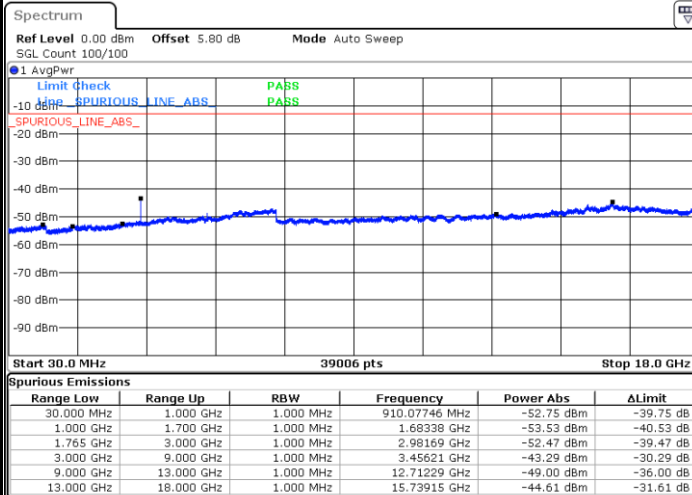


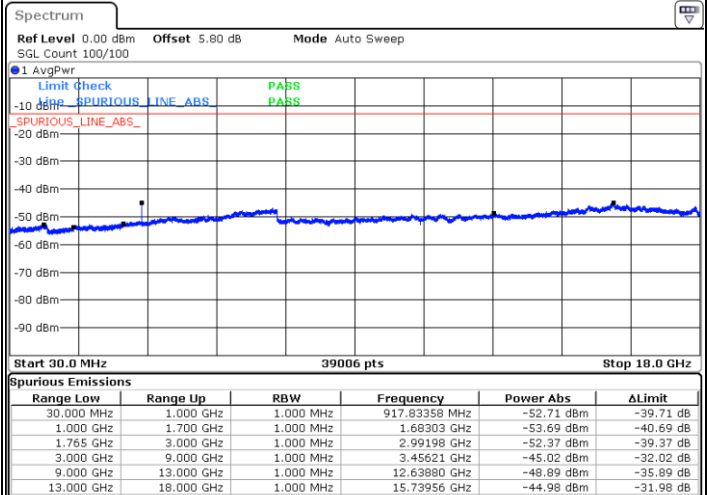


LTE Band 4 / 10MHz

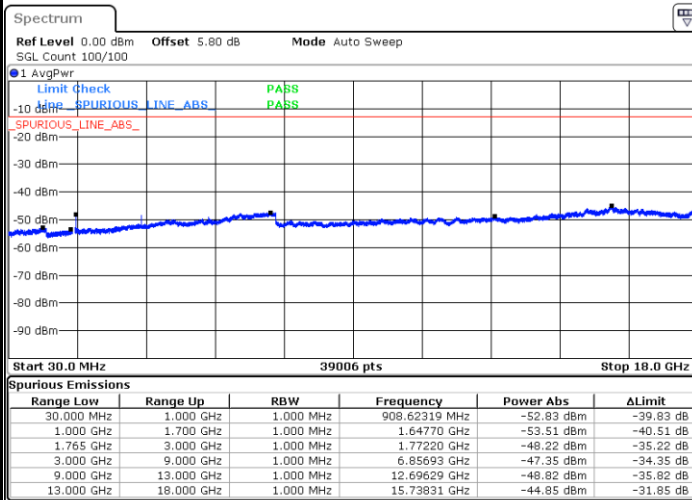
Middle Channel / QPSK



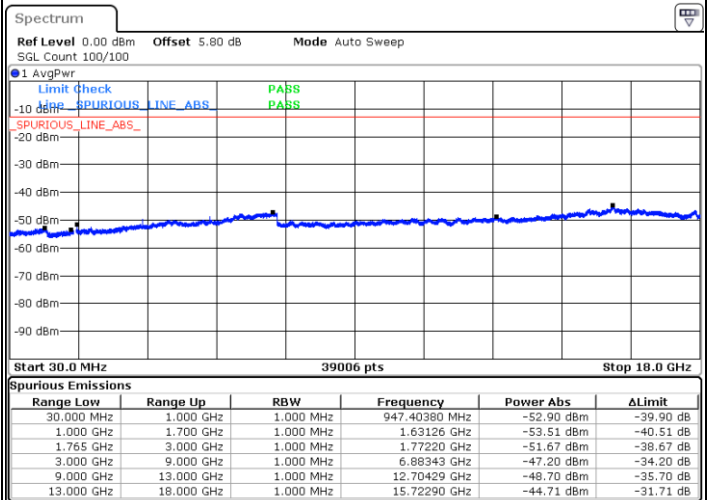
Middle Channel / 16QAM



Highest Channel / QPSK



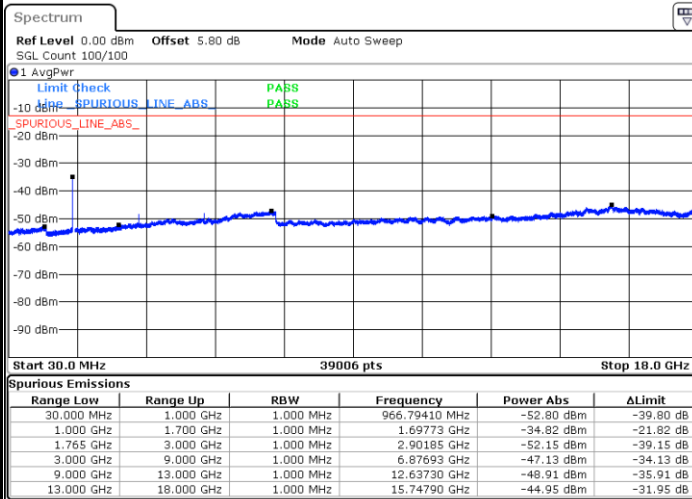
Highest Channel / 16QAM



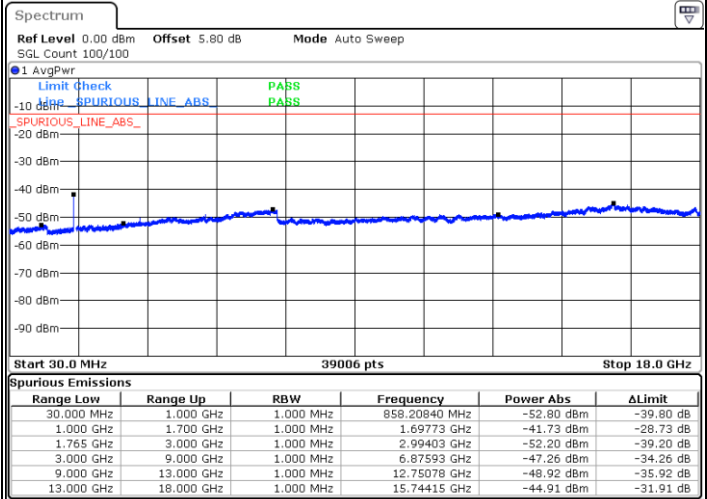


LTE Band 4 / 15MHz

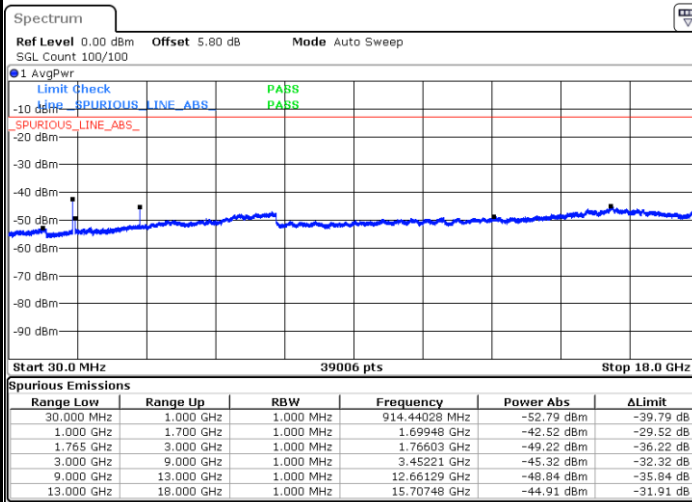
Lowest Channel / QPSK



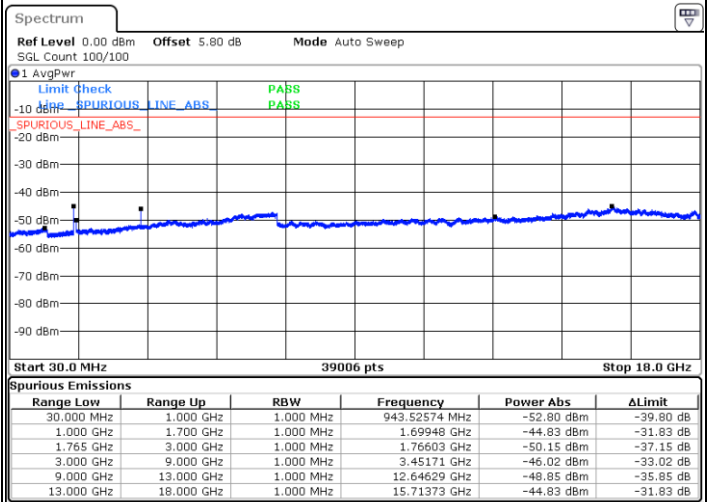
Lowest Channel / 16QAM



Middle Channel / QPSK



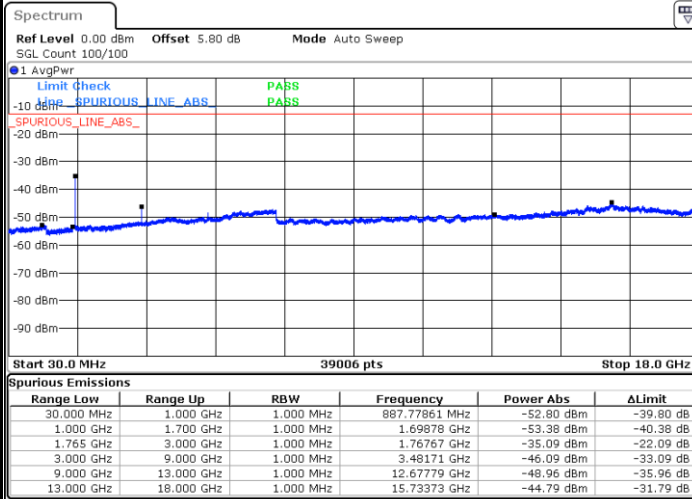
Middle Channel / 16QAM



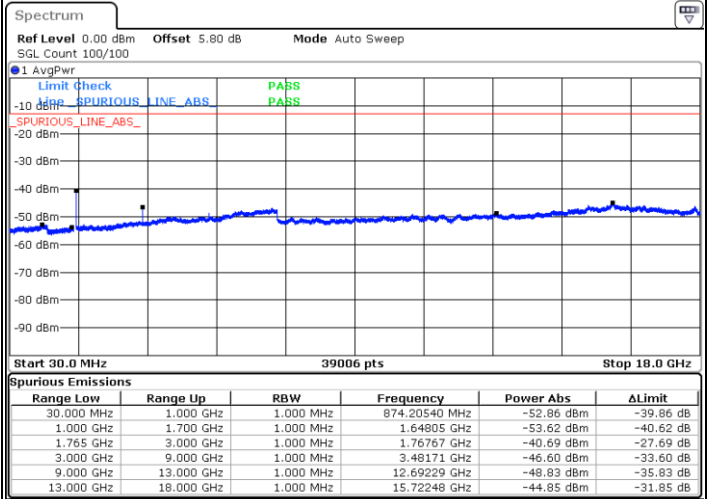


LTE Band 4 / 15MHz

Highest Channel / QPSK

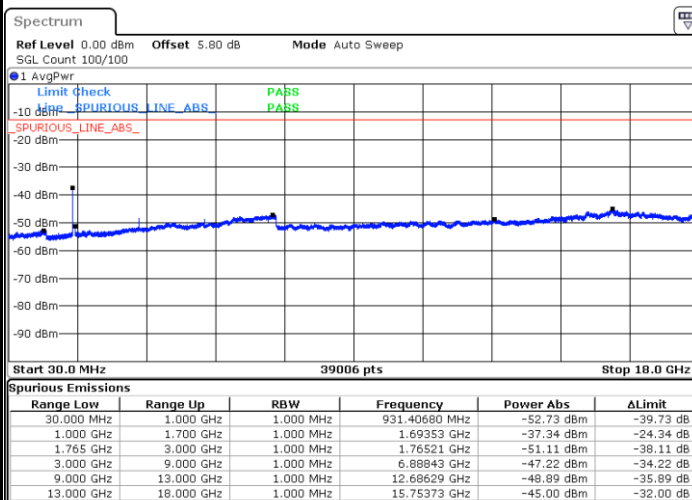


Highest Channel / 16QAM

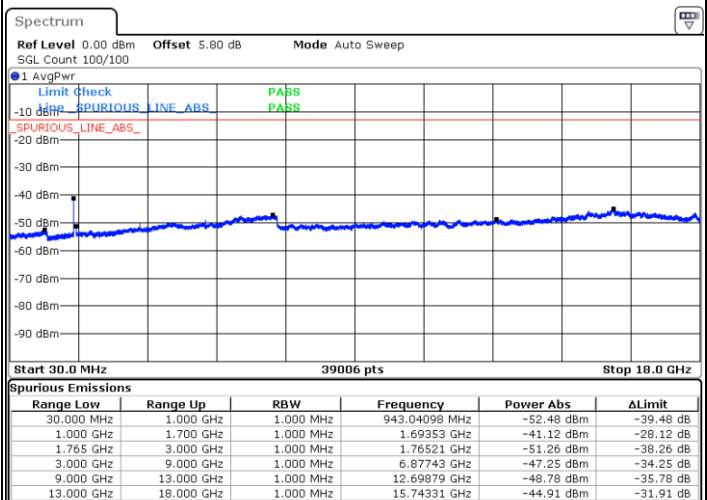


LTE Band 4 / 20MHz

Lowest Channel / QPSK



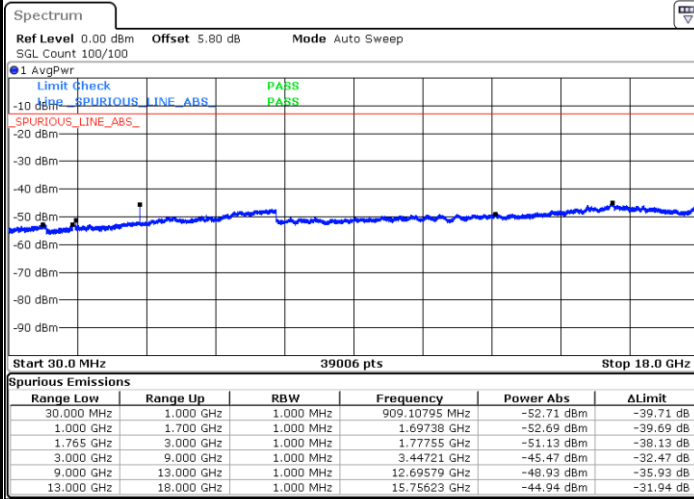
Lowest Channel / 16QAM



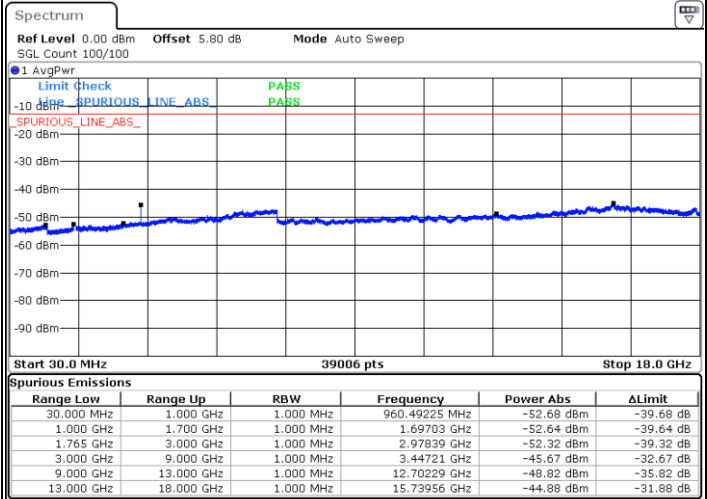


LTE Band 4 / 20MHz

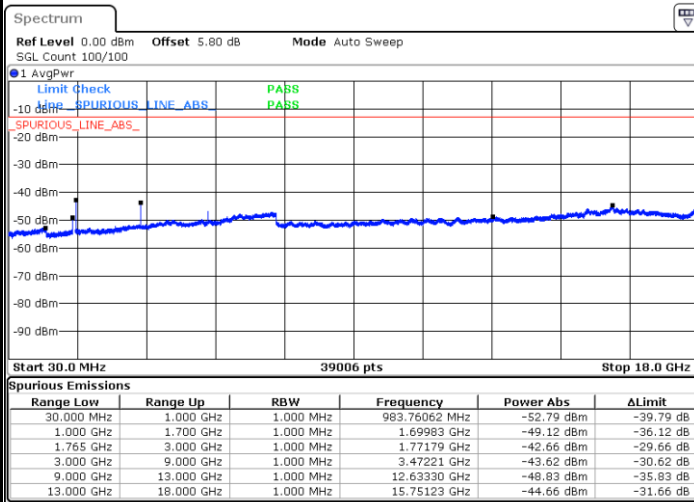
Middle Channel / QPSK



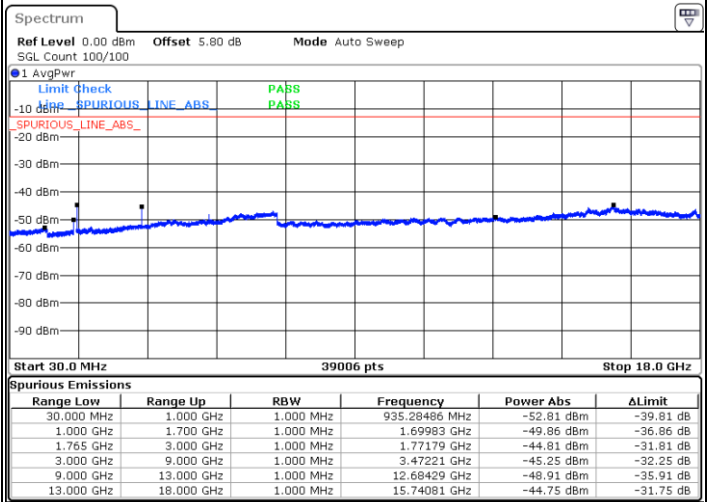
