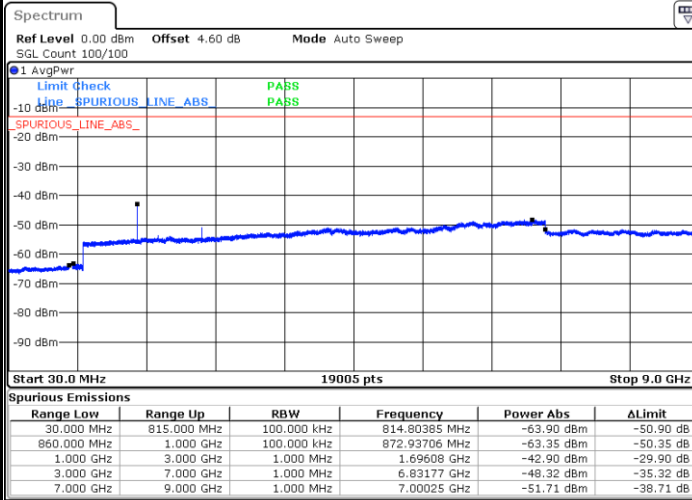




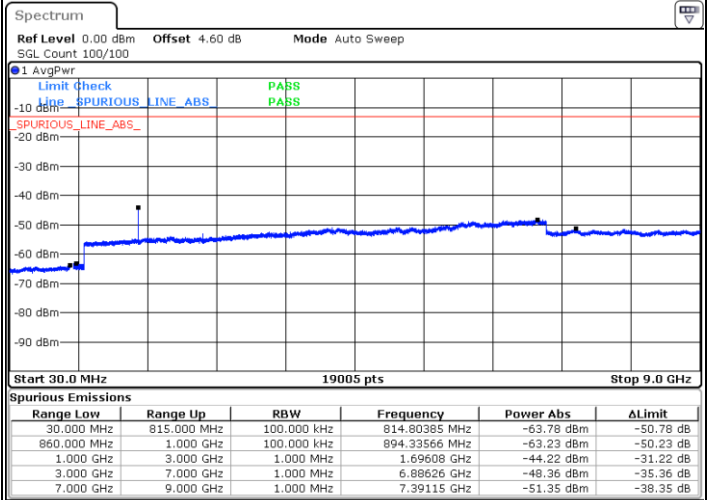
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 27 NOV 2019 15:34:11

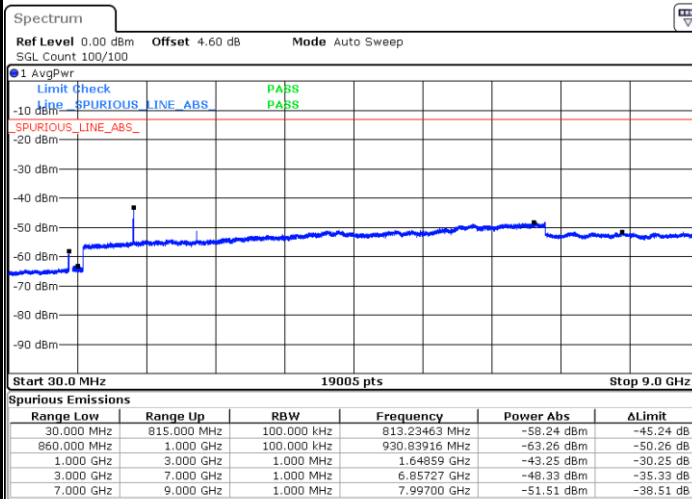
Highest Channel / 16QAM



Date: 27 NOV 2019 15:35:06

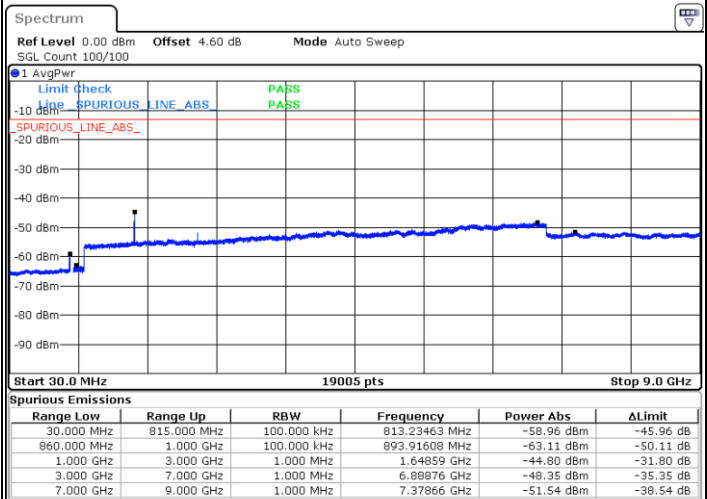
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 27 NOV 2019 15:39:30

Lowest Channel / 16QAM

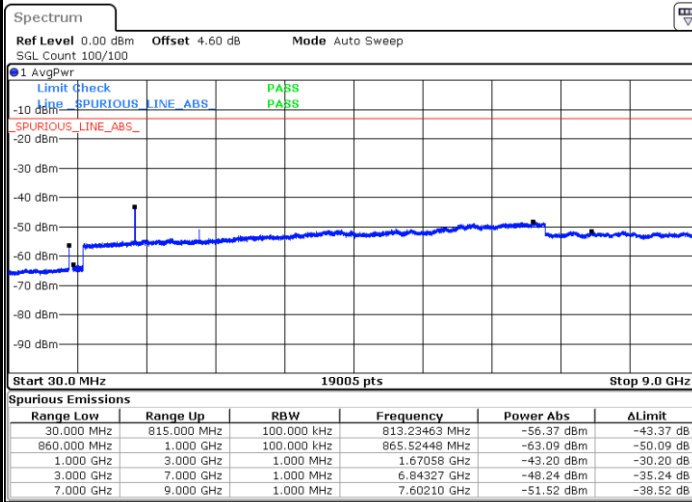


Date: 27 NOV 2019 15:40:24



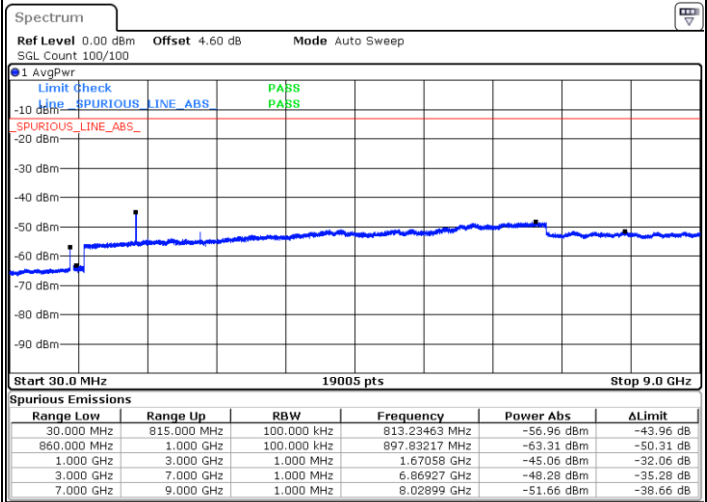
LTE Band 5 / 3MHz

Middle Channel / QPSK



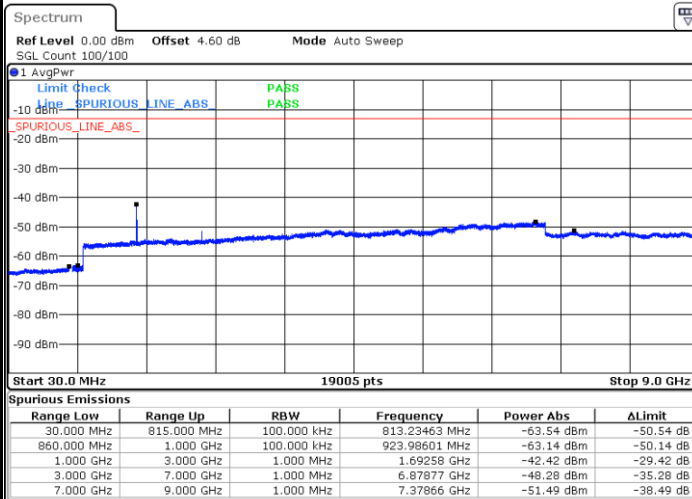
Date: 27 NOV 2019 15:41:58

Middle Channel / 16QAM



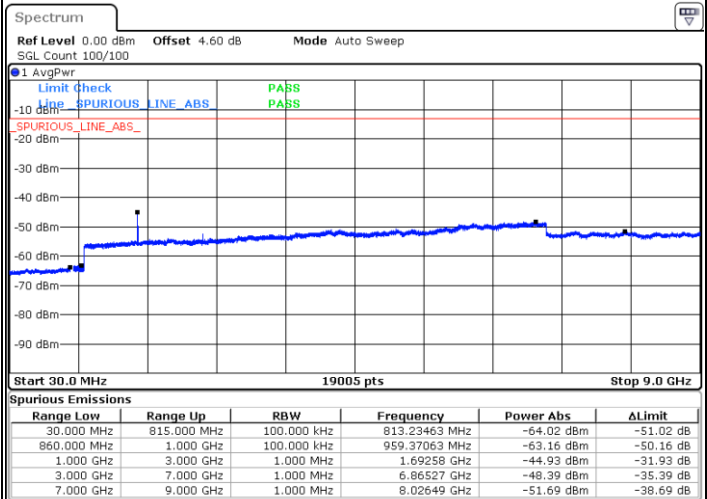
Date: 27 NOV 2019 15:42:53

Highest Channel / QPSK



Date: 27 NOV 2019 15:44:27

Highest Channel / 16QAM

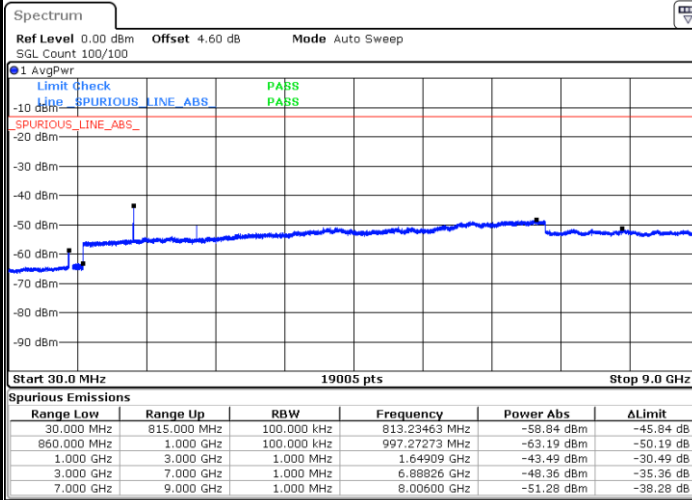


Date: 27 NOV 2019 15:45:21



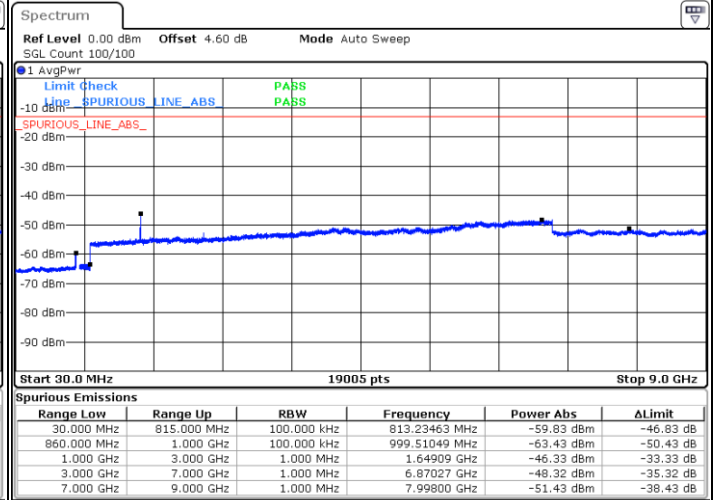
LTE Band 5 / 5MHz

Lowest Channel / QPSK



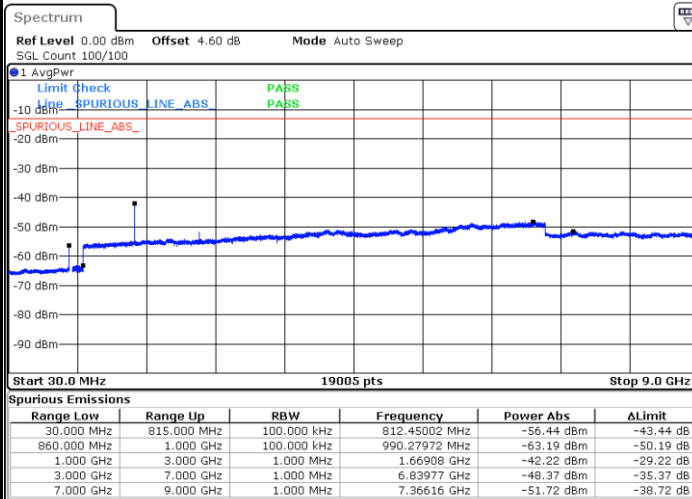
Date: 27.NOV.2019 15:46:57

Lowest Channel / 16QAM



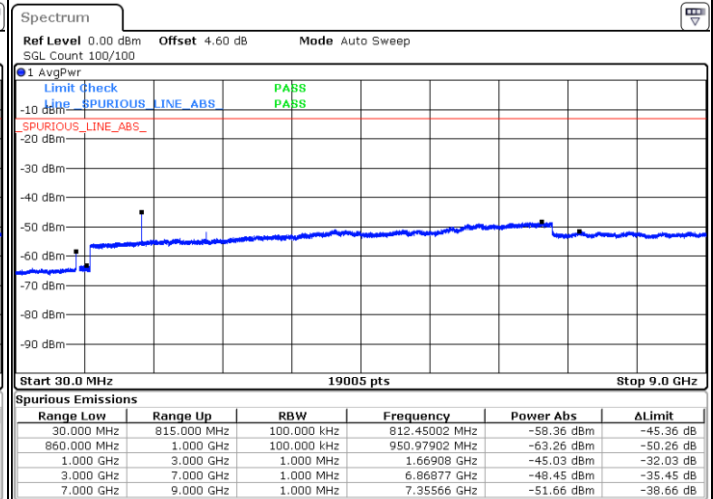
Date: 27.NOV.2019 15:47:51

Middle Channel / QPSK



Date: 27.NOV.2019 15:49:25

Middle Channel / 16QAM

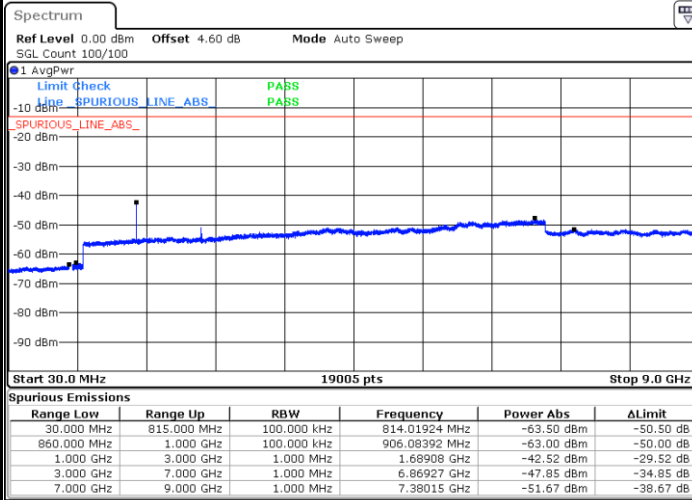


Date: 27.NOV.2019 15:50:20



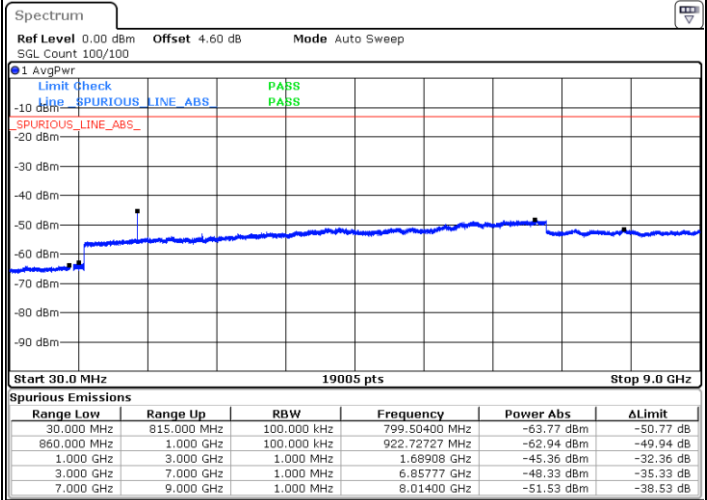
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 27 NOV 2019 15:51:54

