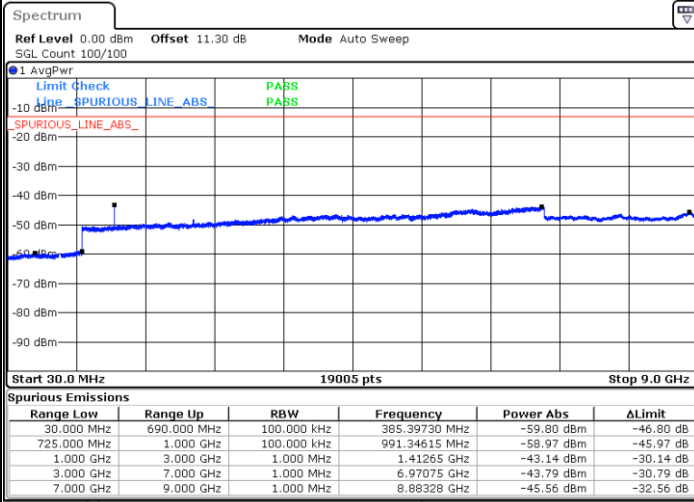




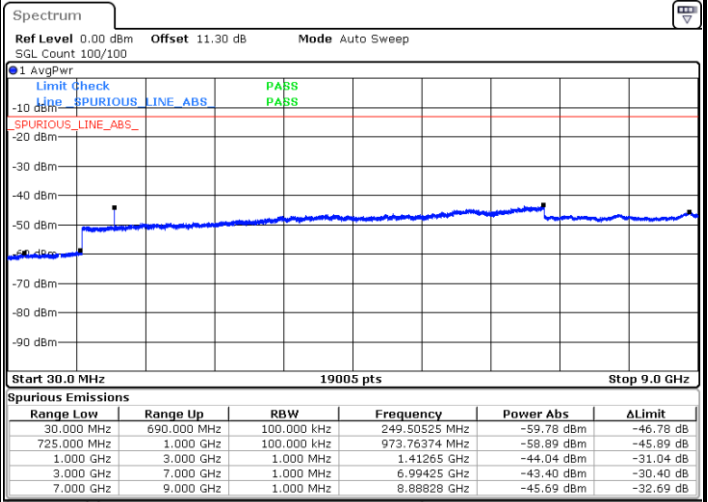
LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



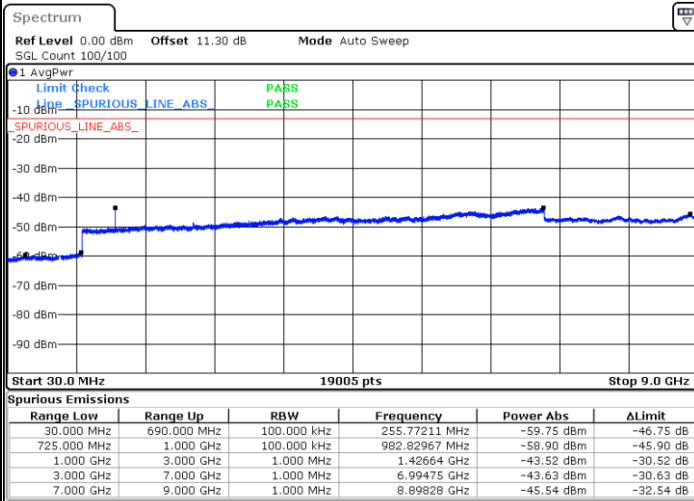
Date: 15.MAY.2020 14:35:52



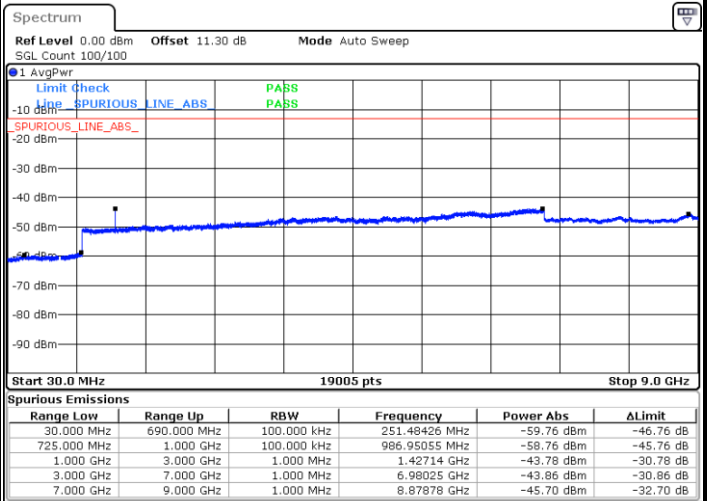
Date: 15.MAY.2020 14:35:06

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 15.MAY.2020 14:41:30



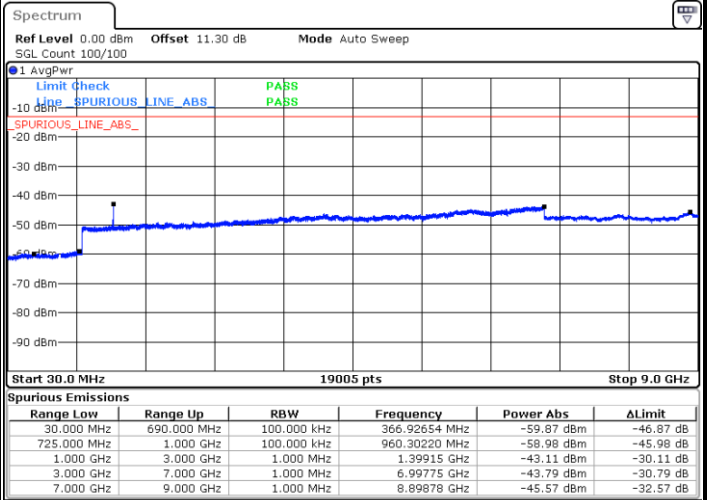
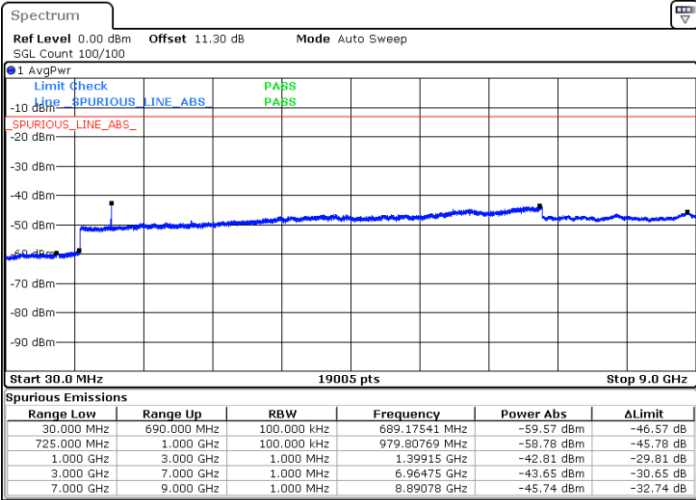
Date: 15.MAY.2020 14:42:16



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

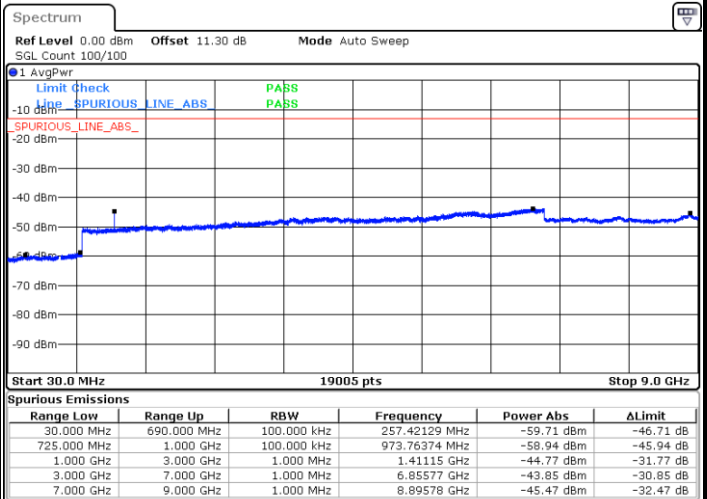
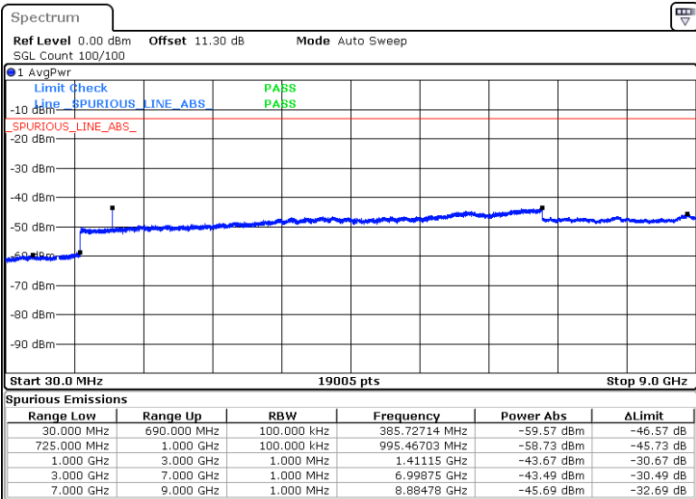


Date: 15.MAY.2020 15:03:02

Date: 15.MAY.2020 15:03:49

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 15.MAY.2020 15:27:19

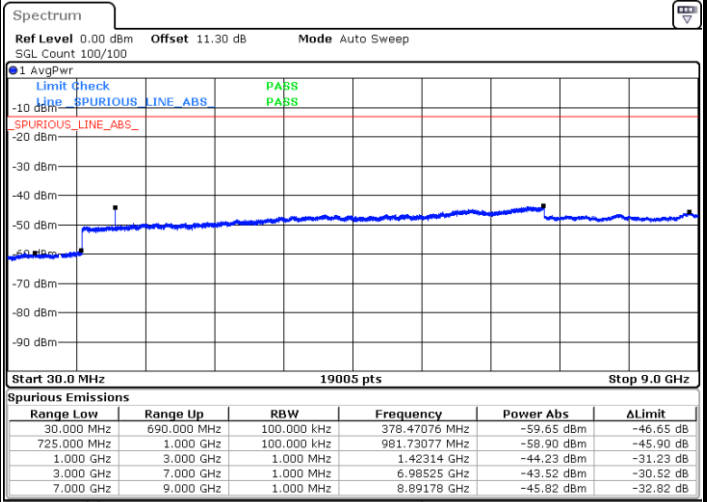
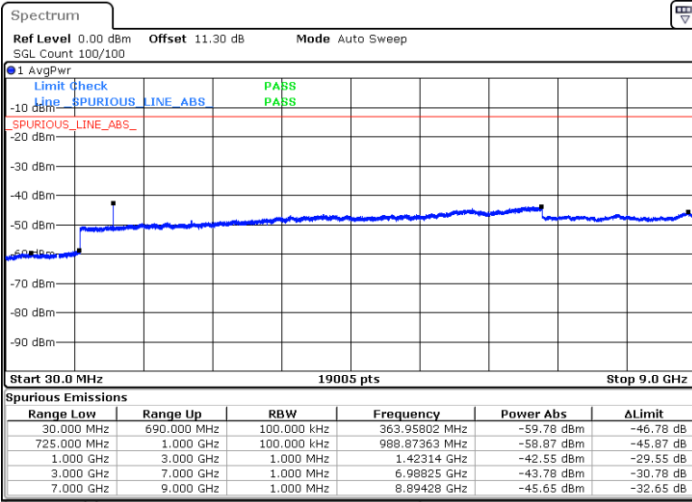
Date: 15.MAY.2020 15:26:34



LTE Band 12 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



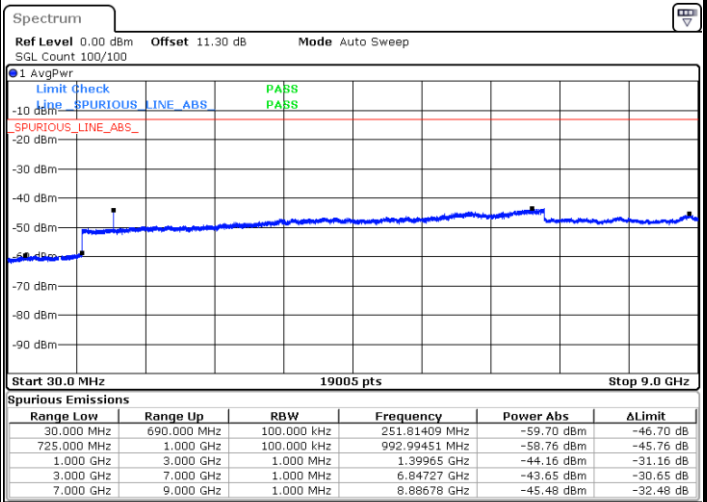
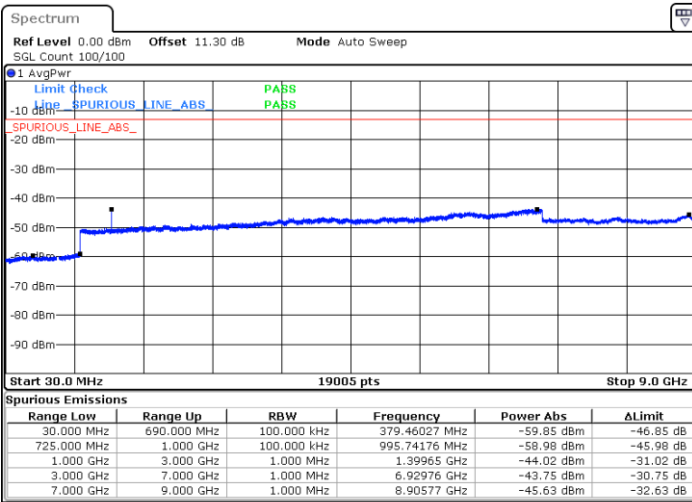
Date: 15.MAY.2020 15:33:42

