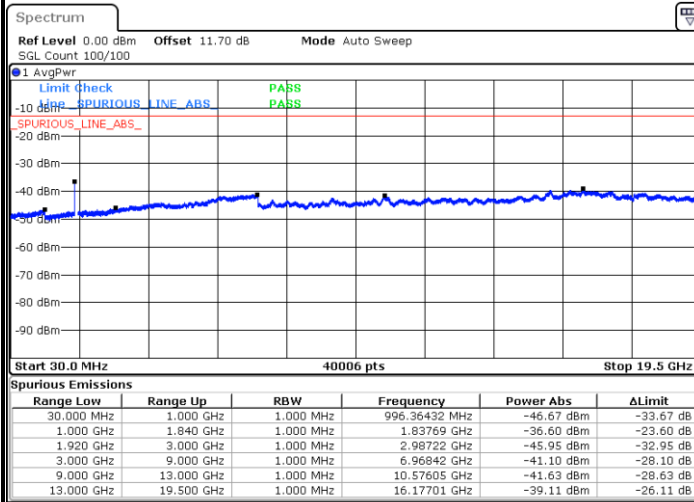




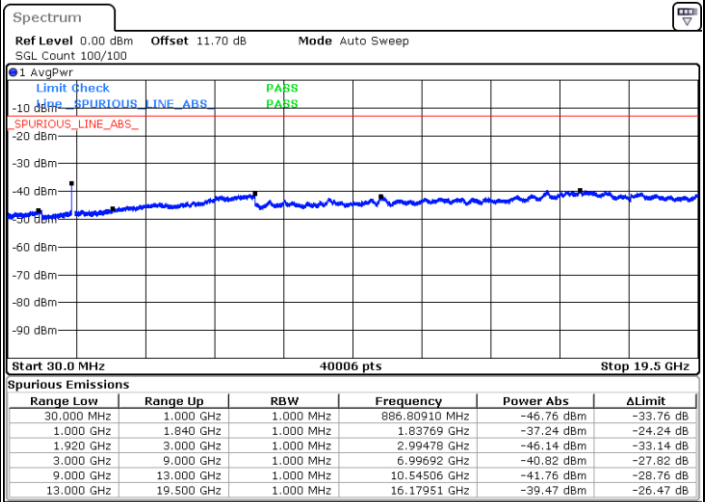
LTE Band 2 / 15MHz

Lowest Channel / QPSK



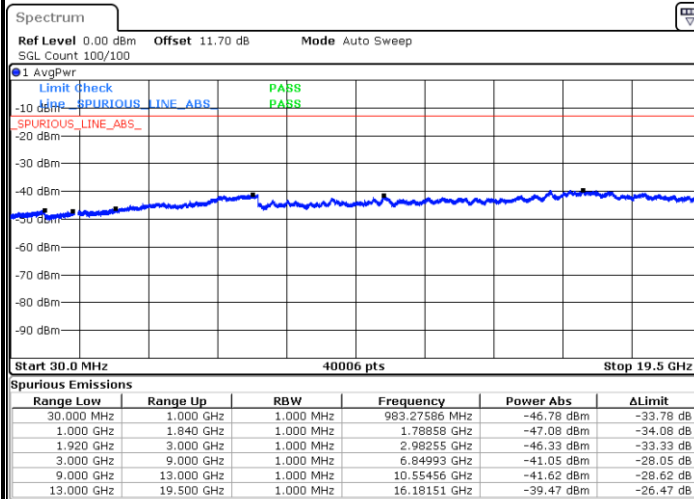
Date: 17.FEB.2018 01:11:45

Lowest Channel / 16QAM



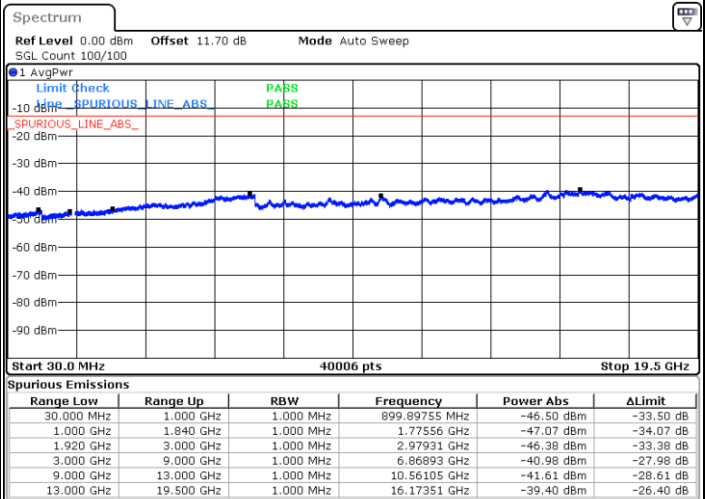
Date: 17.FEB.2018 01:12:39

Middle Channel / QPSK



Date: 17.FEB.2018 01:14:12

Middle Channel / 16QAM

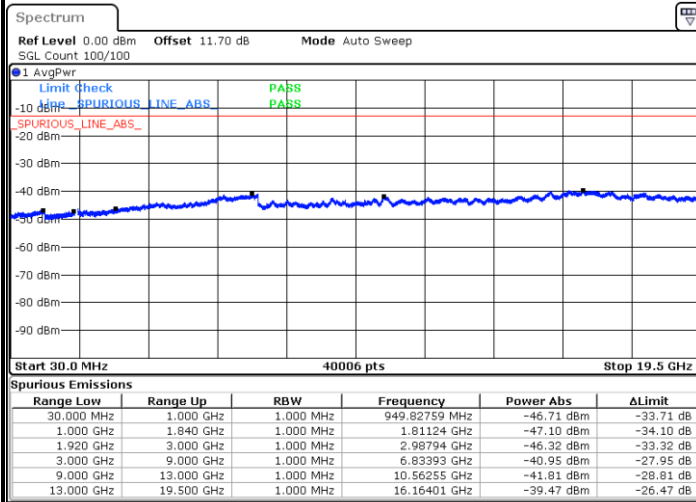


Date: 17.FEB.2018 01:15:06



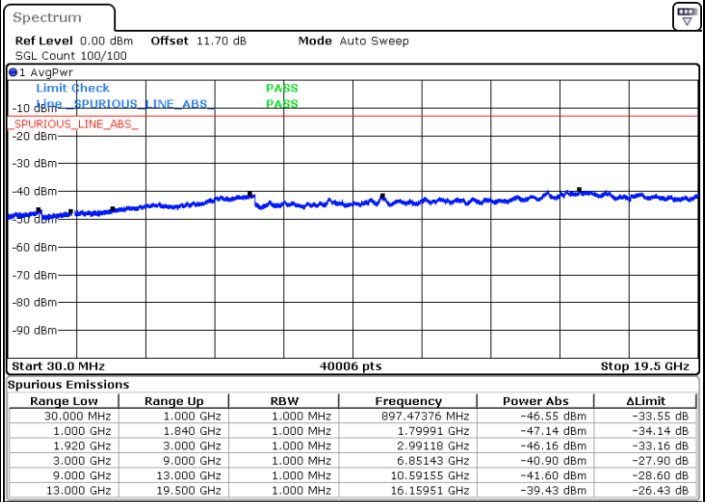
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 17.FEB.2018 01:21:08

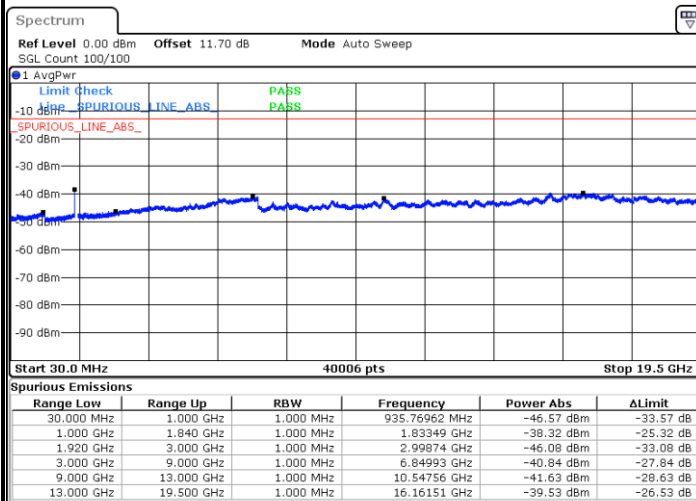
Highest Channel / 16QAM



Date: 17.FEB.2018 01:22:02

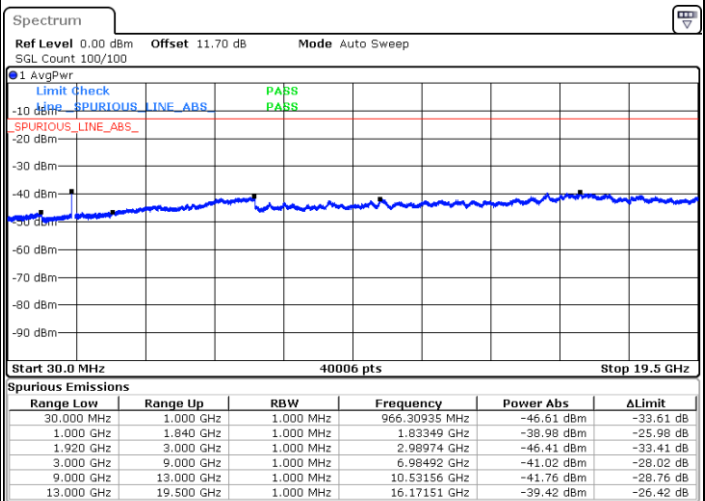
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 17.FEB.2018 01:28:04

