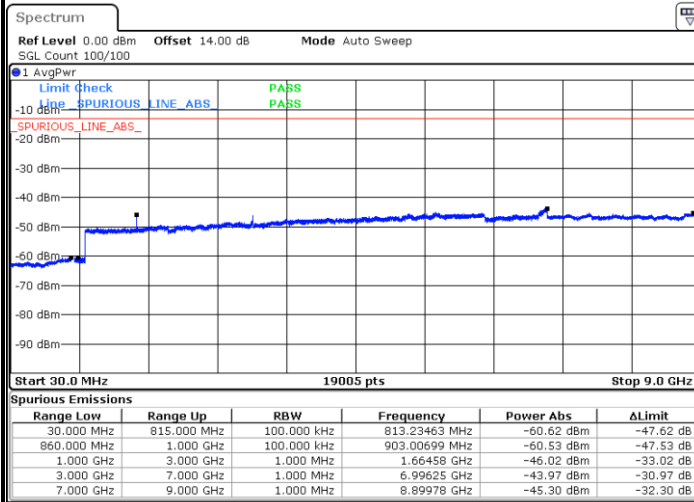




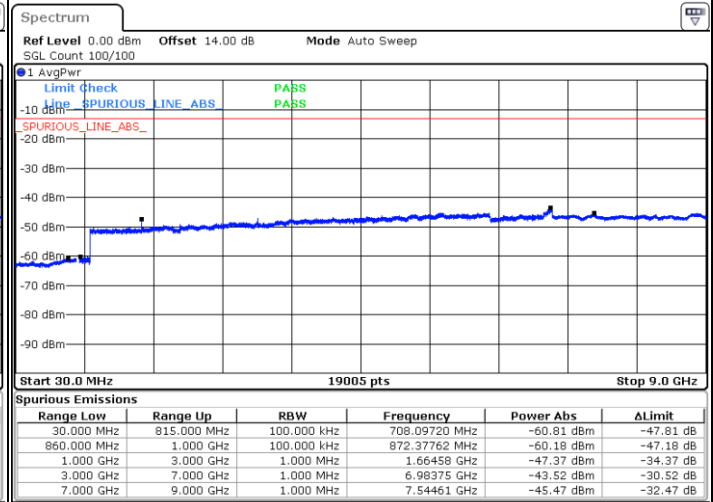
LTE Band 5 / 10MHz

Middle Channel / QPSK



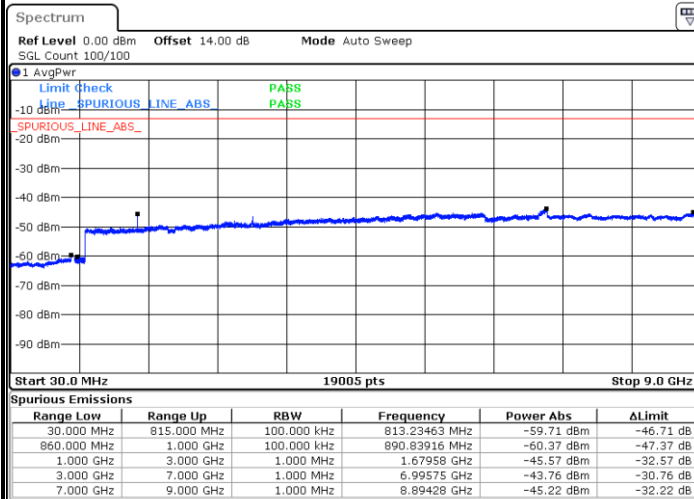
Date: 14.AUG.2020 12:29:18

Middle Channel / 16QAM



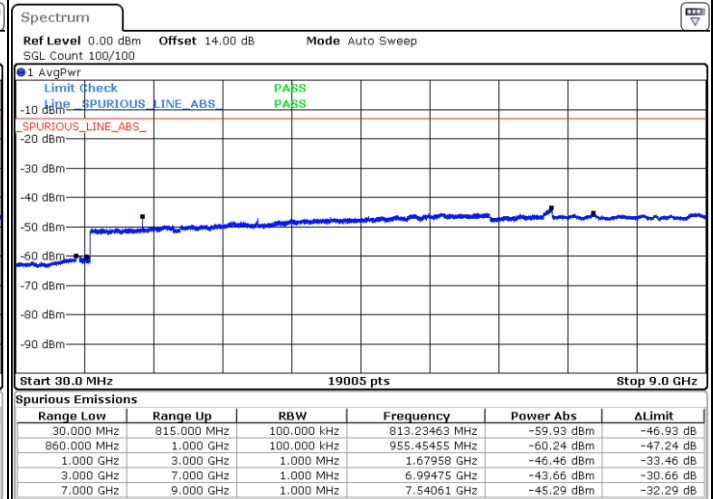
Date: 14.AUG.2020 12:29:42

Highest Channel / QPSK



Date: 14.AUG.2020 12:30:07

Highest Channel / 16QAM

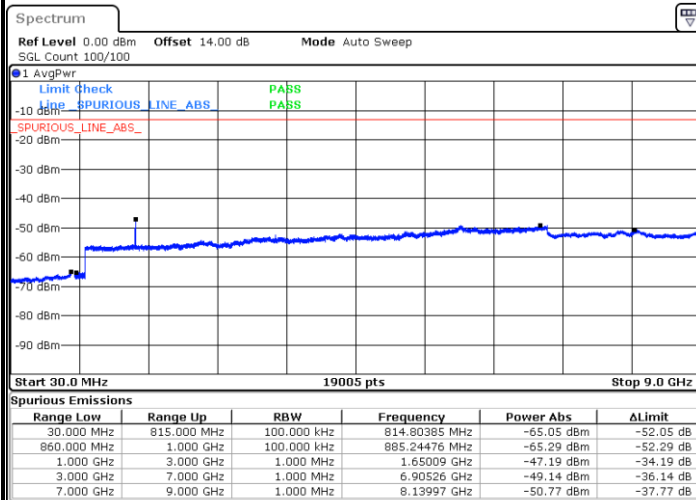


Date: 14.AUG.2020 12:30:31



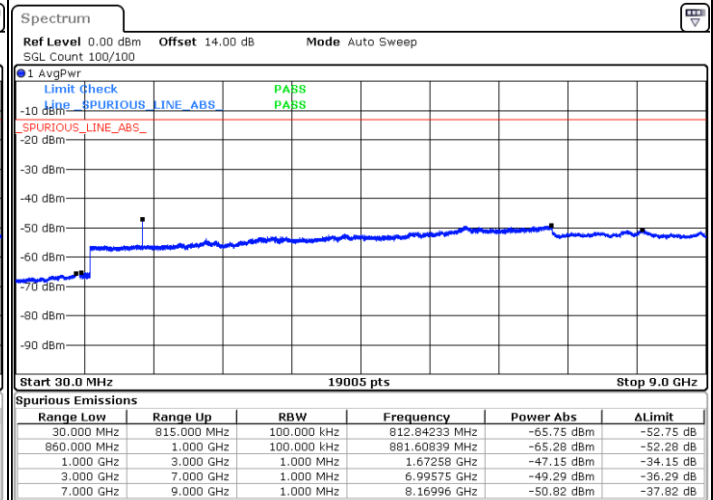
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



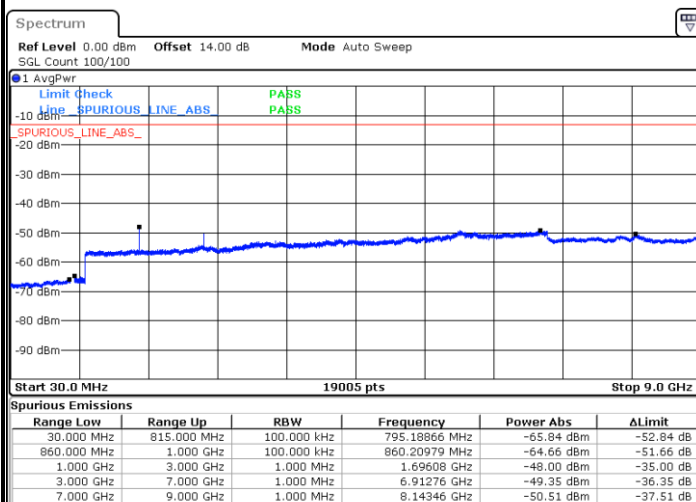
Date: 14.AUG.2020 14:48:47

Middle Channel / 64QAM



Date: 14.AUG.2020 14:50:11

Highest Channel / 64QAM

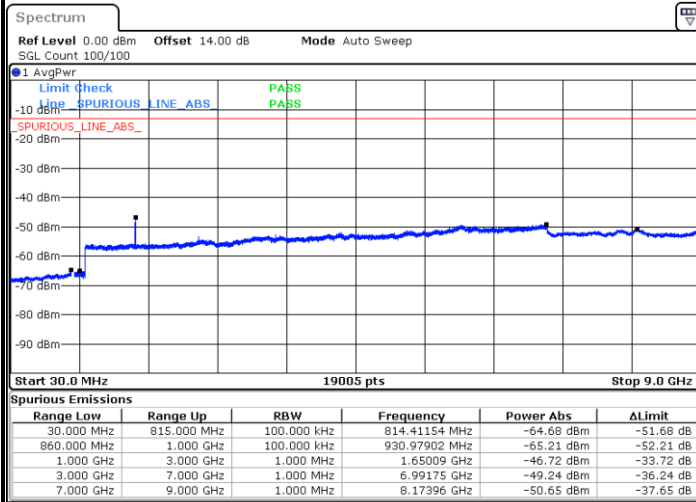


Date: 14.AUG.2020 14:54:15



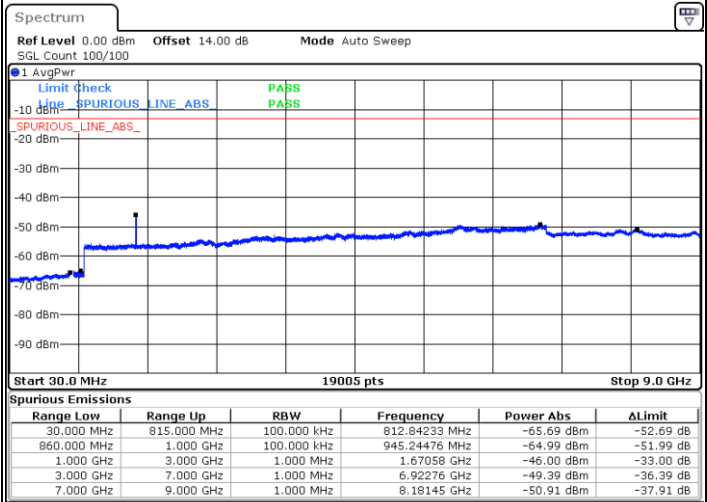
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



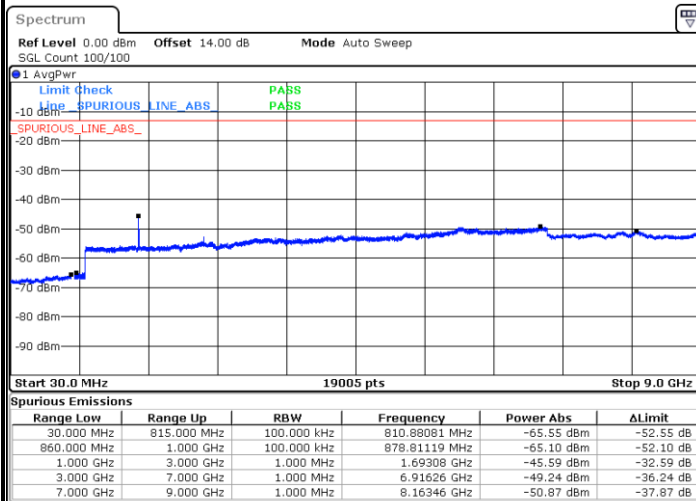
Date: 14.AUG.2020 14:21:07

Middle Channel / 64QAM



Date: 14.AUG.2020 14:21:53

Highest Channel / 64QAM

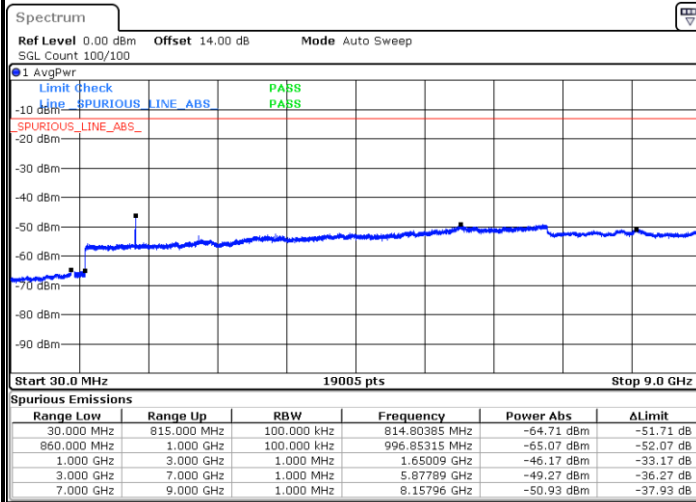


Date: 14.AUG.2020 14:25:58



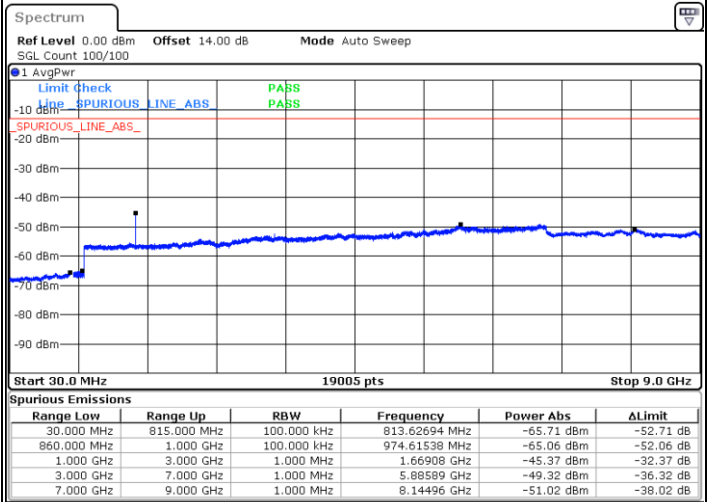
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



