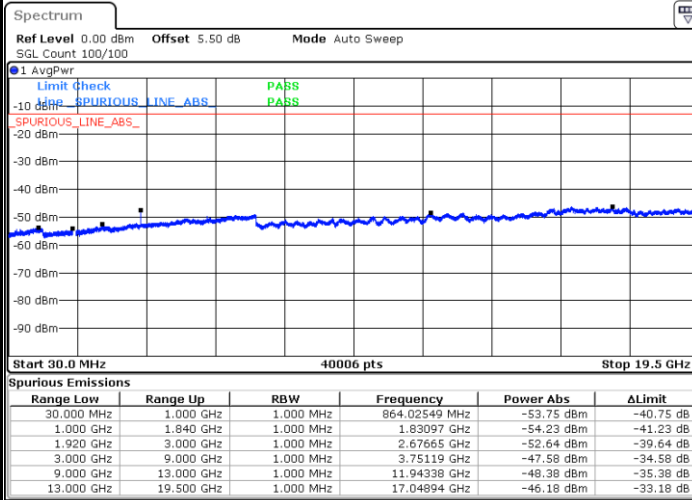




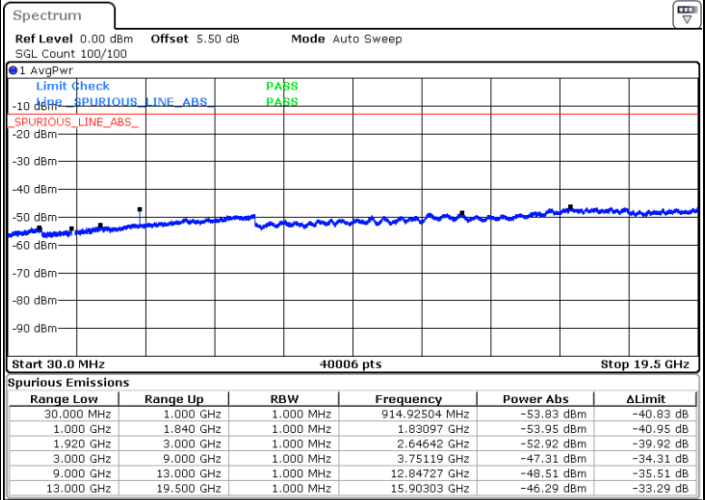
LTE Band 2 / 10MHz

Middle Channel / QPSK



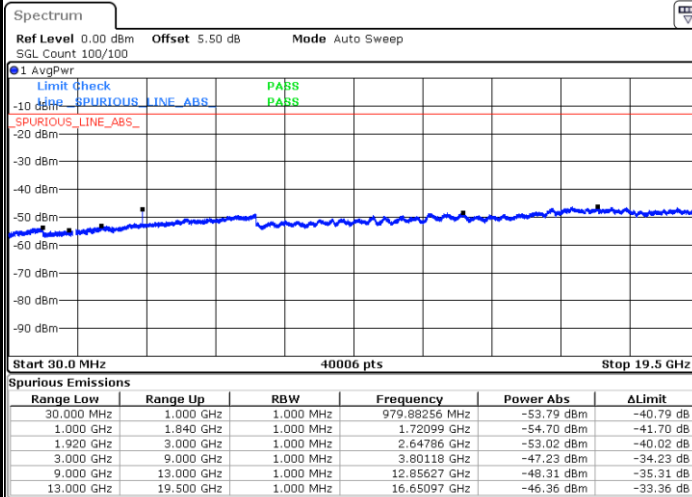
Date: 16 FEB 2020 02:32:04

Middle Channel / 16QAM



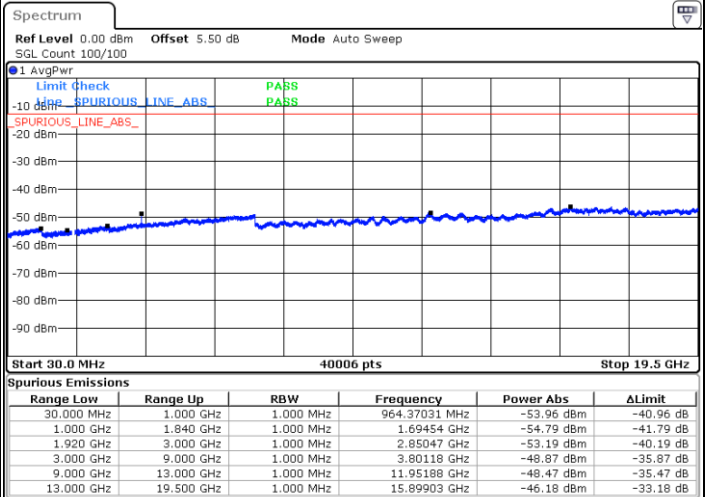
Date: 16 FEB 2020 02:32:58

Highest Channel / QPSK



Date: 16 FEB 2020 02:39:03

Highest Channel / 16QAM

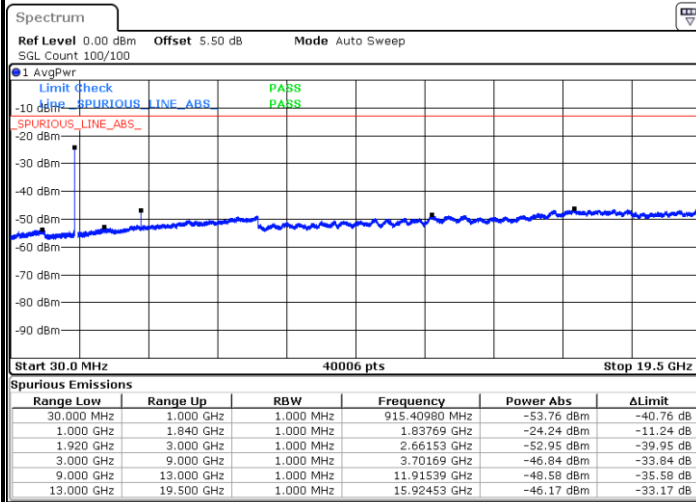


Date: 16 FEB 2020 02:39:57



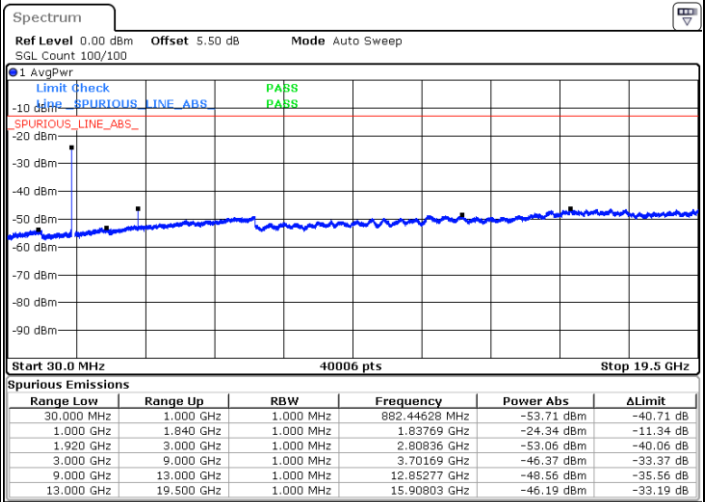
LTE Band 2 / 15MHz

Lowest Channel / QPSK



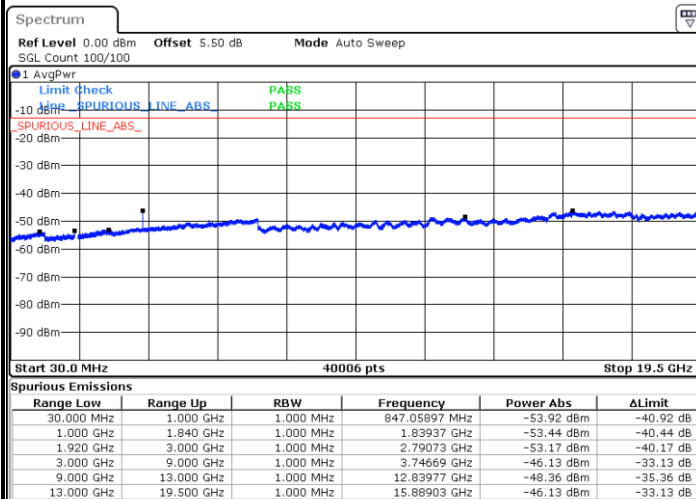
Date: 16 FEB 2020 02:46:02

Lowest Channel / 16QAM



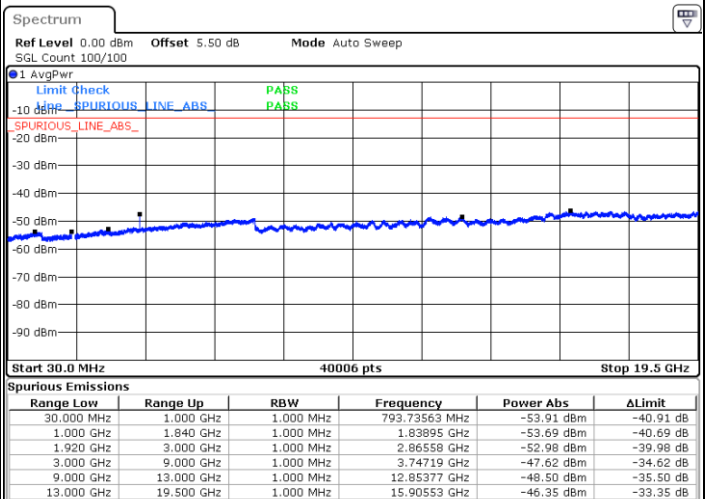
Date: 16 FEB 2020 02:46:57

Middle Channel / QPSK



Date: 16 FEB 2020 02:48:32

Middle Channel / 16QAM

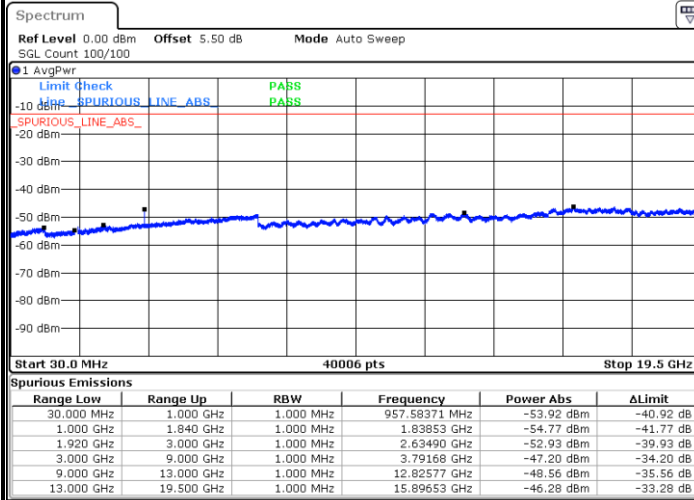


Date: 16 FEB 2020 02:49:26



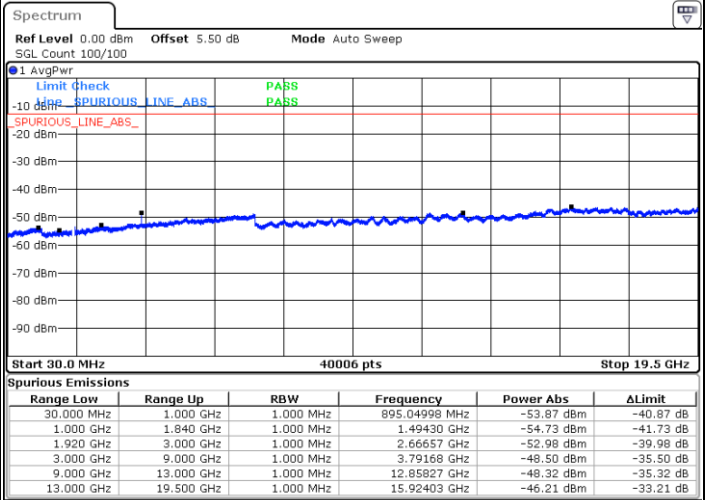
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 16 FEB 2020 02:55:30

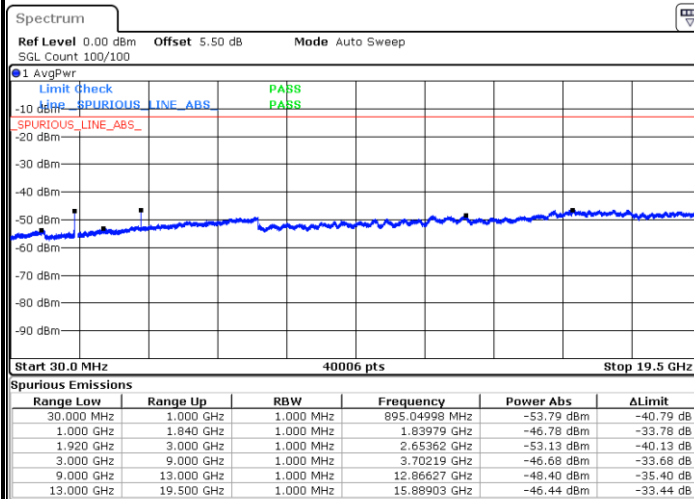
Highest Channel / 16QAM



Date: 16 FEB 2020 02:56:25

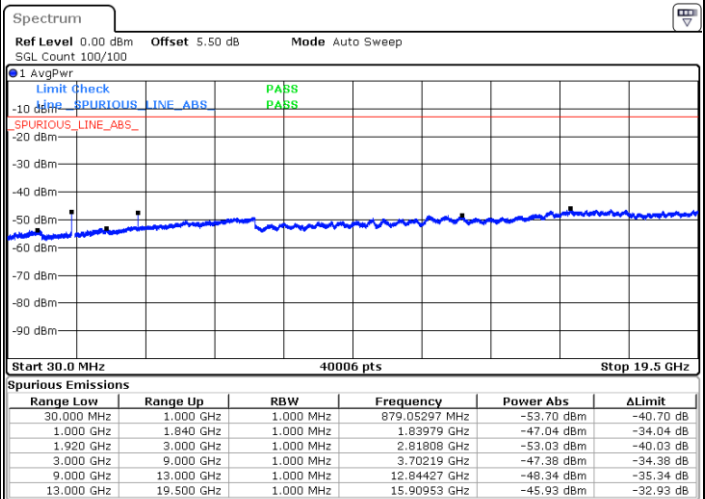
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 16 FEB 2020 03:02:30

