



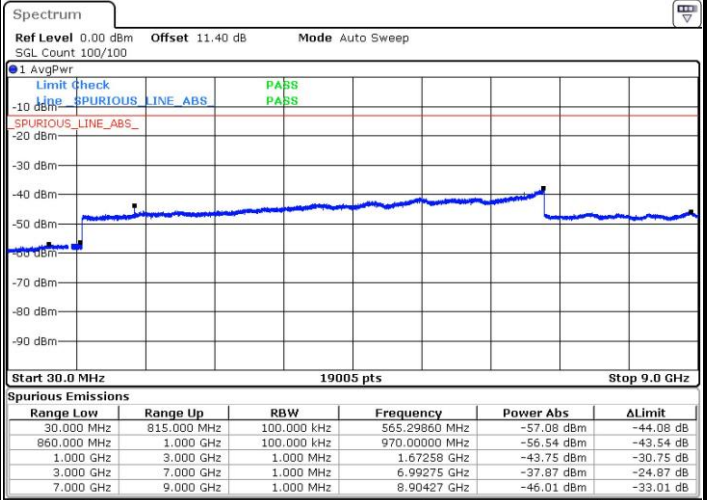
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

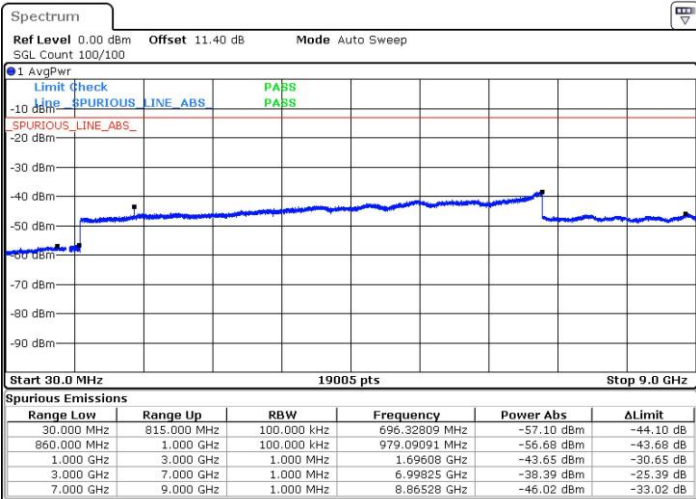


Date: 27.JUN.2019 03:47:01



Date: 27.JUN.2019 03:48:25

Highest Channel / 64QAM



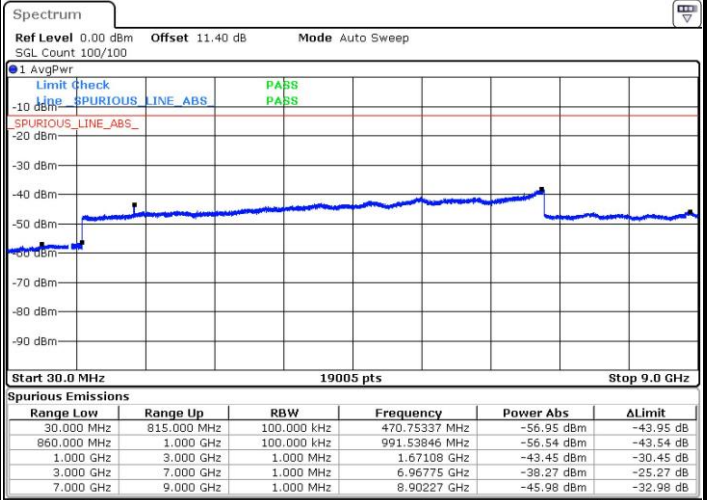
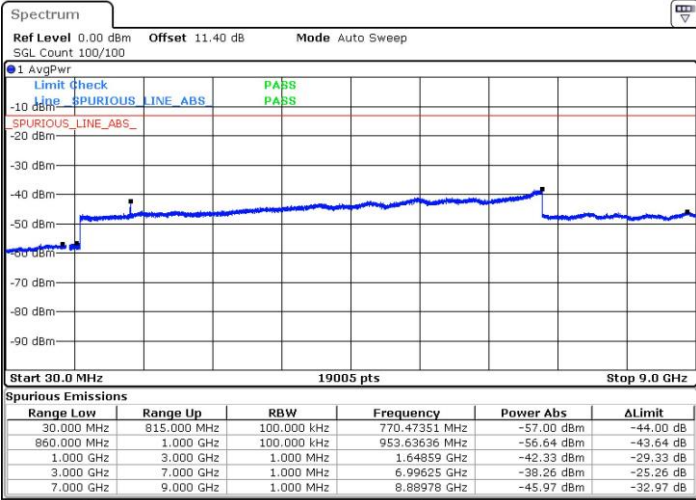
Date: 27.JUN.2019 03:53:08



LTE Band 5 / 3MHz

Lowest Channel / 64QAM

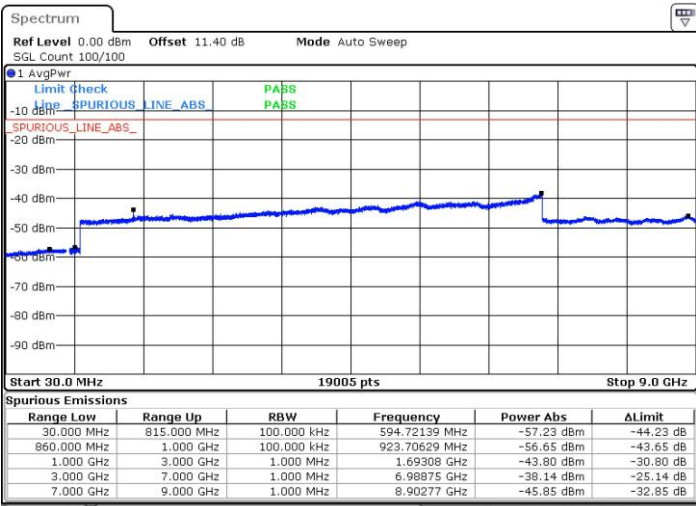
Middle Channel / 64QAM



Date: 27.JUN.2019 03:14:28

Date: 27.JUN.2019 03:15:53

Highest Channel / 64QAM



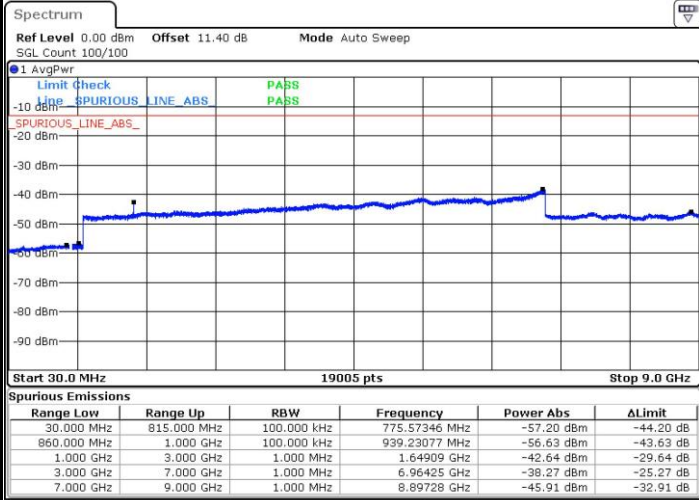
Date: 27.JUN.2019 03:20:36



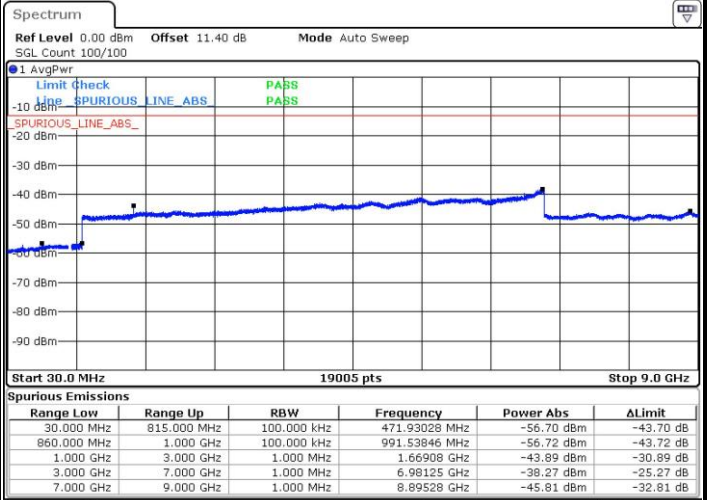
LTE Band 5 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

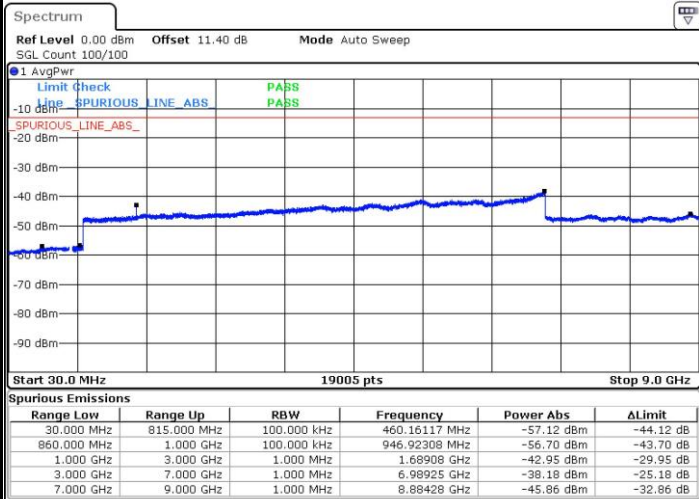


Date: 27.JUN.2019 03:25:19



Date: 27.JUN.2019 03:26:44

Highest Channel / 64QAM



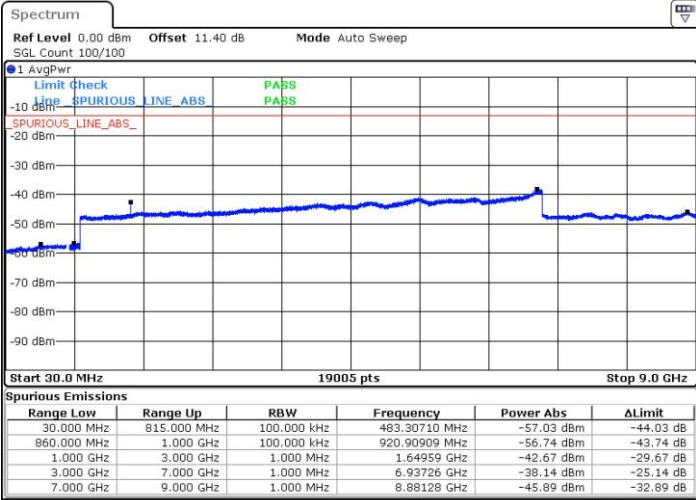
Date: 27.JUN.2019 03:31:27



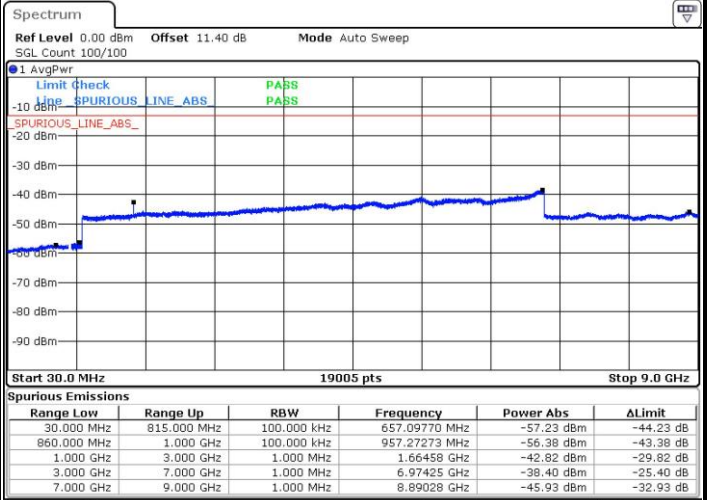
LTE Band 5 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