Date: 15.MAY.2020 15:32:56

LTE Band 12 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



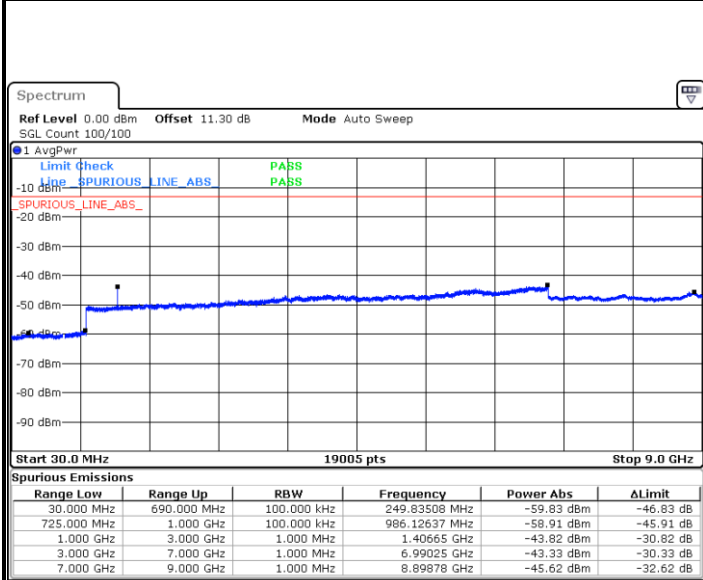
Date: 15.MAY.2020 15:39:21

Date: 15.MAY.2020 15:40:07



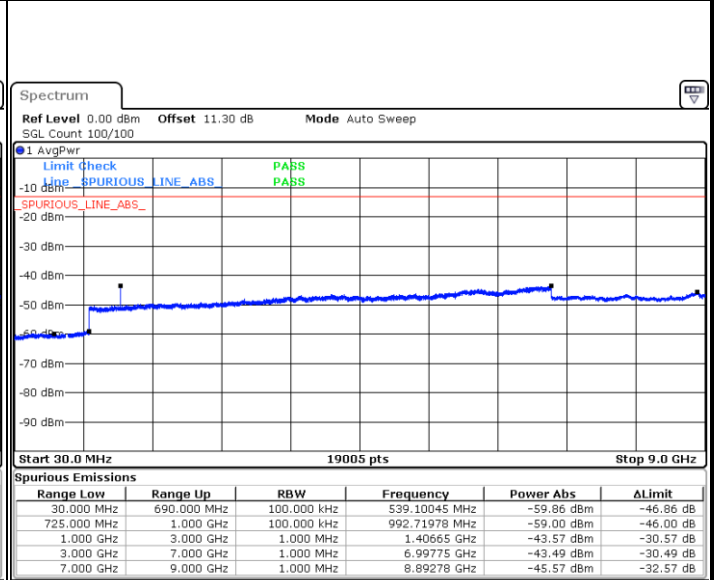
LTE Band 12 / 10MHz

Middle Channel / QPSK



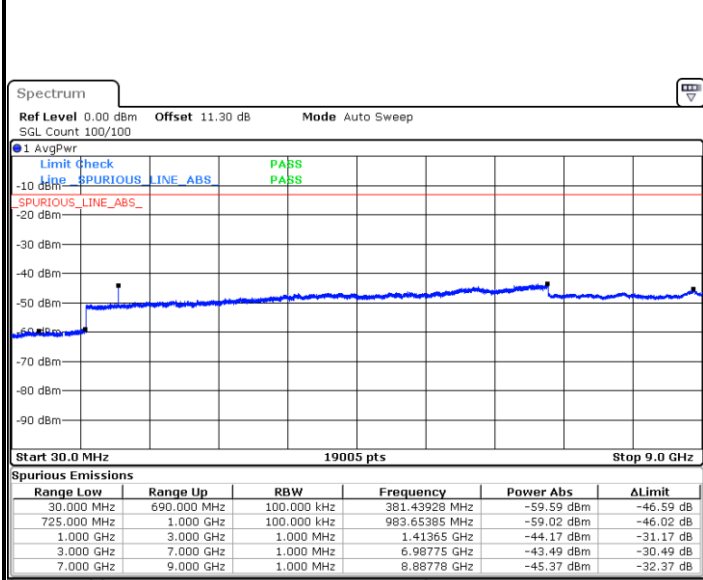
Date: 15.MAY.2020 15:42:26

Middle Channel / 16QAM



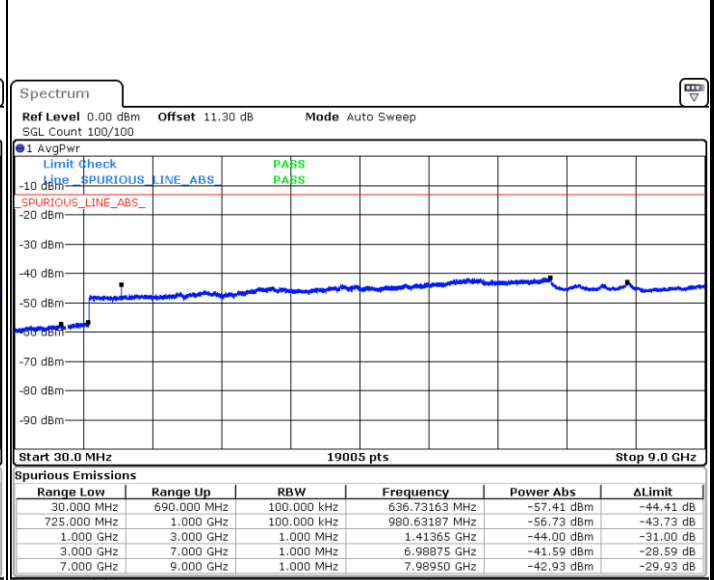
Date: 15.MAY.2020 15:41:39

Highest Channel / QPSK



Date: 15.MAY.2020 15:48:06

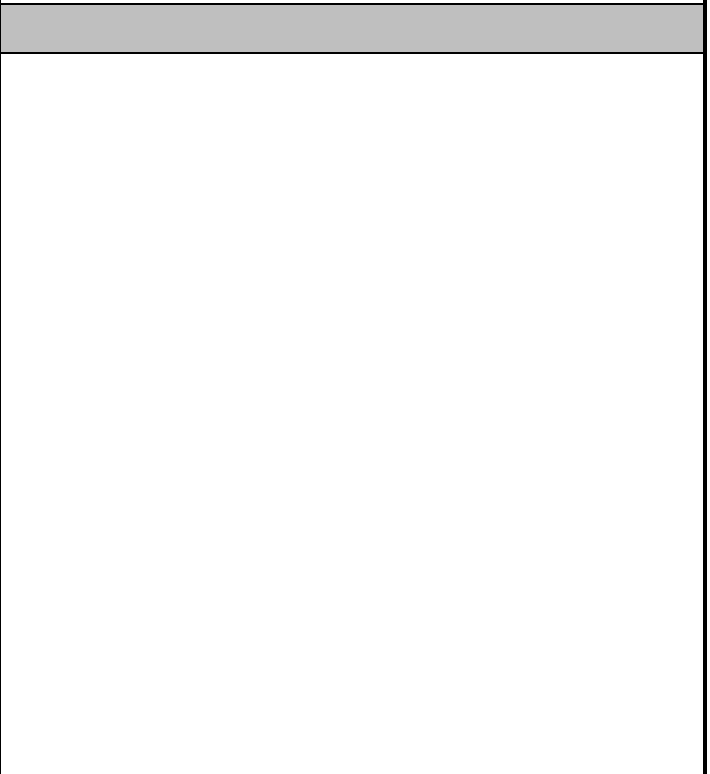
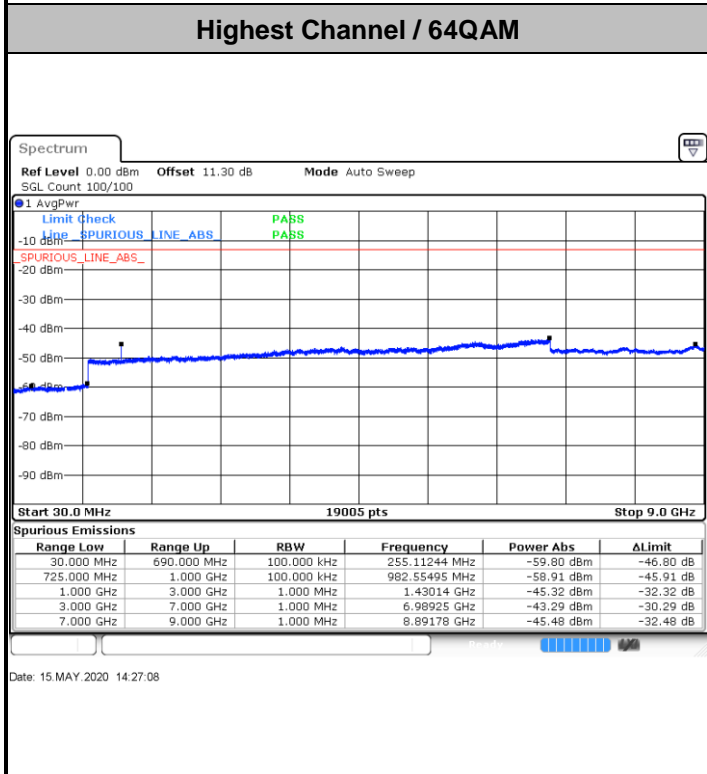
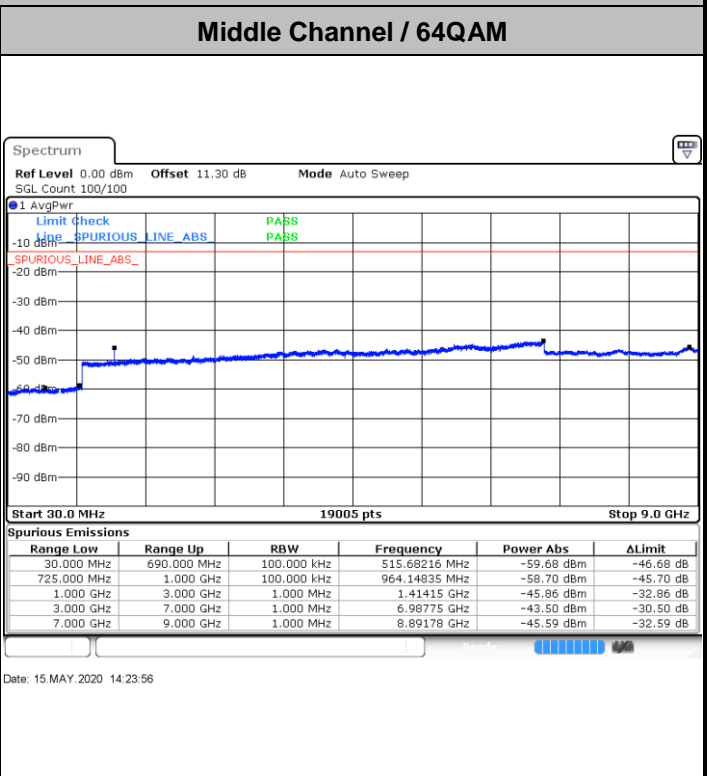
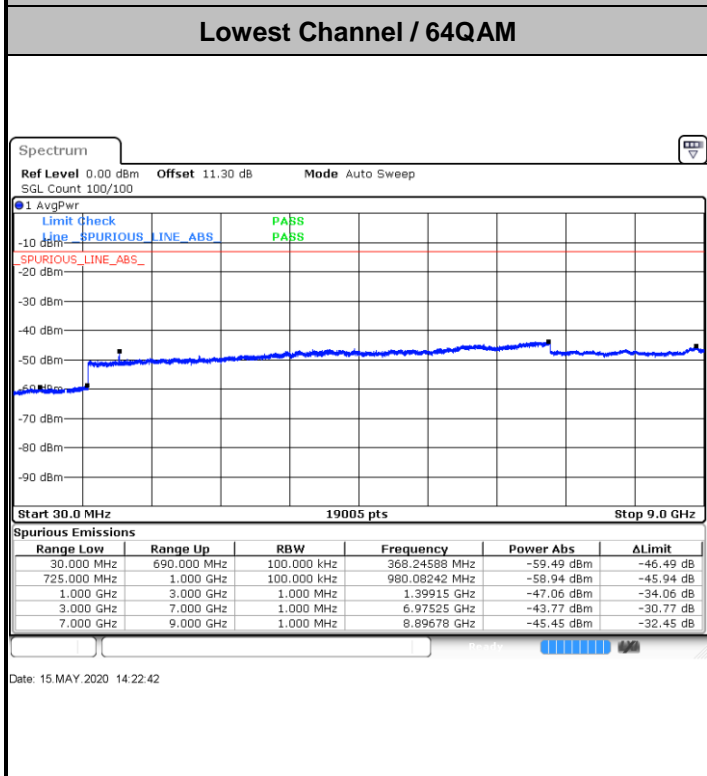
Highest Channel / 16QAM



Date: 30.JUN.2020 22:34:57



LTE Band 12 / 1.4MHz

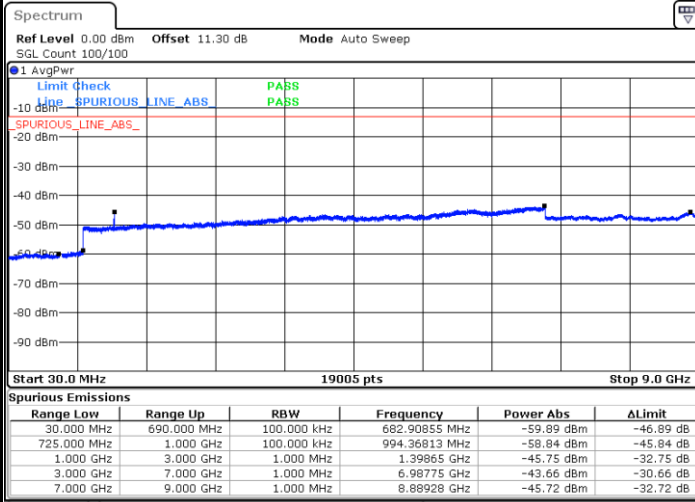




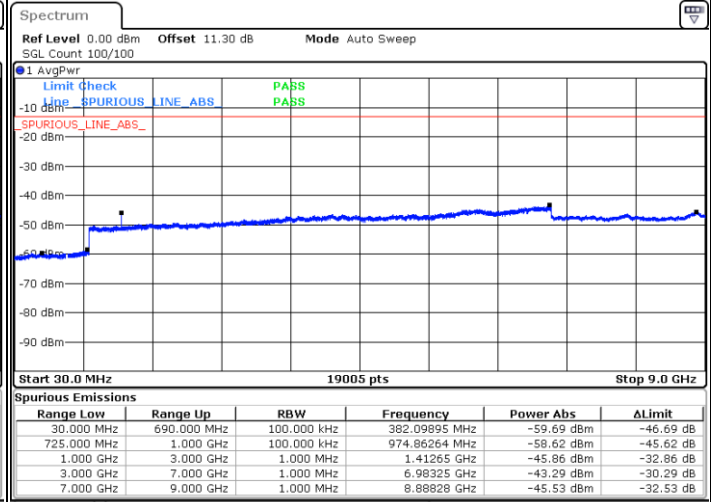
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

