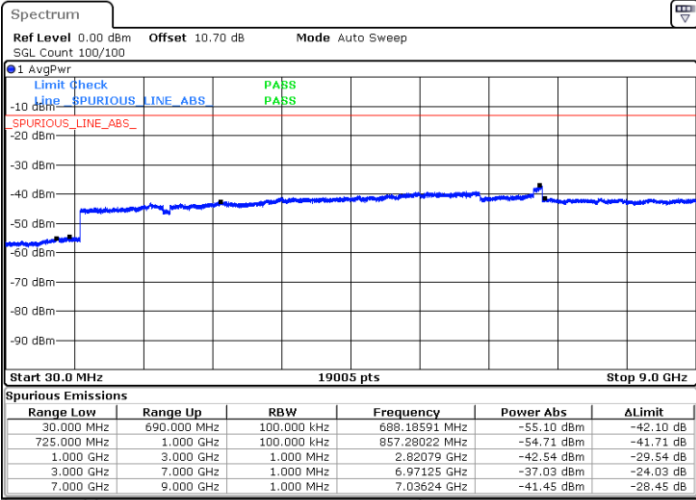




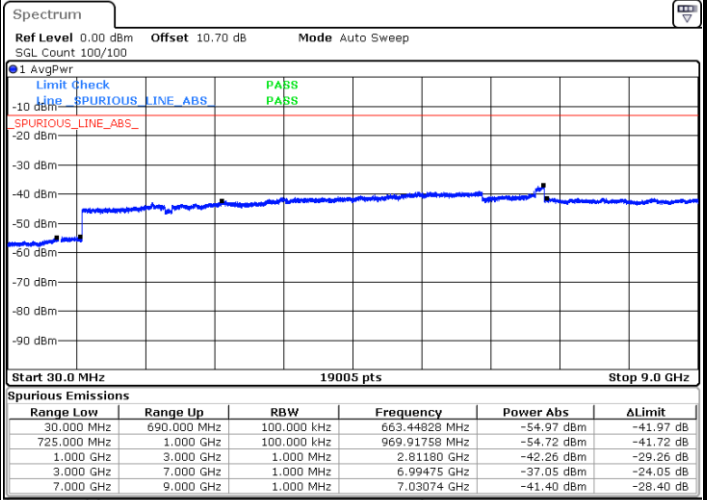
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

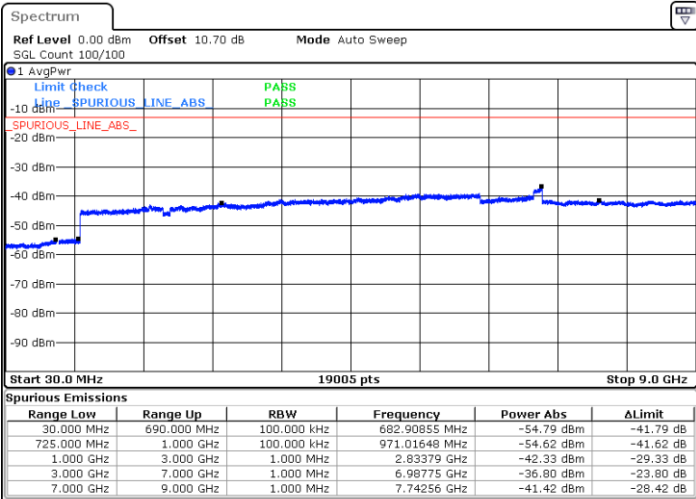


Date: 12.FEB.2020 19:53:31



Date: 12.FEB.2020 19:54:52

Highest Channel / 64QAM



Date: 13.FEB.2020 01:37:44



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	0.0023	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0160	
0	Normal Voltage	0.0127	
-10	Normal Voltage	0.0031	
-20	Normal Voltage	0.0150	
-30	Normal Voltage	0.0140	
20	Maximum Voltage	0.0139	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0133	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 17

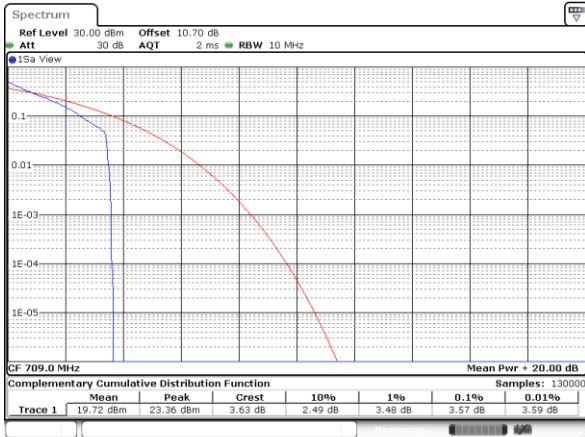
Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.57	4.72	4.09	5.39	PASS
Middle CH	3.62	4.72	4.46	5.48	
Highest CH	3.68	4.78	4.87	5.54	
Mode	LTE Band 17 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.12	6.29	-	-	PASS
Middle CH	6.14	6.29	-	-	
Highest CH	6.29	6.32	-	-	



