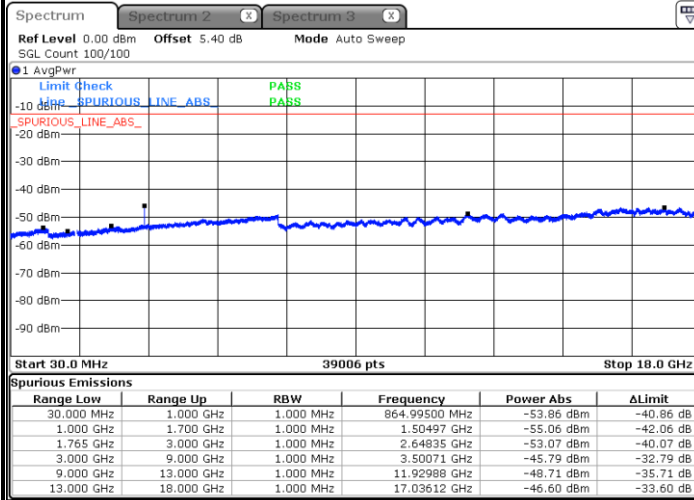




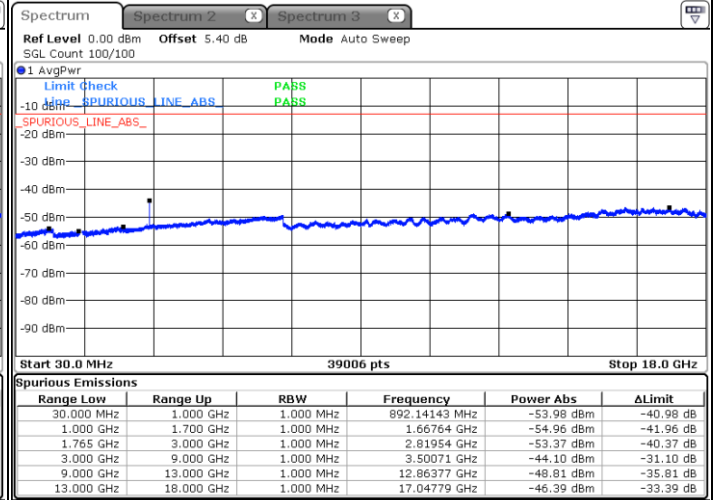
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 27 NOV 2019 23:08:14

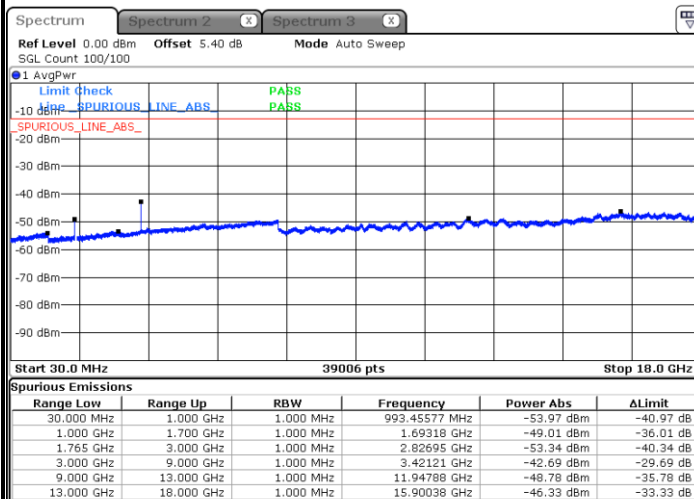
Highest Channel / 16QAM



Date: 27 NOV 2019 23:09:09

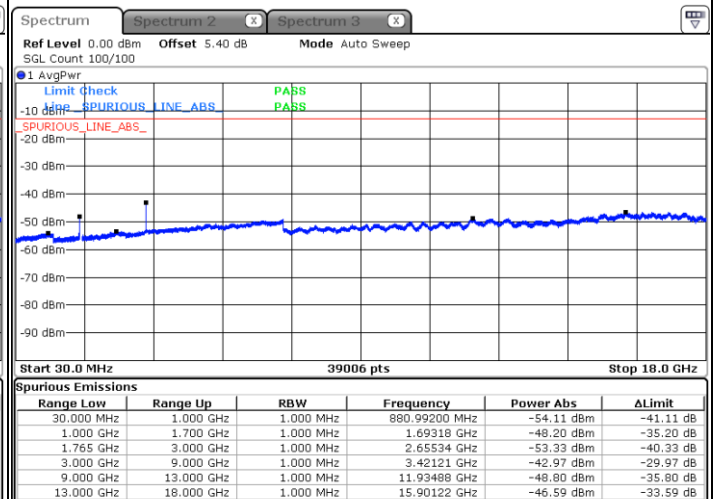
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 27 NOV 2019 23:15:14

