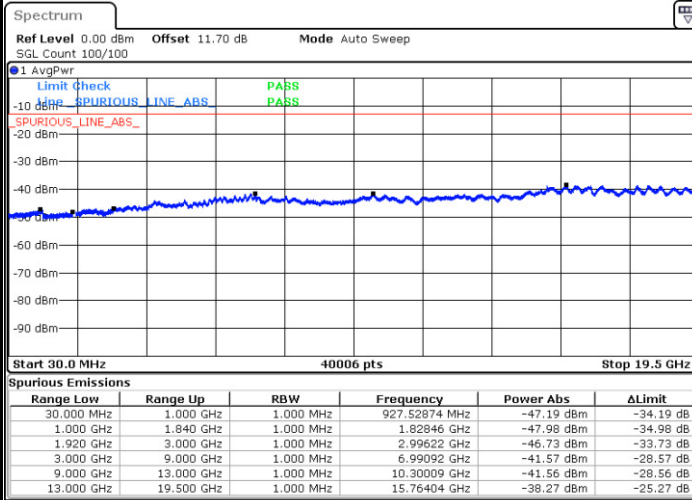




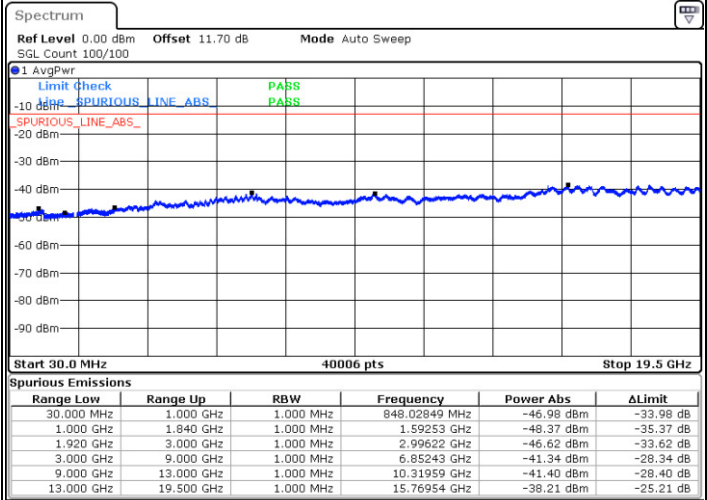
LTE Band 2 / 10MHz

Middle Channel / QPSK



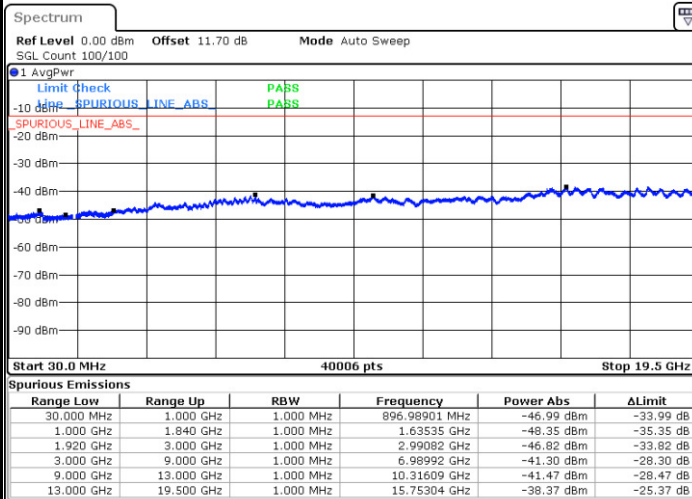
Date: 5 JAN 2018 10:07:23

Middle Channel / 16QAM



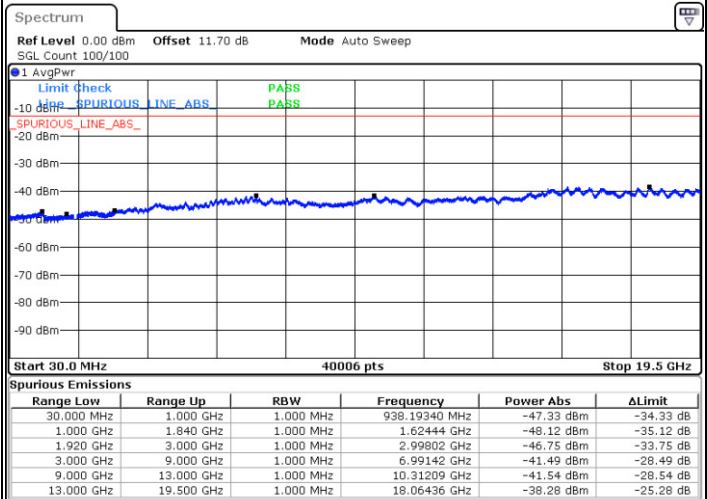
Date: 5 JAN 2018 10:08:17

Highest Channel / QPSK



Date: 5 JAN 2018 10:14:26

Highest Channel / 16QAM

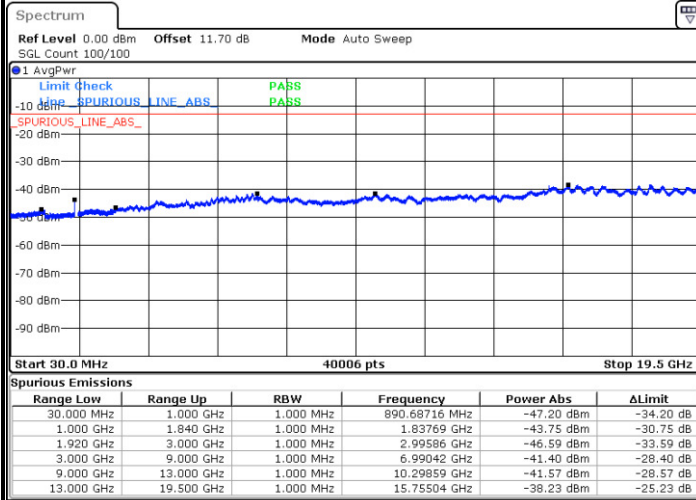


Date: 5 JAN 2018 10:15:20



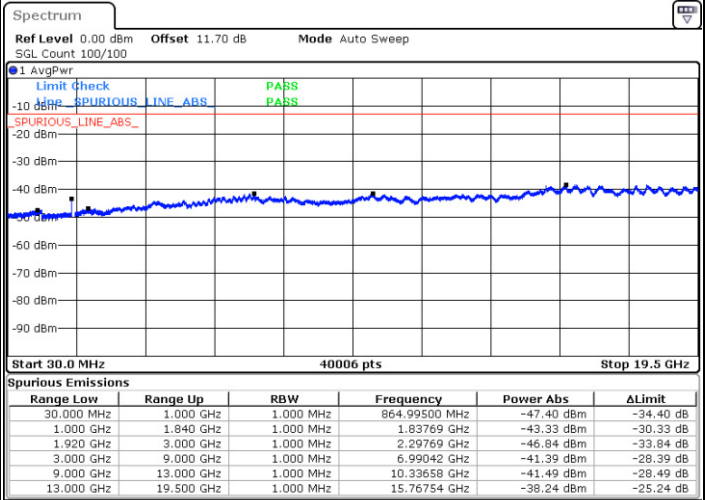
LTE Band 2 / 15MHz

Lowest Channel / QPSK



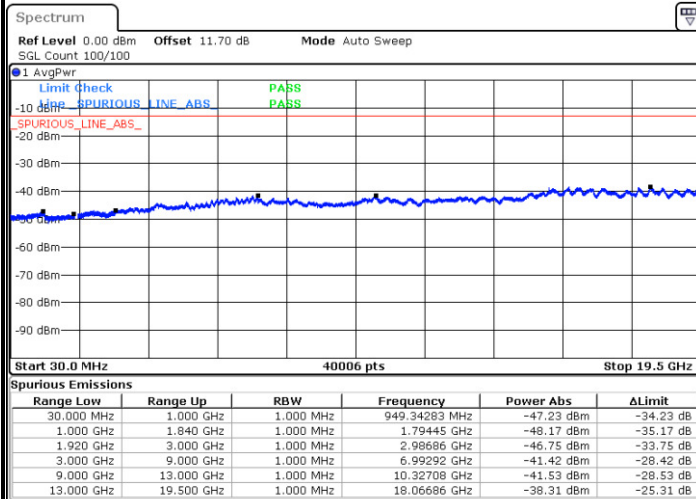
Date: 5 JAN 2018 10:21:29

Lowest Channel / 16QAM



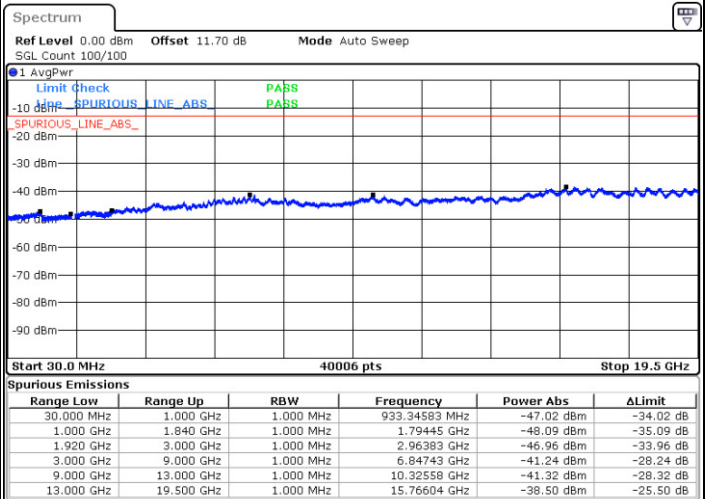
Date: 5 JAN 2018 10:22:23

Middle Channel / QPSK



Date: 5 JAN 2018 10:23:57

Middle Channel / 16QAM

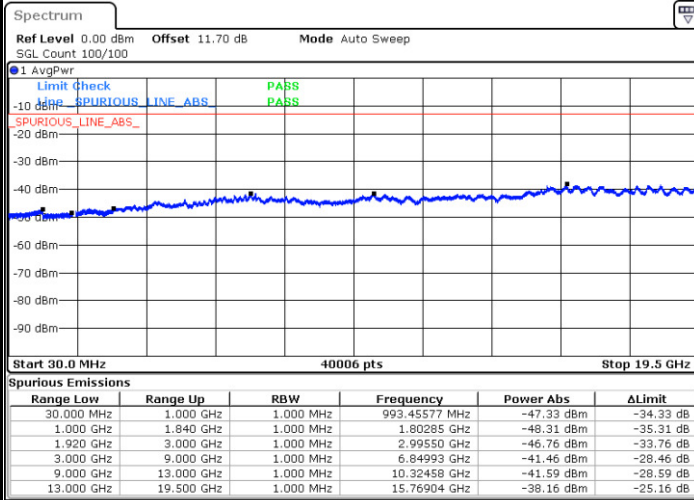


Date: 5 JAN 2018 10:24:51



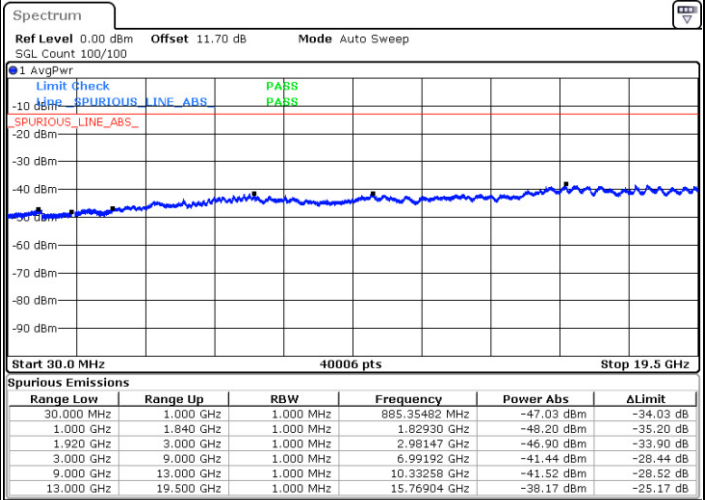
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 5 JAN 2018 10:31:00

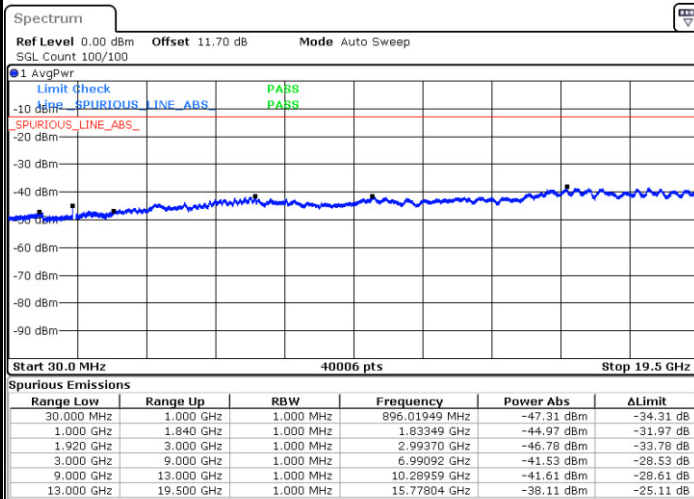
Highest Channel / 16QAM



Date: 5 JAN 2018 10:31:54

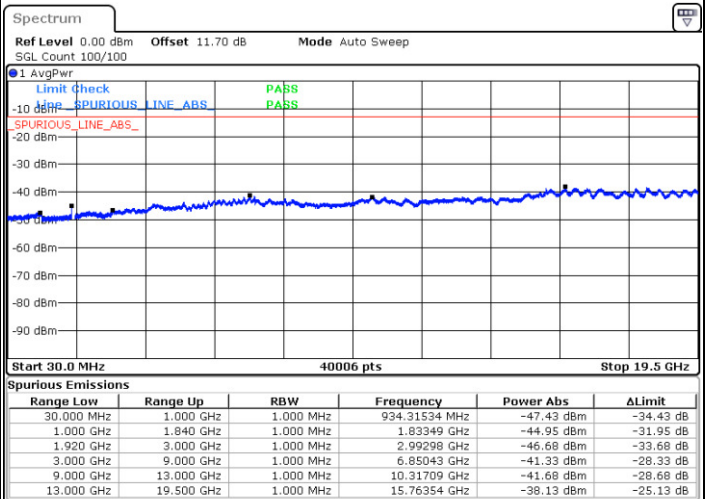
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 5 JAN 2018 10:38:03