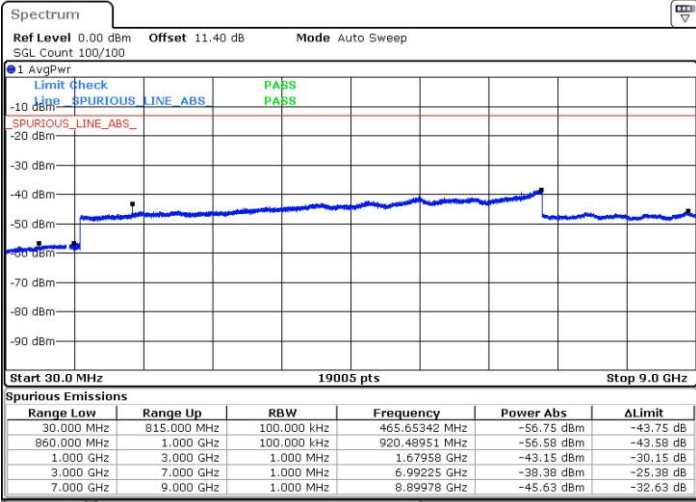


Date: 27.JUN.2019 03:36:10



Date: 27.JUN.2019 03:37:35

Highest Channel / 64QAM



Date: 27.JUN.2019 03:42:18



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0045	
30	Normal Voltage	0.0057	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0041	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0071	
-30	Normal Voltage	0.0092	
20	Maximum Voltage	0.0055	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0139	

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 7

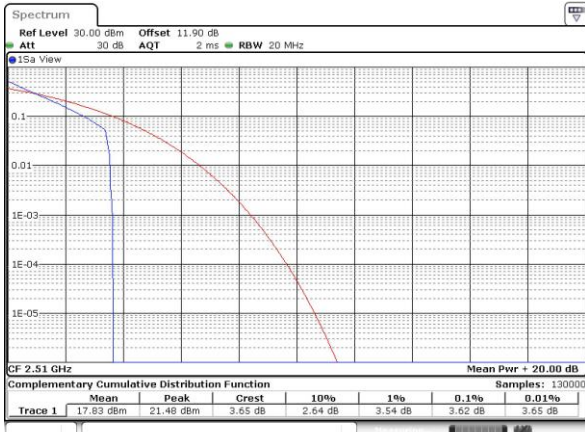
## Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.35	5.22	5.8	<b>PASS</b>
Middle CH	3.68	4.64	5.22	6.06	
Highest CH	3.54	4.72	5.39	6.12	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.04	6.32	-	-	<b>PASS</b>
Middle CH	7.22	6.55	-	-	
Highest CH	6.52	6.67	-	-	



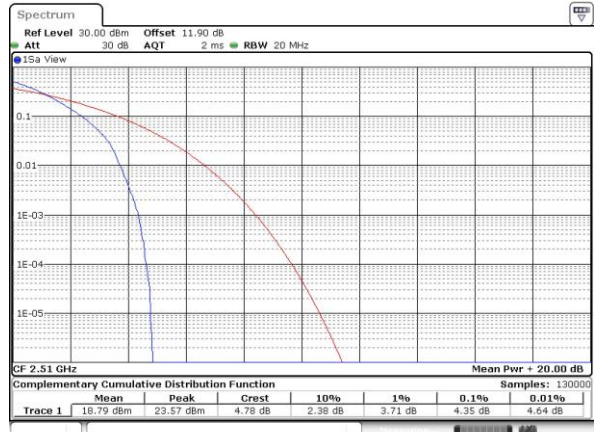
LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



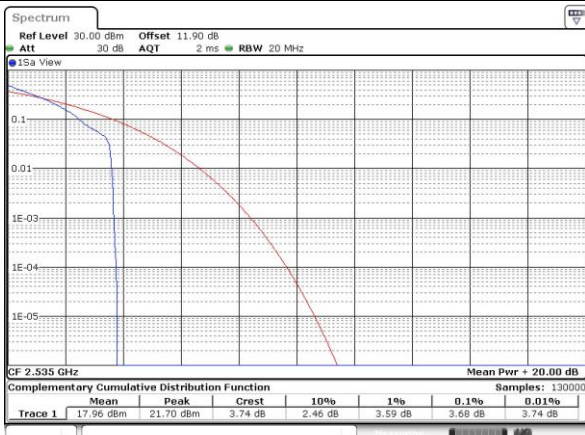
Date: 23 JUL 2019 22:01:47

Lowest Channel / Full RB



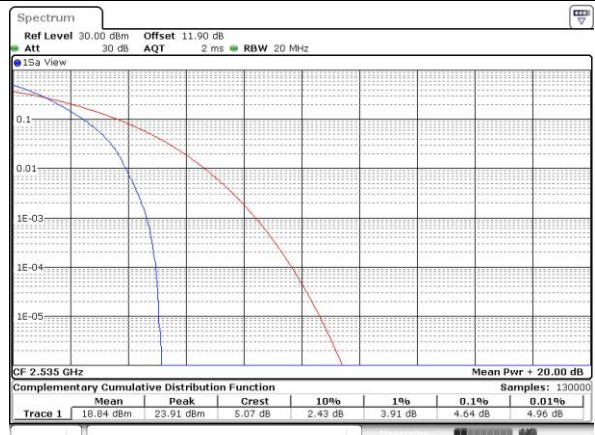
Date: 23 JUL 2019 22:01:58

Middle Channel / 1RB



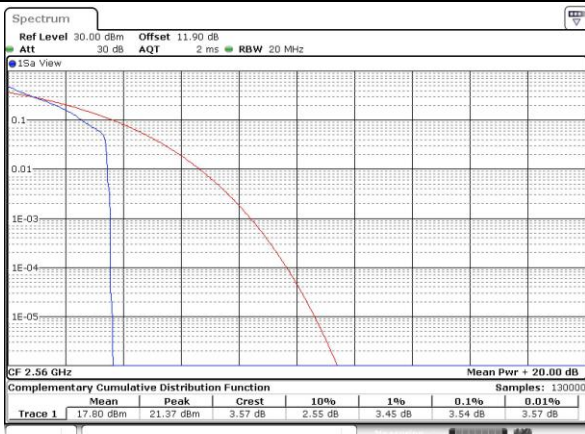
Date: 23 JUL 2019 22:02:09

Middle Channel / Full RB



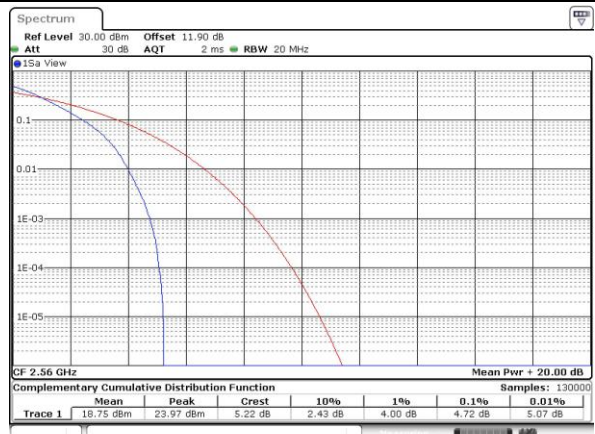
Date: 23 JUL 2019 22:02:21

Highest Channel / 1RB



Date: 23 JUL 2019 22:02:33

Highest Channel / Full RB



Date: 23 JUL 2019 22:02:47



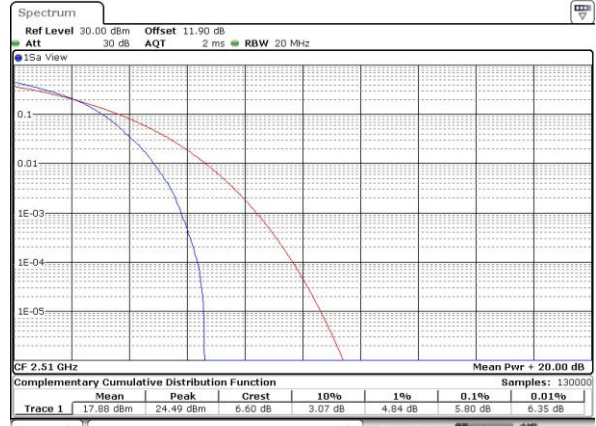
LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