Lowest Channel / 16QAM

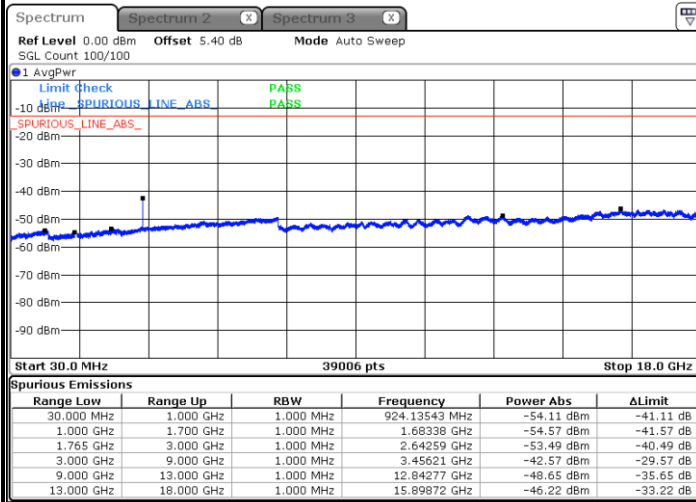


Date: 27 NOV 2019 23:16:09



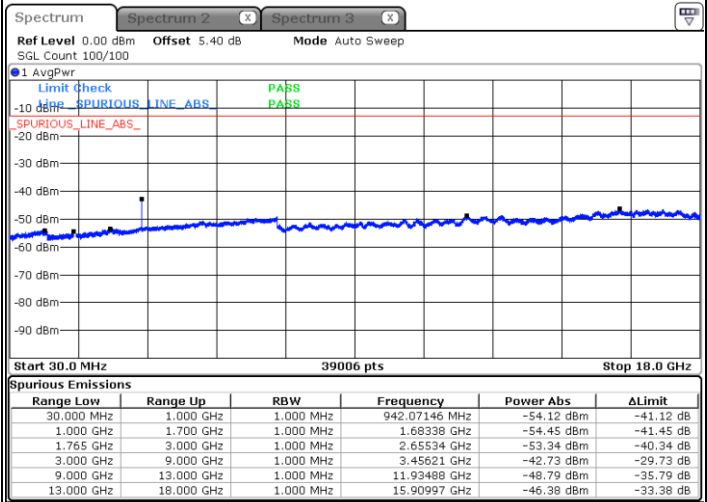
LTE Band 4 / 10MHz

Middle Channel / QPSK



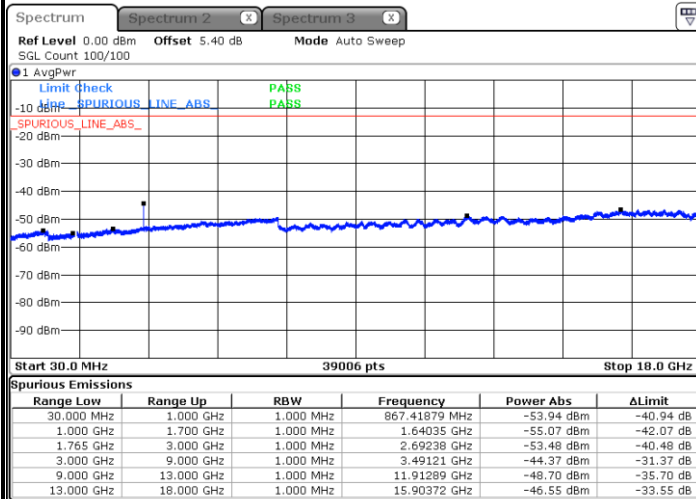
Date: 27 NOV 2019 23:17:44

Middle Channel / 16QAM



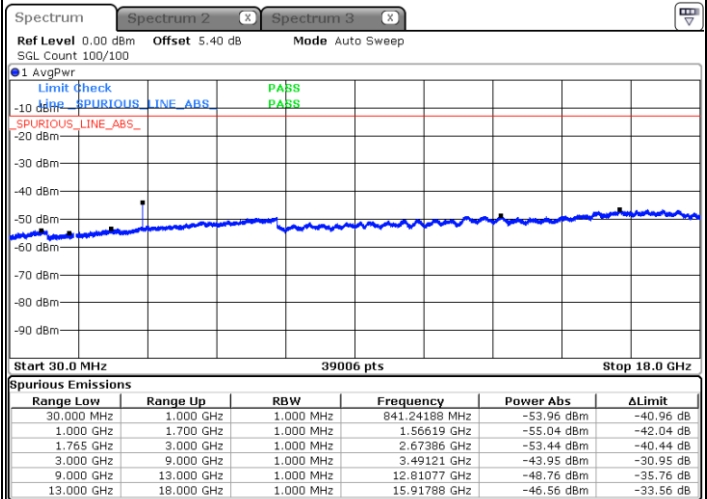
Date: 27 NOV 2019 23:18:39

Highest Channel / QPSK



Date: 27 NOV 2019 23:24:44

Highest Channel / 16QAM

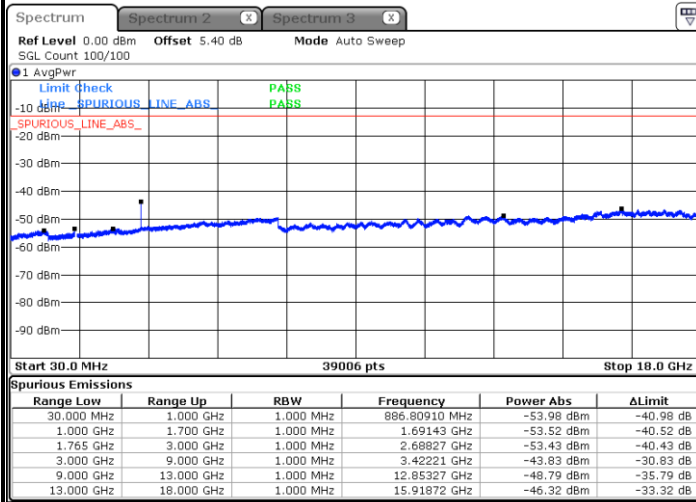


Date: 27 NOV 2019 23:25:39



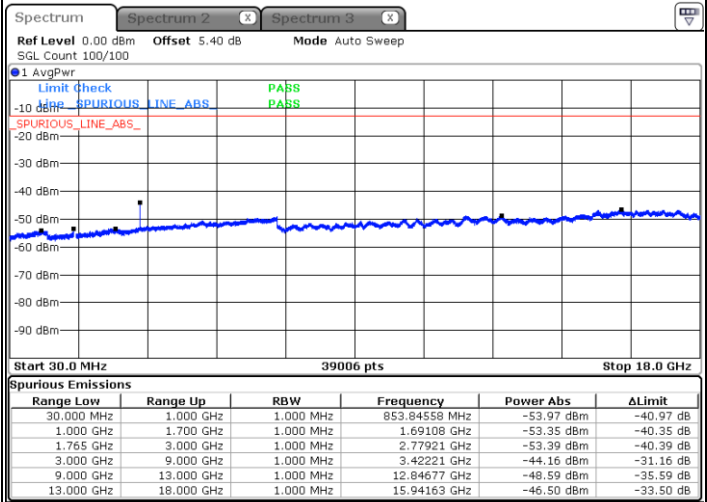
LTE Band 4 / 15MHz

Lowest Channel / QPSK



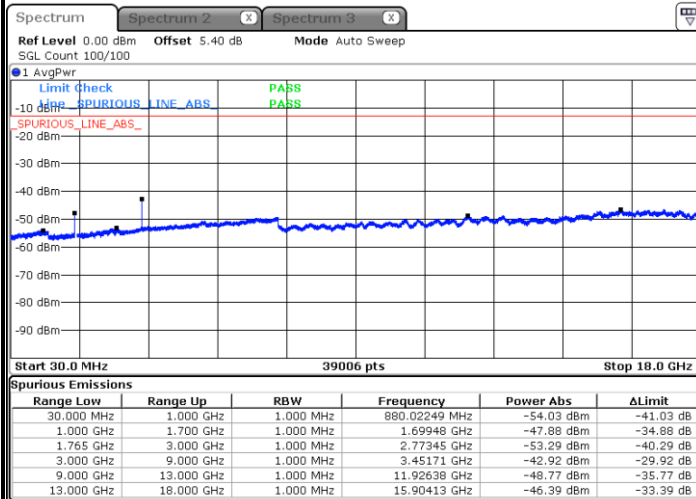
Date: 28 NOV 2019 00:21:16

Lowest Channel / 16QAM



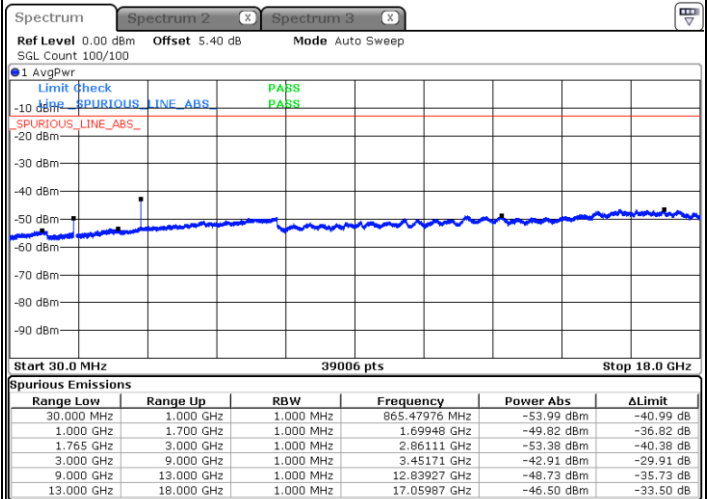
Date: 28 NOV 2019 00:22:11

Middle Channel / QPSK



Date: 28 NOV 2019 00:23:46

Middle Channel / 16QAM

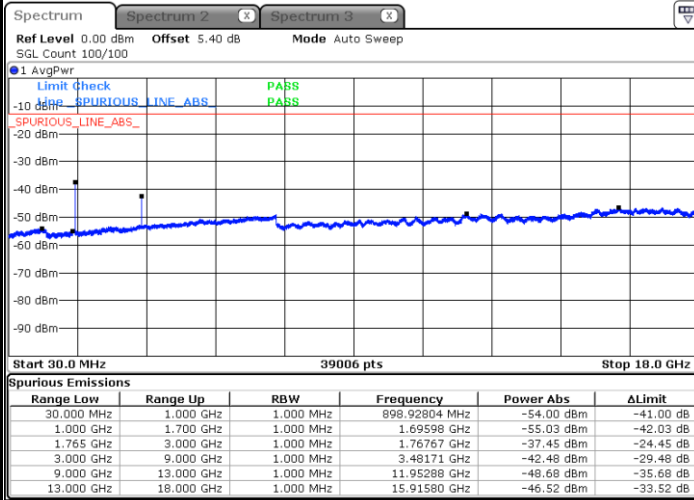


Date: 28 NOV 2019 00:24:41



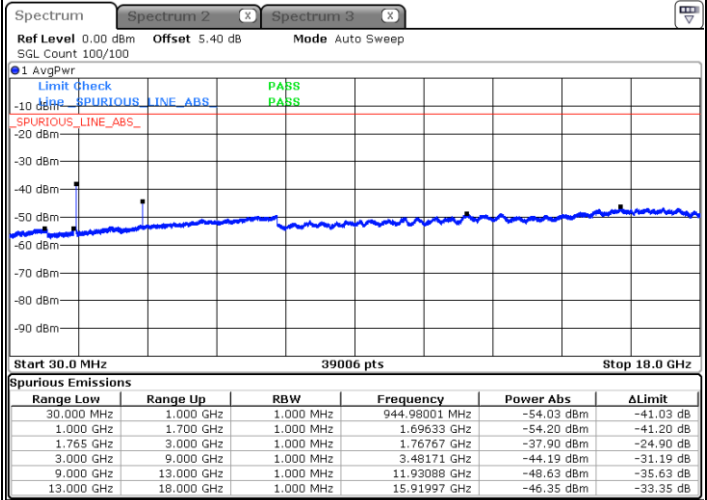
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 28 NOV 2019 00:30:46

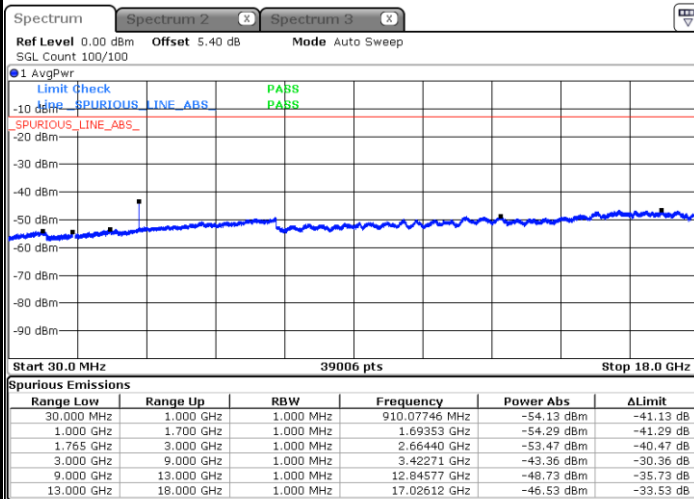
Highest Channel / 16QAM



Date: 28 NOV 2019 00:31:41

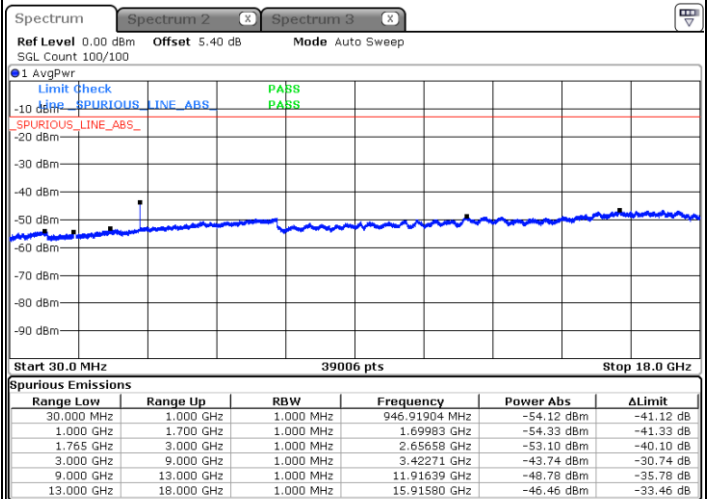
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 28 NOV 2019 00:37:46

Lowest Channel / 16QAM

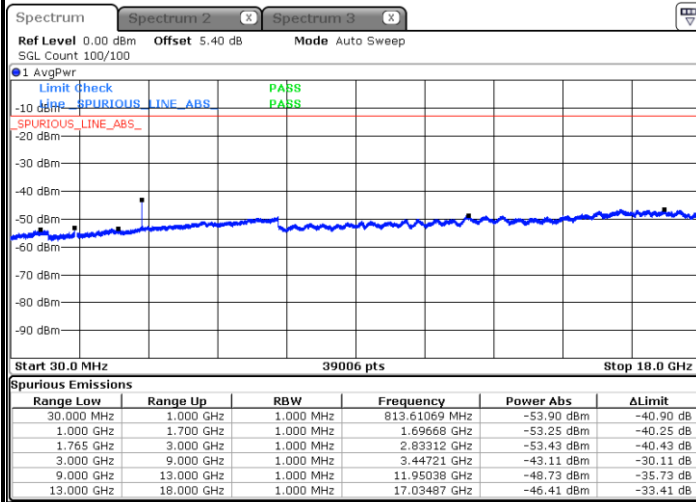


Date: 28 NOV 2019 00:38:41



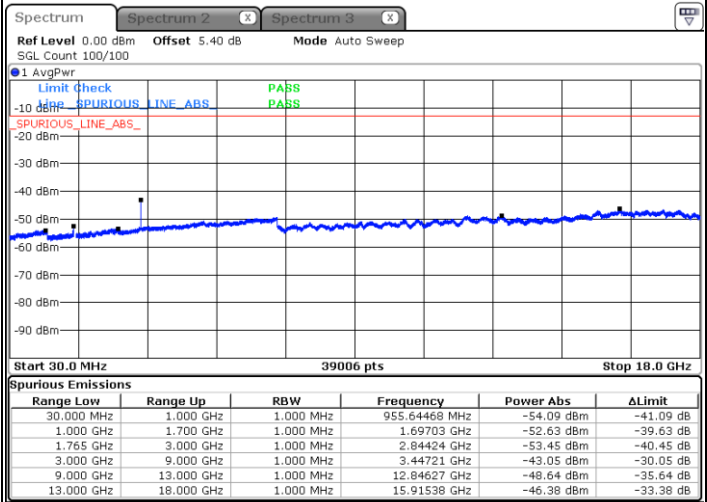
LTE Band 4 / 20MHz

Middle Channel / QPSK



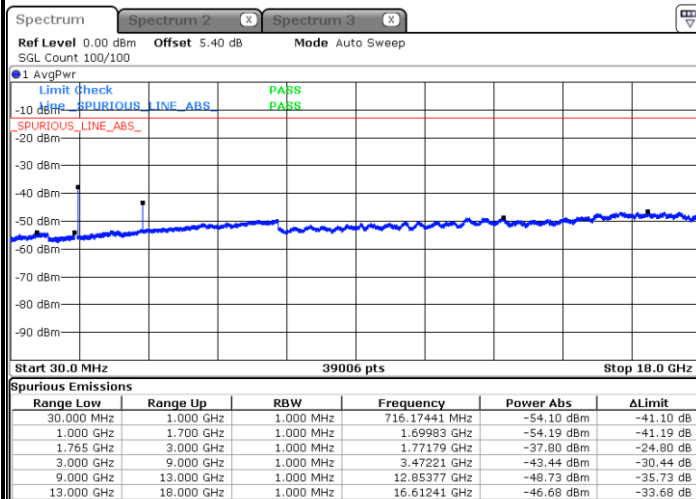
Date: 28 NOV 2019 00:40:16

Middle Channel / 16QAM



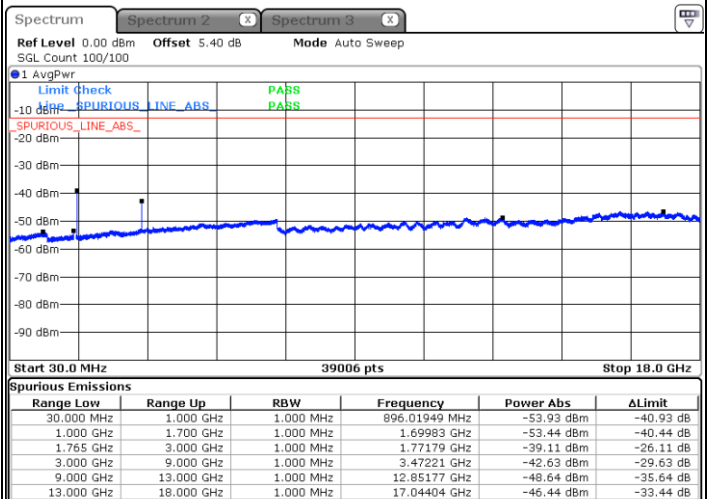
Date: 28 NOV 2019 00:41:11

Highest Channel / QPSK



Date: 28 NOV 2019 00:47:16

Highest Channel / 16QAM

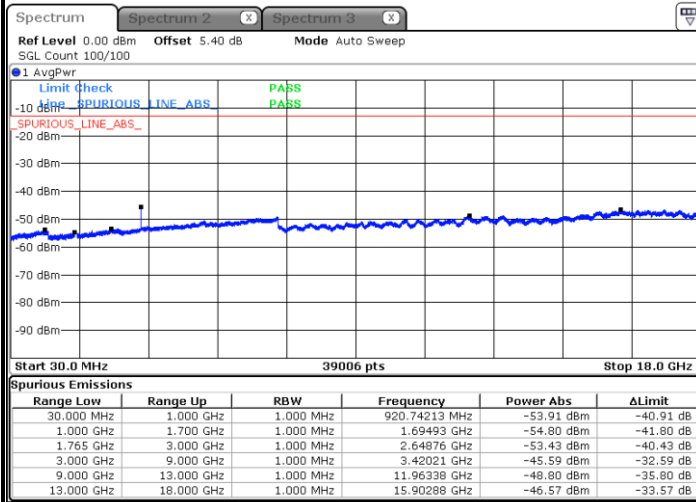


Date: 28 NOV 2019 00:48:11



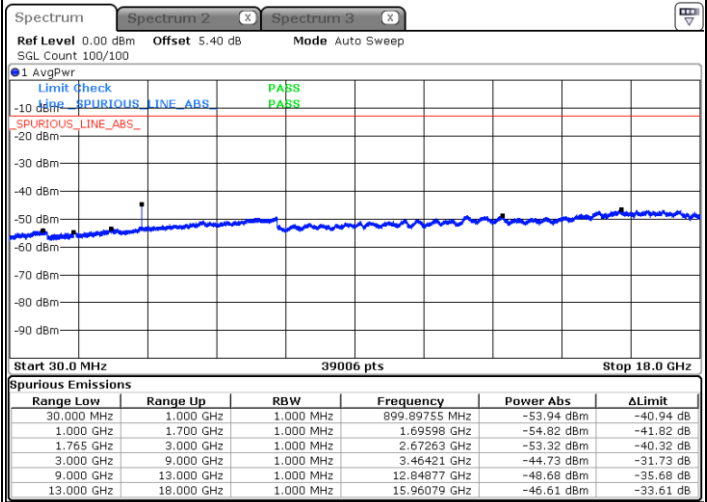
LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM



