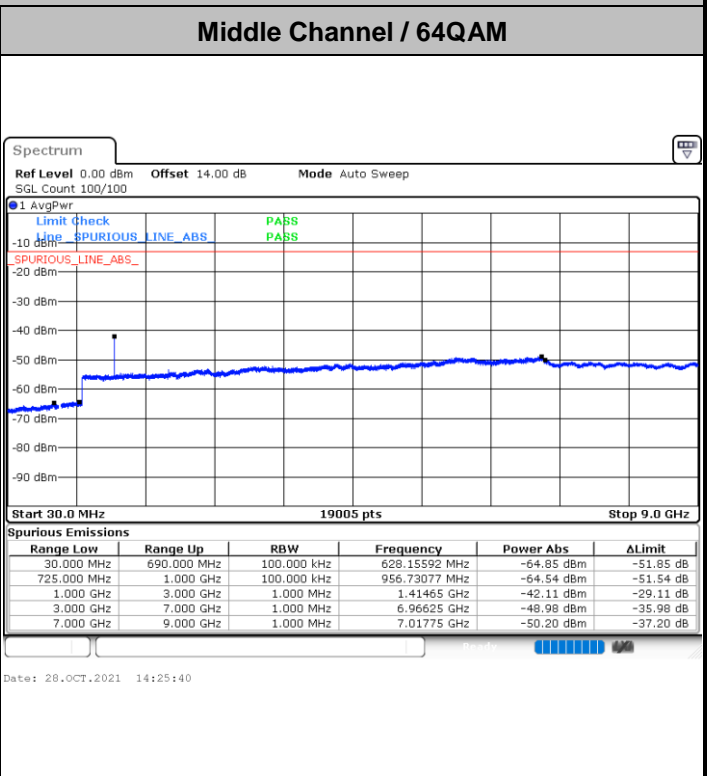
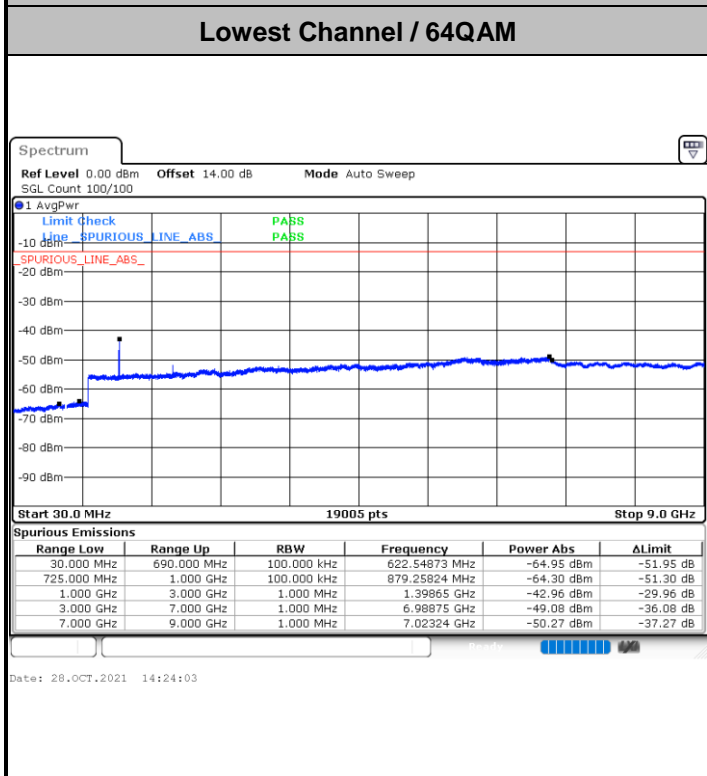
Highest Channel / 16QAM



Date: 28.OCT.2021 16:05:04



**LTE Band 12 / 1.4MHz**

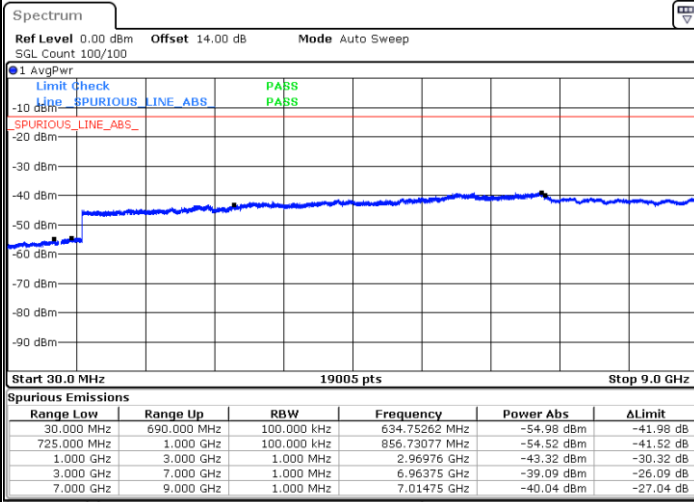




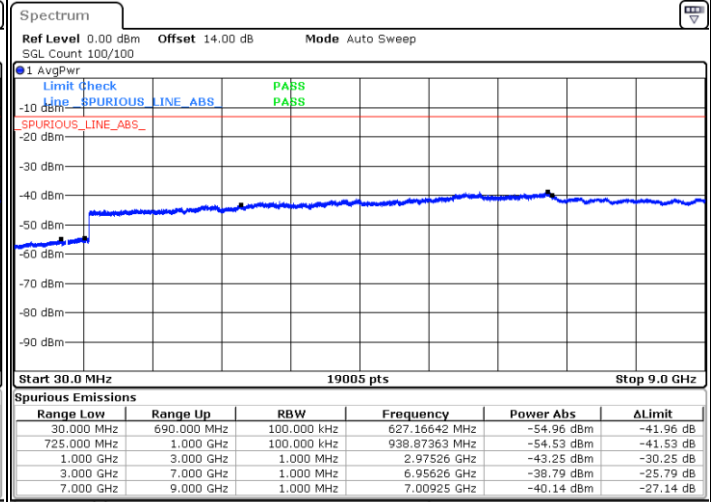
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

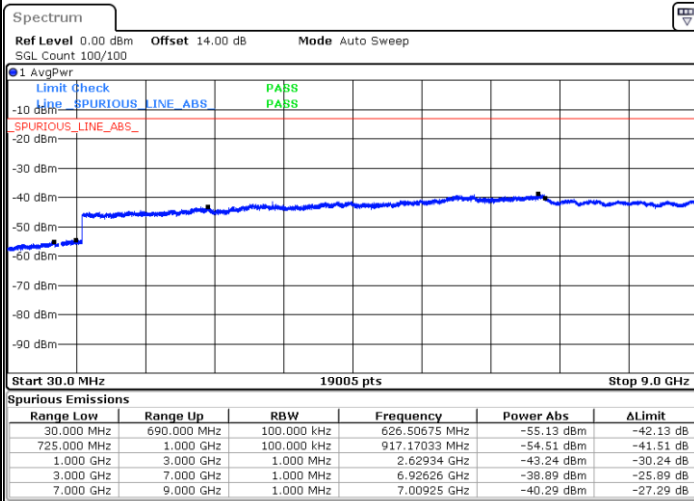


Date: 28.OCT.2021 15:02:01



Date: 28.OCT.2021 15:03:39

Highest Channel / 64QAM



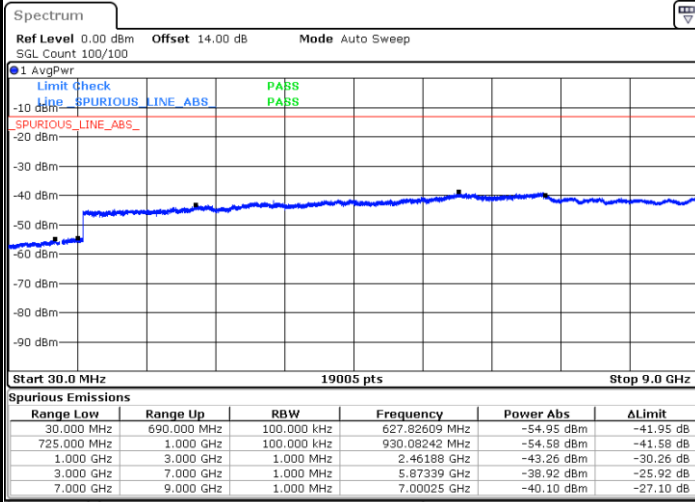
Date: 28.OCT.2021 15:08:23



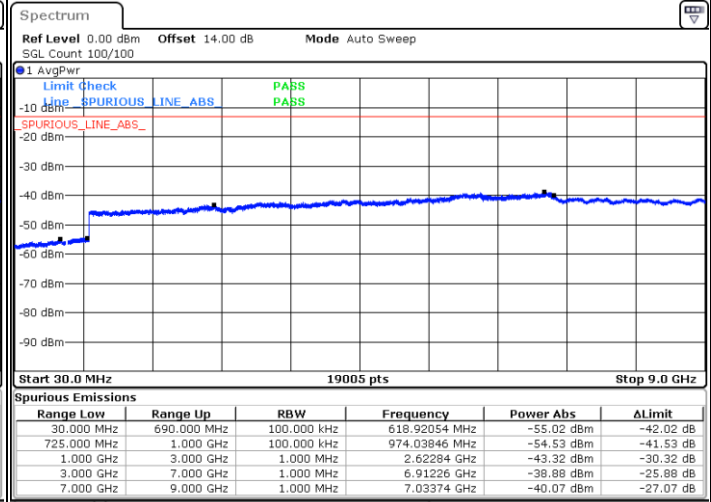
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

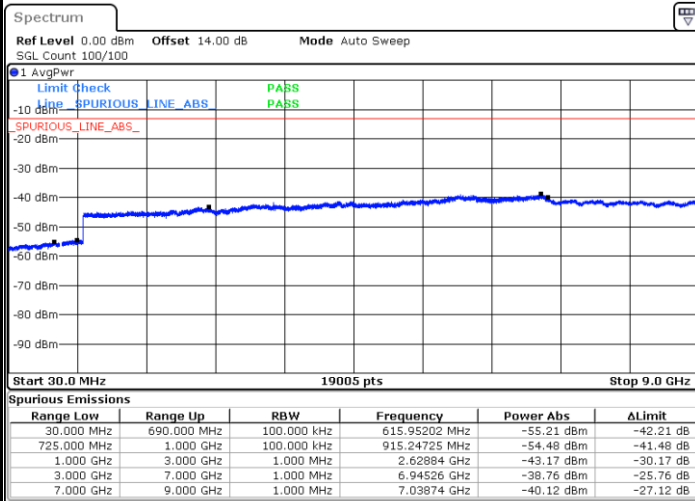


Date: 28.OCT.2021 15:12:58



Date: 28.OCT.2021 15:14:36

Highest Channel / 64QAM



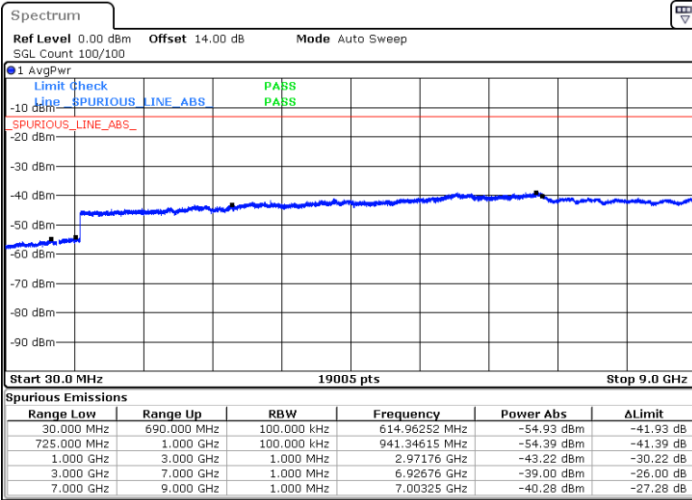
Date: 28.OCT.2021 15:19:21



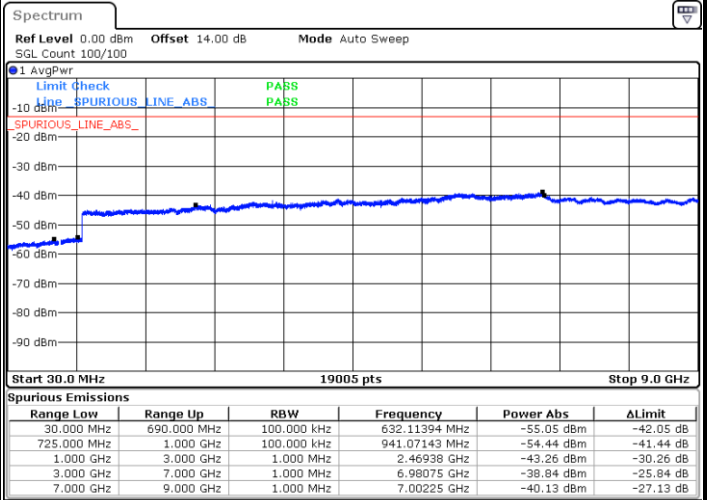
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

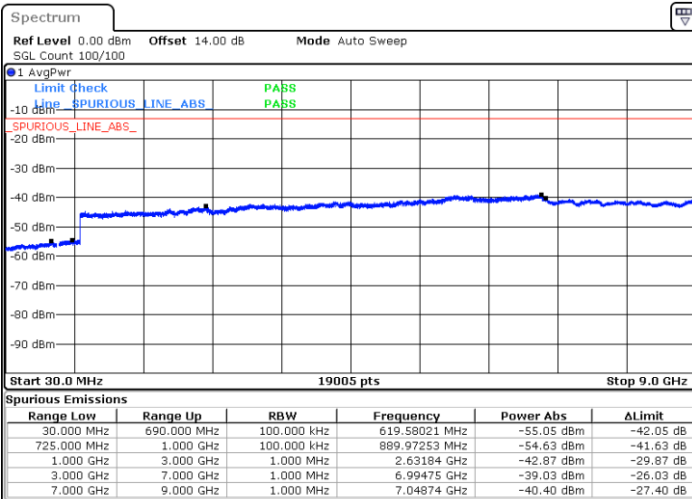


Date: 28.OCT.2021 16:09:41



Date: 28.OCT.2021 16:11:19

Highest Channel / 64QAM



Date: 28.OCT.2021 16:16:03



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	0.0052	PASS
40	Normal Voltage	0.0045	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0071	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0057	
-30	Normal Voltage	0.0059	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.2 V. ; Maximum Voltage =8.9 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