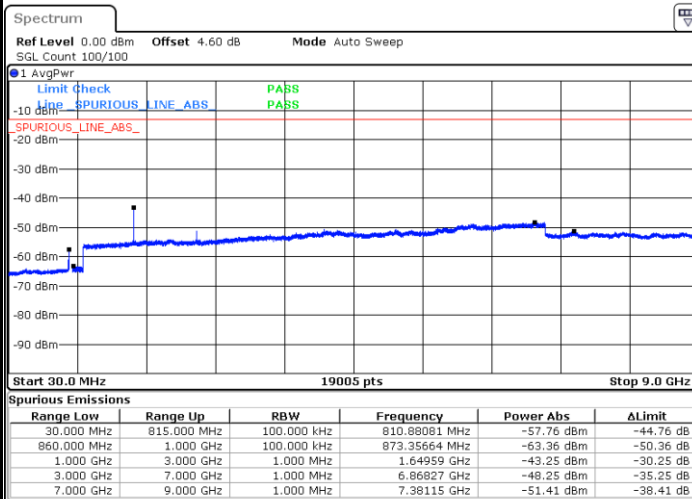
Highest Channel / 16QAM



Date: 27 NOV 2019 15:52:48

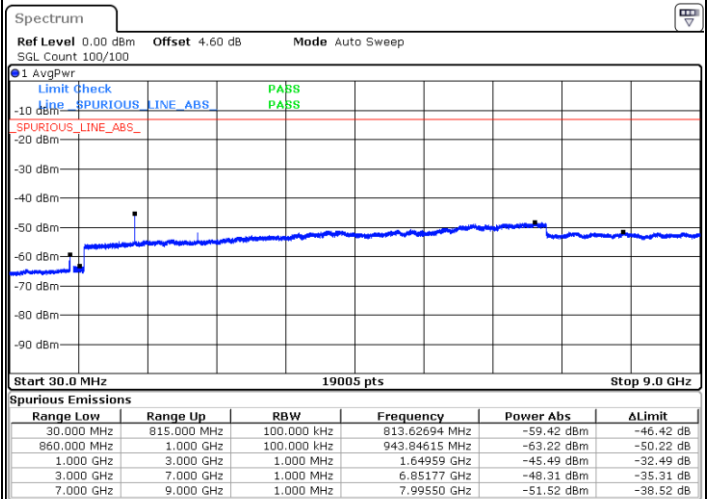
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 27 NOV 2019 15:54:23

Lowest Channel / 16QAM

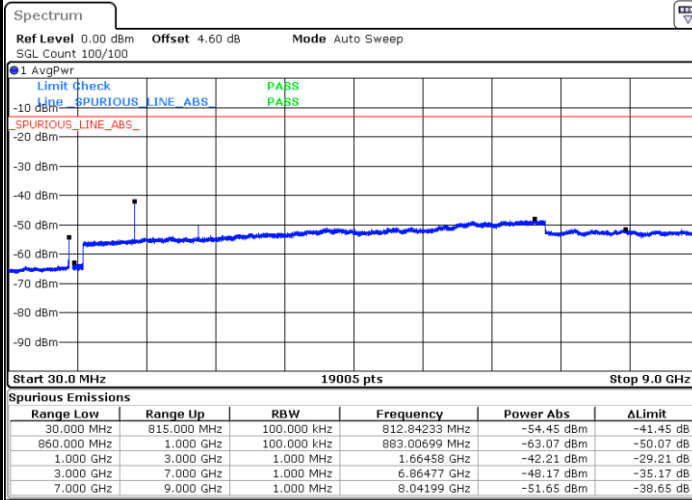


Date: 27 NOV 2019 15:55:18



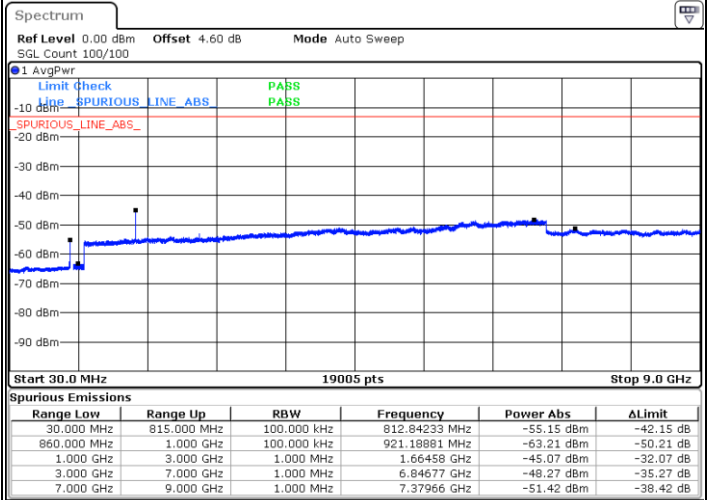
LTE Band 5 / 10MHz

Middle Channel / QPSK



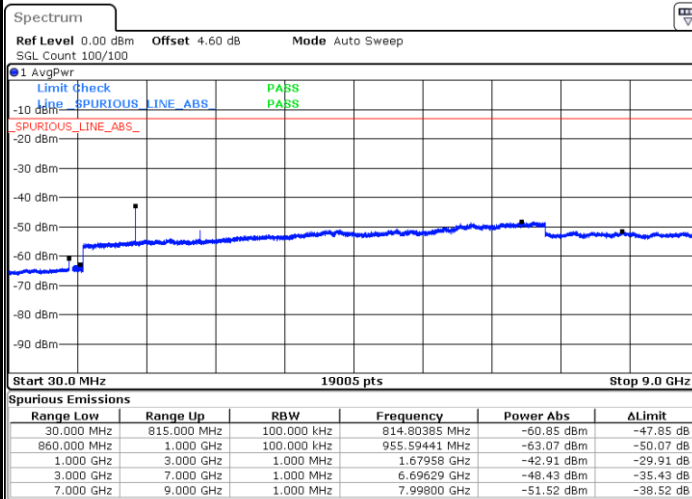
Date: 27 NOV 2019 15:56:52

Middle Channel / 16QAM



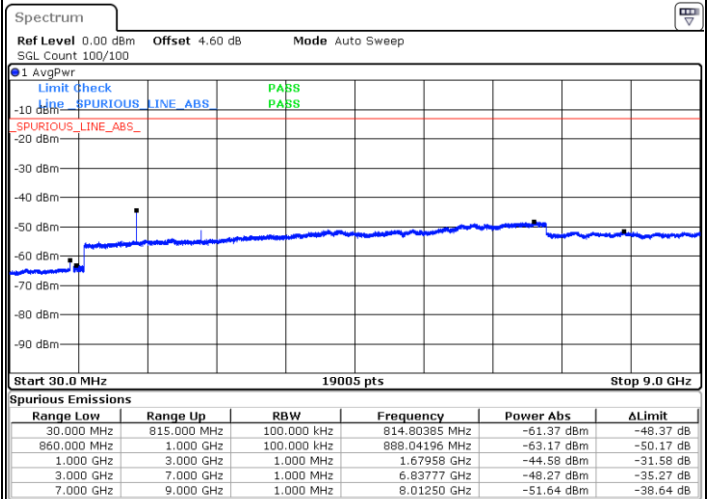
Date: 27 NOV 2019 15:57:46

Highest Channel / QPSK



Date: 27 NOV 2019 15:59:21

Highest Channel / 16QAM



Date: 27 NOV 2019 16:00:15

**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0049	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0055	
0	Normal Voltage	0.0058	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0052	
20	Normal Voltage	0.0060	
20	Battery End Point	0.0012	

Note:

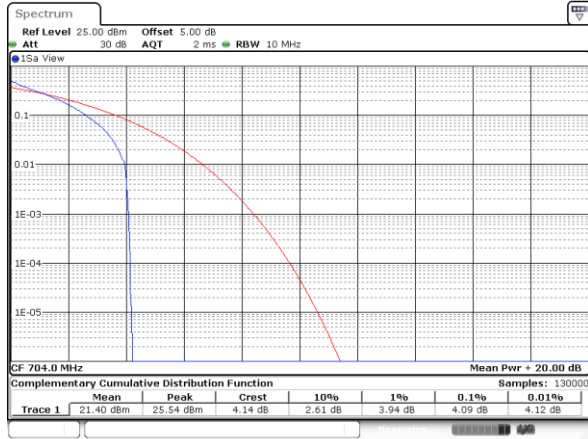
1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.



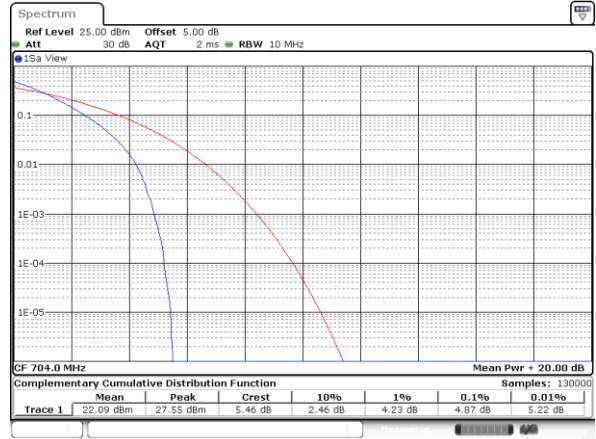
LTE Band 12

Peak-to-Average Ratio

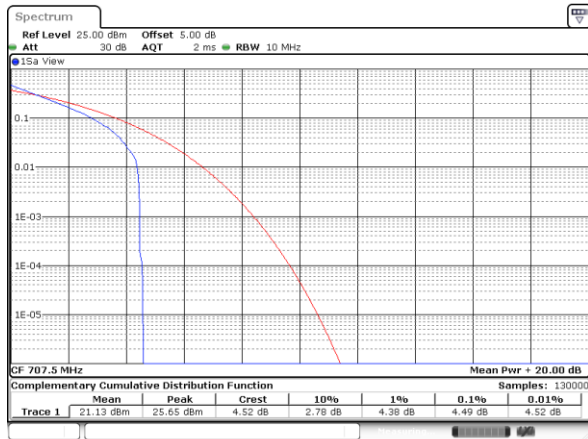
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.09	4.87	5.19	5.94	PASS
Middle CH	4.49	4.93	5.28	5.94	
Highest CH	4.41	4.81	5.54	5.83	

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


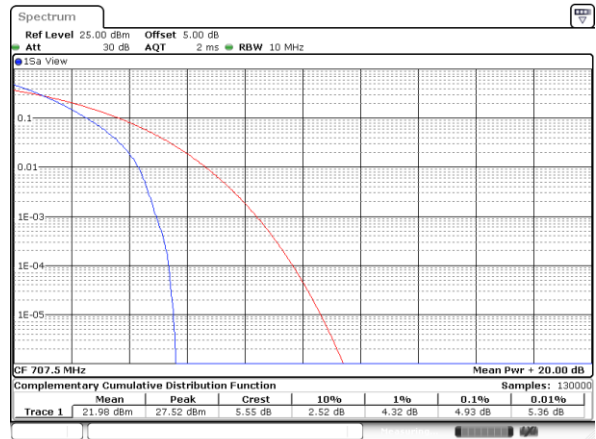
Date: 29 NOV 2019 09:13:17

Lowest Channel / Full RB


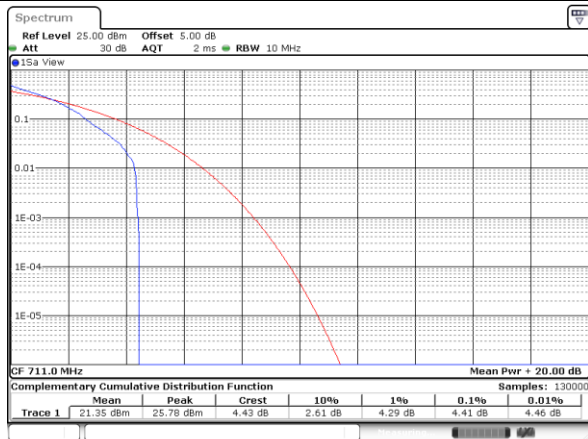
Date: 29 NOV 2019 09:13:26

Middle Channel / 1RB


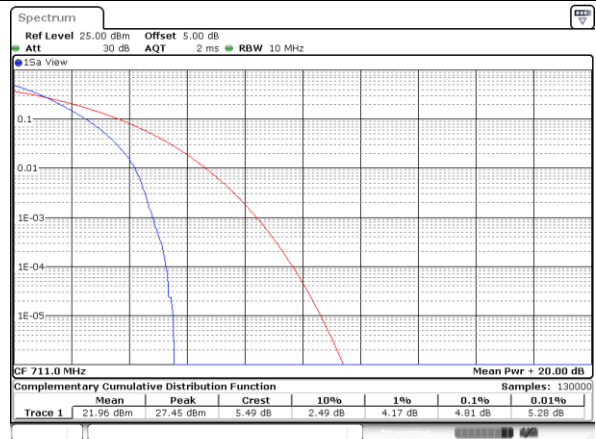
Date: 29 NOV 2019 09:14:15

Middle Channel / Full RB


Date: 29 NOV 2019 09:14:04

Highest Channel / 1RB


Date: 29 NOV 2019 09:14:45

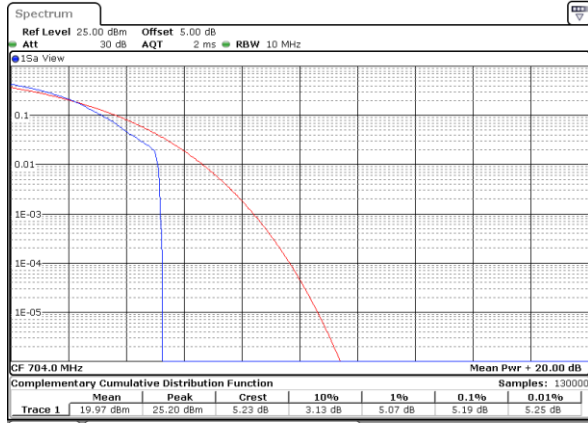
Highest Channel / Full RB


Date: 29 NOV 2019 09:14:54



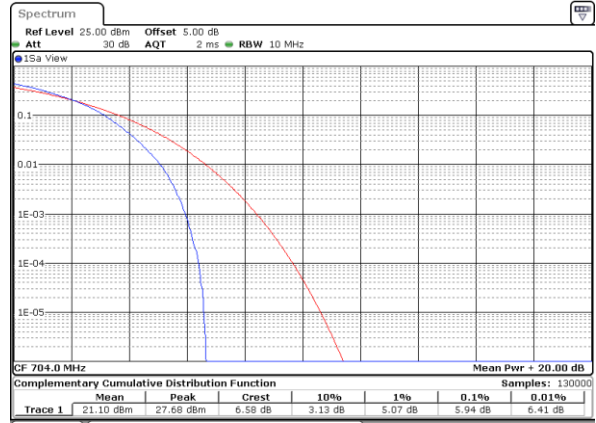
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



