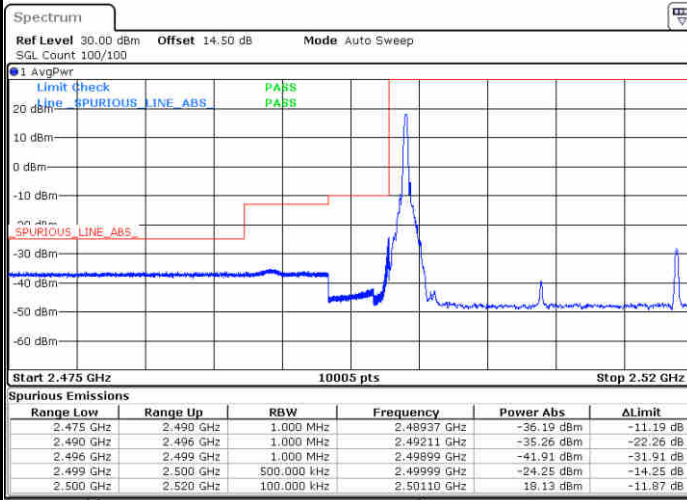




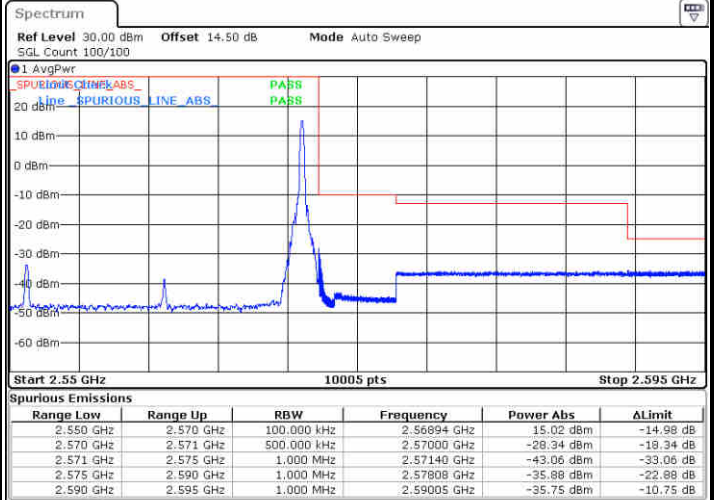
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



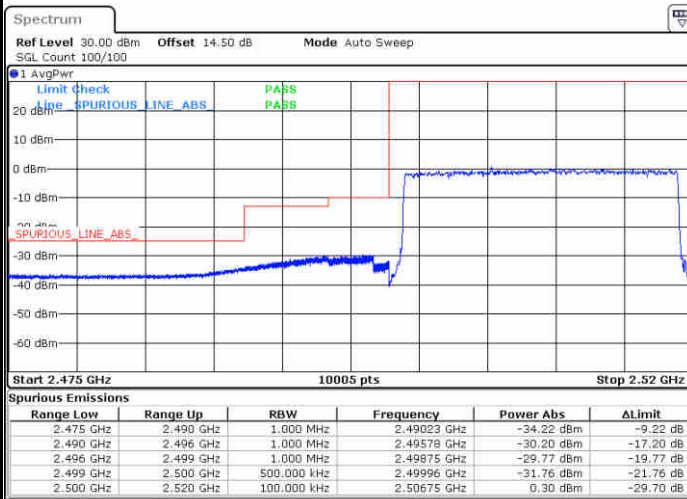
Date: 29 JUN 2020 18 09:51

Highest Band Edge / 1 RB



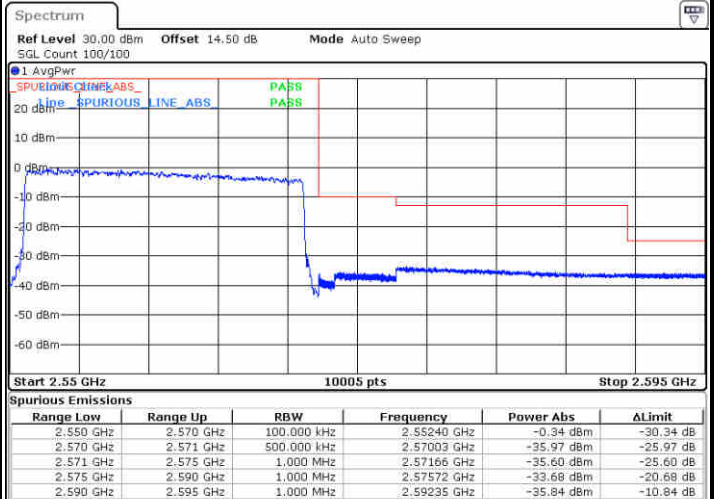
Date: 29 JUN 2020 18 06:41

Lowest Band Edge / Full RB



Date: 29 JUN 2020 18 04:23

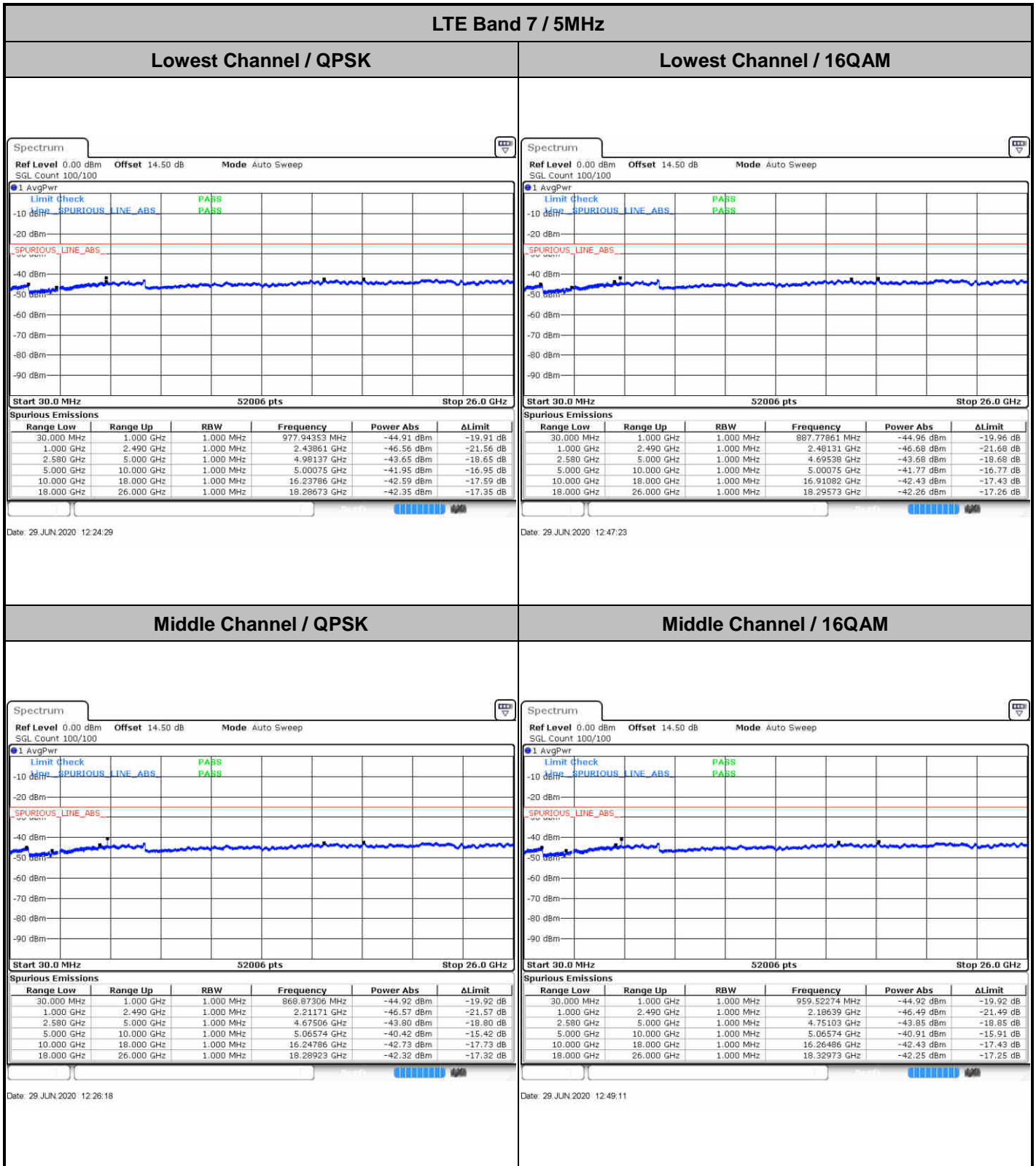
Highest Band Edge / Full RB



Date: 29 JUN 2020 18 06:09

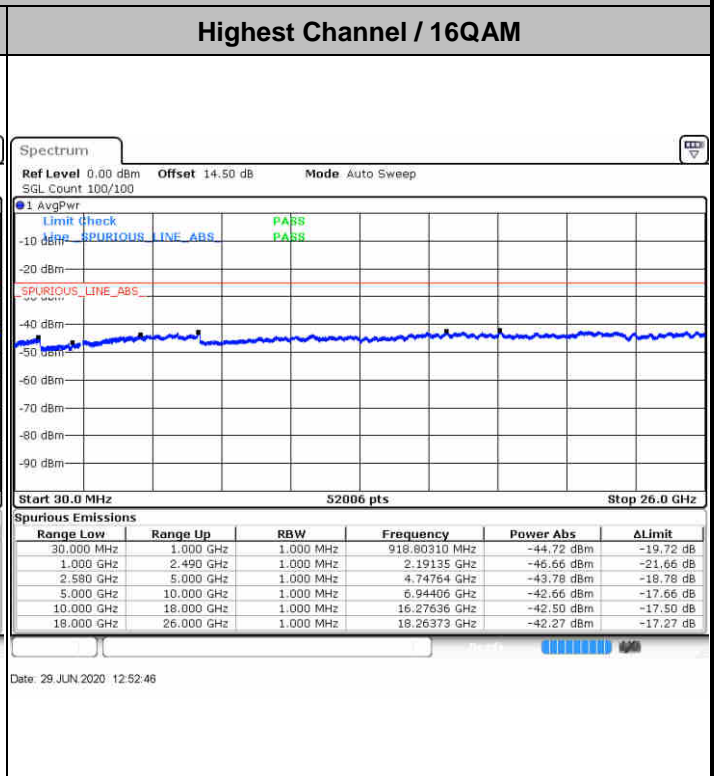
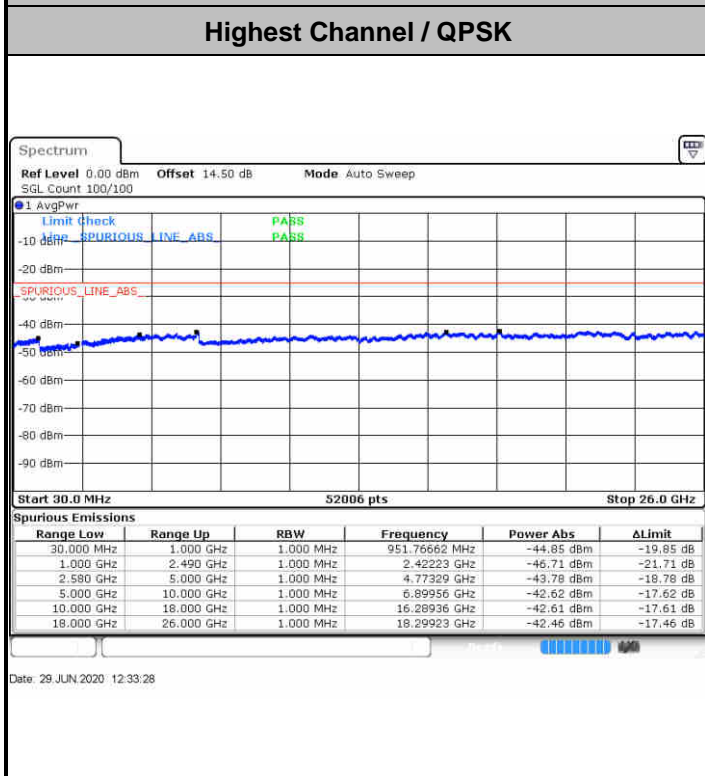


# Conducted Spurious Emission

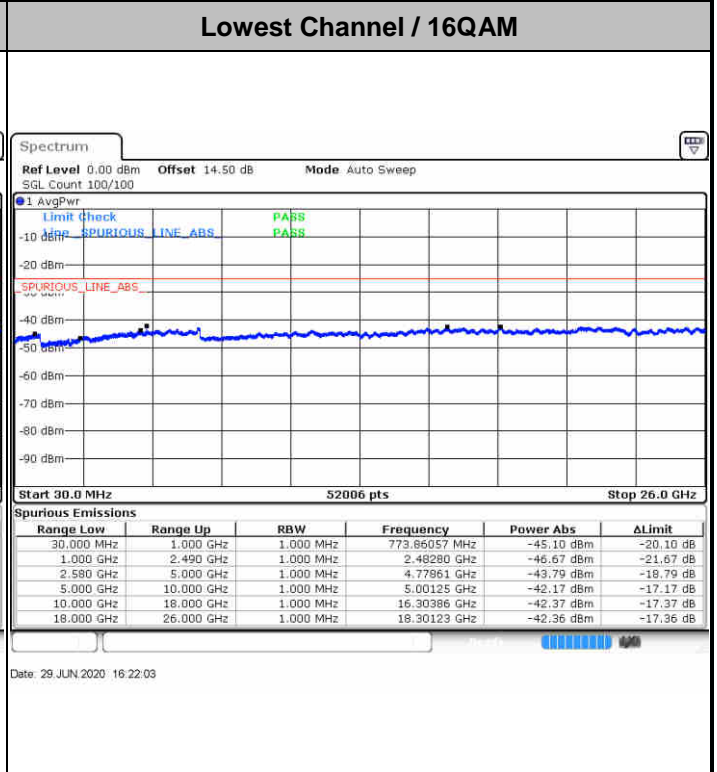
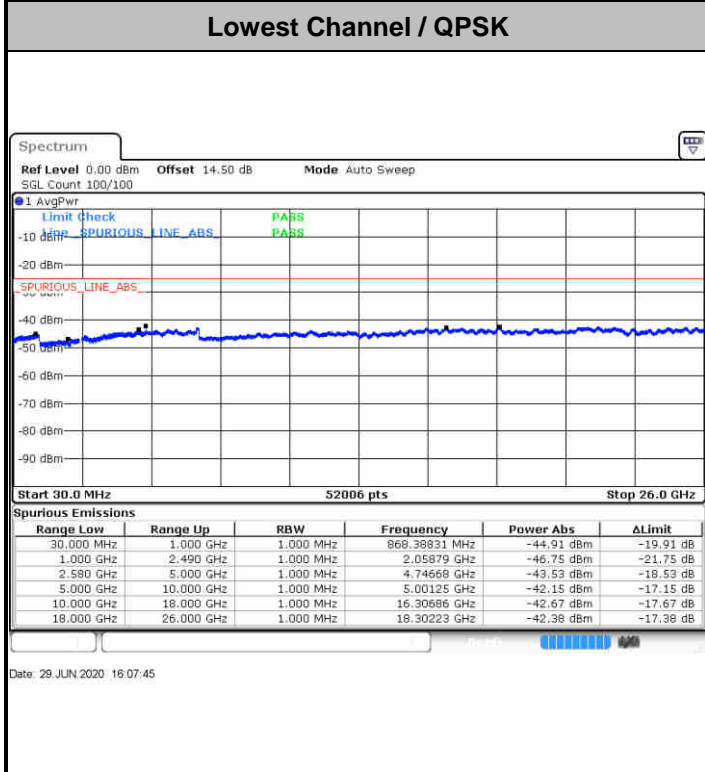




**LTE Band 7 / 5MHz**



**LTE Band 7 / 10MHz**

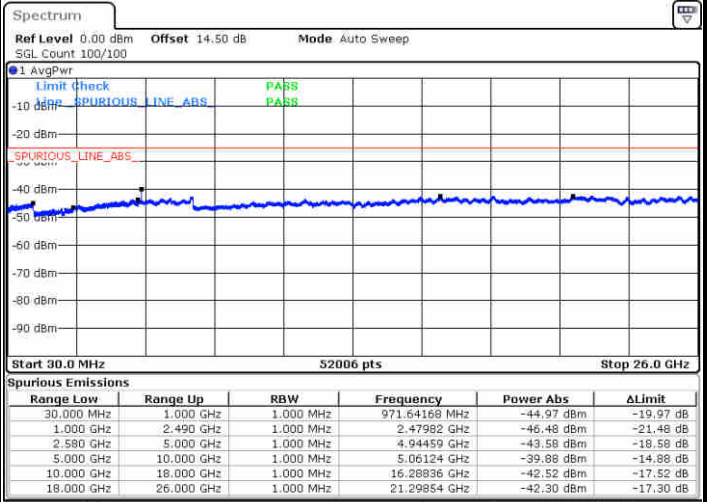
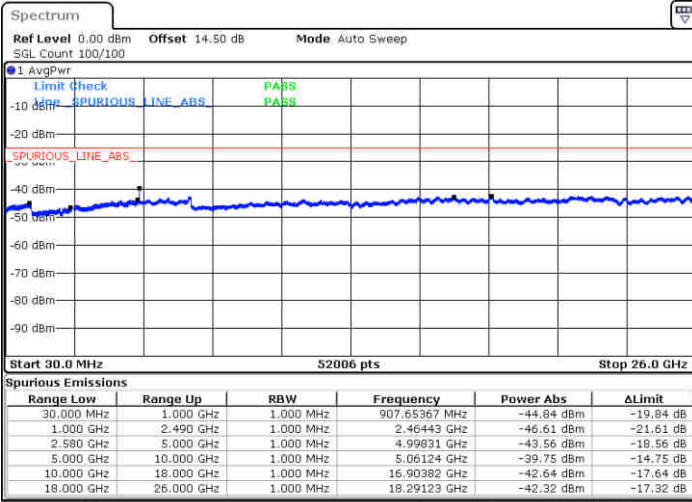




LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

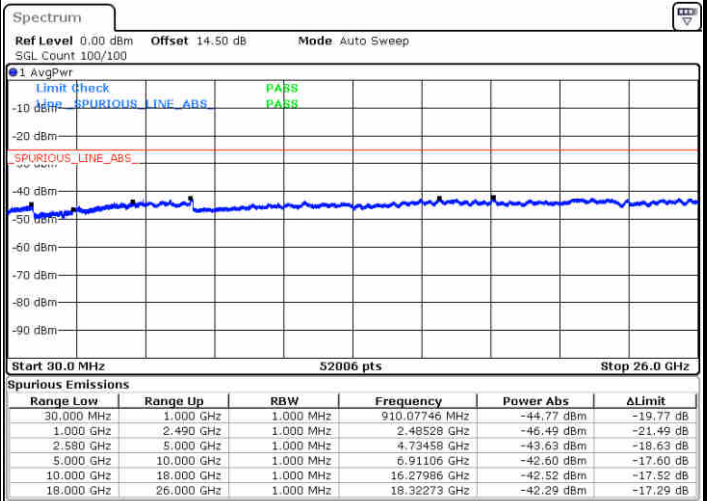
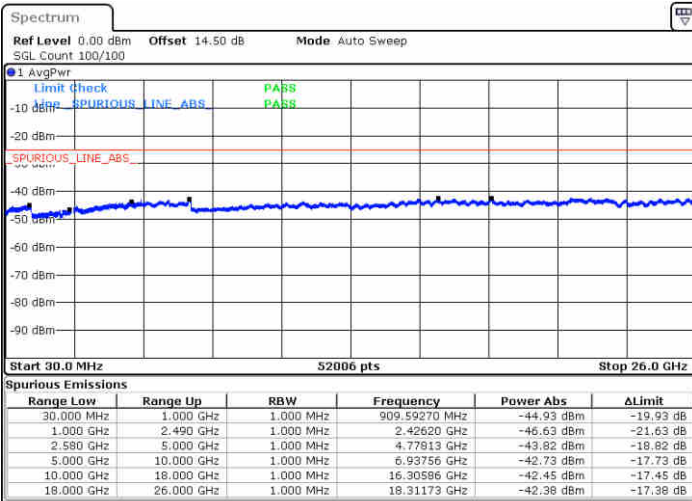


Date: 29 JUN 2020 16:06:35

Date: 29 JUN 2020 16:20:50

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 29 JUN 2020 16:04:22

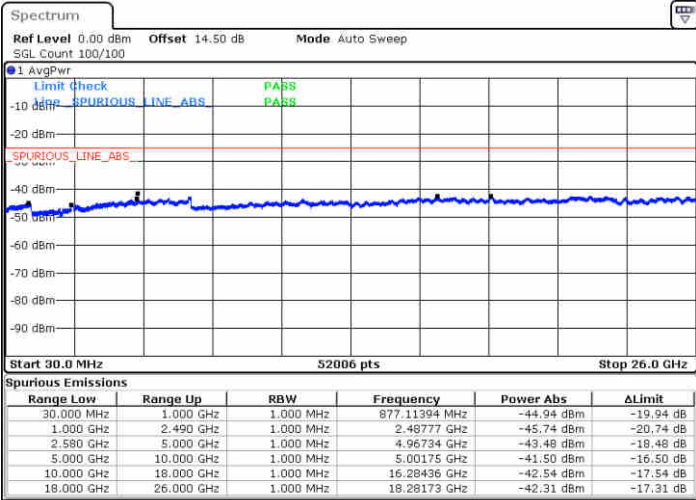
Date: 29 JUN 2020 16:18:29



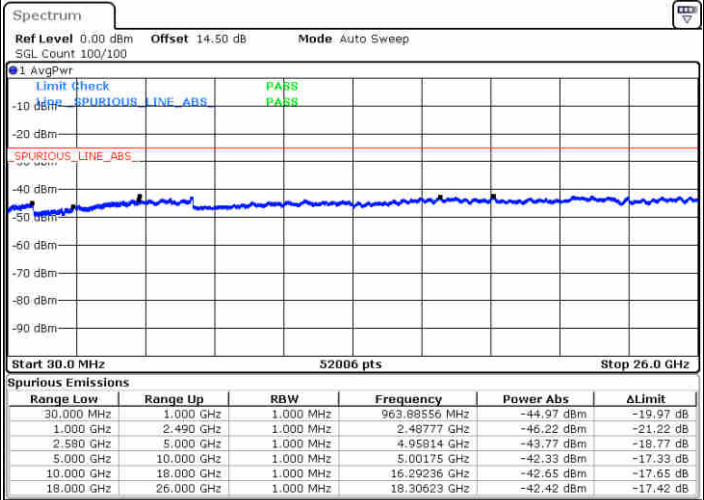
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



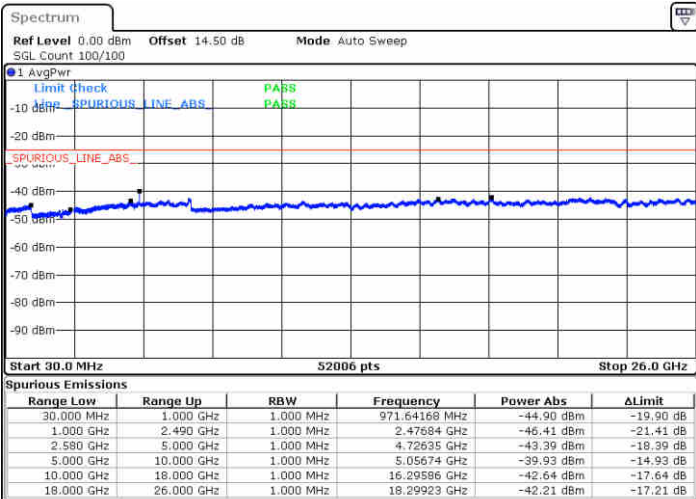
Date: 29 JUN 2020 16:40:12



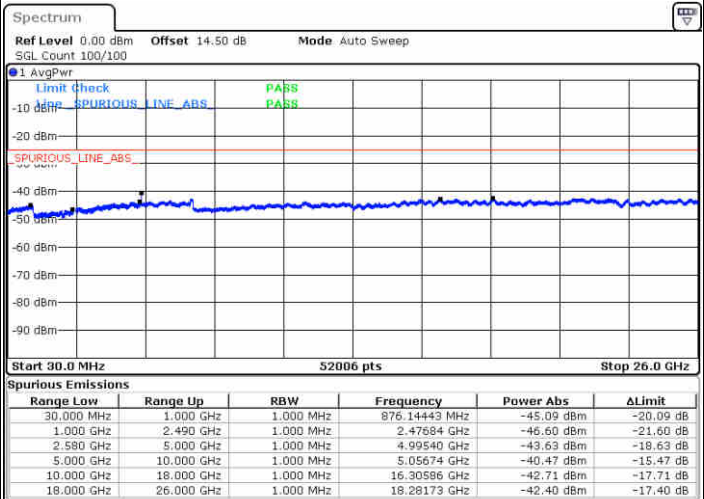
Date: 29 JUN 2020 17:16:56

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 29 JUN 2020 16:38:55

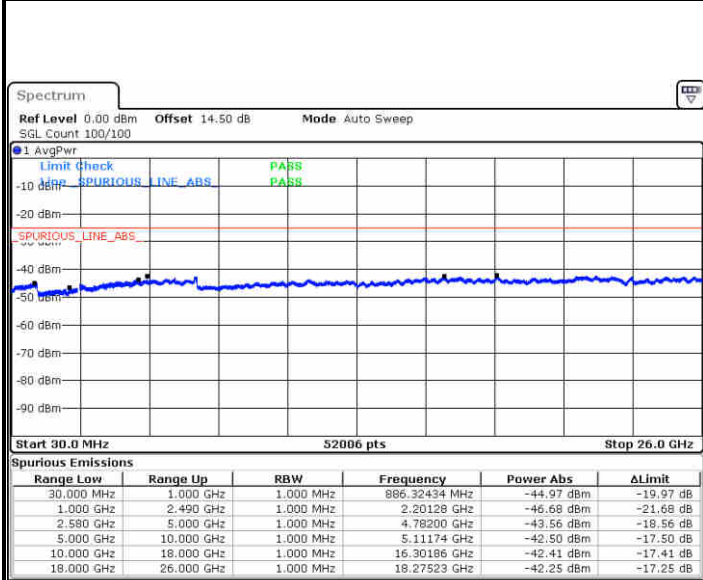


Date: 29 JUN 2020 17:15:51



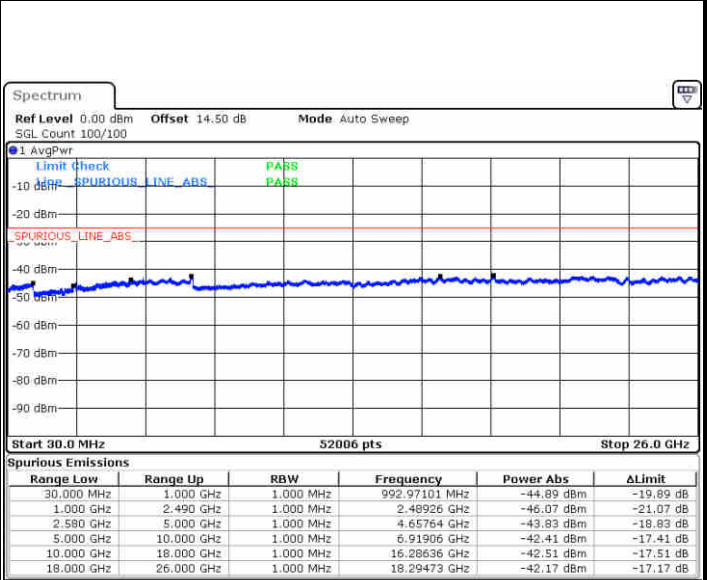
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 29 JUN 2020 16:37:48

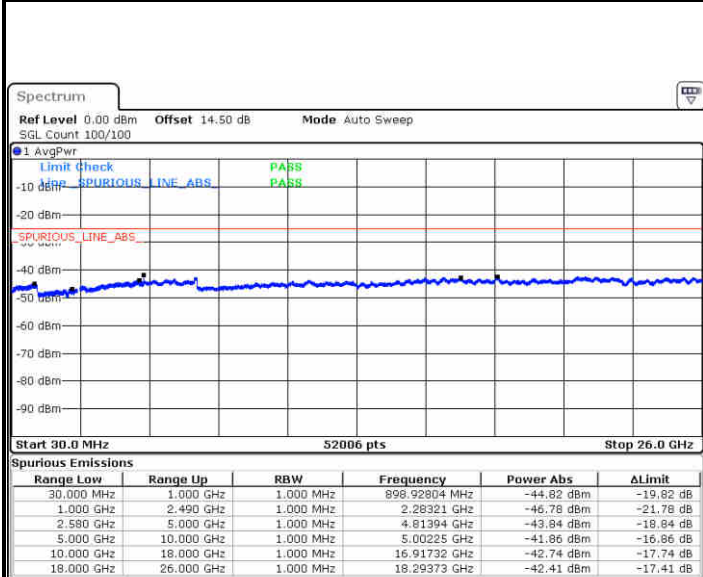
Highest Channel / 16QAM



Date: 29 JUN 2020 17:14:35

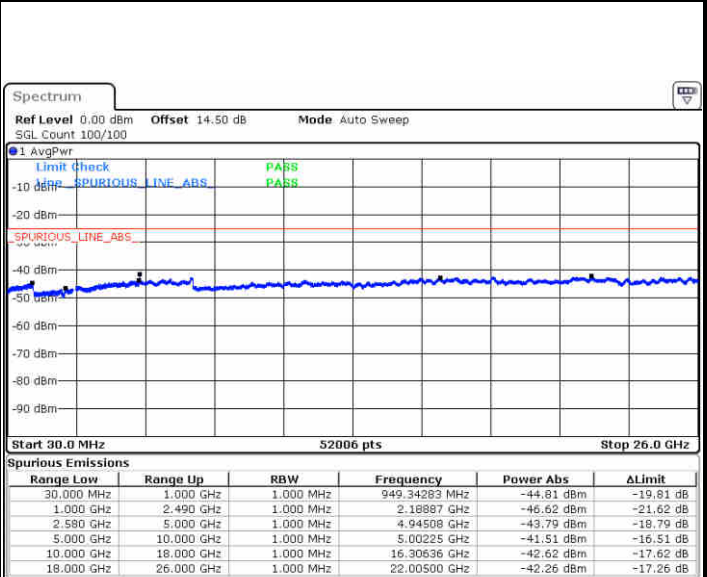
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 29 JUN 2020 17:52:20

Lowest Channel / 16QAM



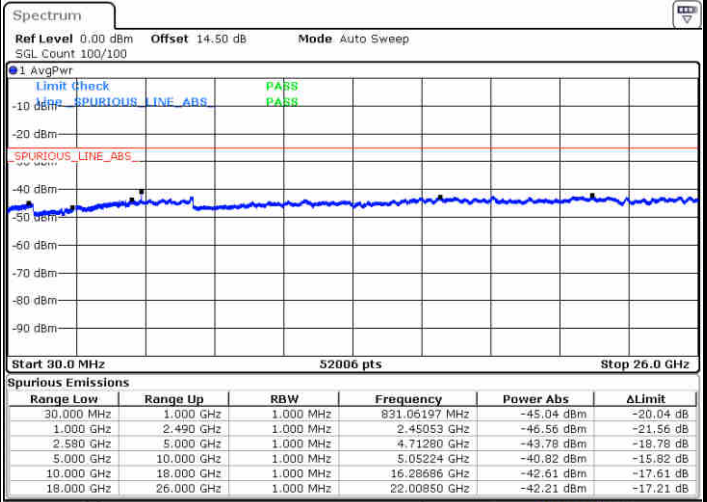
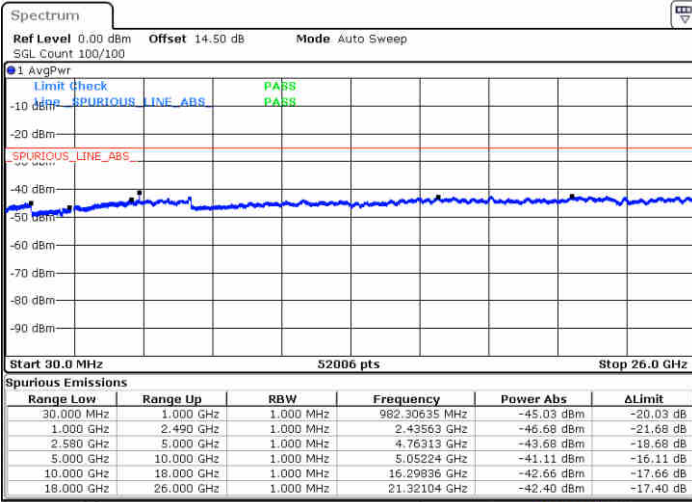
Date: 29 JUN 2020 18:02:17



LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

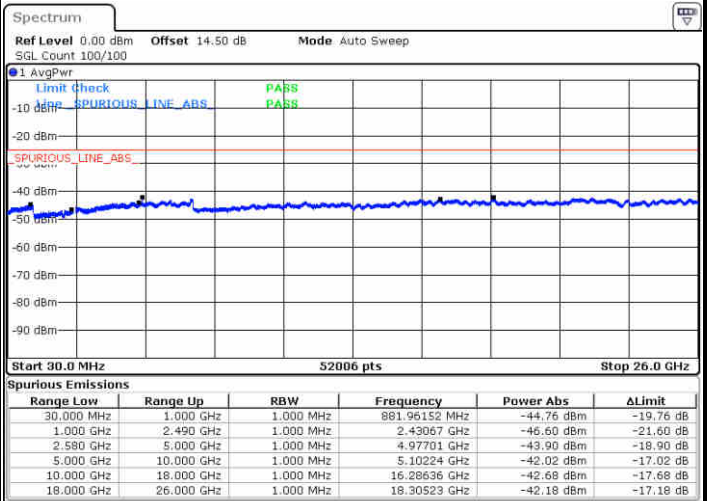
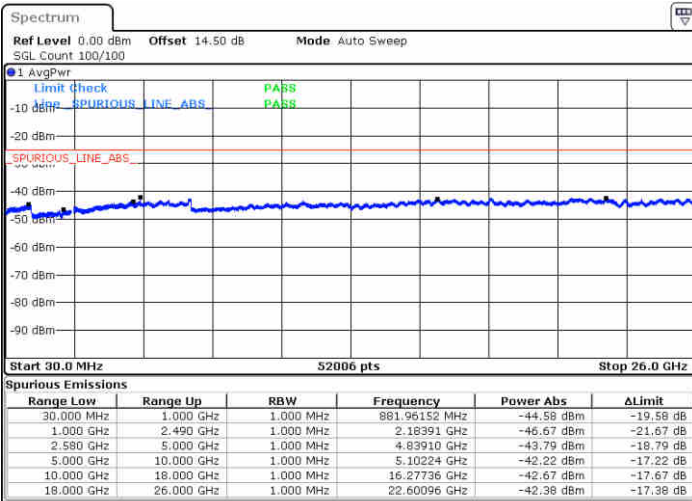


Date: 29 JUN 2020 17:49:38

Date: 29 JUN 2020 18:01:02

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 29 JUN 2020 17:47:37

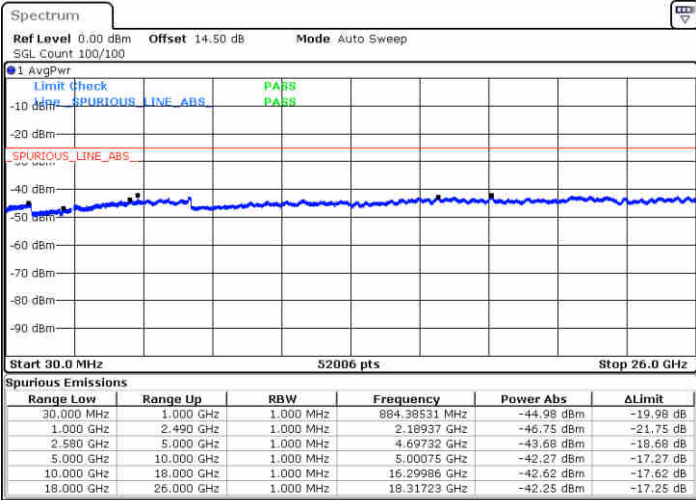
Date: 29 JUN 2020 17:59:28



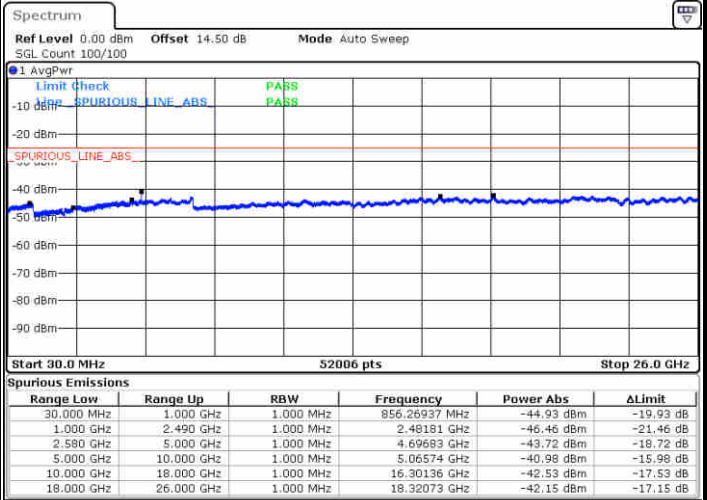
LTE Band 7 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