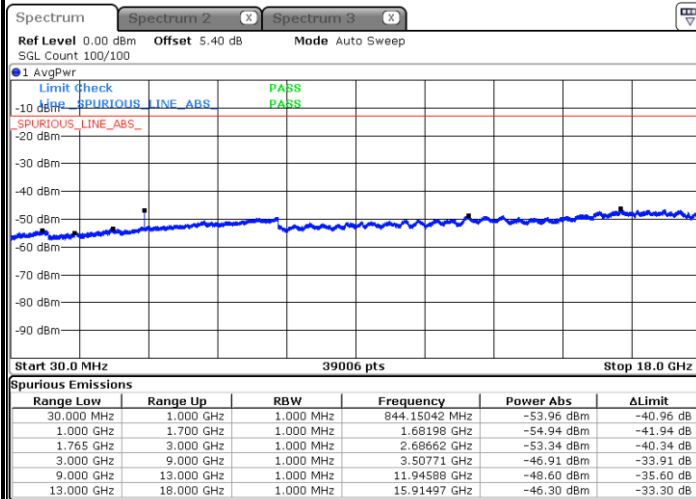
Date: 28 NOV 2019 01:30:08

Middle Channel / 64QAM



Date: 28 NOV 2019 01:31:24

Highest Channel / 64QAM

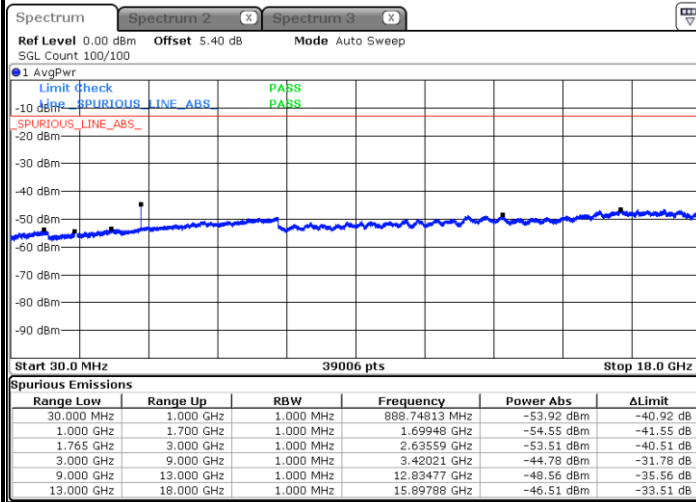


Date: 28 NOV 2019 01:34:54



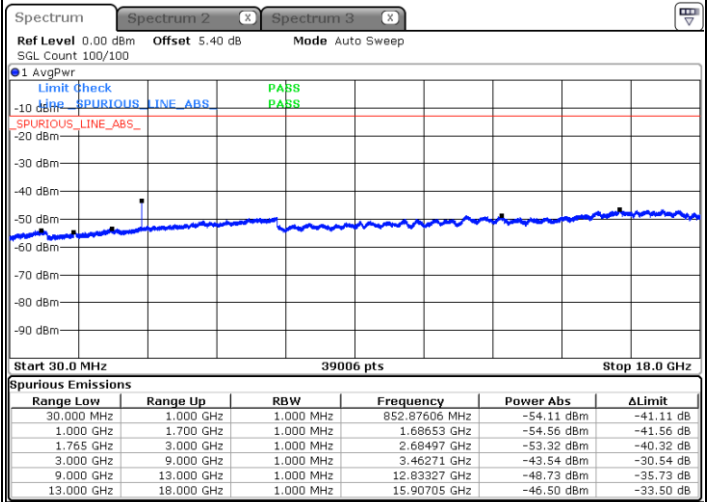
LTE Band 4 / 3MHz

Lowest Channel / 64QAM



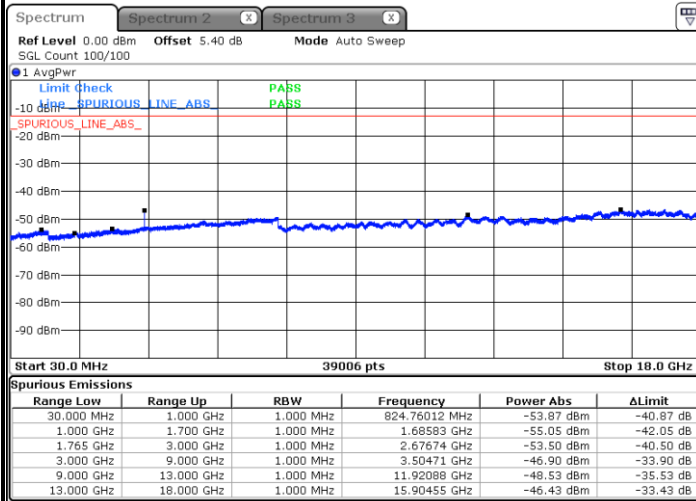
Date: 28 NOV 2019 01:38:24

Middle Channel / 64QAM



Date: 28 NOV 2019 01:39:39

Highest Channel / 64QAM

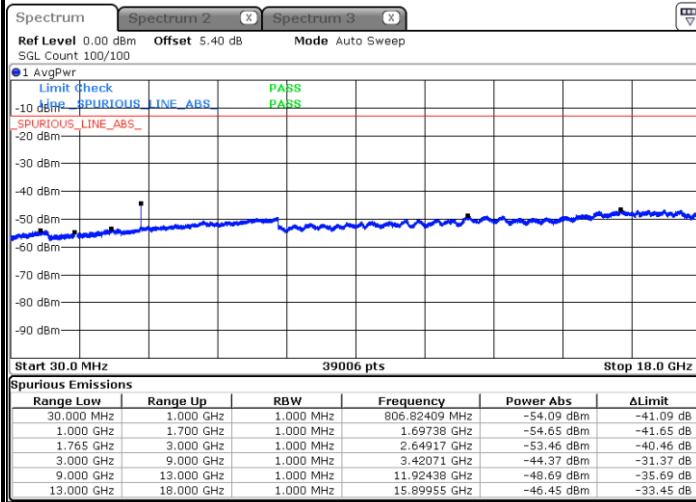


Date: 28 NOV 2019 01:43:09



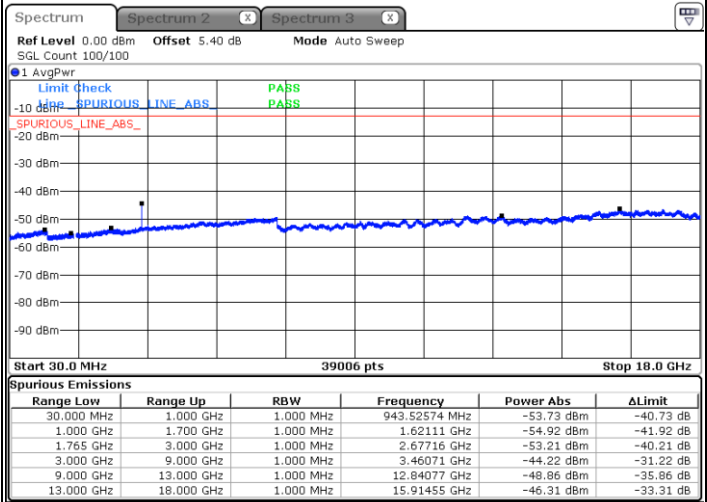
LTE Band 4 / 5MHz

Lowest Channel / 64QAM



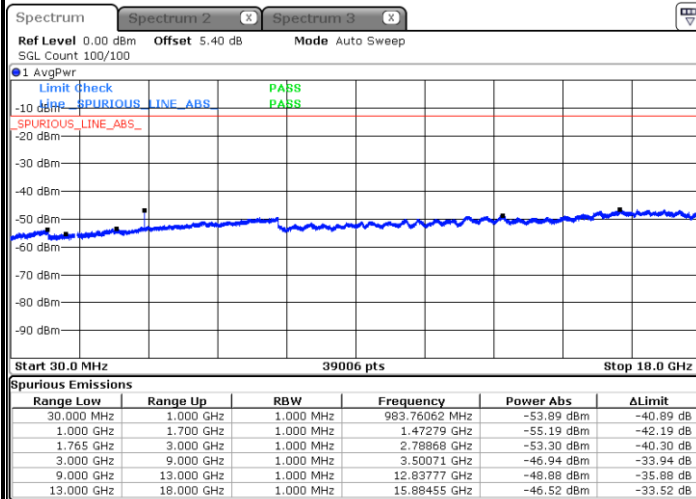
Date: 28 NOV 2019 01:46:39

Middle Channel / 64QAM



Date: 28 NOV 2019 01:47:54

Highest Channel / 64QAM

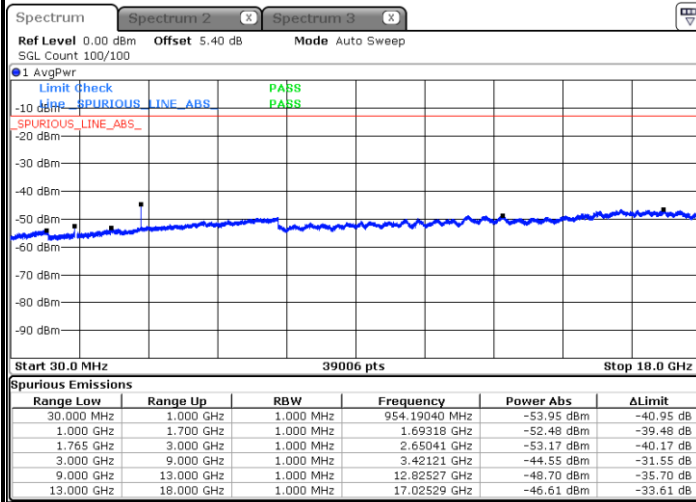


Date: 28 NOV 2019 01:51:24



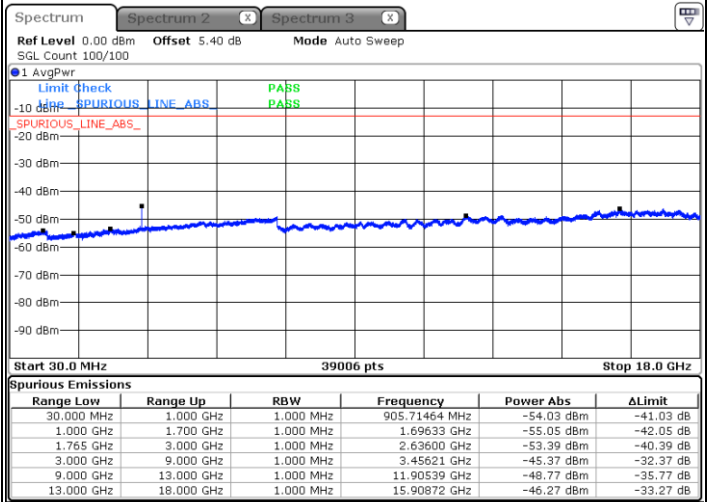
LTE Band 4 / 10MHz

Lowest Channel / 64QAM



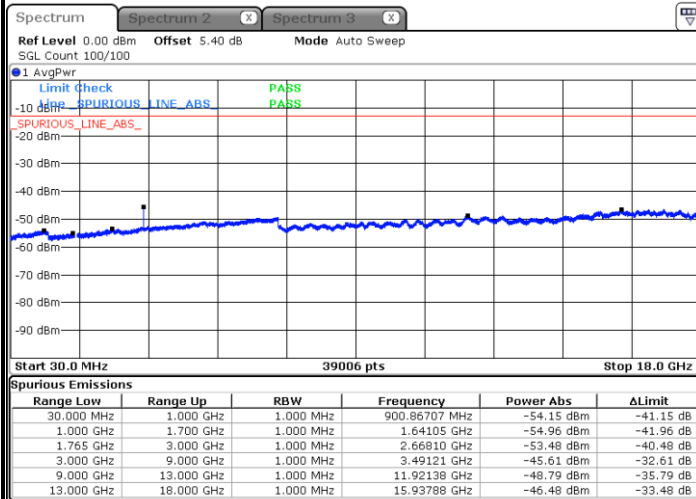
Date: 28 NOV 2019 01:55:21

Middle Channel / 64QAM



Date: 28 NOV 2019 01:56:36

Highest Channel / 64QAM

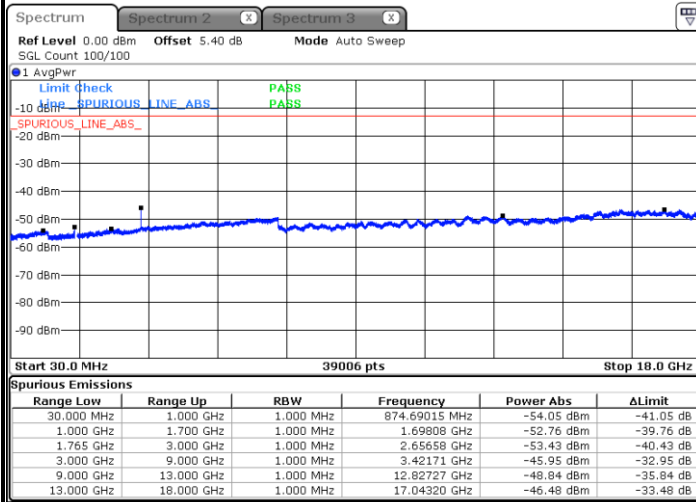


Date: 28 NOV 2019 02:00:06



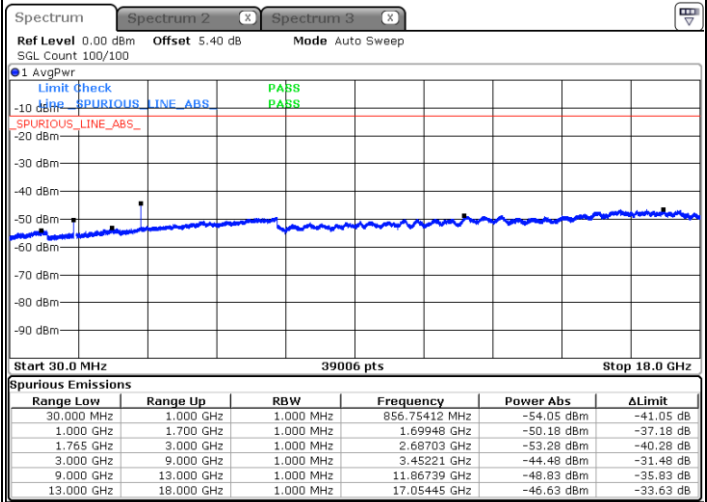
LTE Band 4 / 15MHz

Lowest Channel / 64QAM