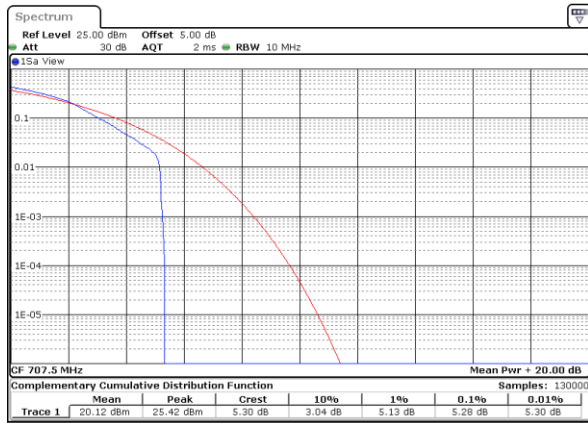
Date: 29 NOV 2019 09:13:07

Lowest Channel / Full RB



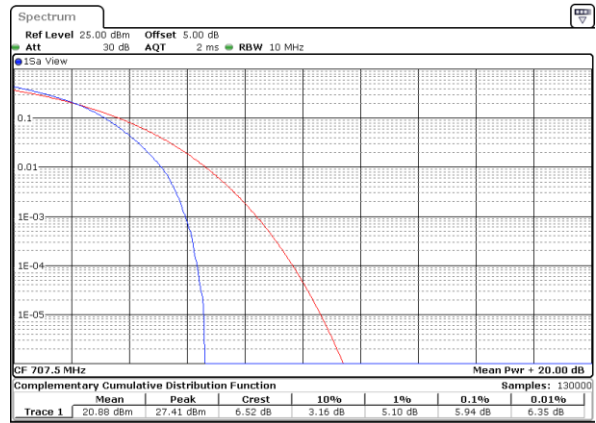
Date: 29 NOV 2019 09:13:45

Middle Channel / 1RB



Date: 29 NOV 2019 09:14:24

Middle Channel / Full RB



Date: 29 NOV 2019 09:13:55

Highest Channel / 1RB



Date: 29 NOV 2019 09:14:34

Highest Channel / Full RB



Date: 29 NOV 2019 09:15:03

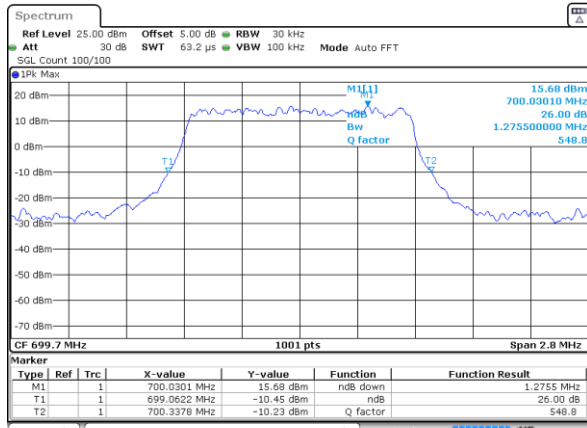
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.276	1.267	3.009	2.991	4.875	4.865	9.71	9.65				
Middle CH	1.278	1.239	3.039	3.027	4.915	4.935	9.87	9.77				
Highest CH	1.284	1.295	2.937	3.003	4.975	4.935	9.91	9.61				



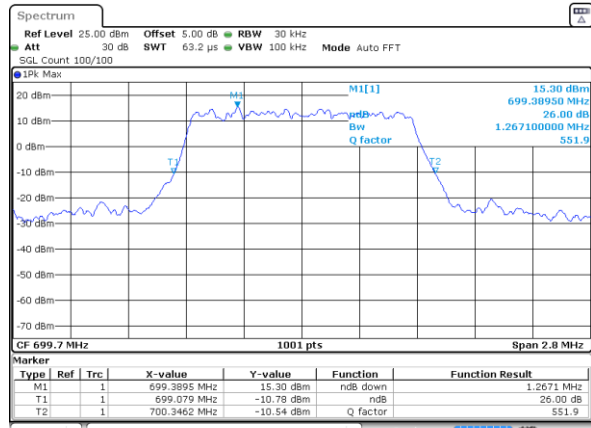
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



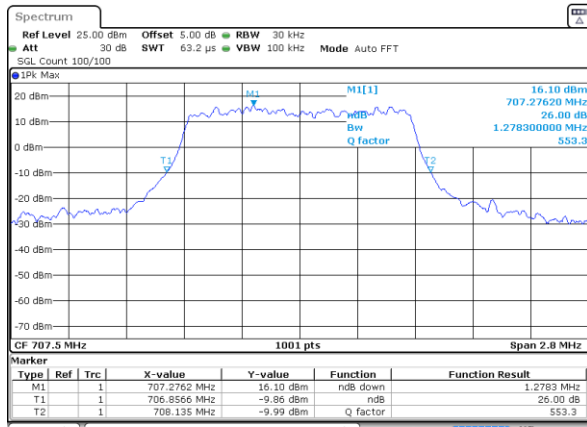
Date: 28 NOV 2019 17:54:32

Lowest Channel / 1.4MHz / 16QAM



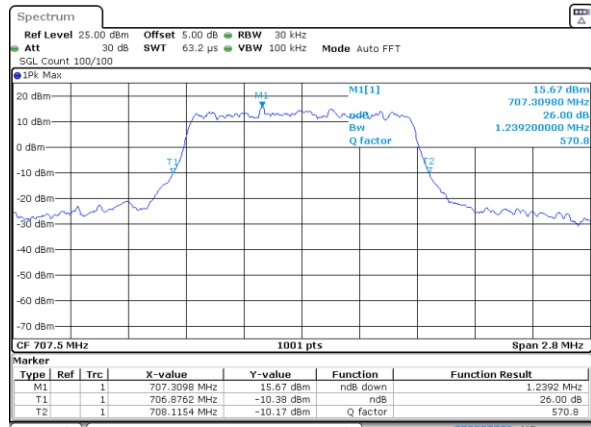
Date: 28 NOV 2019 17:54:21

Middle Channel / 1.4MHz / QPSK



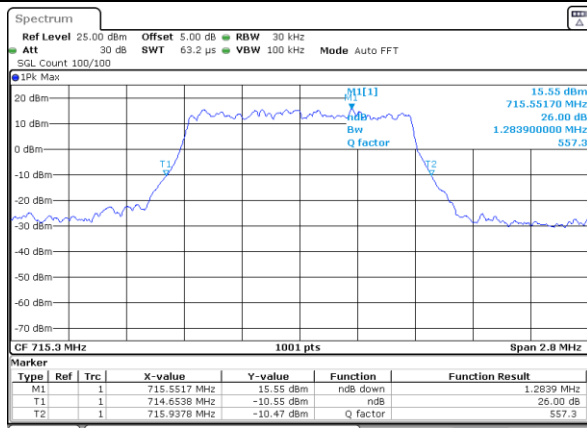
Date: 28 NOV 2019 17:54:01

Middle Channel / 1.4MHz / 16QAM



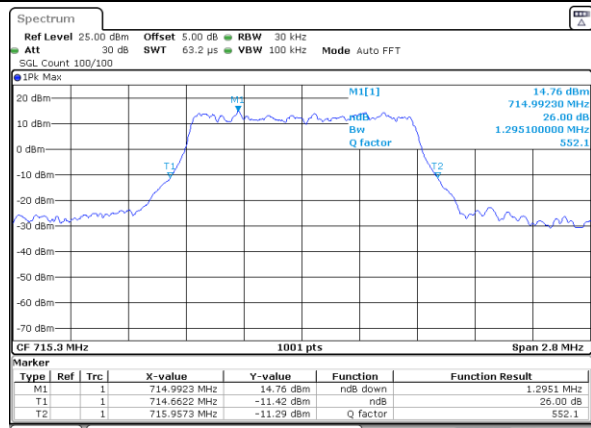
Date: 28 NOV 2019 17:54:11

Highest Channel / 1.4MHz / QPSK



Date: 28 NOV 2019 17:53:51

Highest Channel / 1.4MHz / 16QAM

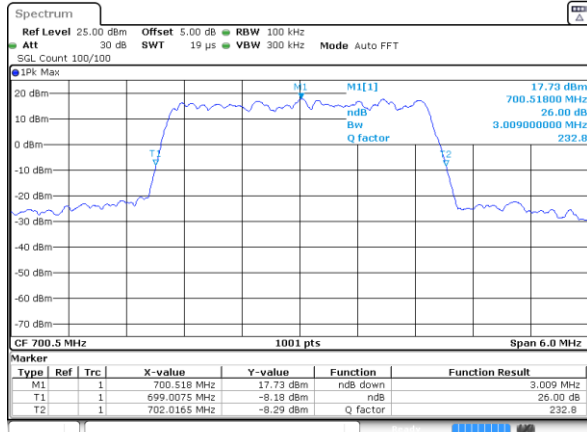


Date: 28 NOV 2019 17:53:41

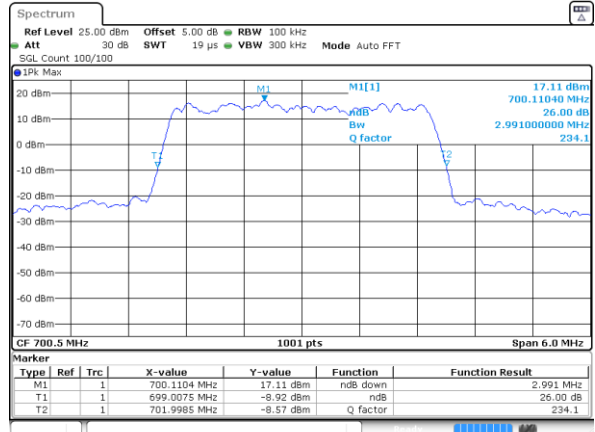


LTE Band 12

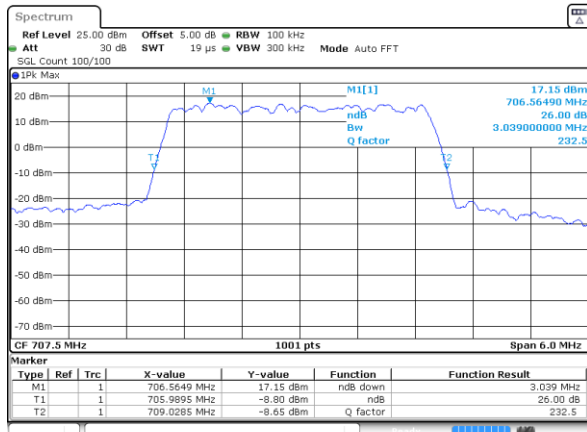
Lowest Channel / 3MHz / QPSK



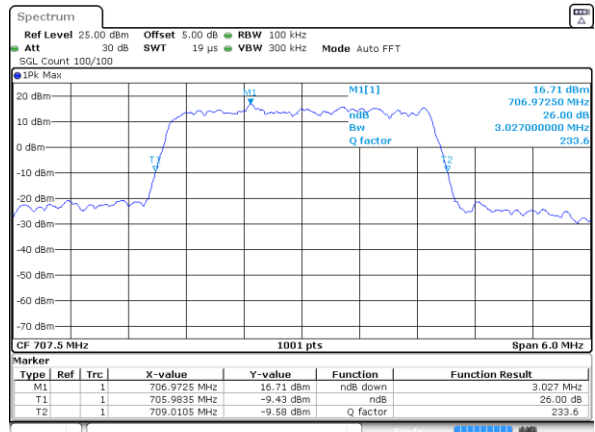
Lowest Channel / 3MHz / 16QAM



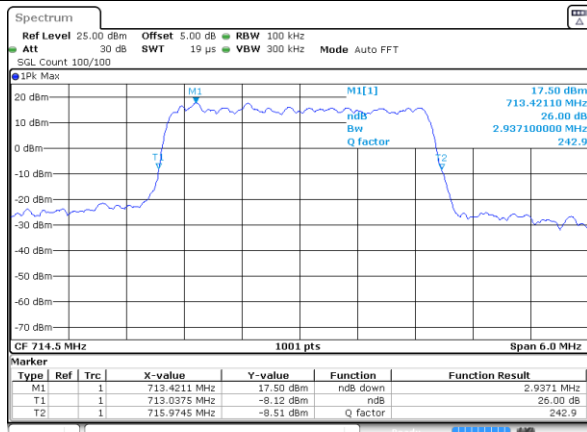
Middle Channel / 3MHz / QPSK



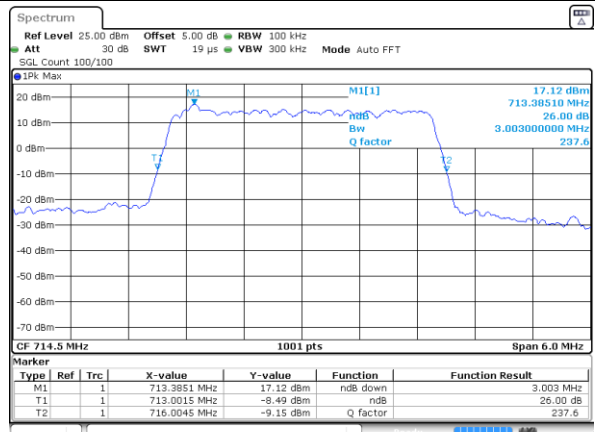
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