Middle Channel / 16QAM



Highest Channel / QPSK



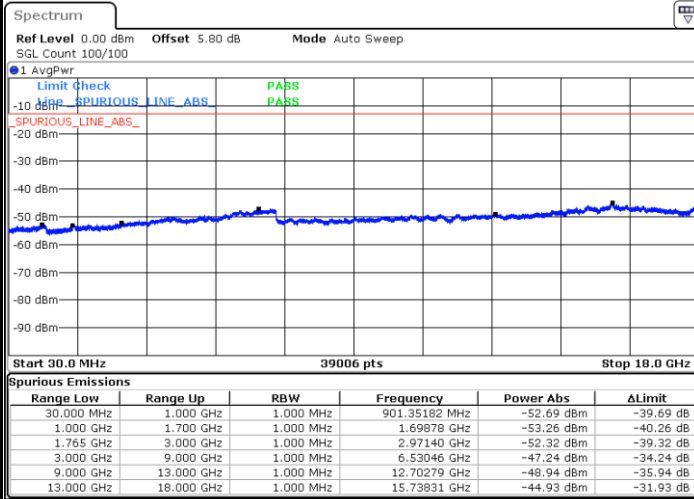
Highest Channel / 16QAM



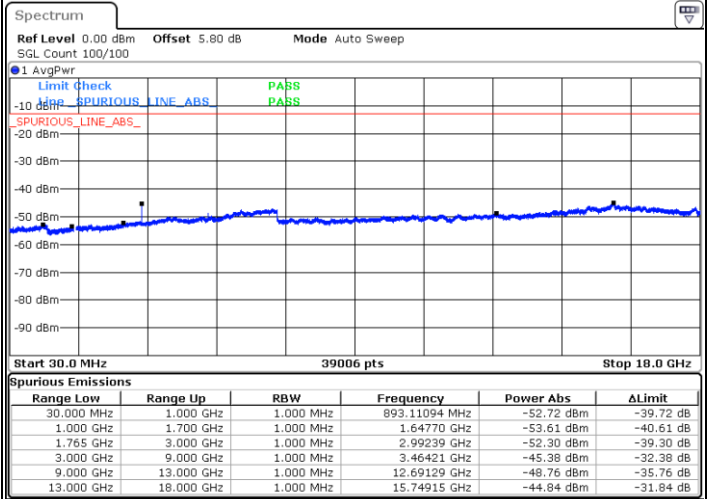


LTE Band 4 / 1.4MHz

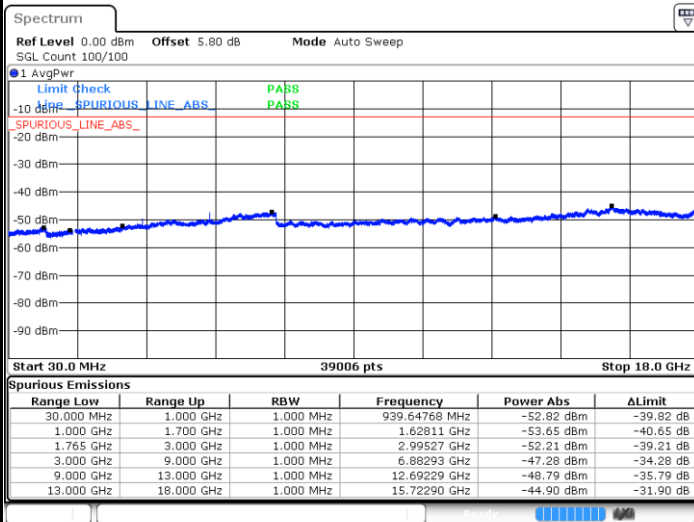
Lowest Channel / 64QAM



Middle Channel / 64QAM



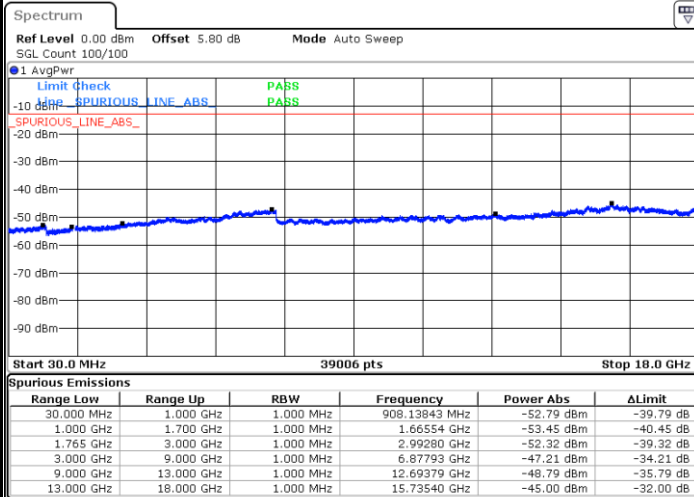
Highest Channel / 64QAM



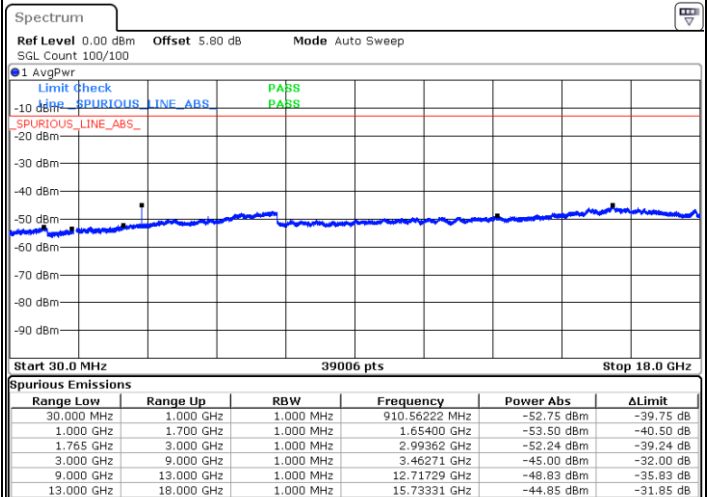


LTE Band 4 / 3MHz

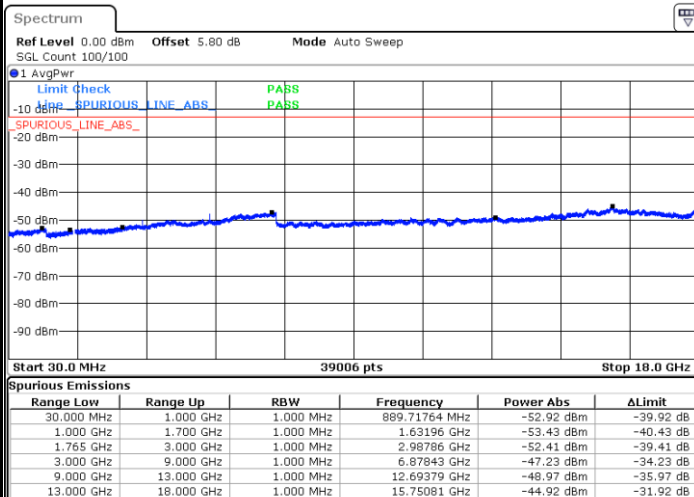
Lowest Channel / 64QAM



Middle Channel / 64QAM



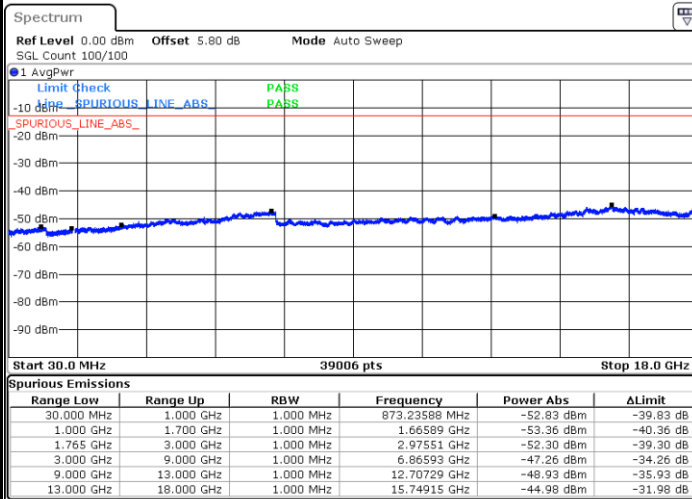
Highest Channel / 64QAM



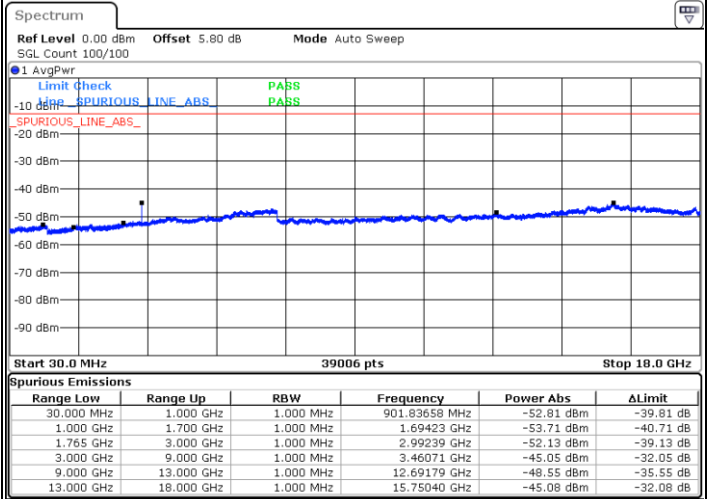


LTE Band 4 / 5MHz

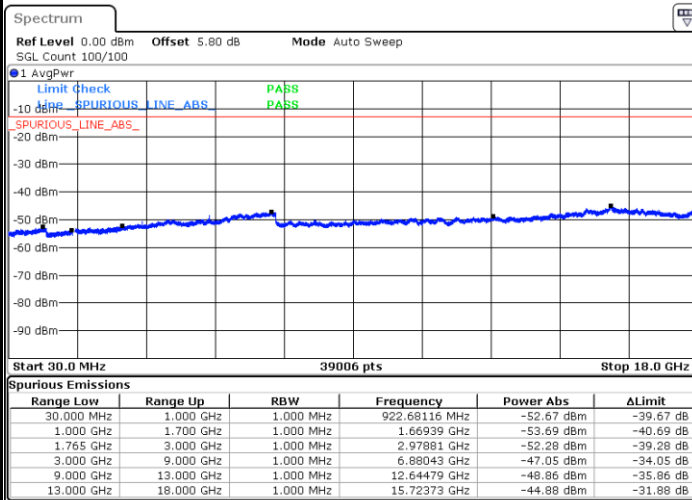
Lowest Channel / 64QAM



Middle Channel / 64QAM



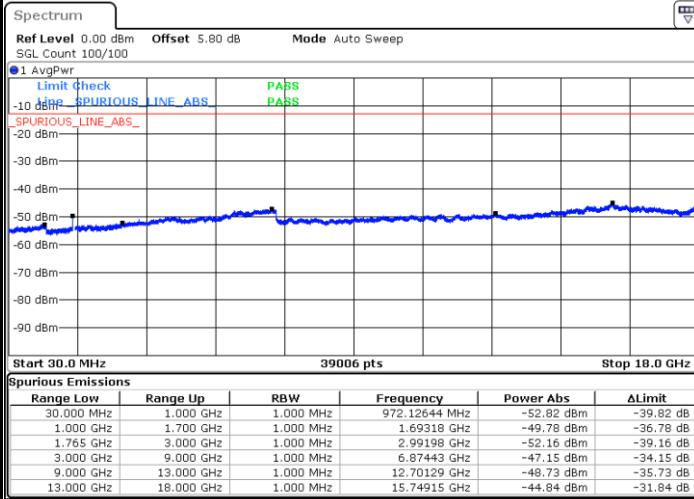
Highest Channel / 64QAM



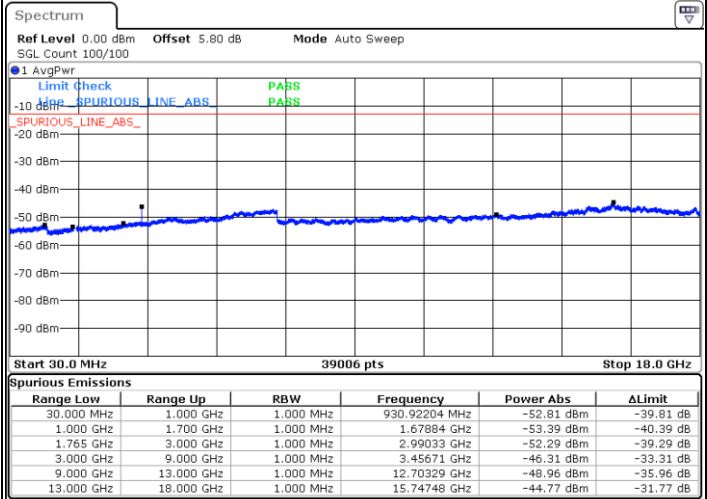


LTE Band 4 / 10MHz

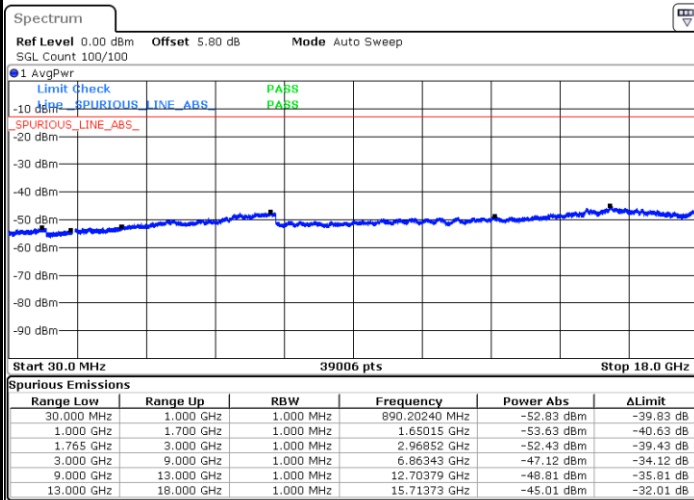
Lowest Channel / 64QAM



Middle Channel / 64QAM



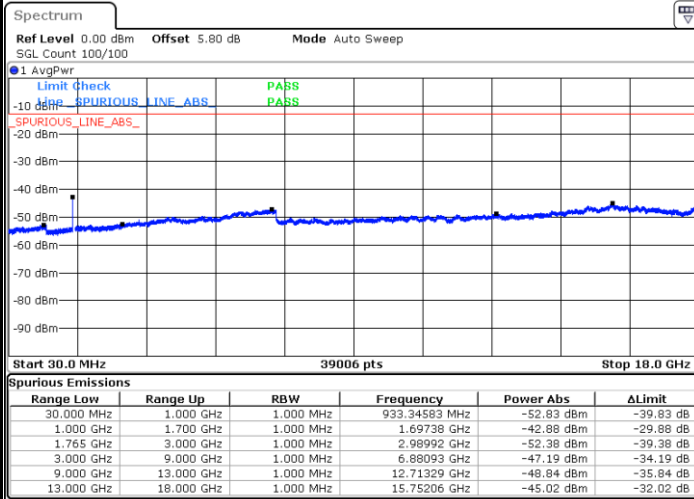
Highest Channel / 64QAM



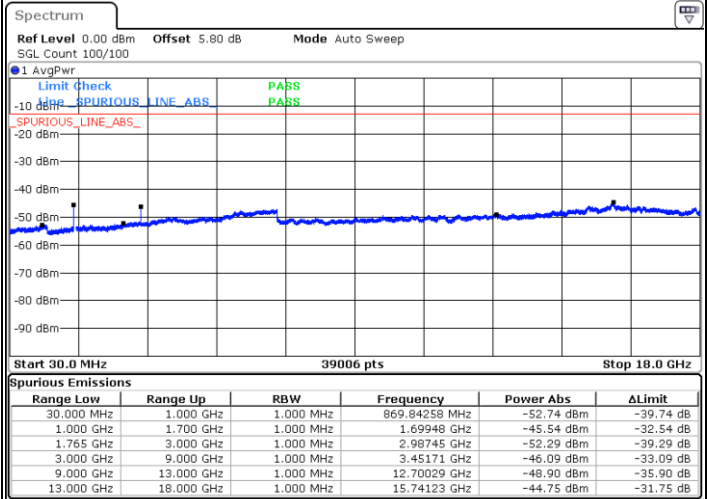


LTE Band 4 / 15MHz

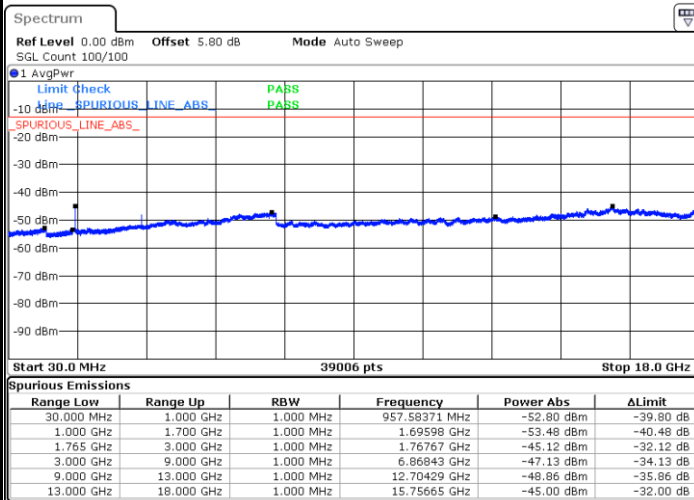