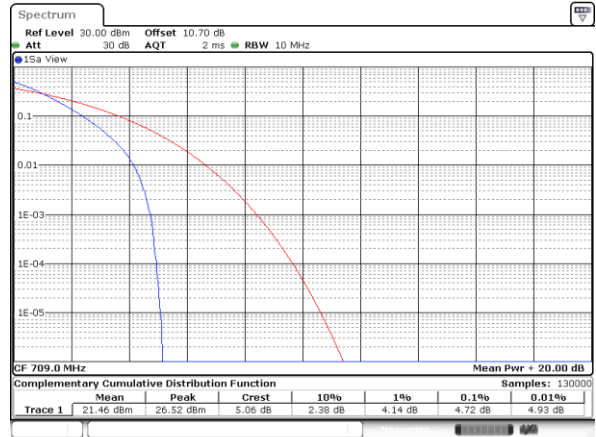
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



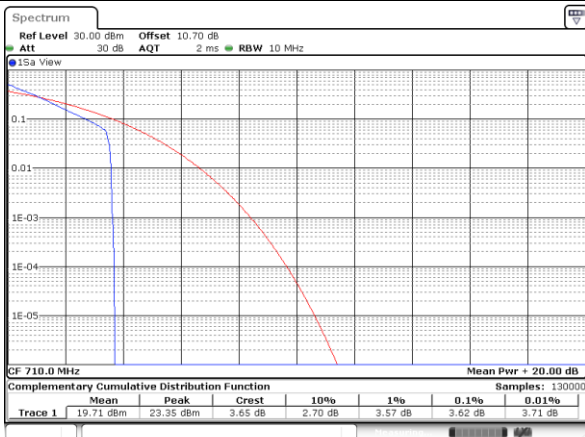
Date: 12.FEB.2020 18:07:14

Lowest Channel / Full RB



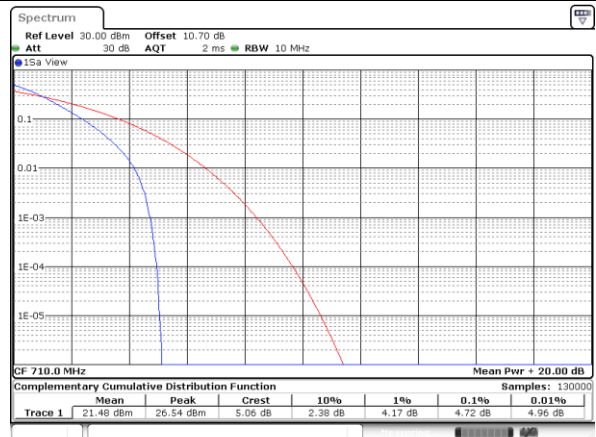
Date: 12.FEB.2020 18:07:28

Middle Channel / 1RB



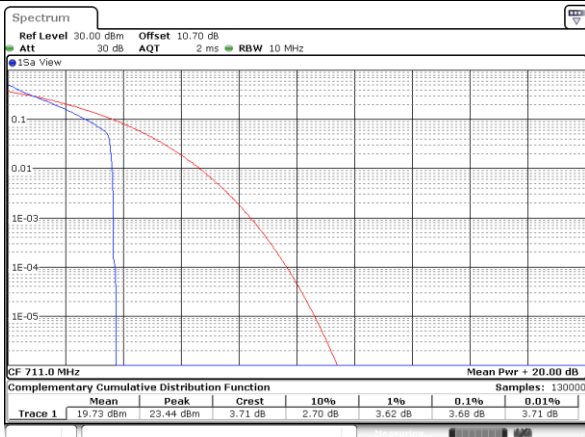
Date: 12.FEB.2020 18:07:41

Middle Channel / Full RB



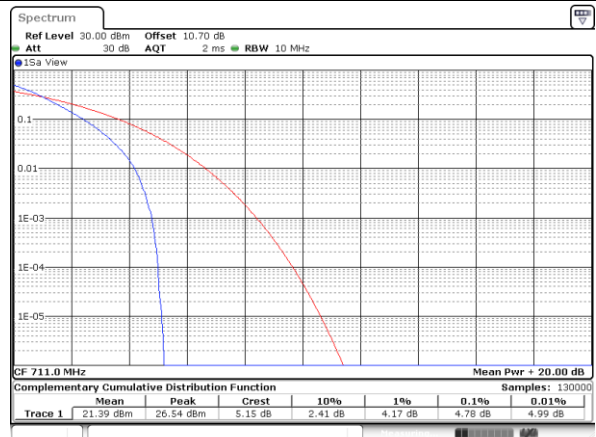
Date: 12.FEB.2020 18:07:56

Highest Channel / 1RB



Date: 12.FEB.2020 18:08:12

Highest Channel / Full RB

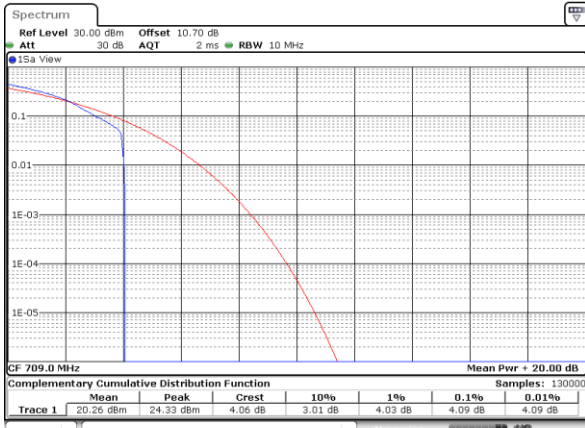


Date: 12.FEB.2020 18:08:27



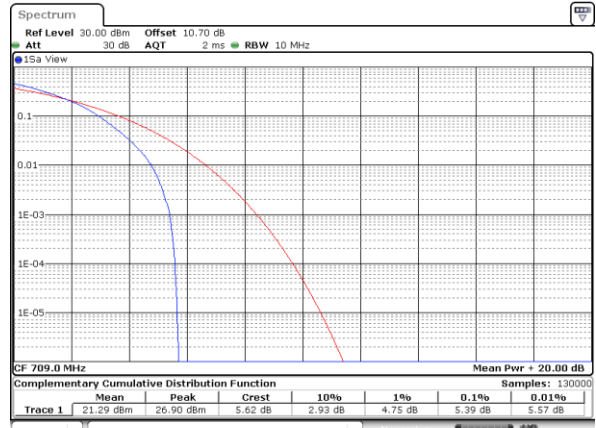
LTE Band 17 / 10MHz / 16QAM

Lowest Channel / 1RB



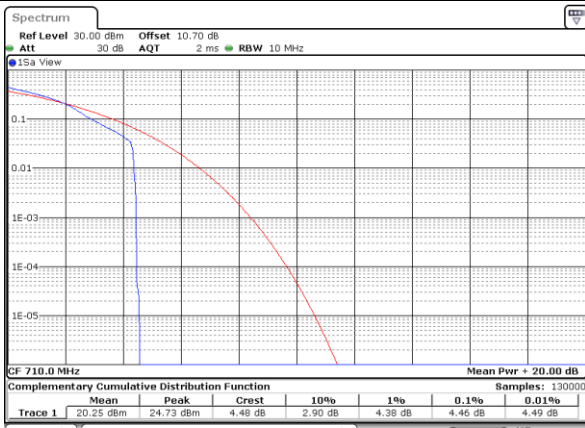