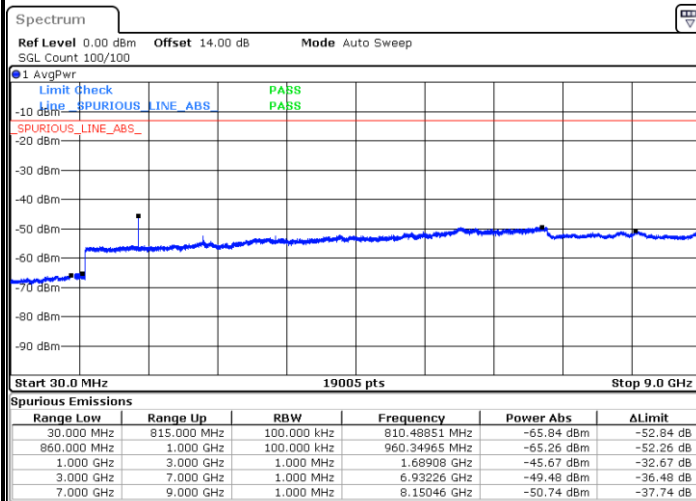
Date: 14.AUG.2020 14:30:02

Middle Channel / 64QAM



Date: 14.AUG.2020 14:30:48

Highest Channel / 64QAM

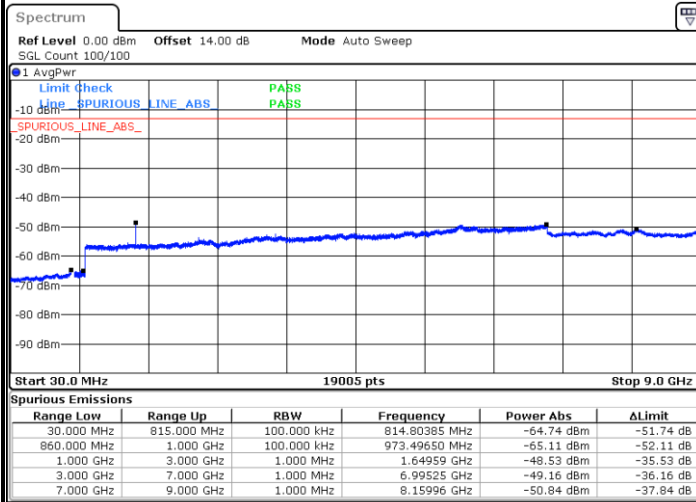


Date: 14.AUG.2020 14:34:52



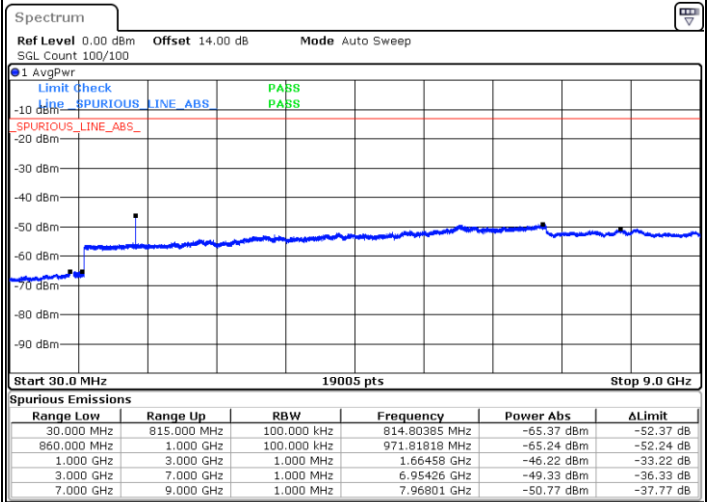
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



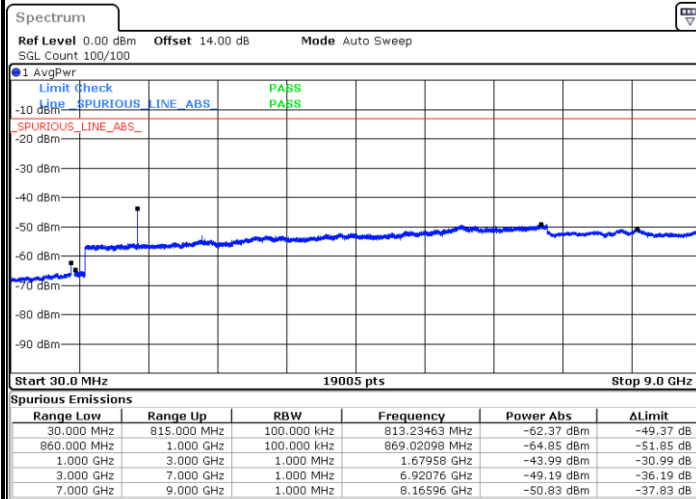
Date: 14.AUG.2020 14:38:56

Middle Channel / 64QAM



Date: 14.AUG.2020 14:39:42

Highest Channel / 64QAM



Date: 14.AUG.2020 14:43:46

**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0029	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0041	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

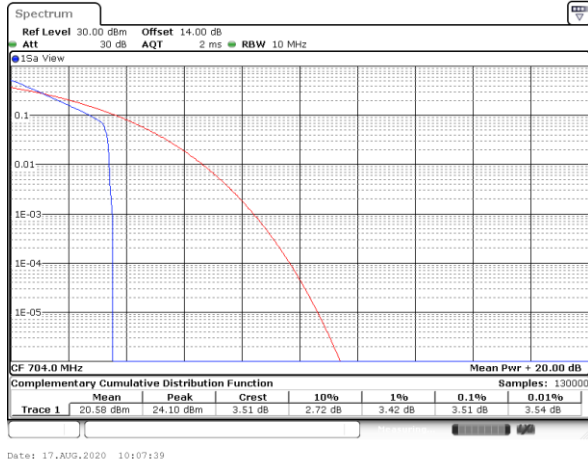
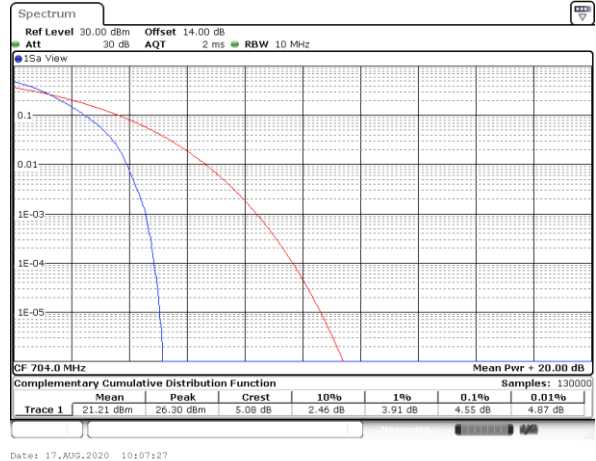
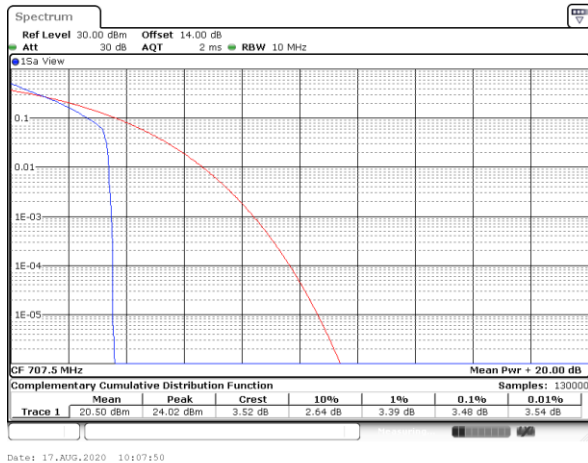
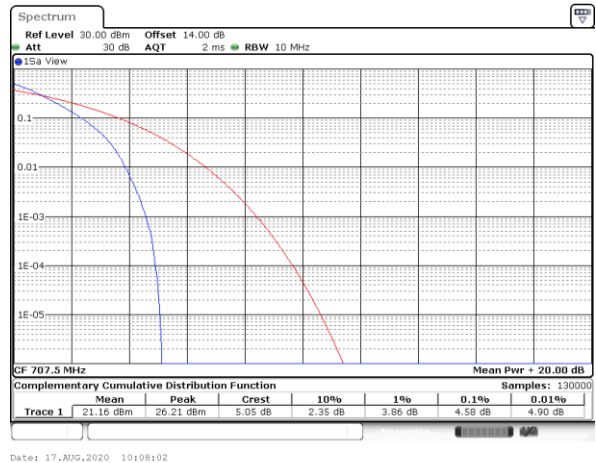
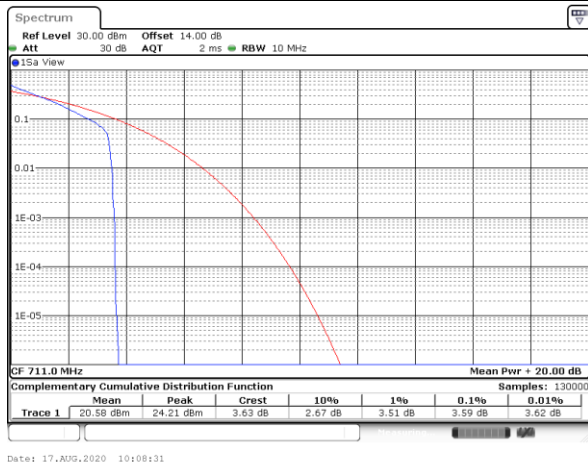
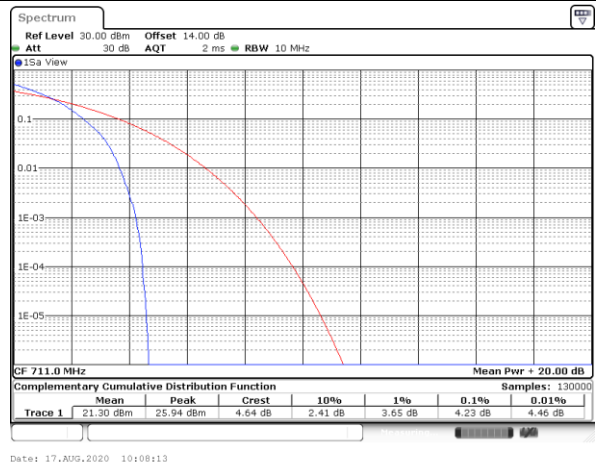
Note: Normal Voltage =4 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4 V.



