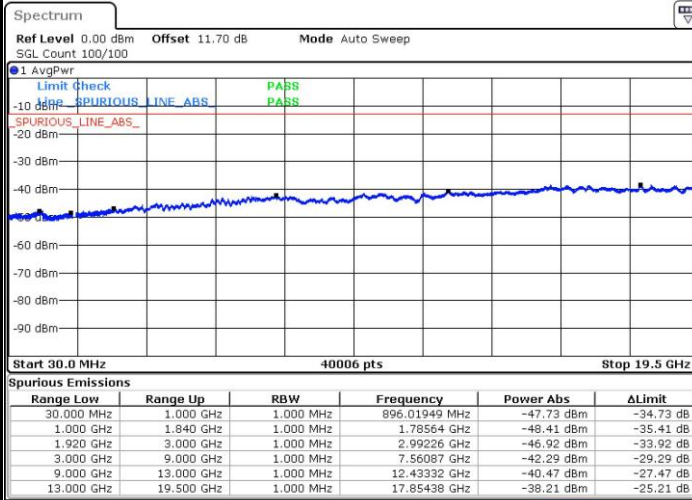




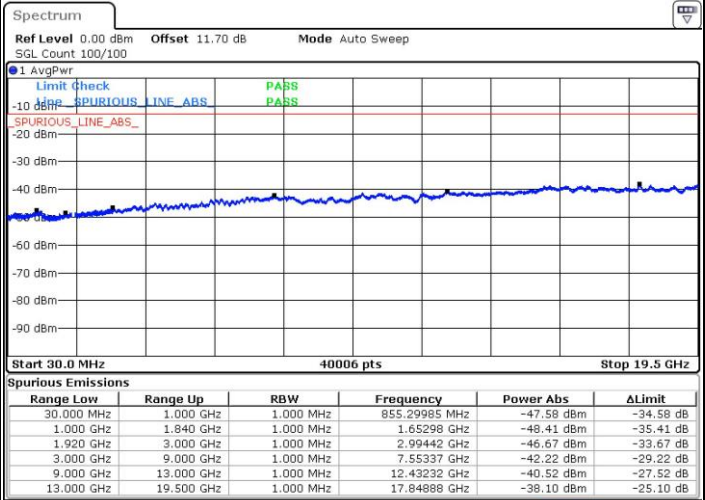
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 16 MAY 2019 02:46:33

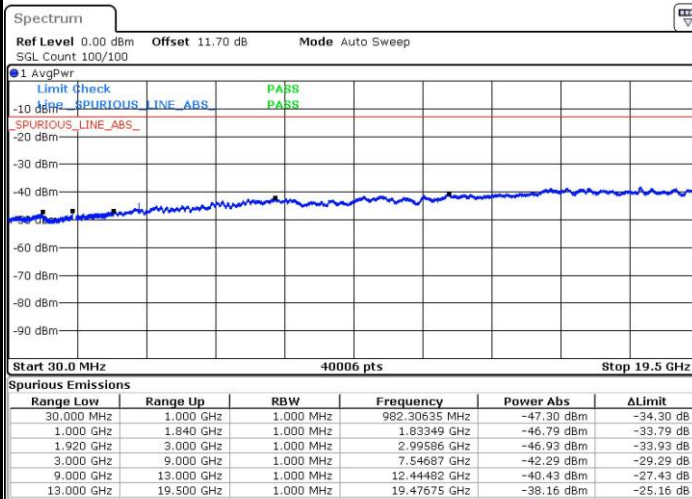
Highest Channel / 16QAM



Date: 16 MAY 2019 02:47:20

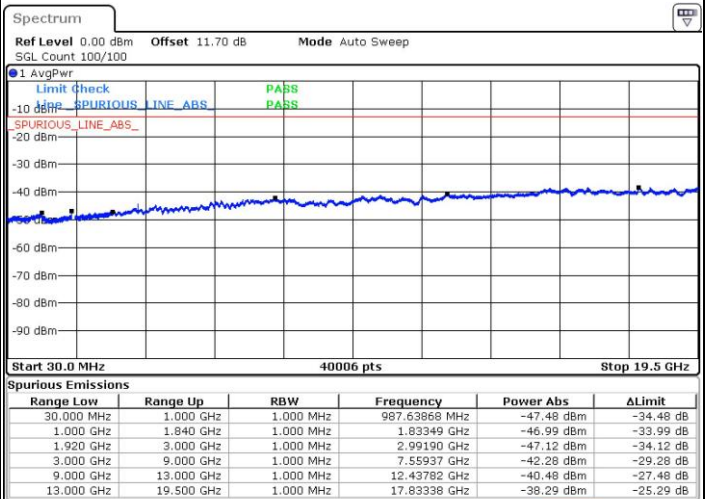
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 16 MAY 2019 02:51:22

Lowest Channel / 16QAM

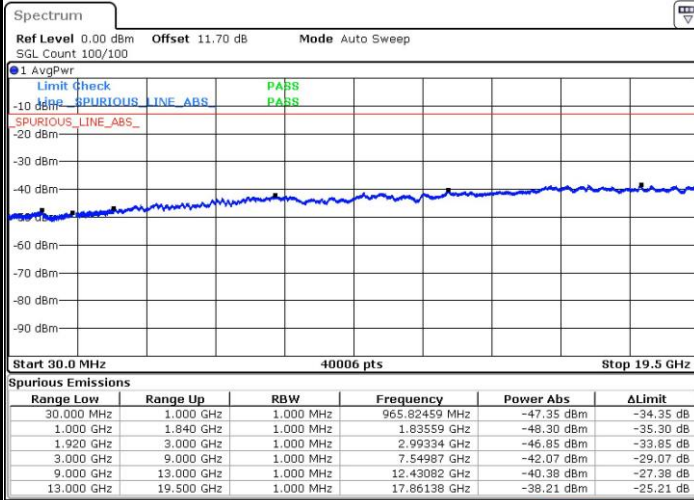


Date: 16 MAY 2019 02:52:09



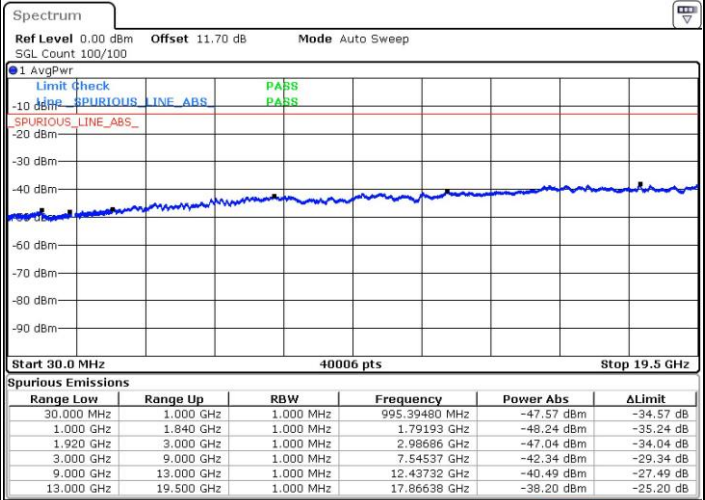
LTE Band 2 / 20MHz

Middle Channel / QPSK



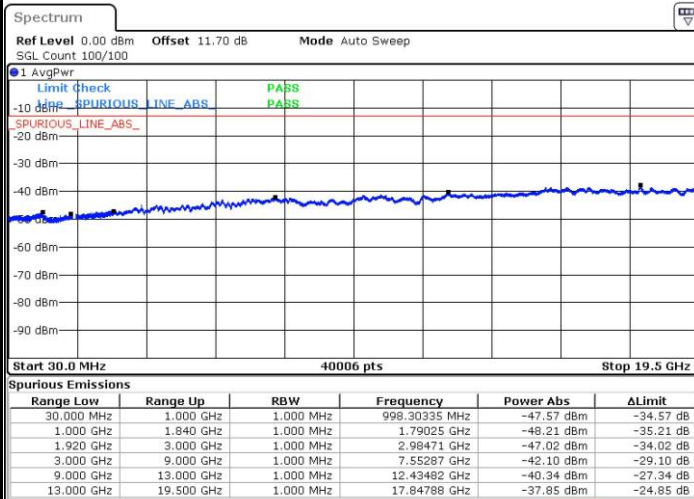
Date: 16 MAY 2019 02:58:58

Middle Channel / 16QAM



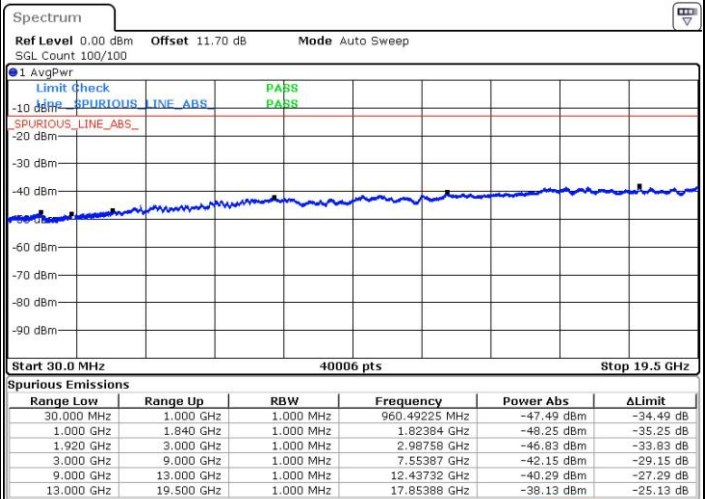
Date: 16 MAY 2019 02:59:44

Highest Channel / QPSK



Date: 16 MAY 2019 03:03:45

Highest Channel / 16QAM



Date: 16 MAY 2019 03:04:31

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	0.0009	PASS
40	Normal Voltage	0.0067	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0058	
0	Normal Voltage	0.0066	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0070	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

Note:

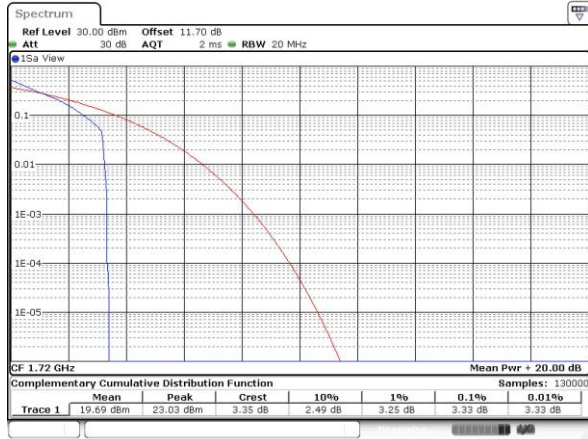
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



