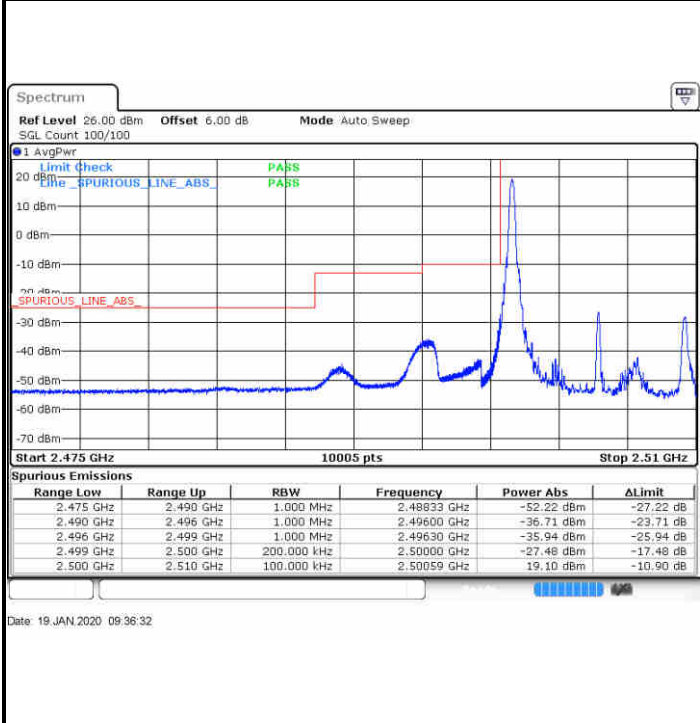


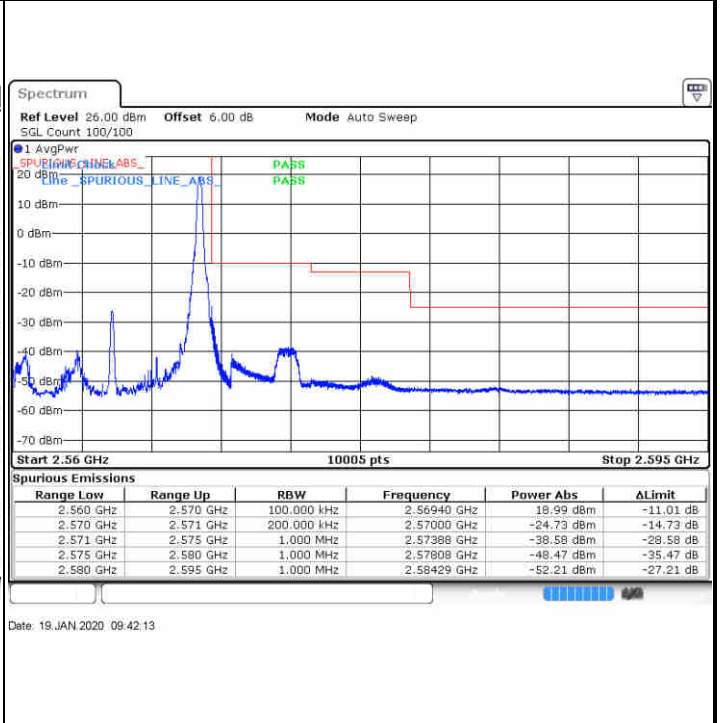


**LTE Band 7 / 10MHz / 16QAM**

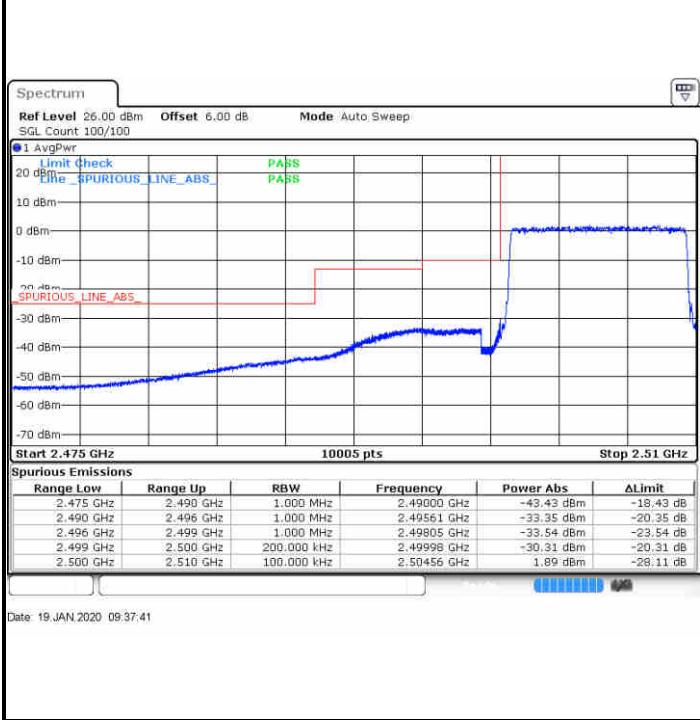
**Lowest Band Edge / 1 RB**



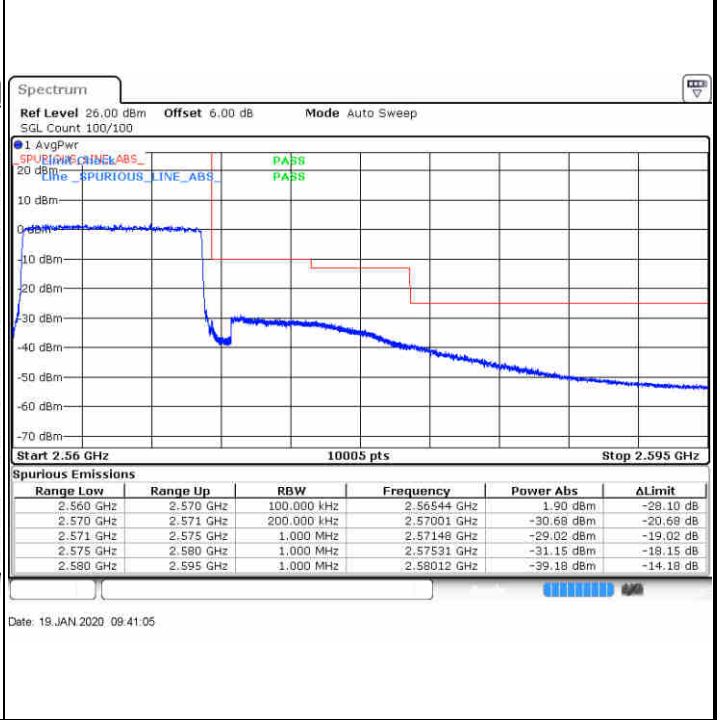
**Highest Band Edge / 1 RB**



**Lowest Band Edge / Full RB**



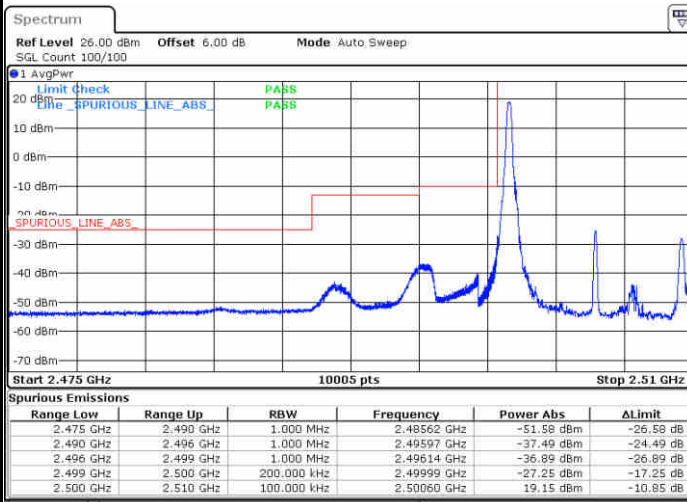
**Highest Band Edge / Full RB**





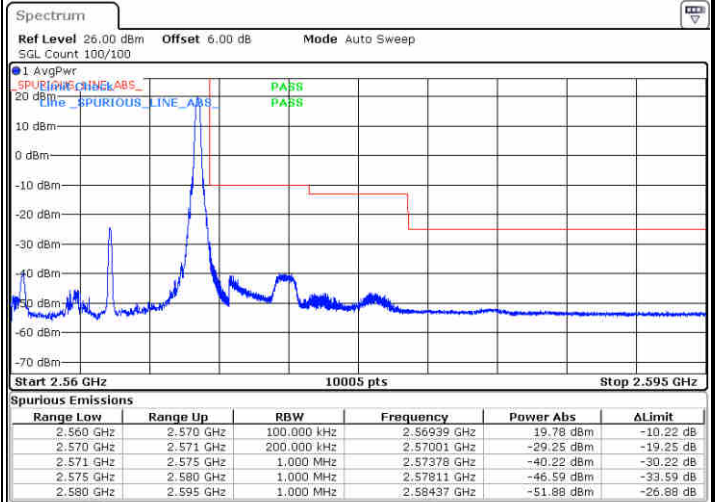
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



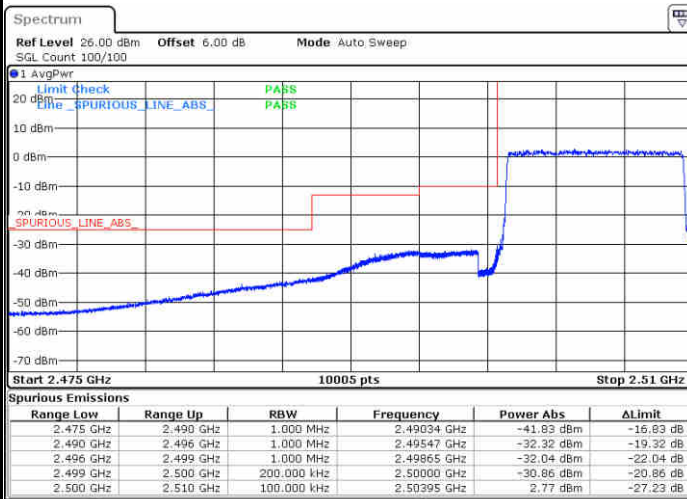
Date: 19.JAN.2020 10:34:43

Highest Band Edge / 1 RB



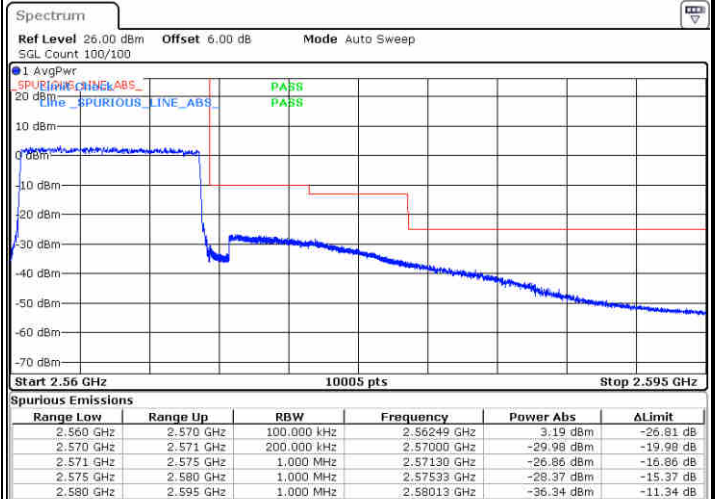
Date: 19.JAN.2020 10:36:59

Lowest Band Edge / Full RB



Date: 19.JAN.2020 10:35:51

Highest Band Edge / Full RB

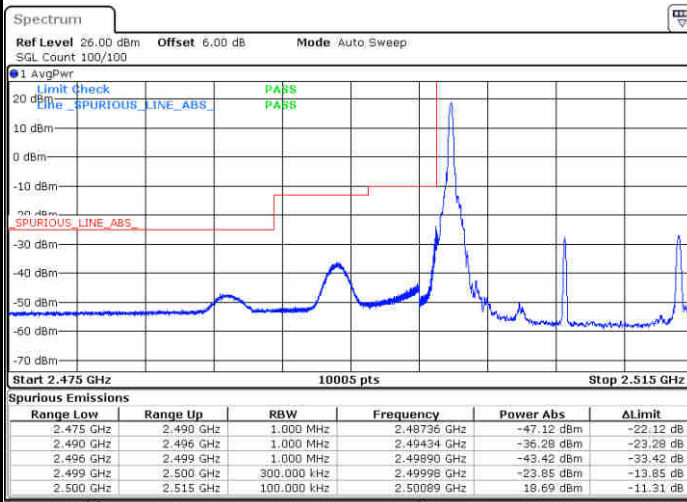


Date: 19.JAN.2020 10:38:07



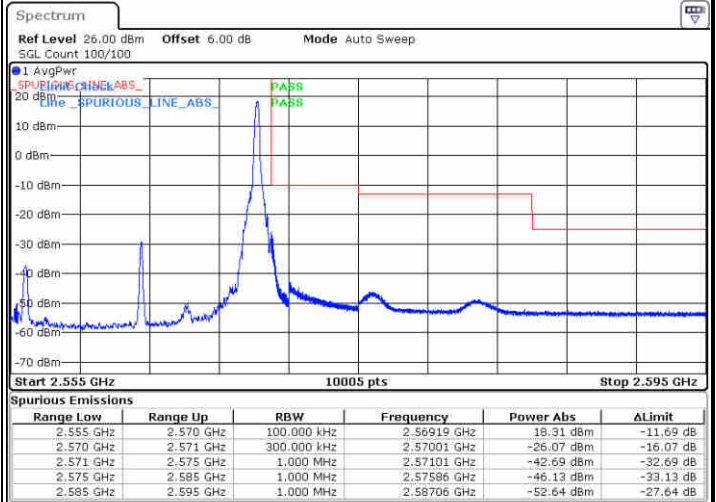
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



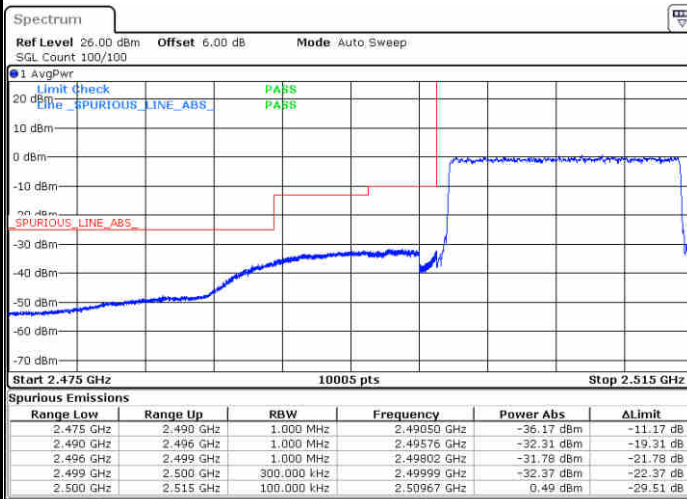
Date: 19.JAN.2020 09:51:51

Highest Band Edge / 1 RB



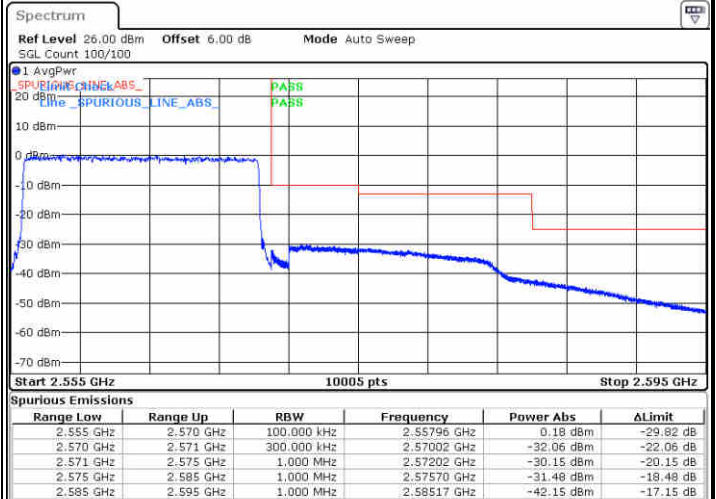
Date: 19.JAN.2020 09:59:48

Lowest Band Edge / Full RB



Date: 19.JAN.2020 09:55:16

Highest Band Edge / Full RB

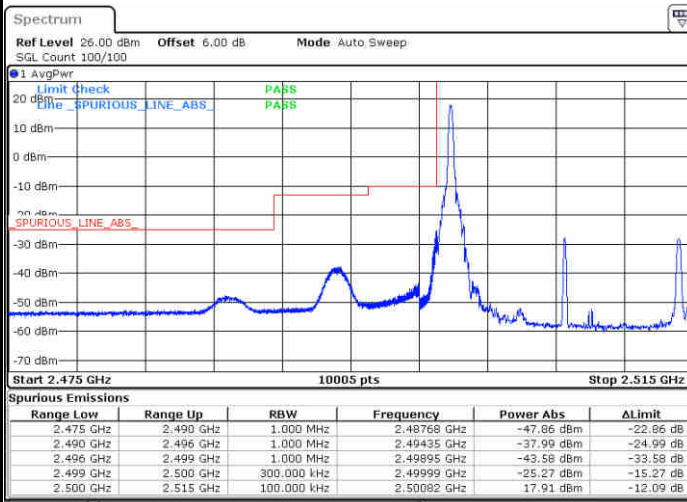


Date: 19.JAN.2020 09:56:24



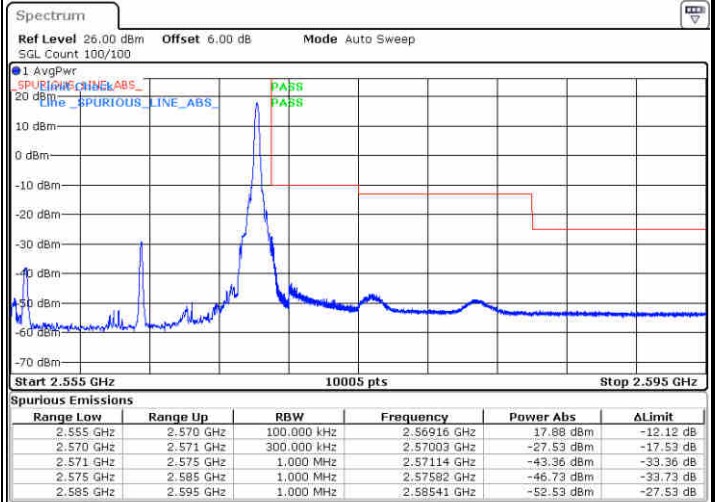
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



