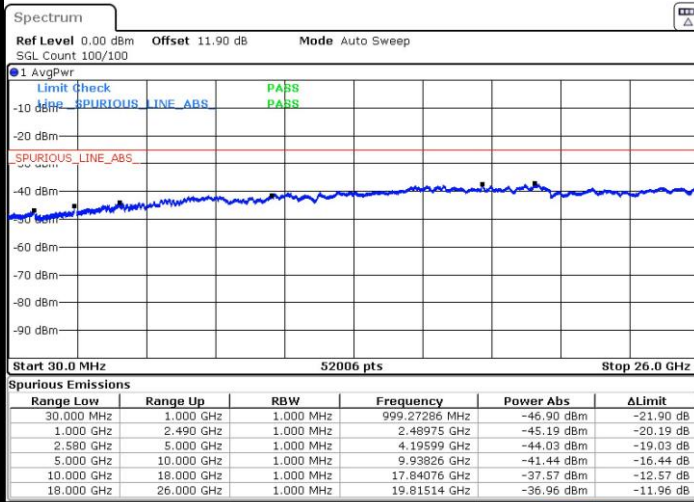




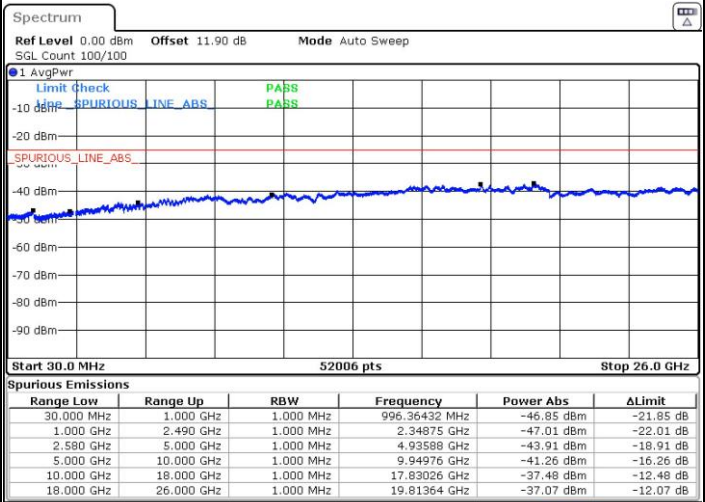
LTE Band 7 / 5MHz

Lowest Channel / 64QAM



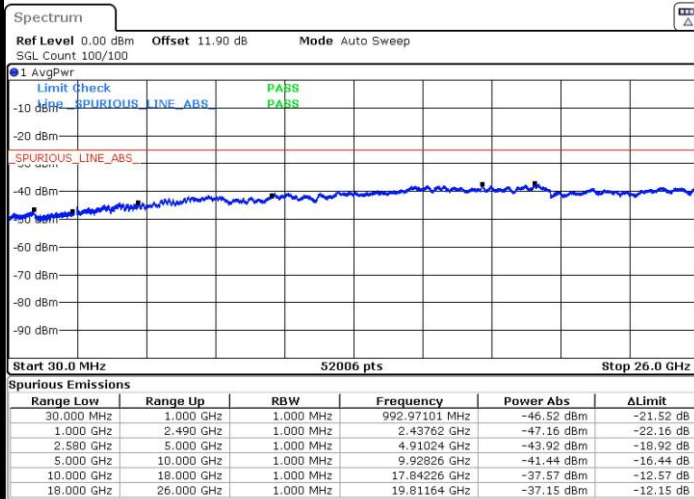
Date: 28 JUN 2019 15:49:57

Middle Channel / 64QAM



Date: 28 JUN 2019 15:51:06

Highest Channel / 64QAM

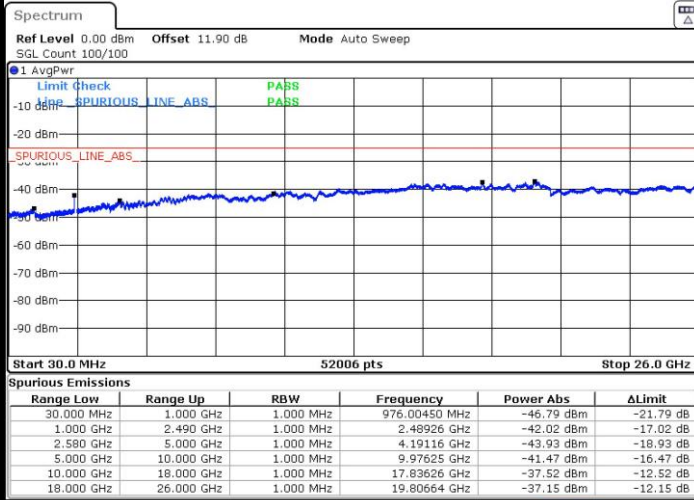


Date: 28 JUN 2019 15:53:29



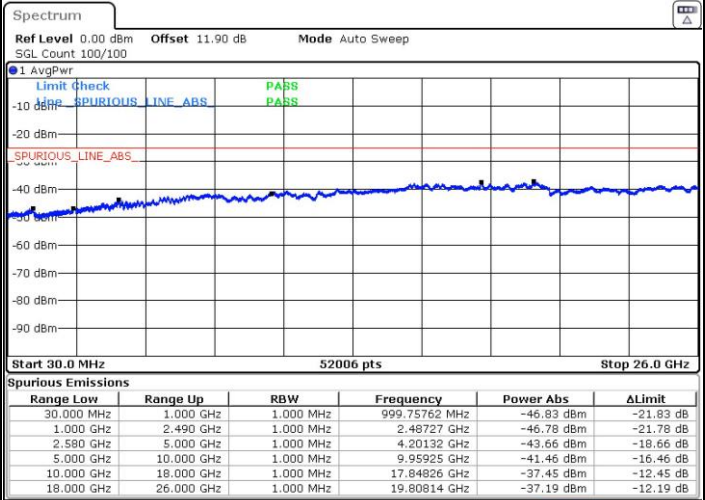
LTE Band 7 / 10MHz

Lowest Channel / 64QAM



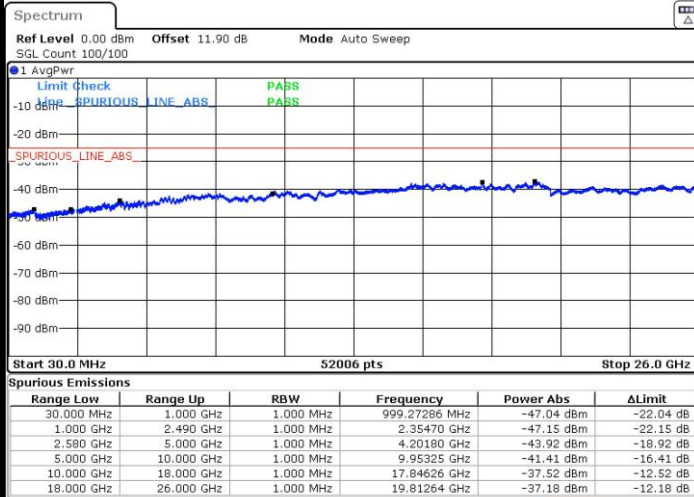
Date: 28 JUN 2019 16:19:54

Middle Channel / 64QAM



Date: 28 JUN 2019 16:21:03

Highest Channel / 64QAM

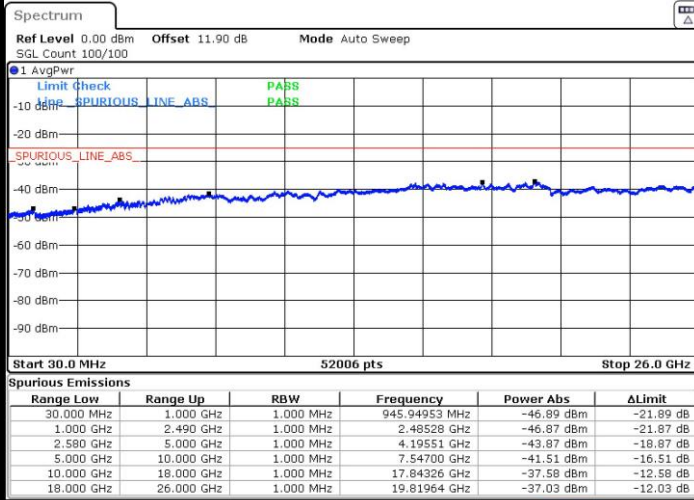


Date: 28 JUN 2019 16:23:26



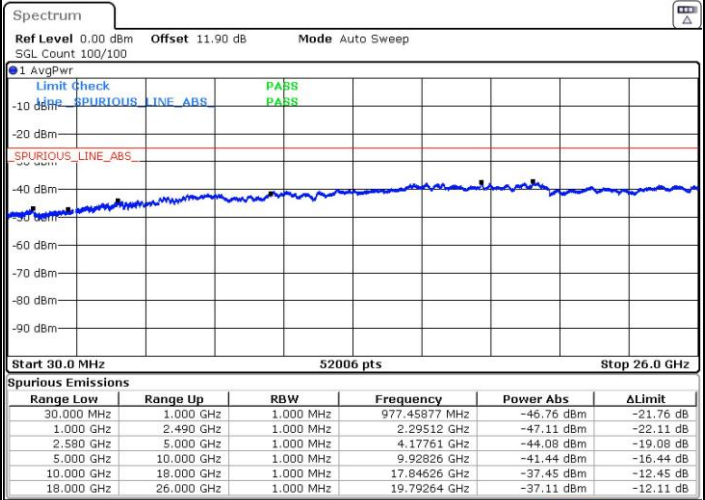
LTE Band 7 / 15MHz

Lowest Channel / 64QAM



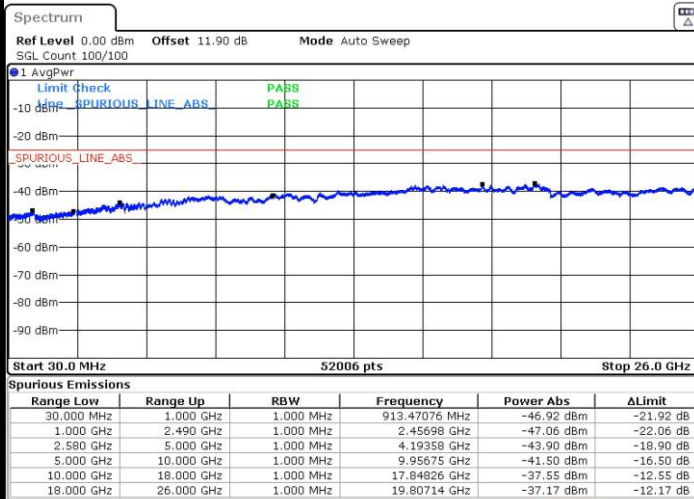
Date: 28 JUN 2019 16:37:44

Middle Channel / 64QAM



Date: 28 JUN 2019 16:38:53

Highest Channel / 64QAM

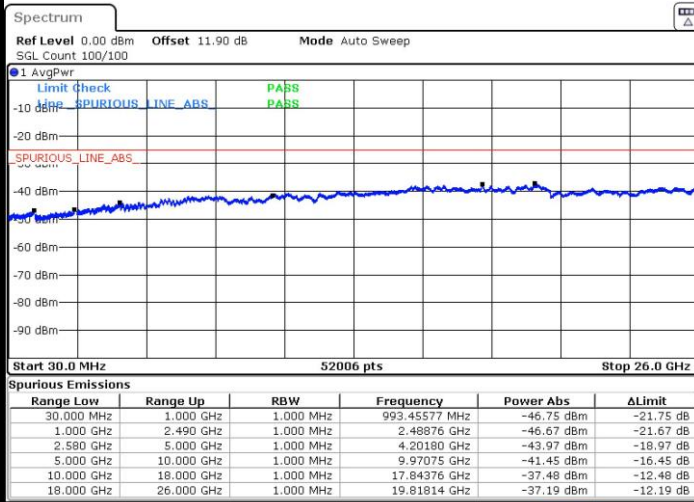