Lowest Channel / 16QAM

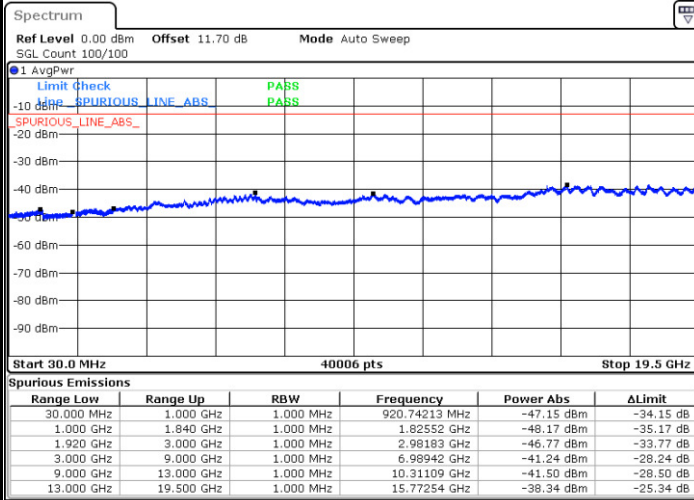


Date: 5 JAN 2018 10:38:57



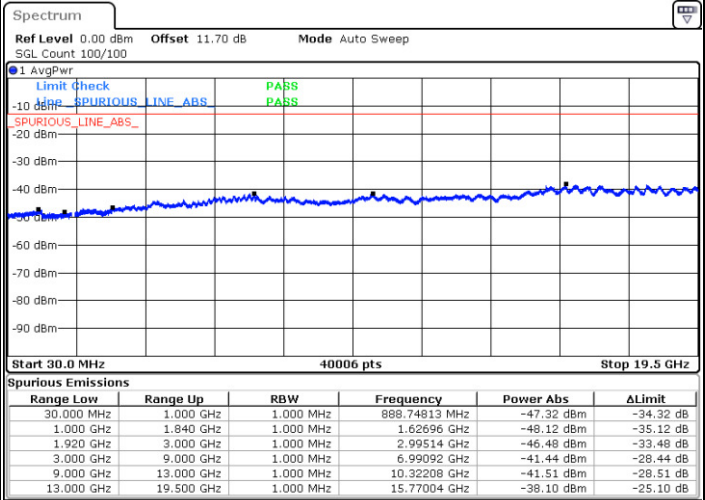
LTE Band 2 / 20MHz

Middle Channel / QPSK



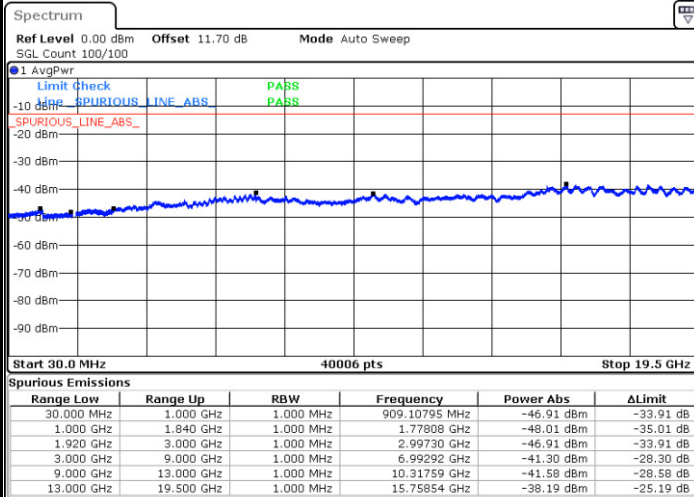
Date: 5 JAN 2018 10:40:31

Middle Channel / 16QAM



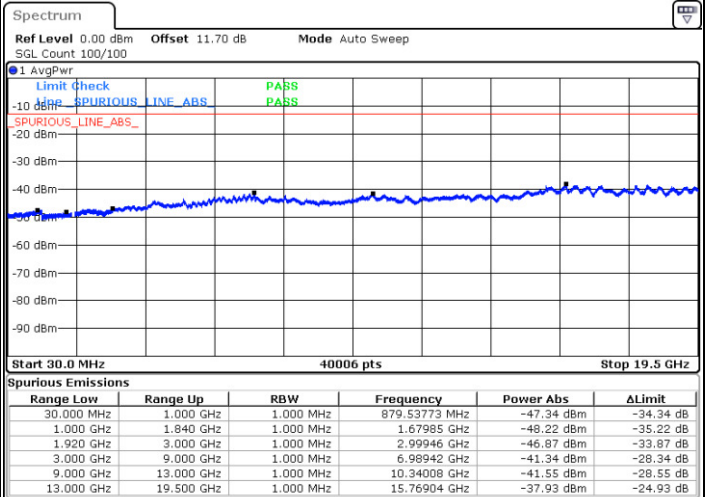
Date: 5 JAN 2018 10:41:25

Highest Channel / QPSK



Date: 5 JAN 2018 10:47:35

Highest Channel / 16QAM

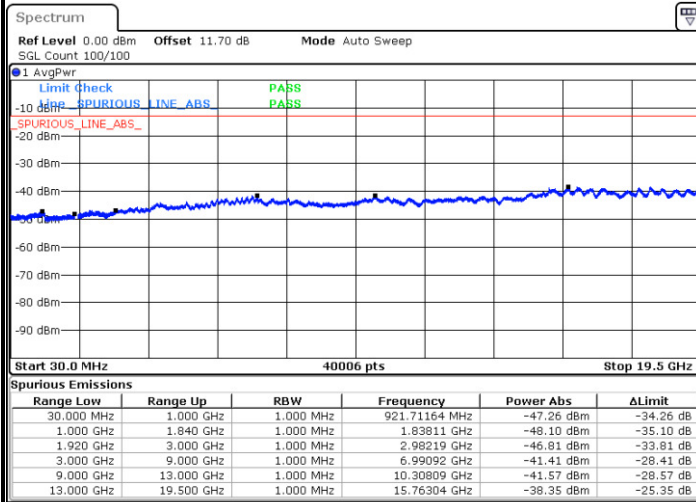


Date: 5 JAN 2018 10:48:29



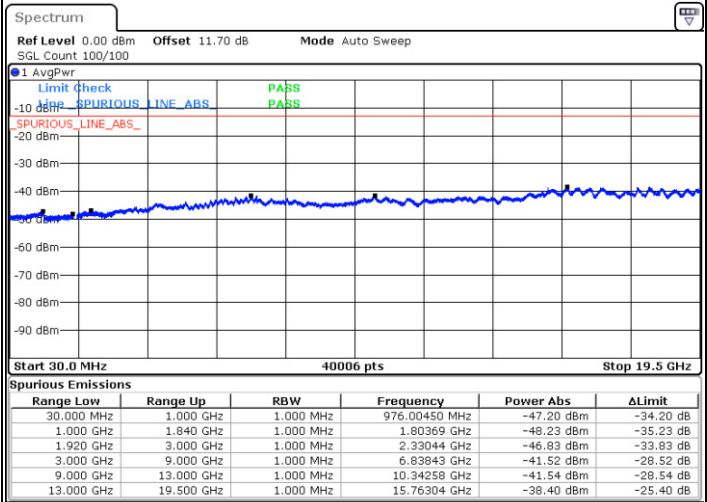
LTE Band 2 / 1.4MHz

Lowest Channel / 64QAM



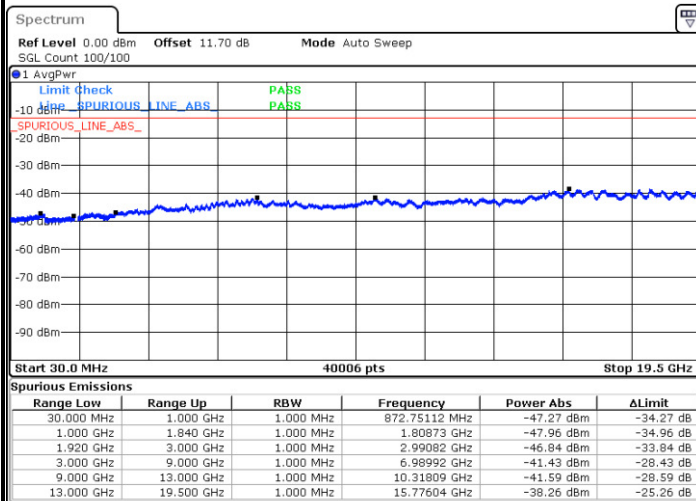
Date: 31.JAN.2018 21:30:40

Middle Channel / 64QAM



Date: 31.JAN.2018 21:31:54

Highest Channel / 64QAM

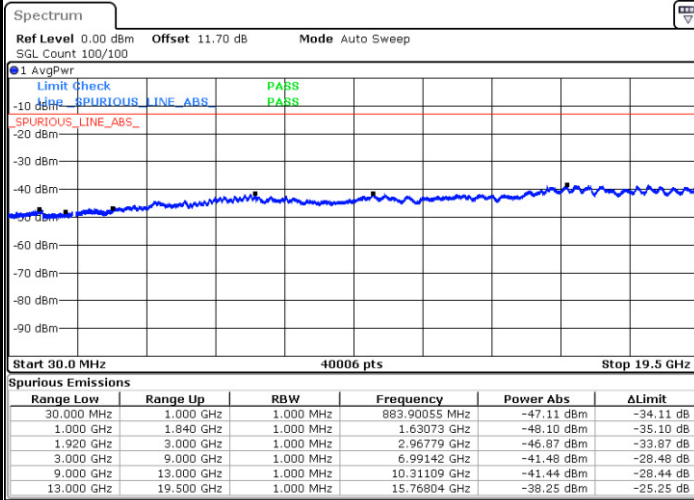


Date: 31.JAN.2018 21:35:26



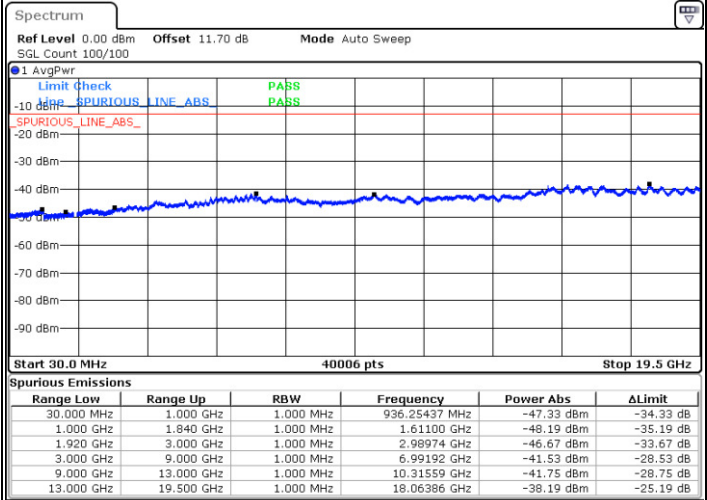
LTE Band 2 / 3MHz

Lowest Channel / 64QAM



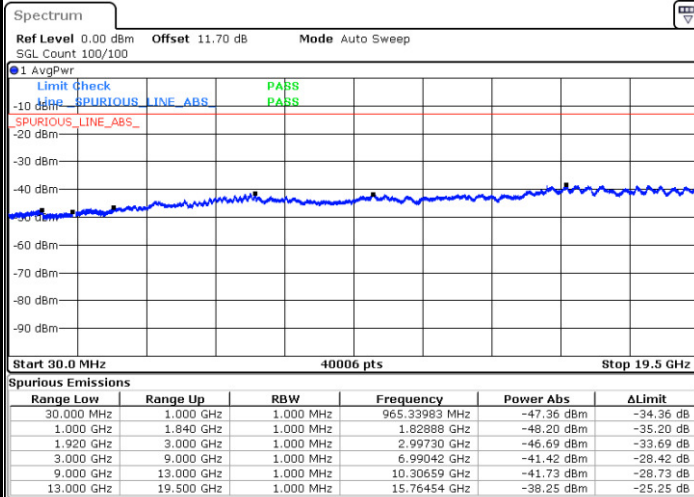
Date: 31.JAN.2018 20:49:15

Middle Channel / 64QAM



Date: 31.JAN.2018 20:50:29

Highest Channel / 64QAM

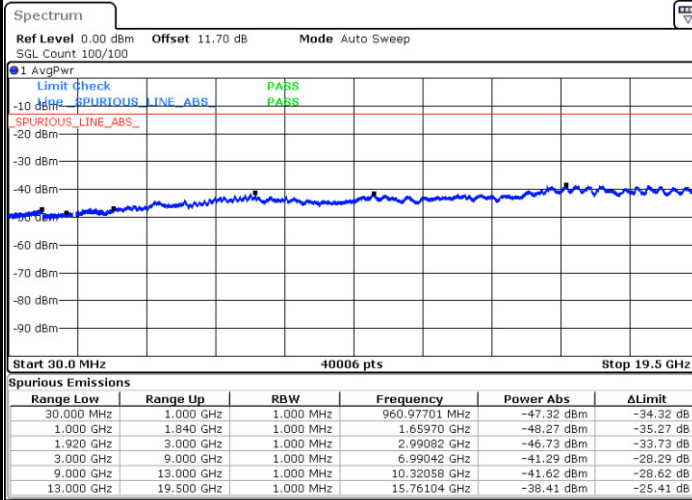


Date: 31.JAN.2018 20:54:01



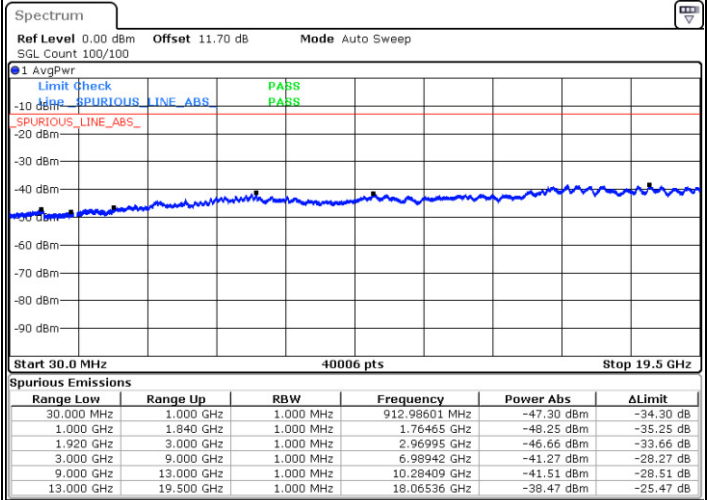
LTE Band 2 / 5MHz

Lowest Channel / 64QAM



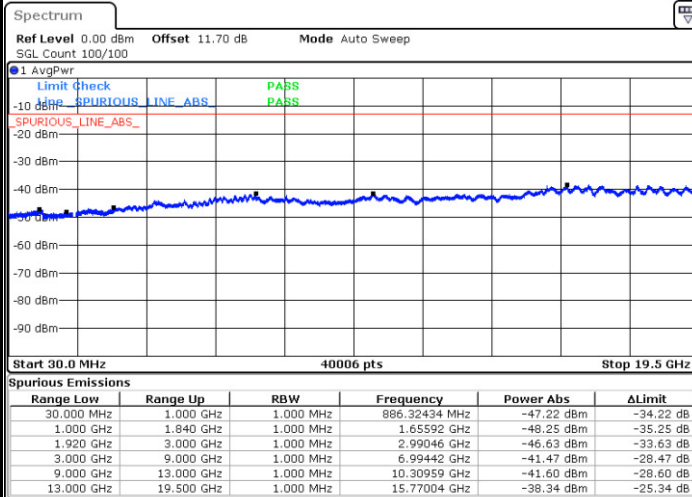
Date: 31.JAN.2018 20:57:32

Middle Channel / 64QAM



Date: 31.JAN.2018 20:58:46

Highest Channel / 64QAM

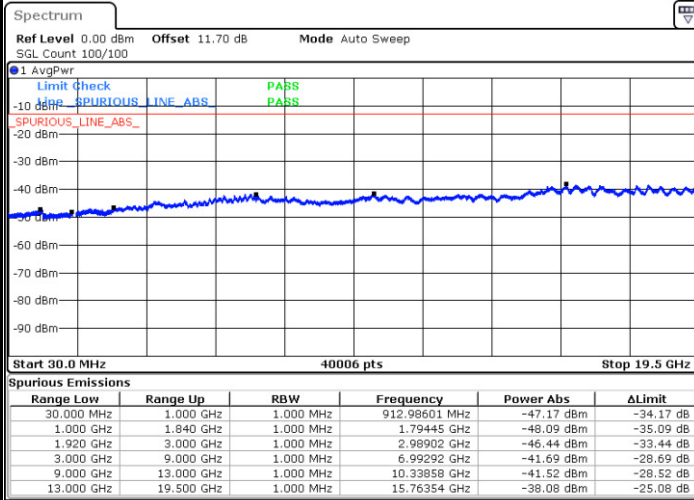


Date: 31.JAN.2018 21:02:18



