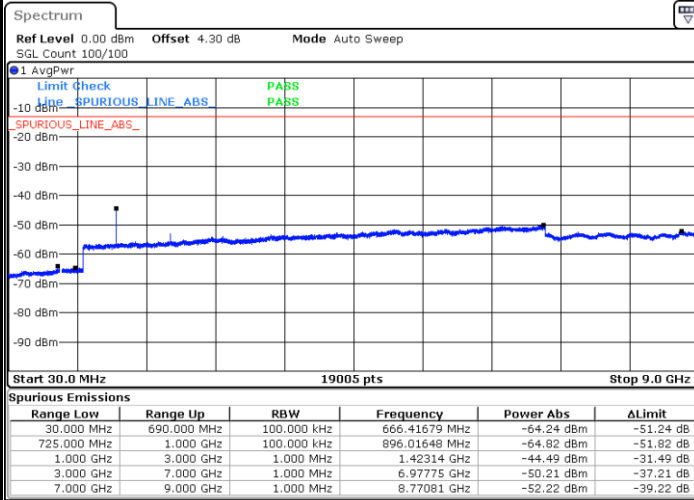




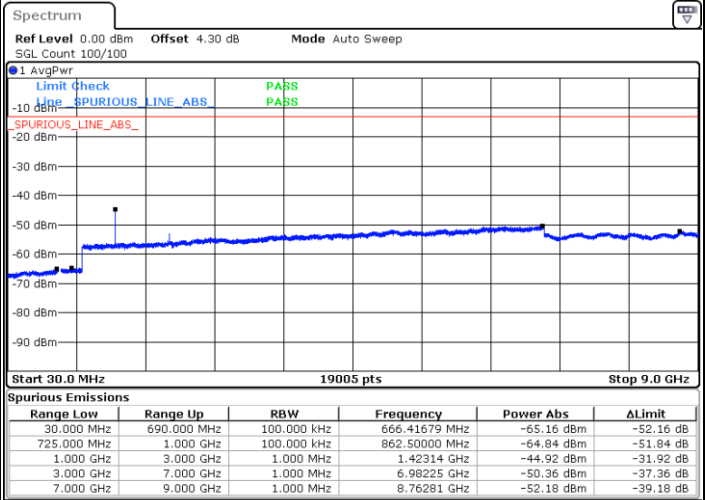
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 11.JUL.2020 03:26:34

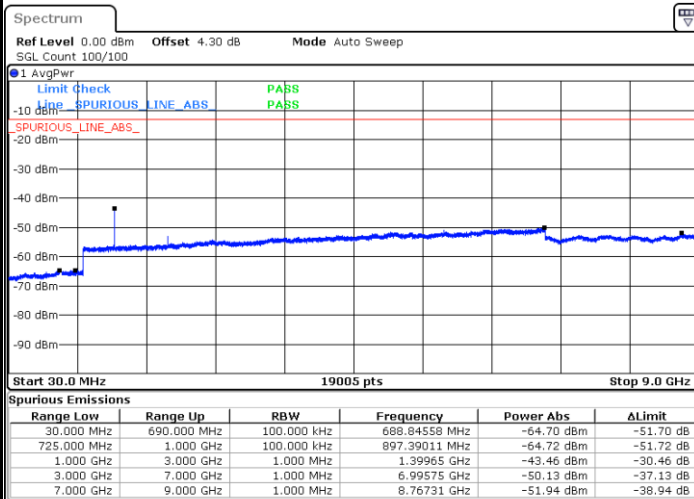
Highest Channel / 16QAM



Date: 11.JUL.2020 03:27:05

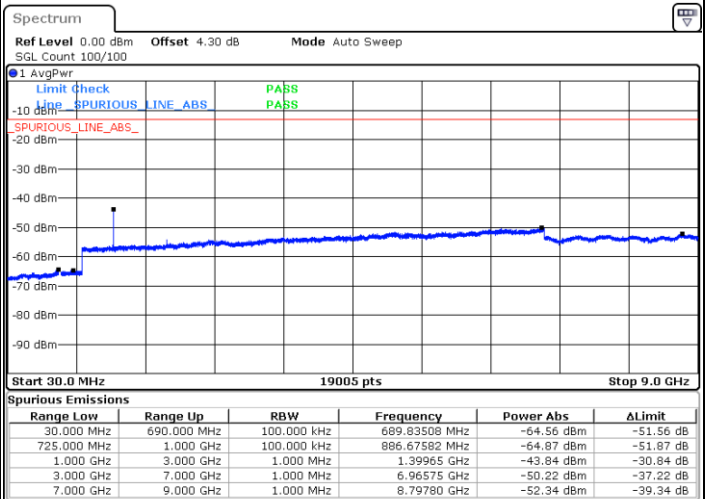
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 11.JUL.2020 03:41:58

Lowest Channel / 16QAM

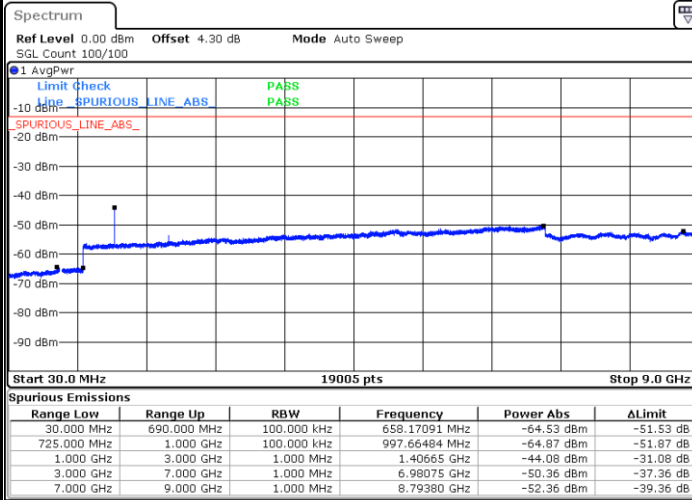


Date: 11.JUL.2020 03:38:36



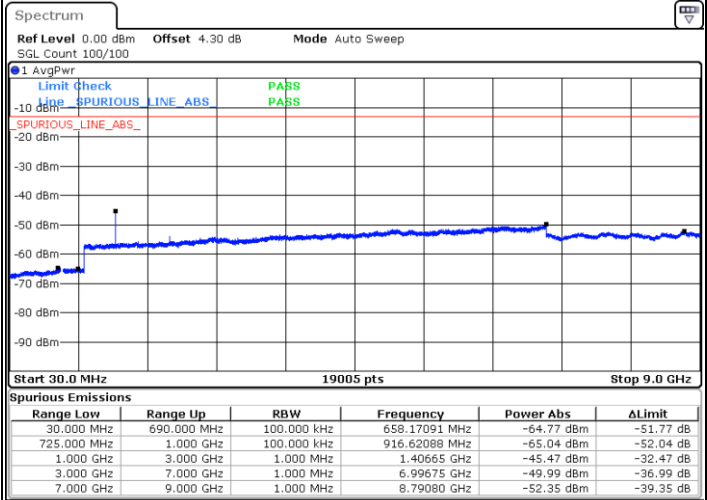
LTE Band 12 / 10MHz

Middle Channel / QPSK



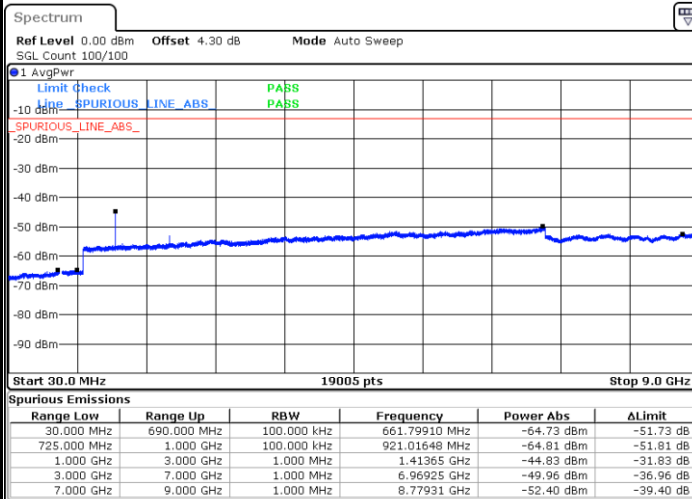
Date: 11.JUL.2020 03:43:15

Middle Channel / 16QAM



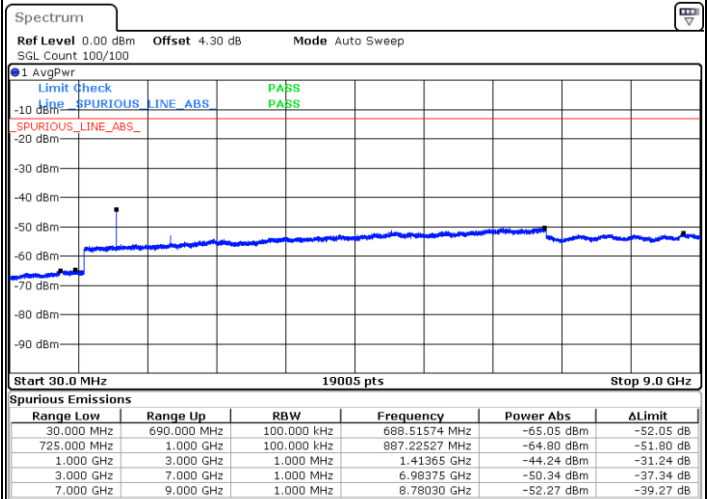
Date: 11.JUL.2020 03:43:54

Highest Channel / QPSK



Date: 11.JUL.2020 03:52:52

Highest Channel / 16QAM

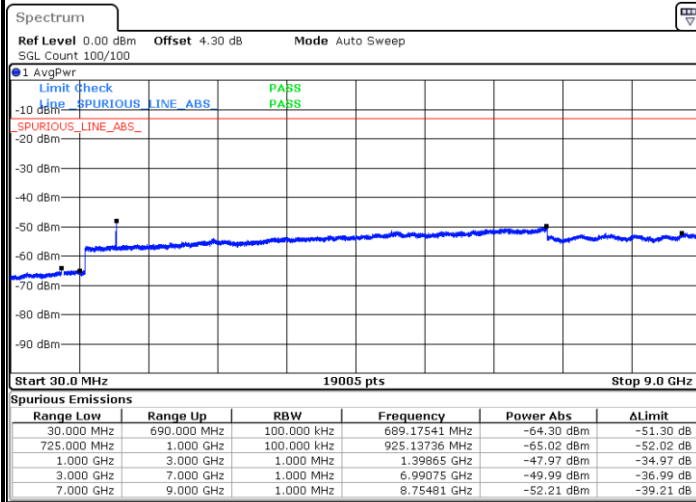


Date: 11.JUL.2020 03:52:20



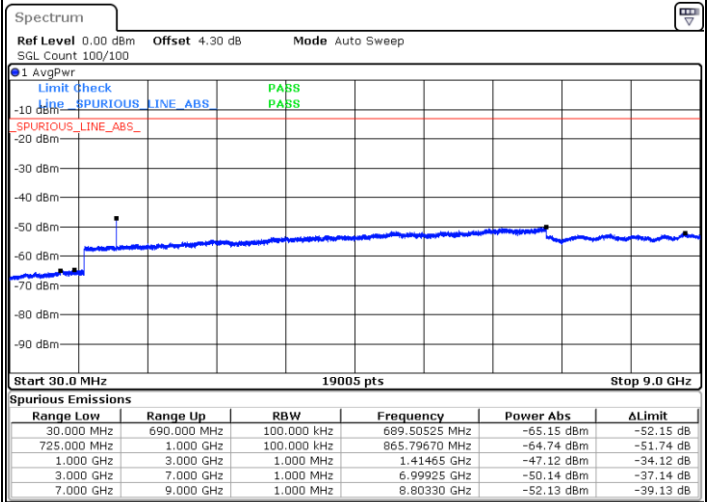
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



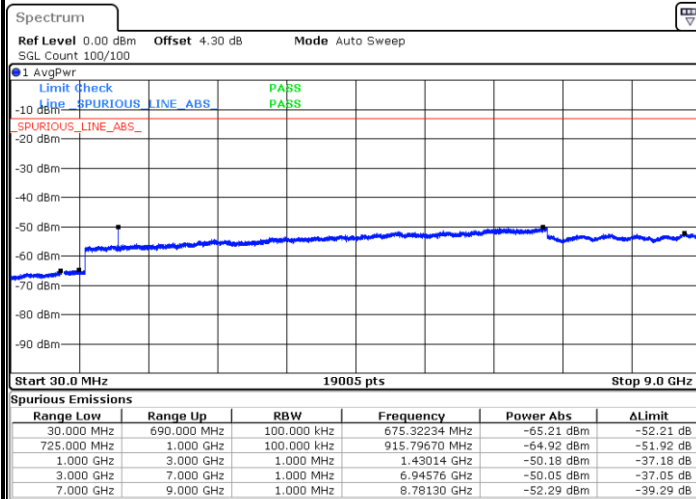
Date: 11.JUL.2020 02:12:44

Middle Channel / 64QAM



Date: 11.JUL.2020 02:17:50

Highest Channel / 64QAM

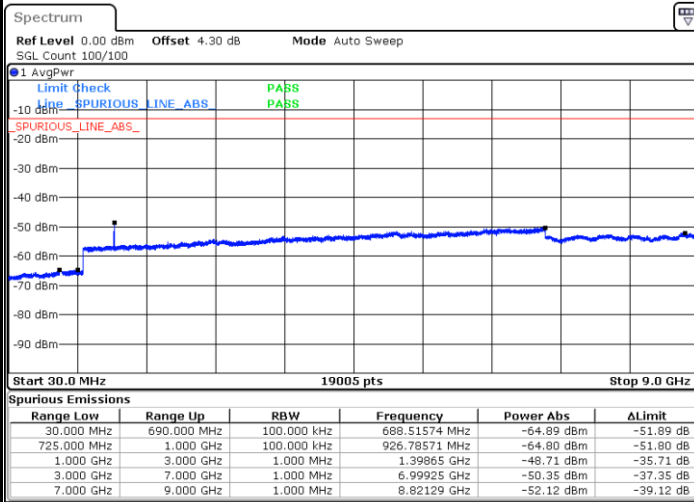


Date: 11.JUL.2020 02:27:28



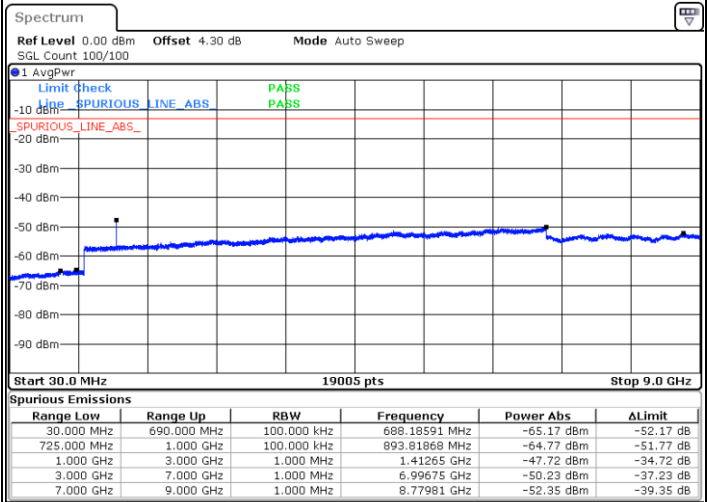
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



