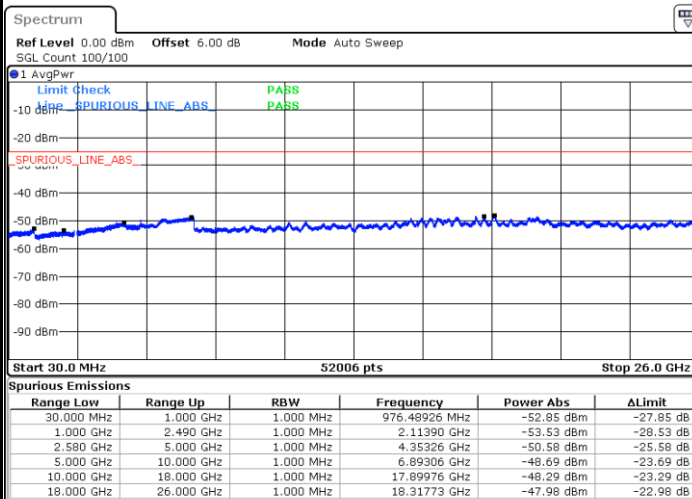




Conducted Spurious Emission

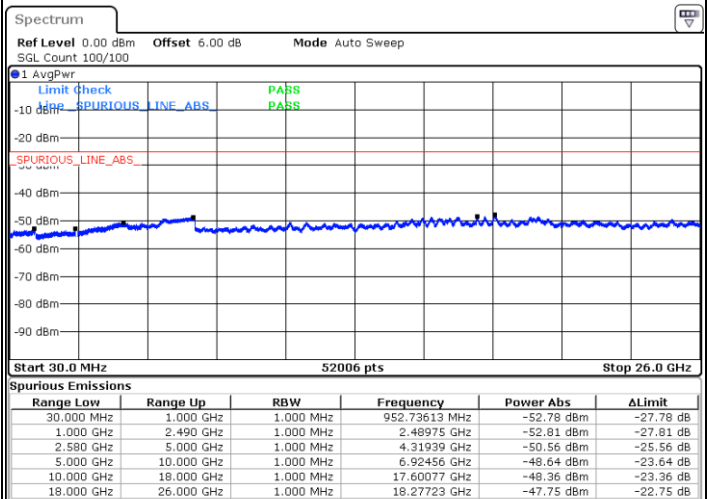
LTE Band 7 / 5MHz

Lowest Channel / QPSK



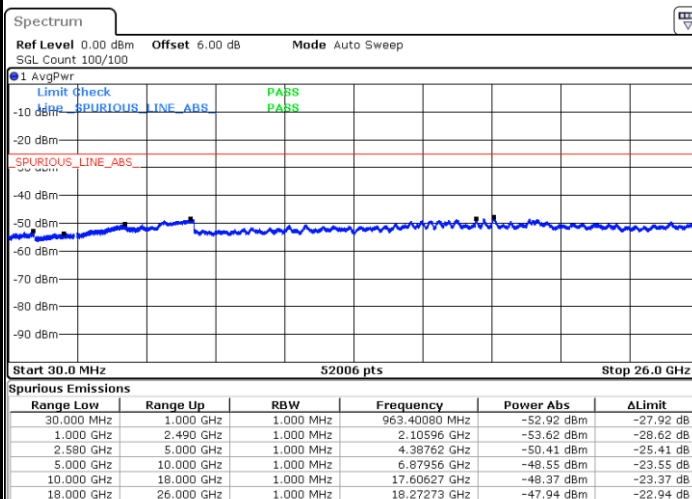
Date: 30 DEC 2019 12:19:21

Lowest Channel / 16QAM



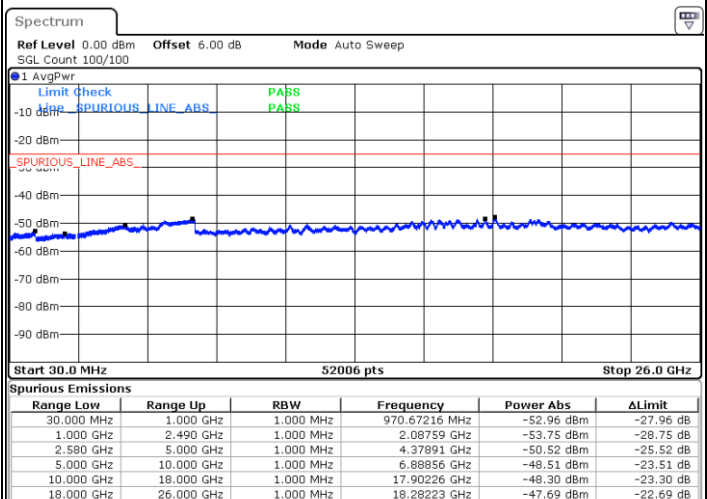
Date: 30 DEC 2019 12:20:15

Middle Channel / QPSK



Date: 30 DEC 2019 12:04:39

Middle Channel / 16QAM

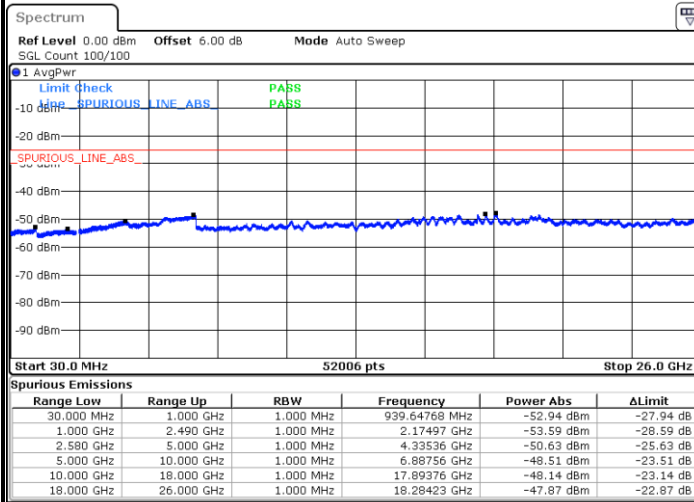


Date: 30 DEC 2019 12:21:08



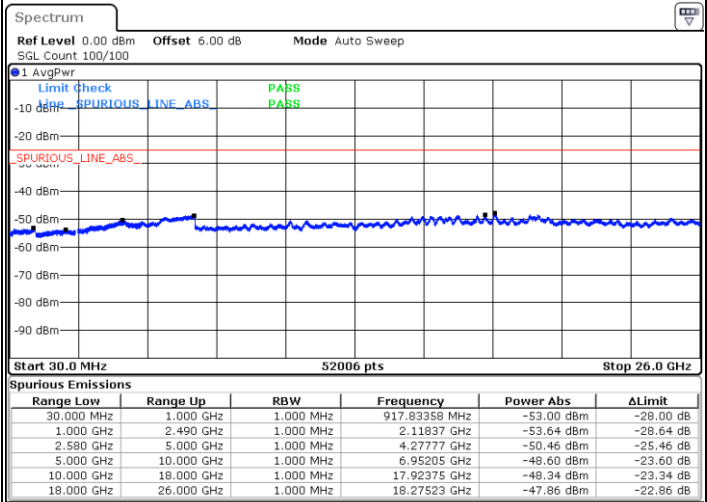
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 30 DEC 2019 12:22:01

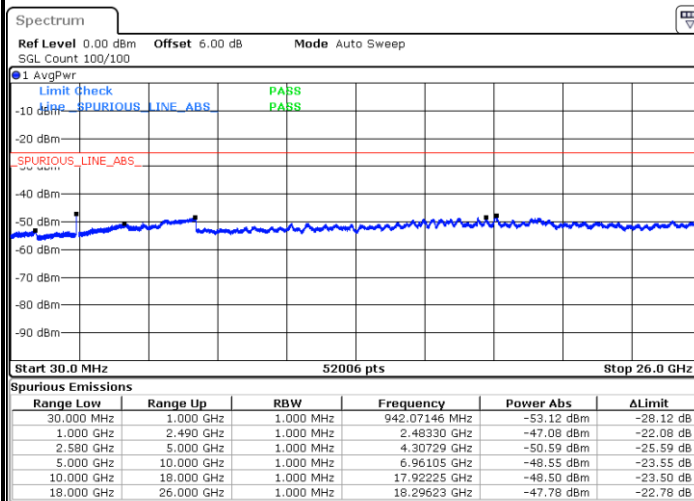
Highest Channel / 16QAM



Date: 30 DEC 2019 12:22:54

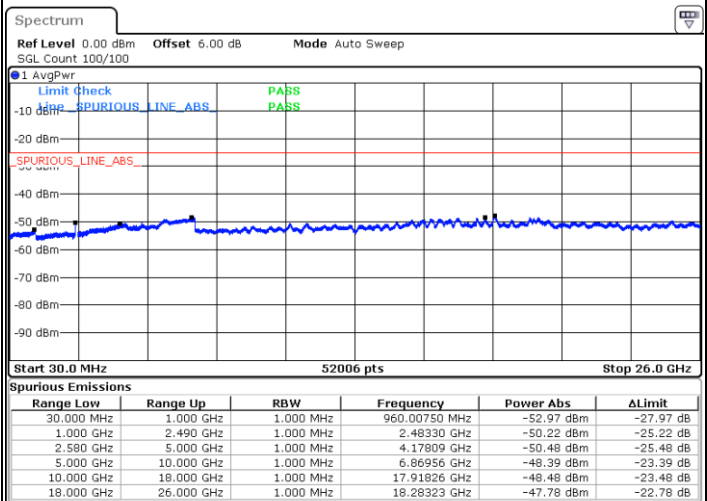
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 30 DEC 2019 12:34:58