Date: 28 JUN 2019 16:41:16



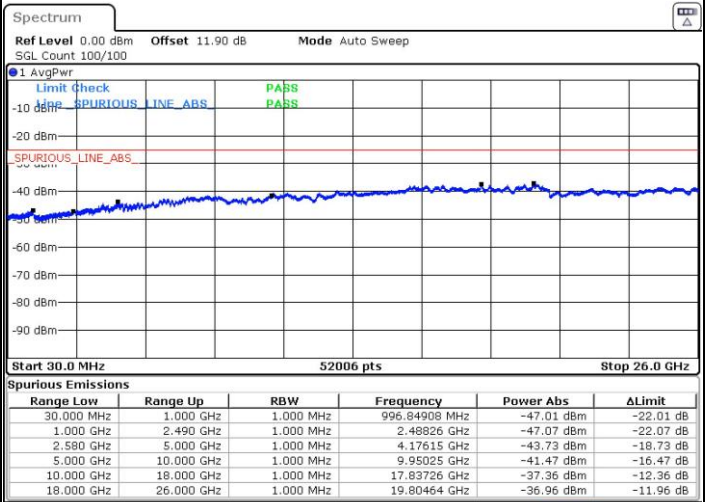
LTE Band 7 / 20MHz

Lowest Channel / 64QAM



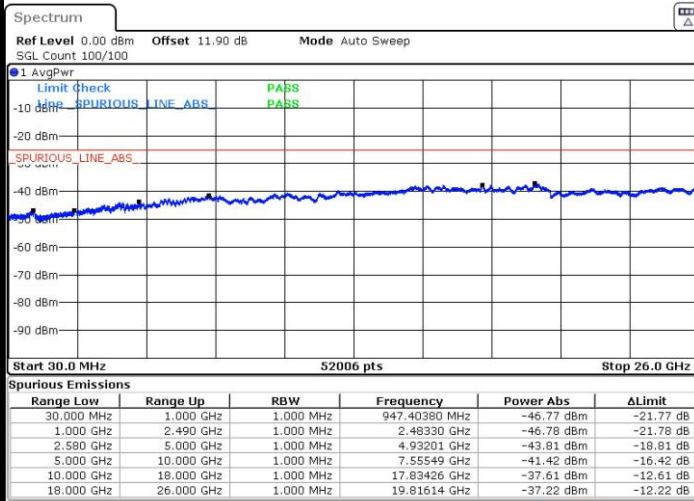
Date: 28 JUN 2019 16:55:34

Middle Channel / 64QAM



Date: 28 JUN 2019 16:56:42

Highest Channel / 64QAM



Date: 28 JUN 2019 16:59:06

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0030	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0030	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0059	
20	Maximum Voltage	0.0068	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0035	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 12

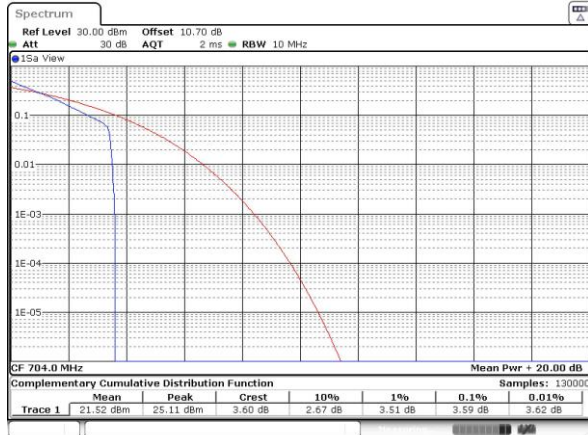
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.59	4.84	3.86	5.77	PASS
Middle CH	3.54	4.90	3.97	5.86	
Highest CH	3.54	5.01	4.06	5.74	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.57	6.38	-	-	PASS
Middle CH	5.22	6.38	-	-	
Highest CH	5.07	6.23	-	-	