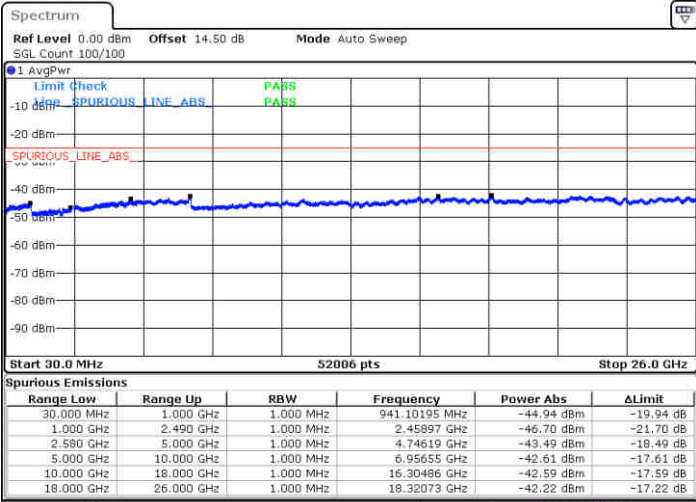


Date: 29 JUN 2020 13:08:47



Date: 29 JUN 2020 13:10:58

Highest Channel / 64QAM



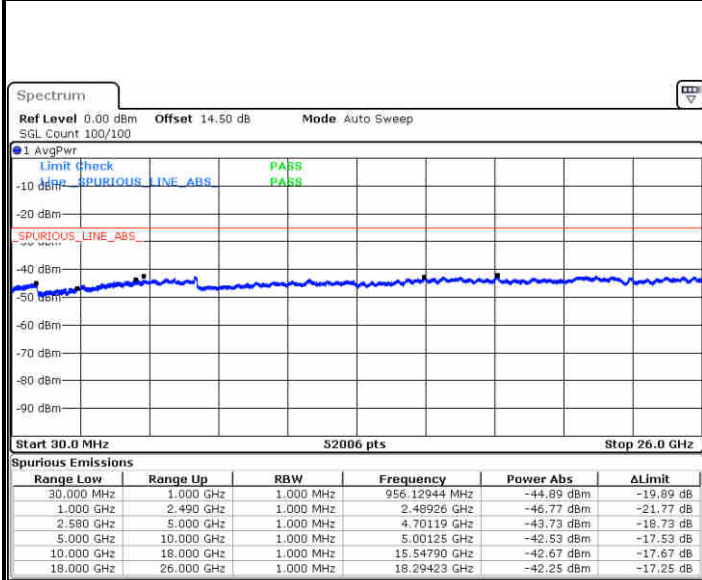
Date: 29 JUN 2020 15:13:08





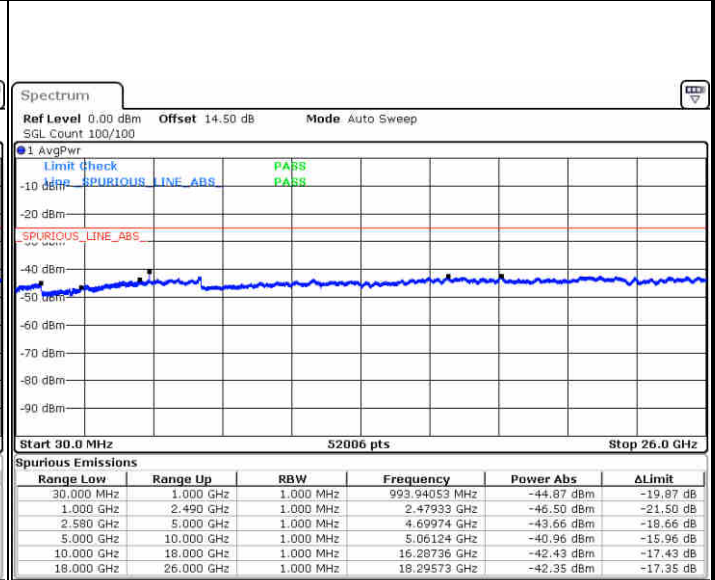
**LTE Band 7 / 10MHz**

**Lowest Channel / 64QAM**



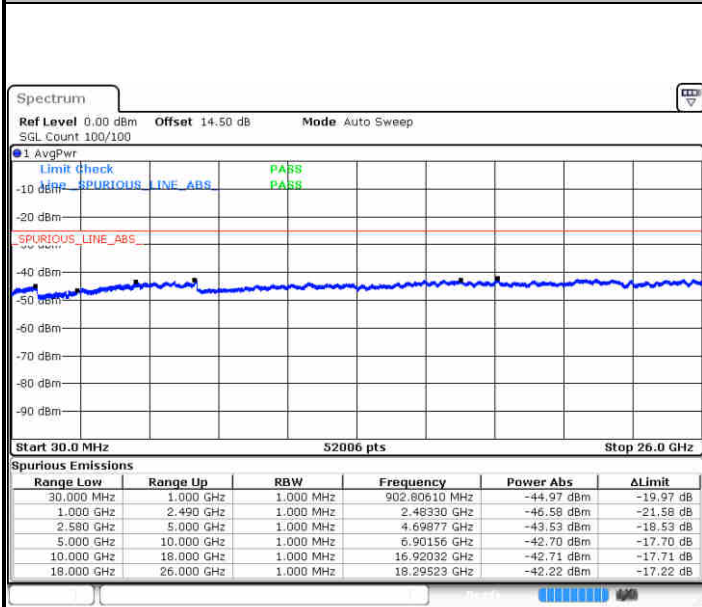
Date: 29 JUN 2020 16:29:56

**Middle Channel / 64QAM**

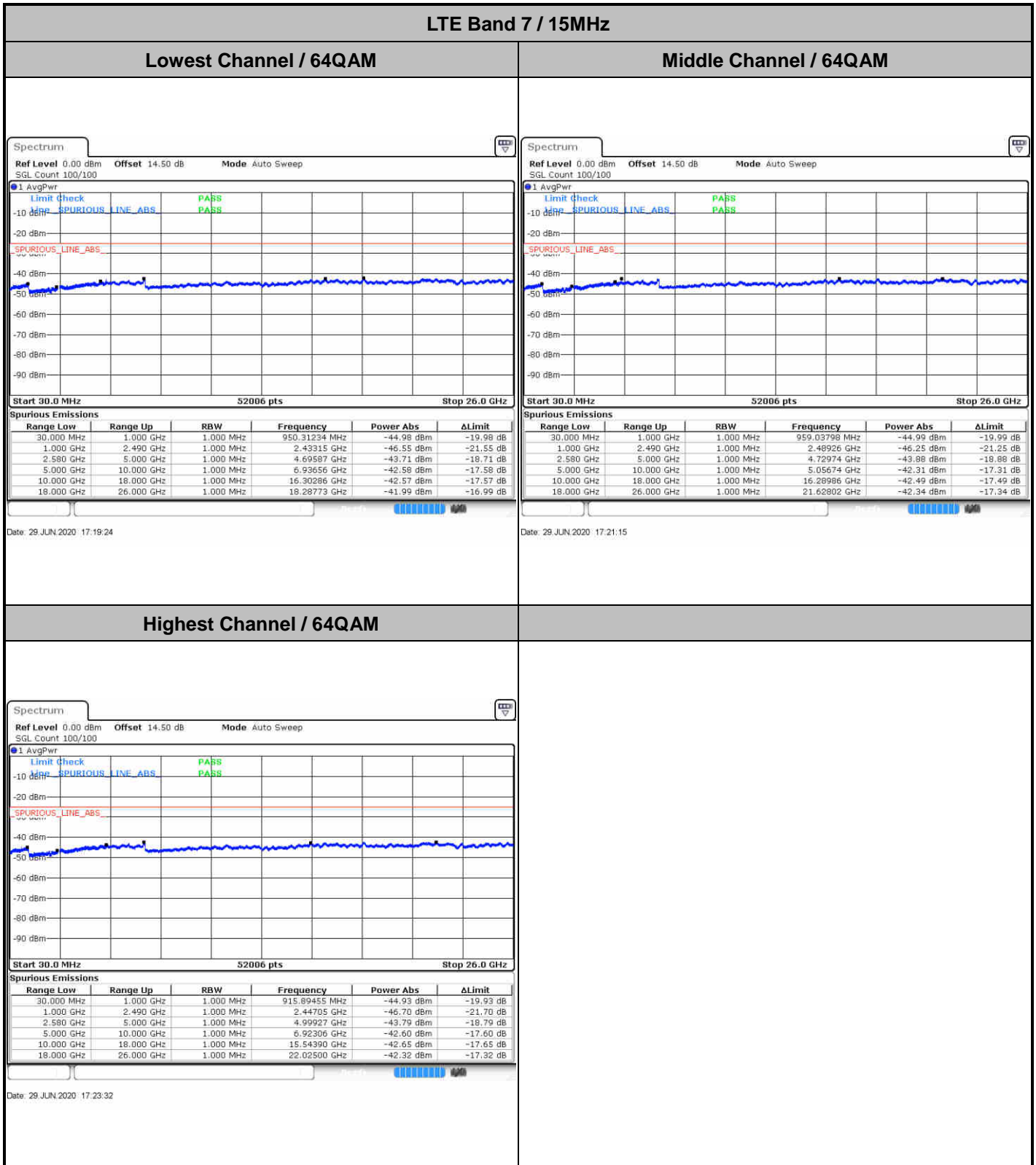


Date: 29 JUN 2020 16:28:51

**Highest Channel / 64QAM**



Date: 29 JUN 2020 16:27:42

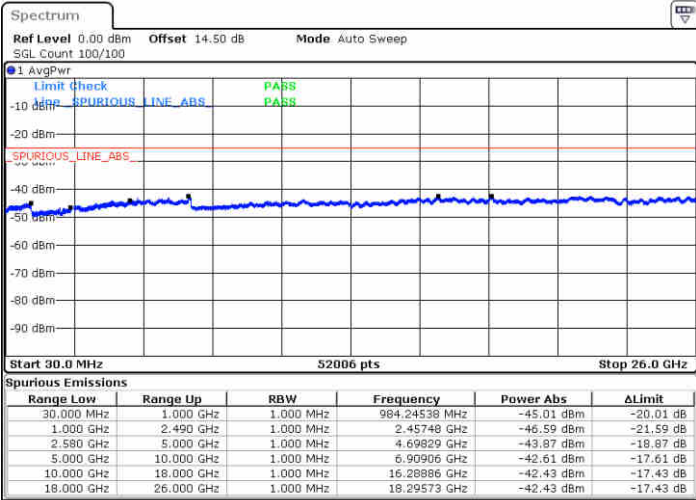




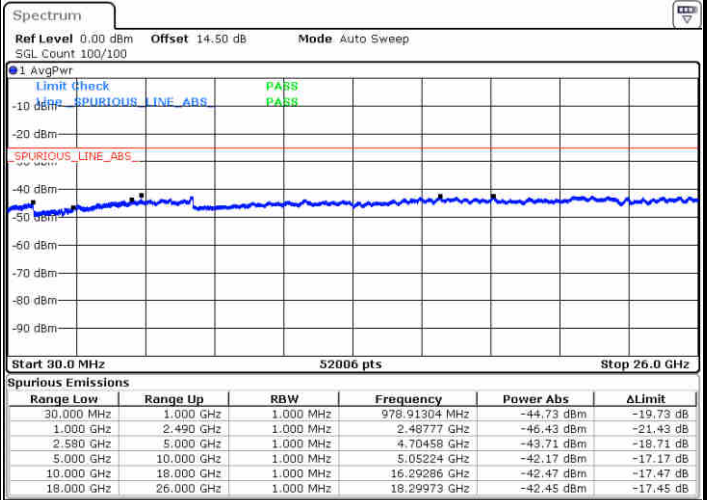
LTE Band 7 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

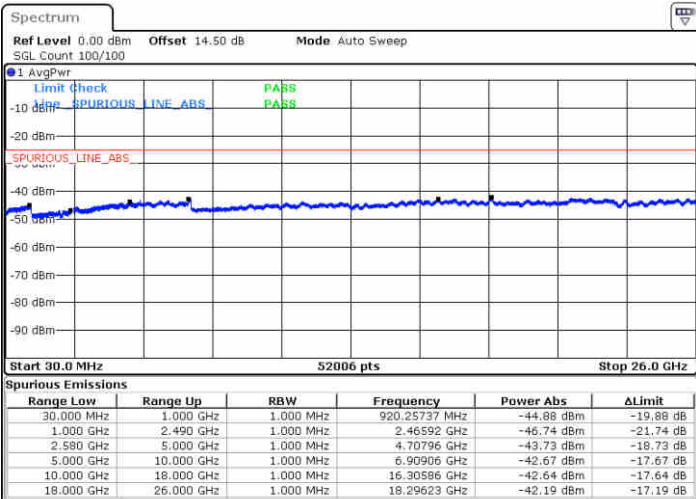


Date: 29 JUN 2020 18:10:41



Date: 29 JUN 2020 18:08:56

Highest Channel / 64QAM



Date: 29 JUN 2020 18:07:43



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	0.0051	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0056	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.45 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 12

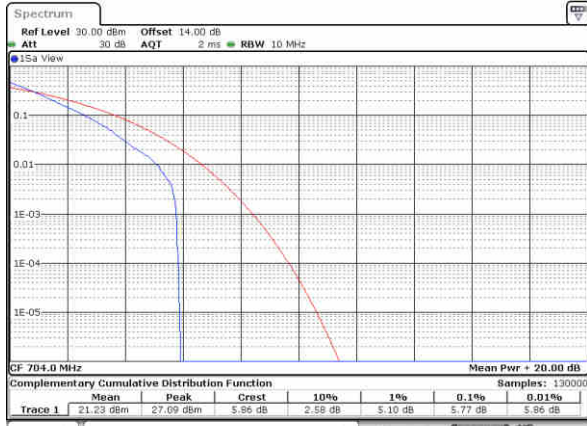
## Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.77	5.39	6.61	6.23	<b>PASS</b>
Middle CH	5.62	5.39	6.75	6.20	
Highest CH	5.45	5.48	6.23	6.23	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	6.09	6.14	-	-	<b>PASS</b>
Middle CH	6.00	6.20	-	-	
Highest CH	5.91	6.14	-	-	



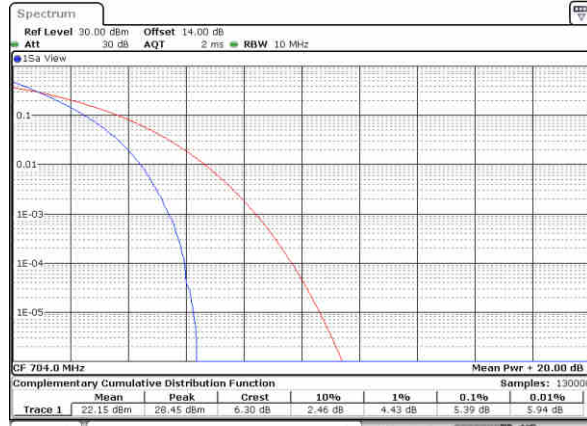
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