LTE Band 12

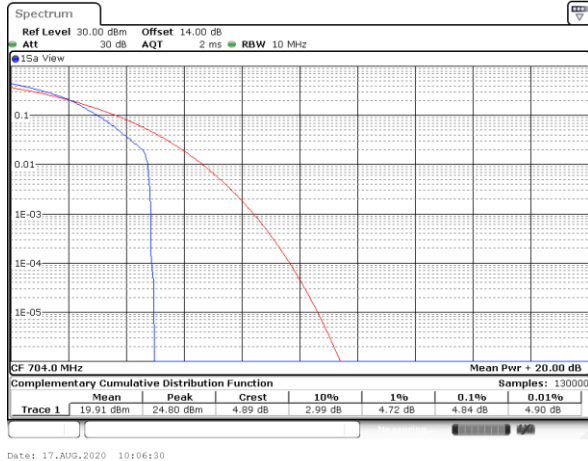
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	4.55	4.84	5.74	PASS
Middle CH	3.48	4.58	4.81	5.74	
Highest CH	3.59	4.23	5.22	5.62	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.07	5.74	-	-	PASS
Middle CH	4.99	5.80	-	-	
Highest CH	5.30	5.59	-	-	

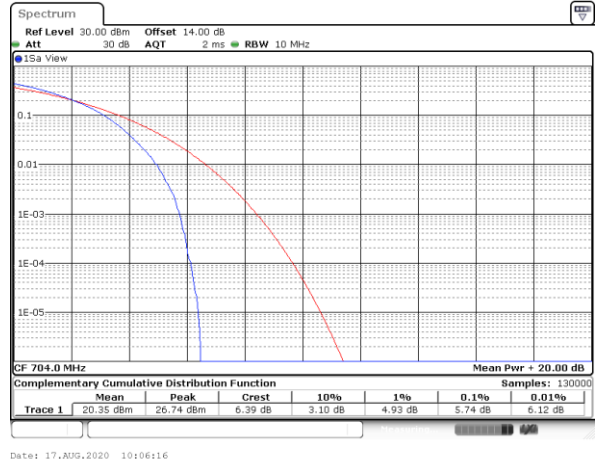
LTE Band 12 / 10MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB


LTE Band 12 / 10MHz / 16QAM

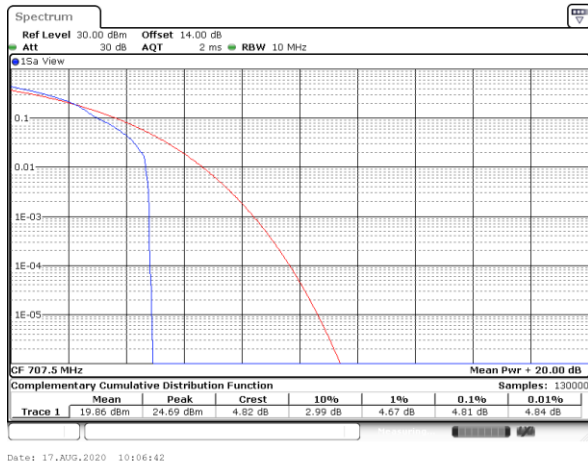
Lowest Channel / 1RB



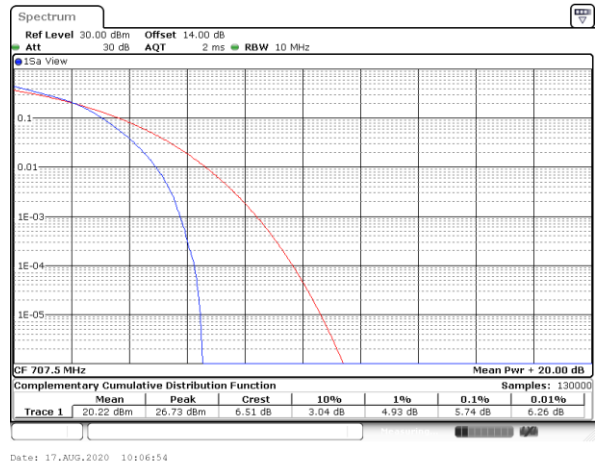
Lowest Channel / Full RB



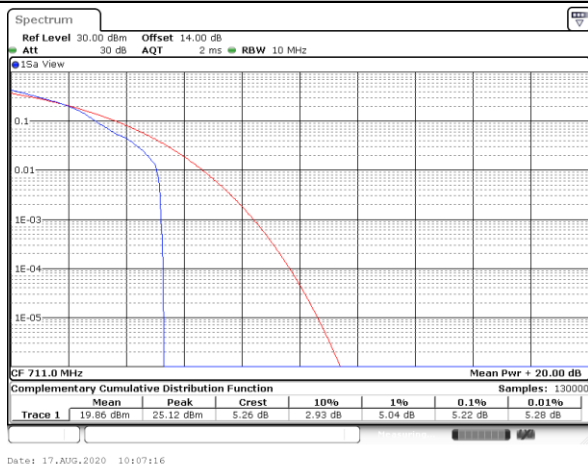
Middle Channel / 1RB



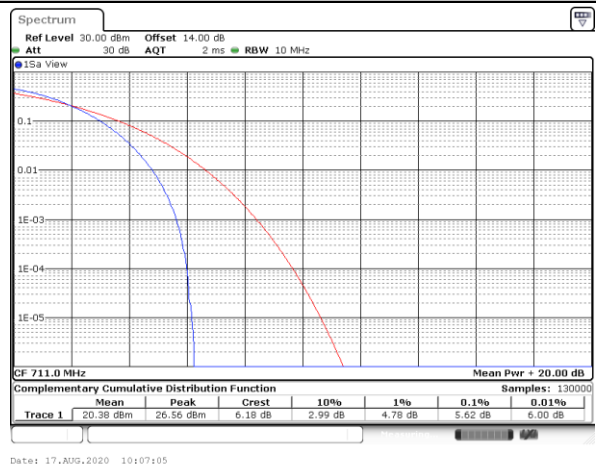
Middle Channel / Full RB



Highest Channel / 1RB



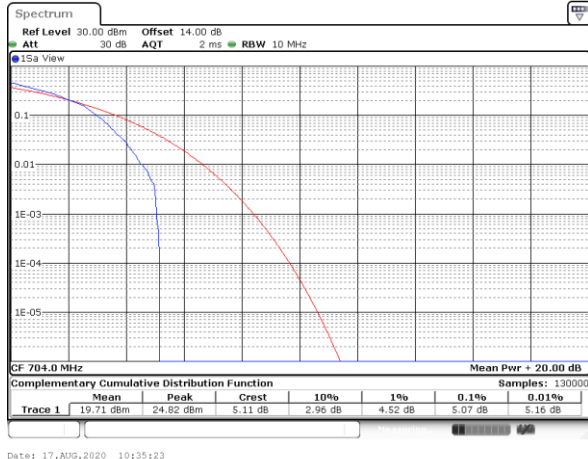
Highest Channel / Full RB



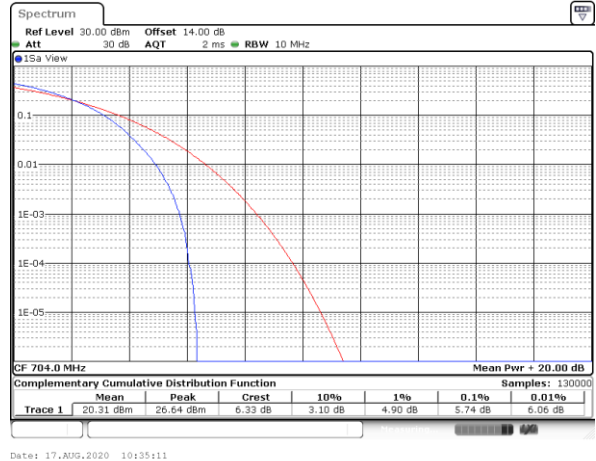


LTE Band 12 / 10MHz / 64QAM

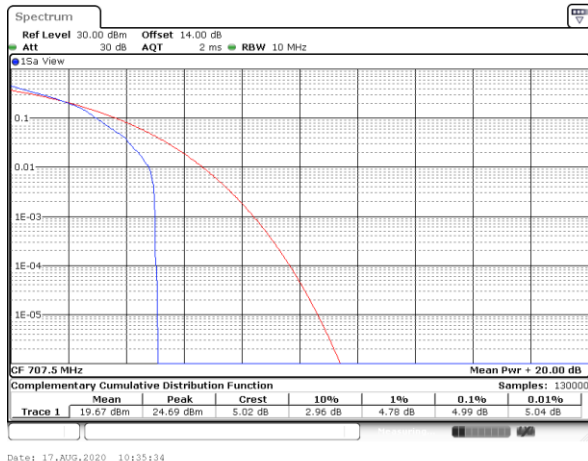
Lowest Channel / 1RB



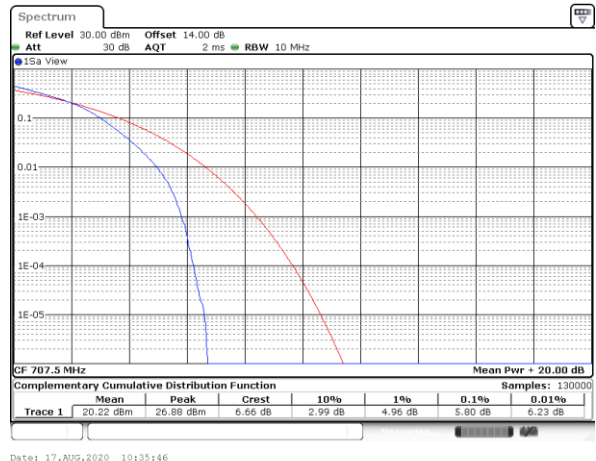
Lowest Channel / Full RB



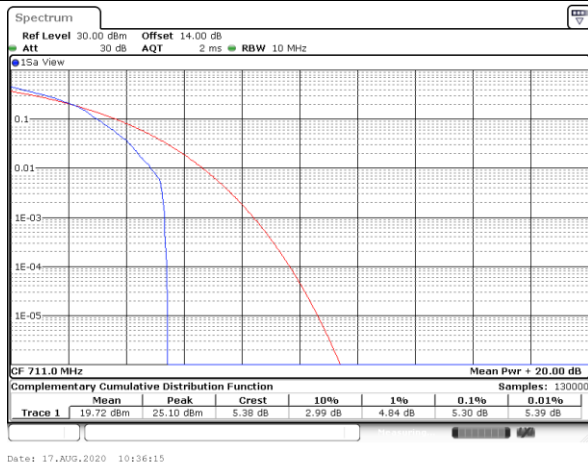
Middle Channel / 1RB



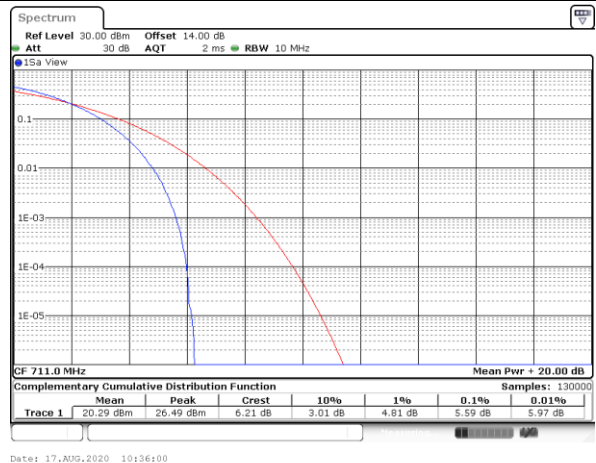
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



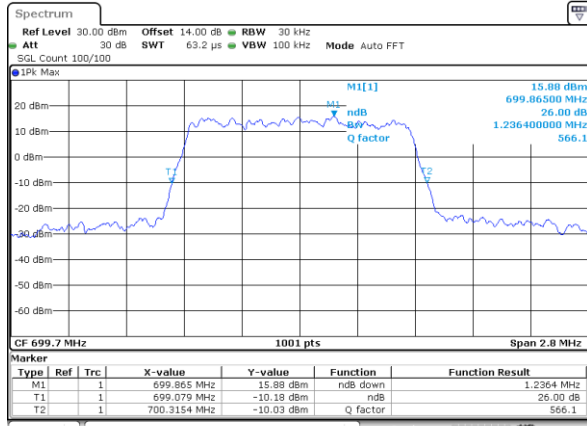
**26dB Bandwidth**

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	1.24	1.23	3.01	3.02	4.94	4.94	9.77	9.75	-	-	-	-
Middle CH	1.24	1.24	3.05	3.02	4.89	4.88	9.81	9.75	-	-	-	-
Highest CH	1.23	1.22	3.00	3.05	4.92	4.83	9.67	9.77	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	3.02	-	4.86	-	9.75	-	-	-	-	-
Middle CH	1.24	-	3.01	-	4.87	-	9.73	-	-	-	-	-
Highest CH	1.24	-	3.05	-	4.88	-	9.69	-	-	-	-	-



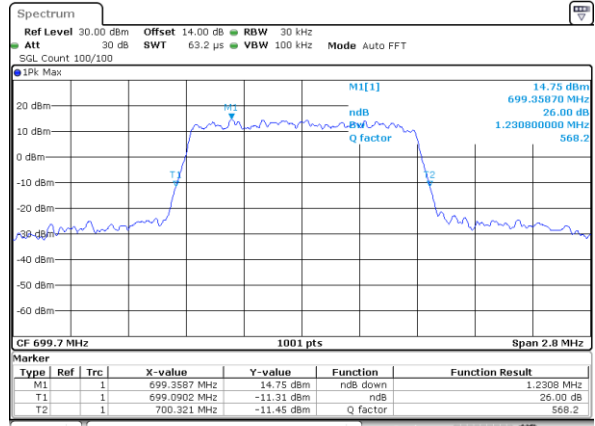
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