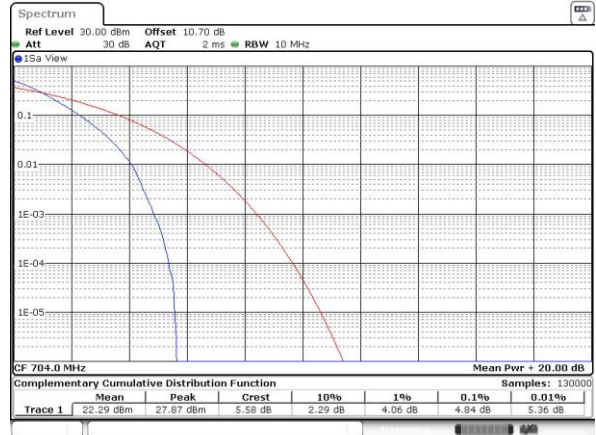


LTE Band 12 / 10MHz / QPSK

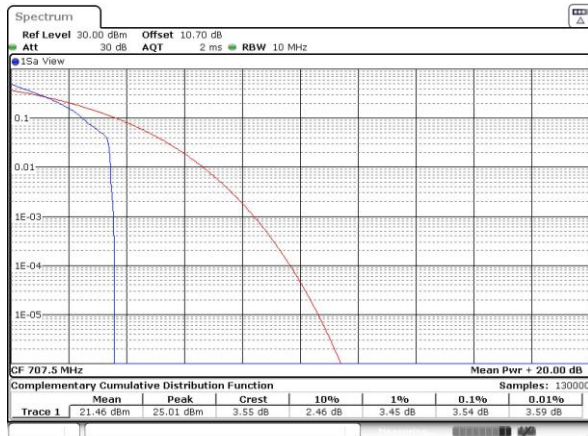
Lowest Channel / 1RB



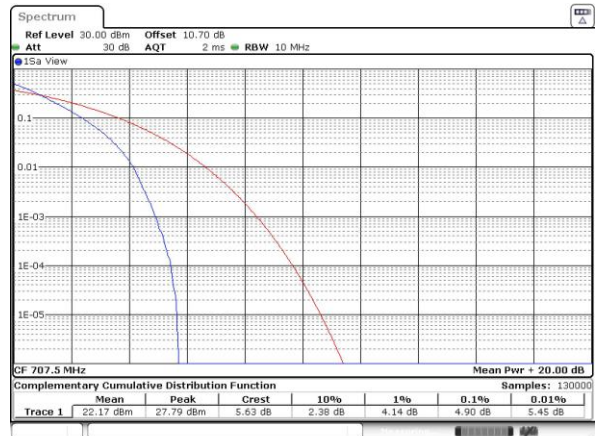
Lowest Channel / Full RB



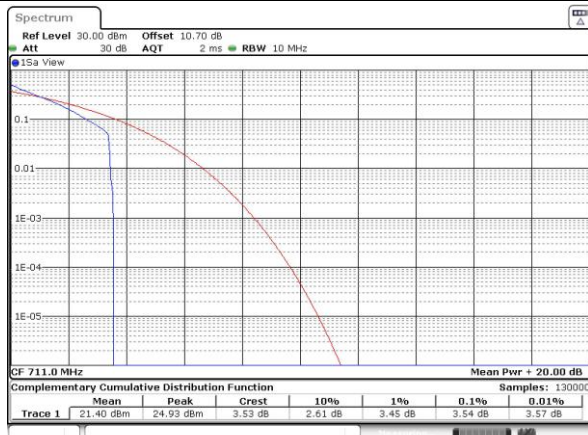
Middle Channel / 1RB



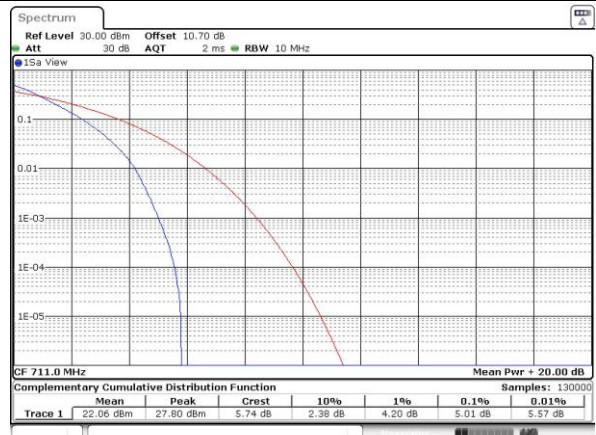
Middle Channel / Full RB

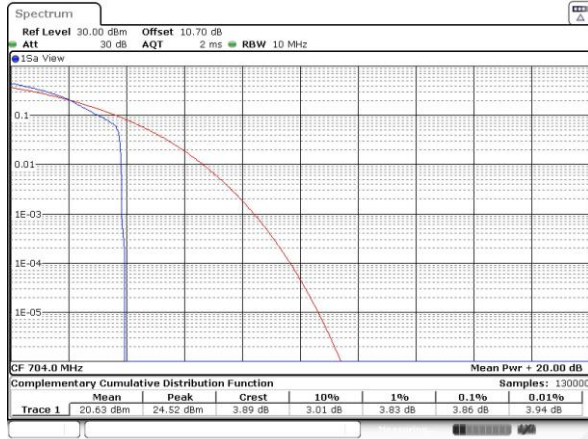


Highest Channel / 1RB

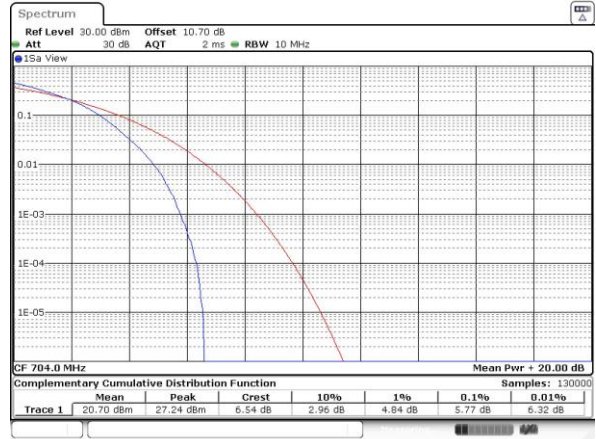


Highest Channel / Full RB



LTE Band 12 / 10MHz / 16QAM
Lowest Channel / 1RB


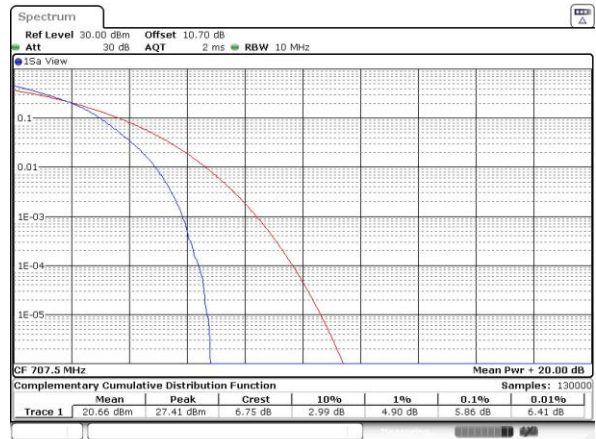
Date: 28 JUN 2019 19:31:22

Lowest Channel / Full RB


Date: 28 JUN 2019 19:31:07

Middle Channel / 1RB

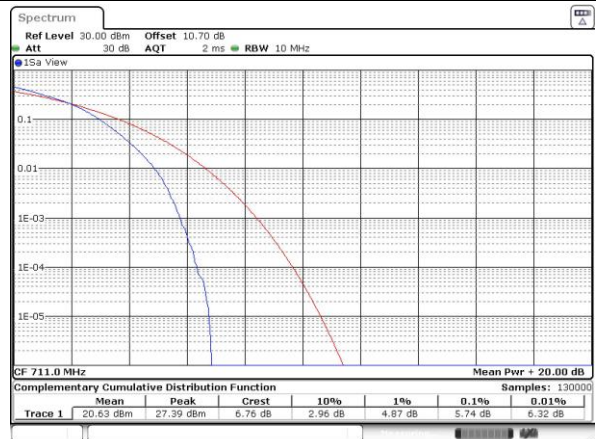

Date: 28 JUN 2019 19:31:39

Middle Channel / Full RB


Date: 28 JUN 2019 19:31:50

Highest Channel / 1RB


Date: 28 JUN 2019 19:32:15

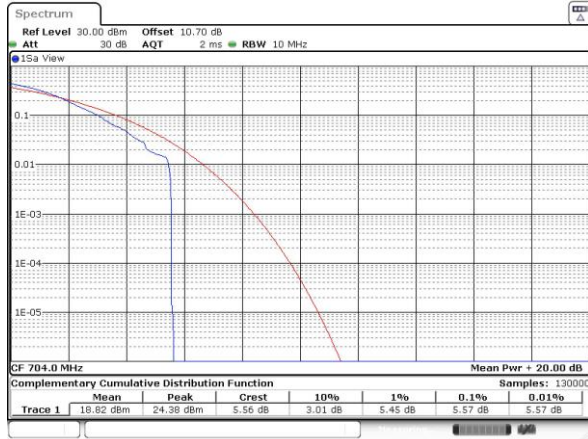
Highest Channel / Full RB


Date: 28 JUN 2019 19:32:02



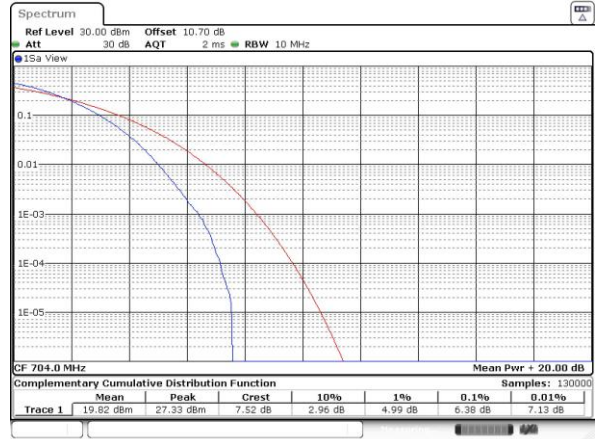
LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



