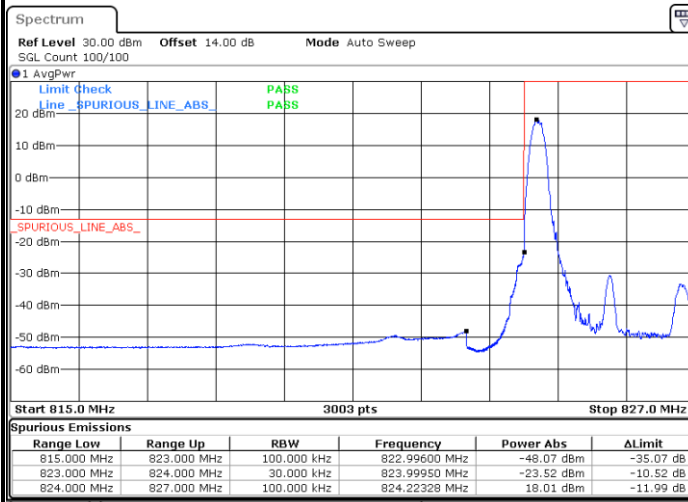


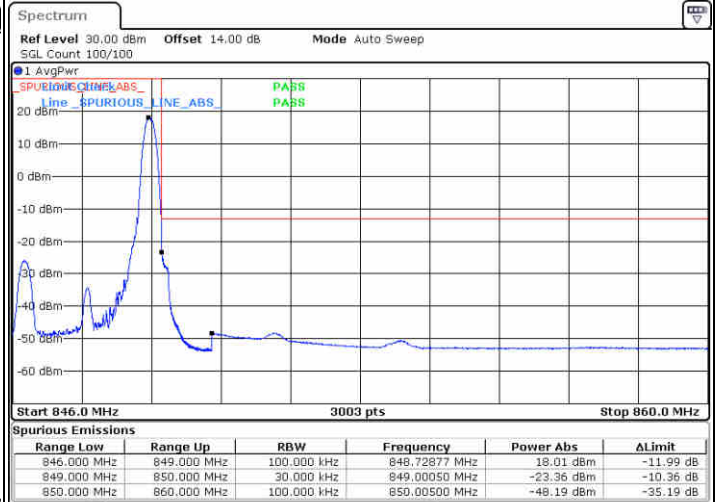


LTE Band 5 / 3MHz / 16QAM

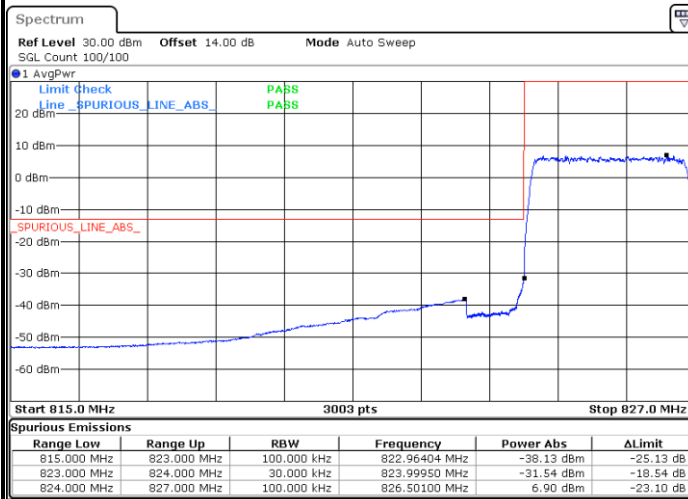
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



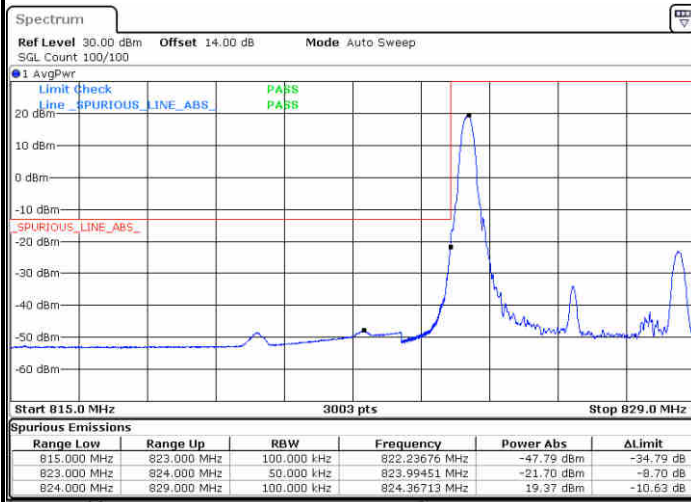
Highest Band Edge / Full RB



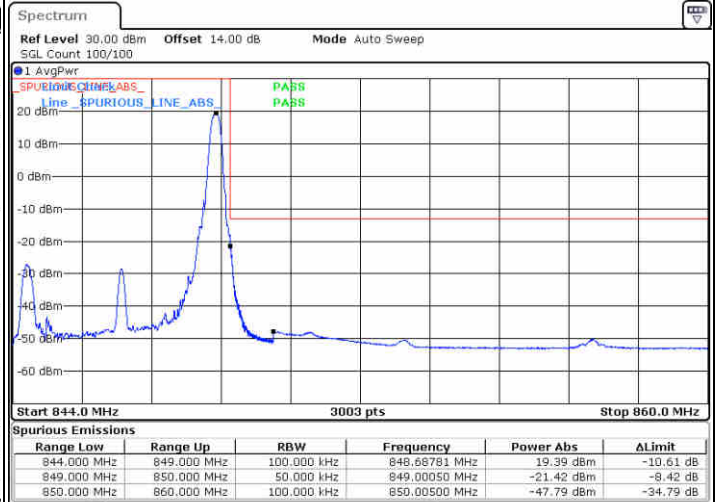


LTE Band 5 / 5MHz / QPSK

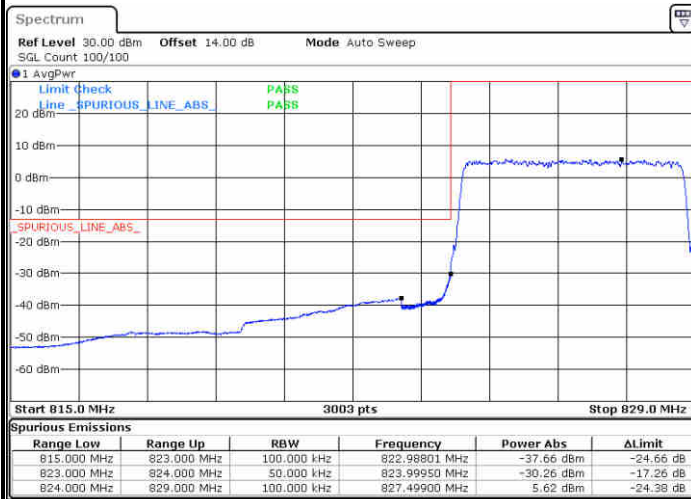
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



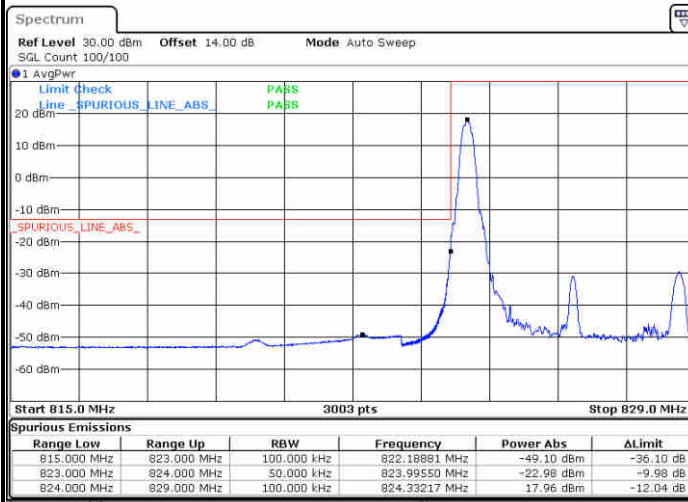
Highest Band Edge / Full RB



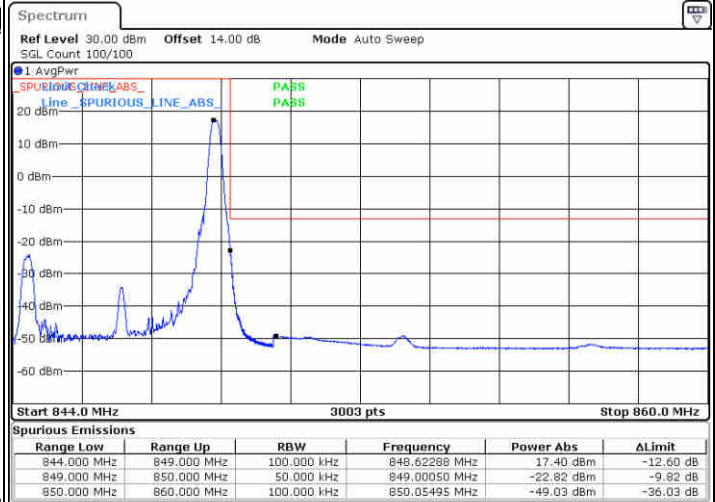


LTE Band 5 / 5MHz / 16QAM

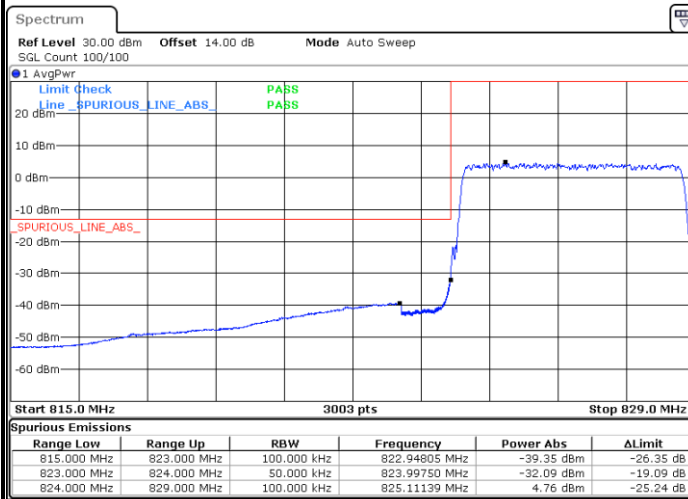
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



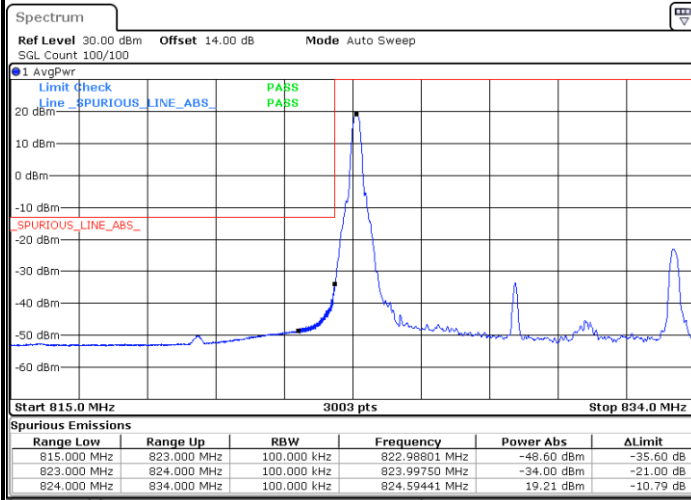
Highest Band Edge / Full RB



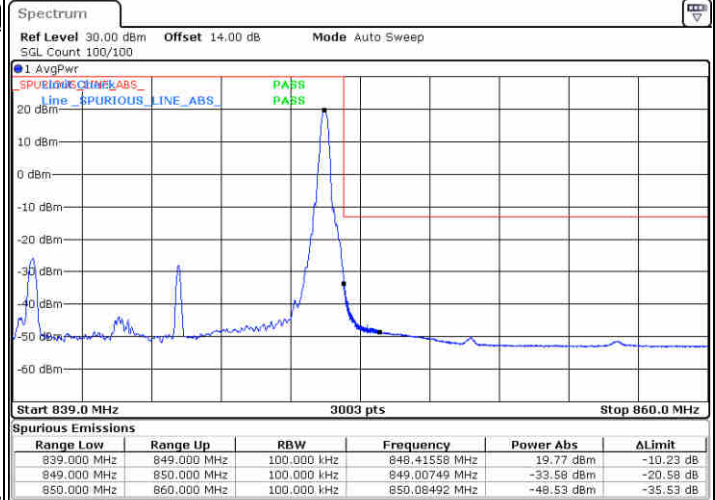


LTE Band 5 / 10MHz / QPSK

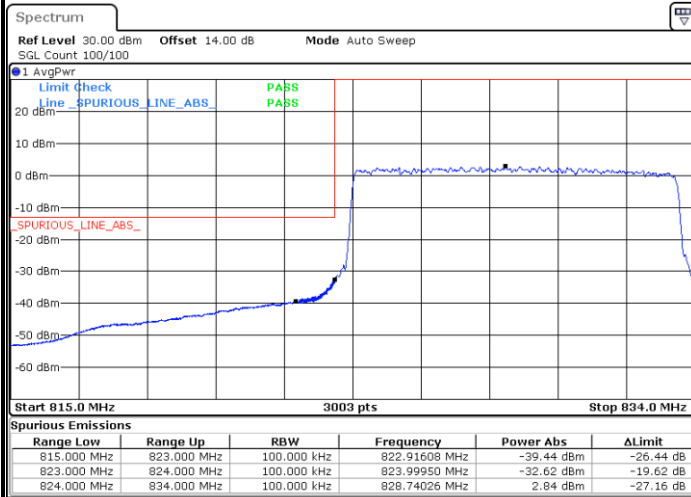
Lowest Band Edge / 1 RB



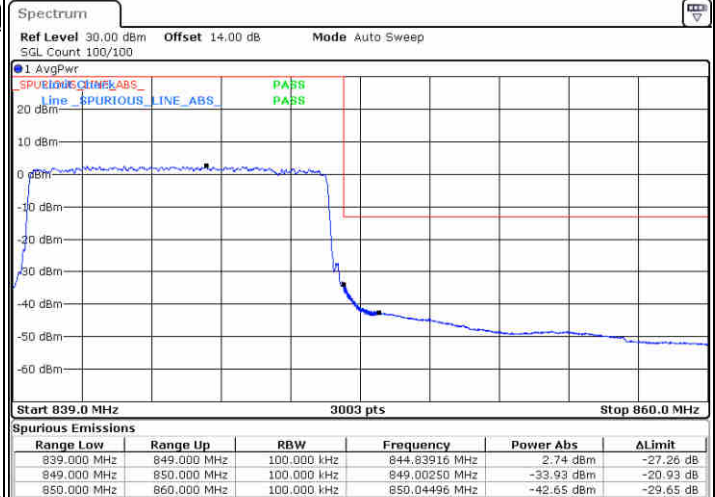
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