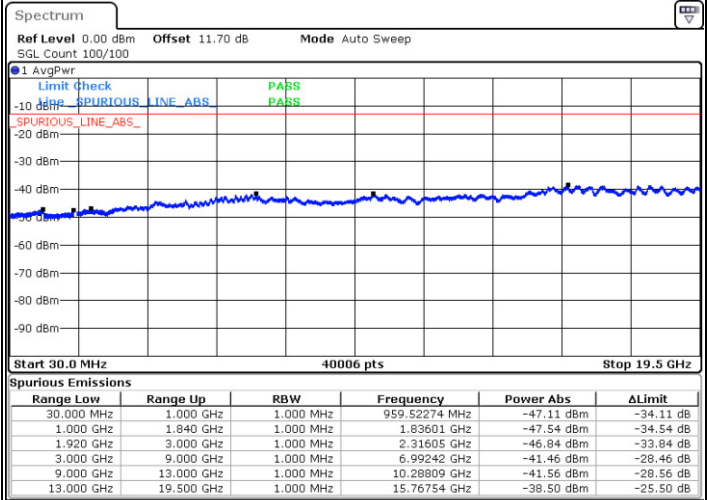
LTE Band 2 / 10MHz

Lowest Channel / 64QAM



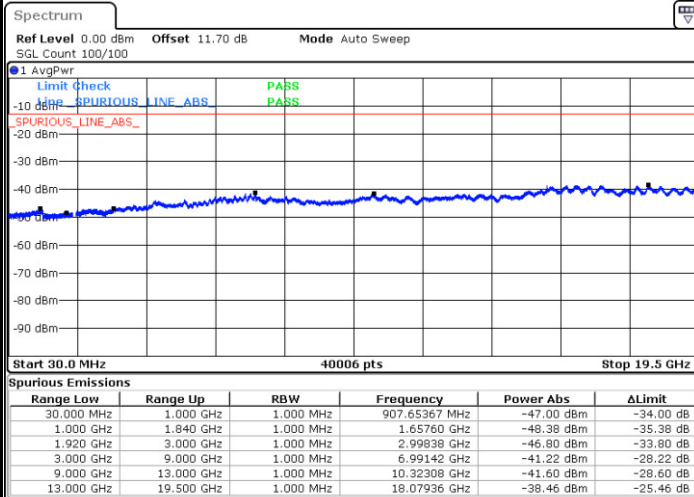
Date: 31.JAN.2018 21:05:49

Middle Channel / 64QAM



Date: 31.JAN.2018 21:07:03

Highest Channel / 64QAM

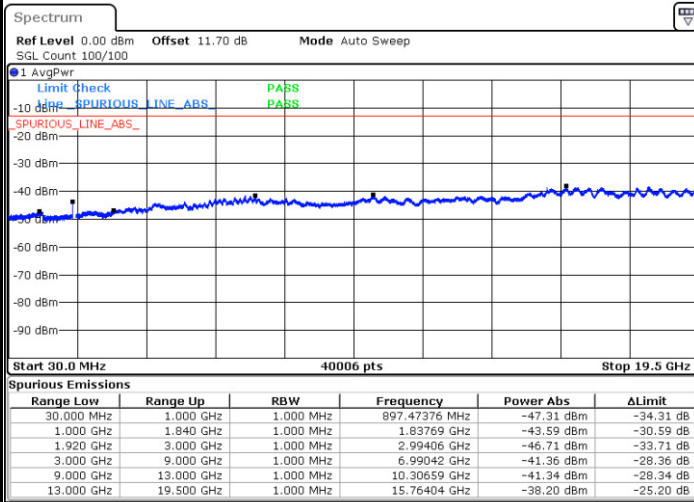


Date: 31.JAN.2018 21:10:35



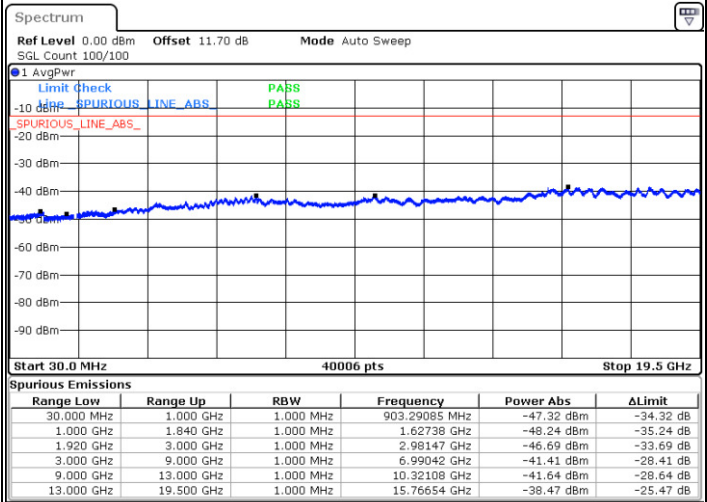
LTE Band 2 / 15MHz

Lowest Channel / 64QAM



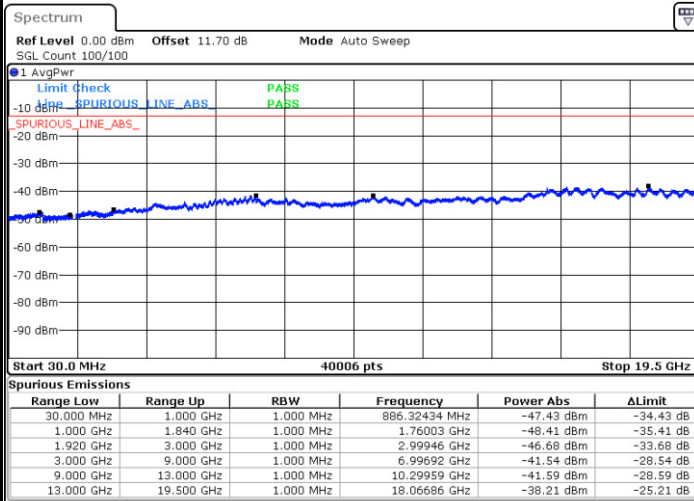
Date: 31.JAN.2018 21:14:06

Middle Channel / 64QAM



Date: 31.JAN.2018 21:15:20

Highest Channel / 64QAM

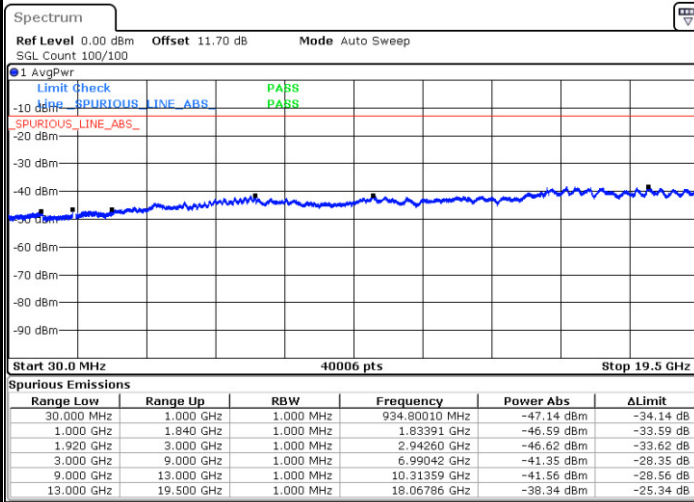


Date: 31.JAN.2018 21:18:52



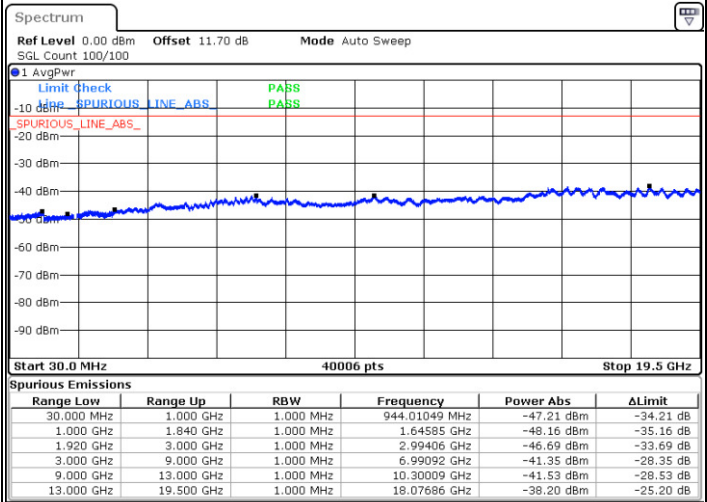
LTE Band 2 / 20MHz

Lowest Channel / 64QAM



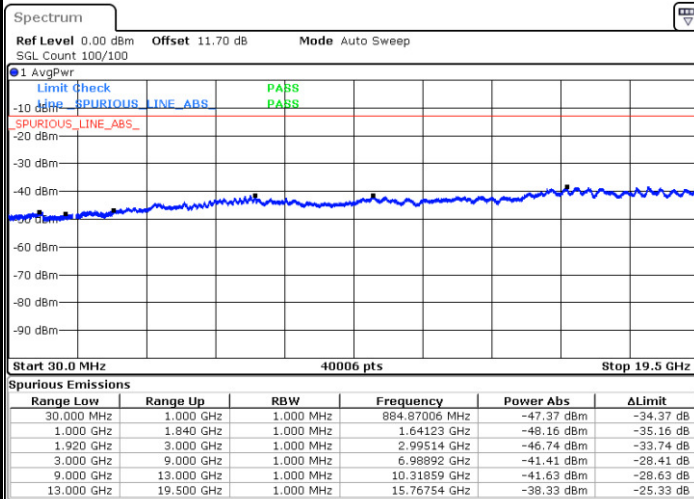
Date: 31.JAN.2018 21:22:23

Middle Channel / 64QAM



Date: 31.JAN.2018 21:23:37

Highest Channel / 64QAM



Date: 31.JAN.2018 21:27:09

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	0.0015	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0019	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =3.8 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 4

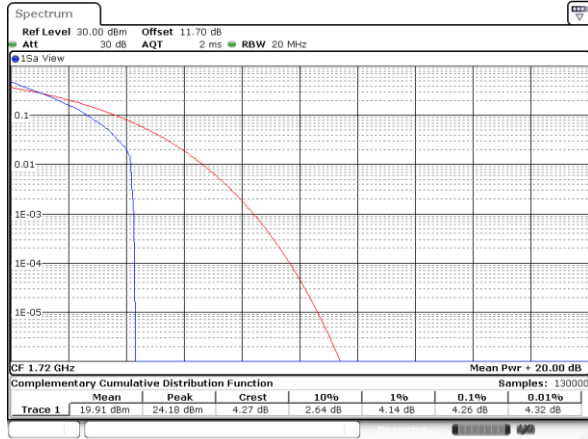
Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.26	4.96	4.81	5.77	PASS
Middle CH	4.55	4.9	5.1	5.86	
Highest CH	4.38	4.96	5.19	5.8	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	4.67	6.20	-	-	PASS
Middle CH	5.80	6.12	-	-	
Highest CH	5.39	6.23	-	-	

