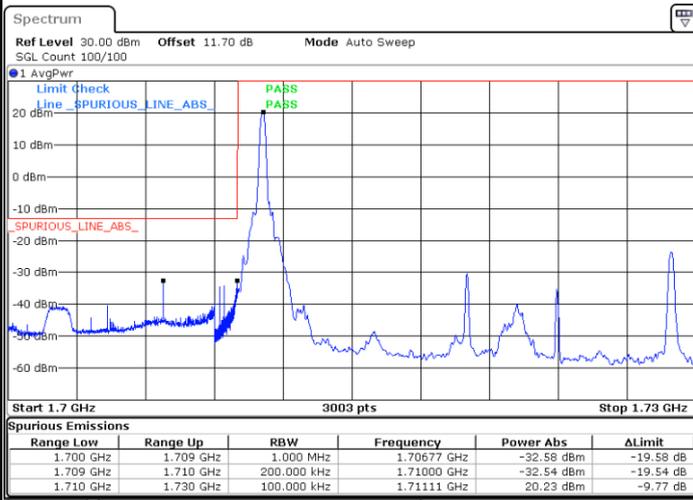




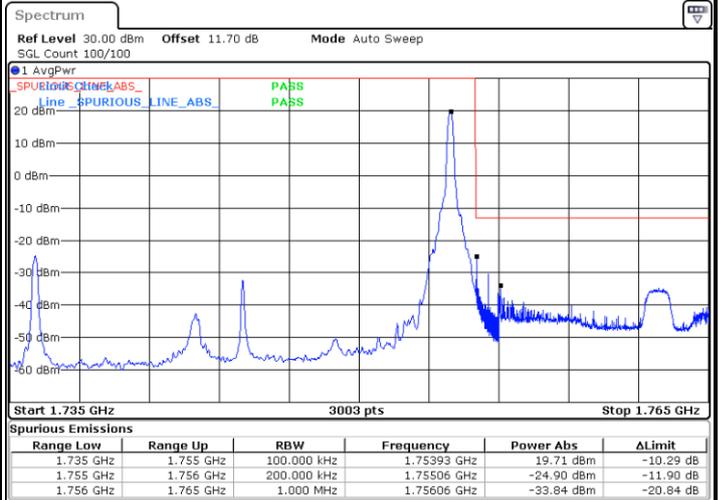
LTE Band 4 / 20MHz / QPSK

Lowest Band Edge / 1 RB



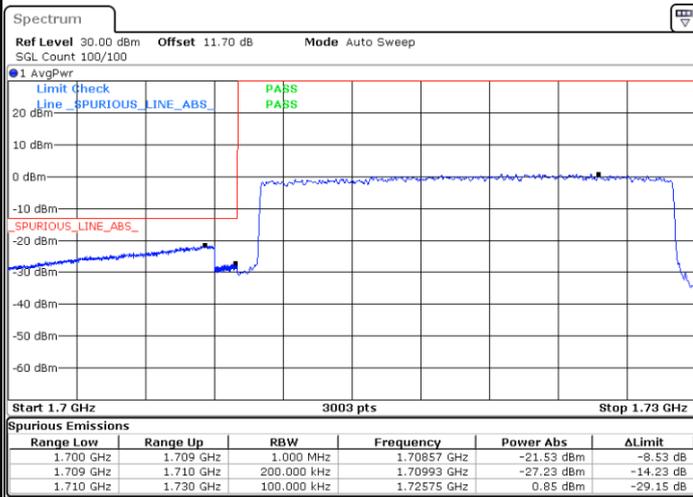
Date: 4 JAN 2020 01:48:22

Highest Band Edge / 1 RB



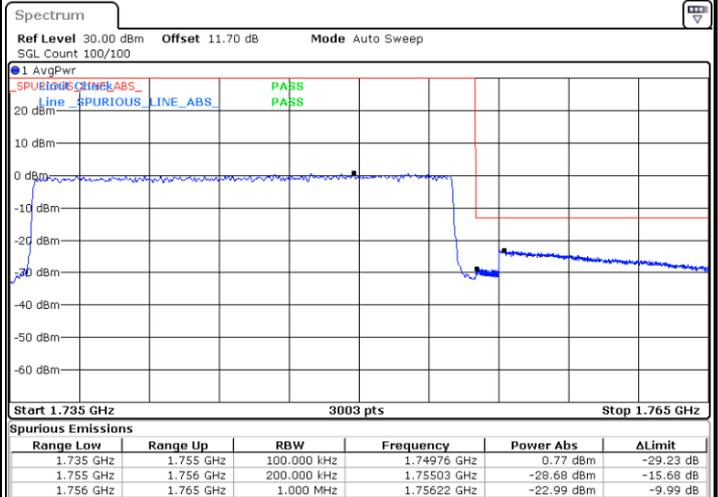
Date: 4 JAN 2020 01:55:24

Lowest Band Edge / Full RB



Date: 4 JAN 2020 01:49:43

Highest Band Edge / Full RB

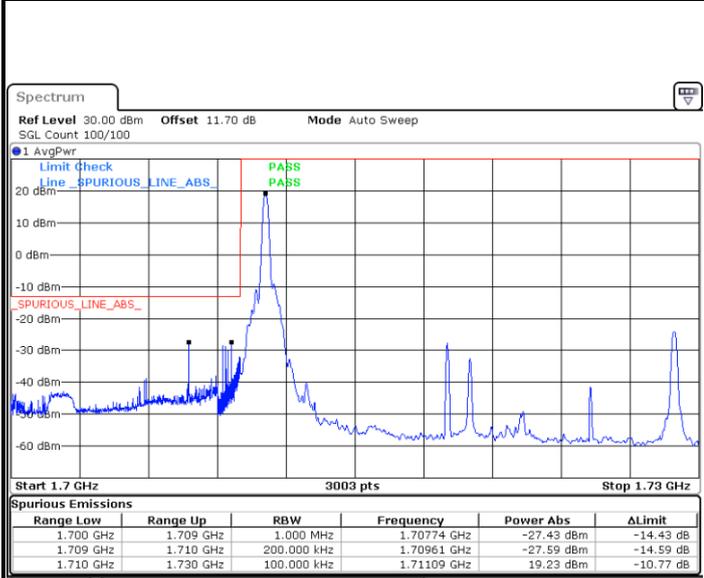


Date: 4 JAN 2020 01:56:46



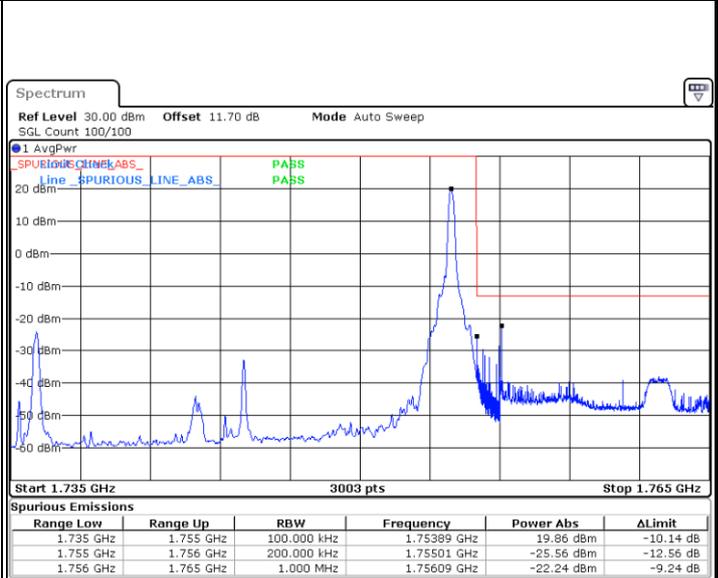
LTE Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



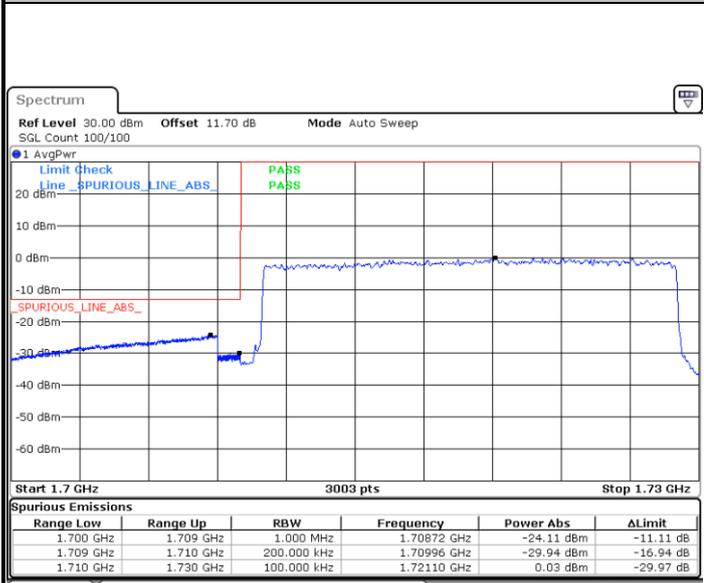
Date: 4 JAN 2020 01:49:02

Highest Band Edge / 1 RB



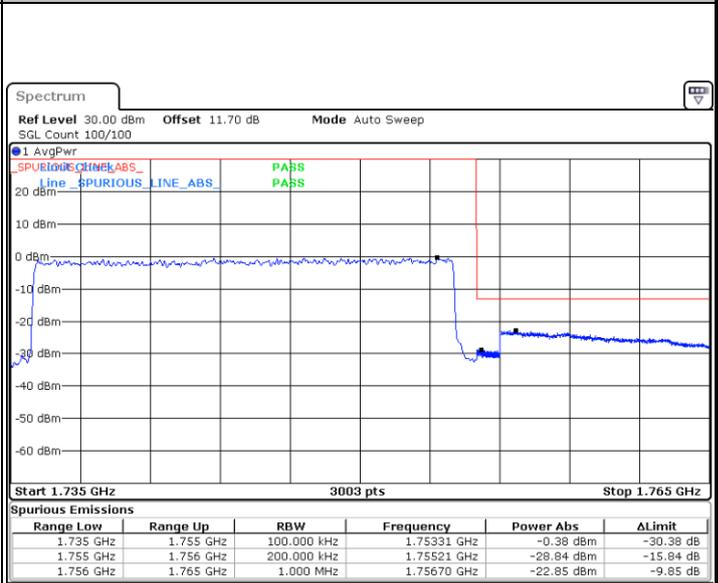
Date: 4 JAN 2020 01:56:05

Lowest Band Edge / Full RB



Date: 4 JAN 2020 01:50:24

Highest Band Edge / Full RB

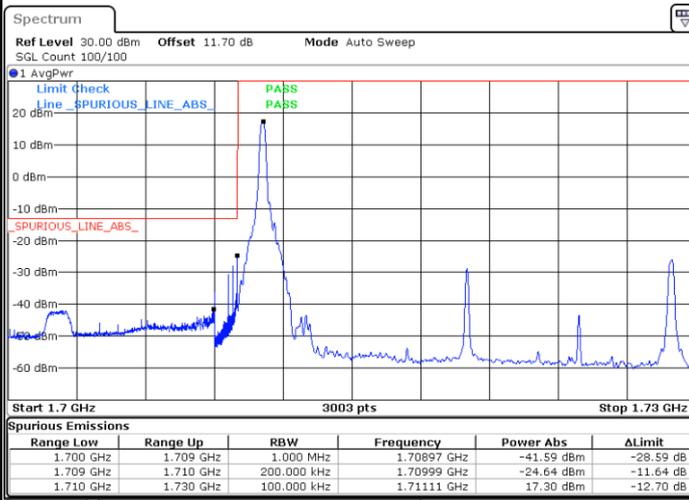


Date: 4 JAN 2020 01:57:27



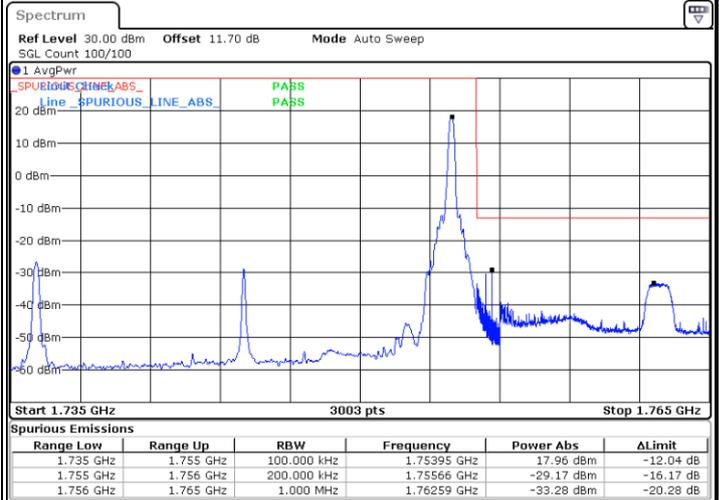
LTE Band 4 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