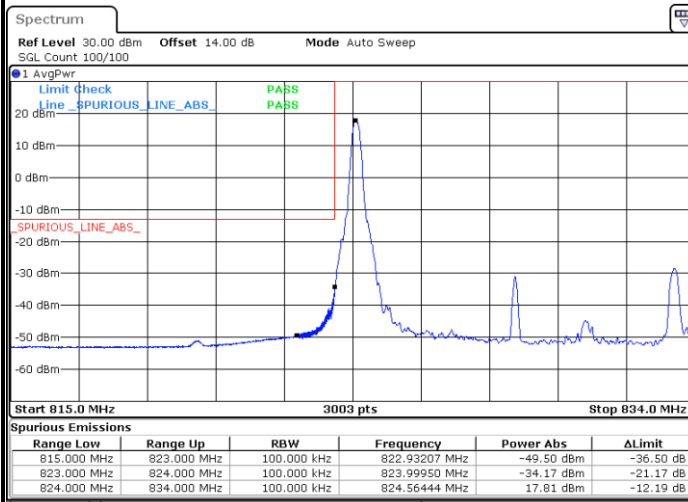
Highest Band Edge / Full RB



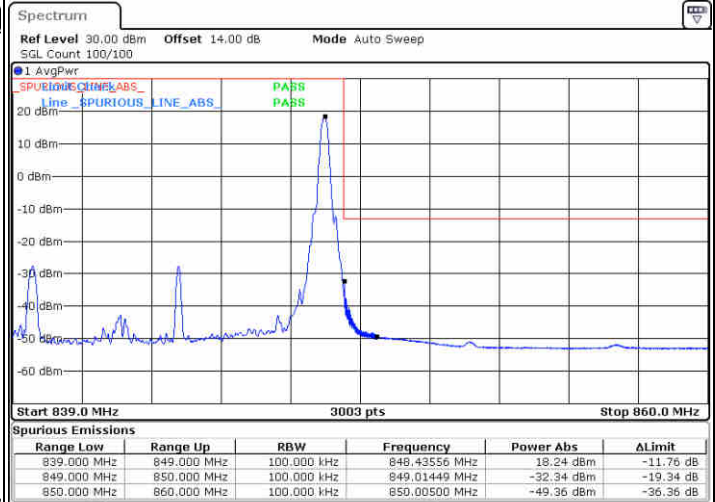


LTE Band 5 / 10MHz / 16QAM

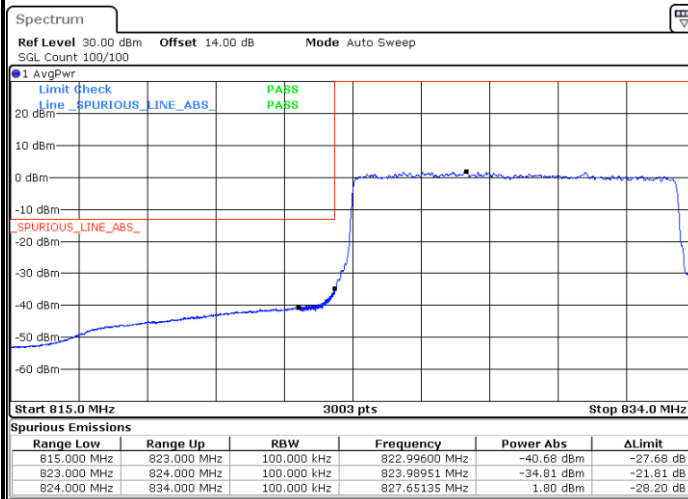
Lowest Band Edge / 1 RB



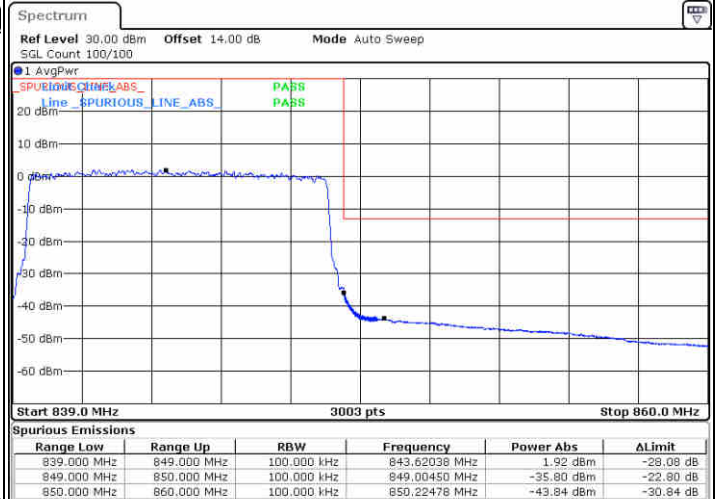
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

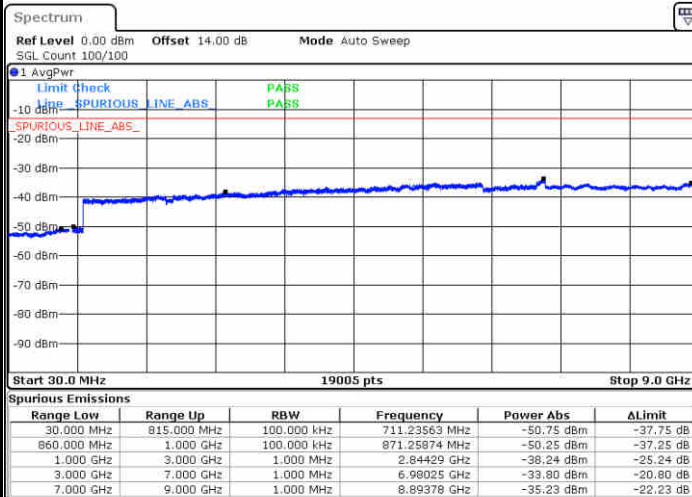




Conducted Spurious Emission

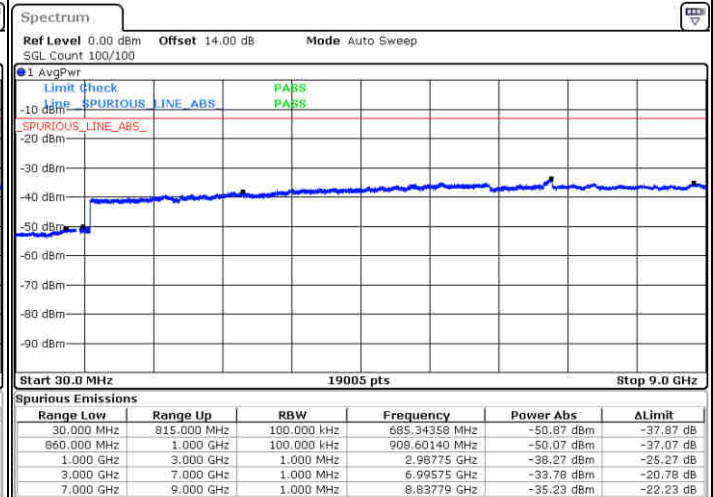
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



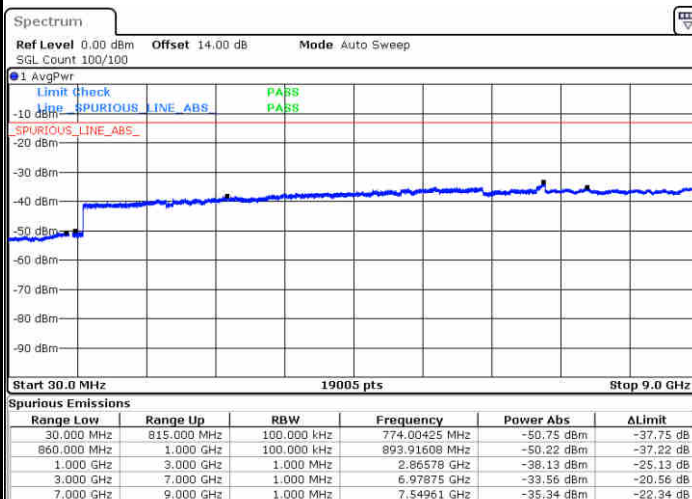
Date: 5 JUN 2019 00:21:22

Lowest Channel / 16QAM



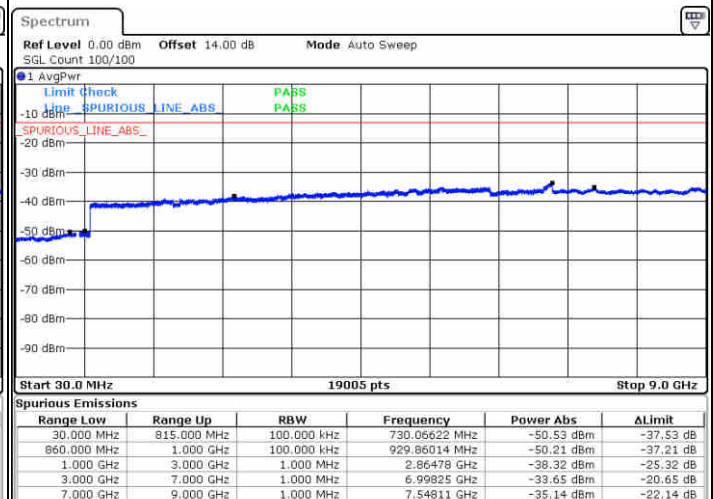
Date: 5 JUN 2019 00:22:18

Middle Channel / QPSK



Date: 5 JUN 2019 00:23:55

Middle Channel / 16QAM

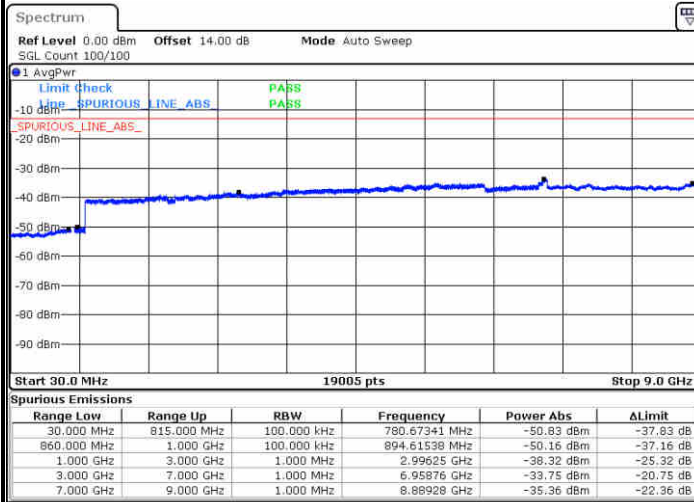


Date: 5 JUN 2019 00:24:51



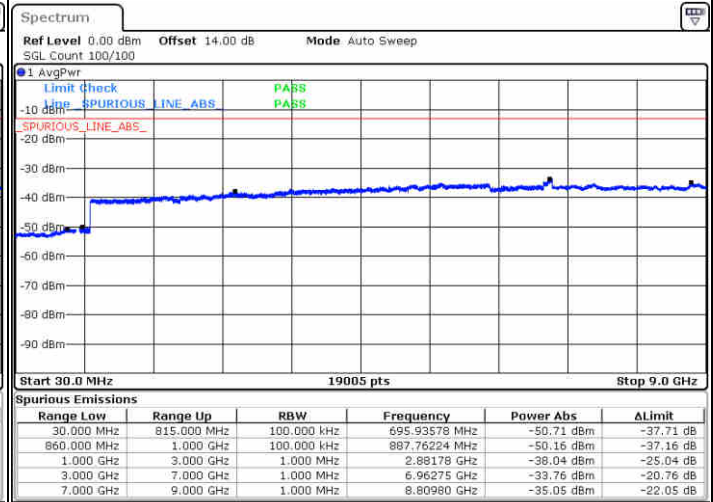
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 5 JUN 2019 00:33:07

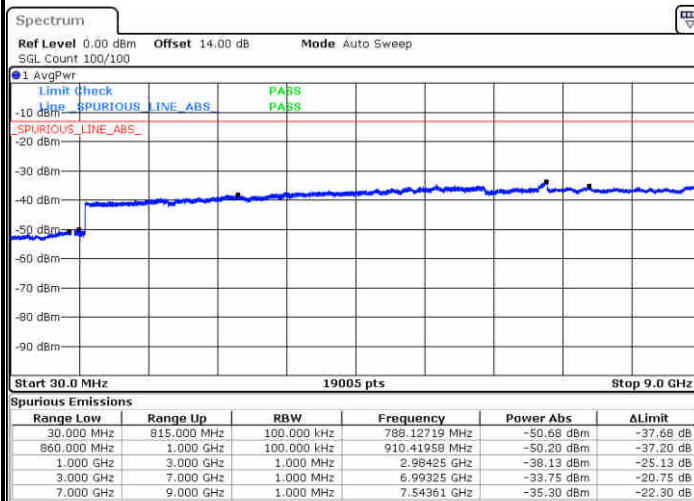
Highest Channel / 16QAM



Date: 5 JUN 2019 00:34:03

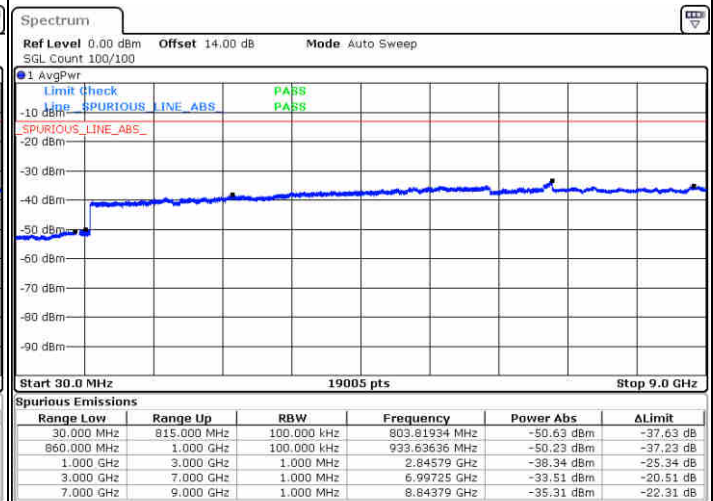
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 5 JUN 2019 01:06:16