Lowest Channel / 16QAM

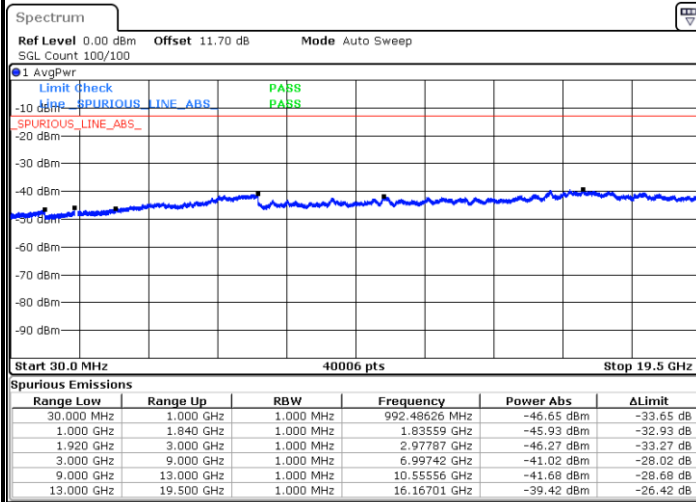


Date: 17.FEB.2018 01:28:58



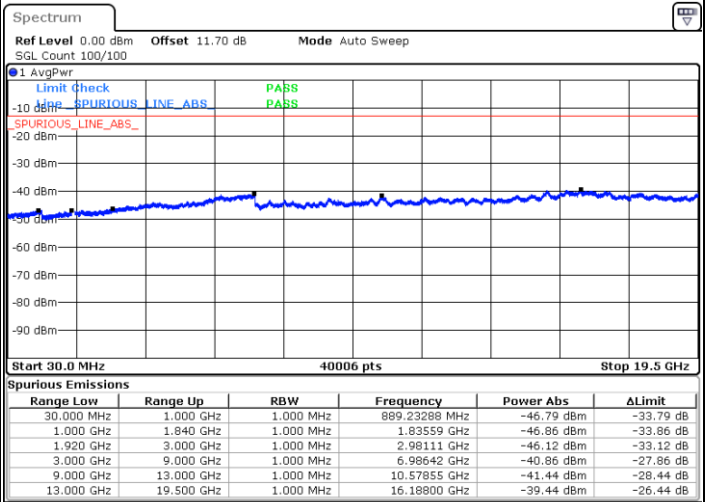
LTE Band 2 / 20MHz

Middle Channel / QPSK



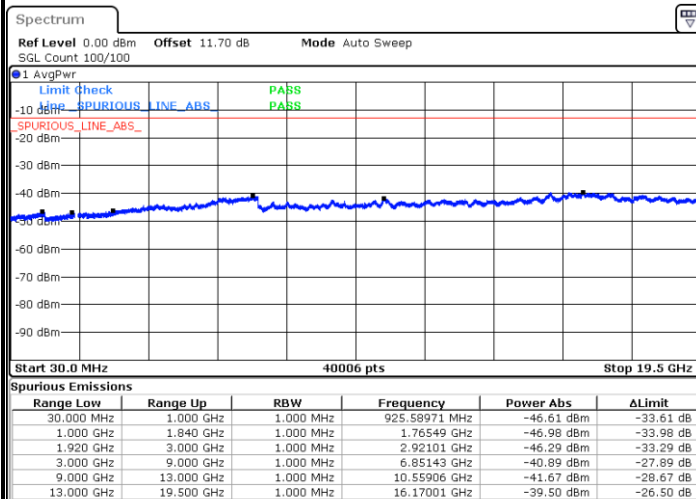
Date: 17.FEB 2018 01:30:31

Middle Channel / 16QAM



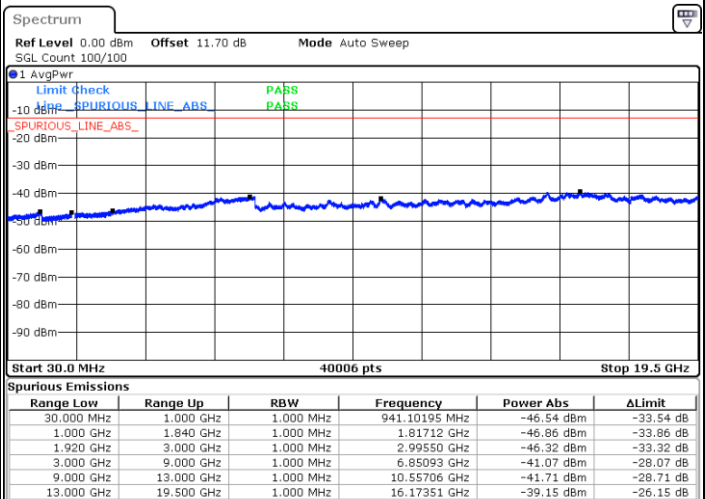
Date: 17.FEB 2018 01:31:25

Highest Channel / QPSK



Date: 17.FEB 2018 01:37:27

Highest Channel / 16QAM

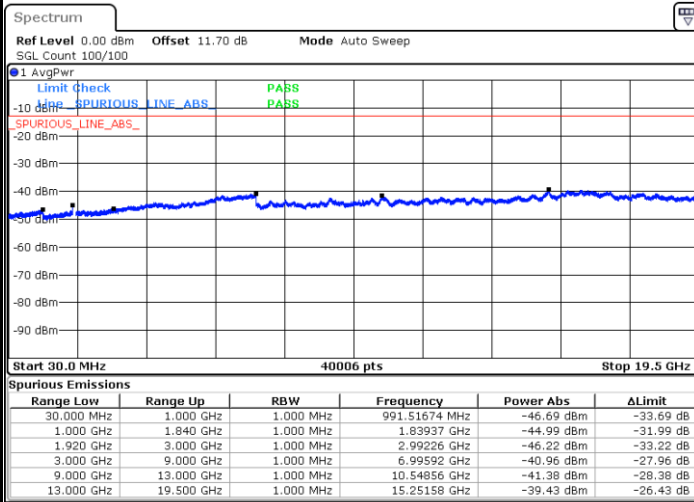


Date: 17.FEB 2018 01:38:21



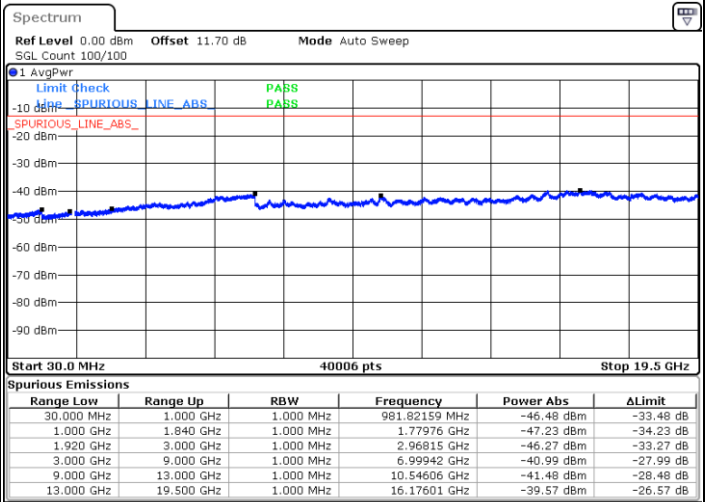
LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM



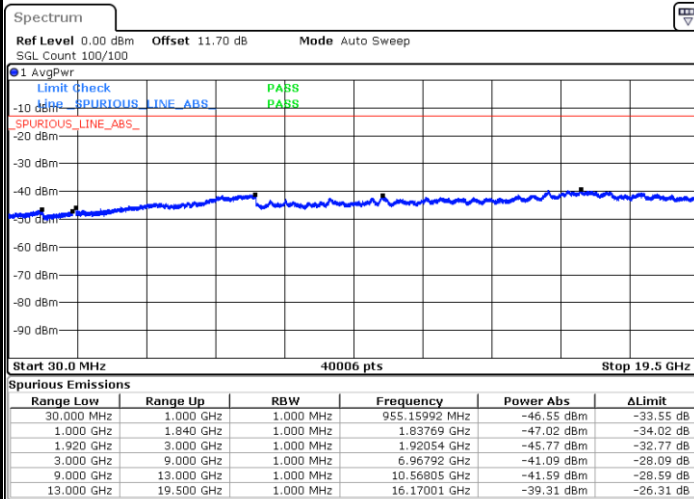
Date: 17.FEB 2018 02:22:37

Middle Channel / 64QAM



Date: 17.FEB 2018 02:23:50

Highest Channel / 64QAM

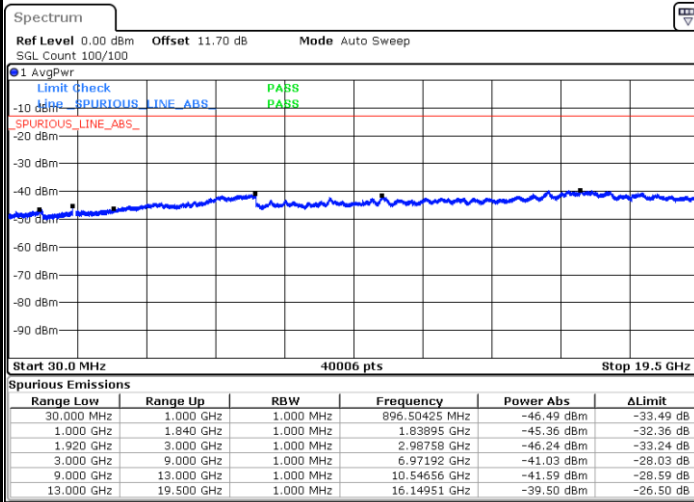


Date: 17.FEB 2018 02:27:18



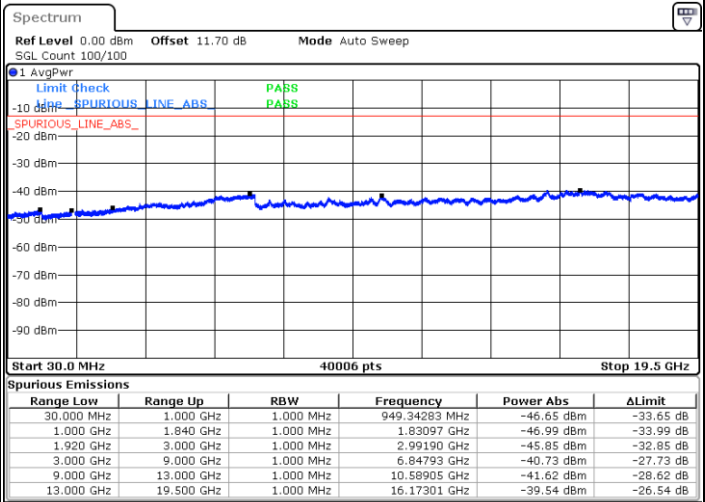
LTE Band 2 / 3MHz

Lowest Channel / 64QAM



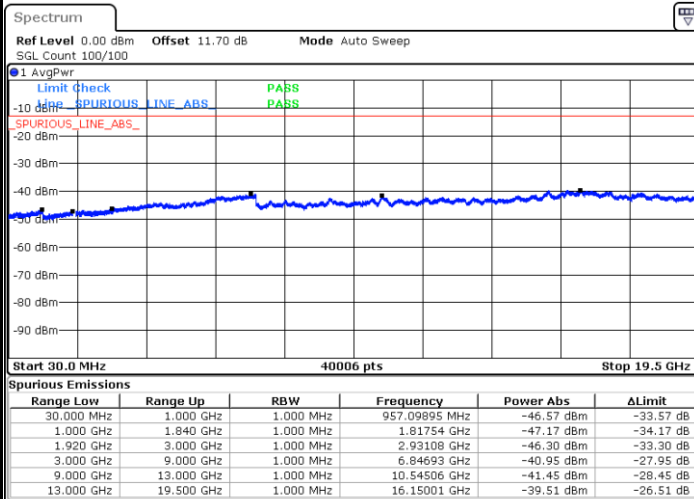
Date: 17.FEB 2018 01:41:49

Middle Channel / 64QAM



Date: 17.FEB 2018 01:43:03

Highest Channel / 64QAM

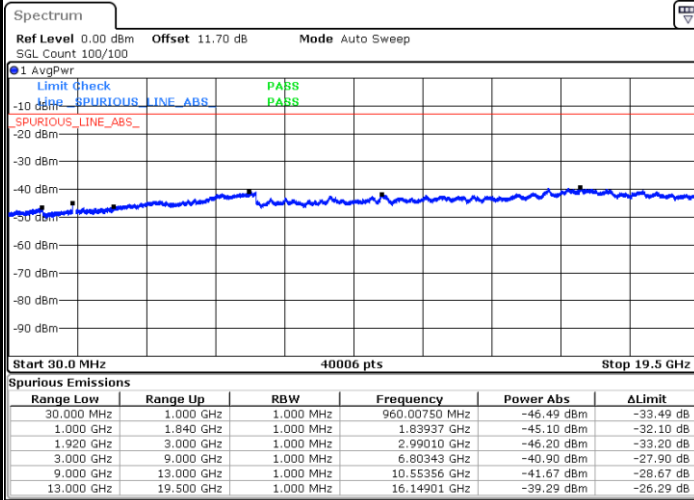


Date: 17.FEB 2018 01:46:31



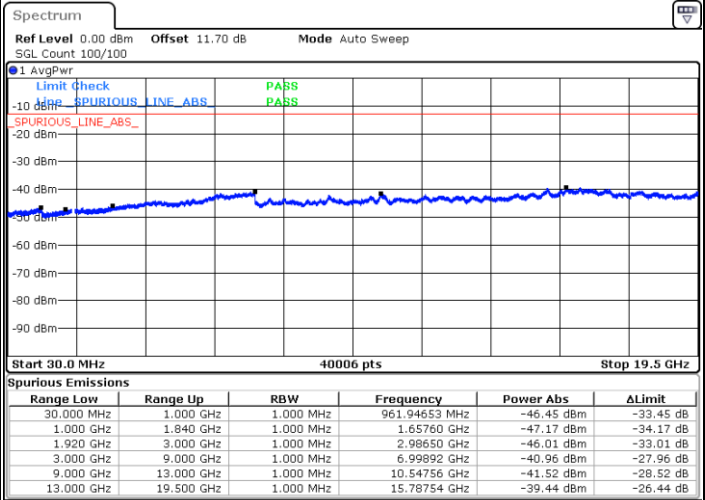
LTE Band 2 / 5MHz

Lowest Channel / 64QAM



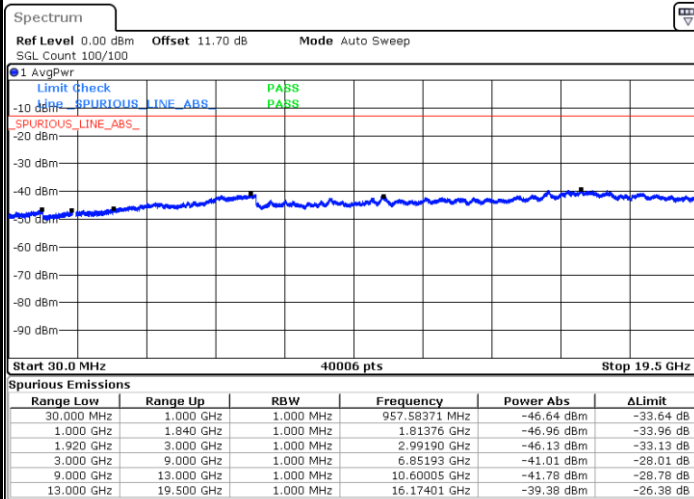
Date: 17.FEB 2018 01:49:59

Middle Channel / 64QAM



Date: 17.FEB 2018 01:51:12

Highest Channel / 64QAM

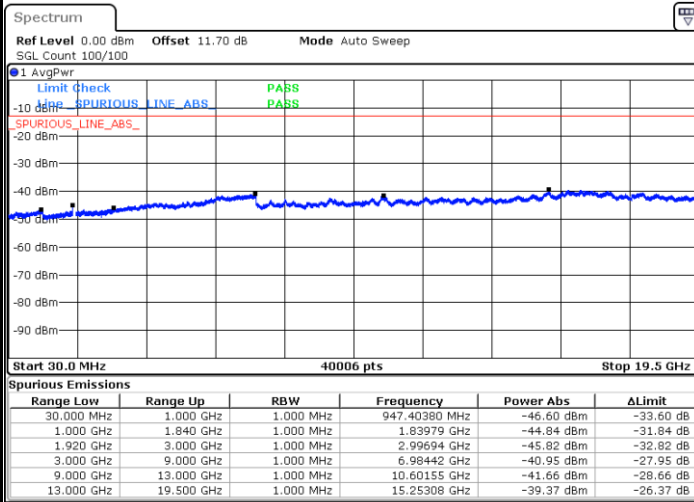


Date: 17.FEB 2018 01:54:40



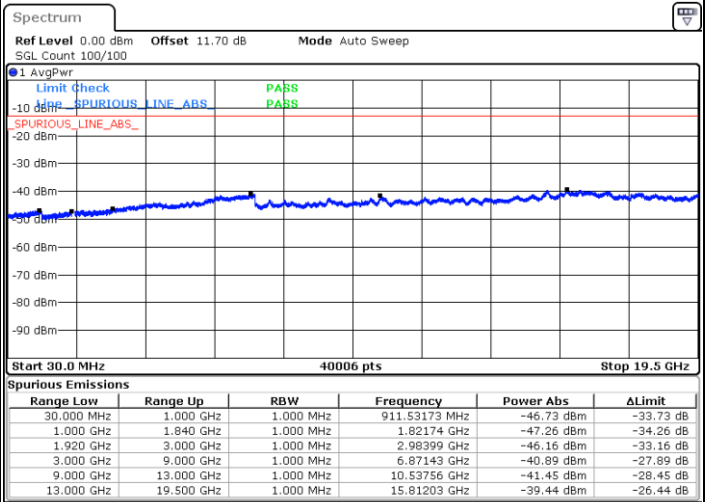
LTE Band 2 / 10MHz

Lowest Channel / 64QAM



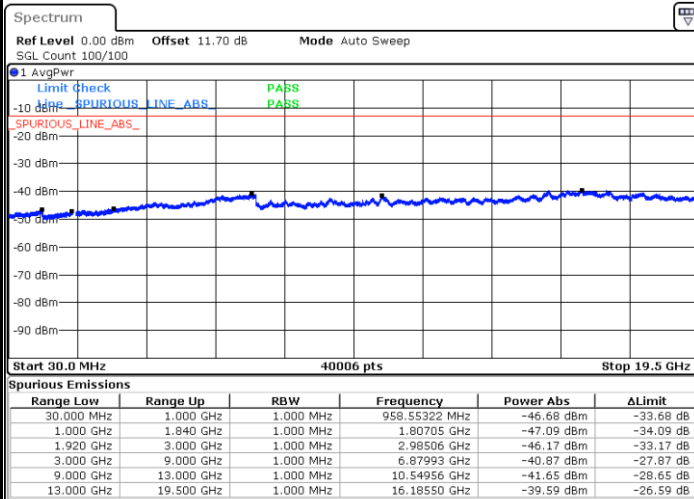
Date: 17.FEB 2018 01:58:08

Middle Channel / 64QAM



Date: 17.FEB 2018 01:59:22

Highest Channel / 64QAM

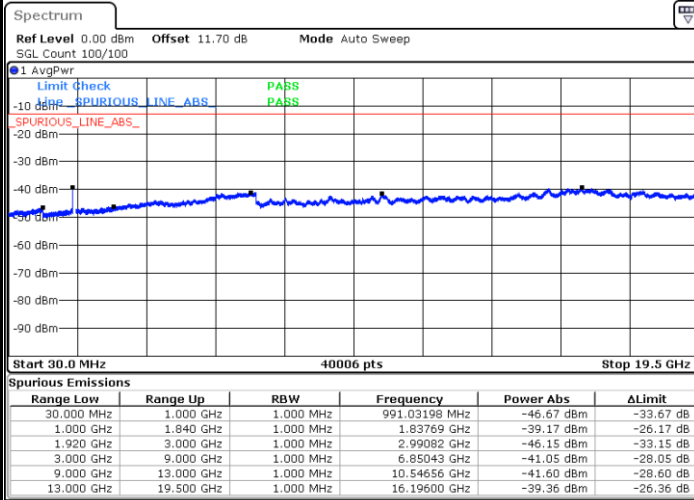


Date: 17.FEB 2018 02:02:50



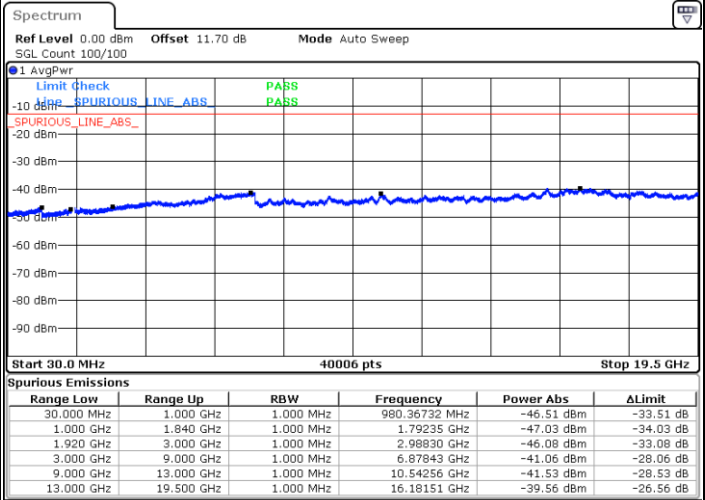
LTE Band 2 / 15MHz

Lowest Channel / 64QAM



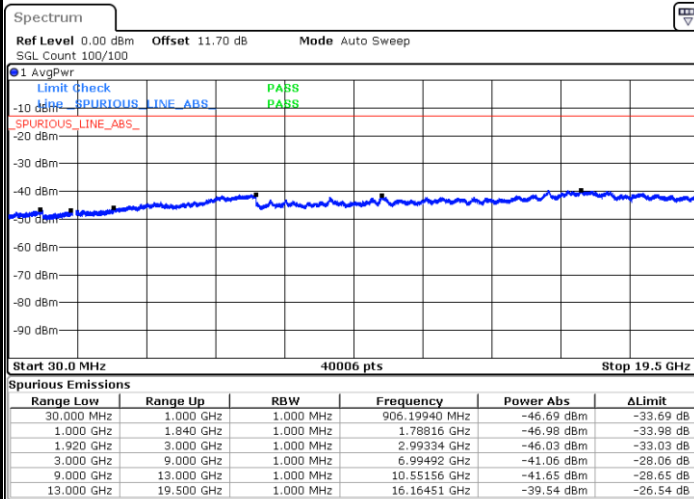
Date: 17.FEB 2018 02:06:18

Middle Channel / 64QAM



Date: 17.FEB 2018 02:07:31

Highest Channel / 64QAM

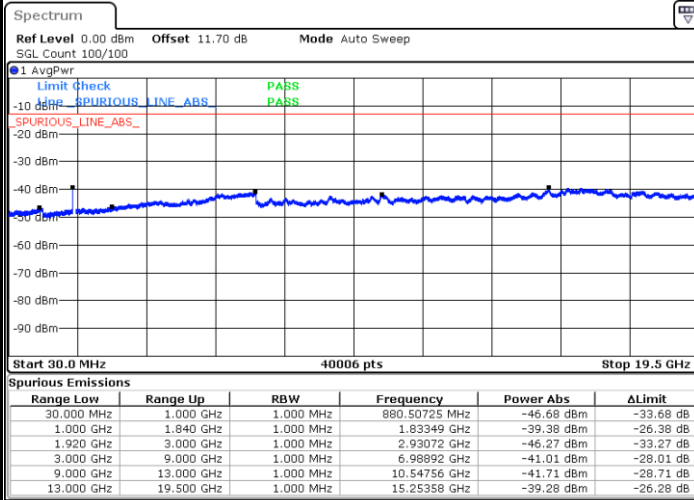


Date: 17.FEB 2018 02:10:59



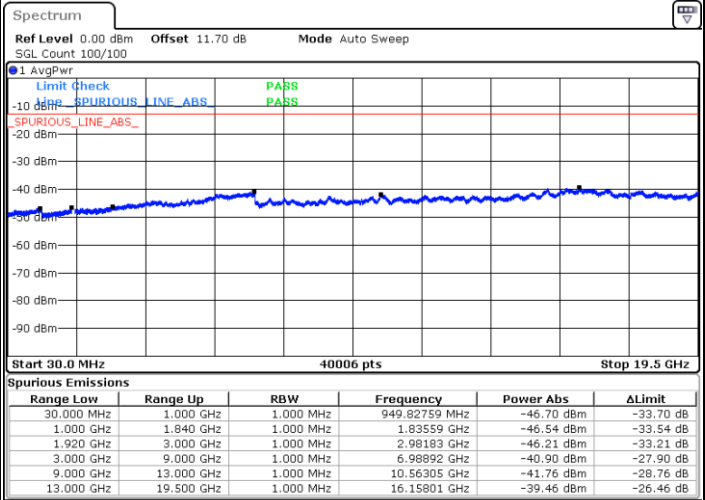
LTE Band 2 / 20MHz

Lowest Channel / 64QAM



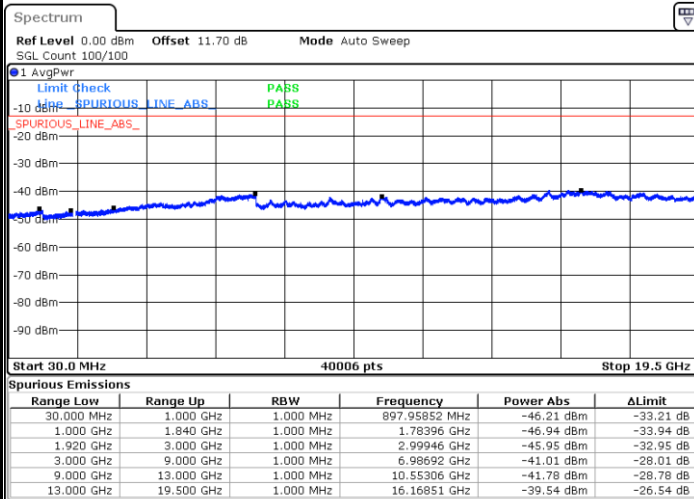
Date: 17.FEB 2018 02:14:27

Middle Channel / 64QAM



Date: 17.FEB 2018 02:15:41

Highest Channel / 64QAM



Date: 17.FEB 2018 02:19:09

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0042	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0038	
0	Normal Voltage	0.0034	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0056	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0024	

Note:

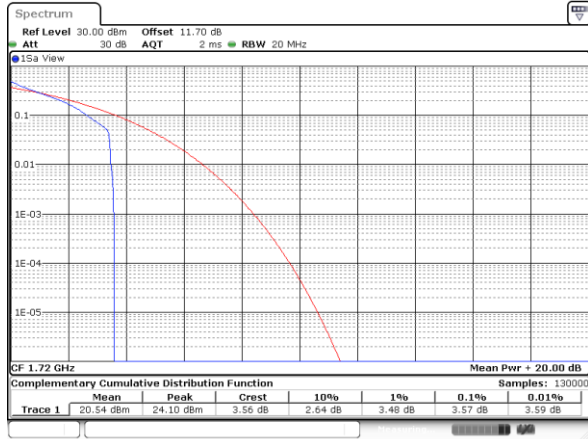
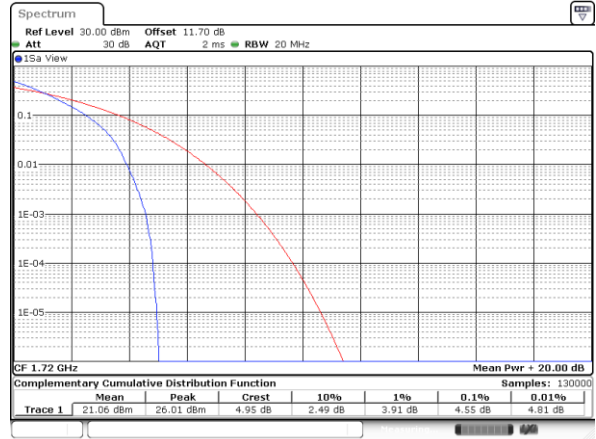
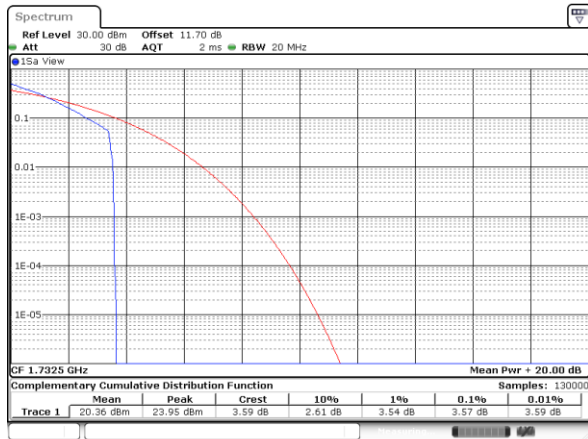
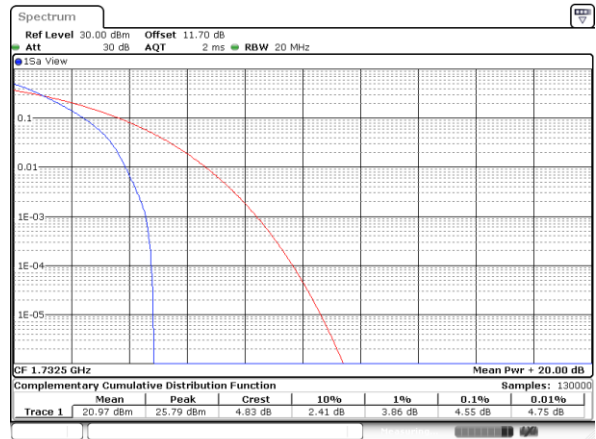
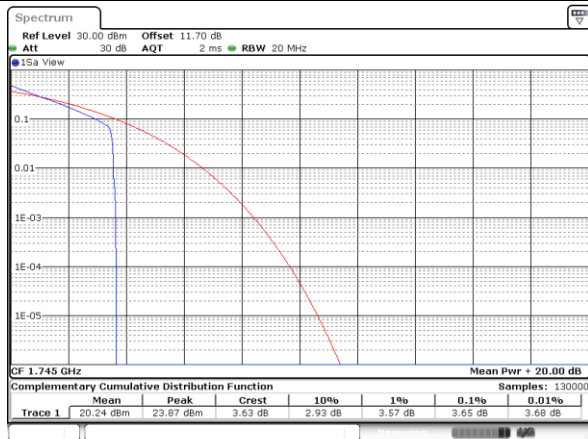
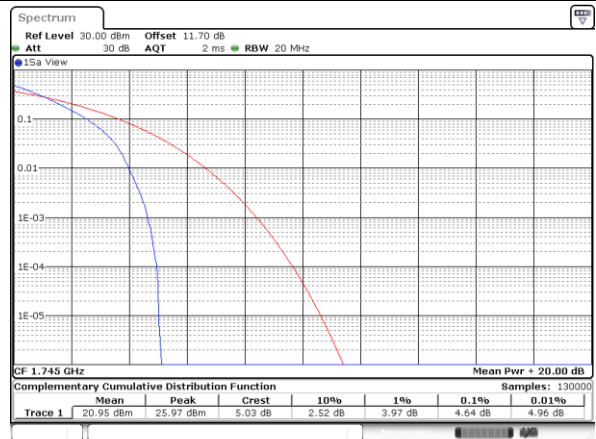
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 4

Peak-to-Average Ratio

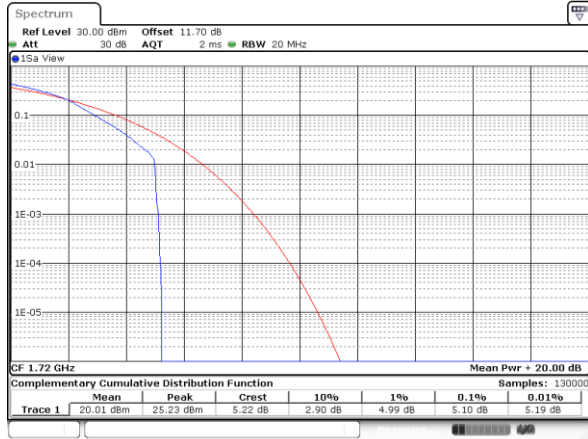
Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.57	4.55	5.1	5.86	PASS
Middle CH	3.57	4.55	5.19	5.8	
Highest CH	3.65	4.64	4.99	5.86	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.42	6.52	-	-	PASS
Middle CH	6.17	6.41	-	-	
Highest CH	6.03	6.46	-	-	