Lowest Channel / 16QAM

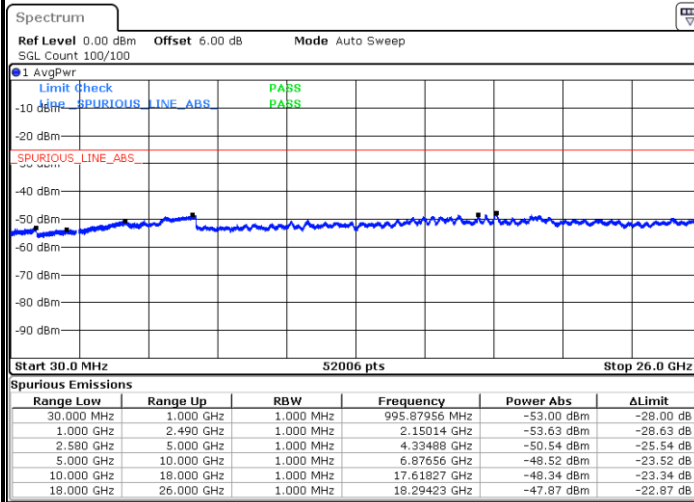


Date: 30 DEC 2019 12:35:52



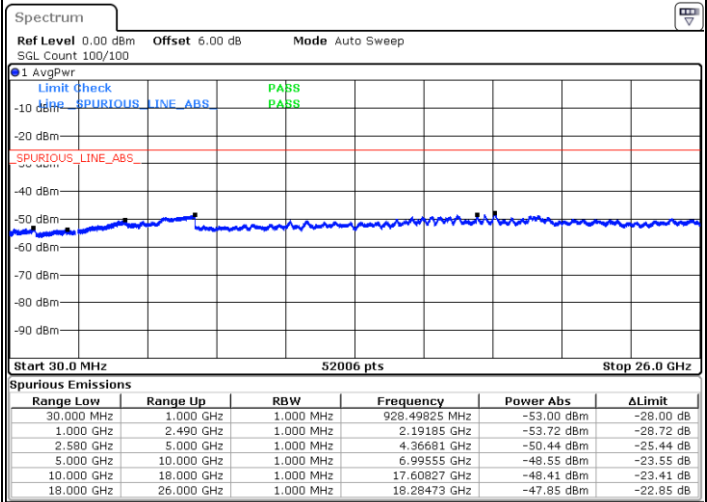
LTE Band 7 / 10MHz

Middle Channel / QPSK



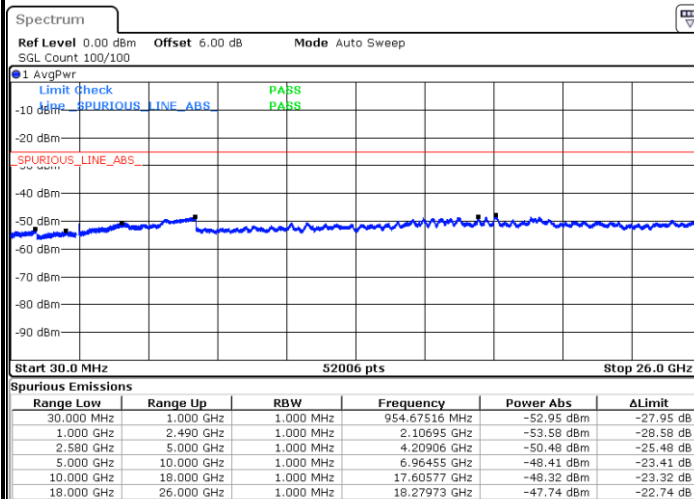
Date: 30 DEC 2019 12:37:38

Middle Channel / 16QAM



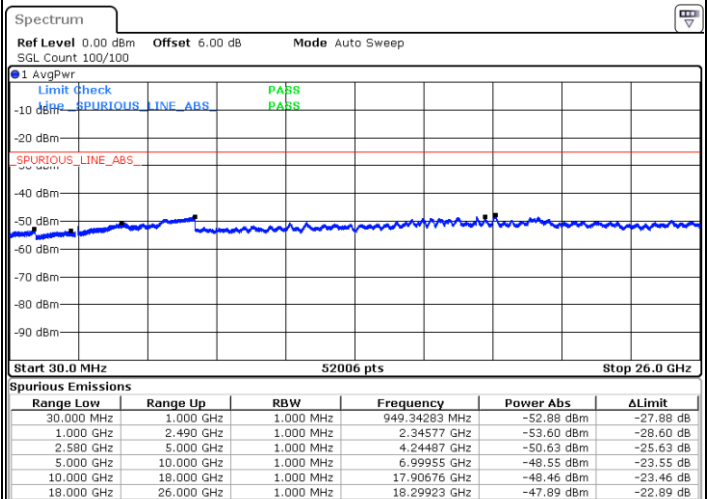
Date: 30 DEC 2019 12:36:45

Highest Channel / QPSK



Date: 30 DEC 2019 12:38:31

Highest Channel / 16QAM

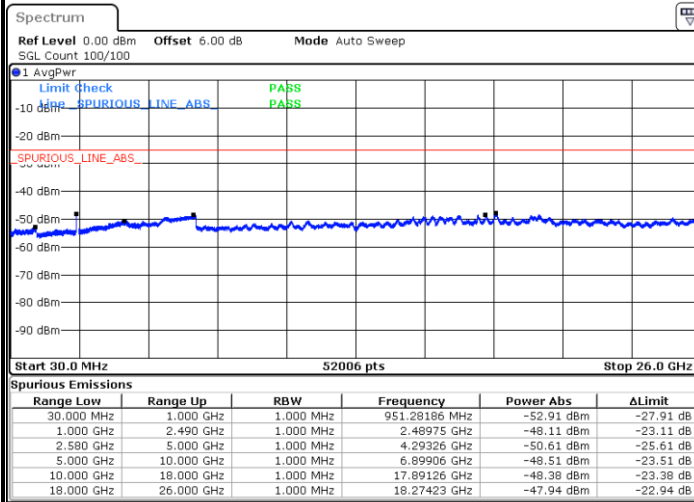


Date: 30 DEC 2019 12:39:24



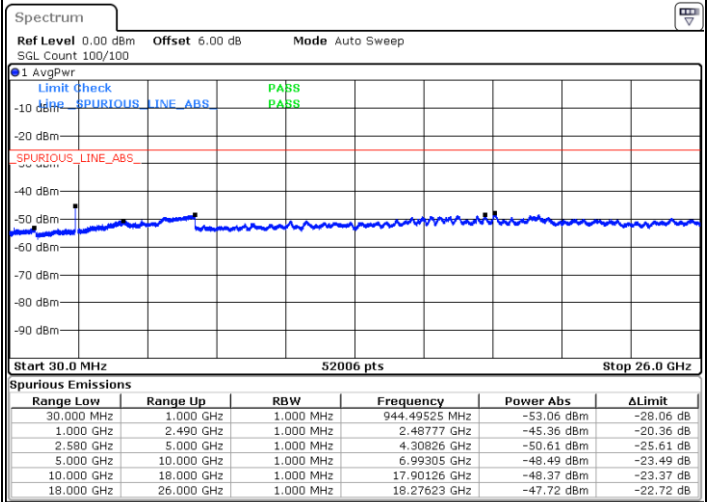
LTE Band 7 / 15MHz

Lowest Channel / QPSK



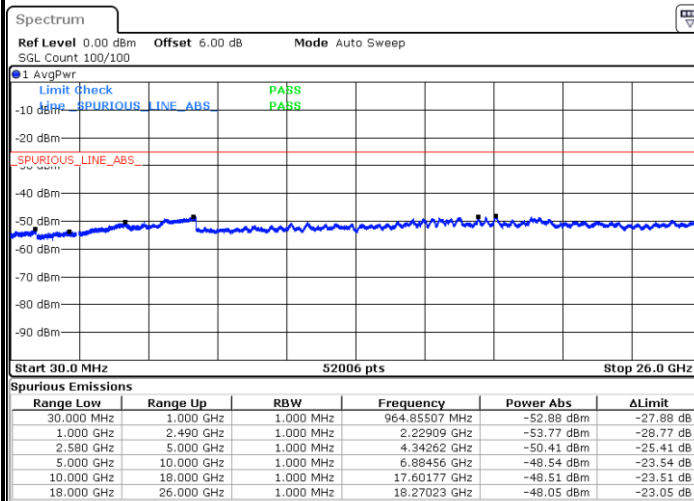
Date: 30 DEC 2019 12:51:29

Lowest Channel / 16QAM



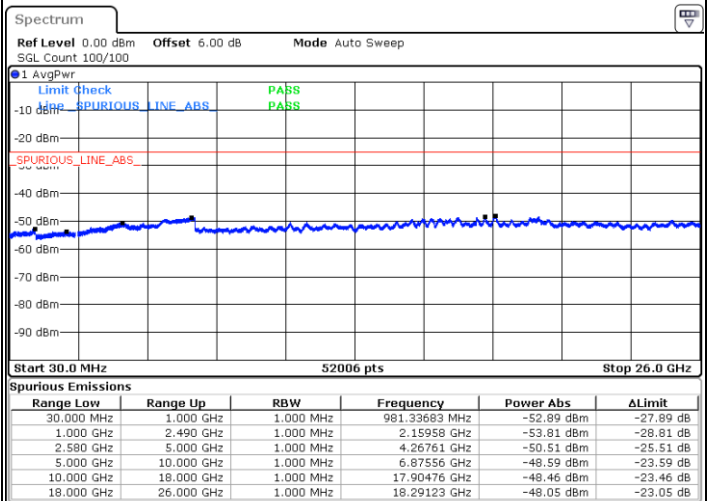
Date: 30 DEC 2019 12:52:22

Middle Channel / QPSK



Date: 30 DEC 2019 13:53:08

Middle Channel / 16QAM

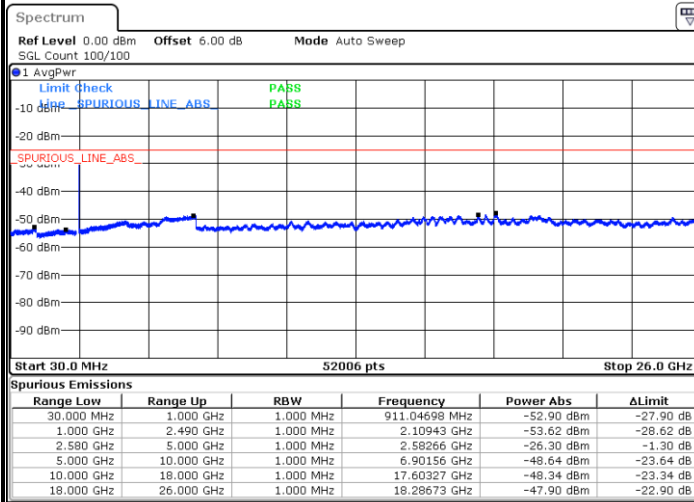


Date: 30 DEC 2019 12:53:15



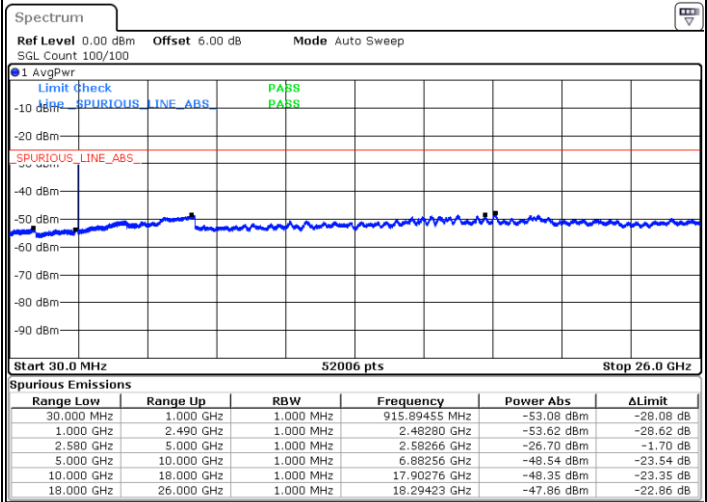
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 30 DEC 2019 13:54:06

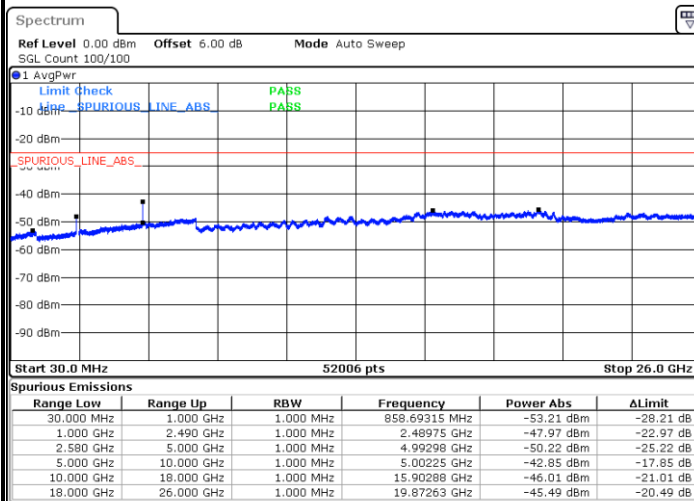
Highest Channel / 16QAM



Date: 30 DEC 2019 13:55:07

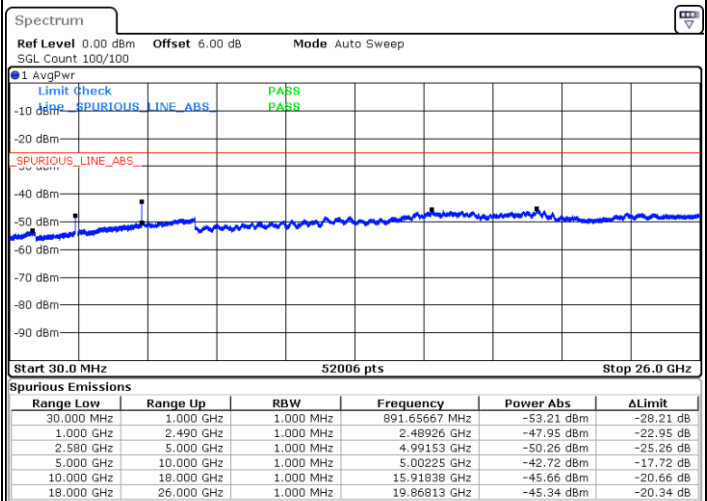
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 30 DEC 2019 14:41:38