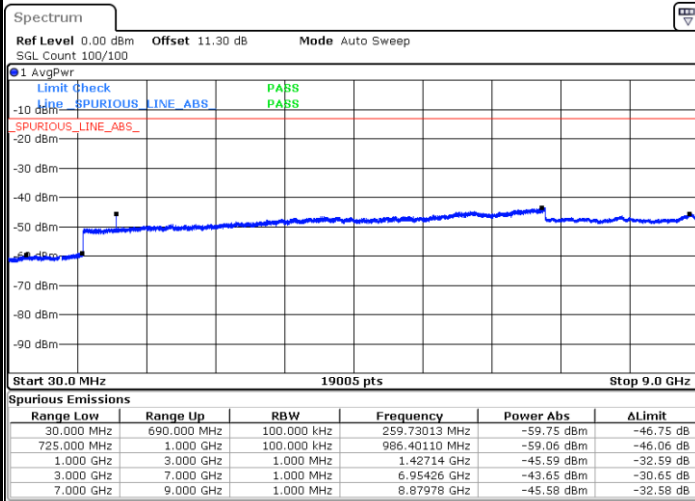


Date: 15.MAY.2020 14:45:27



Date: 15.MAY.2020 14:46:37

Highest Channel / 64QAM



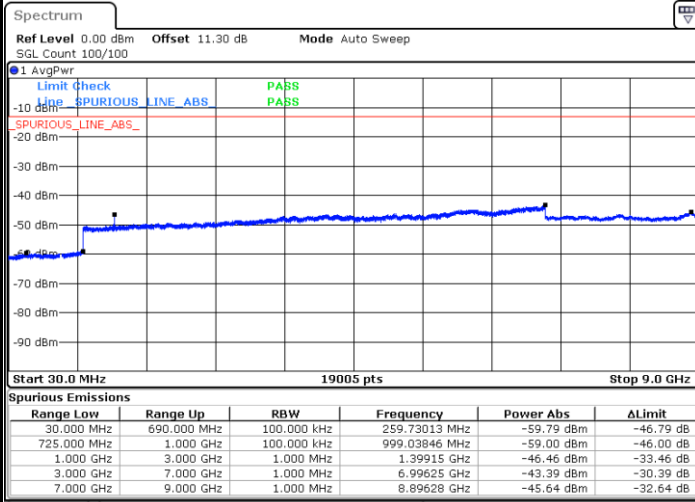
Date: 15.MAY.2020 14:49:48



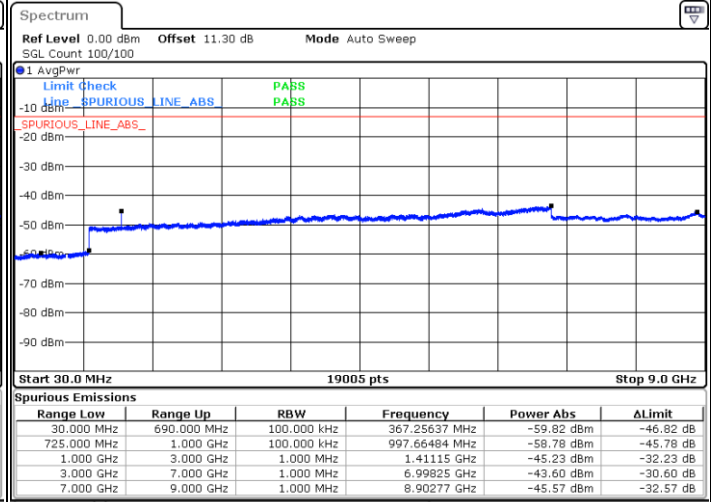
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

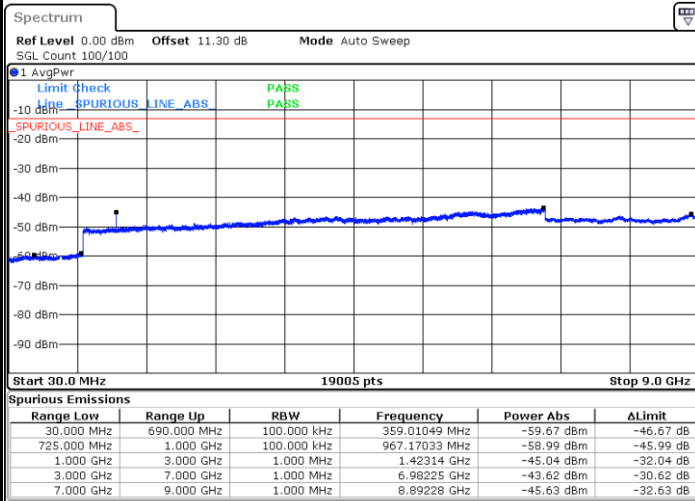


Date: 15.MAY.2020 14:53:00



Date: 15.MAY.2020 14:54:12

Highest Channel / 64QAM

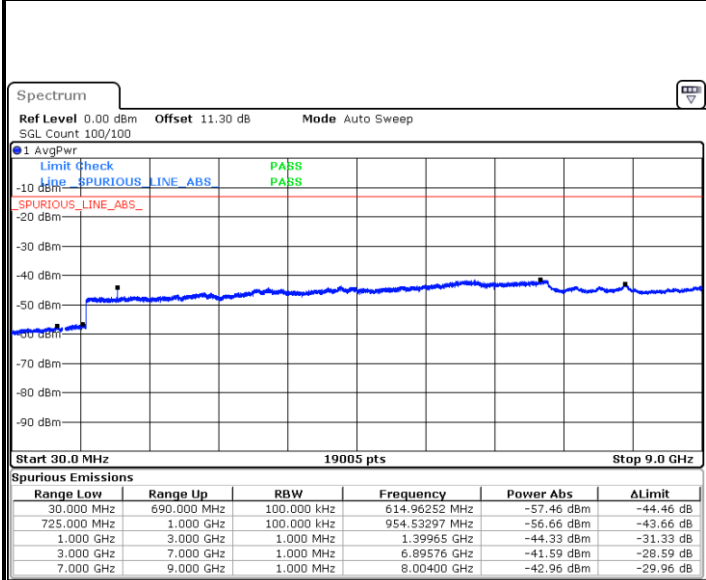


Date: 15.MAY.2020 14:57:25



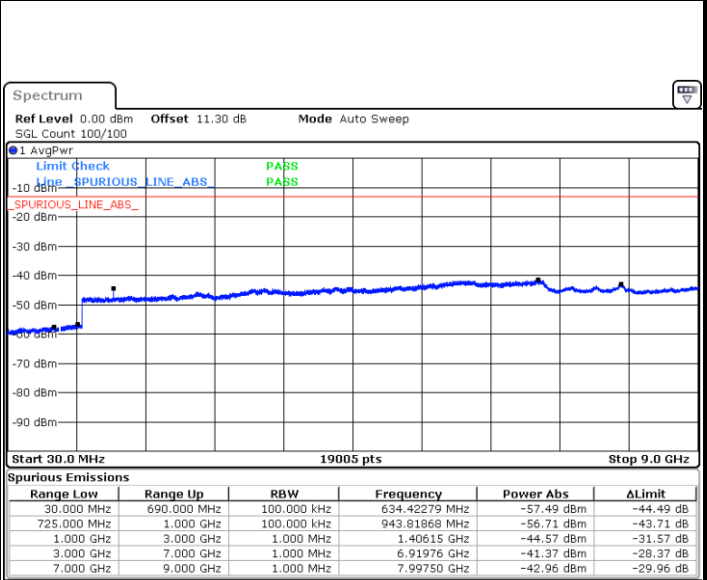
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



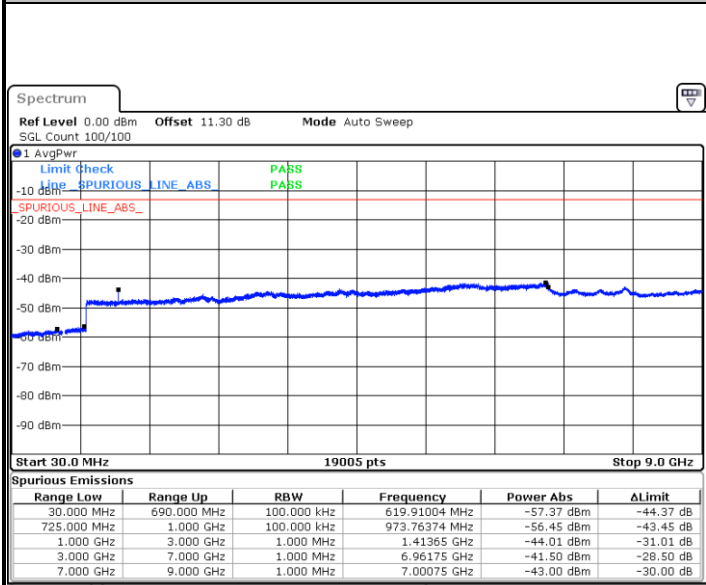
Date: 30 JUN 2020 22:20:39

Middle Channel / 64QAM



Date: 30 JUN 2020 22:21:41

Highest Channel / 64QAM



Date: 30 JUN 2020 22:24:03



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	0.0178	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0075	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0165	
0	Normal Voltage	0.0144	
-10	Normal Voltage	0.0045	
-20	Normal Voltage	0.0047	
-30	Normal Voltage	0.0165	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.49 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

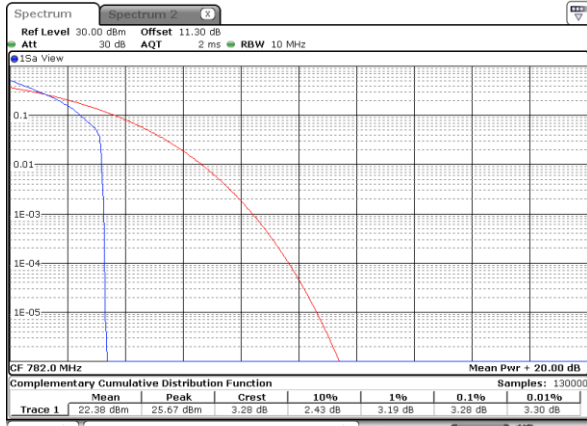
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.28	5.01	4.32	5.94	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.13	6.52	-	-	
Highest CH	-	-	-	-	



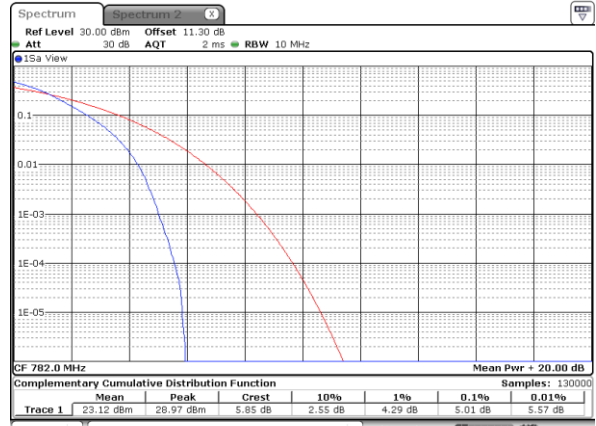
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 7 MAY 2020 01:36:29

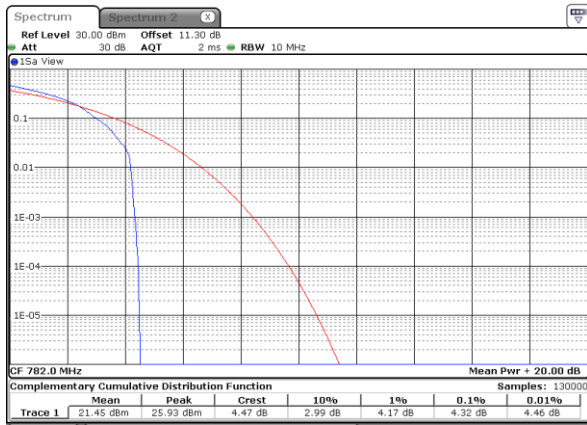
Middle Channel / Full RB



Date: 7 MAY 2020 01:36:39

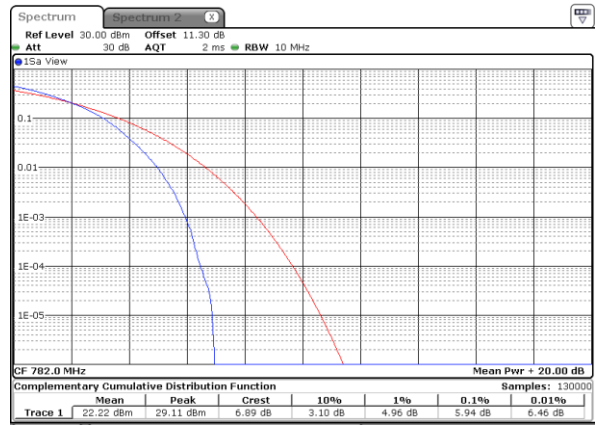
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 7 MAY 2020 01:36:07

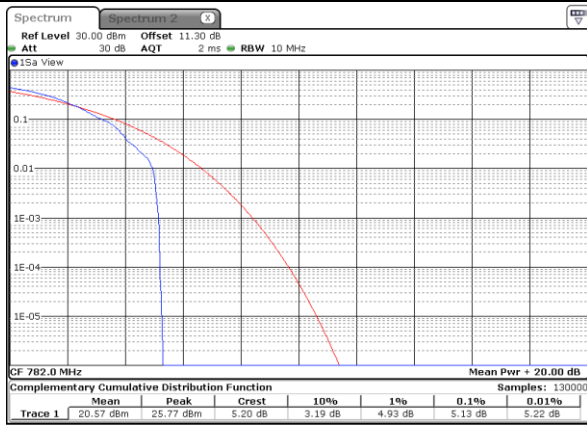
Middle Channel / Full RB



Date: 7 MAY 2020 01:36:18

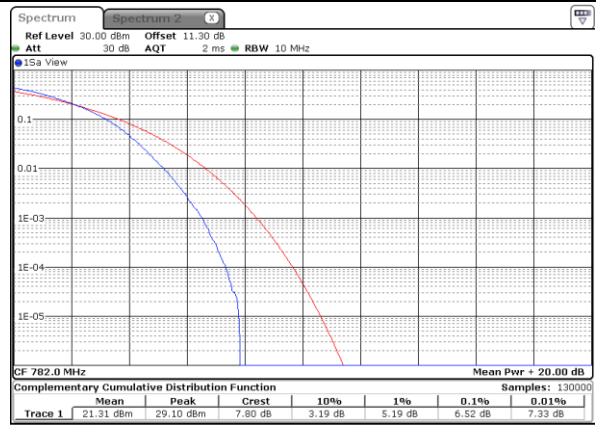
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 7 MAY 2020 01:35:46