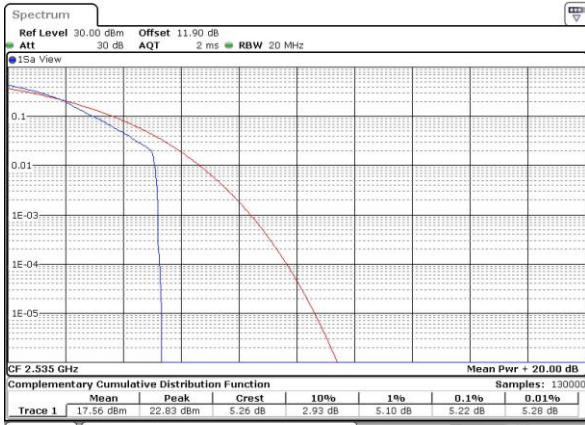
Date: 23 JUL 2019 22:00:42

Lowest Channel / Full RB



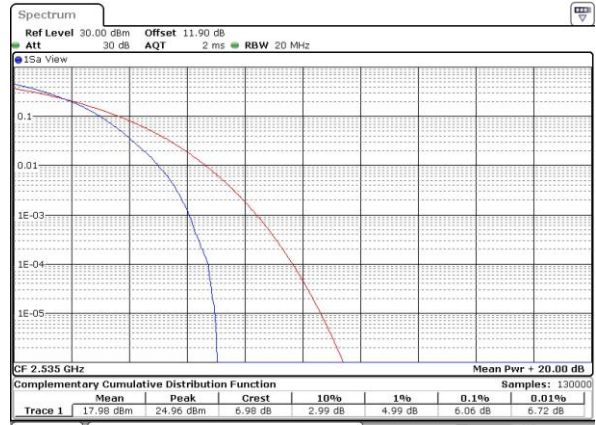
Date: 23 JUL 2019 22:00:53

Middle Channel / 1RB



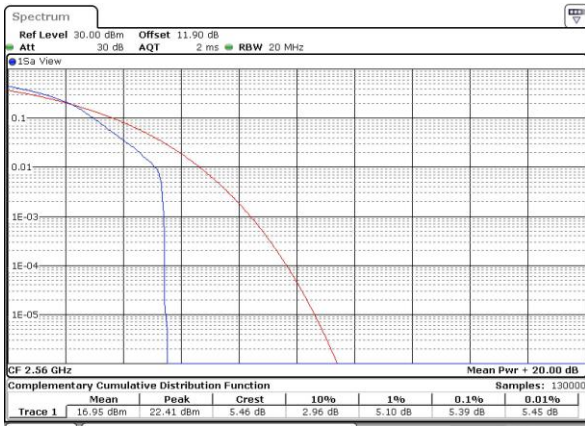
Date: 23 JUL 2019 22:01:04

Middle Channel / Full RB



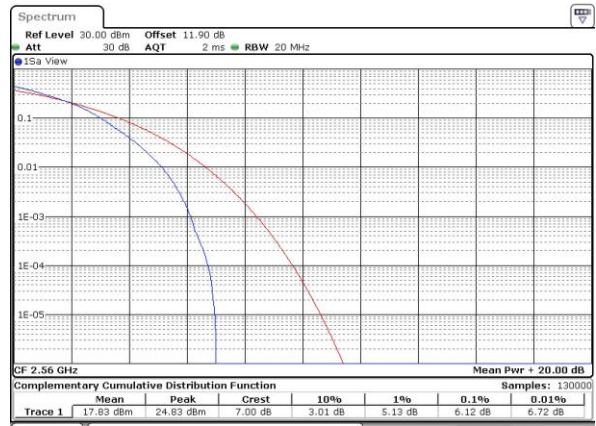
Date: 23 JUL 2019 22:01:14

Highest Channel / 1RB



Date: 23 JUL 2019 22:01:25

Highest Channel / Full RB



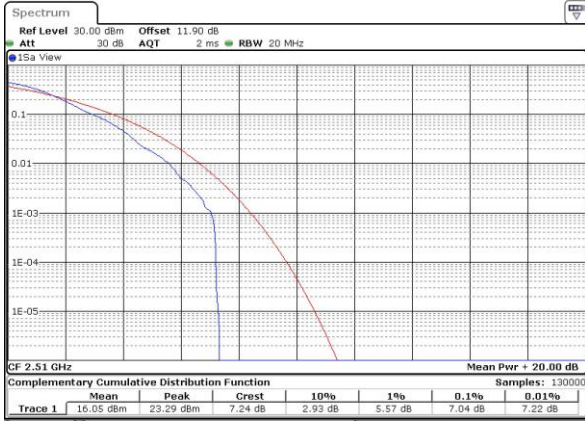
Date: 23 JUL 2019 22:01:36





LTE Band 7 / 20MHz / 64QAM

Lowest Channel / 1RB



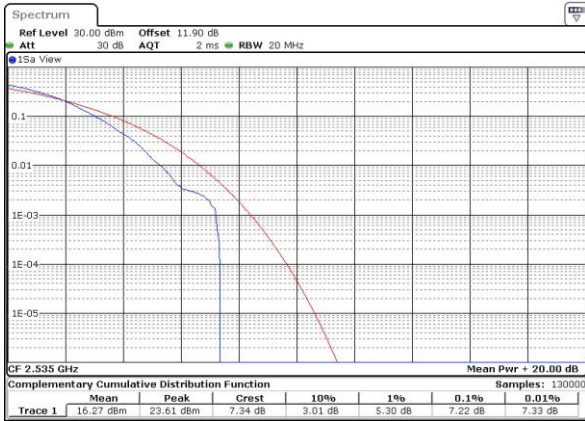
Date: 23 JUL 2019 22:03:03

Lowest Channel / Full RB



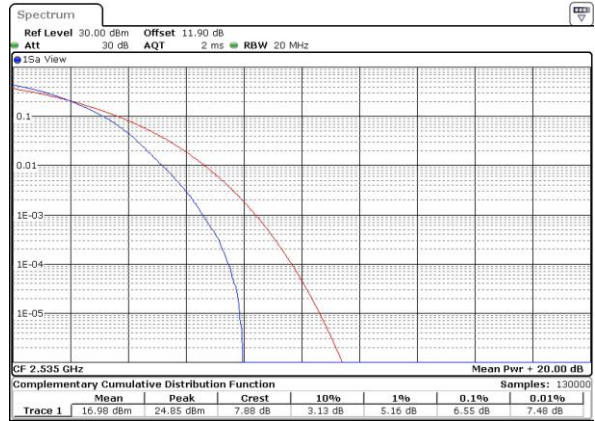
Date: 23 JUL 2019 22:03:17

Middle Channel / 1RB



Date: 23 JUL 2019 22:03:28

Middle Channel / Full RB



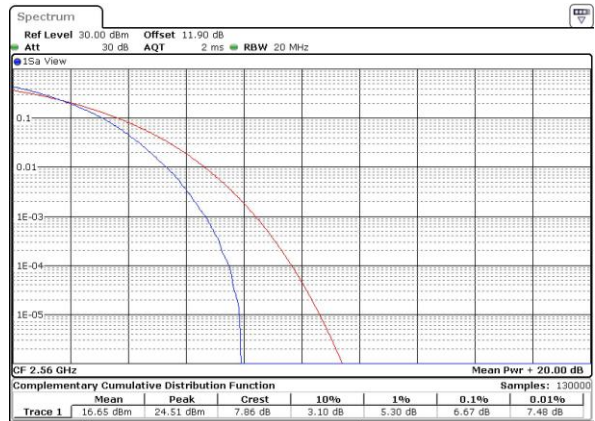
Date: 23 JUL 2019 22:03:41

Highest Channel / 1RB



Date: 23 JUL 2019 22:03:53

Highest Channel / Full RB



Date: 23 JUL 2019 22:05:29



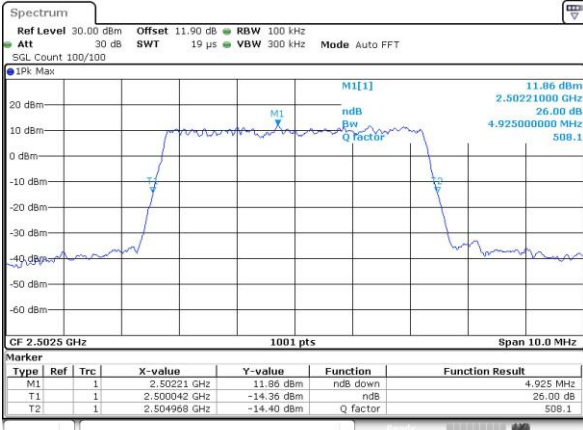
26dB Bandwidth

Mode	LTE Band 7 : 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	-	-	-	-	4.93	4.87	9.79	9.75	14.15	14.39	19.06	18.82
Middle CH	-	-	-	-	4.93	4.87	9.81	9.81	14.27	14.66	18.9	19.02
Highest CH	-	-	-	-	4.96	4.92	9.83	9.95	14.42	14.39	18.94	18.86
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.85	-	9.89	-	14.39	-	18.98	-
Middle CH	-	-	-	-	4.96	-	9.69	-	14.51	-	19.14	-
Highest CH	-	-	-	-	4.89	-	9.79	-	14.21	-	19.02	-