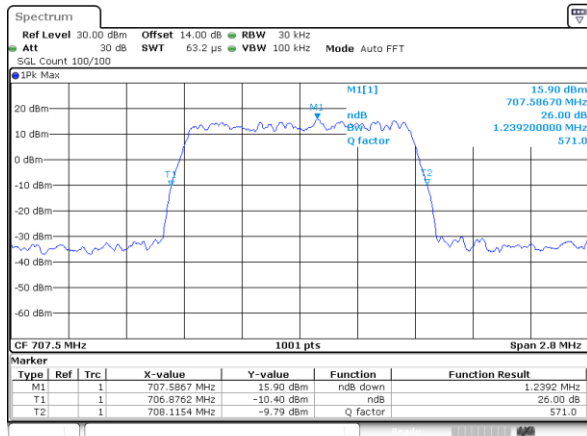
Date: 17.AUG.2020 09:53:00

Lowest Channel / 1.4MHz / 16QAM



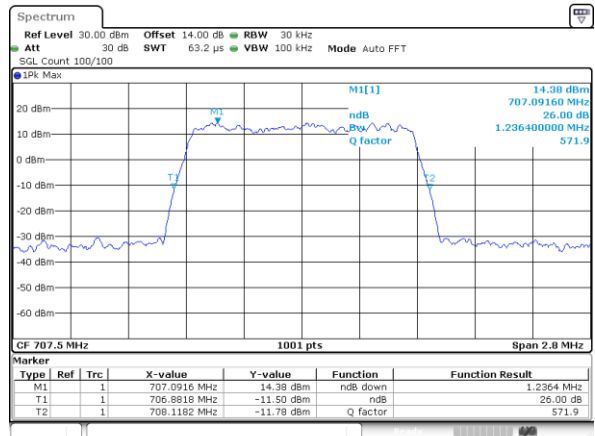
Date: 17.AUG.2020 09:52:49

Middle Channel / 1.4MHz / QPSK



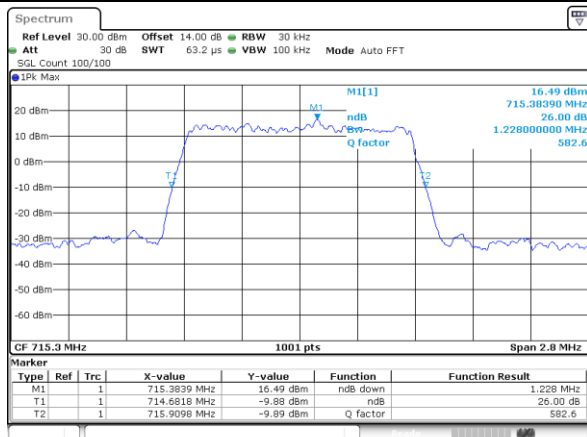
Date: 17.AUG.2020 09:58:09

Middle Channel / 1.4MHz / 16QAM



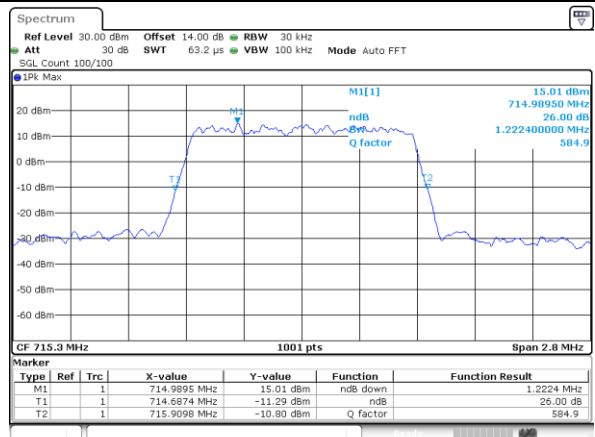
Date: 17.AUG.2020 09:58:20

Highest Channel / 1.4MHz / QPSK



Date: 17.AUG.2020 10:00:30

Highest Channel / 1.4MHz / 16QAM

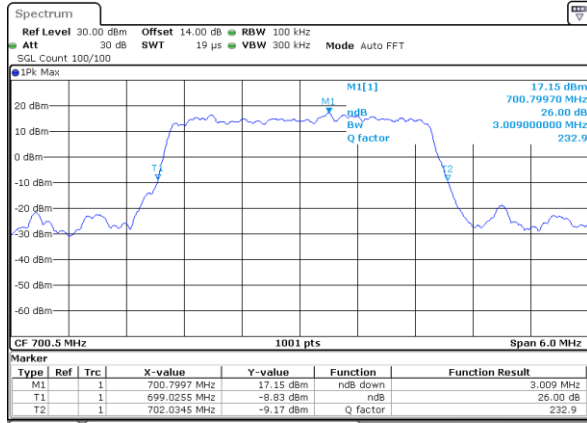


Date: 17.AUG.2020 10:00:19



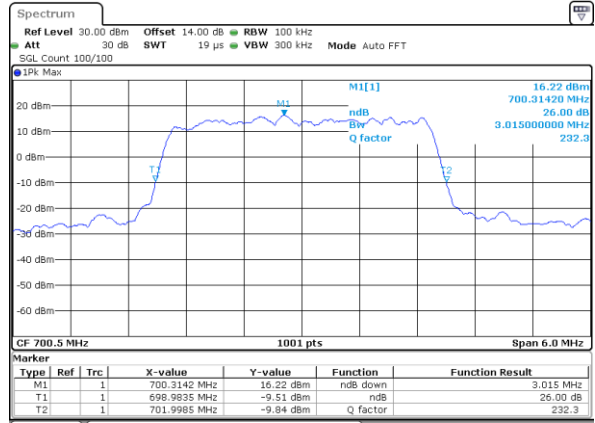
LTE Band 12

Lowest Channel / 3MHz / QPSK



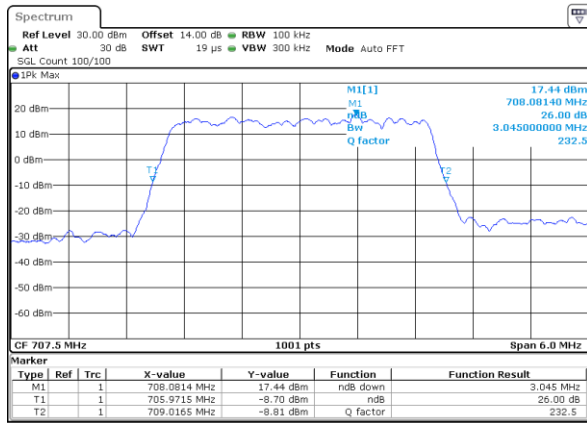
Date: 17.AUG.2020 09:08:15

Lowest Channel / 3MHz / 16QAM



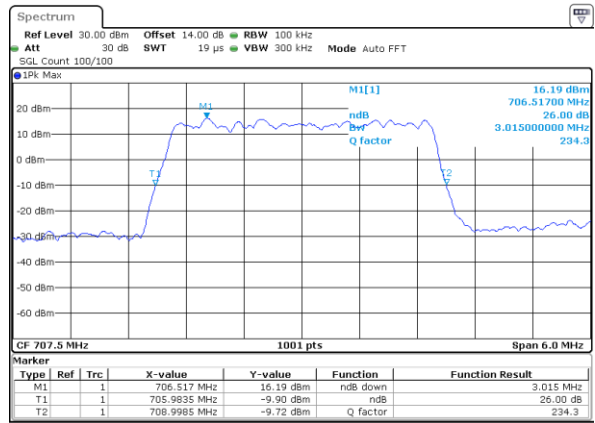
Date: 17.AUG.2020 09:08:04

Middle Channel / 3MHz / QPSK



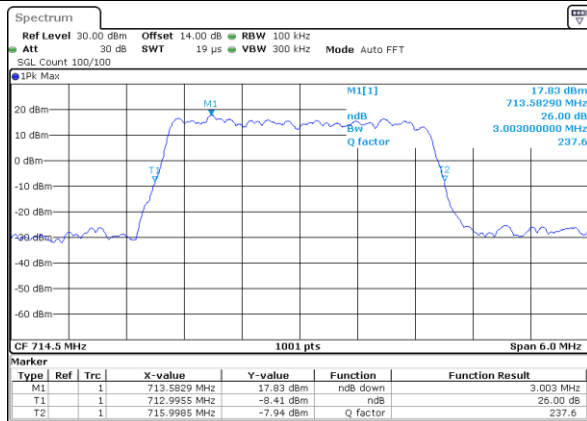
Date: 17.AUG.2020 09:14:34

Middle Channel / 3MHz / 16QAM



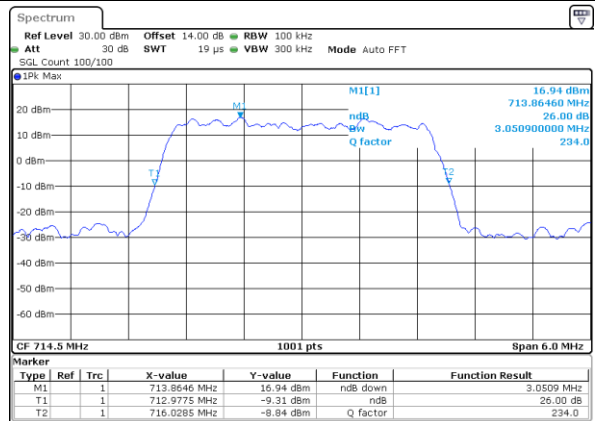
Date: 17.AUG.2020 09:14:45

Highest Channel / 3MHz / QPSK



Date: 17.AUG.2020 09:19:36

Highest Channel / 3MHz / 16QAM

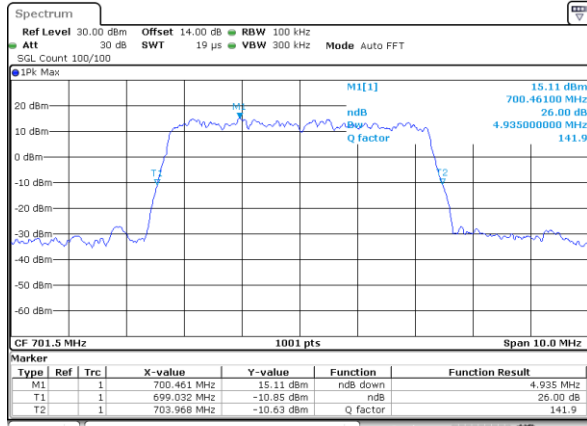


Date: 17.AUG.2020 09:19:25



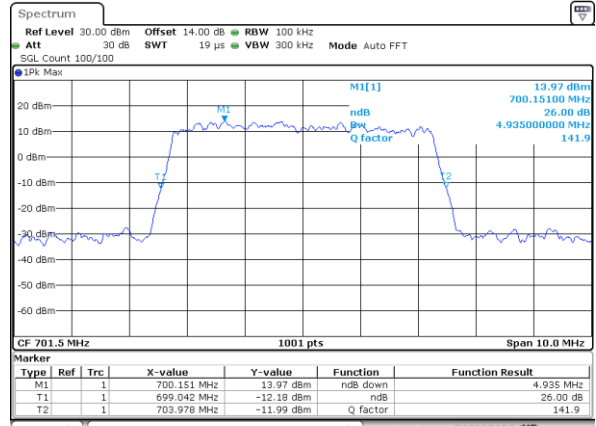
LTE Band 12

Lowest Channel / 5MHz / QPSK



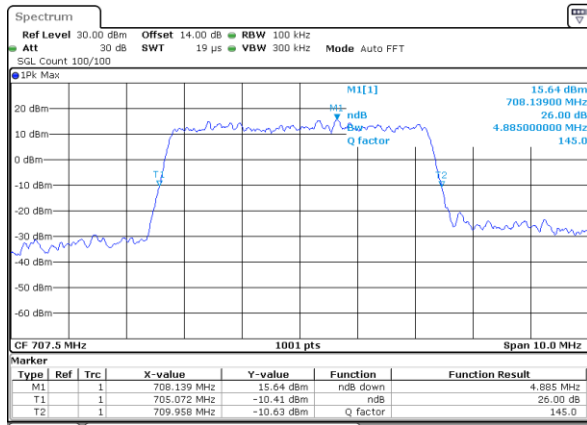
Date: 17.AUG.2020 09:24:47

Lowest Channel / 5MHz / 16QAM



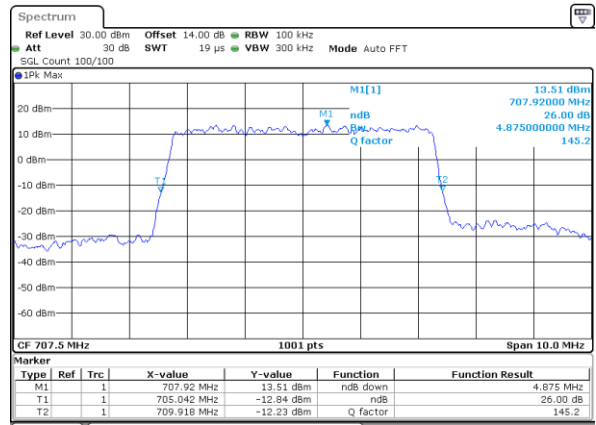
Date: 17.AUG.2020 09:24:36

Middle Channel / 5MHz / QPSK



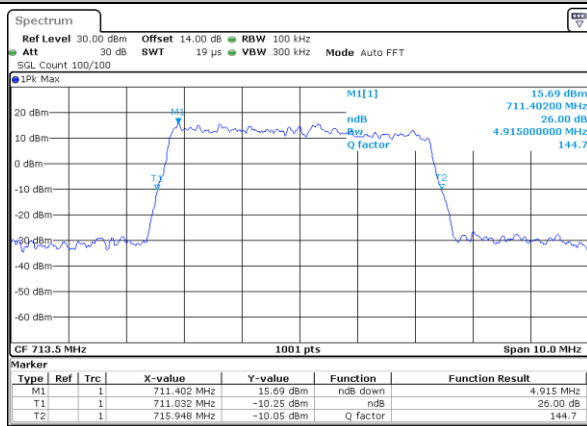
Date: 17.AUG.2020 09:29:47

Middle Channel / 5MHz / 16QAM



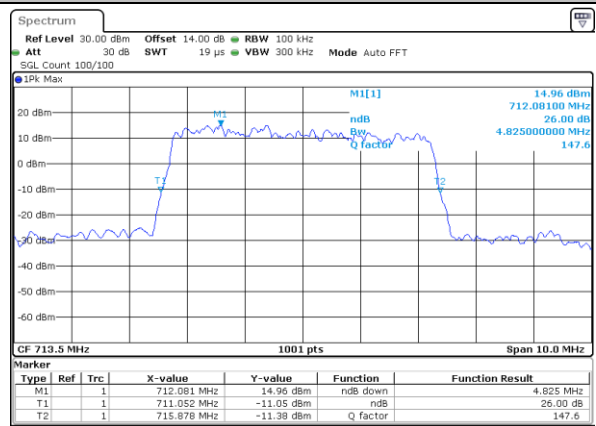
Date: 17.AUG.2020 09:29:58

Highest Channel / 5MHz / QPSK



Date: 17.AUG.2020 09:32:07

Highest Channel / 5MHz / 16QAM

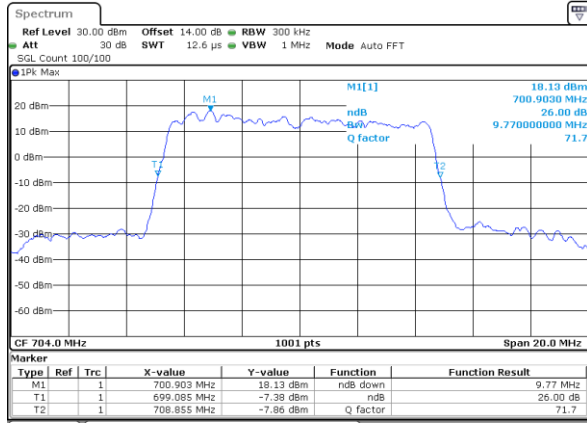


Date: 17.AUG.2020 09:31:56



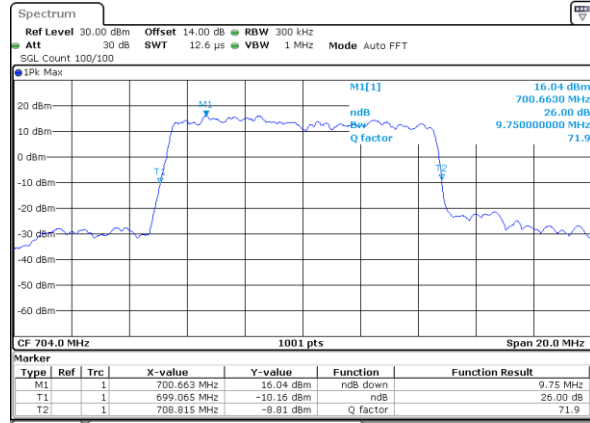
LTE Band 12

Lowest Channel / 10MHz / QPSK



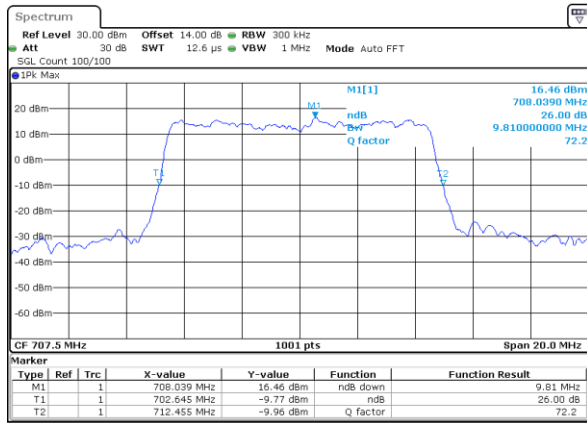
Date: 17.AUG.2020 09:37:18

Lowest Channel / 10MHz / 16QAM



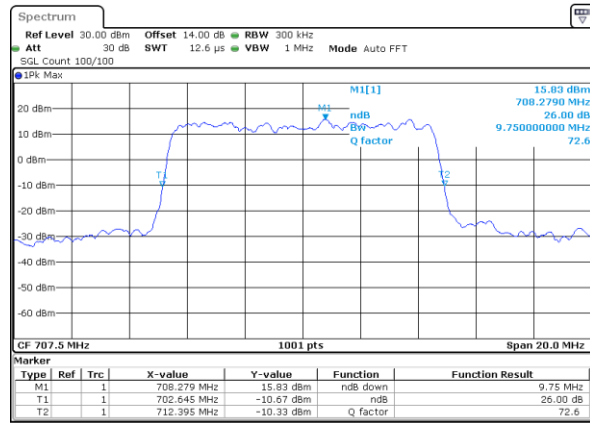
Date: 17.AUG.2020 09:37:07

Middle Channel / 10MHz / QPSK



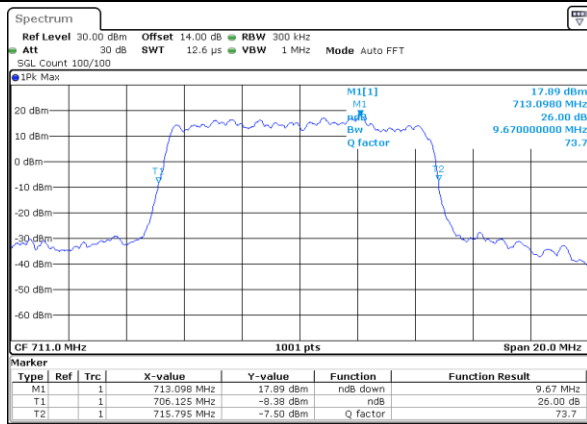
Date: 17.AUG.2020 09:42:19

Middle Channel / 10MHz / 16QAM



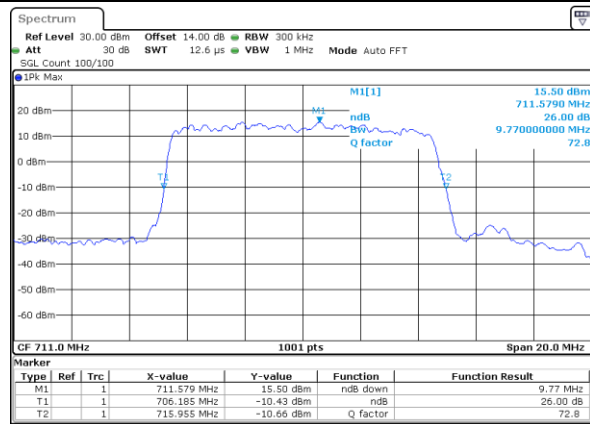
Date: 17.AUG.2020 09:42:30

Highest Channel / 10MHz / QPSK



Date: 17.AUG.2020 09:44:40

Highest Channel / 10MHz / 16QAM

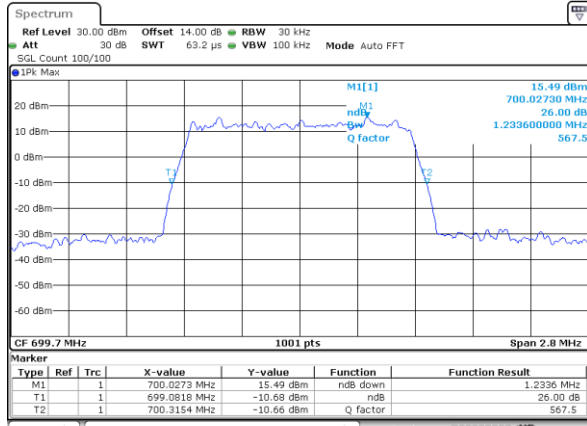


Date: 17.AUG.2020 09:44:28



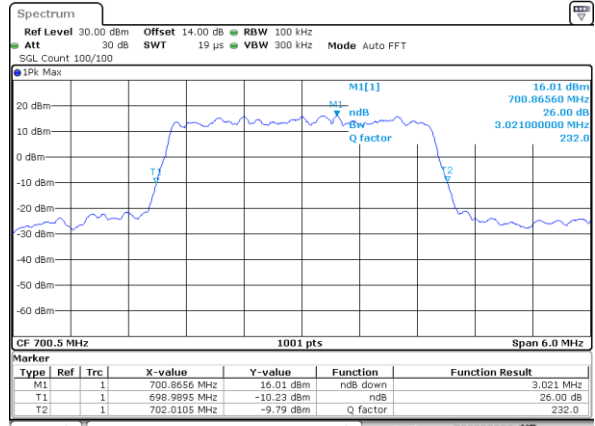
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



