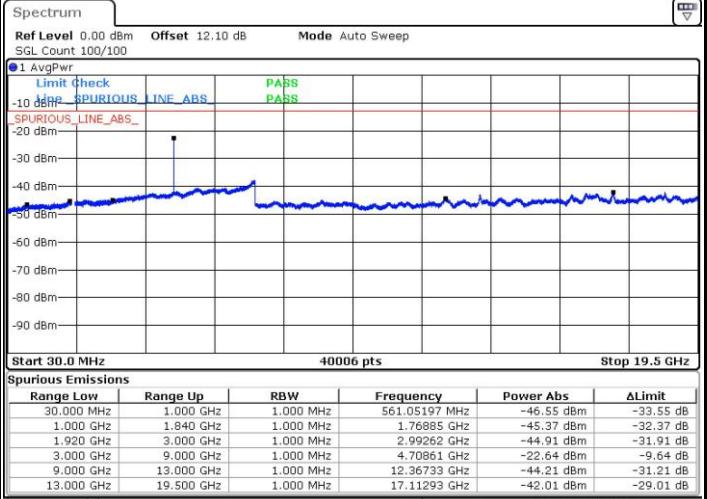
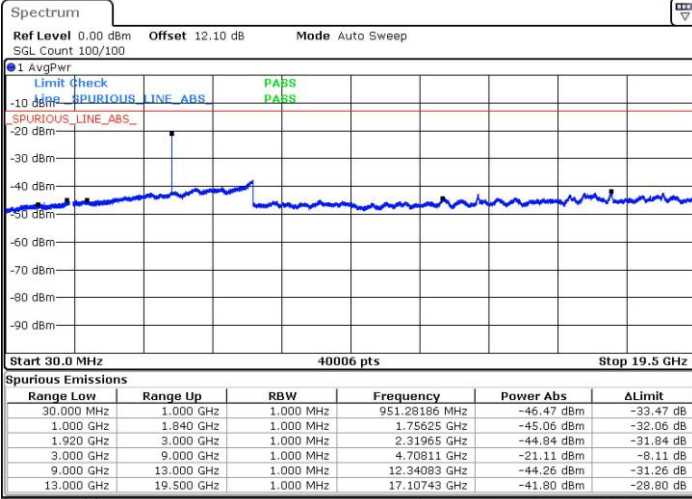




LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

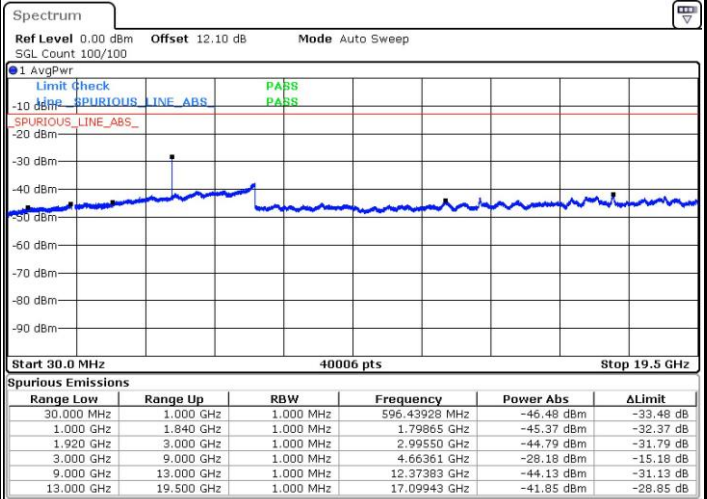
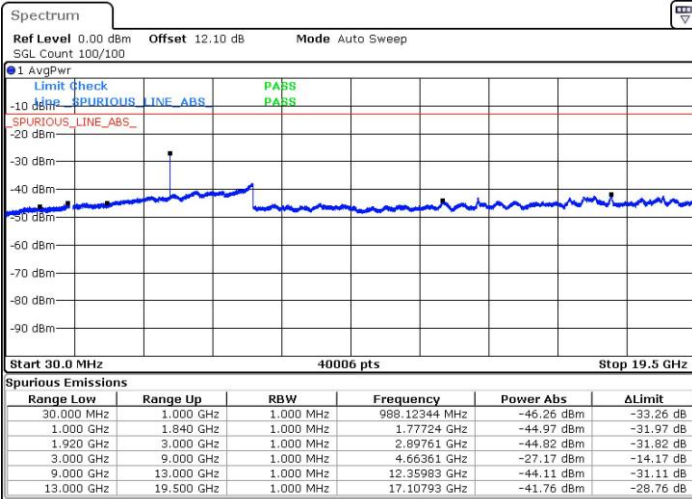


Date: 21.SEP.2018 05:01:40

Date: 21.SEP.2018 05:02:33

Middle Channel / QPSK

Middle Channel / 16QAM



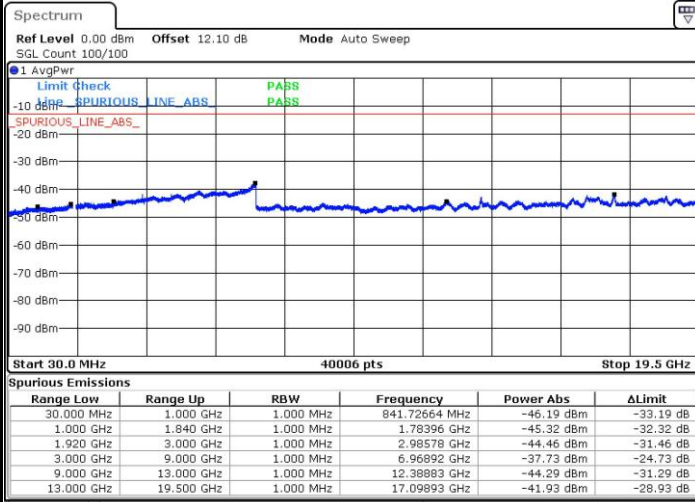
Date: 21.SEP.2018 05:04:19

Date: 21.SEP.2018 05:05:13



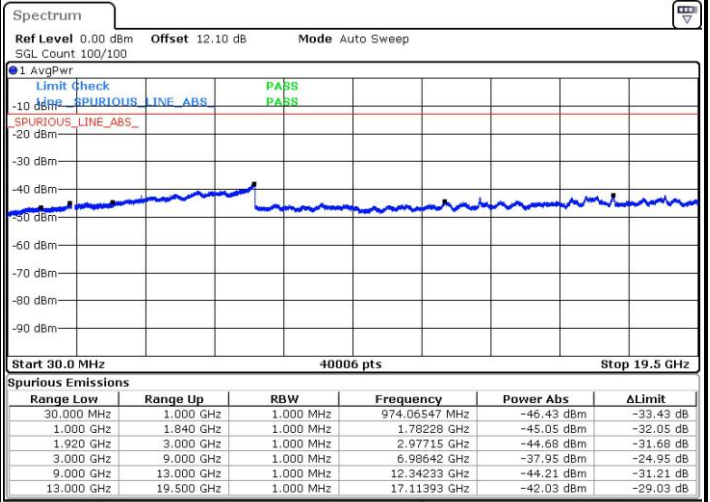
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 21.SEP.2018 05:11:41

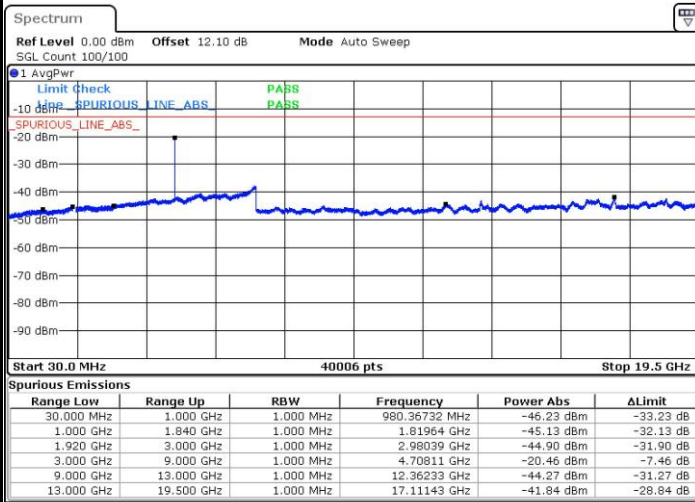
Highest Channel / 16QAM



Date: 21.SEP.2018 05:12:35

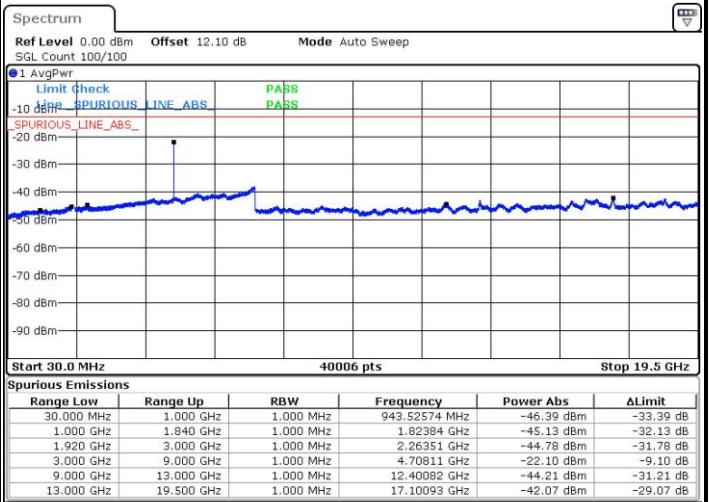
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 21.SEP.2018 05:19:02