Middle Channel / Full RB



Date: 7 MAY 2020 01:35:57



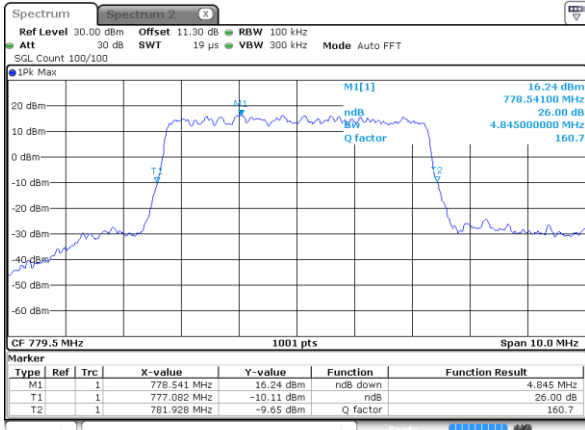
26dB Bandwidth

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	-	-	-	-	4.85	4.84	-	-	-	-	-	-
Middle CH	-	-	-	-	4.85	4.91	9.85	9.71	-	-	-	-
Highest CH	-	-	-	-	4.97	4.84	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.84	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.86	-	9.91	-	-	-	-	-
Highest CH	-	-	-	-	4.93	-	-	-	-	-	-	-



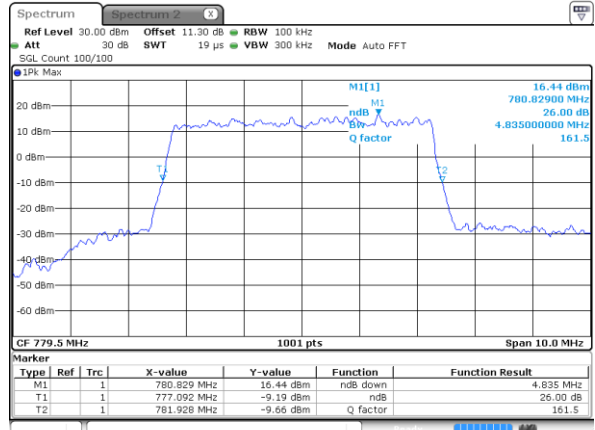
LTE Band 13

Lowest Channel / 5MHz / QPSK



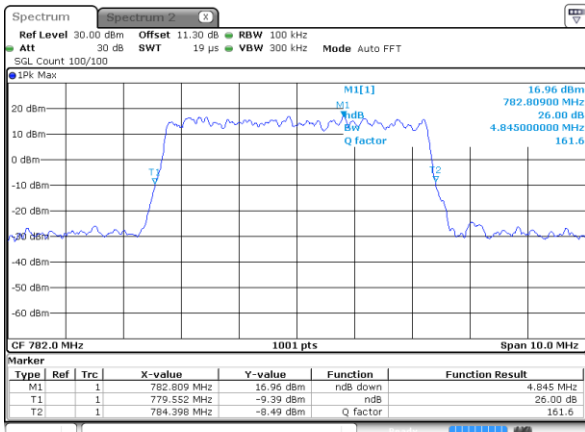
Date: 7 MAY 2020 00:48:14

Lowest Channel / 5MHz / 16QAM



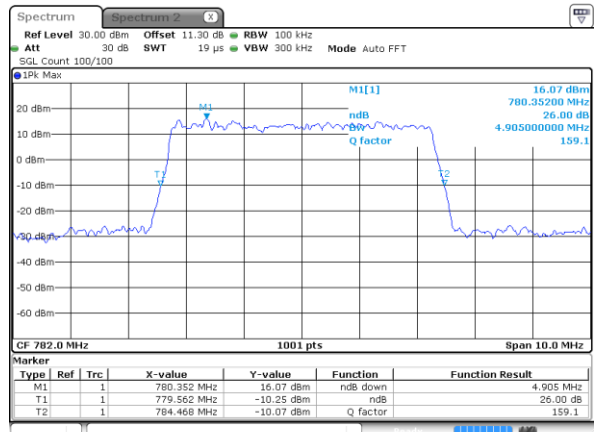
Date: 7 MAY 2020 00:48:02

Middle Channel / 5MHz / QPSK



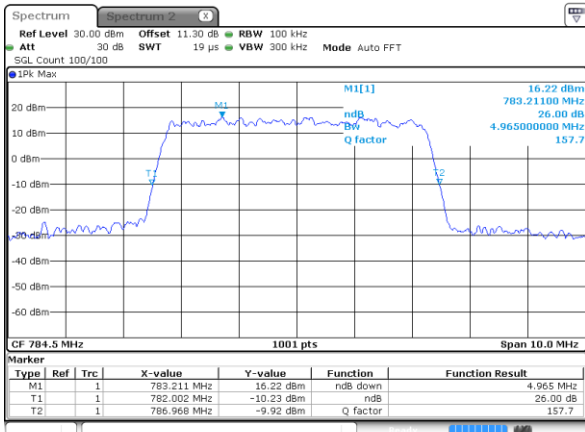
Date: 7 MAY 2020 00:57:51

Middle Channel / 5MHz / 16QAM



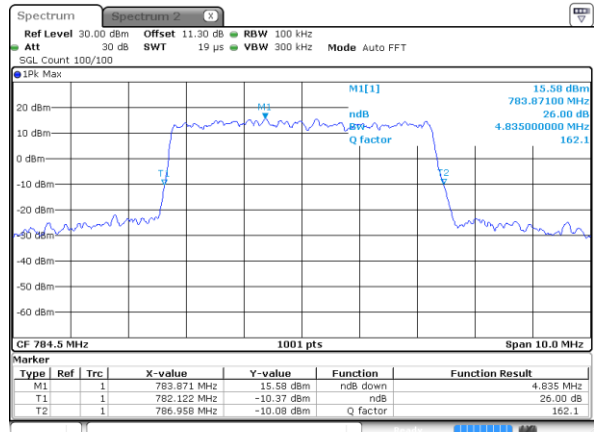
Date: 7 MAY 2020 00:58:02

Highest Channel / 5MHz / QPSK



Date: 7 MAY 2020 00:59:14

Highest Channel / 5MHz / 16QAM

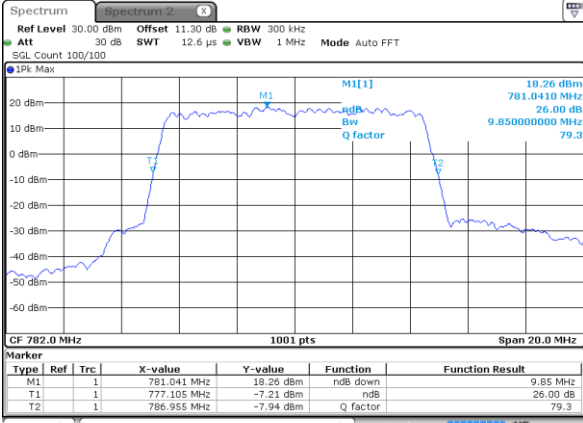


Date: 7 MAY 2020 00:59:01



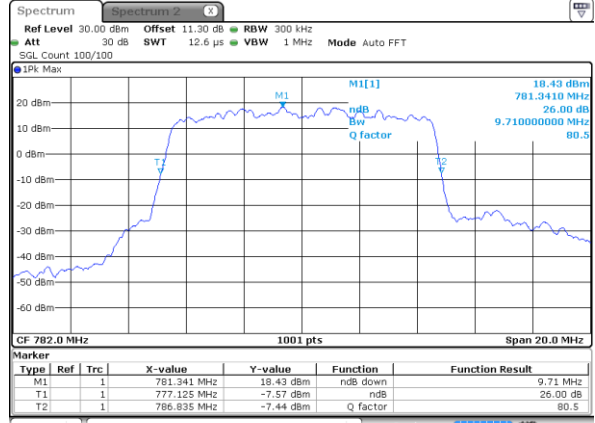
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7.MAY.2020 01:18:00

Middle Channel / 10MHz / 16QAM

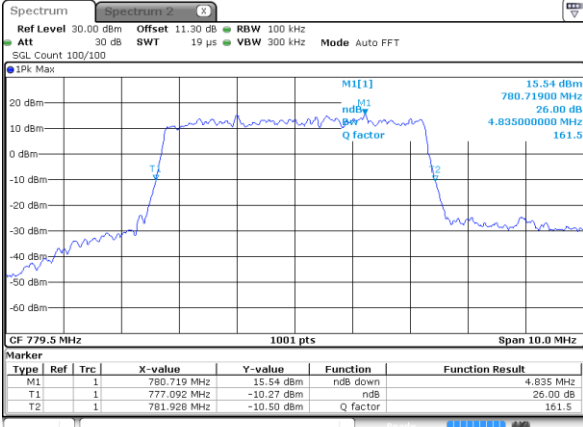


Date: 7.MAY.2020 01:17:48



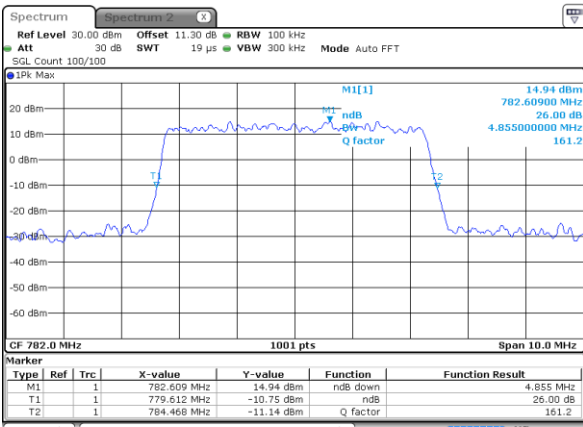
LTE Band 13

Lowest Channel / 5MHz / 64QAM



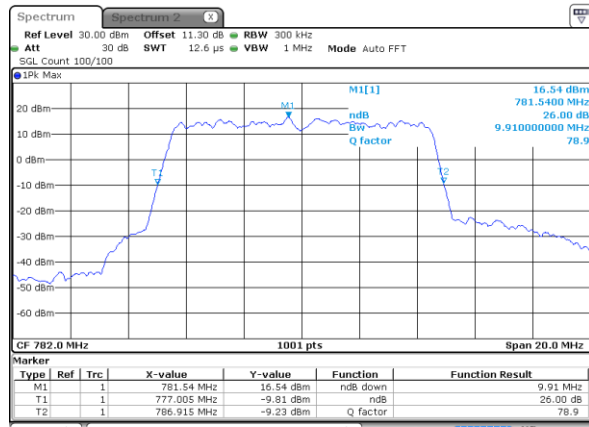
Date: 7 MAY 2020 01:07:42

Middle Channel / 5MHz / 64QAM



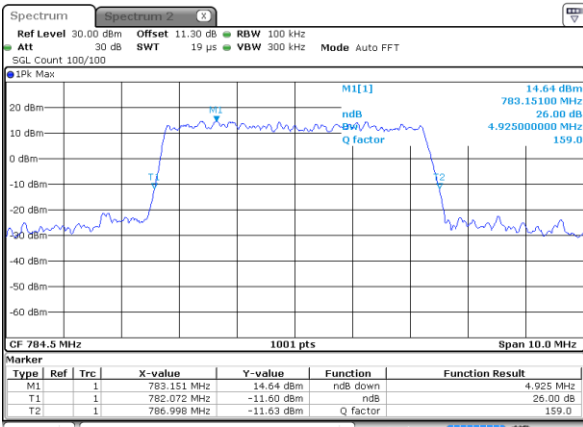
Date: 7 MAY 2020 01:12:35

Middle Channel / 10MHz / 64QAM



Date: 7 MAY 2020 01:29:44

Highest Channel / 5MHz / 64QAM



Date: 7 MAY 2020 01:13:11



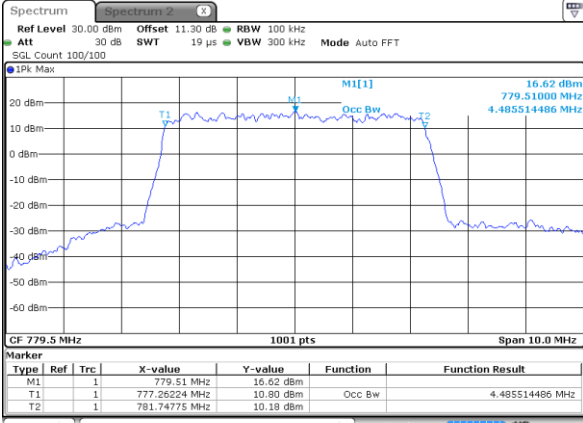
Occupied Bandwidth

LTE Band 13 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.48	8.97	9.01	-	-	-	-
Highest CH	-	-	-	-	4.49	4.47	-	-	-	-	-	-
LTE Band 13 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	-	9.03	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-



