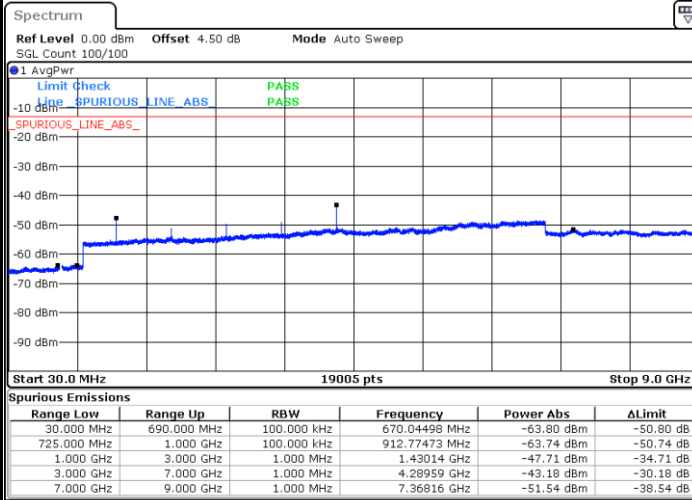




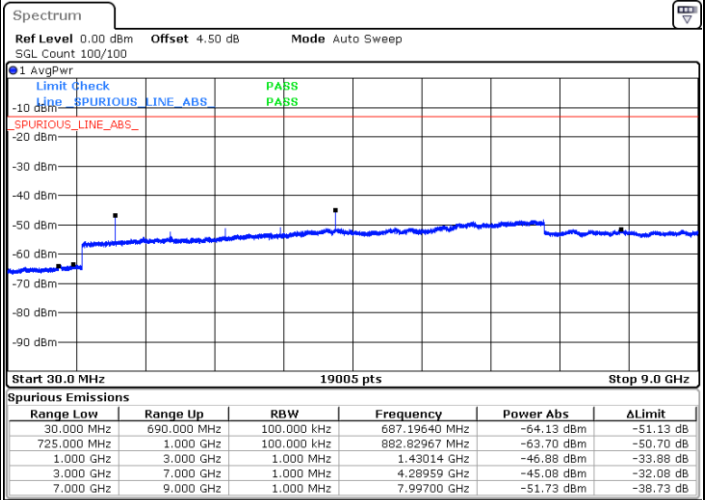
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 18 JAN 2020 05:32:13

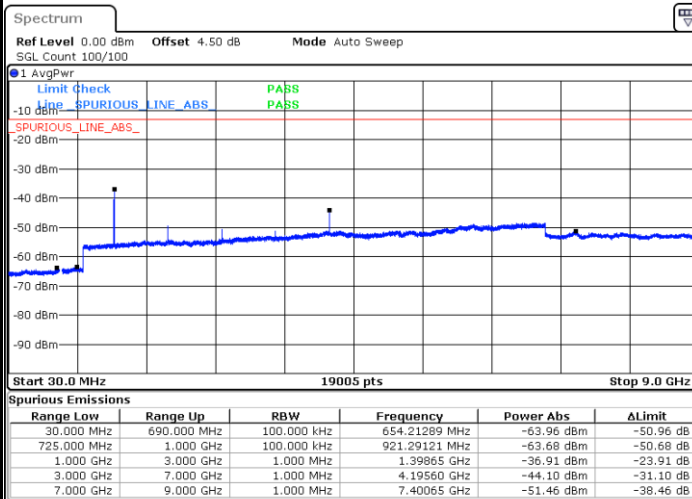
Highest Channel / 16QAM



Date: 18 JAN 2020 05:33:07

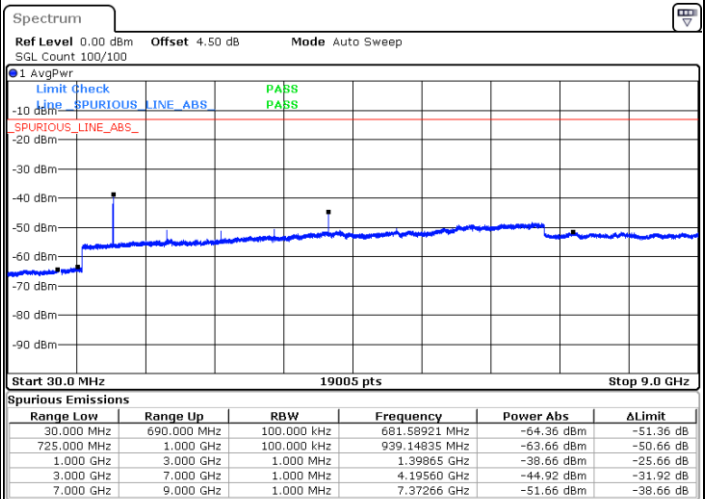
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 18 JAN 2020 05:45:00