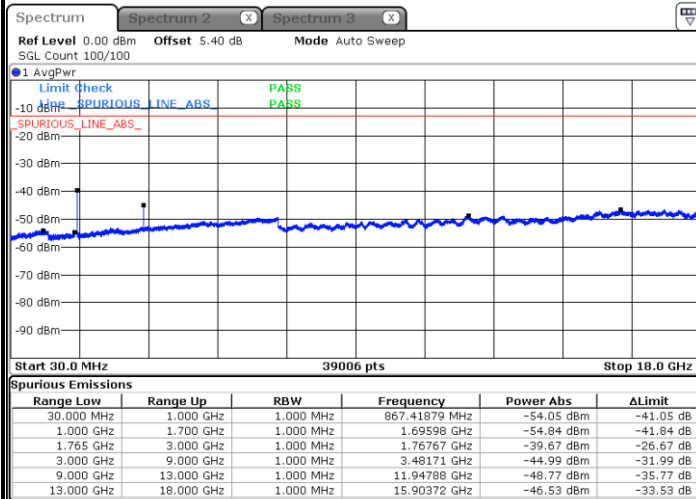
Date: 28 NOV 2019 02:03:36

Middle Channel / 64QAM



Date: 28 NOV 2019 02:04:50

Highest Channel / 64QAM

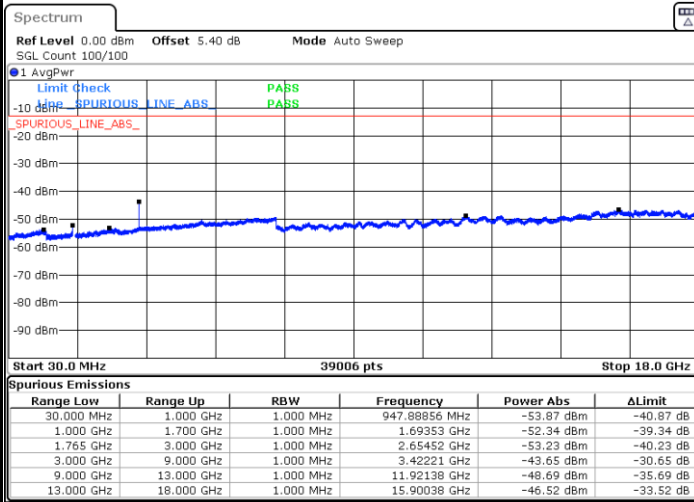


Date: 28 NOV 2019 02:08:20



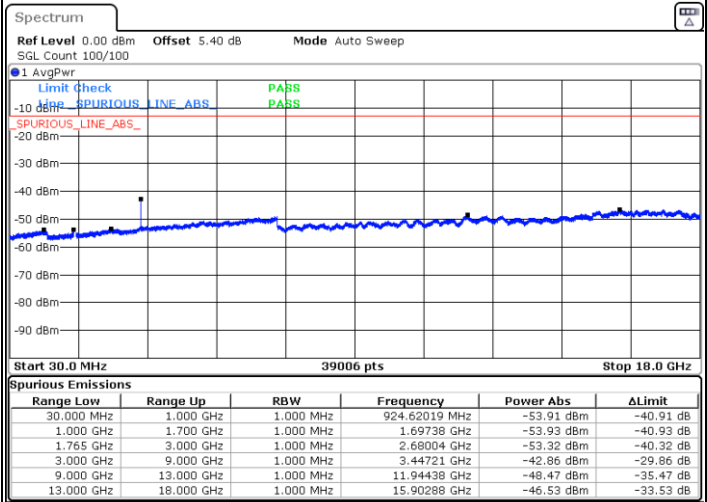
LTE Band 4 / 20MHz

Lowest Channel / 64QAM



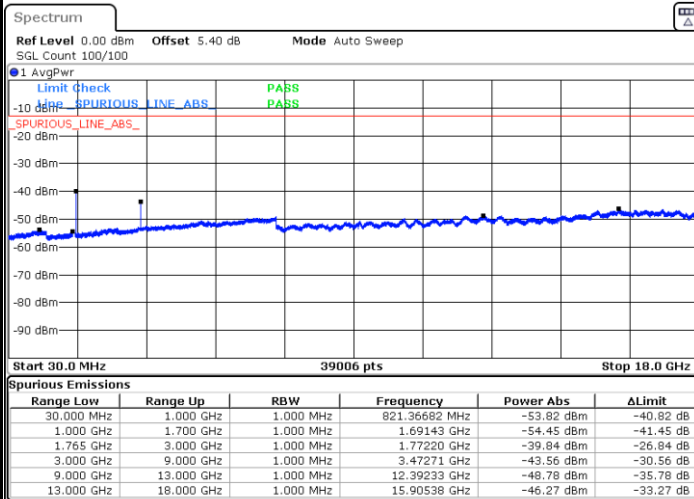
Date: 28 NOV 2019 19:04:04

Middle Channel / 64QAM



Date: 28 NOV 2019 19:05:19

Highest Channel / 64QAM



Date: 28 NOV 2019 19:08:49

**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	0.0021	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0033	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0026	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0038	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

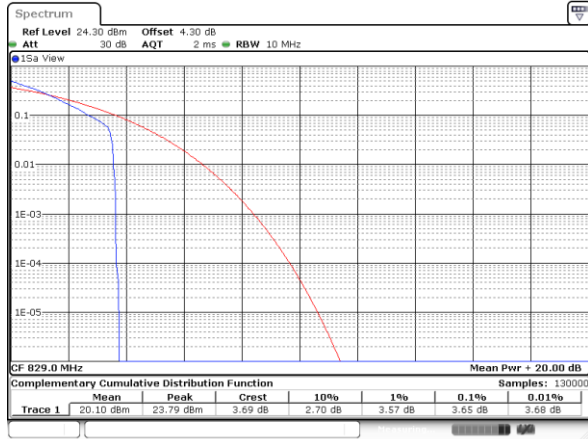
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



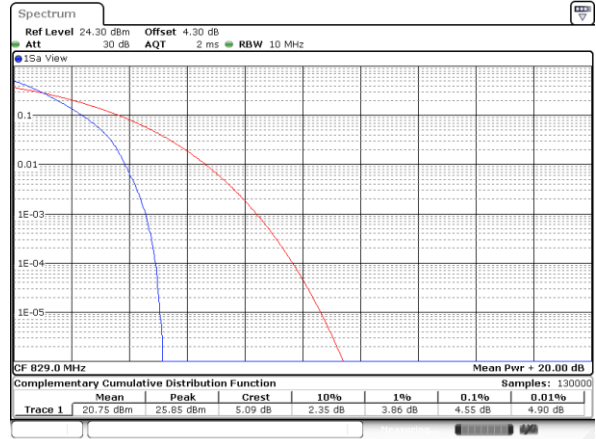
LTE Band 5

Peak-to-Average Ratio

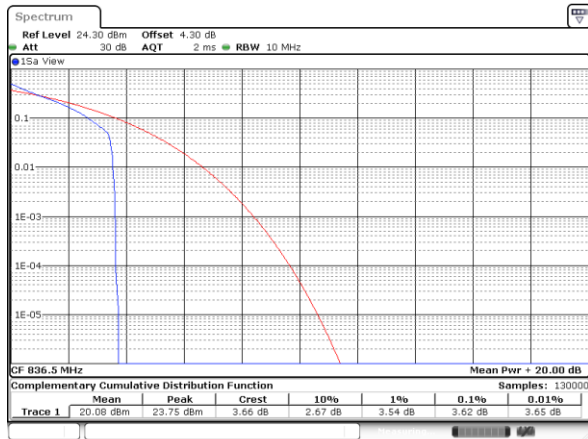
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.65	4.55	5.33	5.88	PASS
Middle CH	3.62	4.61	5.10	5.83	
Highest CH	3.65	4.72	5.10	5.91	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	6.12	6.55	PASS		
Middle CH	6.41	6.52			
Highest CH	6.78	6.49			