Lowest Channel / 16QAM

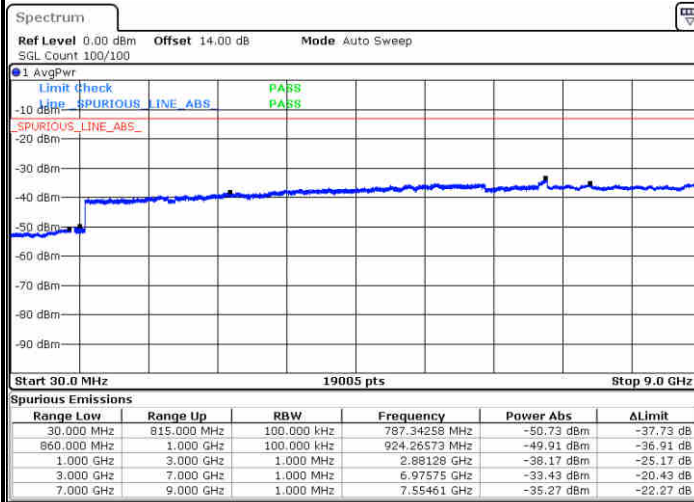


Date: 5 JUN 2019 01:07:13



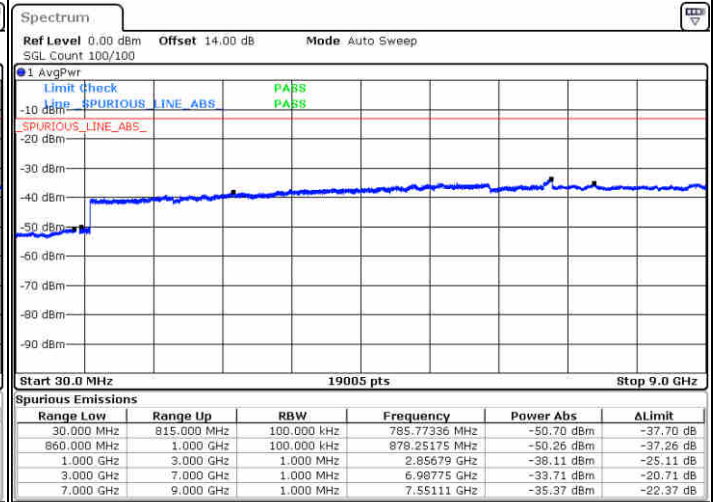
LTE Band 5 / 3MHz

Middle Channel / QPSK



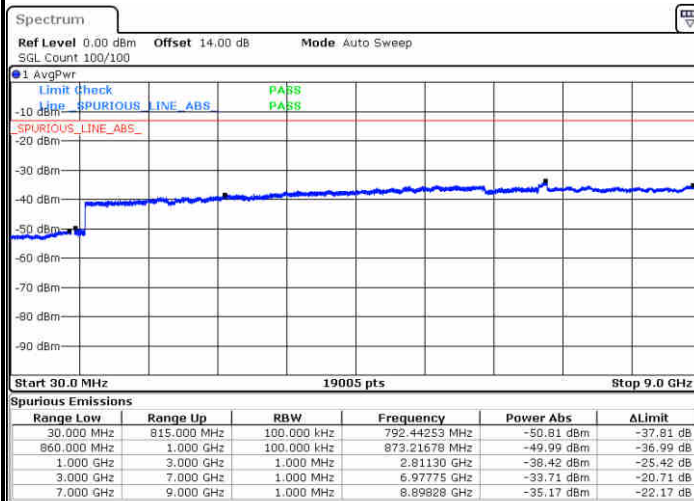
Date: 5 JUN. 2019 01:08:50

Middle Channel / 16QAM



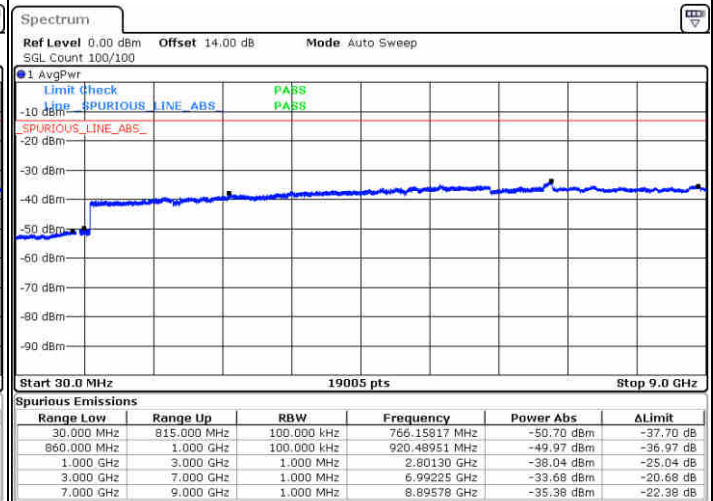
Date: 5 JUN. 2019 01:09:46

Highest Channel / QPSK



Date: 5 JUN. 2019 01:18:01

Highest Channel / 16QAM

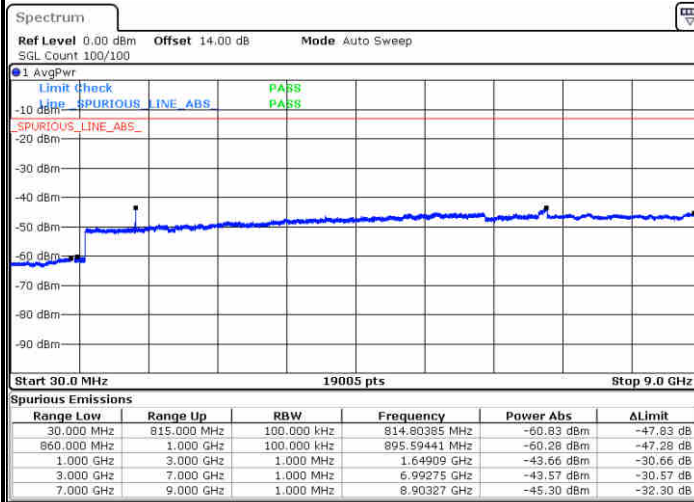


Date: 5 JUN. 2019 01:18:57



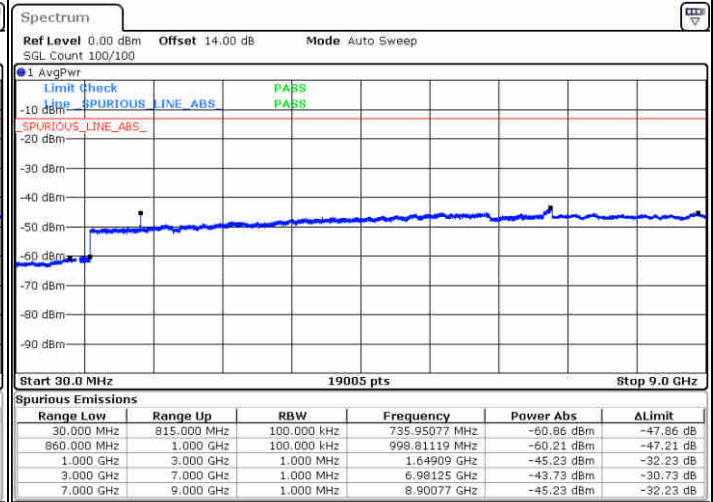
LTE Band 5 / 5MHz

Lowest Channel / QPSK



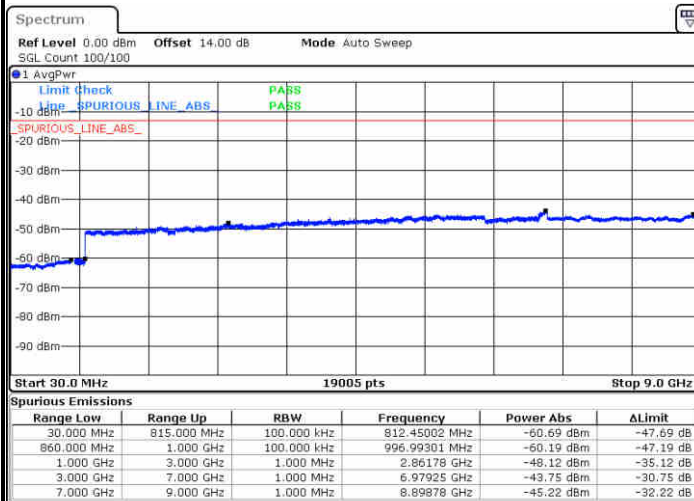
Date: 5 JUN. 2019 01:29:04

Lowest Channel / 16QAM



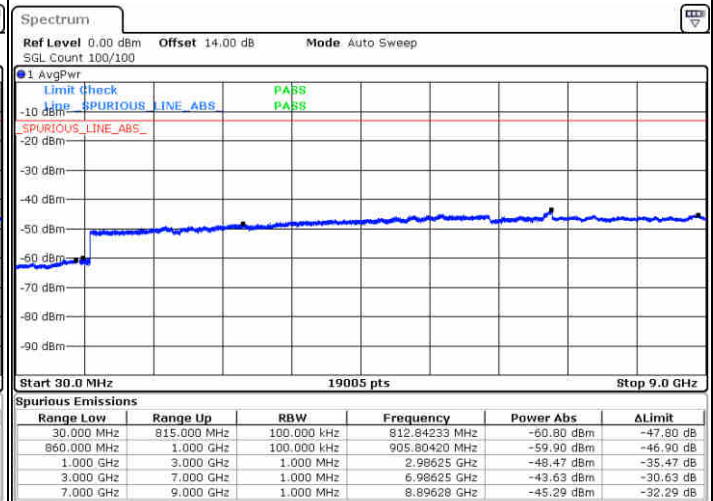
Date: 5 JUN. 2019 01:30:01

Middle Channel / QPSK



Date: 5 JUN. 2019 01:31:38

Middle Channel / 16QAM

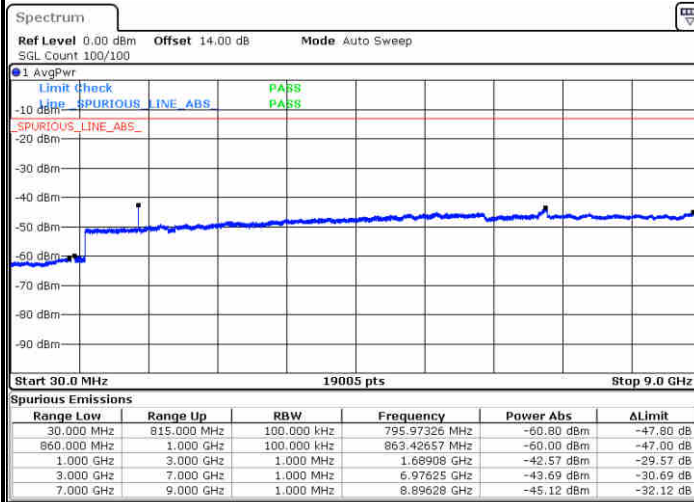


Date: 5 JUN. 2019 01:32:35



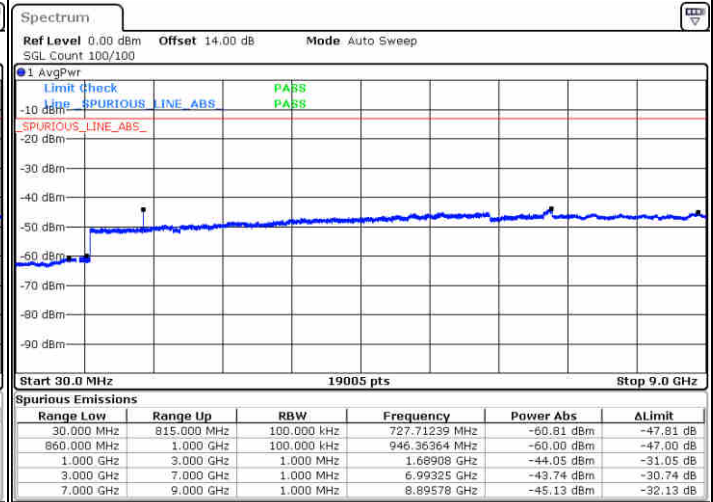
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 5 JUN 2019 01:40:50

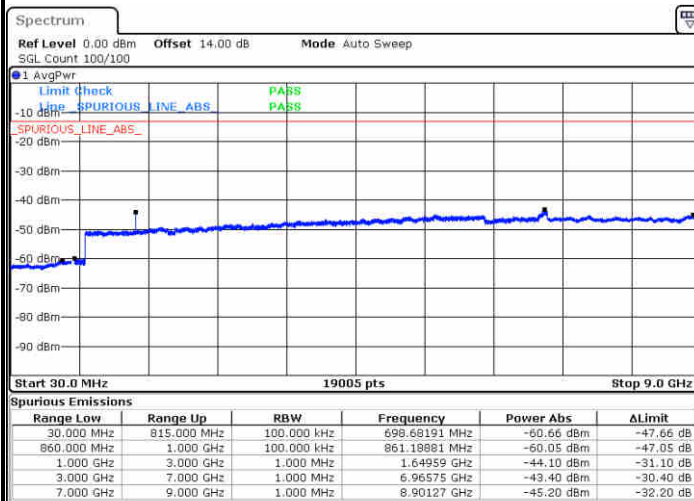
Highest Channel / 16QAM



Date: 5 JUN 2019 01:41:47

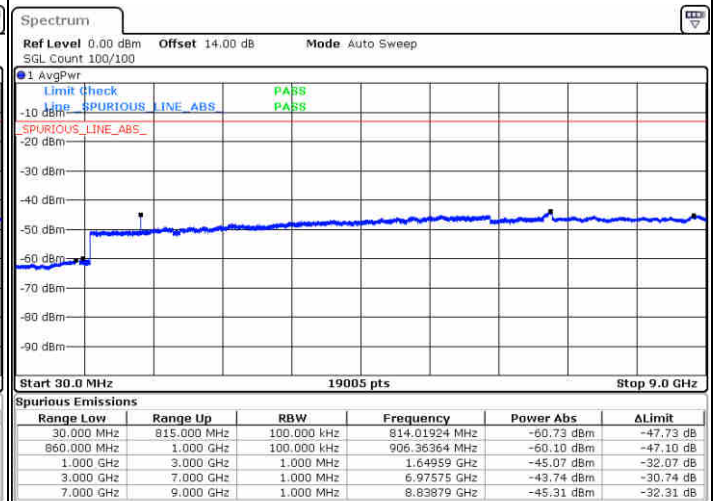
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 5 JUN 2019 01:52:17

Lowest Channel / 16QAM

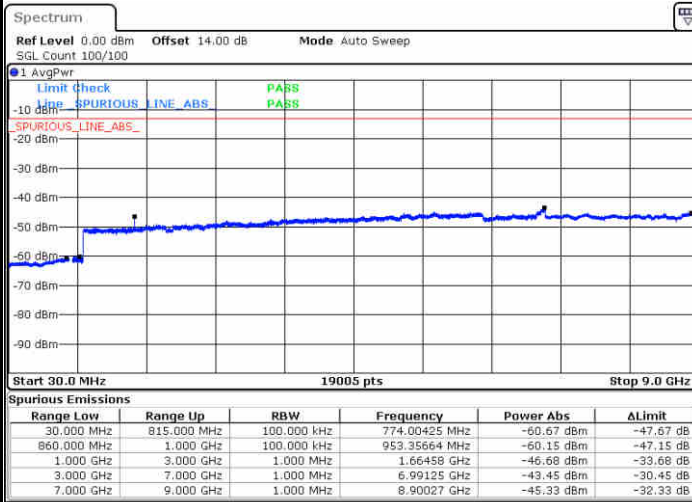


Date: 5 JUN 2019 01:53:14



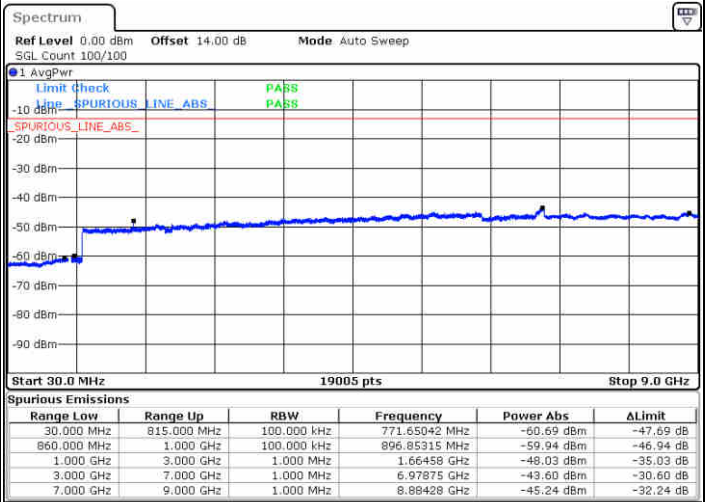
LTE Band 5 / 10MHz

Middle Channel / QPSK



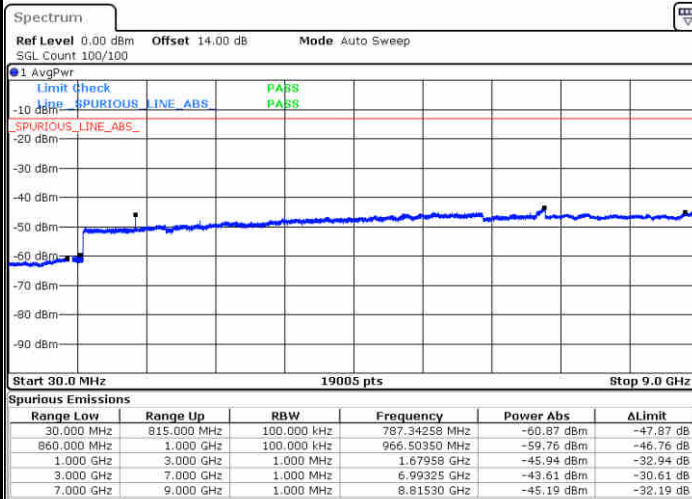
Date: 5 JUN 2019 01:54:51

Middle Channel / 16QAM



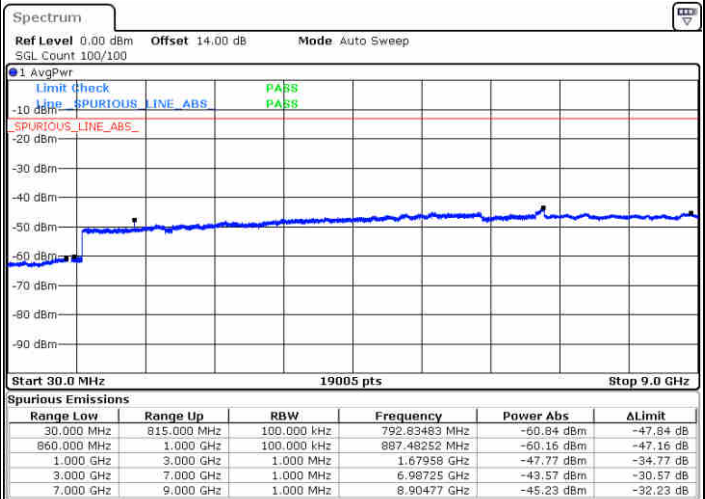
Date: 5 JUN 2019 01:55:48

Highest Channel / QPSK



Date: 5 JUN 2019 02:04:03

Highest Channel / 16QAM



Date: 5 JUN 2019 02:04:59

**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	0.0012	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0016	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



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	4.64	4.81	5.62	5.68	PASS
Middle CH	4.23	5.04	5.16	5.83	
Highest CH	4.41	4.78	4.96	5.83	

LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



Date: 6 JUN 2019 15:39:02

Lowest Channel / Full RB



Date: 6 JUN 2019 15:39:12

Middle Channel / 1RB



Date: 6 JUN 2019 15:39:23

Middle Channel / Full RB



Date: 6 JUN 2019 15:39:33

Highest Channel / 1RB



Date: 6 JUN 2019 15:39:43

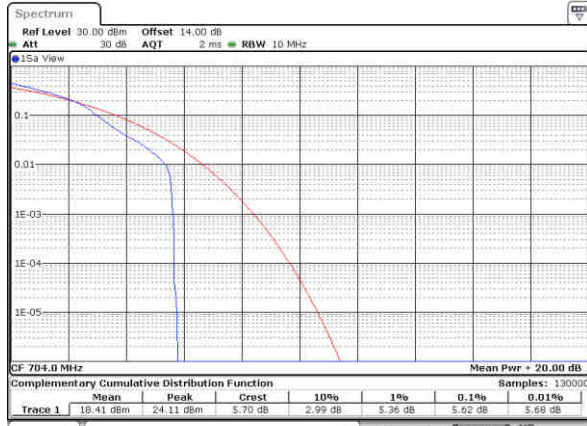
Highest Channel / Full RB



Date: 6 JUN 2019 15:39:54

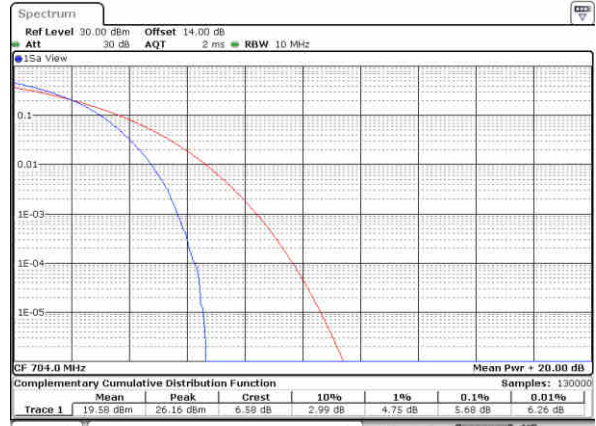
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