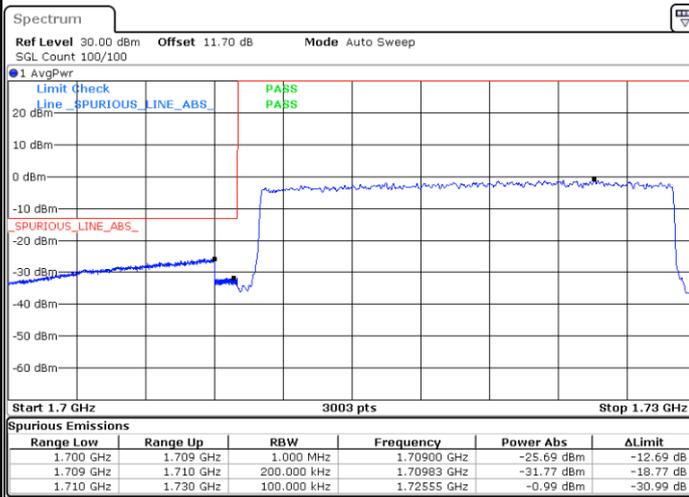
Date: 4 JAN 2020 02:23:47

Highest Band Edge / 1 RB



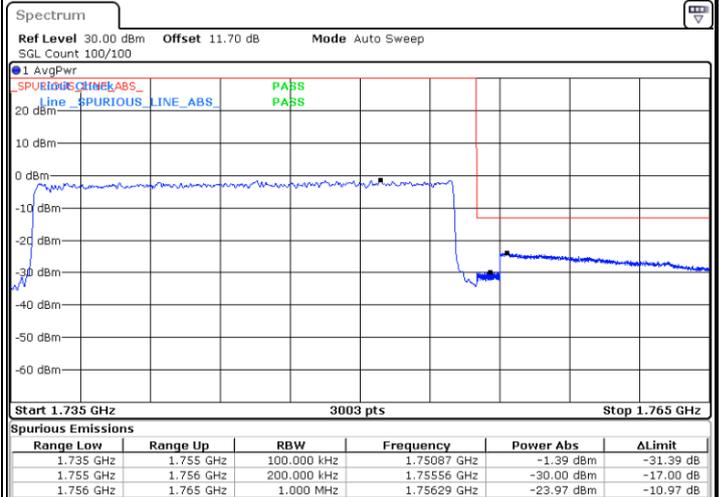
Date: 4 JAN 2020 02:27:18

Lowest Band Edge / Full RB



Date: 4 JAN 2020 02:24:28

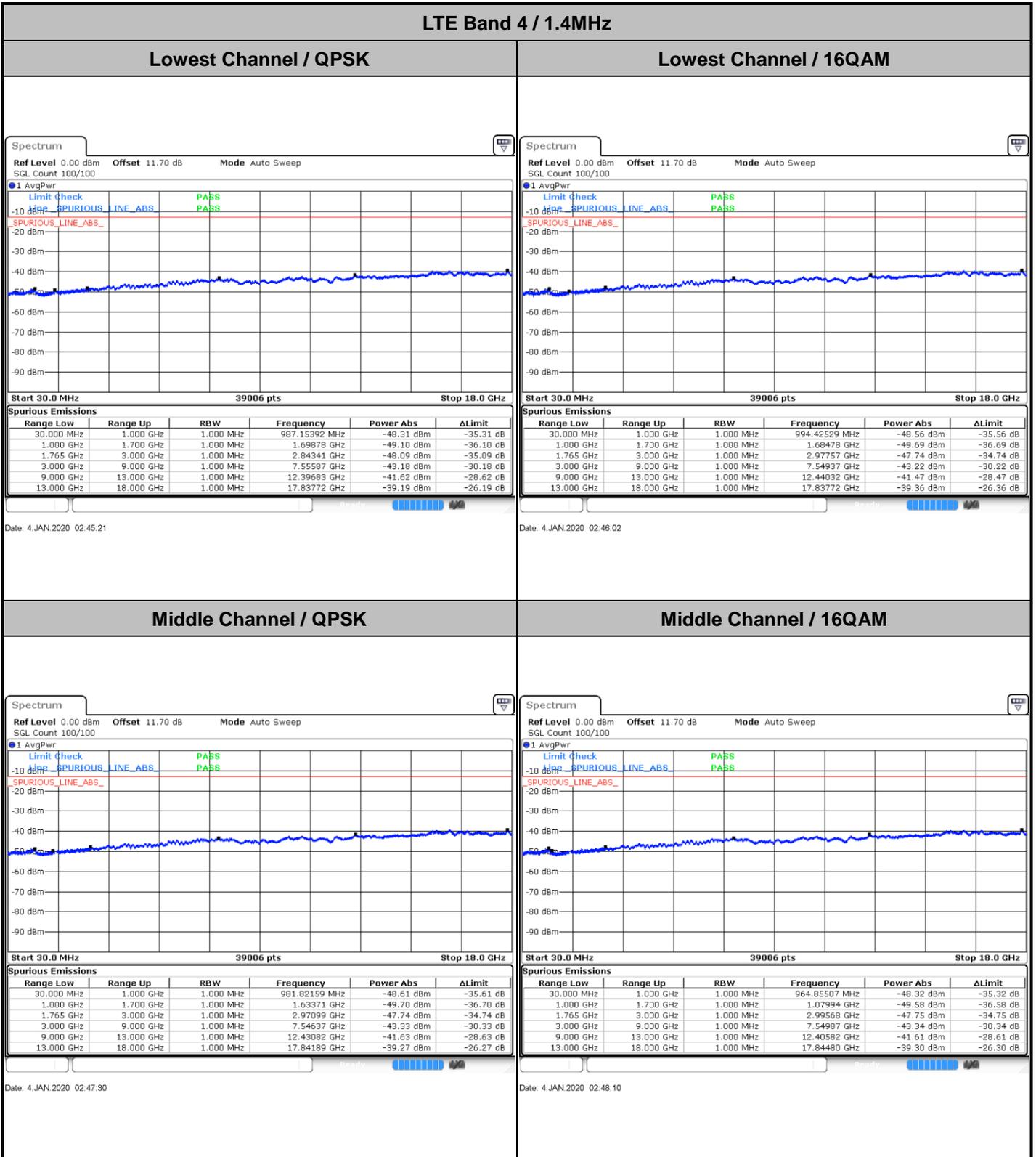
Highest Band Edge / Full RB



Date: 4 JAN 2020 02:27:59



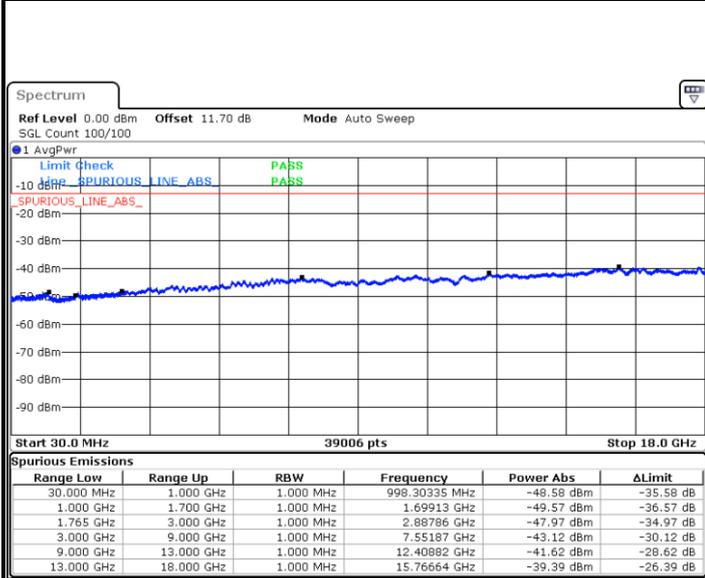
# Conducted Spurious Emission





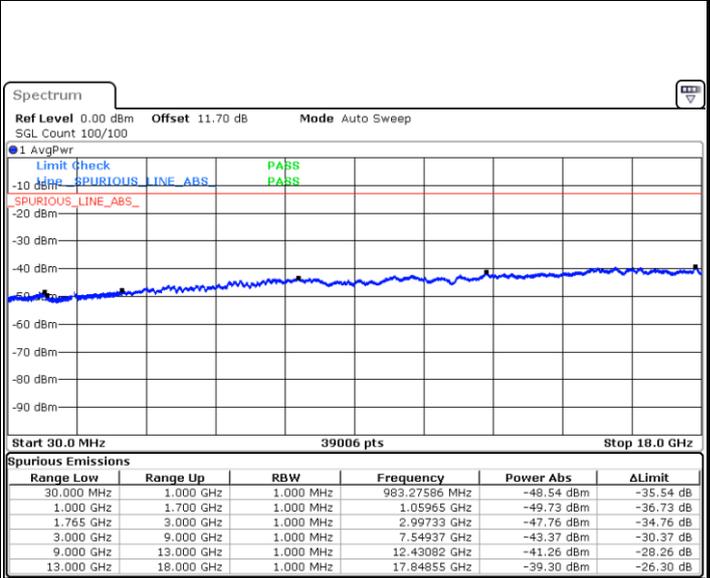
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 4 JAN 2020 02:54:04

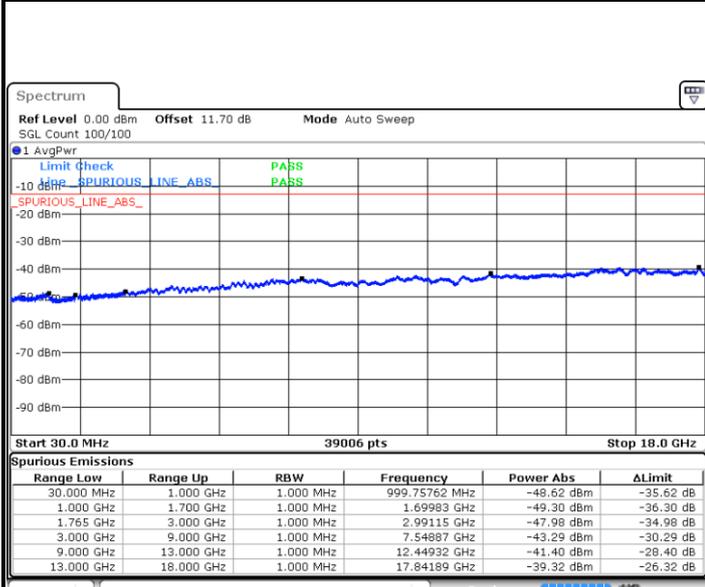
Highest Channel / 16QAM



Date: 4 JAN 2020 02:54:45

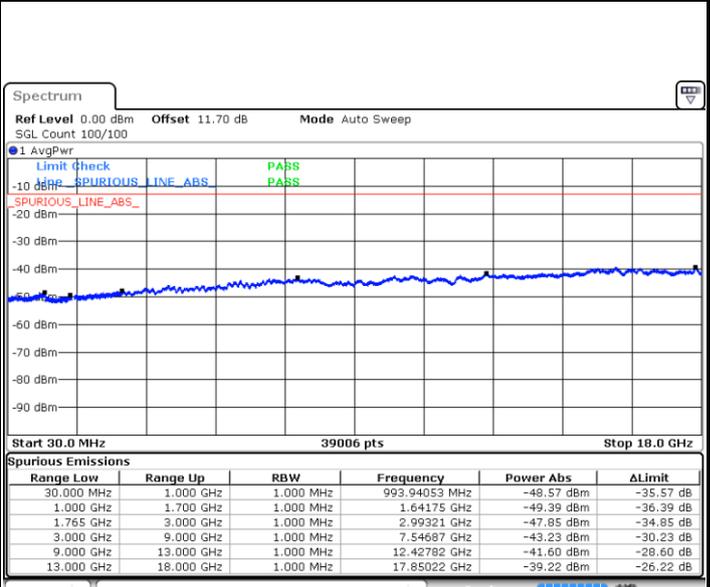
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 4 JAN 2020 00:59:34

Lowest Channel / 16QAM



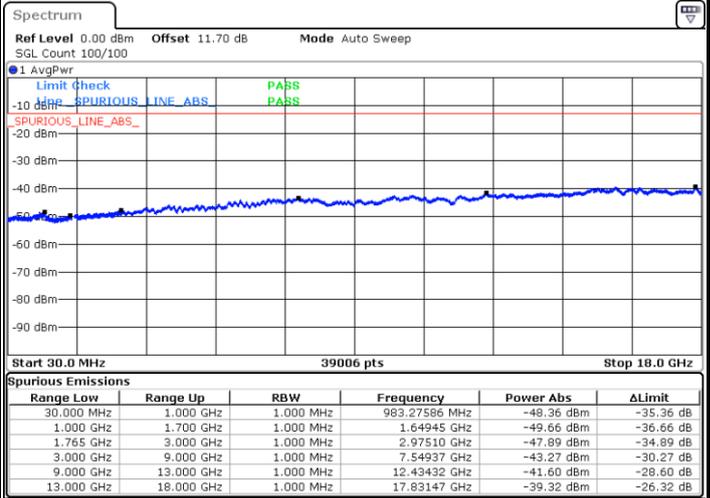
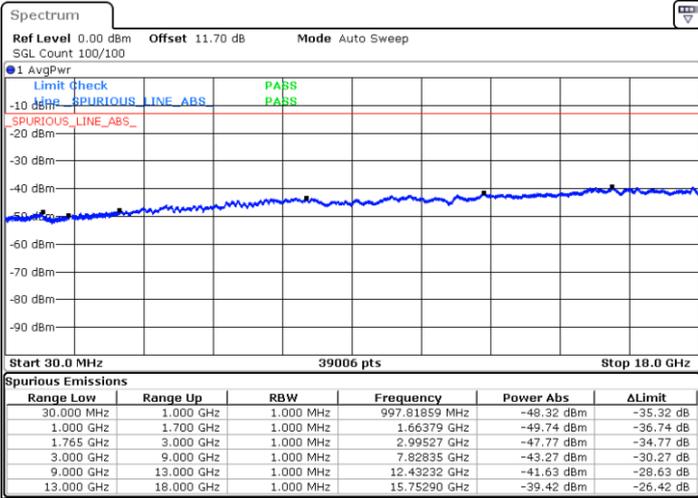
Date: 4 JAN 2020 01:00:15



LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

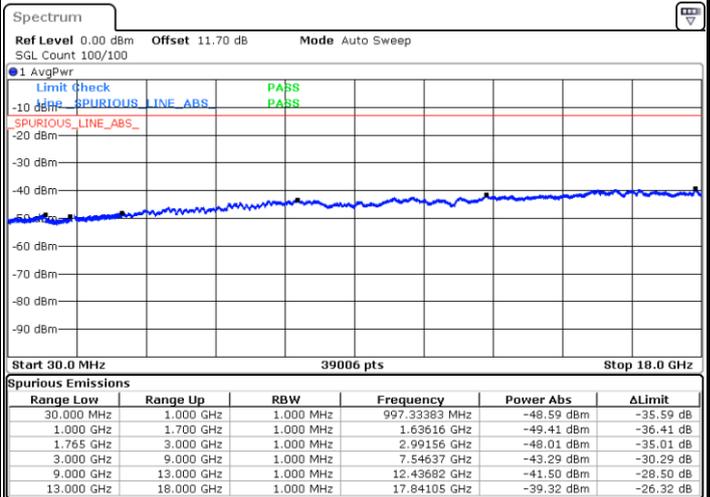
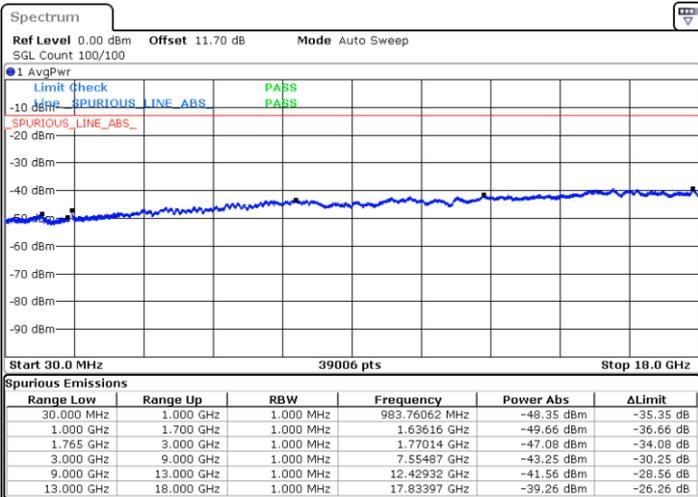


Date: 4 JAN 2020 01:01:42

Date: 4 JAN 2020 01:02:23

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 4 JAN 2020 01:06:36

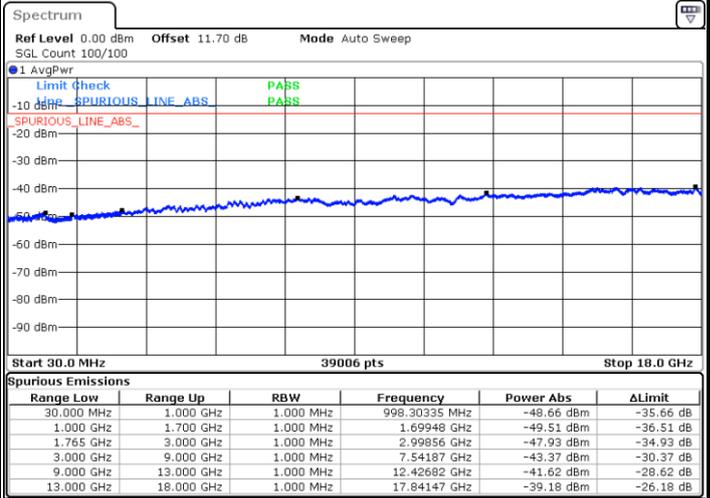
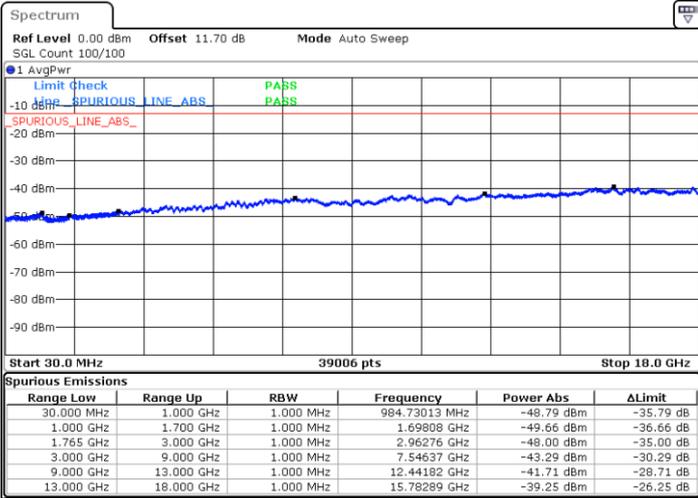
Date: 4 JAN 2020 01:07:17



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

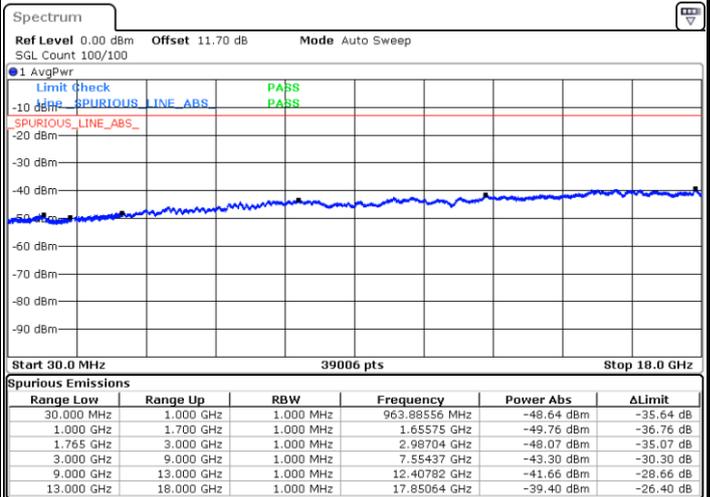
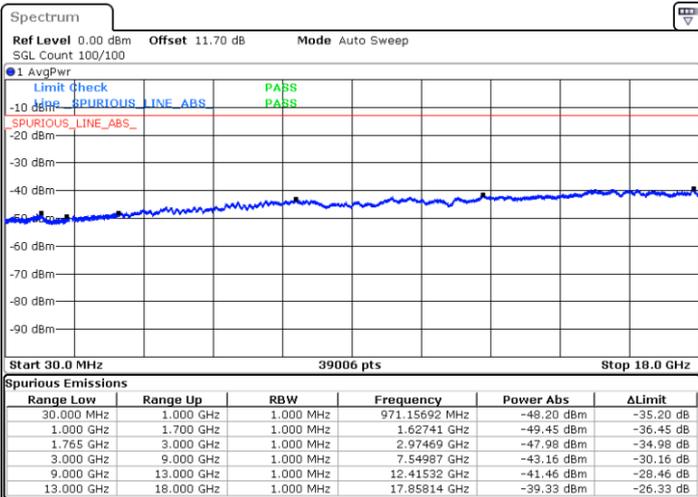


Date: 4 JAN 2020 01:11:31

Date: 4 JAN 2020 01:12:12

Middle Channel / QPSK

Middle Channel / 16QAM



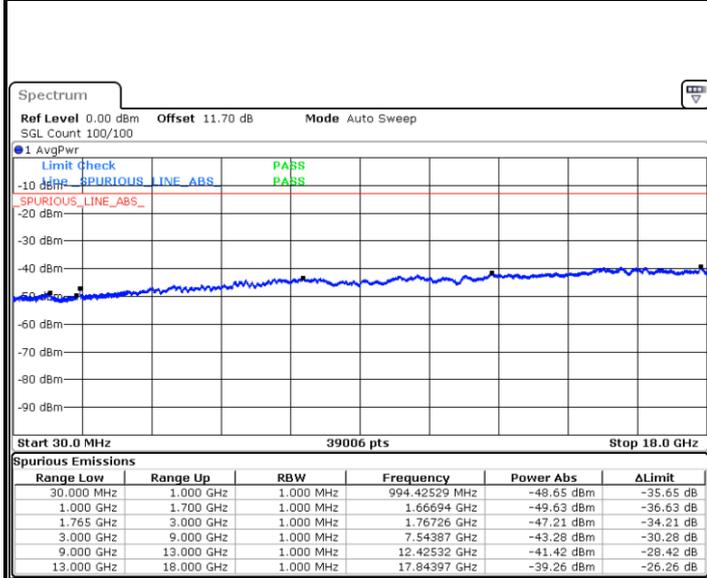
Date: 4 JAN 2020 01:13:40

Date: 4 JAN 2020 01:14:20



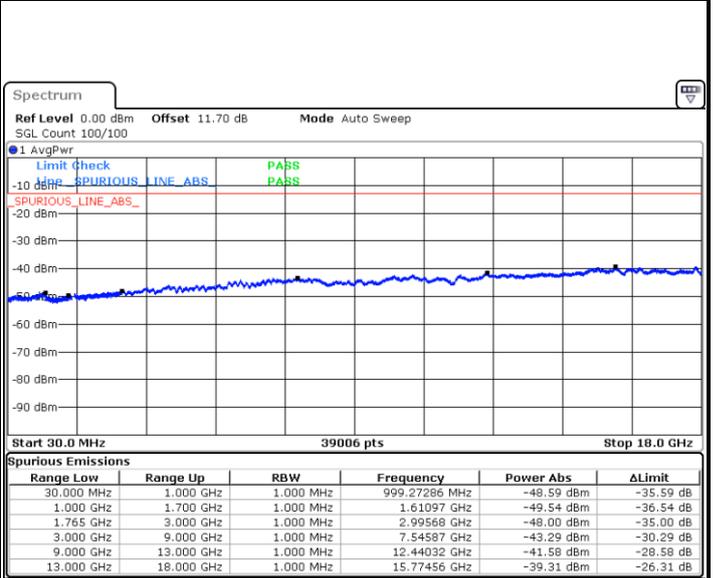
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 4 JAN 2020 01:18:34

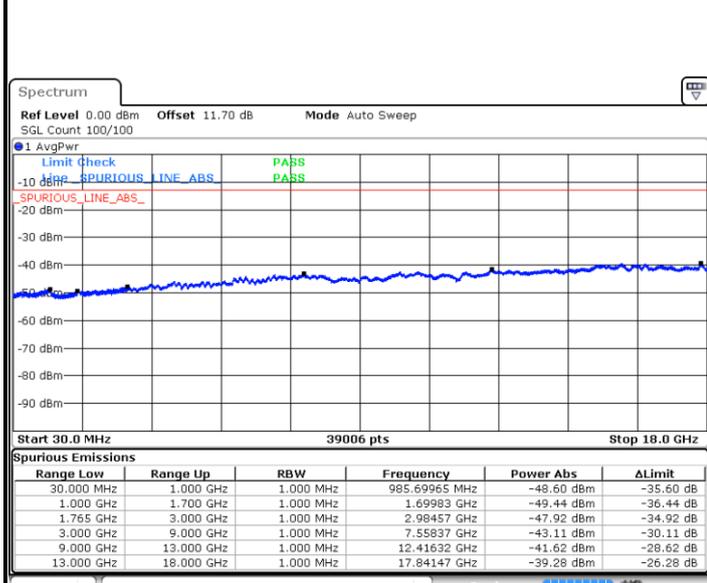
Highest Channel / 16QAM



Date: 4 JAN 2020 01:19:15

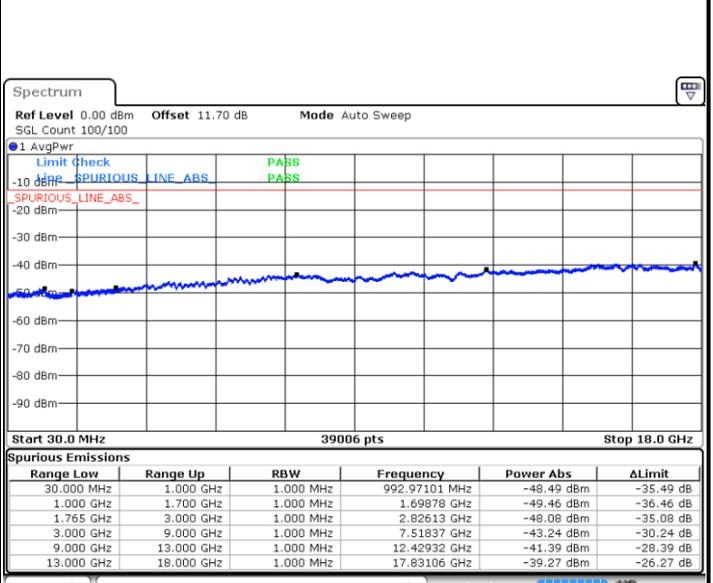
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 4 JAN 2020 01:23:29