Lowest Channel / 16QAM

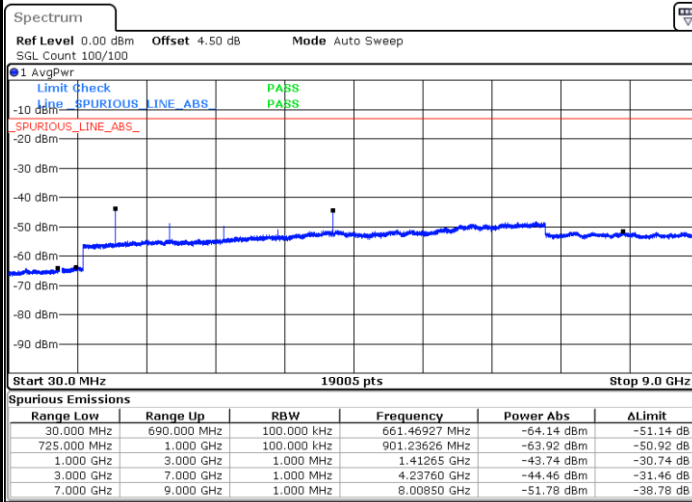


Date: 18 JAN 2020 05:45:54



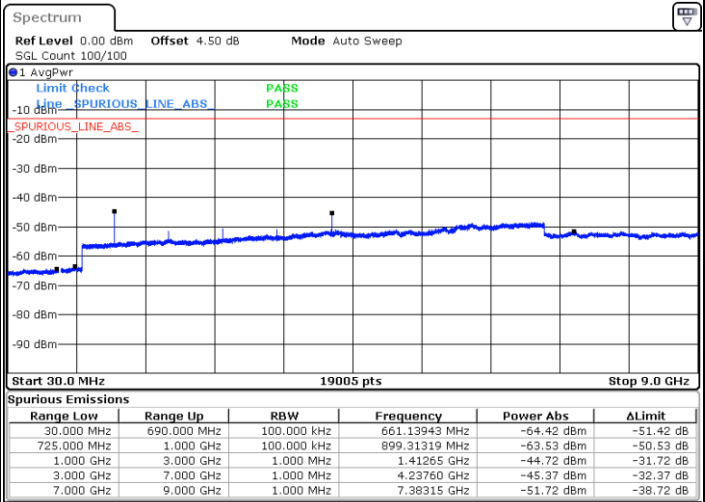
LTE Band 12 / 3MHz

Middle Channel / QPSK



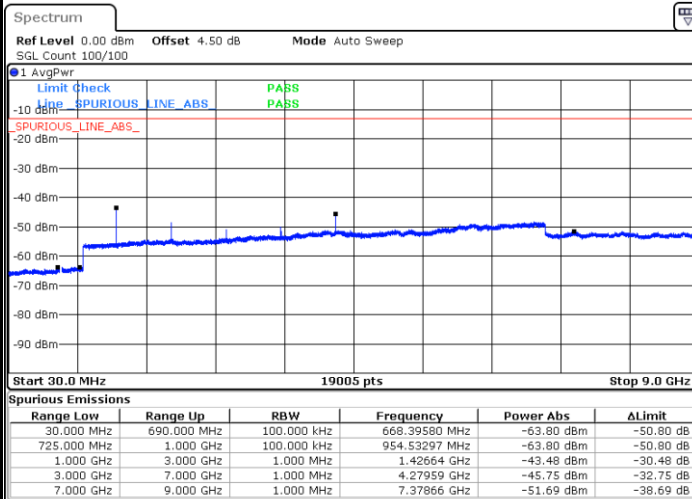
Date: 18 JAN 2020 05:47:42

Middle Channel / 16QAM



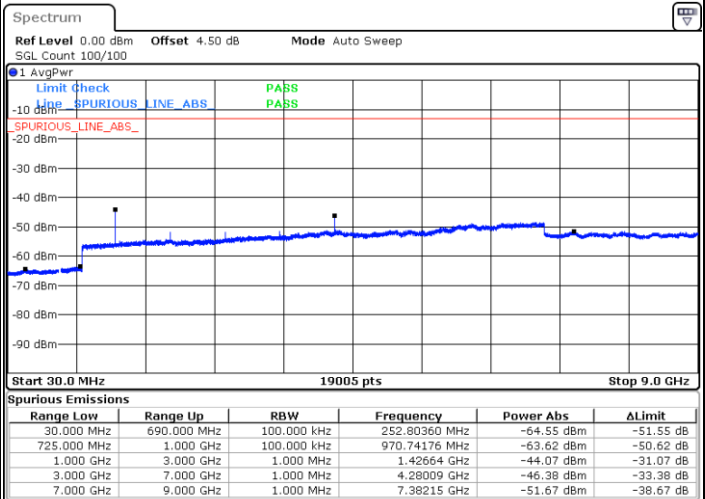
Date: 18 JAN 2020 05:46:48

Highest Channel / QPSK



Date: 18 JAN 2020 05:48:37

Highest Channel / 16QAM

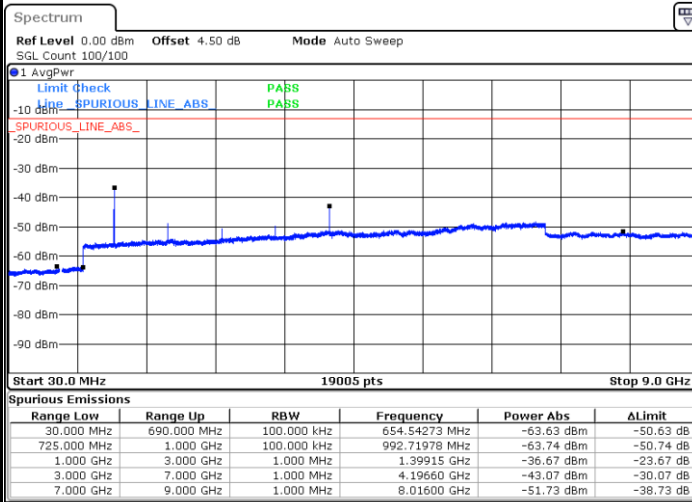


Date: 18 JAN 2020 05:49:31



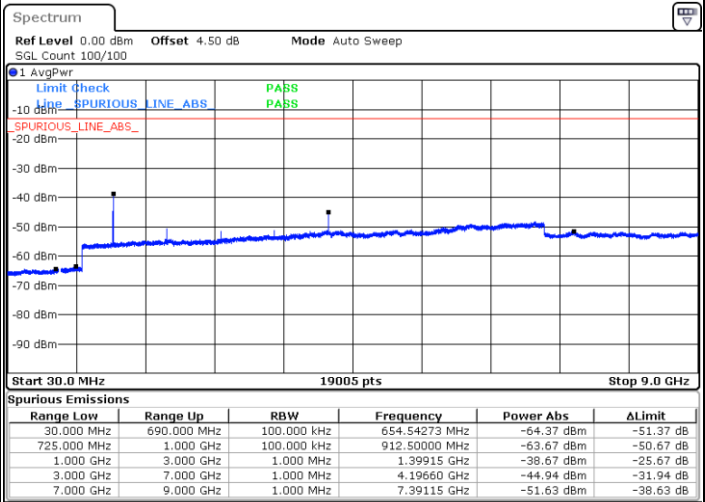
LTE Band 12 / 5MHz

Lowest Channel / QPSK



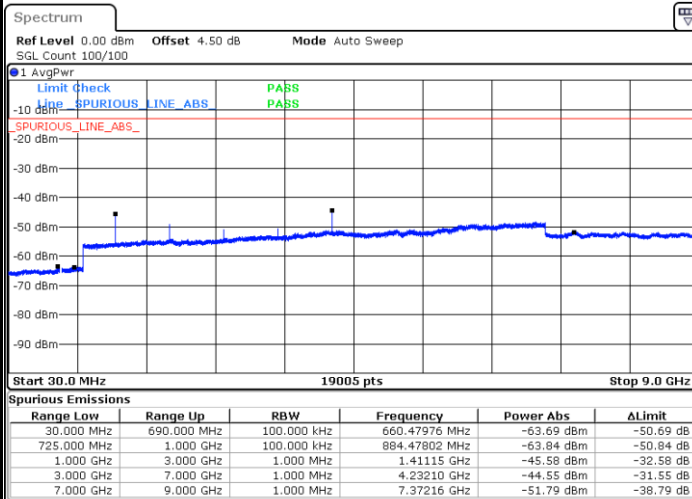
Date: 18 JAN 2020 06:01:24

Lowest Channel / 16QAM



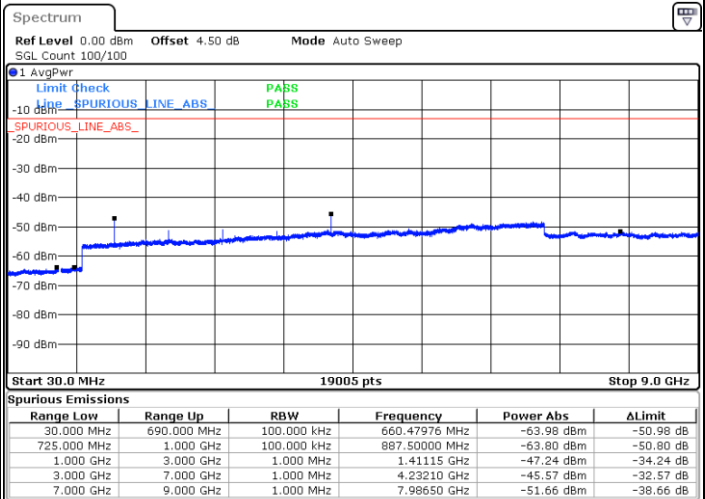
Date: 18 JAN 2020 06:02:18

Middle Channel / QPSK



Date: 18 JAN 2020 06:04:06

Middle Channel / 16QAM

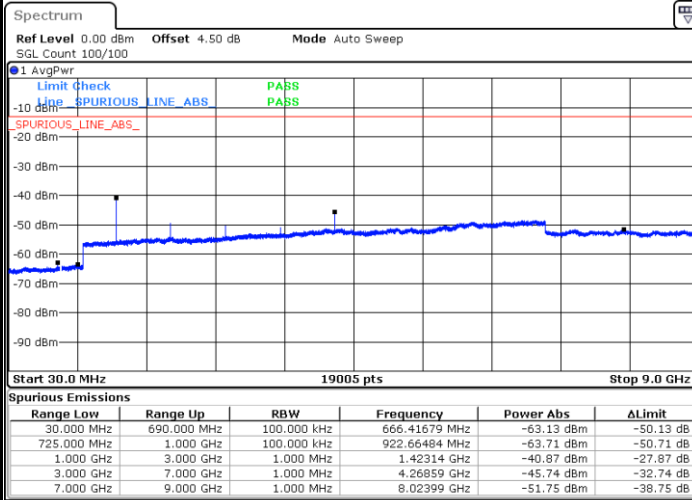


Date: 18 JAN 2020 06:03:12



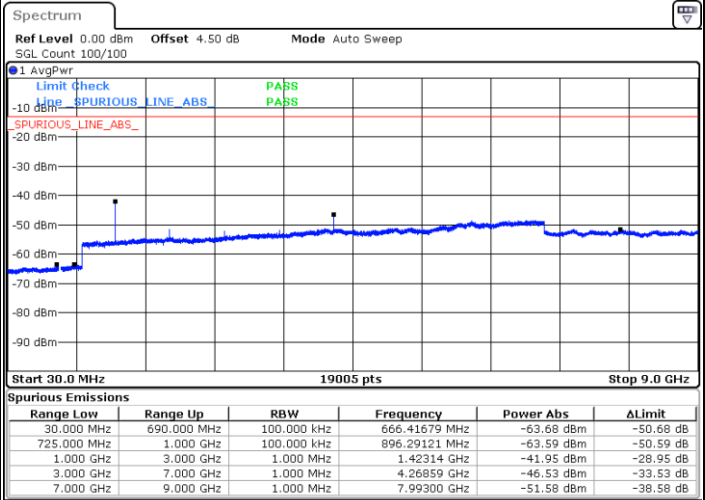
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 18 JAN 2020 06:05:00

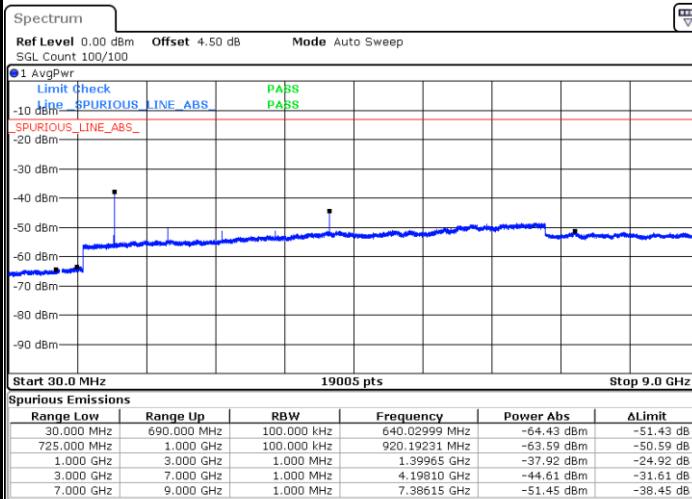
Highest Channel / 16QAM



Date: 18 JAN 2020 06:05:54

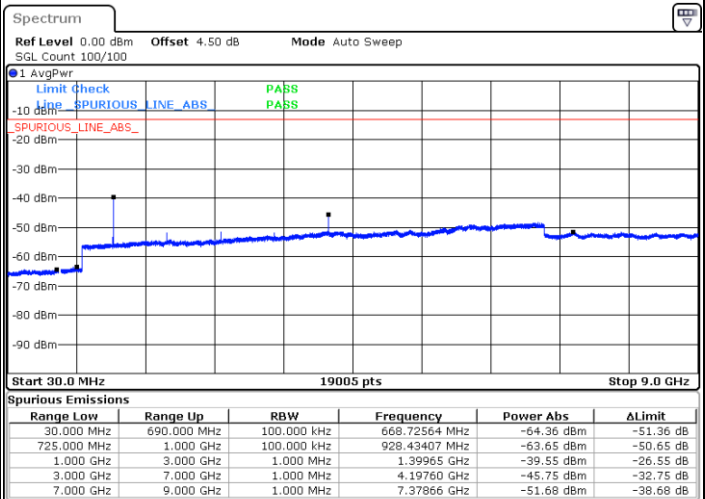
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 18 JAN 2020 06:27:59

Lowest Channel / 16QAM

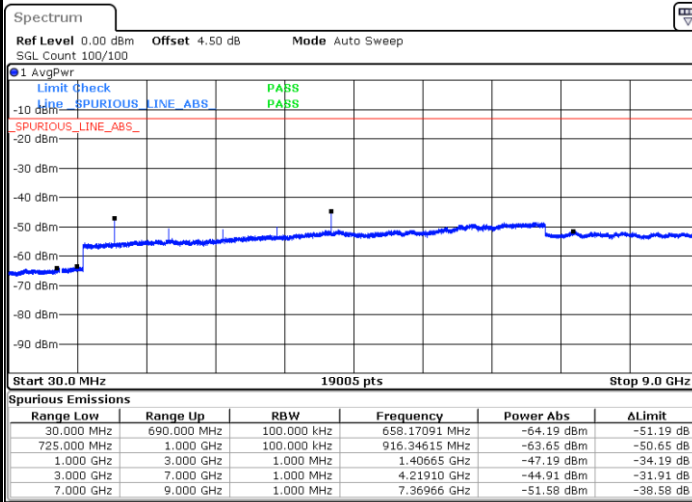


Date: 18 JAN 2020 06:28:53



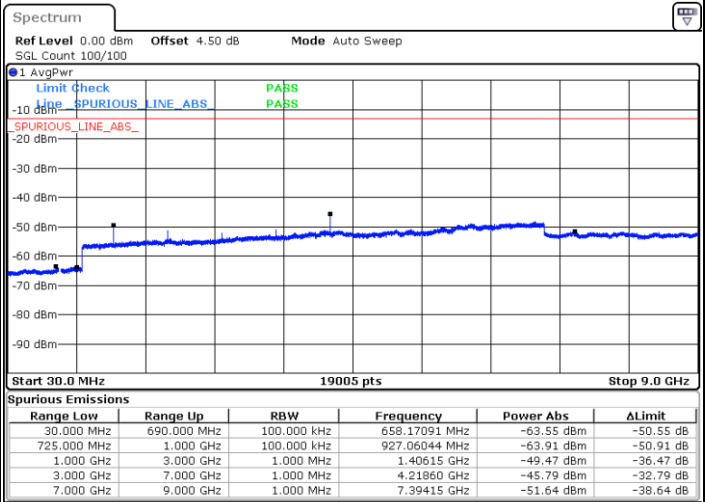
LTE Band 12 / 10MHz

Middle Channel / QPSK



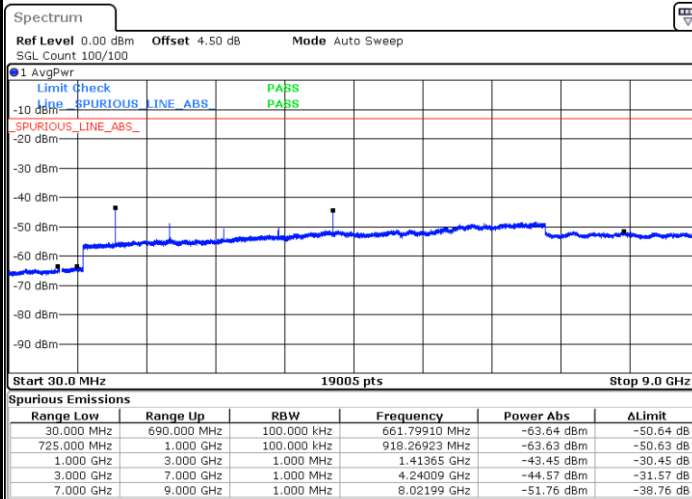
Date: 18 JAN 2020 06:30:41

Middle Channel / 16QAM



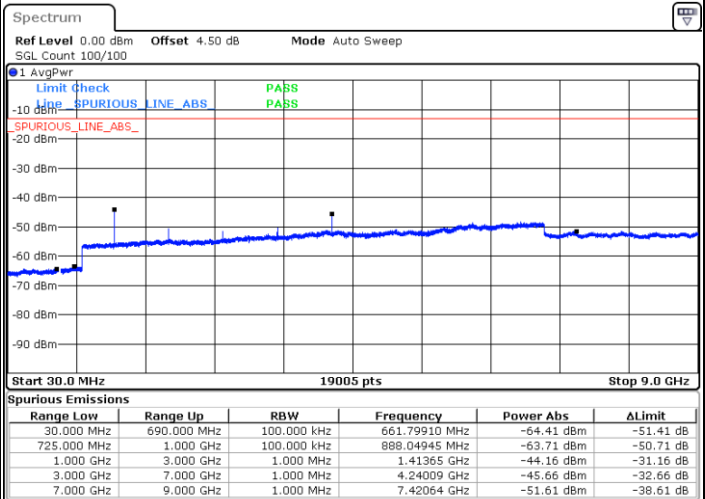
Date: 18 JAN 2020 06:29:47

Highest Channel / QPSK



Date: 18 JAN 2020 06:31:36

Highest Channel / 16QAM



Date: 18 JAN 2020 06:32:30

**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	0.0024	PASS
40	Normal Voltage	0.0022	
30	Normal Voltage	0.0038	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0098	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0076	
-30	Normal Voltage	0.0068	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage =7.2 V. ; Battery End Point (BEP) =7 V. ; Maximum Voltage =8.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



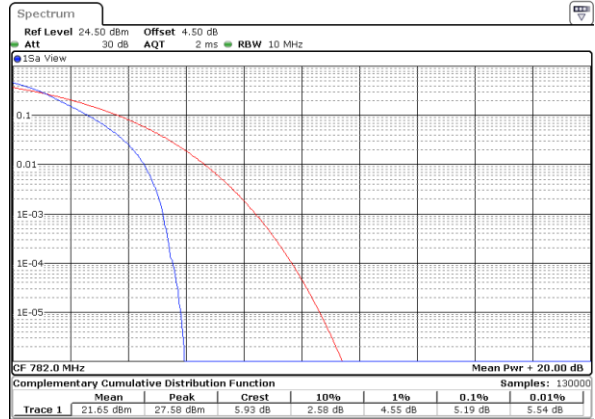
LTE Band 13

Peak-to-Average Ratio

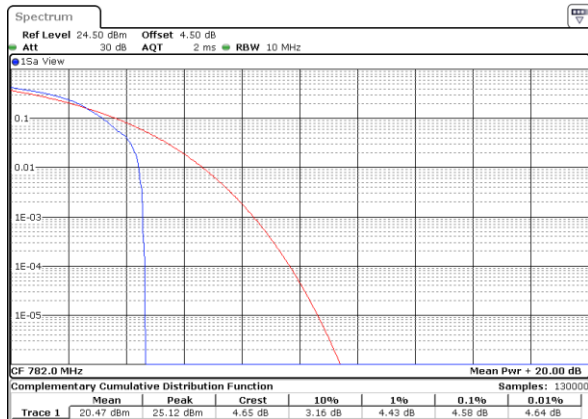
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.00	5.19	4.58	6.17	
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK
Middle Channel/ 1RB

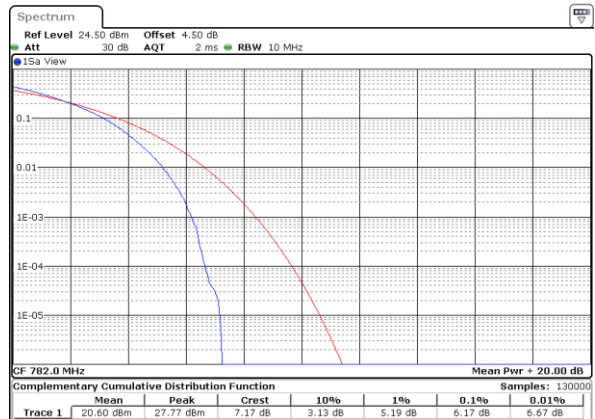

Date: 18 JAN 2020 07:59:01

Middle Channel / Full RB


Date: 18 JAN 2020 07:59:31

LTE Band 13 / 10MHz / 16QAM
Middle Channel/ 1RB


Date: 18 JAN 2020 07:59:10

Middle Channel / Full RB


Date: 18 JAN 2020 07:59:22

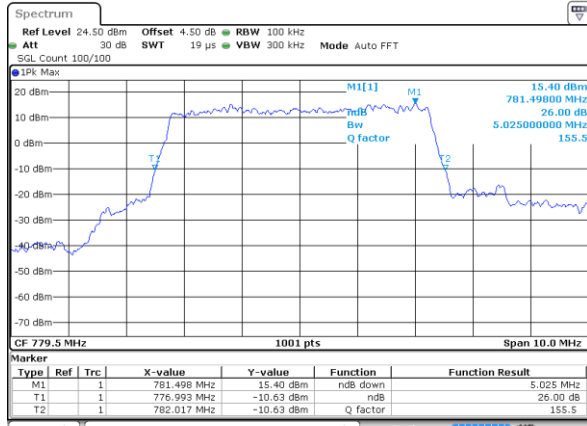
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	5.025	4.875	-	-
Middle CH	4.915	4.895	9.770	9.950
Highest CH	4.965	4.975	-	-

