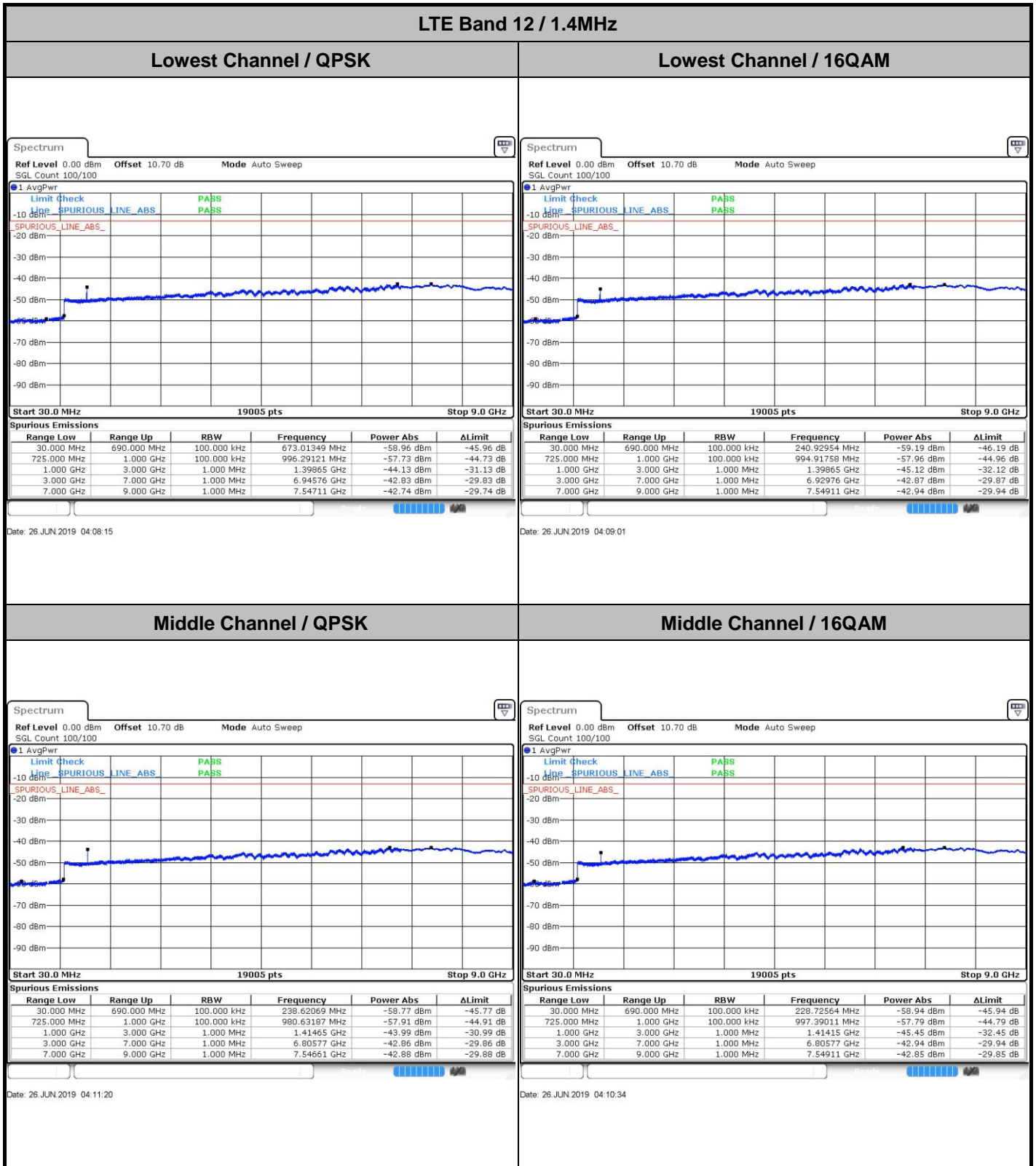




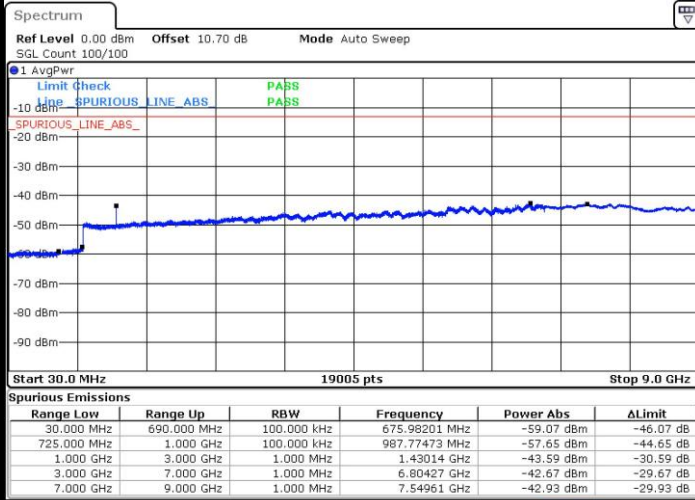
# Conducted Spurious Emission





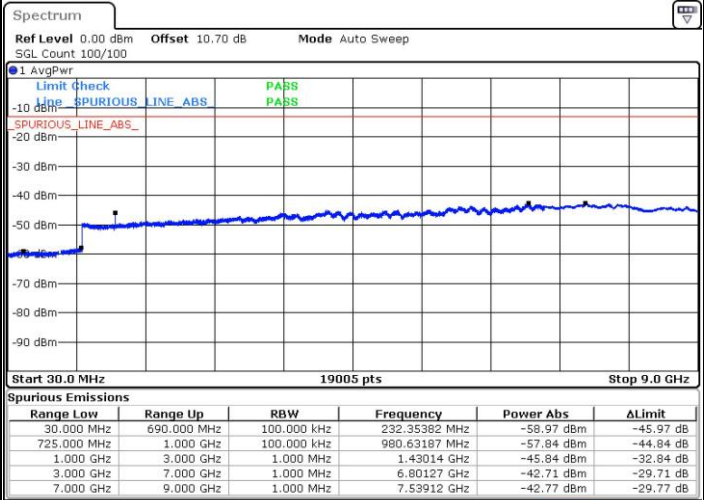
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 26 JUN 2019 04:16:59

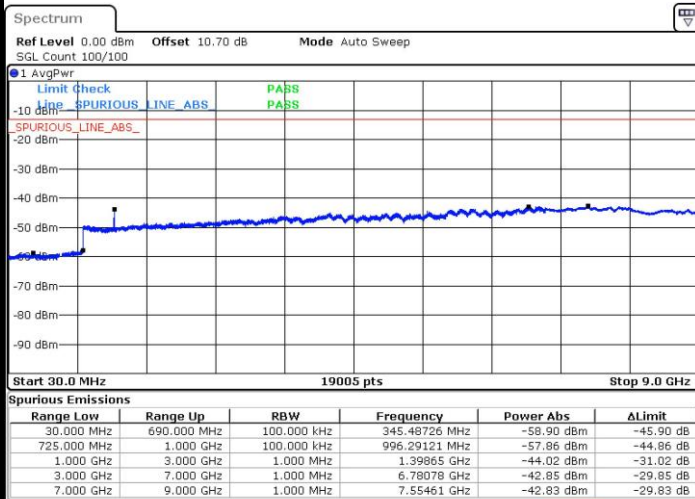
Highest Channel / 16QAM



Date: 26 JUN 2019 04:17:45

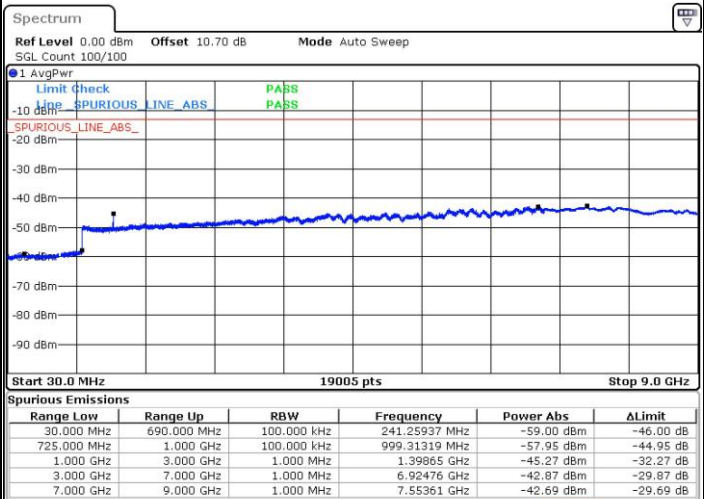
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 26 JUN 2019 02:48:38

Lowest Channel / 16QAM



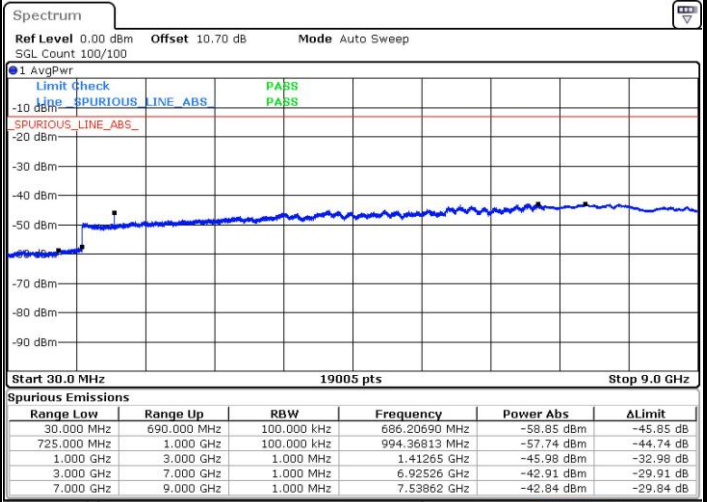
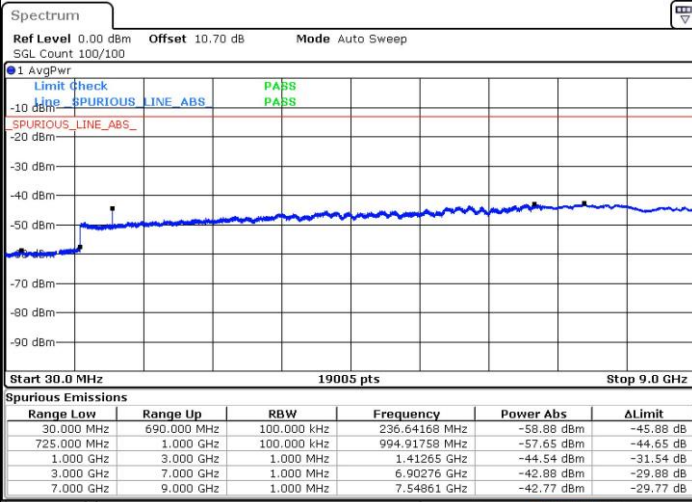
Date: 26 JUN 2019 02:49:25