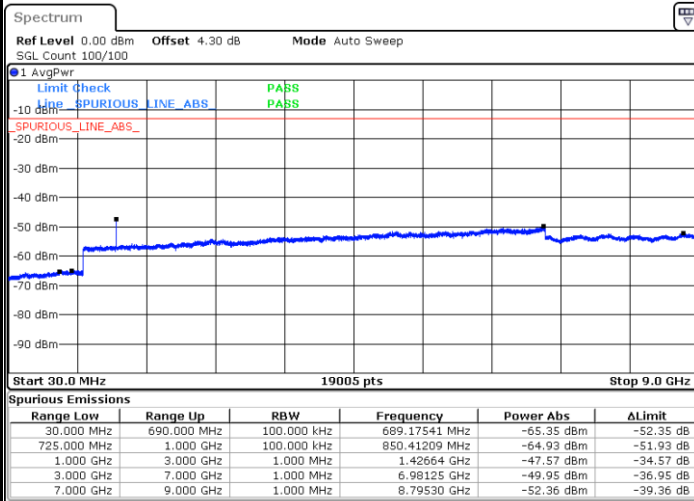
Date: 11.JUL.2020 02:55:24

Middle Channel / 64QAM



Date: 11.JUL.2020 03:00:18

Highest Channel / 64QAM

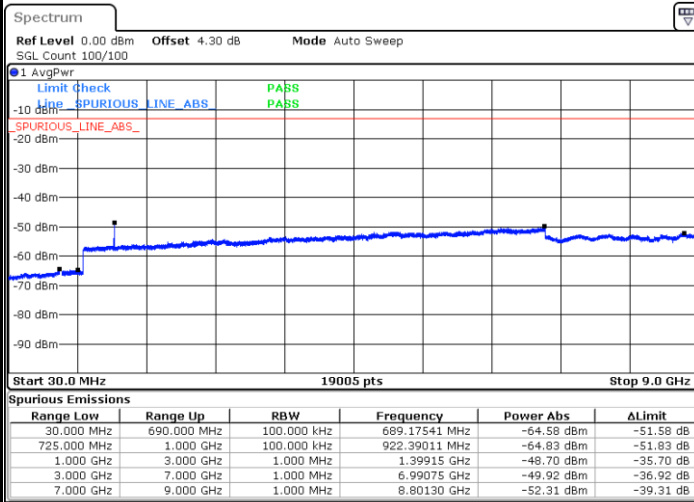


Date: 11.JUL.2020 03:06:00



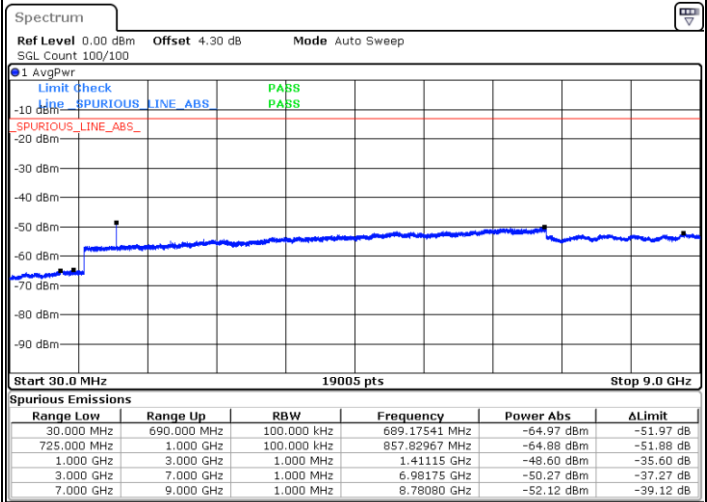
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



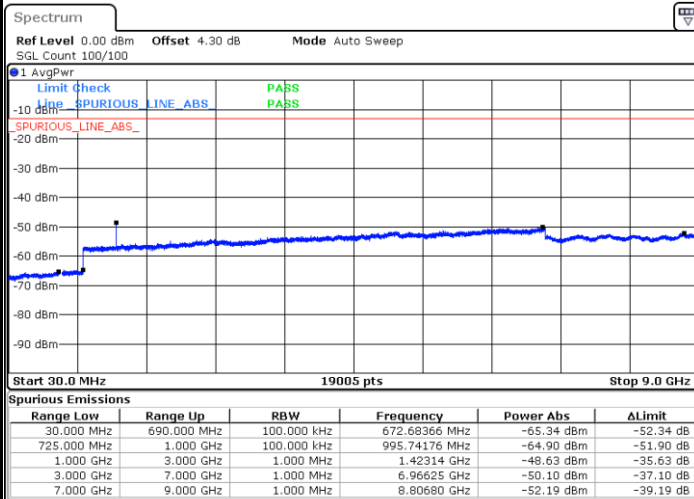
Date: 11.JUL.2020 03:17:41

Middle Channel / 64QAM



Date: 11.JUL.2020 03:22:28

Highest Channel / 64QAM

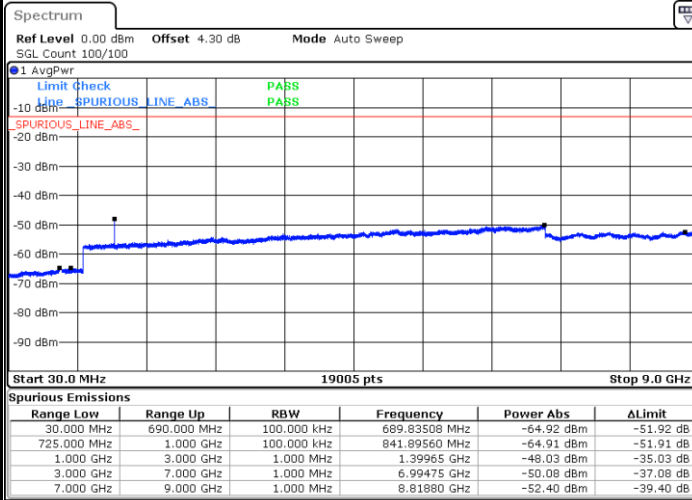


Date: 11.JUL.2020 03:28:06



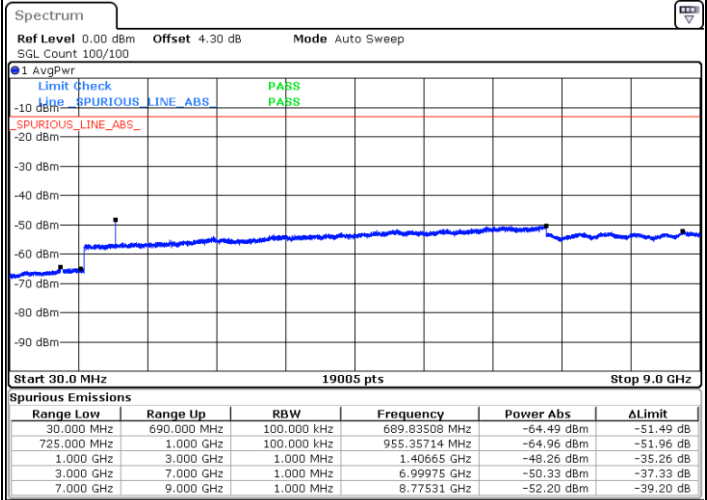
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



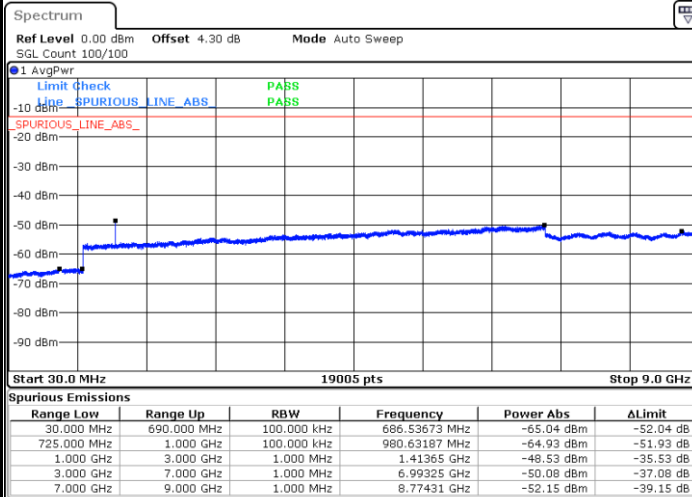
Date: 11.JUL.2020 03:36:20

Middle Channel / 64QAM



Date: 11.JUL.2020 03:44:27

Highest Channel / 64QAM



Date: 11.JUL.2020 03:51:38

**Frequency Stability**

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0014	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0033	
20	Battery End Point	0.0028	

Note:

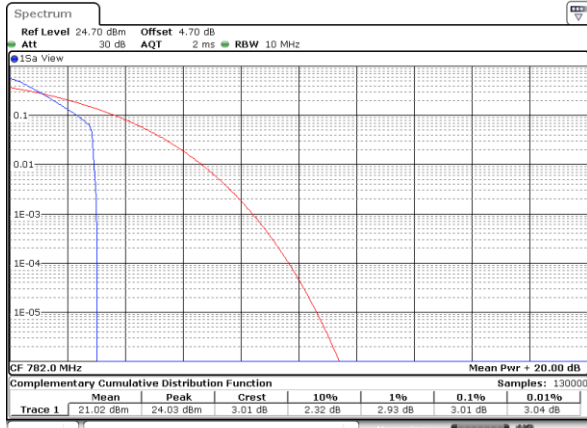
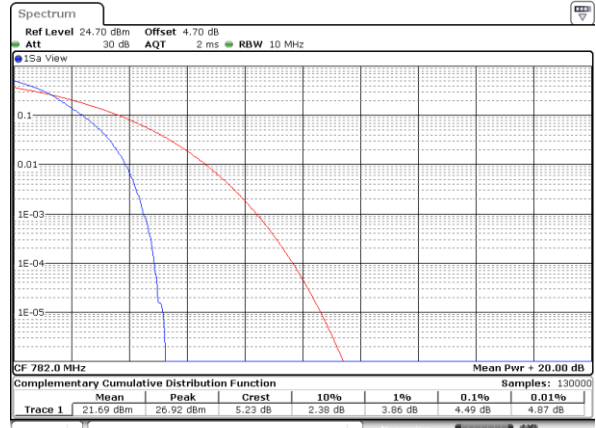
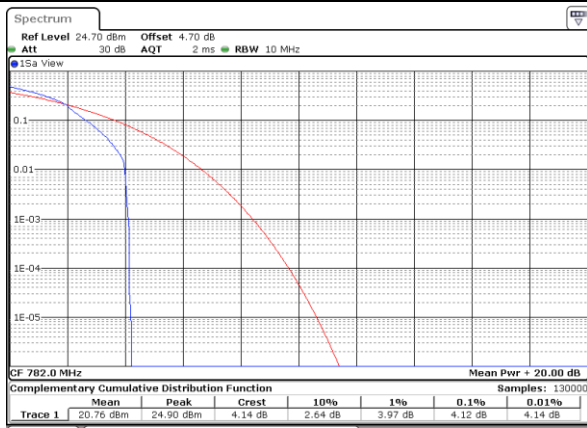
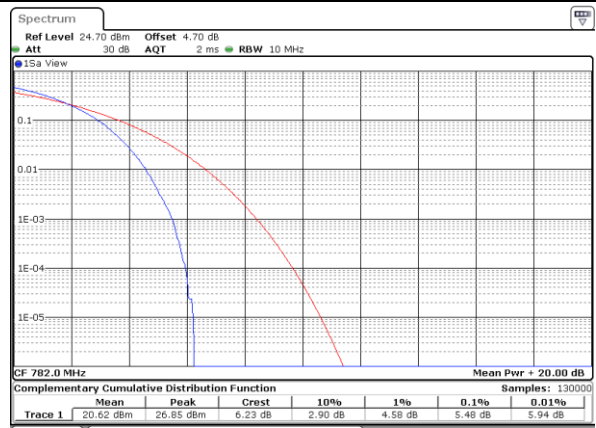
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.135 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.01	4.49	4.12	5.48	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.09	5.97	-	-	
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK
Middle Channel / 1RB