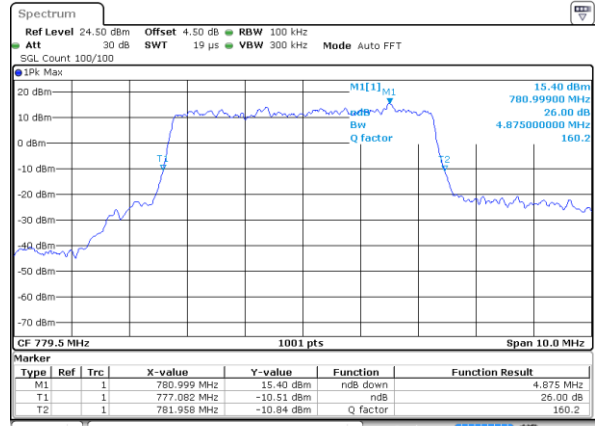


LTE Band 13

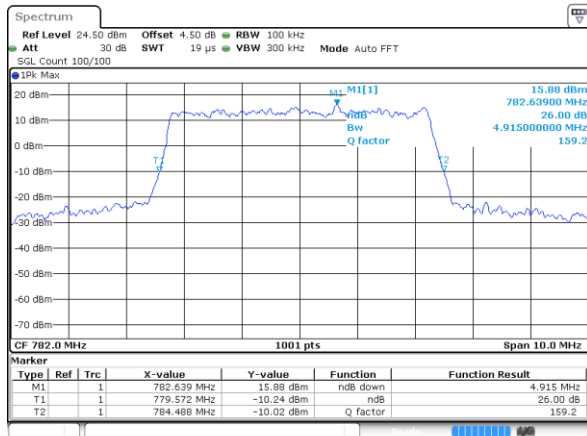
Lowest Channel / 5MHz / QPSK



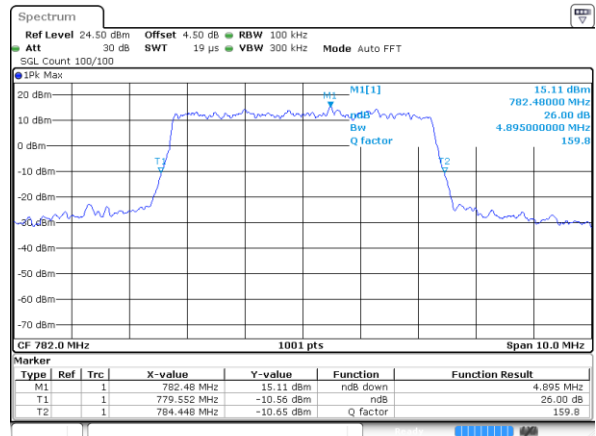
Lowest Channel / 5MHz / 16QAM



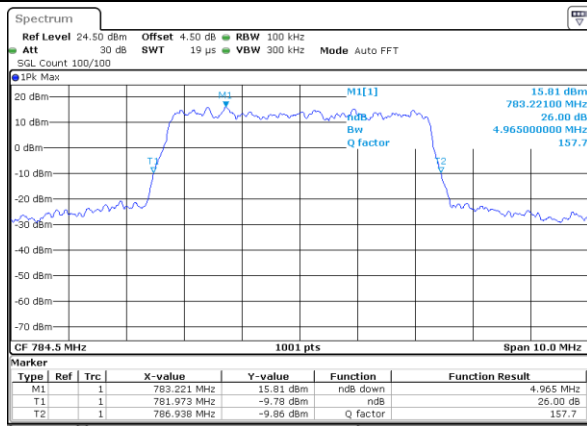
Middle Channel / 5MHz / QPSK



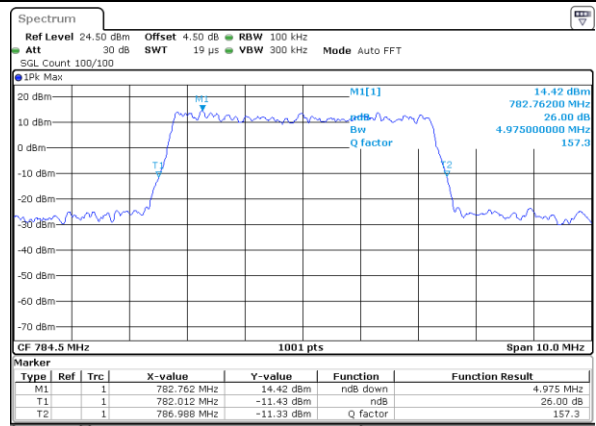
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



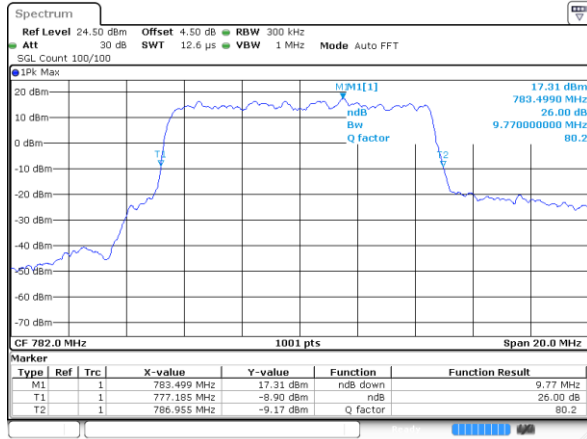
Highest Channel / 5MHz / 16QAM





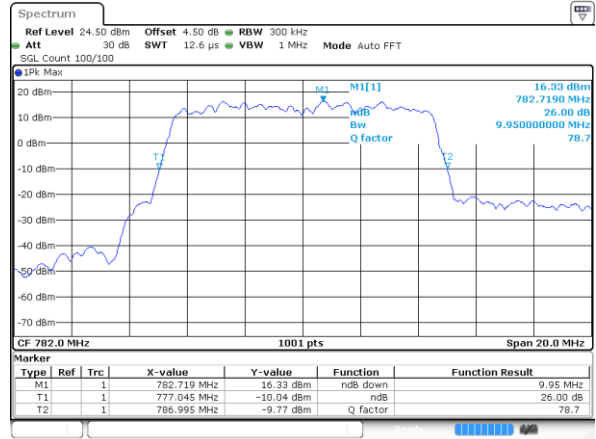
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 18 JAN 2020 07:29:54

Middle Channel / 10MHz / 16QAM



Date: 18 JAN 2020 07:29:44

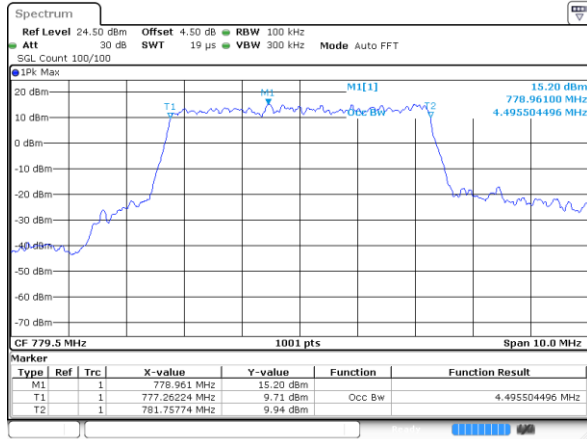
**Occupied Bandwidth**

Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.496	4.515	-	-
Middle CH	4.496	4.505	8.991	8.971
Highest CH	4.466	4.505	-	-

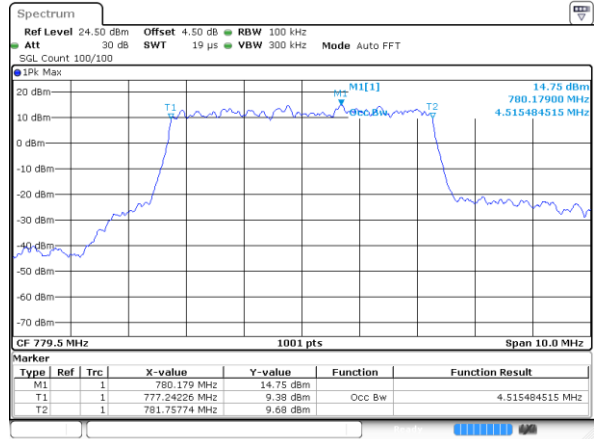


LTE Band 13

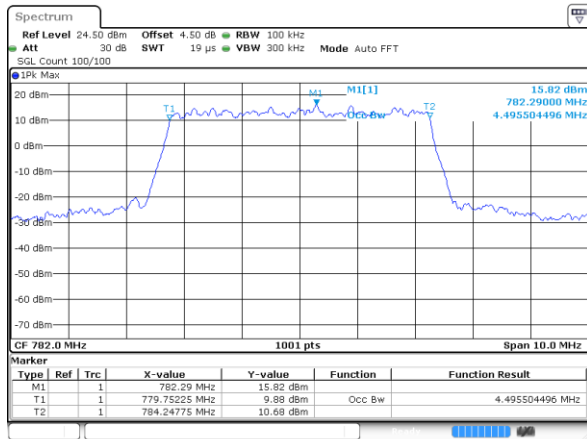
Lowest Channel / 5MHz / QPSK



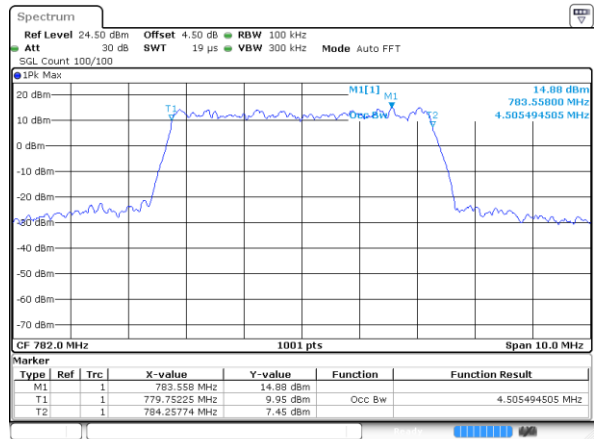
Lowest Channel / 5MHz / 16QAM



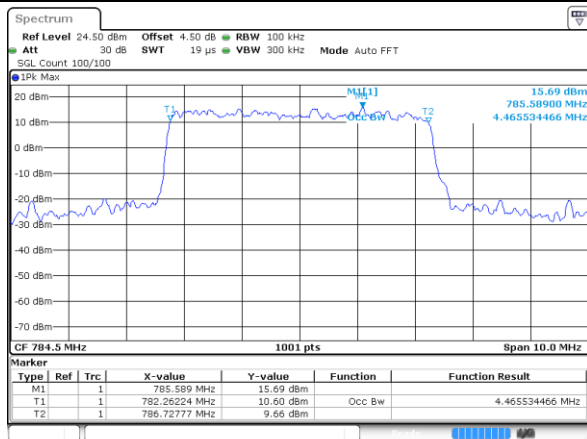
Middle Channel / 5MHz / QPSK



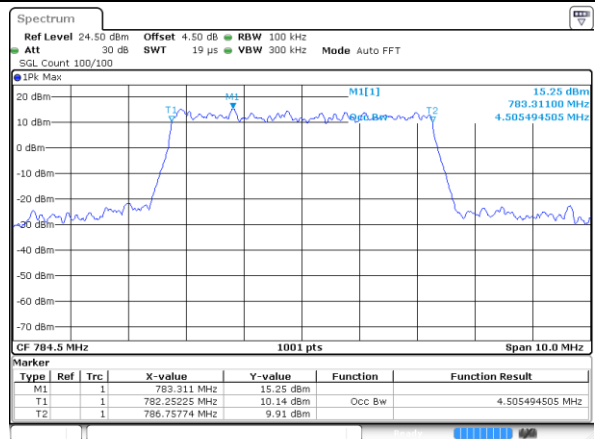
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



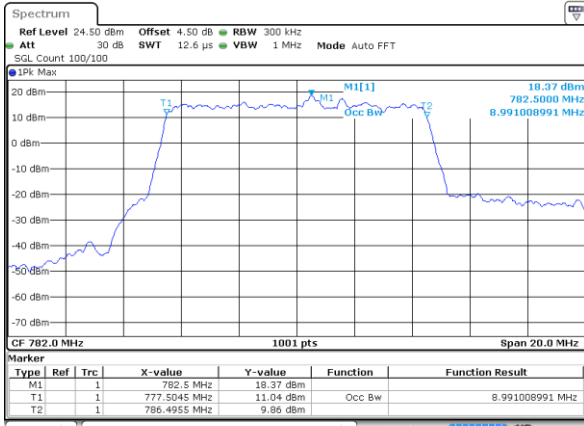
Highest Channel / 5MHz / 16QAM





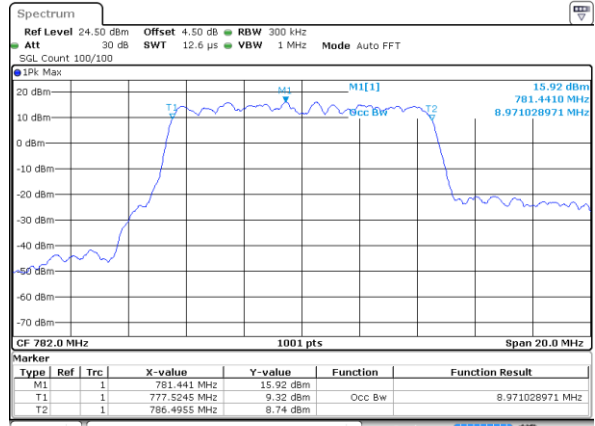
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 18 JAN 2020 07:30:04

Middle Channel / 10MHz / 16QAM



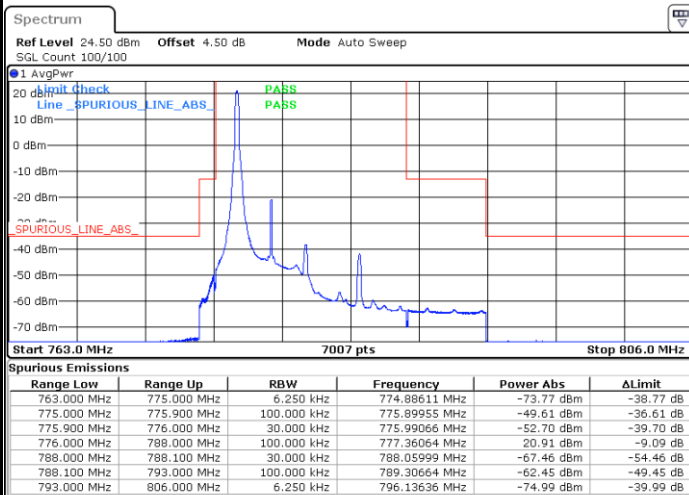
Date: 18 JAN 2020 07:30:14



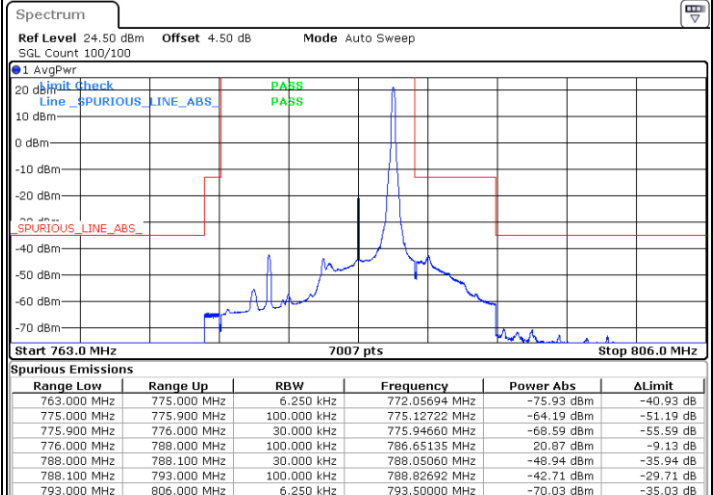
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

