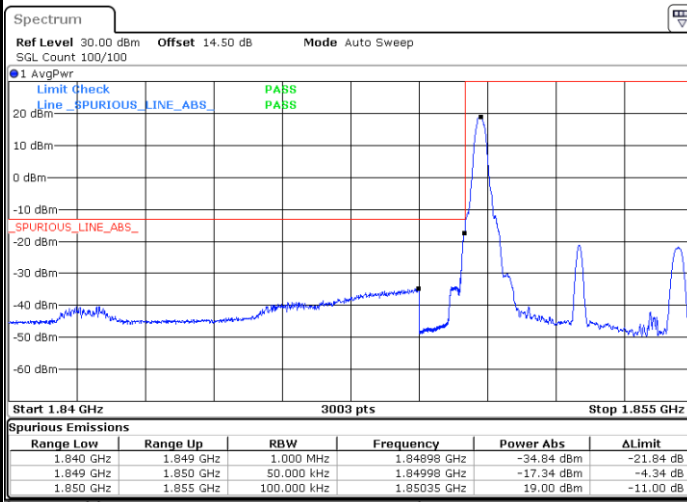




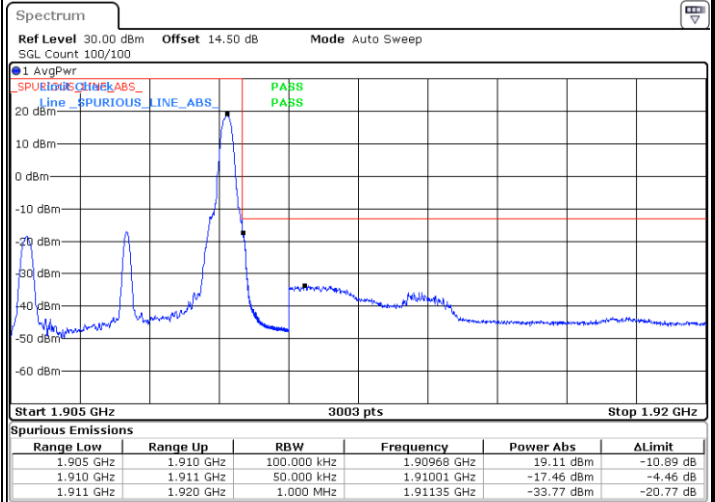
LTE Band 2 / 5MHz / 16QAM

Lowest Band Edge / 1RB



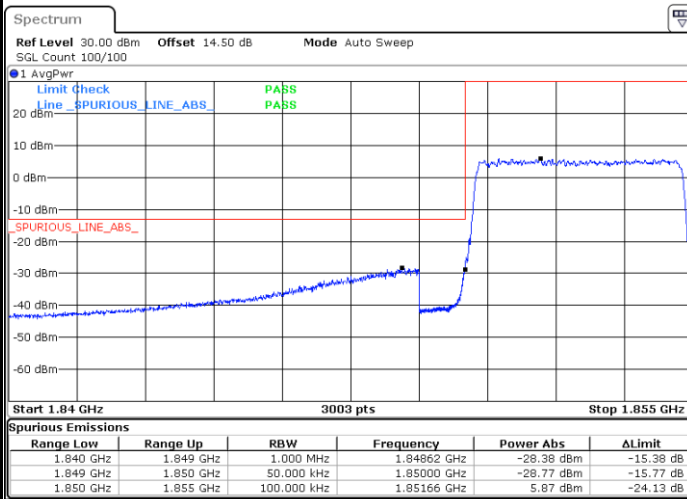
Date: 26 AUG 2019 19:31:57

Highest Band Edge / 1 RB



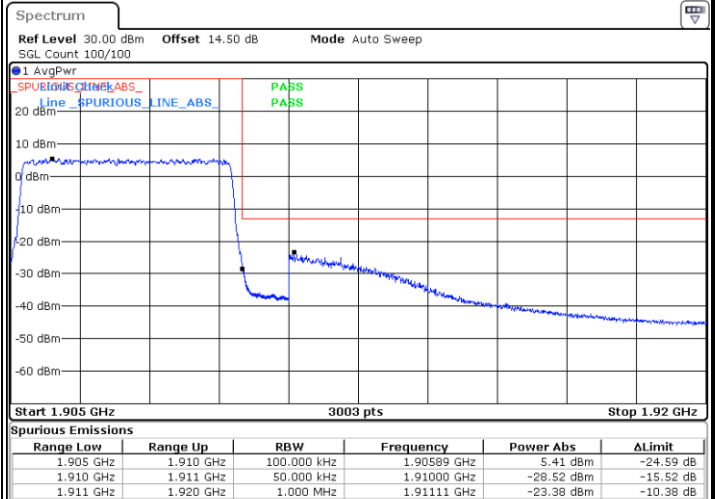
Date: 26 AUG.2019 19:41:19

Lowest Band Edge / Full RB



Date: 26 AUG.2019 19:34:12

Highest Band Edge / Full RB

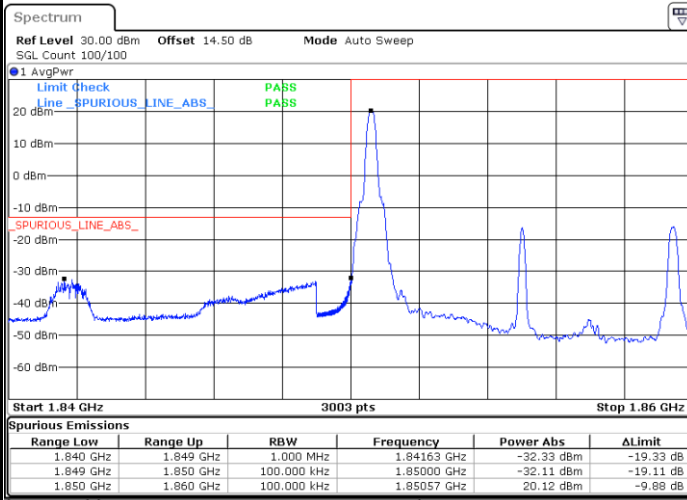


Date: 26 AUG.2019 19:43:35



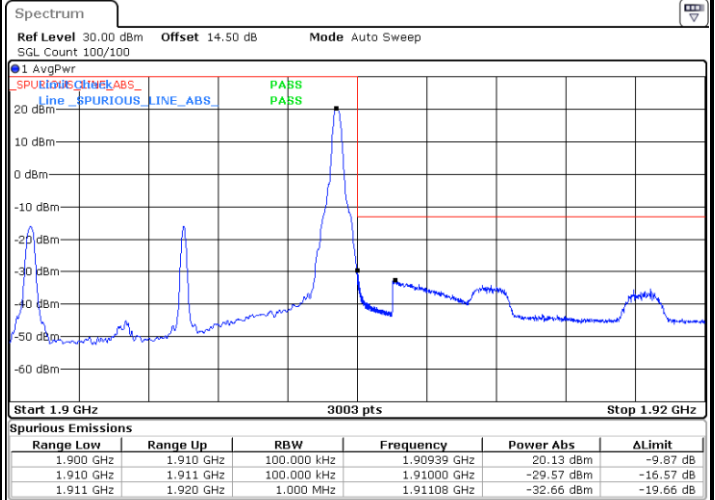
LTE Band 2 / 10MHz / QPSK

Lowest Band Edge / 1 RB



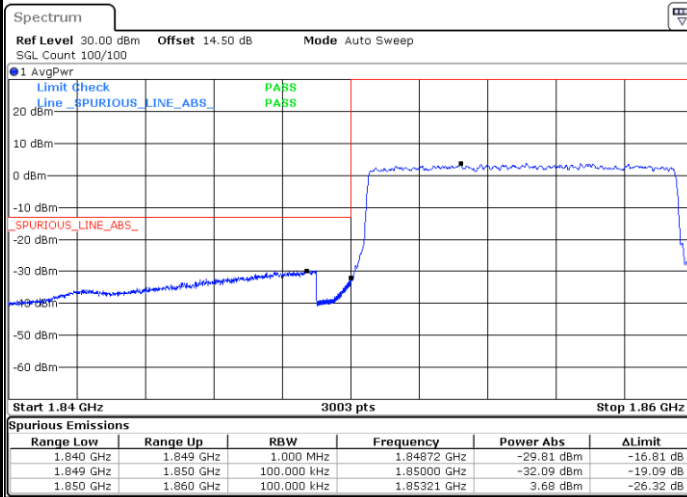
Date: 26 AUG 2019 19:55:24

Highest Band Edge / 1 RB



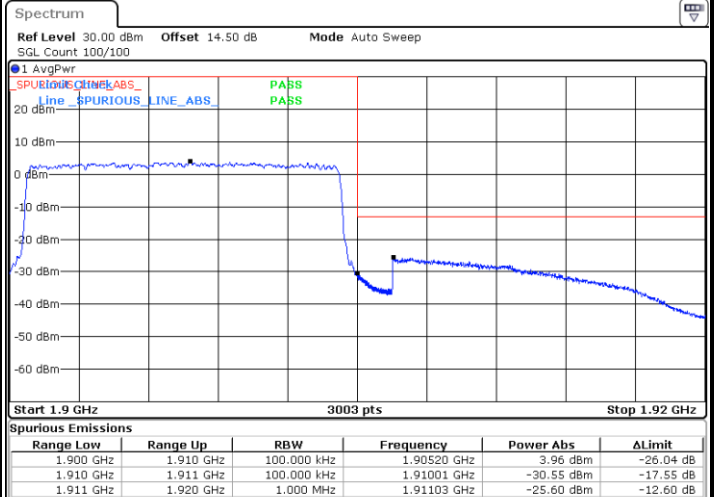
Date: 26 AUG 2019 20:04:45

Lowest Band Edge / Full RB



Date: 26 AUG 2019 19:57:39

Highest Band Edge / Full RB

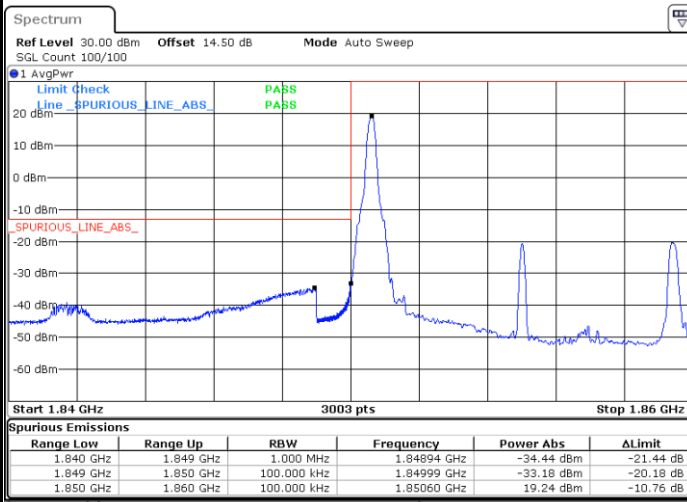


Date: 26 AUG 2019 20:07:01



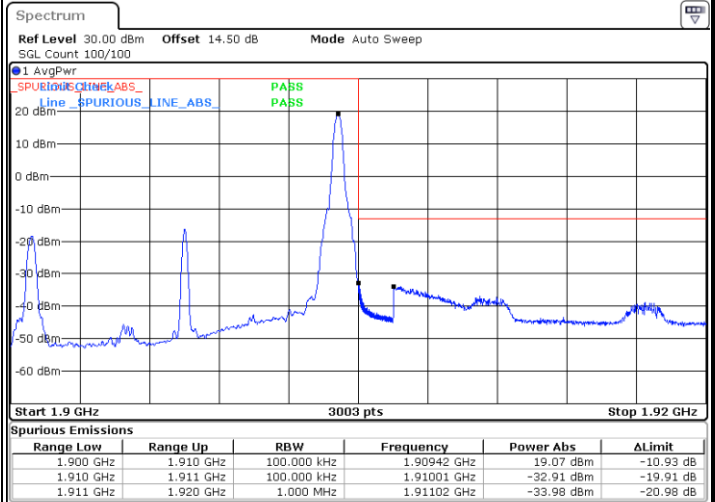
LTE Band 2 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