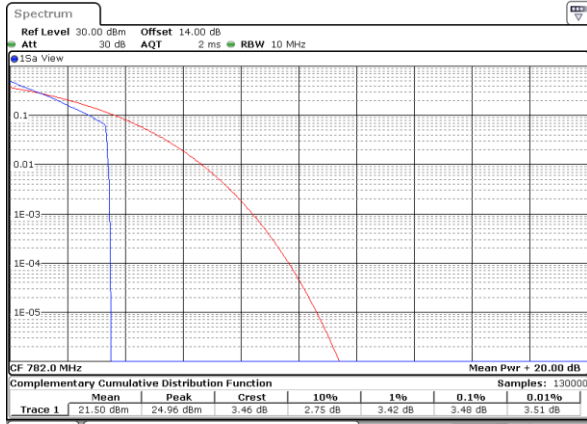
## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.48	4.61	4.17	5.65	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.22	6.26	-	-	
Highest CH	-	-	-	-	



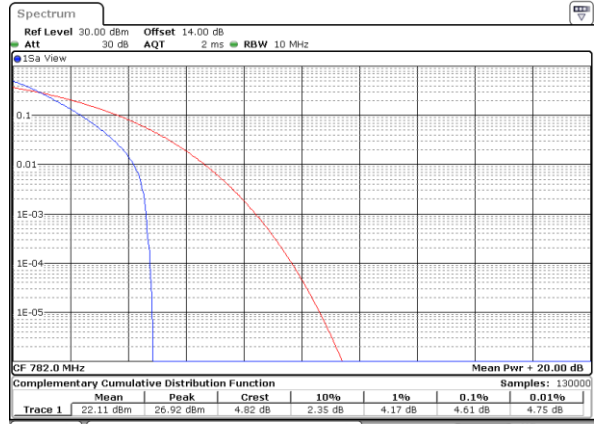
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 30\_OCT\_2021 15:47:41

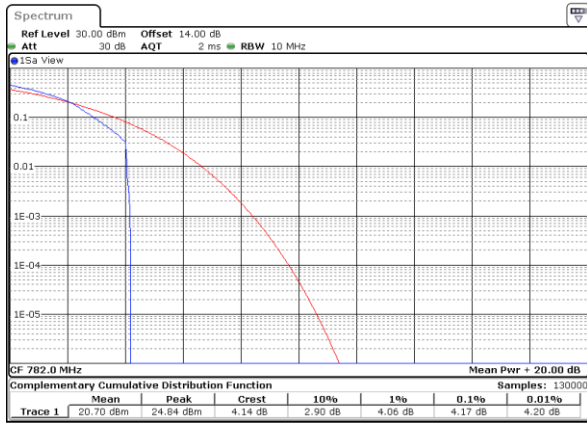
Middle Channel / Full RB



Date: 30\_OCT\_2021 15:48:09

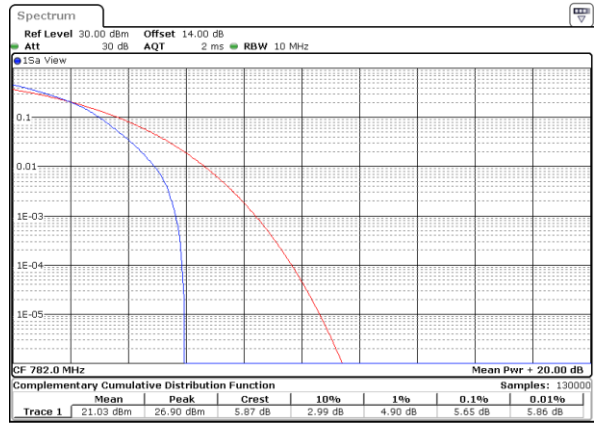
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 30\_OCT\_2021 15:46:44

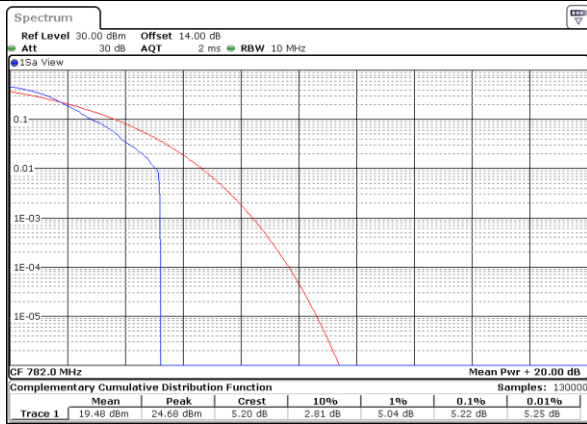
Middle Channel / Full RB



Date: 30\_OCT\_2021 15:47:13

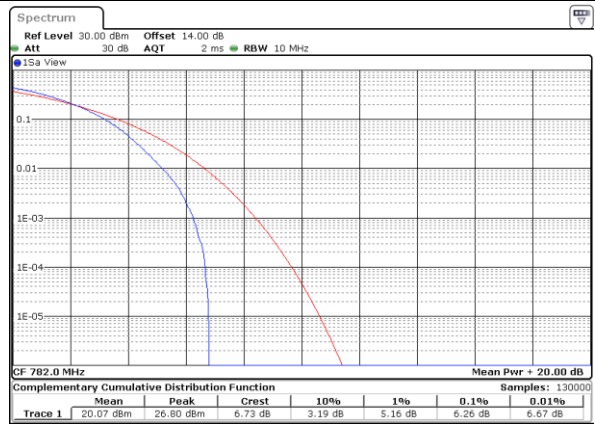
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 30\_OCT\_2021 15:45:48

Middle Channel / Full RB



Date: 30\_OCT\_2021 15:46:16





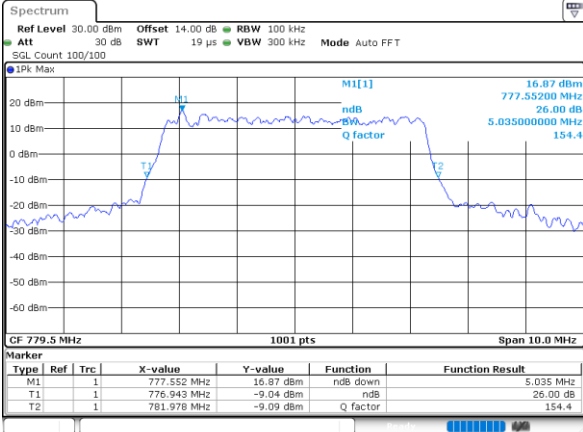
**26dB Bandwidth**

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
Lowest CH	-	-	-	-	5.04	4.93	-	-	-	-	-	-
Middle CH	-	-	-	-	5.00	5.06	9.79	9.97	-	-	-	-
Highest CH	-	-	-	-	5.10	4.97	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.08	-	-	-	-	-	-	-
Middle CH	-	-	-	-	5.04	-	9.93	-	-	-	-	-
Highest CH	-	-	-	-	5.03	-	-	-	-	-	-	-



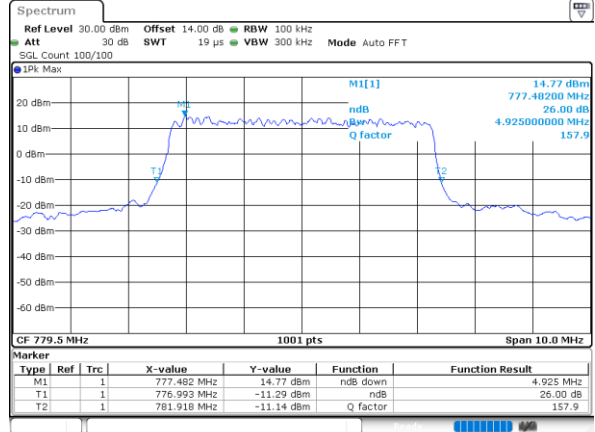
LTE Band 13

Lowest Channel / 5MHz / QPSK



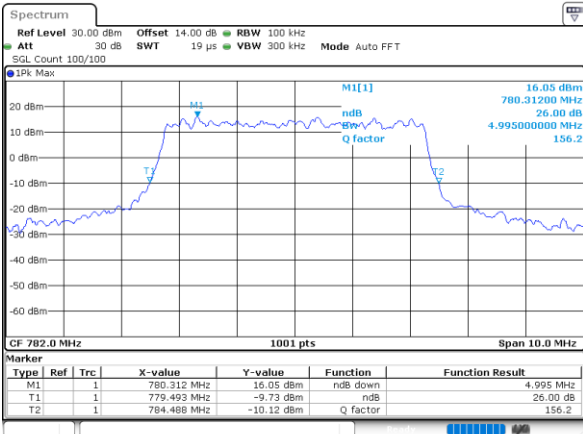
Date: 30.OCT.2021 14:47:14

Lowest Channel / 5MHz / 16QAM



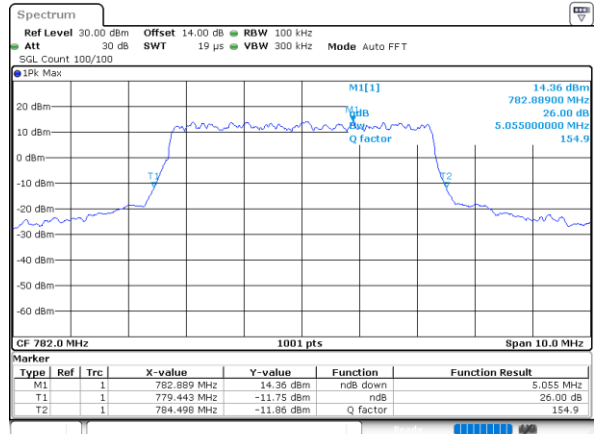
Date: 30.OCT.2021 14:47:17

Middle Channel / 5MHz / QPSK



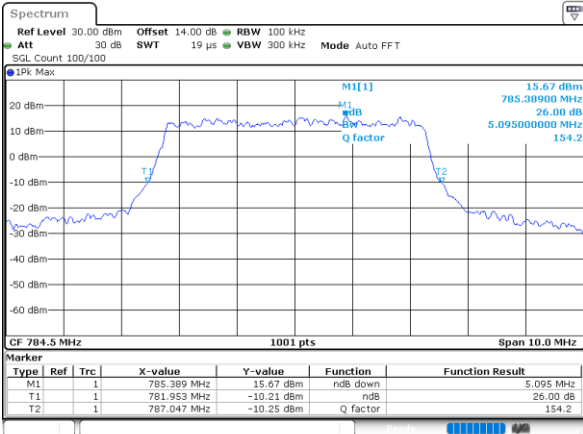
Date: 30.OCT.2021 14:59:15

Middle Channel / 5MHz / 16QAM



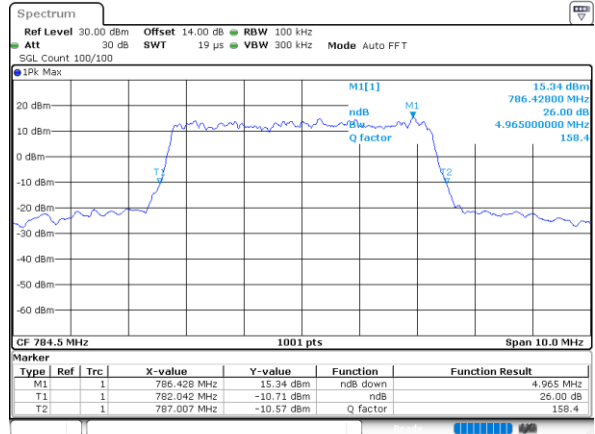
Date: 30.OCT.2021 14:59:42

Highest Channel / 5MHz / QPSK



Date: 30.OCT.2021 15:02:05

Highest Channel / 5MHz / 16QAM

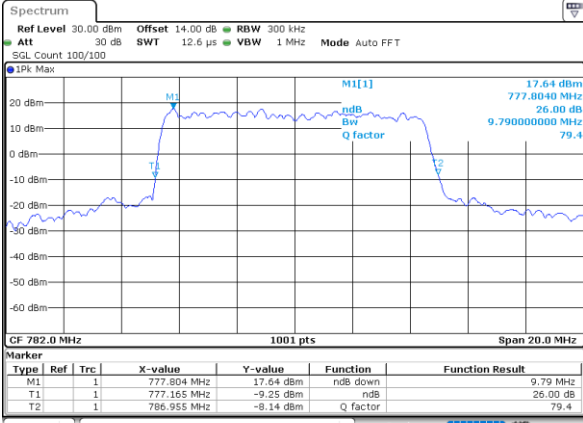


Date: 30.OCT.2021 15:01:38



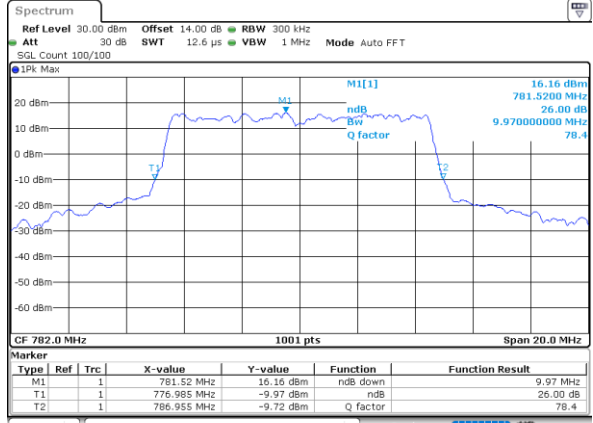
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 30.OCT.2021 15:25:15