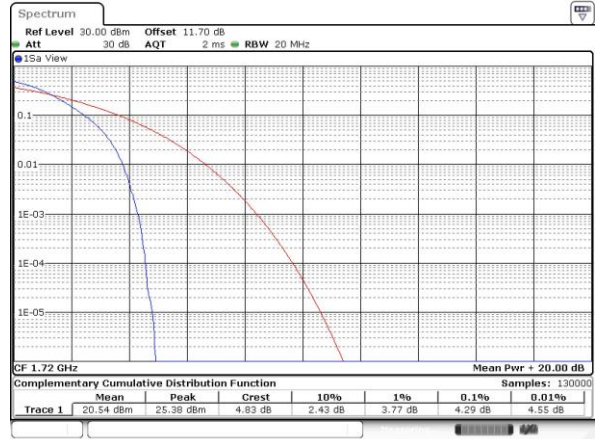
LTE Band 4

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	3.33	4.29	5.04	5.59	PASS
Middle CH	3.07	4.38	4.29	5.65	
Highest CH	3.3	3.94	4.9	5.3	

LTE Band 4 / 20MHz / QPSK
Lowest Channel / 1RB


Date: 16 MAY 2019 05:40:48

Lowest Channel / Full RB


Date: 16 MAY 2019 05:41:02

Middle Channel / 1RB


Date: 16 MAY 2019 05:41:16

Middle Channel / Full RB

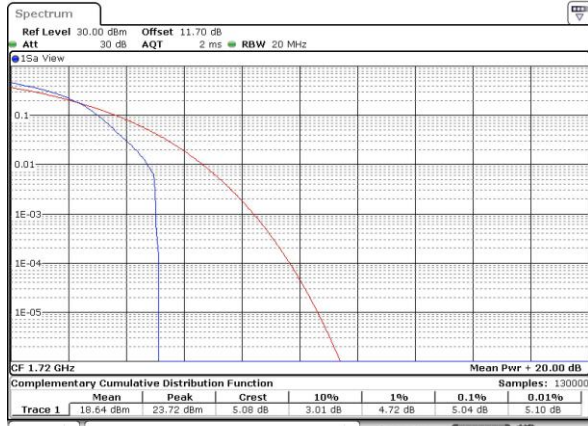

Date: 16 MAY 2019 05:41:34

Highest Channel / 1RB

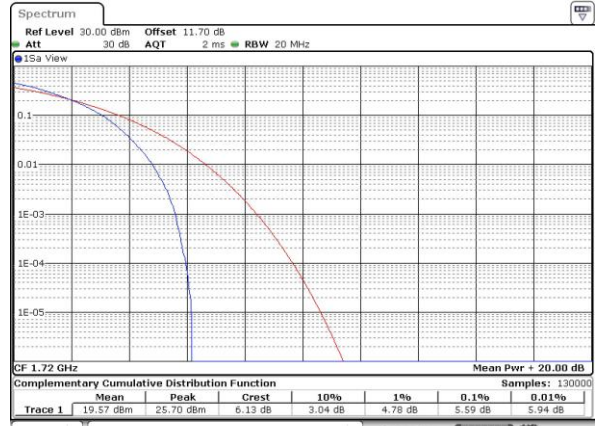

Date: 16 MAY 2019 05:41:47

Highest Channel / Full RB

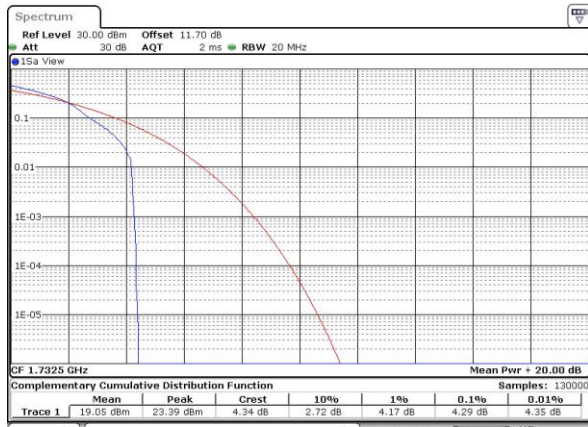

Date: 16 MAY 2019 05:42:02

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


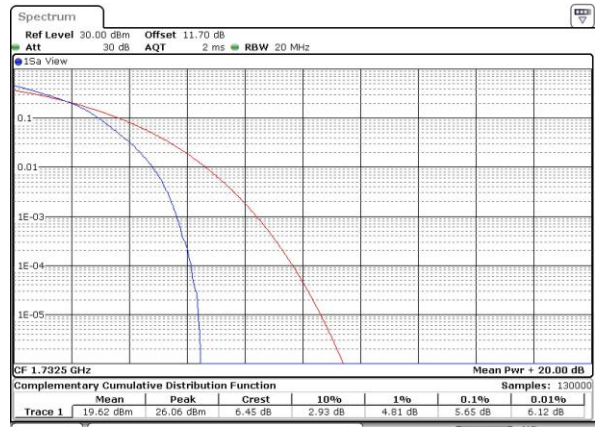
Date: 16 MAY 2019 05:38:36

Lowest Channel / Full RB


Date: 16 MAY 2019 05:38:53

Middle Channel / 1RB


Date: 16 MAY 2019 05:39:08

Middle Channel / Full RB


Date: 16 MAY 2019 05:39:28

Highest Channel / 1RB


Date: 16 MAY 2019 05:39:43

Highest Channel / Full RB


Date: 16 MAY 2019 05:40:15



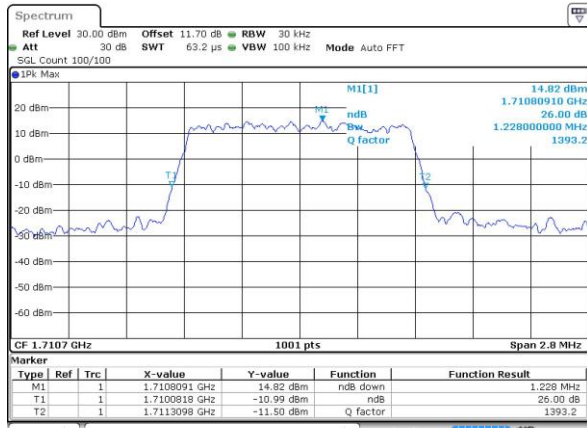
26dB Bandwidth

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	1.23	1.23	3.03	3.05	4.85	4.82	9.87	9.81	14.36	14.27	18.98	18.74
Middle CH	1.24	1.23	3.10	3.01	4.93	4.97	9.73	9.85	14.42	14.45	19.58	18.98
Highest CH	1.23	1.23	3.05	3.02	5.00	4.89	9.65	9.75	14.51	14.36	18.90	18.98



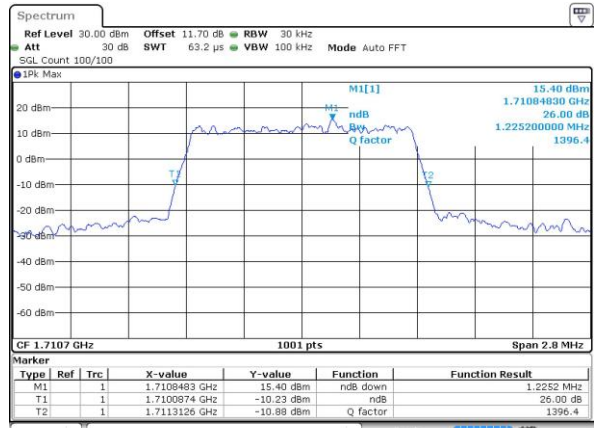
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



