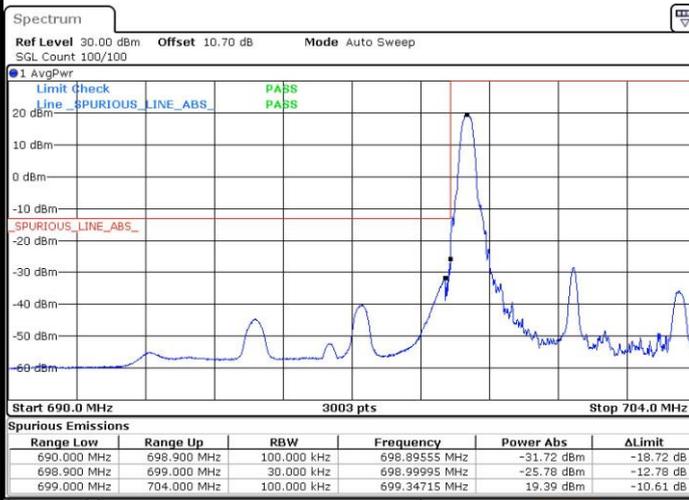




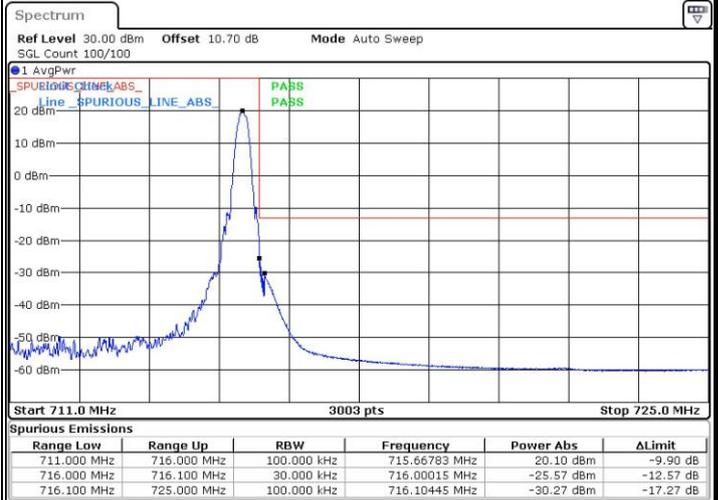
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



Date: 19 APR 2019 22:08:39

Highest Band Edge / 1 RB



Date: 19 APR 2019 22:12:51

Lowest Band Edge / Full RB



Date: 19 APR 2019 22:07:38

Highest Band Edge / Full RB

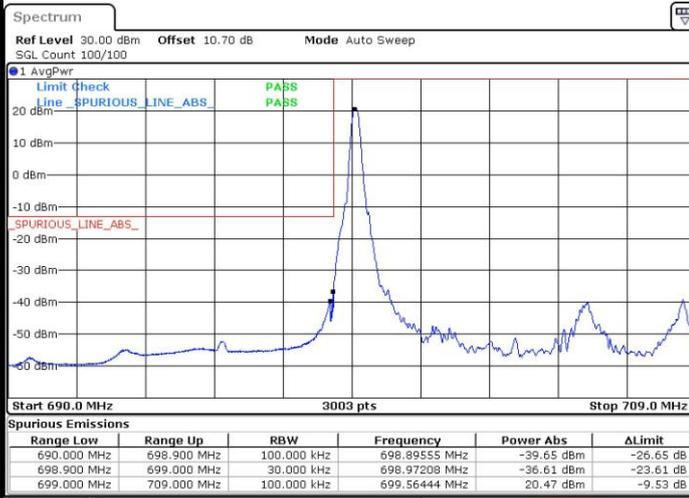


Date: 19 APR 2019 22:11:50



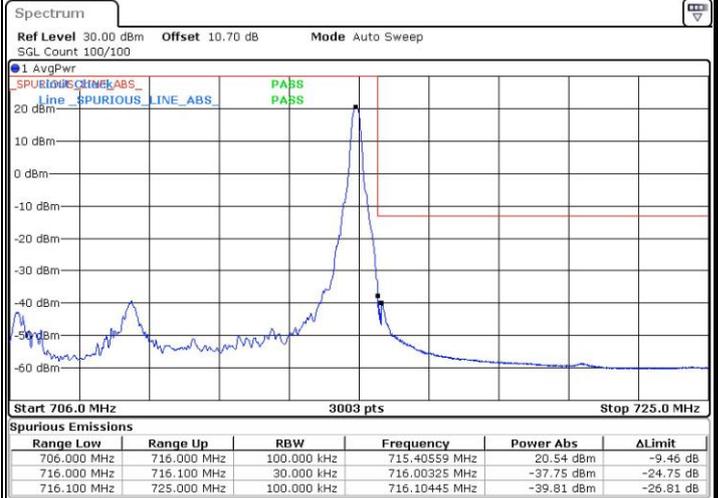
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



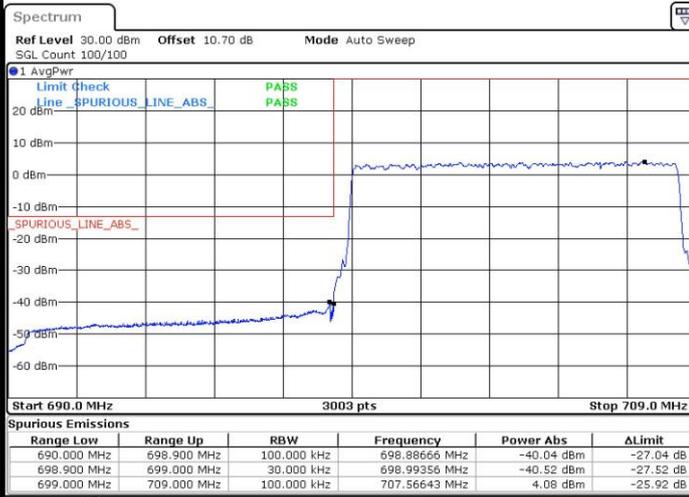
Date: 19 APR 2019 20:33:15

Highest Band Edge / 1 RB



Date: 19 APR 2019 20:41:39

Lowest Band Edge / Full RB



Date: 19 APR 2019 20:30:12

Highest Band Edge / Full RB

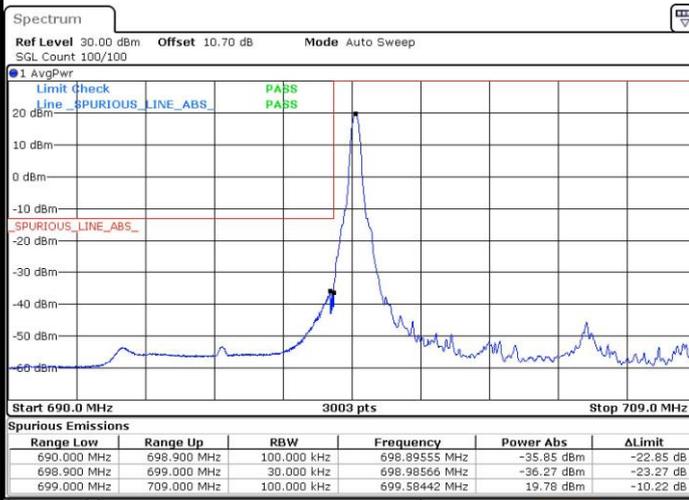


Date: 19 APR 2019 20:38:36



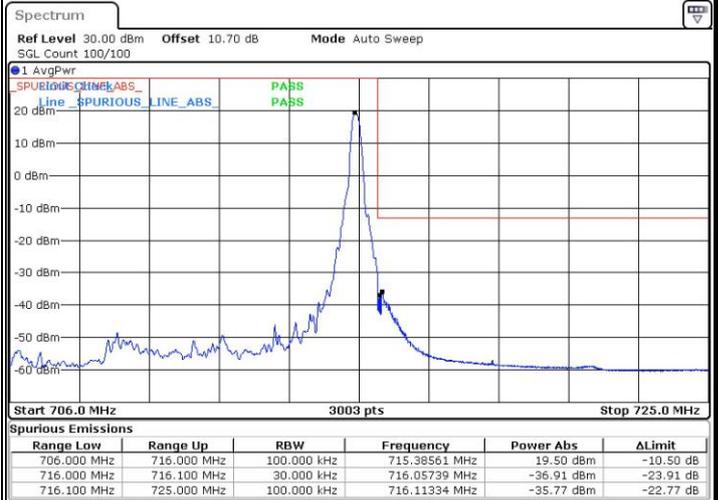
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



