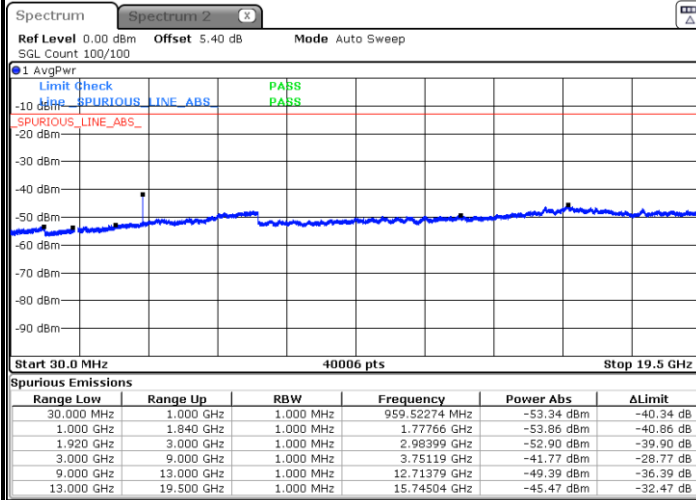




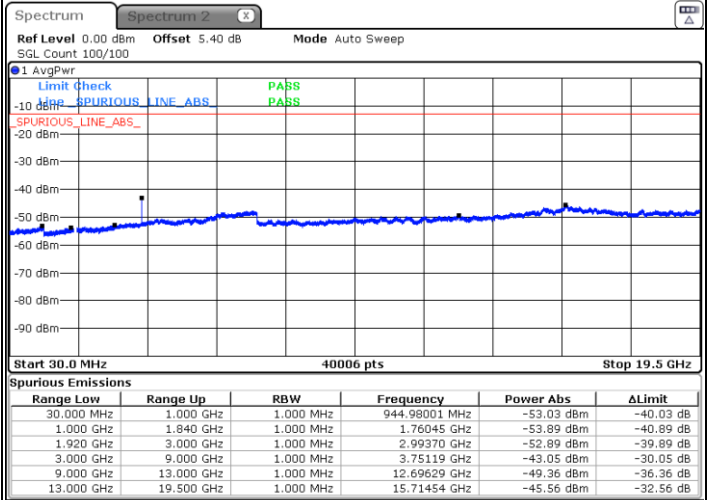
LTE Band 2 / 10MHz

Middle Channel / QPSK



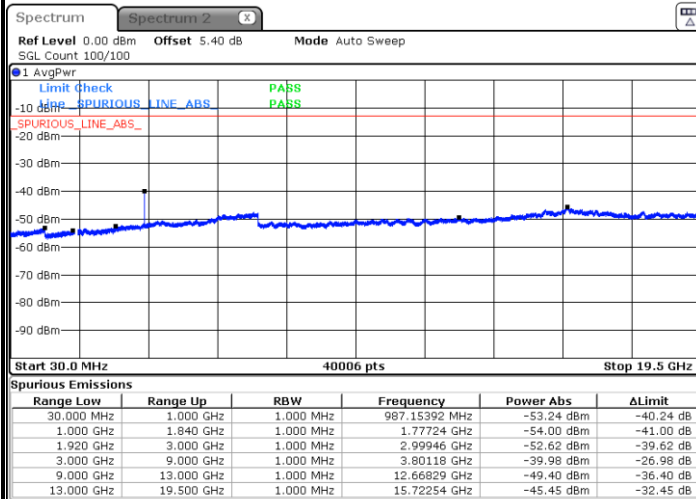
Date: 20 DEC 2019 16:02:40

Middle Channel / 16QAM



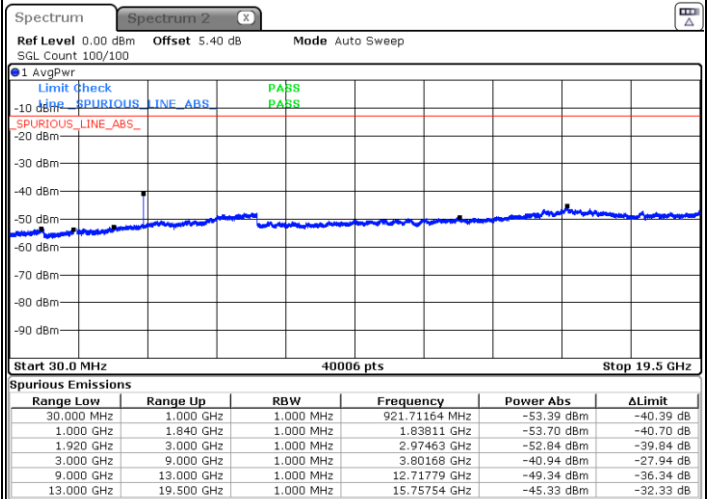
Date: 20 DEC 2019 16:03:34

Highest Channel / QPSK



Date: 20 DEC 2019 16:09:38

Highest Channel / 16QAM

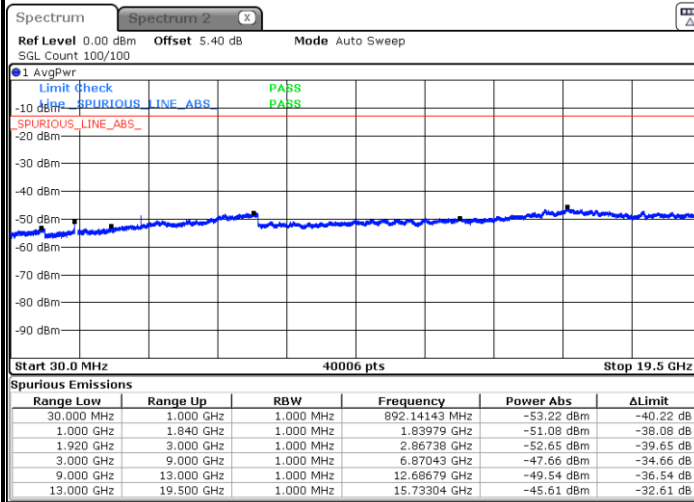


Date: 20 DEC 2019 16:10:32



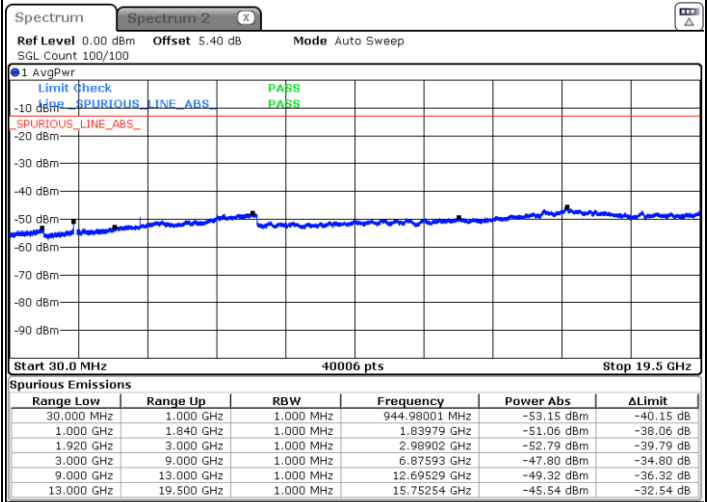
LTE Band 2 / 15MHz

Lowest Channel / QPSK



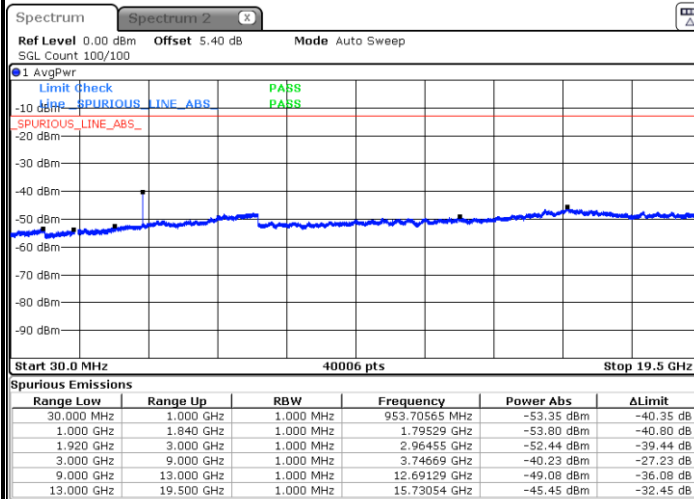
Date: 20 DEC 2019 16:16:36

Lowest Channel / 16QAM



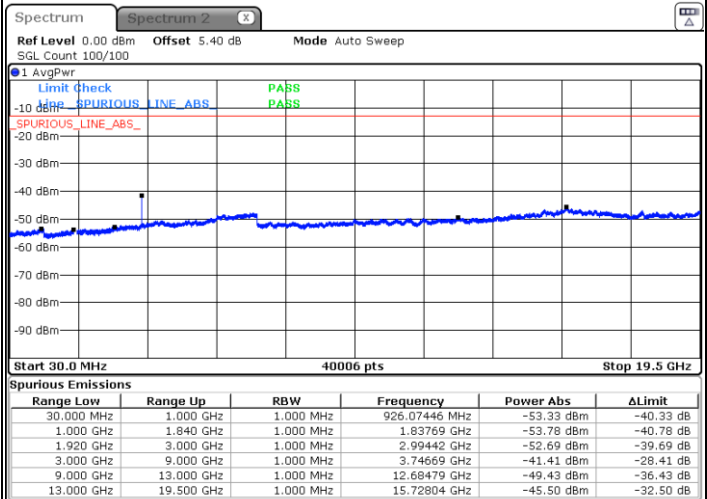
Date: 20 DEC 2019 16:17:31

Middle Channel / QPSK



Date: 20 DEC 2019 16:19:05

Middle Channel / 16QAM

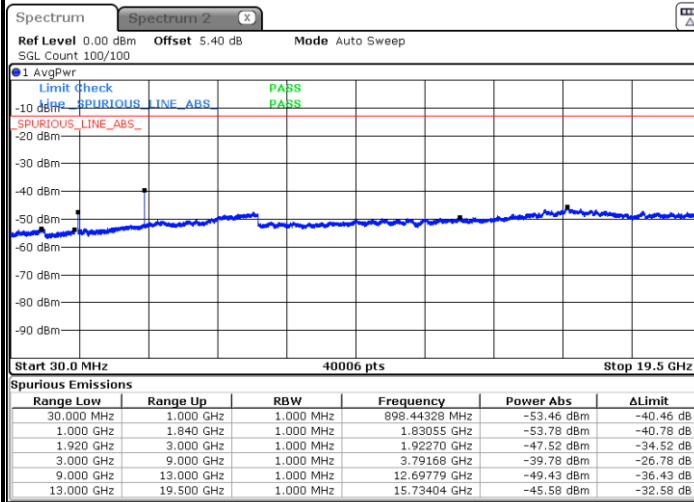


Date: 20 DEC 2019 16:20:00



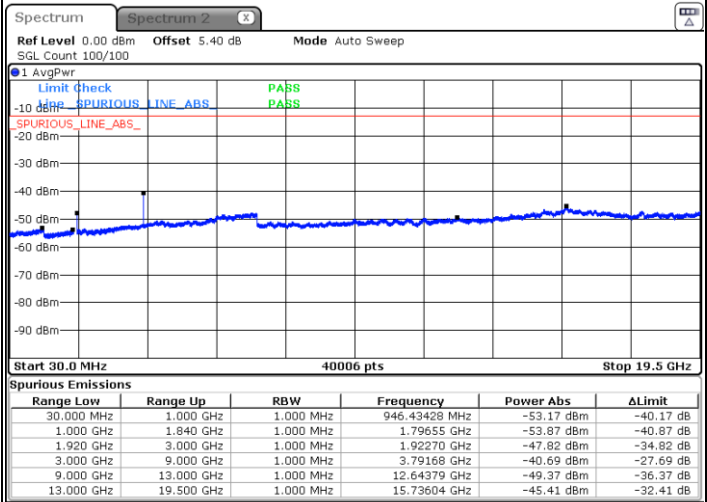
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 20 DEC 2019 16:26:03

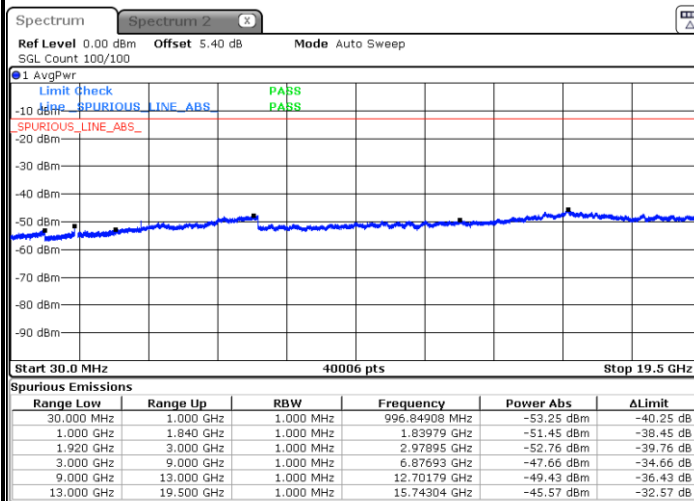
Highest Channel / 16QAM



Date: 20 DEC 2019 16:26:58

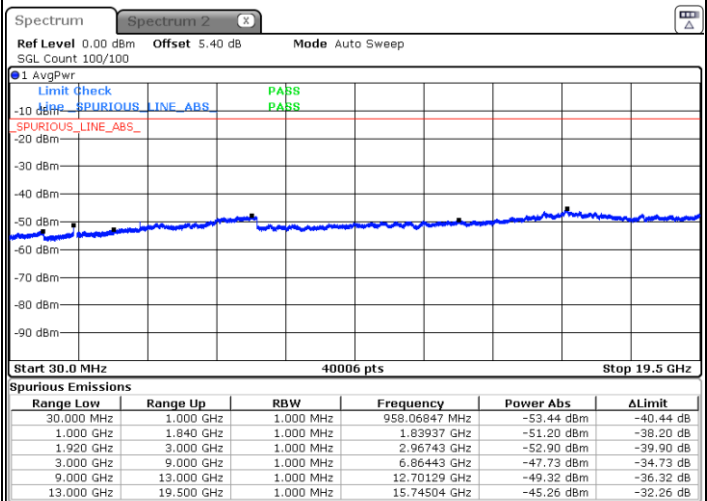
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 20 DEC 2019 16:33:02