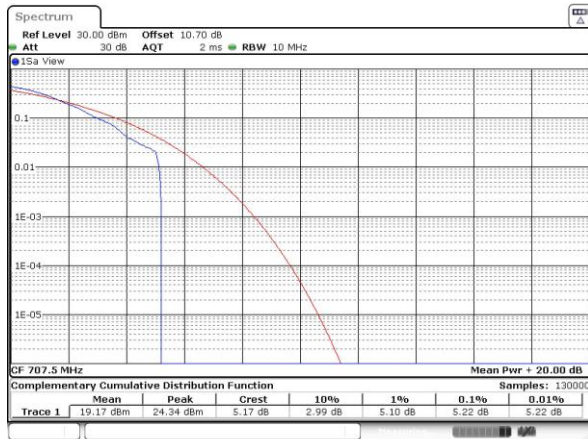
Date: 28 JUN 2019 19:30:11

Lowest Channel / Full RB



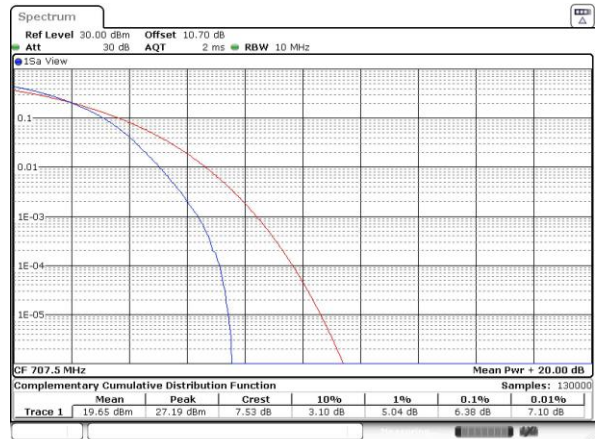
Date: 28 JUN 2019 19:30:01

Middle Channel / 1RB



Date: 28 JUN 2019 19:30:22

Middle Channel / Full RB



Date: 28 JUN 2019 19:30:32

Highest Channel / 1RB



Date: 28 JUN 2019 19:30:53

Highest Channel / Full RB



Date: 28 JUN 2019 19:30:43

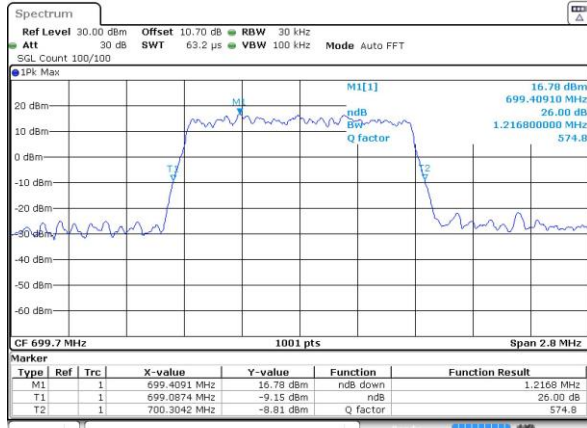
**26dB Bandwidth**

Mode	LTE Band 12 : 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	1.22	1.22	3.03	3.07	4.91	4.91	9.71	9.89	-	-	-	-
Middle CH	1.21	1.25	3.01	2.97	4.92	4.91	9.91	9.89	-	-	-	-
Highest CH	1.23	1.22	3.03	2.98	4.96	4.98	9.77	9.73	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.20	-	3.00	-	4.95	-	9.91	-	-	-	-	-
Middle CH	1.23	-	2.96	-	4.89	-	9.85	-	-	-	-	-
Highest CH	1.22	-	2.97	-	4.87	-	9.91	-	-	-	-	-



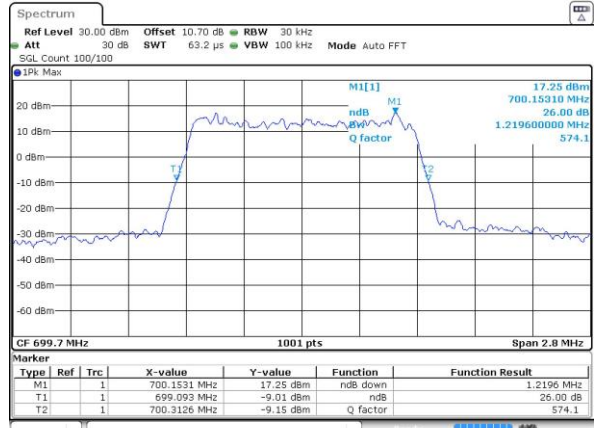
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