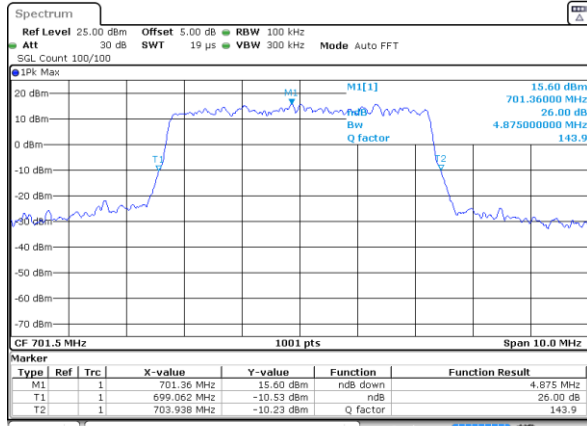
Highest Channel / 3MHz / 16QAM





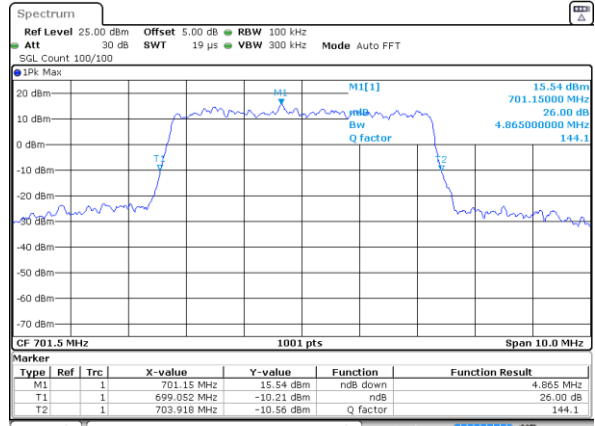
LTE Band 12

Lowest Channel / 5MHz / QPSK



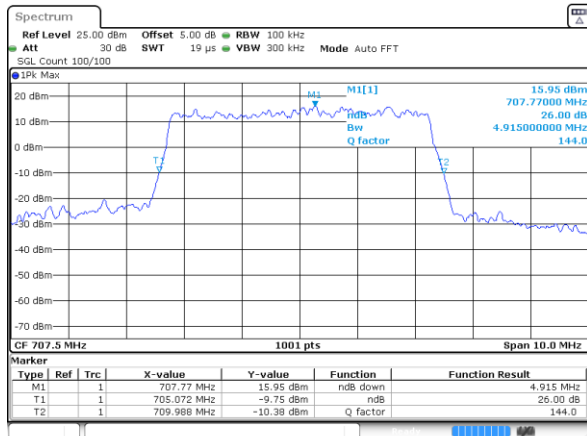
Date: 28 NOV 2019 18:27:29

Lowest Channel / 5MHz / 16QAM



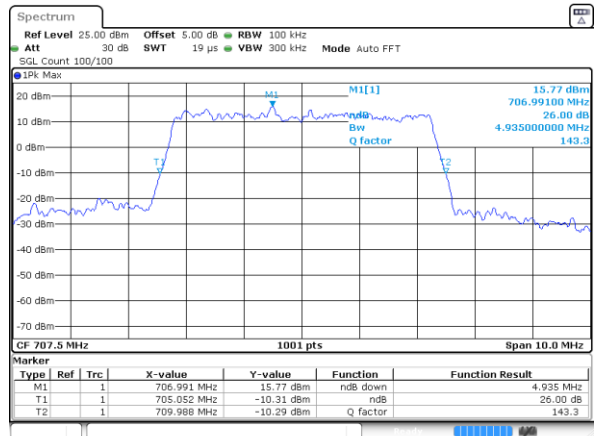
Date: 28 NOV 2019 18:27:19

Middle Channel / 5MHz / QPSK



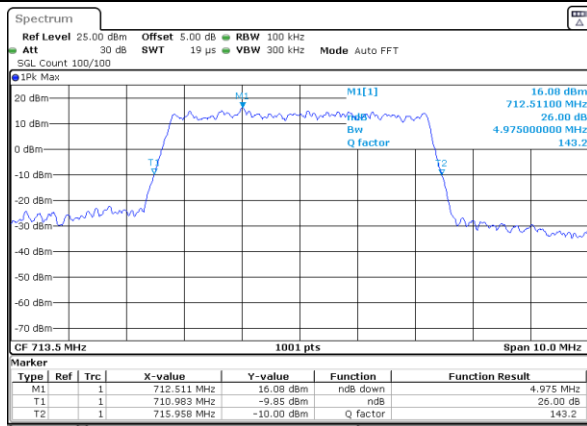
Date: 28 NOV 2019 18:26:59

Middle Channel / 5MHz / 16QAM



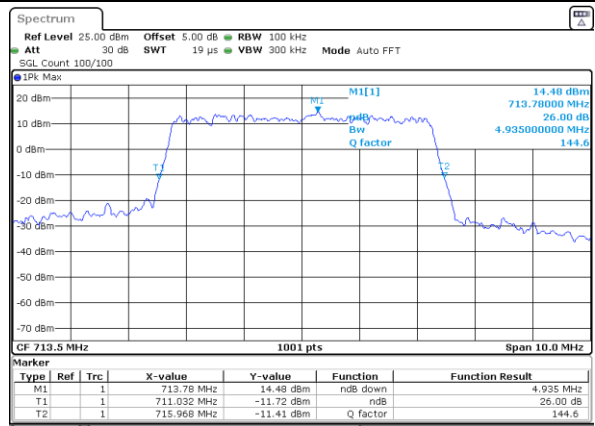
Date: 28 NOV 2019 18:27:09

Highest Channel / 5MHz / QPSK



Date: 28 NOV 2019 18:26:49

Highest Channel / 5MHz / 16QAM

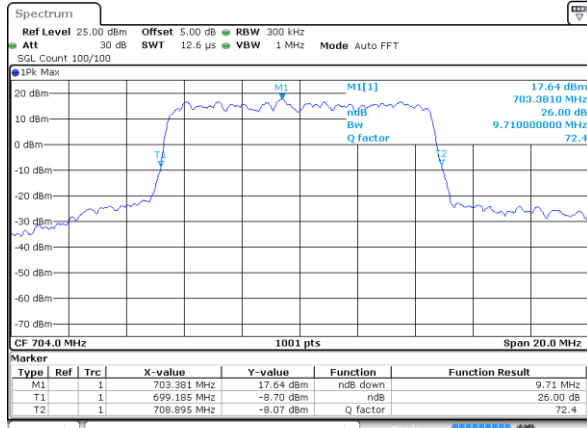


Date: 28 NOV 2019 18:26:39



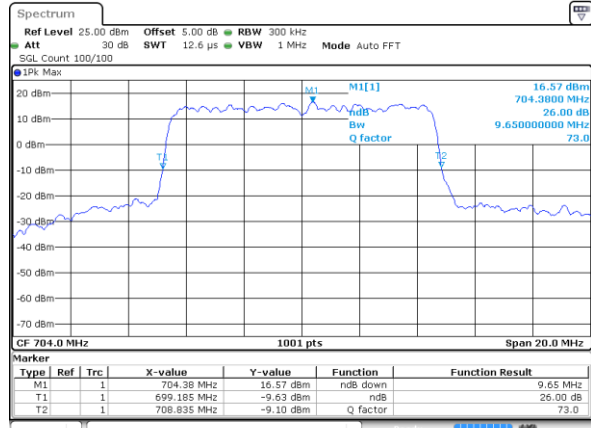
LTE Band 12

Lowest Channel / 10MHz / QPSK



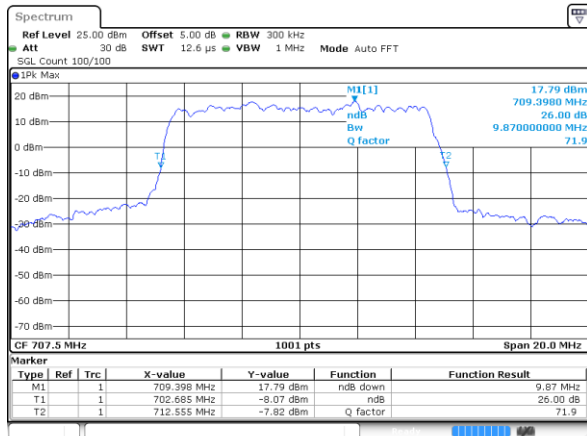
Date: 29 NOV 2019 08:49:48

Lowest Channel / 10MHz / 16QAM



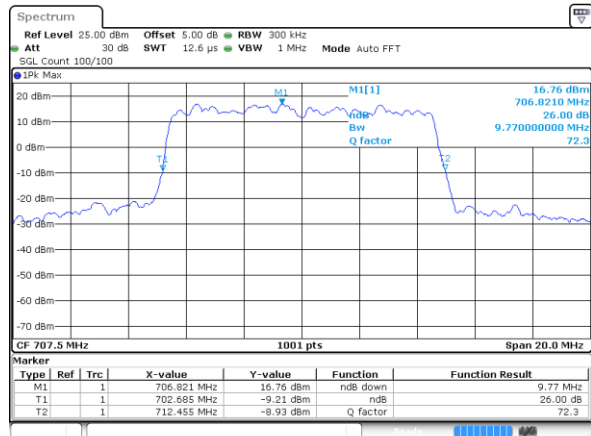
Date: 29 NOV 2019 08:49:37

Middle Channel / 10MHz / QPSK



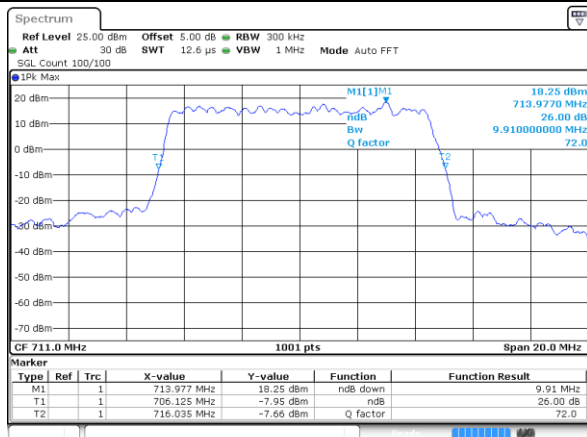
Date: 29 NOV 2019 08:49:17

Middle Channel / 10MHz / 16QAM



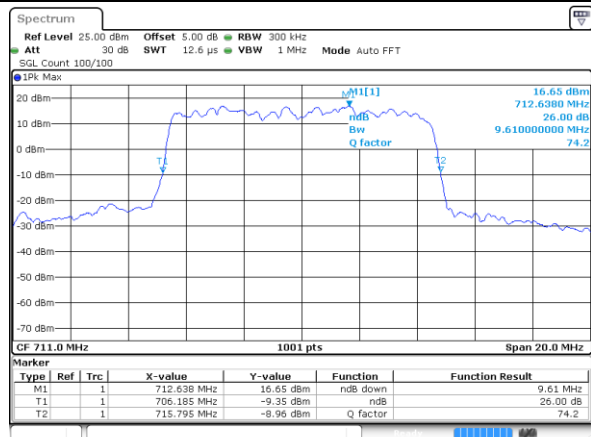
Date: 29 NOV 2019 08:49:27

Highest Channel / 10MHz / QPSK



Date: 29 NOV 2019 08:49:07

Highest Channel / 10MHz / 16QAM



Date: 29 NOV 2019 08:48:57

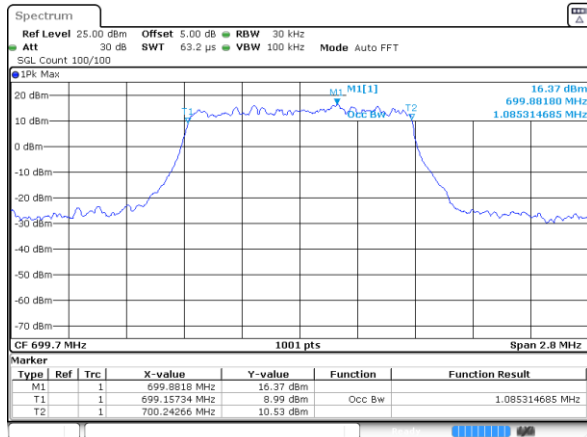
**Occupied Bandwidth**

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.72	2.72	4.51	4.47	8.97	9.01	-	-	-	-
Middle CH	1.09	1.09	2.71	2.73	4.51	4.49	8.97	8.93	-	-	-	-
Highest CH	1.09	1.10	2.72	2.71	4.49	4.50	9.01	8.99	-	-	-	-

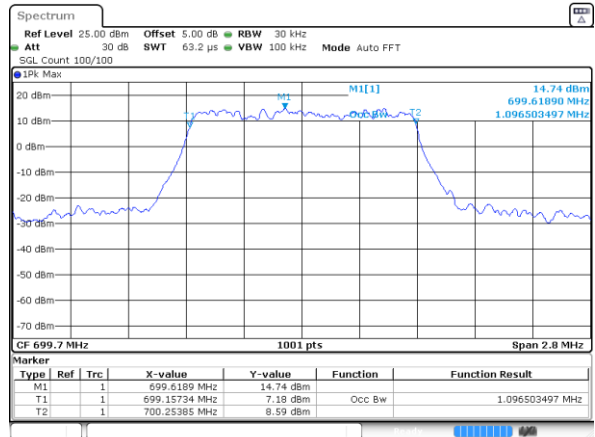


LTE Band 12

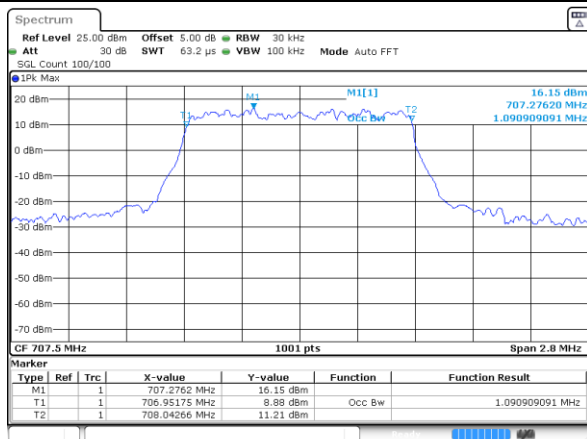
Lowest Channel / 1.4MHz / QPSK



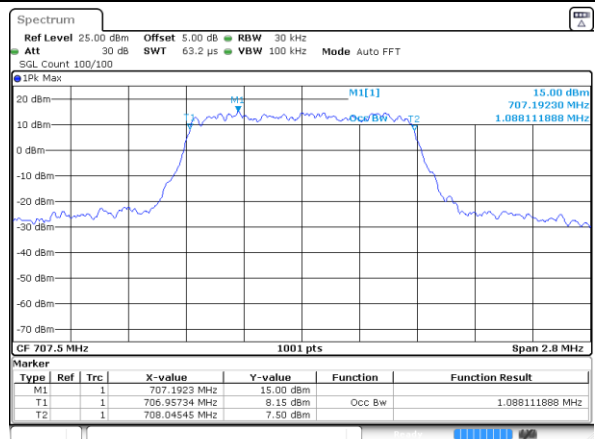
Lowest Channel / 1.4MHz / 16QAM



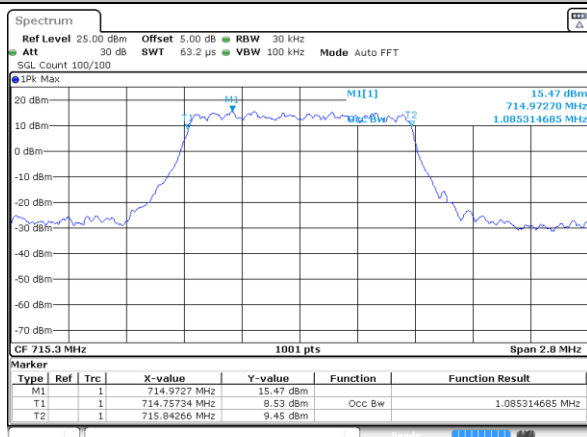
Middle Channel / 1.4MHz / QPSK



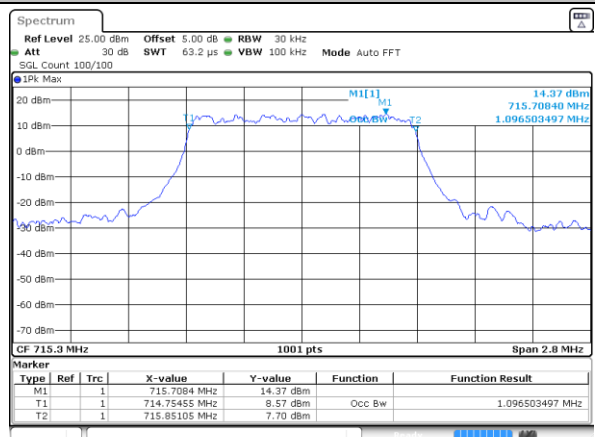
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