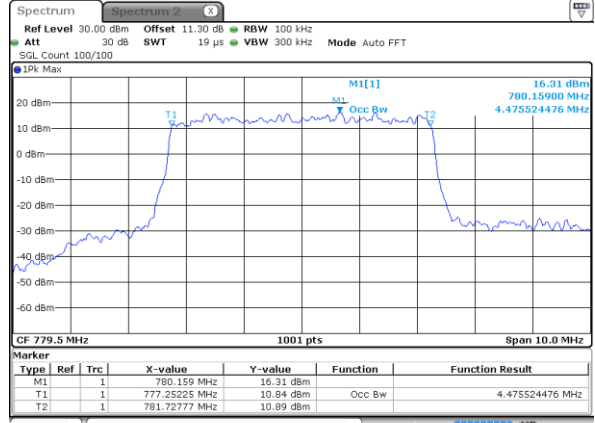
LTE Band 13

Lowest Channel / 5MHz / QPSK



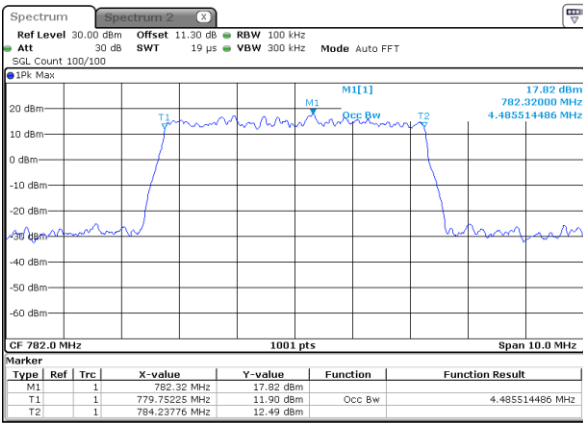
Date: 7 MAY 2020 00:47:38

Lowest Channel / 5MHz / 16QAM



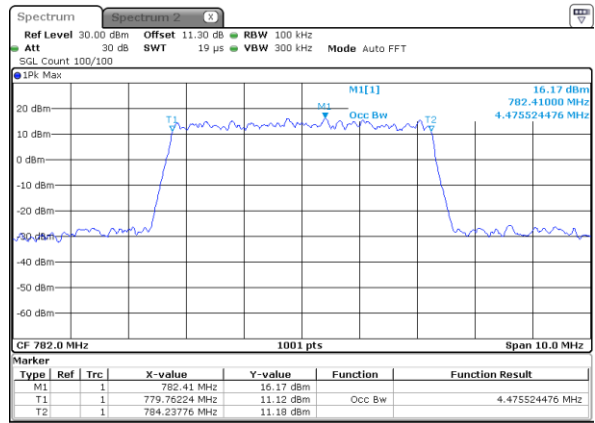
Date: 7 MAY 2020 00:47:50

Middle Channel / 5MHz / QPSK



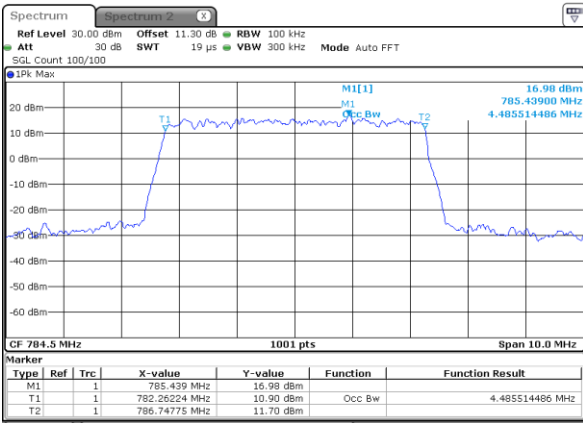
Date: 7 MAY 2020 00:58:25

Middle Channel / 5MHz / 16QAM



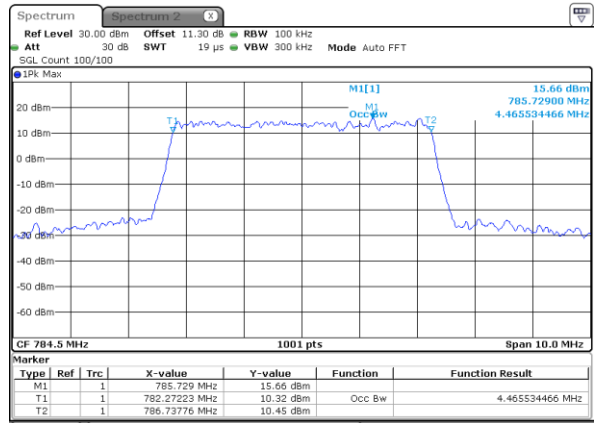
Date: 7 MAY 2020 00:58:14

Highest Channel / 5MHz / QPSK



Date: 7 MAY 2020 00:58:37

Highest Channel / 5MHz / 16QAM

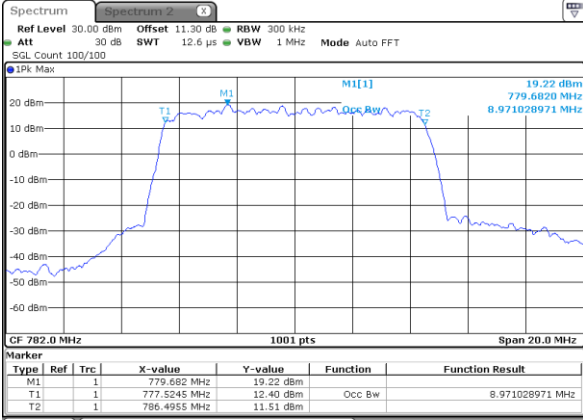


Date: 7 MAY 2020 00:58:49



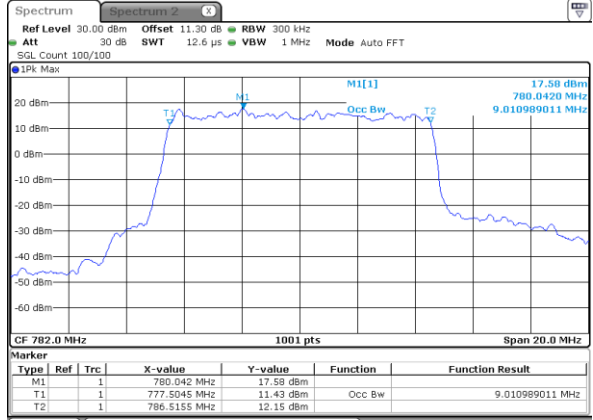
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7.MAY.2020 01:17:25

Middle Channel / 10MHz / 16QAM

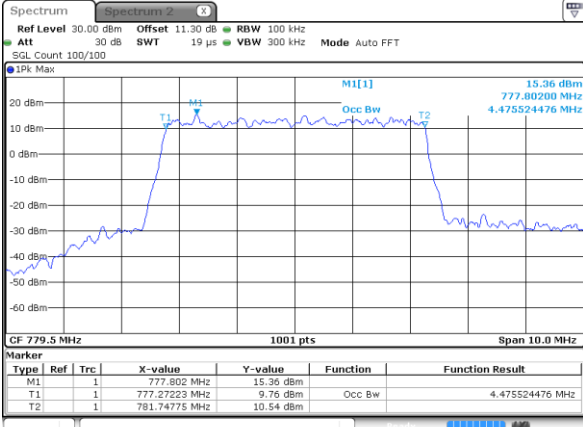


Date: 7.MAY.2020 01:17:37



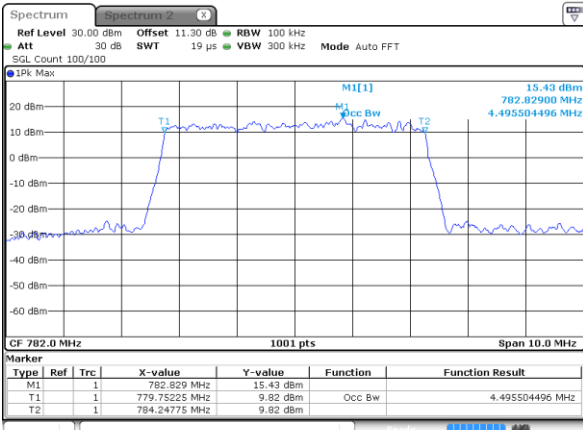
LTE Band 13

Lowest Channel / 5MHz / 64QAM



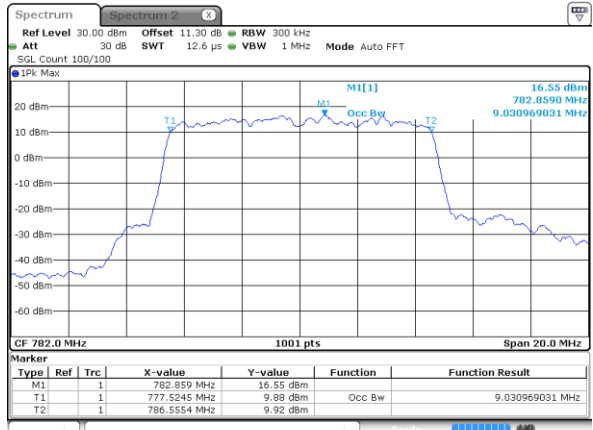
Date: 7 MAY 2020 01:07:30

Middle Channel / 5MHz / 64QAM



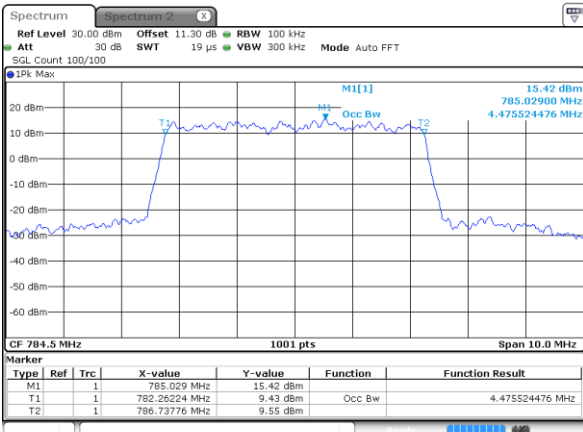
Date: 7 MAY 2020 01:12:47

Middle Channel / 10MHz / 64QAM



Date: 7 MAY 2020 01:29:33

Highest Channel / 5MHz / 64QAM



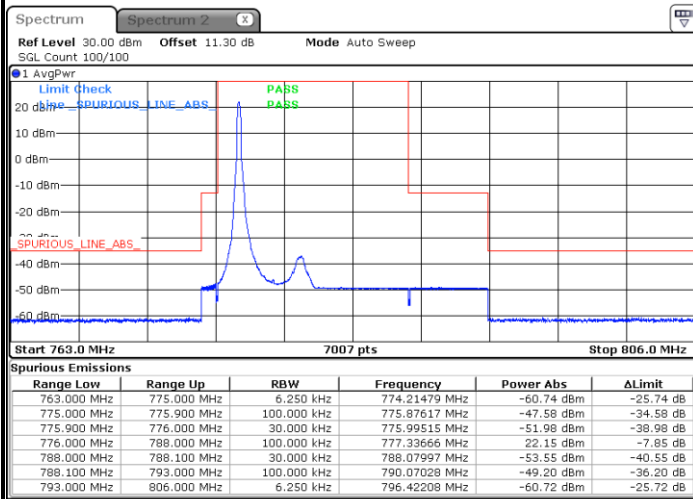
Date: 7 MAY 2020 01:12:59



Conducted Band Edge

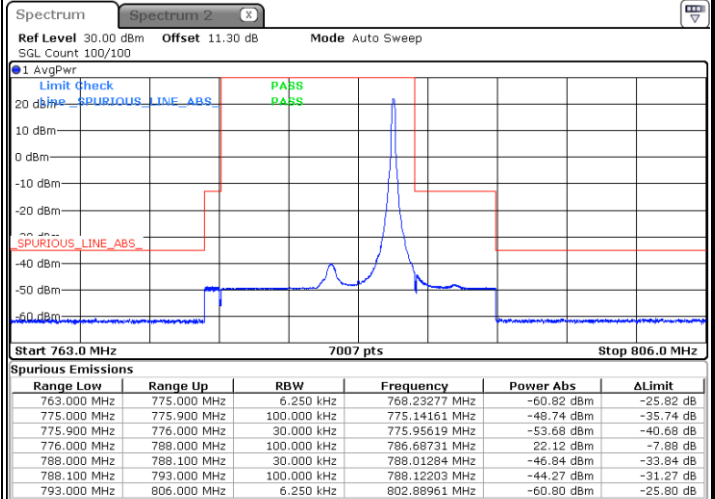
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



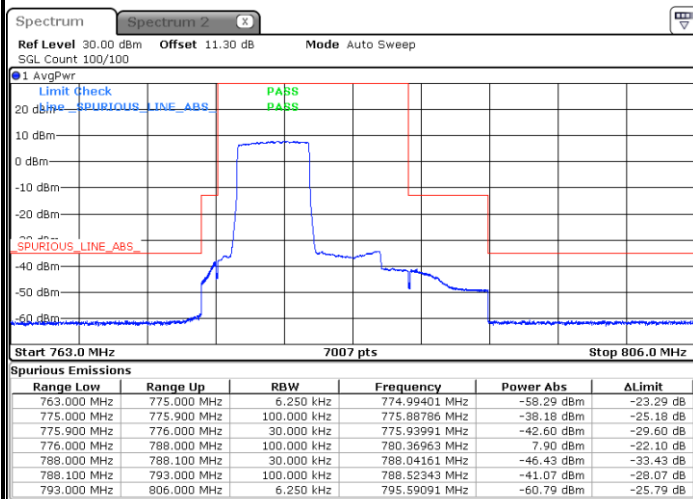
Date: 7 MAY 2020 00:54:57

Highest Band Edge / 1 RB



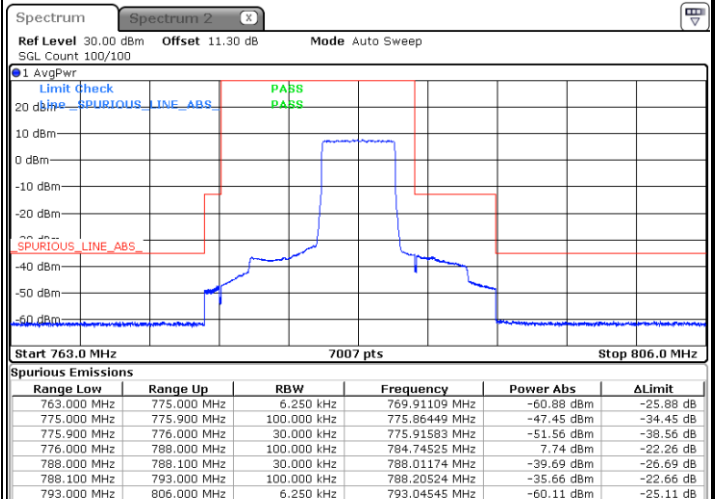
Date: 7 MAY 2020 01:05:56

Lowest Band Edge / Full RB



Date: 7 MAY 2020 00:49:55

Highest Band Edge / Full RB

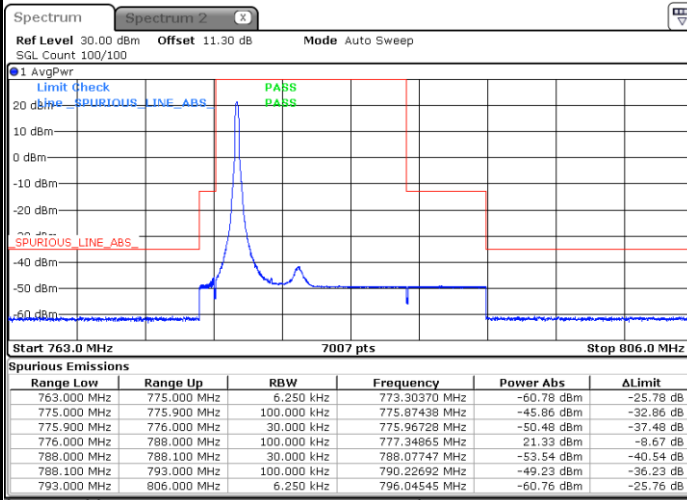


Date: 7 MAY 2020 01:00:54



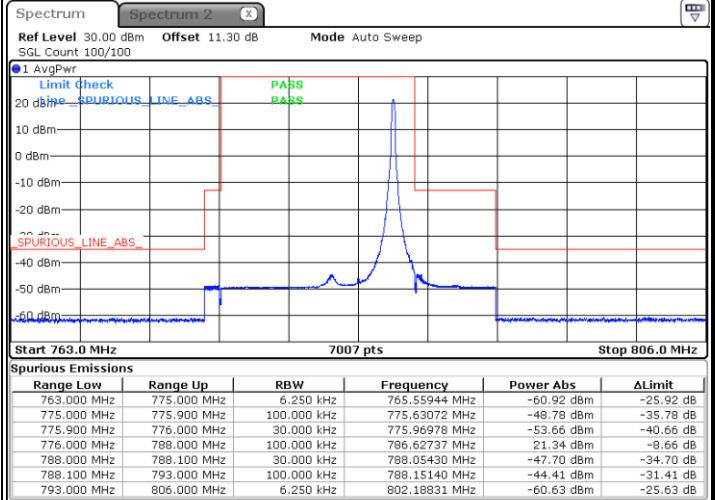
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



