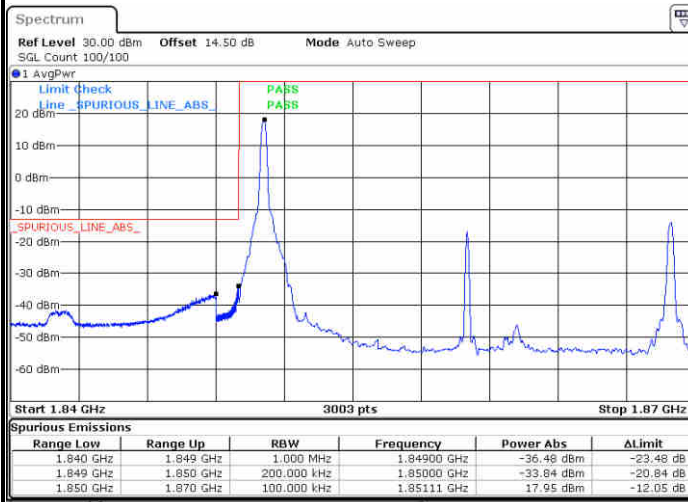




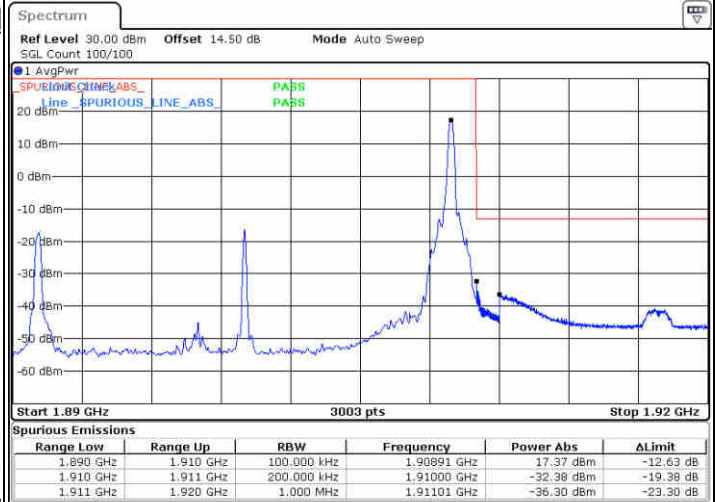
LTE Band 2 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