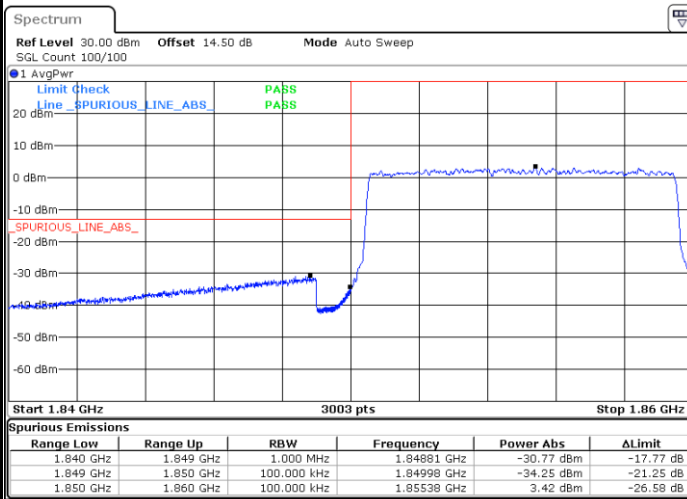
Date: 26 AUG 2019 19:56:32

Highest Band Edge / 1 RB



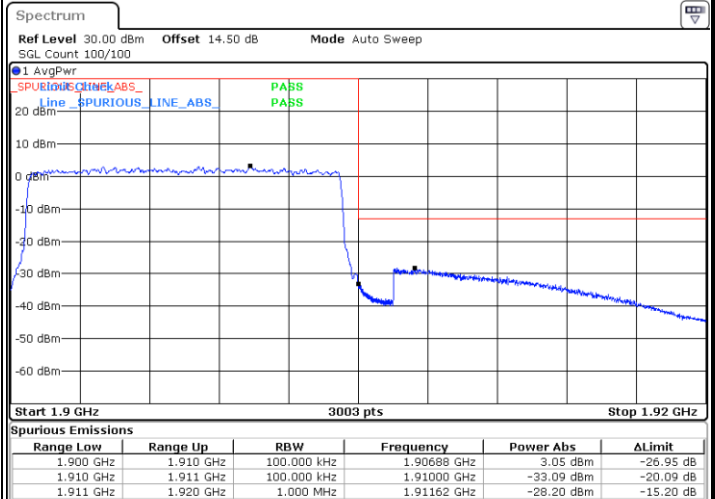
Date: 26 AUG 2019 20:05:53

Lowest Band Edge / Full RB



Date: 26 AUG 2019 19:58:47

Highest Band Edge / Full RB

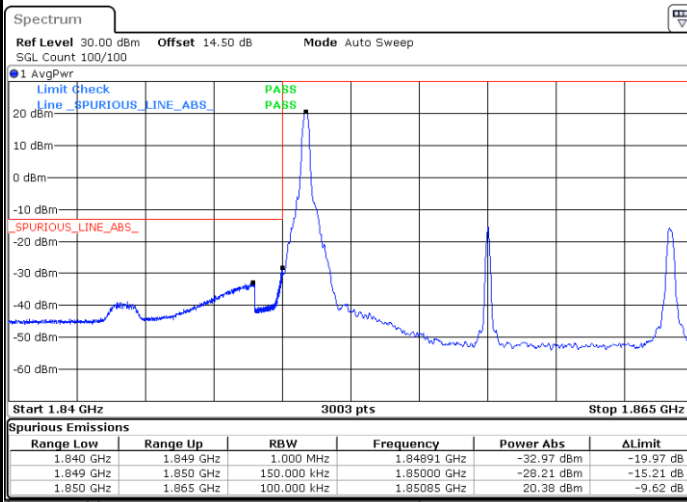


Date: 26 AUG 2019 20:08:09



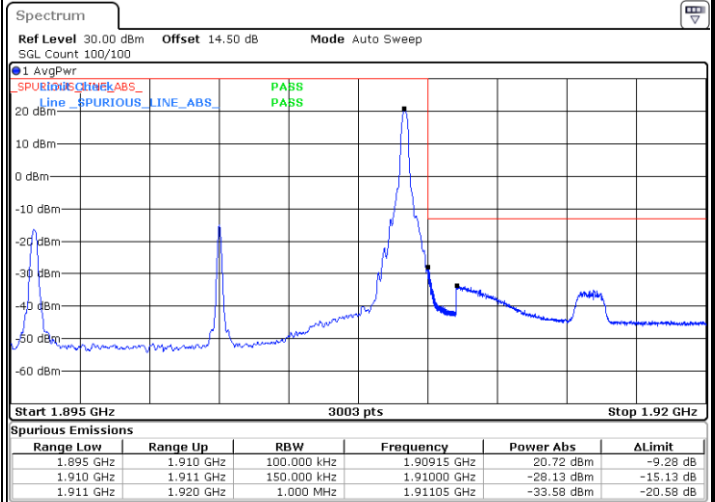
LTE Band 2 / 15MHz / QPSK

Lowest Band Edge / 1 RB



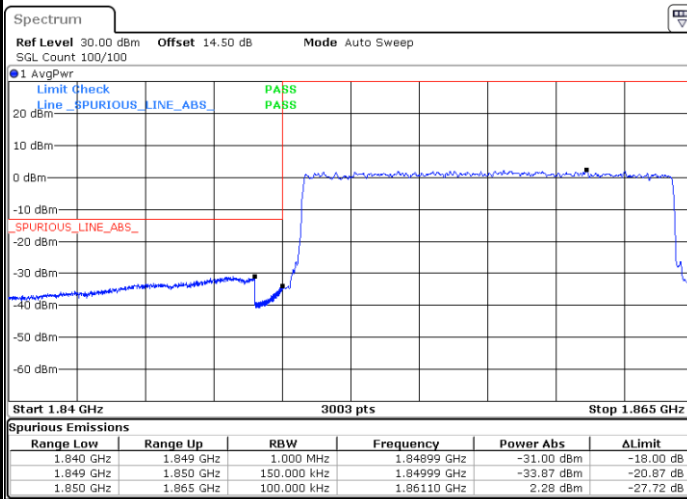
Date: 26 AUG 2019 20:11:42

Highest Band Edge / 1 RB



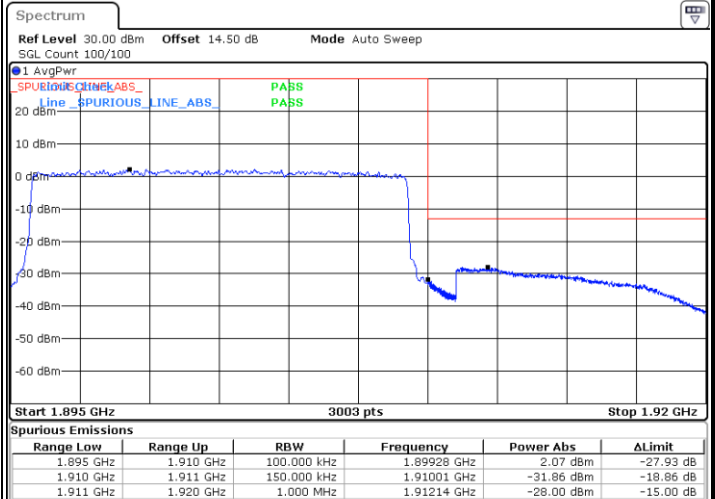
Date: 26 AUG.2019 20:21:04

Lowest Band Edge / Full RB



Date: 26 AUG 2019 20:13:58

Highest Band Edge / Full RB

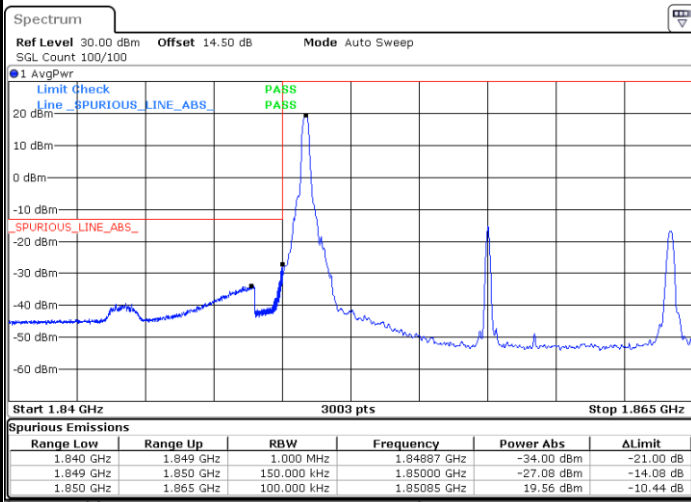


Date: 26 AUG 2019 20:23:20



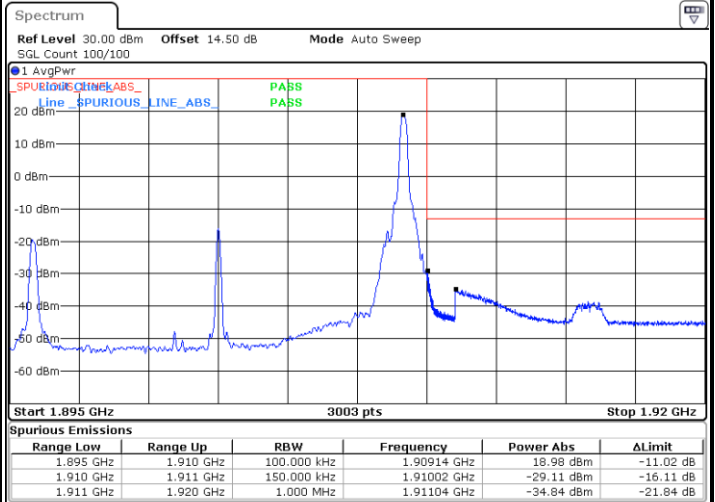
LTE Band 2 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



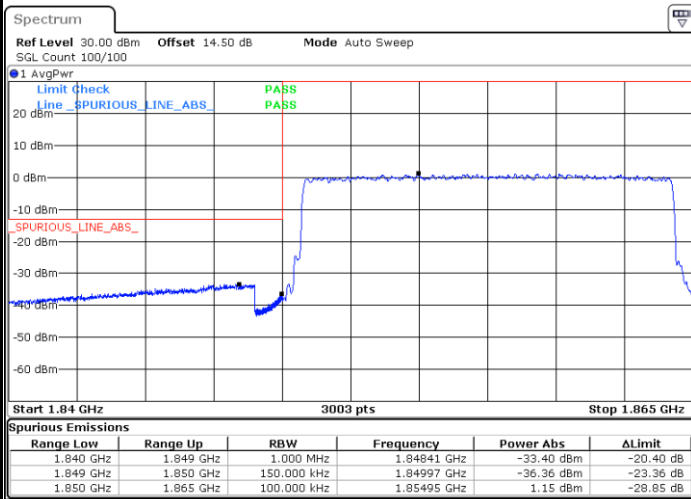
Date: 26 AUG 2019 20:12:50

Highest Band Edge / 1 RB



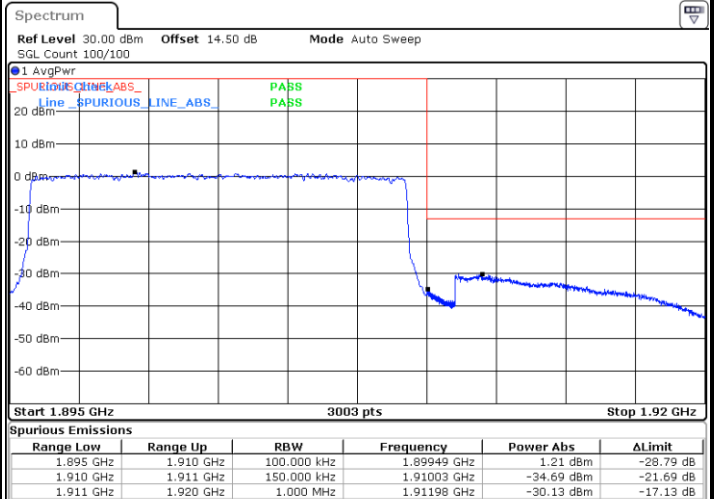
Date: 26 AUG 2019 20:22:12

Lowest Band Edge / Full RB



Date: 26 AUG 2019 20:15:05

Highest Band Edge / Full RB

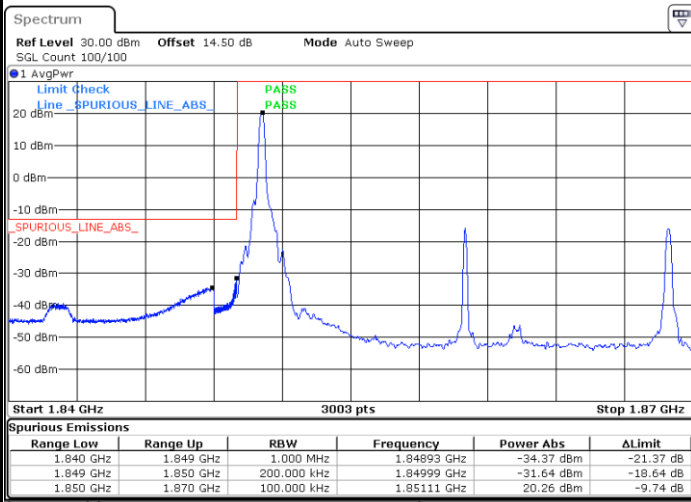


Date: 26 AUG 2019 20:24:27



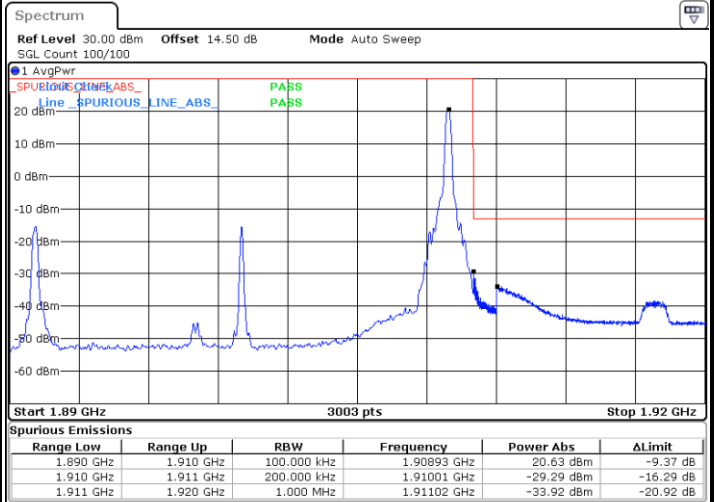
LTE Band 2 / 20MHz / QPSK

Lowest Band Edge / 1 RB



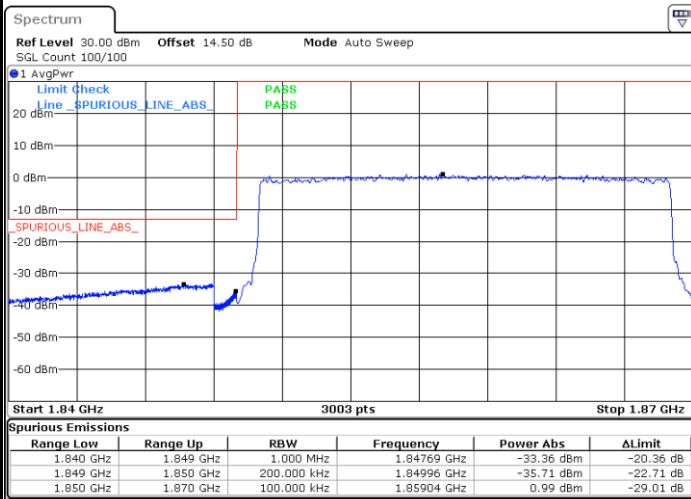
Date: 26 AUG 2019 20:28:01

Highest Band Edge / 1 RB



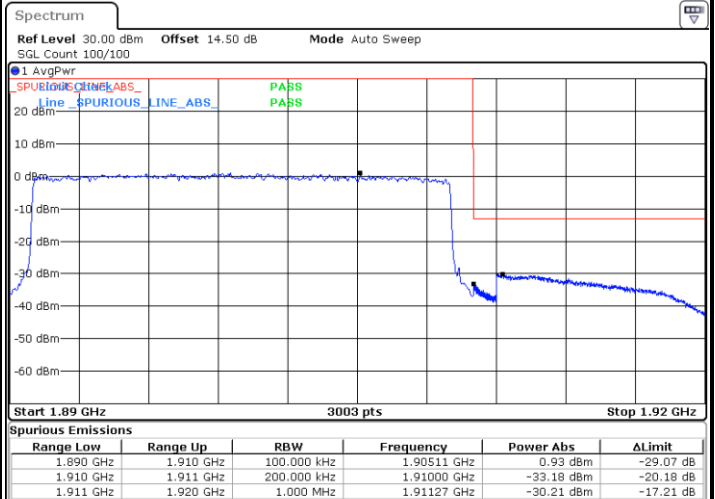
Date: 26 AUG 2019 20:37:22

Lowest Band Edge / Full RB



Date: 26 AUG 2019 20:30:16

Highest Band Edge / Full RB

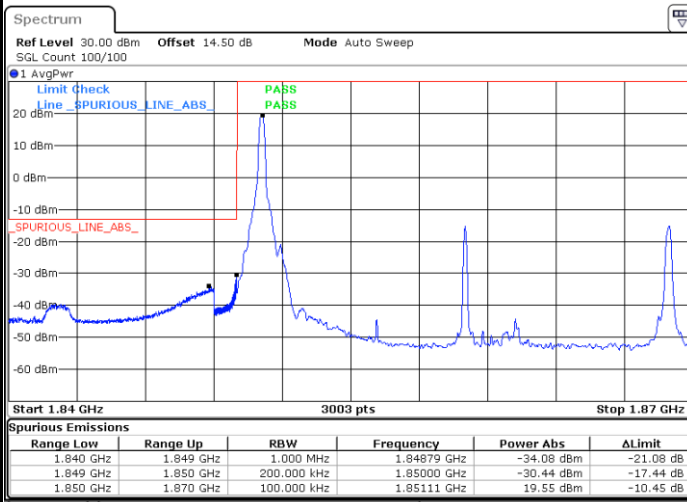


Date: 26 AUG 2019 20:39:38



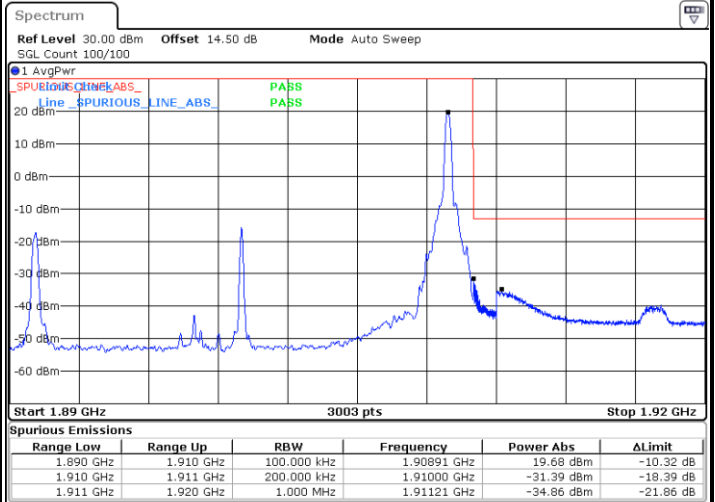
LTE Band 2 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