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

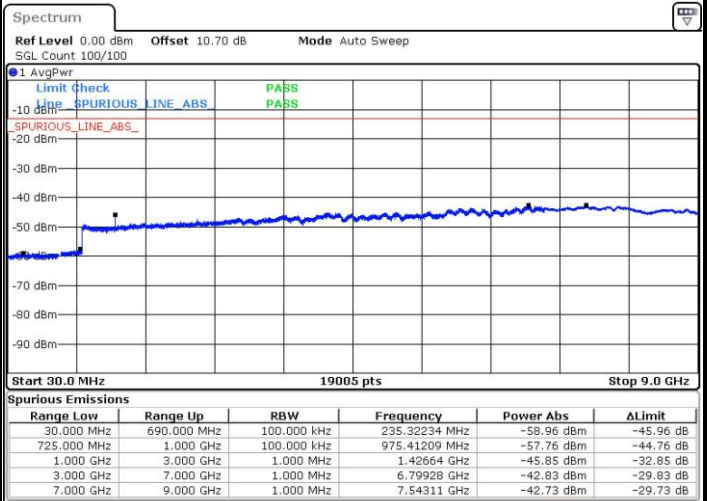
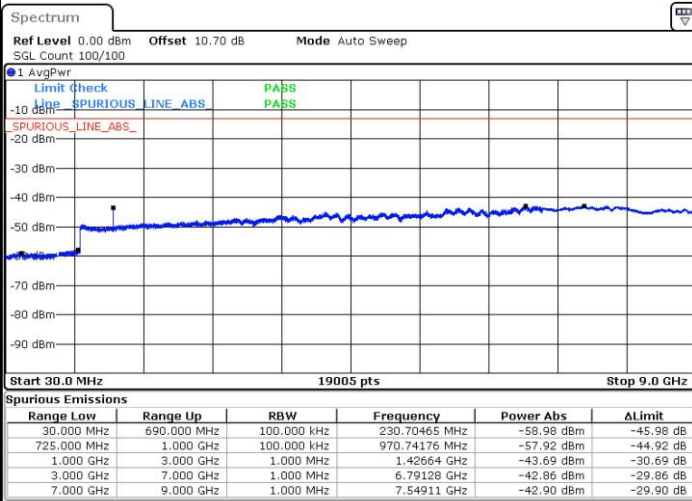


Date: 26 JUN 2019 02:51:43

Date: 26 JUN 2019 02:50:58

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 JUN 2019 02:57:22

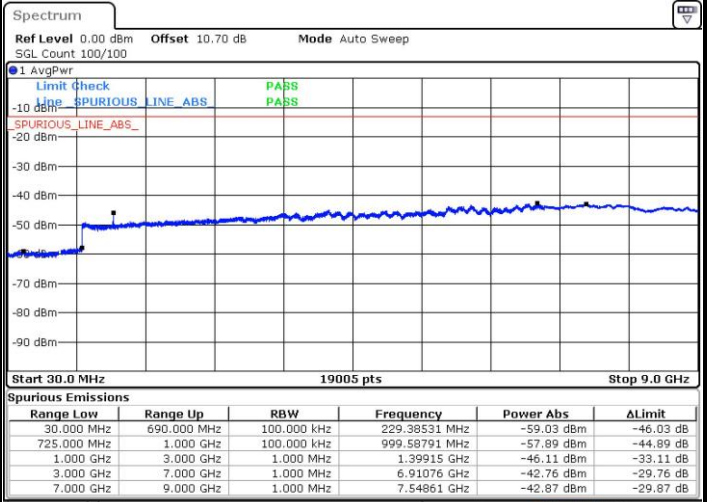
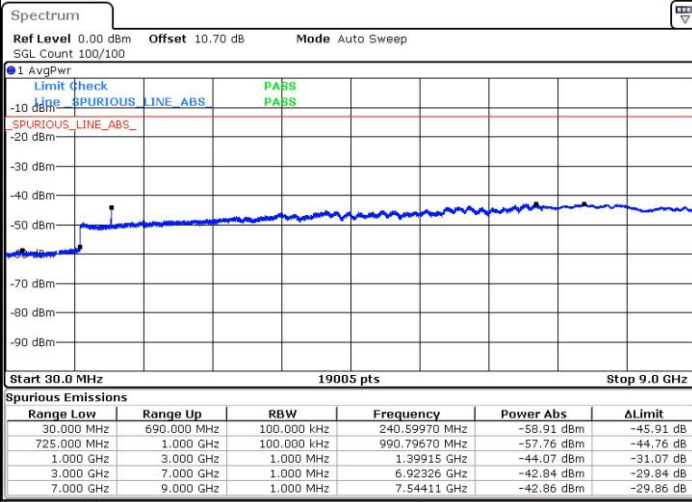
Date: 26 JUN 2019 02:58:09



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

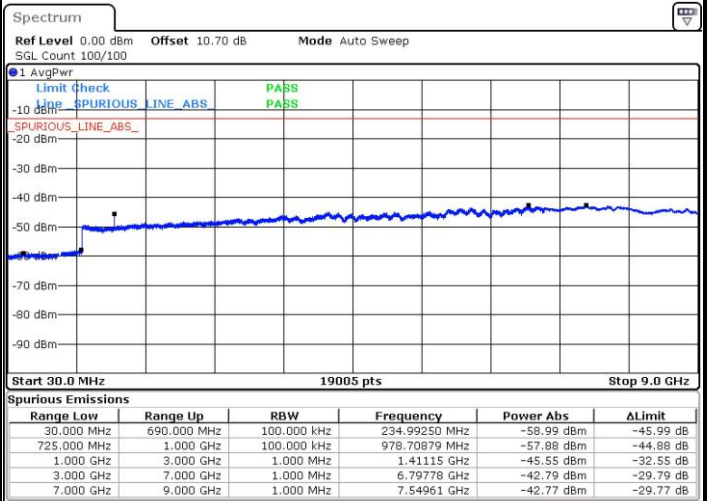
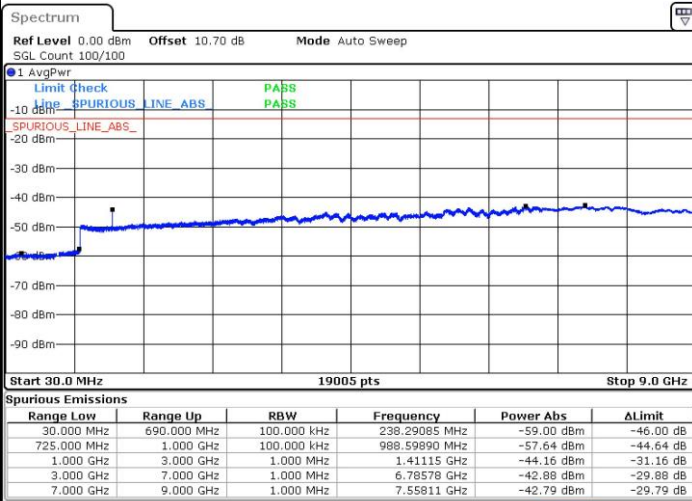


Date: 26 JUN 2019 03:19:00

Date: 26 JUN 2019 03:19:46

Middle Channel / QPSK

Middle Channel / 16QAM



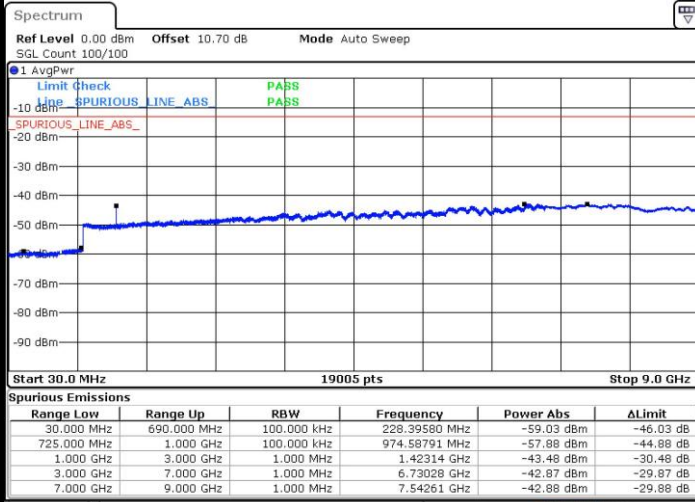
Date: 26 JUN 2019 03:22:05

Date: 26 JUN 2019 03:21:19



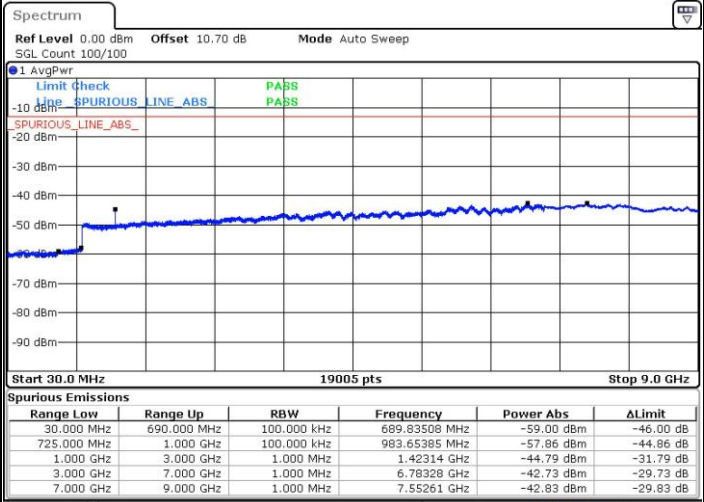
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 26 JUN 2019 03:28:30