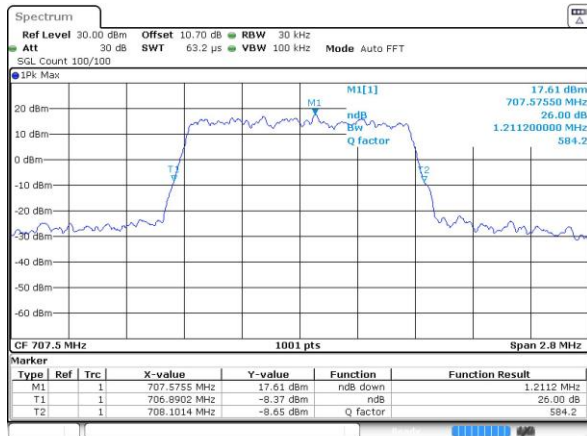
Date: 28 JUN 2019 17:21:15

Lowest Channel / 1.4MHz / 16QAM



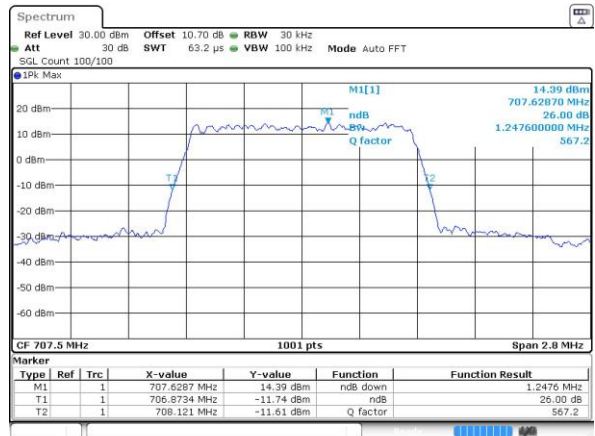
Date: 28 JUN 2019 17:21:02

Middle Channel / 1.4MHz / QPSK



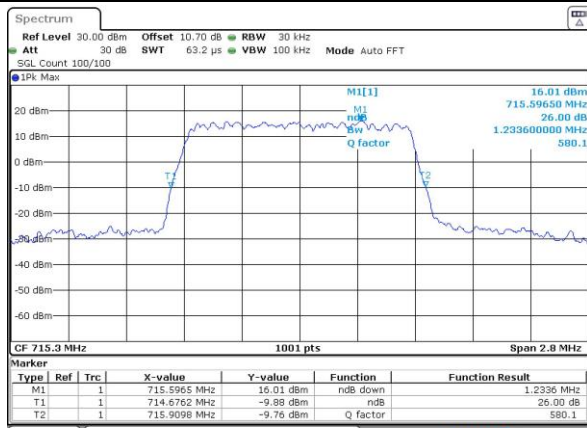
Date: 28 JUN 2019 17:25:46

Middle Channel / 1.4MHz / 16QAM



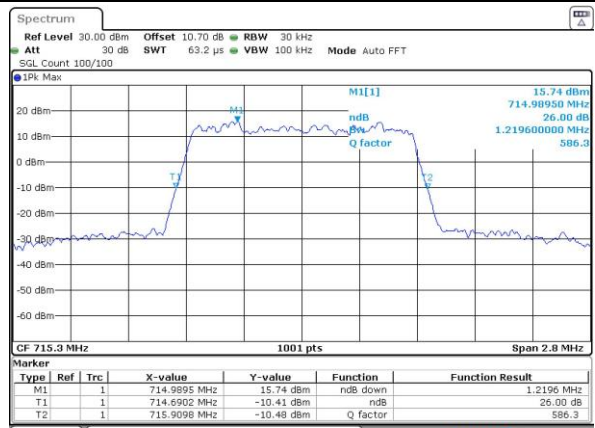
Date: 28 JUN 2019 17:25:58

Highest Channel / 1.4MHz / QPSK



Date: 28 JUN 2019 17:28:18

Highest Channel / 1.4MHz / 16QAM

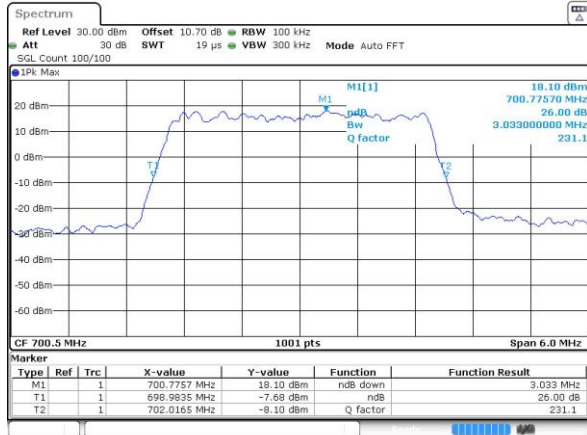


Date: 28 JUN 2019 17:28:06

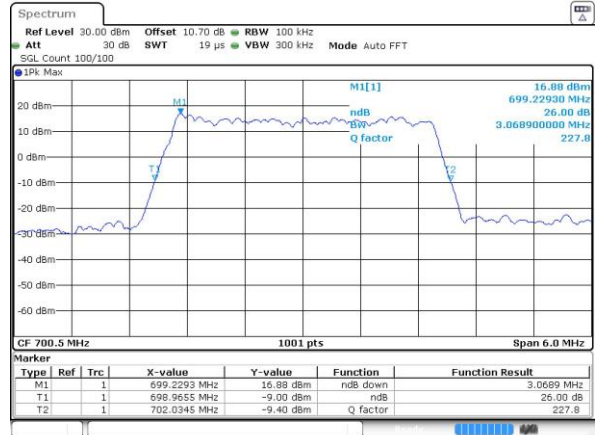


LTE Band 12

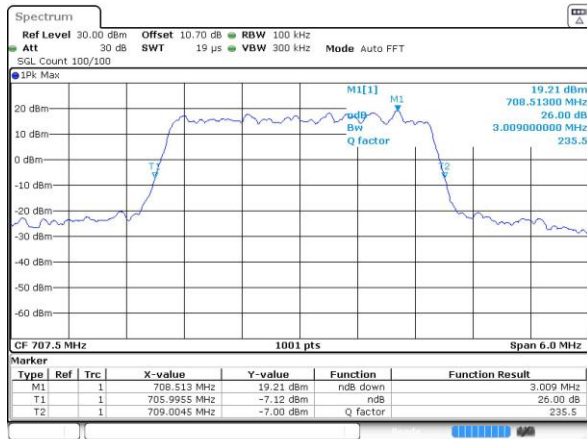
Lowest Channel / 3MHz / QPSK



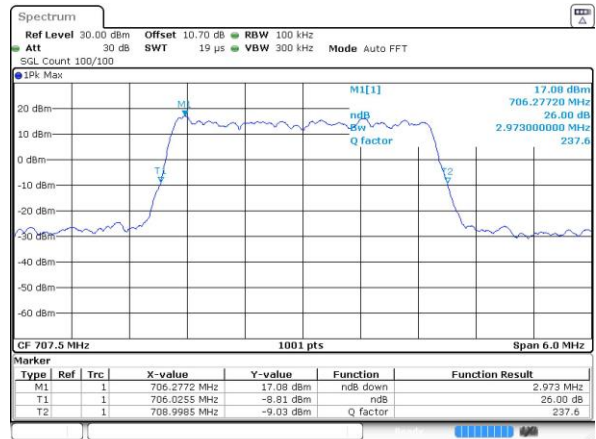
Lowest Channel / 3MHz / 16QAM



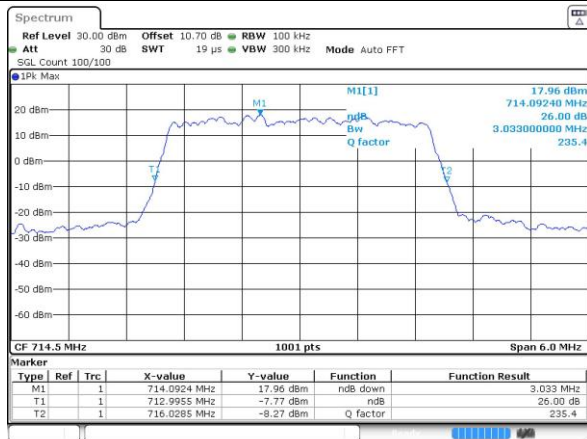
Middle Channel / 3MHz / QPSK



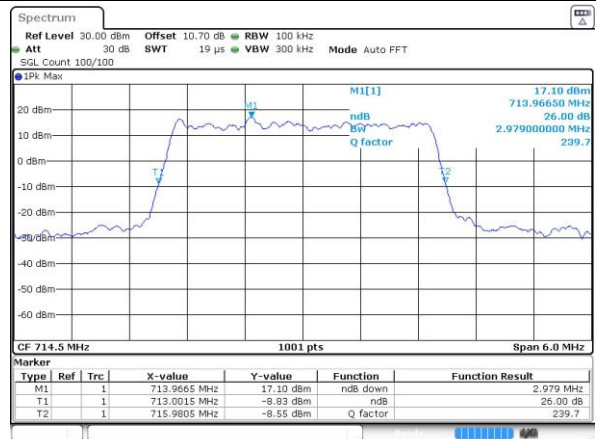
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