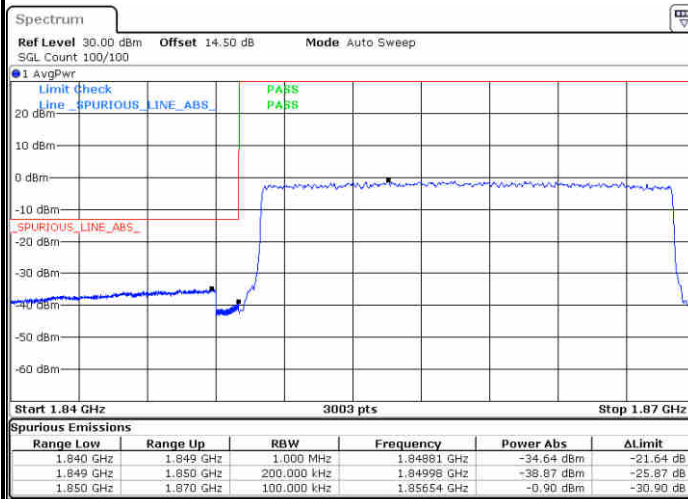
Date: 5 JUN 2019 15:42:01

Highest Band Edge / 1 RB



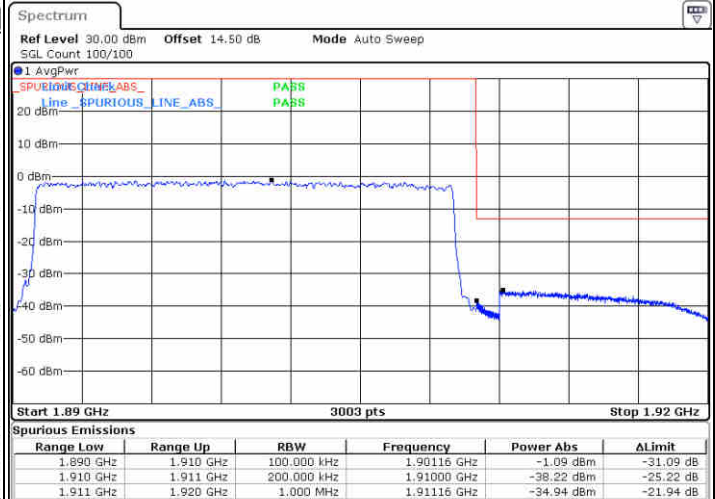
Date: 5 JUN 2019 15:51:26

Lowest Band Edge / Full RB



Date: 5 JUN 2019 15:44:17

Highest Band Edge / Full RB



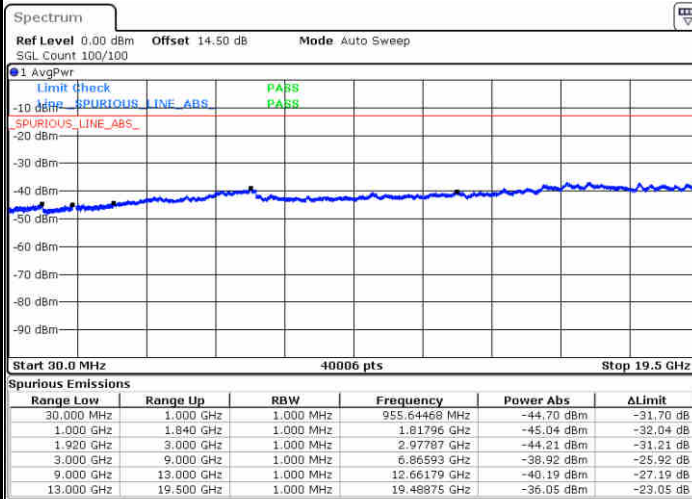
Date: 5 JUN 2019 15:53:42



Conducted Spurious Emission

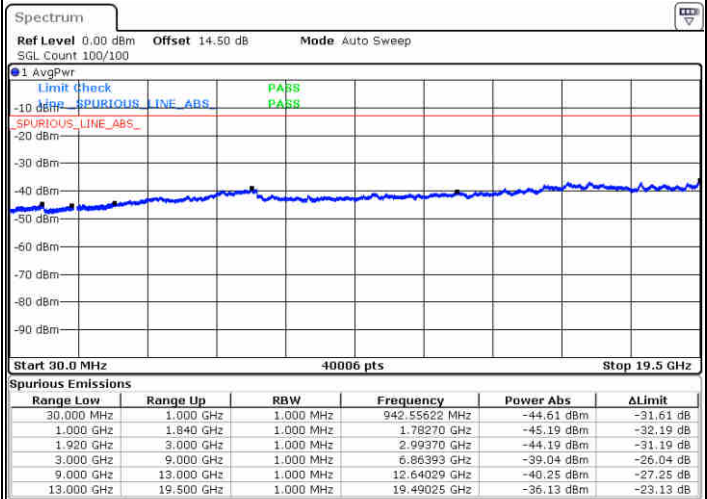
LTE Band 2 / 1.4MHz

Lowest Channel / QPSK



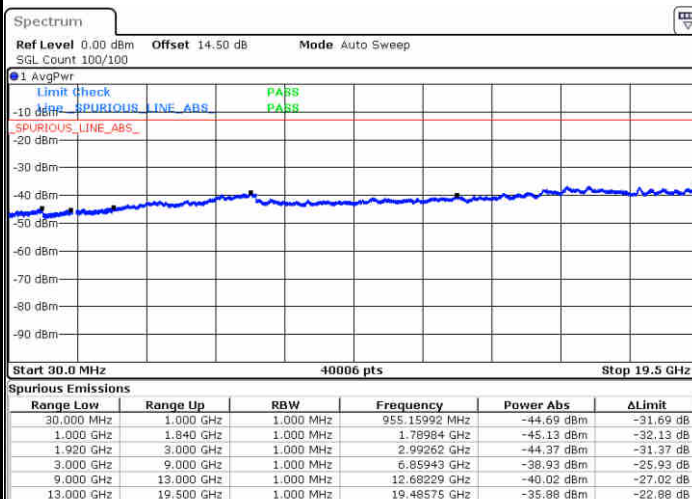
Date: 5 JUN 2019 14:19:43

Lowest Channel / 16QAM



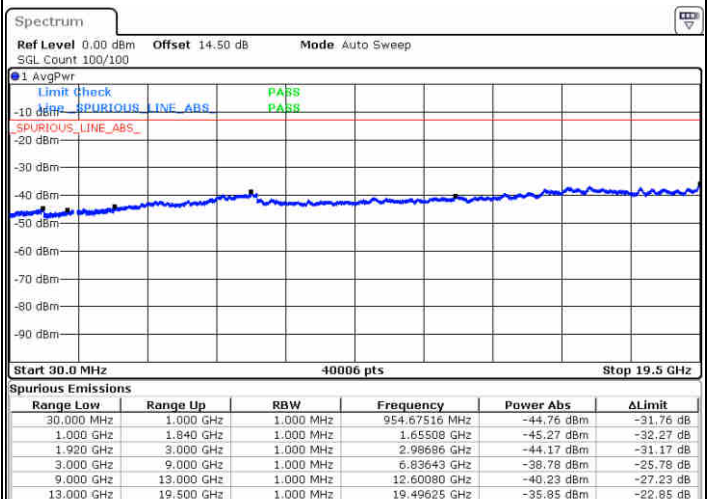
Date: 5 JUN 2019 14:20:37

Middle Channel / QPSK



Date: 5 JUN 2019 14:22:11

Middle Channel / 16QAM

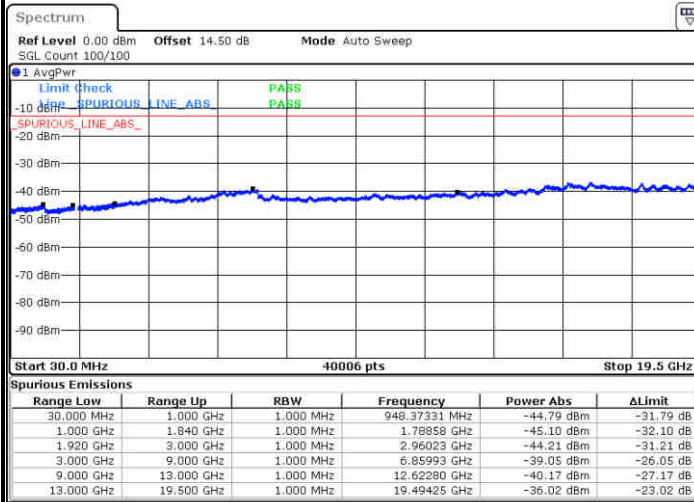


Date: 5 JUN 2019 14:23:04



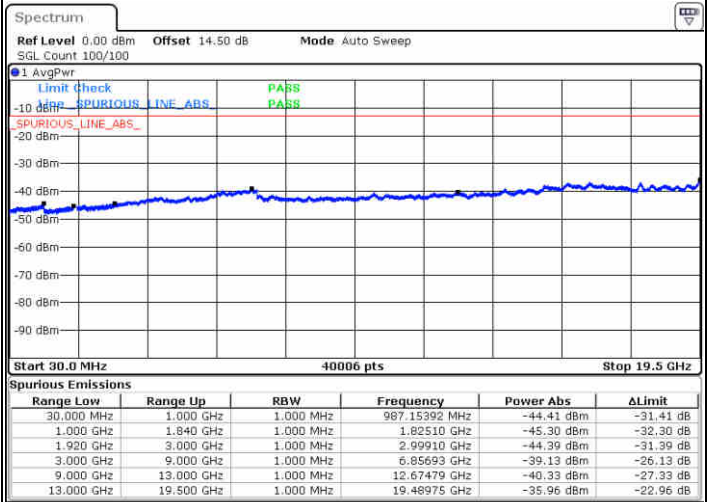
LTE Band 2 / 1.4MHz

Highest Channel / QPSK



Date: 5 JUN 2019 14:29:09

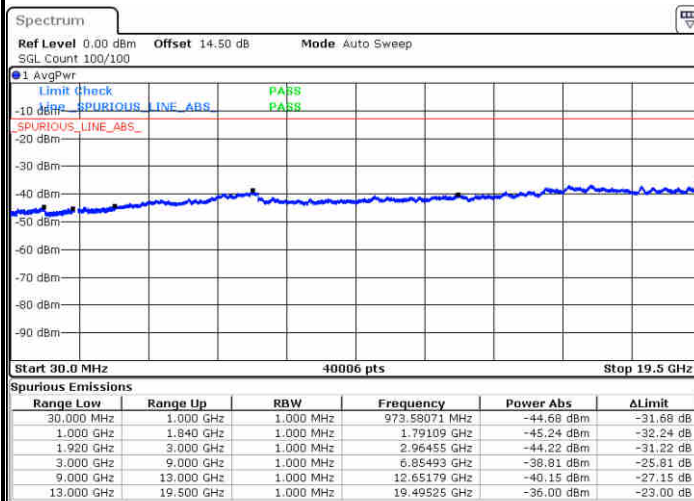
Highest Channel / 16QAM



Date: 5 JUN 2019 14:30:03

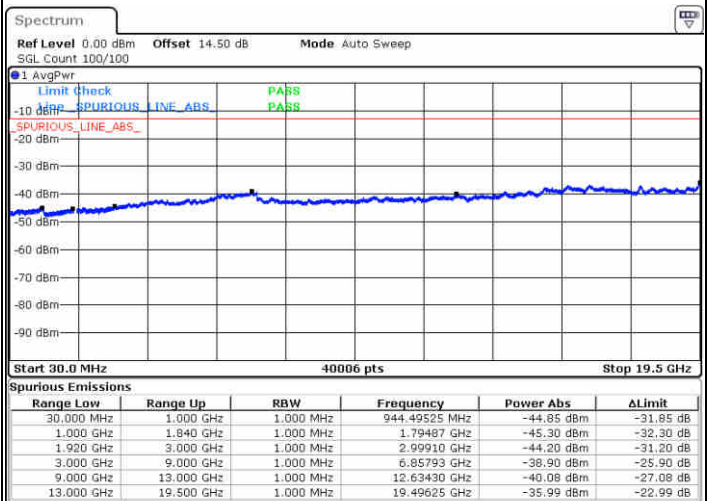
LTE Band 2 / 3MHz

Lowest Channel / QPSK



Date: 5 JUN 2019 14:38:19

Lowest Channel / 16QAM

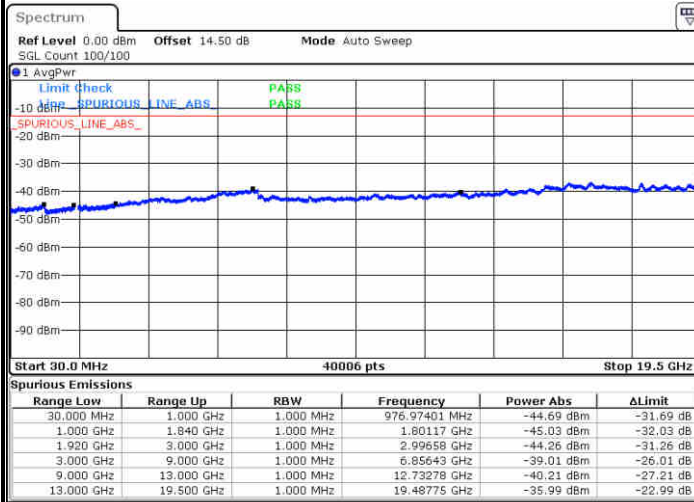


Date: 5 JUN 2019 14:38:12



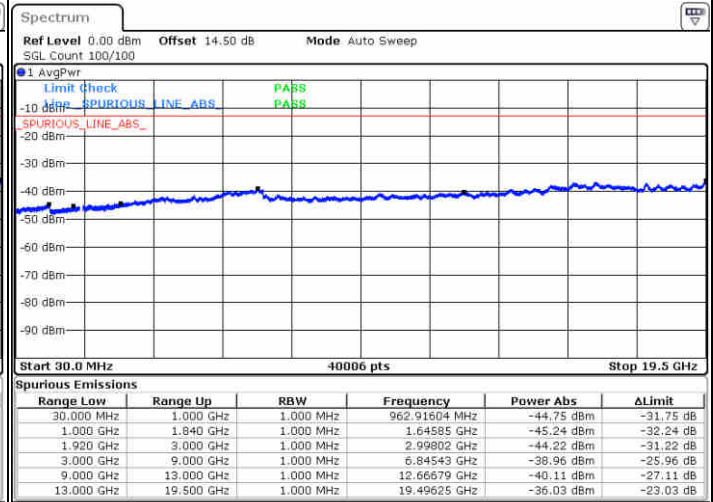
LTE Band 2 / 3MHz

Middle Channel / QPSK



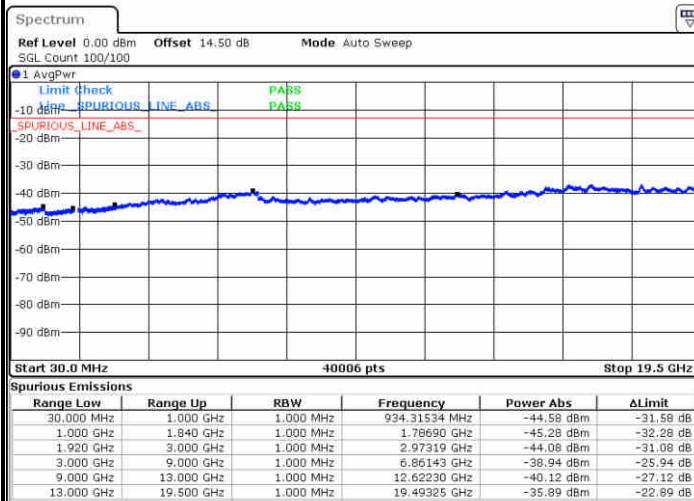
Date: 5 JUN 2019 14:40:46

Middle Channel / 16QAM



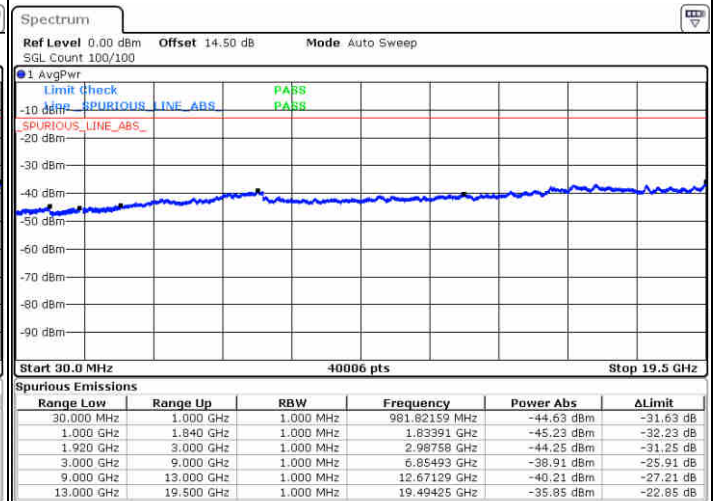
Date: 5 JUN 2019 14:41:39

Highest Channel / QPSK



Date: 5 JUN 2019 14:47:44

Highest Channel / 16QAM

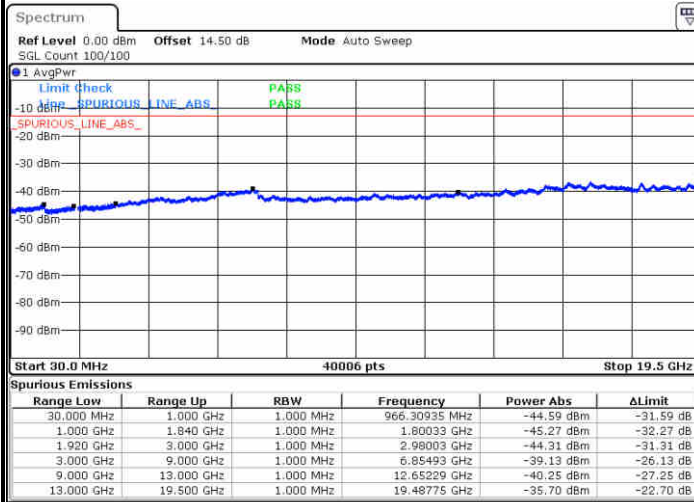


Date: 5 JUN 2019 14:48:37



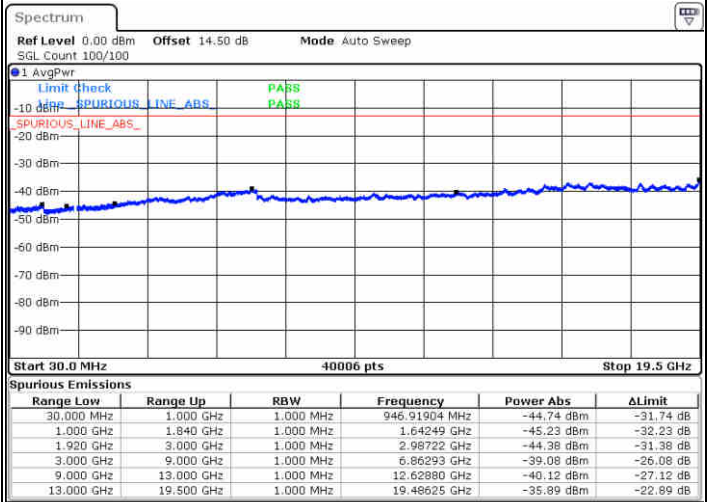
LTE Band 2 / 5MHz

Lowest Channel / QPSK



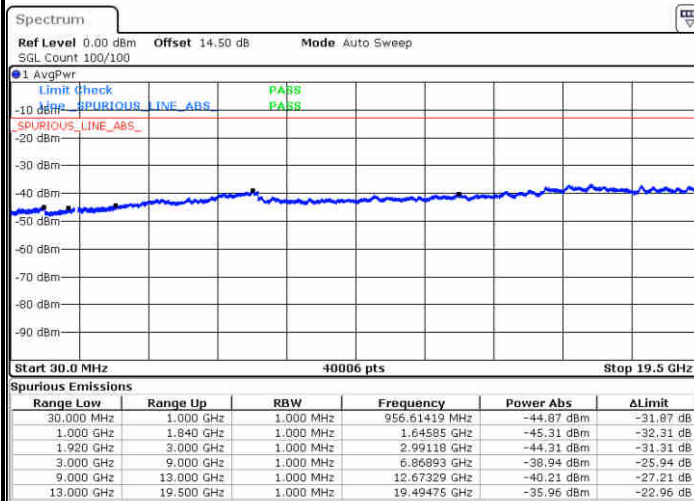
Date: 5 JUN 2019 16:14:21

Lowest Channel / 16QAM



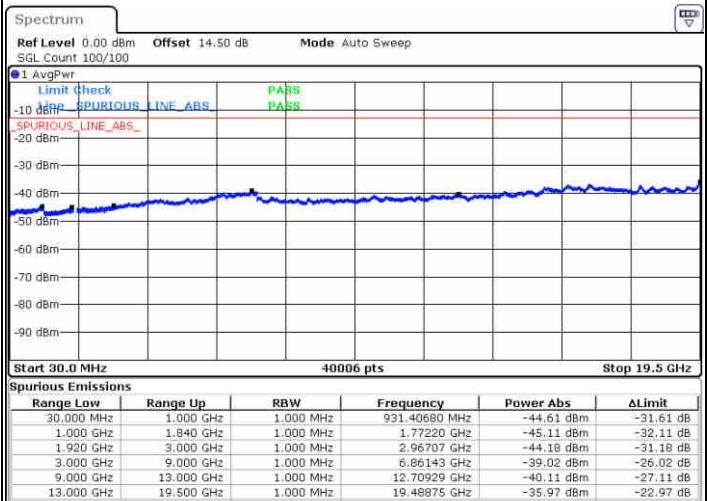
Date: 5 JUN 2019 16:15:14

Middle Channel / QPSK



Date: 5 JUN 2019 16:16:07

Middle Channel / 16QAM

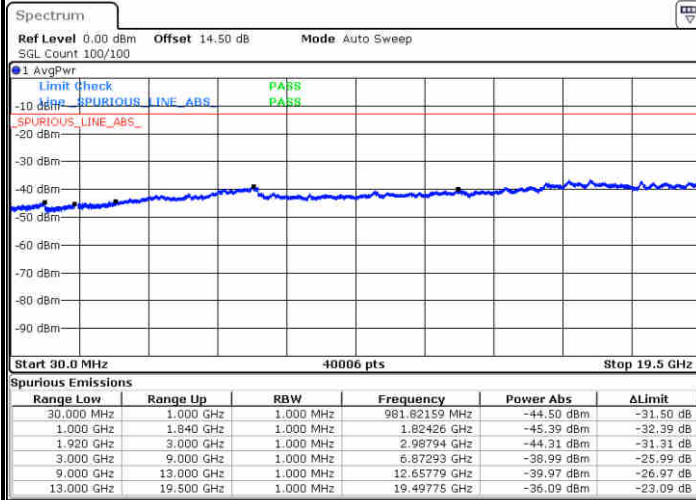


Date: 5 JUN 2019 16:17:01



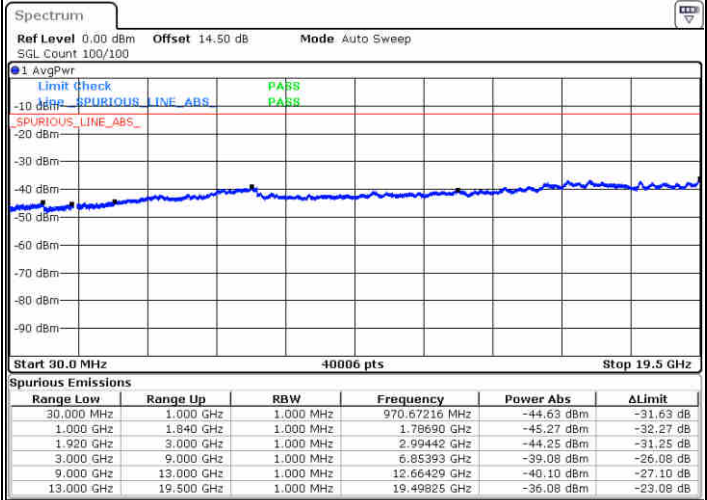
LTE Band 2 / 5MHz

Highest Channel / QPSK



Date: 5 JUN 2019 16:17:54

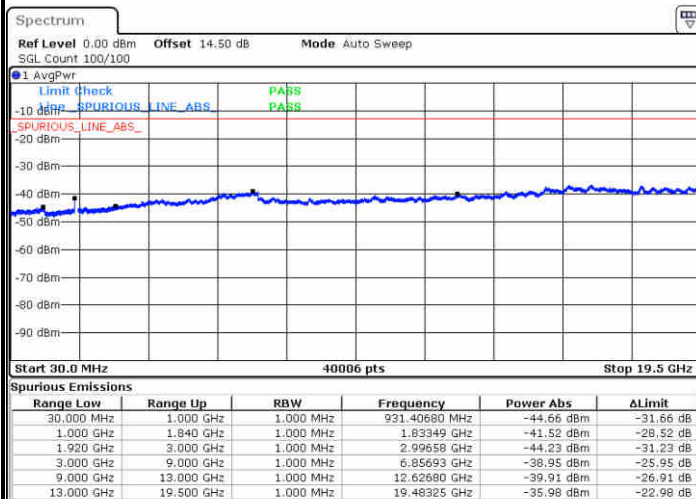
Highest Channel / 16QAM



Date: 5 JUN 2019 16:18:47

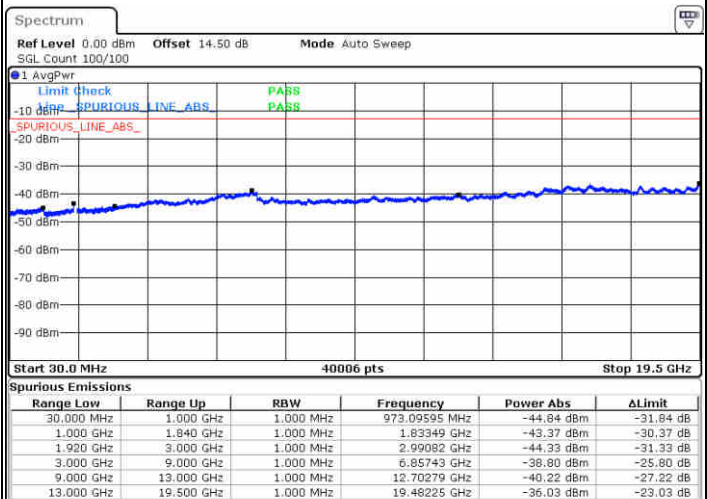
LTE Band 2 / 10MHz

Lowest Channel / QPSK



Date: 5 JUN 2019 15:12:02

Lowest Channel / 16QAM

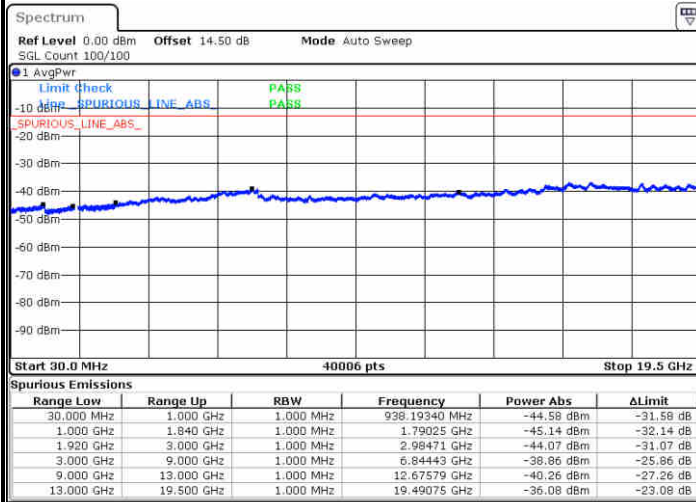


Date: 5 JUN 2019 15:12:55



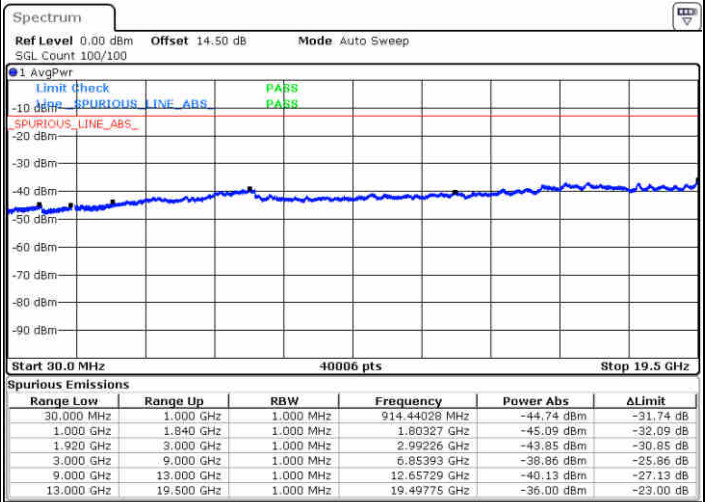