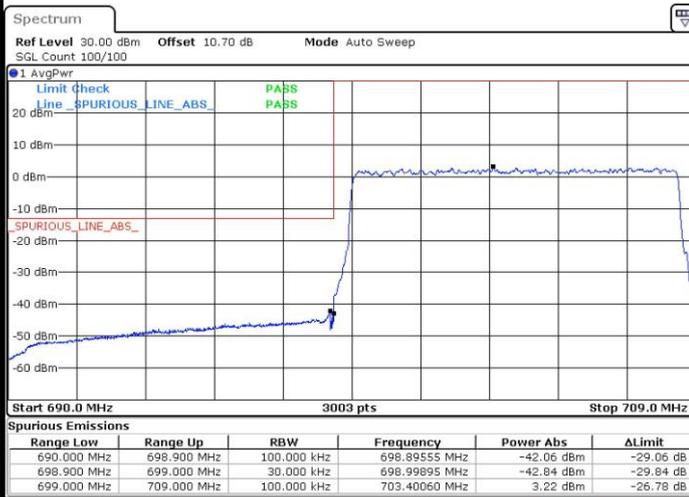
Date: 19 APR 2019 20:32:14

Highest Band Edge / 1 RB



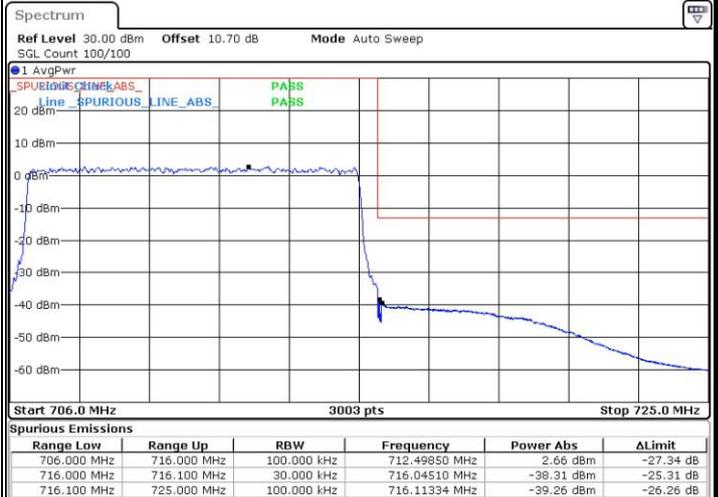
Date: 19 APR 2019 20:40:38

Lowest Band Edge / Full RB



Date: 19 APR 2019 20:31:13

Highest Band Edge / Full RB

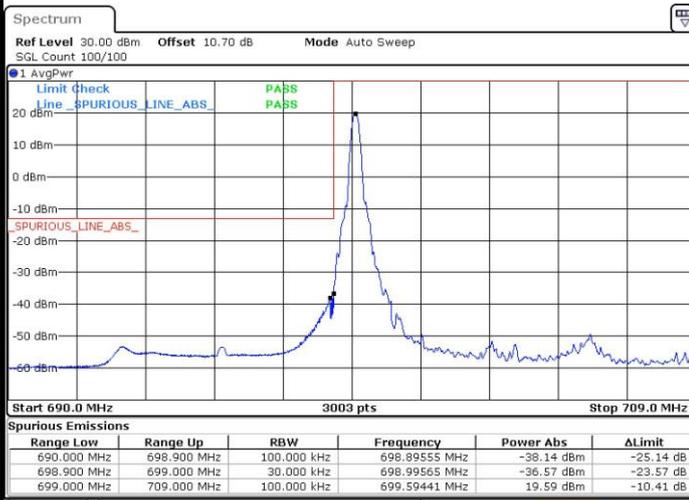


Date: 19 APR 2019 20:39:37

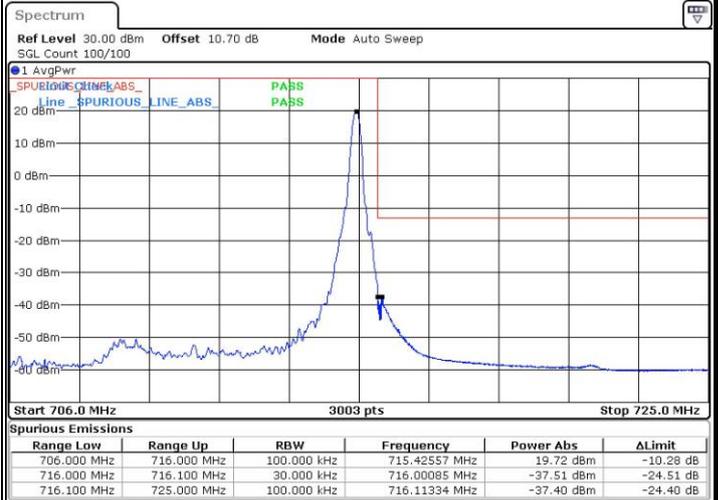


LTE Band 12 / 10MHz / 64QAM

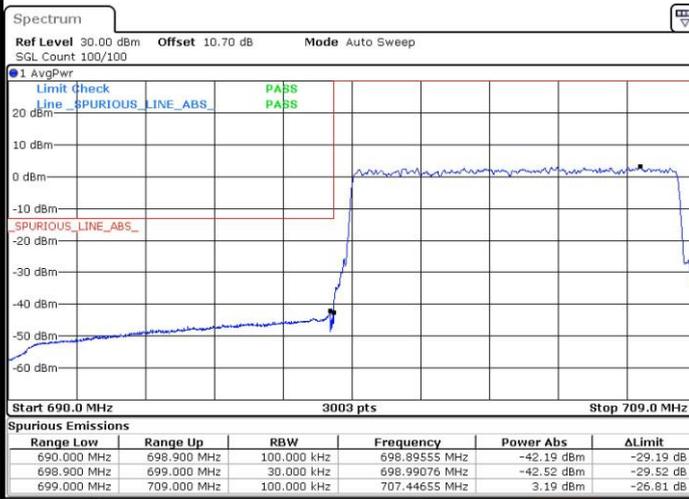
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