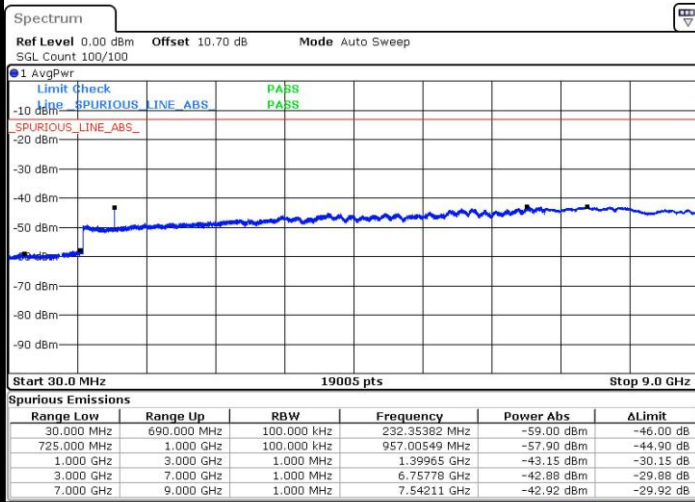
Highest Channel / 16QAM



Date: 26 JUN 2019 03:27:44

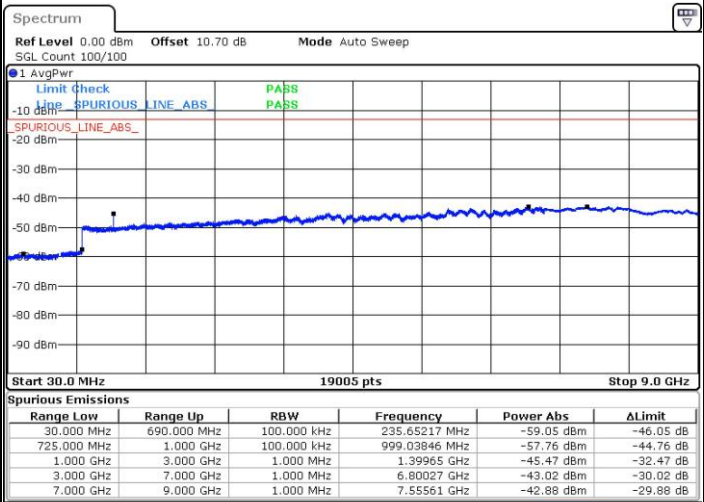
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 26 JUN 2019 03:34:10

Lowest Channel / 16QAM



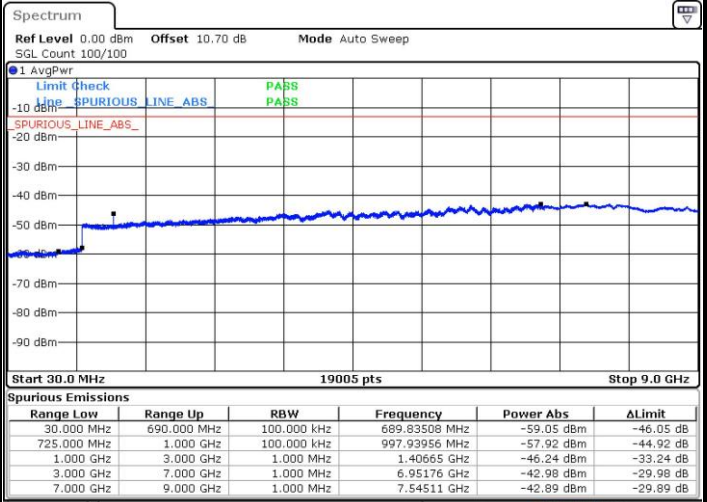
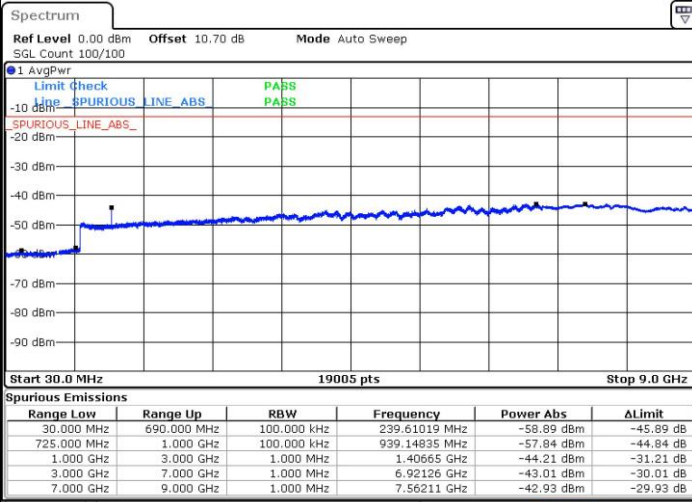
Date: 26 JUN 2019 03:34:57



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

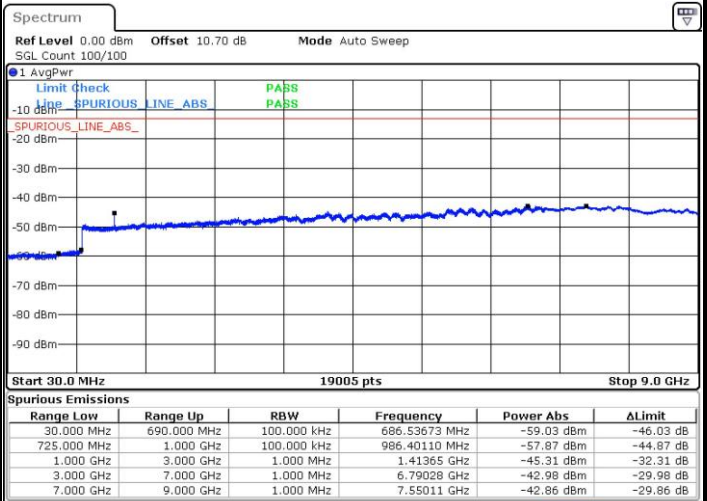
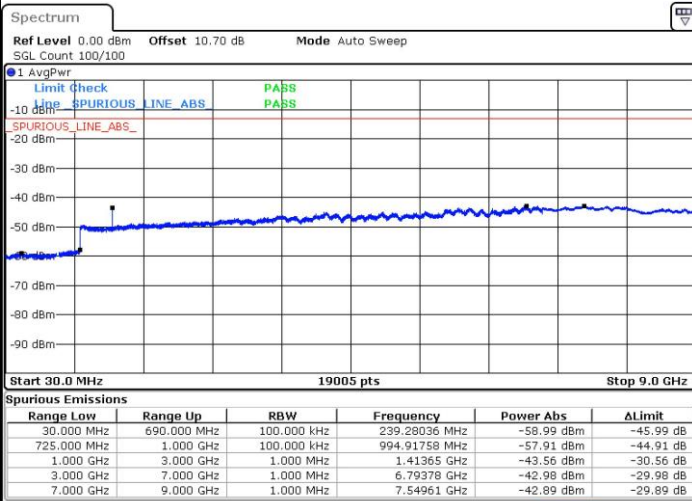


Date: 26 JUN 2019 03:37:15

Date: 26 JUN 2019 03:36:29

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 JUN 2019 03:42:54

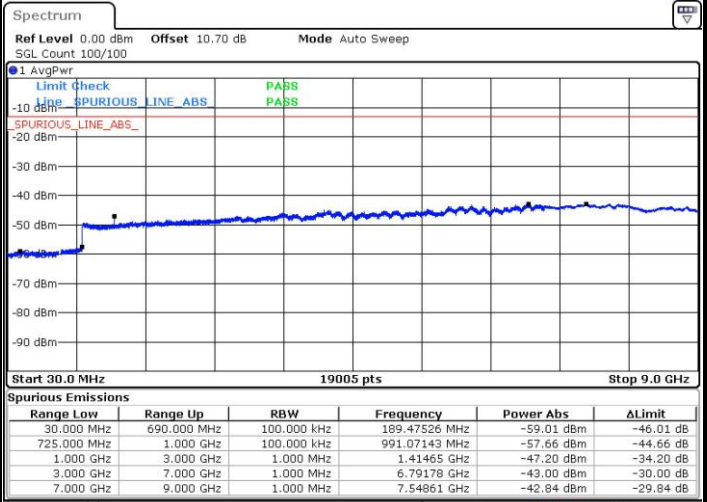
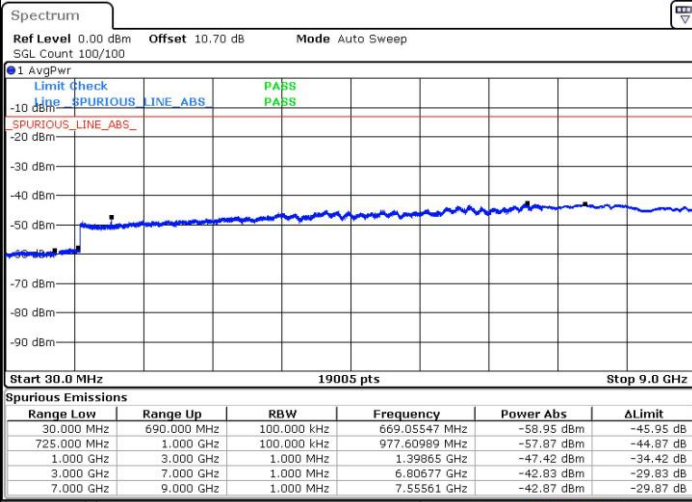
Date: 26 JUN 2019 03:43:40



LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

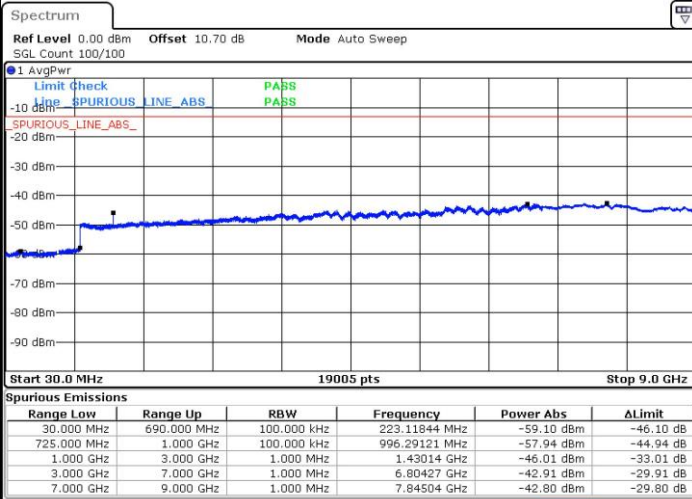
Middle Channel / 64QAM



Date: 26 JUN 2019 04:20:59

Date: 26 JUN 2019 04:22:08

Highest Channel / 64QAM



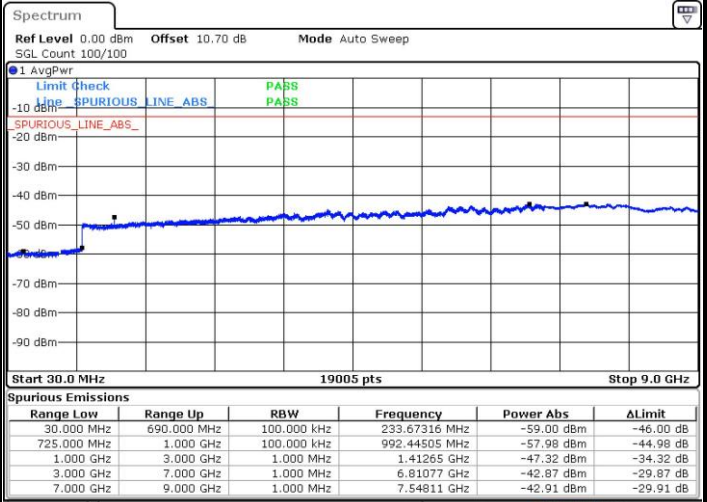
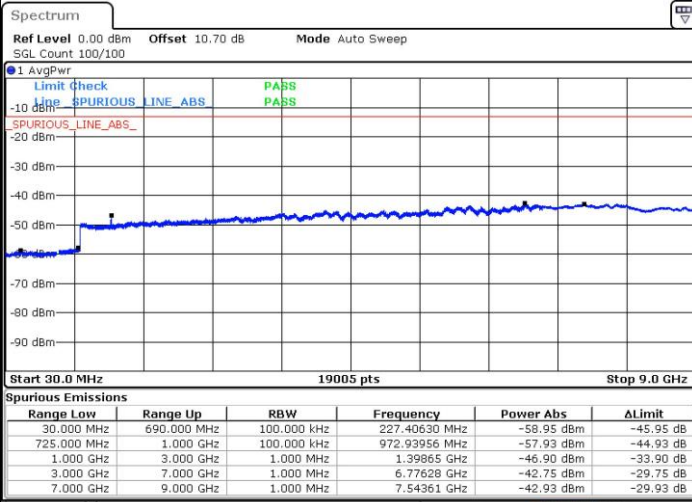
Date: 26 JUN 2019 04:25:21



LTE Band 12 / 3MHz

Lowest Channel / 64QAM

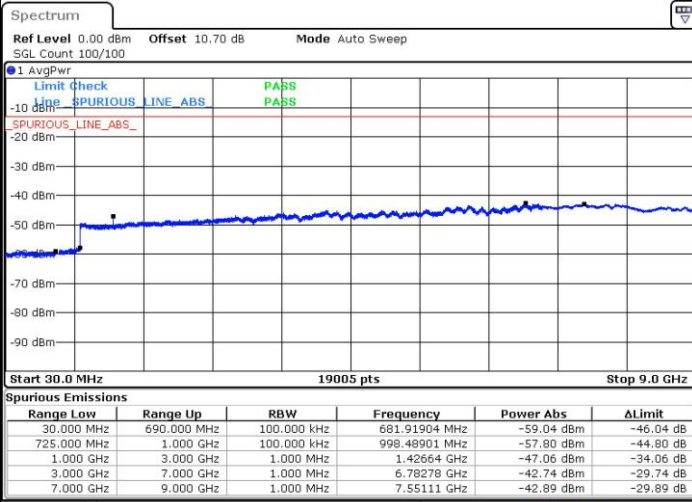
Middle Channel / 64QAM



Date: 26 JUN 2019 03:01:22

Date: 26 JUN 2019 03:02:31

Highest Channel / 64QAM



Date: 26 JUN 2019 03:05:43

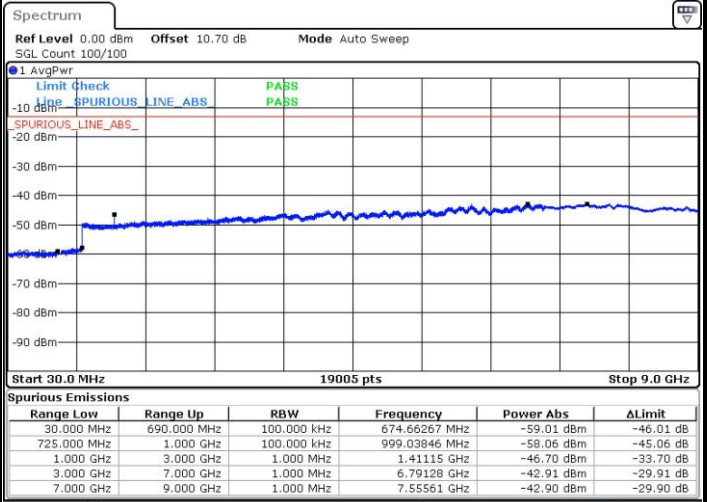
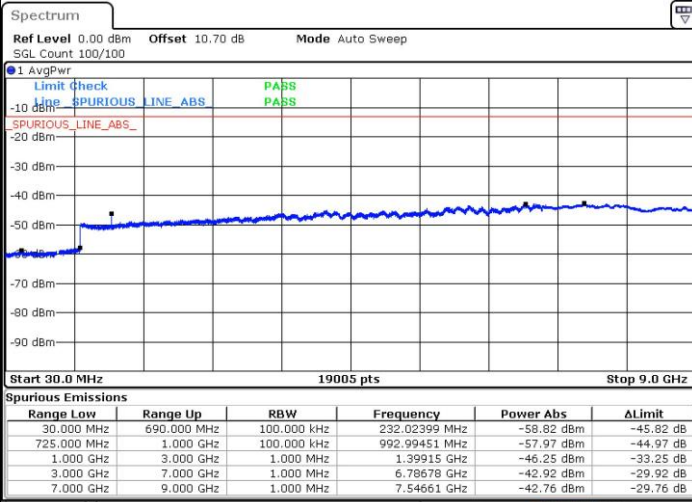




LTE Band 12 / 5MHz

Lowest Channel / 64QAM

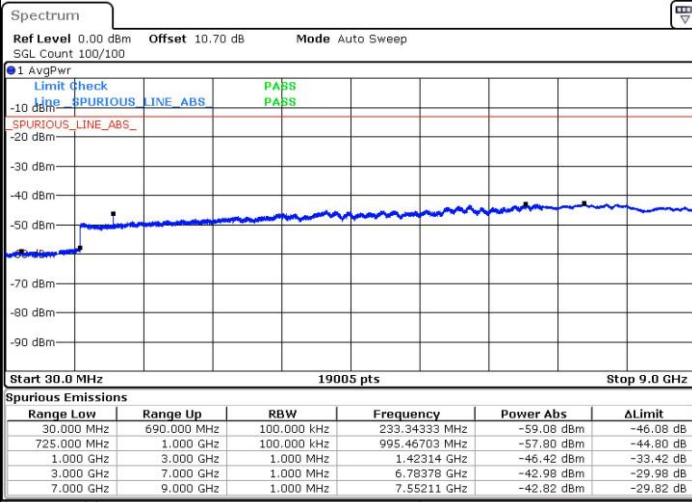
Middle Channel / 64QAM



Date: 26 JUN 2019 03:08:56

Date: 26 JUN 2019 03:10:06

Highest Channel / 64QAM



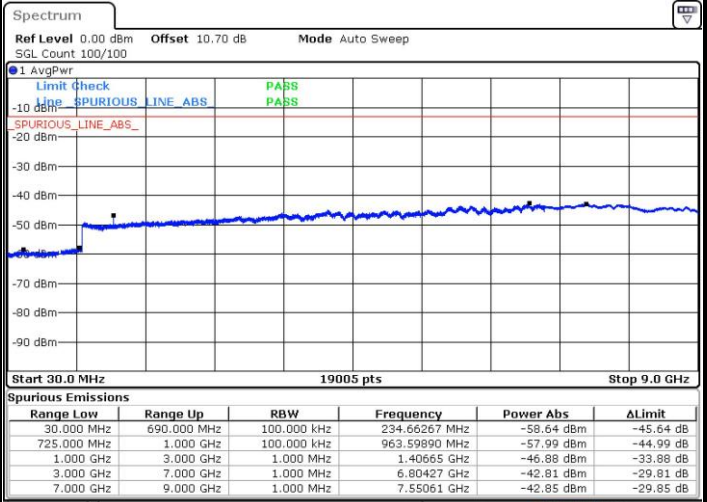
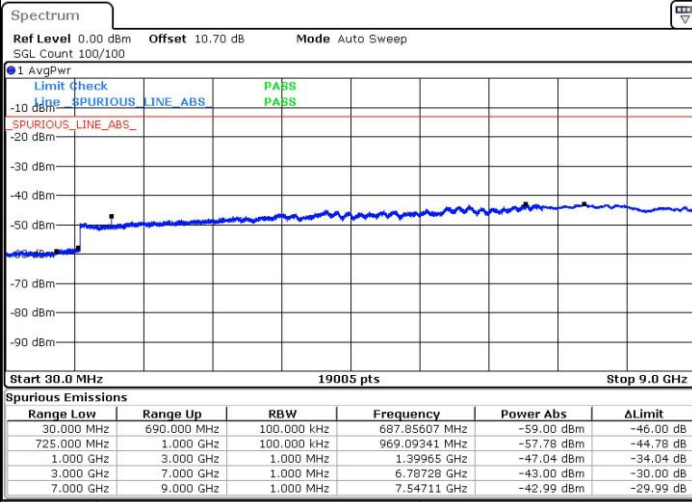
Date: 26 JUN 2019 03:13:19



LTE Band 12 / 10MHz

Lowest Channel / 64QAM

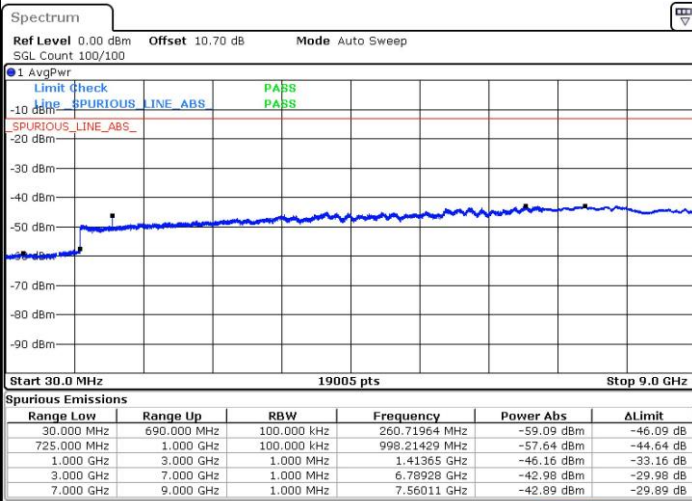
Middle Channel / 64QAM



Date: 26 JUN 2019 03:46:54

Date: 26 JUN 2019 03:48:03

Highest Channel / 64QAM



Date: 26 JUN 2019 03:56:39



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	0.0003	PASS
40	Normal Voltage	0.0034	
30	Normal Voltage	0.0021	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0033	
0	Normal Voltage	0.0037	
-10	Normal Voltage	0.0047	
-20	Normal Voltage	0.0066	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0031	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0129	