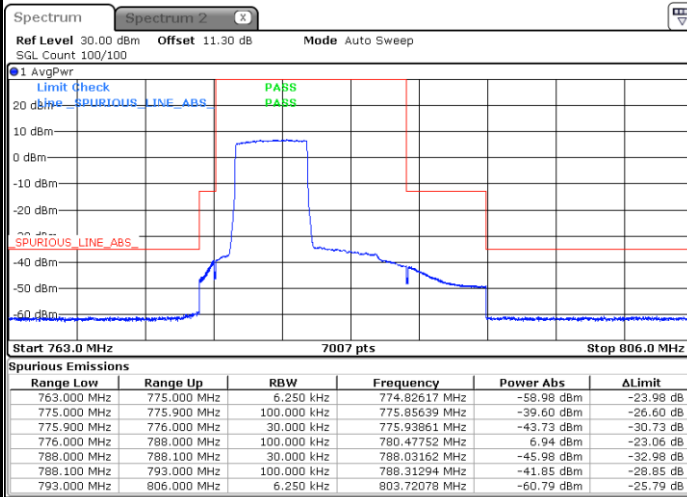
Date: 7 MAY 2020 00:53:16

Highest Band Edge / 1 RB



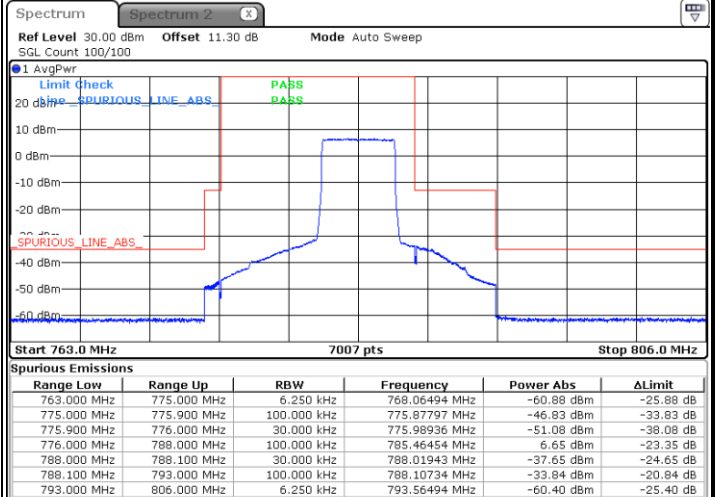
Date: 7 MAY 2020 01:04:16

Lowest Band Edge / Full RB



Date: 7 MAY 2020 00:51:36

Highest Band Edge / Full RB

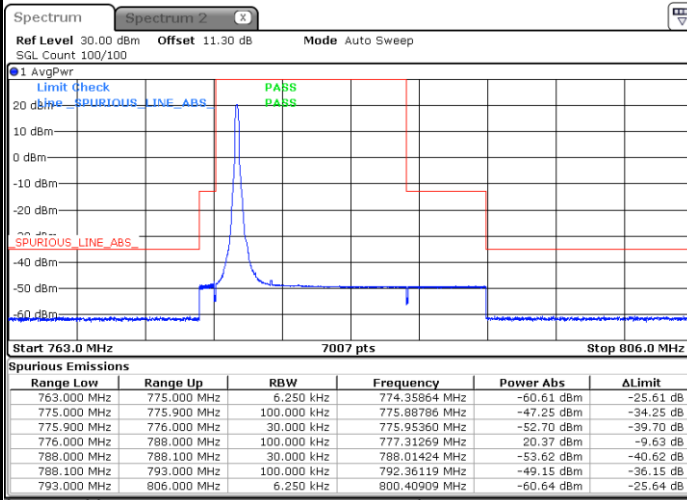


Date: 7 MAY 2020 01:02:35



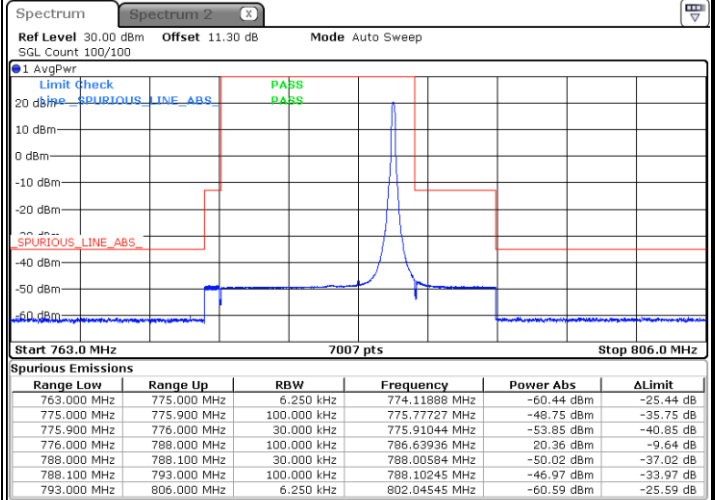
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



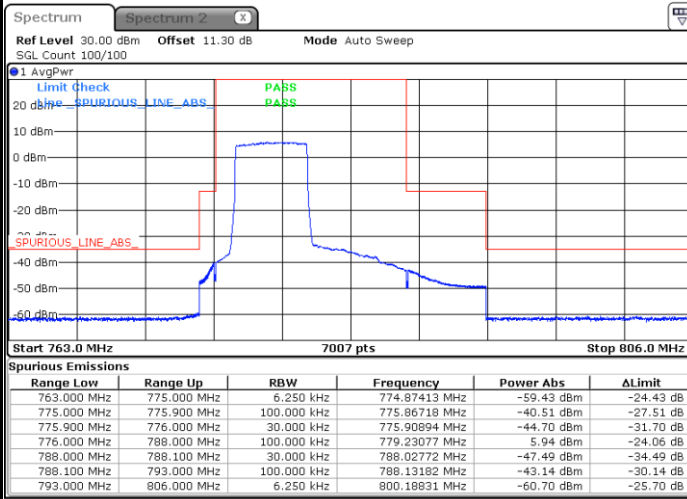
Date: 7.MAY.2020 01:11:03

Highest Band Edge / 1 RB



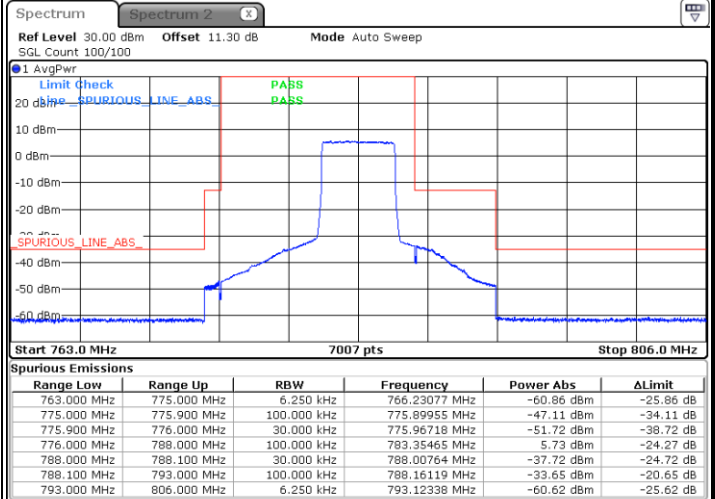
Date: 7.MAY.2020 01:16:32

Lowest Band Edge / Full RB



Date: 7.MAY.2020 01:09:22

Highest Band Edge / Full RB

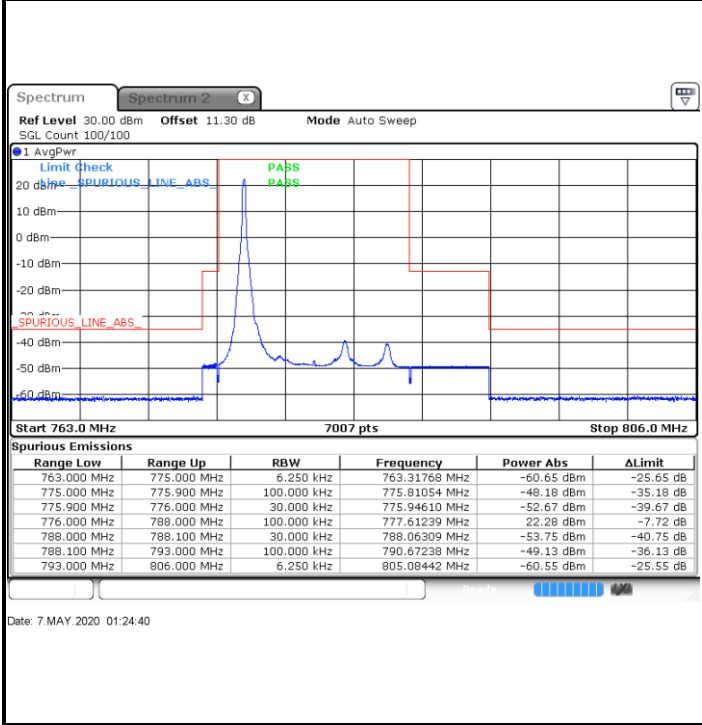


Date: 7.MAY.2020 01:14:51

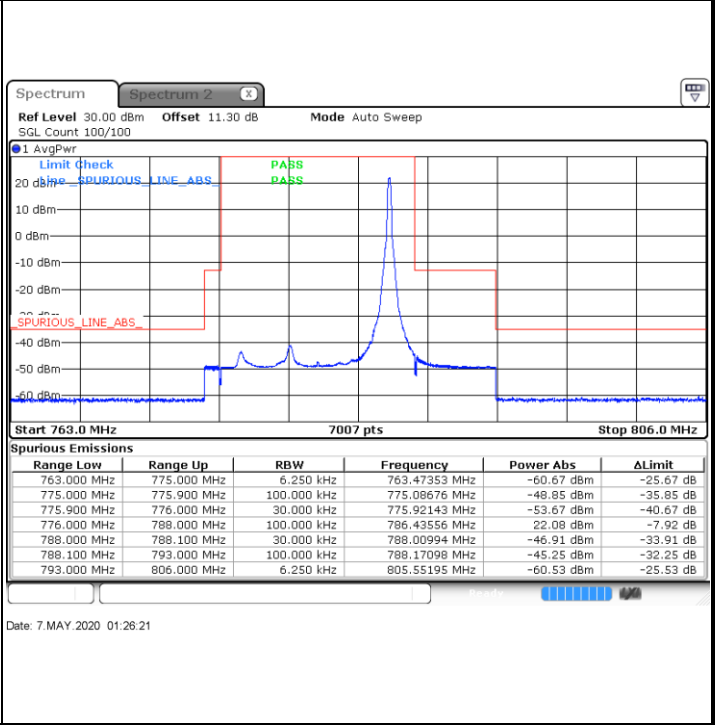


LTE Band 13 / 10MHz / QPSK

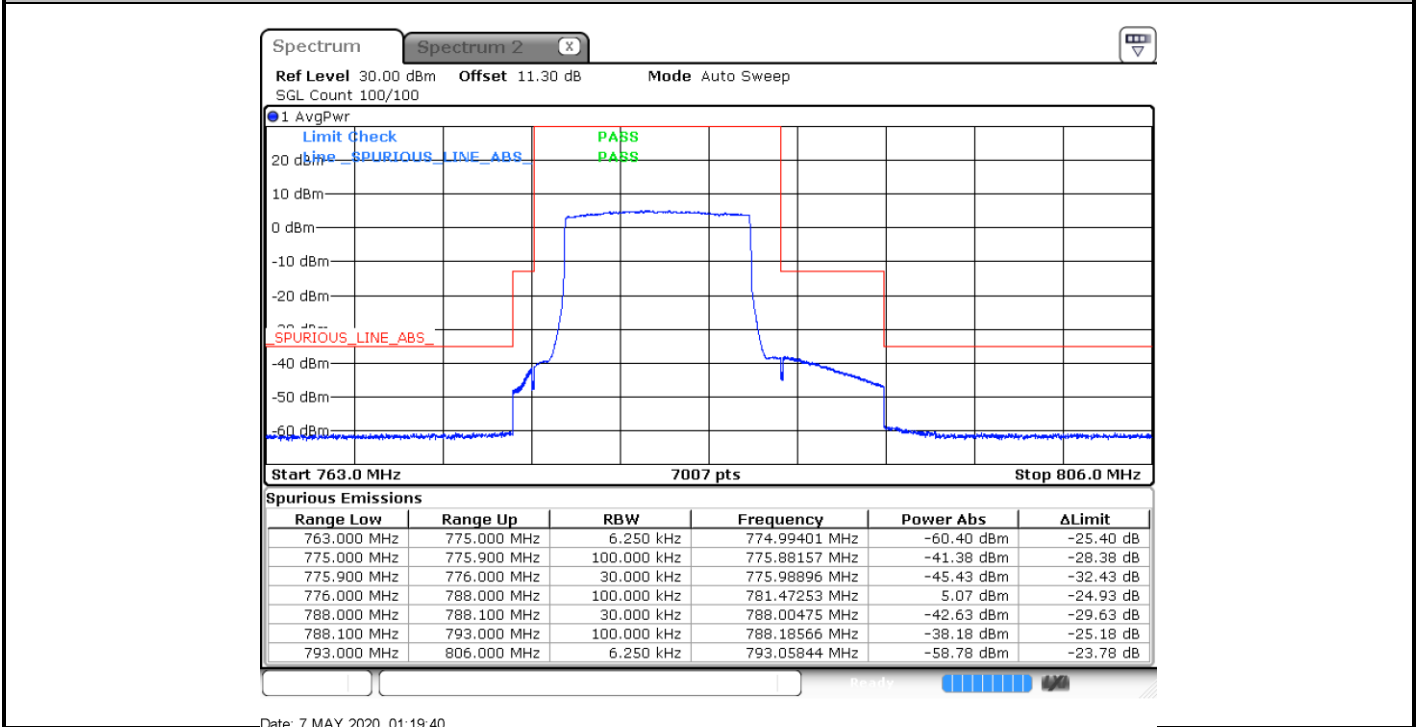
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



