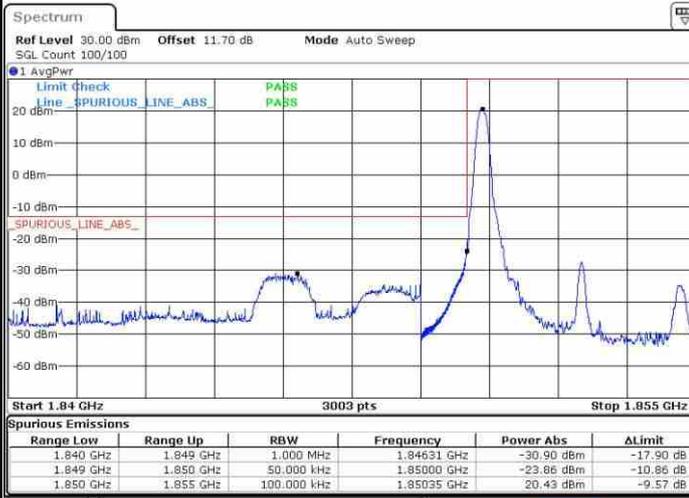


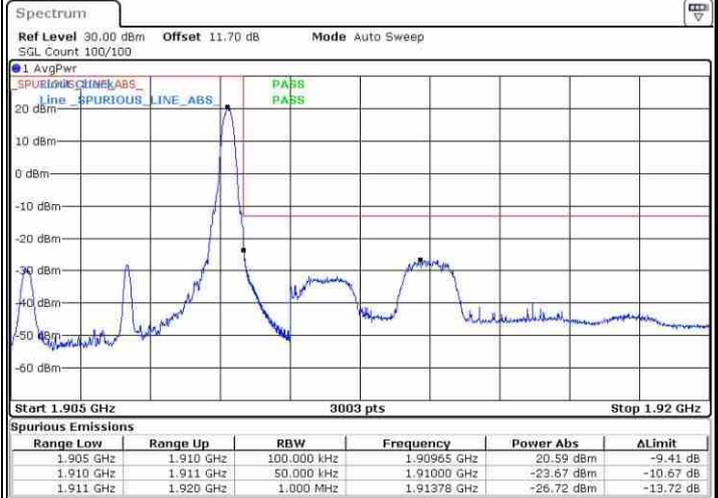


LTE Band 2 / 5MHz / 64QAM

Lowest Band Edge / 1RB



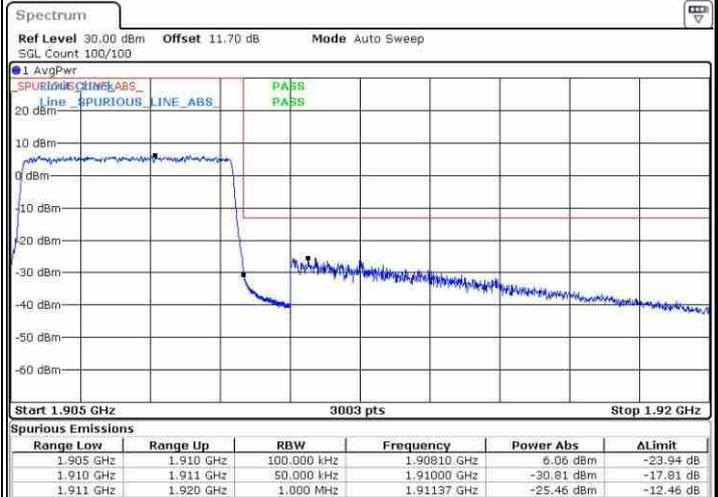
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



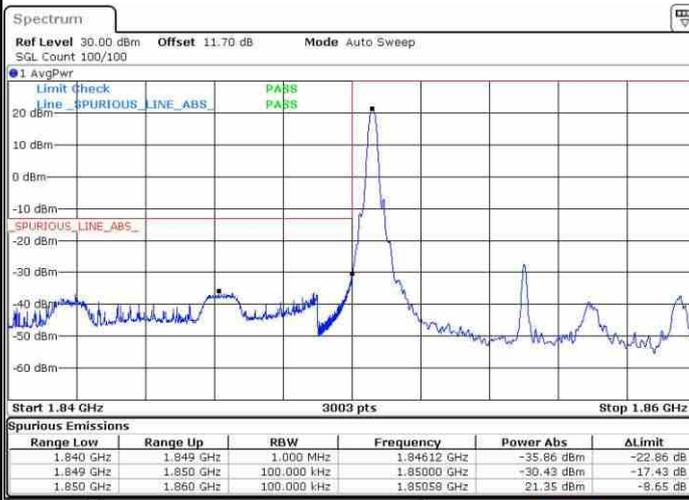
Highest Band Edge / Full RB





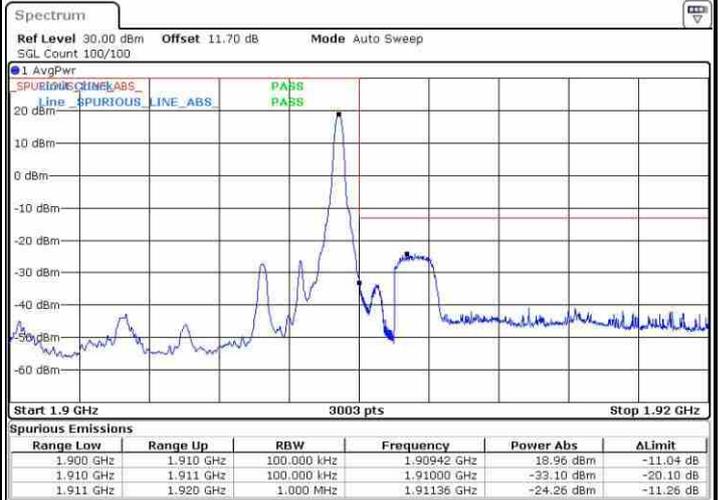
LTE Band 2 / 10MHz / QPSK

Lowest Band Edge / 1 RB



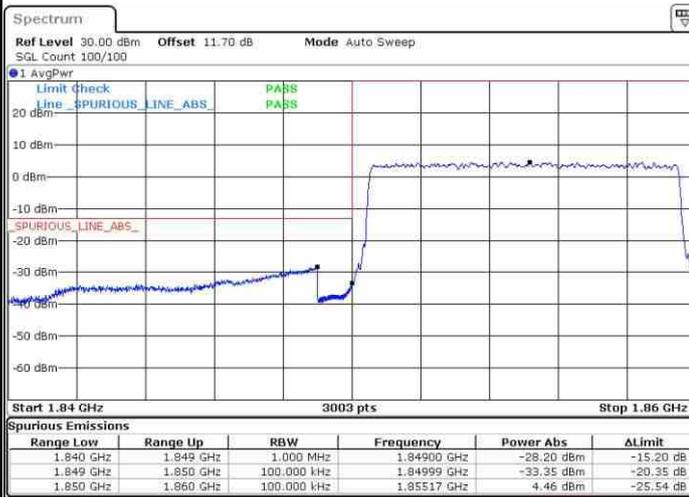
Date: 14 JUN 2019 10:30:29

Highest Band Edge / 1 RB



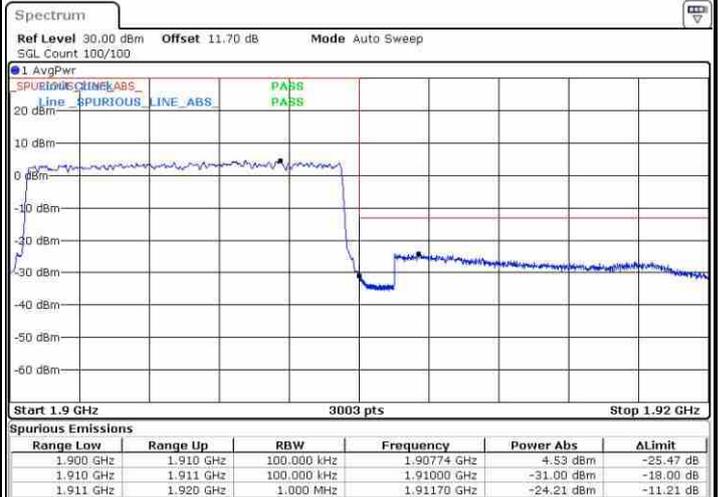
Date: 14 JUN 2019 10:34:31

Lowest Band Edge / Full RB



Date: 14 JUN 2019 10:32:30

Highest Band Edge / Full RB

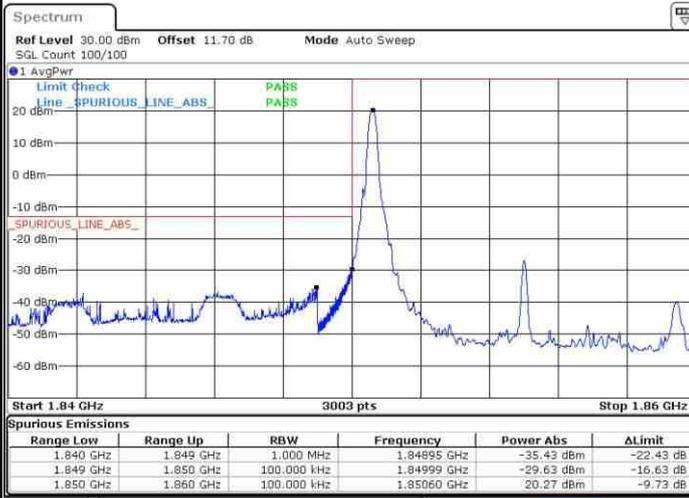


Date: 14 JUN 2019 10:36:32



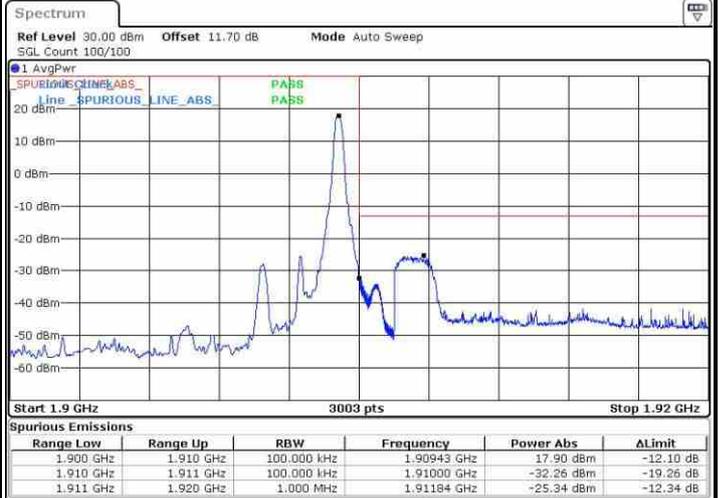
LTE Band 2 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



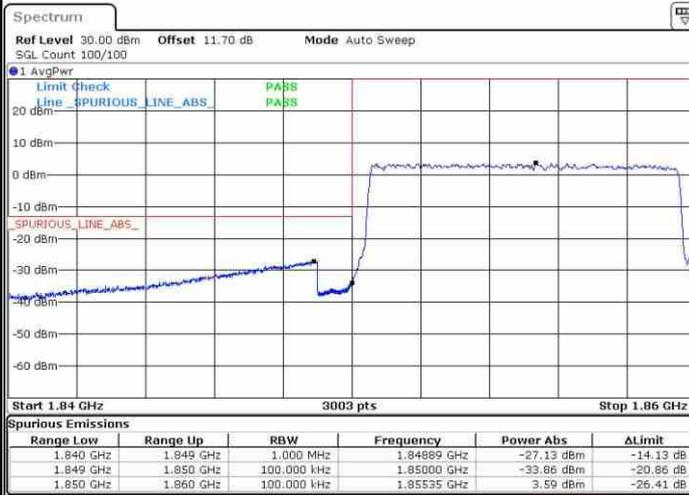
Date: 14 JUN 2019 10:31:29

Highest Band Edge / 1 RB



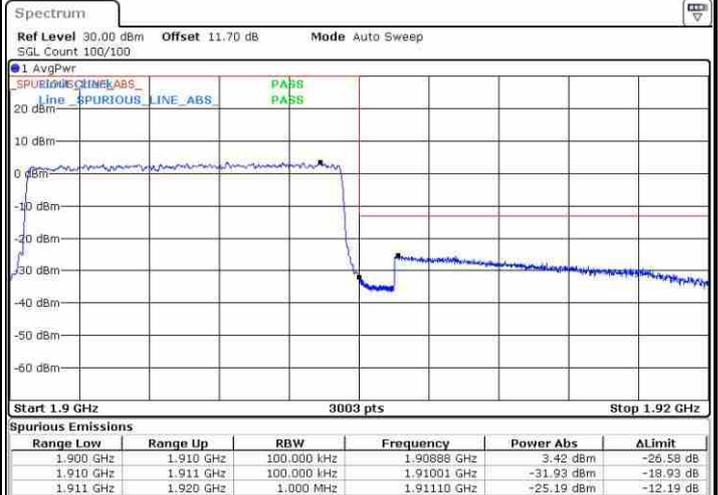
Date: 14 JUN 2019 10:35:31

Lowest Band Edge / Full RB



Date: 14 JUN 2019 10:33:30

Highest Band Edge / Full RB

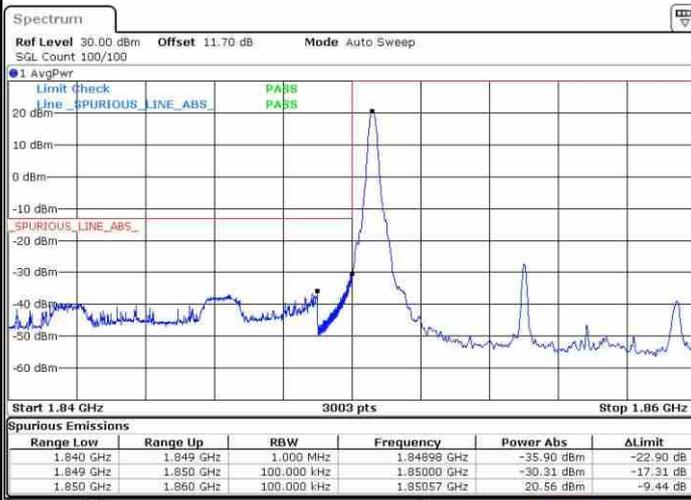


Date: 14 JUN 2019 10:37:32



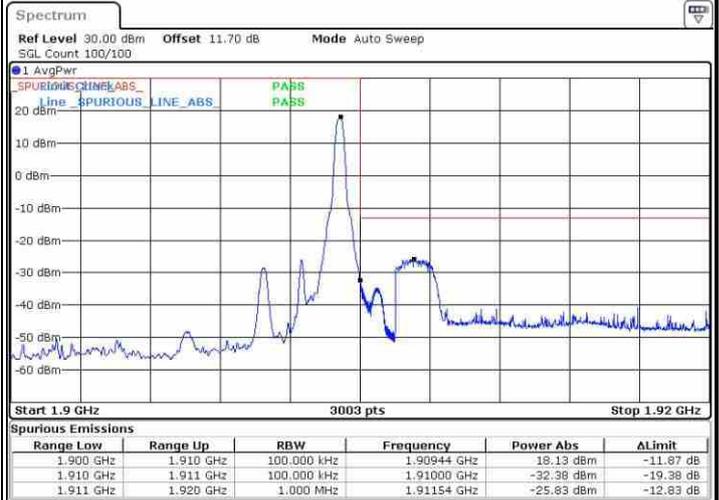
LTE Band 2 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