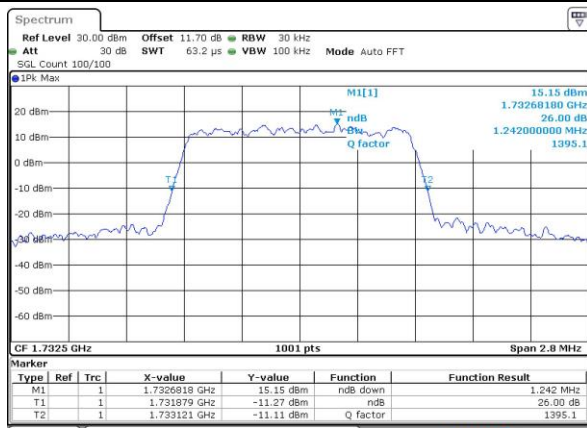
Date: 16 MAY 2019 05:21:45

Lowest Channel / 1.4MHz / 16QAM



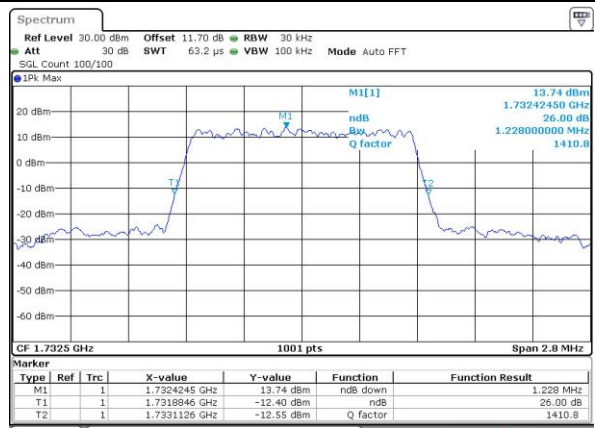
Date: 16 MAY 2019 05:21:57

Middle Channel / 1.4MHz / QPSK



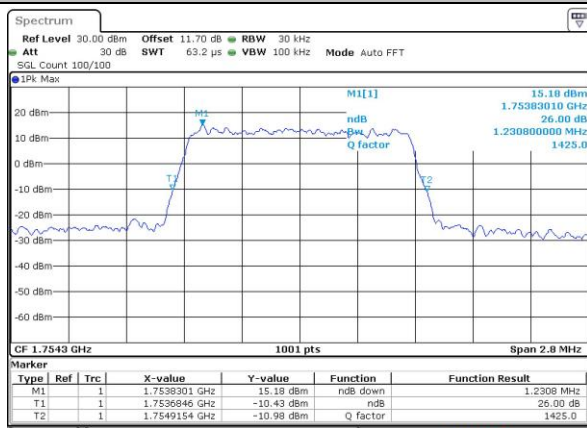
Date: 16 MAY 2019 05:28:25

Middle Channel / 1.4MHz / 16QAM



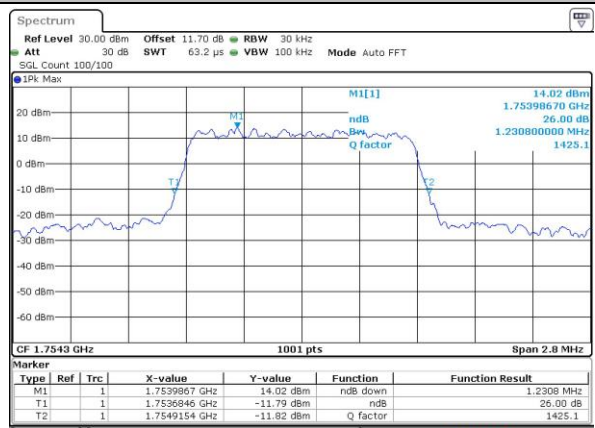
Date: 16 MAY 2019 05:28:36

Highest Channel / 1.4MHz / QPSK



Date: 16 MAY 2019 05:30:45

Highest Channel / 1.4MHz / 16QAM

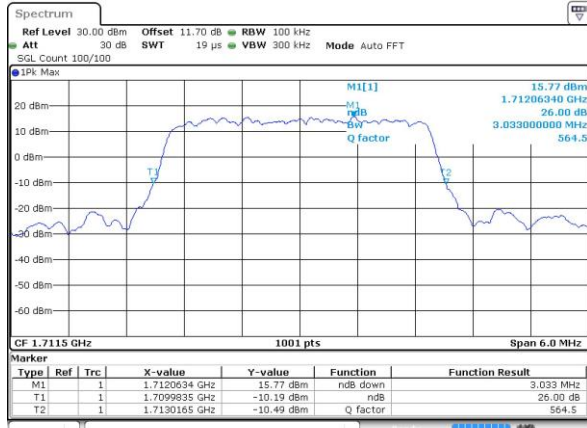


Date: 16 MAY 2019 05:30:57



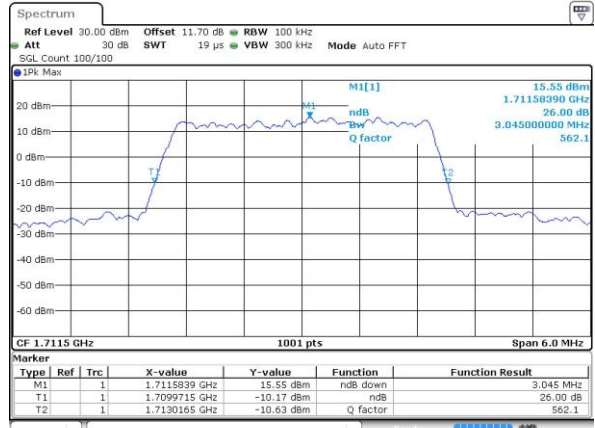
LTE Band 4

Lowest Channel / 3MHz / QPSK



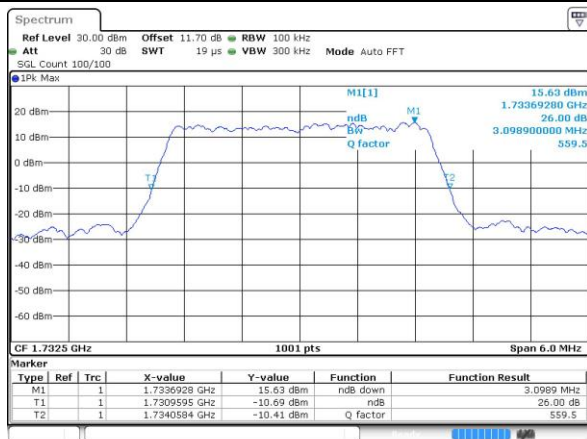
Date: 16 MAY 2019 03:34:14

Lowest Channel / 3MHz / 16QAM



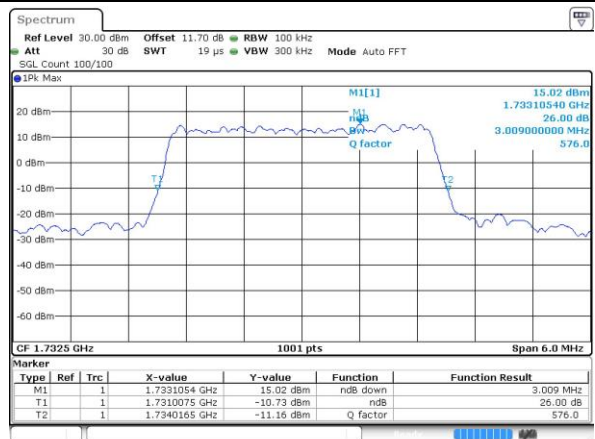
Date: 16 MAY 2019 03:34:27

Middle Channel / 3MHz / QPSK



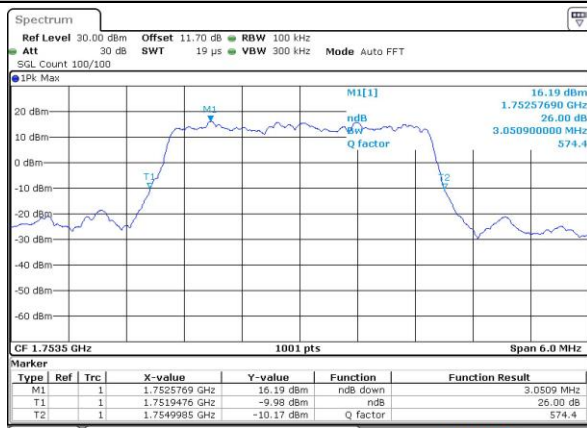
Date: 16 MAY 2019 03:40:40

Middle Channel / 3MHz / 16QAM



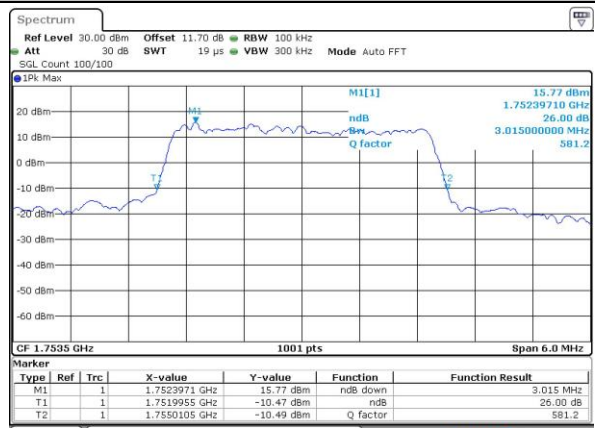
Date: 16 MAY 2019 03:40:52

Highest Channel / 3MHz / QPSK



Date: 16 MAY 2019 03:43:00

Highest Channel / 3MHz / 16QAM

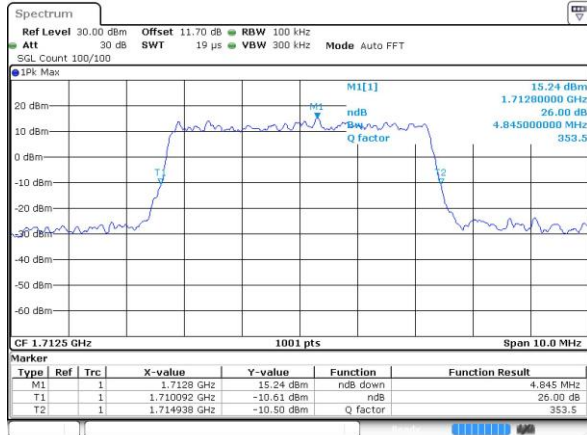


Date: 16 MAY 2019 03:43:13



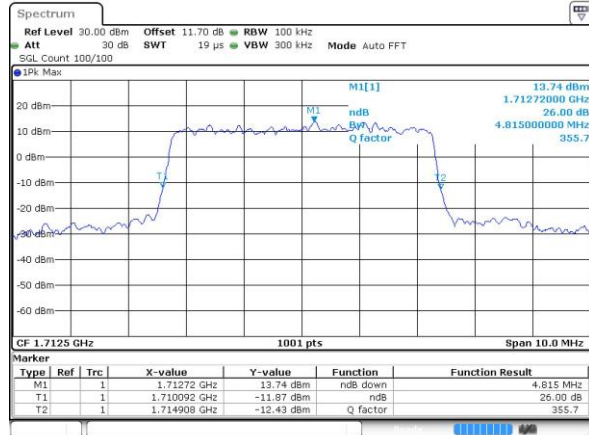
LTE Band 4

Lowest Channel / 5MHz / QPSK



Date: 16 MAY 2019 03:49:29