Date: 12.FEB.2020 18:05:47

Lowest Channel / Full RB



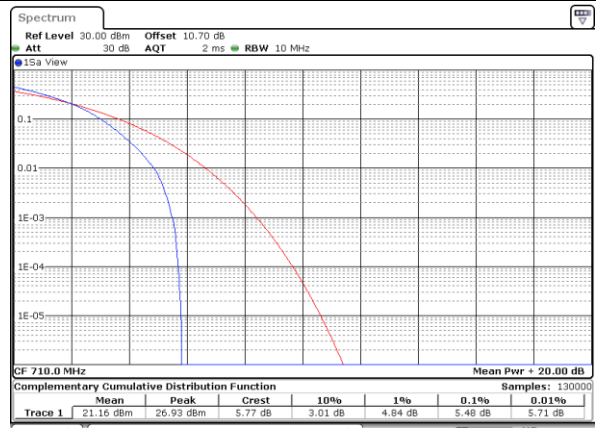
Date: 12.FEB.2020 18:06:00

Middle Channel / 1RB



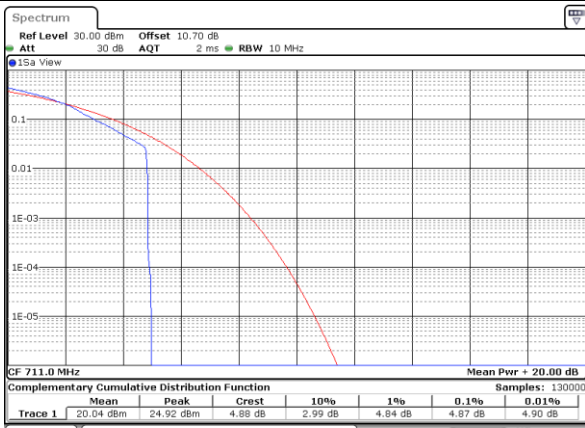
Date: 12.FEB.2020 18:06:15

Middle Channel / Full RB



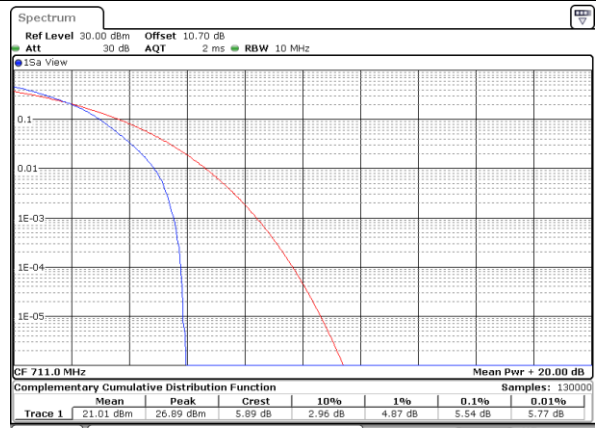
Date: 12.FEB.2020 18:06:28

Highest Channel / 1RB



Date: 12.FEB.2020 18:06:42

Highest Channel / Full RB

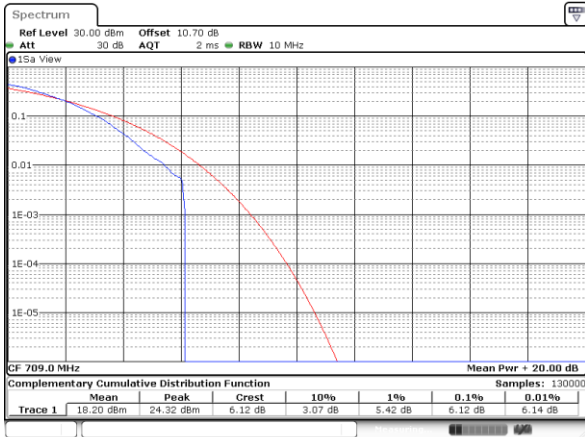


Date: 12.FEB.2020 18:06:58



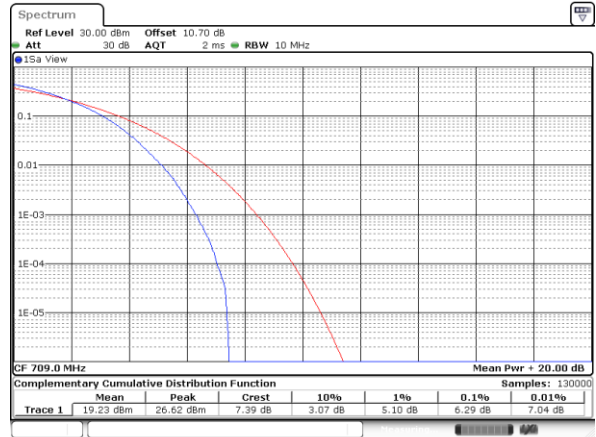
LTE Band 17 / 10MHz / 64QAM

Lowest Channel / 1RB



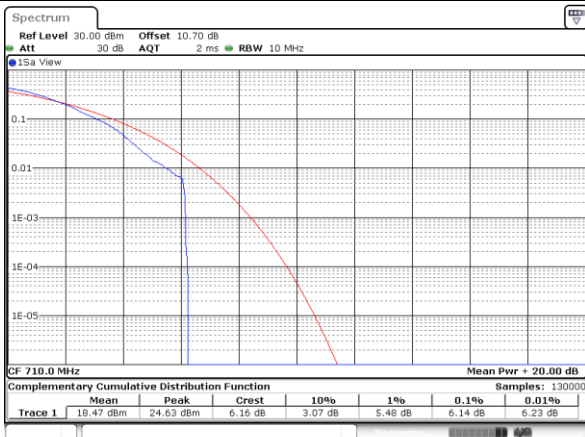
Date: 12.FEB.2020 18:08:41

Lowest Channel / Full RB



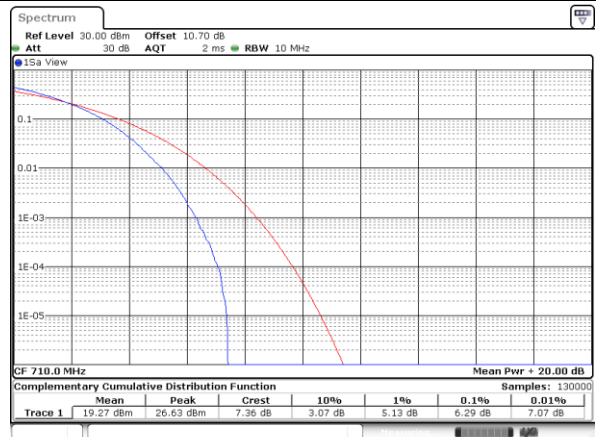
Date: 12.FEB.2020 18:08:57