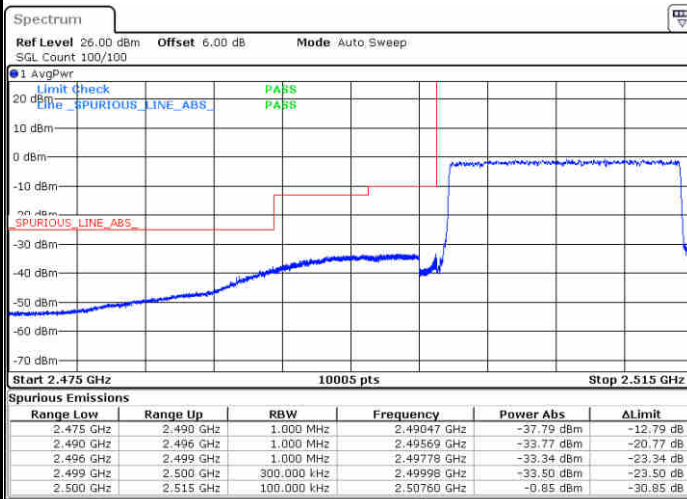
Date: 19.JAN.2020 09:53:00

Highest Band Edge / 1 RB



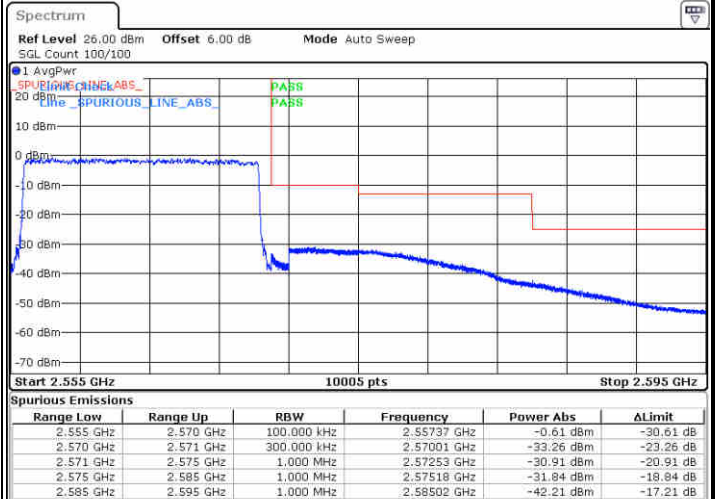
Date: 19.JAN.2020 09:58:40

Lowest Band Edge / Full RB



Date: 19.JAN.2020 09:54:08

Highest Band Edge / Full RB

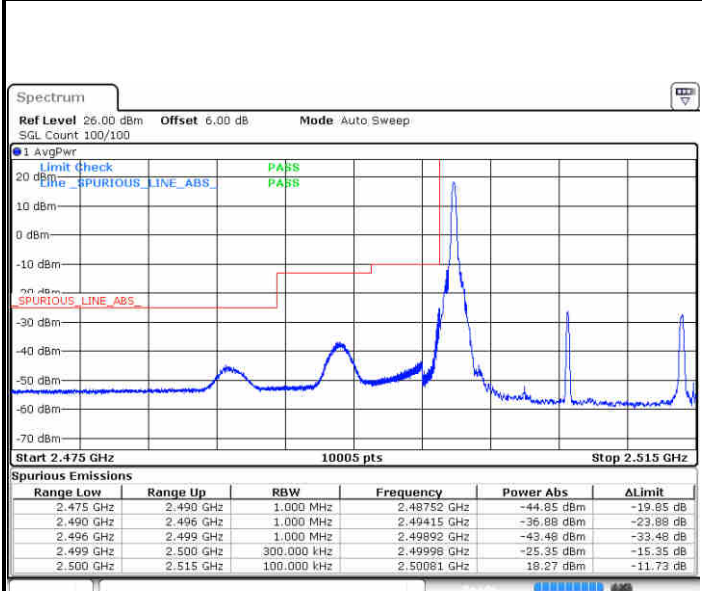


Date: 19.JAN.2020 09:57:32



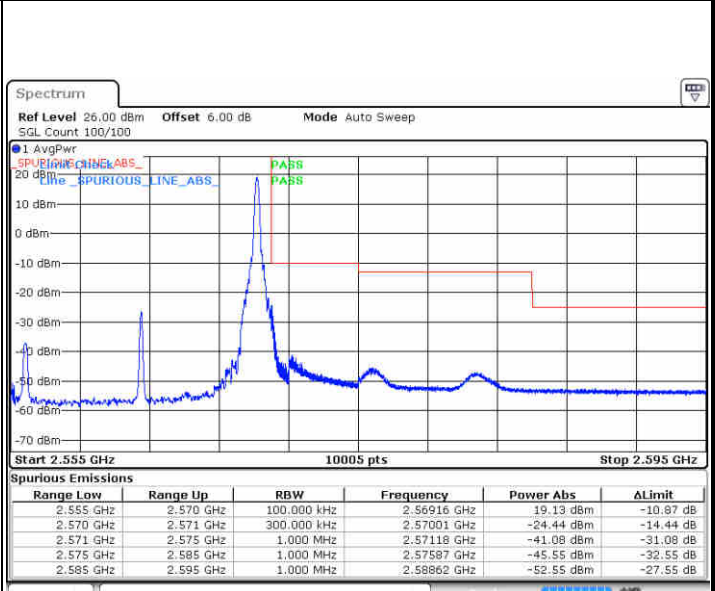
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



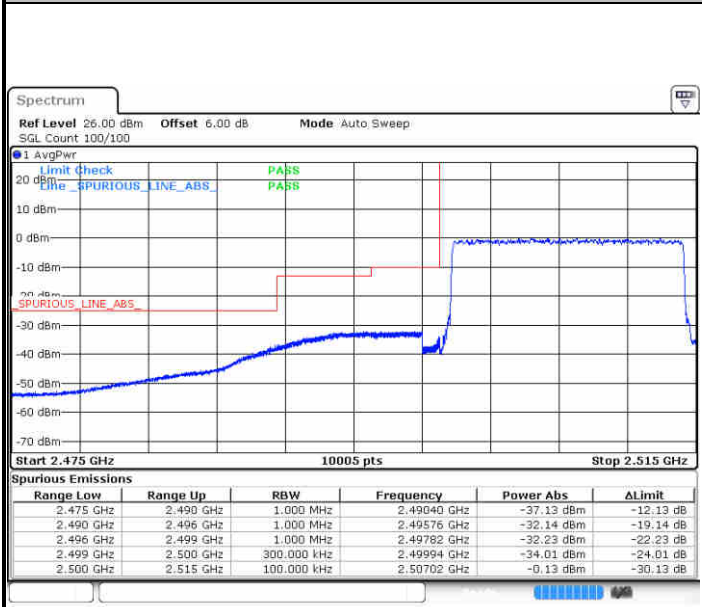
Date: 19.JAN.2020 10:41:23

Highest Band Edge / 1 RB



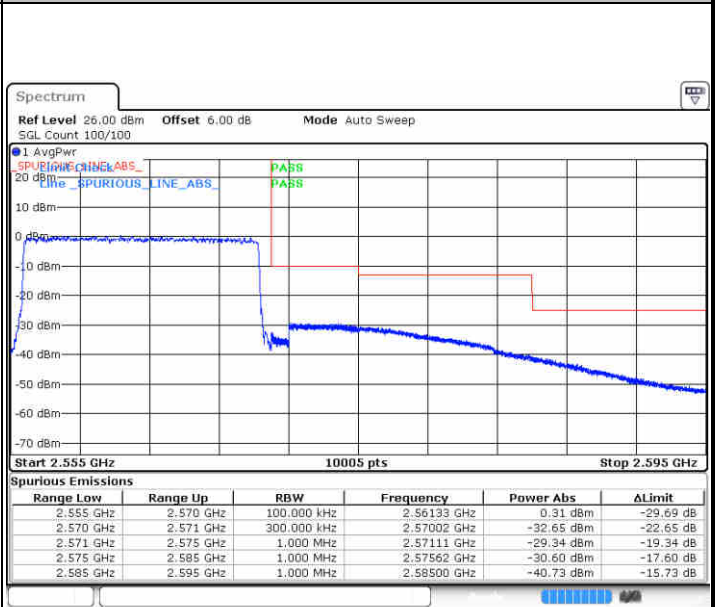
Date: 19.JAN.2020 10:43:39

Lowest Band Edge / Full RB



Date: 19.JAN.2020 10:40:15

Highest Band Edge / Full RB

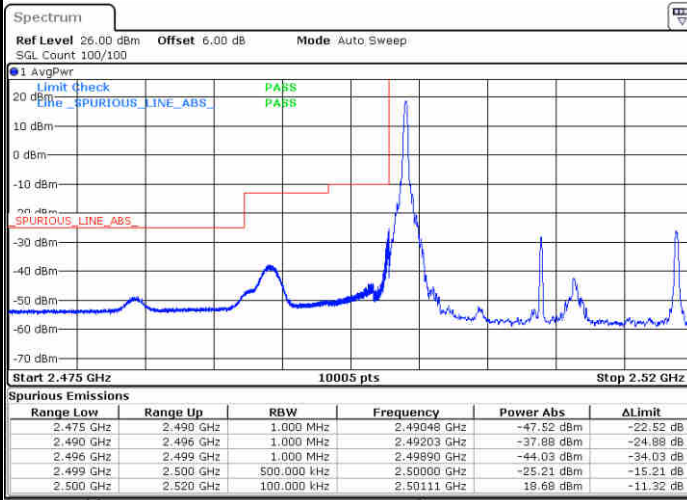


Date: 19.JAN.2020 10:42:31



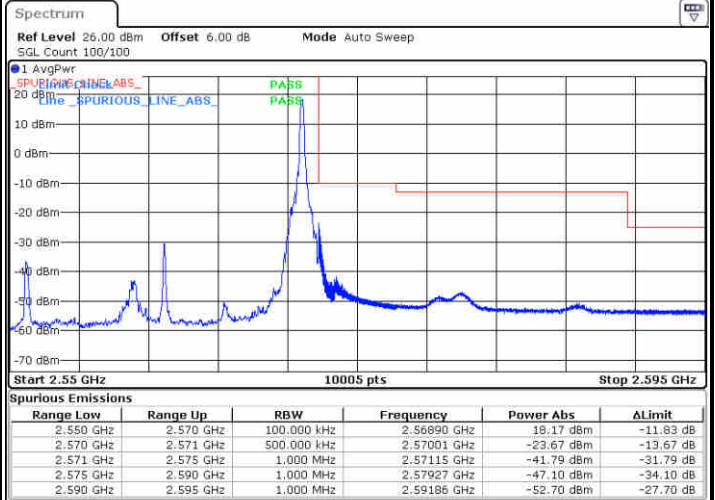
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



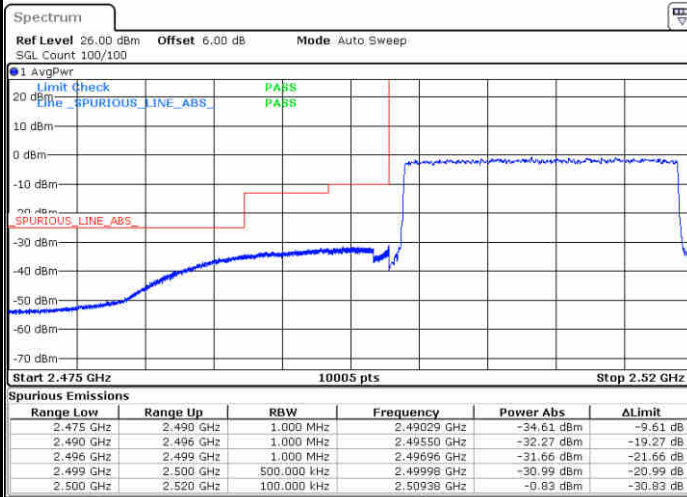
Date: 19 JAN 2020 10:08:19

Highest Band Edge / 1 RB



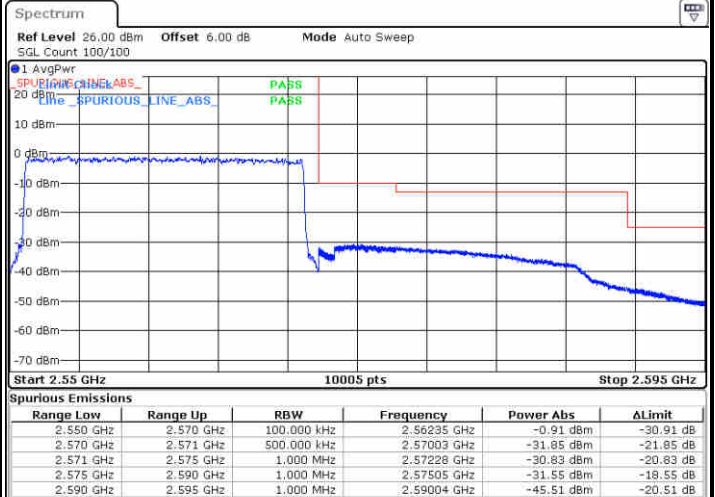
Date: 19 JAN 2020 10:16:17

Lowest Band Edge / Full RB



Date: 19 JAN 2020 10:11:44

Highest Band Edge / Full RB

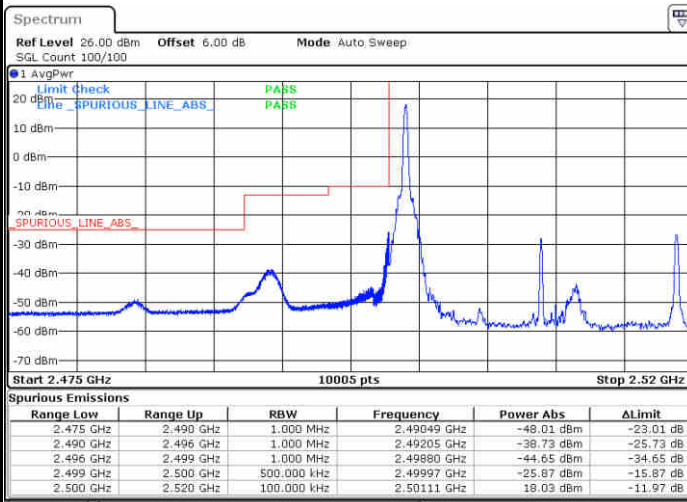


Date: 19 JAN 2020 10:12:52



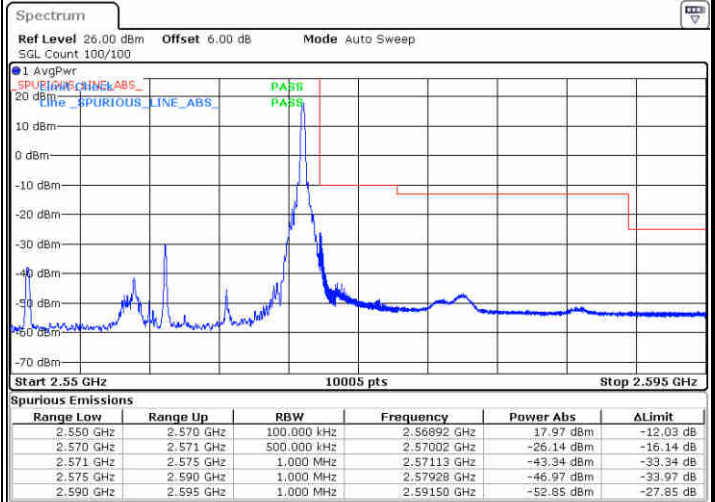
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



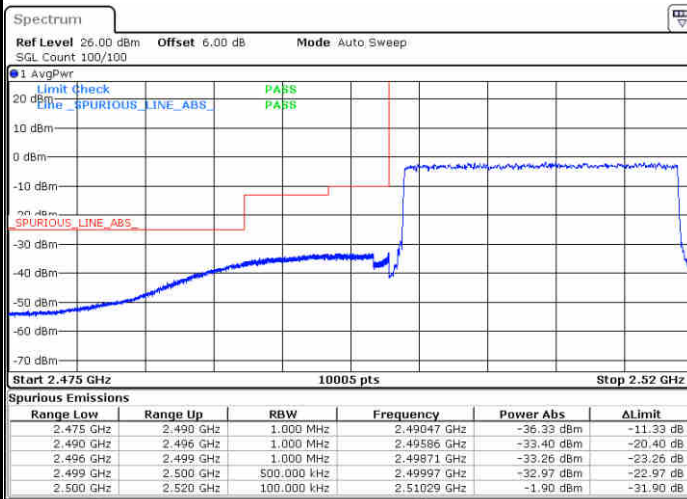
Date: 19.JAN.2020 10:09:28

Highest Band Edge / 1RB



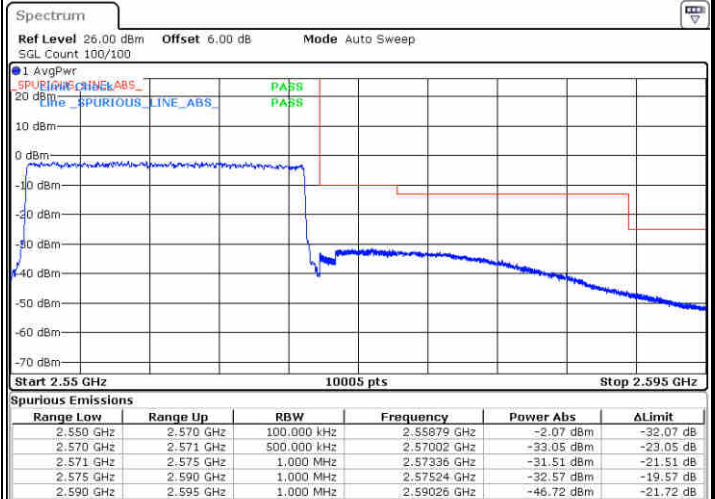
Date: 19.JAN.2020 10:15:08

Lowest Band Edge / Full RB



Date: 19.JAN.2020 10:10:36

Highest Band Edge / Full RB

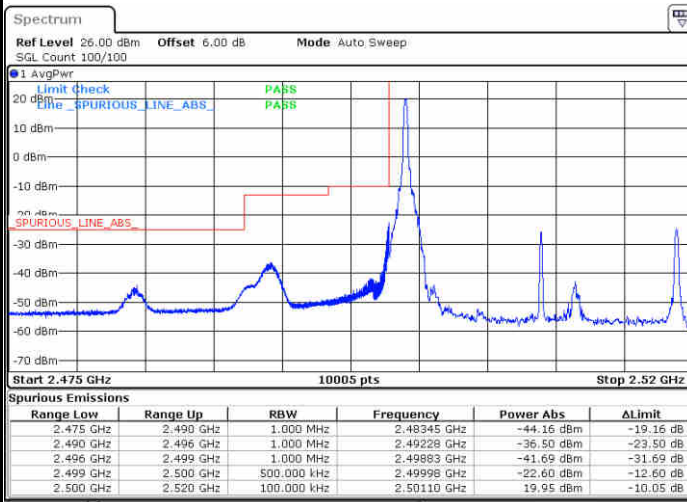


Date: 19.JAN.2020 10:14:00



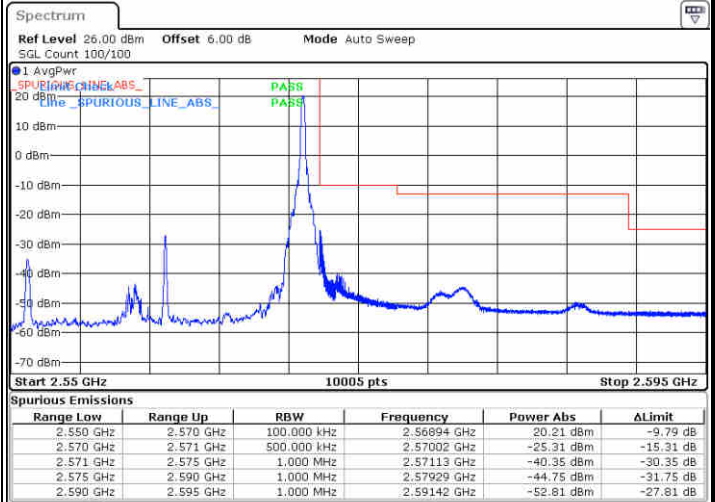
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