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

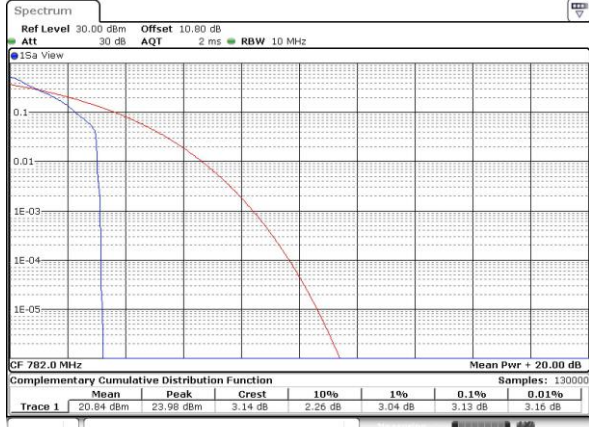
### Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.13	4.81	3.94	5.62	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.75	6.20	-	-	
Highest CH	-	-	-	-	



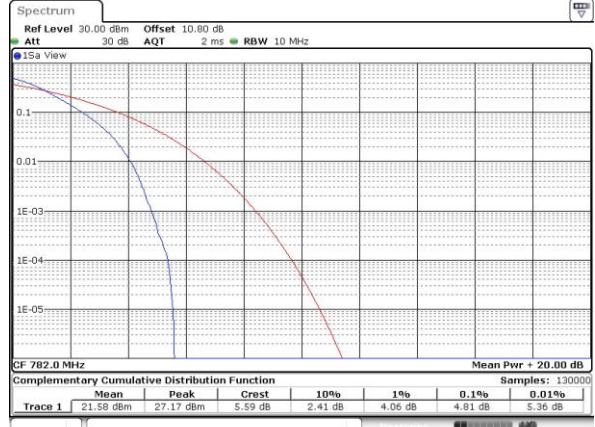
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 26 JUN 2019 07:56:07

Middle Channel / Full RB



Date: 26 JUN 2019 07:56:17

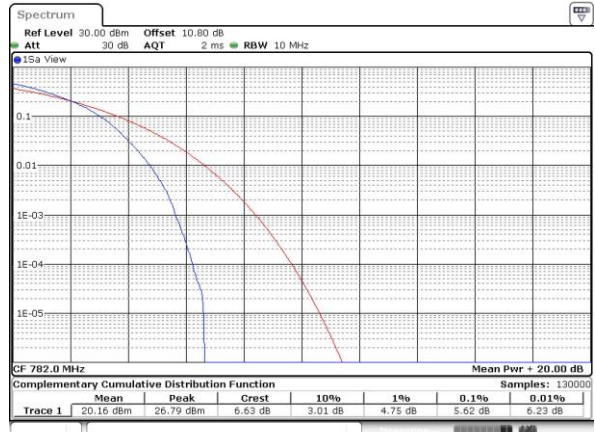
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 26 JUN 2019 07:55:46

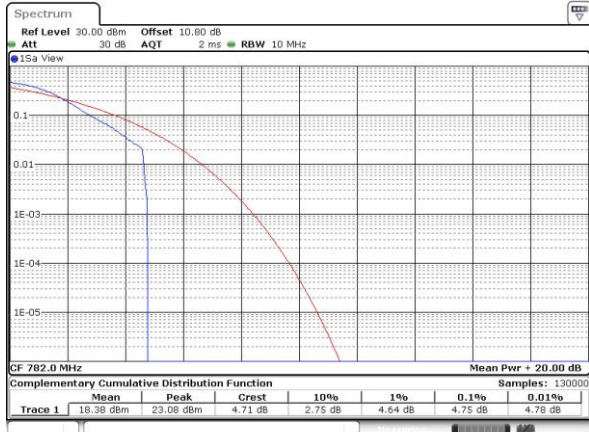
Middle Channel / Full RB



Date: 26 JUN 2019 07:55:56

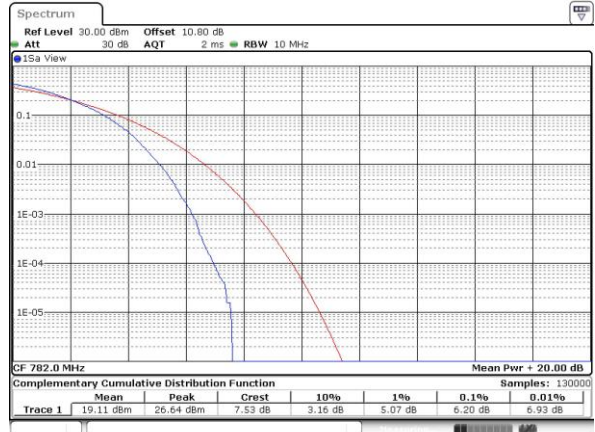
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 26 JUN 2019 07:55:25

Middle Channel / Full RB



Date: 26 JUN 2019 07:55:35



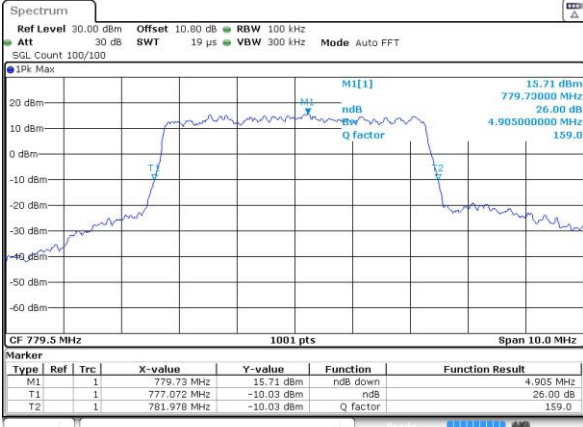
**26dB Bandwidth**

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	-	-	-	-	4.91	4.87	-	-	-	-	-	-
Middle CH	-	-	-	-	4.93	4.91	9.75	9.81	-	-	-	-
Highest CH	-	-	-	-	4.89	4.91	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.89	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.86	-	9.79	-	-	-	-	-
Highest CH	-	-	-	-	4.99	-	-	-	-	-	-	-