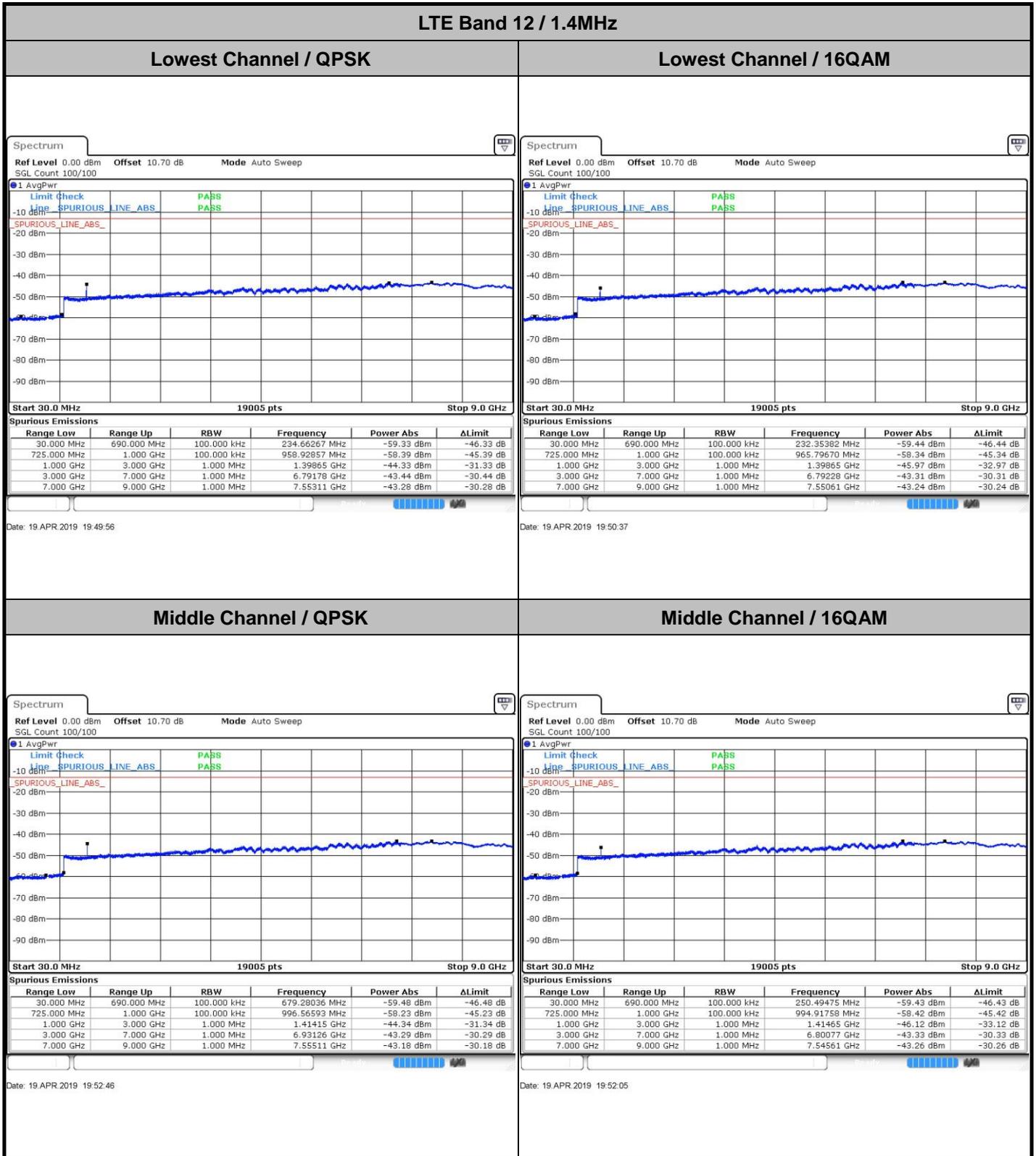


Highest Band Edge / Full RB





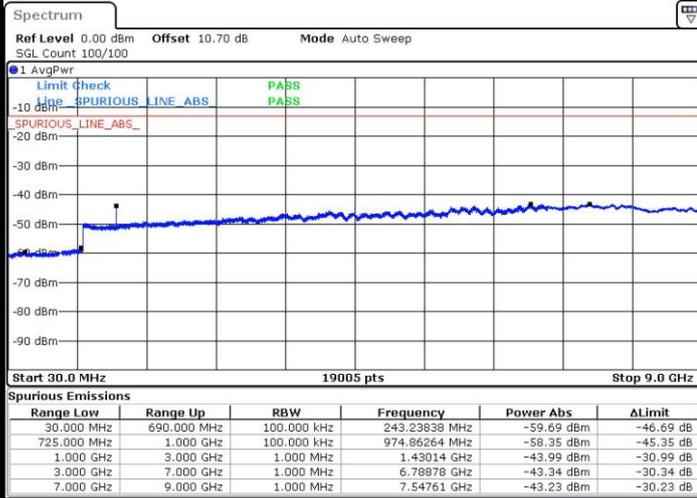
# Conducted Spurious Emission





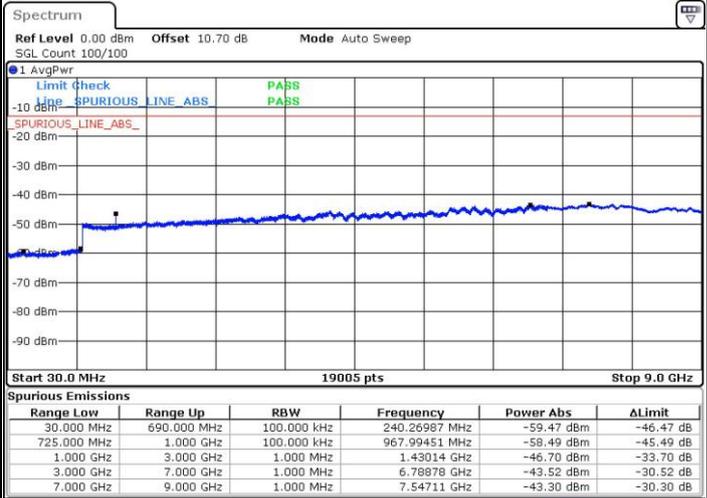
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 19 APR 2019 19:58:20

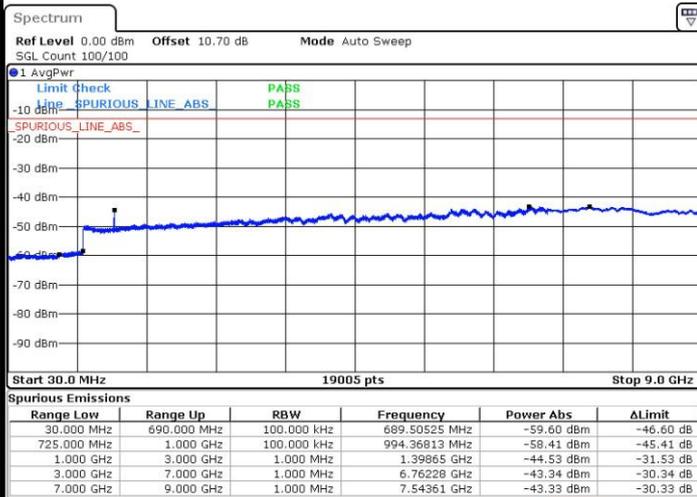
Highest Channel / 16QAM



Date: 19 APR 2019 19:59:01

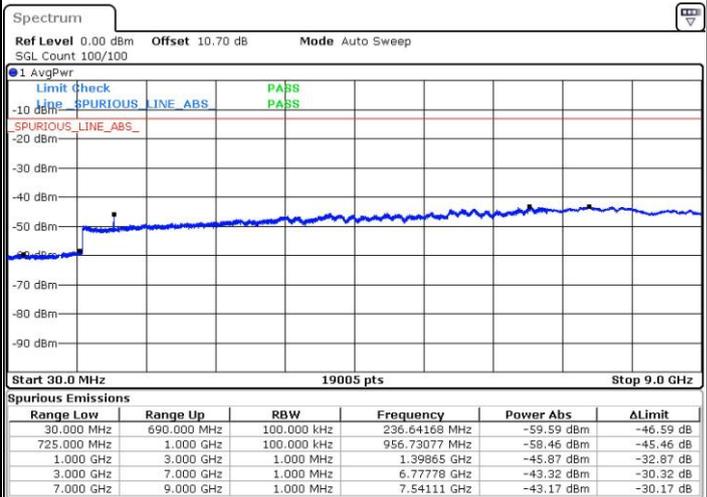
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 19 APR 2019 20:04:37

Lowest Channel / 16QAM



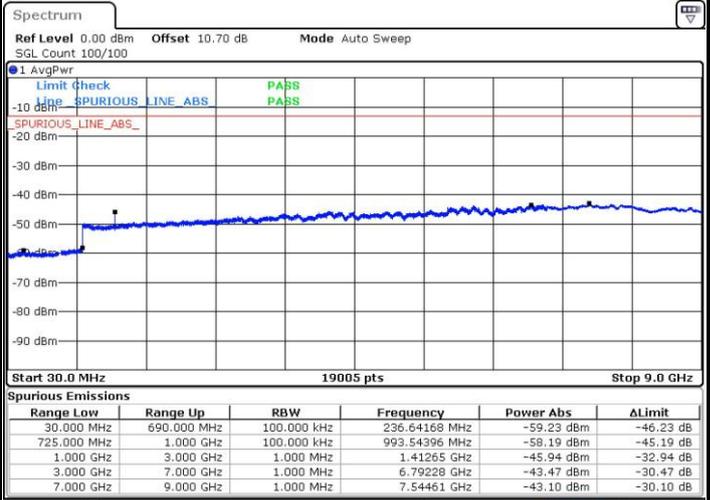
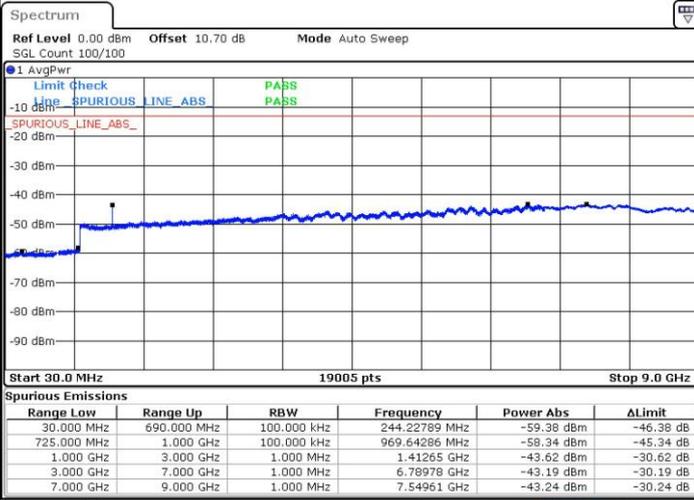
Date: 19 APR 2019 20:05:18



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

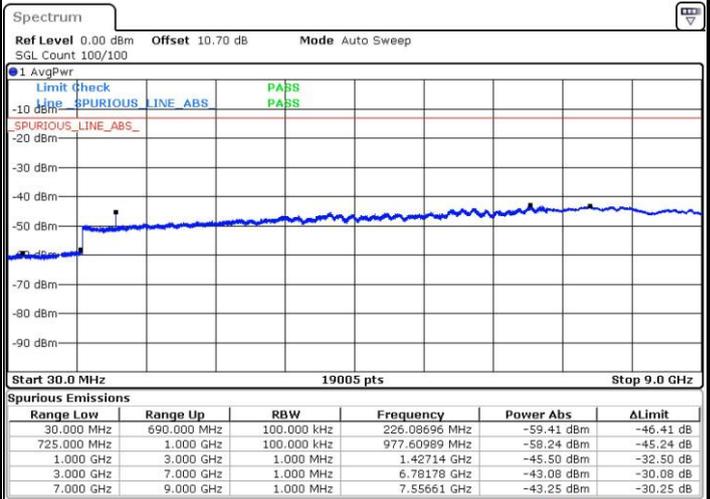
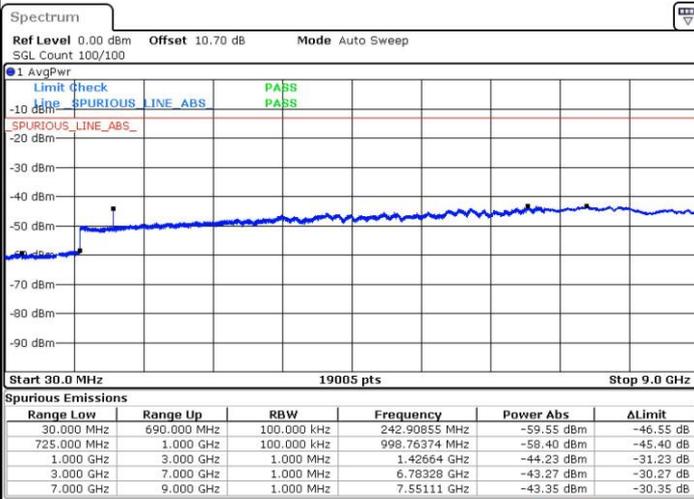