Lowest Channel / 16QAM

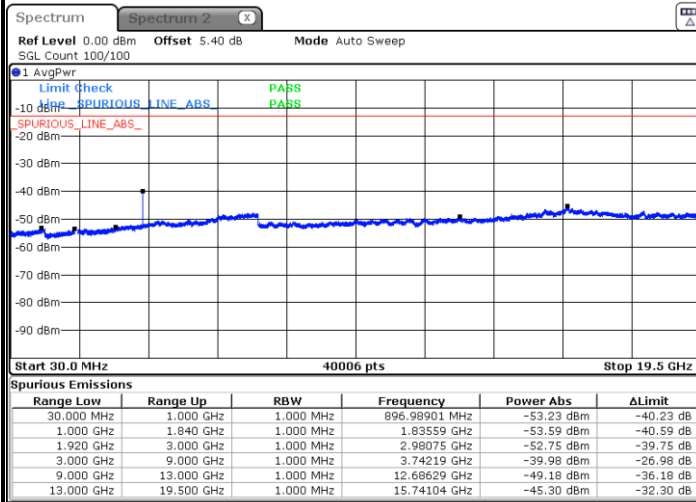


Date: 20 DEC 2019 16:33:56



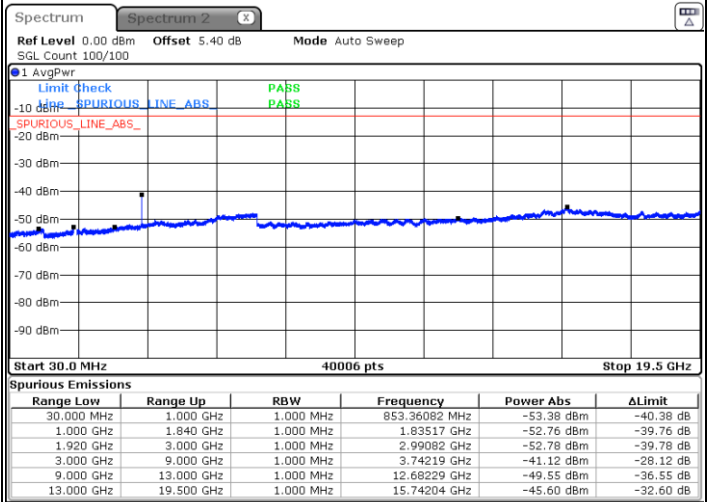
LTE Band 2 / 20MHz

Middle Channel / QPSK



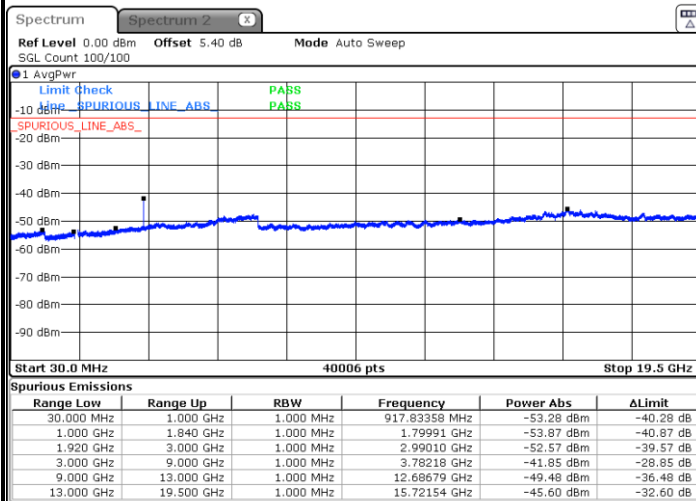
Date: 20 DEC 2019 16:35:31

Middle Channel / 16QAM



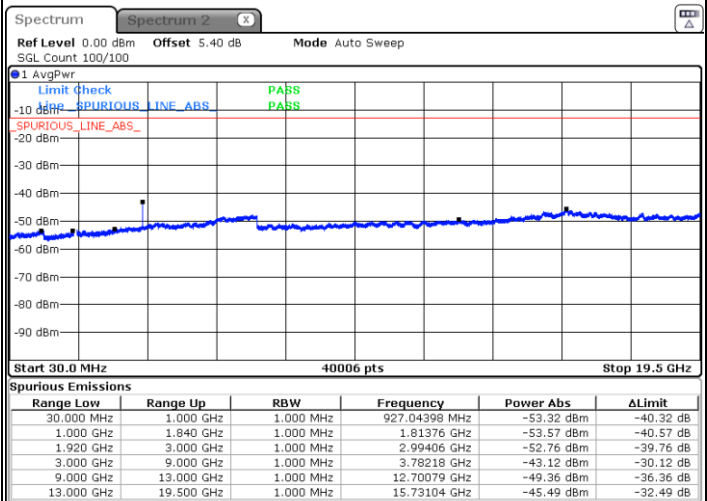
Date: 20 DEC 2019 16:36:26

Highest Channel / QPSK



Date: 20 DEC 2019 16:42:30

Highest Channel / 16QAM

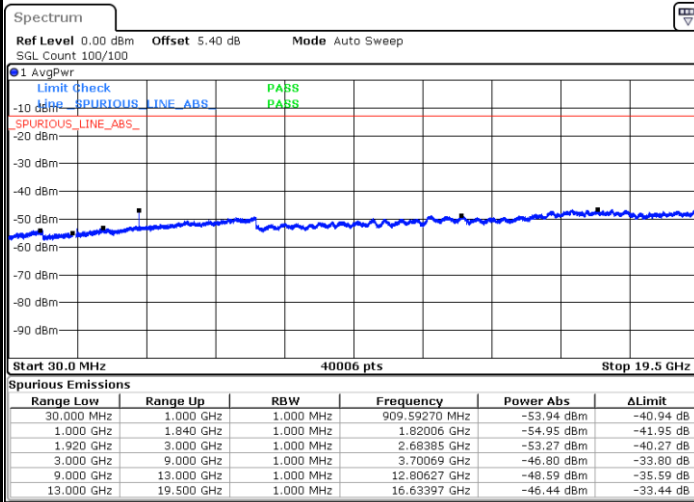


Date: 20 DEC 2019 16:43:24



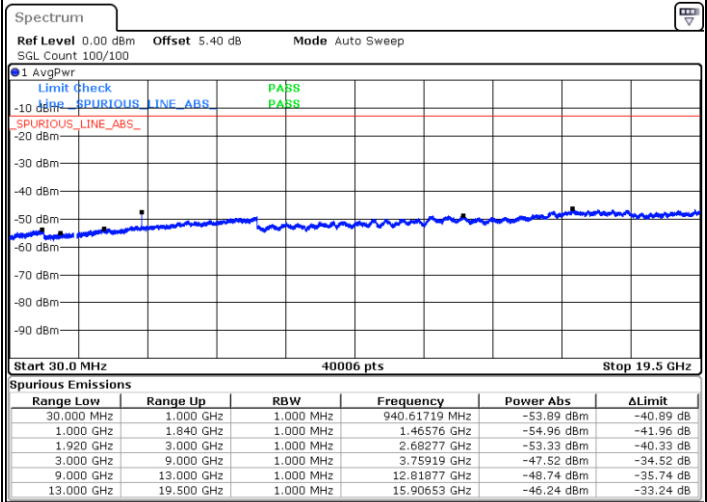
LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM