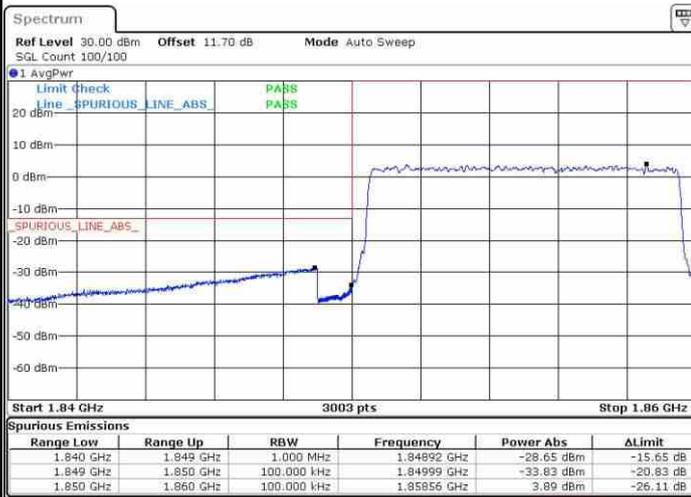
Date: 14 JUN 2019 11:02:44

Highest Band Edge / 1 RB



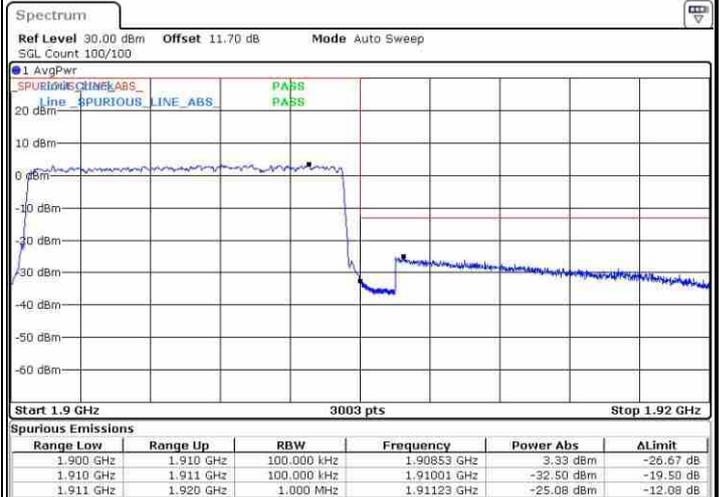
Date: 14 JUN 2019 11:04:44

Lowest Band Edge / Full RB



Date: 14 JUN 2019 11:03:44

Highest Band Edge / Full RB

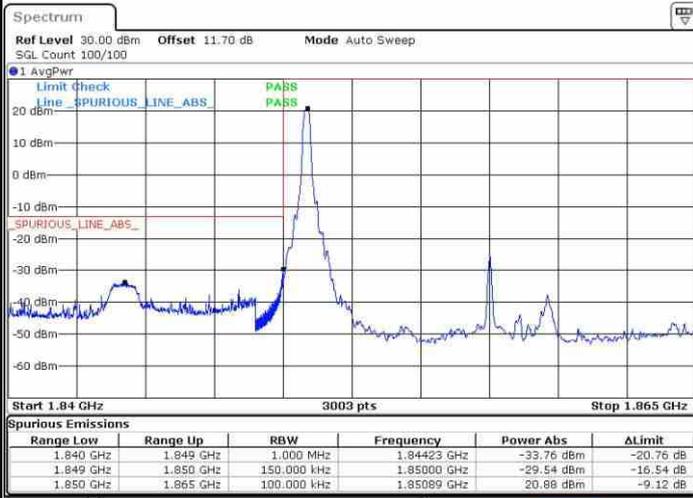


Date: 14 JUN 2019 11:05:45



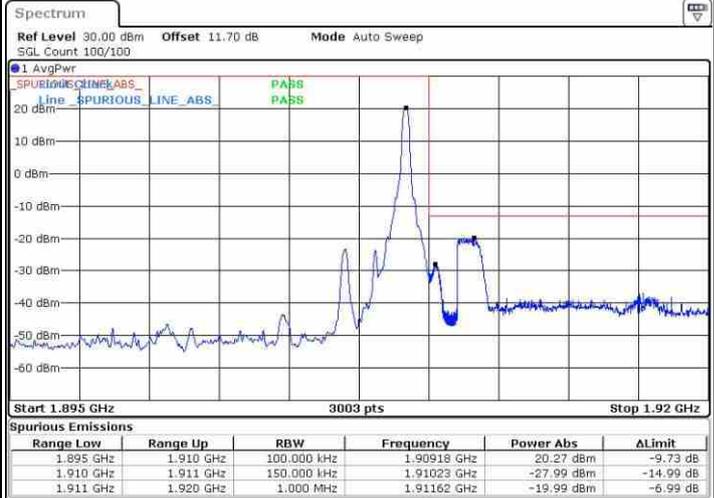
LTE Band 2 / 15MHz / QPSK

Lowest Band Edge / 1 RB



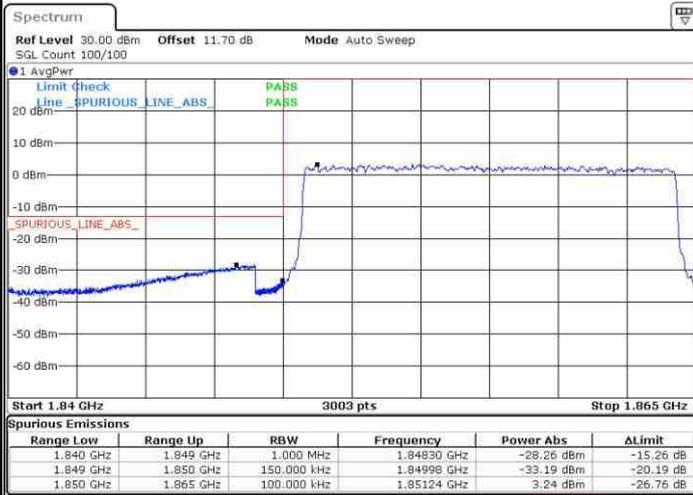
Date: 14 JUN 2019 10:38:33

Highest Band Edge / 1 RB



Date: 14 JUN 2019 10:42:35

Lowest Band Edge / Full RB



Date: 14 JUN 2019 10:40:34

Highest Band Edge / Full RB

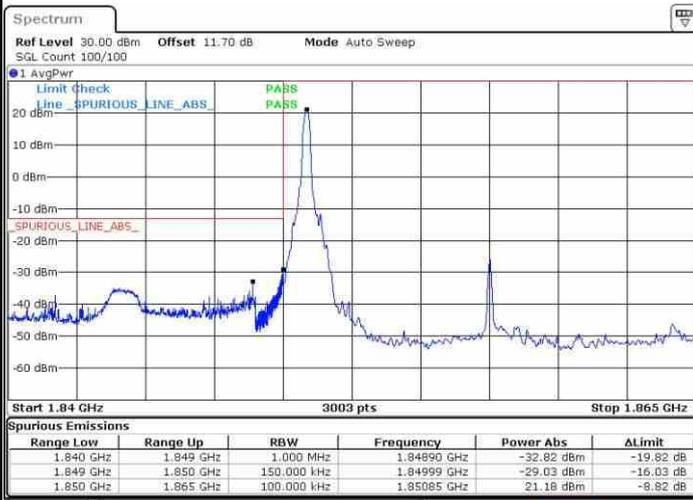


Date: 14 JUN 2019 10:44:36



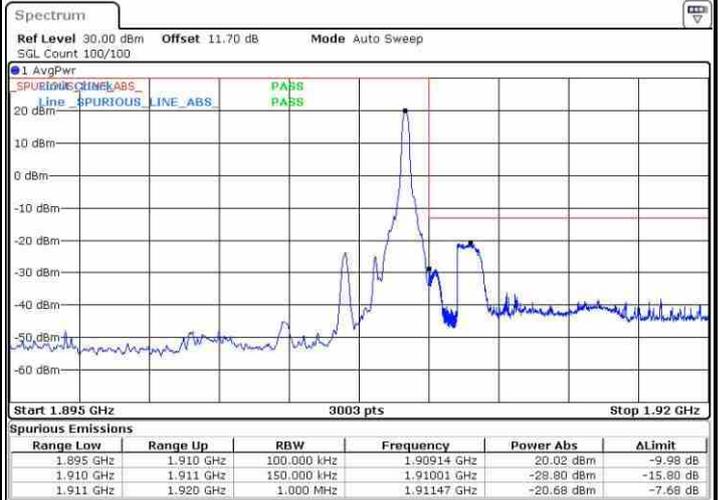
LTE Band 2 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



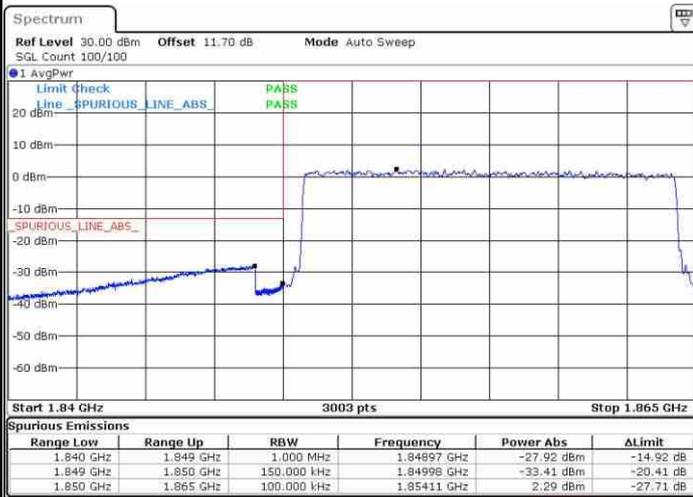
Date: 14 JUN 2019 10:39:33

Highest Band Edge / 1 RB



Date: 14 JUN 2019 10:43:35

Lowest Band Edge / Full RB



Date: 14 JUN 2019 10:41:34

Highest Band Edge / Full RB

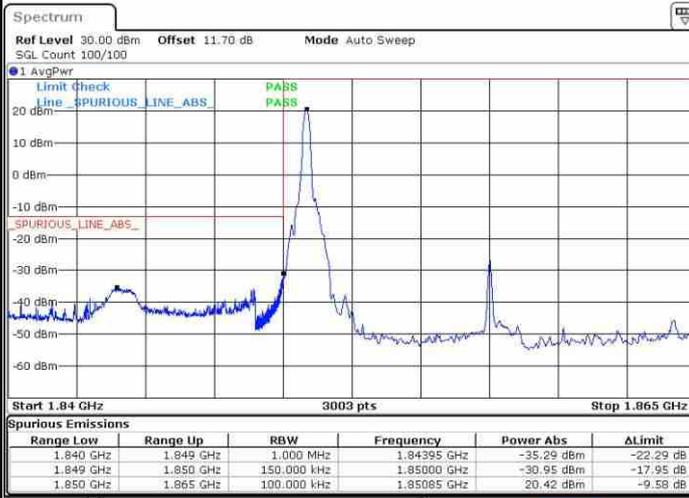


Date: 14 JUN 2019 10:45:36



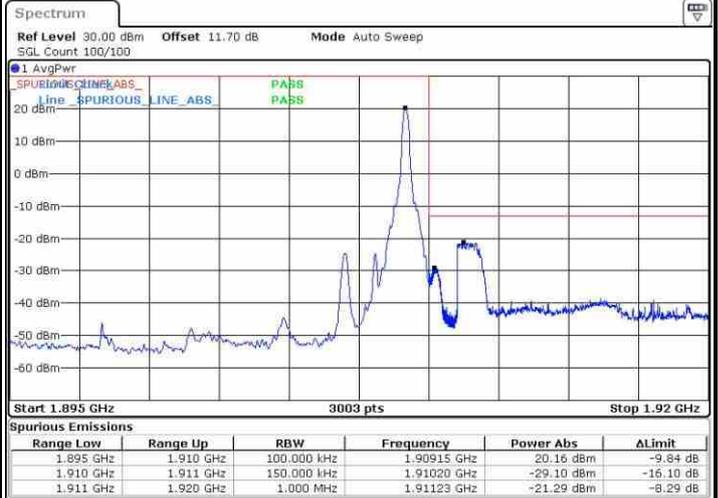
LTE Band 2 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