Lowest Channel / 16QAM



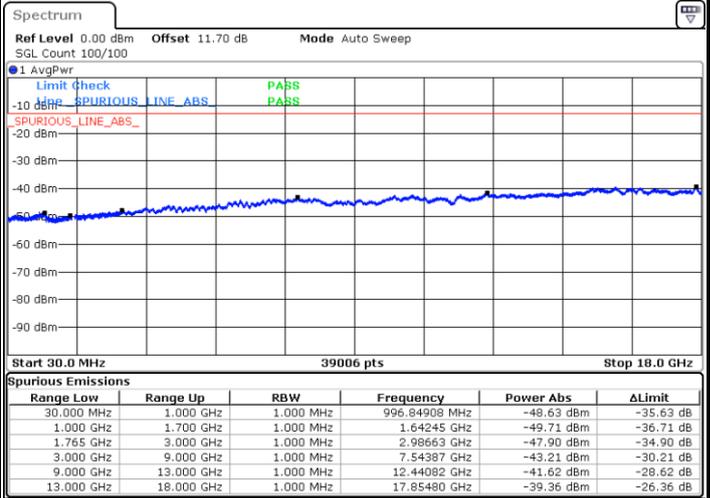
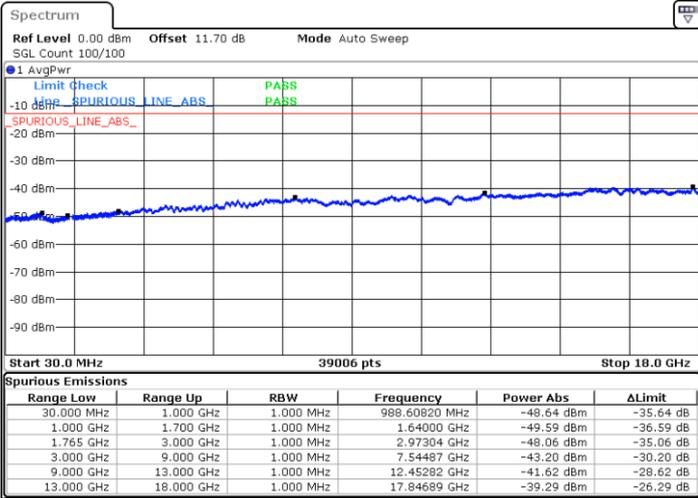
Date: 4 JAN 2020 01:24:11



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

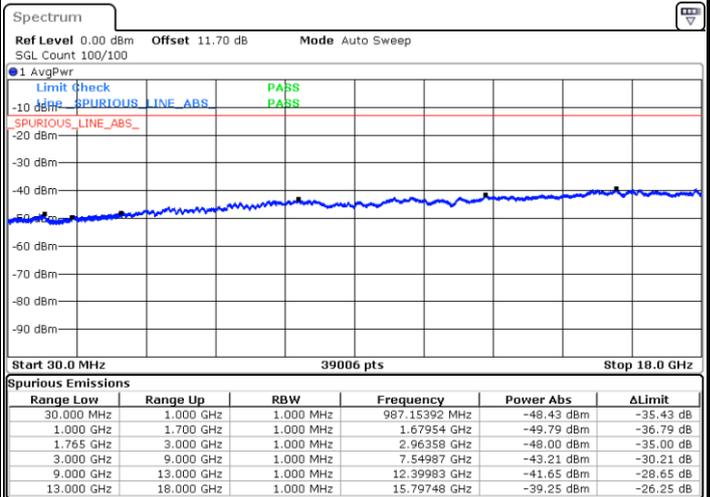
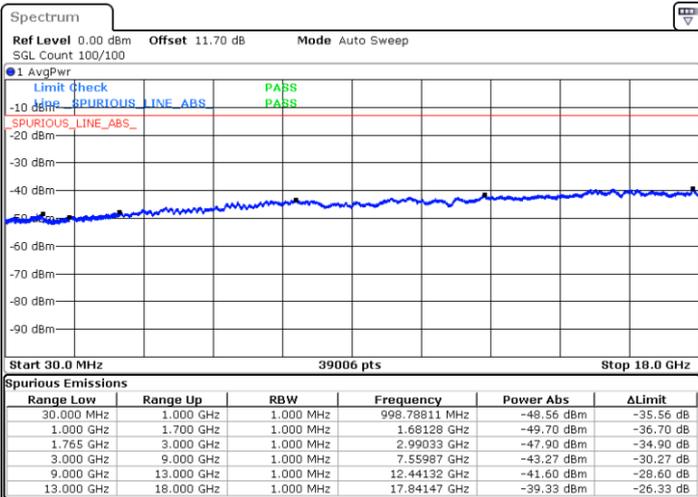


Date: 4 JAN 2020 01:25:37

Date: 4 JAN 2020 01:30:00

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 4 JAN 2020 01:34:14

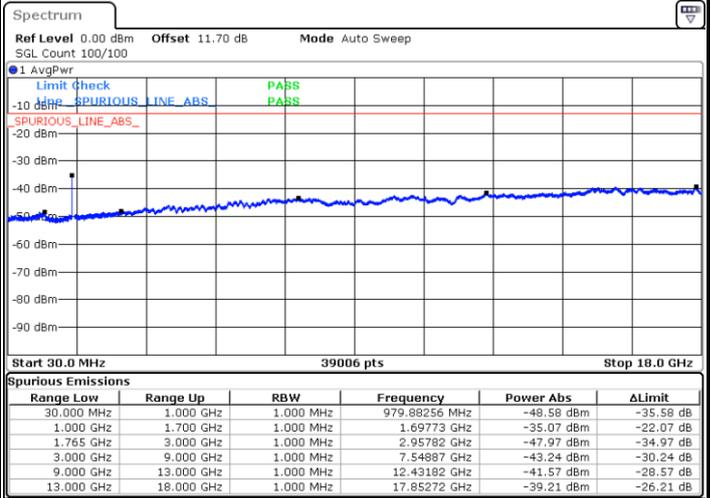
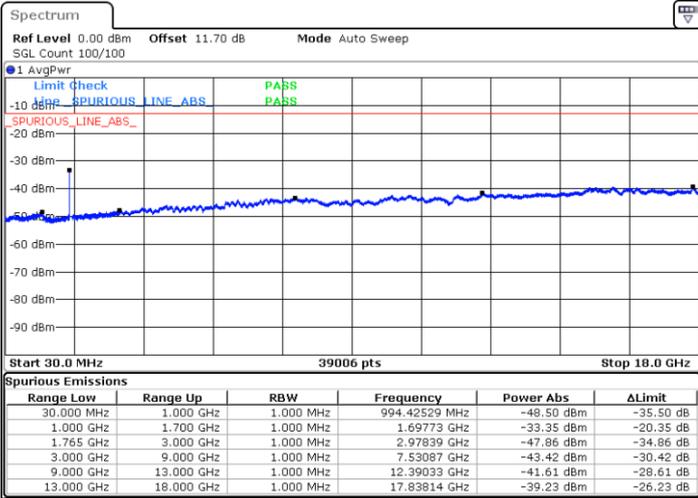
Date: 4 JAN 2020 01:34:55



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

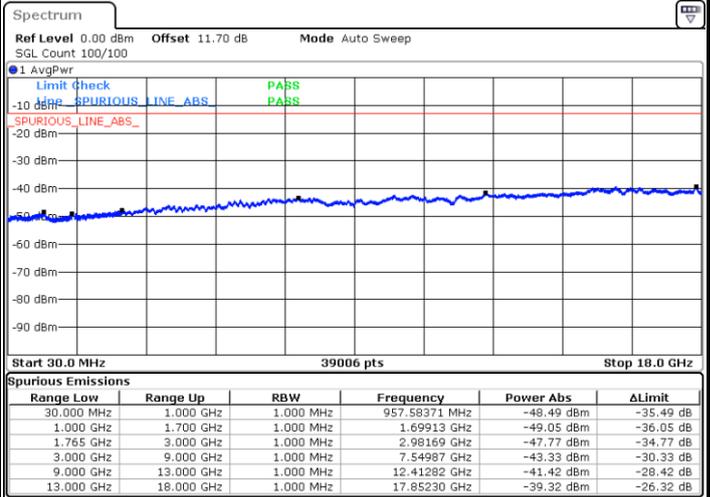
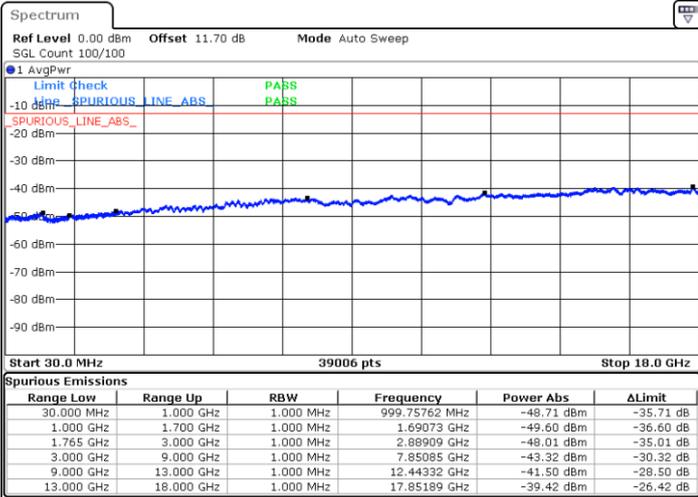


Date: 4 JAN 2020 01:39:09

Date: 4 JAN 2020 01:39:50

Middle Channel / QPSK

Middle Channel / 16QAM



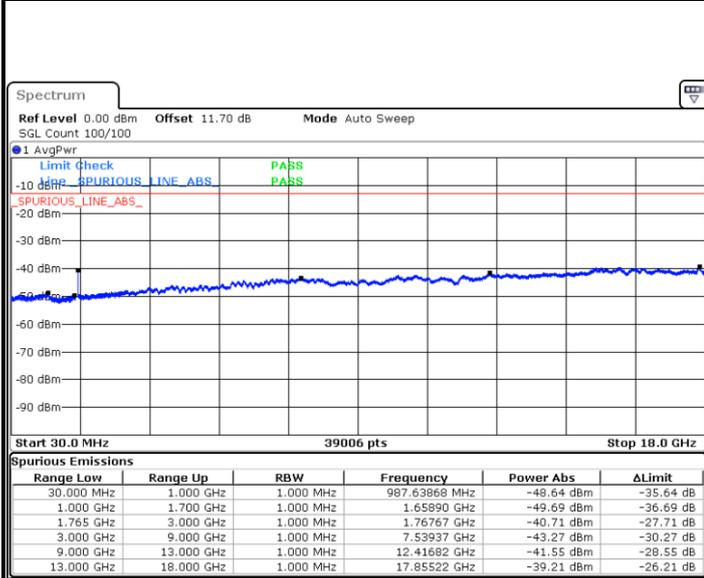
Date: 4 JAN 2020 01:41:18

Date: 4 JAN 2020 01:41:58



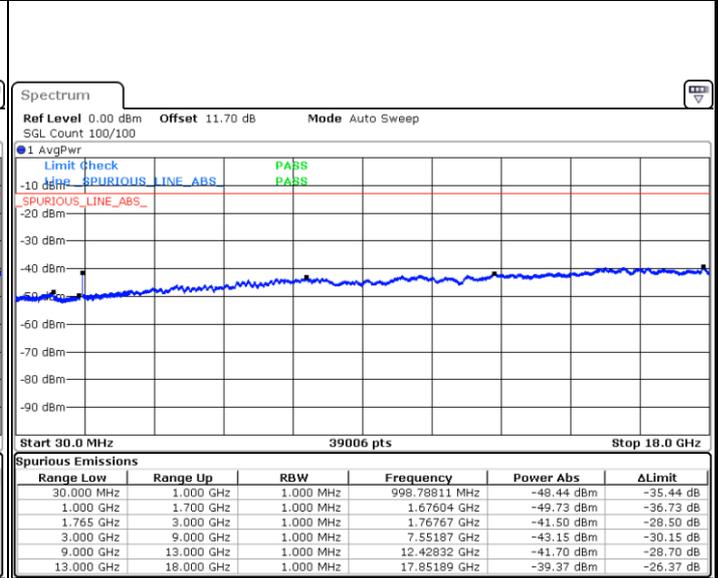
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 4 JAN 2020 01:46:11