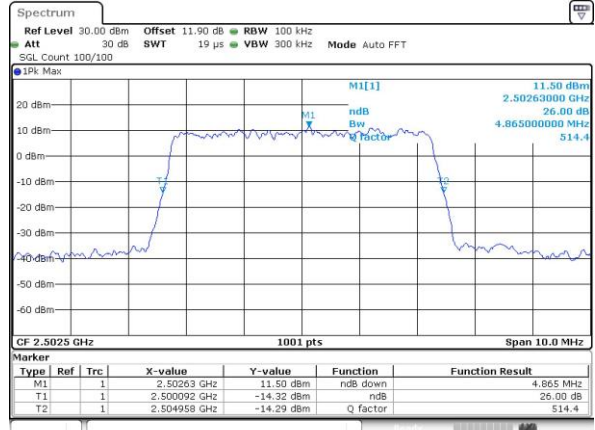
LTE Band 7

Lowest Channel / 5MHz / QPSK



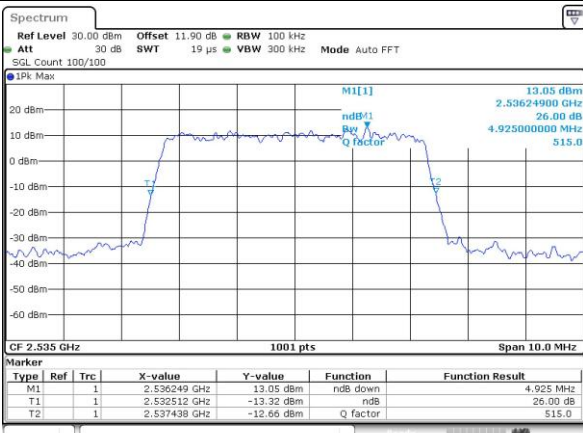
Date: 23\_JUL\_2019 00:26:56

Lowest Channel / 5MHz / 16QAM



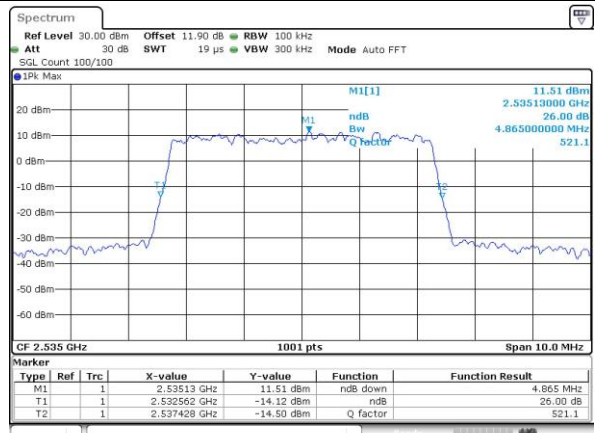
Date: 23\_JUL\_2019 00:27:09

Middle Channel / 5MHz / QPSK



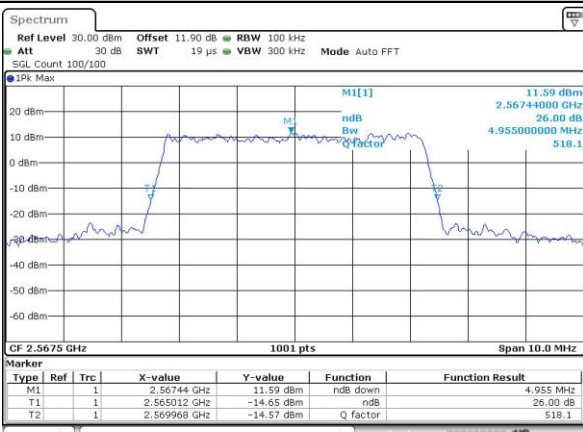
Date: 23\_JUL\_2019 00:33:24

Middle Channel / 5MHz / 16QAM



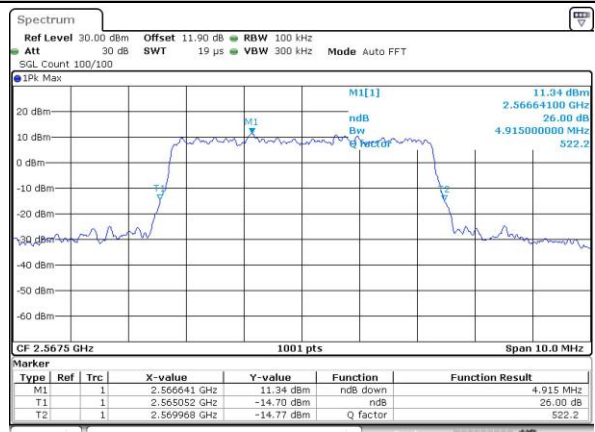
Date: 23\_JUL\_2019 00:33:36

Highest Channel / 5MHz / QPSK



Date: 23\_JUL\_2019 00:36:09

Highest Channel / 5MHz / 16QAM

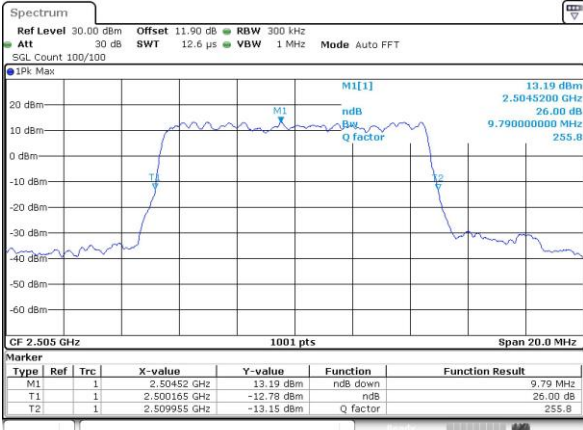


Date: 23\_JUL\_2019 00:36:21



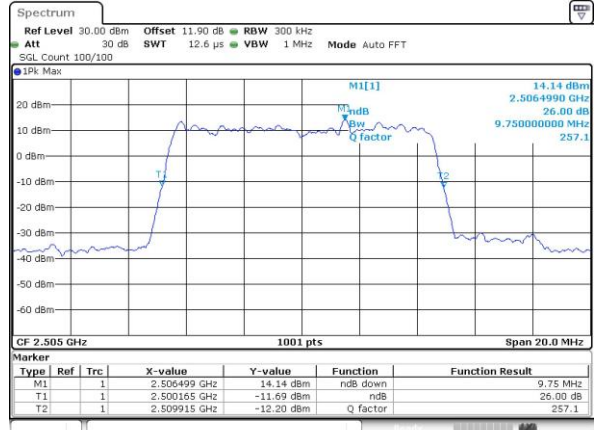
LTE Band 7

Lowest Channel / 10MHz / QPSK



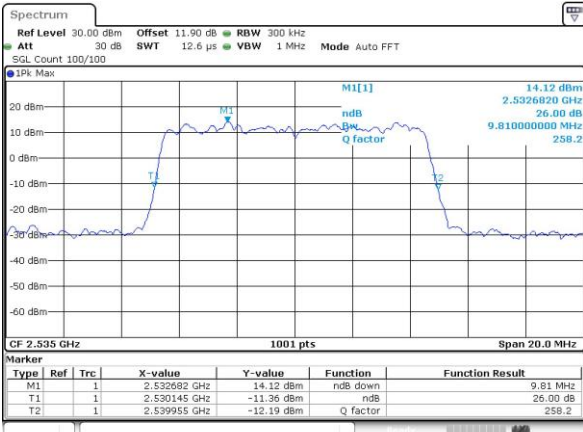
Date: 23\_JUL\_2019 00:50:29

Lowest Channel / 10MHz / 16QAM



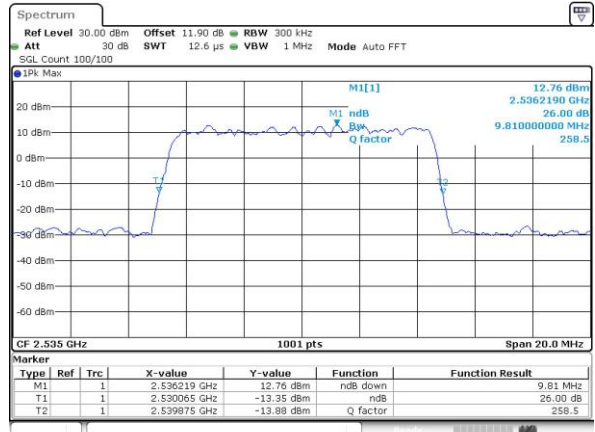
Date: 23\_JUL\_2019 00:50:42

Middle Channel / 10MHz / QPSK



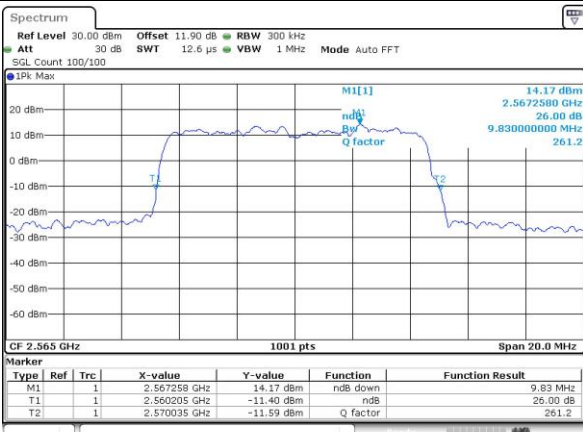
Date: 23\_JUL\_2019 00:56:57

Middle Channel / 10MHz / 16QAM



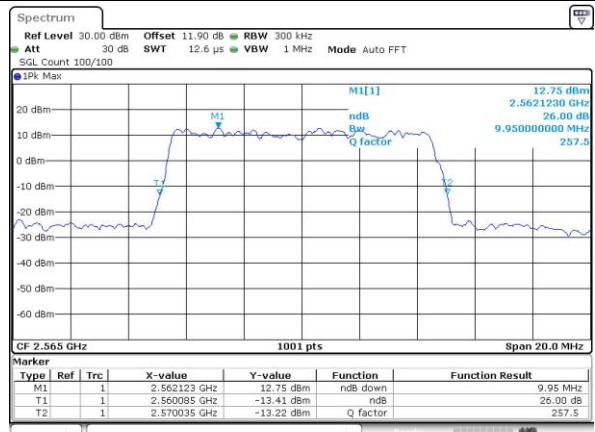
Date: 23\_JUL\_2019 00:57:09

Highest Channel / 10MHz / QPSK



Date: 23\_JUL\_2019 00:59:41

Highest Channel / 10MHz / 16QAM

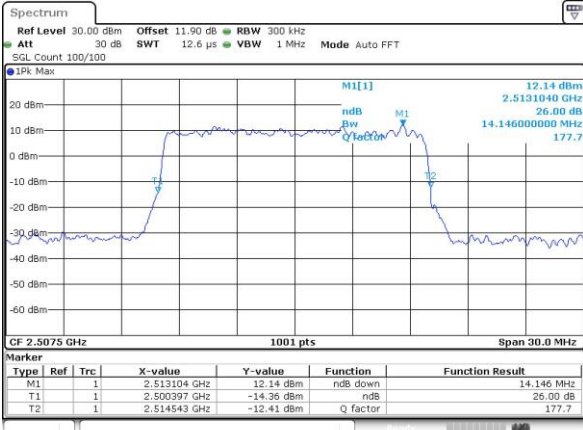


Date: 23\_JUL\_2019 00:59:54



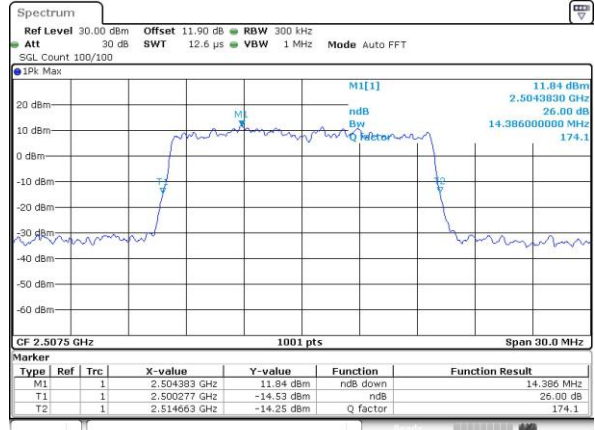
LTE Band 7

Lowest Channel / 15MHz / QPSK



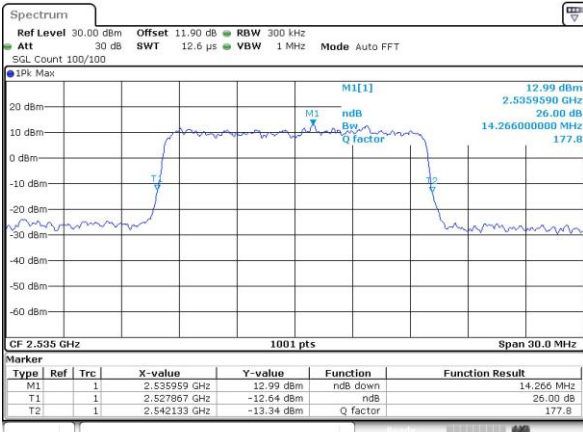
Date: 23\_JUL\_2019 01:14:01