Middle Channel / 10MHz / 16QAM

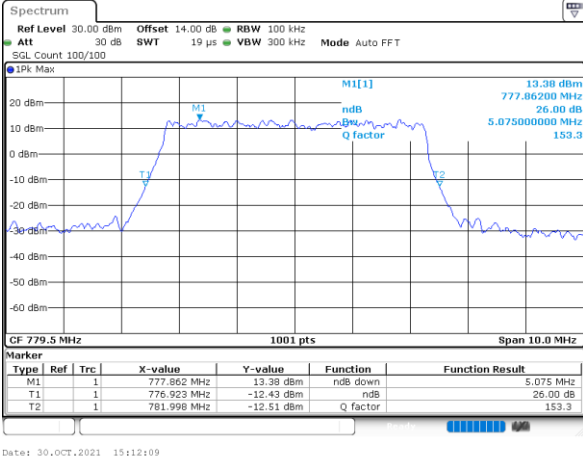


Date: 30.OCT.2021 15:24:48

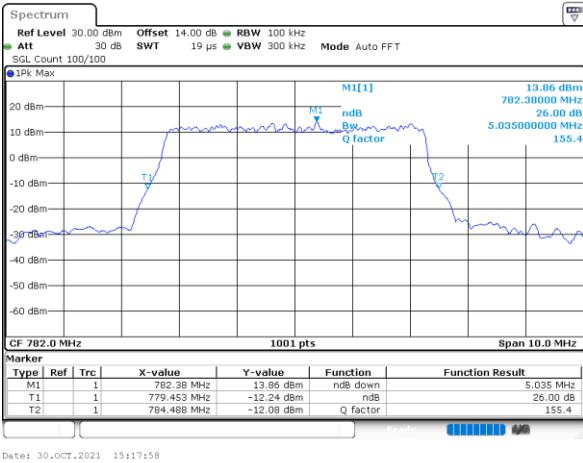


LTE Band 13

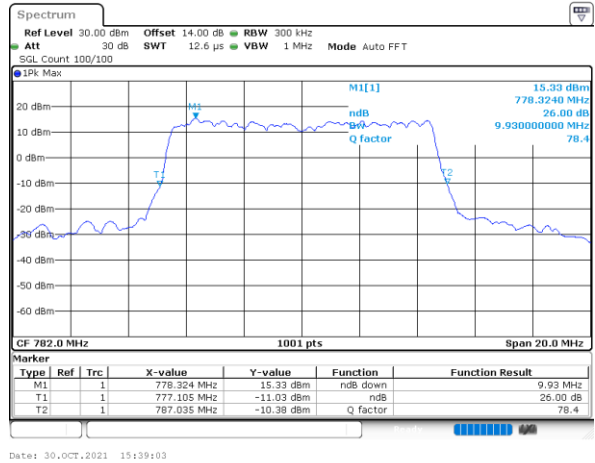
Lowest Channel / 5MHz / 64QAM



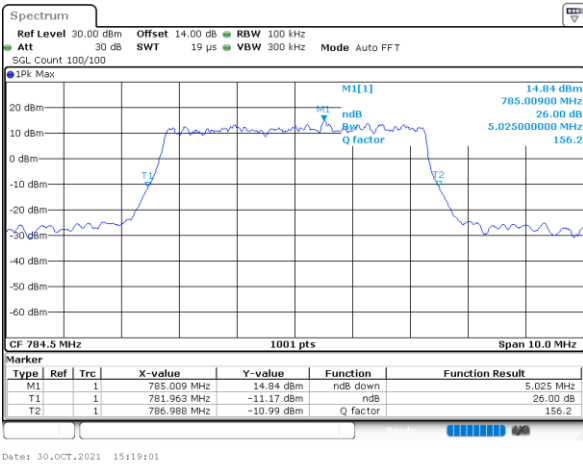
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM





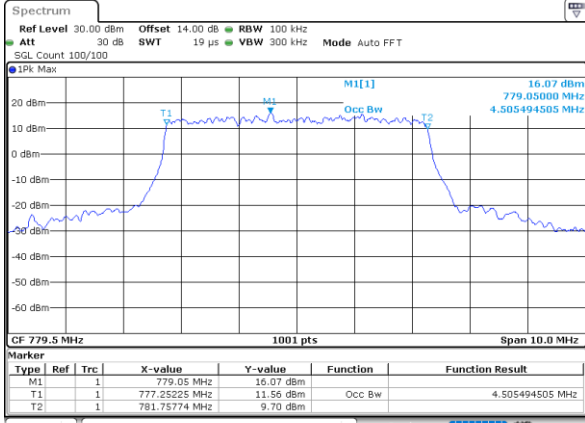
Occupied Bandwidth

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
Lowest CH	-	-	-	-	4.51	4.51	-	-	-	-	-	-
Middle CH	-	-	-	-	4.54	4.48	9.11	9.11	-	-	-	-
Highest CH	-	-	-	-	4.49	4.51	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.51	-	-	-	-	-	-	-



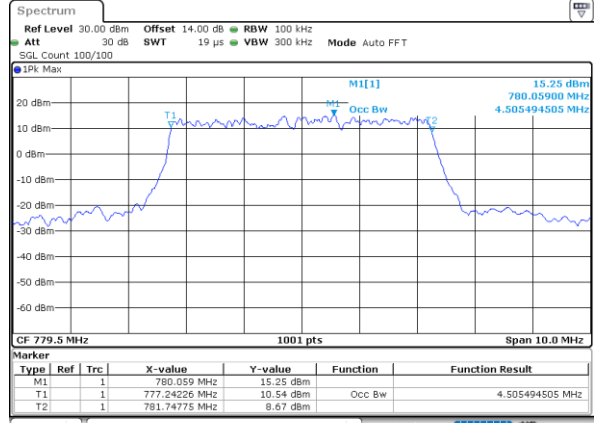
LTE Band 13

Lowest Channel / 5MHz / QPSK



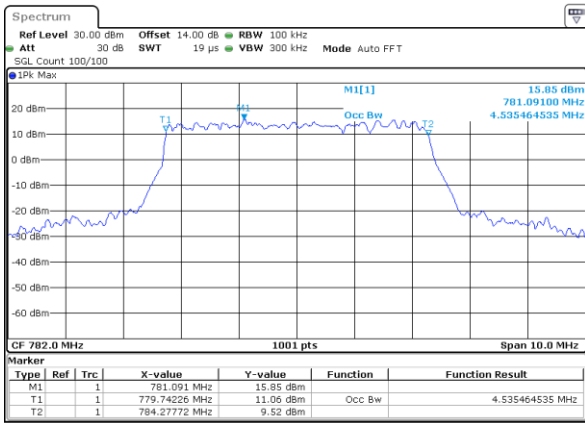
Date: 30.OCT.2021 14:46:32

Lowest Channel / 5MHz / 16QAM



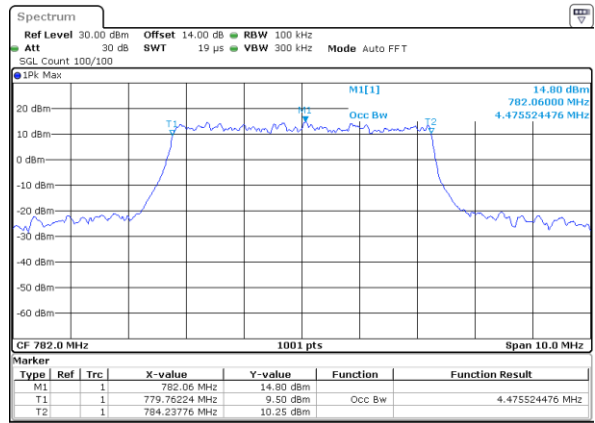
Date: 30.OCT.2021 14:46:59

Middle Channel / 5MHz / QPSK



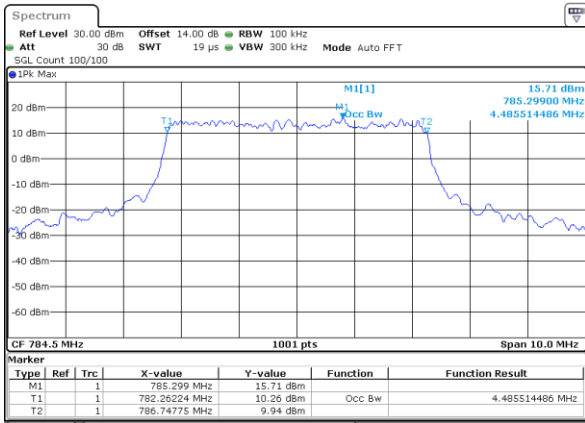
Date: 30.OCT.2021 15:00:26

Middle Channel / 5MHz / 16QAM



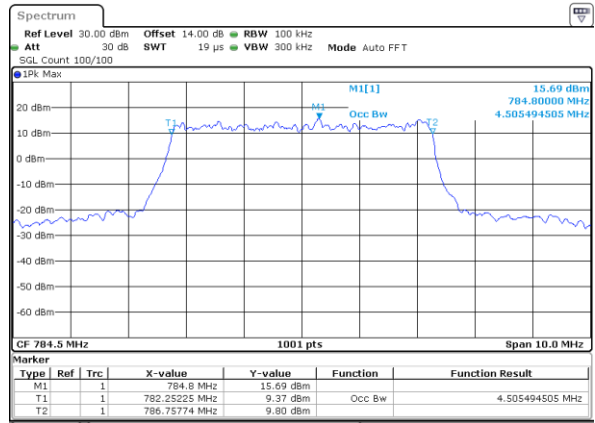
Date: 30.OCT.2021 15:00:00

Highest Channel / 5MHz / QPSK



Date: 30.OCT.2021 15:00:53

Highest Channel / 5MHz / 16QAM

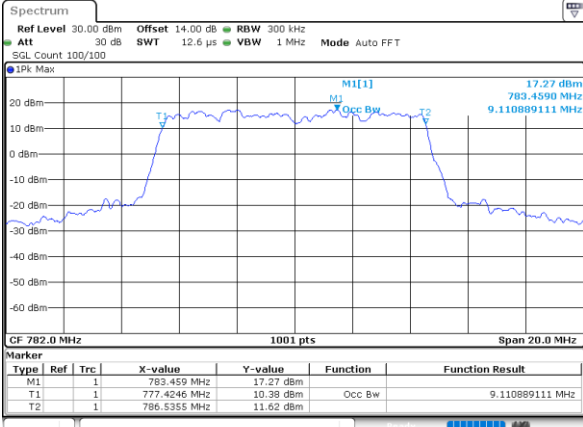


Date: 30.OCT.2021 15:01:20



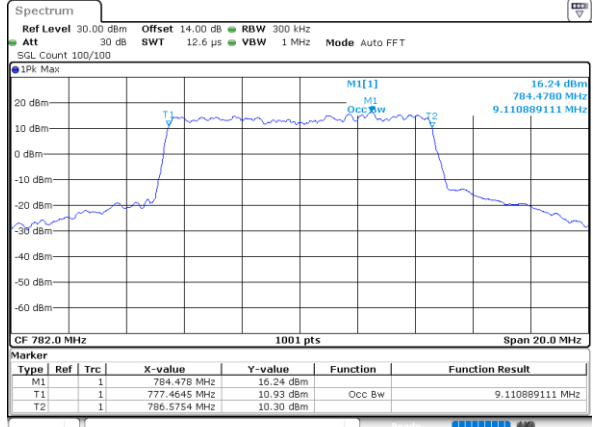
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 30.OCT.2021 15:24:04