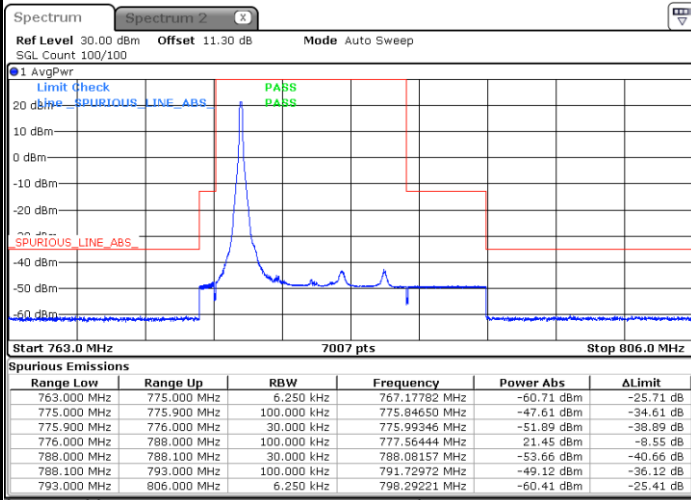
Band Edge / Full RB





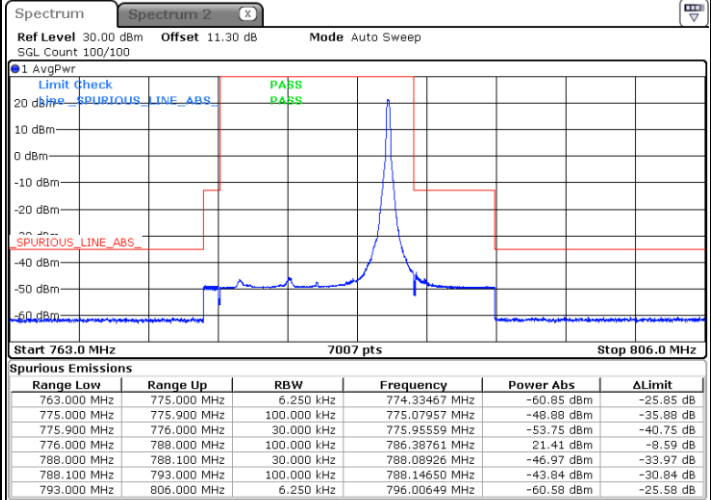
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



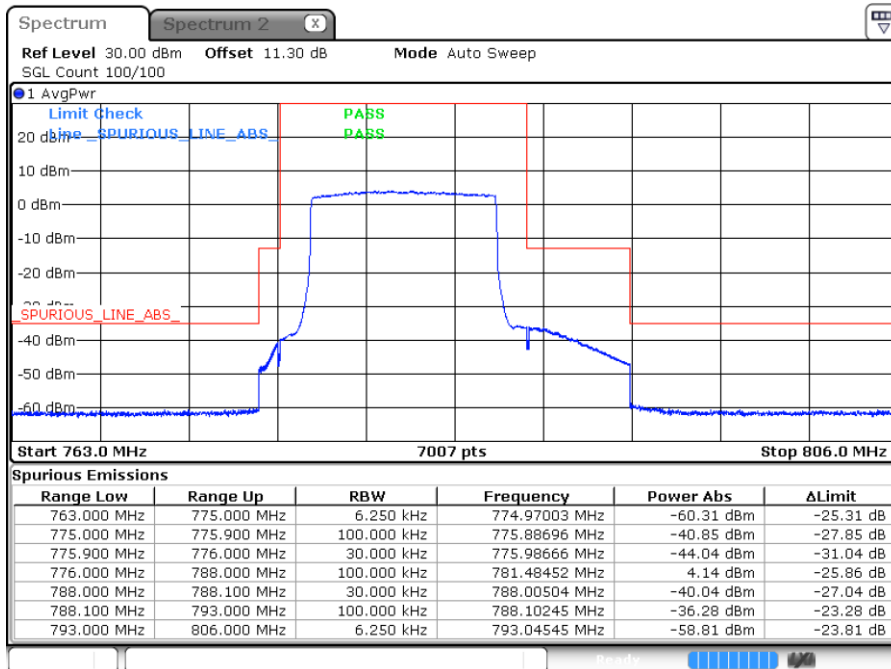
Date: 7.MAY.2020 01:23:00

Highest Band Edge / 1 RB



Date: 7.MAY.2020 01:28:01

Band Edge / Full RB

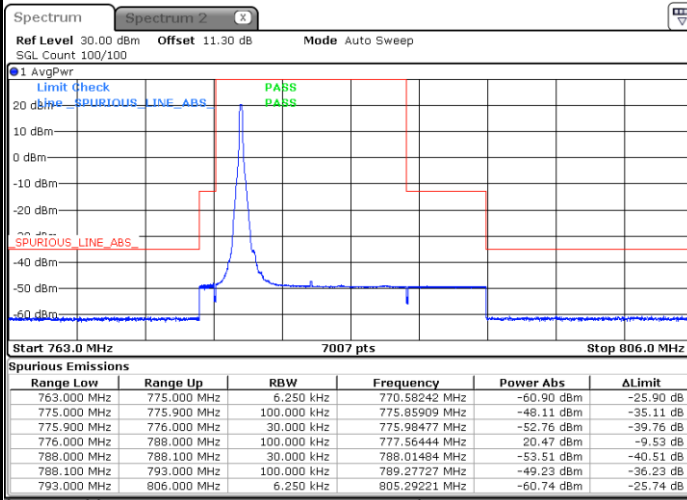


Date: 7.MAY.2020 01:21:20



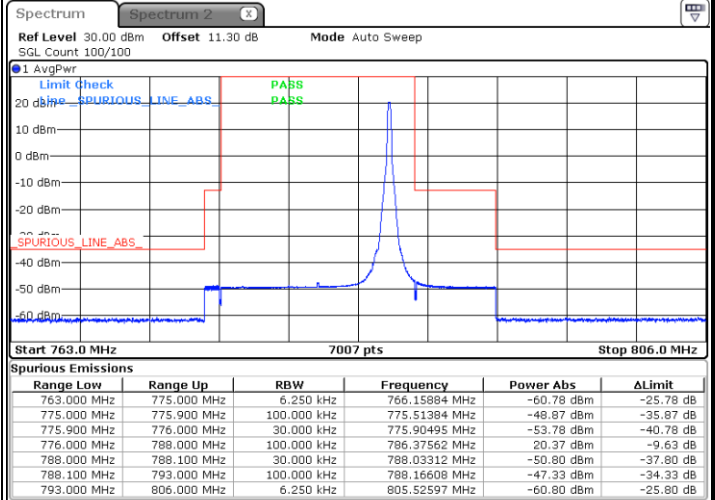
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



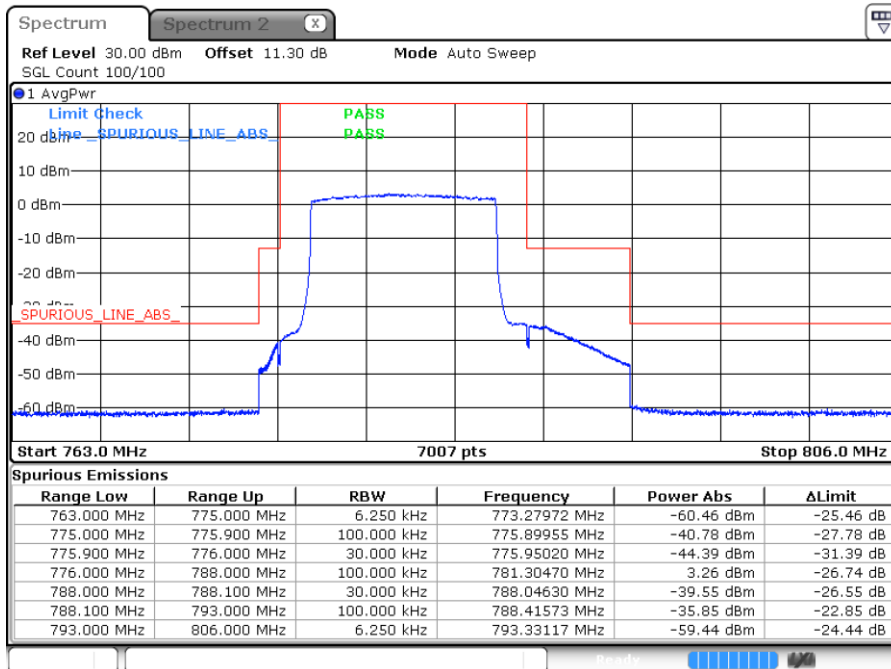
Date: 7.MAY.2020 01:33:04

Highest Band Edge / 1 RB



Date: 7.MAY.2020 01:34:44

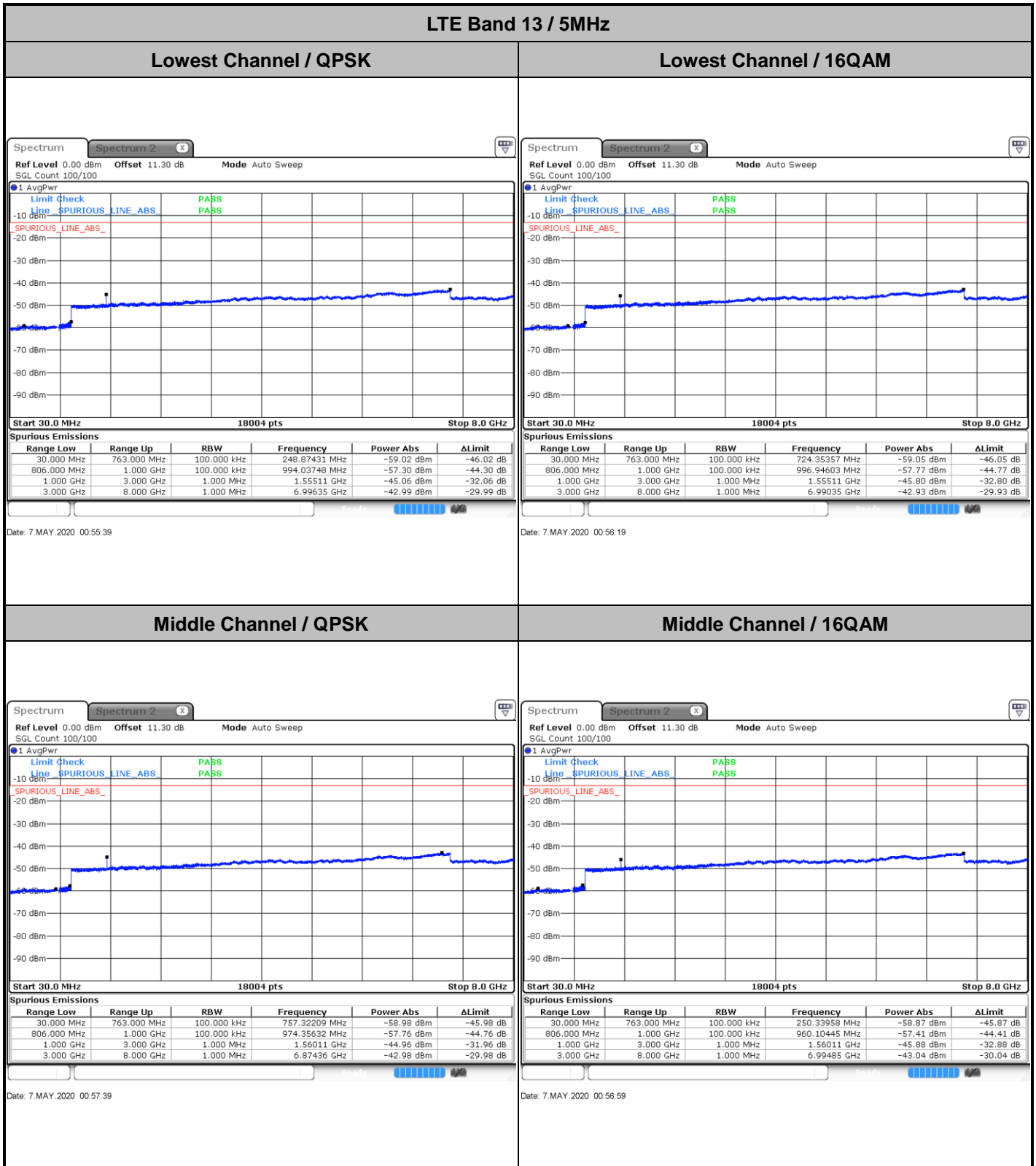
Band Edge / Full RB



Date: 7.MAY.2020 01:31:24



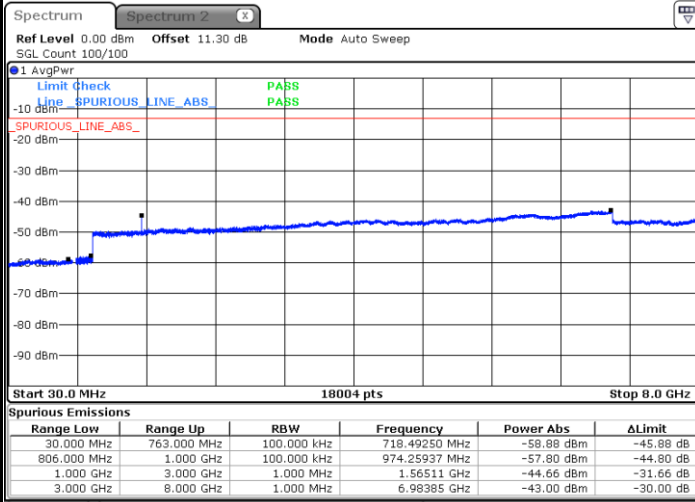
Conducted Spurious Emission





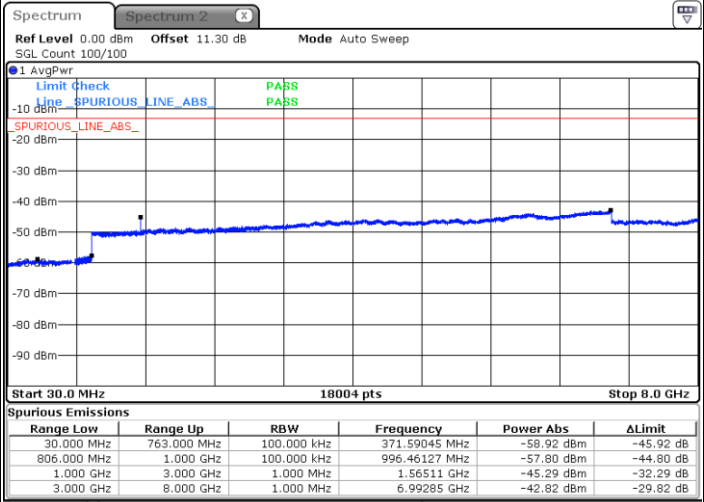
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 7.MAY.2020 01:06:37

