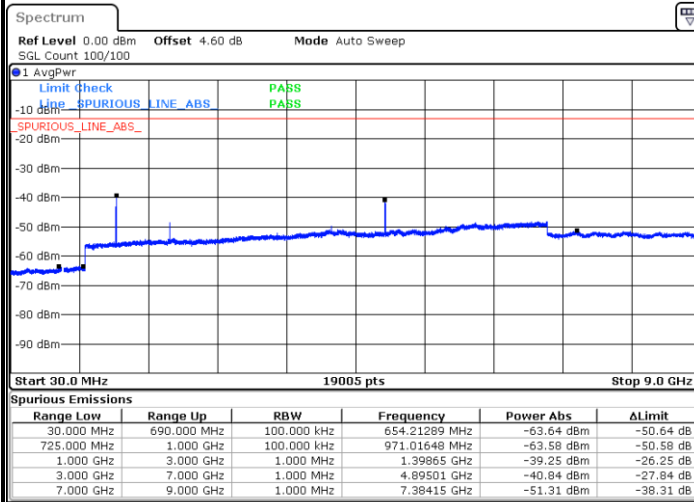




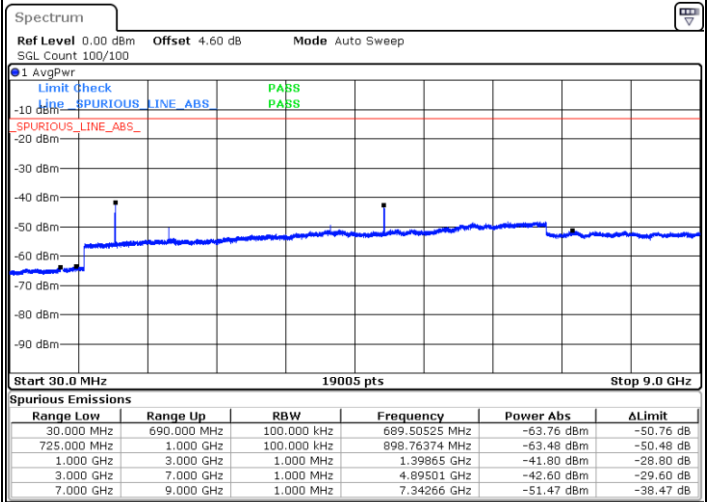
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



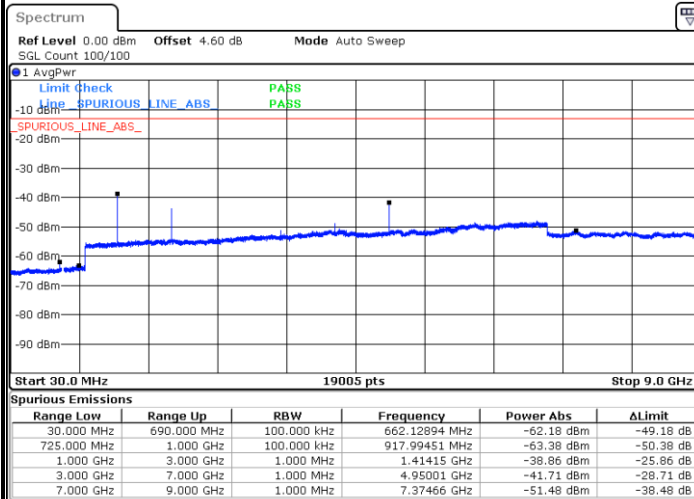
Date: 26.OCT.2019 00:41:45

Lowest Channel / 16QAM



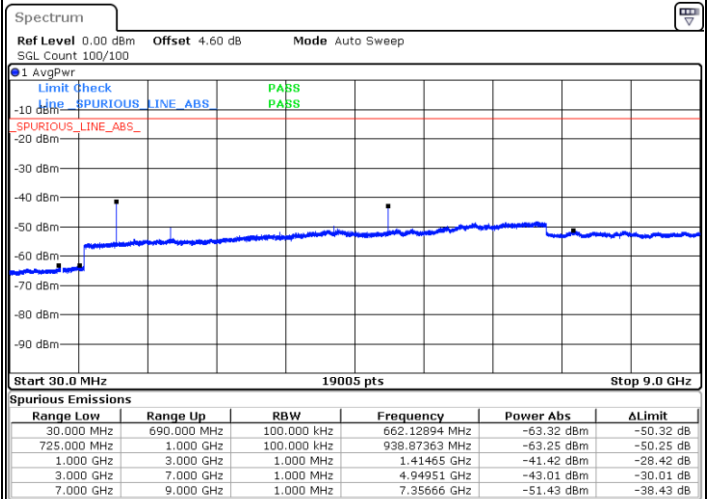
Date: 26.OCT.2019 00:42:39

Middle Channel / QPSK



Date: 26.OCT.2019 00:44:27

Middle Channel / 16QAM

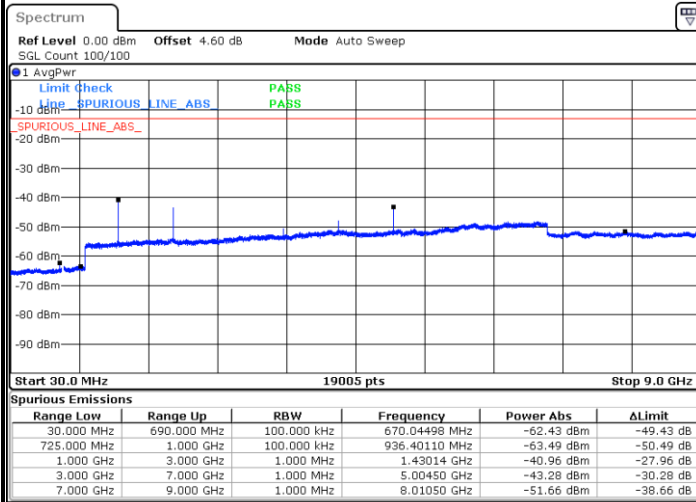


Date: 26.OCT.2019 00:43:33



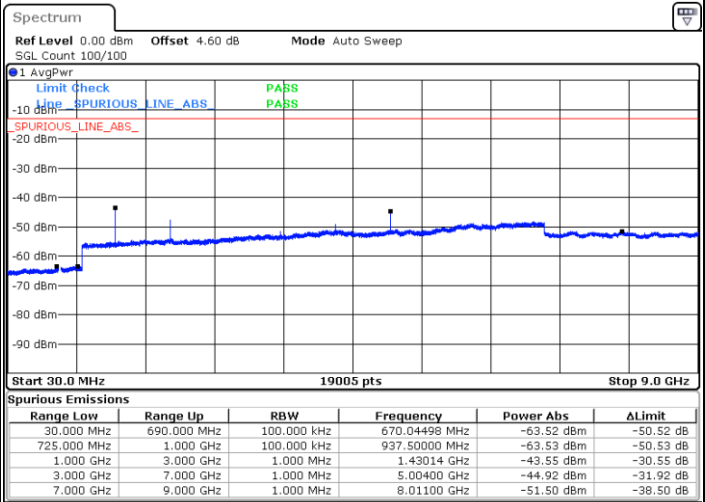
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 26.OCT.2019 00:45:21

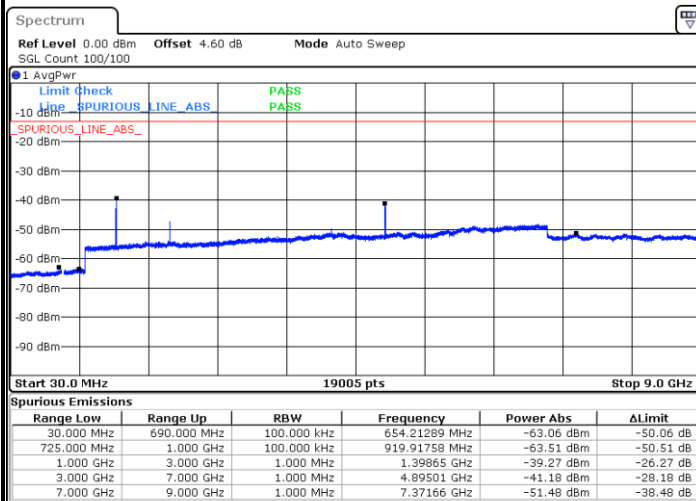
Highest Channel / 16QAM



Date: 26.OCT.2019 00:46:16

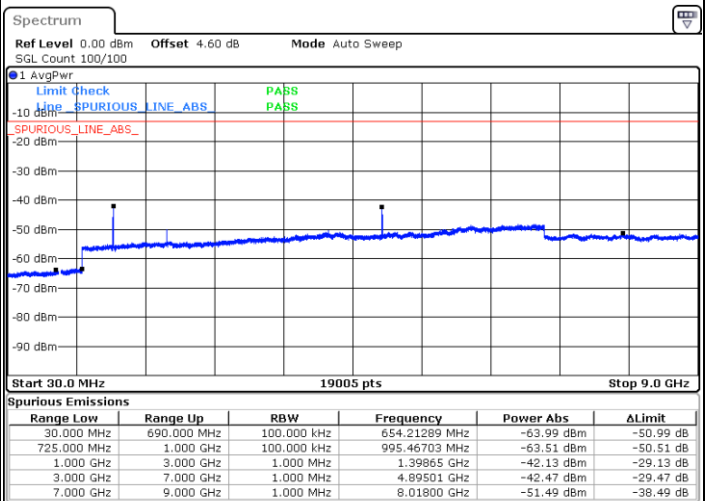
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 26.OCT.2019 00:58:08