Middle Channel / 10MHz / 16QAM

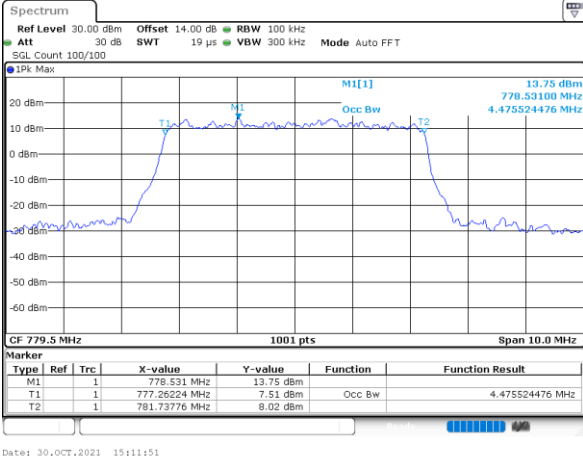


Date: 30.OCT.2021 15:24:31



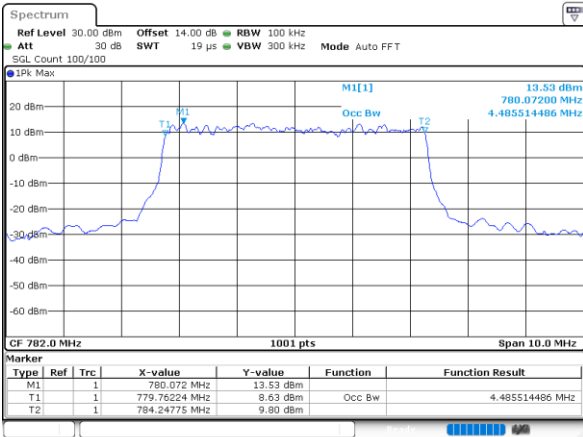
LTE Band 13

Lowest Channel / 5MHz / 64QAM



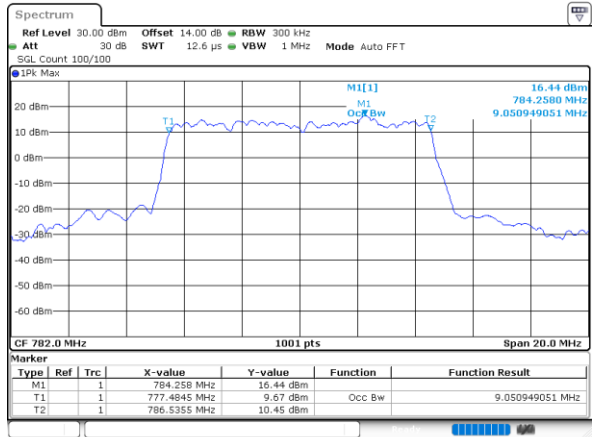
Date: 30.OCT.2021 15:11:51

Middle Channel / 5MHz / 64QAM



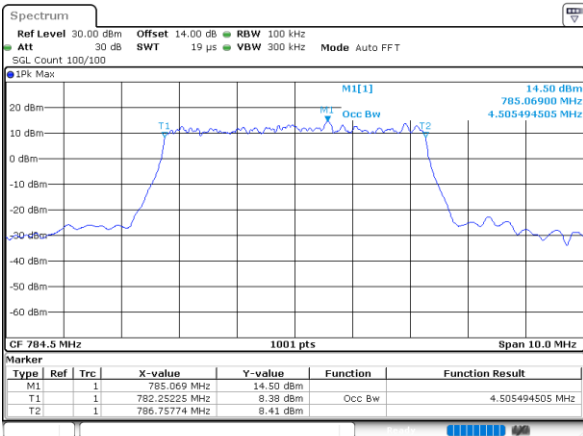
Date: 30.OCT.2021 15:18:16

Middle Channel / 10MHz / 64QAM



Date: 30.OCT.2021 15:38:45

Highest Channel / 5MHz / 64QAM



Date: 30.OCT.2021 15:18:43

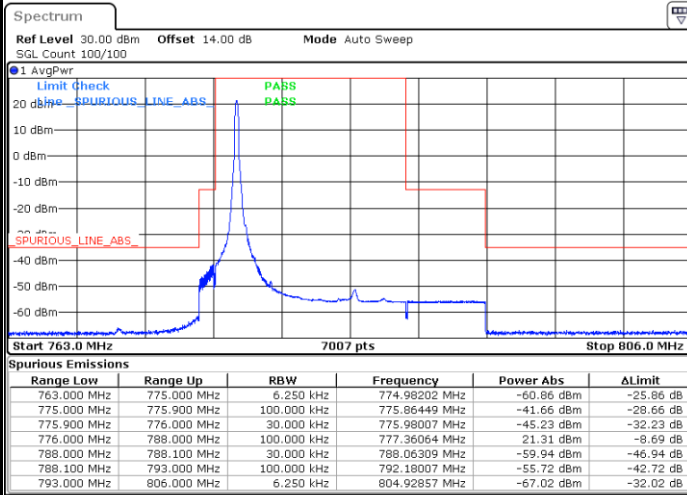




# Conducted Band Edge

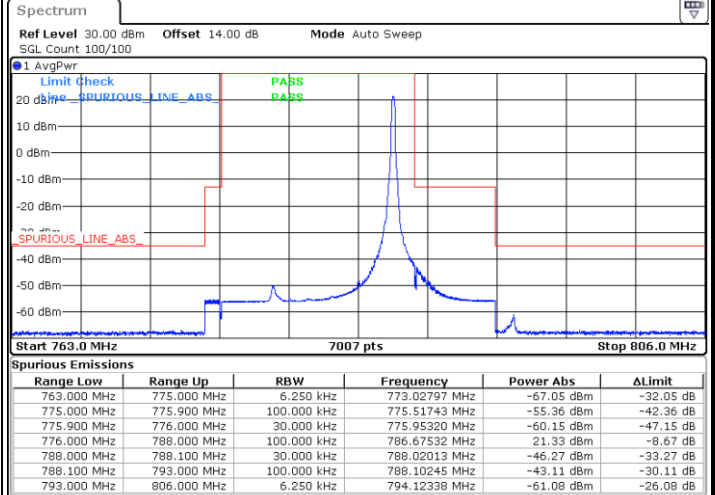
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



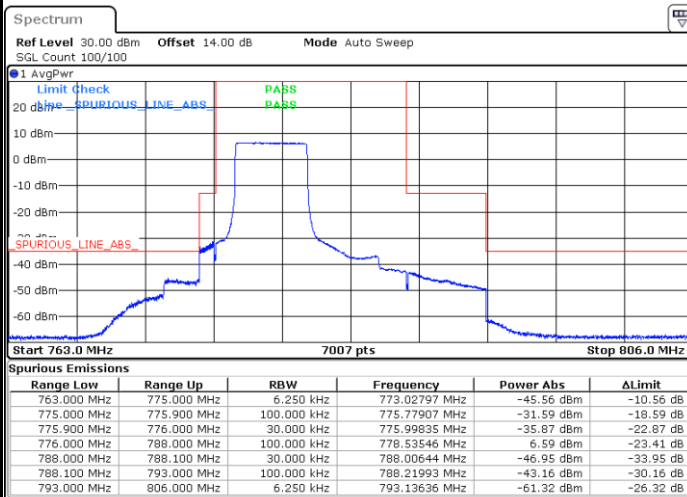
Date: 30.OCT.2021 14:55:09

### Highest Band Edge / 1 RB



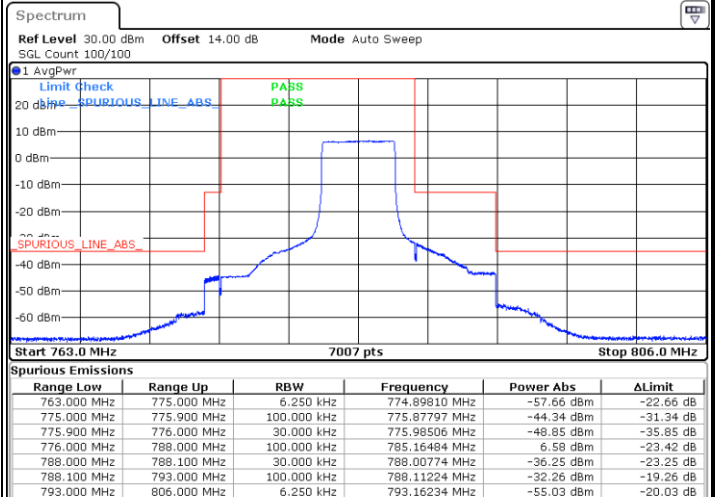
Date: 30.OCT.2021 15:09:30

### Lowest Band Edge / Full RB



Date: 30.OCT.2021 14:49:30

### Highest Band Edge / Full RB



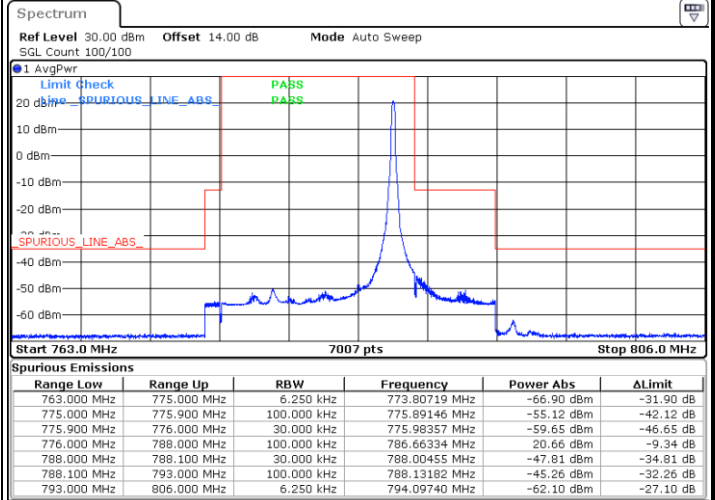
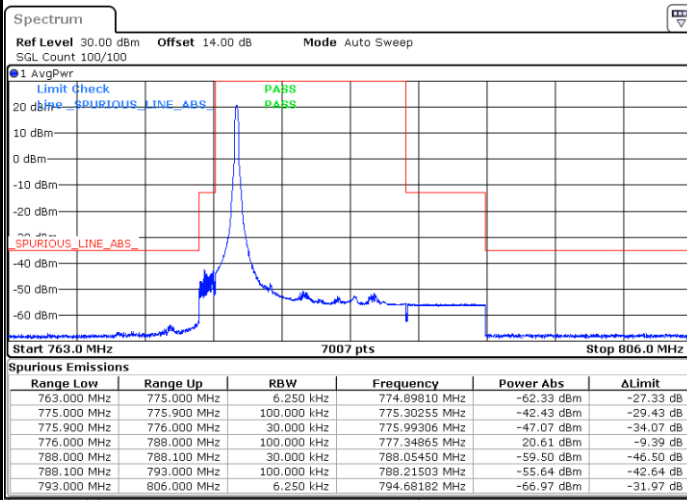
Date: 30.OCT.2021 15:03:51



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

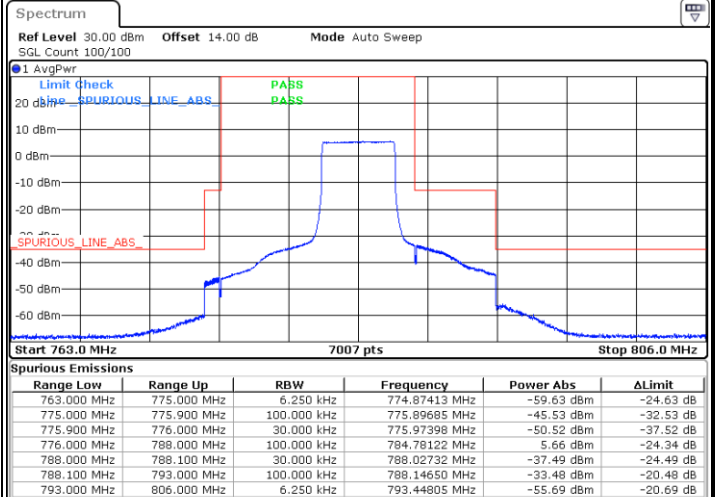
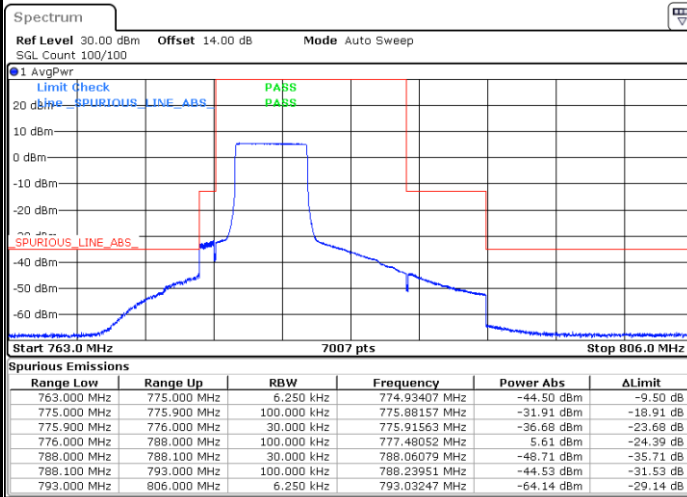


Date: 30.OCT.2021 14:53:16

Date: 30.OCT.2021 15:07:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.OCT.2021 14:51:23

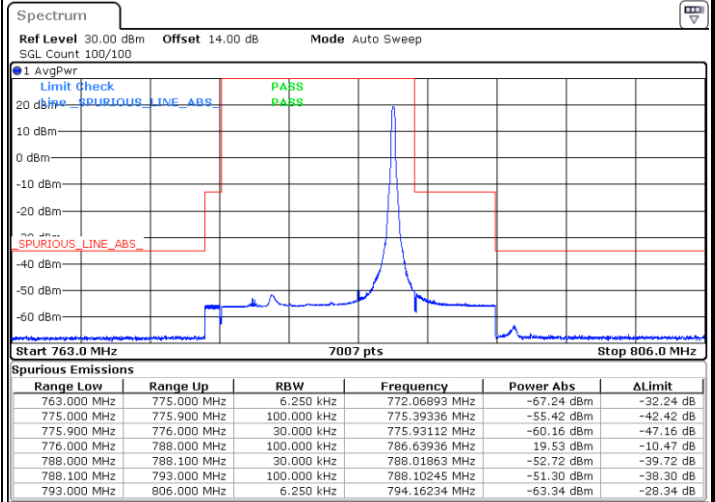
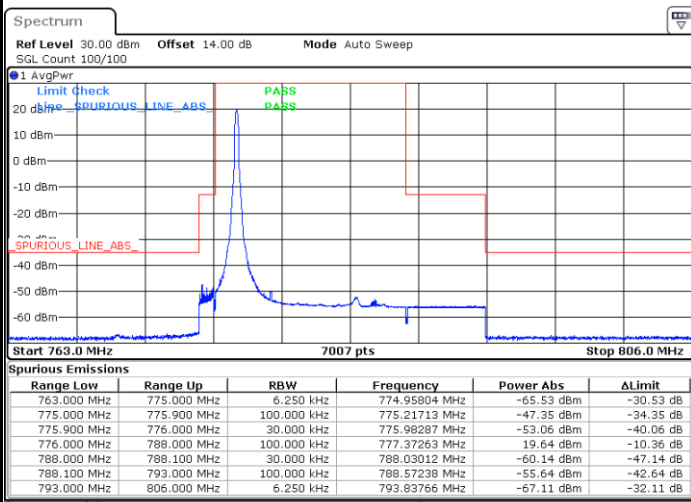
Date: 30.OCT.2021 15:05:44



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

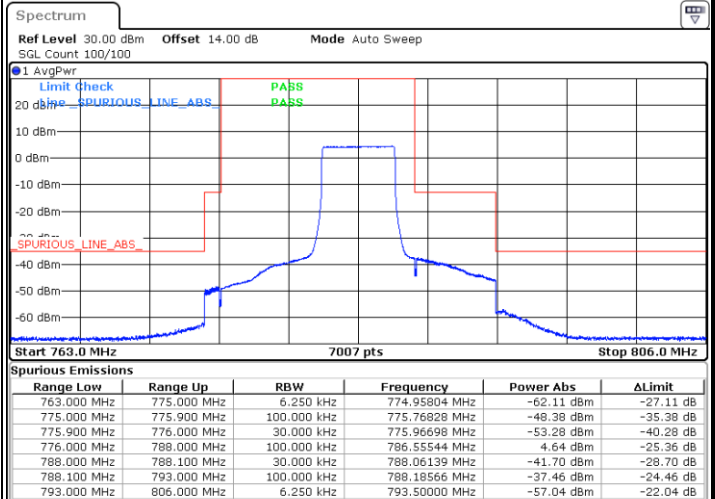
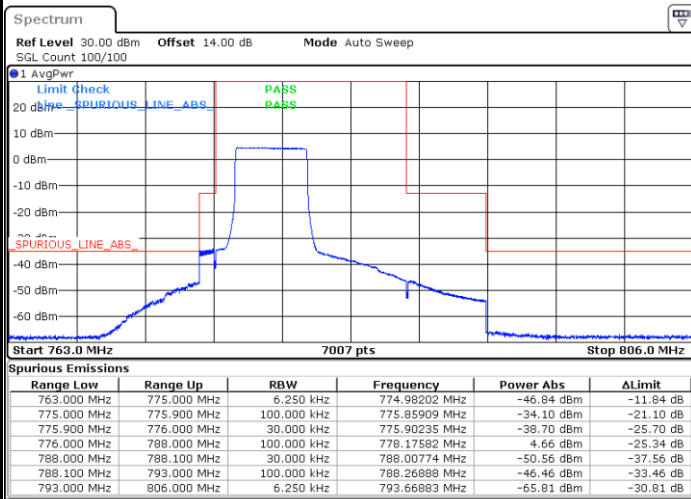