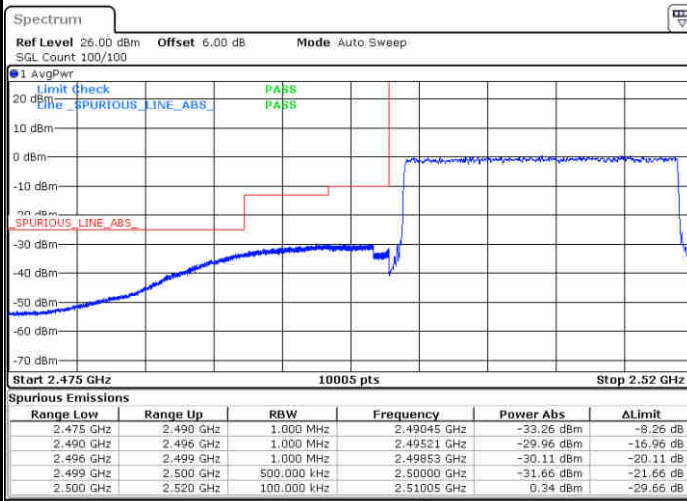
Date: 19.JAN.2020 10:49:37

Highest Band Edge / 1 RB



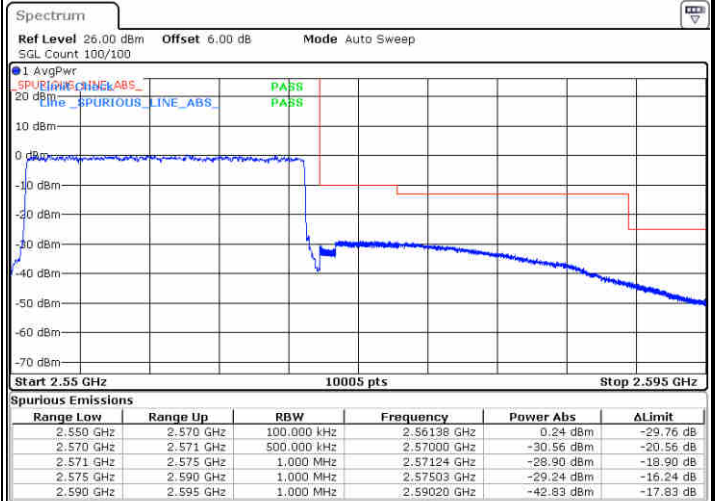
Date: 19.JAN.2020 10:51:53

Lowest Band Edge / Full RB



Date: 19.JAN.2020 10:48:29

Highest Band Edge / Full RB

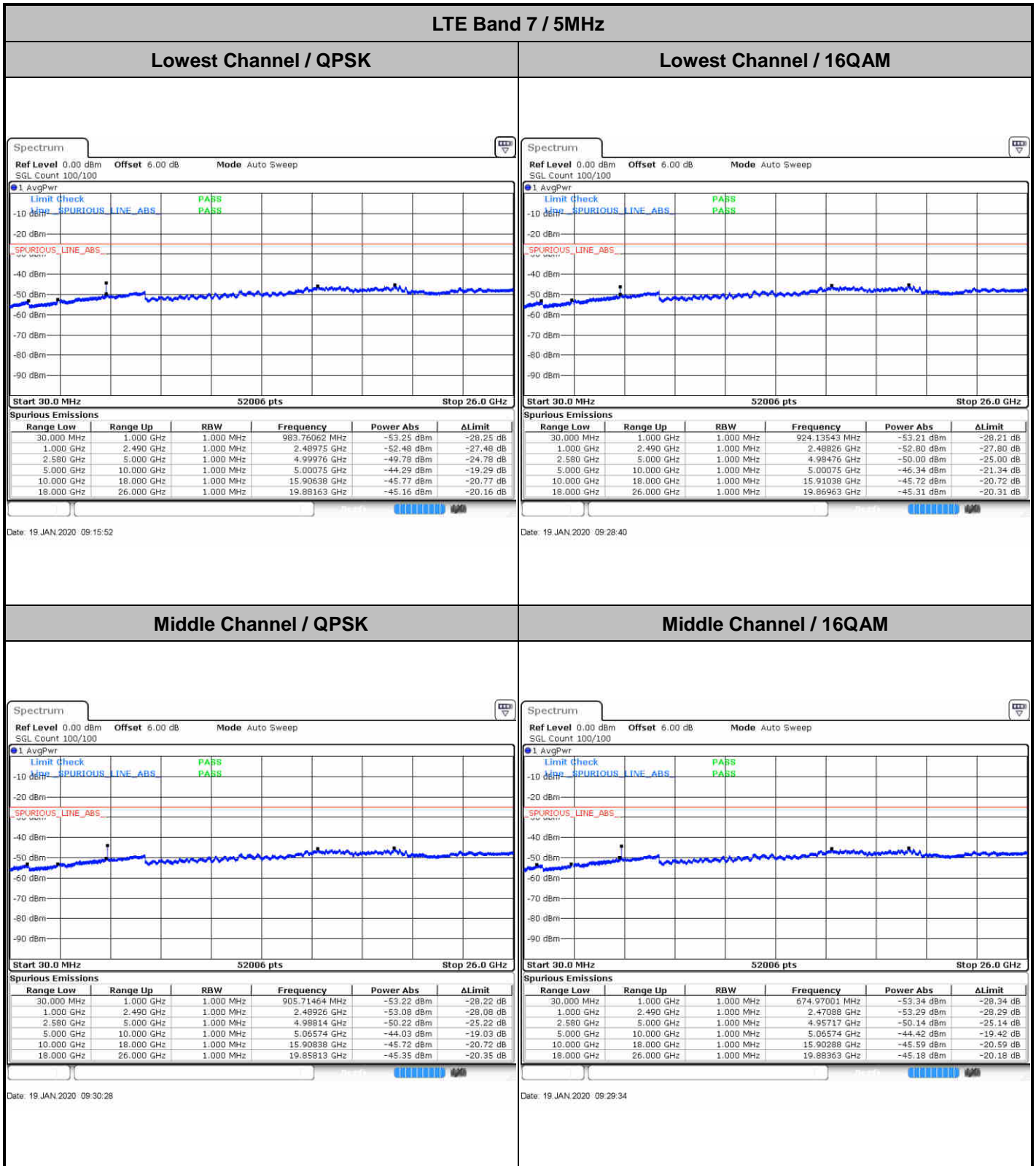


Date: 19.JAN.2020 10:50:45





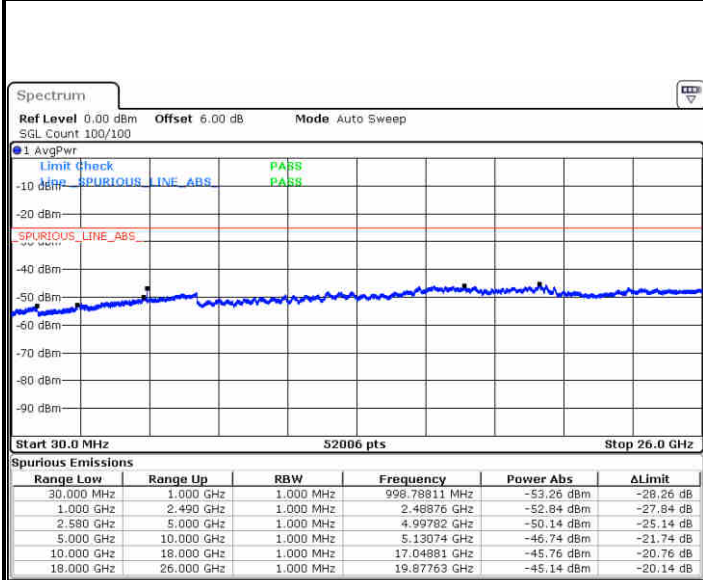
# Conducted Spurious Emission





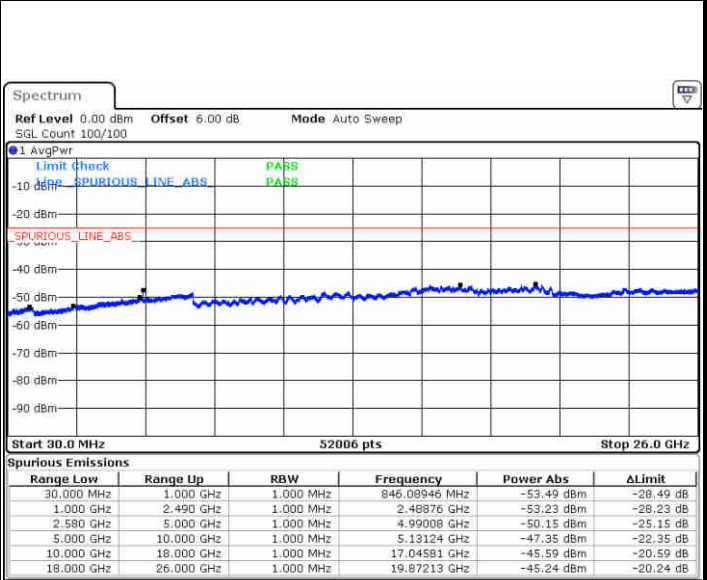
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 19 JAN 2020 09:31:21

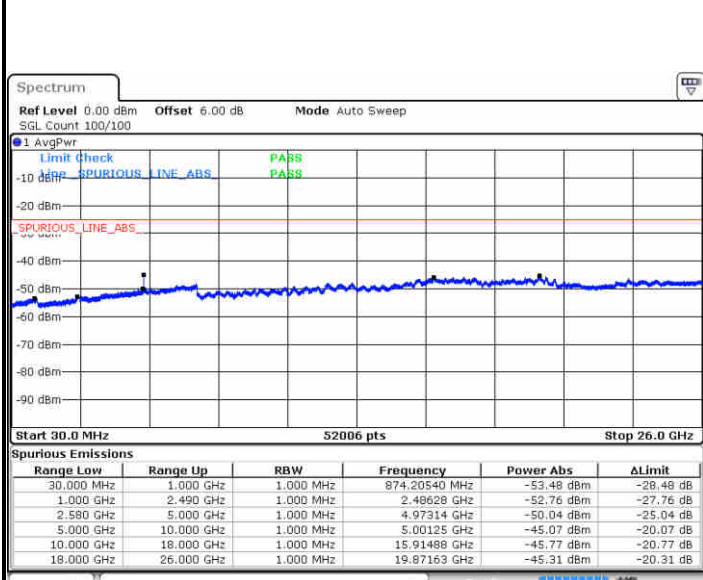
Highest Channel / 16QAM



Date: 19 JAN 2020 09:32:15

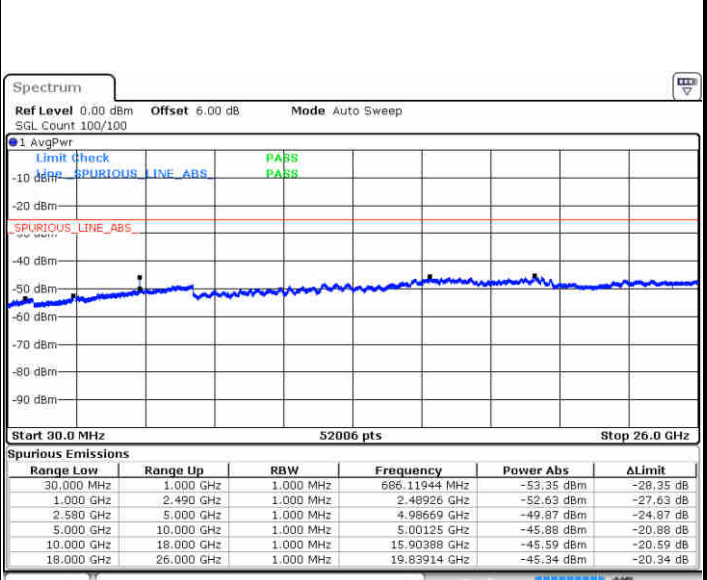
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 19 JAN 2020 09:44:13

Lowest Channel / 16QAM

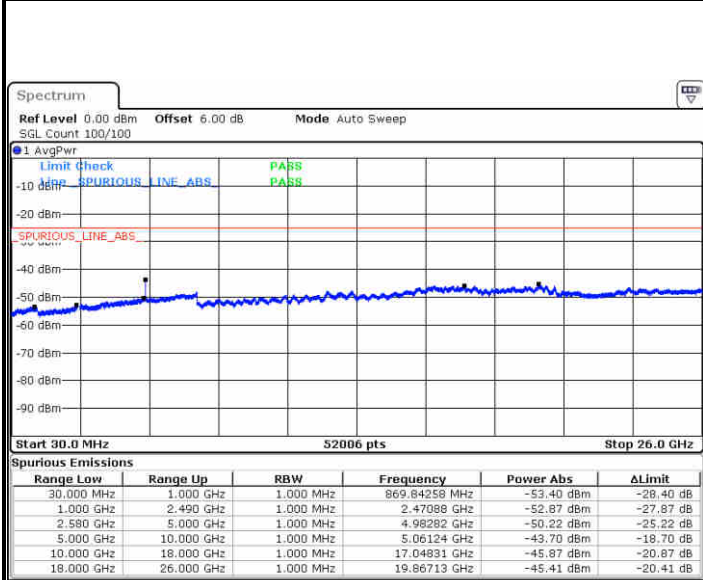


Date: 19 JAN 2020 09:45:07



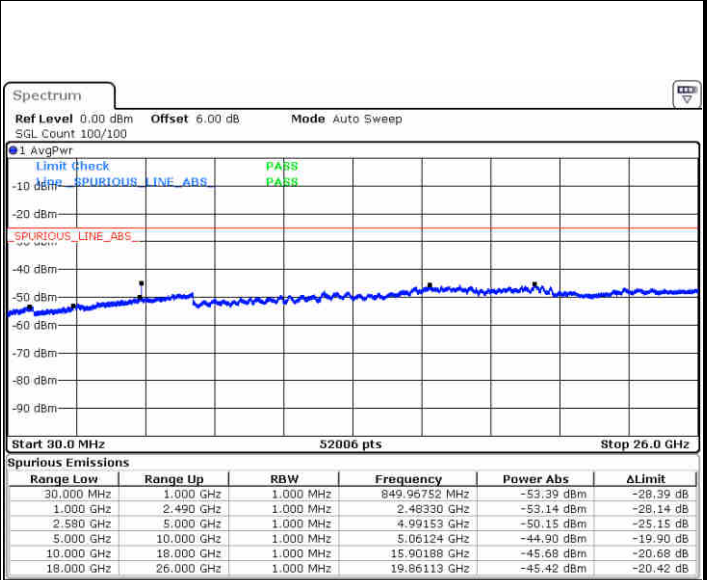
LTE Band 7 / 10MHz

Middle Channel / QPSK



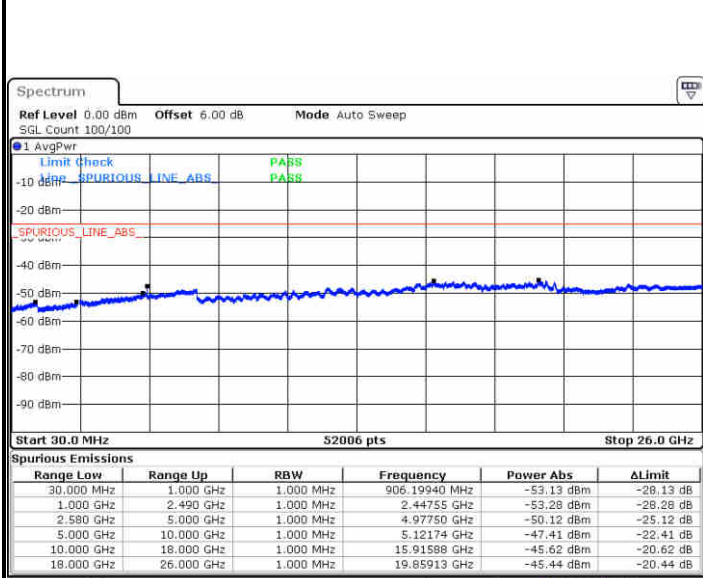
Date: 19 JAN 2020 09:46:55

Middle Channel / 16QAM



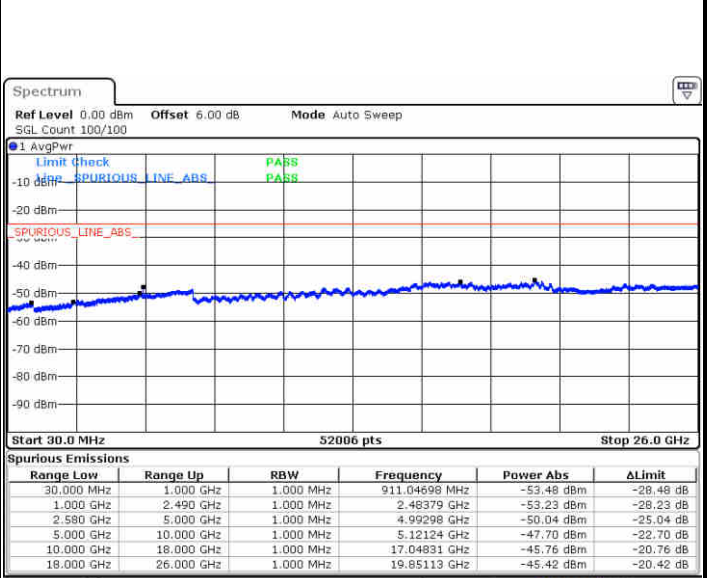
Date: 19 JAN 2020 09:46:01

Highest Channel / QPSK



Date: 19 JAN 2020 09:47:48

Highest Channel / 16QAM



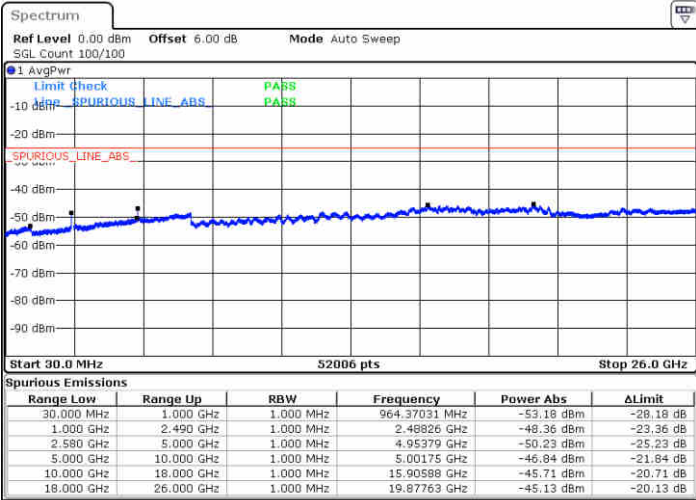
Date: 19 JAN 2020 09:48:42



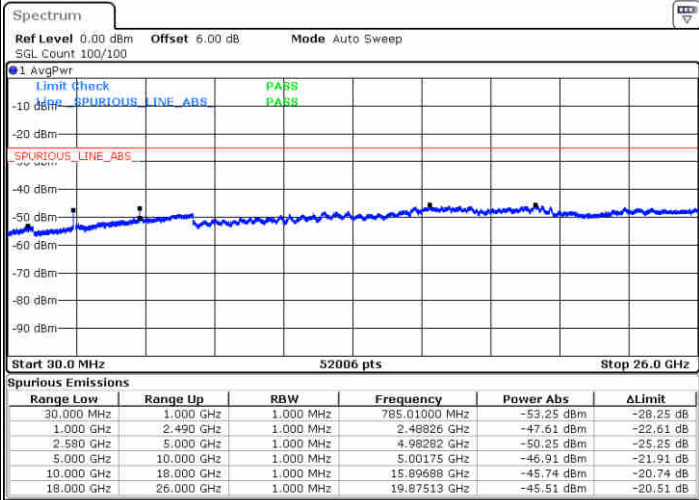
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