LTE Band 2 / 10MHz

Middle Channel / QPSK



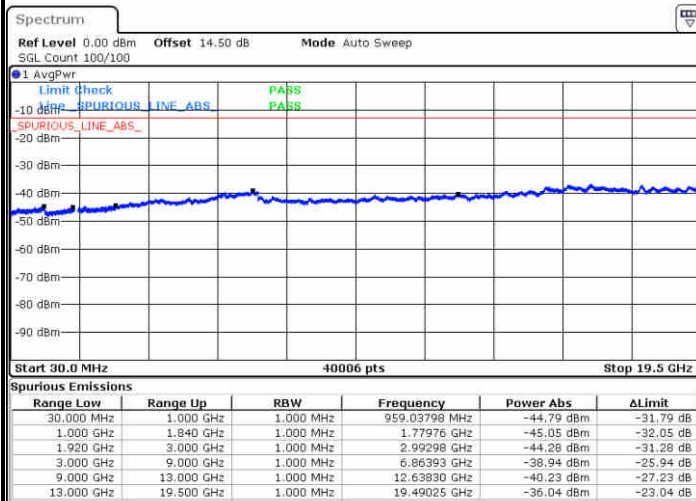
Date: 5 JUN 2019 15:14:28

Middle Channel / 16QAM



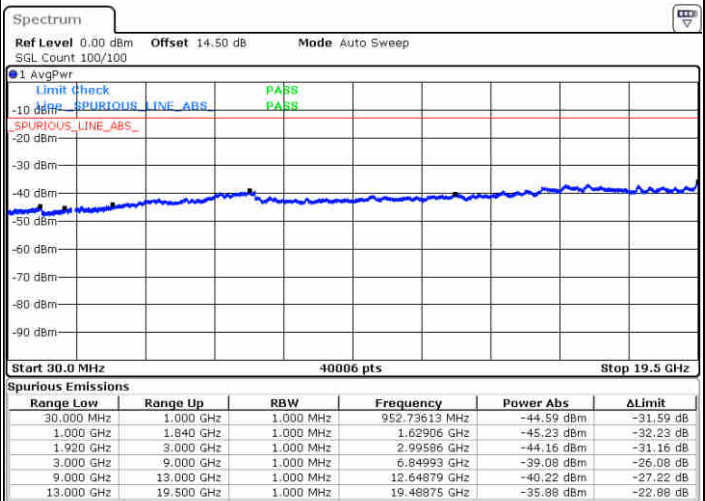
Date: 5 JUN 2019 15:15:22

Highest Channel / QPSK



Date: 5 JUN 2019 15:21:27

Highest Channel / 16QAM

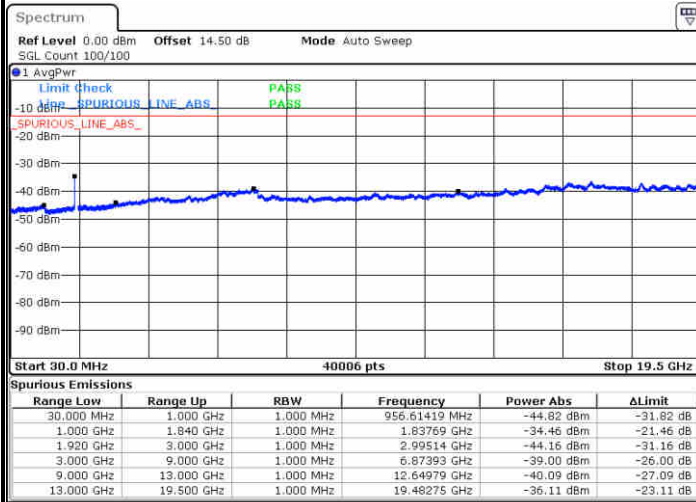


Date: 5 JUN 2019 15:22:20



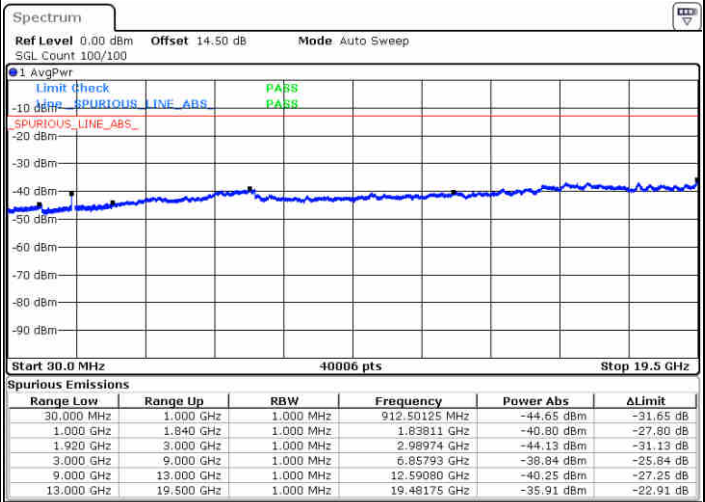
LTE Band 2 / 15MHz

Lowest Channel / QPSK



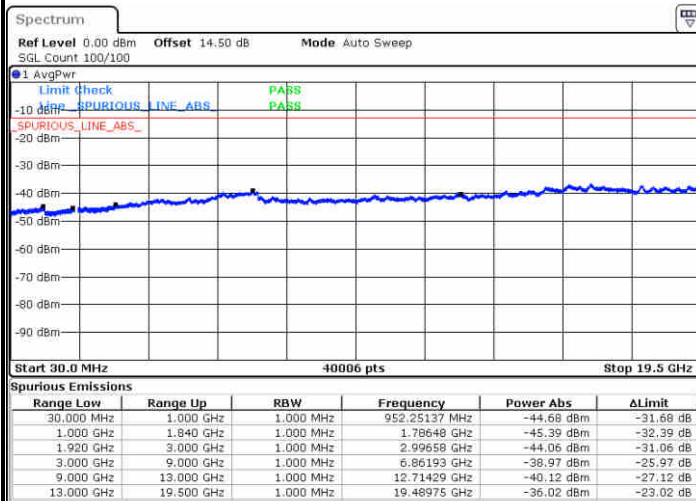
Date: 5 JUN 2019 15:28:38

Lowest Channel / 16QAM



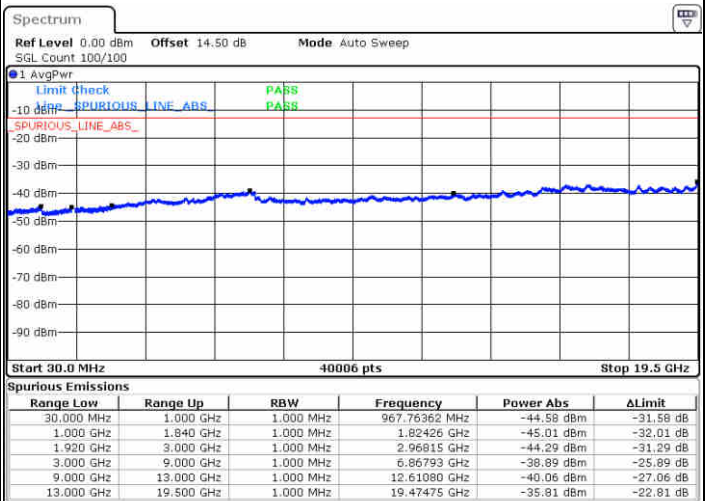
Date: 5 JUN 2019 15:29:32

Middle Channel / QPSK



Date: 5 JUN 2019 15:31:05

Middle Channel / 16QAM

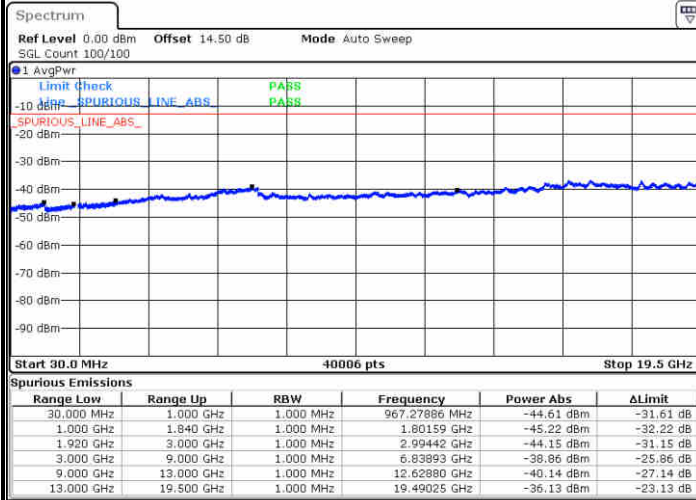


Date: 5 JUN 2019 15:31:58



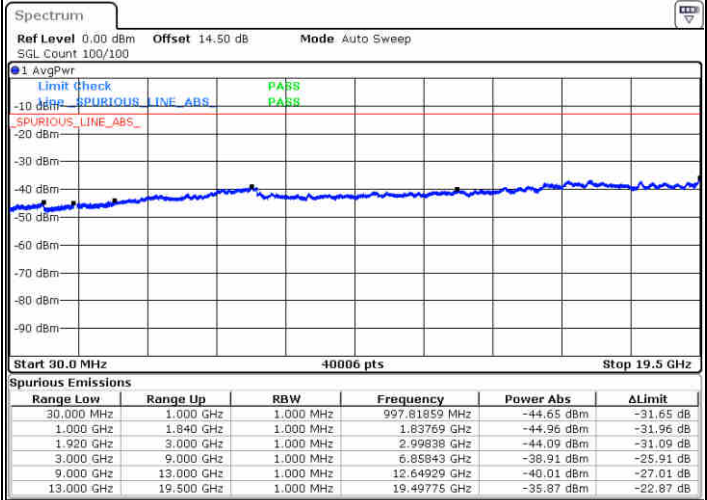
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 5 JUN 2019 15:38:03

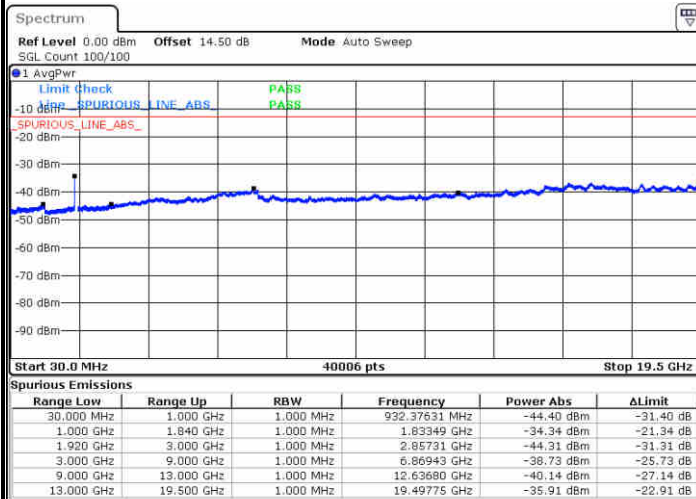
Highest Channel / 16QAM



Date: 5 JUN 2019 15:38:57

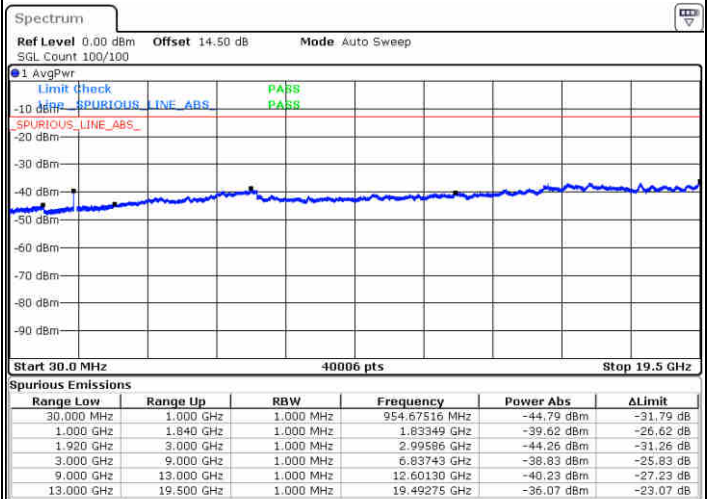
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 5 JUN 2019 15:45:10

Lowest Channel / 16QAM

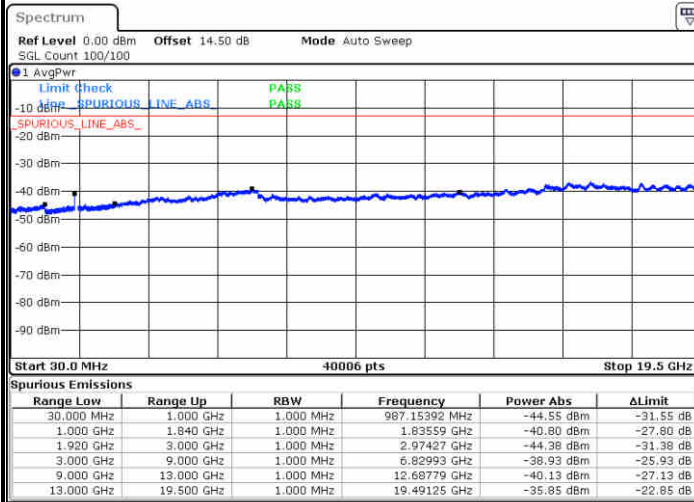


Date: 5 JUN 2019 15:46:04



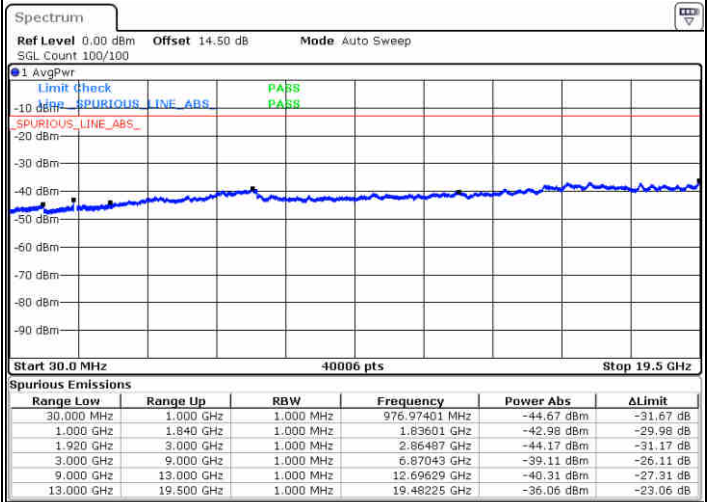
LTE Band 2 / 20MHz

Middle Channel / QPSK



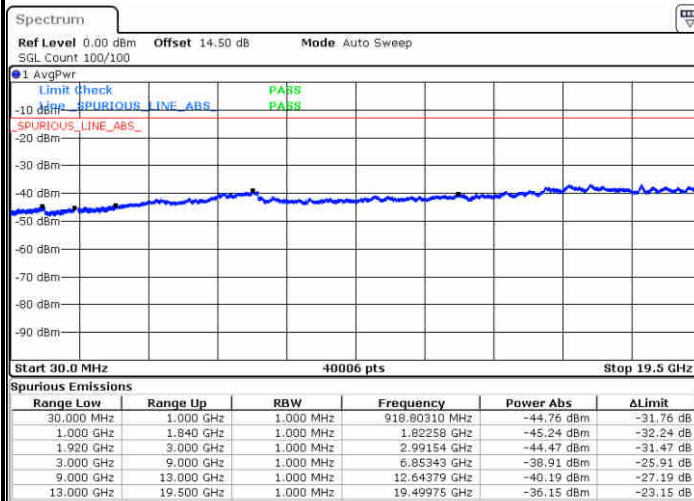
Date: 5 JUN 2019 15:47:37

Middle Channel / 16QAM



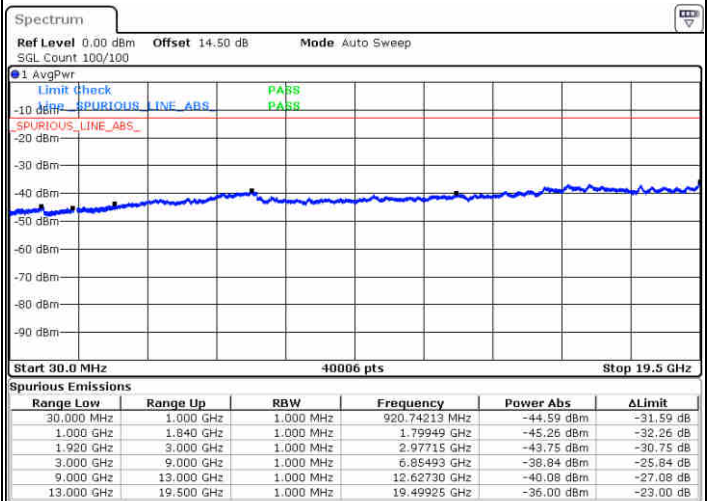
Date: 5 JUN 2019 15:48:30

Highest Channel / QPSK



Date: 5 JUN 2019 15:54:35

Highest Channel / 16QAM



Date: 5 JUN 2019 15:55:29

**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	0.0001	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



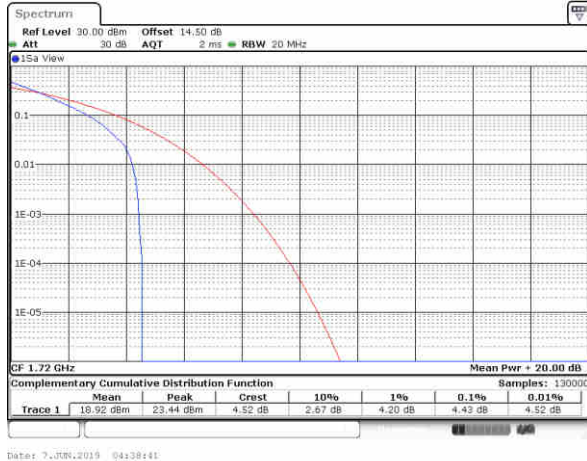
LTE Band 4

Peak-to-Average Ratio

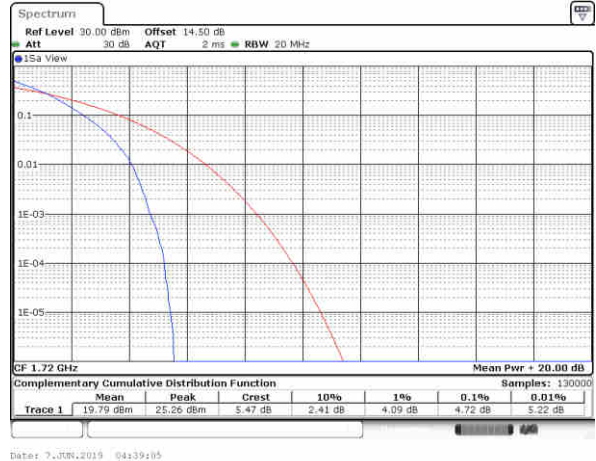
Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.43	4.72	5.36	5.83	PASS
Middle CH	4.49	4.81	5.3	5.8	
Highest CH	4.43	4.72	5.1	5.74	

LTE Band 4 / 20MHz / QPSK

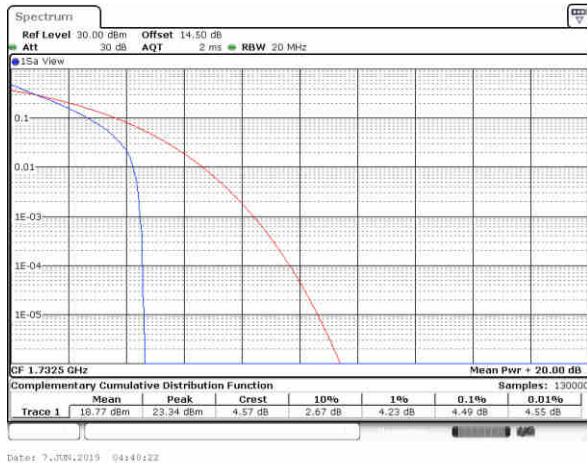
Lowest Channel / 1RB



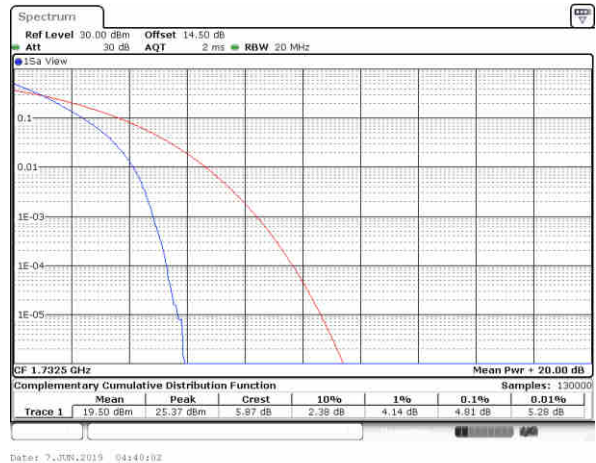
Lowest Channel / Full RB



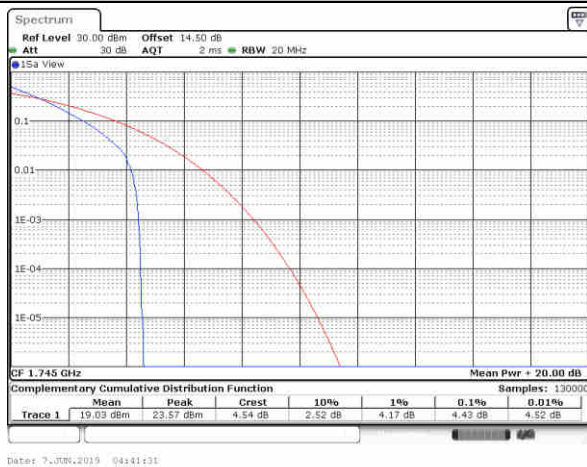
Middle Channel / 1RB



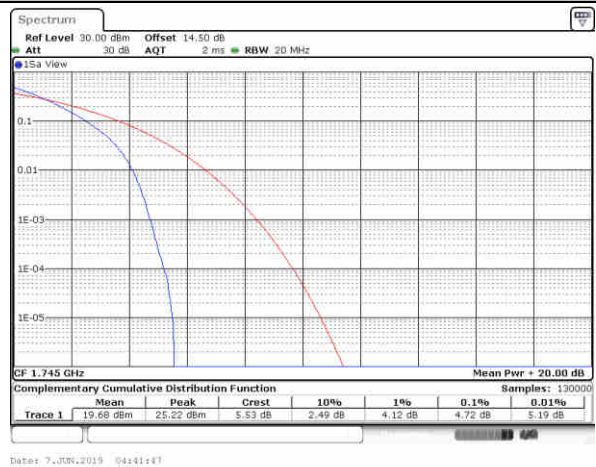
Middle Channel / Full RB



Highest Channel / 1RB

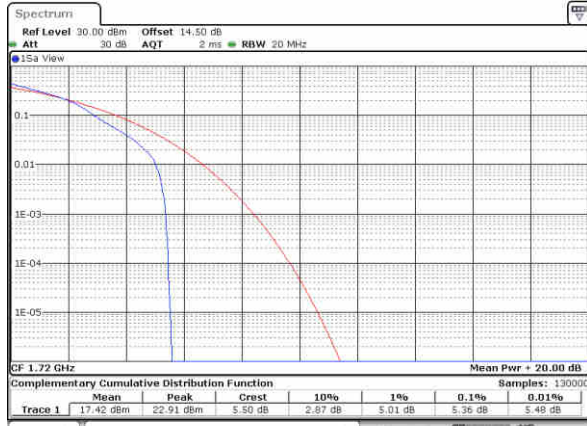


Highest Channel / Full RB



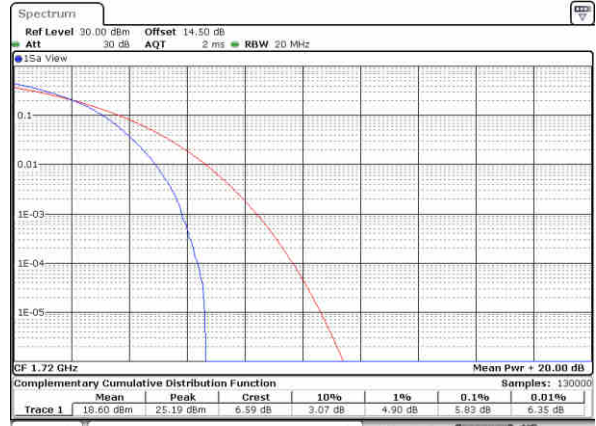
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



