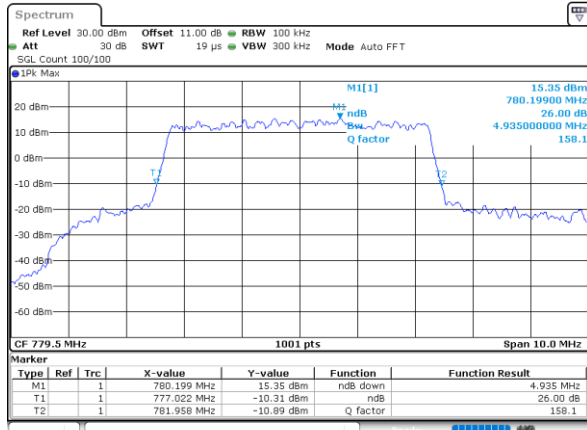




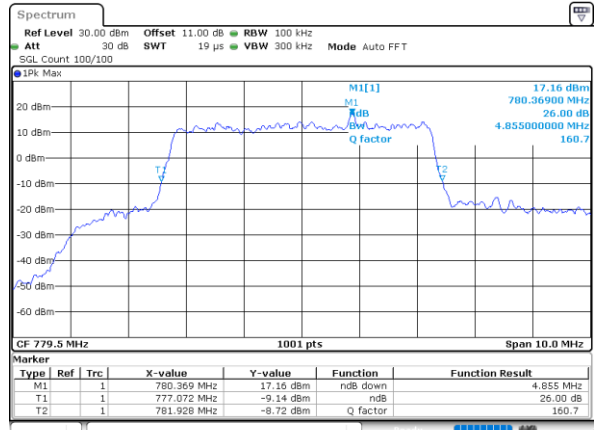
LTE Band 13

Lowest Channel / 5MHz / QPSK



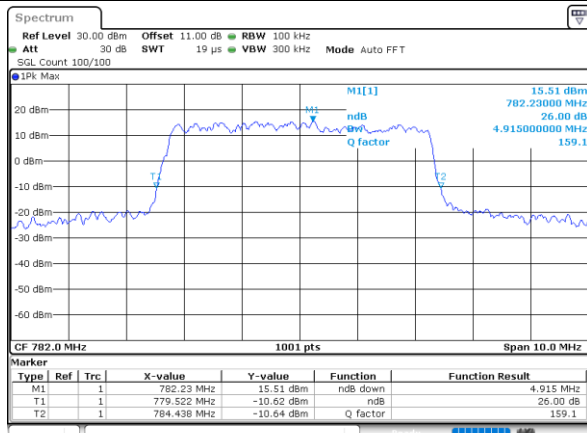
Date: 22.APR.2020 11:08:19

Lowest Channel / 5MHz / 16QAM



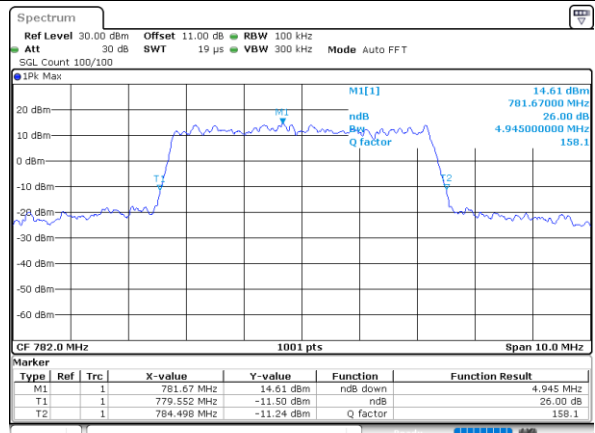
Date: 22.APR.2020 11:08:07

Middle Channel / 5MHz / QPSK



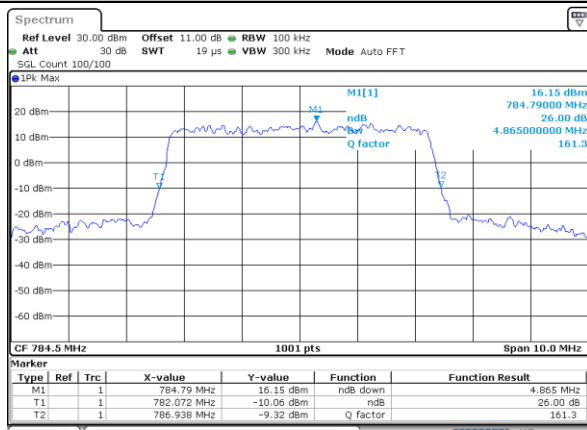
Date: 22.APR.2020 11:17:53

Middle Channel / 5MHz / 16QAM



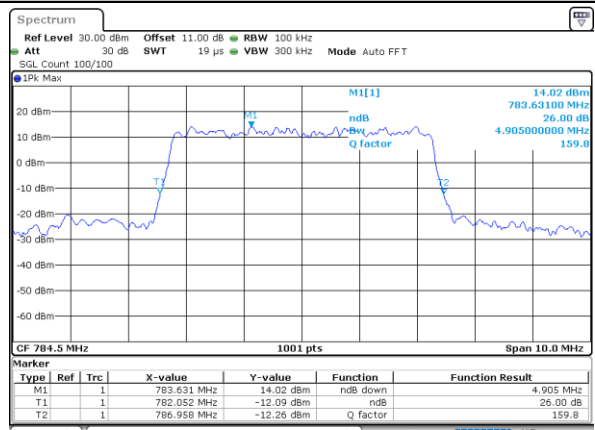
Date: 22.APR.2020 11:18:05

Highest Channel / 5MHz / QPSK



Date: 22.APR.2020 11:19:16

Highest Channel / 5MHz / 16QAM

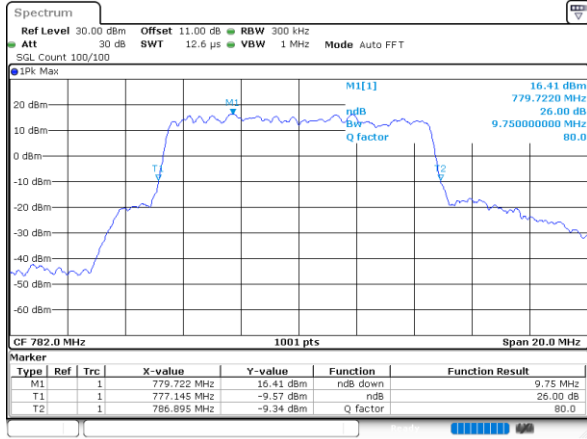


Date: 22.APR.2020 11:19:04

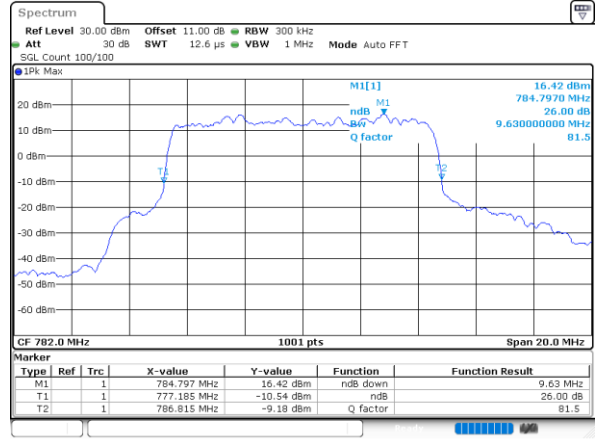


LTE Band 13

Middle Channel / 10MHz / QPSK



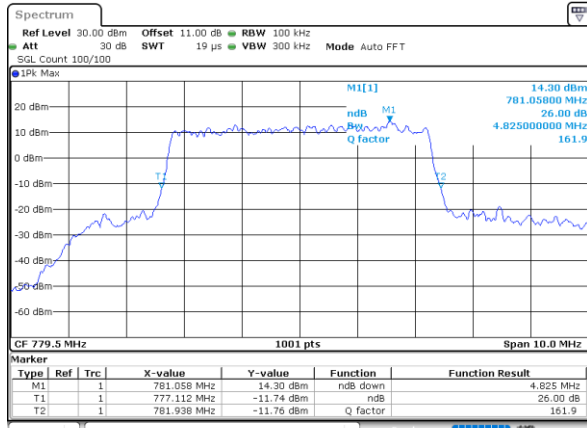
Middle Channel / 10MHz / 16QAM





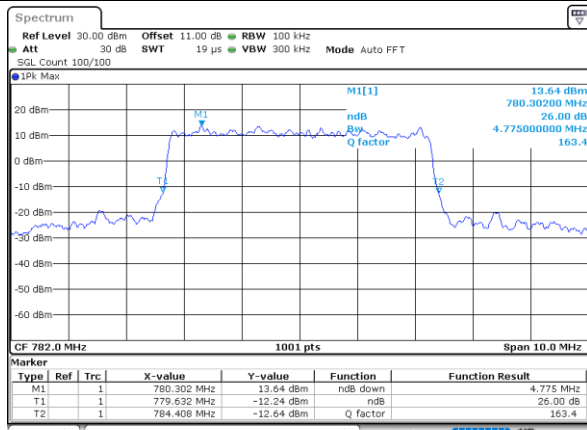
LTE Band 13

Lowest Channel / 5MHz / 64QAM



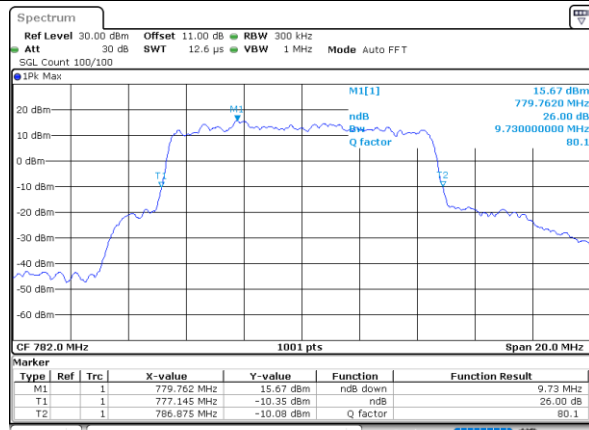
Date: 22.APR.2020 11:27:43

Middle Channel / 5MHz / 64QAM



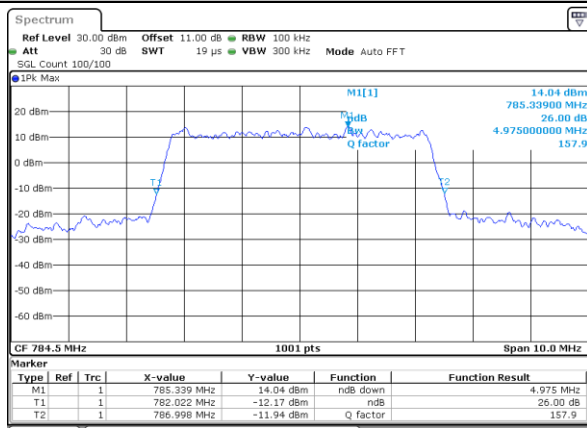
Date: 22.APR.2020 11:32:37

Middle Channel / 10MHz / 64QAM



Date: 22.APR.2020 11:49:43

Highest Channel / 5MHz / 64QAM



Date: 22.APR.2020 11:33:12

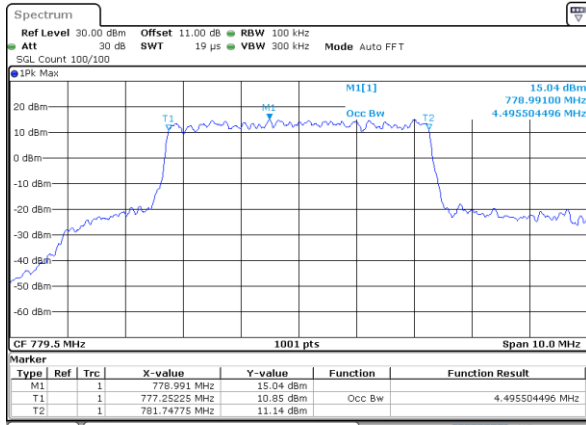
**Occupied Bandwidth**

Mode	LTE Band 13 : 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	-	-	-	-	4.50	4.51	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	4.50	8.99	9.03	-	-	-	-
Highest CH	-	-	-	-	4.49	4.51	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.49	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	-	8.97	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-	-	-	-	-	-	-