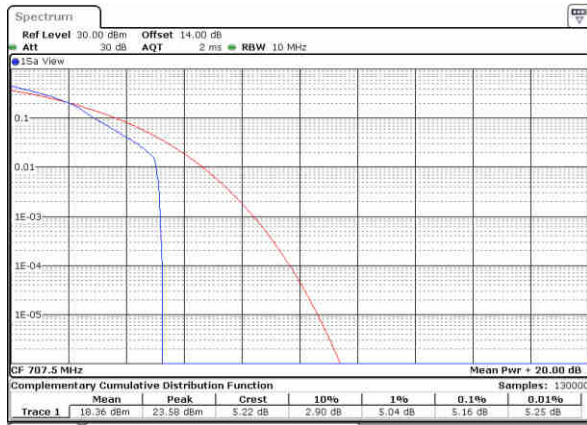
Date: 6 JUN 2019 15:37:42

Lowest Channel / Full RB



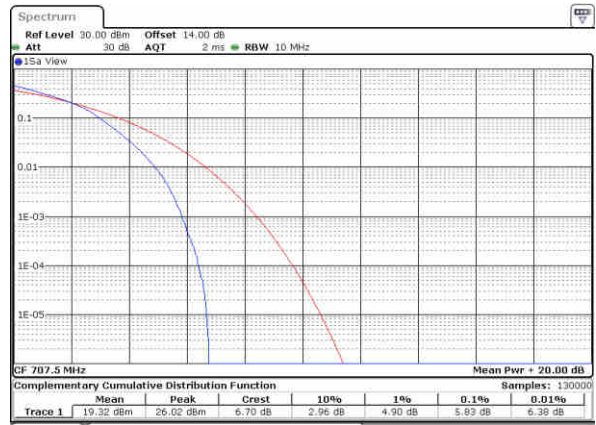
Date: 6 JUN 2019 15:37:53

Middle Channel / 1RB



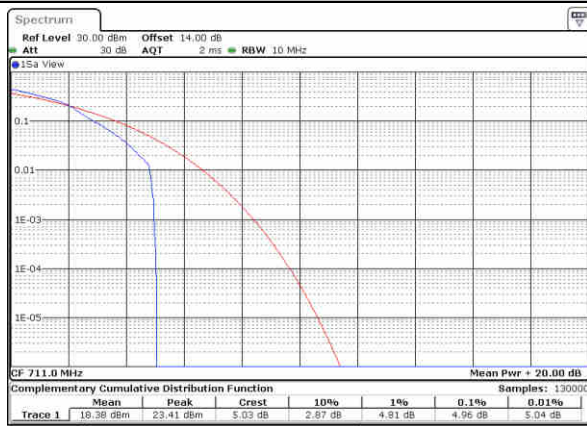
Date: 6 JUN 2019 15:38:04

Middle Channel / Full RB



Date: 6 JUN 2019 15:38:14

Highest Channel / 1RB



Date: 6 JUN 2019 15:38:42

Highest Channel / Full RB



Date: 6 JUN 2019 15:38:52



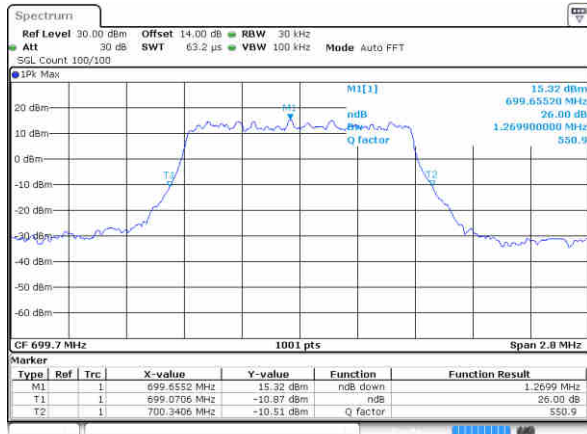
26dB Bandwidth

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	1.27	1.287	3.003	3.027	4.935	4.835	9.81	9.75	-	-	-	-
Middle CH	1.264	1.239	3.033	3.015	4.975	4.965	9.91	10.03	-	-	-	-
Highest CH	1.295	1.27	2.991	2.937	4.915	4.945	9.95	9.85	-	-	-	-

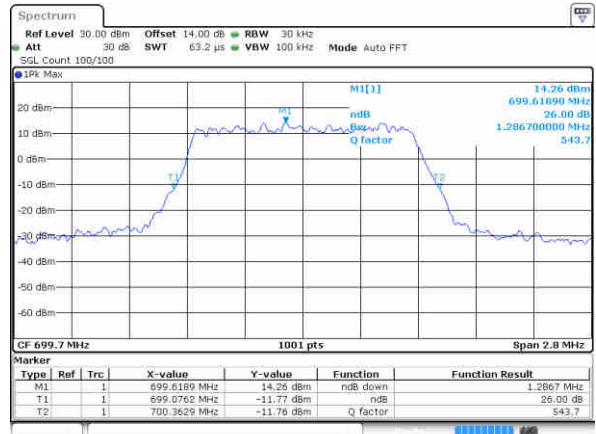


LTE Band 12

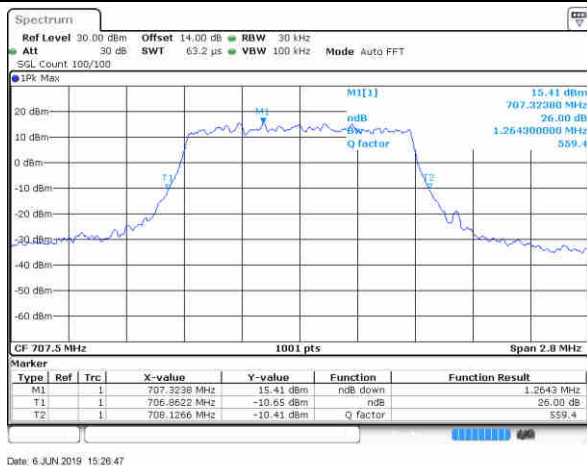
Lowest Channel / 1.4MHz / QPSK



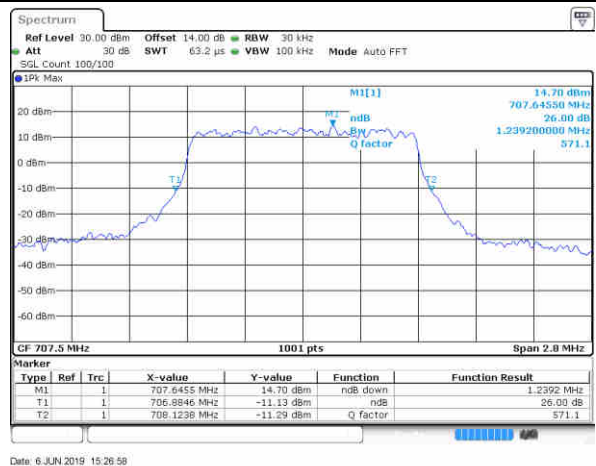
Lowest Channel / 1.4MHz / 16QAM



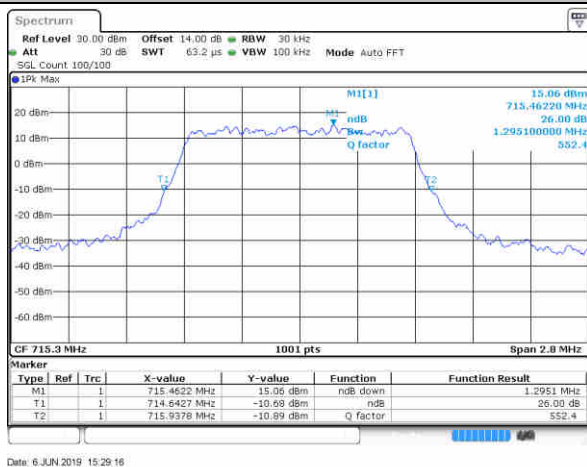
Middle Channel / 1.4MHz / QPSK



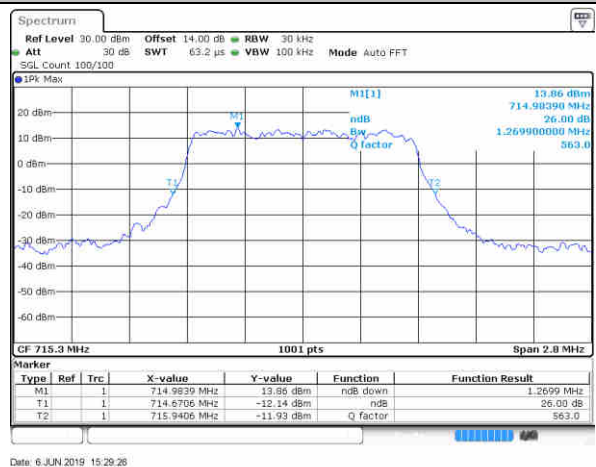
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



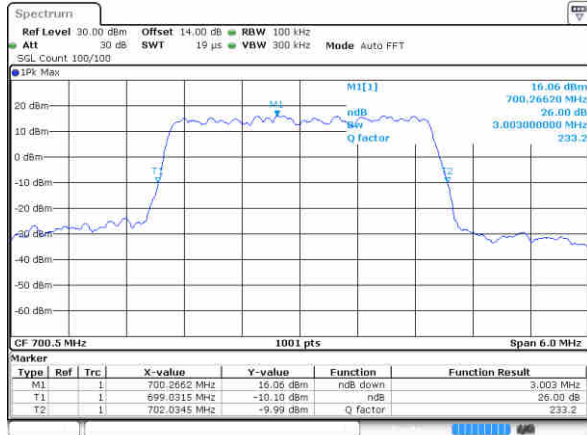
Highest Channel / 1.4MHz / 16QAM



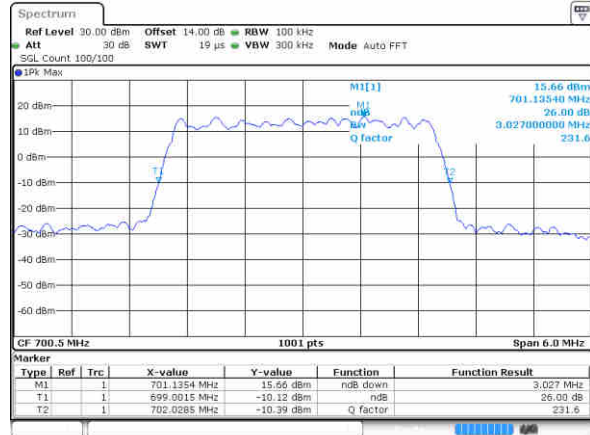


LTE Band 12

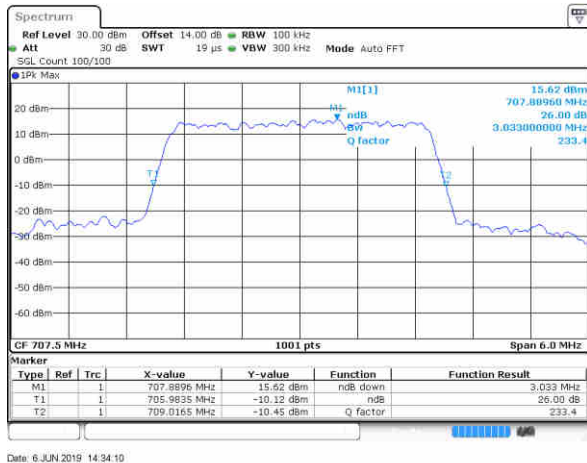
Lowest Channel / 3MHz / QPSK



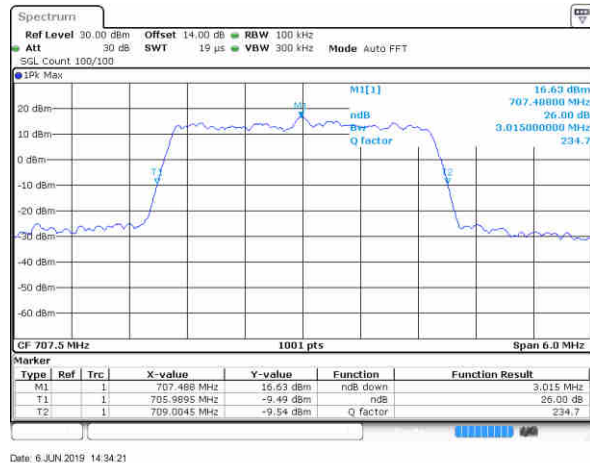
Lowest Channel / 3MHz / 16QAM



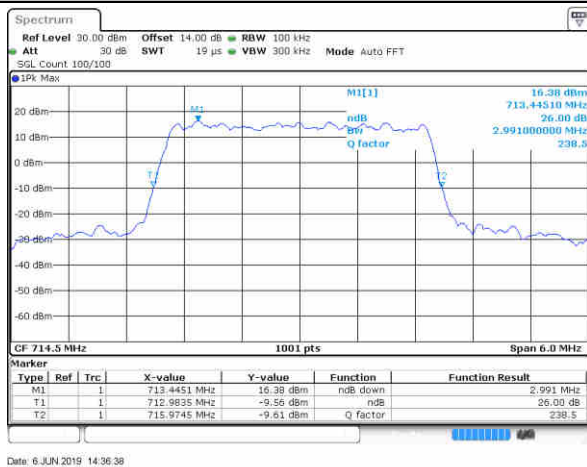
Middle Channel / 3MHz / QPSK



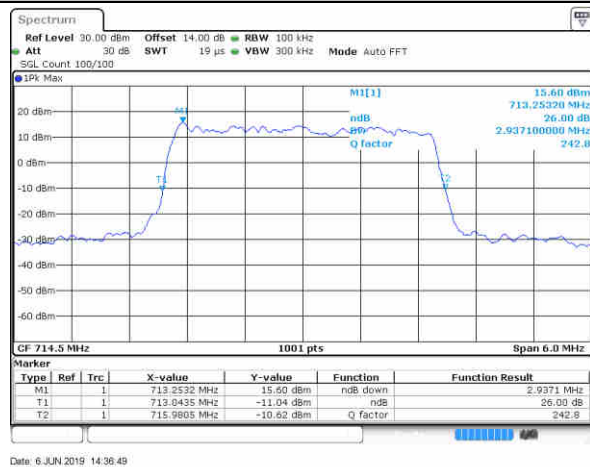
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