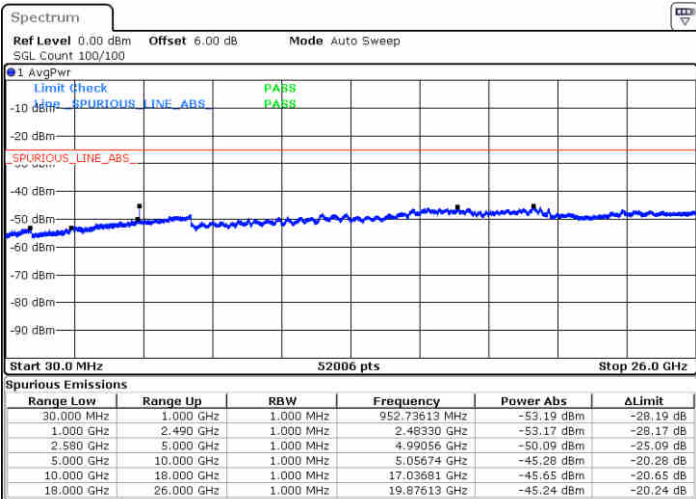
Date: 19 JAN 2020 10:00:41



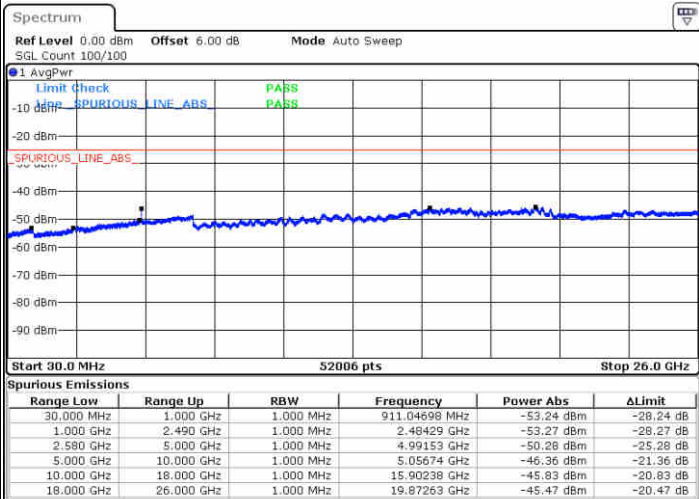
Date: 19 JAN 2020 10:01:35

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 19 JAN 2020 10:03:22

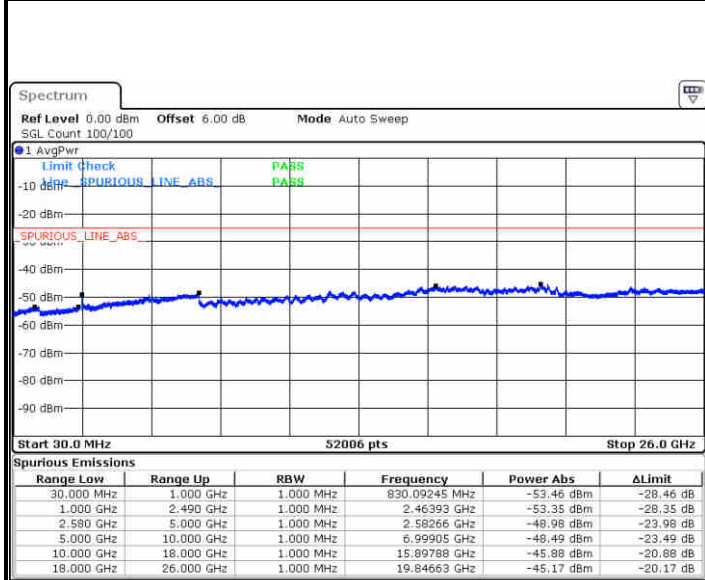


Date: 19 JAN 2020 10:02:29



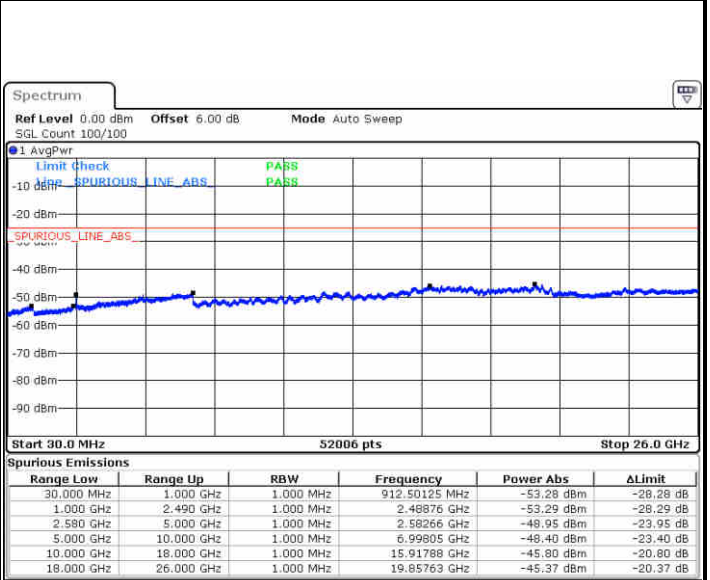
LTE Band 7 / 15MHz

Highest Channel / QPSK



Date: 19 JAN 2020 10:04:16

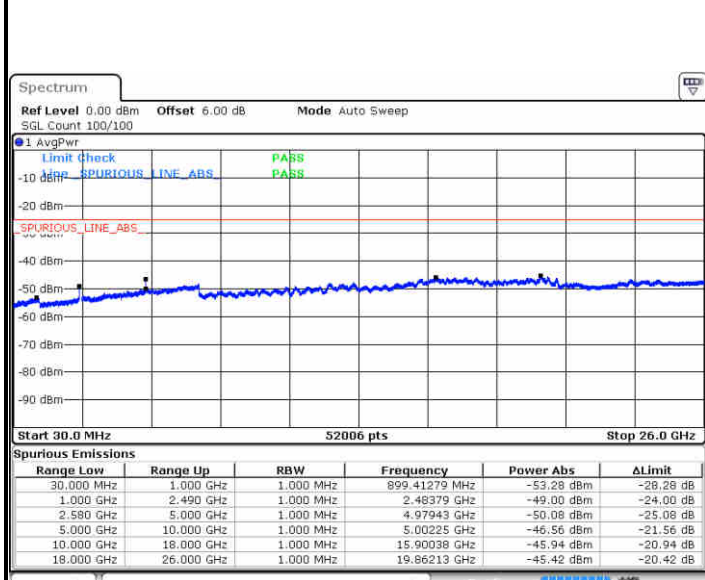
Highest Channel / 16QAM



Date: 19 JAN 2020 10:05:10

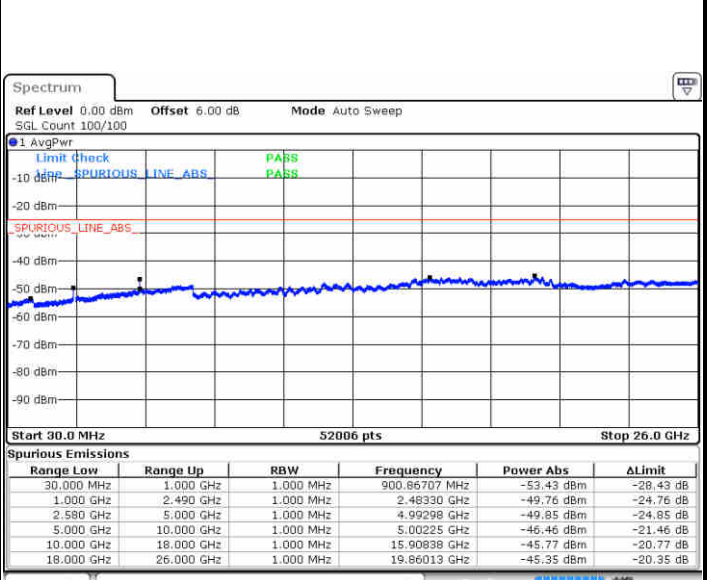
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 19 JAN 2020 10:17:09

Lowest Channel / 16QAM

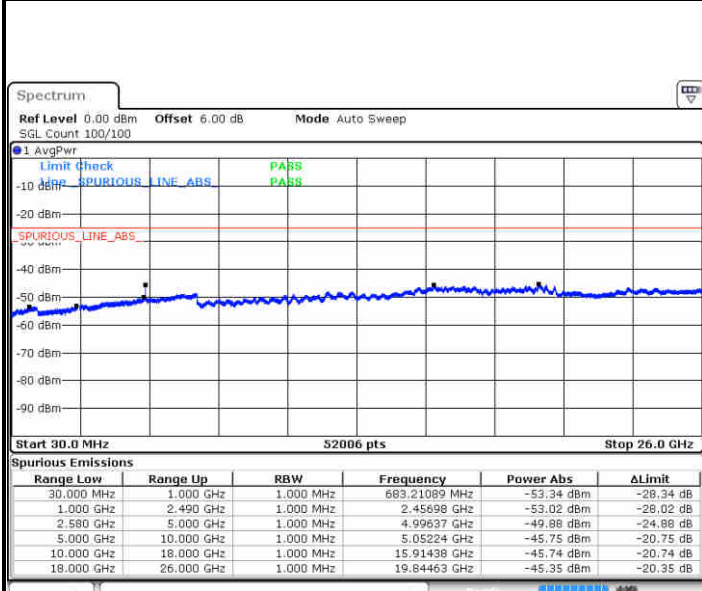


Date: 19 JAN 2020 10:18:03



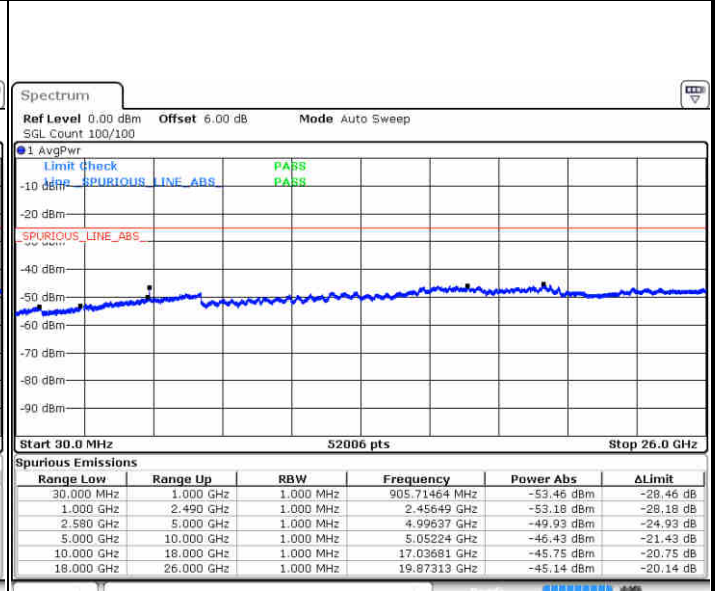
LTE Band 7 / 20MHz

Middle Channel / QPSK



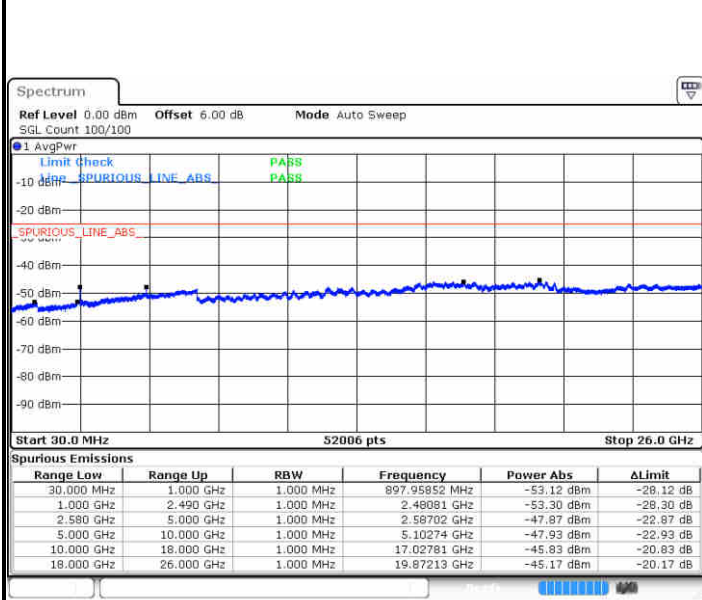
Date: 19 JAN 2020 10:19:50

Middle Channel / 16QAM



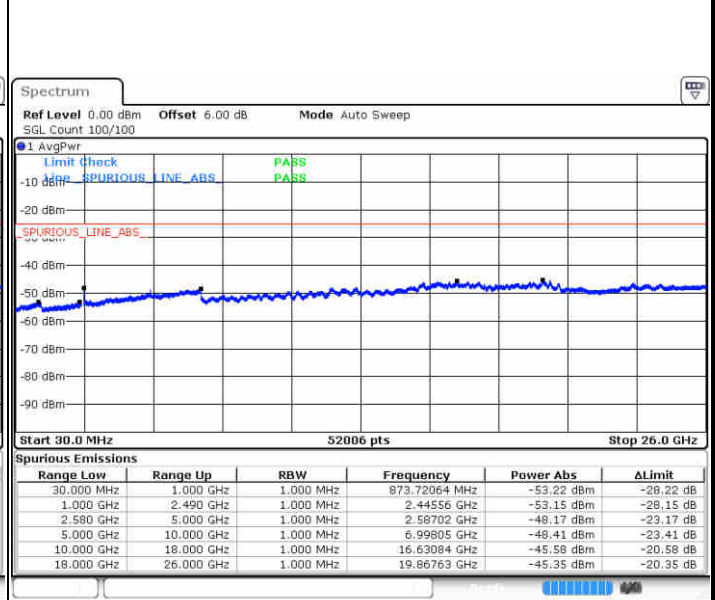
Date: 19 JAN 2020 10:18:57

Highest Channel / QPSK



Date: 19 JAN 2020 10:20:44

Highest Channel / 16QAM



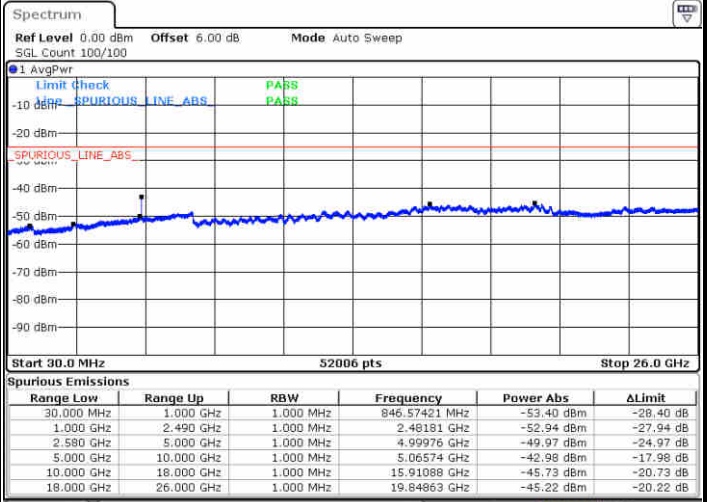
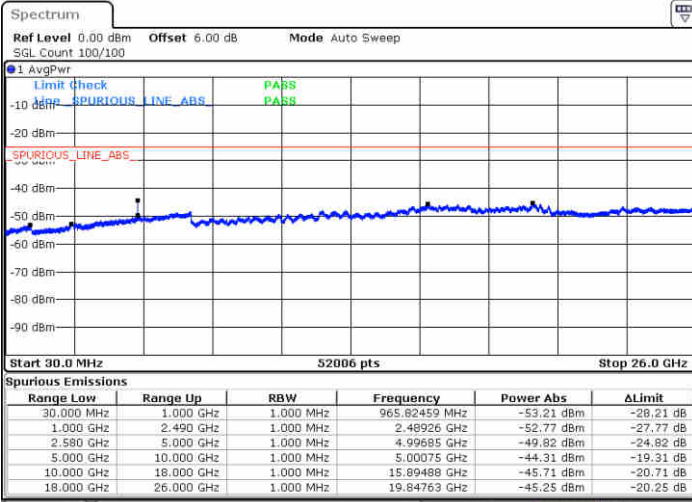
Date: 19 JAN 2020 10:21:38