Lowest Channel / 5MHz / 16QAM



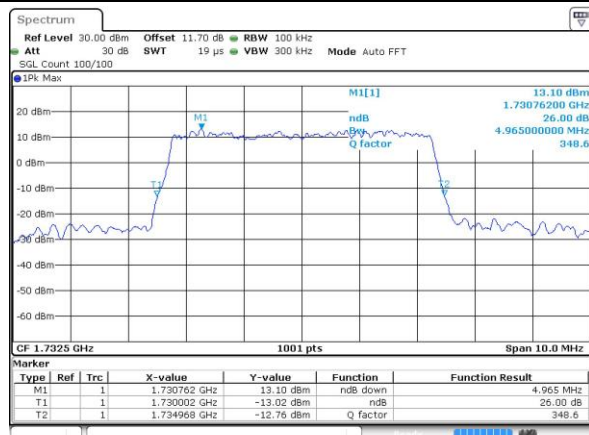
Date: 16 MAY 2019 03:49:41

Middle Channel / 5MHz / QPSK



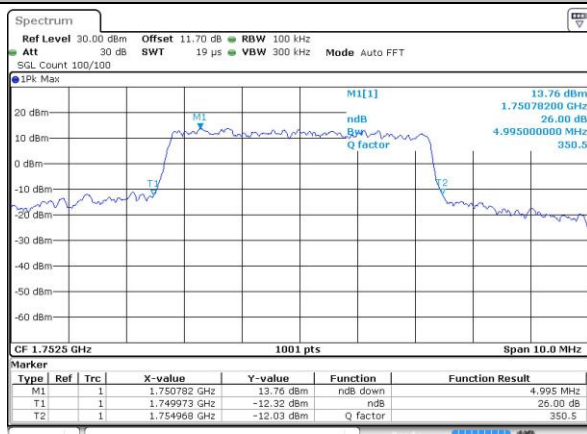
Date: 16 MAY 2019 03:55:55

Middle Channel / 5MHz / 16QAM



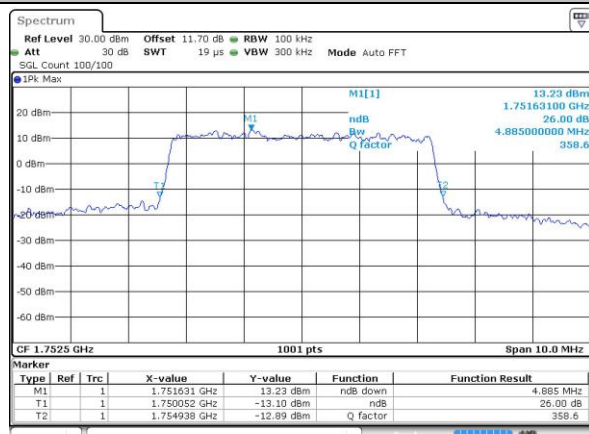
Date: 16 MAY 2019 03:56:06

Highest Channel / 5MHz / QPSK



Date: 16 MAY 2019 04:23:52

Highest Channel / 5MHz / 16QAM

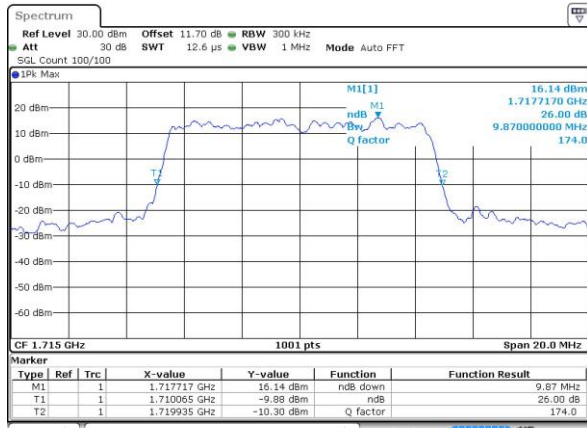


Date: 16 MAY 2019 04:24:04



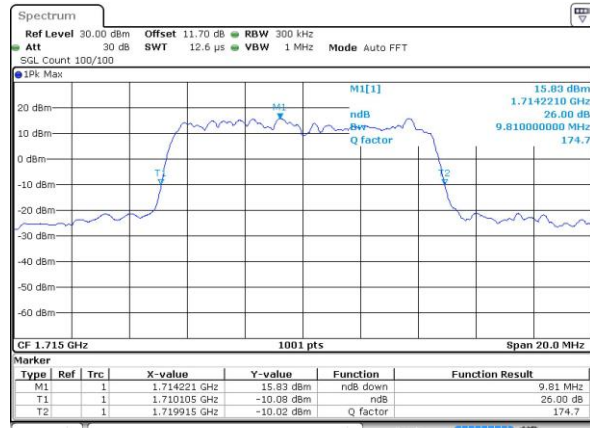
LTE Band 4

Lowest Channel / 10MHz / QPSK



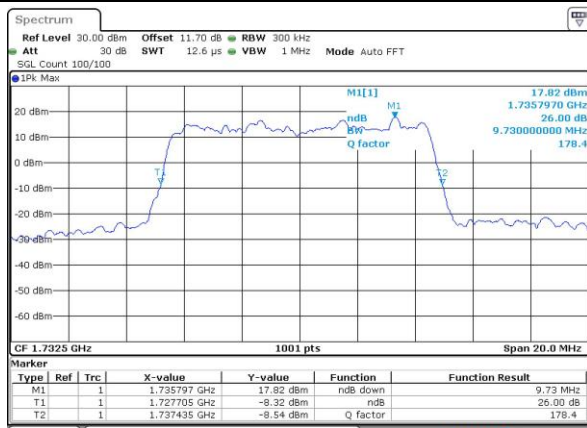
Date: 16 MAY 2019 04:36:00

Lowest Channel / 10MHz / 16QAM



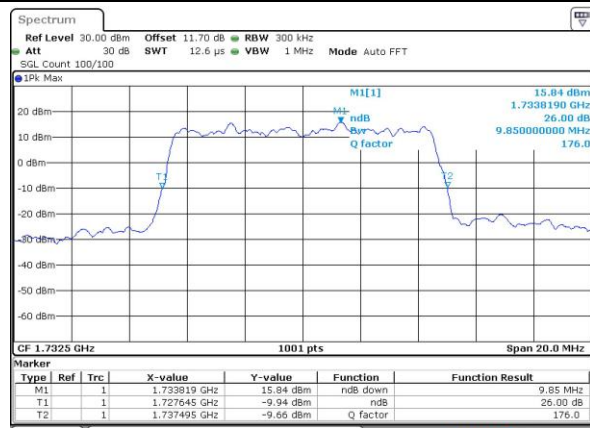
Date: 16 MAY 2019 04:36:12

Middle Channel / 10MHz / QPSK



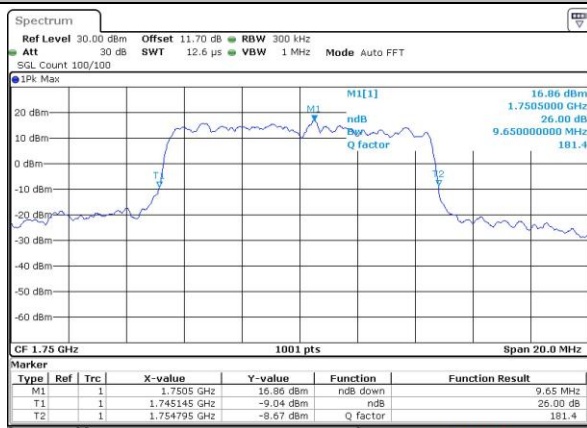
Date: 16 MAY 2019 04:42:26

Middle Channel / 10MHz / 16QAM



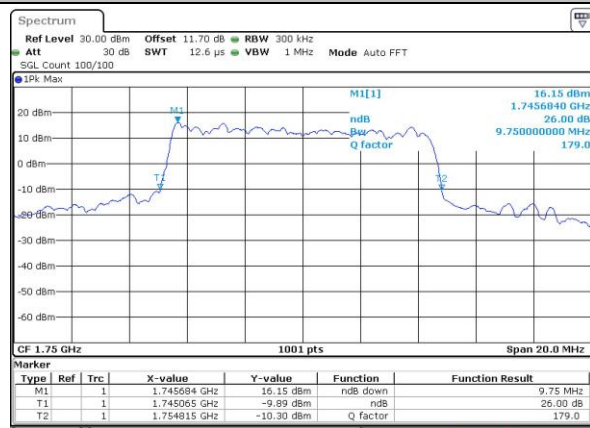
Date: 16 MAY 2019 04:42:37

Highest Channel / 10MHz / QPSK



Date: 16 MAY 2019 04:44:46

Highest Channel / 10MHz / 16QAM

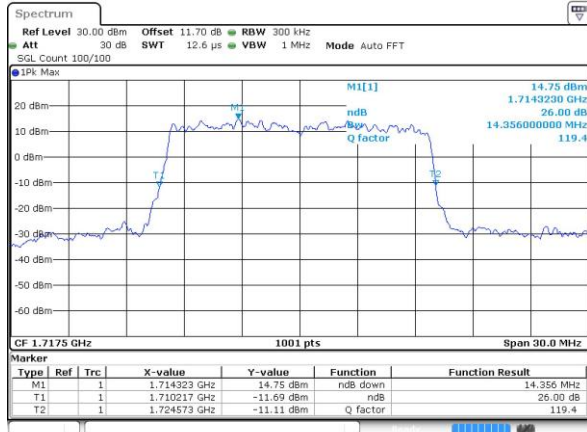


Date: 16 MAY 2019 04:44:59



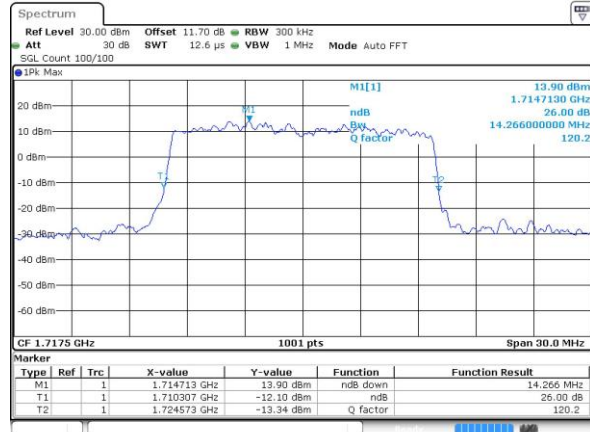
LTE Band 4

Lowest Channel / 15MHz / QPSK



Date: 16 MAY 2019 04:51:15

Lowest Channel / 15MHz / 16QAM



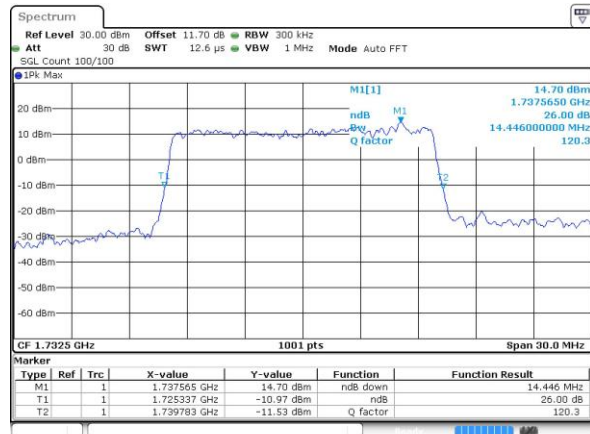