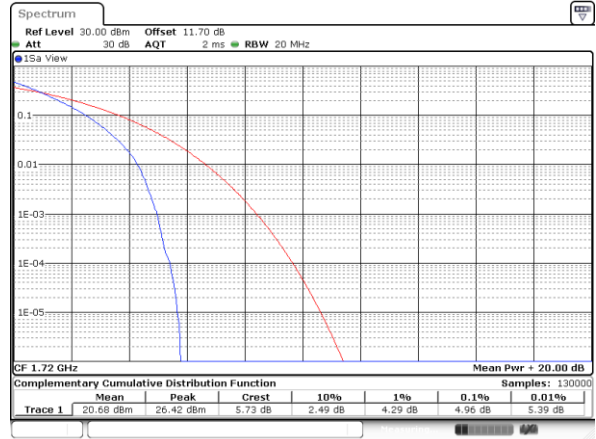


LTE Band 4 / 20MHz / QPSK

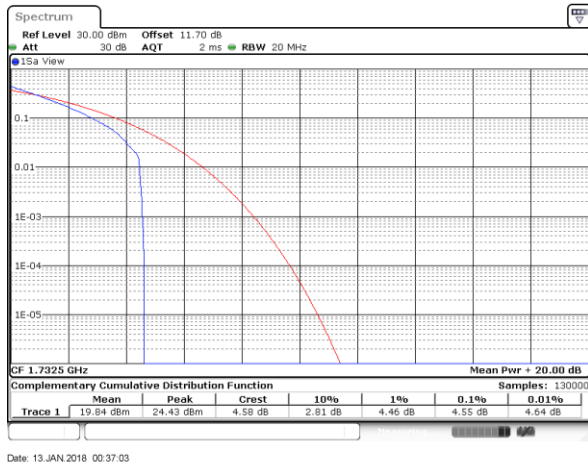
Lowest Channel / 1RB



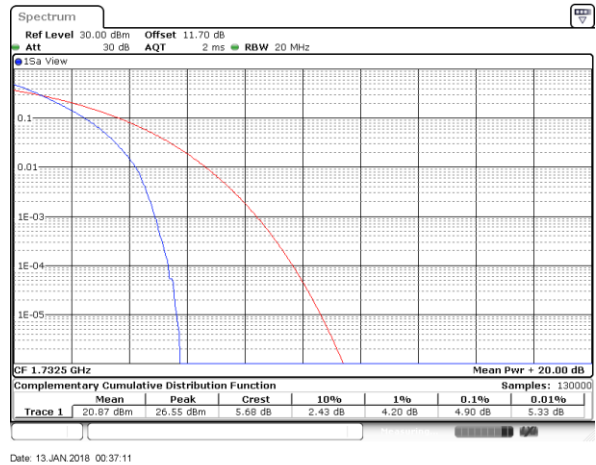
Lowest Channel / Full RB



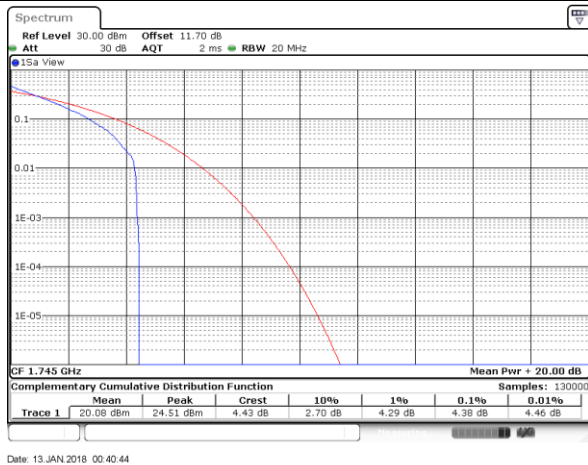
Middle Channel / 1RB



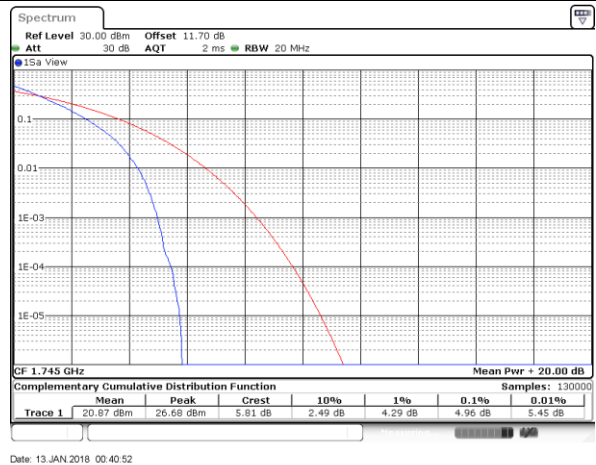
Middle Channel / Full RB

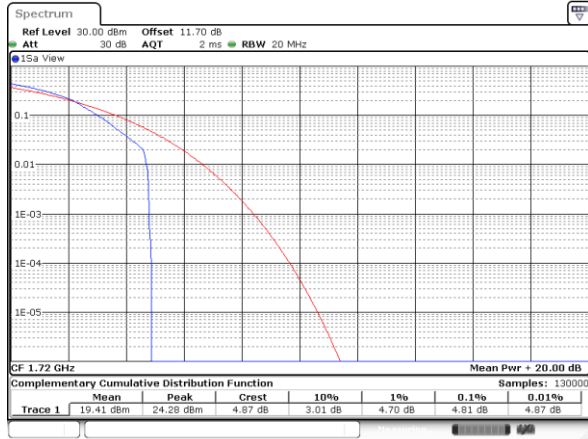
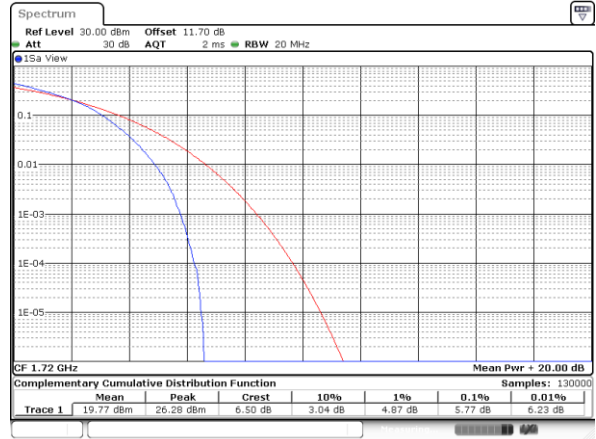
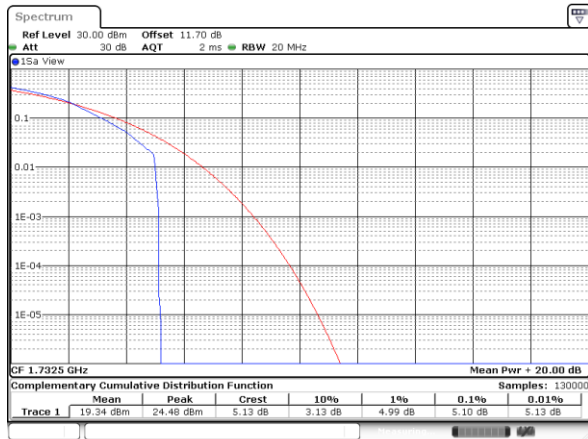
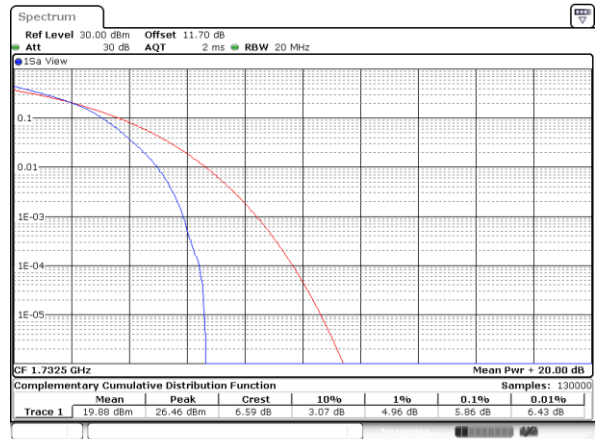
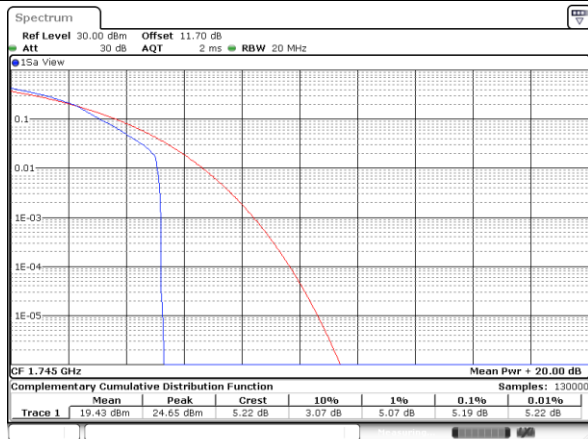
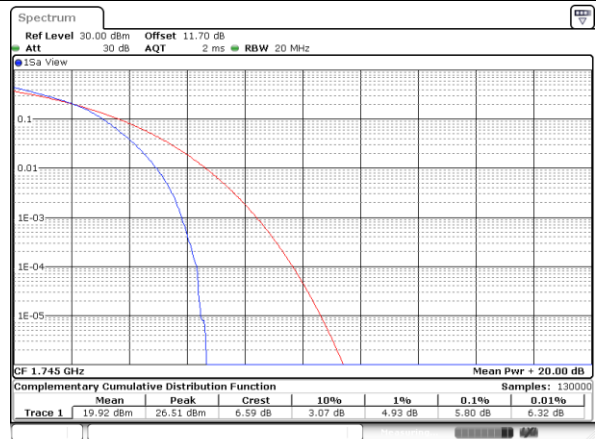


Highest Channel / 1RB



Highest Channel / Full RB

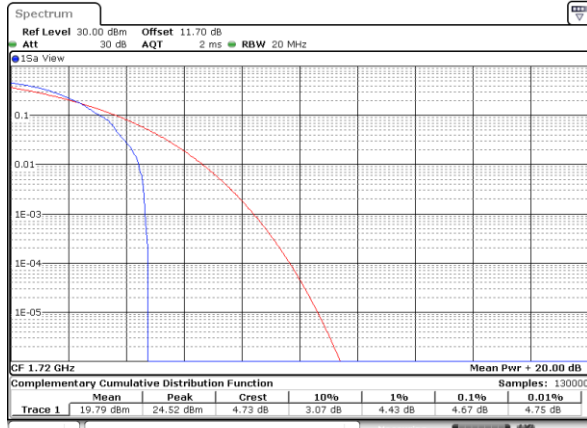


LTE Band 4 / 20MHz / 16QAM
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB




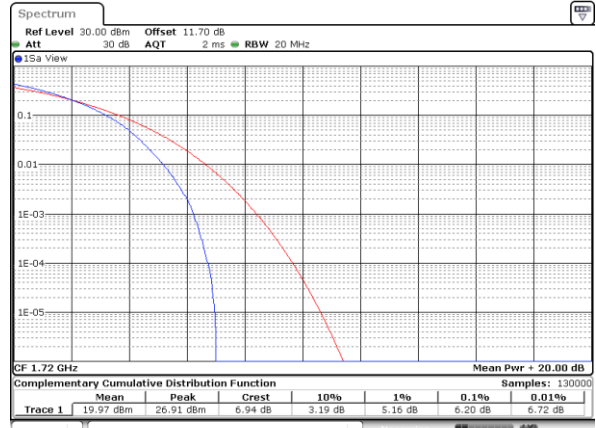
LTE Band 4 / 20MHz / 64QAM

Lowest Channel / 1RB



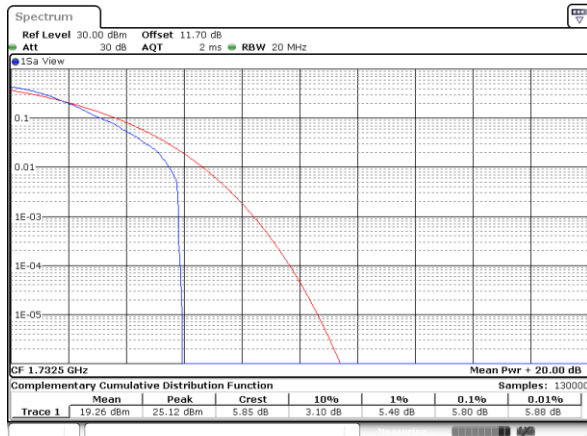
Date: 31 JAN 2018 23:24:15

Lowest Channel / Full RB



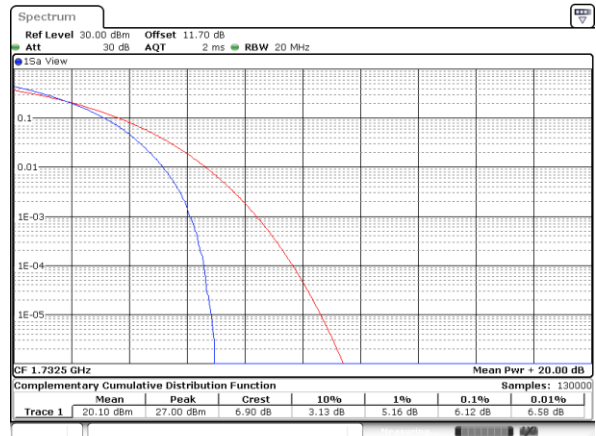
Date: 31 JAN 2018 23:24:24

Middle Channel / 1RB



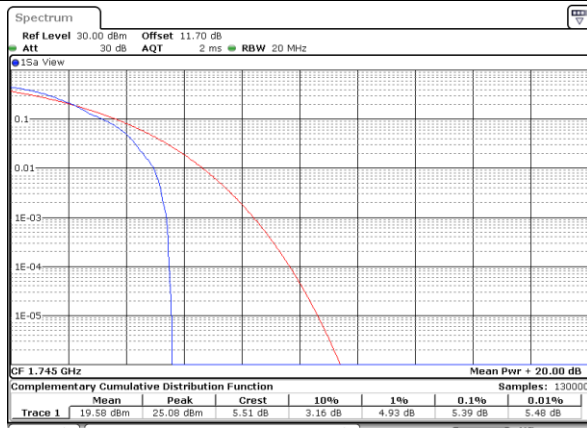
Date: 31 JAN 2018 23:24:34

Middle Channel / Full RB



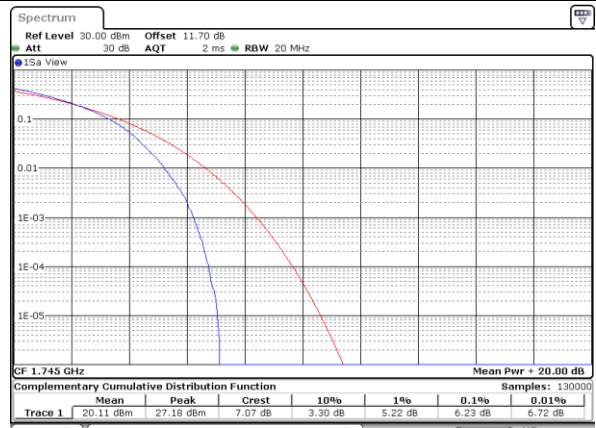
Date: 31 JAN 2018 23:24:43

Highest Channel / 1RB



Date: 31 JAN 2018 23:24:58

Highest Channel / Full RB



Date: 31 JAN 2018 23:25:06

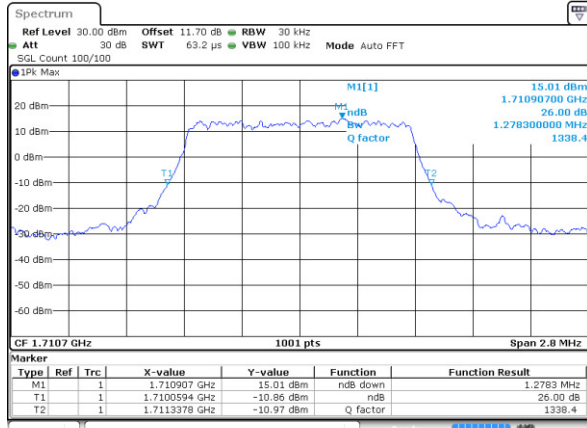
**26dB Bandwidth**

Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.28	1.27	3.03	3.01	4.83	4.85	9.93	9.73	14.24	14.39	20.14	20.22
Middle CH	1.28	1.26	3.02	3.01	4.94	4.92	9.75	9.79	14.39	14.30	20.14	20.34
Highest CH	1.26	1.28	3.02	3.01	4.99	4.88	9.87	9.75	14.66	14.24	20.34	20.18
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.30	-	3.01	-	4.90	-	10.03	-	14.39	-	20.22	-
Middle CH	1.28	-	2.97	-	4.97	-	9.91	-	14.48	-	20.10	-
Highest CH	1.28	-	3.02	-	4.88	-	9.83	-	14.39	-	20.14	-



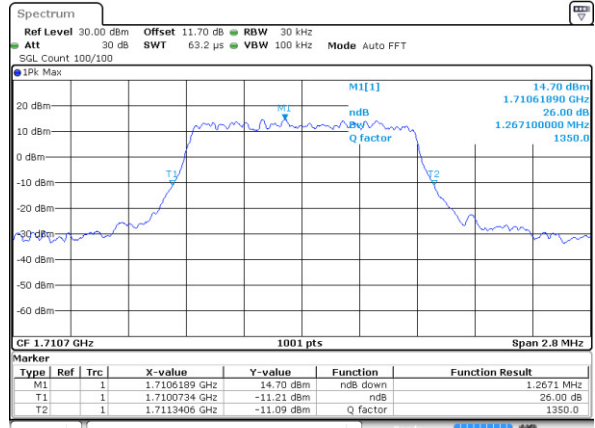
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