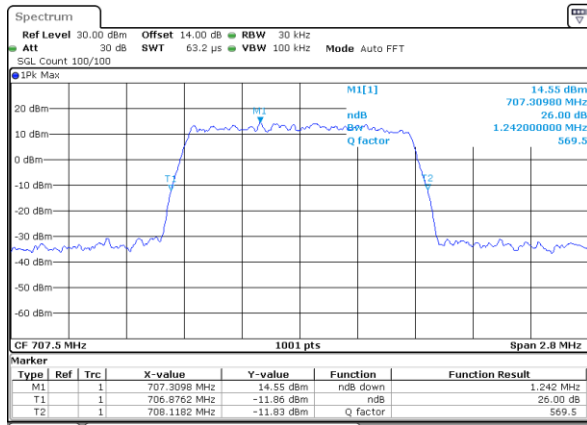
Date: 17.AUG.2020 10:28:50

Lowest Channel / 3MHz / 64QAM



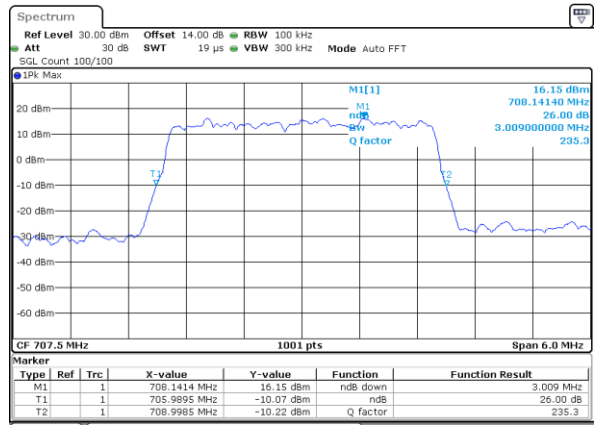
Date: 17.AUG.2020 10:10:05

Middle Channel / 1.4MHz / 64QAM



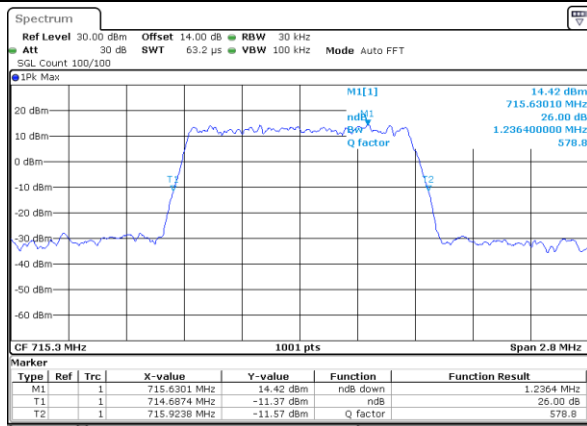
Date: 17.AUG.2020 10:31:26

Middle Channel / 3MHz / 64QAM



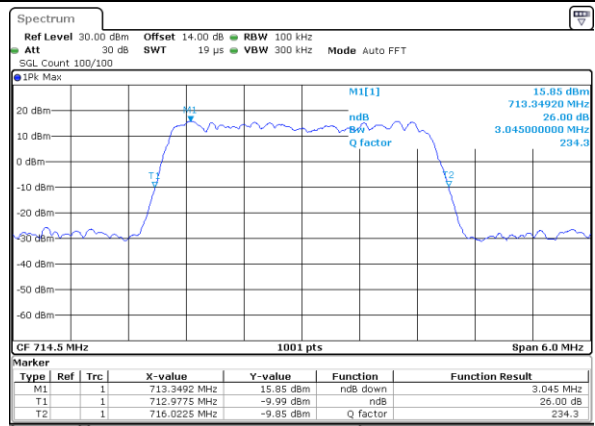
Date: 17.AUG.2020 10:12:41

Highest Channel / 1.4MHz / 64QAM



Date: 17.AUG.2020 10:32:30

Highest Channel / 3MHz / 64QAM

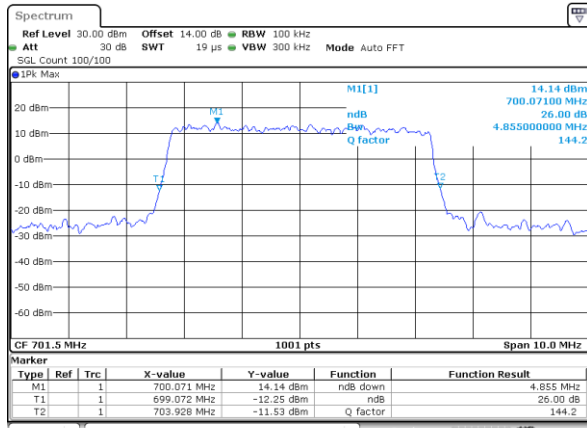


Date: 17.AUG.2020 10:13:45



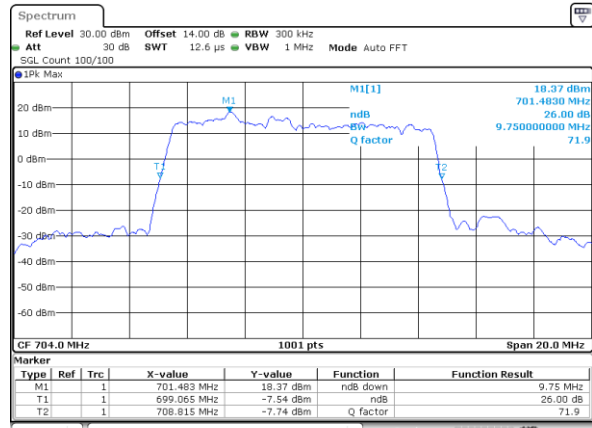
LTE Band 12

Lowest Channel / 5MHz / 64QAM



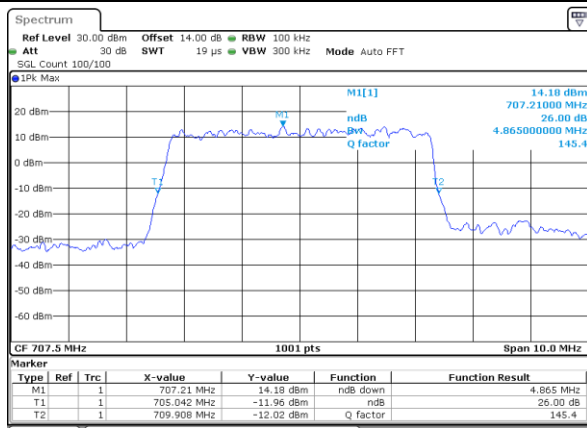
Date: 17.AUG.2020 10:16:20

Lowest Channel / 10MHz / 64QAM



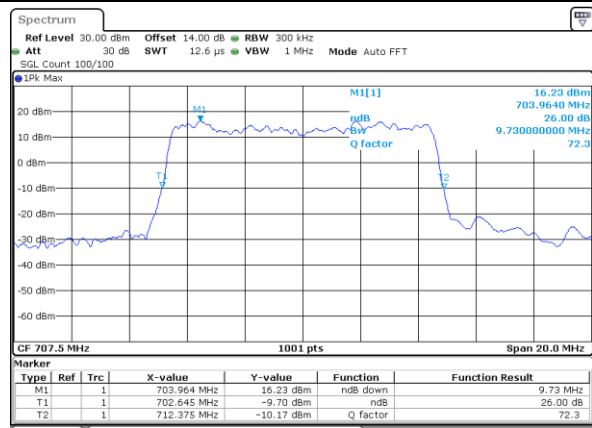
Date: 17.AUG.2020 10:22:35

Middle Channel / 5MHz / 64QAM



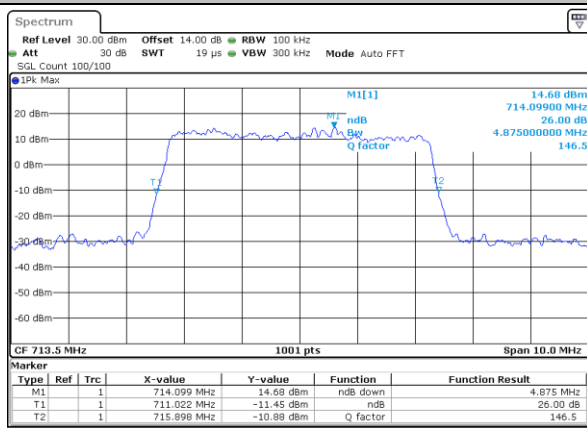
Date: 17.AUG.2020 10:18:55

Middle Channel / 10MHz / 64QAM



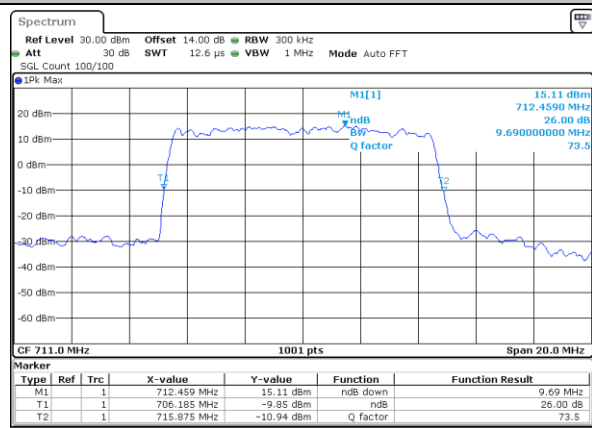
Date: 17.AUG.2020 10:25:10

Highest Channel / 5MHz / 64QAM



Date: 17.AUG.2020 10:20:00

Highest Channel / 10MHz / 64QAM



Date: 17.AUG.2020 10:26:15

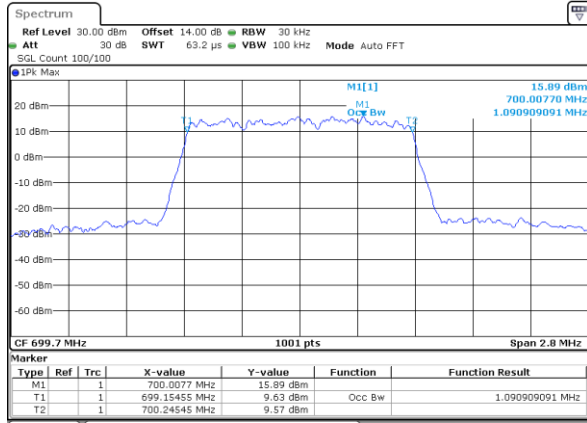
**Occupied Bandwidth**

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	1.09	1.09	2.73	2.73	4.47	4.48	8.97	9.03	-	-	-	-
Middle CH	1.09	1.09	2.73	2.72	4.50	4.49	9.01	9.03	-	-	-	-
Highest CH	1.09	1.09	2.72	2.72	4.48	4.49	9.01	8.91	-	-	-	-
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	-	2.72	-	4.50	-	9.01	-	-	-	-	-
Middle CH	1.09	-	2.72	-	4.50	-	9.05	-	-	-	-	-
Highest CH	1.09	-	2.75	-	4.48	-	8.99	-	-	-	-	-

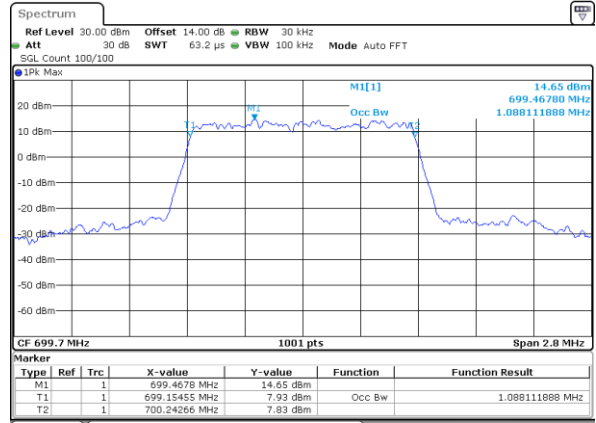


LTE Band 12

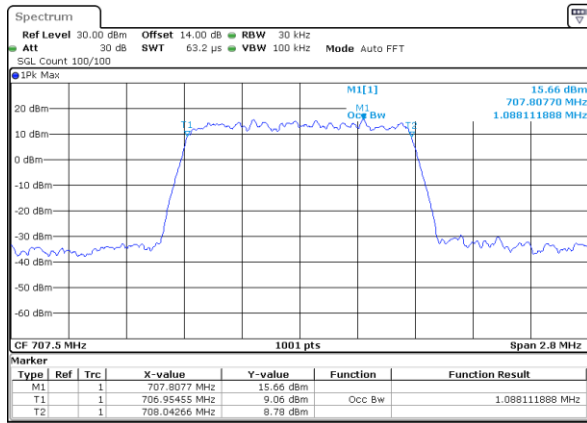
Lowest Channel / 1.4MHz / QPSK



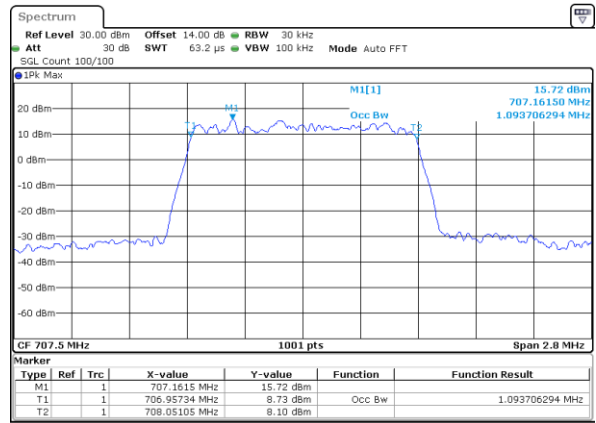
Lowest Channel / 1.4MHz / 16QAM



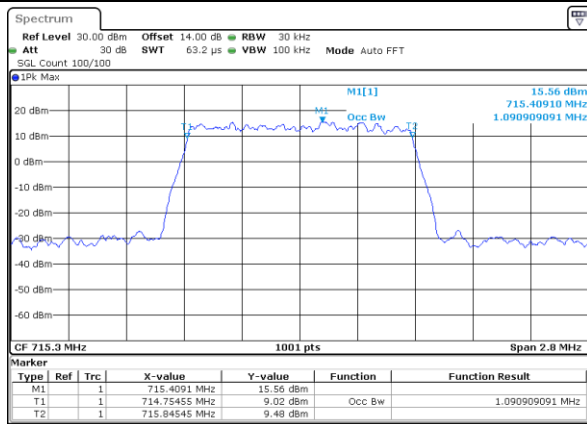
Middle Channel / 1.4MHz / QPSK



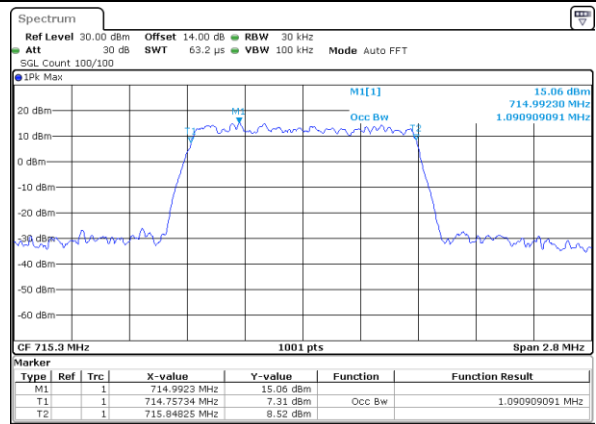
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