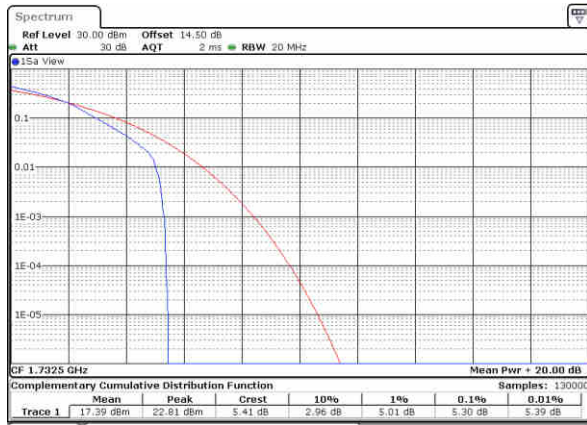
Date: 7, JUN, 2019 @4:38:16

Lowest Channel / Full RB



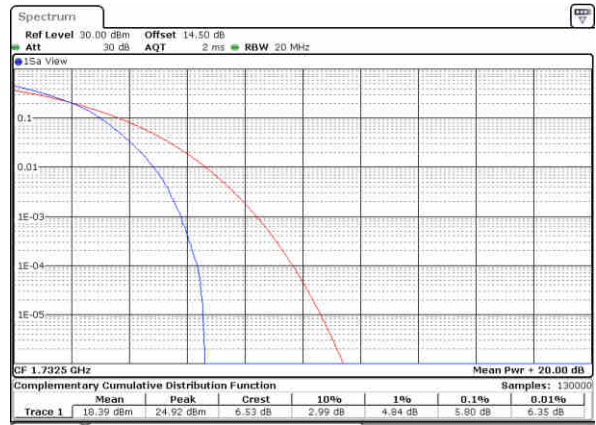
Date: 7, JUN, 2019 @4:39:23

Middle Channel / 1RB



Date: 7, JUN, 2019 @4:40:54

Middle Channel / Full RB



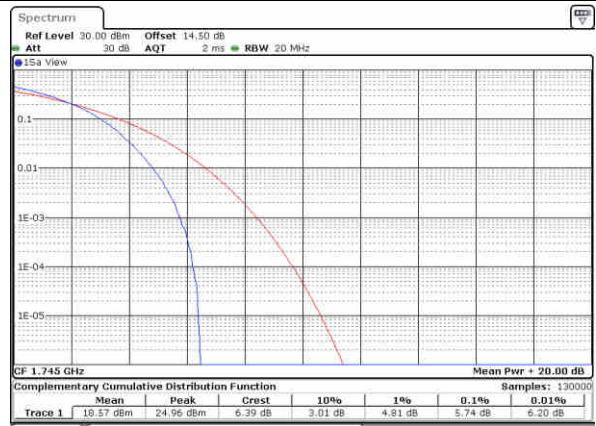
Date: 7, JUN, 2019 @4:39:43

Highest Channel / 1RB



Date: 7, JUN, 2019 @4:41:16

Highest Channel / Full RB



Date: 7, JUN, 2019 @4:42:04

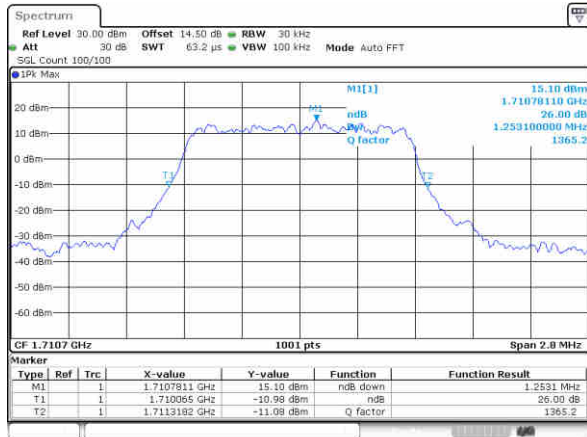
**26dB Bandwidth**

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	1.253	1.29	2.997	3.015	4.925	4.985	9.85	9.71	14.386	14.296	20.06	20.02
Middle CH	1.262	1.262	3.003	3.039	4.905	4.905	9.97	9.85	14.446	14.236	20.06	20.18
Highest CH	1.259	1.301	2.985	3.045	4.885	4.955	9.87	9.81	14.625	14.386	20.1	20.26



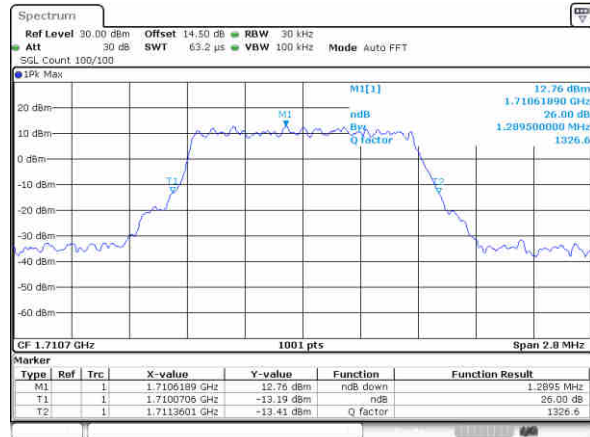
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