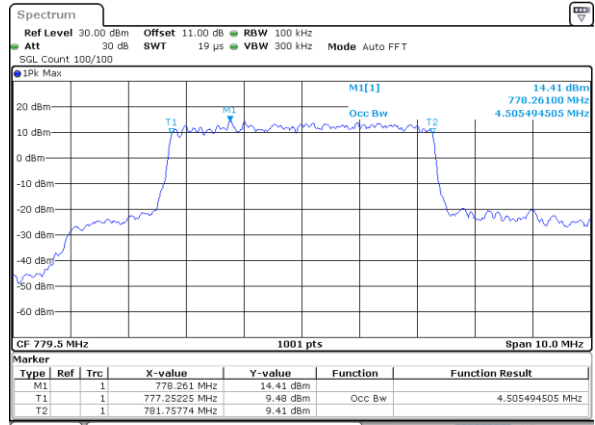
LTE Band 13

Lowest Channel / 5MHz / QPSK



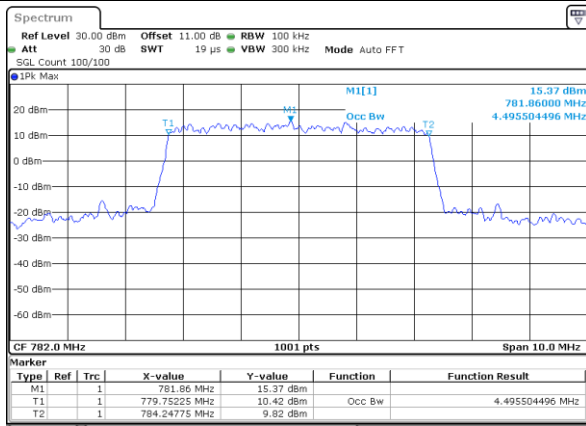
Date: 22.APR.2020 11:07:43

Lowest Channel / 5MHz / 16QAM



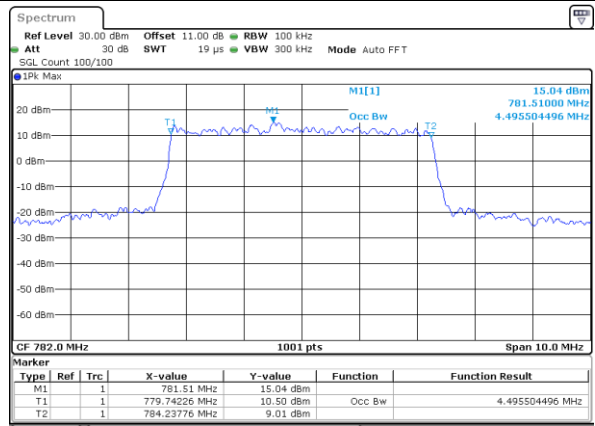
Date: 22.APR.2020 11:07:55

Middle Channel / 5MHz / QPSK



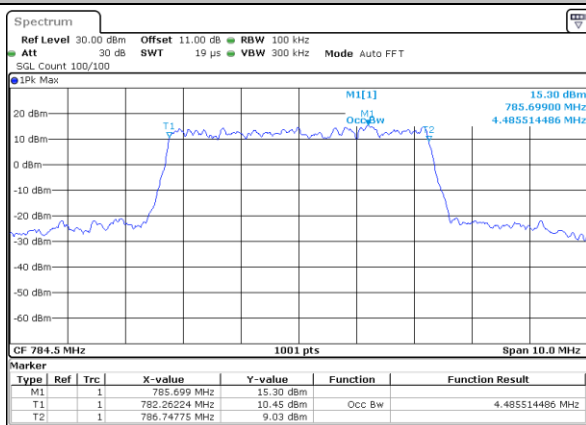
Date: 22.APR.2020 11:18:28

Middle Channel / 5MHz / 16QAM



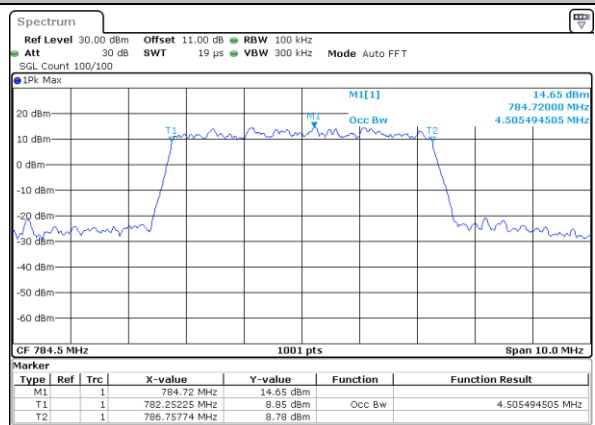
Date: 22.APR.2020 11:18:16

Highest Channel / 5MHz / QPSK



Date: 22.APR.2020 11:18:40

Highest Channel / 5MHz / 16QAM

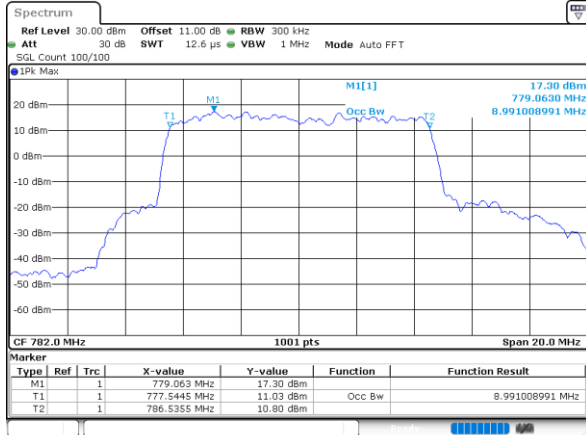


Date: 22.APR.2020 11:18:52



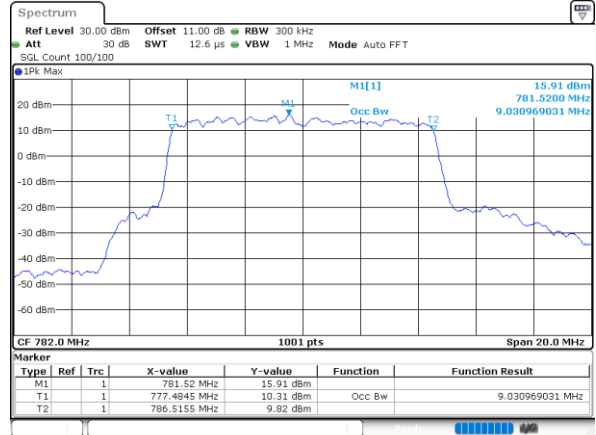
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 22.APR.2020 11:37:25

Middle Channel / 10MHz / 16QAM

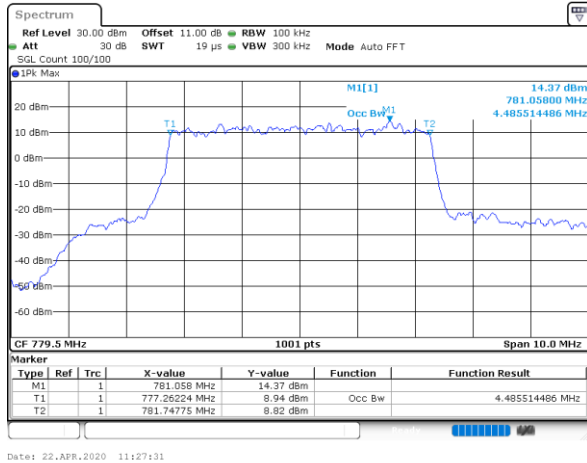


Date: 22.APR.2020 11:37:37

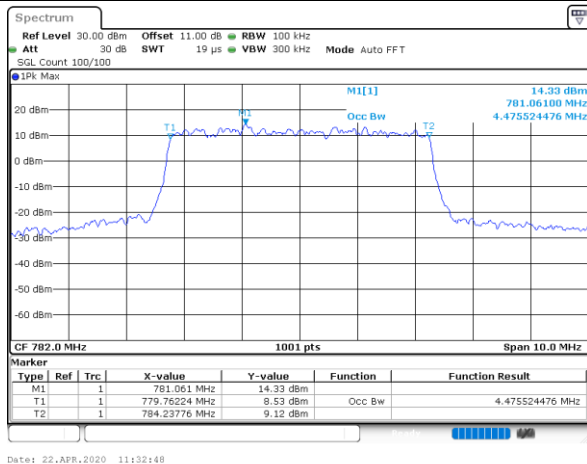


LTE Band 13

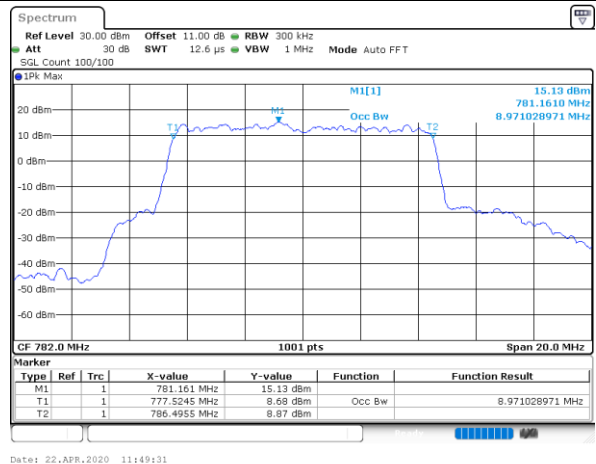
Lowest Channel / 5MHz / 64QAM



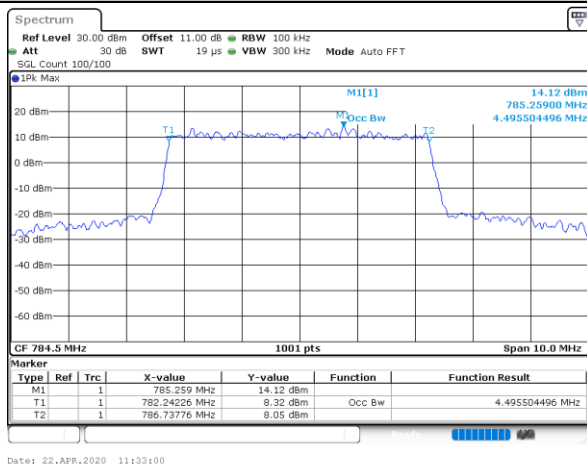
Middle Channel / 5MHz / 64QAM

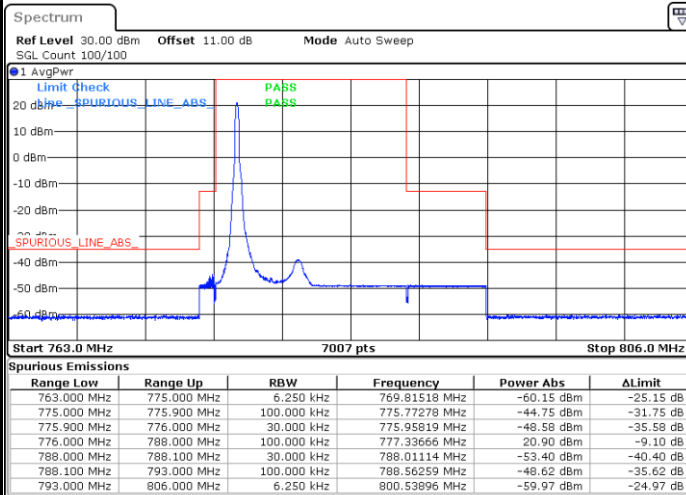
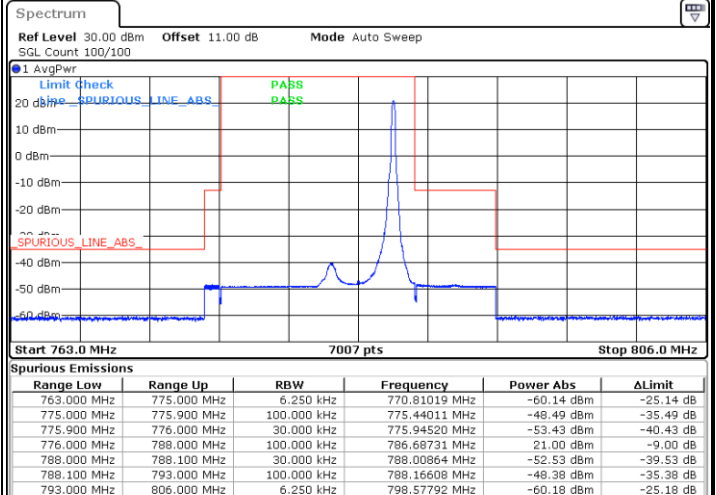
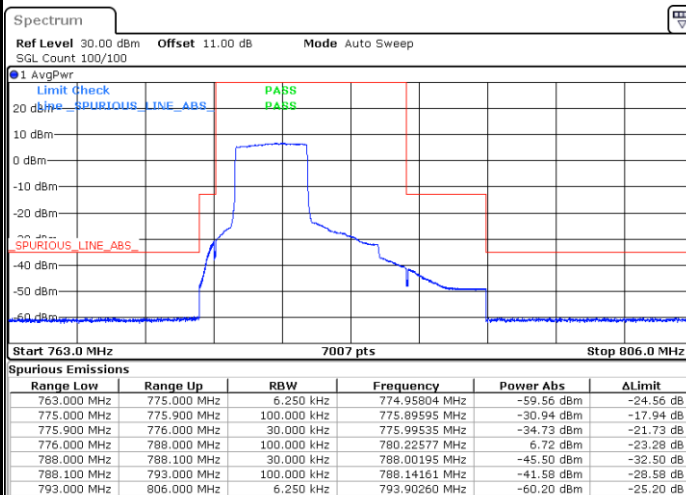
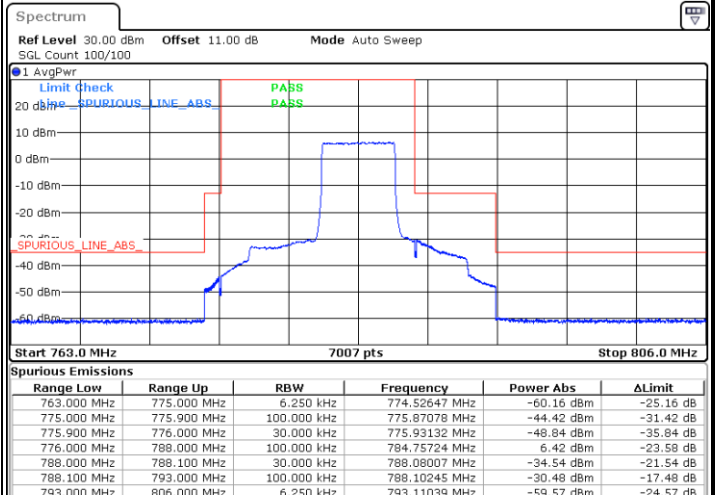


Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

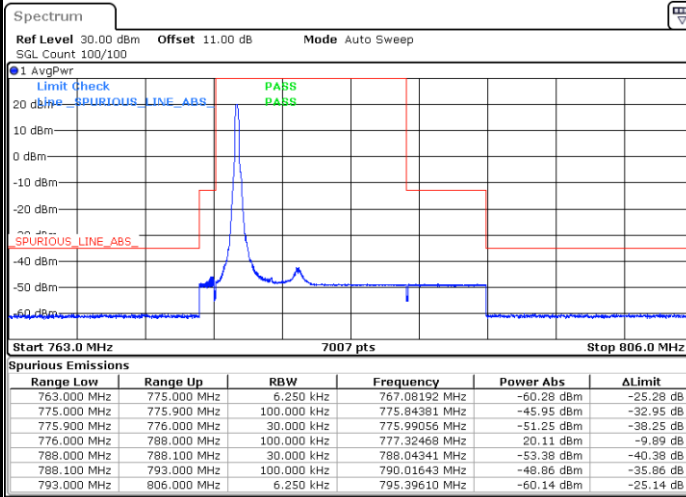


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

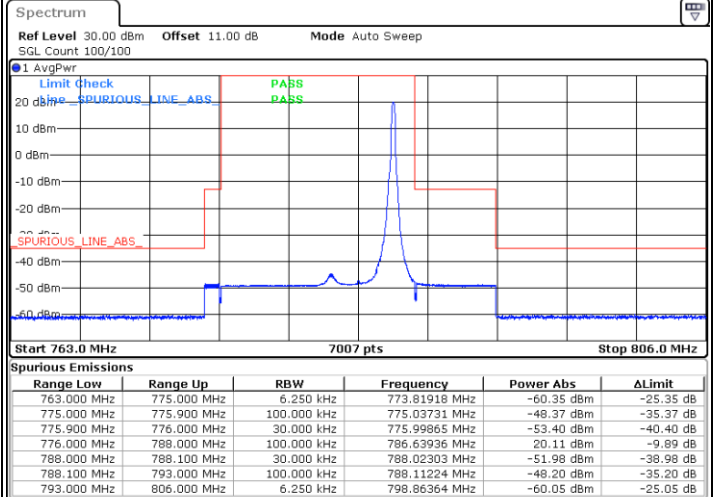


LTE Band 13 / 5MHz / 16QAM

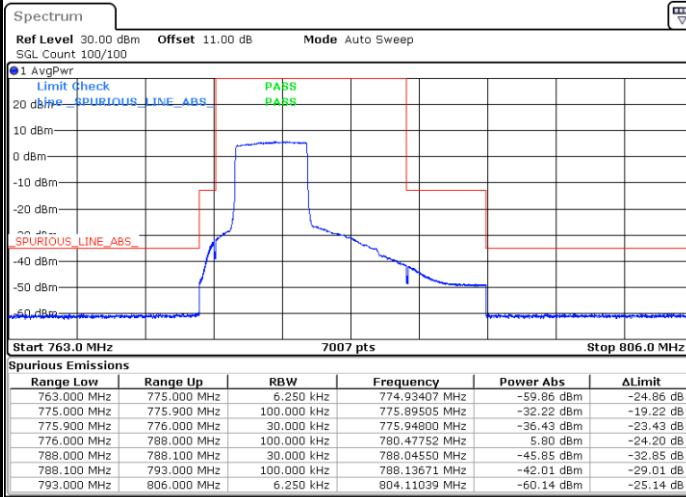
Lowest Band Edge / 1 RB



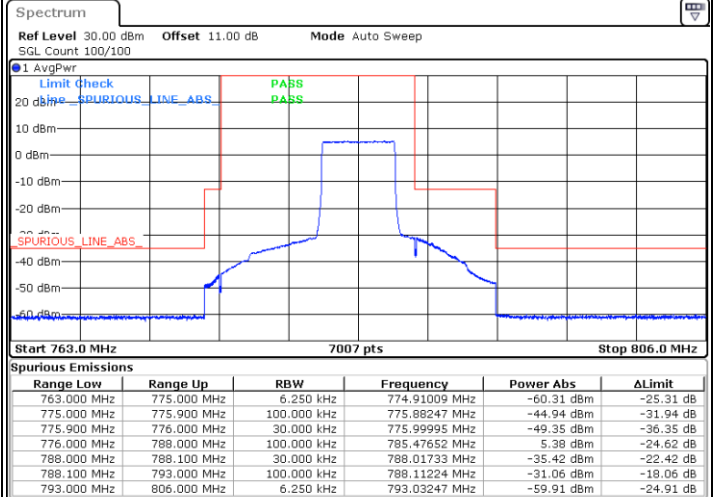
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



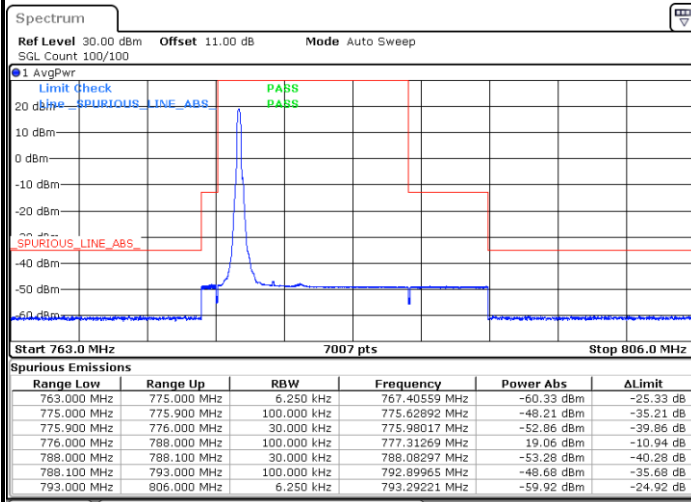
Highest Band Edge / Full RB





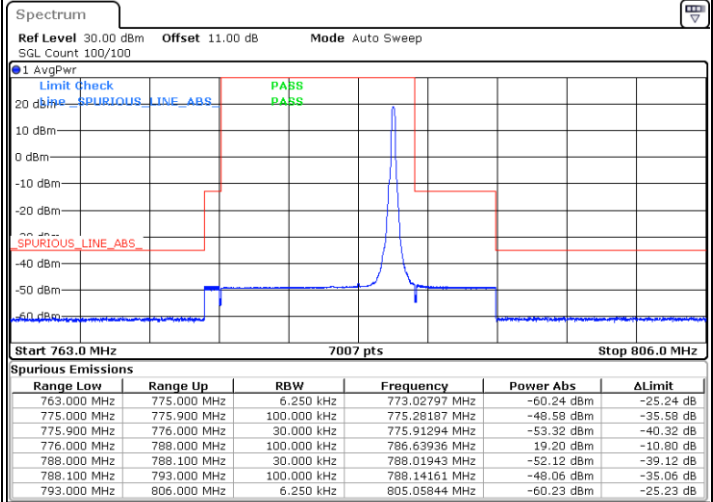
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



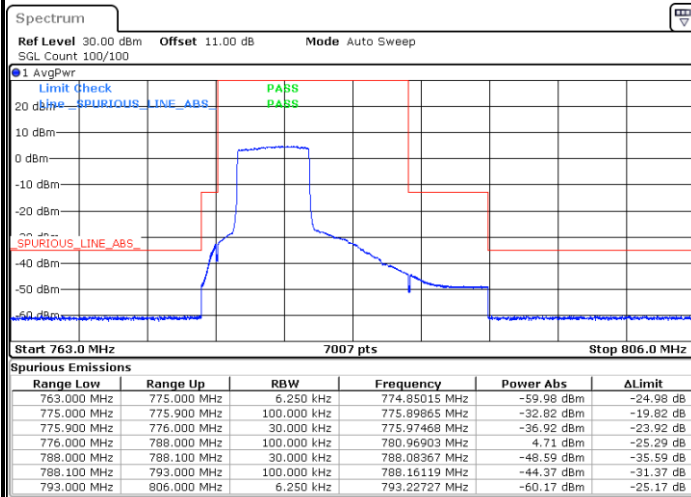
Date: 22.APR.2020 11:31:04

Highest Band Edge / 1 RB



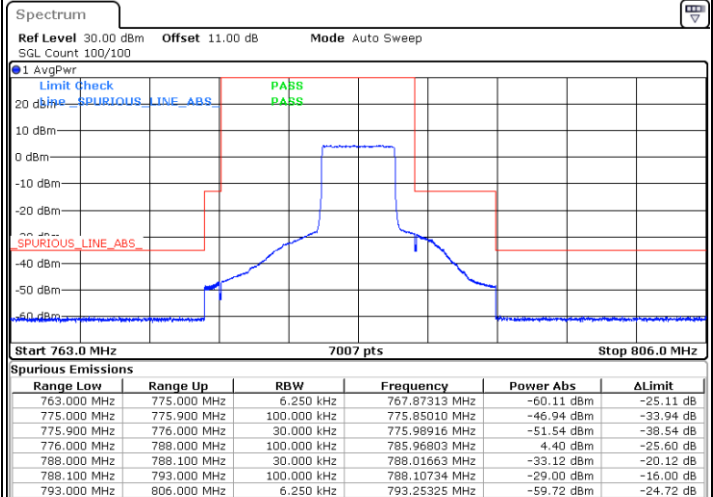
Date: 22.APR.2020 11:36:33

Lowest Band Edge / Full RB



Date: 22.APR.2020 11:29:24

Highest Band Edge / Full RB

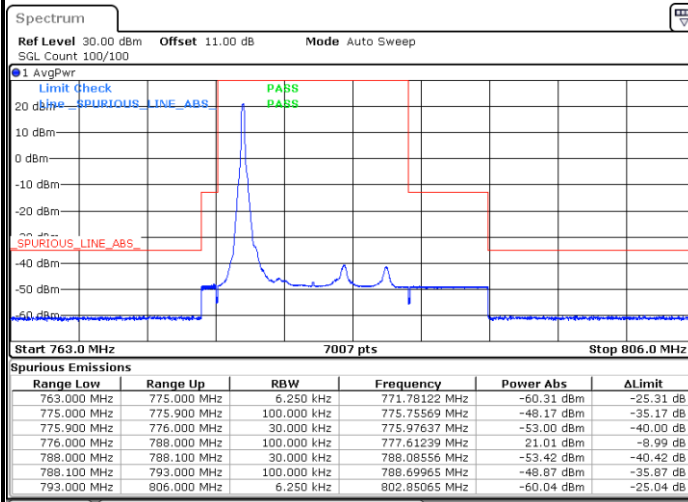


Date: 22.APR.2020 11:34:52

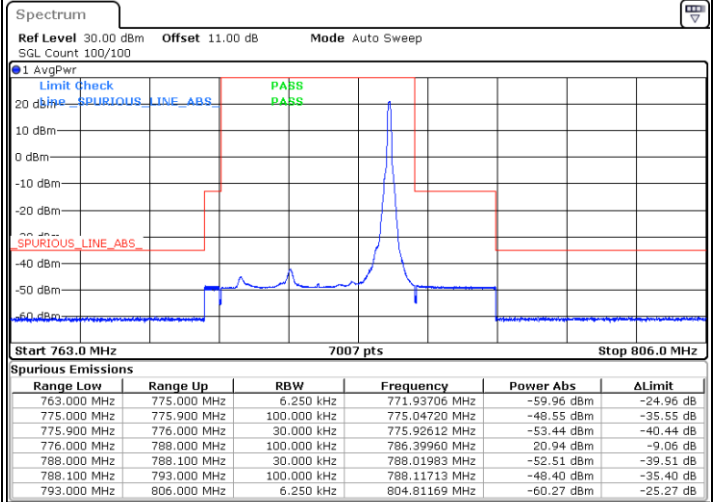


LTE Band 13 / 10MHz / QPSK

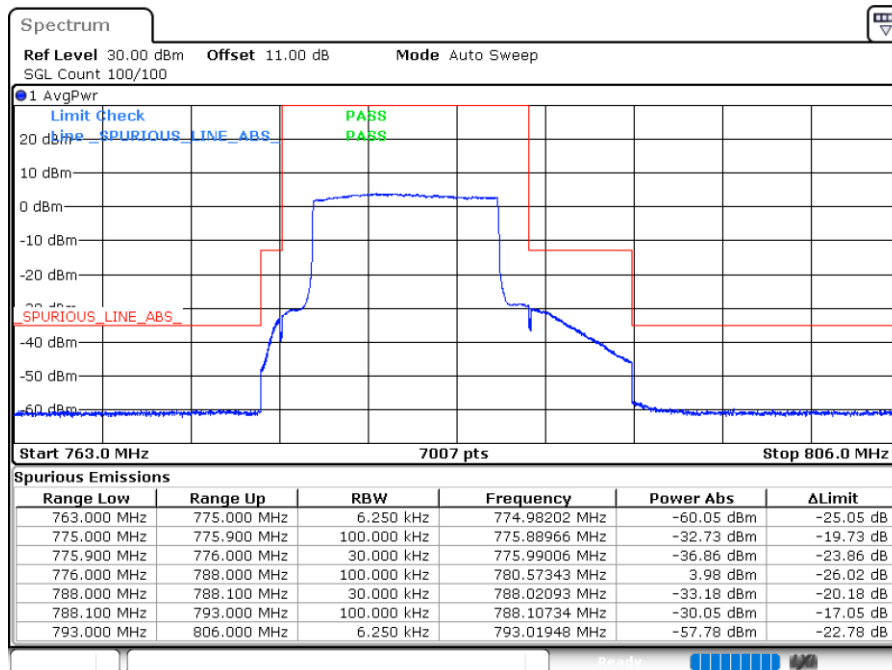
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



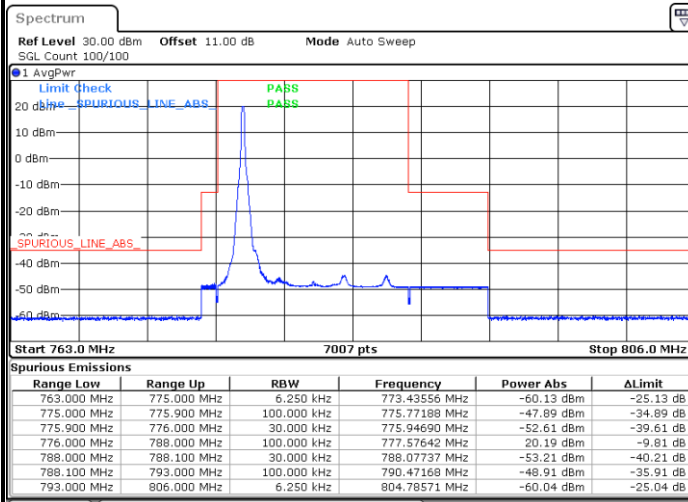
Band Edge / Full RB





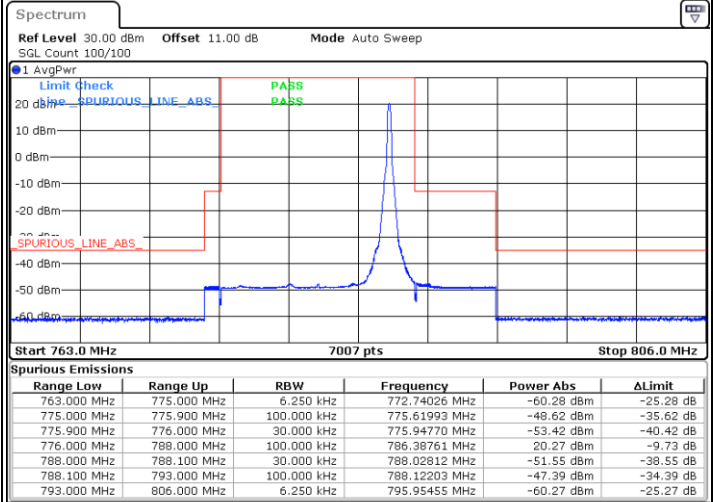
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