LTE Band 4 / 20MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB


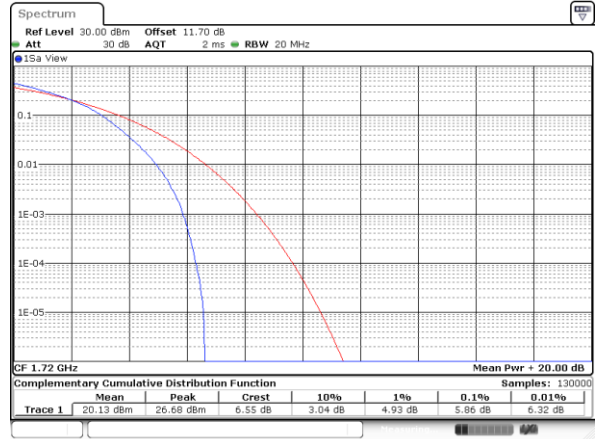


LTE Band 4 / 20MHz / 16QAM

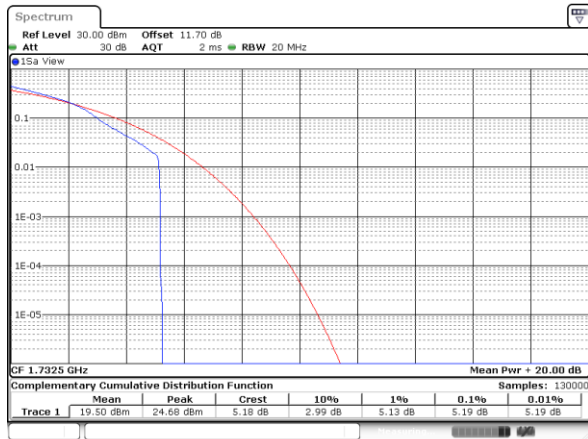
Lowest Channel / 1RB



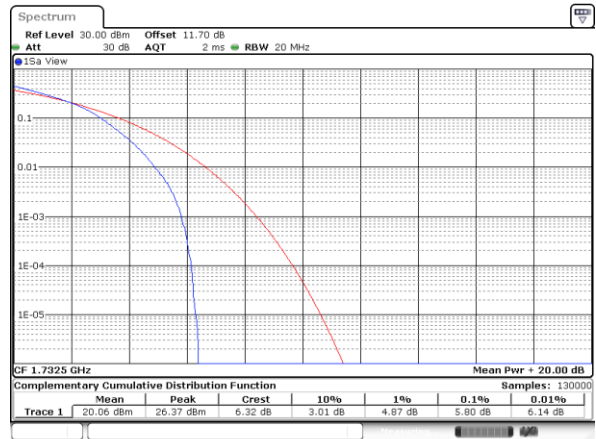
Lowest Channel / Full RB



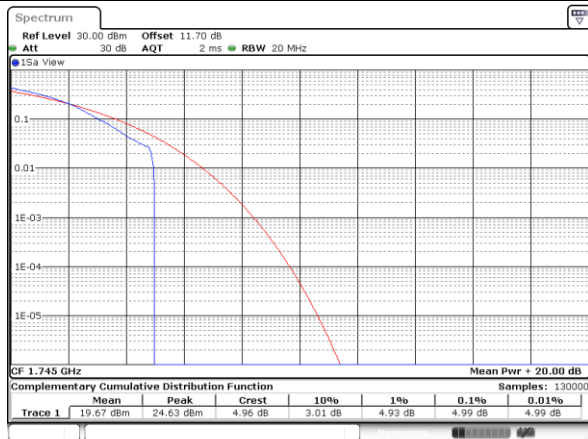
Middle Channel / 1RB



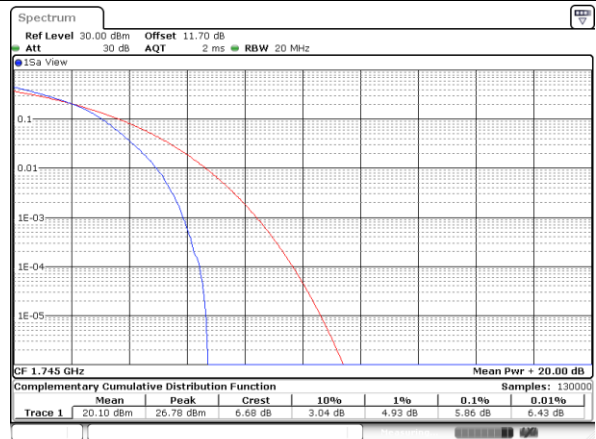
Middle Channel / Full RB



Highest Channel / 1RB



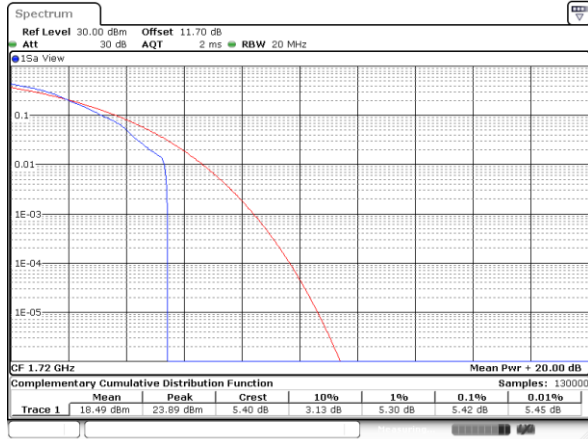
Highest Channel / Full RB



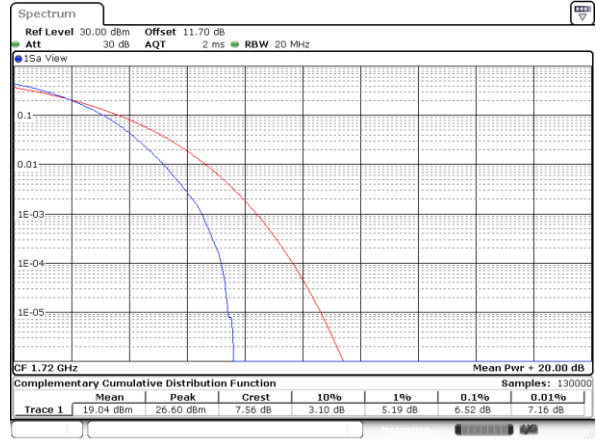


LTE Band 4 / 20MHz / 64QAM

Lowest Channel / 1RB



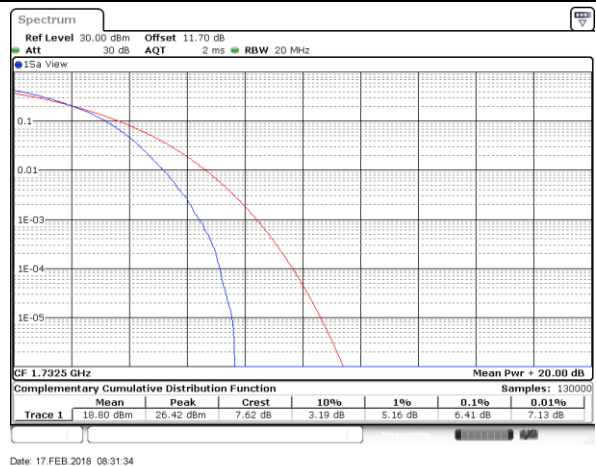
Lowest Channel / Full RB



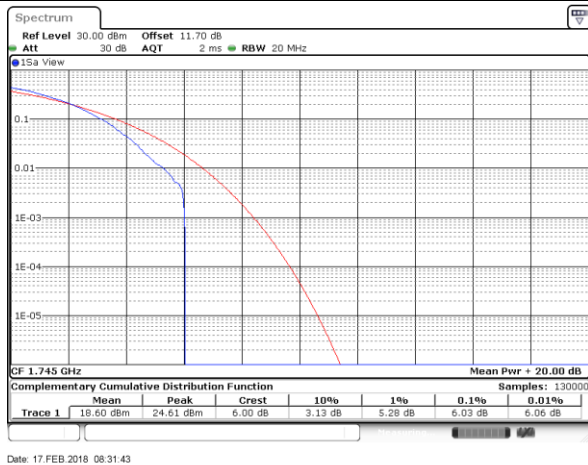
Middle Channel / 1RB



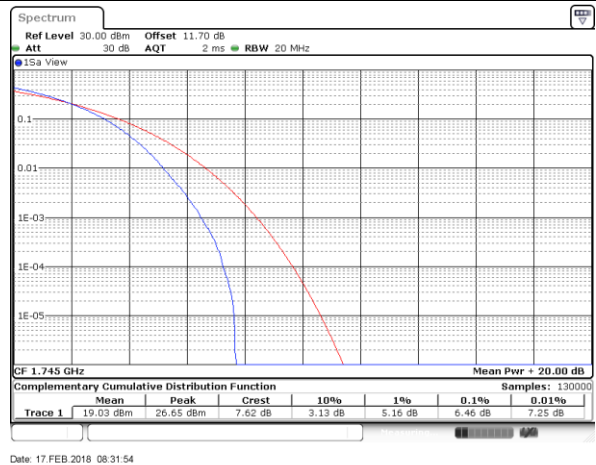
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



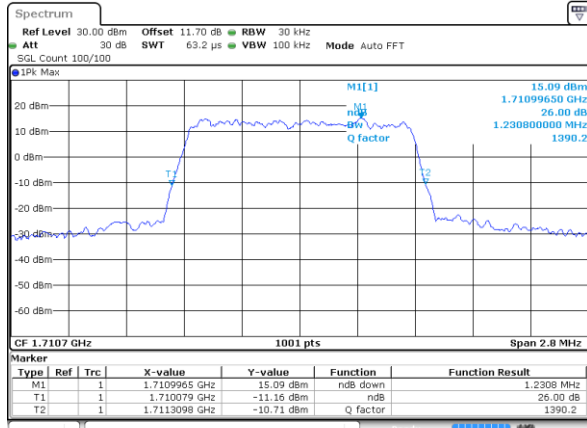
**26dB Bandwidth**

Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.23	1.23	2.99	3.03	4.91	4.91	9.91	9.69	14.39	14.54	20.18	20.30
Middle CH	1.23	1.23	3.04	3.05	4.90	4.90	9.93	9.77	14.42	14.54	20.22	20.26
Highest CH	1.24	1.23	3.02	3.07	4.88	4.90	9.77	9.77	14.27	14.36	20.18	20.22
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	3.00	-	4.89	-	9.65	-	14.39	-	20.18	-
Middle CH	1.23	-	3.03	-	4.94	-	9.85	-	14.69	-	20.10	-
Highest CH	1.23	-	3.02	-	4.88	-	9.95	-	14.60	-	20.06	-



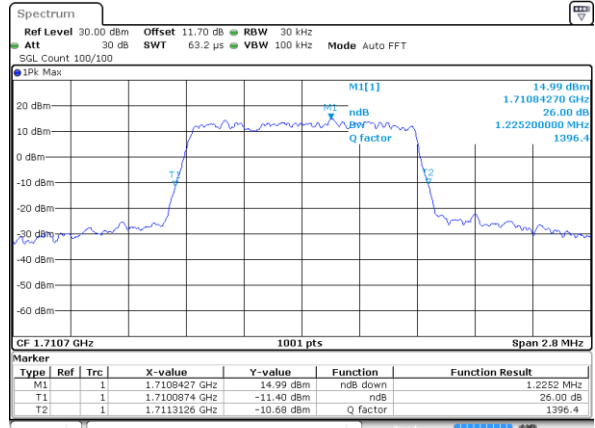
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