Lowest Channel / 64QAM



Middle Channel / 64QAM



Highest Channel / 64QAM

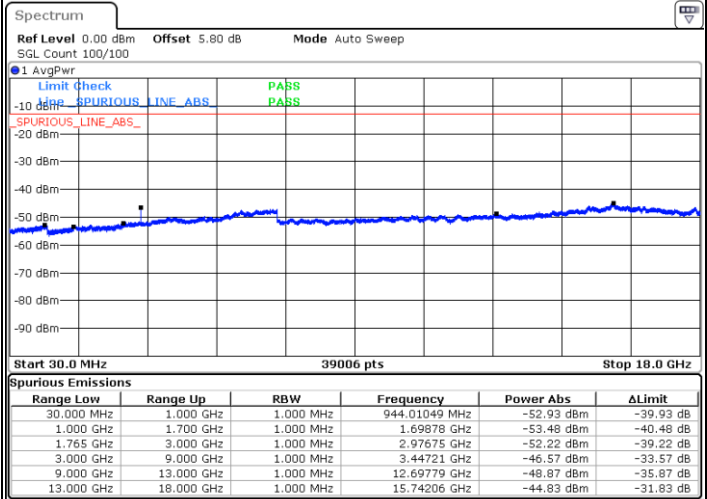
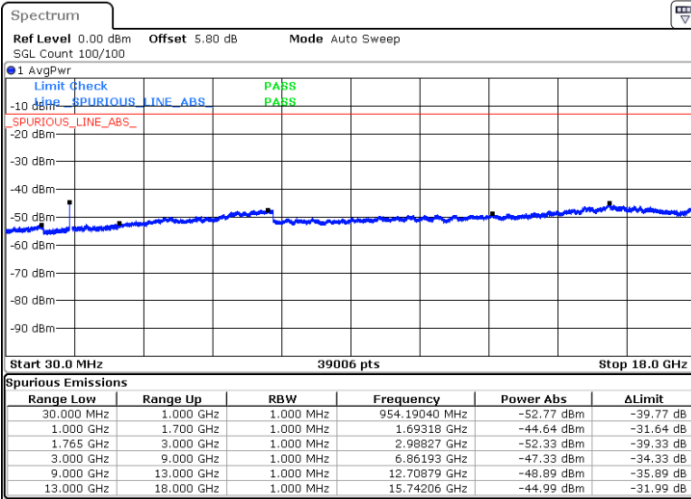




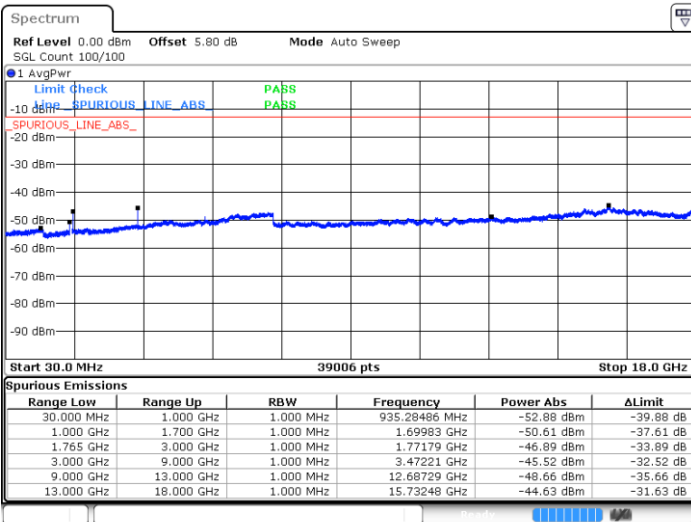
LTE Band 4 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Highest Channel / 64QAM



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0036	
30	Normal Voltage	0.0050	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0056	
0	Normal Voltage	0.0047	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0051	
20	Normal Voltage	0.0060	
20	Battery End Point	0.0012	

Note:

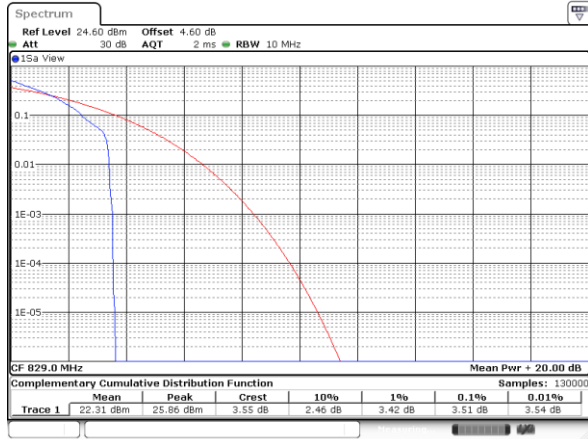
1. Normal Voltage =3.8 V.; Battery End Point (BEP) =3.6 V.; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



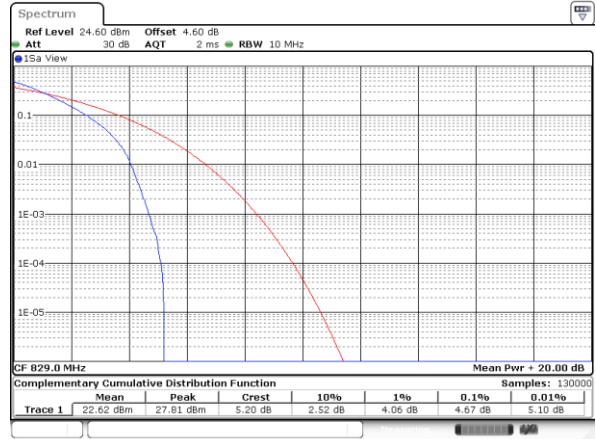
LTE Band 5

Peak-to-Average Ratio

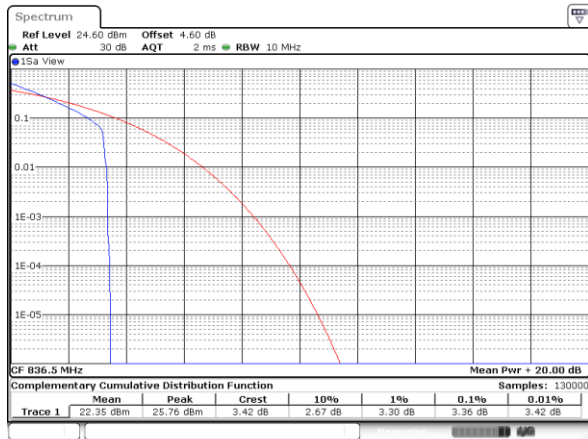
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	4.67	4.09	5.59	PASS
Middle CH	3.36	4.49	4.23	5.48	
Highest CH	3.36	4.32	4.20	5.22	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	4.52	5.57	PASS		
Middle CH	4.35	5.42			
Highest CH	4.41	5.25			