Lowest Channel / 16QAM

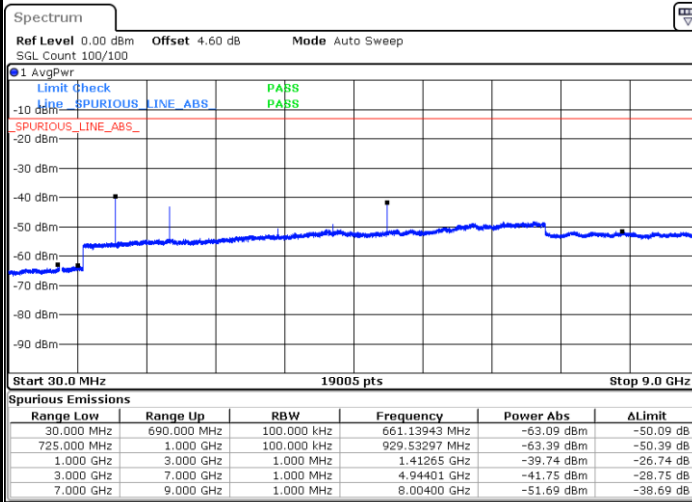


Date: 26.OCT.2019 00:59:02



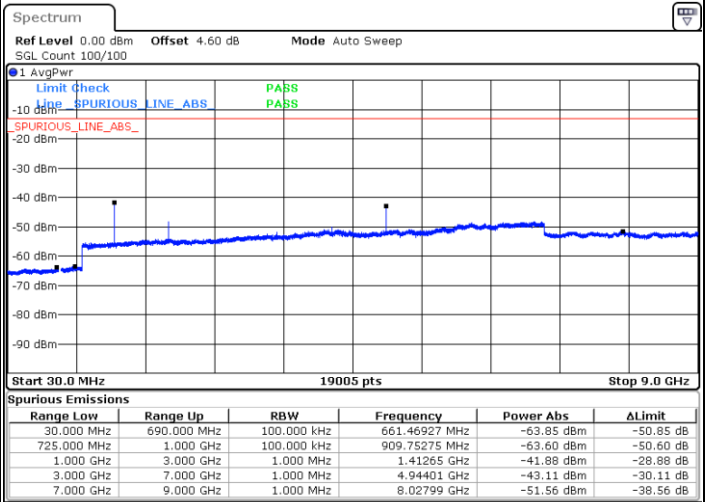
LTE Band 12 / 3MHz

Middle Channel / QPSK



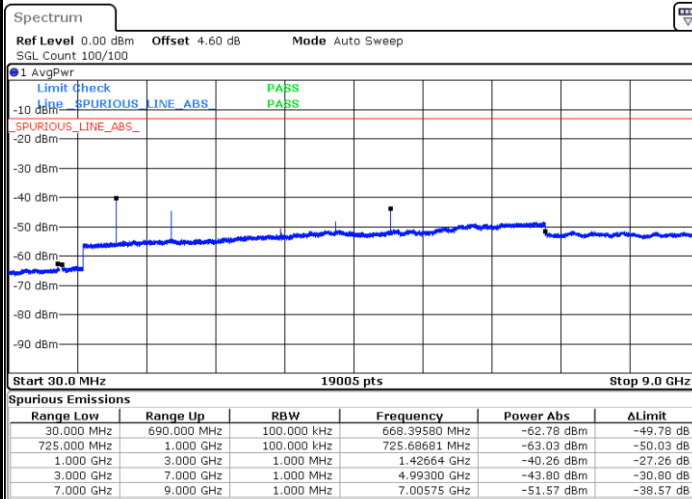
Date: 26.OCT.2019 01:00:50

Middle Channel / 16QAM



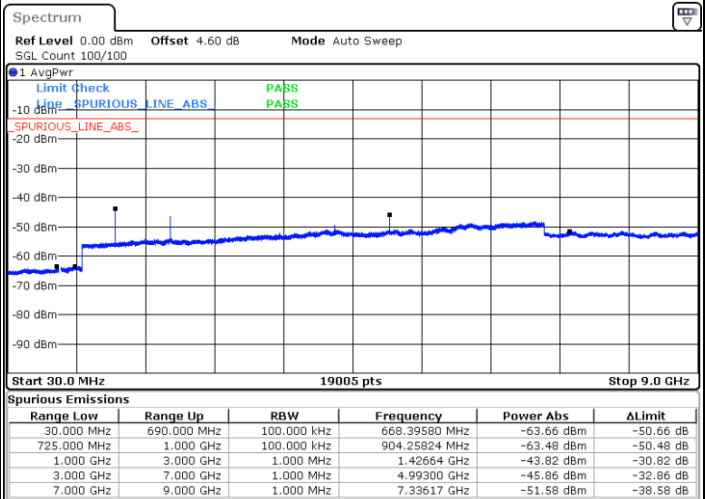
Date: 26.OCT.2019 00:59:56

Highest Channel / QPSK



Date: 26.OCT.2019 01:01:45

Highest Channel / 16QAM

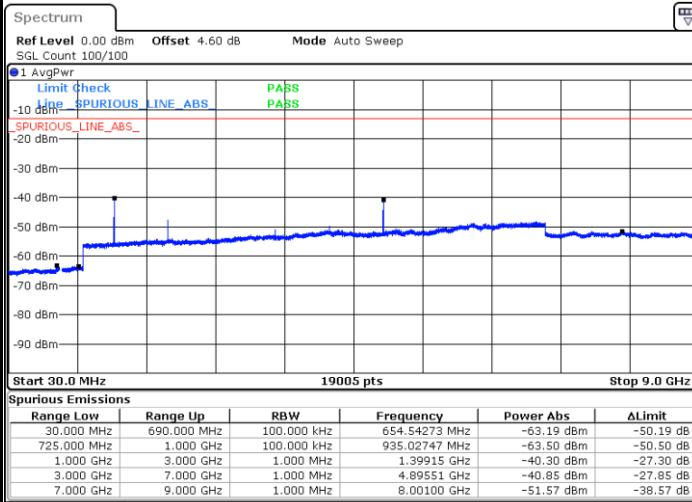


Date: 26.OCT.2019 01:02:39



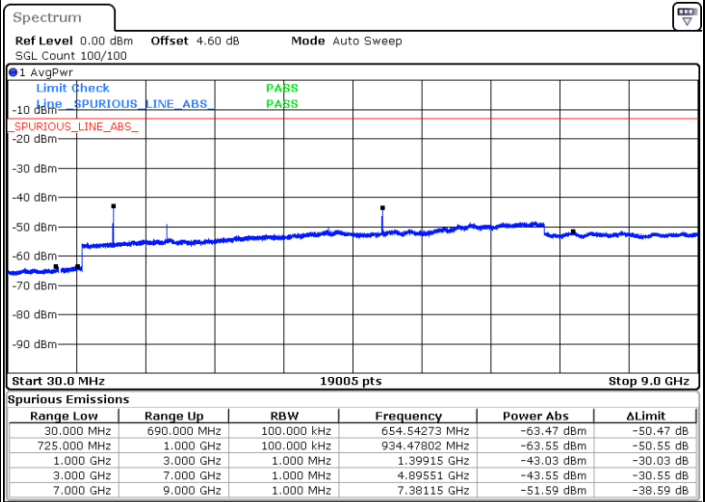
LTE Band 12 / 5MHz

Lowest Channel / QPSK



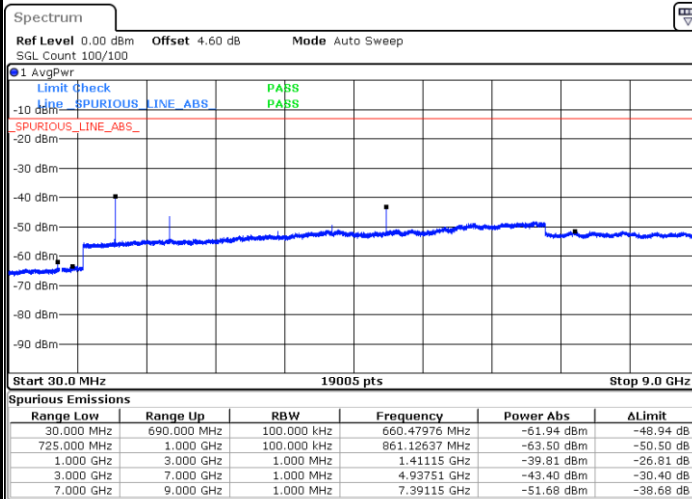
Date: 26.OCT.2019 01:14:31

Lowest Channel / 16QAM



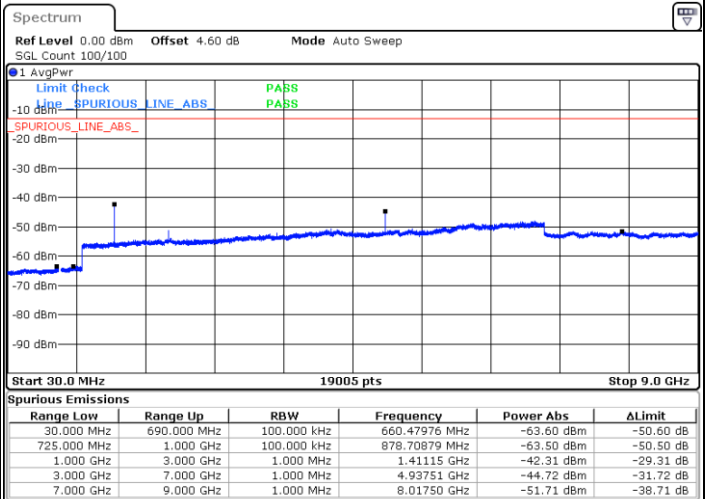
Date: 26.OCT.2019 01:15:25

Middle Channel / QPSK



Date: 26.OCT.2019 01:17:14

Middle Channel / 16QAM

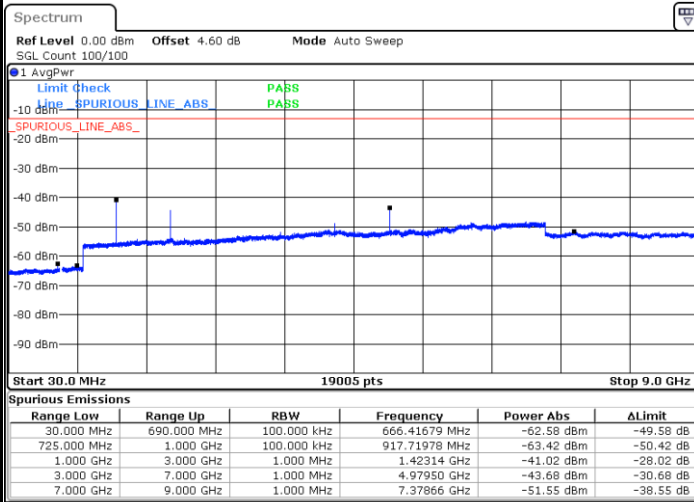


Date: 26.OCT.2019 01:16:20



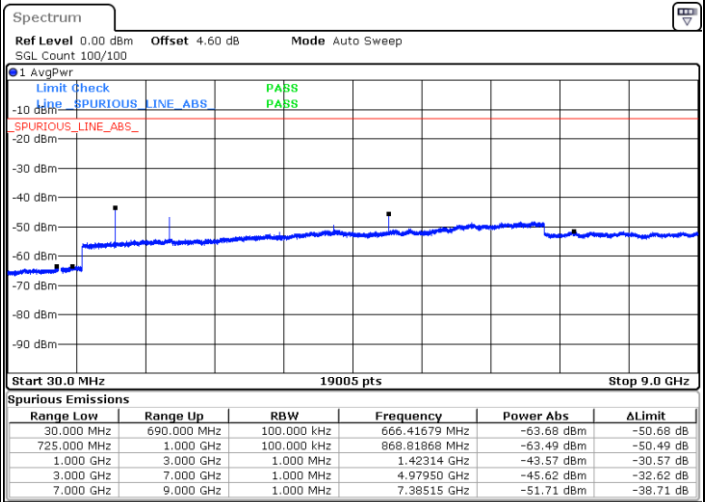
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 26.OCT.2019 01:18:08

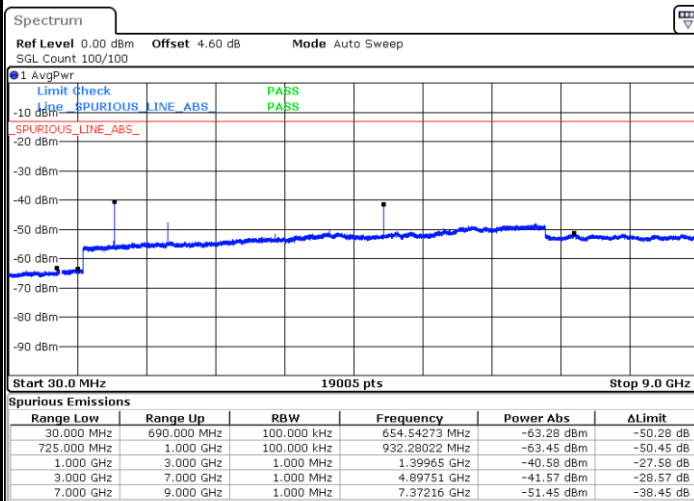
Highest Channel / 16QAM



Date: 26.OCT.2019 01:19:02

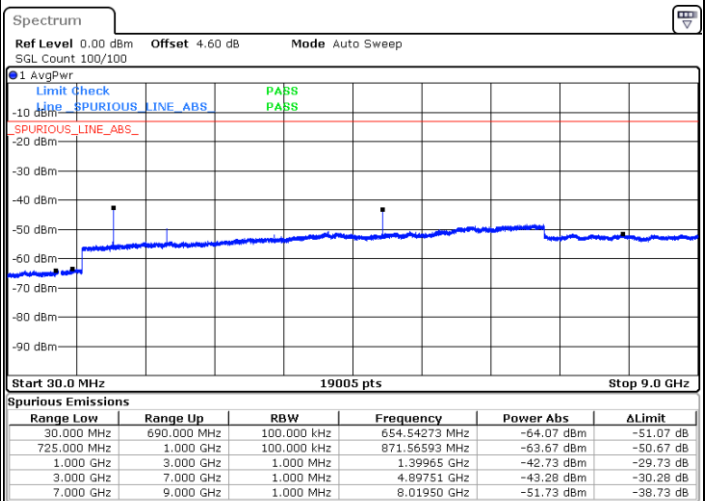
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 26.OCT.2019 01:30:55

Lowest Channel / 16QAM

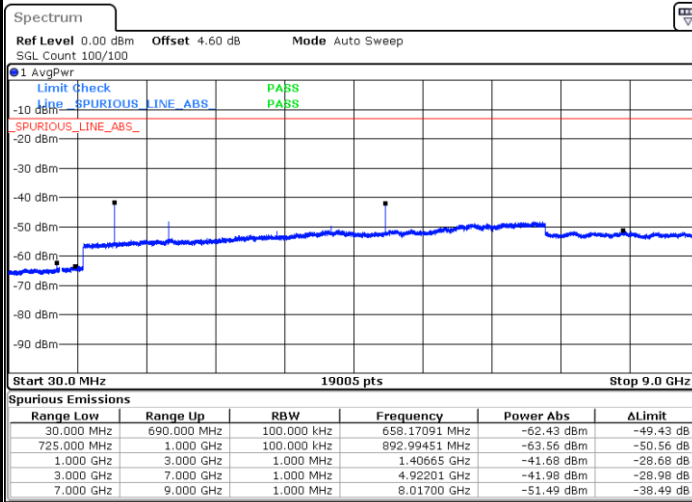


Date: 26.OCT.2019 01:31:49



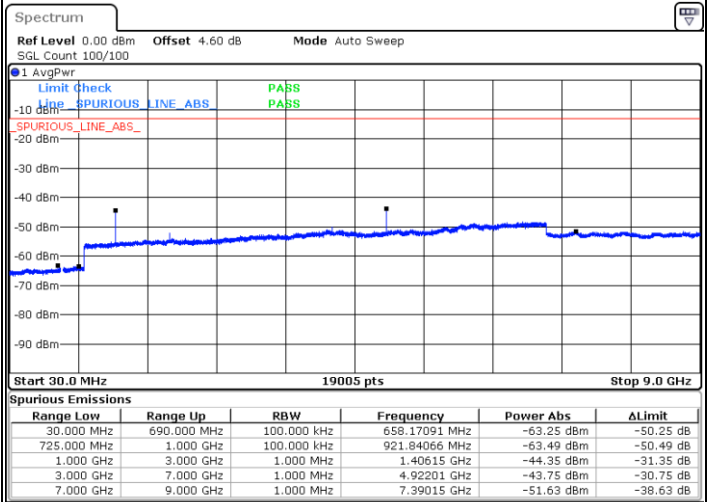
LTE Band 12 / 10MHz

Middle Channel / QPSK



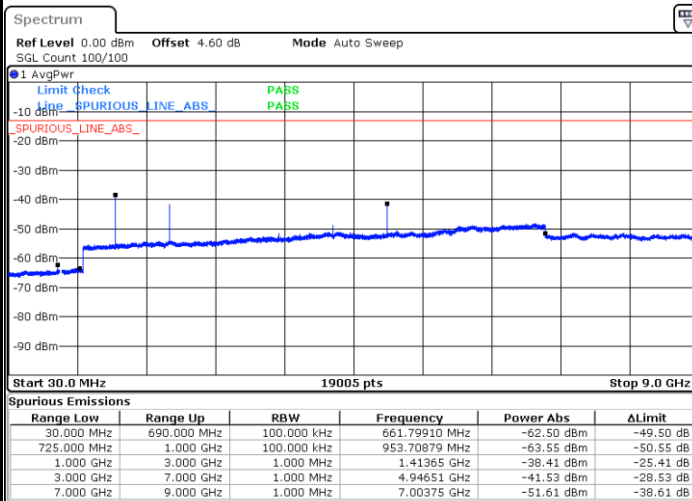
Date: 26.OCT.2019 01:33:38

Middle Channel / 16QAM



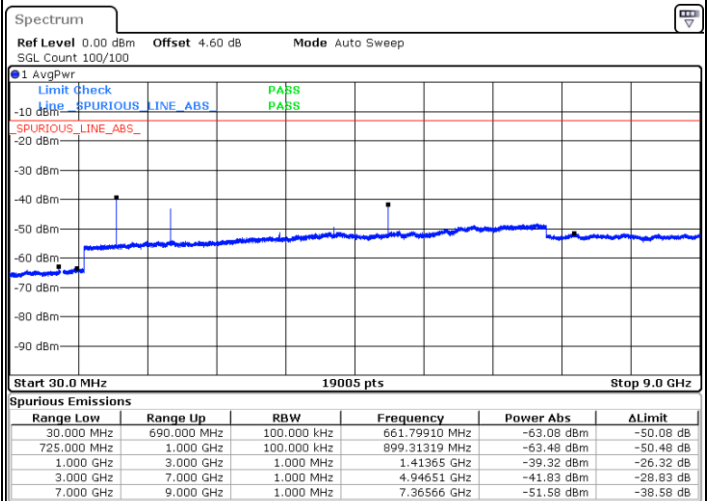
Date: 26.OCT.2019 01:32:43

Highest Channel / QPSK



Date: 26.OCT.2019 01:34:32

Highest Channel / 16QAM



Date: 26.OCT.2019 01:35:26

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	0.0001	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0086	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0089	
0	Normal Voltage	0.0062	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0068	
-30	Normal Voltage	0.0057	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0092	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