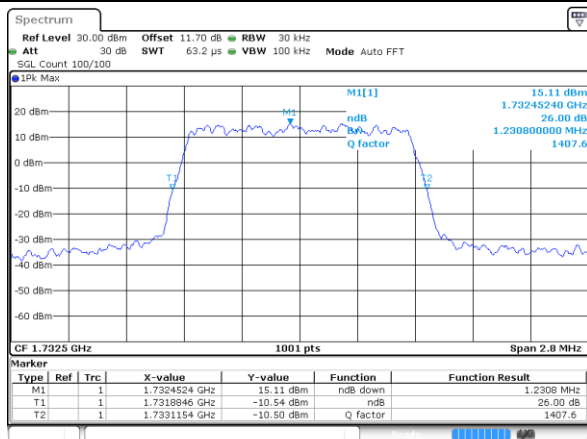
Date: 17 FEB 2018 07:13:45

Lowest Channel / 1.4MHz / 16QAM



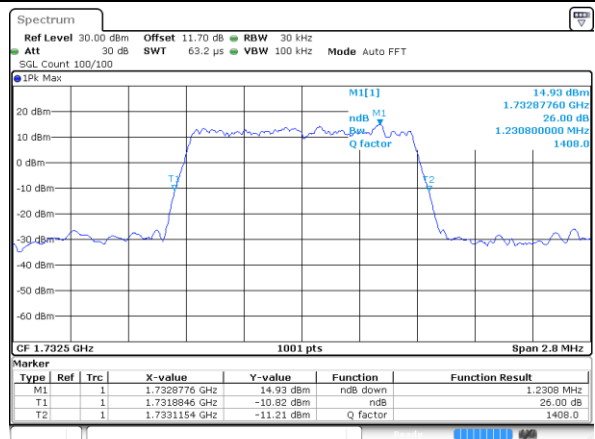
Date: 17 FEB 2018 07:13:54

Middle Channel / 1.4MHz / QPSK



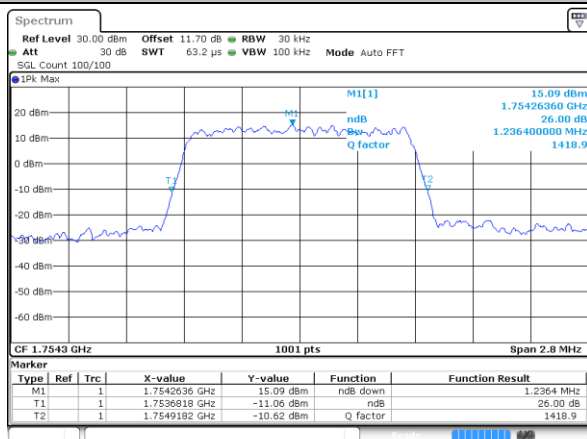
Date: 17 FEB 2018 07:20:41

Middle Channel / 1.4MHz / 16QAM



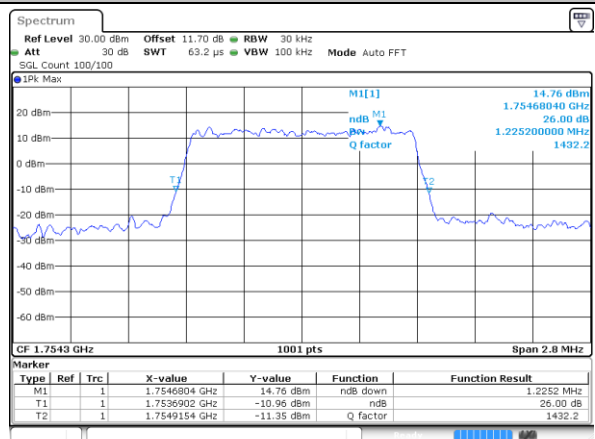
Date: 17 FEB 2018 07:20:50

Highest Channel / 1.4MHz / QPSK



Date: 17 FEB 2018 07:23:08

Highest Channel / 1.4MHz / 16QAM

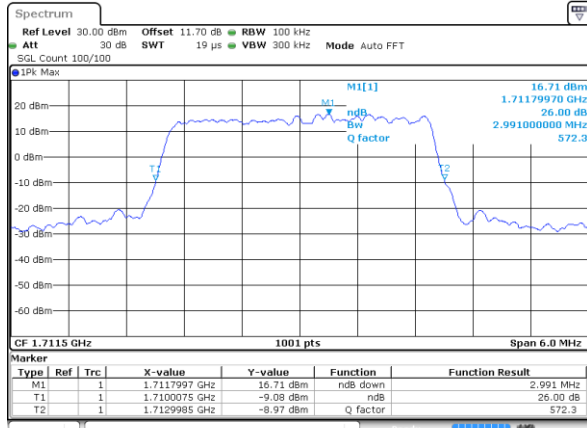


Date: 17 FEB 2018 07:23:18



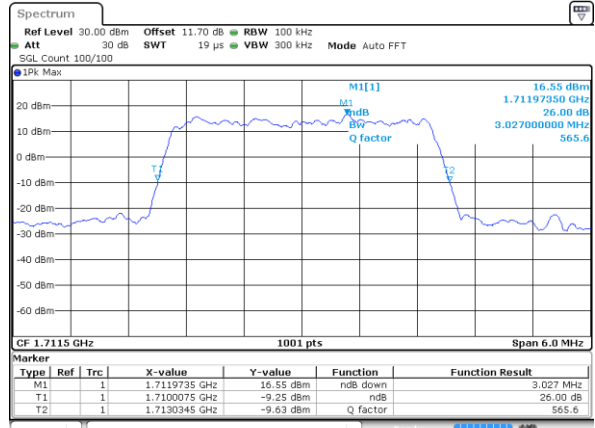
LTE Band 4

Lowest Channel / 3MHz / QPSK



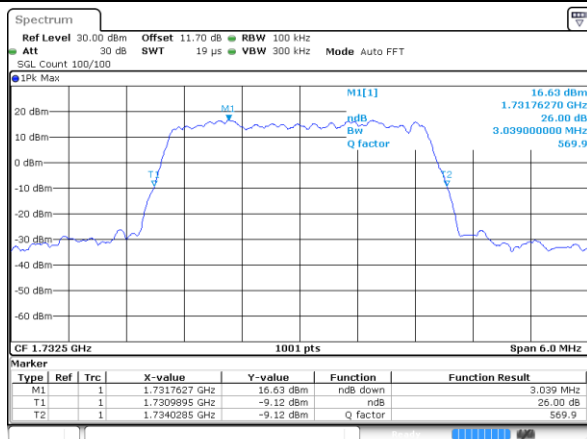
Date: 17 FEB 2018 05:52:11

Lowest Channel / 3MHz / 16QAM



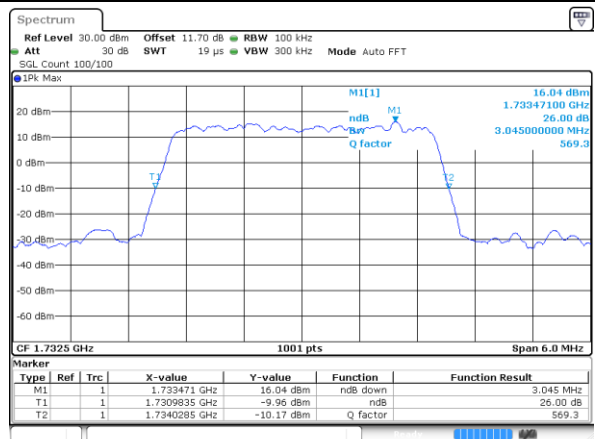
Date: 17 FEB 2018 05:52:21

Middle Channel / 3MHz / QPSK



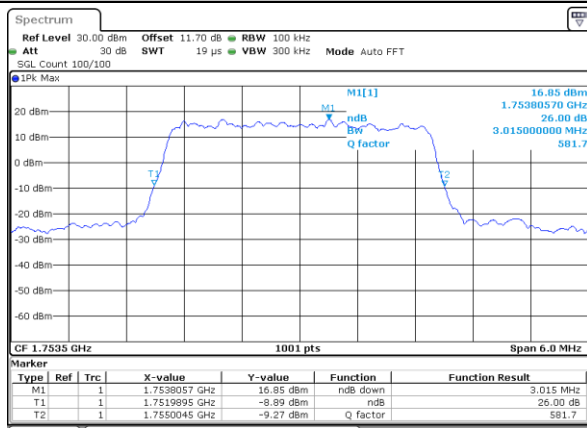
Date: 17 FEB 2018 05:59:07

Middle Channel / 3MHz / 16QAM



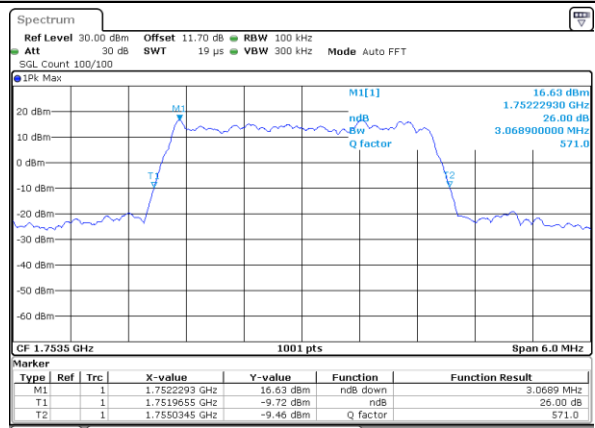
Date: 17 FEB 2018 05:59:16

Highest Channel / 3MHz / QPSK



Date: 17 FEB 2018 06:01:34

Highest Channel / 3MHz / 16QAM

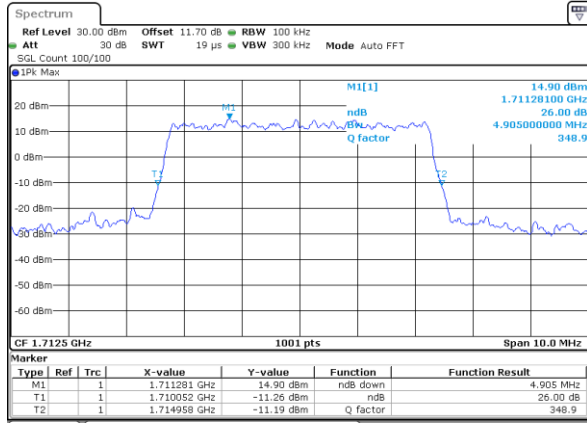


Date: 17 FEB 2018 06:01:43



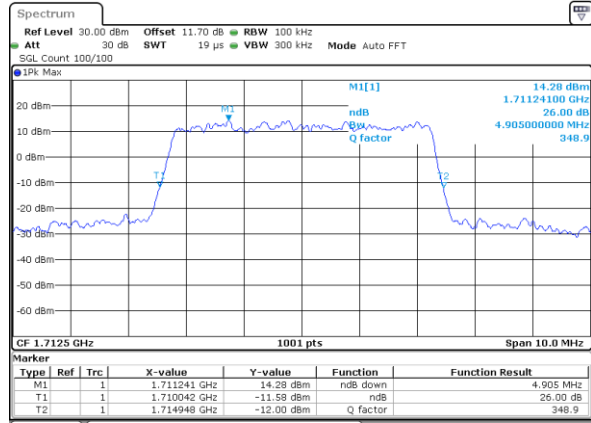
LTE Band 4

Lowest Channel / 5MHz / QPSK



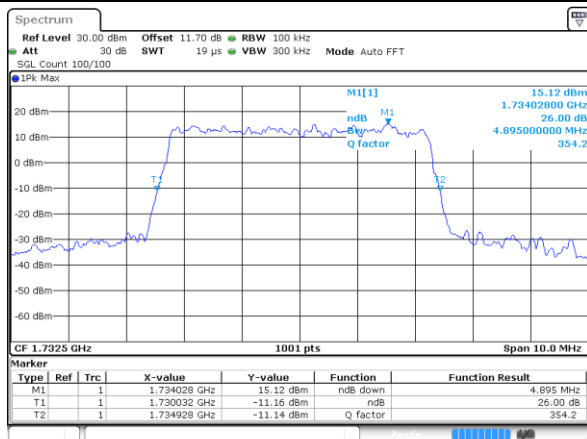
Date: 17 FEB 2018 06:08:30

Lowest Channel / 5MHz / 16QAM



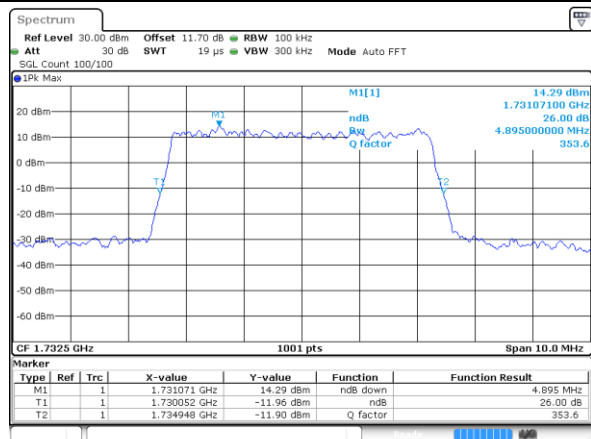
Date: 17 FEB 2018 06:08:39

Middle Channel / 5MHz / QPSK



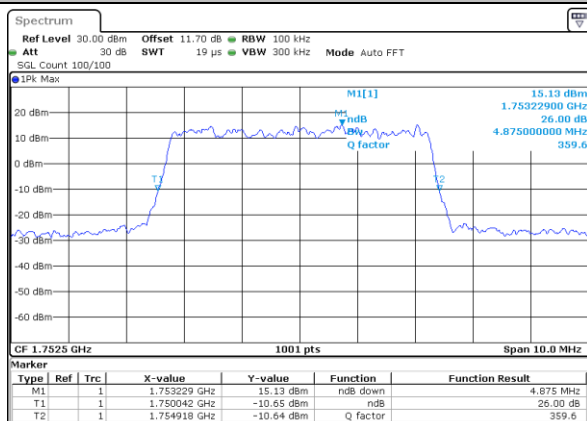
Date: 17 FEB 2018 06:15:25

Middle Channel / 5MHz / 16QAM



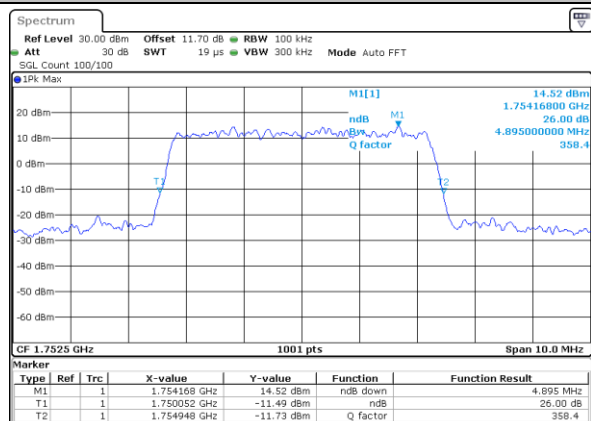
Date: 17 FEB 2018 06:15:35

Highest Channel / 5MHz / QPSK



Date: 17 FEB 2018 06:17:52

Highest Channel / 5MHz / 16QAM

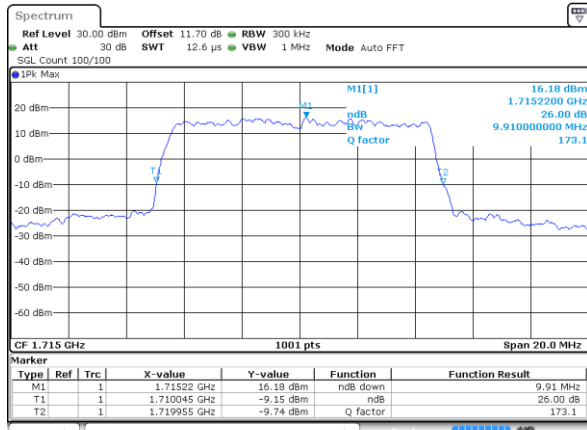


Date: 17 FEB 2018 06:18:02



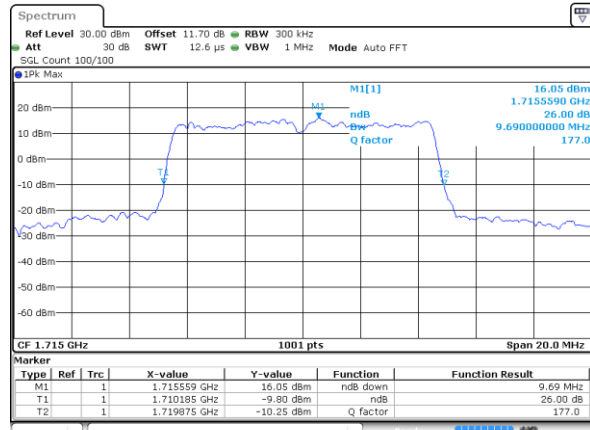
LTE Band 4

Lowest Channel / 10MHz / QPSK