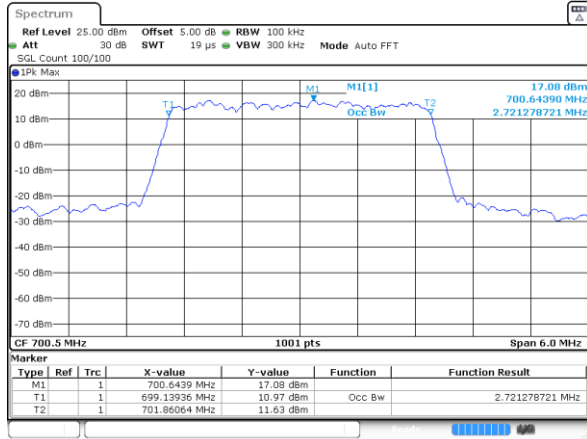
Highest Channel / 1.4MHz / 16QAM



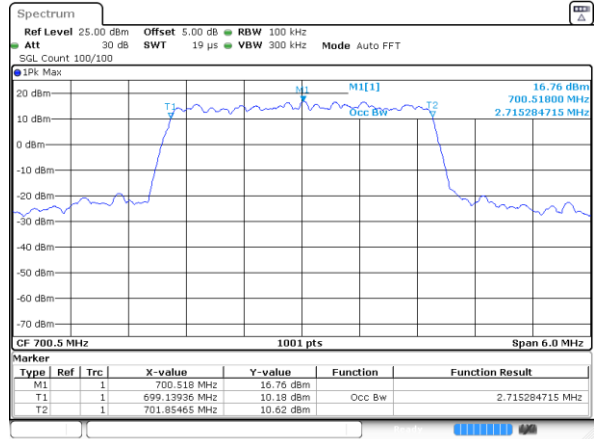


LTE Band 12

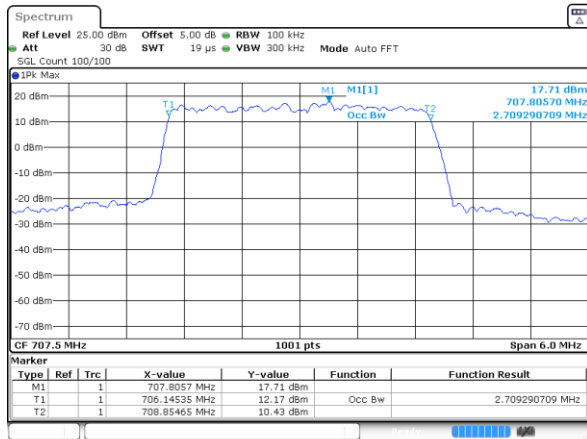
Lowest Channel / 3MHz / QPSK



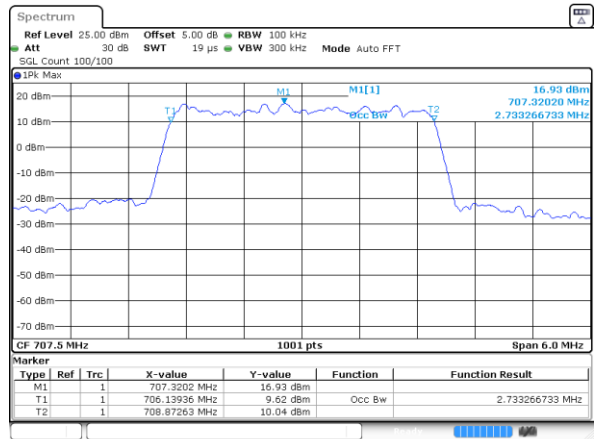
Lowest Channel / 3MHz / 16QAM



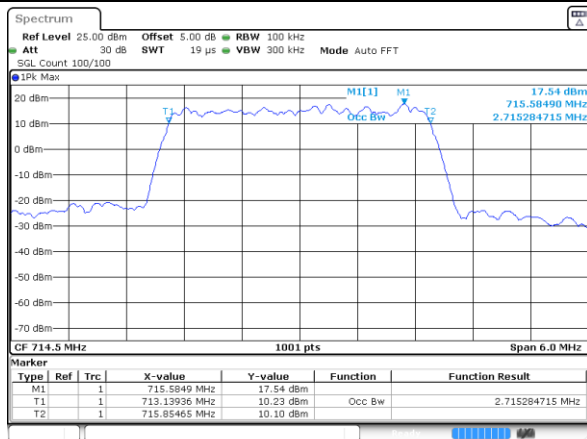
Middle Channel / 3MHz / QPSK



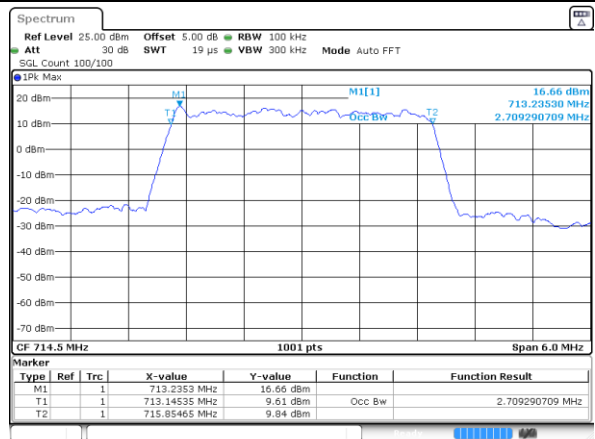
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



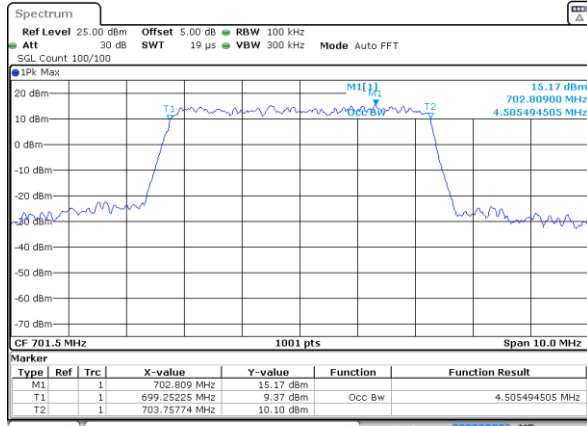
Highest Channel / 3MHz / 16QAM



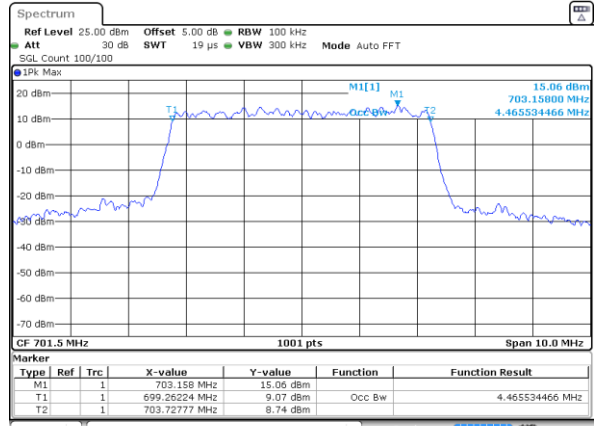


LTE Band 12

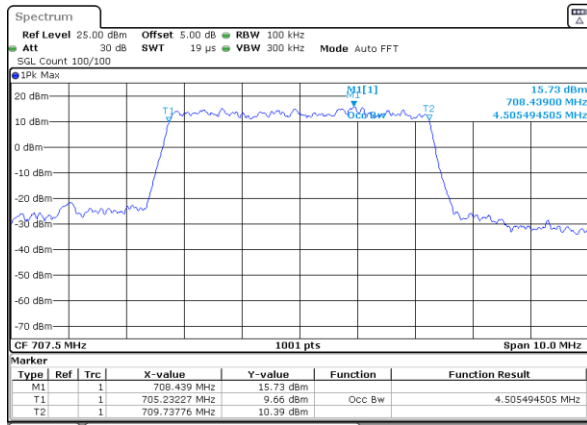
Lowest Channel / 5MHz / QPSK



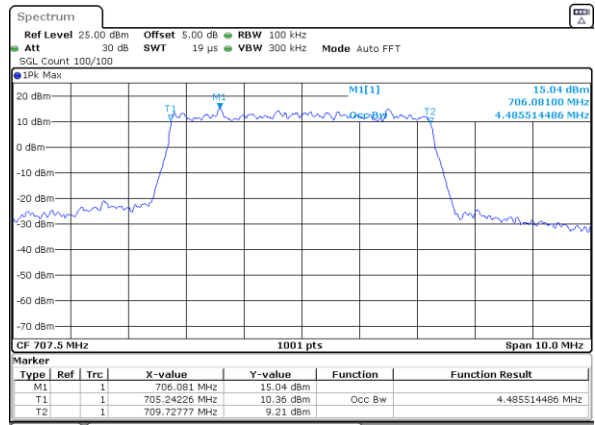
Lowest Channel / 5MHz / 16QAM



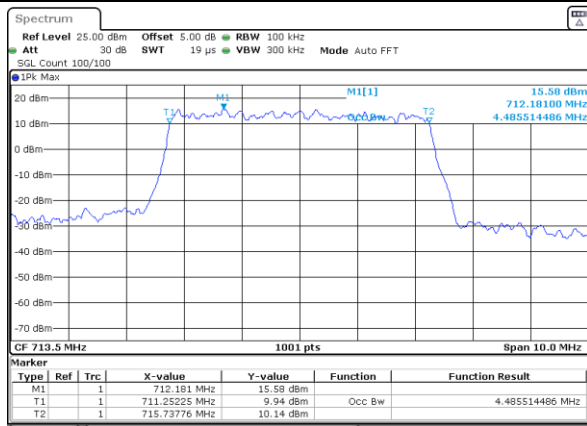
Middle Channel / 5MHz / QPSK



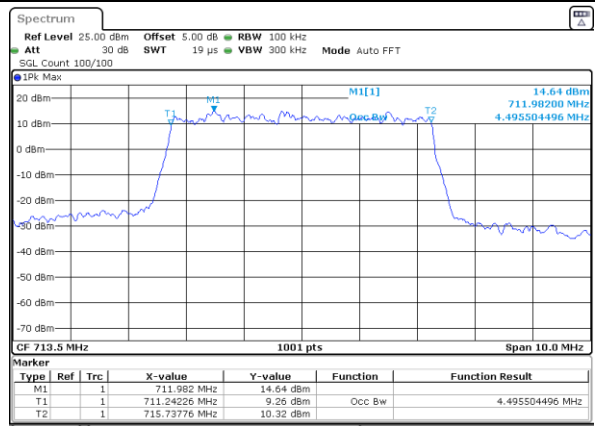
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