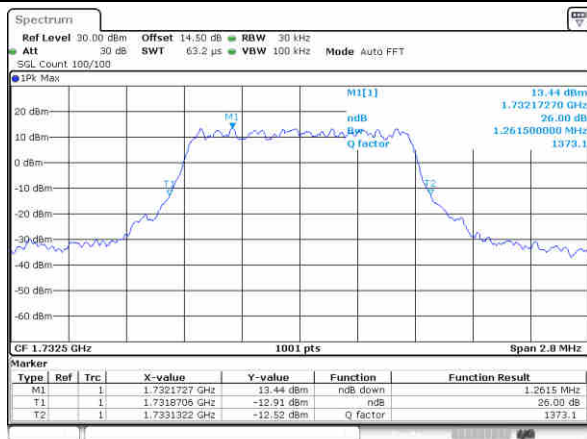
Date: 7, JUN, 2019 02:19:40

Lowest Channel / 1.4MHz / 16QAM



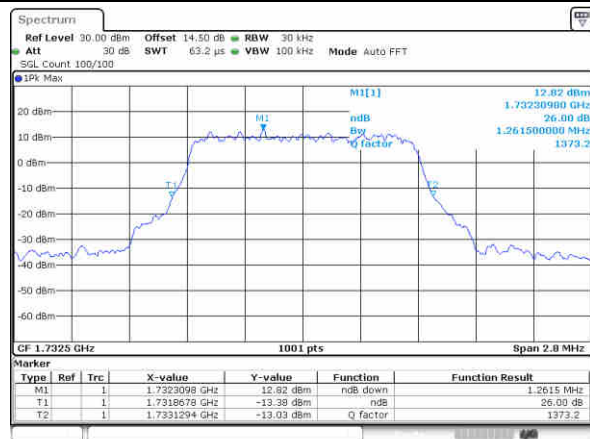
Date: 7, JUN, 2019 02:19:50

Middle Channel / 1.4MHz / QPSK



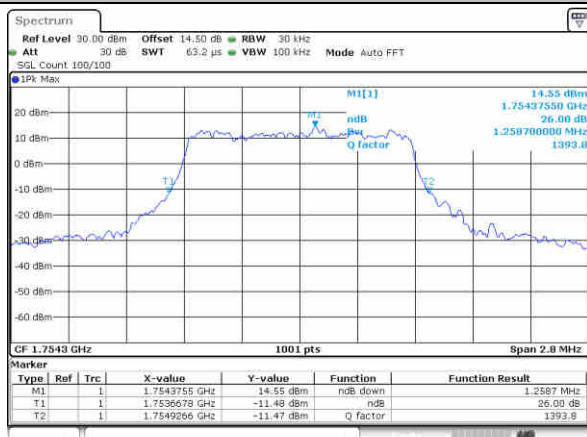
Date: 7, JUN, 2019 02:26:50

Middle Channel / 1.4MHz / 16QAM



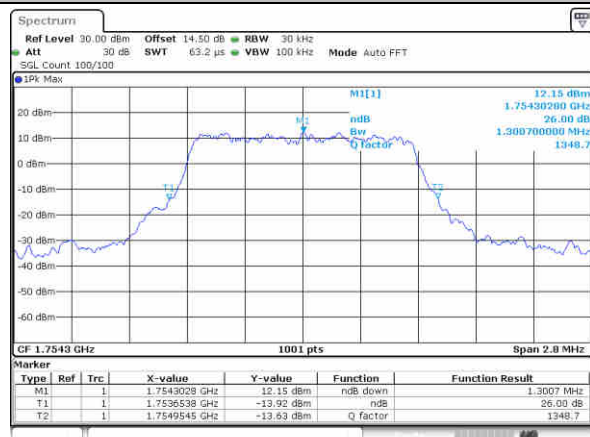
Date: 7, JUN, 2019 02:27:00

Highest Channel / 1.4MHz / QPSK



Date: 7, JUN, 2019 02:29:23

Highest Channel / 1.4MHz / 16QAM

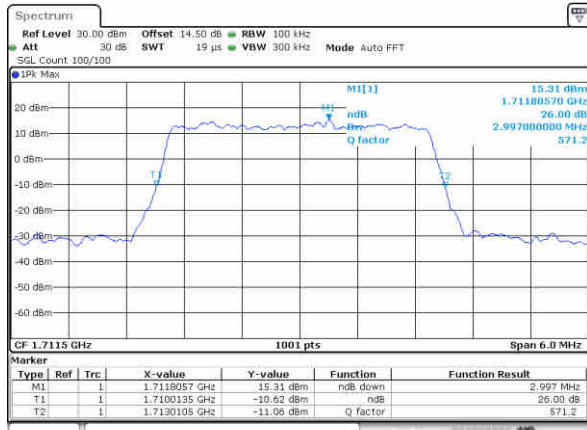


Date: 7, JUN, 2019 02:29:33



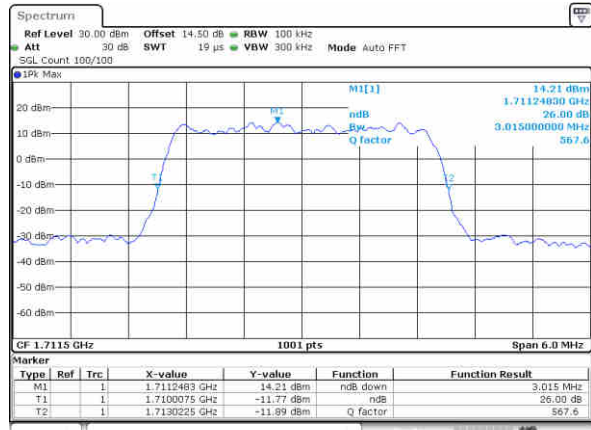
LTE Band 4

Lowest Channel / 3MHz / QPSK



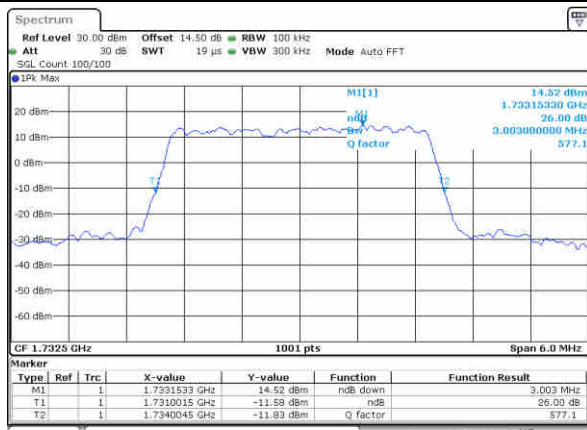
Date: 7, JUN, 2019 02:37:49

Lowest Channel / 3MHz / 16QAM



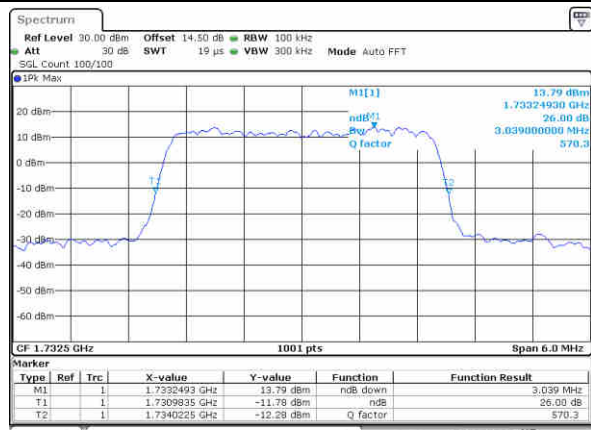
Date: 7, JUN, 2019 02:37:59

Middle Channel / 3MHz / QPSK



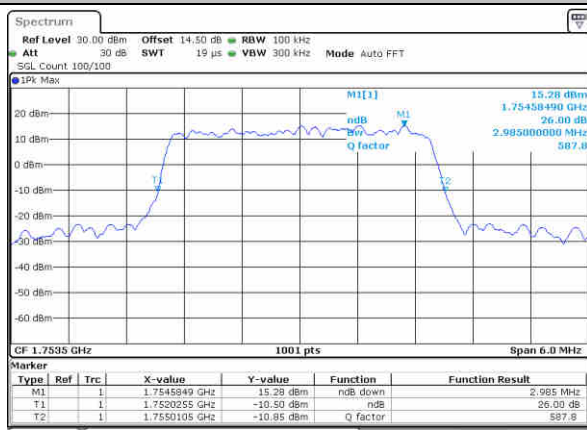
Date: 7, JUN, 2019 02:45:01

Middle Channel / 3MHz / 16QAM



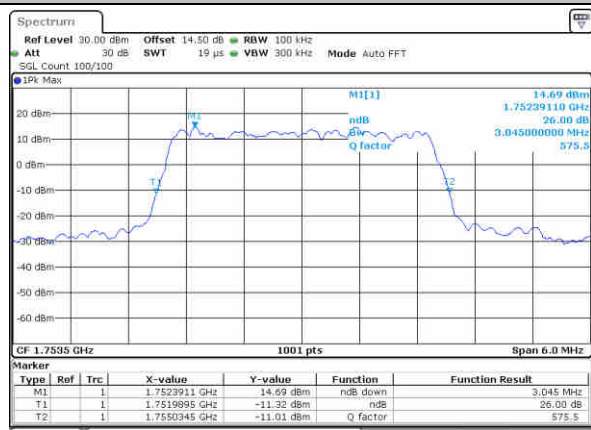
Date: 7, JUN, 2019 02:45:11

Highest Channel / 3MHz / QPSK



Date: 7, JUN, 2019 02:47:34

Highest Channel / 3MHz / 16QAM

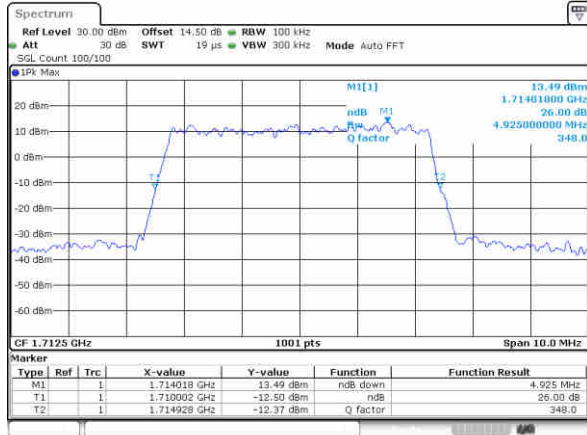


Date: 7, JUN, 2019 02:47:44



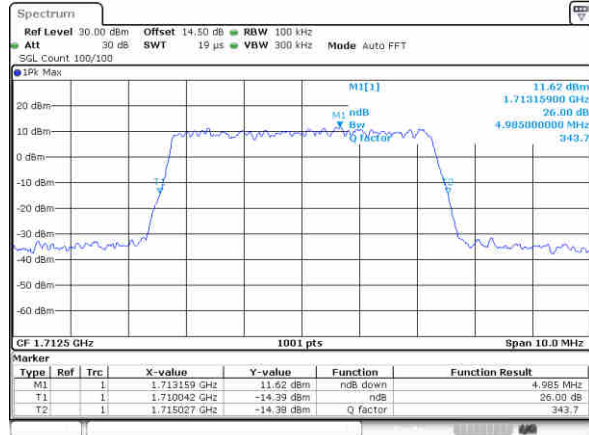
LTE Band 4

Lowest Channel / 5MHz / QPSK



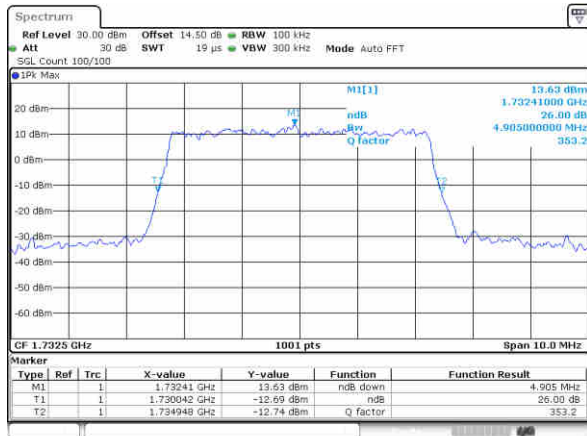
Date: 7, JUN, 2019 03:00:34

Lowest Channel / 5MHz / 16QAM



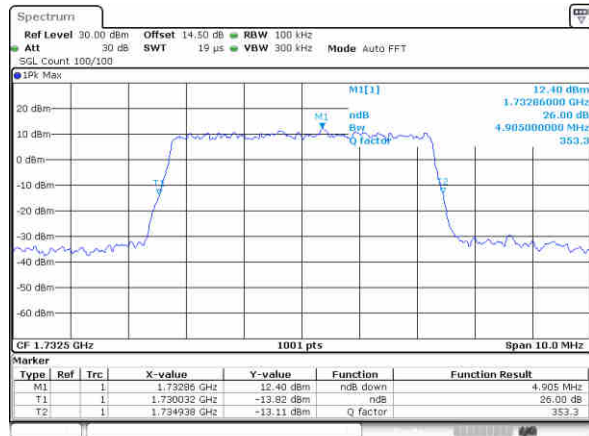
Date: 7, JUN, 2019 03:00:45

Middle Channel / 5MHz / QPSK



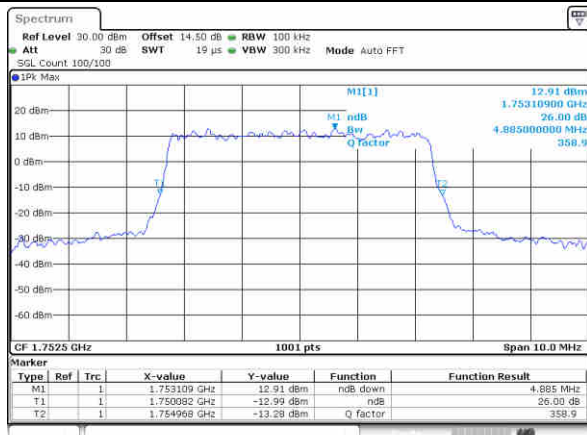
Date: 7, JUN, 2019 03:07:45

Middle Channel / 5MHz / 16QAM



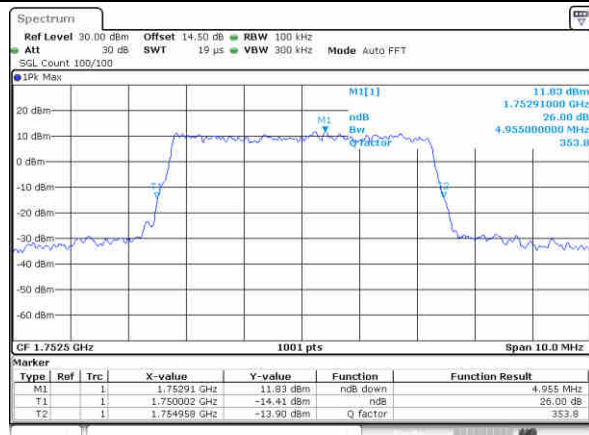
Date: 7, JUN, 2019 03:07:56

Highest Channel / 5MHz / QPSK



Date: 7, JUN, 2019 03:10:19

Highest Channel / 5MHz / 16QAM

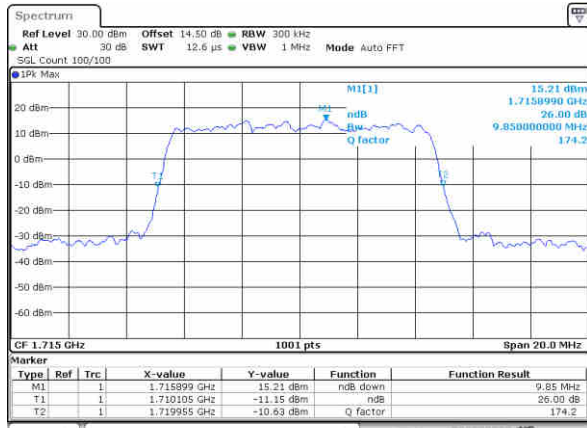


Date: 7, JUN, 2019 03:10:29



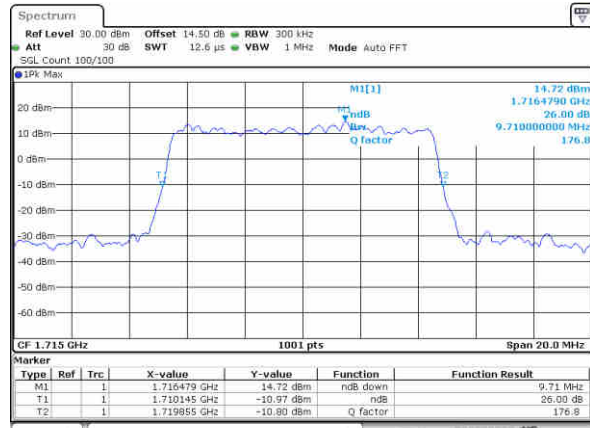
LTE Band 4

Lowest Channel / 10MHz / QPSK



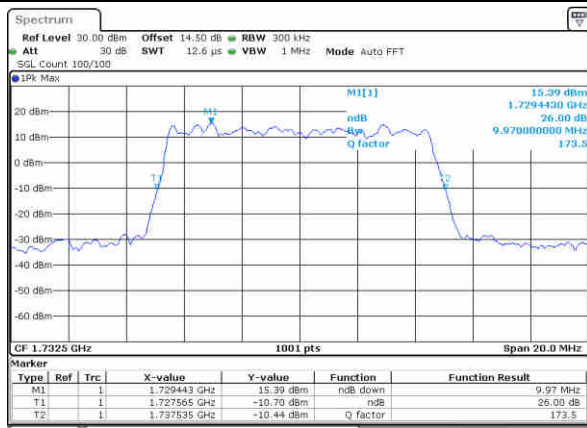
Date: 7, JUN, 2019 03:32:38

Lowest Channel / 10MHz / 16QAM



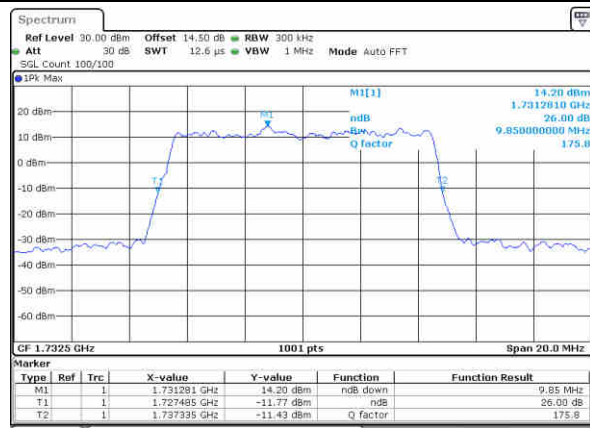
Date: 7, JUN, 2019 03:32:48

Middle Channel / 10MHz / QPSK



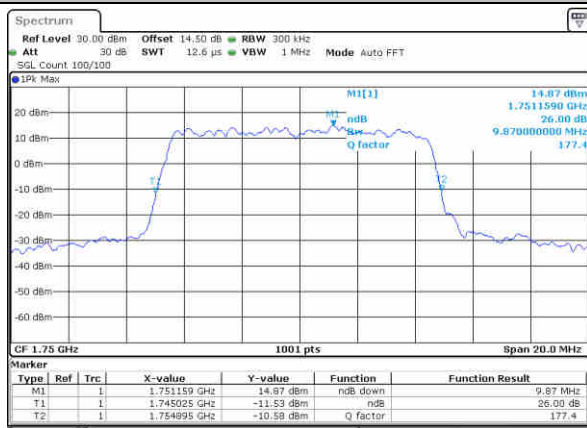
Date: 7, JUN, 2019 03:39:46

Middle Channel / 10MHz / 16QAM



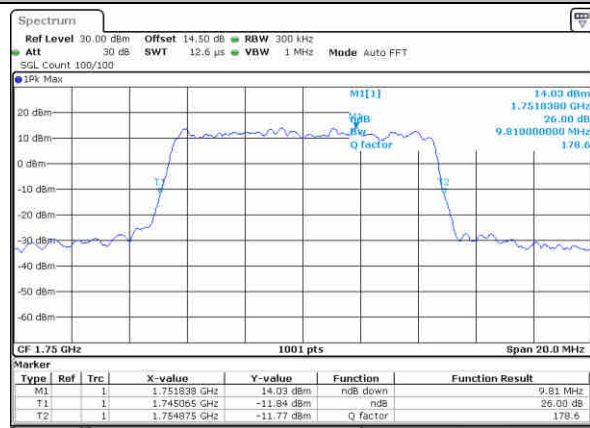
Date: 7, JUN, 2019 03:39:56

Highest Channel / 10MHz / QPSK



Date: 7, JUN, 2019 03:42:22

Highest Channel / 10MHz / 16QAM

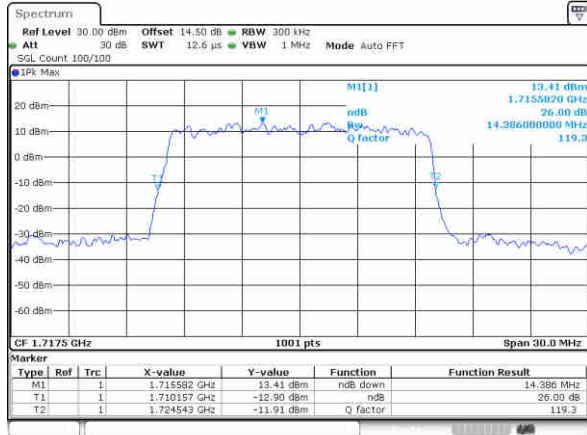


Date: 7, JUN, 2019 03:42:32

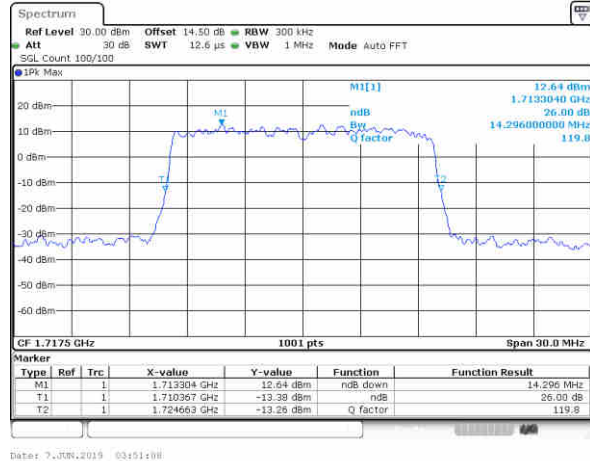


LTE Band 4

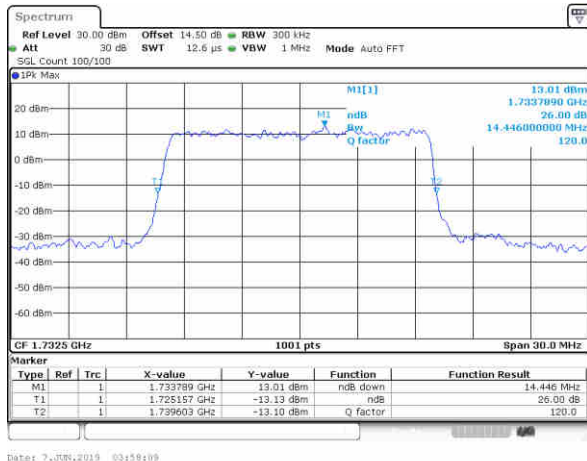
Lowest Channel / 15MHz / QPSK



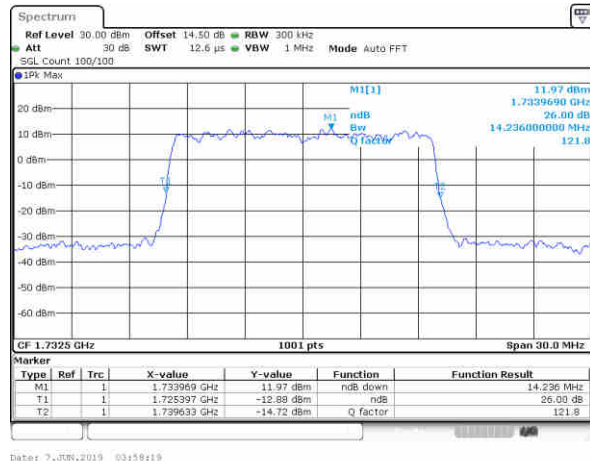
Lowest Channel / 15MHz / 16QAM



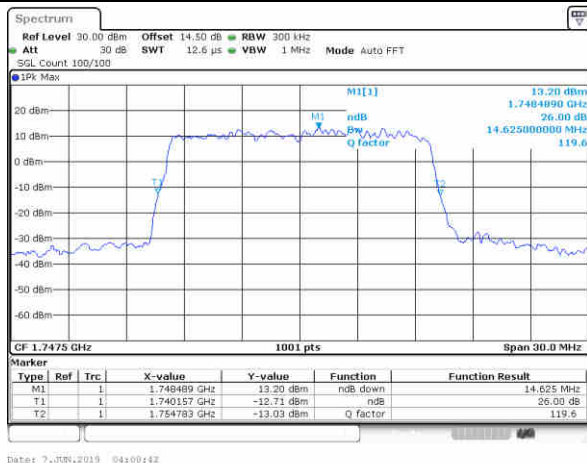
Middle Channel / 15MHz / QPSK



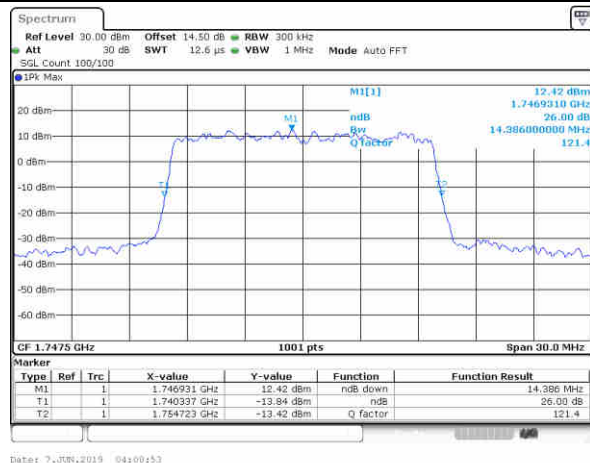
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