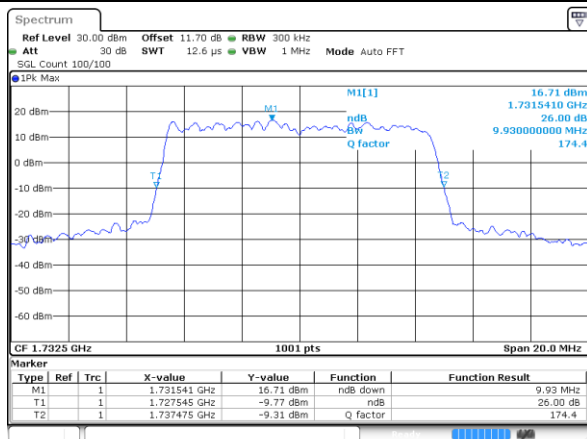
Date: 17 FEB 2018 06:24:48

Lowest Channel / 10MHz / 16QAM



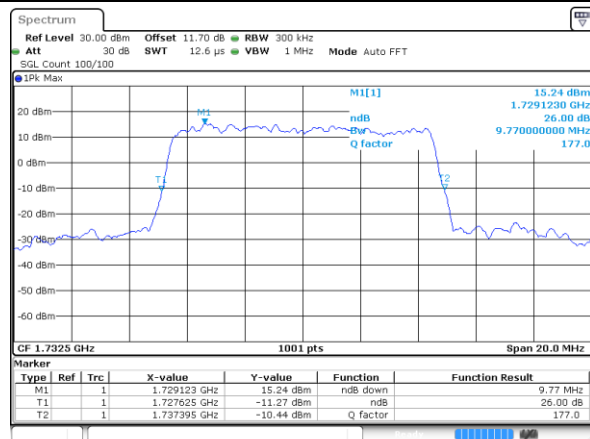
Date: 17 FEB 2018 06:24:58

Middle Channel / 10MHz / QPSK



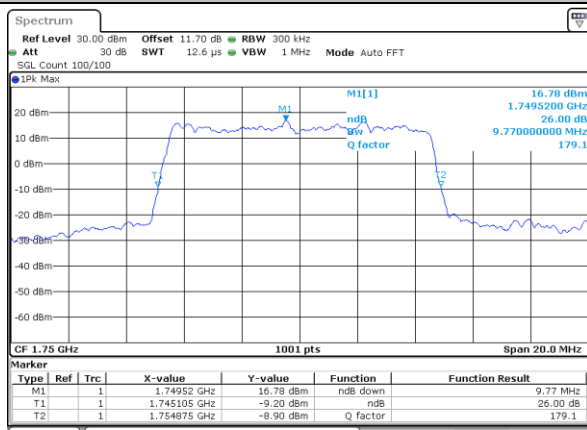
Date: 17 FEB 2018 06:31:44

Middle Channel / 10MHz / 16QAM



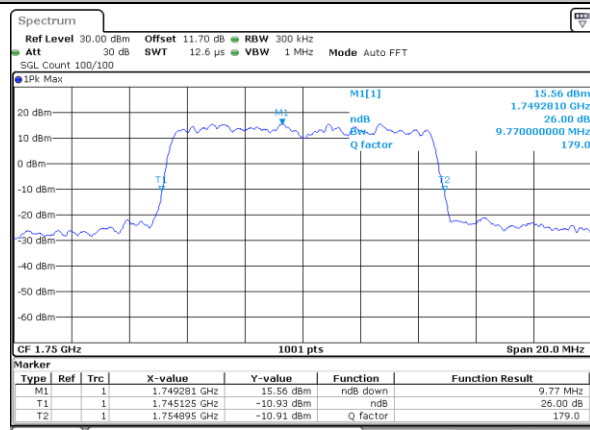
Date: 17 FEB 2018 06:31:54

Highest Channel / 10MHz / QPSK



Date: 17 FEB 2018 06:34:11

Highest Channel / 10MHz / 16QAM

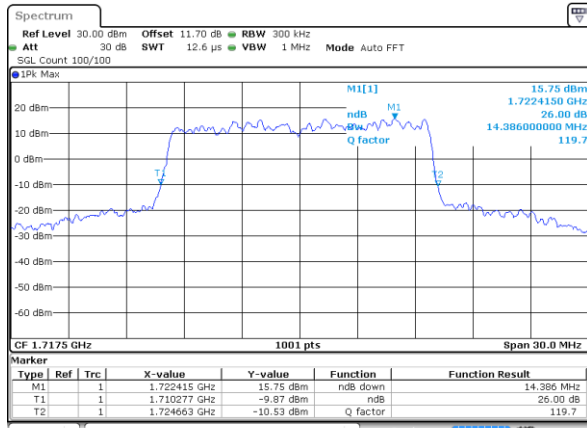


Date: 17 FEB 2018 06:34:21



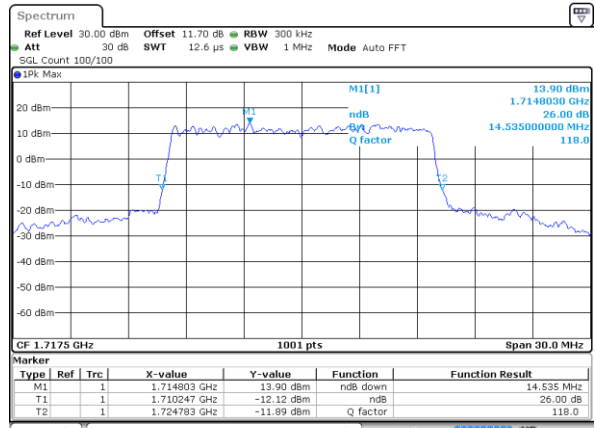
LTE Band 4

Lowest Channel / 15MHz / QPSK



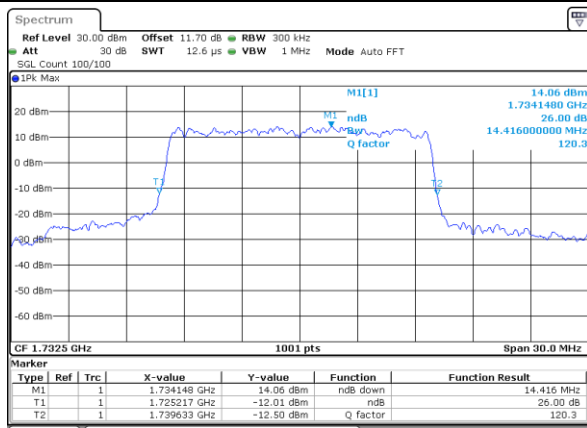
Date: 17 FEB 2018 06:41:07

Lowest Channel / 15MHz / 16QAM



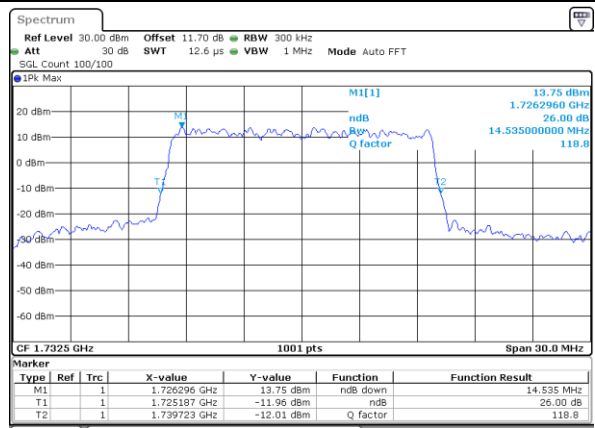
Date: 17 FEB 2018 06:41:17

Middle Channel / 15MHz / QPSK



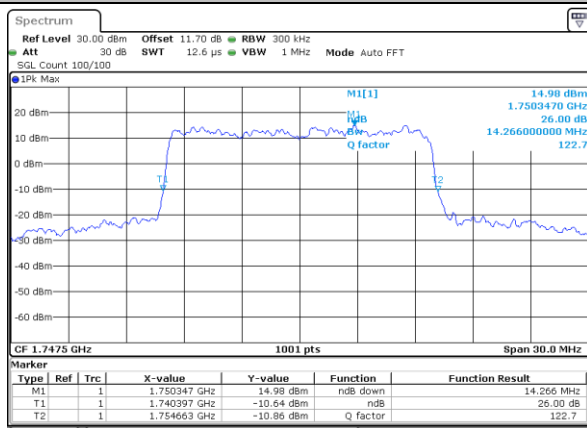
Date: 17 FEB 2018 06:48:03

Middle Channel / 15MHz / 16QAM



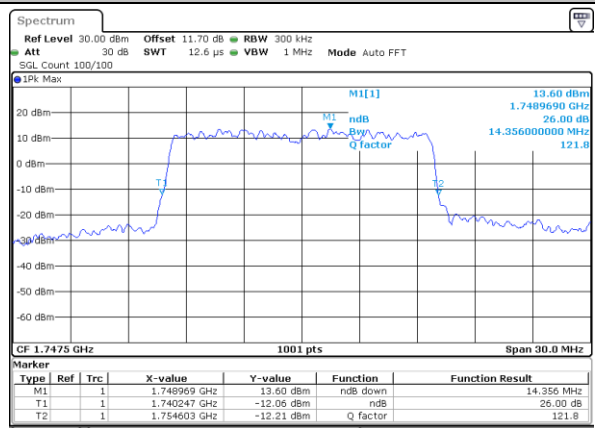
Date: 17 FEB 2018 06:48:13

Highest Channel / 15MHz / QPSK



Date: 17 FEB 2018 06:50:30

Highest Channel / 15MHz / 16QAM

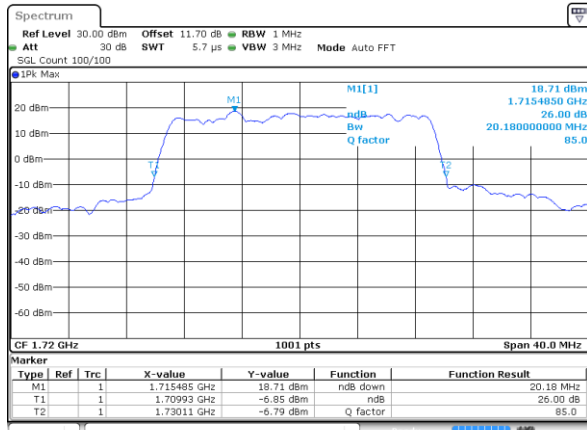


Date: 17 FEB 2018 06:50:40



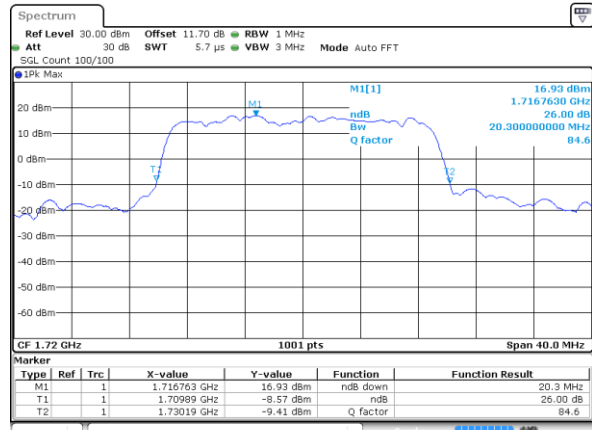
LTE Band 4

Lowest Channel / 20MHz / QPSK



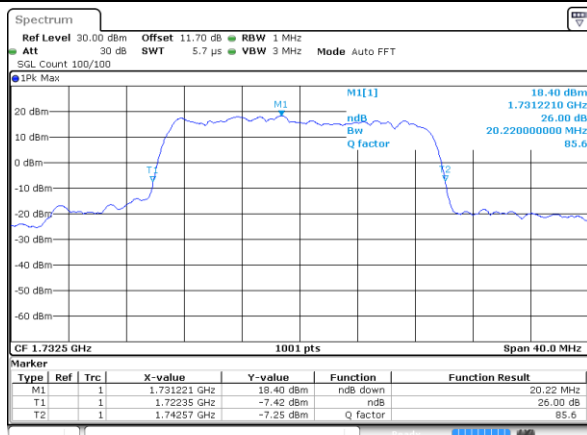
Date: 17 FEB 2018 06:57:26

Lowest Channel / 20MHz / 16QAM



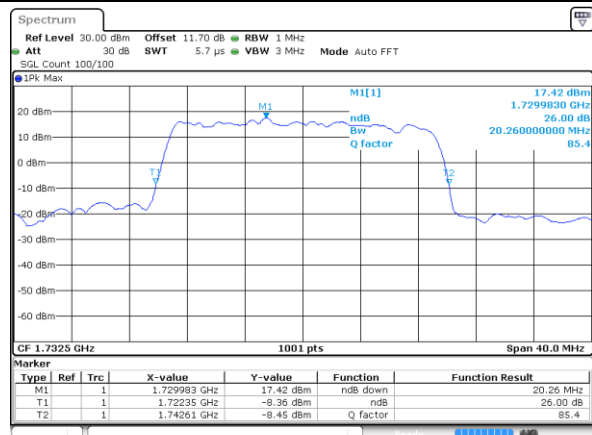
Date: 17 FEB 2018 06:57:36

Middle Channel / 20MHz / QPSK



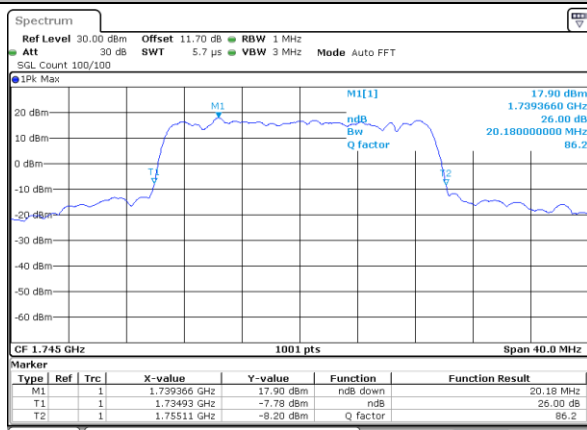
Date: 17 FEB 2018 07:04:22

Middle Channel / 20MHz / 16QAM



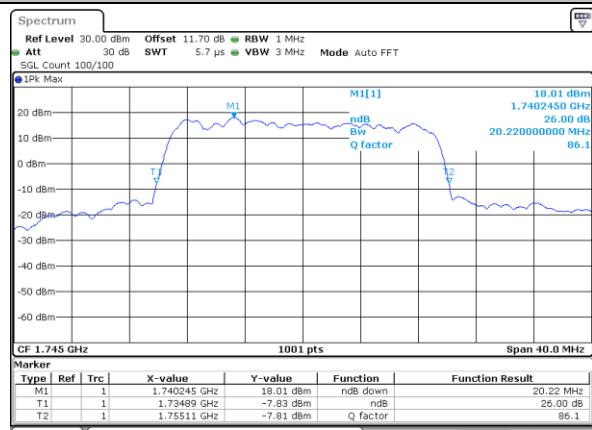
Date: 17 FEB 2018 07:04:32

Highest Channel / 20MHz / QPSK



Date: 17 FEB 2018 07:06:49

Highest Channel / 20MHz / 16QAM

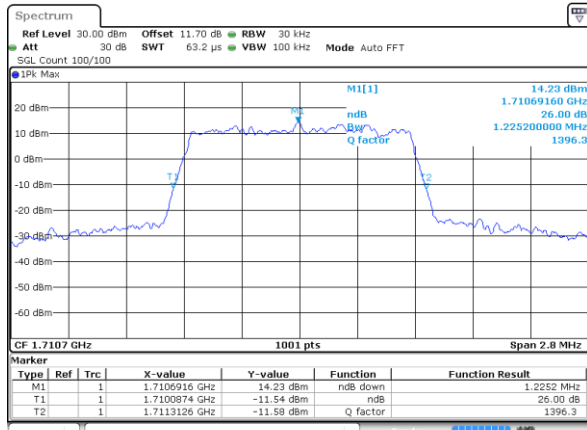


Date: 17 FEB 2018 07:06:59



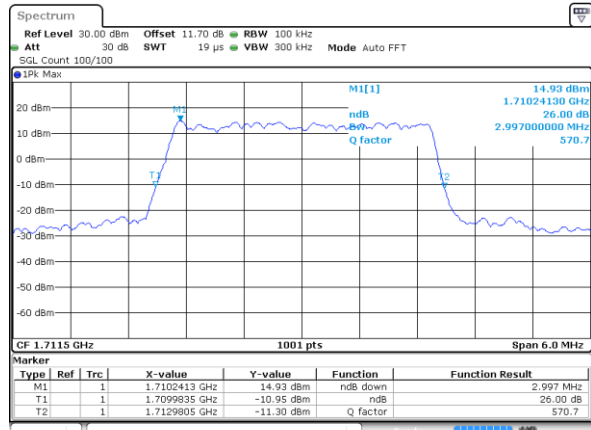
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