Lowest Channel / 16QAM



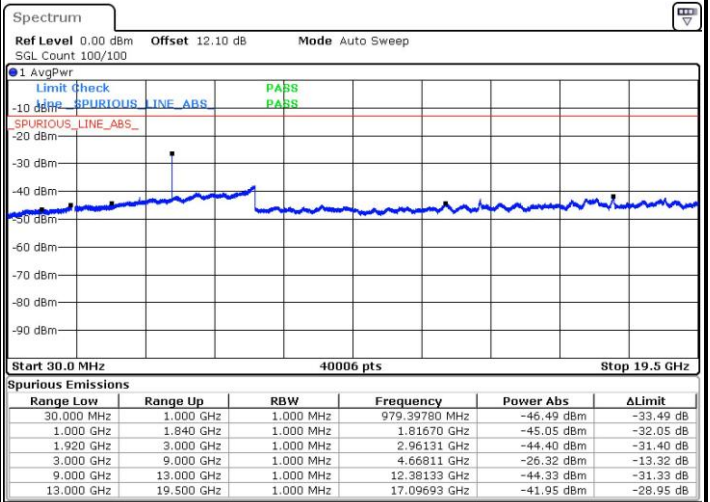
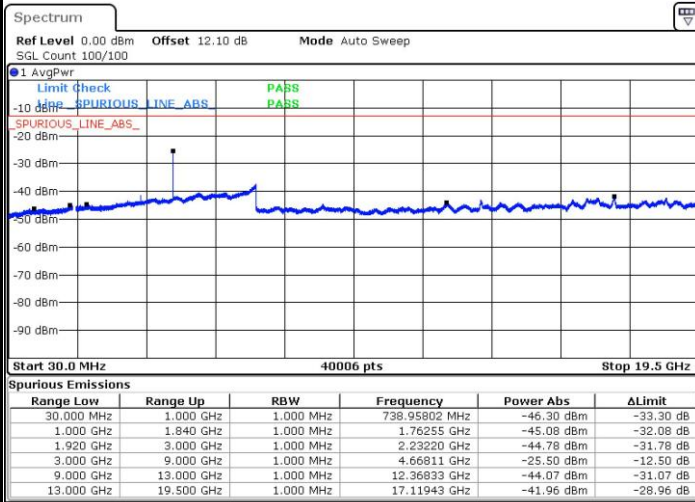
Date: 21.SEP.2018 05:19:56



LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

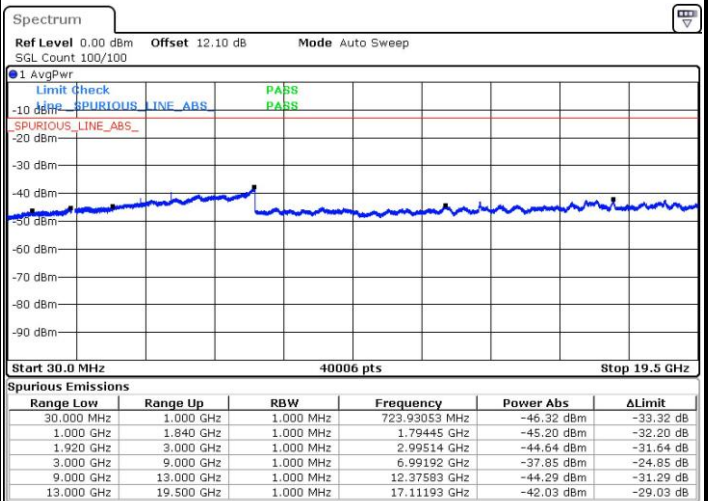
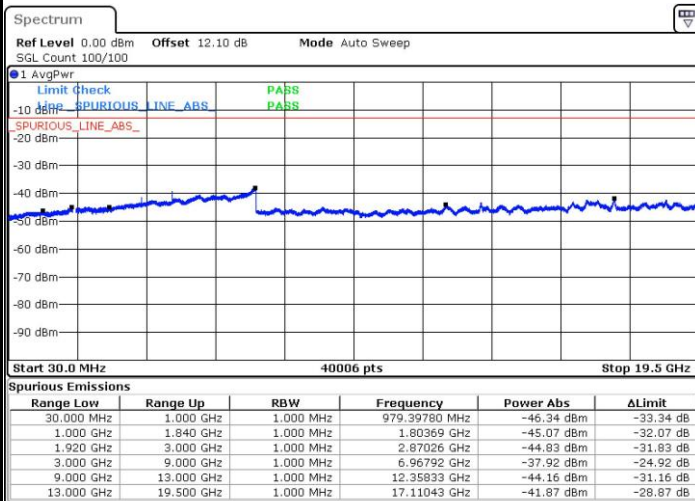


Date: 21.SEP.2018 05:21:42

Date: 21.SEP.2018 05:22:36

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 21.SEP.2018 05:29:03

Date: 21.SEP.2018 05:29:57



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	0.0006	
30	Normal Voltage	0.0026	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0030	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 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	3.97	4.81	4.67	5.68	<b>PASS</b>
Middle CH	4.06	4.84	5.13	5.68	
Highest CH	4.23	4.93	4.99	5.91	



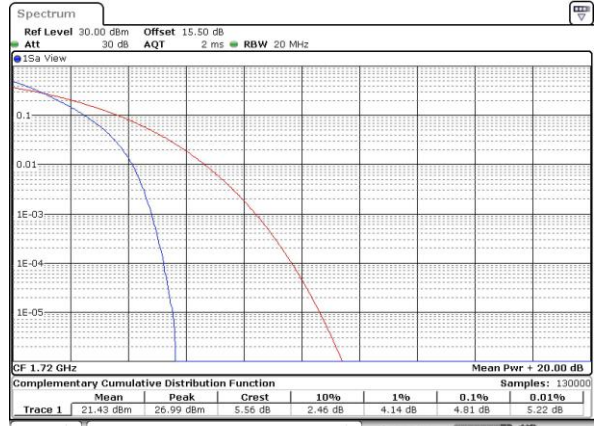
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 29\_SEP.2018 00:56:16

Lowest Channel / Full RB



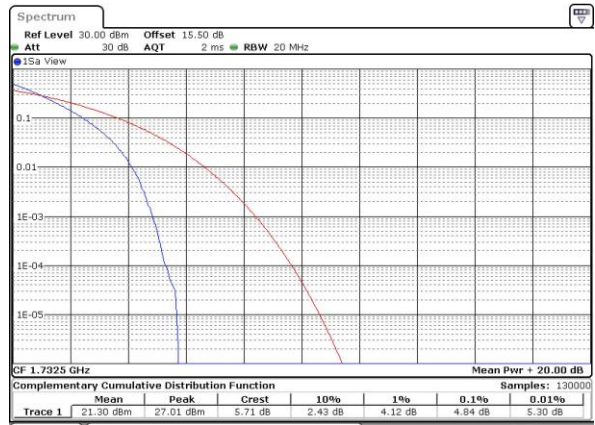
Date: 29\_SEP.2018 00:56:26

Middle Channel / 1RB



Date: 29\_SEP.2018 00:56:36

Middle Channel / Full RB



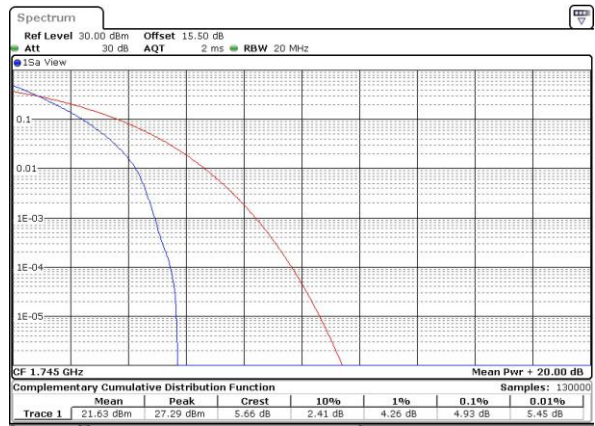
Date: 29\_SEP.2018 00:56:47

Highest Channel / 1RB



Date: 29\_SEP.2018 00:56:57

Highest Channel / Full RB



Date: 29\_SEP.2018 00:57:08





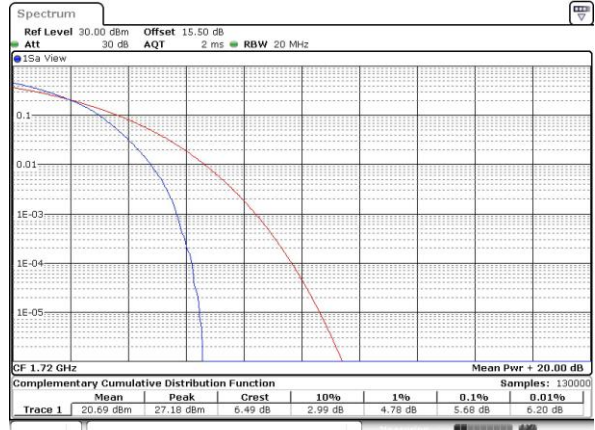
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