Lowest Channel / 15MHz / 16QAM



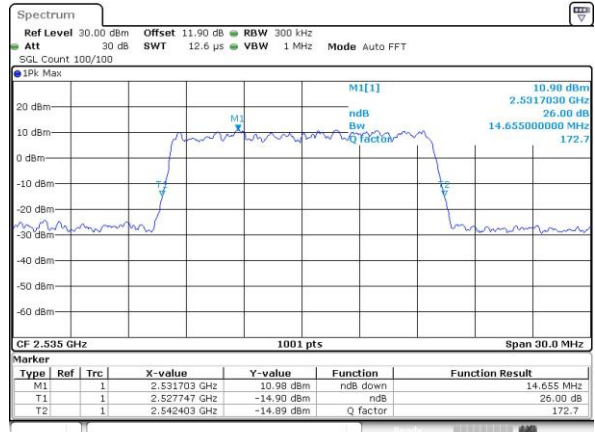
Date: 23\_JUL\_2019 01:14:13

Middle Channel / 15MHz / QPSK



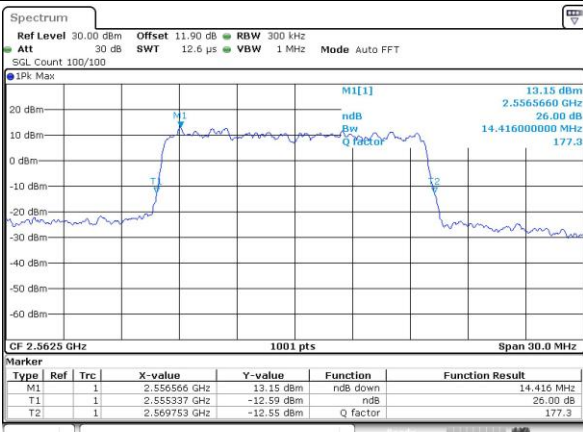
Date: 23\_JUL\_2019 01:20:28

Middle Channel / 15MHz / 16QAM



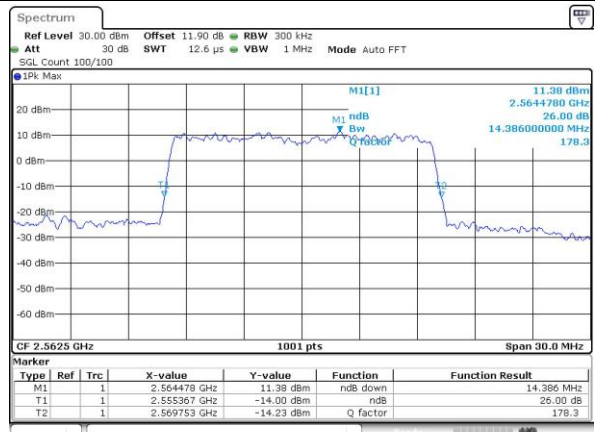
Date: 23\_JUL\_2019 01:20:40

Highest Channel / 15MHz / QPSK



Date: 23\_JUL\_2019 01:23:12

Highest Channel / 15MHz / 16QAM

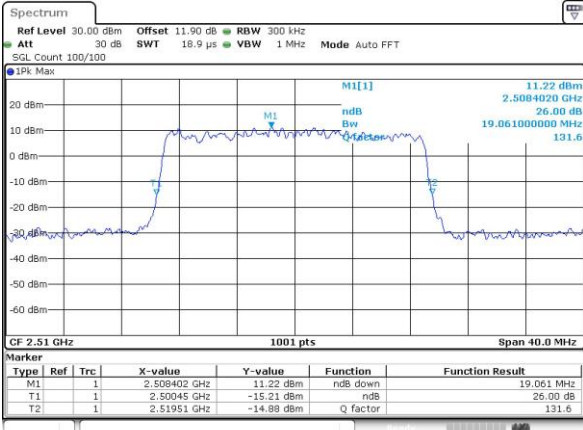


Date: 23\_JUL\_2019 01:23:24



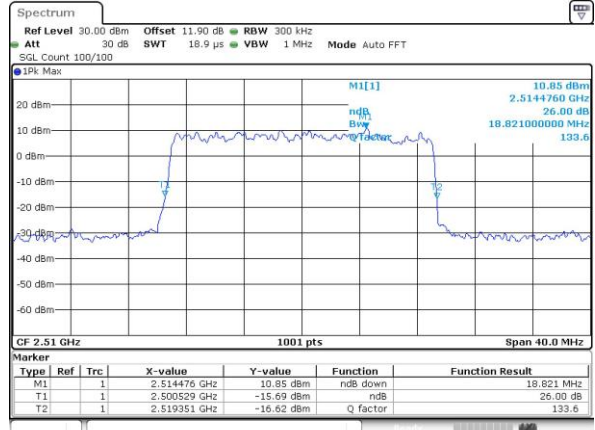
LTE Band 7

Lowest Channel / 20MHz / QPSK



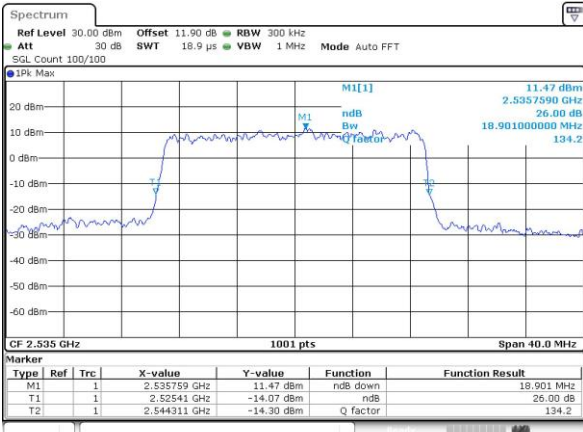
Date: 23\_JUL\_2019 01:38:04

Lowest Channel / 20MHz / 16QAM



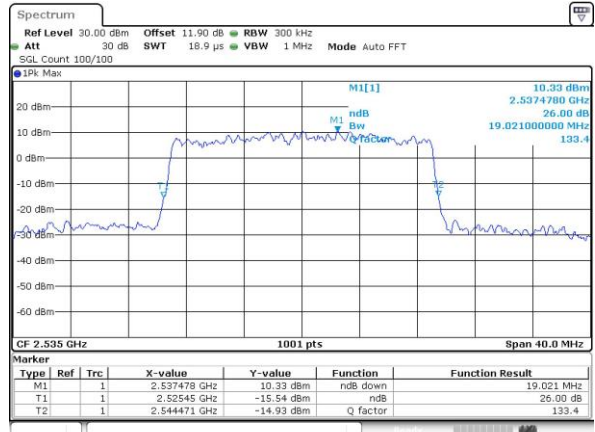
Date: 23\_JUL\_2019 01:38:16

Middle Channel / 20MHz / QPSK



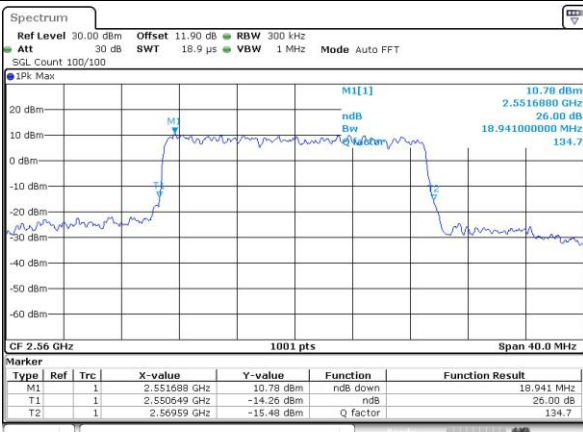
Date: 23\_JUL\_2019 01:44:01

Middle Channel / 20MHz / 16QAM



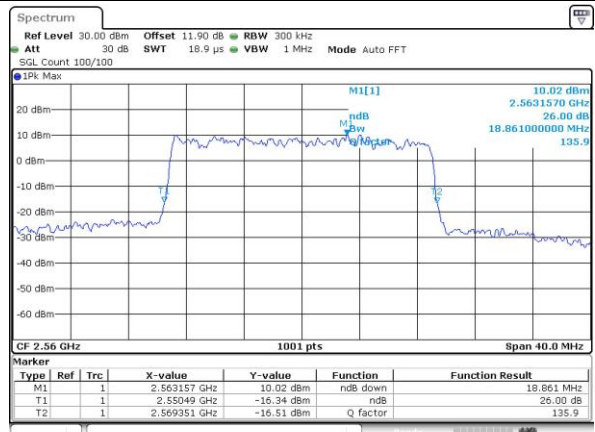
Date: 23\_JUL\_2019 01:44:43

Highest Channel / 20MHz / QPSK



Date: 23\_JUL\_2019 01:47:16

Highest Channel / 20MHz / 16QAM

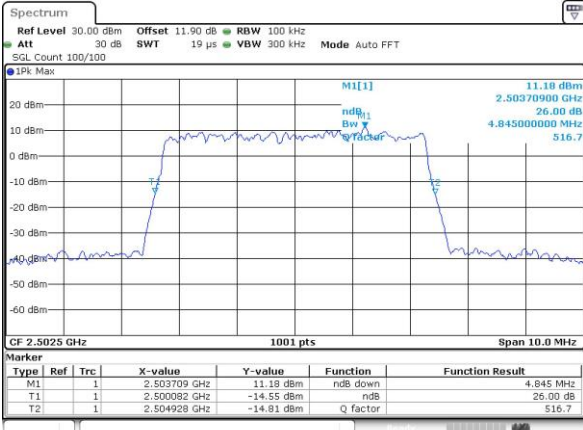


Date: 23\_JUL\_2019 01:47:28



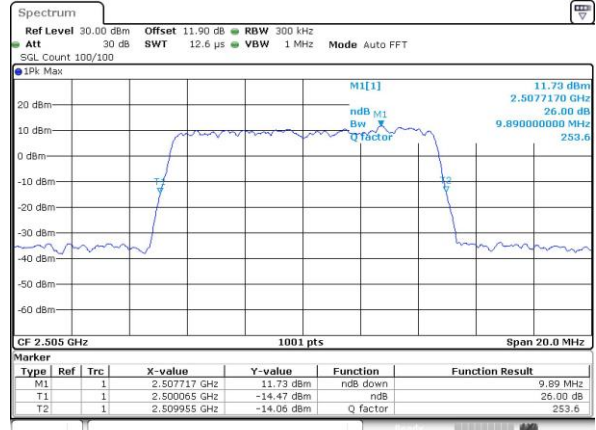
LTE Band 7

Lowest Channel / 5MHz / 64QAM



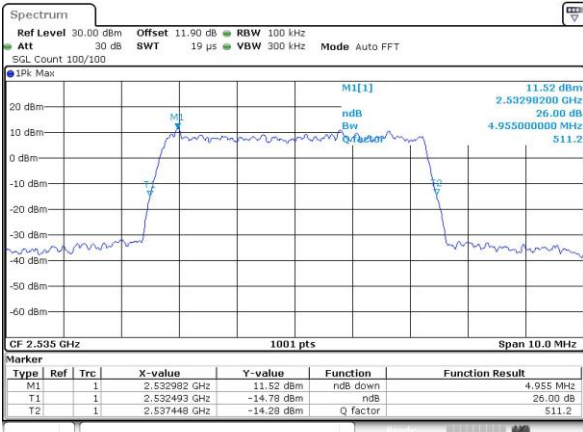
Date: 23\_JUL\_2019 00:42:27

Lowest Channel / 10MHz / 64QAM



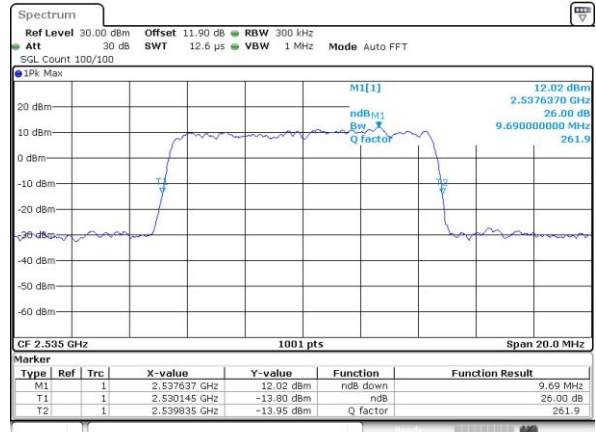
Date: 23\_JUL\_2019 01:05:58

Middle Channel / 5MHz / 64QAM