Middle Channel / Full RB

LTE Band 13 / 10MHz / 16QAM
Middle Channel / 1RB

Middle Channel / Full RB

LTE Band 13 / 10MHz / 64QAM
Middle Channel / 1RB

Middle Channel / Full RB


Date: 27-Jul-2020 03:24:53

Date: 27-Jul-2020 03:24:26

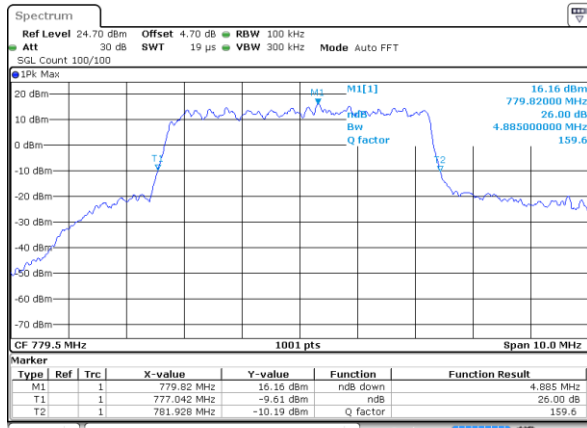
**26dB Bandwidth**

Mode	LTE Band 13 : 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	-	-	-	-	4.89	4.92	-	-	-	-	-	-
Middle CH	-	-	-	-	4.89	4.85	9.79	9.81	-	-	-	-
Highest CH	-	-	-	-	4.90	4.85	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.86	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.93	-	9.63	-	-	-	-	-
Highest CH	-	-	-	-	4.90	-	-	-	-	-	-	-

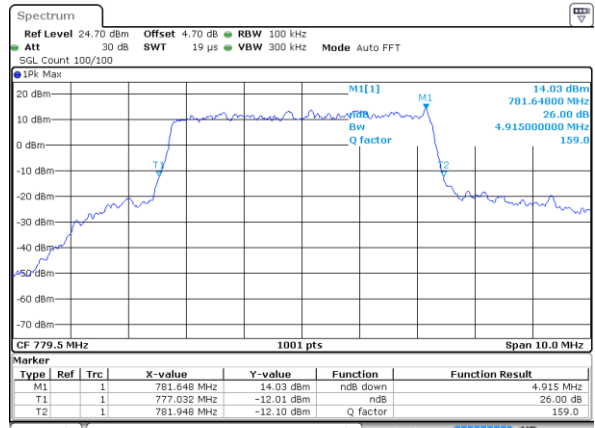


LTE Band 13

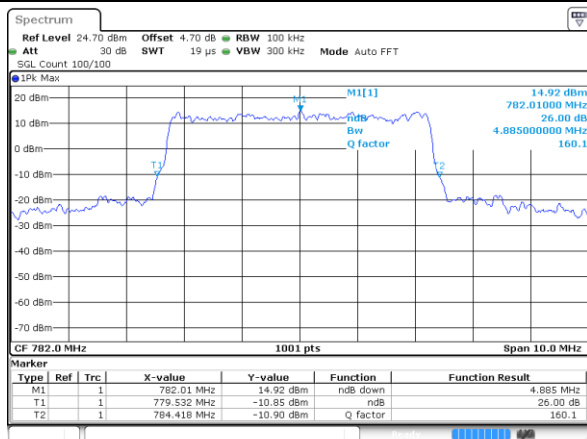
Lowest Channel / 5MHz / QPSK



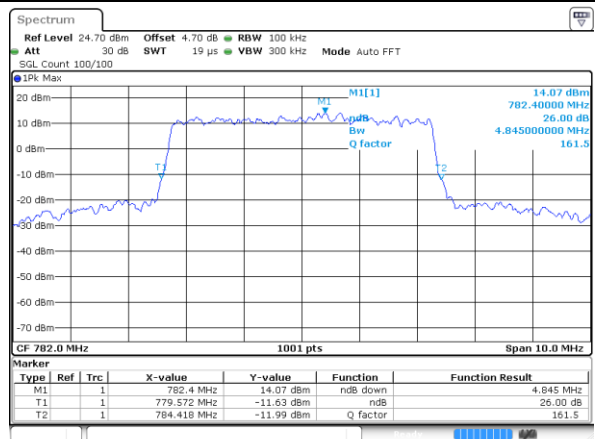
Lowest Channel / 5MHz / 16QAM



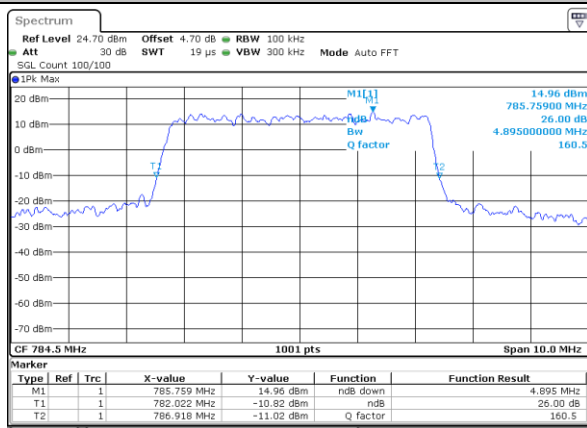
Middle Channel / 5MHz / QPSK



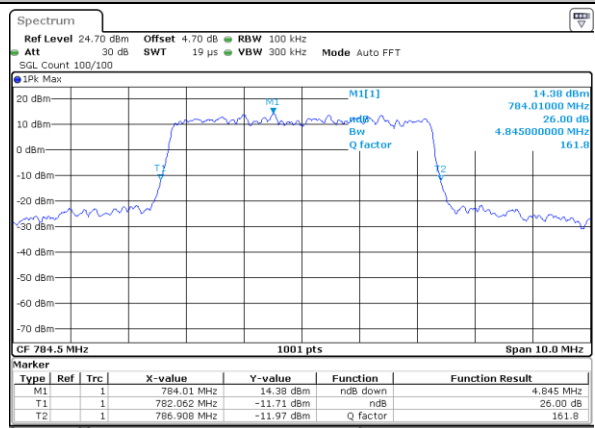
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



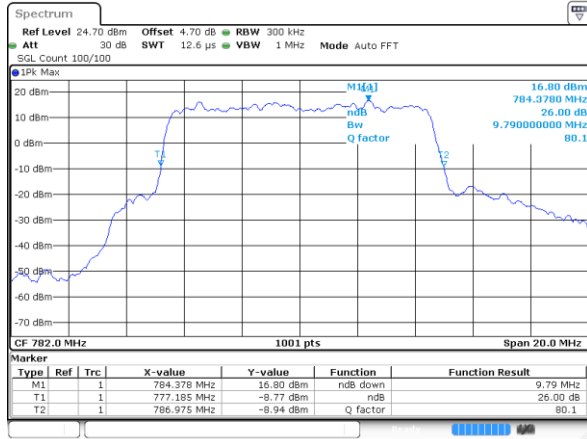
Highest Channel / 5MHz / 16QAM





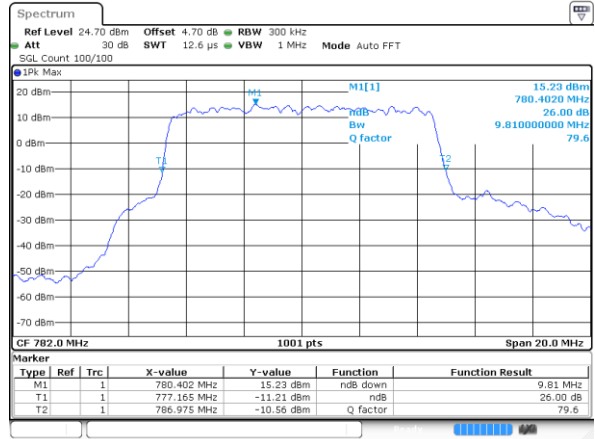
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 26 JUL 2020 04:59:43

Middle Channel / 10MHz / 16QAM

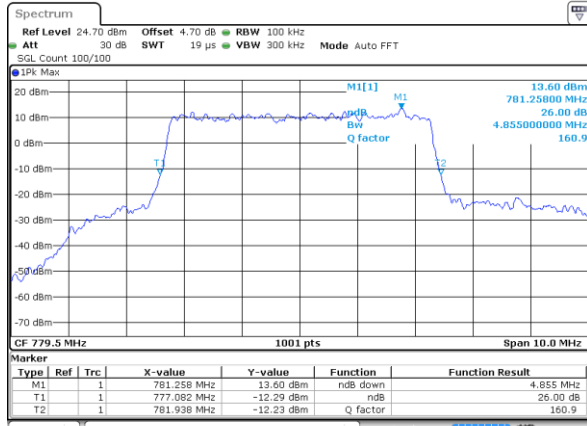


Date: 26 JUL 2020 04:59:22

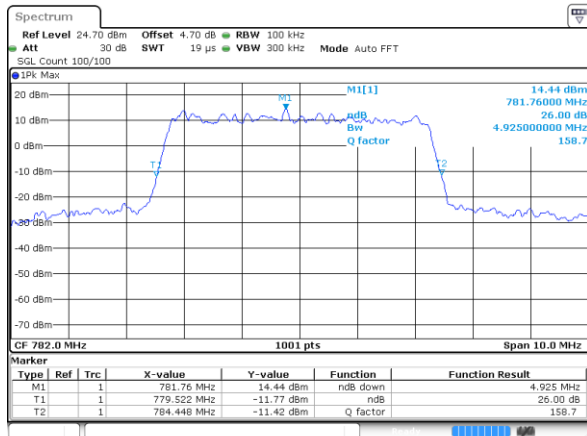


LTE Band 13

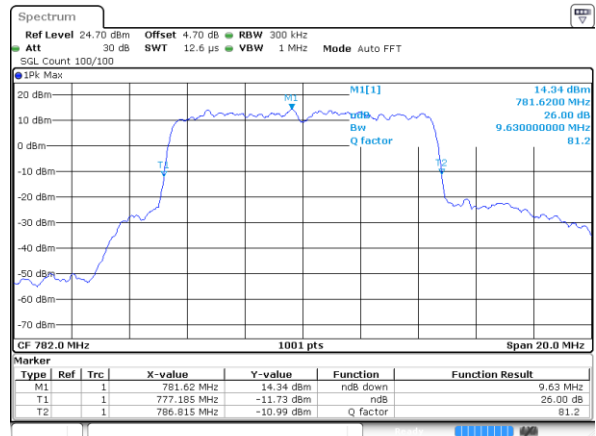
Lowest Channel / 5MHz / 64QAM



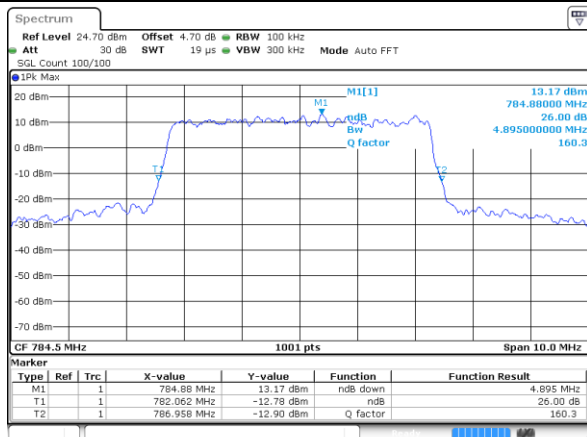
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



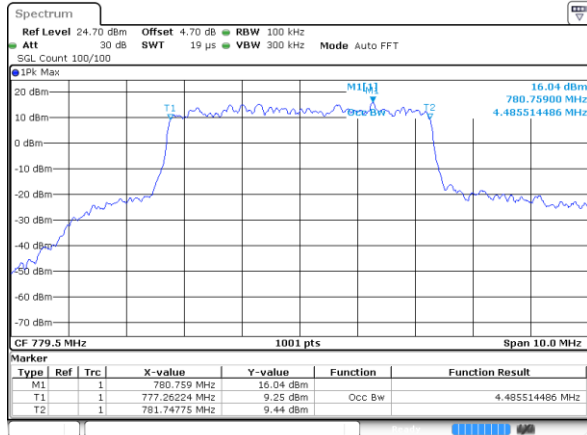
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.51	8.95	8.99	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
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	-	-	-	-	4.49	-	8.97	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-

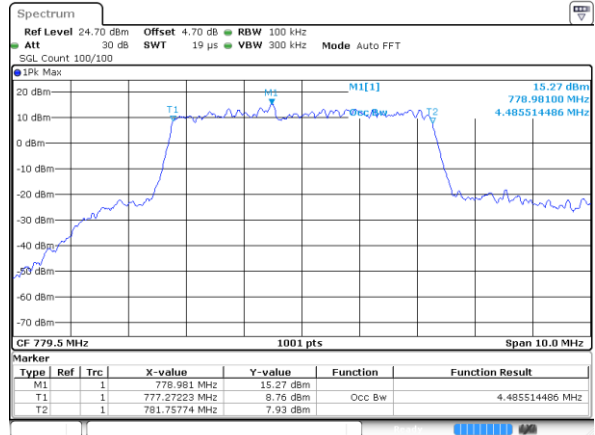


LTE Band 13

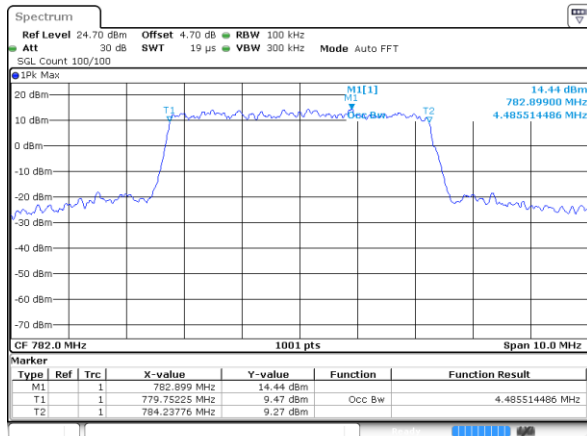
Lowest Channel / 5MHz / QPSK



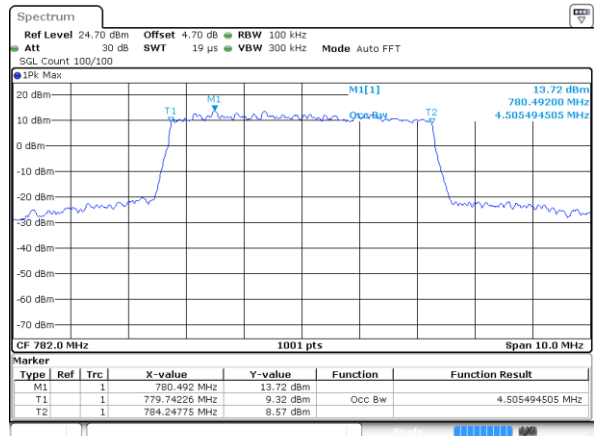
Lowest Channel / 5MHz / 16QAM



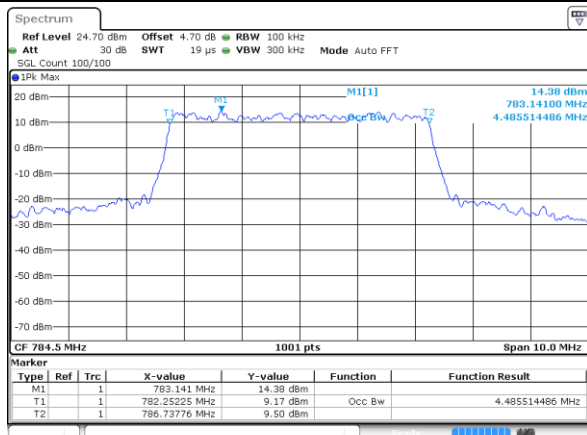
Middle Channel / 5MHz / QPSK



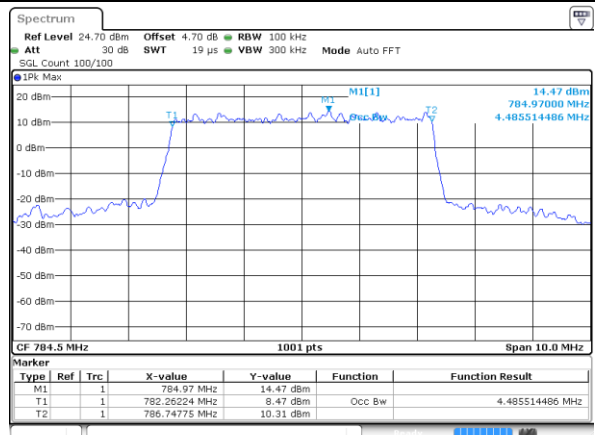
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