LTE Band 7 / 5MHz

Lowest Channel / 64QAM

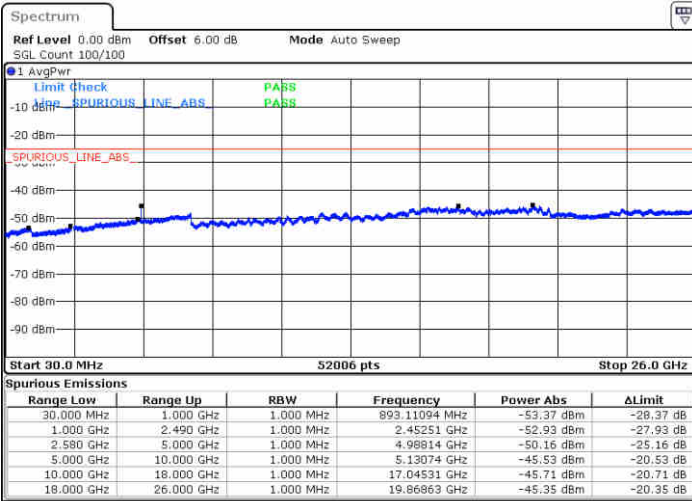
Middle Channel / 64QAM



Date: 19 JAN 2020 10:23:32

Date: 19 JAN 2020 10:24:26

Highest Channel / 64QAM

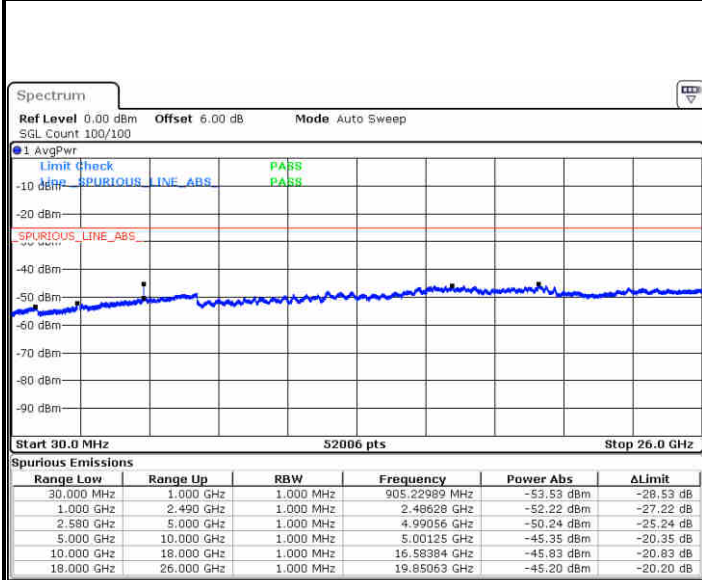


Date: 19 JAN 2020 10:25:19



**LTE Band 7 / 10MHz**

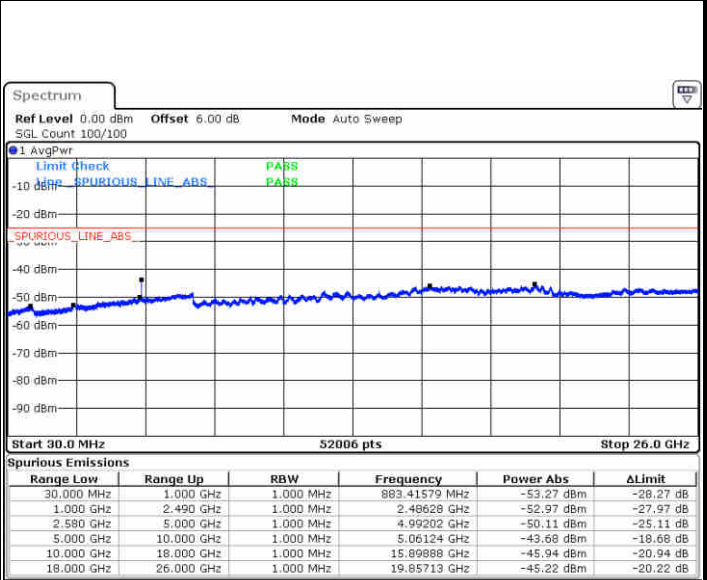
**Lowest Channel / 64QAM**



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	905.22989 MHz	-53.53 dBm	-28.53 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48628 GHz	-52.22 dBm	-27.22 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.99056 GHz	-50.24 dBm	-25.24 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.00125 GHz	-45.35 dBm	-20.35 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.58384 GHz	-45.93 dBm	-20.93 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.85063 GHz	-45.20 dBm	-20.20 dB

Date: 19 JAN 2020 10:31:46

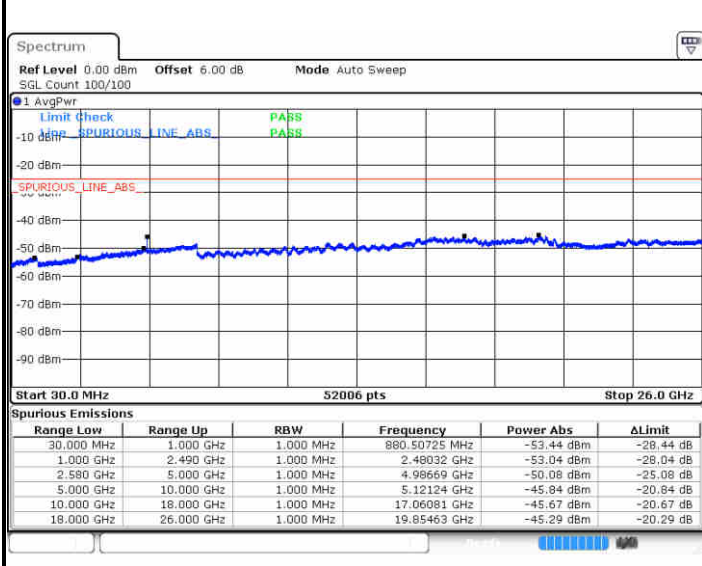
**Middle Channel / 64QAM**



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	883.41579 MHz	-53.27 dBm	-28.27 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48628 GHz	-52.97 dBm	-27.97 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.99202 GHz	-50.11 dBm	-25.11 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.06124 GHz	-43.68 dBm	-18.68 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.89888 GHz	-45.94 dBm	-20.94 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.85713 GHz	-45.22 dBm	-20.22 dB

Date: 19 JAN 2020 10:32:40

**Highest Channel / 64QAM**



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	880.50725 MHz	-53.44 dBm	-28.44 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48032 GHz	-53.04 dBm	-28.04 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.98669 GHz	-50.08 dBm	-25.08 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.12124 GHz	-45.84 dBm	-20.84 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.06081 GHz	-45.67 dBm	-20.67 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.85463 GHz	-45.29 dBm	-20.29 dB

Date: 19 JAN 2020 10:33:33

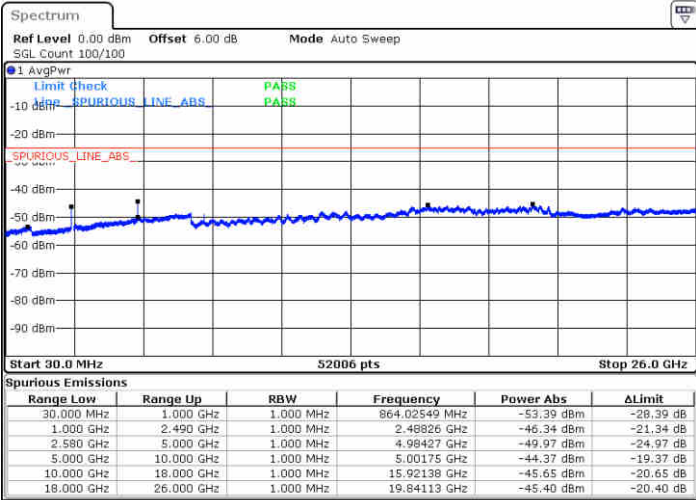




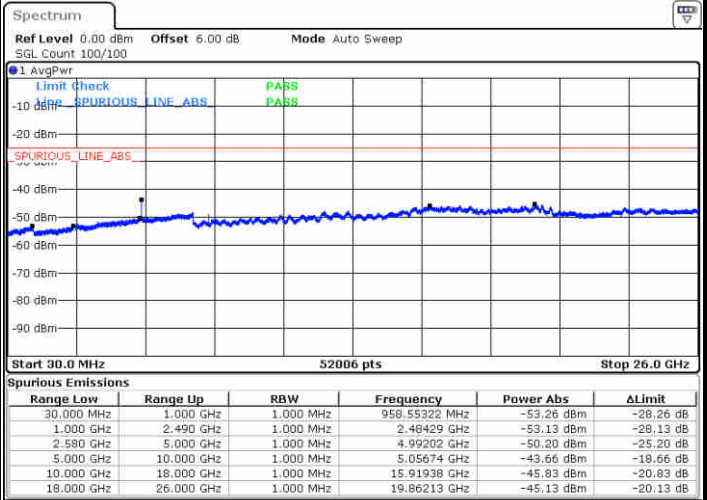
LTE Band 7 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

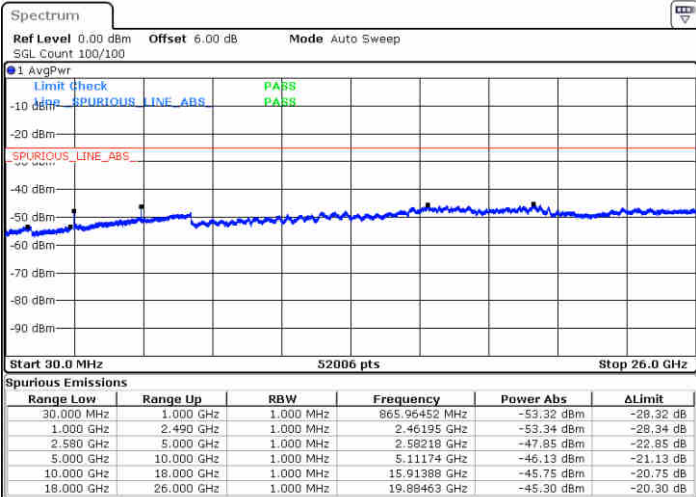


Date: 19 JAN 2020 10:44:32



Date: 19 JAN 2020 10:45:26

Highest Channel / 64QAM

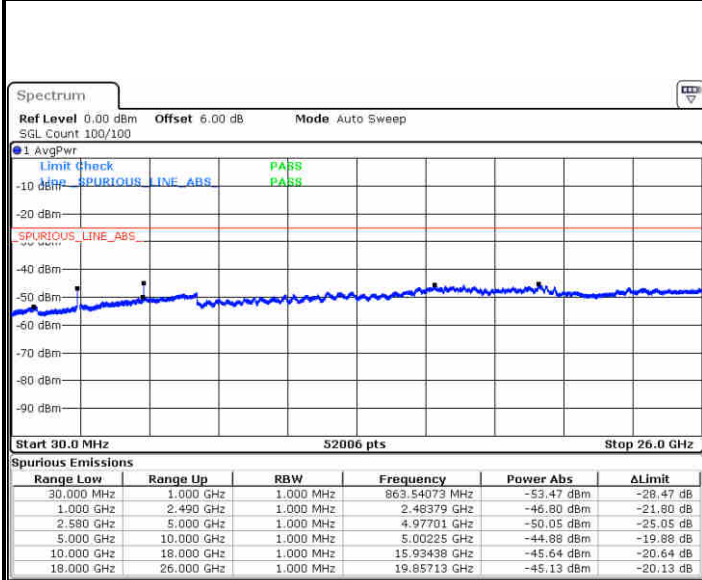


Date: 19 JAN 2020 10:46:20



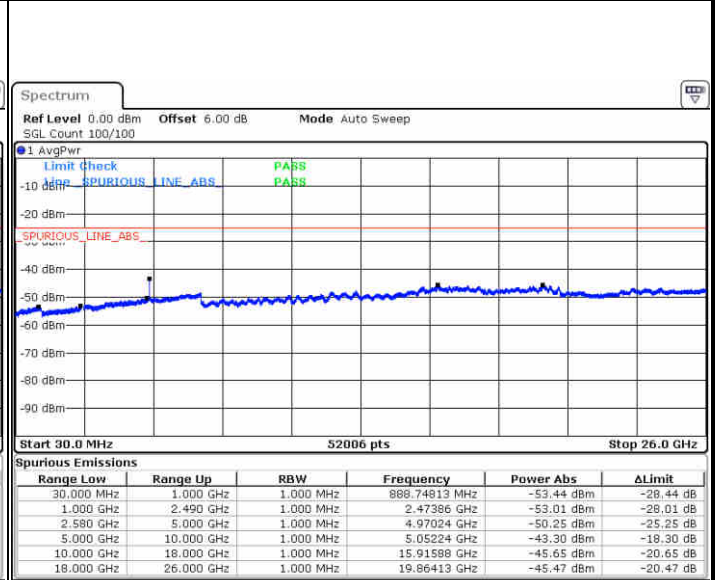
**LTE Band 7 / 20MHz**

**Lowest Channel / 64QAM**



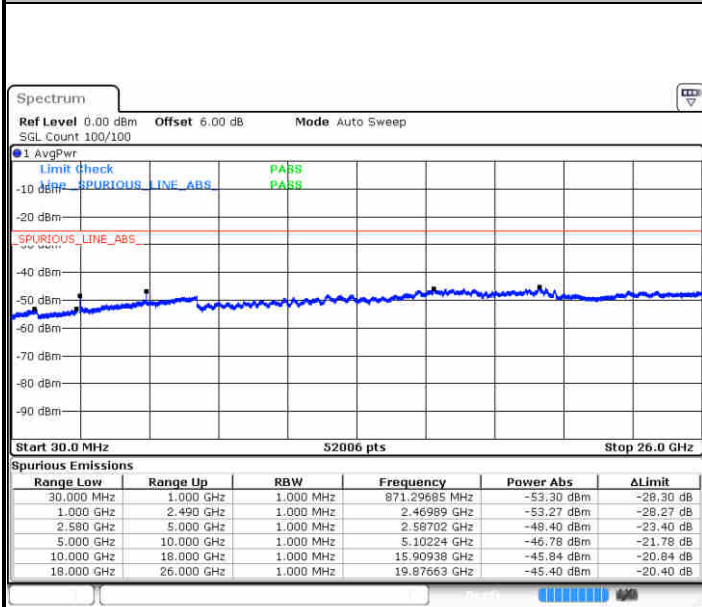
Date: 19 JAN 2020 10:52:46

**Middle Channel / 64QAM**



Date: 19 JAN 2020 10:53:40

**Highest Channel / 64QAM**



Date: 19 JAN 2020 10:54:33



Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0043	PASS
40	Normal Voltage	0.0058	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.40 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 12

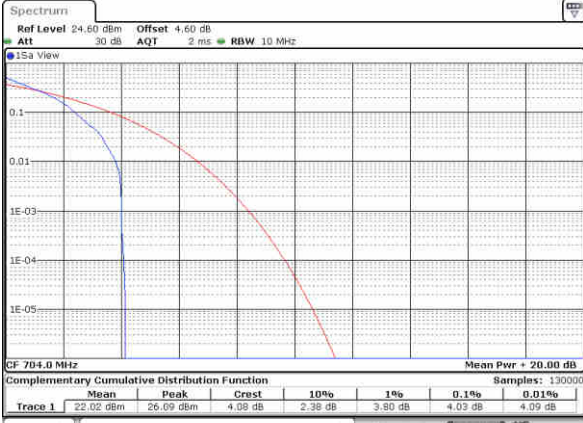
## Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.03	4.67	4.75	5.65	<b>PASS</b>
Middle CH	4.09	4.67	4.78	5.65	
Highest CH	4.06	4.70	4.90	5.59	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	5.10	5.65	<b>PASS</b>		
Middle CH	5.01	5.71			
Highest CH	5.16	5.71			



LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



Date: 17 JAN 2020 09:29:22

Lowest Channel / Full RB



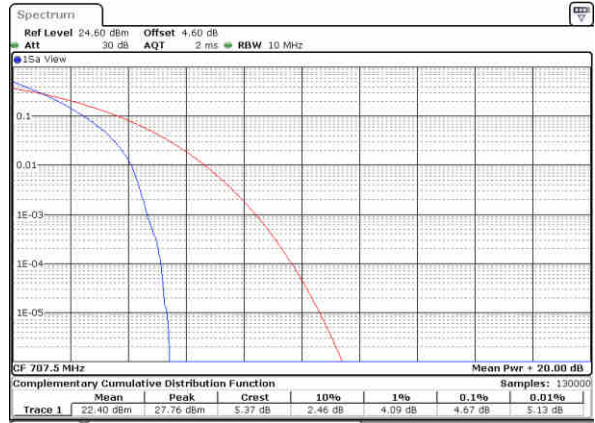
Date: 17 JAN 2020 09:29:41

Middle Channel / 1RB



Date: 17 JAN 2020 09:30:26

Middle Channel / Full RB



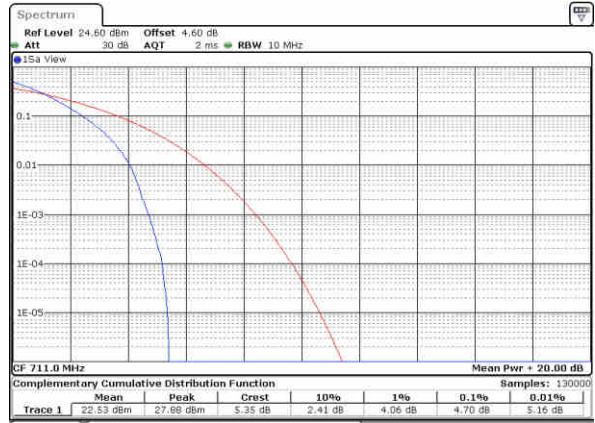
Date: 17 JAN 2020 09:30:09

Highest Channel / 1RB



Date: 17 JAN 2020 09:30:58

Highest Channel / Full RB



Date: 17 JAN 2020 09:31:07



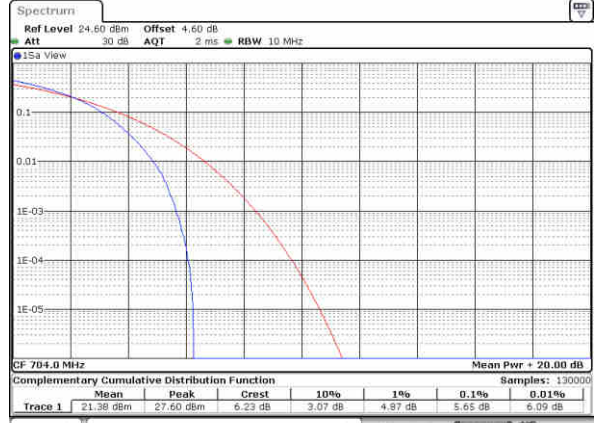
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