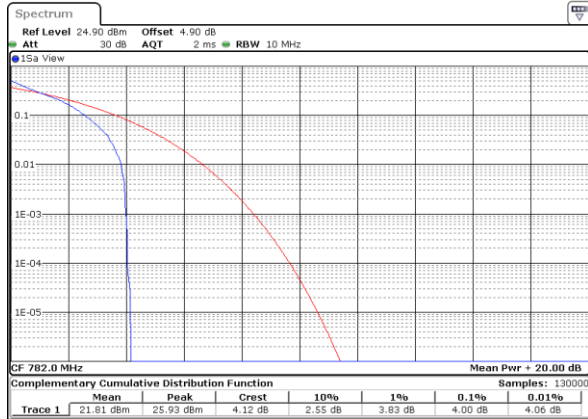
Peak-to-Average Ratio

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	4.87	4.96	5.94	
Highest CH	-	-	-	-	

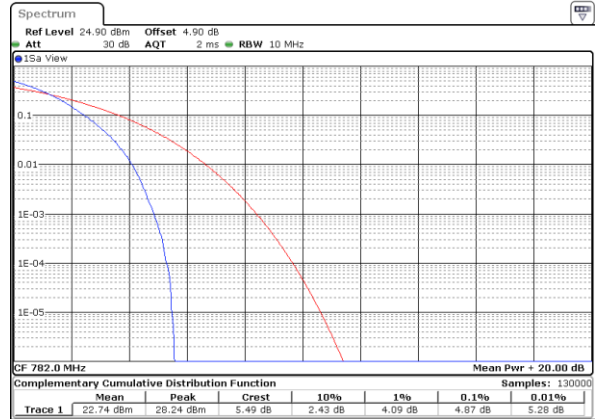


LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB

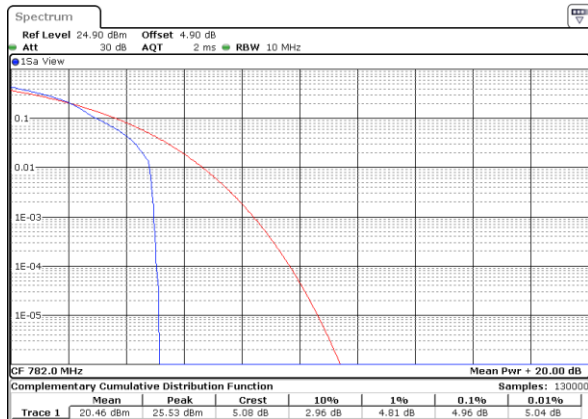


Middle Channel / Full RB

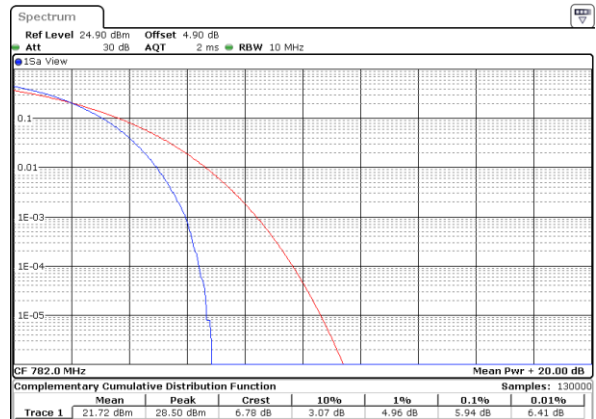


LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Middle Channel / Full RB





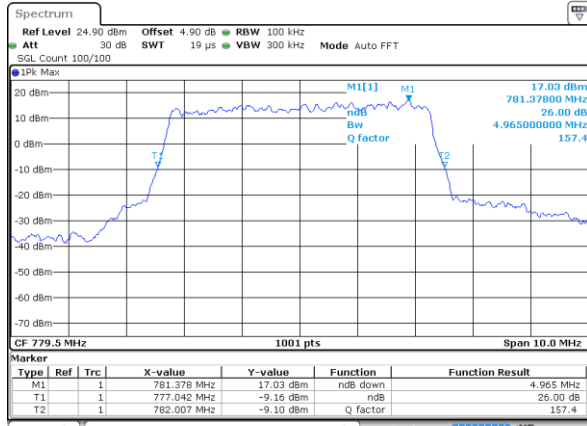
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.965	4.915	-	-
Middle CH	4.865	4.965	9.71	9.79
Highest CH	4.935	4.915	-	-



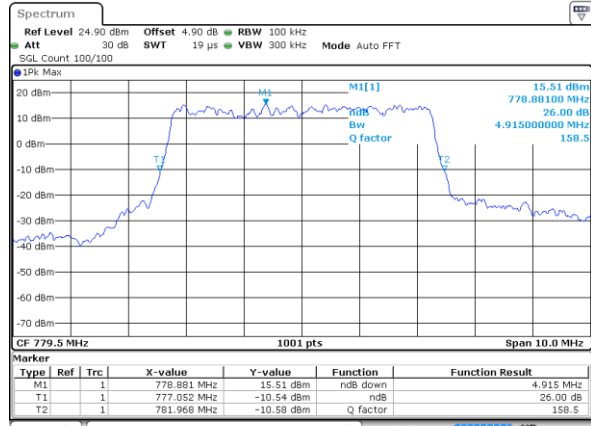
LTE Band 13

Lowest Channel / 5MHz / QPSK



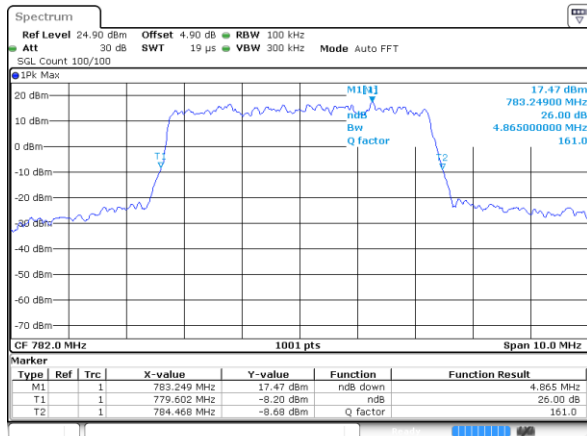
Date: 31.OCT.2019 14:12:58

Lowest Channel / 5MHz / 16QAM



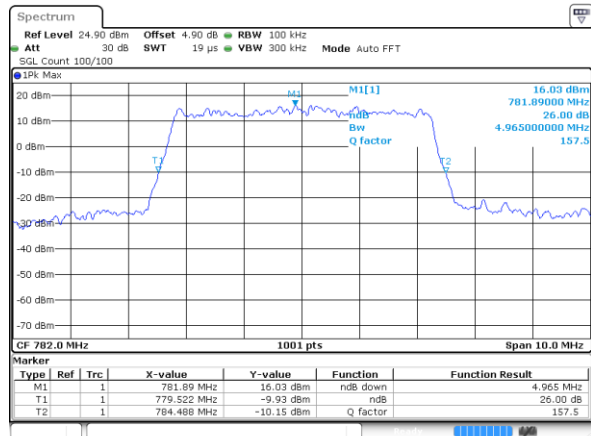
Date: 31.OCT.2019 14:13:08

Middle Channel / 5MHz / QPSK



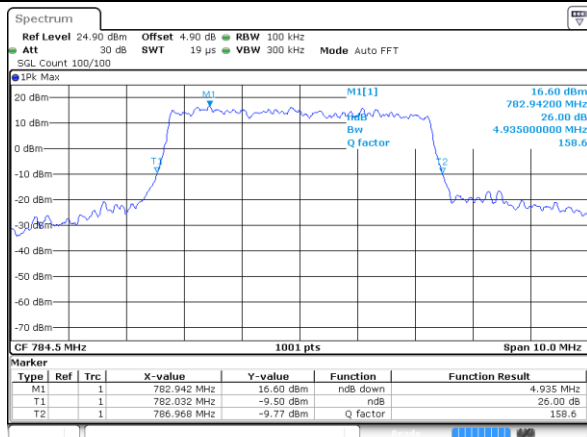
Date: 31.OCT.2019 14:21:56

Middle Channel / 5MHz / 16QAM



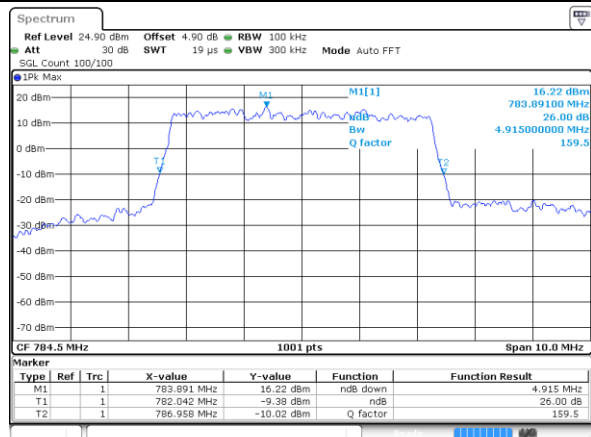
Date: 31.OCT.2019 14:22:06

Highest Channel / 5MHz / QPSK



Date: 31.OCT.2019 14:24:35

Highest Channel / 5MHz / 16QAM

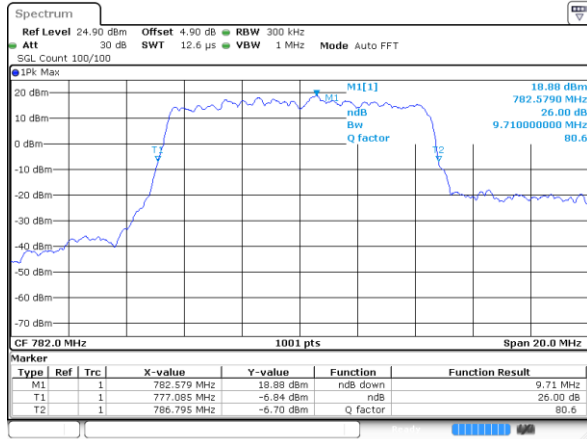


Date: 31.OCT.2019 14:24:25



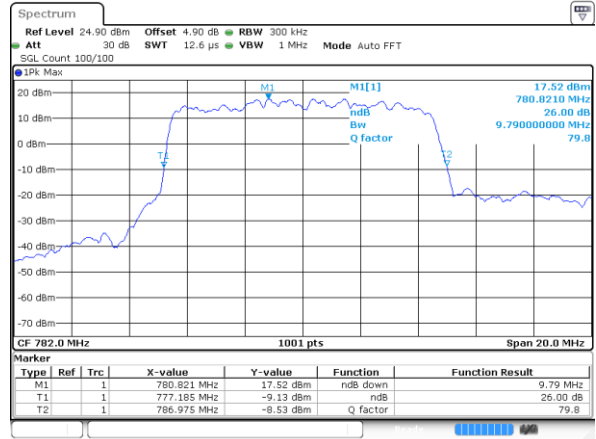
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 31.OCT.2019 14:35:23

Middle Channel / 10MHz / 16QAM



Date: 31.OCT.2019 14:35:12



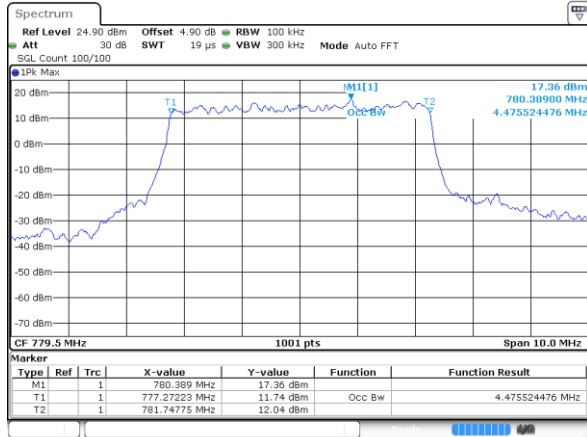
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.476	4.486	-	-
Middle CH	4.456	4.476	8.971	8.951
Highest CH	4.505	4.505	-	-



