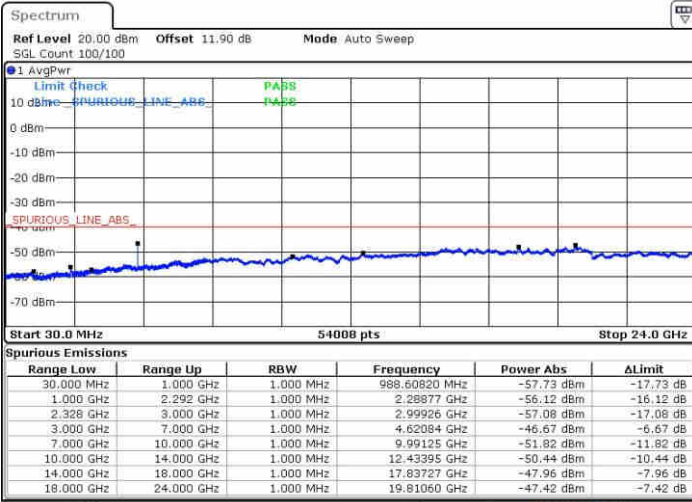




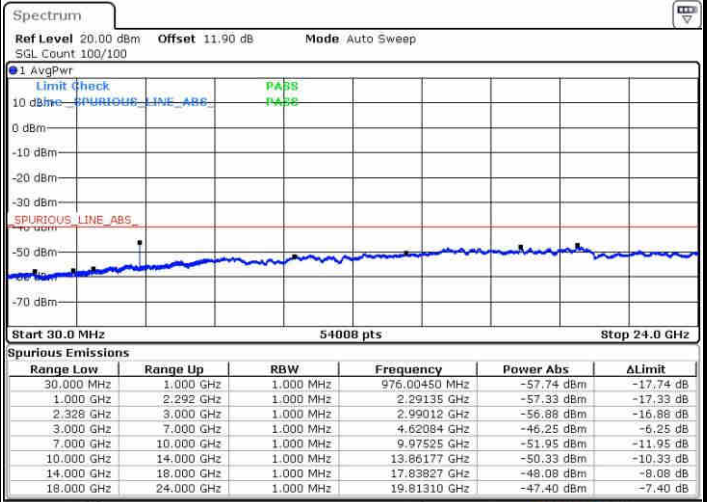
LTE Band 30 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13 APR 2019 04:52:03

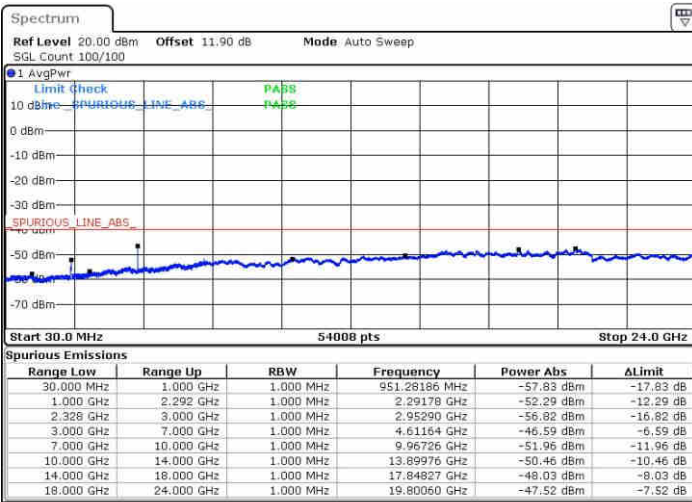


Date: 13 APR 2019 04:53:04

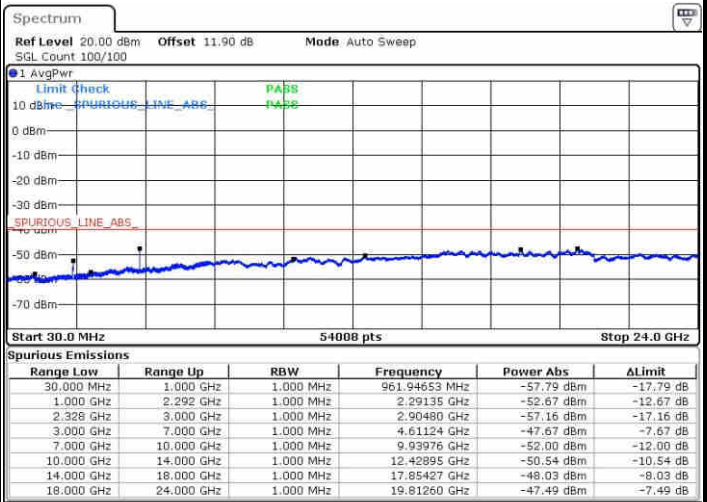
LTE Band 30 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 13 APR 2019 04:58:10

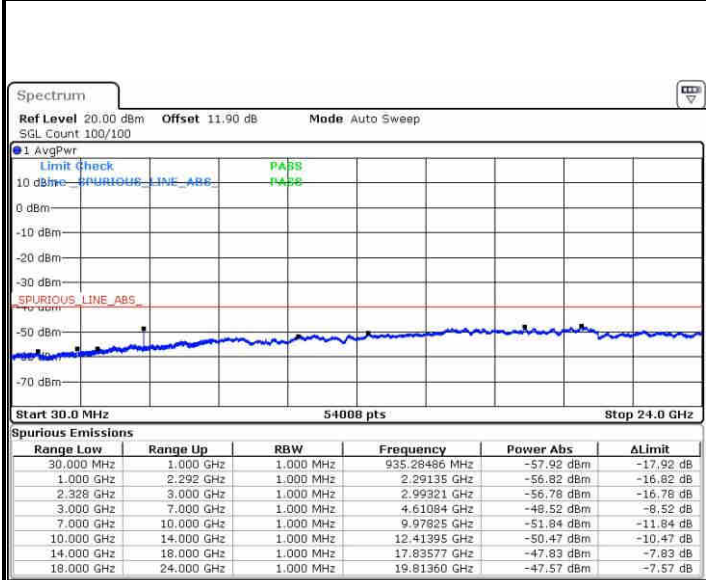


Date: 13 APR 2019 04:59:11



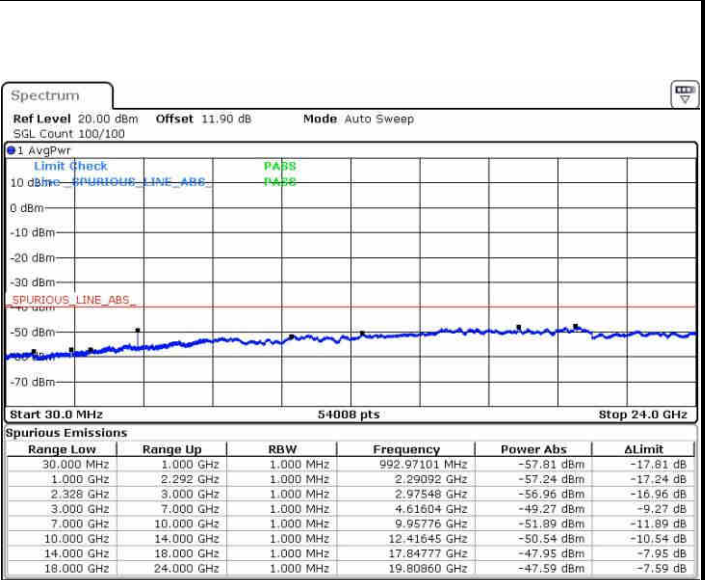
LTE Band 30 / 5MHz

Lowest Channel / 64QAM



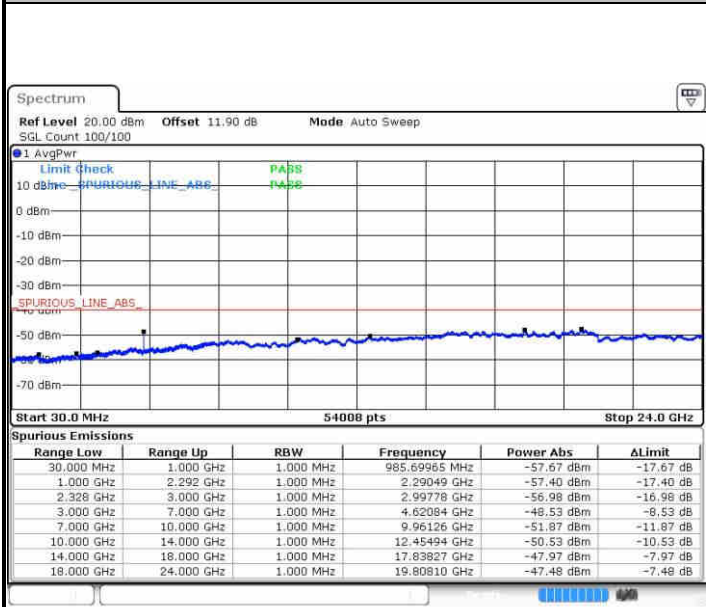
Date: 13 APR 2019 04:54:06

Middle Channel / 64QAM



Date: 13 APR 2019 04:55:07

Highest Channel / 64QAM

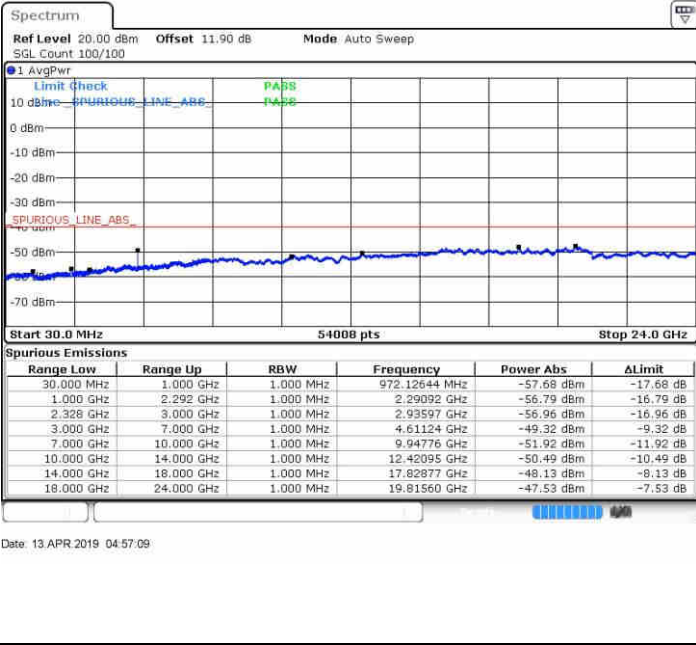


Date: 13 APR 2019 04:56:08



LTE Band 30 / 10MHz

Middle Channel / 64QAM





Frequency Stability

Test Conditions		LTE Band 30 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0016	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 38

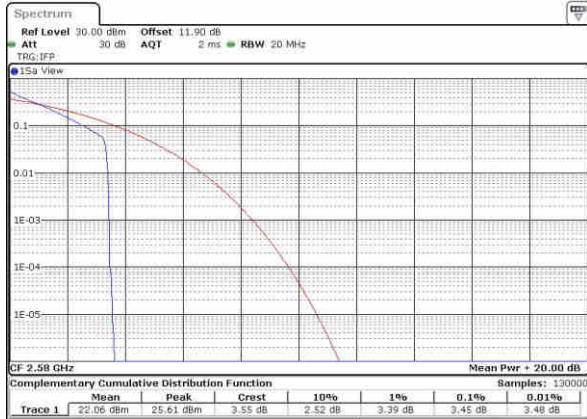
Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.45	4.93	4.38	5.88	PASS
Middle CH	3.57	4.93	4.17	5.88	
Highest CH	3.57	4.96	4.14	5.80	
Mode	LTE Band 38 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.01	6.38	-	-	PASS
Middle CH	4.99	6.35	-	-	
Highest CH	4.99	6.35	-	-	