Middle Channel / 1RB



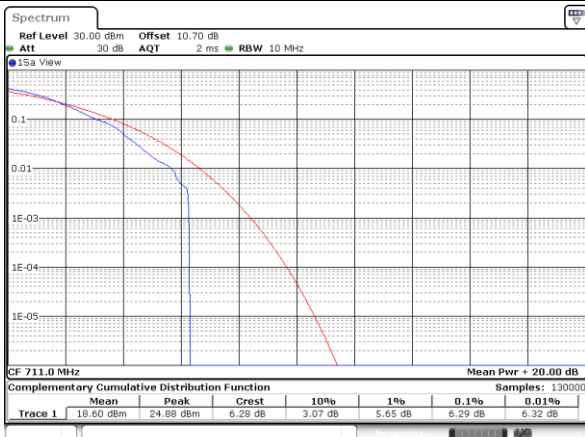
Date: 12.FEB.2020 18:09:12

Middle Channel / Full RB



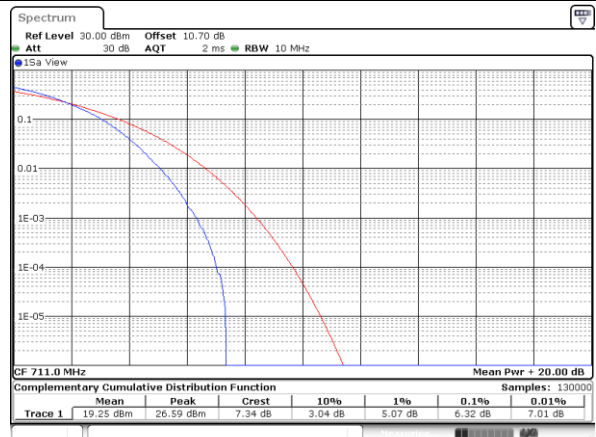
Date: 12.FEB.2020 18:09:29

Highest Channel / 1RB



Date: 12.FEB.2020 18:09:45

Highest Channel / Full RB



Date: 12.FEB.2020 18:10:00



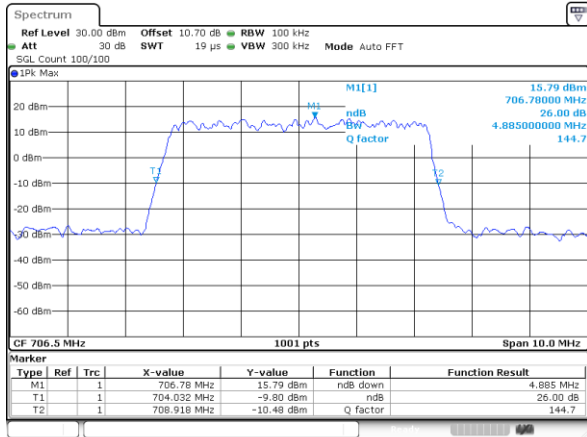
26dB Bandwidth

Mode	LTE Band 17 : 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	4.95	9.73	9.79	-	-	-	-
Middle CH	-	-	-	-	4.94	4.88	9.75	9.77	-	-	-	-
Highest CH	-	-	-	-	4.91	4.87	9.87	9.77	-	-	-	-
Mode	LTE Band 17 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.87	-	9.83	-	-	-	-	-
Middle CH	-	-	-	-	4.87	-	9.85	-	-	-	-	-
Highest CH	-	-	-	-	4.87	-	9.71	-	-	-	-	-