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


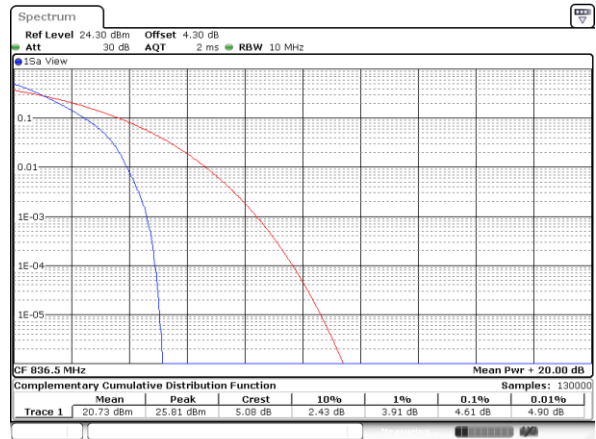
Date: 4 DEC 2019 20:43:12

Lowest Channel / Full RB


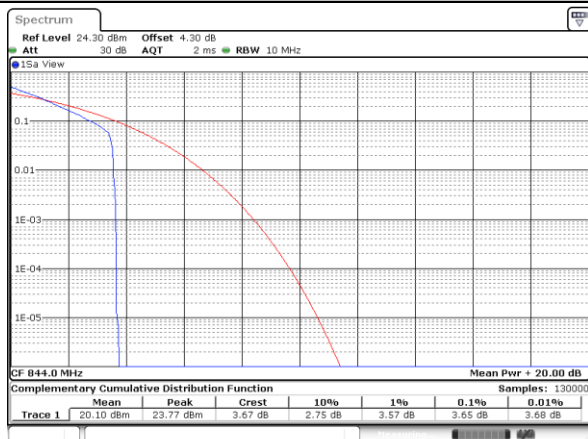
Date: 4 DEC 2019 20:43:21

Middle Channel / 1RB


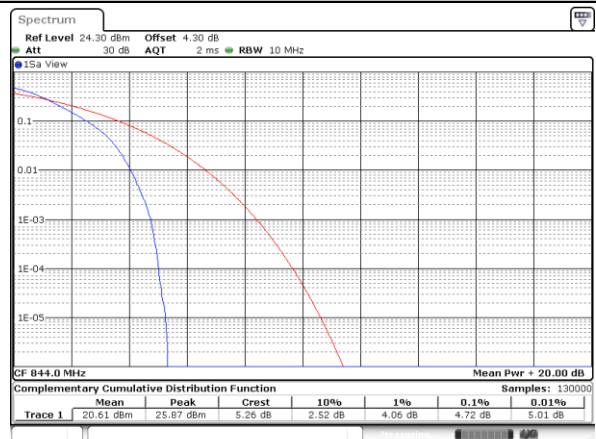
Date: 4 DEC 2019 20:43:40

Middle Channel / Full RB


Date: 4 DEC 2019 20:43:30

Highest Channel / 1RB


Date: 4 DEC 2019 20:43:53

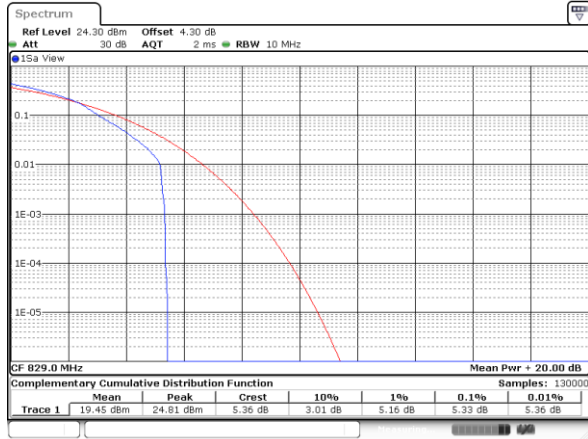
Highest Channel / Full RB


Date: 4 DEC 2019 20:45:11

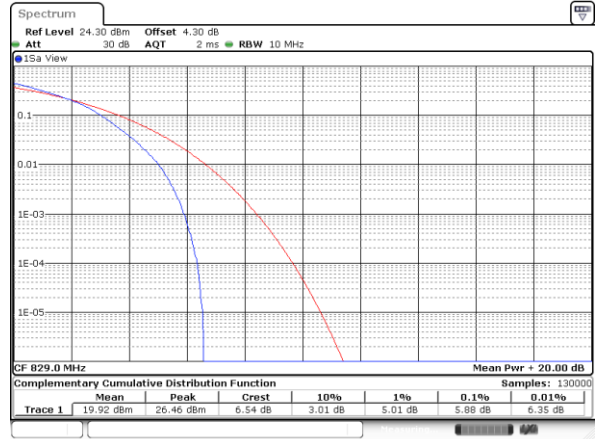


LTE Band 5 / 10MHz / 16QAM

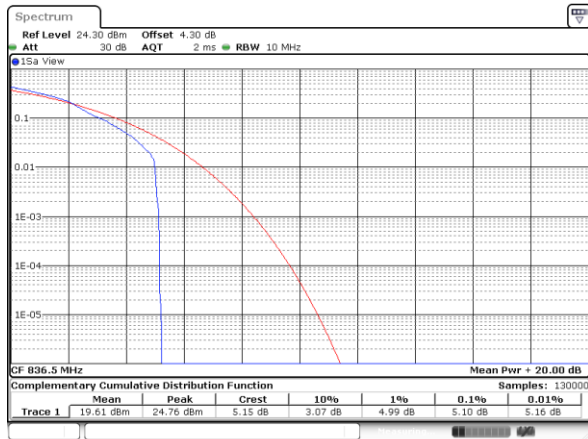
Lowest Channel / 1RB



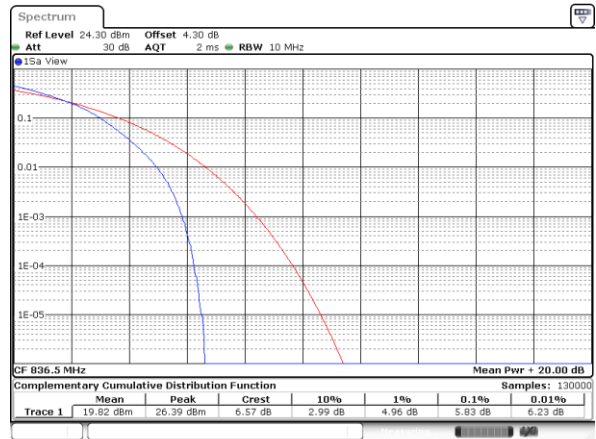
Lowest Channel / Full RB



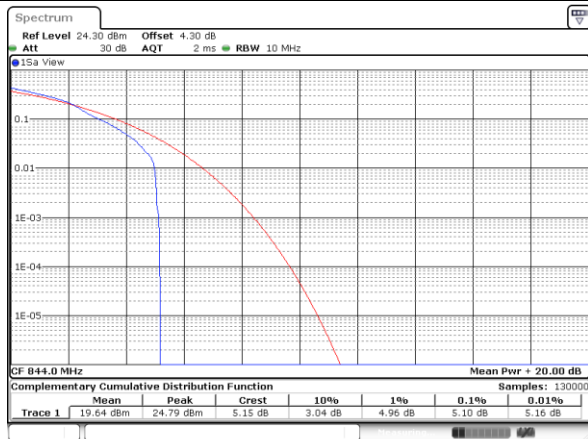
Middle Channel / 1RB



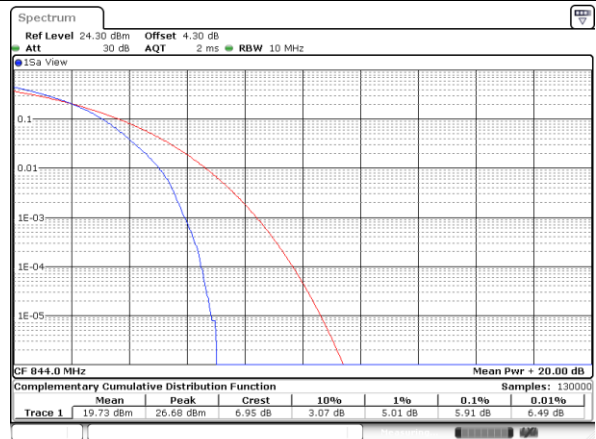
Middle Channel / Full RB



Highest Channel / 1RB



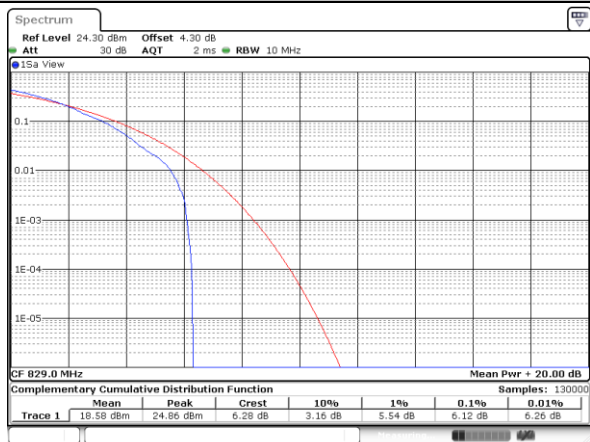
Highest Channel / Full RB





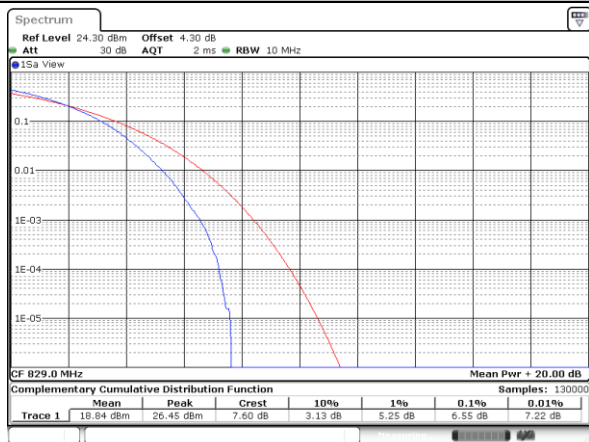
LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB



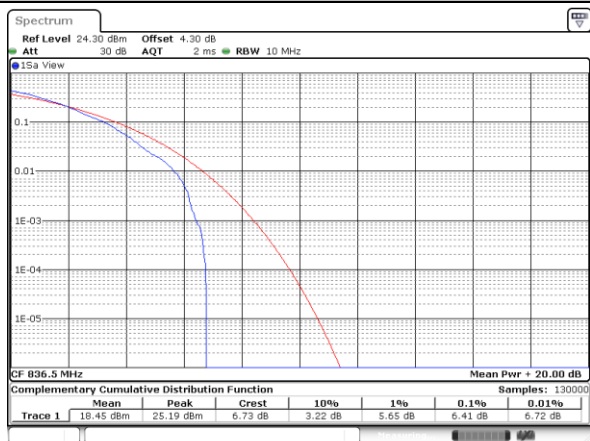
Date: 4 DEC 2019 19:57:18

Lowest Channel / Full RB



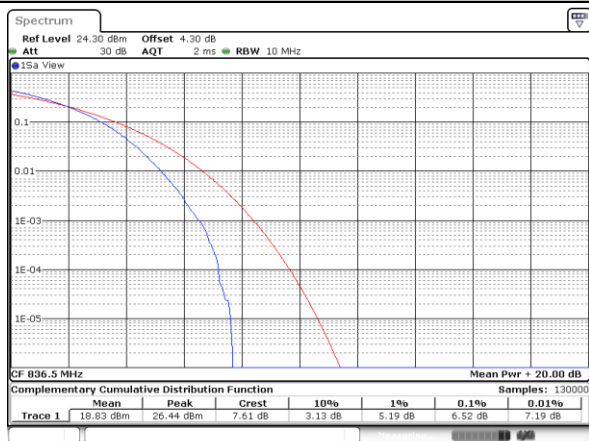
Date: 4 DEC 2019 19:57:26

Middle Channel / 1RB



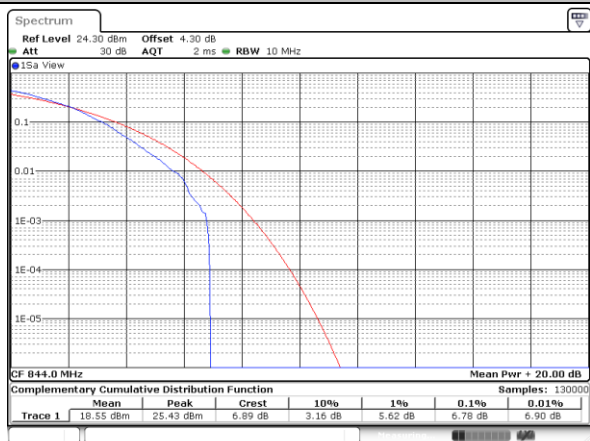
Date: 4 DEC 2019 19:57:09

Middle Channel / Full RB



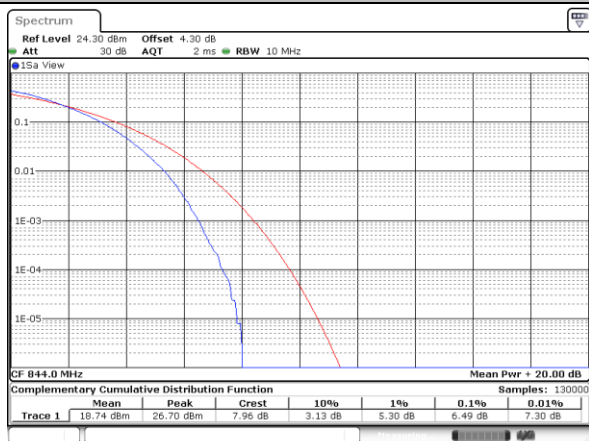
Date: 4 DEC 2019 19:57:00

Highest Channel / 1RB



Date: 4 DEC 2019 19:56:42

Highest Channel / Full RB



Date: 4 DEC 2019 19:56:50

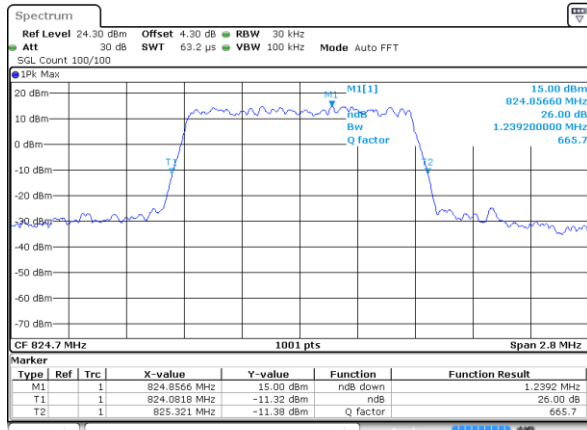
**26dB Bandwidth**

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Lowest CH	1.239	1.234	2.991	3.003	4.905	4.895	9.75	9.91				
Middle CH	1.248	1.225	3.027	2.991	4.845	4.875	9.77	9.85				
Highest CH	1.239	1.225	3.003	3.033	4.935	4.875	9.71	9.65				
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.239		3.027		4.955		9.75		-	-	-	-
Middle CH	1.220		2.973		4.935		9.69		-	-	-	-
Highest CH	1.222		3.051		4.885		9.63		-	-	-	-

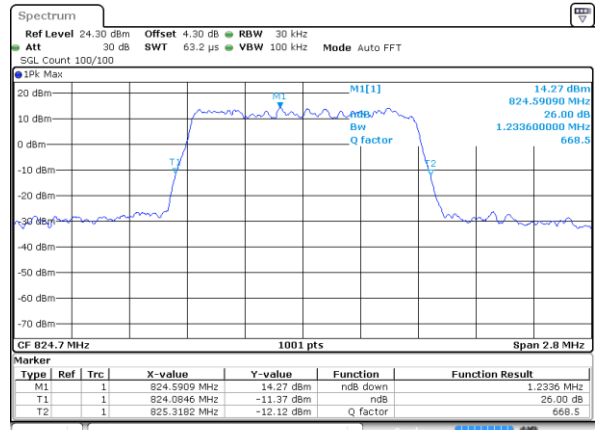


LTE Band 5

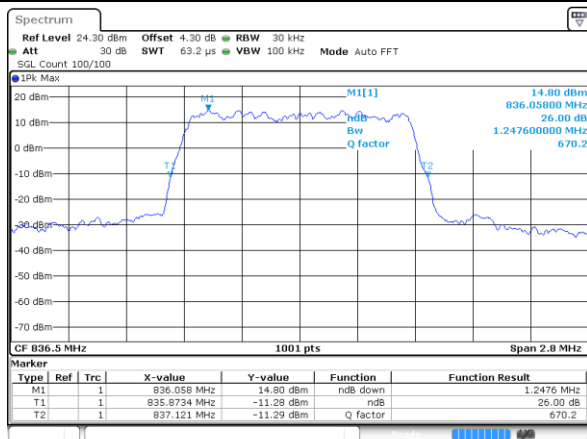
Lowest Channel / 1.4MHz / QPSK



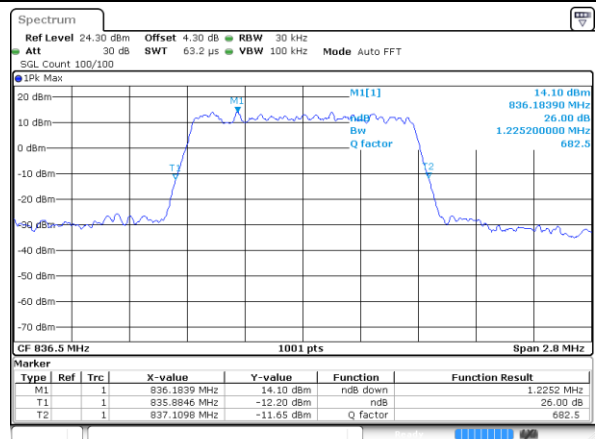
Lowest Channel / 1.4MHz / 16QAM



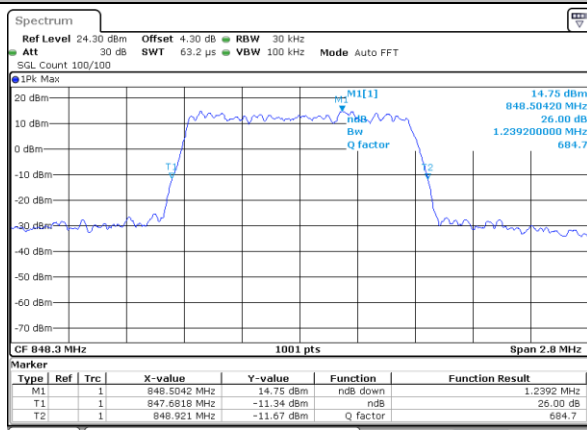
Middle Channel / 1.4MHz / QPSK



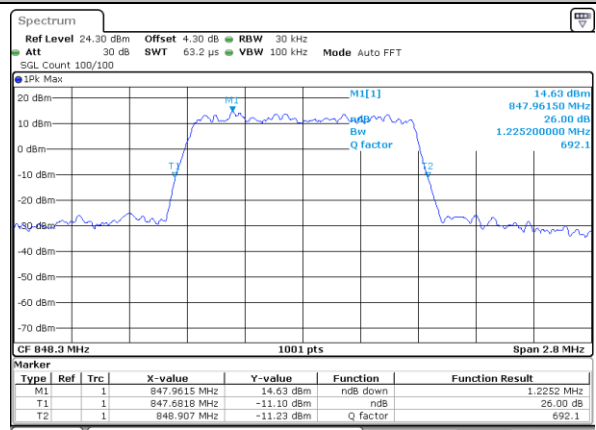
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