Lowest Channel / 16QAM

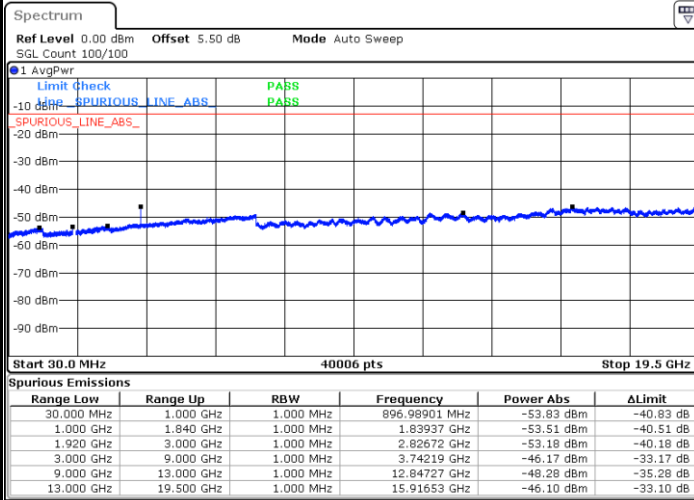


Date: 16 FEB 2020 03:03:24



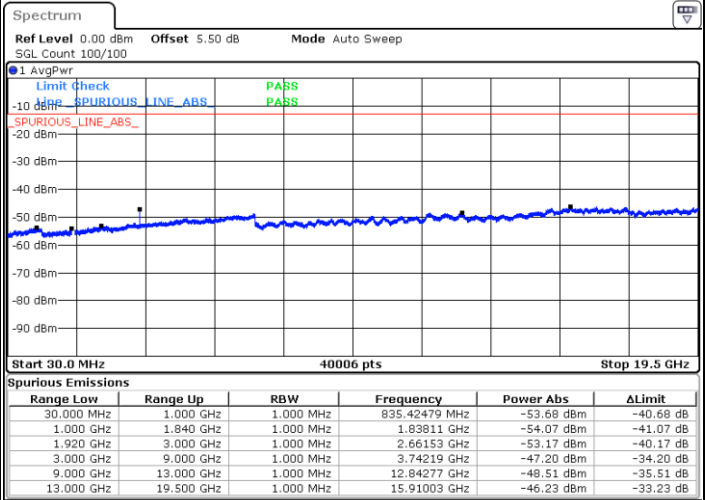
LTE Band 2 / 20MHz

Middle Channel / QPSK



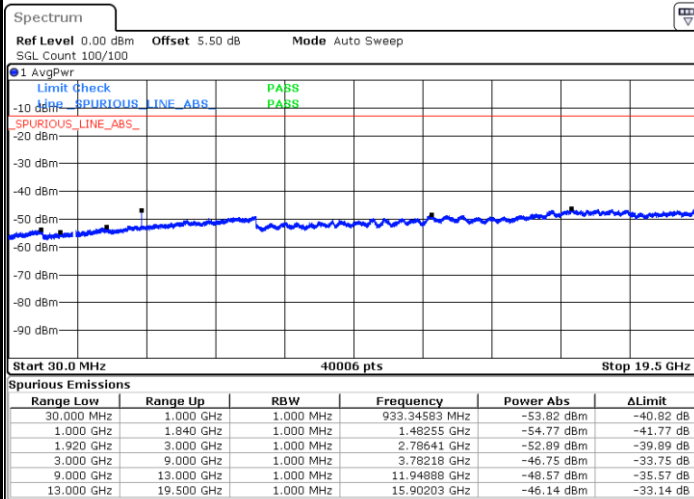
Date: 16 FEB 2020 03:04:59

Middle Channel / 16QAM



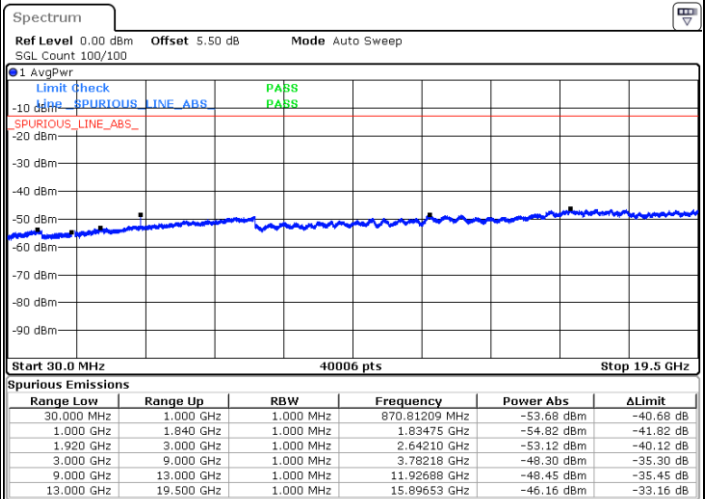
Date: 16 FEB 2020 03:05:53

Highest Channel / QPSK



Date: 16 FEB 2020 03:11:58

Highest Channel / 16QAM

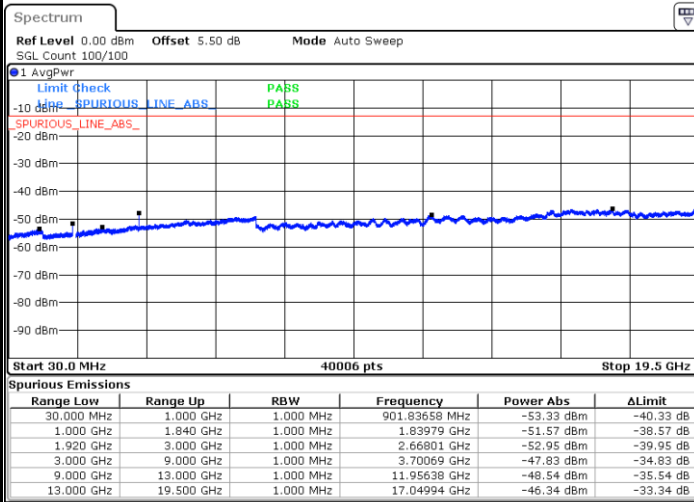


Date: 16 FEB 2020 03:12:53



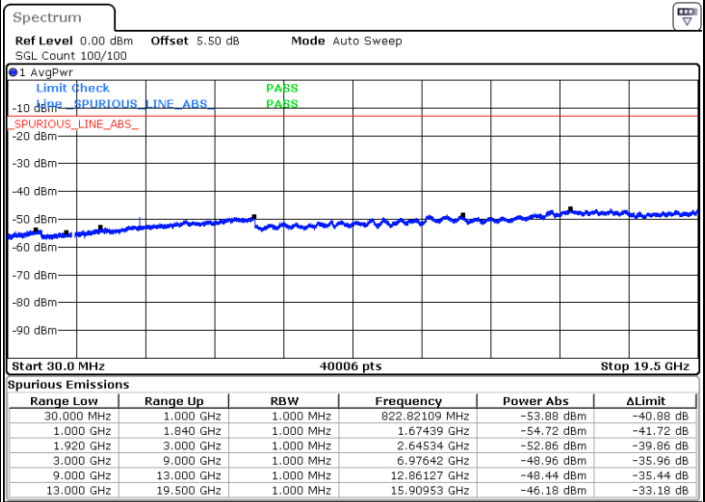
LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM



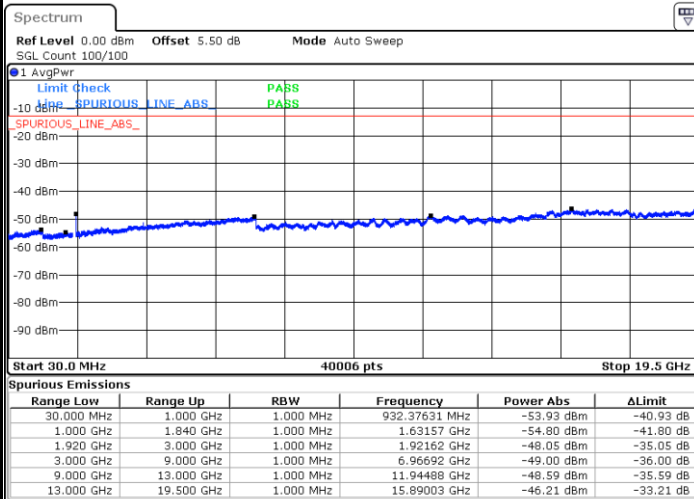
Date: 16 FEB 2020 03:46:48

Middle Channel / 64QAM



Date: 16 FEB 2020 03:47:43

Highest Channel / 64QAM

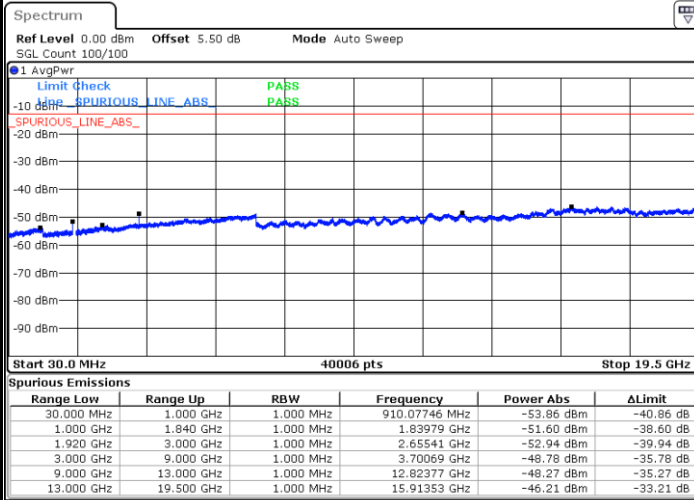


Date: 16 FEB 2020 03:48:37



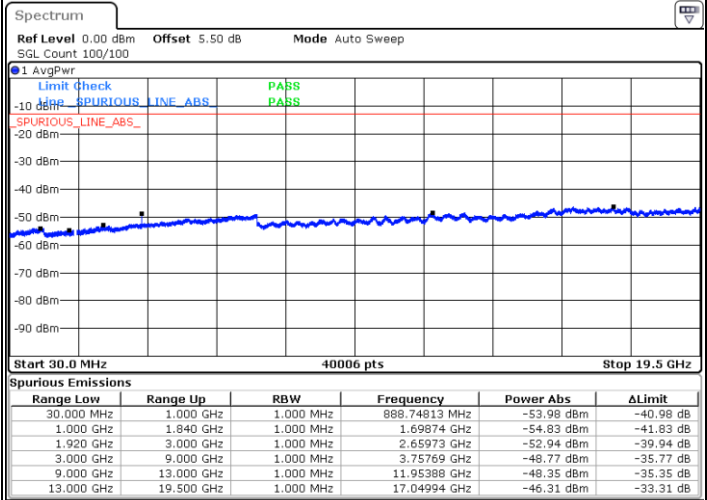
LTE Band 2 / 3MHz

Lowest Channel / 64QAM



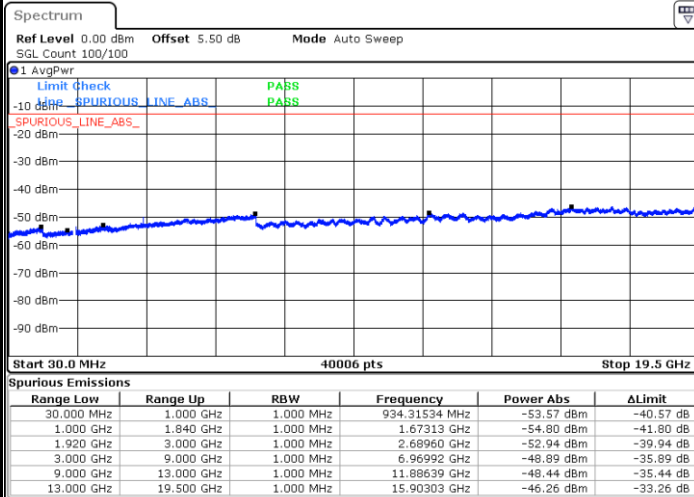
Date: 16.FEB.2020 03:49:32

Middle Channel / 64QAM



Date: 16.FEB.2020 03:50:26

Highest Channel / 64QAM

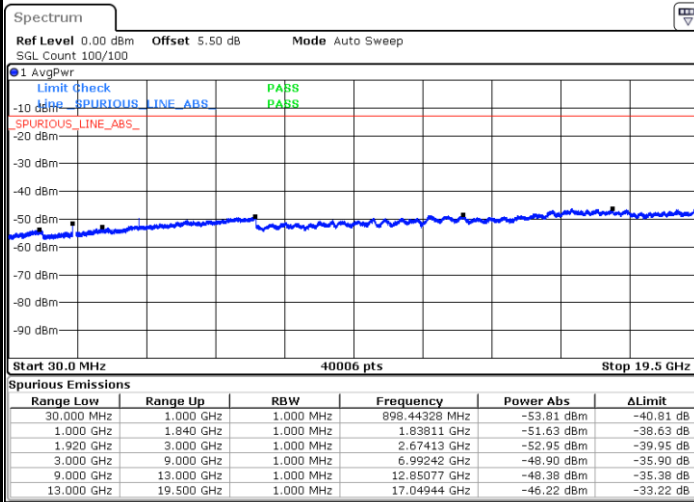


Date: 16.FEB.2020 03:51:21



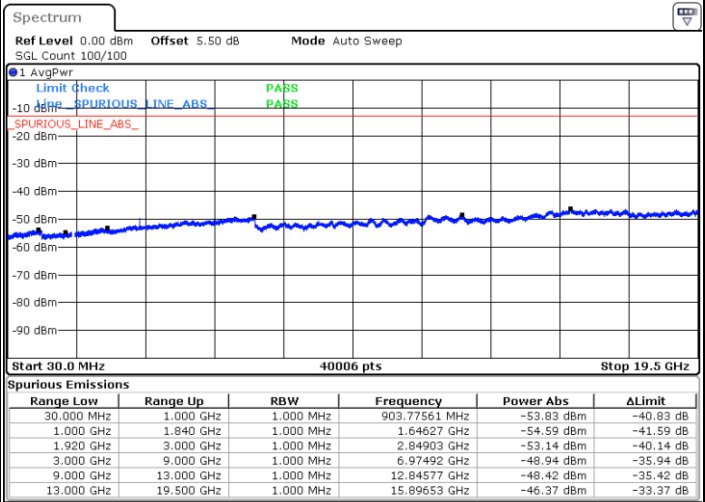
LTE Band 2 / 5MHz

Lowest Channel / 64QAM



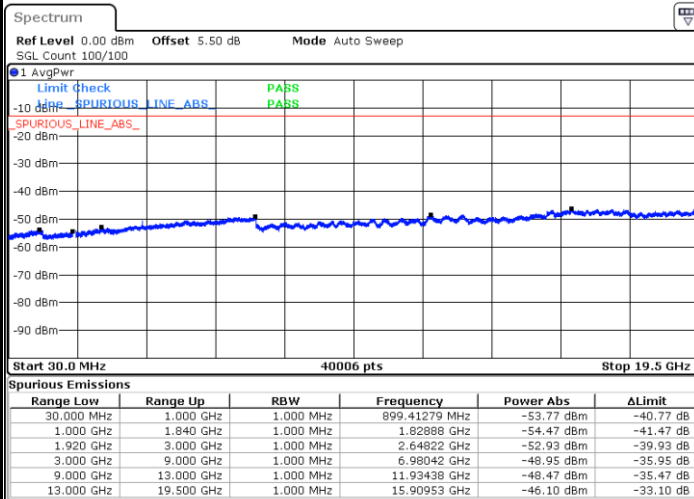
Date: 16.FEB.2020 03:52:16

Middle Channel / 64QAM



Date: 16.FEB.2020 03:53:10

Highest Channel / 64QAM

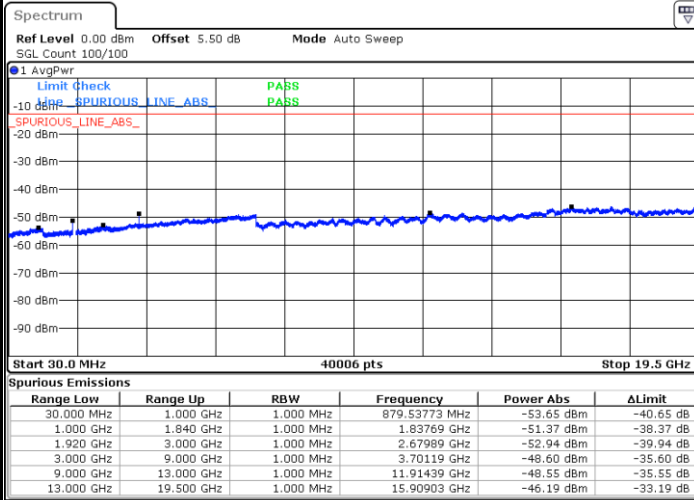


Date: 16.FEB.2020 03:54:05



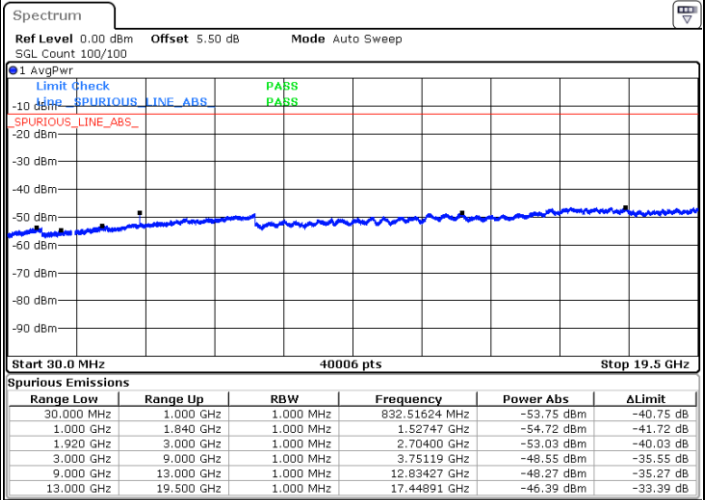
LTE Band 2 / 10MHz

Lowest Channel / 64QAM



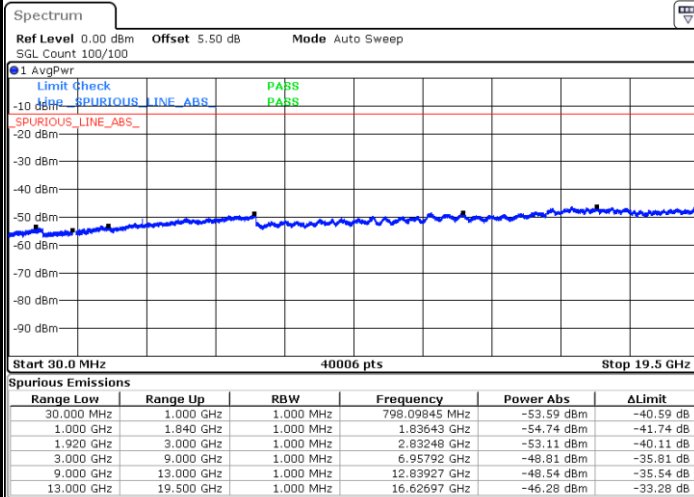
Date: 16 FEB 2020 03:54:59

Middle Channel / 64QAM



Date: 16 FEB 2020 03:55:54

Highest Channel / 64QAM

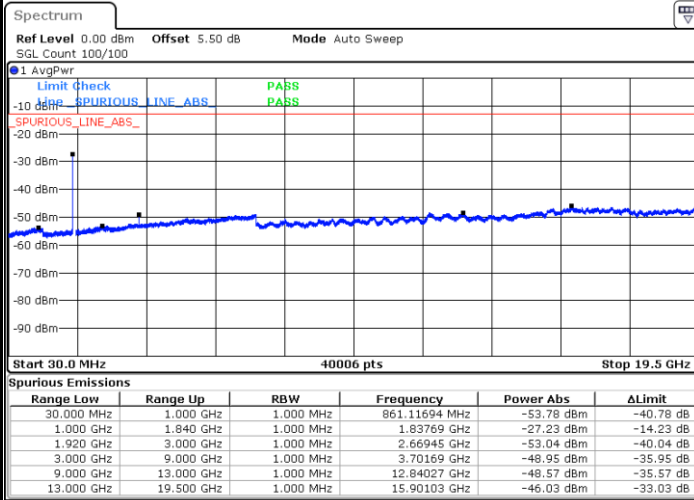


Date: 16 FEB 2020 03:56:49



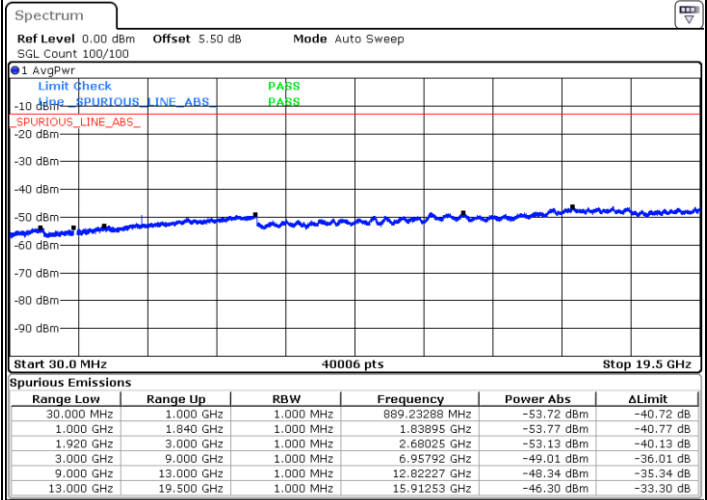
LTE Band 2 / 15MHz

Lowest Channel / 64QAM



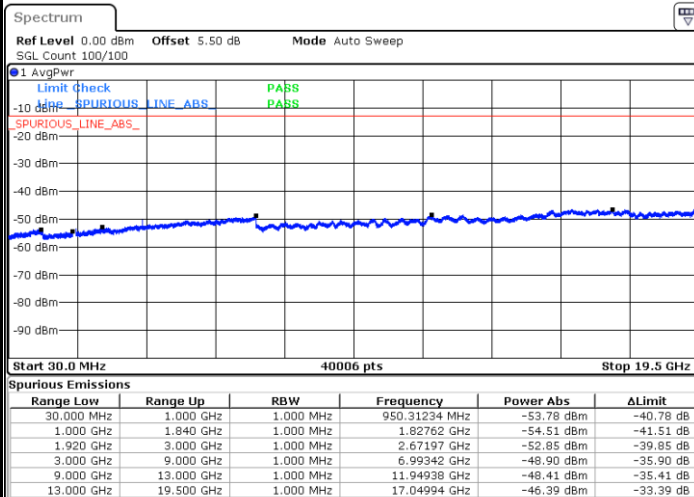
Date: 16 FEB 2020 03:57:43

Middle Channel / 64QAM



Date: 16 FEB 2020 03:58:38

Highest Channel / 64QAM

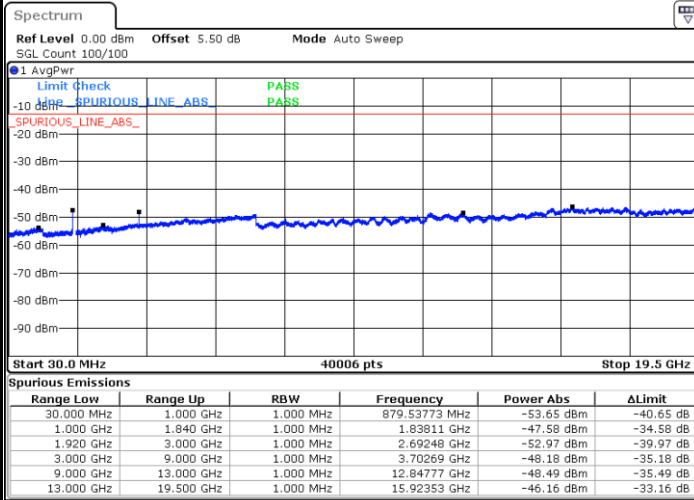


Date: 16 FEB 2020 03:59:33



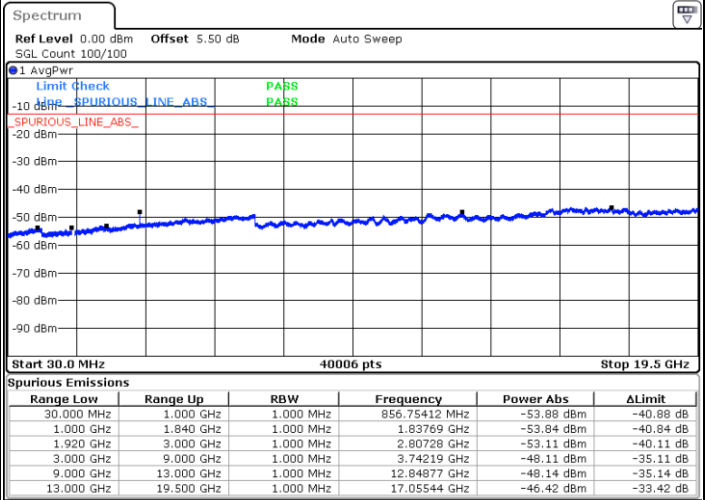
LTE Band 2 / 20MHz

Lowest Channel / 64QAM



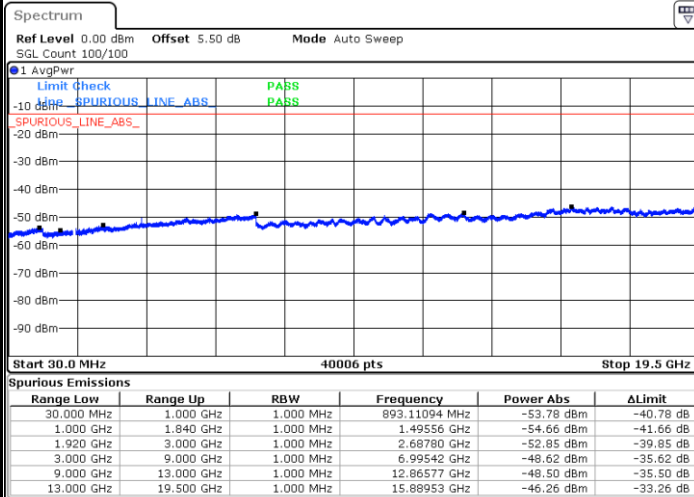
Date: 16.FEB.2020 04:00:27

Middle Channel / 64QAM



Date: 16.FEB.2020 04:01:22

Highest Channel / 64QAM



Date: 16.FEB.2020 04:02:16

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0062	
20	Normal Voltage	0.0047	
20	Battery End Point	0.0018	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

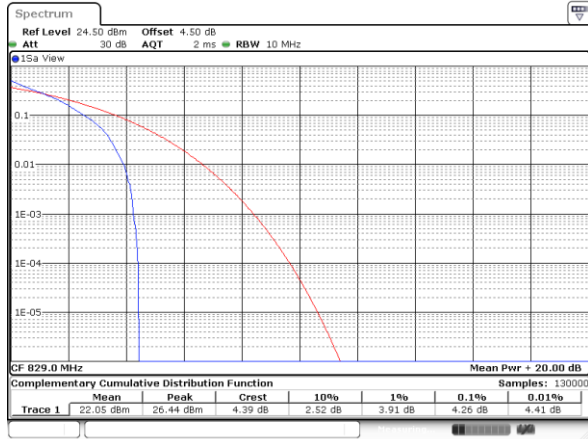
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.26	5.25	5.42	6.09	PASS
Middle CH	4.75	5.39	5.83	6.29	
Highest CH	4.64	4.93	5.54	5.97	
Mod.	64QAM		Limit: 13dB		PASS
RB Size	1RB	Full RB	Result		
Lowest CH	5.13	6.12	PASS		
Middle CH	5.80	6.12			
Highest CH	5.25	6.00			