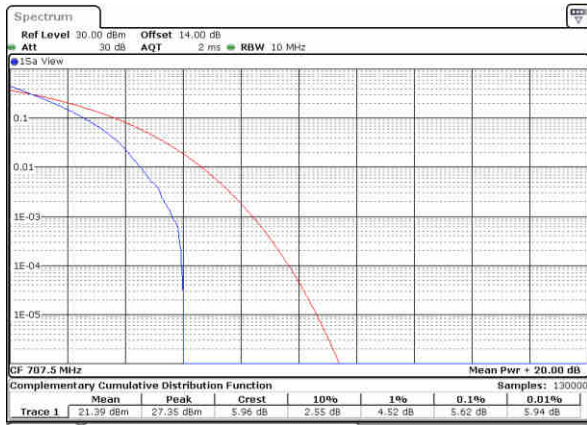
Date: 30\_JUN,2020 00:04:49

Lowest Channel / Full RB



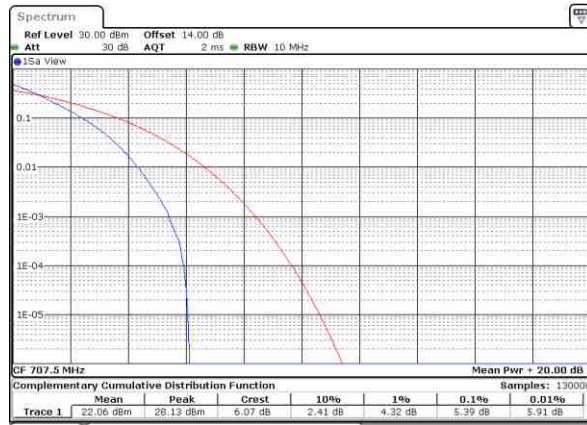
Date: 30\_JUN,2020 00:04:39

Middle Channel / 1RB



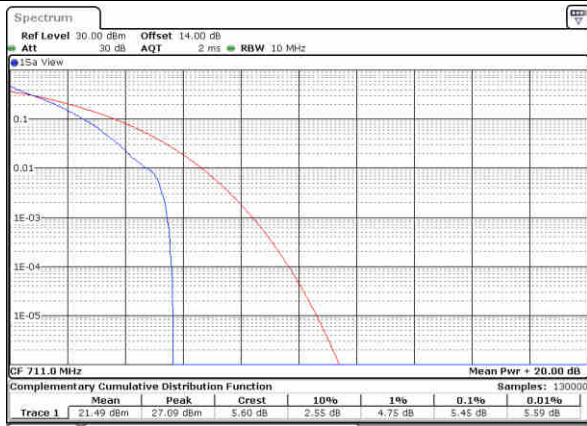
Date: 30\_JUN,2020 00:05:00

Middle Channel / Full RB



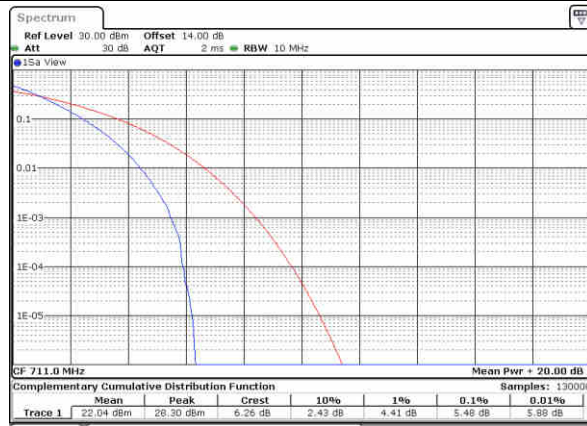
Date: 30\_JUN,2020 00:05:09

Highest Channel / 1RB



Date: 30\_JUN,2020 00:05:30

Highest Channel / Full RB

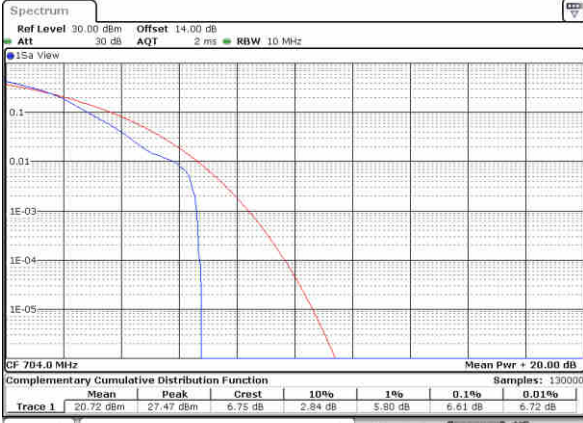


Date: 30\_JUN,2020 00:05:19



LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



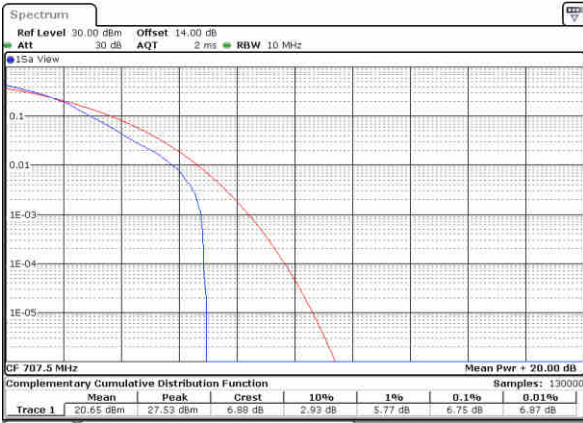
Date: 30\_JUN,2020 00:03:46

Lowest Channel / Full RB



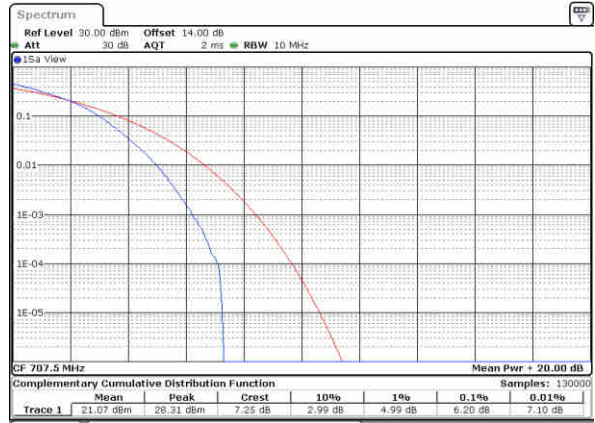
Date: 30\_JUN,2020 00:03:35

Middle Channel / 1RB



Date: 30\_JUN,2020 00:03:06

Middle Channel / Full RB



Date: 30\_JUN,2020 00:04:07

Highest Channel / 1RB



Date: 30\_JUN,2020 00:04:29

Highest Channel / Full RB

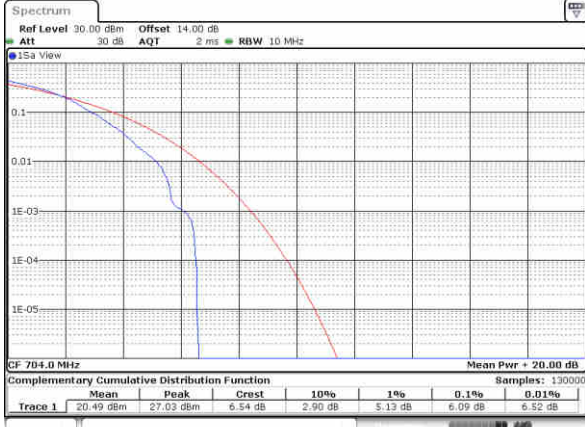


Date: 30\_JUN,2020 00:04:18



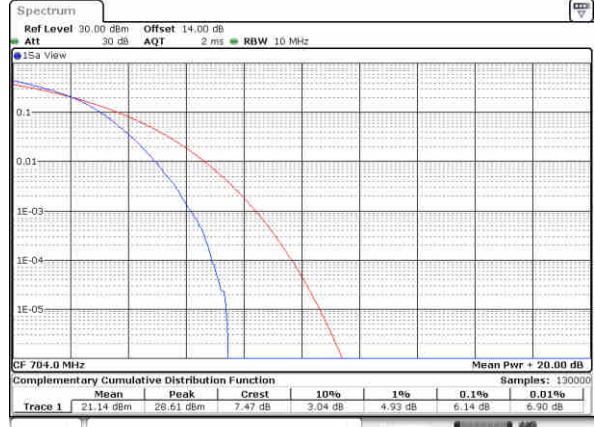
LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



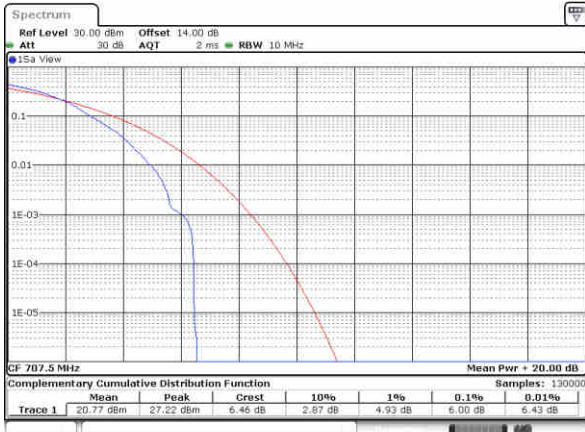
Date: 30\_JUN,2020 00:02:42

Lowest Channel / Full RB



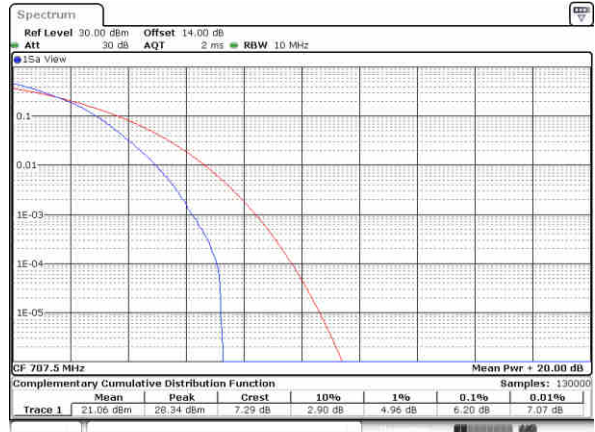
Date: 30\_JUN,2020 00:02:33

Middle Channel / 1RB



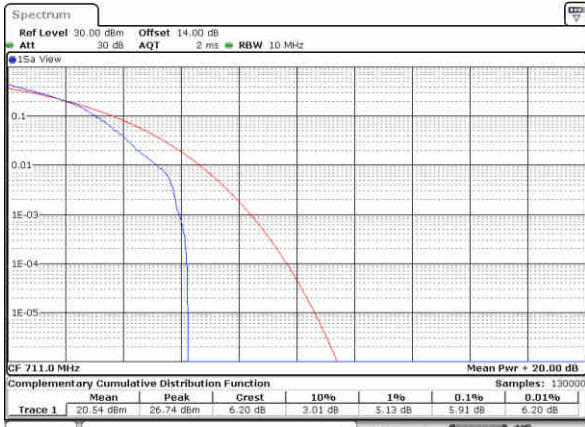
Date: 30\_JUN,2020 00:02:51

Middle Channel / Full RB



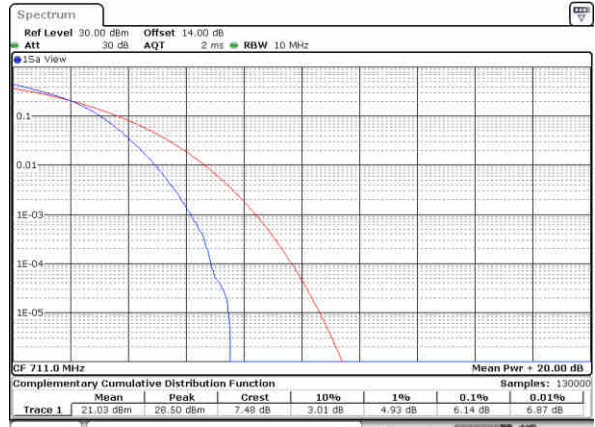
Date: 30\_JUN,2020 00:03:02

Highest Channel / 1RB



Date: 30\_JUN,2020 00:03:24

Highest Channel / Full RB



Date: 30\_JUN,2020 00:03:12





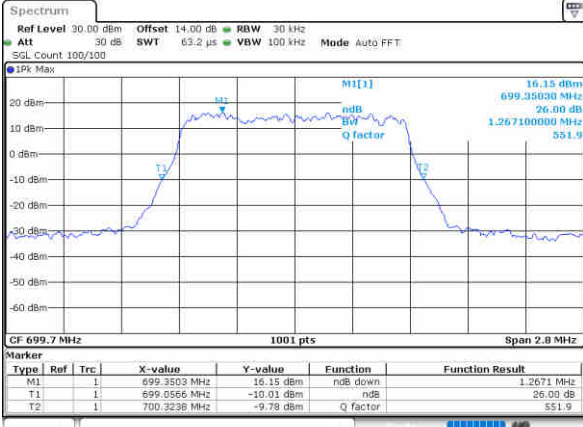
26dB Bandwidth

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
Lowest CH	1.27	1.29	3.01	3.04	4.85	4.96	9.83	9.77	-	-	-	-
Middle CH	1.27	1.25	3.00	3.05	5.04	4.96	9.89	9.85	-	-	-	-
Highest CH	1.29	1.28	3.01	3.03	4.94	4.89	9.83	9.79	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.28	-	3.05	-	5.03	-	9.71	-	-	-	-	-
Middle CH	1.28	-	2.99	-	4.91	-	9.77	-	-	-	-	-
Highest CH	1.28	-	3.00	-	4.96	-	9.89	-	-	-	-	-



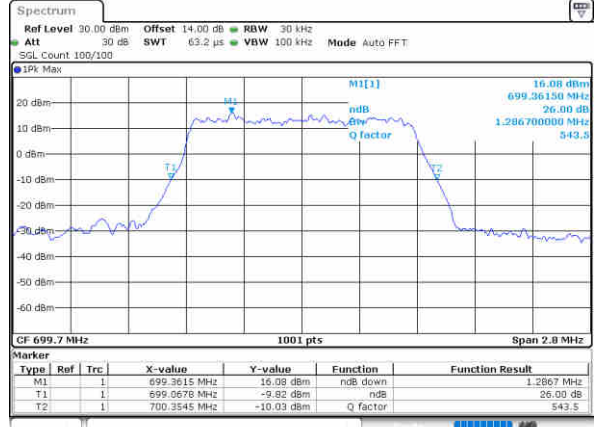
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