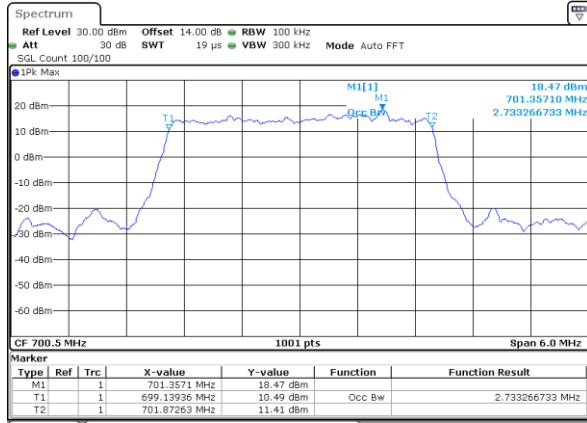
Highest Channel / 1.4MHz / 16QAM



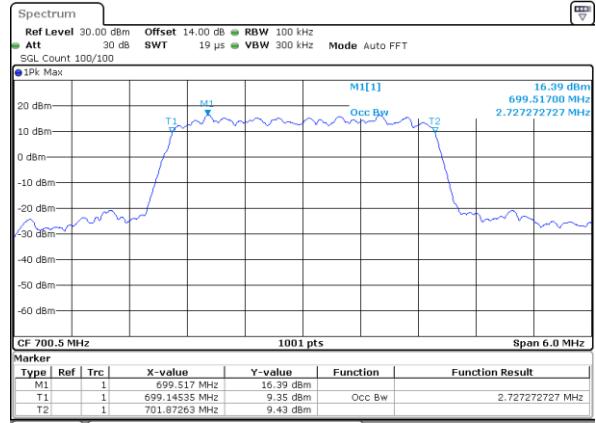


LTE Band 12

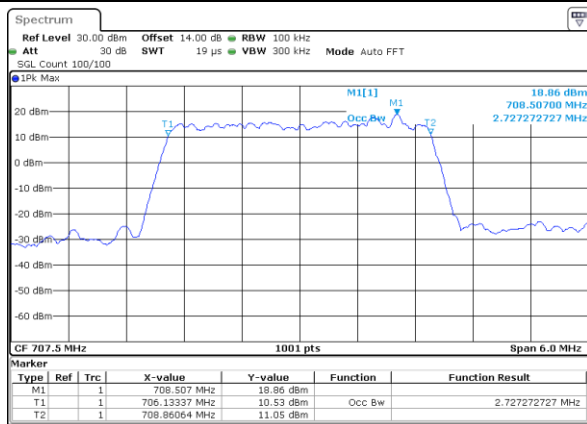
Lowest Channel / 3MHz / QPSK



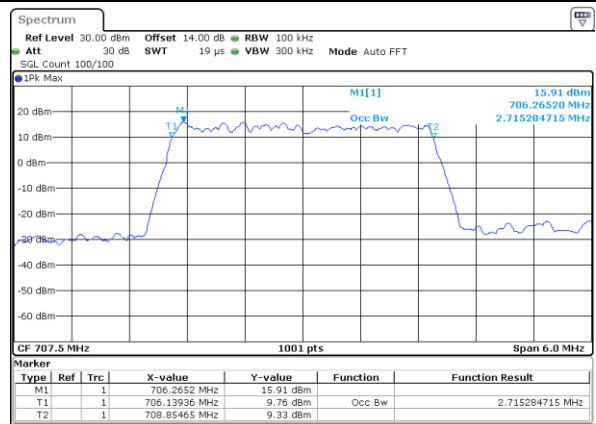
Lowest Channel / 3MHz / 16QAM



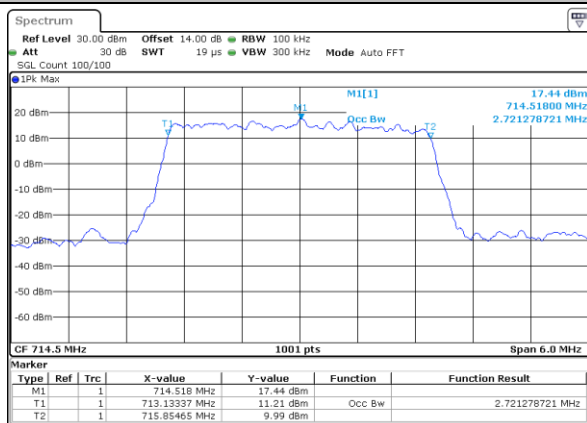
Middle Channel / 3MHz / QPSK



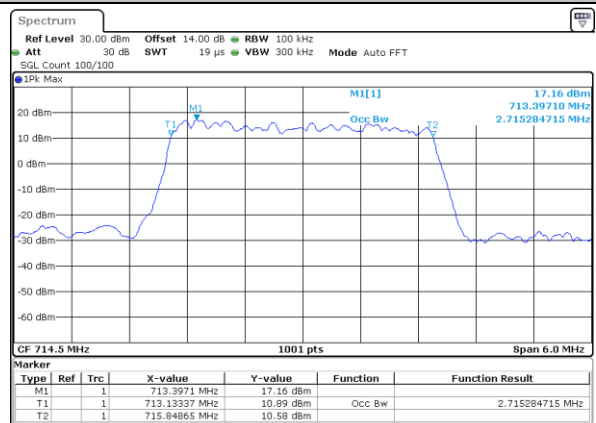
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