Lowest Channel / 16QAM

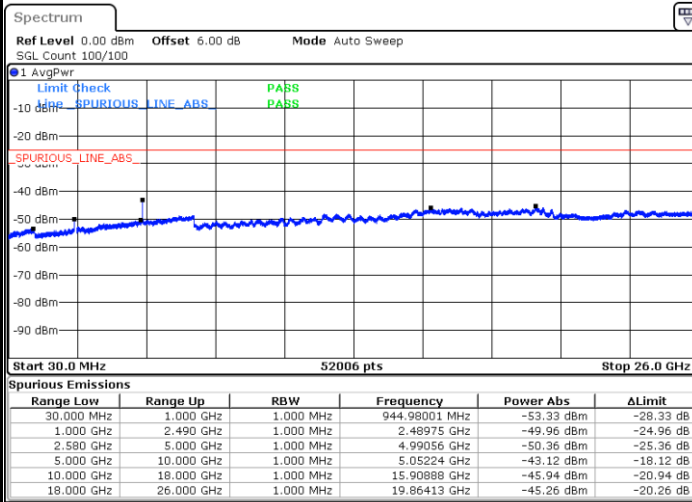


Date: 30 DEC 2019 14:42:32



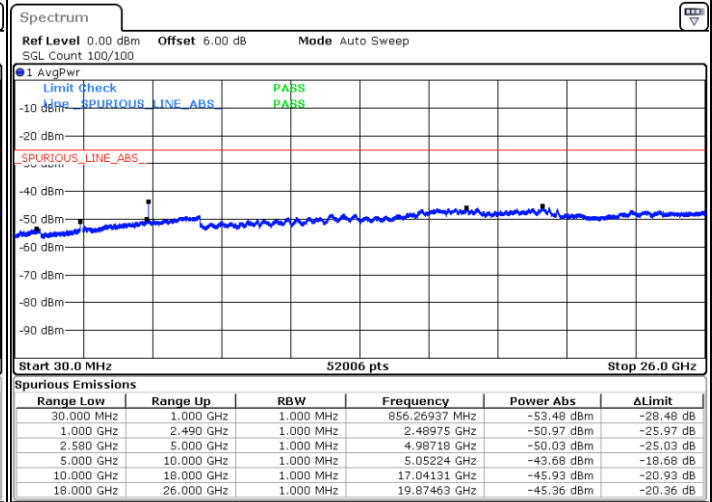
LTE Band 7 / 20MHz

Middle Channel / QPSK



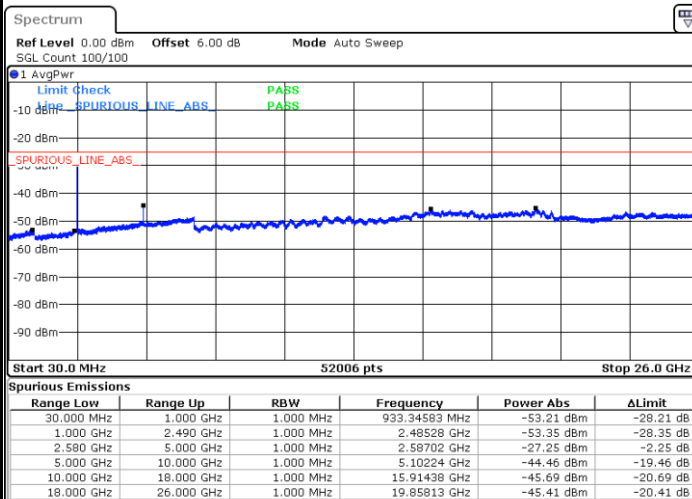
Date: 30 DEC 2019 14:44:20

Middle Channel / 16QAM



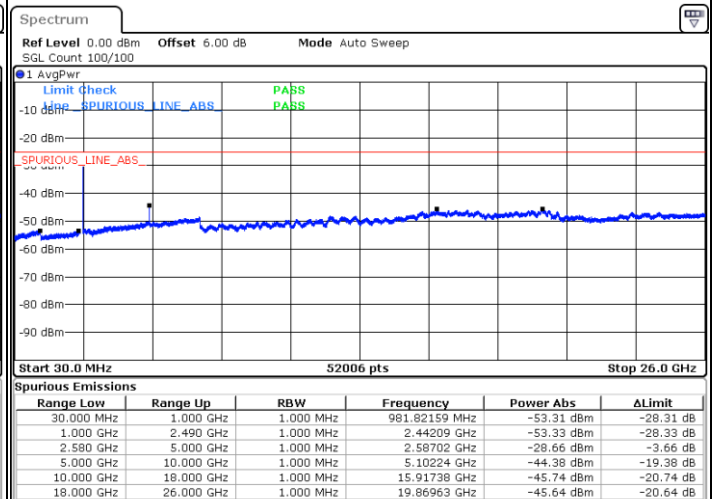
Date: 30 DEC 2019 14:43:26

Highest Channel / QPSK



Date: 30 DEC 2019 14:45:14

Highest Channel / 16QAM

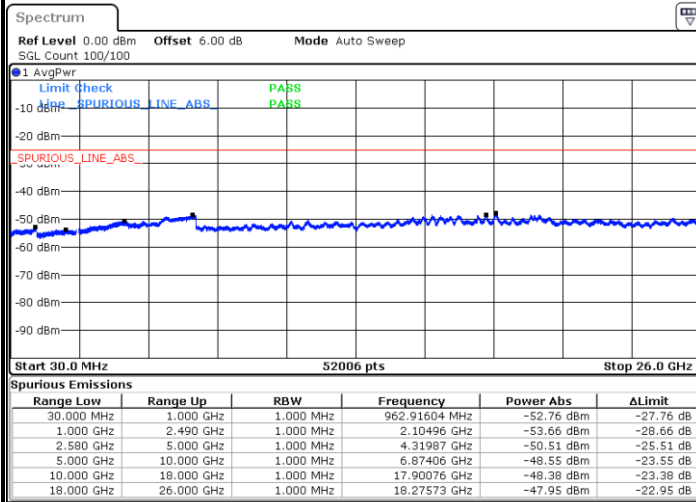


Date: 30 DEC 2019 14:46:08



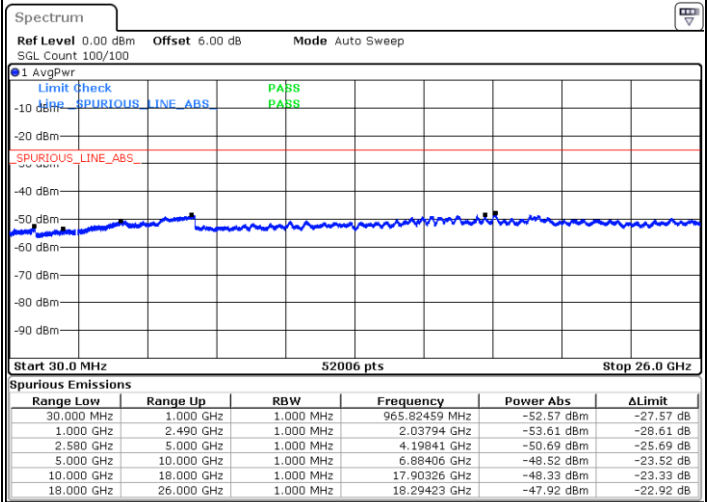
LTE Band 7 / 5MHz

Lowest Channel / 64QAM



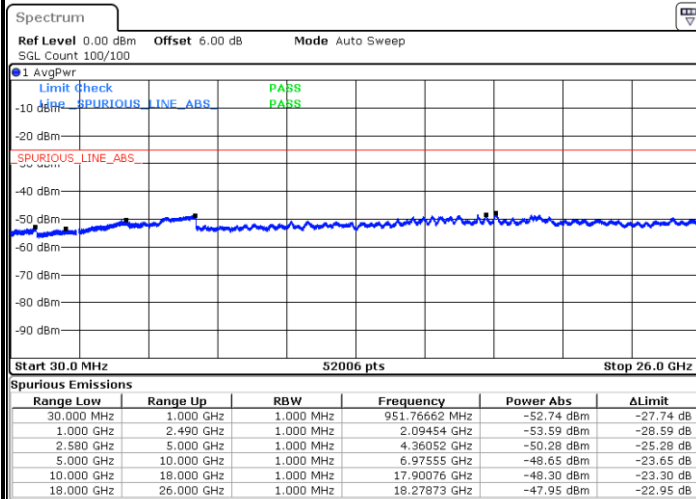
Date: 30 DEC 2019 13:58:24

Middle Channel / 64QAM



Date: 30 DEC 2019 13:59:17

Highest Channel / 64QAM

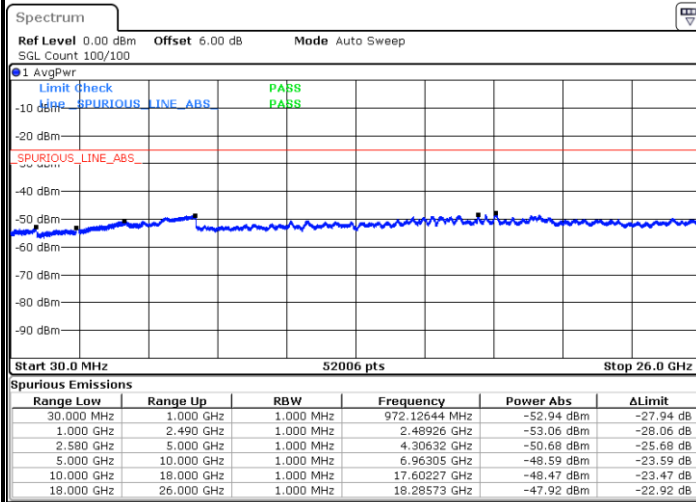


Date: 30 DEC 2019 14:00:10



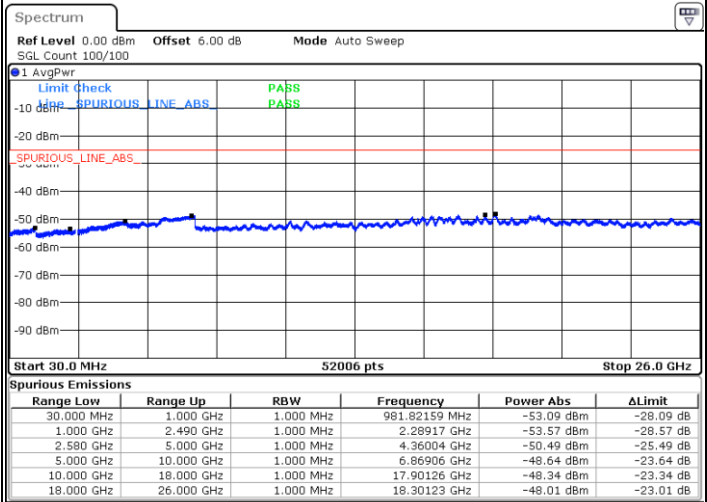
LTE Band 7 / 10MHz

Lowest Channel / 64QAM



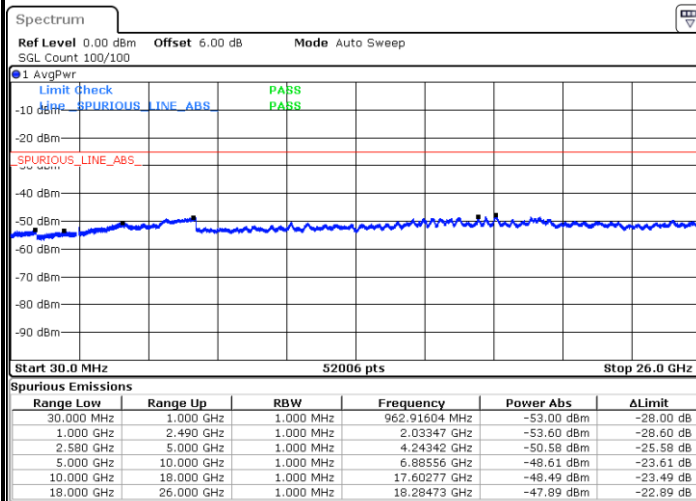
Date: 30 DEC 2019 14:04:22

Middle Channel / 64QAM



Date: 30 DEC 2019 14:05:15

Highest Channel / 64QAM

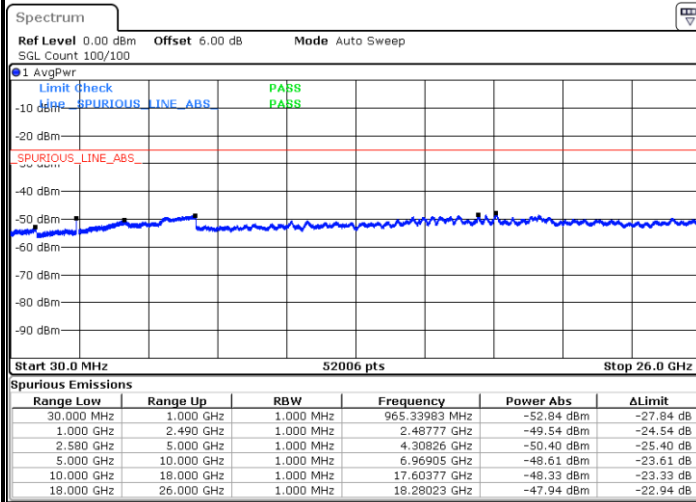


Date: 30 DEC 2019 14:06:08



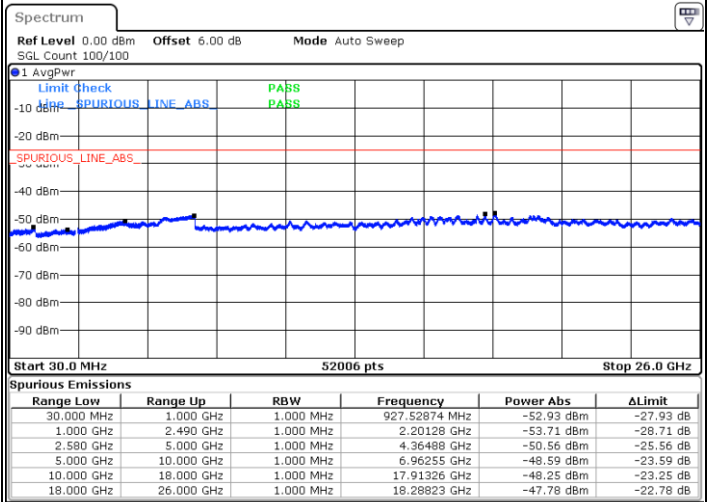
LTE Band 7 / 15MHz

Lowest Channel / 64QAM



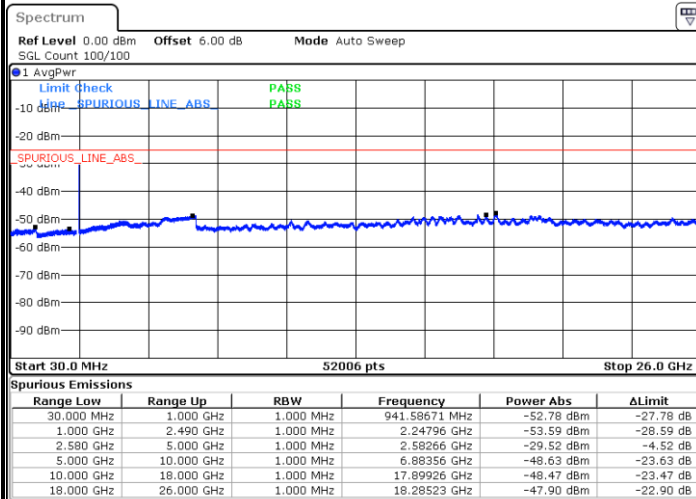
Date: 30 DEC 2019 14:12:38

Middle Channel / 64QAM



Date: 30 DEC 2019 14:13:31

Highest Channel / 64QAM

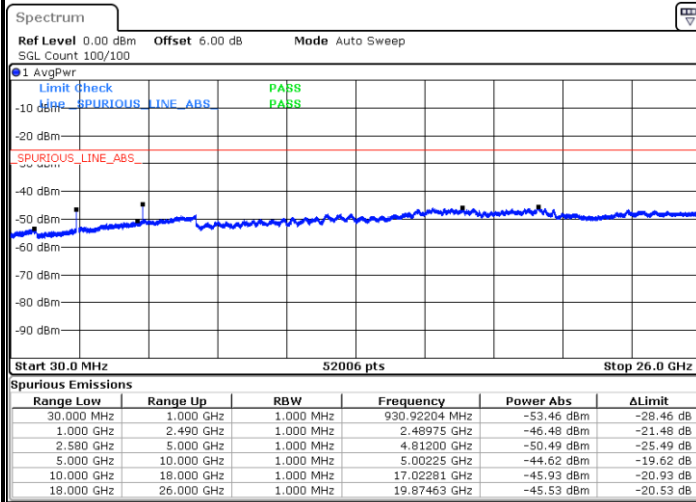


Date: 30 DEC 2019 14:14:24



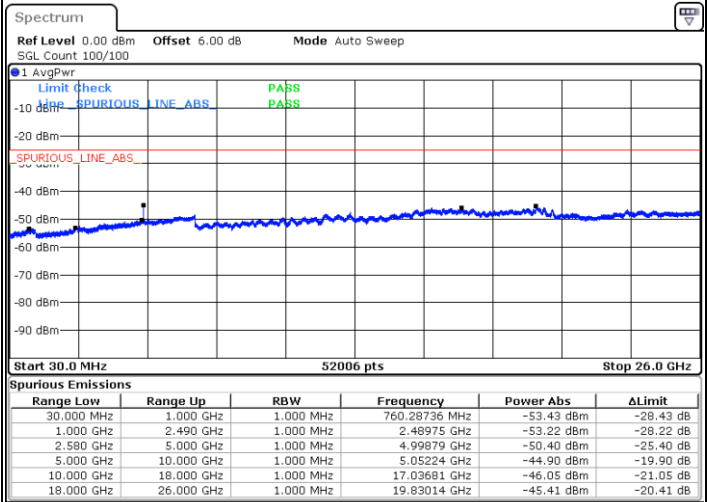
LTE Band 7 / 20MHz

Lowest Channel / 64QAM



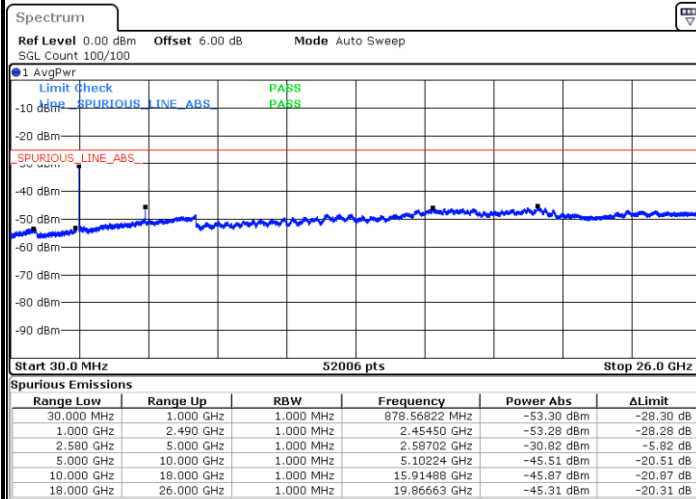
Date: 30 DEC 2019 14:53:40

Middle Channel / 64QAM



Date: 30 DEC 2019 14:54:34

Highest Channel / 64QAM



Date: 30 DEC 2019 14:55:28

**Frequency Stability**

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0038	
30	Normal Voltage	0.0028	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 66