Date: 16 MAY 2019 04:51:27

Middle Channel / 15MHz / QPSK



Date: 16 MAY 2019 04:57:41

Middle Channel / 15MHz / 16QAM



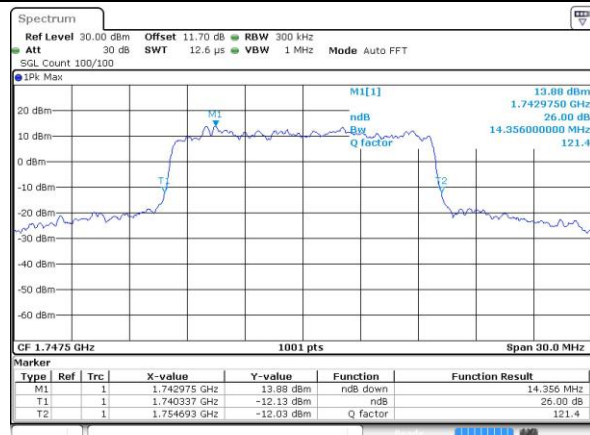
Date: 16 MAY 2019 04:57:53

Highest Channel / 15MHz / QPSK



Date: 16 MAY 2019 05:00:01

Highest Channel / 15MHz / 16QAM

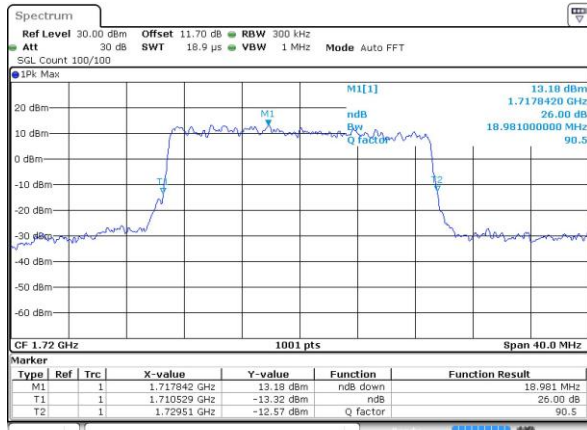


Date: 16 MAY 2019 05:00:14



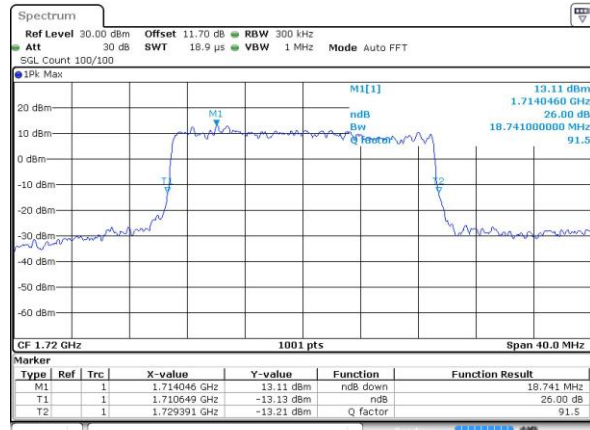
LTE Band 4

Lowest Channel / 20MHz / QPSK



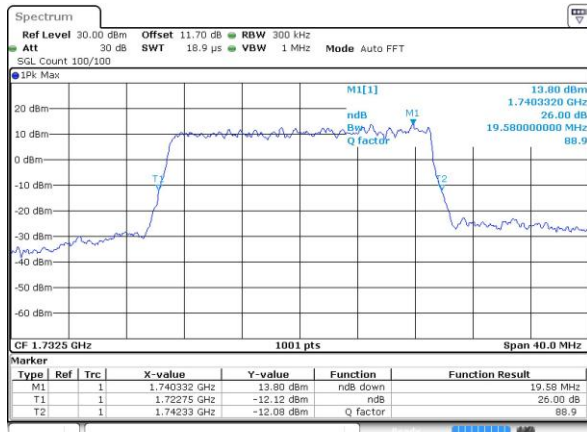
Date: 16 MAY 2019 05:06:30

Lowest Channel / 20MHz / 16QAM



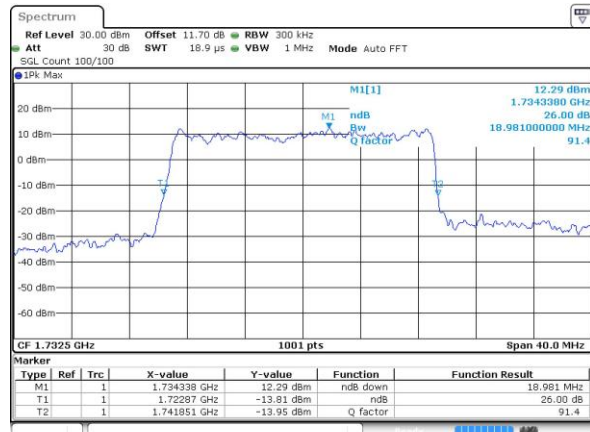
Date: 16 MAY 2019 05:06:42

Middle Channel / 20MHz / QPSK



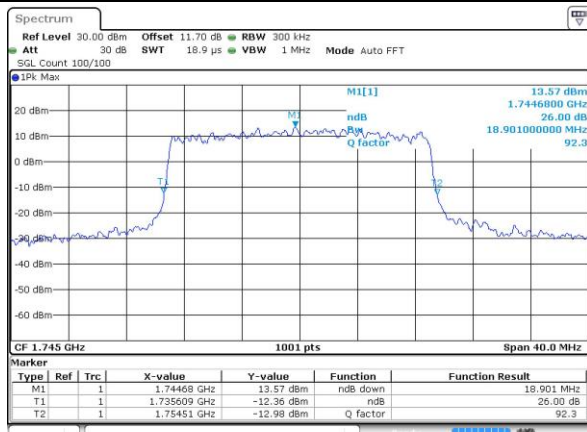
Date: 16 MAY 2019 05:12:56

Middle Channel / 20MHz / 16QAM



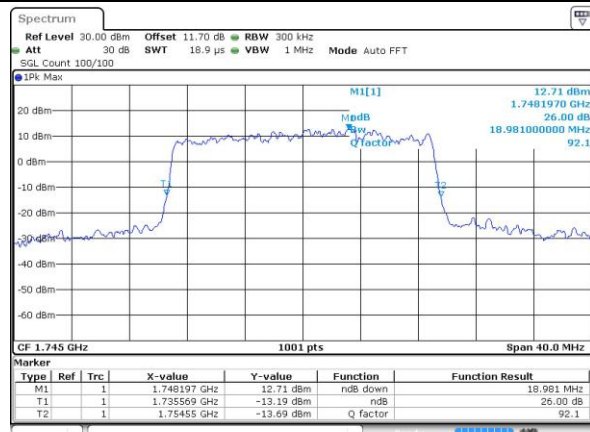
Date: 16 MAY 2019 05:13:07

Highest Channel / 20MHz / QPSK



Date: 16 MAY 2019 05:15:16

Highest Channel / 20MHz / 16QAM



Date: 16 MAY 2019 05:15:28

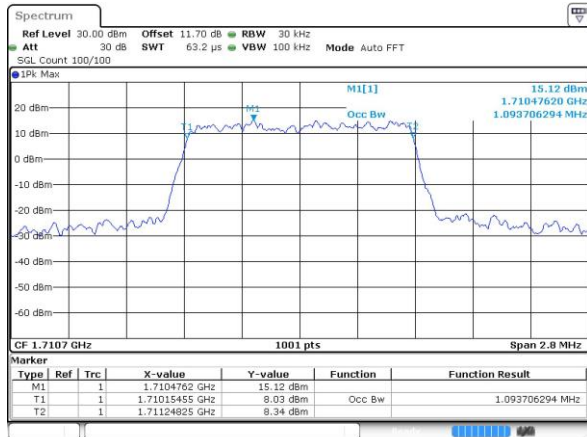
**Occupied Bandwidth**

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	2.72	2.72	4.5	4.49	9.03	9.01	13.46	13.4	17.82	17.82
Middle CH	1.09	1.09	2.7	2.73	4.5	4.5	8.97	9.07	13.52	13.43	17.9	17.9
Highest CH	1.09	1.09	2.74	2.7	4.5	4.49	9.05	8.99	13.28	13.43	17.78	17.7