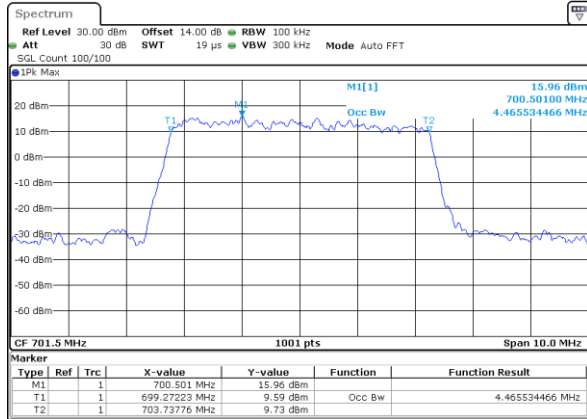
Highest Channel / 3MHz / 16QAM





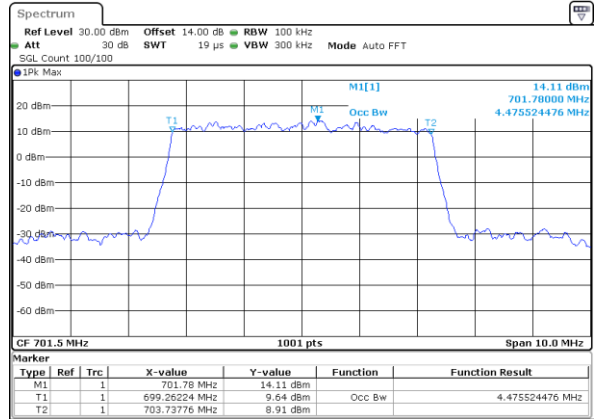
LTE Band 12

Lowest Channel / 5MHz / QPSK



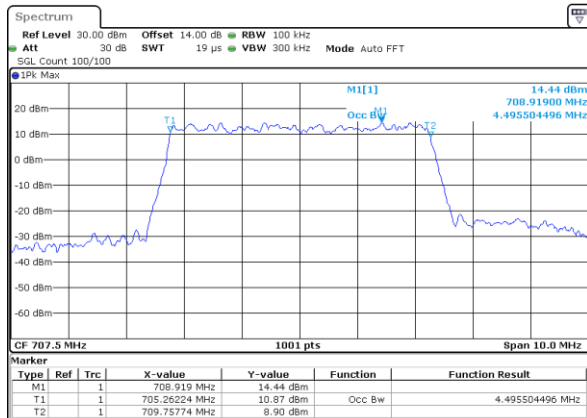
Date: 17.AUG.2020 09:24:14

Lowest Channel / 5MHz / 16QAM



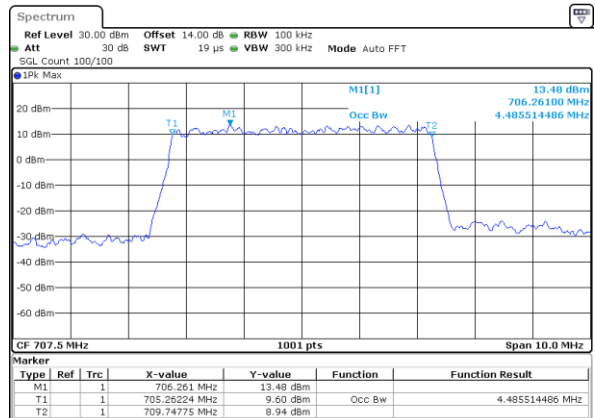
Date: 17.AUG.2020 09:24:25

Middle Channel / 5MHz / QPSK



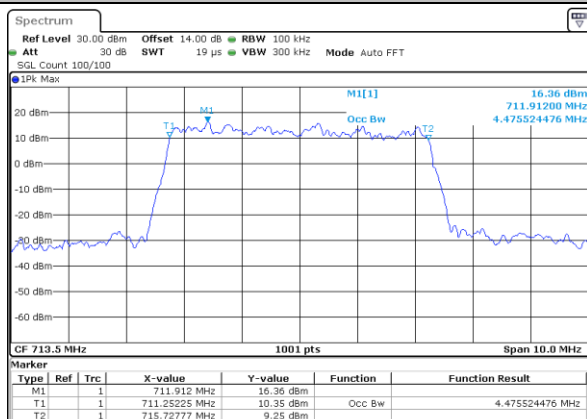
Date: 17.AUG.2020 09:29:36

Middle Channel / 5MHz / 16QAM



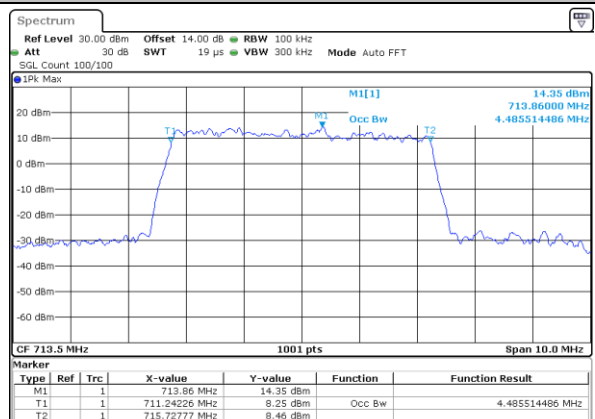
Date: 17.AUG.2020 09:29:25

Highest Channel / 5MHz / QPSK



Date: 17.AUG.2020 09:31:34

Highest Channel / 5MHz / 16QAM

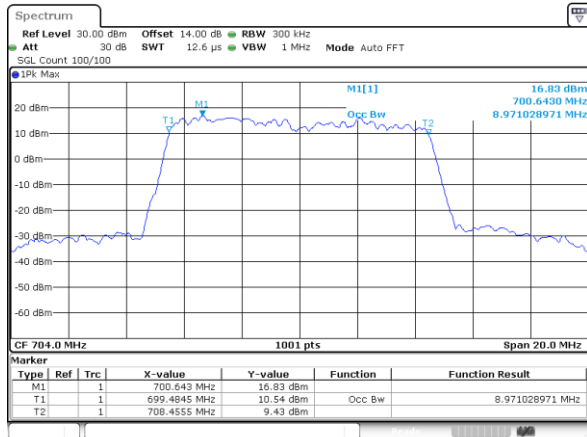


Date: 17.AUG.2020 09:31:45



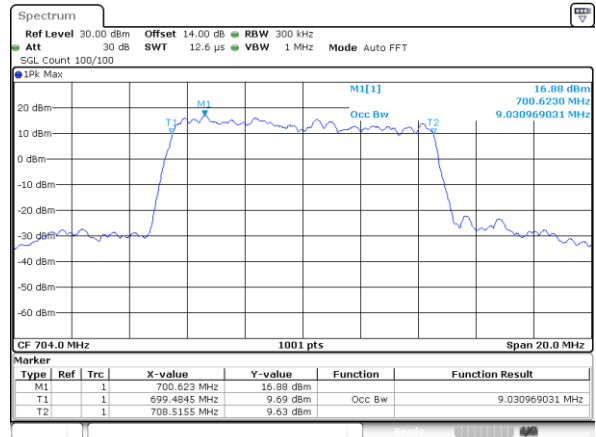
LTE Band 12

Lowest Channel / 10MHz / QPSK



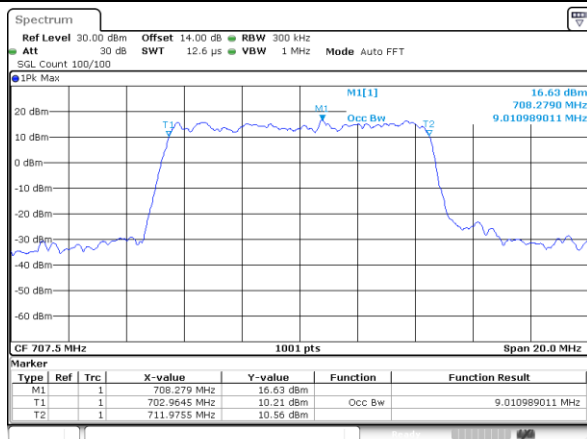
Date: 17.AUG.2020 09:36:45

Lowest Channel / 10MHz / 16QAM



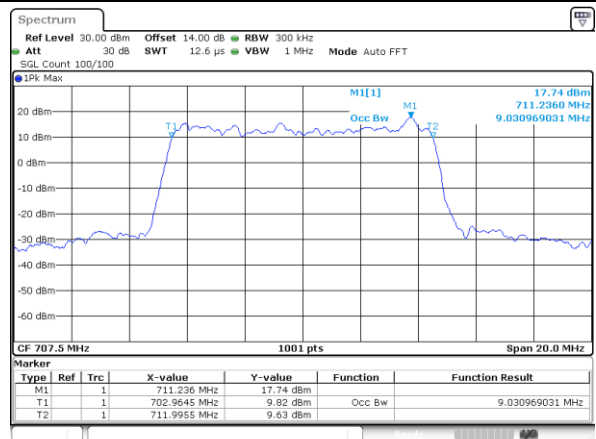
Date: 17.AUG.2020 09:36:56

Middle Channel / 10MHz / QPSK



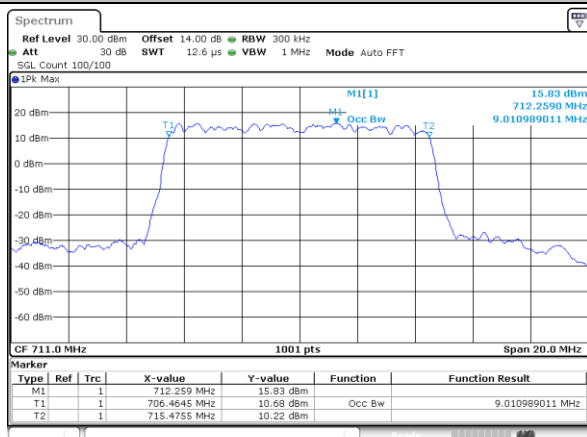
Date: 17.AUG.2020 09:42:08

Middle Channel / 10MHz / 16QAM



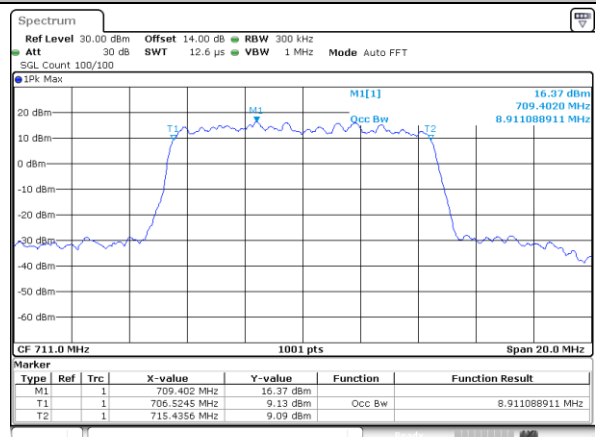
Date: 17.AUG.2020 09:44:56

Highest Channel / 10MHz / QPSK



Date: 17.AUG.2020 09:44:06

Highest Channel / 10MHz / 16QAM

