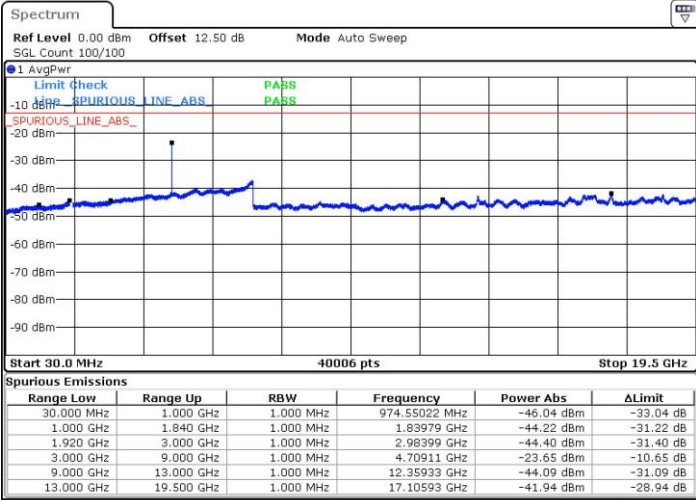




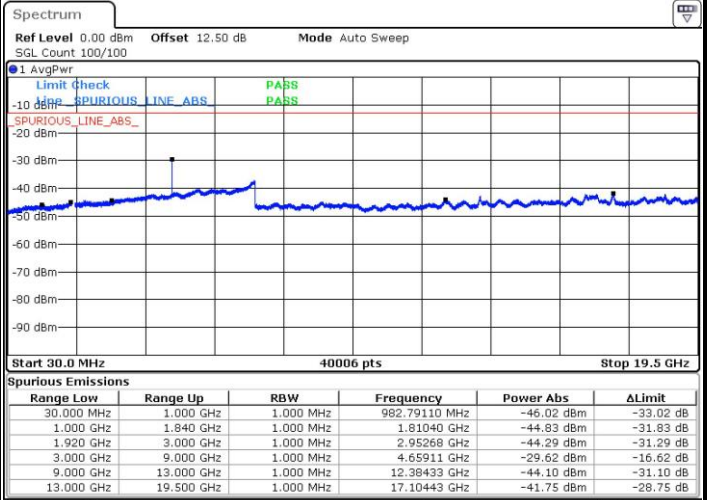
LTE Band 2 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Date: 27.JUN.2019 01:11:41



Date: 27.JUN.2019 01:13:06

Highest Channel / 64QAM



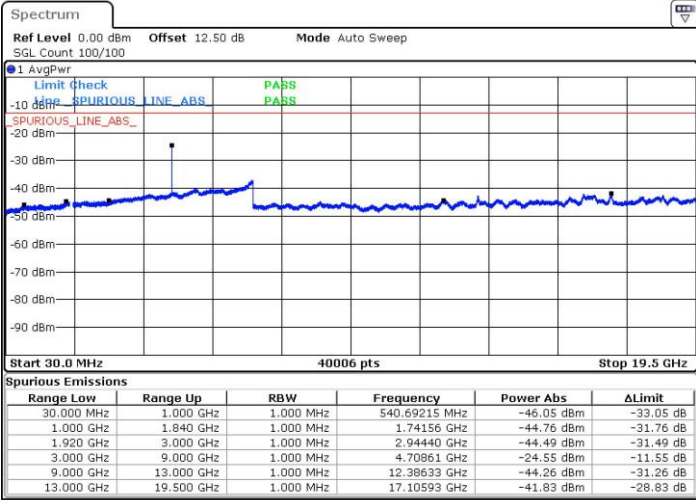
Date: 27.JUN.2019 01:16:39



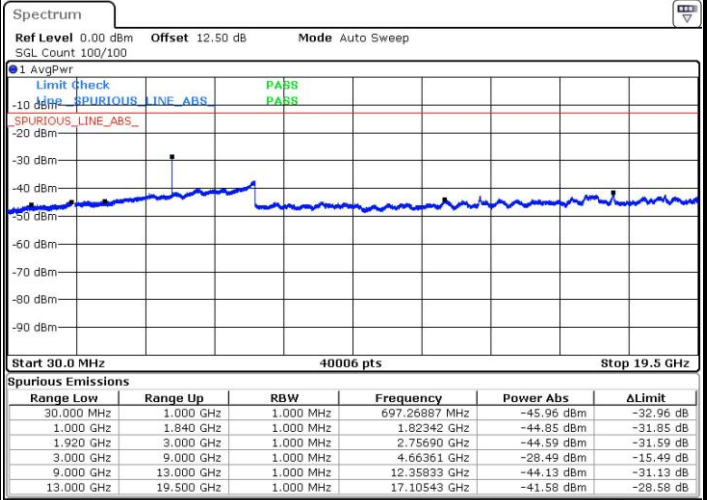
LTE Band 2 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

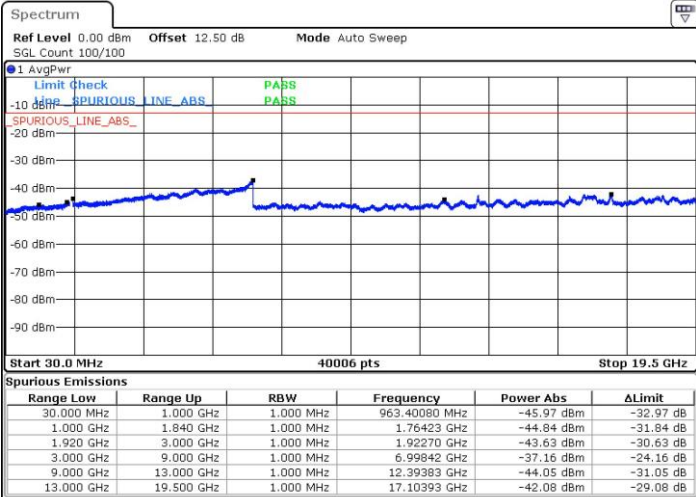


Date: 27.JUN.2019 01:20:12



Date: 27.JUN.2019 01:21:37

Highest Channel / 64QAM



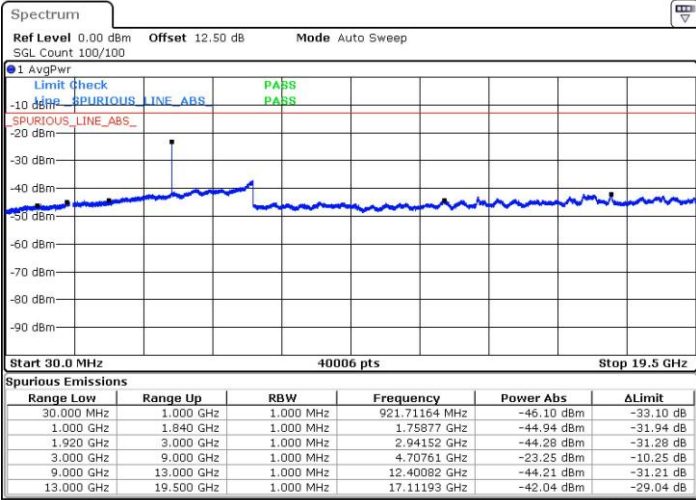
Date: 27.JUN.2019 01:25:09



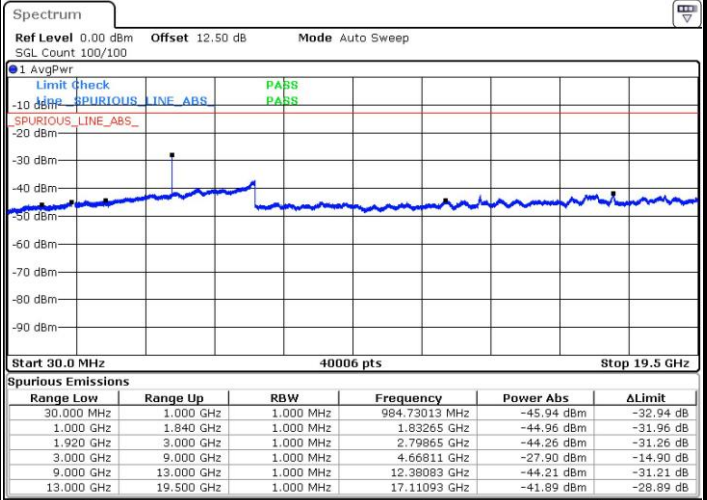
LTE Band 2 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

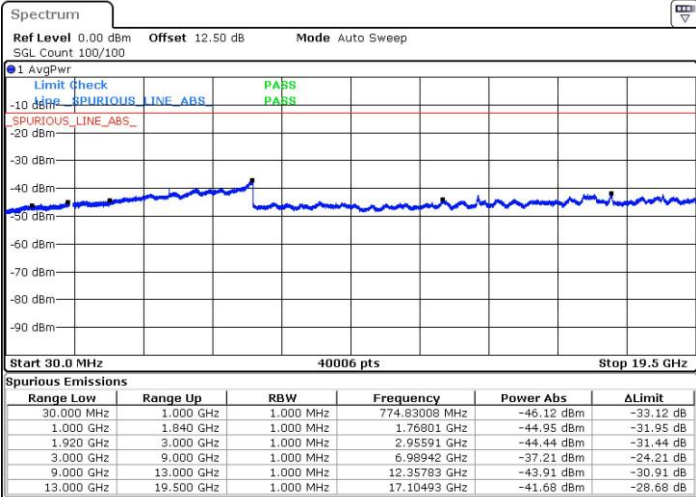


Date: 27.JUN.2019 01:28:42



Date: 27.JUN.2019 01:30:07

Highest Channel / 64QAM



Date: 27.JUN.2019 01:33:40



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	0.0010	PASS
40	Normal Voltage	0.0084	
30	Normal Voltage	0.0040	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0029	
0	Normal Voltage	0.0053	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0050	
-30	Normal Voltage	0.0031	
20	Maximum Voltage	0.0030	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0066	

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	3.68	4.64	5.48	6.03	PASS
Middle CH	3.62	4.55	5.51	6.03	
Highest CH	3.65	4.72	5.39	6.06	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.46	6.61	-	-	PASS
Middle CH	6.52	6.49	-	-	
Highest CH	6.41	6.64	-	-	



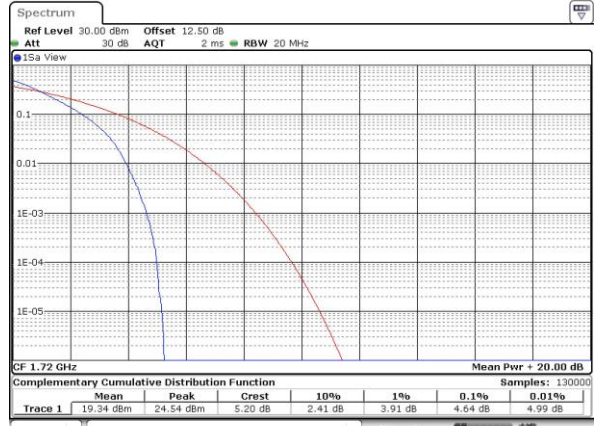
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