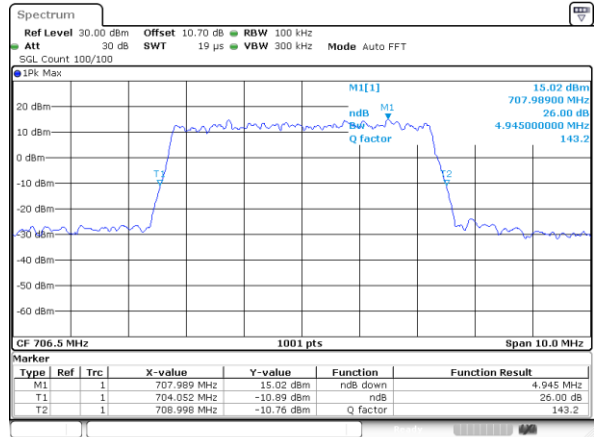
LTE Band 17

Lowest Channel / 5MHz / QPSK



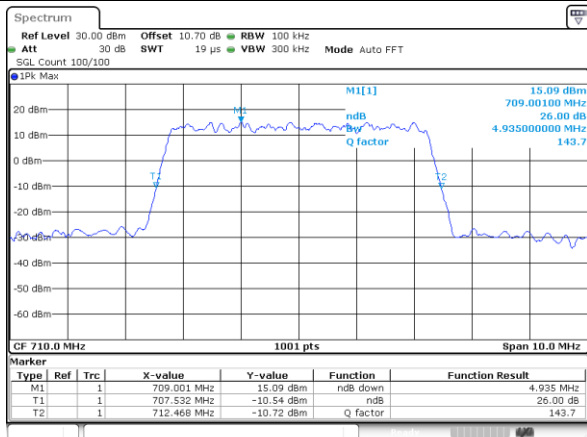
Date: 12.FEB.2020 17:10:07

Lowest Channel / 5MHz / 16QAM



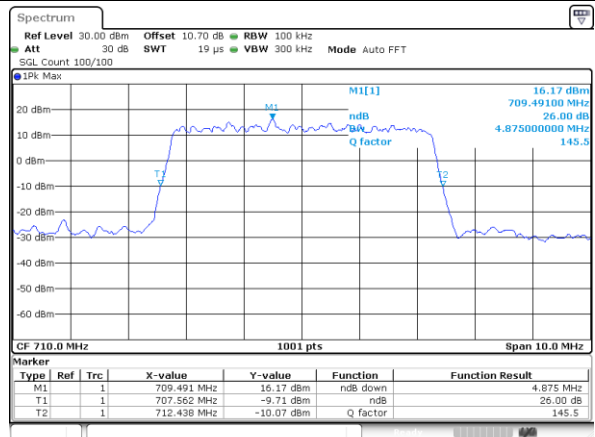
Date: 12.FEB.2020 17:10:21

Middle Channel / 5MHz / QPSK



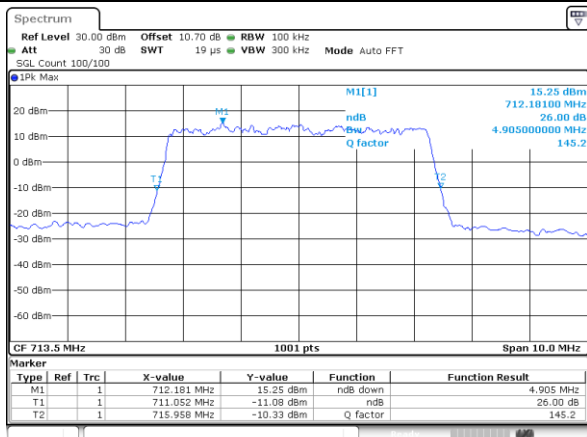
Date: 12.FEB.2020 17:17:37

Middle Channel / 5MHz / 16QAM



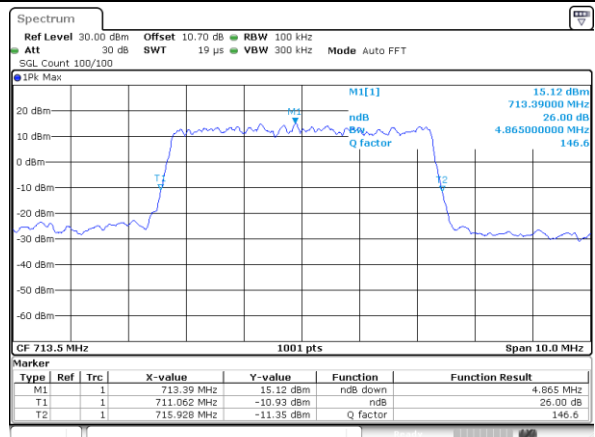
Date: 12.FEB.2020 17:17:50

Highest Channel / 5MHz / QPSK



Date: 12.FEB.2020 17:20:20

Highest Channel / 5MHz / 16QAM

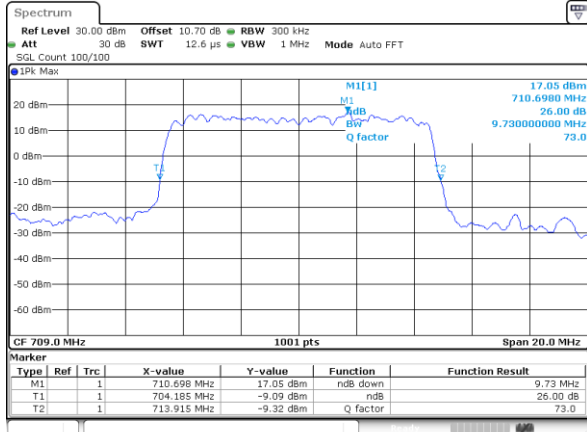