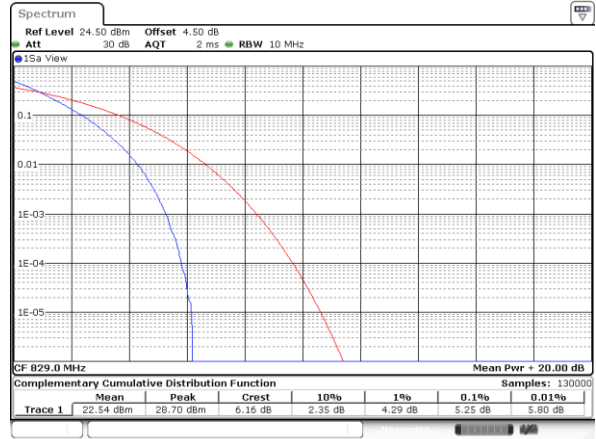


LTE Band 5 / 10MHz / QPSK

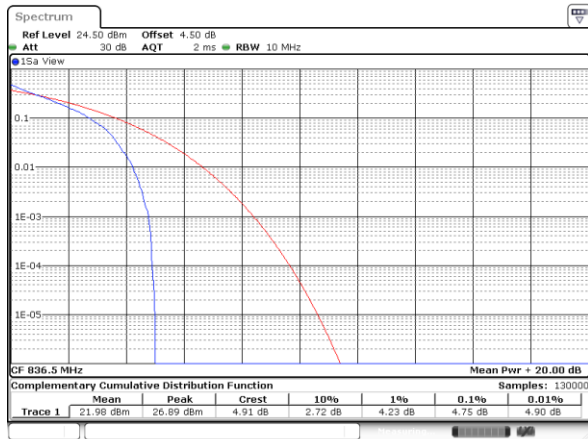
Lowest Channel / 1RB



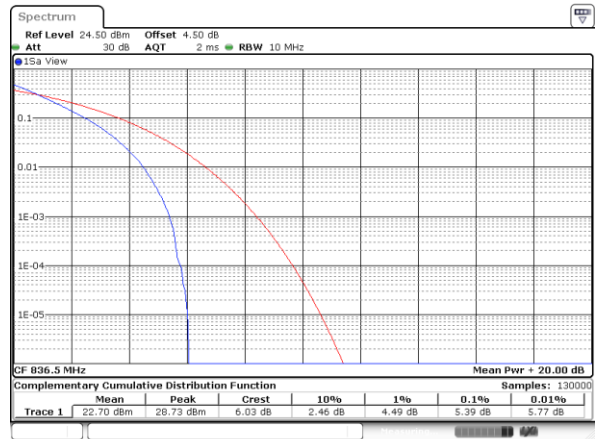
Lowest Channel / Full RB



Middle Channel / 1RB



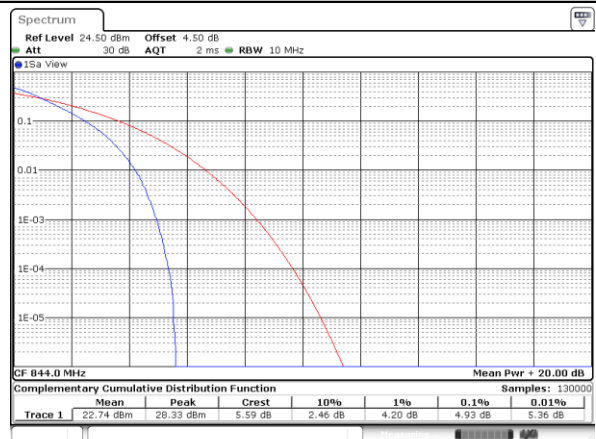
Middle Channel / Full RB



Highest Channel / 1RB



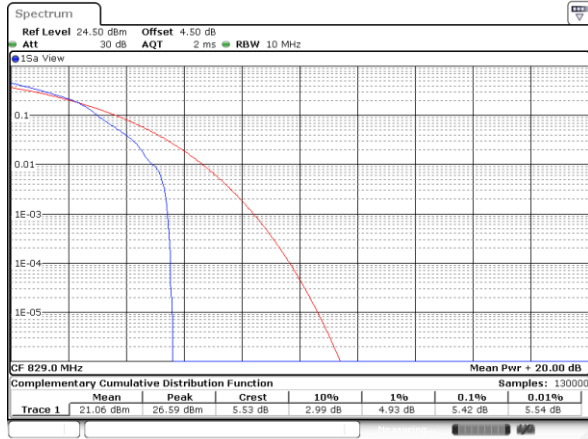
Highest Channel / Full RB



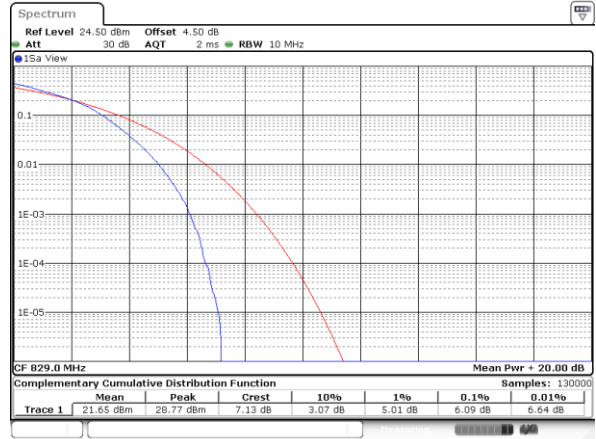


LTE Band 5 / 10MHz / 16QAM

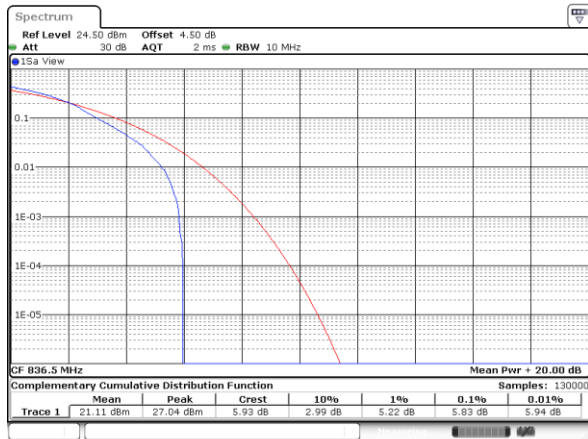
Lowest Channel / 1RB



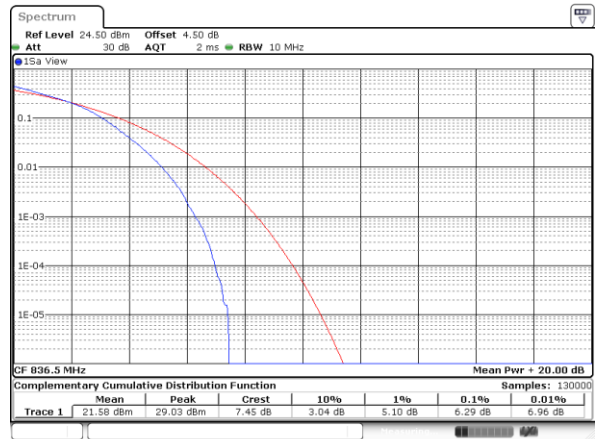
Lowest Channel / Full RB



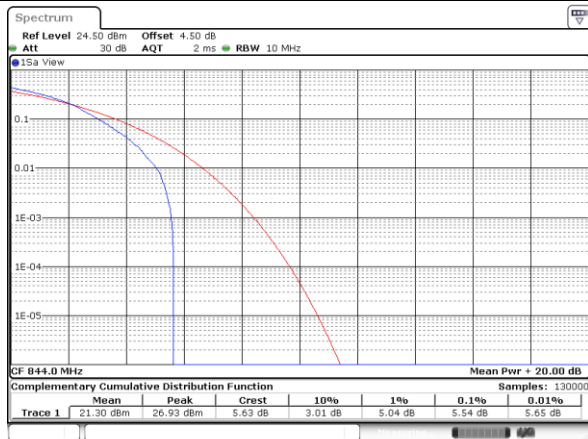
Middle Channel / 1RB



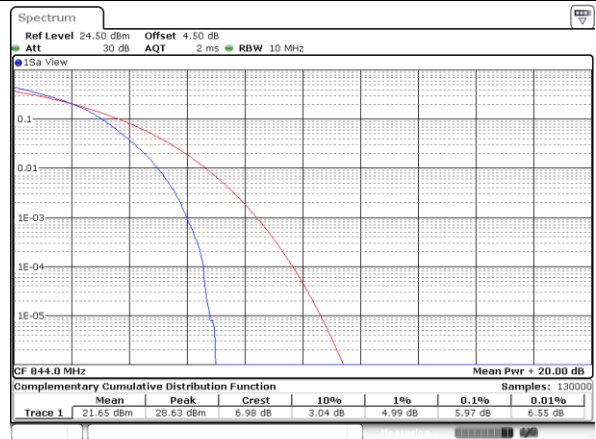
Middle Channel / Full RB



Highest Channel / 1RB



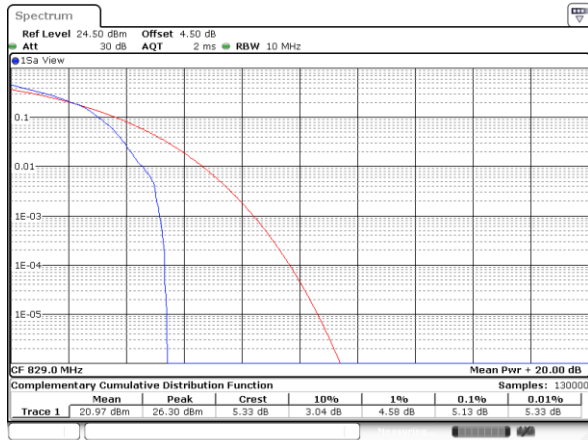
Highest Channel / Full RB



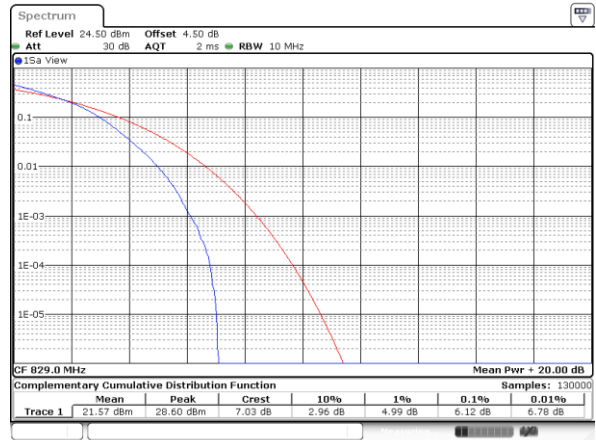


LTE Band 5 / 10MHz / 64QAM

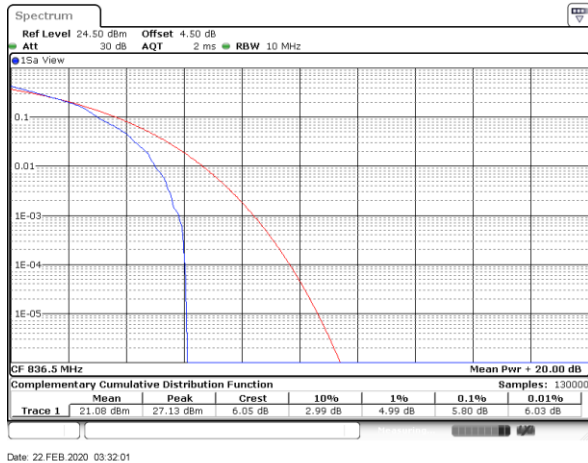
Lowest Channel / 1RB



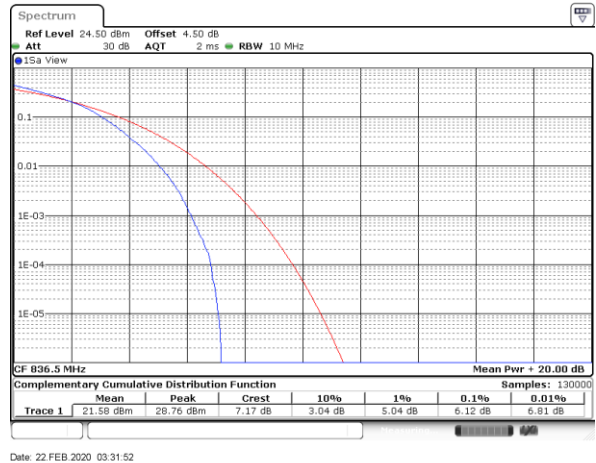
Lowest Channel / Full RB



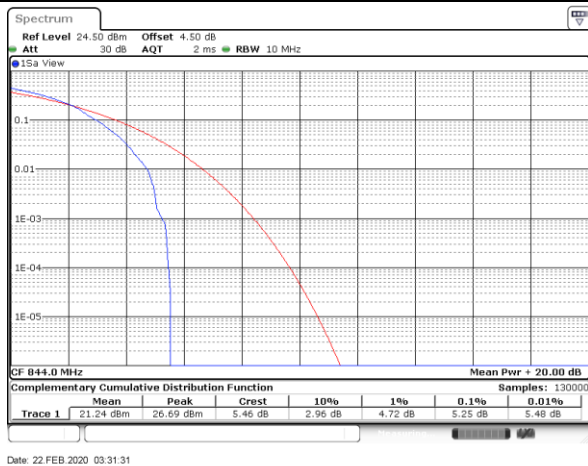
Middle Channel / 1RB



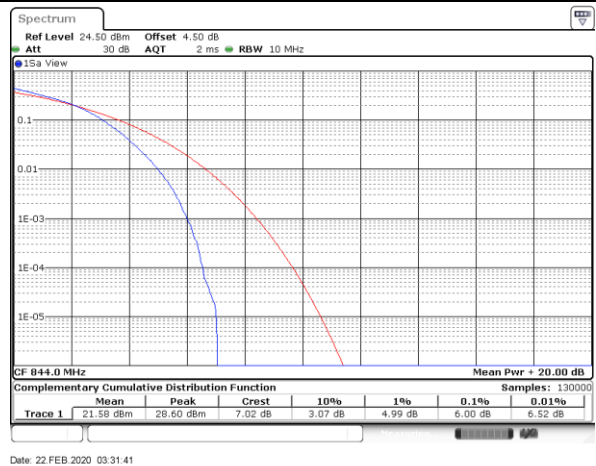
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



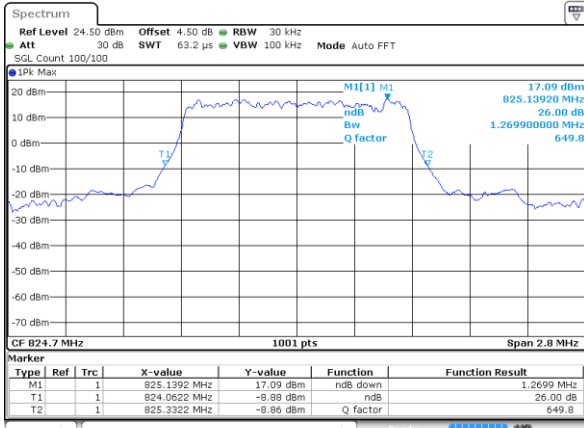
**26dB Bandwidth**

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.2699	1.2811	2.9491	2.973	4.885	4.835	9.79	9.79	-	-	-	-
Middle CH	1.2587	1.2587	2.955	2.9431	4.885	4.825	9.73	9.65	-	-	-	-
Highest CH	1.2531	1.2895	2.979	2.9491	4.825	4.745	9.85	9.79	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.2476		2.9251		4.865		9.81		-	-	-	-
Middle CH	1.3007		2.9251		4.855		9.65		-	-	-	-
Highest CH	1.2839		2.9371		4.825		9.71		-	-	-	-