Date: 19 APR 2019 20:07:26

Date: 19 APR 2019 20:06:46

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 19 APR 2019 20:13:00

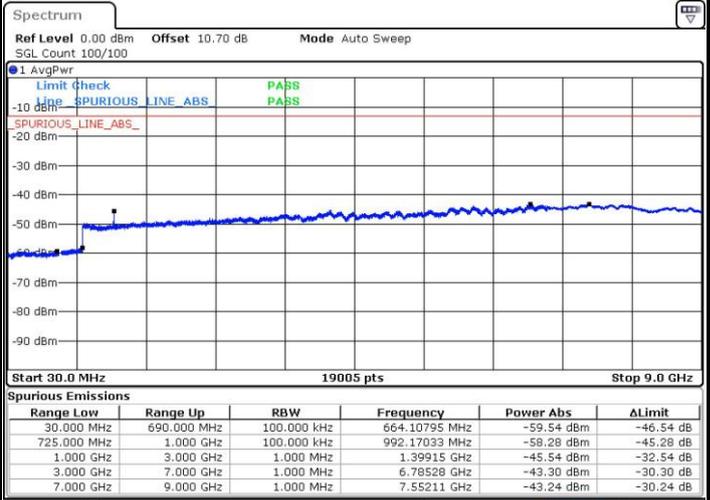
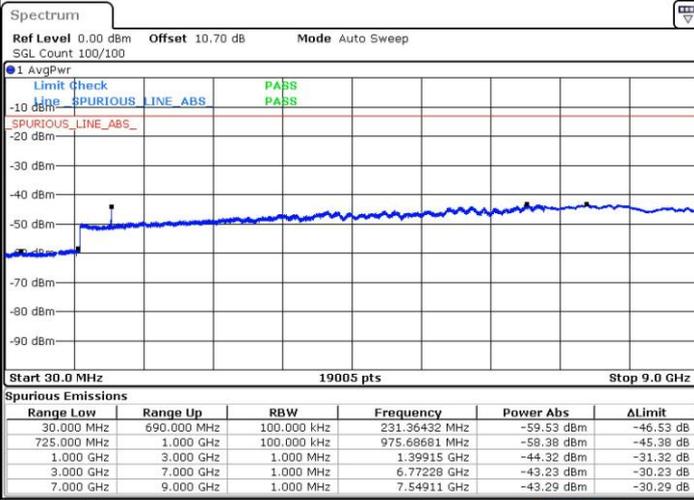
Date: 19 APR 2019 20:13:42



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

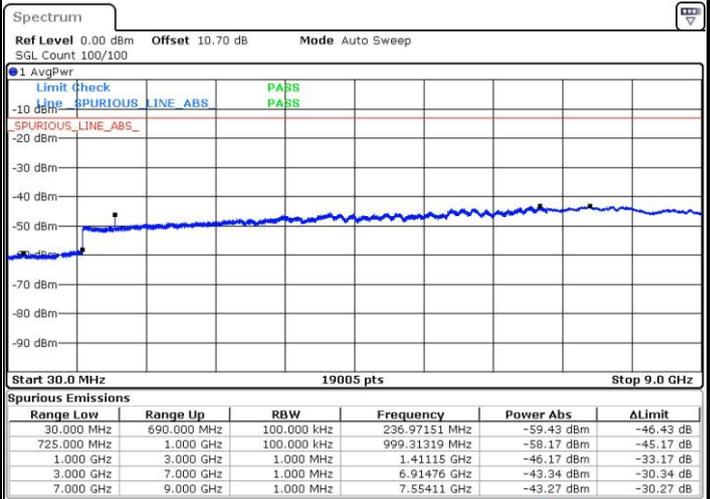
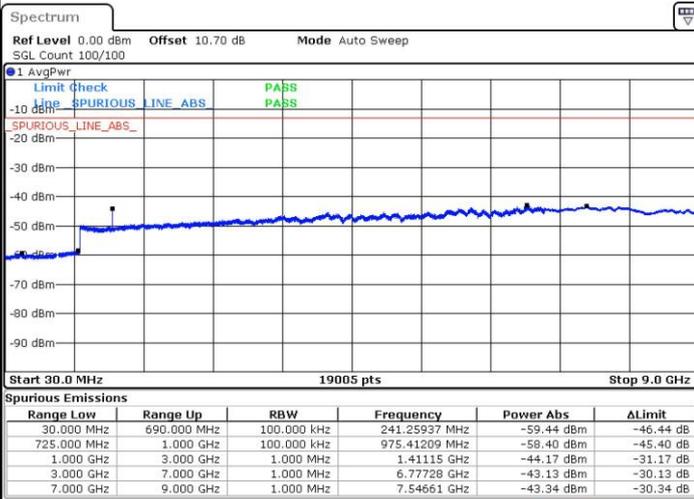


Date: 19 APR 2019 20:19:17

Date: 19 APR 2019 20:19:58

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 19 APR 2019 20:22:06

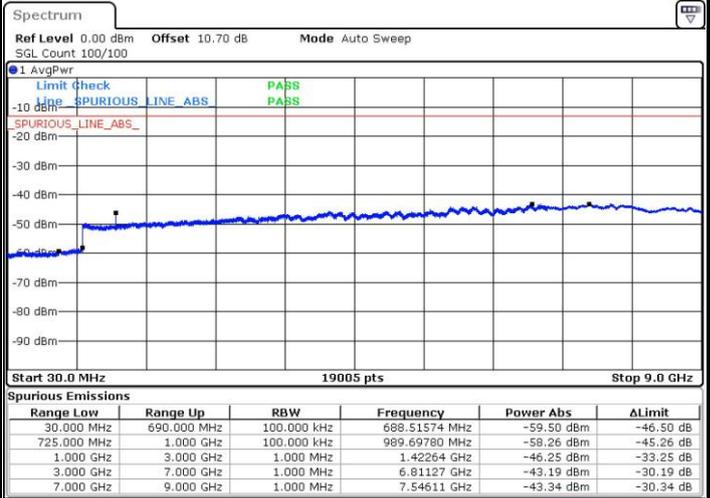
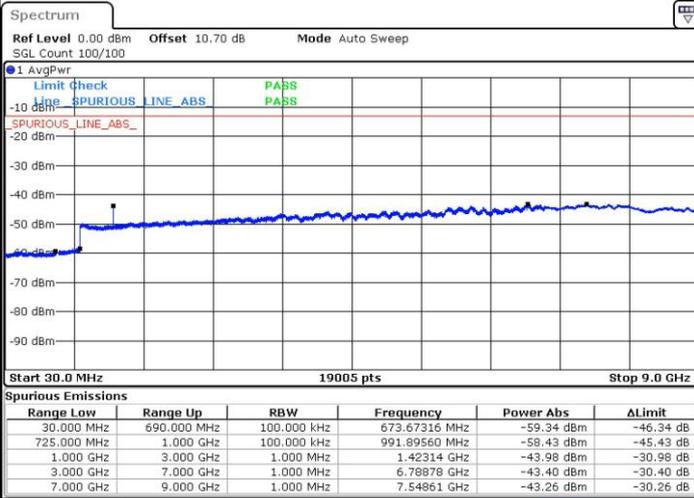
Date: 19 APR 2019 20:21:26



LTE Band 12 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



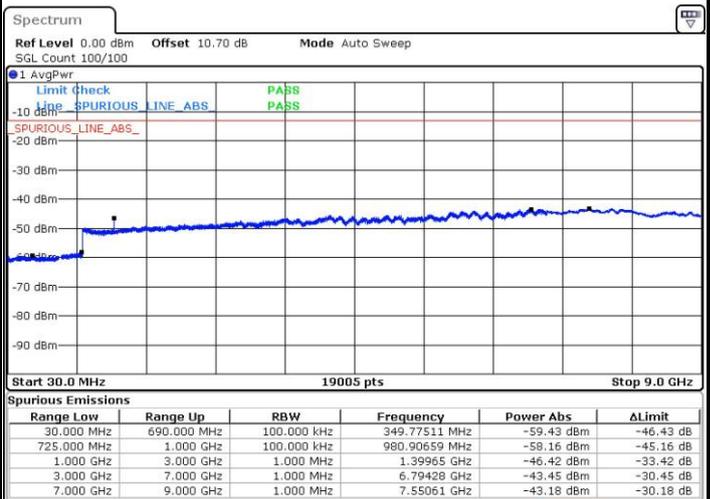
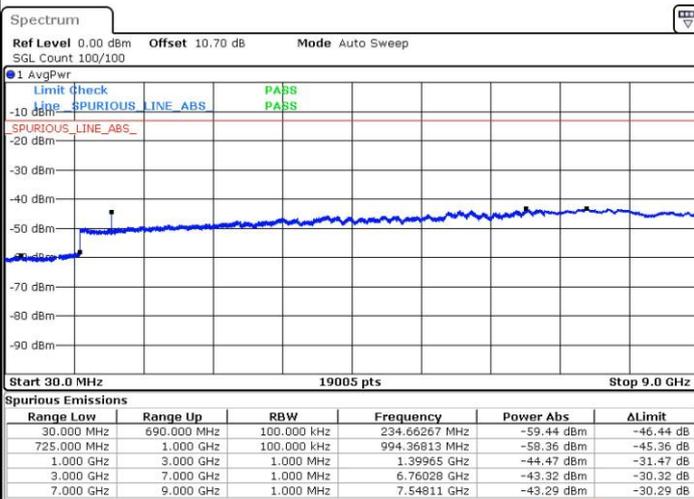
Date: 19 APR 2019 20:28:22