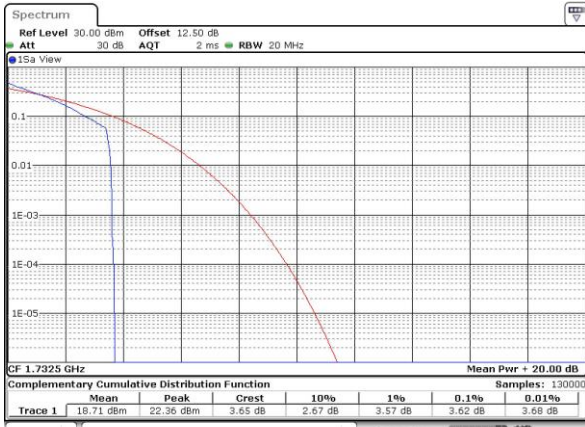
Date: 28 JUN 2019 04:13:12

Lowest Channel / Full RB



Date: 28 JUN 2019 04:13:23

Middle Channel / 1RB



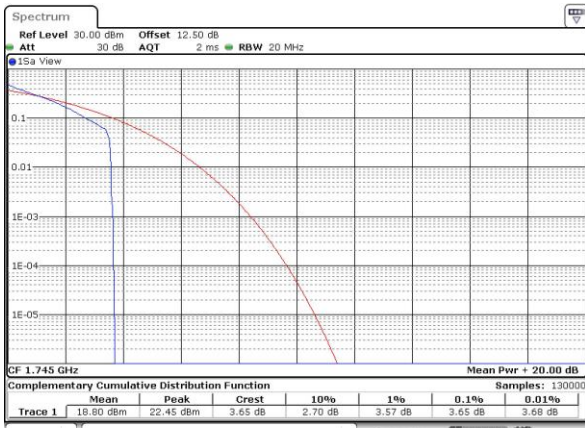
Date: 28 JUN 2019 04:13:35

Middle Channel / Full RB



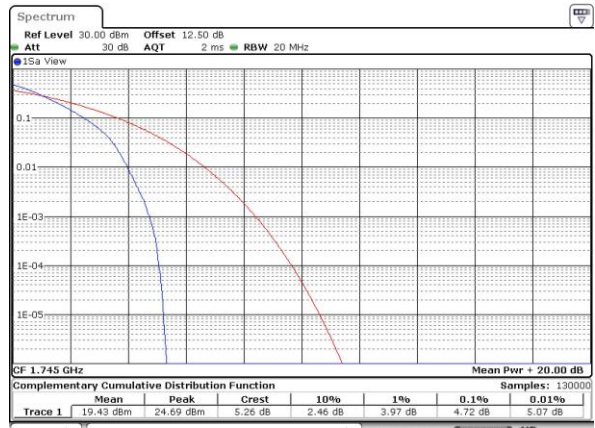
Date: 28 JUN 2019 04:13:47

Highest Channel / 1RB



Date: 28 JUN 2019 04:13:58

Highest Channel / Full RB

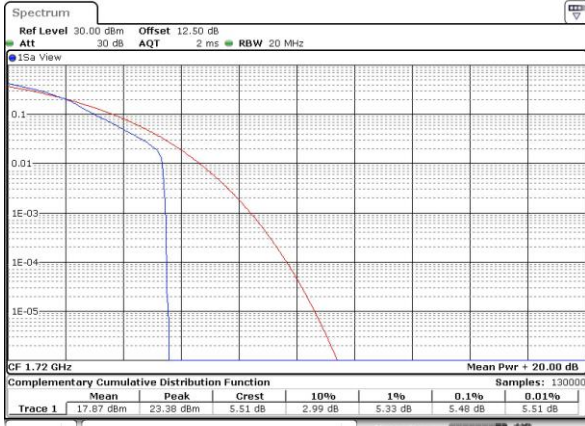


Date: 28 JUN 2019 04:14:18



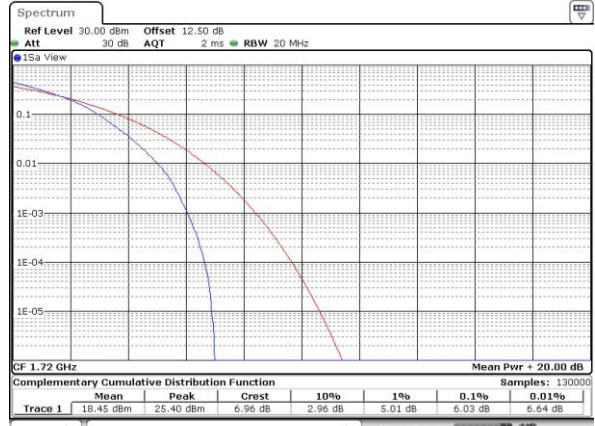
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