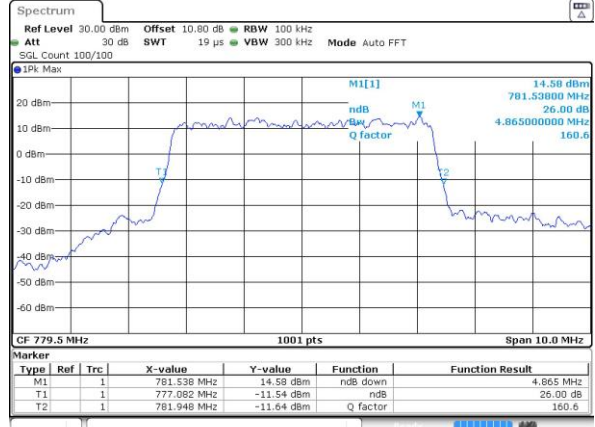
LTE Band 13

Lowest Channel / 5MHz / QPSK



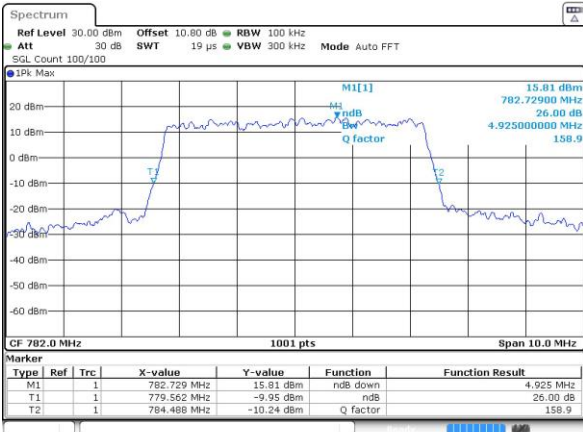
Date: 29 JUN 2019 06:23:29

Lowest Channel / 5MHz / 16QAM



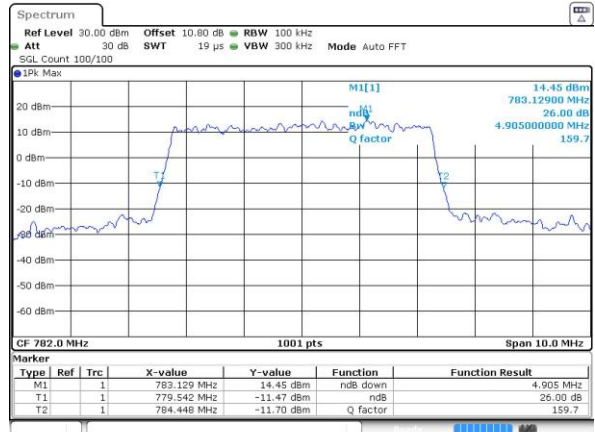
Date: 29 JUN 2019 06:23:17

Middle Channel / 5MHz / QPSK



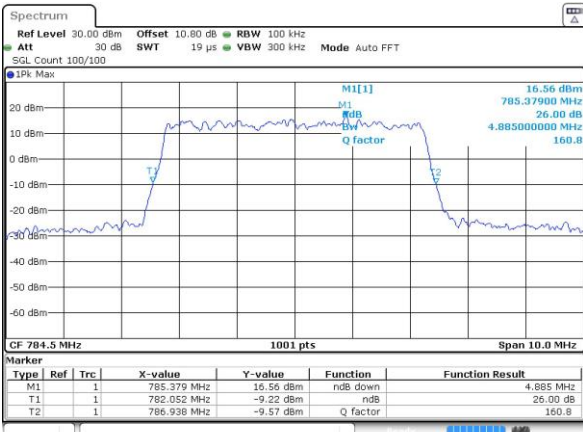
Date: 29 JUN 2019 06:23:41

Middle Channel / 5MHz / 16QAM



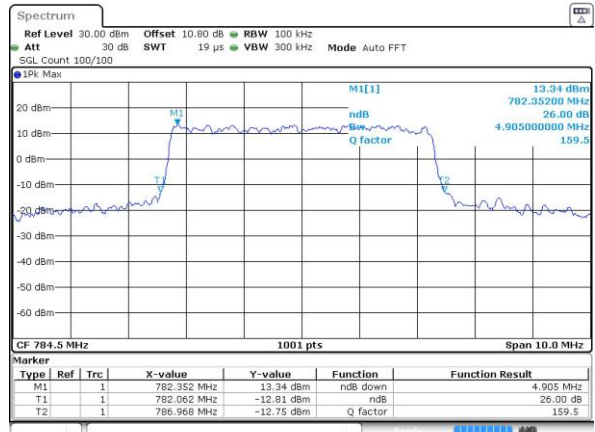
Date: 29 JUN 2019 06:23:53

Highest Channel / 5MHz / QPSK



Date: 29 JUN 2019 06:25:05

Highest Channel / 5MHz / 16QAM

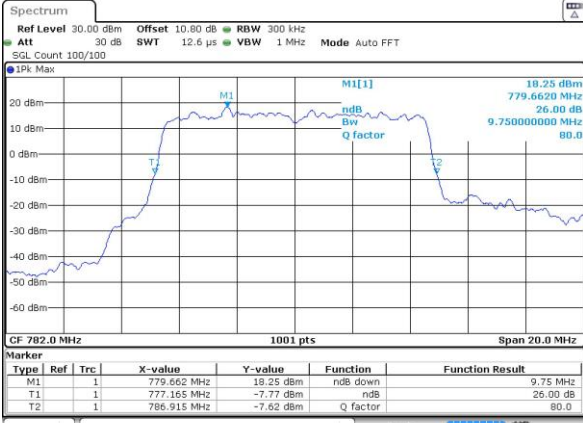


Date: 29 JUN 2019 06:25:53



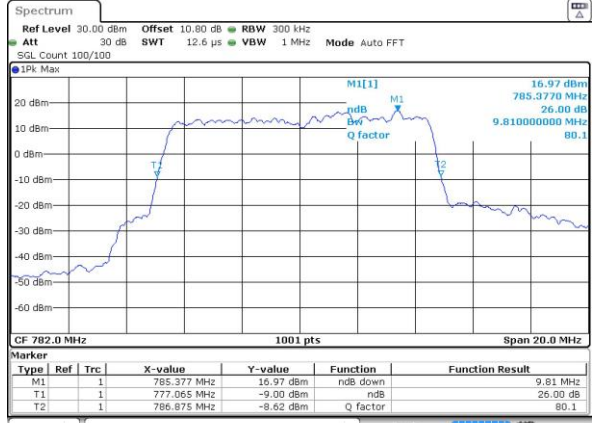
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 29 JUN 2019 06:27:05

Middle Channel / 10MHz / 16QAM



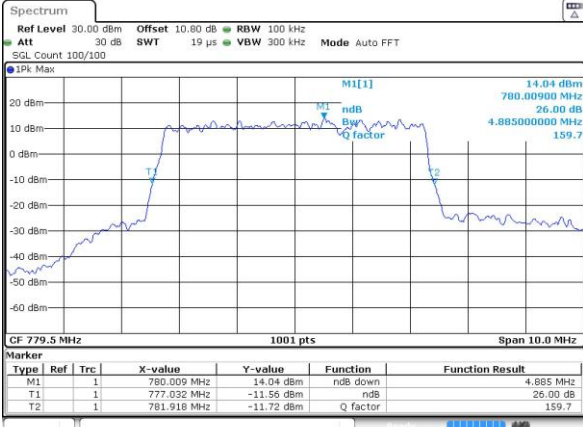
Date: 29 JUN 2019 06:26:53





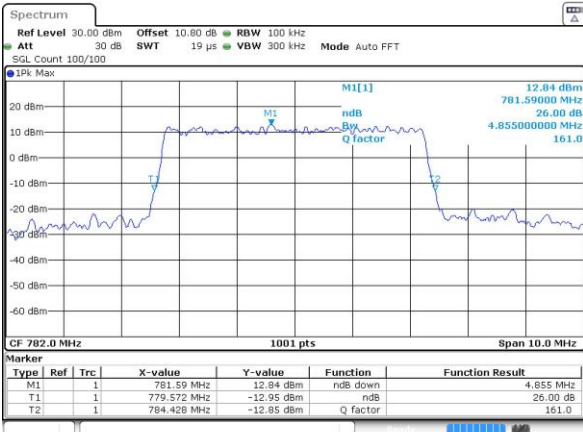
LTE Band 13

Lowest Channel / 5MHz / 64QAM



Date: 29 JUN 2019 06:25:30

Middle Channel / 5MHz / 64QAM



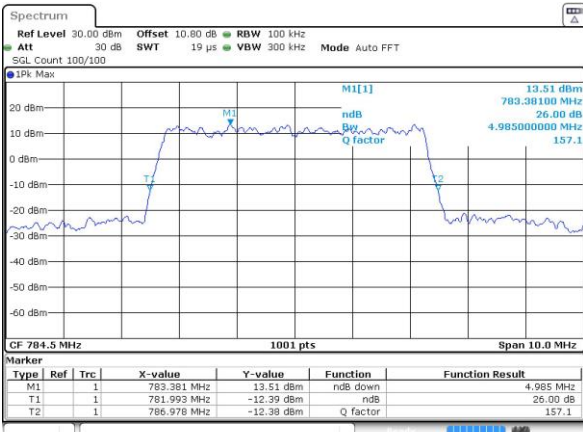
Date: 29 JUN 2019 06:25:42

Middle Channel / 10MHz / 64QAM



Date: 29 JUN 2019 06:27:28

Highest Channel / 5MHz / 64QAM



Date: 29 JUN 2019 06:28:18



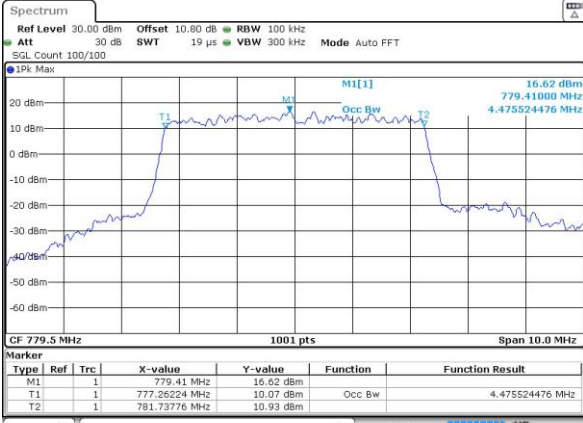
**Occupied Bandwidth**

Mode	LTE Band 13 : 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	-	-	-	-	4.48	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.49	9.07	8.99	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-