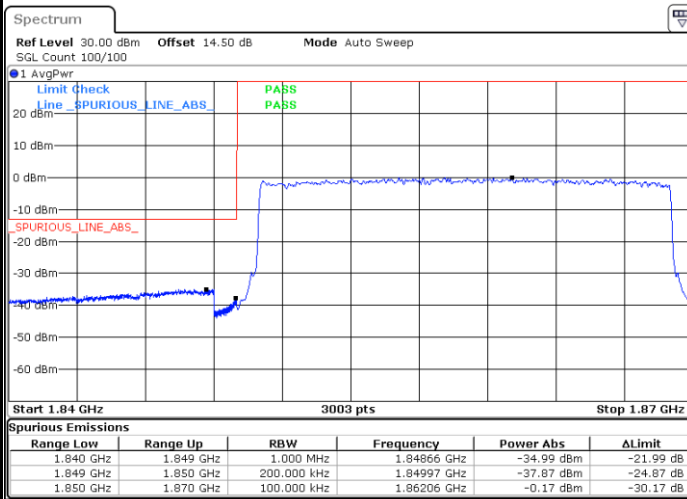
Date: 26 AUG 2019 20:29:08

Highest Band Edge / 1 RB



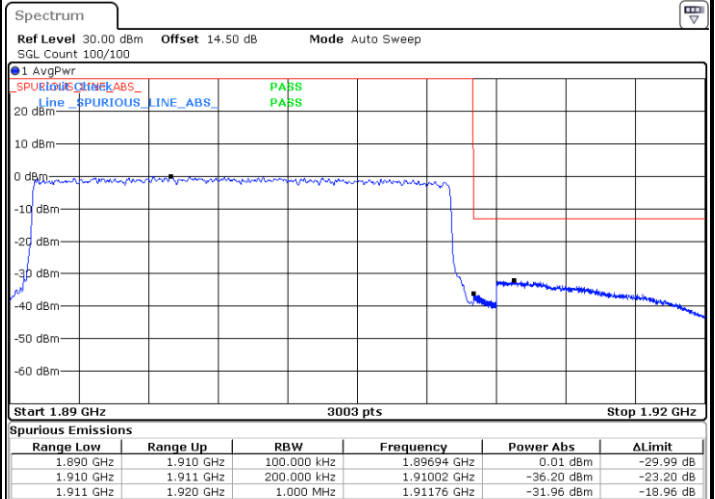
Date: 26 AUG 2019 20:38:30

Lowest Band Edge / Full RB



Date: 26 AUG 2019 20:31:24

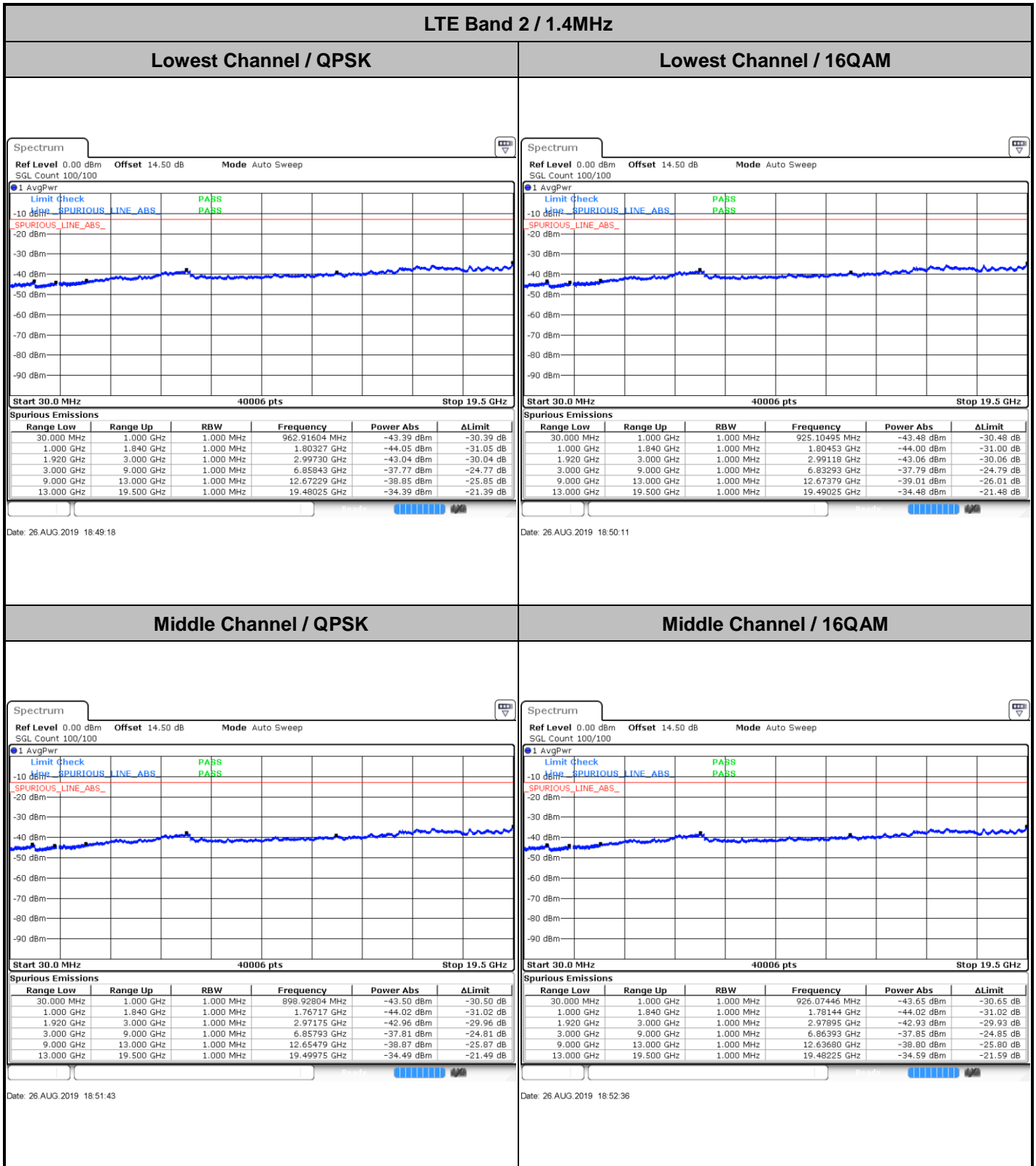
Highest Band Edge / Full RB



Date: 26 AUG 2019 20:40:46



Conducted Spurious Emission

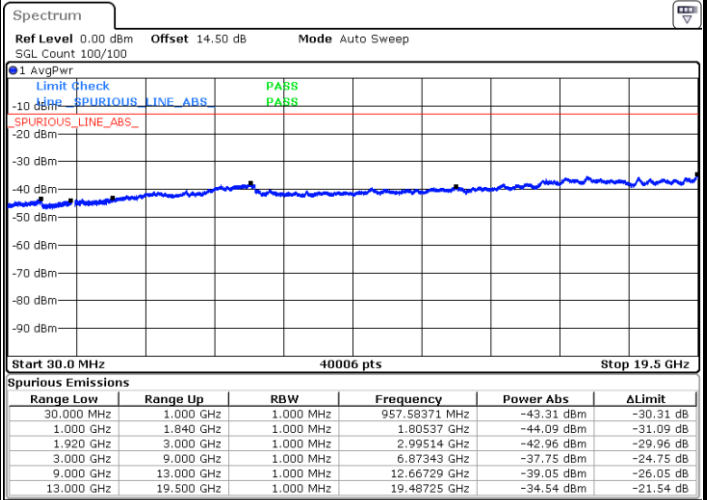
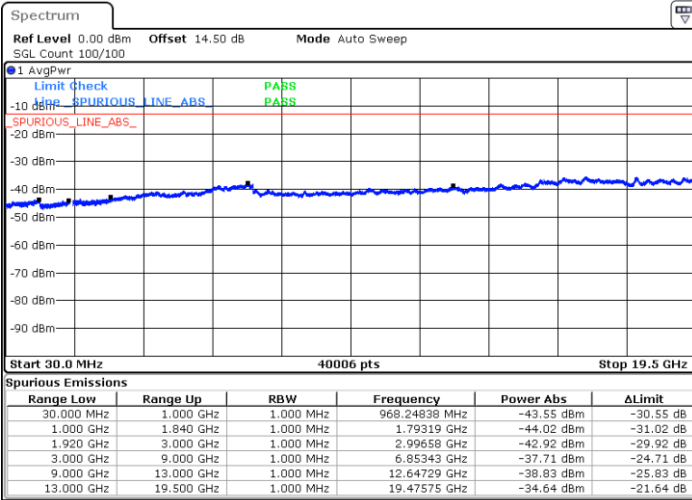




LTE Band 2 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



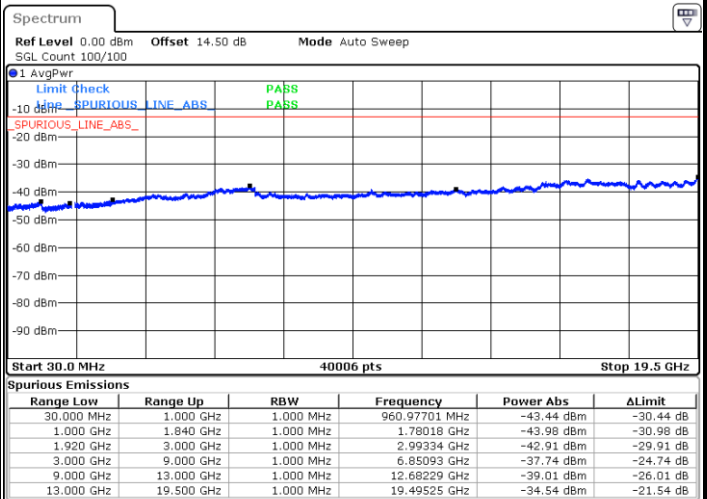
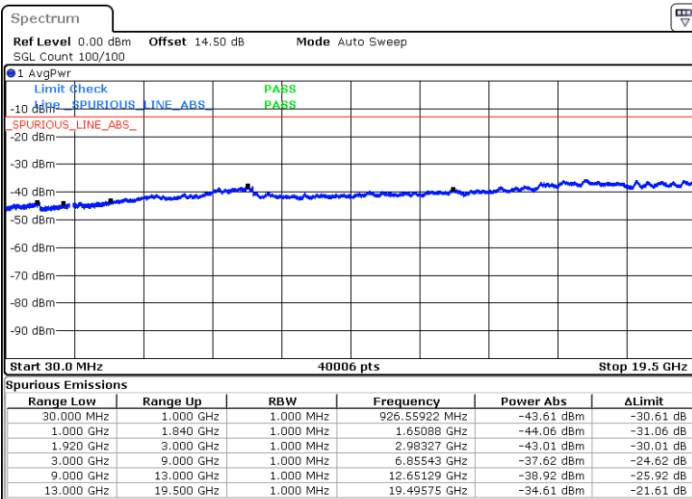
Date: 26 AUG 2019 18:58:40

Date: 26 AUG 2019 18:59:33

LTE Band 2 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 26 AUG 2019 19:08:59

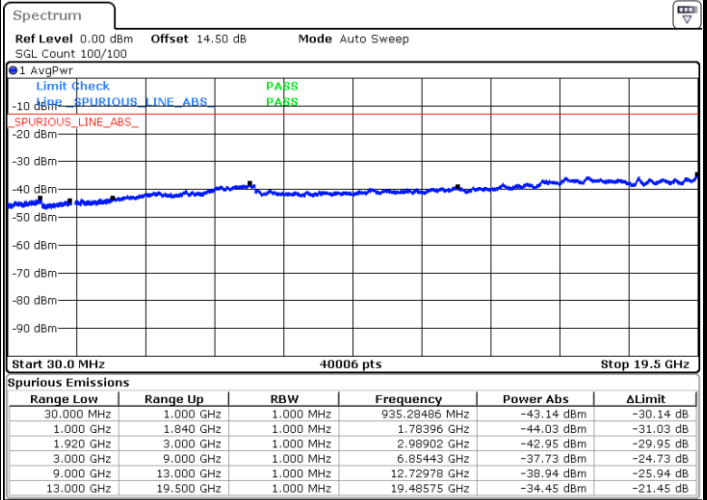
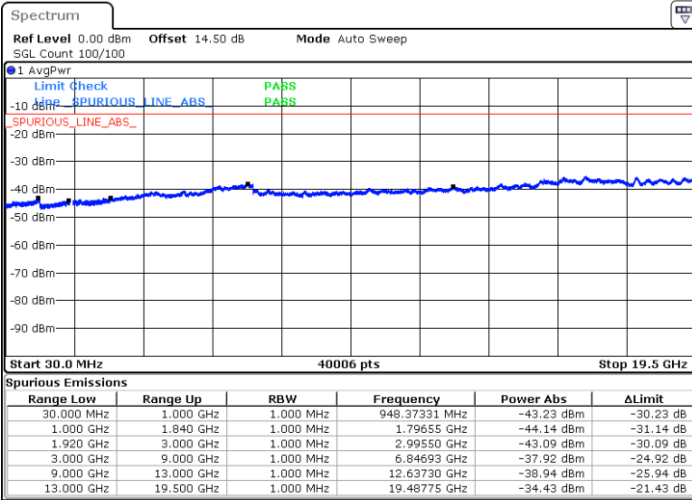
Date: 26 AUG 2019 19:09:53



LTE Band 2 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

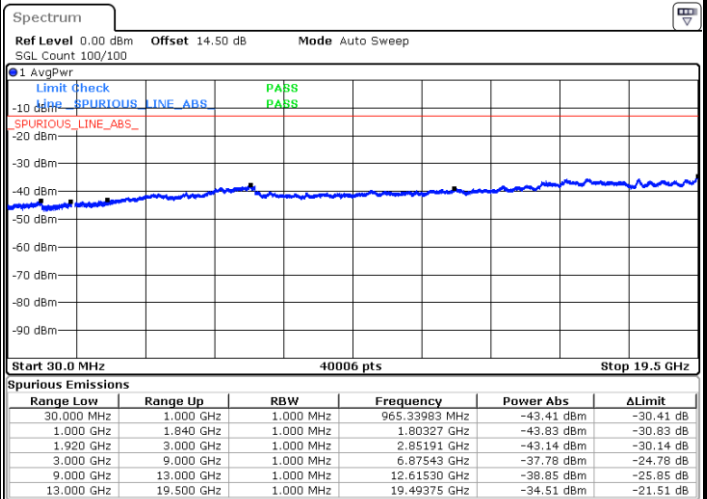
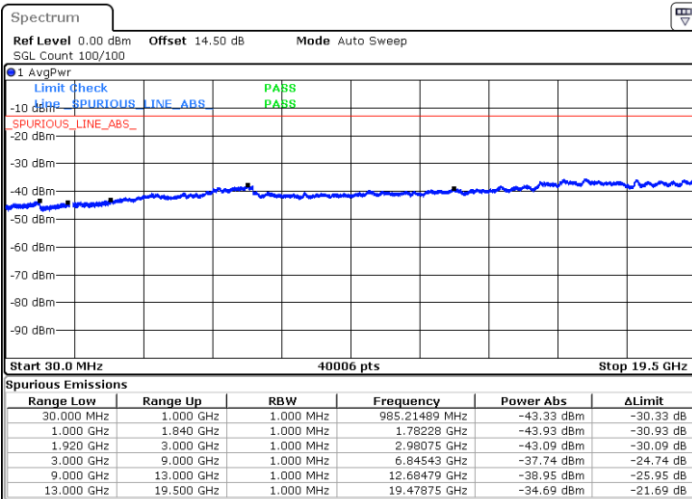