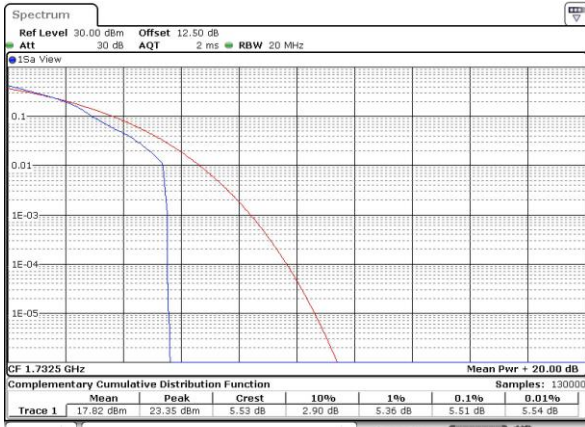
Date: 28 JUN 2019 04:11:56

Lowest Channel / Full RB



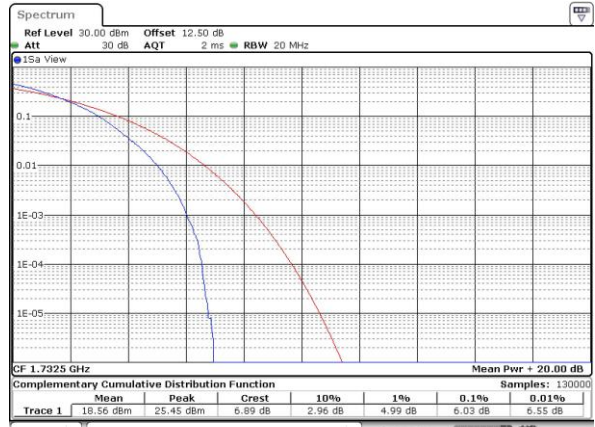
Date: 28 JUN 2019 04:12:07

Middle Channel / 1RB



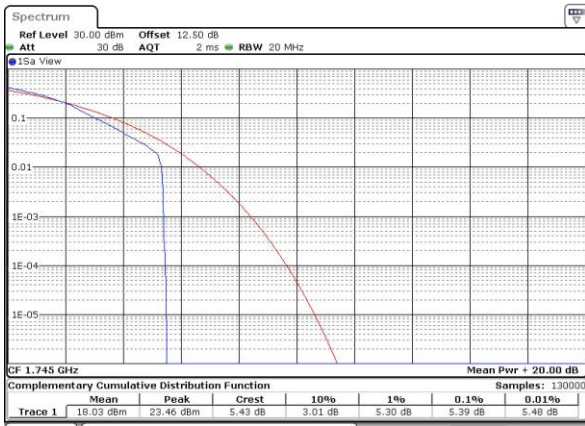
Date: 28 JUN 2019 04:12:19

Middle Channel / Full RB



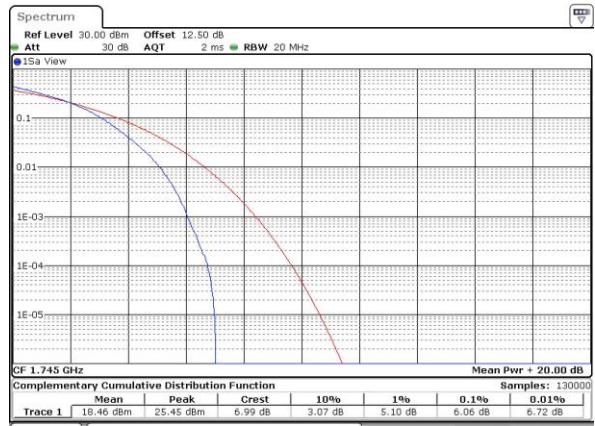
Date: 28 JUN 2019 04:12:32

Highest Channel / 1RB



Date: 28 JUN 2019 04:12:44

Highest Channel / Full RB

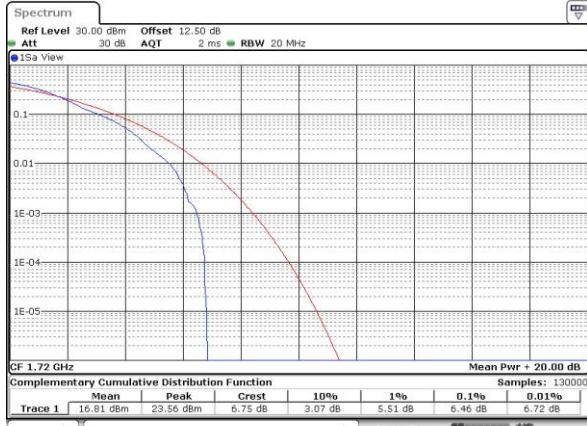


Date: 28 JUN 2019 04:13:00



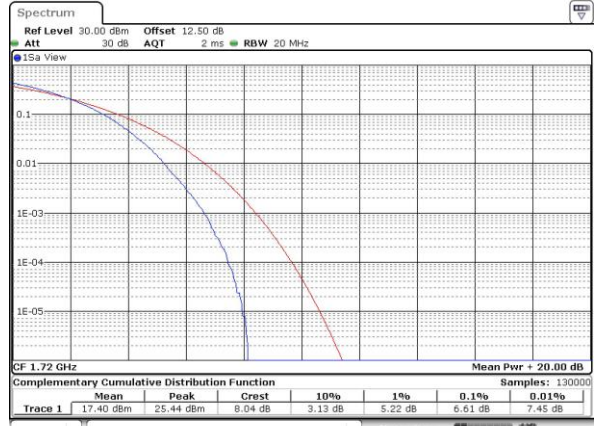
LTE Band 4 / 20MHz / 64QAM

Lowest Channel / 1RB



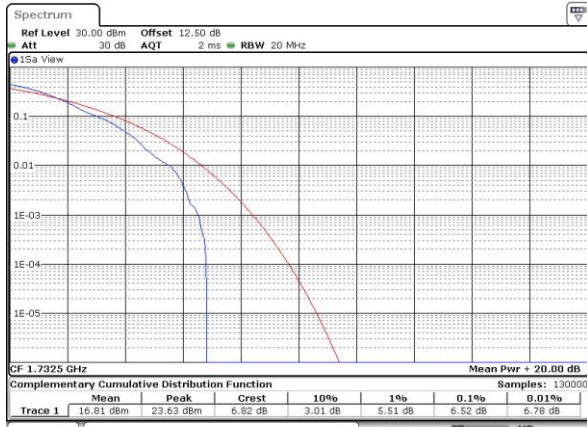
Date: 28 JUN 2019 04:14:30

Lowest Channel / Full RB



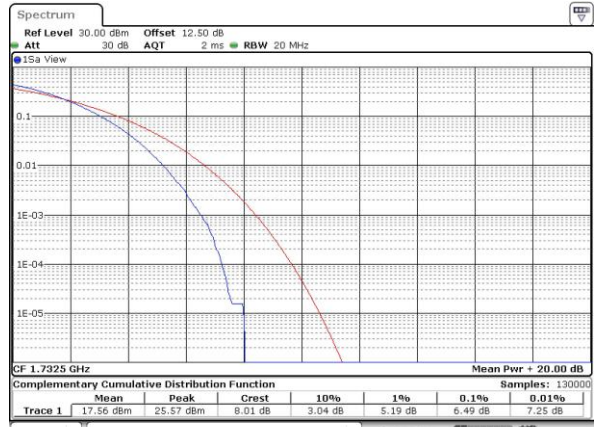
Date: 28 JUN 2019 04:14:41

Middle Channel / 1RB



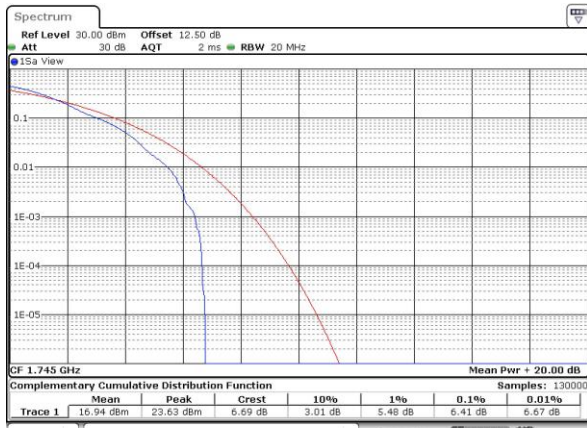
Date: 28 JUN 2019 04:14:52

Middle Channel / Full RB



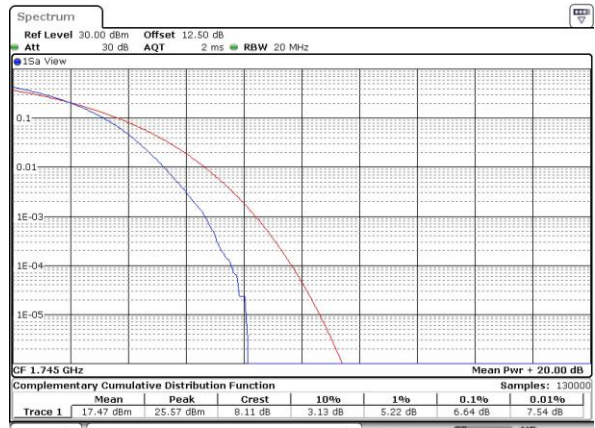
Date: 28 JUN 2019 04:15:03

Highest Channel / 1RB



Date: 28 JUN 2019 04:15:13

Highest Channel / Full RB



Date: 28 JUN 2019 04:15:24



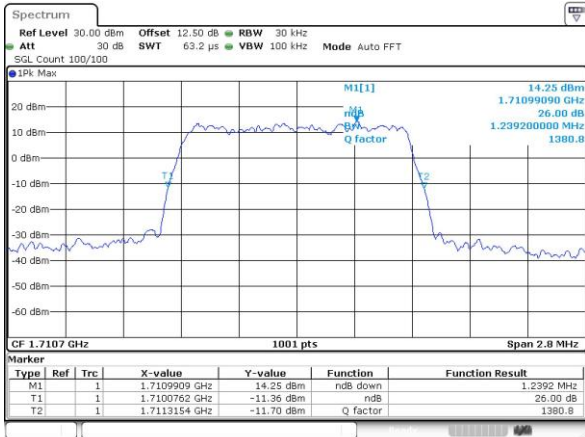
26dB Bandwidth

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	1.24	1.23	2.99	3.03	4.84	4.94	9.77	9.65	14.51	14.48	18.90	19.14
Middle CH	1.23	1.23	3.03	2.93	4.86	4.90	9.77	9.71	14.36	14.36	18.82	18.94
Highest CH	1.21	1.22	3.03	3.00	4.92	4.86	9.93	9.83	14.24	14.33	19.54	18.94
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	2.97	-	4.92	-	9.87	-	14.27	-	19.02	-
Middle CH	1.22	-	3.00	-	4.95	-	9.77	-	14.36	-	19.14	-
Highest CH	1.23	-	3.03	-	4.84	-	9.79	-	14.27	-	18.82	-



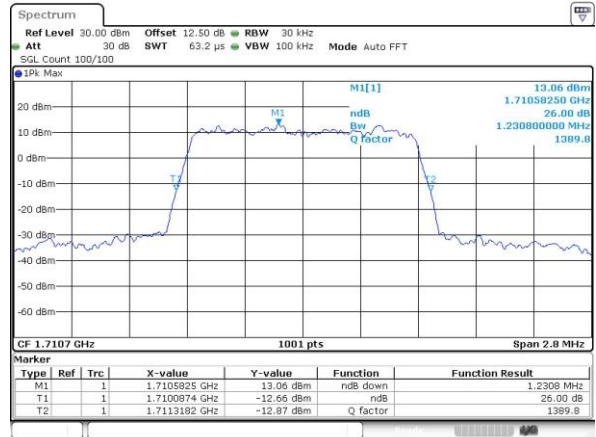
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