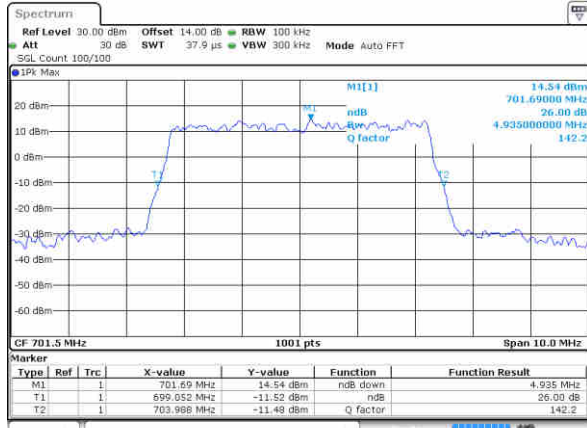
Highest Channel / 3MHz / 16QAM





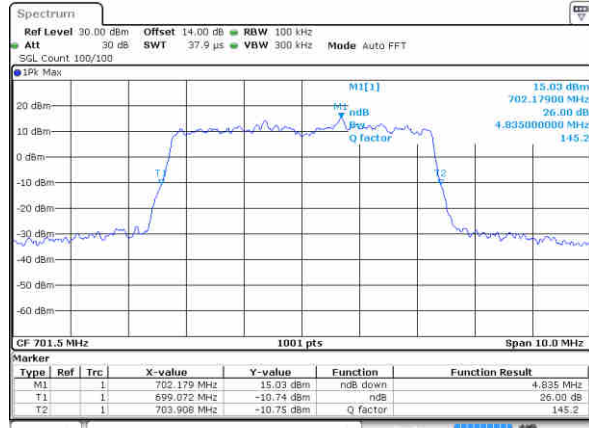
LTE Band 12

Lowest Channel / 5MHz / QPSK



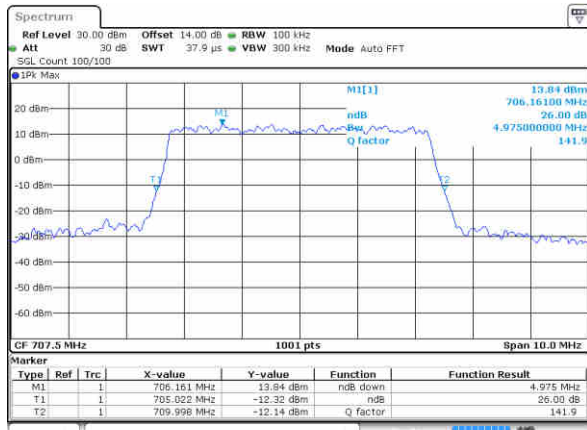
Date: 6 JUN 2019 14:50:32

Lowest Channel / 5MHz / 16QAM



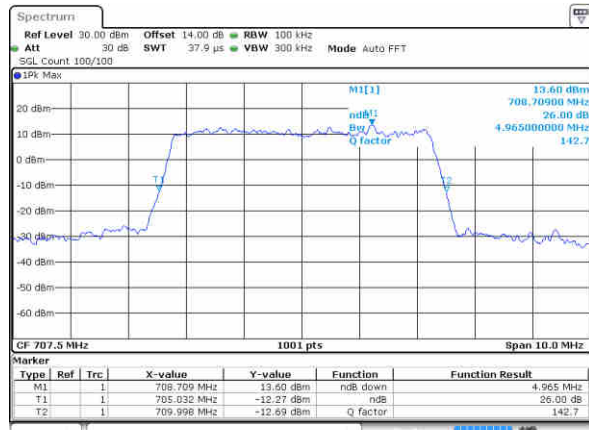
Date: 6 JUN 2019 14:50:43

Middle Channel / 5MHz / QPSK



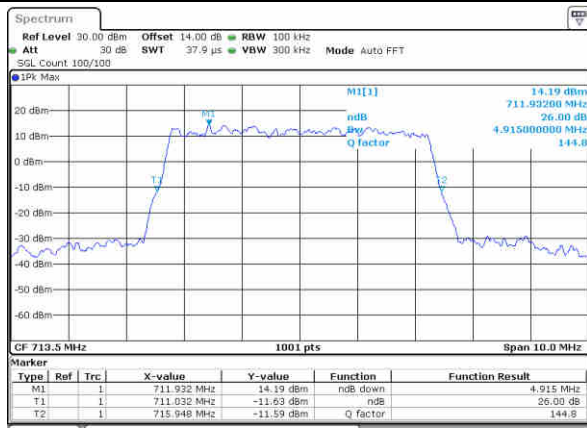
Date: 6 JUN 2019 14:57:33

Middle Channel / 5MHz / 16QAM



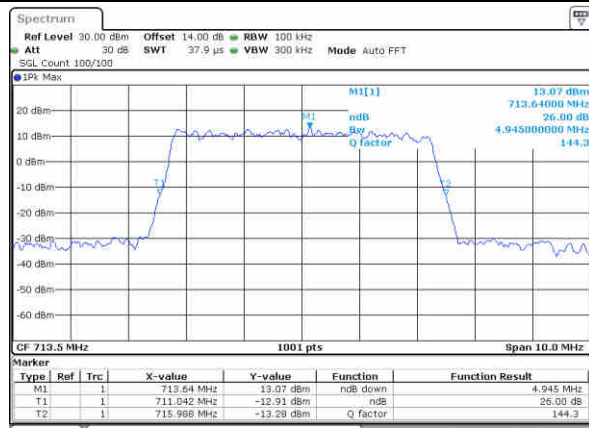
Date: 6 JUN 2019 14:57:43

Highest Channel / 5MHz / QPSK



Date: 6 JUN 2019 15:00:02

Highest Channel / 5MHz / 16QAM

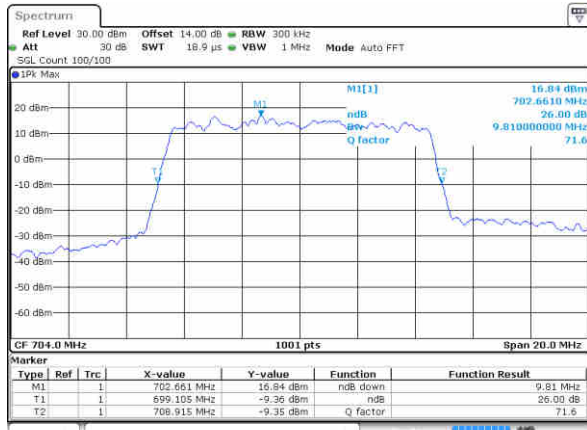


Date: 6 JUN 2019 15:00:12



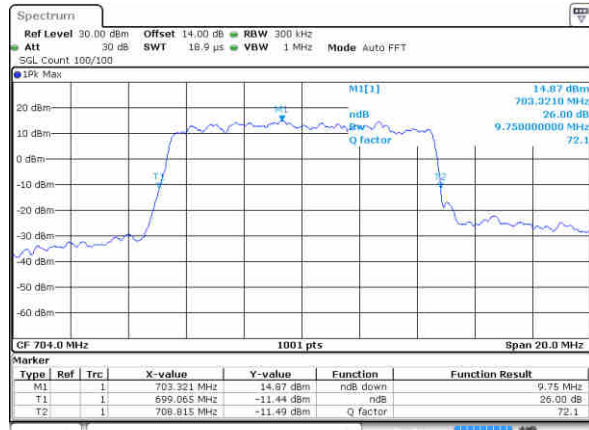
LTE Band 12

Lowest Channel / 10MHz / QPSK



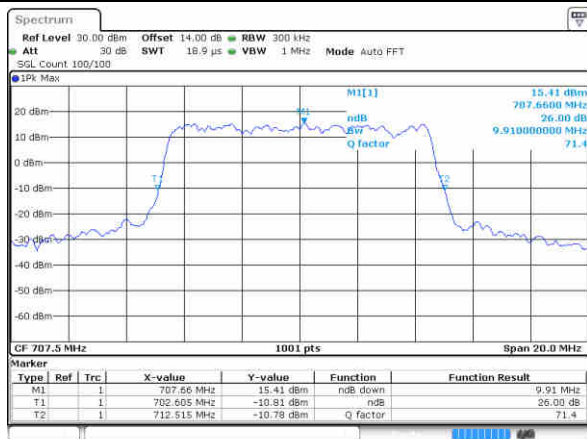
Date: 6 JUN 2019 13:49:11

Lowest Channel / 10MHz / 16QAM



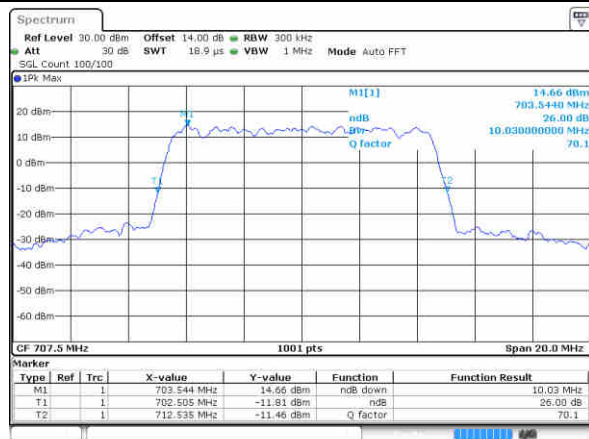
Date: 6 JUN 2019 13:49:22

Middle Channel / 10MHz / QPSK



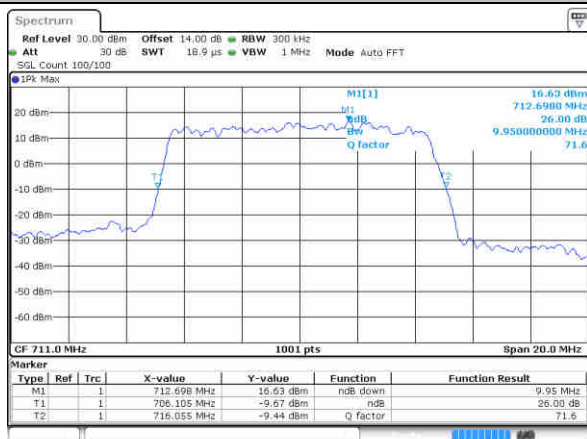
Date: 6 JUN 2019 14:14:58

Middle Channel / 10MHz / 16QAM



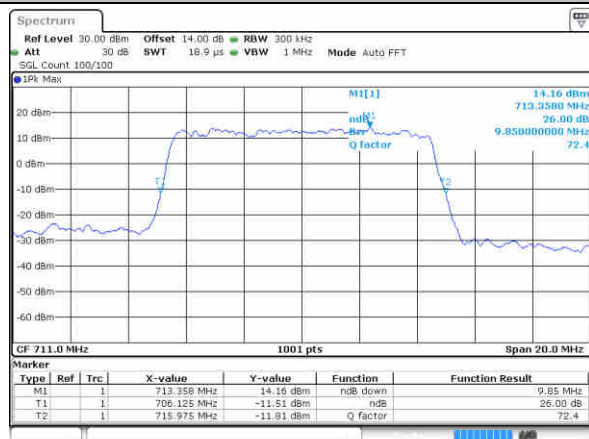
Date: 6 JUN 2019 14:15:09

Highest Channel / 10MHz / QPSK



Date: 6 JUN 2019 14:17:26

Highest Channel / 10MHz / 16QAM



Date: 6 JUN 2019 14:17:37



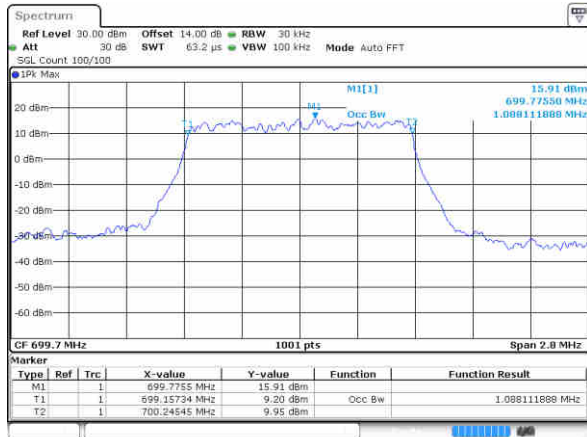
Occupied Bandwidth

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	1.09	2.71	2.72	4.47	4.48	8.99	8.97	-	-	-	-
Middle CH	1.1	1.1	2.7	2.72	4.49	4.5	9.09	9.01	-	-	-	-
Highest CH	1.1	1.1	2.72	2.73	4.49	4.49	9.07	9.01	-	-	-	-

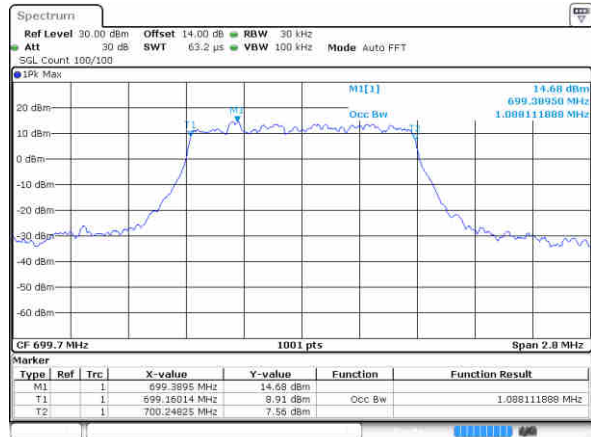


LTE Band 12

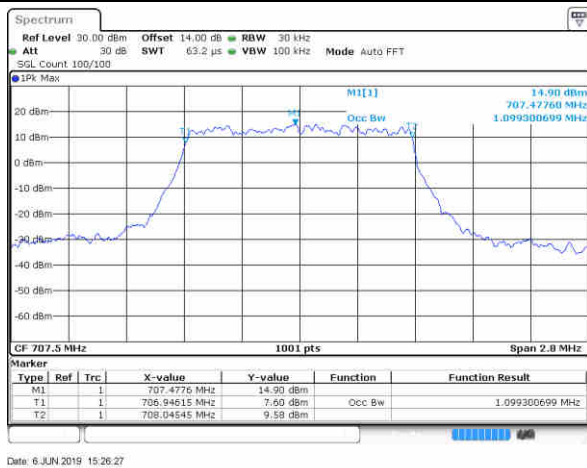
Lowest Channel / 1.4MHz / QPSK



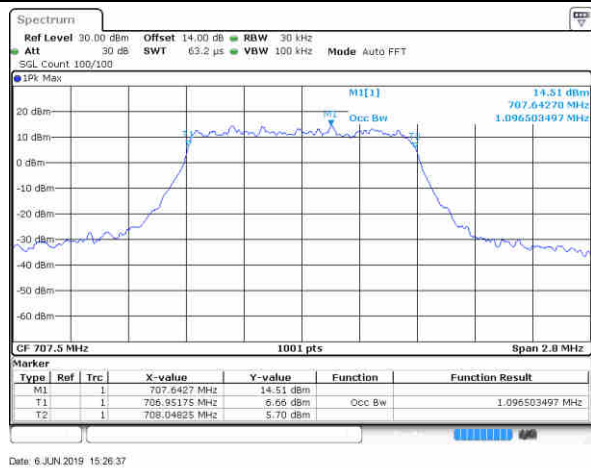
Lowest Channel / 1.4MHz / 16QAM



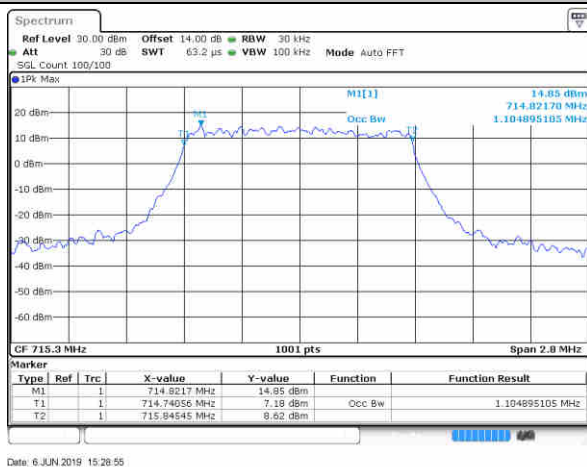
Middle Channel / 1.4MHz / QPSK



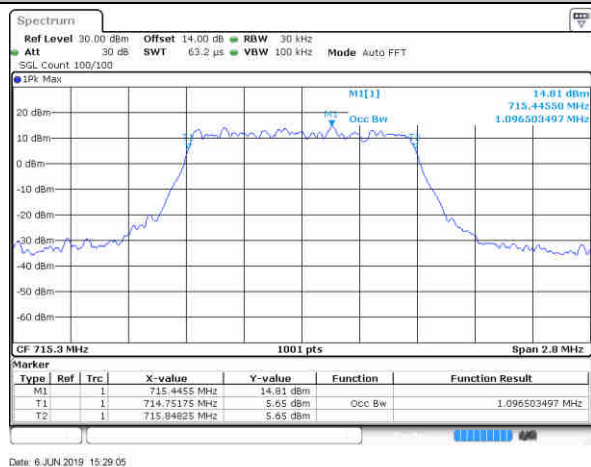
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