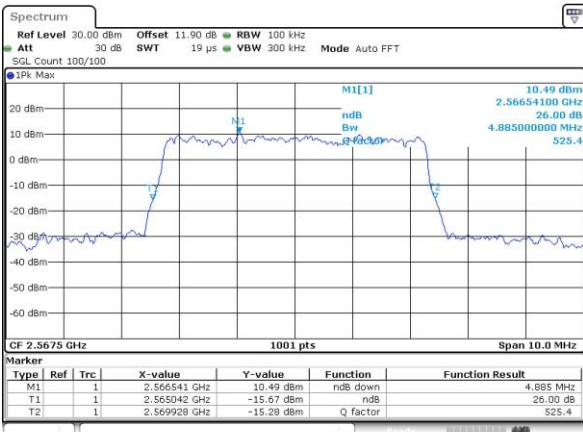
Date: 23\_JUL\_2019 00:45:40

Middle Channel / 10MHz / 64QAM



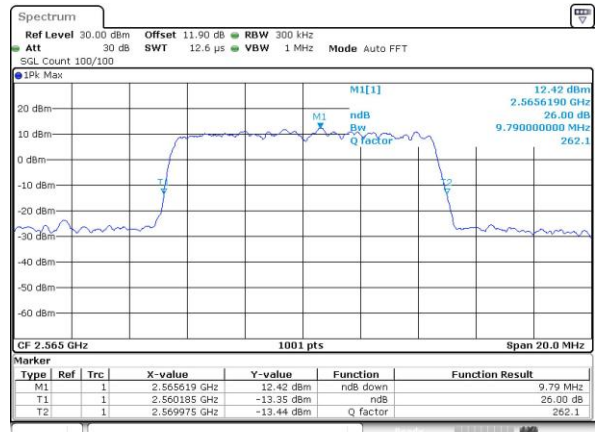
Date: 23\_JUL\_2019 01:09:11

Highest Channel / 5MHz / 64QAM



Date: 23\_JUL\_2019 00:47:02

Highest Channel / 10MHz / 64QAM

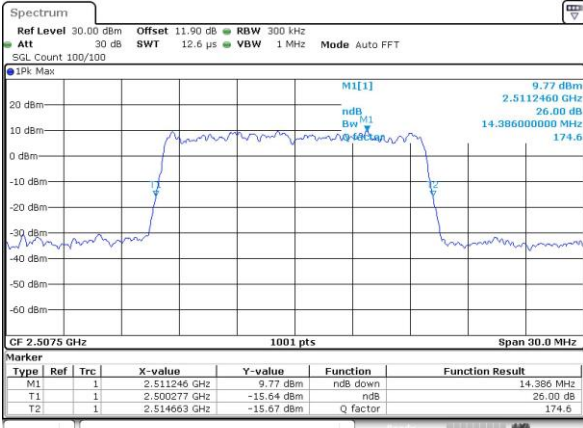


Date: 23\_JUL\_2019 01:10:33



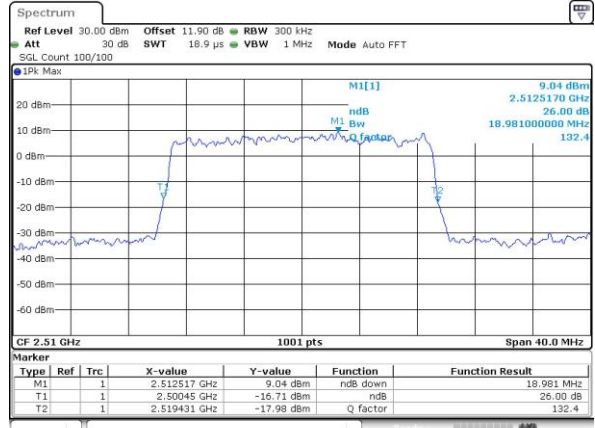
LTE Band 7

Lowest Channel / 15MHz / 64QAM



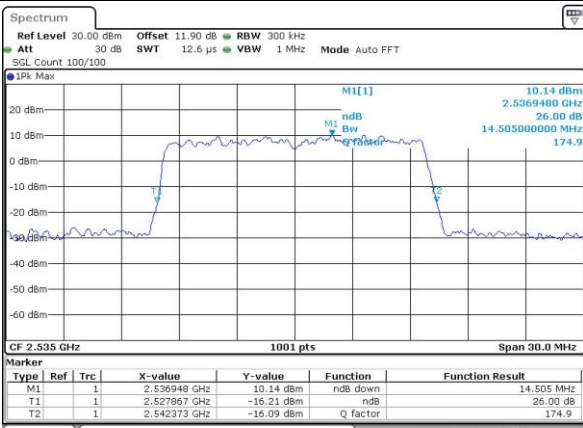
Date: 23\_JUL\_2019 01:29:28

Lowest Channel / 20MHz / 64QAM



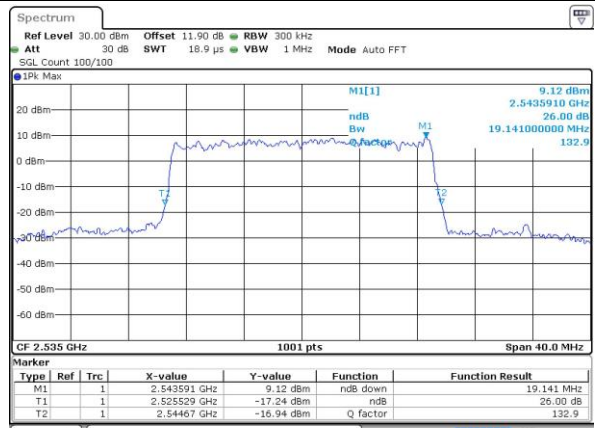
Date: 23\_JUL\_2019 01:53:32

Middle Channel / 15MHz / 64QAM



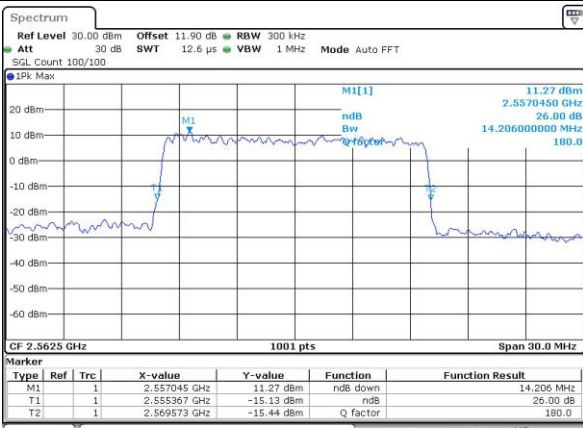
Date: 23\_JUL\_2019 01:32:40

Middle Channel / 20MHz / 64QAM



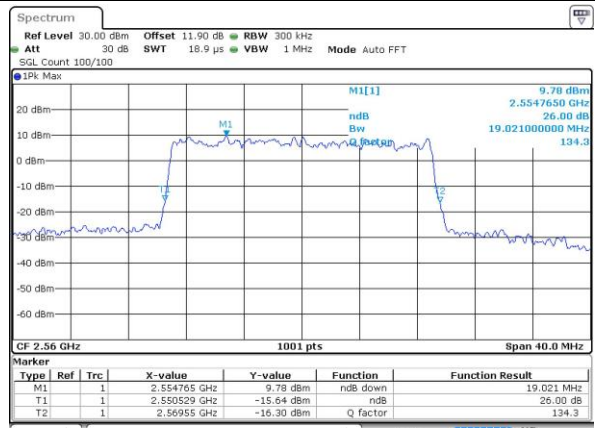
Date: 23\_JUL\_2019 21:56:32

Highest Channel / 15MHz / 64QAM



Date: 23\_JUL\_2019 01:34:02

Highest Channel / 20MHz / 64QAM



Date: 23\_JUL\_2019 21:57:46





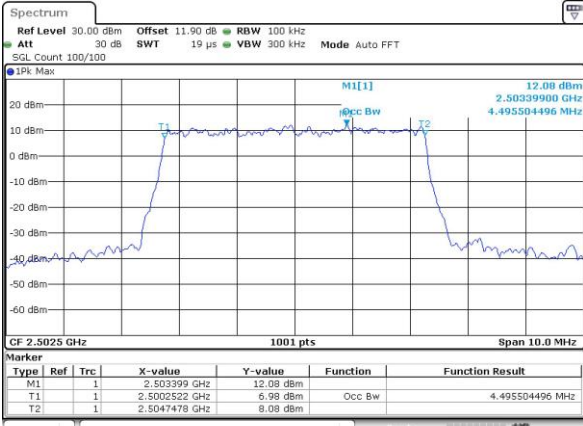
Occupied Bandwidth

Mode	LTE Band 7 : 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	-	-	-	-	4.5	4.5	9.07	9.01	13.43	13.43	17.82	17.9
Middle CH	-	-	-	-	4.48	4.49	8.99	8.99	13.43	13.46	17.82	17.9
Highest CH	-	-	-	-	4.48	4.51	9.07	9.05	13.46	13.52	17.94	18.02
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	9.01	-	13.34	-	17.86	-
Middle CH	-	-	-	-	4.51	-	9.01	-	13.43	-	17.90	-
Highest CH	-	-	-	-	4.49	-	9.05	-	13.40	-	17.86	-