LTE Band 5 / 10MHz / QPSK
Lowest Channel / 1RB


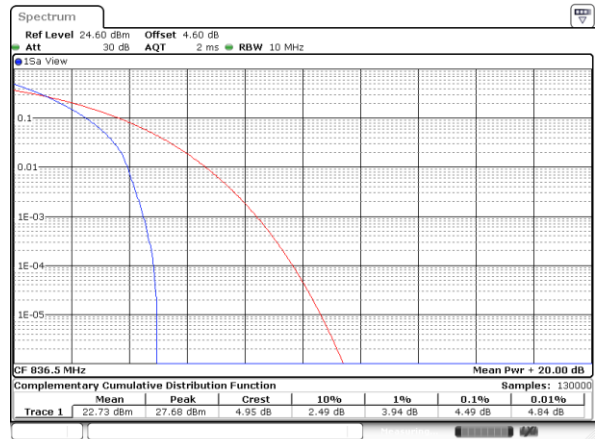
Date: 11 NOV 2019 20:47:43

Lowest Channel / Full RB


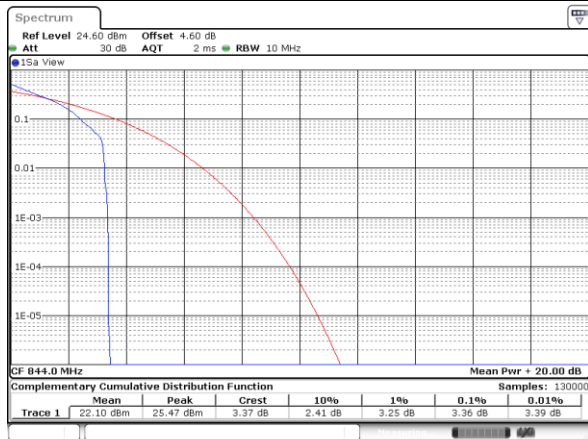
Date: 11 NOV 2019 20:46:50

Middle Channel / 1RB


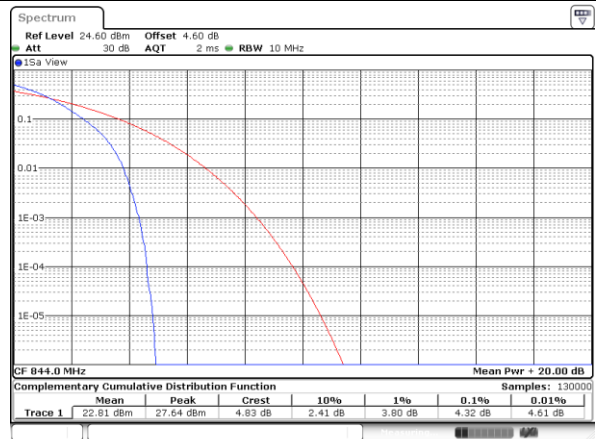
Date: 11 NOV 2019 20:46:06

Middle Channel / Full RB


Date: 11 NOV 2019 20:46:39

Highest Channel / 1RB


Date: 11 NOV 2019 20:45:53

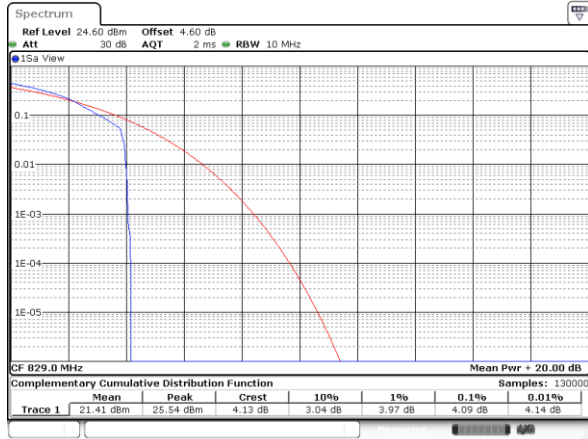
Highest Channel / Full RB


Date: 11 NOV 2019 20:45:19

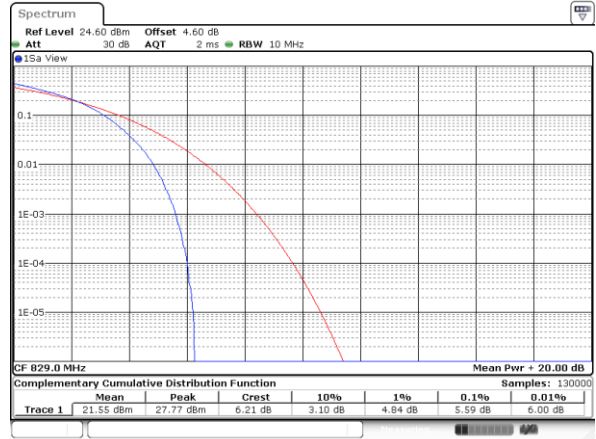


LTE Band 5 / 10MHz / 16QAM

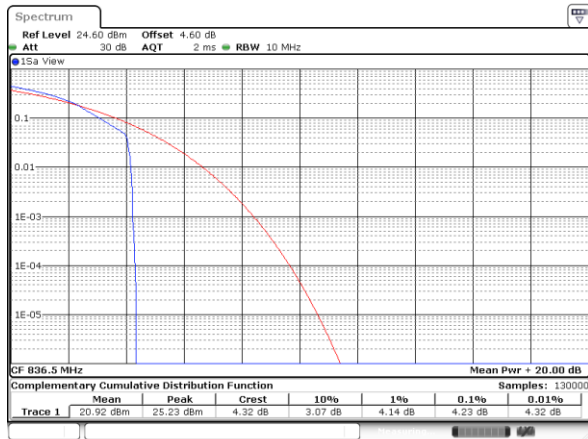
Lowest Channel / 1RB



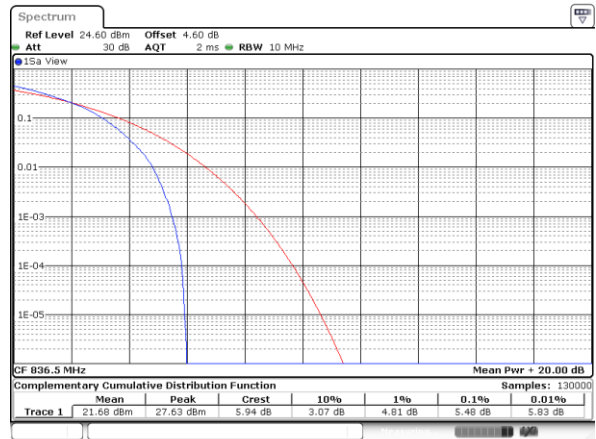
Lowest Channel / Full RB



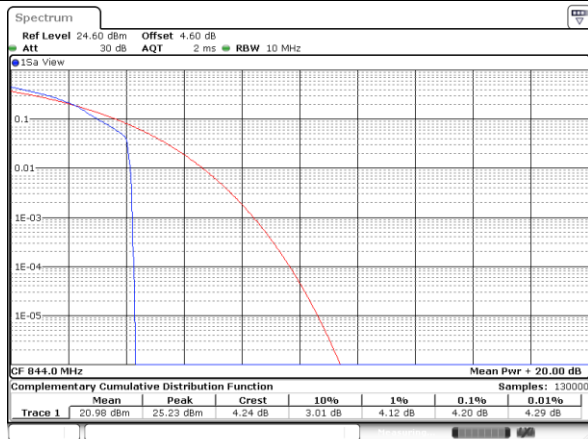
Middle Channel / 1RB



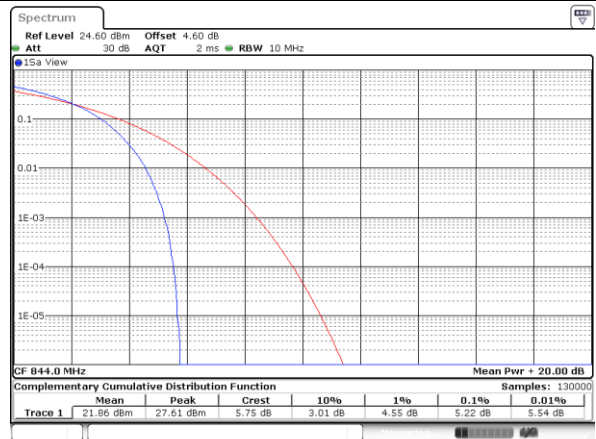
Middle Channel / Full RB



Highest Channel / 1RB



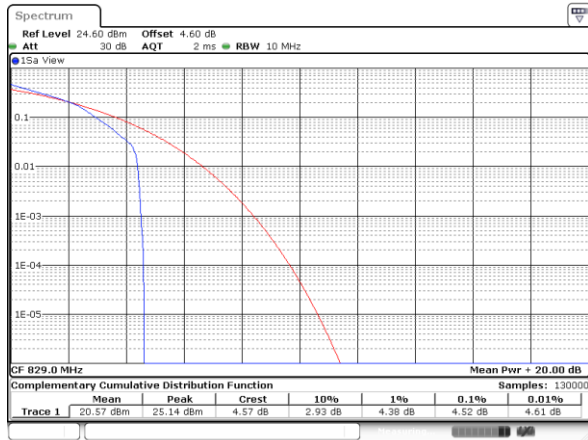
Highest Channel / Full RB



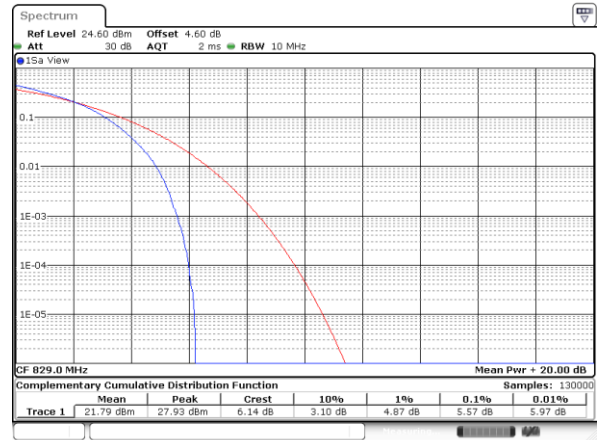


LTE Band 5 / 10MHz / 64QAM

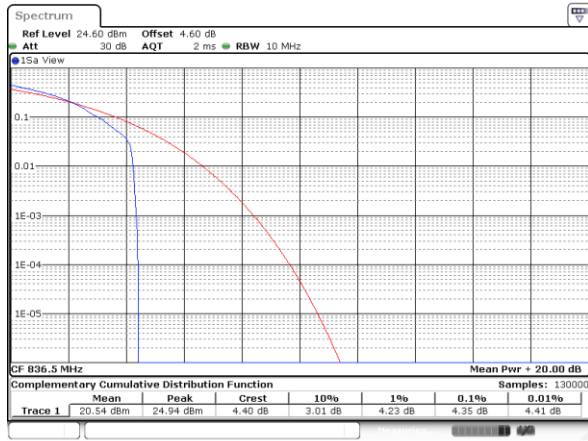
Lowest Channel / 1RB



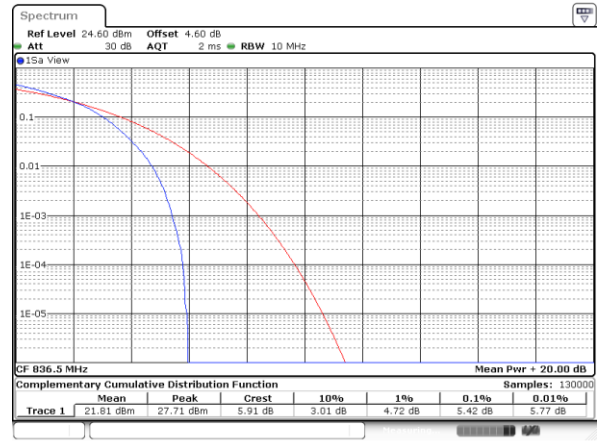
Lowest Channel / Full RB



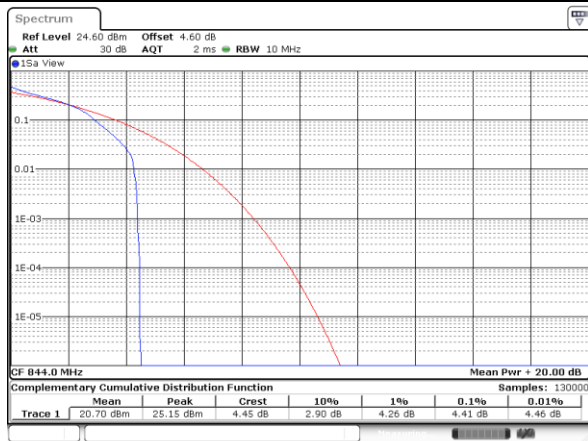
Middle Channel / 1RB



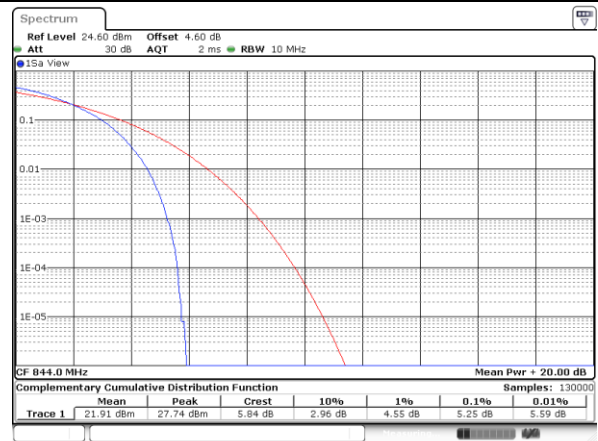
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



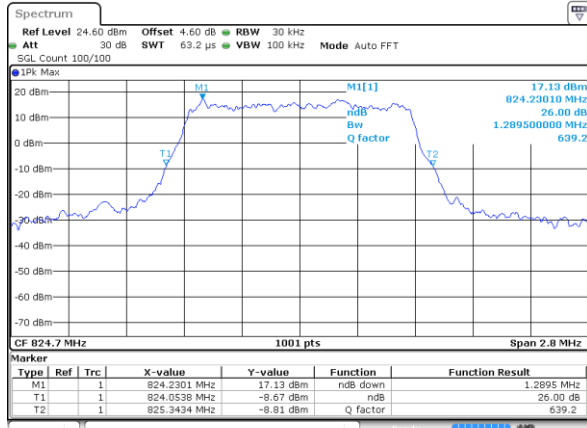
**26dB Bandwidth**

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	1.2895	1.2699	2.997	3.003	4.925	4.895	9.91	9.93	-	-	-	-
Middle CH	1.2923	1.2895	2.979	3.021	4.935	4.895	9.75	9.75	-	-	-	-
Highest CH	1.2839	1.3035	2.973	3.045	4.895	4.905	9.97	9.69	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.2587		3.015		4.955		9.77		-	-	-	-
Middle CH	1.3119		3.015		4.925		9.93		-	-	-	-
Highest CH	1.3007		3.027		4.885		9.97		-	-	-	-



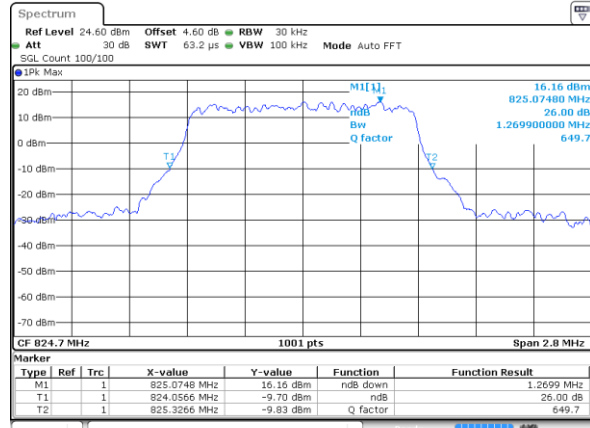
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