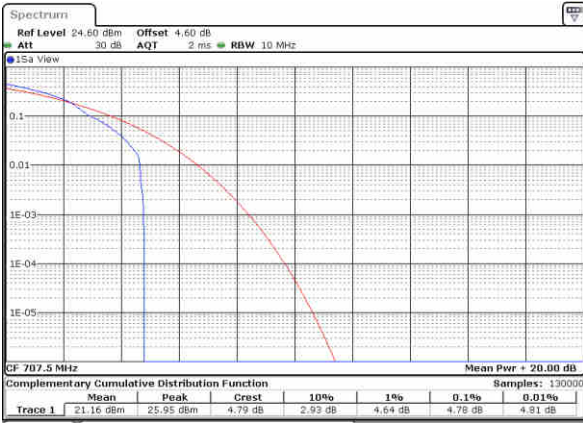
Date: 17 JAN 2020 09:29:01

Lowest Channel / Full RB



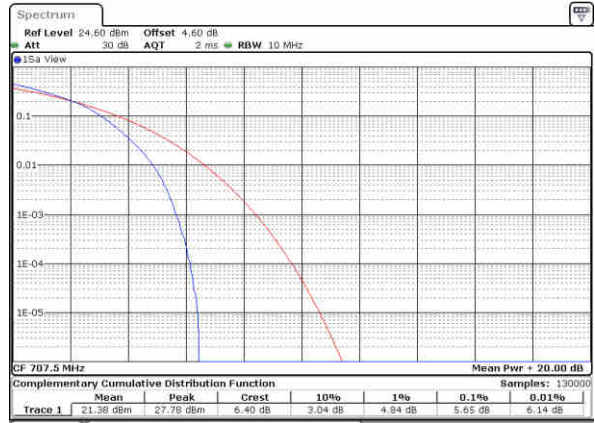
Date: 17 JAN 2020 09:29:50

Middle Channel / 1RB



Date: 17 JAN 2020 09:30:36

Middle Channel / Full RB



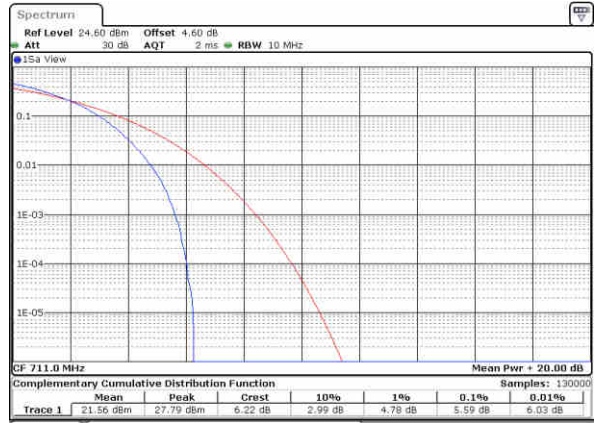
Date: 17 JAN 2020 09:30:00

Highest Channel / 1RB



Date: 17 JAN 2020 09:30:49

Highest Channel / Full RB

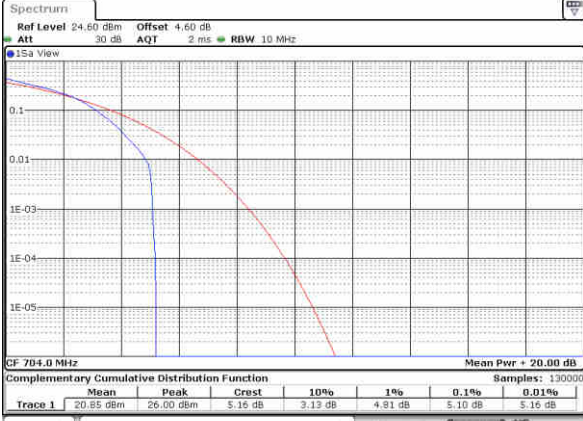


Date: 17 JAN 2020 09:31:15



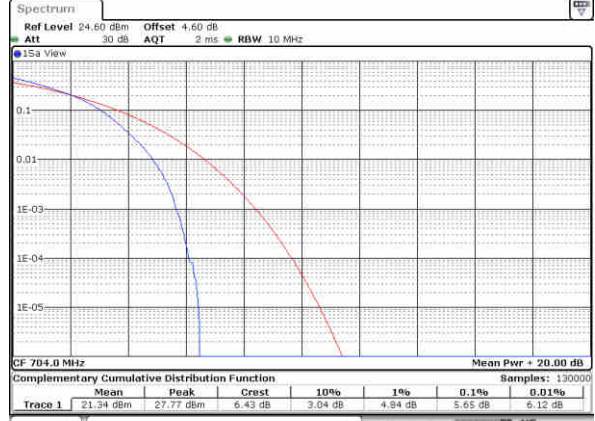
LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



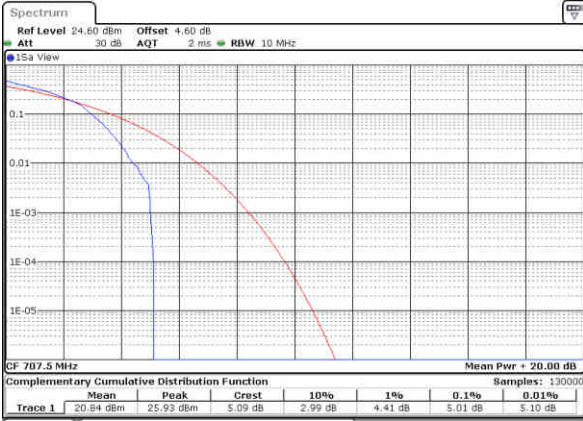
Date: 17 JAN 2020 09:27:50

Lowest Channel / Full RB



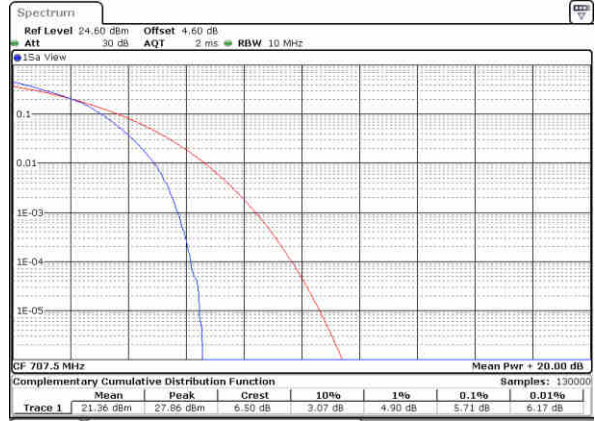
Date: 17 JAN 2020 09:27:59

Middle Channel / 1RB



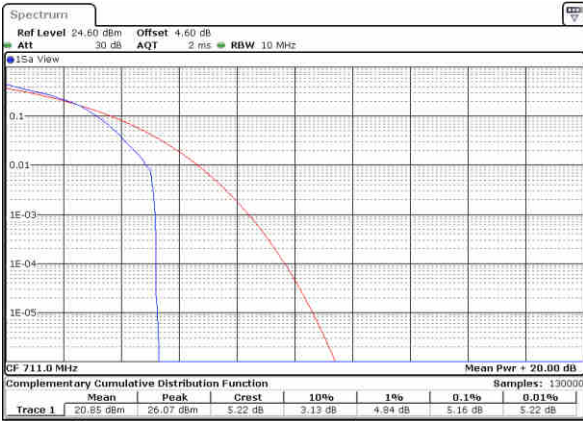
Date: 17 JAN 2020 09:28:19

Middle Channel / Full RB



Date: 17 JAN 2020 09:28:08

Highest Channel / 1RB



Date: 17 JAN 2020 09:28:42

Highest Channel / Full RB



Date: 17 JAN 2020 09:28:51



**26dB Bandwidth**

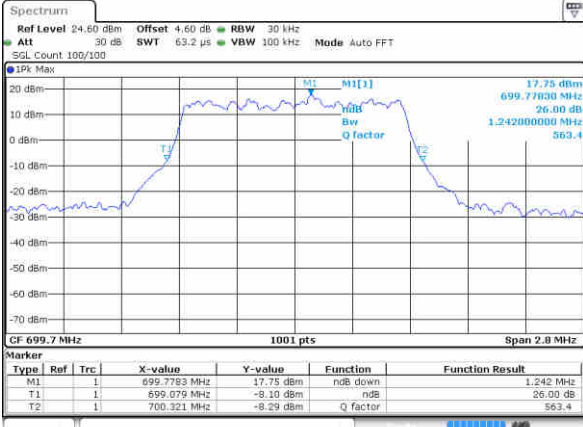
Mode	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		1.4MHz	3MHz	5MHz	10MHz
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	1.24	1.28	2.96	3.02	4.95	4.84	9.75	9.89	1.27	3.01	4.92	9.77
Middle CH	1.27	1.27	2.98	2.99	4.99	4.91	9.99	9.91	1.28	3.03	4.92	9.91
Highest CH	1.30	1.26	3.03	2.99	5.02	4.97	9.71	9.97	1.29	2.98	4.85	9.63





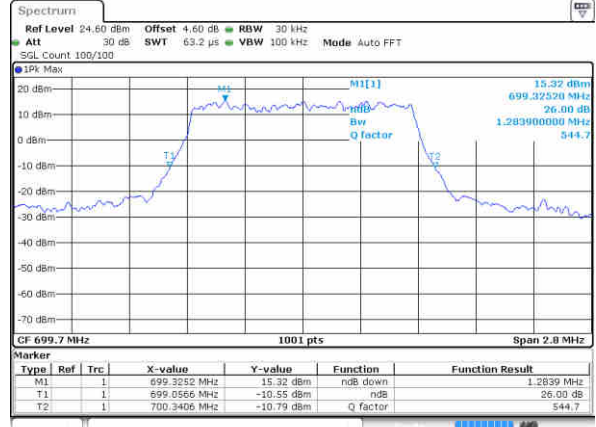
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