Date: 30.OCT.2021 15:15:48

Date: 30.OCT.2021 15:22:41

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



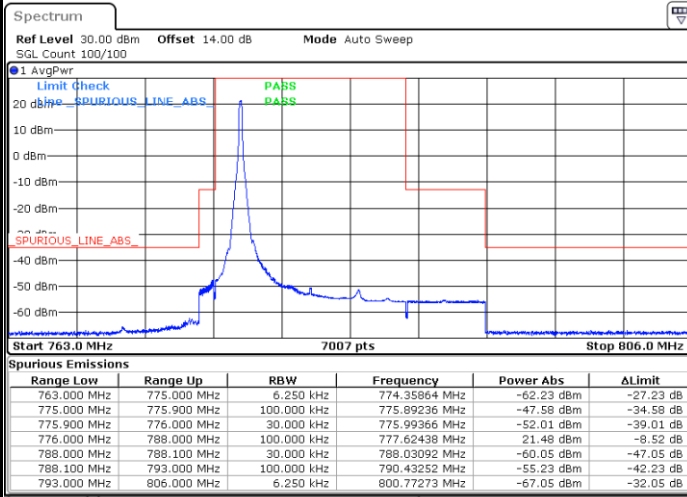
Date: 30.OCT.2021 15:13:55

Date: 30.OCT.2021 15:20:47



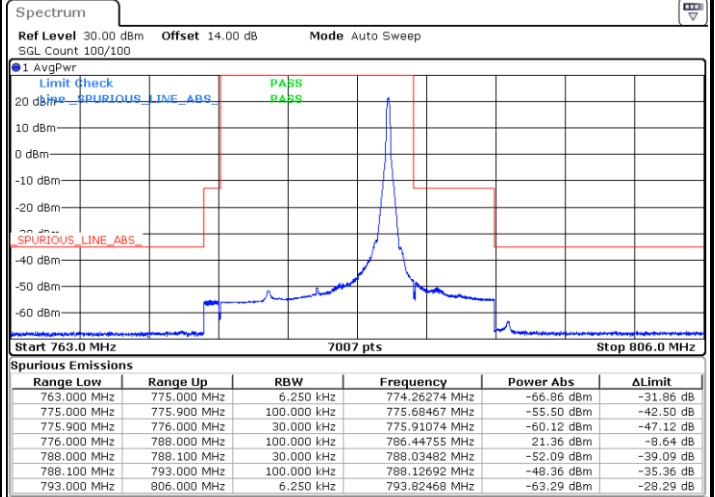
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



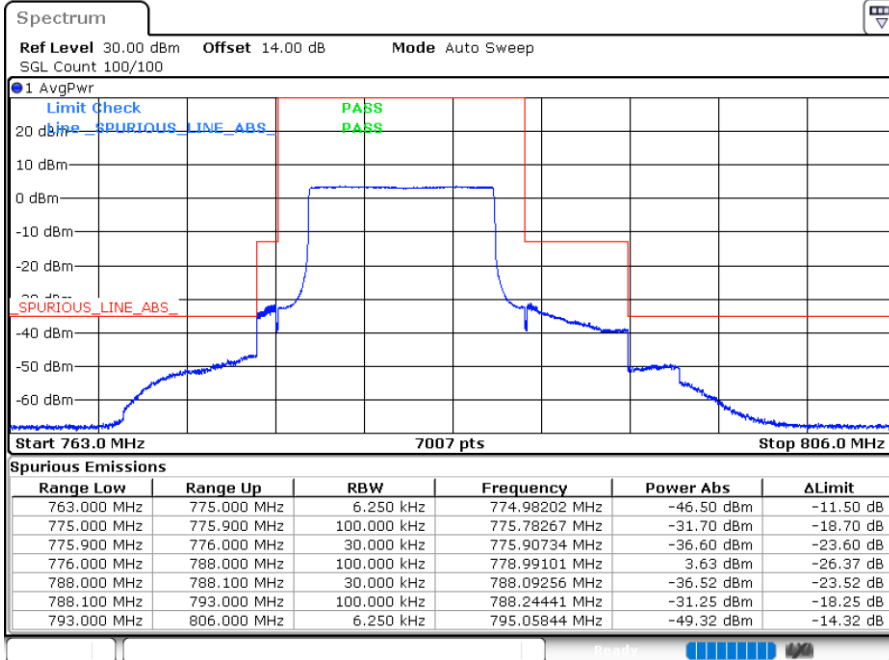
Date: 30.OCT.2021 15:32:39

Highest Band Edge / 1 RB



Date: 30.OCT.2021 15:34:32

Band Edge / Full RB

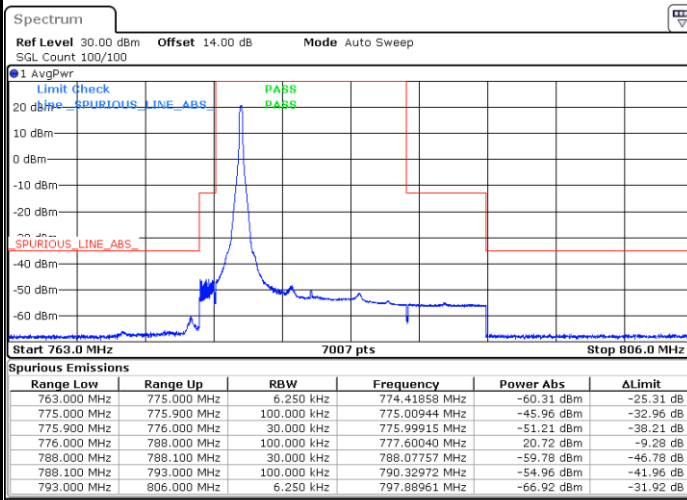


Date: 30.OCT.2021 15:27:01



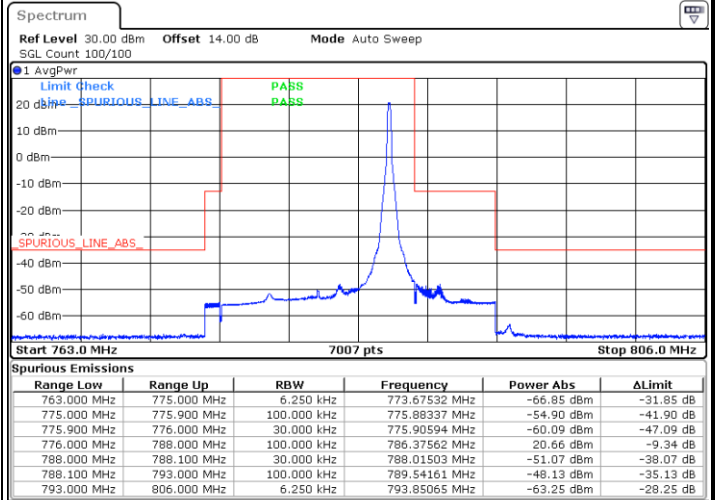
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



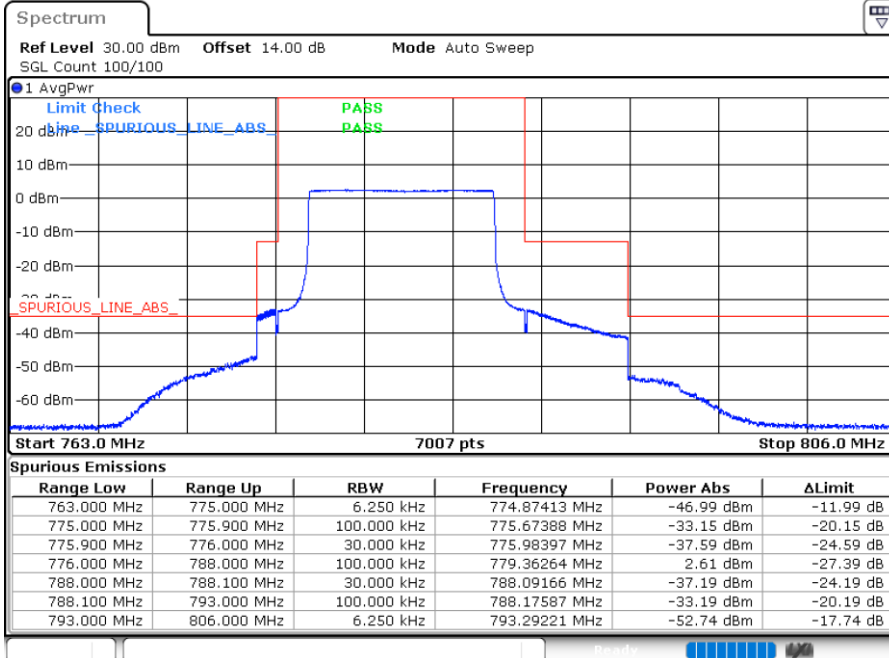
Date: 30.OCT.2021 15:30:47

Highest Band Edge / 1 RB



Date: 30.OCT.2021 15:36:24

Band Edge / Full RB

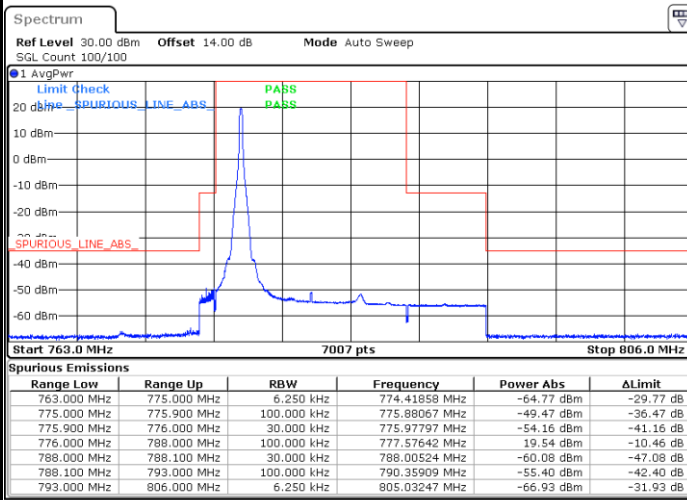


Date: 30.OCT.2021 15:28:54



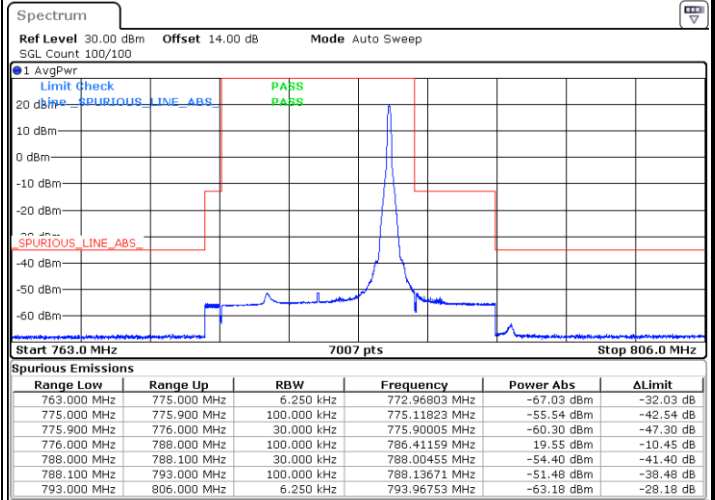
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