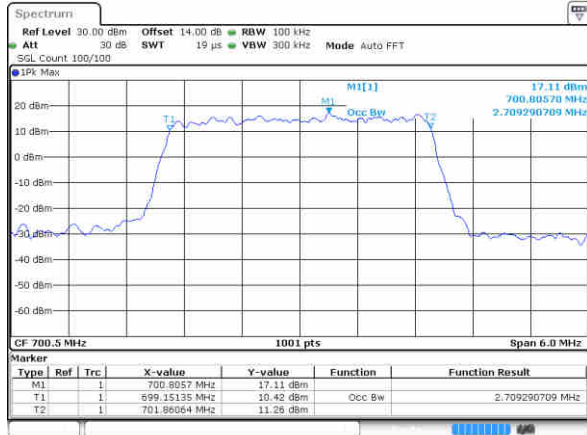
Highest Channel / 1.4MHz / 16QAM



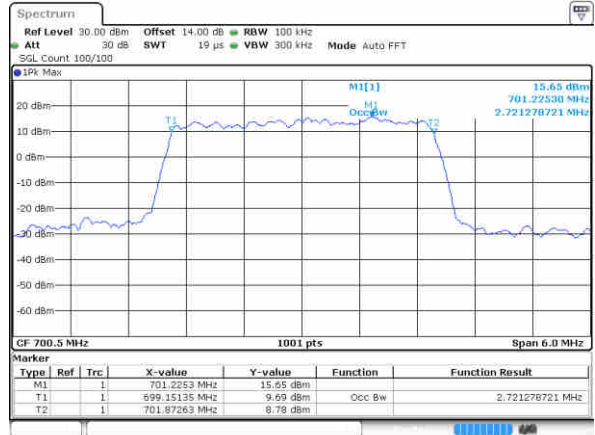


LTE Band 12

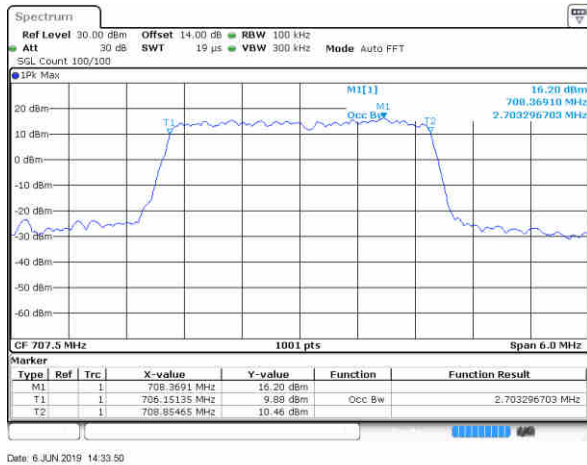
Lowest Channel / 3MHz / QPSK



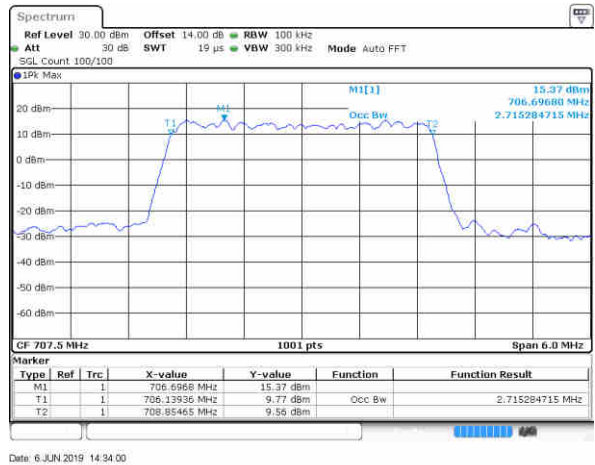
Lowest Channel / 3MHz / 16QAM



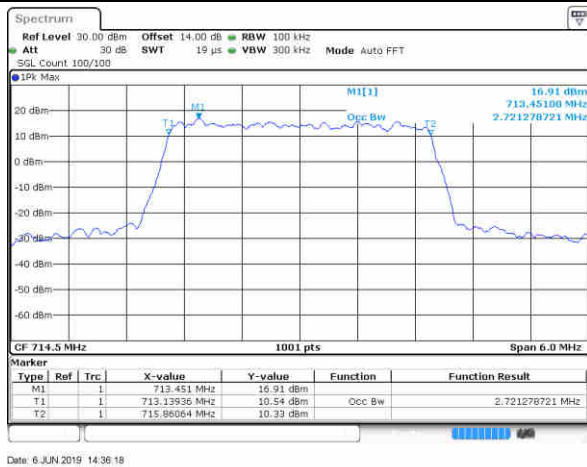
Middle Channel / 3MHz / QPSK



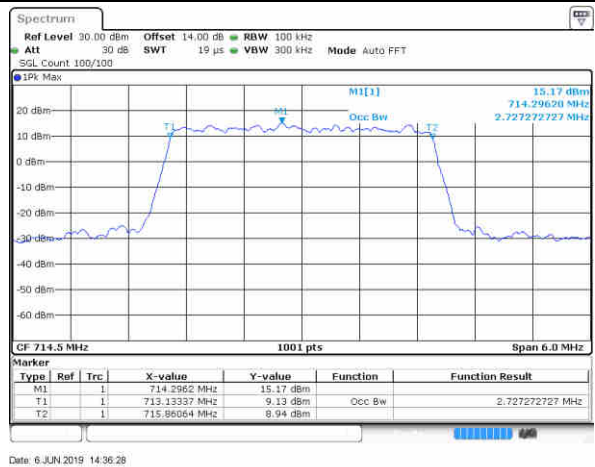
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



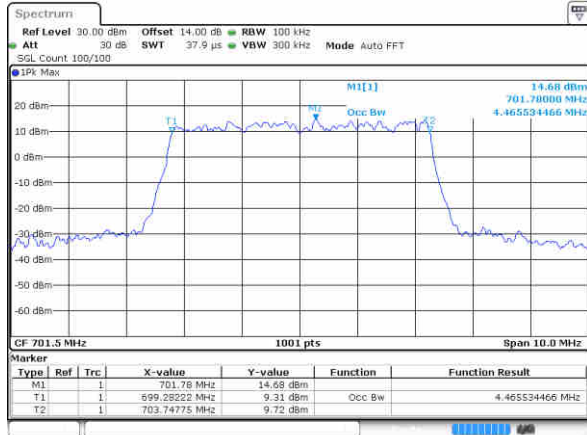
Highest Channel / 3MHz / 16QAM





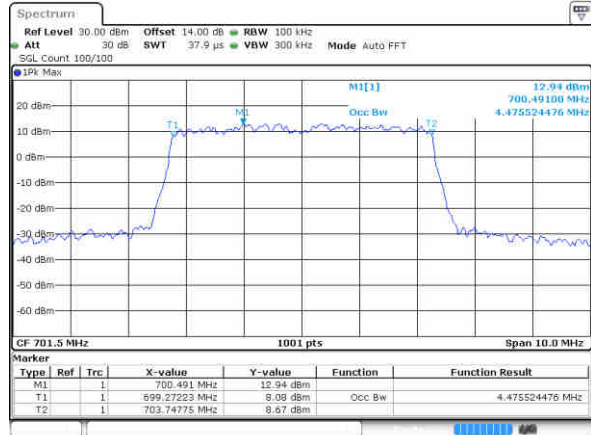
LTE Band 12

Lowest Channel / 5MHz / QPSK



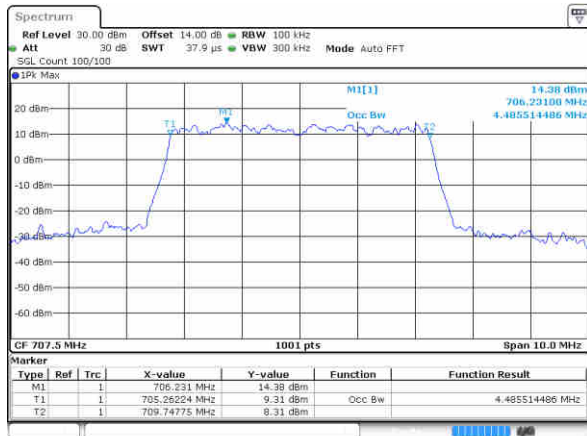
Date: 6 JUN 2019 14:50:11

Lowest Channel / 5MHz / 16QAM



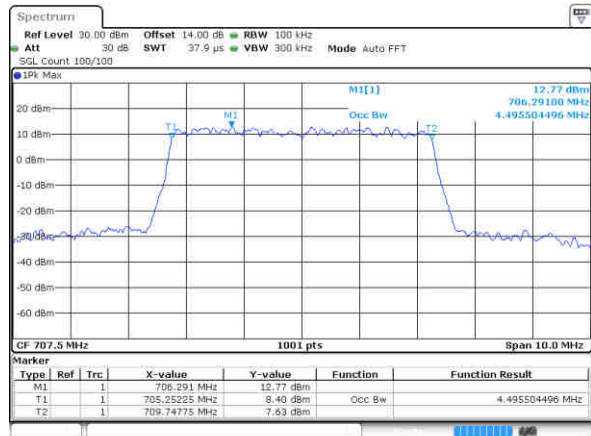
Date: 6 JUN 2019 14:50:22

Middle Channel / 5MHz / QPSK



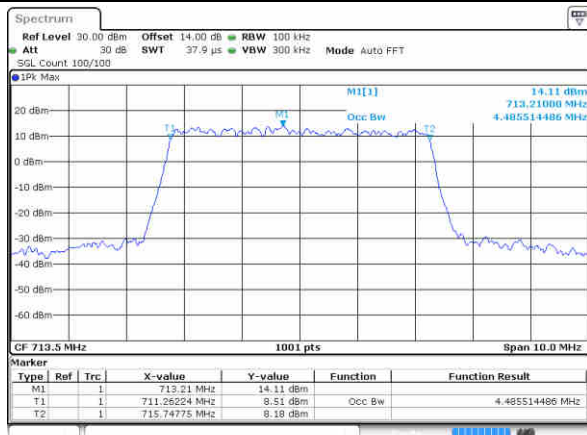
Date: 6 JUN 2019 14:57:12

Middle Channel / 5MHz / 16QAM



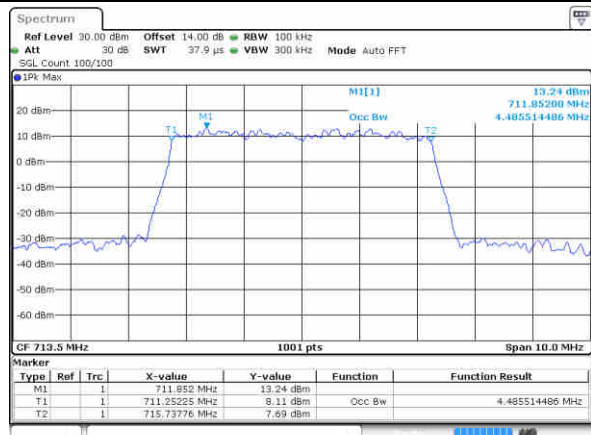
Date: 6 JUN 2019 14:57:23

Highest Channel / 5MHz / QPSK



Date: 6 JUN 2019 14:59:41

Highest Channel / 5MHz / 16QAM

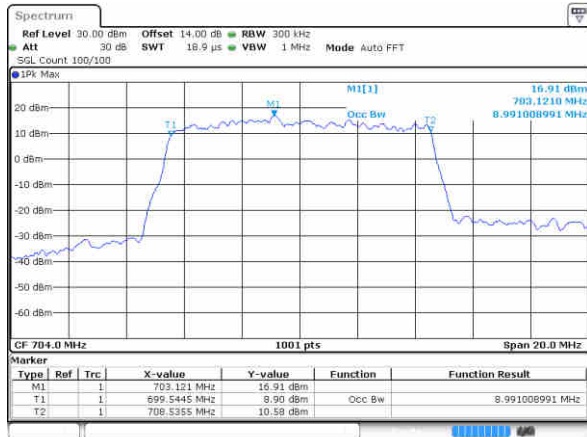


Date: 6 JUN 2019 14:59:51



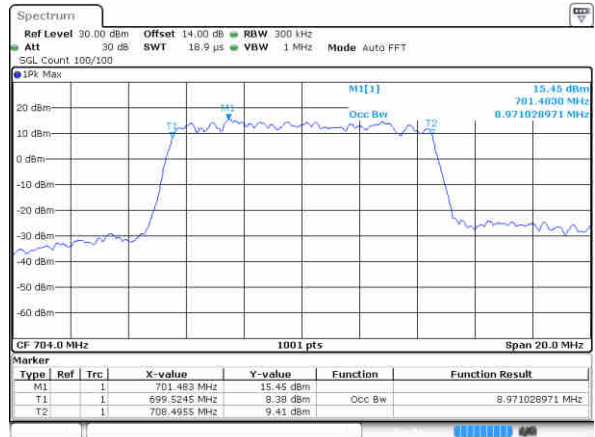
LTE Band 12

Lowest Channel / 10MHz / QPSK



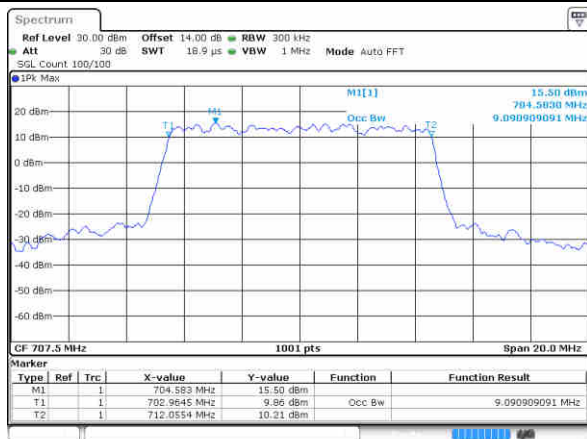
Date: 6 JUN 2019 13:48:50

Lowest Channel / 10MHz / 16QAM



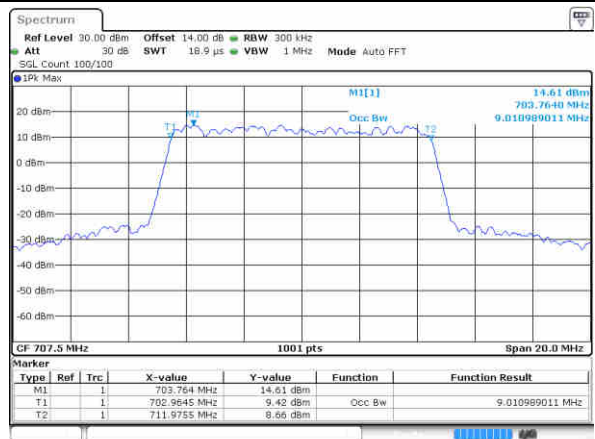
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Middle Channel / 10MHz / QPSK



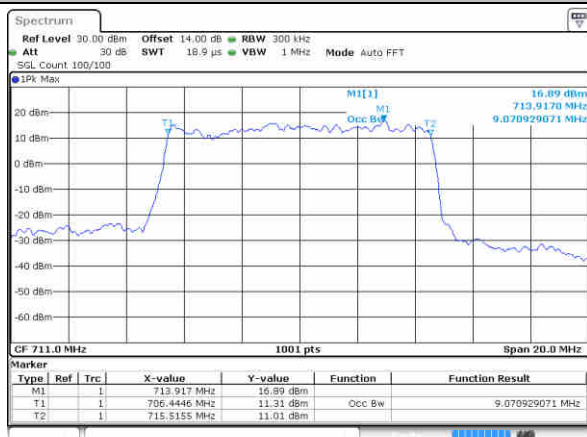
Date: 6 JUN 2019 14:14:38

Middle Channel / 10MHz / 16QAM



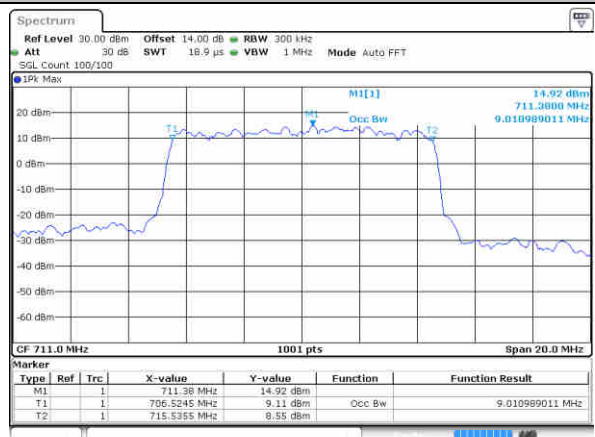
Date: 6 JUN 2019 14:14:48

Highest Channel / 10MHz / QPSK

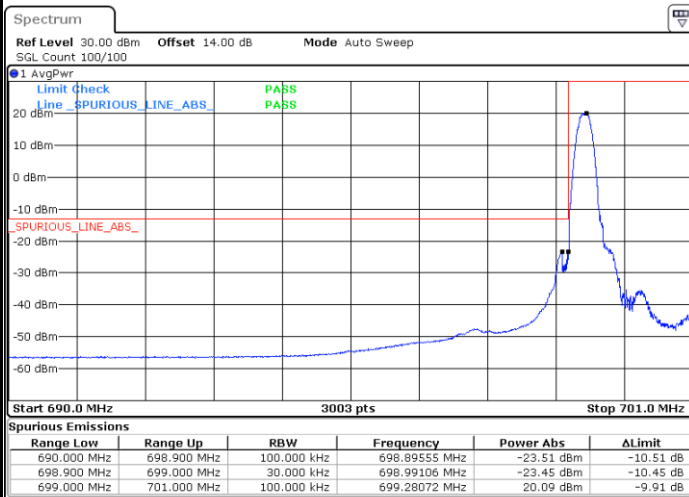
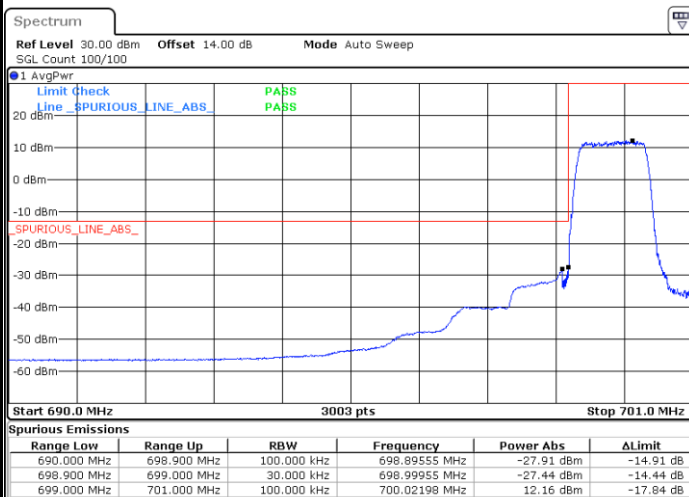