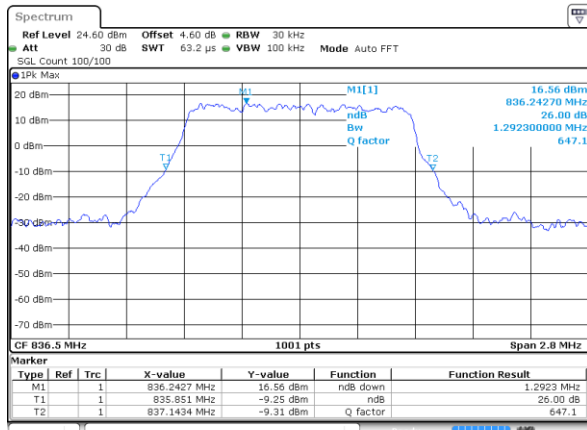
Date: 11 NOV 2019 19:50:17

Lowest Channel / 1.4MHz / 16QAM



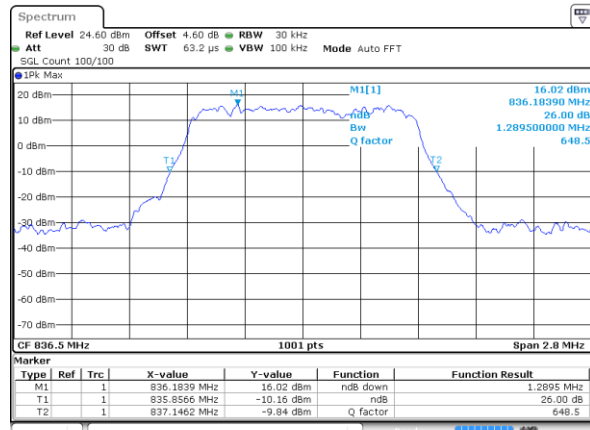
Date: 11 NOV 2019 19:50:07

Middle Channel / 1.4MHz / QPSK



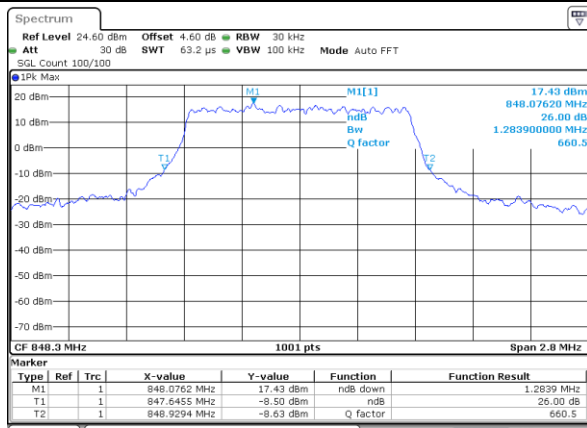
Date: 11 NOV 2019 19:59:08

Middle Channel / 1.4MHz / 16QAM



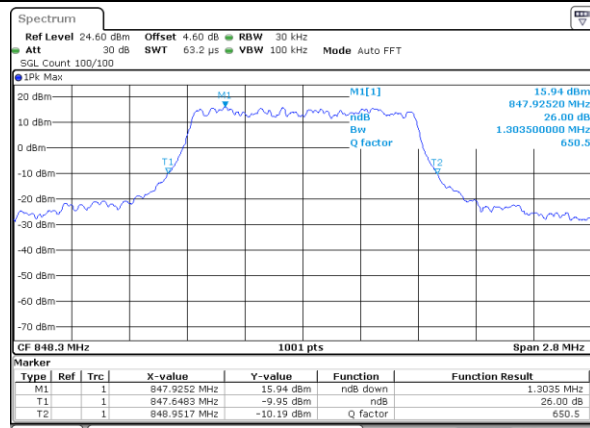
Date: 11 NOV 2019 19:58:18

Highest Channel / 1.4MHz / QPSK



Date: 11 NOV 2019 20:00:42

Highest Channel / 1.4MHz / 16QAM

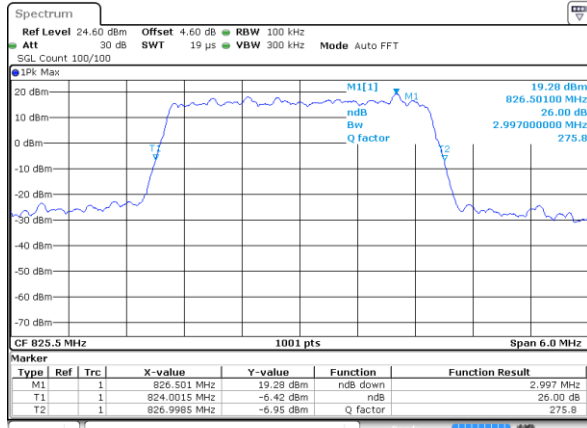


Date: 11 NOV 2019 20:00:52



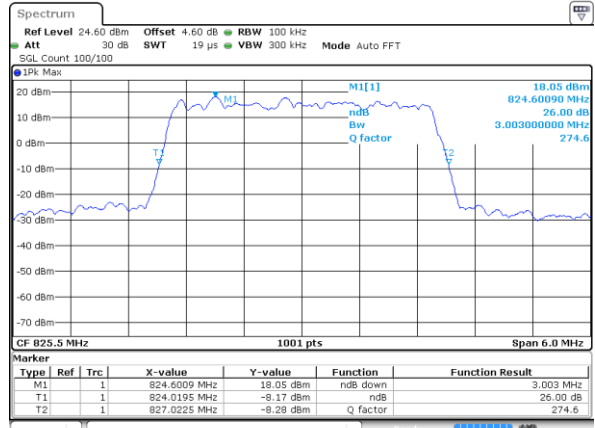
LTE Band 5

Lowest Channel / 3MHz / QPSK



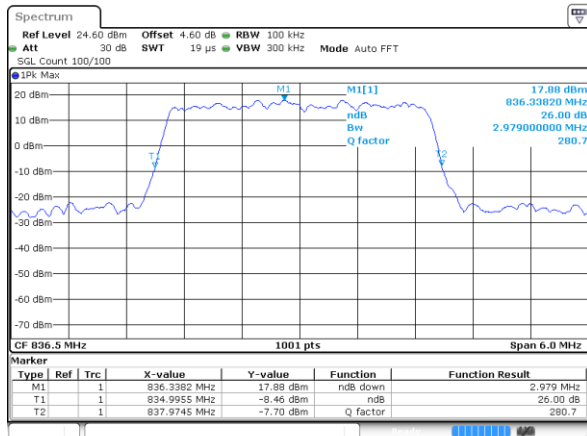
Date: 11 NOV 2019 21:45:28

Lowest Channel / 3MHz / 16QAM



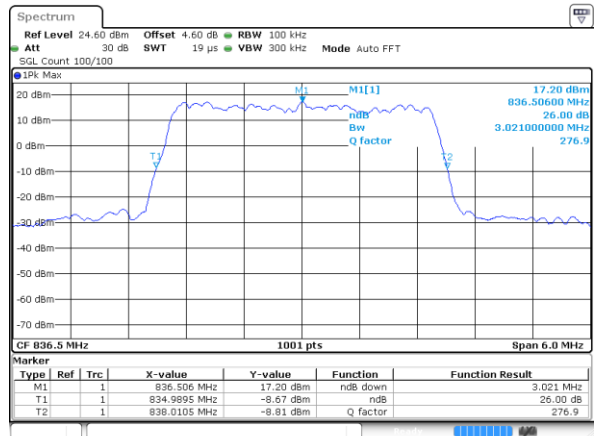
Date: 11 NOV 2019 21:45:38

Middle Channel / 3MHz / QPSK



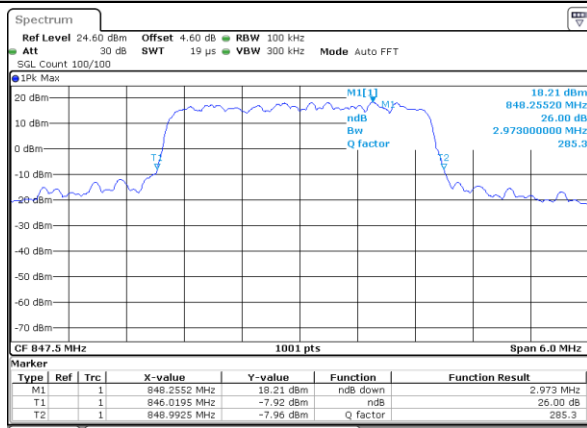
Date: 11 NOV 2019 21:54:30

Middle Channel / 3MHz / 16QAM



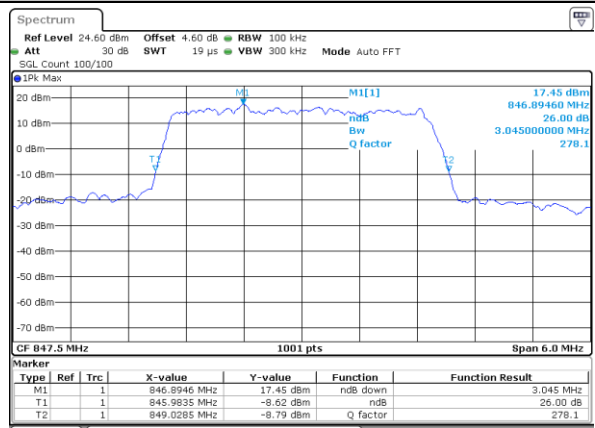
Date: 11 NOV 2019 21:54:40

Highest Channel / 3MHz / QPSK



Date: 11 NOV 2019 21:56:57

Highest Channel / 3MHz / 16QAM

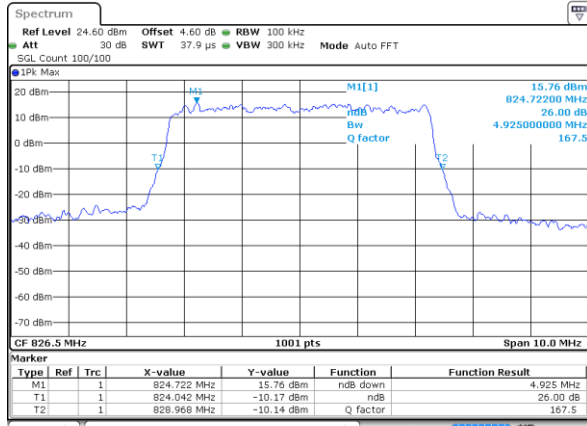


Date: 11 NOV 2019 21:57:07



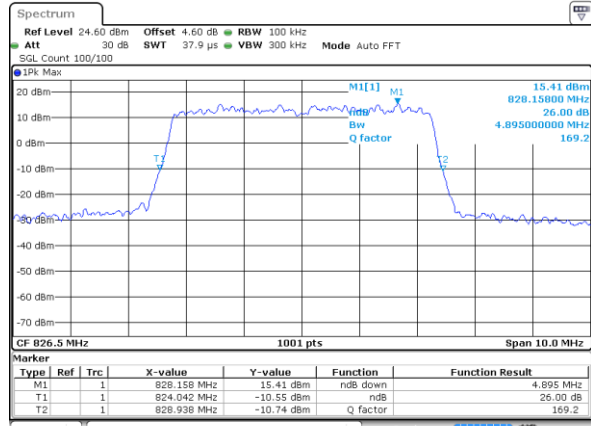
LTE Band 5

Lowest Channel / 5MHz / QPSK