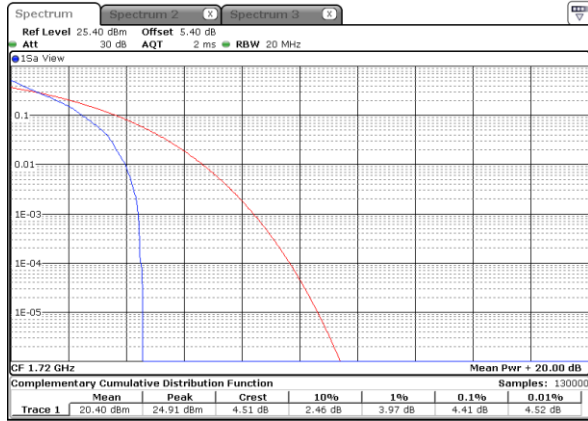
Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.41	5.04	5.45	5.86	PASS
Middle CH	5.42	5.33	6.70	6.09	
Highest CH	4.96	5.13	6.09	6.14	
Mode	LTE Band 66 / 20MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	5.28	5.94	-	-	PASS
Middle CH	6.46	6.14	-	-	
Highest CH	5.74	6.12	-	-	



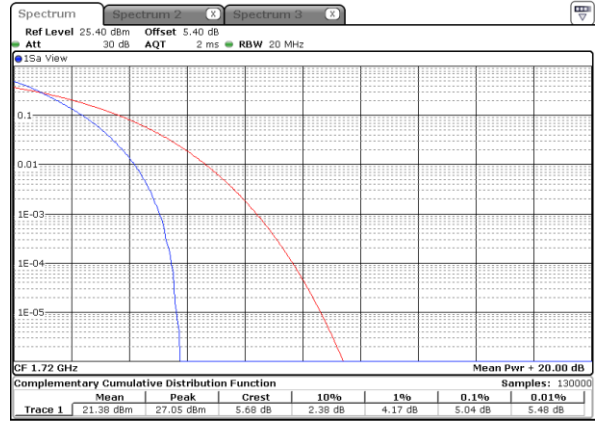
LTE Band 66 / 20MHz / QPSK

Lowest Channel / 1RB



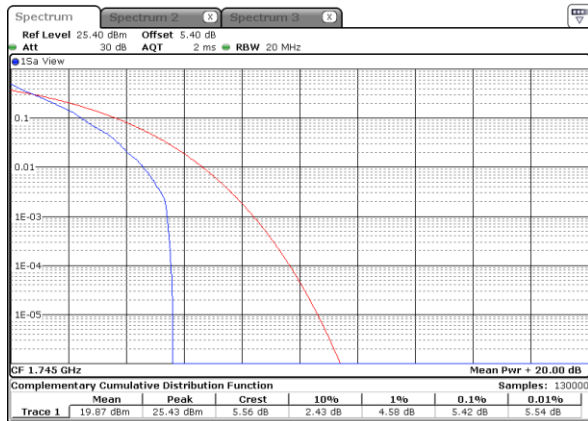
Date: 23 DEC 2019 07:16:02

Lowest Channel / Full RB



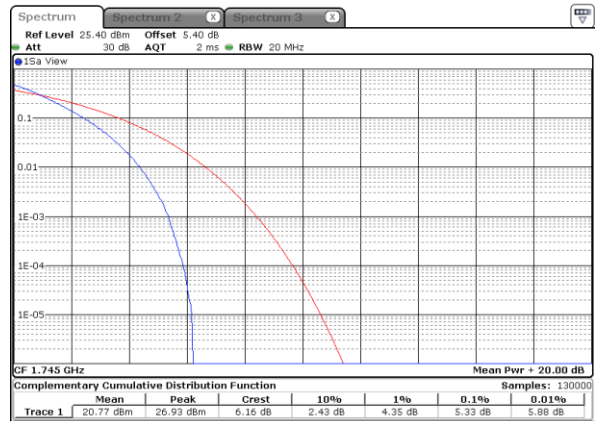
Date: 23 DEC 2019 07:12:57

Middle Channel / 1RB



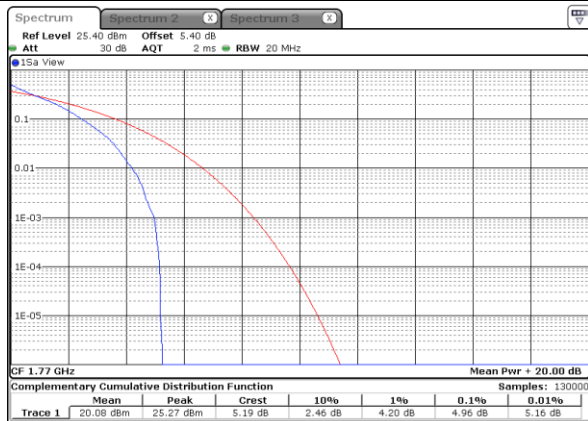
Date: 23 DEC 2019 07:22:33

Middle Channel / Full RB



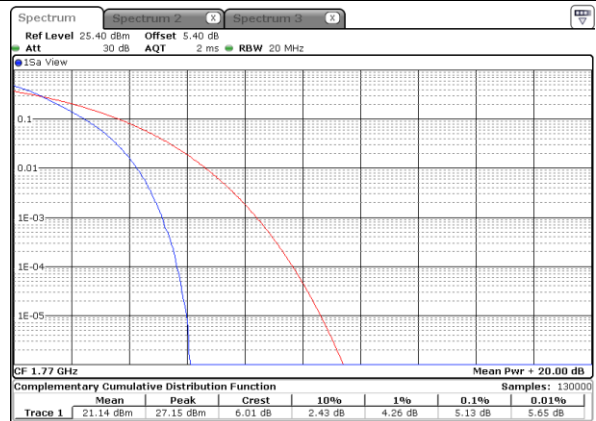
Date: 23 DEC 2019 07:26:48

Highest Channel / 1RB



Date: 23 DEC 2019 07:34:58

Highest Channel / Full RB

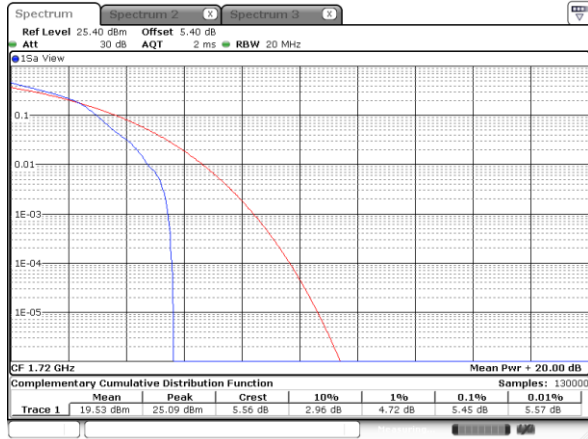


Date: 23 DEC 2019 07:29:10

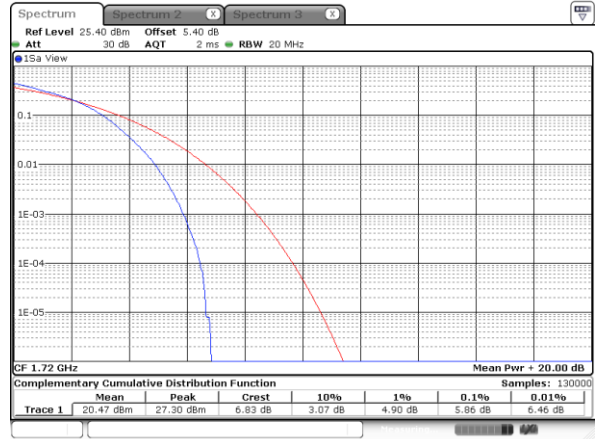


LTE Band 66 / 20MHz / 16QAM

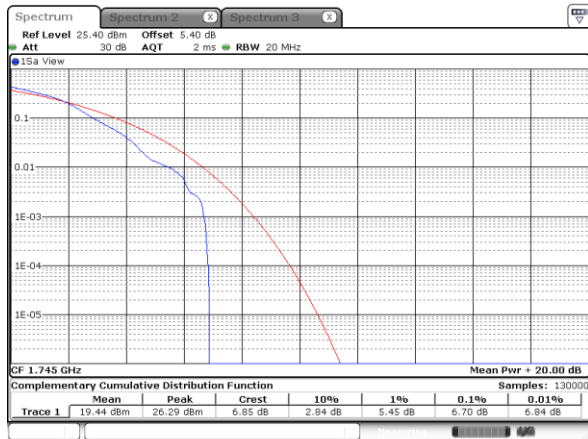
Lowest Channel / 1RB



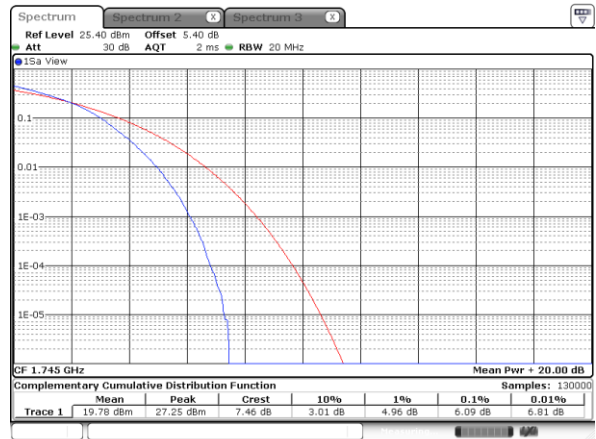
Lowest Channel / Full RB



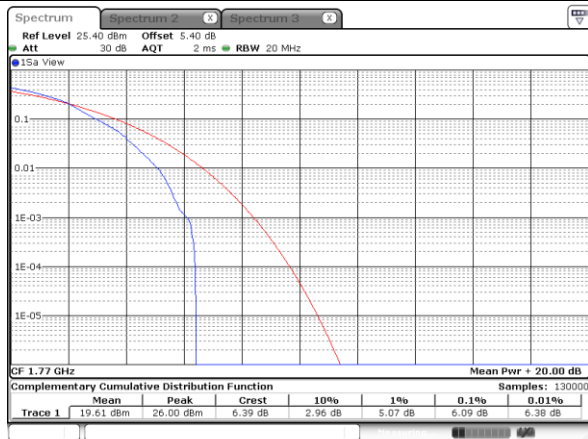
Middle Channel / 1RB



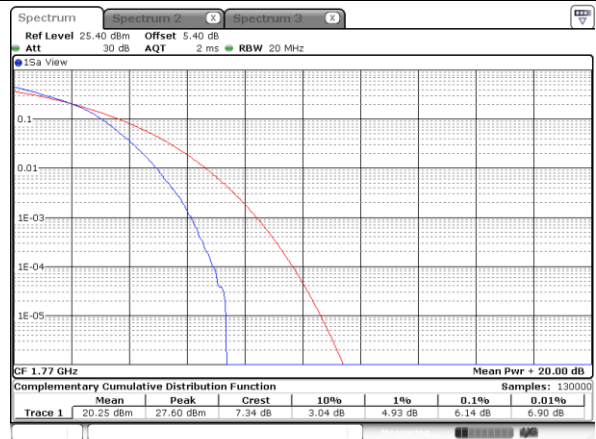
Middle Channel / Full RB



Highest Channel / 1RB



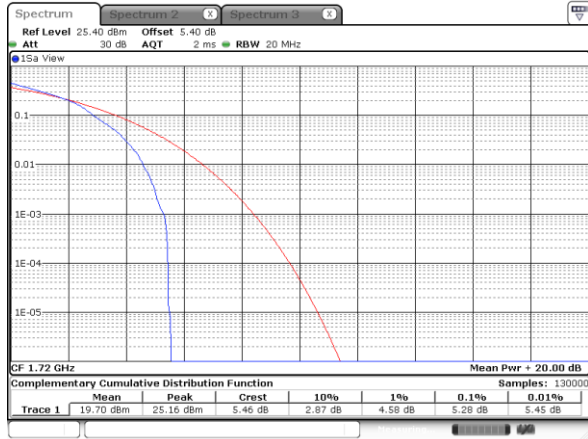
Highest Channel / Full RB



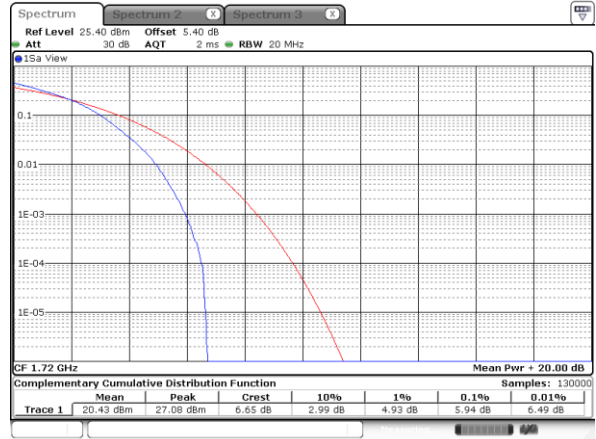


LTE Band 66 / 20MHz / 64QAM

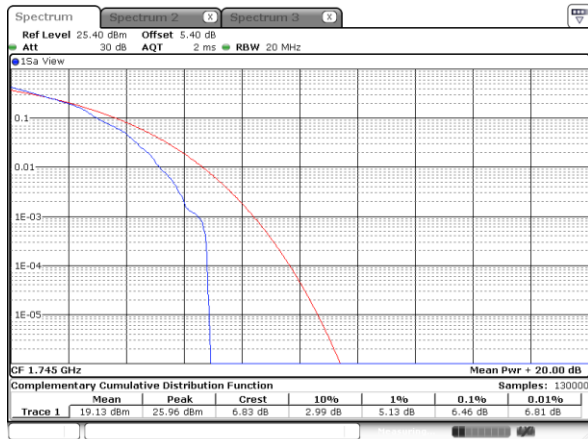
Lowest Channel / 1RB



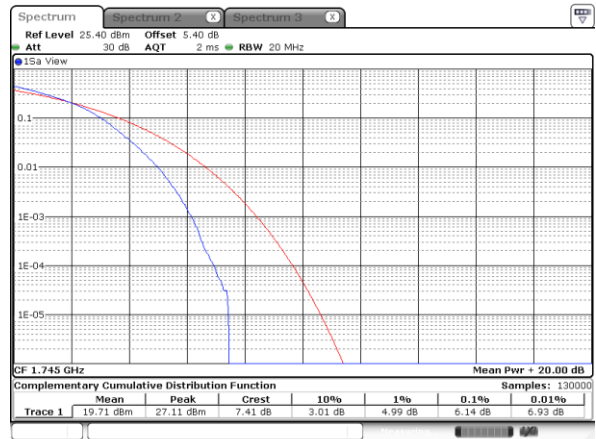
Lowest Channel / Full RB



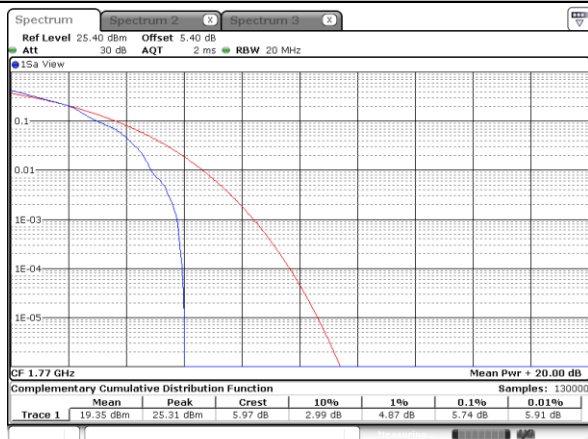
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