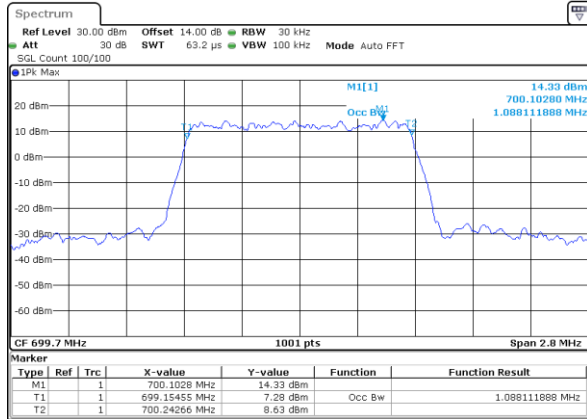


Date: 17.AUG.2020 09:44:17

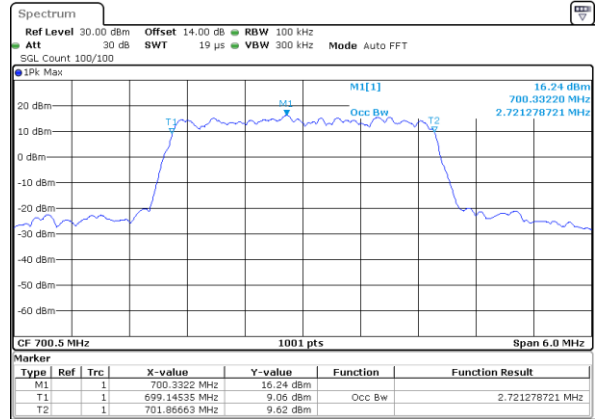


LTE Band 12

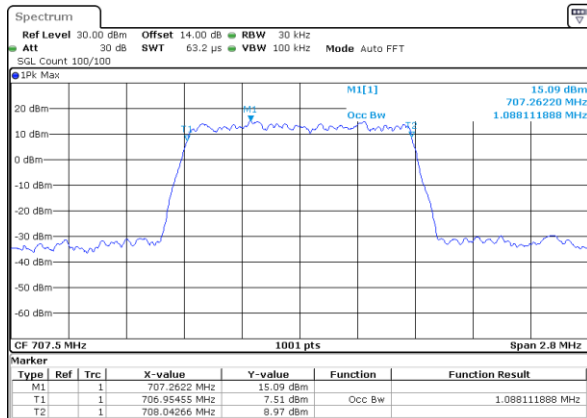
Lowest Channel / 1.4MHz / 64QAM



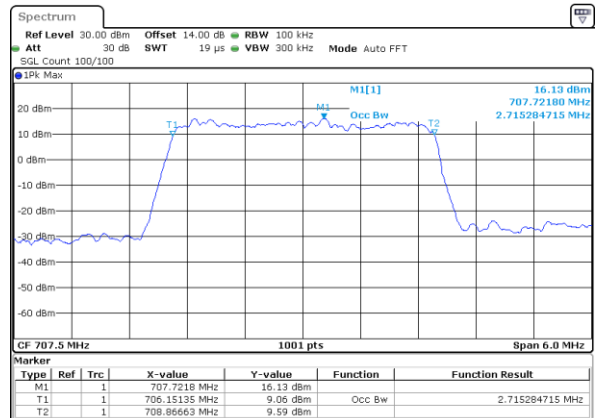
Lowest Channel / 3MHz / 64QAM



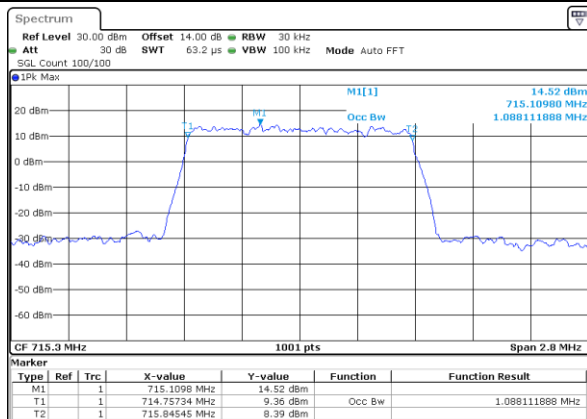
Middle Channel / 1.4MHz / 64QAM



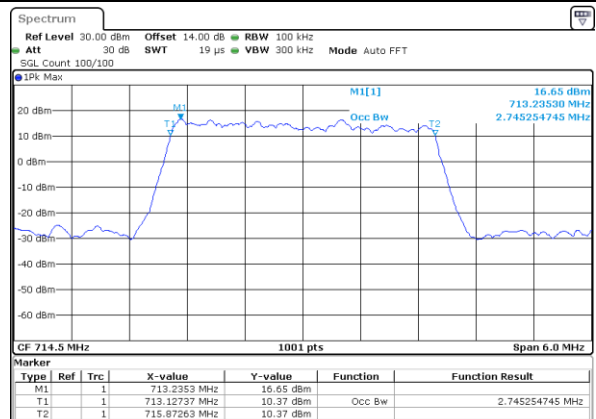
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



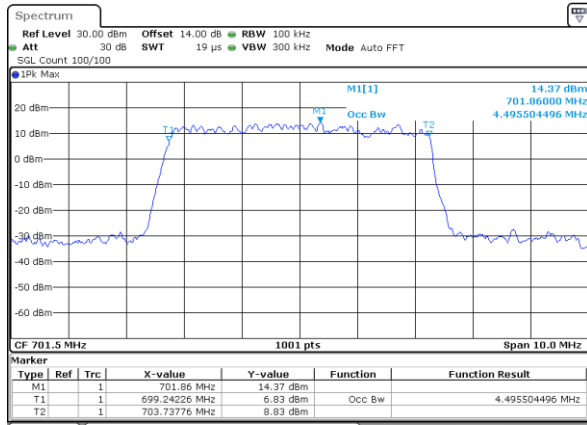
Highest Channel / 3MHz / 64QAM



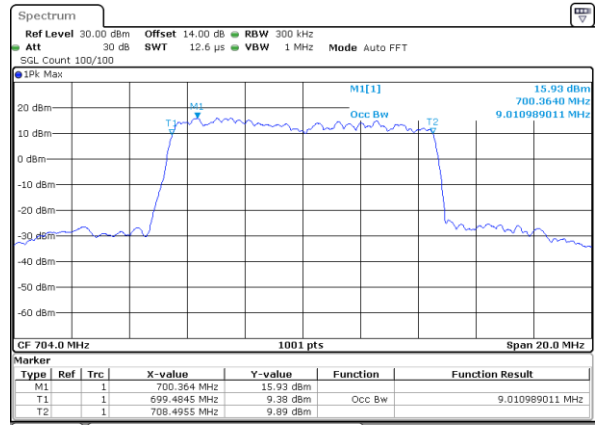


LTE Band 12

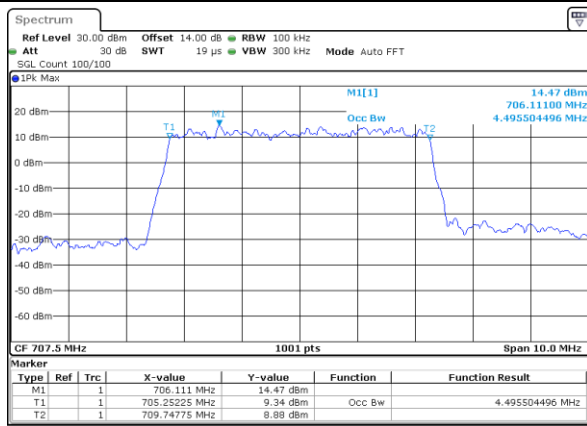
Lowest Channel / 5MHz / 64QAM



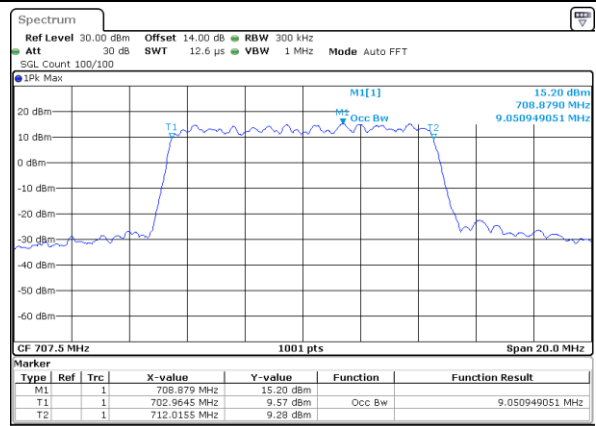
Lowest Channel / 10MHz / 64QAM



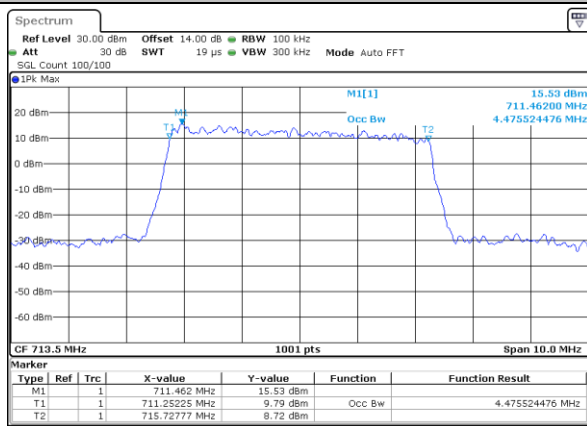
Middle Channel / 5MHz / 64QAM



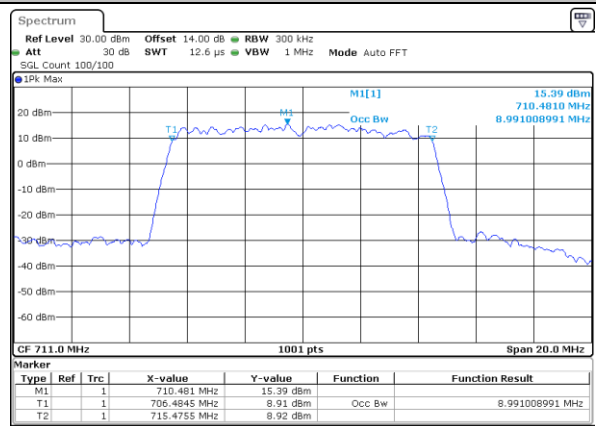
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM





Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



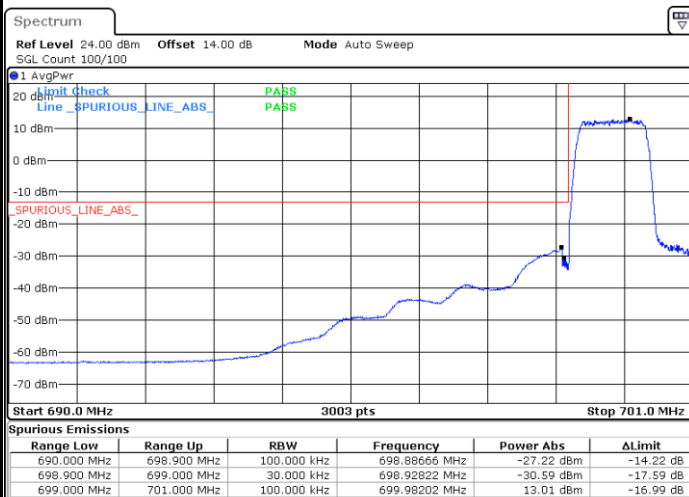
Date: 17.AUG.2020 09:56:11

Highest Band Edge / 1RB



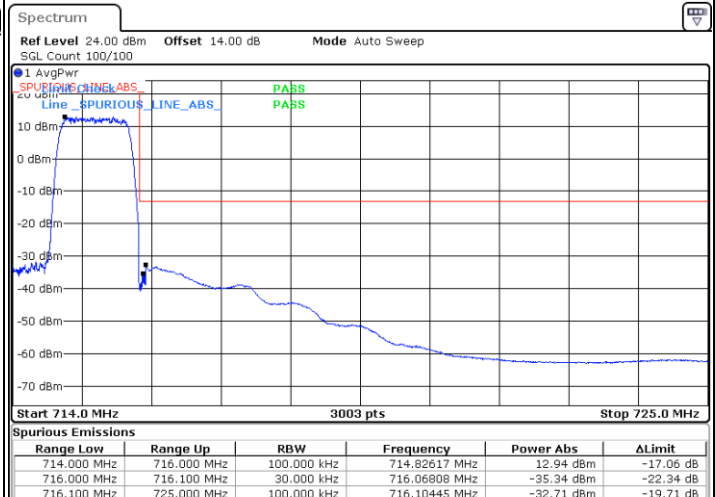
Date: 17.AUG.2020 10:03:31

Lowest Band Edge / Full RB



Date: 17.AUG.2020 09:53:45

Highest Band Edge / Full RB



Date: 17.AUG.2020 10:01:15