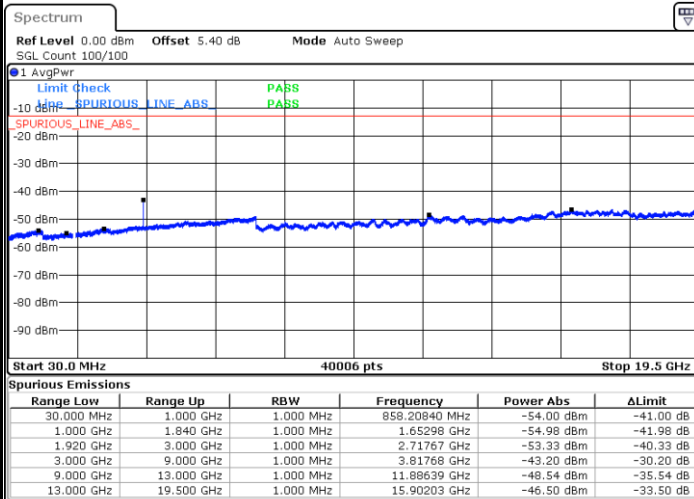
Date: 22 DEC 2019 22:26:14

Middle Channel / 64QAM



Date: 22 DEC 2019 22:26:59

Highest Channel / 64QAM

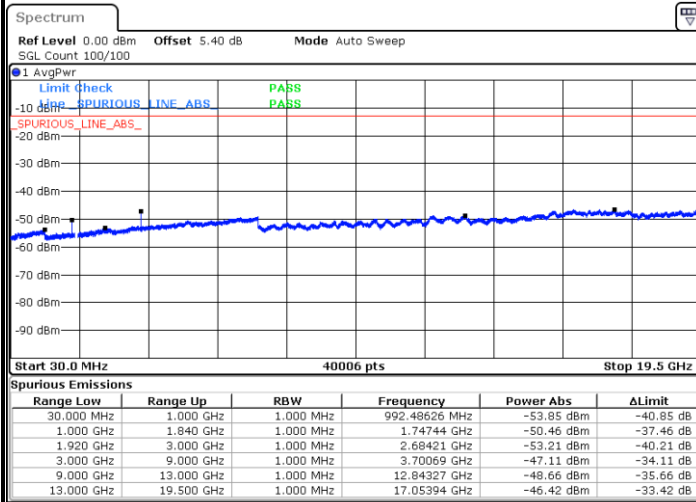


Date: 22 DEC 2019 22:28:43



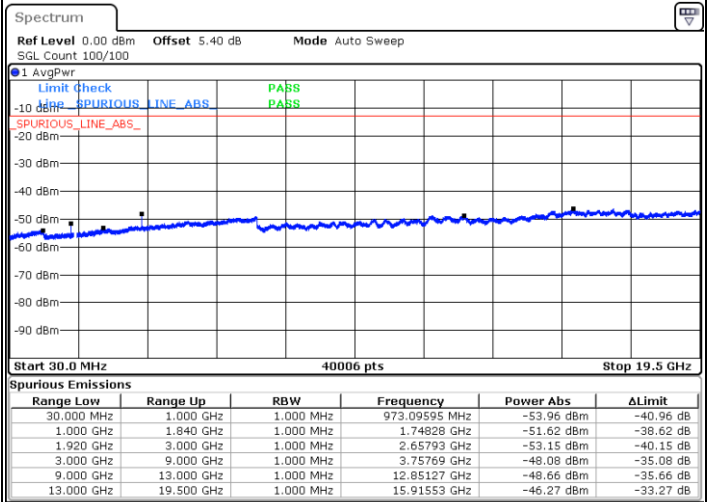
LTE Band 2 / 3MHz

Lowest Channel / 64QAM



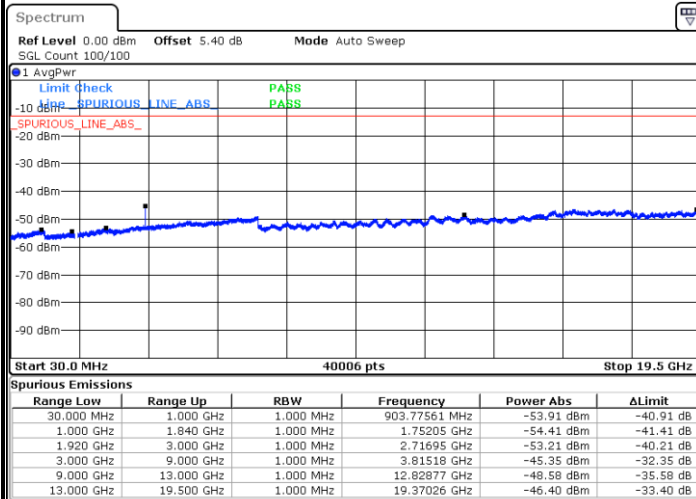
Date: 22 DEC 2019 22:31:00

Middle Channel / 64QAM



Date: 22 DEC 2019 22:31:44

Highest Channel / 64QAM

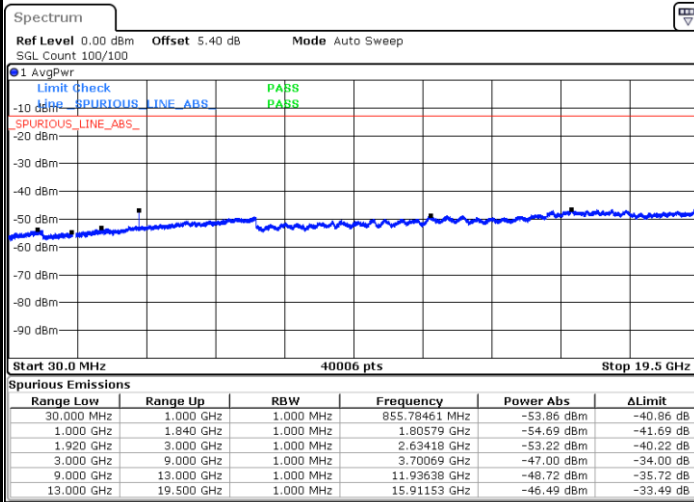


Date: 22 DEC 2019 22:32:31



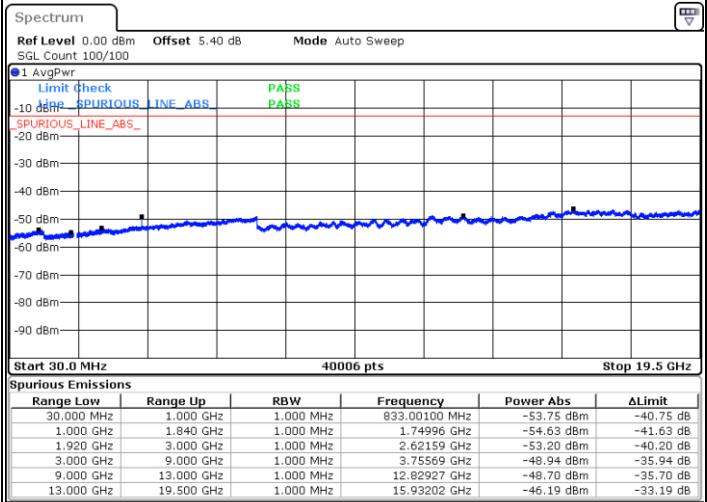
LTE Band 2 / 5MHz

Lowest Channel / 64QAM



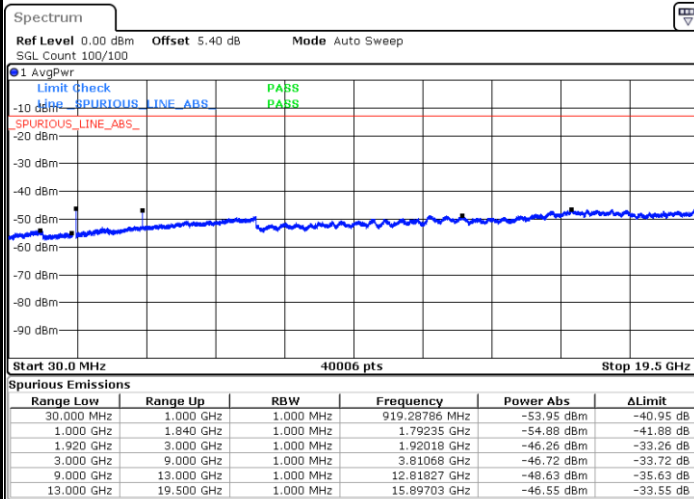
Date: 22 DEC 2019 22:33:31

Middle Channel / 64QAM



Date: 22 DEC 2019 22:34:23

Highest Channel / 64QAM

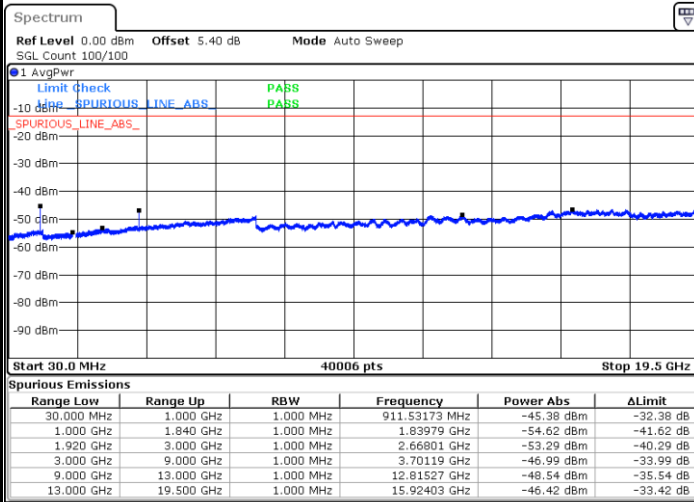


Date: 22 DEC 2019 22:36:57



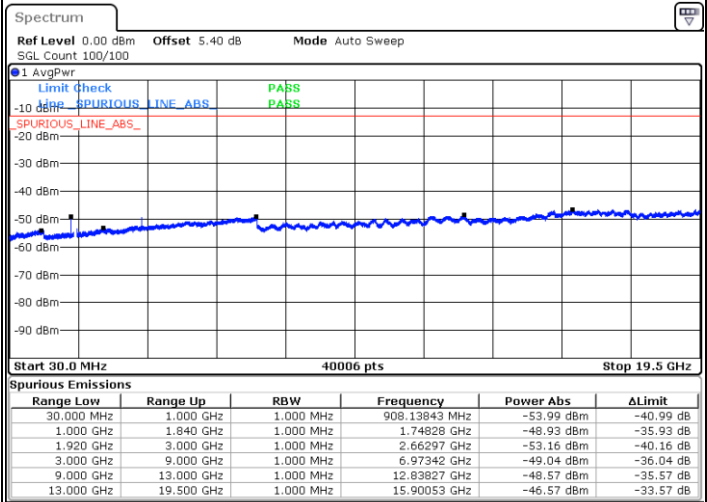
LTE Band 2 / 10MHz

Lowest Channel / 64QAM



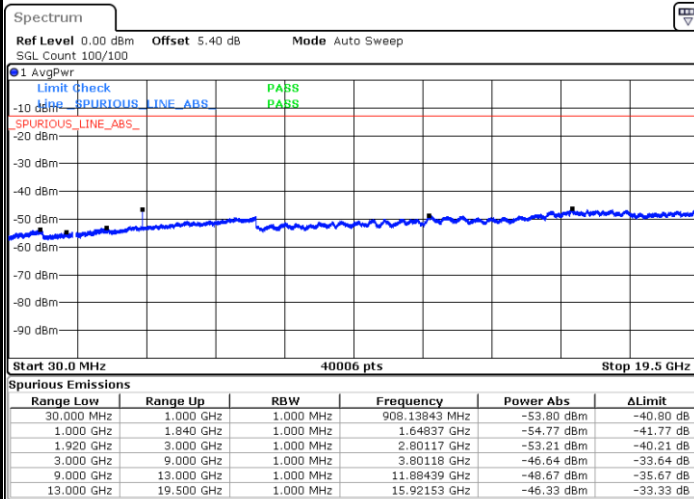
Date: 22 DEC 2019 22:37:42

Middle Channel / 64QAM



Date: 22 DEC 2019 22:38:28

Highest Channel / 64QAM

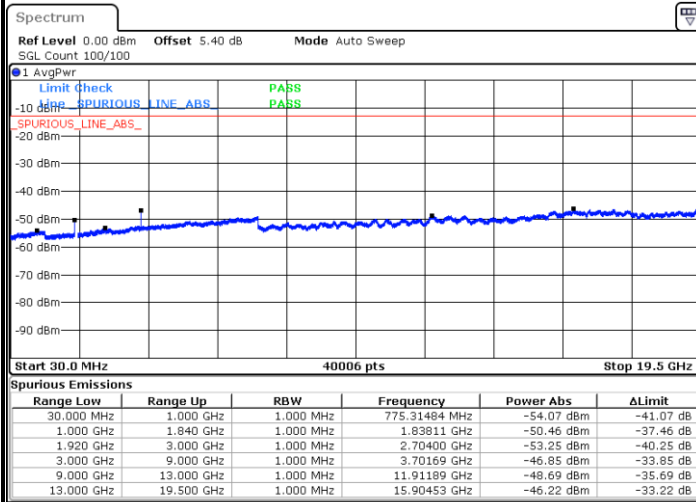


Date: 22 DEC 2019 22:39:10



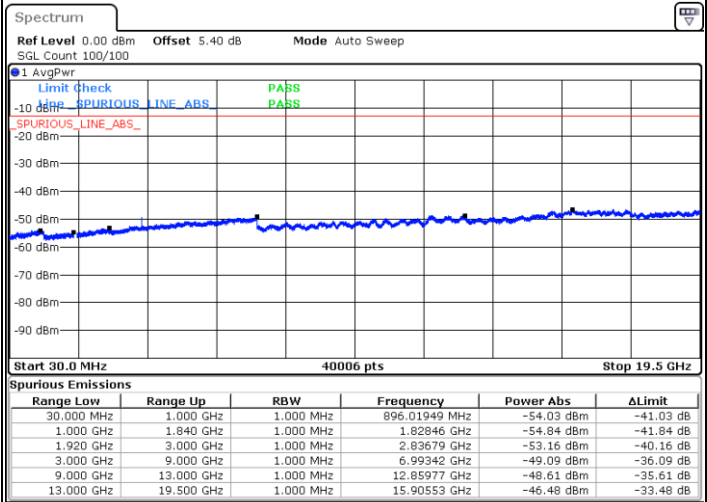
LTE Band 2 / 15MHz

Lowest Channel / 64QAM



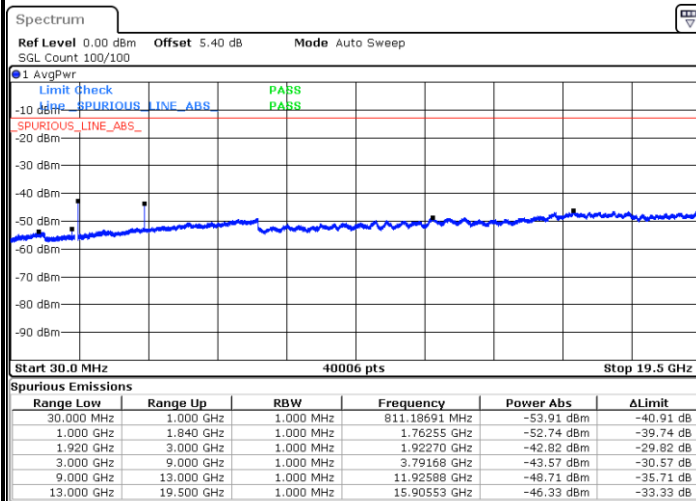
Date: 22 DEC 2019 22:39:59

Middle Channel / 64QAM



Date: 22 DEC 2019 22:40:41

Highest Channel / 64QAM

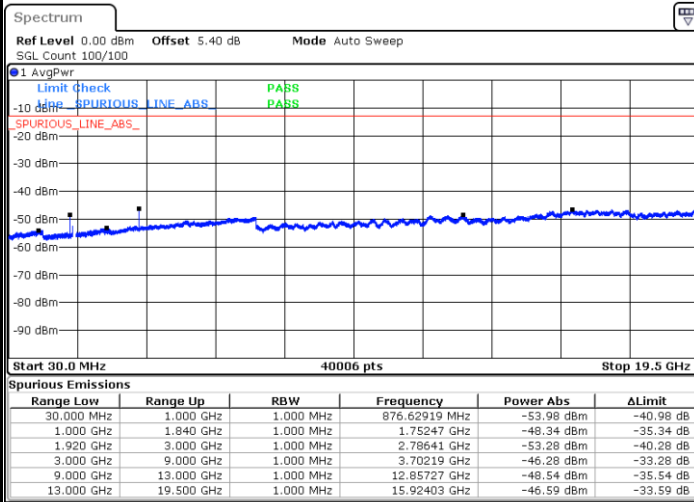


Date: 22 DEC 2019 22:41:23



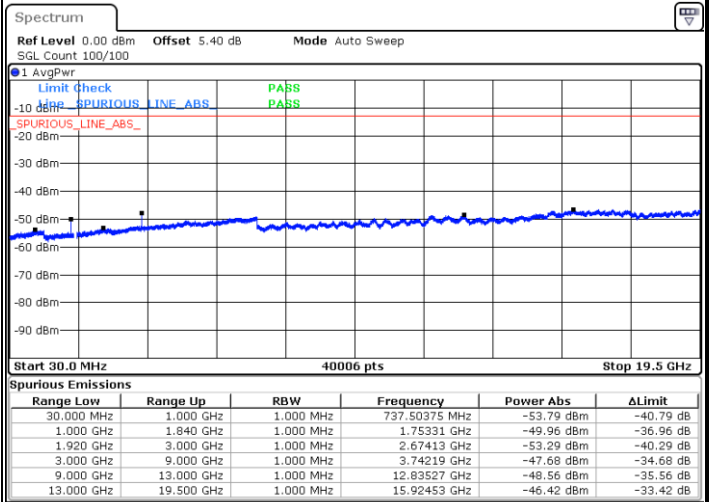
LTE Band 2 / 20MHz

Lowest Channel / 64QAM



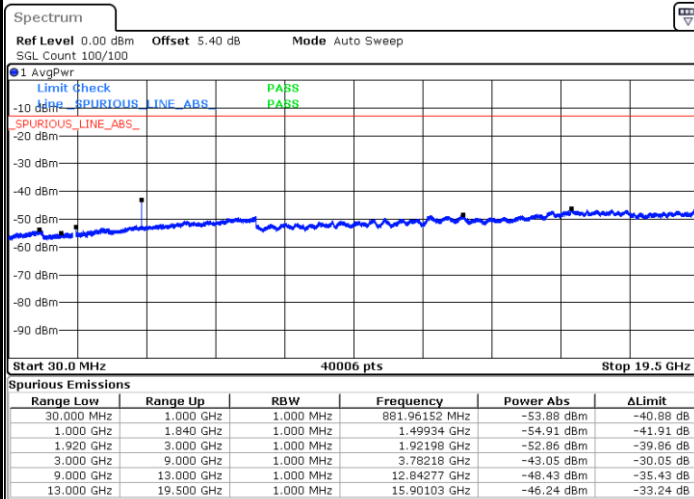
Date: 22 DEC 2019 22:42:10

Middle Channel / 64QAM



Date: 22 DEC 2019 22:42:53

Highest Channel / 64QAM



Date: 22 DEC 2019 22:43:35

**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	0.0023	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0026	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

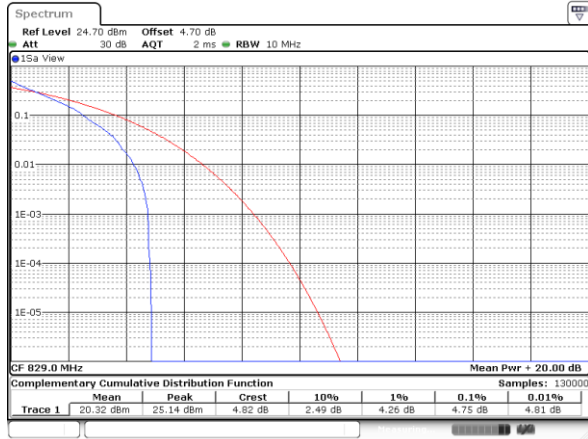
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.75	5.33	5.65	6.17	PASS
Middle CH	5.04	5.54	5.94	6.26	
Highest CH	4.81	5.59	5.86	6.38	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	6.41	6.55	PASS		
Middle CH	6.58	6.43			
Highest CH	6.20	6.78			