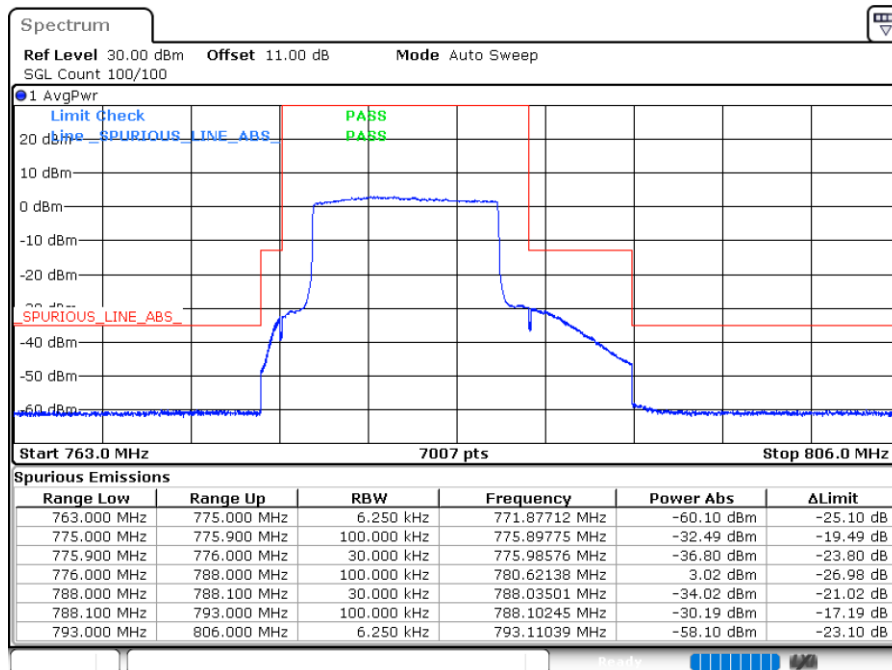
Date: 22.APR.2020 11:43:00

Highest Band Edge / 1 RB



Date: 22.APR.2020 11:47:59

Band Edge / Full RB

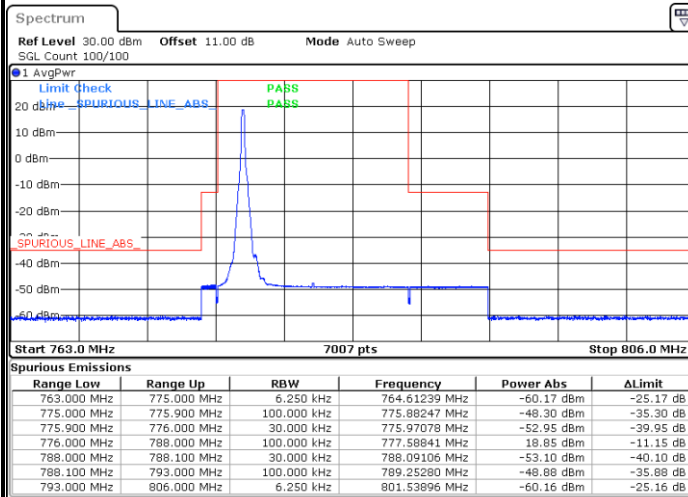


Date: 22.APR.2020 11:41:20

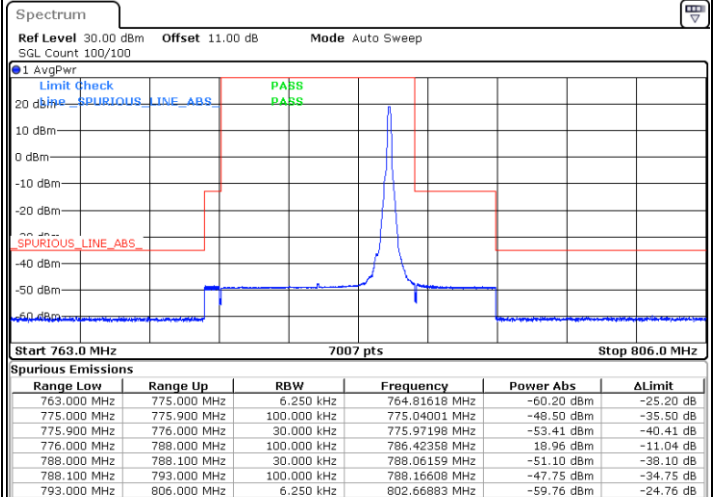


LTE Band 13 / 10MHz / 64QAM

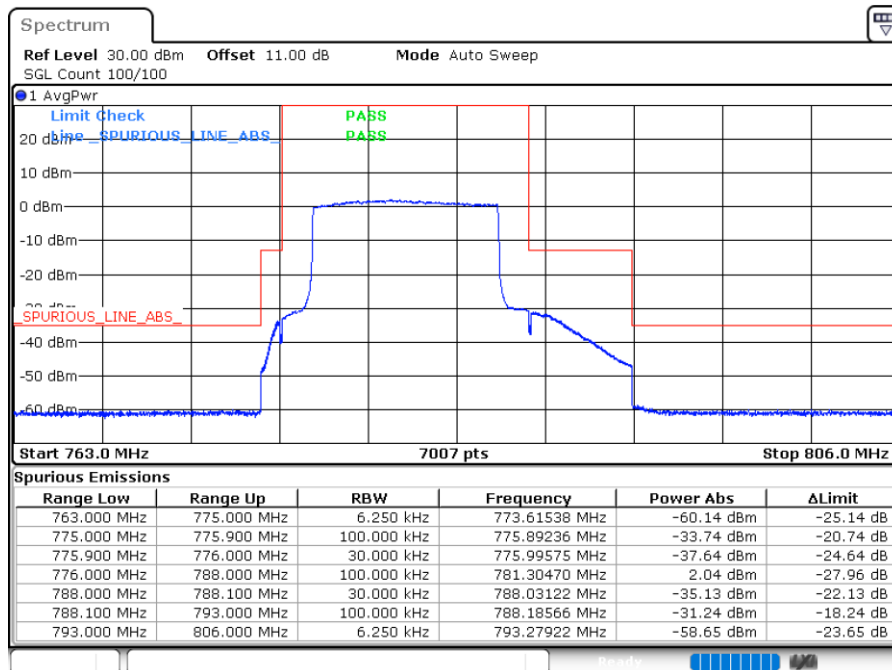
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Band Edge / Full RB

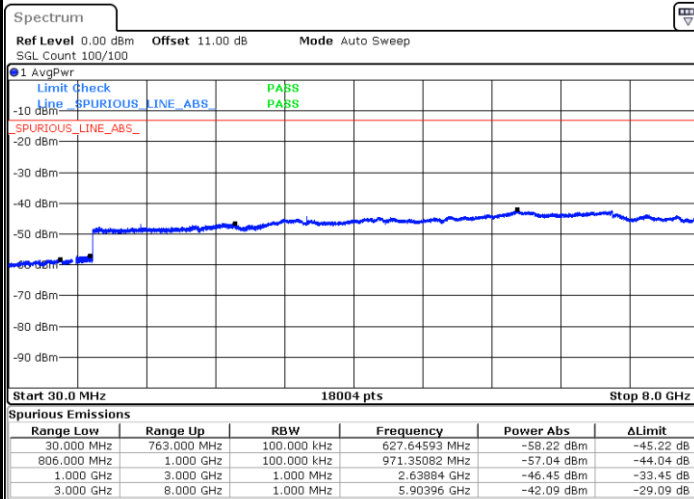




Conducted Spurious Emission

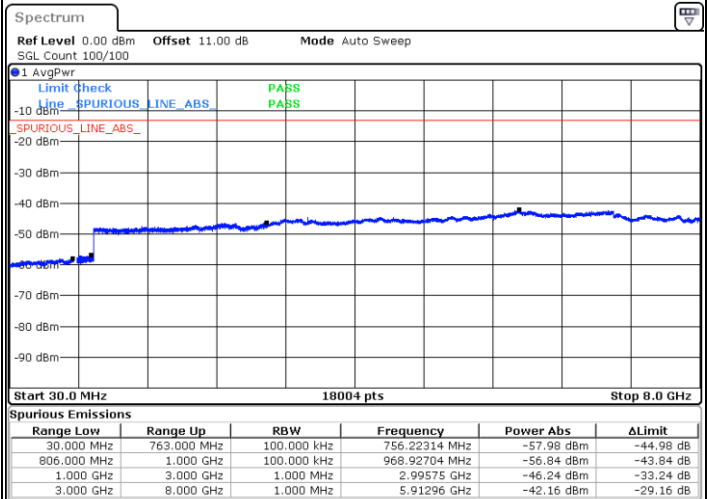
LTE Band 13 / 5MHz

Lowest Channel / QPSK



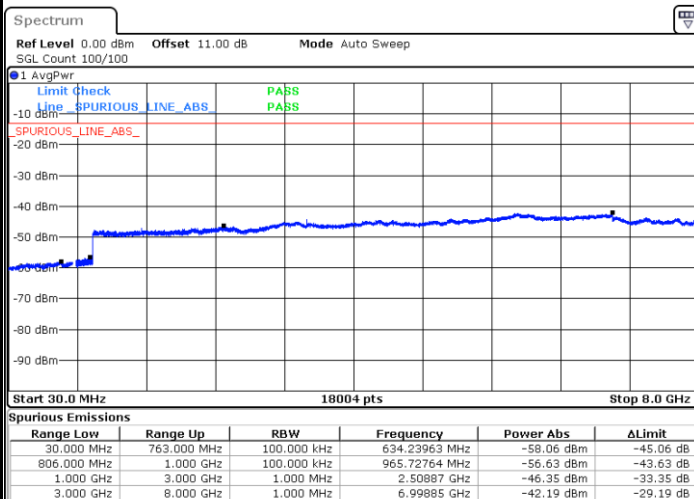
Date: 22.APR.2020 11:15:42

Lowest Channel / 16QAM



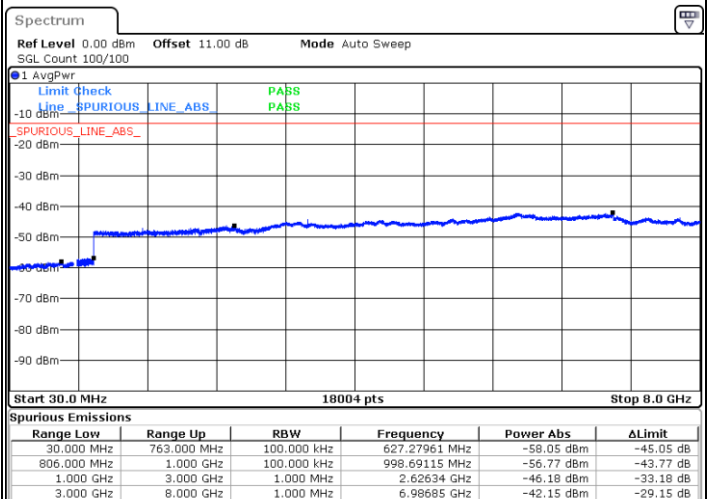
Date: 22.APR.2020 11:16:22

Middle Channel / QPSK



Date: 22.APR.2020 11:17:42

Middle Channel / 16QAM

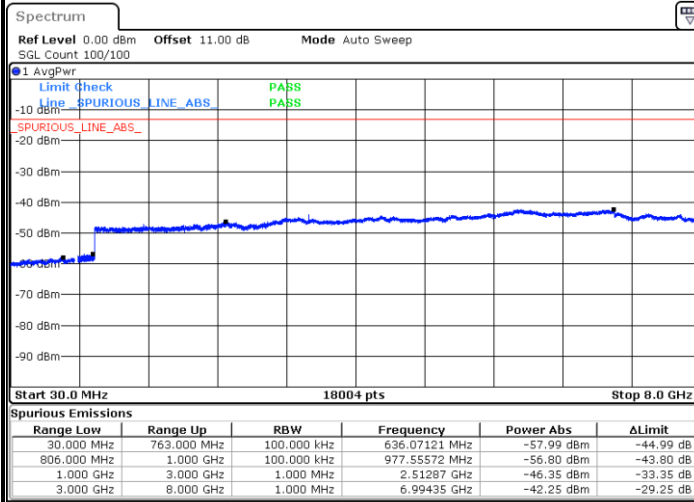


Date: 22.APR.2020 11:17:02



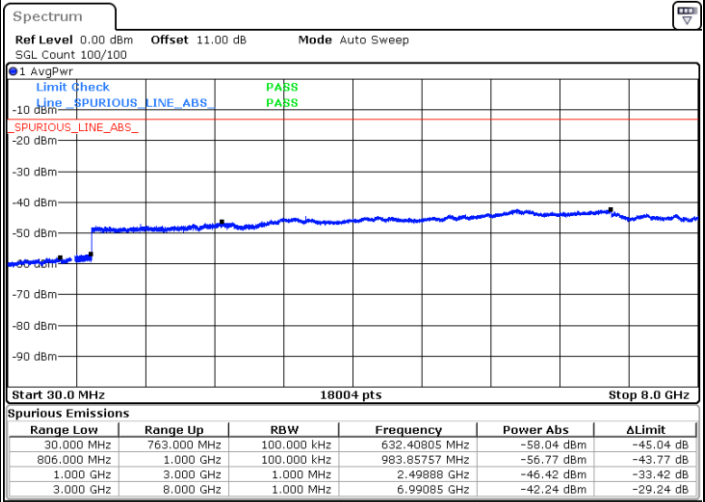
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 22.APR.2020 11:26:39