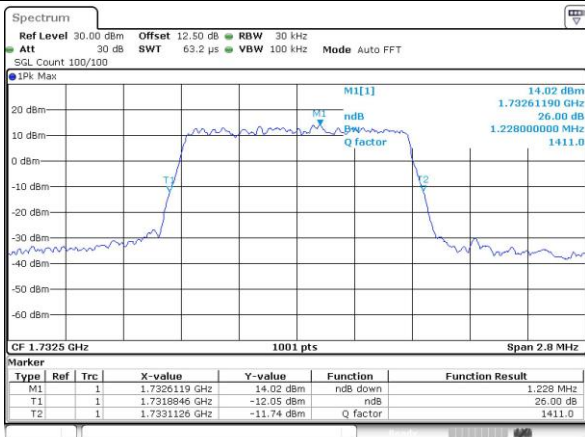
Date: 28 JUN 2019 01:09:07

Lowest Channel / 1.4MHz / 16QAM



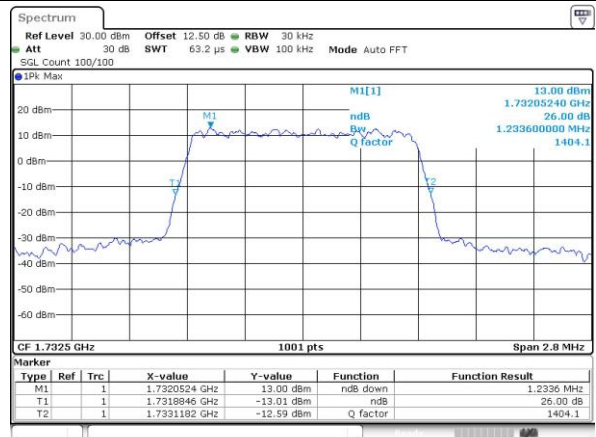
Date: 28 JUN 2019 01:09:18

Middle Channel / 1.4MHz / QPSK



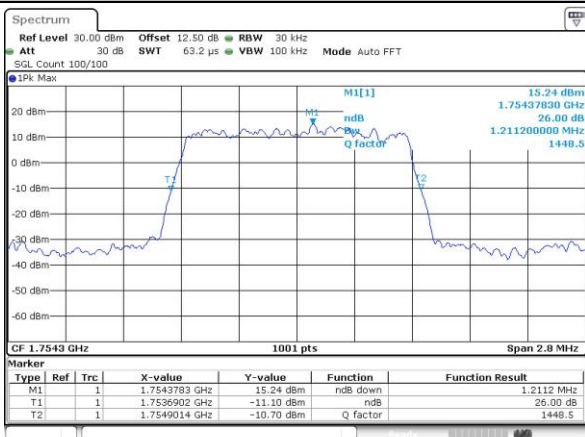
Date: 28 JUN 2019 01:16:12

Middle Channel / 1.4MHz / 16QAM



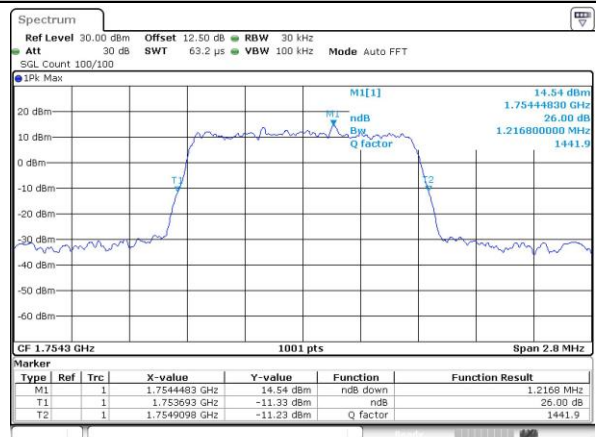
Date: 28 JUN 2019 01:16:23

Highest Channel / 1.4MHz / QPSK



Date: 28 JUN 2019 01:19:00

Highest Channel / 1.4MHz / 16QAM

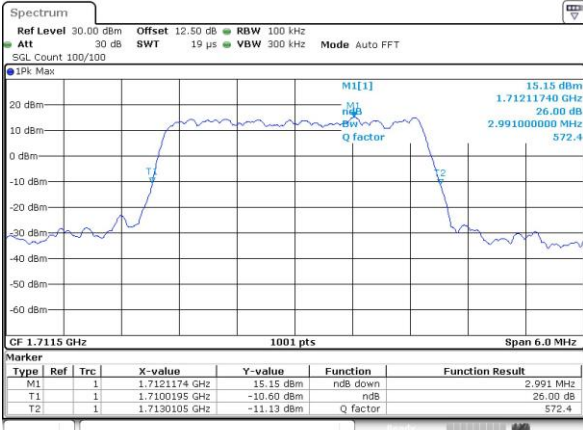


Date: 28 JUN 2019 01:19:11



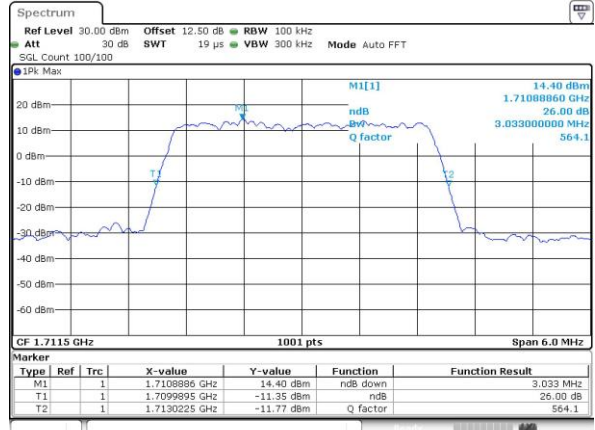
LTE Band 4

Lowest Channel / 3MHz / QPSK



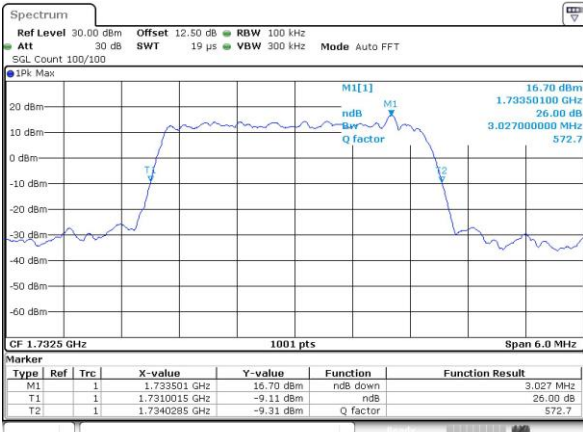
Date: 28 JUN 2019 01:26:05

Lowest Channel / 3MHz / 16QAM



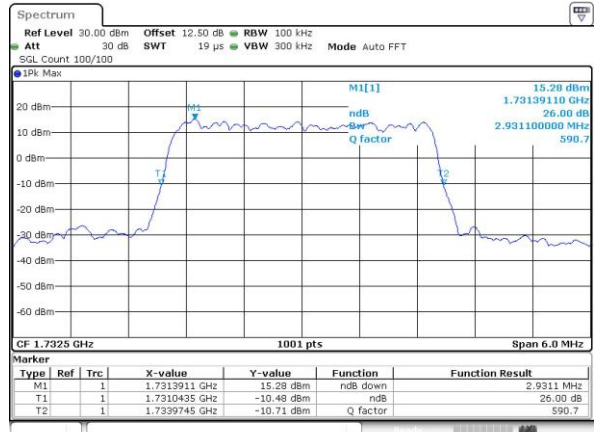
Date: 28 JUN 2019 01:26:16

Middle Channel / 3MHz / QPSK



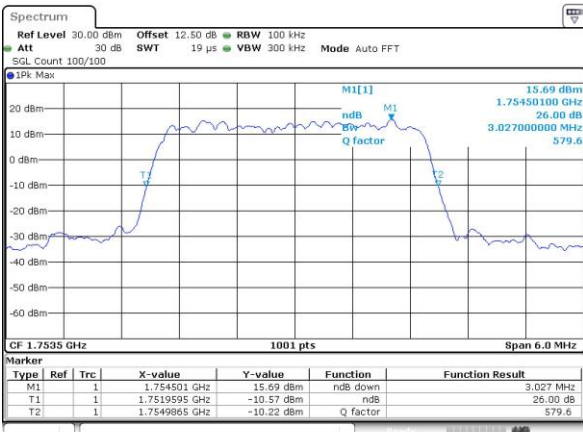
Date: 28 JUN 2019 01:33:10

Middle Channel / 3MHz / 16QAM



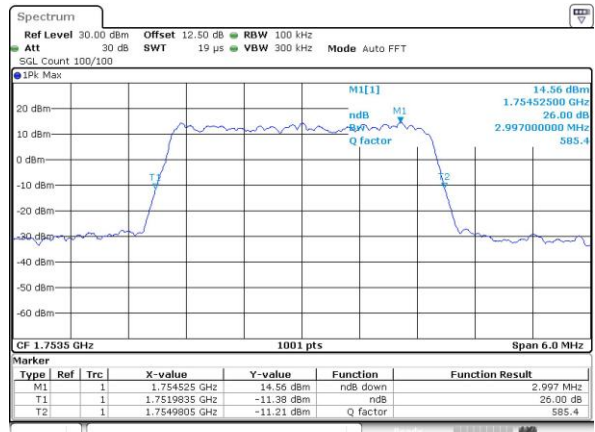
Date: 28 JUN 2019 01:33:22

Highest Channel / 3MHz / QPSK



Date: 28 JUN 2019 01:35:59

Highest Channel / 3MHz / 16QAM

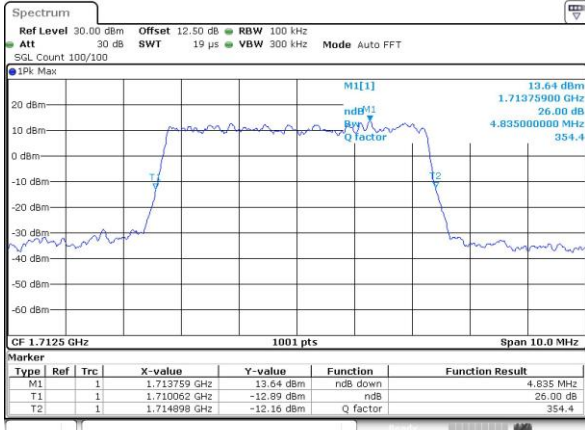


Date: 28 JUN 2019 01:36:10



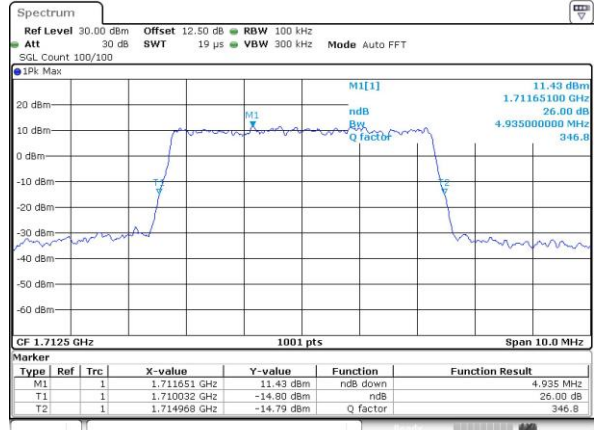
LTE Band 4

Lowest Channel / 5MHz / QPSK