Date: 26 AUG.2019 19:11:25

Date: 26 AUG.2019 19:12:18

Highest Channel / QPSK

Highest Channel / 16QAM



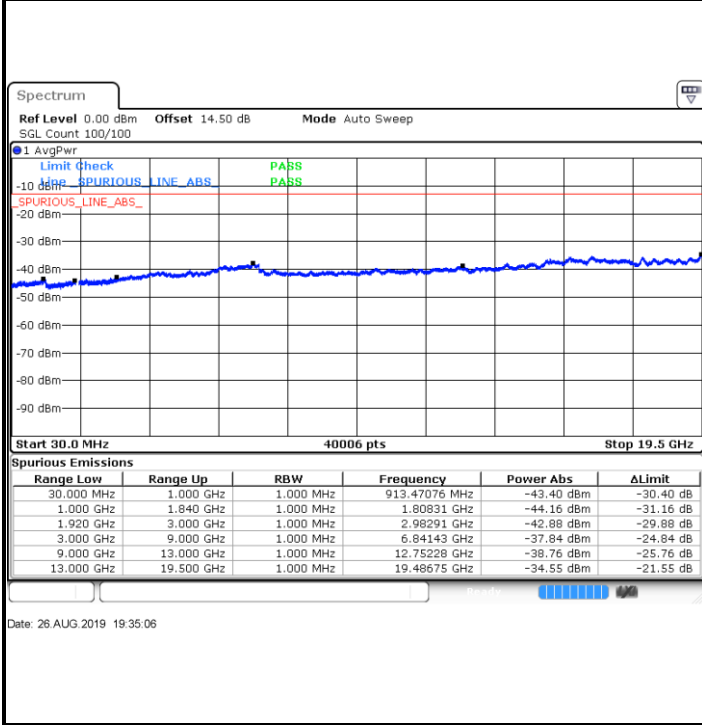
Date: 26 AUG.2019 19:18:21

Date: 26 AUG.2019 19:19:15

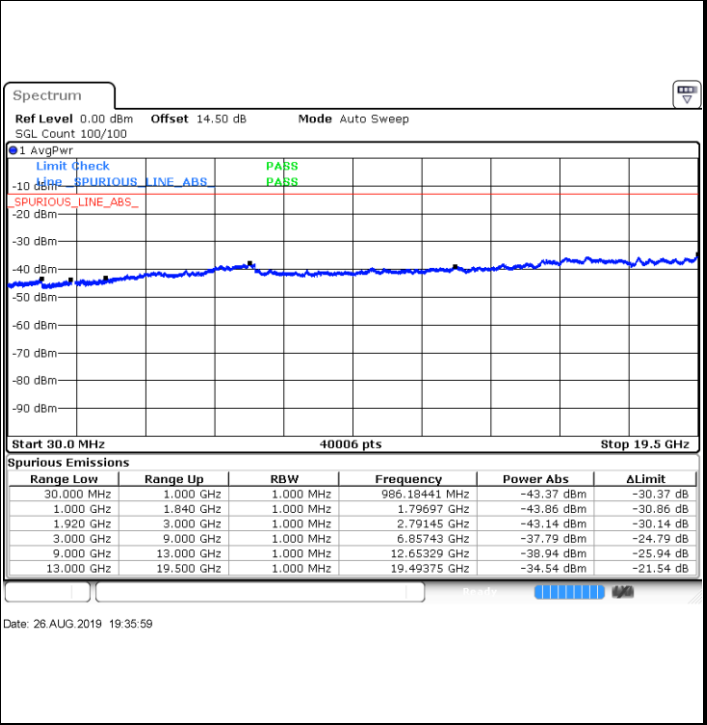


LTE Band 2 / 5MHz

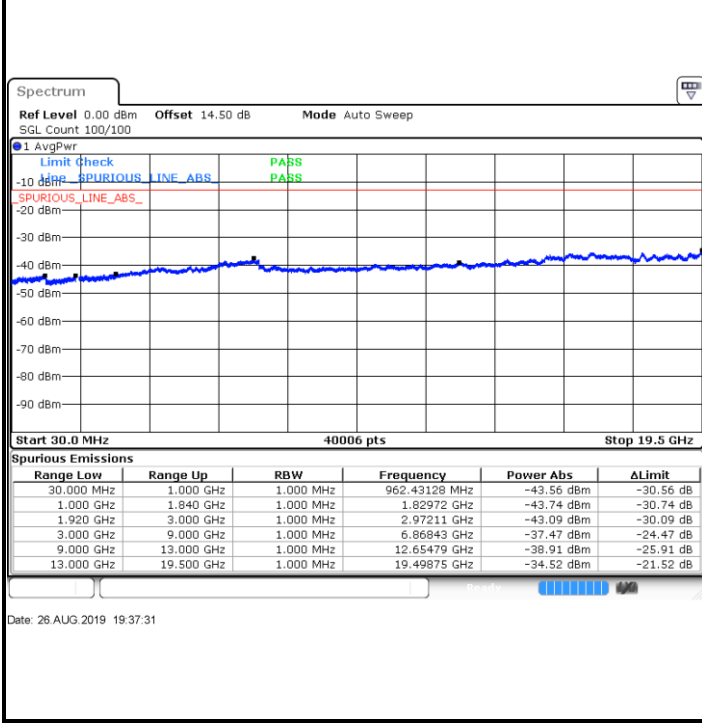
Lowest Channel / QPSK



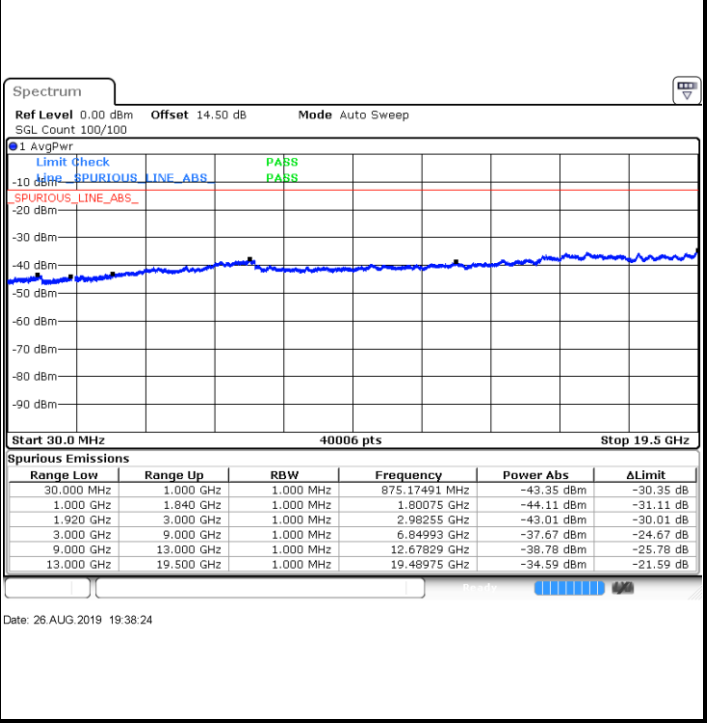
Lowest Channel / 16QAM



Middle Channel / QPSK



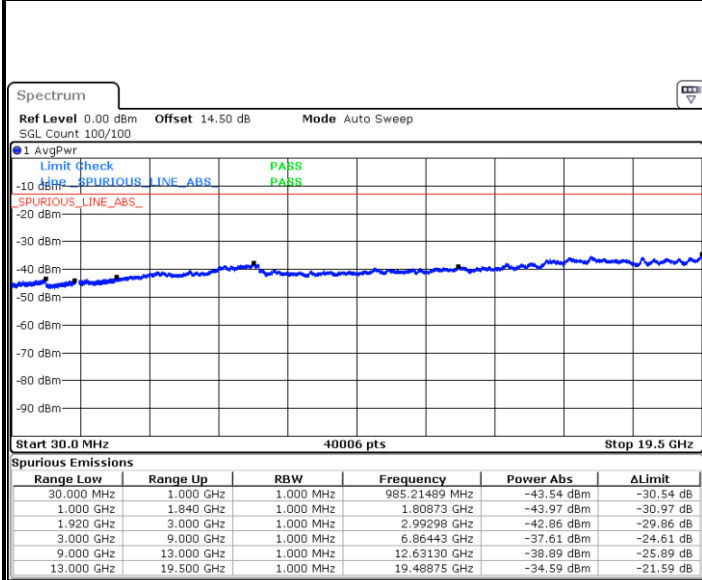
Middle Channel / 16QAM





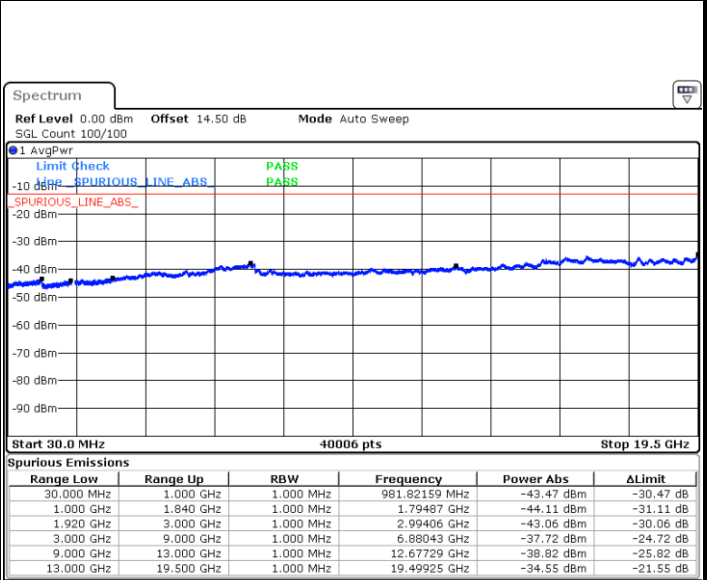
LTE Band 2 / 5MHz

Highest Channel / QPSK



Date: 26 AUG 2019 19:44:28

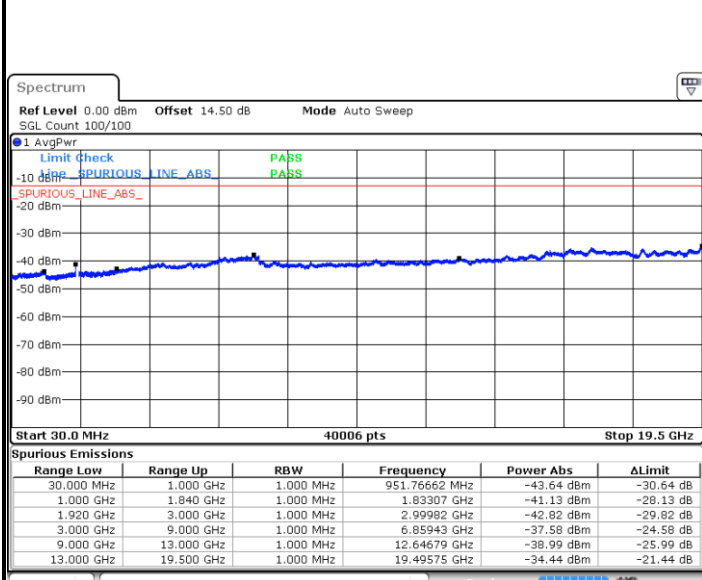
Highest Channel / 16QAM



Date: 26 AUG 2019 19:45:21

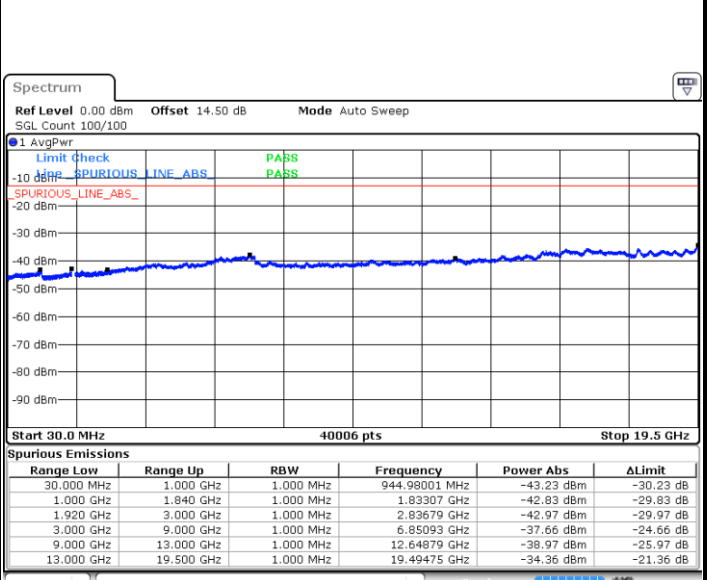
LTE Band 2 / 10MHz

Lowest Channel / QPSK



Date: 26 AUG 2019 19:59:41

Lowest Channel / 16QAM

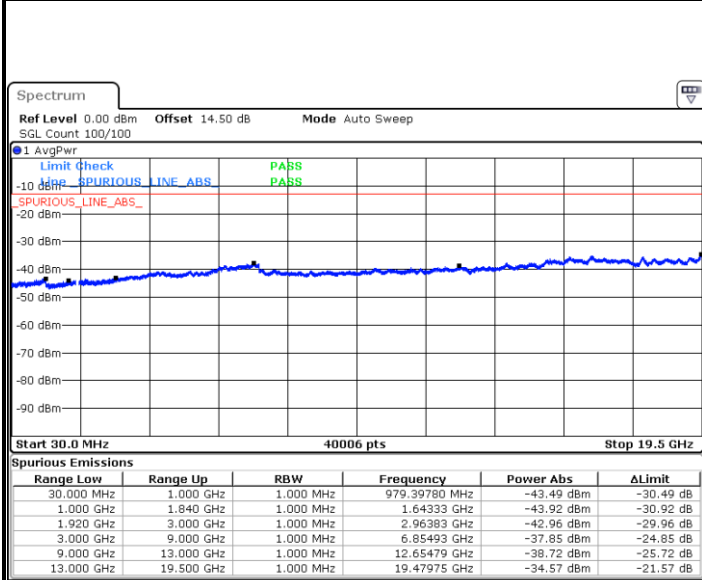


Date: 26 AUG 2019 20:00:34



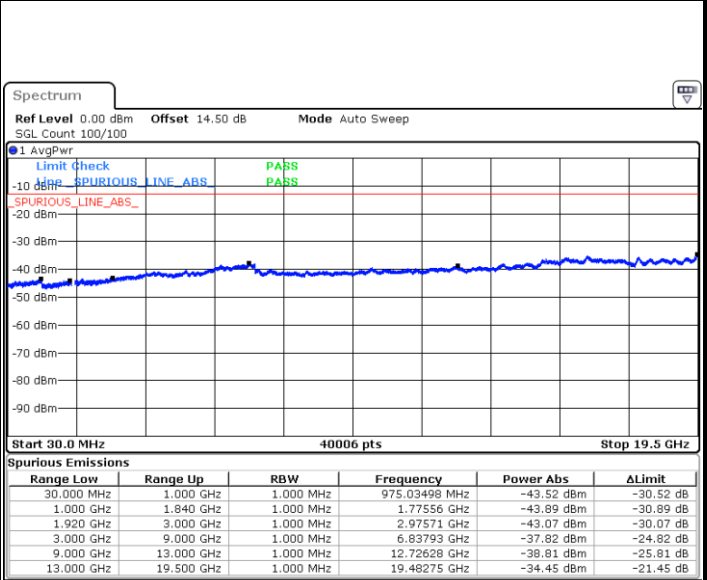
LTE Band 2 / 10MHz

Middle Channel / QPSK



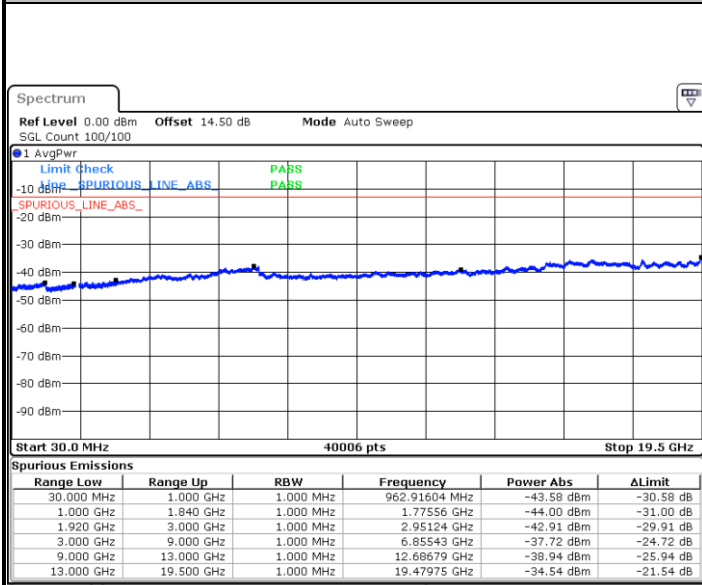