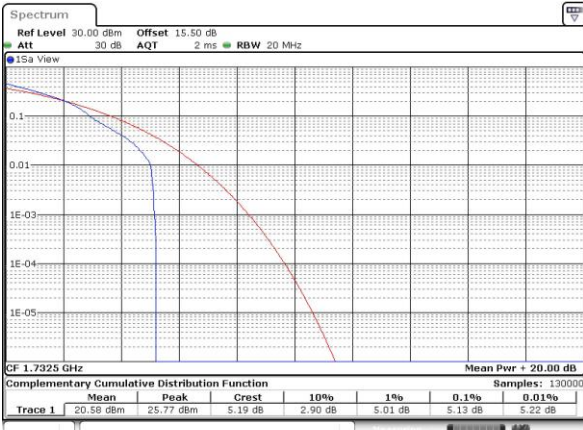
Date: 29\_SEP.2018 00:55:14

Lowest Channel / Full RB



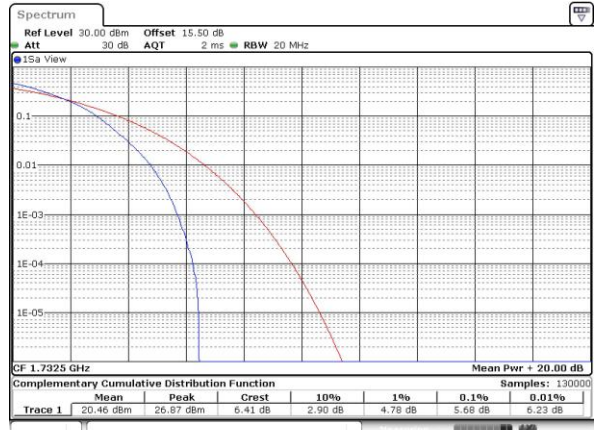
Date: 29\_SEP.2018 00:55:124

Middle Channel / 1RB



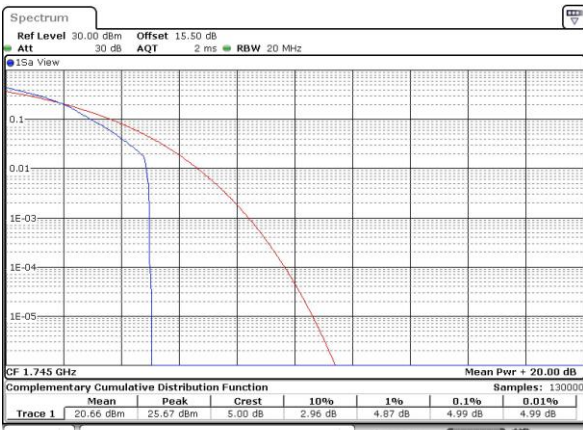
Date: 29\_SEP.2018 00:55:05

Middle Channel / Full RB



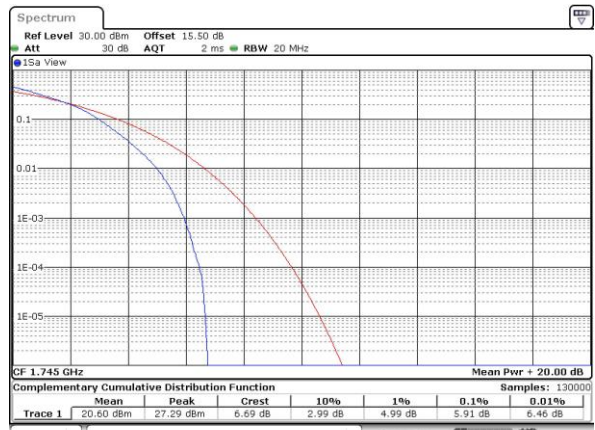
Date: 29\_SEP.2018 00:55:145

Highest Channel / 1RB



Date: 29\_SEP.2018 00:55:55

Highest Channel / Full RB



Date: 29\_SEP.2018 00:56:05



**26dB Bandwidth**

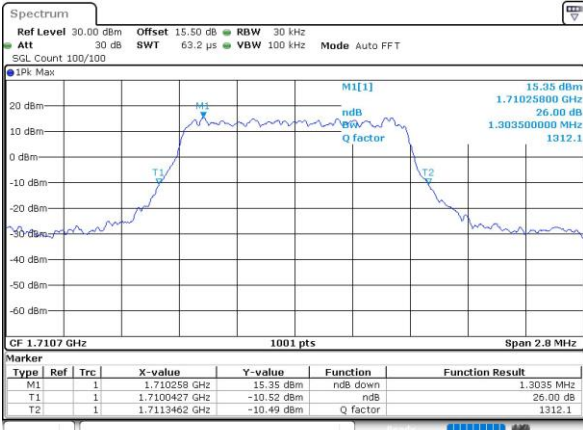
Mode	LTE Band 4 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.30	1.26	2.96	3.00	5.00	4.91	9.75	9.79	14.27	14.27	20.18	20.22
Middle CH	1.28	1.27	3.02	2.99	4.93	4.78	9.79	9.71	14.42	14.33	20.14	20.10
Highest CH	1.26	1.26	3.02	2.99	4.91	4.93	9.69	9.69	14.36	14.57	20.22	20.22





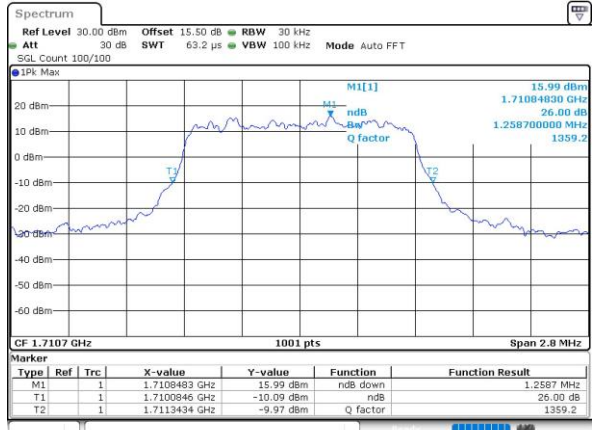
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