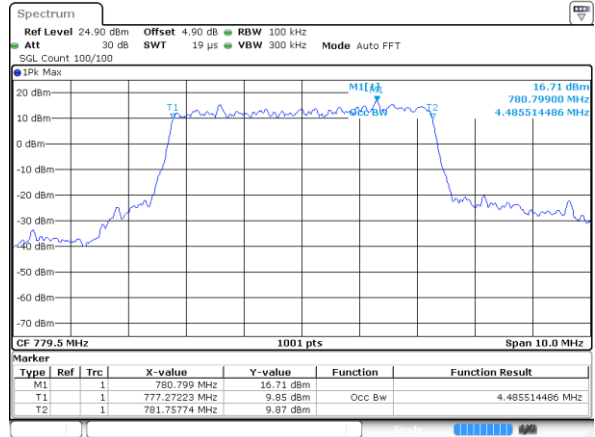
LTE Band 13

Lowest Channel / 5MHz / QPSK



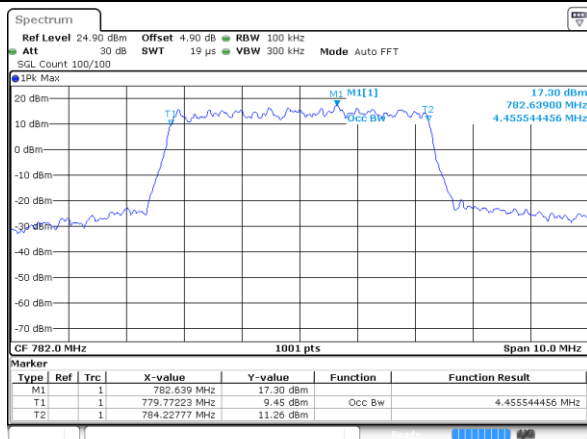
Date: 31.OCT.2019 14:13:28

Lowest Channel / 5MHz / 16QAM



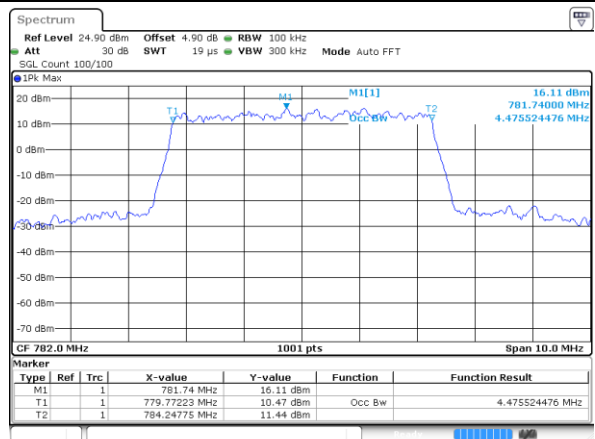
Date: 31.OCT.2019 14:13:18

Middle Channel / 5MHz / QPSK



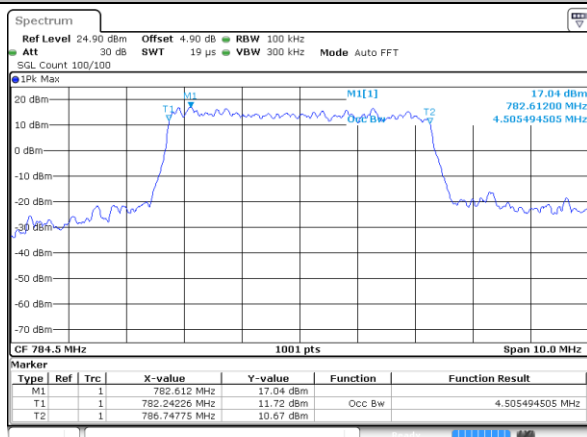
Date: 31.OCT.2019 14:22:16

Middle Channel / 5MHz / 16QAM



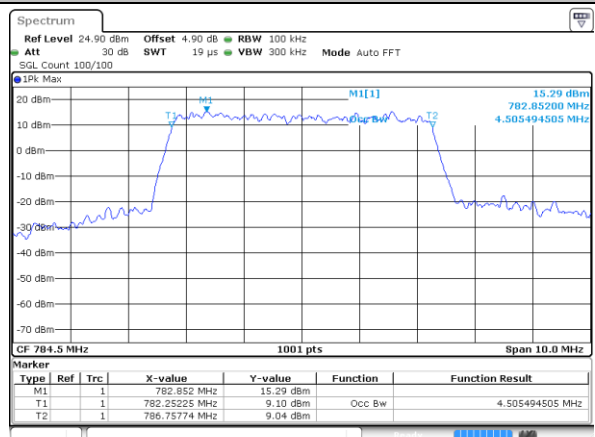
Date: 31.OCT.2019 14:22:27

Highest Channel / 5MHz / QPSK



Date: 31.OCT.2019 14:24:45

Highest Channel / 5MHz / 16QAM

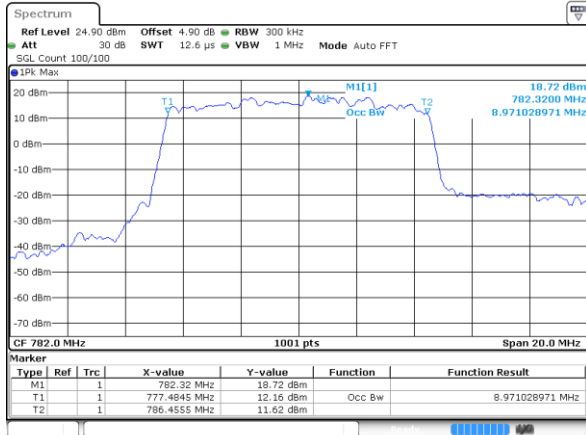


Date: 31.OCT.2019 14:24:55



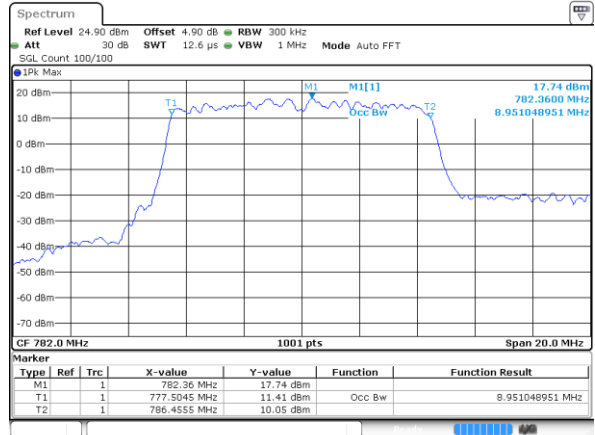
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 31.OCT.2019 14:35:33

Middle Channel / 10MHz / 16QAM



Date: 31.OCT.2019 14:35:43

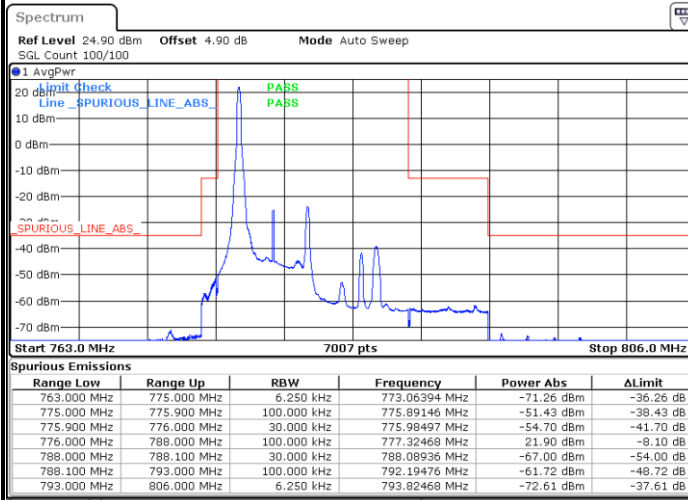


Conducted Band Edge

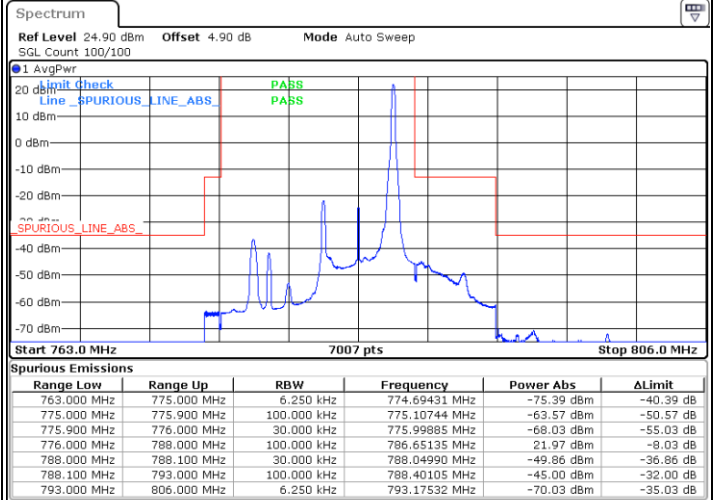


LTE Band 13 / 5MHz / QPSK

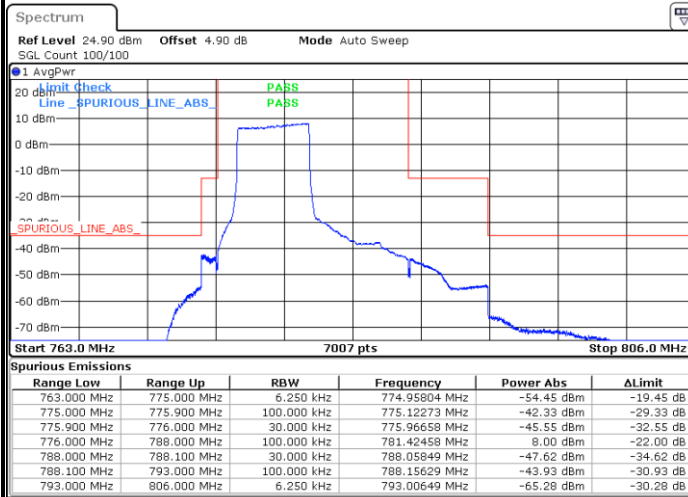
Lowest Band Edge / 1 RB



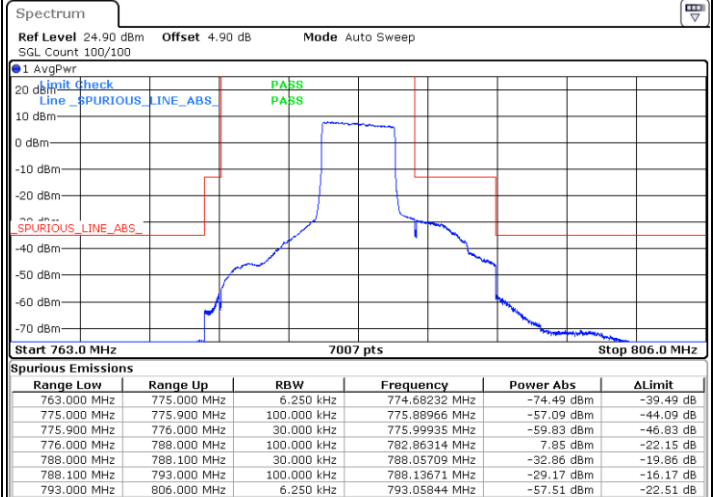
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



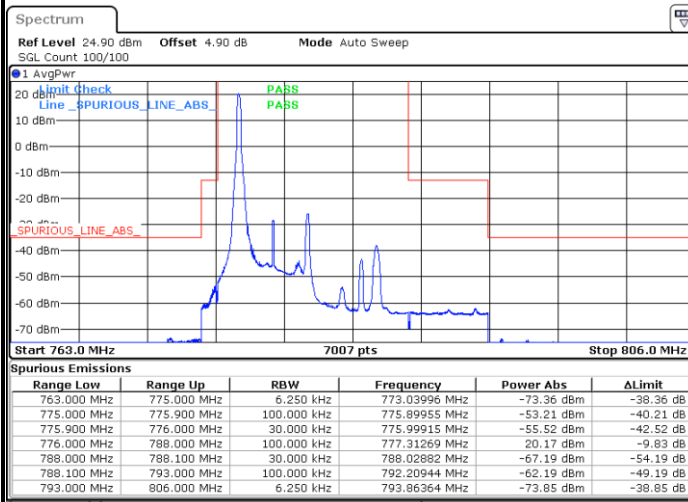
Highest Band Edge / Full RB





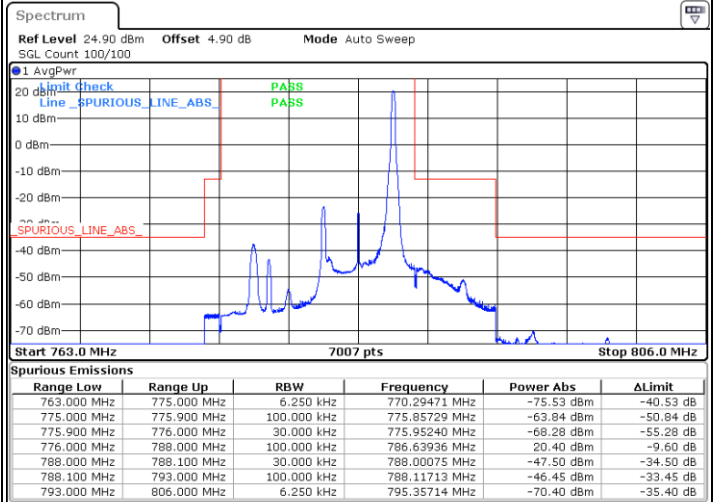
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