Date: 6 JUN 2019 14:17:06

Highest Channel / 10MHz / 16QAM



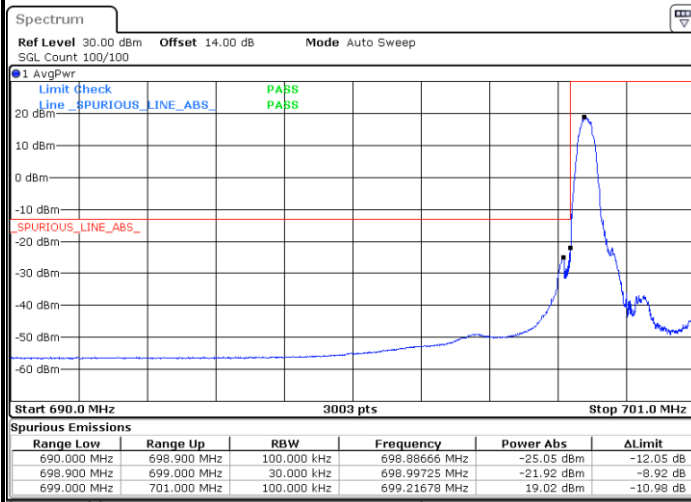
Date: 6 JUN 2019 14:17:16

**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

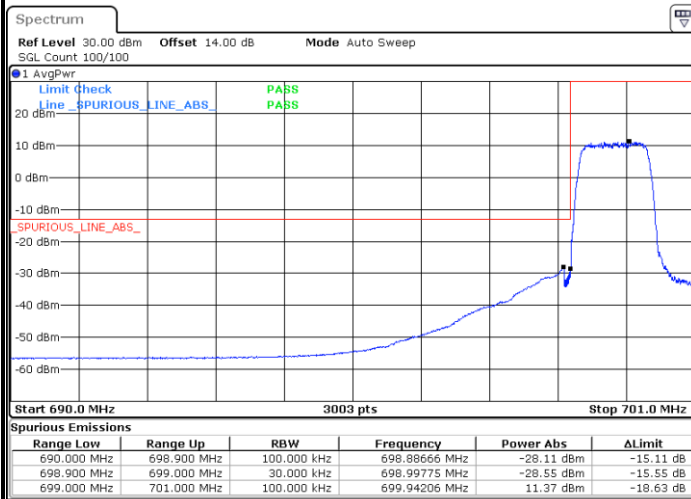
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



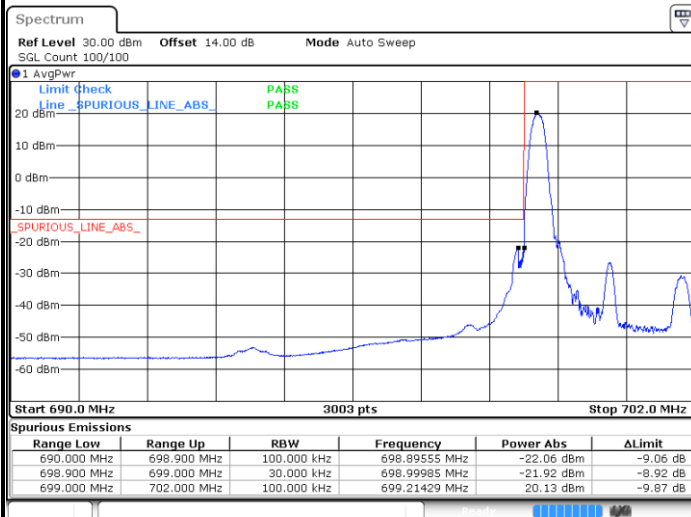
Highest Band Edge / Full RB



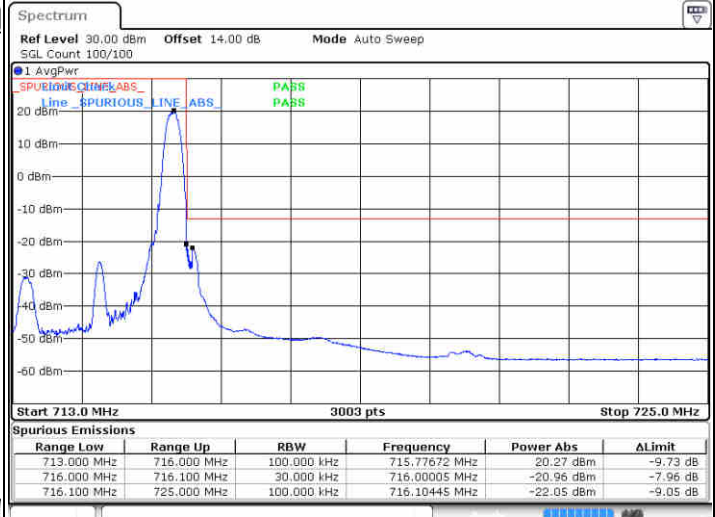


LTE Band 12 / 3MHz / QPSK

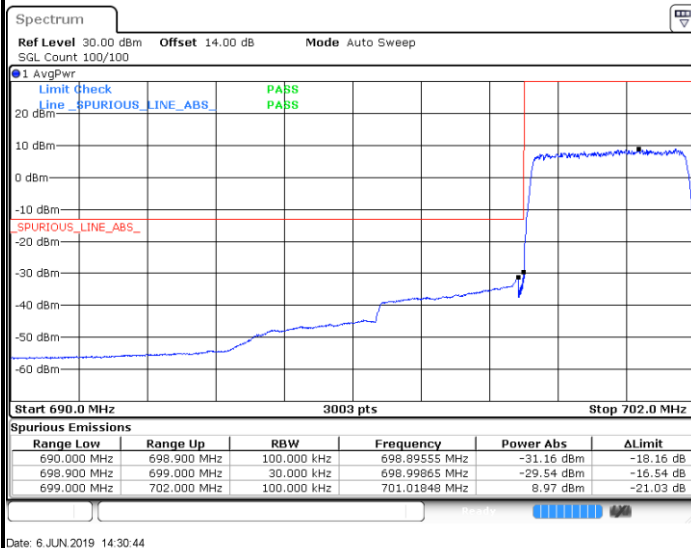
Lowest Band Edge / 1RB



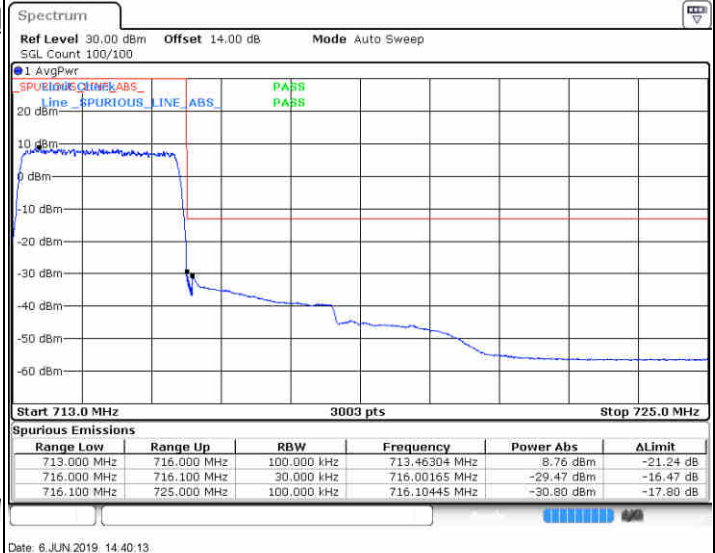
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



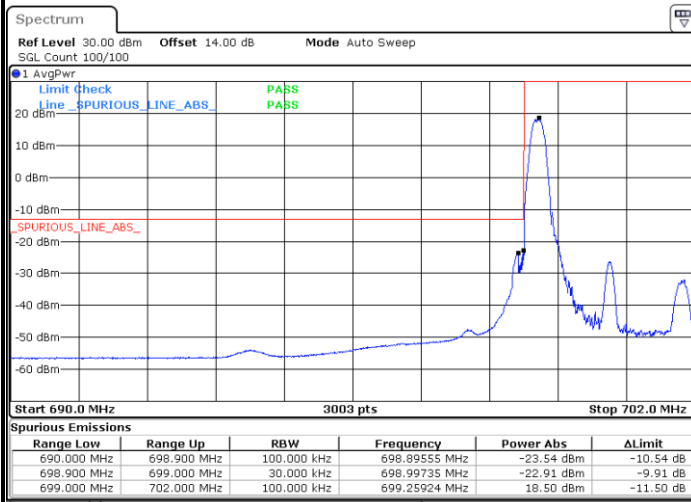
Highest Band Edge / Full RB



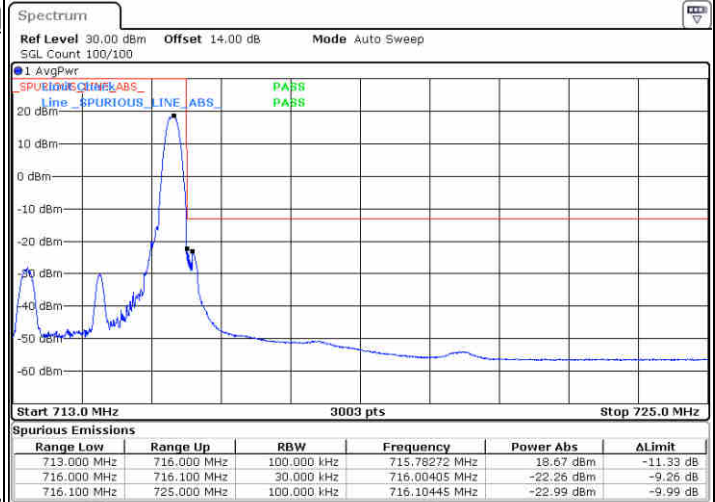


LTE Band 12 / 3MHz / 16QAM

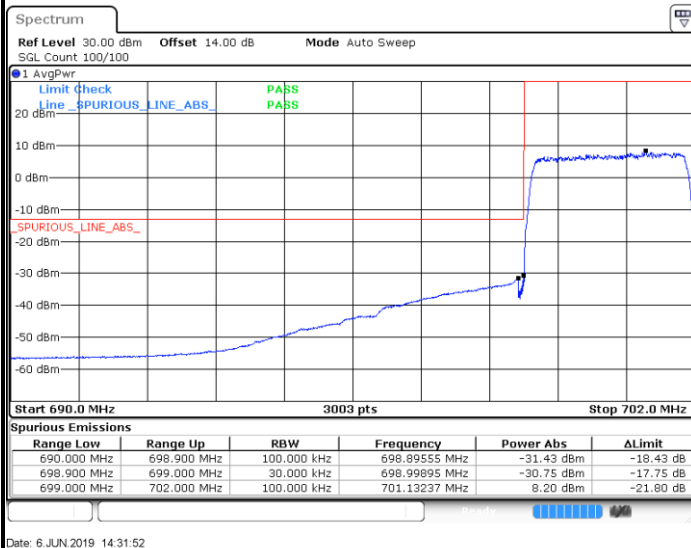
Lowest Band Edge / 1 RB



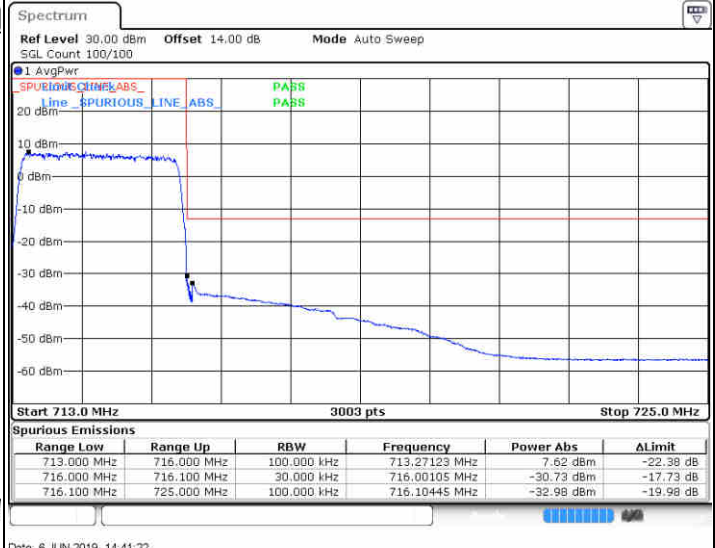
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



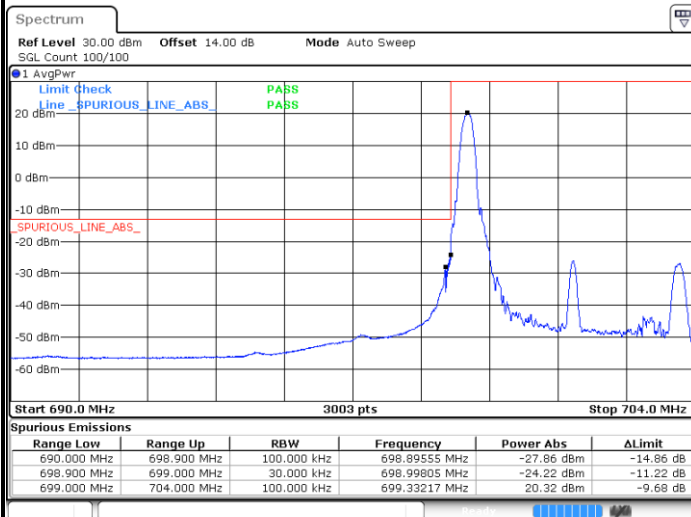
Highest Band Edge / Full RB



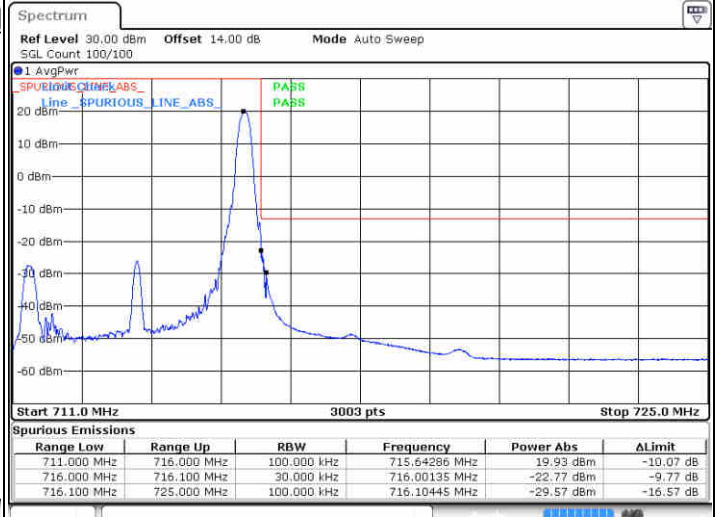


LTE Band 12 / 5MHz / QPSK

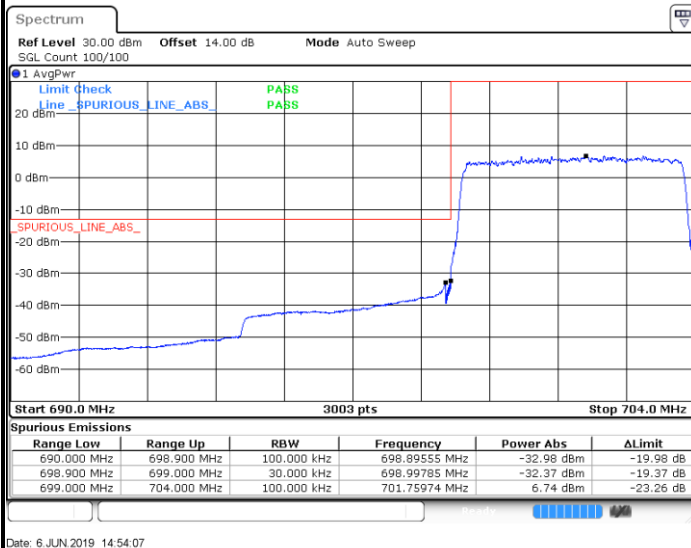
Lowest Band Edge / 1 RB



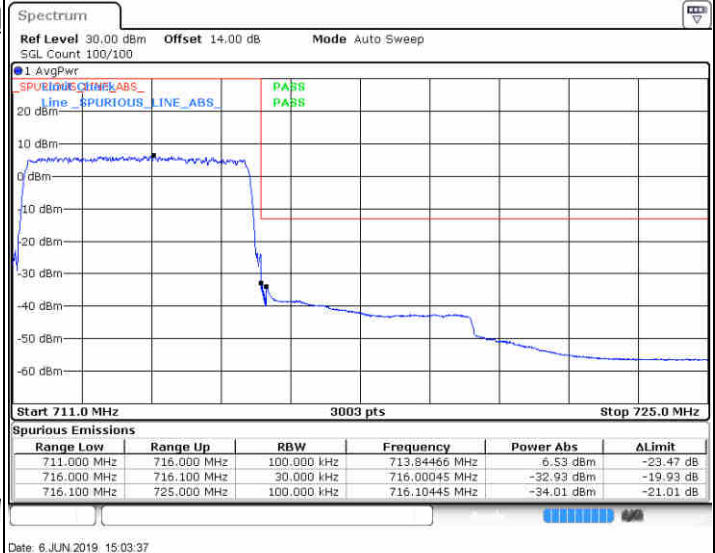
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