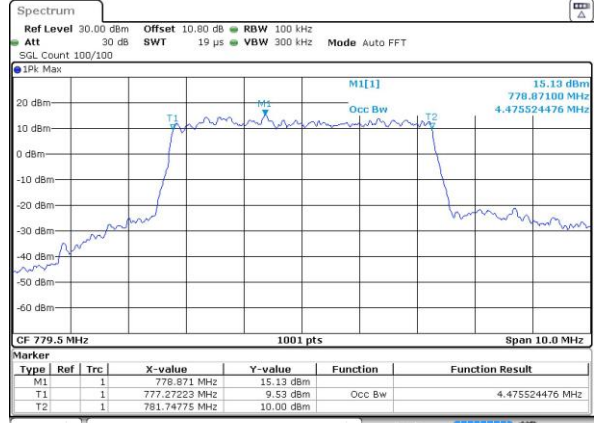
LTE Band 13

Lowest Channel / 5MHz / QPSK



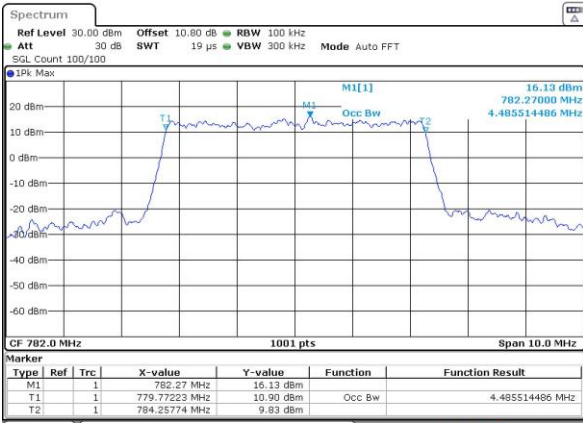
Date: 29 JUN 2019 06:22:53

Lowest Channel / 5MHz / 16QAM



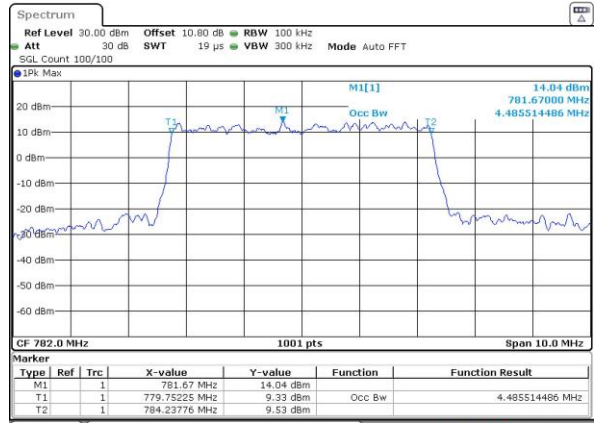
Date: 29 JUN 2019 06:23:05

Middle Channel / 5MHz / QPSK



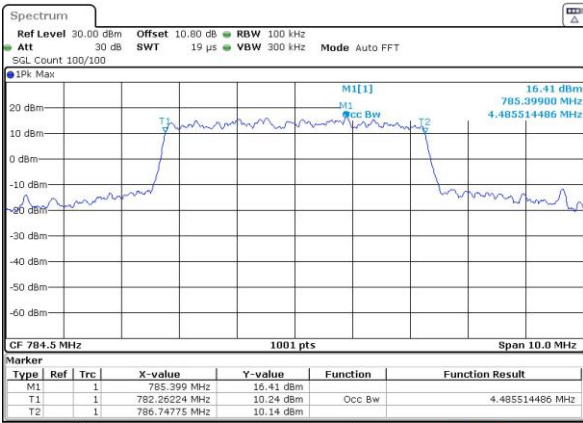
Date: 29 JUN 2019 06:24:17

Middle Channel / 5MHz / 16QAM



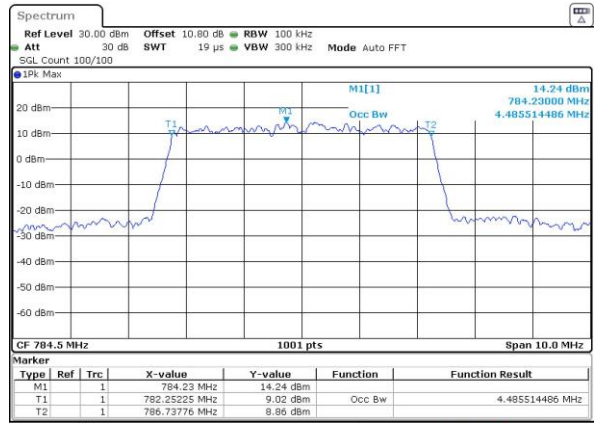
Date: 29 JUN 2019 06:24:05

Highest Channel / 5MHz / QPSK



Date: 29 JUN 2019 06:24:29

Highest Channel / 5MHz / 16QAM

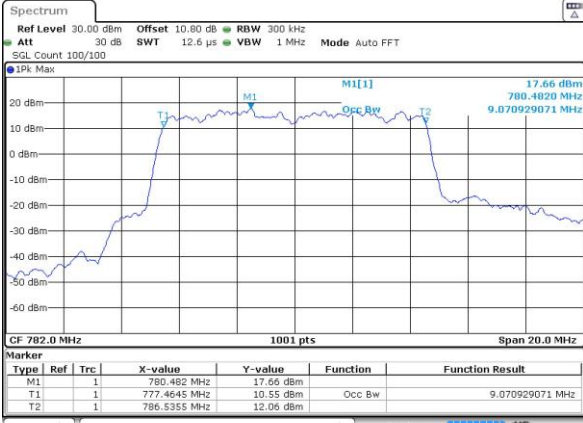


Date: 29 JUN 2019 06:24:41



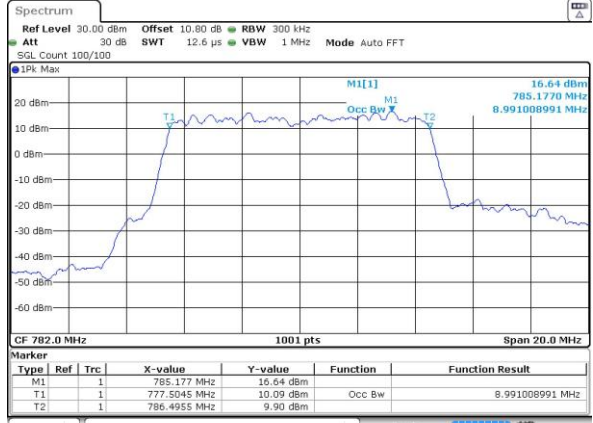
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 29 JUN 2019 06:26:30

Middle Channel / 10MHz / 16QAM

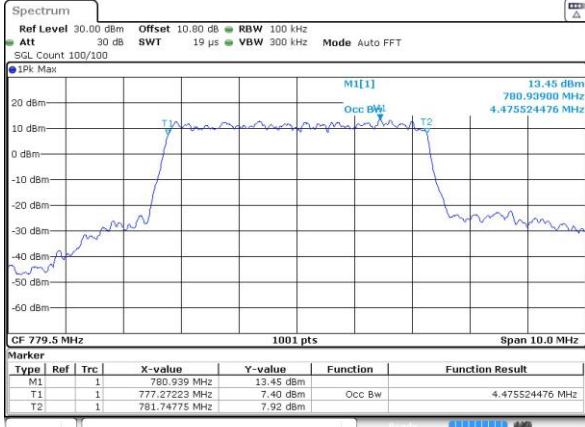


Date: 29 JUN 2019 06:26:42



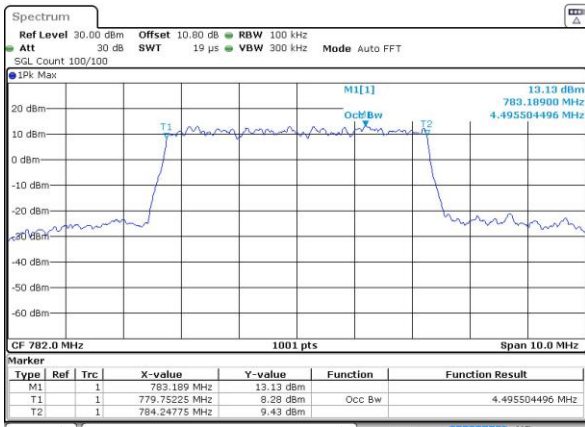
LTE Band 13

Lowest Channel / 5MHz / 64QAM



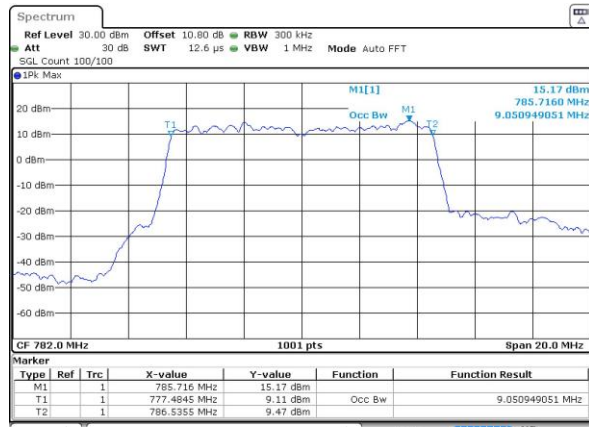
Date: 29 JUN 2019 06:25:18

Middle Channel / 5MHz / 64QAM



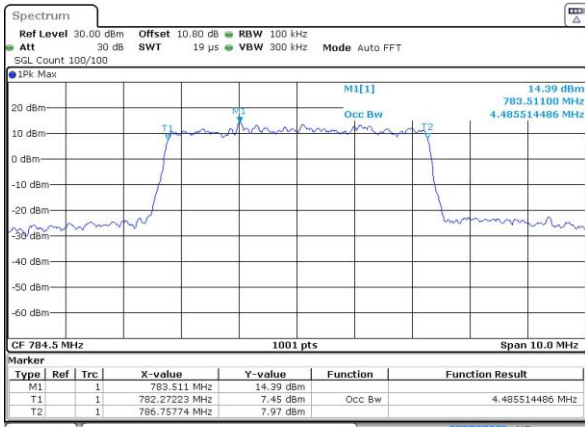
Date: 29 JUN 2019 06:25:53

Middle Channel / 10MHz / 64QAM



Date: 29 JUN 2019 06:27:17

Highest Channel / 5MHz / 64QAM



Date: 29 JUN 2019 06:26:05

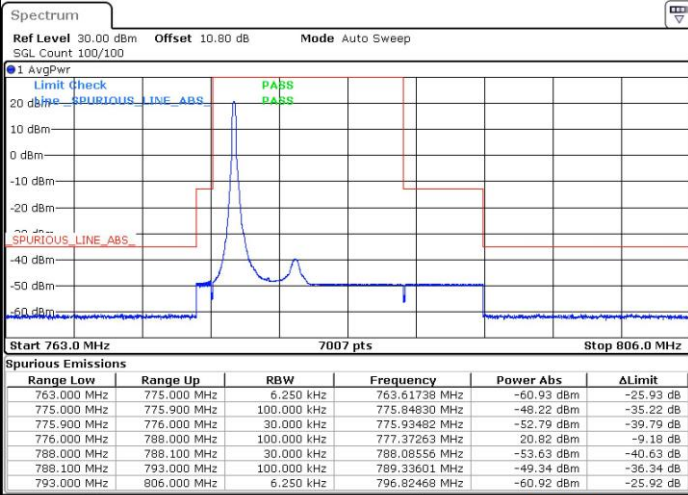


Conducted Band Edge

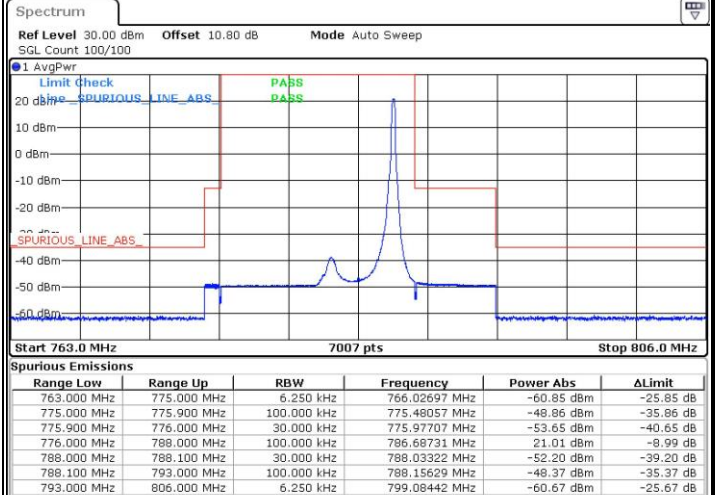
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