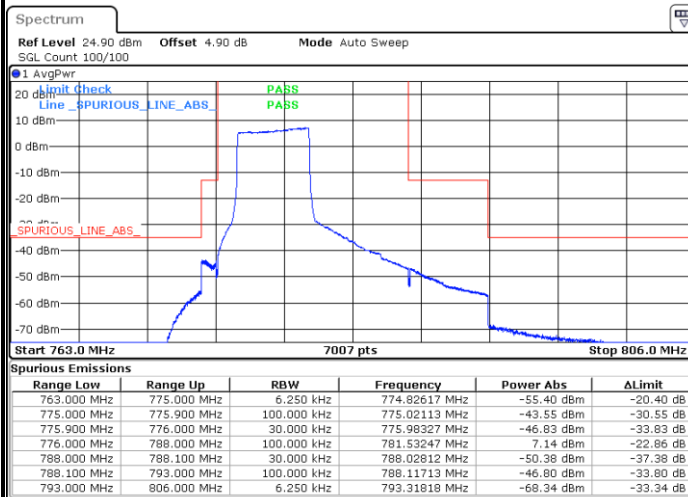
Date: 31.OCT.2019 14:19:58

Highest Band Edge / 1 RB



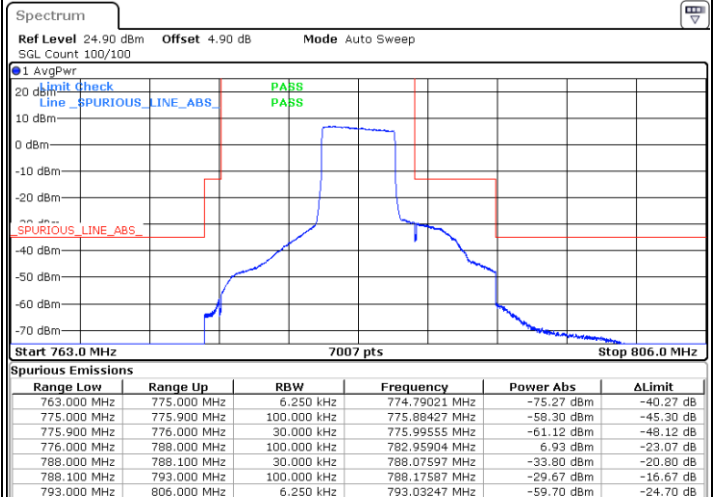
Date: 31.OCT.2019 14:31:26

Lowest Band Edge / Full RB



Date: 31.OCT.2019 14:15:06

Highest Band Edge / Full RB

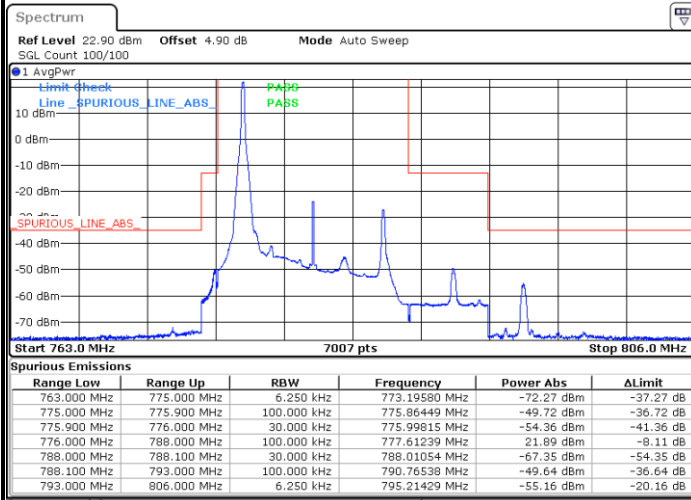


Date: 31.OCT.2019 14:26:33

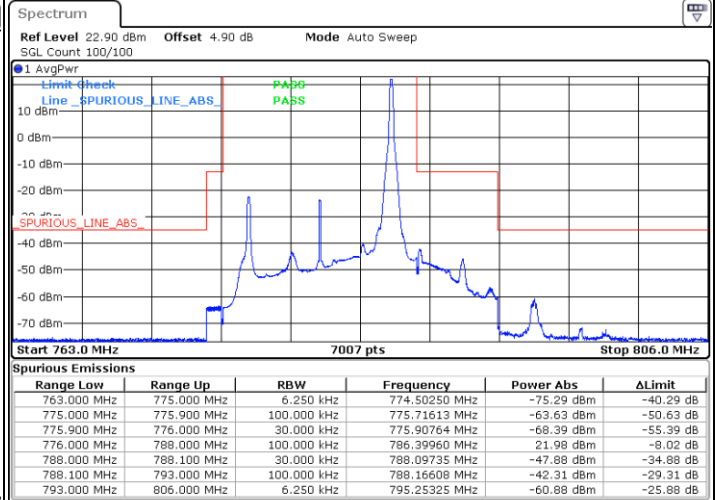


LTE Band 13 / 10MHz / QPSK

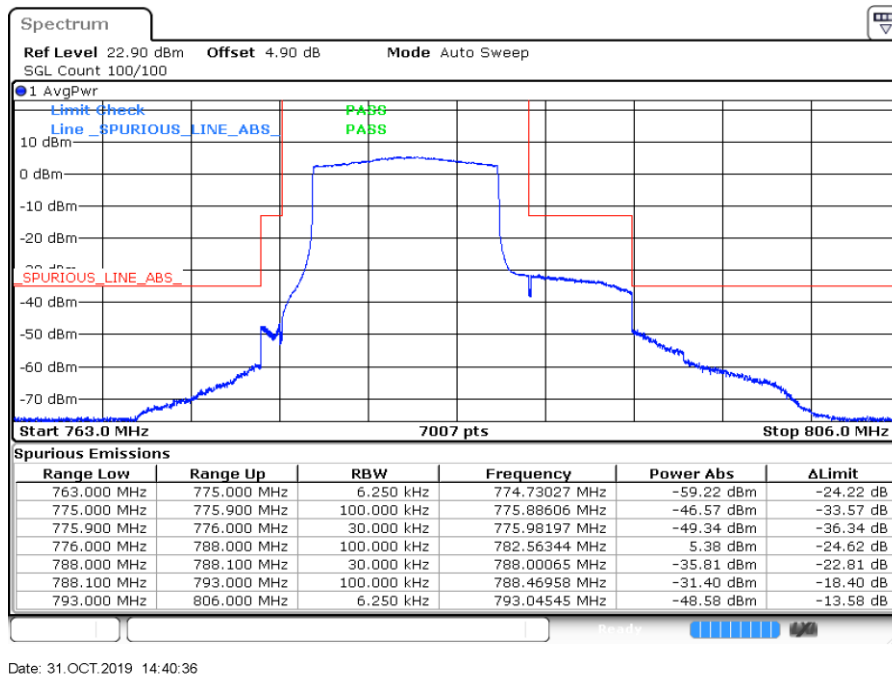
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



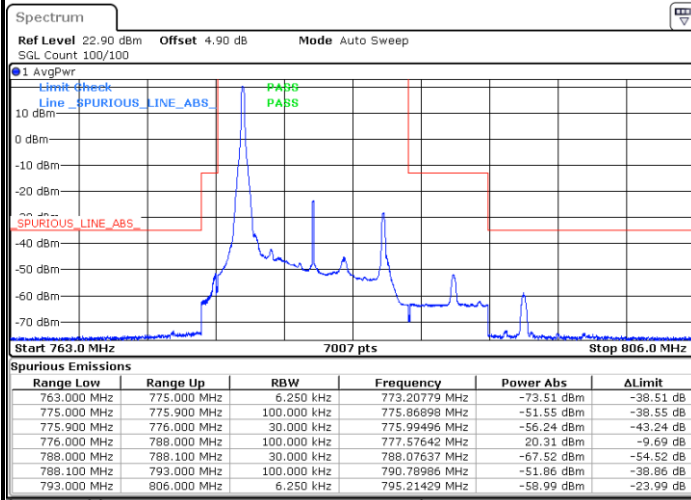
Band Edge / Full RB





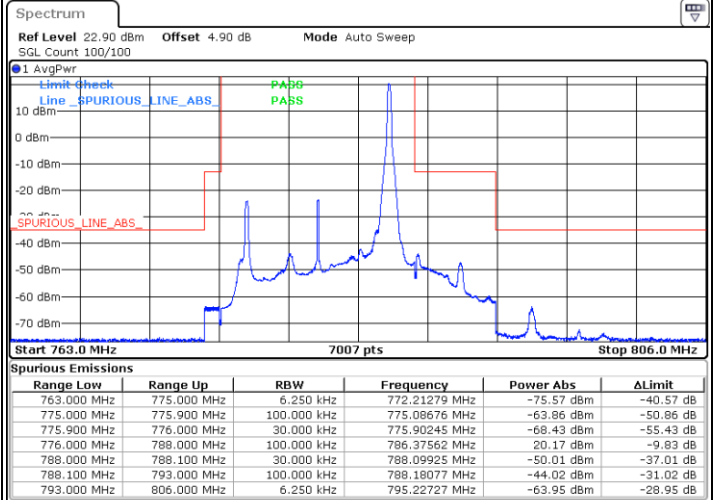
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



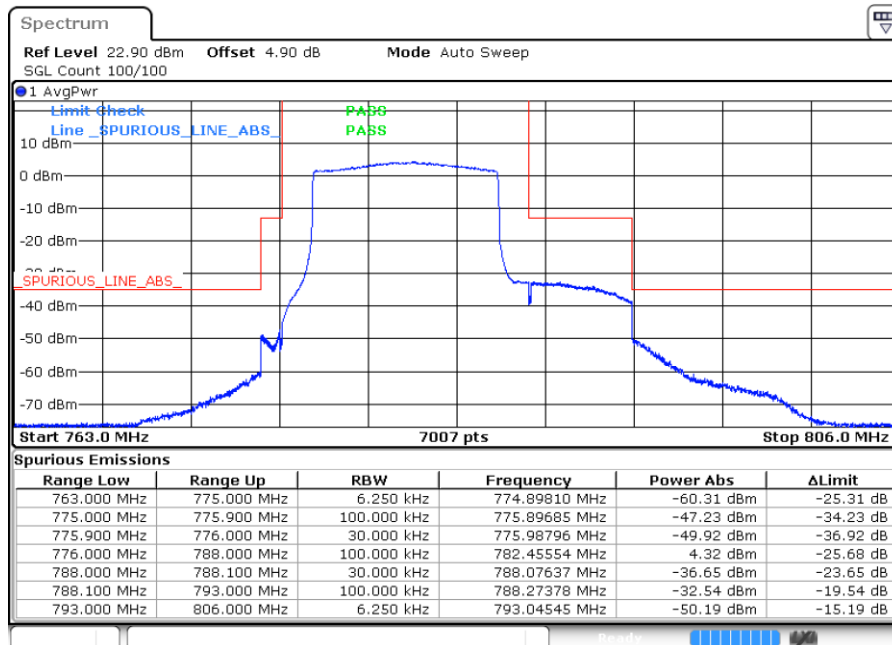
Date: 31.OCT.2019 14:37:21

Highest Band Edge / 1 RB



Date: 31.OCT.2019 14:43:52

Band Edge / Full RB



Date: 31.OCT.2019 14:42:13

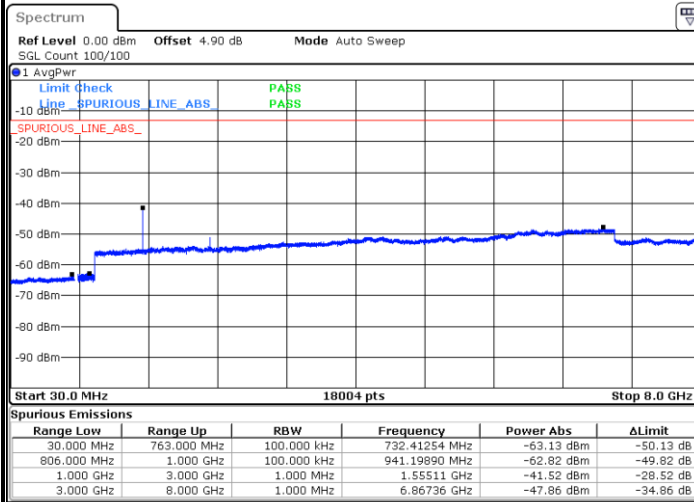


Conducted Spurious Emission



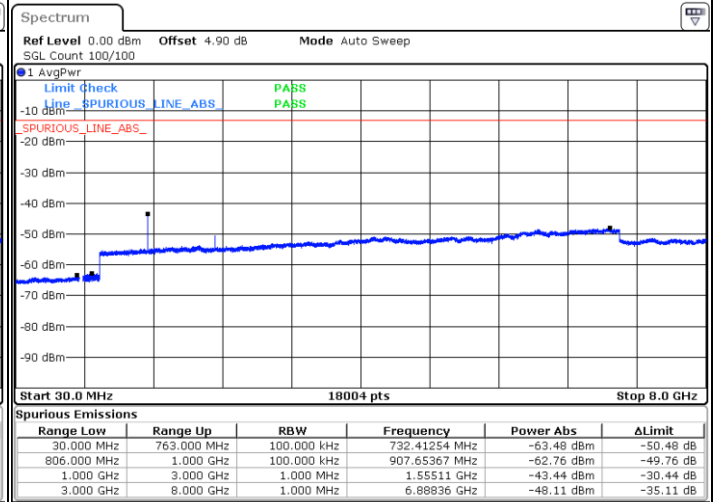
LTE Band 13 / 5MHz

Lowest Channel / QPSK



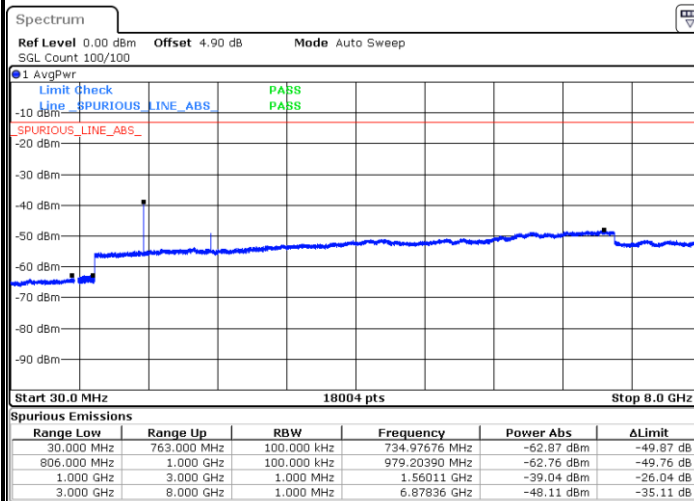
Date: 31.OCT.2019 14:21:46

Lowest Channel / 16QAM



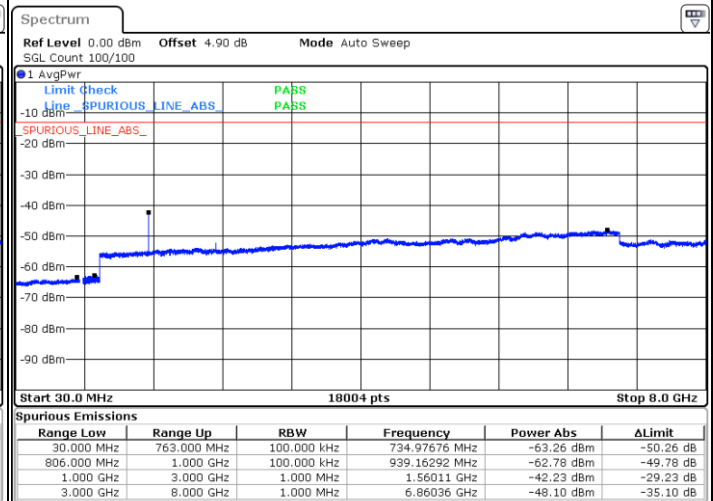
Date: 31.OCT.2019 14:20:52

Middle Channel / QPSK



Date: 31.OCT.2019 14:23:20

Middle Channel / 16QAM

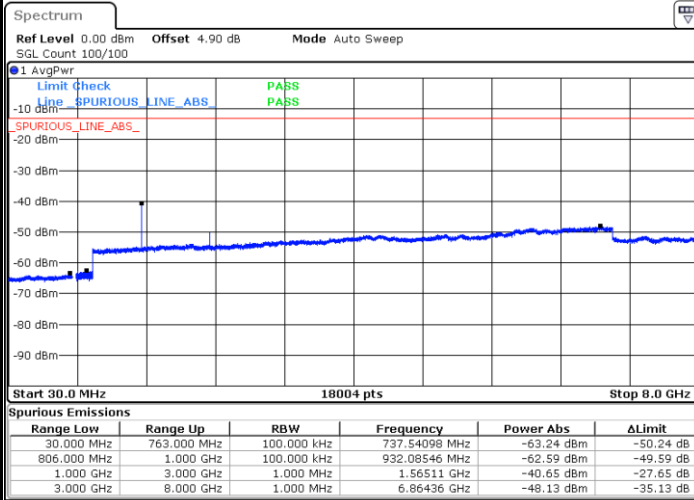


Date: 31.OCT.2019 14:24:14



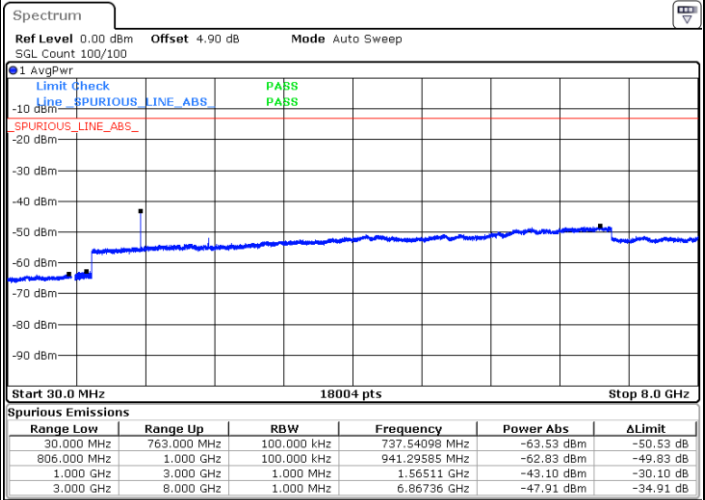
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 31.OCT.2019 14:33:13