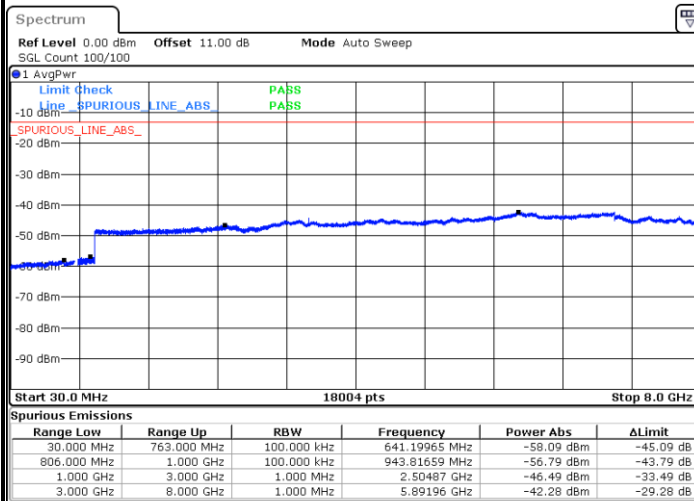
Highest Channel / 16QAM



Date: 22.APR.2020 11:27:19

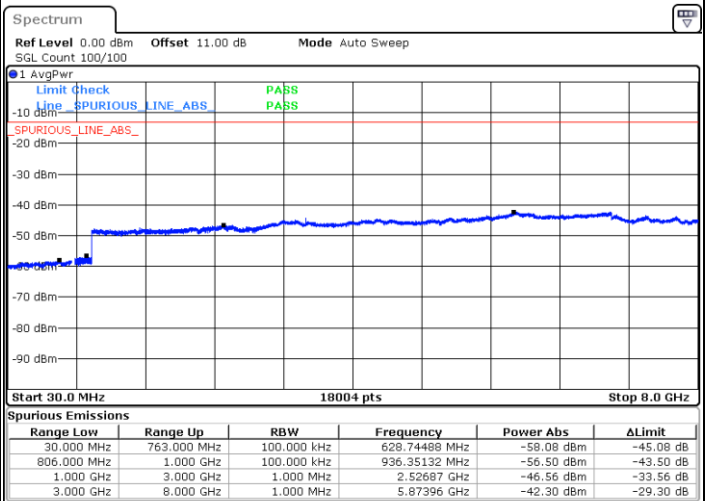
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 22.APR.2020 11:49:20

Middle Channel / 16QAM

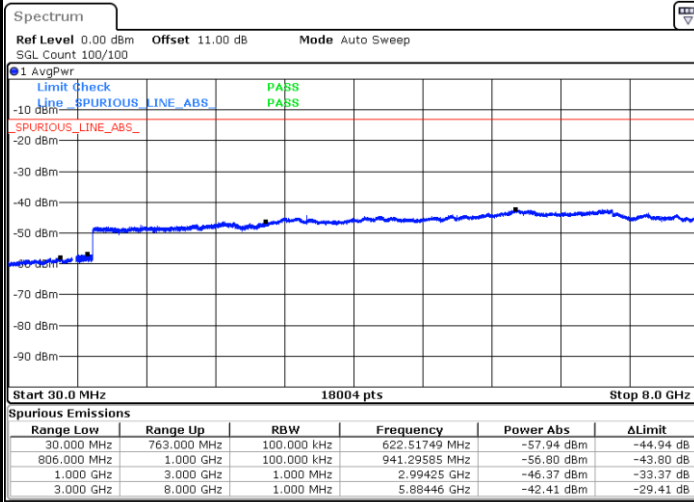


Date: 22.APR.2020 11:48:39



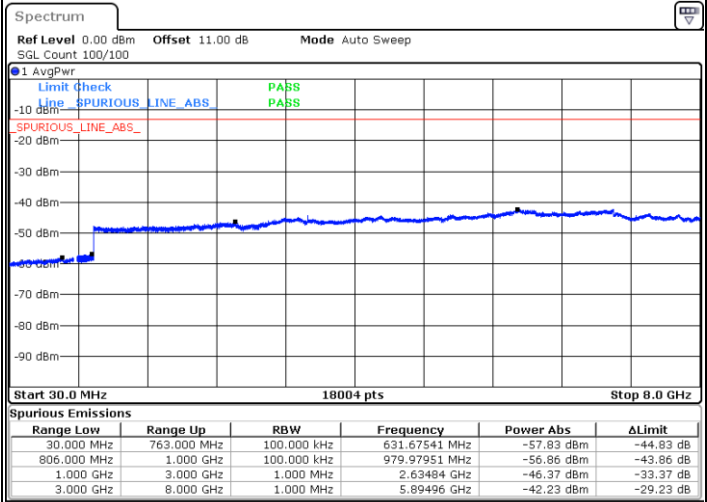
LTE Band 13 / 5MHz

Lowest Channel / 64QAM



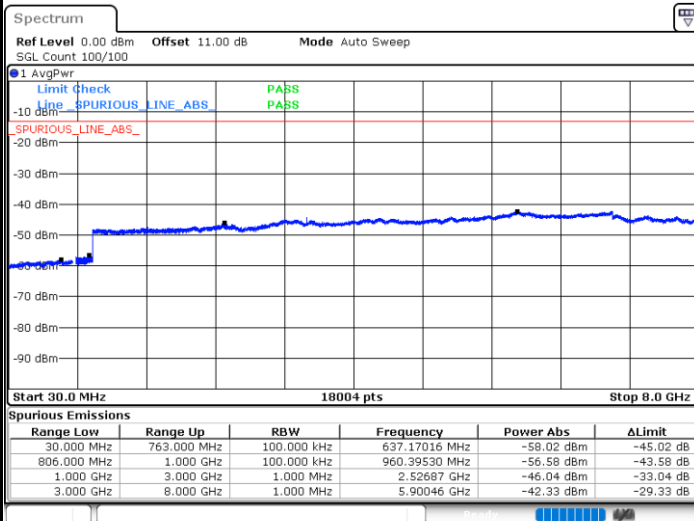
Date: 22.APR.2020 11:31:45

Middle Channel / 64QAM



Date: 22.APR.2020 11:32:25

Highest Channel / 64QAM

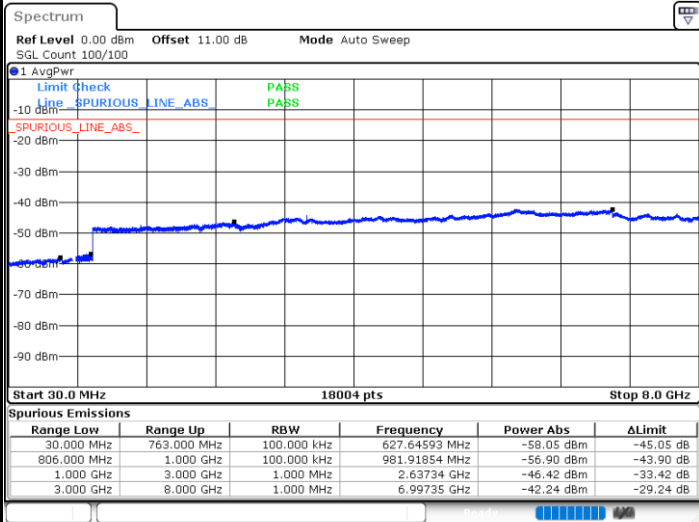


Date: 22.APR.2020 11:37:13



LTE Band 13 / 10MHz

Middle Channel / 64QAM



Date: 22.APR.2020 11:55:23

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0092	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0123	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0074	
-30	Normal Voltage	0.0119	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0141	

Note:

1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.1 V. ; Maximum Voltage =3.6 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 25

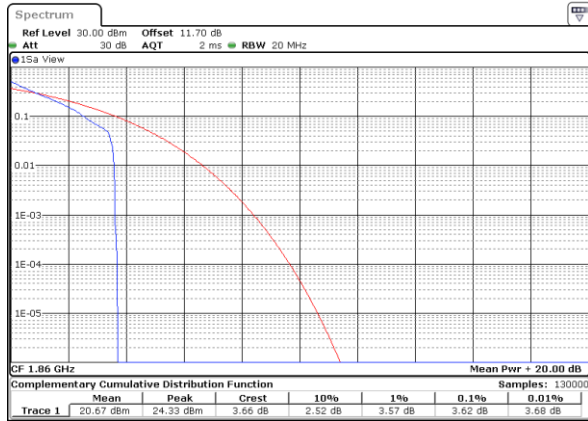
Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	5.01	5.28	5.91	PASS
Middle CH	3.36	4.99	4.96	5.88	
Highest CH	3.62	5.16	5.30	5.94	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.13	6.49	-	-	PASS
Middle CH	7.30	6.41	-	-	
Highest CH	6.93	6.52	-	-	



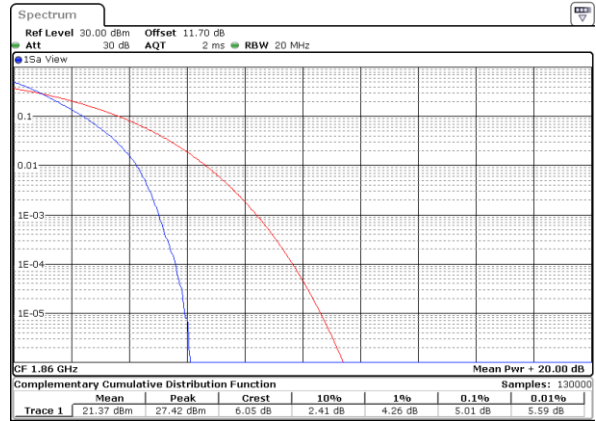
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