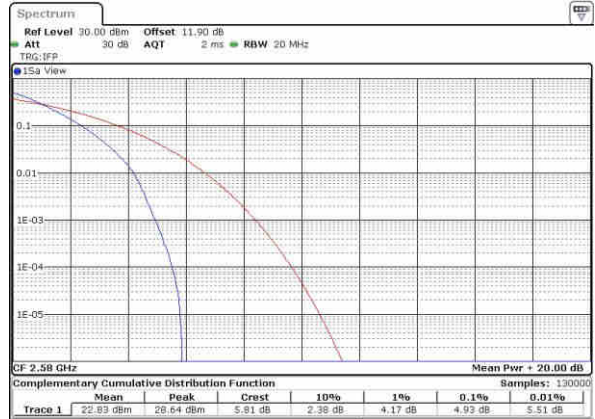
LTE Band 38 / 20MHz / QPSK

Lowest Channel / 1RB



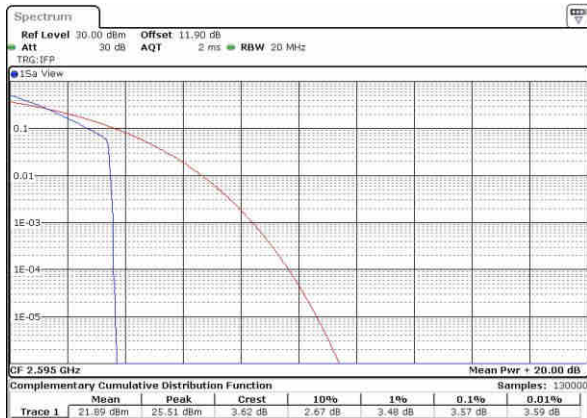
Date: 15 APR 2019 19:16:21

Lowest Channel / Full RB



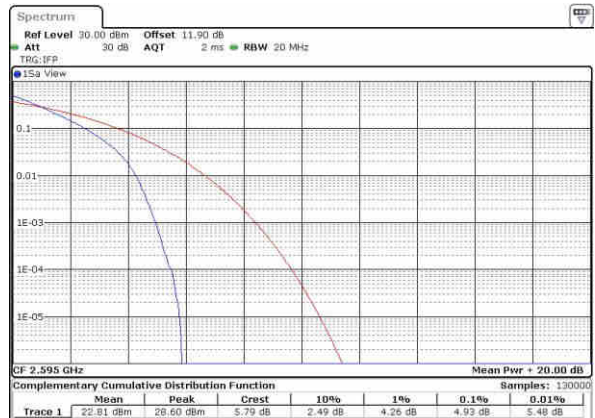
Date: 15 APR 2019 19:16:37

Middle Channel / 1RB



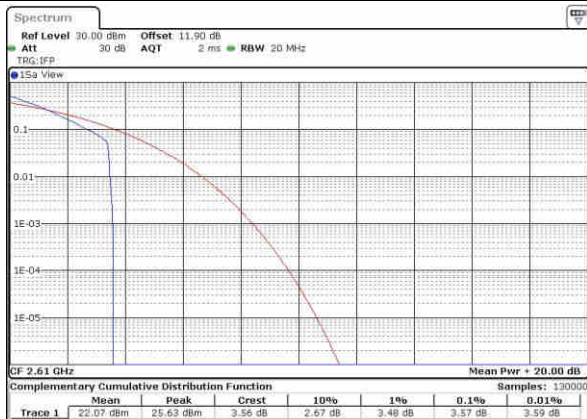
Date: 15 APR 2019 19:16:51

Middle Channel / Full RB



Date: 15 APR 2019 19:17:09

Highest Channel / 1RB



Date: 15 APR 2019 19:17:33

Highest Channel / Full RB

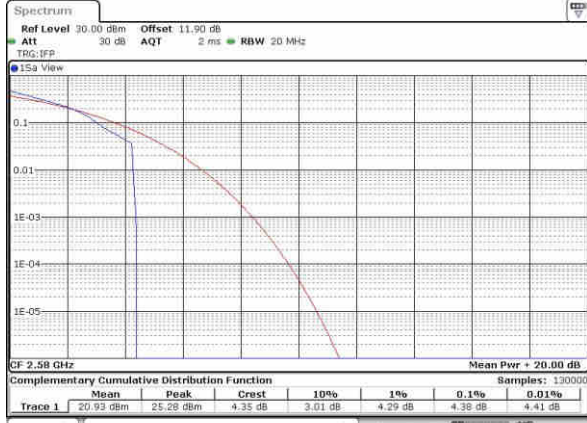


Date: 15 APR 2019 19:17:50



LTE Band 38 / 20MHz / 16QAM

Lowest Channel / 1RB



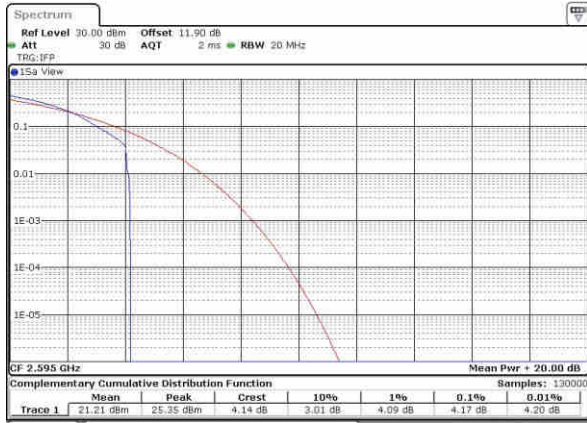
Date: 15 APR 2019 19:13:36

Lowest Channel / Full RB



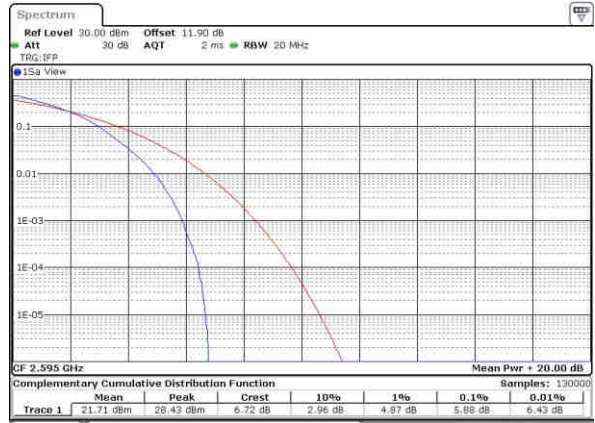
Date: 15 APR 2019 19:13:54

Middle Channel / 1RB



Date: 15 APR 2019 19:14:14

Middle Channel / Full RB



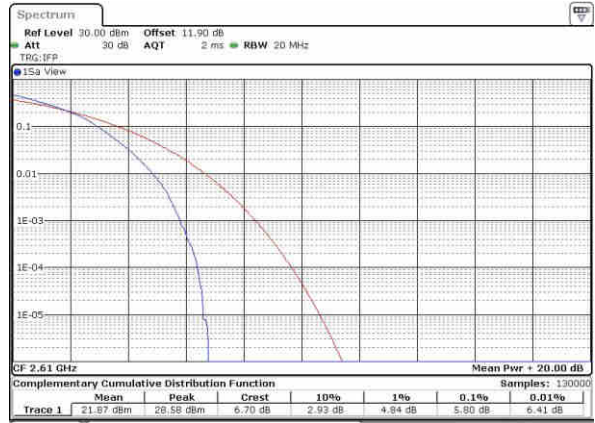
Date: 15 APR 2019 19:14:57

Highest Channel / 1RB



Date: 15 APR 2019 19:15:35

Highest Channel / Full RB

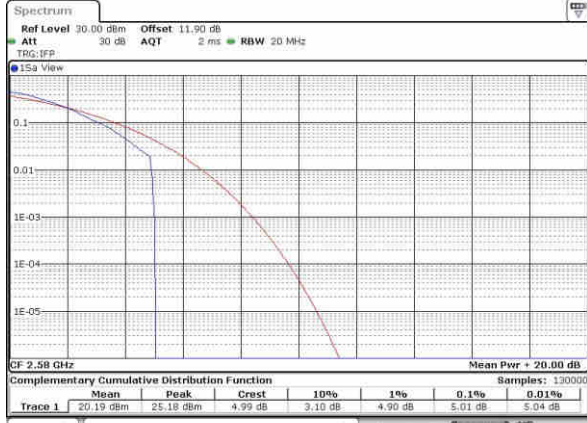


Date: 15 APR 2019 19:16:02



LTE Band 38 / 20MHz / 64QAM

Lowest Channel / 1RB



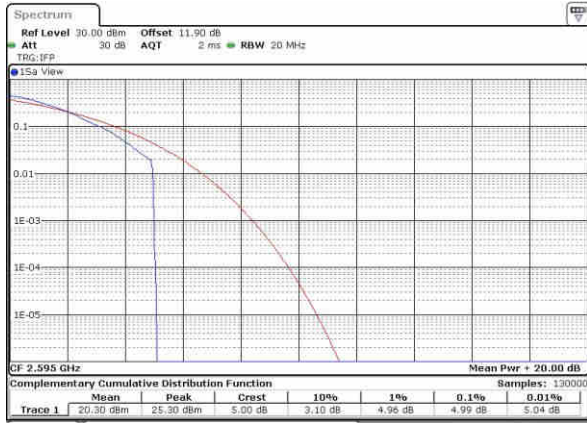
Date: 15 APR 2019 18:57:45

Lowest Channel / Full RB



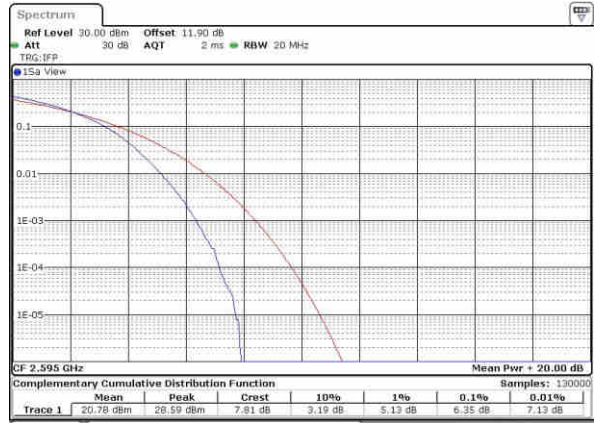
Date: 15 APR 2019 18:58:04

Middle Channel / 1RB



Date: 15 APR 2019 18:58:21

Middle Channel / Full RB



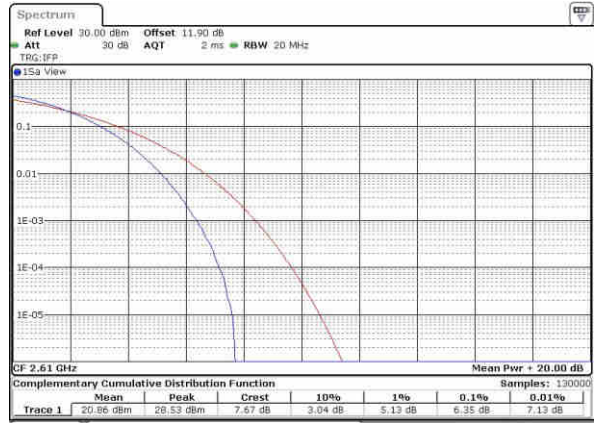
Date: 15 APR 2019 18:58:38

Highest Channel / 1RB



Date: 15 APR 2019 18:58:56

Highest Channel / Full RB



Date: 15 APR 2019 19:12:42



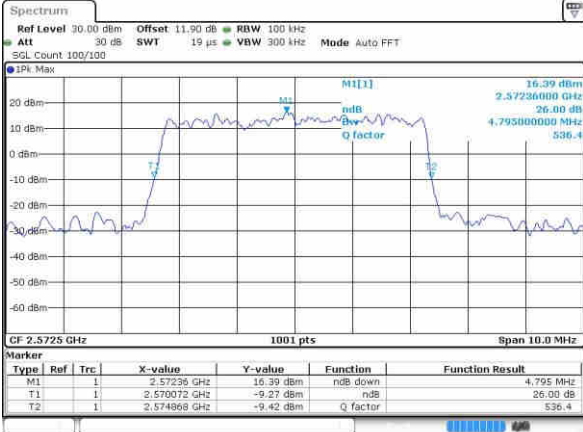
26dB Bandwidth

Mode	LTE Band 38 : 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	-	-	-	-	4.80	4.82	9.83	9.71	14.45	14.21	19.06	18.78
Middle CH	-	-	-	-	4.91	4.80	9.67	9.73	14.18	14.27	18.82	18.62
Highest CH	-	-	-	-	4.80	4.83	9.79	9.67	14.21	14.15	18.66	19.42
Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.76	-	9.77	-	14.45	-	18.74	-
Middle CH	-	-	-	-	4.74	-	9.71	-	14.63	-	19.14	-
Highest CH	-	-	-	-	4.82	-	9.77	-	14.21	-	18.82	-