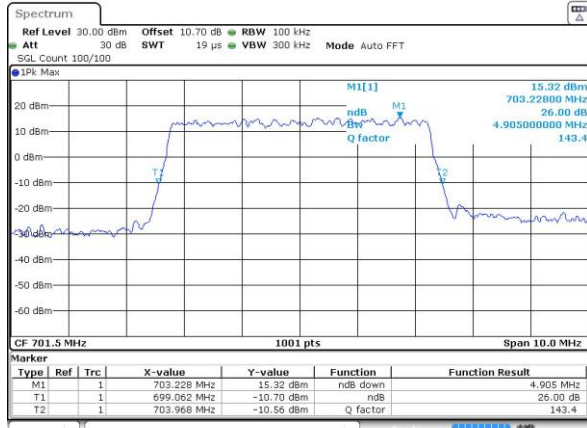
Highest Channel / 3MHz / 16QAM





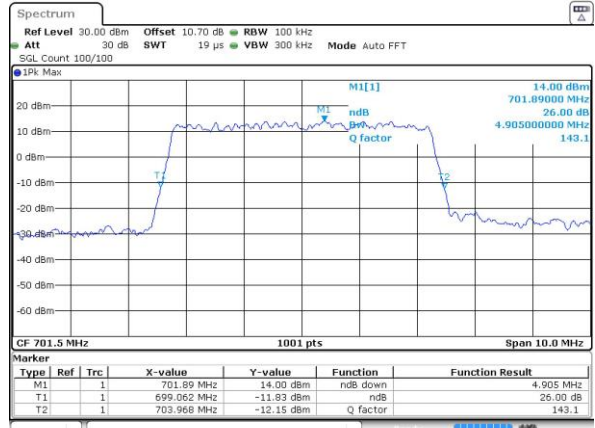
LTE Band 12

Lowest Channel / 5MHz / QPSK



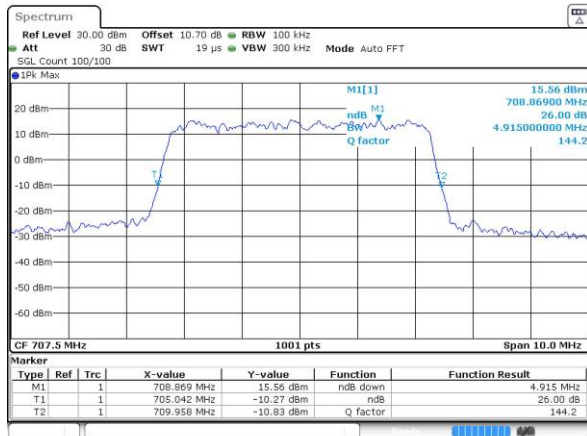
Date: 28 JUN 2019 18:59:21

Lowest Channel / 5MHz / 16QAM



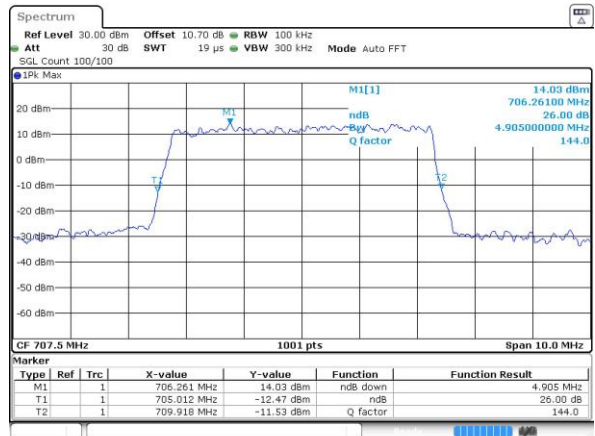
Date: 28 JUN 2019 18:59:09

Middle Channel / 5MHz / QPSK



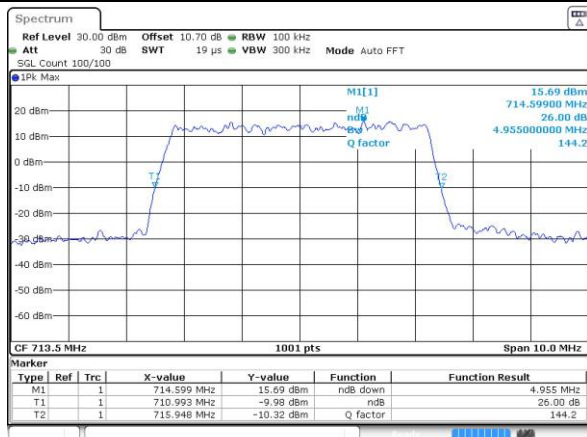
Date: 28 JUN 2019 19:03:53

Middle Channel / 5MHz / 16QAM



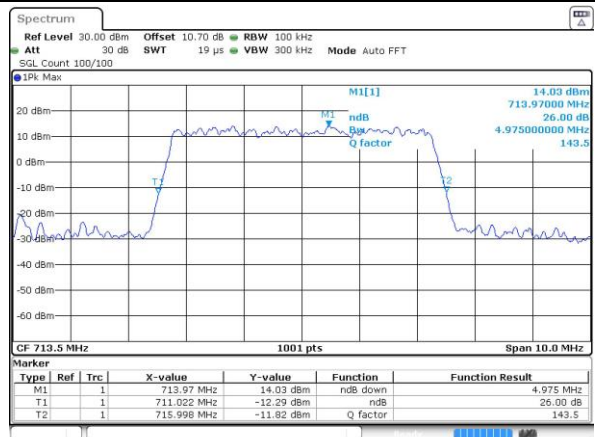
Date: 28 JUN 2019 19:04:04

Highest Channel / 5MHz / QPSK



Date: 28 JUN 2019 19:06:24

Highest Channel / 5MHz / 16QAM

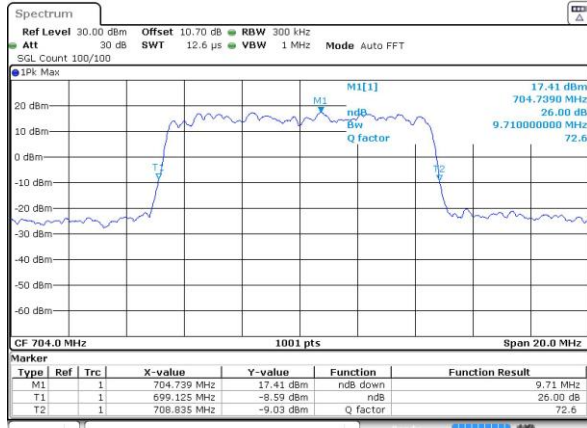


Date: 28 JUN 2019 19:06:12

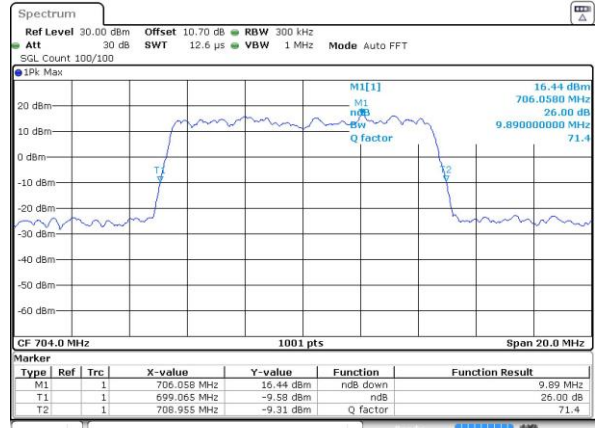


LTE Band 12

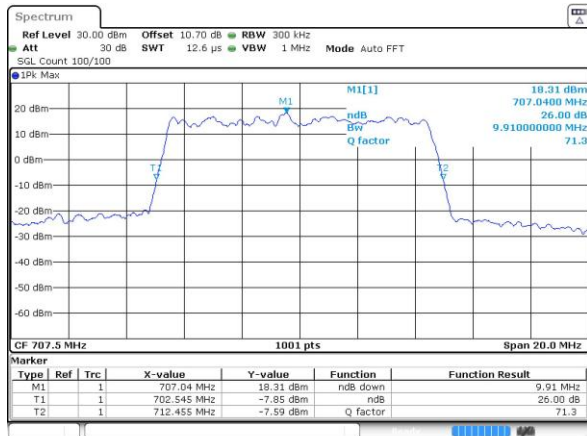
Lowest Channel / 10MHz / QPSK



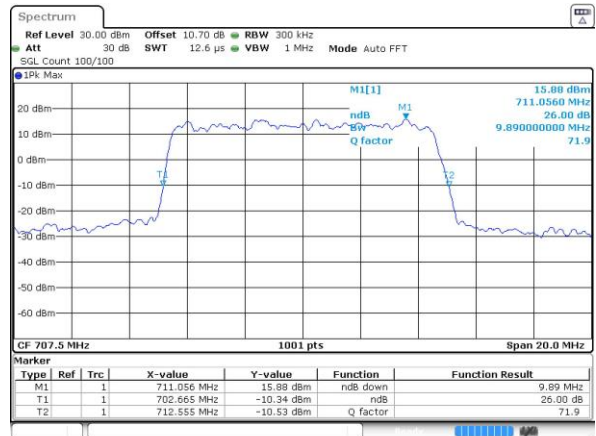
Lowest Channel / 10MHz / 16QAM



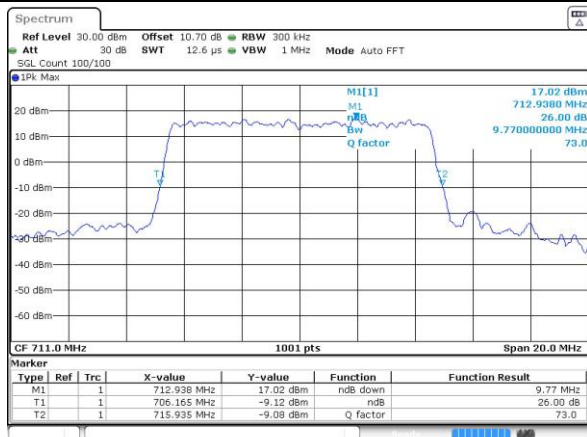
Middle Channel / 10MHz / QPSK



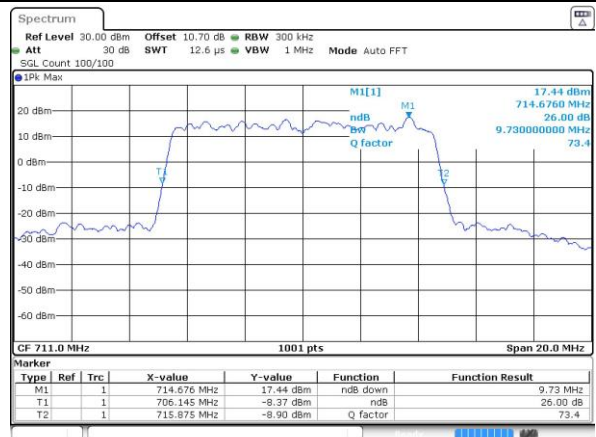
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