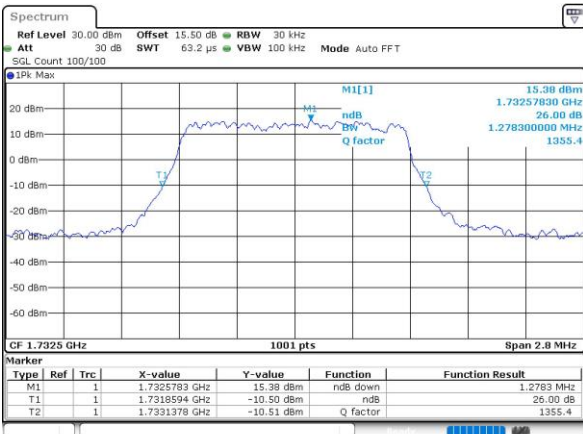
Date: 29\_SEP.2018 00:138:139

Lowest Channel / 1.4MHz / 16QAM



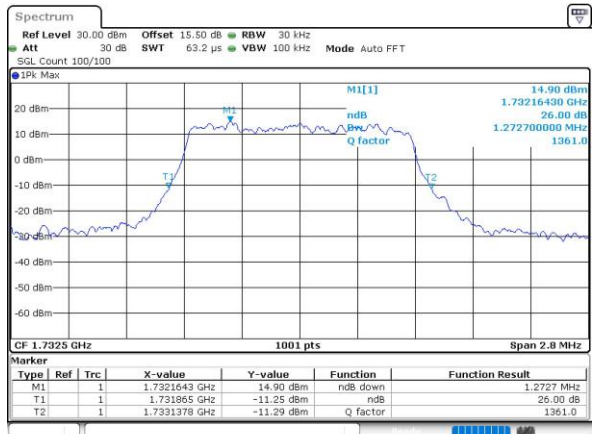
Date: 29\_SEP.2018 00:138:151

Middle Channel / 1.4MHz / QPSK



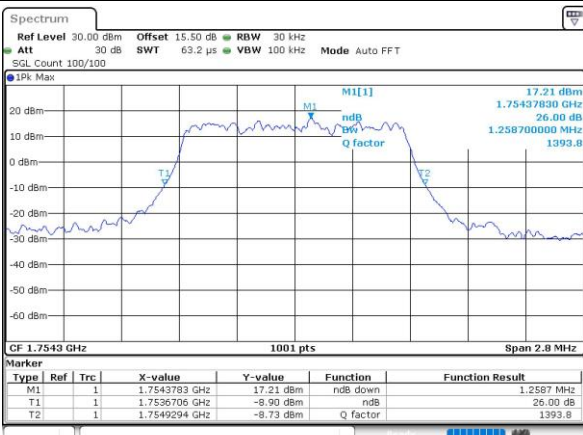
Date: 29\_SEP.2018 00:45:14

Middle Channel / 1.4MHz / 16QAM



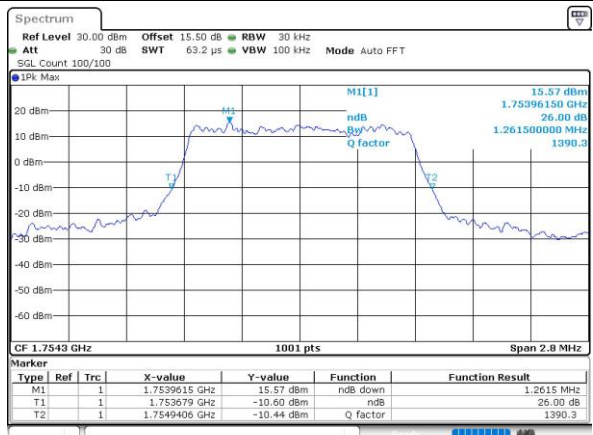
Date: 29\_SEP.2018 00:45:125

Highest Channel / 1.4MHz / QPSK



Date: 29\_SEP.2018 00:47:139

Highest Channel / 1.4MHz / 16QAM

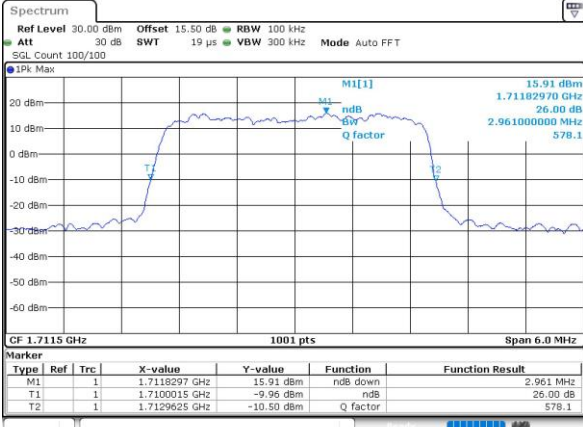


Date: 29\_SEP.2018 00:47:151



LTE Band 4

Lowest Channel / 3MHz / QPSK



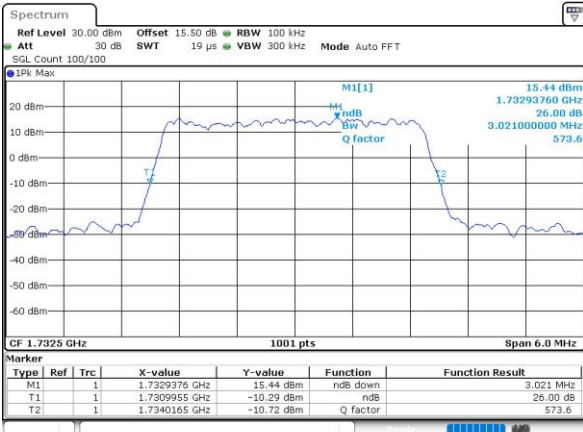
Date: 28\_SEP.2018 07:36:14

Lowest Channel / 3MHz / 16QAM



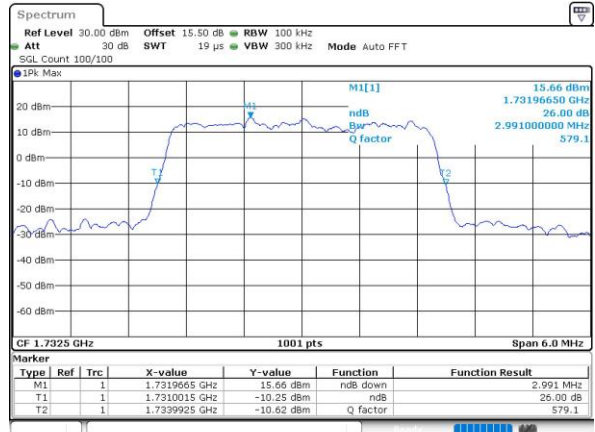
Date: 28\_SEP.2018 07:36:25

Middle Channel / 3MHz / QPSK



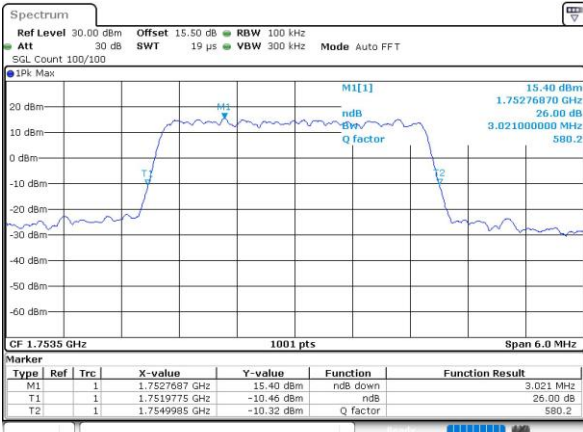
Date: 28\_SEP.2018 07:42:38

Middle Channel / 3MHz / 16QAM



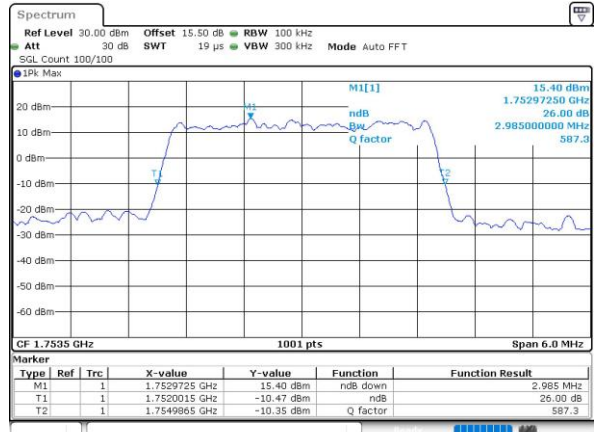
Date: 28\_SEP.2018 07:42:49

Highest Channel / 3MHz / QPSK



Date: 28\_SEP.2018 07:45:03

Highest Channel / 3MHz / 16QAM

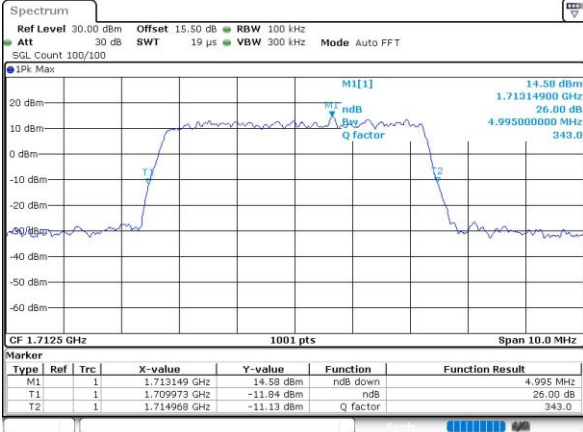


Date: 28\_SEP.2018 07:45:14



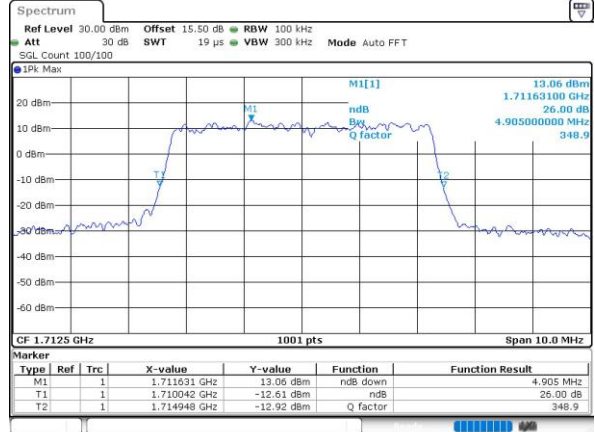
LTE Band 4

Lowest Channel / 5MHz / QPSK



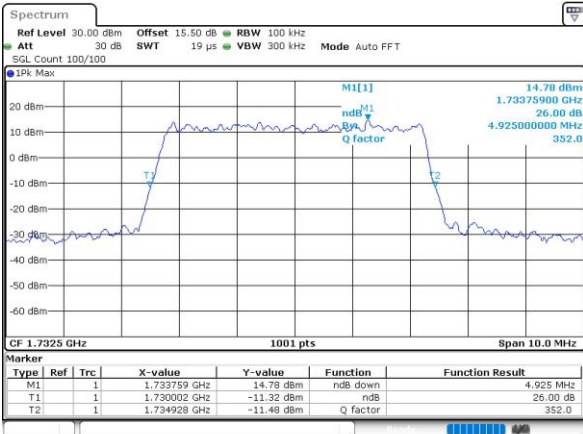
Date: 28\_SEP.2018 07:51:26

Lowest Channel / 5MHz / 16QAM