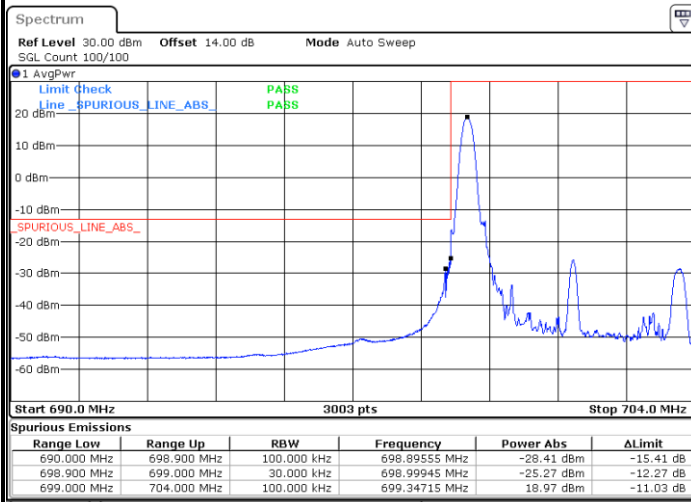
Highest Band Edge / Full RB



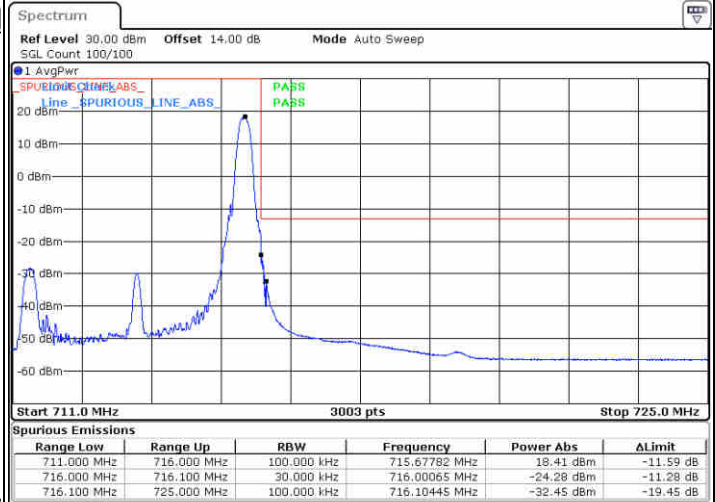


LTE Band 12 / 5MHz / 16QAM

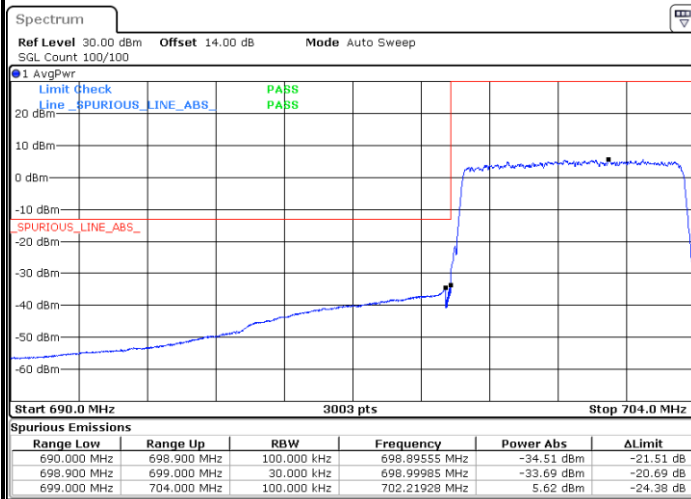
Lowest Band Edge / 1RB



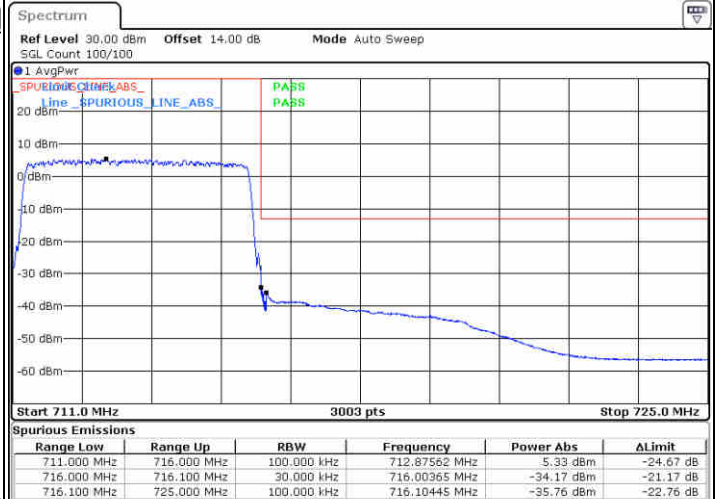
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



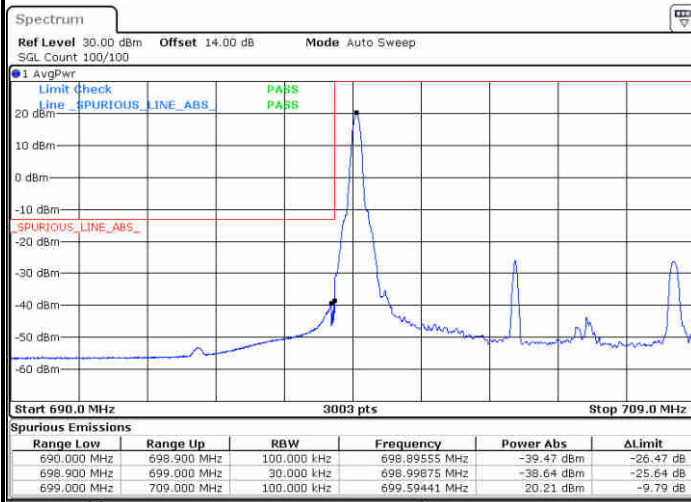
Highest Band Edge / Full RB



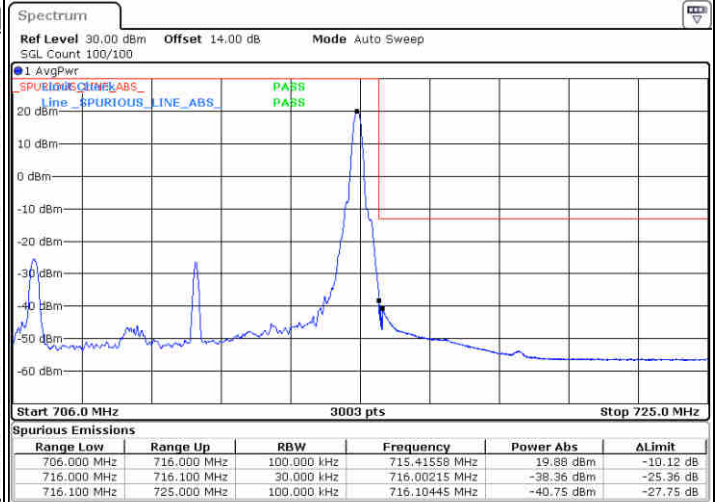


LTE Band 12 / 10MHz / QPSK

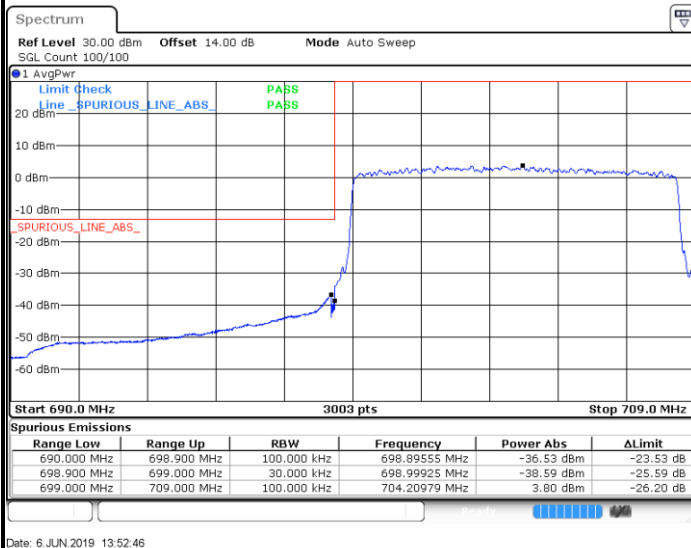
Lowest Band Edge / 1 RB



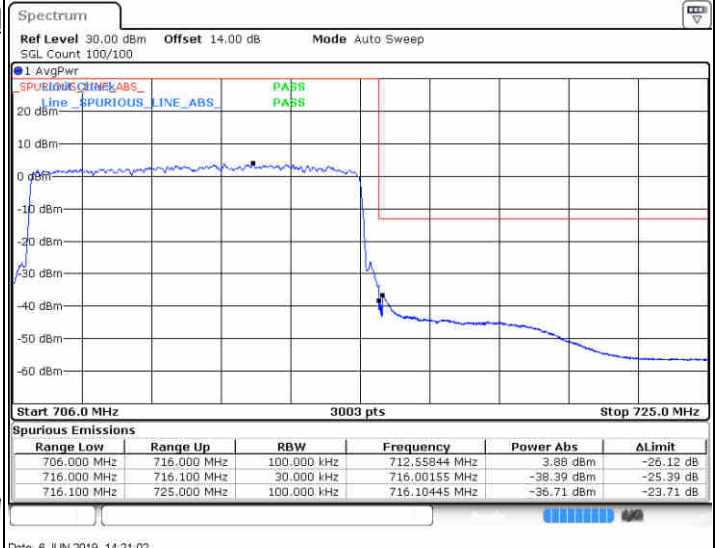
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



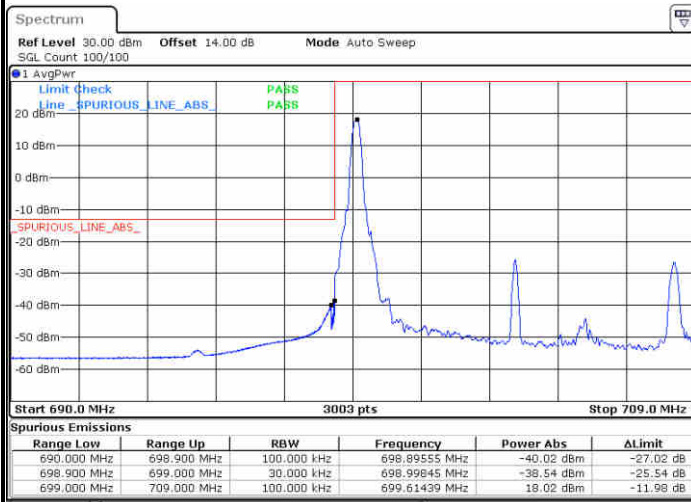
Highest Band Edge / Full RB



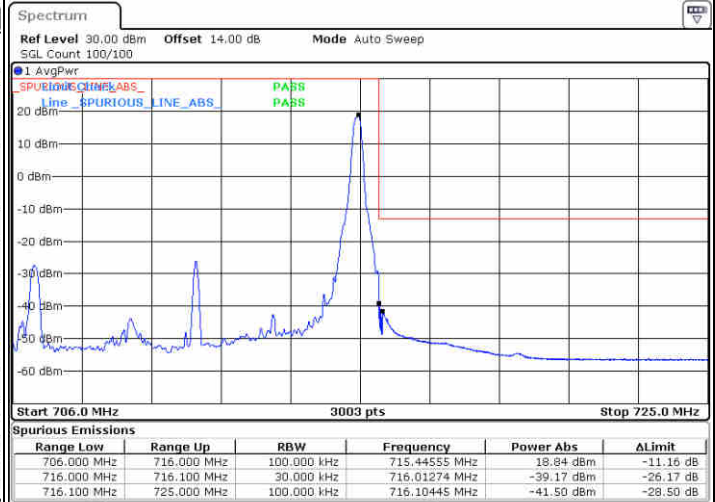


LTE Band 12 / 10MHz / 16QAM

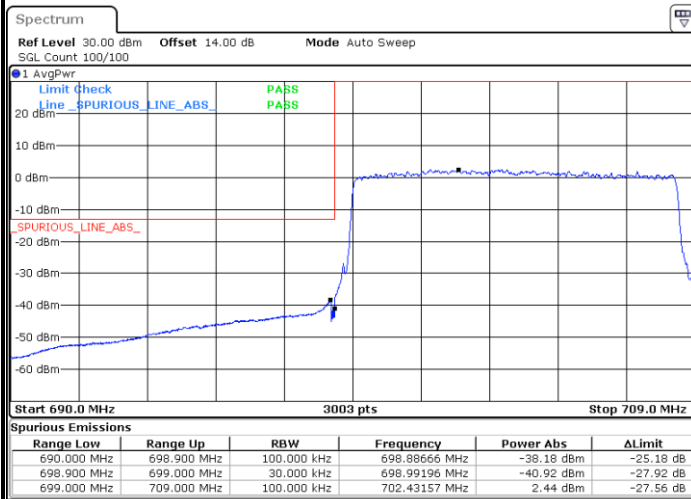
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

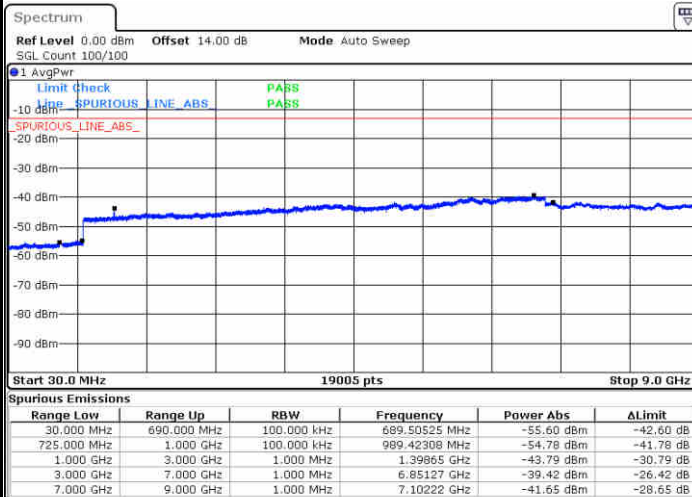




Conducted Spurious Emission

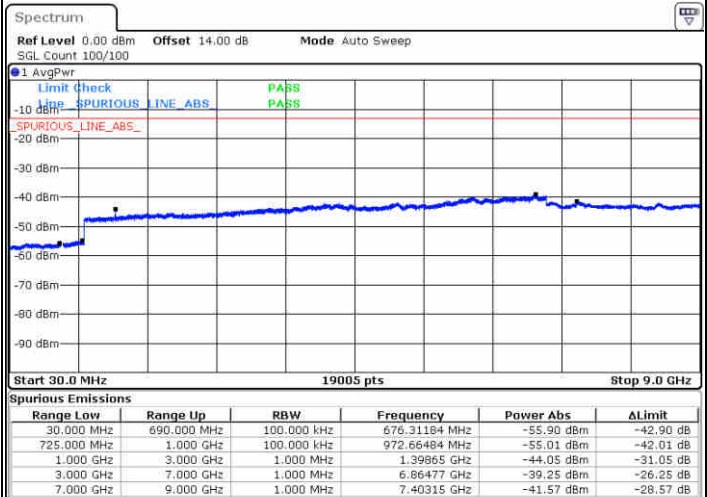
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



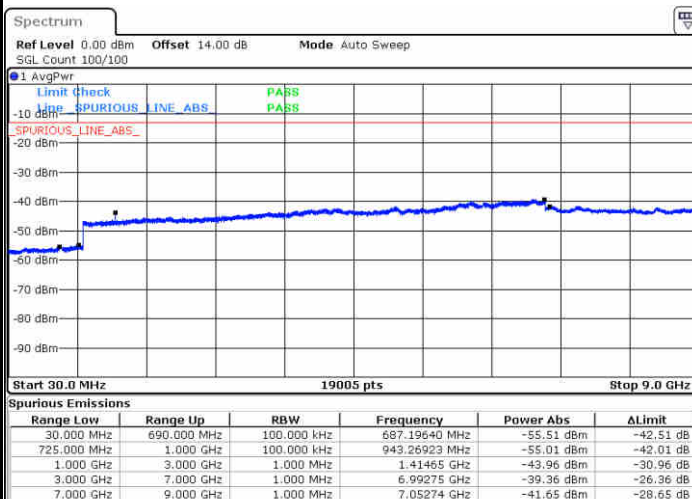
Date: 6 JUN 2019 15:25:23

Lowest Channel / 16QAM



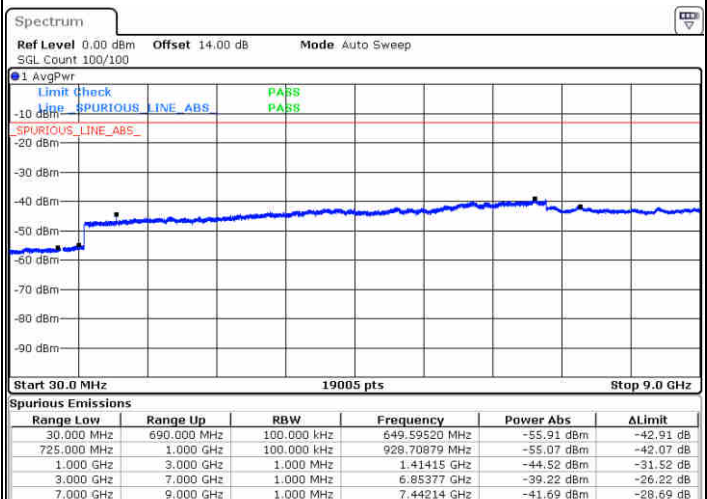
Date: 6 JUN 2019 15:26:17

Middle Channel / QPSK



Date: 6 JUN 2019 15:27:52

Middle Channel / 16QAM



Date: 6 JUN 2019 15:28:45