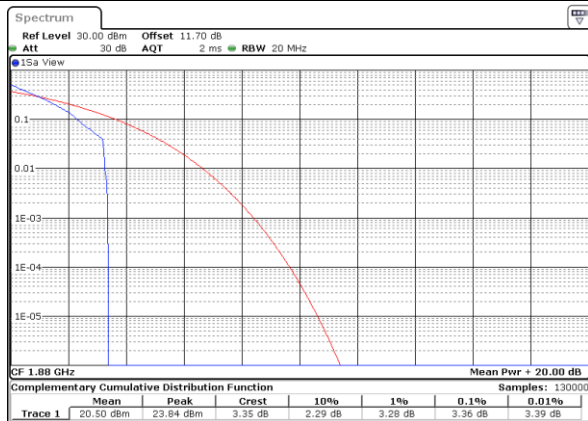
Date: 21.APR.2020 12:35:09

Lowest Channel / Full RB



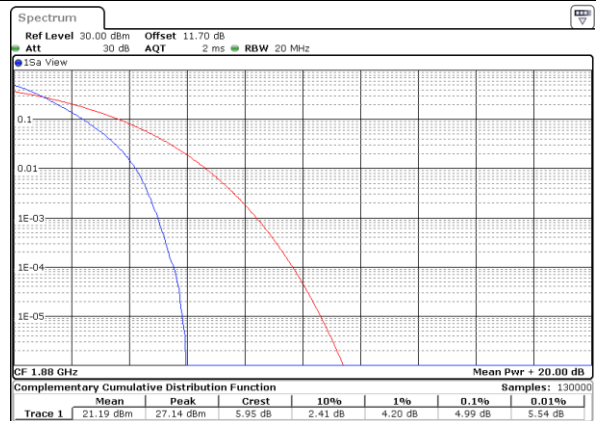
Date: 21.APR.2020 12:35:23

Middle Channel / 1RB



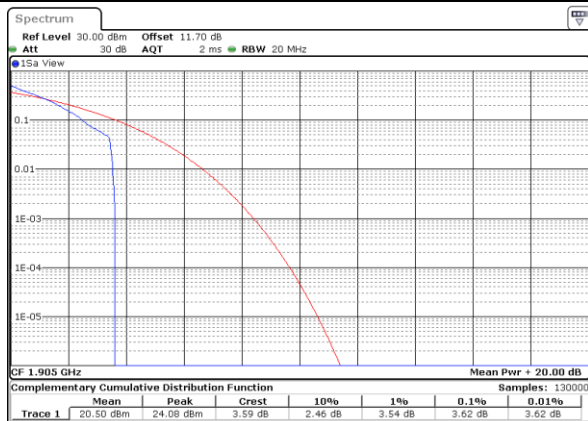
Date: 21.APR.2020 12:36:22

Middle Channel / Full RB



Date: 21.APR.2020 12:36:33

Highest Channel / 1RB



Date: 21.APR.2020 12:37:06

Highest Channel / Full RB

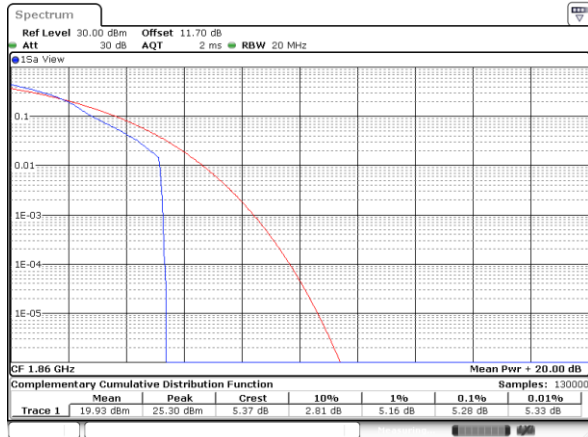


Date: 21.APR.2020 12:37:17

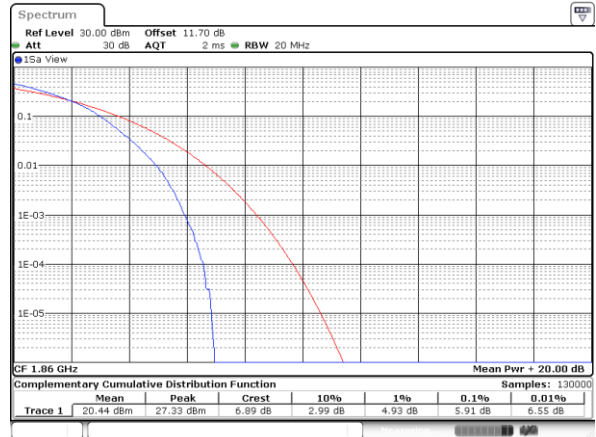


LTE Band 25 / 20MHz / 16QAM

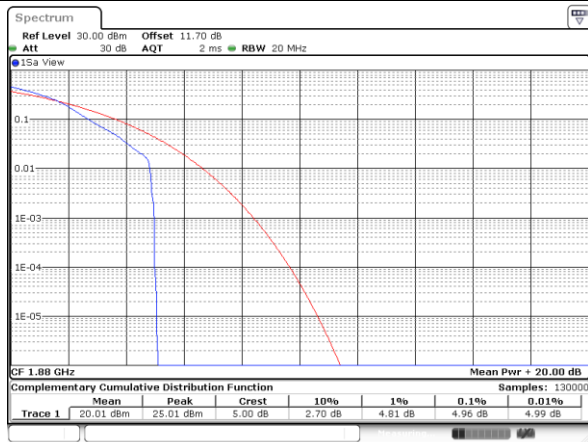
Lowest Channel / 1RB



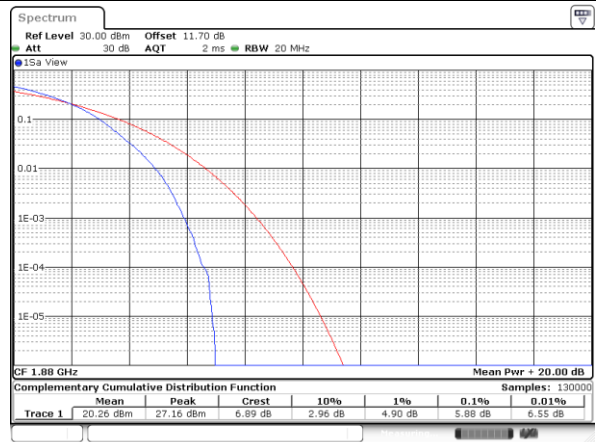
Lowest Channel / Full RB



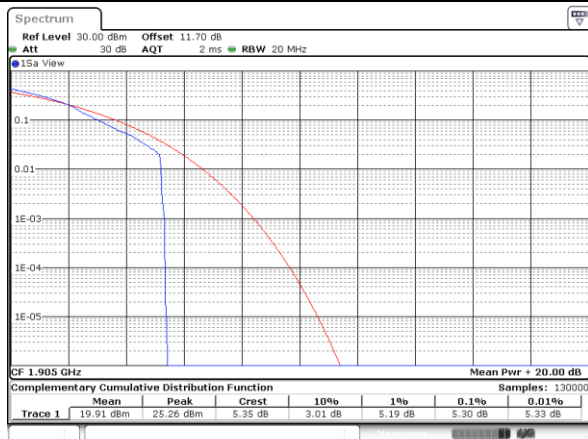
Middle Channel / 1RB



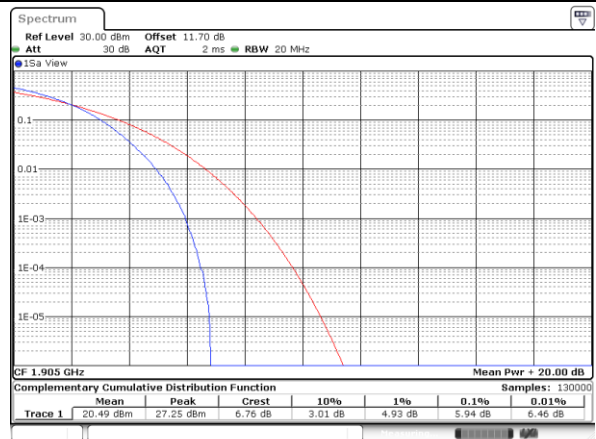
Middle Channel / Full RB



Highest Channel / 1RB



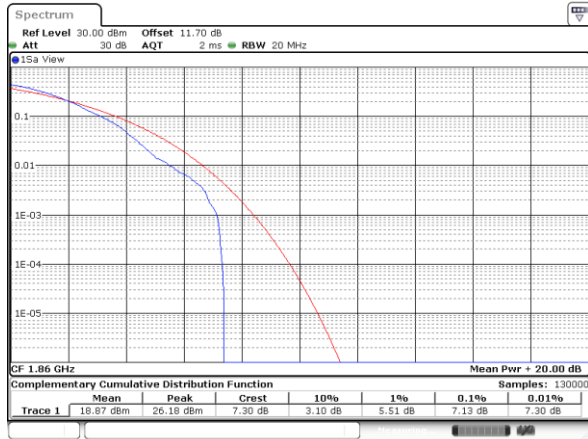
Highest Channel / Full RB



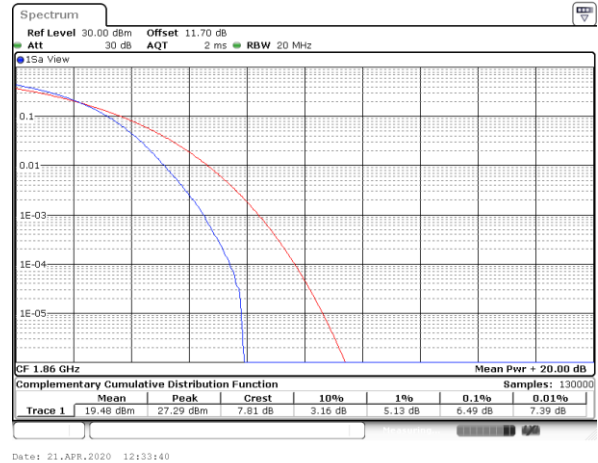


LTE Band 25 / 20MHz / 64QAM

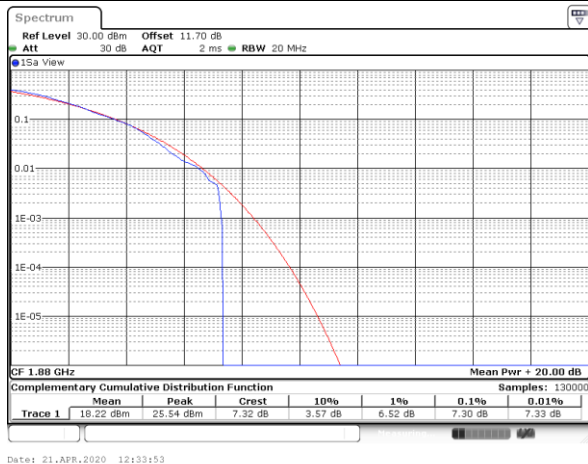
Lowest Channel / 1RB



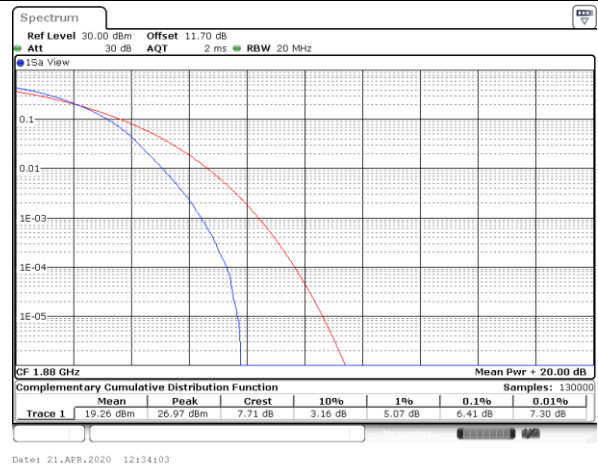
Lowest Channel / Full RB



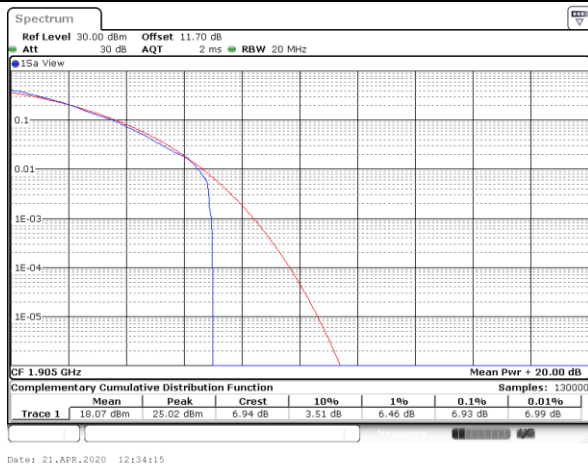
Middle Channel / 1RB



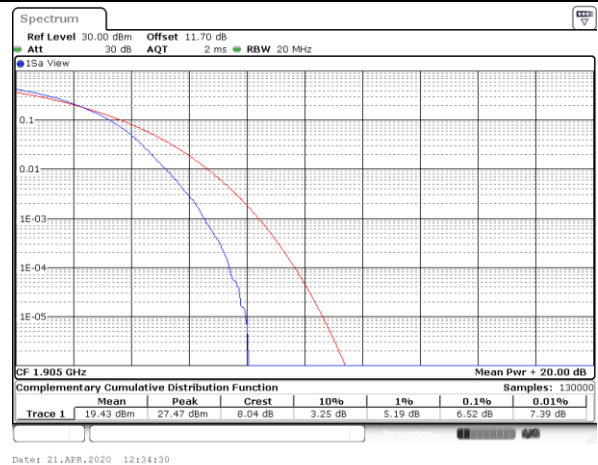
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



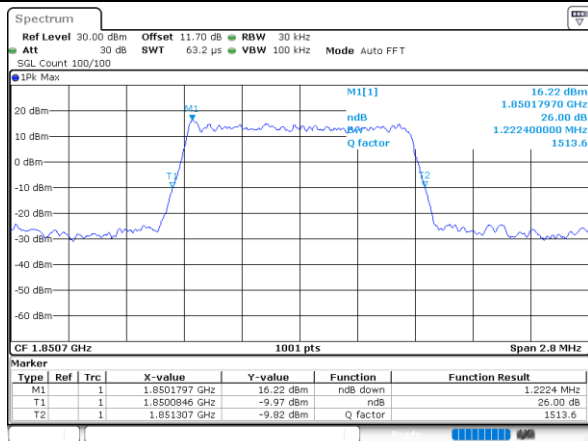
**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.22	1.23	3.07	3.05	4.88	4.84	9.93	9.71	14.60	14.42	19.14	19.26
Middle CH	1.22	1.24	3.00	3.02	4.96	4.91	9.75	9.81	14.39	14.42	18.74	18.90
Highest CH	1.22	1.23	2.99	2.99	4.87	4.77	9.77	9.85	14.27	14.69	18.82	18.74
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	3.02	-	4.88	-	9.77	-	14.12	-	19.22	-
Middle CH	1.22	-	3.00	-	4.98	-	9.87	-	14.27	-	18.94	-
Highest CH	1.21	-	3.02	-	4.86	-	9.77	-	14.21	-	18.94	-



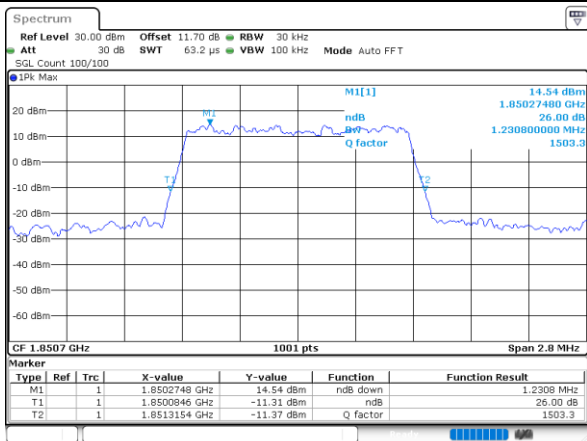
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