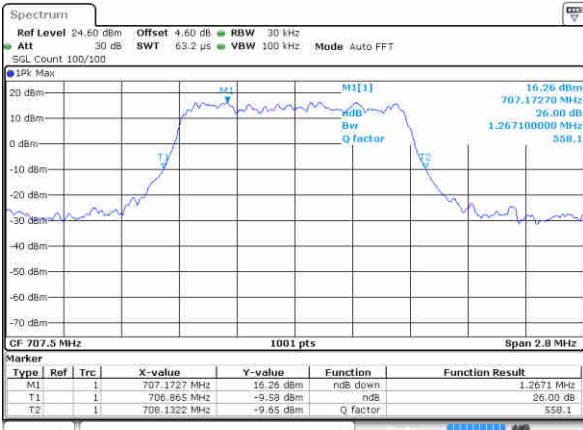
Date: 16 JAN 2020 17:36:04

Lowest Channel / 1.4MHz / 16QAM



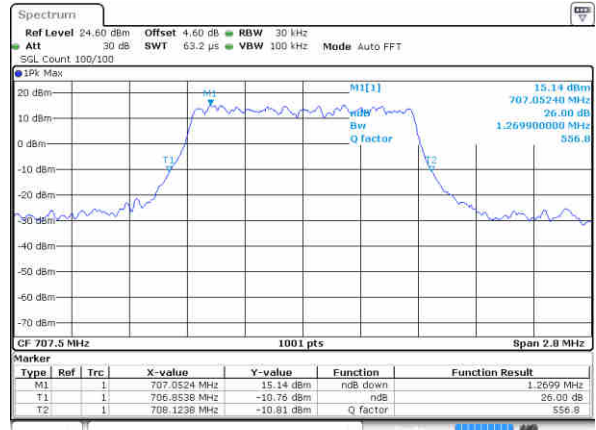
Date: 16 JAN 2020 17:35:54

Middle Channel / 1.4MHz / QPSK



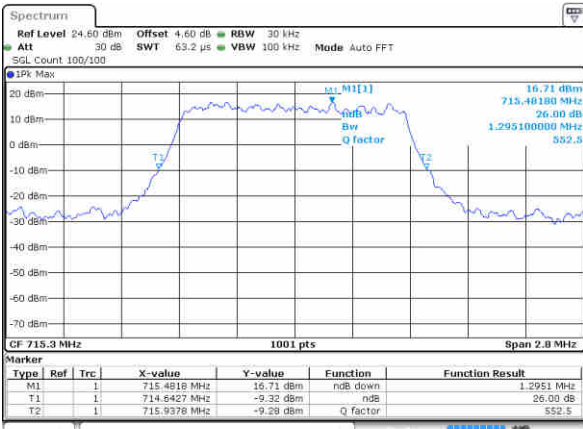
Date: 16 JAN 2020 17:35:34

Middle Channel / 1.4MHz / 16QAM



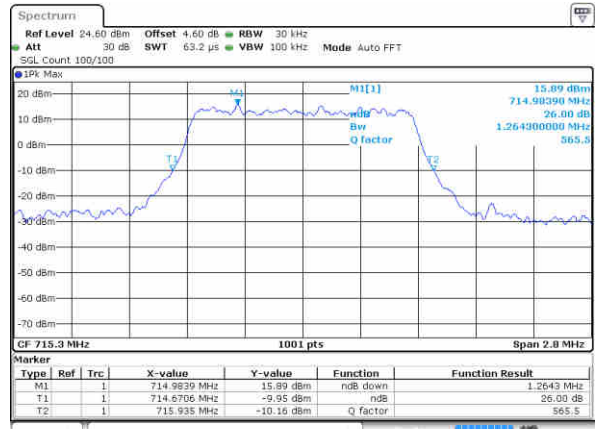
Date: 16 JAN 2020 17:35:44

Highest Channel / 1.4MHz / QPSK



Date: 16 JAN 2020 17:35:24

Highest Channel / 1.4MHz / 16QAM

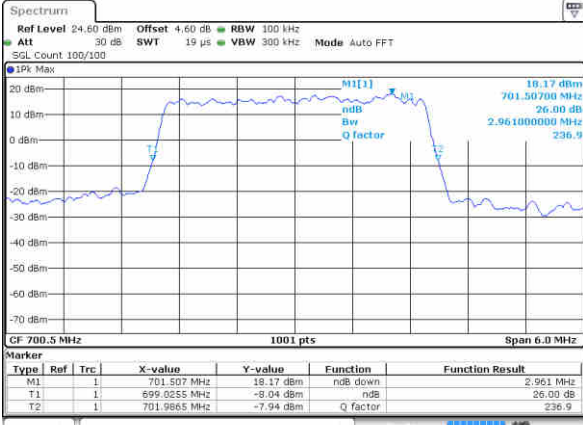


Date: 16 JAN 2020 17:35:14



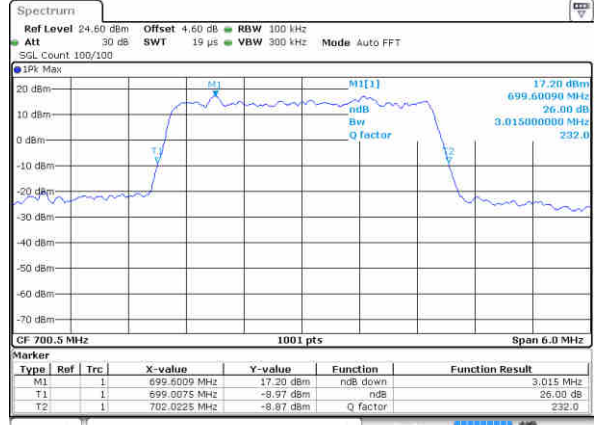
LTE Band 12

Lowest Channel / 3MHz / QPSK



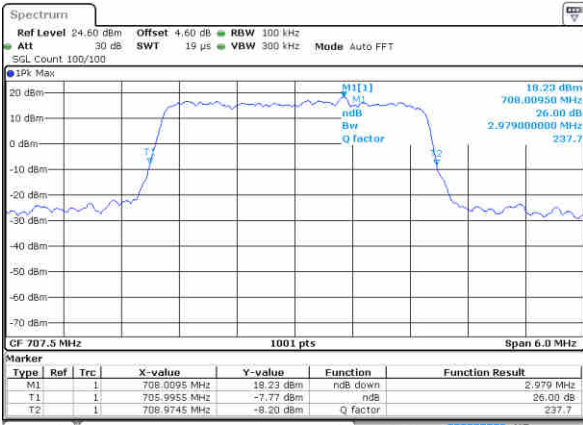
Date: 16 JAN 2020 17:52:28

Lowest Channel / 3MHz / 16QAM



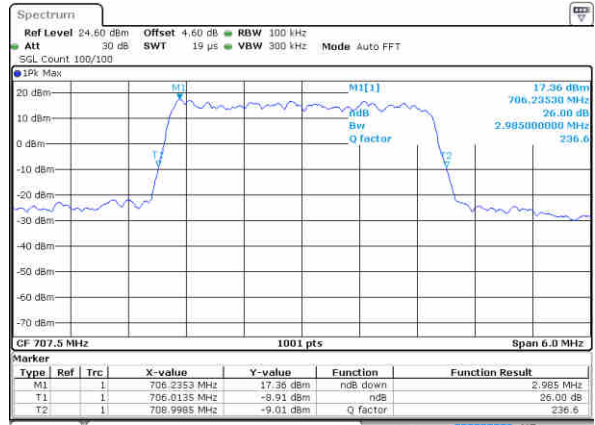
Date: 16 JAN 2020 17:52:19

Middle Channel / 3MHz / QPSK



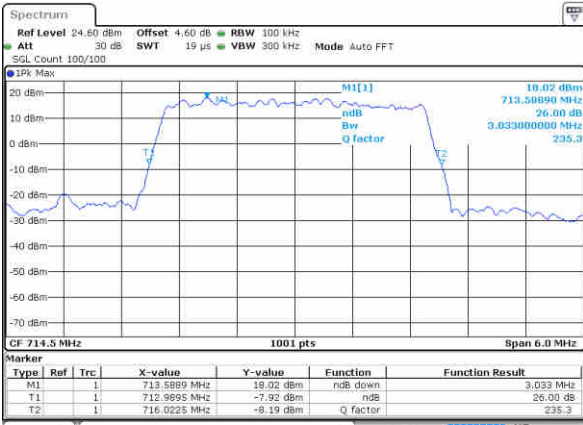
Date: 16 JAN 2020 17:51:59

Middle Channel / 3MHz / 16QAM



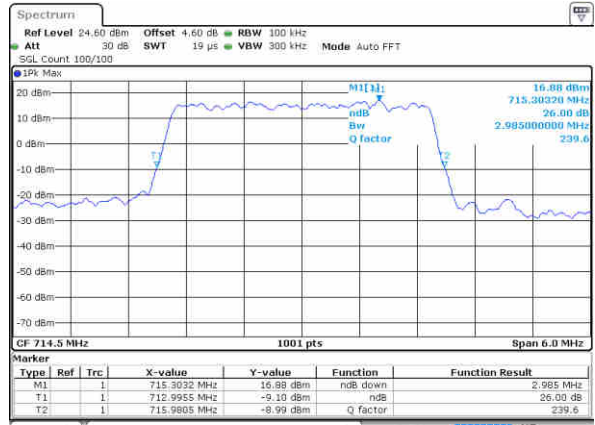
Date: 16 JAN 2020 17:52:09

Highest Channel / 3MHz / QPSK



Date: 16 JAN 2020 17:51:49

Highest Channel / 3MHz / 16QAM

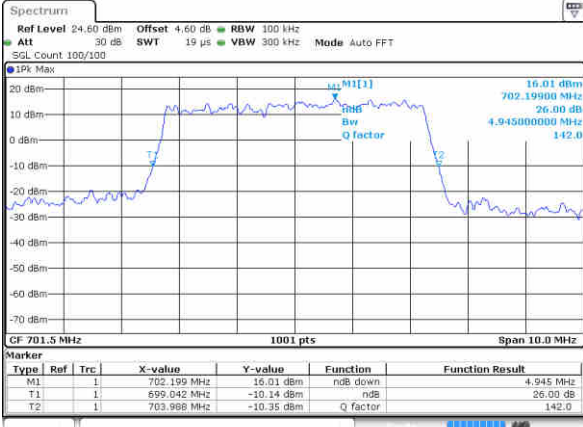


Date: 16 JAN 2020 17:51:39



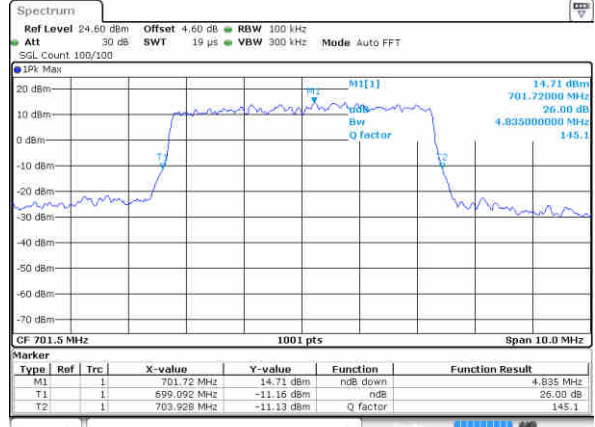
LTE Band 12

Lowest Channel / 5MHz / QPSK



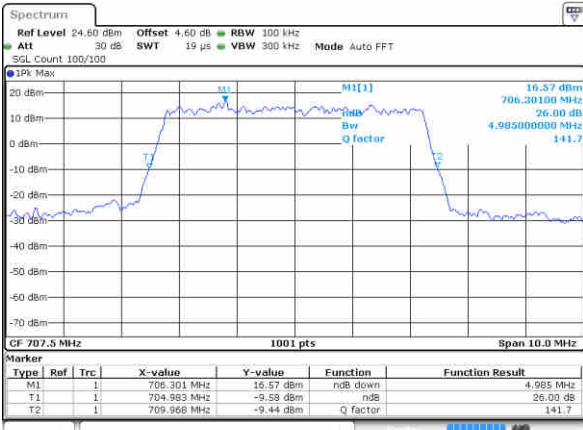
Date: 16 JAN 2020 18 08 54

Lowest Channel / 5MHz / 16QAM



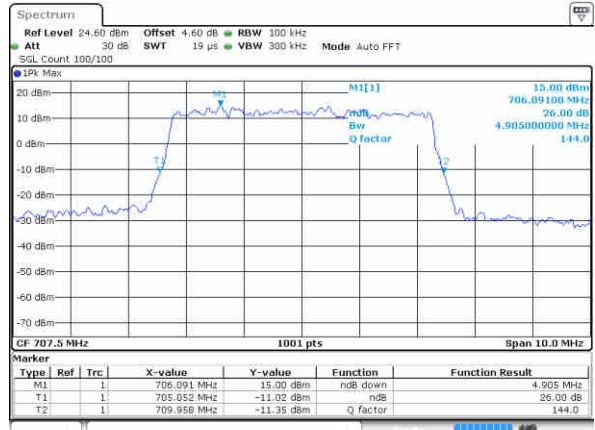
Date: 16 JAN 2020 18 08 43

Middle Channel / 5MHz / QPSK



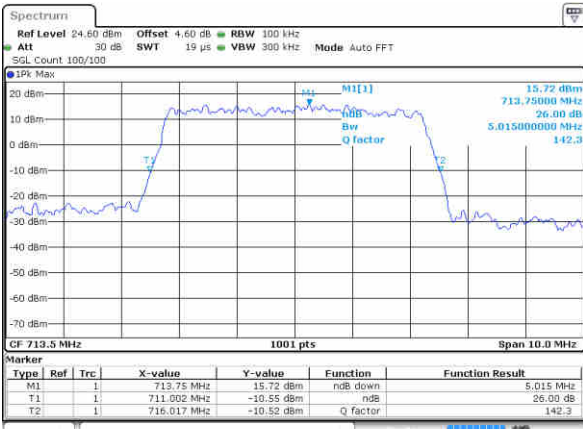
Date: 16 JAN 2020 18 08 23

Middle Channel / 5MHz / 16QAM



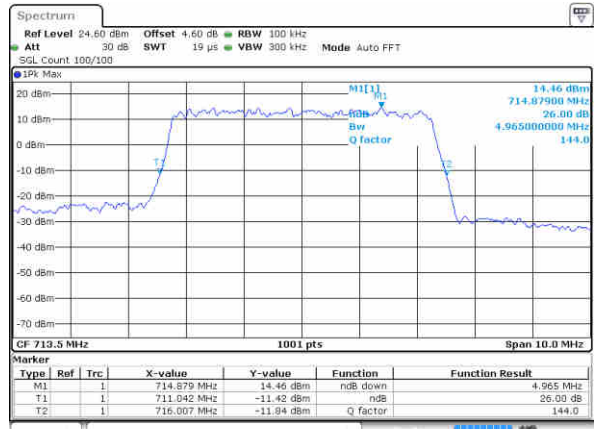
Date: 16 JAN 2020 18 08 33

Highest Channel / 5MHz / QPSK



Date: 16 JAN 2020 18 08 14

Highest Channel / 5MHz / 16QAM

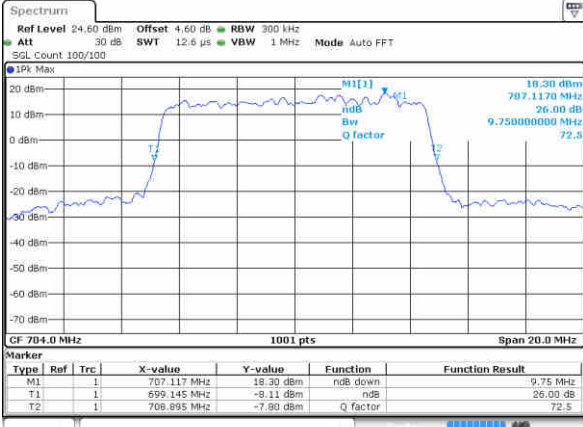


Date: 16 JAN 2020 18 08 03



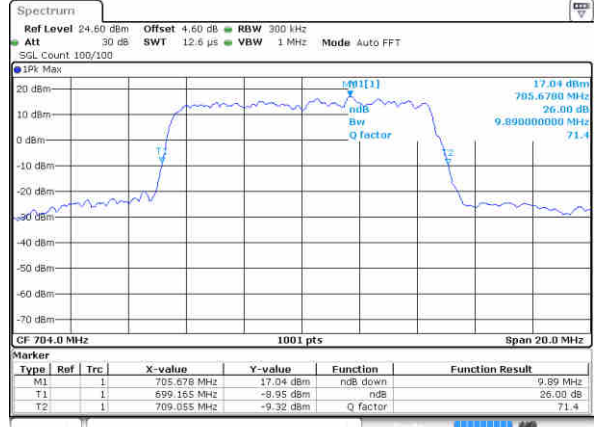
LTE Band 12

Lowest Channel / 10MHz / QPSK



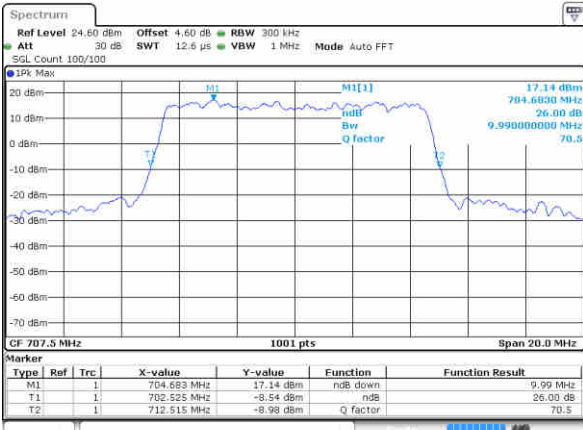
Date: 16 JAN 2020 18:51:33

Lowest Channel / 10MHz / 16QAM



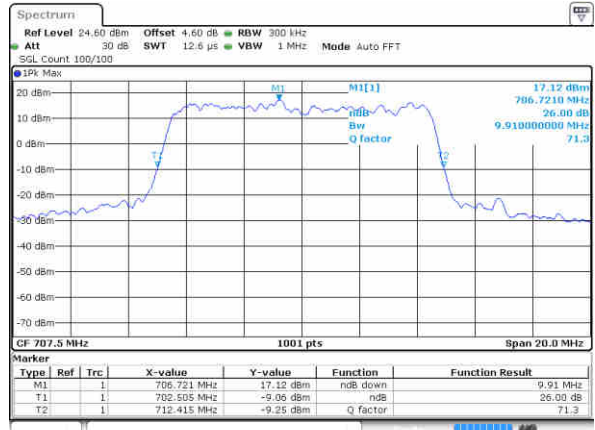
Date: 16 JAN 2020 18:51:23

Middle Channel / 10MHz / QPSK



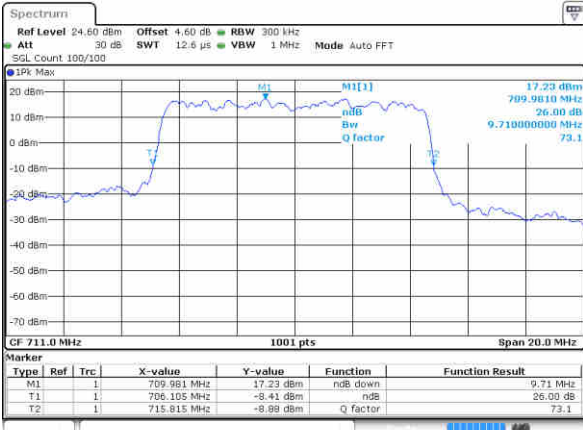
Date: 16 JAN 2020 18:24:49

Middle Channel / 10MHz / 16QAM



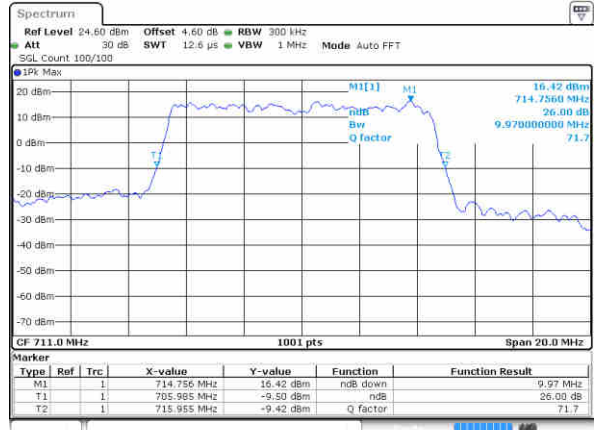
Date: 16 JAN 2020 18:51:13

Highest Channel / 10MHz / QPSK



Date: 16 JAN 2020 18:24:39

Highest Channel / 10MHz / 16QAM

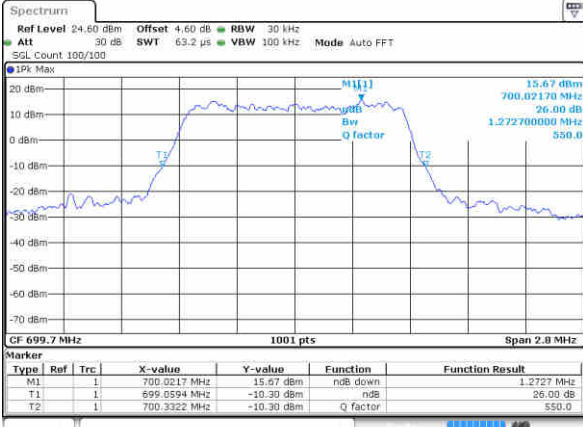


Date: 16 JAN 2020 18:24:29



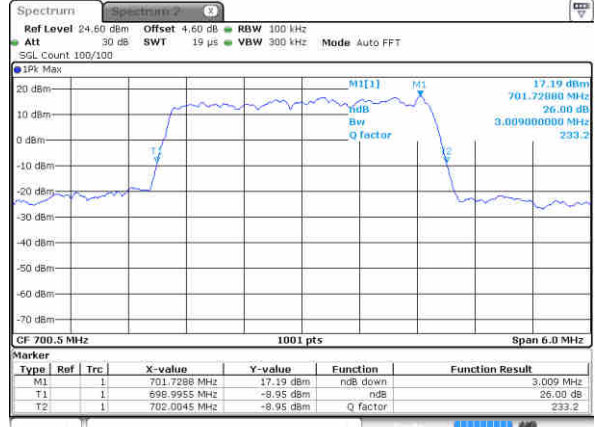
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