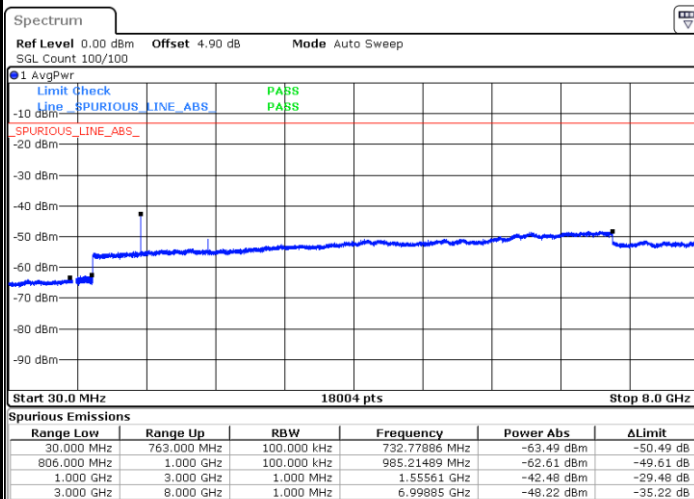
Highest Channel / 16QAM



Date: 31.OCT.2019 14:32:19

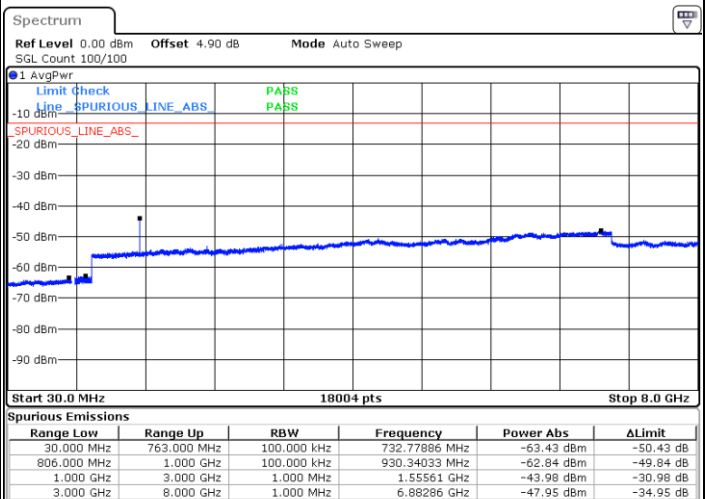
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 31.OCT.2019 14:34:07

Middle Channel / 16QAM



Date: 31.OCT.2019 14:35:01

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	0.0045	PASS
40	Normal Voltage	0.0027	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0031	
-10	Normal Voltage	0.0020	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0036	
20	Maximum Voltage	0.0036	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0015	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 25

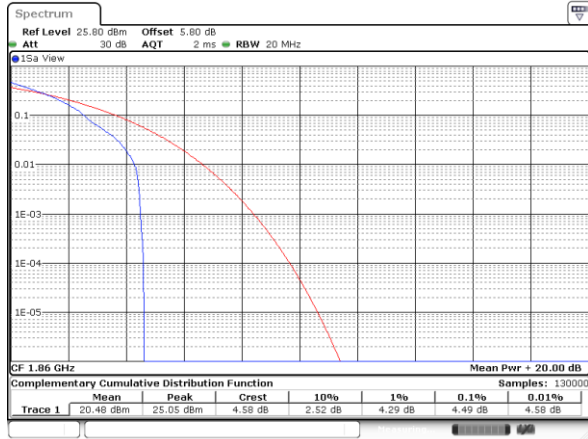
Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.49	4.90	5.39	5.91	PASS
Middle CH	4.29	4.81	5.51	5.94	
Highest CH	4.38	4.78	5.71	5.94	

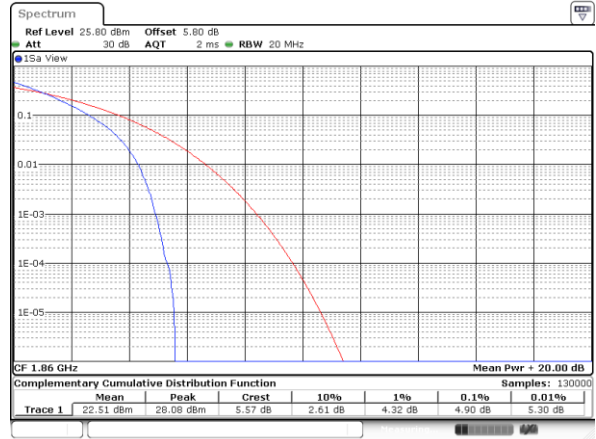


LTE Band 25 / 20MHz / QPSK

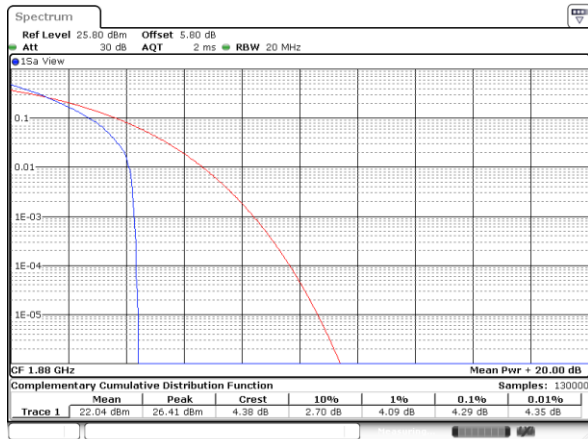
Lowest Channel / 1RB



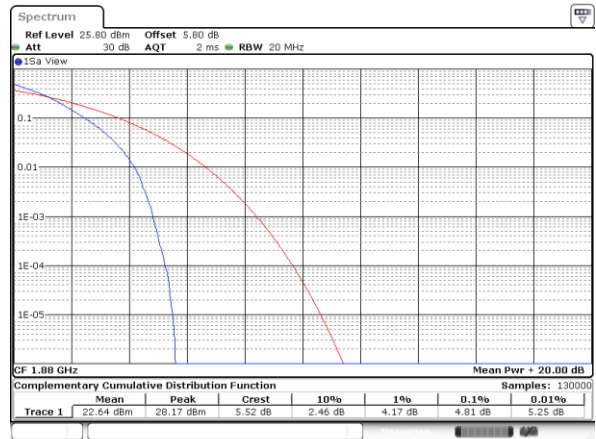
Lowest Channel / Full RB



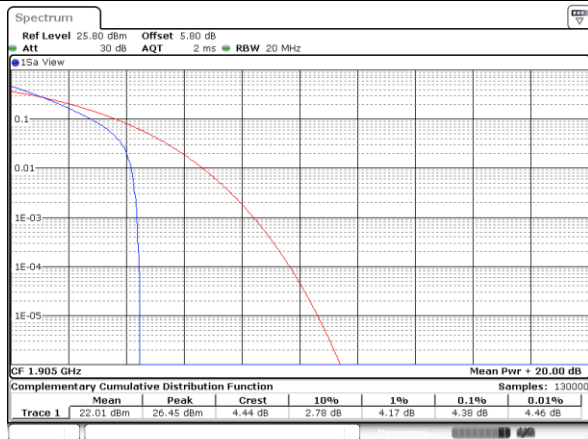
Middle Channel / 1RB



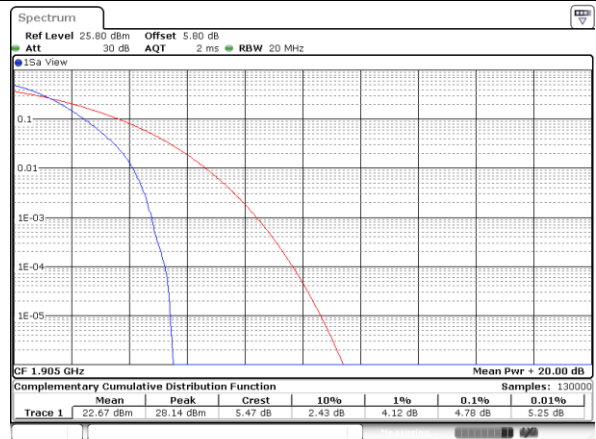
Middle Channel / Full RB



Highest Channel / 1RB



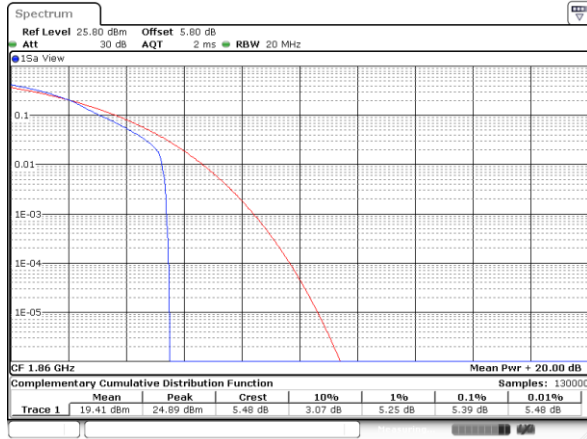
Highest Channel / Full RB



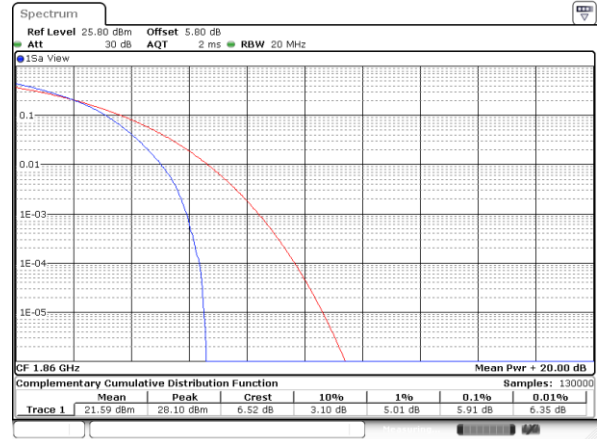


LTE Band 25 / 20MHz / 16QAM

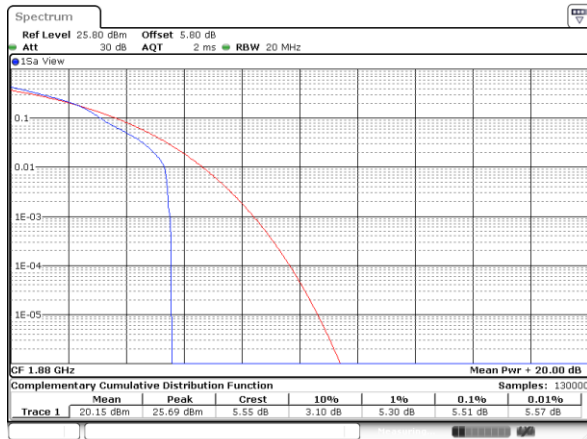
Lowest Channel / 1RB



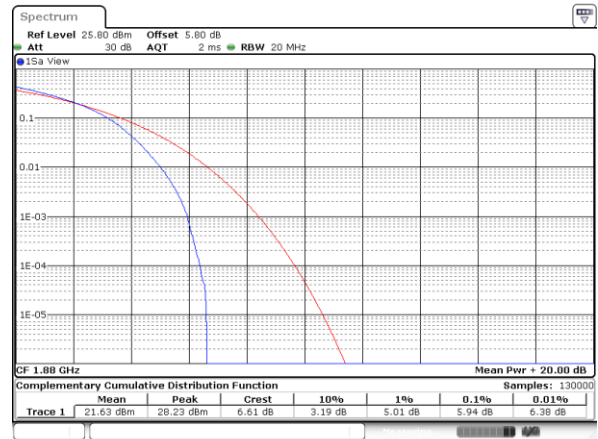
Lowest Channel / Full RB



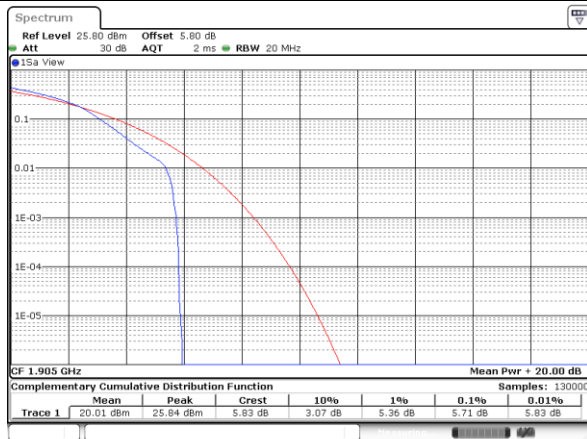
Middle Channel / 1RB



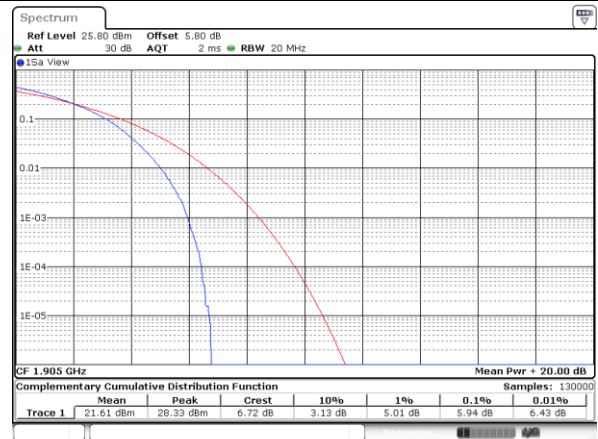
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB