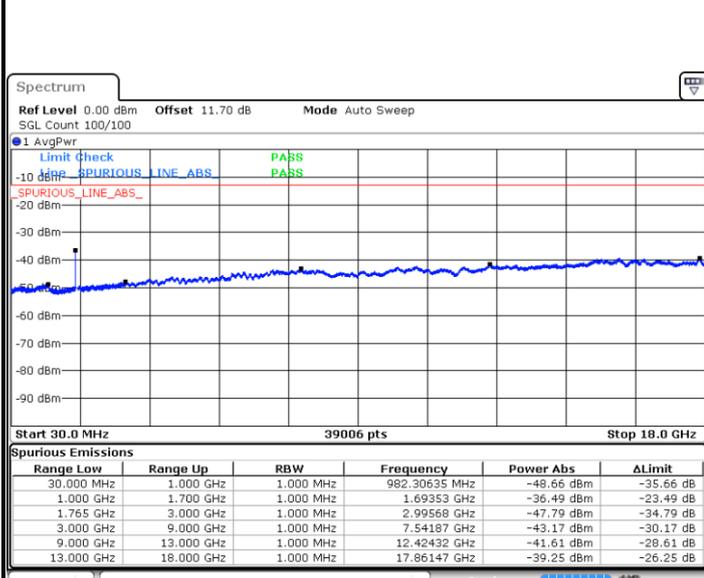
Highest Channel / 16QAM



Date: 4 JAN 2020 01:46:52

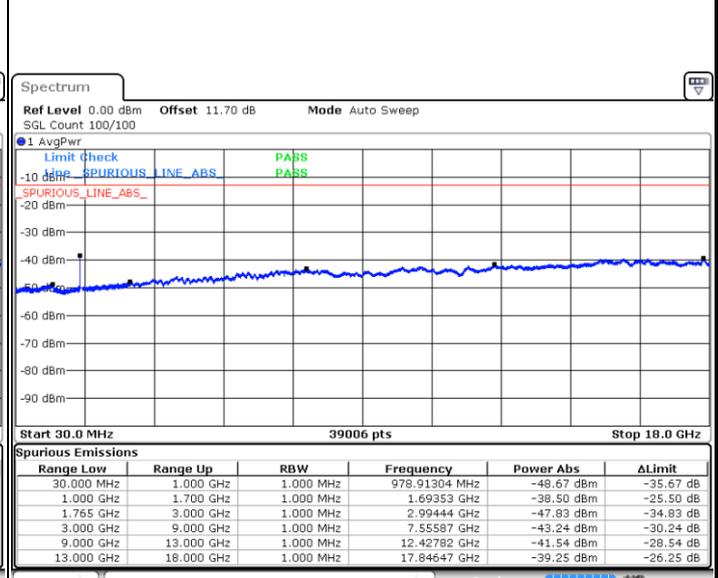
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 4 JAN 2020 01:51:06

Lowest Channel / 16QAM



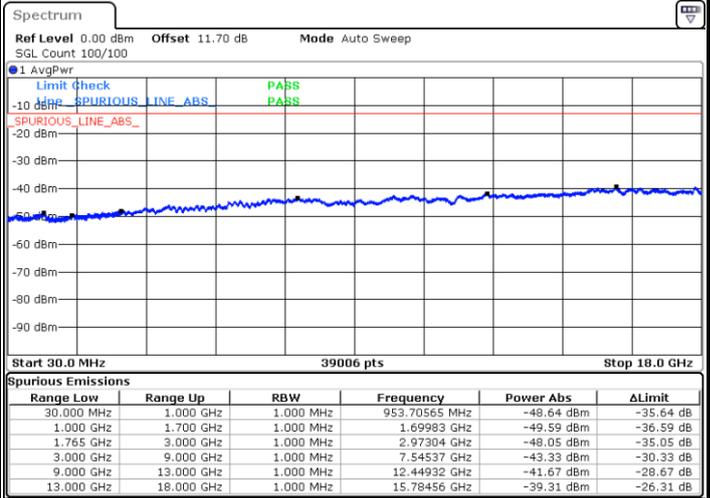
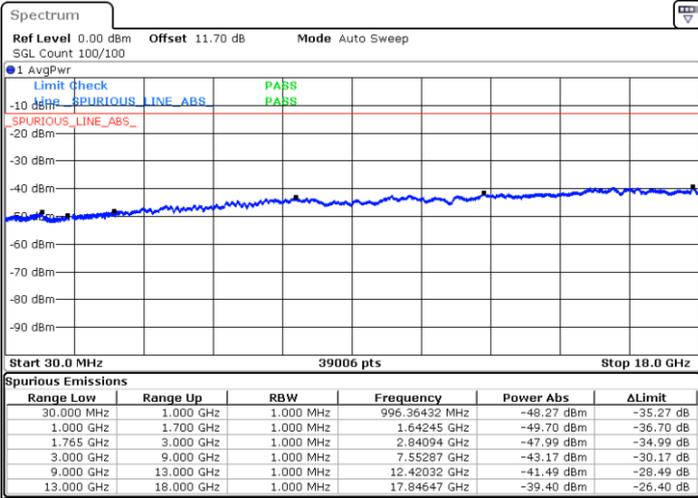
Date: 4 JAN 2020 01:51:47



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

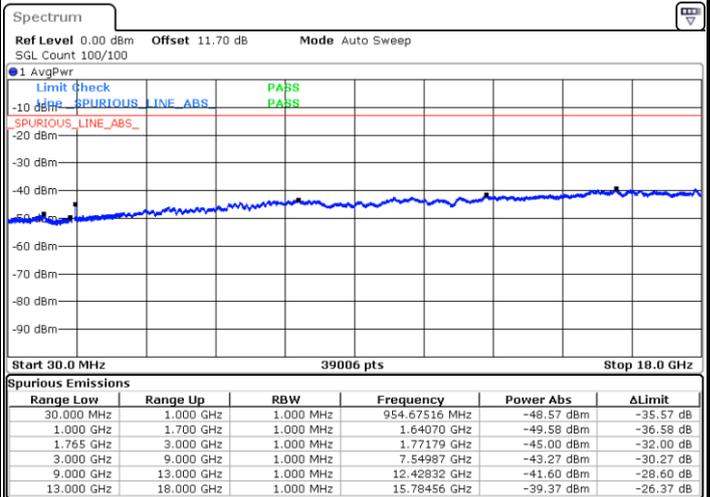
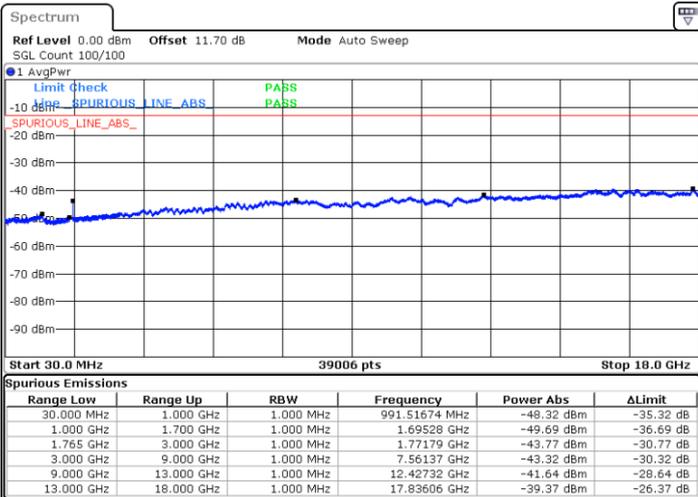


Date: 4 JAN 2020 01:53:14

Date: 4 JAN 2020 01:53:55

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 4 JAN 2020 01:58:08

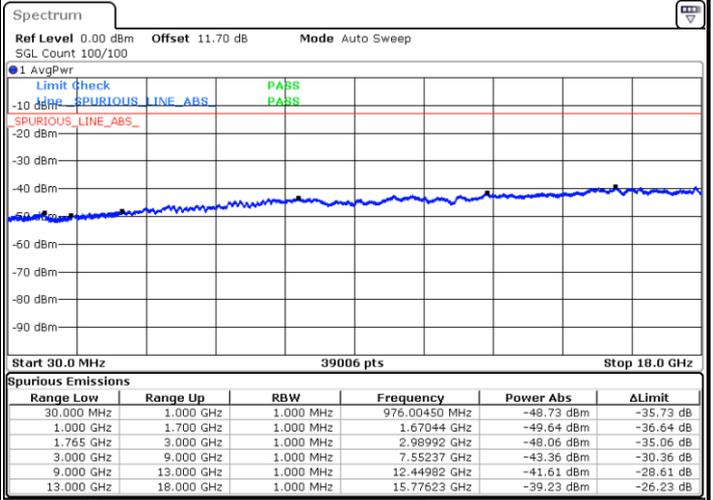
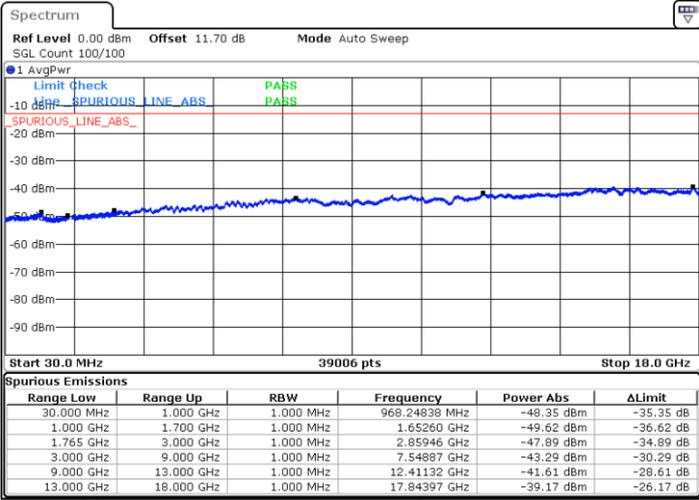
Date: 4 JAN 2020 01:58:49



LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM

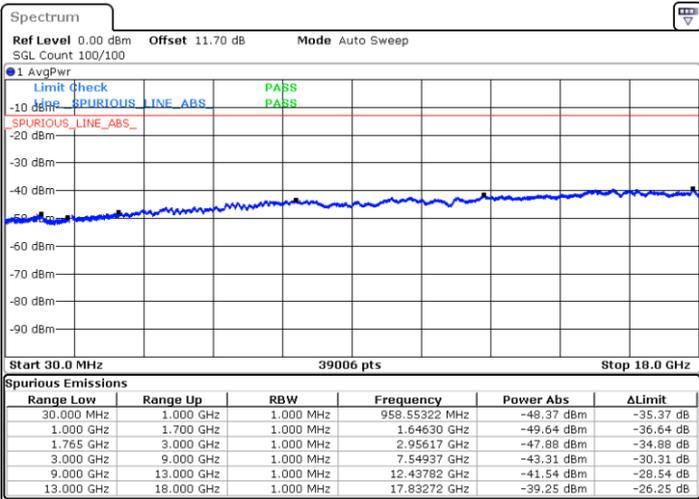
Middle Channel / 64QAM



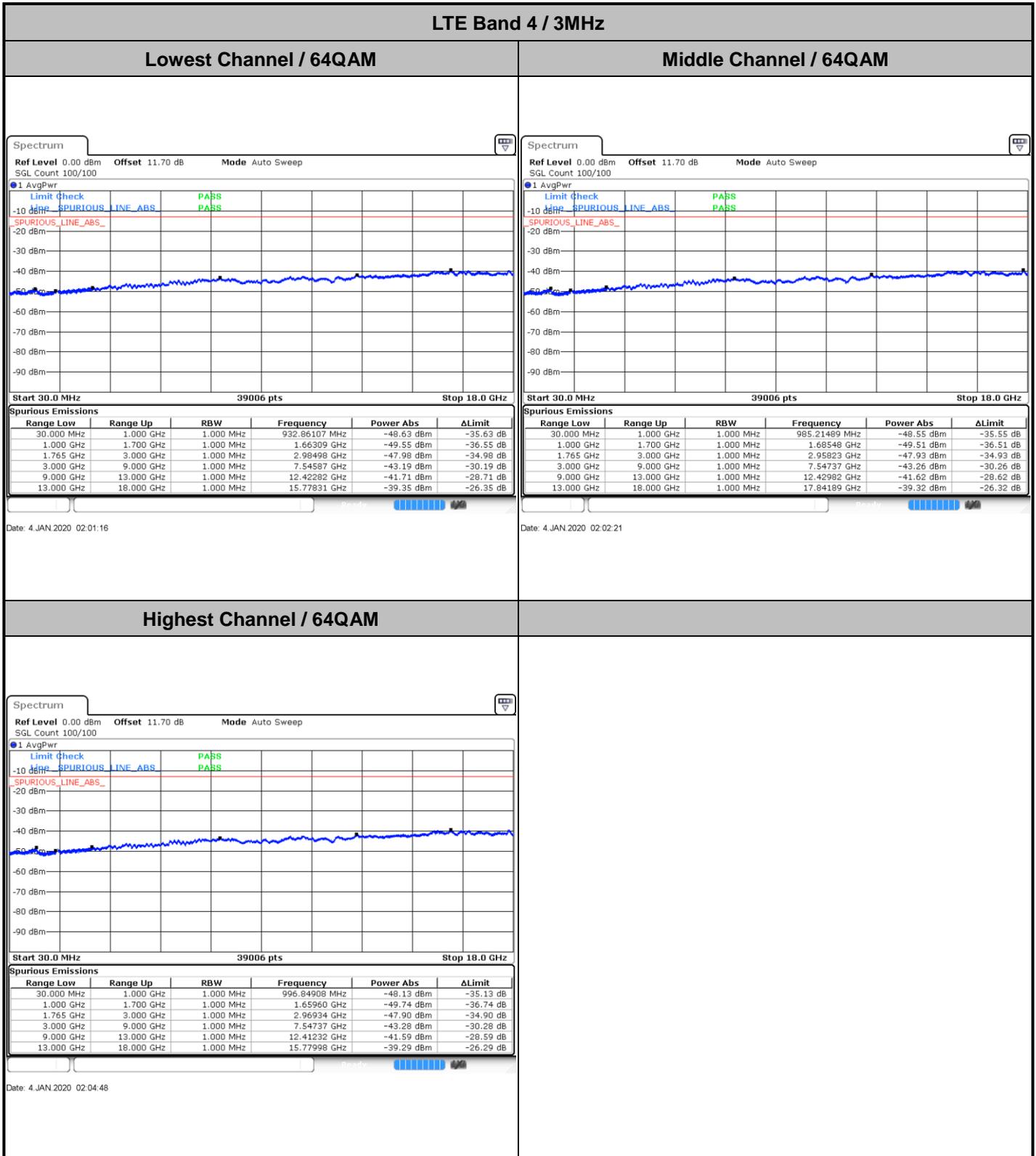
Date: 4 JAN 2020 02:35:06

Date: 4 JAN 2020 02:36:10

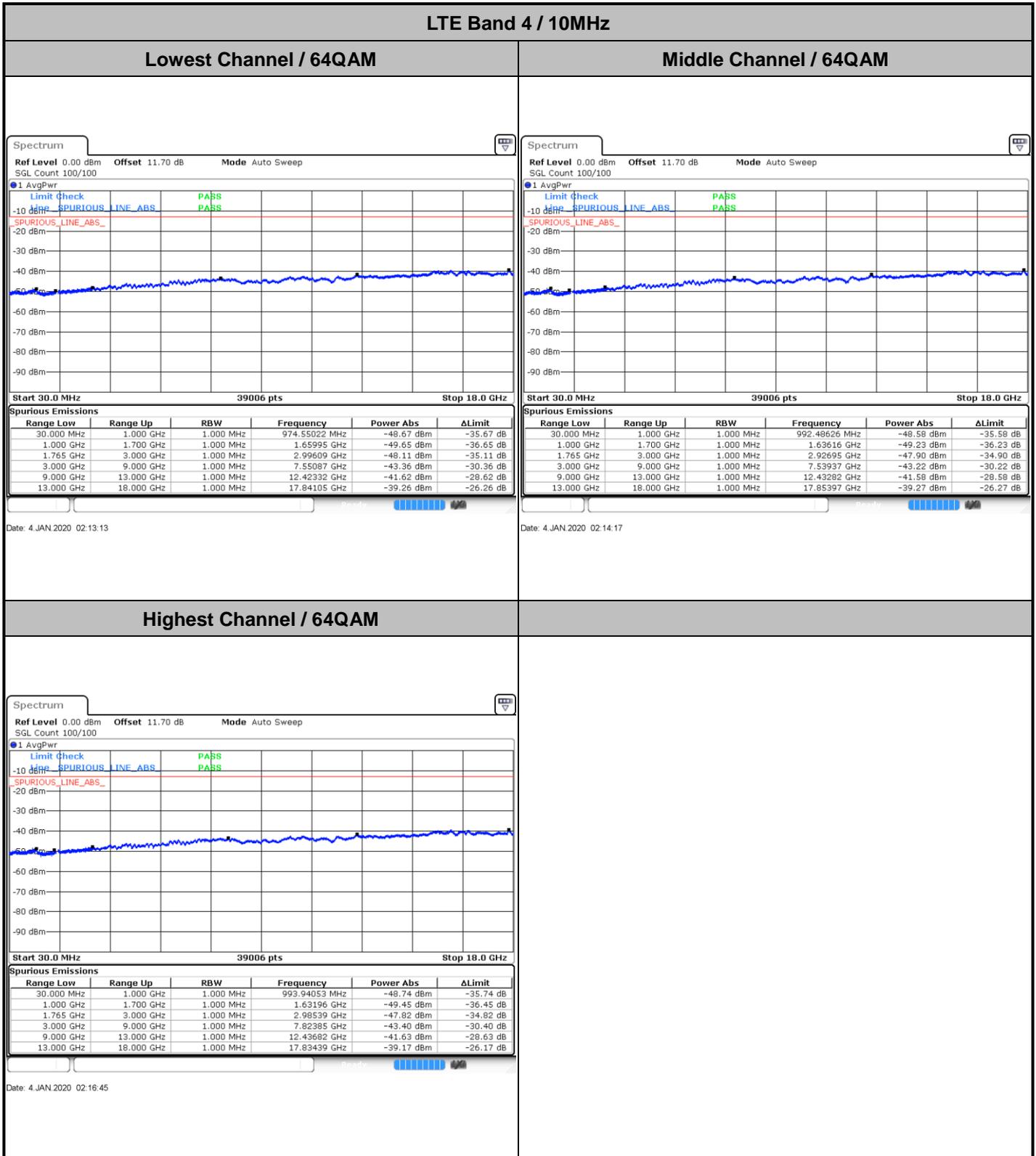
Highest Channel / 64QAM



Date: 4 JAN 2020 02:39:27





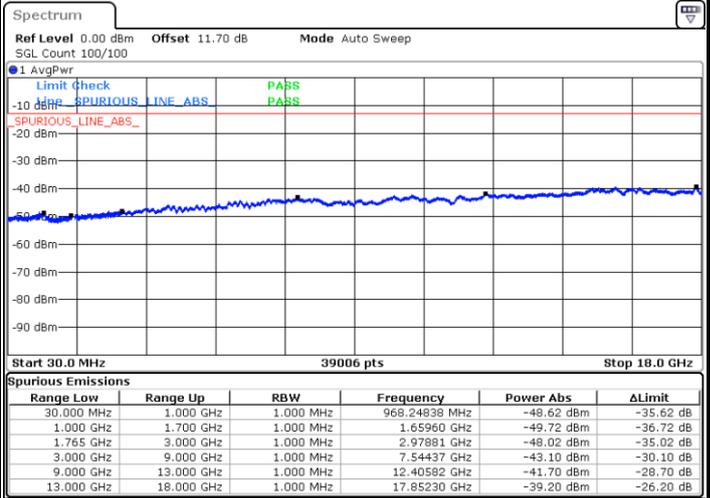
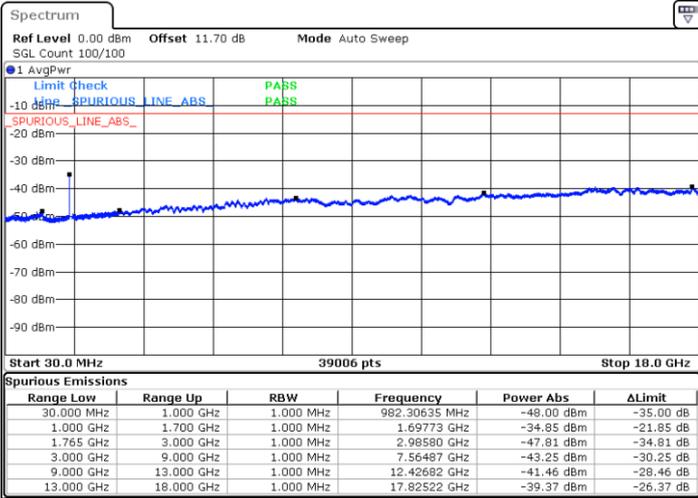




LTE Band 4 / 15MHz

Lowest Channel / 64QAM

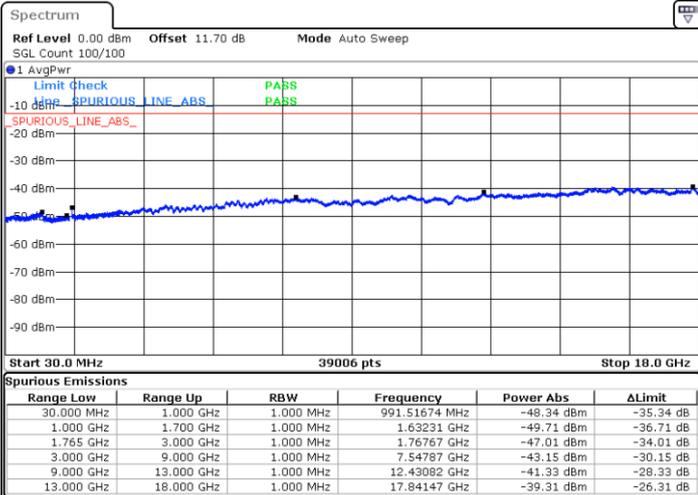
Middle Channel / 64QAM



Date: 4 JAN 2020 02:19:12

Date: 4 JAN 2020 02:20:16

Highest Channel / 64QAM



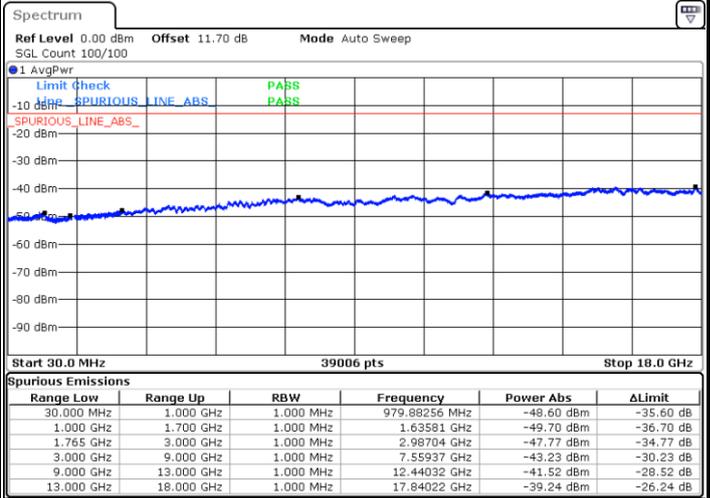
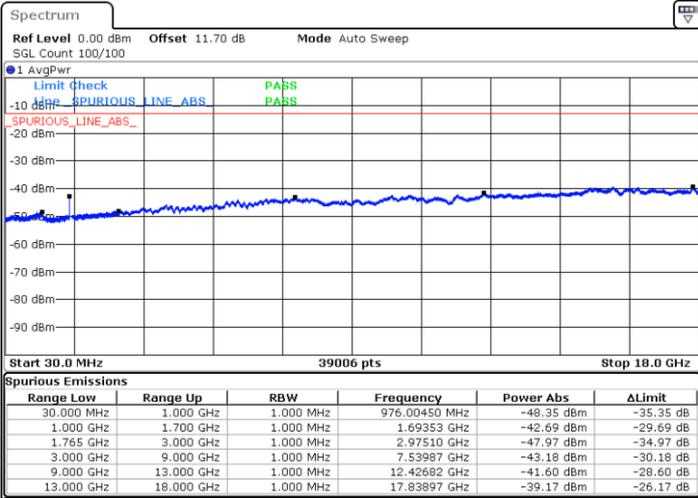
Date: 4 JAN 2020 02:22:42



LTE Band 4 / 20MHz

Lowest Channel / 64QAM

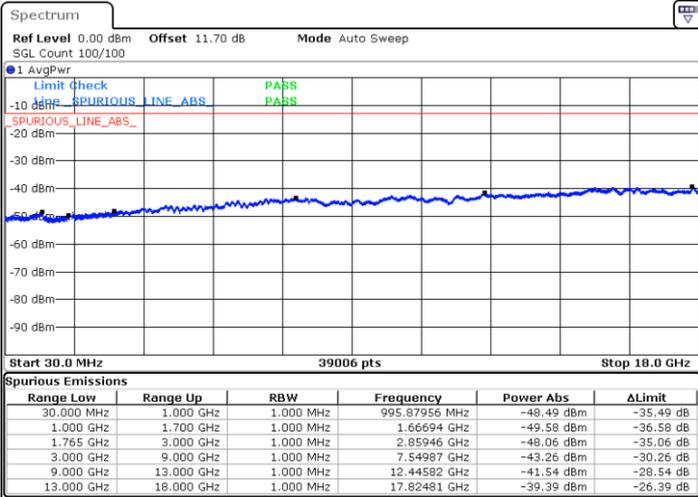
Middle Channel / 64QAM



Date: 4 JAN 2020 02:25:10

Date: 4 JAN 2020 02:26:14

Highest Channel / 64QAM



Date: 4 JAN 2020 02:28:41



### Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0070	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0050	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0094	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0076	
-30	Normal Voltage	0.0043	
20	Maximum Voltage	0.0060	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0080	

**Note:**

- 1. Normal Voltage =7.7 V. ; Battery End Point (BEP) =6.9 V. ; Maximum Voltage =8.5 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 5

## Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.65	5.07	5.16	5.88	PASS
Middle CH	3.74	5.04	5.51	5.91	
Highest CH	3.65	4.78	5.22	5.74	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.41	6.41	-	-	PASS
Middle CH	6.87	6.49	-	-	
Highest CH	6.14	6.52	-	-	



LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



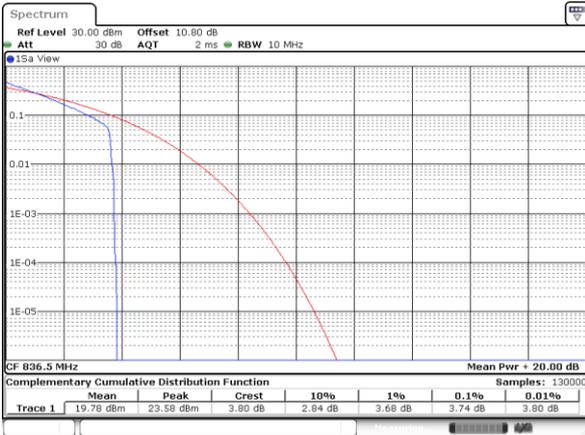
Date: 4 JAN 2020 05:23:54

Lowest Channel / Full RB



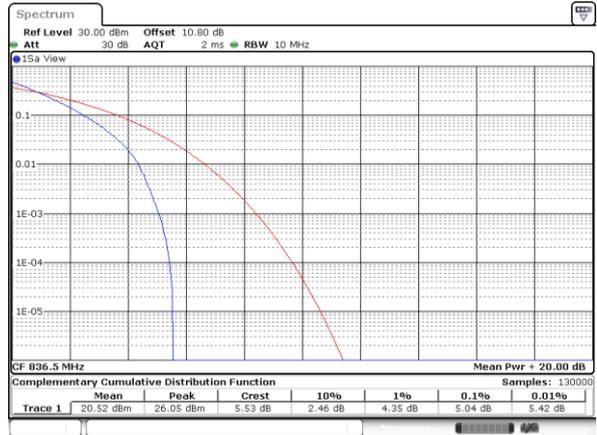
Date: 4 JAN 2020 05:24:22

Middle Channel / 1RB



Date: 4 JAN 2020 05:24:35

Middle Channel / Full RB



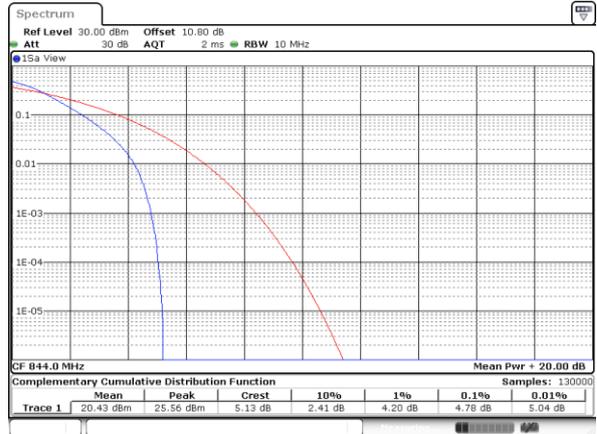
Date: 4 JAN 2020 05:24:46

Highest Channel / 1RB



Date: 4 JAN 2020 05:24:57

Highest Channel / Full RB

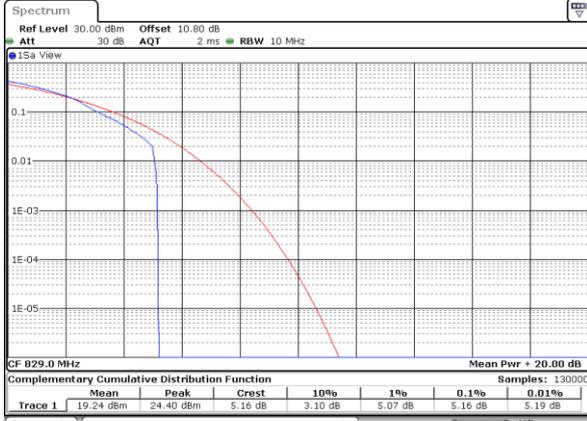


Date: 4 JAN 2020 05:25:20



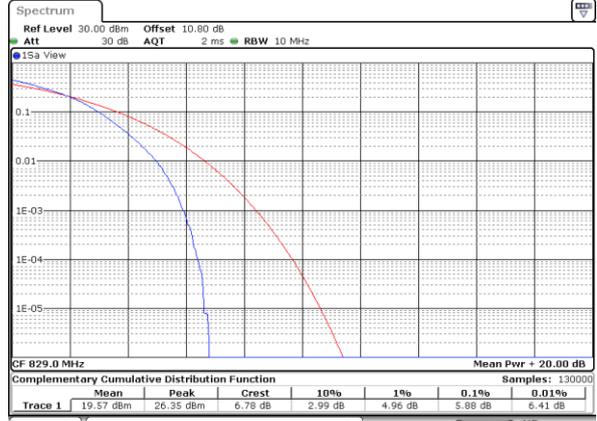
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



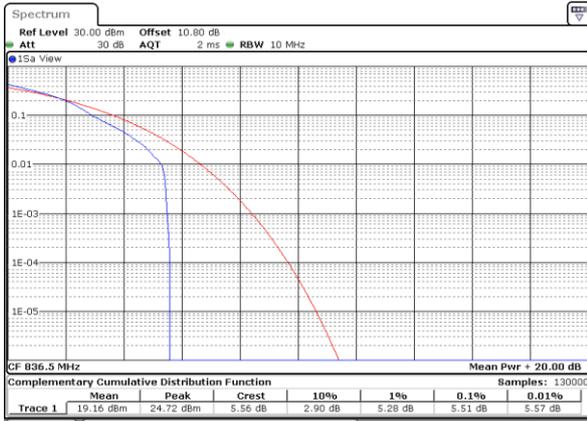
Date: 4 JAN 2020 05:22:07

Lowest Channel / Full RB



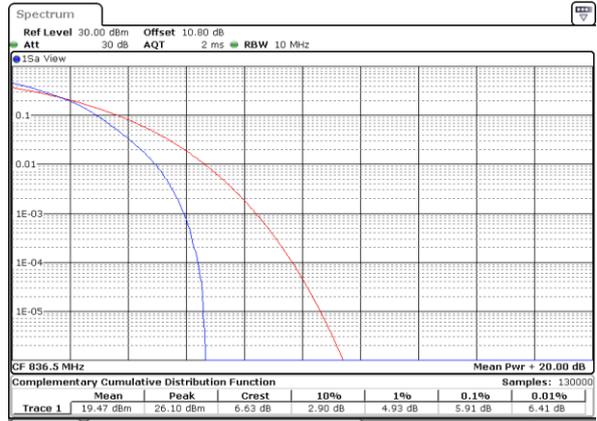
Date: 4 JAN 2020 05:22:18

Middle Channel / 1RB



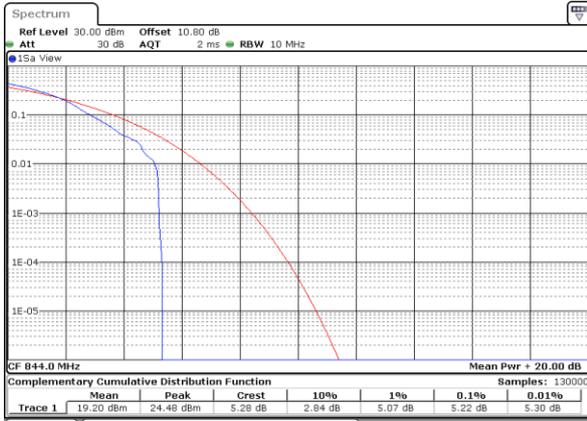
Date: 4 JAN 2020 05:22:29

Middle Channel / Full RB



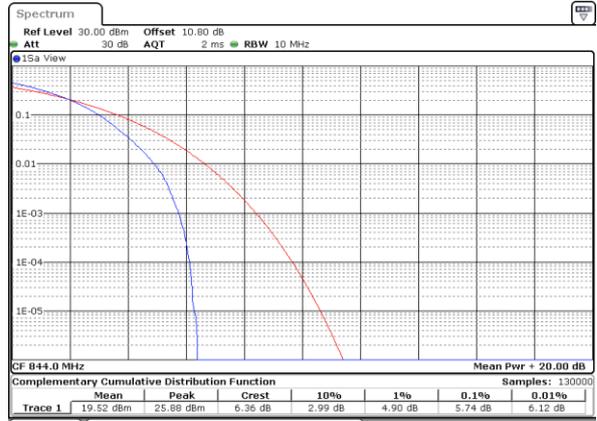
Date: 4 JAN 2020 05:22:39

Highest Channel / 1RB



Date: 4 JAN 2020 05:22:51

Highest Channel / Full RB

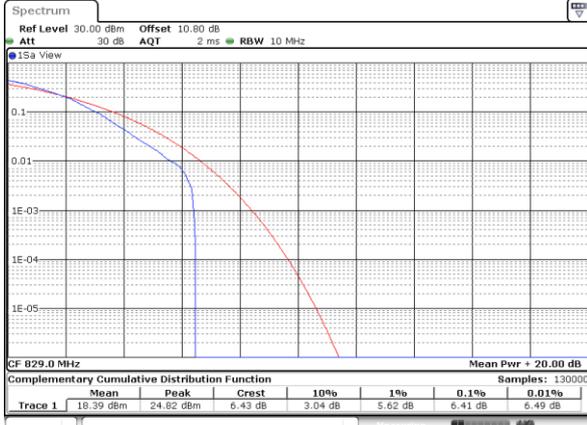


Date: 4 JAN 2020 05:23:37



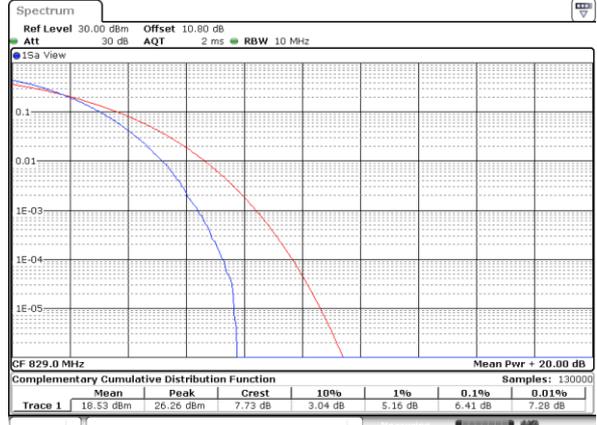
LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB



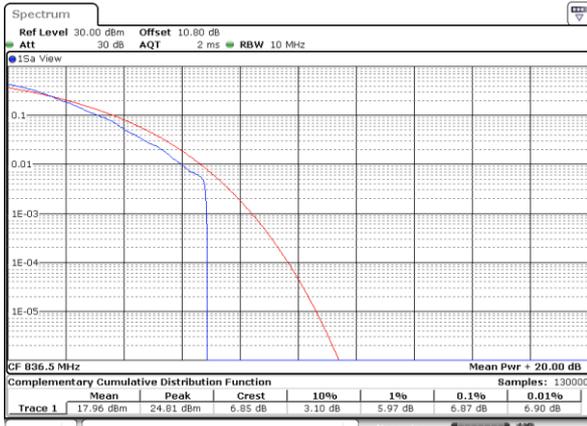
Date: 4 JAN 2020 05:25:34

Lowest Channel / Full RB



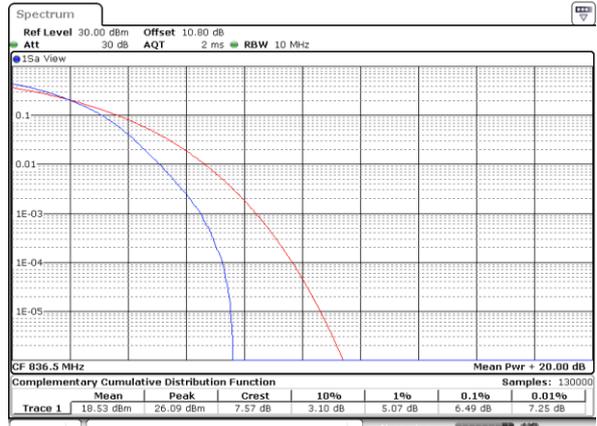
Date: 4 JAN 2020 05:25:51

Middle Channel / 1RB



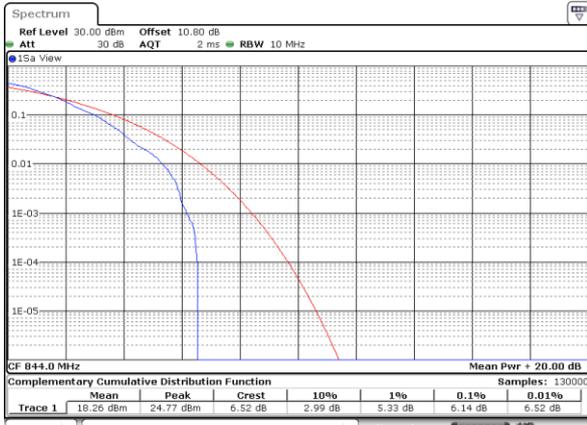
Date: 4 JAN 2020 05:26:03

Middle Channel / Full RB



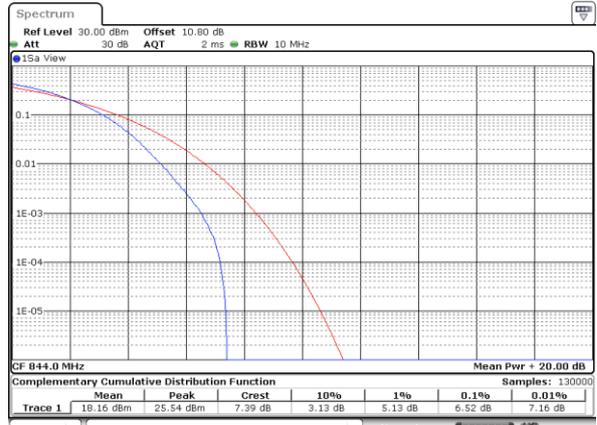
Date: 4 JAN 2020 05:26:29

Highest Channel / 1RB



Date: 4 JAN 2020 05:26:43

Highest Channel / Full RB



Date: 4 JAN 2020 05:26:56



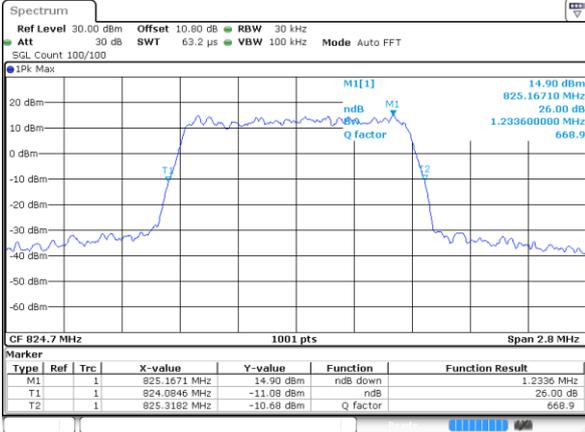
**26dB Bandwidth**

Mode	LTE Band 5 : 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	1.23	1.23	3.03	2.99	4.99	4.92	9.63	9.75	-	-	-	-
Middle CH	1.24	1.23	3.04	2.97	4.91	4.85	9.75	9.71	-	-	-	-
Highest CH	1.23	1.22	3.03	2.96	4.88	4.89	9.65	9.83	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.21	-	3.05	-	4.96	-	9.75	-	-	-	-	-
Middle CH	1.23	-	3.01	-	4.88	-	9.65	-	-	-	-	-
Highest CH	1.21	-	2.96	-	4.85	-	9.83	-	-	-	-	-



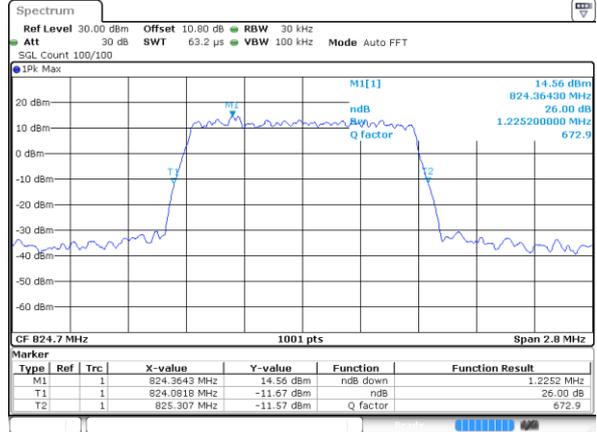
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



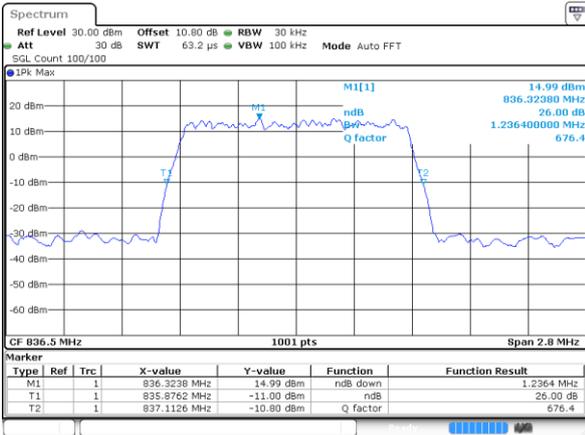
Date: 4 JAN 2020 06:00:22

Lowest Channel / 1.4MHz / 16QAM



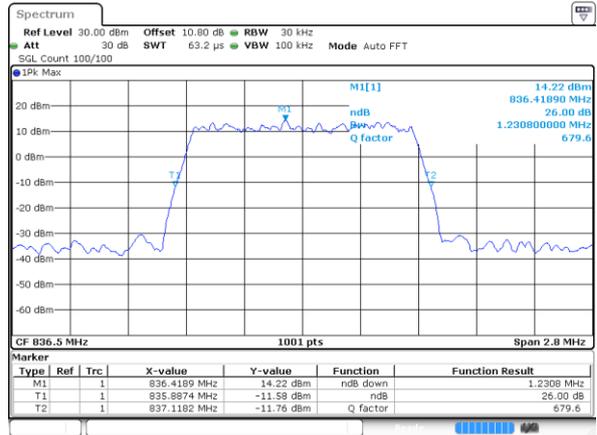
Date: 4 JAN 2020 06:00:10

Middle Channel / 1.4MHz / QPSK



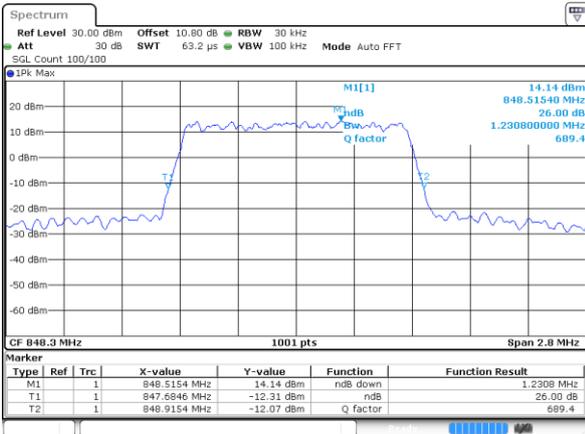
Date: 4 JAN 2020 06:05:42

Middle Channel / 1.4MHz / 16QAM



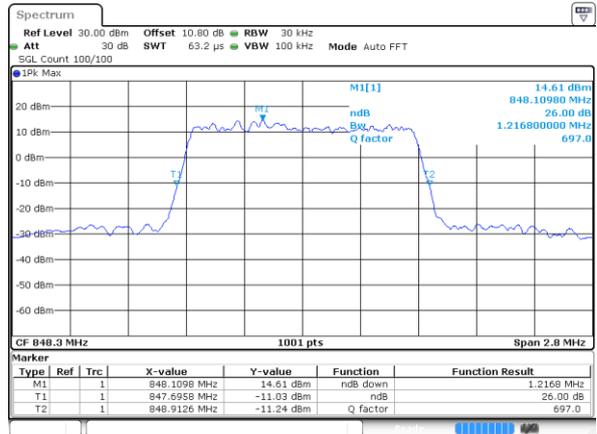
Date: 4 JAN 2020 06:05:54

Highest Channel / 1.4MHz / QPSK



Date: 4 JAN 2020 06:07:51

Highest Channel / 1.4MHz / 16QAM

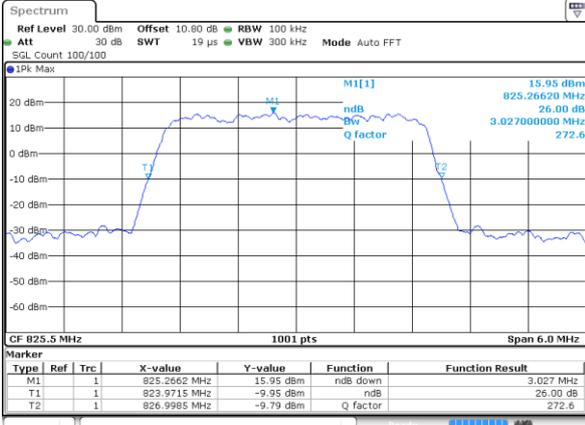


Date: 4 JAN 2020 06:08:04



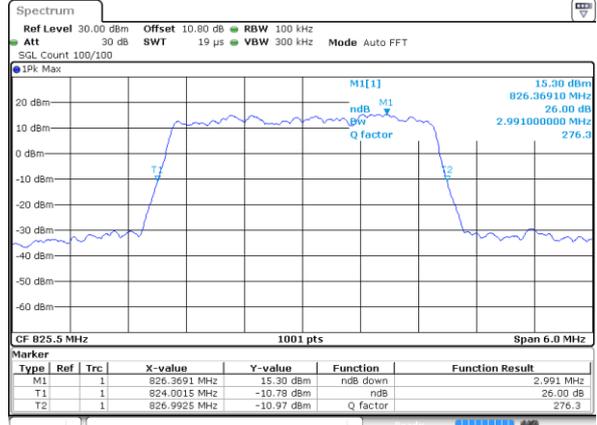
LTE Band 5

Lowest Channel / 3MHz / QPSK



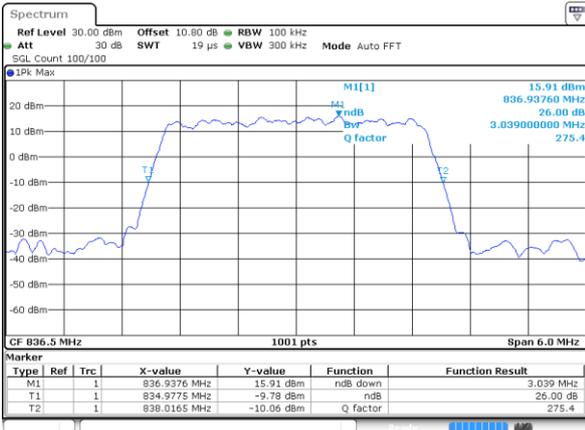
Date: 4 JAN 2020 05:29:26

Lowest Channel / 3MHz / 16QAM



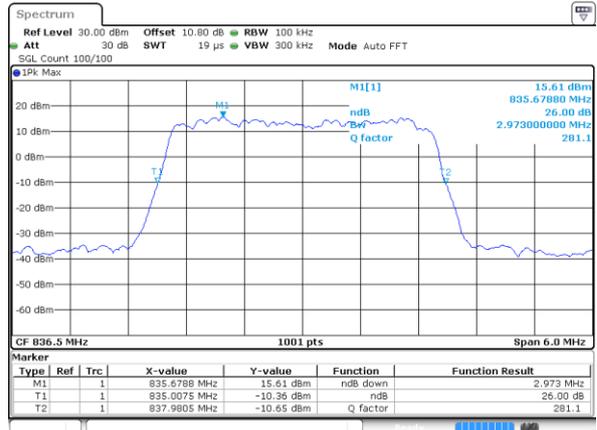
Date: 4 JAN 2020 05:29:38

Middle Channel / 3MHz / QPSK



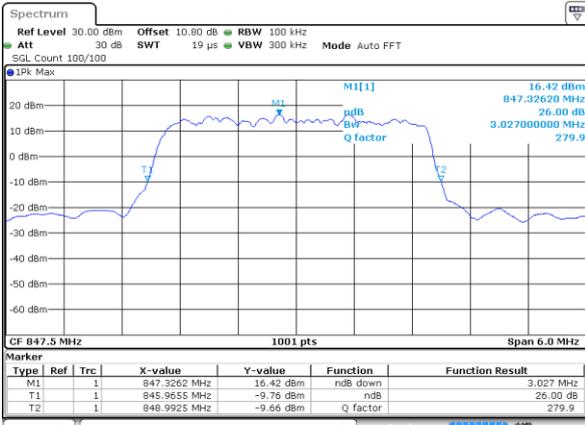
Date: 4 JAN 2020 05:38:19

Middle Channel / 3MHz / 16QAM



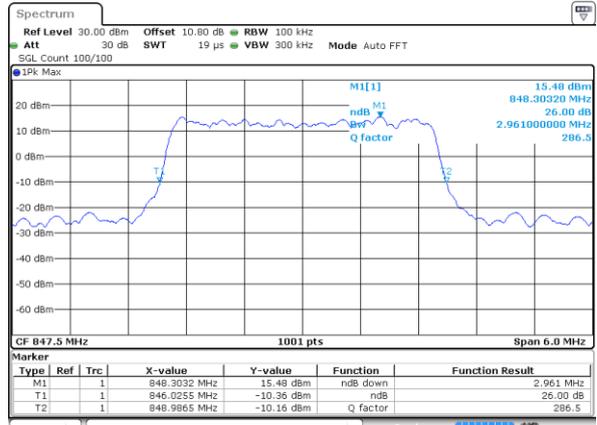
Date: 4 JAN 2020 05:38:30

Highest Channel / 3MHz / QPSK



Date: 4 JAN 2020 05:40:28

Highest Channel / 3MHz / 16QAM



Date: 4 JAN 2020 05:40:40