Date: 19 APR 2019 20:27:41

LTE Band 12 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



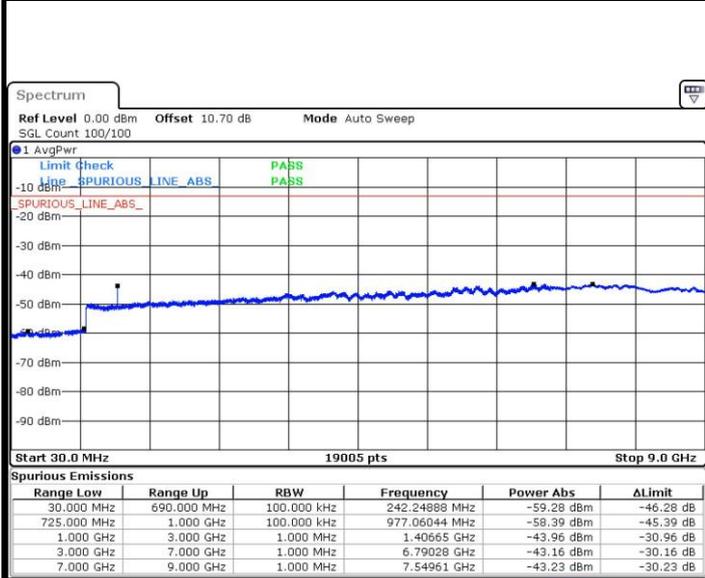
Date: 19 APR 2019 20:33:57

Date: 19 APR 2019 20:34:38



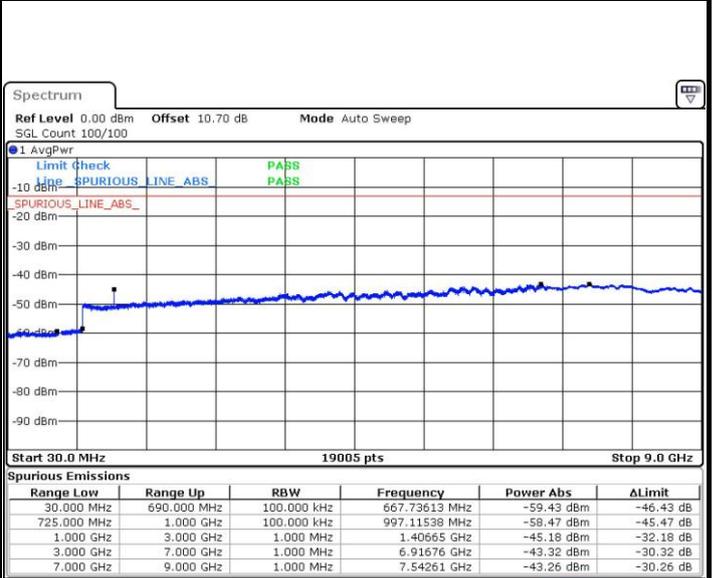
**LTE Band 12 / 10MHz**

**Middle Channel / QPSK**



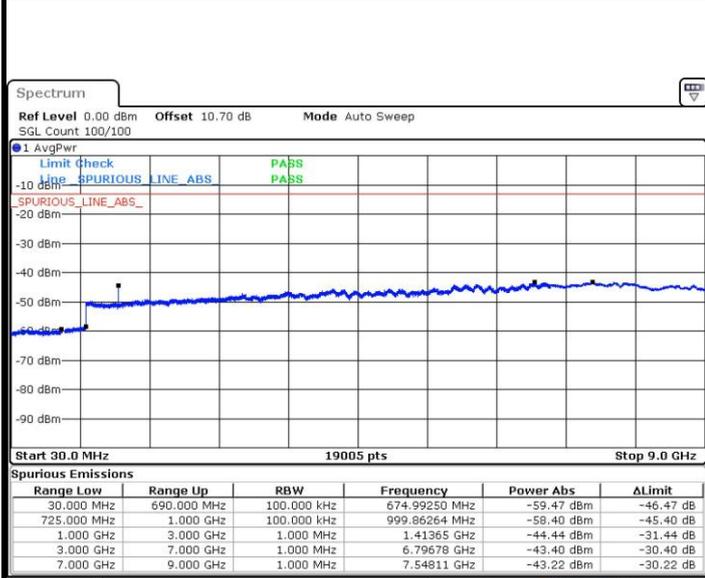
Date: 19 APR 2019 20:36:47

**Middle Channel / 16QAM**



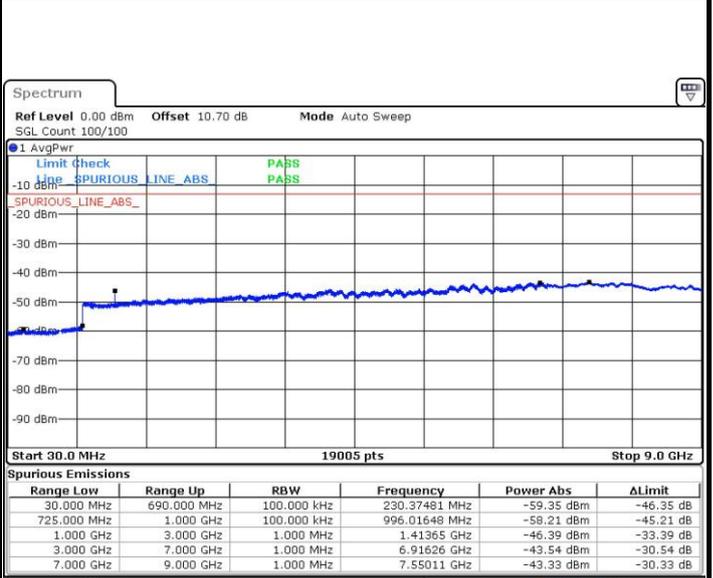
Date: 19 APR 2019 20:36:06

**Highest Channel / QPSK**



Date: 19 APR 2019 20:42:21

**Highest Channel / 16QAM**



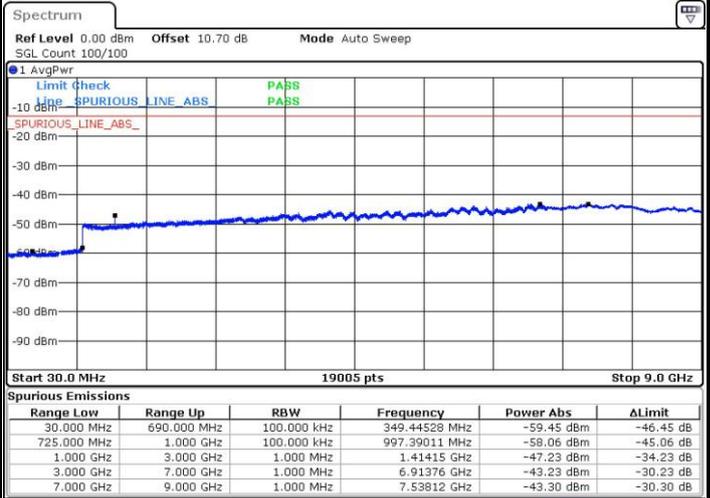
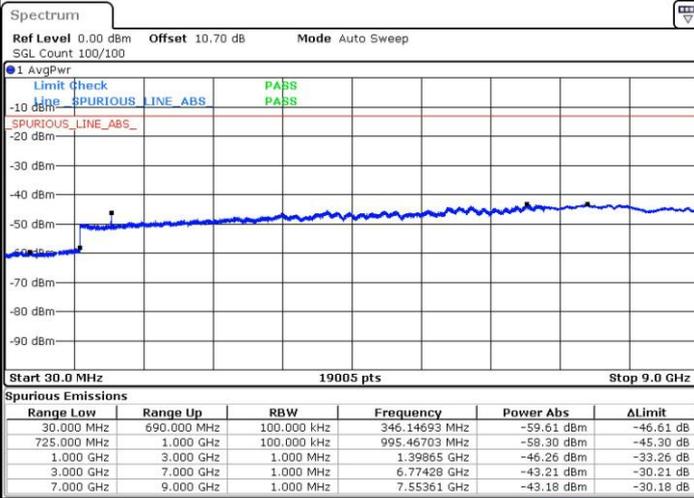
Date: 19 APR 2019 20:43:02



LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

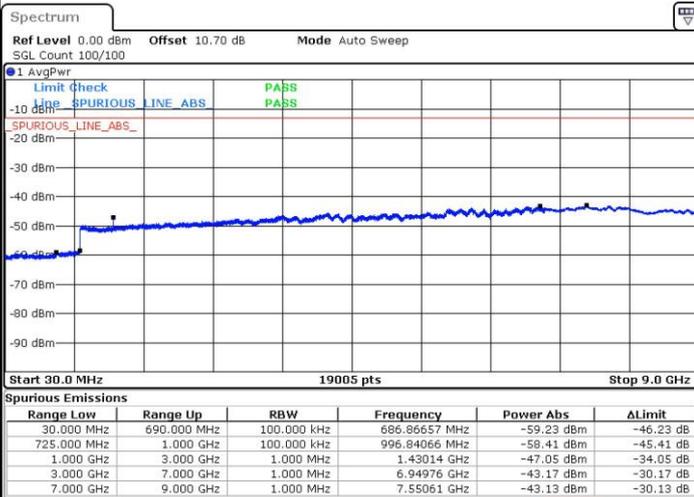
Middle Channel / 64QAM



Date: 19 APR 2019 22:27:46

Date: 19 APR 2019 22:28:51

Highest Channel / 64QAM



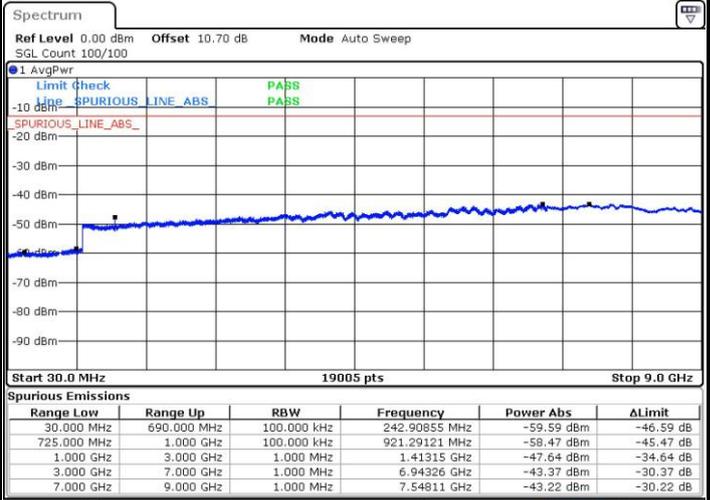
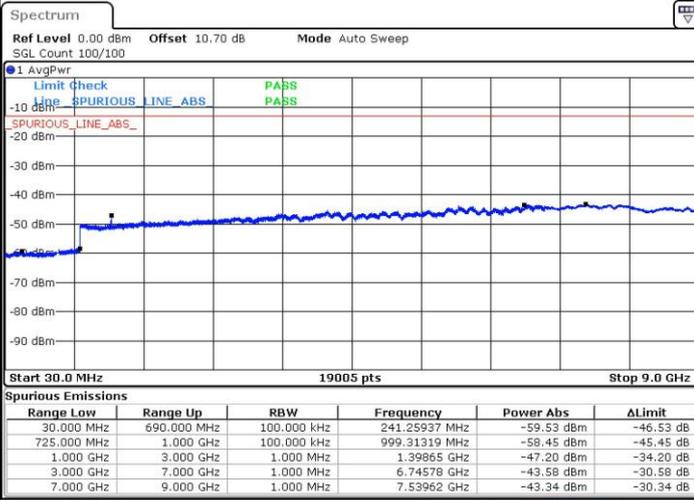
Date: 19 APR 2019 22:31:59



LTE Band 12 / 3MHz

Lowest Channel / 64QAM

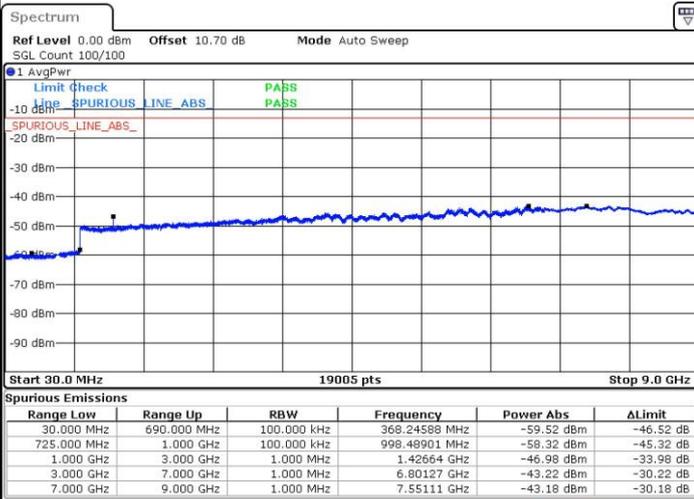
Middle Channel / 64QAM



Date: 19 APR 2019 21:06:22

Date: 19 APR 2019 21:07:27

Highest Channel / 64QAM



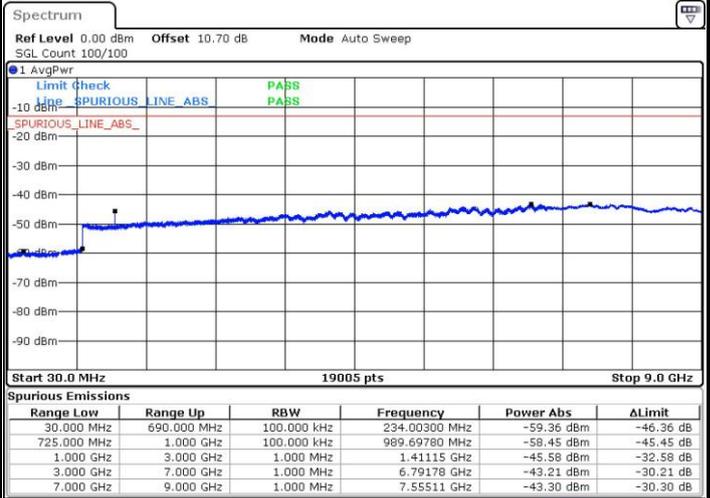
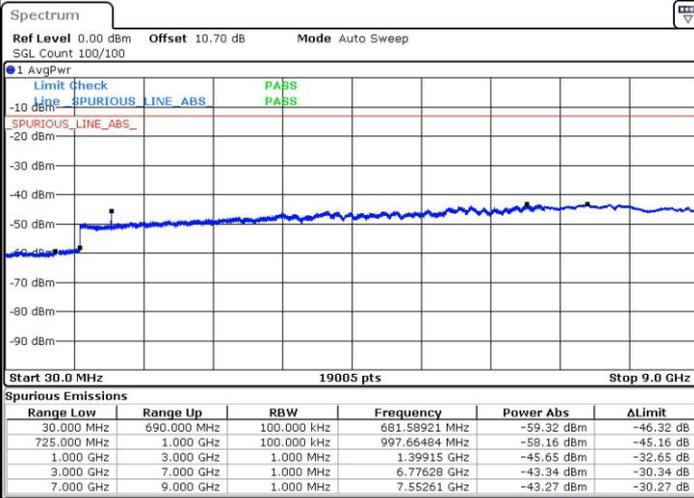
Date: 19 APR 2019 21:10:34



