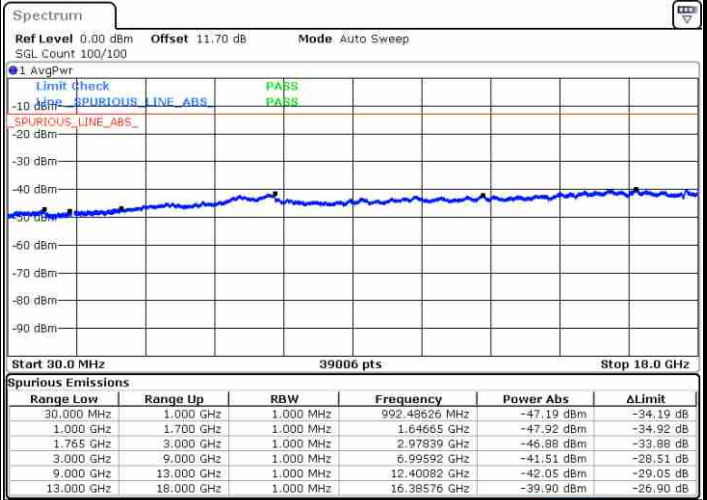
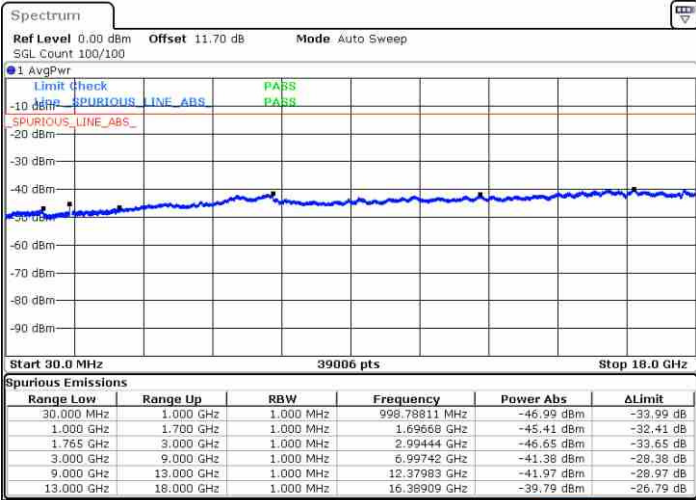




LTE Band 4 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

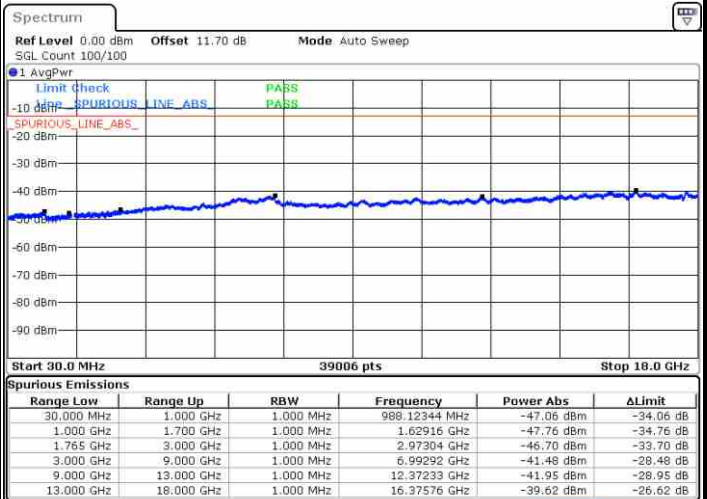
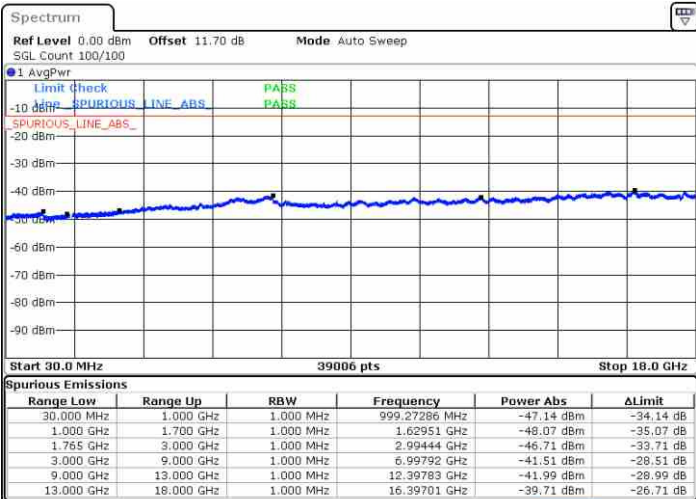


Date: 9.FEB.2018 15:03:07

Date: 9.FEB.2018 15:08:49

Middle Channel / QPSK

Middle Channel / 16QAM



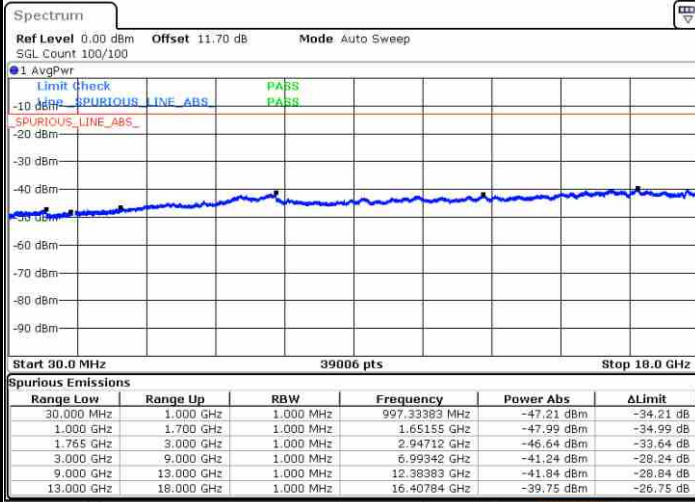
Date: 9.FEB.2018 15:13:53

Date: 9.FEB.2018 15:14:46



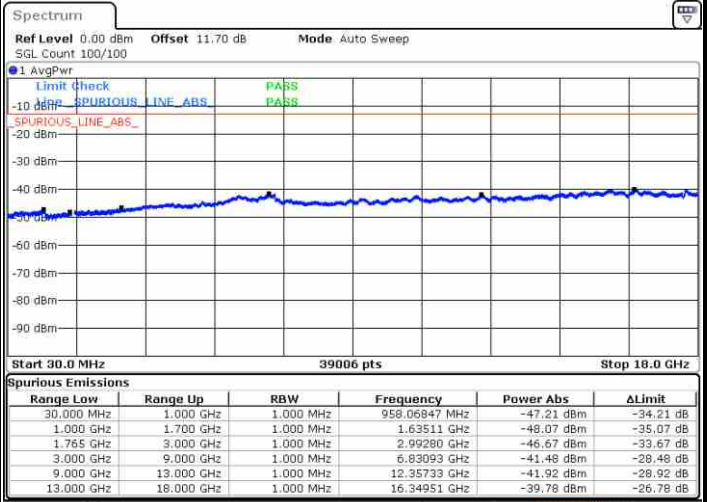
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 9.FEB.2018 15:29:01

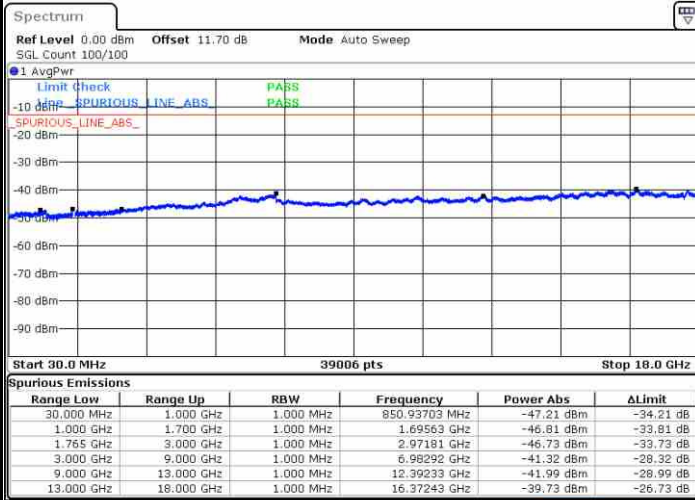
Highest Channel / 16QAM



Date: 9.FEB.2018 15:29:54

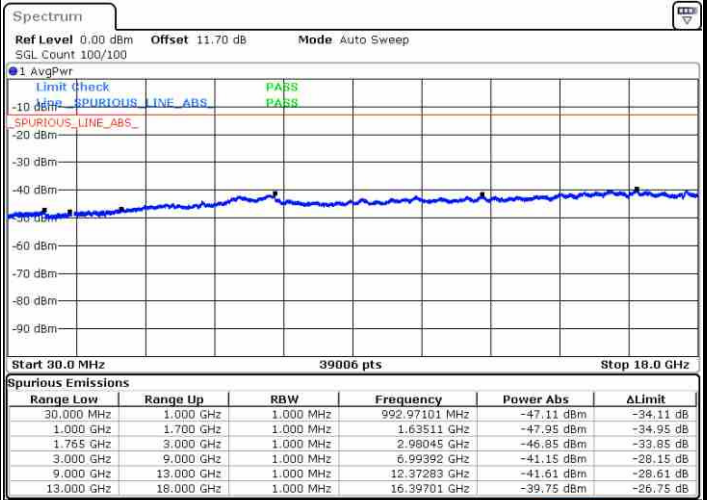
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 9.FEB.2018 10:46:06

Lowest Channel / 16QAM



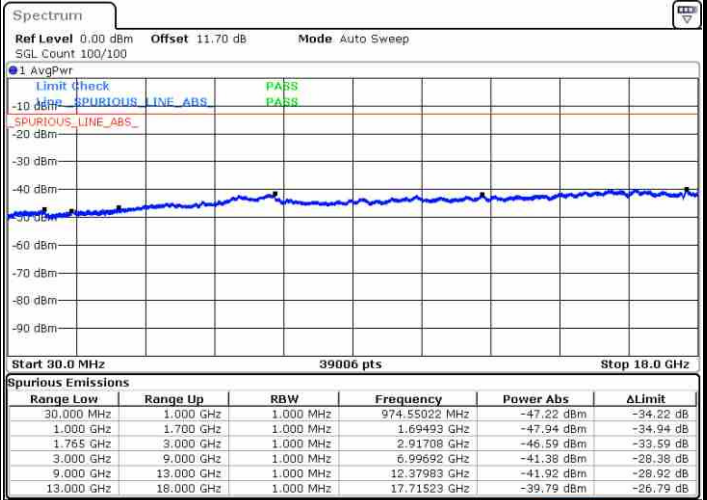
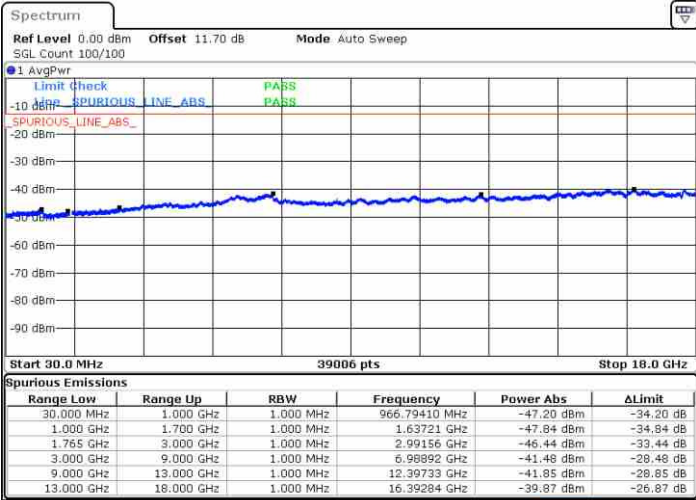
Date: 9.FEB.2018 10:46:59



LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

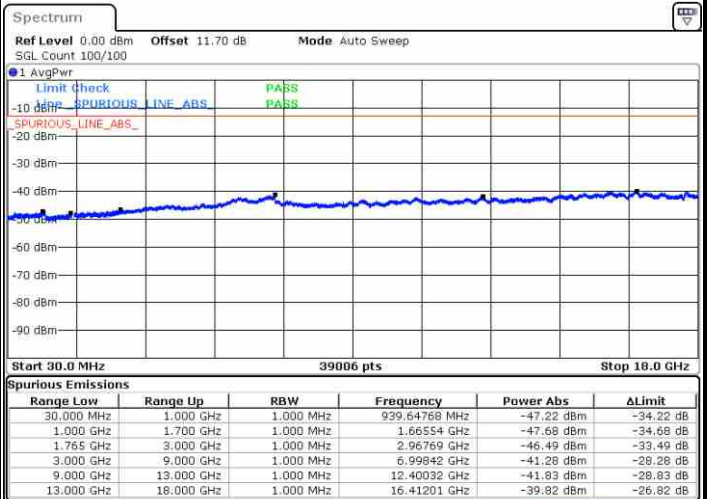
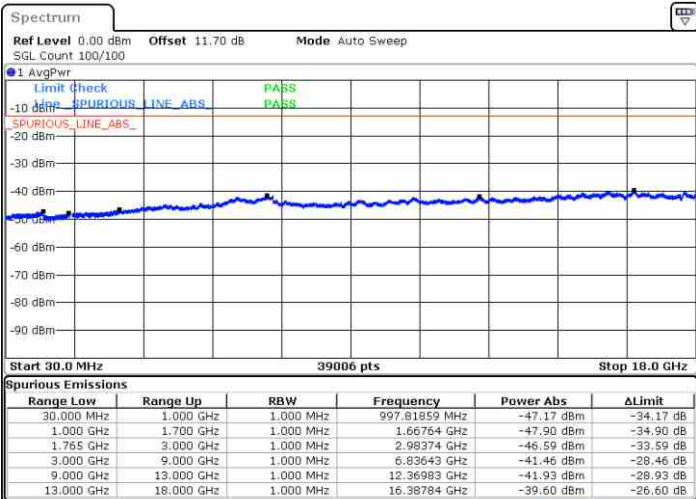


Date: 9.FEB.2018 10:48:55

Date: 9.FEB.2018 10:49:48

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 9.FEB.2018 10:55:53

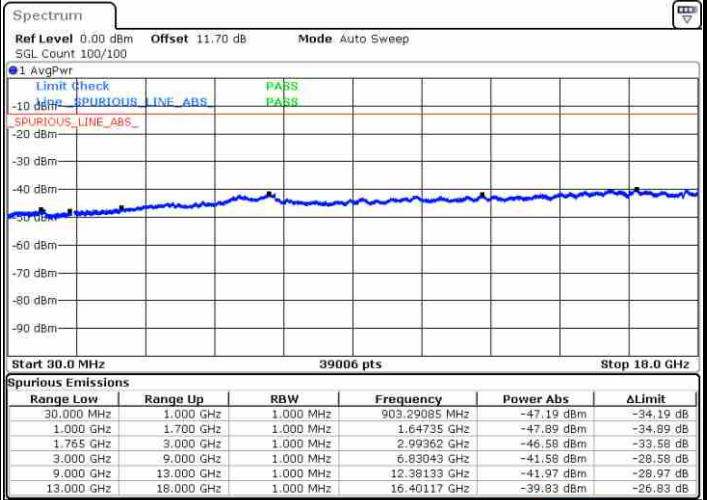
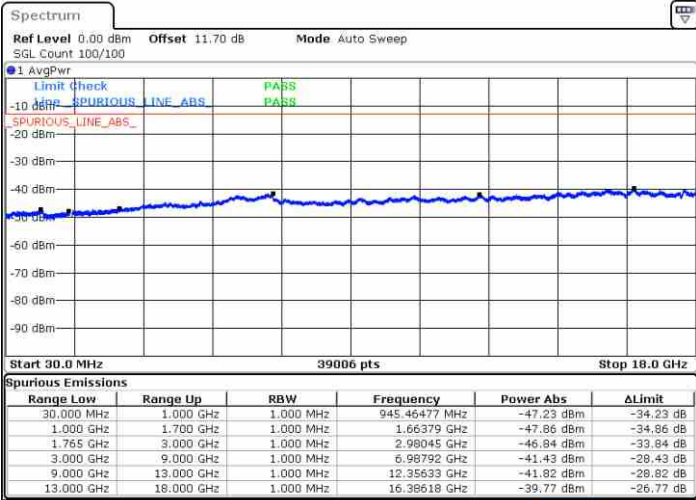
Date: 9.FEB.2018 10:56:46



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

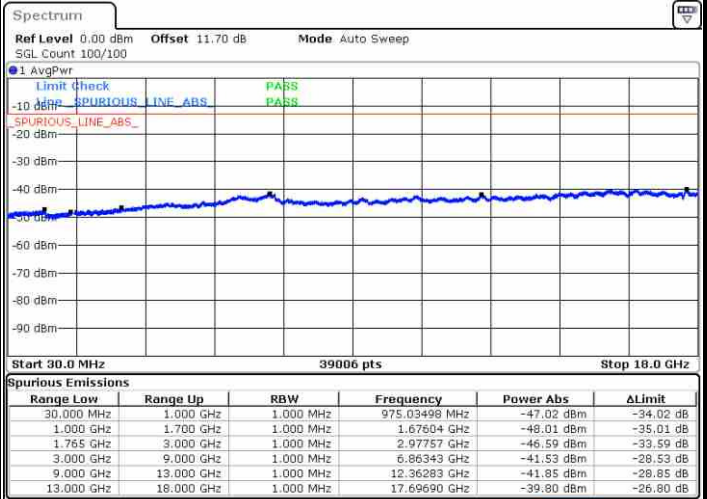
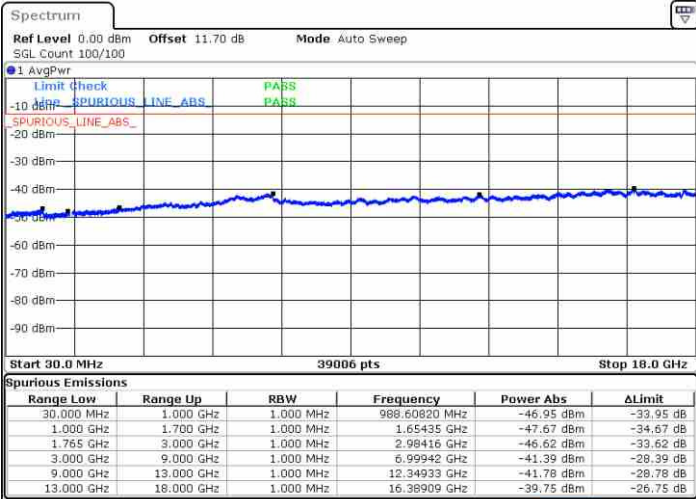