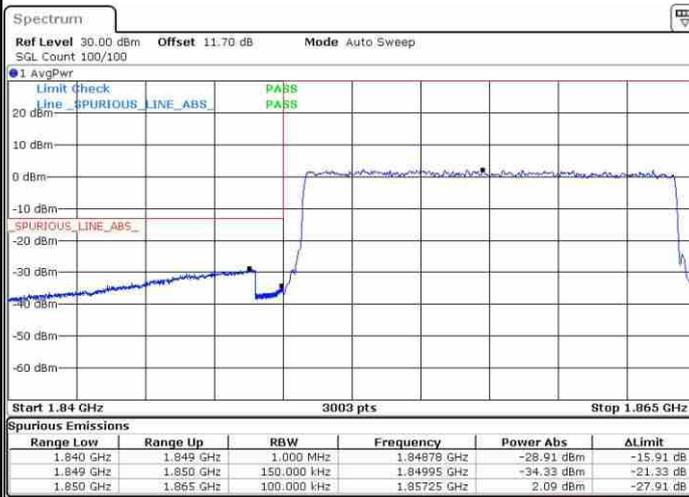
Date: 14 JUN 2019 11:06:45

Highest Band Edge / 1 RB



Date: 14 JUN 2019 11:08:46

Lowest Band Edge / Full RB



Date: 14 JUN 2019 11:07:46

Highest Band Edge / Full RB

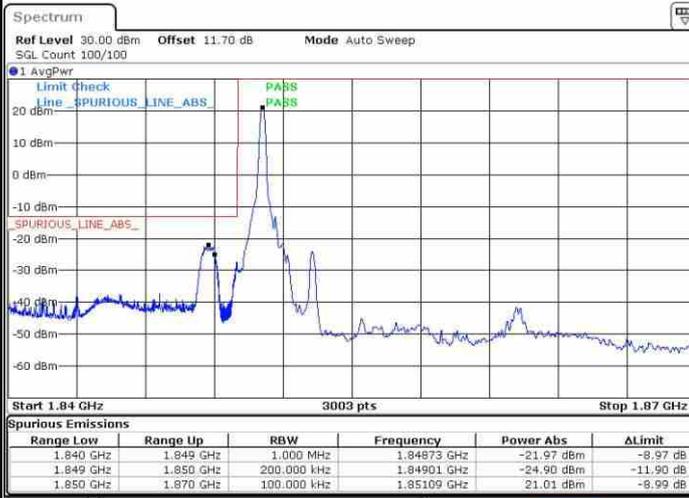


Date: 14 JUN 2019 11:09:46



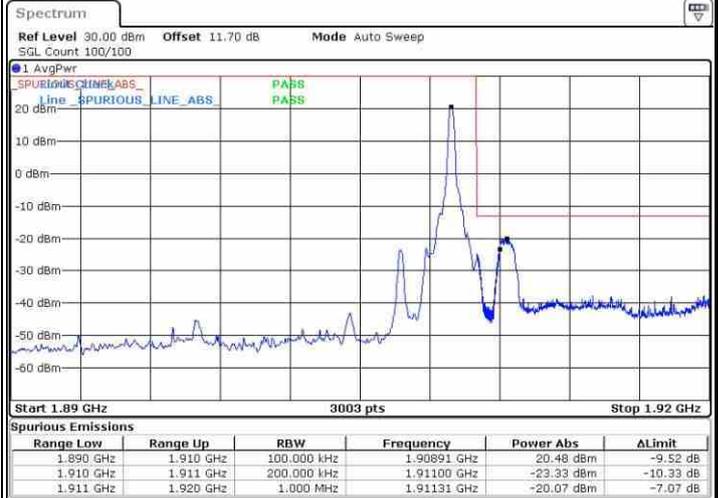
LTE Band 2 / 20MHz / QPSK

Lowest Band Edge / 1 RB



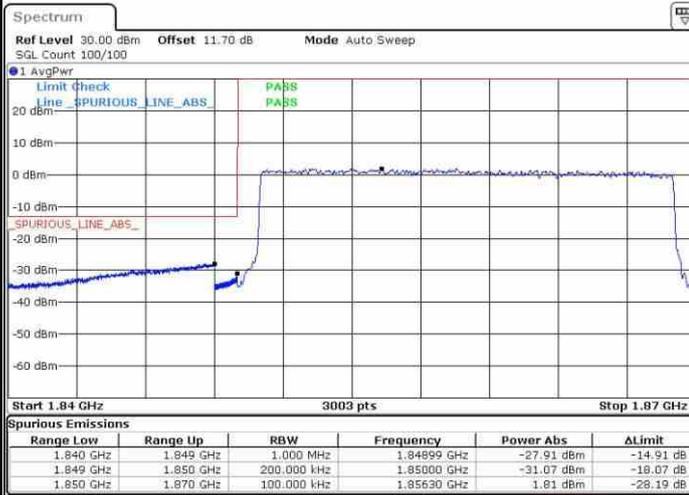
Date: 14 JUN 2019 10:46:37

Highest Band Edge / 1 RB



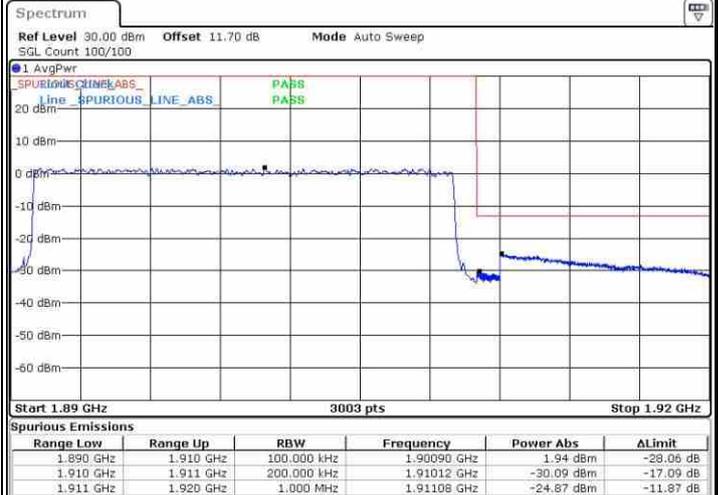
Date: 14 JUN 2019 10:50:38

Lowest Band Edge / Full RB



Date: 14 JUN 2019 10:48:38

Highest Band Edge / Full RB

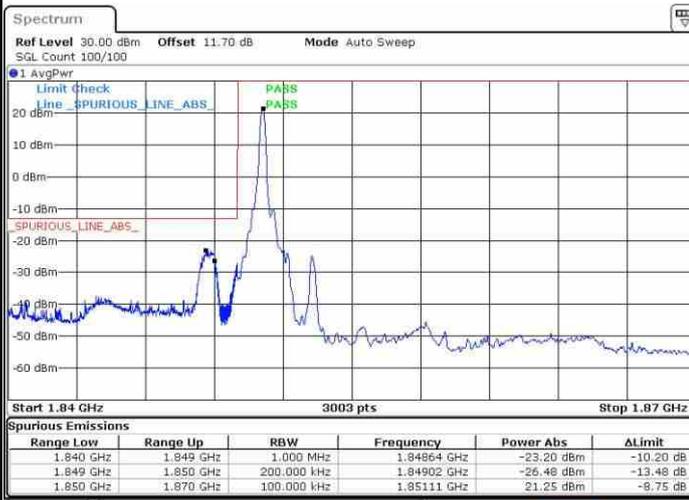


Date: 14 JUN 2019 10:52:39



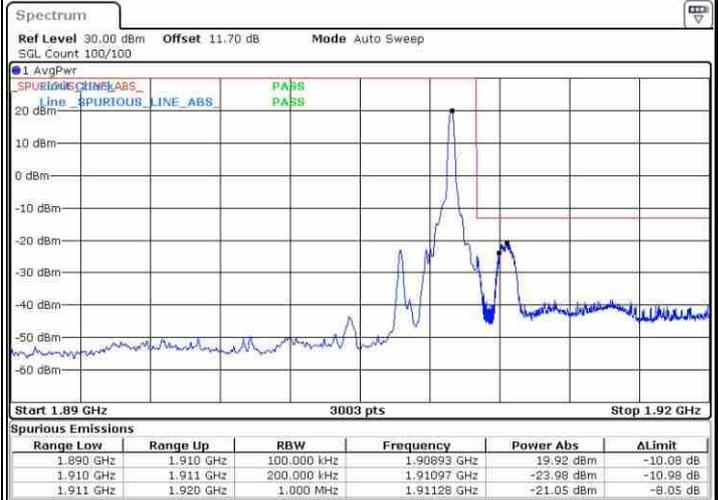
LTE Band 2 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



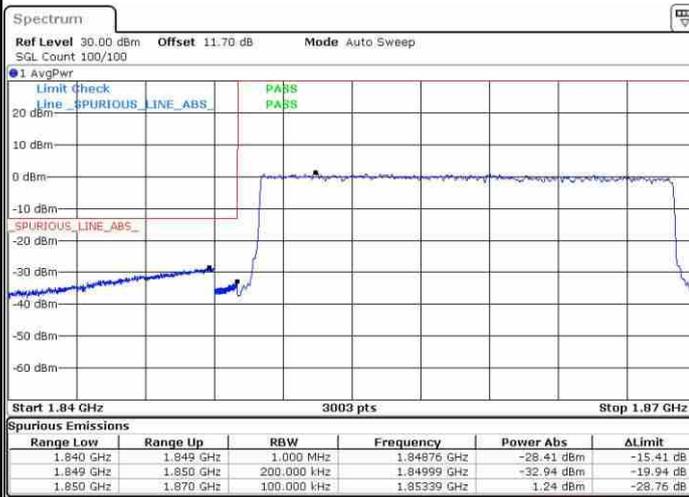
Date: 14 JUN 2019 10:47:37

Highest Band Edge / 1 RB



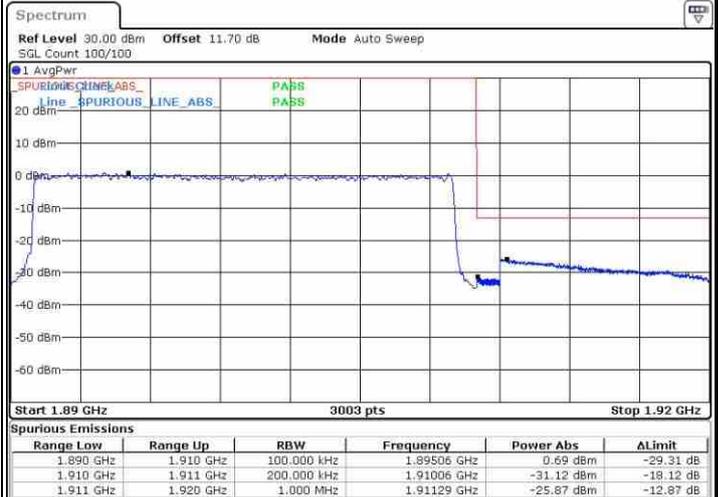
Date: 14 JUN 2019 10:51:39

Lowest Band Edge / Full RB



Date: 14 JUN 2019 10:49:38

Highest Band Edge / Full RB

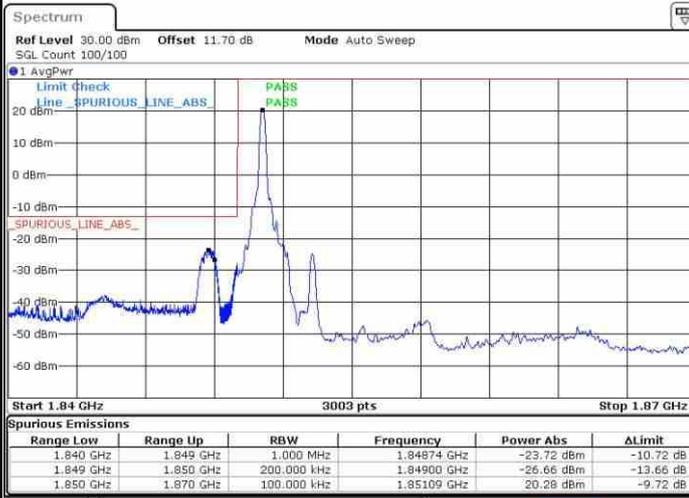


Date: 14 JUN 2019 10:53:39



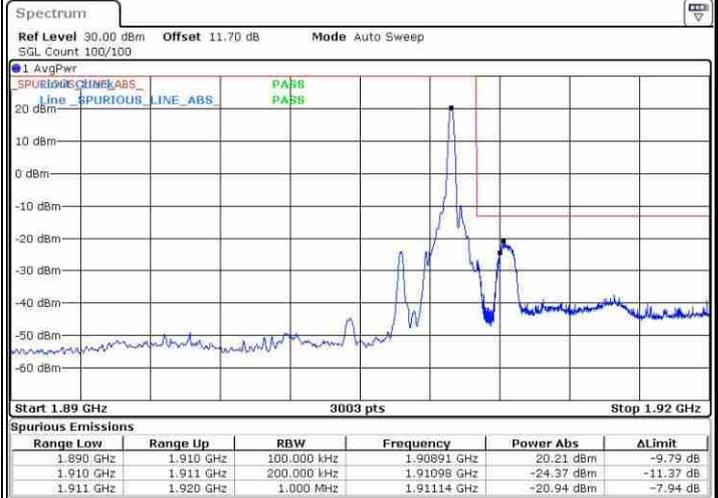
LTE Band 2 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



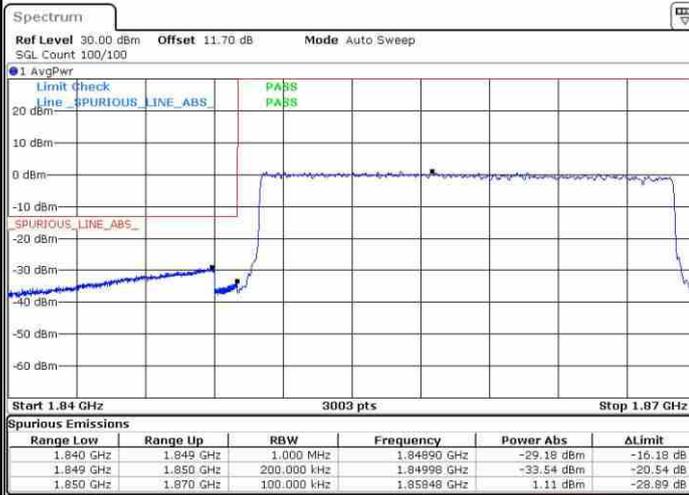
Date: 14 JUN 2019 11:10:47

Highest Band Edge / 1 RB



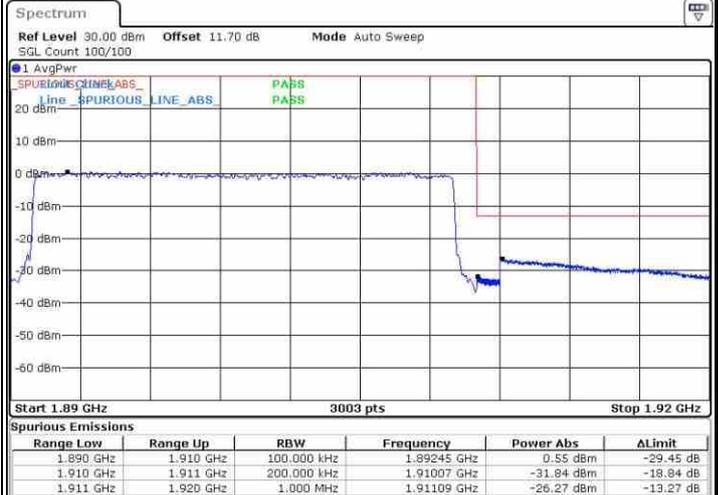
Date: 14 JUN 2019 11:12:48

Lowest Band Edge / Full RB



Date: 14 JUN 2019 11:11:47

Highest Band Edge / Full RB



Date: 14 JUN 2019 11:13:48



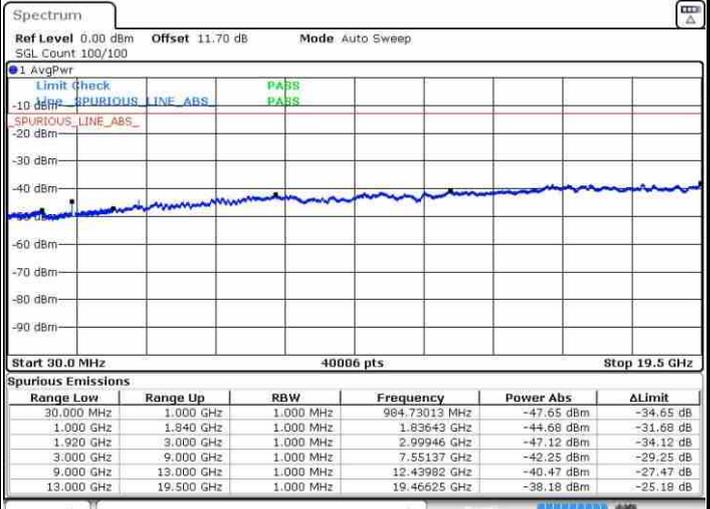
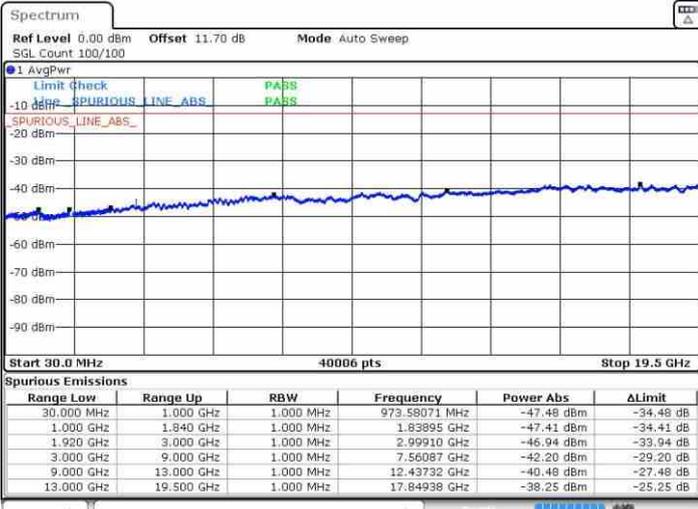
Conducted Spurious Emission



LTE Band 2 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

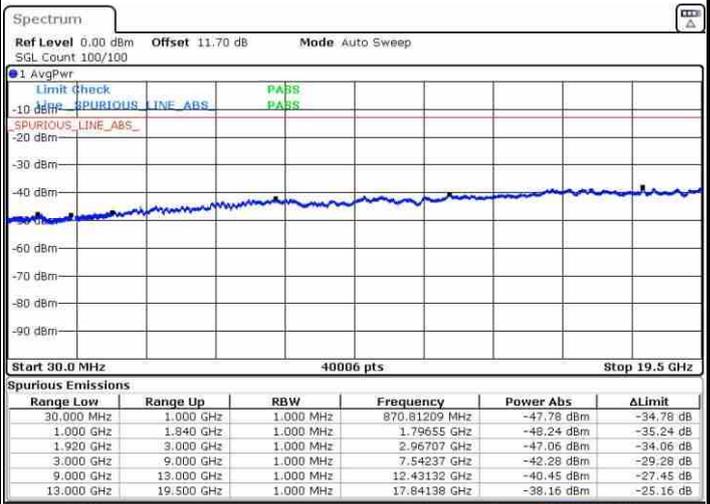
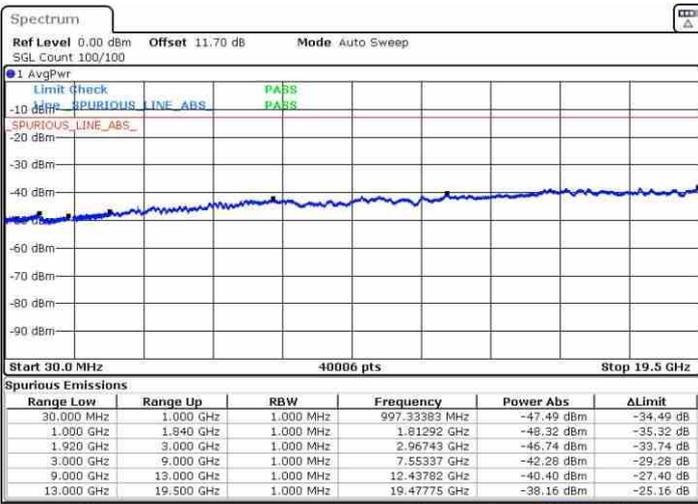


Date: 23 MAY.2019 16:11:54

Date: 23 MAY.2019 16:12:36

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 23 MAY.2019 16:14:04

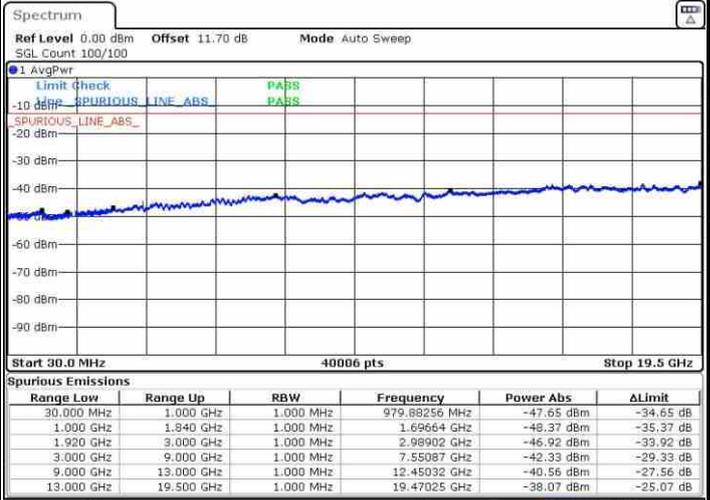
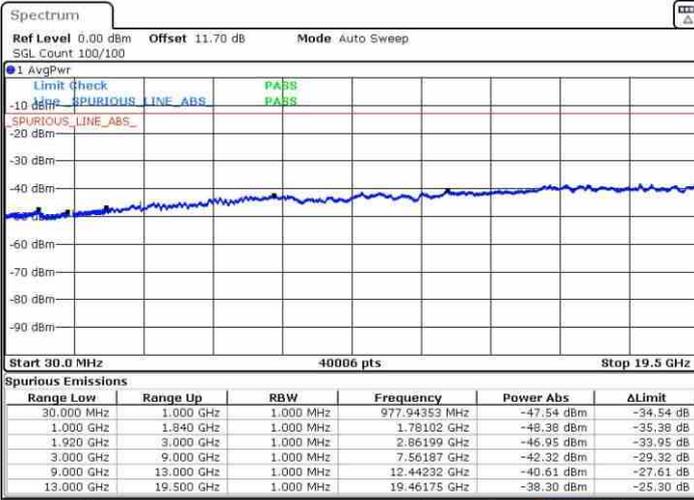
Date: 23 MAY.2019 16:14:45



LTE Band 2 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



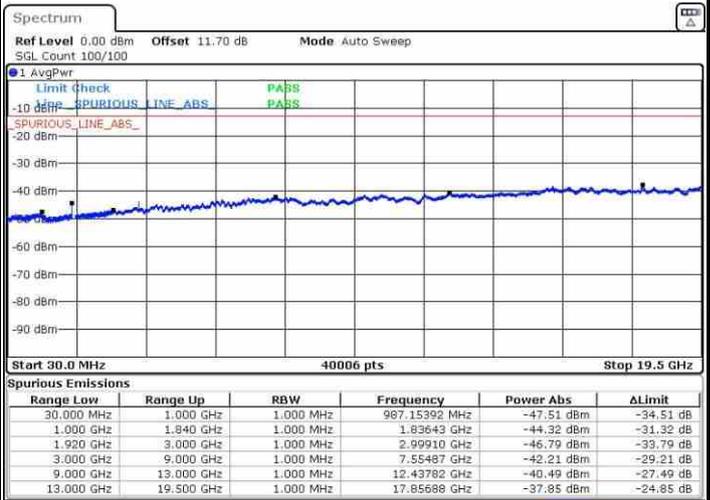
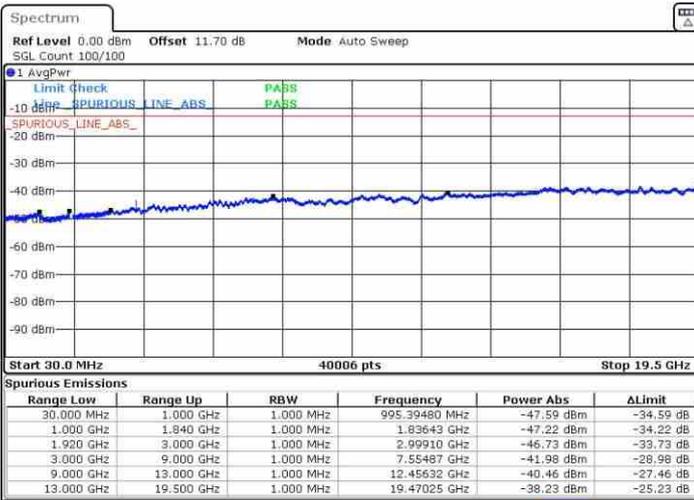
Date: 23 MAY 2019 16:20:33

Date: 23 MAY 2019 16:21:15

LTE Band 2 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 23 MAY 2019 13:50:29

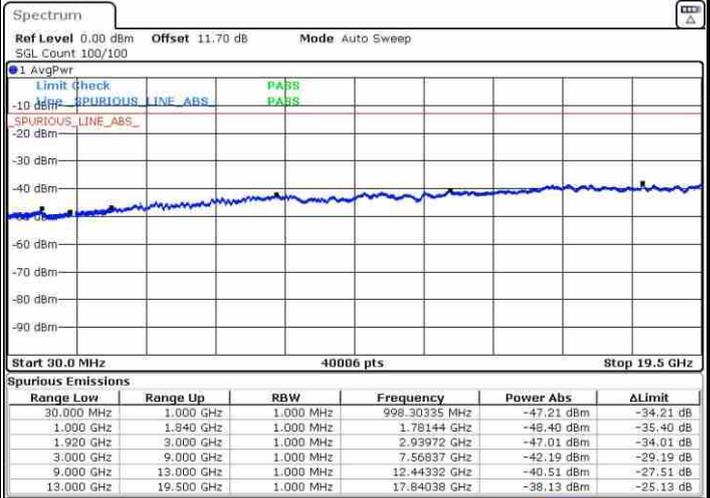
Date: 23 MAY 2019 13:51:11



LTE Band 2 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

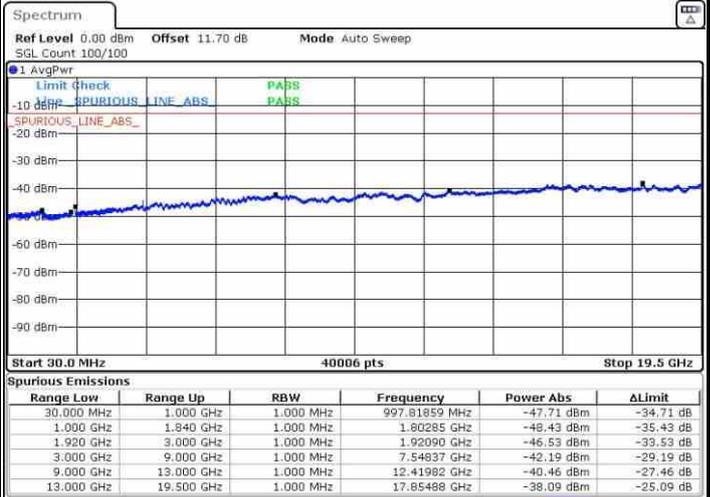


Date: 23 MAY 2019 13:52:39

Date: 23 MAY 2019 13:53:20

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 23 MAY 2019 13:57:39

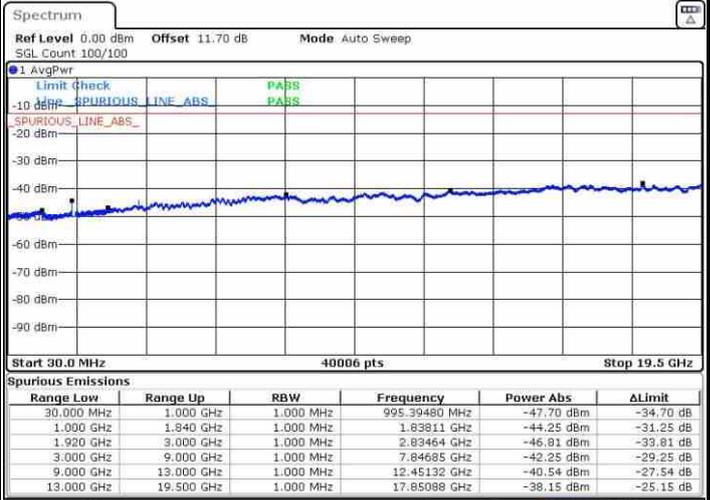
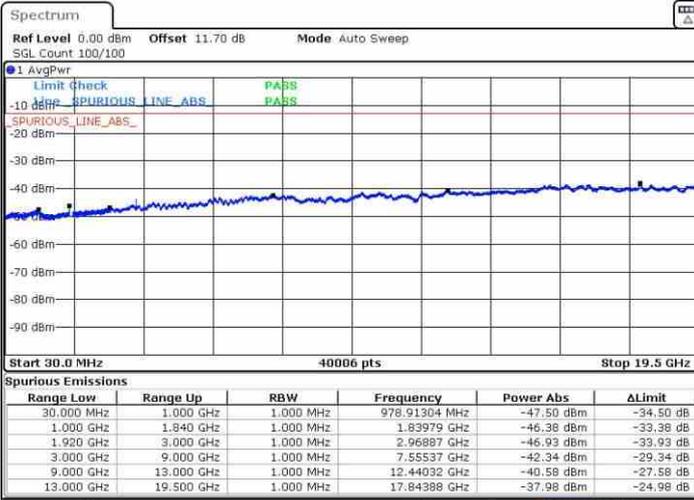
Date: 23 MAY 2019 13:58:20



LTE Band 2 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

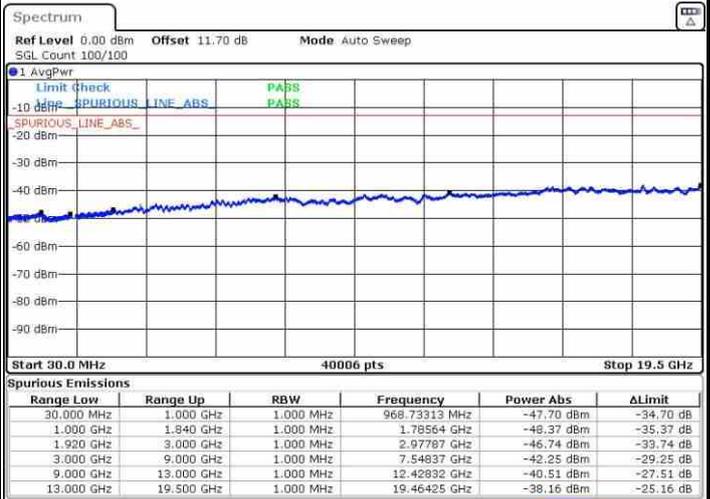


Date: 23 MAY 2019 14:02:36

Date: 23 MAY 2019 14:03:17

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 23 MAY 2019 14:04:46

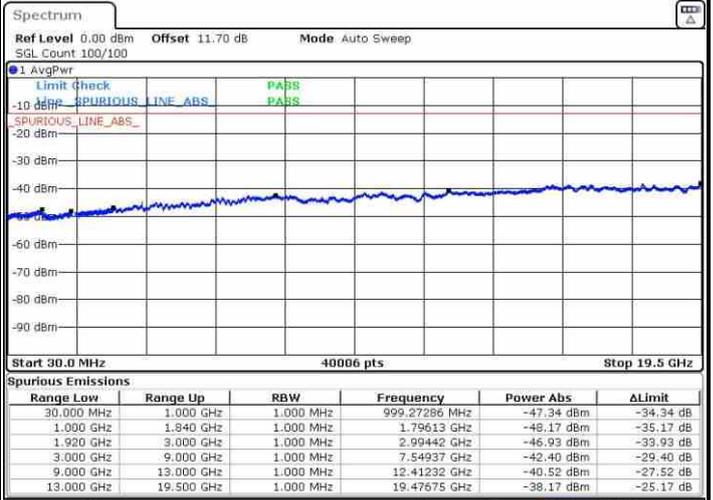
Date: 23 MAY 2019 14:05:27



LTE Band 2 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



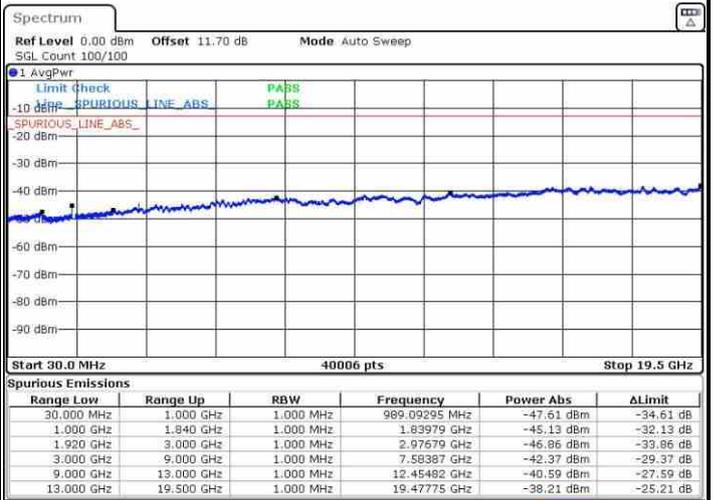
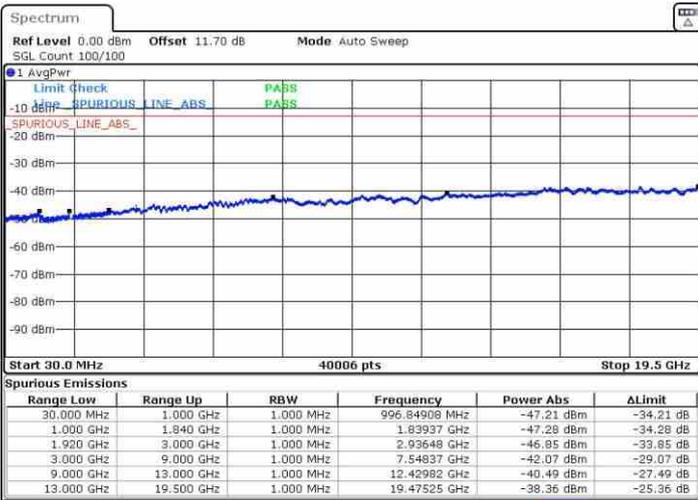
Date: 23 MAY 2019 14:09:42

Date: 23 MAY 2019 14:10:26

LTE Band 2 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 23 MAY 2019 14:14:52