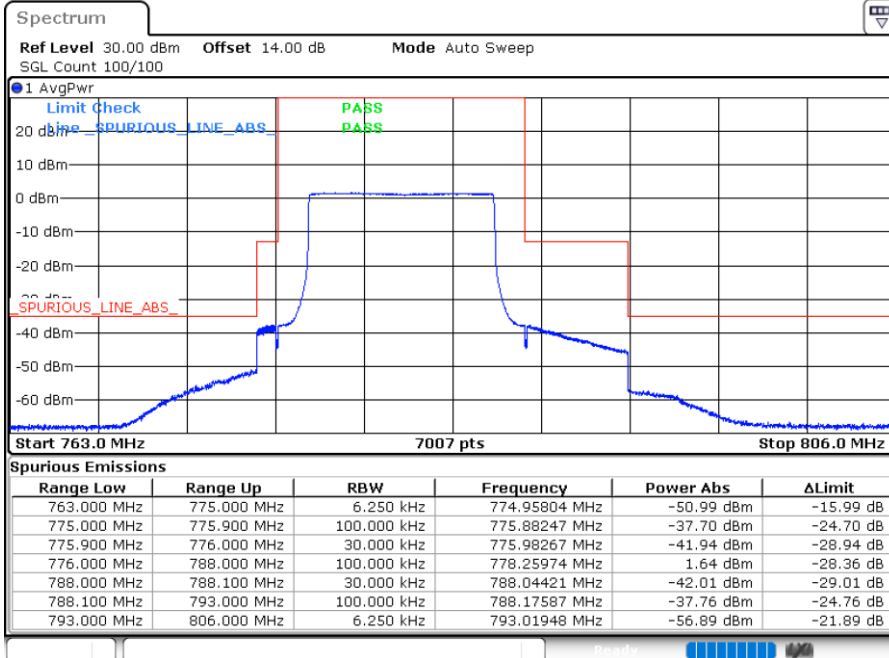
Date: 30.OCT.2021 15:42:42

Highest Band Edge / 1 RB



Date: 30.OCT.2021 15:44:34

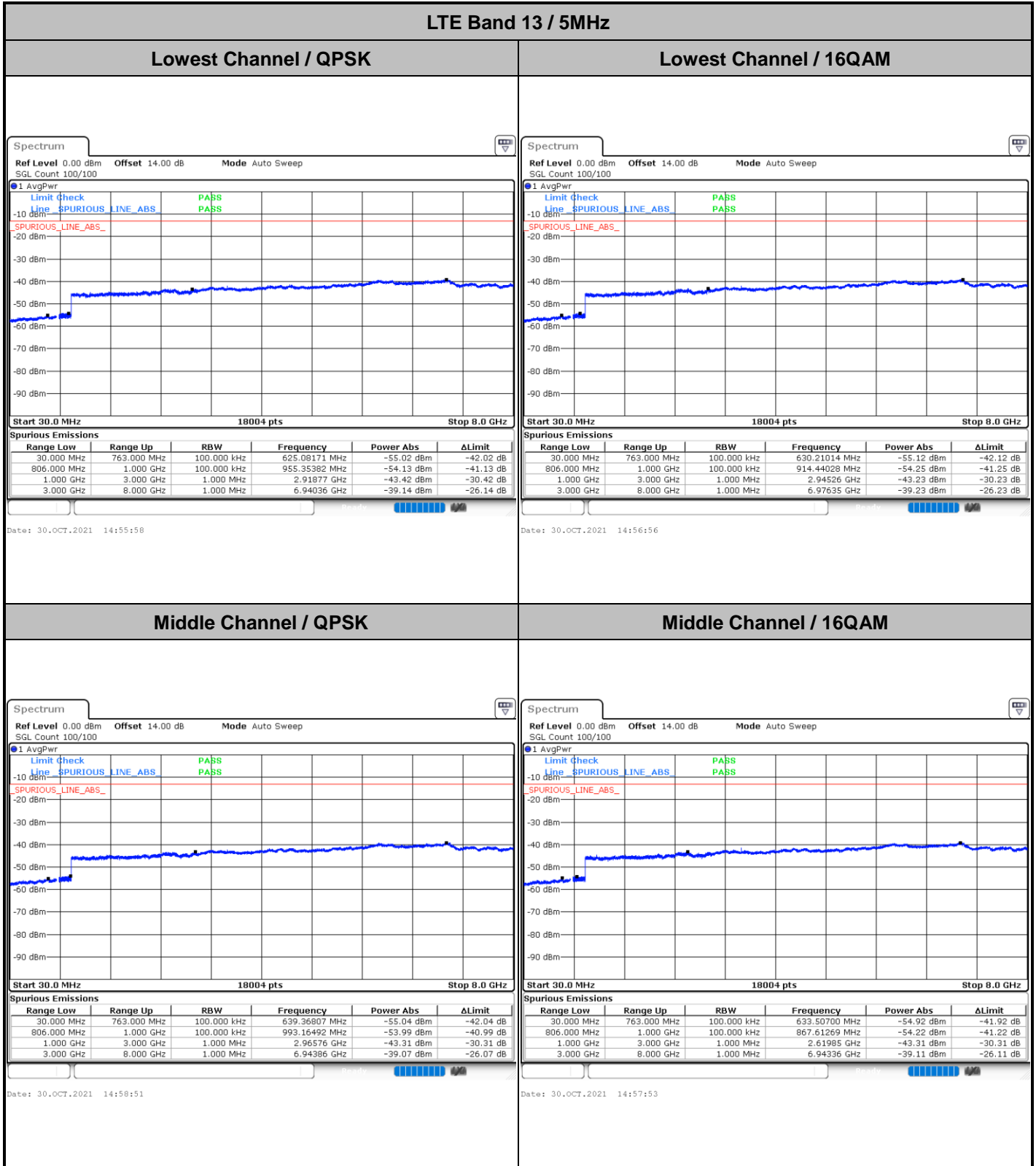
Band Edge / Full RB



Date: 30.OCT.2021 15:40:49



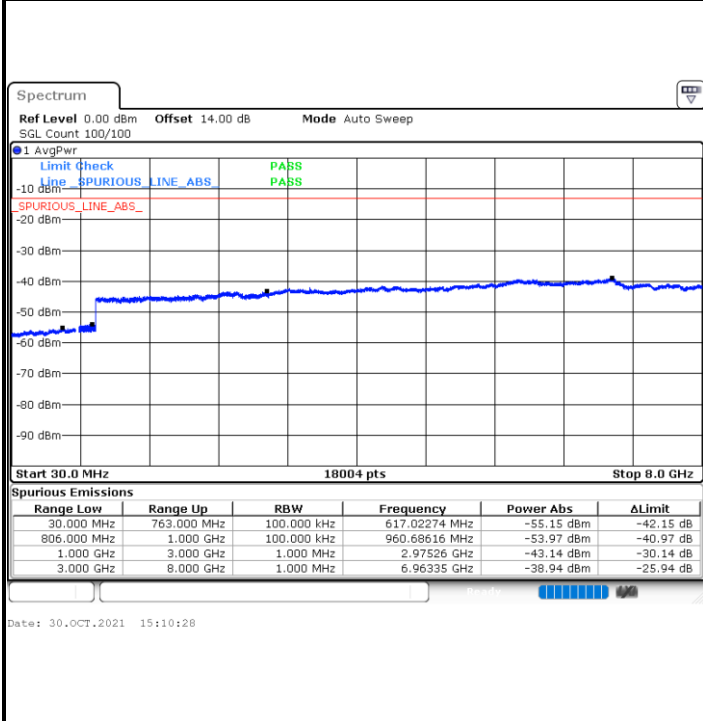
# Conducted Spurious Emission



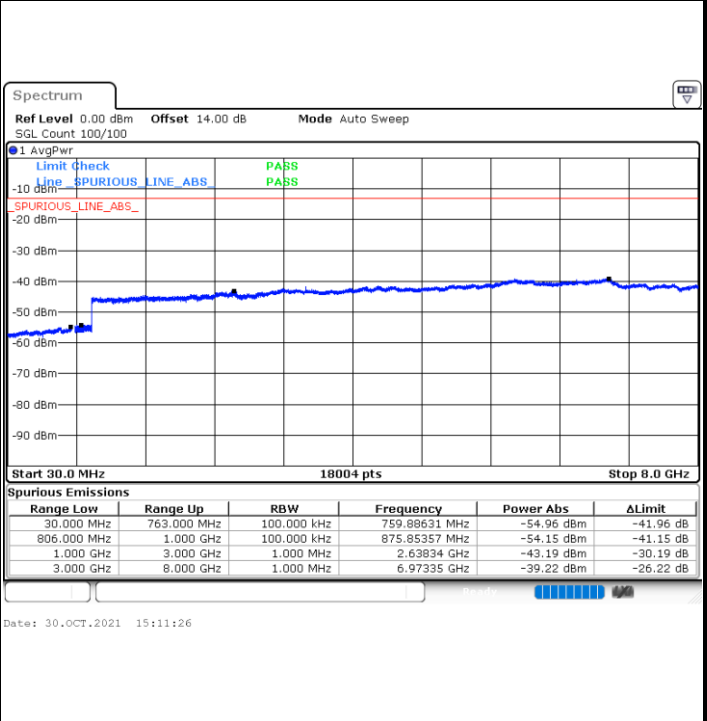


LTE Band 13 / 5MHz

Highest Channel / QPSK

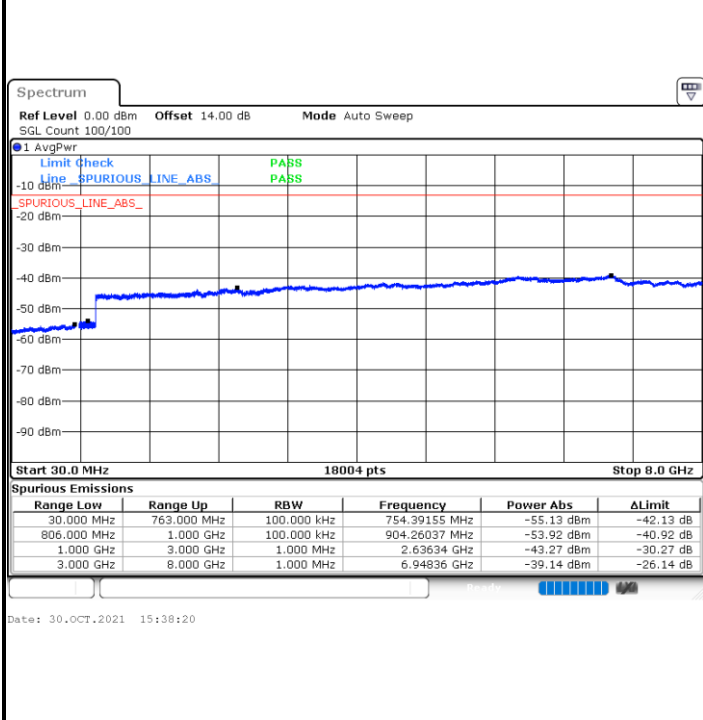


Highest Channel / 16QAM

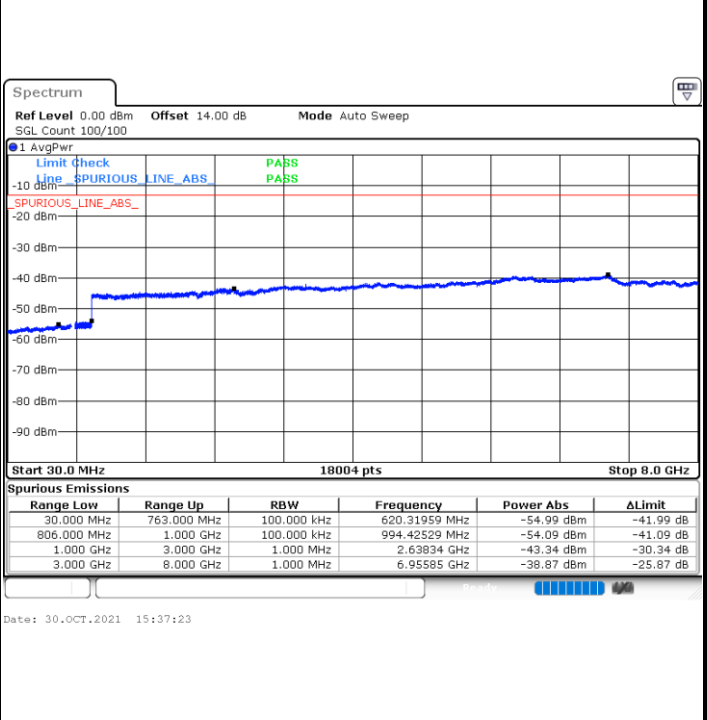


LTE Band 13 / 10MHz

Middle Channel / QPSK



Middle Channel / 16QAM



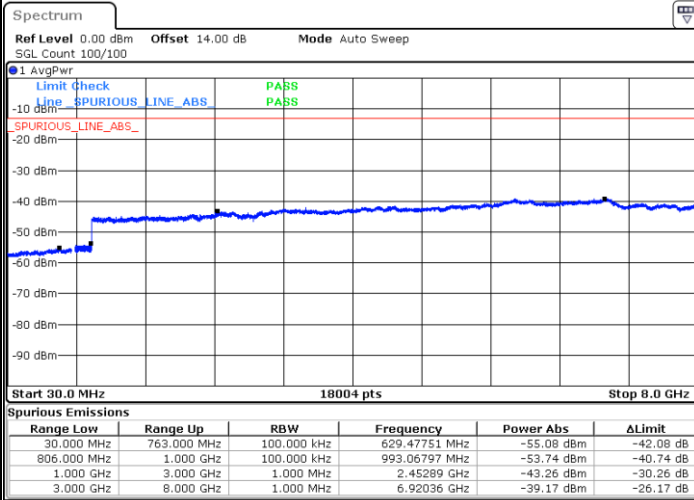




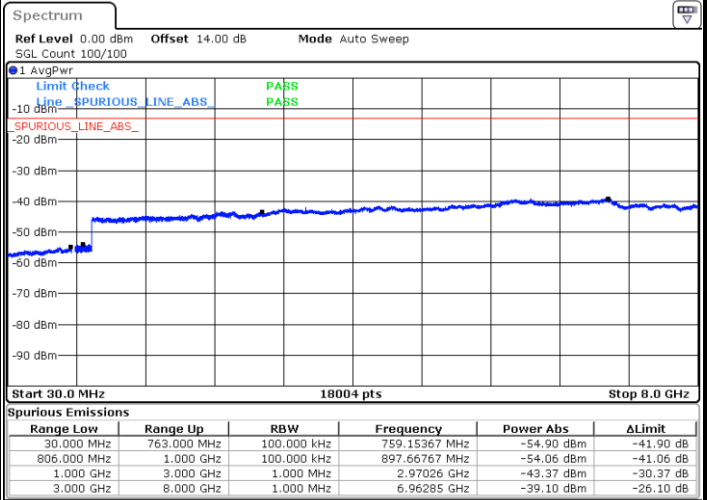
LTE Band 13 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

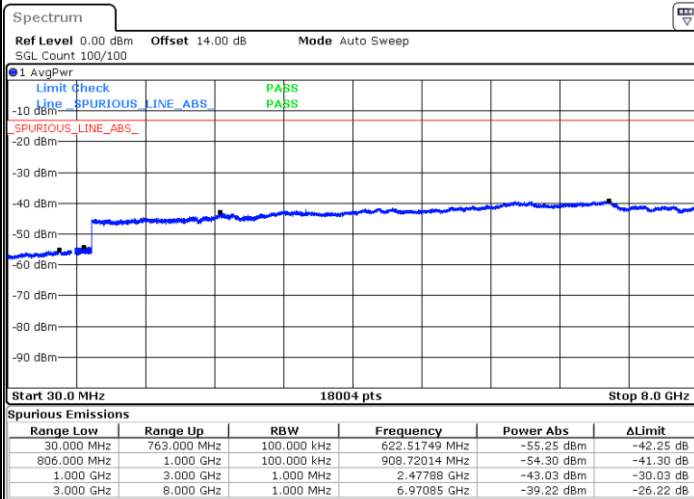


Date: 30.OCT.2021 15:16:37



Date: 30.OCT.2021 15:17:34

Highest Channel / 64QAM

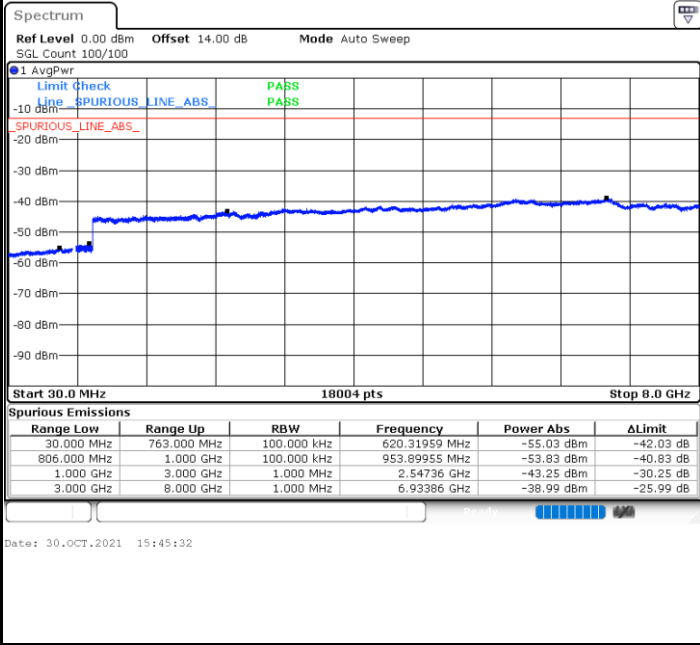


Date: 30.OCT.2021 15:23:39



LTE Band 13 / 10MHz

Middle Channel / 64QAM





Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.2 V. ; Maximum Voltage =8.9 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 25