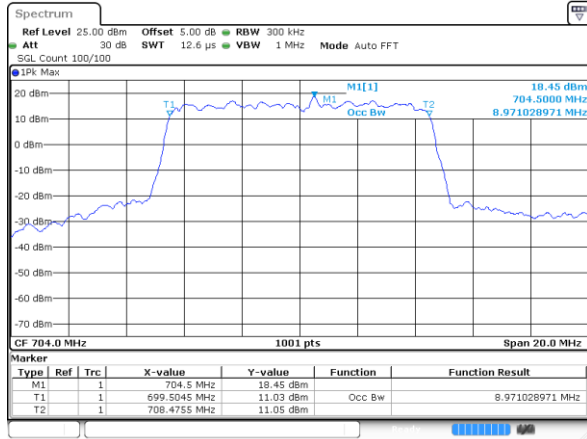
Highest Channel / 5MHz / 16QAM





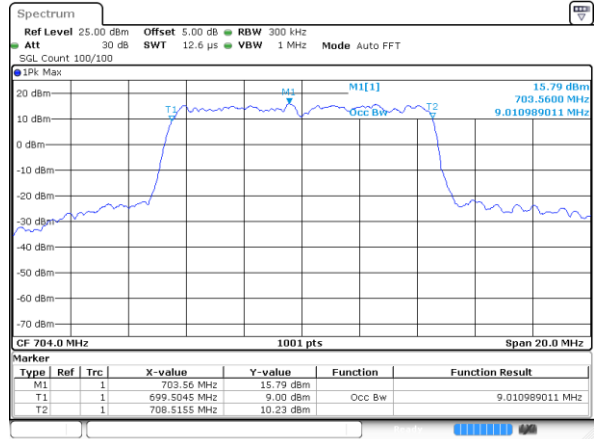
LTE Band 12

Lowest Channel / 10MHz / QPSK



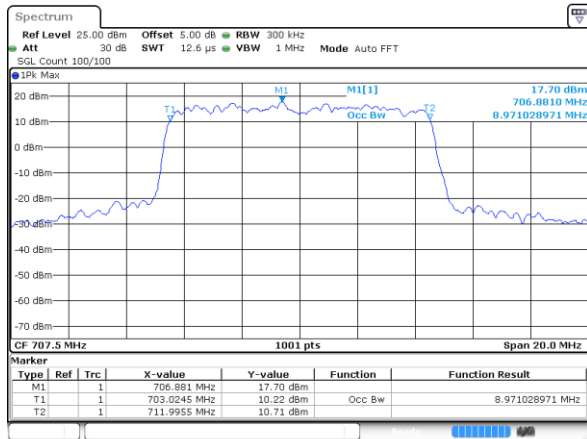
Date: 29 NOV 2019 08:47:56

Lowest Channel / 10MHz / 16QAM



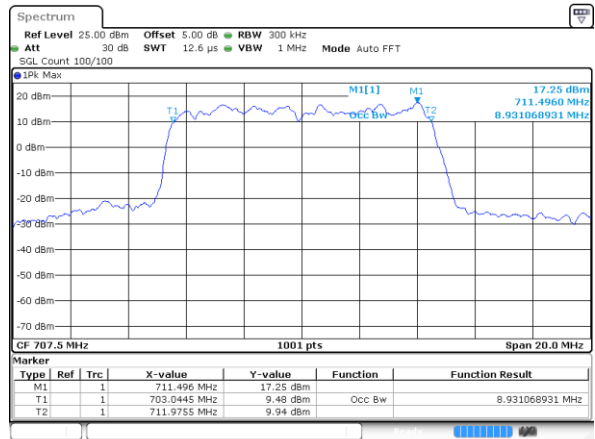
Date: 29 NOV 2019 08:48:07

Middle Channel / 10MHz / QPSK



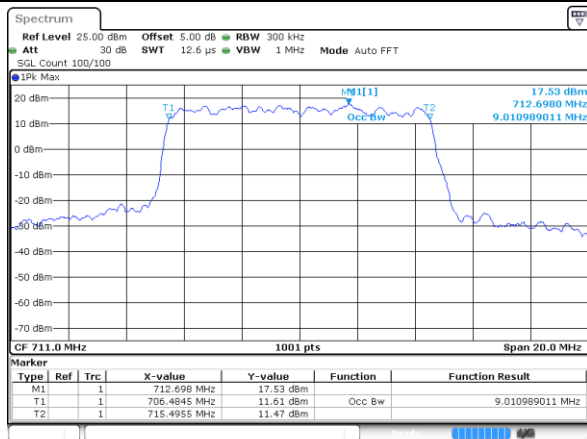
Date: 29 NOV 2019 08:48:27

Middle Channel / 10MHz / 16QAM



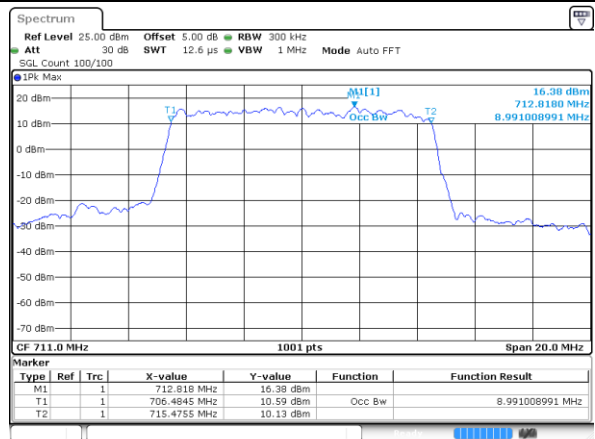
Date: 29 NOV 2019 08:48:17

Highest Channel / 10MHz / QPSK



Date: 29 NOV 2019 08:48:37

Highest Channel / 10MHz / 16QAM



Date: 29 NOV 2019 08:48:47



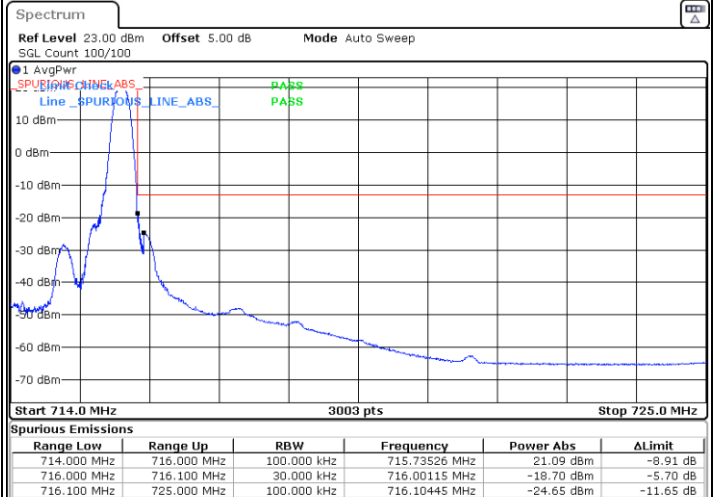
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

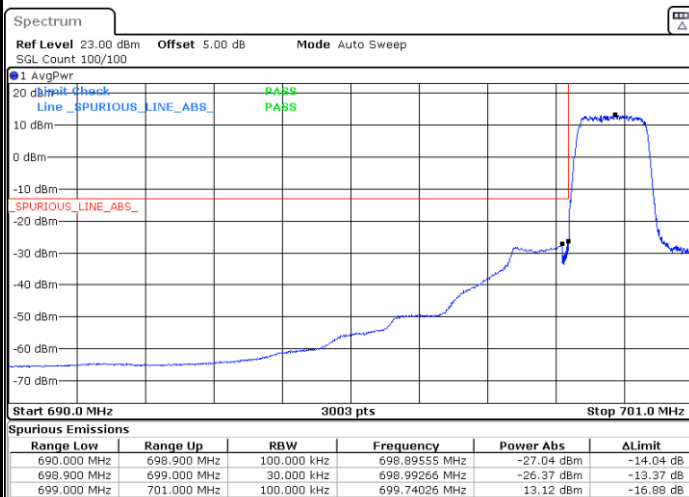
Lowest Band Edge / 1 RB



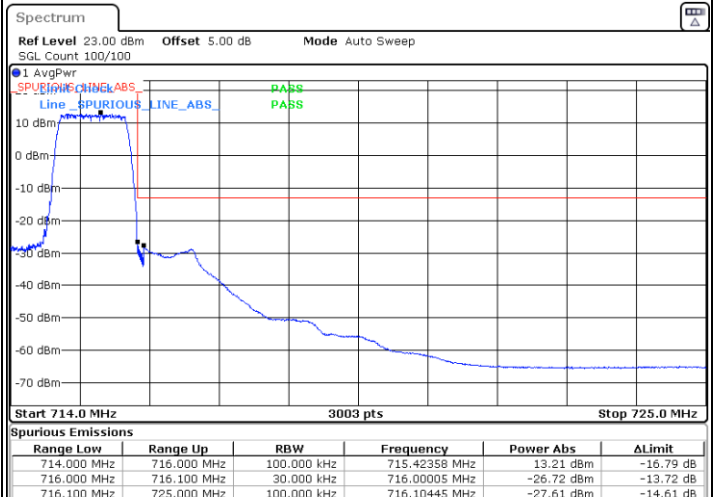
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



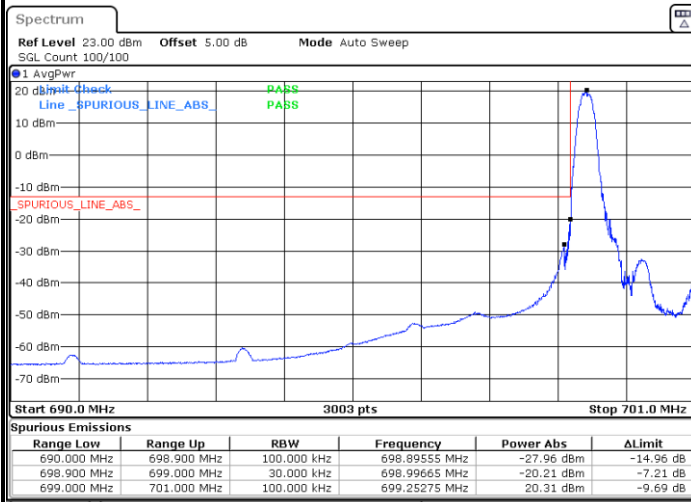
Highest Band Edge / Full RB



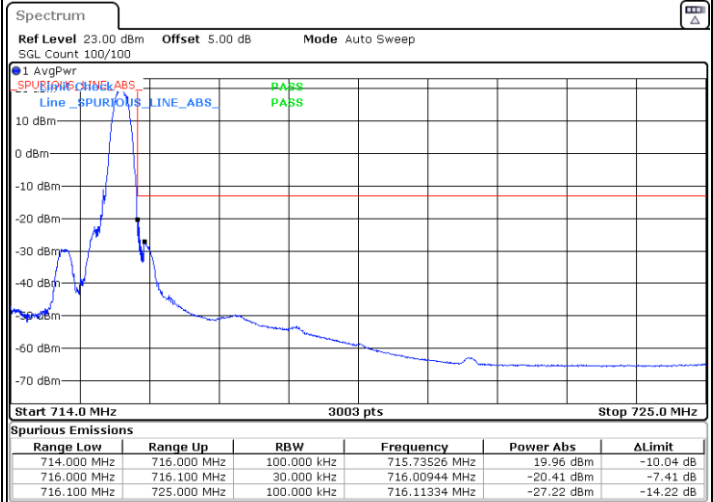


LTE Band 12 / 1.4MHz / 16QAM

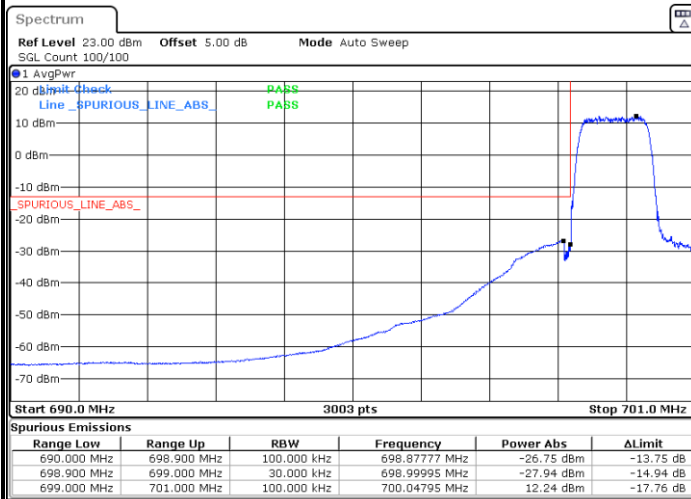
Lowest Band Edge / 1 RB



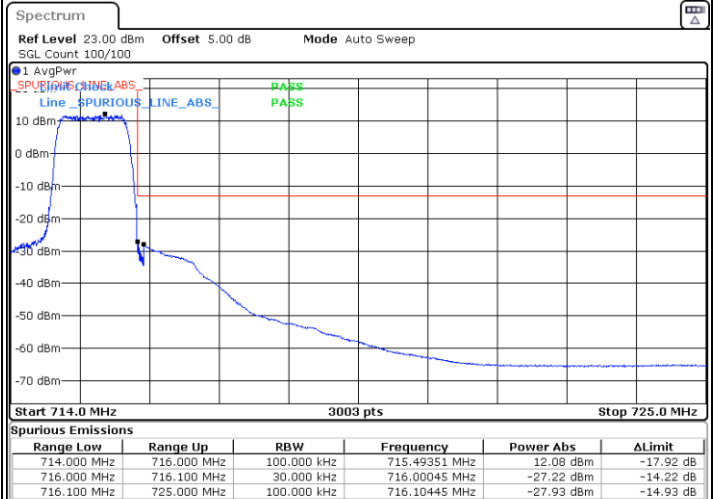
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



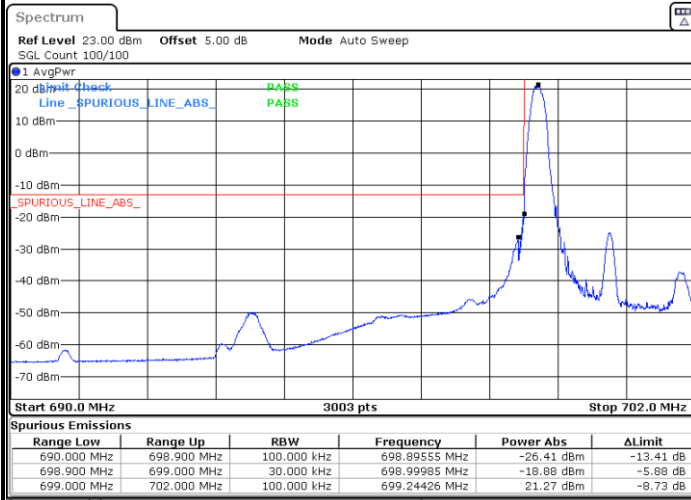
Highest Band Edge / Full RB



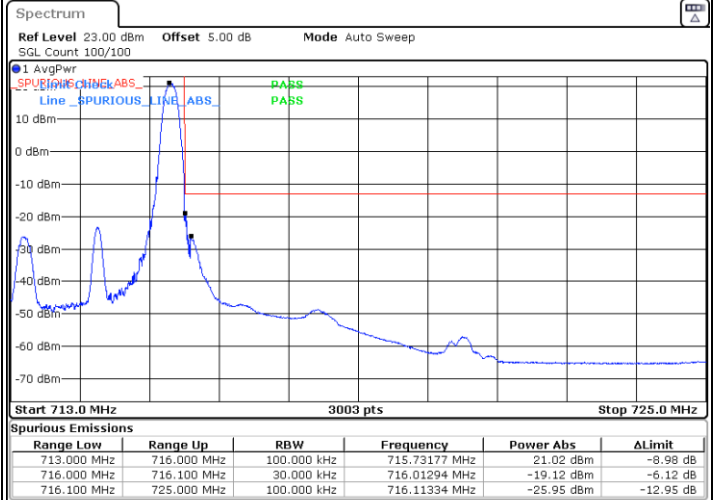


LTE Band 12 / 3MHz / QPSK

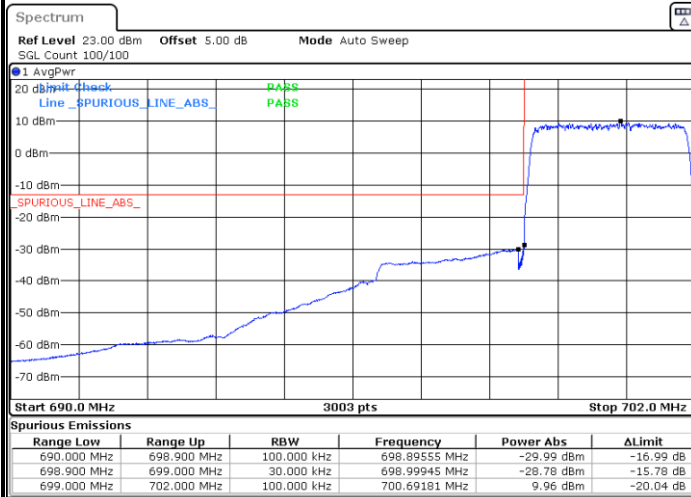
Lowest Band Edge / 1RB



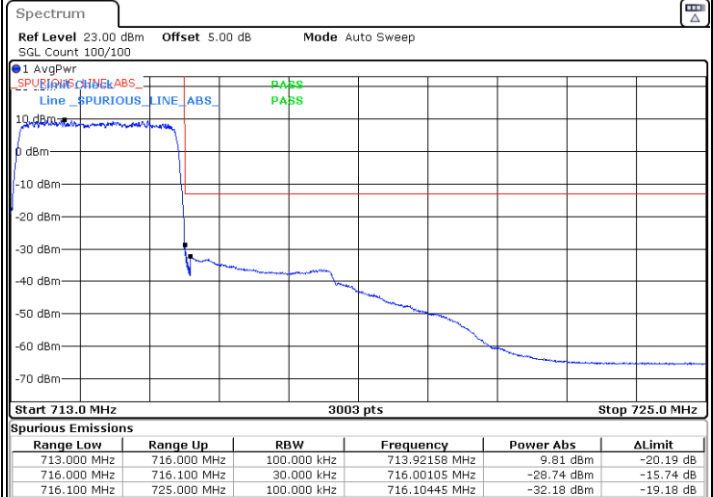
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