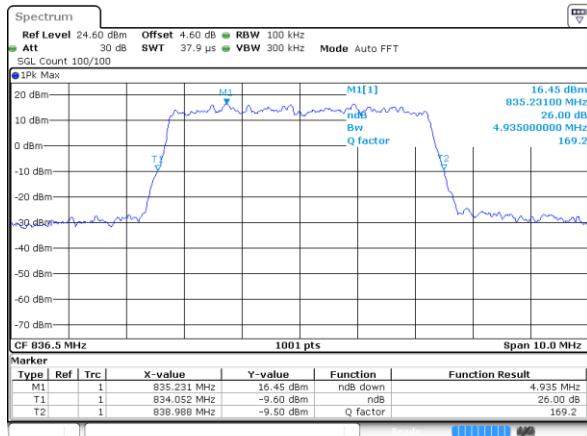
Date: 11 NOV 2019 21:37:16

Lowest Channel / 5MHz / 16QAM



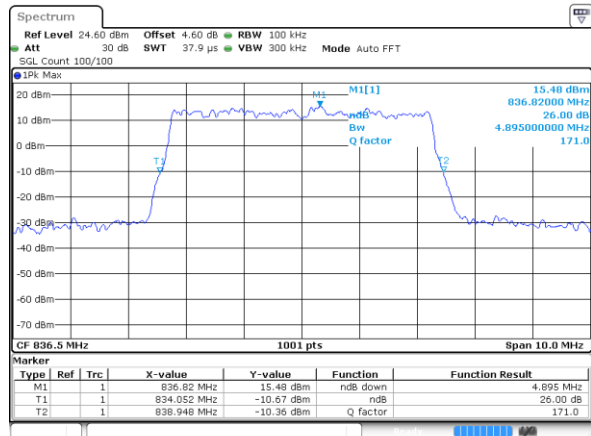
Date: 11 NOV 2019 21:37:36

Middle Channel / 5MHz / QPSK



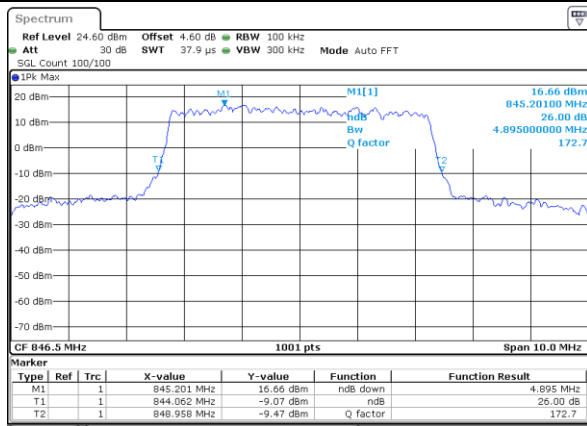
Date: 11 NOV 2019 20:11:17

Middle Channel / 5MHz / 16QAM



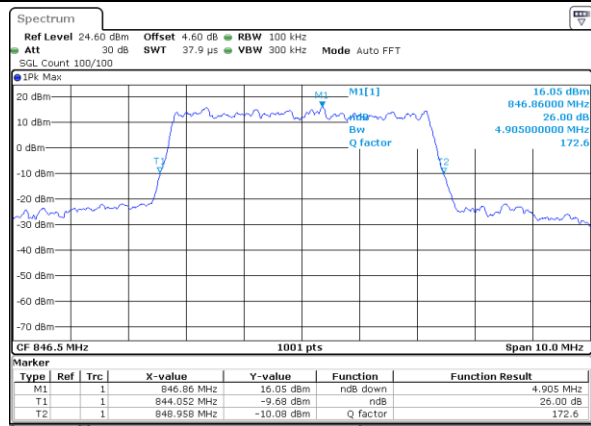
Date: 11 NOV 2019 20:11:27

Highest Channel / 5MHz / QPSK



Date: 11 NOV 2019 20:13:44

Highest Channel / 5MHz / 16QAM

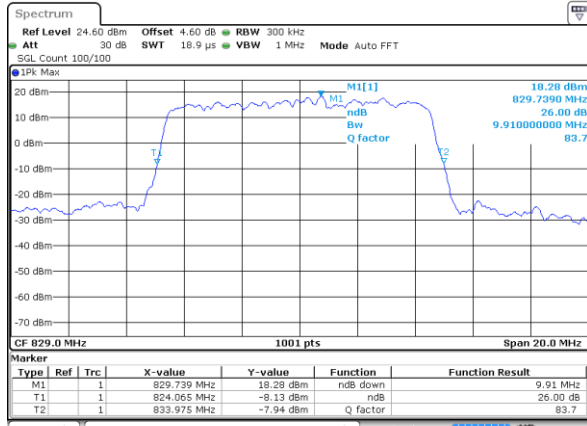


Date: 11 NOV 2019 20:13:54



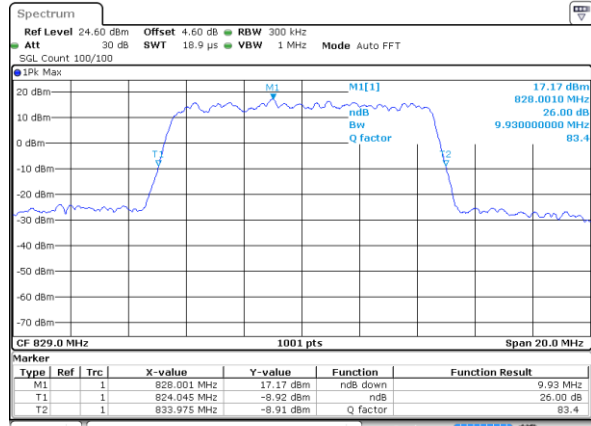
LTE Band 5

Lowest Channel / 10MHz / QPSK



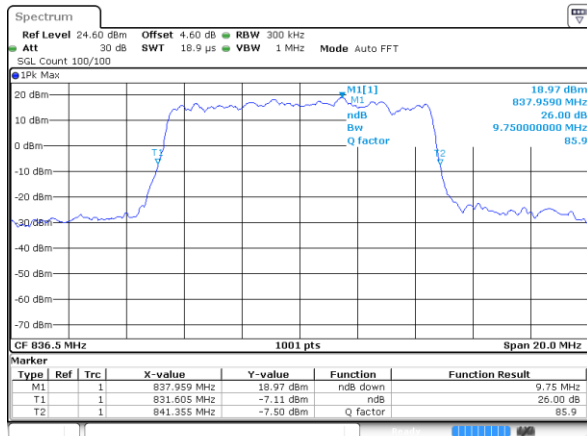
Date: 11 NOV 2019 20:22:46

Lowest Channel / 10MHz / 16QAM



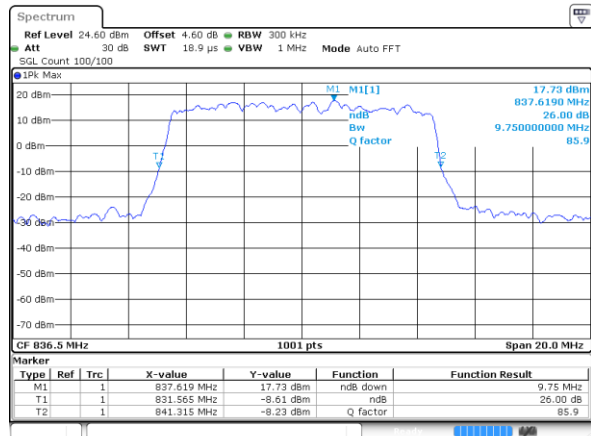
Date: 11 NOV 2019 20:22:56

Middle Channel / 10MHz / QPSK



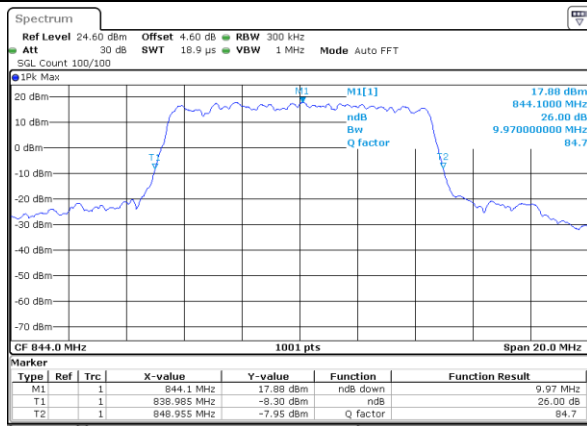
Date: 11 NOV 2019 20:31:47

Middle Channel / 10MHz / 16QAM



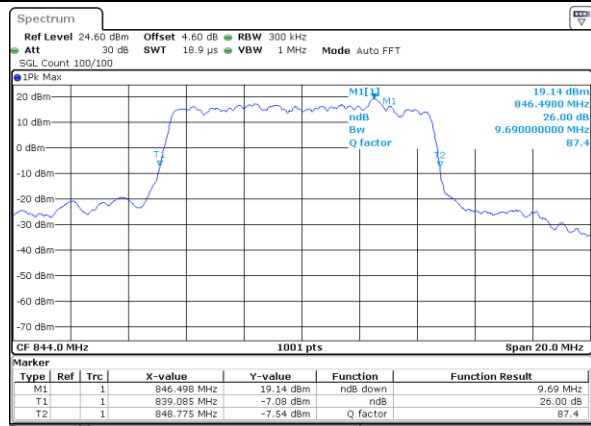
Date: 11 NOV 2019 20:31:57

Highest Channel / 10MHz / QPSK



Date: 11 NOV 2019 20:34:15

Highest Channel / 10MHz / 16QAM

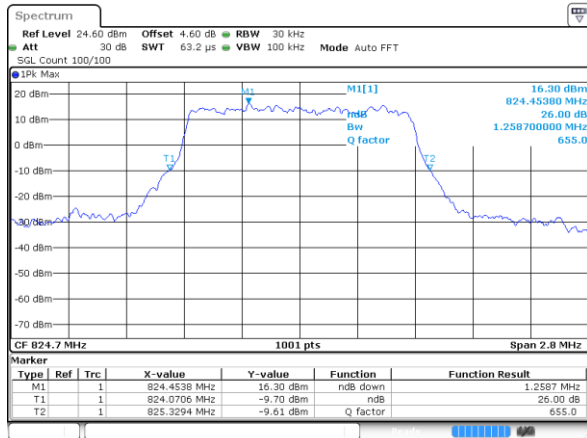


Date: 11 NOV 2019 20:34:25



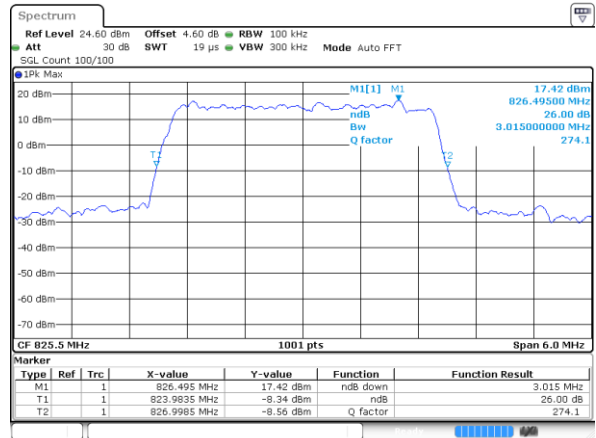
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