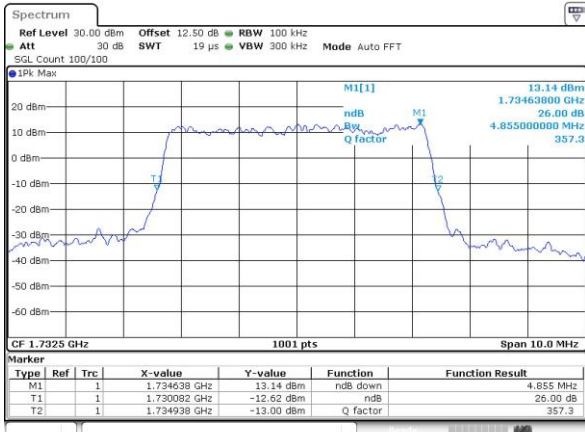
Date: 28 JUN 2019 01:43:04

Lowest Channel / 5MHz / 16QAM



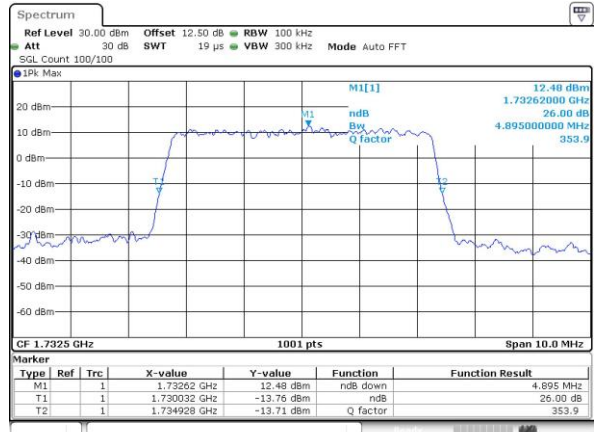
Date: 28 JUN 2019 01:43:15

Middle Channel / 5MHz / QPSK



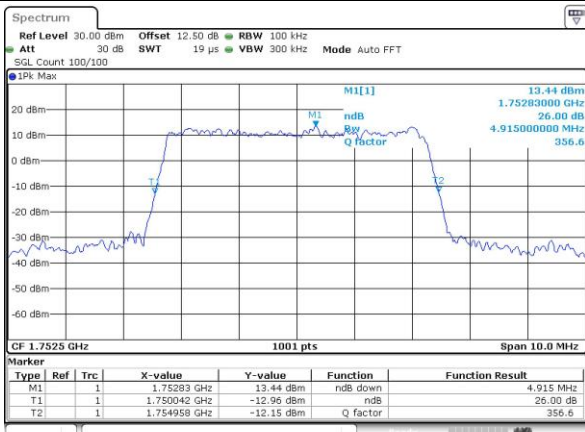
Date: 28 JUN 2019 01:50:09

Middle Channel / 5MHz / 16QAM



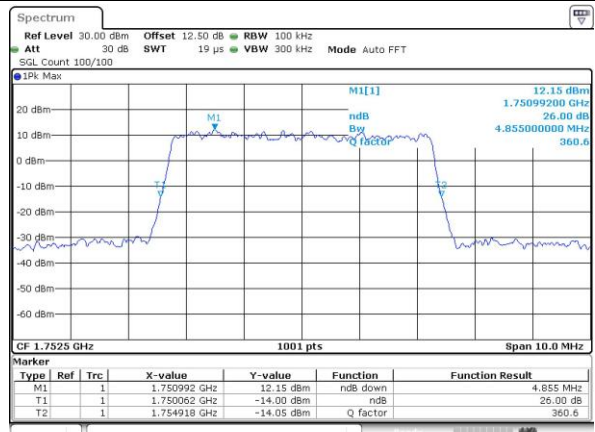
Date: 28 JUN 2019 01:50:20

Highest Channel / 5MHz / QPSK



Date: 28 JUN 2019 01:52:58

Highest Channel / 5MHz / 16QAM

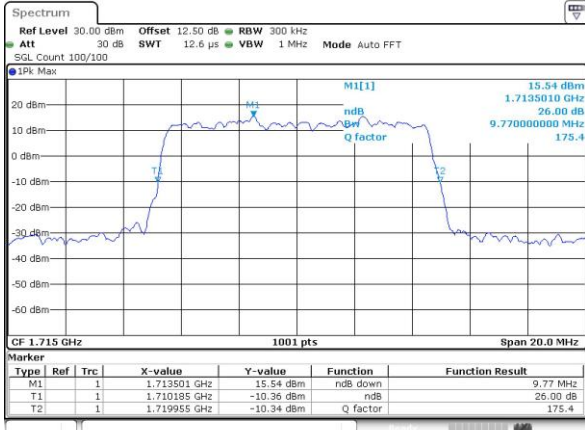


Date: 28 JUN 2019 01:53:09



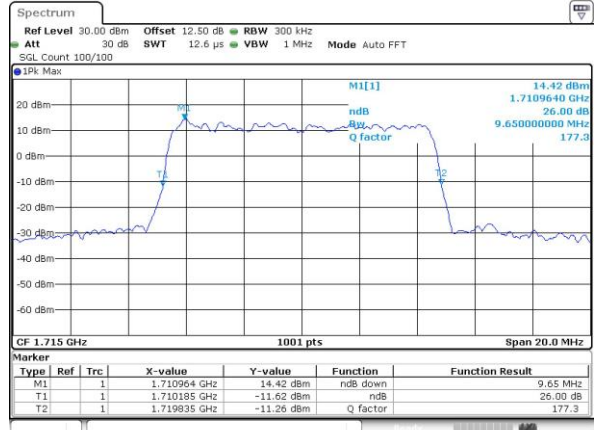
LTE Band 4

Lowest Channel / 10MHz / QPSK



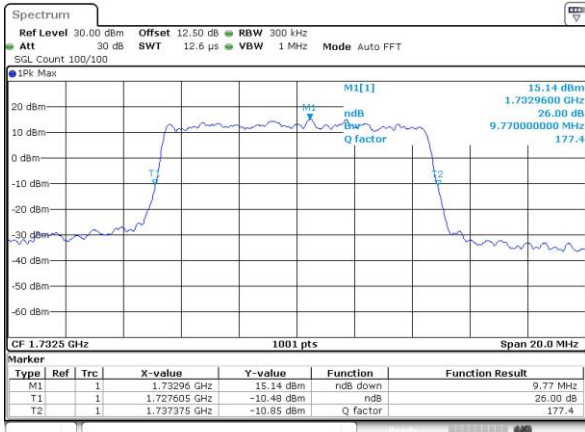
Date: 28_JUN.2019 02:10:03

Lowest Channel / 10MHz / 16QAM



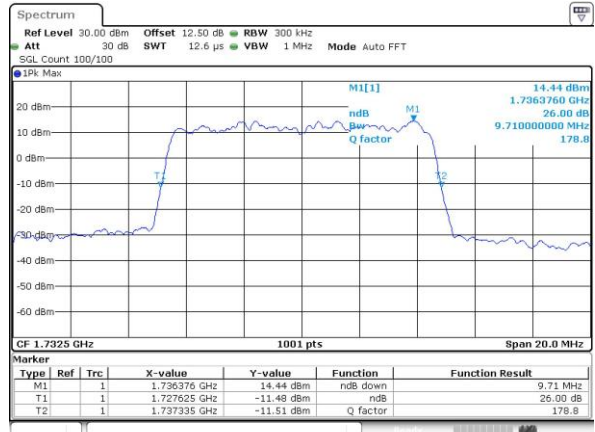
Date: 28_JUN.2019 02:10:15

Middle Channel / 10MHz / QPSK



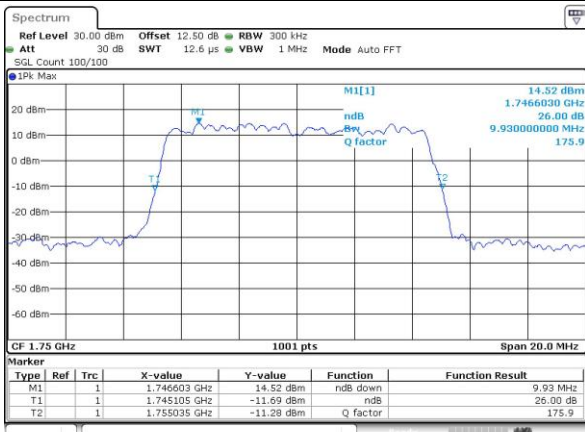
Date: 28_JUN.2019 02:10:09

Middle Channel / 10MHz / 16QAM



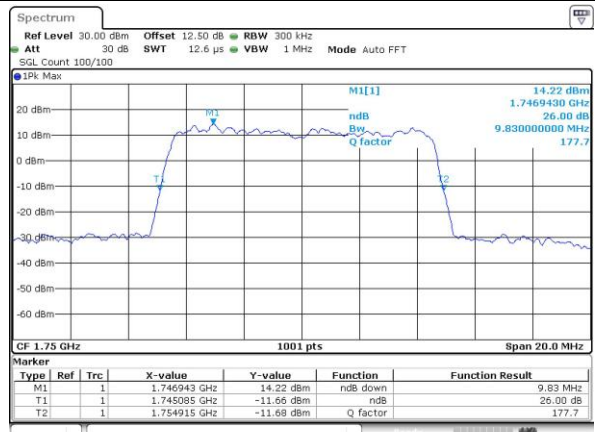
Date: 28_JUN.2019 02:10:20

Highest Channel / 10MHz / QPSK



Date: 28_JUN.2019 02:10:58

Highest Channel / 10MHz / 16QAM

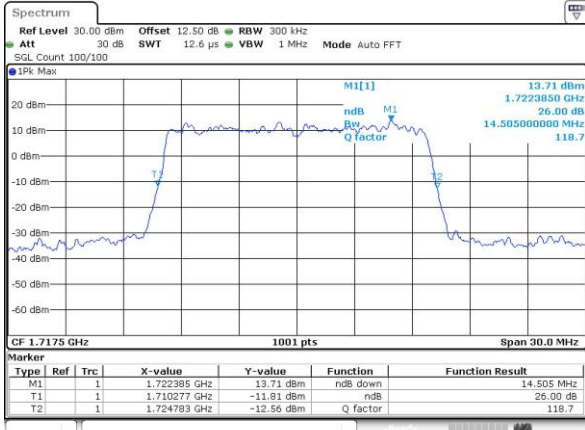


Date: 28_JUN.2019 02:11:09



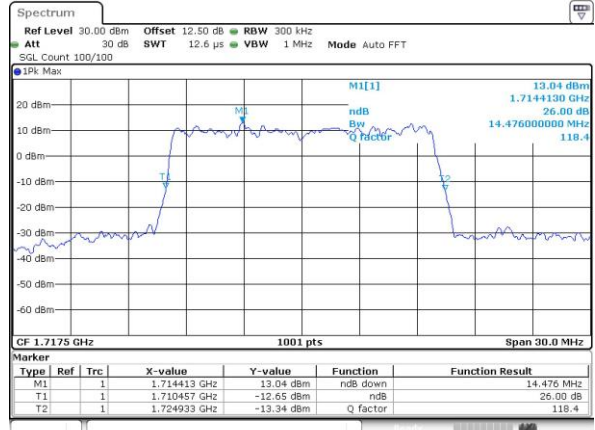
LTE Band 4

Lowest Channel / 15MHz / QPSK