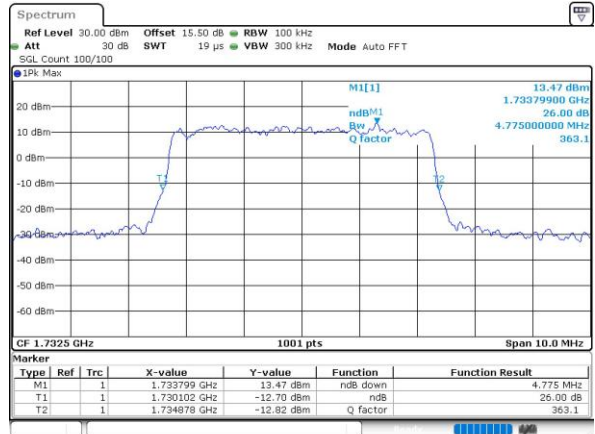
Date: 28\_SEP.2018 07:51:37

Middle Channel / 5MHz / QPSK



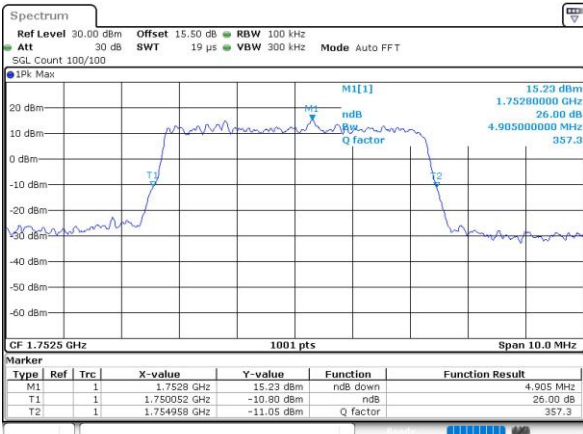
Date: 28\_SEP.2018 07:57:49

Middle Channel / 5MHz / 16QAM



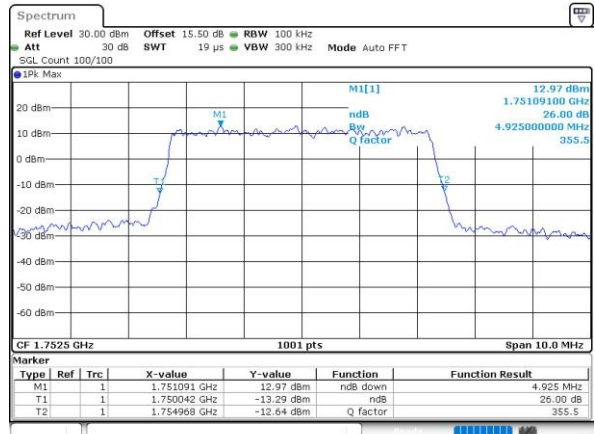
Date: 28\_SEP.2018 07:58:00

Highest Channel / 5MHz / QPSK



Date: 28\_SEP.2018 08:00:14

Highest Channel / 5MHz / 16QAM

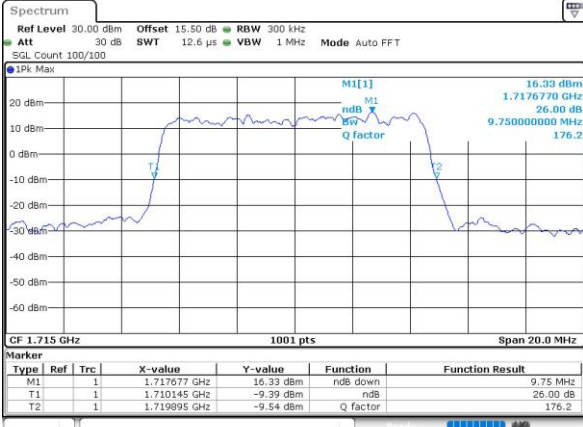


Date: 28\_SEP.2018 08:00:25



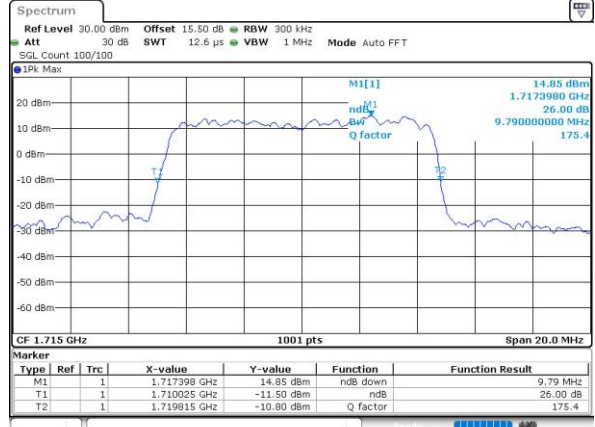
LTE Band 4

Lowest Channel / 10MHz / QPSK



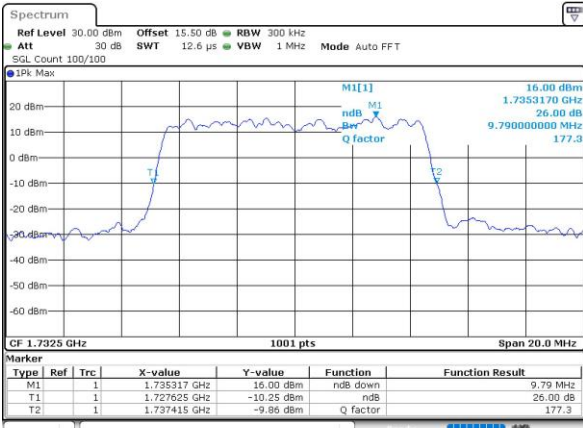
Date: 28\_SEP.2018 08:06:37

Lowest Channel / 10MHz / 16QAM



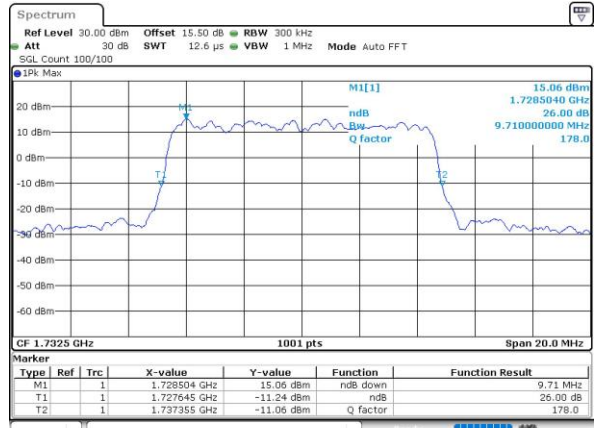
Date: 28\_SEP.2018 08:06:48

Middle Channel / 10MHz / QPSK



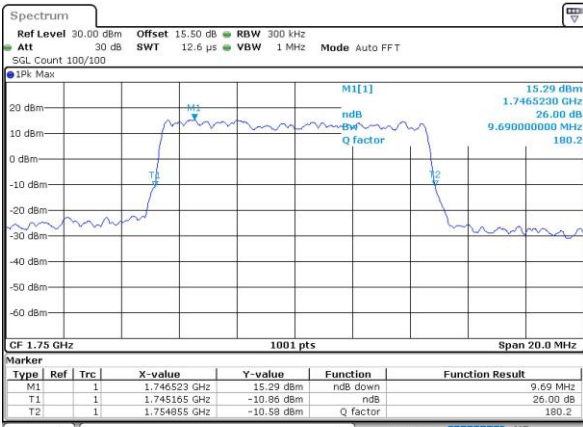
Date: 28\_SEP.2018 08:13:00

Middle Channel / 10MHz / 16QAM



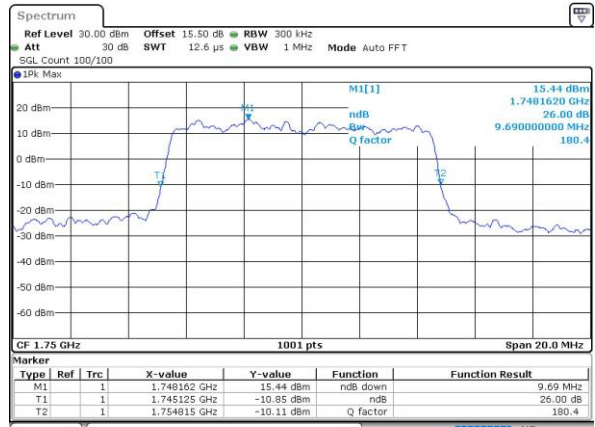
Date: 28\_SEP.2018 08:13:11

Highest Channel / 10MHz / QPSK



Date: 28\_SEP.2018 08:15:25

Highest Channel / 10MHz / 16QAM

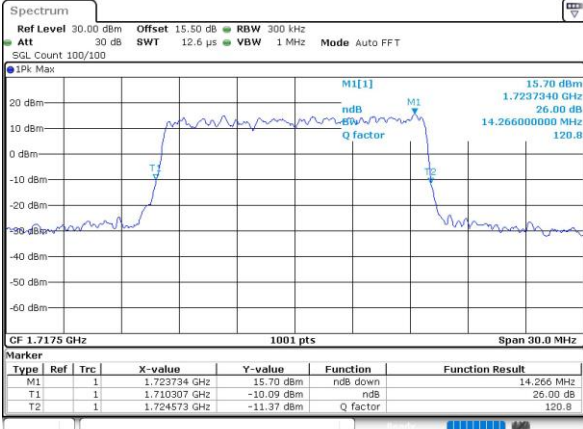


Date: 28\_SEP.2018 08:15:36



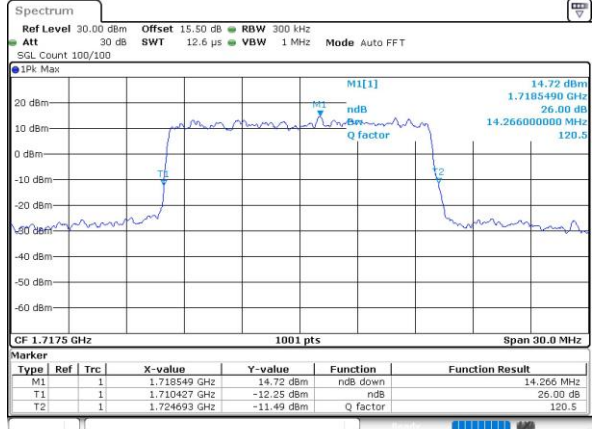
LTE Band 4

Lowest Channel / 15MHz / QPSK



Date: 29\_SEP.2018 00:06:00

Lowest Channel / 15MHz / 16QAM



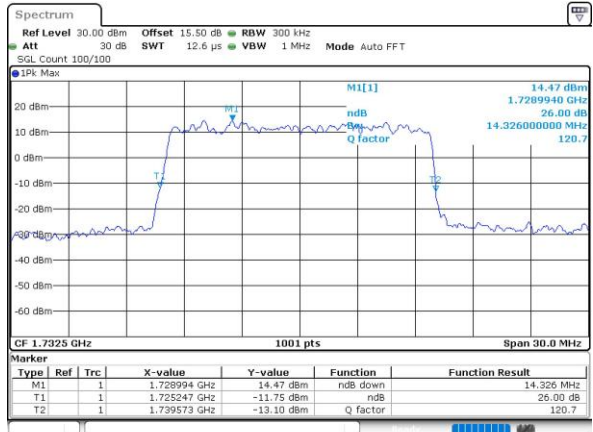
Date: 29\_SEP.2018 00:06:12

Middle Channel / 15MHz / QPSK



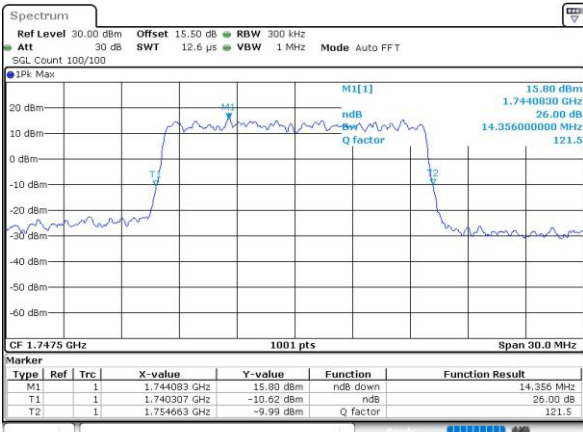