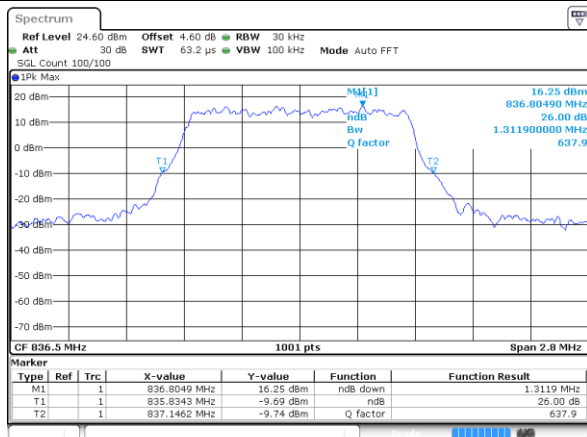
Date: 11 NOV 2019 20:48:33

Lowest Channel / 3MHz / 64QAM



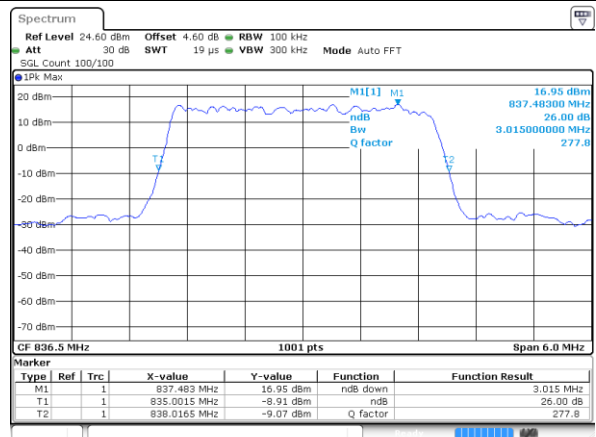
Date: 11 NOV 2019 20:58:48

Middle Channel / 1.4MHz / 64QAM



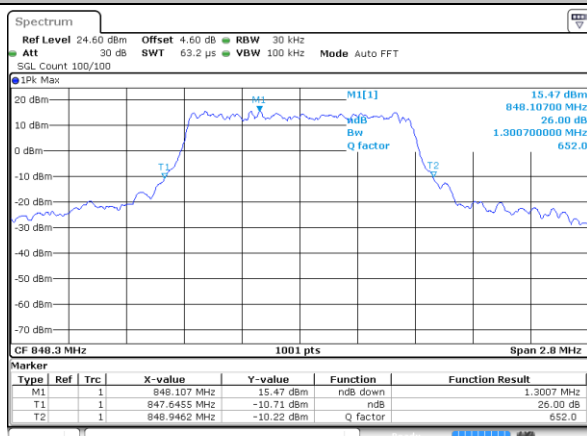
Date: 11 NOV 2019 20:53:57

Middle Channel / 3MHz / 64QAM



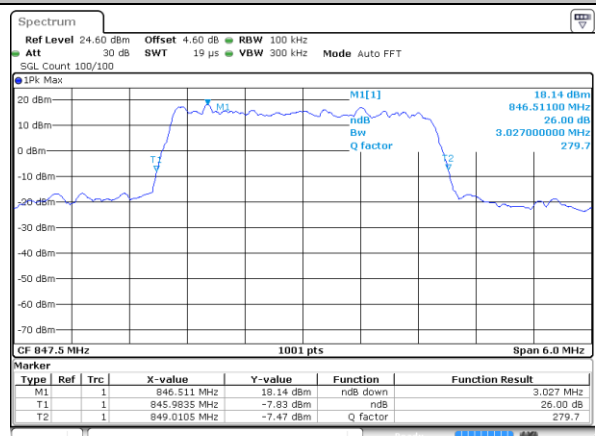
Date: 11 NOV 2019 21:04:12

Highest Channel / 1.4MHz / 64QAM



Date: 11 NOV 2019 20:54:17

Highest Channel / 3MHz / 64QAM

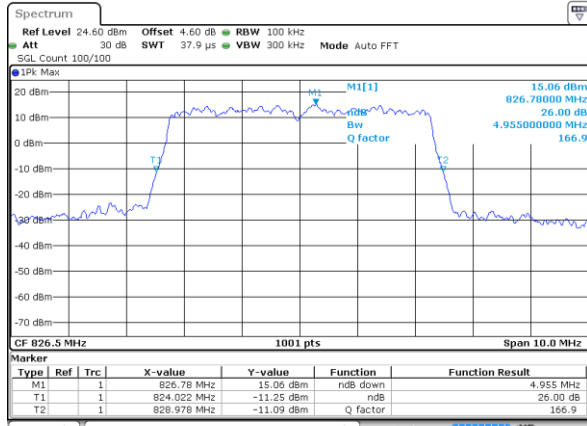


Date: 11 NOV 2019 21:04:32



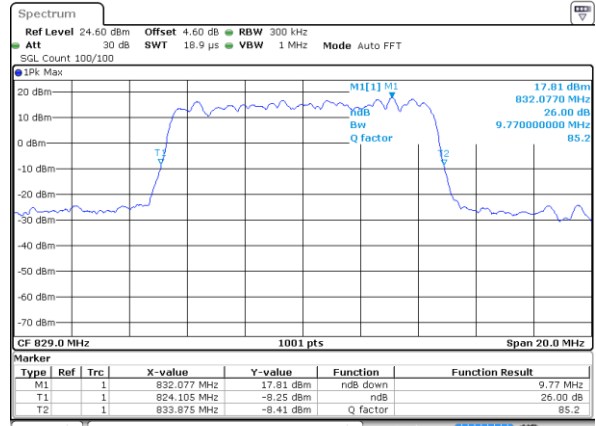
LTE Band 5

Lowest Channel / 5MHz / 64QAM



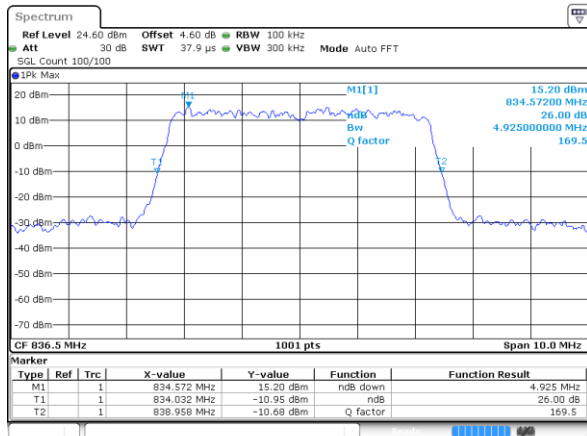
Date: 11.NOV.2019 21:09:03

Lowest Channel / 10MHz / 64QAM



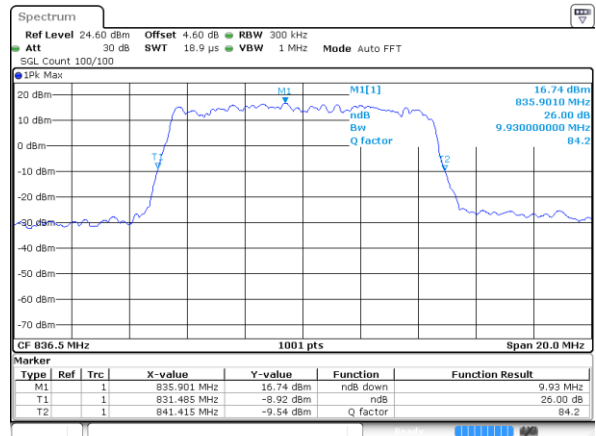
Date: 11.NOV.2019 21:19:18

Middle Channel / 5MHz / 64QAM



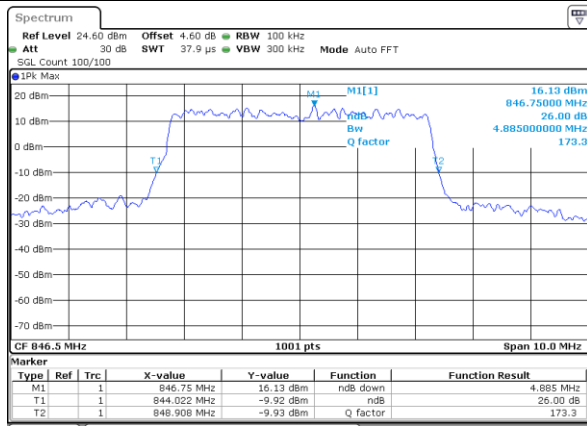
Date: 11.NOV.2019 21:14:28

Middle Channel / 10MHz / 64QAM



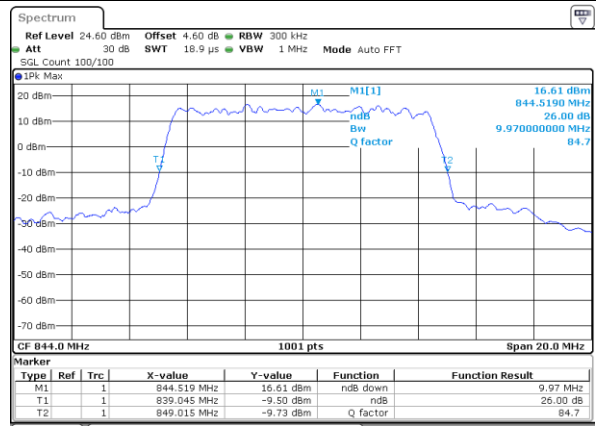
Date: 11.NOV.2019 21:24:43

Highest Channel / 5MHz / 64QAM



Date: 11.NOV.2019 21:14:48

Highest Channel / 10MHz / 64QAM



Date: 11.NOV.2019 21:25:03

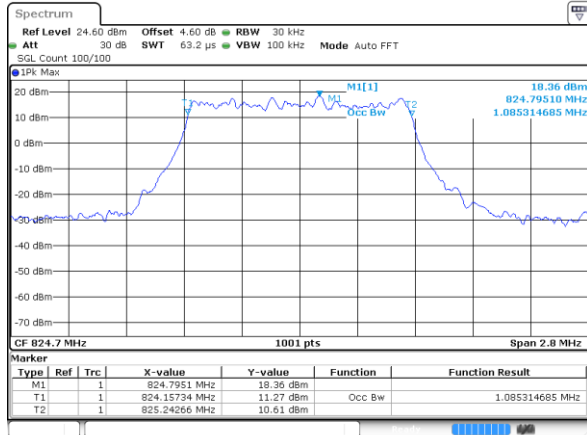
**Occupied Bandwidth**

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	2.71	2.71	4.50	4.49	9.01	8.99	-	-	-	-
Middle CH	1.09	1.09	2.69	2.71	4.50	4.50	9.05	9.03	-	-	-	-
Highest CH	1.09	1.09	2.72	2.72	4.49	4.49	8.95	8.99	-	-	-	-
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.09		2.72		4.48		8.97		-	-	-	-
Middle CH	1.09		2.71		4.50		9.01		-	-	-	-
Highest CH	1.09		2.73		4.49		9.01		-	-	-	-

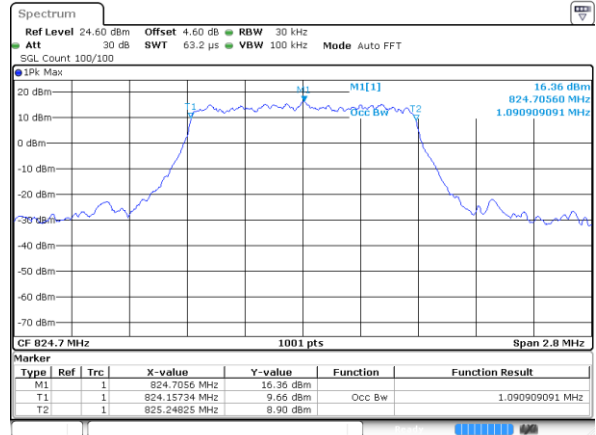


LTE Band 5

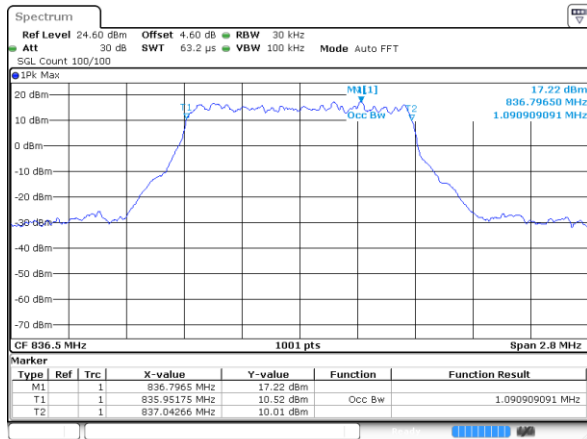
Lowest Channel / 1.4MHz / QPSK



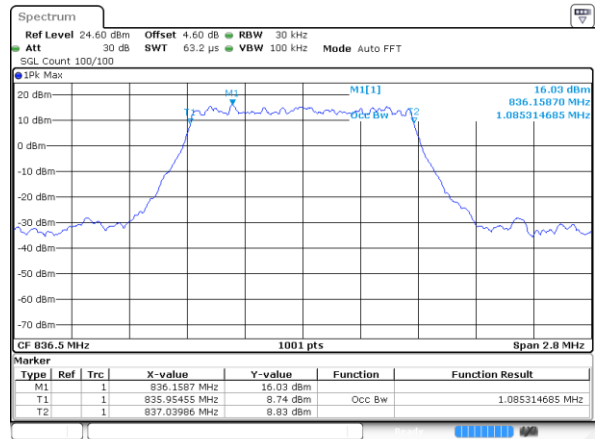
Lowest Channel / 1.4MHz / 16QAM



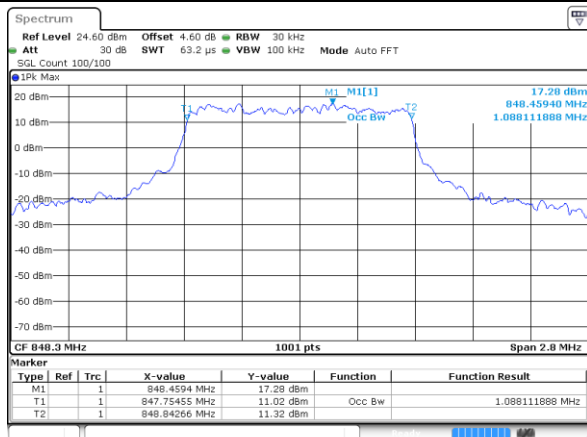
Middle Channel / 1.4MHz / QPSK



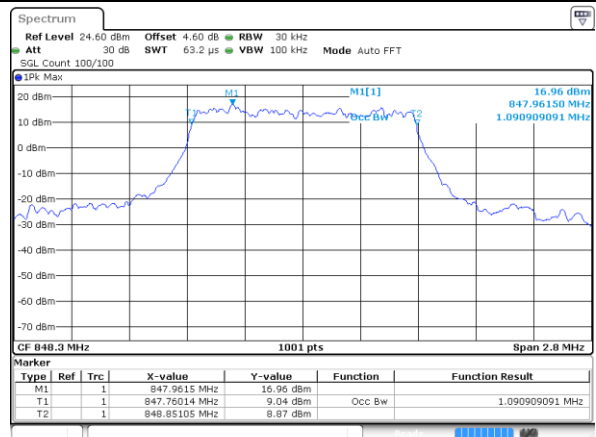
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