Date: 26 AUG 2019 20:02:06

Middle Channel / 16QAM



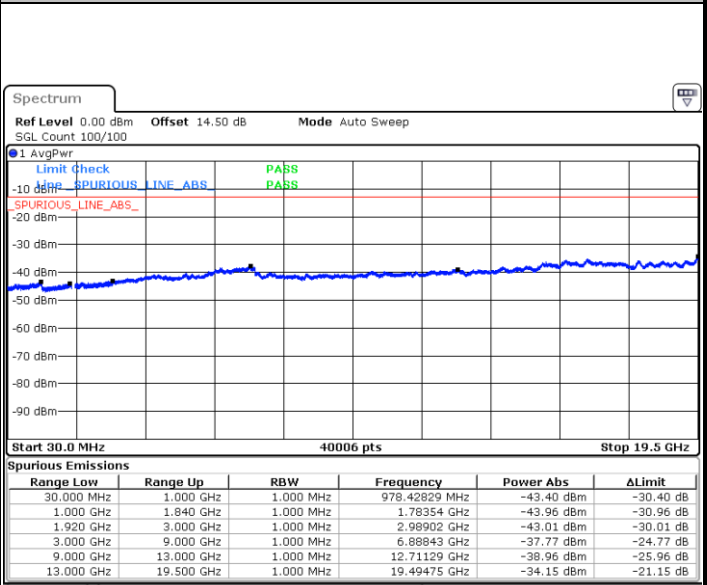
Date: 26 AUG 2019 20:02:59

Highest Channel / QPSK



Date: 26 AUG 2019 20:09:02

Highest Channel / 16QAM



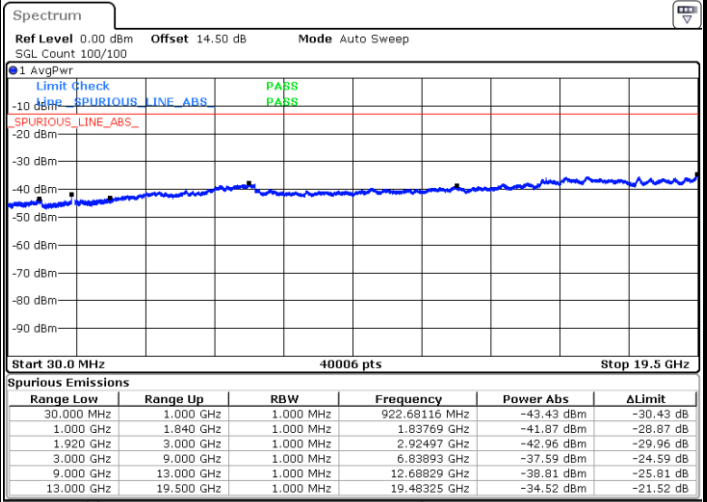
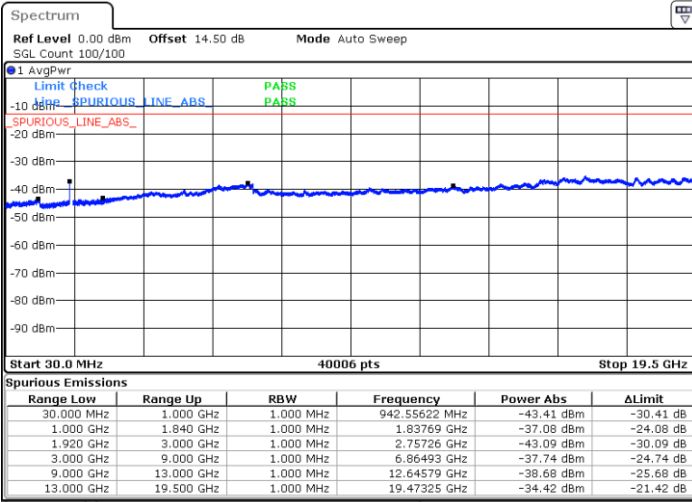
Date: 26 AUG 2019 20:09:55



LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

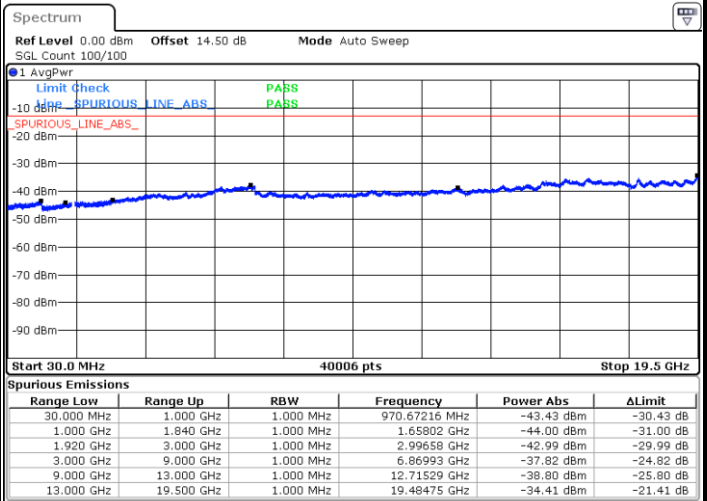
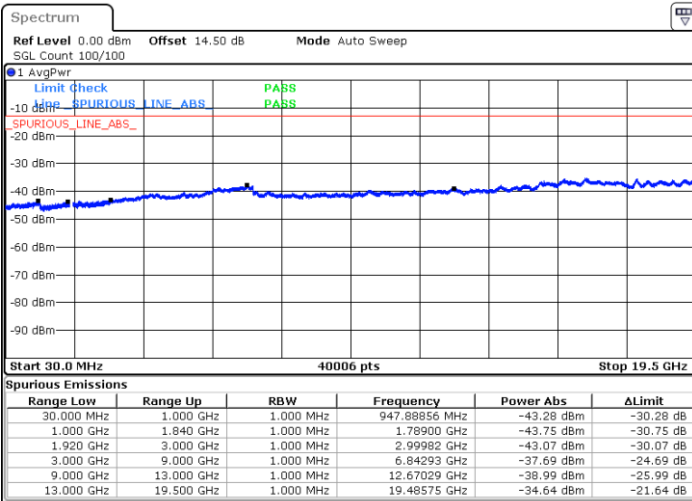


Date: 26 AUG 2019 20:15:59

Date: 26 AUG 2019 20:16:52

Middle Channel / QPSK

Middle Channel / 16QAM



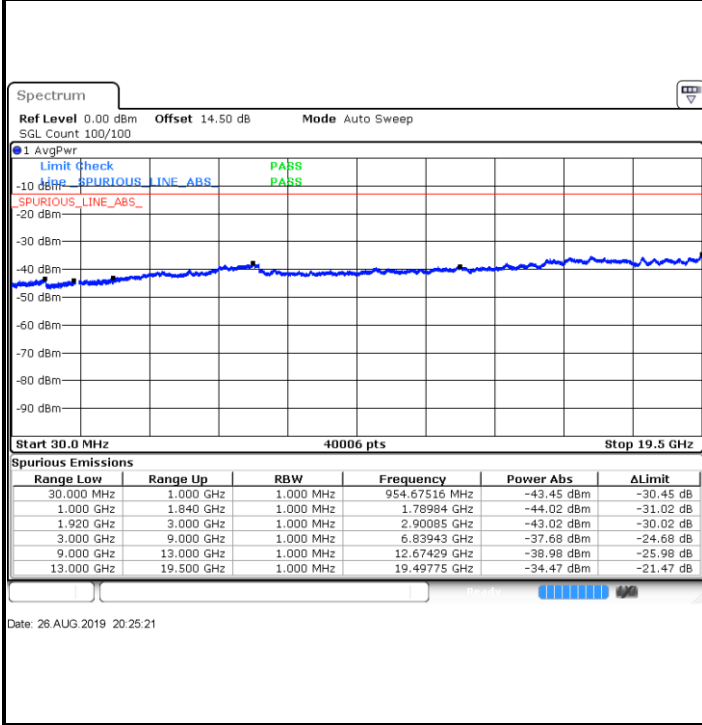
Date: 26 AUG 2019 20:18:24

Date: 26 AUG 2019 20:19:17

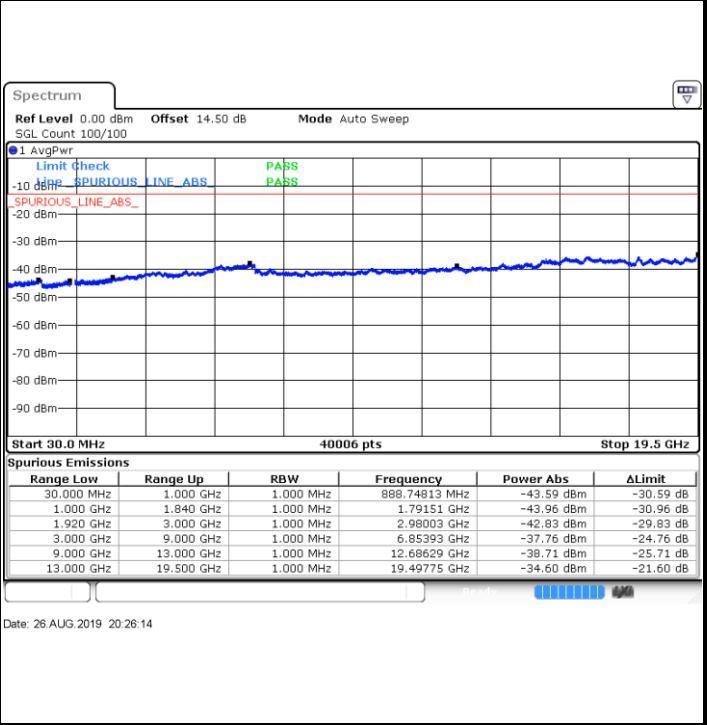


LTE Band 2 / 15MHz

Highest Channel / QPSK

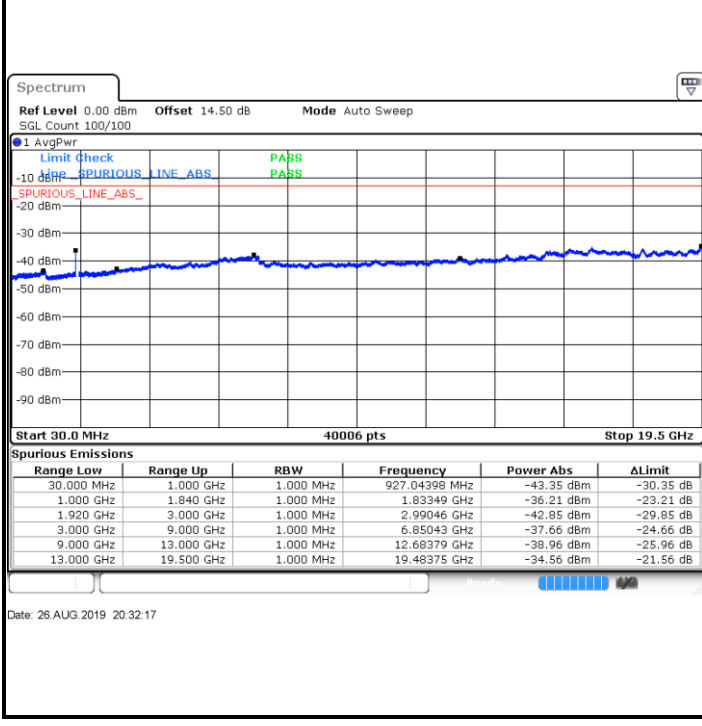


Highest Channel / 16QAM

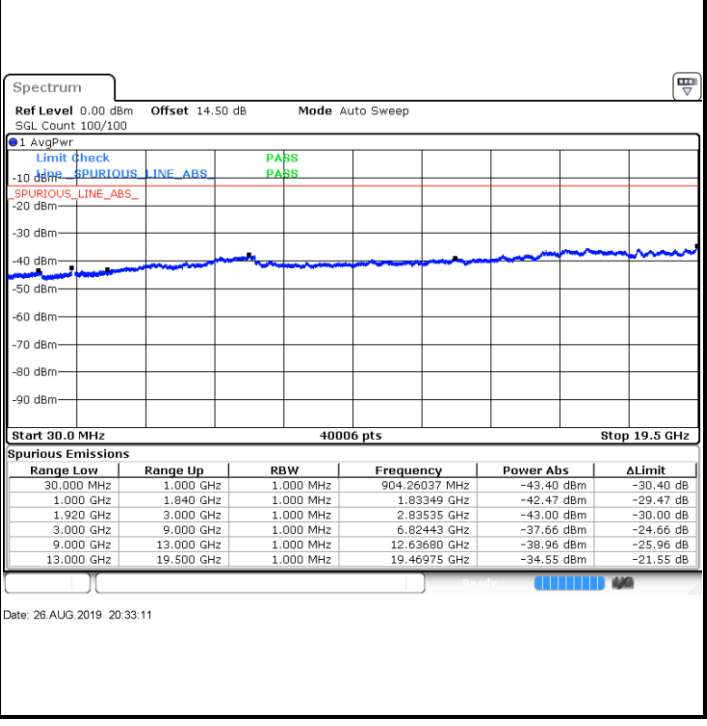


LTE Band 2 / 20MHz

Lowest Channel / QPSK



Lowest Channel / 16QAM

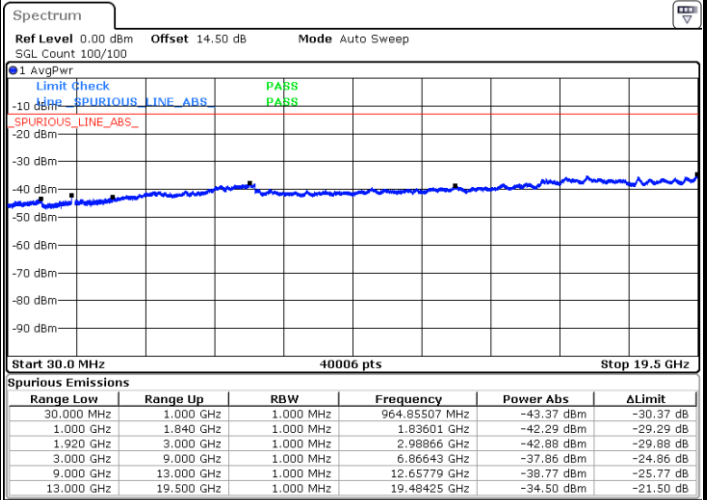
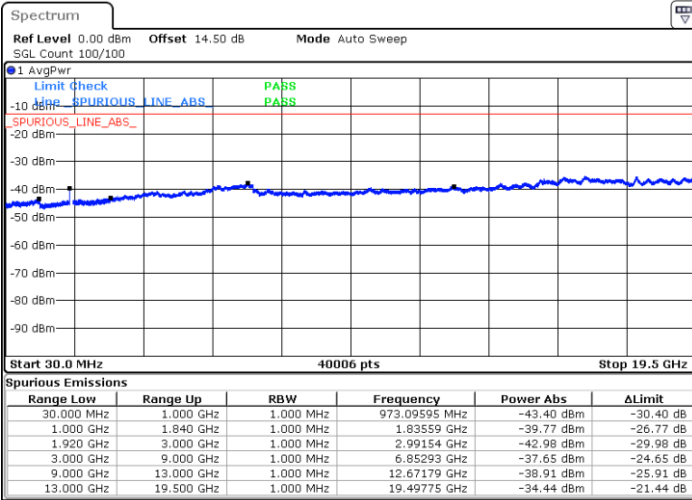




LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

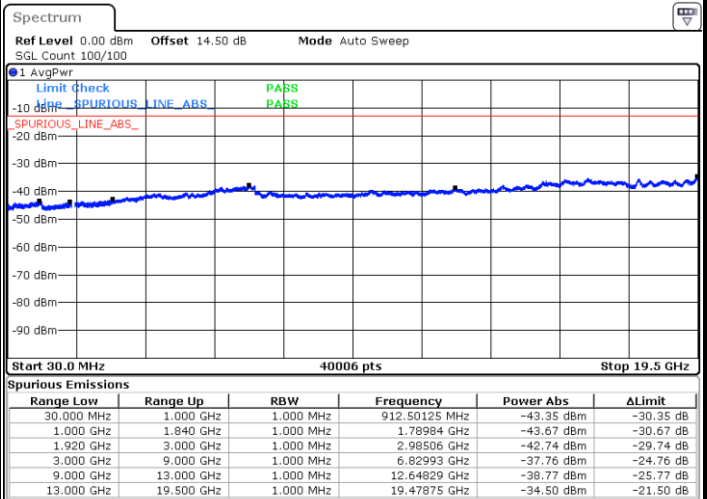
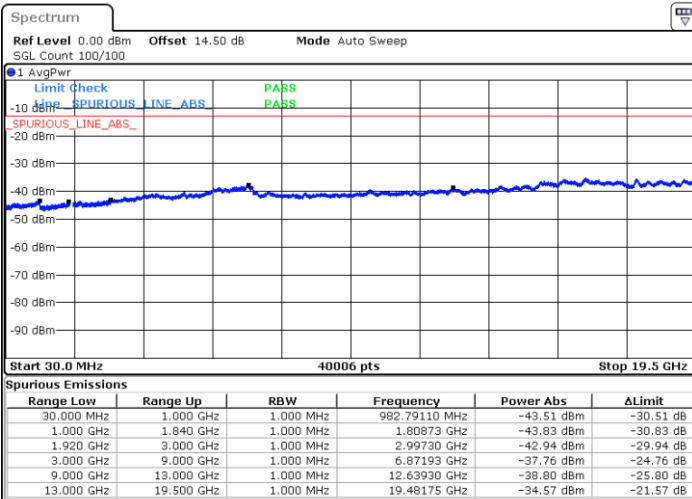


Date: 26 AUG 2019 20:34:43

Date: 26 AUG 2019 20:35:36

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 AUG 2019 20:41:39

Date: 26 AUG 2019 20:42:32



Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0019	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 4

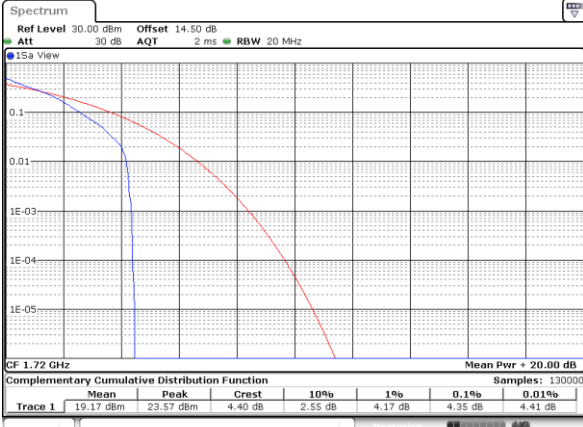
Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.35	4.64	5.25	5.77	PASS
Middle CH	4.2	4.78	4.99	5.8	
Highest CH	4.2	4.67	5.01	5.68	



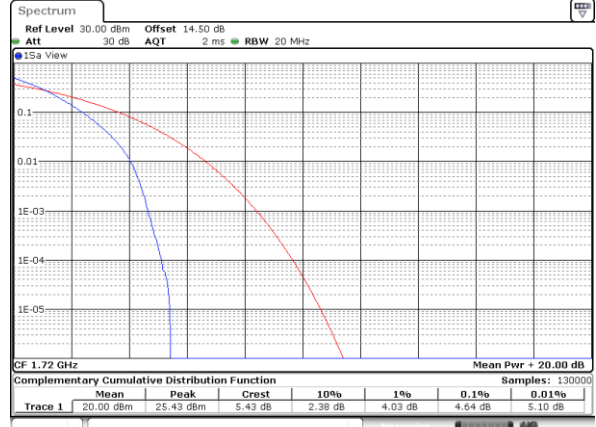
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



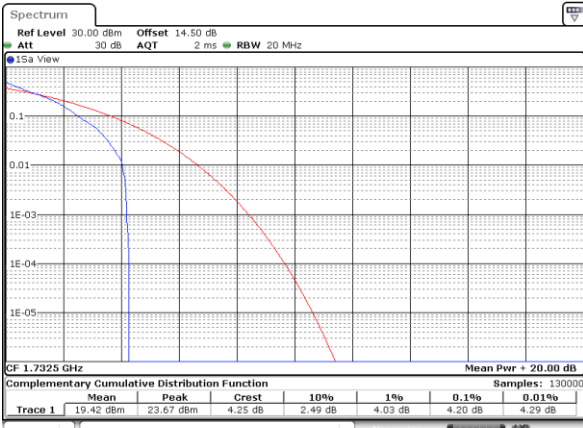
Date: 27_AUG.2019 01:41:54

Lowest Channel / Full RB



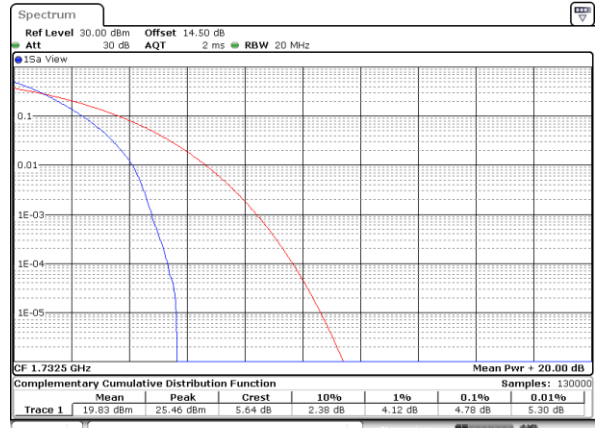
Date: 27_AUG.2019 01:41:25

Middle Channel / 1RB



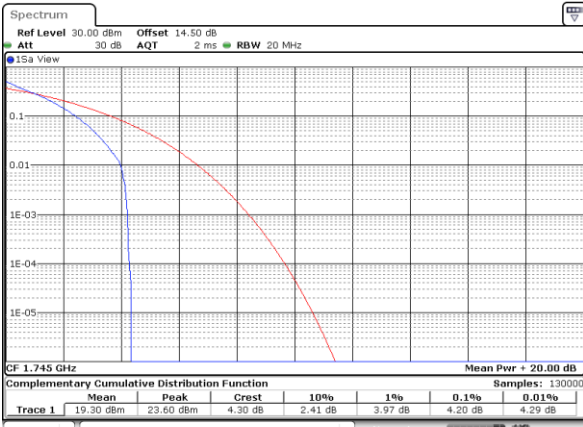
Date: 27_AUG.2019 01:42:05

Middle Channel / Full RB



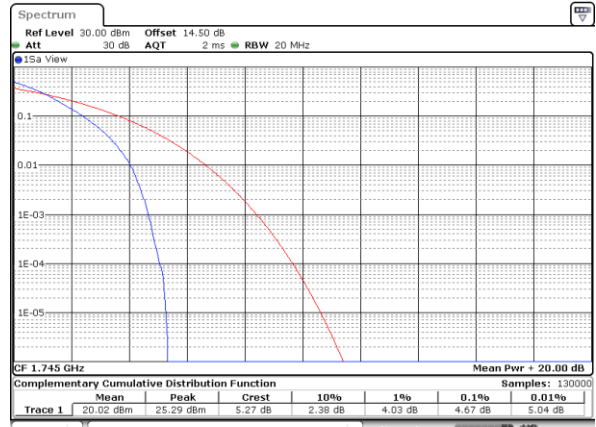
Date: 27_AUG.2019 01:41:35

Highest Channel / 1RB



Date: 27_AUG.2019 01:42:15

Highest Channel / Full RB

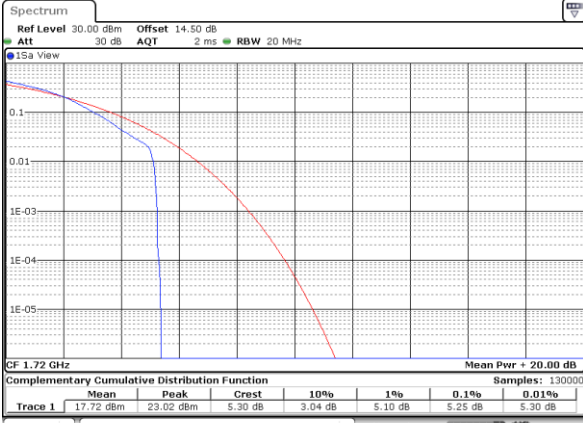


Date: 27_AUG.2019 01:41:44



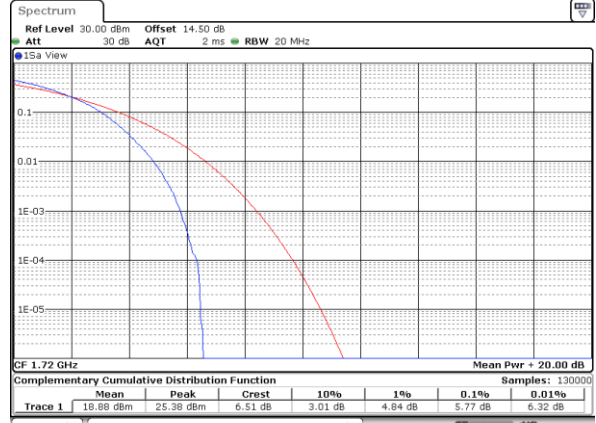
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 27_AUG.2019 01:40:09

Lowest Channel / Full RB



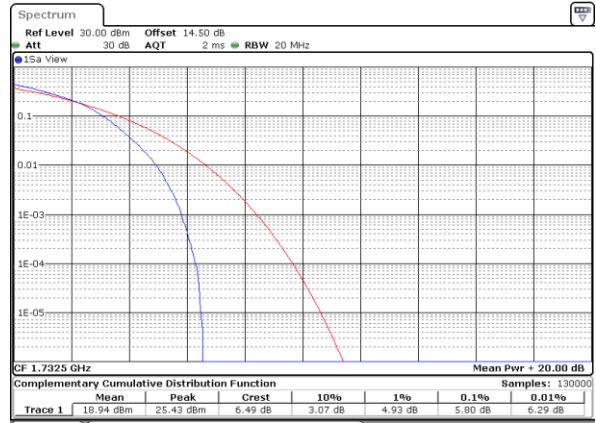
Date: 27_AUG.2019 01:40:22

Middle Channel / 1RB



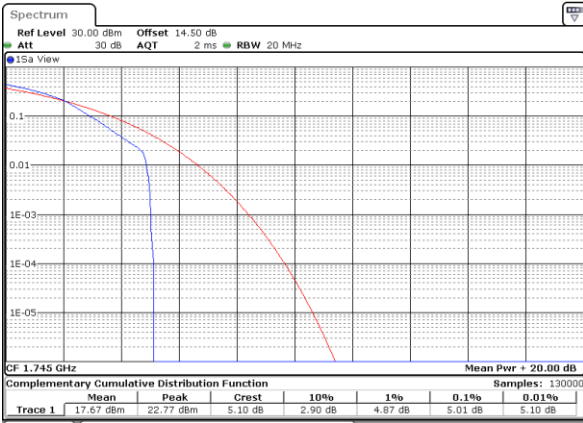
Date: 27_AUG.2019 01:40:04

Middle Channel / Full RB



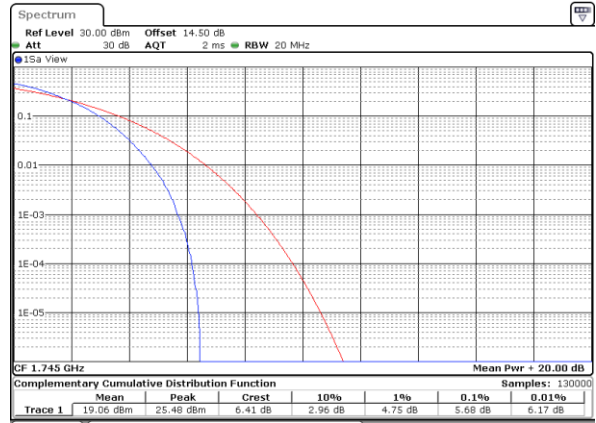
Date: 27_AUG.2019 01:40:48

Highest Channel / 1RB



Date: 27_AUG.2019 01:41:06

Highest Channel / Full RB



Date: 27_AUG.2019 01:41:15



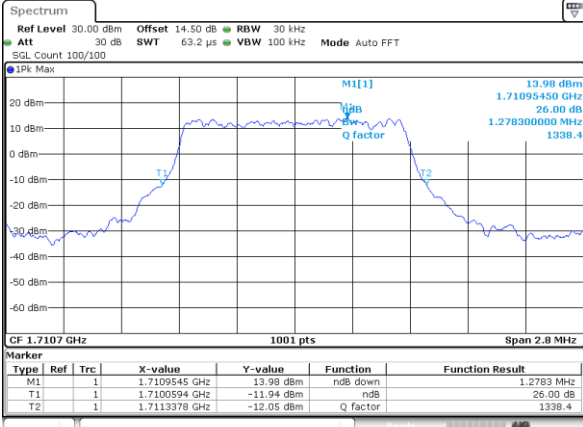
26dB Bandwidth

Mode	LTE Band 4 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.278	1.287	2.985	3.009	4.915	4.875	9.89	9.69	14.356	14.505	20.06	20.14
Middle CH	1.264	1.315	2.985	2.961	4.955	4.945	9.79	9.61	14.446	14.416	20.34	20.22
Highest CH	1.262	1.304	2.997	3.003	4.965	4.975	9.81	9.83	14.535	14.416	20.06	20.14



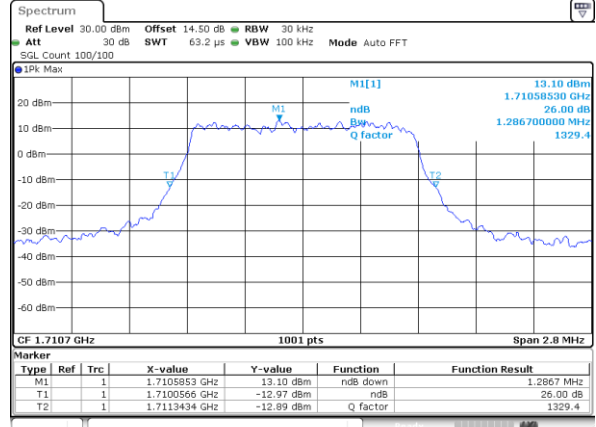
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