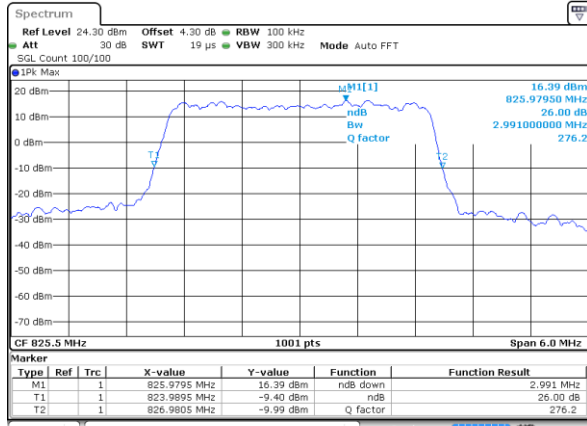
Highest Channel / 1.4MHz / 16QAM





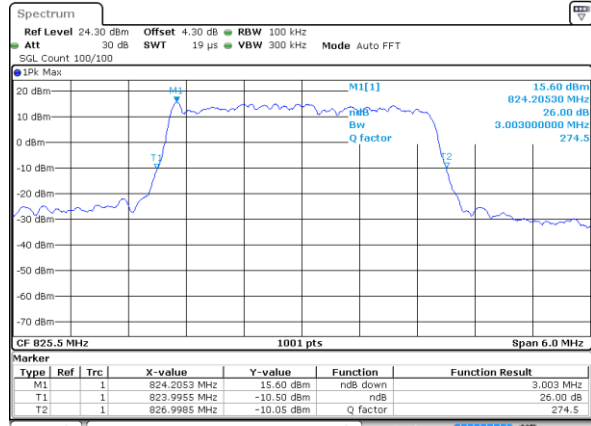
LTE Band 5

Lowest Channel / 3MHz / QPSK



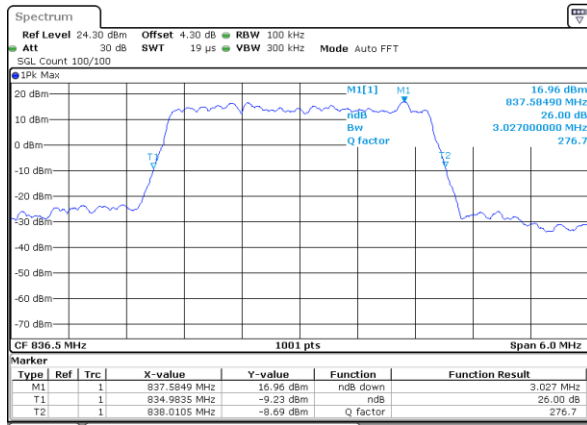
Date: 4 DEC 2019 20:00:40

Lowest Channel / 3MHz / 16QAM



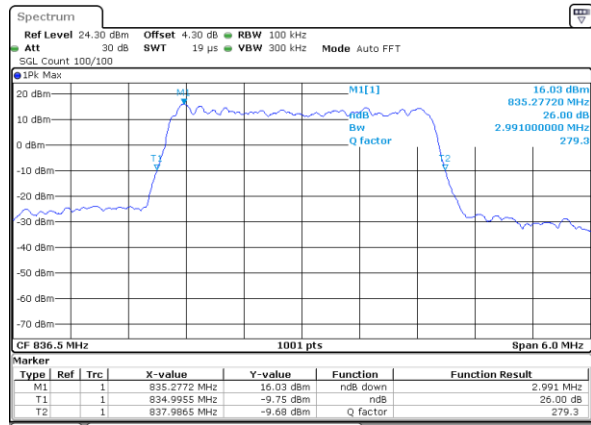
Date: 4 DEC 2019 20:00:50

Middle Channel / 3MHz / QPSK



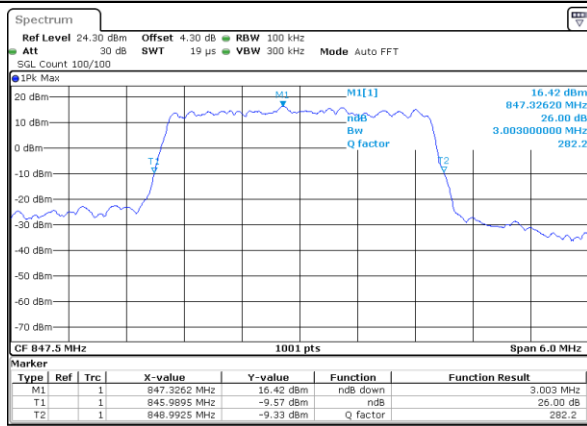
Date: 4 DEC 2019 20:09:41

Middle Channel / 3MHz / 16QAM



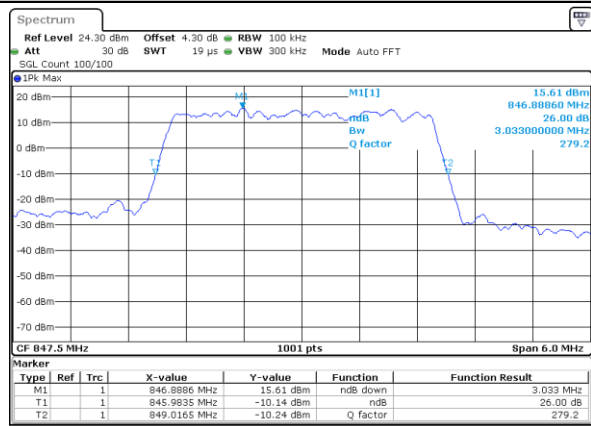
Date: 4 DEC 2019 20:09:51

Highest Channel / 3MHz / QPSK



Date: 4 DEC 2019 20:12:07

Highest Channel / 3MHz / 16QAM

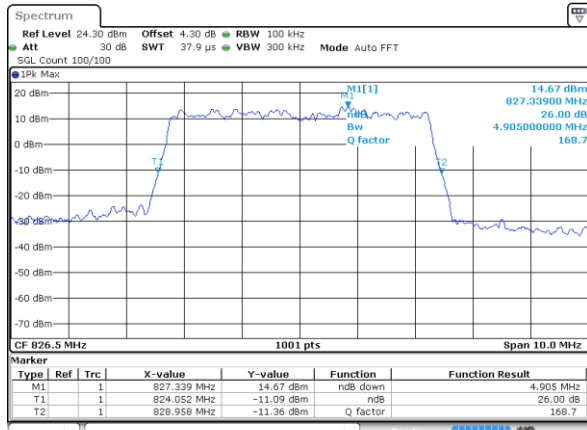


Date: 4 DEC 2019 20:12:17



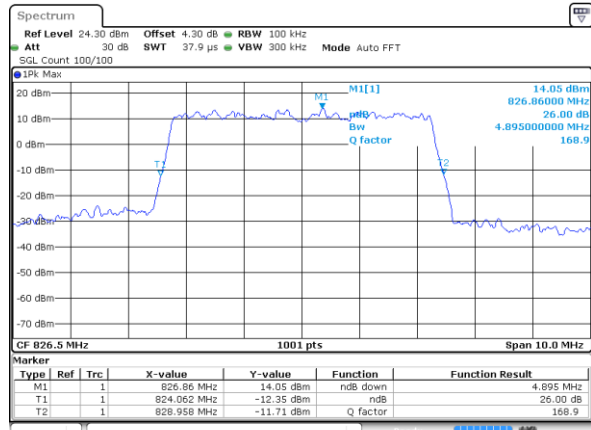
LTE Band 5

Lowest Channel / 5MHz / QPSK



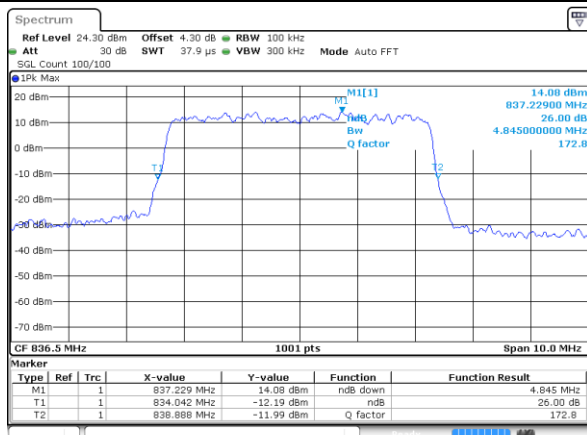
Date: 4 DEC 2019 20:30:04

Lowest Channel / 5MHz / 16QAM



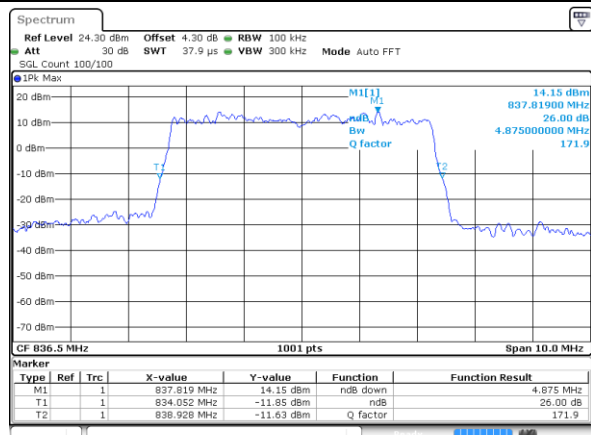
Date: 4 DEC 2019 20:30:14

Middle Channel / 5MHz / QPSK



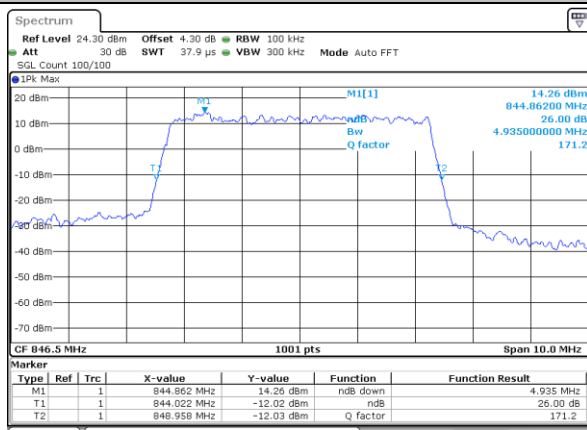
Date: 4 DEC 2019 18:40:03

Middle Channel / 5MHz / 16QAM



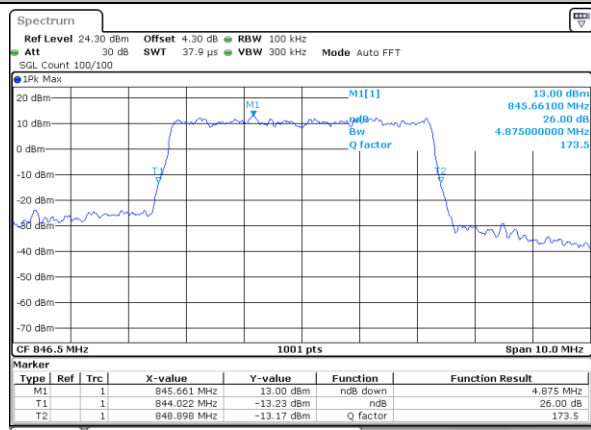
Date: 4 DEC 2019 18:40:12

Highest Channel / 5MHz / QPSK



Date: 4 DEC 2019 18:42:29

Highest Channel / 5MHz / 16QAM

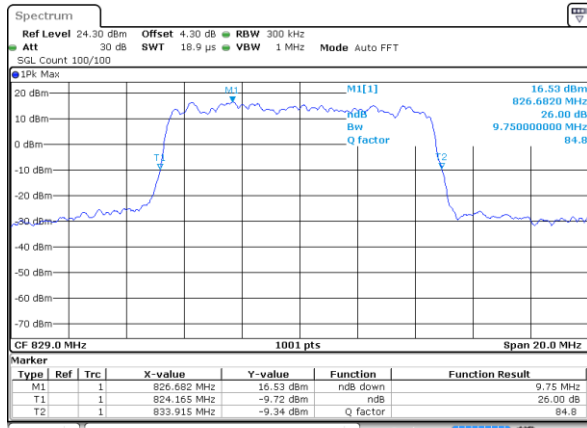


Date: 4 DEC 2019 18:42:39

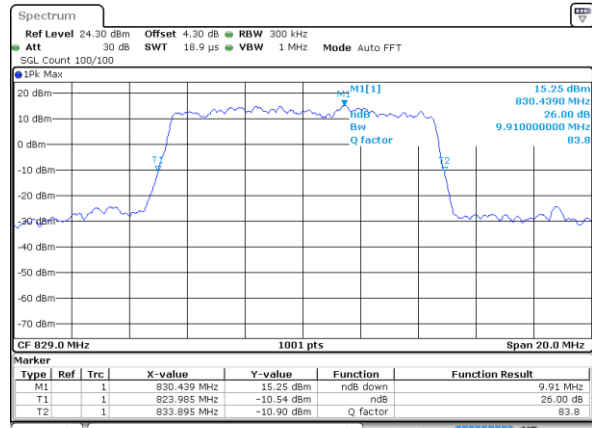


LTE Band 5

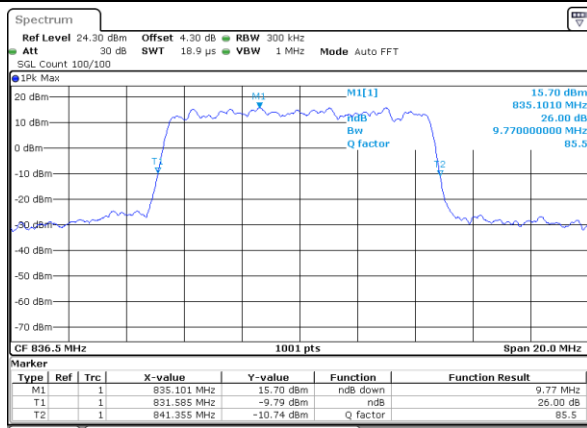
Lowest Channel / 10MHz / QPSK



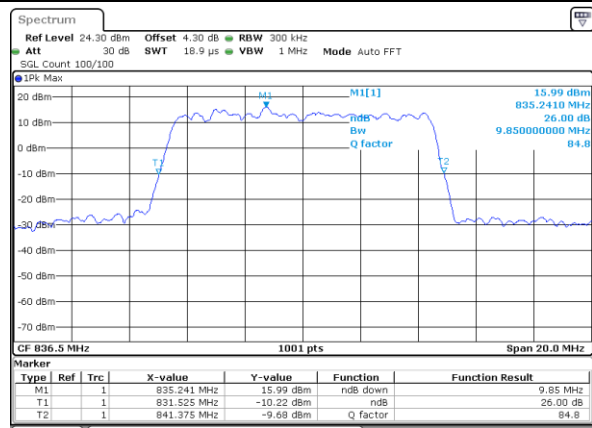
Lowest Channel / 10MHz / 16QAM



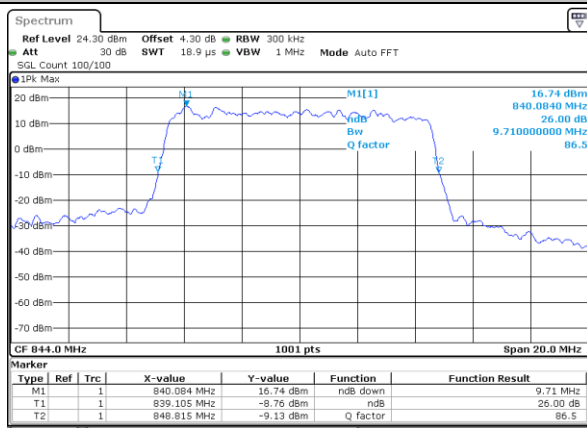
Middle Channel / 10MHz / QPSK



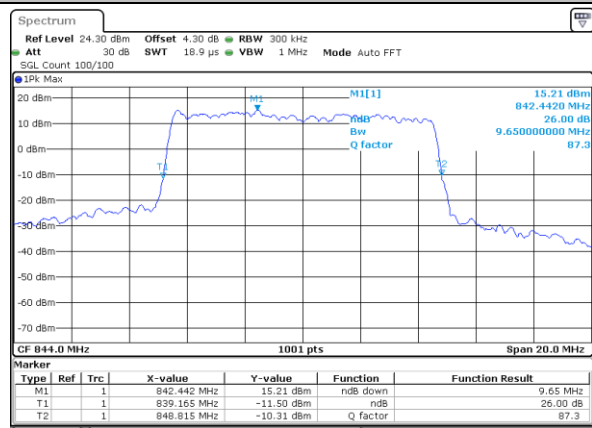
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