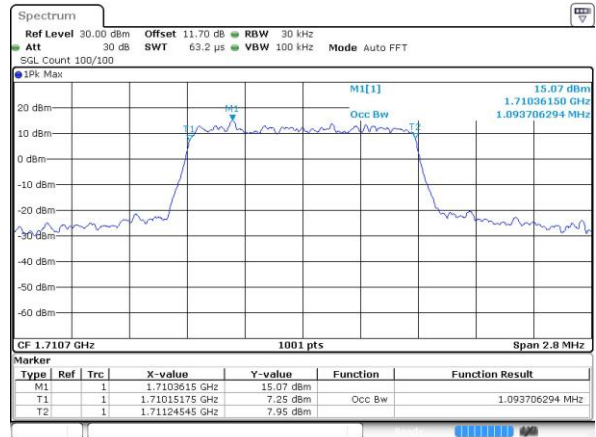


LTE Band 4

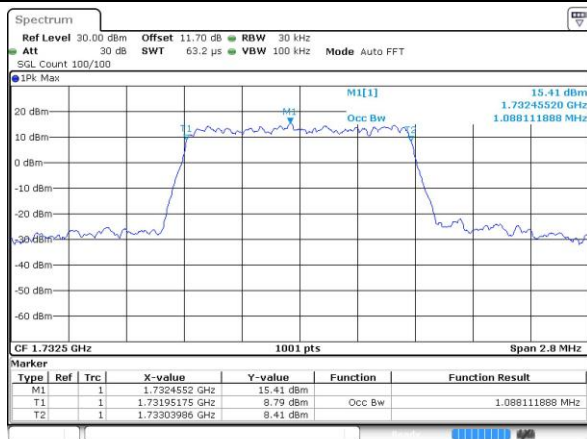
Lowest Channel / 1.4MHz / QPSK



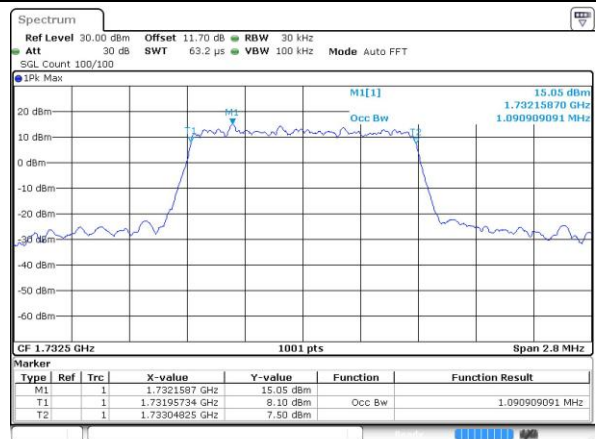
Lowest Channel / 1.4MHz / 16QAM



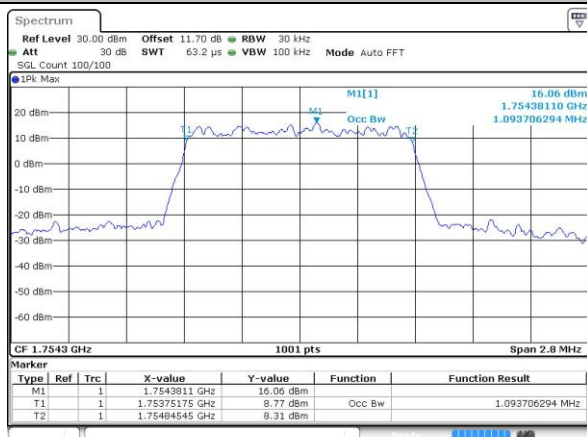
Middle Channel / 1.4MHz / QPSK



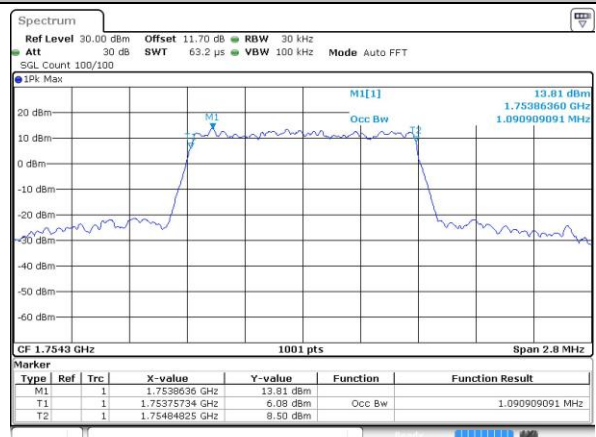
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