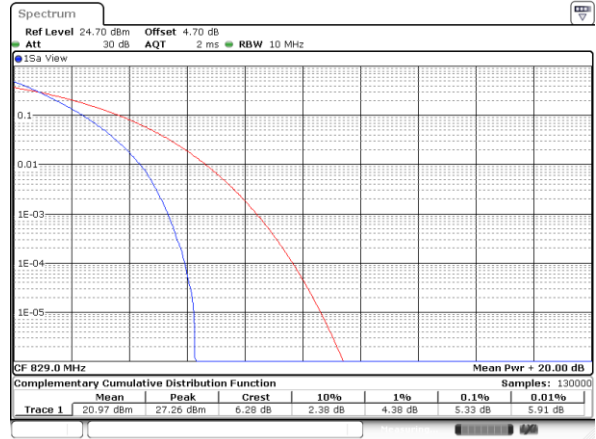


LTE Band 5 / 10MHz / QPSK

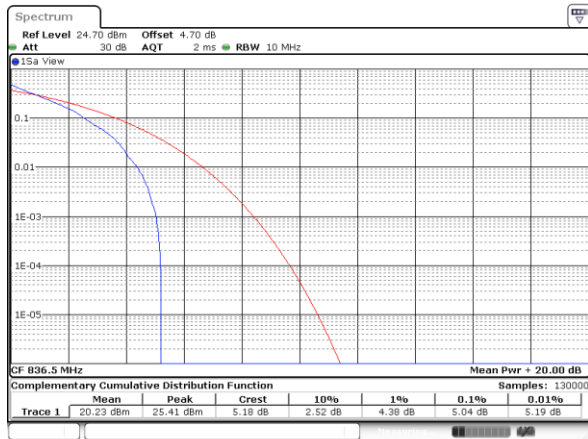
Lowest Channel / 1RB



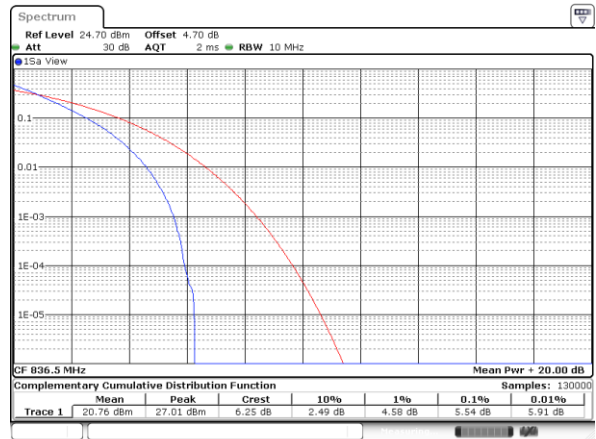
Lowest Channel / Full RB



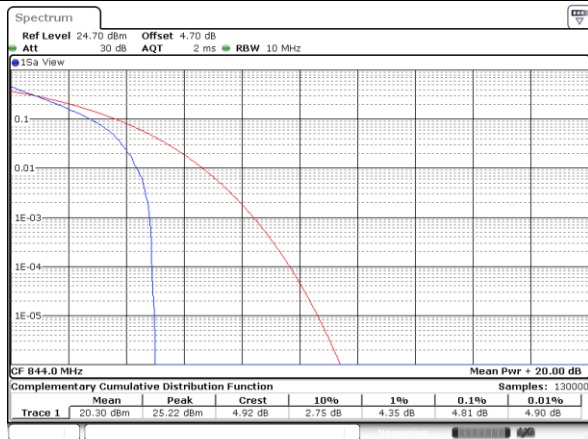
Middle Channel / 1RB



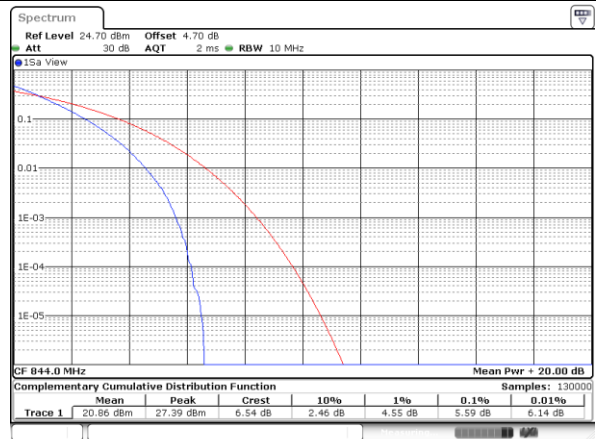
Middle Channel / Full RB



Highest Channel / 1RB



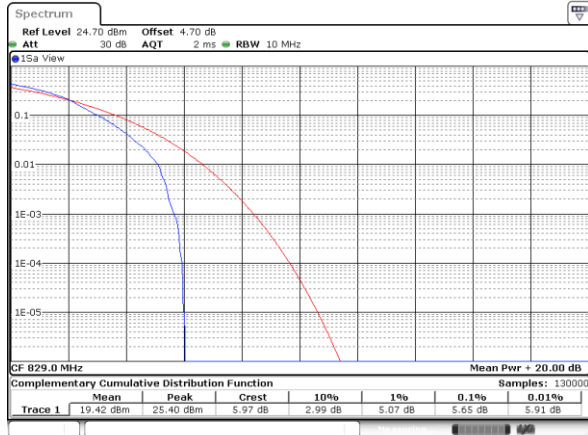
Highest Channel / Full RB



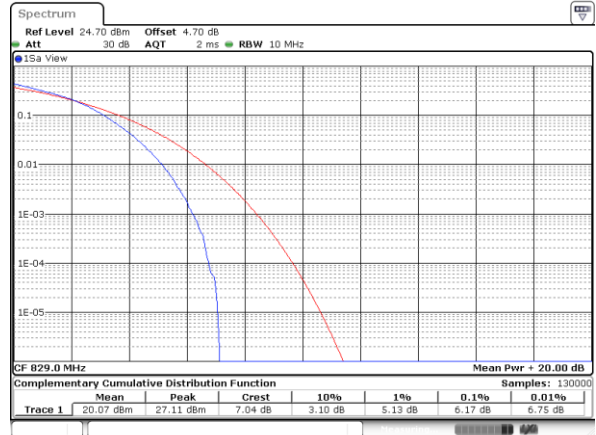


LTE Band 5 / 10MHz / 16QAM

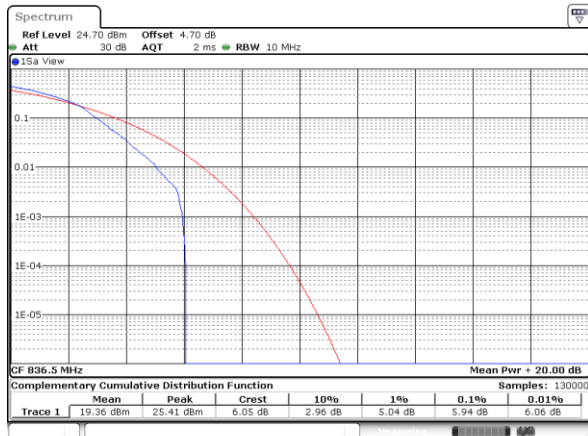
Lowest Channel / 1RB



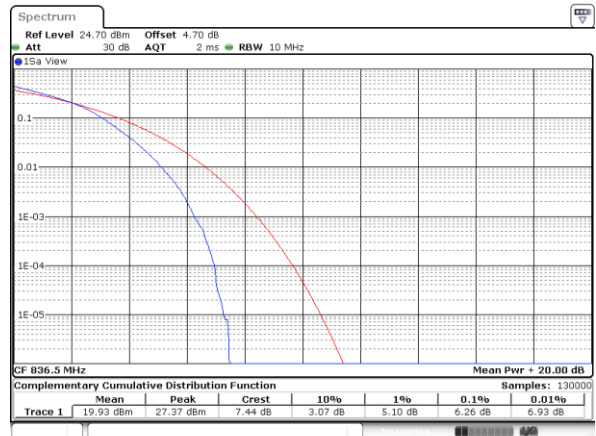
Lowest Channel / Full RB



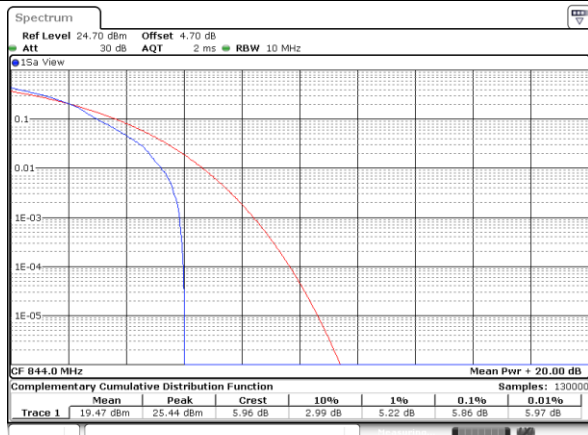
Middle Channel / 1RB



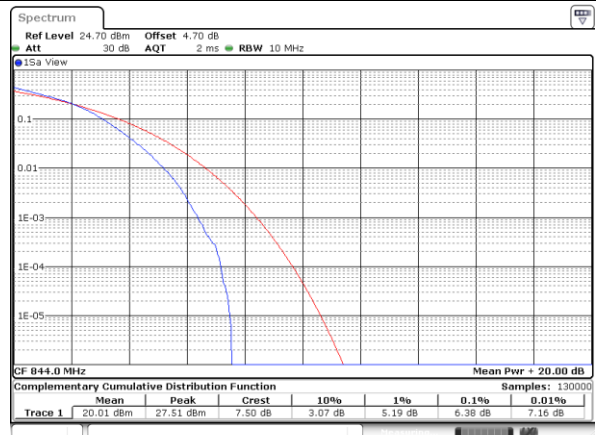
Middle Channel / Full RB



Highest Channel / 1RB



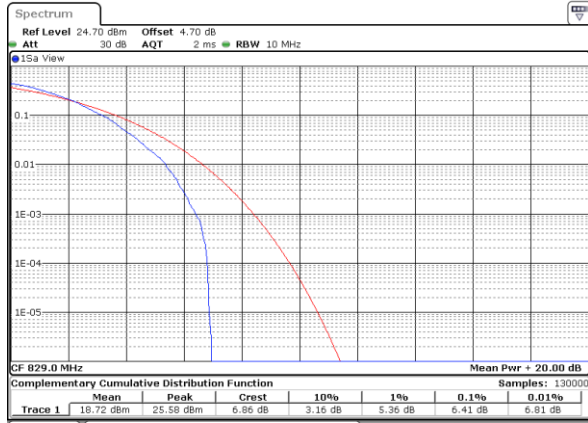
Highest Channel / Full RB





LTE Band 5 / 10MHz / 64QAM

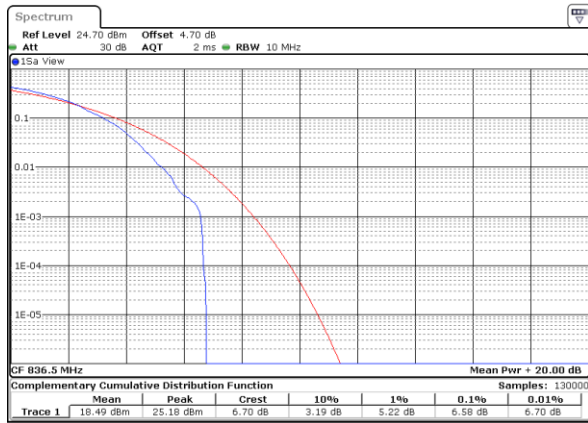
Lowest Channel / 1RB



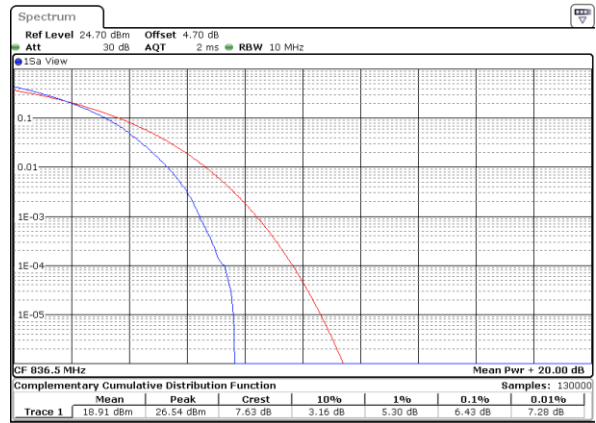
Lowest Channel / Full RB



Middle Channel / 1RB



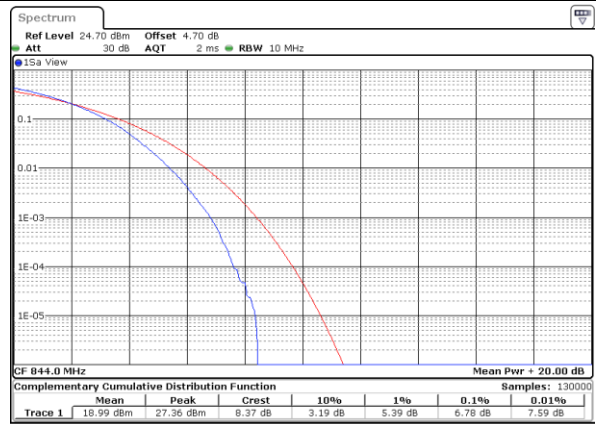
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



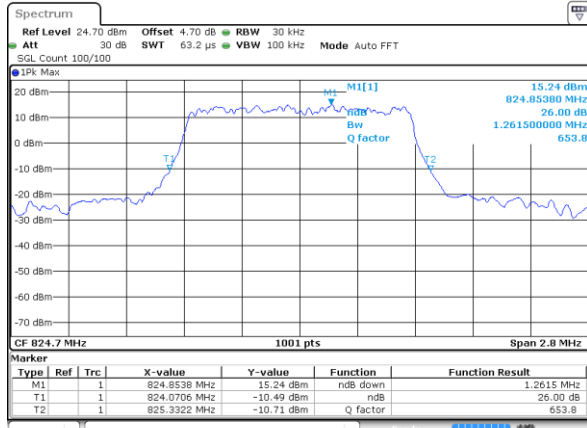
**26dB Bandwidth**

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	1.2615	1.3147	2.9371	2.979	4.845	4.835	9.85	9.75	-	-	-	-
Middle CH	1.2615	1.2895	2.955	2.961	4.865	4.825	9.65	9.67	-	-	-	-
Highest CH	1.2587	1.2923	2.9491	2.961	4.855	4.825	9.63	9.81	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		-		-	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	-	-	-	-
Lowest CH	1.2755	-	2.955	-	4.935	-	9.89	-	-	-	-	-
Middle CH	1.2727	-	2.9431	-	4.785	-	9.95	-	-	-	-	-
Highest CH	1.2923	-	2.9491	-	4.825	-	9.73	-	-	-	-	-



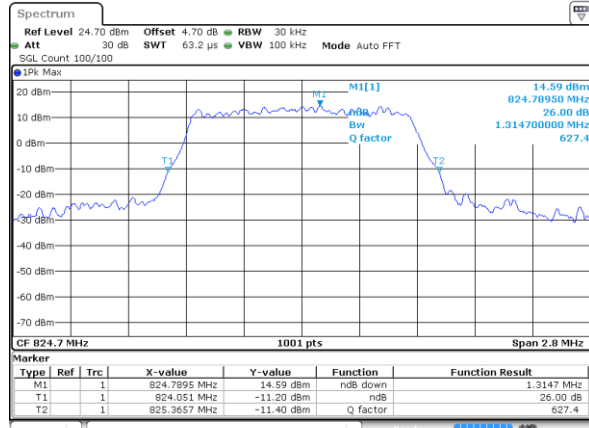
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