Date: 29\_SEP.2018 00:12:23

Middle Channel / 15MHz / 16QAM



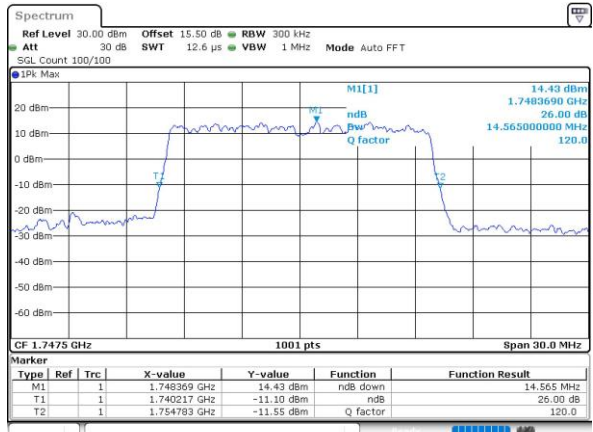
Date: 29\_SEP.2018 00:12:34

Highest Channel / 15MHz / QPSK



Date: 29\_SEP.2018 00:14:49

Highest Channel / 15MHz / 16QAM



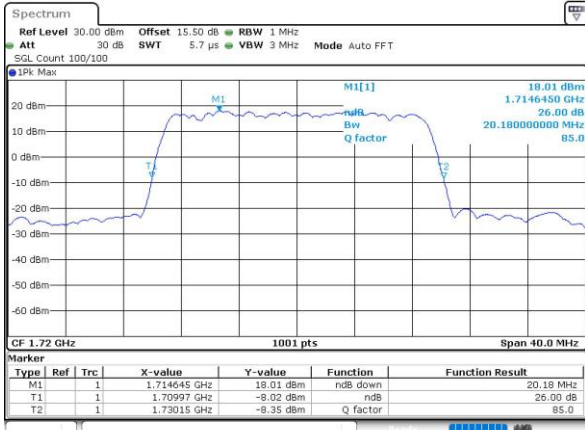
Date: 29\_SEP.2018 00:14:59





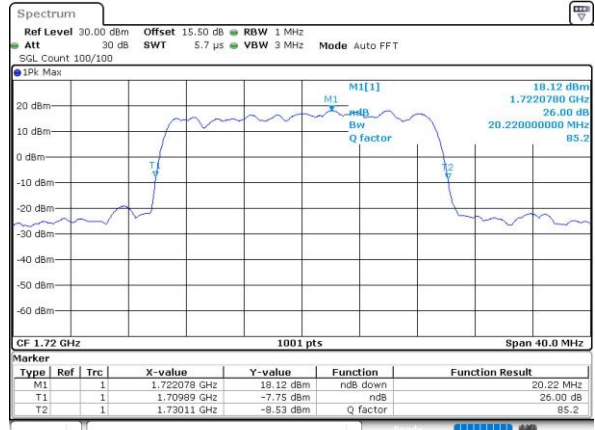
LTE Band 4

Lowest Channel / 20MHz / QPSK



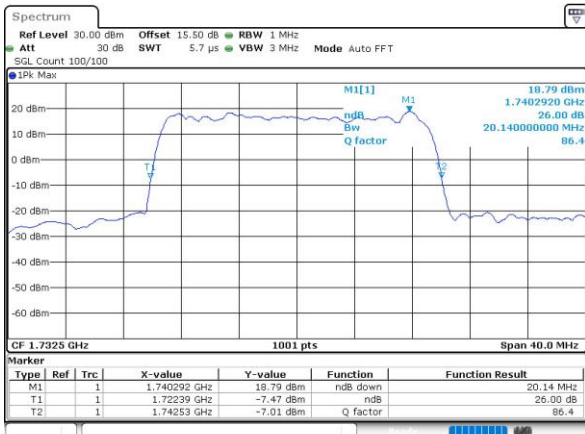
Date: 29\_SEP.2018 00:21:10

Lowest Channel / 20MHz / 16QAM



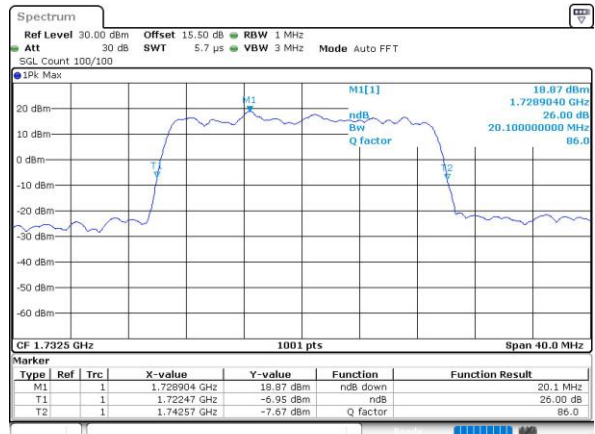
Date: 29\_SEP.2018 00:21:12

Middle Channel / 20MHz / QPSK



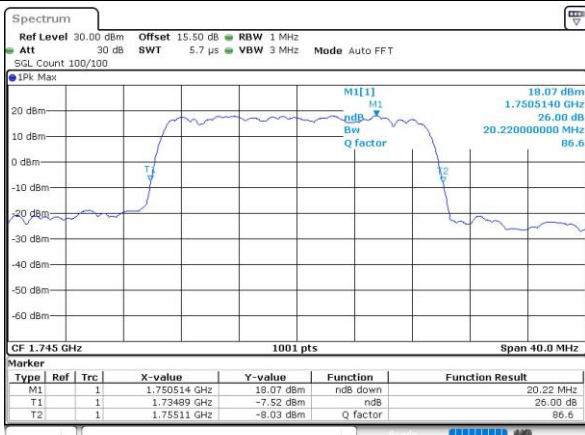
Date: 29\_SEP.2018 00:21:32

Middle Channel / 20MHz / 16QAM



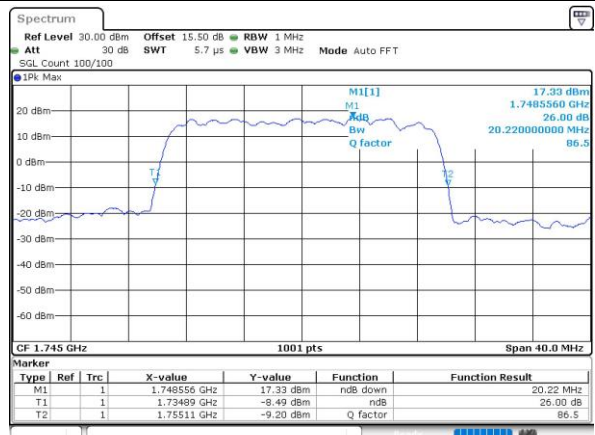
Date: 29\_SEP.2018 00:21:43

Highest Channel / 20MHz / QPSK



Date: 29\_SEP.2018 00:29:57

Highest Channel / 20MHz / 16QAM



Date: 29\_SEP.2018 00:30:09



### Occupied Bandwidth

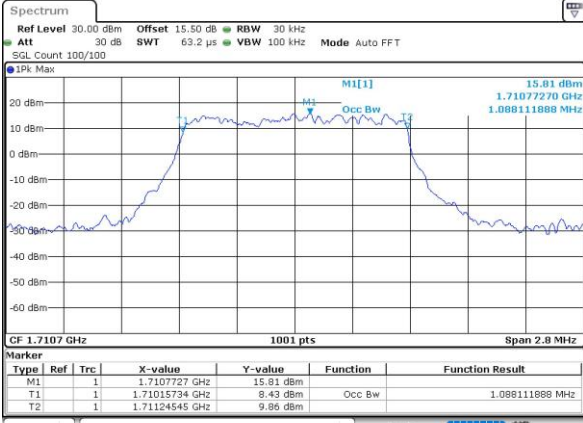
Mode	LTE Band 4 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.71	4.51	4.49	9.03	9.01	13.43	13.46	18.46	18.26
Middle CH	1.09	1.09	2.73	2.72	4.50	4.50	8.99	8.99	13.43	13.43	18.18	18.42
Highest CH	1.09	1.09	2.73	2.72	4.48	4.49	8.99	9.01	13.49	13.49	18.34	18.34





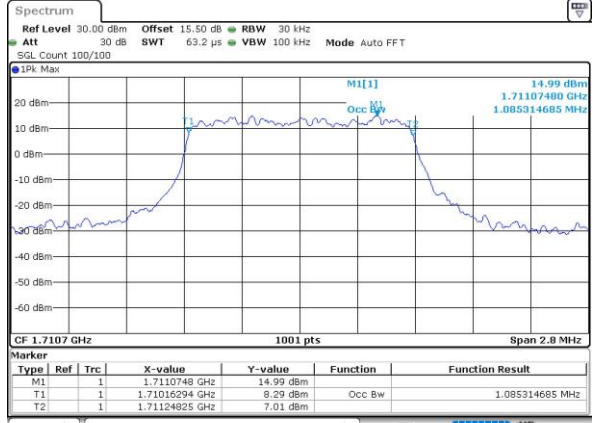
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