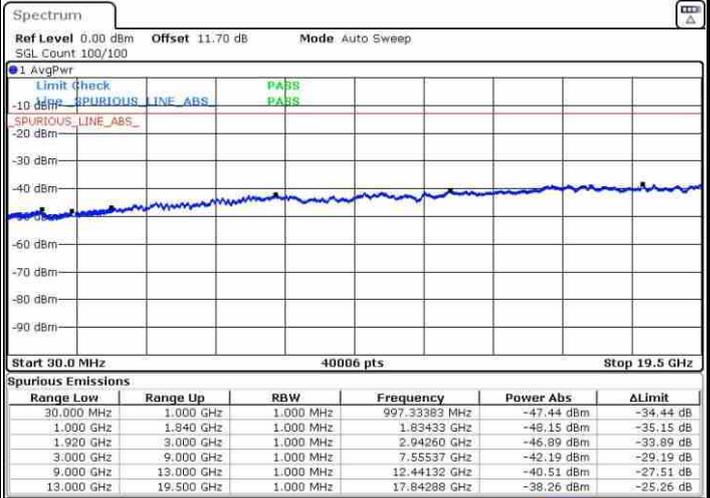
Date: 23 MAY 2019 14:15:34



LTE Band 2 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

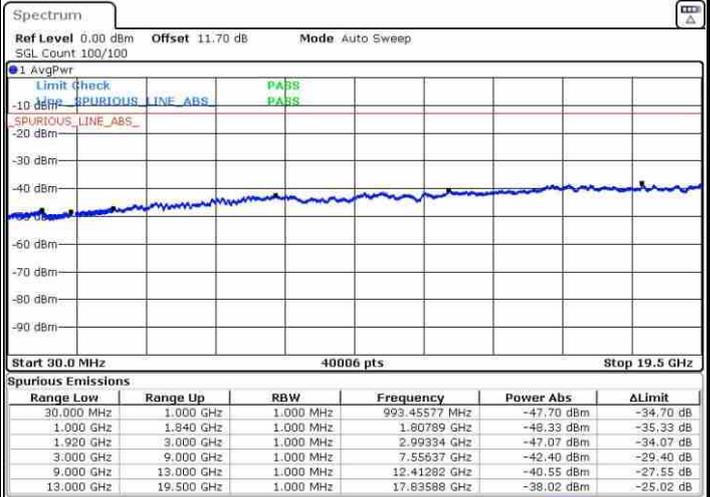


Date: 23 MAY 2019 14:17:05

Date: 23 MAY 2019 14:17:47

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 23 MAY 2019 14:22:07

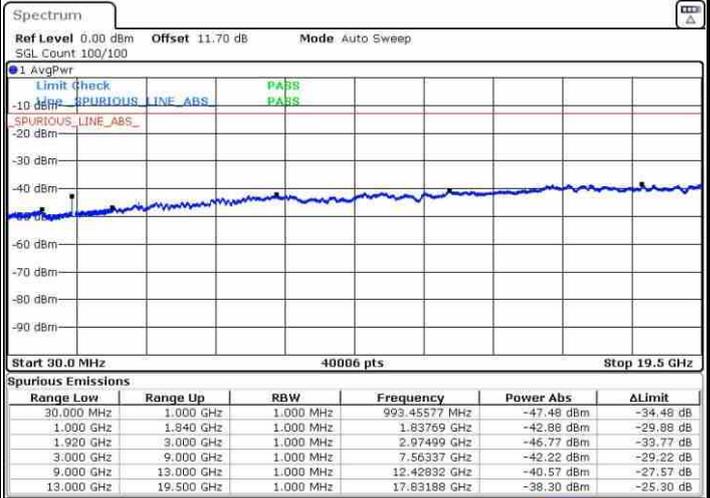
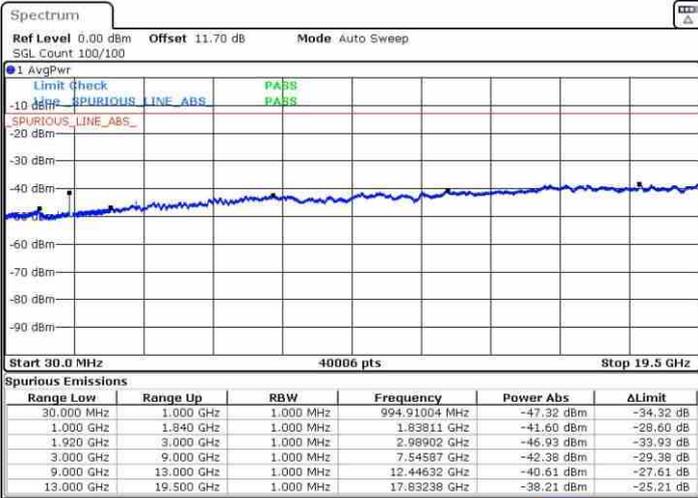
Date: 23 MAY 2019 14:22:48



LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

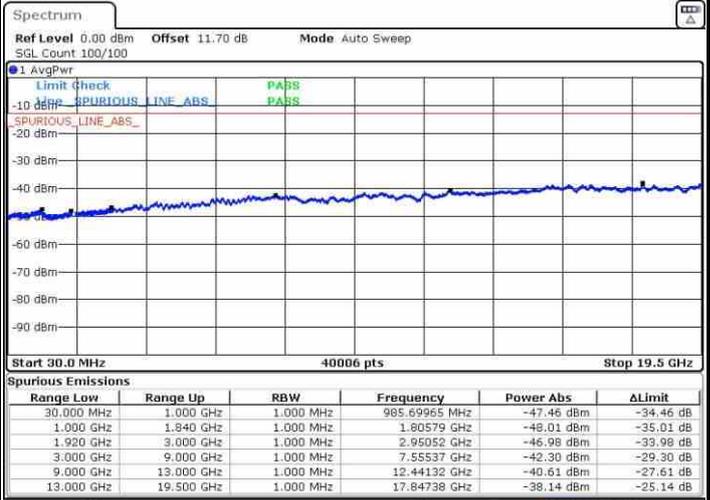


Date: 23 MAY.2019 14:27:04

Date: 23 MAY.2019 14:27:45

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 23 MAY.2019 14:28:19

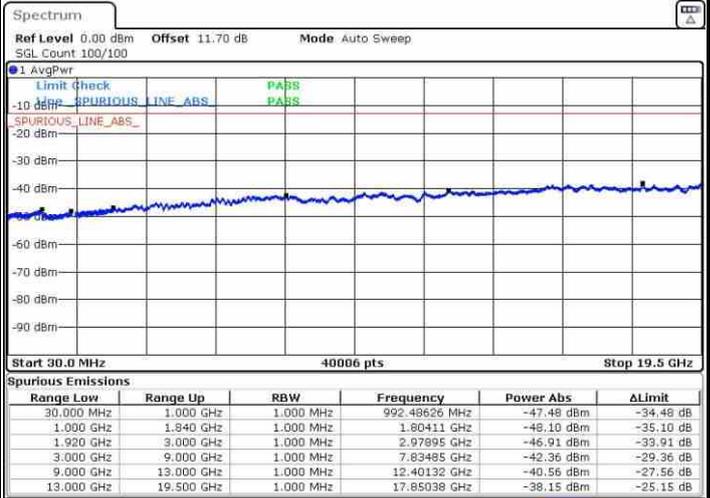
Date: 23 MAY.2019 14:30:03



LTE Band 2 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



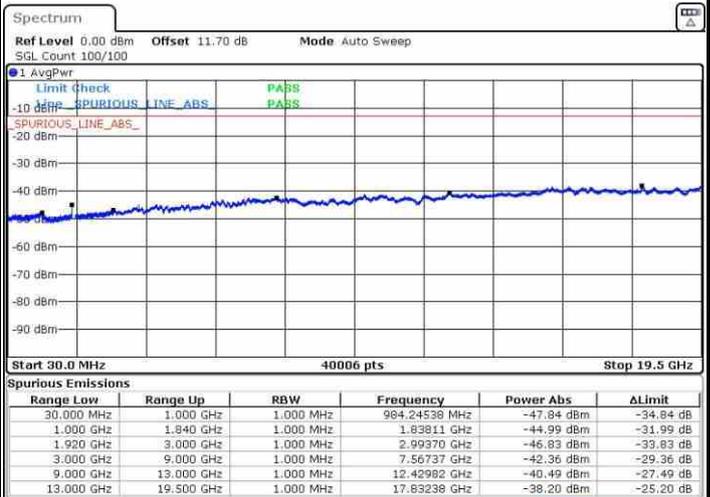
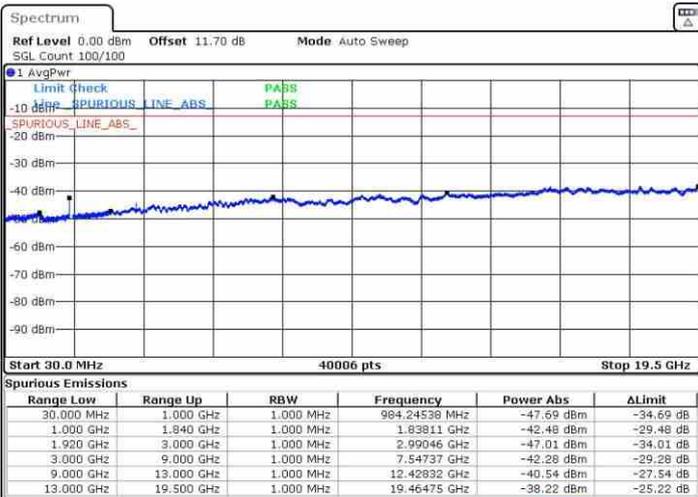
Date: 23 MAY 2019 14:34:26

Date: 23 MAY 2019 14:35:07

LTE Band 2 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 23 MAY 2019 14:39:23

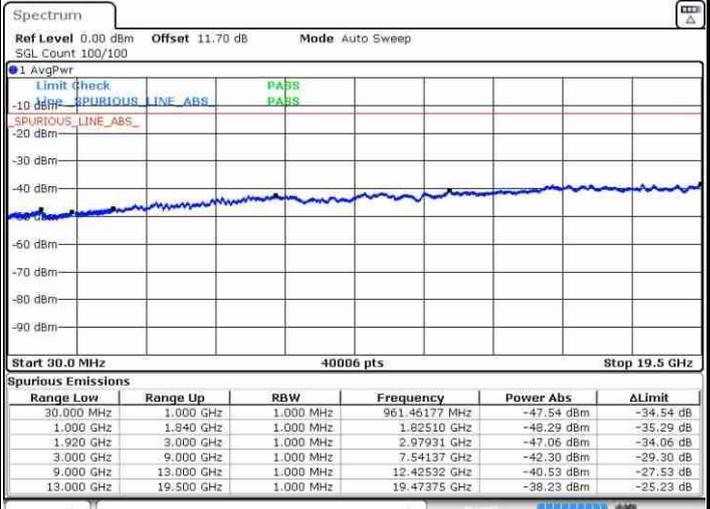
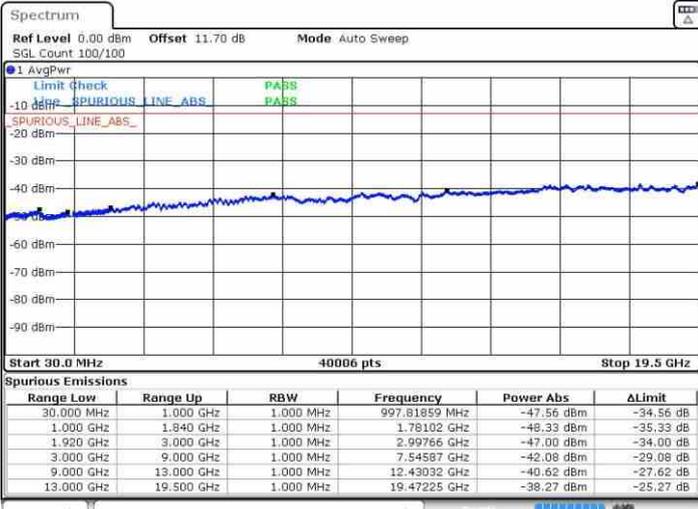
Date: 23 MAY 2019 14:40:05



LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

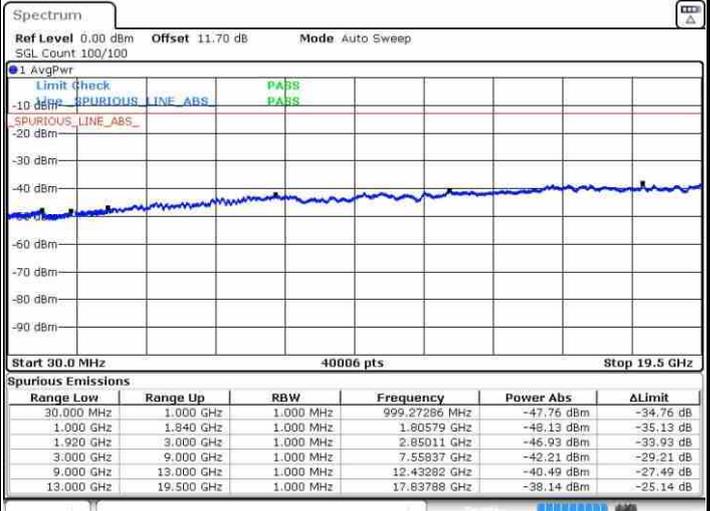
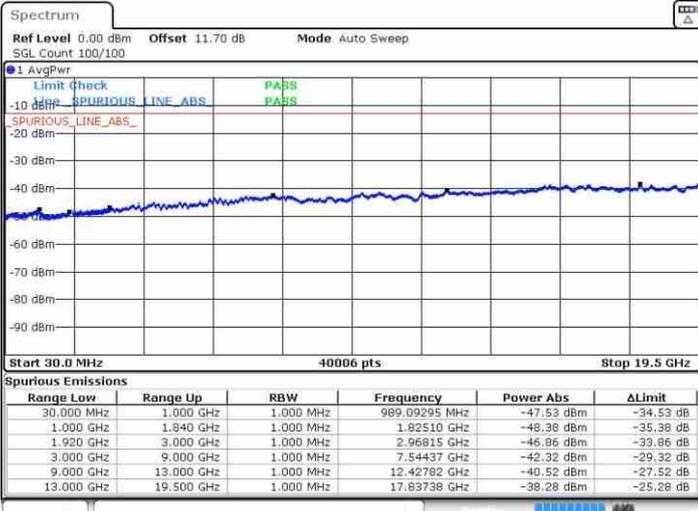


Date: 23 MAY 2019 14:41:33

Date: 23 MAY 2019 14:42:16

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 23 MAY 2019 14:46:43

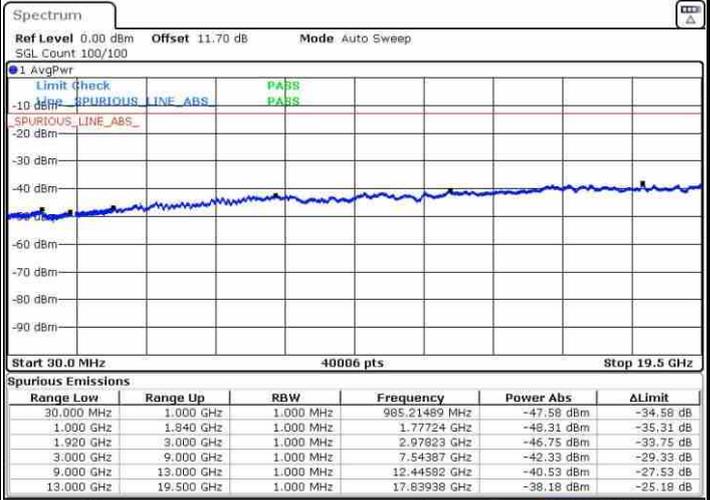
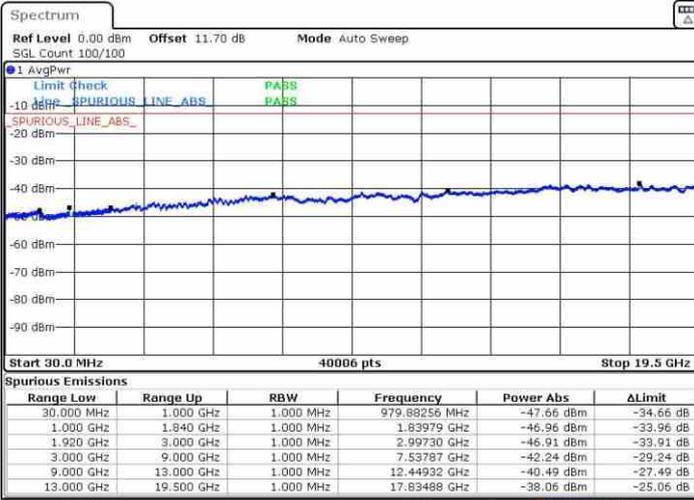
Date: 23 MAY 2019 14:47:27



LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Date: 23 MAY.2019 16:01:46

Date: 23 MAY.2019 16:02:51

Highest Channel / 64QAM



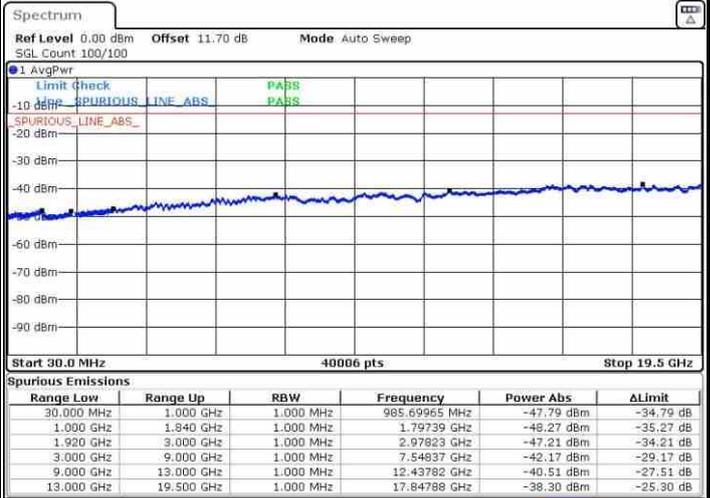
Date: 23 MAY.2019 16:08:05



LTE Band 2 / 3MHz

Lowest Channel / 64QAM

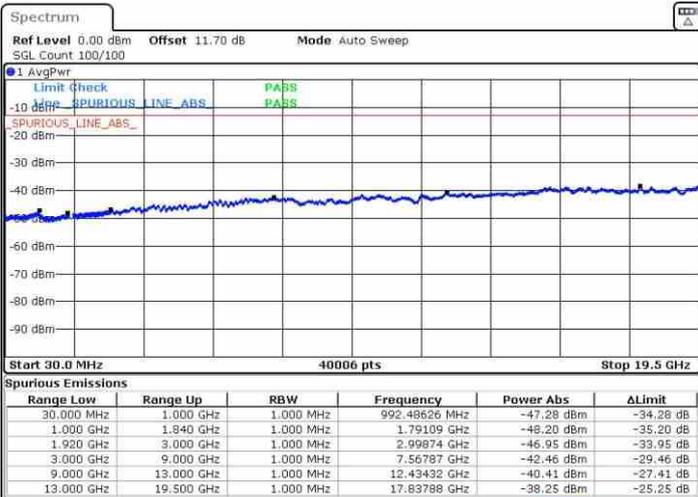
Middle Channel / 64QAM



Date: 23 MAY 2019 14:50:07

Date: 23 MAY 2019 14:51:13

Highest Channel / 64QAM



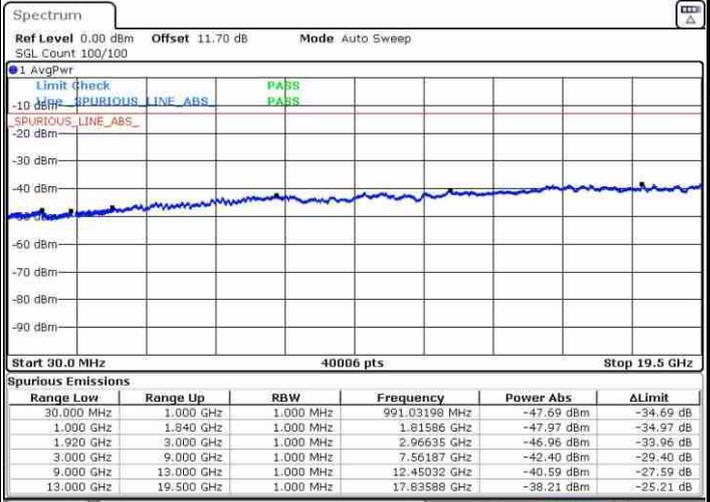
Date: 23 MAY 2019 14:53:48



LTE Band 2 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Date: 23 MAY 2019 14:56:19

Date: 23 MAY 2019 14:57:23

Highest Channel / 64QAM



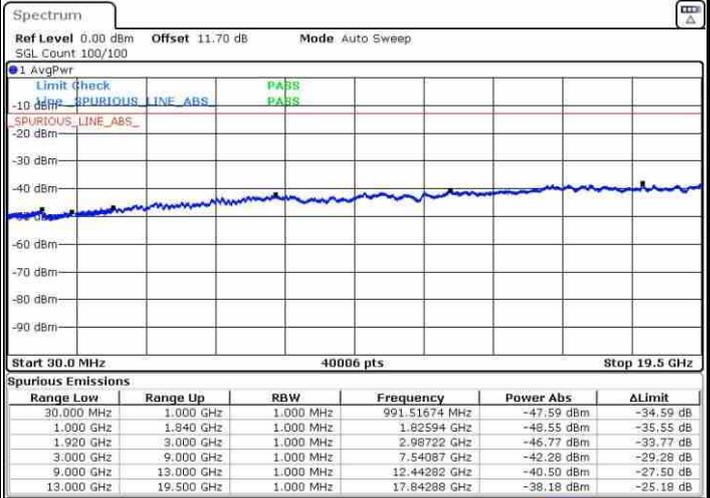
Date: 23 MAY 2019 15:00:02



LTE Band 2 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Date: 23 MAY 2019 15:02:35

Date: 23 MAY 2019 15:03:44

Highest Channel / 64QAM



Date: 23 MAY 2019 15:06:12



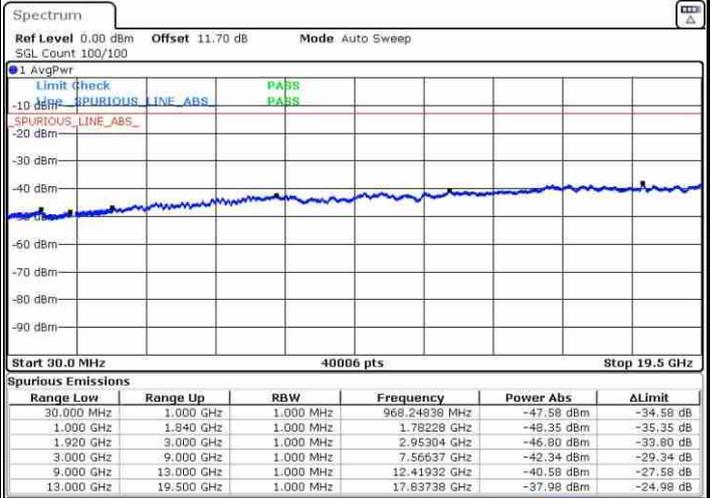
LTE Band 2 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Date: 23 MAY.2019 15:08:41



Date: 23 MAY.2019 15:08:45

Highest Channel / 64QAM



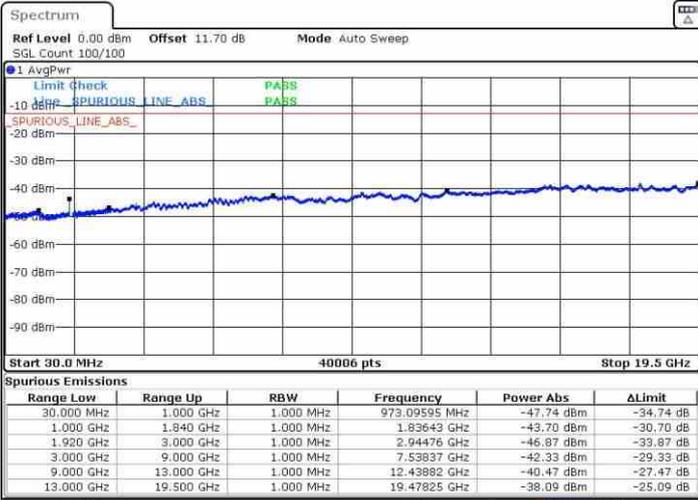
Date: 23 MAY.2019 15:12:13



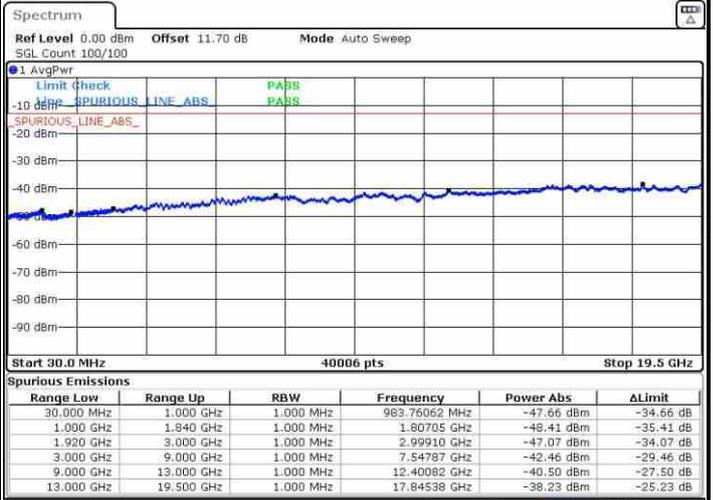
LTE Band 2 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

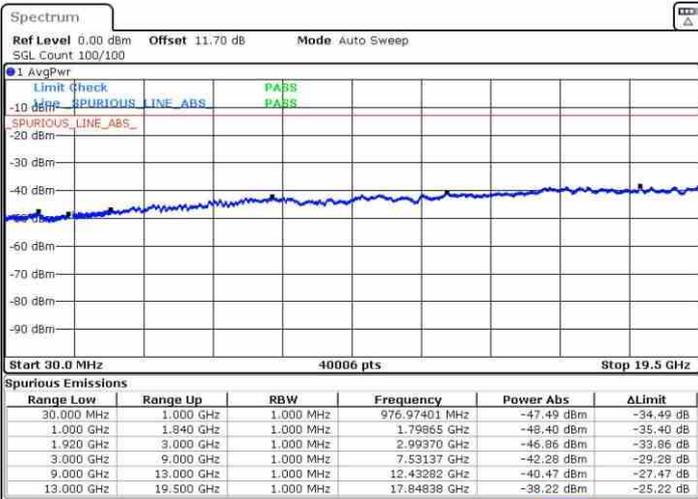


Date: 23 MAY 2019 15:14:41



Date: 23 MAY 2019 15:15:46

Highest Channel / 64QAM



Date: 23 MAY 2019 15:18:14



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	0.0028	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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	3.54	4.52	4.00	5.62	PASS
Middle CH	3.48	4.55	4.12	5.65	
Highest CH	3.65	4.58	3.97	5.59	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.45	6.58	-	-	PASS
Middle CH	5.33	5.77	-	-	
Highest CH	4.09	5.74	-	-	



LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 23 MAY 2019 19:00:31

Lowest Channel / Full RB



Date: 23 MAY 2019 19:00:42

Middle Channel / 1RB



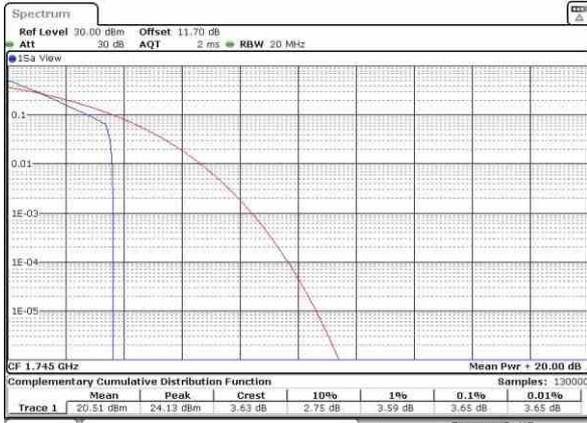
Date: 23 MAY 2019 19:00:52

Middle Channel / Full RB



Date: 23 MAY 2019 19:01:02

Highest Channel / 1RB



Date: 23 MAY 2019 19:01:13

Highest Channel / Full RB

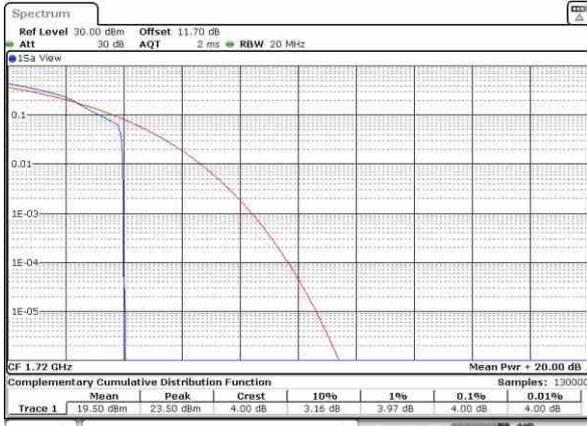


Date: 23 MAY 2019 19:01:23



LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 23 MAY 2019 18:59:10

Lowest Channel / Full RB



Date: 23 MAY 2019 18:59:22

Middle Channel / 1RB



Date: 23 MAY 2019 18:59:32

Middle Channel / Full RB



Date: 23 MAY 2019 18:59:42

Highest Channel / 1RB



Date: 23 MAY 2019 19:00:09

Highest Channel / Full RB



Date: 23 MAY 2019 19:00:20



LTE Band 4 / 20MHz / 64QAM

Lowest Channel / 1RB



Date: 23 MAY 2019 19:01:34

Lowest Channel / Full RB



Date: 23 MAY 2019 19:01:45

Middle Channel / 1RB



Date: 23 MAY 2019 19:01:55

Middle Channel / Full RB



Date: 25 MAY 2019 08:13:44

Highest Channel / 1RB



Date: 25 MAY 2019 08:14:23

Highest Channel / Full RB



Date: 25 MAY 2019 08:14:06



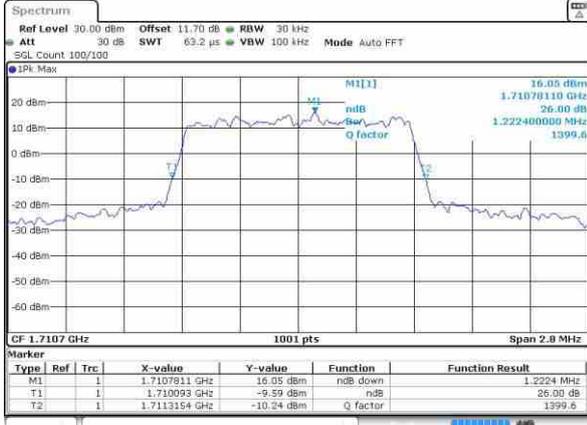
26dB Bandwidth

Mode	LTE Band 4 : 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	1.22	1.23	3.00	3.04	4.93	4.87	9.67	9.65	14.18	14.42	18.86	19.06
Middle CH	1.22	1.24	3.06	3.02	4.94	4.86	9.79	9.87	14.48	14.60	18.70	18.90
Highest CH	1.23	1.24	3.03	2.98	4.98	4.87	9.91	9.81	14.39	14.39	19.06	18.94
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.24	-	3.02	-	4.92	-	9.77	-	14.24	-	18.82	-
Middle CH	1.23	-	3.00	-	4.87	-	9.87	-	14.62	-	18.98	-
Highest CH	1.23	-	3.01	-	4.92	-	9.71	-	14.42	-	19.22	-



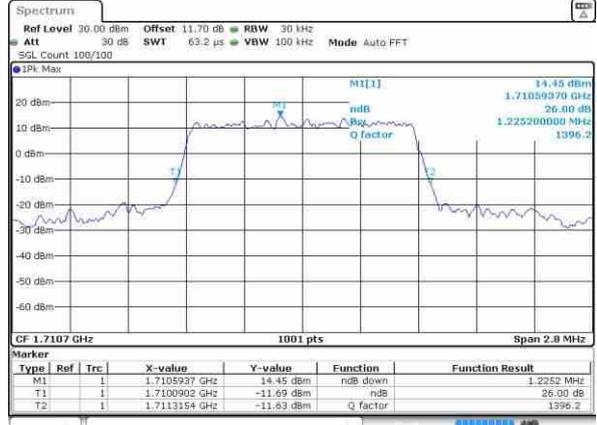
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



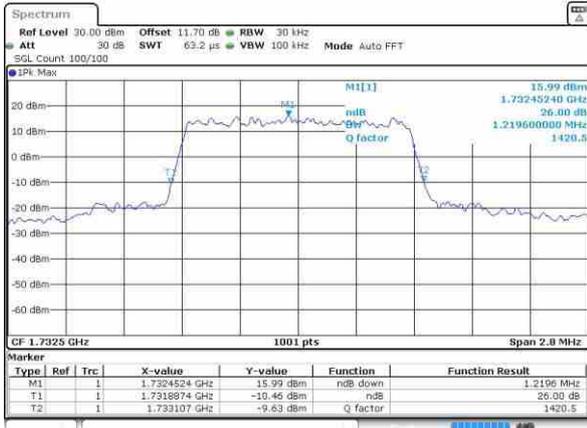
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Lowest Channel / 1.4MHz / 16QAM



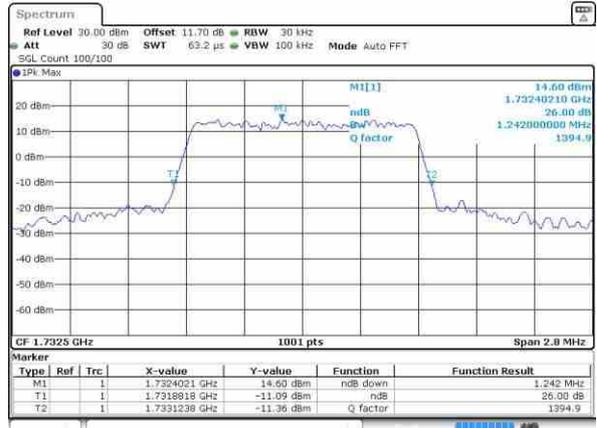
Date: 23 MAY 2019 16:47:07

Middle Channel / 1.4MHz / QPSK



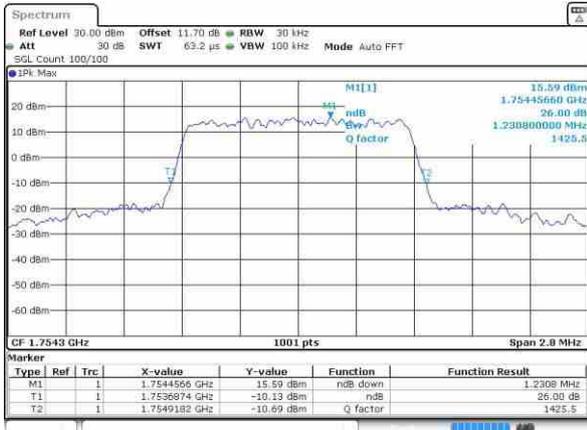
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Middle Channel / 1.4MHz / 16QAM