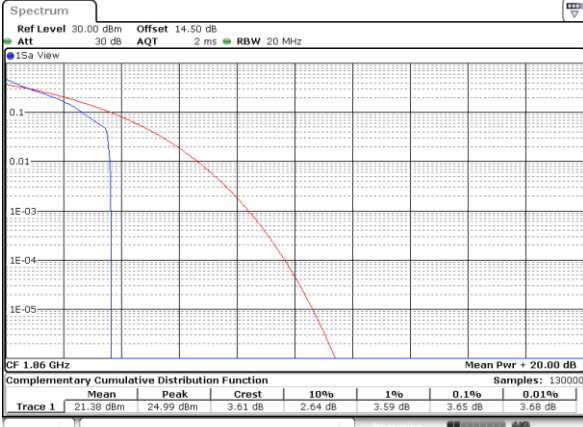
## Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.65	4.55	4.38	5.65	PASS
Middle CH	3.51	4.55	4.12	5.68	
Highest CH	3.48	4.72	4.09	5.83	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.33	6.32	-	-	PASS
Middle CH	5.28	6.26	-	-	
Highest CH	5.01	6.38	-	-	



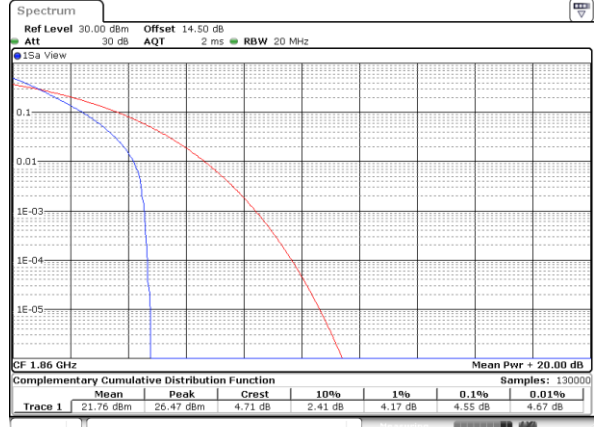
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