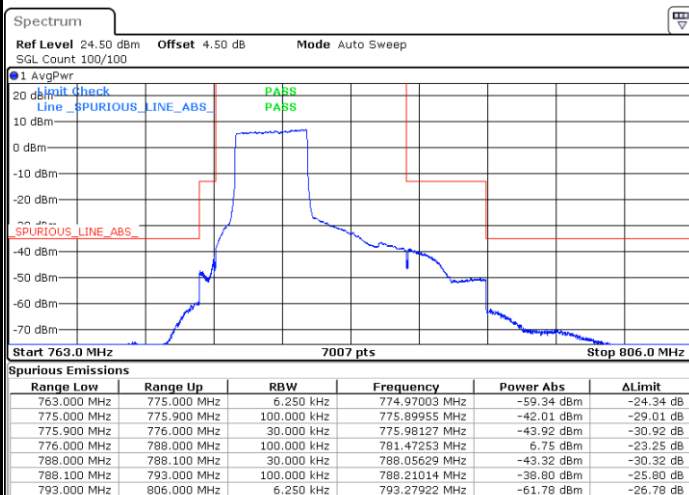
Lowest Band Edge / 1 RB



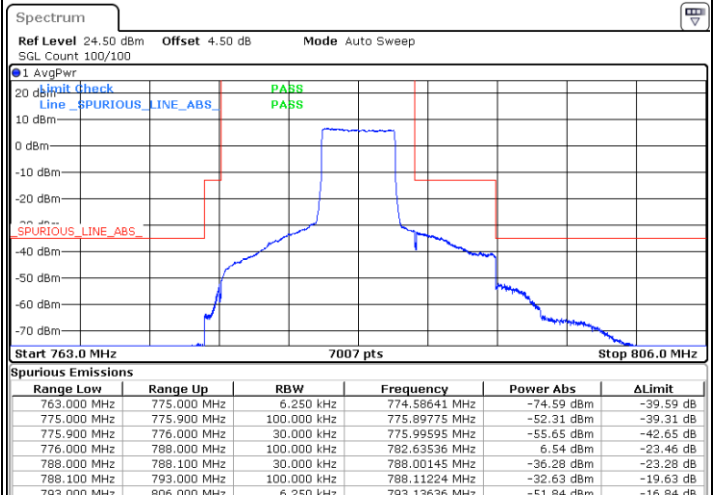
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



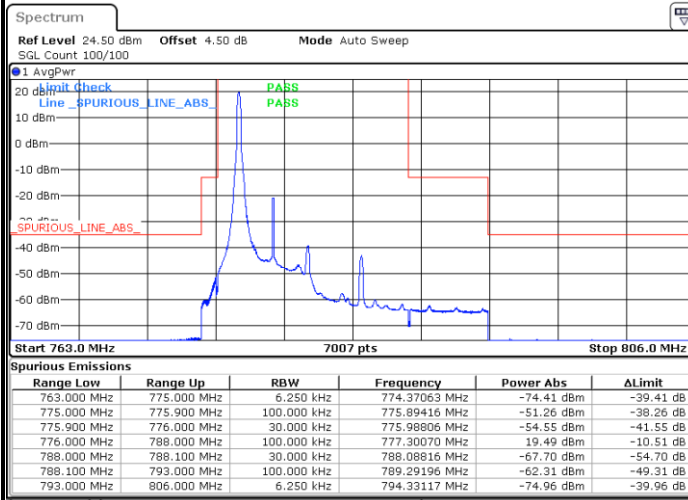
Highest Band Edge / Full RB





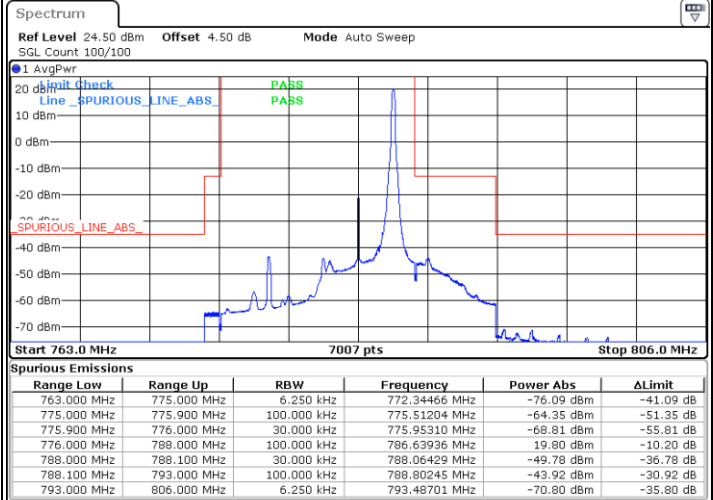
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



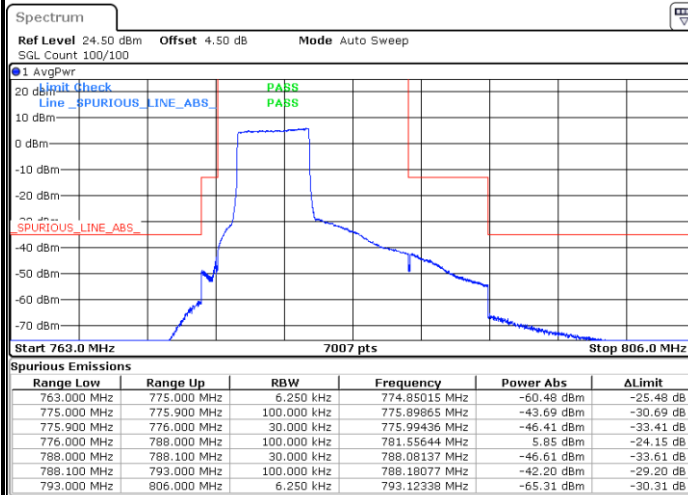
Date: 18 JAN 2020 07:14:32

Highest Band Edge / 1 RB



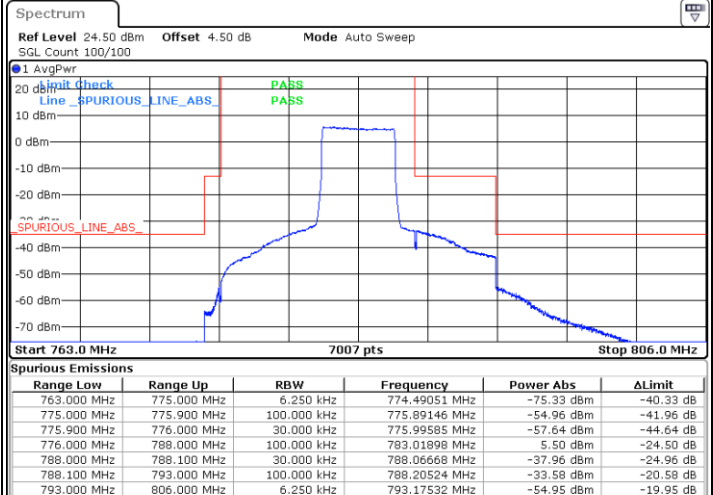
Date: 18 JAN 2020 07:25:58

Lowest Band Edge / Full RB



Date: 18 JAN 2020 07:09:40

Highest Band Edge / Full RB

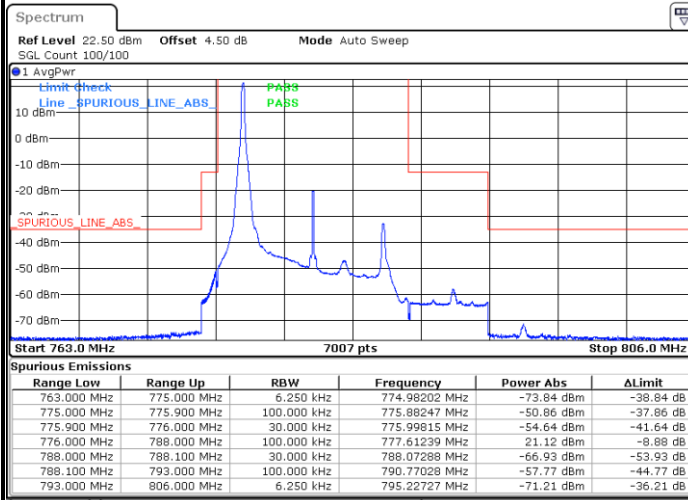


Date: 18 JAN 2020 07:21:06



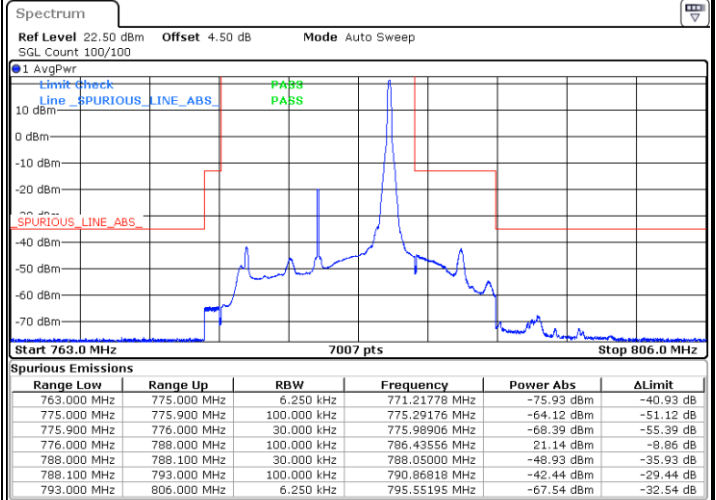
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



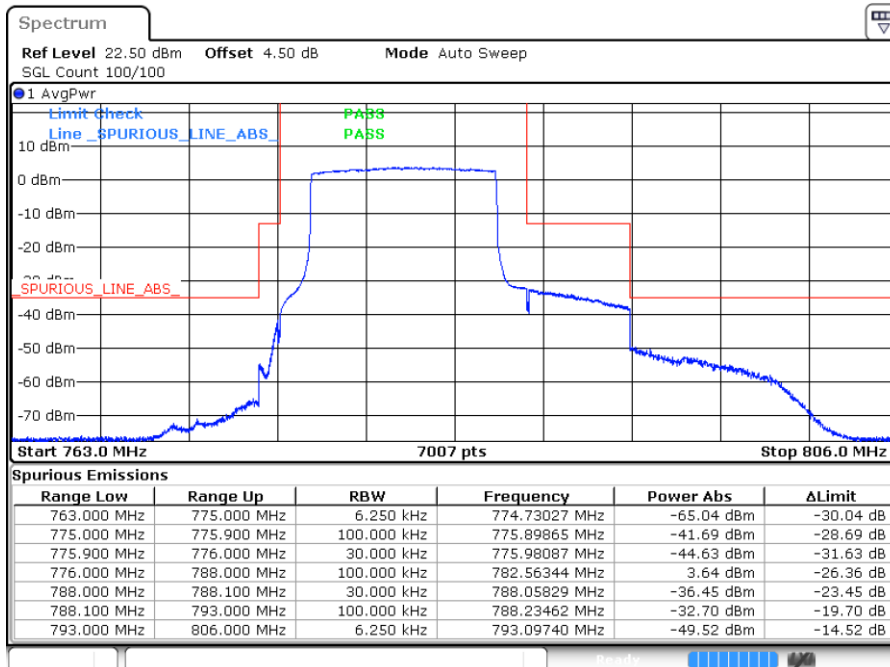
Date: 18 JAN 2020 07:33:29

Highest Band Edge / 1 RB



Date: 18 JAN 2020 07:39:59

Band Edge / Full RB

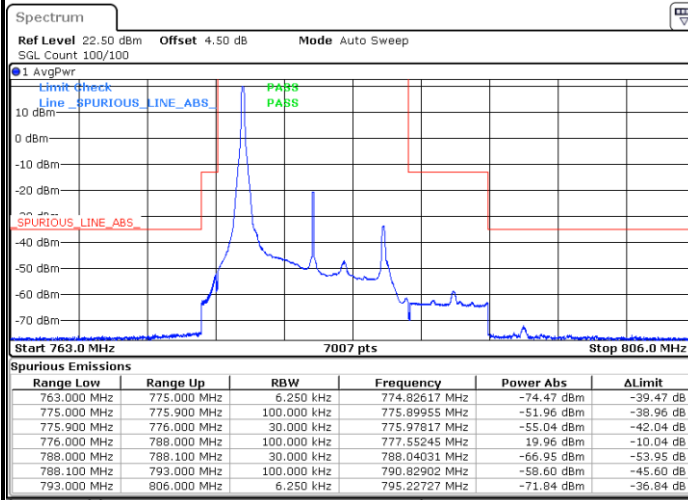


Date: 18 JAN 2020 07:35:07



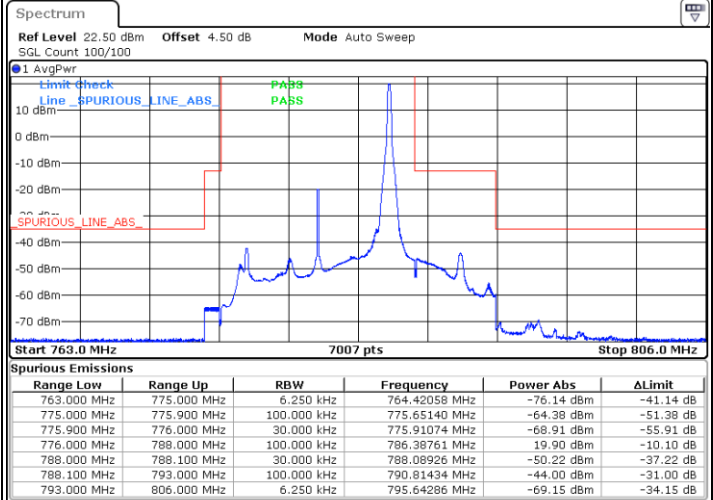
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