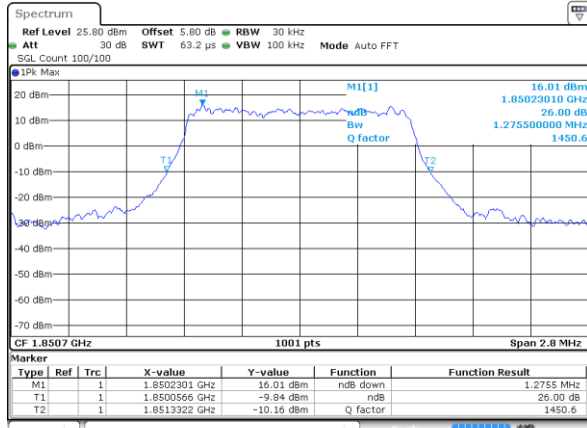
26dB Bandwidth

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	1.276	1.264	3.015	3.039	4.895	5.045	9.75	9.77	14.446	14.386	20.26	20.26
Middle CH	1.276	1.278	3.027	3.051	4.855	4.915	9.77	9.71	14.296	14.595	20.18	20.14
Highest CH	1.256	1.270	3.003	3.009	4.935	4.835	9.79	9.83	14.296	14.296	20.18	20.26



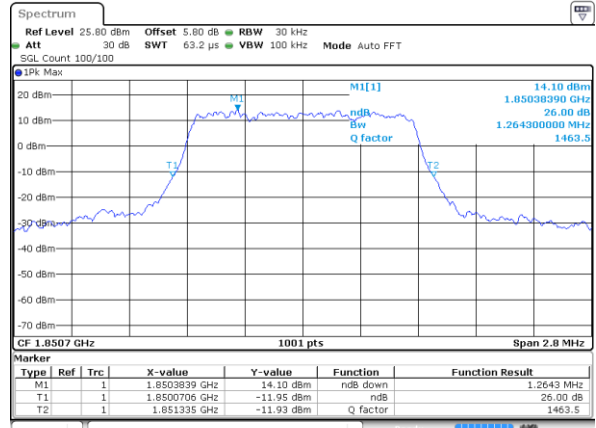
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



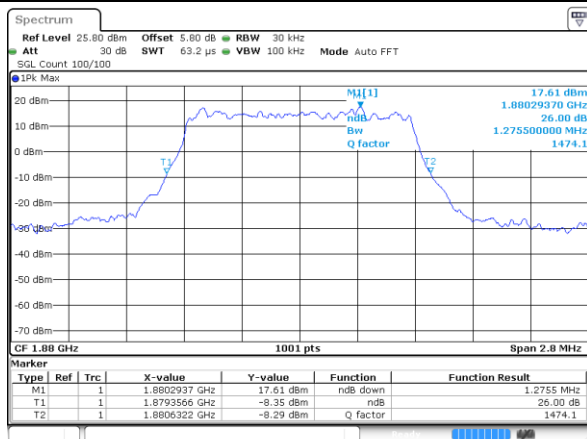
Date: 31.OCT.2019 15:18:07

Lowest Channel / 1.4MHz / 16QAM



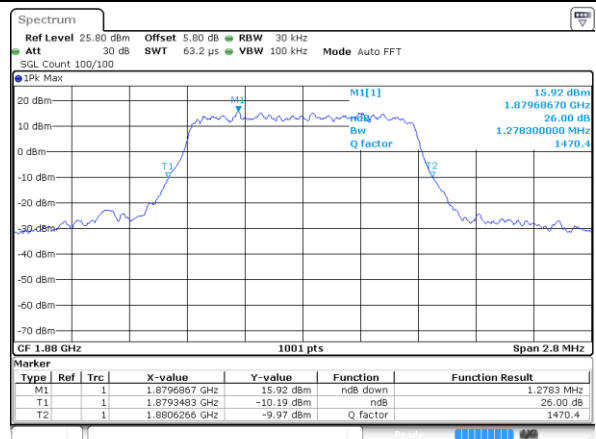
Date: 31.OCT.2019 15:18:27

Middle Channel / 1.4MHz / QPSK



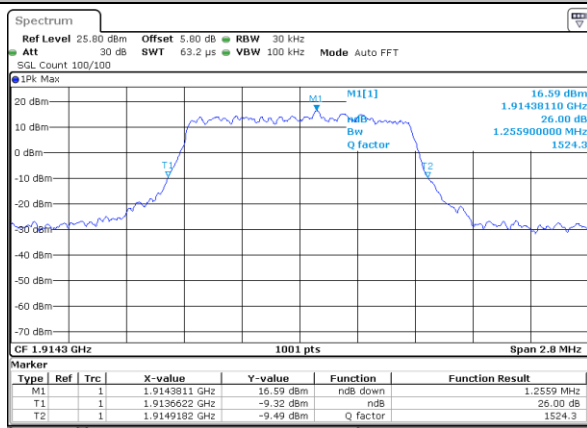
Date: 31.OCT.2019 15:19:07

Middle Channel / 1.4MHz / 16QAM



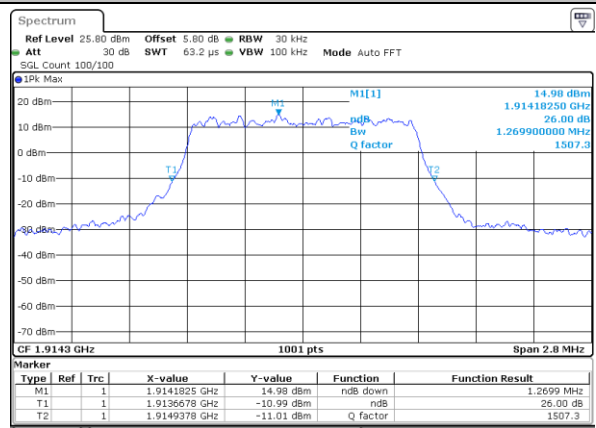
Date: 31.OCT.2019 15:19:27

Highest Channel / 1.4MHz / QPSK



Date: 31.OCT.2019 15:20:07

Highest Channel / 1.4MHz / 16QAM

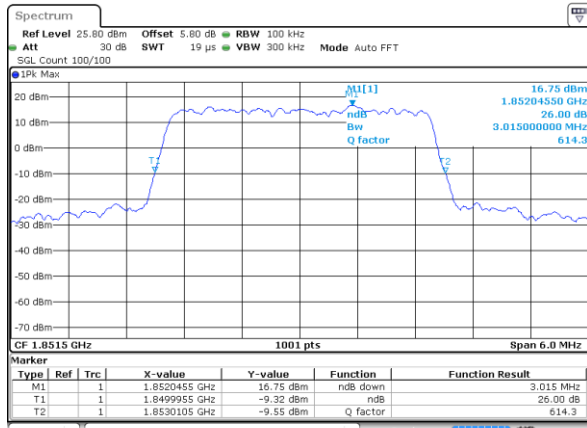


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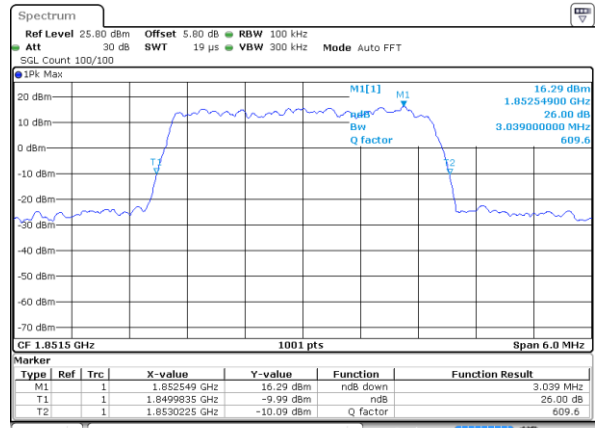


LTE Band 25

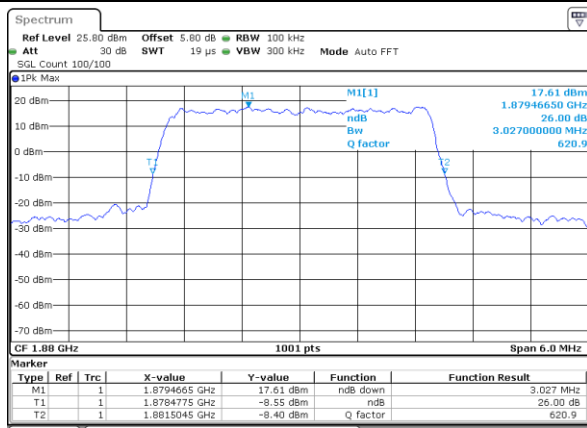
Lowest Channel / 3MHz / QPSK



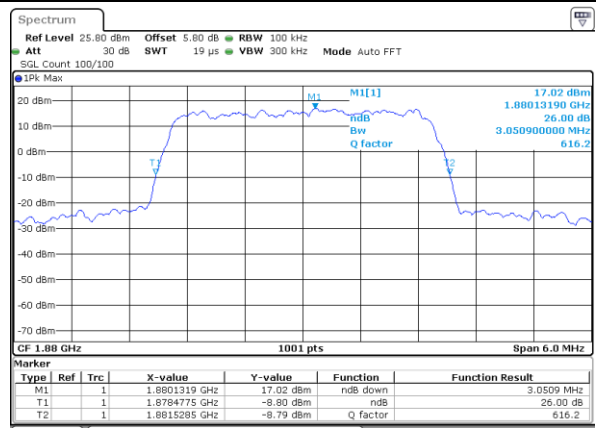
Lowest Channel / 3MHz / 16QAM



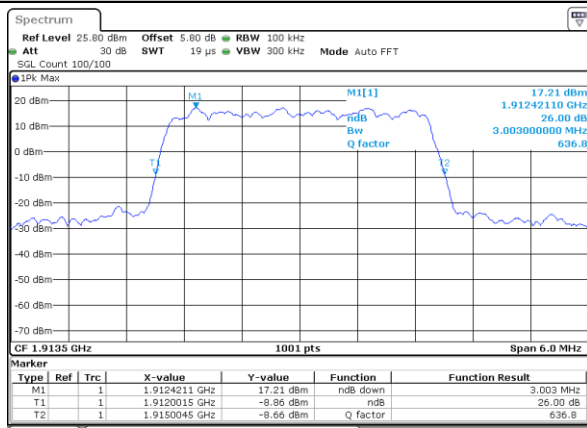
Middle Channel / 3MHz / QPSK



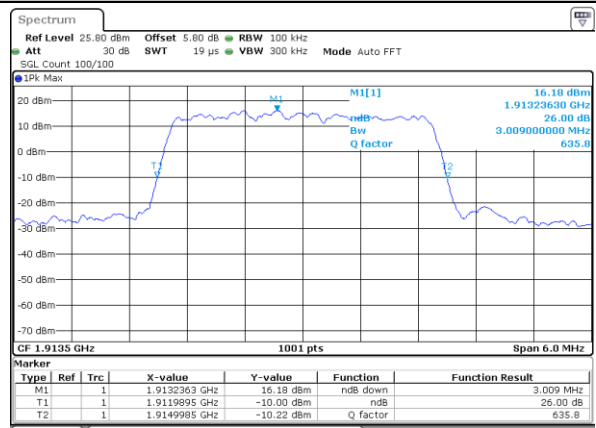
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