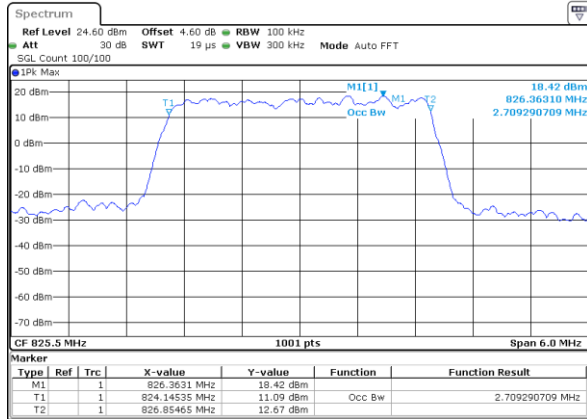
Highest Channel / 1.4MHz / 16QAM





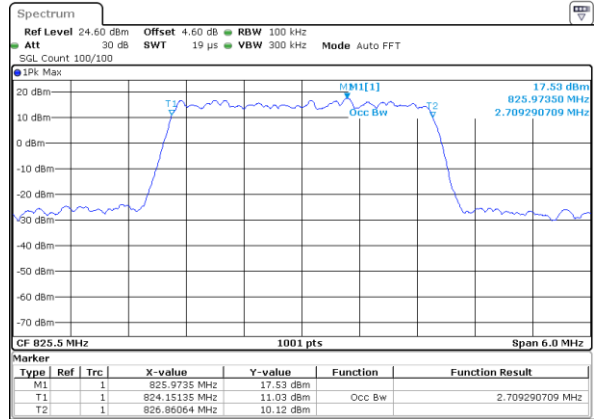
LTE Band 5

Lowest Channel / 3MHz / QPSK



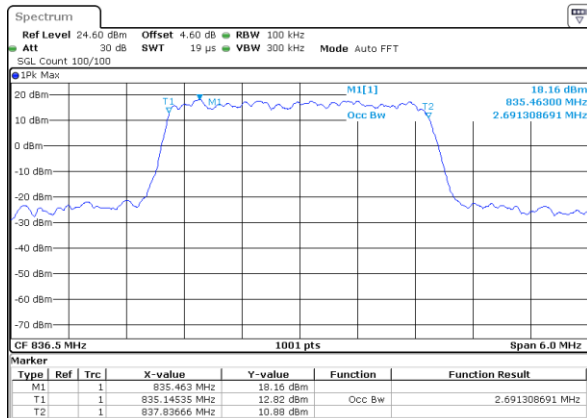
Date: 11 NOV 2019 21:45:08

Lowest Channel / 3MHz / 16QAM



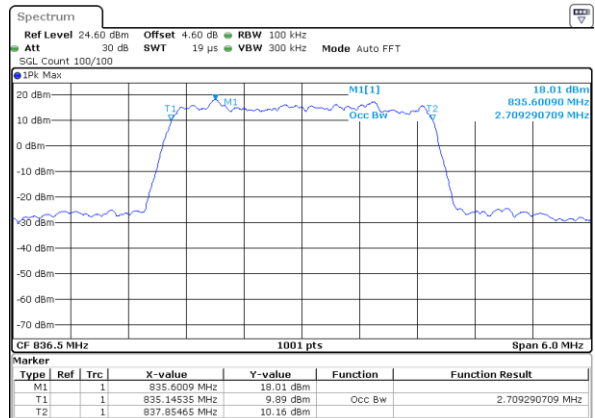
Date: 11 NOV 2019 21:45:18

Middle Channel / 3MHz / QPSK



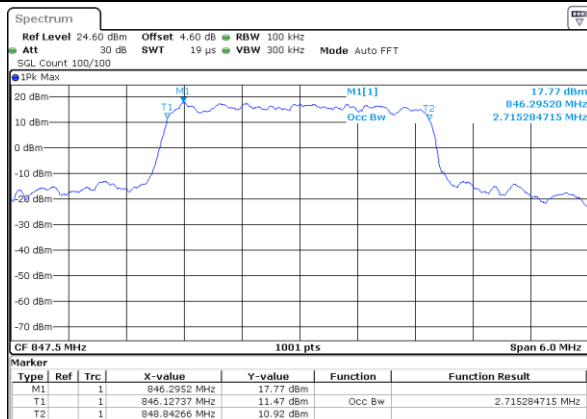
Date: 11 NOV 2019 21:54:10

Middle Channel / 3MHz / 16QAM



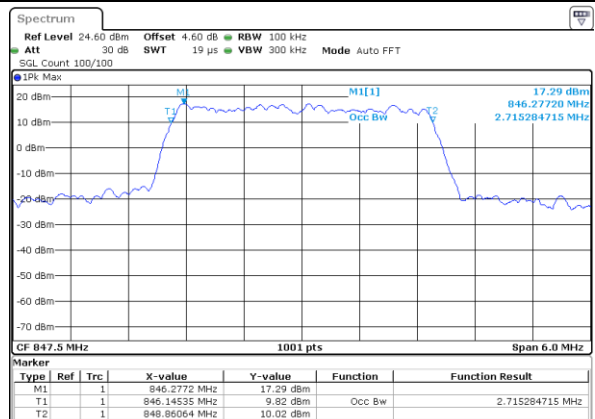
Date: 11 NOV 2019 21:54:20

Highest Channel / 3MHz / QPSK

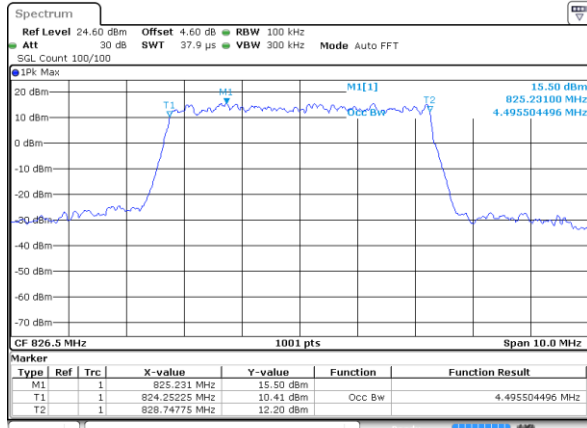


Date: 11 NOV 2019 21:56:37

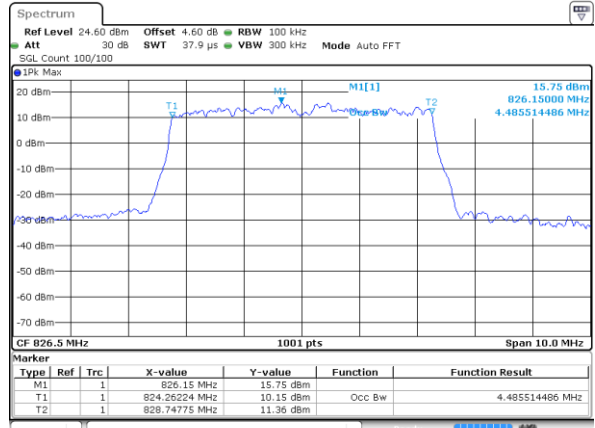
Highest Channel / 3MHz / 16QAM



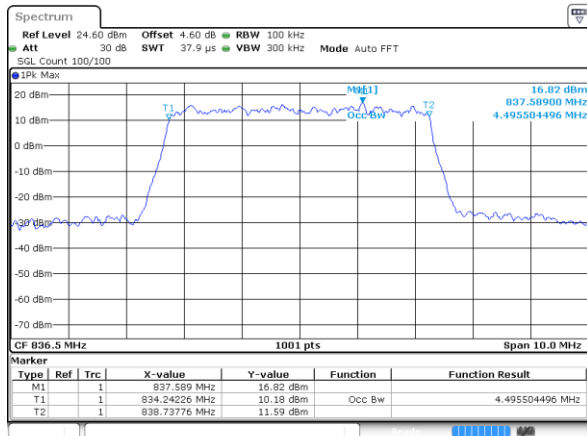
Date: 11 NOV 2019 21:56:47

**LTE Band 5****Lowest Channel / 5MHz / QPSK**

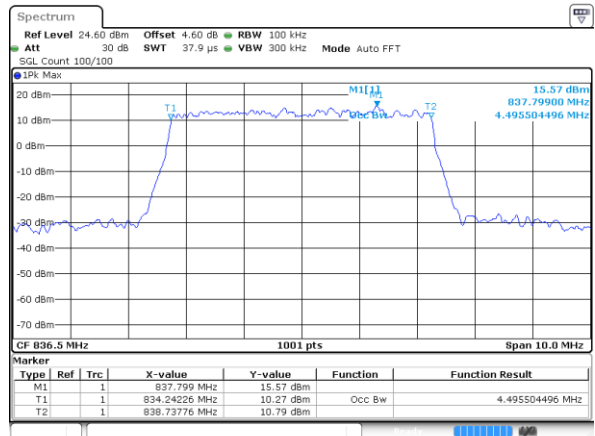
Date: 11 NOV 2019 21:37:08

Lowest Channel / 5MHz / 16QAM

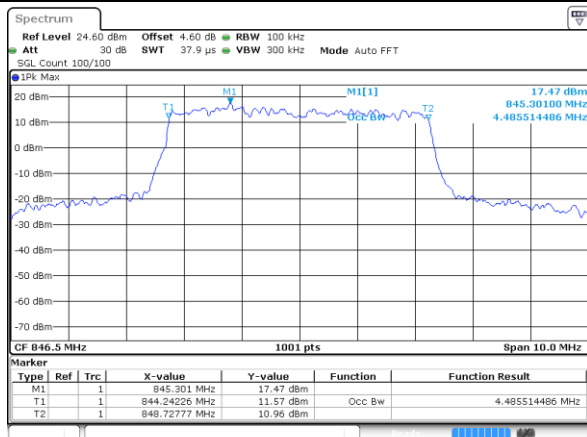
Date: 11 NOV 2019 21:37:27

Middle Channel / 5MHz / QPSK

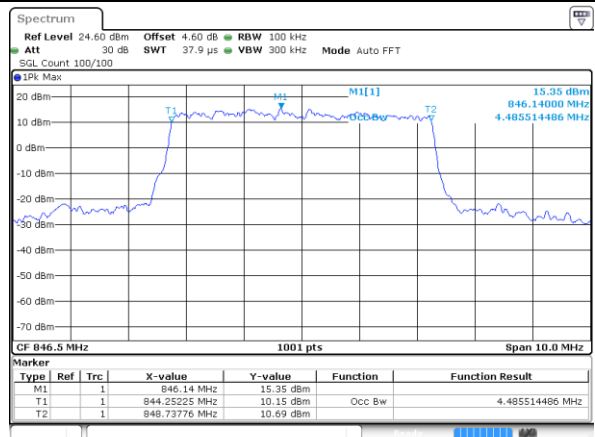
Date: 11 NOV 2019 20:10:57

Middle Channel / 5MHz / 16QAM

Date: 11 NOV 2019 20:11:07

Highest Channel / 5MHz / QPSK

Date: 11 NOV 2019 20:13:24

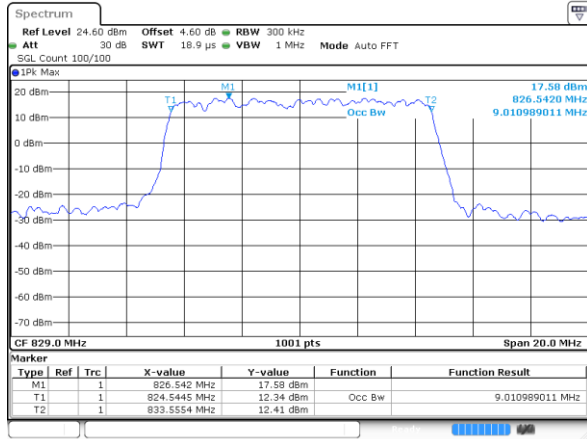
Highest Channel / 5MHz / 16QAM

Date: 11 NOV 2019 20:13:34

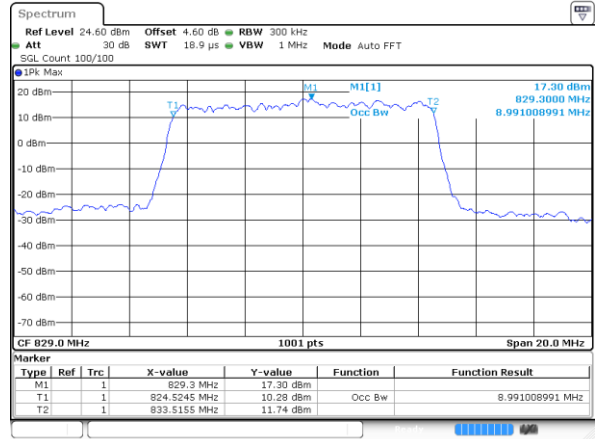


LTE Band 5

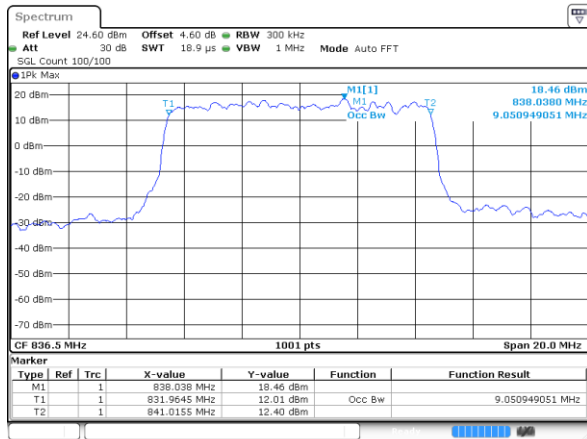
Lowest Channel / 10MHz / QPSK



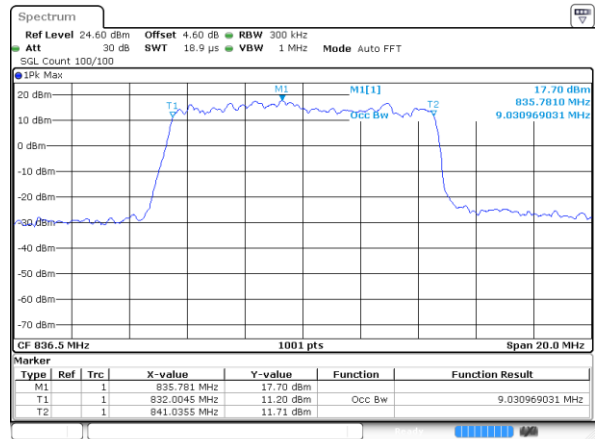
Lowest Channel / 10MHz / 16QAM



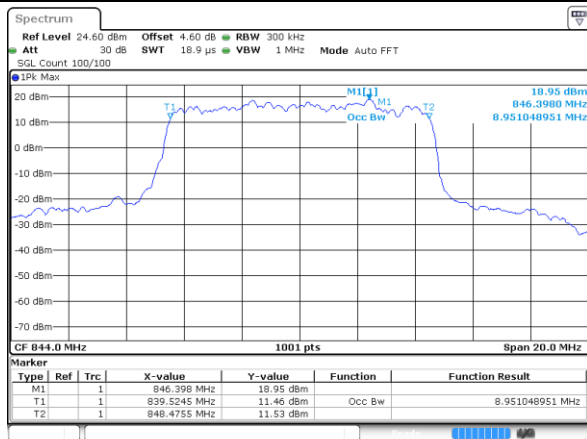
Middle Channel / 10MHz / QPSK



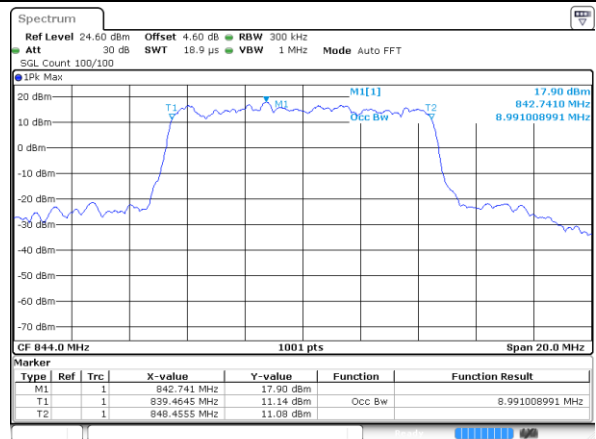
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



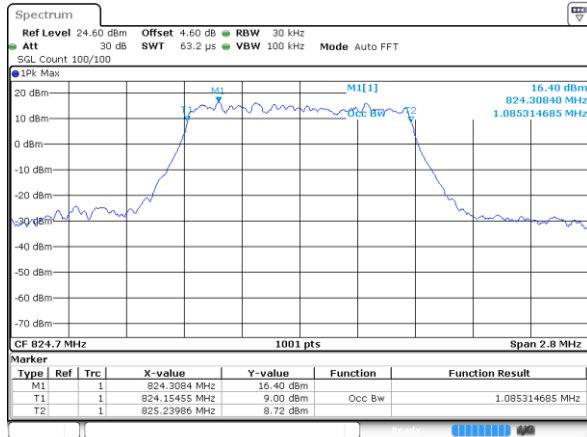
Highest Channel / 10MHz / 16QAM



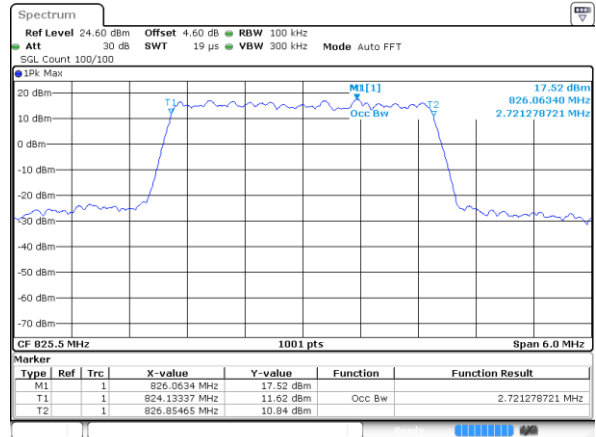


LTE Band 5

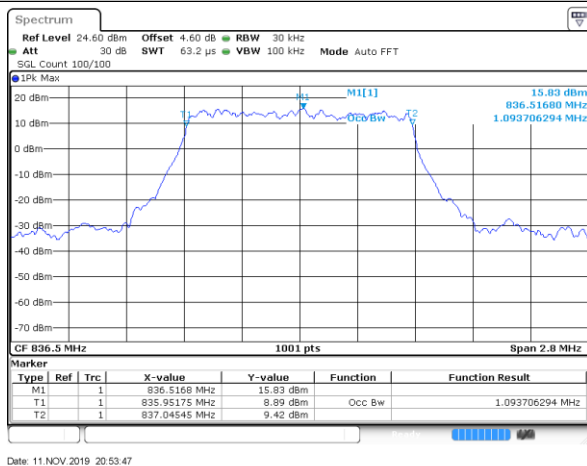
Lowest Channel / 1.4MHz / 64QAM



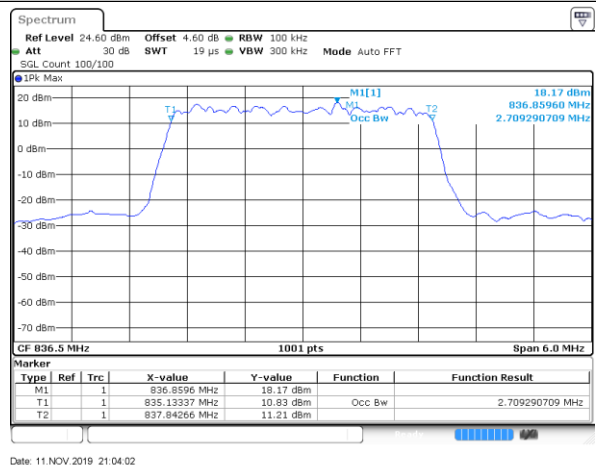
Lowest Channel / 3MHz / 64QAM



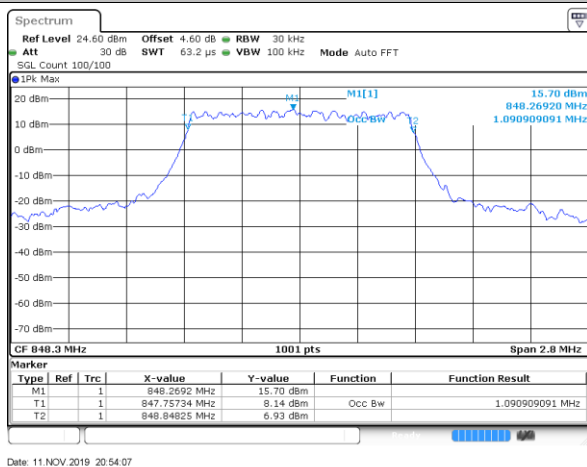
Middle Channel / 1.4MHz / 64QAM



Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



Highest Channel / 3MHz / 64QAM