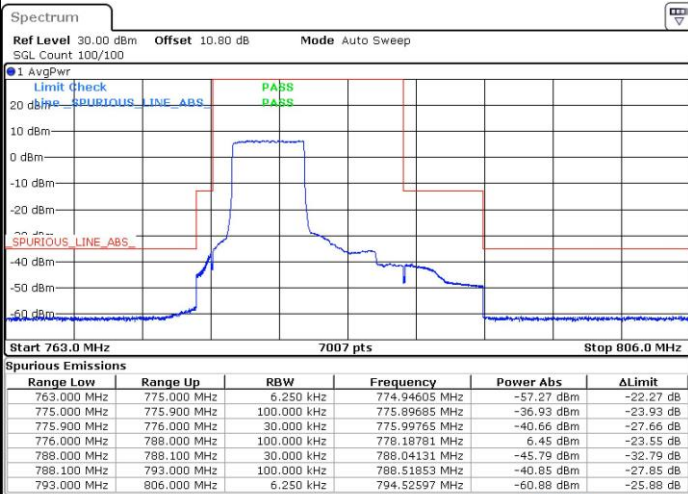
Date: 26 JUN 2019 07:04:00



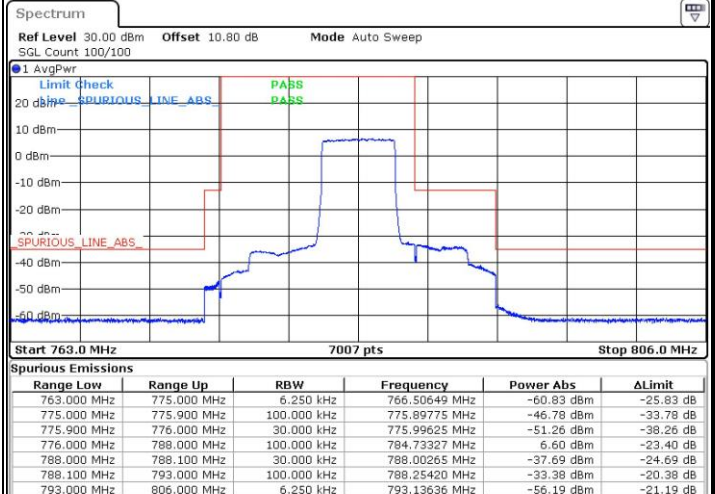
Date: 26 JUN 2019 07:15:25

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 26 JUN 2019 06:58:56



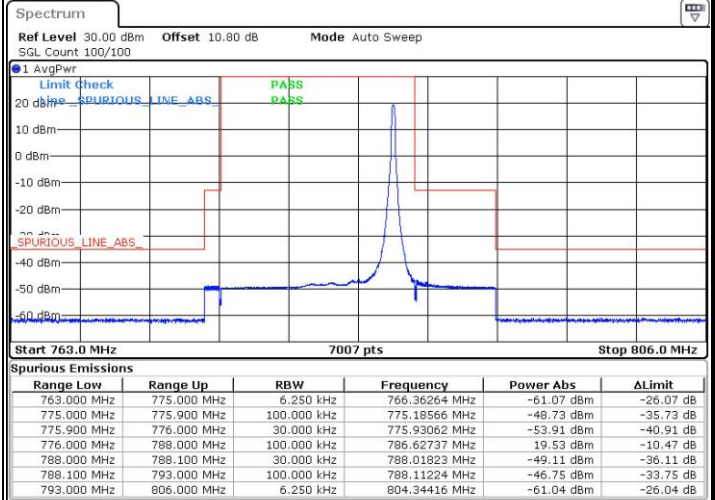
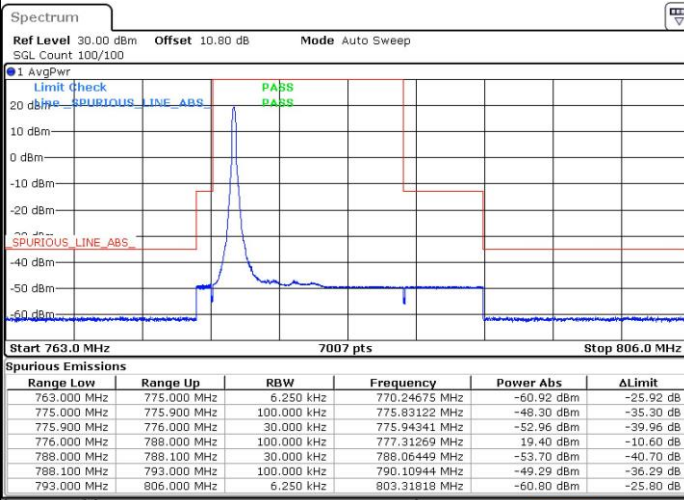
Date: 26 JUN 2019 07:10:21



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

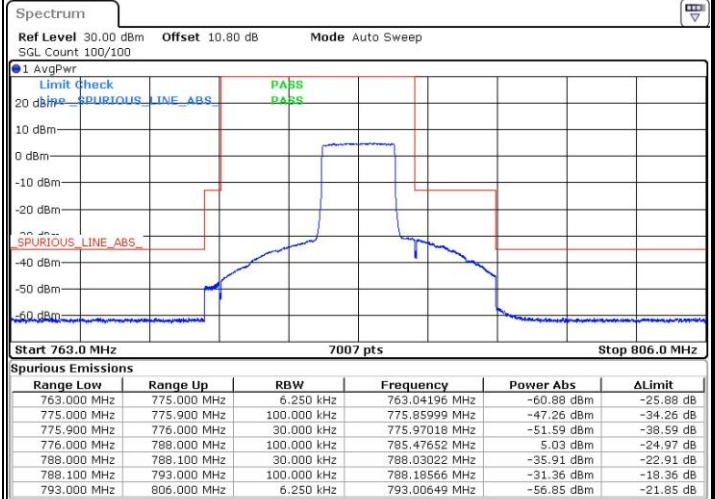
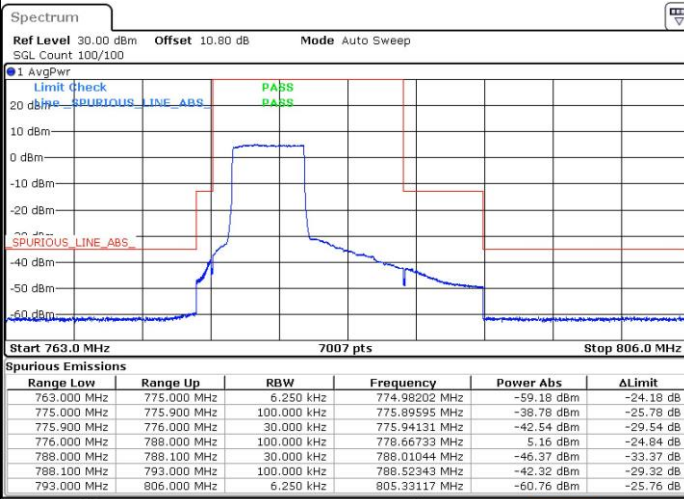


Date: 26 JUN 2019 07:02:19

Date: 26 JUN 2019 07:13:43

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 26 JUN 2019 07:00:38

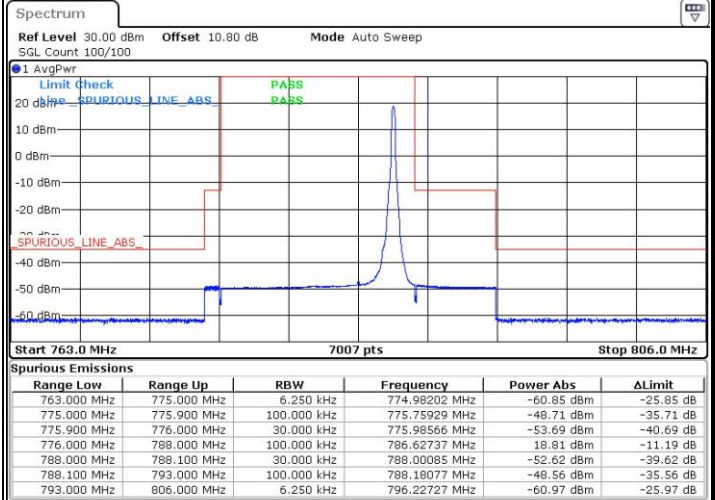
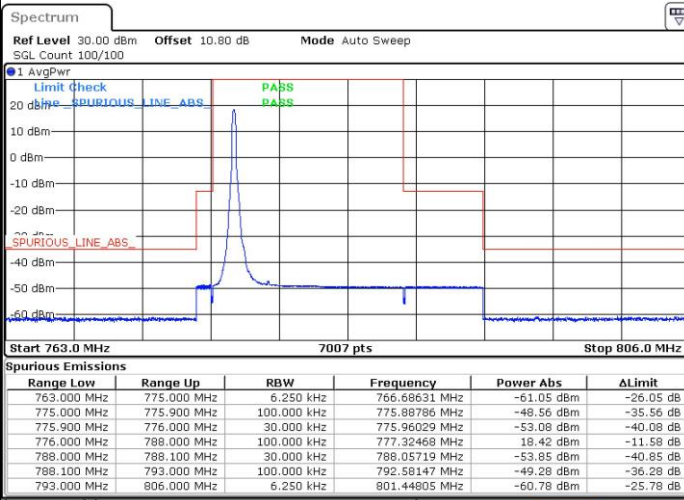
Date: 26 JUN 2019 07:12:02



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

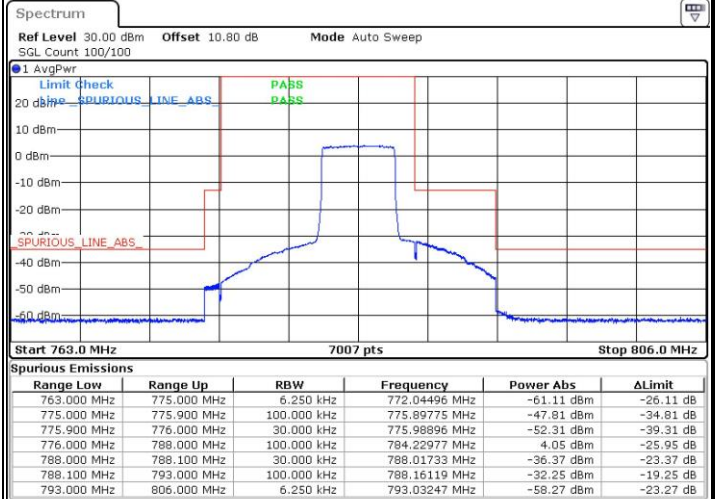
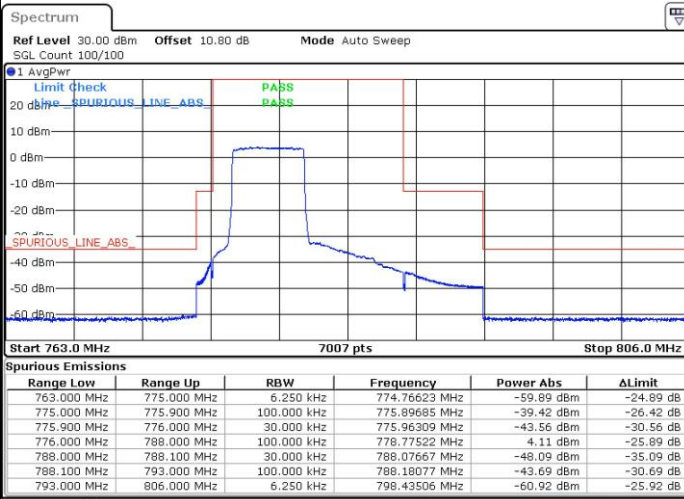


Date: 26 JUN 2019 07:20:44

Date: 26 JUN 2019 07:26:25

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 26 JUN 2019 07:19:03

Date: 26 JUN 2019 07:24:44