Date: 12.FEB.2020 17:20:34



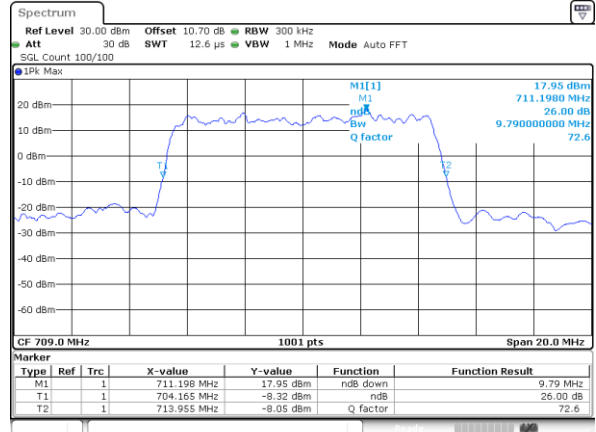
LTE Band 17

Lowest Channel / 10MHz / QPSK



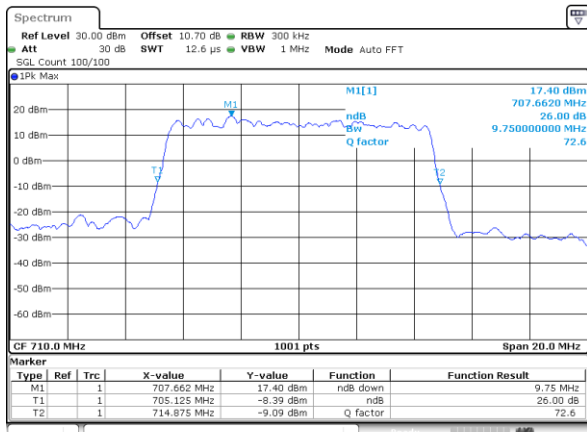
Date: 12.FEB.2020 17:27:53

Lowest Channel / 10MHz / 16QAM



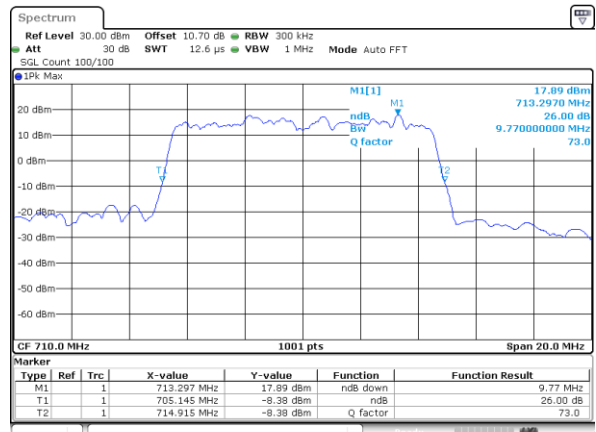
Date: 12.FEB.2020 17:28:06

Middle Channel / 10MHz / QPSK



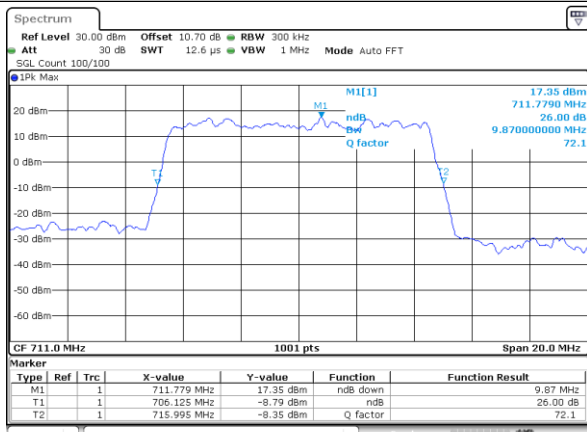
Date: 12.FEB.2020 17:38:15

Middle Channel / 10MHz / 16QAM



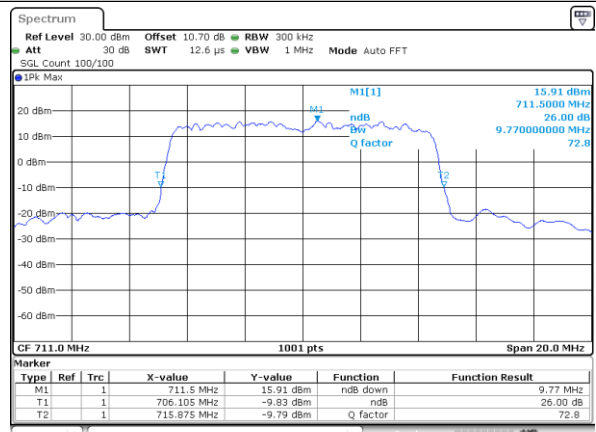
Date: 12.FEB.2020 17:38:28

Highest Channel / 10MHz / QPSK



Date: 12.FEB.2020 17:40:58

Highest Channel / 10MHz / 16QAM

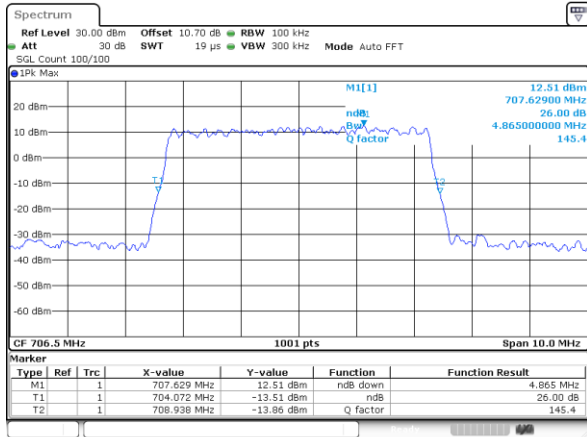