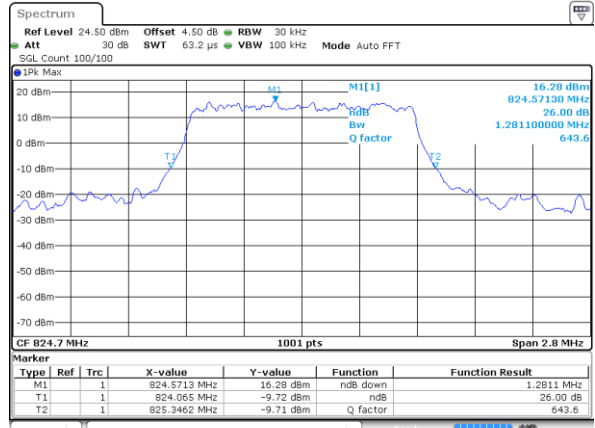
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



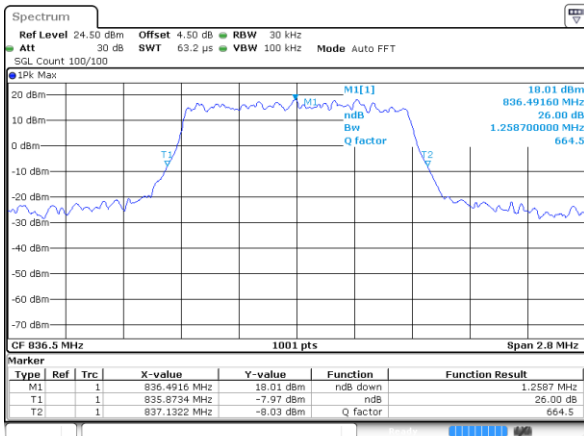
Date: 22 FEB 2020 00:54:47

Lowest Channel / 1.4MHz / 16QAM



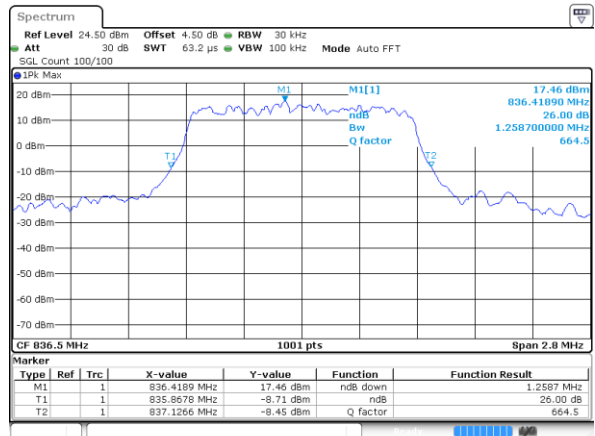
Date: 22 FEB 2020 00:54:37

Middle Channel / 1.4MHz / QPSK



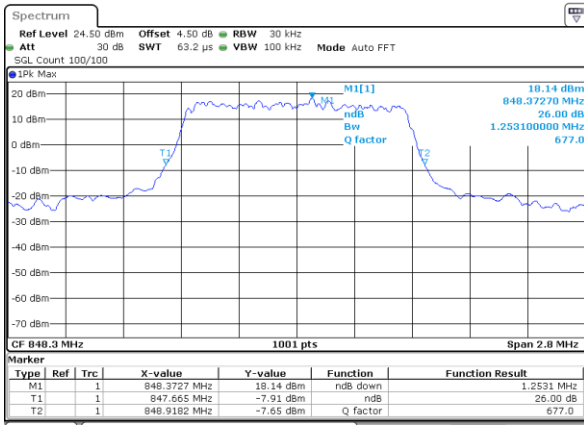
Date: 22 FEB 2020 01:03:36

Middle Channel / 1.4MHz / 16QAM



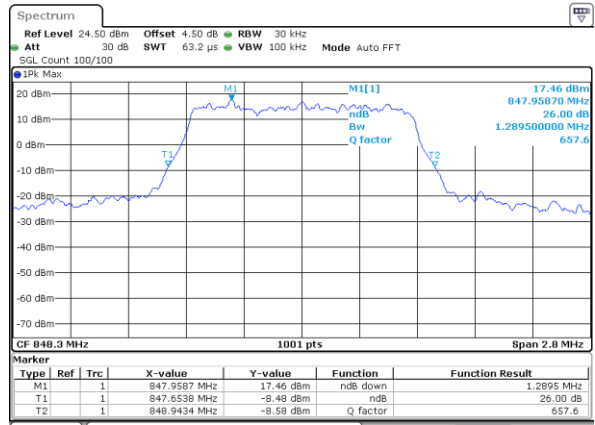
Date: 22 FEB 2020 01:03:46

Highest Channel / 1.4MHz / QPSK



Date: 22 FEB 2020 01:06:05

Highest Channel / 1.4MHz / 16QAM

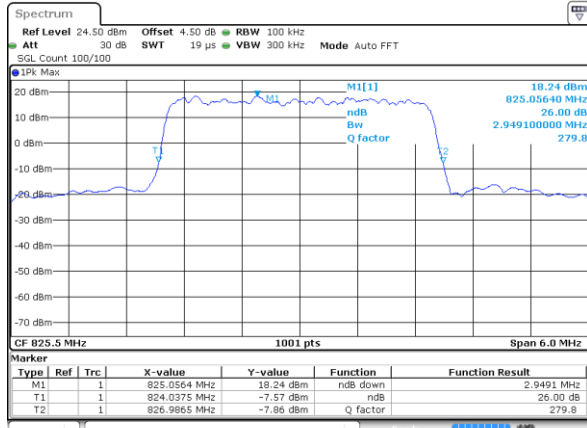


Date: 22 FEB 2020 01:06:15

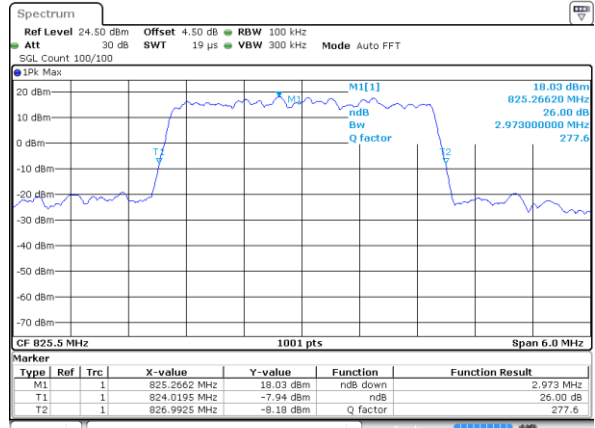


LTE Band 5

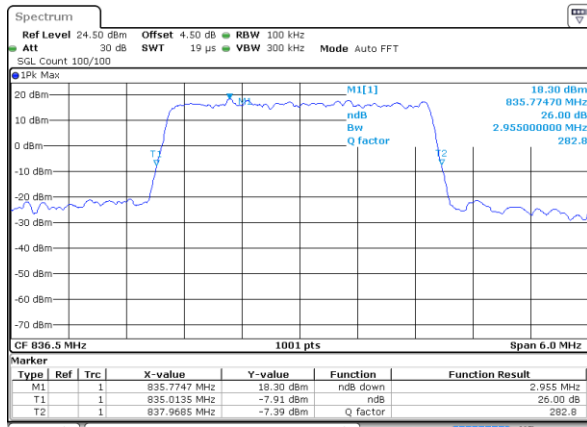
Lowest Channel / 3MHz / QPSK



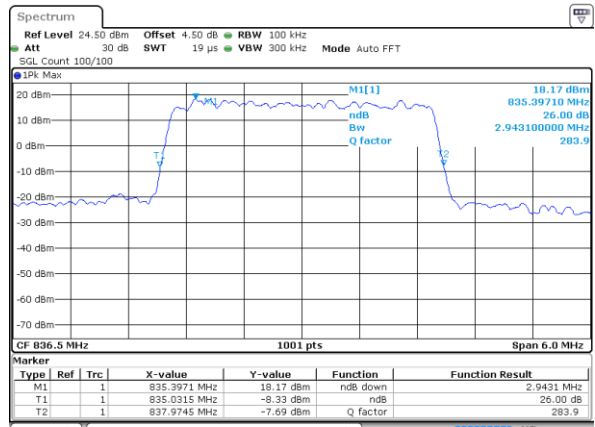
Lowest Channel / 3MHz / 16QAM



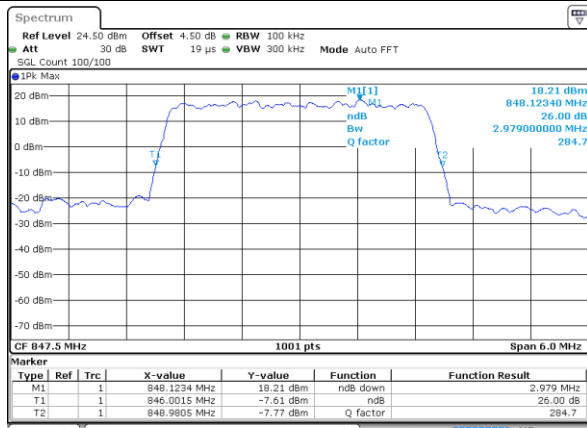
Middle Channel / 3MHz / QPSK



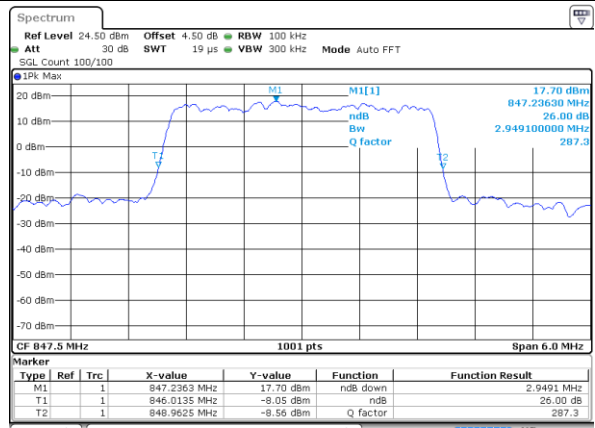
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



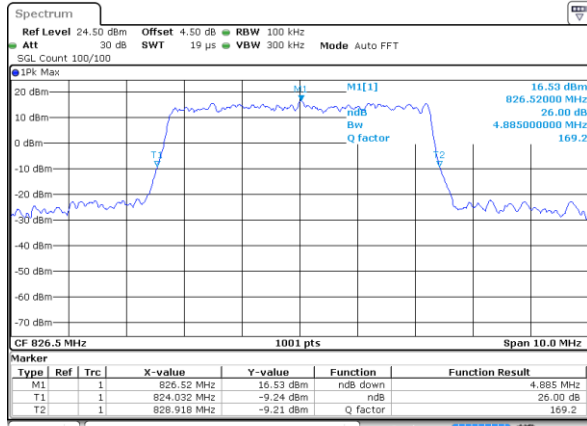
Highest Channel / 3MHz / 16QAM



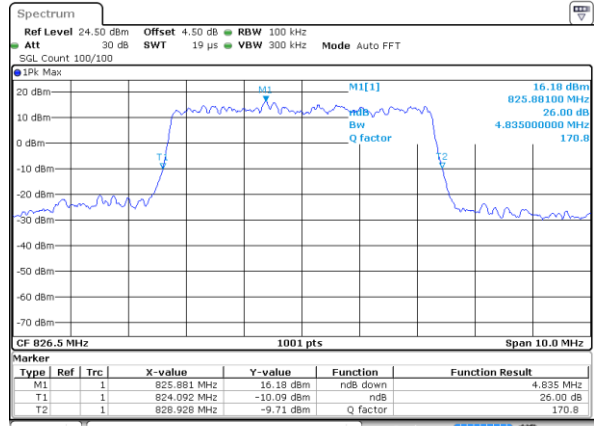


LTE Band 5

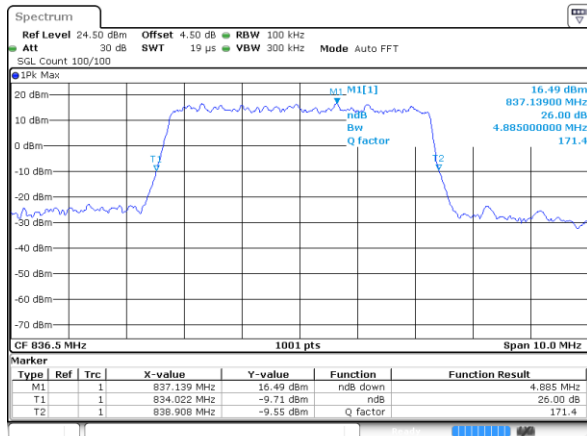
Lowest Channel / 5MHz / QPSK



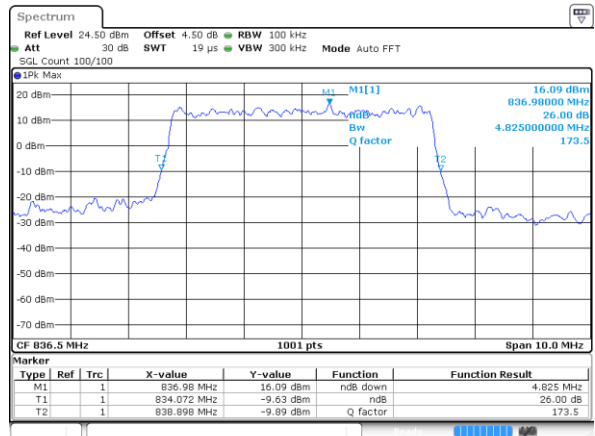
Lowest Channel / 5MHz / 16QAM



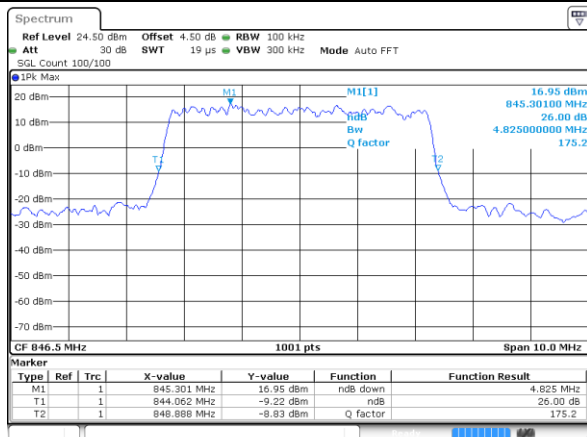
Middle Channel / 5MHz / QPSK



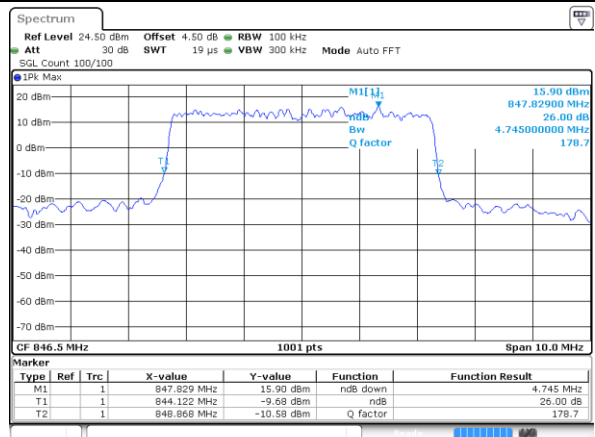
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