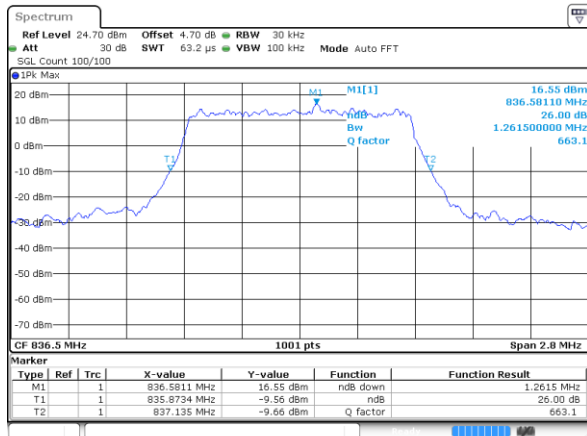
Date: 30 DEC 2019 09:58:11

Lowest Channel / 1.4MHz / 16QAM



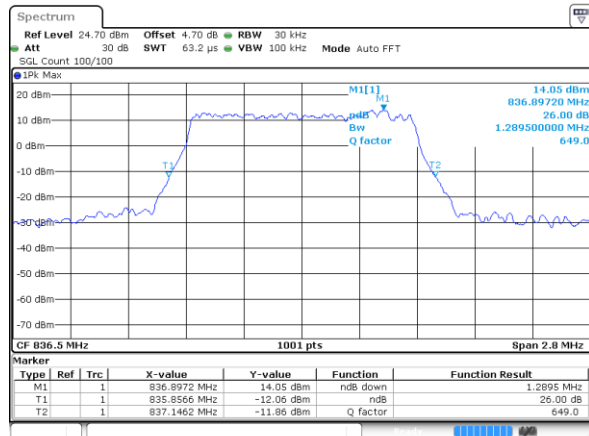
Date: 30 DEC 2019 09:58:01

Middle Channel / 1.4MHz / QPSK



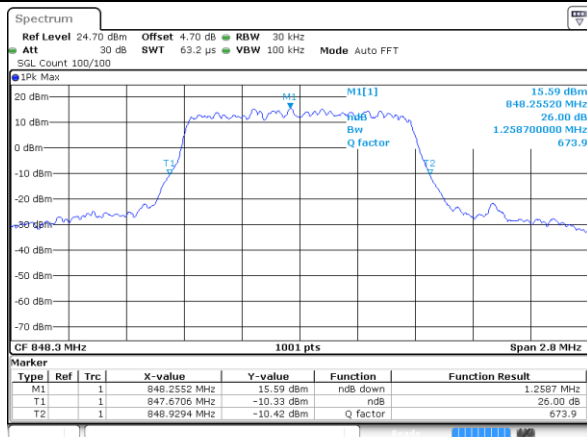
Date: 30 DEC 2019 10:06:08

Middle Channel / 1.4MHz / 16QAM



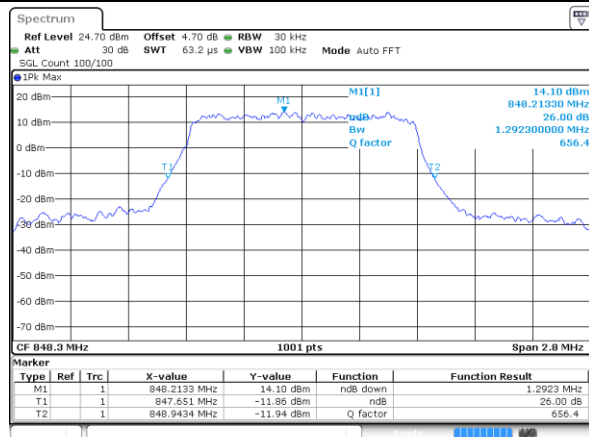
Date: 30 DEC 2019 10:06:18

Highest Channel / 1.4MHz / QPSK



Date: 30 DEC 2019 10:07:42

Highest Channel / 1.4MHz / 16QAM

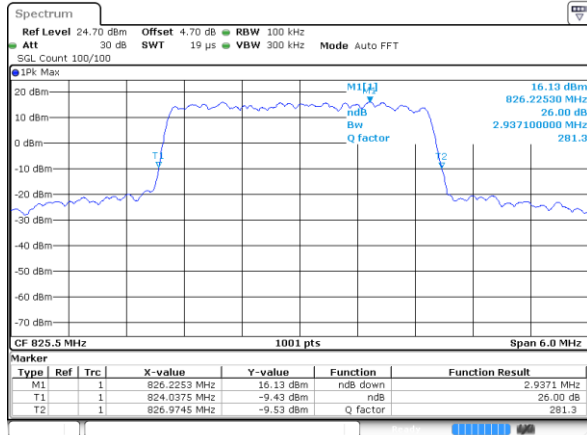


Date: 30 DEC 2019 10:07:52

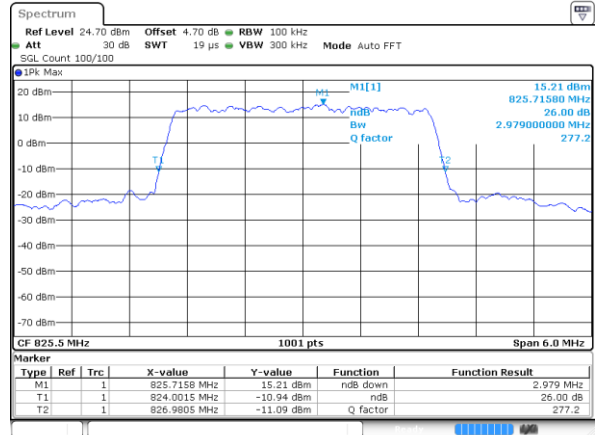


LTE Band 5

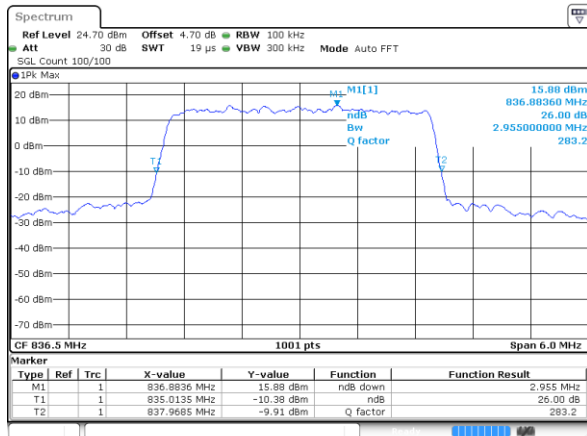
Lowest Channel / 3MHz / QPSK



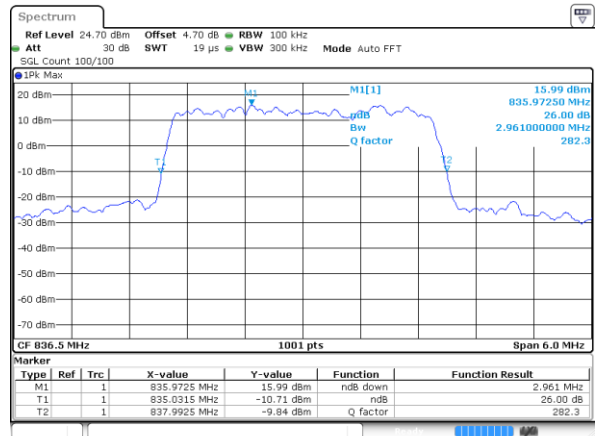
Lowest Channel / 3MHz / 16QAM



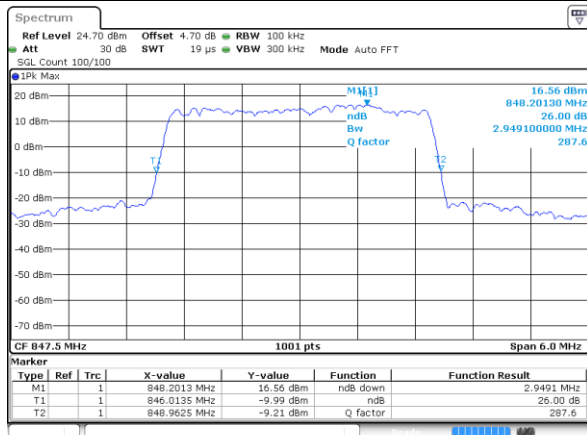
Middle Channel / 3MHz / QPSK



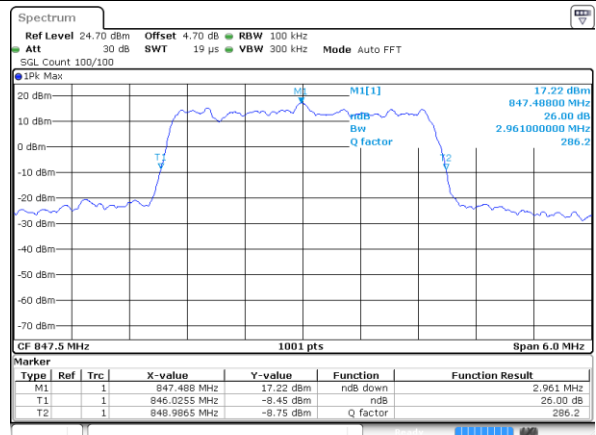
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



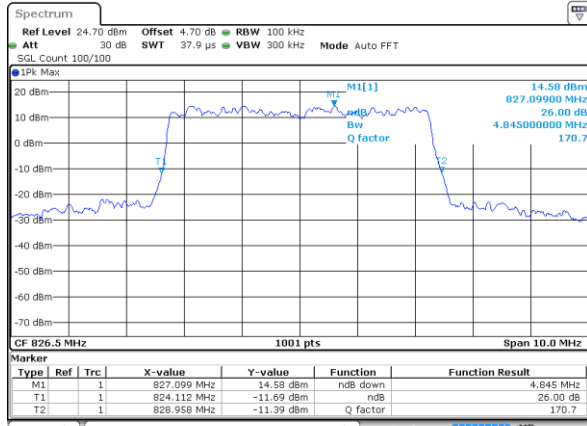
Highest Channel / 3MHz / 16QAM



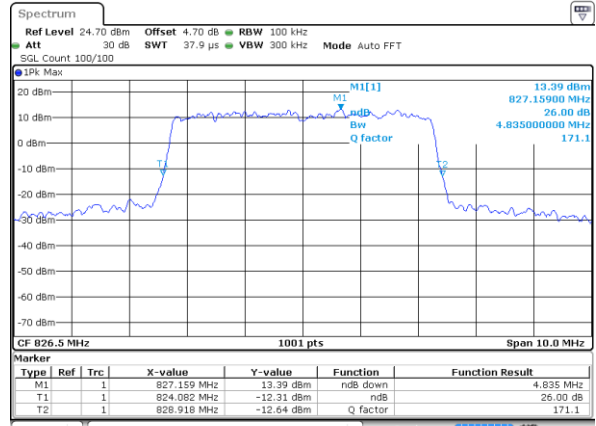


LTE Band 5

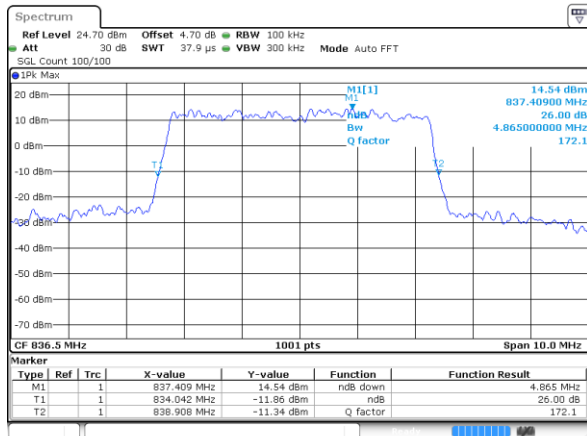
Lowest Channel / 5MHz / QPSK



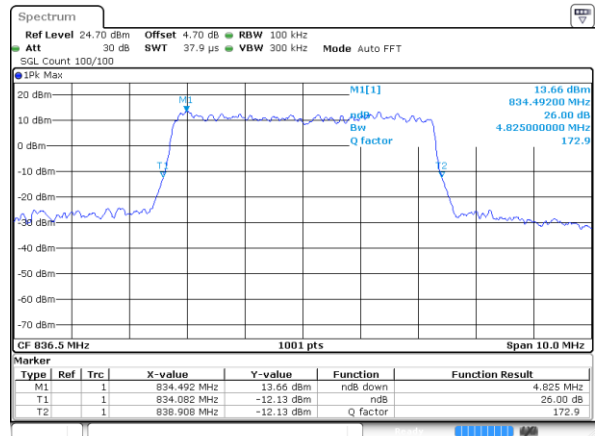
Lowest Channel / 5MHz / 16QAM



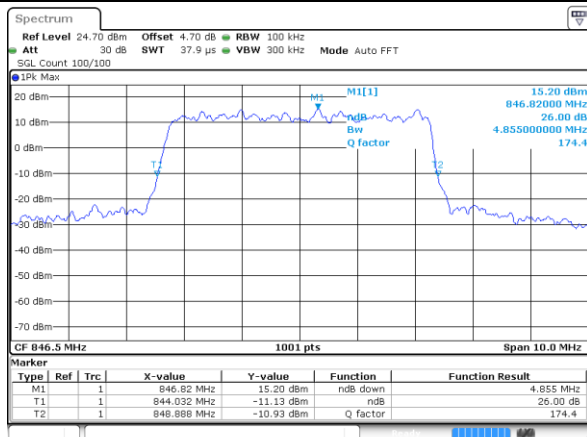
Middle Channel / 5MHz / QPSK



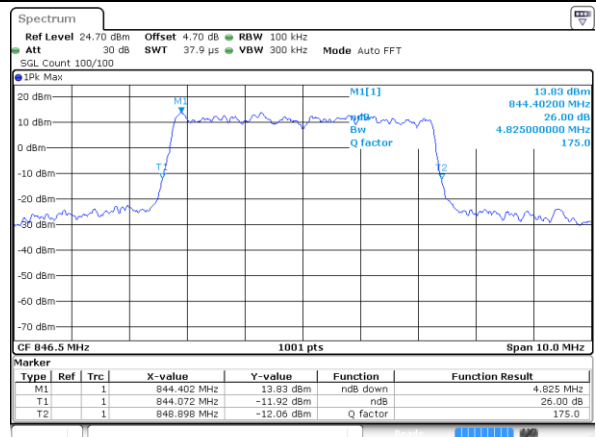
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