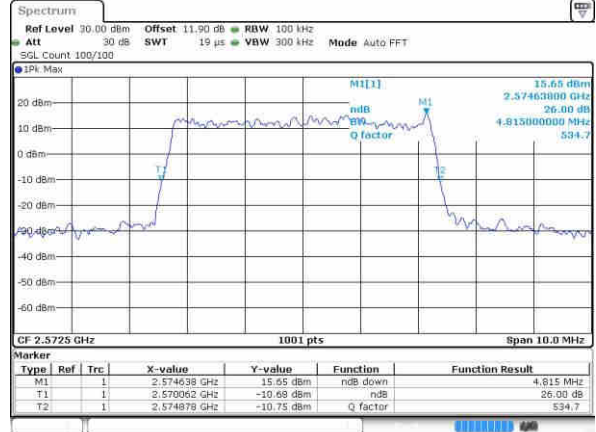
LTE Band 38

Lowest Channel / 5MHz / QPSK



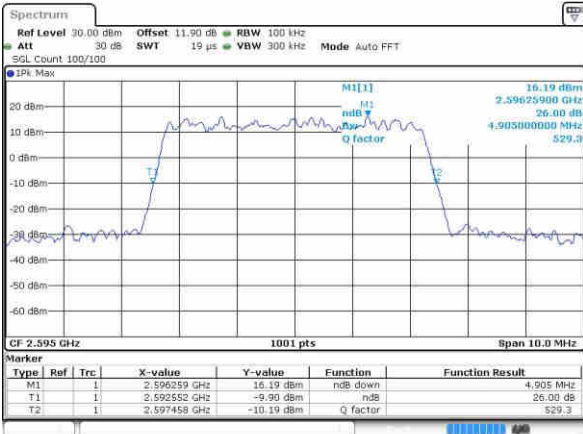
Date: 15 APR 2019 18:40:52

Lowest Channel / 5MHz / 16QAM



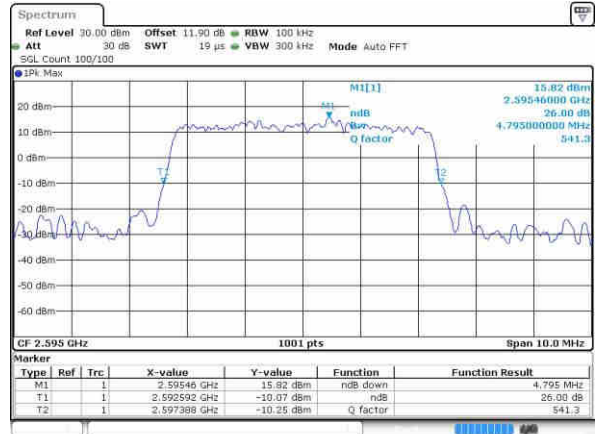
Date: 15 APR 2019 18:41:04

Middle Channel / 5MHz / QPSK



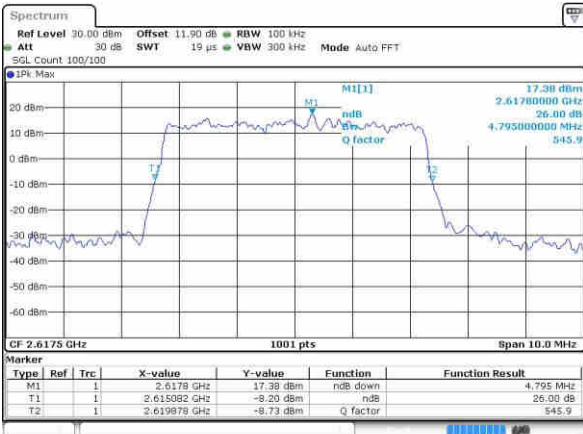
Date: 15 APR 2019 18:41:38

Middle Channel / 5MHz / 16QAM



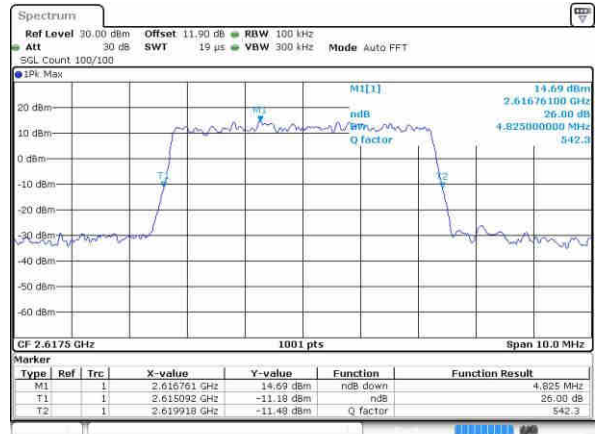
Date: 15 APR 2019 18:41:51

Highest Channel / 5MHz / QPSK



Date: 15 APR 2019 18:42:28

Highest Channel / 5MHz / 16QAM

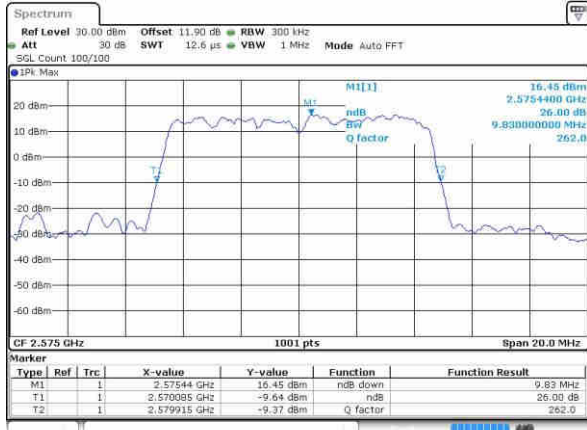


Date: 15 APR 2019 18:42:40



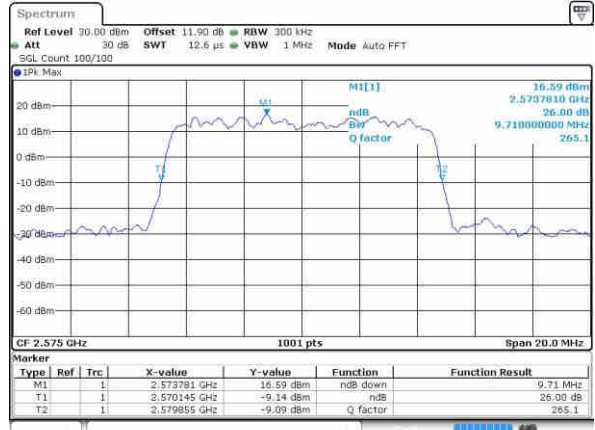
LTE Band 38

Lowest Channel / 10MHz / QPSK



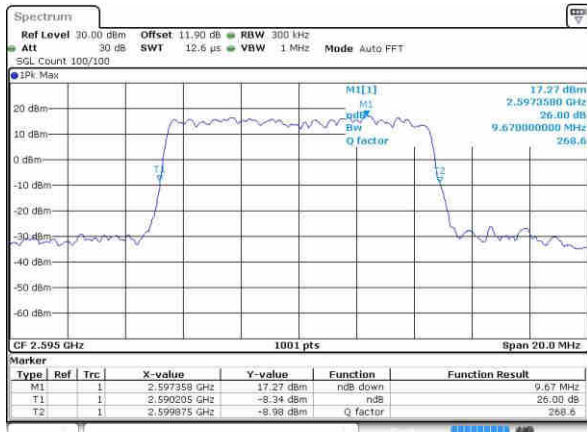
Date: 15 APR 2019 18:43:15

Lowest Channel / 10MHz / 16QAM



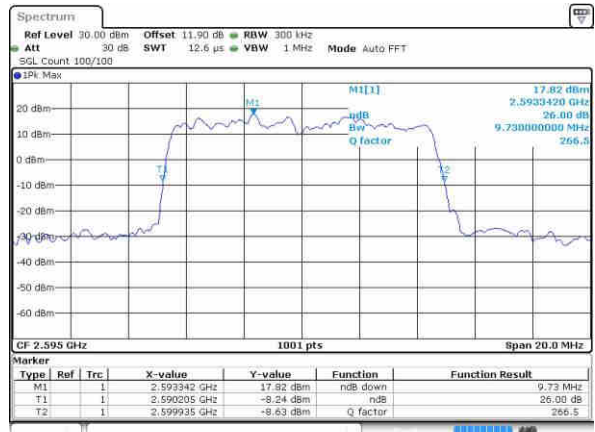
Date: 15 APR 2019 18:43:30

Middle Channel / 10MHz / QPSK



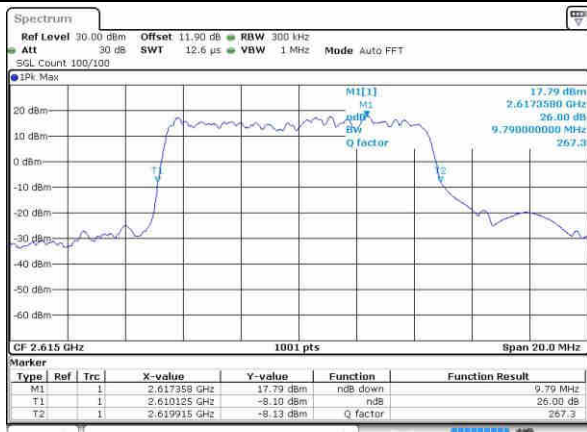
Date: 15 APR 2019 18:44:05

Middle Channel / 10MHz / 16QAM



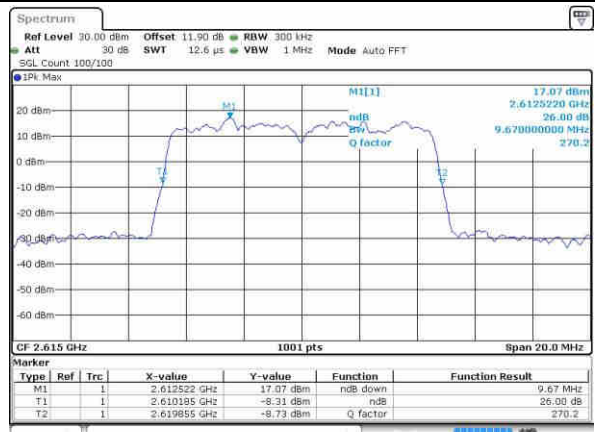
Date: 15 APR 2019 18:44:17

Highest Channel / 10MHz / QPSK



Date: 15 APR 2019 18:44:53

Highest Channel / 10MHz / 16QAM

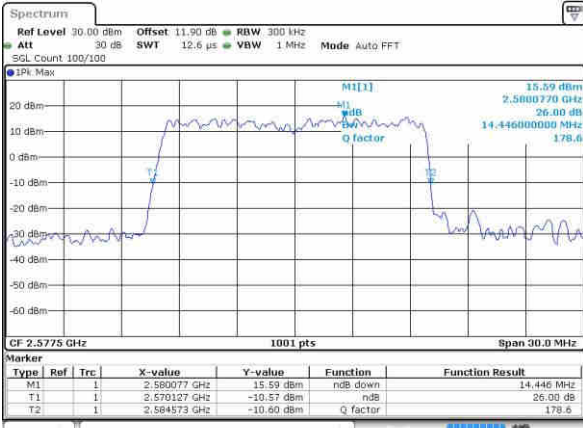


Date: 15 APR 2019 18:45:05



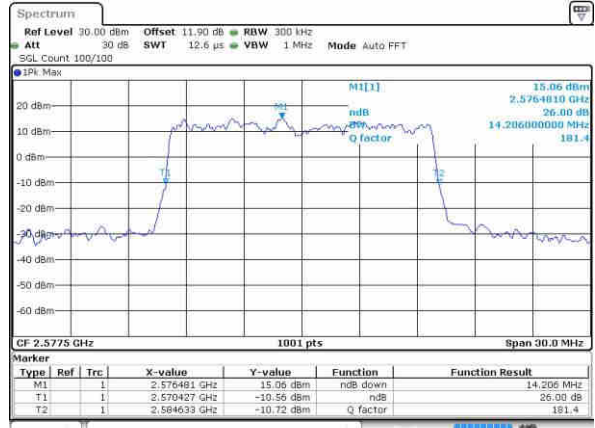
LTE Band 38

Lowest Channel / 15MHz / QPSK



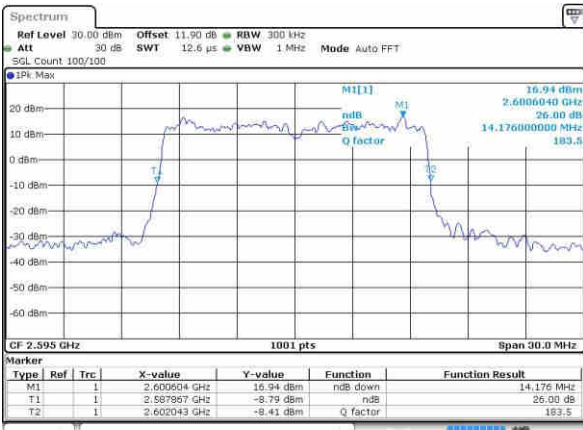
Date: 15 APR 2019 18:45:44

Lowest Channel / 15MHz / 16QAM



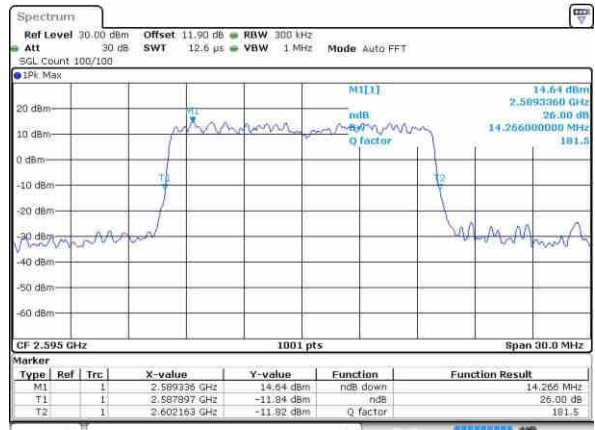
Date: 15 APR 2019 18:45:56

Middle Channel / 15MHz / QPSK



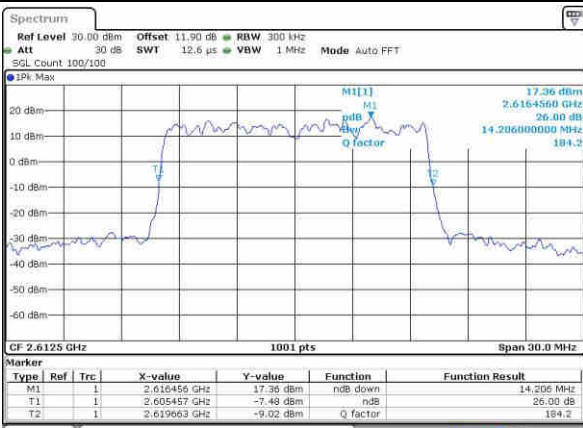
Date: 15 APR 2019 18:46:31

Middle Channel / 15MHz / 16QAM



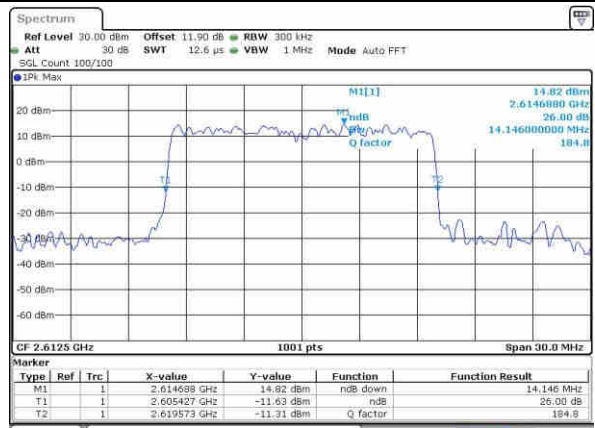
Date: 15 APR 2019 18:46:43

Highest Channel / 15MHz / QPSK



Date: 15 APR 2019 18:47:20

Highest Channel / 15MHz / 16QAM

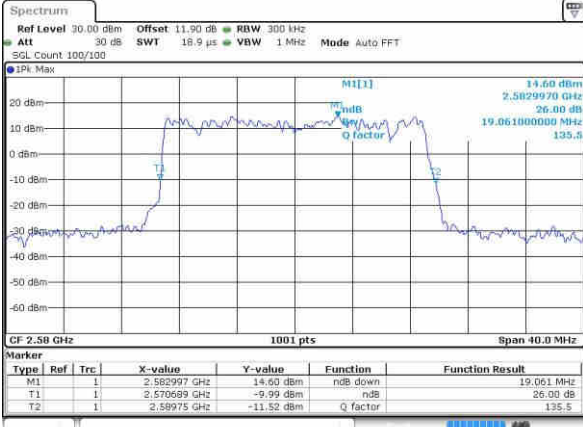


Date: 15 APR 2019 18:47:32



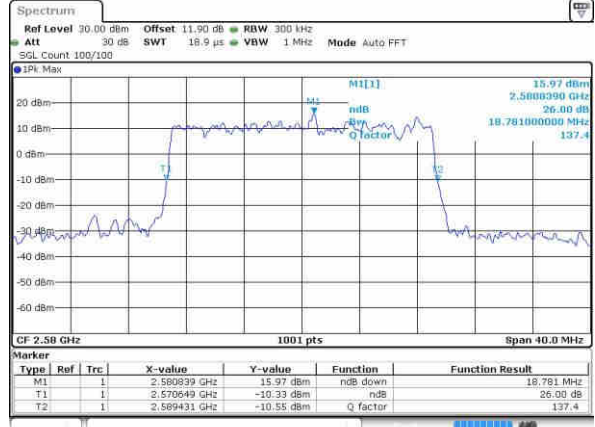
LTE Band 38

Lowest Channel / 20MHz / QPSK



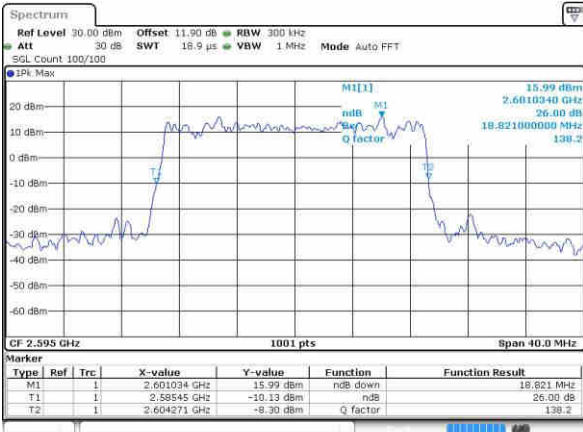
Date: 15 APR 2019 18:48:10

Lowest Channel / 20MHz / 16QAM



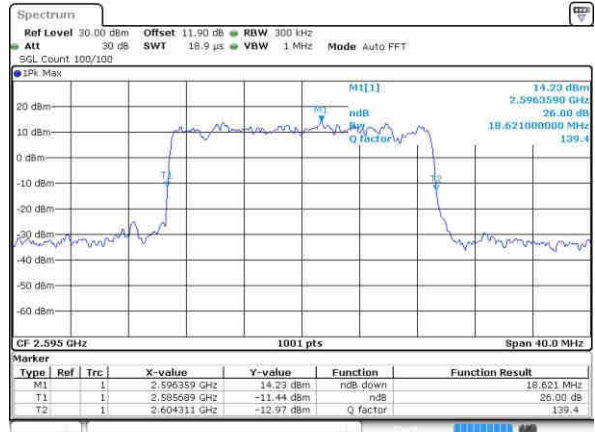