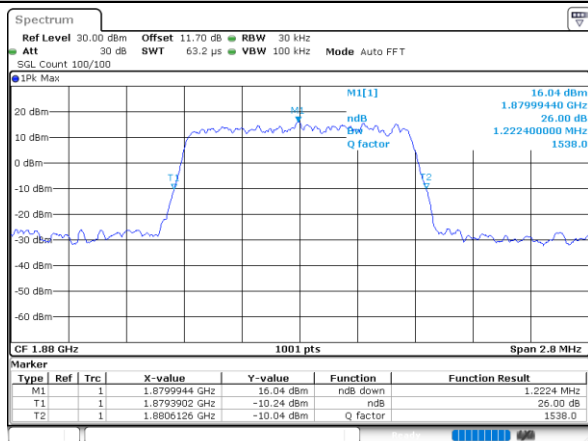
Date: 21.APR.2020 07:30:33

Lowest Channel / 1.4MHz / 16QAM



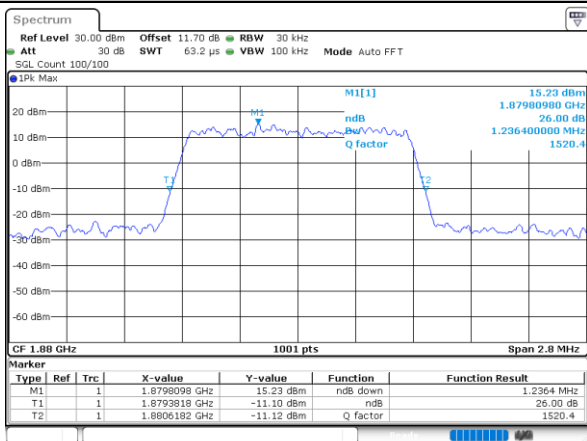
Date: 21.APR.2020 07:30:45

Middle Channel / 1.4MHz / QPSK



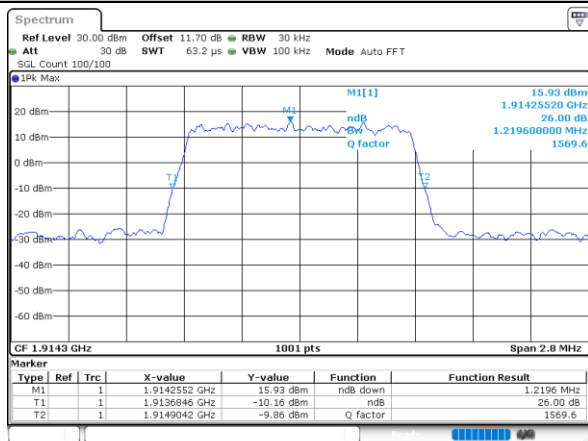
Date: 21.APR.2020 07:36:59

Middle Channel / 1.4MHz / 16QAM



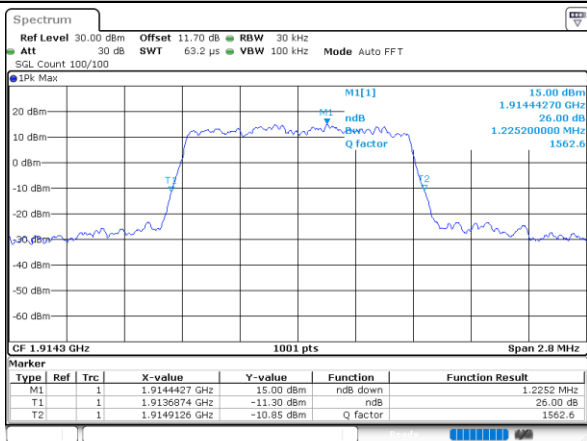
Date: 21.APR.2020 07:37:11

Highest Channel / 1.4MHz / QPSK



Date: 21.APR.2020 07:39:23

Highest Channel / 1.4MHz / 16QAM

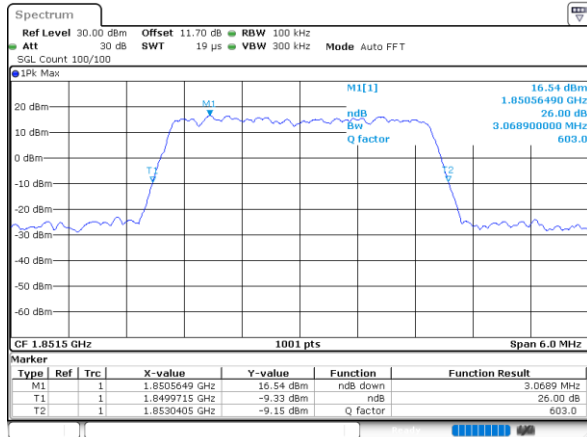


Date: 21.APR.2020 07:39:11



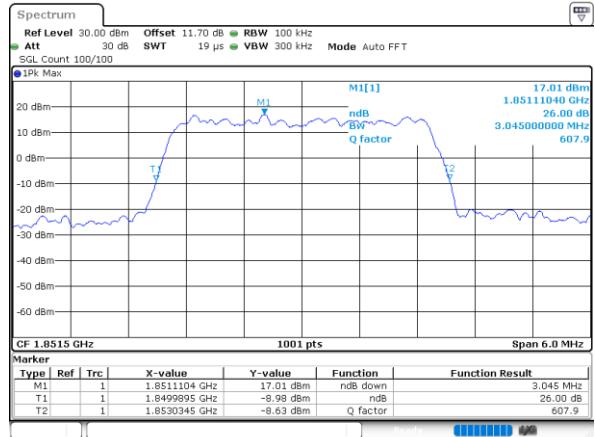
LTE Band 25

Lowest Channel / 3MHz / QPSK



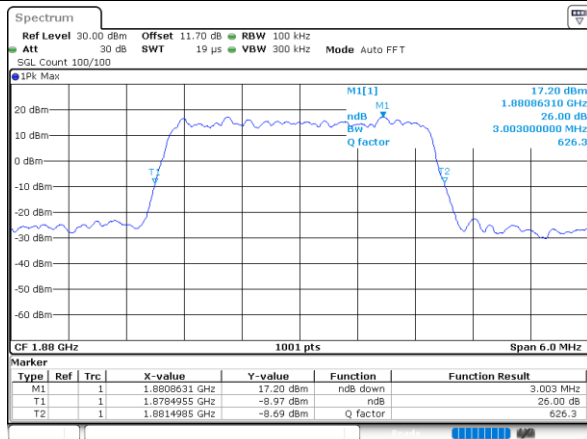
Date: 21.APR.2020 08:00:54

Lowest Channel / 3MHz / 16QAM



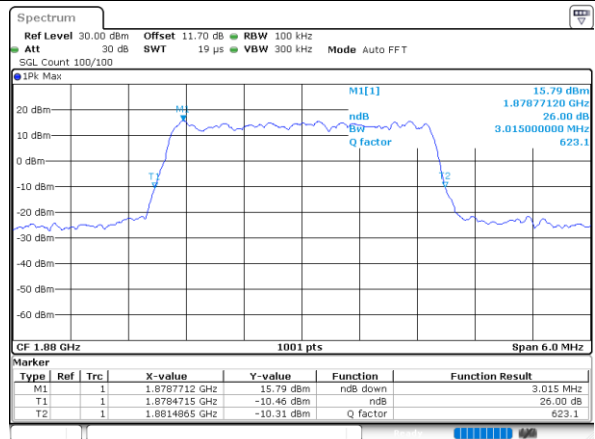
Date: 21.APR.2020 08:01:06

Middle Channel / 3MHz / QPSK



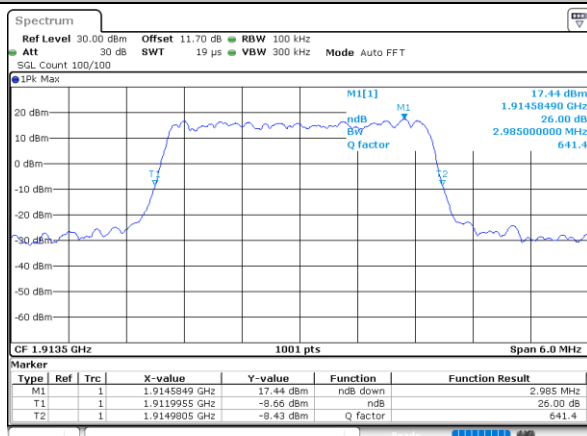
Date: 21.APR.2020 08:07:08

Middle Channel / 3MHz / 16QAM



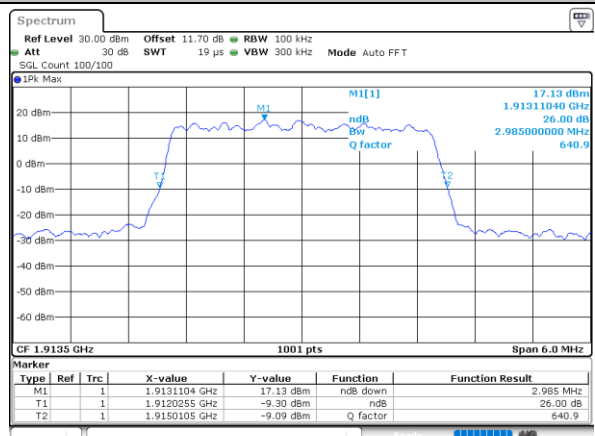
Date: 21.APR.2020 08:07:20

Highest Channel / 3MHz / QPSK



Date: 21.APR.2020 08:09:31

Highest Channel / 3MHz / 16QAM

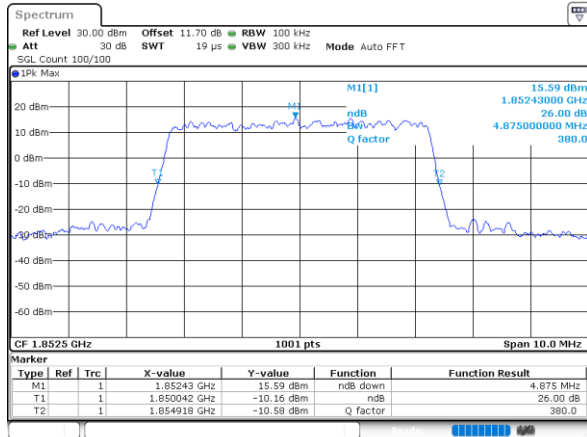


Date: 21.APR.2020 08:09:19

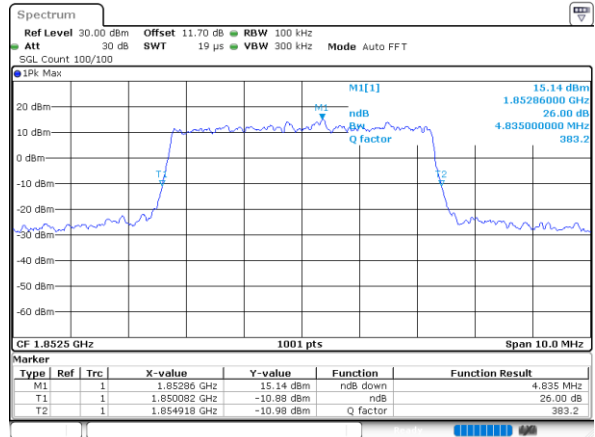


LTE Band 25

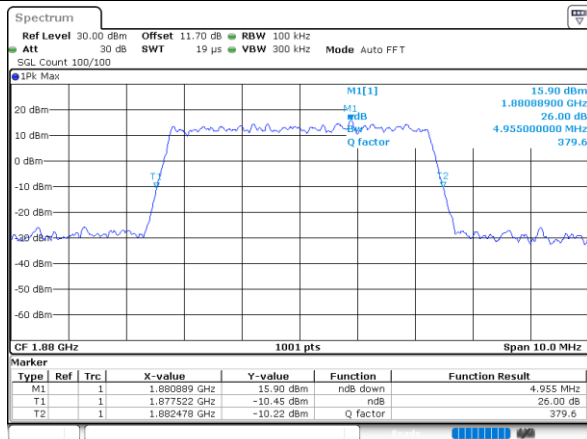
Lowest Channel / 5MHz / QPSK



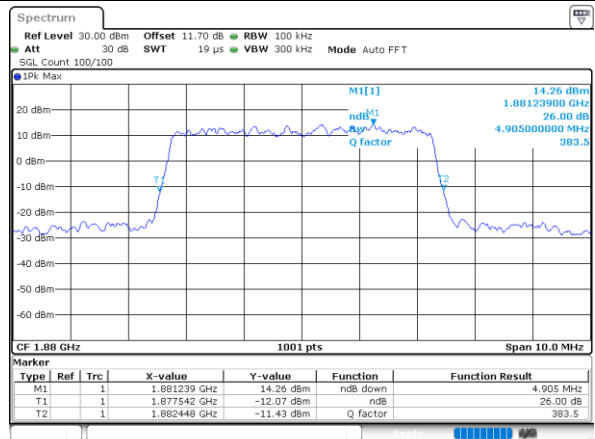
Lowest Channel / 5MHz / 16QAM



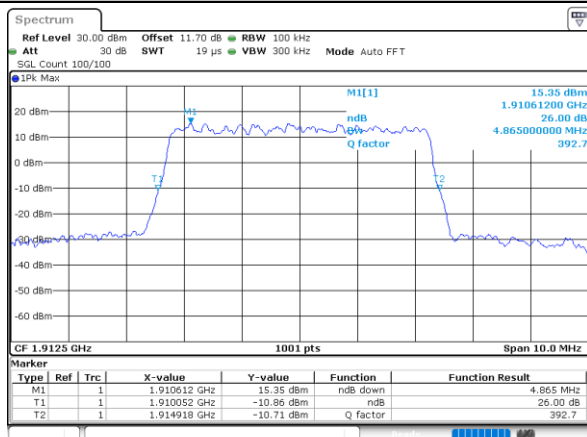
Middle Channel / 5MHz / QPSK



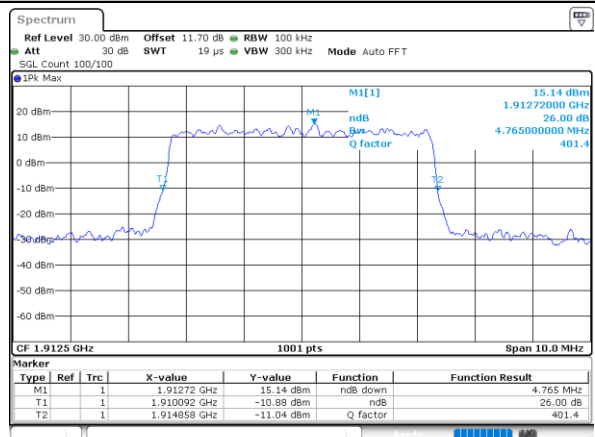
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