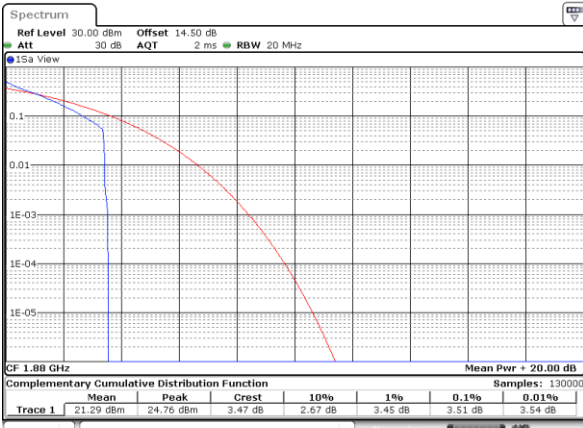
Date: 1.NOV.2021 20:55:17

Lowest Channel / Full RB



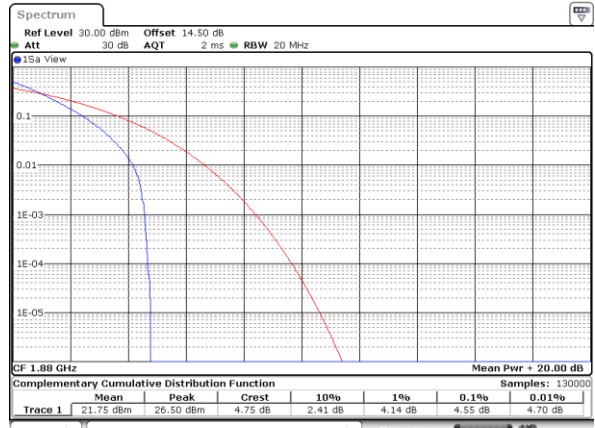
Date: 1.NOV.2021 20:55:43

Middle Channel / 1RB



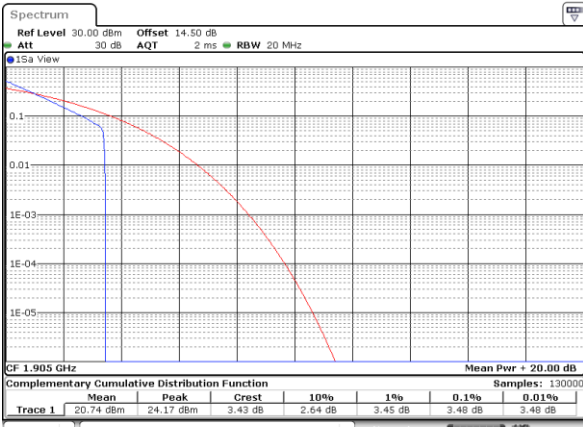
Date: 1.NOV.2021 20:57:02

Middle Channel / Full RB



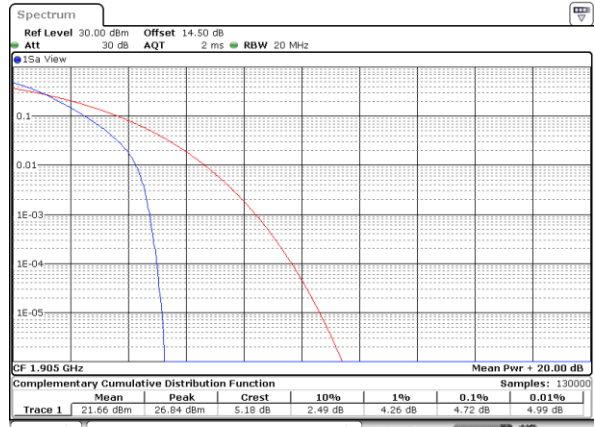
Date: 1.NOV.2021 20:57:28

Highest Channel / 1RB



Date: 1.NOV.2021 20:58:47

Highest Channel / Full RB



Date: 1.NOV.2021 20:59:13



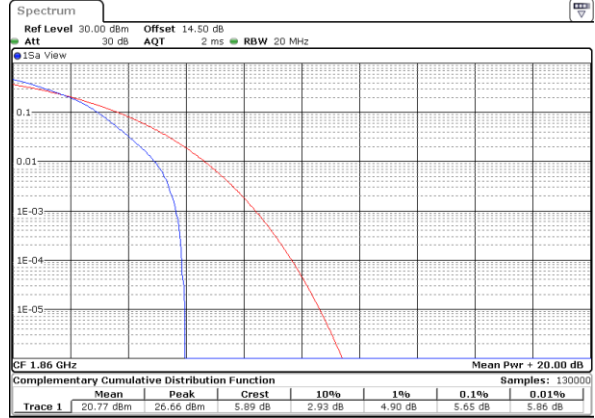
LTE Band 25 / 20MHz / 16QAM

Lowest Channel / 1RB



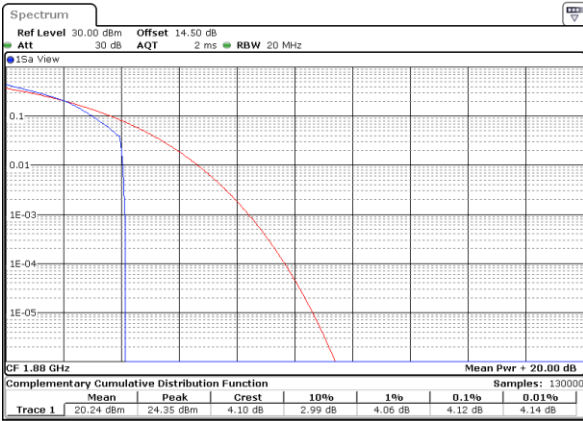
Date: 1.NOV.2021 20:54:24

Lowest Channel / Full RB



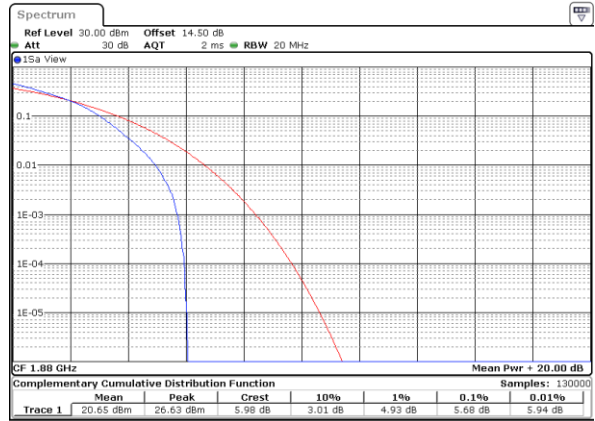
Date: 1.NOV.2021 20:54:51

Middle Channel / 1RB



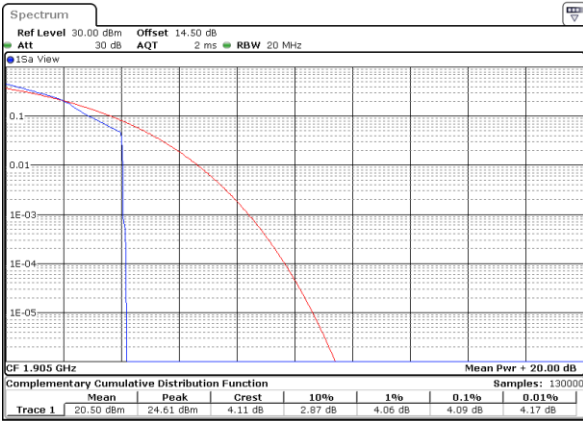
Date: 1.NOV.2021 20:56:09

Middle Channel / Full RB



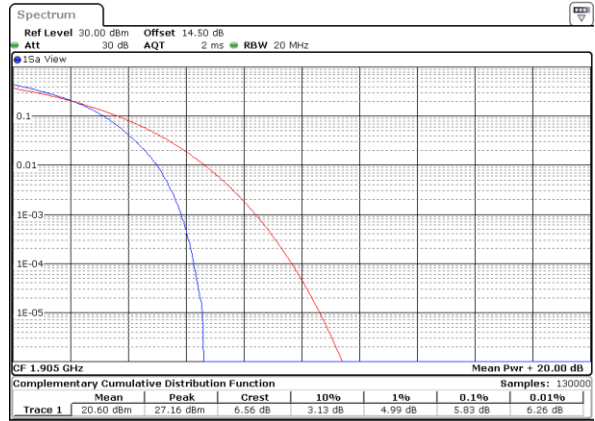
Date: 1.NOV.2021 20:56:36

Highest Channel / 1RB



Date: 1.NOV.2021 20:57:54

Highest Channel / Full RB

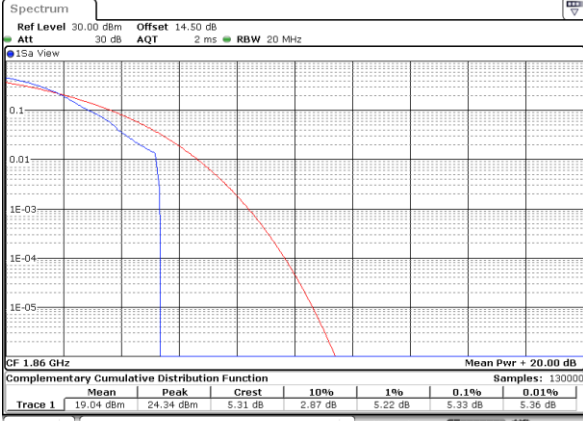


Date: 1.NOV.2021 20:58:21



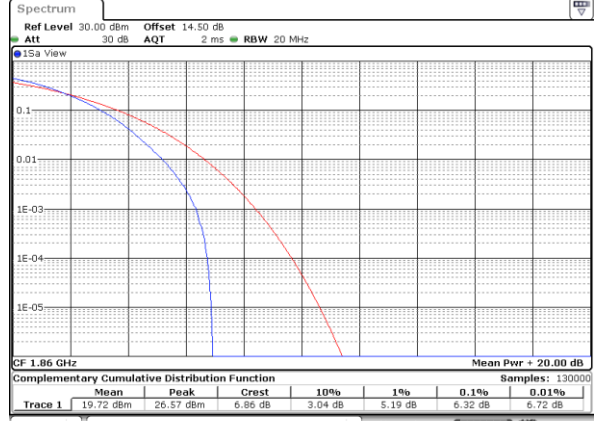
LTE Band 25 / 20MHz / 64QAM

Lowest Channel / 1RB



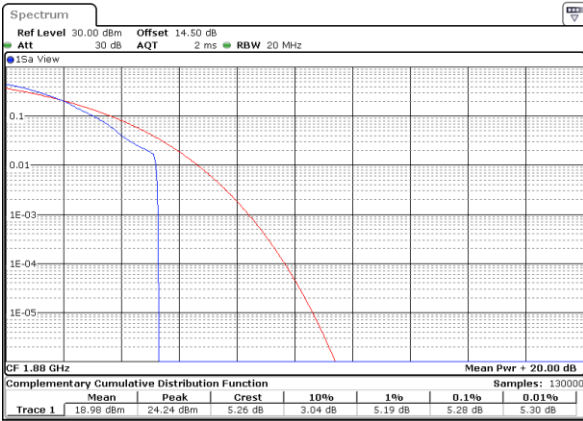
Date: 1.NOV.2021 20:51:47

Lowest Channel / Full RB



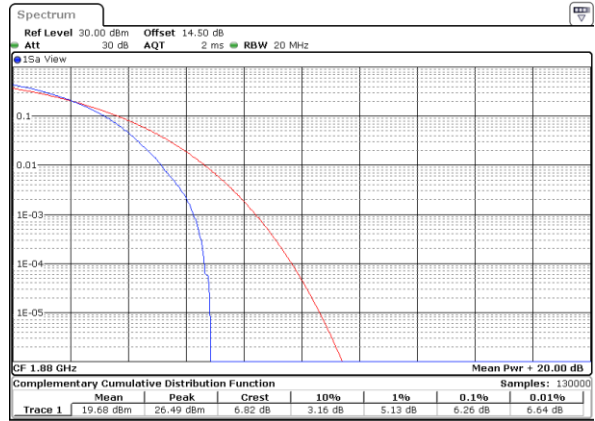
Date: 1.NOV.2021 20:52:13

Middle Channel / 1RB



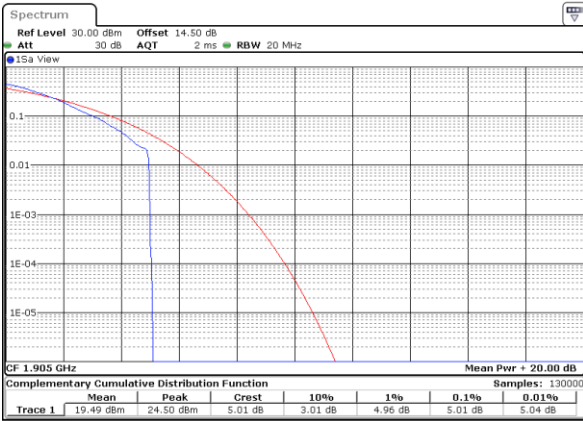
Date: 1.NOV.2021 20:52:40

Middle Channel / Full RB



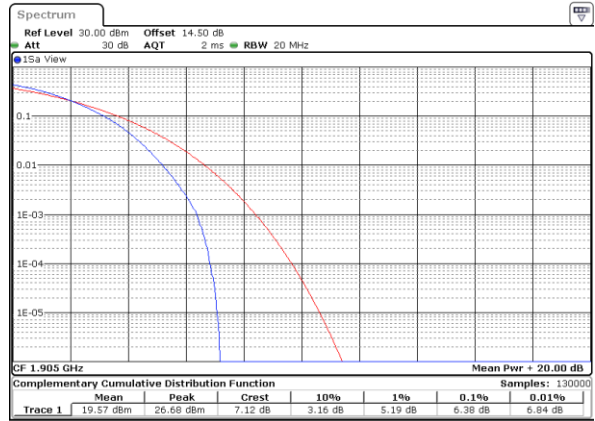
Date: 1.NOV.2021 20:53:06

Highest Channel / 1RB



Date: 1.NOV.2021 20:53:32

Highest Channel / Full RB



Date: 1.NOV.2021 20:53:58



26dB Bandwidth

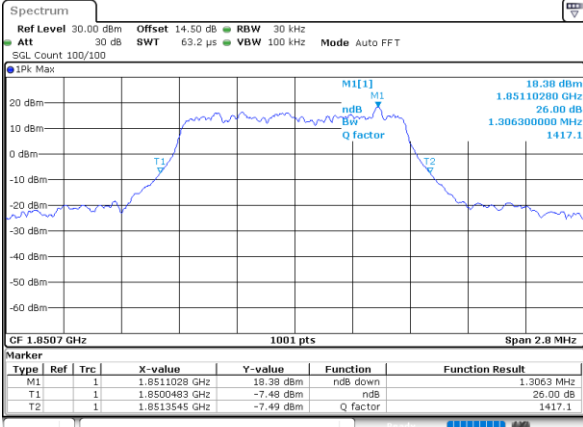
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.31	1.33	3.08	3.10	4.97	4.88	10.11	9.75	15.02	14.48	19.02	19.34
Middle CH	1.32	1.34	3.10	3.10	5.11	5.03	9.77	10.07	14.45	14.69	19.06	19.10
Highest CH	1.33	1.35	3.03	3.06	5.05	4.94	9.83	9.87	14.78	14.54	19.02	19.42
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.27	-	3.07	-	5.00	-	9.63	-	14.60	-	18.94	-
Middle CH	1.27	-	3.07	-	4.95	-	10.01	-	14.42	-	19.14	-
Highest CH	1.30	-	3.09	-	5.09	-	9.89	-	14.48	-	19.26	-





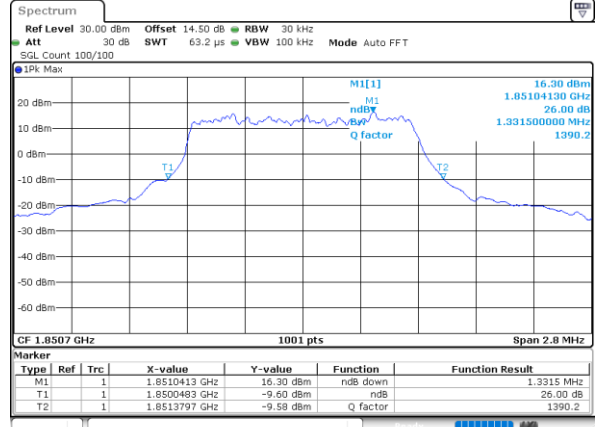
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



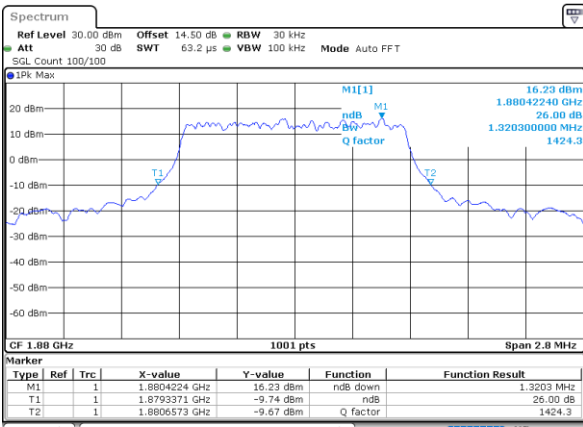
Date: 2.NOV.2021 08:40:06

Lowest Channel / 1.4MHz / 16QAM



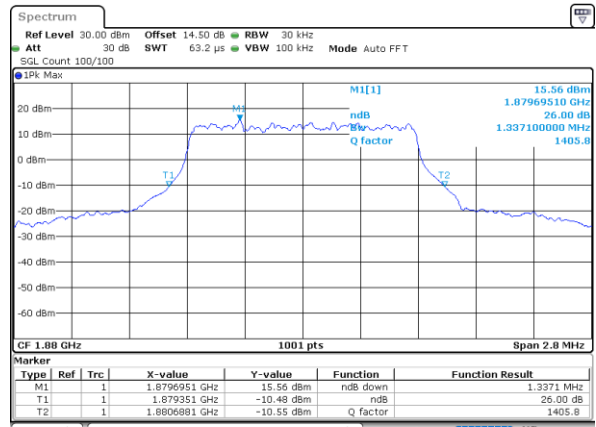
Date: 2.NOV.2021 08:42:12

Middle Channel / 1.4MHz / QPSK



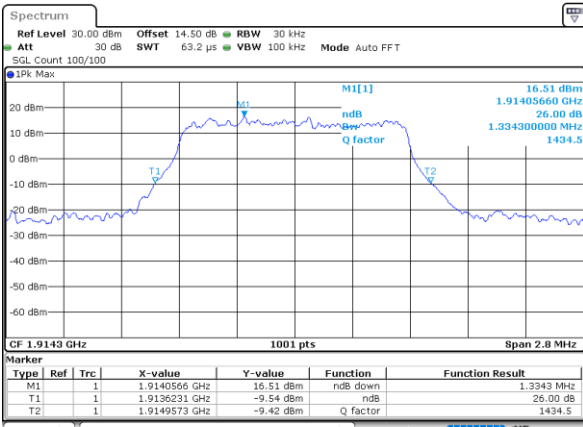
Date: 2.NOV.2021 08:53:29

Middle Channel / 1.4MHz / 16QAM



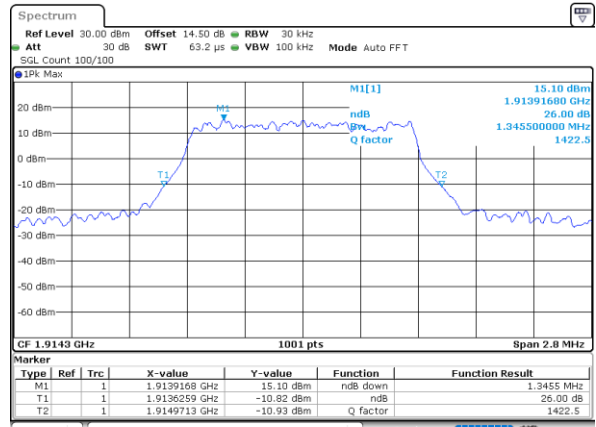
Date: 2.NOV.2021 08:54:07

Highest Channel / 1.4MHz / QPSK



Date: 2.NOV.2021 08:58:04

Highest Channel / 1.4MHz / 16QAM

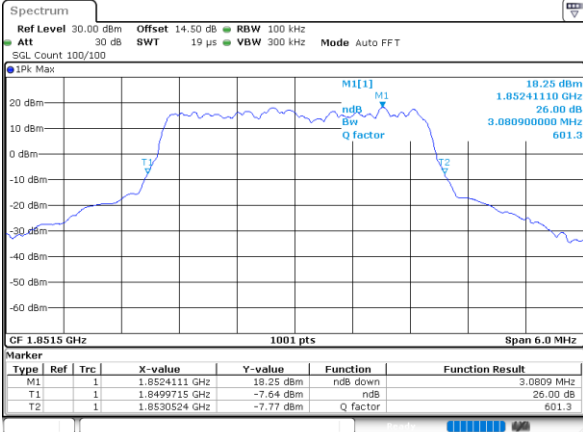


Date: 2.NOV.2021 09:00:10



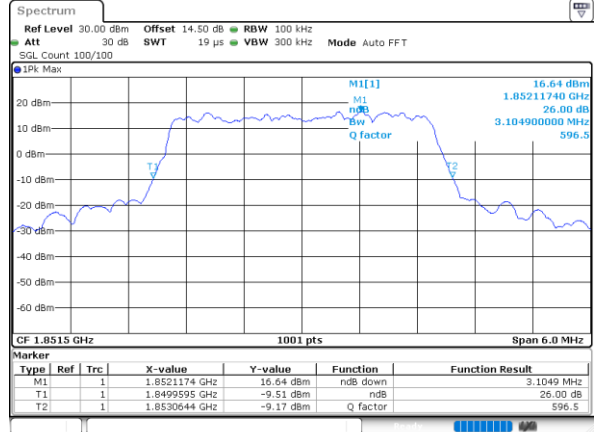
LTE Band 25

Lowest Channel / 3MHz / QPSK



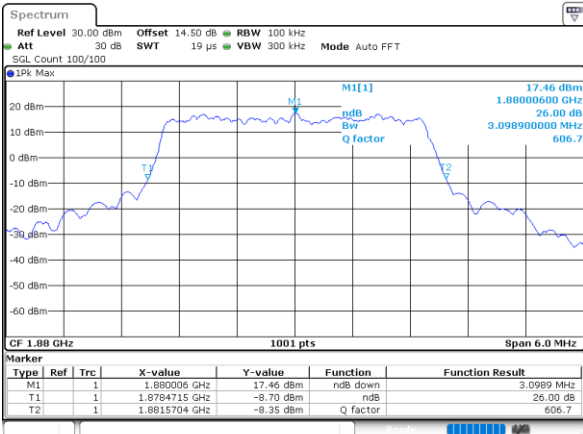
Date: 1.NOV.2021 18:11:38

Lowest Channel / 3MHz / 16QAM



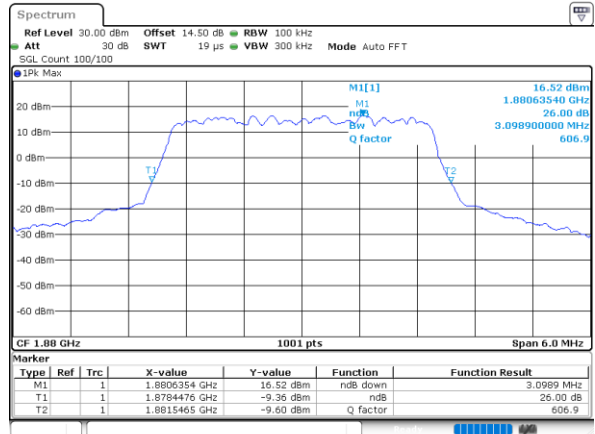
Date: 1.NOV.2021 18:12:03

Middle Channel / 3MHz / QPSK



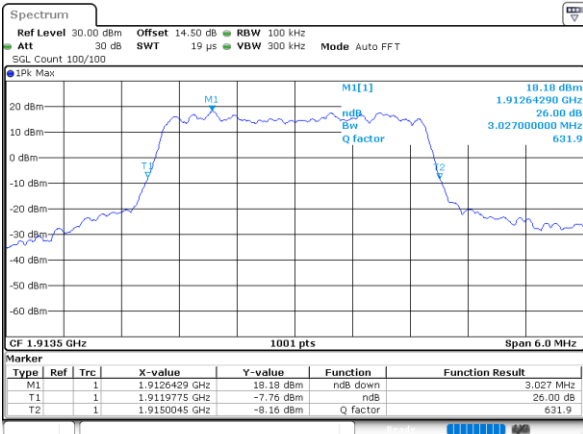
Date: 1.NOV.2021 18:21:35

Middle Channel / 3MHz / 16QAM



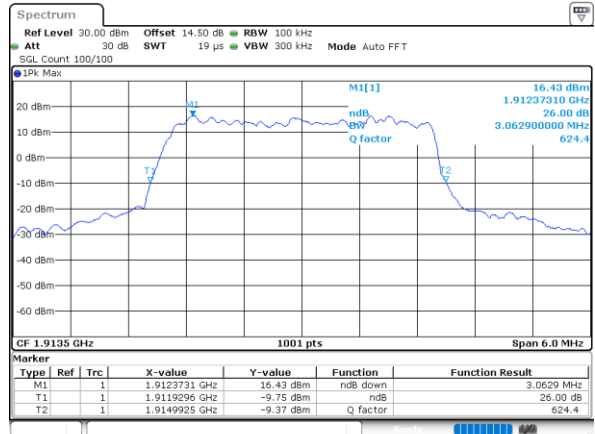
Date: 1.NOV.2021 18:21:59

Highest Channel / 3MHz / QPSK



Date: 1.NOV.2021 18:25:14

Highest Channel / 3MHz / 16QAM



Date: 1.NOV.2021 18:24:50