Date: 15 APR 2019 18:48:22

Middle Channel / 20MHz / QPSK



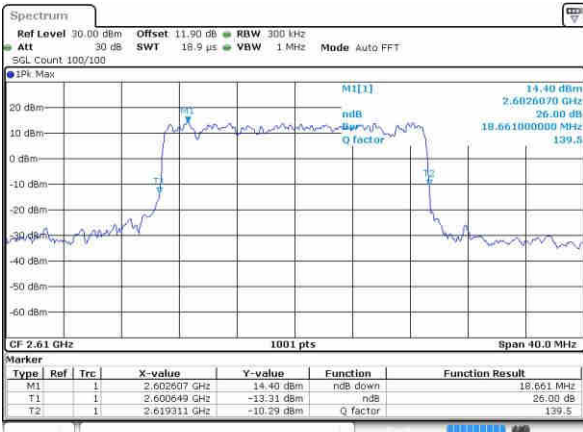
Date: 15 APR 2019 18:48:58

Middle Channel / 20MHz / 16QAM



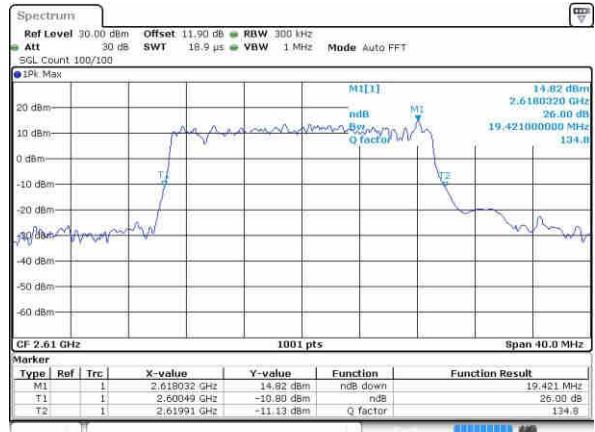
Date: 15 APR 2019 18:49:09

Highest Channel / 20MHz / QPSK



Date: 15 APR 2019 18:49:46

Highest Channel / 20MHz / 16QAM

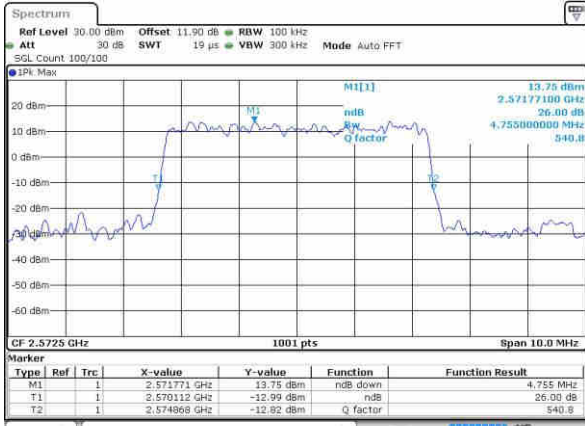


Date: 15 APR 2019 18:49:58



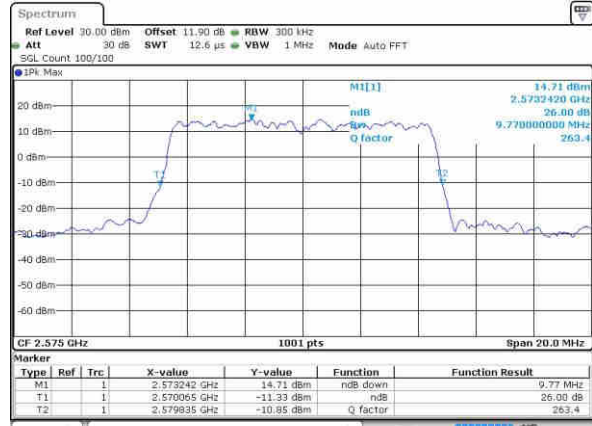
LTE Band 38

Lowest Channel / 5MHz / 64QAM



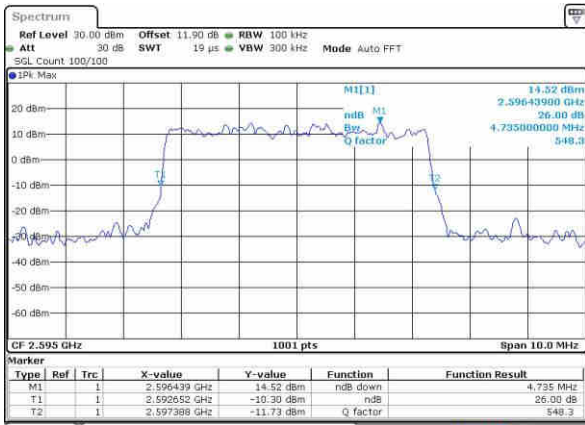
Date: 15 APR 2019 18:50:24

Lowest Channel / 10MHz / 64QAM



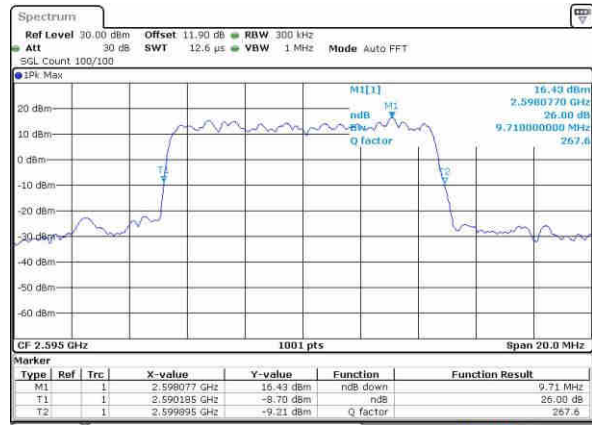
Date: 15 APR 2019 18:51:38

Middle Channel / 5MHz / 64QAM



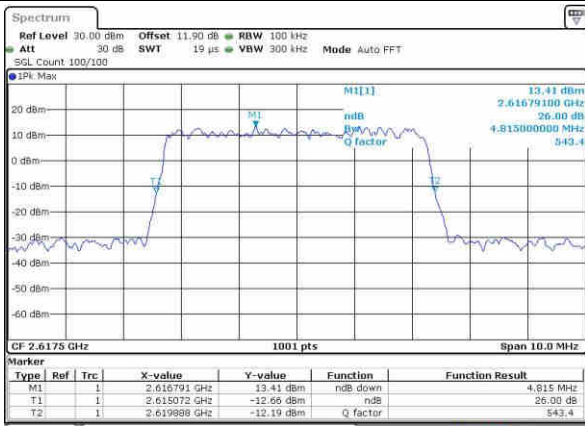
Date: 15 APR 2019 18:50:48

Middle Channel / 10MHz / 64QAM



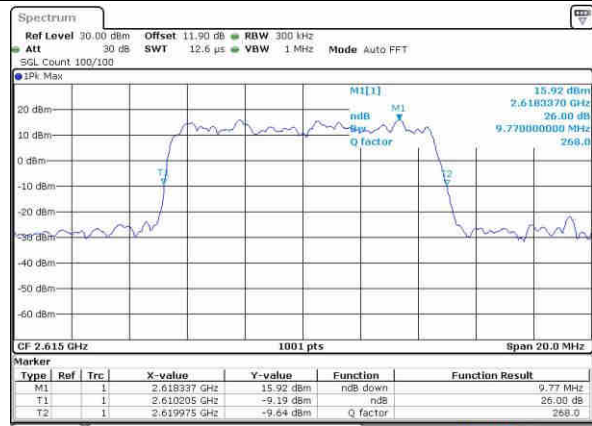
Date: 15 APR 2019 18:52:01

Highest Channel / 5MHz / 64QAM



Date: 15 APR 2019 18:51:12

Highest Channel / 10MHz / 64QAM

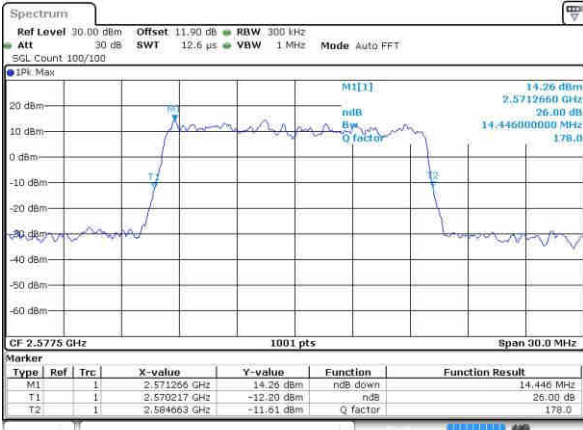


Date: 15 APR 2019 18:52:25



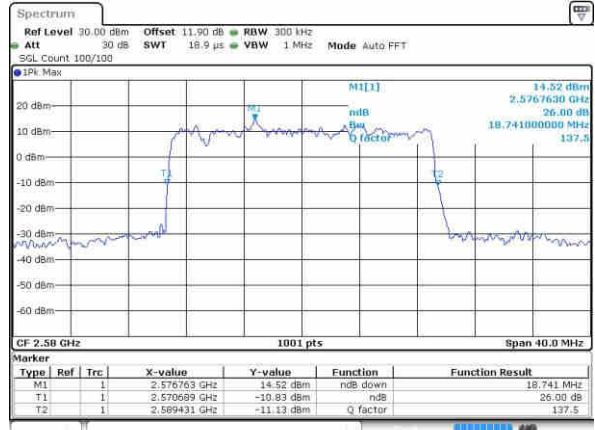
LTE Band 38

Lowest Channel / 15MHz / 64QAM



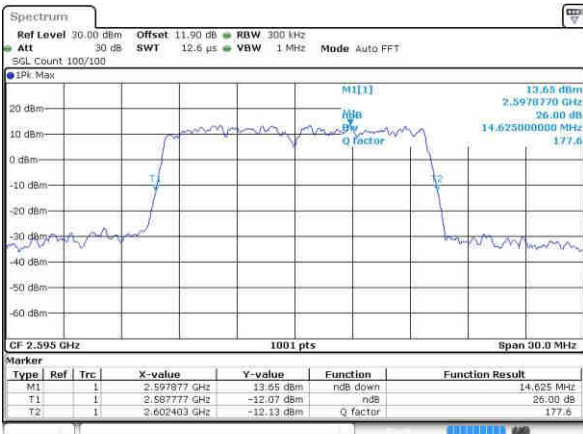
Date: 15 APR 2019 18:52:51

Lowest Channel / 20MHz / 64QAM



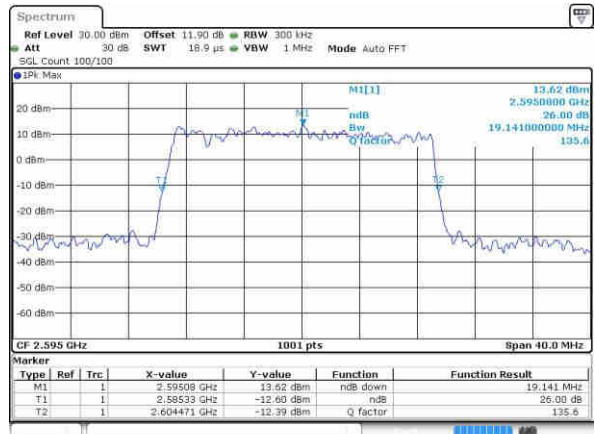
Date: 15 APR 2019 18:54:04

Middle Channel / 15MHz / 64QAM



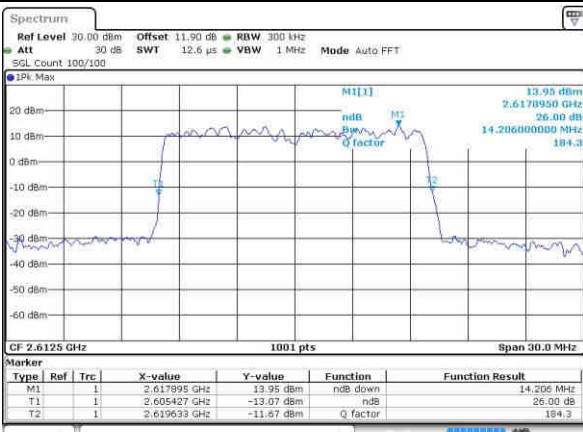
Date: 15 APR 2019 18:53:14

Middle Channel / 20MHz / 64QAM



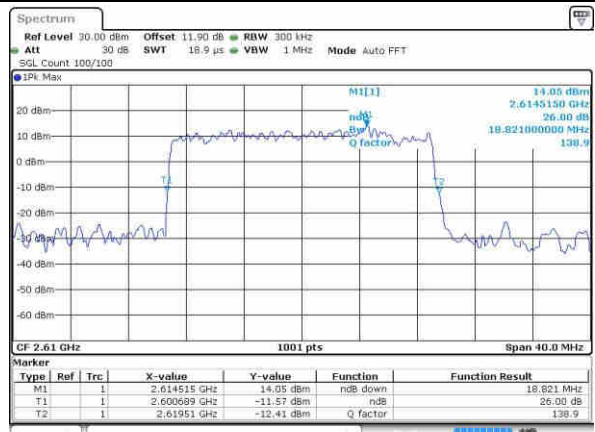
Date: 15 APR 2019 18:54:28

Highest Channel / 15MHz / 64QAM



Date: 15 APR 2019 18:53:39

Highest Channel / 20MHz / 64QAM



Date: 15 APR 2019 18:54:52



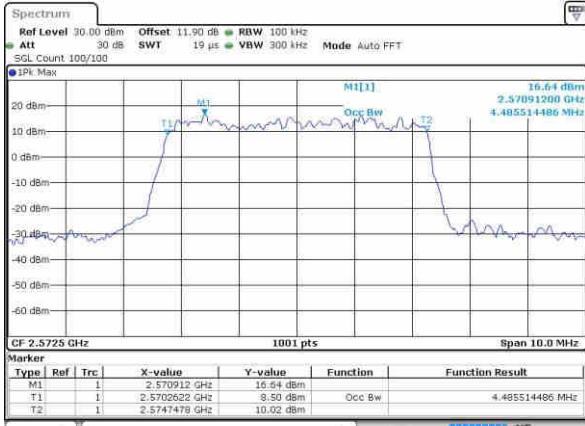
Occupied Bandwidth

Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.49	8.95	9.07	13.43	13.37	17.98	17.94
Middle CH	-	-	-	-	4.53	4.47	9.07	9.05	13.34	13.46	17.86	17.90
Highest CH	-	-	-	-	4.49	4.51	9.05	9.01	13.55	13.43	17.78	17.86
Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.49	-	8.93	-	13.49	-	17.90	-
Middle CH	-	-	-	-	4.49	-	8.93	-	13.40	-	17.98	-
Highest CH	-	-	-	-	4.50	-	9.05	-	13.40	-	17.90	-