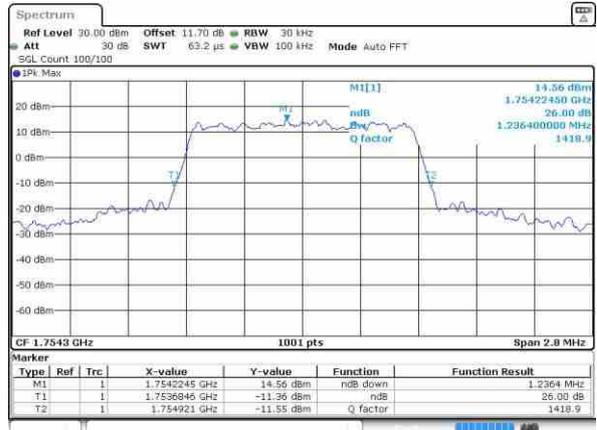
Date: 23 MAY 2019 16:53:36

Highest Channel / 1.4MHz / QPSK



Date: 23 MAY 2019 16:55:34

Highest Channel / 1.4MHz / 16QAM

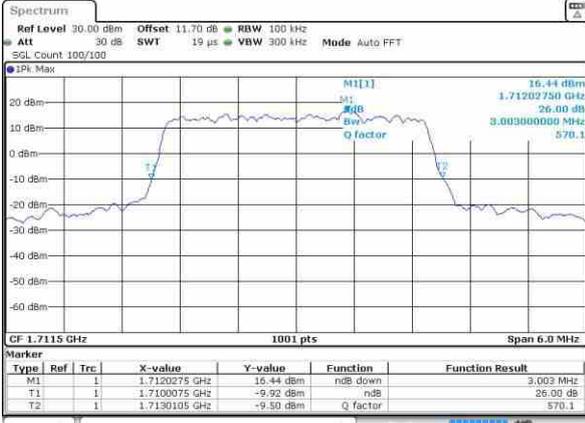


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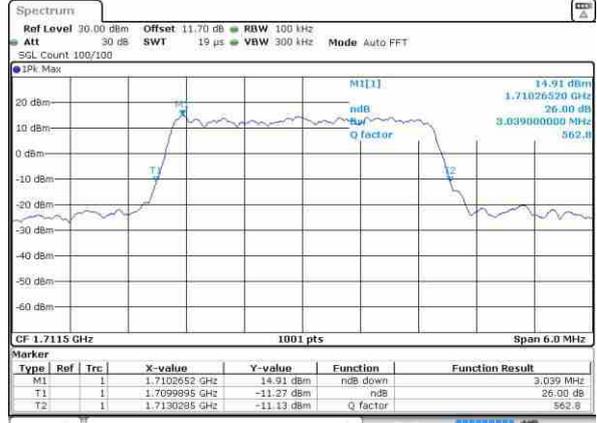
LTE Band 4

Lowest Channel / 3MHz / QPSK



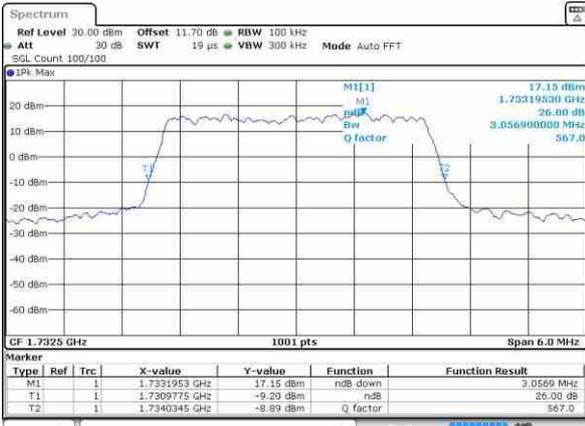
Date: 23 MAY 2019 17:02:05

Lowest Channel / 3MHz / 16QAM



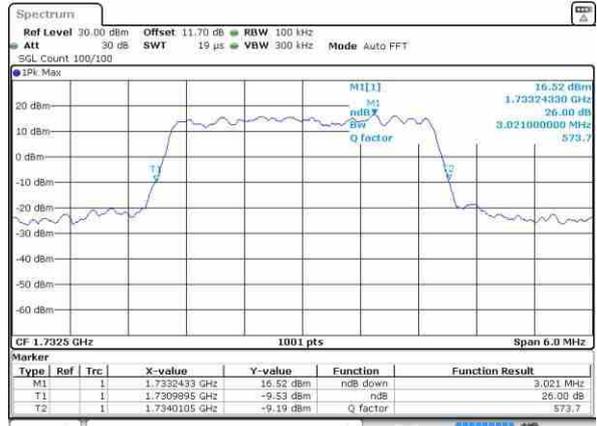
Date: 23 MAY 2019 17:02:18

Middle Channel / 3MHz / QPSK



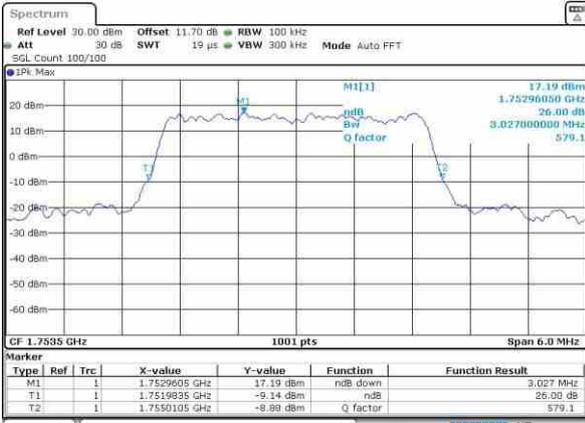
Date: 23 MAY 2019 17:08:23

Middle Channel / 3MHz / 16QAM



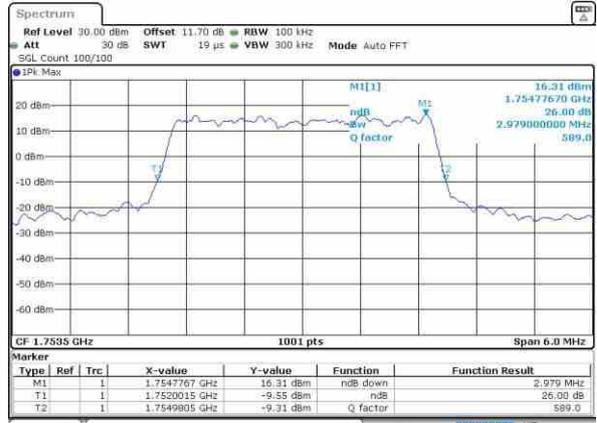
Date: 23 MAY 2019 17:08:35

Highest Channel / 3MHz / QPSK



Date: 23 MAY 2019 17:10:33

Highest Channel / 3MHz / 16QAM

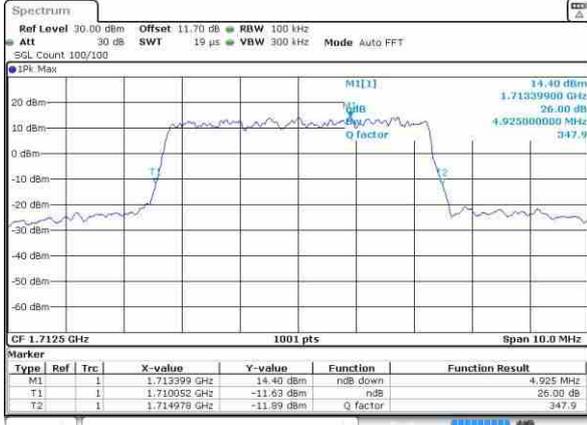


Date: 23 MAY 2019 17:10:45



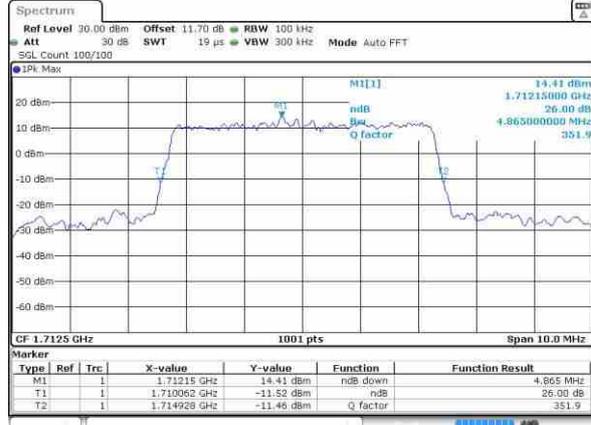
LTE Band 4

Lowest Channel / 5MHz / QPSK



Date: 23 MAY 2019 17:16:50

Lowest Channel / 5MHz / 16QAM



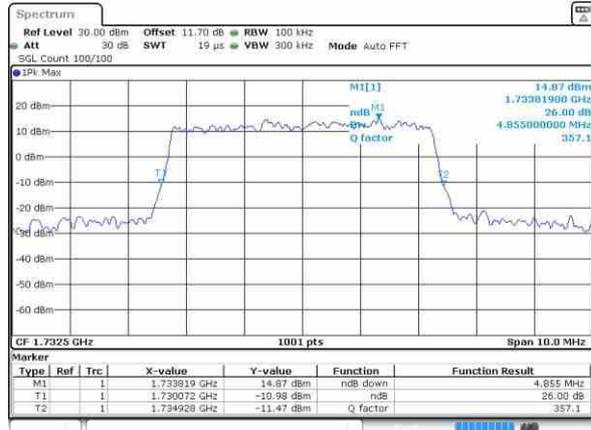
Date: 23 MAY 2019 17:17:02

Middle Channel / 5MHz / QPSK



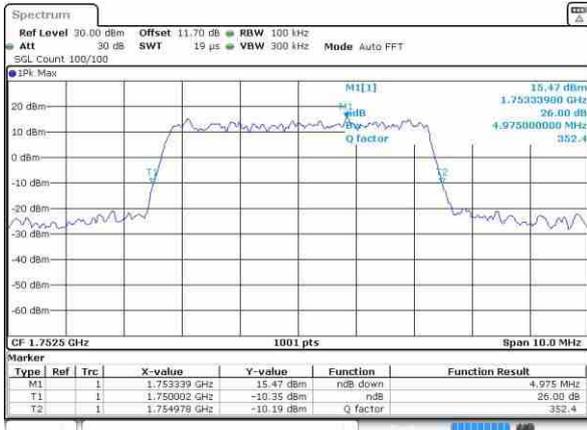
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Middle Channel / 5MHz / 16QAM



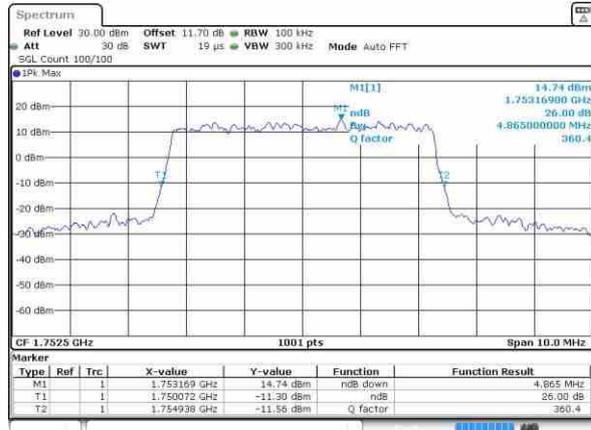
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Highest Channel / 5MHz / QPSK



Date: 23 MAY 2019 17:26:57

Highest Channel / 5MHz / 16QAM

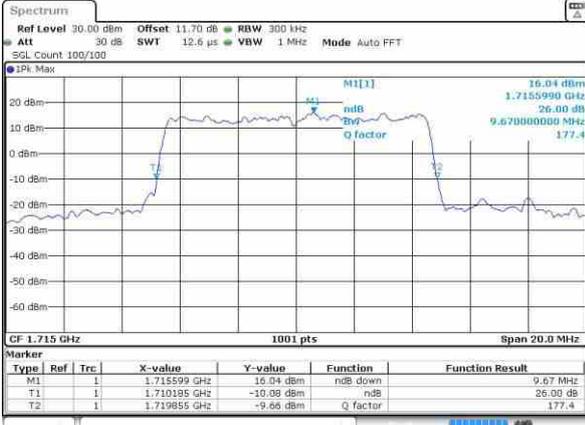


Date: 23 MAY 2019 17:27:09



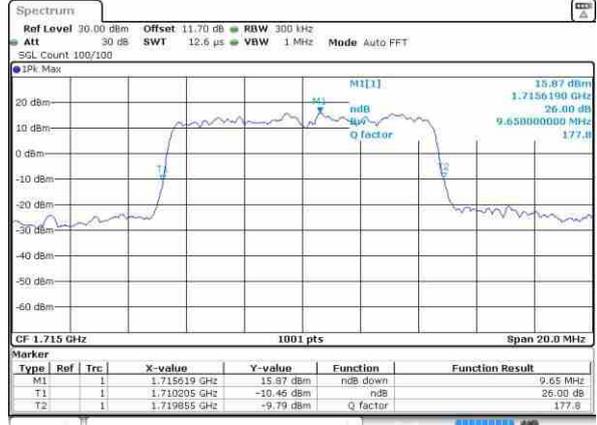
LTE Band 4

Lowest Channel / 10MHz / QPSK



Date: 23 MAY 2019 17:33:16

Lowest Channel / 10MHz / 16QAM



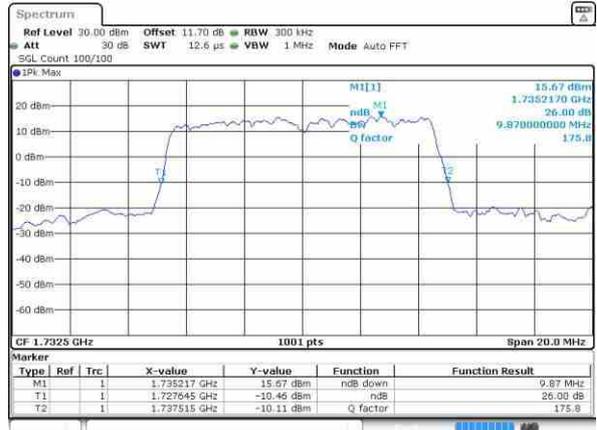
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Middle Channel / 10MHz / QPSK



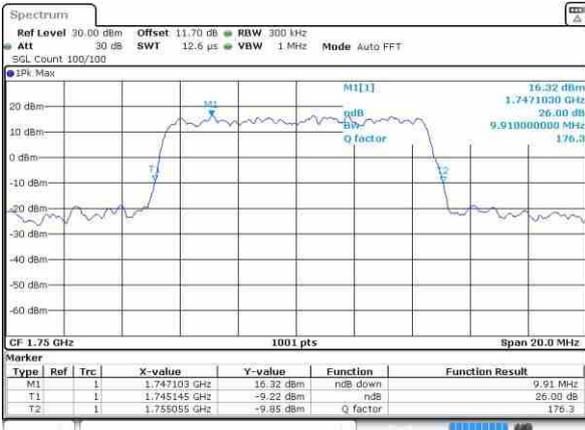
Date: 23 MAY 2019 17:38:31

Middle Channel / 10MHz / 16QAM



Date: 23 MAY 2019 17:38:43

Highest Channel / 10MHz / QPSK



Date: 23 MAY 2019 17:41:41

Highest Channel / 10MHz / 16QAM

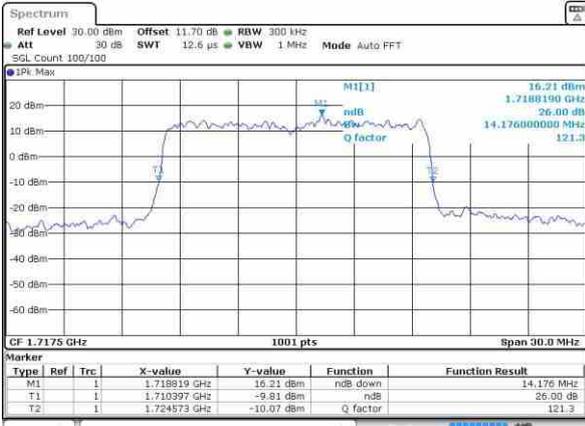


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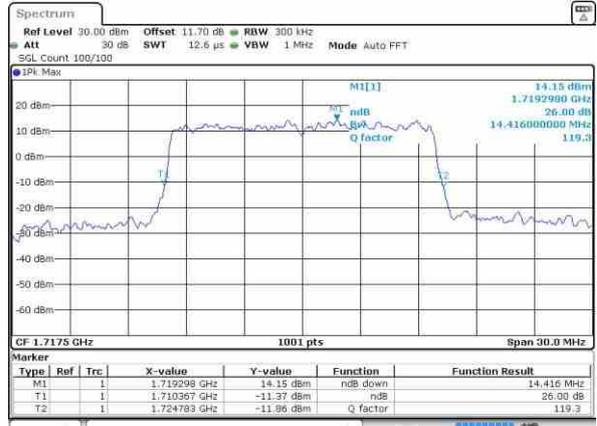
LTE Band 4