Date: 9.FEB.2018 11:05:38

Date: 9.FEB.2018 11:06:31

Middle Channel / QPSK

Middle Channel / 16QAM



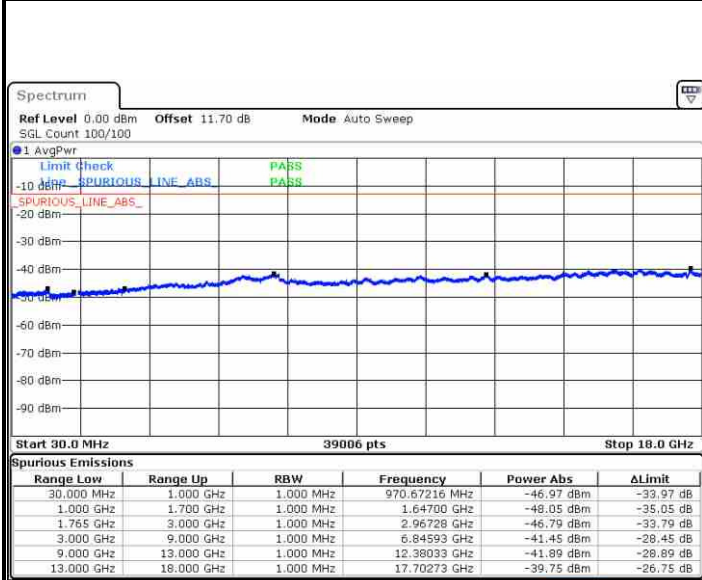
Date: 9.FEB.2018 11:08:41

Date: 9.FEB.2018 11:09:34



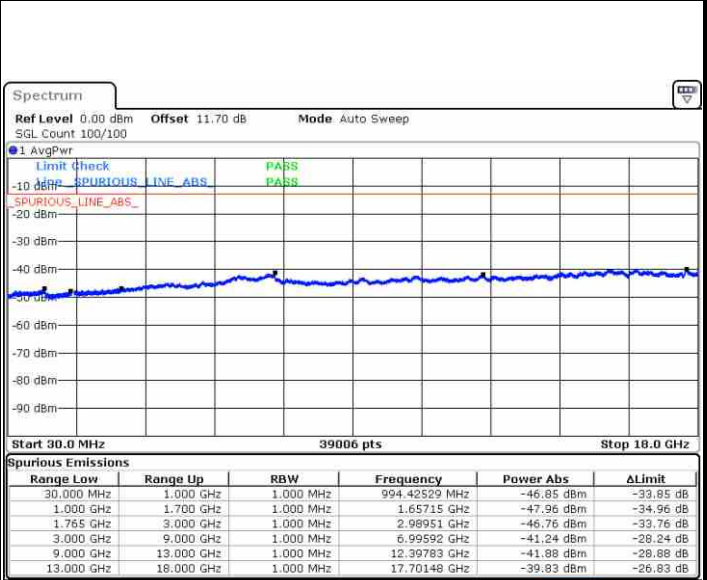
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 9.FEB.2018 11:16:29

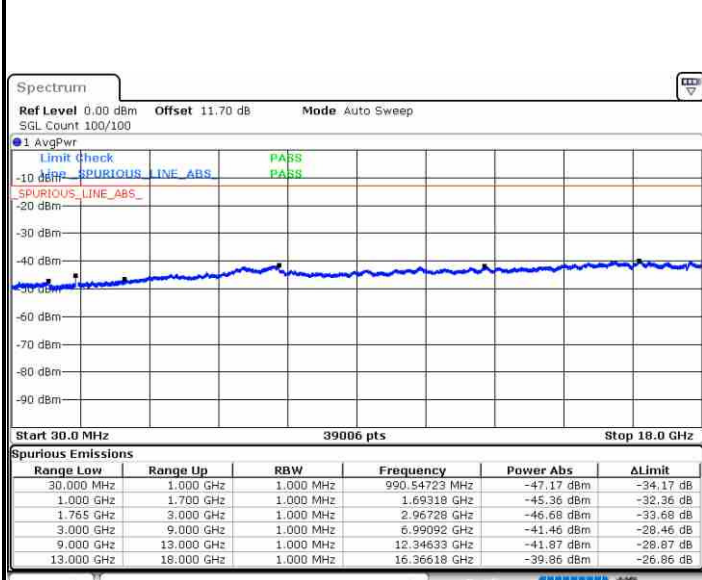
Highest Channel / 16QAM



Date: 9.FEB.2018 11:17:51

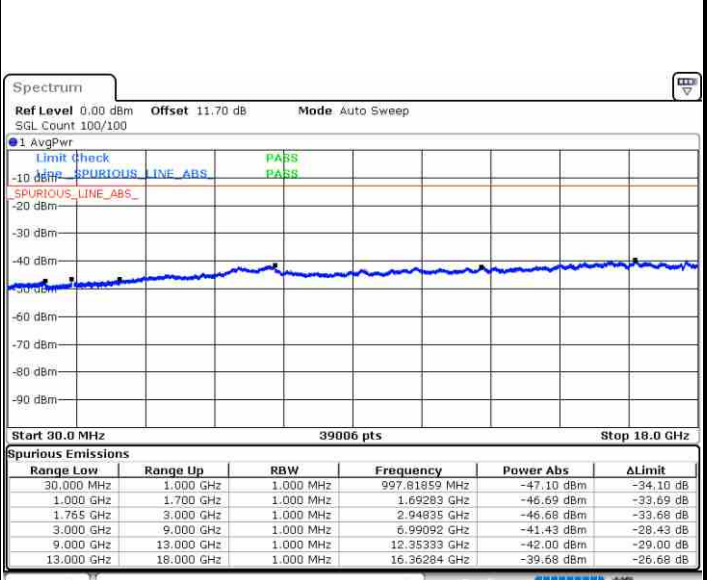
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 9.FEB.2018 11:14:51

Lowest Channel / 16QAM



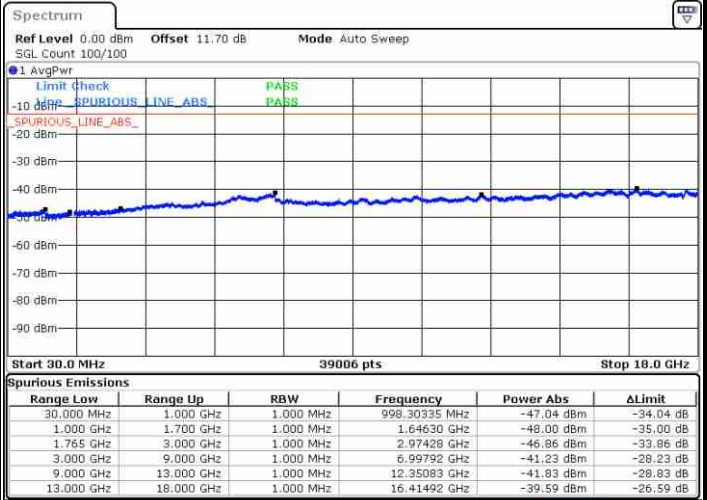
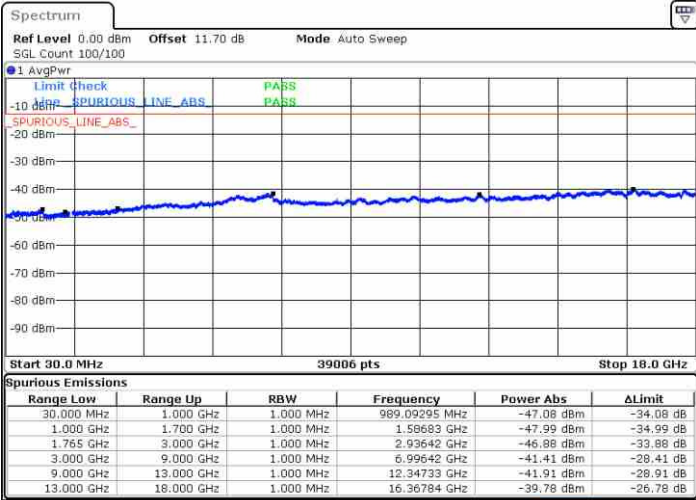
Date: 9.FEB.2018 11:05:45



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

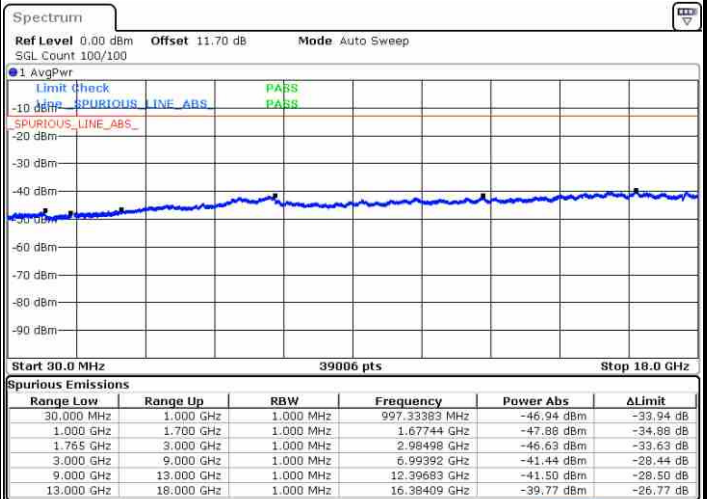
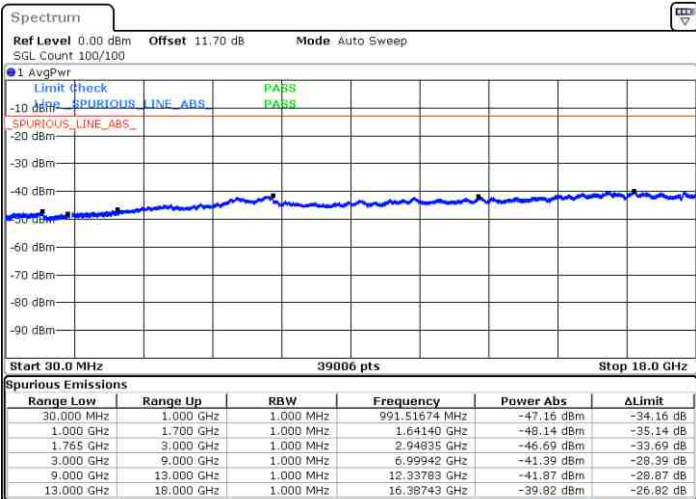


Date: 9.FEB.2018 11:42:00

Date: 9.FEB.2018 11:42:53

Highest Channel / QPSK

Highest Channel / 16QAM



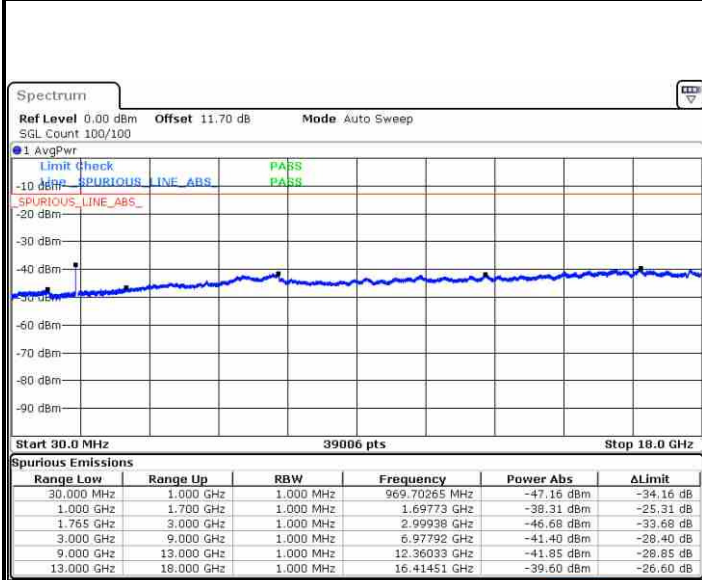
Date: 9.FEB.2018 11:51:50

Date: 9.FEB.2018 11:52:43



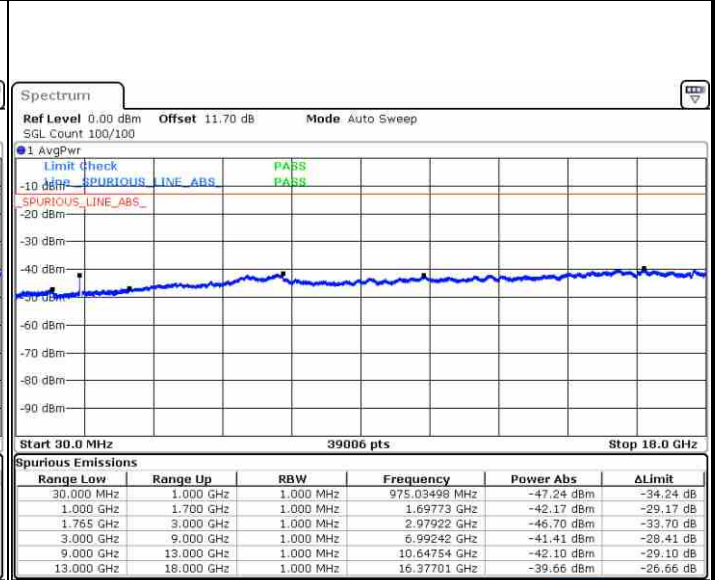
LTE Band 4 / 15MHz

Lowest Channel / QPSK



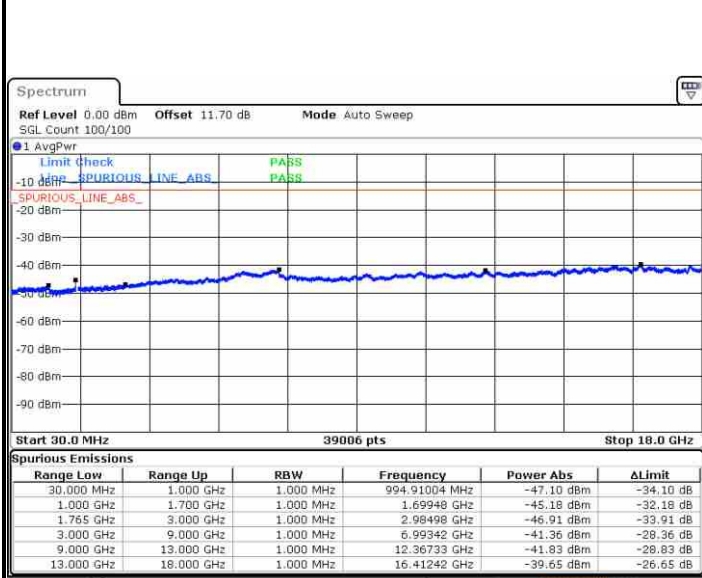
Date: 9.FEB.2018 11:59:04

Lowest Channel / 16QAM



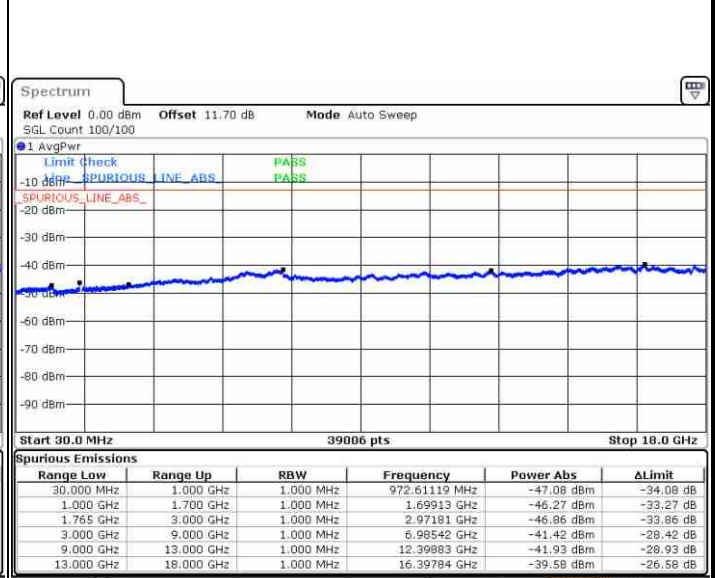
Date: 9.FEB.2018 11:59:58

Middle Channel / QPSK



Date: 9.FEB.2018 13:29:32

Middle Channel / 16QAM

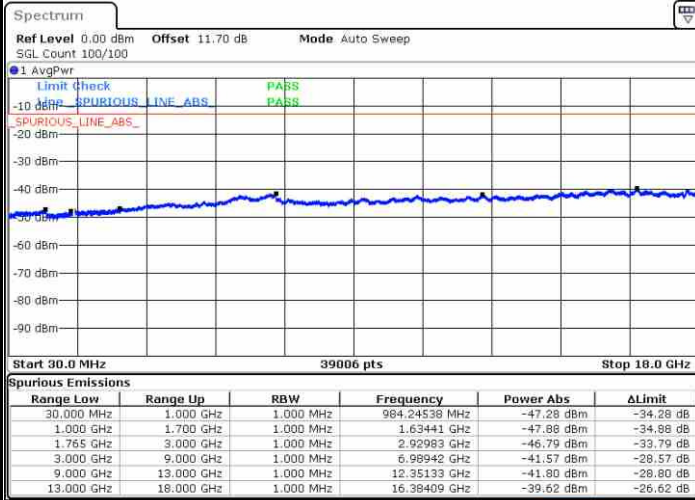


Date: 9.FEB.2018 13:30:25



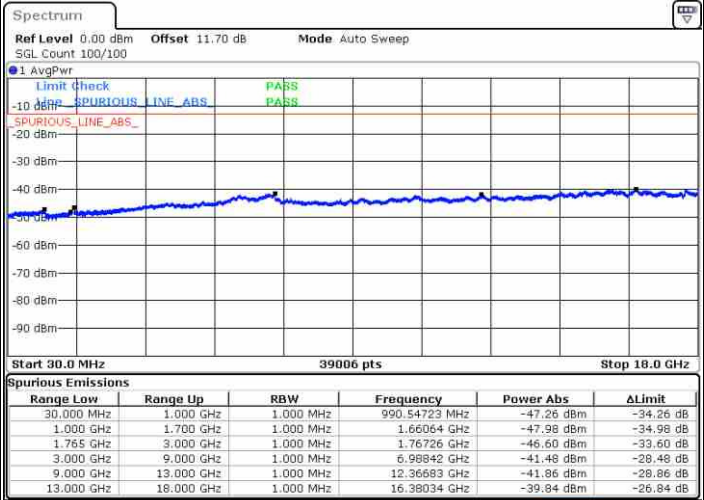
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 9.FEB.2018 13:36:29

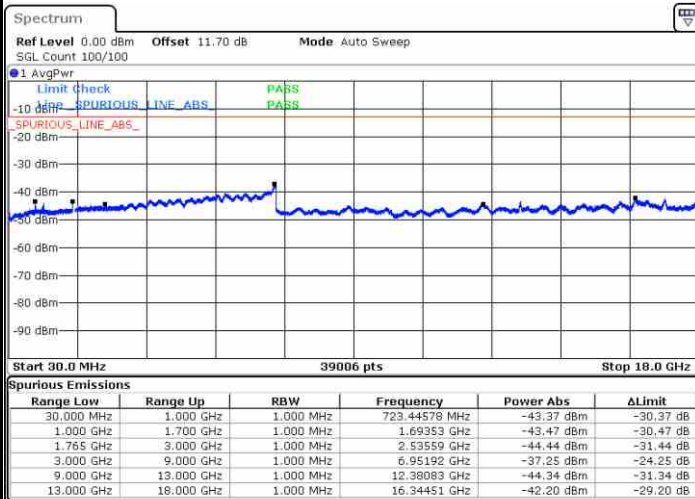
Highest Channel / 16QAM



Date: 9.FEB.2018 13:41:27

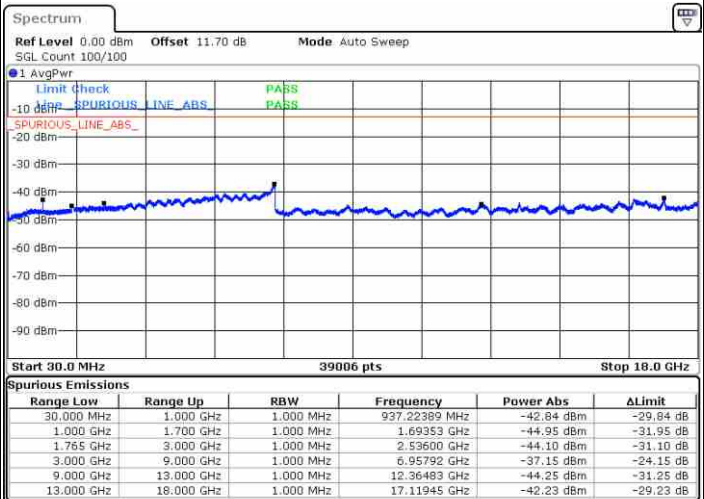
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 9.FEB.2018 21:39:24