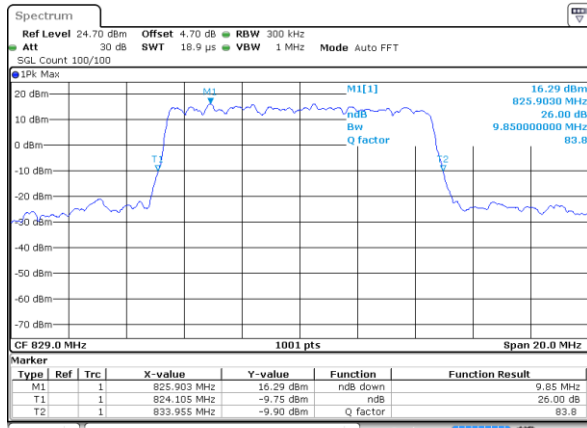
Highest Channel / 5MHz / 16QAM





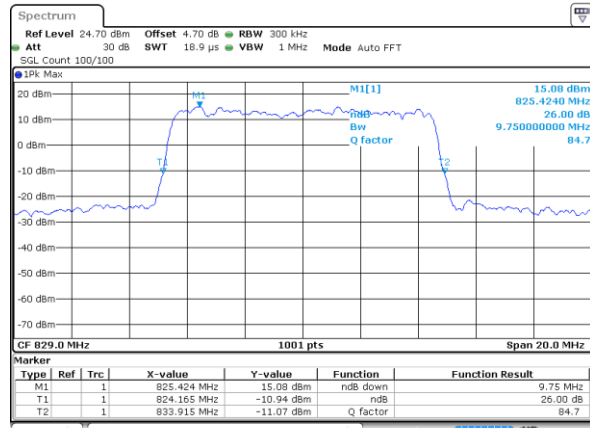
LTE Band 5

Lowest Channel / 10MHz / QPSK



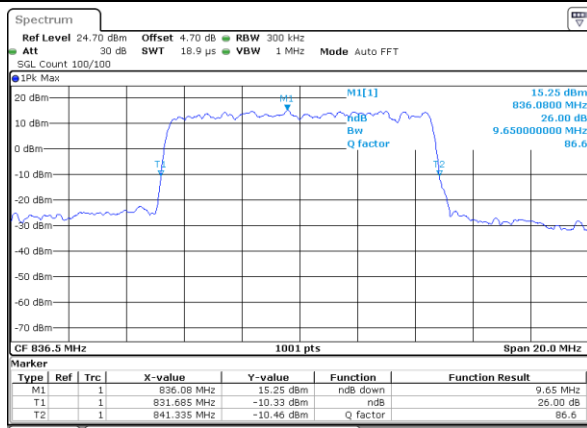
Date: 30 DEC 2019 10:57:40

Lowest Channel / 10MHz / 16QAM



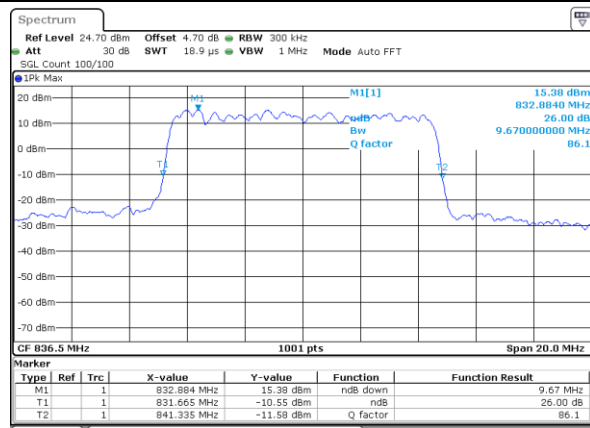
Date: 30 DEC 2019 10:57:50

Middle Channel / 10MHz / QPSK



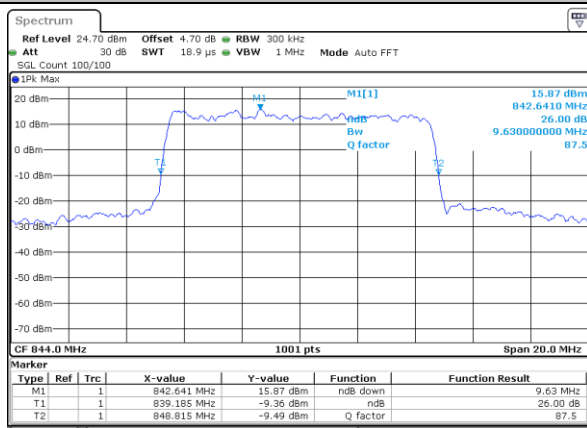
Date: 30 DEC 2019 11:06:41

Middle Channel / 10MHz / 16QAM



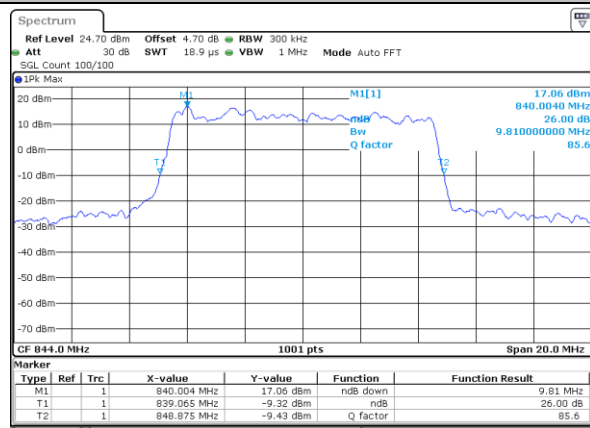
Date: 30 DEC 2019 11:06:51

Highest Channel / 10MHz / QPSK



Date: 30 DEC 2019 11:09:08

Highest Channel / 10MHz / 16QAM

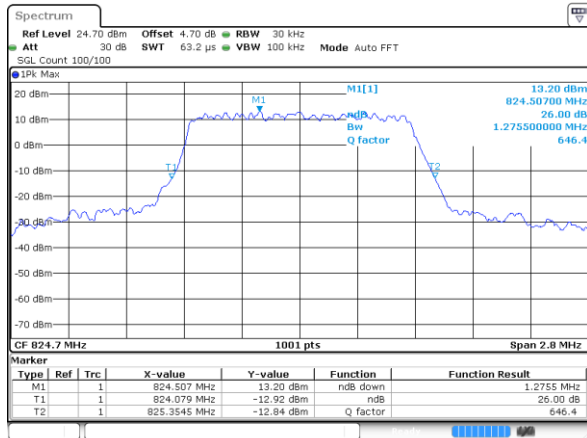


Date: 30 DEC 2019 11:09:18



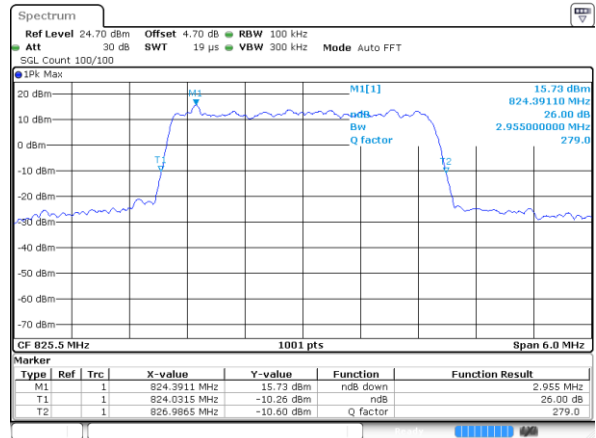
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