Lowest Channel / 15MHz / QPSK



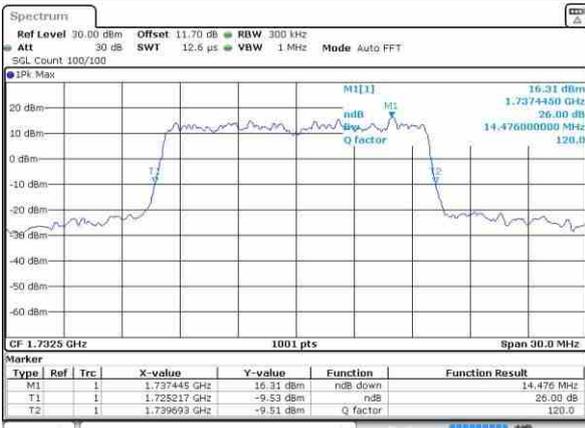
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Lowest Channel / 15MHz / 16QAM



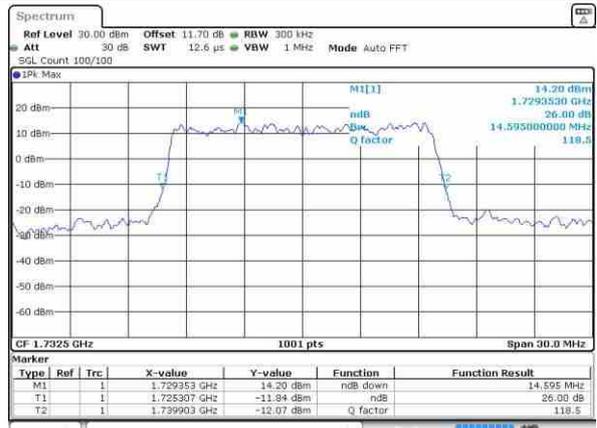
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Middle Channel / 15MHz / QPSK



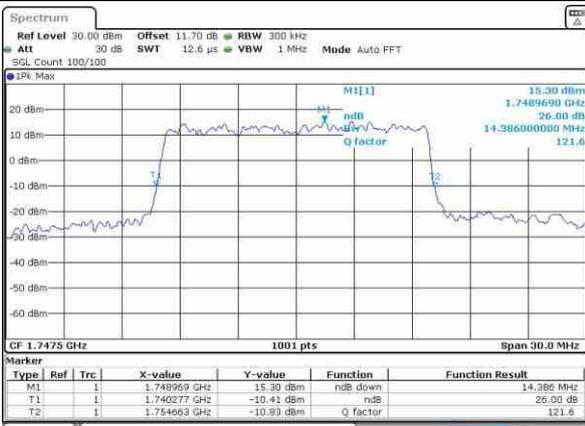
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Middle Channel / 15MHz / 16QAM



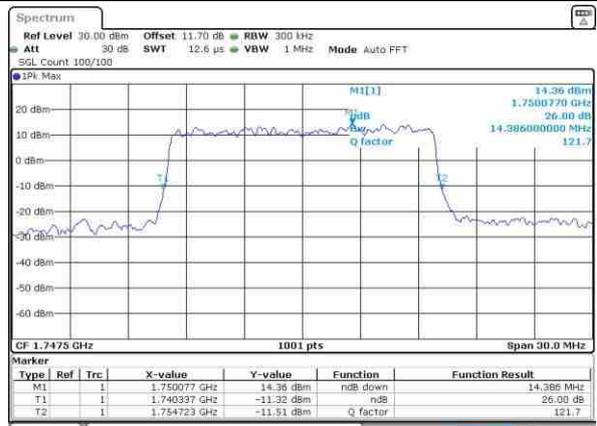
Date: 23 MAY 2019 17:54:28

Highest Channel / 15MHz / QPSK



Date: 23 MAY 2019 17:56:27

Highest Channel / 15MHz / 16QAM

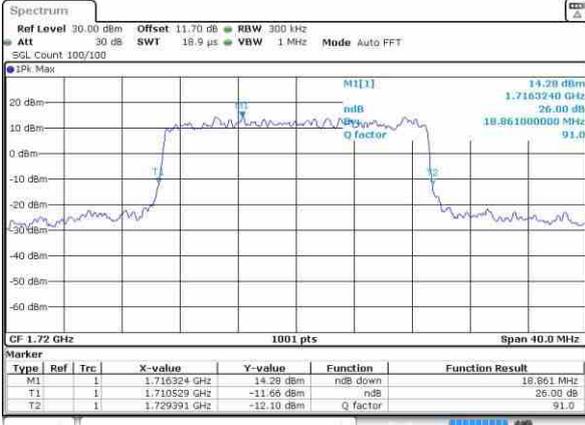


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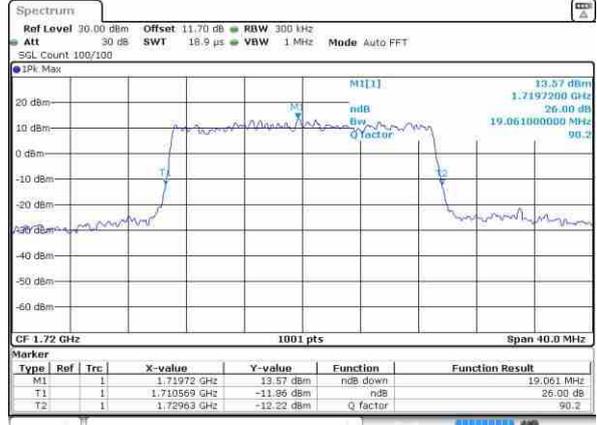
LTE Band 4

Lowest Channel / 20MHz / QPSK



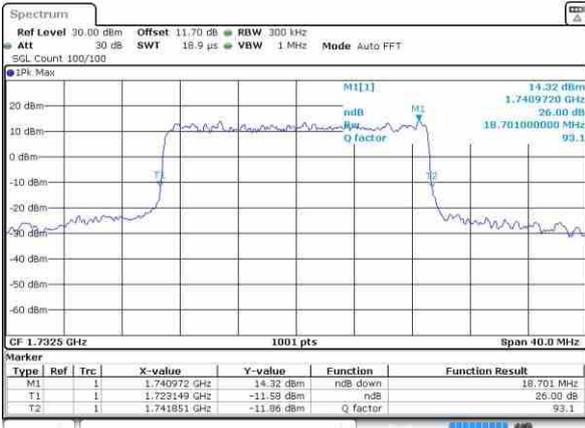
Date: 23 MAY 2019 18:02:47

Lowest Channel / 20MHz / 16QAM



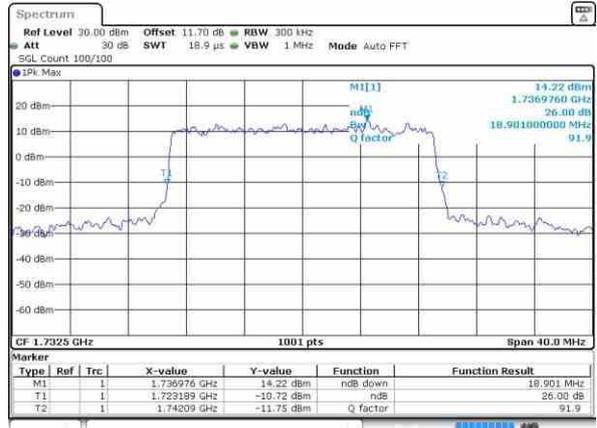
Date: 23 MAY 2019 18:03:00

Middle Channel / 20MHz / QPSK



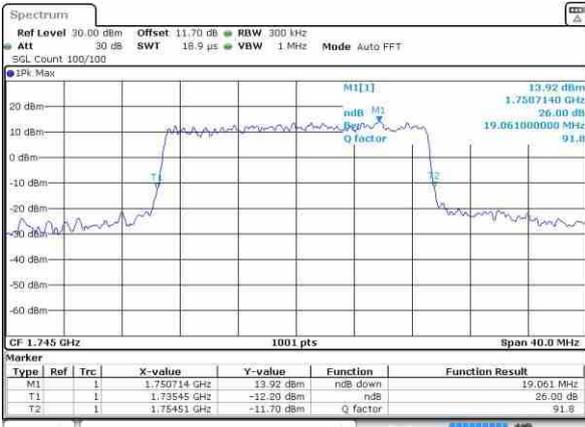
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Middle Channel / 20MHz / 16QAM



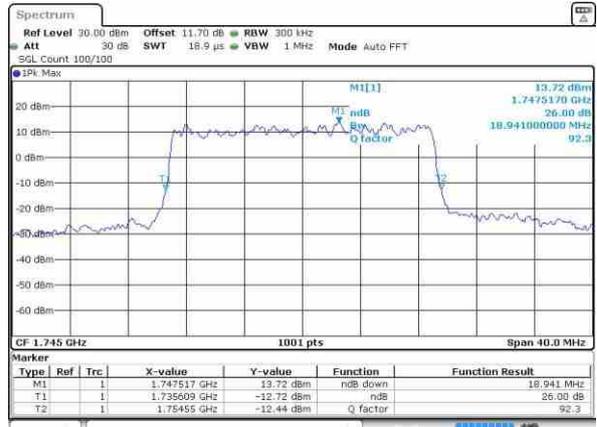
Date: 23 MAY 2019 18:08:14

Highest Channel / 20MHz / QPSK



Date: 23 MAY 2019 18:11:13

Highest Channel / 20MHz / 16QAM

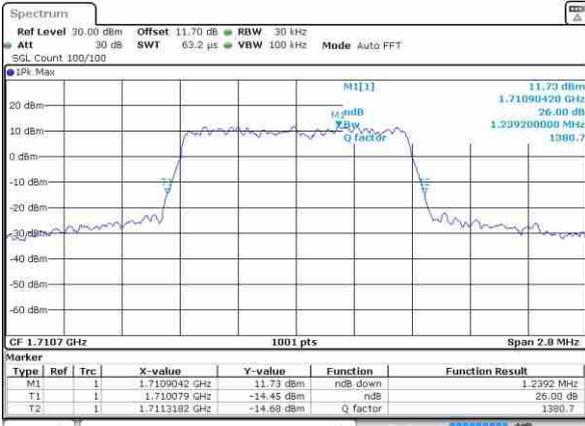


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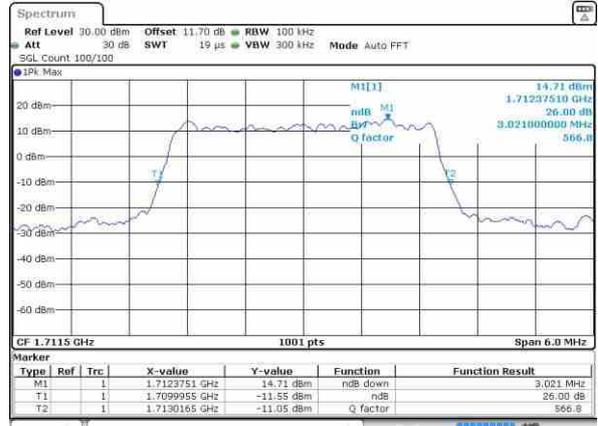
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



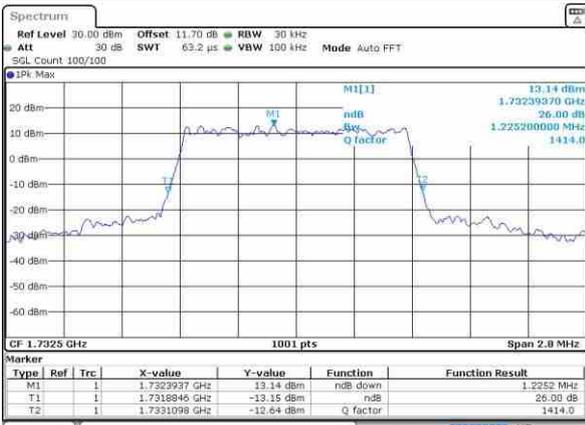
Date: 23 MAY 2019 16:39:07

Lowest Channel / 3MHz / 64QAM



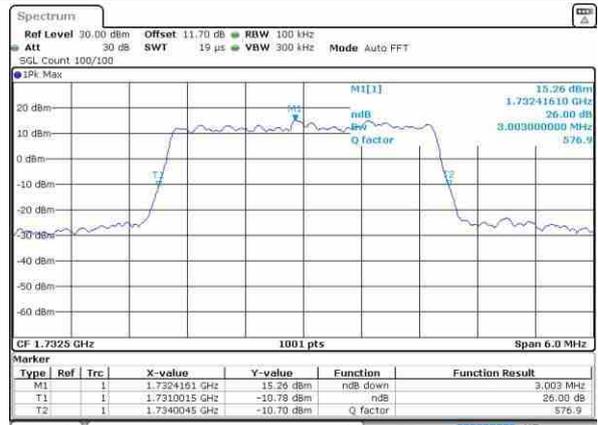
Date: 23 MAY 2019 18:17:19

Middle Channel / 1.4MHz / 64QAM



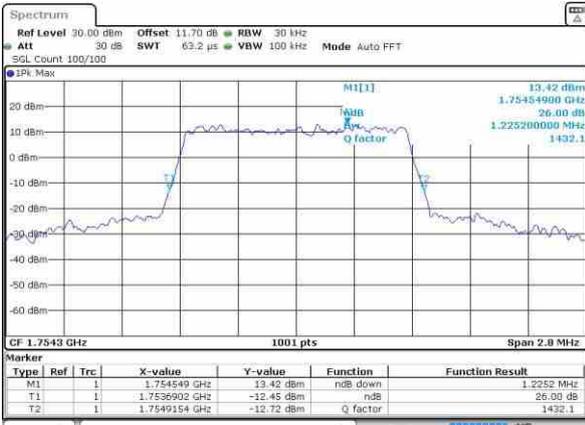
Date: 23 MAY 2019 16:42:22

Middle Channel / 3MHz / 64QAM



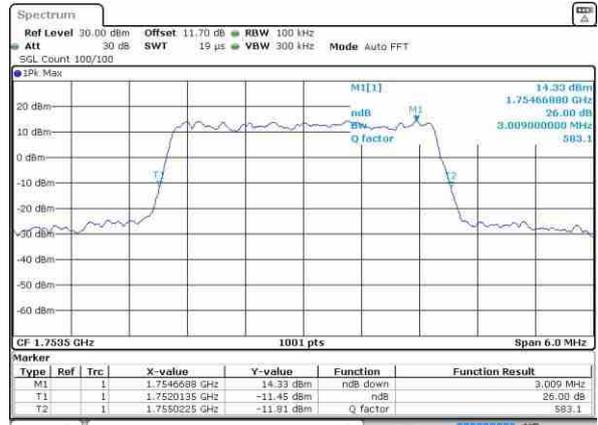
Date: 23 MAY 2019 18:20:26

Highest Channel / 1.4MHz / 64QAM



Date: 23 MAY 2019 16:43:27

Highest Channel / 3MHz / 64QAM



Date: 23 MAY 2019 18:21:31