Lowest Channel / 16QAM



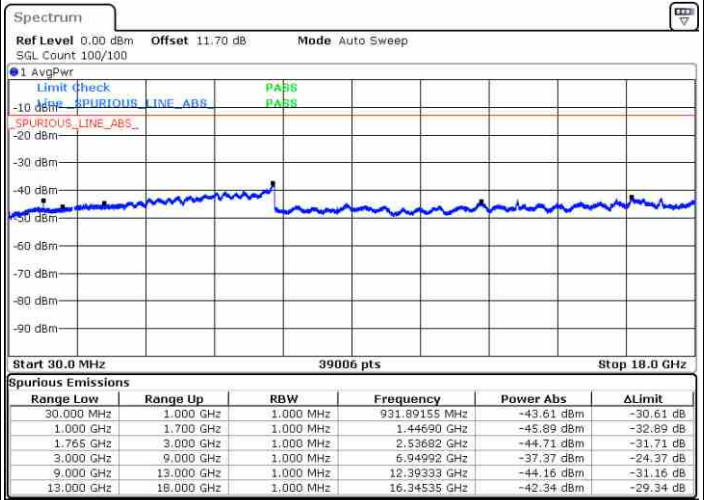
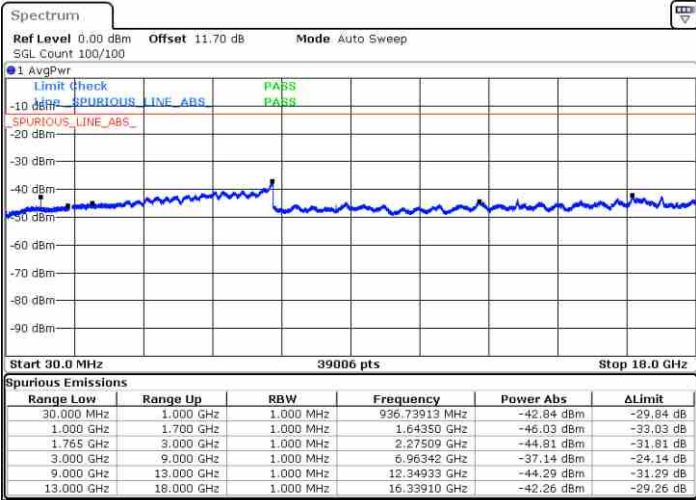
Date: 9.FEB.2018 21:40:22



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

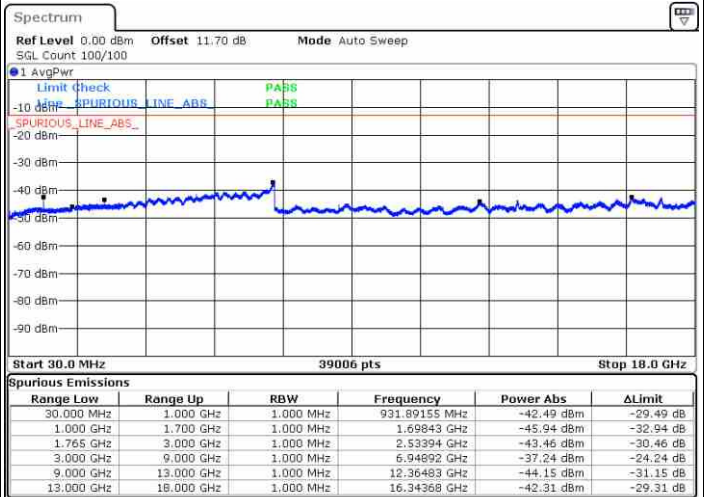
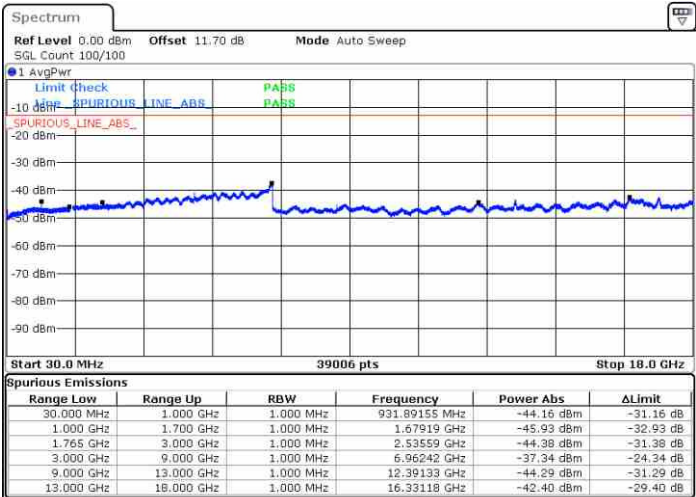


Date: 9.FEB.2018 21:42:05

Date: 9.FEB.2018 21:43:04

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 9.FEB.2018 21:49:47

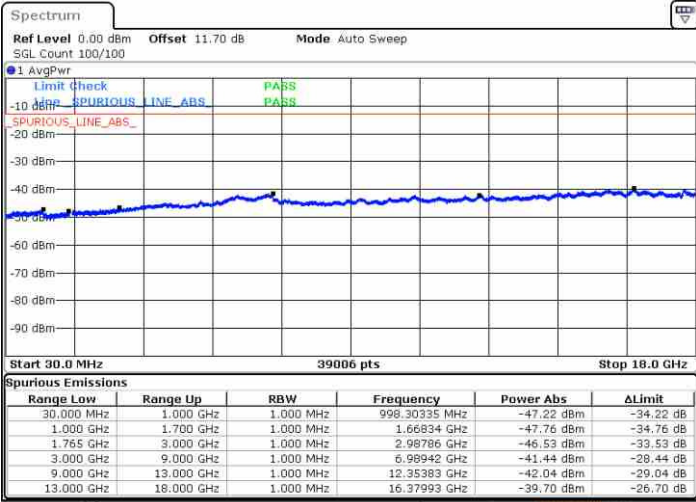
Date: 9.FEB.2018 21:50:50



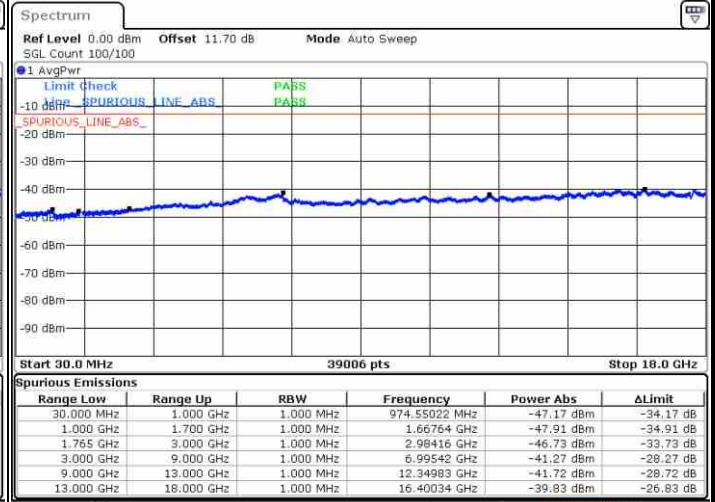
LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

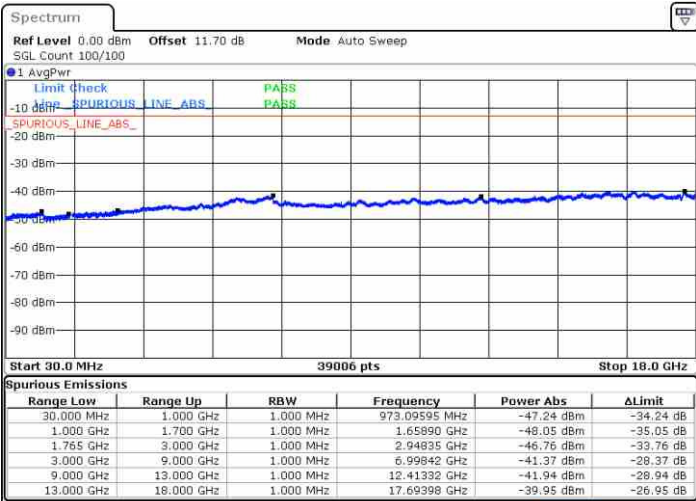


Date: 9.FEB.2018 17:47:06



Date: 9.FEB.2018 17:48:19

Highest Channel / 64QAM



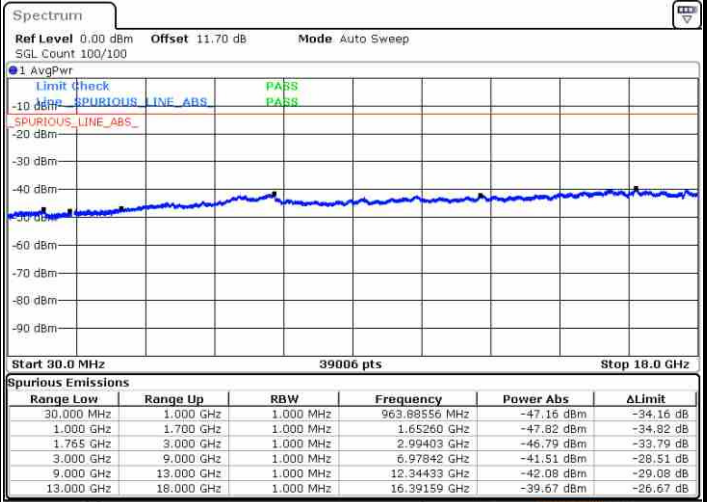
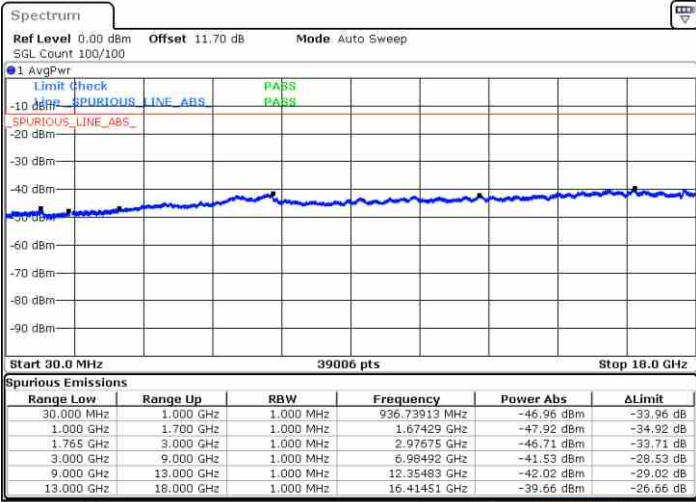
Date: 9.FEB.2018 17:51:48



LTE Band 4 / 3MHz

Lowest Channel / 64QAM

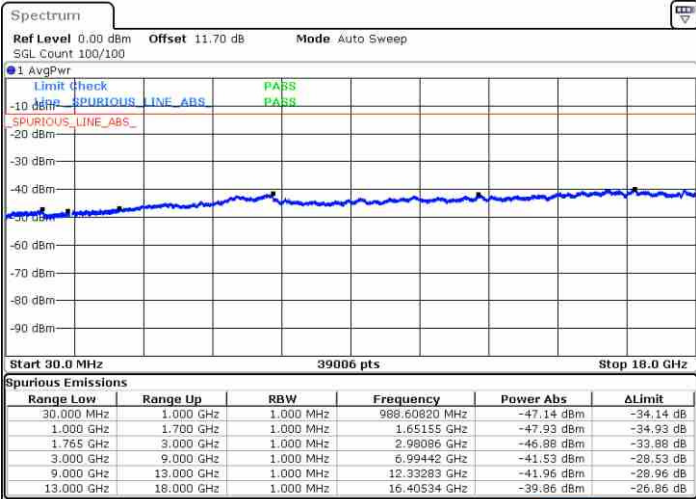
Middle Channel / 64QAM



Date: 9.FEB.2018 17:14:23

Date: 9.FEB.2018 17:15:36

Highest Channel / 64QAM

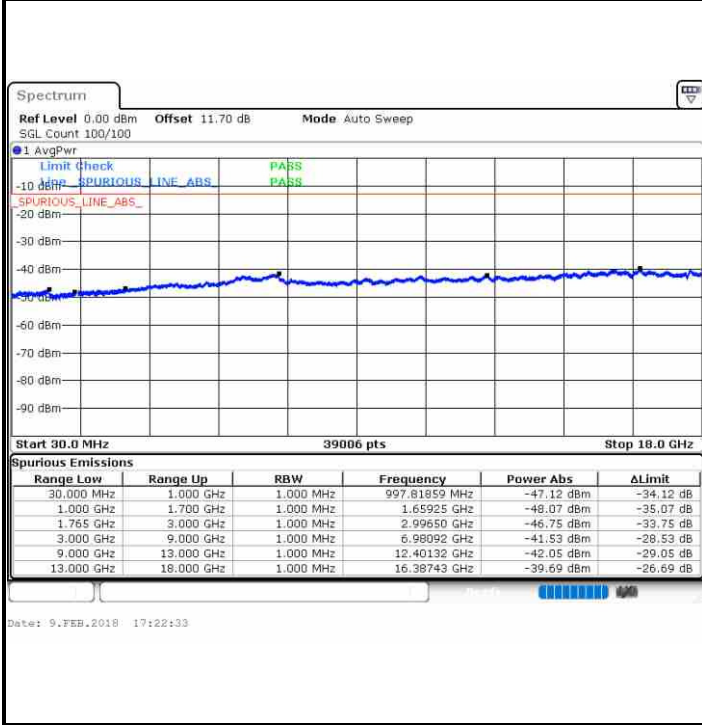


Date: 9.FEB.2018 17:19:05

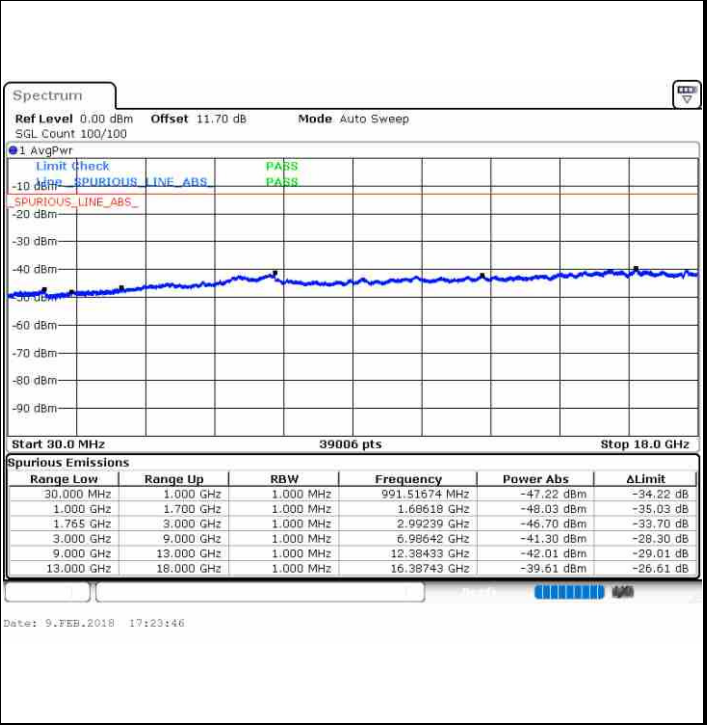


LTE Band 4 / 5MHz

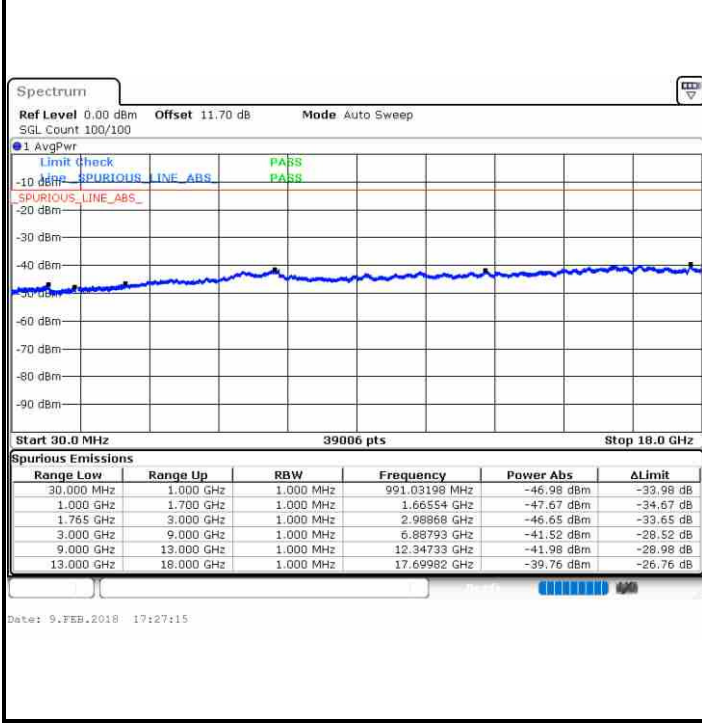
Lowest Channel / 64QAM



Middle Channel / 64QAM



Highest Channel / 64QAM

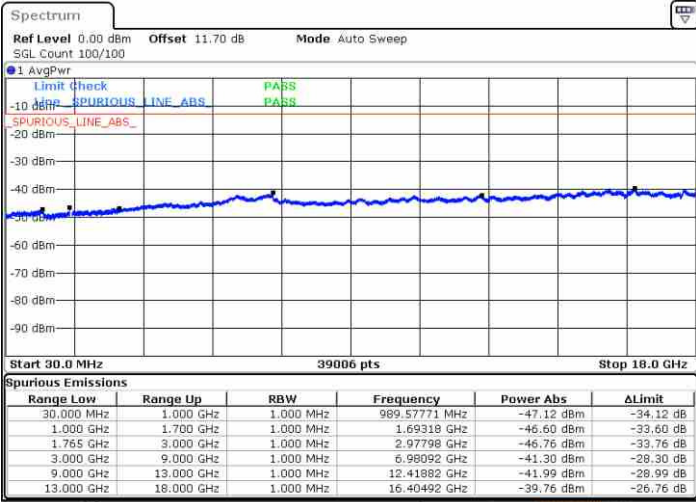




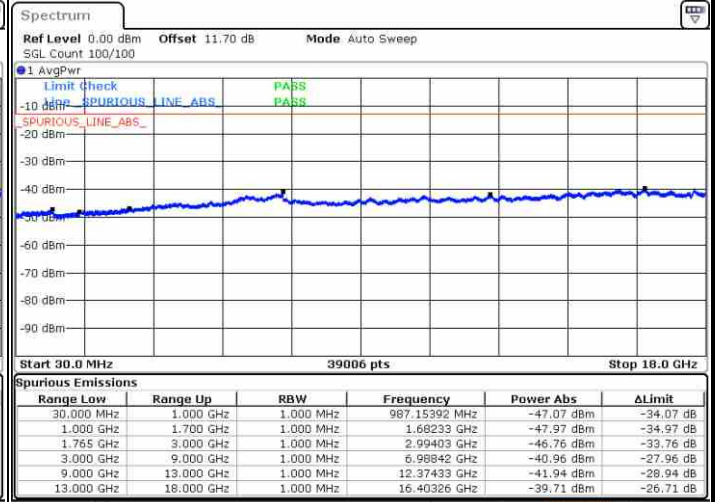
LTE Band 4 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