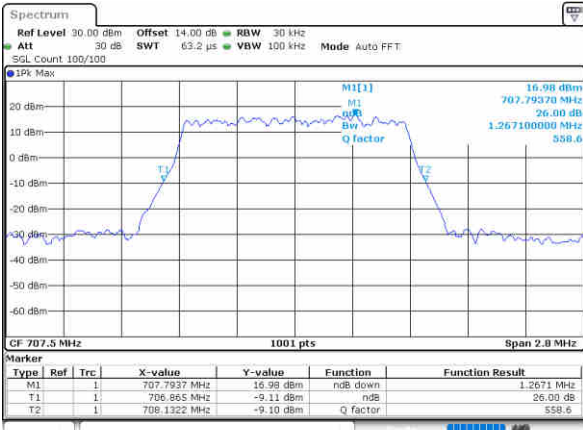
Date: 29\_JUN,2020 23:42:134

Lowest Channel / 1.4MHz / 16QAM



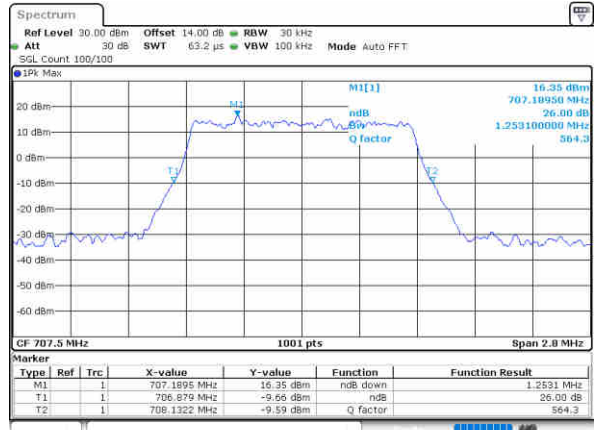
Date: 29\_JUN,2020 23:42:123

Middle Channel / 1.4MHz / QPSK



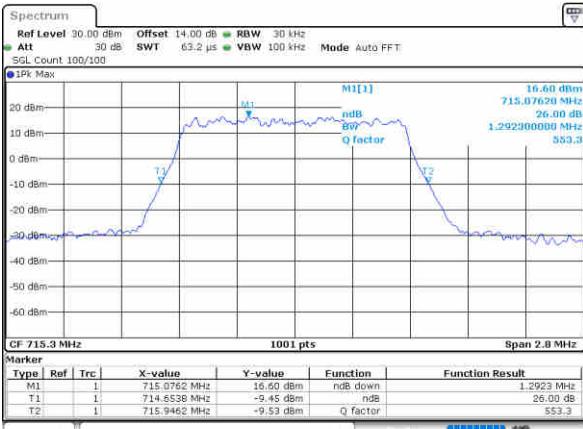
Date: 29\_JUN,2020 23:48:01

Middle Channel / 1.4MHz / 16QAM



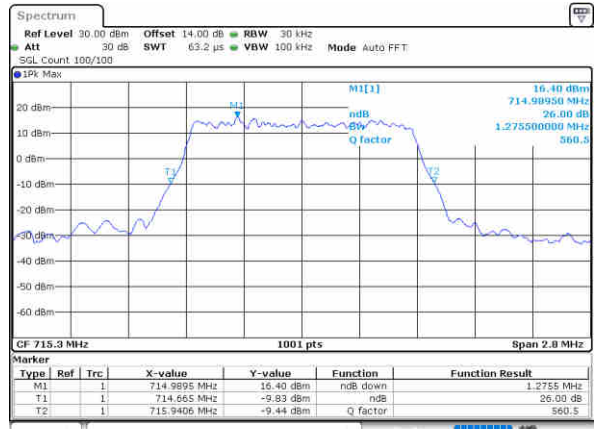
Date: 29\_JUN,2020 23:48:112

Highest Channel / 1.4MHz / QPSK



Date: 29\_JUN,2020 23:50:35

Highest Channel / 1.4MHz / 16QAM

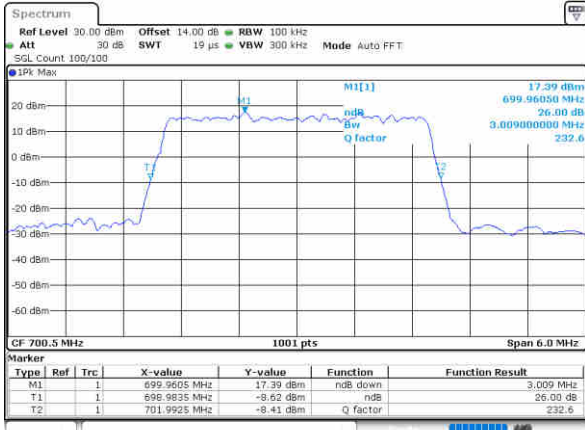


Date: 29\_JUN,2020 23:50:124



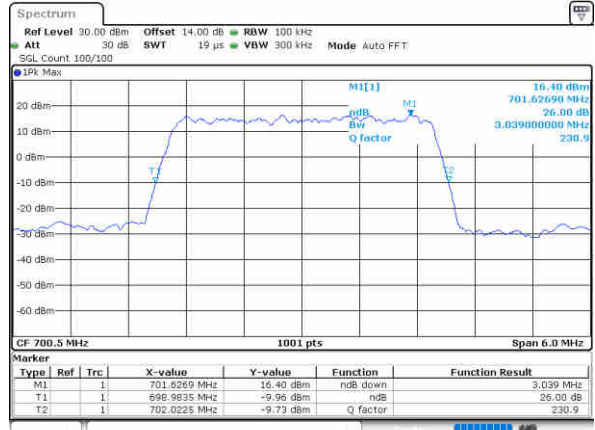
LTE Band 12

Lowest Channel / 3MHz / QPSK



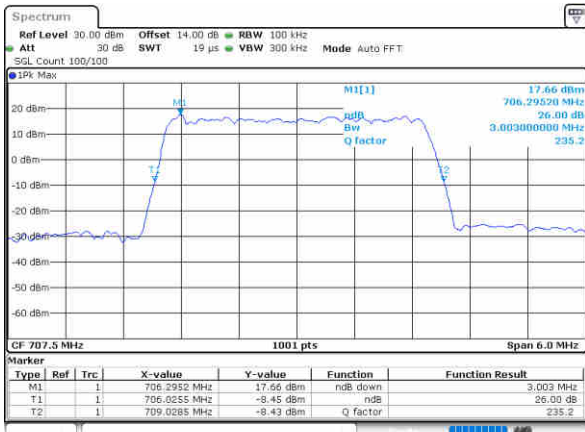
Date: 29\_JUN,2020 22:41:08

Lowest Channel / 3MHz / 16QAM



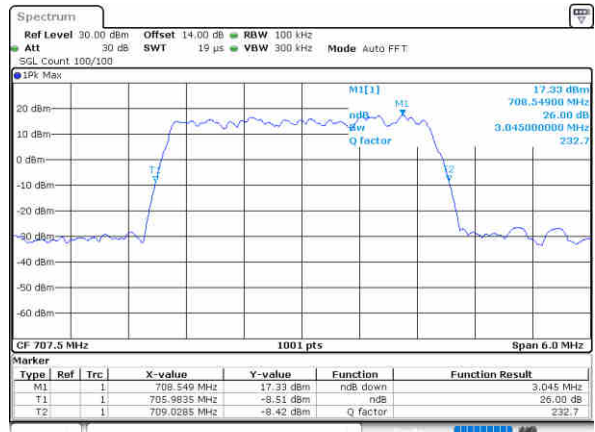
Date: 29\_JUN,2020 22:40:57

Middle Channel / 3MHz / QPSK



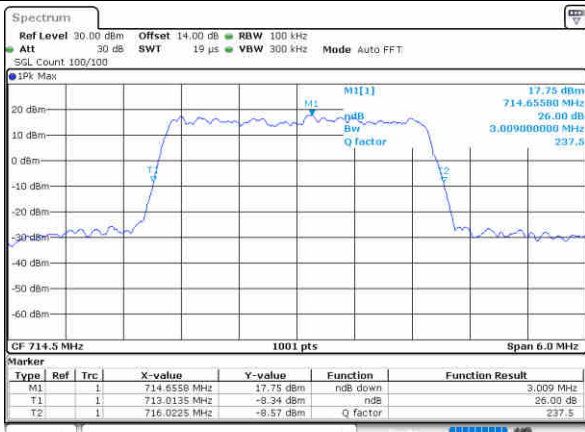
Date: 29\_JUN,2020 22:46:36

Middle Channel / 3MHz / 16QAM



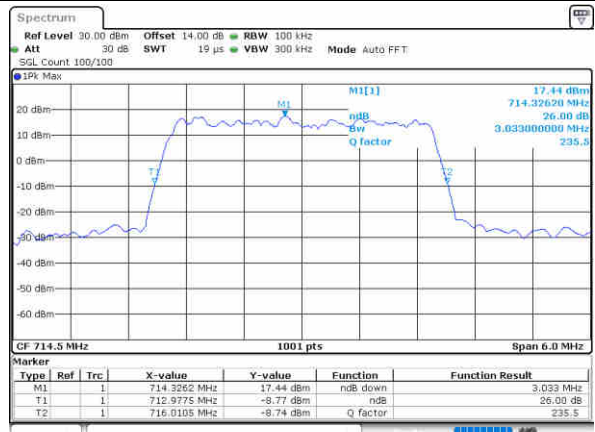
Date: 29\_JUN,2020 22:46:46

Highest Channel / 3MHz / QPSK



Date: 29\_JUN,2020 22:49:09

Highest Channel / 3MHz / 16QAM

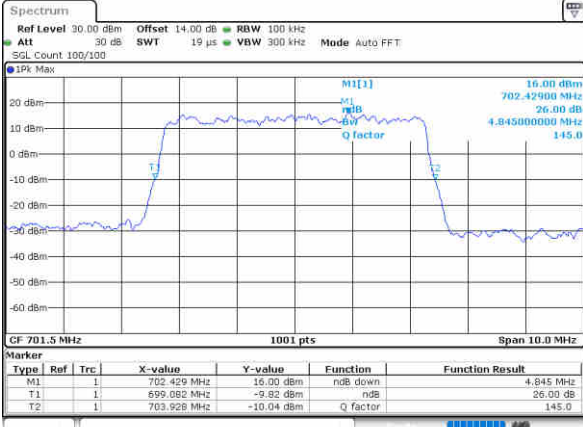


Date: 29\_JUN,2020 22:48:58



LTE Band 12

Lowest Channel / 5MHz / QPSK



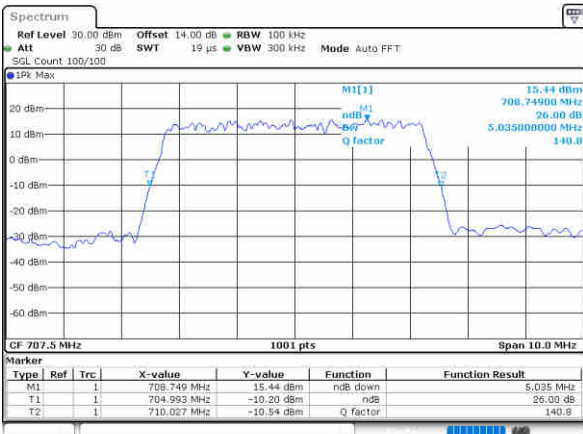
Date: 29\_JUN,2020 23:10:27

Lowest Channel / 5MHz / 16QAM



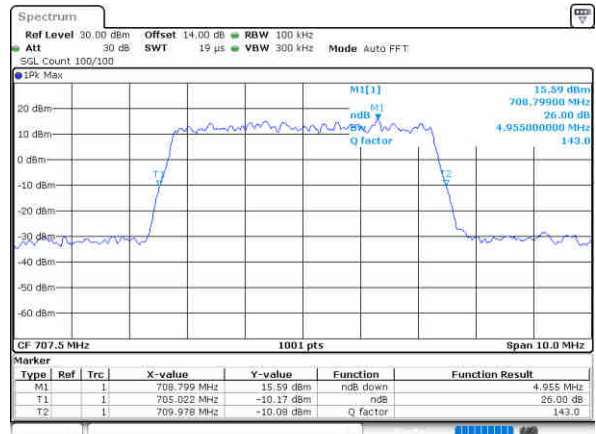
Date: 29\_JUN,2020 23:10:16

Middle Channel / 5MHz / QPSK



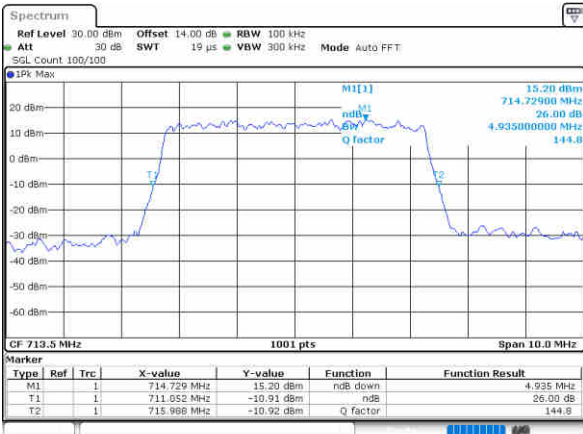
Date: 29\_JUN,2020 23:13:54

Middle Channel / 5MHz / 16QAM



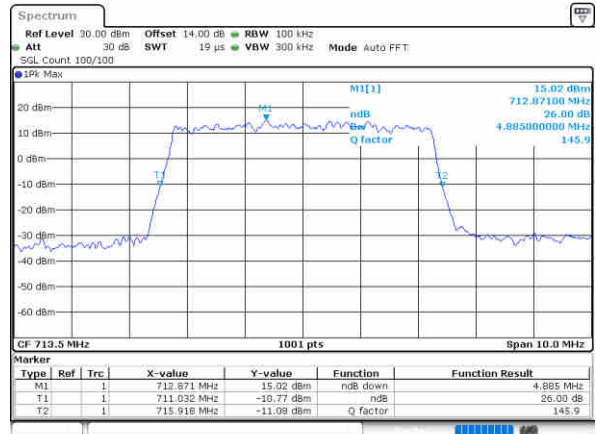
Date: 29\_JUN,2020 23:14:05

Highest Channel / 5MHz / QPSK



Date: 29\_JUN,2020 23:16:27

Highest Channel / 5MHz / 16QAM

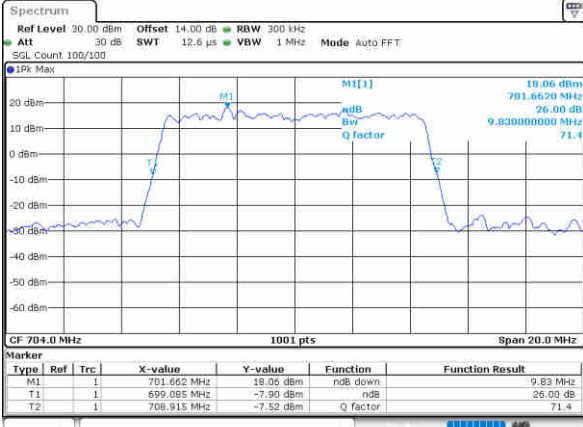


Date: 29\_JUN,2020 23:16:16



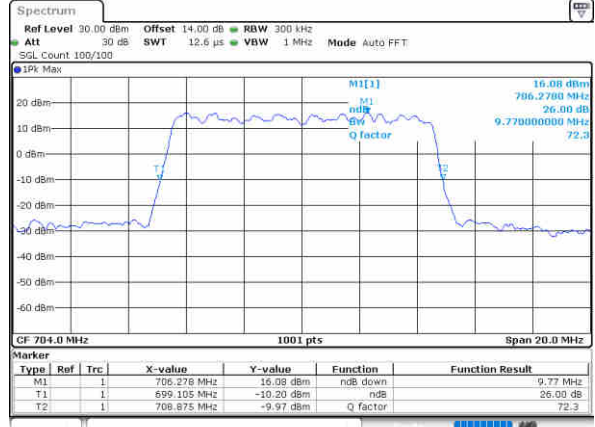
LTE Band 12

Lowest Channel / 10MHz / QPSK



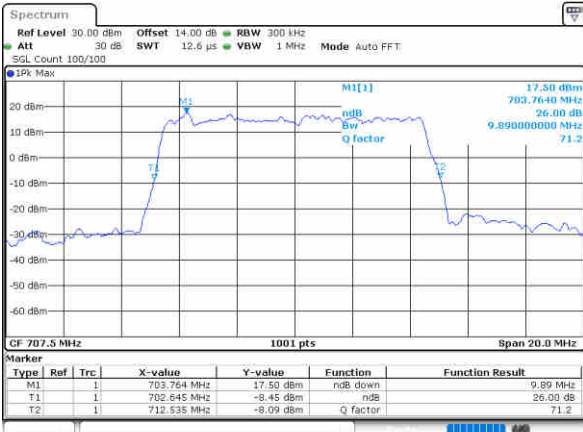
Date: 29\_JUN,2020 23:22:10

Lowest Channel / 10MHz / 16QAM



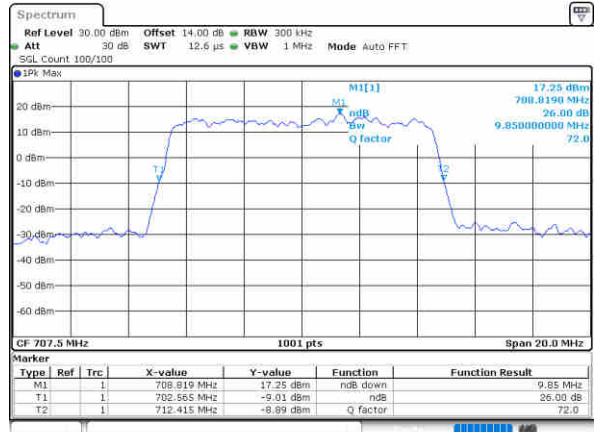
Date: 29\_JUN,2020 23:22:55

Middle Channel / 10MHz / QPSK



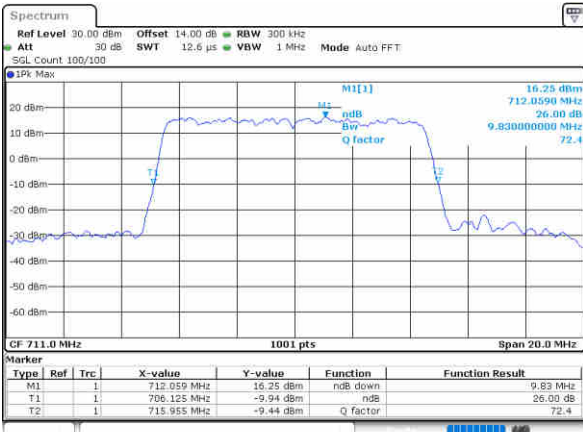
Date: 29\_JUN,2020 23:27:32

Middle Channel / 10MHz / 16QAM



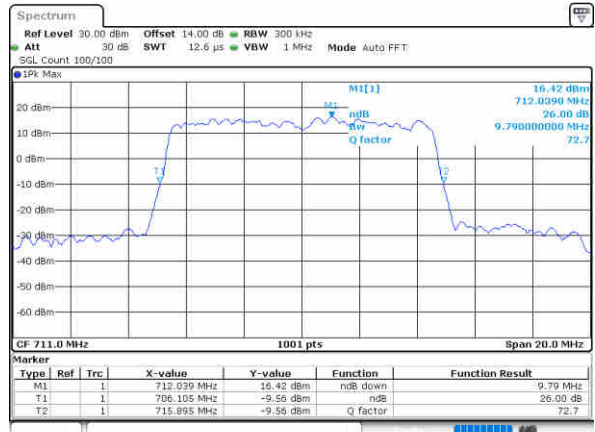
Date: 29\_JUN,2020 23:27:44

Highest Channel / 10MHz / QPSK



Date: 29\_JUN,2020 23:30:06

Highest Channel / 10MHz / 16QAM

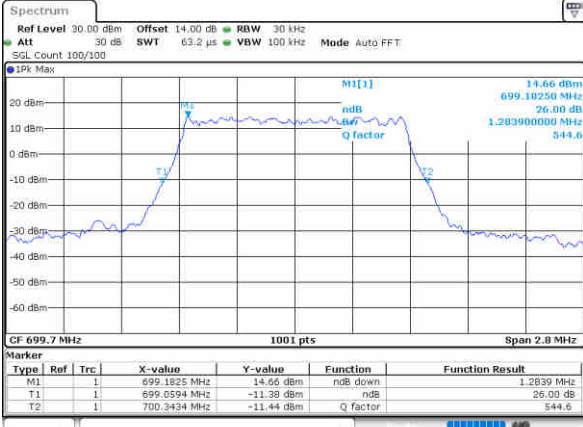


Date: 29\_JUN,2020 23:29:55



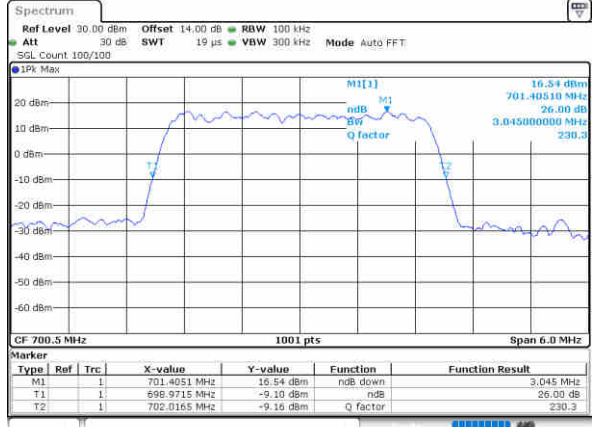
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