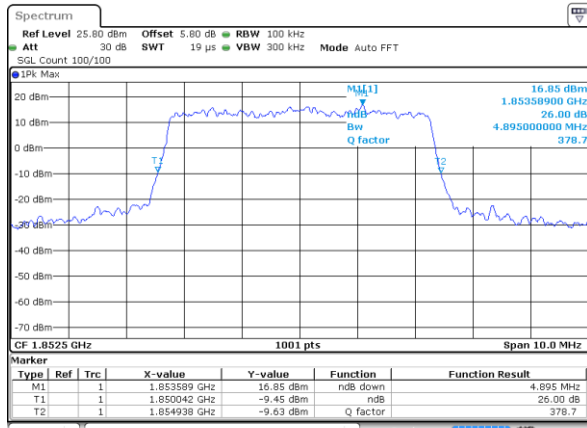
Highest Channel / 3MHz / 16QAM



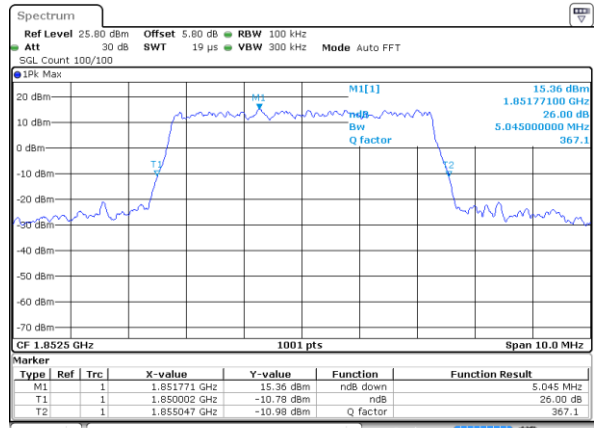


LTE Band 25

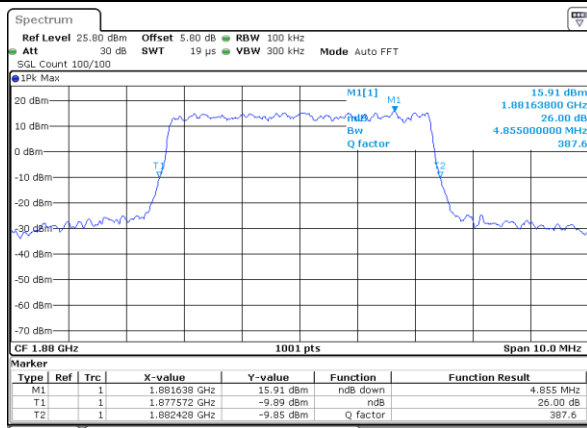
Lowest Channel / 5MHz / QPSK



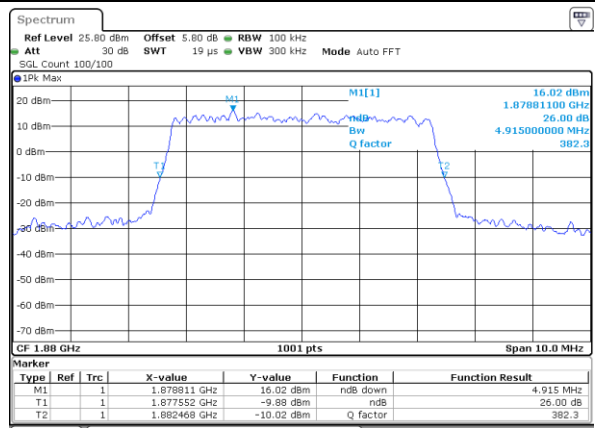
Lowest Channel / 5MHz / 16QAM



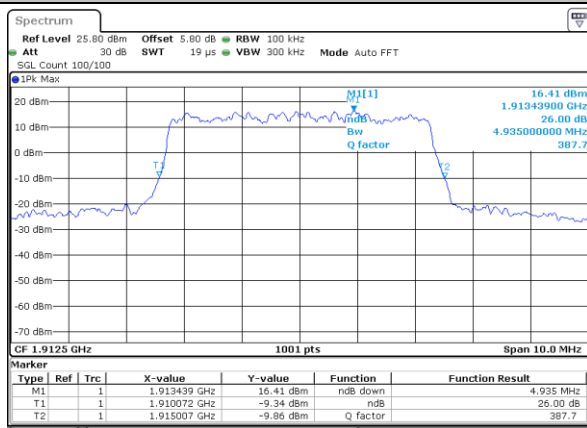
Middle Channel / 5MHz / QPSK



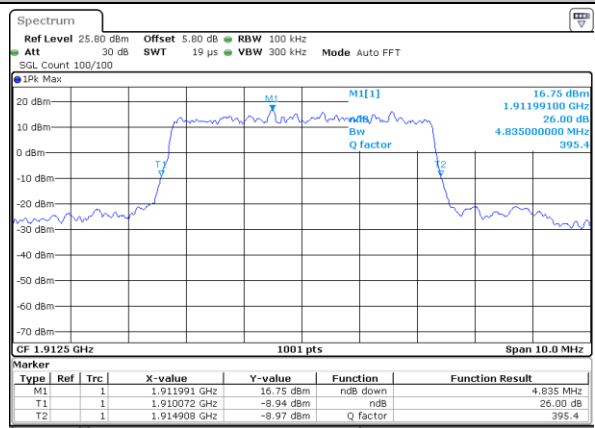
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



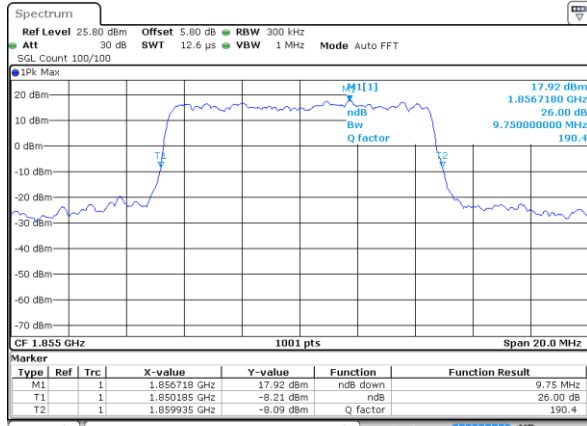
Highest Channel / 5MHz / 16QAM





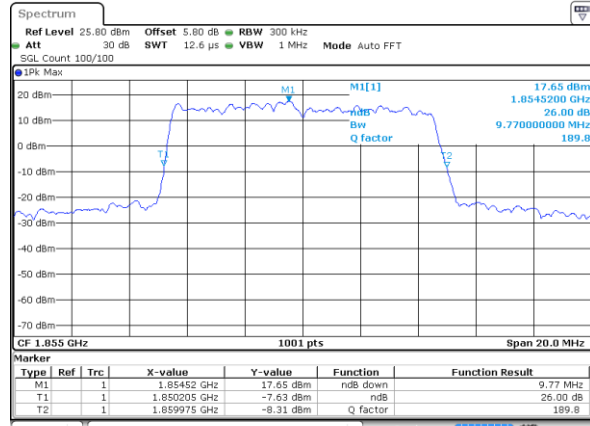
LTE Band 25

Lowest Channel / 10MHz / QPSK



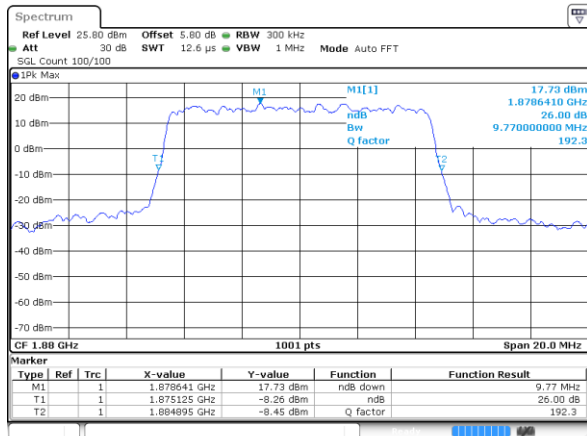
Date: 31.OCT.2019 16:27:13

Lowest Channel / 10MHz / 16QAM



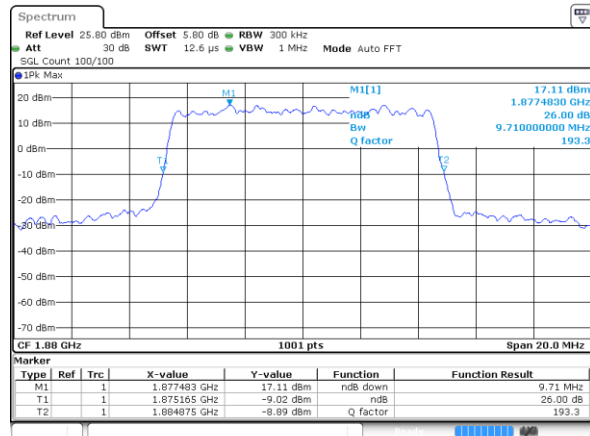
Date: 31.OCT.2019 16:27:33

Middle Channel / 10MHz / QPSK



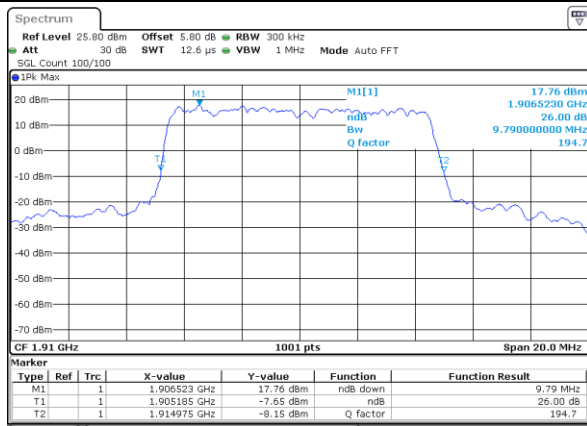
Date: 31.OCT.2019 16:36:21

Middle Channel / 10MHz / 16QAM



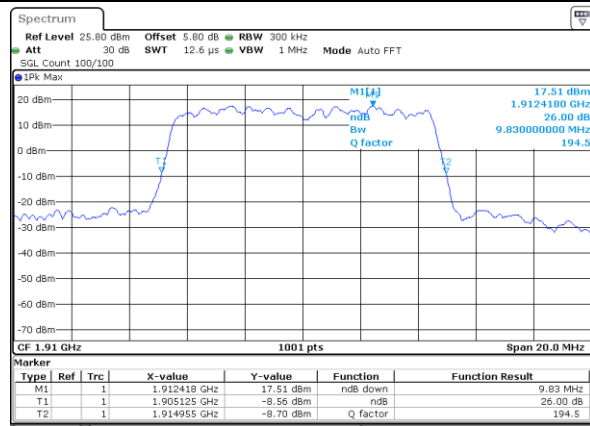
Date: 31.OCT.2019 16:36:01

Highest Channel / 10MHz / QPSK



Date: 31.OCT.2019 16:36:42

Highest Channel / 10MHz / 16QAM

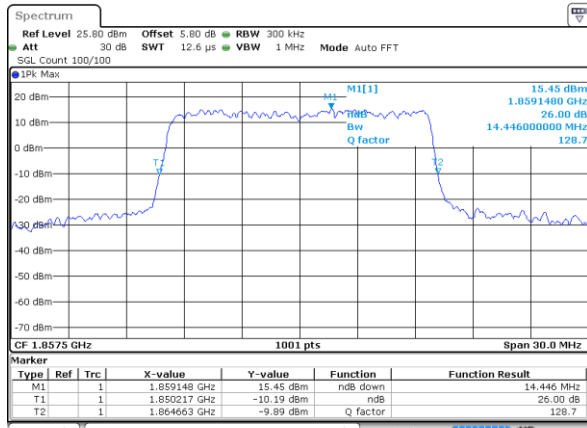


Date: 31.OCT.2019 16:37:02



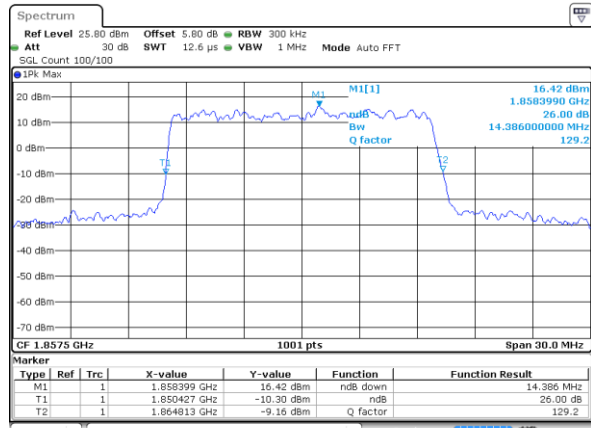
LTE Band 25

Lowest Channel / 15MHz / QPSK



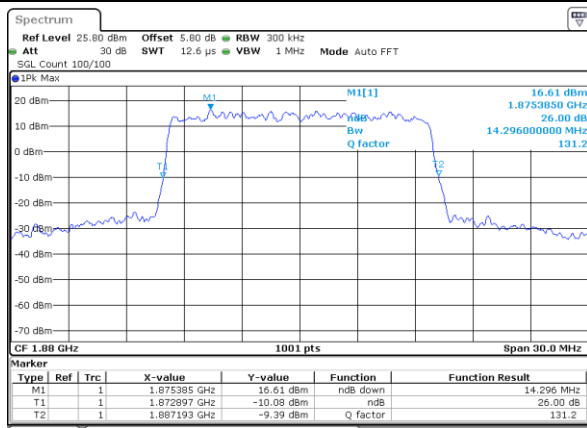
Date: 31.OCT.2019 16:43:41

Lowest Channel / 15MHz / 16QAM



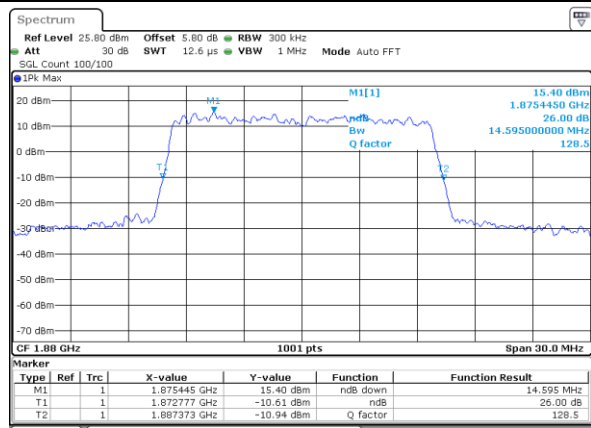
Date: 31.OCT.2019 16:44:01

Middle Channel / 15MHz / QPSK



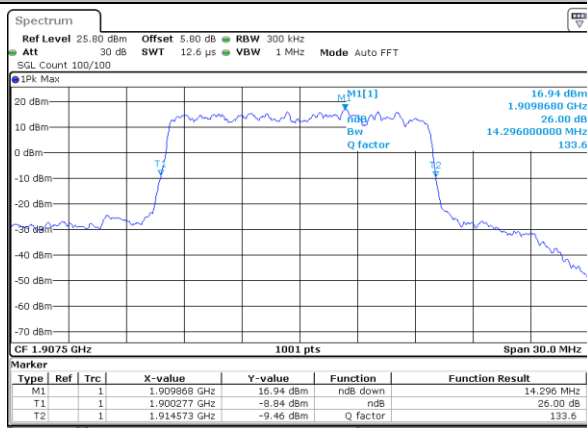
Date: 31.OCT.2019 16:52:49

Middle Channel / 15MHz / 16QAM



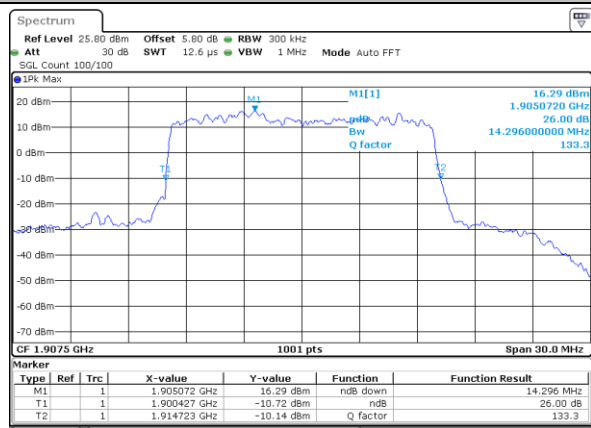
Date: 31.OCT.2019 16:52:29

Highest Channel / 15MHz / QPSK



Date: 31.OCT.2019 16:53:09

Highest Channel / 15MHz / 16QAM



Date: 31.OCT.2019 16:53:29