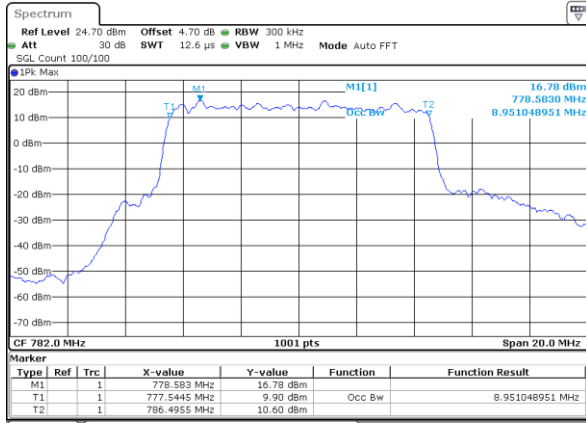
Highest Channel / 5MHz / 16QAM





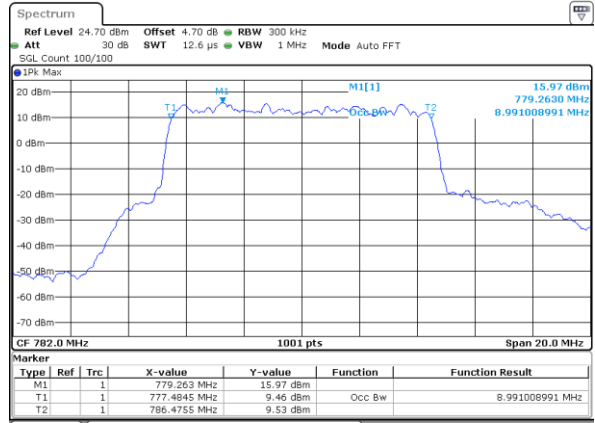
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 26 JUL 2020 04:59:35

Middle Channel / 10MHz / 16QAM

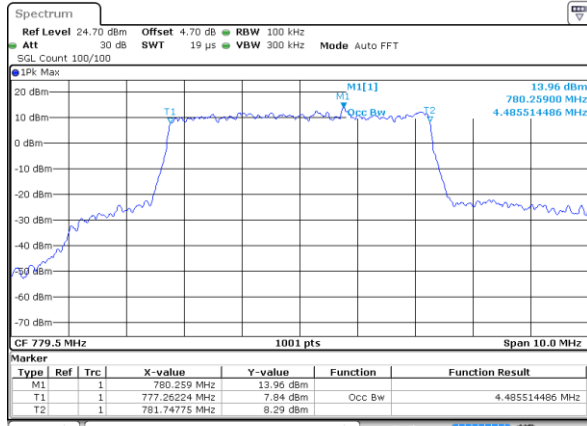


Date: 26 JUL 2020 04:59:14



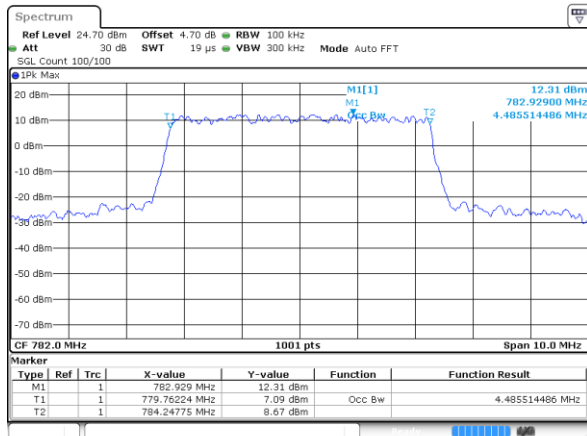
LTE Band 13

Lowest Channel / 5MHz / 64QAM



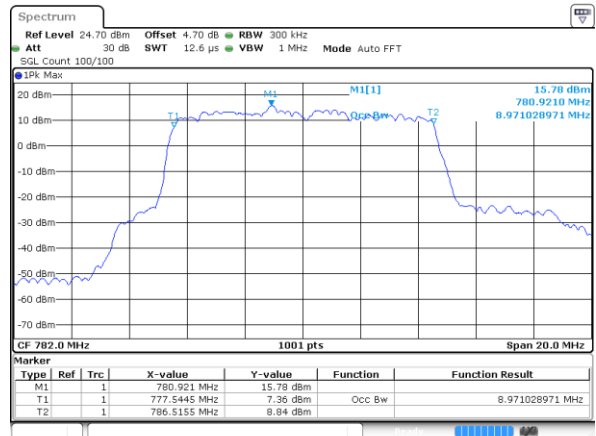
Date: 26 JUL 2020 04:24:17

Middle Channel / 5MHz / 64QAM



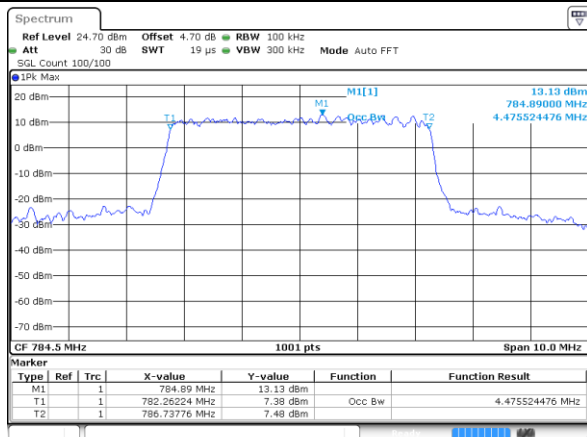
Date: 26 JUL 2020 04:37:57

Middle Channel / 10MHz / 64QAM



Date: 26 JUL 2020 04:58:47

Highest Channel / 5MHz / 64QAM



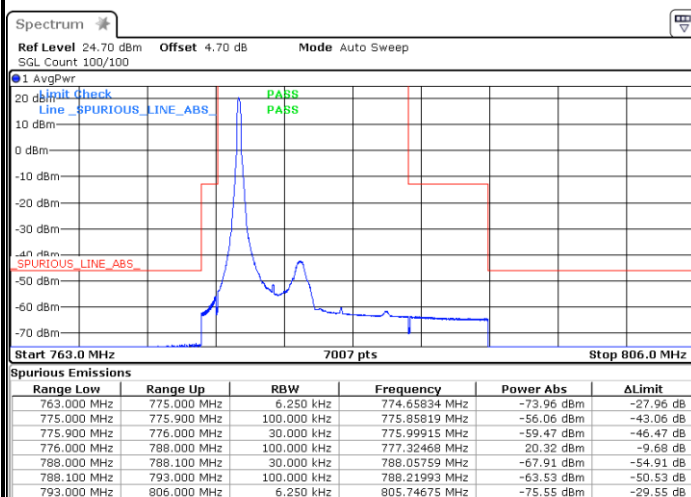
Date: 26 JUL 2020 04:44:48



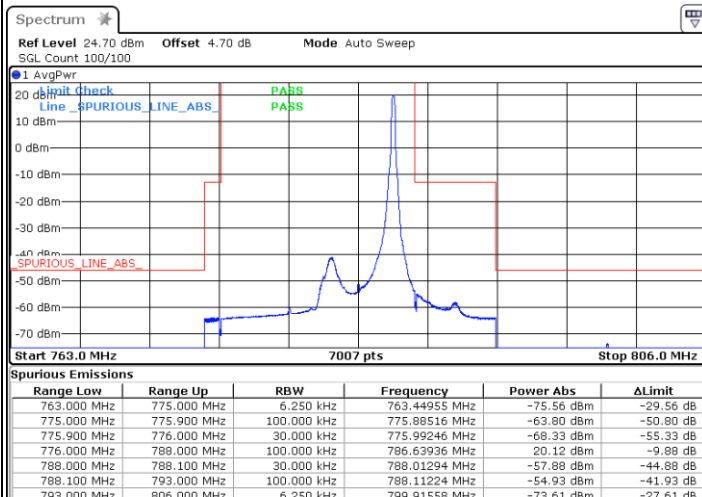
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

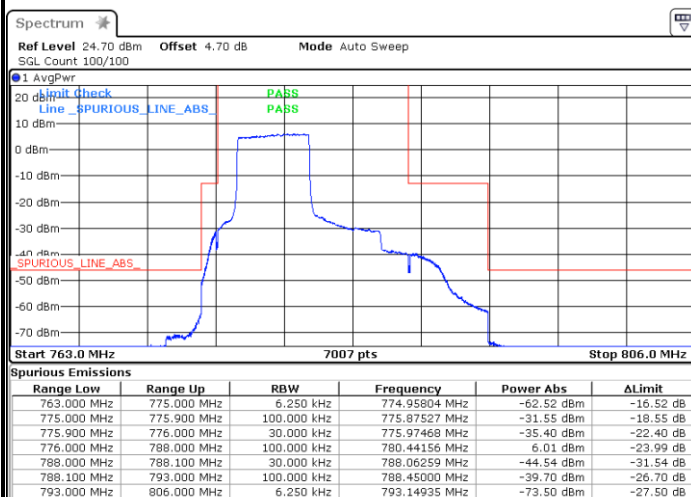
Lowest Band Edge / 1 RB



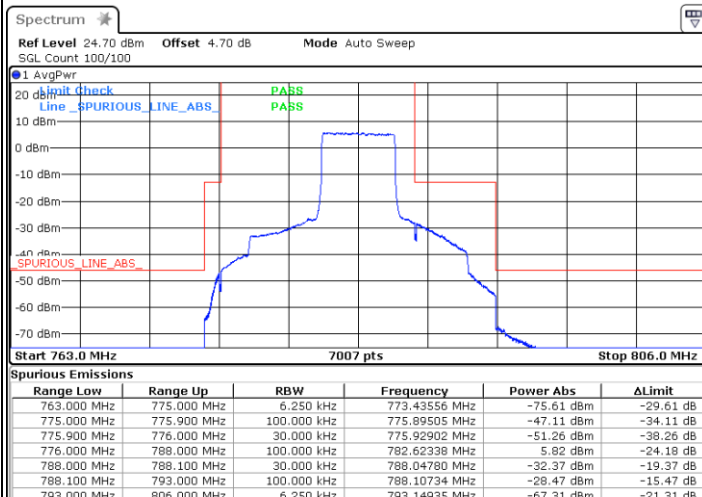
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