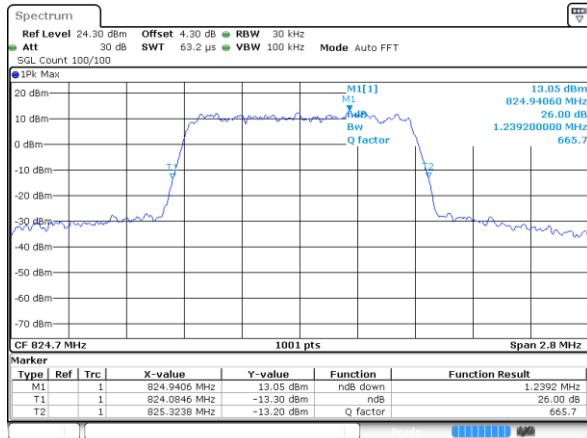
Highest Channel / 10MHz / 16QAM





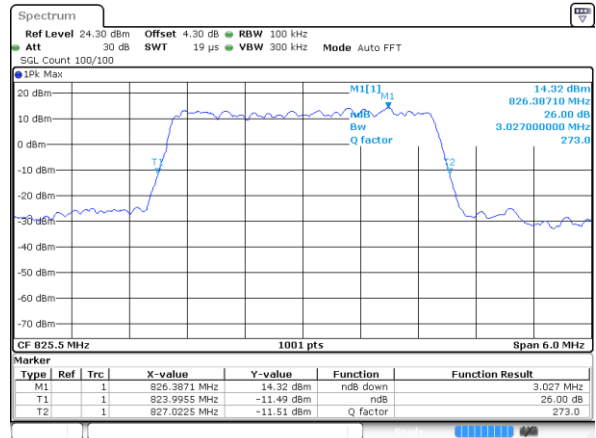
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



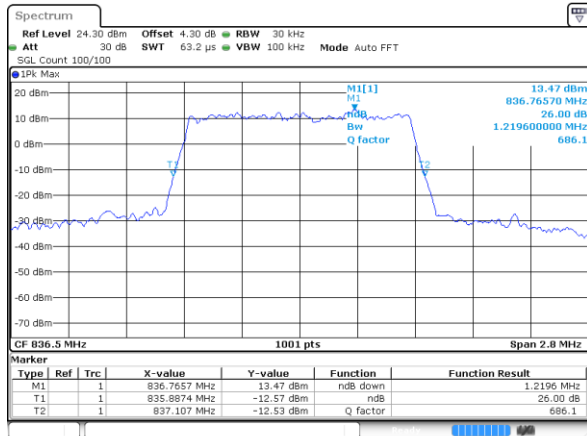
Date: 4 DEC 2019 19:15:55

Lowest Channel / 3MHz / 64QAM



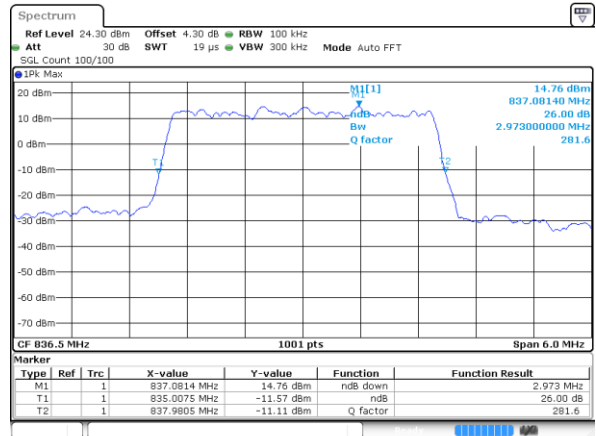
Date: 4 DEC 2019 19:26:08

Middle Channel / 1.4MHz / 64QAM



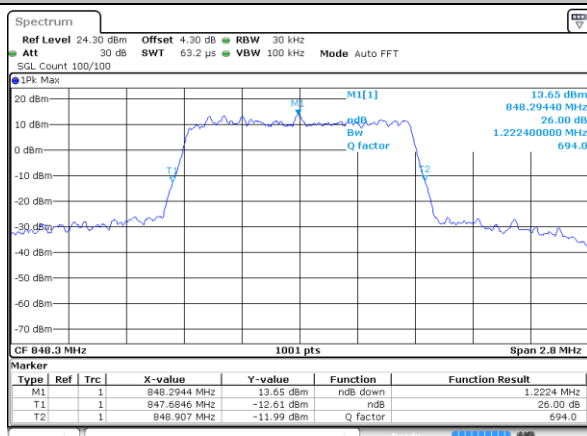
Date: 4 DEC 2019 19:21:18

Middle Channel / 3MHz / 64QAM



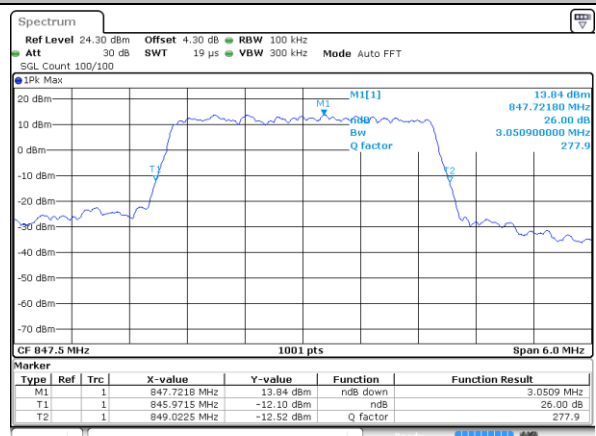
Date: 4 DEC 2019 19:31:32

Highest Channel / 1.4MHz / 64QAM



Date: 4 DEC 2019 19:21:38

Highest Channel / 3MHz / 64QAM

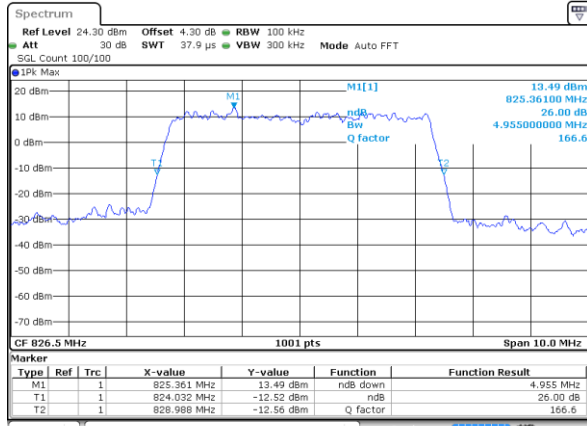


Date: 4 DEC 2019 19:31:52

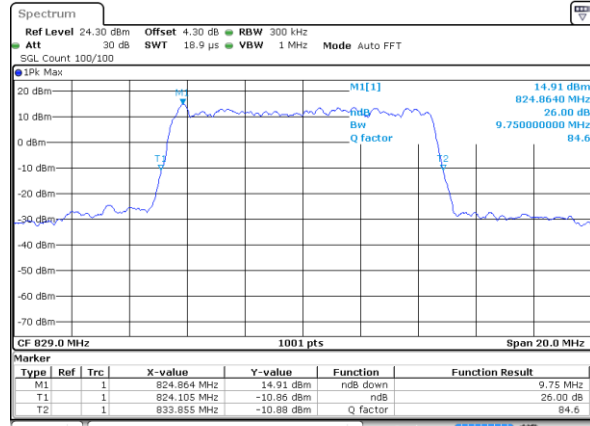


LTE Band 5

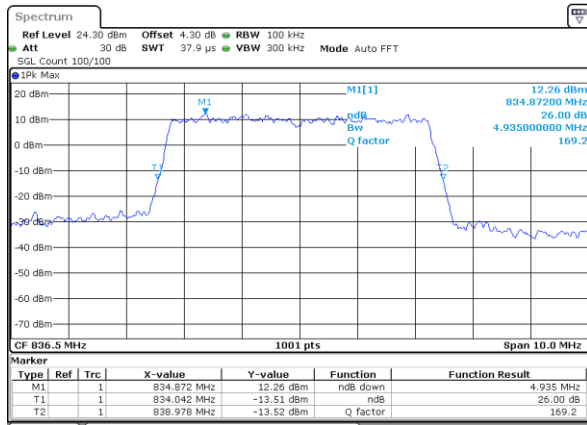
Lowest Channel / 5MHz / 64QAM



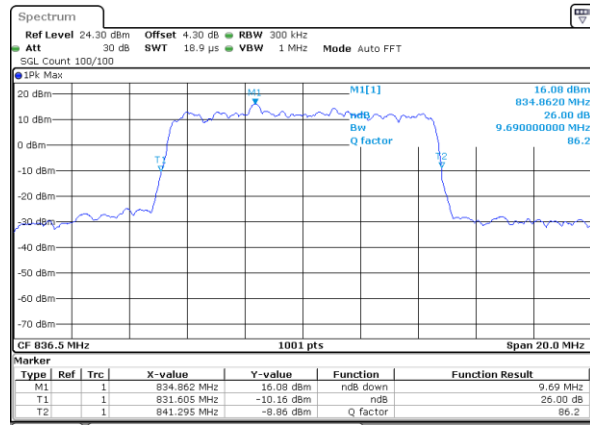
Lowest Channel / 10MHz / 64QAM



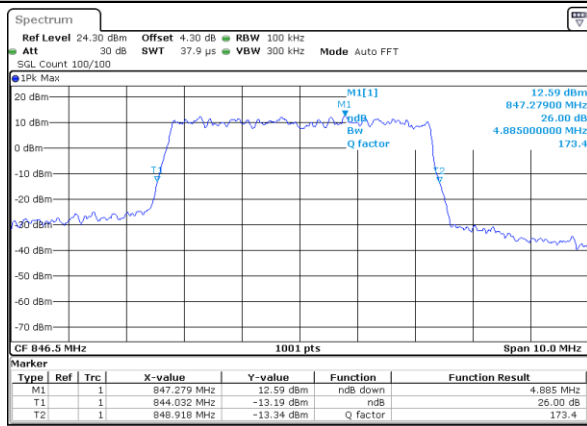
Middle Channel / 5MHz / 64QAM



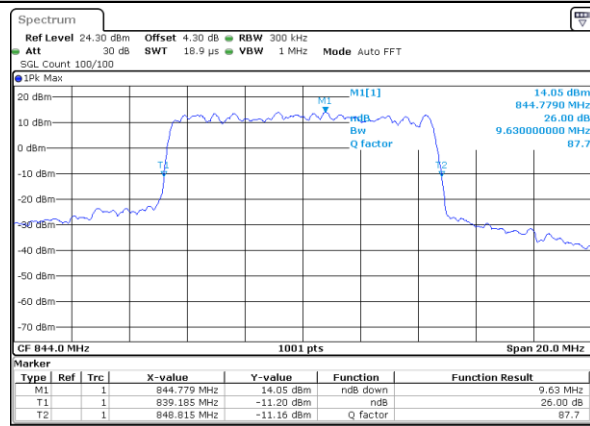
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



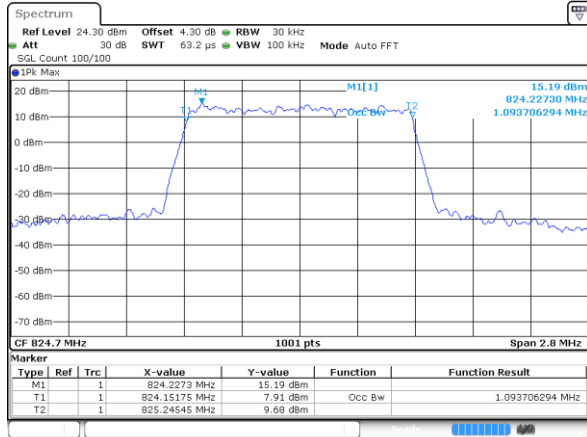
**Occupied Bandwidth**

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Lowest CH	1.094	1.099	2.709	2.709	4.496	4.505	9.071	9.031				
Middle CH	1.085	1.088	2.715	2.721	4.486	4.476	8.991	8.951				
Highest CH	1.094	1.097	2.715	2.715	4.505	4.486	9.031	9.031				
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.091		2.727		4.505		9.071		-	-	-	-
Middle CH	1.094		2.721		4.486		9.031		-	-	-	-
Highest CH	1.091		2.709		4.496		9.011		-	-	-	-