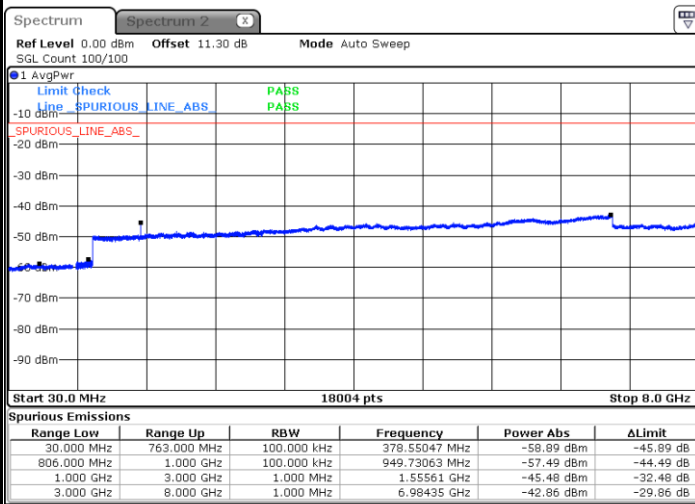
Highest Channel / 16QAM



Date: 7.MAY.2020 01:07:18

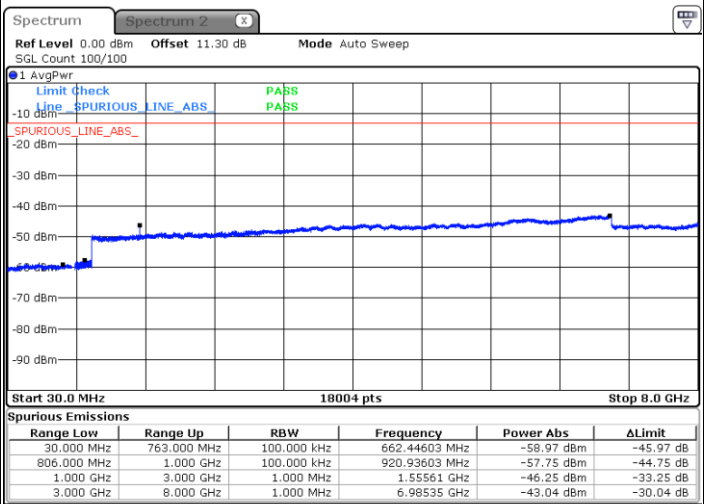
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 7.MAY.2020 01:29:21

Middle Channel / 16QAM



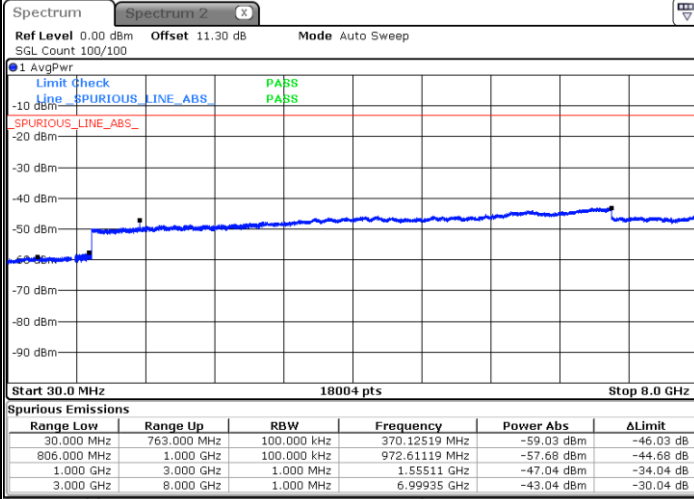
Date: 7.MAY.2020 01:28:41



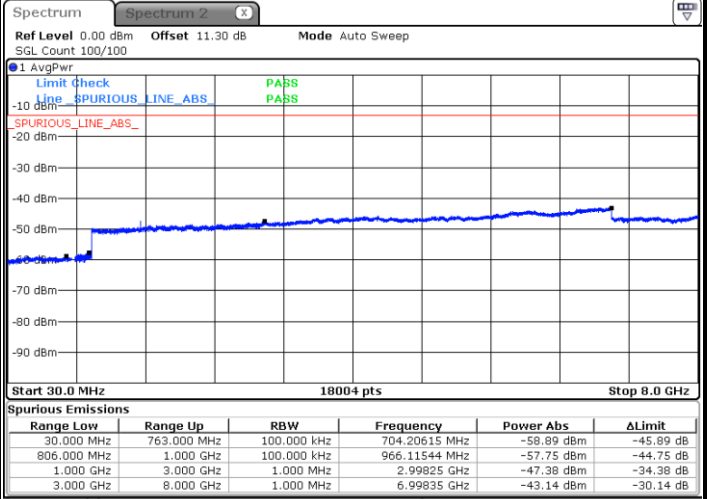
LTE Band 13 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

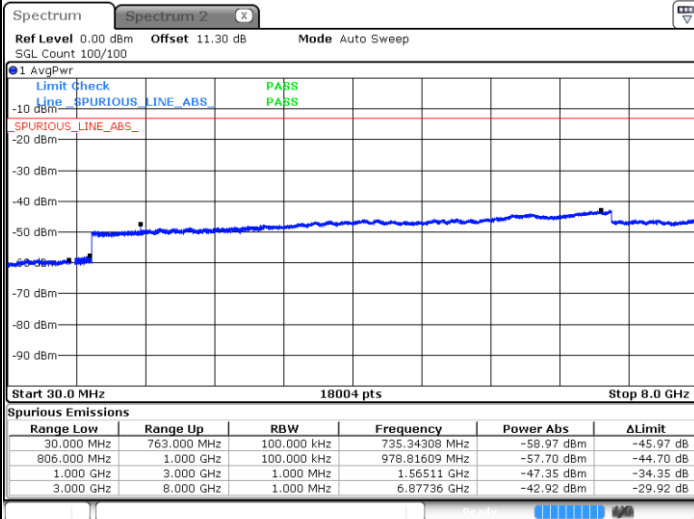


Date: 7.MAY.2020 01:11:44



Date: 7.MAY.2020 01:12:24

Highest Channel / 64QAM

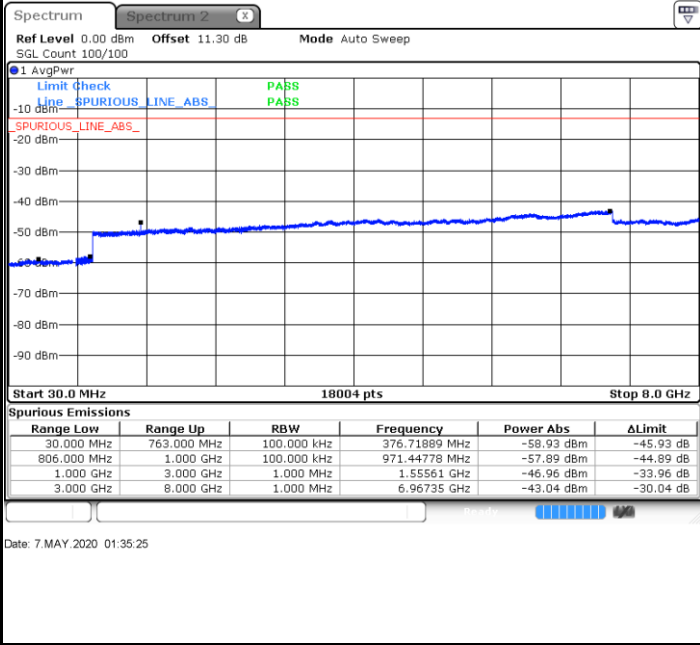


Date: 7.MAY.2020 01:17:13



LTE Band 13 / 10MHz

Middle Channel / 64QAM





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	0.0020	PASS
40	Normal Voltage	0.0087	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0073	
0	Normal Voltage	0.0029	
-10	Normal Voltage	0.0038	
-20	Normal Voltage	0.0155	
-30	Normal Voltage	0.0143	
20	Maximum Voltage	0.0138	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0064	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.49 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 25

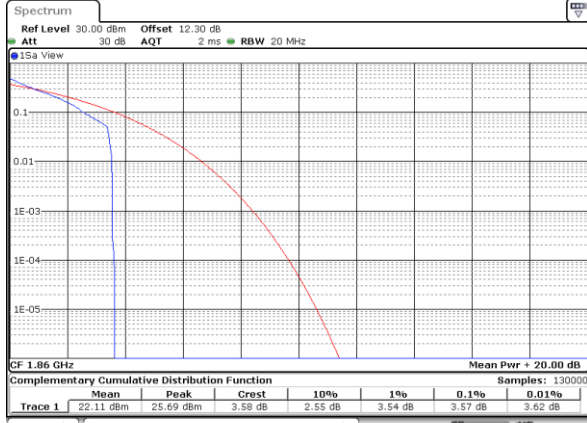
Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.57	4.93	5.13	5.88	PASS
Middle CH	3.54	4.99	5.48	5.91	
Highest CH	3.57	4.81	4.90	5.86	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.81	6.49	-	-	PASS
Middle CH	6.26	6.55	-	-	
Highest CH	6.20	6.49	-	-	



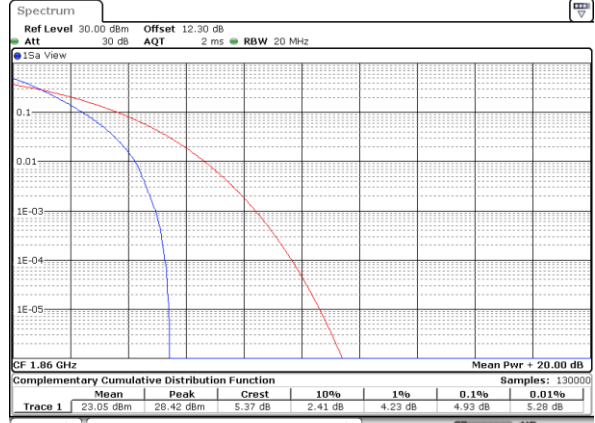
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



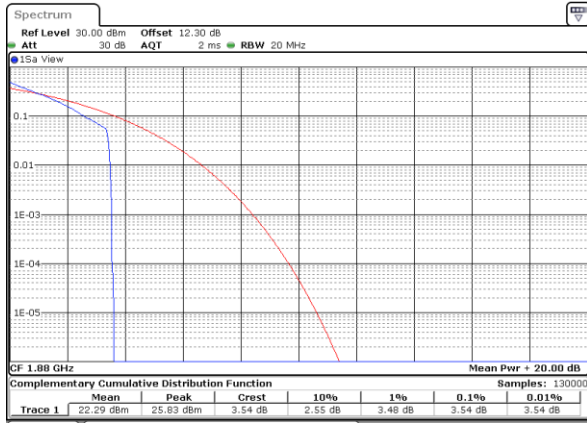
Date: 29 MAY 2020 16:24:33

Lowest Channel / Full RB



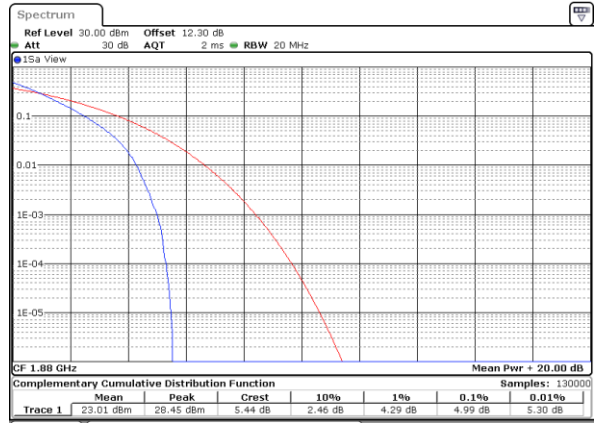
Date: 29 MAY 2020 16:24:44

Middle Channel / 1RB



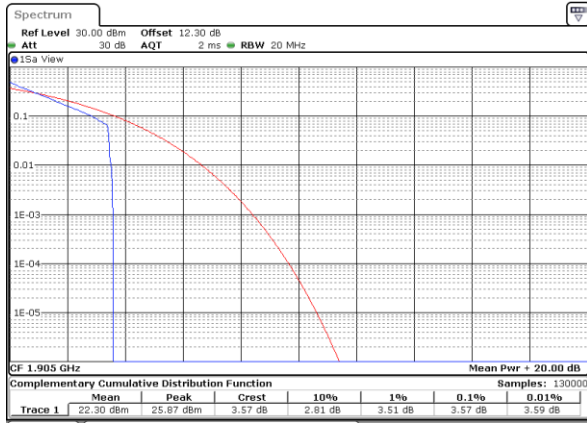
Date: 29 MAY 2020 16:30:20

Middle Channel / Full RB



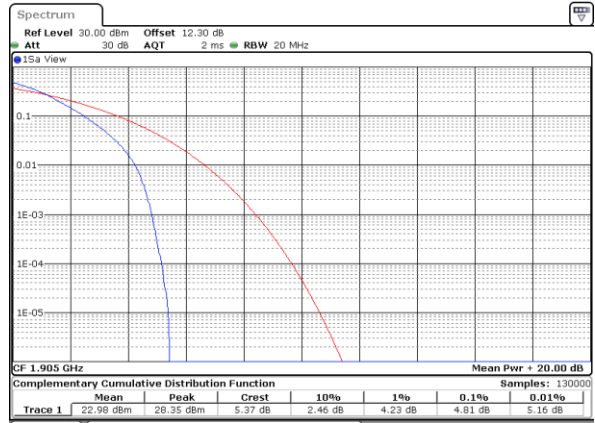
Date: 29 MAY 2020 16:30:32

Highest Channel / 1RB



Date: 29 MAY 2020 16:31:05

Highest Channel / Full RB



Date: 29 MAY 2020 16:31:16