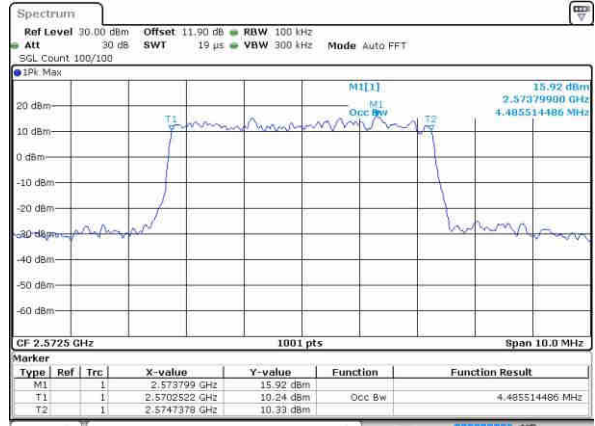
LTE Band 38

Lowest Channel / 5MHz / QPSK



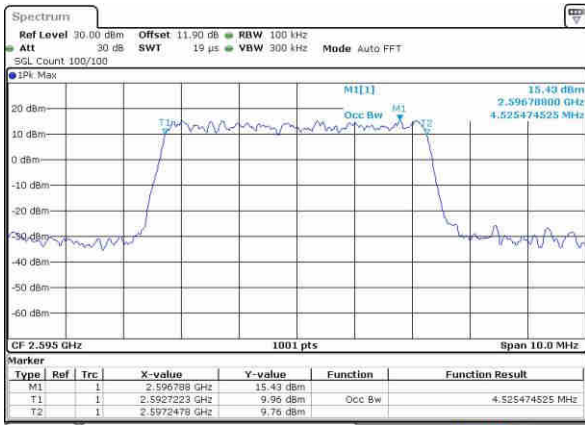
Date: 15 APR 2019 18:40:27

Lowest Channel / 5MHz / 16QAM



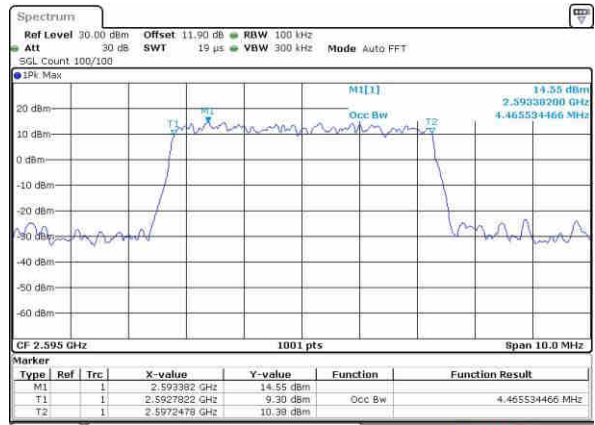
Date: 15 APR 2019 18:40:40

Middle Channel / 5MHz / QPSK



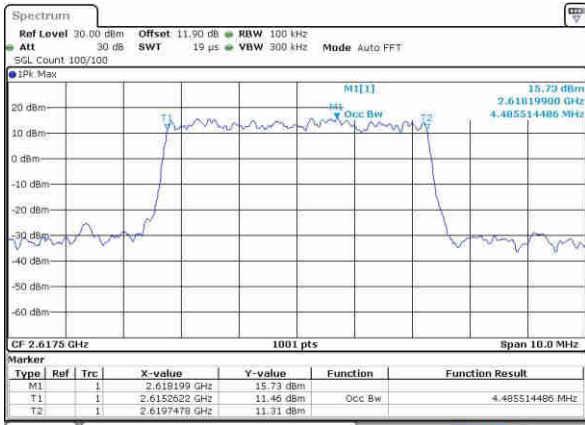
Date: 15 APR 2019 18:41:16

Middle Channel / 5MHz / 16QAM



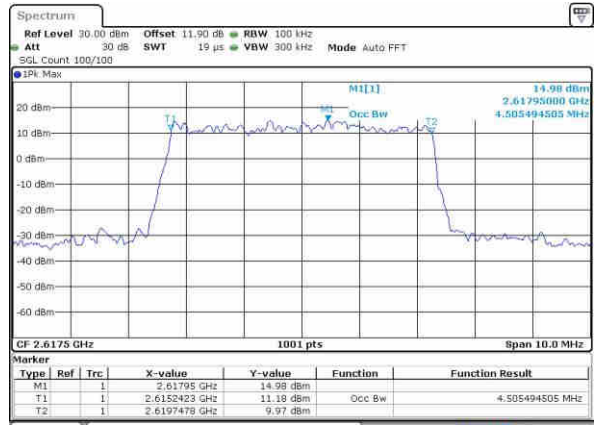
Date: 15 APR 2019 18:41:28

Highest Channel / 5MHz / QPSK



Date: 15 APR 2019 18:42:03

Highest Channel / 5MHz / 16QAM

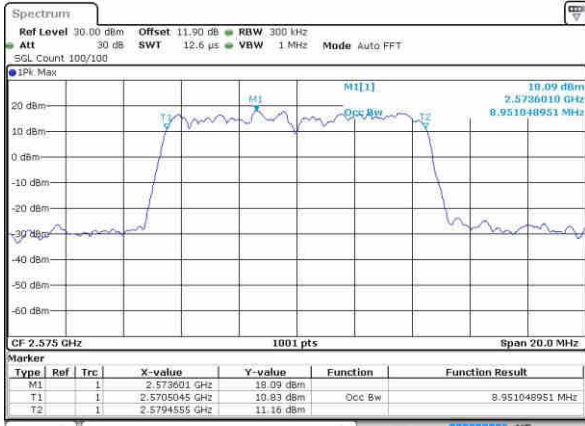


Date: 15 APR 2019 18:42:15



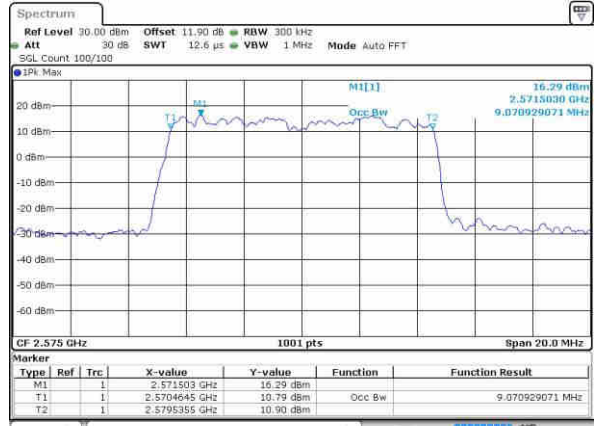
LTE Band 38

Lowest Channel / 10MHz / QPSK



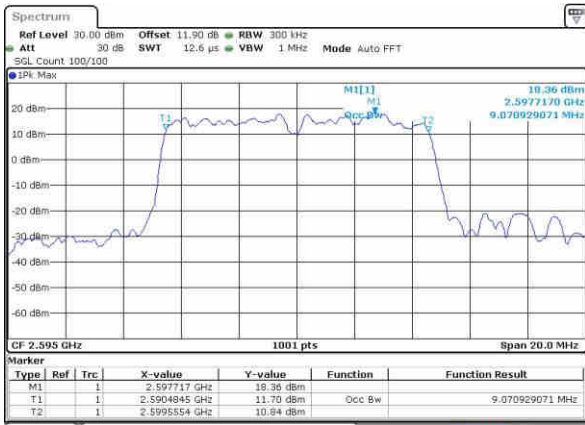
Date: 15 APR 2019 18:42:54

Lowest Channel / 10MHz / 16QAM



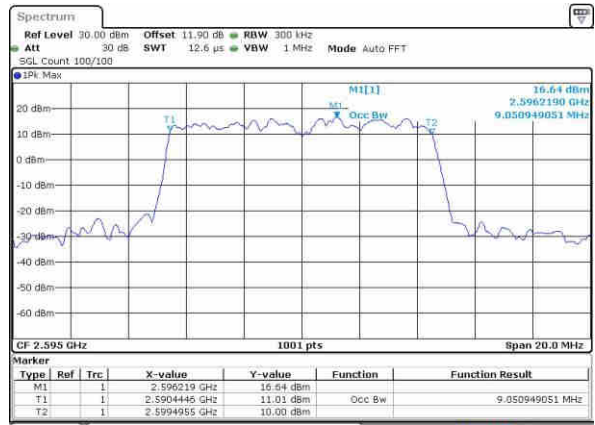
Date: 15 APR 2019 18:43:06

Middle Channel / 10MHz / QPSK



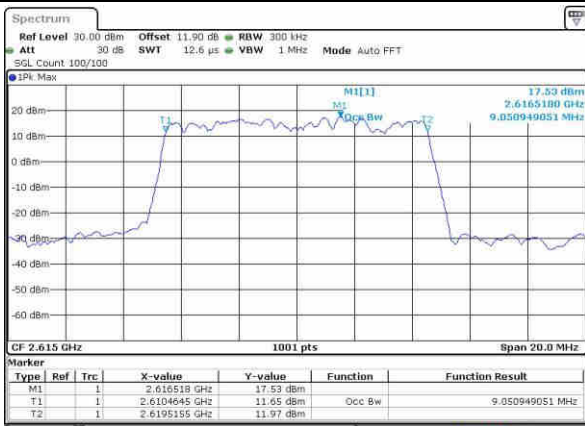
Date: 15 APR 2019 18:43:42

Middle Channel / 10MHz / 16QAM



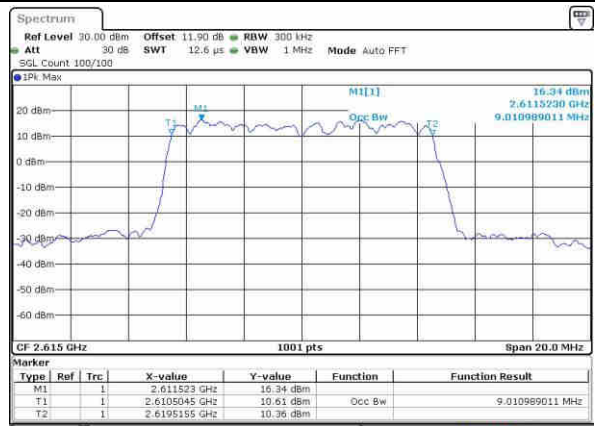
Date: 15 APR 2019 18:43:54

Highest Channel / 10MHz / QPSK



Date: 15 APR 2019 18:44:29

Highest Channel / 10MHz / 16QAM

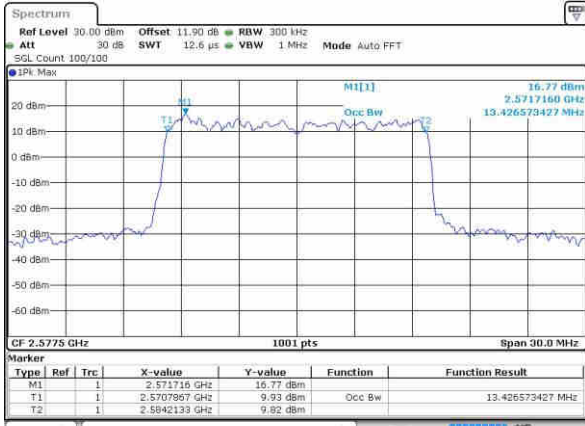


Date: 15 APR 2019 18:44:41



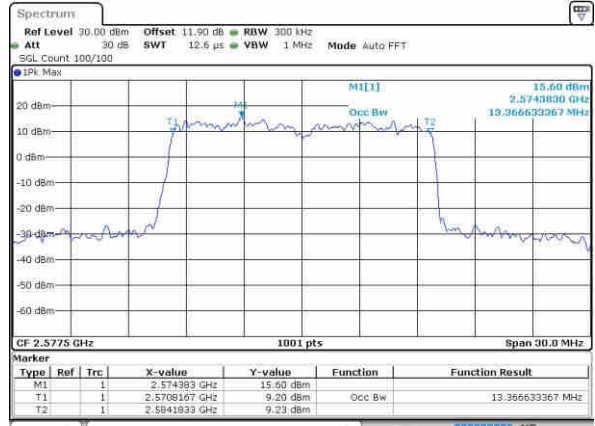
LTE Band 38

Lowest Channel / 15MHz / QPSK



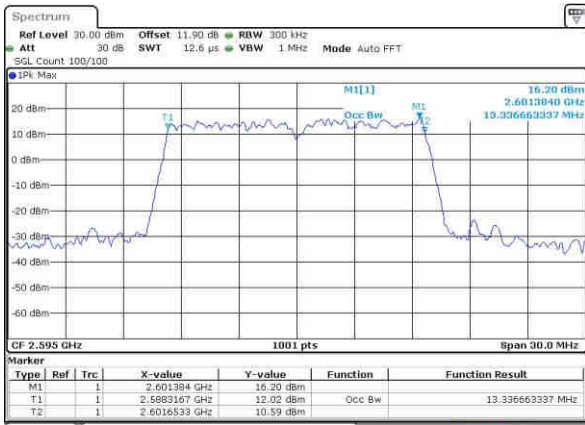
Date: 15 APR 2019 18:45:19

Lowest Channel / 15MHz / 16QAM



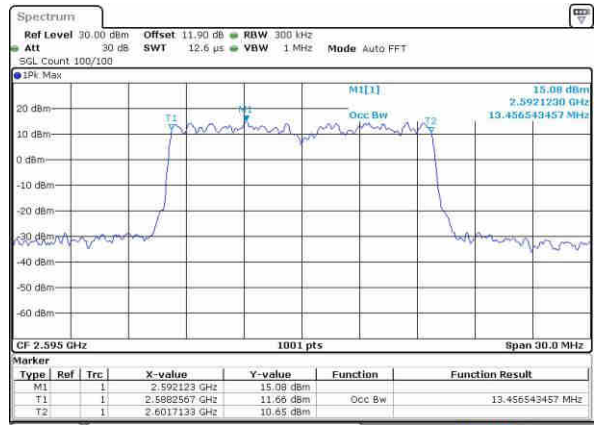
Date: 15 APR 2019 18:45:31

Middle Channel / 15MHz / QPSK



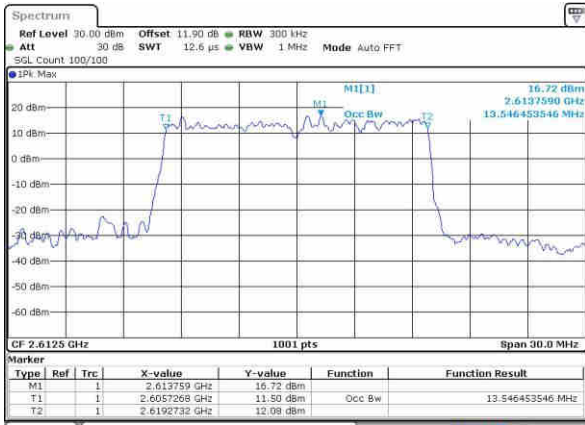
Date: 15 APR 2019 18:46:08

Middle Channel / 15MHz / 16QAM



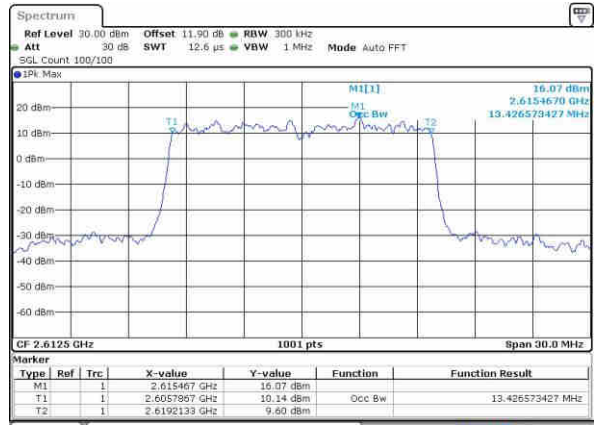
Date: 15 APR 2019 18:46:20

Highest Channel / 15MHz / QPSK



Date: 15 APR 2019 18:46:55

Highest Channel / 15MHz / 16QAM

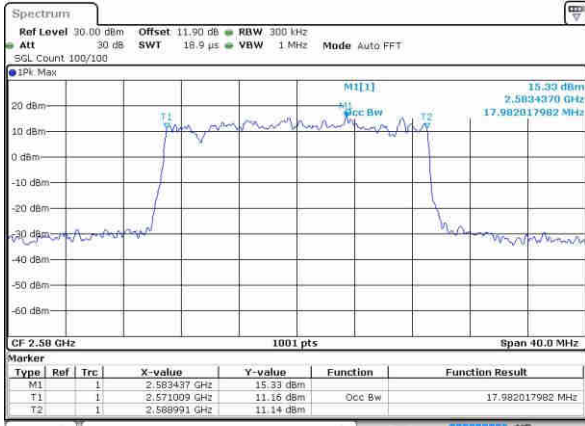


Date: 15 APR 2019 18:47:07



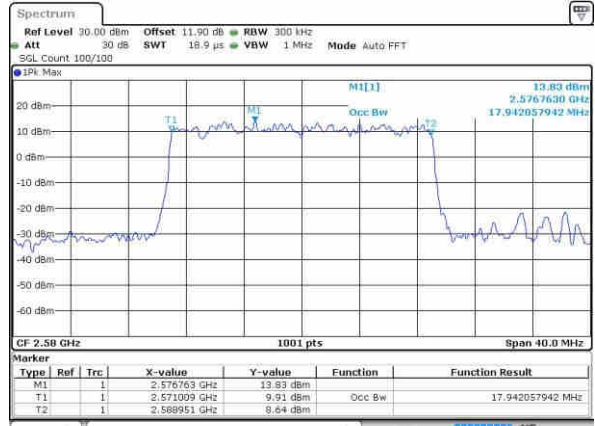
LTE Band 38

Lowest Channel / 20MHz / QPSK



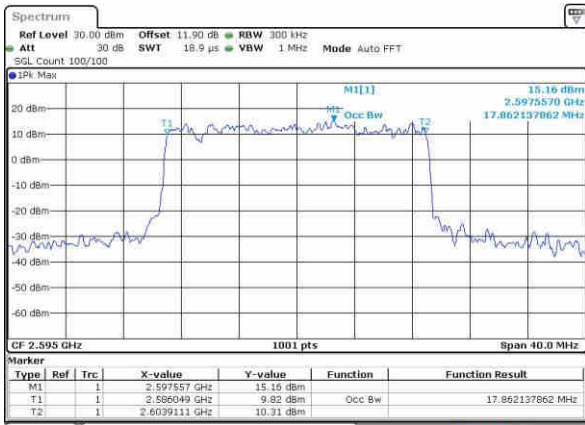
Date: 15 APR 2019 18:47:46

Lowest Channel / 20MHz / 16QAM



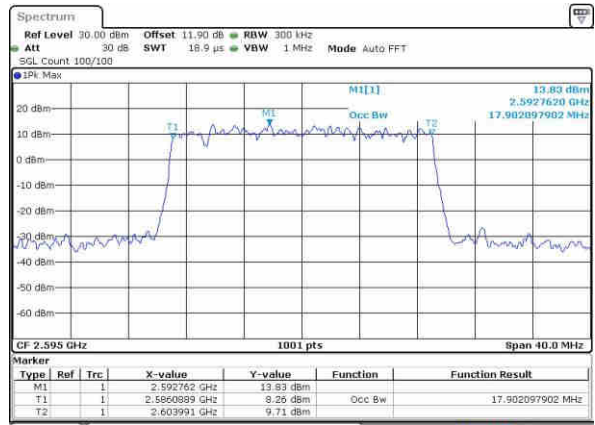
Date: 15 APR 2019 18:47:58

Middle Channel / 20MHz / QPSK



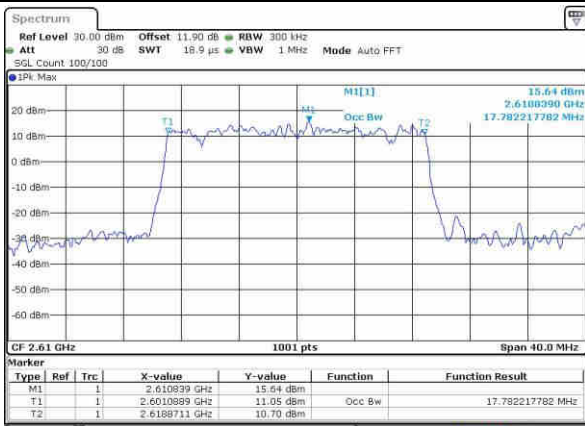
Date: 15 APR 2019 18:48:34

Middle Channel / 20MHz / 16QAM



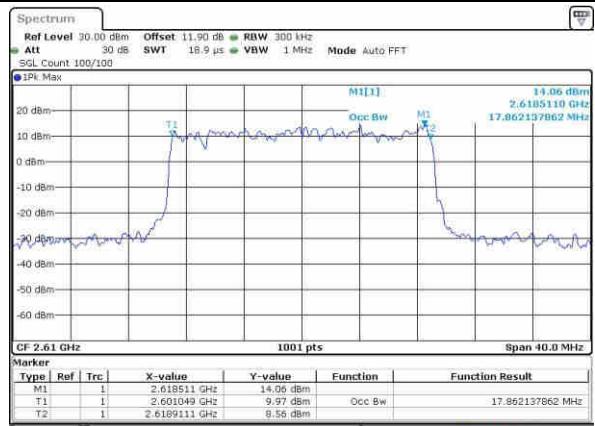
Date: 15 APR 2019 18:48:46

Highest Channel / 20MHz / QPSK



Date: 15 APR 2019 18:49:21

Highest Channel / 20MHz / 16QAM

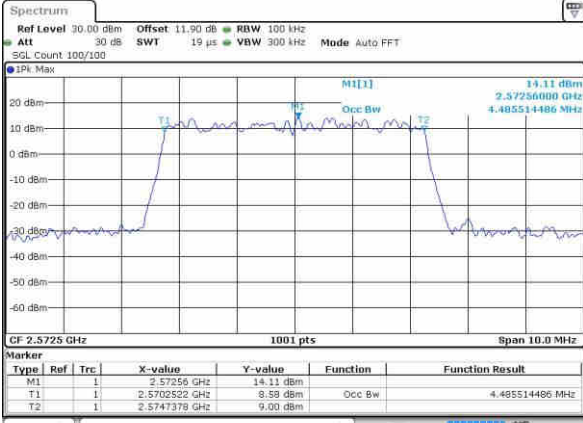


Date: 15 APR 2019 18:49:34

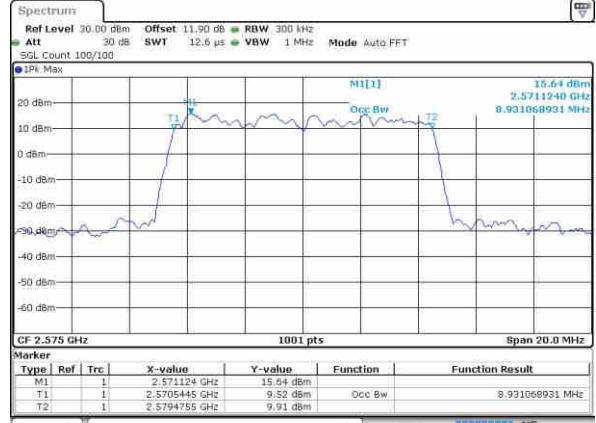


LTE Band 38

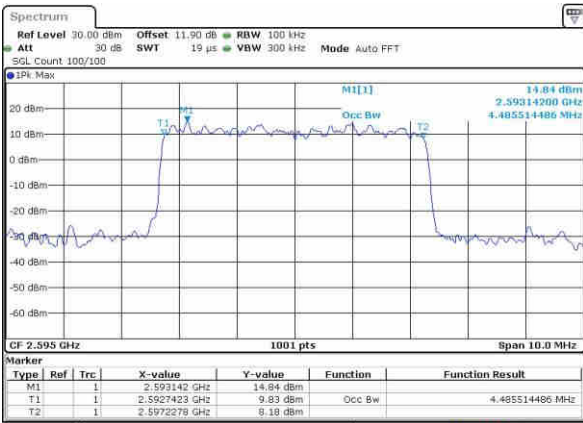
Lowest Channel / 5MHz / 64QAM



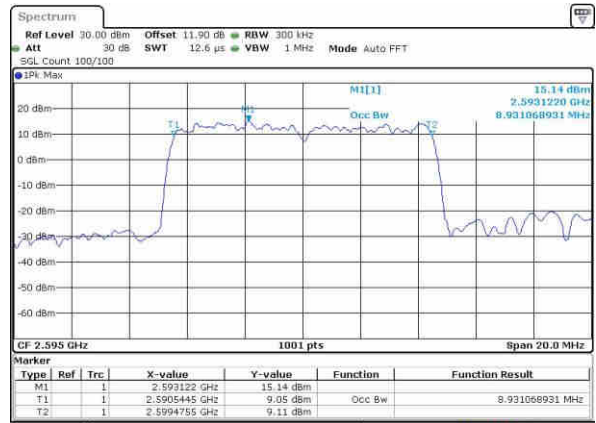
Lowest Channel / 10MHz / 64QAM



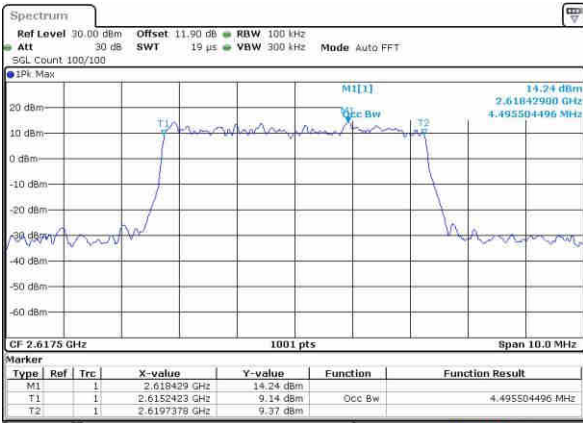
Middle Channel / 5MHz / 64QAM



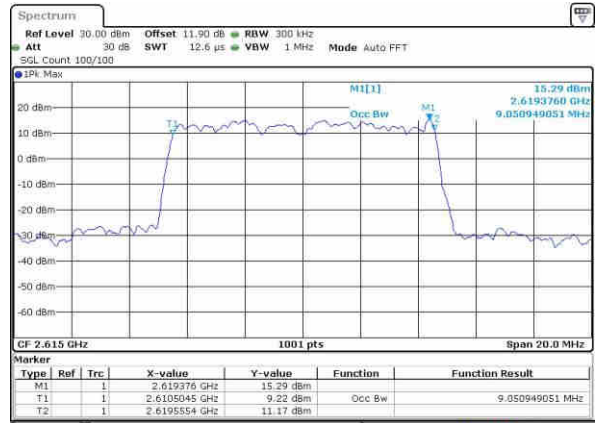
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