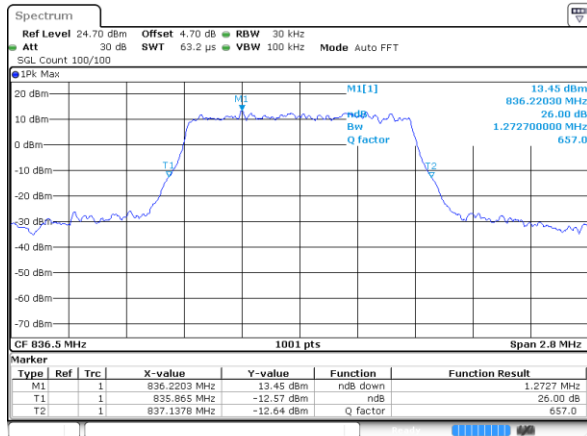
Date: 30 DEC 2019 12:01:21

Lowest Channel / 3MHz / 64QAM



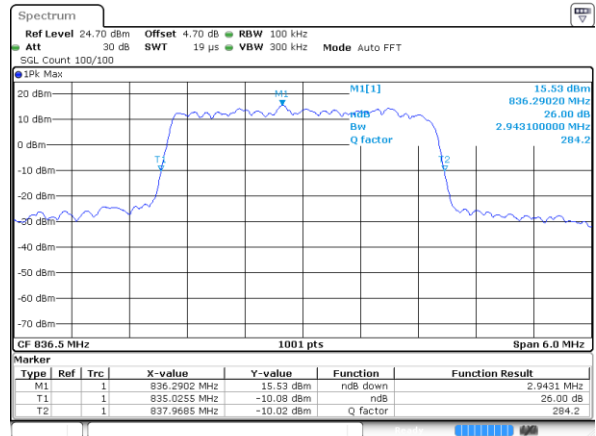
Date: 30 DEC 2019 11:29:58

Middle Channel / 1.4MHz / 64QAM



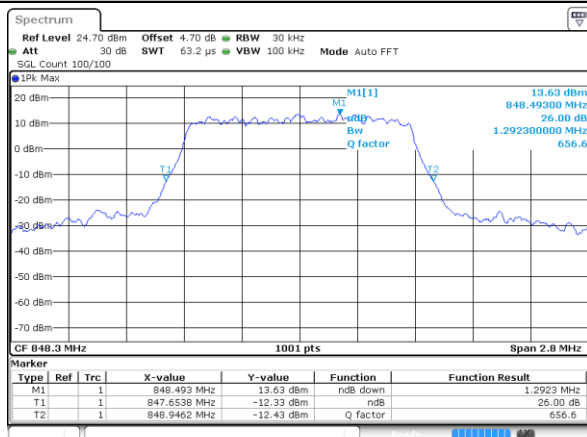
Date: 30 DEC 2019 11:25:08

Middle Channel / 3MHz / 64QAM



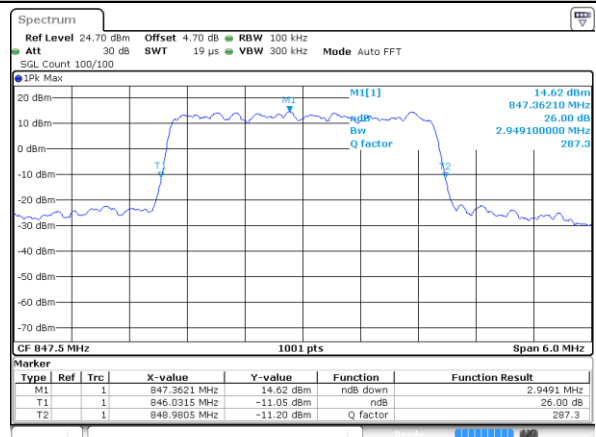
Date: 30 DEC 2019 11:35:22

Highest Channel / 1.4MHz / 64QAM



Date: 30 DEC 2019 11:25:28

Highest Channel / 3MHz / 64QAM

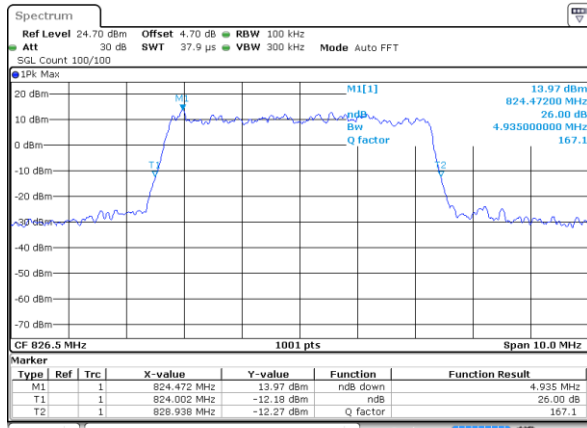


Date: 30 DEC 2019 11:35:42

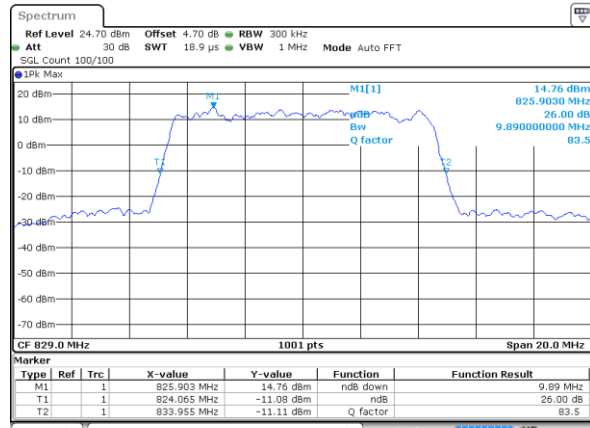


LTE Band 5

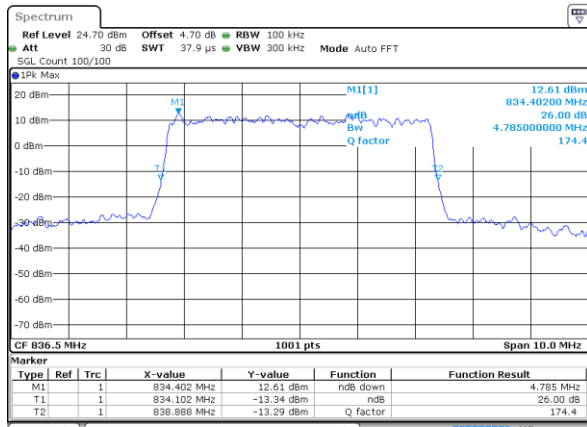
Lowest Channel / 5MHz / 64QAM



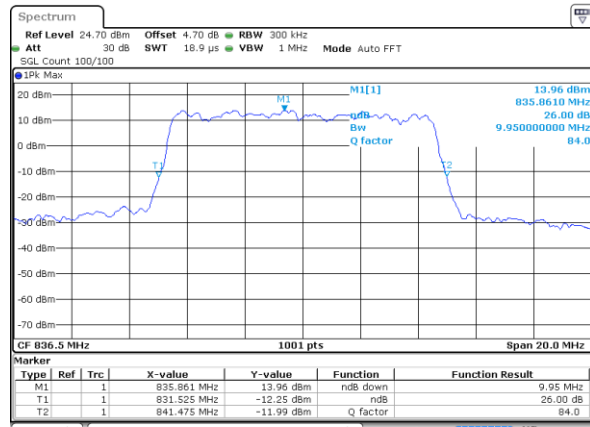
Lowest Channel / 10MHz / 64QAM



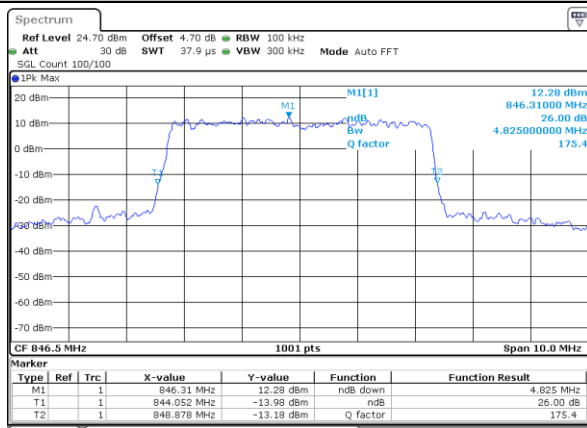
Middle Channel / 5MHz / 64QAM



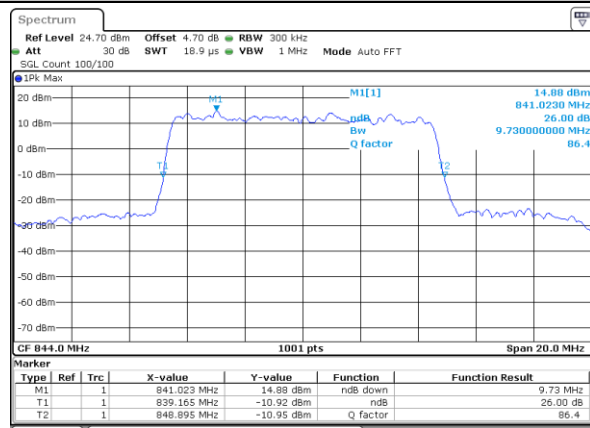
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



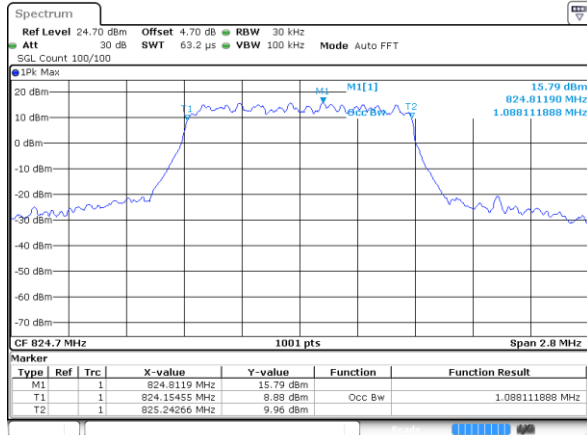
**Occupied Bandwidth**

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	1.10	2.71	2.69	4.48	4.47	9.03	9.05	-	-	-	-
Middle CH	1.09	1.10	2.71	2.71	4.50	4.51	9.09	9.05	-	-	-	-
Highest CH	1.09	1.09	2.69	2.72	4.50	4.47	9.09	9.03	-	-	-	-
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		-		-	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	-	-	-	-
Lowest CH	1.09	-	2.73	-	4.49	-	8.99	-	-	-	-	-
Middle CH	1.09	-	2.70	-	4.51	-	9.03	-	-	-	-	-
Highest CH	1.09	-	2.73	-	4.48	-	9.07	-	-	-	-	-

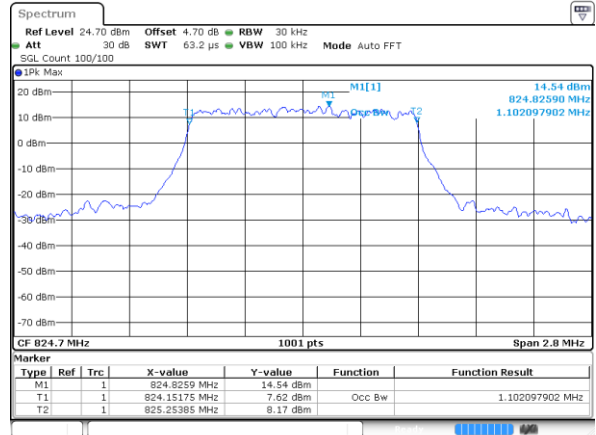


LTE Band 5

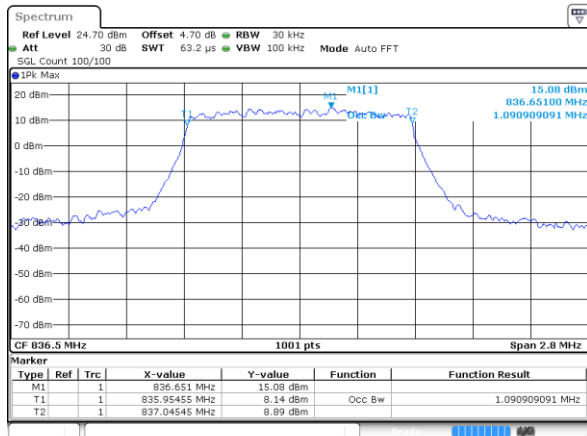
Lowest Channel / 1.4MHz / QPSK



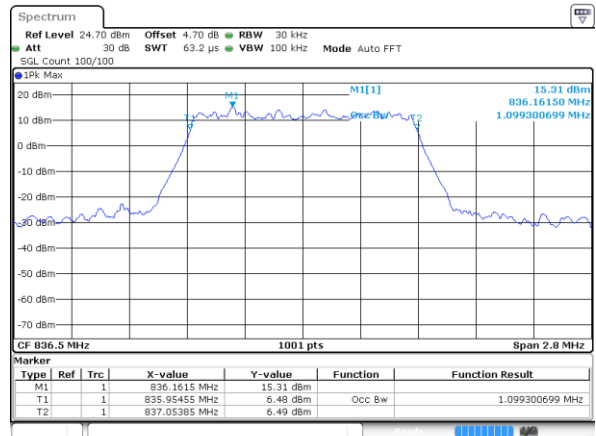
Lowest Channel / 1.4MHz / 16QAM



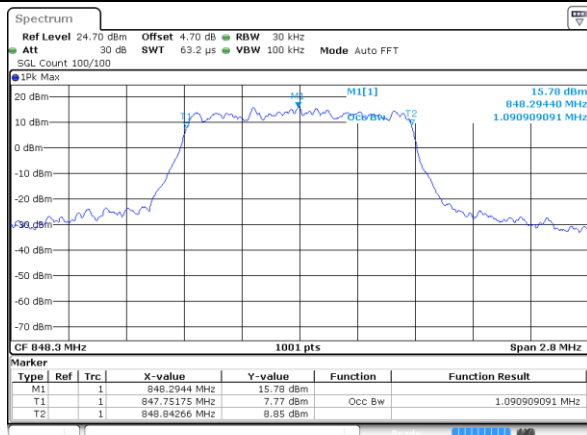
Middle Channel / 1.4MHz / QPSK



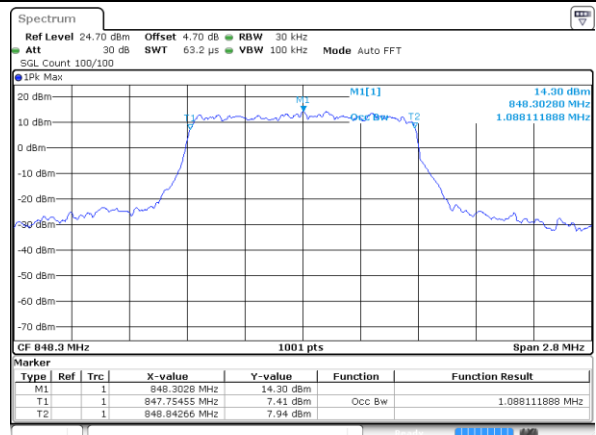
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



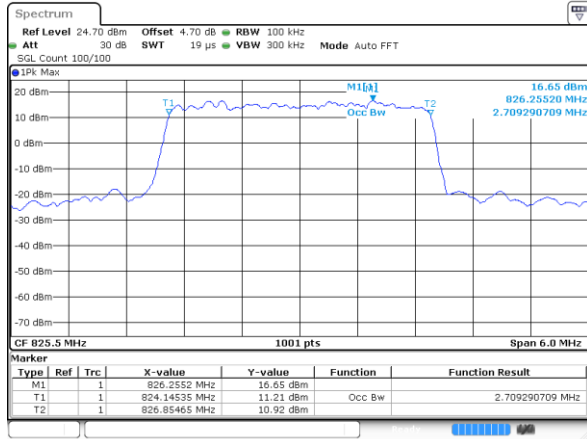
Highest Channel / 1.4MHz / 16QAM



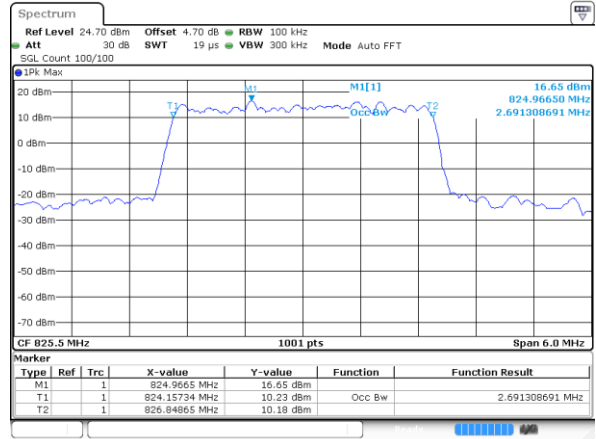


LTE Band 5

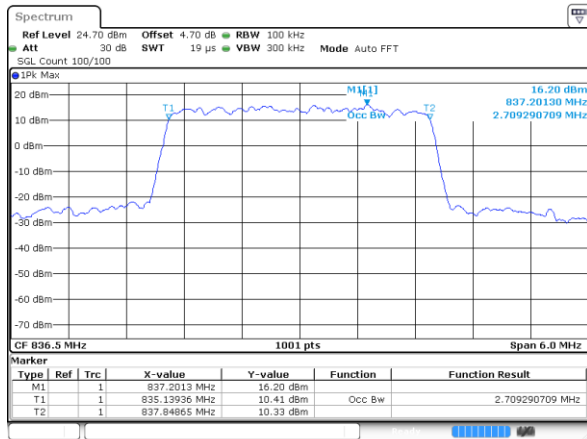
Lowest Channel / 3MHz / QPSK



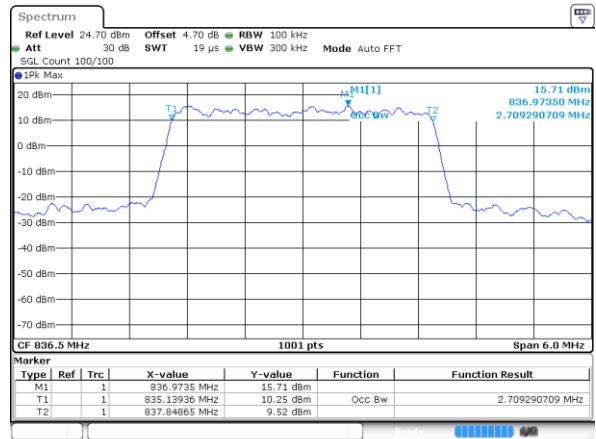
Lowest Channel / 3MHz / 16QAM



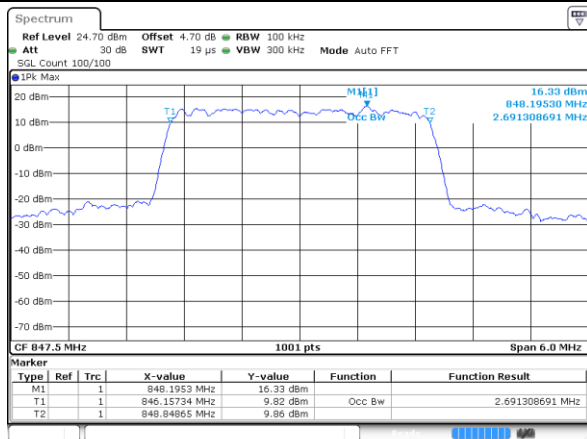
Middle Channel / 3MHz / QPSK



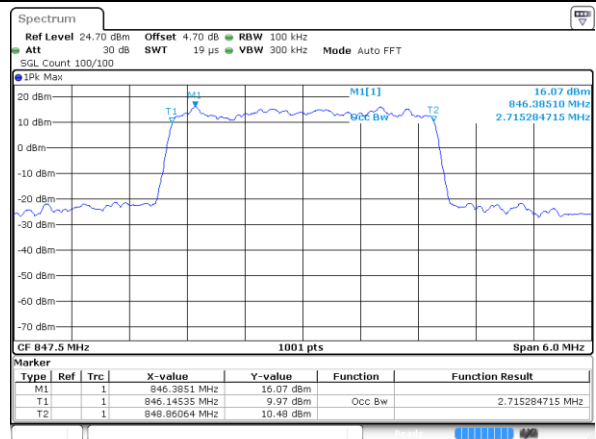
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