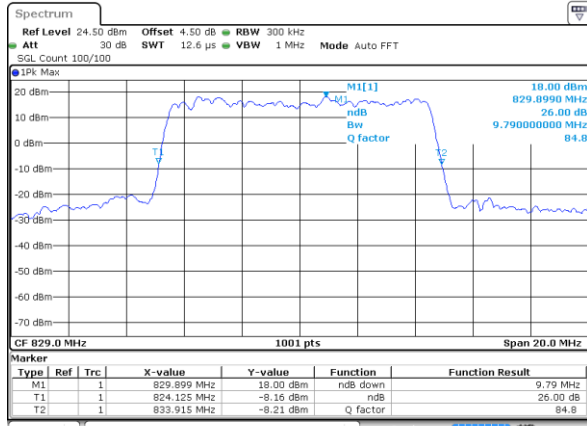
Highest Channel / 5MHz / 16QAM



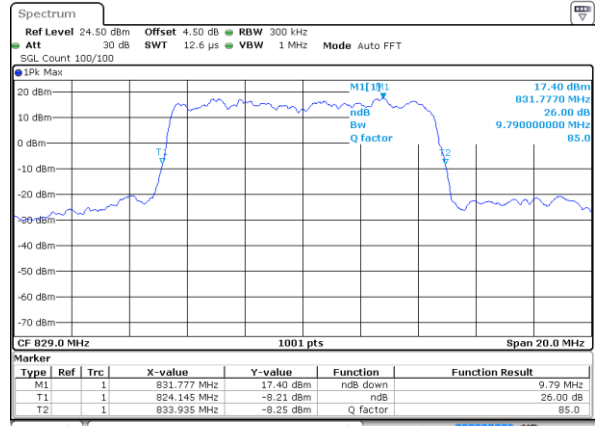


LTE Band 5

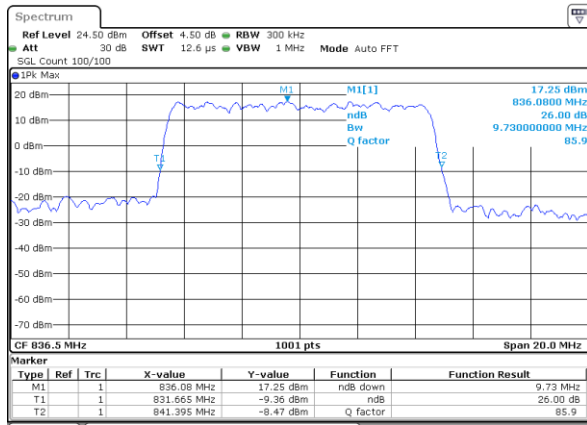
Lowest Channel / 10MHz / QPSK



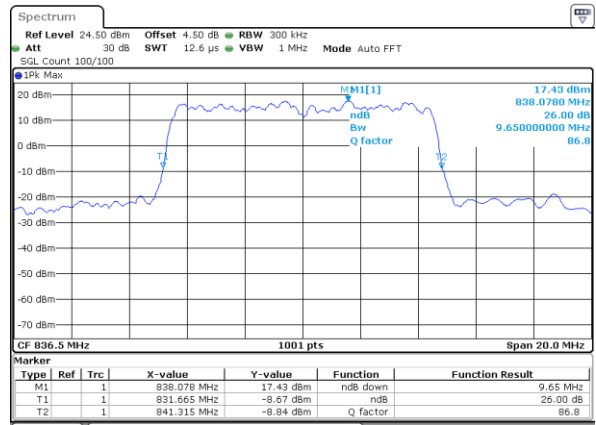
Lowest Channel / 10MHz / 16QAM



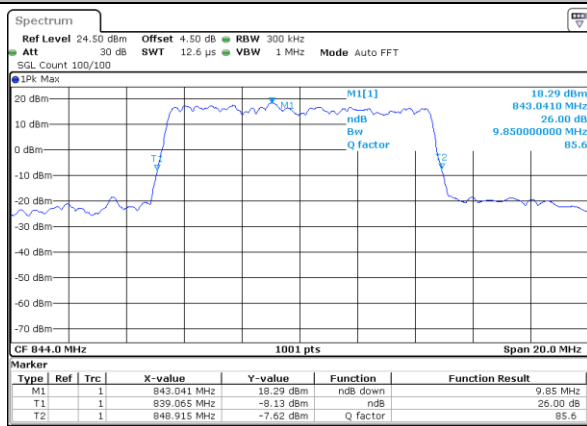
Middle Channel / 10MHz / QPSK



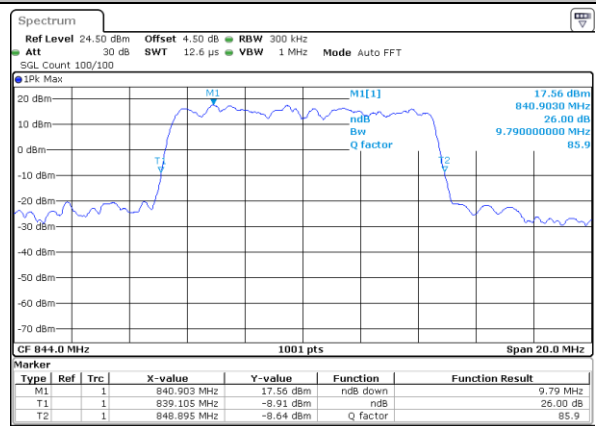
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



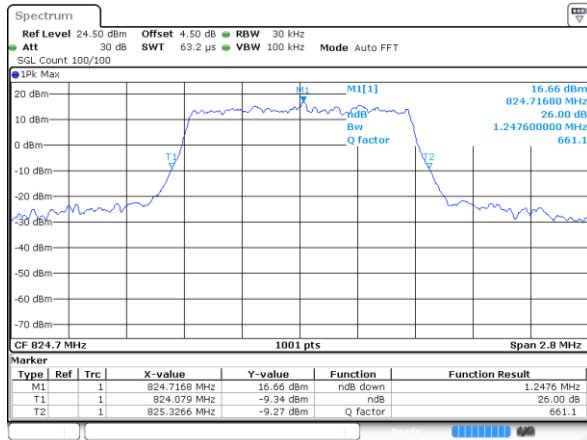
Highest Channel / 10MHz / 16QAM





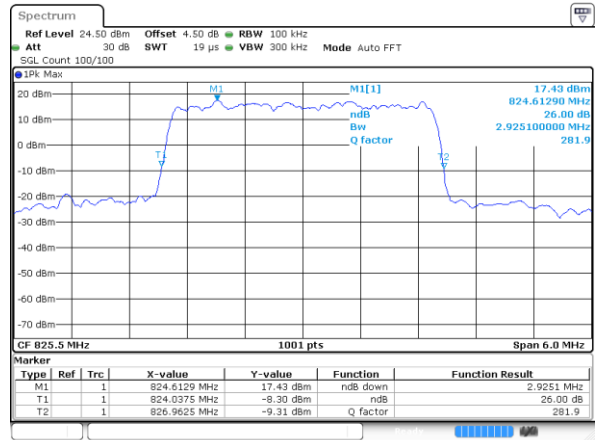
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