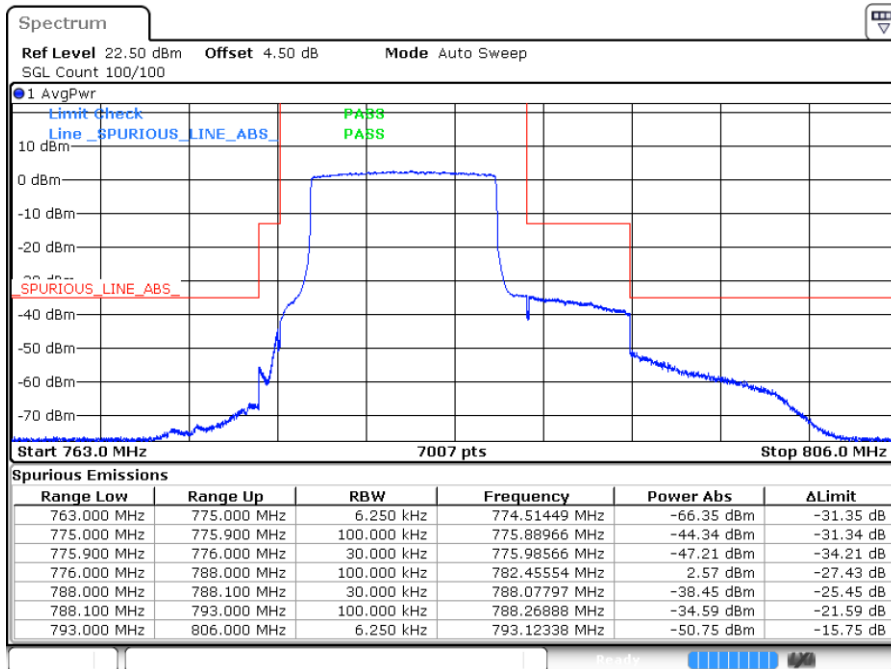
Date: 18 JAN 2020 07:31:52

Highest Band Edge / 1 RB



Date: 18 JAN 2020 07:38:22

Band Edge / Full RB



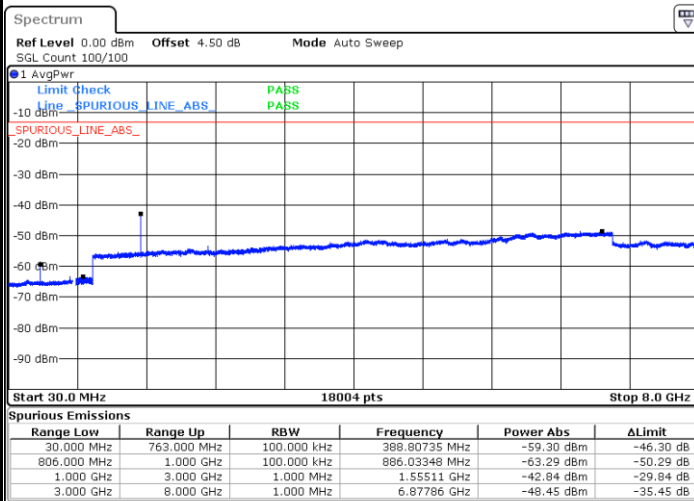
Date: 18 JAN 2020 07:36:44



Conducted Spurious Emission

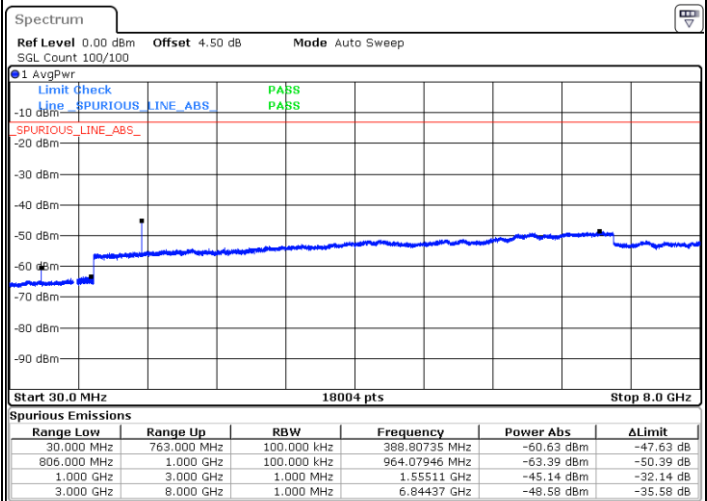
LTE Band 13 / 5MHz

Lowest Channel / QPSK



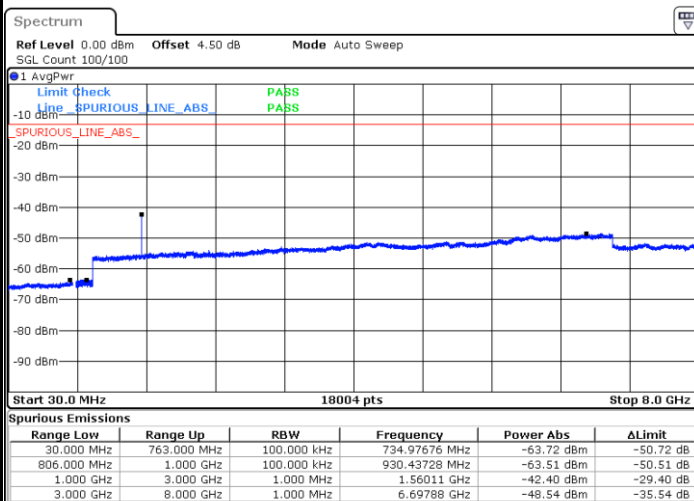
Date: 18 JAN 2020 07:16:20

Lowest Channel / 16QAM



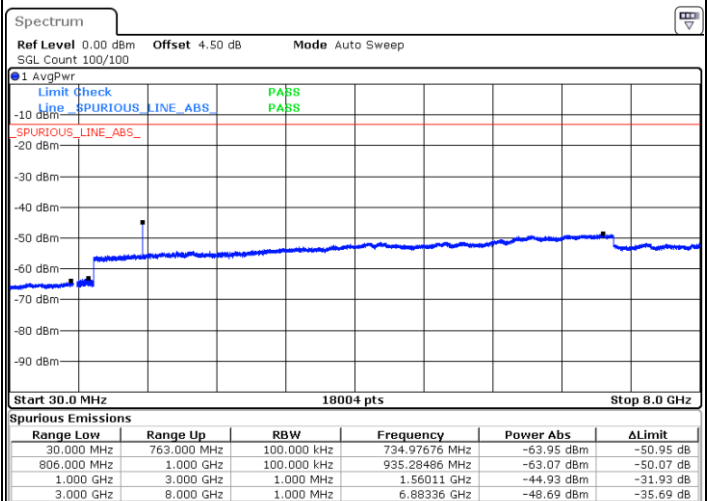
Date: 18 JAN 2020 07:15:26

Middle Channel / QPSK



Date: 18 JAN 2020 07:17:53

Middle Channel / 16QAM

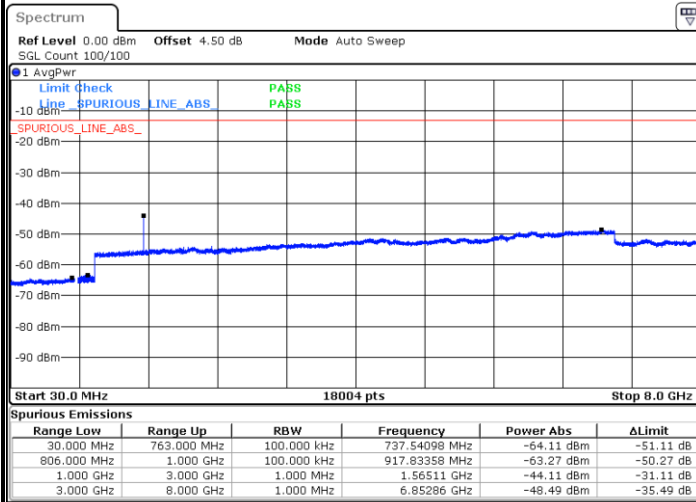


Date: 18 JAN 2020 07:18:48



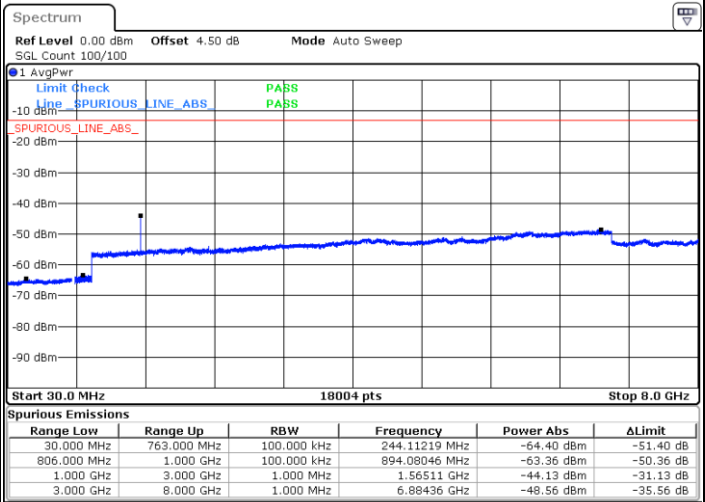
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 18 JAN 2020 07:27:46

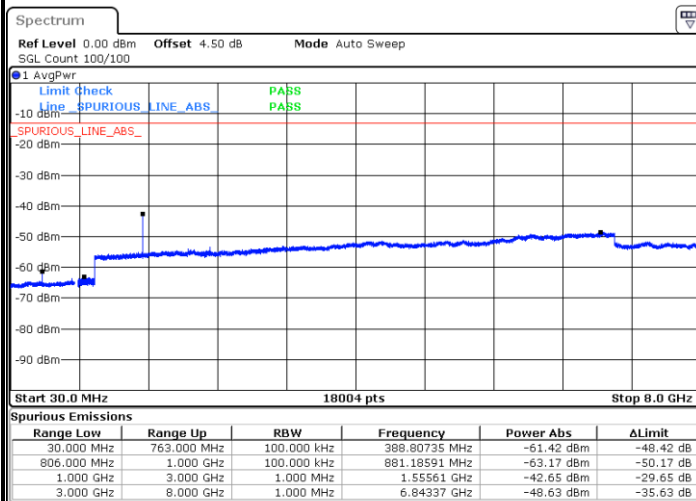
Highest Channel / 16QAM



Date: 18 JAN 2020 07:26:51

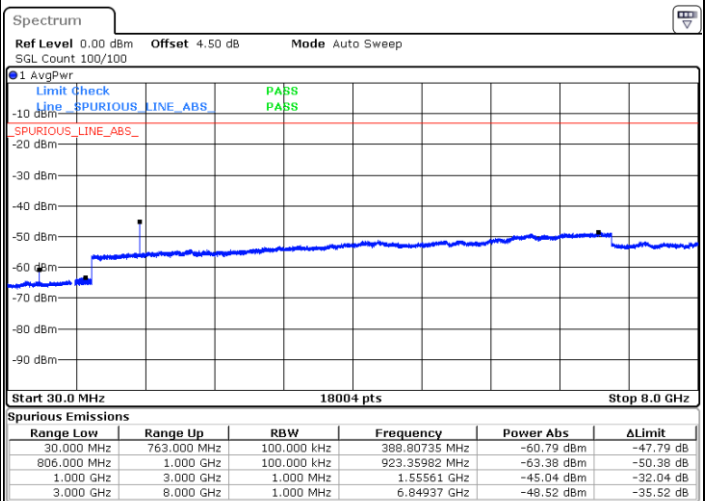
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 18 JAN 2020 07:28:40

Middle Channel / 16QAM



Date: 18 JAN 2020 07:29:34

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0047	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0052	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0058	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0042	

Note:

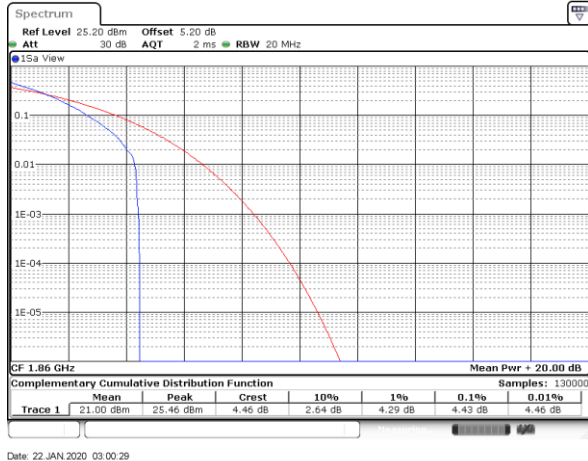
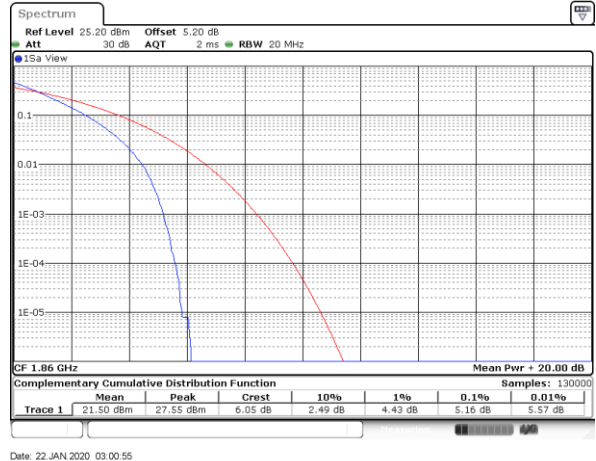
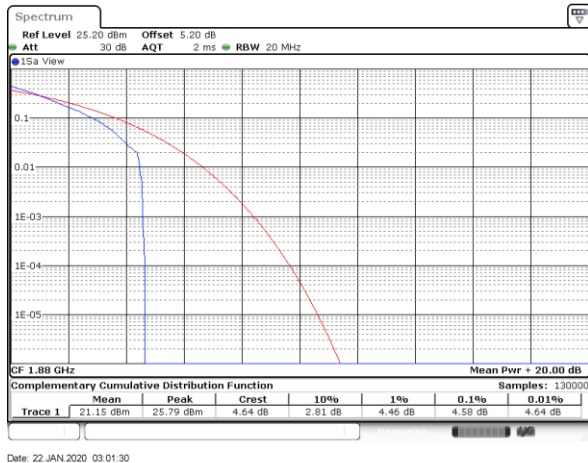
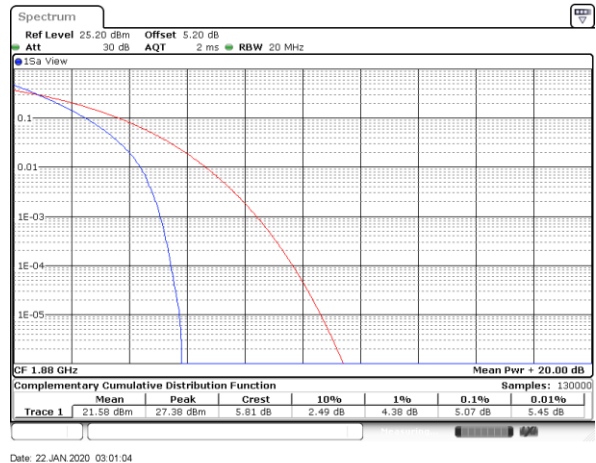
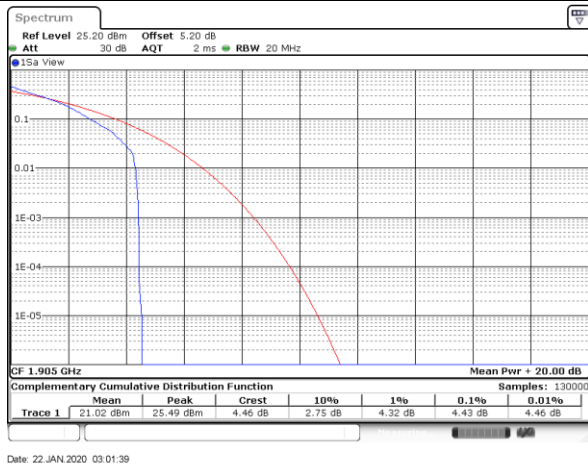
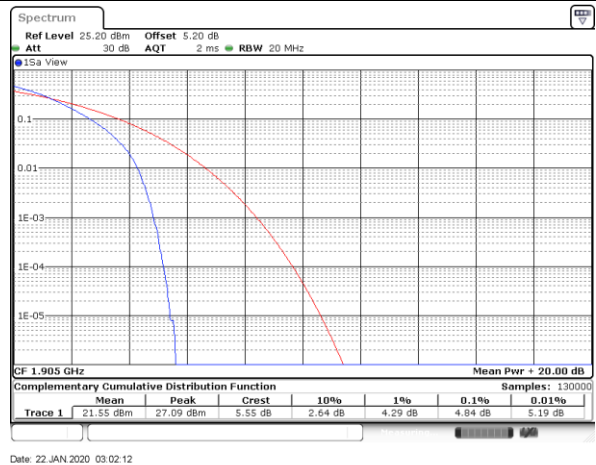
1. Normal Voltage =7.2 V. ; Battery End Point (BEP) =7 V. ; Maximum Voltage =8.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Band 25

Peak-to-Average Ratio

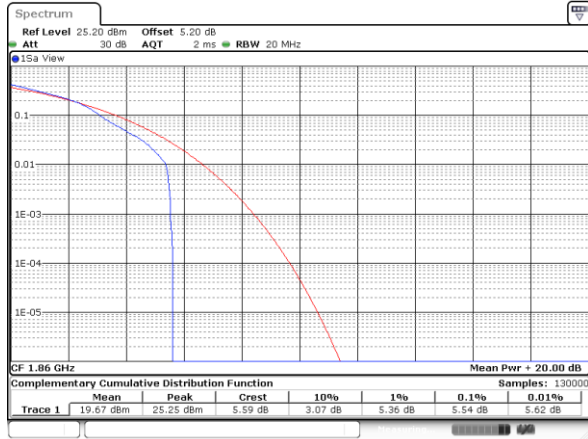
Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.43	5.16	5.54	6.14	PASS
Middle CH	4.58	5.07	5.71	6.14	
Highest CH	4.43	4.84	5.16	5.88	

LTE Band 25 / 20MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB


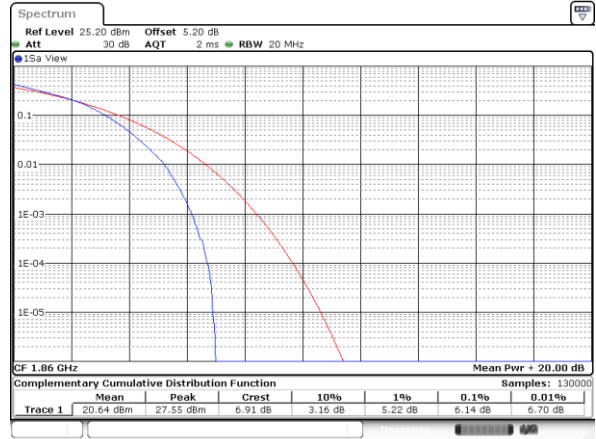


LTE Band 25 / 20MHz / 16QAM

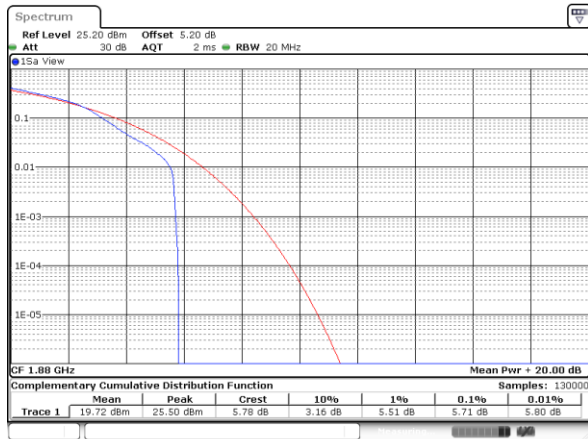
Lowest Channel / 1RB



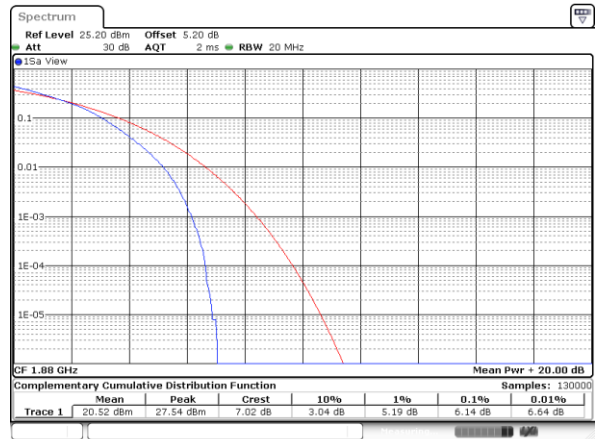
Lowest Channel / Full RB



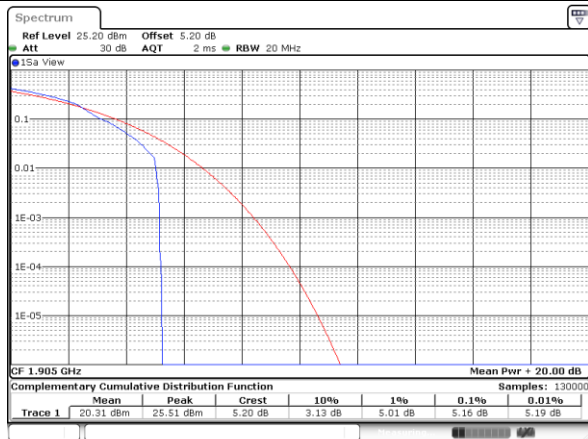
Middle Channel / 1RB



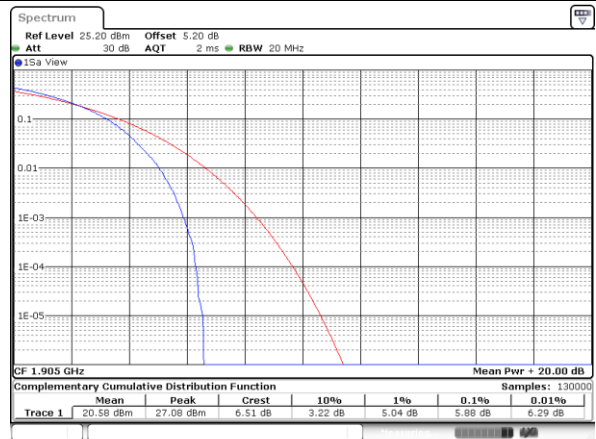
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



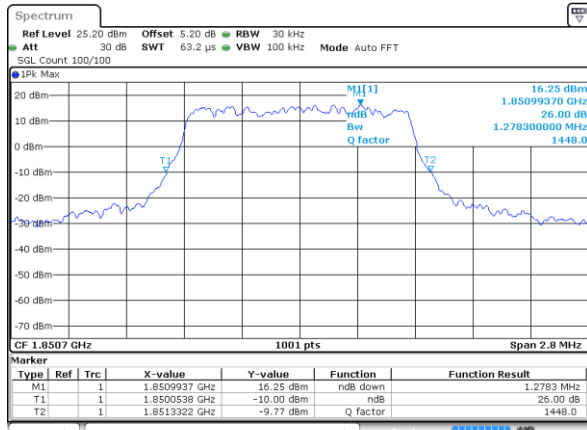
**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.278	1.273	2.967	3.033	4.885	4.945	9.870	9.710	14.655	14.356	20.140	20.260
Middle CH	1.273	1.262	3.003	3.033	4.875	4.915	9.950	9.750	14.356	14.236	20.260	20.140
Highest CH	1.273	1.292	3.015	2.961	4.965	4.915	9.710	9.710	14.476	14.745	20.060	20.020



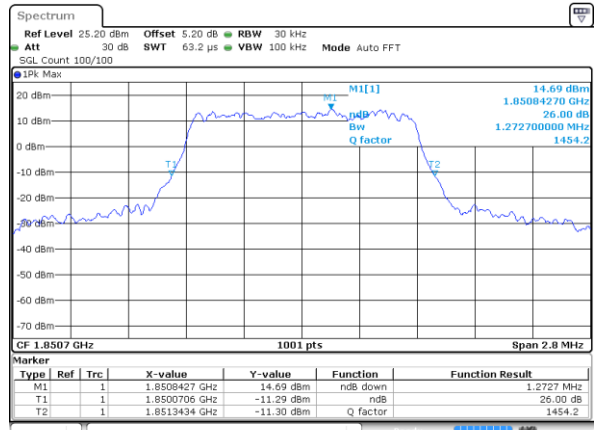
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