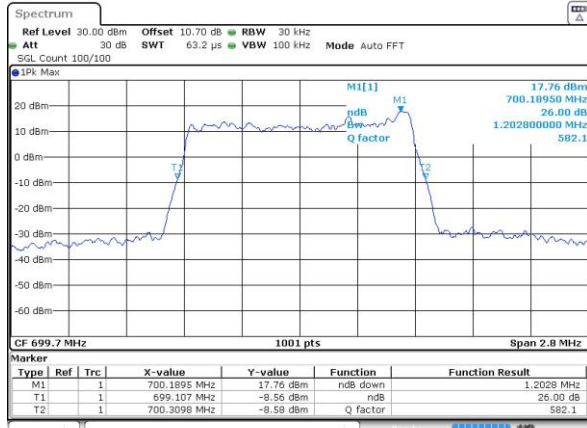
Highest Channel / 10MHz / 16QAM



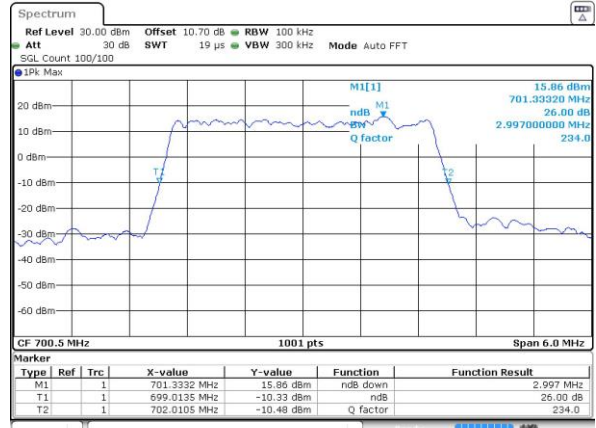


LTE Band 12

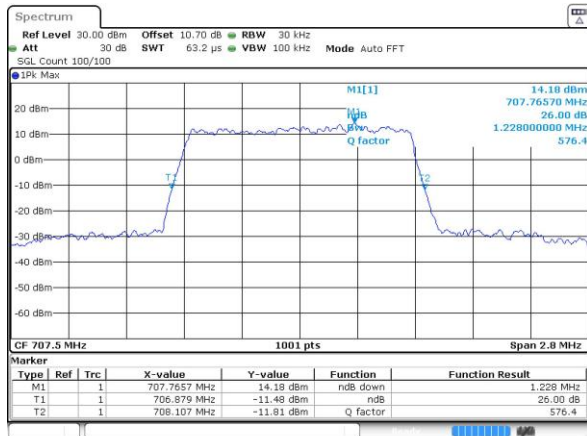
Lowest Channel / 1.4MHz / 64QAM



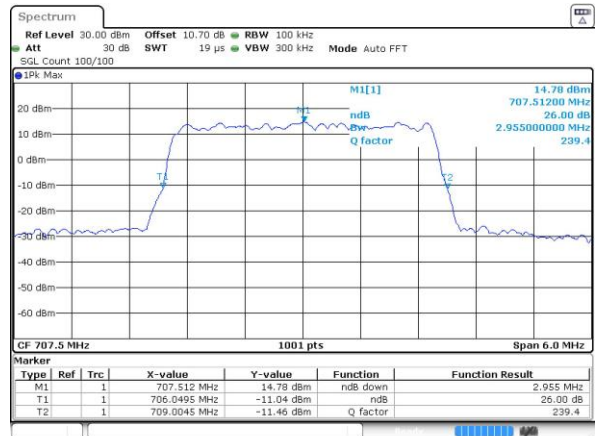
Lowest Channel / 3MHz / 64QAM



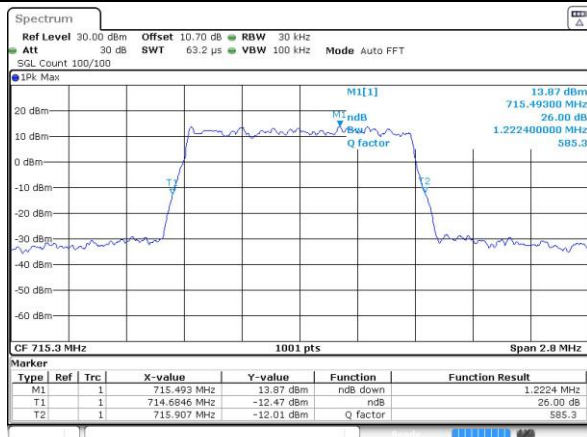
Middle Channel / 1.4MHz / 64QAM



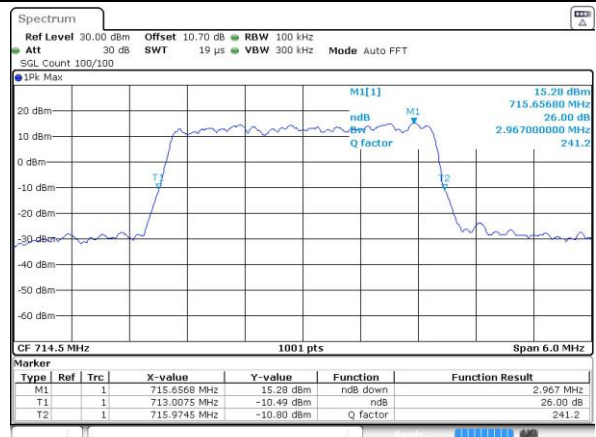
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



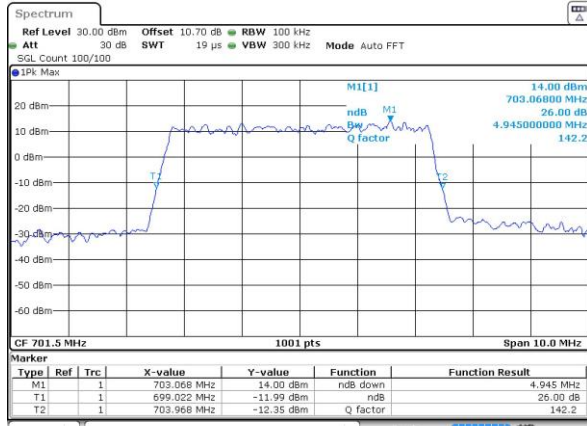
Highest Channel / 3MHz / 64QAM



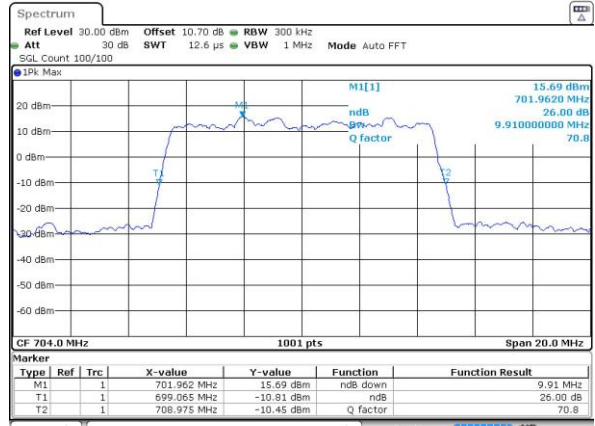


LTE Band 12

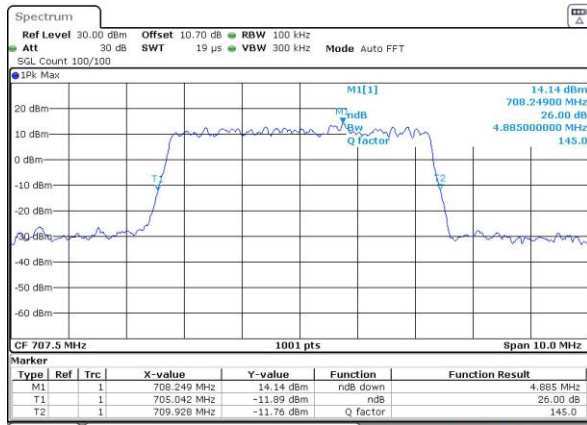
Lowest Channel / 5MHz / 64QAM



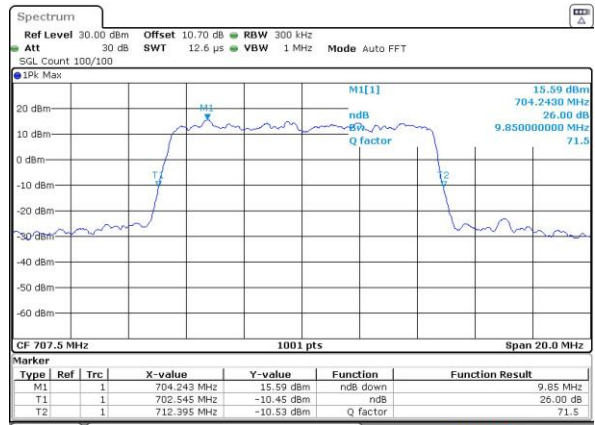
Lowest Channel / 10MHz / 64QAM



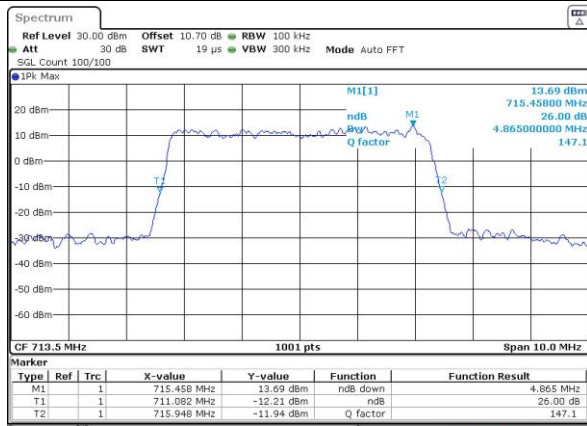
Middle Channel / 5MHz / 64QAM



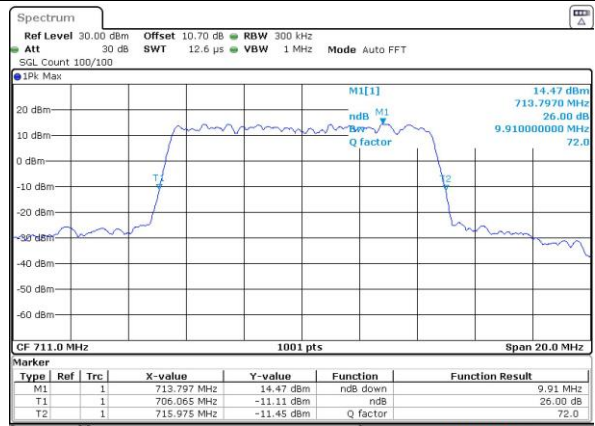
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



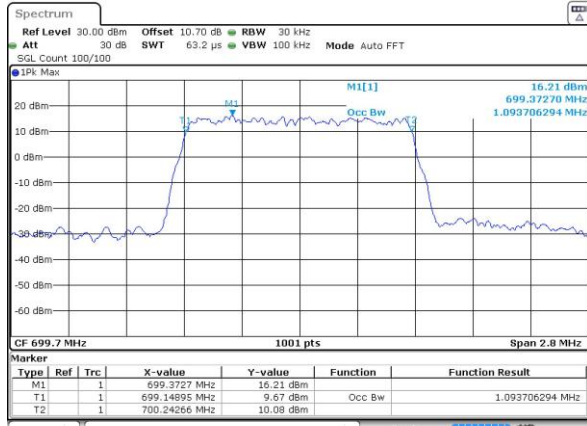
**Occupied Bandwidth**

Mode	LTE Band 12 : 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	2.74	2.76	4.49	4.50	9.01	8.97	-	-	-	-
Middle CH	1.09	1.08	2.72	2.72	4.49	4.49	9.05	9.05	-	-	-	-
Highest CH	1.09	1.10	2.74	2.72	4.47	4.49	9.05	8.99	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.51	-	8.97	-	-	-	-	-
Middle CH	1.09	-	2.73	-	4.48	-	9.03	-	-	-	-	-
Highest CH	1.09	-	2.70	-	4.51	-	9.11	-	-	-	-	-