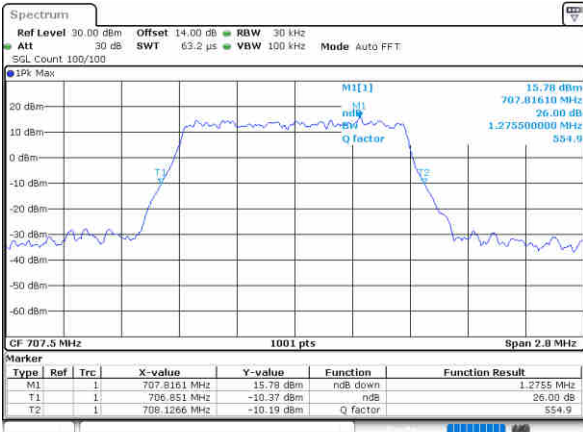
Date: 29\_JUN,2020 23:55:13

Lowest Channel / 3MHz / 64QAM



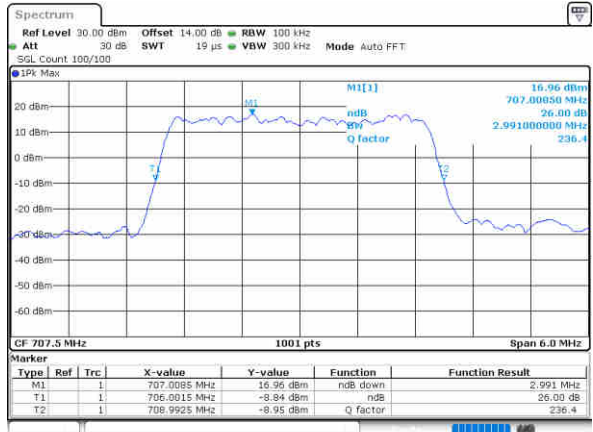
Date: 29\_JUN,2020 22:54:26

Middle Channel / 1.4MHz / 64QAM



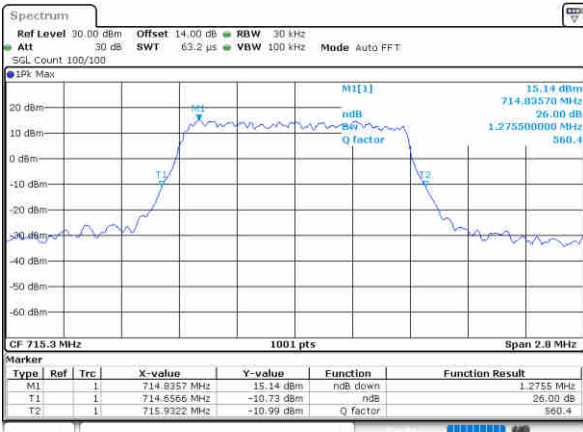
Date: 29\_JUN,2020 23:58:40

Middle Channel / 3MHz / 64QAM



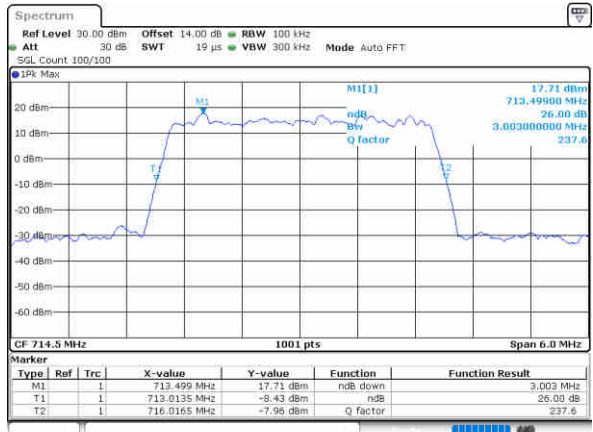
Date: 29\_JUN,2020 22:57:15

Highest Channel / 1.4MHz / 64QAM



Date: 29\_JUN,2020 23:59:52

Highest Channel / 3MHz / 64QAM

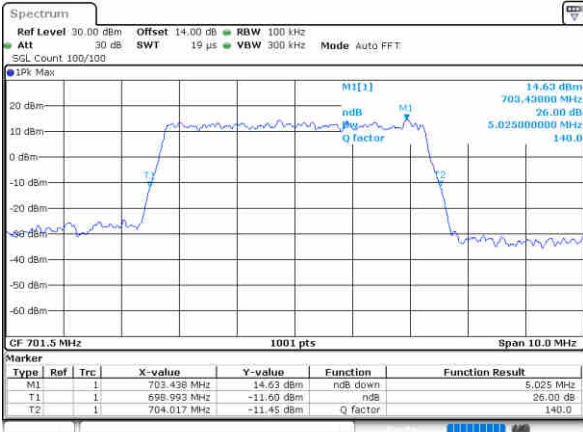


Date: 29\_JUN,2020 22:58:26



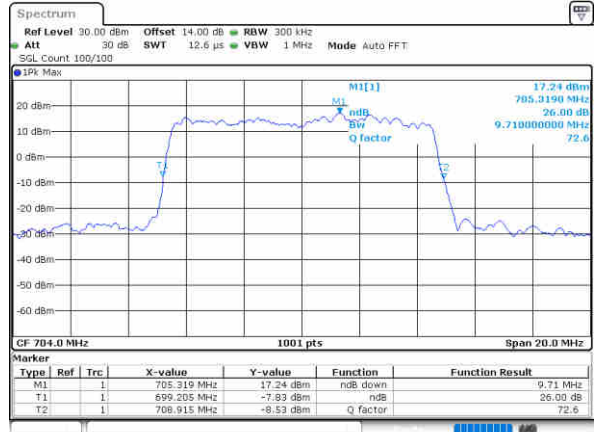
LTE Band 12

Lowest Channel / 5MHz / 64QAM



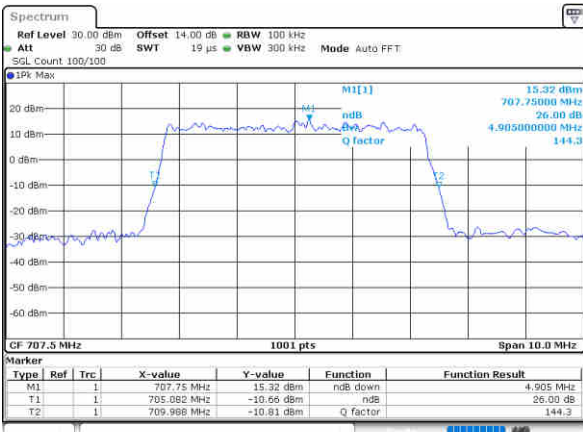
Date: 29\_JUN,2020 23:01:15

Lowest Channel / 10MHz / 64QAM



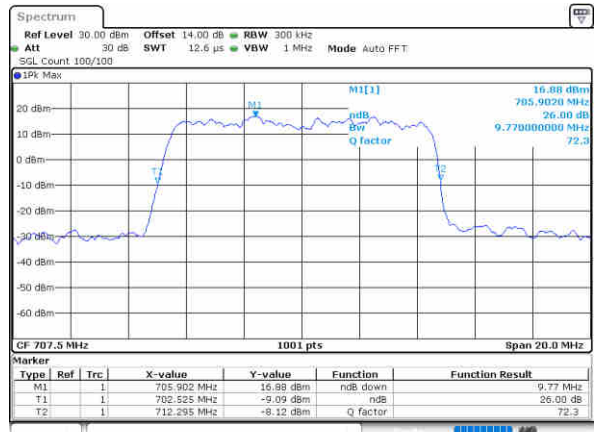
Date: 29\_JUN,2020 23:13:123

Middle Channel / 5MHz / 64QAM



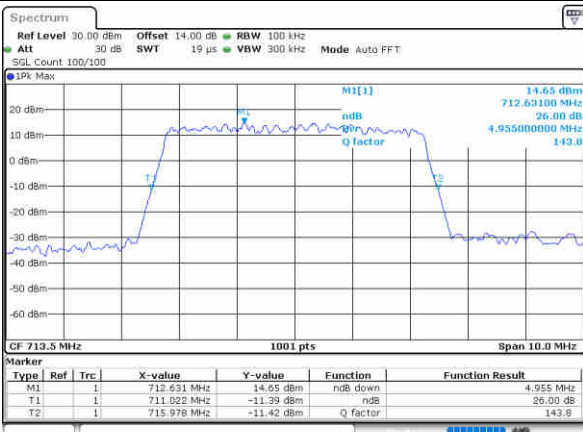
Date: 29\_JUN,2020 23:04:04

Middle Channel / 10MHz / 64QAM



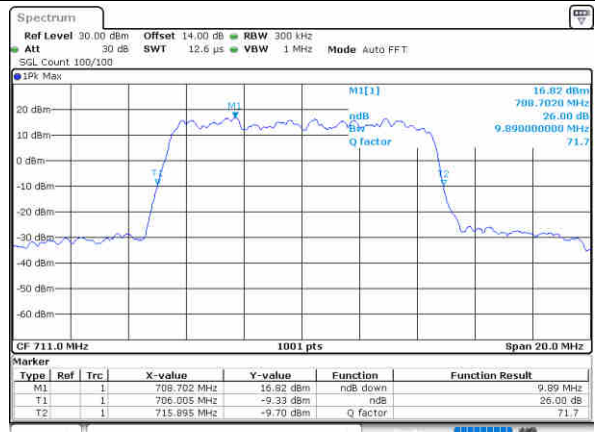
Date: 29\_JUN,2020 23:18:112

Highest Channel / 5MHz / 64QAM



Date: 29\_JUN,2020 23:05:16

Highest Channel / 10MHz / 64QAM



Date: 29\_JUN,2020 23:13:123



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
Lowest CH	1.10	1.10	2.72	2.72	4.50	4.50	9.03	9.05	-	-	-	-
Middle CH	1.10	1.09	2.70	2.72	4.49	4.49	9.01	9.03	-	-	-	-
Highest CH	1.09	1.10	2.73	2.72	4.47	4.49	9.03	9.05	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.49	-	8.99	-	-	-	-	-
Middle CH	1.10	-	2.72	-	4.49	-	9.05	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.49	-	9.07	-	-	-	-	-





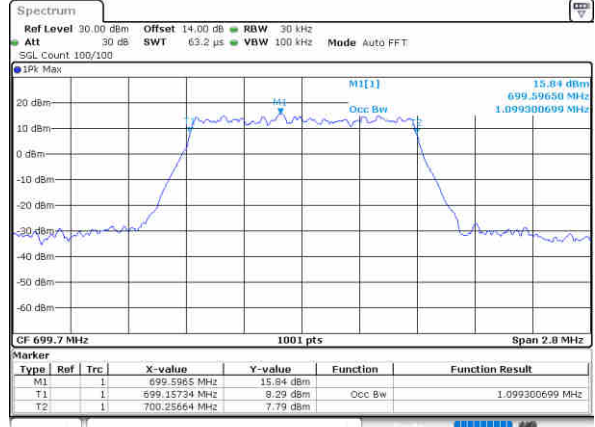
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