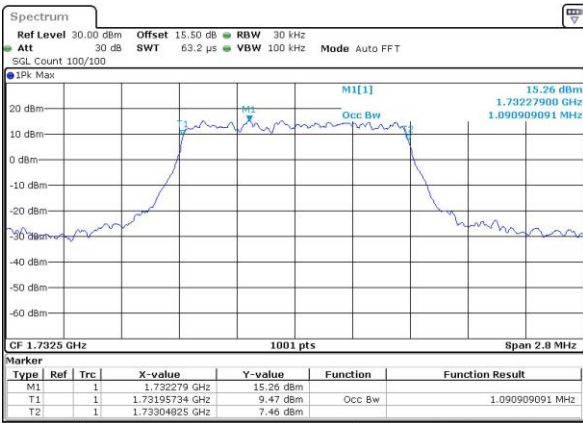
Date: 29\_SEP.2018 00:38:16

Lowest Channel / 1.4MHz / 16QAM



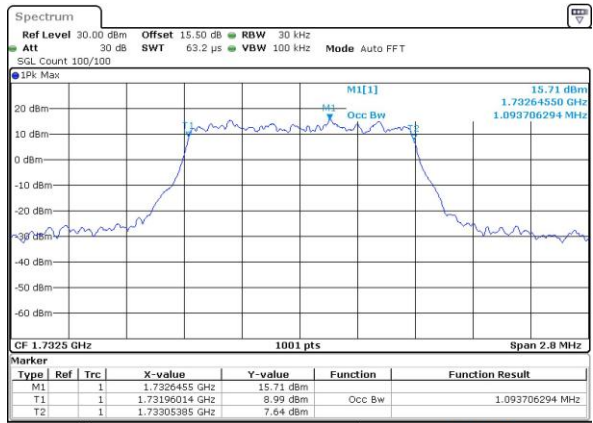
Date: 29\_SEP.2018 00:38:28

Middle Channel / 1.4MHz / QPSK



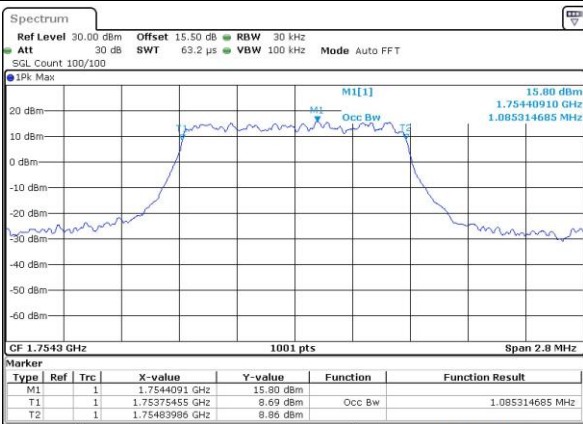
Date: 29\_SEP.2018 00:44:51

Middle Channel / 1.4MHz / 16QAM



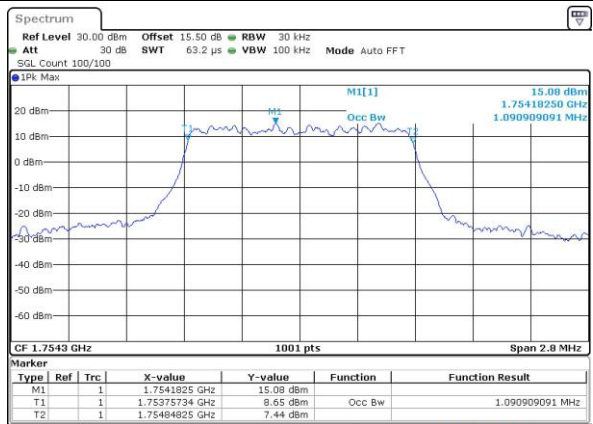
Date: 29\_SEP.2018 00:45:03

Highest Channel / 1.4MHz / QPSK



Date: 29\_SEP.2018 00:47:16

Highest Channel / 1.4MHz / 16QAM

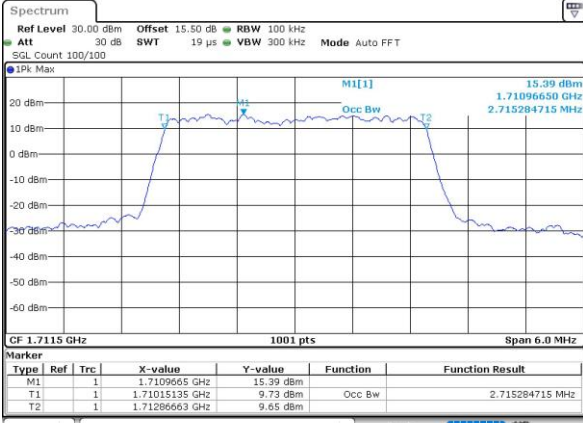


Date: 29\_SEP.2018 00:47:28



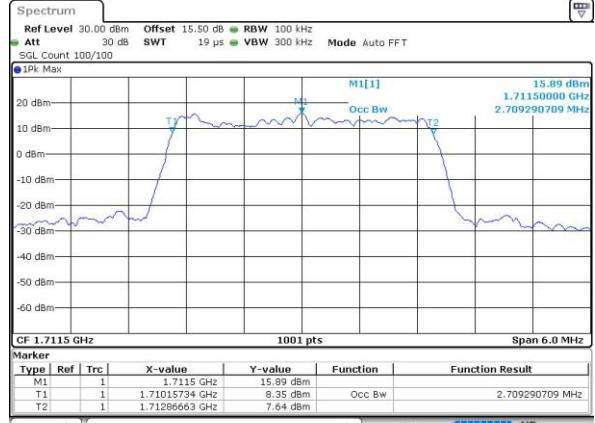
LTE Band 4

Lowest Channel / 3MHz / QPSK



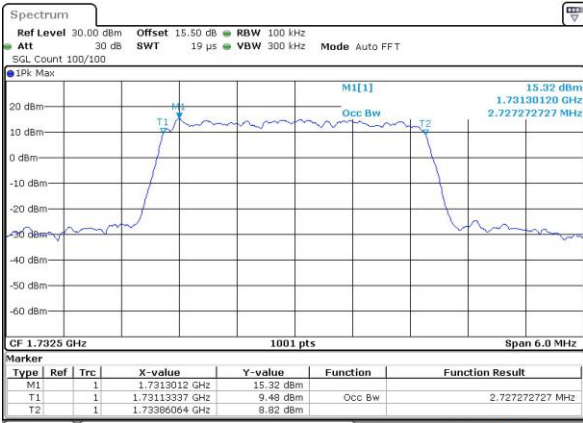
Date: 28\_SEP.2018 07:35:51

Lowest Channel / 3MHz / 16QAM



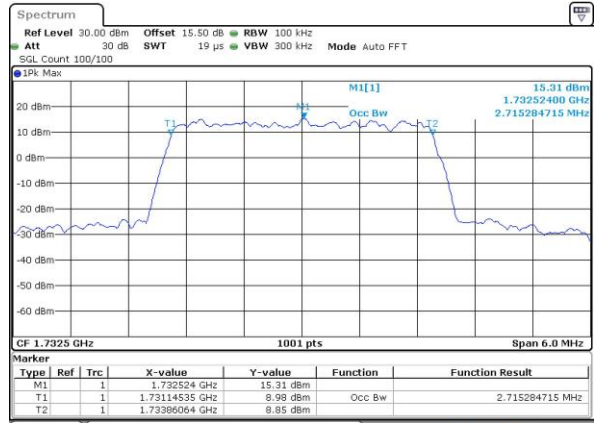
Date: 28\_SEP.2018 07:36:03

Middle Channel / 3MHz / QPSK



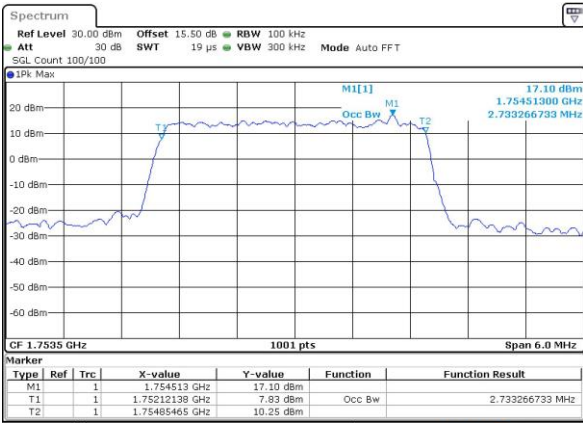
Date: 28\_SEP.2018 07:42:15

Middle Channel / 3MHz / 16QAM



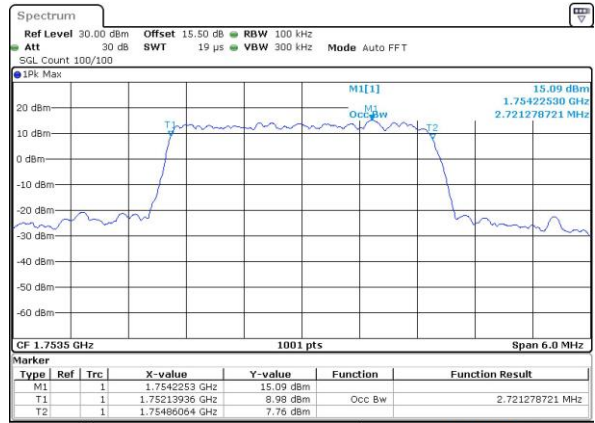
Date: 28\_SEP.2018 07:42:26

Highest Channel / 3MHz / QPSK



Date: 28\_SEP.2018 07:44:40

Highest Channel / 3MHz / 16QAM

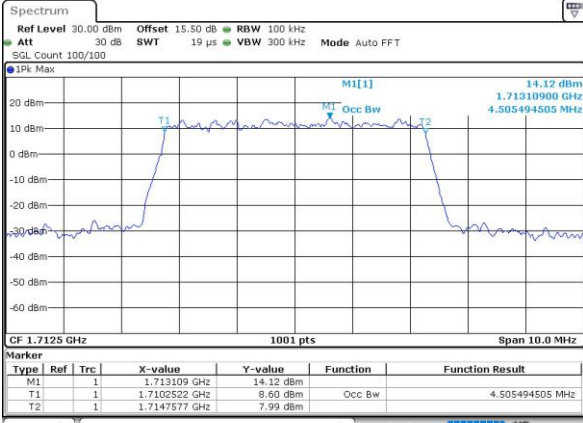


Date: 28\_SEP.2018 07:44:52



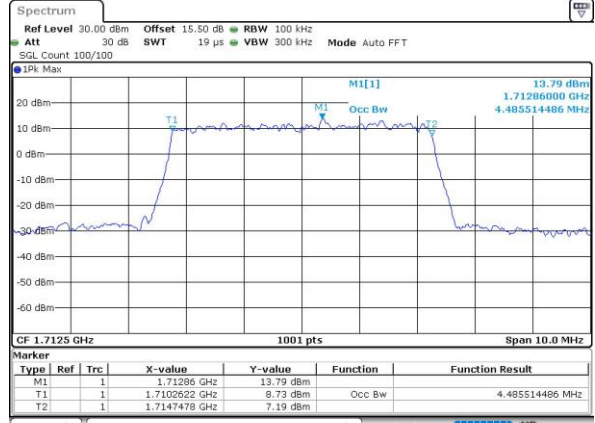
LTE Band 4

Lowest Channel / 5MHz / QPSK



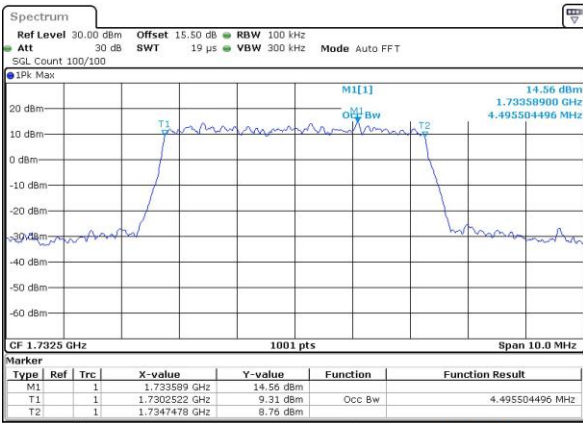
Date: 28\_SEP.2018 07:51:03

Lowest Channel / 5MHz / 16QAM



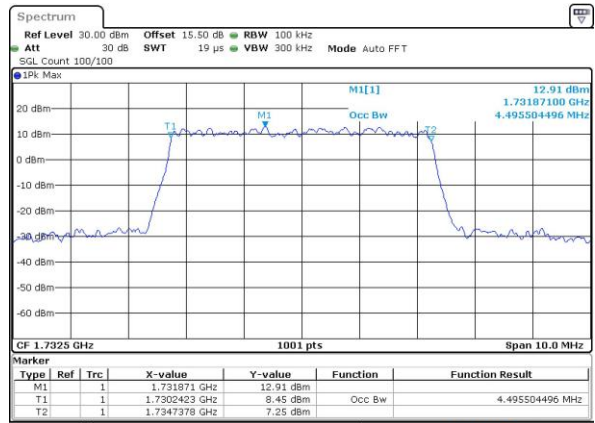
Date: 28\_SEP.2018 07:51:15

Middle Channel / 5MHz / QPSK



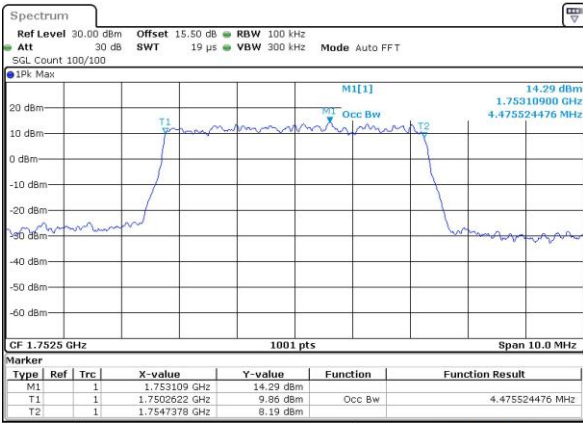