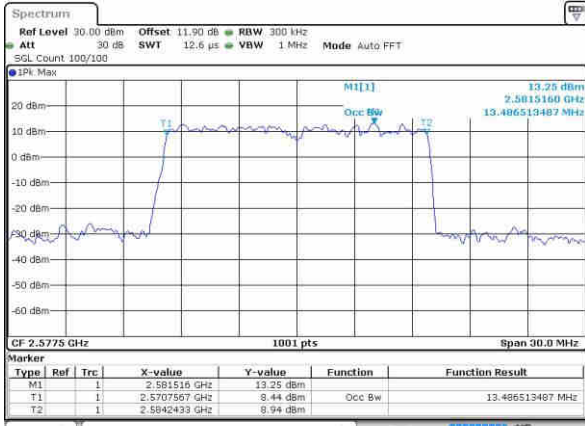
Highest Channel / 10MHz / 64QAM





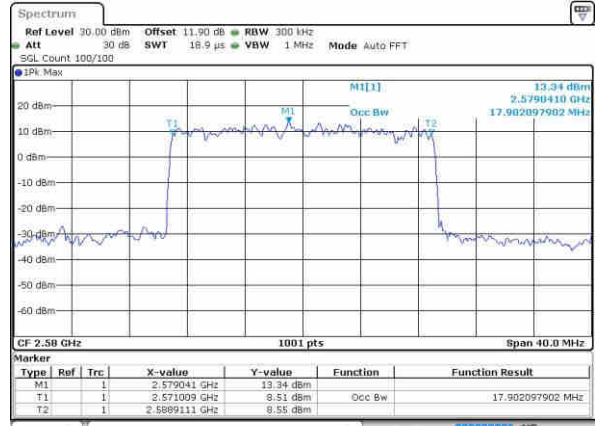
LTE Band 38

Lowest Channel / 15MHz / 64QAM



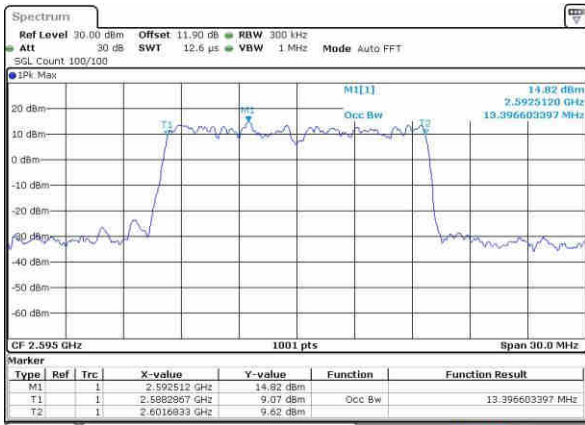
Date: 15 APR 2019 18:52:39

Lowest Channel / 20MHz / 64QAM



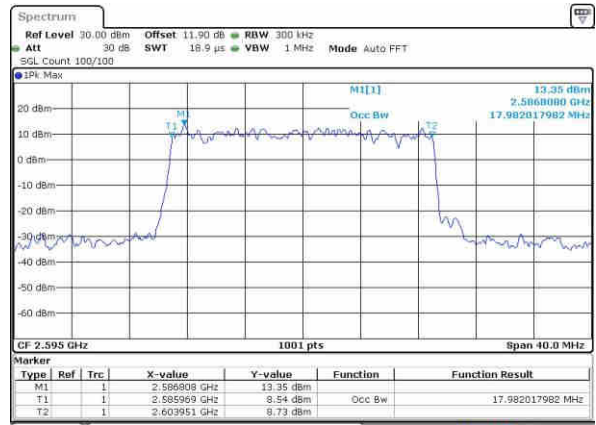
Date: 15 APR 2019 18:53:52

Middle Channel / 15MHz / 64QAM



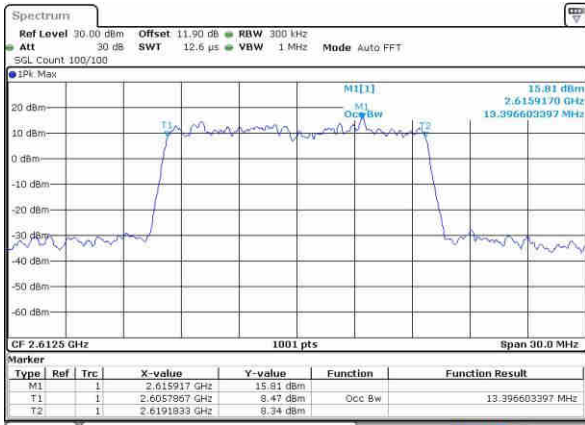
Date: 15 APR 2019 18:53:03

Middle Channel / 20MHz / 64QAM



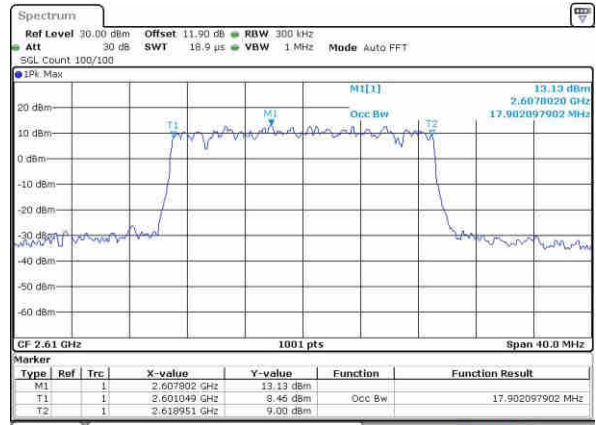
Date: 15 APR 2019 18:54:16

Highest Channel / 15MHz / 64QAM



Date: 15 APR 2019 18:53:26

Highest Channel / 20MHz / 64QAM



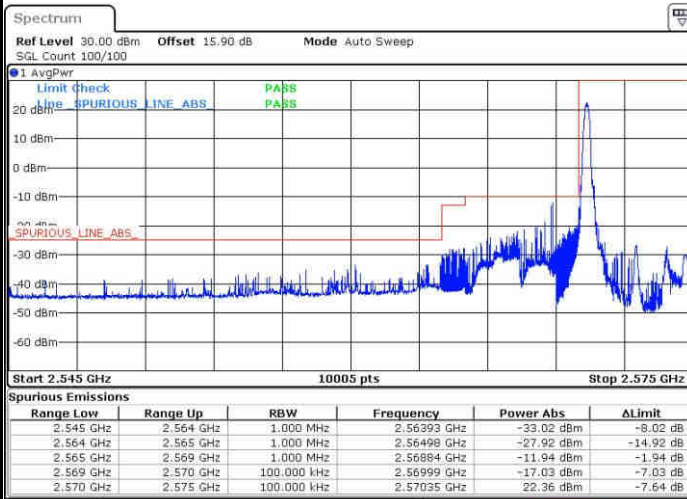
Date: 15 APR 2019 18:54:40



Conducted Band Edge

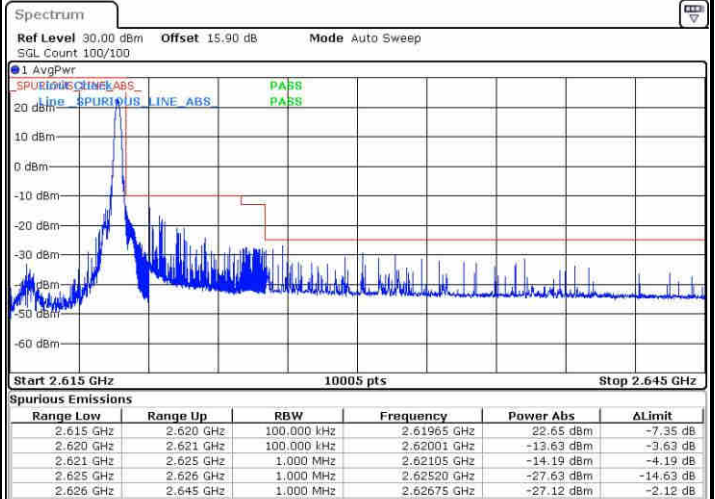
LTE Band 38 / 5MHz / QPSK

Lowest Band Edge / 1 RB



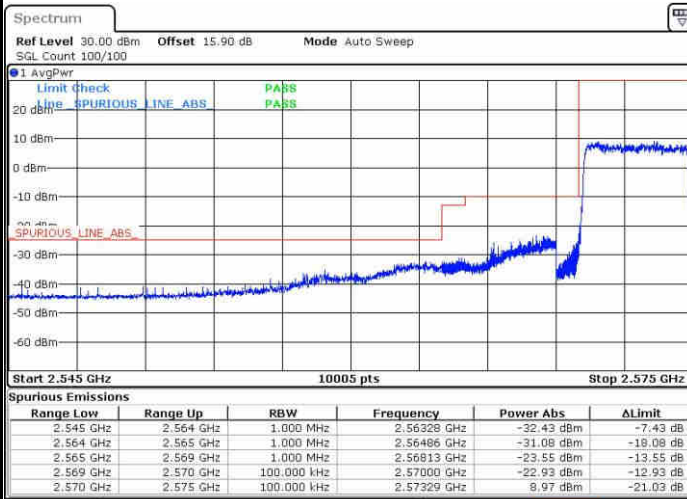
Date: 15 APR 2019 19:31:49

Highest Band Edge / 1 RB



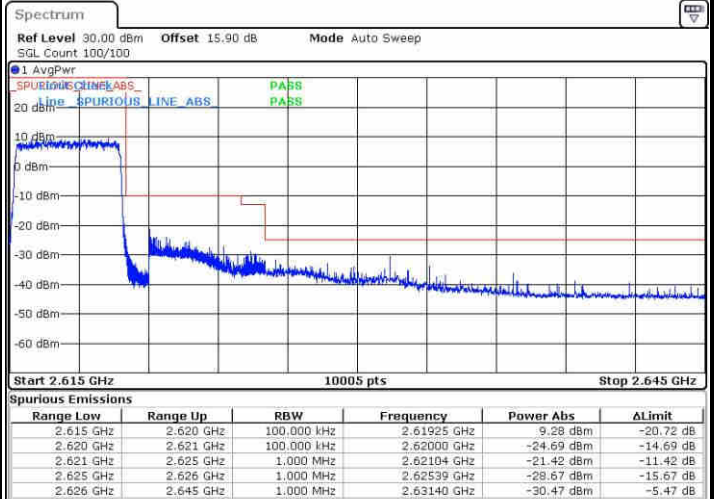
Date: 15 APR 2019 16:29:34

Lowest Band Edge / Full RB



Date: 15 APR 2019 16:27:27

Highest Band Edge / Full RB

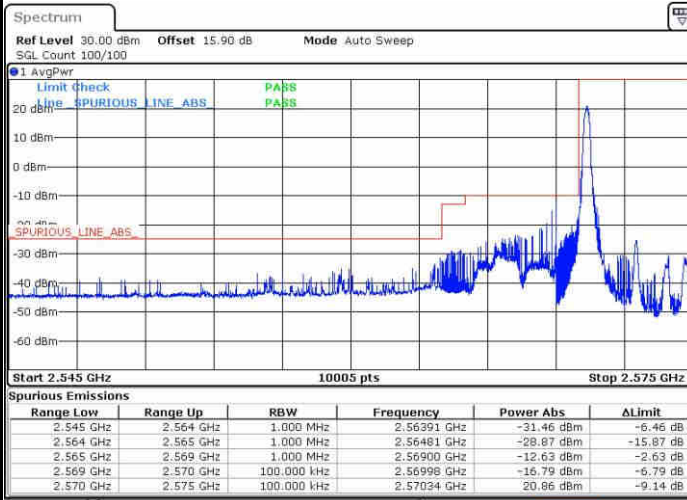


Date: 15 APR 2019 16:28:31



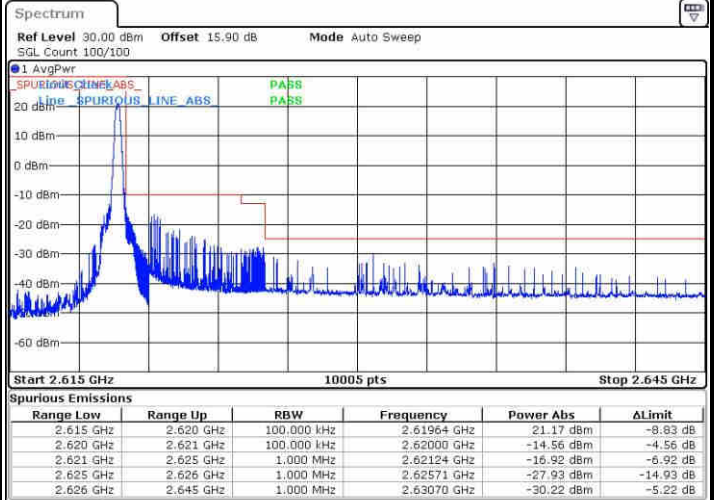
LTE Band 38 / 5MHz / 16QAM

Lowest Band Edge / 1RB



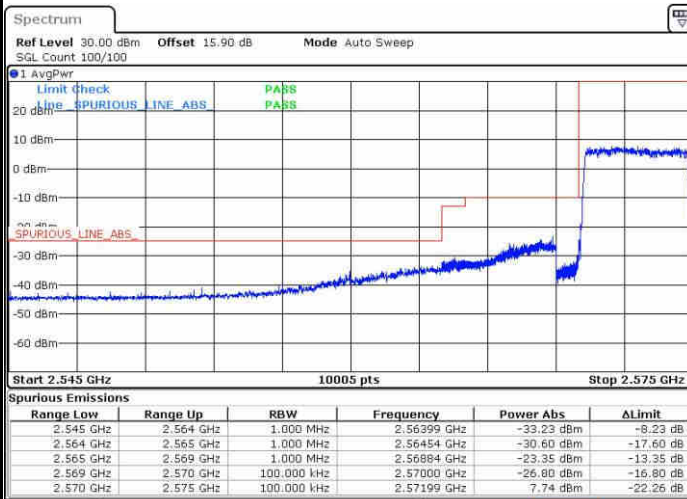
Date: 15 APR 2019 16:28:56

Highest Band Edge / 1 RB



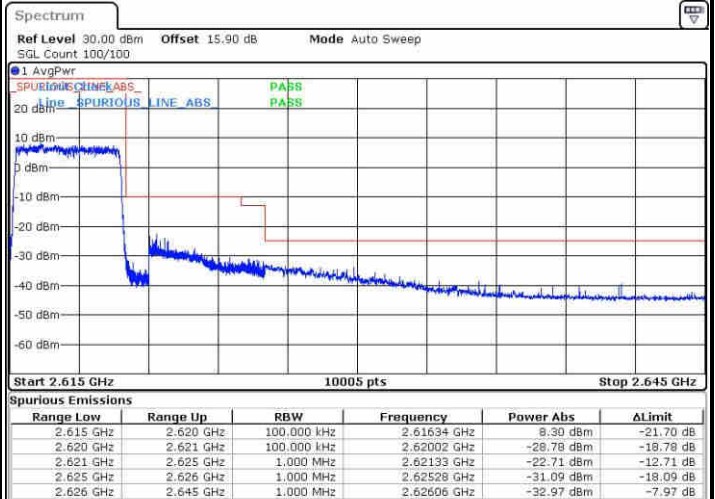
Date: 15 APR 2019 16:30:06

Lowest Band Edge / Full RB



Date: 15 APR 2019 16:27:59

Highest Band Edge / Full RB

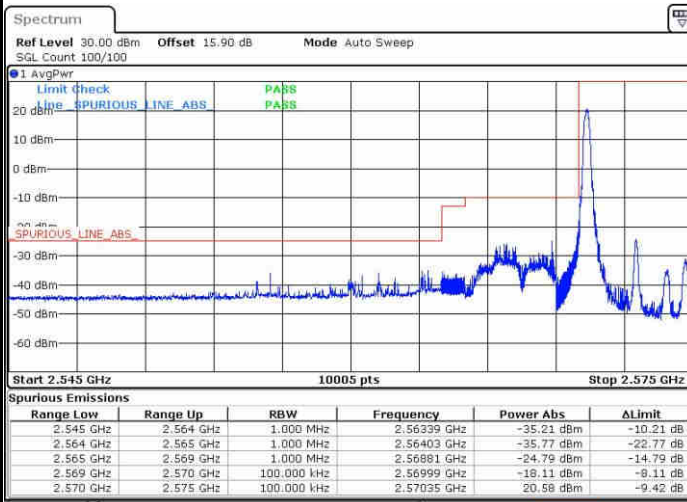


Date: 15 APR 2019 16:28:02



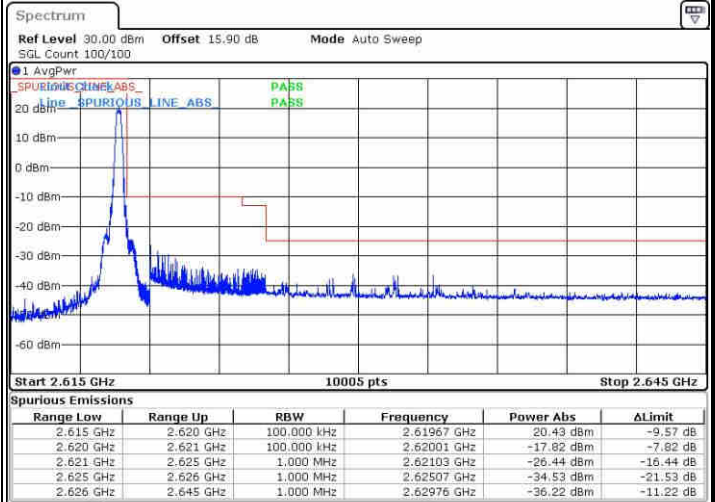
LTE Band 38 / 5MHz / 64QAM

Lowest Band Edge / 1RB



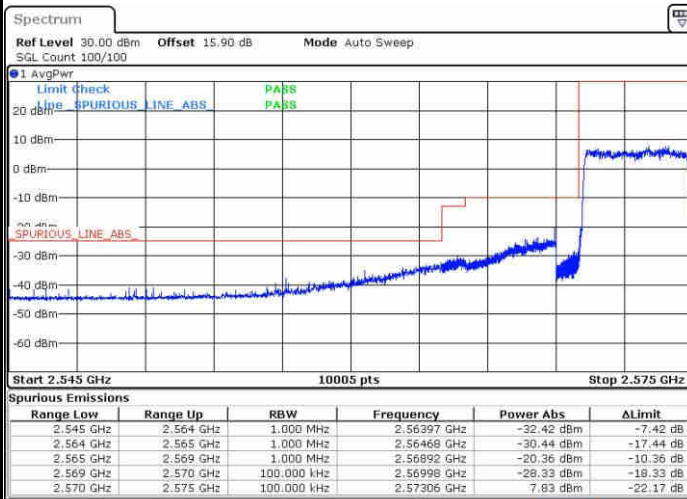
Date: 15 APR 2019 17:36:48

Highest Band Edge / 1 RB



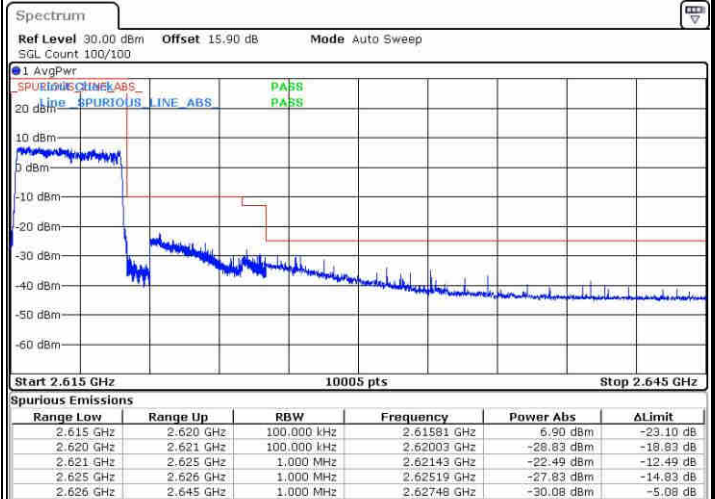
Date: 15 APR 2019 17:38:23

Lowest Band Edge / Full RB



Date: 15 APR 2019 17:37:20

Highest Band Edge / Full RB



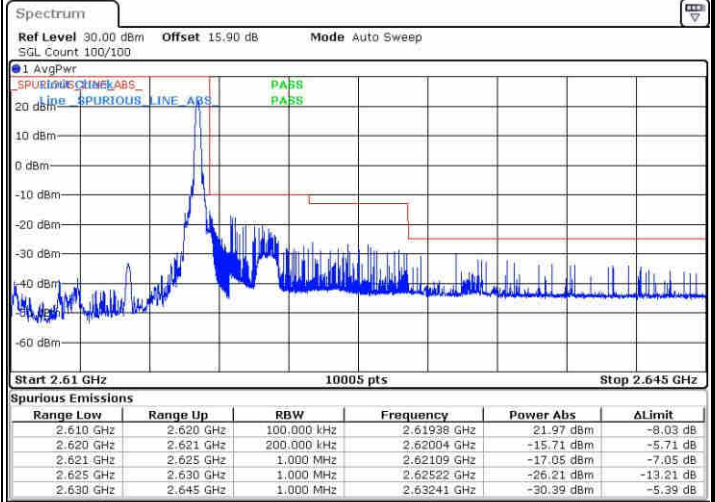
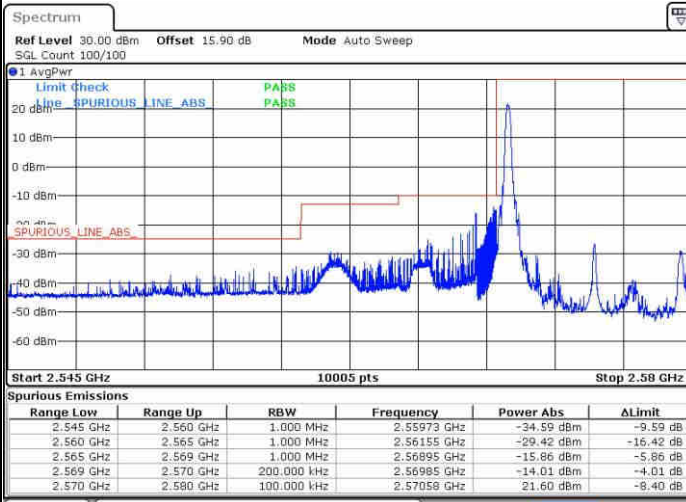
Date: 15 APR 2019 17:37:51



LTE Band 38 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

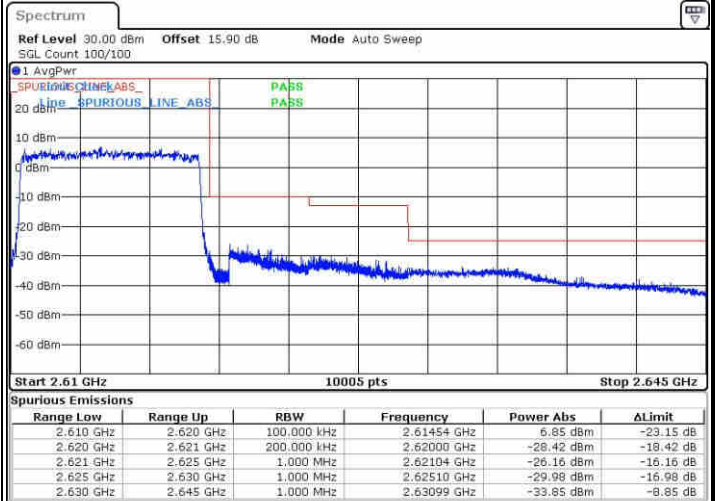
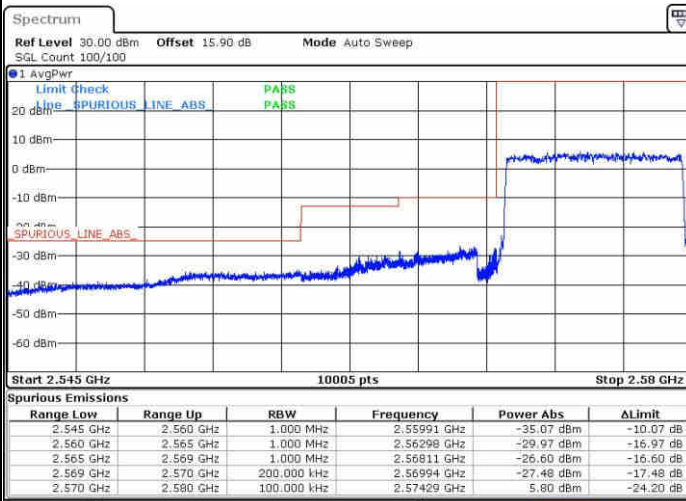


Date: 15 APR 2019 16:30:39

Date: 15 APR 2019 16:33:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15 APR 2019 16:31:43