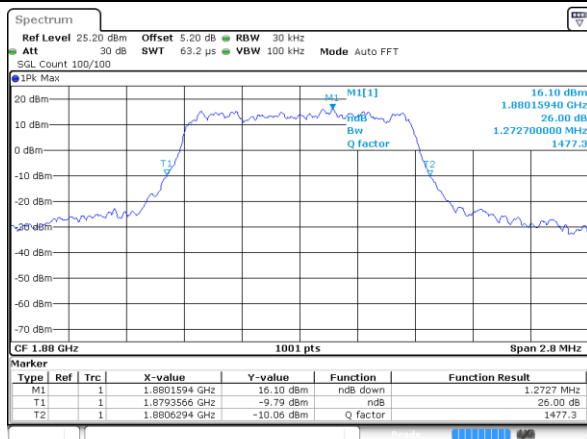
Date: 22 JAN 2020 00:56:28

Lowest Channel / 1.4MHz / 16QAM



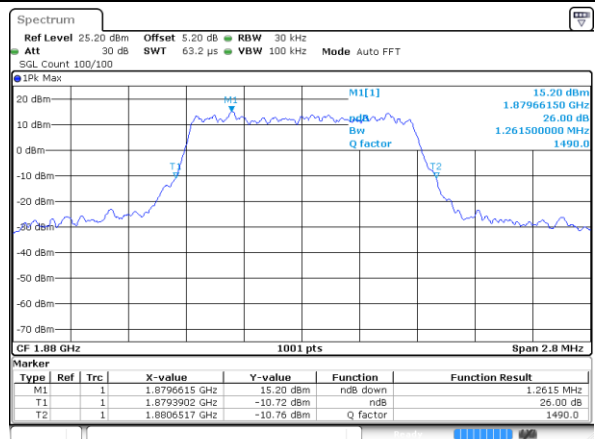
Date: 22 JAN 2020 00:56:48

Middle Channel / 1.4MHz / QPSK



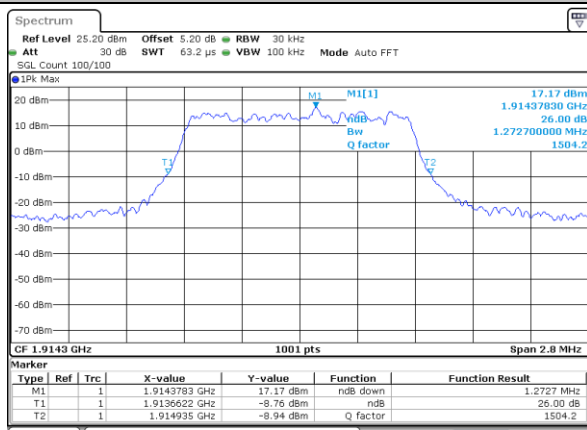
Date: 22 JAN 2020 00:57:28

Middle Channel / 1.4MHz / 16QAM



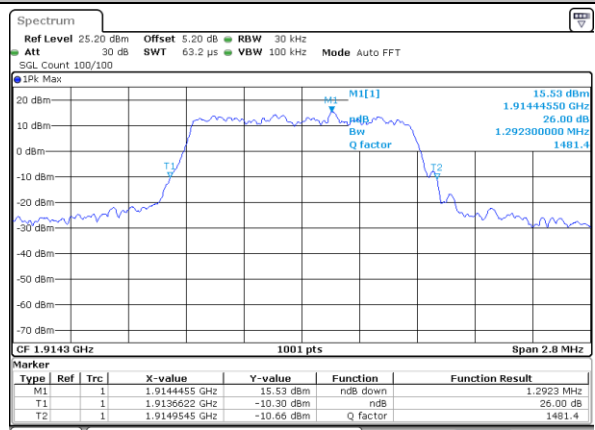
Date: 22 JAN 2020 00:57:48

Highest Channel / 1.4MHz / QPSK



Date: 22 JAN 2020 00:58:28

Highest Channel / 1.4MHz / 16QAM

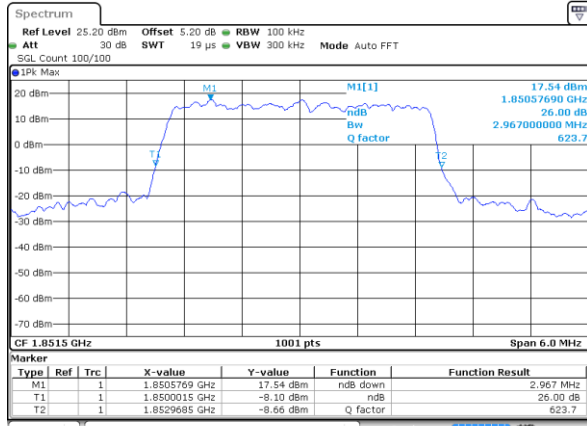


Date: 22 JAN 2020 00:58:48



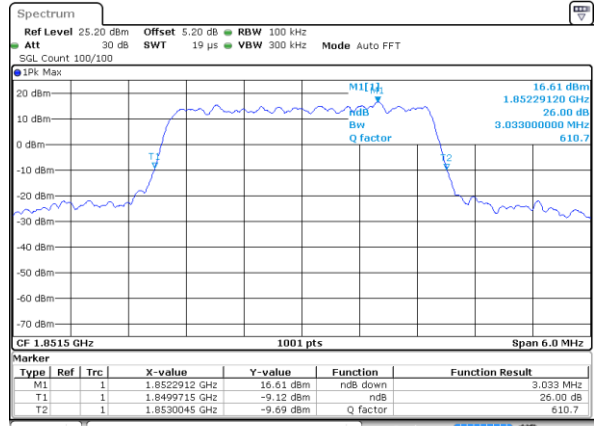
LTE Band 25

Lowest Channel / 3MHz / QPSK



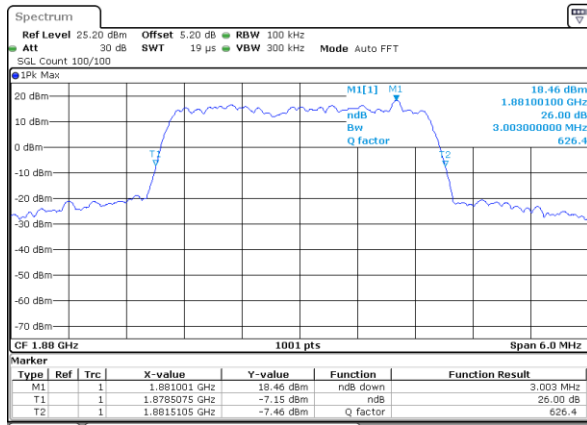
Date: 22 JAN 2020 01:21:08

Lowest Channel / 3MHz / 16QAM



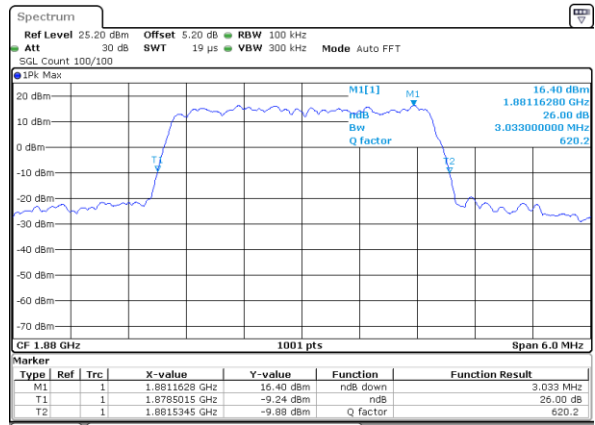
Date: 22 JAN 2020 01:21:28

Middle Channel / 3MHz / QPSK



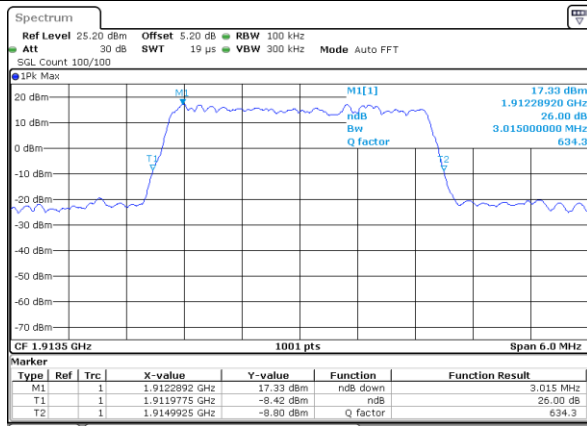
Date: 22 JAN 2020 01:22:08

Middle Channel / 3MHz / 16QAM



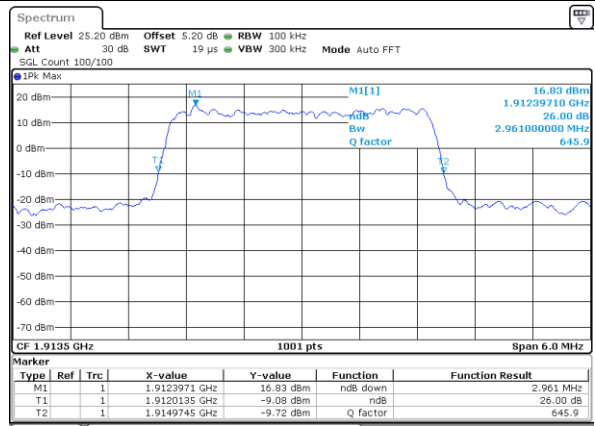
Date: 22 JAN 2020 01:22:28

Highest Channel / 3MHz / QPSK



Date: 22 JAN 2020 01:23:08

Highest Channel / 3MHz / 16QAM

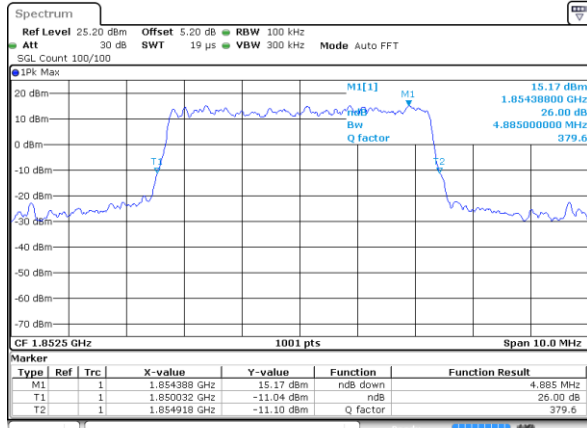


Date: 22 JAN 2020 01:23:28

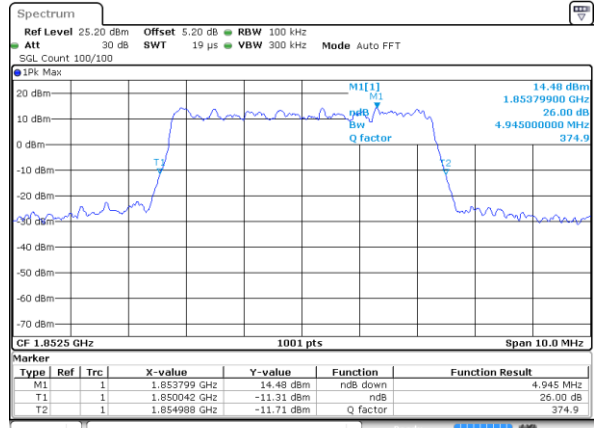


LTE Band 25

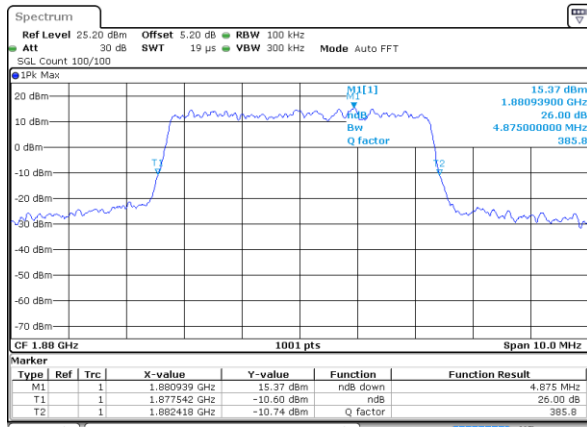
Lowest Channel / 5MHz / QPSK



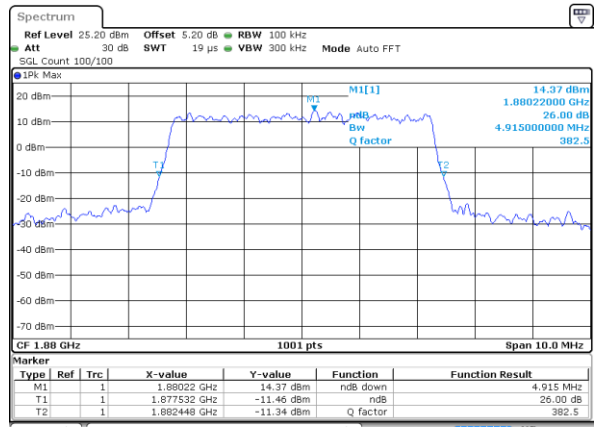
Lowest Channel / 5MHz / 16QAM



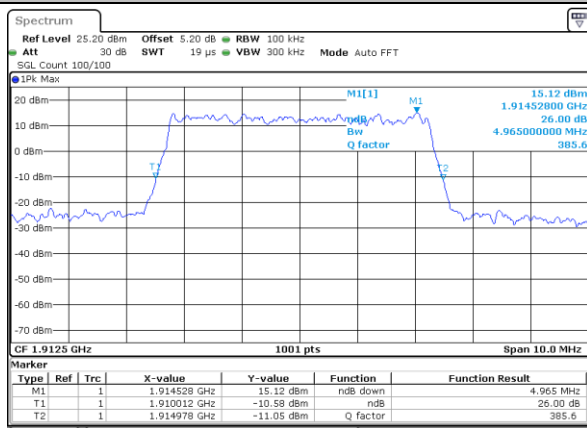
Middle Channel / 5MHz / QPSK



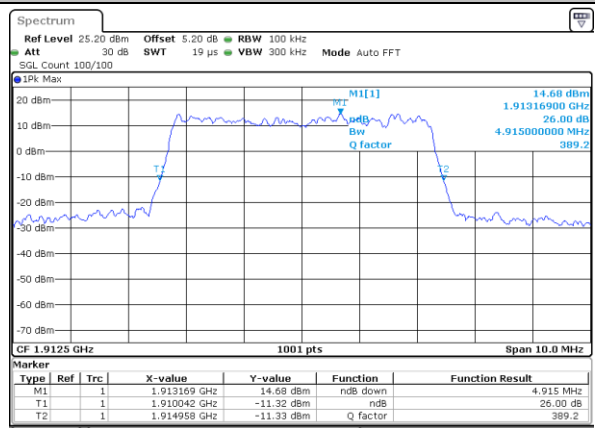
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