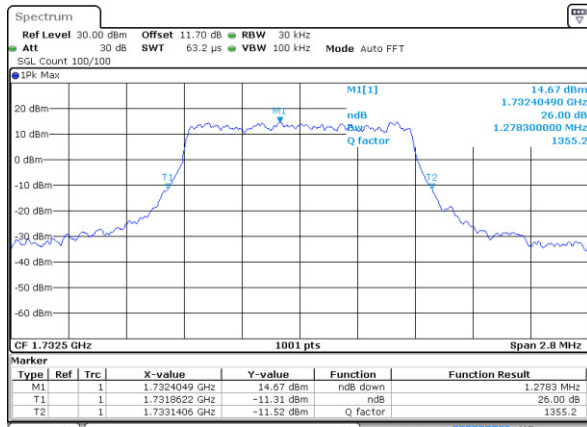
Date: 13 JAN 2018 00:19:26

Lowest Channel / 1.4MHz / 16QAM



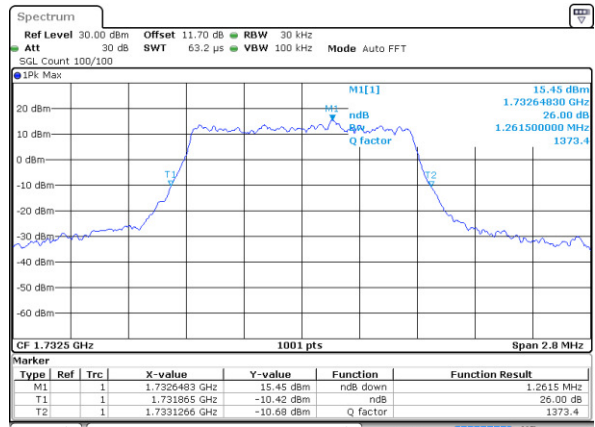
Date: 13 JAN 2018 00:19:36

Middle Channel / 1.4MHz / QPSK



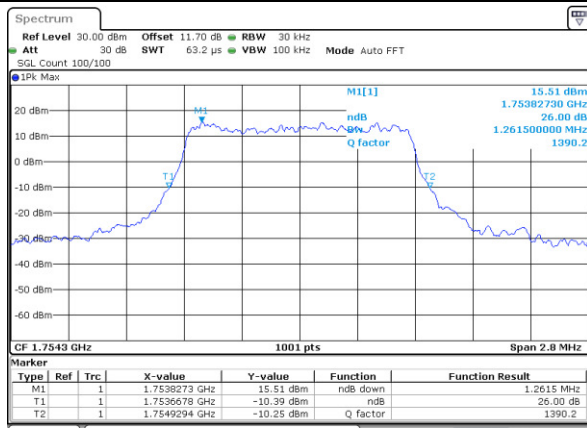
Date: 13 JAN 2018 00:26:29

Middle Channel / 1.4MHz / 16QAM



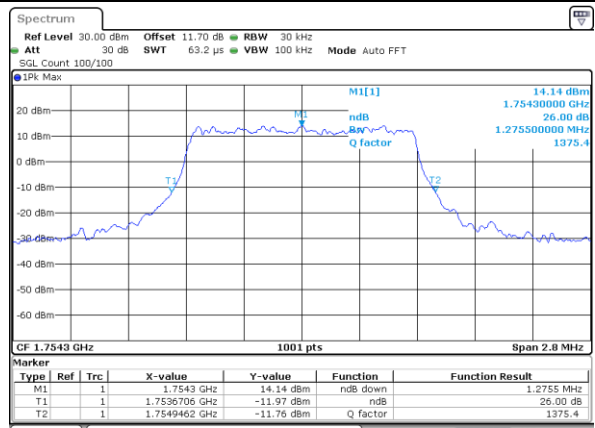
Date: 13 JAN 2018 00:26:39

Highest Channel / 1.4MHz / QPSK



Date: 13 JAN 2018 00:28:57

Highest Channel / 1.4MHz / 16QAM

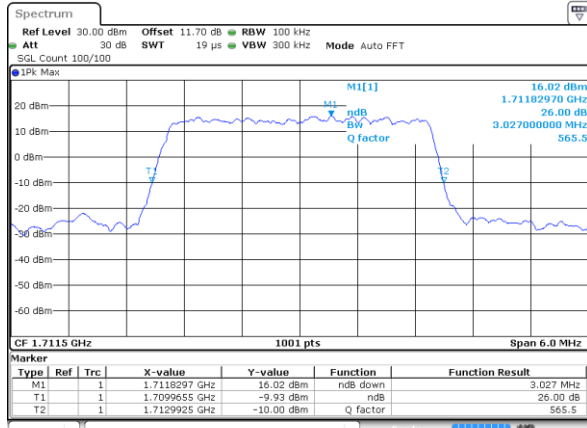


Date: 13 JAN 2018 00:29:07



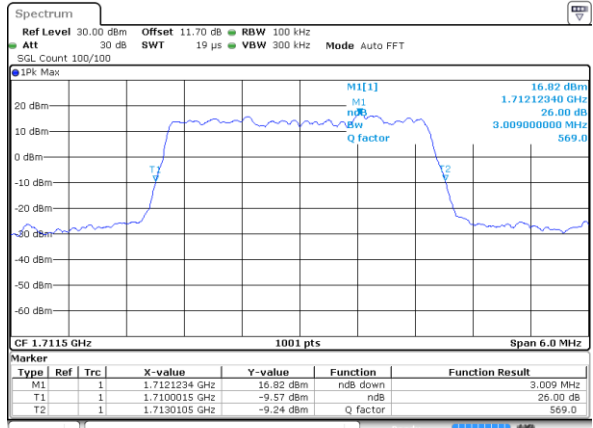
LTE Band 4

Lowest Channel / 3MHz / QPSK



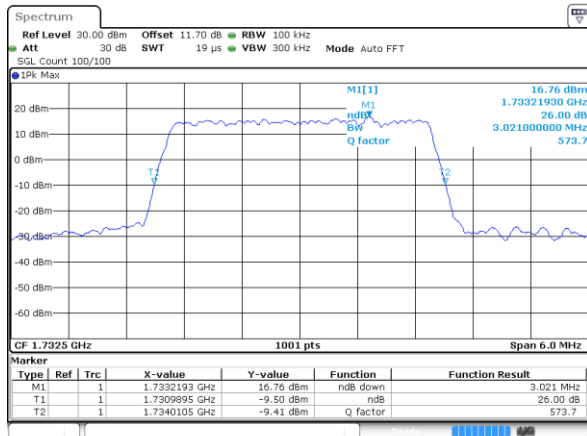
Date: 10 JAN 2018 20:53:32

Lowest Channel / 3MHz / 16QAM



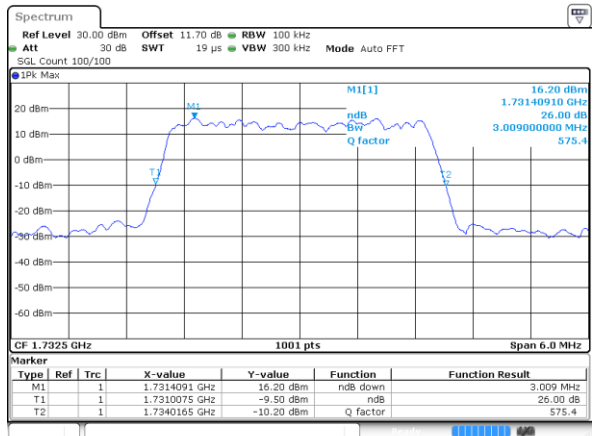
Date: 10 JAN 2018 20:53:42

Middle Channel / 3MHz / QPSK



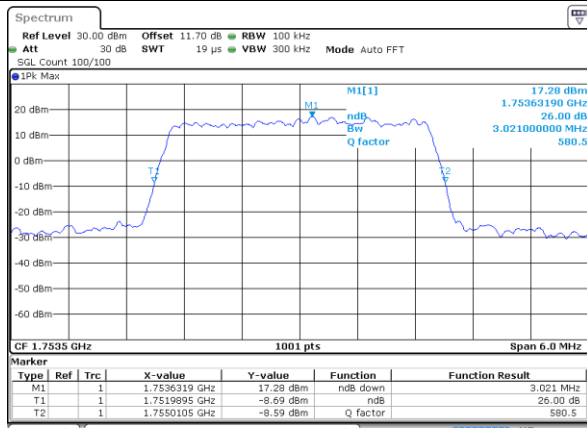
Date: 10 JAN 2018 21:00:35

Middle Channel / 3MHz / 16QAM



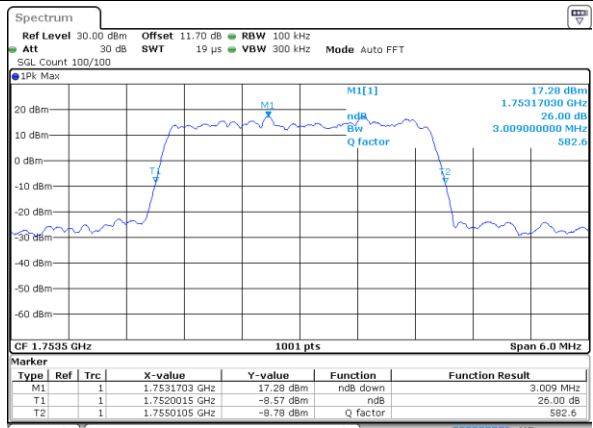
Date: 10 JAN 2018 21:00:45

Highest Channel / 3MHz / QPSK



Date: 10 JAN 2018 21:03:03

Highest Channel / 3MHz / 16QAM

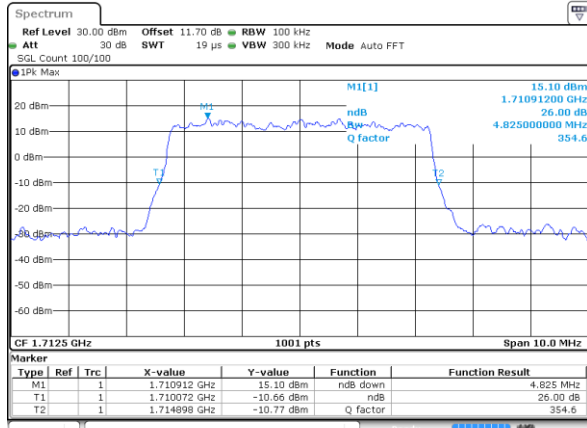


Date: 10 JAN 2018 21:03:13



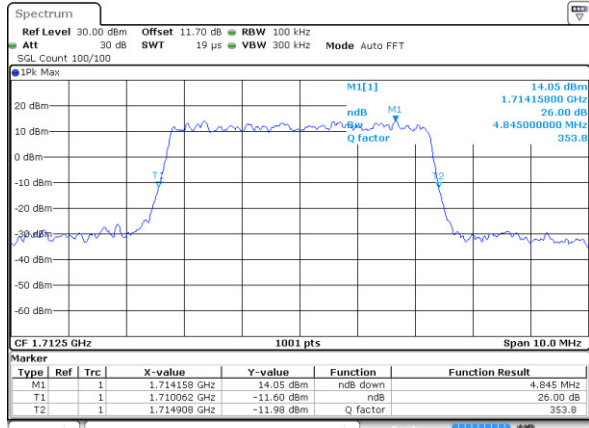
LTE Band 4

Lowest Channel / 5MHz / QPSK



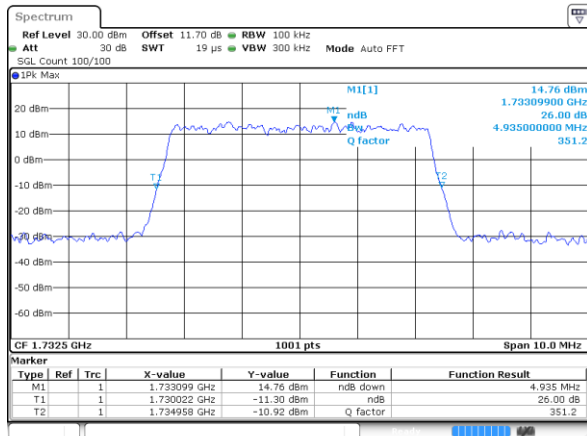
Date: 10 JAN 2018 21:10:06

Lowest Channel / 5MHz / 16QAM



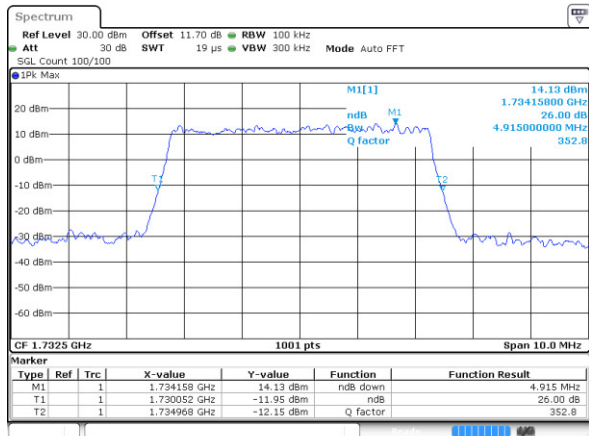
Date: 10 JAN 2018 21:10:16

Middle Channel / 5MHz / QPSK



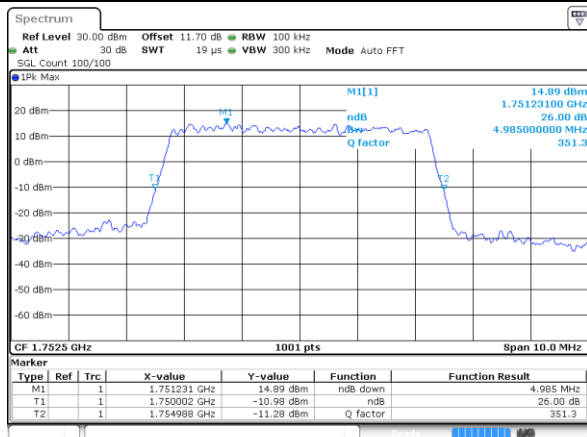
Date: 10 JAN 2018 21:17:08

Middle Channel / 5MHz / 16QAM



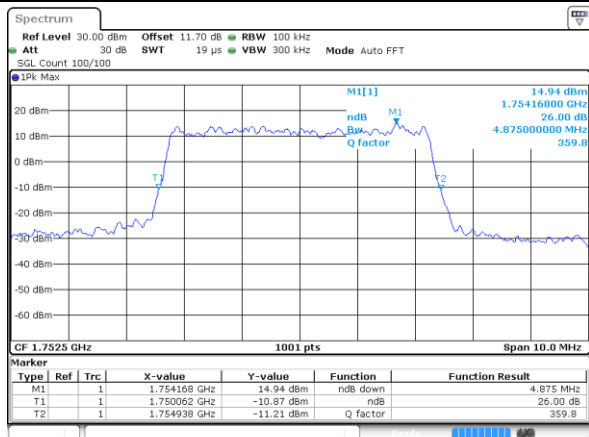
Date: 10 JAN 2018 21:17:18

Highest Channel / 5MHz / QPSK



Date: 10 JAN 2018 21:19:36

Highest Channel / 5MHz / 16QAM

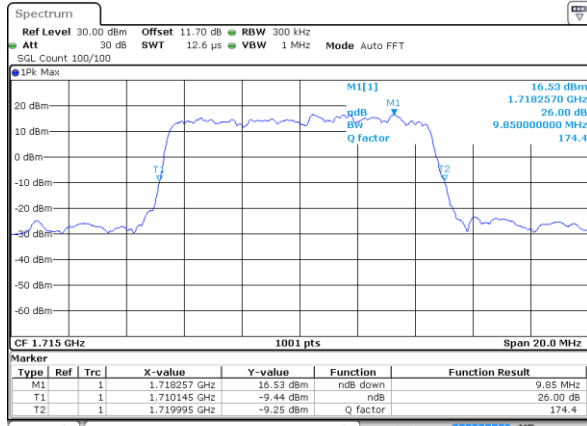


Date: 10 JAN 2018 21:19:46

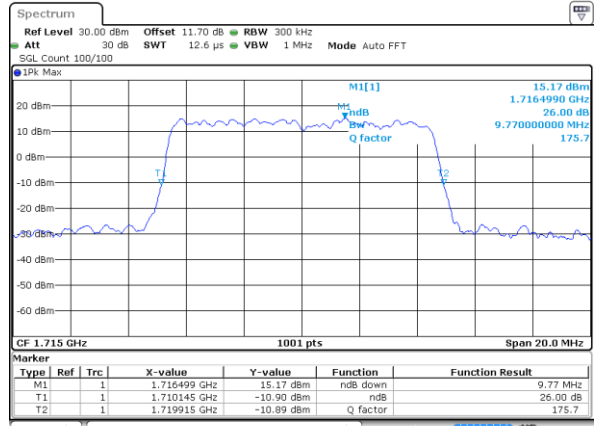


LTE Band 4

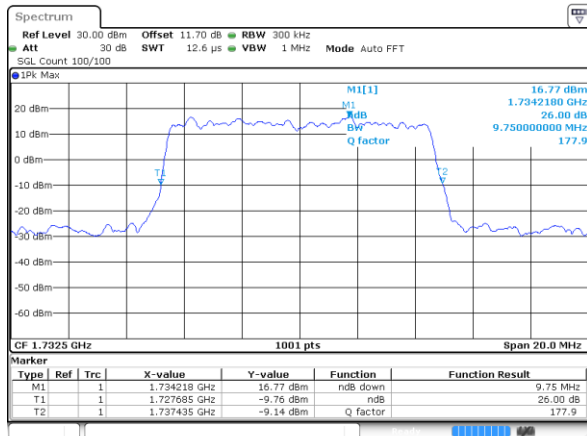
Lowest Channel / 10MHz / QPSK



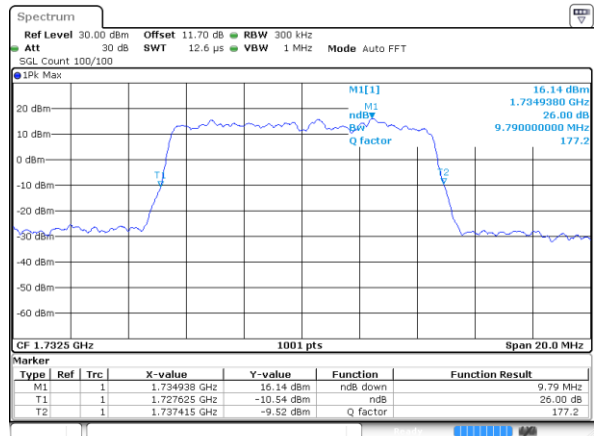
Lowest Channel / 10MHz / 16QAM



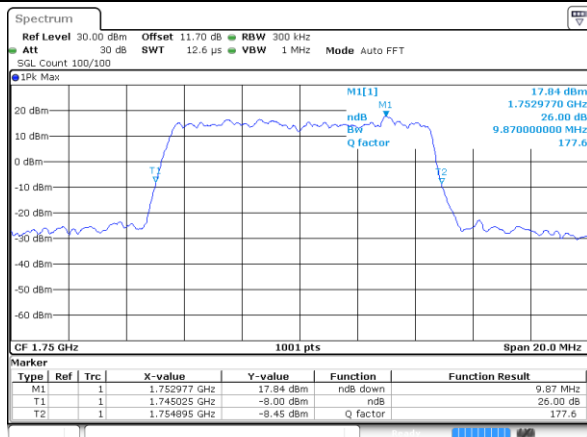
Middle Channel / 10MHz / QPSK



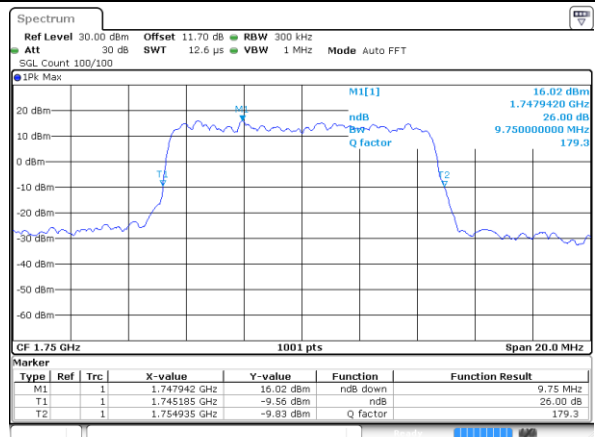
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



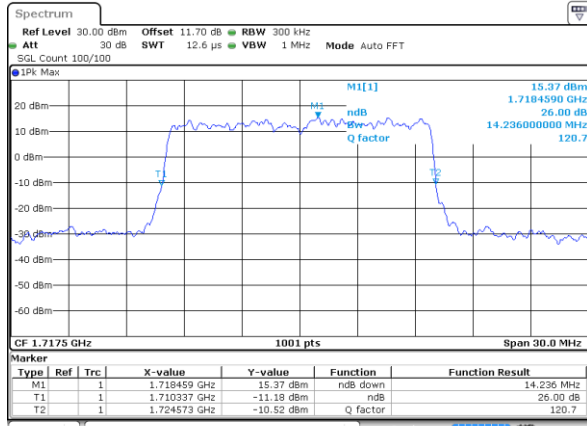
Highest Channel / 10MHz / 16QAM



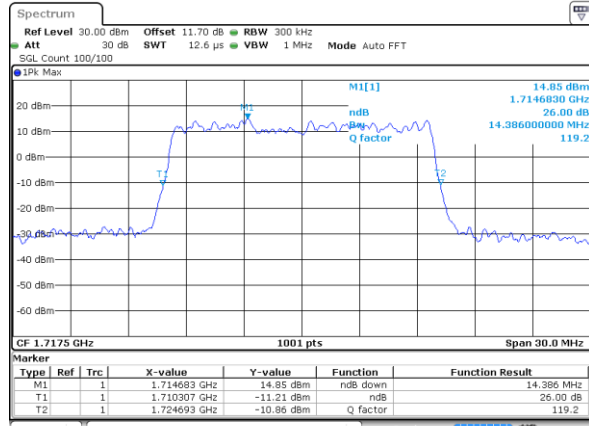


LTE Band 4

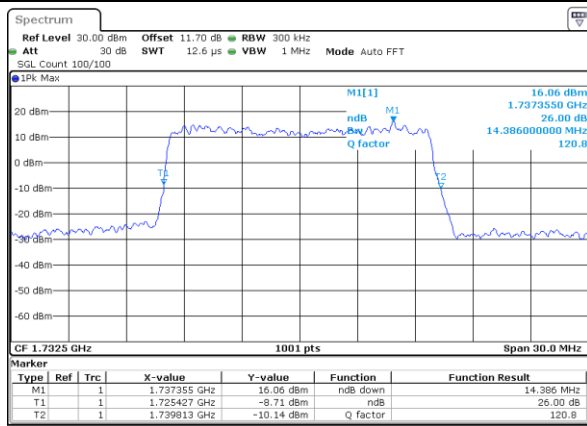
Lowest Channel / 15MHz / QPSK



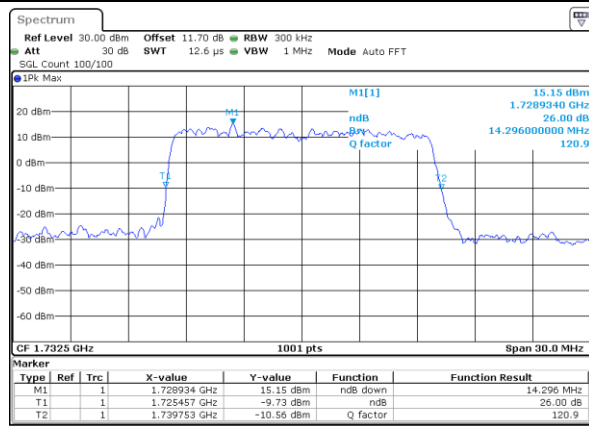
Lowest Channel / 15MHz / 16QAM



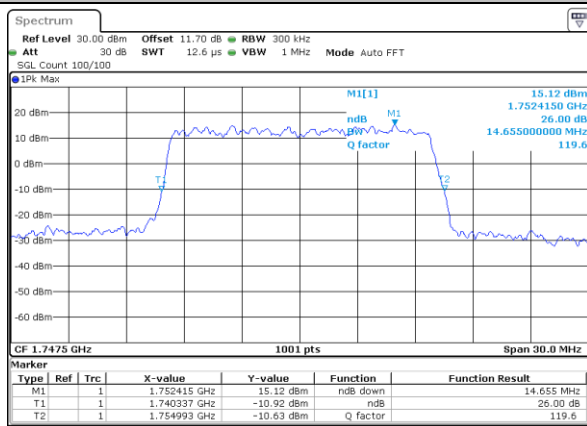
Middle Channel / 15MHz / QPSK



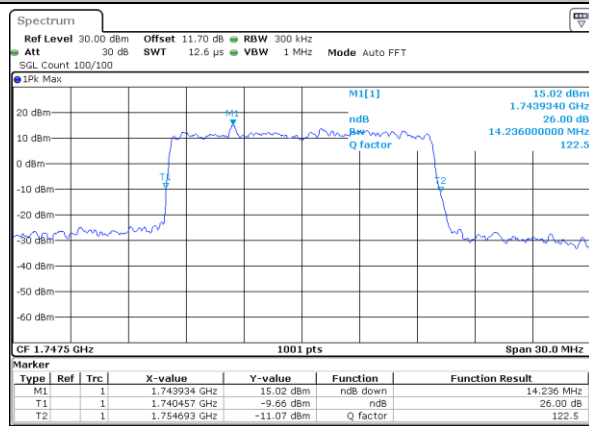
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