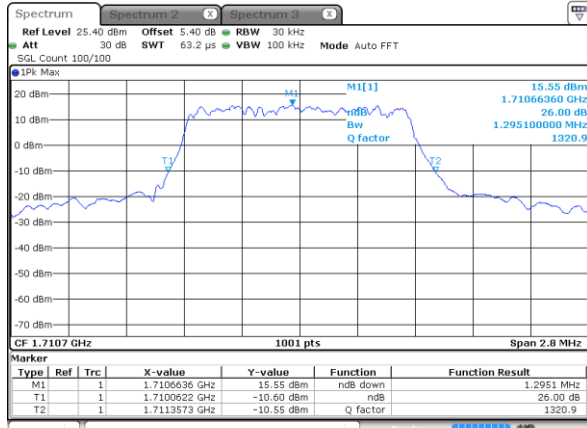
**26dB Bandwidth**

Mode	LTE Band 66 : 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	1.2951	1.2559	2.973	2.967	4.885	4.965	9.89	9.79	14.266	14.565	20.22	20.26
Middle CH	1.242	1.2476	2.9251	2.961	4.945	5.055	9.69	9.81	14.505	14.685	20.34	20.18
Highest CH	1.2783	1.2951	2.973	2.9311	5.075	4.855	9.93	9.75	14.356	14.775	20.3	20.18
Mode	LTE Band 66 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Lowest CH	1.2671	-	2.9491	-	4.935	-	9.63	-	14.565	-	20.22	-
Middle CH	1.2699	-	2.9371	-	5.005	-	9.65	-	14.745	-	20.46	-
Highest CH	1.2867	-	2.9311	-	5.185	-	9.75	-	14.715	-	19.98	-