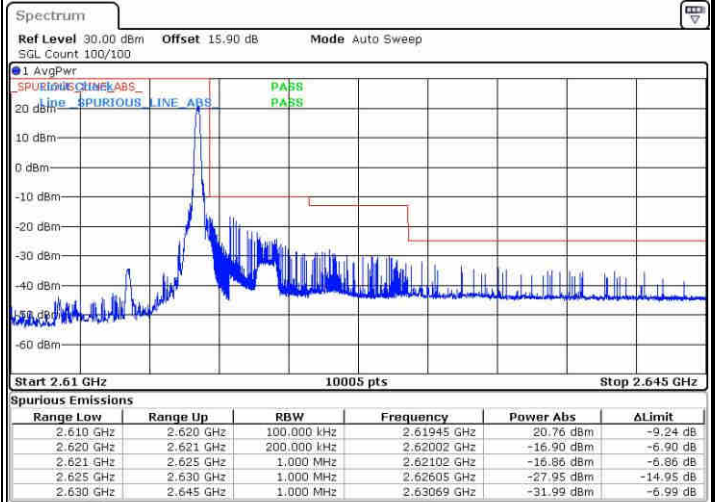
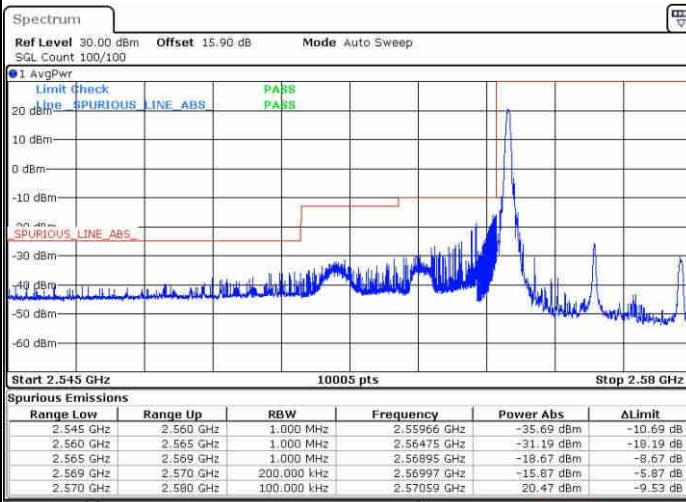
Date: 15 APR 2019 16:32:46



LTE Band 38 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

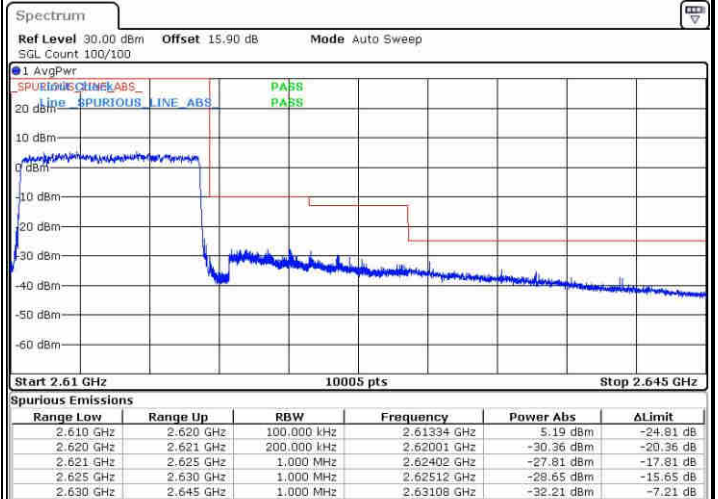
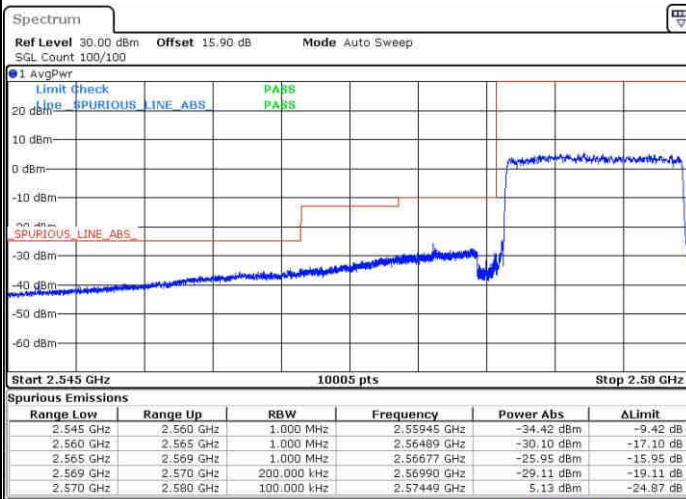


Date: 15 APR 2019 18:31:11

Date: 15 APR 2019 16:34:21

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15 APR 2019 16:32:14

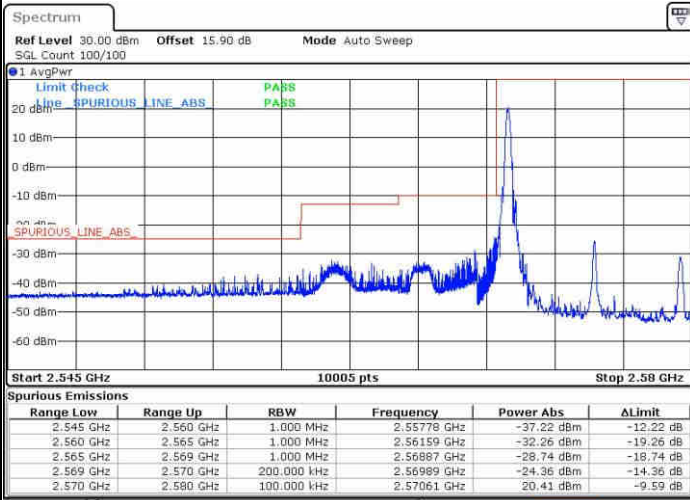
Date: 15 APR 2019 16:33:17



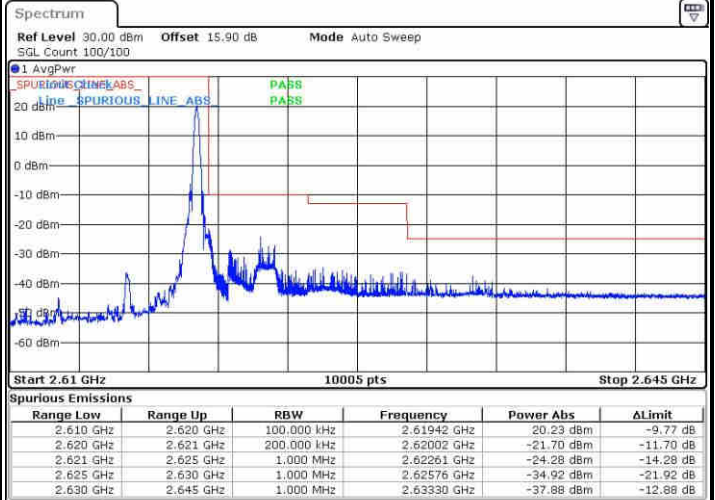
LTE Band 38 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



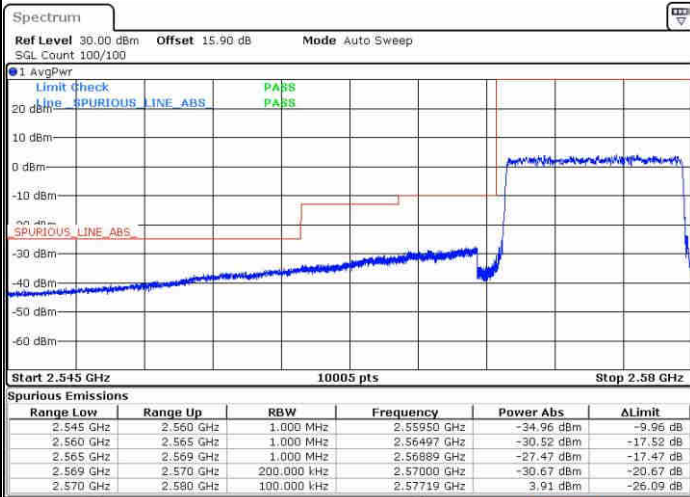
Date: 15 APR 2019 17:38:56



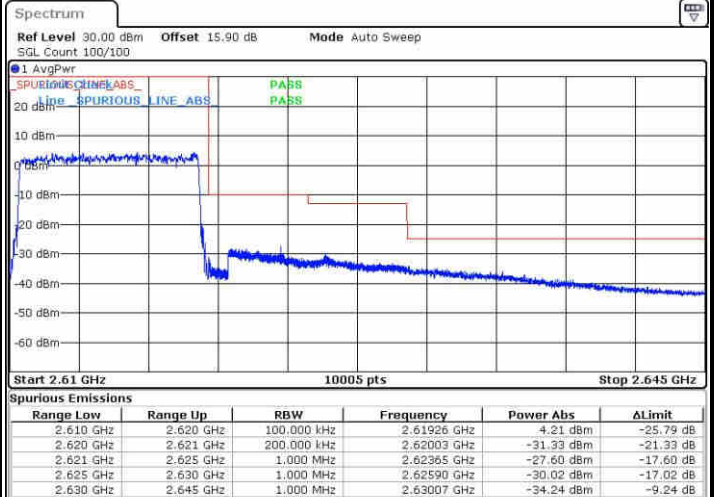
Date: 15 APR 2019 17:40:31

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15 APR 2019 17:39:28

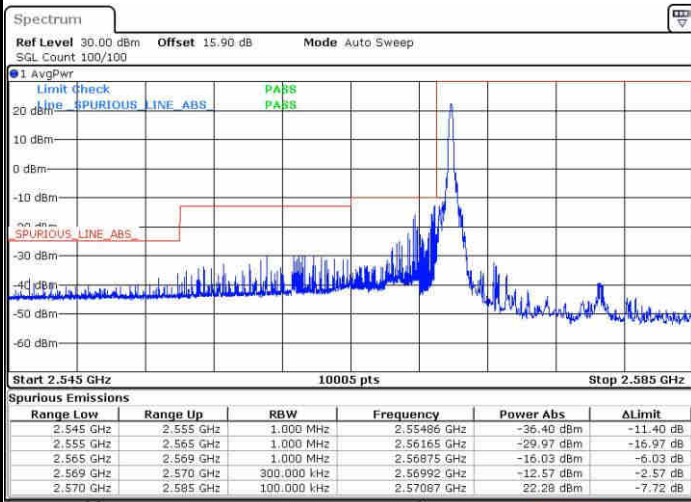


Date: 15 APR 2019 17:39:58



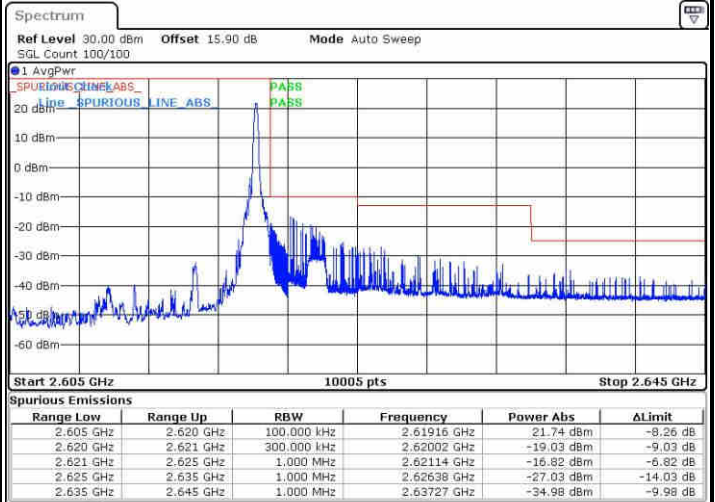
LTE Band 38 / 15MHz / QPSK

Lowest Band Edge / 1 RB



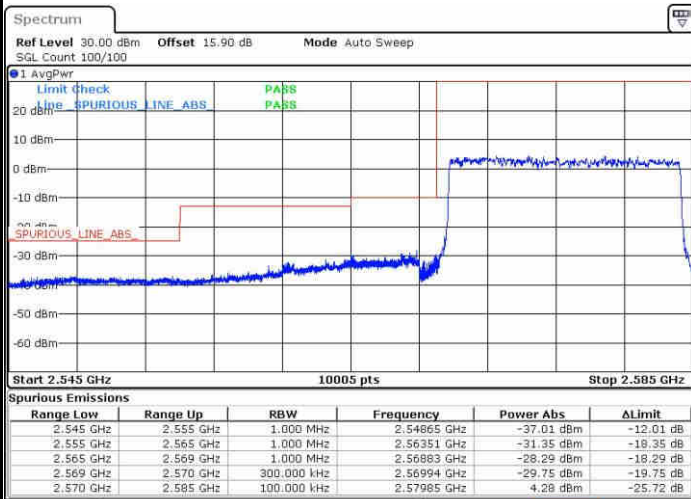
Date: 15 APR 2019 18:34:54

Highest Band Edge / 1 RB



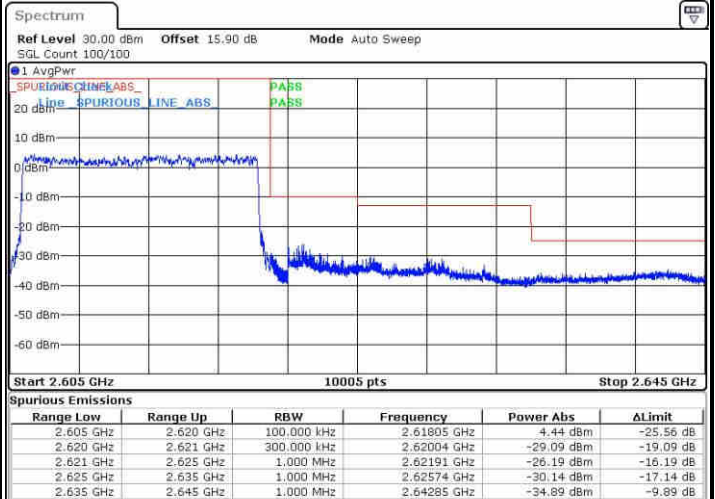
Date: 15 APR 2019 16:38:04

Lowest Band Edge / Full RB



Date: 15 APR 2019 16:35:58

Highest Band Edge / Full RB

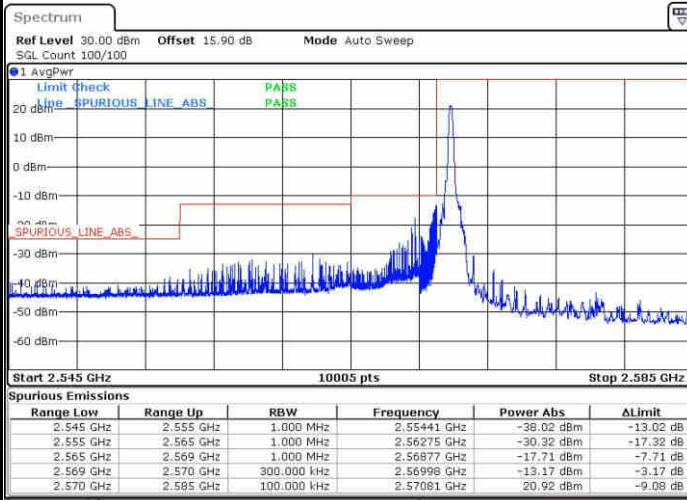


Date: 15 APR 2019 16:37:01



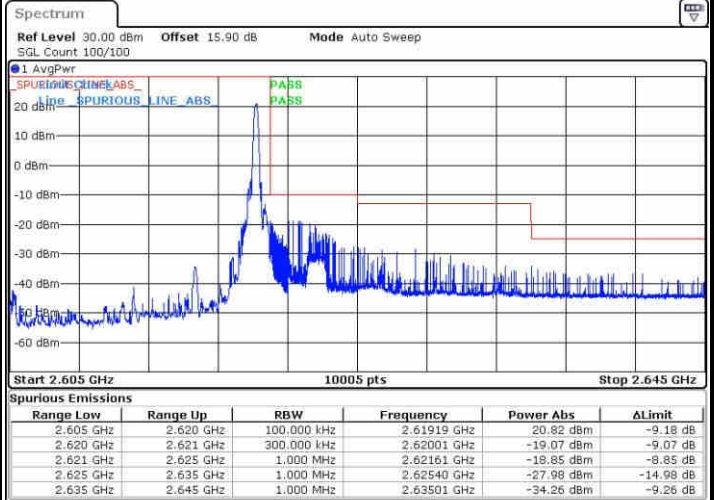
LTE Band 38 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



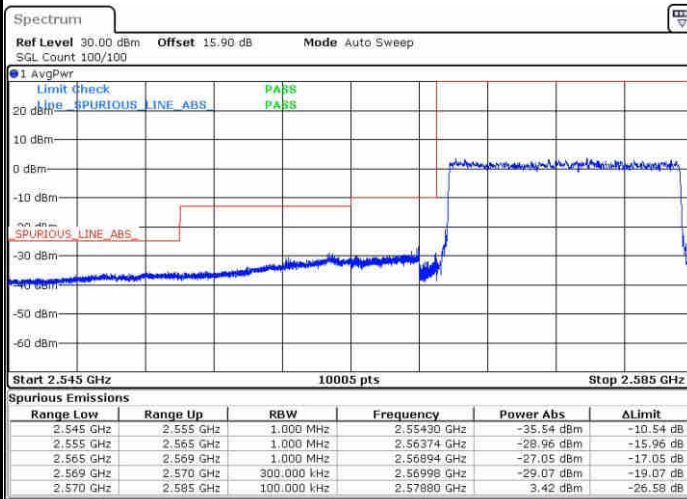
Date: 15 APR 2019 18:35:26

Highest Band Edge / 1 RB



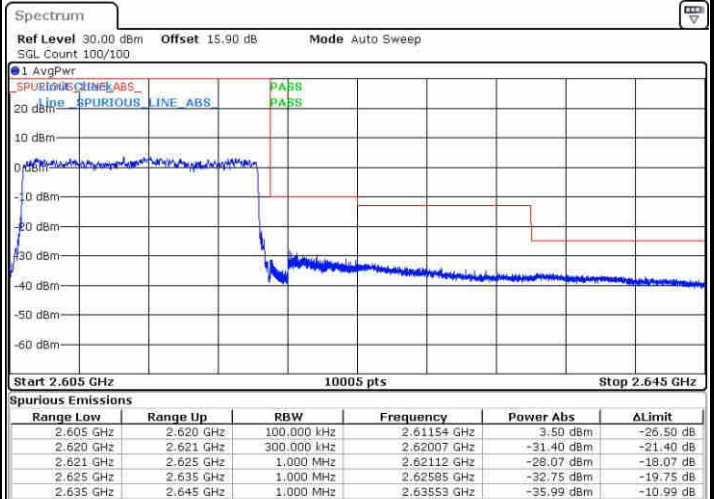
Date: 15 APR 2019 18:38:36

Lowest Band Edge / Full RB



Date: 15 APR 2019 18:36:29

Highest Band Edge / Full RB

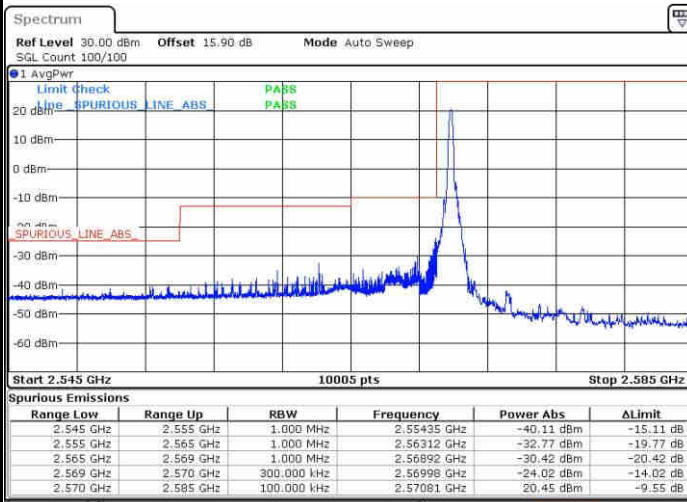


Date: 15 APR 2019 18:37:32



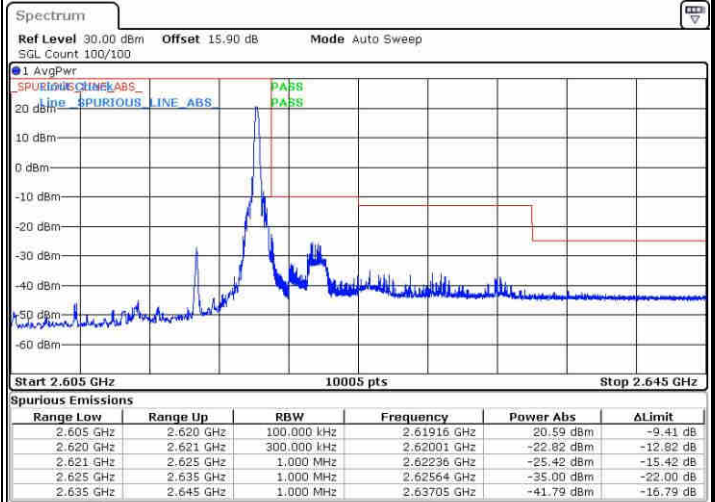
LTE Band 38 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