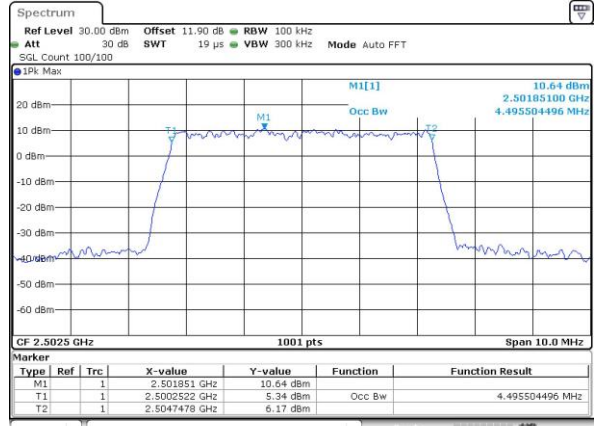
LTE Band 7

Lowest Channel / 5MHz / QPSK



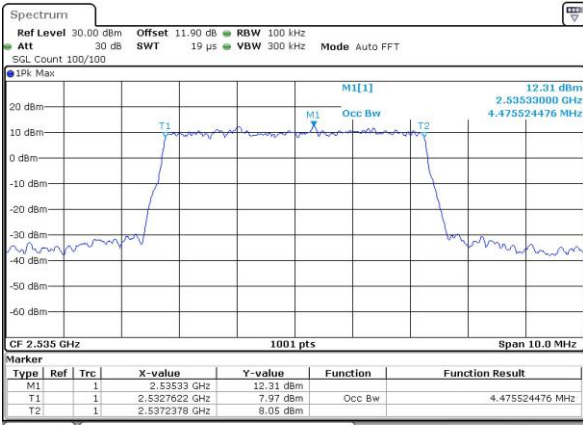
Date: 23\_JUL\_2019 00:26:31

Lowest Channel / 5MHz / 16QAM



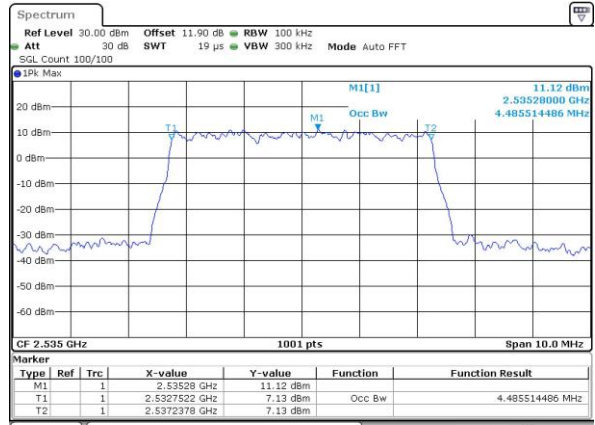
Date: 23\_JUL\_2019 00:26:44

Middle Channel / 5MHz / QPSK



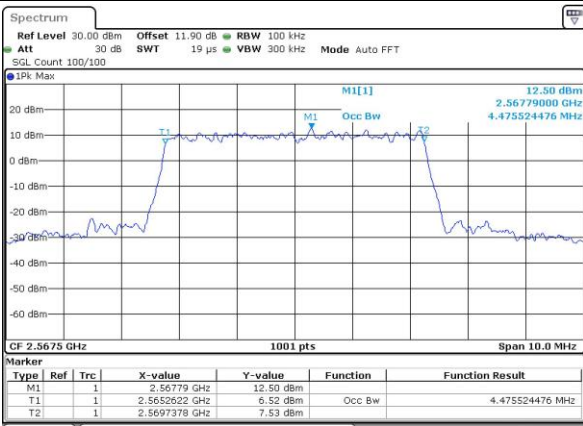
Date: 23\_JUL\_2019 00:33:00

Middle Channel / 5MHz / 16QAM



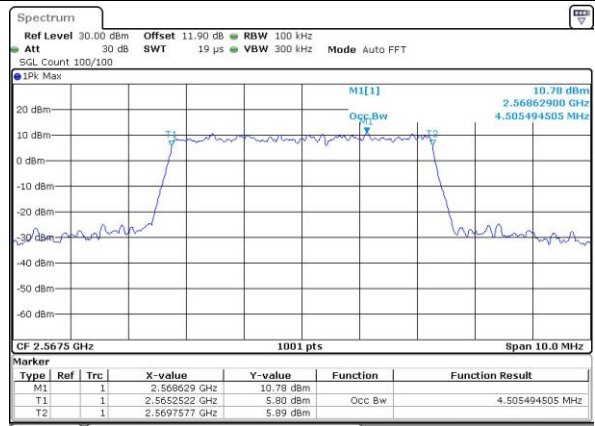
Date: 23\_JUL\_2019 00:33:12

Highest Channel / 5MHz / QPSK



Date: 23\_JUL\_2019 00:35:44

Highest Channel / 5MHz / 16QAM

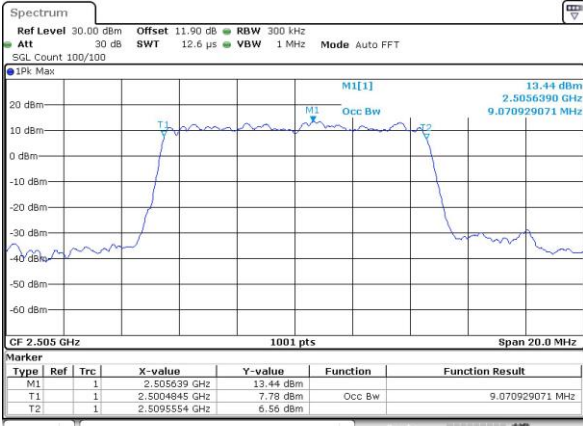


Date: 23\_JUL\_2019 00:35:57



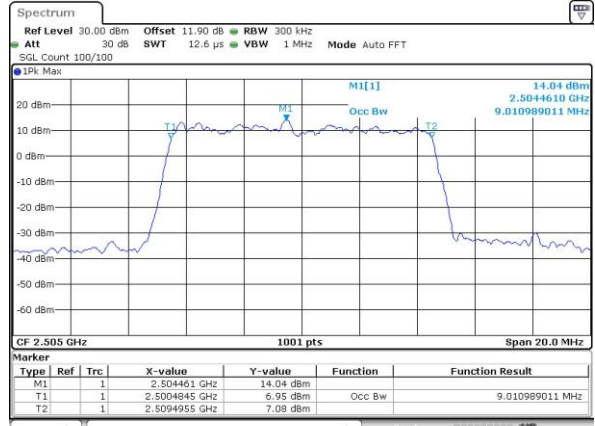
LTE Band 7

Lowest Channel / 10MHz / QPSK



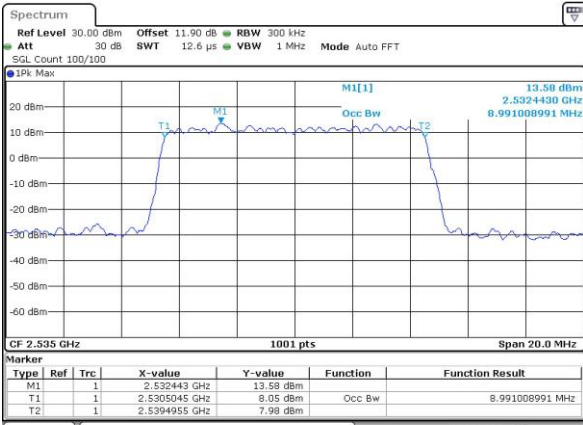
Date: 23\_JUL\_2019 00:50:05

Lowest Channel / 10MHz / 16QAM



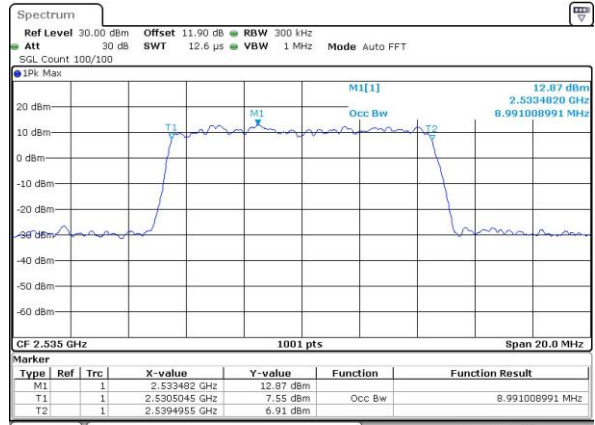
Date: 23\_JUL\_2019 00:50:17

Middle Channel / 10MHz / QPSK



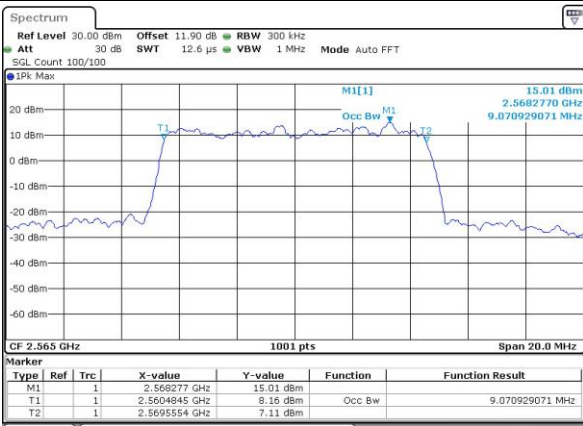
Date: 23\_JUL\_2019 00:50:33

Middle Channel / 10MHz / 16QAM



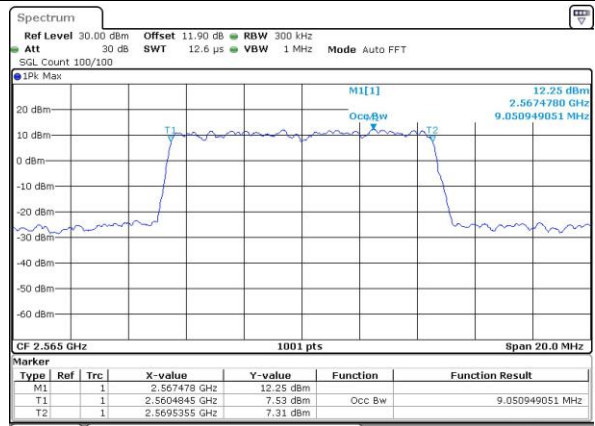
Date: 23\_JUL\_2019 00:50:45

Highest Channel / 10MHz / QPSK



Date: 23\_JUL\_2019 00:59:16

Highest Channel / 10MHz / 16QAM

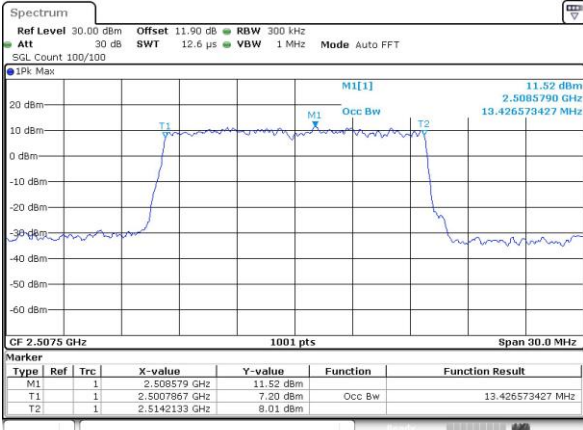