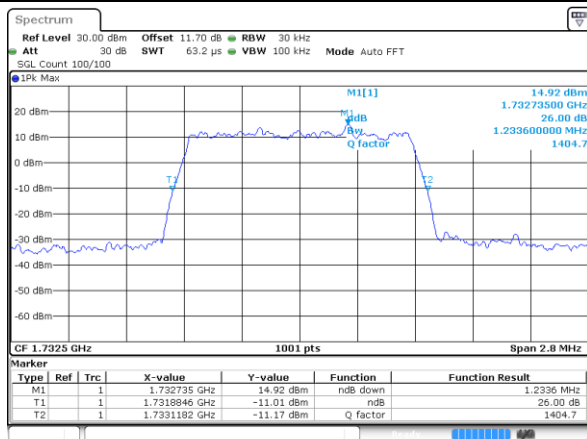
Date: 17 FEB 2018 08:22:58

Lowest Channel / 3MHz / 64QAM



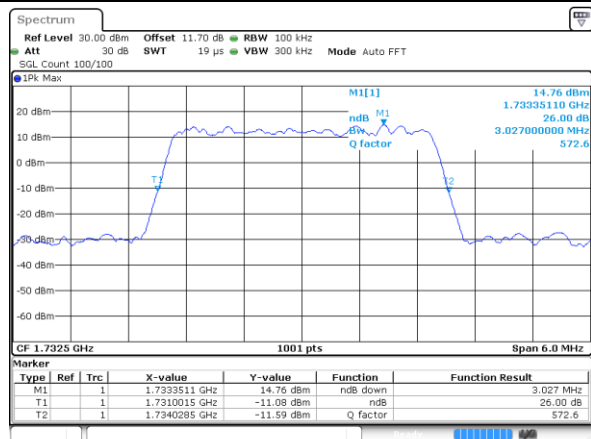
Date: 17 FEB 2018 07:35:48

Middle Channel / 1.4MHz / 64QAM



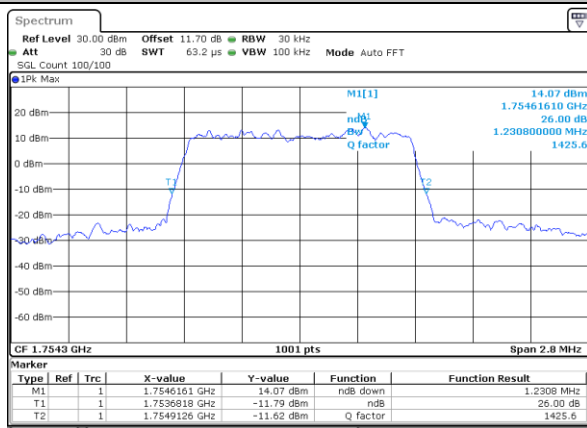
Date: 17 FEB 2018 08:26:26

Middle Channel / 3MHz / 64QAM



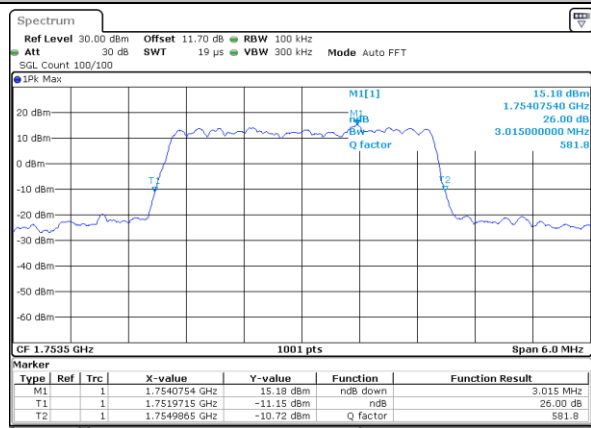
Date: 17 FEB 2018 07:39:16

Highest Channel / 1.4MHz / 64QAM



Date: 17 FEB 2018 08:27:39

Highest Channel / 3MHz / 64QAM

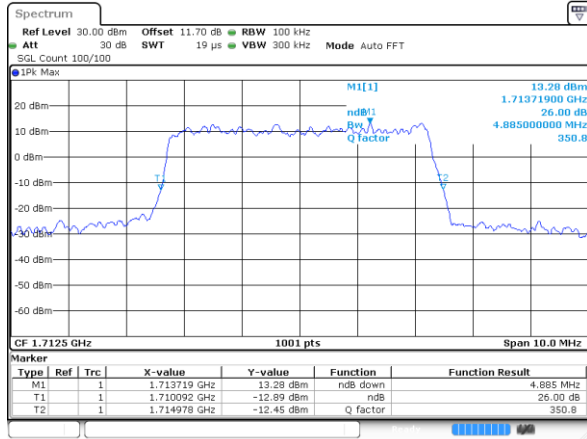


Date: 17 FEB 2018 07:40:30



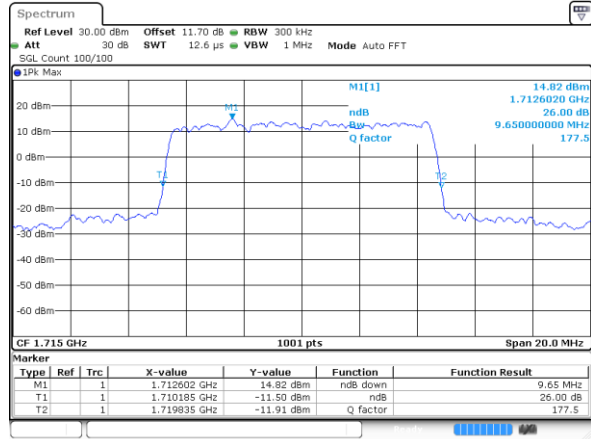
LTE Band 4

Lowest Channel / 5MHz / 64QAM



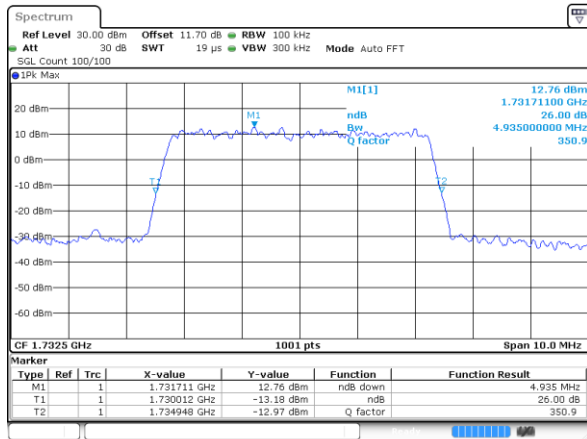
Date: 17.FEB.2018 07:43:58

Lowest Channel / 10MHz / 64QAM



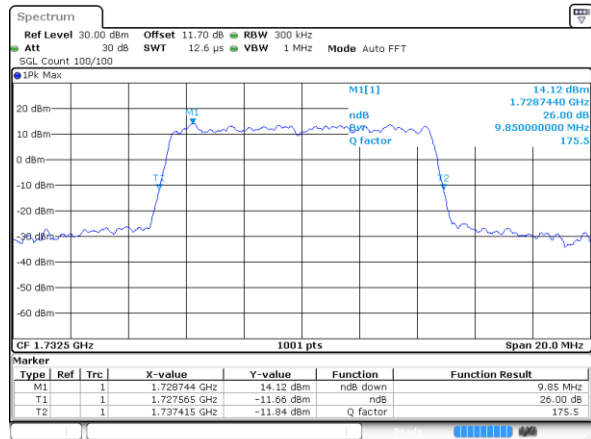
Date: 17.FEB.2018 07:52:07

Middle Channel / 5MHz / 64QAM



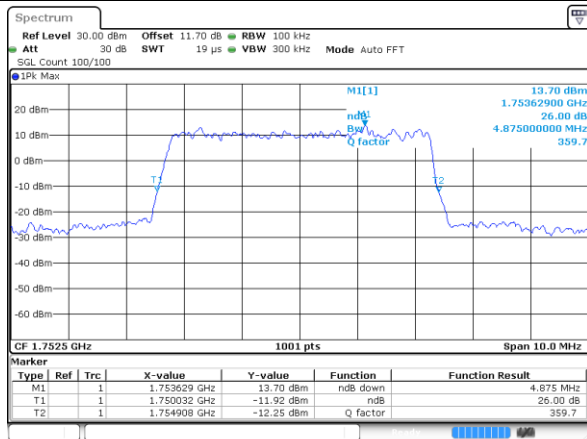
Date: 17.FEB.2018 07:47:26

Middle Channel / 10MHz / 64QAM



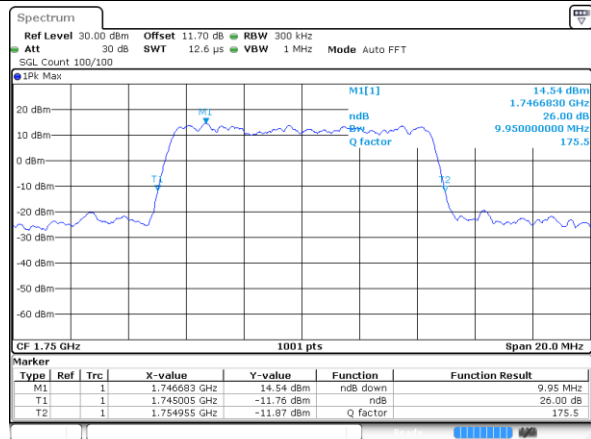
Date: 17.FEB.2018 07:55:35

Highest Channel / 5MHz / 64QAM



Date: 17.FEB.2018 07:48:39

Highest Channel / 10MHz / 64QAM

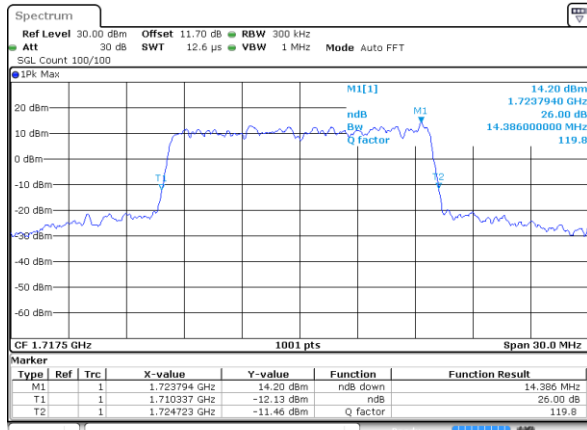


Date: 17.FEB.2018 07:56:48

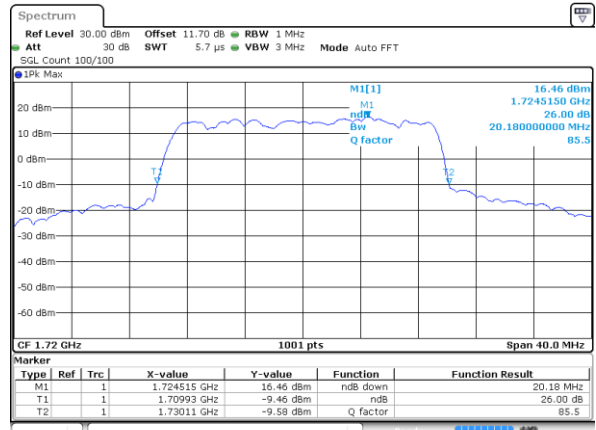


LTE Band 4

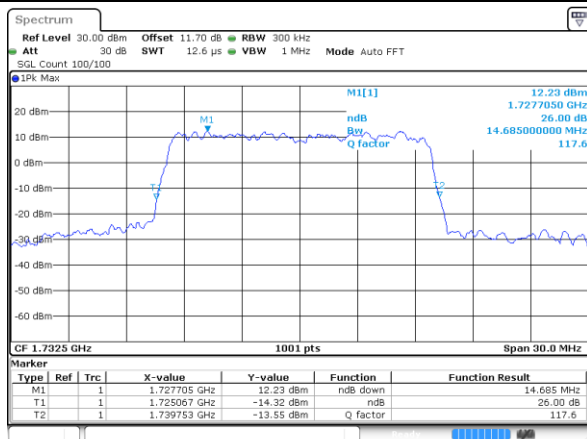
Lowest Channel / 15MHz / 64QAM



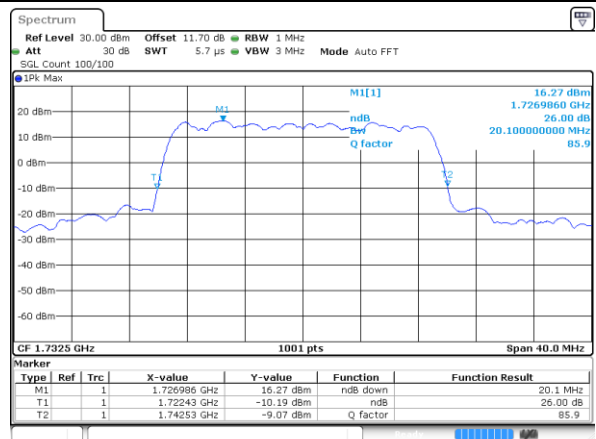
Lowest Channel / 20MHz / 64QAM



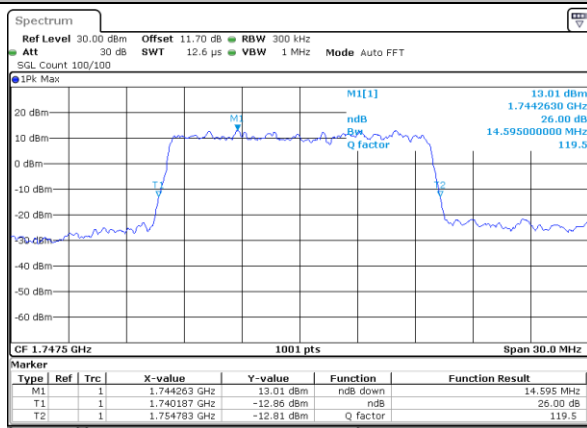
Middle Channel / 15MHz / 64QAM



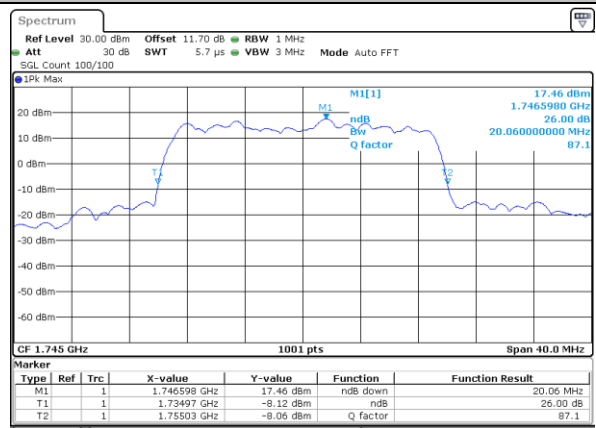
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM



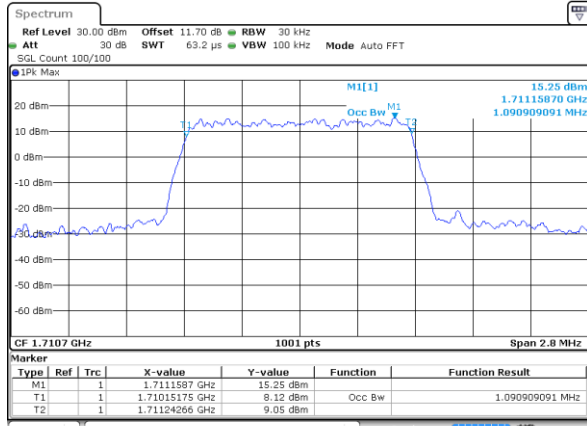
**Occupied Bandwidth**

Mode	LTE Band 4 : 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	1.09	1.09	2.72	2.72	4.5	4.5	8.99	9.05	13.4	13.43	18.42	18.58
Middle CH	1.09	1.1	2.73	2.74	4.46	4.5	9.01	8.97	13.49	13.4	18.34	18.26
Highest CH	1.08	1.09	2.73	2.72	4.48	4.48	8.99	9.05	13.49	13.46	18.38	18.46
Mode	LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.49	-	9.07	-	13.46	-	18.50	-
Middle CH	1.09	-	2.72	-	4.51	-	9.01	-	13.40	-	18.18	-
Highest CH	1.08	-	2.72	-	4.49	-	9.07	-	13.43	-	18.46	-

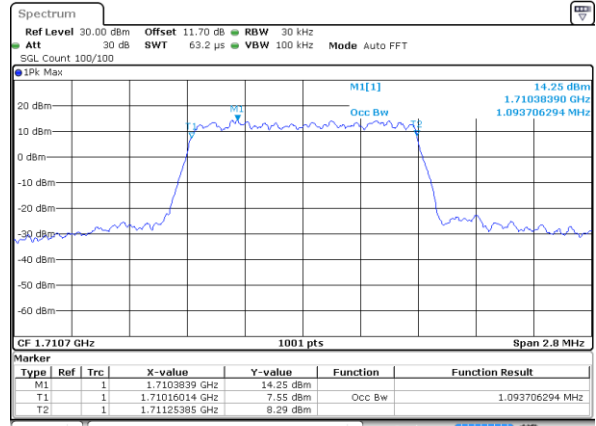


LTE Band 4

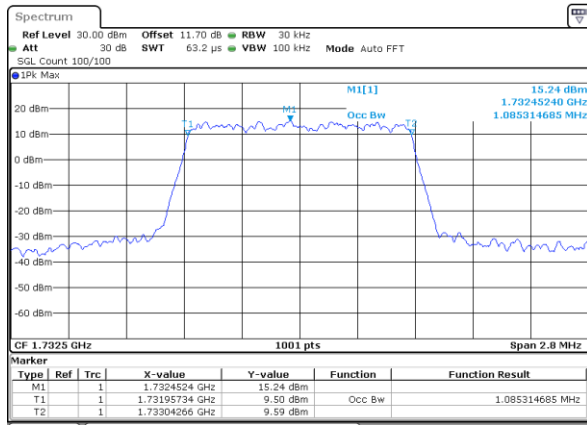
Lowest Channel / 1.4MHz / QPSK



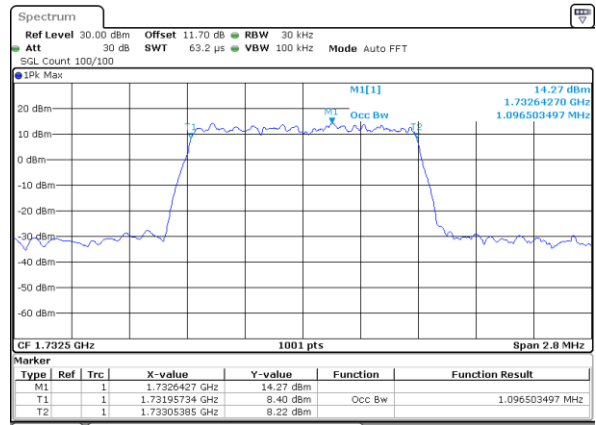
Lowest Channel / 1.4MHz / 16QAM



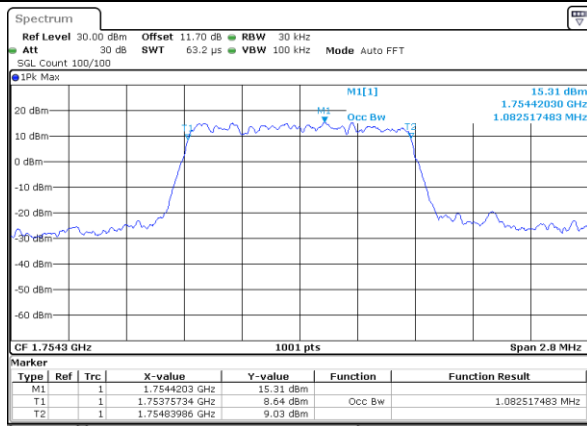
Middle Channel / 1.4MHz / QPSK



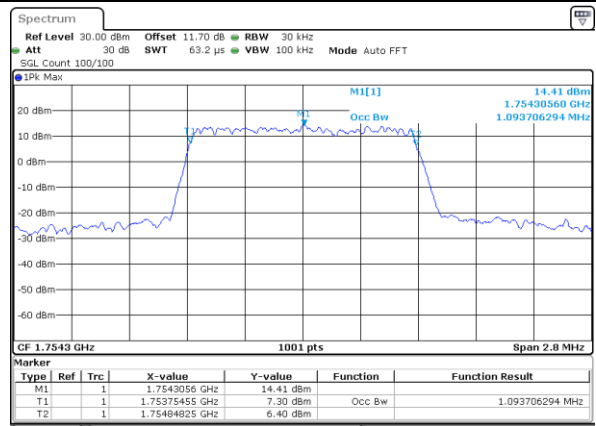
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



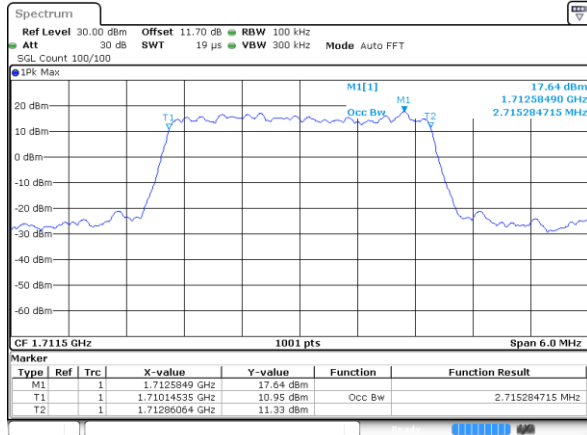
Highest Channel / 1.4MHz / 16QAM





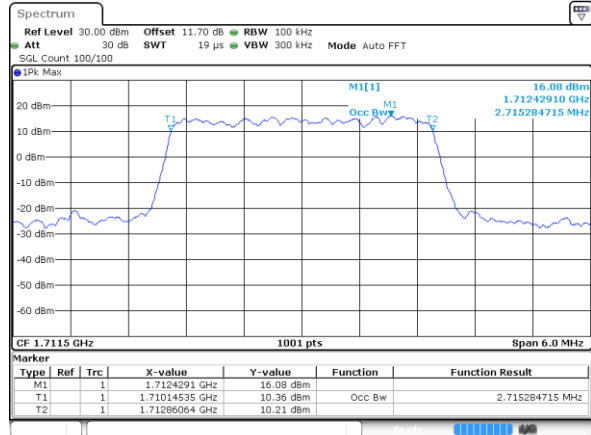
LTE Band 4

Lowest Channel / 3MHz / QPSK



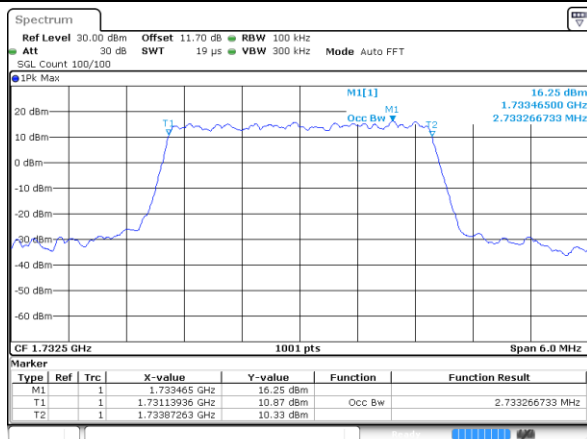
Date: 17 FEB 2018 05:51:51

Lowest Channel / 3MHz / 16QAM



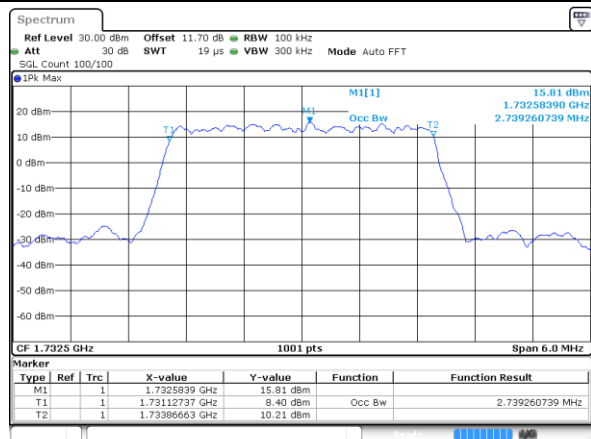
Date: 17 FEB 2018 05:52:01

Middle Channel / 3MHz / QPSK



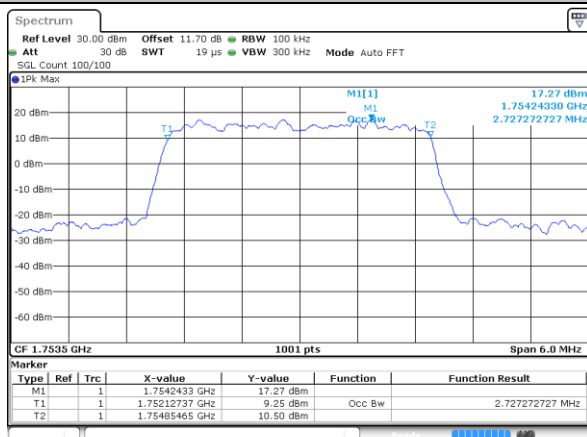
Date: 17 FEB 2018 05:58:47

Middle Channel / 3MHz / 16QAM



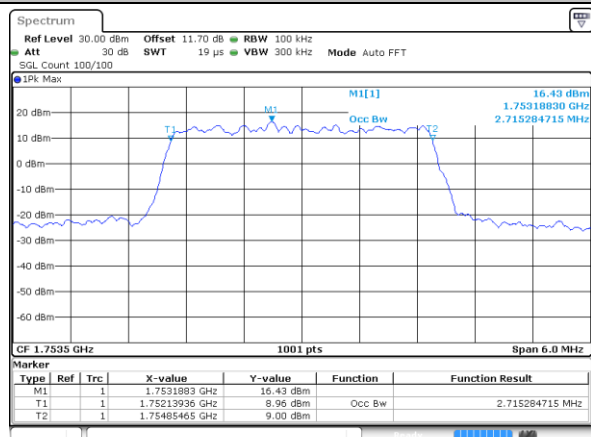
Date: 17 FEB 2018 05:58:57

Highest Channel / 3MHz / QPSK



Date: 17 FEB 2018 06:01:14

Highest Channel / 3MHz / 16QAM



Date: 17 FEB 2018 06:01:24