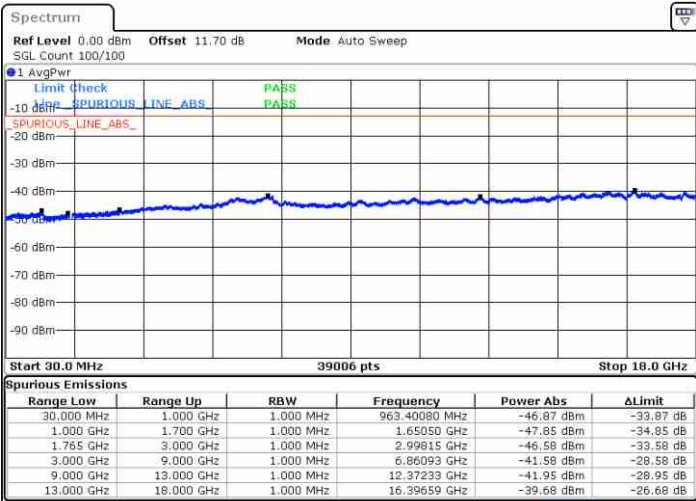


Date: 9.FEB.2018 17:30:44



Date: 9.FEB.2018 17:31:57

Highest Channel / 64QAM



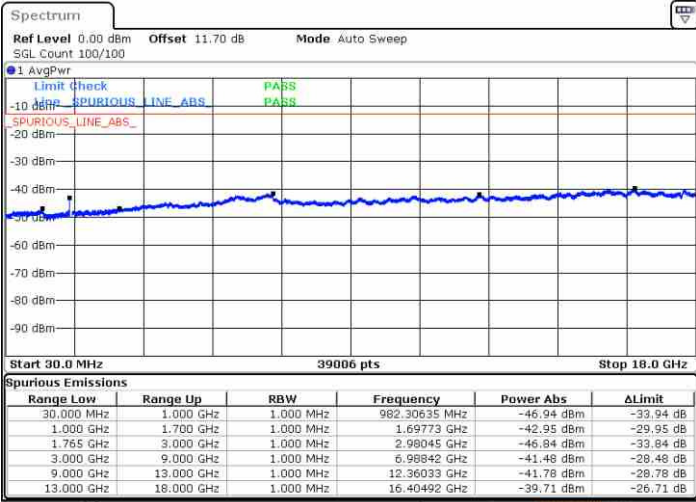
Date: 9.FEB.2018 17:35:26



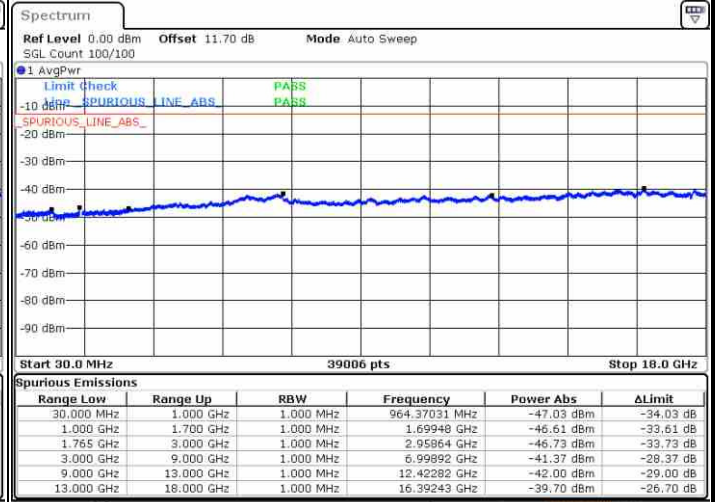
LTE Band 4 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

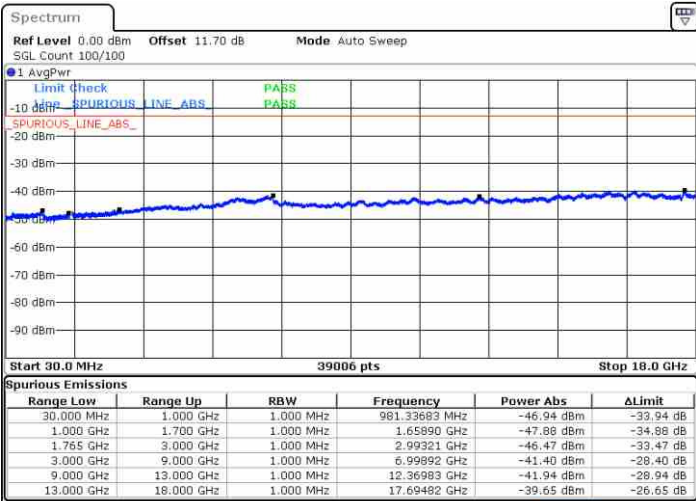


Date: 9.FEB.2018 17:38:55



Date: 9.FEB.2018 17:40:08

Highest Channel / 64QAM



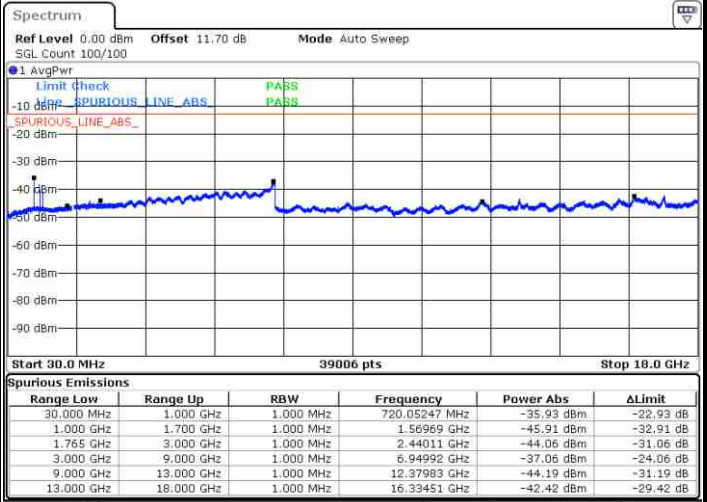
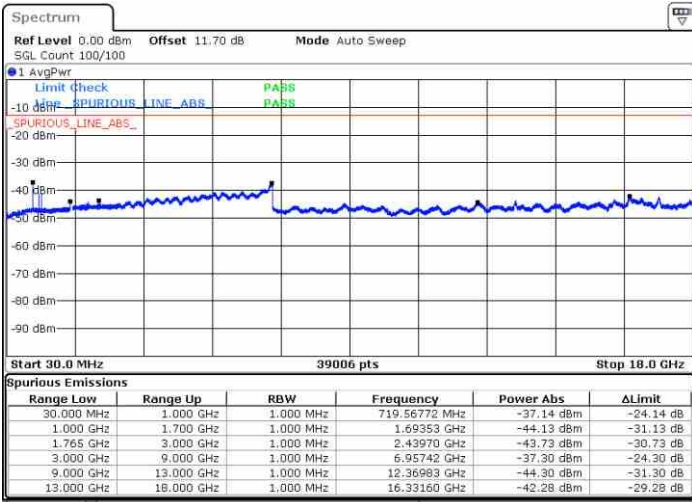
Date: 9.FEB.2018 17:43:37



LTE Band 4 / 20MHz

Lowest Channel / 64QAM

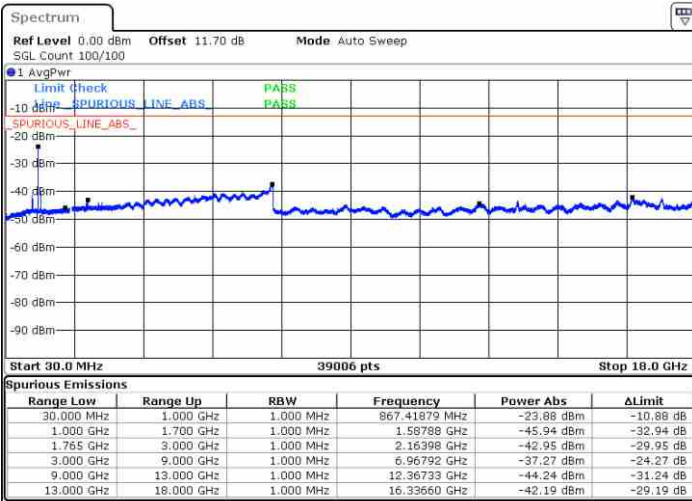
Middle Channel / 64QAM



Date: 9.FEB.2018 22:50:41

Date: 9.FEB.2018 22:52:05

Highest Channel / 64QAM



Date: 9.FEB.2018 22:55:50



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0078	PASS
40	Normal Voltage	0.0083	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0081	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0090	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Note:

- 3. Normal Voltage =3.82 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
- 4. Note: The frequency fundamental emissions stay within the authorized frequency block.



A5. LTE Band 5

<For Up Antenna>

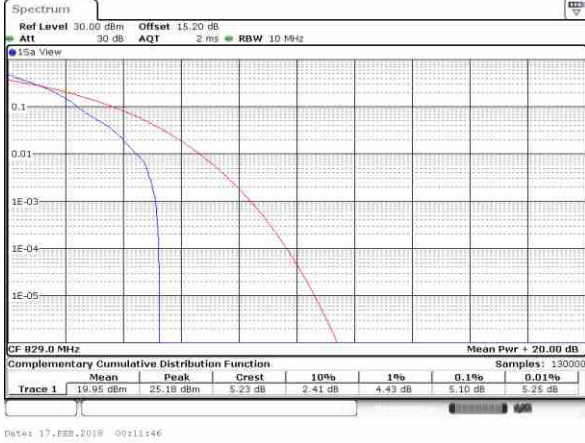
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.10	5.19	6.00	6.06	PASS
Middle CH	4.41	5.25	5.71	6.14	
Highest CH	4.72	5.01	5.59	6.03	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.43	6.52	-	-	PASS
Middle CH	5.74	6.70	-	-	
Highest CH	5.94	6.26	-	-	

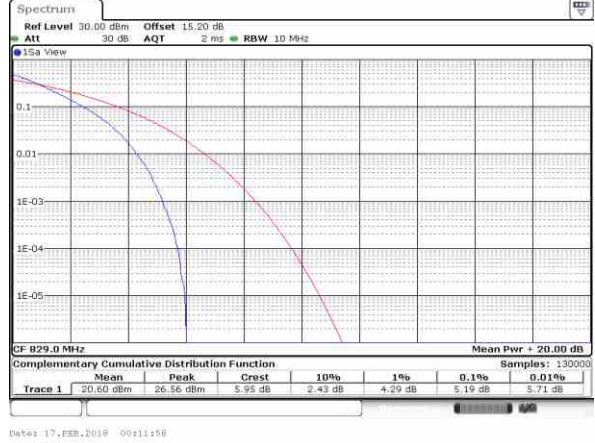


LTE Band 5 / 10MHz / QPSK

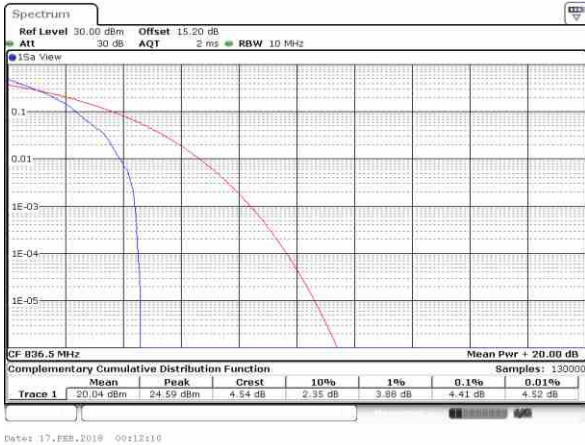
Lowest Channel / 1RB



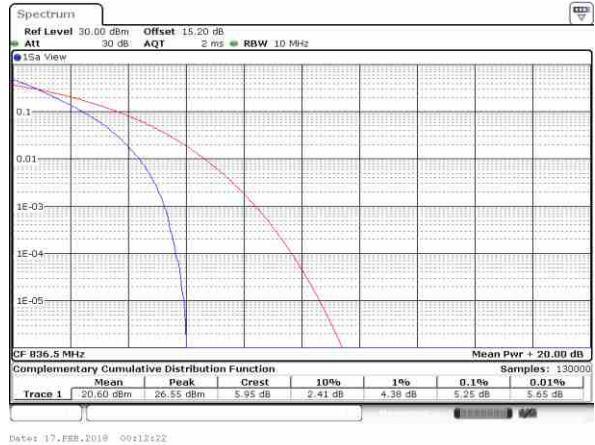
Lowest Channel / Full RB



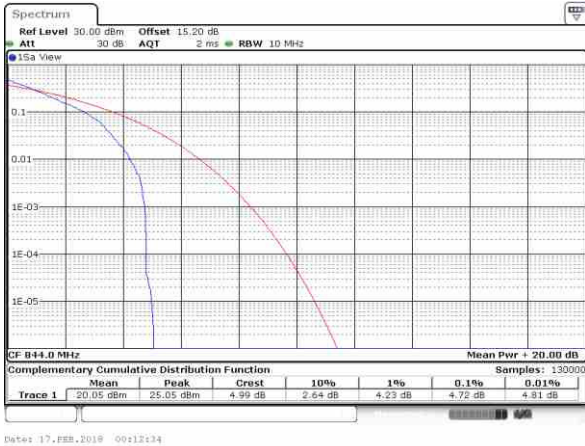
Middle Channel / 1RB



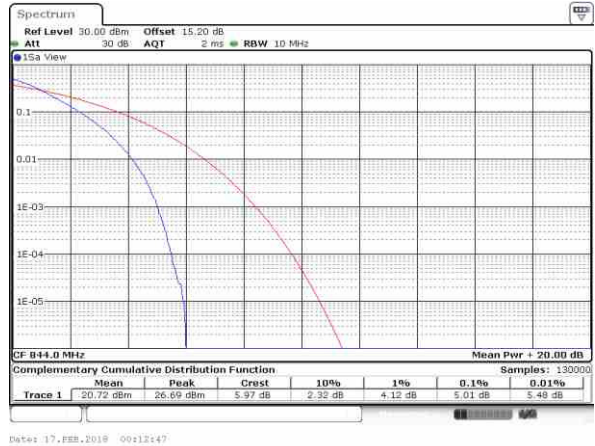
Middle Channel / Full RB



Highest Channel / 1RB



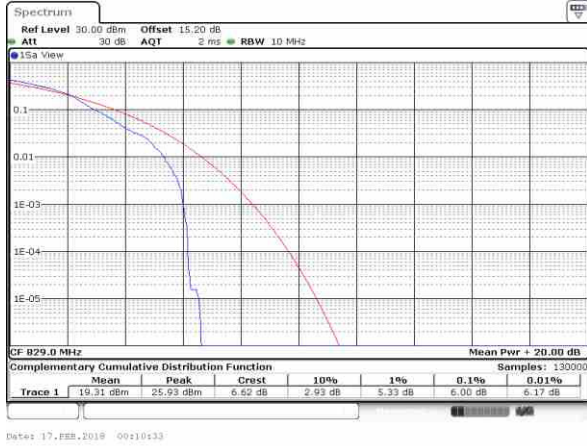
Highest Channel / Full RB



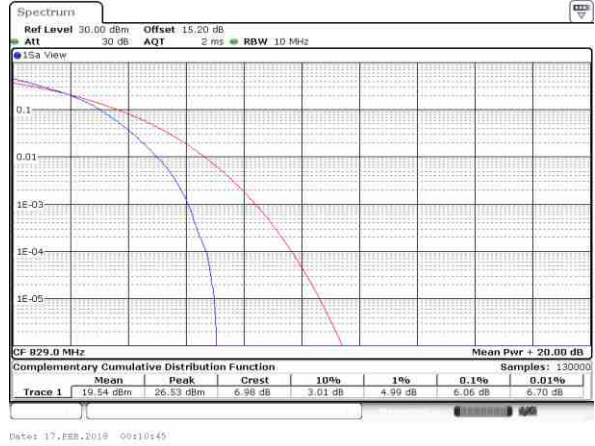


LTE Band 5 / 10MHz / 16QAM

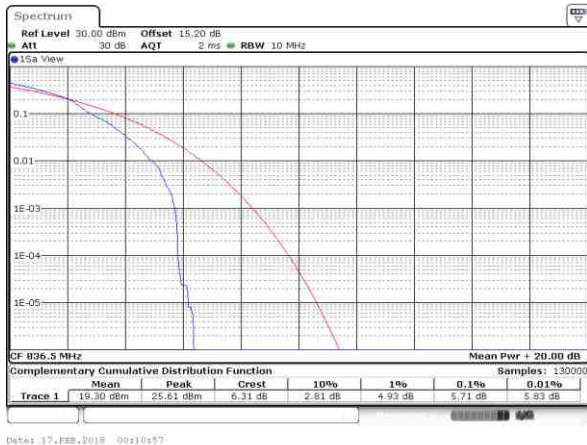
Lowest Channel / 1RB



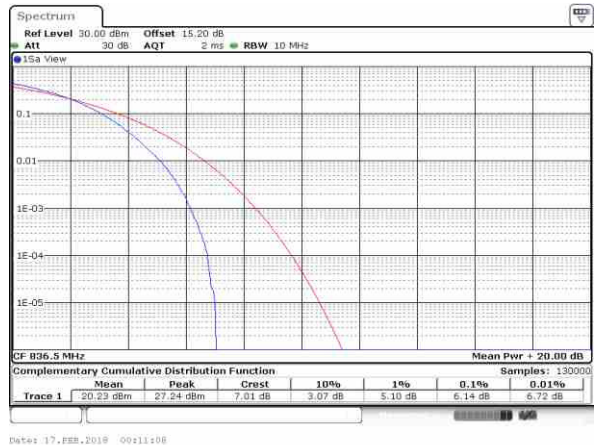
Lowest Channel / Full RB



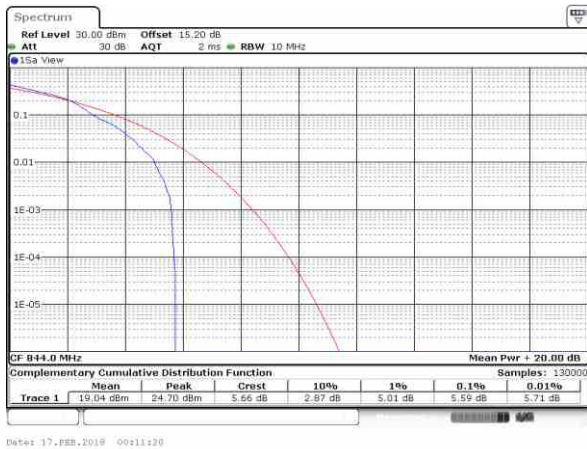
Middle Channel / 1RB



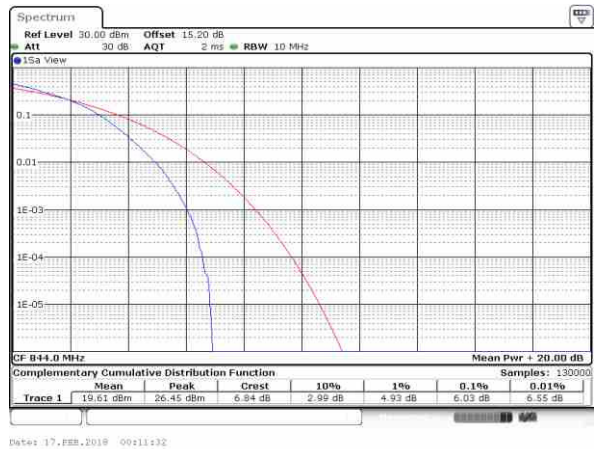
Middle Channel / Full RB



Highest Channel / 1RB



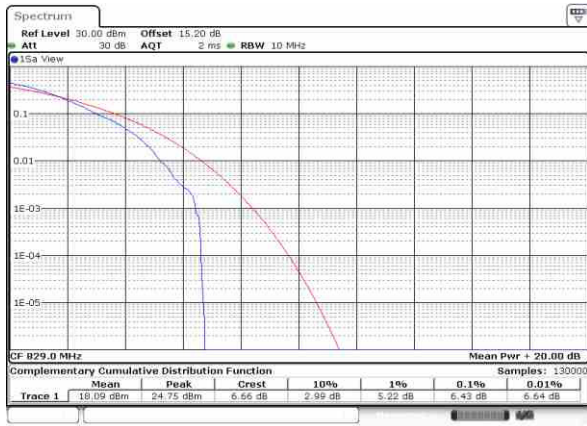
Highest Channel / Full RB





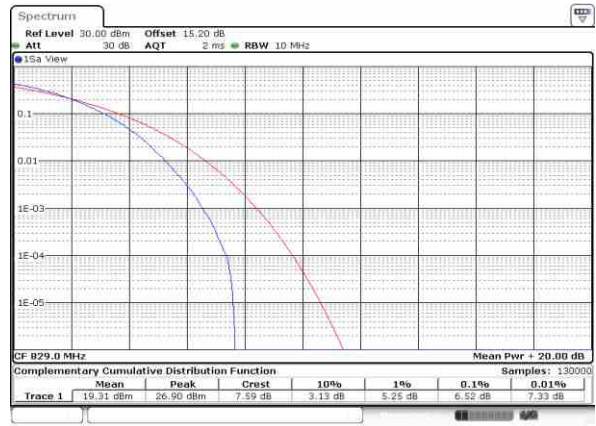
LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB