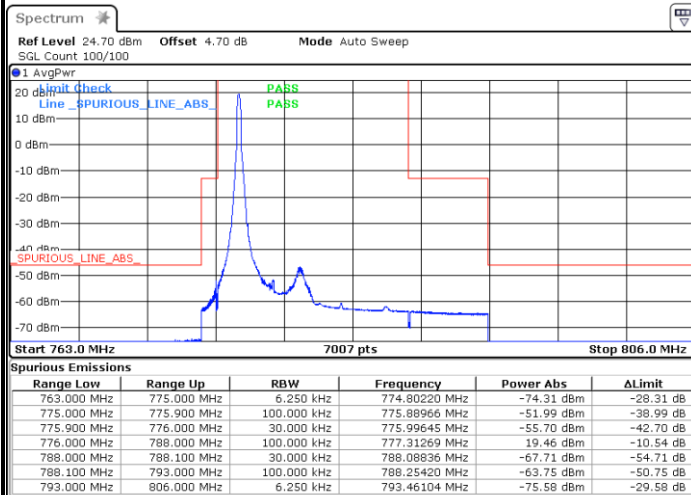
Highest Band Edge / Full RB



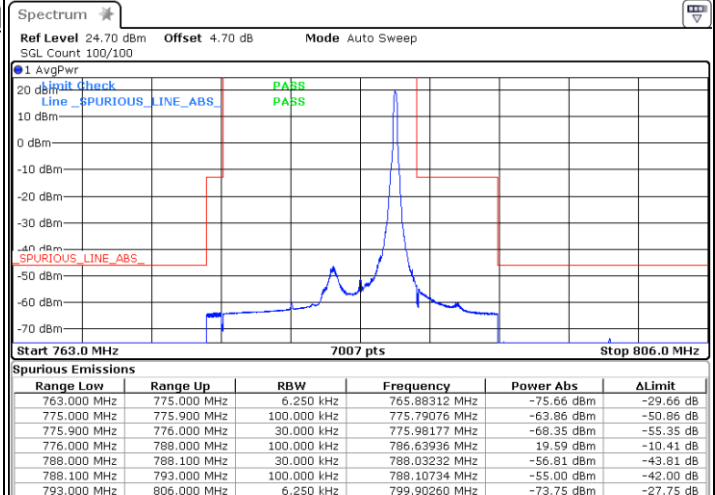


LTE Band 13 / 5MHz / 16QAM

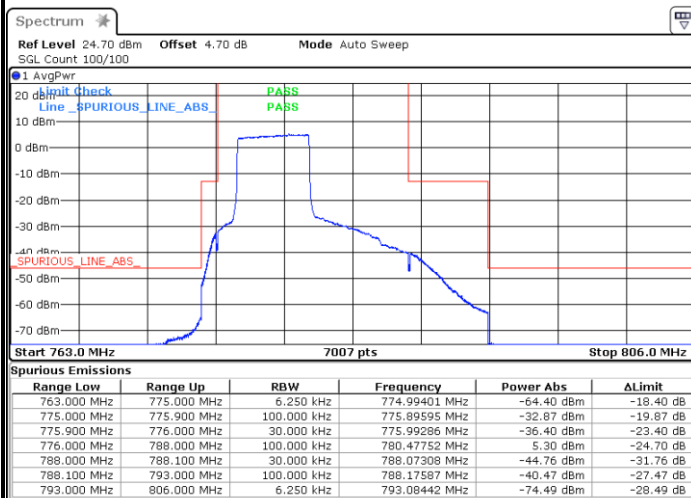
Lowest Band Edge / 1 RB



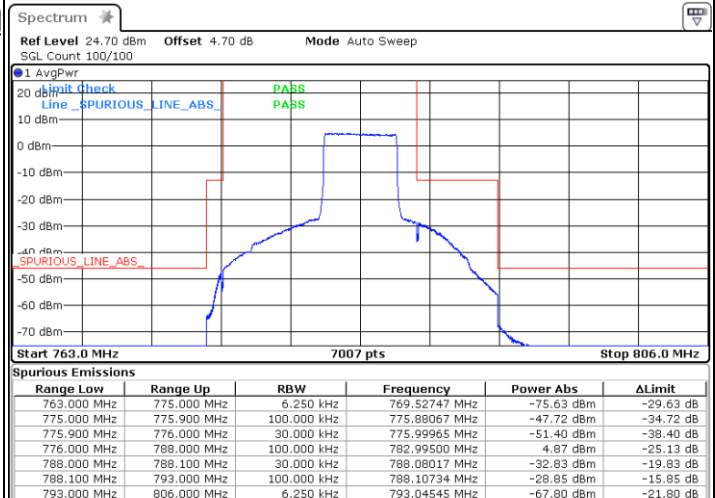
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



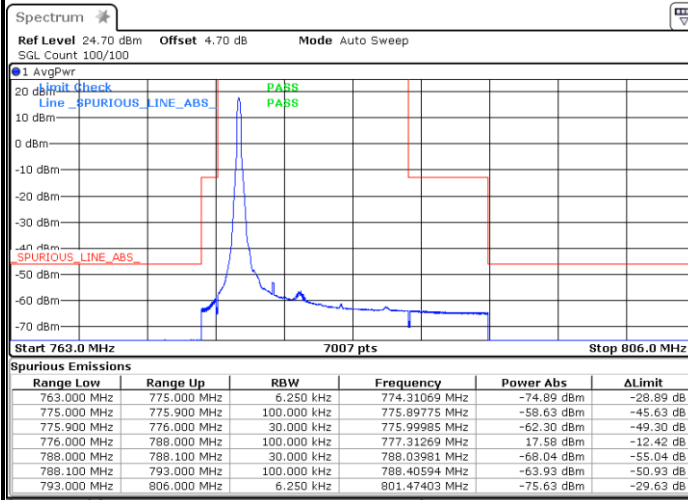
Highest Band Edge / Full RB



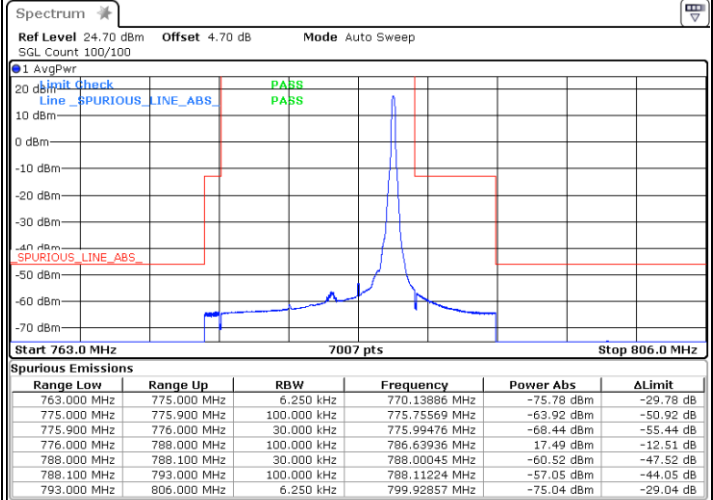


LTE Band 13 / 5MHz / 64QAM

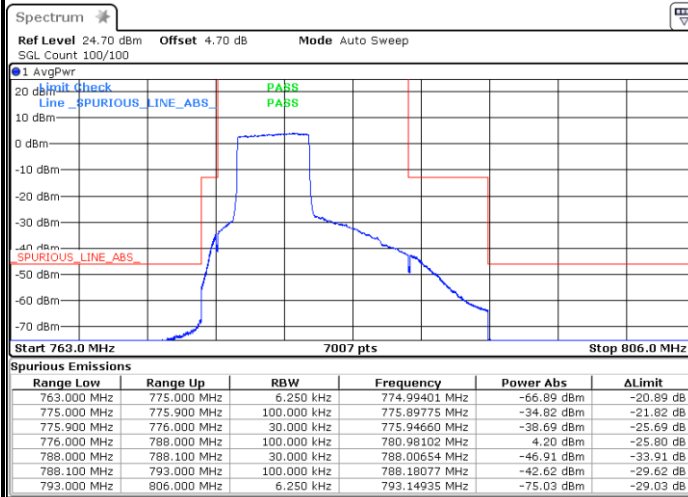
Lowest Band Edge / 1 RB



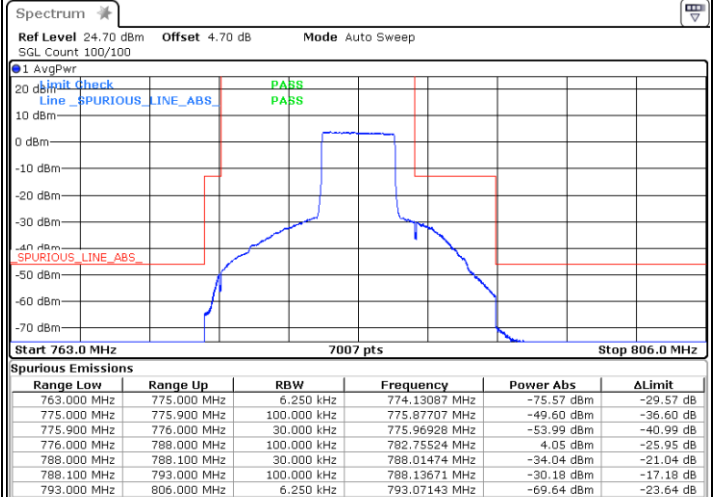
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



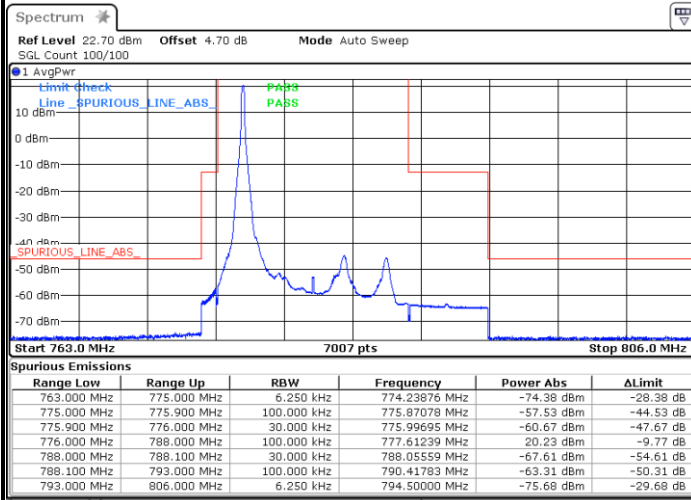
Highest Band Edge / Full RB





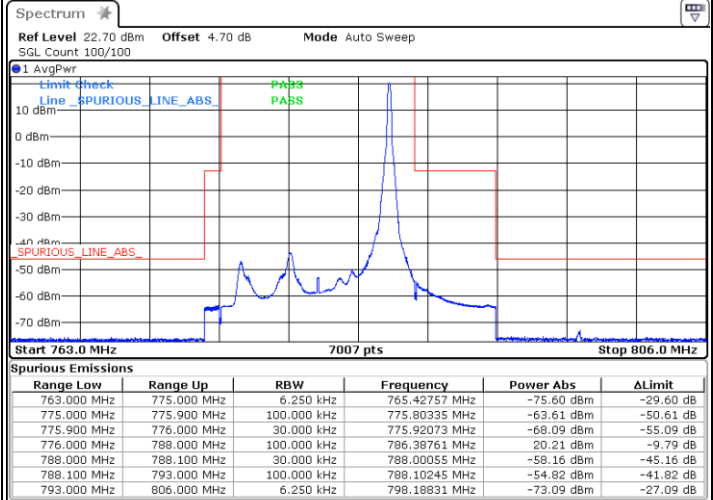
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



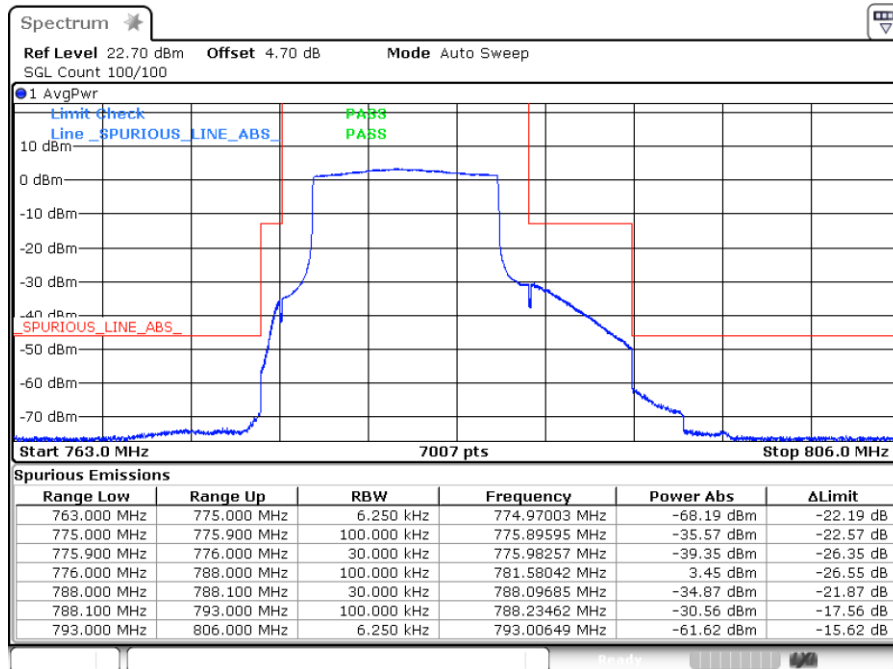
Date: 14.SEP.2020 14:00:14

Highest Band Edge / 1 RB



Date: 14.SEP.2020 14:01:42

Band Edge / Full RB

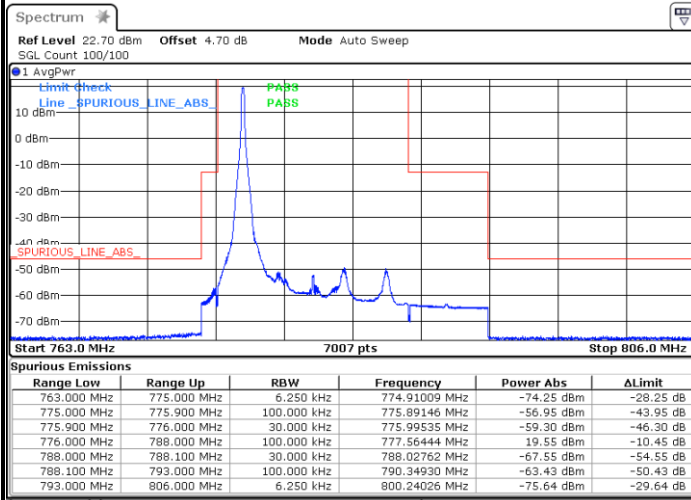


Date: 14.SEP.2020 13:52:20



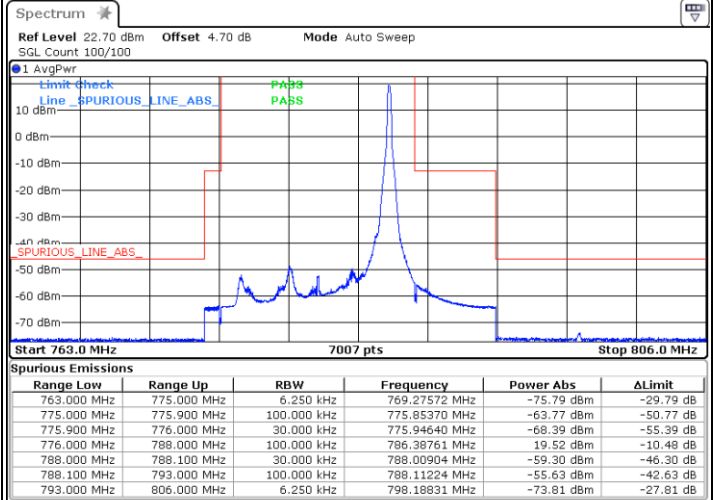
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