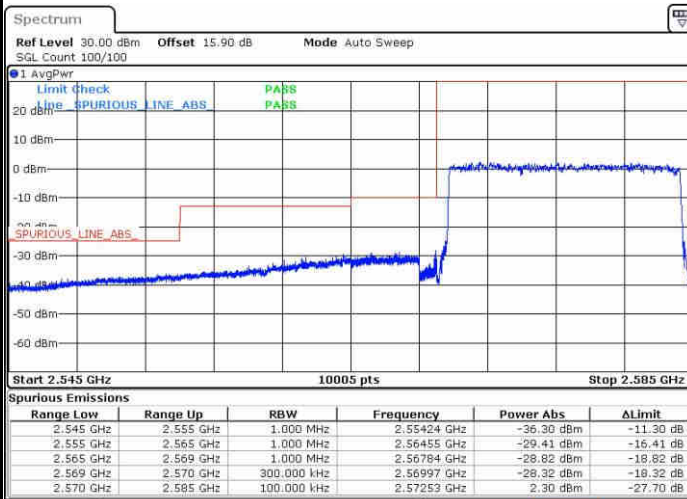
Date: 15 APR 2019 17:41:04

Highest Band Edge / 1 RB



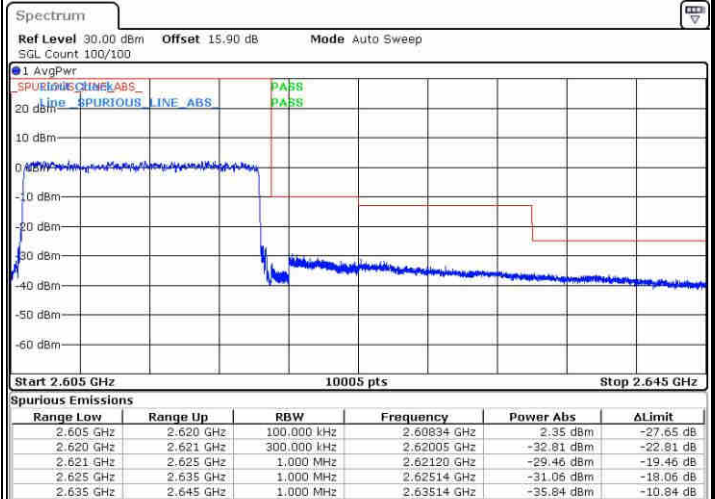
Date: 15 APR 2019 17:42:39

Lowest Band Edge / Full RB



Date: 15 APR 2019 17:41:36

Highest Band Edge / Full RB

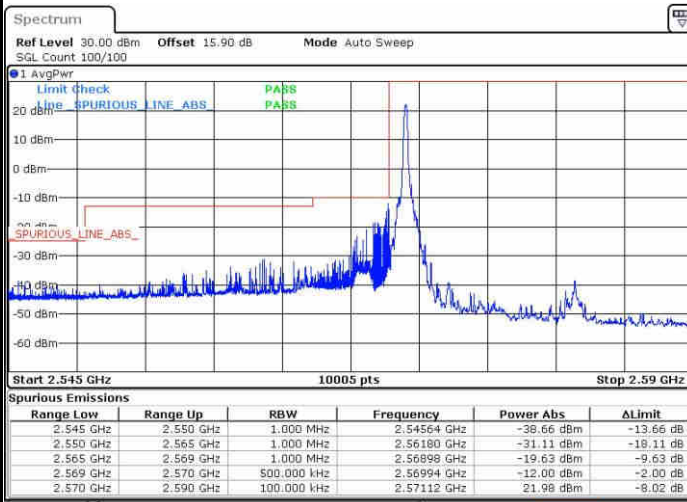


Date: 15 APR 2019 17:42:07



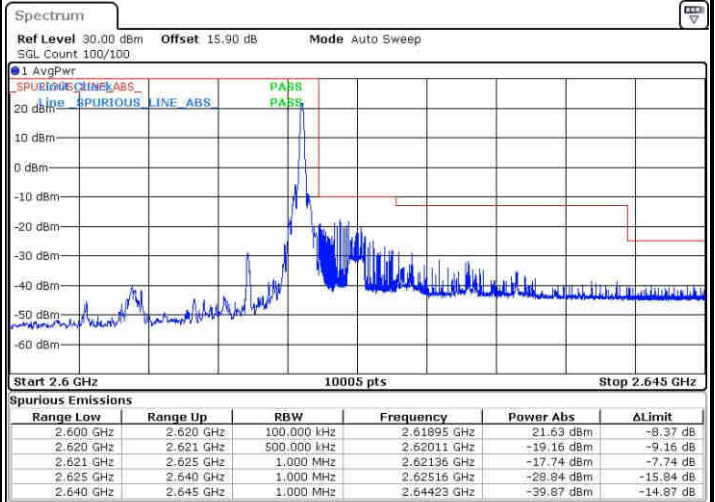
LTE Band 38 / 20MHz / QPSK

Lowest Band Edge / 1 RB



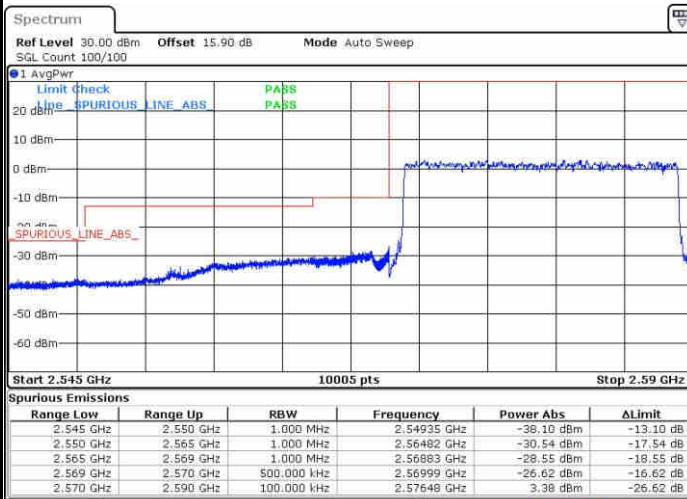
Date: 15 APR 2019 17:32:33

Highest Band Edge / 1 RB



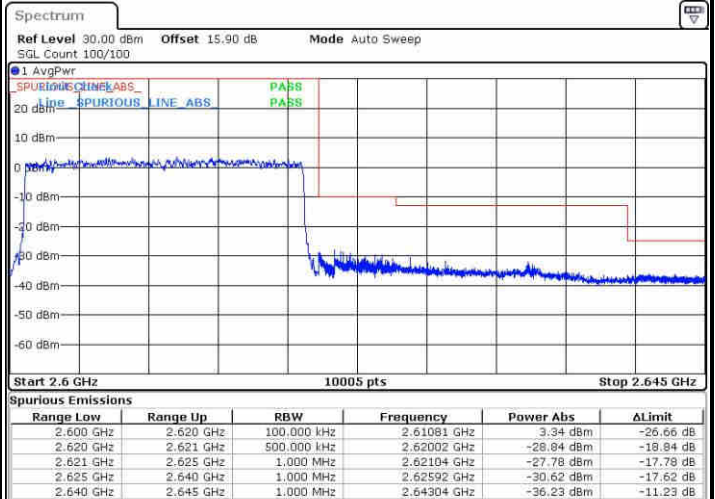
Date: 15 APR 2019 17:35:43

Lowest Band Edge / Full RB



Date: 15 APR 2019 17:33:37

Highest Band Edge / Full RB

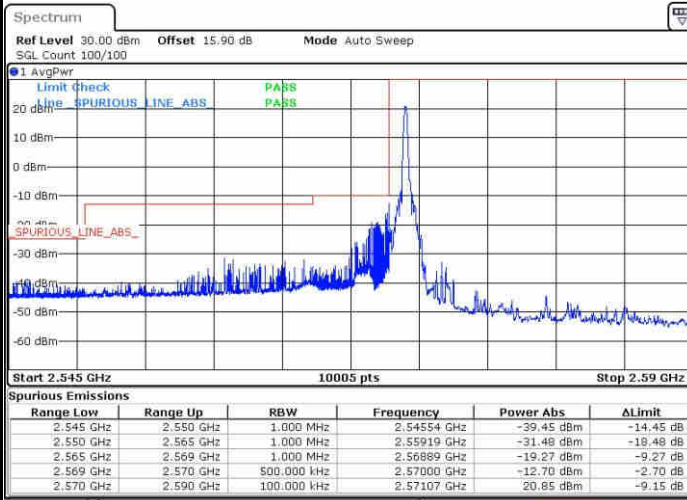


Date: 15 APR 2019 17:34:40



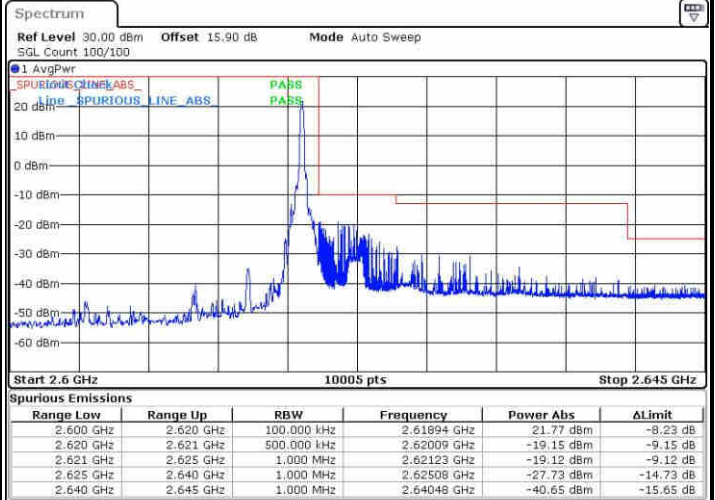
LTE Band 38 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



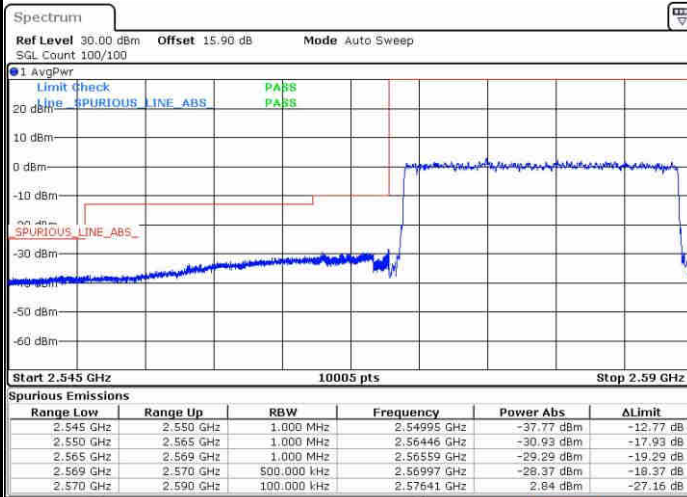
Date: 15 APR 2019 17:33:05

Highest Band Edge / 1 RB



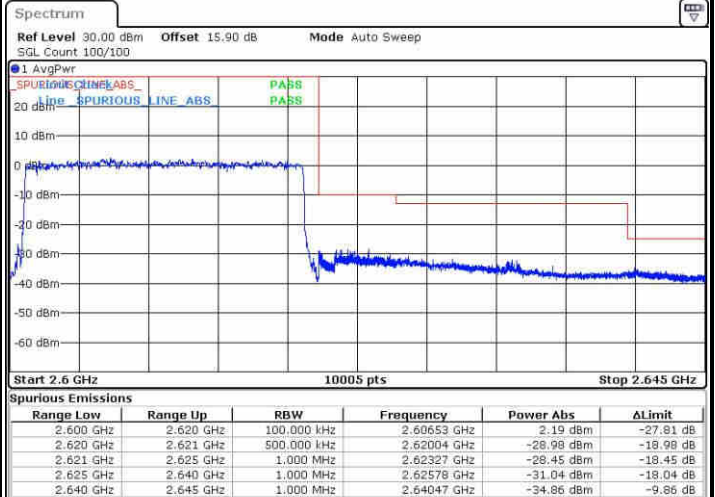
Date: 15 APR 2019 17:36:15

Lowest Band Edge / Full RB



Date: 15 APR 2019 17:34:08

Highest Band Edge / Full RB

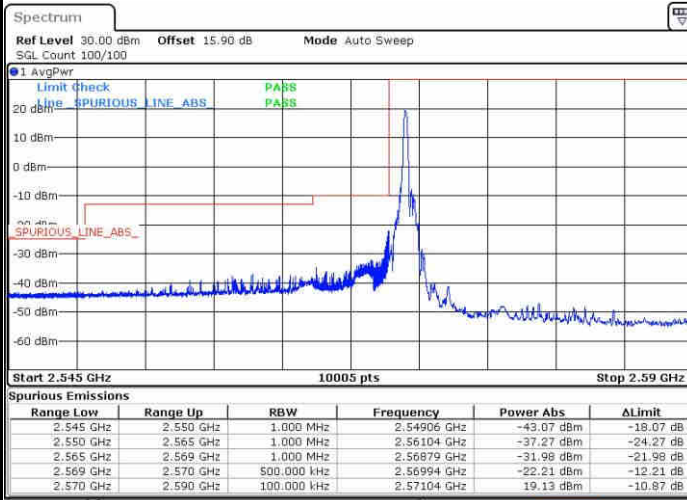


Date: 15 APR 2019 17:35:12



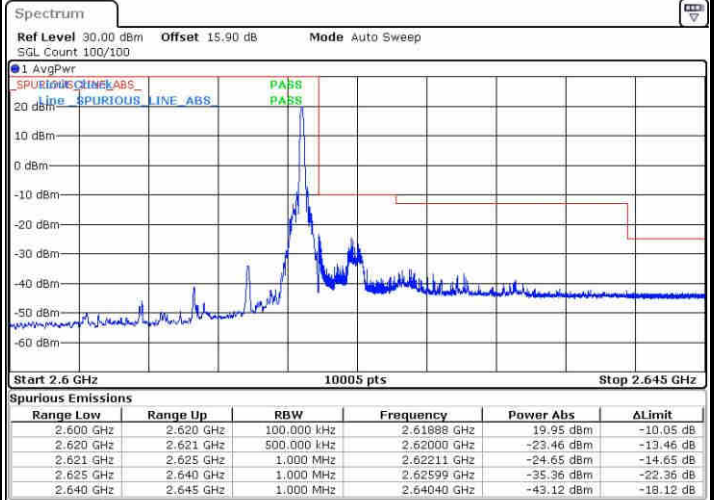
LTE Band 38 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



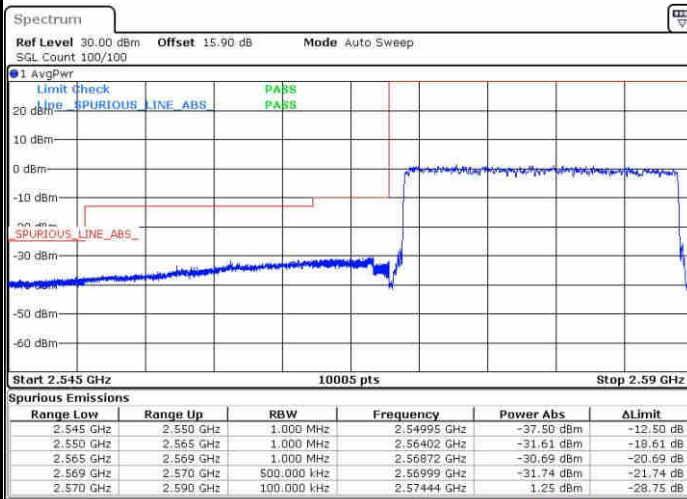
Date: 15 APR 2019 17:43:12

Highest Band Edge / 1 RB



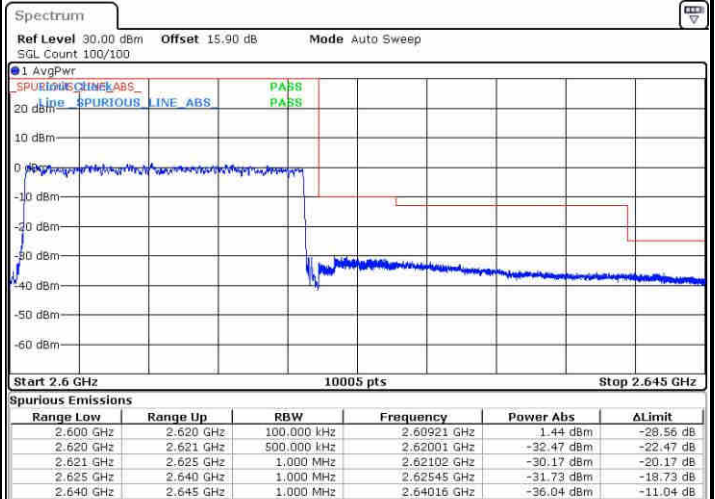
Date: 15 APR 2019 17:44:47

Lowest Band Edge / Full RB



Date: 15 APR 2019 17:43:44

Highest Band Edge / Full RB



Date: 15 APR 2019 17:44:16