Date: 23\_JUL\_2019 00:59:29



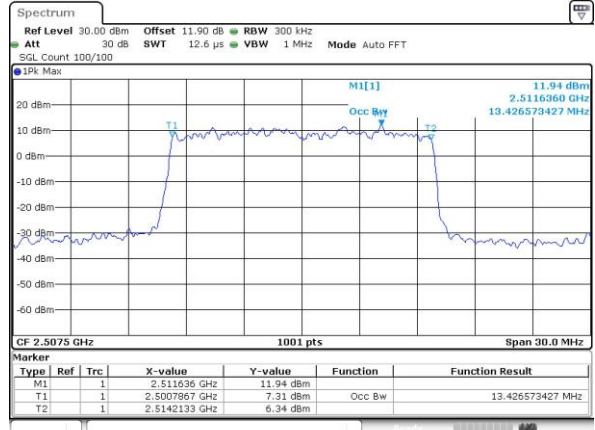
LTE Band 7

Lowest Channel / 15MHz / QPSK



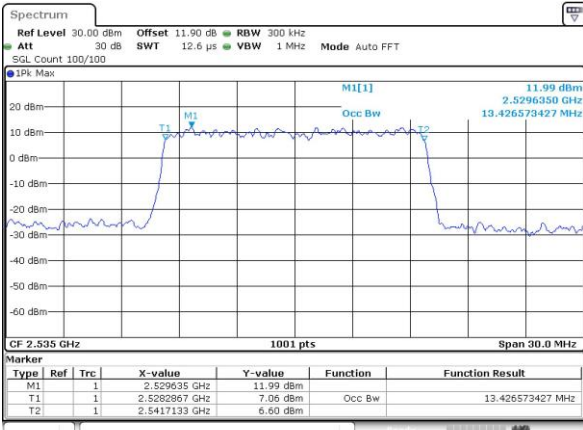
Date: 23\_JUL\_2019 01:13:36

Lowest Channel / 15MHz / 16QAM



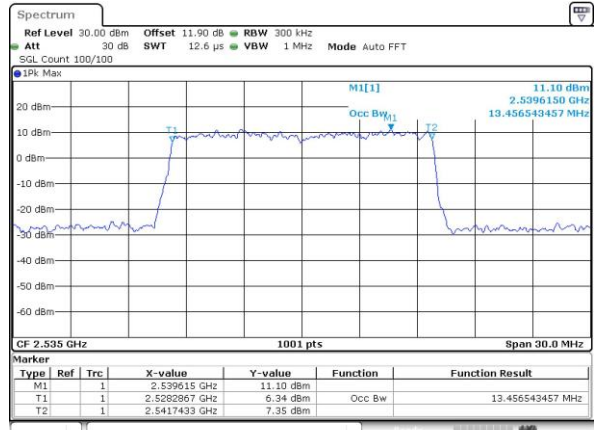
Date: 23\_JUL\_2019 01:13:48

Middle Channel / 15MHz / QPSK



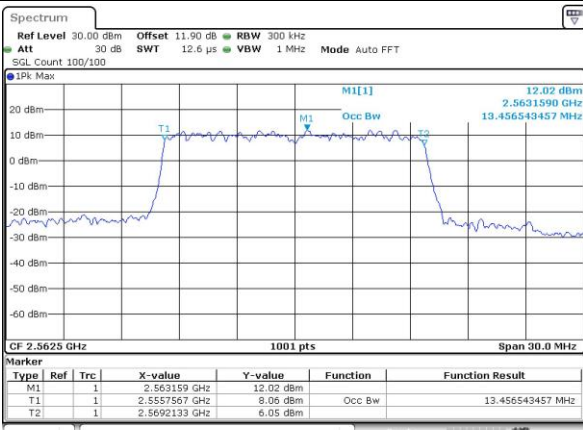
Date: 23\_JUL\_2019 01:20:04

Middle Channel / 15MHz / 16QAM



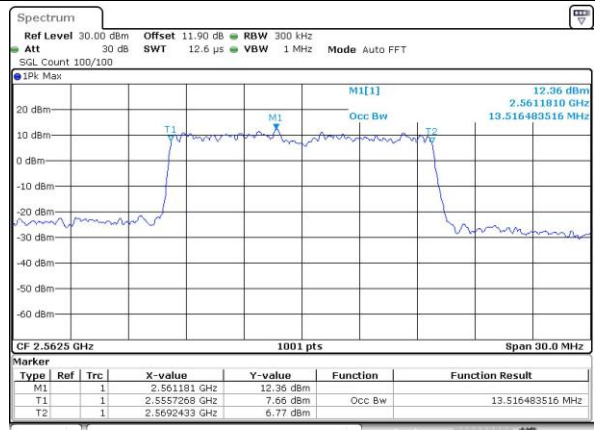
Date: 23\_JUL\_2019 01:20:16

Highest Channel / 15MHz / QPSK



Date: 23\_JUL\_2019 01:22:47

Highest Channel / 15MHz / 16QAM

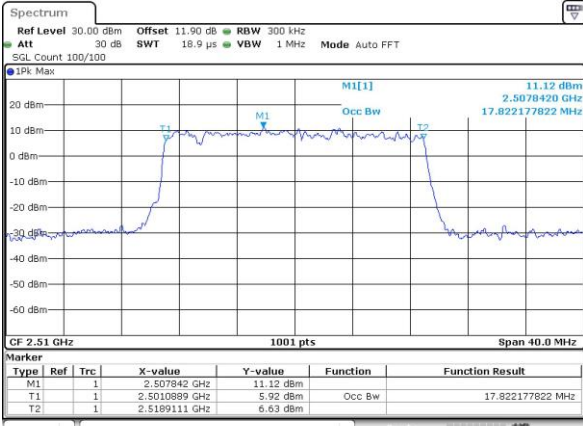


Date: 23\_JUL\_2019 01:22:59



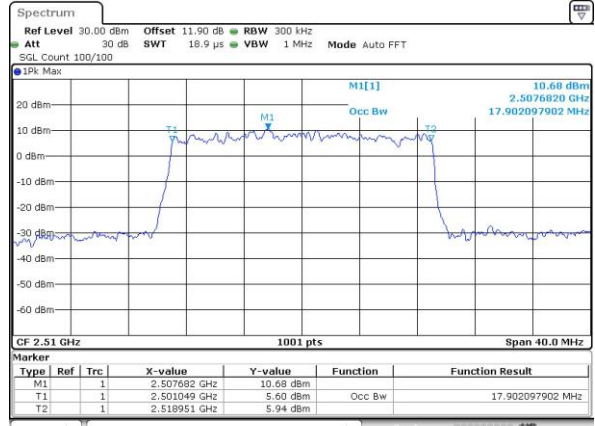
LTE Band 7

Lowest Channel / 20MHz / QPSK



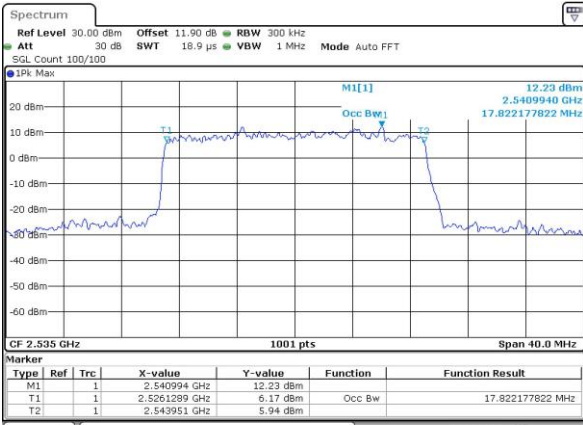
Date: 23\_JUL\_2019 01:37:05

Lowest Channel / 20MHz / 16QAM



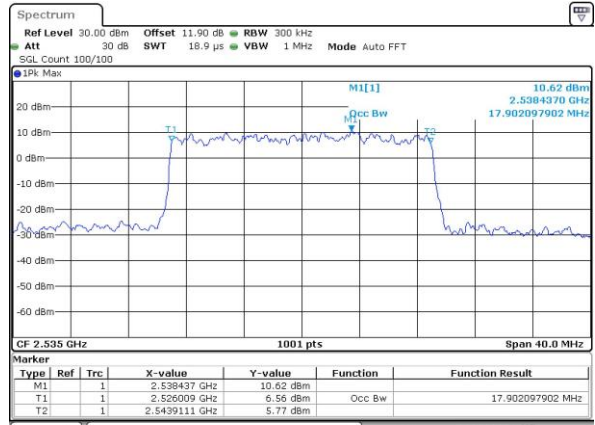
Date: 23\_JUL\_2019 01:37:17

Middle Channel / 20MHz / QPSK



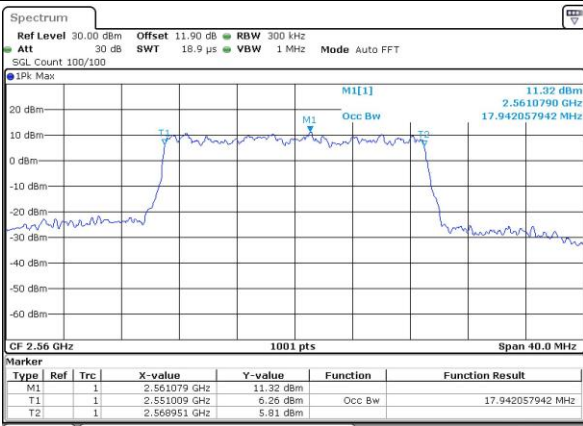
Date: 23\_JUL\_2019 01:44:07

Middle Channel / 20MHz / 16QAM



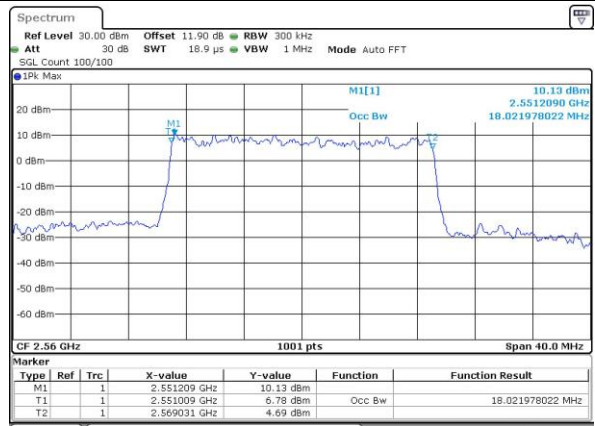
Date: 23\_JUL\_2019 01:44:20

Highest Channel / 20MHz / QPSK



Date: 23\_JUL\_2019 01:46:51

Highest Channel / 20MHz / 16QAM



Date: 23\_JUL\_2019 01:47:03