LTE Band 12 / 5MHz

Lowest Channel / 64QAM

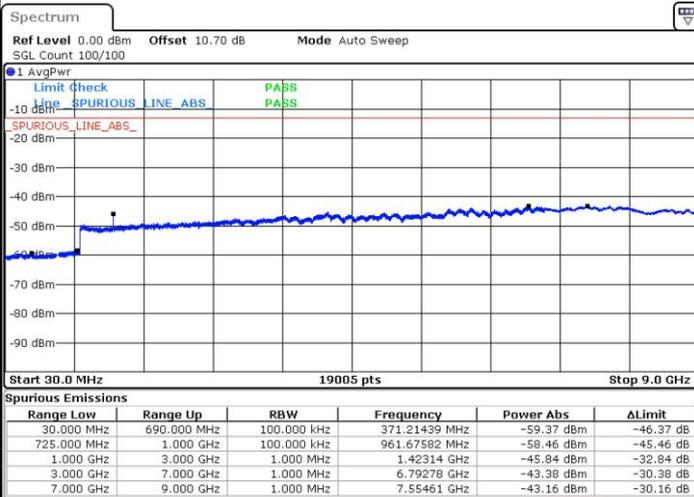
Middle Channel / 64QAM



Date: 19 APR 2019 22:09:21

Date: 19 APR 2019 22:10:25

Highest Channel / 64QAM



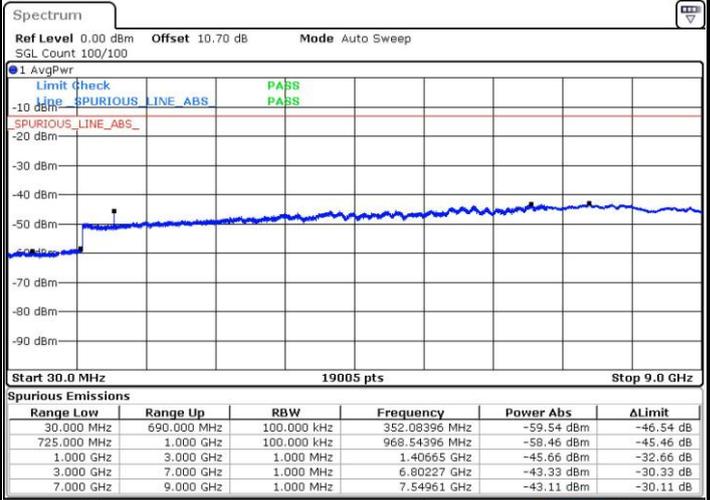
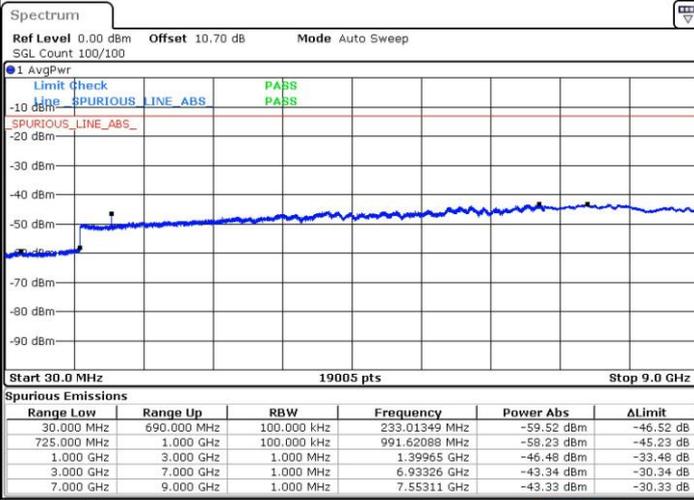
Date: 19 APR 2019 22:13:33



LTE Band 12 / 10MHz

Lowest Channel / 64QAM

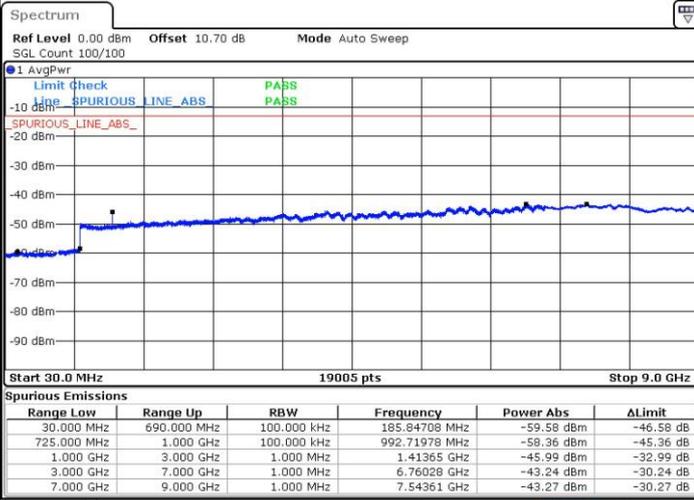
Middle Channel / 64QAM



Date: 19 APR 2019 22:16:41

Date: 19 APR 2019 22:17:45

Highest Channel / 64QAM



Date: 19 APR 2019 22:20:53



Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0078	PASS
40	Normal Voltage	0.0054	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0086	
0	Normal Voltage	0.0071	
-10	Normal Voltage	0.0069	
-20	Normal Voltage	0.0073	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0057	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0051	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

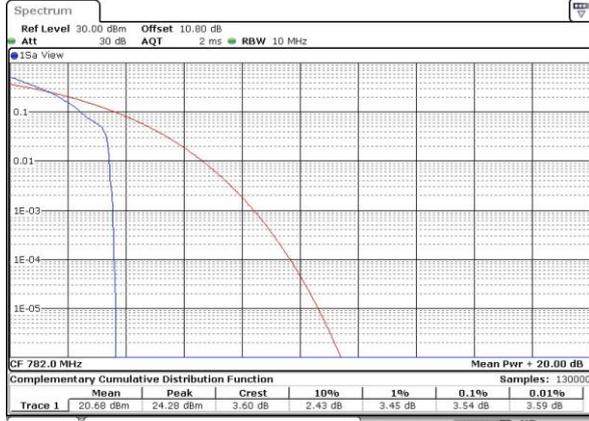
## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.54	4.38	4.14	5.36	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.10	5.97	-	-	
Highest CH	-	-	-	-	



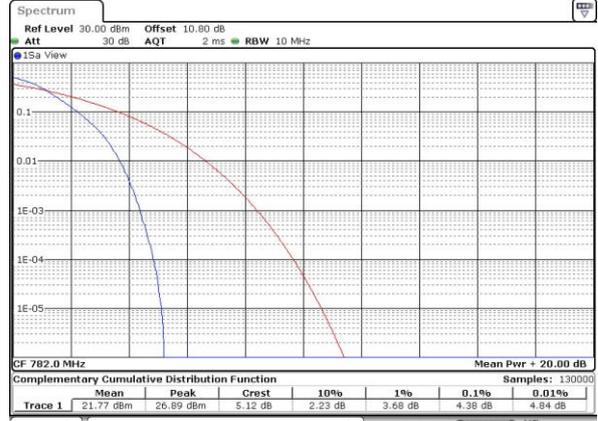
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 19 APR 2019 23:30:25

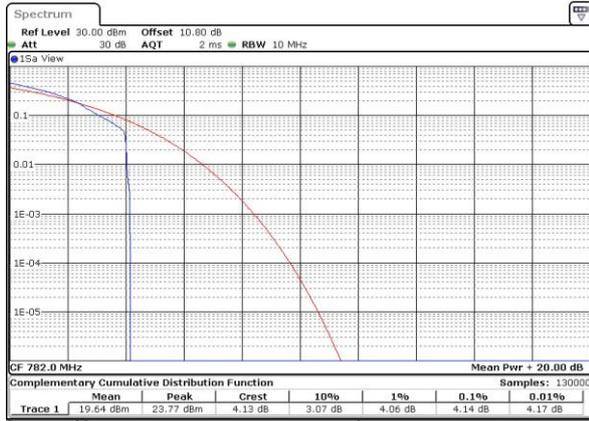
Middle Channel / Full RB



Date: 19 APR 2019 23:30:43

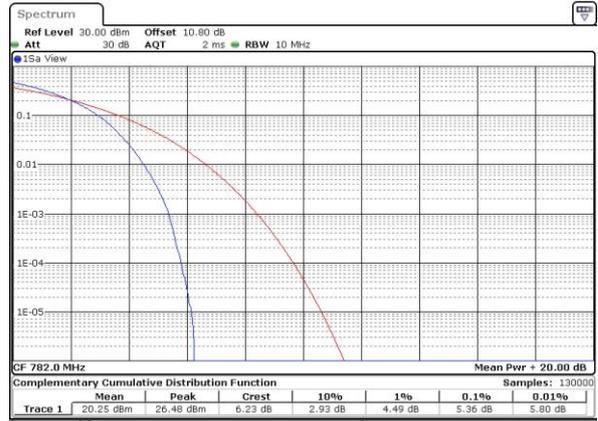
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 19 APR 2019 23:30:04

Middle Channel / Full RB



Date: 19 APR 2019 23:30:14

LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 19 APR 2019 23:29:35

Middle Channel / Full RB



Date: 19 APR 2019 23:29:46



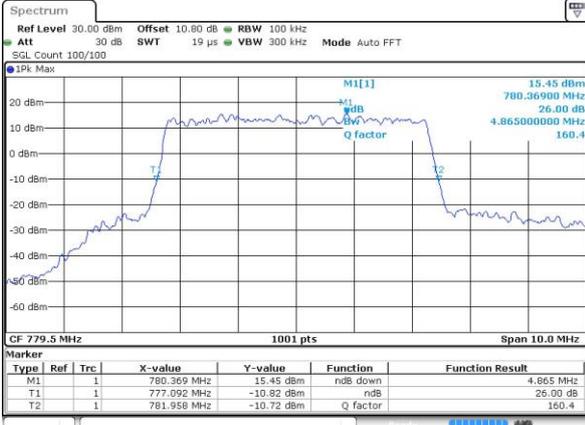
**26dB Bandwidth**

Mode	LTE Band 13 : 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	-	-	-	-	4.87	4.91	-	-	-	-	-	-
Middle CH	-	-	-	-	4.89	4.89	9.77	9.85	-	-	-	-
Highest CH	-	-	-	-	4.88	4.83	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.86	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.95	-	9.79	-	-	-	-	-
Highest CH	-	-	-	-	4.88	-	-	-	-	-	-	-