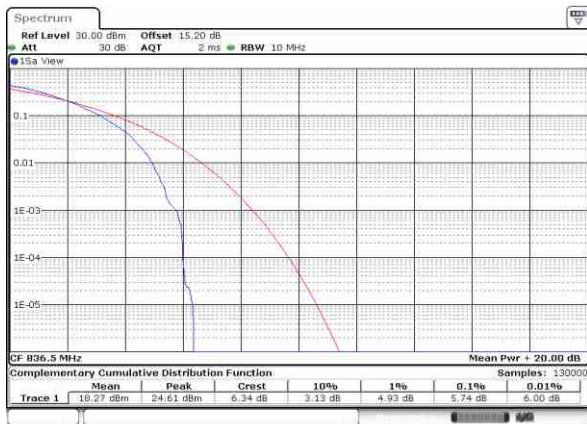
Date: 17.FEB.2018 00:09:20

Lowest Channel / Full RB



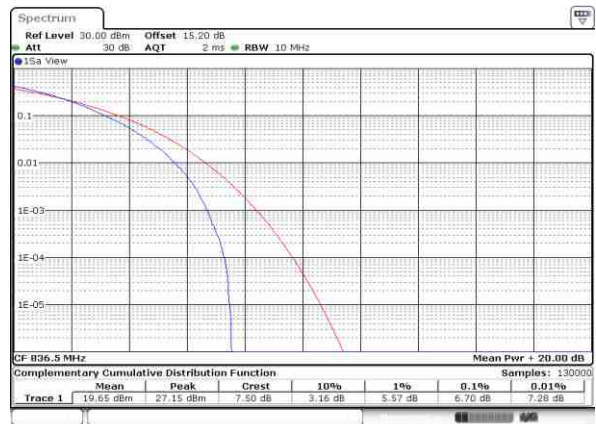
Date: 17.FEB.2018 00:09:20

Middle Channel / 1RB



Date: 17.FEB.2018 00:09:46

Middle Channel / Full RB



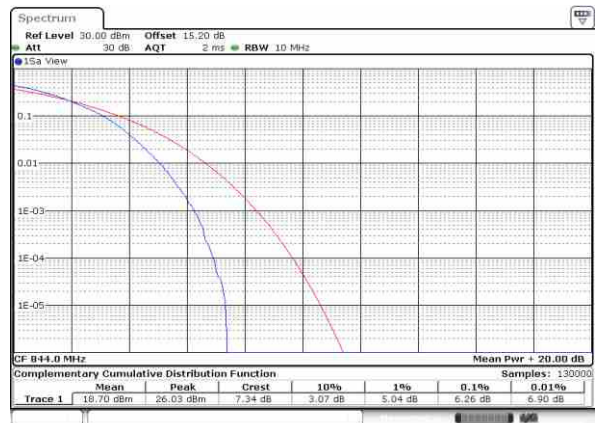
Date: 17.FEB.2018 00:09:56

Highest Channel / 1RB



Date: 17.FEB.2018 00:10:06

Highest Channel / Full RB



Date: 17.FEB.2018 00:10:21



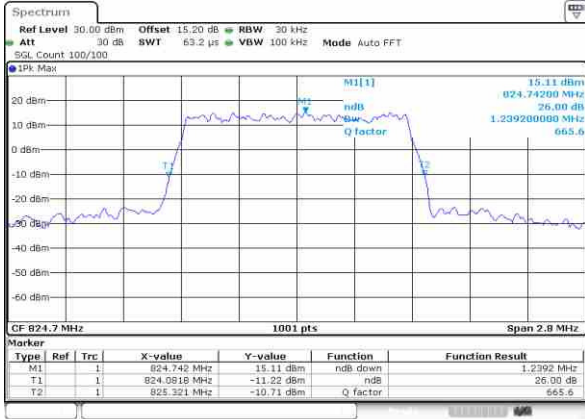
26dB Bandwidth

Mode	LTE Band 5 : 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	1.24	1.24	3.02	3.03	4.94	4.91	9.67	9.87	-	-	-	-
Middle CH	1.23	1.23	3.02	2.98	4.93	4.94	9.89	9.93	-	-	-	-
Highest CH	1.23	1.24	3.00	2.95	4.90	4.88	9.73	10.03	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	3.04	-	4.96	-	9.85	-	-	-	-	-
Middle CH	1.23	-	2.96	-	4.81	-	9.81	-	-	-	-	-
Highest CH	1.24	-	2.97	-	4.96	-	9.97	-	-	-	-	-



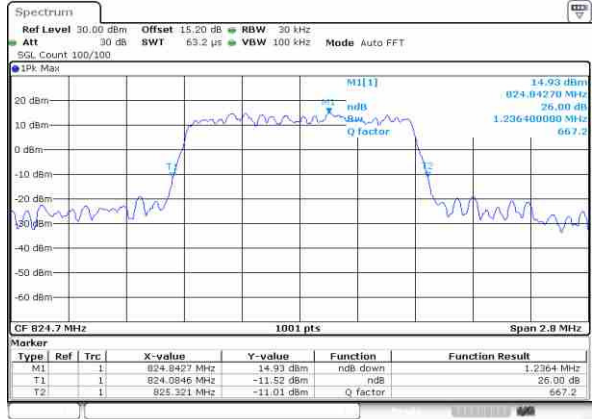
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