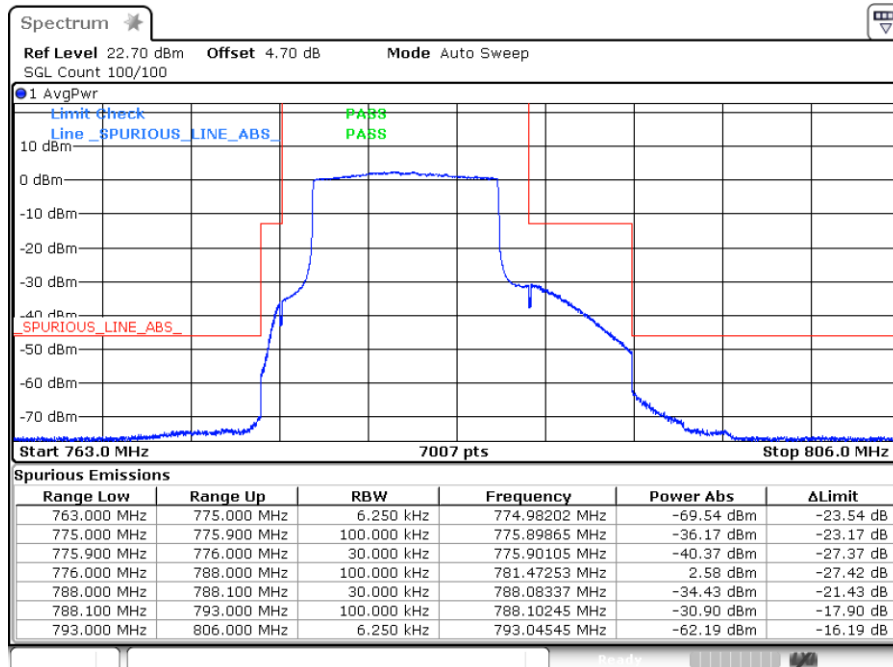
Date: 14.SEP.2020 13:58:41

Highest Band Edge / 1 RB



Date: 14.SEP.2020 14:03:09

Band Edge / Full RB

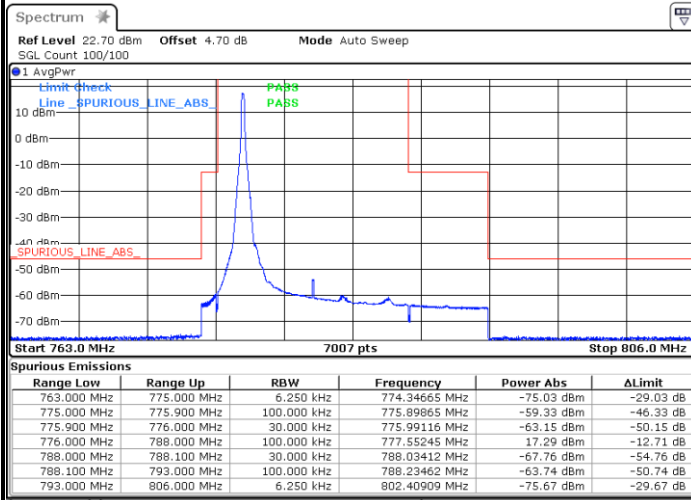


Date: 14.SEP.2020 13:53:58



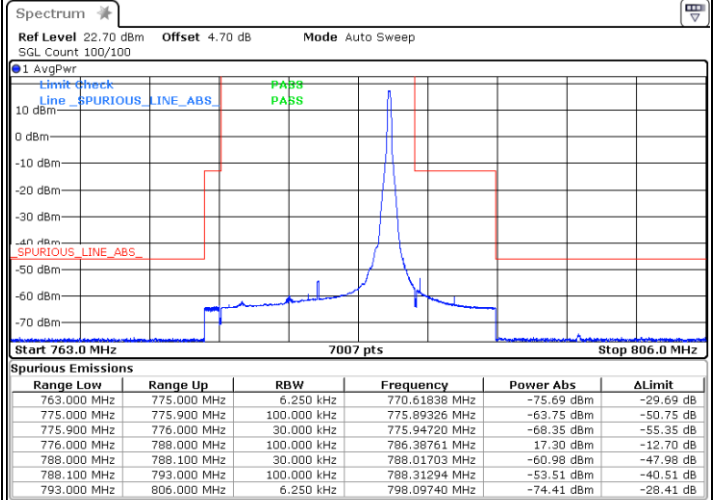
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



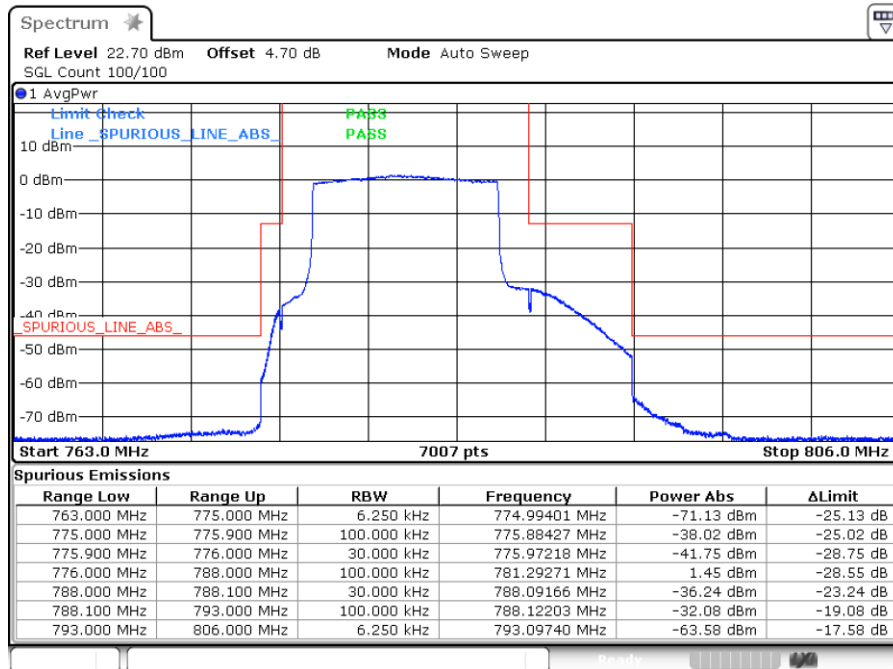
Date: 14.SEP.2020 13:57:11

Highest Band Edge / 1 RB



Date: 14.SEP.2020 14:04:54

Band Edge / Full RB



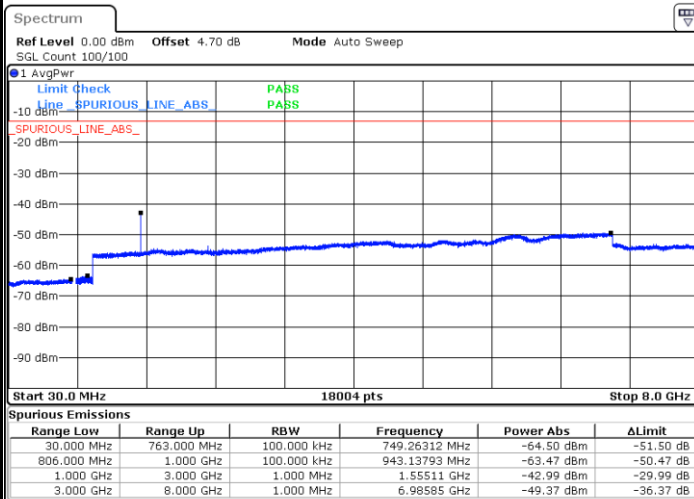
Date: 14.SEP.2020 13:55:24



Conducted Spurious Emission

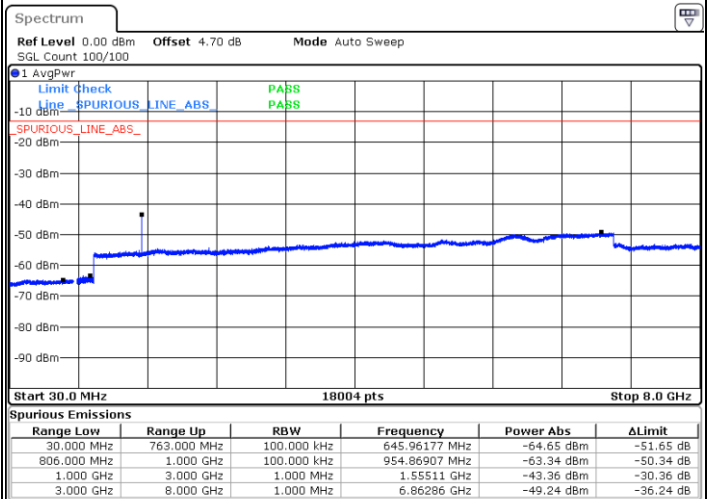
LTE Band 13 / 5MHz

Lowest Channel / QPSK



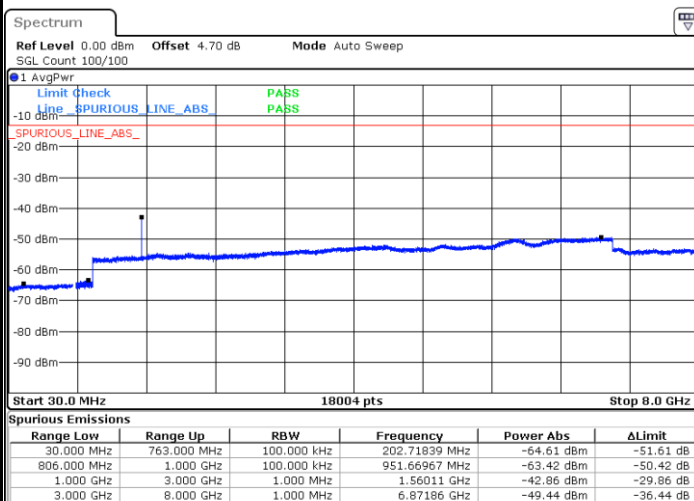
Date: 26 JUL 2020 04:33:26

Lowest Channel / 16QAM



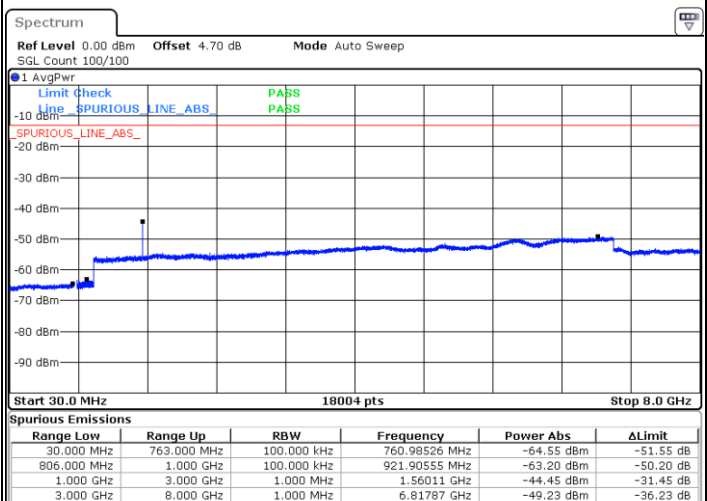
Date: 26 JUL 2020 04:31:00

Middle Channel / QPSK



Date: 26 JUL 2020 04:34:52

Middle Channel / 16QAM



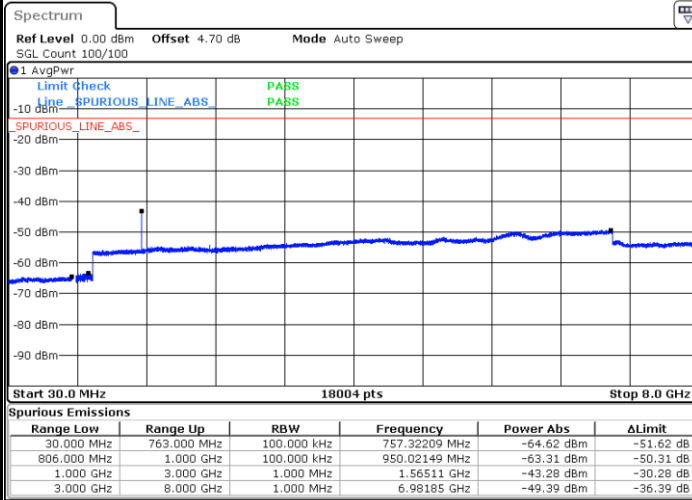
Date: 26 JUL 2020 04:36:04





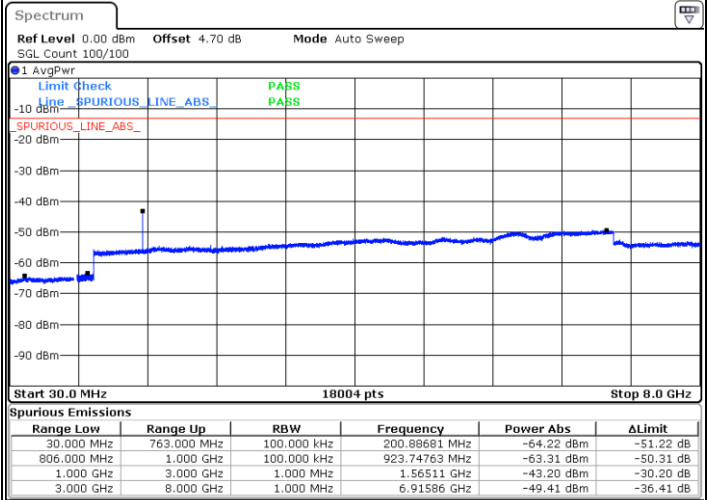
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 26 JUL 2020 04:49:35