Date: 12.FEB.2020 17:41:12



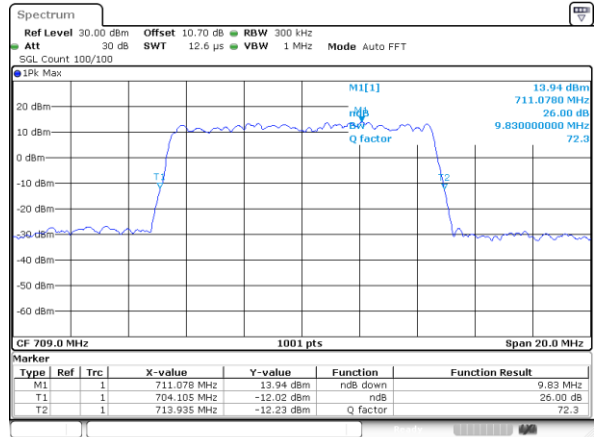
LTE Band 17

Lowest Channel / 5MHz / 64QAM



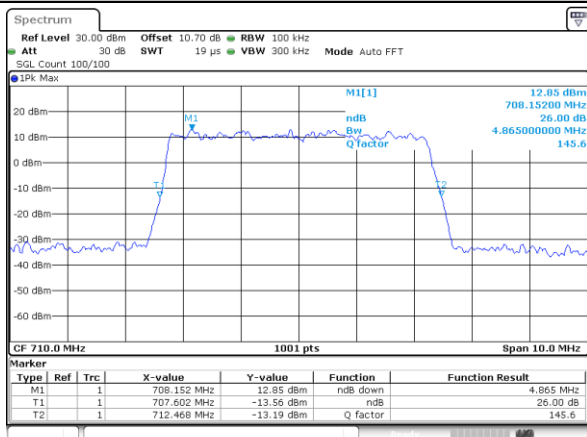
Date: 12.FEB.2020 17:48:15

Lowest Channel / 10MHz / 64QAM



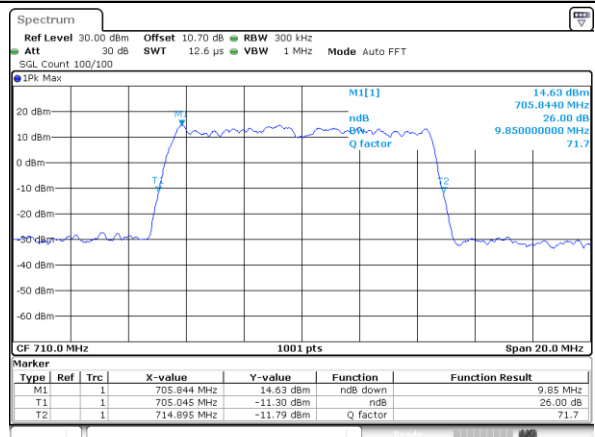
Date: 12.FEB.2020 17:57:07

Middle Channel / 5MHz / 64QAM



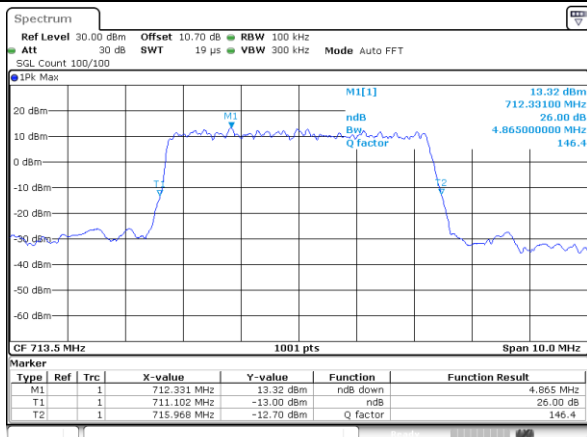
Date: 12.FEB.2020 17:52:00

Middle Channel / 10MHz / 64QAM



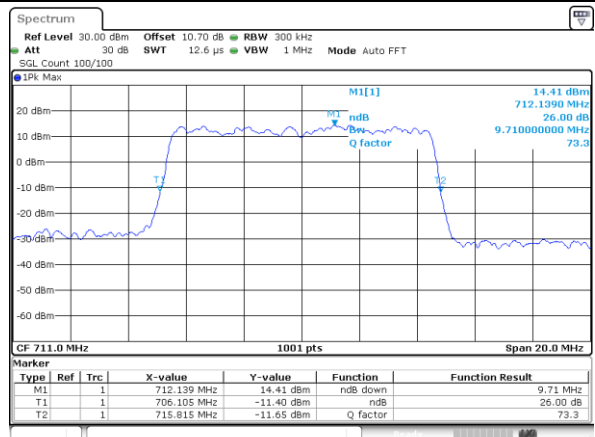
Date: 12.FEB.2020 18:00:51

Highest Channel / 5MHz / 64QAM



Date: 12.FEB.2020 17:53:21

Highest Channel / 10MHz / 64QAM