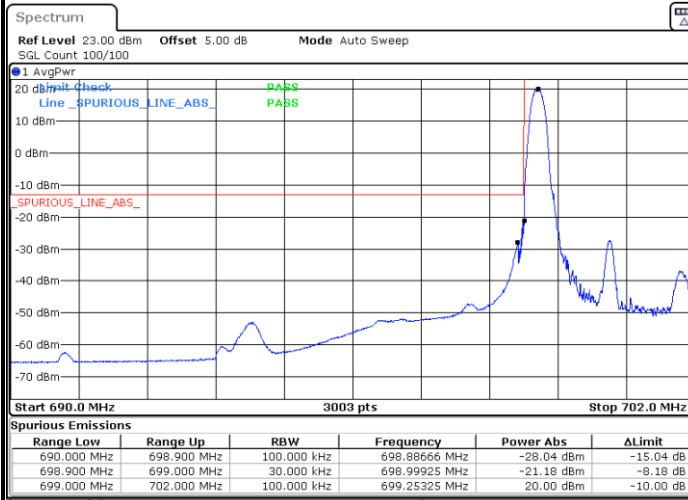
Highest Band Edge / Full RB



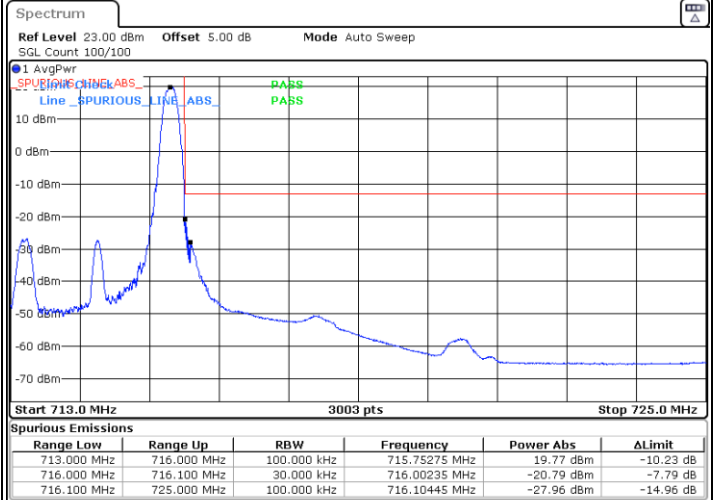


LTE Band 12 / 3MHz / 16QAM

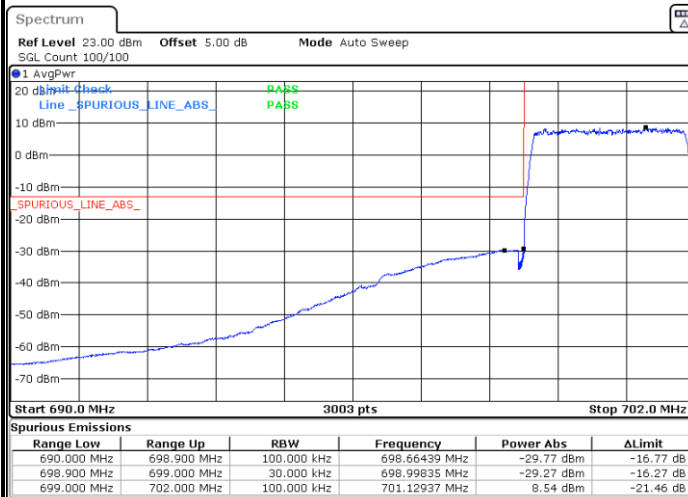
Lowest Band Edge / 1 RB



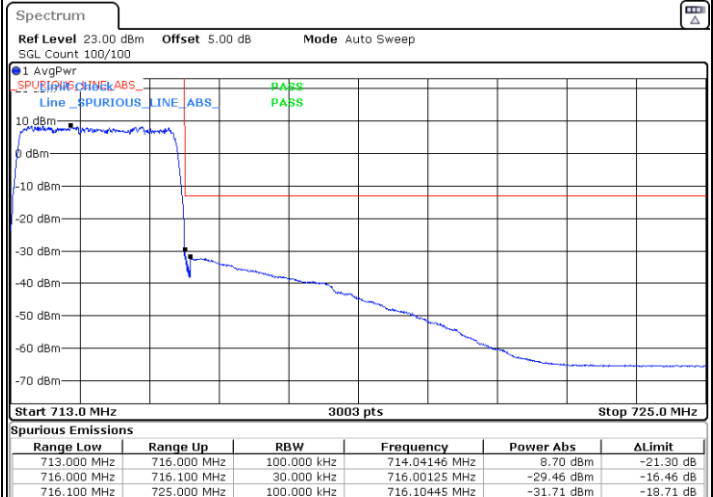
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



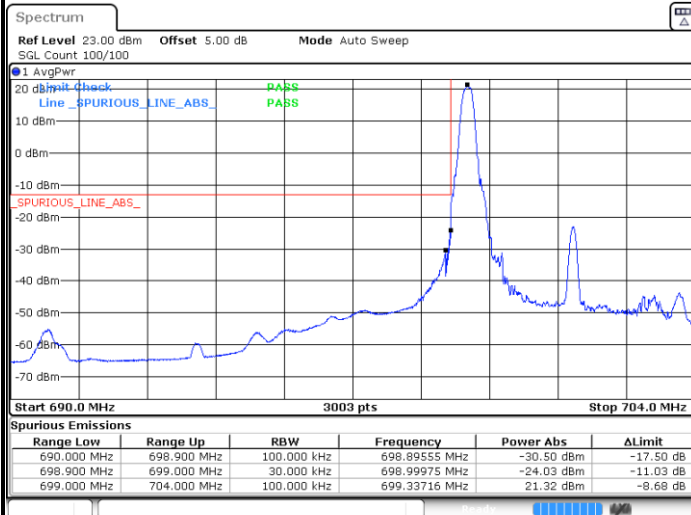
Highest Band Edge / Full RB



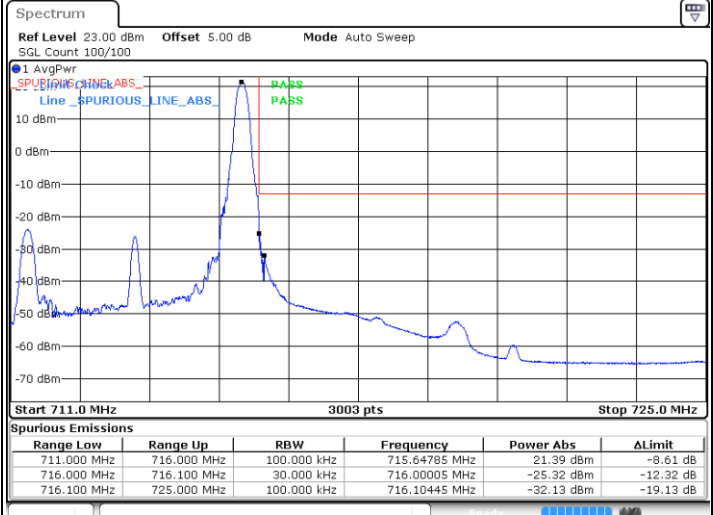


LTE Band 12 / 5MHz / QPSK

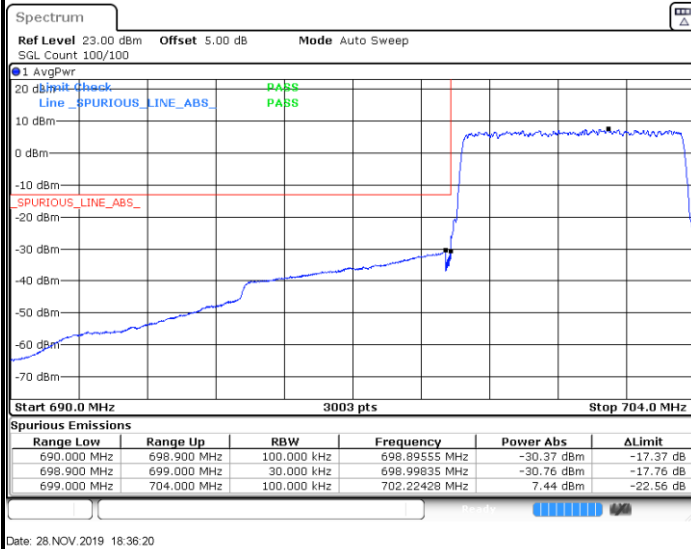
Lowest Band Edge / 1 RB



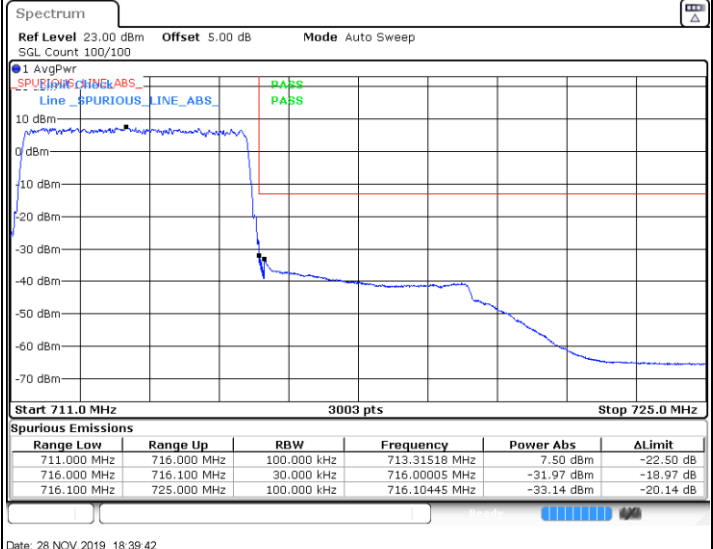
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



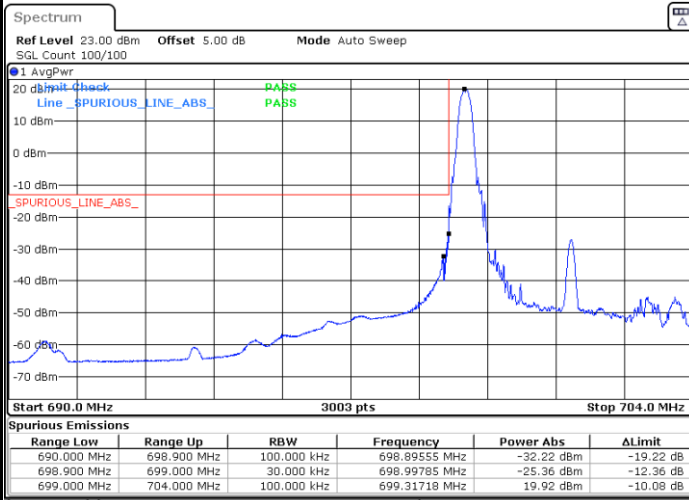
Highest Band Edge / Full RB



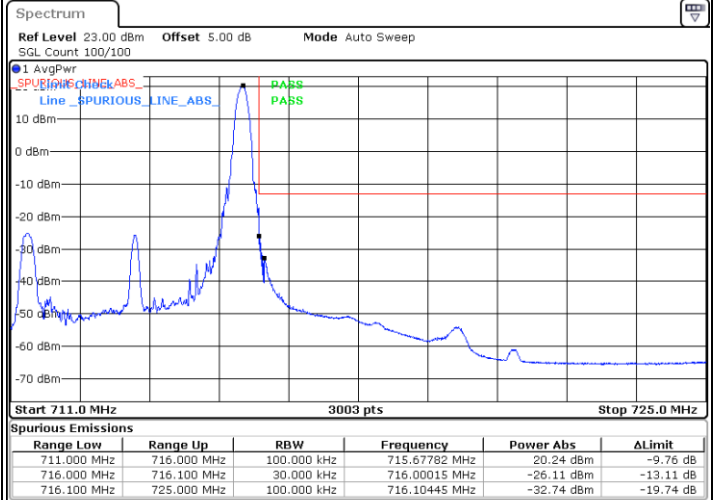


LTE Band 12 / 5MHz / 16QAM

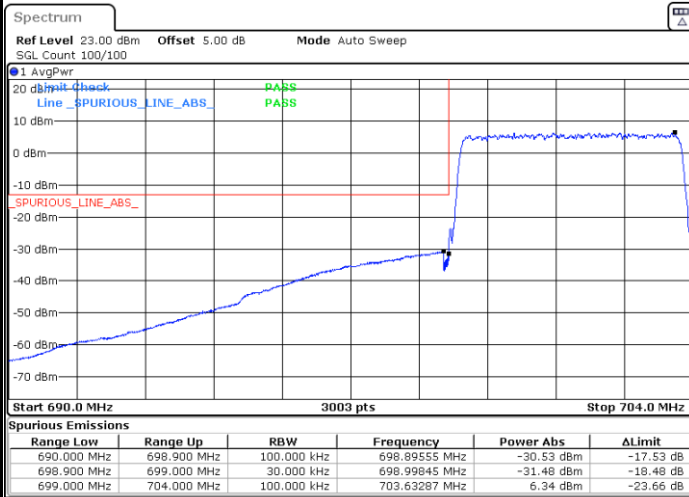
Lowest Band Edge / 1RB



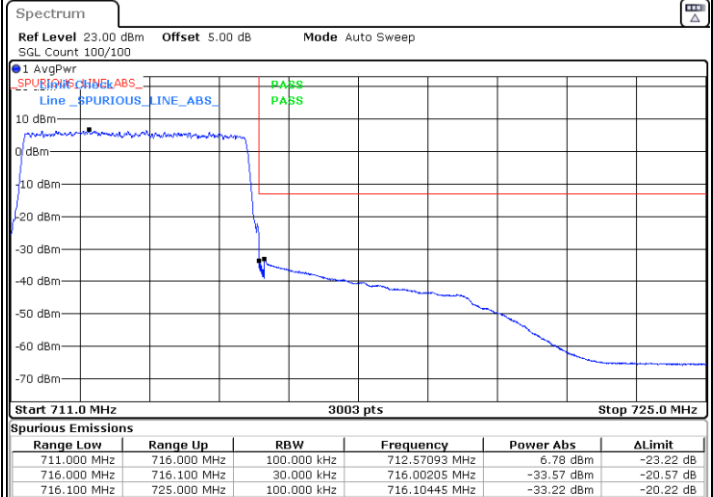
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