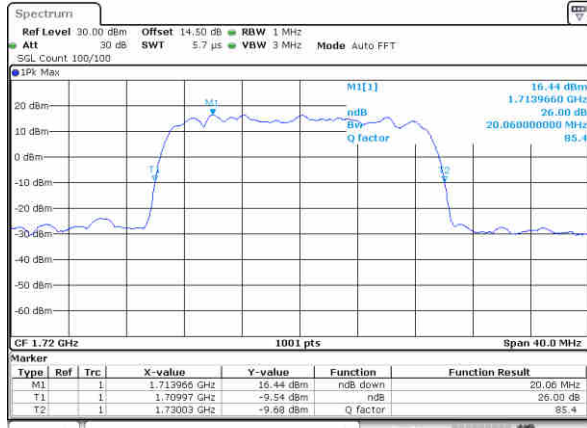
Highest Channel / 15MHz / 16QAM



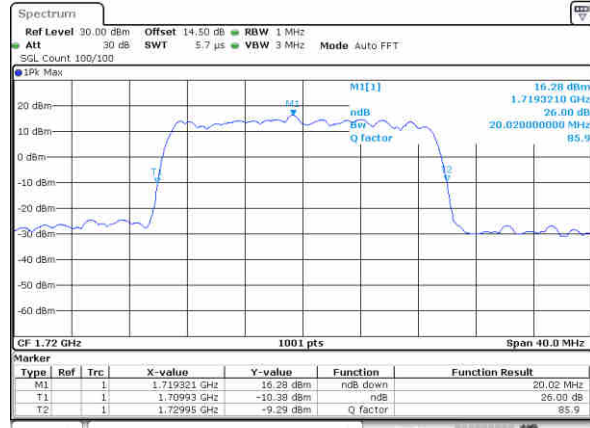


LTE Band 4

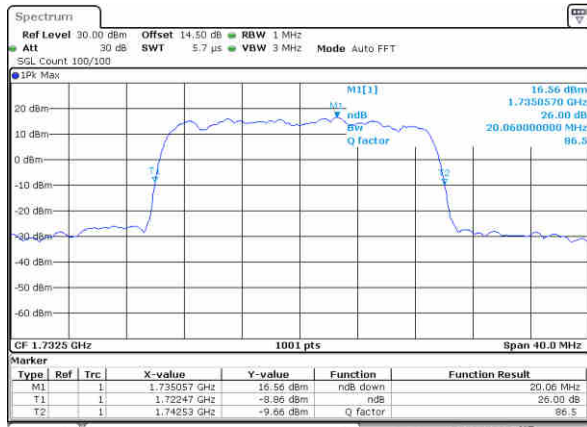
Lowest Channel / 20MHz / QPSK



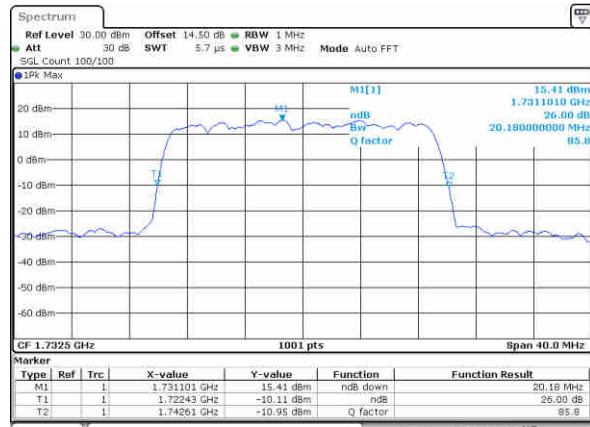
Lowest Channel / 20MHz / 16QAM



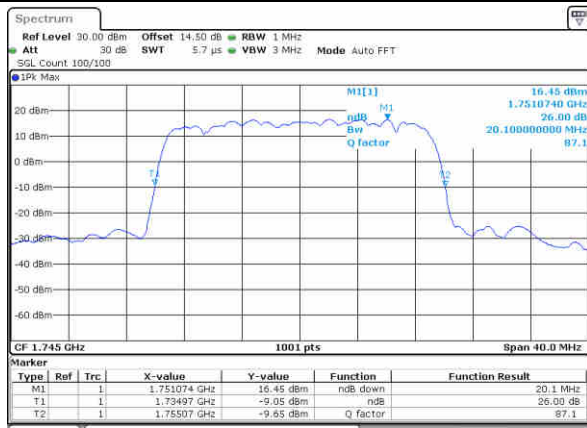
Middle Channel / 20MHz / QPSK



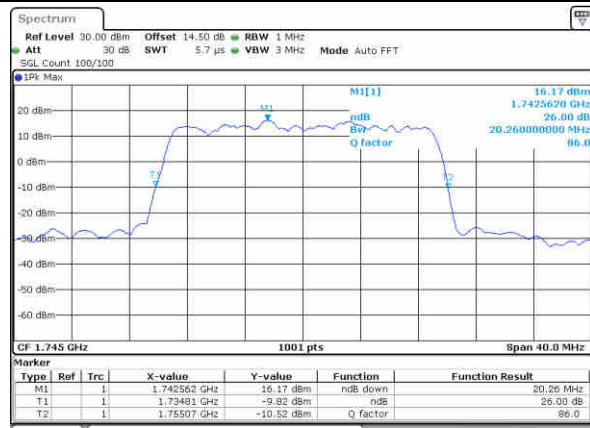
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM



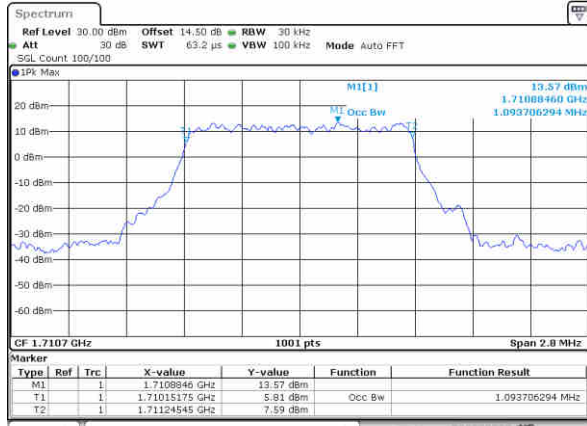
**Occupied Bandwidth**

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	2.71	2.72	4.49	4.49	9.01	8.97	13.4	13.4	18.22	18.22
Middle CH	1.09	1.09	2.73	2.73	4.5	4.49	8.97	9.05	13.43	13.46	18.14	18.26
Highest CH	1.09	1.1	2.73	2.71	4.5	4.5	9.03	8.97	13.43	13.43	18.38	18.46

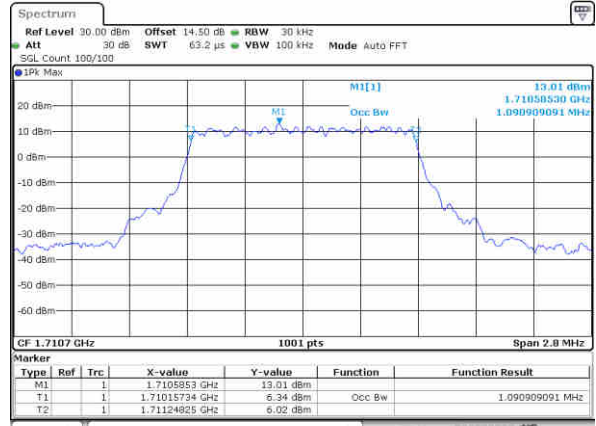


LTE Band 4

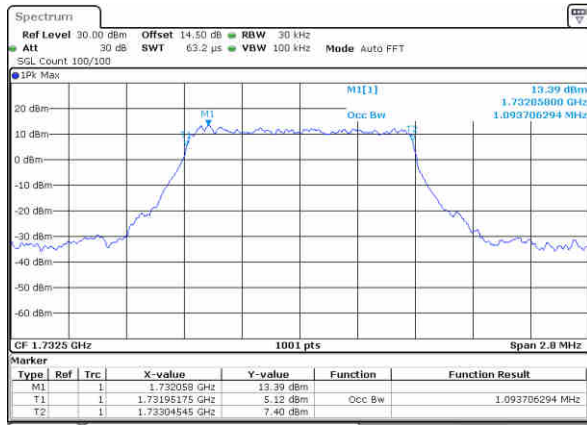
Lowest Channel / 1.4MHz / QPSK



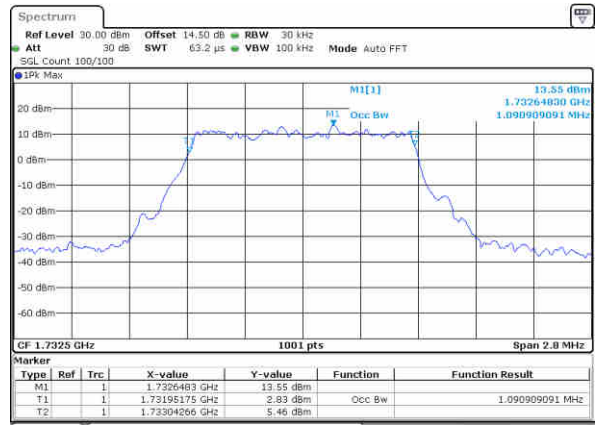
Lowest Channel / 1.4MHz / 16QAM



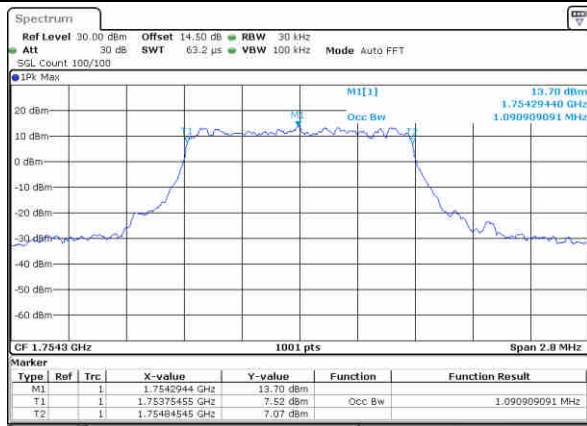
Middle Channel / 1.4MHz / QPSK



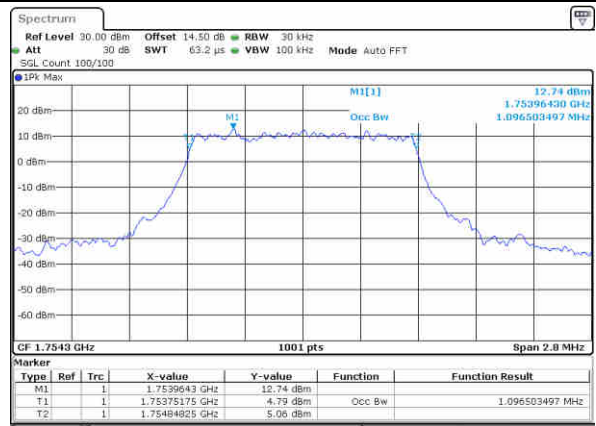
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



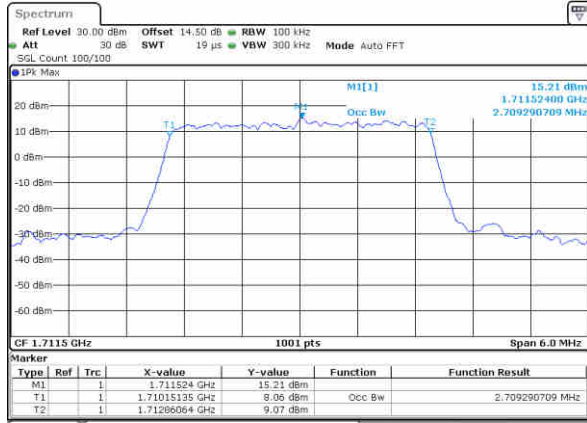
Highest Channel / 1.4MHz / 16QAM



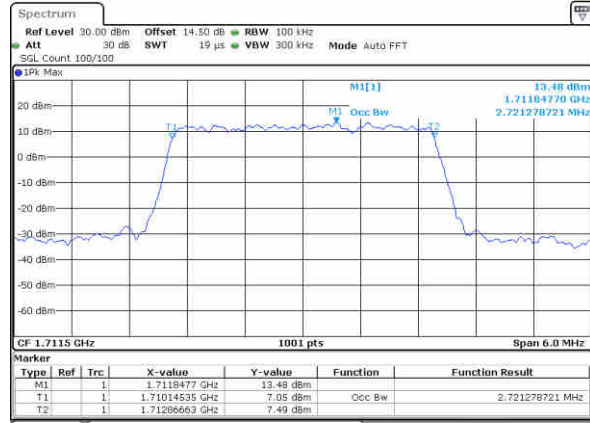


LTE Band 4

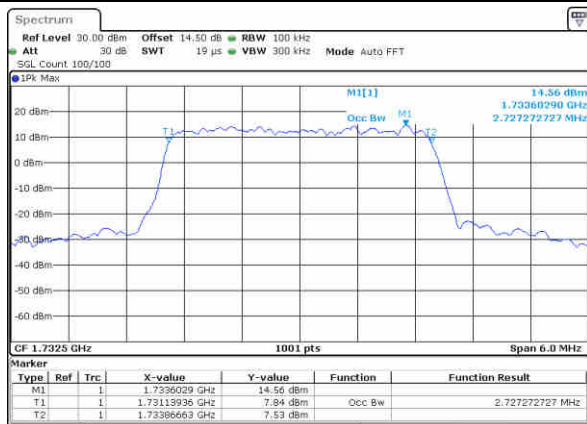
Lowest Channel / 3MHz / QPSK



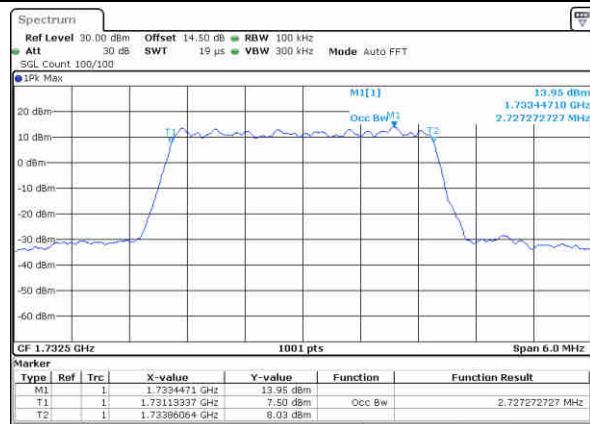
Lowest Channel / 3MHz / 16QAM



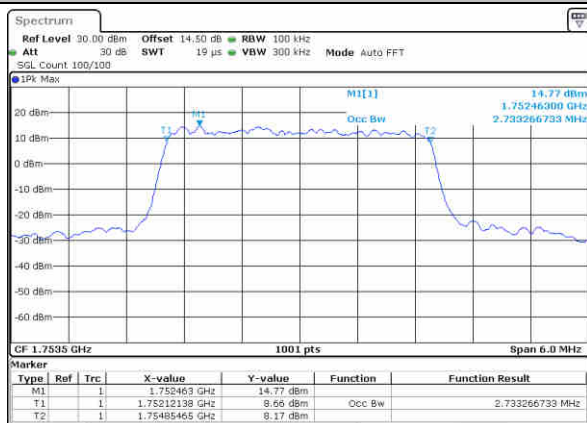
Middle Channel / 3MHz / QPSK



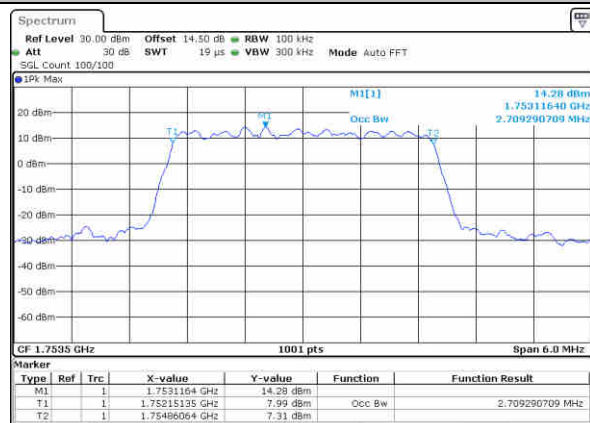
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