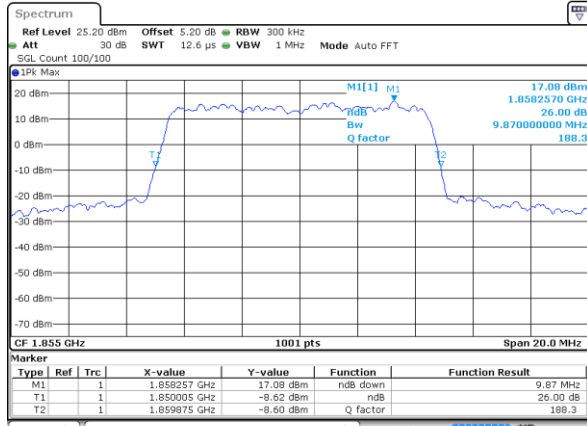
Highest Channel / 5MHz / 16QAM



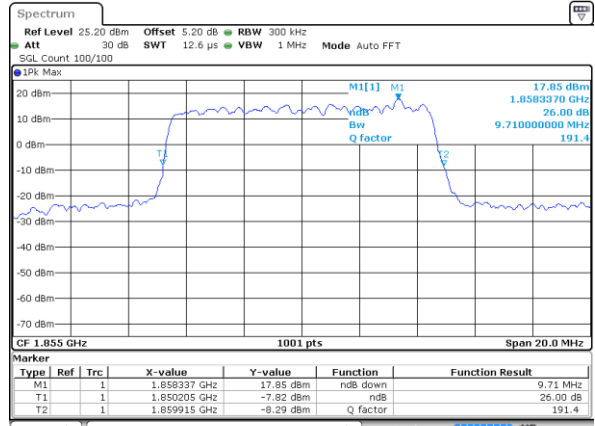


LTE Band 25

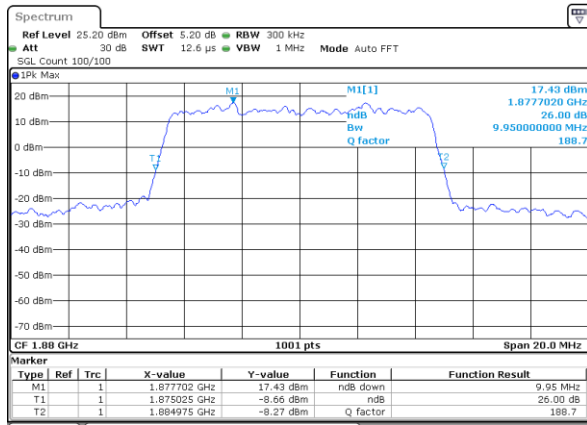
Lowest Channel / 10MHz / QPSK



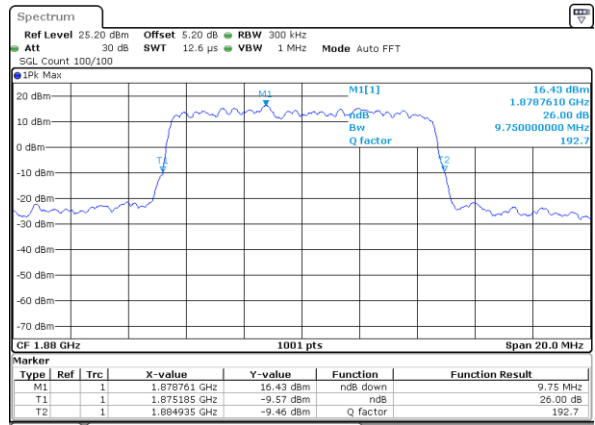
Lowest Channel / 10MHz / 16QAM



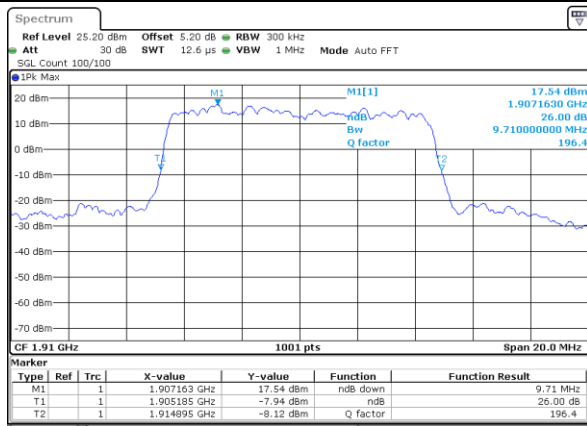
Middle Channel / 10MHz / QPSK



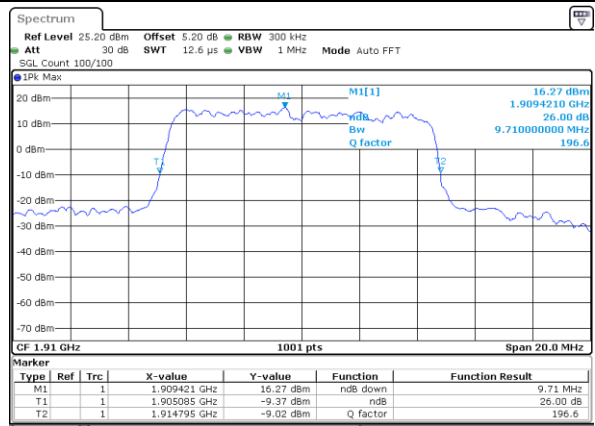
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



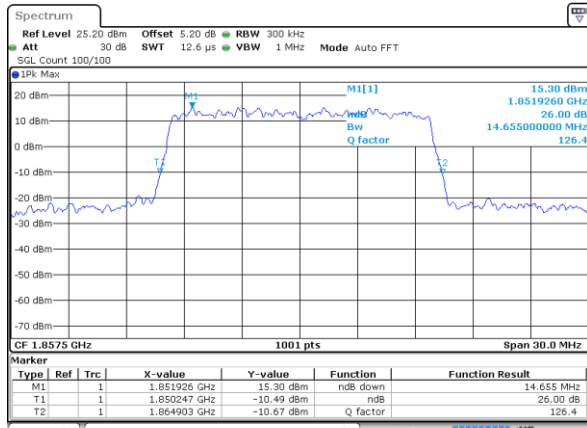
Highest Channel / 10MHz / 16QAM





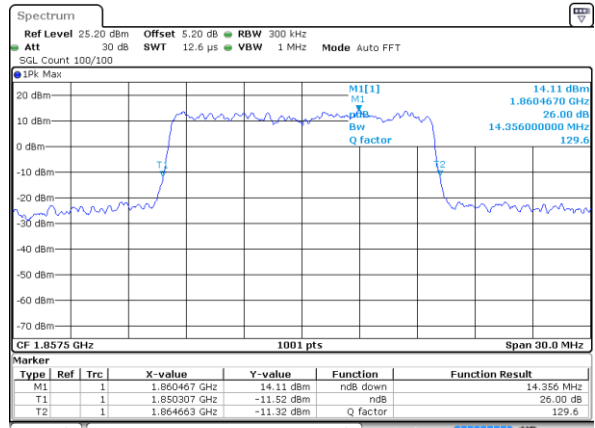
LTE Band 25

Lowest Channel / 15MHz / QPSK



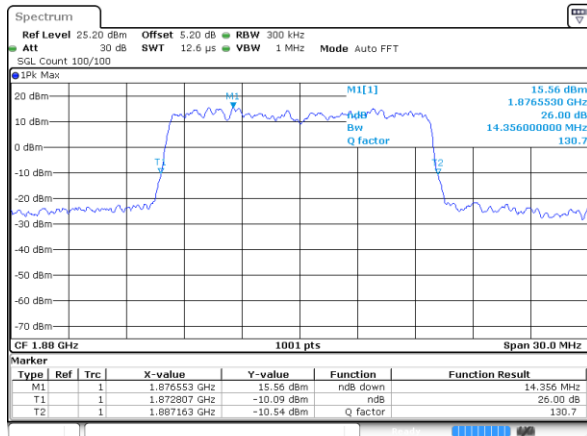
Date: 22 JAN 2020 02:20:39

Lowest Channel / 15MHz / 16QAM



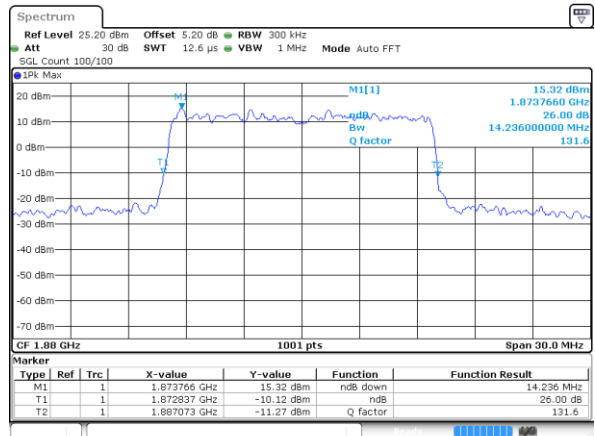
Date: 22 JAN 2020 02:20:59

Middle Channel / 15MHz / QPSK



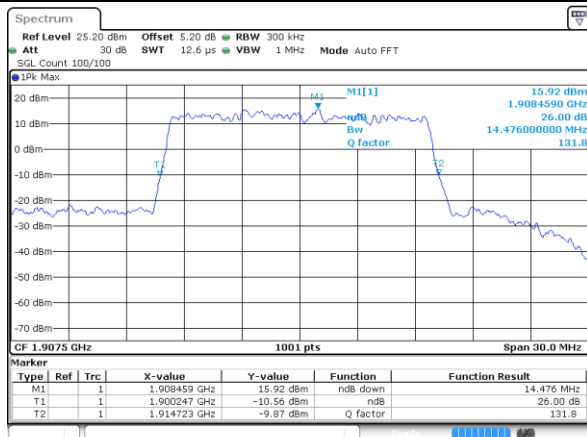
Date: 22 JAN 2020 02:29:46

Middle Channel / 15MHz / 16QAM



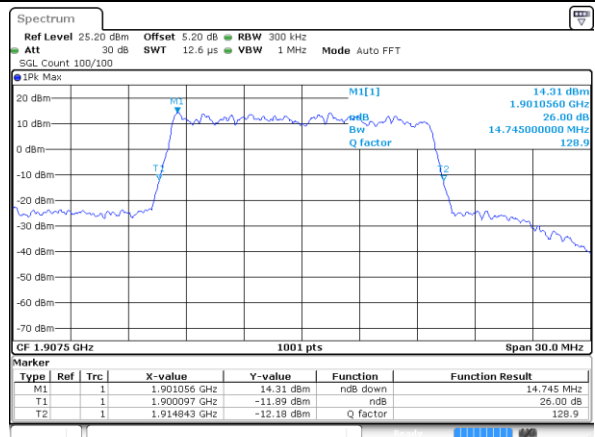
Date: 22 JAN 2020 02:29:27

Highest Channel / 15MHz / QPSK



Date: 22 JAN 2020 02:30:06

Highest Channel / 15MHz / 16QAM

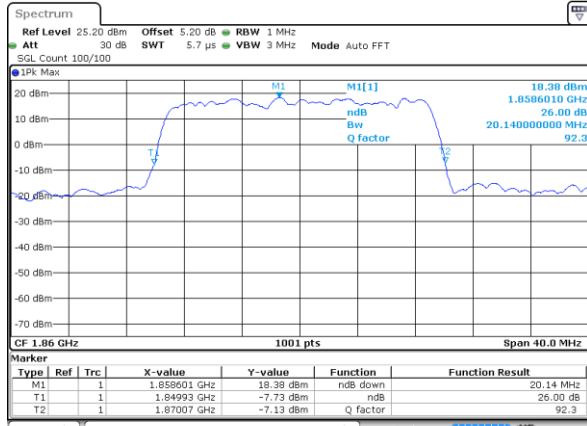


Date: 22 JAN 2020 02:30:26



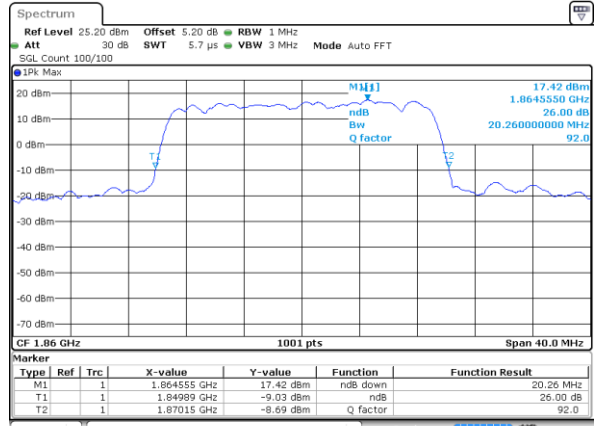
LTE Band 25

Lowest Channel / 20MHz / QPSK



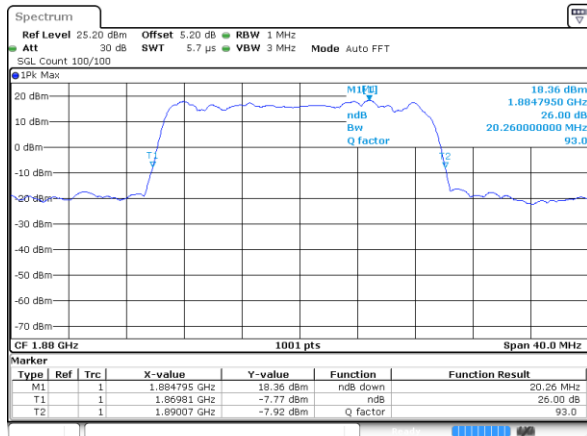
Date: 22 JAN 2020 02:37:05

Lowest Channel / 20MHz / 16QAM



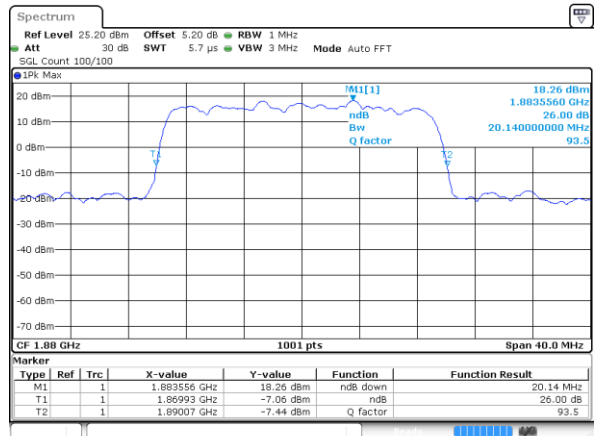
Date: 22 JAN 2020 02:37:25

Middle Channel / 20MHz / QPSK



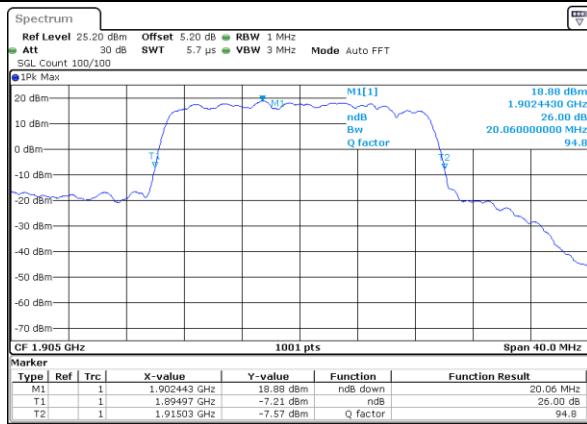
Date: 22 JAN 2020 02:46:12

Middle Channel / 20MHz / 16QAM



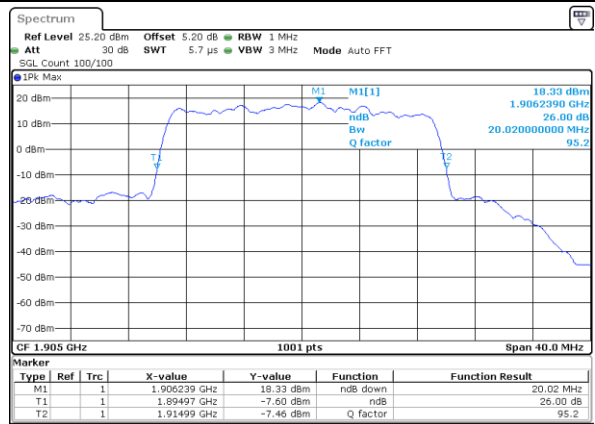
Date: 22 JAN 2020 02:46:52

Highest Channel / 20MHz / QPSK



Date: 22 JAN 2020 02:46:32

Highest Channel / 20MHz / 16QAM



Date: 22 JAN 2020 02:46:52

**Occupied Bandwidth**

Mode	LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.091	1.094	2.697	2.721	4.505	4.496	9.011	8.991	13.367	13.457	18.342	18.462
Middle CH	1.091	1.099	2.727	2.715	4.486	4.486	9.011	8.971	13.516	13.487	18.382	18.222
Highest CH	1.088	1.094	2.715	2.709	4.515	4.486	9.091	9.031	13.487	13.427	18.142	18.422