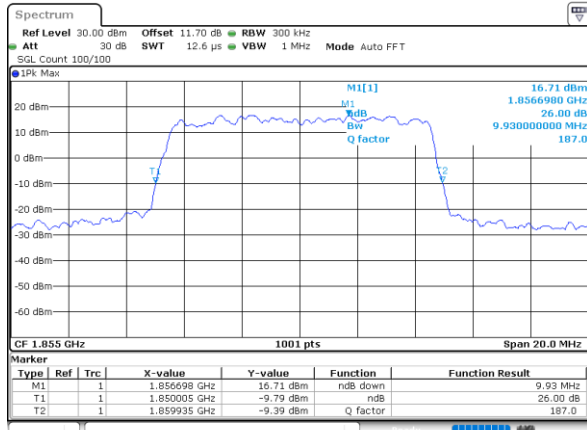
Highest Channel / 5MHz / 16QAM





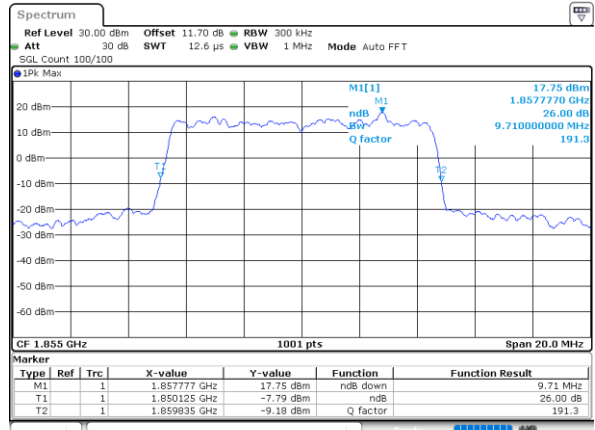
LTE Band 25

Lowest Channel / 10MHz / QPSK



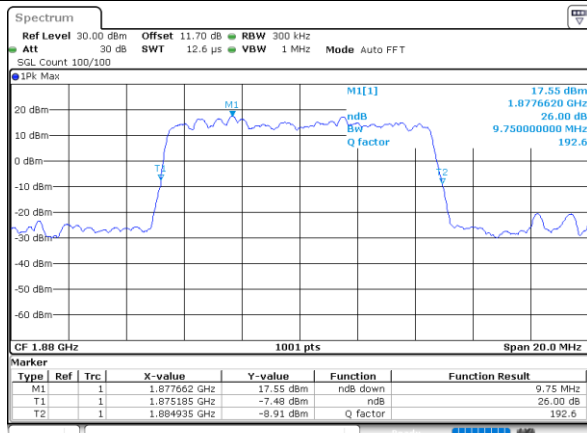
Date: 21.APR.2020 08:38:16

Lowest Channel / 10MHz / 16QAM



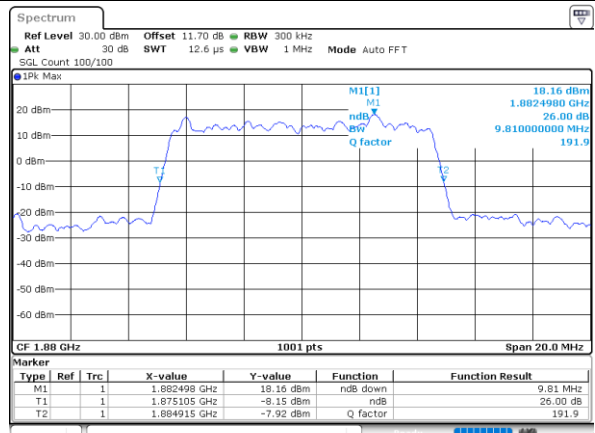
Date: 21.APR.2020 08:38:28

Middle Channel / 10MHz / QPSK



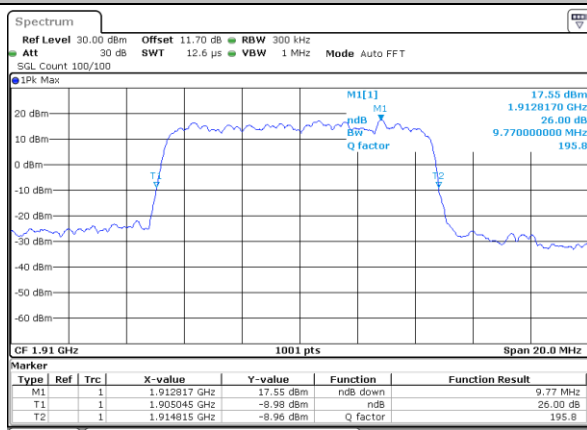
Date: 21.APR.2020 08:44:29

Middle Channel / 10MHz / 16QAM



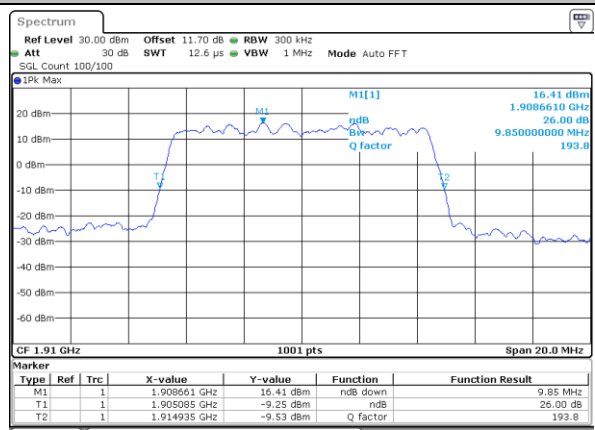
Date: 21.APR.2020 08:44:42

Highest Channel / 10MHz / QPSK



Date: 21.APR.2020 08:46:53

Highest Channel / 10MHz / 16QAM

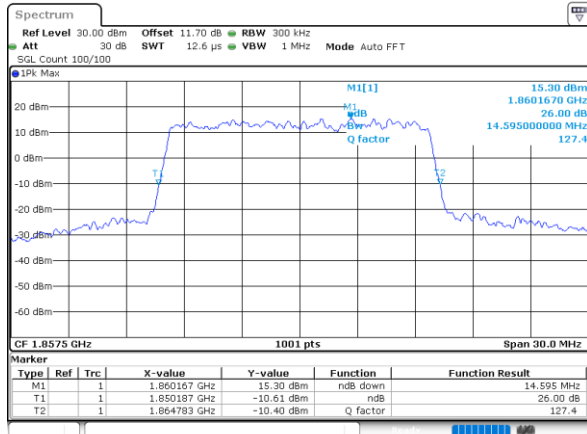


Date: 21.APR.2020 08:46:41

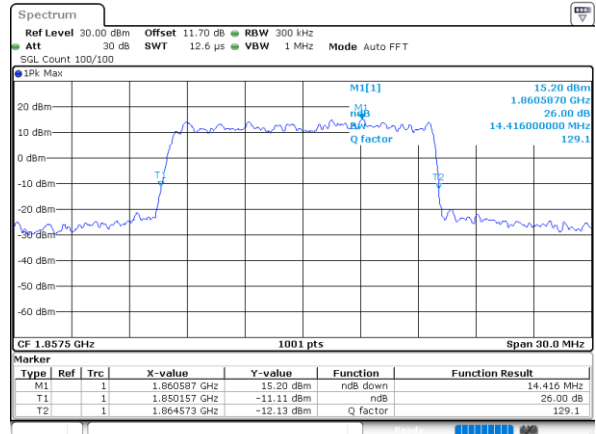


LTE Band 25

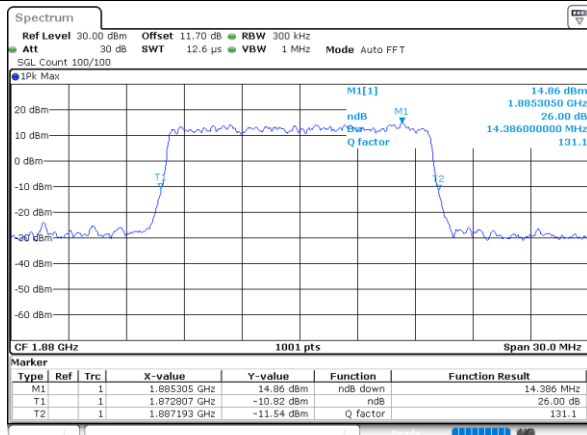
Lowest Channel / 15MHz / QPSK



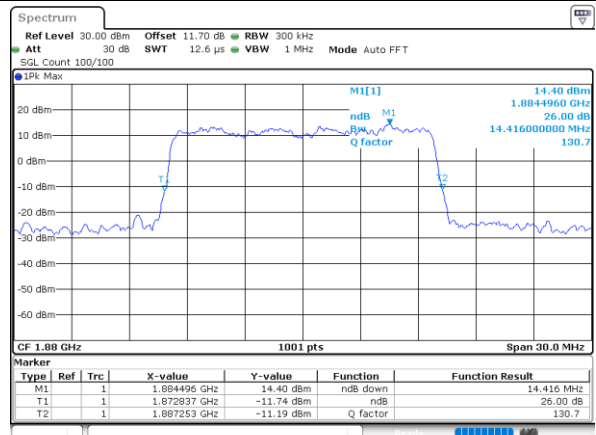
Lowest Channel / 15MHz / 16QAM



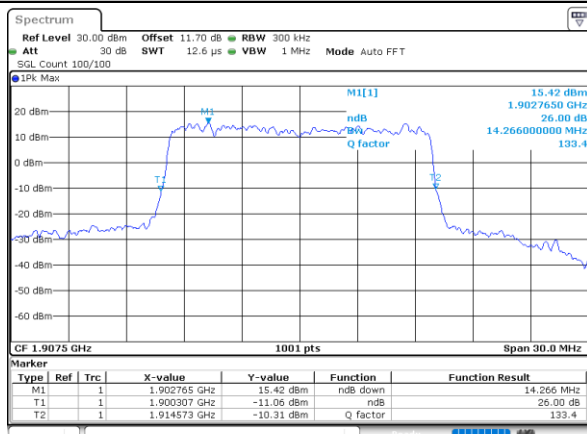
Middle Channel / 15MHz / QPSK



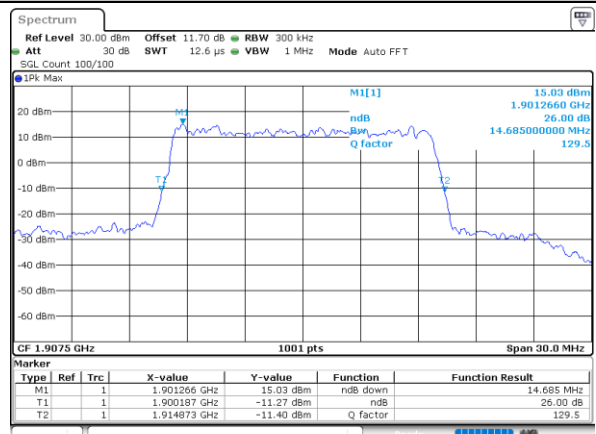
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



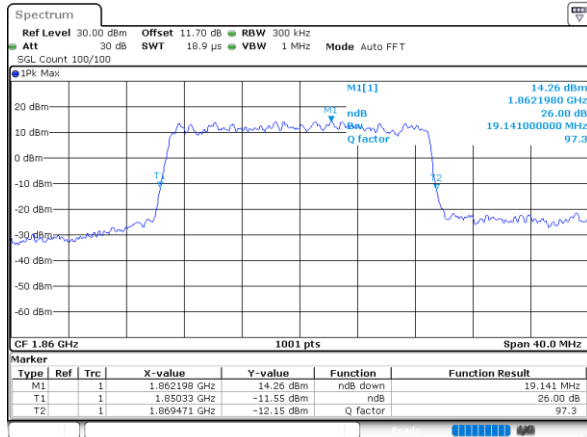
Highest Channel / 15MHz / 16QAM



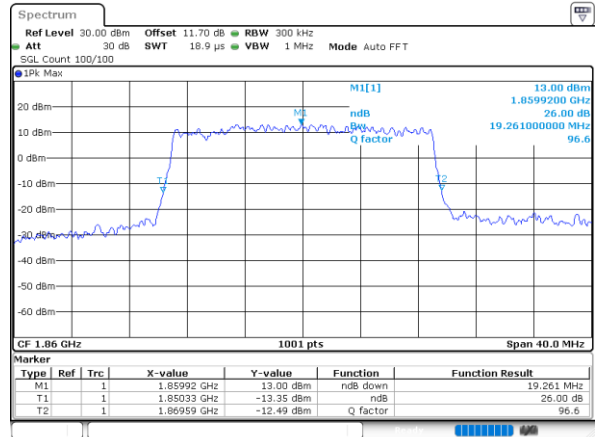


LTE Band 25

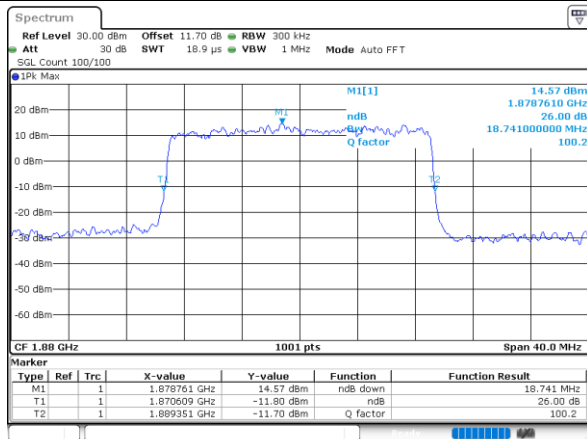
Lowest Channel / 20MHz / QPSK



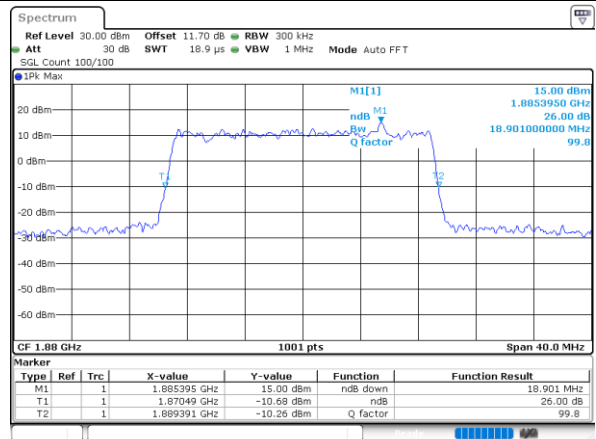
Lowest Channel / 20MHz / 16QAM



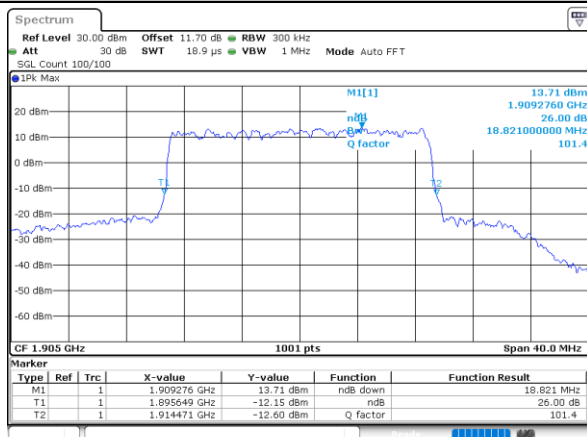
Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM