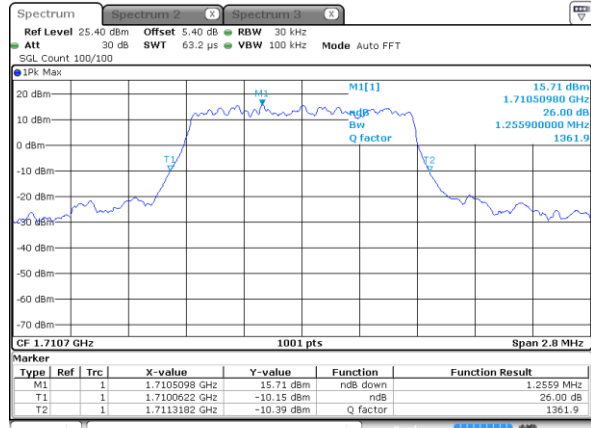
LTE Band 66

Lowest Channel / 1.4MHz / QPSK



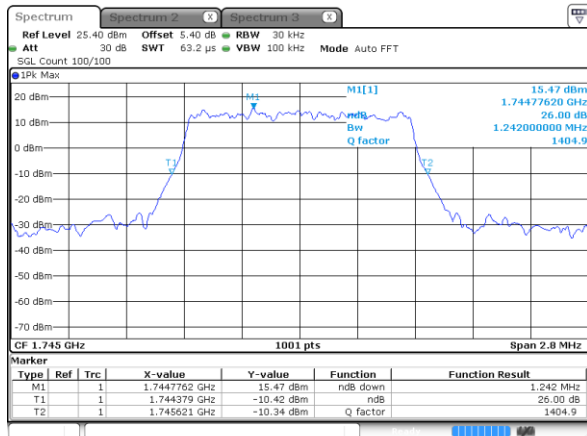
Date: 23 DEC 2019 05:37:55

Lowest Channel / 1.4MHz / 16QAM



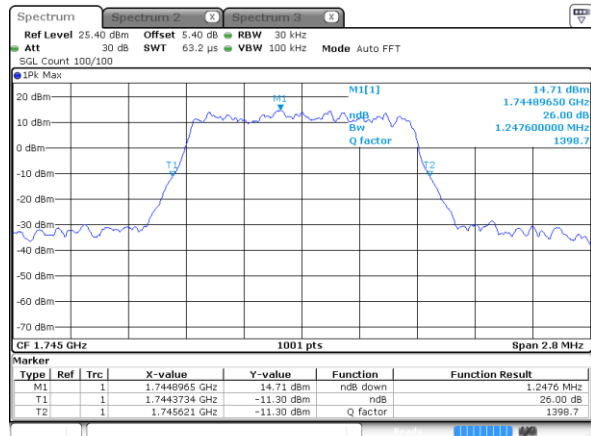
Date: 23 DEC 2019 05:40:16

Middle Channel / 1.4MHz / QPSK



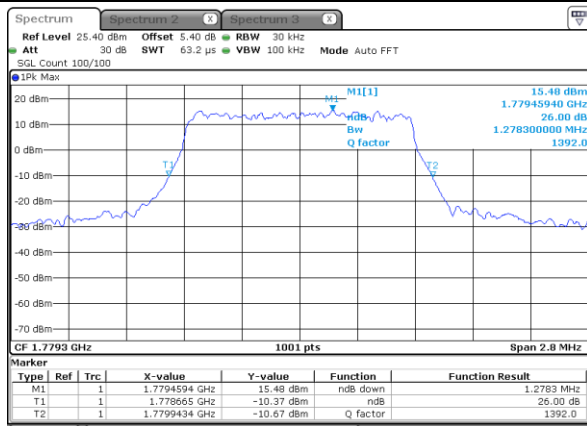
Date: 23 DEC 2019 05:27:26

Middle Channel / 1.4MHz / 16QAM



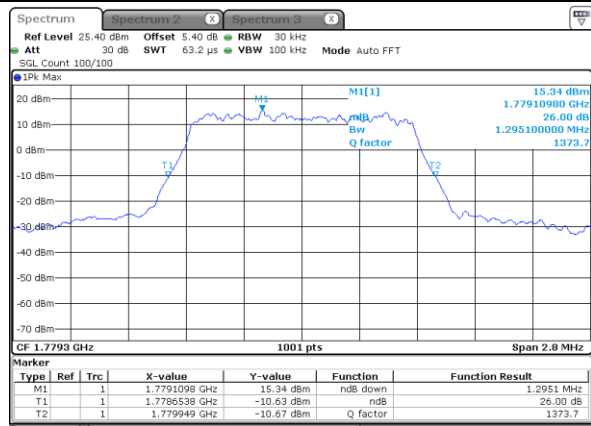
Date: 23 DEC 2019 05:26:39

Highest Channel / 1.4MHz / QPSK



Date: 23 DEC 2019 05:47:03

Highest Channel / 1.4MHz / 16QAM

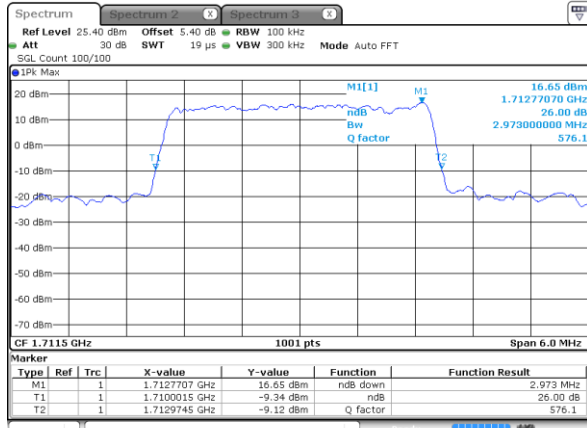


Date: 23 DEC 2019 05:46:28



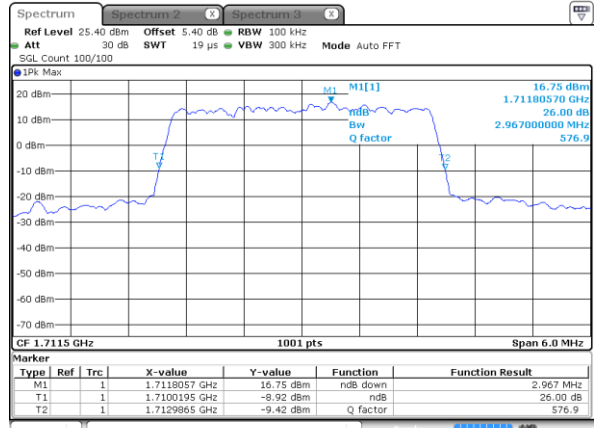
LTE Band 66

Lowest Channel / 3MHz / QPSK



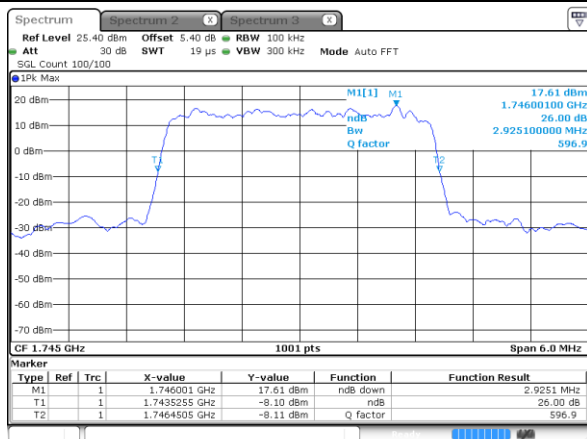
Date: 23 DEC 2019 06:32:02

Lowest Channel / 3MHz / 16QAM



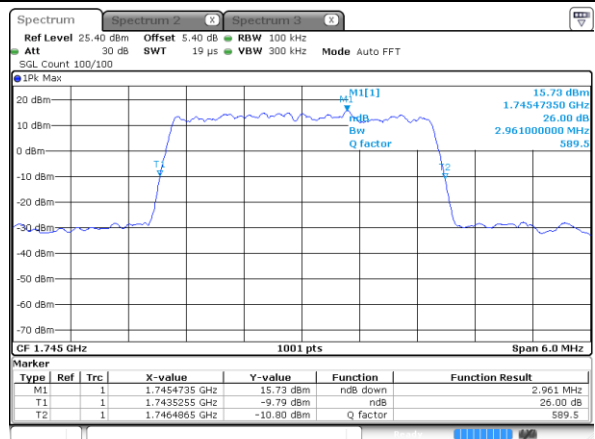
Date: 23 DEC 2019 06:30:56

Middle Channel / 3MHz / QPSK



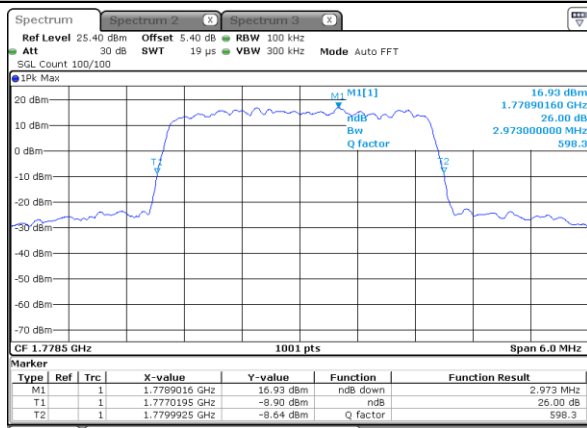
Date: 23 DEC 2019 06:28:46

Middle Channel / 3MHz / 16QAM



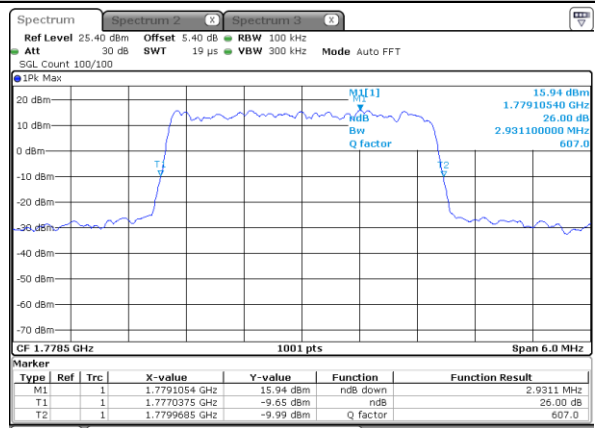
Date: 23 DEC 2019 06:29:09

Highest Channel / 3MHz / QPSK



Date: 23 DEC 2019 06:16:08

Highest Channel / 3MHz / 16QAM

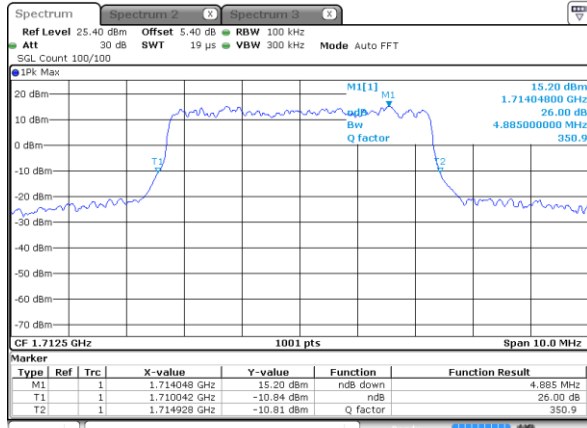


Date: 23 DEC 2019 06:17:22

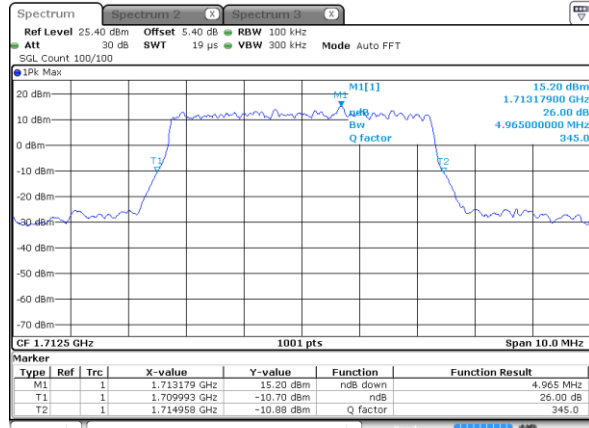


LTE Band 66

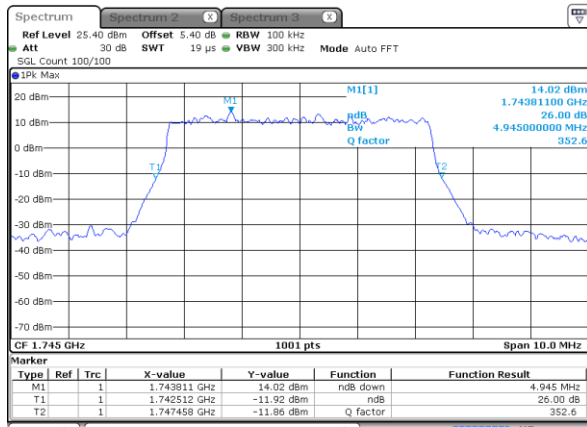
Lowest Channel / 5MHz / QPSK



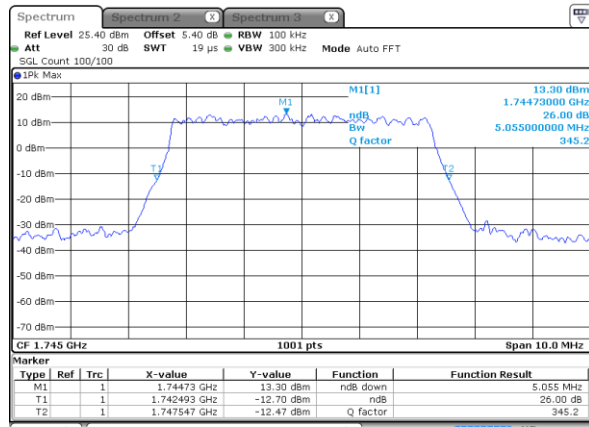
Lowest Channel / 5MHz / 16QAM



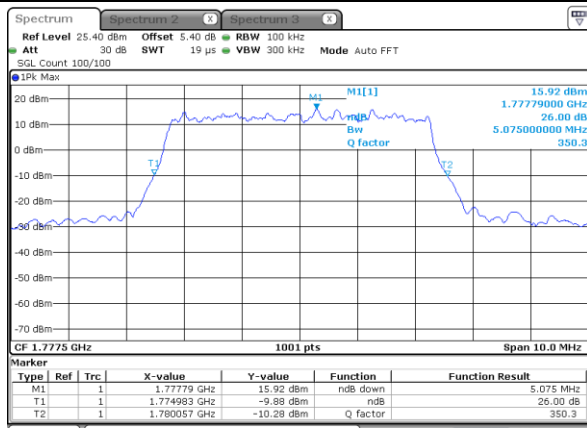
Middle Channel / 5MHz / QPSK



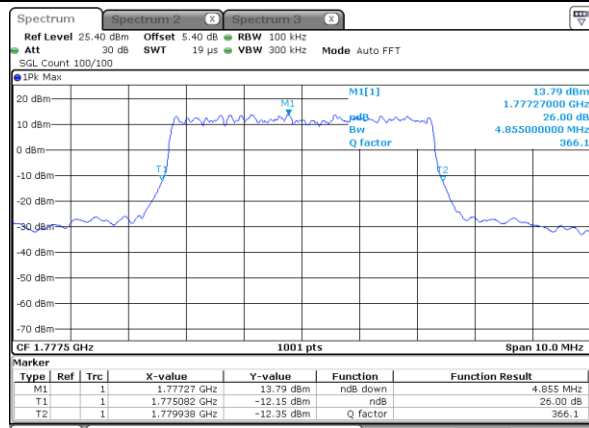
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



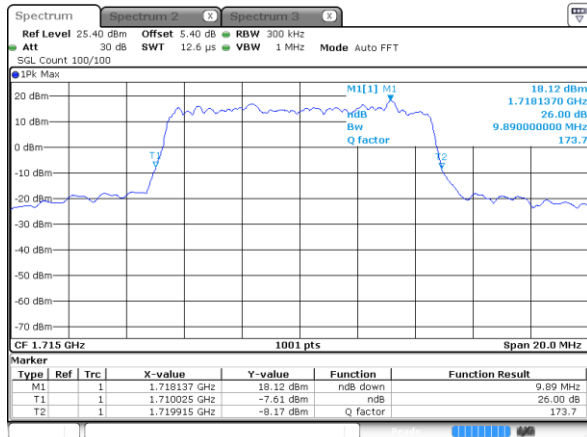
Highest Channel / 5MHz / 16QAM



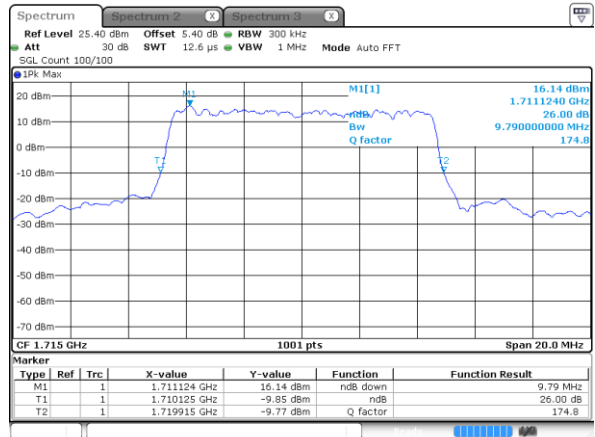


LTE Band 66

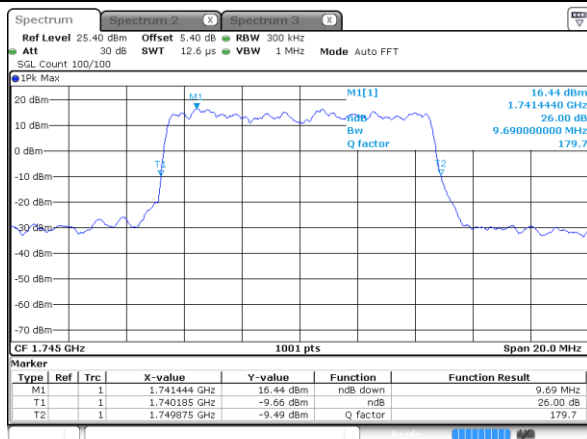
Lowest Channel / 10MHz / QPSK



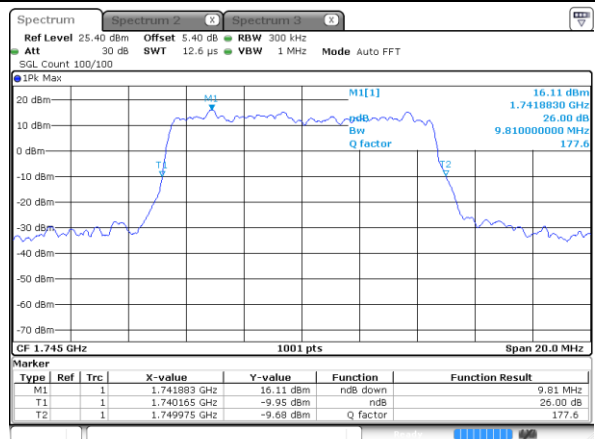
Lowest Channel / 10MHz / 16QAM



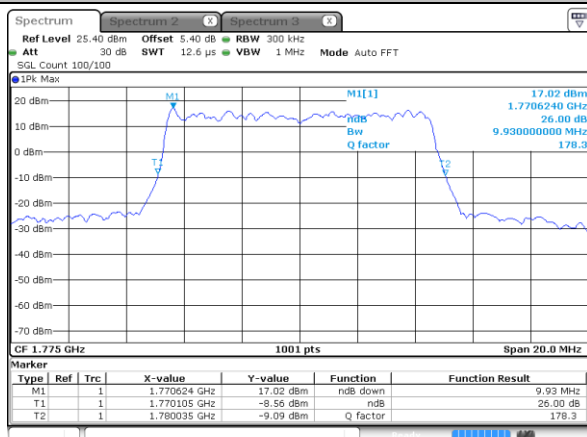
Middle Channel / 10MHz / QPSK



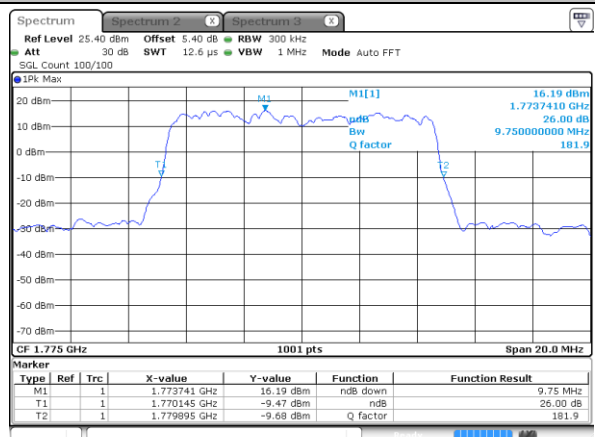
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