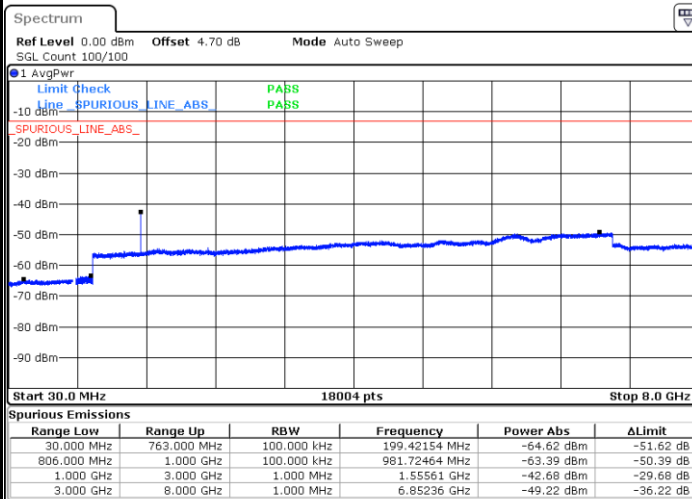
Highest Channel / 16QAM



Date: 26 JUL 2020 04:48:03

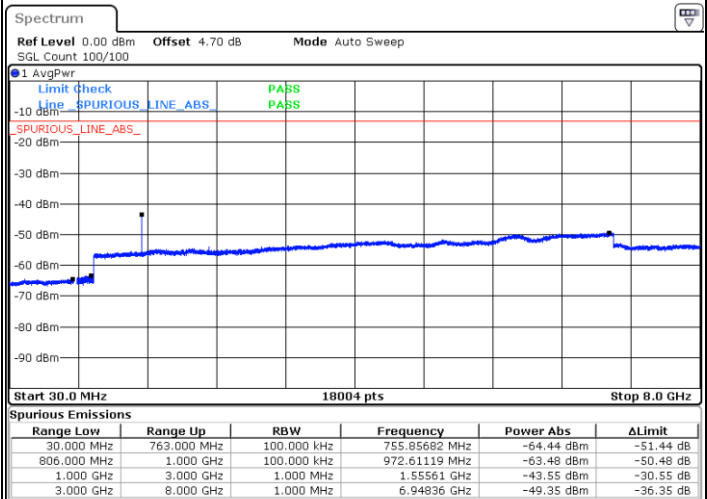
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 26 JUL 2020 05:00:46

Middle Channel / 16QAM

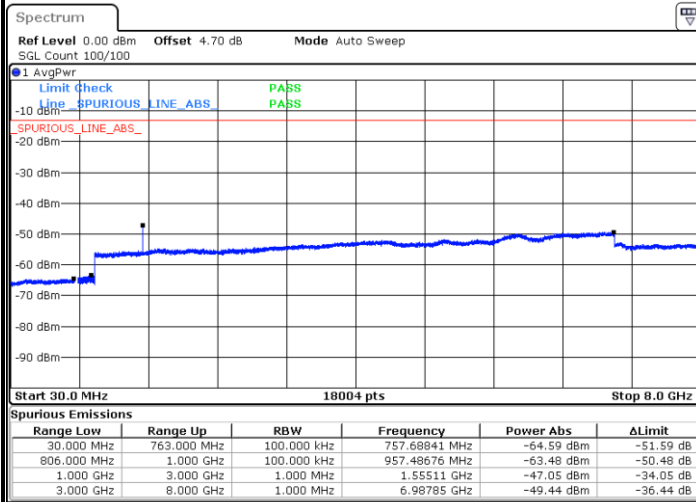


Date: 26 JUL 2020 05:02:10



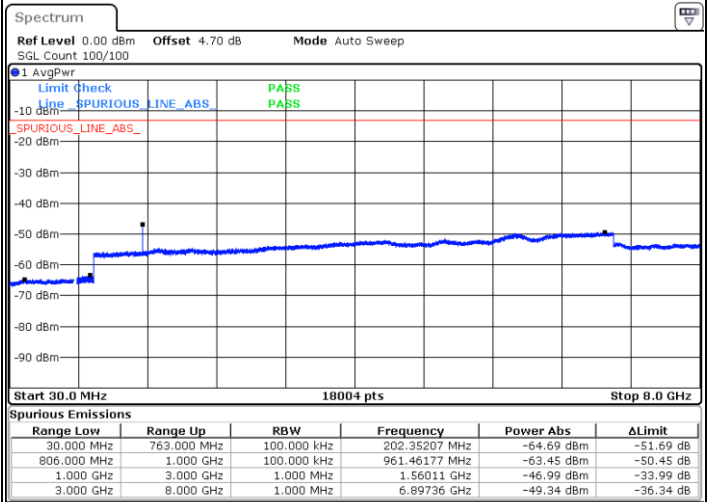
LTE Band 13 / 5MHz

Lowest Channel / 64QAM



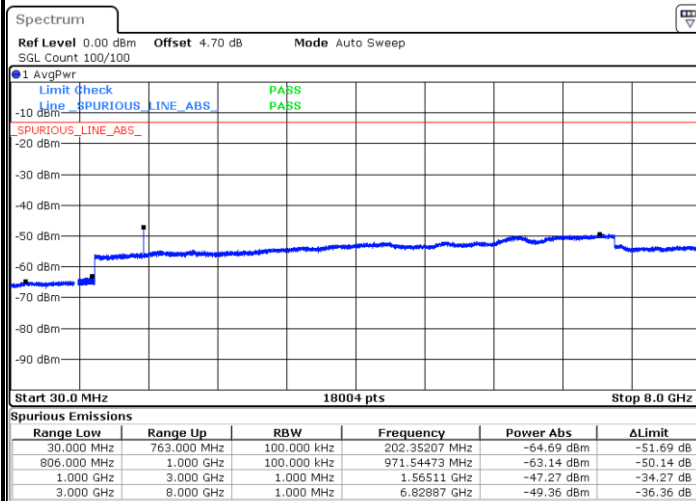
Date: 26 JUL 2020 04:28:45

Middle Channel / 64QAM

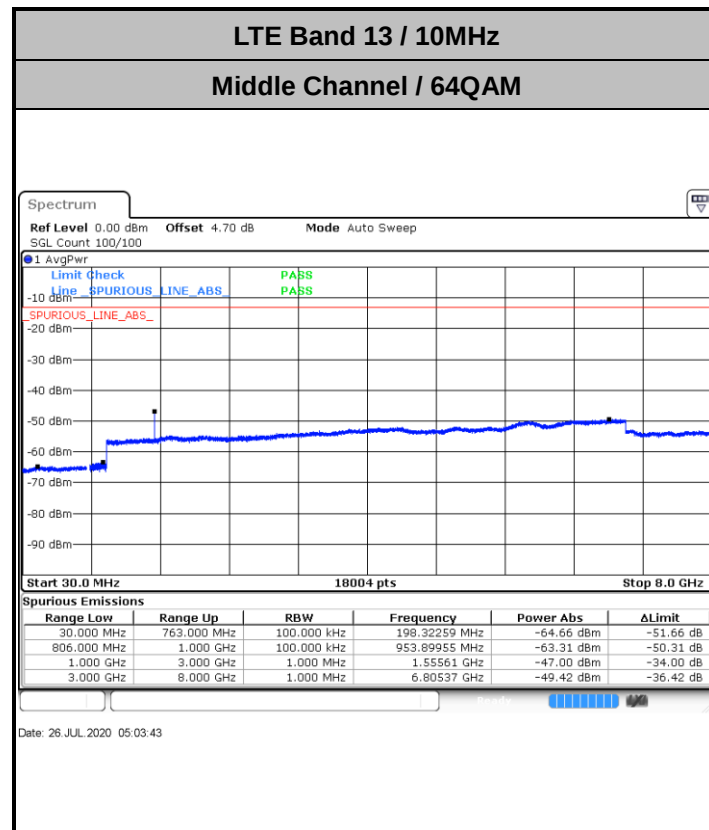


Date: 26 JUL 2020 04:37:15

Highest Channel / 64QAM



Date: 26 JUL 2020 04:47:02



**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	0.0014	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0047	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0058	
-30	Normal Voltage	0.0066	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0046	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.135 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41

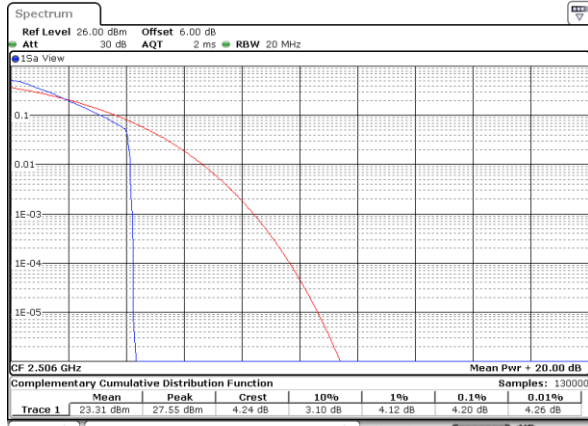
Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.20	6.93	6.49	6.43	PASS
Middle CH	5.30	4.84	6.17	8.26	
Highest CH	3.74	5.07	6.87	8.26	
Mode	LTE Band 41 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.71	7.59	-	-	PASS
Middle CH	6.23	7.39	-	-	
Highest CH	8.03	6.06	-	-	