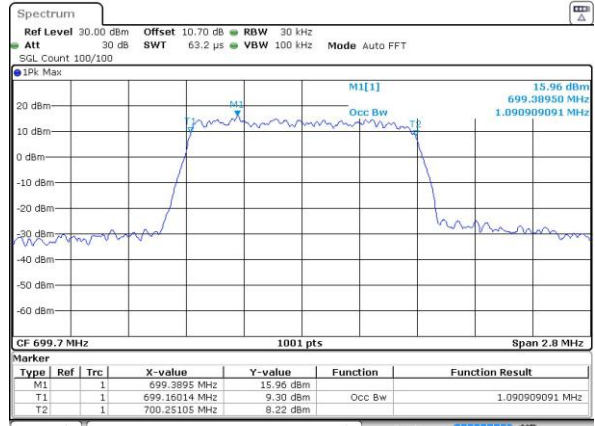


LTE Band 12

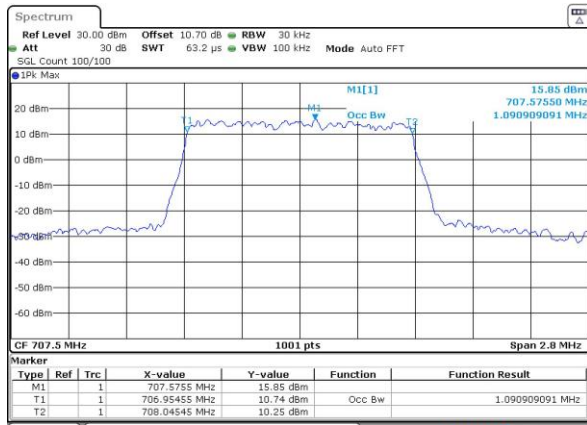
Lowest Channel / 1.4MHz / QPSK



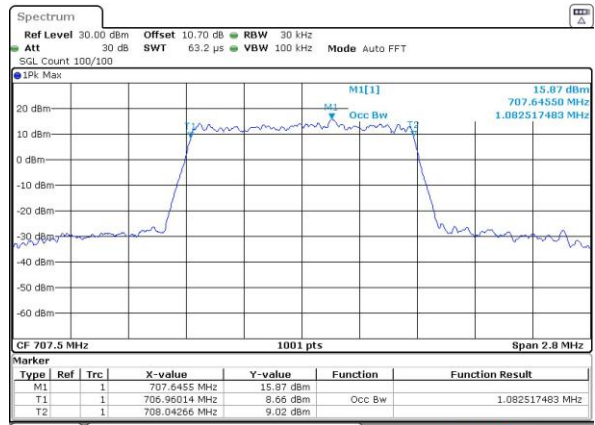
Lowest Channel / 1.4MHz / 16QAM



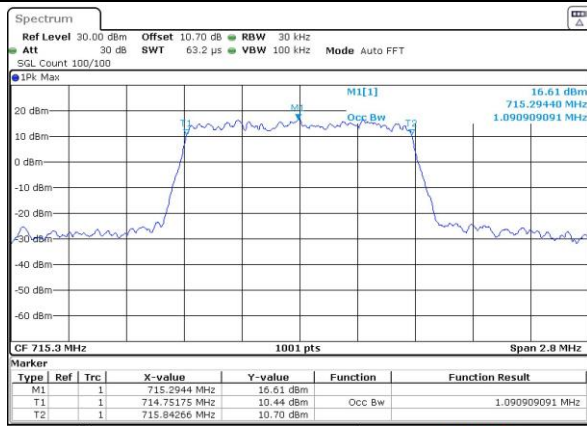
Middle Channel / 1.4MHz / QPSK



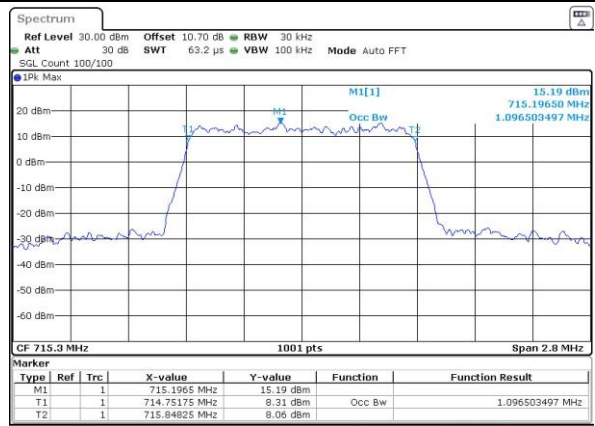
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



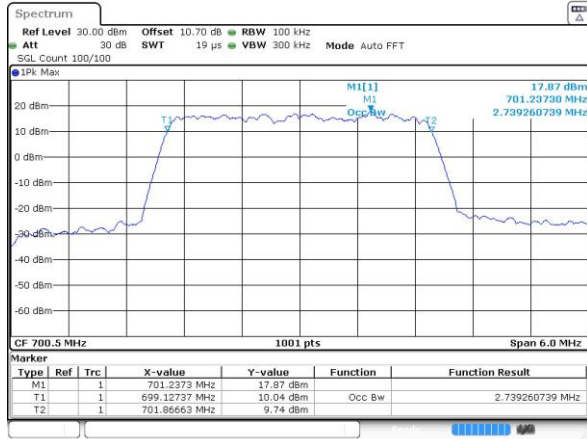
Highest Channel / 1.4MHz / 16QAM



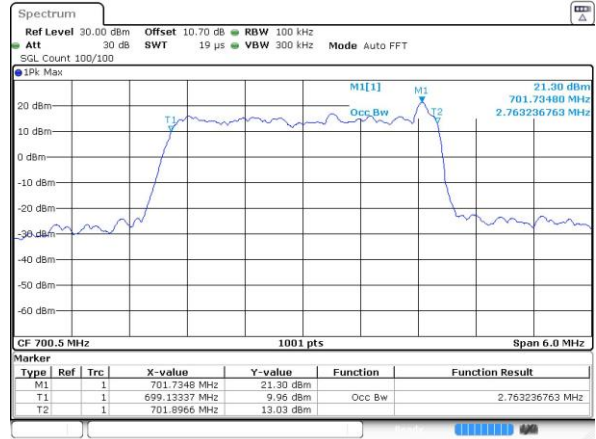


LTE Band 12

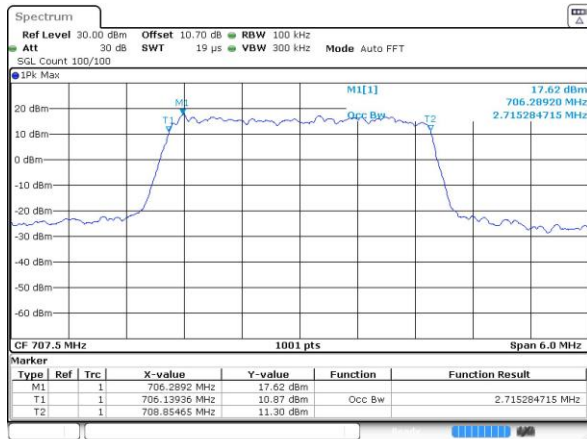
Lowest Channel / 3MHz / QPSK



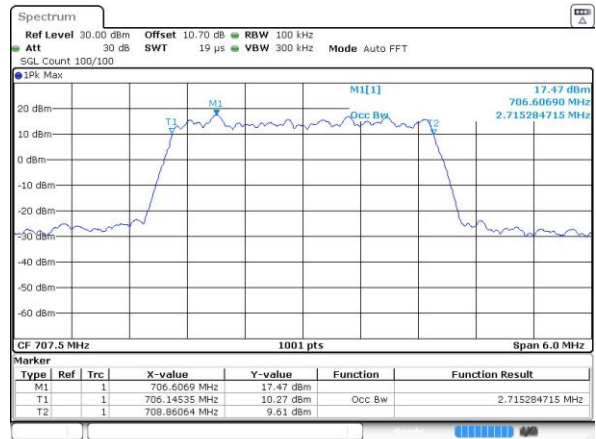
Lowest Channel / 3MHz / 16QAM



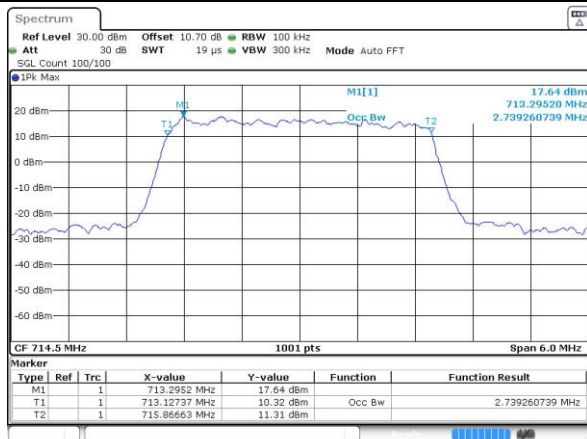
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



Highest Channel / 3MHz / 16QAM