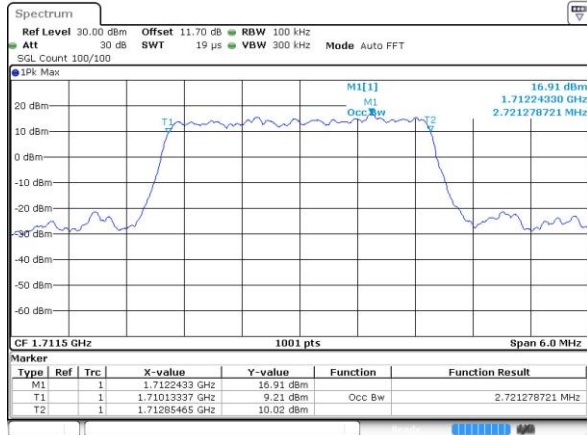
Highest Channel / 1.4MHz / 16QAM





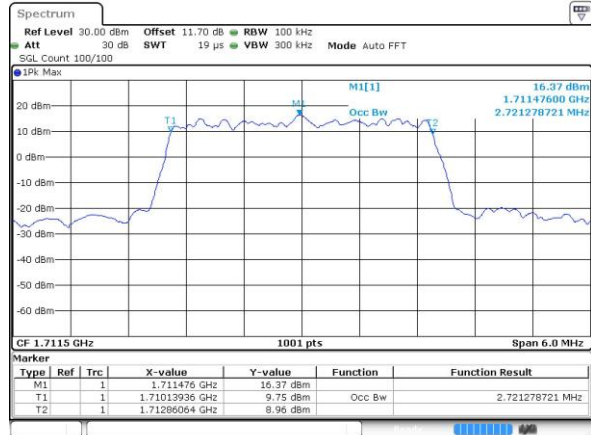
LTE Band 4

Lowest Channel / 3MHz / QPSK



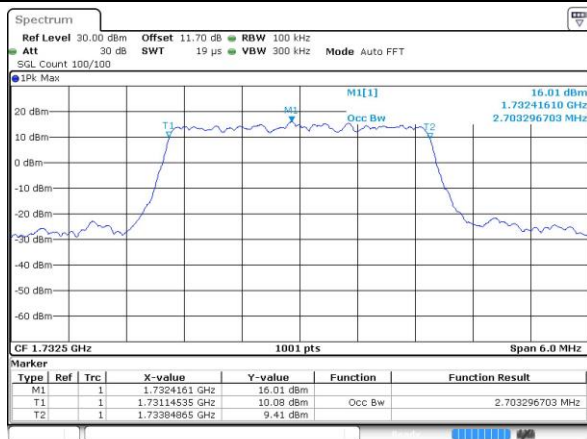
Date: 16 MAY 2019 03:33:50

Lowest Channel / 3MHz / 16QAM



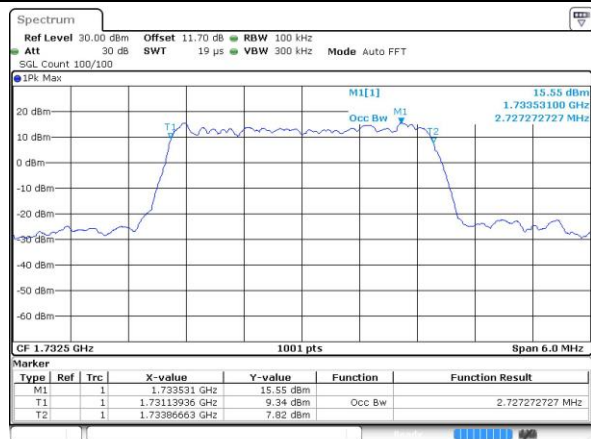
Date: 16 MAY 2019 03:34:02

Middle Channel / 3MHz / QPSK



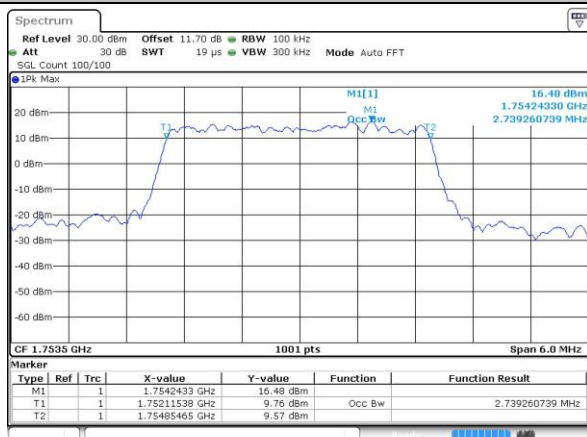
Date: 16 MAY 2019 03:40:17

Middle Channel / 3MHz / 16QAM



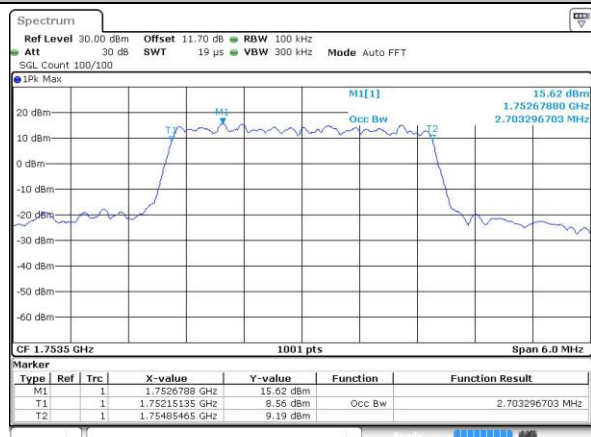
Date: 16 MAY 2019 03:40:28

Highest Channel / 3MHz / QPSK



Date: 16 MAY 2019 03:42:36

Highest Channel / 3MHz / 16QAM

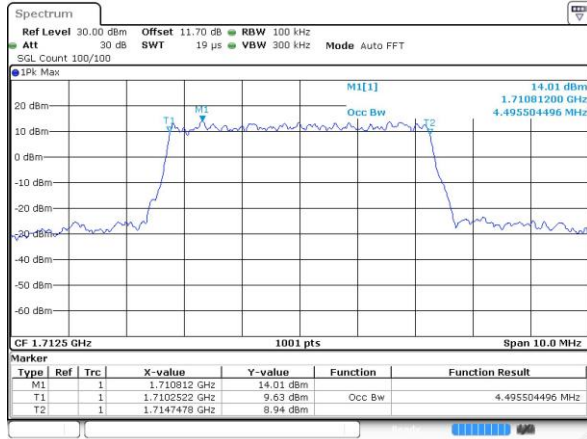


Date: 16 MAY 2019 03:42:48



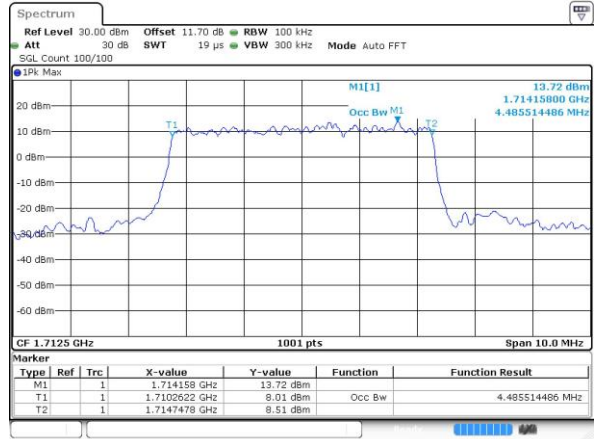
LTE Band 4

Lowest Channel / 5MHz / QPSK



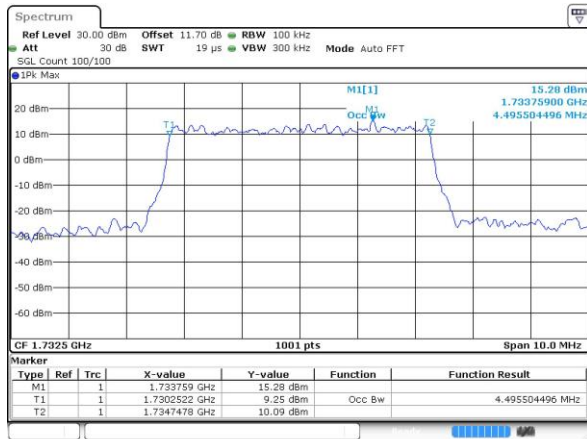
Date: 16 MAY 2019 03:49:04

Lowest Channel / 5MHz / 16QAM



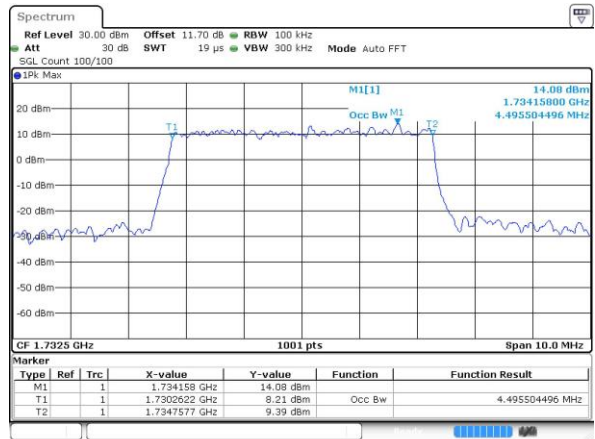
Date: 16 MAY 2019 03:49:17

Middle Channel / 5MHz / QPSK



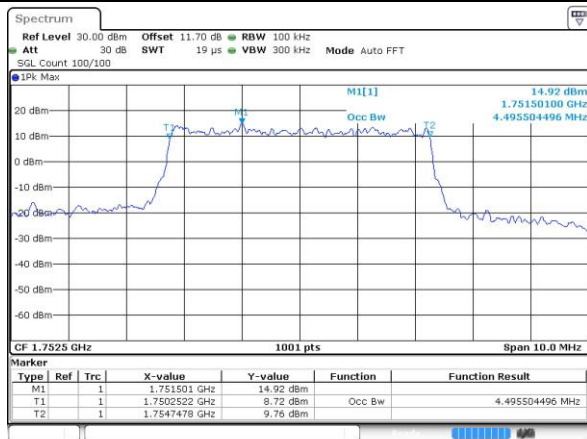
Date: 16 MAY 2019 03:55:31

Middle Channel / 5MHz / 16QAM



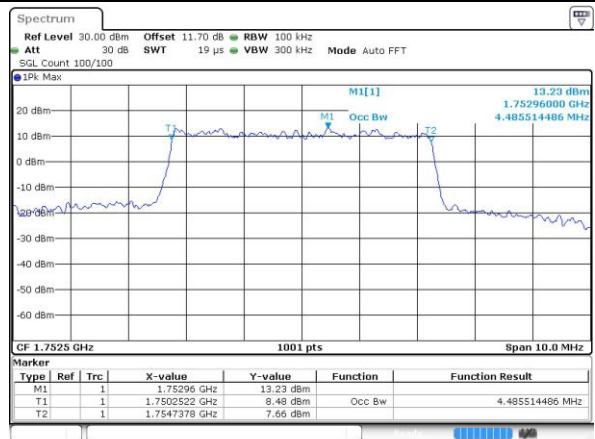
Date: 16 MAY 2019 03:55:43

Highest Channel / 5MHz / QPSK



Date: 16 MAY 2019 05:43:07

Highest Channel / 5MHz / 16QAM

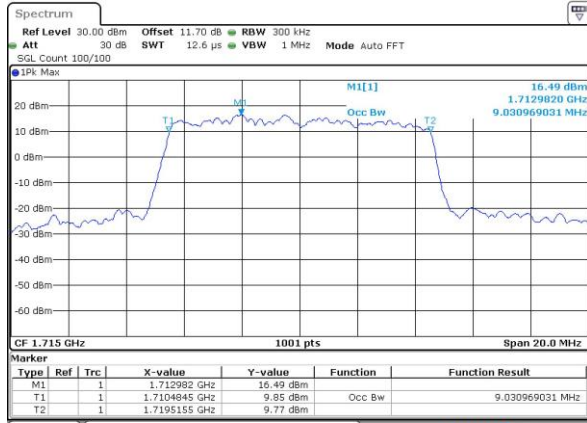


Date: 16 MAY 2019 04:23:40



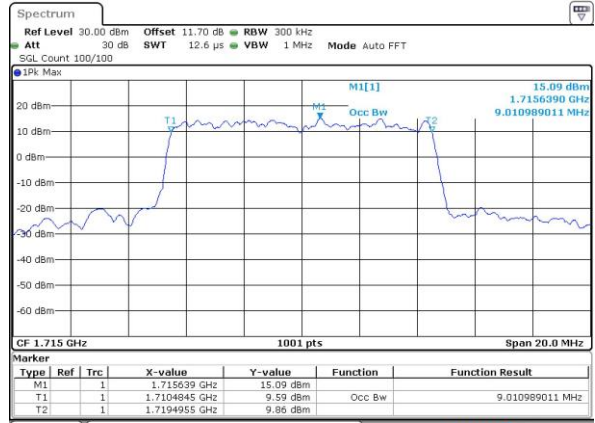
LTE Band 4

Lowest Channel / 10MHz / QPSK



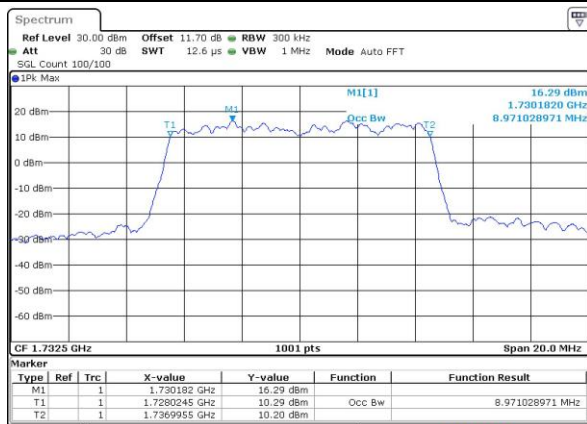
Date: 16 MAY 2019 04:35:35

Lowest Channel / 10MHz / 16QAM



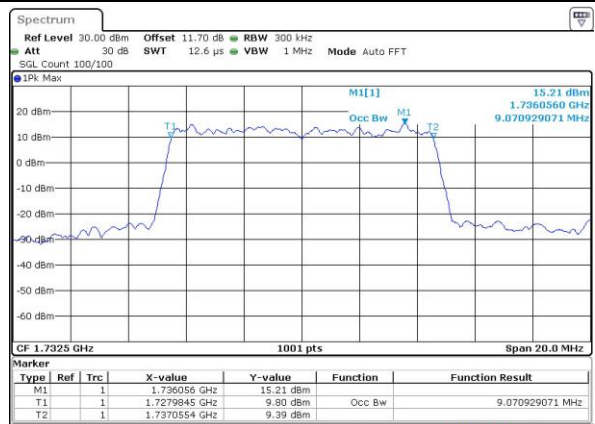
Date: 16 MAY 2019 04:35:48

Middle Channel / 10MHz / QPSK



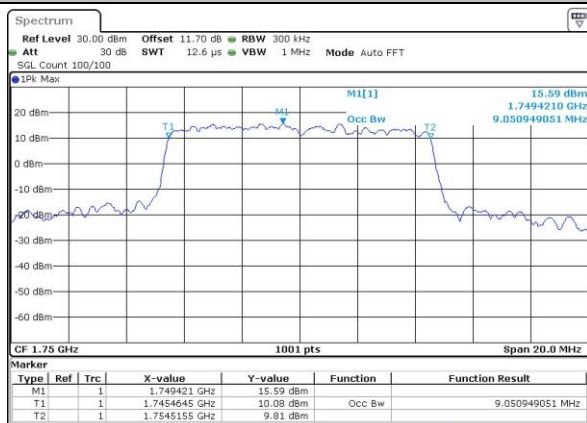
Date: 16 MAY 2019 04:42:02

Middle Channel / 10MHz / 16QAM



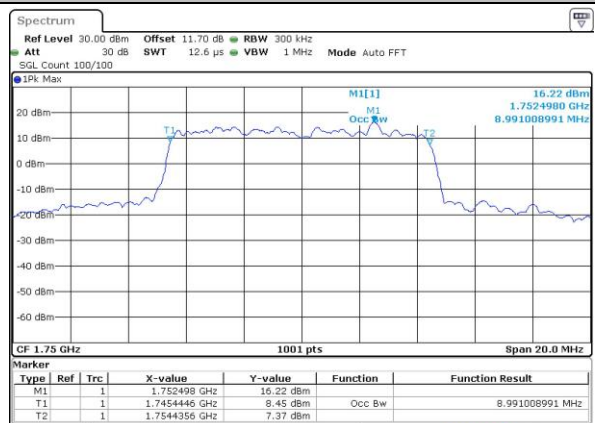
Date: 16 MAY 2019 04:42:14

Highest Channel / 10MHz / QPSK



Date: 16 MAY 2019 04:44:21

Highest Channel / 10MHz / 16QAM

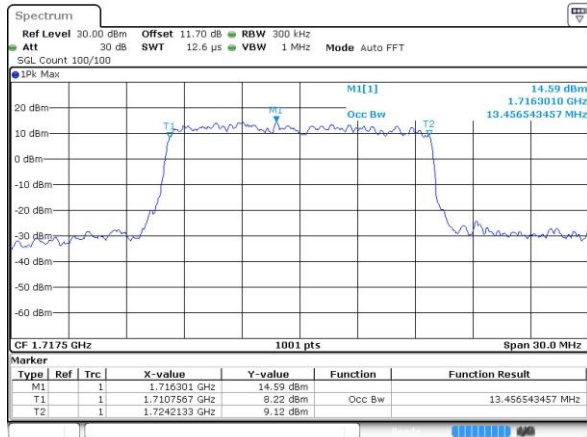


Date: 16 MAY 2019 04:44:34



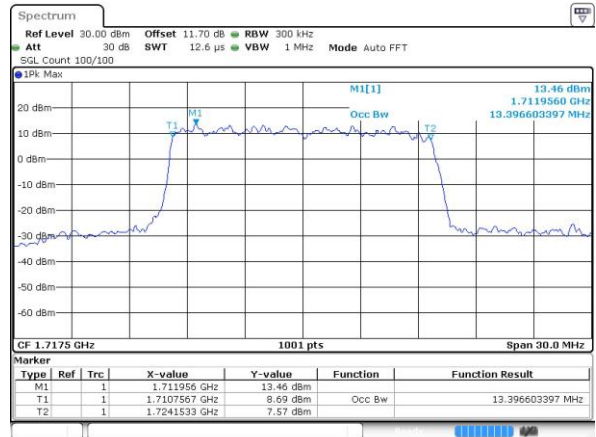
LTE Band 4

Lowest Channel / 15MHz / QPSK



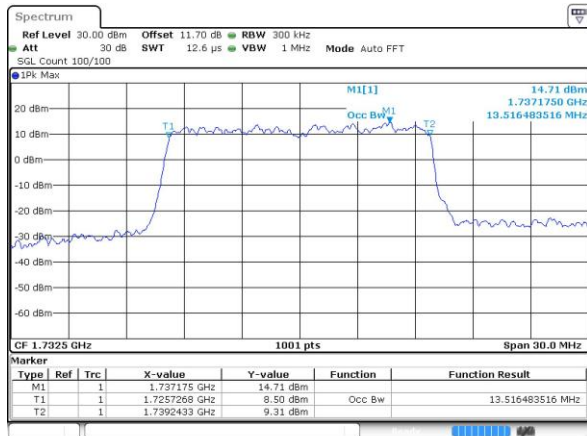
Date: 16 MAY 2019 04:50:50

Lowest Channel / 15MHz / 16QAM



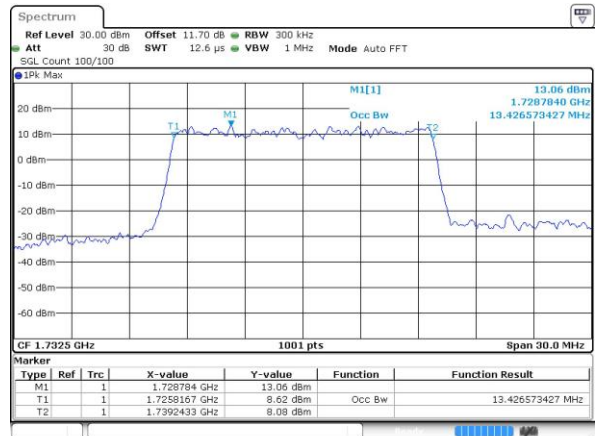
Date: 16 MAY 2019 04:51:03

Middle Channel / 15MHz / QPSK



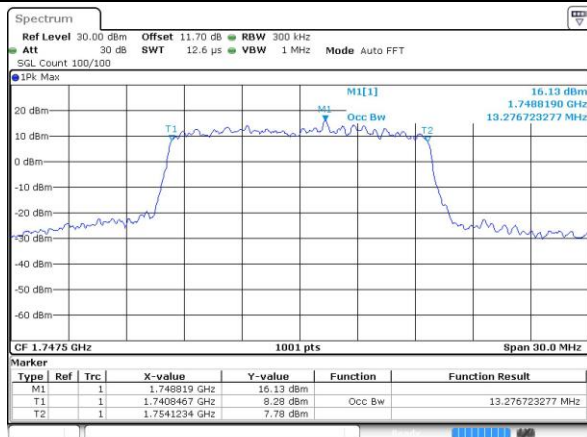
Date: 16 MAY 2019 04:57:17

Middle Channel / 15MHz / 16QAM



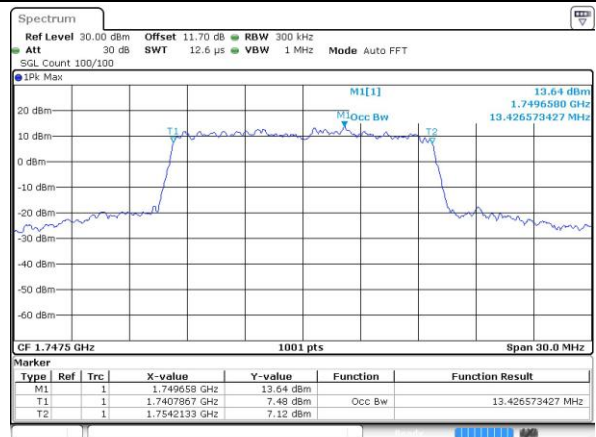
Date: 16 MAY 2019 04:57:29

Highest Channel / 15MHz / QPSK



Date: 16 MAY 2019 04:59:36

Highest Channel / 15MHz / 16QAM

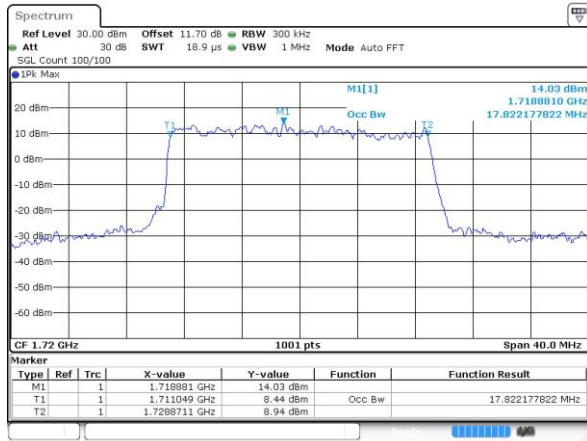


Date: 16 MAY 2019 04:59:49

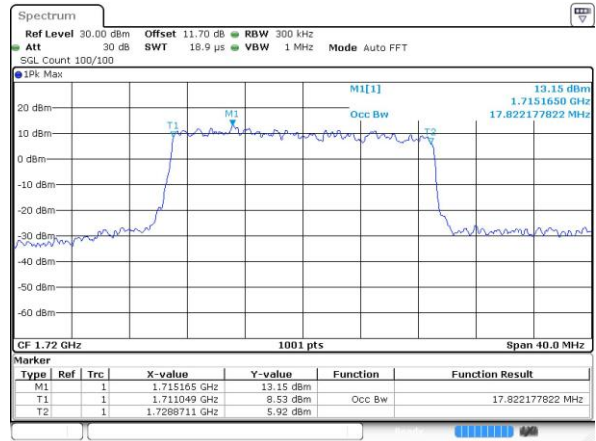


LTE Band 4

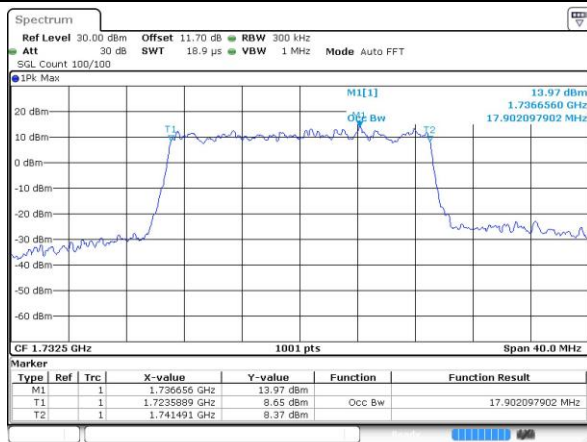
Lowest Channel / 20MHz / QPSK



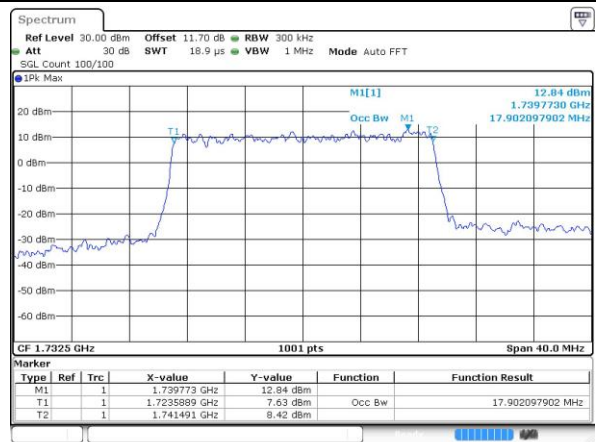
Lowest Channel / 20MHz / 16QAM



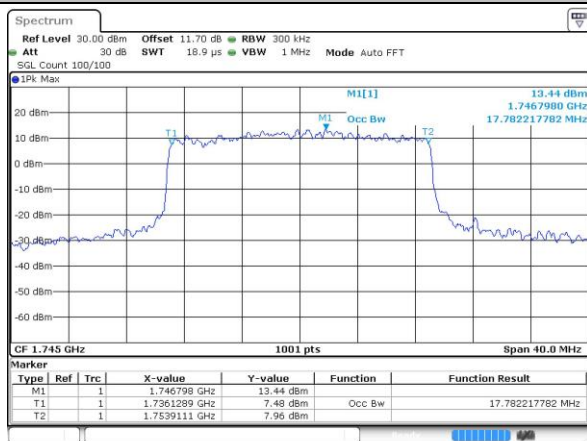
Middle Channel / 20MHz / QPSK



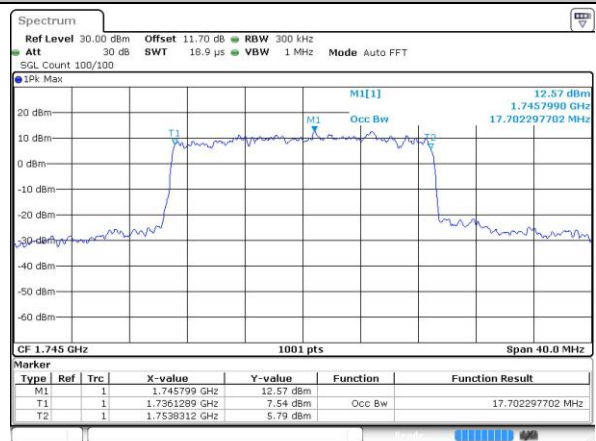
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM





Conducted Band Edge