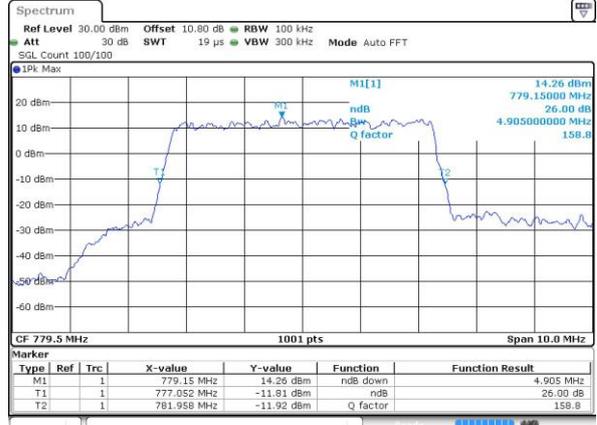
LTE Band 13

Lowest Channel / 5MHz / QPSK



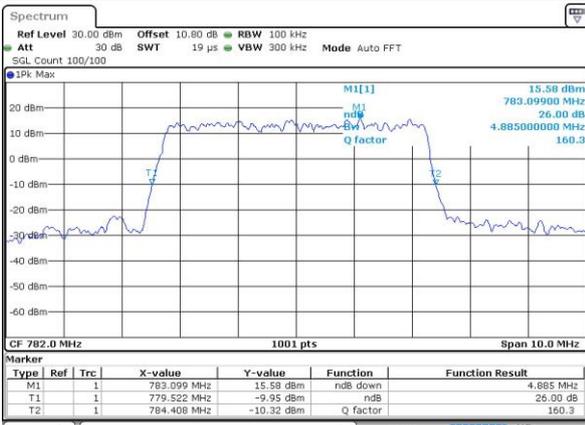
Date: 19 APR 2019 22:39:20

Lowest Channel / 5MHz / 16QAM



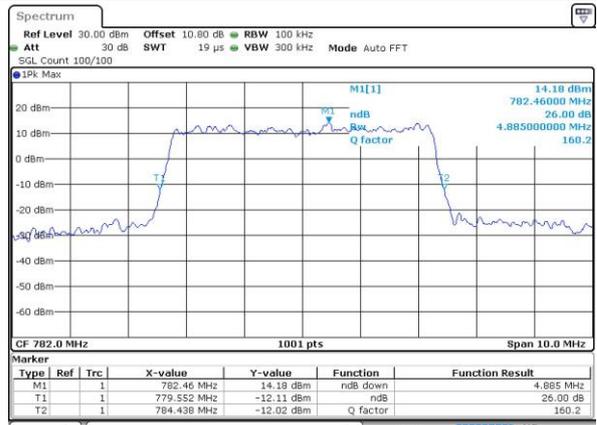
Date: 19 APR 2019 22:39:07

Middle Channel / 5MHz / QPSK



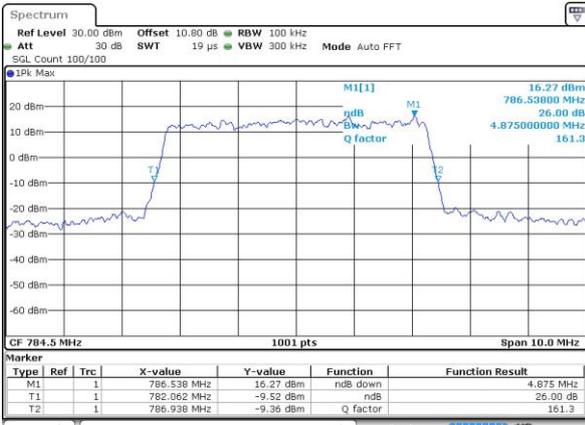
Date: 19 APR 2019 22:48:59

Middle Channel / 5MHz / 16QAM



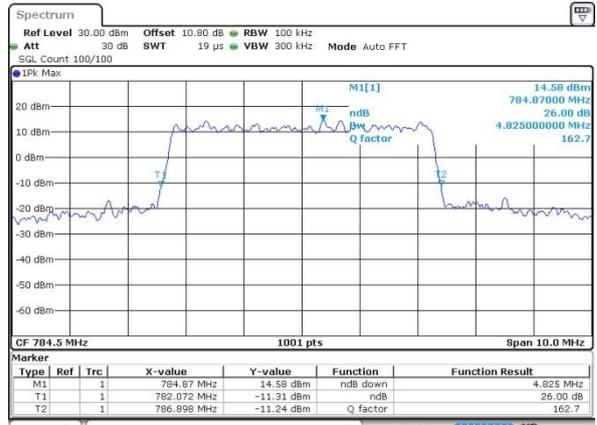
Date: 19 APR 2019 22:49:10

Highest Channel / 5MHz / QPSK



Date: 19 APR 2019 22:50:22

Highest Channel / 5MHz / 16QAM



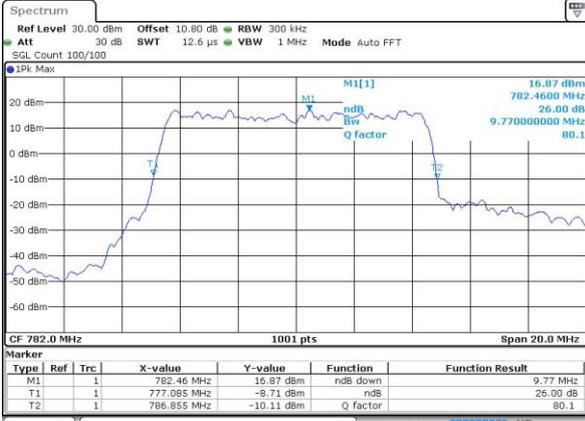
Date: 8 MAY 2019 19:46:58



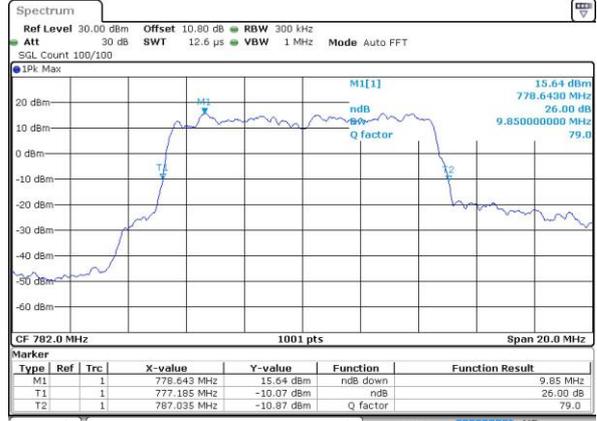
LTE Band 13

Middle Channel / 10MHz / QPSK

Middle Channel / 10MHz / 16QAM



Date: 19 APR 2019 23:09:16

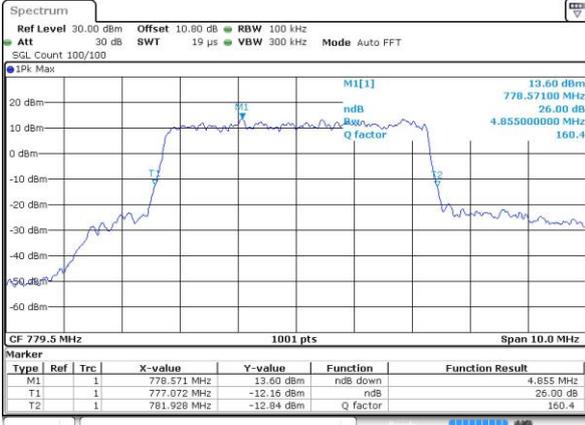


Date: 19 APR 2019 23:09:04



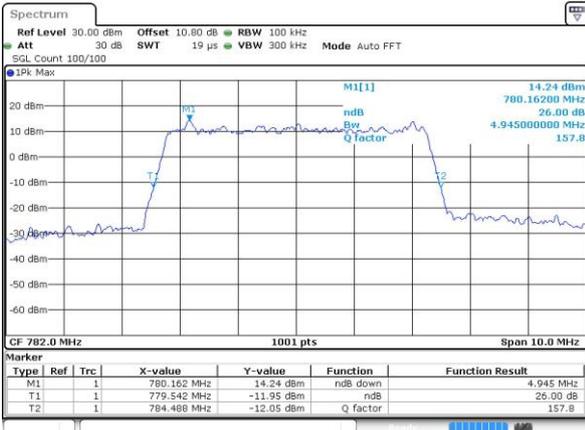
LTE Band 13

Lowest Channel / 5MHz / 64QAM



Date: 19 APR 2019 22:58:54

Middle Channel / 5MHz / 64QAM



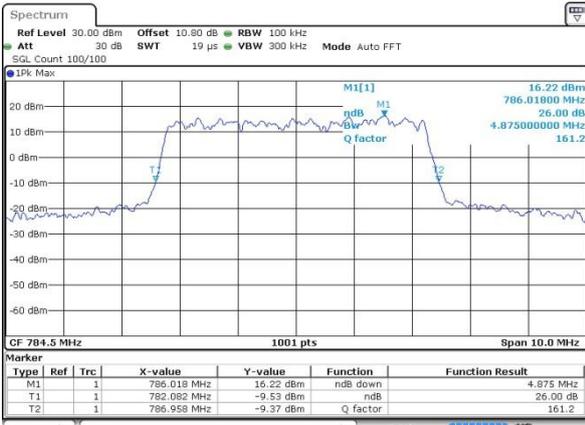
Date: 19 APR 2019 23:03:49

Middle Channel / 10MHz / 64QAM



Date: 19 APR 2019 23:21:04

Highest Channel / 5MHz / 64QAM



Date: 8 MAY 2019 19:45:16