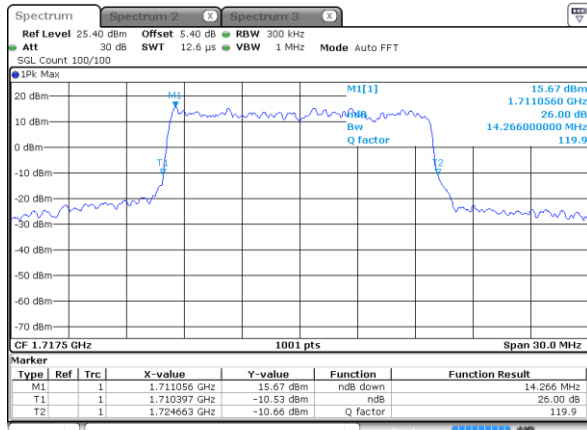
Highest Channel / 10MHz / 16QAM





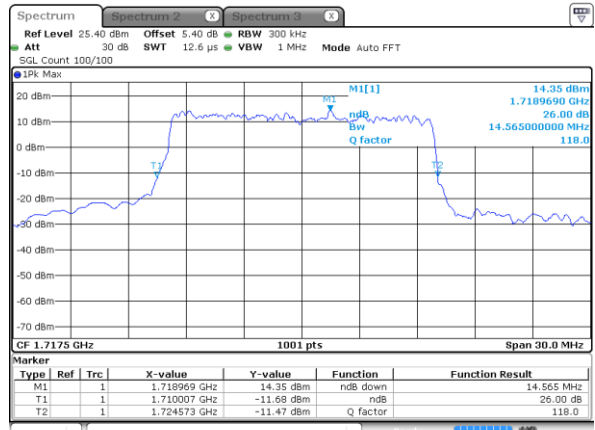
LTE Band 66

Lowest Channel / 15MHz / QPSK



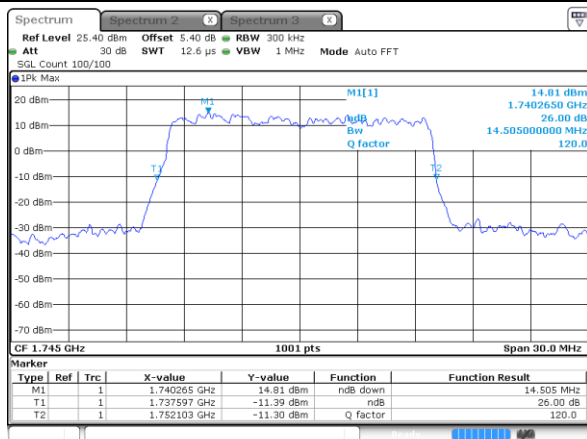
Date: 23 DEC 2019 07:07:20

Lowest Channel / 15MHz / 16QAM



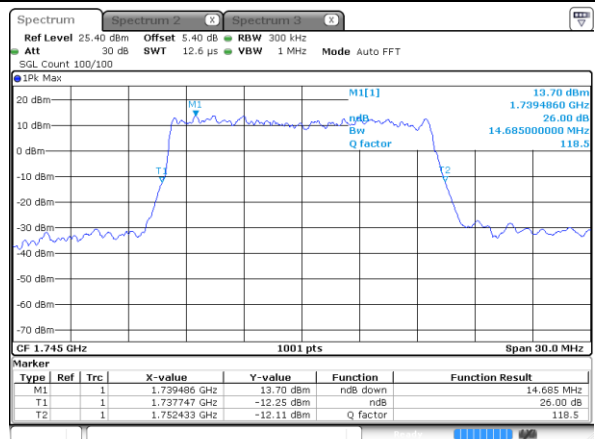
Date: 23 DEC 2019 07:06:49

Middle Channel / 15MHz / QPSK



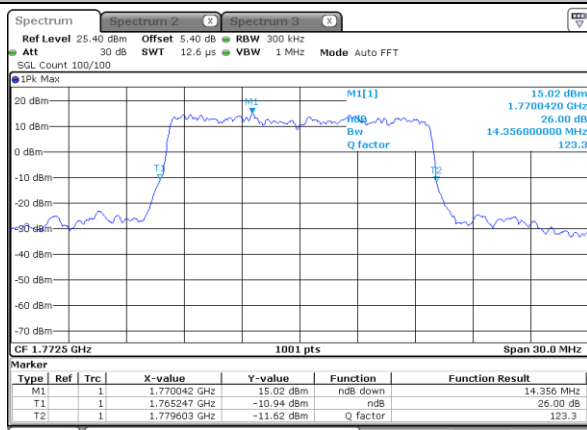
Date: 23 DEC 2019 07:02:08

Middle Channel / 15MHz / 16QAM



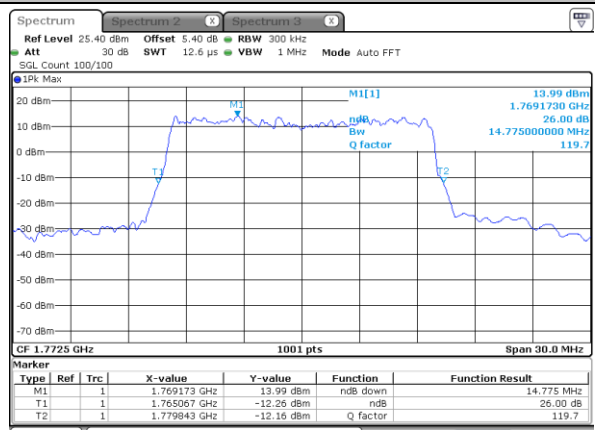
Date: 23 DEC 2019 07:04:56

Highest Channel / 15MHz / QPSK



Date: 23 DEC 2019 06:53:33

Highest Channel / 15MHz / 16QAM

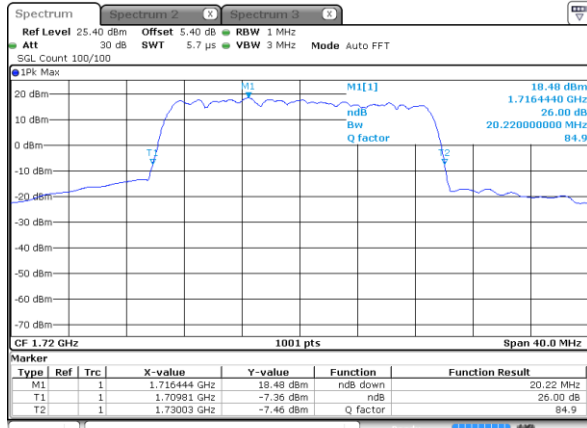


Date: 23 DEC 2019 06:54:01

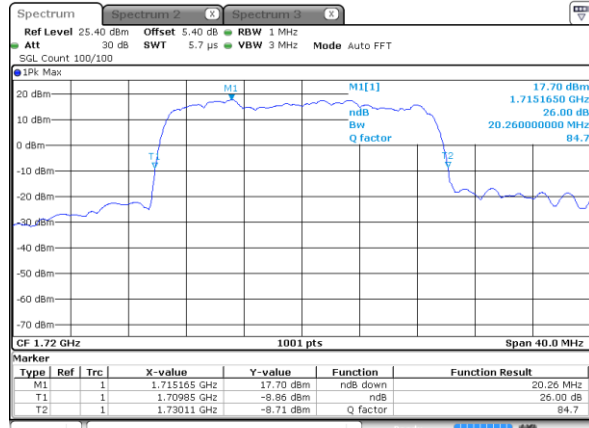


LTE Band 66

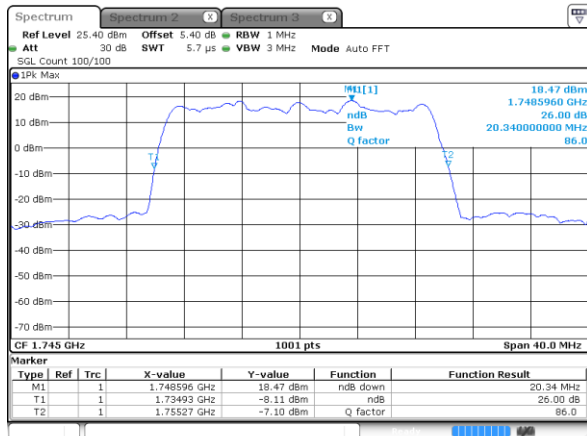
Lowest Channel / 20MHz / QPSK



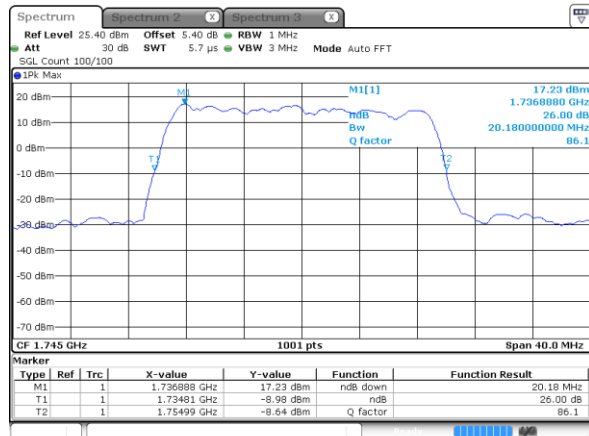
Lowest Channel / 20MHz / 16QAM



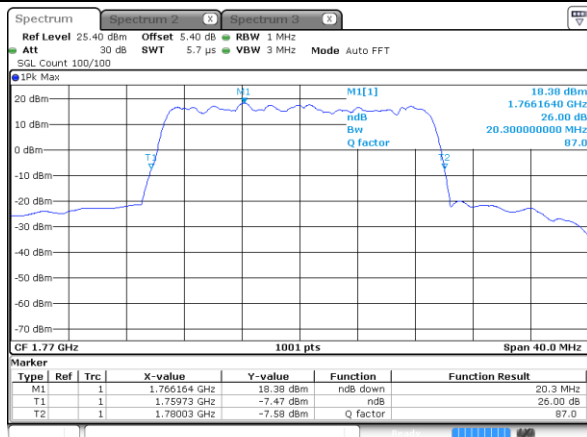
Middle Channel / 20MHz / QPSK



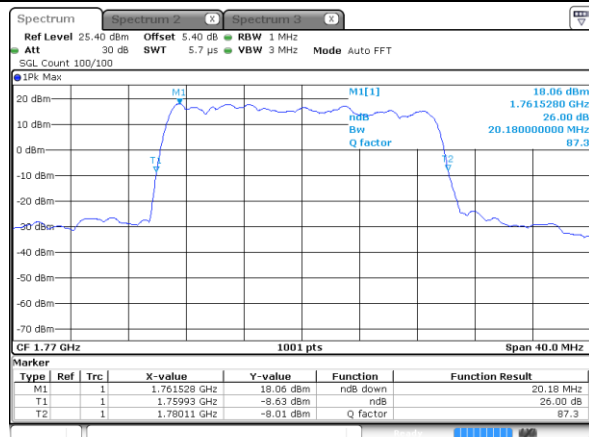
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