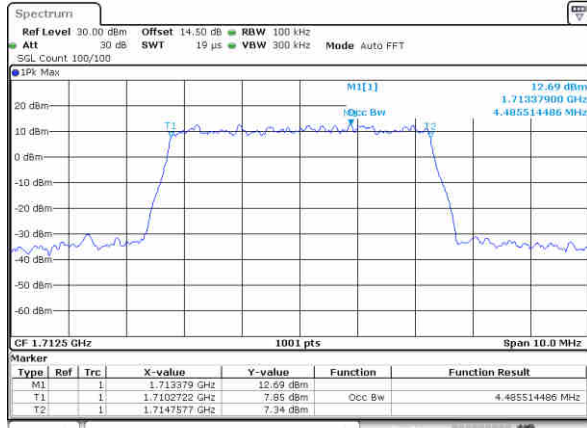
Highest Channel / 3MHz / 16QAM





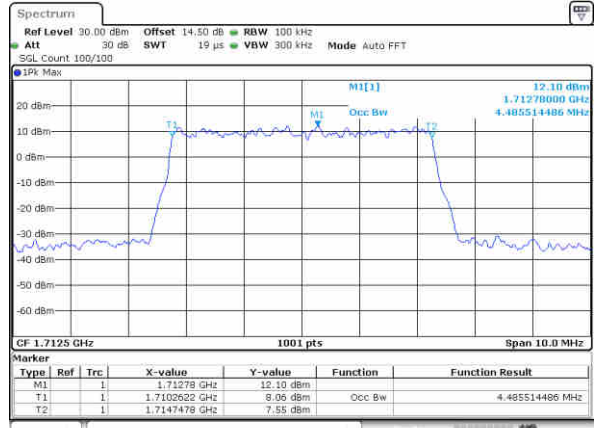
LTE Band 4

Lowest Channel / 5MHz / QPSK



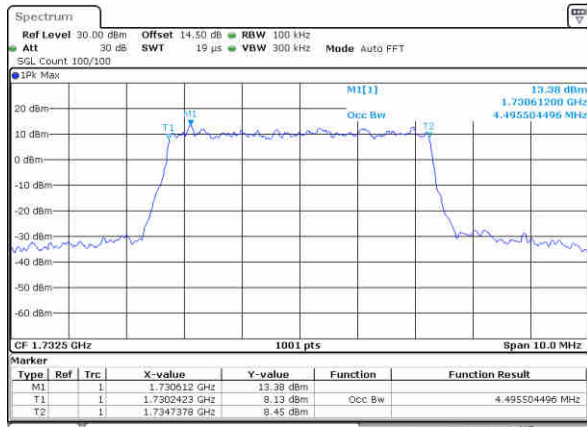
Date: 7, JUN, 2019 03:00:14

Lowest Channel / 5MHz / 16QAM



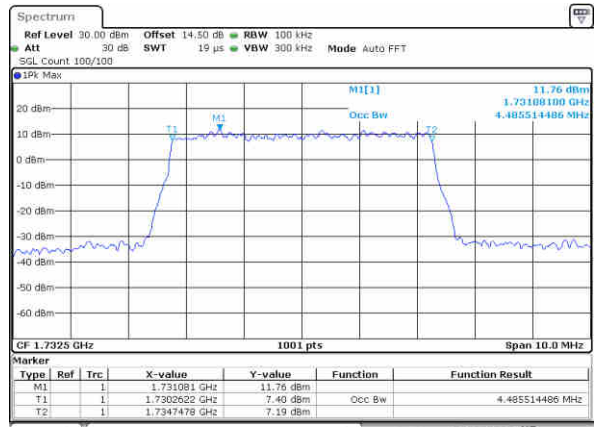
Date: 7, JUN, 2019 03:00:24

Middle Channel / 5MHz / QPSK



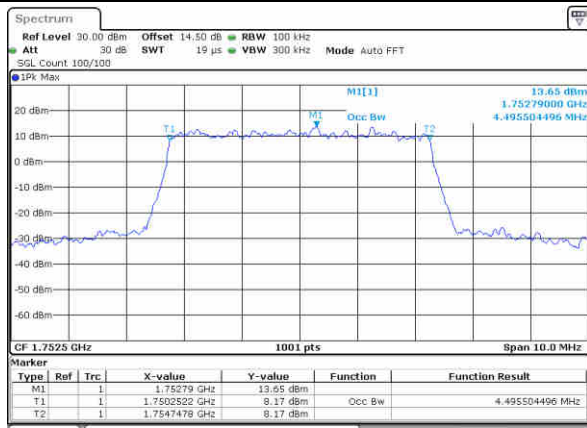
Date: 7, JUN, 2019 03:07:25

Middle Channel / 5MHz / 16QAM



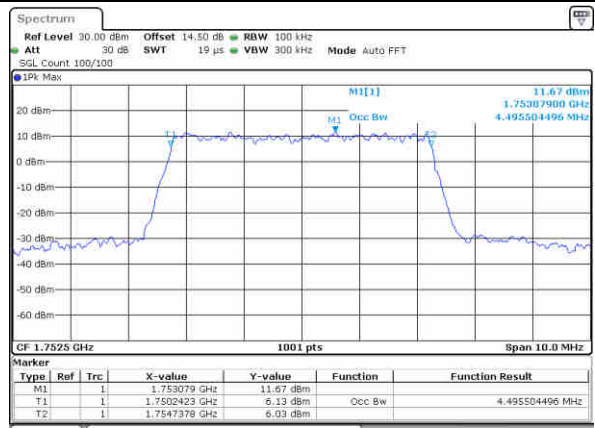
Date: 7, JUN, 2019 03:07:35

Highest Channel / 5MHz / QPSK



Date: 7, JUN, 2019 03:09:58

Highest Channel / 5MHz / 16QAM

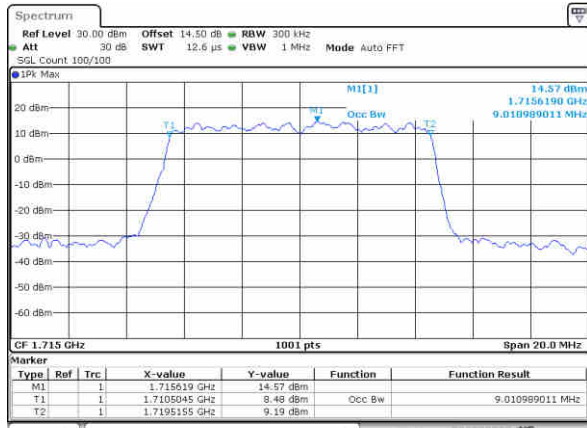


Date: 7, JUN, 2019 03:10:09



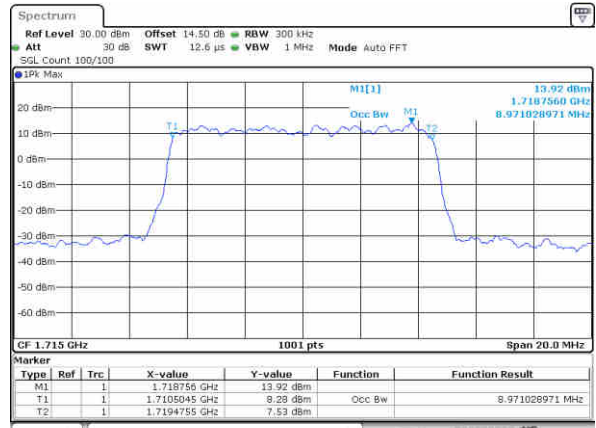
LTE Band 4

Lowest Channel / 10MHz / QPSK



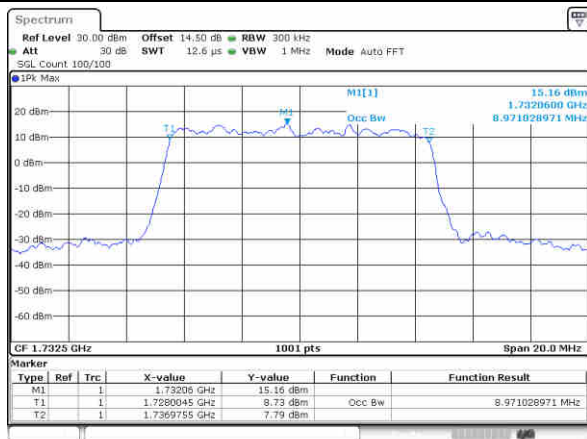
Date: 7, JUN, 2019 03:32:17

Lowest Channel / 10MHz / 16QAM



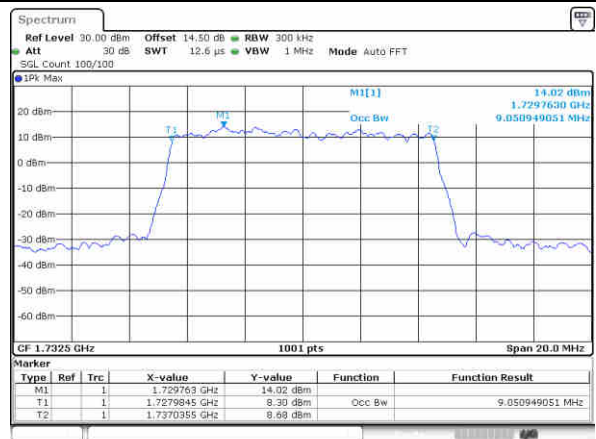
Date: 7, JUN, 2019 03:32:27

Middle Channel / 10MHz / QPSK



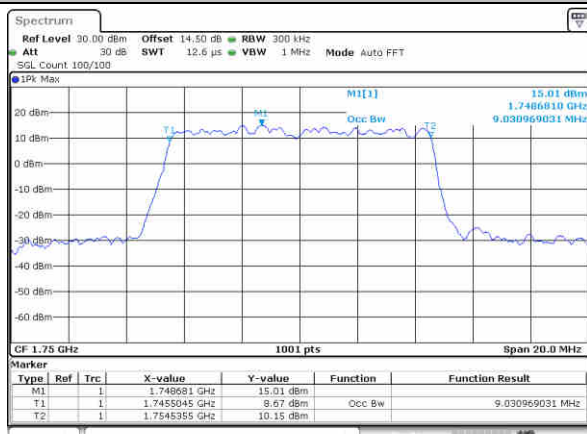
Date: 7, JUN, 2019 03:39:28

Middle Channel / 10MHz / 16QAM



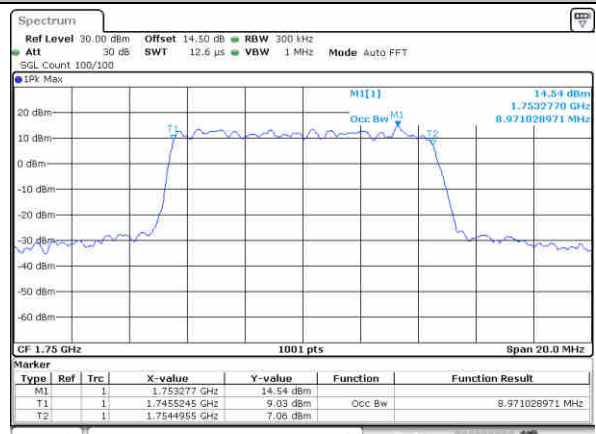
Date: 7, JUN, 2019 03:39:38

Highest Channel / 10MHz / QPSK



Date: 7, JUN, 2019 03:42:01

Highest Channel / 10MHz / 16QAM

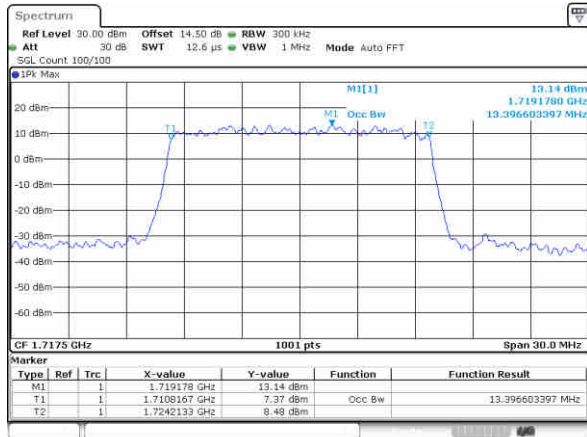


Date: 7, JUN, 2019 03:42:12

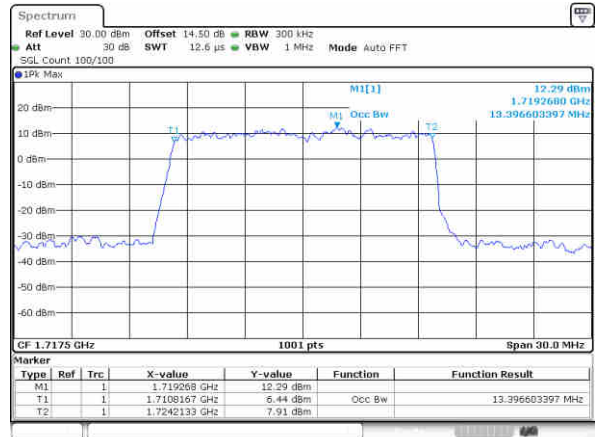


LTE Band 4

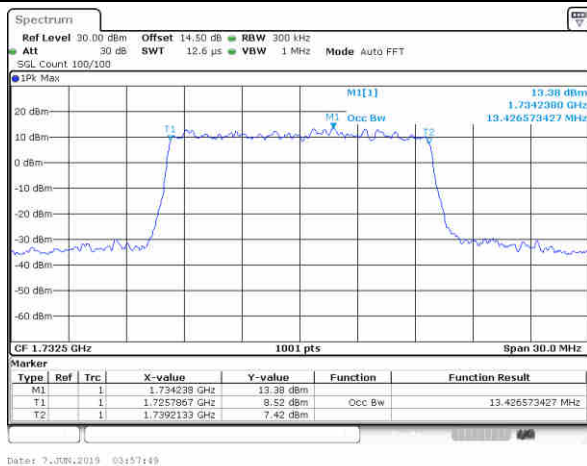
Lowest Channel / 15MHz / QPSK



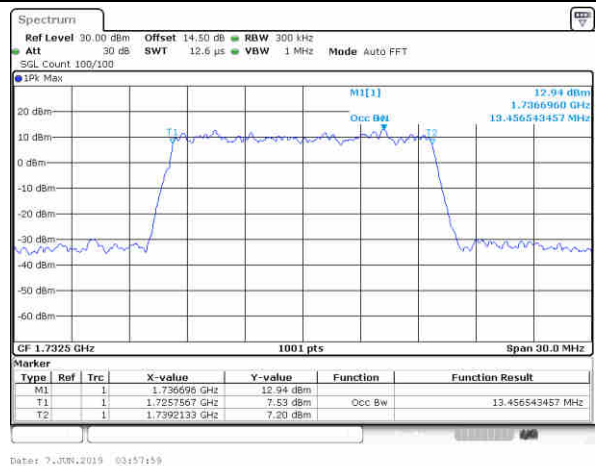
Lowest Channel / 15MHz / 16QAM



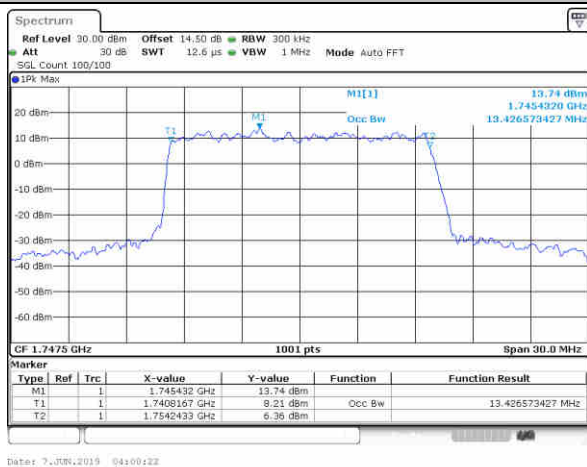
Middle Channel / 15MHz / QPSK



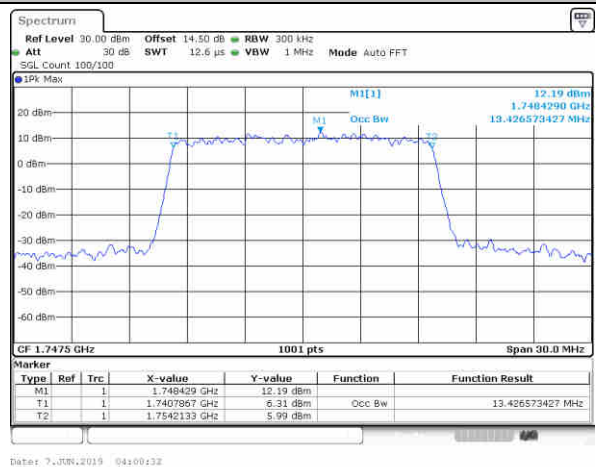
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



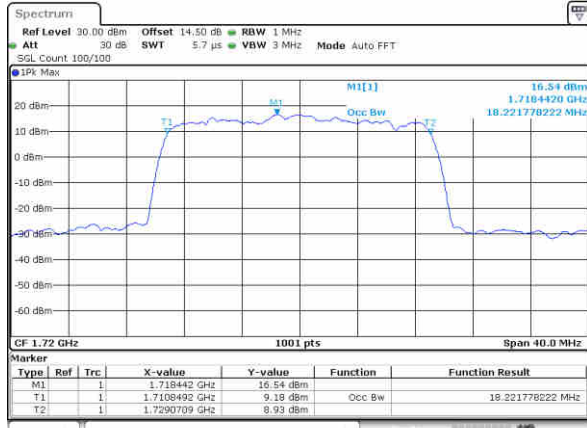
Highest Channel / 15MHz / 16QAM



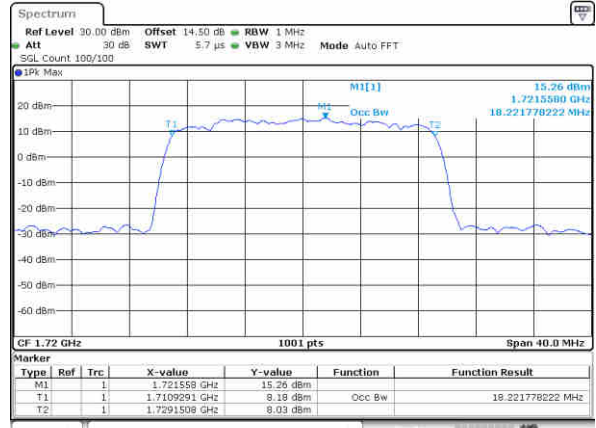


LTE Band 4

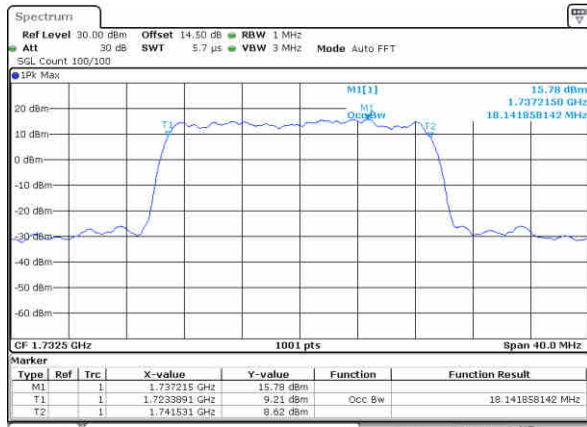
Lowest Channel / 20MHz / QPSK



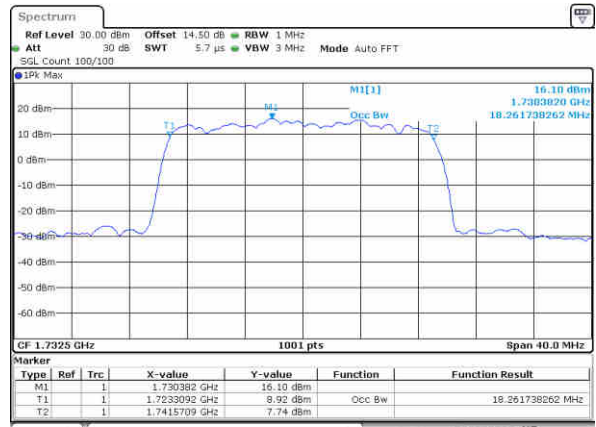
Lowest Channel / 20MHz / 16QAM



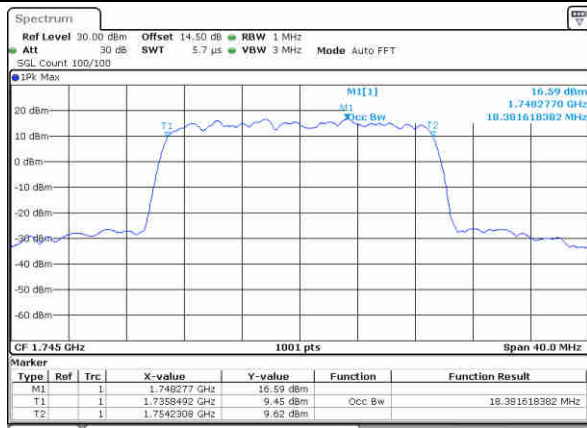
Middle Channel / 20MHz / QPSK



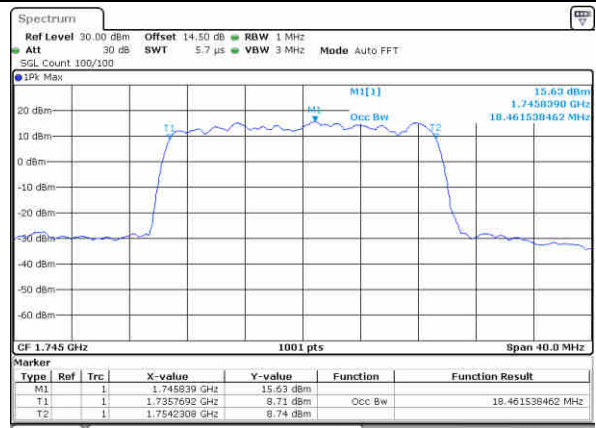
Middle Channel / 20MHz / 16QAM

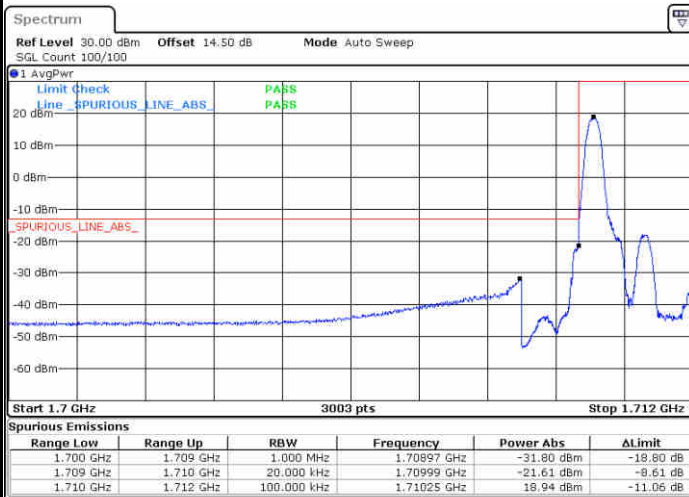
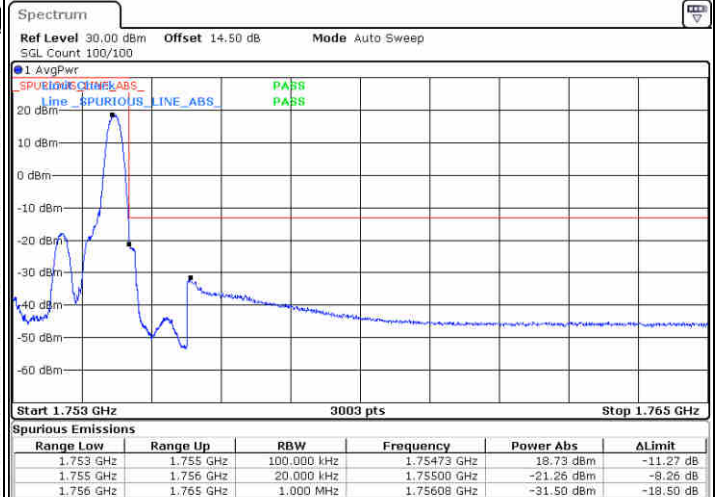


Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM

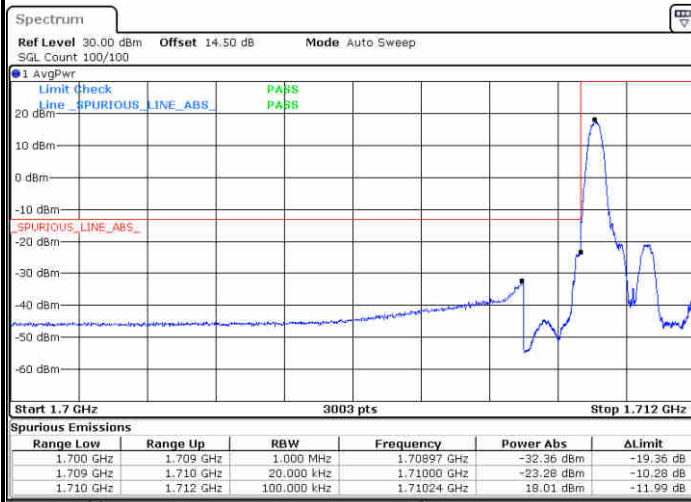


**Conducted Band Edge****LTE Band 4 / 1.4MHz / QPSK****Lowest Band Edge / 1RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**



LTE Band 4 / 1.4MHz / 16QAM

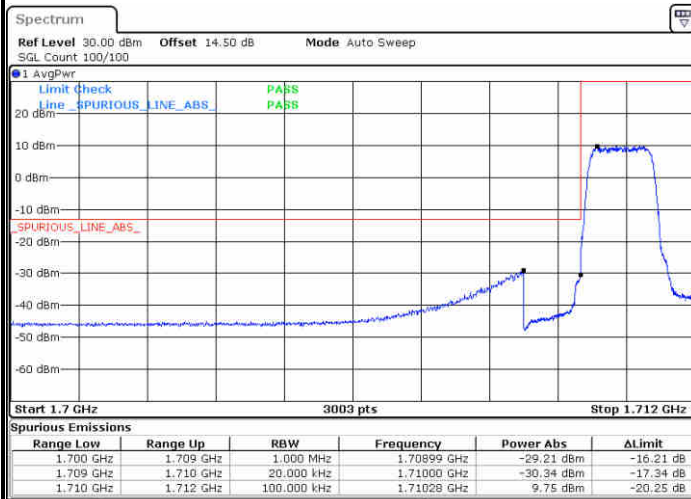
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



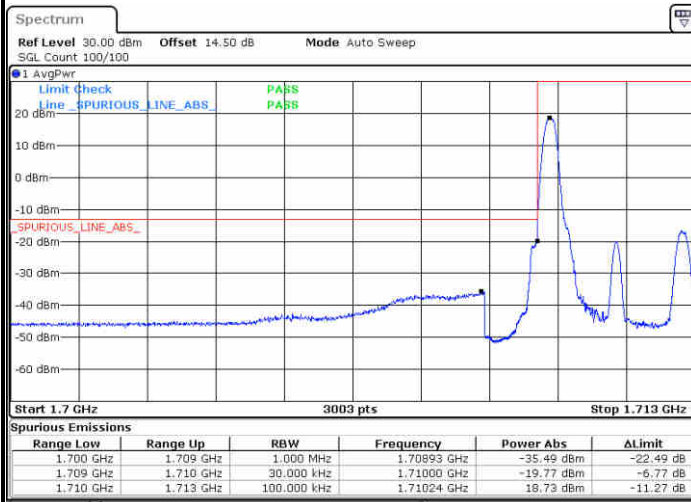
Highest Band Edge / Full RB



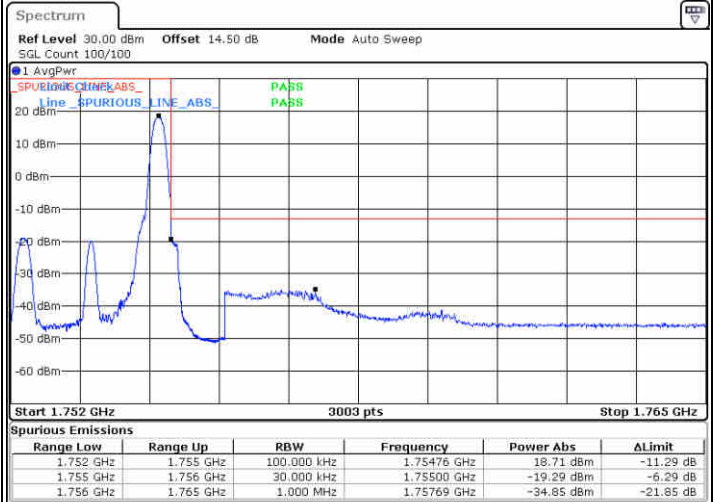


LTE Band 4 / 3MHz / QPSK

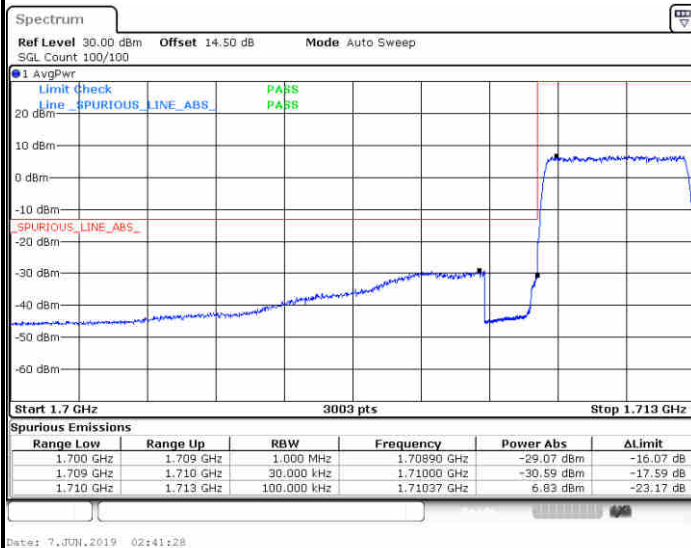
Lowest Band Edge / 1RB



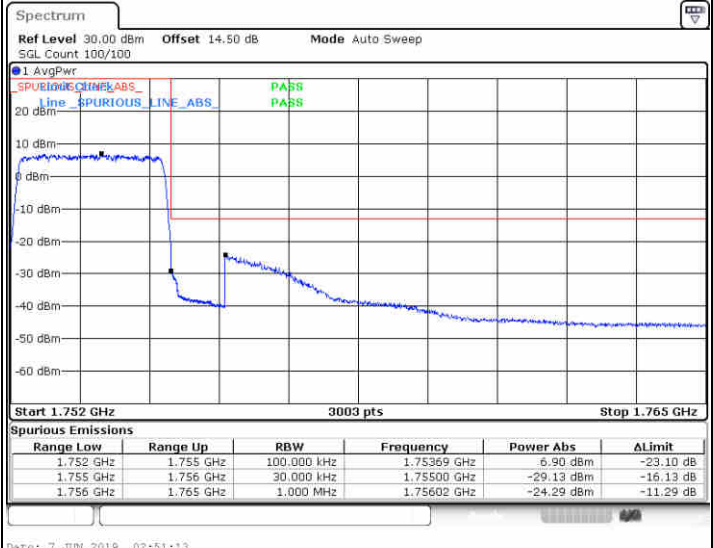
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



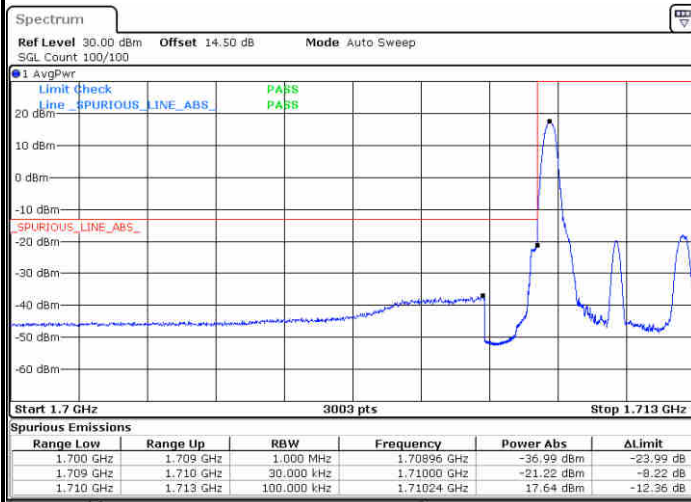
Highest Band Edge / Full RB



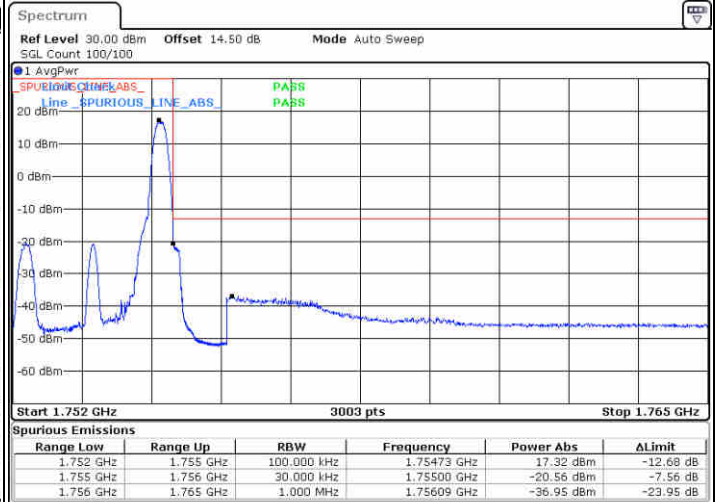


LTE Band 4 / 3MHz / 16QAM

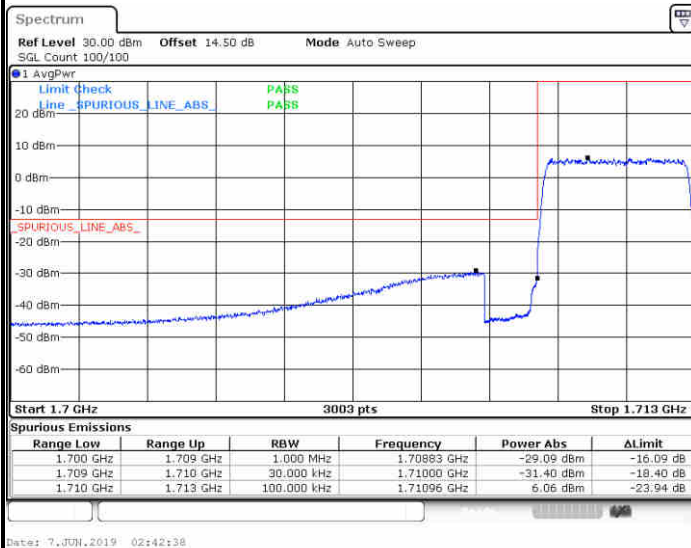
Lowest Band Edge / 1 RB



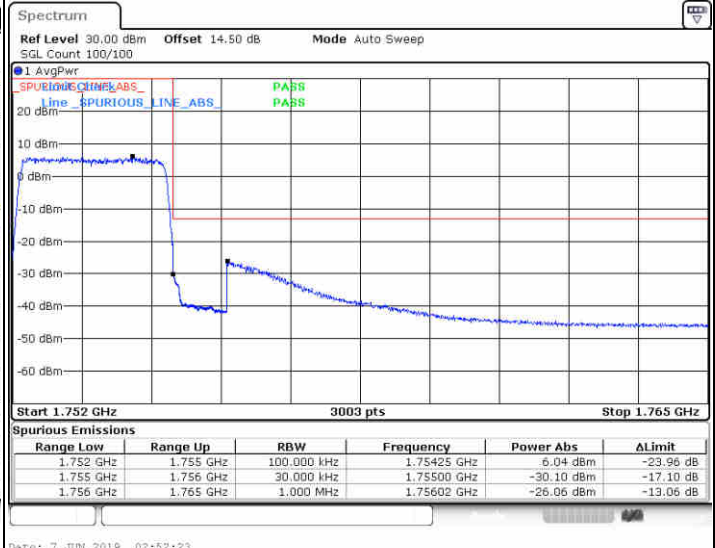
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



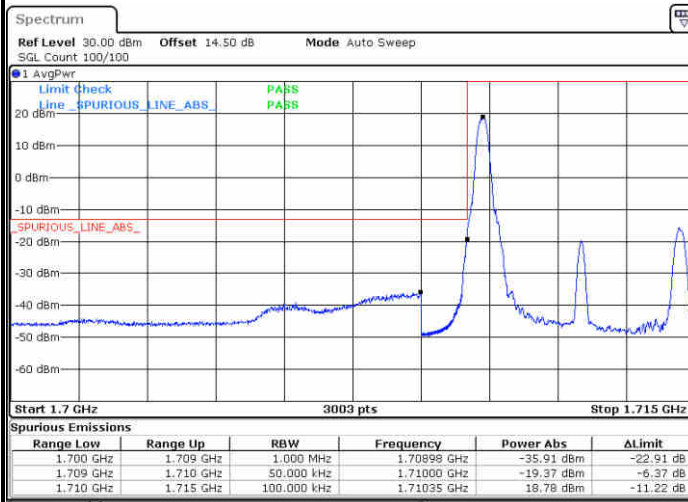
Highest Band Edge / Full RB



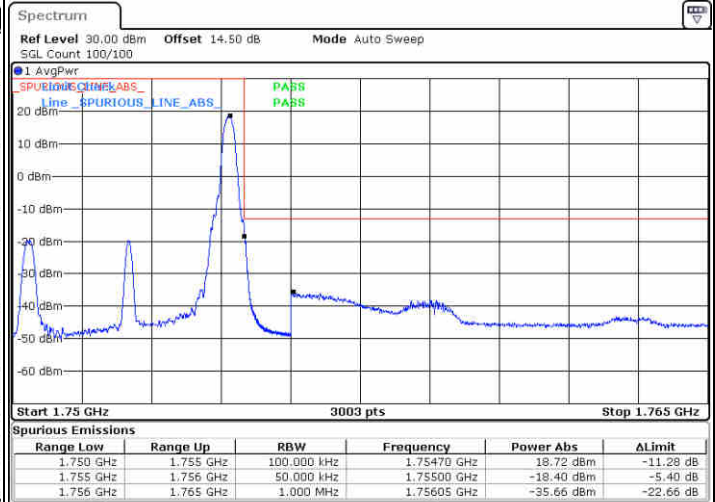


LTE Band 4 / 5MHz / QPSK

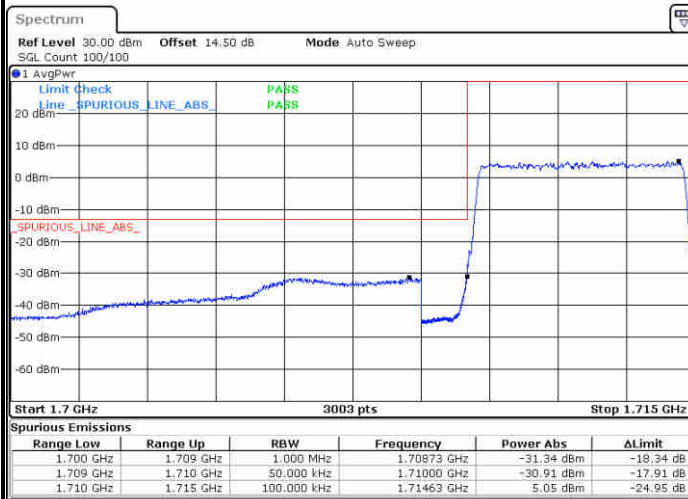
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