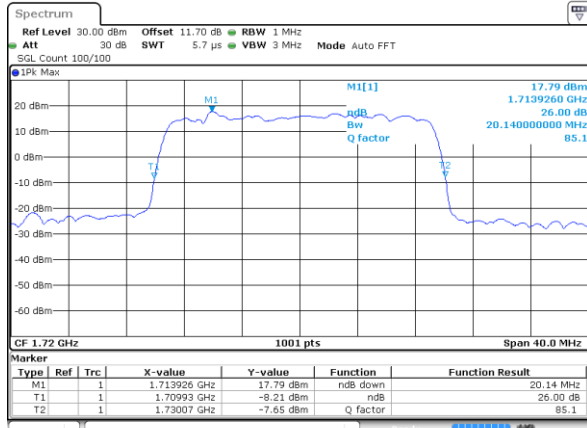
Highest Channel / 15MHz / 16QAM



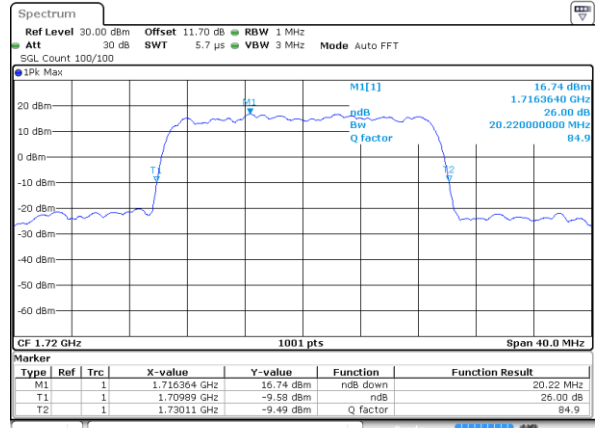


LTE Band 4

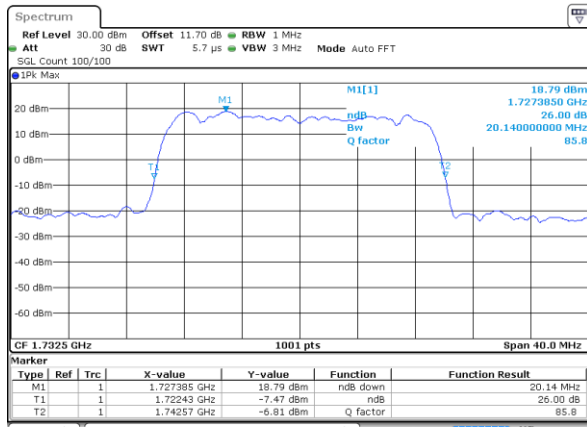
Lowest Channel / 20MHz / QPSK



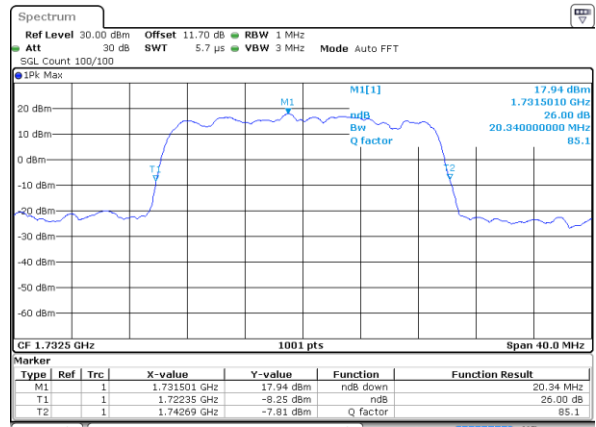
Lowest Channel / 20MHz / 16QAM



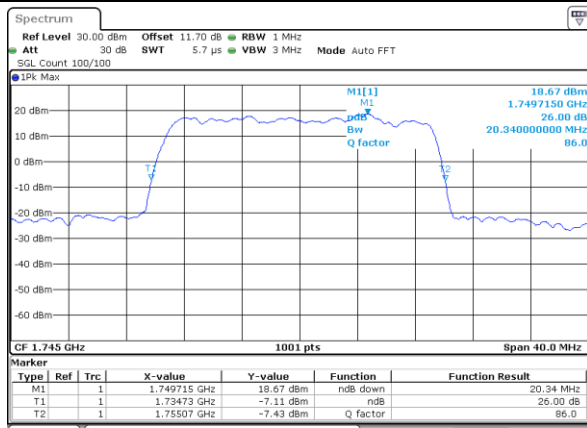
Middle Channel / 20MHz / QPSK



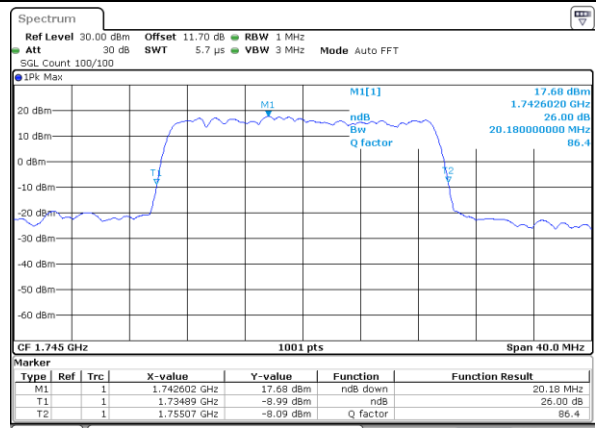
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



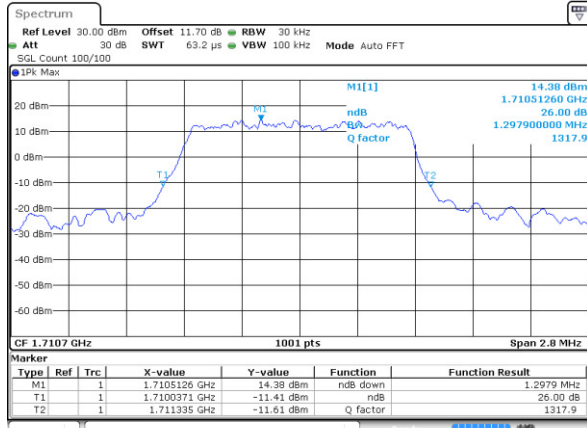
Highest Channel / 20MHz / 16QAM





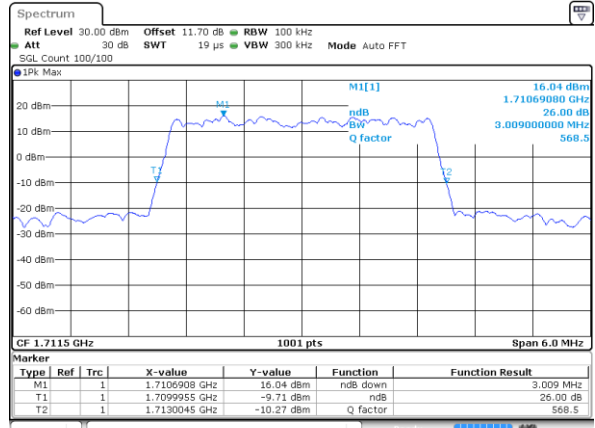
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