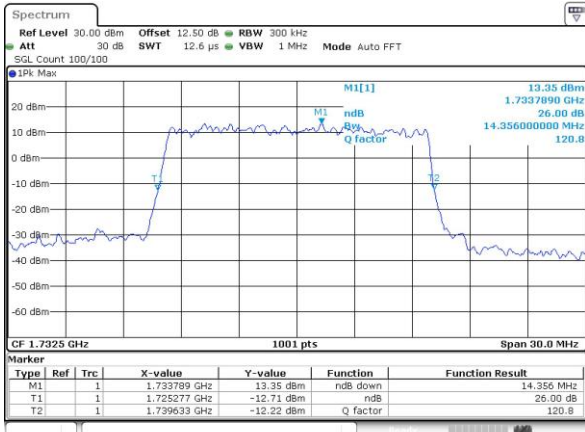
Date: 28 JUN 2019 02:17:04

Lowest Channel / 15MHz / 16QAM



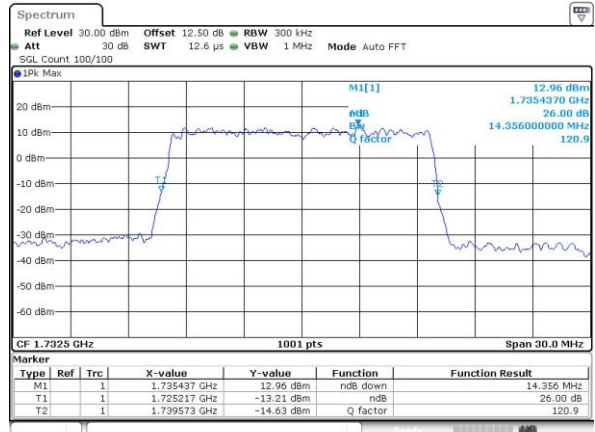
Date: 28 JUN 2019 02:17:15

Middle Channel / 15MHz / QPSK



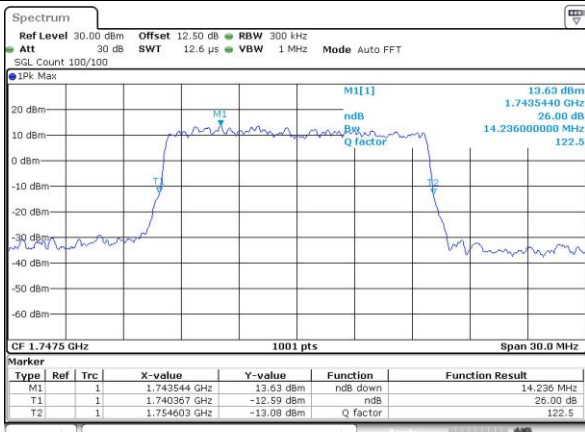
Date: 28 JUN 2019 02:24:09

Middle Channel / 15MHz / 16QAM



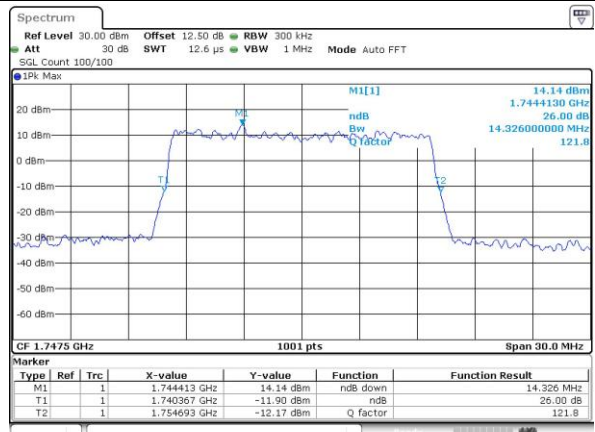
Date: 28 JUN 2019 02:24:21

Highest Channel / 15MHz / QPSK



Date: 28 JUN 2019 02:26:58

Highest Channel / 15MHz / 16QAM

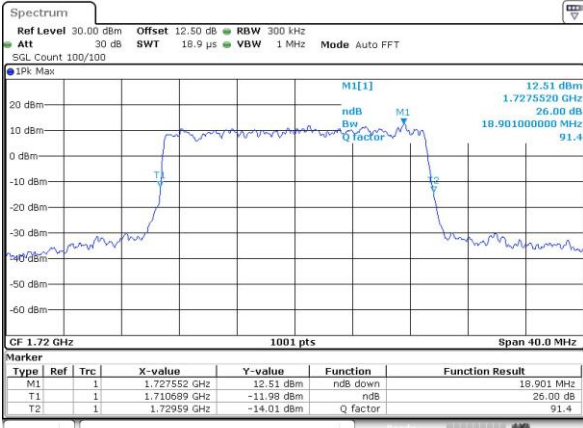


Date: 28 JUN 2019 02:27:09



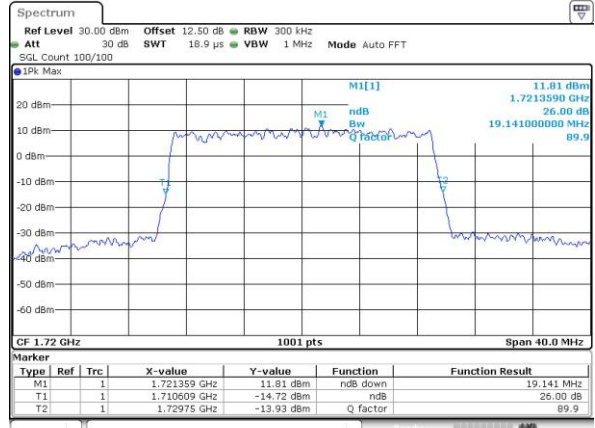
LTE Band 4

Lowest Channel / 20MHz / QPSK



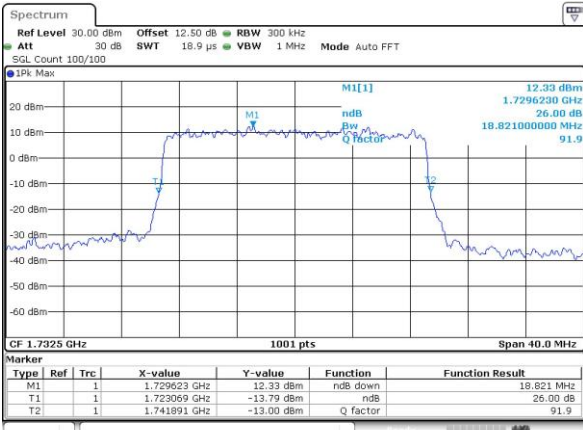
Date: 28 JUN 2019 03:12:48

Lowest Channel / 20MHz / 16QAM



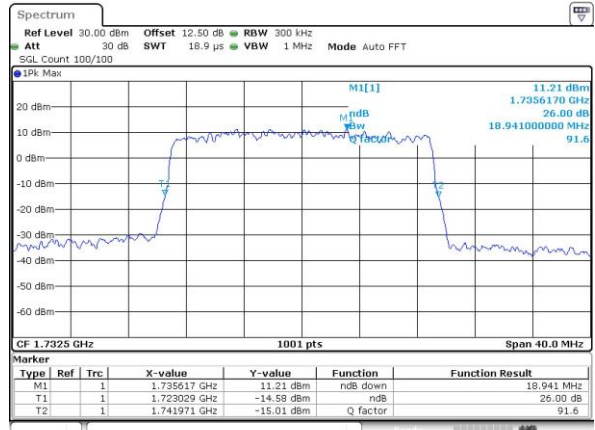
Date: 28 JUN 2019 03:12:59

Middle Channel / 20MHz / QPSK



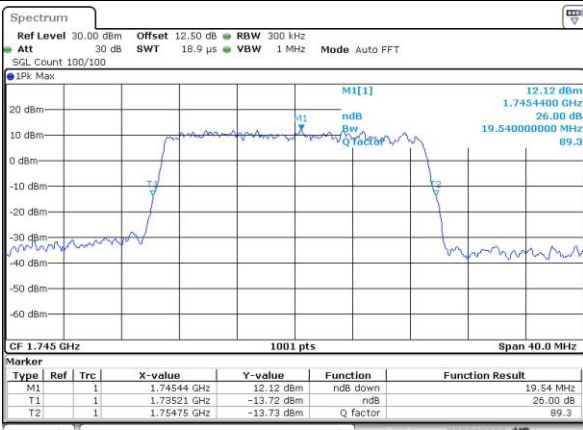
Date: 28 JUN 2019 03:19:53

Middle Channel / 20MHz / 16QAM



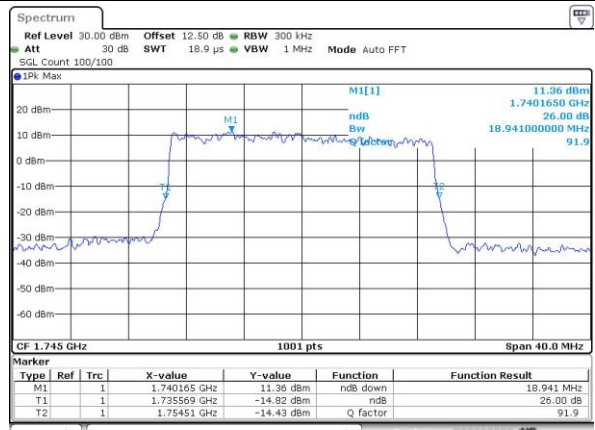
Date: 28 JUN 2019 03:20:05

Highest Channel / 20MHz / QPSK



Date: 28 JUN 2019 03:22:42

Highest Channel / 20MHz / 16QAM

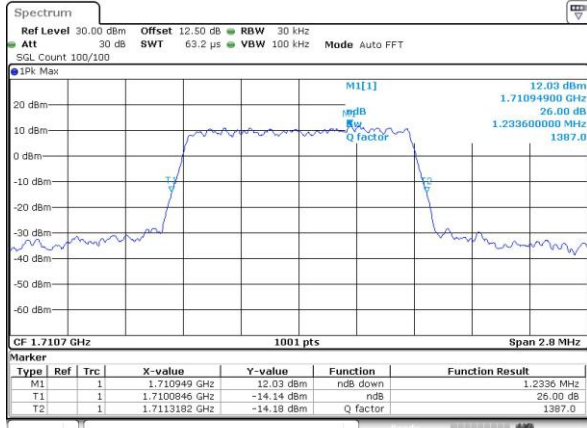


Date: 28 JUN 2019 03:22:54



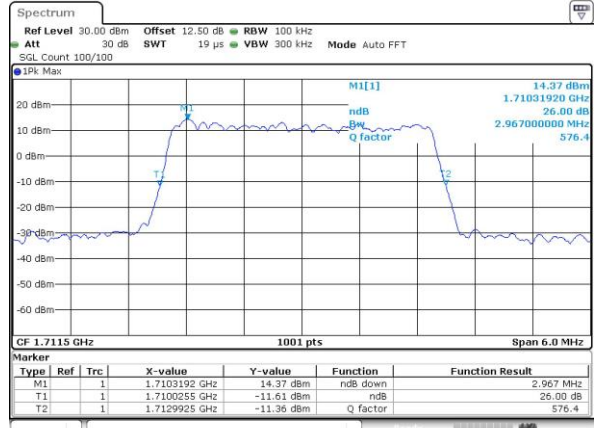
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