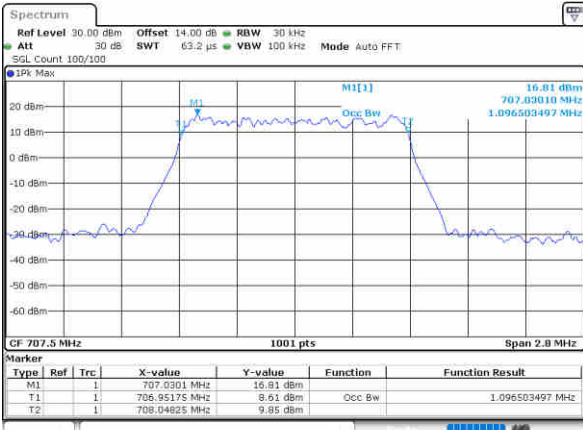
Date: 29\_JUN,2020 23:42:10

Lowest Channel / 1.4MHz / 16QAM



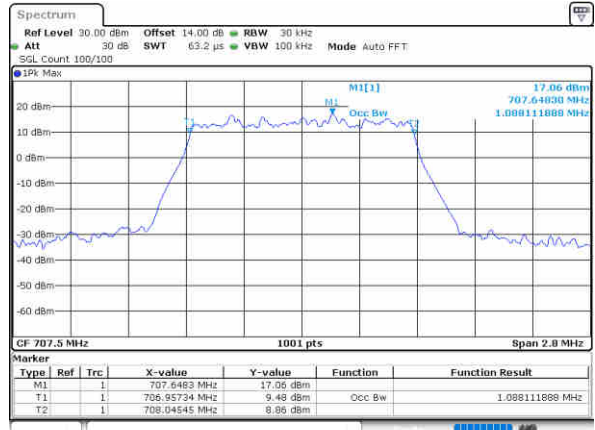
Date: 29\_JUN,2020 23:42:12

Middle Channel / 1.4MHz / QPSK



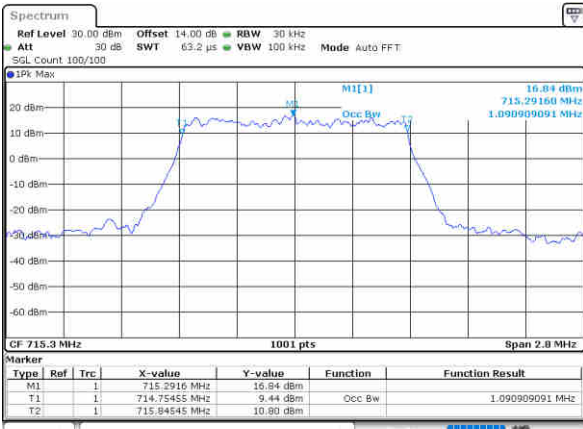
Date: 29\_JUN,2020 23:47:50

Middle Channel / 1.4MHz / 16QAM



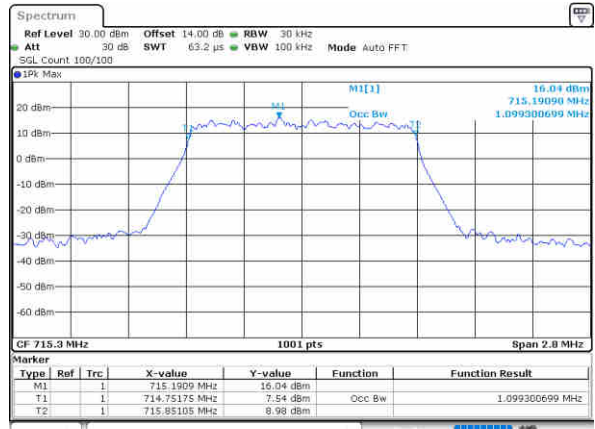
Date: 29\_JUN,2020 23:47:59

Highest Channel / 1.4MHz / QPSK



Date: 29\_JUN,2020 23:59:02

Highest Channel / 1.4MHz / 16QAM

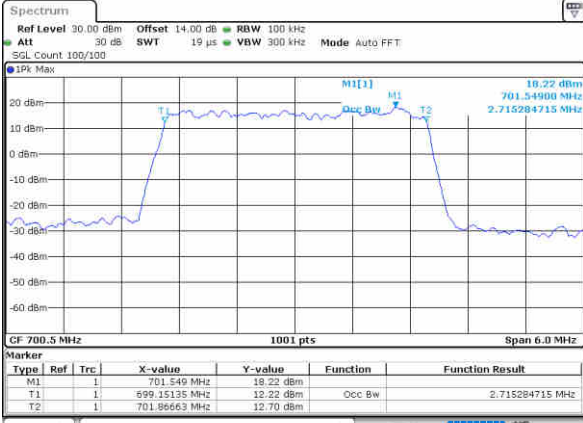


Date: 29\_JUN,2020 23:59:13



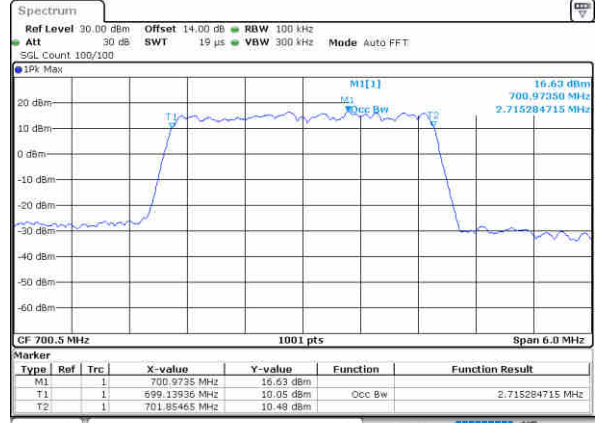
LTE Band 12

Lowest Channel / 3MHz / QPSK



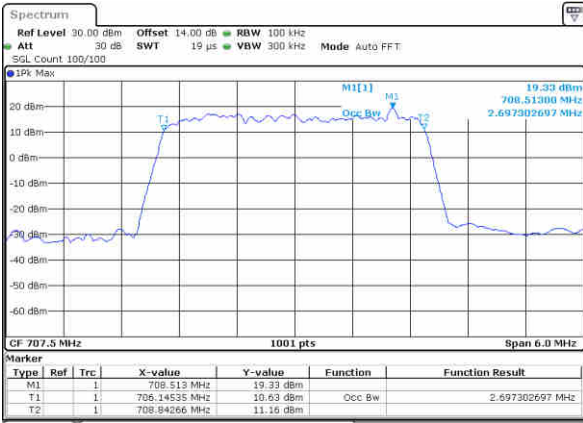
Date: 29\_JUN,2020 22:40:35

Lowest Channel / 3MHz / 16QAM



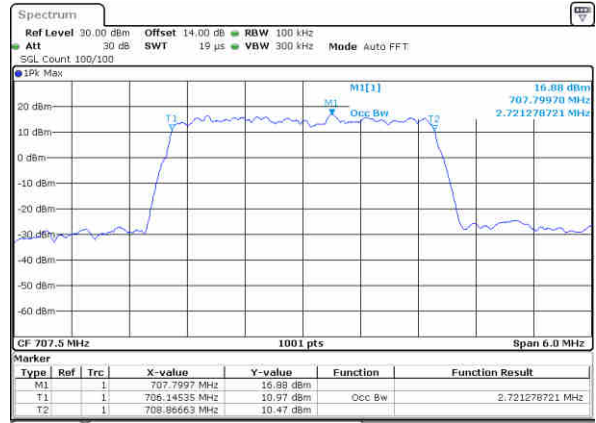
Date: 29\_JUN,2020 22:40:46

Middle Channel / 3MHz / QPSK



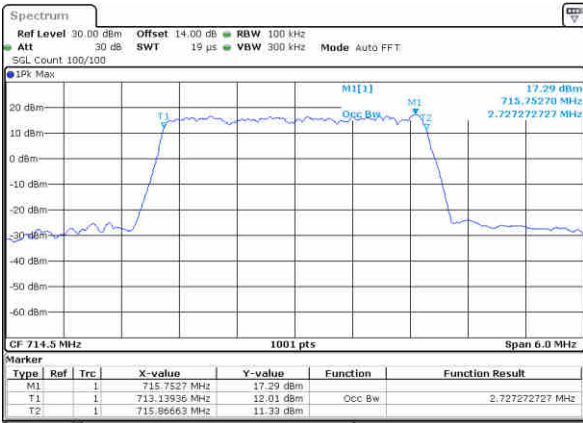
Date: 29\_JUN,2020 22:46:25

Middle Channel / 3MHz / 16QAM



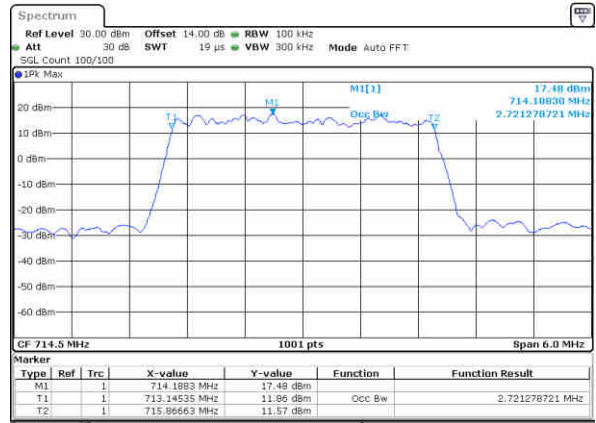
Date: 29\_JUN,2020 22:46:14

Highest Channel / 3MHz / QPSK



Date: 29\_JUN,2020 22:48:36

Highest Channel / 3MHz / 16QAM

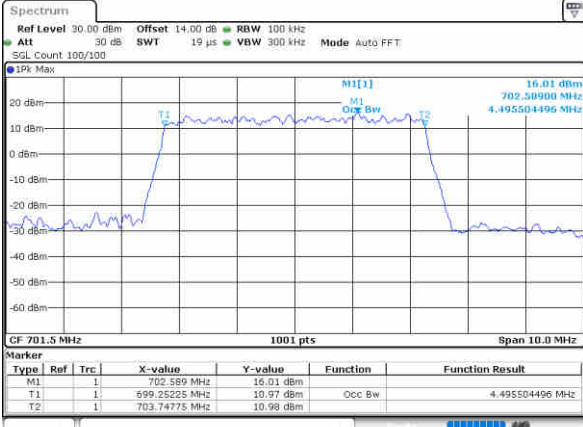


Date: 29\_JUN,2020 22:48:47



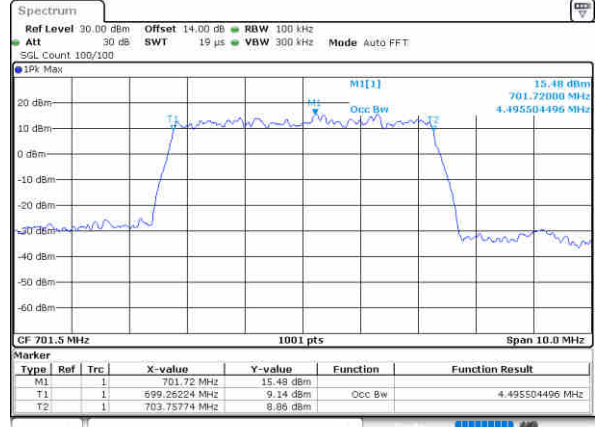
LTE Band 12

Lowest Channel / 5MHz / QPSK



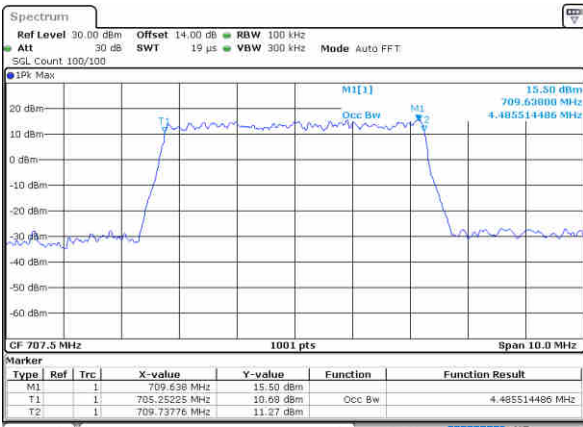
Date: 29\_JUN,2020 23:07:54

Lowest Channel / 5MHz / 16QAM



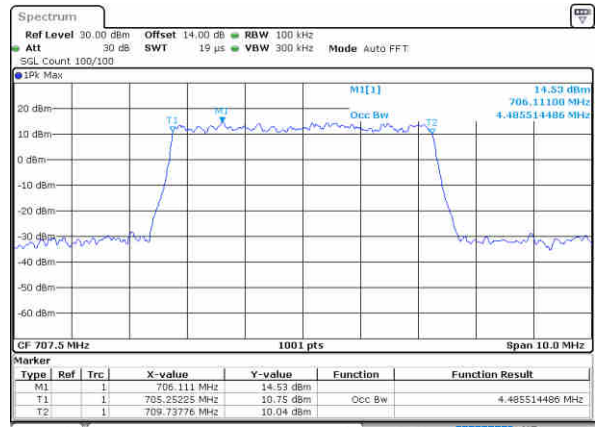
Date: 29\_JUN,2020 23:08:05

Middle Channel / 5MHz / QPSK



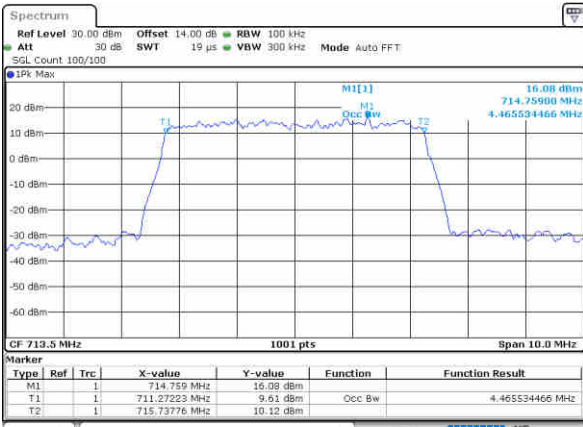
Date: 29\_JUN,2020 23:13:43

Middle Channel / 5MHz / 16QAM



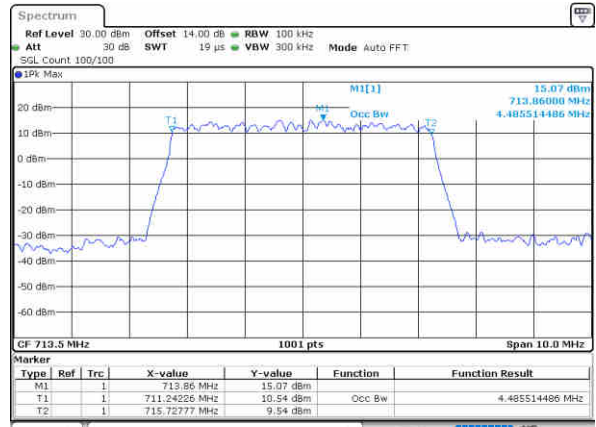
Date: 29\_JUN,2020 23:13:42

Highest Channel / 5MHz / QPSK



Date: 29\_JUN,2020 23:15:55

Highest Channel / 5MHz / 16QAM

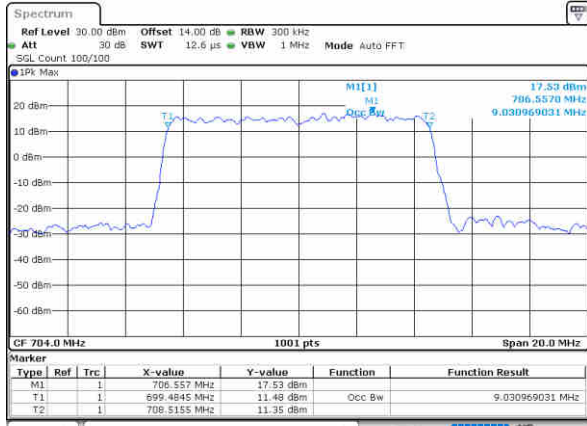


Date: 29\_JUN,2020 23:16:05



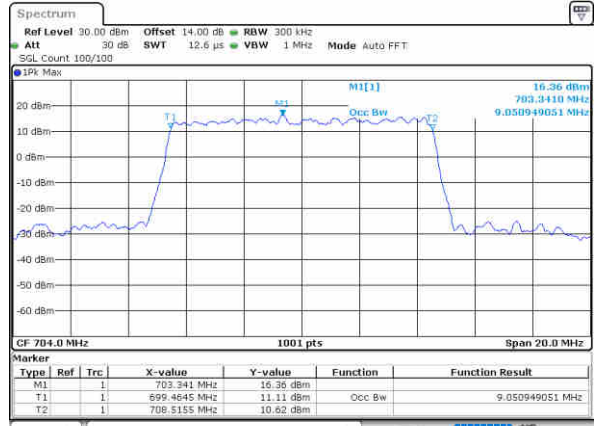
LTE Band 12

Lowest Channel / 10MHz / QPSK



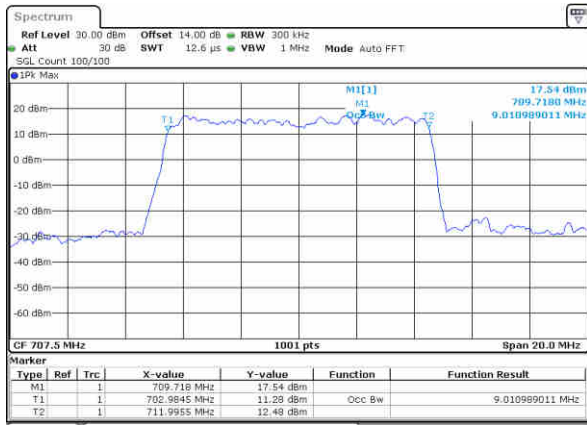
Date: 29\_JUN,2020 23:21:33

Lowest Channel / 10MHz / 16QAM



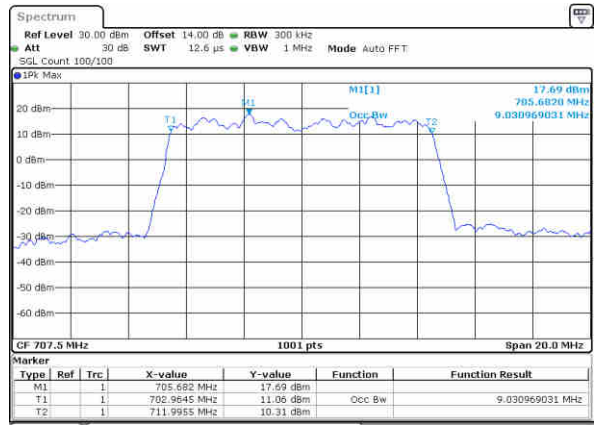
Date: 29\_JUN,2020 23:21:44

Middle Channel / 10MHz / QPSK



Date: 29\_JUN,2020 23:27:02

Middle Channel / 10MHz / 16QAM



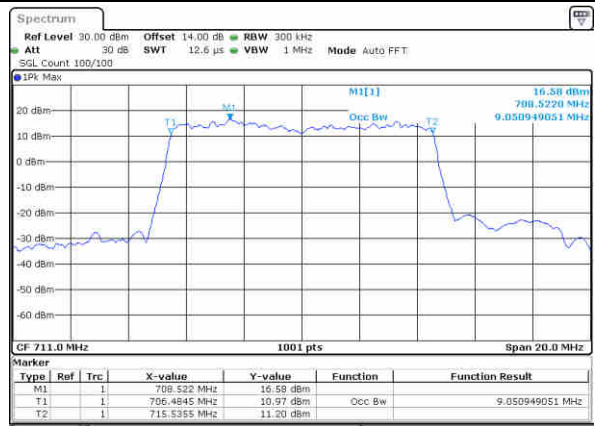
Date: 29\_JUN,2020 23:27:11

Highest Channel / 10MHz / QPSK



Date: 29\_JUN,2020 23:29:33

Highest Channel / 10MHz / 16QAM

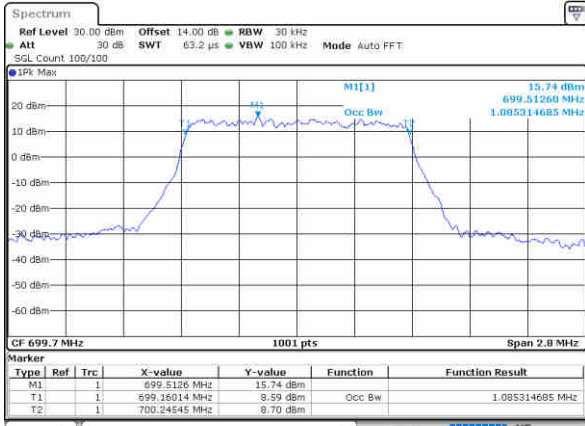


Date: 29\_JUN,2020 23:29:44



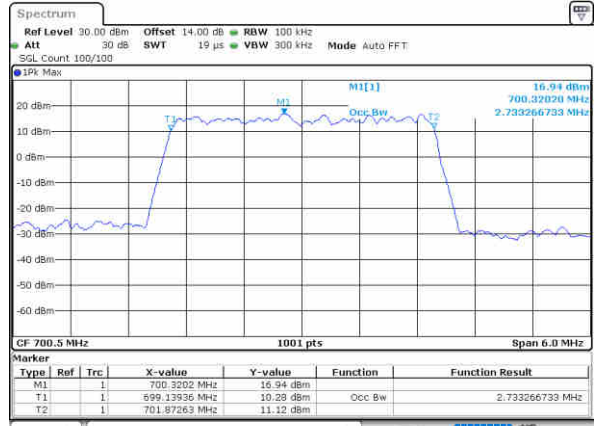
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