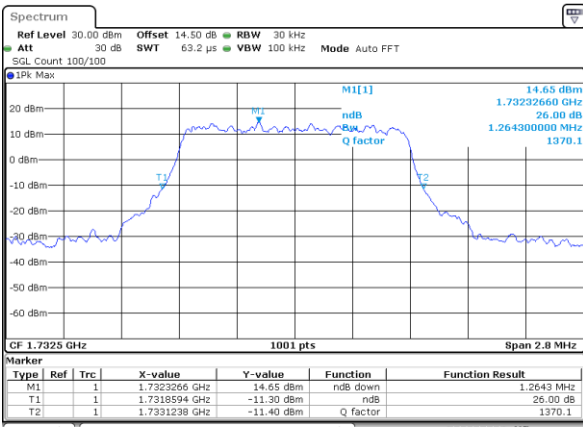
Date: 26_AUG.2019 23:39:47

Lowest Channel / 1.4MHz / 16QAM



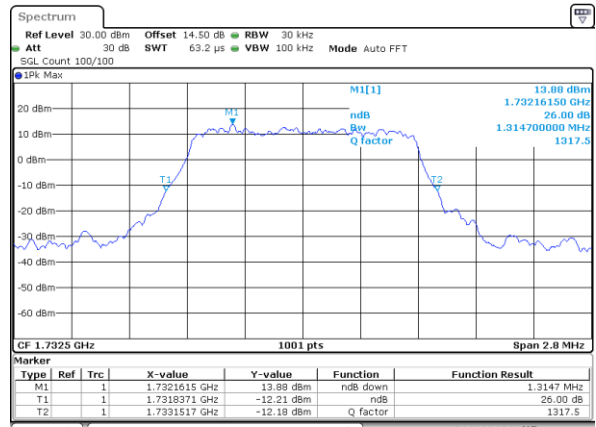
Date: 26_AUG.2019 23:39:57

Middle Channel / 1.4MHz / QPSK



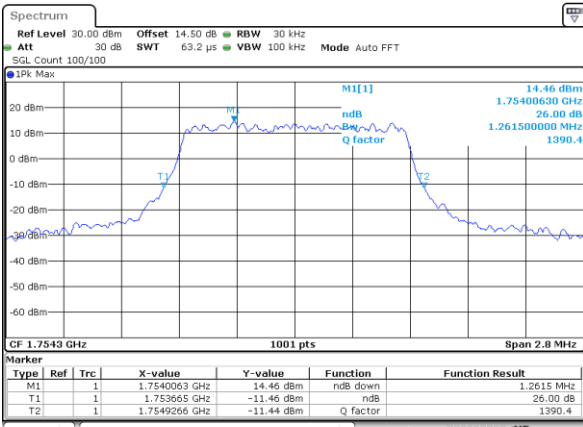
Date: 26_AUG.2019 23:46:52

Middle Channel / 1.4MHz / 16QAM



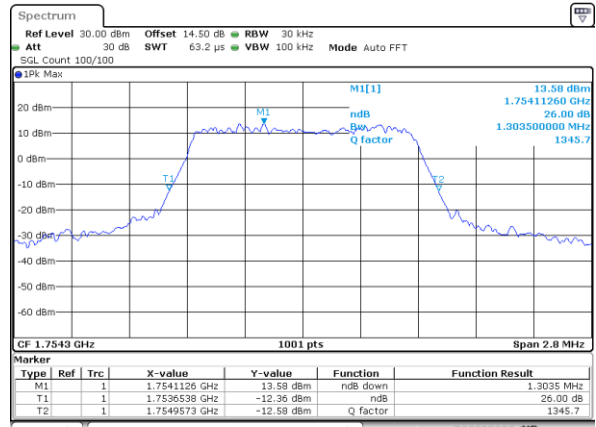
Date: 26_AUG.2019 23:47:02

Highest Channel / 1.4MHz / QPSK



Date: 26_AUG.2019 23:49:21

Highest Channel / 1.4MHz / 16QAM

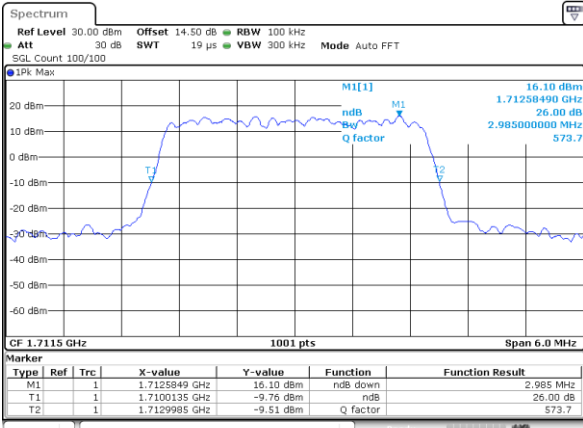


Date: 26_AUG.2019 23:49:31



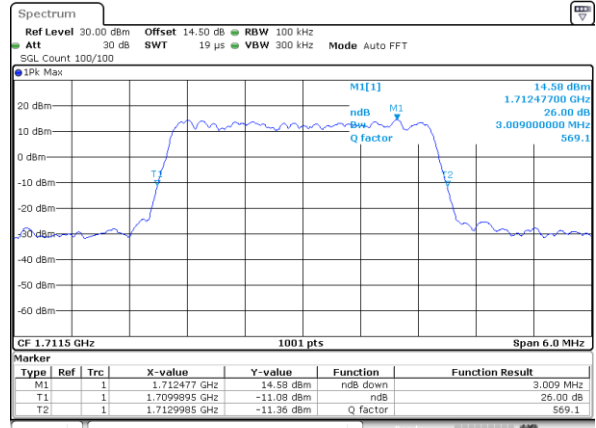
LTE Band 4

Lowest Channel / 3MHz / QPSK



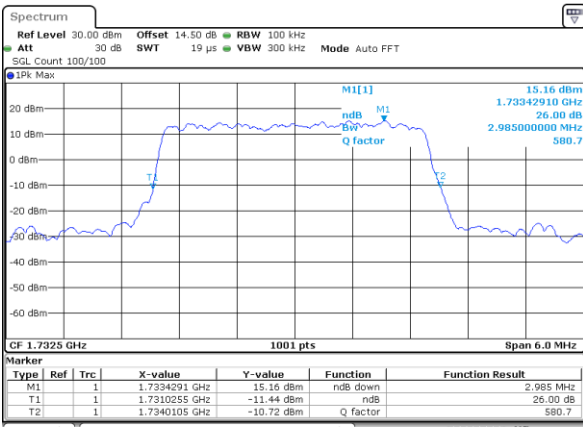
Date: 26_AUG.2019 23:56:25

Lowest Channel / 3MHz / 16QAM



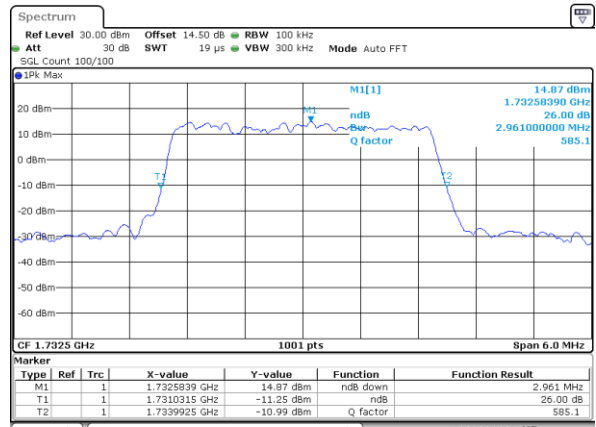
Date: 26_AUG.2019 23:56:136

Middle Channel / 3MHz / QPSK



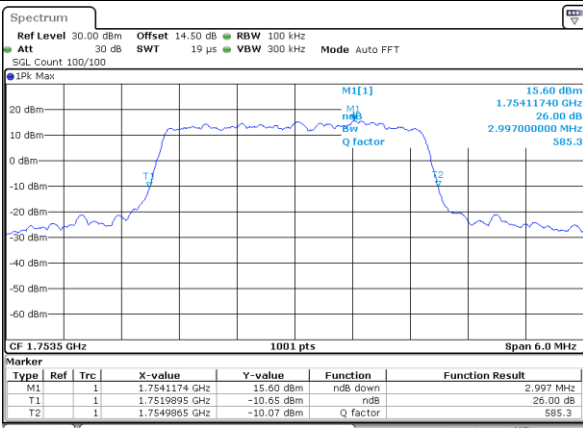
Date: 27_AUG.2019 00:03:10

Middle Channel / 3MHz / 16QAM



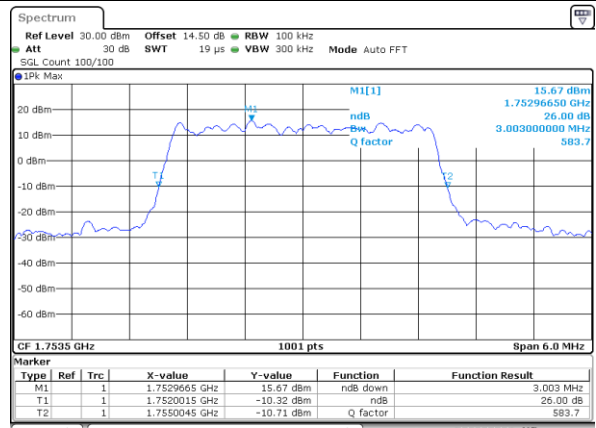
Date: 27_AUG.2019 00:03:140

Highest Channel / 3MHz / QPSK



Date: 27_AUG.2019 00:06:10

Highest Channel / 3MHz / 16QAM

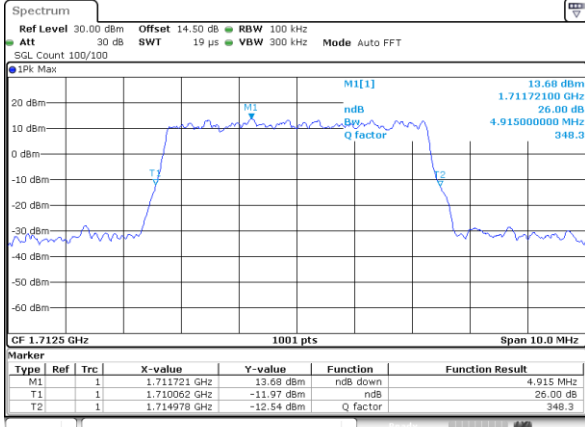


Date: 27_AUG.2019 00:06:110



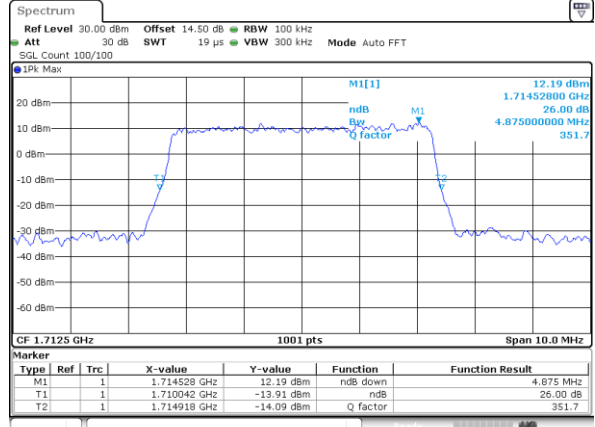
LTE Band 4

Lowest Channel / 5MHz / QPSK



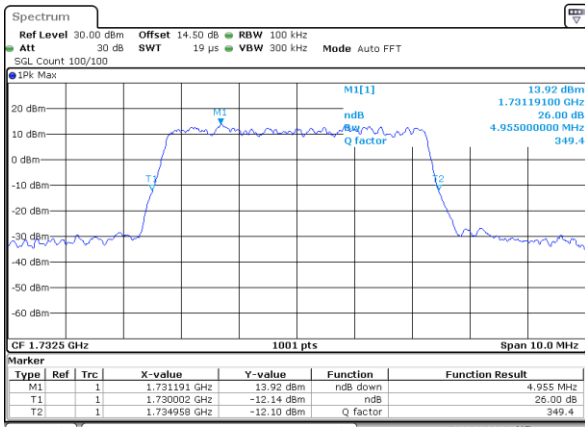
Date: 27_AUG.2019 00:13:05

Lowest Channel / 5MHz / 16QAM



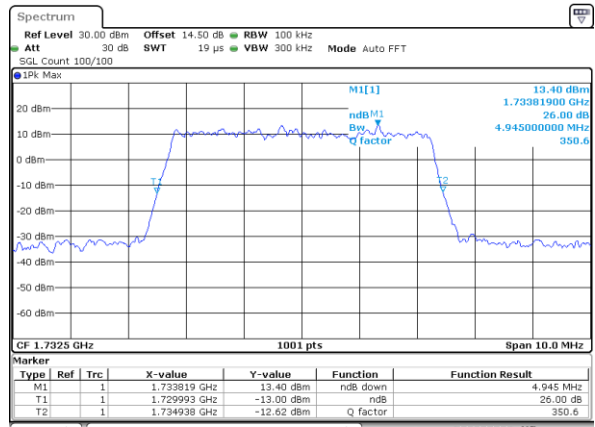
Date: 27_AUG.2019 00:13:15

Middle Channel / 5MHz / QPSK



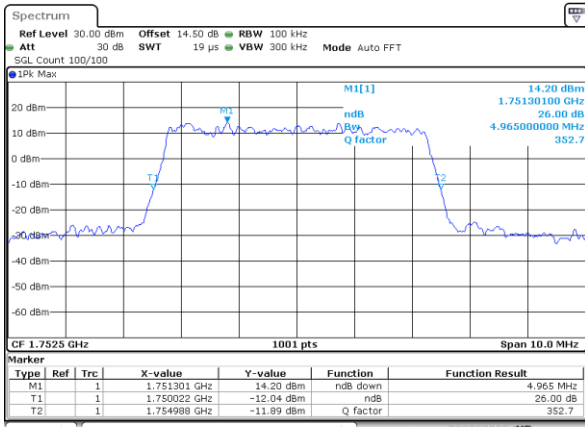
Date: 27_AUG.2019 00:20:09

Middle Channel / 5MHz / 16QAM



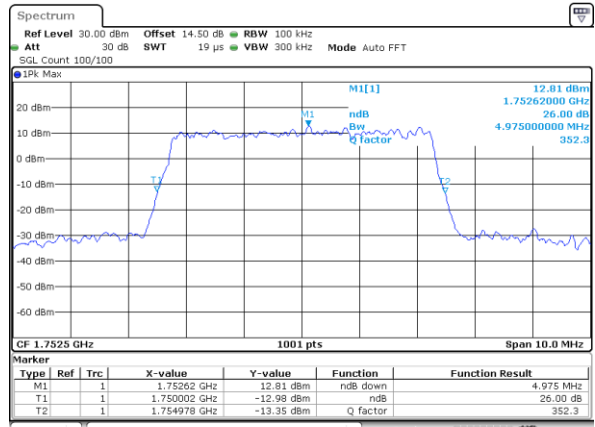
Date: 27_AUG.2019 00:20:19

Highest Channel / 5MHz / QPSK



Date: 27_AUG.2019 00:22:39

Highest Channel / 5MHz / 16QAM

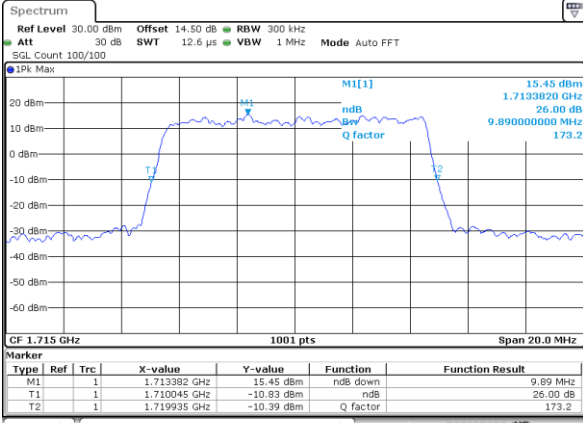


Date: 27_AUG.2019 00:22:49



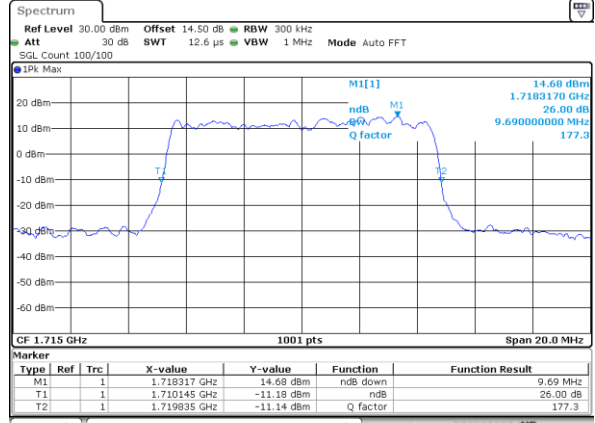
LTE Band 4

Lowest Channel / 10MHz / QPSK