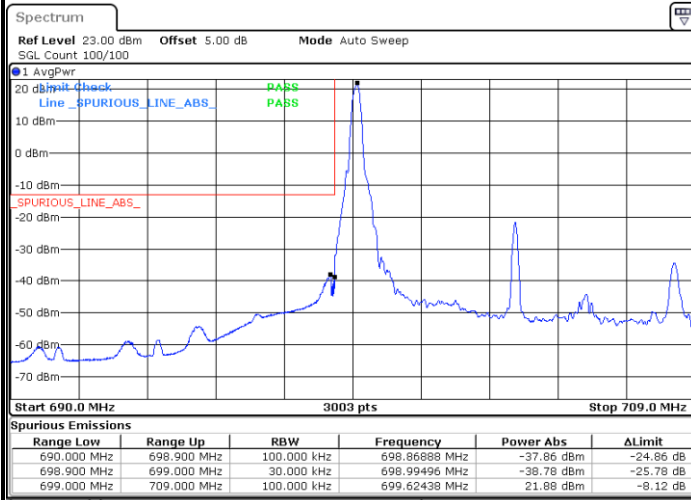
Highest Band Edge / Full RB



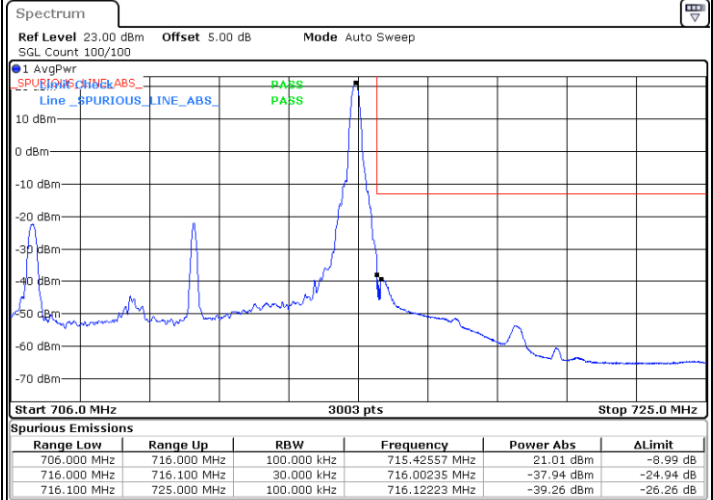


LTE Band 12 / 10MHz / QPSK

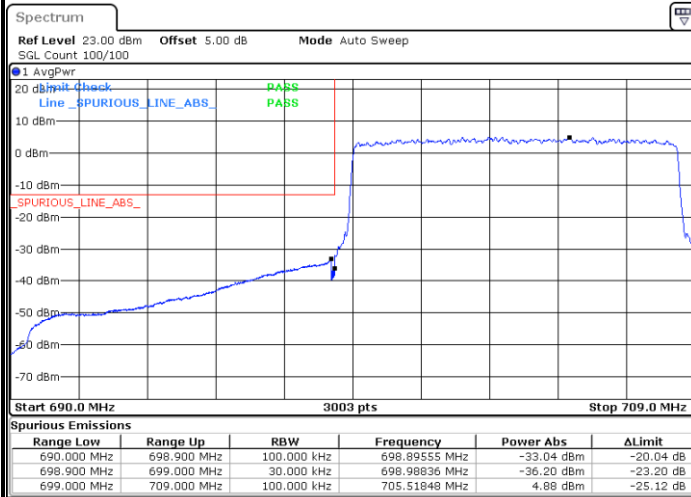
Lowest Band Edge / 1 RB



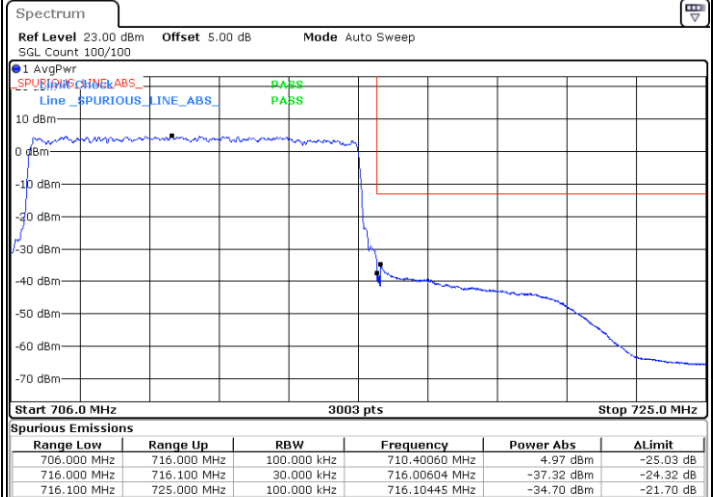
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



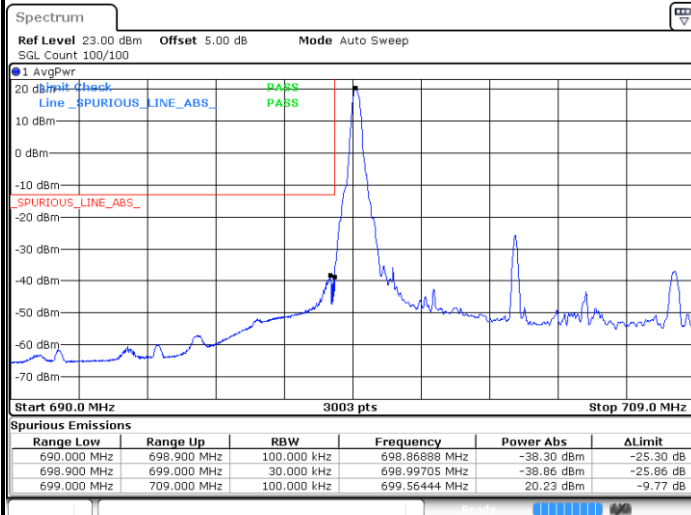
Highest Band Edge / Full RB



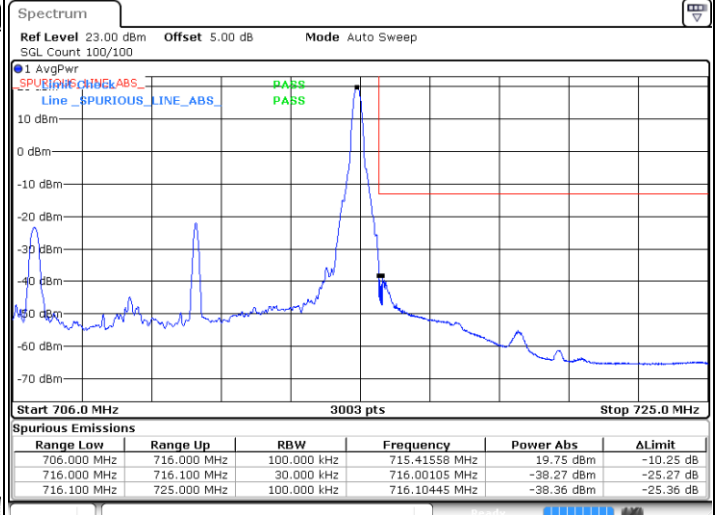


LTE Band 12 / 10MHz / 16QAM

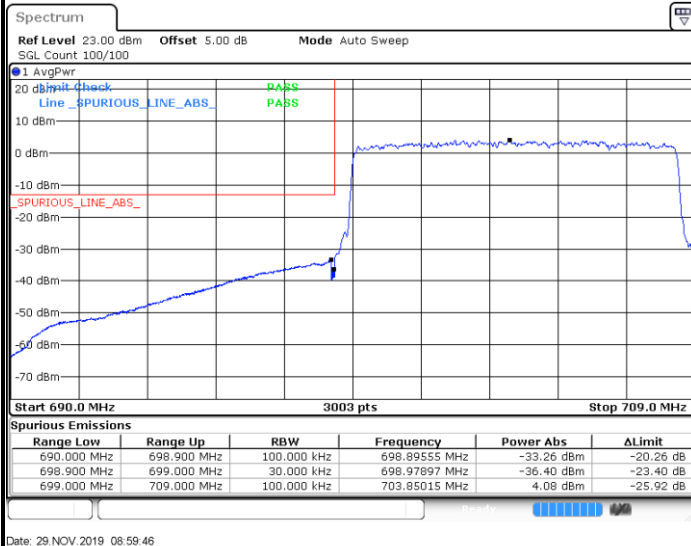
Lowest Band Edge / 1 RB



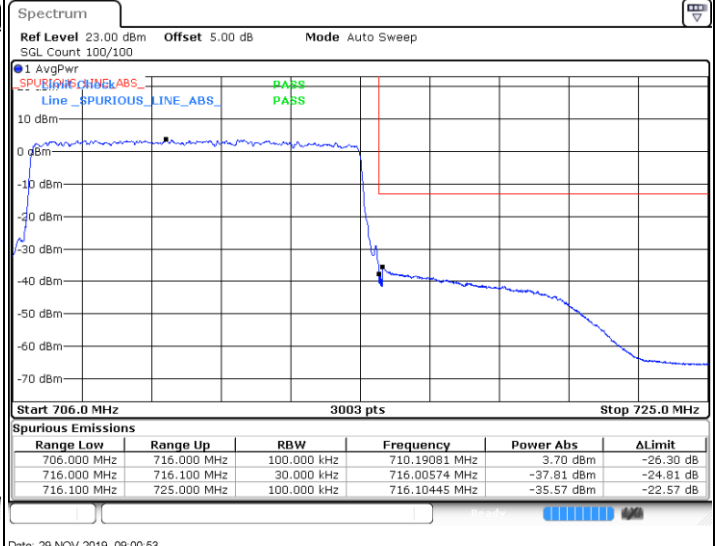
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

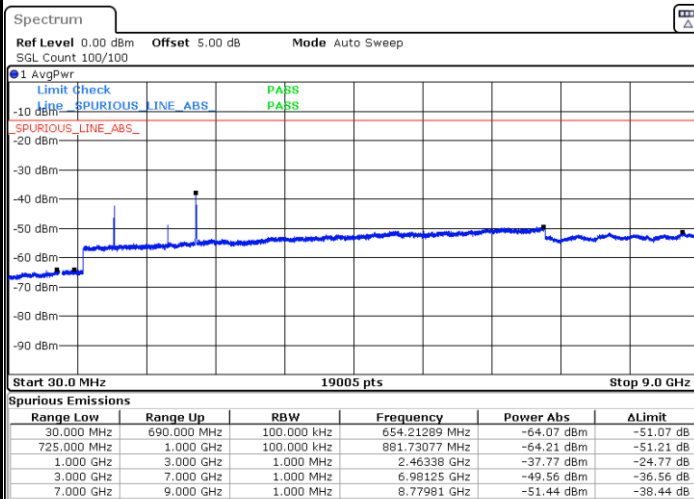




Conducted Spurious Emission

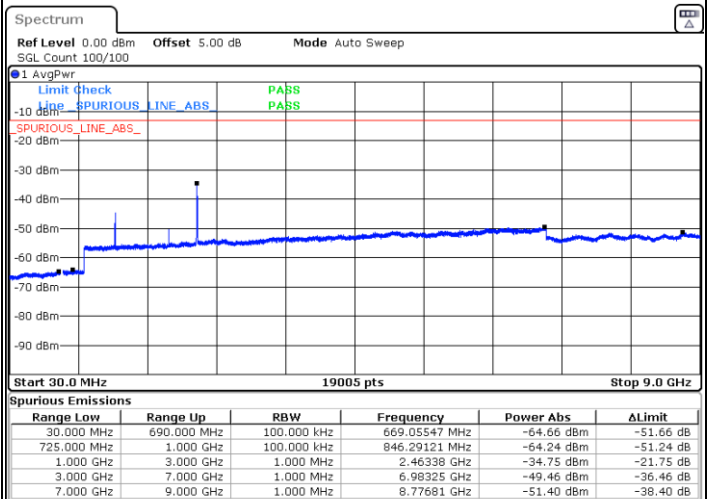
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



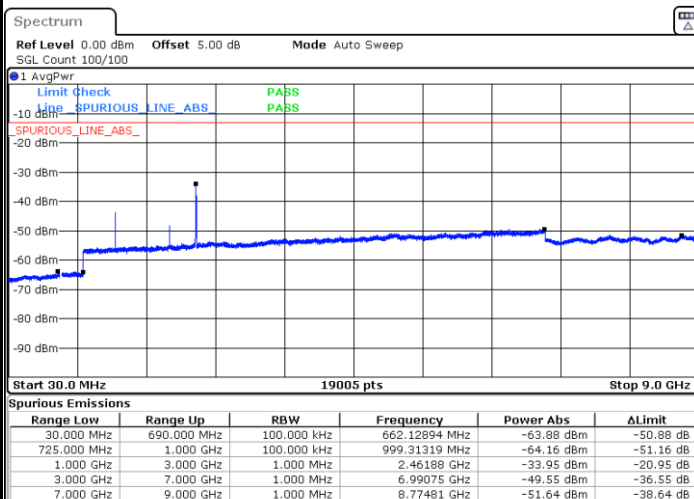
Date: 28 NOV 2019 17:55:26

Lowest Channel / 16QAM



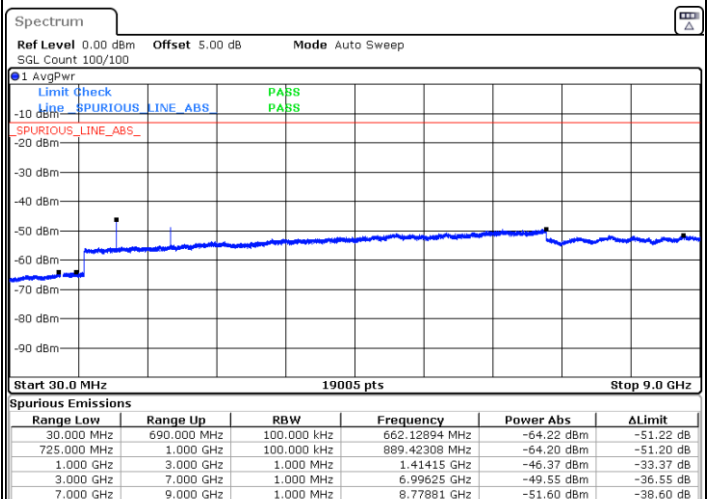
Date: 28 NOV 2019 17:56:21

Middle Channel / QPSK



Date: 28 NOV 2019 17:58:10

Middle Channel / 16QAM



Date: 28 NOV 2019 17:57:15