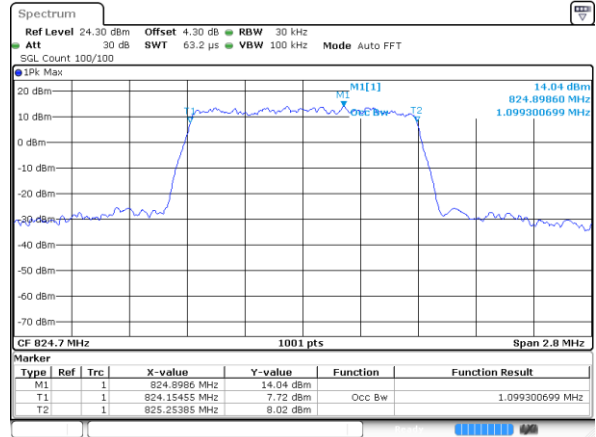


LTE Band 5

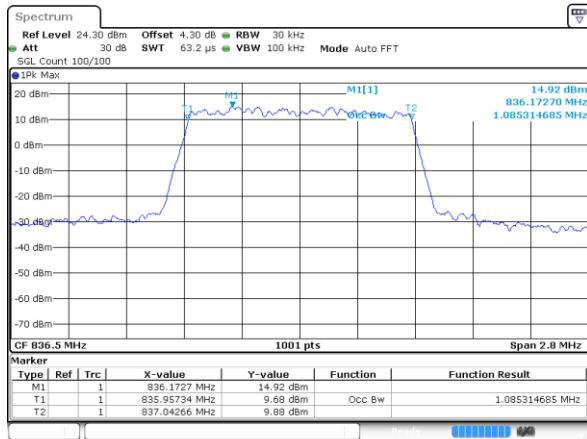
Lowest Channel / 1.4MHz / QPSK



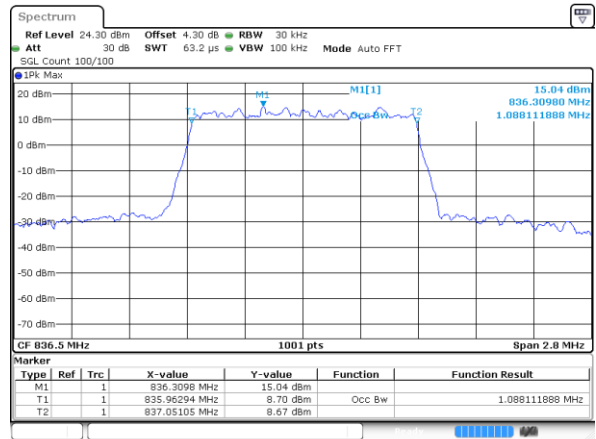
Lowest Channel / 1.4MHz / 16QAM



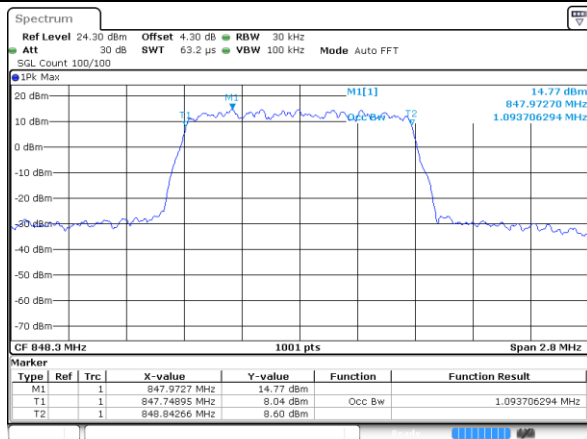
Middle Channel / 1.4MHz / QPSK



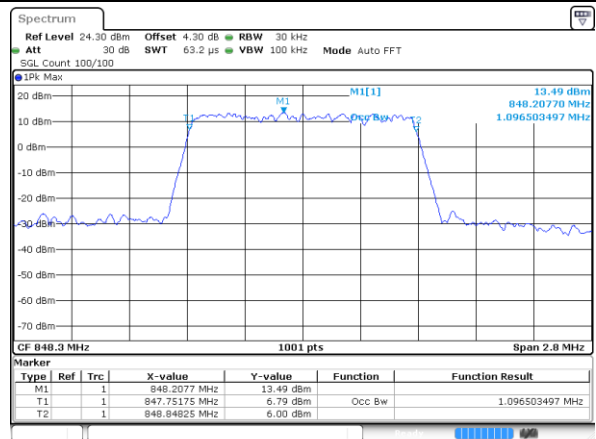
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



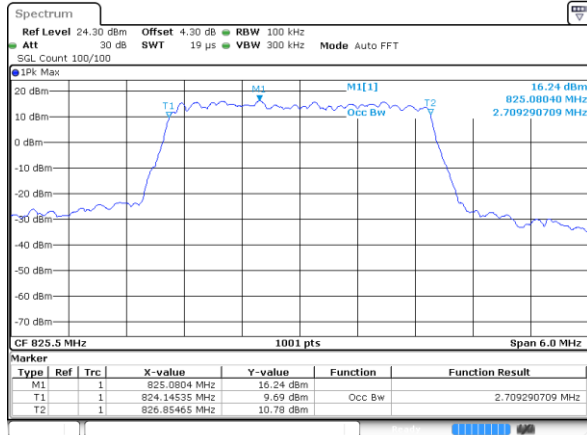
Highest Channel / 1.4MHz / 16QAM



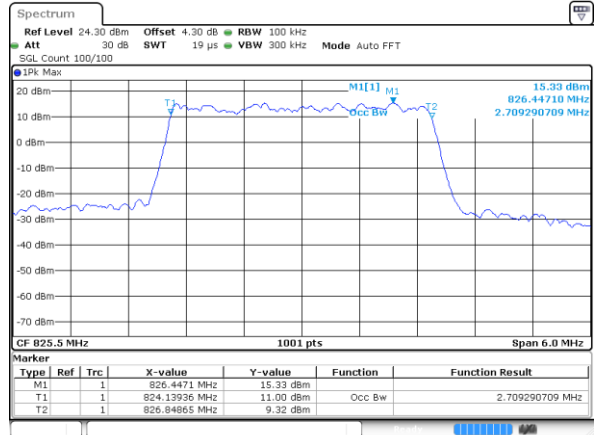


LTE Band 5

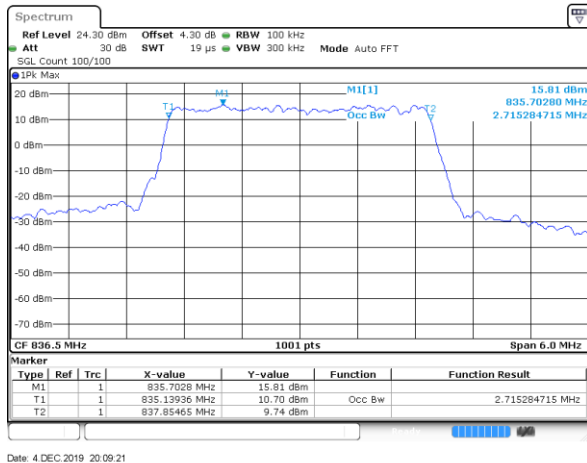
Lowest Channel / 3MHz / QPSK



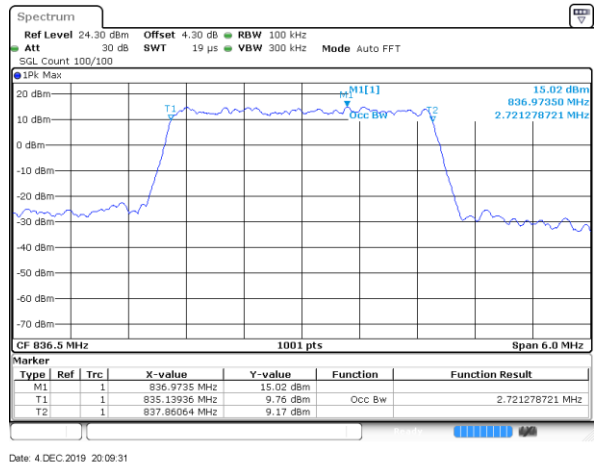
Lowest Channel / 3MHz / 16QAM



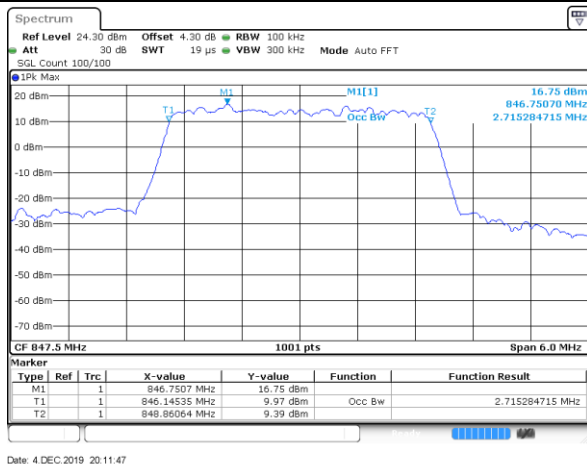
Middle Channel / 3MHz / QPSK



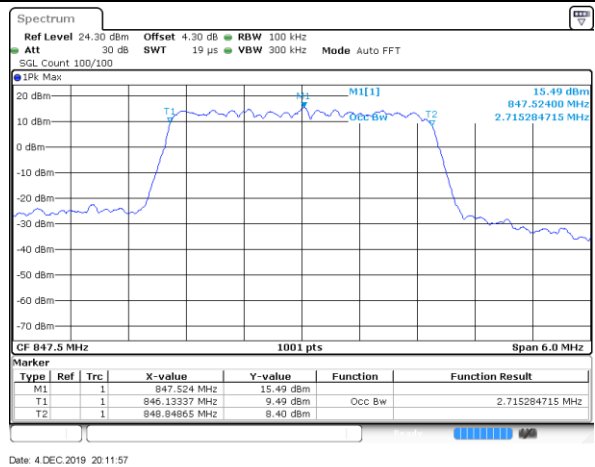
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



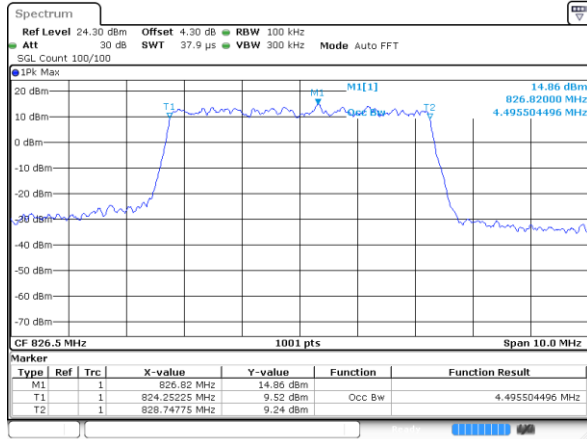
Highest Channel / 3MHz / 16QAM



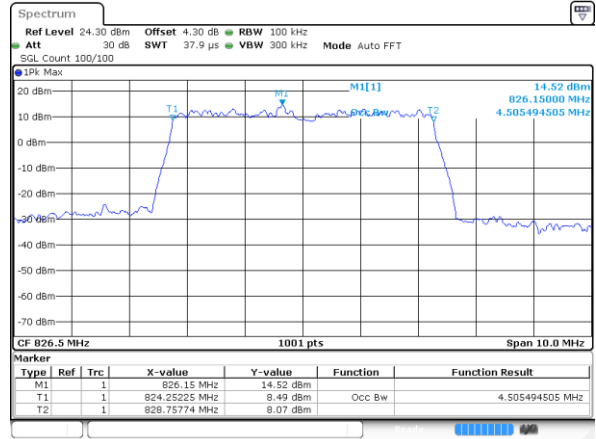


LTE Band 5

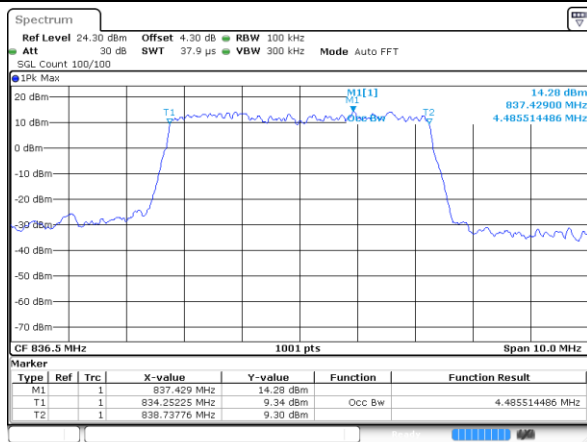
Lowest Channel / 5MHz / QPSK



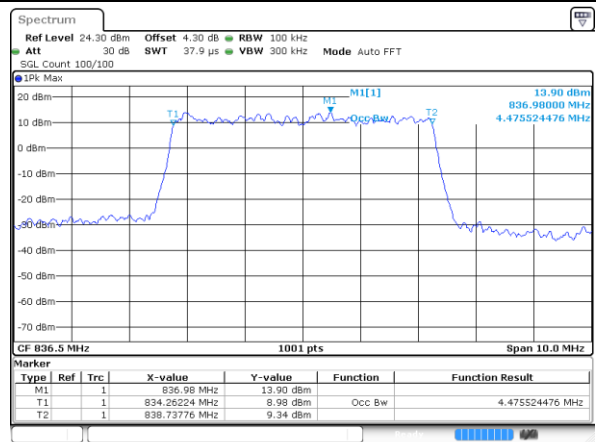
Lowest Channel / 5MHz / 16QAM



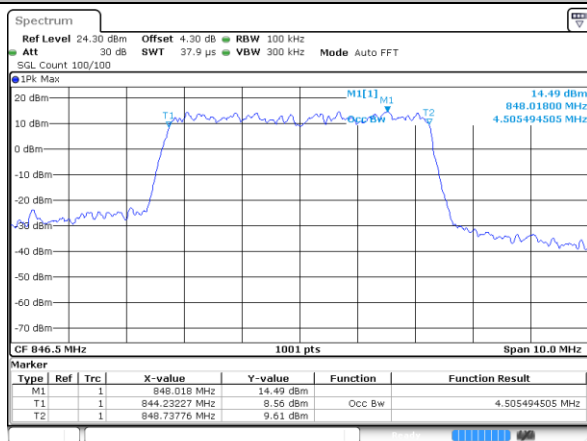
Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM