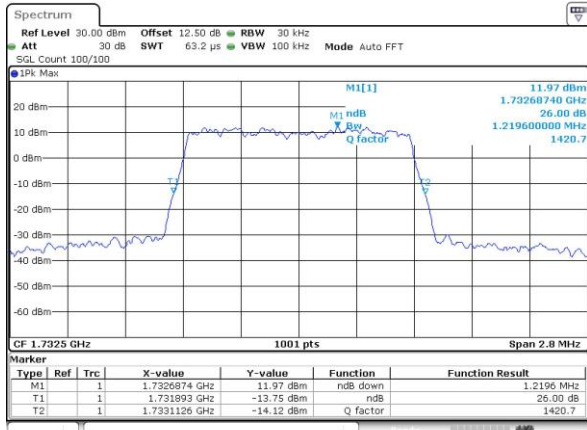
Date: 28 JUN 2019 01:00:25

Lowest Channel / 3MHz / 64QAM



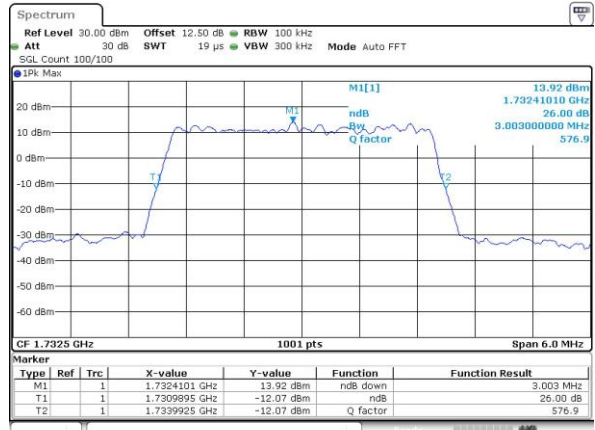
Date: 28 JUN 2019 03:12:136

Middle Channel / 1.4MHz / 64QAM



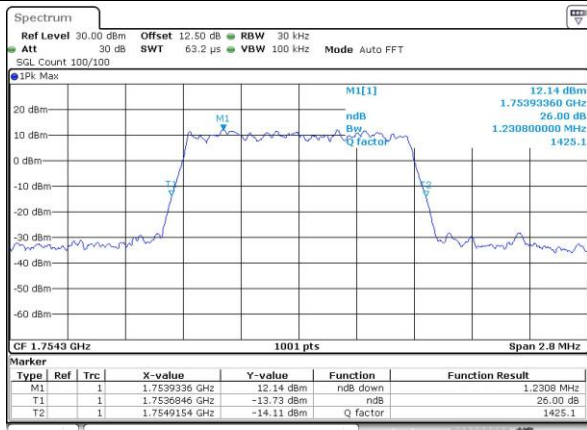
Date: 28 JUN 2019 01:03:59

Middle Channel / 3MHz / 64QAM



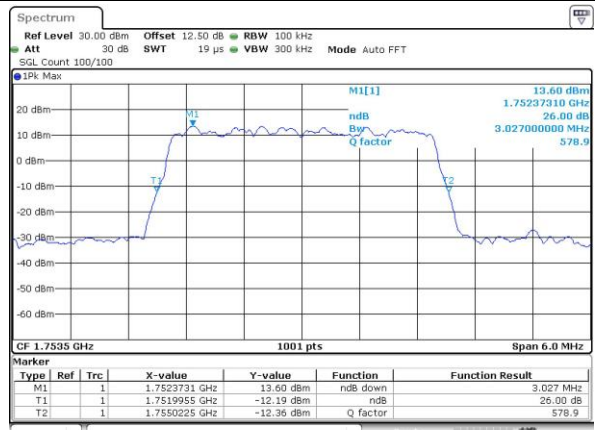
Date: 28 JUN 2019 03:13:109

Highest Channel / 1.4MHz / 64QAM



Date: 28 JUN 2019 01:05:23

Highest Channel / 3MHz / 64QAM

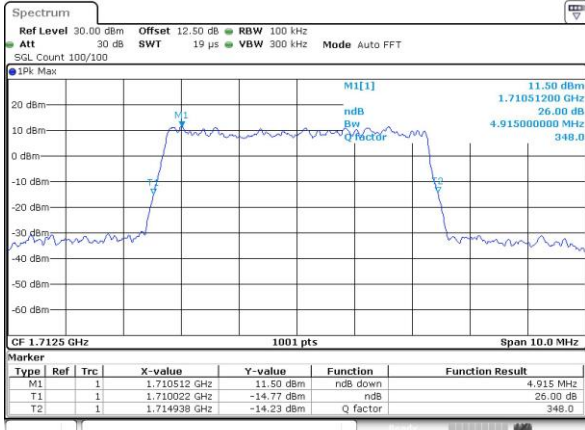


Date: 28 JUN 2019 03:13:133



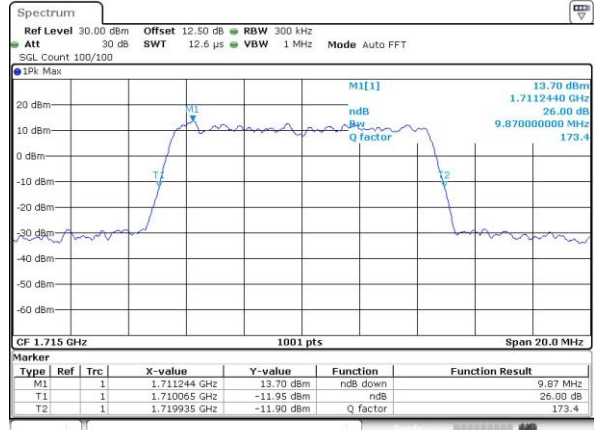
LTE Band 4

Lowest Channel / 5MHz / 64QAM



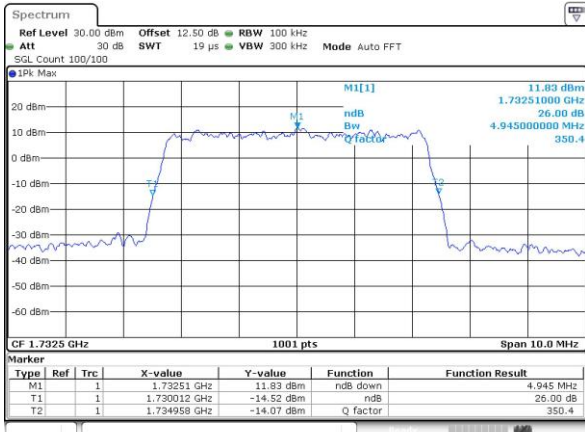
Date: 28 JUN 2019 03:38:06

Lowest Channel / 10MHz / 64QAM



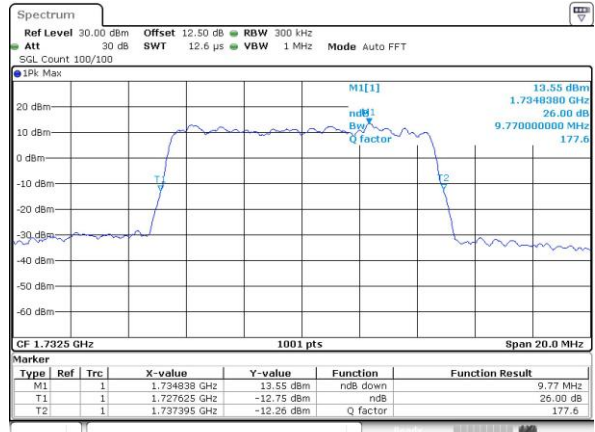
Date: 28 JUN 2019 03:46:36

Middle Channel / 5MHz / 64QAM



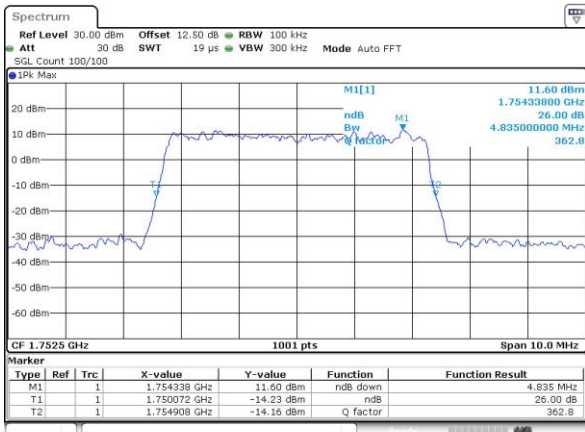
Date: 28 JUN 2019 03:41:09

Middle Channel / 10MHz / 64QAM



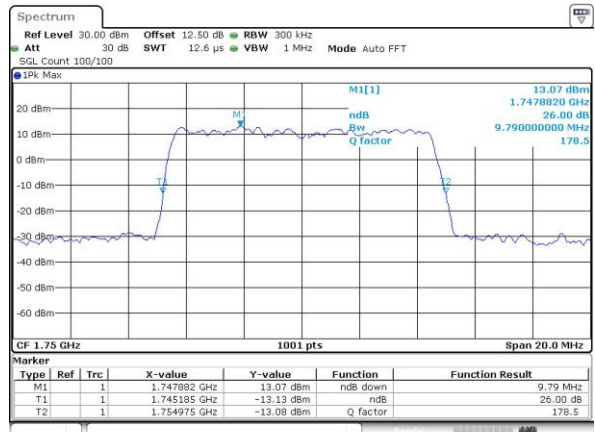
Date: 28 JUN 2019 03:50:09

Highest Channel / 5MHz / 64QAM



Date: 28 JUN 2019 03:43:03

Highest Channel / 10MHz / 64QAM

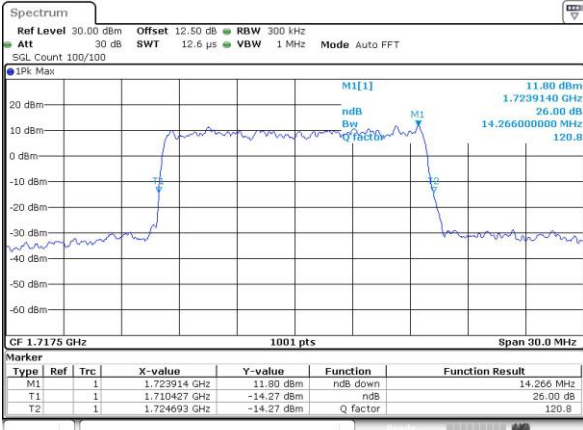


Date: 28 JUN 2019 03:51:33



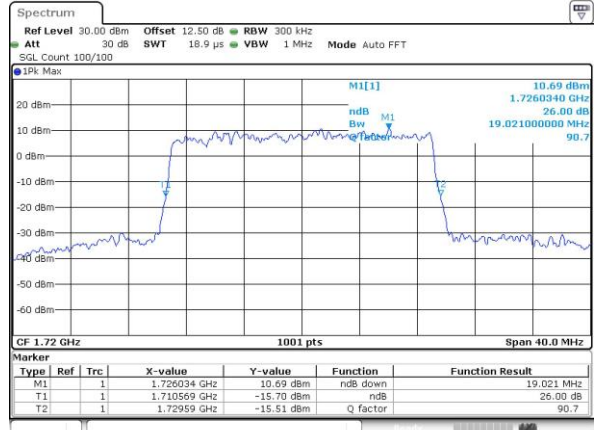
LTE Band 4

Lowest Channel / 15MHz / 64QAM



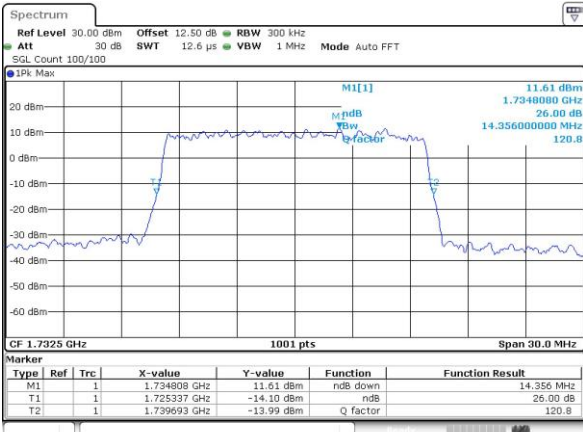
Date: 28 JUN 2019 03:55:06

Lowest Channel / 20MHz / 64QAM



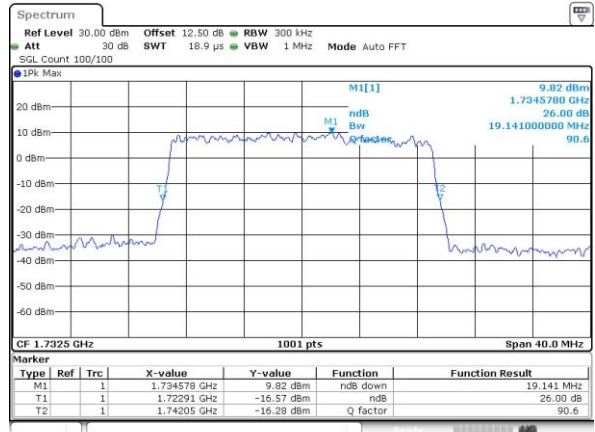
Date: 28 JUN 2019 04:10:37

Middle Channel / 15MHz / 64QAM



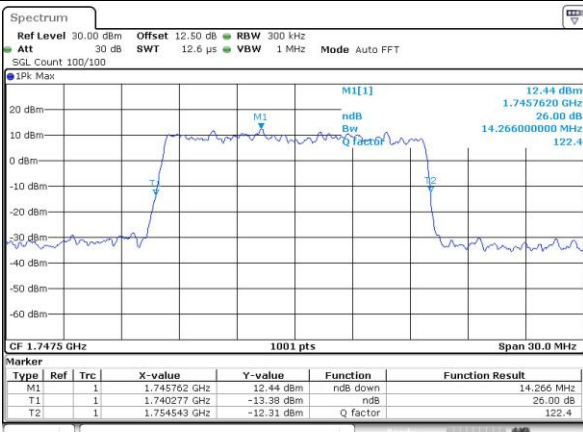
Date: 28 JUN 2019 03:58:09

Middle Channel / 20MHz / 64QAM



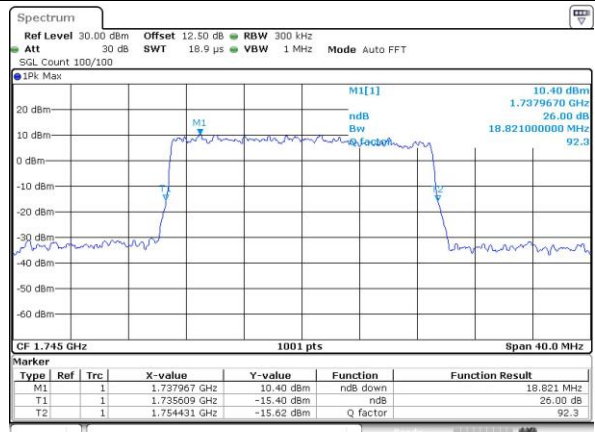
Date: 28 JUN 2019 04:07:09

Highest Channel / 15MHz / 64QAM



Date: 28 JUN 2019 04:00:04

Highest Channel / 20MHz / 64QAM



Date: 28 JUN 2019 04:10:134



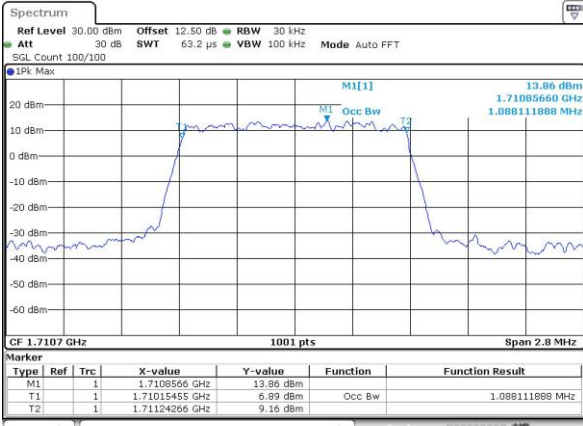
Occupied Bandwidth

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	1.08	2.72	2.72	4.49	4.5	9.05	9.01	13.52	13.48	17.86	17.82
Middle CH	1.09	1.08	2.72	2.73	4.49	4.48	9.07	9.01	13.34	13.36	17.78	17.82
Highest CH	1.09	1.09	2.72	2.72	4.52	4.48	9.03	9.01	13.34	13.48	17.94	17.9
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	-	2.70	-	4.52	-	8.97	-	13.49	-	17.82	-
Middle CH	1.09	-	2.73	-	4.48	-	8.99	-	13.46	-	17.86	-
Highest CH	1.09	-	2.73	-	4.48	-	9.01	-	13.49	-	17.90	-