Date: 28\_SEP.2018 07:57:26

Middle Channel / 5MHz / 16QAM



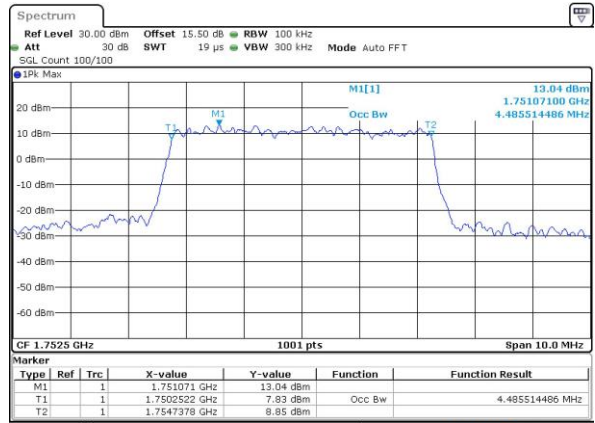
Date: 28\_SEP.2018 07:57:37

Highest Channel / 5MHz / QPSK



Date: 28\_SEP.2018 07:59:51

Highest Channel / 5MHz / 16QAM

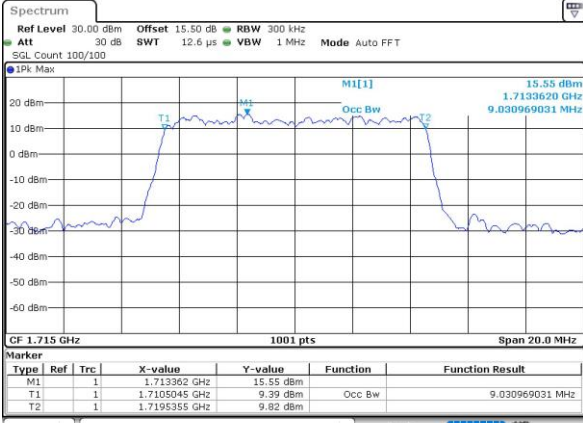


Date: 28\_SEP.2018 08:00:03



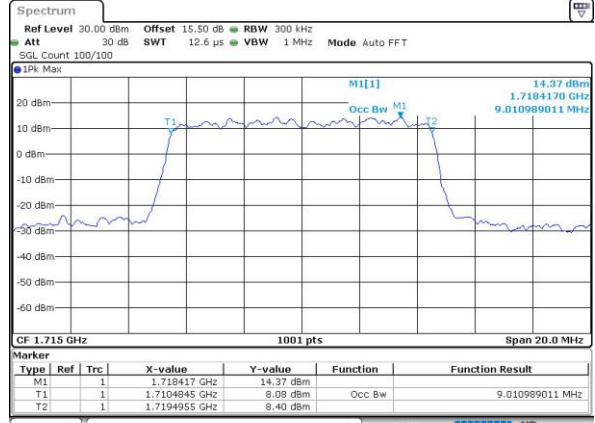
LTE Band 4

Lowest Channel / 10MHz / QPSK



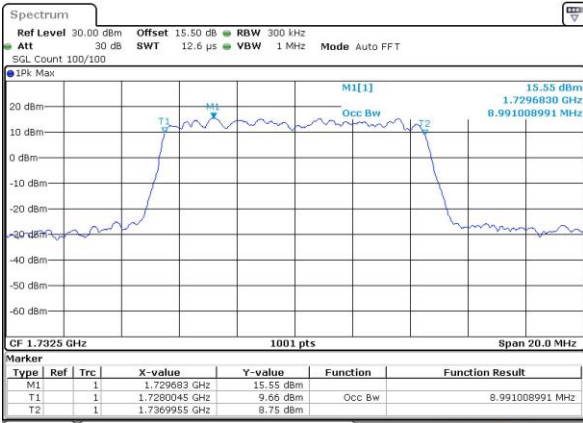
Date: 28\_SEP.2018 08:06:14

Lowest Channel / 10MHz / 16QAM



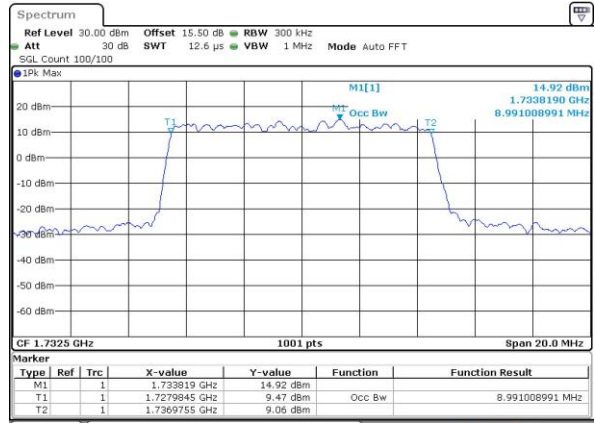
Date: 28\_SEP.2018 08:06:25

Middle Channel / 10MHz / QPSK



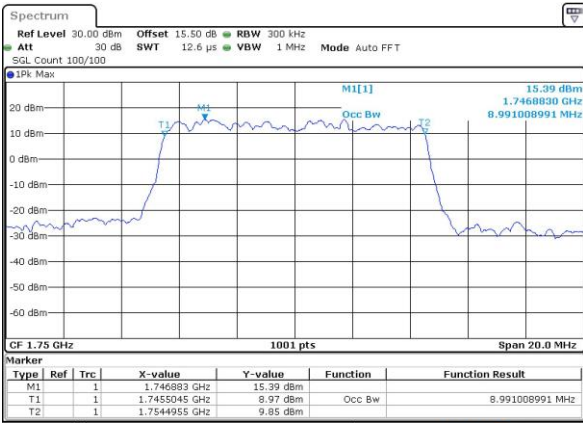
Date: 28\_SEP.2018 08:12:37

Middle Channel / 10MHz / 16QAM



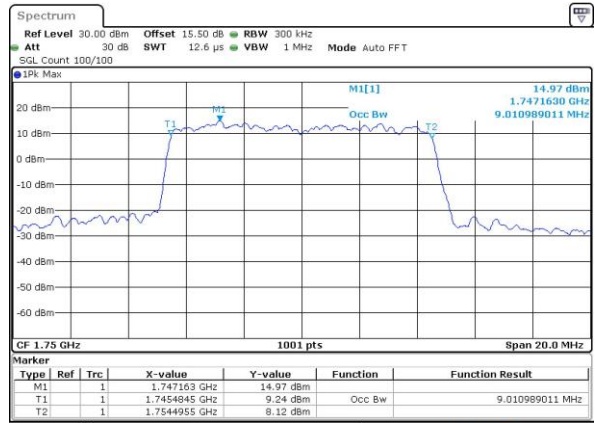
Date: 28\_SEP.2018 08:12:48

Highest Channel / 10MHz / QPSK



Date: 28\_SEP.2018 08:15:02

Highest Channel / 10MHz / 16QAM

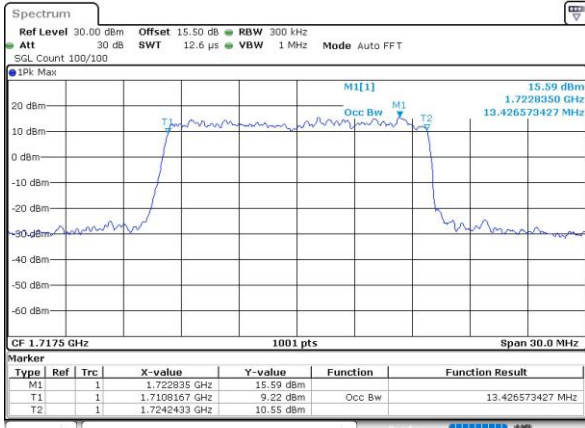


Date: 28\_SEP.2018 08:15:14



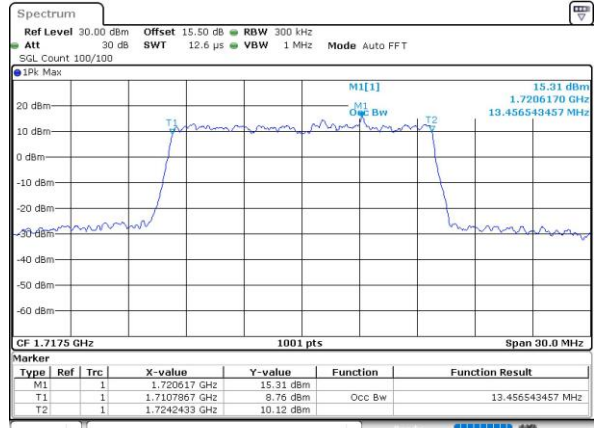
LTE Band 4

Lowest Channel / 15MHz / QPSK



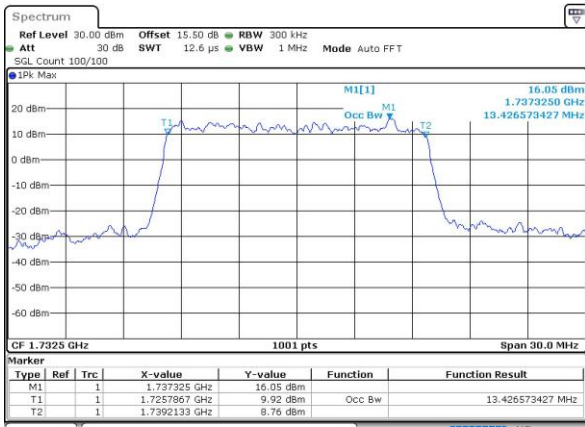
Date: 29\_SEP.2018 00:05:37

Lowest Channel / 15MHz / 16QAM



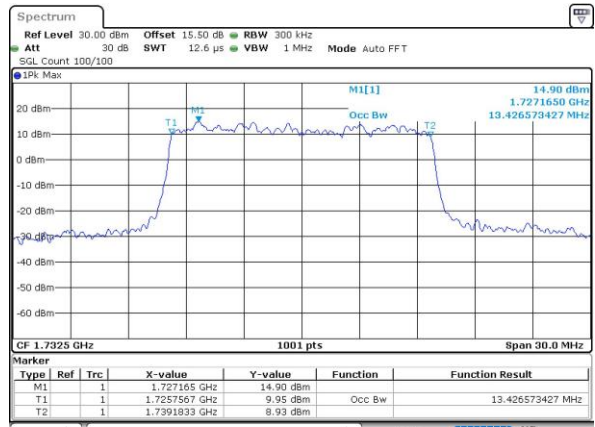
Date: 29\_SEP.2018 00:05:49

Middle Channel / 15MHz / QPSK



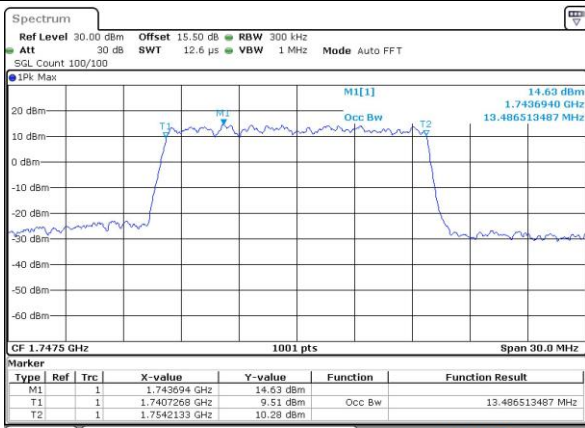
Date: 29\_SEP.2018 00:12:00

Middle Channel / 15MHz / 16QAM



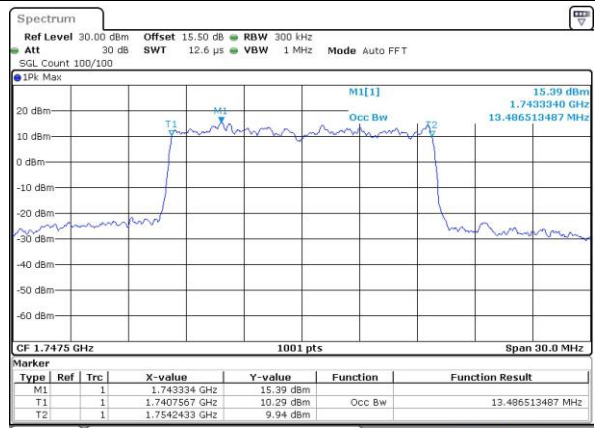
Date: 29\_SEP.2018 00:12:11

Highest Channel / 15MHz / QPSK



Date: 29\_SEP.2018 00:14:25

Highest Channel / 15MHz / 16QAM



Date: 29\_SEP.2018 00:14:36