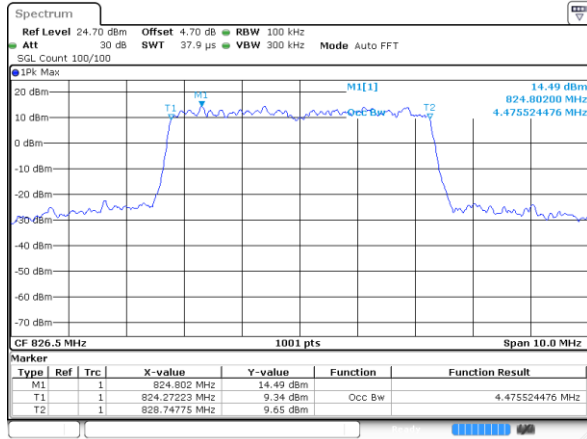
Highest Channel / 3MHz / 16QAM



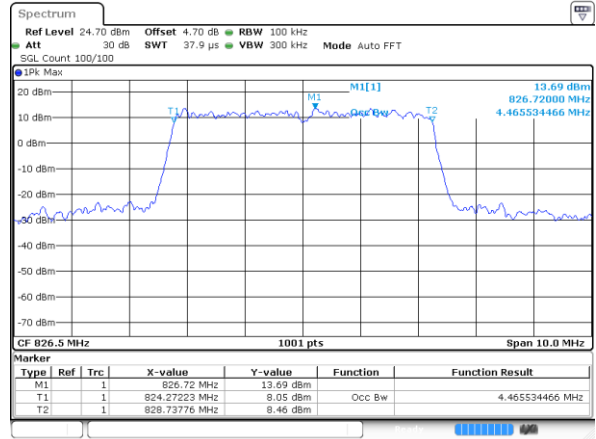


LTE Band 5

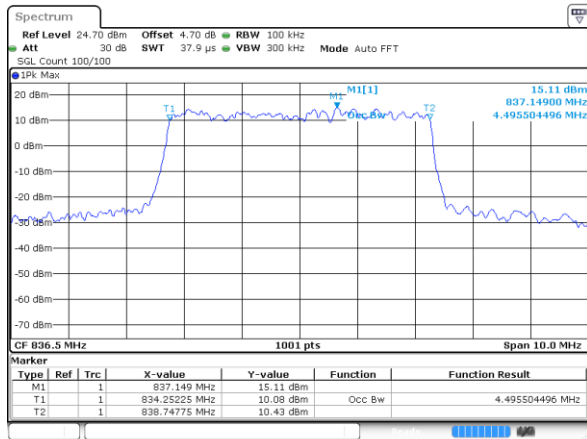
Lowest Channel / 5MHz / QPSK



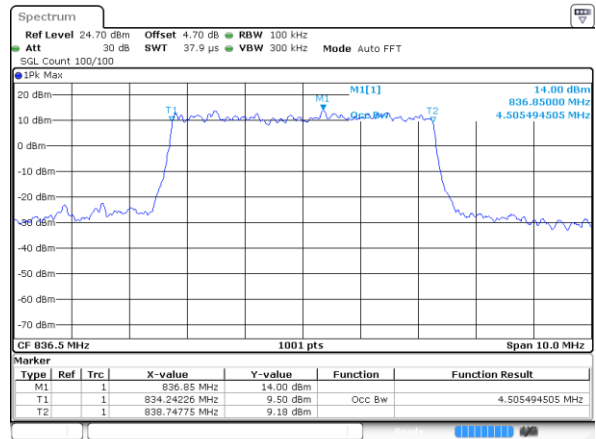
Lowest Channel / 5MHz / 16QAM



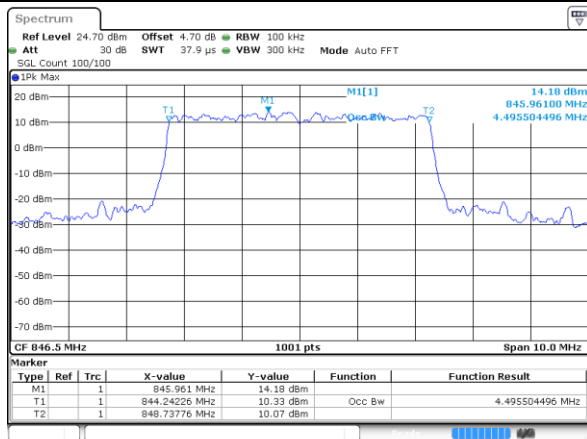
Middle Channel / 5MHz / QPSK



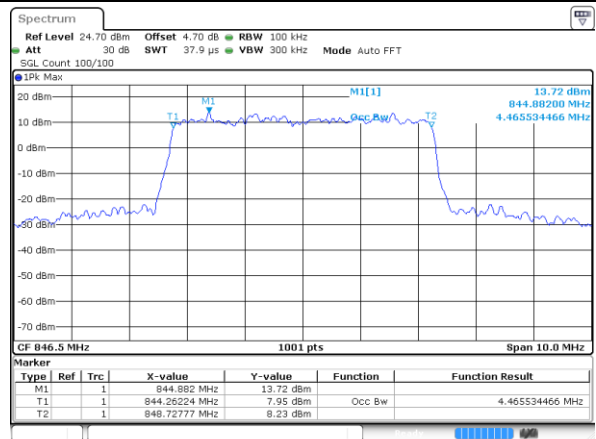
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



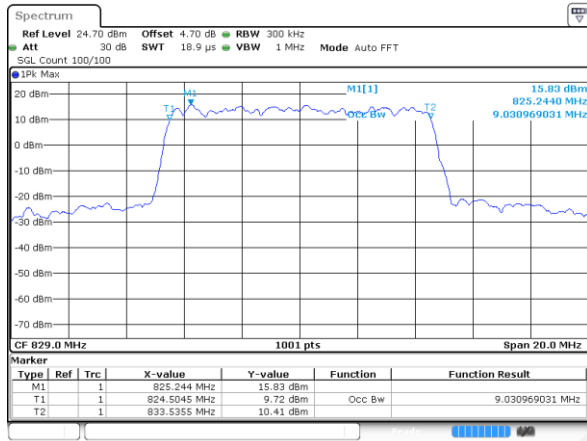
Highest Channel / 5MHz / 16QAM



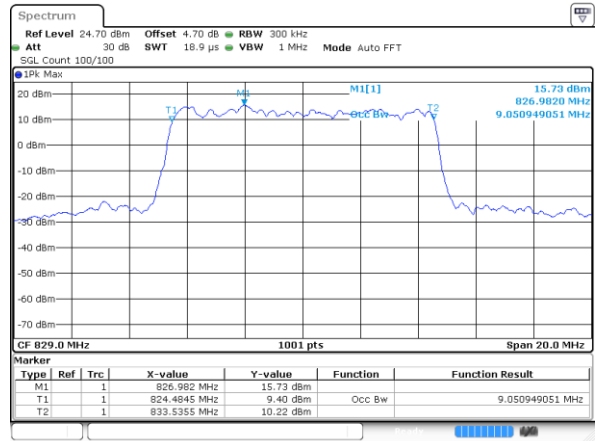


LTE Band 5

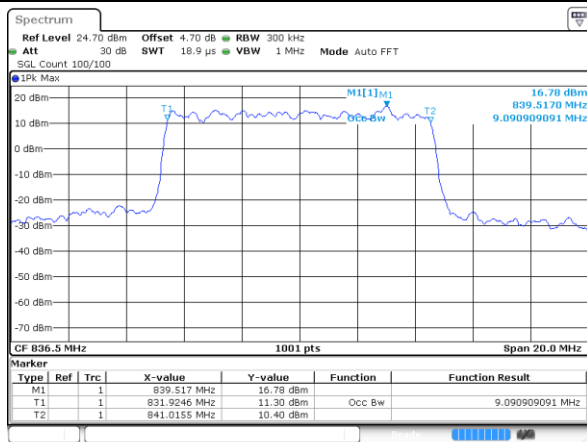
Lowest Channel / 10MHz / QPSK



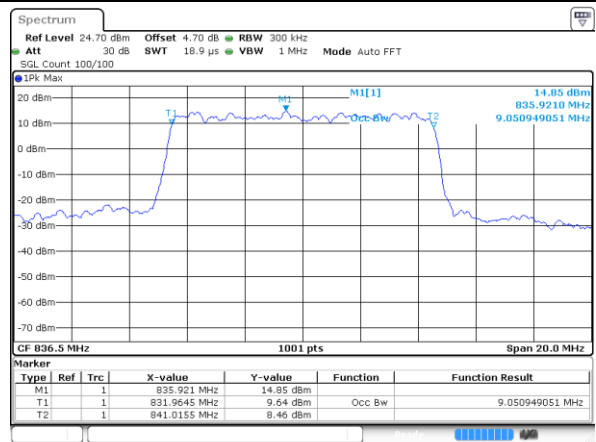
Lowest Channel / 10MHz / 16QAM



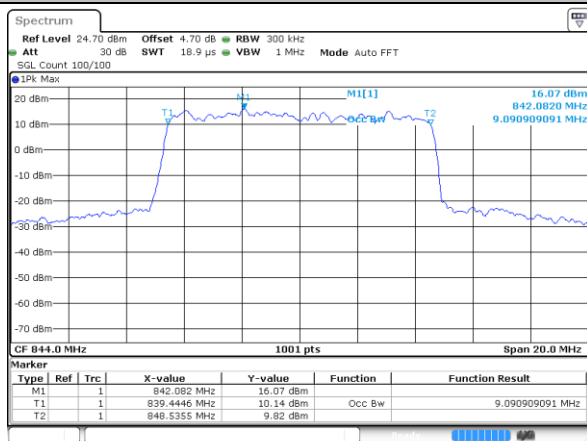
Middle Channel / 10MHz / QPSK



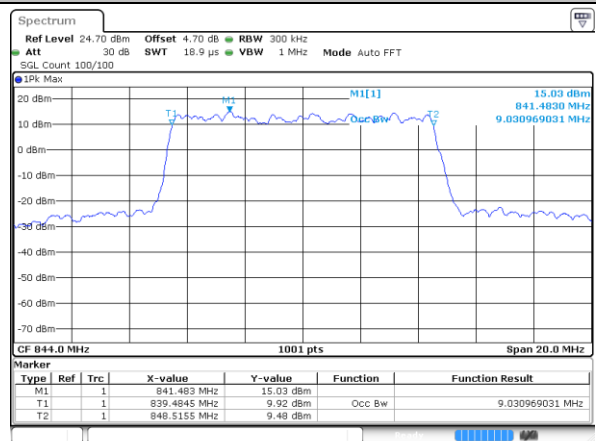
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



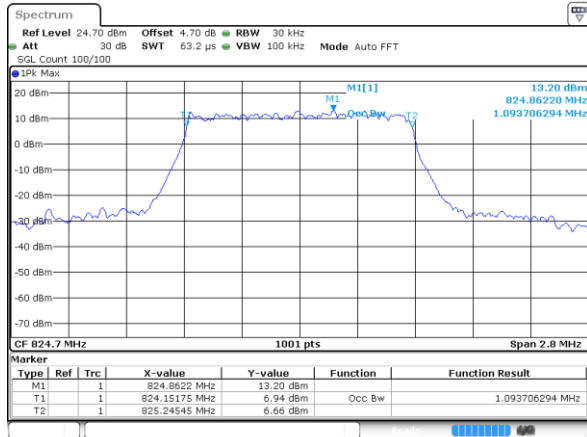
Highest Channel / 10MHz / 16QAM



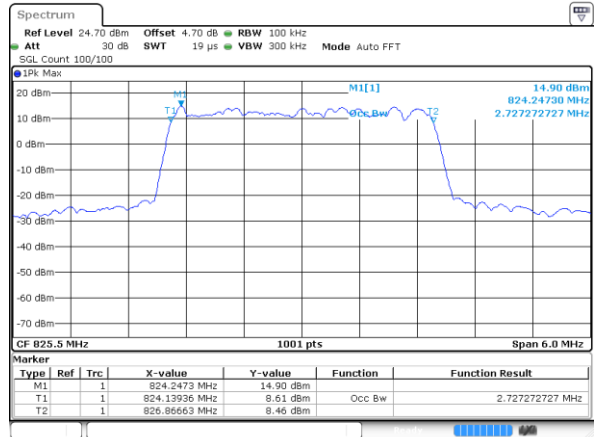


LTE Band 5

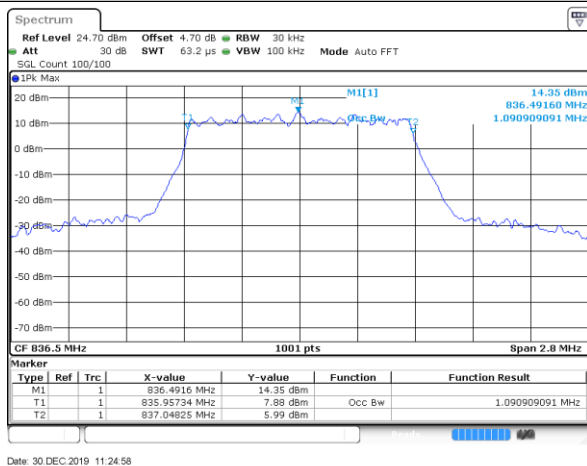
Lowest Channel / 1.4MHz / 64QAM



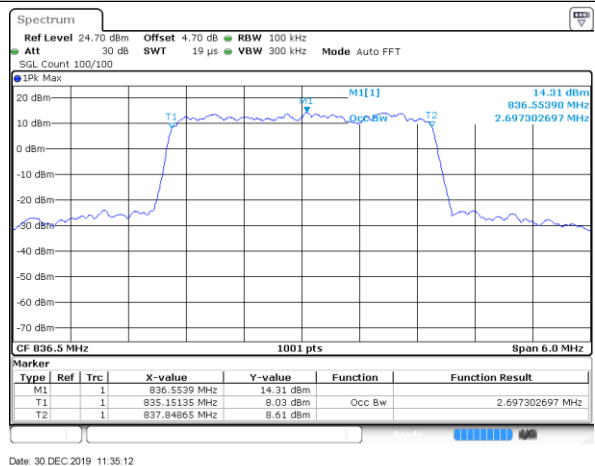
Lowest Channel / 3MHz / 64QAM



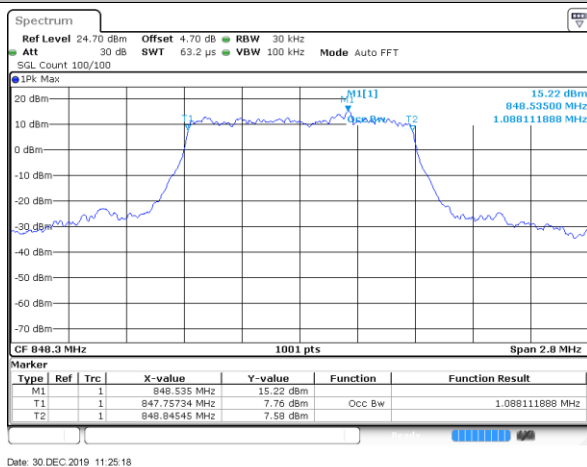
Middle Channel / 1.4MHz / 64QAM



Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



Highest Channel / 3MHz / 64QAM