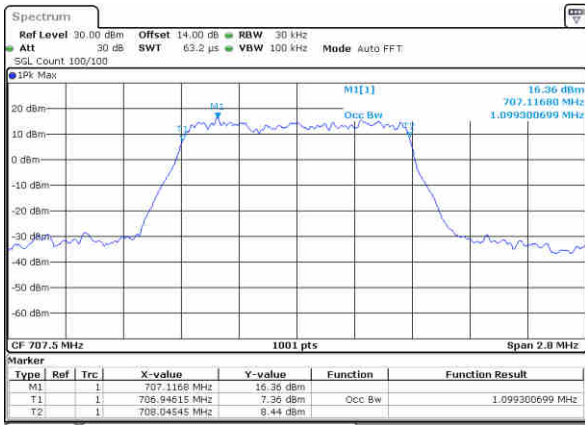
Date: 29\_JUN,2020 23:55:40

Lowest Channel / 3MHz / 64QAM



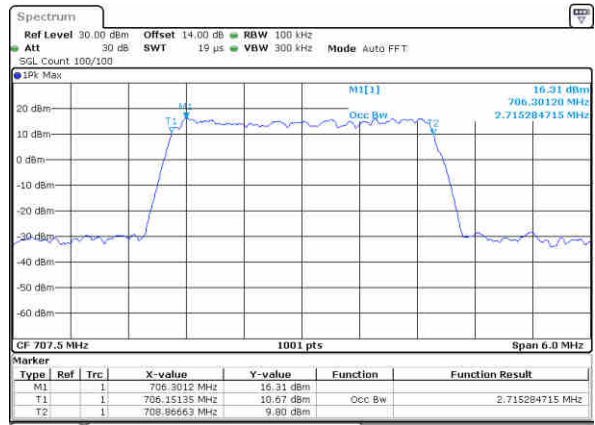
Date: 29\_JUN,2020 22:54:15

Middle Channel / 1.4MHz / 64QAM



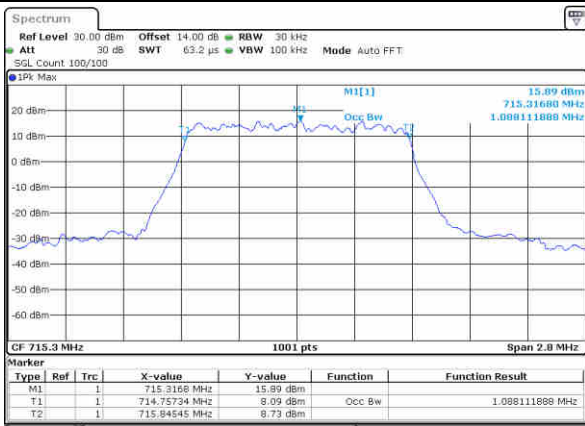
Date: 29\_JUN,2020 23:58:29

Middle Channel / 3MHz / 64QAM



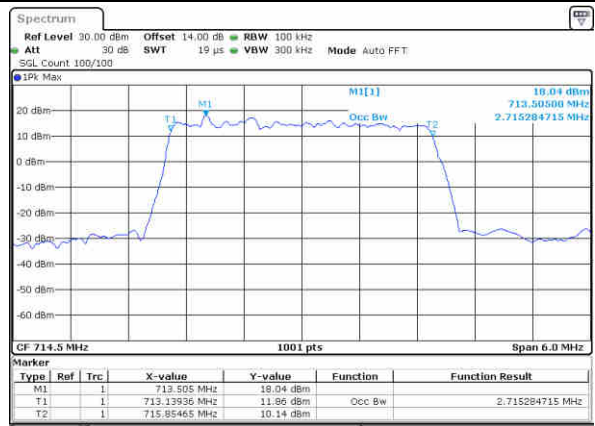
Date: 29\_JUN,2020 22:57:04

Highest Channel / 1.4MHz / 64QAM



Date: 29\_JUN,2020 23:59:41

Highest Channel / 3MHz / 64QAM

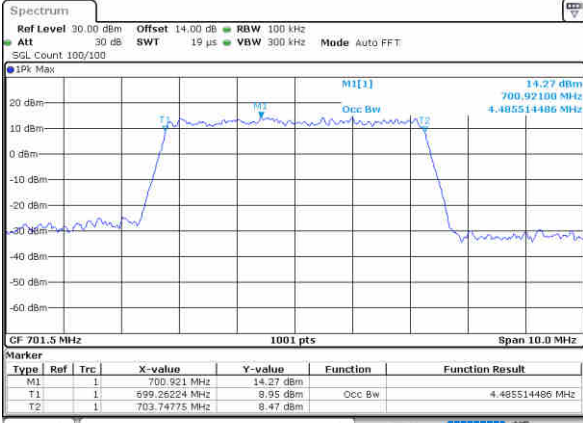


Date: 29\_JUN,2020 22:58:15



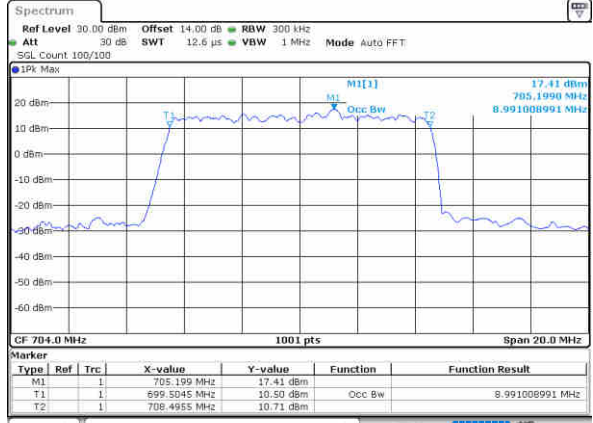
LTE Band 12

Lowest Channel / 5MHz / 64QAM



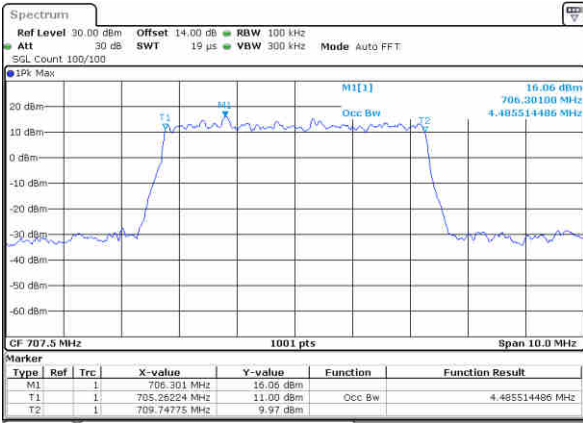
Date: 29\_JUN,2020 23:01:04

Lowest Channel / 10MHz / 64QAM



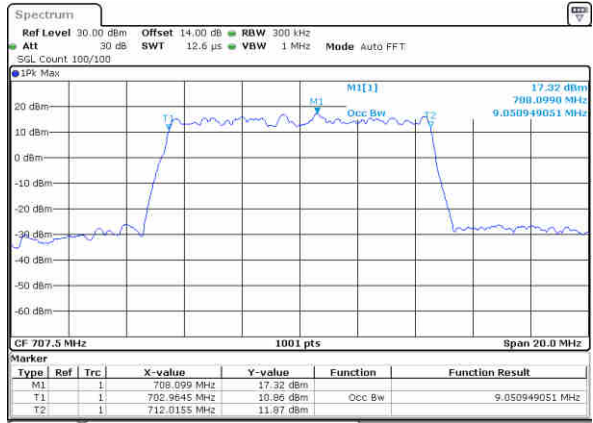
Date: 29\_JUN,2020 23:35:12

Middle Channel / 5MHz / 64QAM



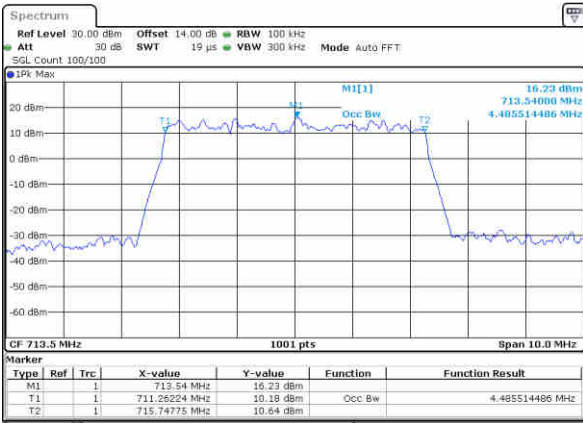
Date: 29\_JUN,2020 23:03:53

Middle Channel / 10MHz / 64QAM



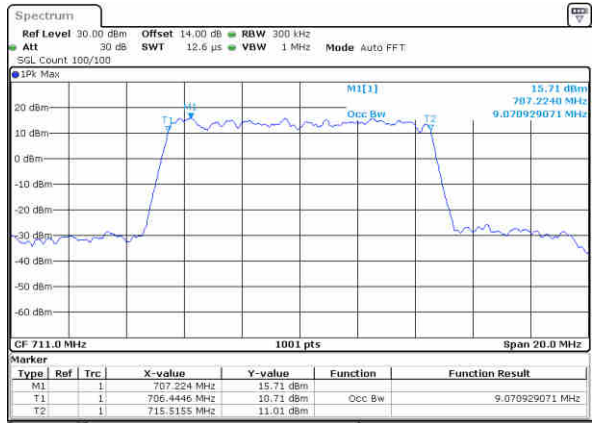
Date: 29\_JUN,2020 23:38:01

Highest Channel / 5MHz / 64QAM



Date: 29\_JUN,2020 23:05:05

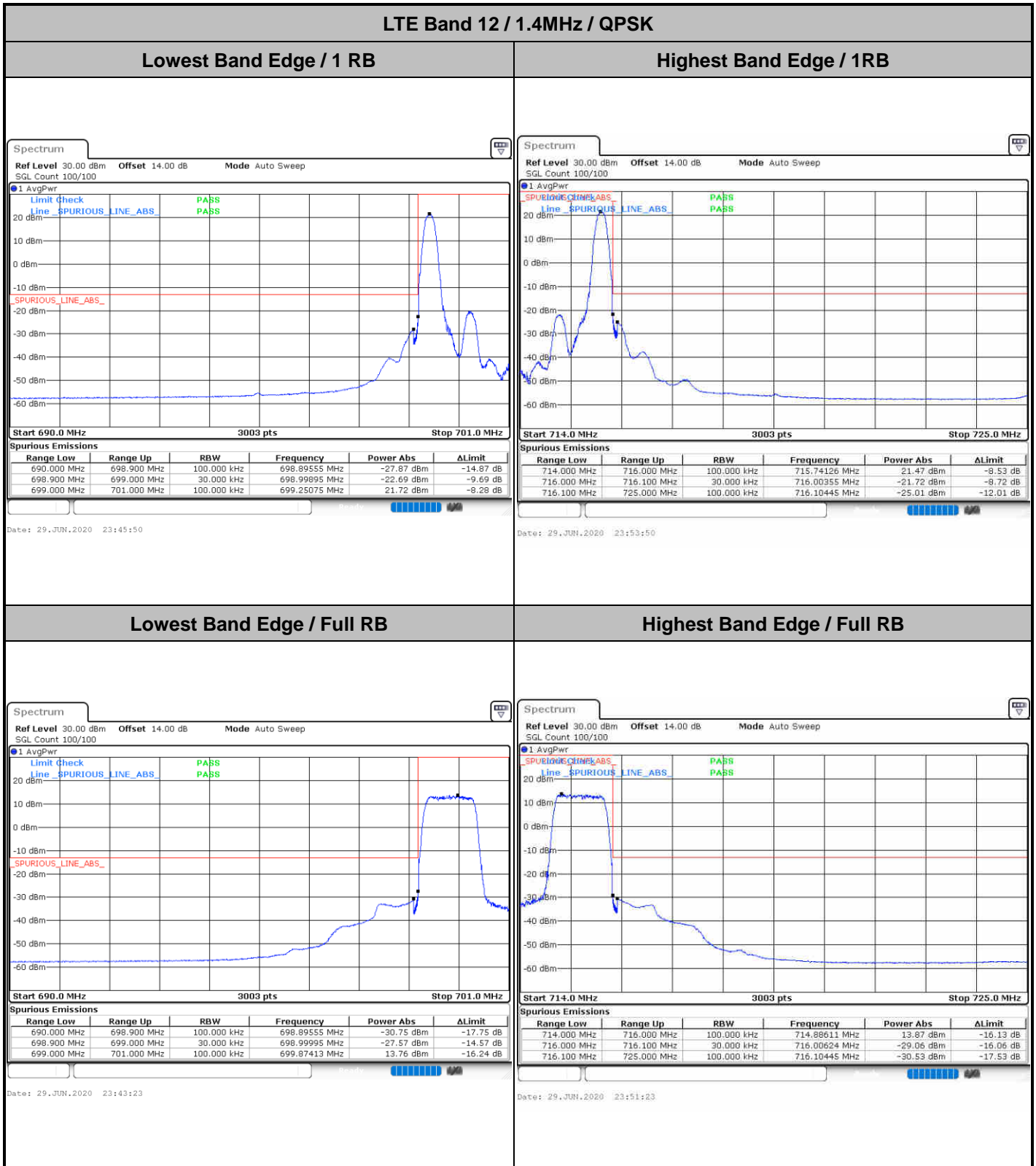
Highest Channel / 10MHz / 64QAM



Date: 29\_JUN,2020 23:39:12



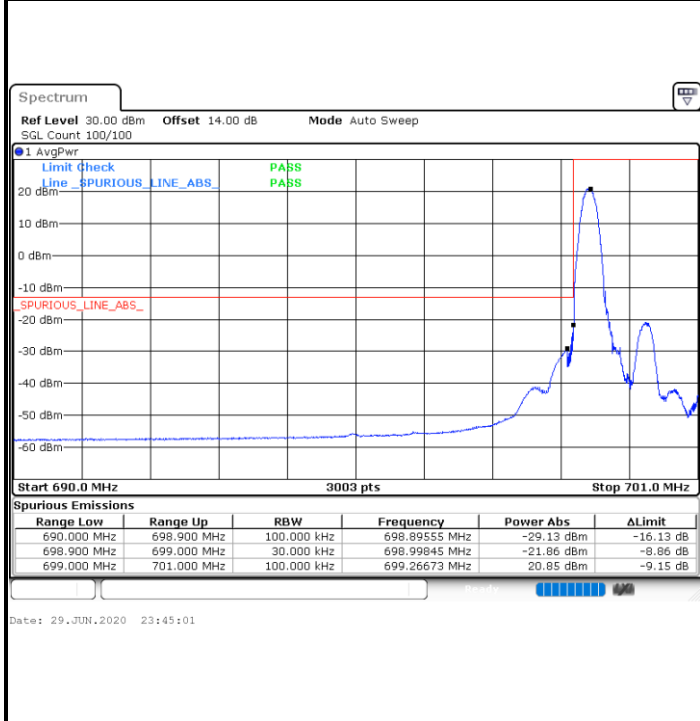
# Conducted Band Edge



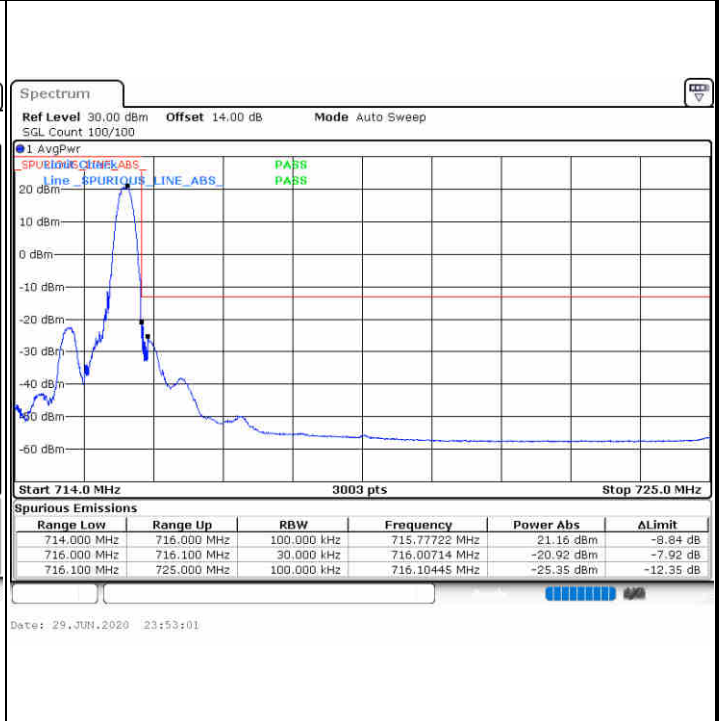


LTE Band 12 / 1.4MHz / 16QAM

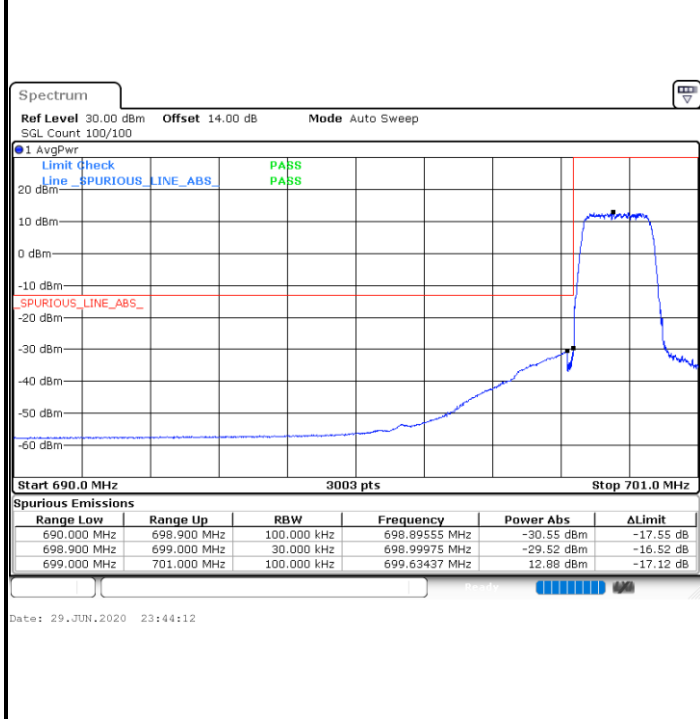
Lowest Band Edge / 1 RB



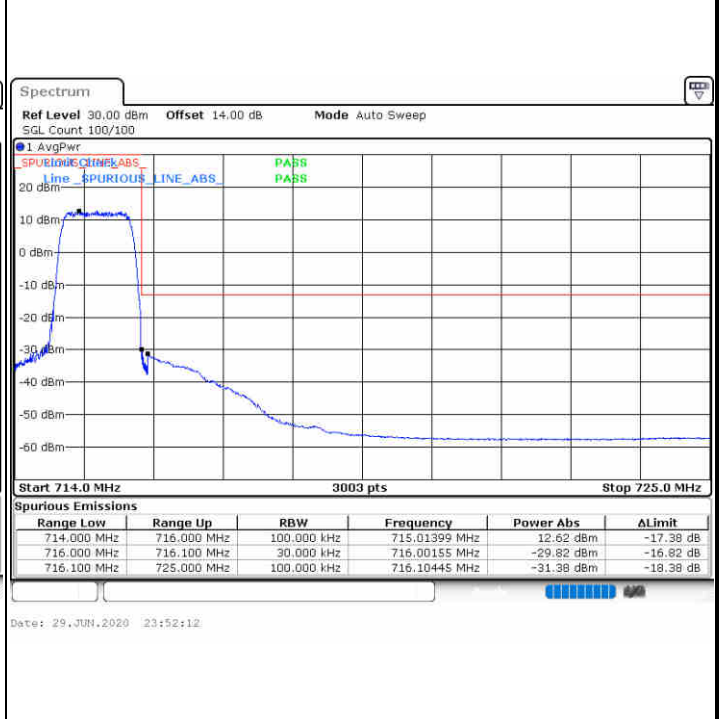
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

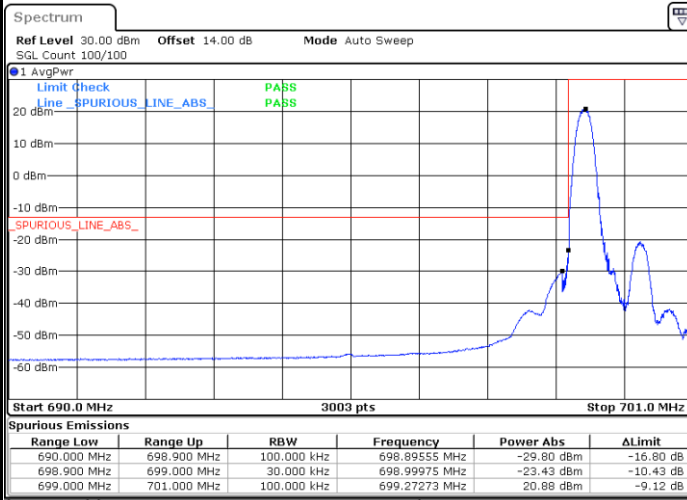






LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



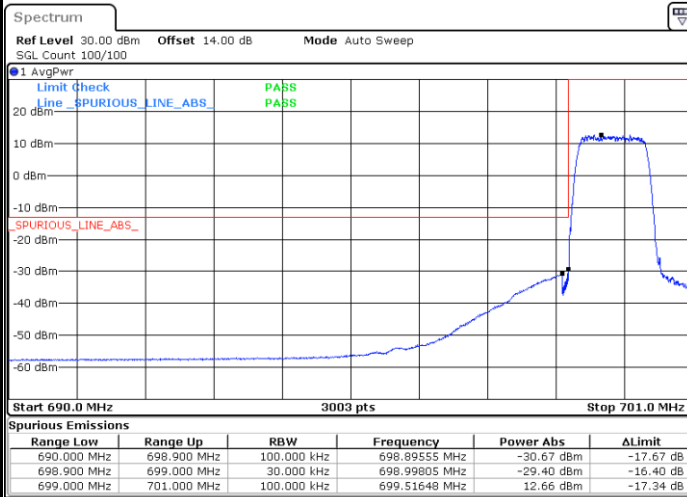
Date: 29 JUN 2020 23:57:29

Highest Band Edge / 1 RB



Date: 30 JUN 2020 00:01:29

Lowest Band Edge / Full RB



Date: 29 JUN 2020 23:56:40

Highest Band Edge / Full RB

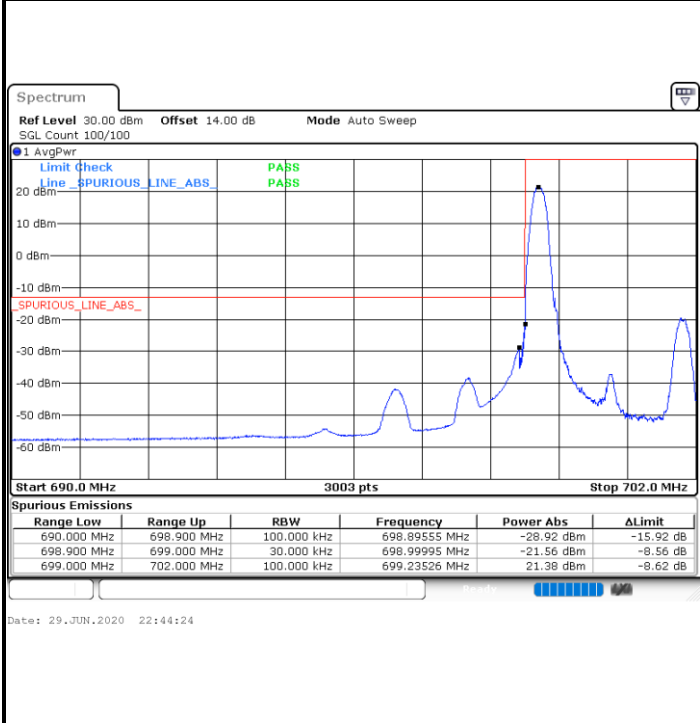


Date: 30 JUN 2020 00:00:40

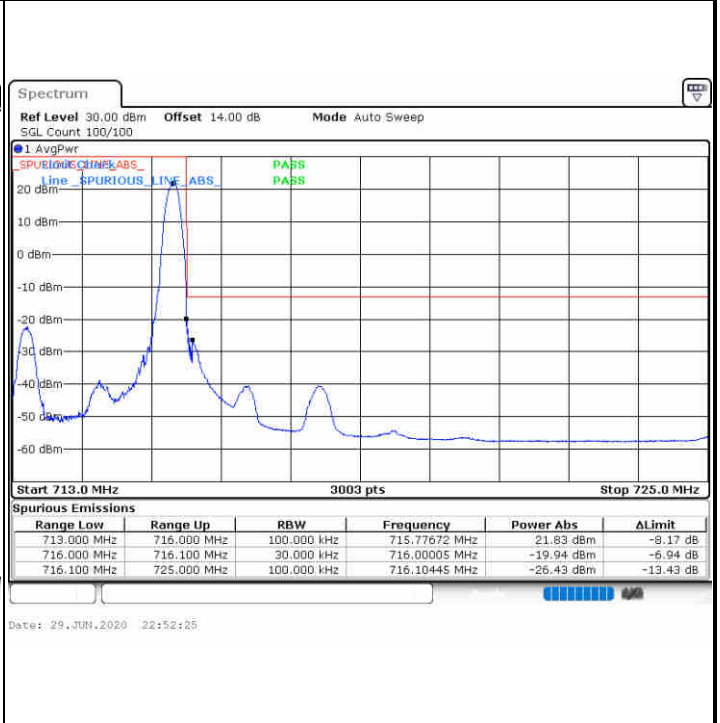


LTE Band 12 / 3MHz / QPSK

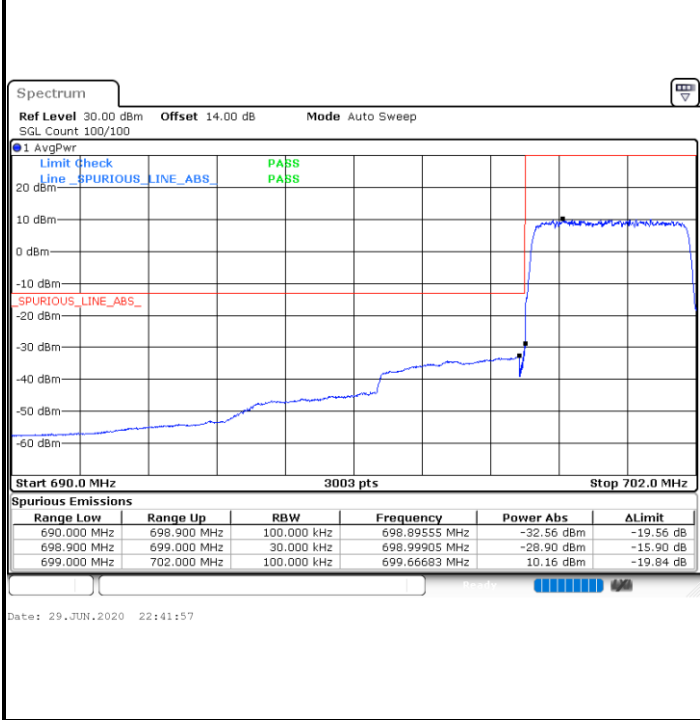
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