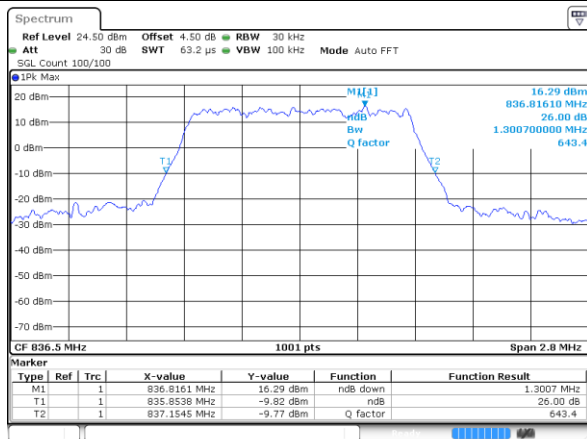
Date: 22 FEB 2020 03:36:26

Lowest Channel / 3MHz / 64QAM



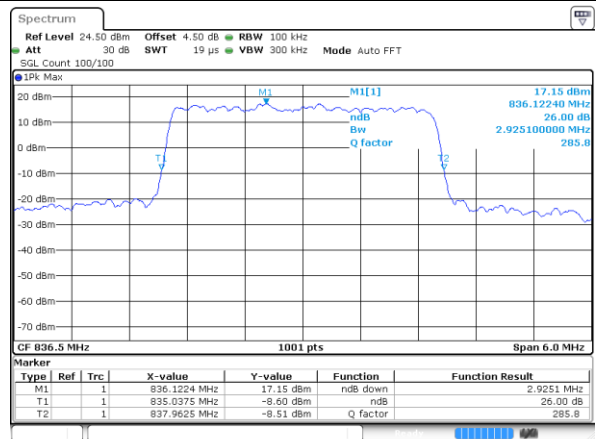
Date: 22 FEB 2020 03:00:54

Middle Channel / 1.4MHz / 64QAM



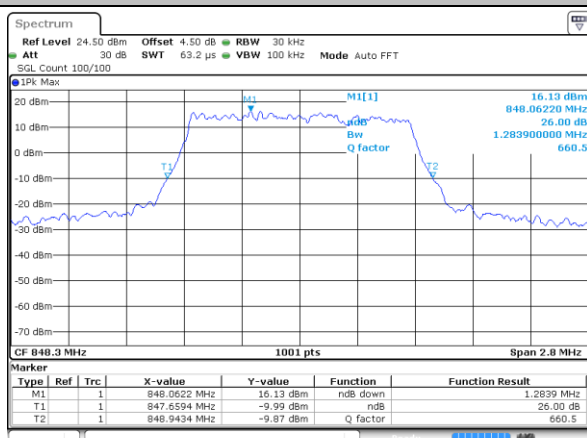
Date: 22 FEB 2020 02:56:05

Middle Channel / 3MHz / 64QAM



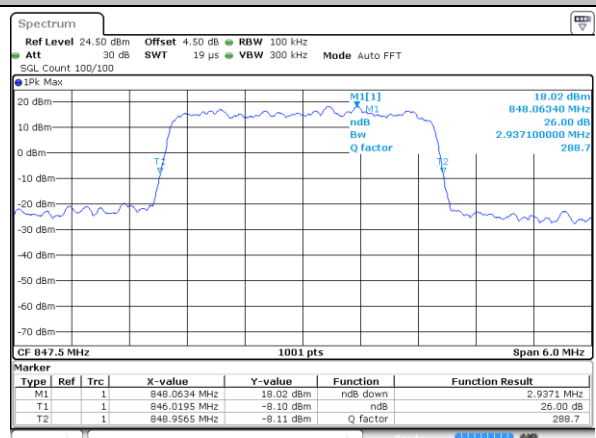
Date: 22 FEB 2020 03:00:18

Highest Channel / 1.4MHz / 64QAM



Date: 22 FEB 2020 02:56:25

Highest Channel / 3MHz / 64QAM

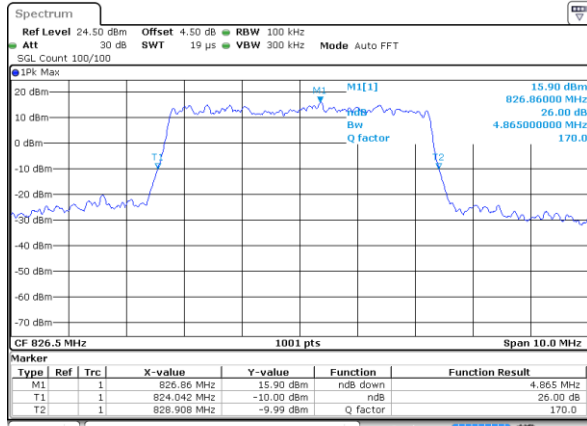


Date: 22 FEB 2020 03:06:38



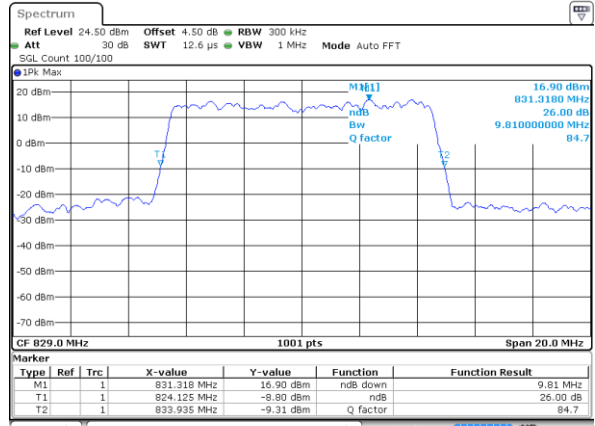
LTE Band 5

Lowest Channel / 5MHz / 64QAM



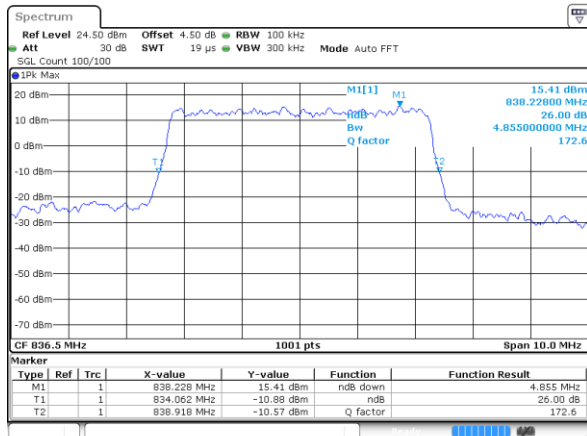
Date: 22 FEB 2020 03:11:07

Lowest Channel / 10MHz / 64QAM



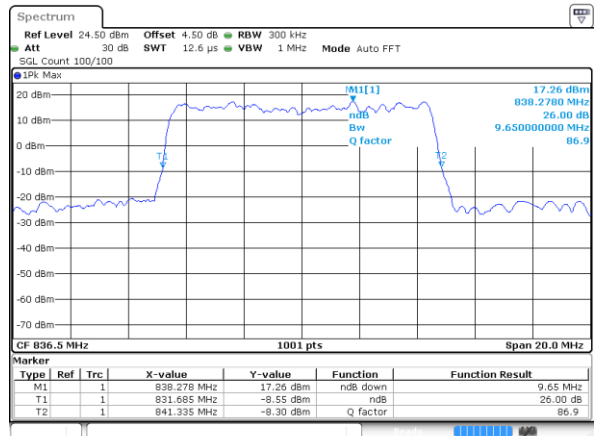
Date: 22 FEB 2020 03:21:20

Middle Channel / 5MHz / 64QAM



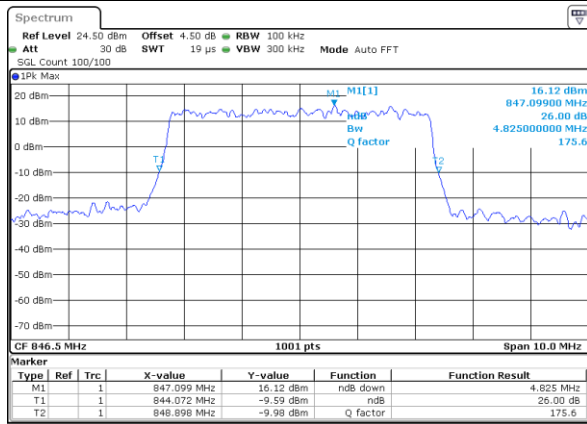
Date: 22 FEB 2020 03:16:31

Middle Channel / 10MHz / 64QAM



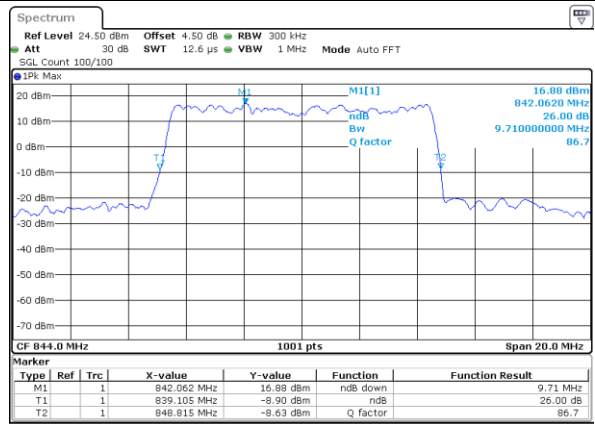
Date: 22 FEB 2020 03:26:43

Highest Channel / 5MHz / 64QAM



Date: 22 FEB 2020 03:16:51

Highest Channel / 10MHz / 64QAM



Date: 22 FEB 2020 03:27:04

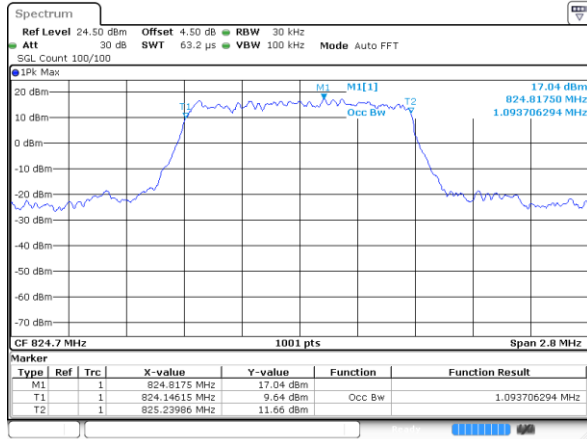
**Occupied Bandwidth**

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.70	4.48	4.50	8.99	8.95	-	-	-	-
Middle CH	1.09	1.09	2.72	2.72	4.48	4.50	9.05	9.01	-	-	-	-
Highest CH	1.10	1.10	2.71	2.72	4.47	4.49	9.05	8.99	-	-	-	-
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.09		2.70		4.49		9.05		-	-	-	-
Middle CH	1.08		2.72		4.49		9.03		-	-	-	-
Highest CH	1.09		2.71		4.49		9.01		-	-	-	-

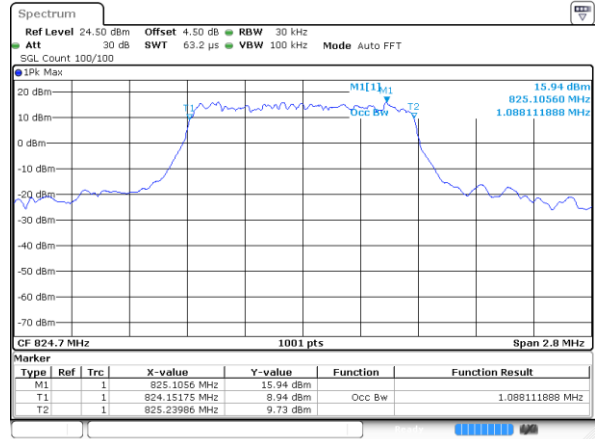


LTE Band 5

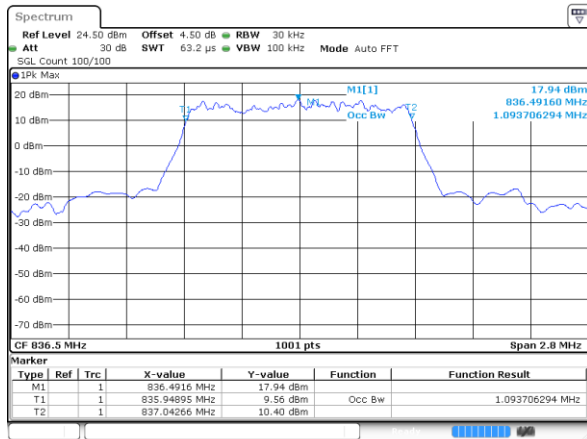
Lowest Channel / 1.4MHz / QPSK



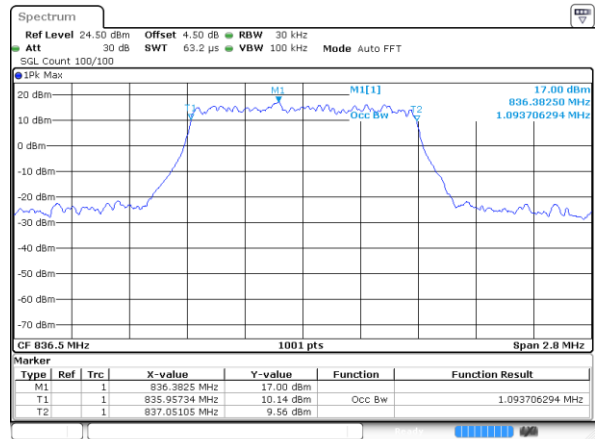
Lowest Channel / 1.4MHz / 16QAM



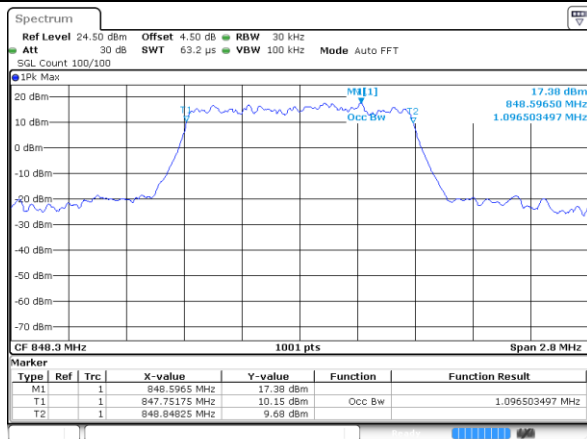
Middle Channel / 1.4MHz / QPSK



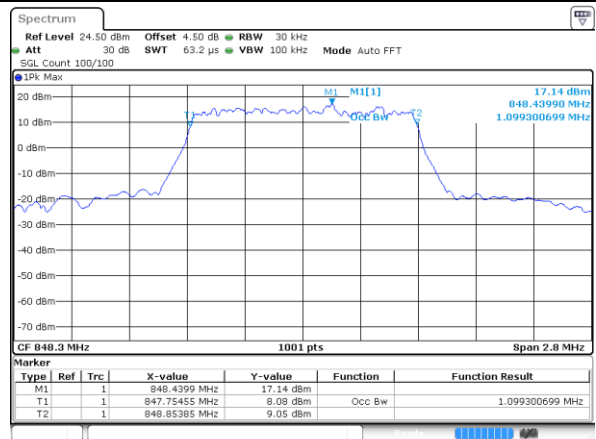
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