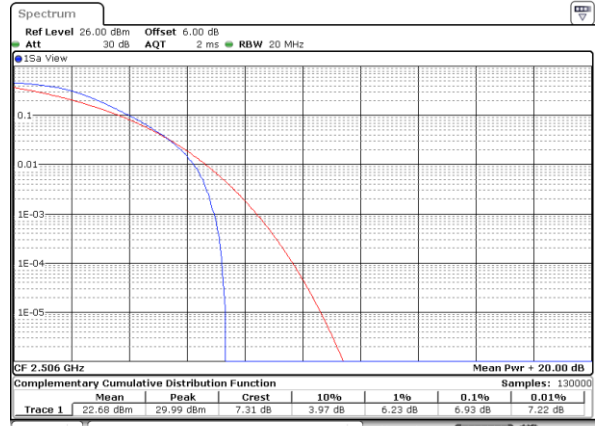


LTE Band 41 / 20MHz / QPSK

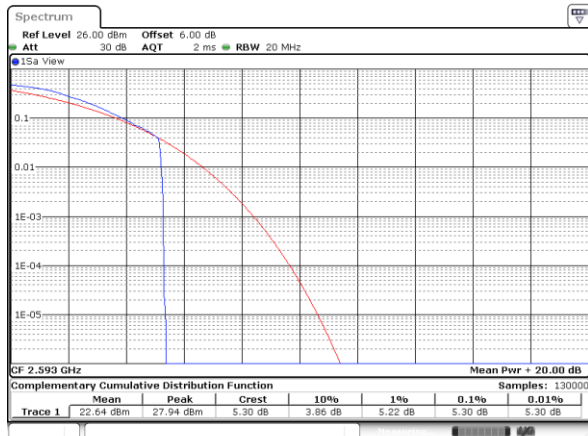
Lowest Channel / 1RB



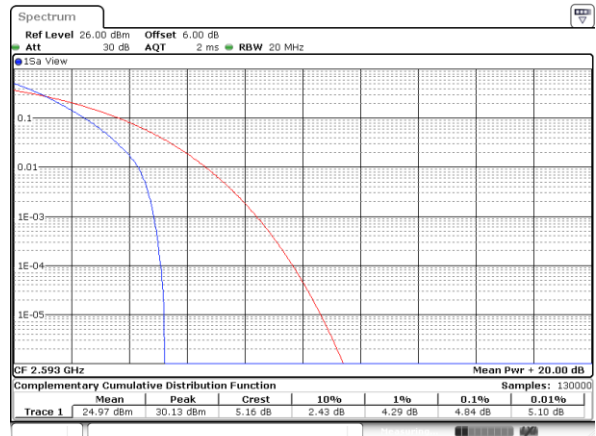
Lowest Channel / Full RB



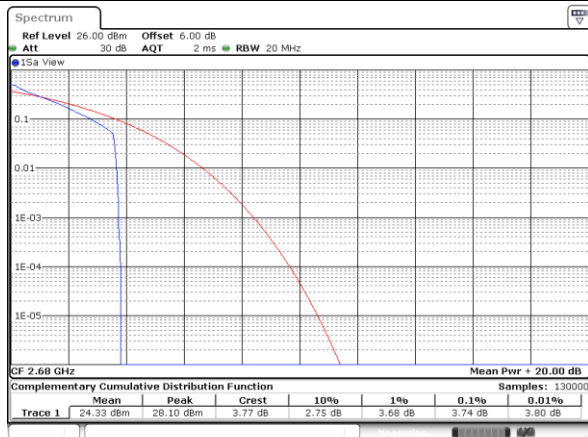
Middle Channel / 1RB



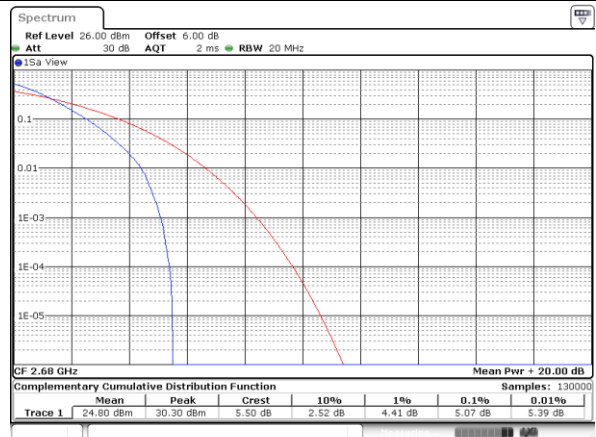
Middle Channel / Full RB



Highest Channel / 1RB



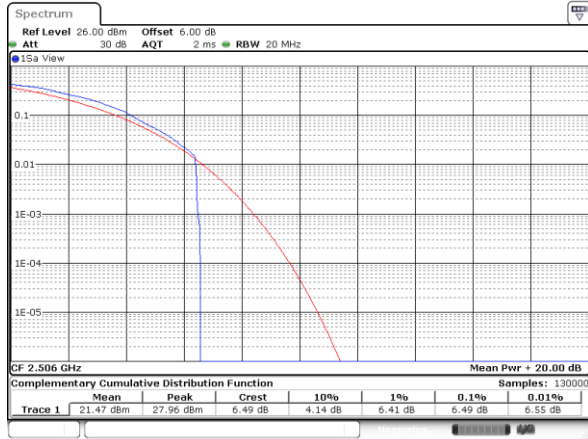
Highest Channel / Full RB





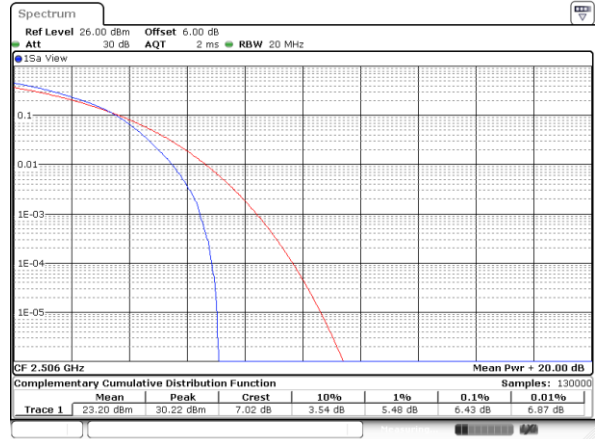
LTE Band 41 / 20MHz / 16QAM

Lowest Channel / 1RB



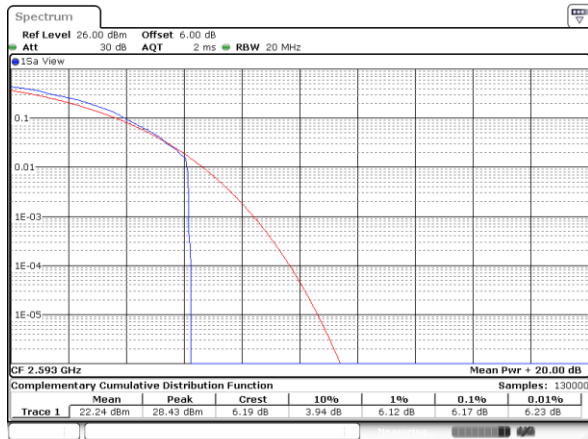
Date: 6 AUG 2020 02:44:19

Lowest Channel / Full RB



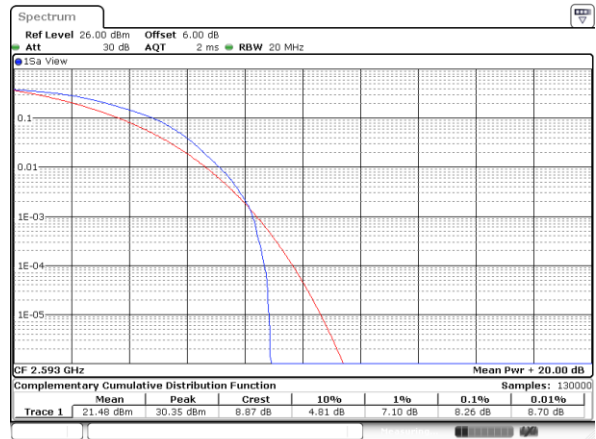
Date: 6 AUG 2020 02:44:29

Middle Channel / 1RB



Date: 6 AUG 2020 02:44:45

Middle Channel / Full RB



Date: 6 AUG 2020 02:45:07

Highest Channel / 1RB



Date: 6 AUG 2020 02:45:17

Highest Channel / Full RB

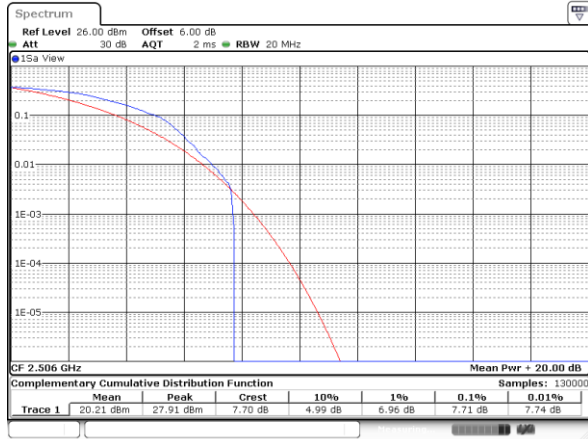


Date: 6 AUG 2020 02:45:27



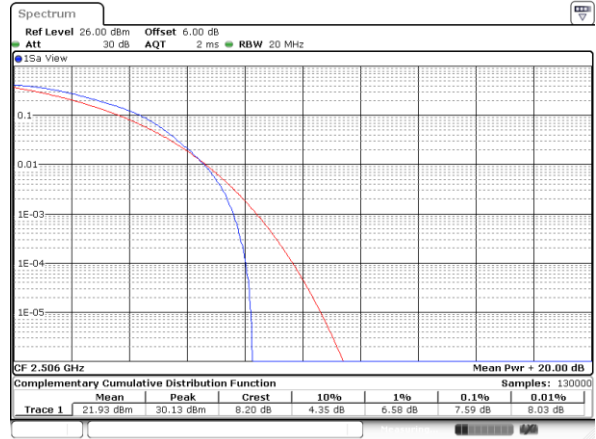
LTE Band 41 / 20MHz / 64QAM

Lowest Channel / 1RB



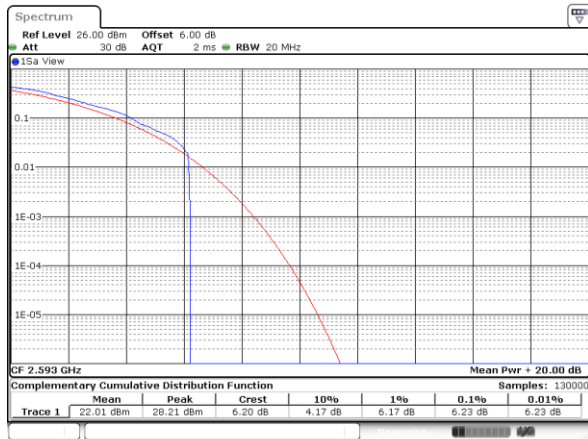
Date: 6 AUG 2020 02:46:59

Lowest Channel / Full RB



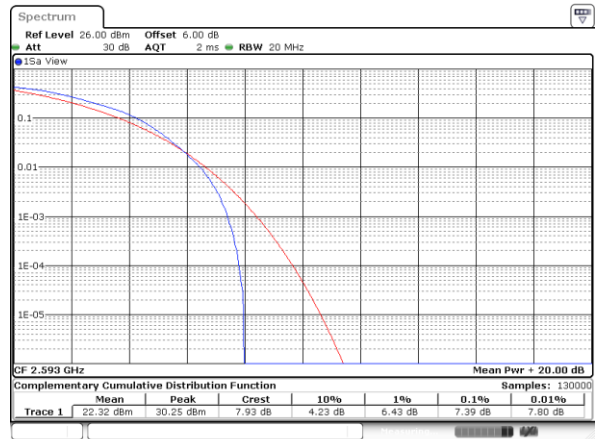
Date: 6 AUG 2020 02:46:49

Middle Channel / 1RB



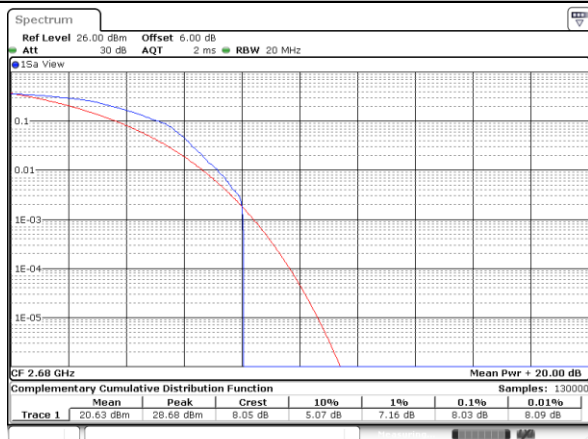
Date: 6 AUG 2020 02:47:08

Middle Channel / Full RB



Date: 6 AUG 2020 02:47:33

Highest Channel / 1RB



Date: 6 AUG 2020 02:47:52

Highest Channel / Full RB



Date: 6 AUG 2020 02:47:42

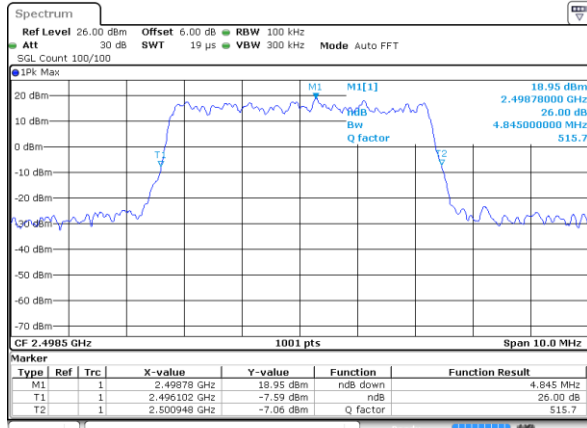
**26dB Bandwidth**

Mode	LTE Band 41 : 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	-	-	-	-	4.85	4.88	9.73	9.73	14.42	14.12	20.10	20.14
Middle CH	-	-	-	-	4.92	4.78	9.65	9.69	14.30	14.15	20.22	20.06
Highest CH	-	-	-	-	4.74	4.86	9.63	9.73	14.30	14.15	20.10	20.06
Mode	LTE Band 41 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.81	-	9.65	-	14.12	-	20.02	-
Middle CH	-	-	-	-	4.73	-	9.71	-	14.33	-	20.10	-
Highest CH	-	-	-	-	4.86	-	9.87	-	14.54	-	20.14	-



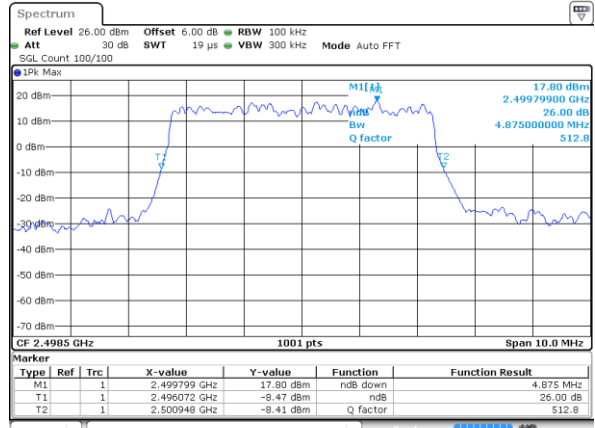
LTE Band 41

Lowest Channel / 5MHz / QPSK



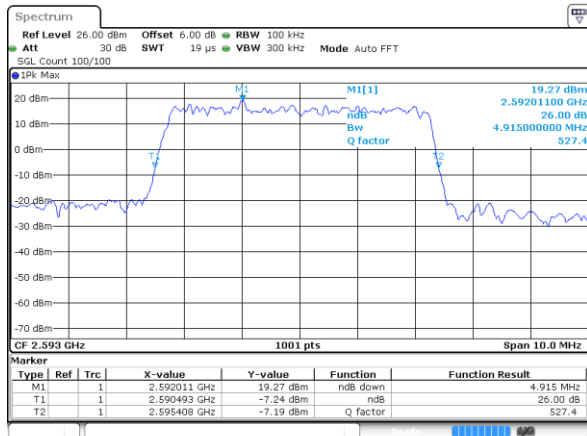
Date: 6 AUG 2020 02:36:31

Lowest Channel / 5MHz / 16QAM



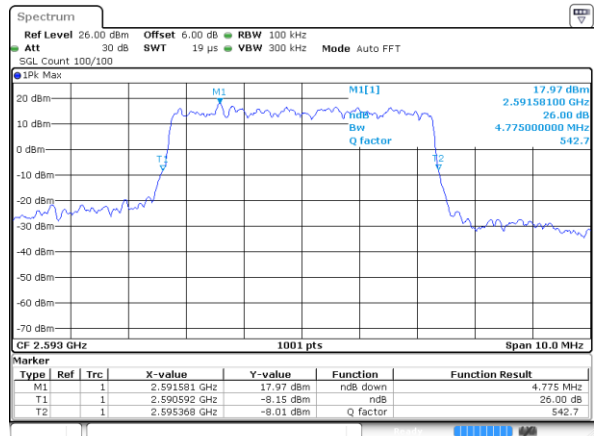
Date: 6 AUG 2020 02:36:41

Middle Channel / 5MHz / QPSK



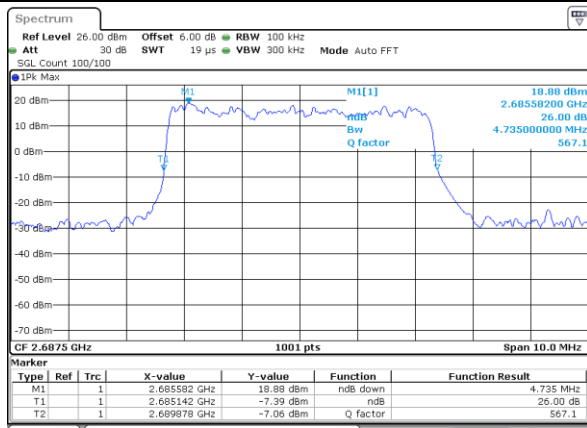
Date: 6 AUG 2020 02:37:11

Middle Channel / 5MHz / 16QAM



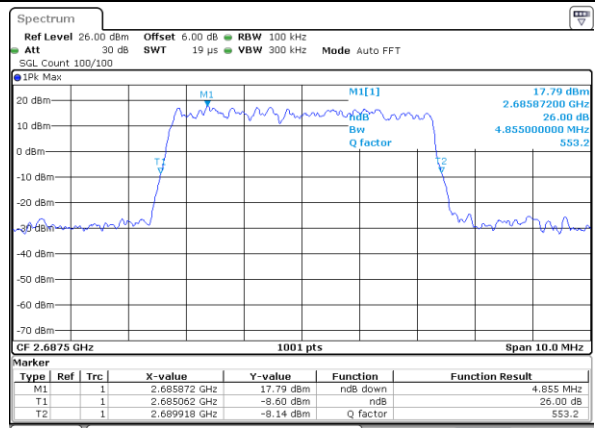
Date: 6 AUG 2020 02:37:20

Highest Channel / 5MHz / QPSK



Date: 6 AUG 2020 02:37:50

Highest Channel / 5MHz / 16QAM



Date: 6 AUG 2020 02:38:00