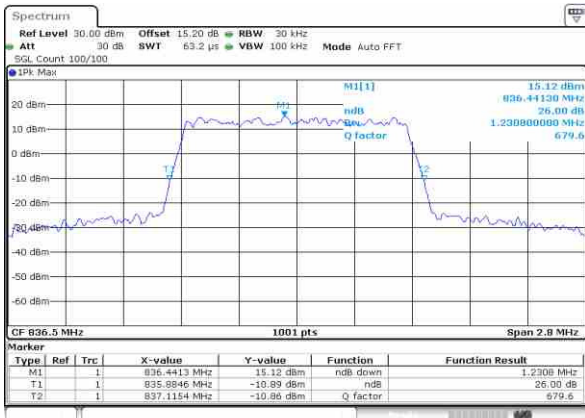
Date: 16.FEB.2019 23:30:49

Lowest Channel / 1.4MHz / 16QAM



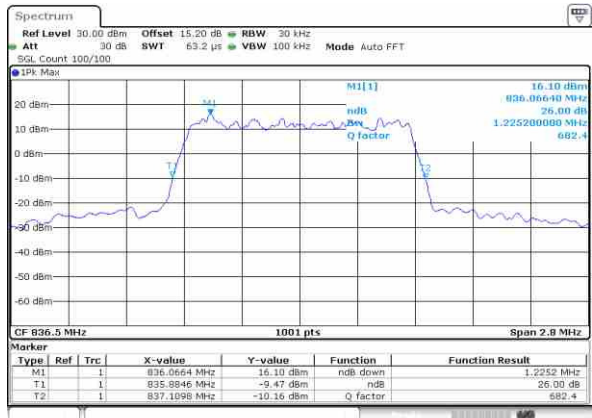
Date: 16.FEB.2019 23:30:38

Middle Channel / 1.4MHz / QPSK



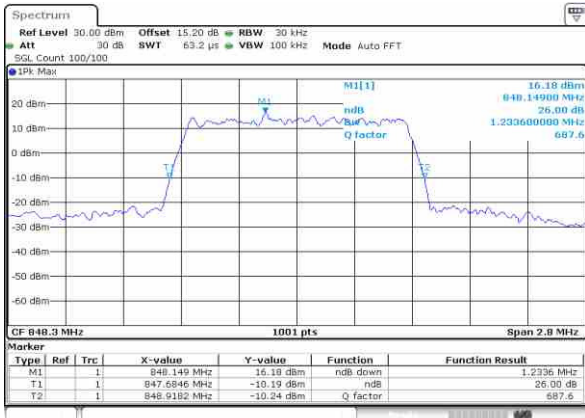
Date: 16.FEB.2019 23:39:54

Middle Channel / 1.4MHz / 16QAM



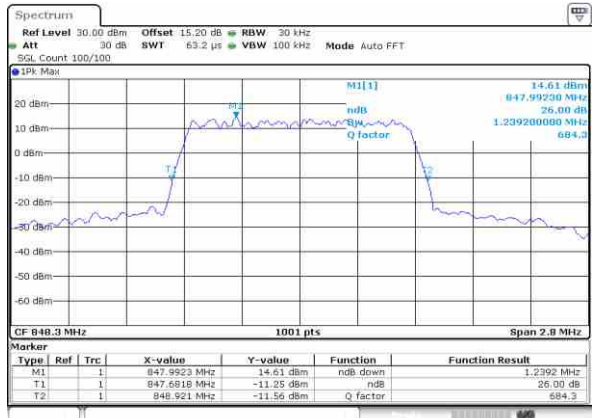
Date: 16.FEB.2019 23:40:05

Highest Channel / 1.4MHz / QPSK



Date: 16.FEB.2019 23:49:31

Highest Channel / 1.4MHz / 16QAM

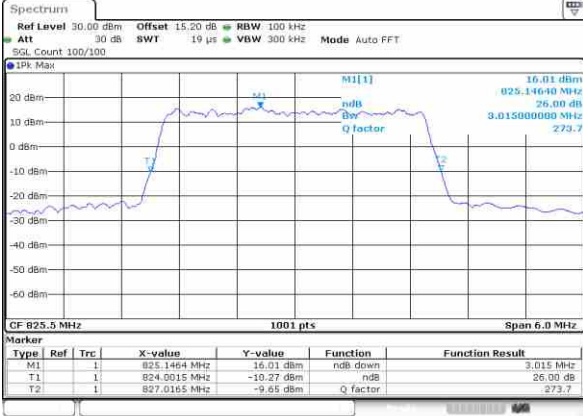


Date: 16.FEB.2019 23:49:42



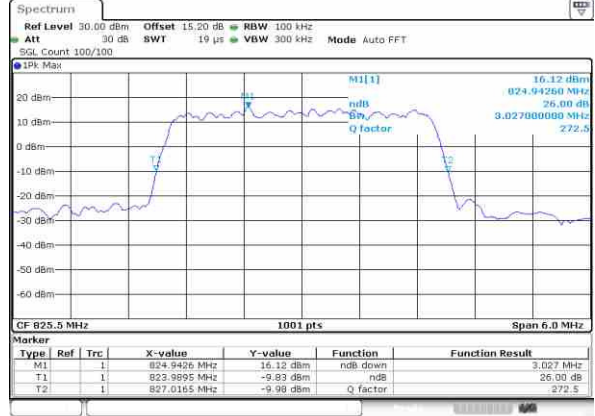
LTE Band 5

Lowest Channel / 3MHz / QPSK



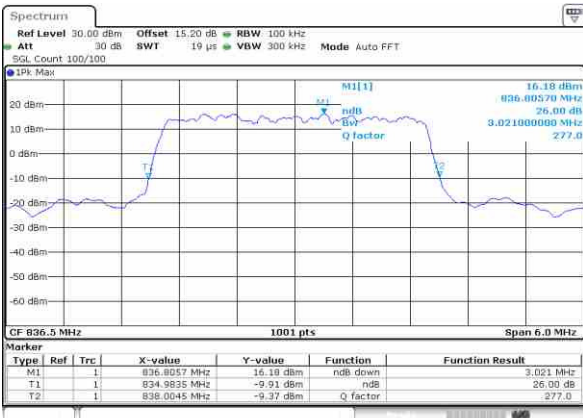
Date: 16.FEB.2019 21:55:07

Lowest Channel / 3MHz / 16QAM



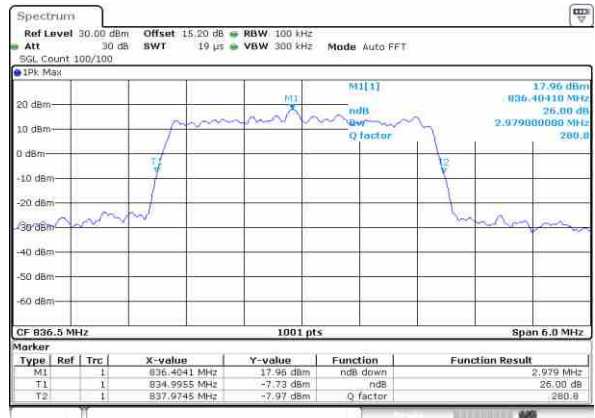
Date: 16.FEB.2019 21:55:18

Middle Channel / 3MHz / QPSK



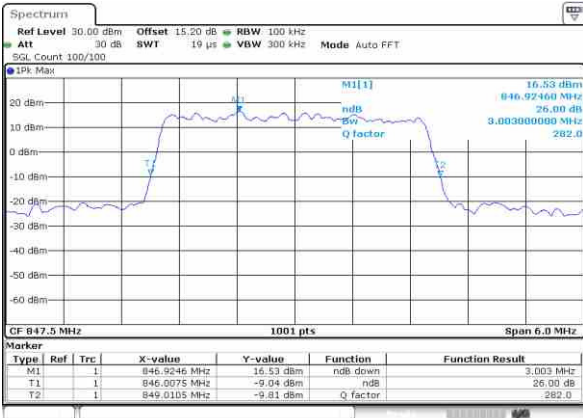
Date: 16.FEB.2019 22:04:23

Middle Channel / 3MHz / 16QAM



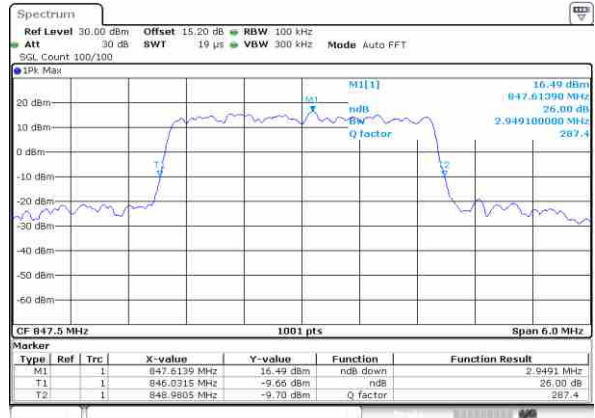
Date: 16.FEB.2019 22:04:35

Highest Channel / 3MHz / QPSK



Date: 16.FEB.2019 22:07:04

Highest Channel / 3MHz / 16QAM

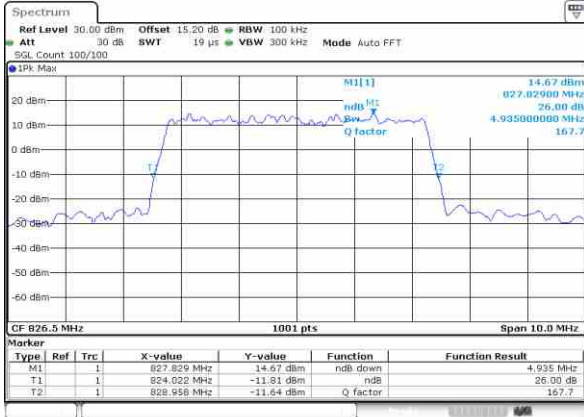


Date: 16.FEB.2019 22:07:15



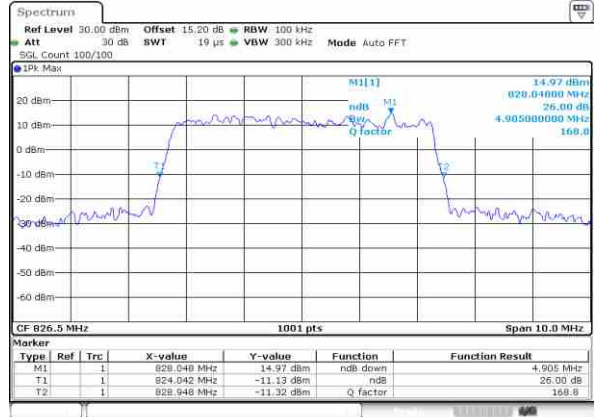
LTE Band 5

Lowest Channel / 5MHz / QPSK



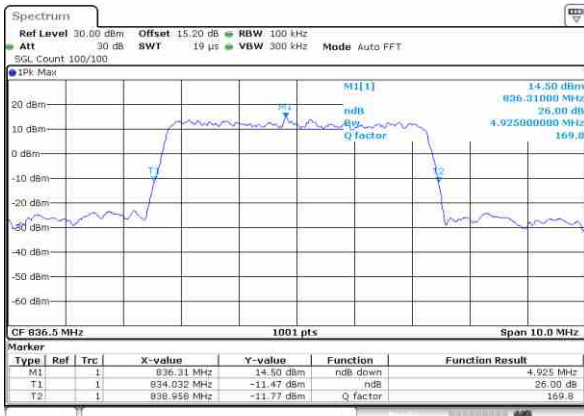
Date: 16.FEB.2019 22:26:57

Lowest Channel / 5MHz / 16QAM



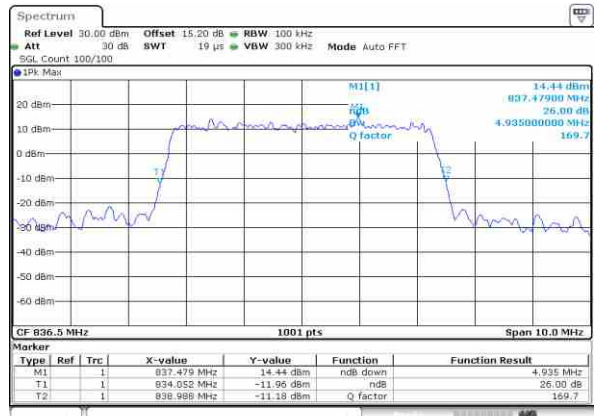
Date: 16.FEB.2019 22:27:08

Middle Channel / 5MHz / QPSK



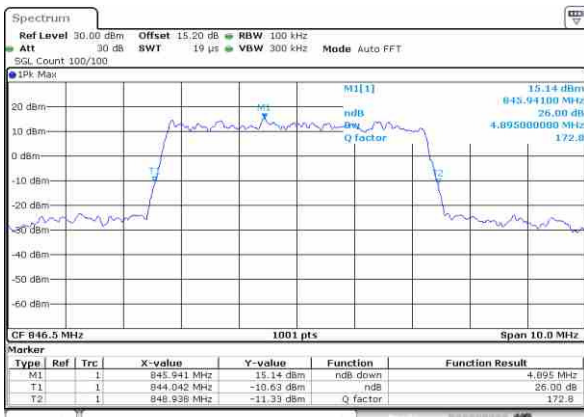
Date: 16.FEB.2019 22:36:13

Middle Channel / 5MHz / 16QAM



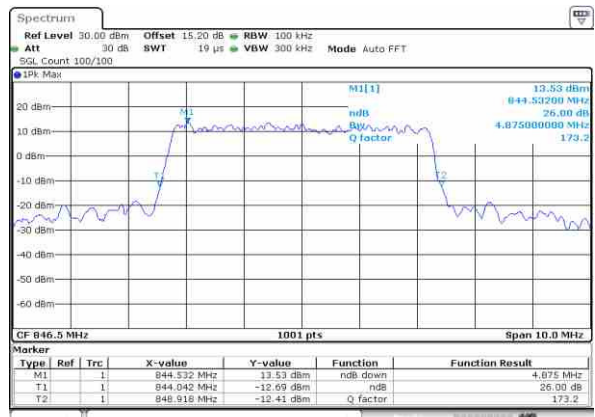
Date: 16.FEB.2019 22:36:25

Highest Channel / 5MHz / QPSK



Date: 16.FEB.2019 22:38:54

Highest Channel / 5MHz / 16QAM

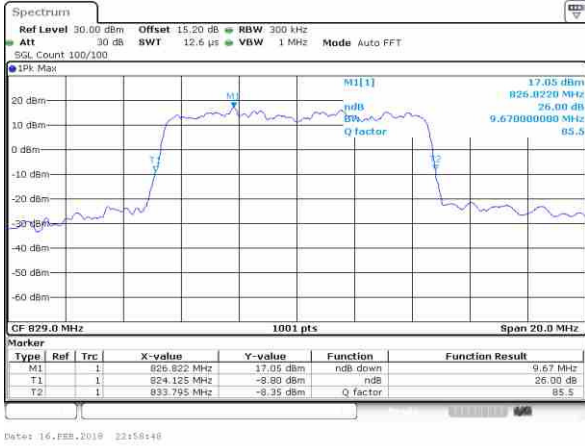


Date: 16.FEB.2019 22:39:06



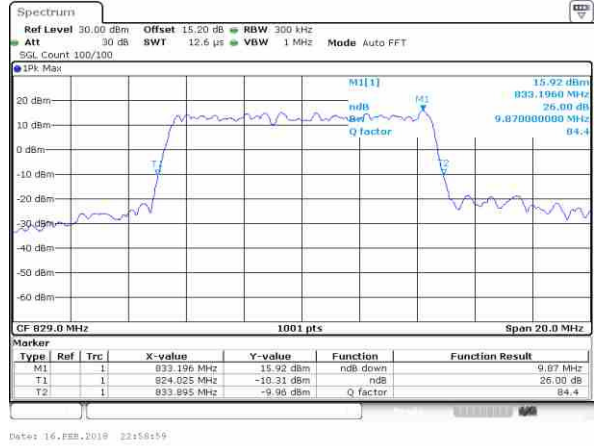
LTE Band 5

Lowest Channel / 10MHz / QPSK



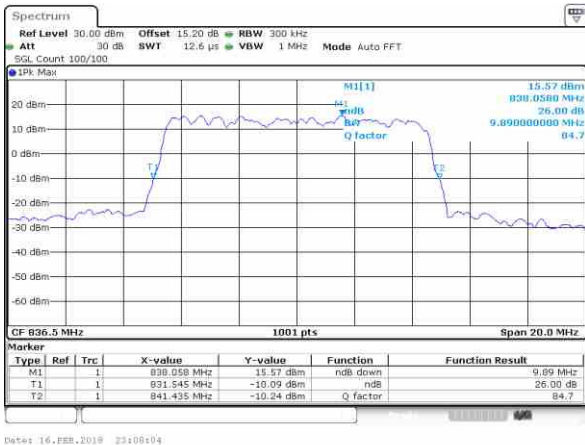
Date: 16.FEB.2019 23:158:48

Lowest Channel / 10MHz / 16QAM



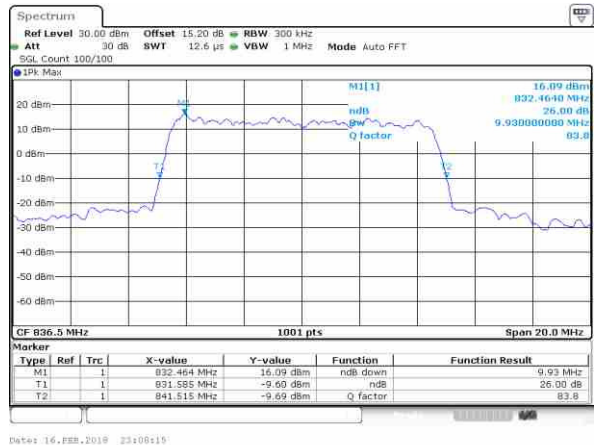
Date: 16.FEB.2019 23:158:59

Middle Channel / 10MHz / QPSK



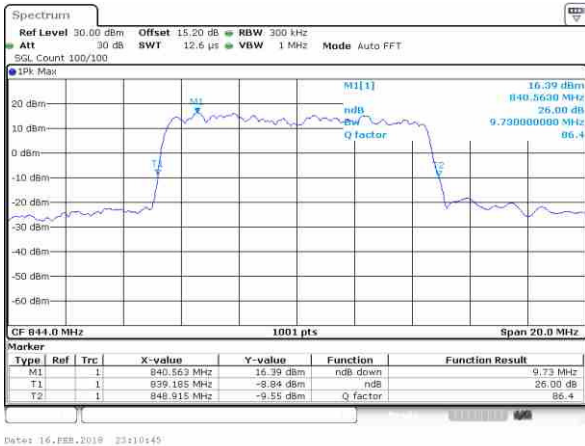
Date: 16.FEB.2019 23:108:04

Middle Channel / 10MHz / 16QAM



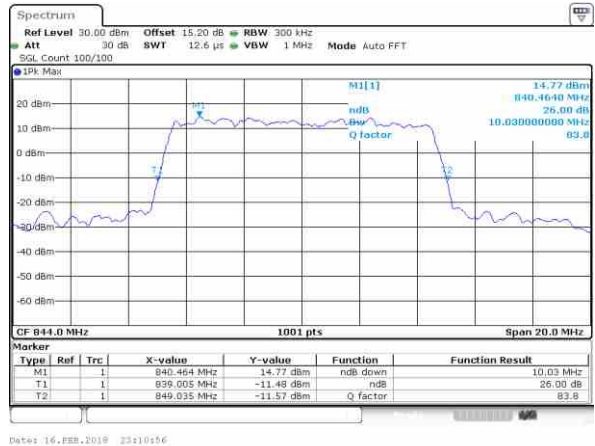
Date: 16.FEB.2019 23:108:15

Highest Channel / 10MHz / QPSK



Date: 16.FEB.2019 23:10:45

Highest Channel / 10MHz / 16QAM

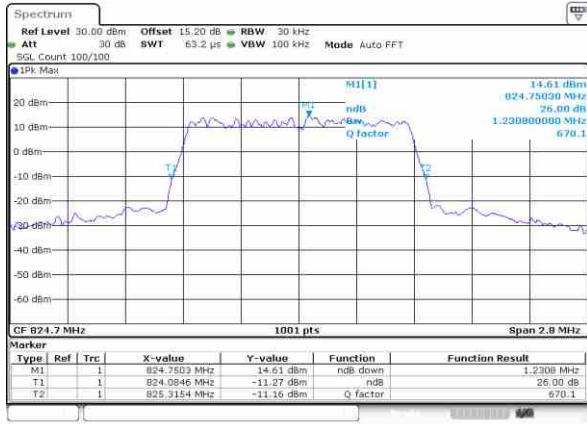


Date: 16.FEB.2019 23:10:56



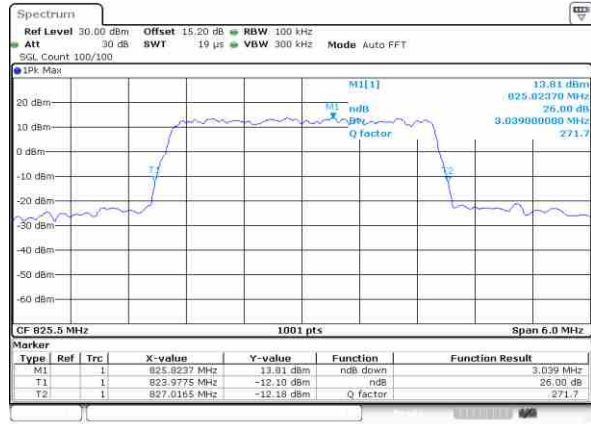
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



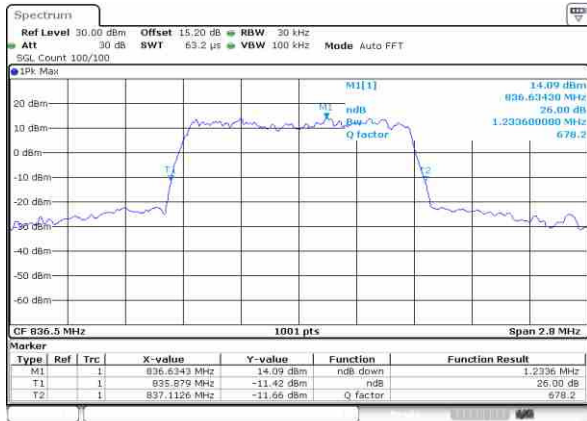
Date: 16.FEB.2019 23:58:39

Lowest Channel / 3MHz / 64QAM



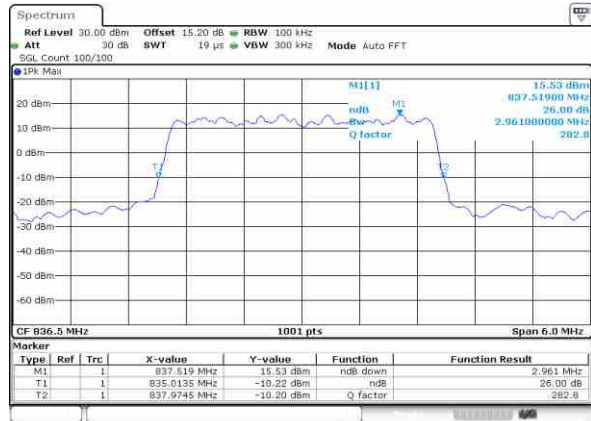
Date: 16.FEB.2019 22:16:08

Middle Channel / 1.4MHz / 64QAM



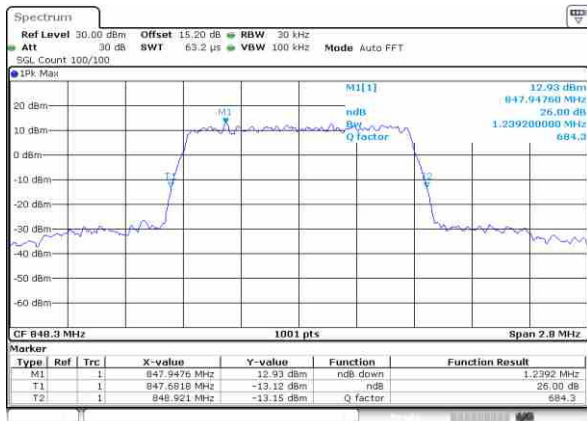
Date: 17.FEB.2019 00:03:13

Middle Channel / 3MHz / 64QAM



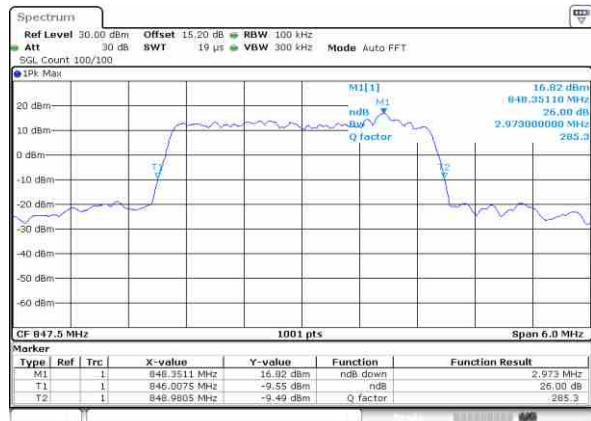
Date: 16.FEB.2019 22:20:46

Highest Channel / 1.4MHz / 64QAM



Date: 17.FEB.2019 00:04:14

Highest Channel / 3MHz / 64QAM

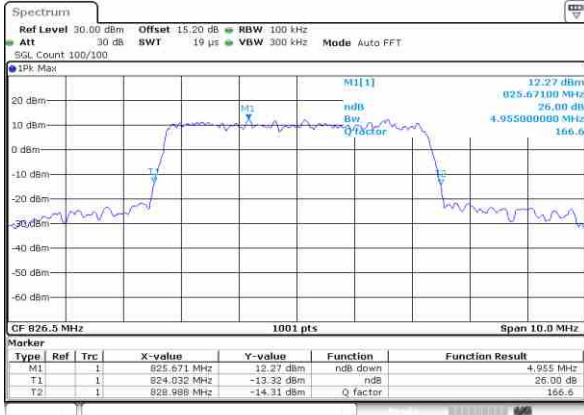


Date: 16.FEB.2019 22:22:07



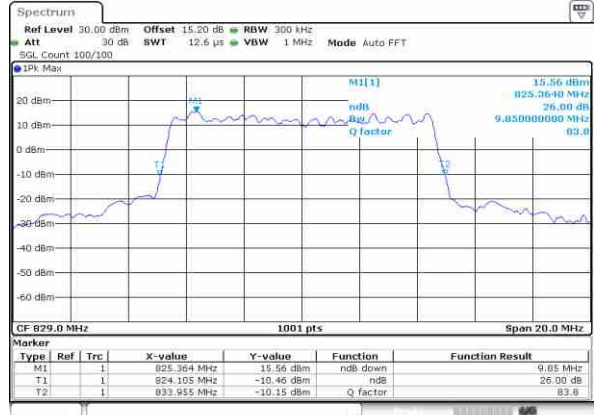
LTE Band 5

Lowest Channel / 5MHz / 64QAM



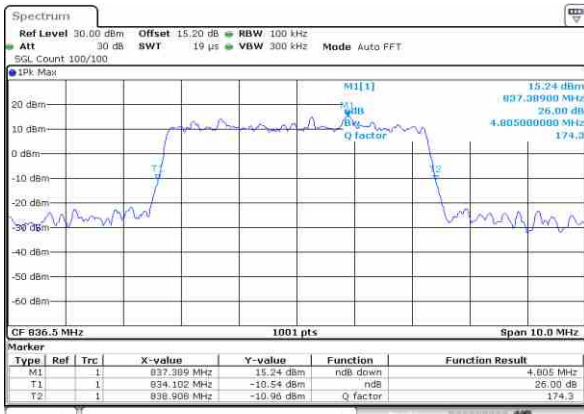
Date: 16.FEB.2019 22:47:59

Lowest Channel / 10MHz / 64QAM



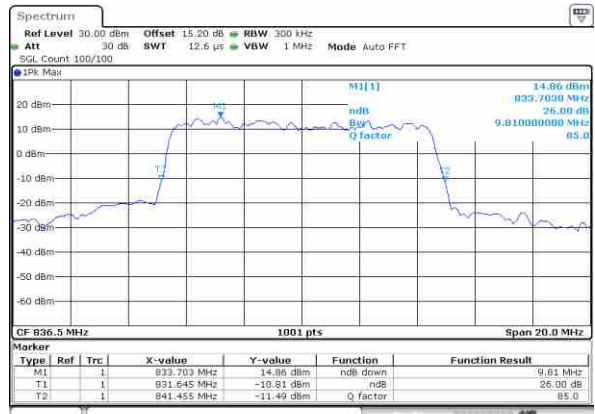
Date: 16.FEB.2019 23:19:49

Middle Channel / 5MHz / 64QAM



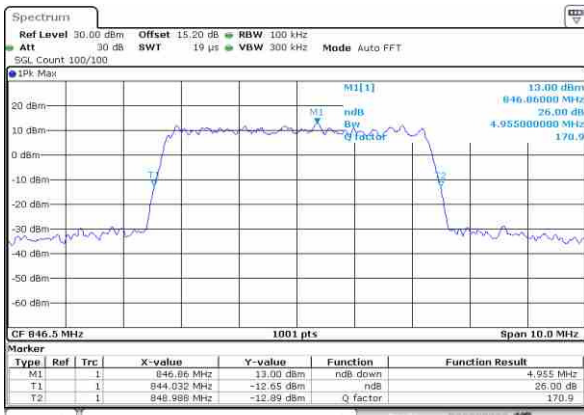
Date: 16.FEB.2019 23:52:38

Middle Channel / 10MHz / 64QAM



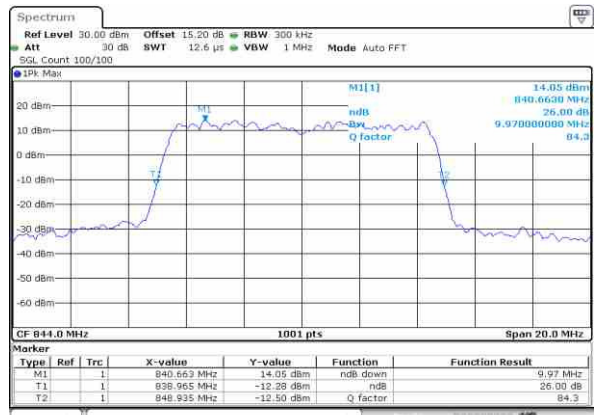
Date: 16.FEB.2019 23:24:27

Highest Channel / 5MHz / 64QAM



Date: 16.FEB.2019 23:53:58

Highest Channel / 10MHz / 64QAM



Date: 16.FEB.2019 23:25:48



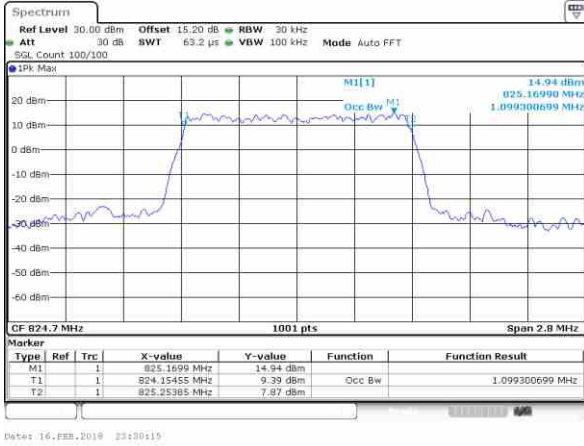
Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.10	1.09	2.72	2.72	4.49	4.48	9.01	9.01	-	-	-	-
Middle CH	1.09	1.10	2.75	2.73	4.48	4.49	9.03	9.05	-	-	-	-
Highest CH	1.10	1.11	2.72	2.73	4.47	4.49	9.01	8.97	-	-	-	-
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.72	-	4.49	-	9.07	-	-	-	-	-
Middle CH	1.09	-	2.73	-	4.50	-	9.07	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.47	-	9.05	-	-	-	-	-