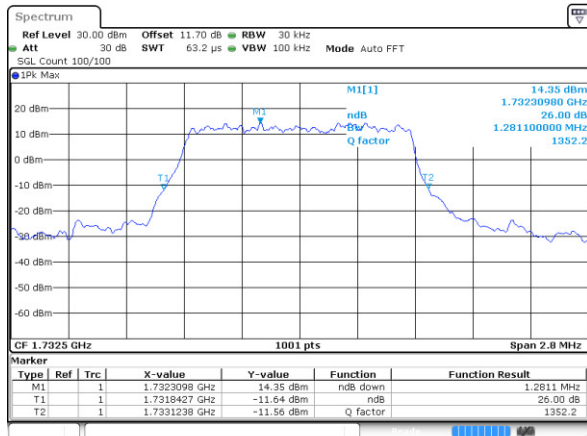
Date: 31 JAN 2018 22:58:21

Lowest Channel / 3MHz / 64QAM



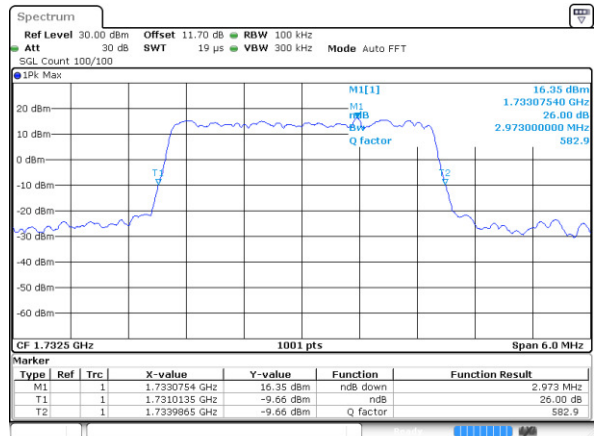
Date: 31 JAN 2018 21:44:07

Middle Channel / 1.4MHz / 64QAM



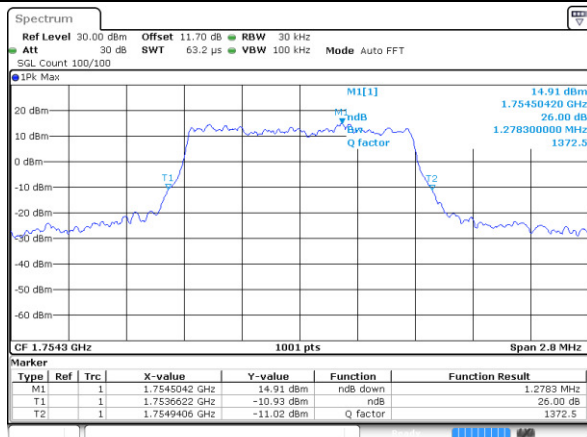
Date: 31 JAN 2018 23:01:53

Middle Channel / 3MHz / 64QAM



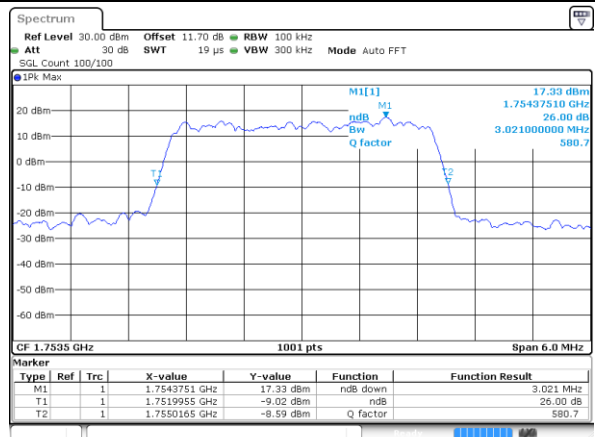
Date: 31 JAN 2018 21:47:39

Highest Channel / 1.4MHz / 64QAM



Date: 31 JAN 2018 23:03:07

Highest Channel / 3MHz / 64QAM

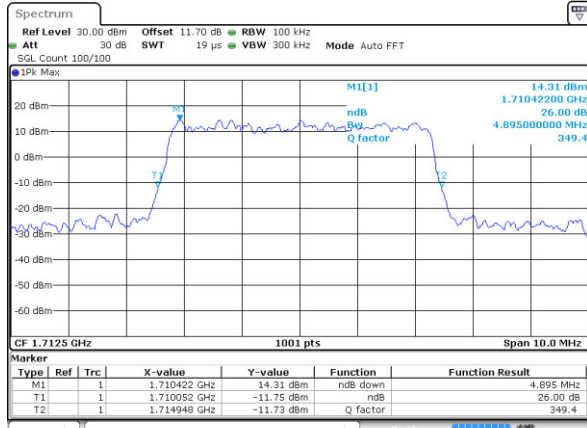


Date: 31 JAN 2018 21:48:53



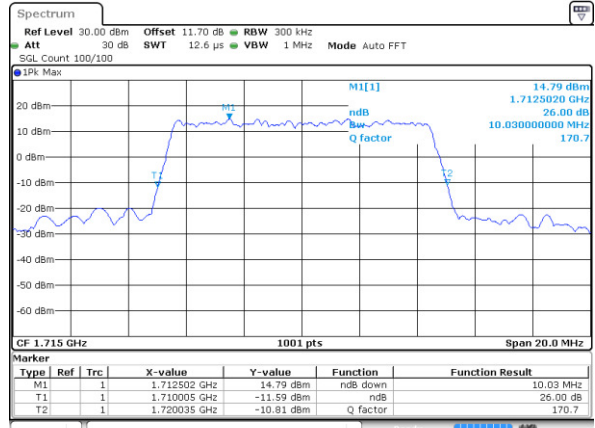
LTE Band 4

Lowest Channel / 5MHz / 64QAM



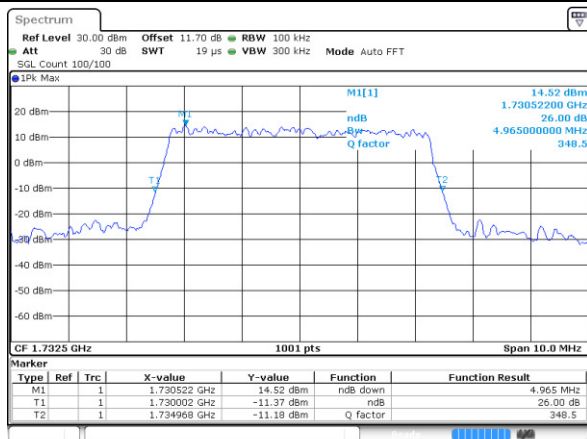
Date: 31 JAN 2018 21:52:24

Lowest Channel / 10MHz / 64QAM



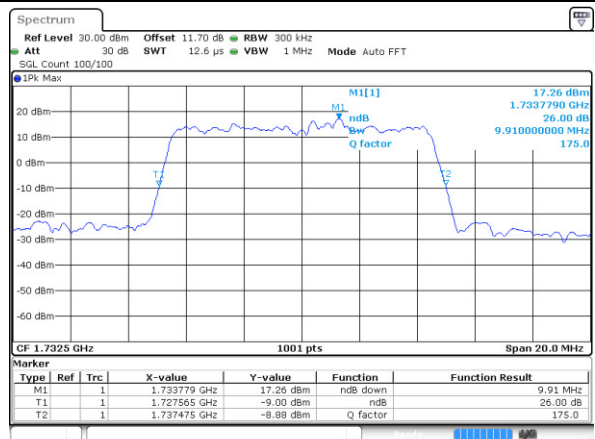
Date: 31 JAN 2018 22:00:41

Middle Channel / 5MHz / 64QAM



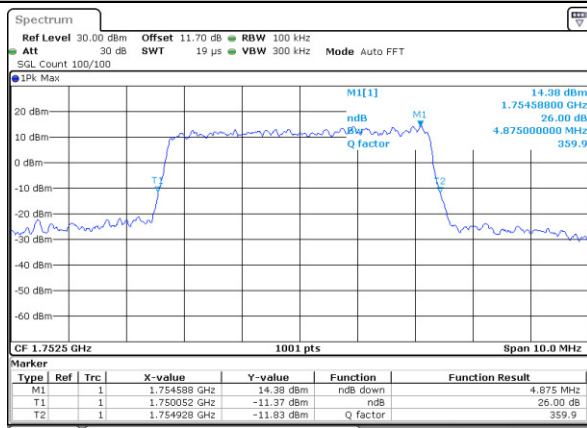
Date: 31 JAN 2018 21:55:56

Middle Channel / 10MHz / 64QAM



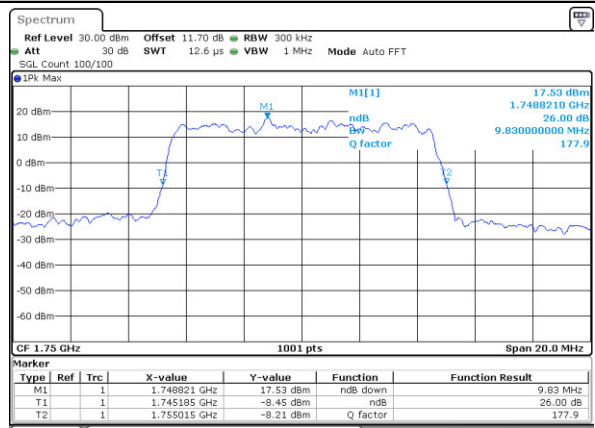
Date: 31 JAN 2018 22:04:13

Highest Channel / 5MHz / 64QAM



Date: 31 JAN 2018 21:57:10

Highest Channel / 10MHz / 64QAM

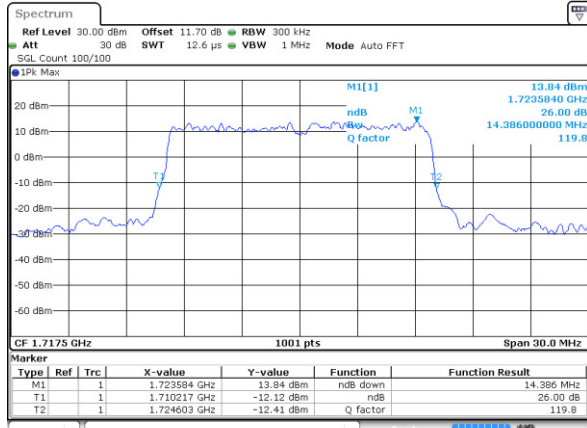


Date: 31 JAN 2018 22:05:27



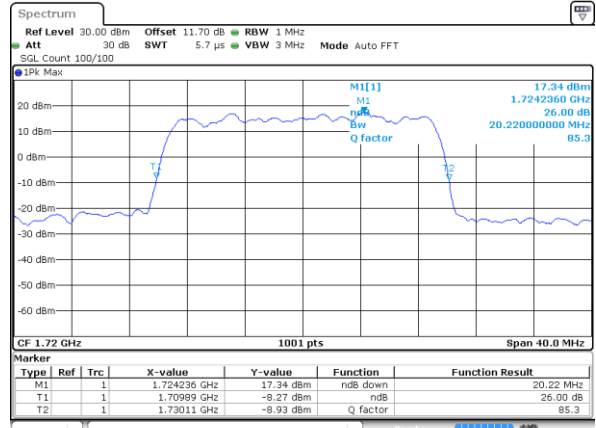
LTE Band 4

Lowest Channel / 15MHz / 64QAM



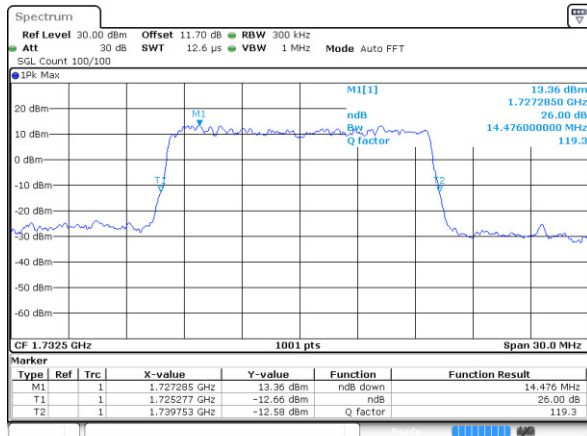
Date: 31 JAN 2018 22:08:58

Lowest Channel / 20MHz / 64QAM



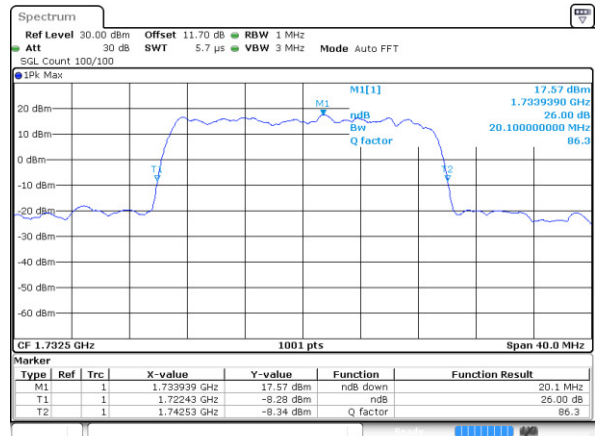
Date: 31 JAN 2018 22:17:15

Middle Channel / 15MHz / 64QAM



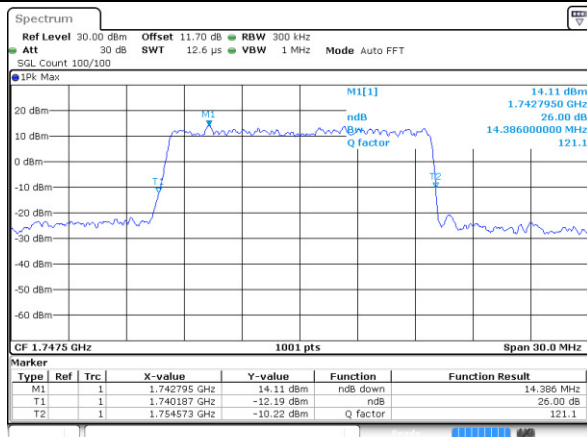
Date: 31 JAN 2018 22:12:30

Middle Channel / 20MHz / 64QAM



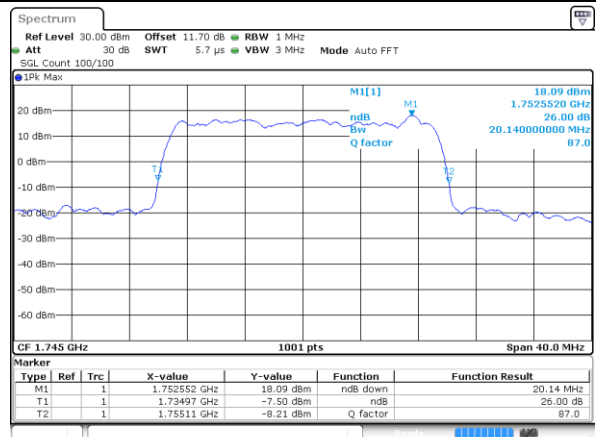
Date: 31 JAN 2018 22:20:46

Highest Channel / 15MHz / 64QAM



Date: 31 JAN 2018 22:13:44

Highest Channel / 20MHz / 64QAM



Date: 31 JAN 2018 22:22:00

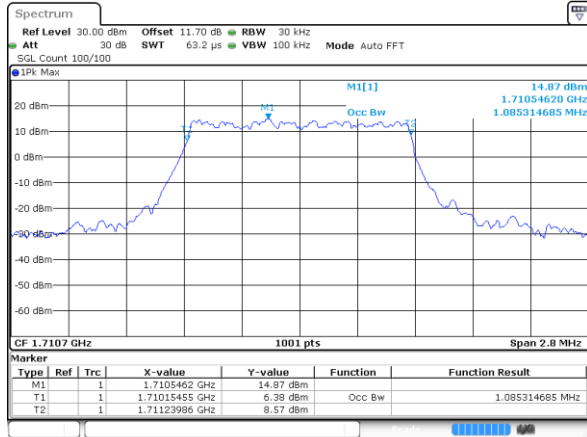
Occupied Bandwidth

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	1.10	2.72	2.70	4.51	4.49	8.97	9.03	13.40	13.52	18.34	18.38
Middle CH	1.09	1.09	2.72	2.7	4.51	4.5	9.05	9.03	13.46	13.46	18.42	18.46
Highest CH	1.09	1.09	2.72	2.73	4.5	4.5	9.07	9.01	13.43	13.43	18.42	18.22
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	-	2.72	-	4.50	-	9.01	-	13.46	-	18.42	-
Middle CH	1.09	-	2.73	-	4.54	-	9.07	-	13.43	-	18.30	-
Highest CH	1.08	-	2.72	-	4.51	-	9.03	-	13.46	-	18.42	-

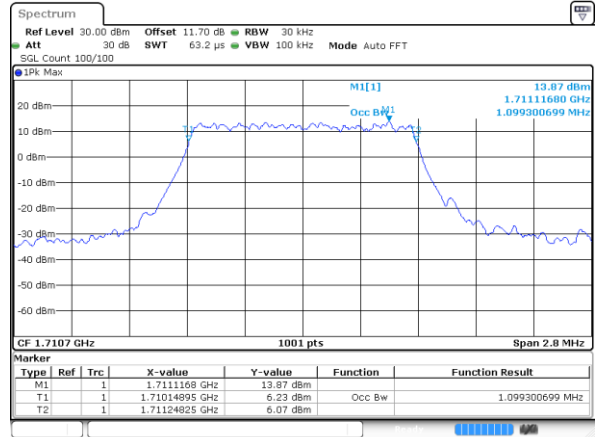


LTE Band 4

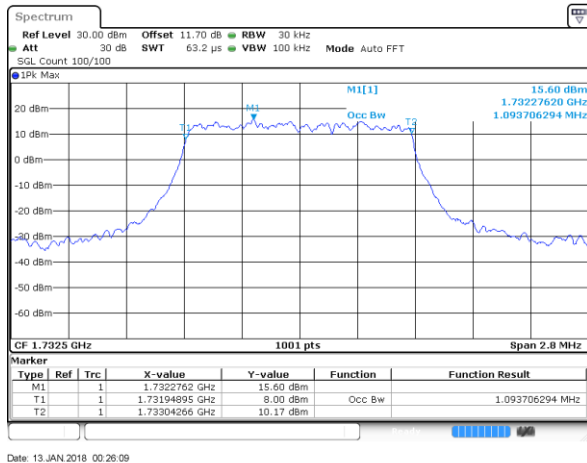
Lowest Channel / 1.4MHz / QPSK



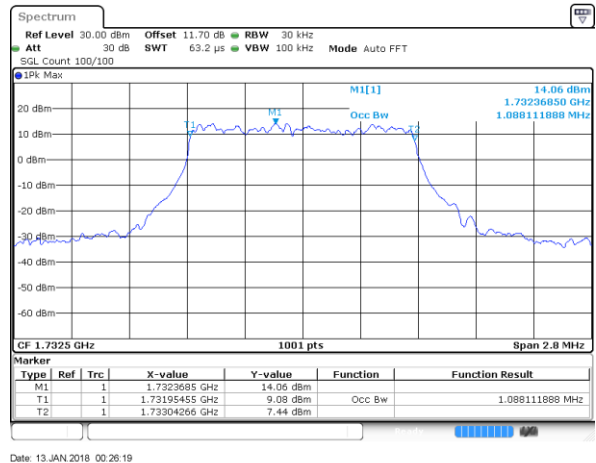
Lowest Channel / 1.4MHz / 16QAM



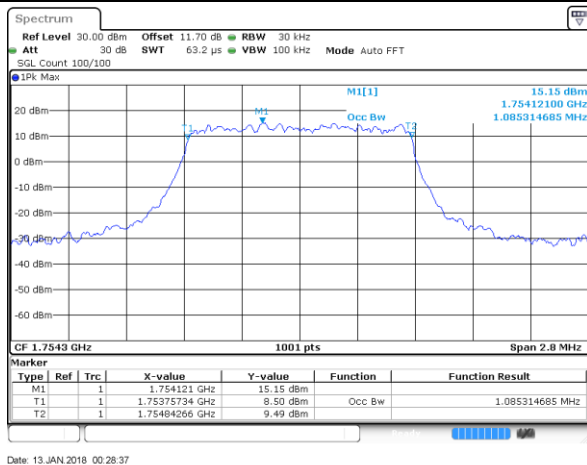
Middle Channel / 1.4MHz / QPSK



Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



Highest Channel / 1.4MHz / 16QAM