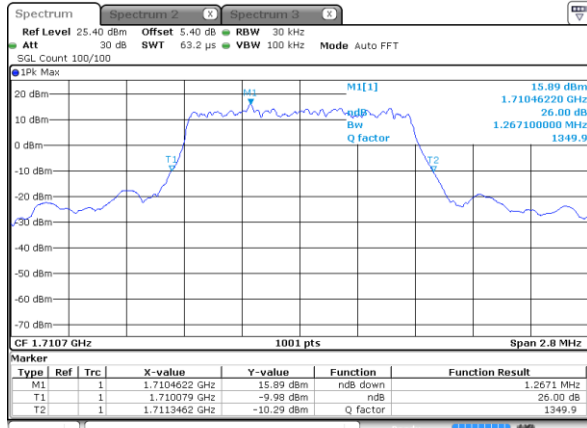
Highest Channel / 20MHz / 16QAM





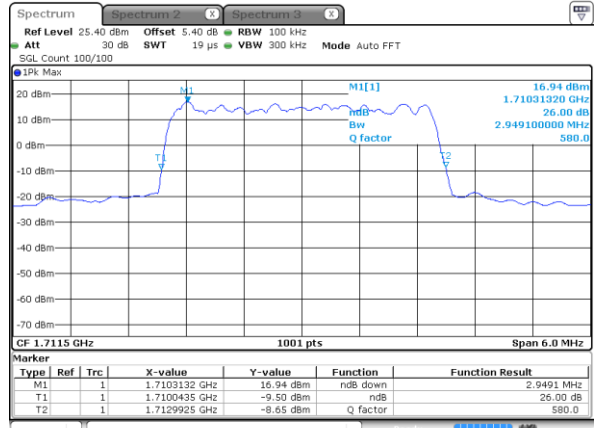
LTE Band 66

Lowest Channel / 1.4MHz / 64QAM



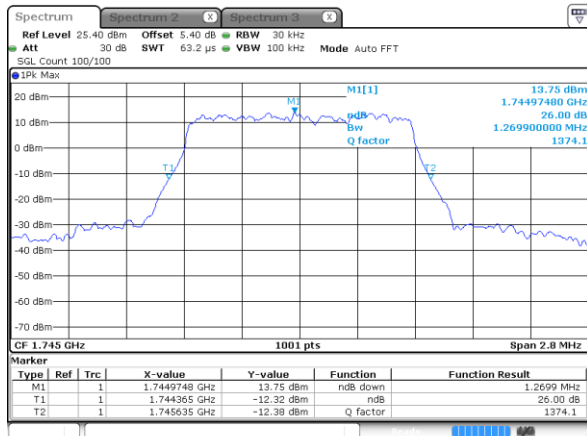
Date: 23 DEC 2019 05:41:05

Lowest Channel / 3MHz / 64QAM



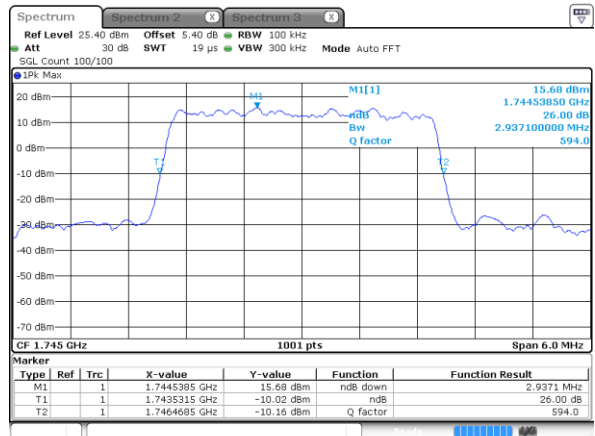
Date: 23 DEC 2019 06:30:00

Middle Channel / 20MHz / 64QAM



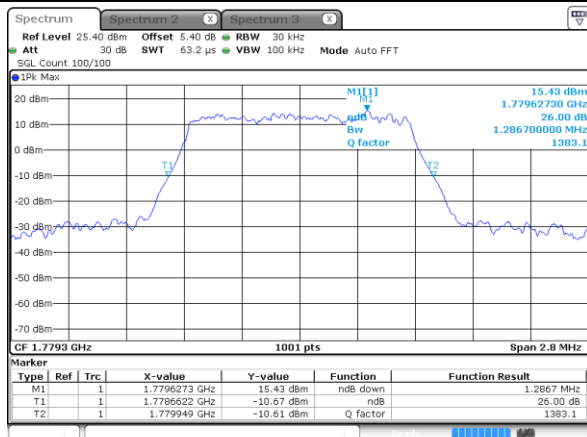
Date: 23 DEC 2019 05:27:02

Middle Channel / 3MHz / 64QAM



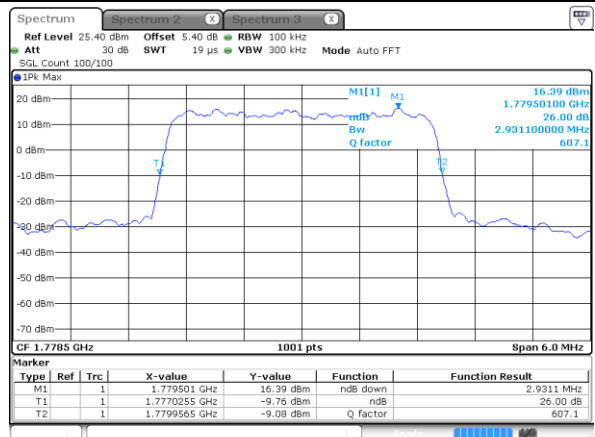
Date: 23 DEC 2019 06:29:26

Highest Channel / 20MHz / 64QAM



Date: 23 DEC 2019 05:43:20

Highest Channel / 3MHz / 64QAM

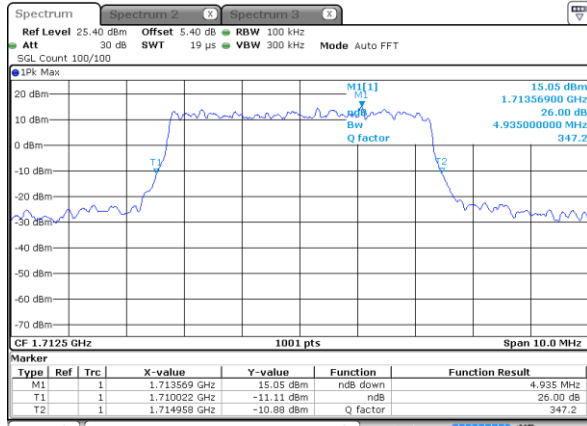


Date: 23 DEC 2019 06:18:25

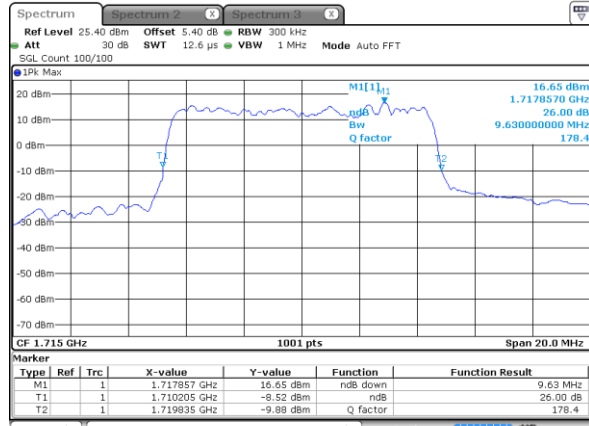


LTE Band 66

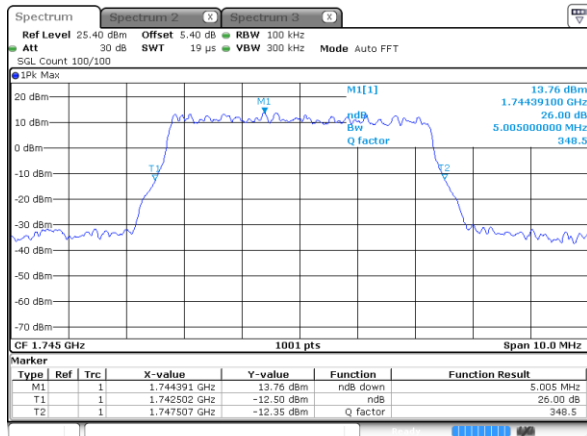
Lowest Channel / 5MHz / 64QAM



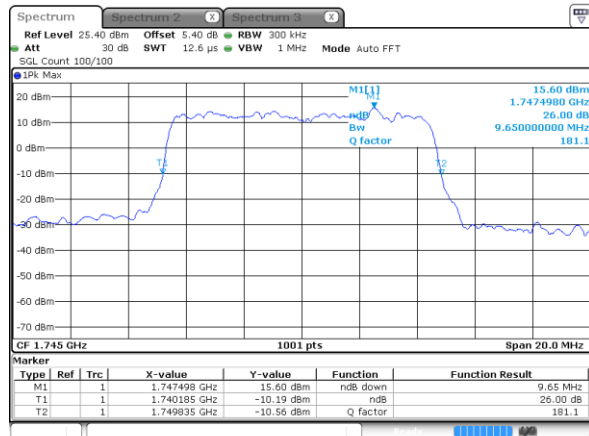
Lowest Channel / 10MHz / 64QAM



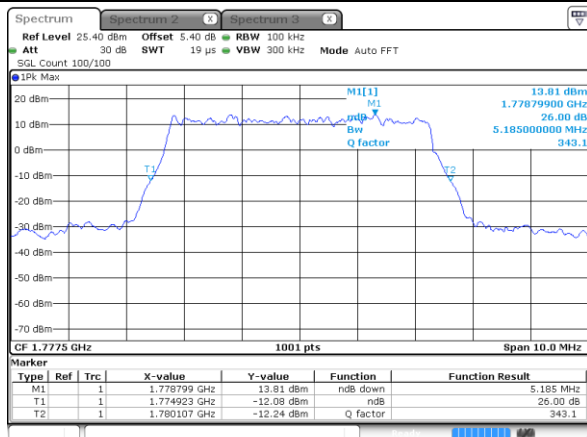
Middle Channel / 5MHz / 64QAM



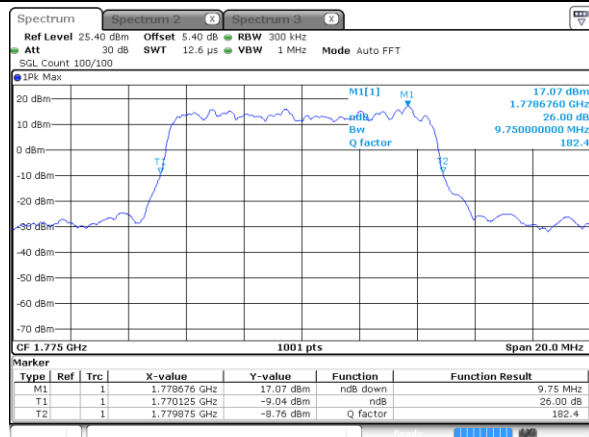
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



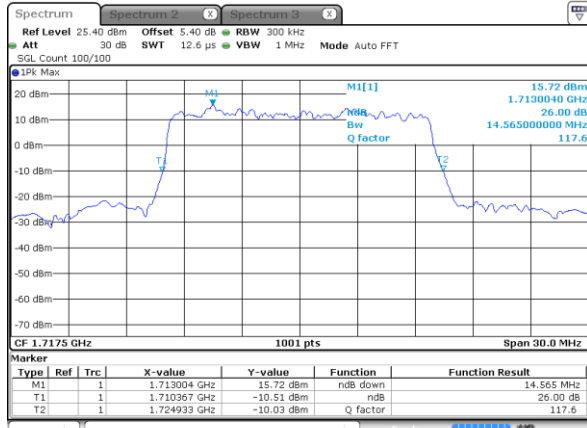
Highest Channel / 10MHz / 64QAM





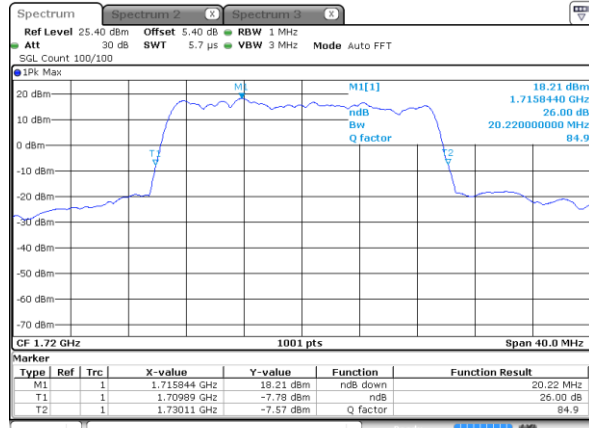
LTE Band 66

Lowest Channel / 15MHz / 64QAM



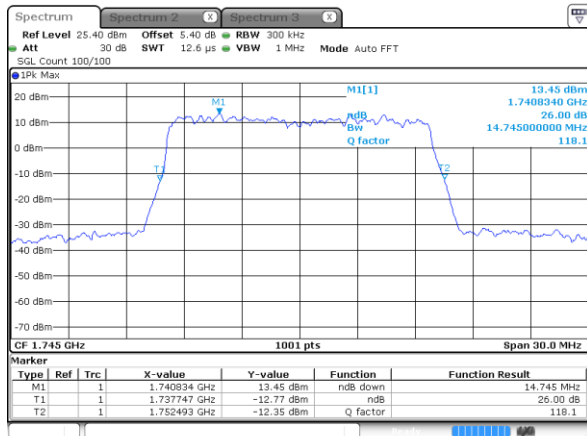
Date: 23 DEC 2019 07:06:13

Lowest Channel / 20MHz / 64QAM



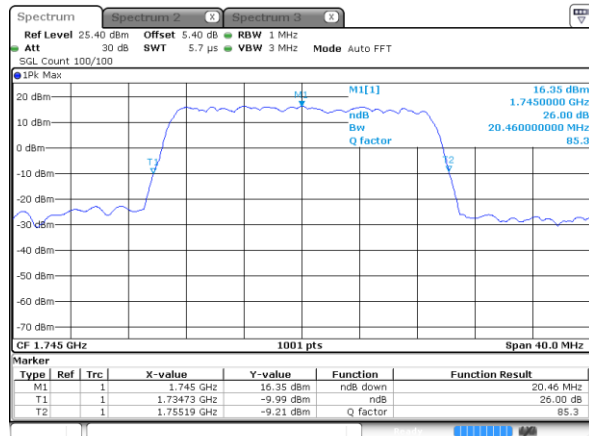
Date: 23 DEC 2019 07:11:46

Middle Channel / 15MHz / 64QAM



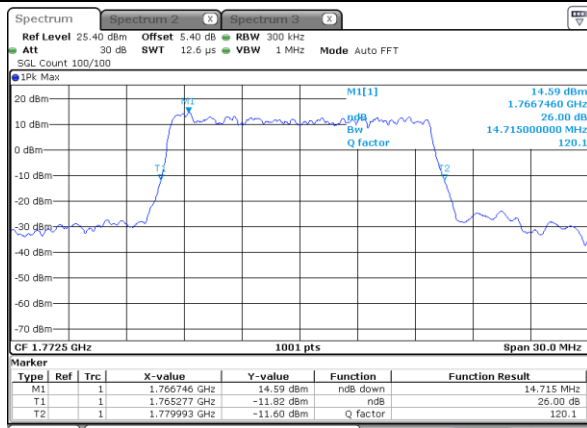
Date: 23 DEC 2019 07:05:18

Middle Channel / 20MHz / 64QAM



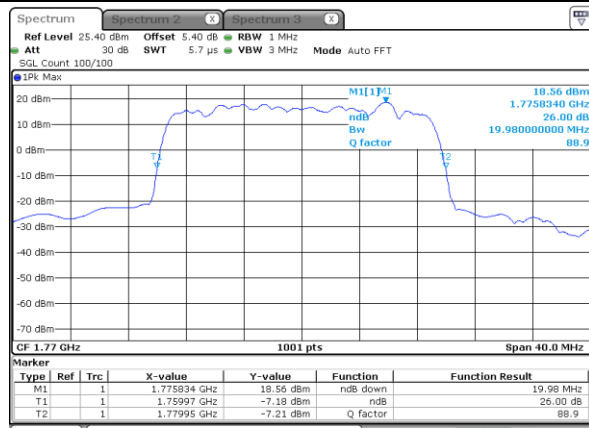
Date: 23 DEC 2019 07:25:59

Highest Channel / 15MHz / 64QAM



Date: 23 DEC 2019 06:54:39

Highest Channel / 20MHz / 64QAM



Date: 23 DEC 2019 07:31:05

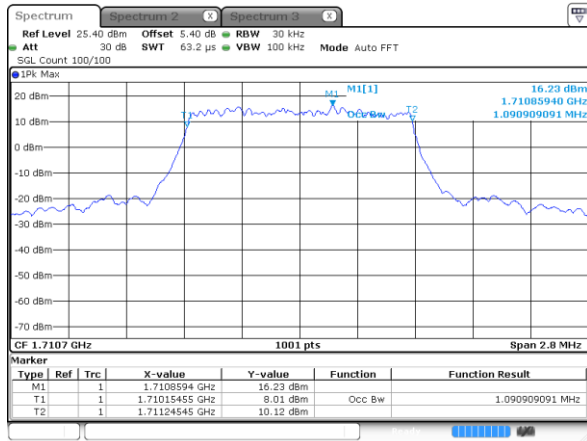
**Occupied Bandwidth**

Mode	LTE Band 66 : 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	2.71	2.71	4.49	4.50	9.01	9.05	13.43	13.40	18.38	18.46
Middle CH	1.09	1.08	2.72	2.72	4.49	4.50	9.01	9.03	13.46	13.46	18.26	18.30
Highest CH	1.09	1.09	2.72	2.72	4.47	4.49	9.05	9.05	13.43	13.49	18.30	18.42
Mode	LTE Band 66: 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Lowest CH	1.09	-	2.72	-	4.49	-	9.03	-	13.46	-	18.50	-
Middle CH	1.09	-	2.71	-	4.49	-	8.99	-	13.49	-	18.34	-
Highest CH	1.09	-	2.70	-	4.48	-	9.03	-	13.55	-	18.42	-

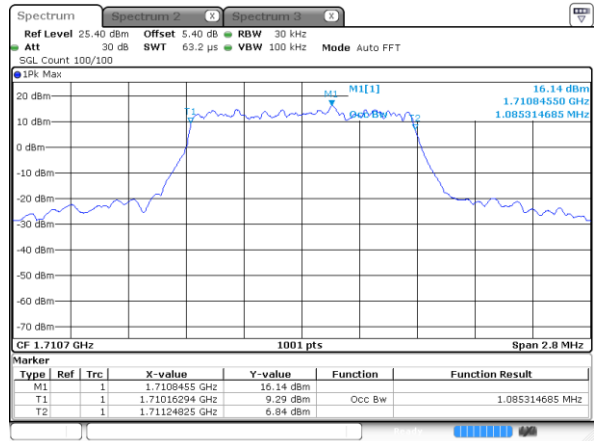


LTE Band 66

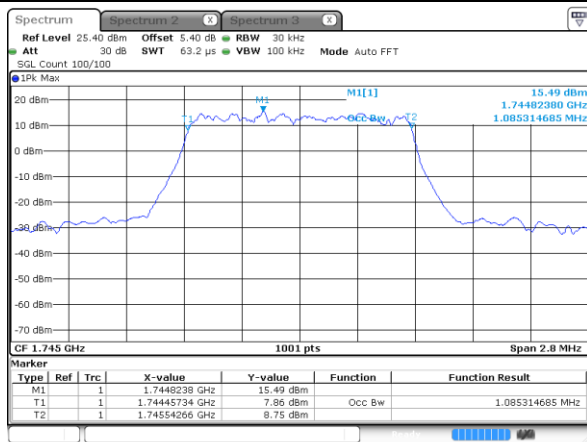
Lowest Channel / 1.4MHz / QPSK



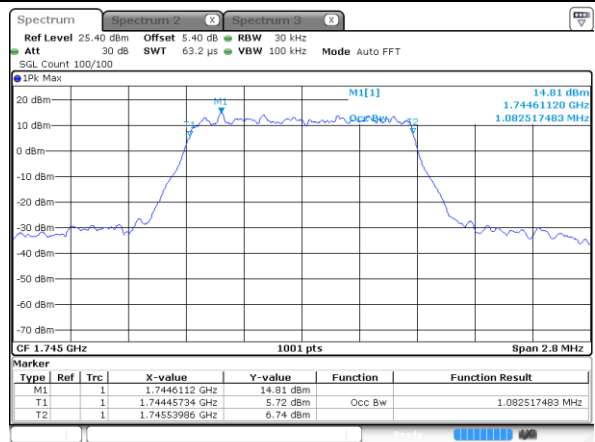
Lowest Channel / 1.4MHz / 16QAM



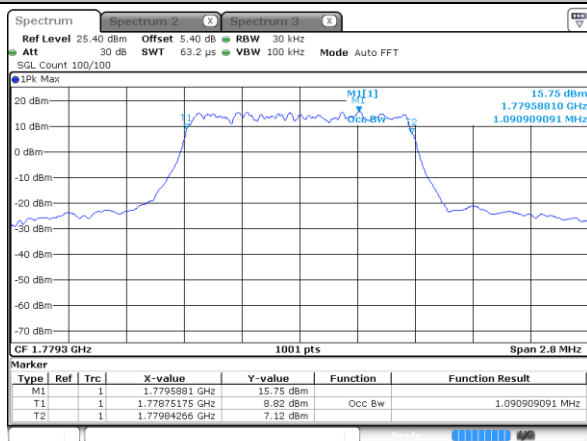
Middle Channel / 1.4MHz / QPSK



Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



Highest Channel / 1.4MHz / 16QAM