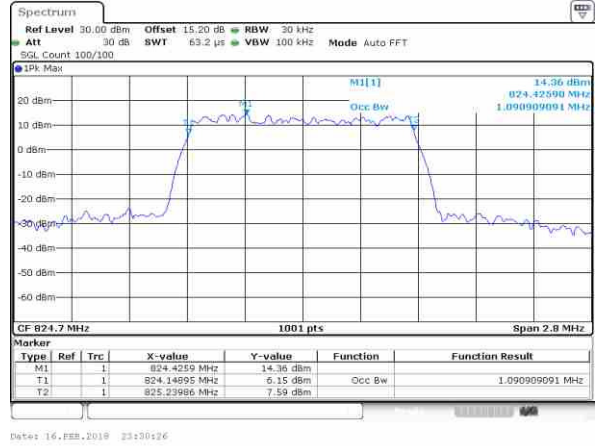
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



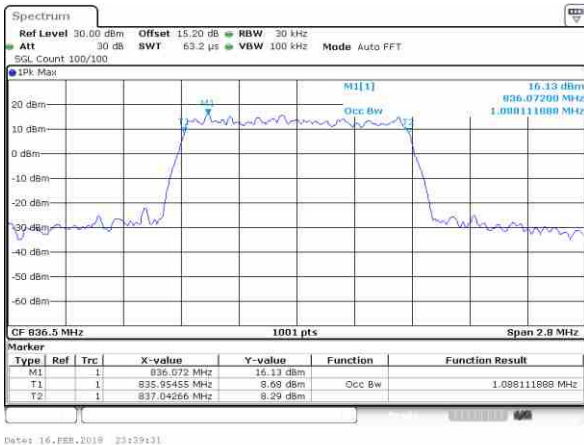
Date: 16.FEB.2019 23:30:19

Lowest Channel / 1.4MHz / 16QAM



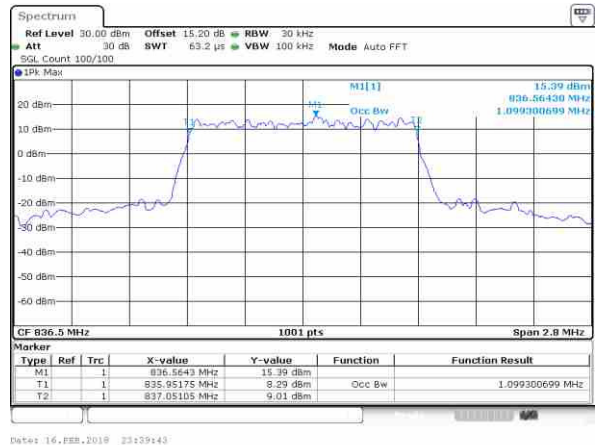
Date: 16.FEB.2019 23:30:26

Middle Channel / 1.4MHz / QPSK



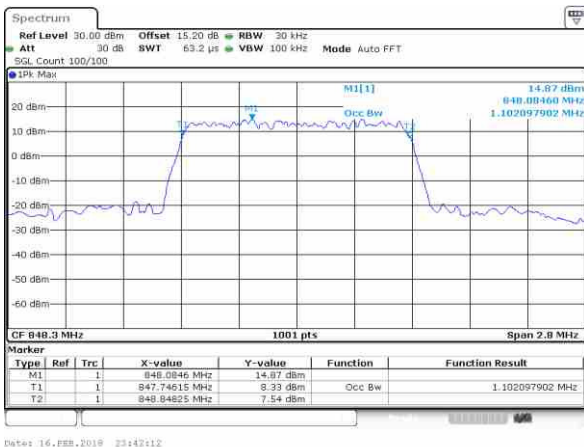
Date: 16.FEB.2019 23:39:13

Middle Channel / 1.4MHz / 16QAM



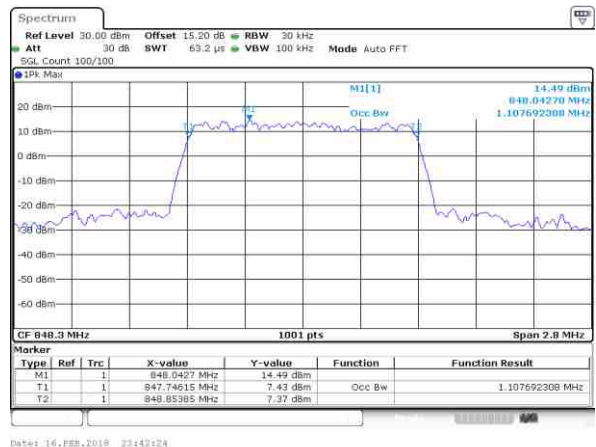
Date: 16.FEB.2019 23:39:43

Highest Channel / 1.4MHz / QPSK



Date: 16.FEB.2019 23:42:12

Highest Channel / 1.4MHz / 16QAM

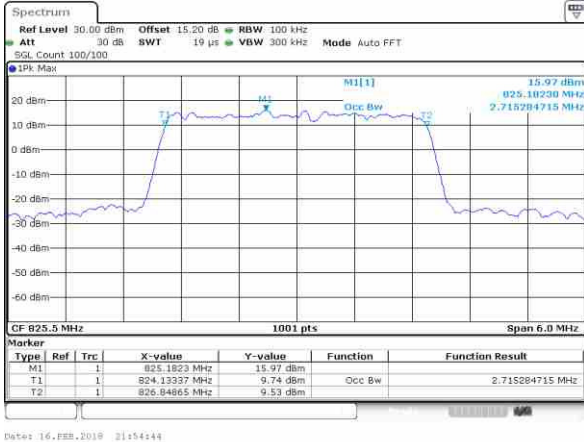


Date: 16.FEB.2019 23:42:24



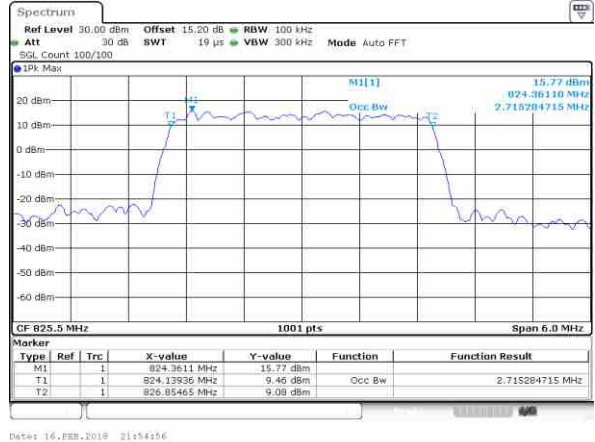
LTE Band 5

Lowest Channel / 3MHz / QPSK



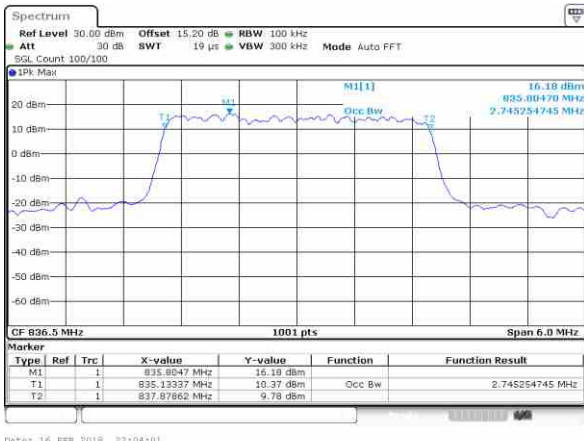
Date: 16.FEB.2019 21:54:44

Lowest Channel / 3MHz / 16QAM



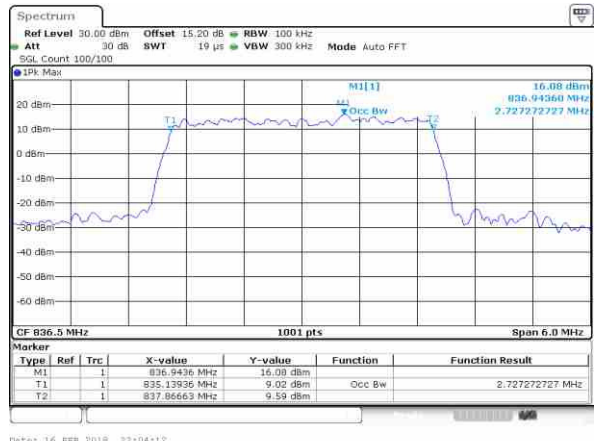
Date: 16.FEB.2019 21:54:26

Middle Channel / 3MHz / QPSK



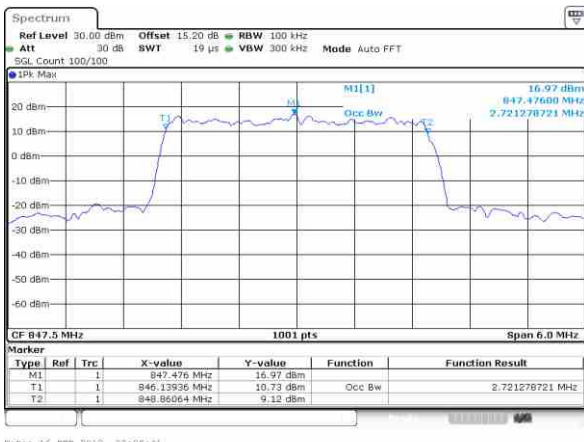
Date: 16.FEB.2019 22:04:01

Middle Channel / 3MHz / 16QAM



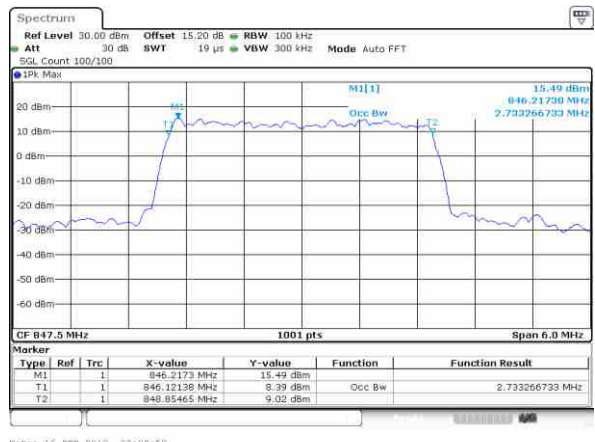
Date: 16.FEB.2019 22:04:12

Highest Channel / 3MHz / QPSK



Date: 16.FEB.2019 22:06:41

Highest Channel / 3MHz / 16QAM

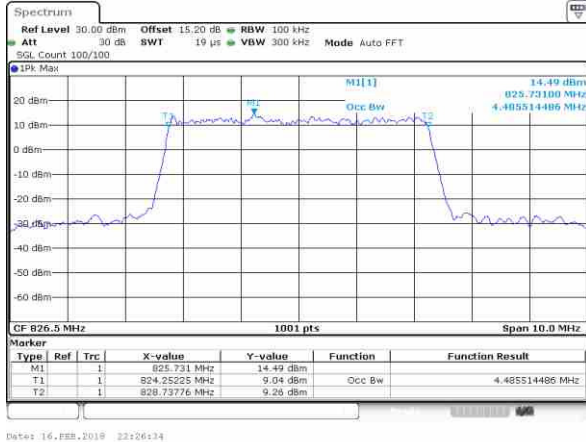


Date: 16.FEB.2019 22:06:52



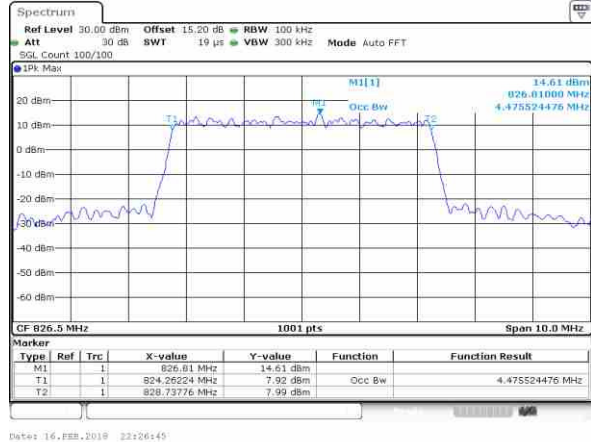
LTE Band 5

Lowest Channel / 5MHz / QPSK



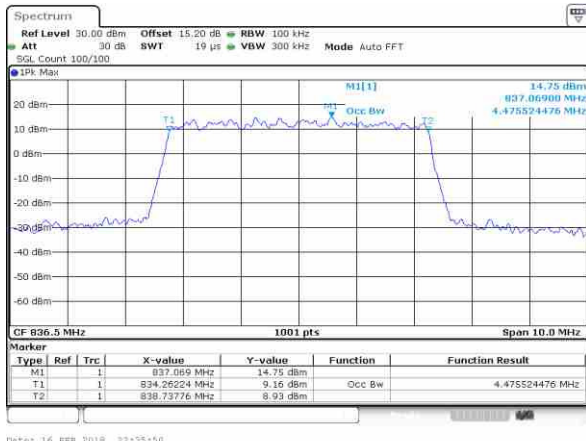
Date: 16.FEB.2019 22:26:34

Lowest Channel / 5MHz / 16QAM



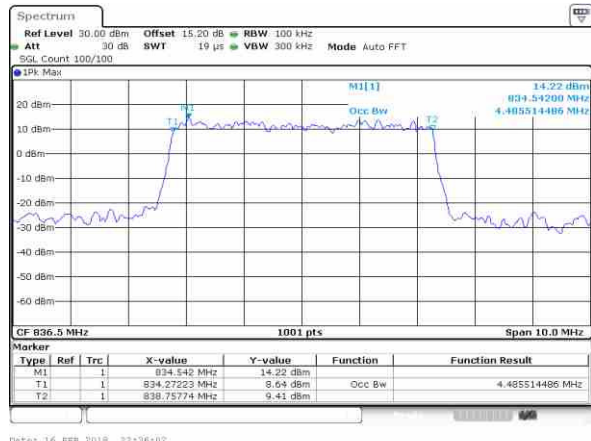
Date: 16.FEB.2019 22:26:45

Middle Channel / 5MHz / QPSK



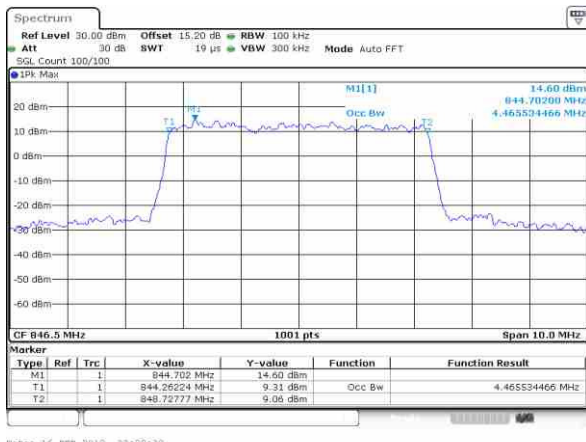
Date: 16.FEB.2019 22:26:50

Middle Channel / 5MHz / 16QAM



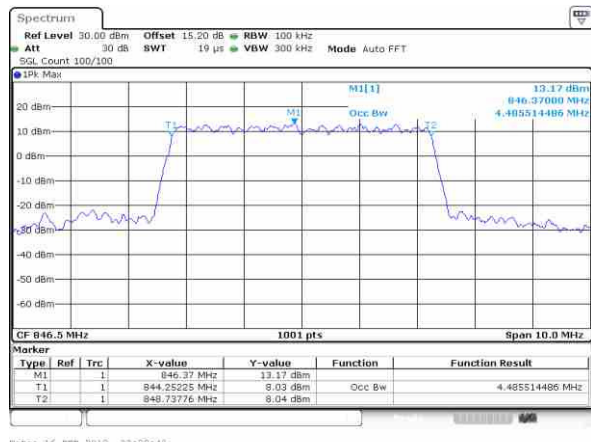
Date: 16.FEB.2019 22:26:02

Highest Channel / 5MHz / QPSK



Date: 16.FEB.2019 22:28:32

Highest Channel / 5MHz / 16QAM

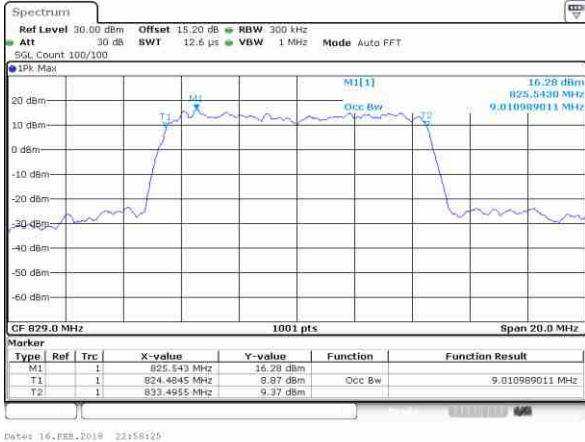


Date: 16.FEB.2019 22:28:43



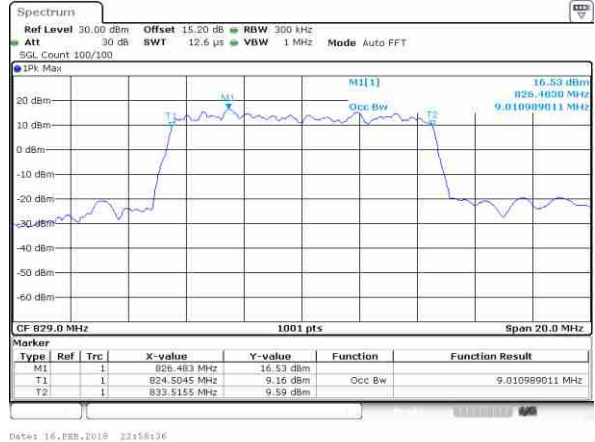
LTE Band 5

Lowest Channel / 10MHz / QPSK



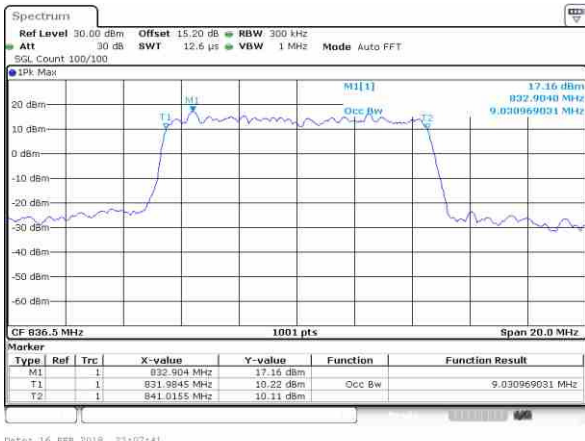
Date: 16.FEB.2019 23:58:25

Lowest Channel / 10MHz / 16QAM



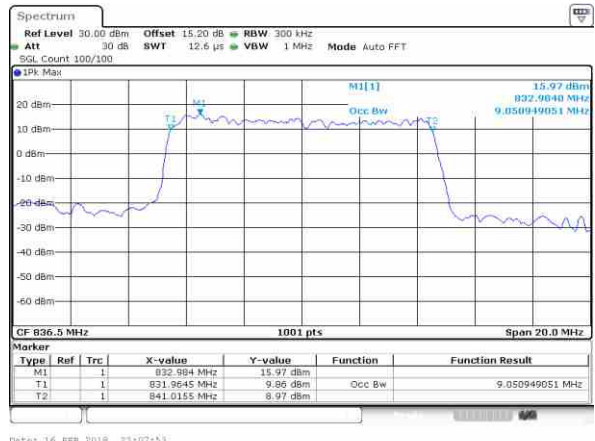
Date: 16.FEB.2019 23:58:36

Middle Channel / 10MHz / QPSK



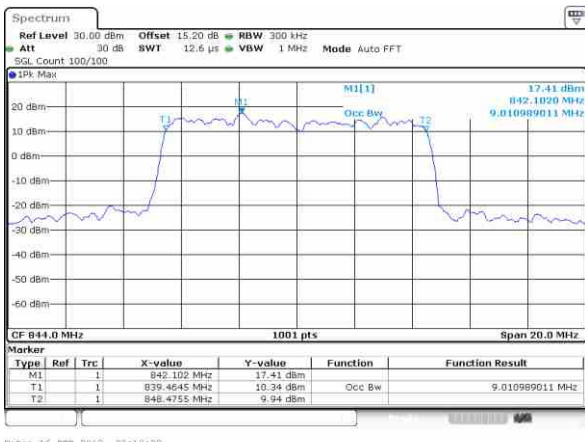
Date: 16.FEB.2019 23:07:41

Middle Channel / 10MHz / 16QAM



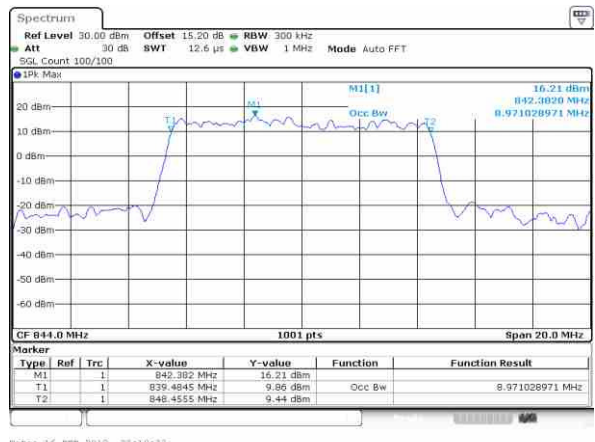
Date: 16.FEB.2019 23:07:53

Highest Channel / 10MHz / QPSK