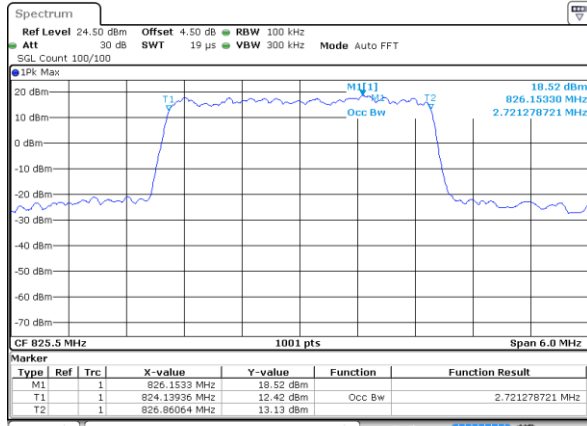
Highest Channel / 1.4MHz / 16QAM





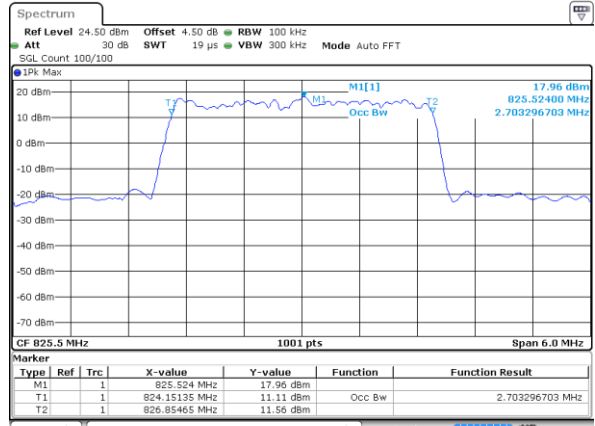
LTE Band 5

Lowest Channel / 3MHz / QPSK



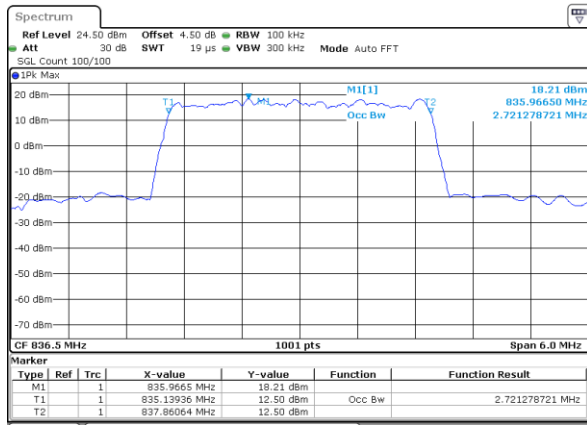
Date: 22 FEB 2020 01:14:43

Lowest Channel / 3MHz / 16QAM



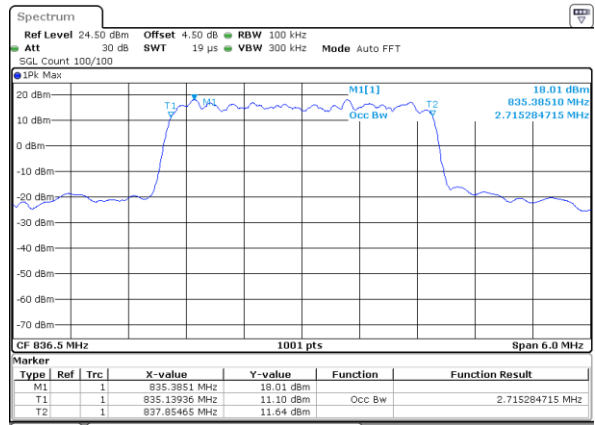
Date: 22 FEB 2020 01:14:53

Middle Channel / 3MHz / QPSK



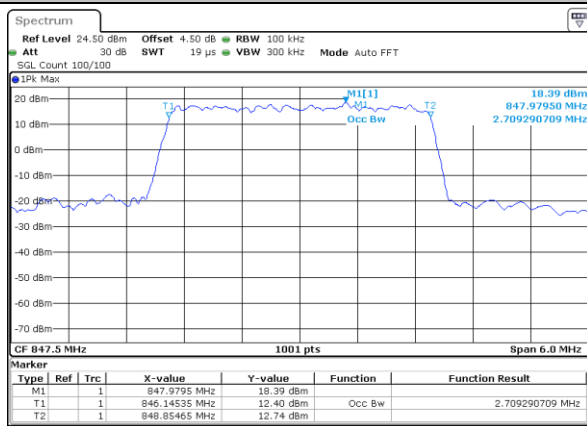
Date: 22 FEB 2020 01:23:42

Middle Channel / 3MHz / 16QAM



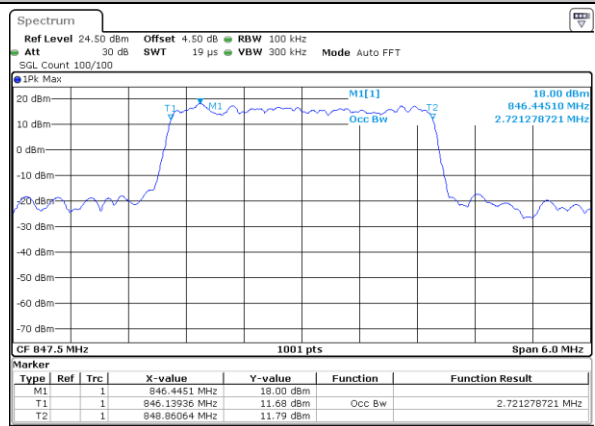
Date: 22 FEB 2020 01:23:52

Highest Channel / 3MHz / QPSK



Date: 22 FEB 2020 01:26:10

Highest Channel / 3MHz / 16QAM

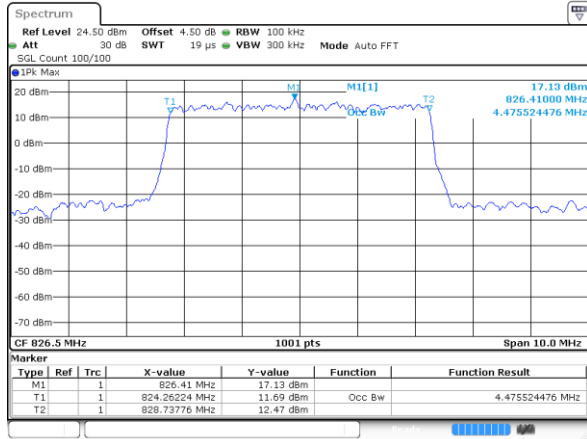


Date: 22 FEB 2020 01:26:20

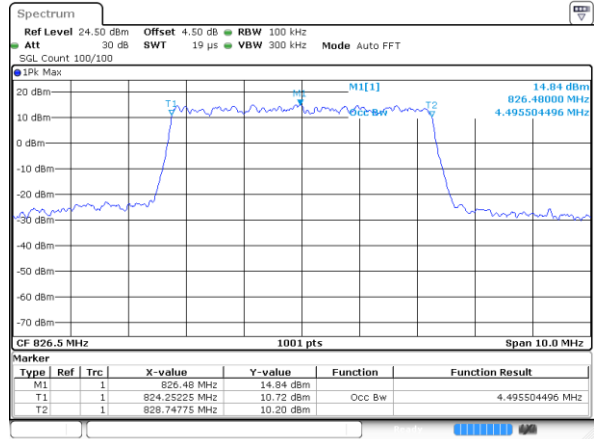


LTE Band 5

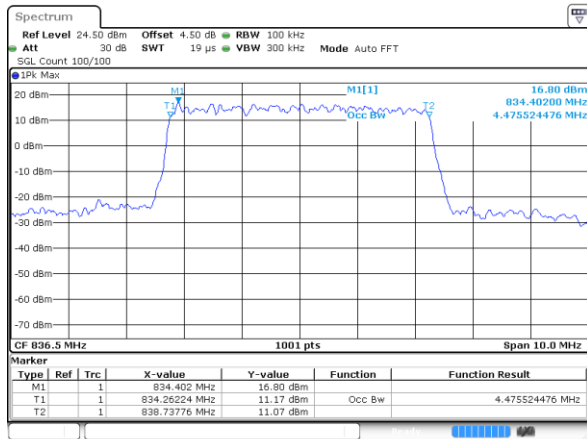
Lowest Channel / 5MHz / QPSK



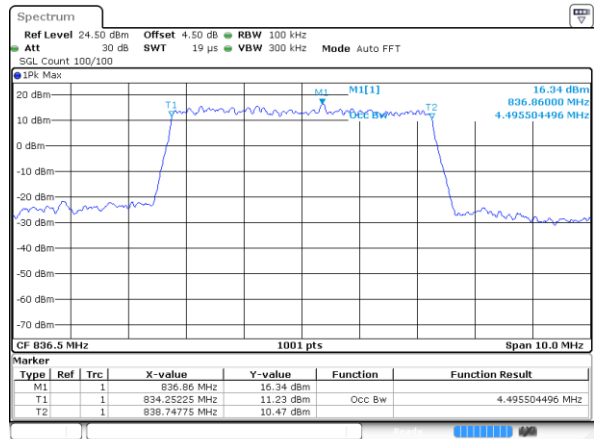
Lowest Channel / 5MHz / 16QAM



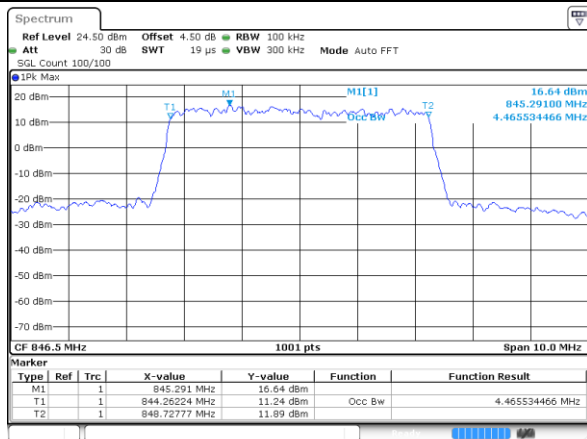
Middle Channel / 5MHz / QPSK



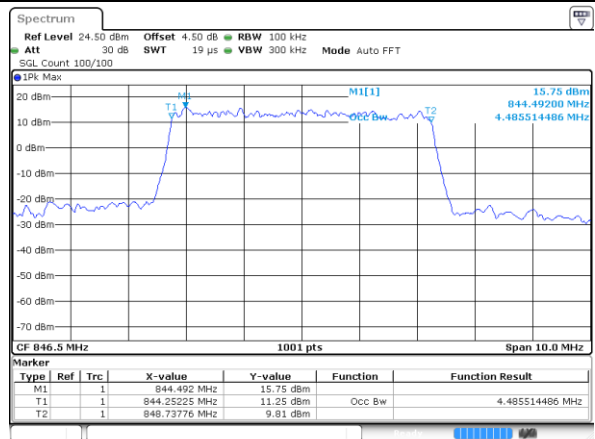
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



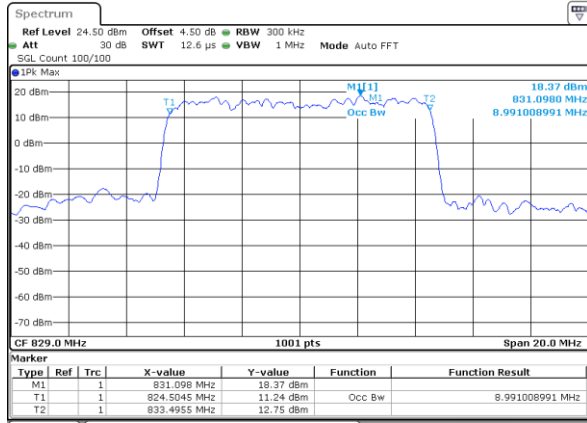
Highest Channel / 5MHz / 16QAM





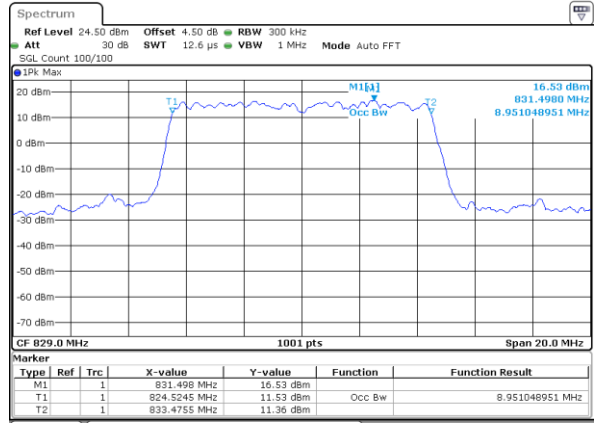
LTE Band 5

Lowest Channel / 10MHz / QPSK



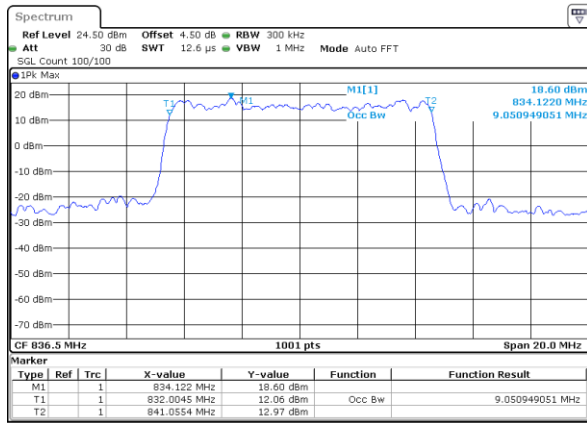
Date: 22 FEB 2020 02:28:39

Lowest Channel / 10MHz / 16QAM



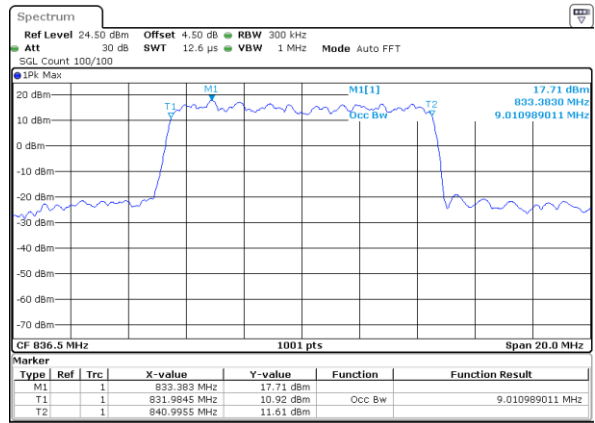
Date: 22 FEB 2020 02:28:49

Middle Channel / 10MHz / QPSK



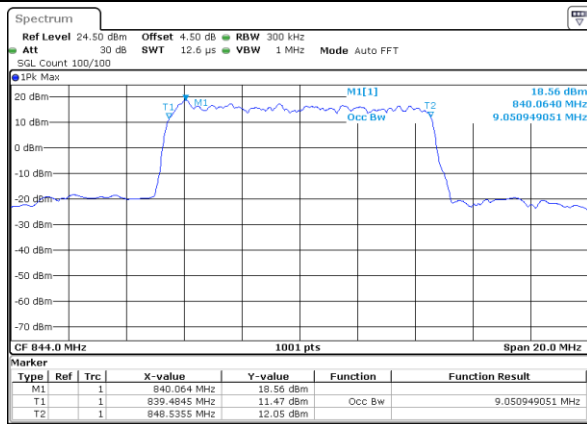
Date: 22 FEB 2020 02:37:38

Middle Channel / 10MHz / 16QAM



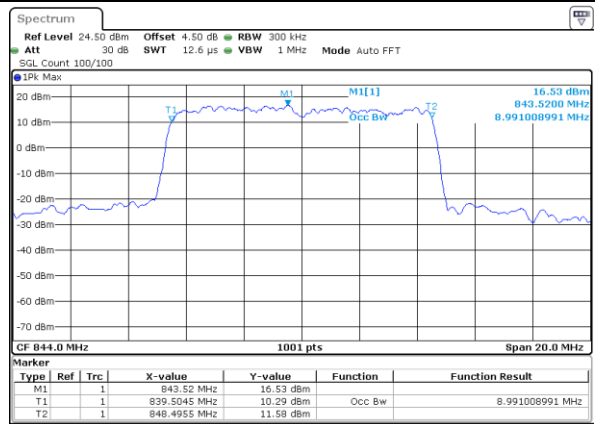
Date: 22 FEB 2020 02:37:48

Highest Channel / 10MHz / QPSK



Date: 22 FEB 2020 02:40:07

Highest Channel / 10MHz / 16QAM

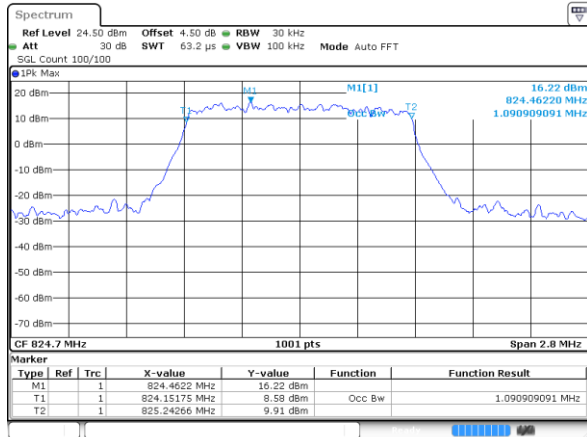


Date: 22 FEB 2020 02:40:17

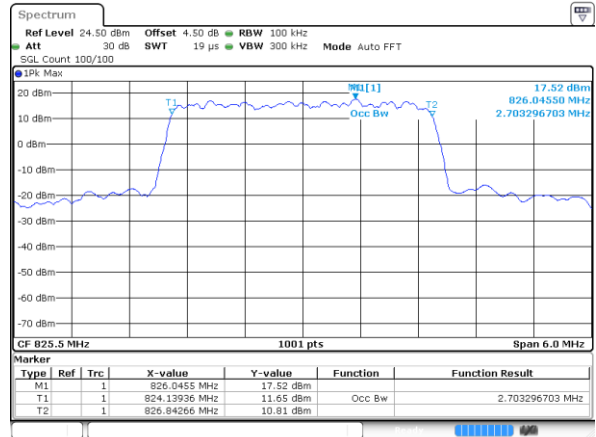


LTE Band 5

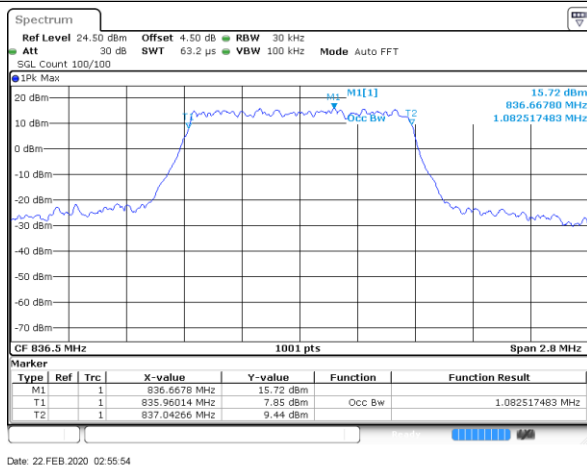
Lowest Channel / 1.4MHz / 64QAM



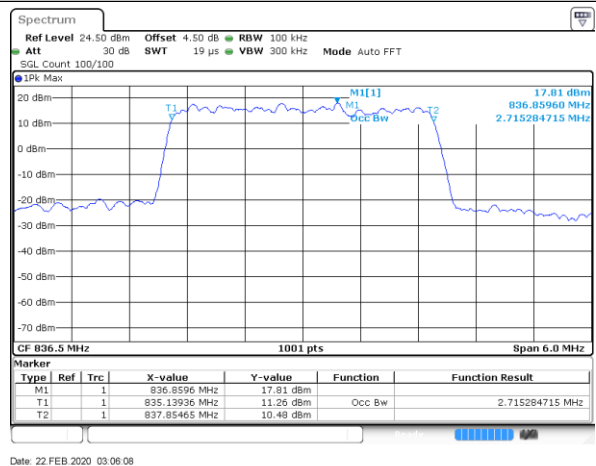
Lowest Channel / 3MHz / 64QAM



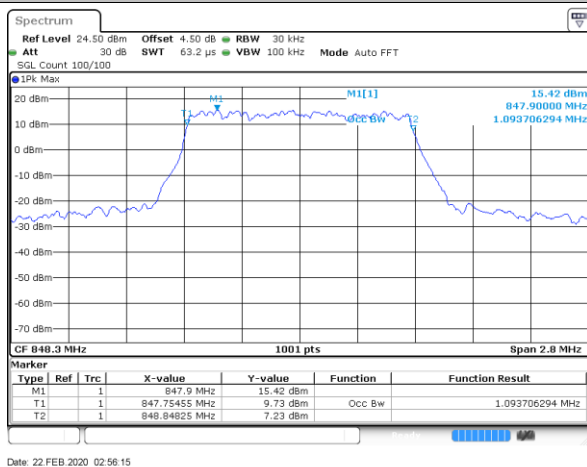
Middle Channel / 1.4MHz / 64QAM



Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



Highest Channel / 3MHz / 64QAM