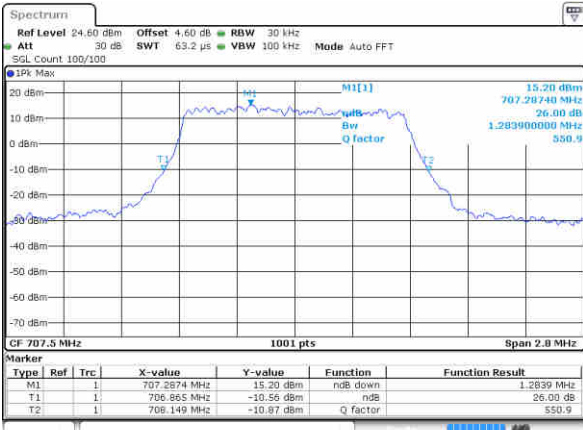
Date: 16 JAN 2020 19:05:24

Lowest Channel / 3MHz / 64QAM



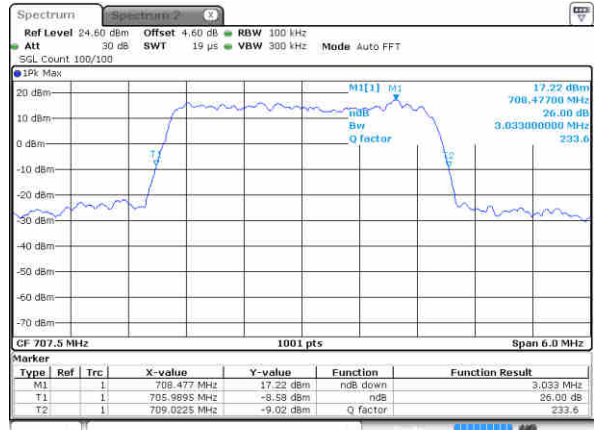
Date: 16 JAN 2020 19:53:12

Middle Channel / 1.4MHz / 64QAM



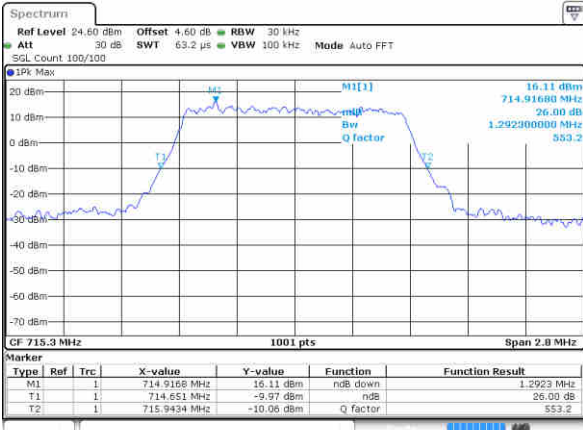
Date: 16 JAN 2020 19:05:44

Middle Channel / 3MHz / 64QAM



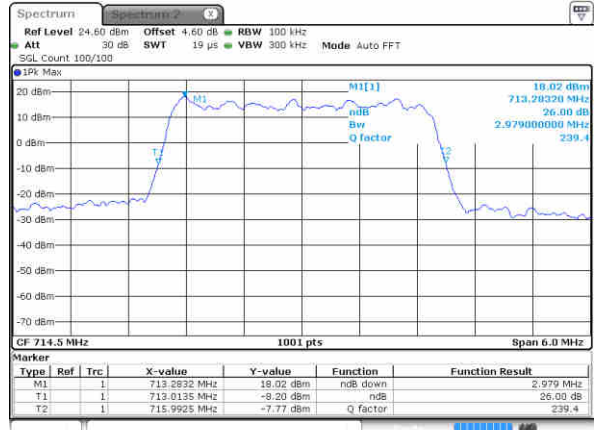
Date: 16 JAN 2020 19:53:32

Highest Channel / 1.4MHz / 64QAM



Date: 16 JAN 2020 19:06:04

Highest Channel / 3MHz / 64QAM

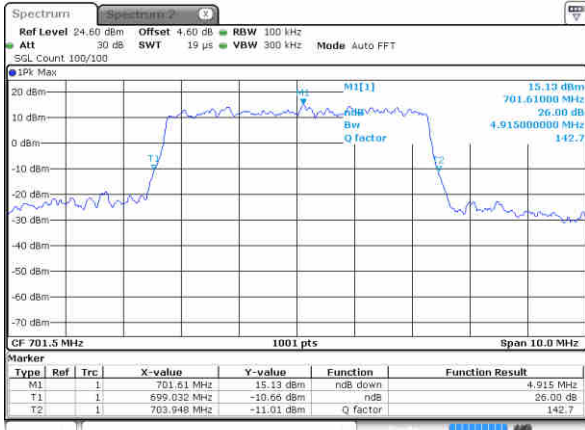


Date: 16 JAN 2020 19:53:52



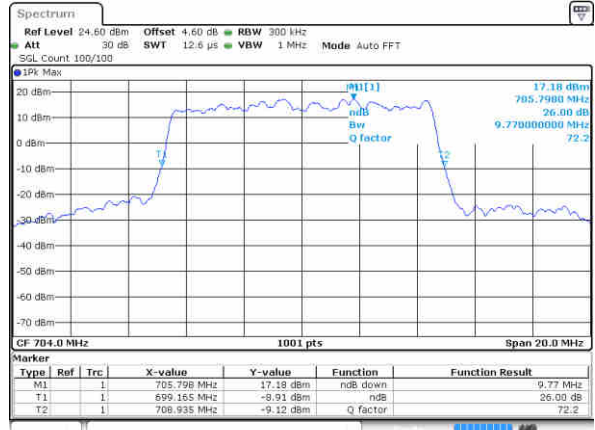
LTE Band 12

Lowest Channel / 5MHz / 64QAM



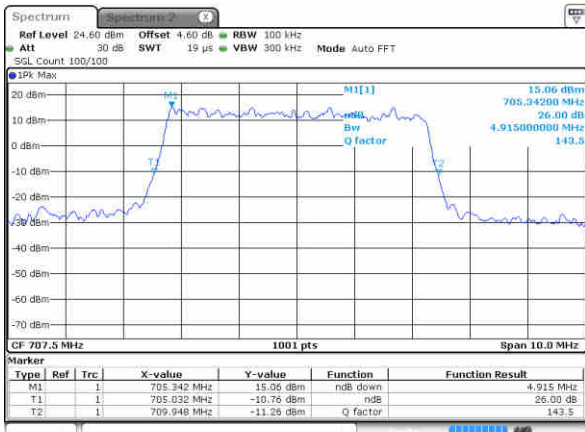
Date: 16 JAN 2020 19:58:42

Lowest Channel / 10MHz / 64QAM



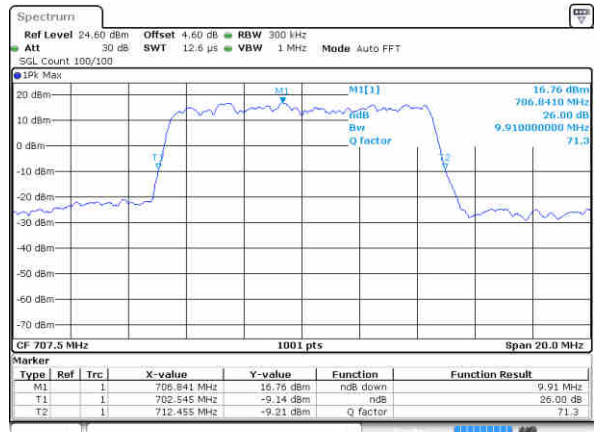
Date: 17 JAN 2020 09:22:31

Middle Channel / 5MHz / 64QAM



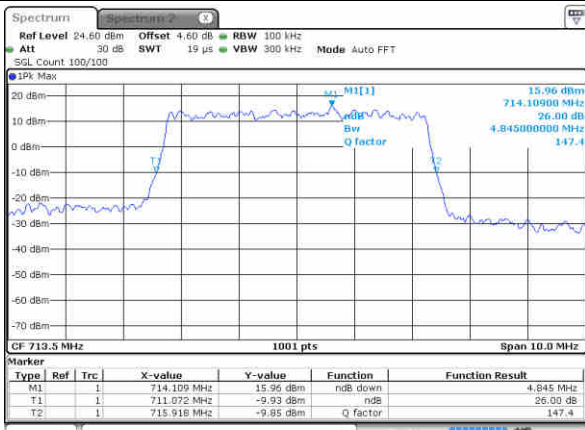
Date: 16 JAN 2020 19:59:02

Middle Channel / 10MHz / 64QAM



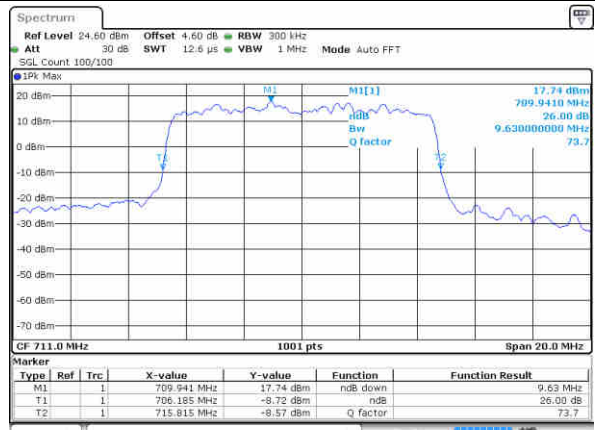
Date: 17 JAN 2020 09:22:51

Highest Channel / 5MHz / 64QAM



Date: 16 JAN 2020 19:59:22

Highest Channel / 10MHz / 64QAM



Date: 17 JAN 2020 09:23:11



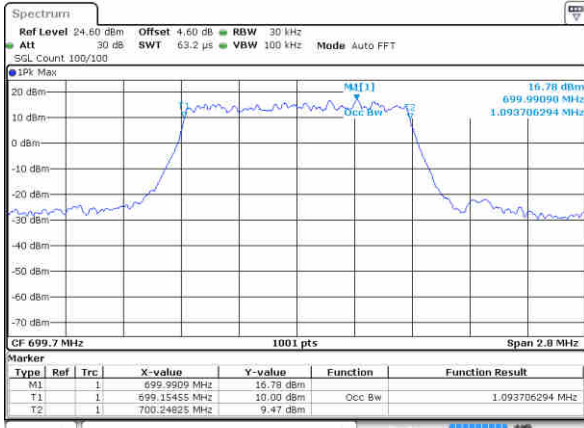
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		1.4MHz	3MHz	5MHz	10MHz
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	1.09	1.09	2.70	2.72	4.49	4.50	8.97	8.93	1.09	2.73	4.49	9.03
Middle CH	1.09	1.09	2.72	2.71	4.48	4.49	9.01	9.03	1.09	2.73	4.48	9.03
Highest CH	1.09	1.09	2.70	2.72	4.49	4.48	8.99	9.01	1.09	2.71	4.47	9.01



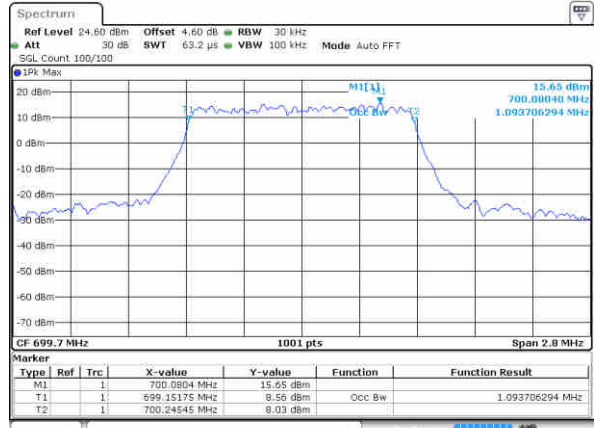
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



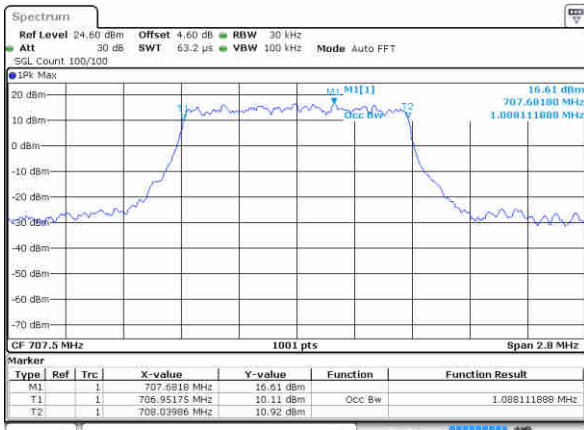
Date: 16 JAN 2020 17:34:14

Lowest Channel / 1.4MHz / 16QAM



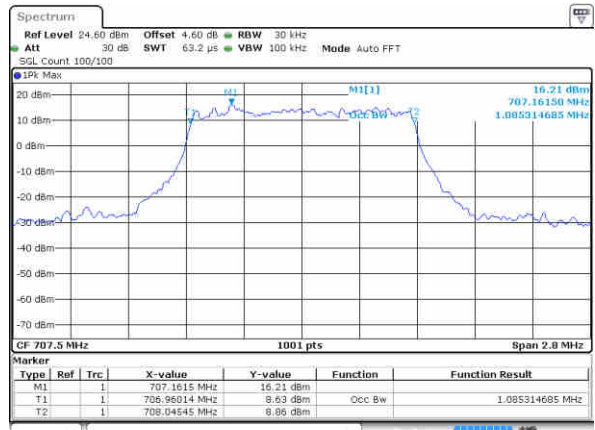
Date: 16 JAN 2020 17:34:24

Middle Channel / 1.4MHz / QPSK



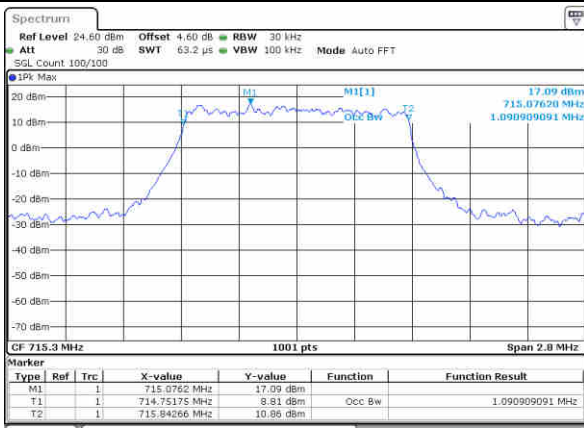
Date: 16 JAN 2020 17:34:44

Middle Channel / 1.4MHz / 16QAM



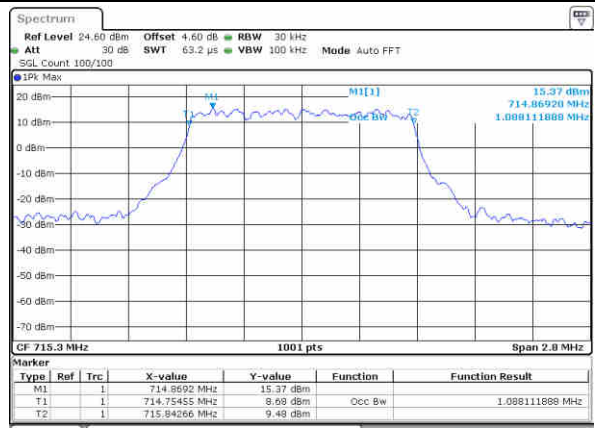
Date: 16 JAN 2020 17:34:34

Highest Channel / 1.4MHz / QPSK



Date: 16 JAN 2020 17:34:54

Highest Channel / 1.4MHz / 16QAM



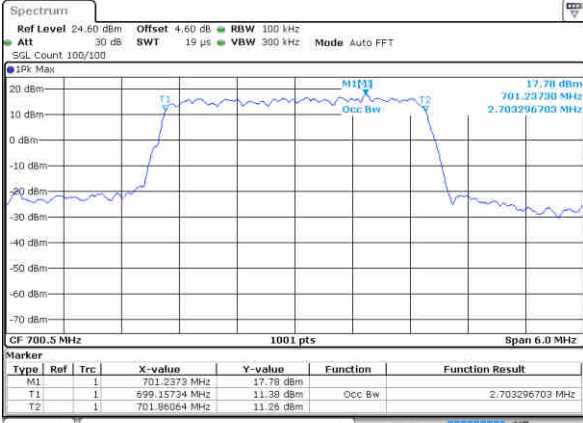
Date: 16 JAN 2020 17:35:05





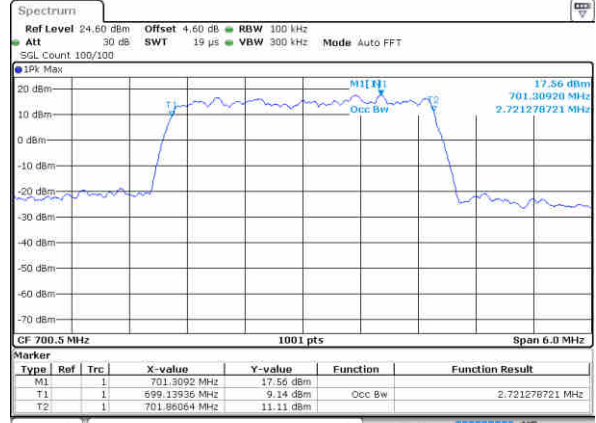
LTE Band 12

Lowest Channel / 3MHz / QPSK



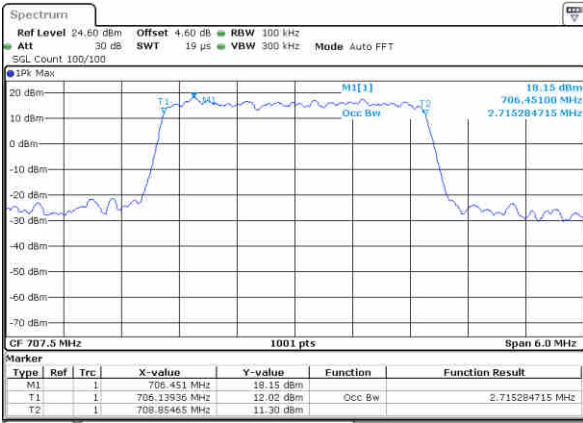
Date: 16 JAN 2020 17:50:39

Lowest Channel / 3MHz / 16QAM



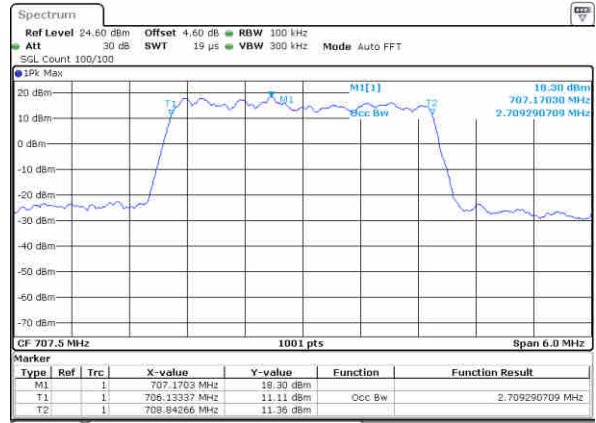
Date: 16 JAN 2020 17:50:49

Middle Channel / 3MHz / QPSK



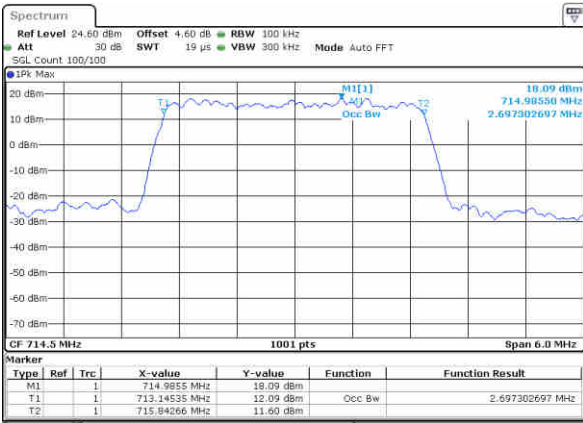
Date: 16 JAN 2020 17:51:09

Middle Channel / 3MHz / 16QAM



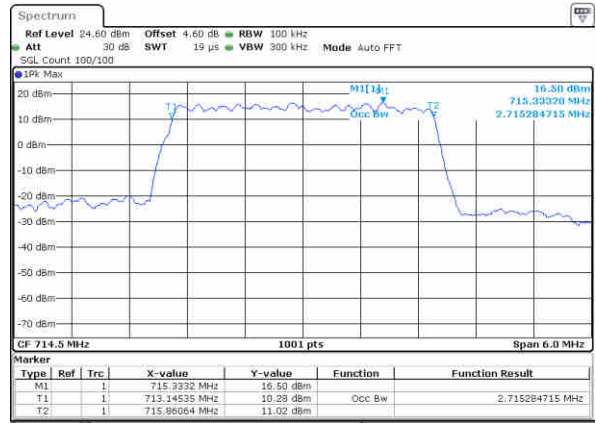
Date: 16 JAN 2020 17:50:59

Highest Channel / 3MHz / QPSK



Date: 16 JAN 2020 17:51:19

Highest Channel / 3MHz / 16QAM

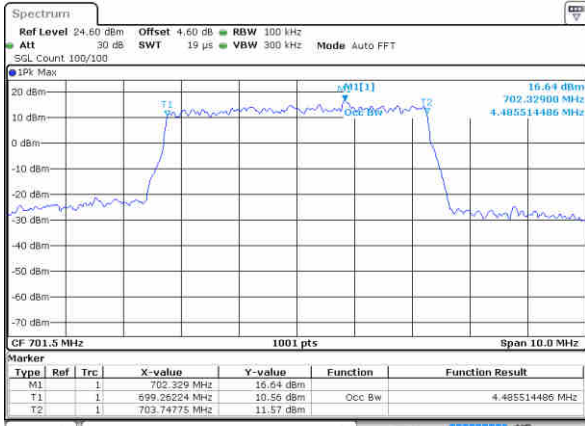


Date: 16 JAN 2020 17:51:29



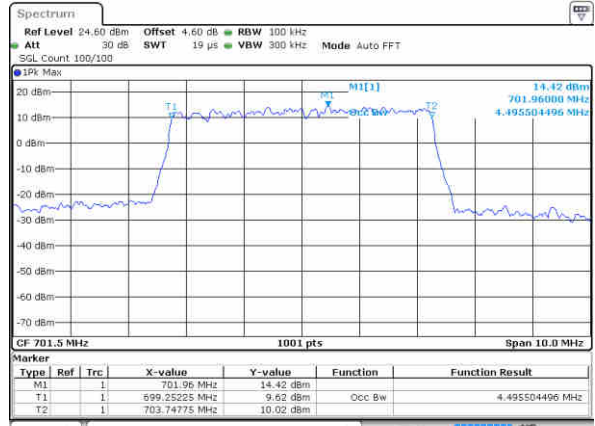
LTE Band 12

Lowest Channel / 5MHz / QPSK



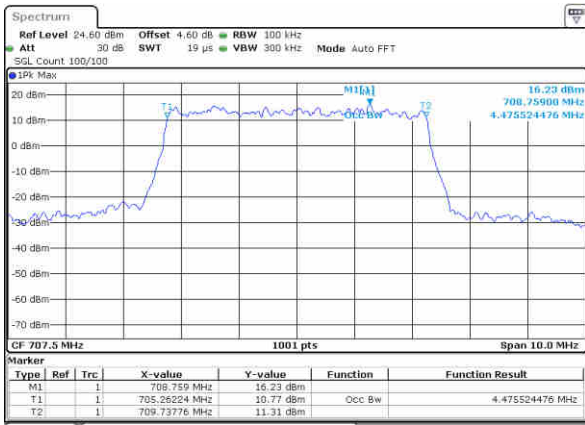
Date: 16 JAN 2020 18 07 03

Lowest Channel / 5MHz / 16QAM



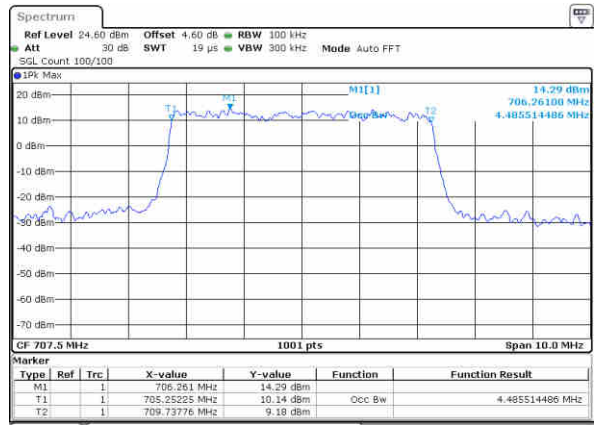
Date: 16 JAN 2020 18 07 13

Middle Channel / 5MHz / QPSK



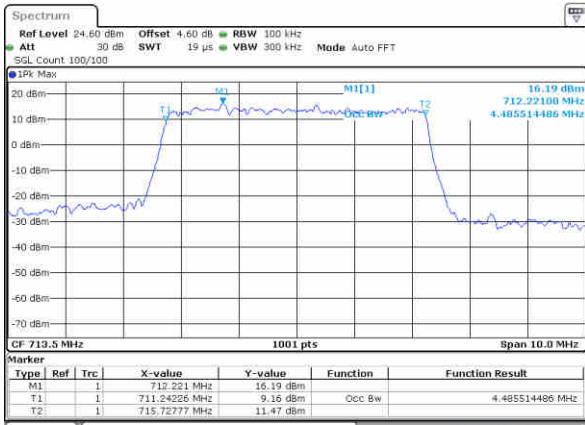
Date: 16 JAN 2020 18 07 33

Middle Channel / 5MHz / 16QAM



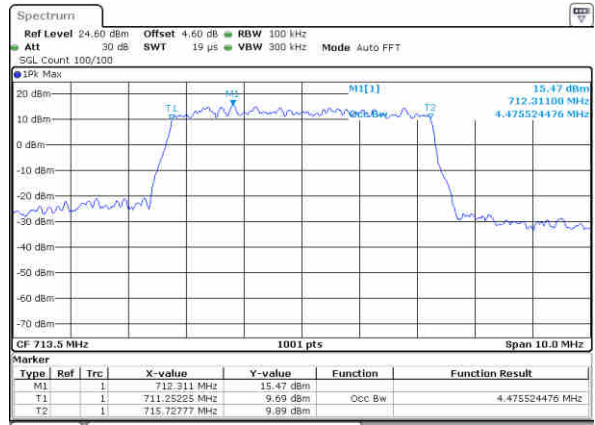
Date: 16 JAN 2020 18 07 23

Highest Channel / 5MHz / QPSK



Date: 16 JAN 2020 18 07 44

Highest Channel / 5MHz / 16QAM



Date: 16 JAN 2020 18 07 54