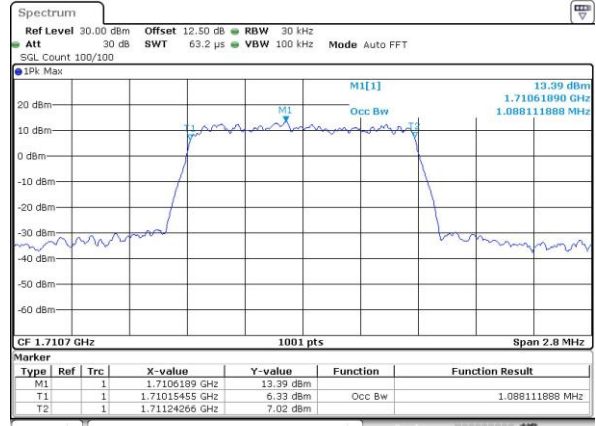


LTE Band 4

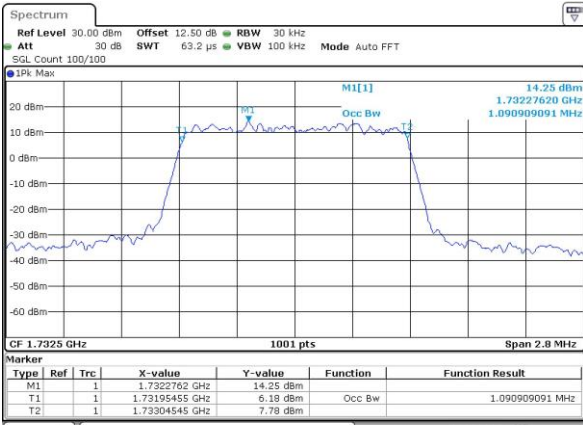
Lowest Channel / 1.4MHz / QPSK



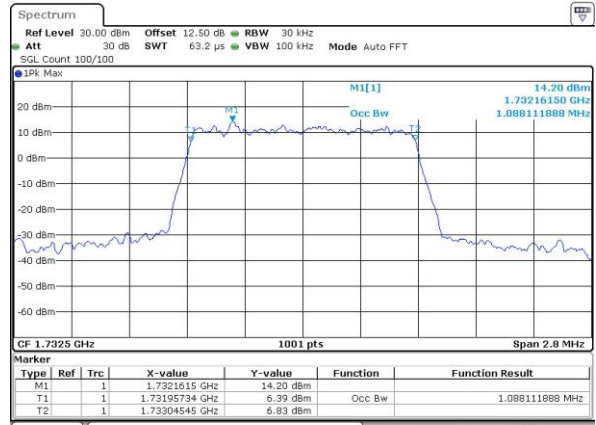
Lowest Channel / 1.4MHz / 16QAM



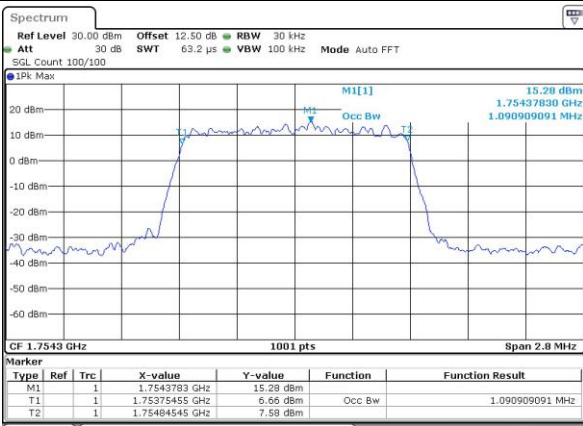
Middle Channel / 1.4MHz / QPSK



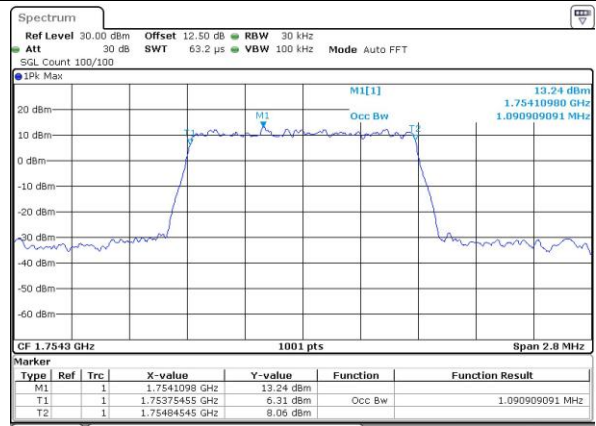
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



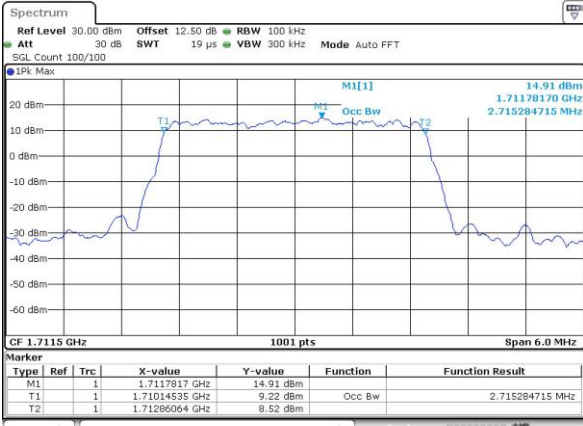
Highest Channel / 1.4MHz / 16QAM





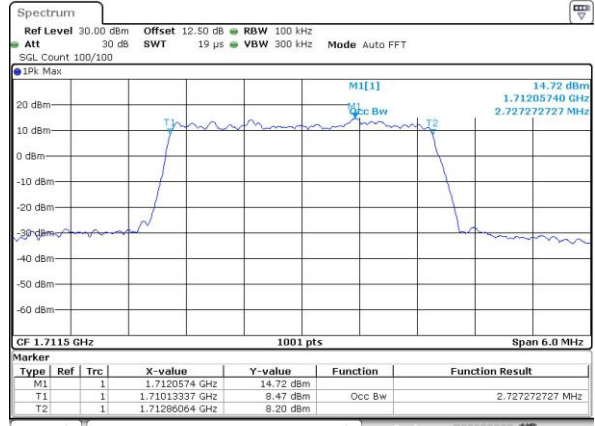
LTE Band 4

Lowest Channel / 3MHz / QPSK



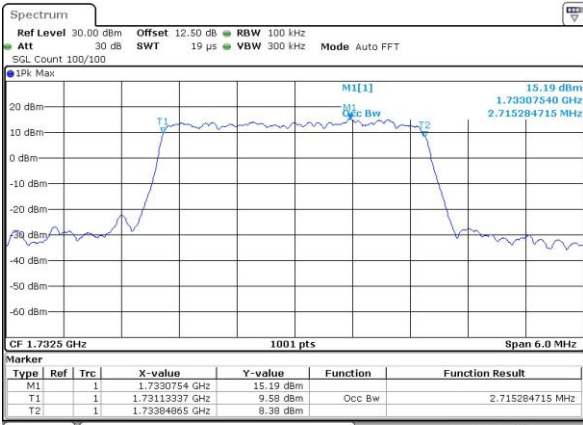
Date: 28 JUN 2019 01:25:42

Lowest Channel / 3MHz / 16QAM



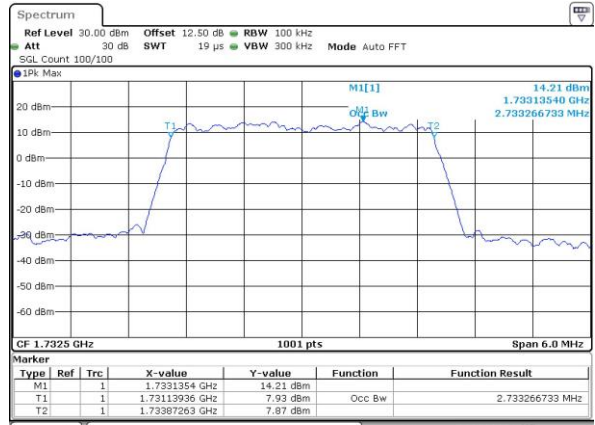
Date: 28 JUN 2019 01:25:53

Middle Channel / 3MHz / QPSK



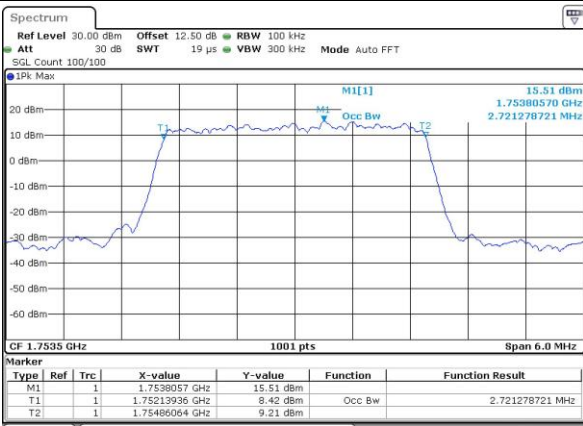
Date: 28 JUN 2019 01:32:47

Middle Channel / 3MHz / 16QAM



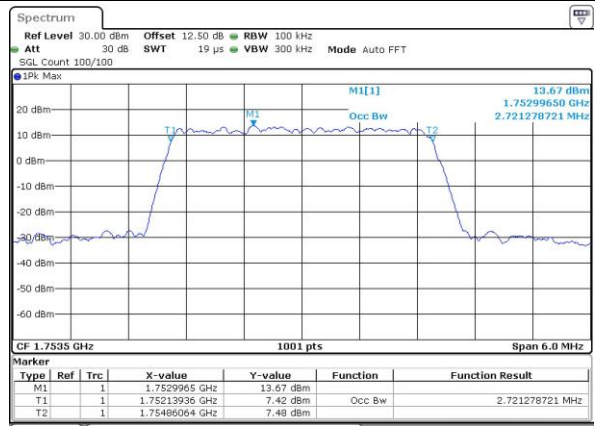
Date: 28 JUN 2019 01:32:59

Highest Channel / 3MHz / QPSK



Date: 28 JUN 2019 01:35:36

Highest Channel / 3MHz / 16QAM



Date: 28 JUN 2019 01:35:47