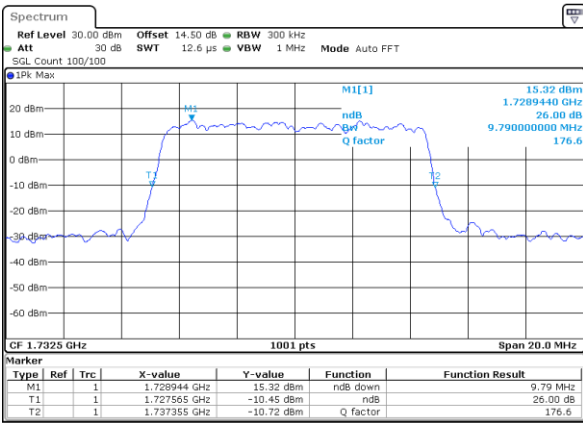
Date: 27_AUG.2019 00:29:43

Lowest Channel / 10MHz / 16QAM



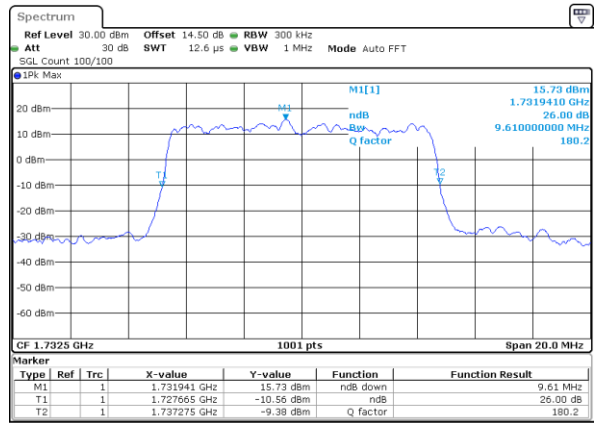
Date: 27_AUG.2019 00:29:54

Middle Channel / 10MHz / QPSK



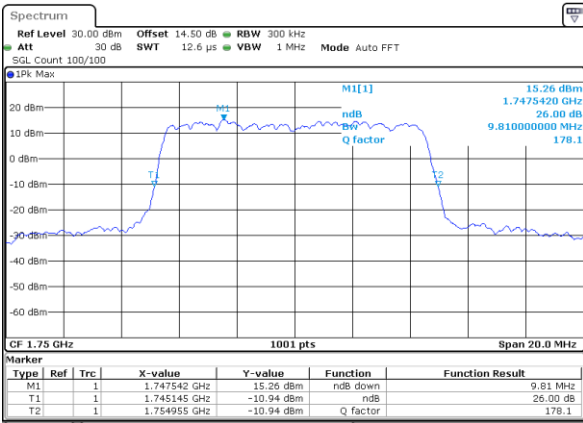
Date: 27_AUG.2019 00:36:48

Middle Channel / 10MHz / 16QAM



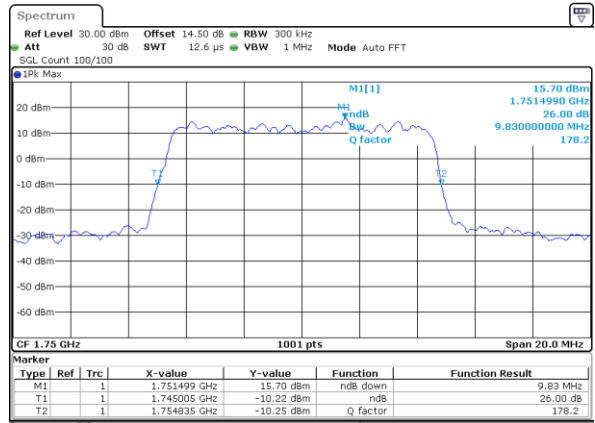
Date: 27_AUG.2019 00:36:58

Highest Channel / 10MHz / QPSK



Date: 27_AUG.2019 00:39:17

Highest Channel / 10MHz / 16QAM

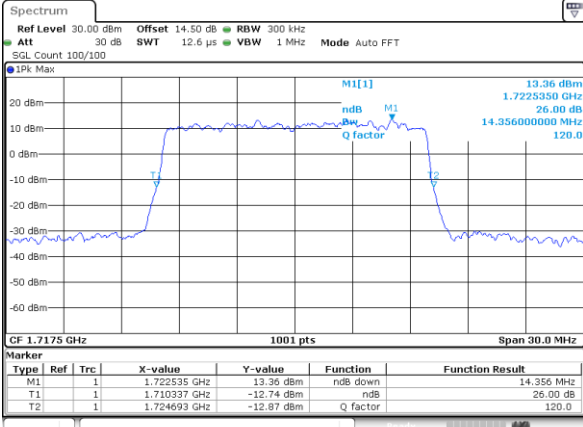


Date: 27_AUG.2019 00:39:27

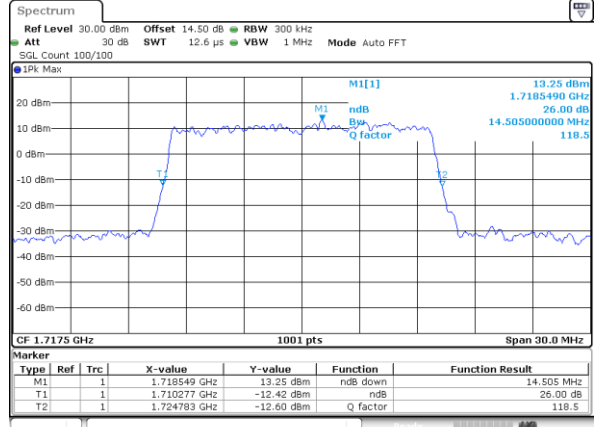


LTE Band 4

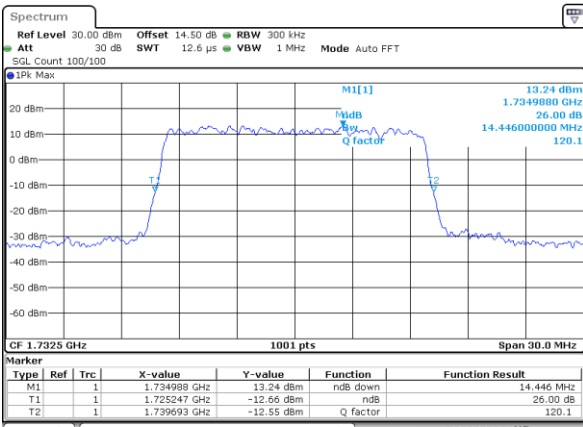
Lowest Channel / 15MHz / QPSK



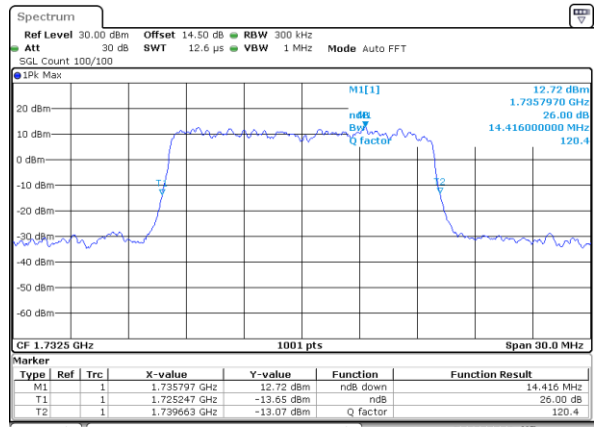
Lowest Channel / 15MHz / 16QAM



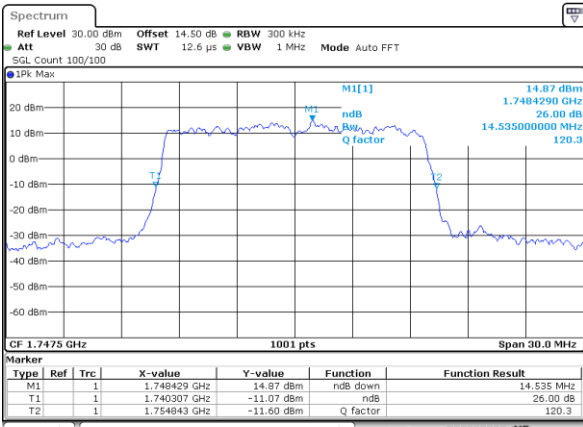
Middle Channel / 15MHz / QPSK



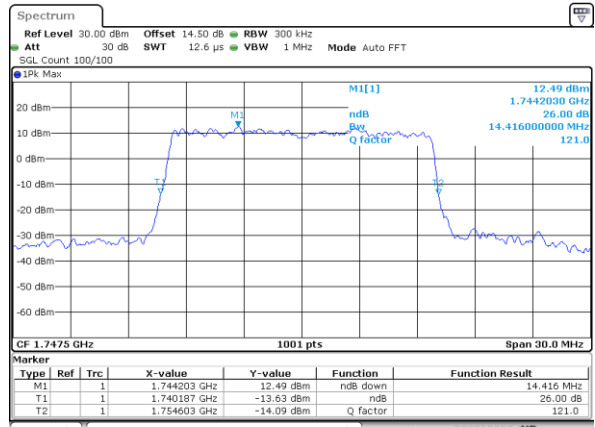
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



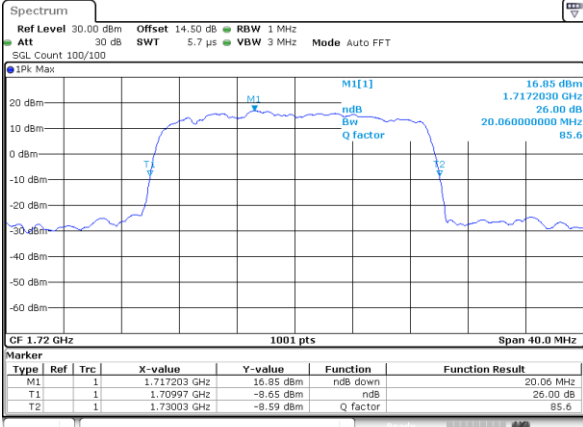
Highest Channel / 15MHz / 16QAM





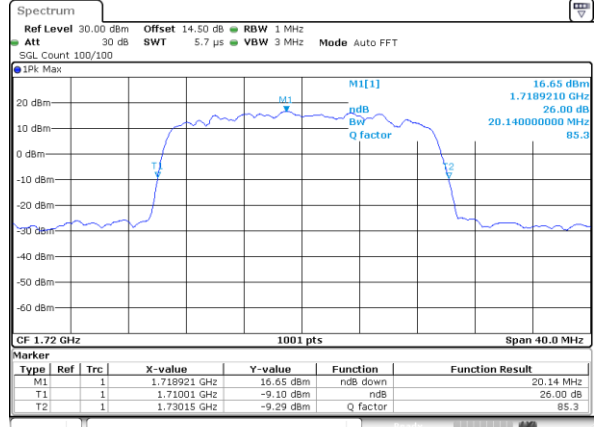
LTE Band 4

Lowest Channel / 20MHz / QPSK



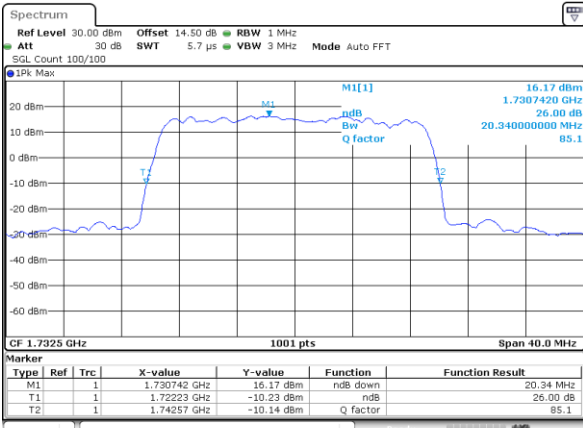
Date: 27_AUG.2019 01:03:15

Lowest Channel / 20MHz / 16QAM



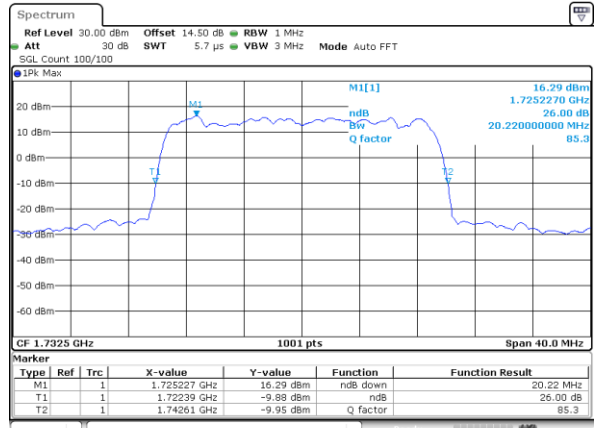
Date: 27_AUG.2019 01:03:25

Middle Channel / 20MHz / QPSK



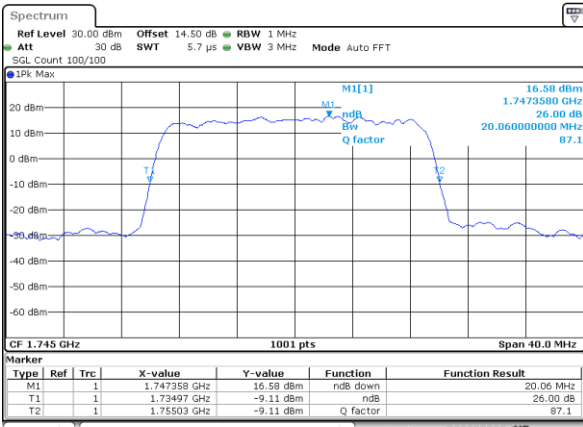
Date: 27_AUG.2019 01:10:19

Middle Channel / 20MHz / 16QAM



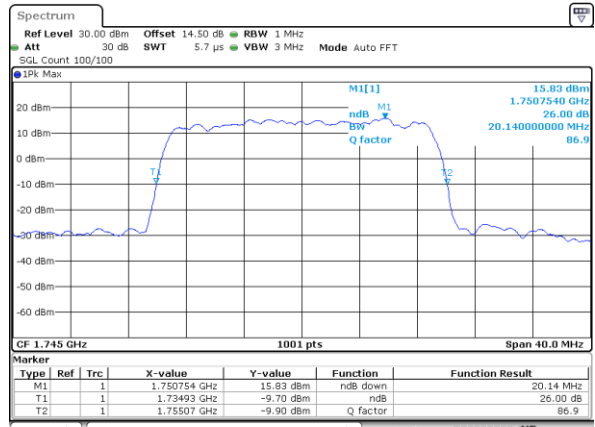
Date: 27_AUG.2019 01:10:30

Highest Channel / 20MHz / QPSK



Date: 27_AUG.2019 01:24:54

Highest Channel / 20MHz / 16QAM



Date: 27_AUG.2019 01:25:05



Occupied Bandwidth

Mode	LTE Band 4 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.1	1.09	2.72	2.71	4.5	4.5	8.99	9.07	13.46	13.43	18.26	18.30
Middle CH	1.09	1.1	2.7	2.72	4.5	4.51	9.03	9.03	13.43	13.37	18.34	18.22
Highest CH	1.09	1.1	2.72	2.7	4.49	4.49	9.03	8.97	13.4	13.37	18.30	18.30