Date: 16.FEB.2019 23:10:22

Highest Channel / 10MHz / 16QAM

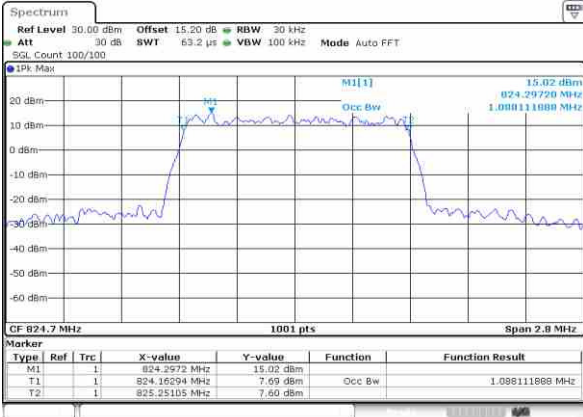


Date: 16.FEB.2019 23:10:33



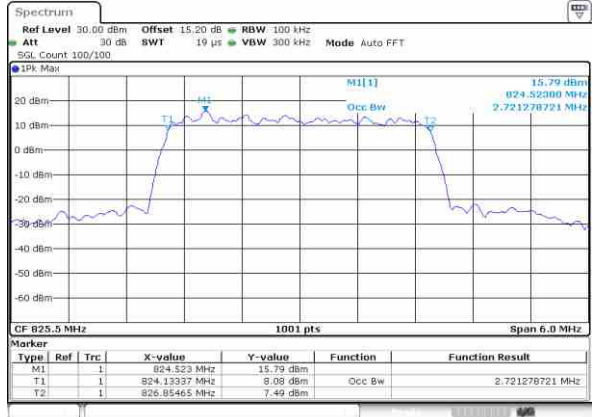
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



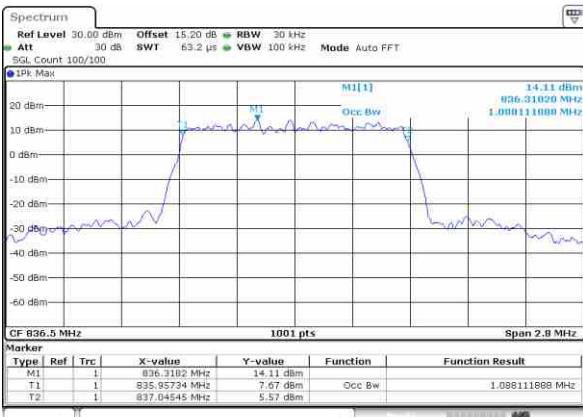
Date: 16.FEB.2019 23:58:24

Lowest Channel / 3MHz / 64QAM



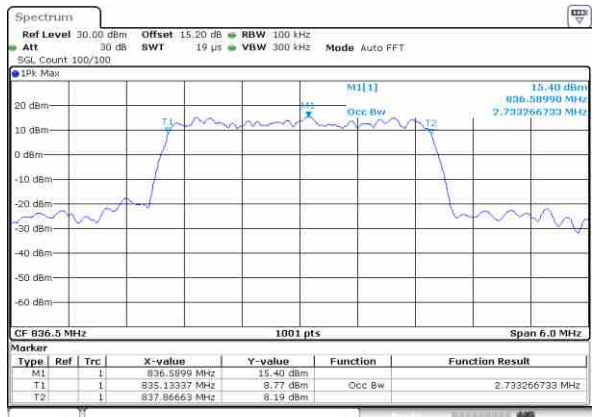
Date: 16.FEB.2019 23:58:57

Middle Channel / 1.4MHz / 64QAM



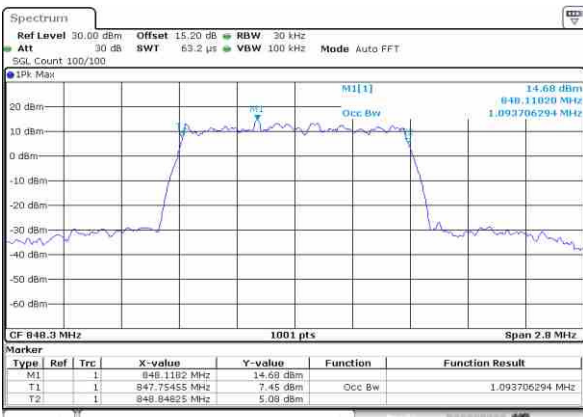
Date: 17.FEB.2019 00:03:02

Middle Channel / 3MHz / 64QAM



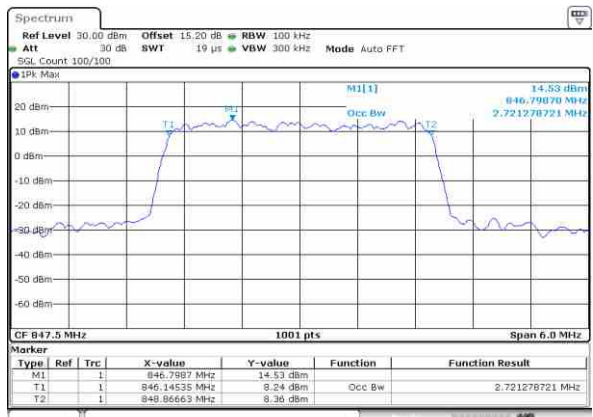
Date: 16.FEB.2019 23:20:35

Highest Channel / 1.4MHz / 64QAM



Date: 17.FEB.2019 00:04:23

Highest Channel / 3MHz / 64QAM

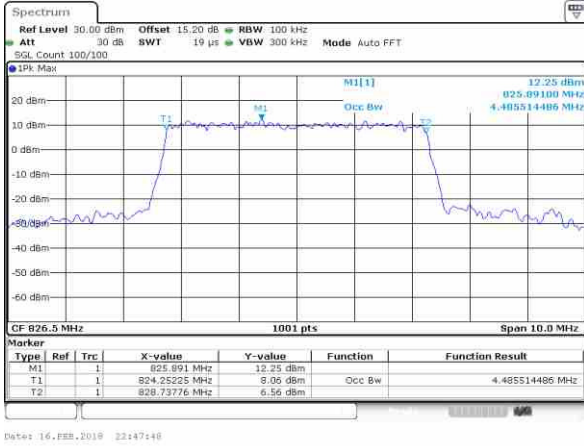


Date: 16.FEB.2019 23:21:56



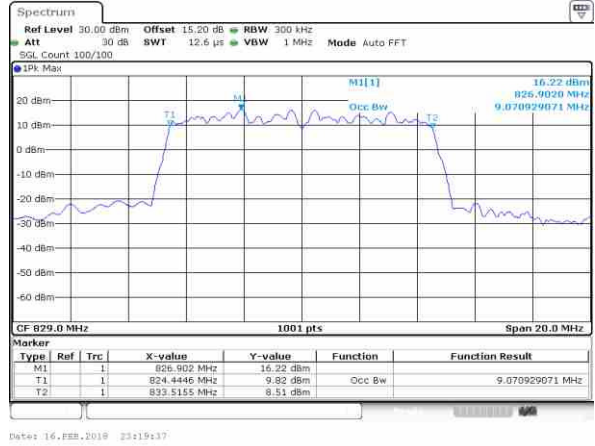
LTE Band 5

Lowest Channel / 5MHz / 64QAM



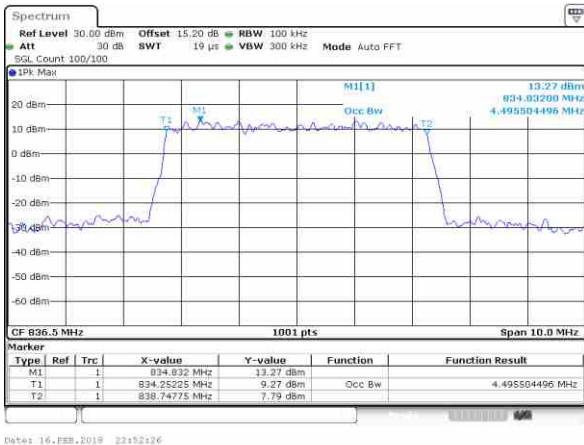
Date: 16.FEB.2019 22:47:48

Lowest Channel / 10MHz / 64QAM



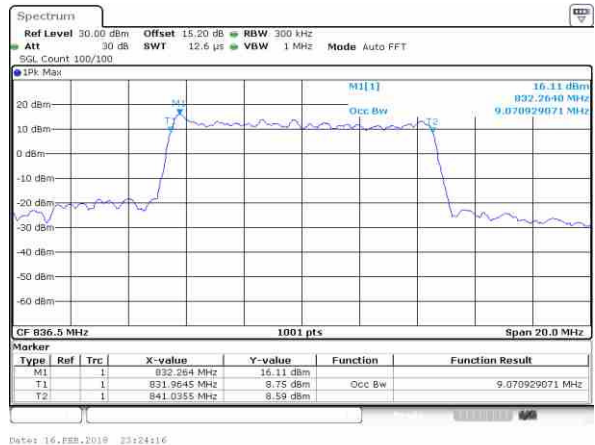
Date: 16.FEB.2019 22:19:37

Middle Channel / 5MHz / 64QAM



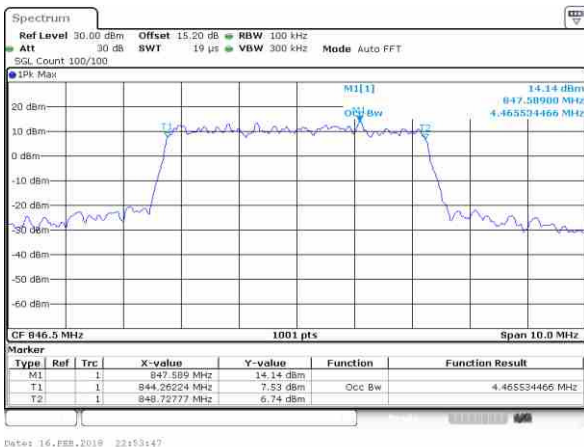
Date: 16.FEB.2019 22:52:26

Middle Channel / 10MHz / 64QAM



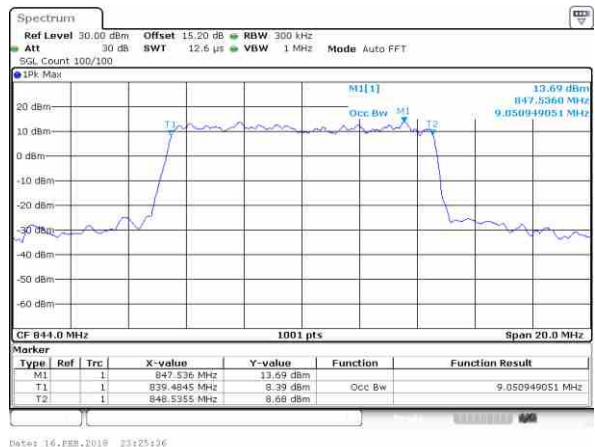
Date: 16.FEB.2019 22:24:16

Highest Channel / 5MHz / 64QAM



Date: 16.FEB.2019 22:53:47

Highest Channel / 10MHz / 64QAM



Date: 16.FEB.2019 22:25:26



Conducted Band Edge



LTE Band 5 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB





LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



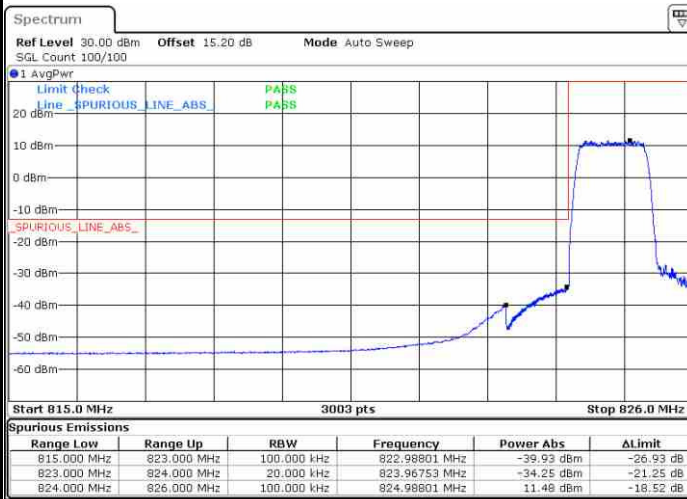
Date: 16.FEB.2018 23:34:07

Highest Band Edge / 1 RB



Date: 16.FEB.2018 23:56:18

Lowest Band Edge / Full RB



Date: 16.FEB.2018 23:37:25

Highest Band Edge / Full RB



Date: 16.FEB.2018 23:53:00



LTE Band 5 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



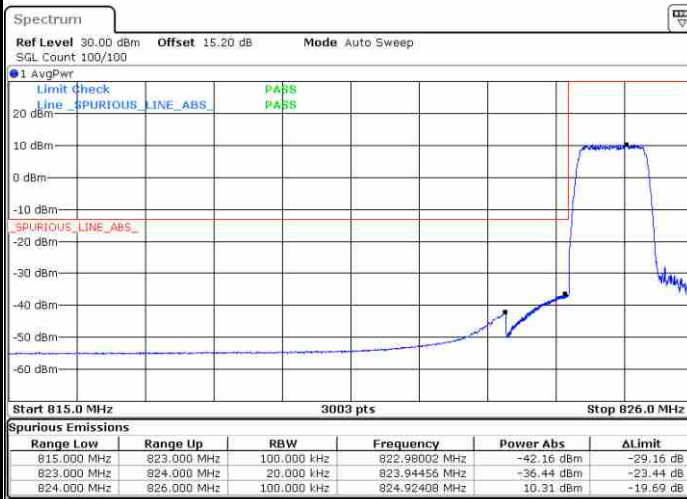
Date: 17.FEB.2018 00:00:14

Highest Band Edge / 1 RB



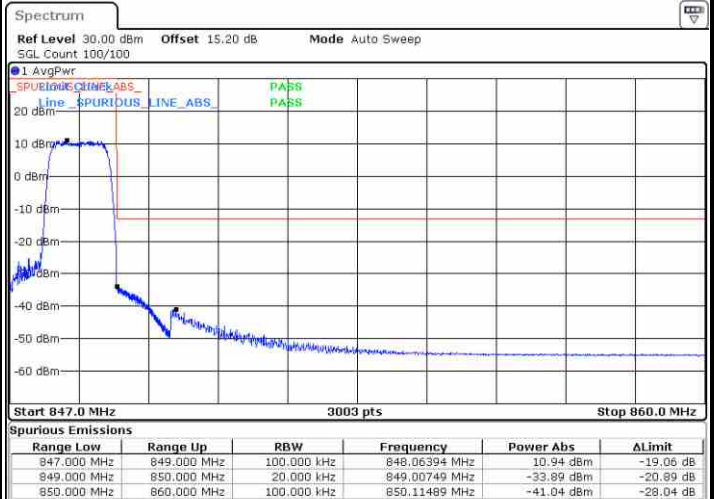
Date: 17.FEB.2018 00:07:52

Lowest Band Edge / Full RB



Date: 17.FEB.2018 00:01:53

Highest Band Edge / Full RB

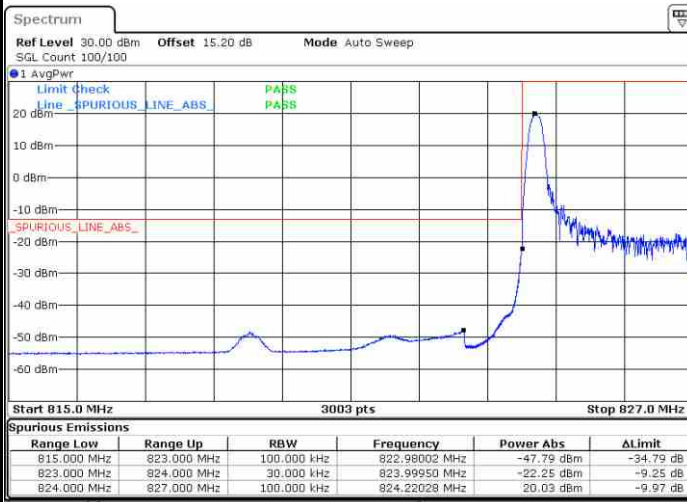


Date: 17.FEB.2018 00:06:13



LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



Date: 16.FEB.2018 21:56:57

Highest Band Edge / 1 RB



Date: 16.FEB.2018 22:08:54

Lowest Band Edge / Full RB



Date: 16.FEB.2018 22:00:15

Highest Band Edge / Full RB



Date: 16.FEB.2018 22:12:12