Date: 12.FEB.2020 18:02:13



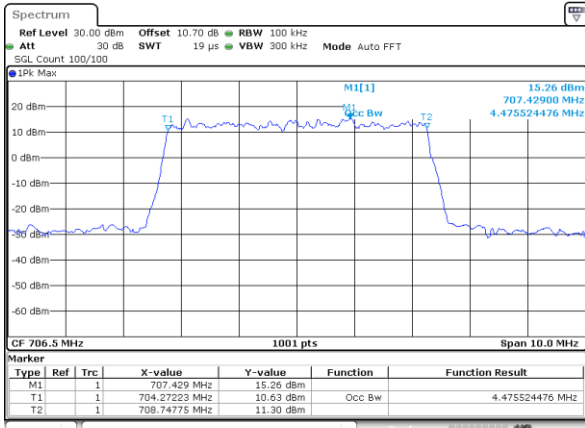
Occupied Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	4.48	4.48	9.03	8.99	-	-	-	-
Middle CH	-	-	-	-	4.51	4.48	8.99	8.99	-	-	-	-
Highest CH	-	-	-	-	4.47	4.48	9.03	9.01	-	-	-	-
Mode	LTE Band 17 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	8.97	-	-	-	-	-
Middle CH	-	-	-	-	4.52	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	8.97	-	-	-	-	-



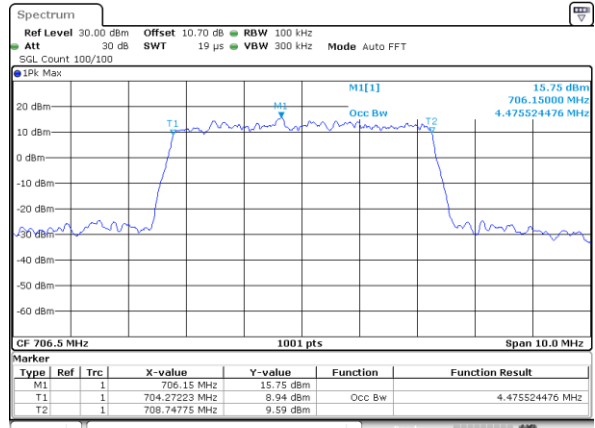
LTE Band 17

Lowest Channel / 5MHz / QPSK



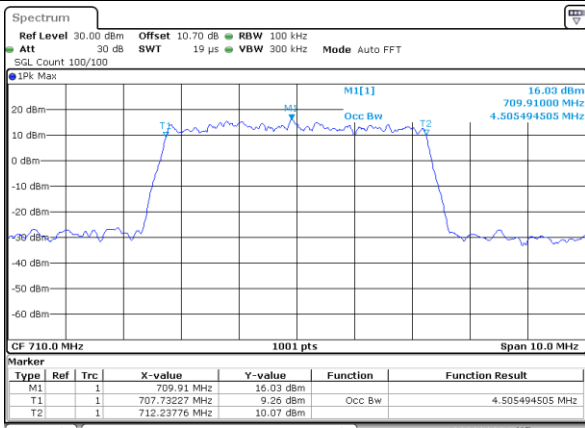
Date: 12.FEB.2020 17:09:40

Lowest Channel / 5MHz / 16QAM



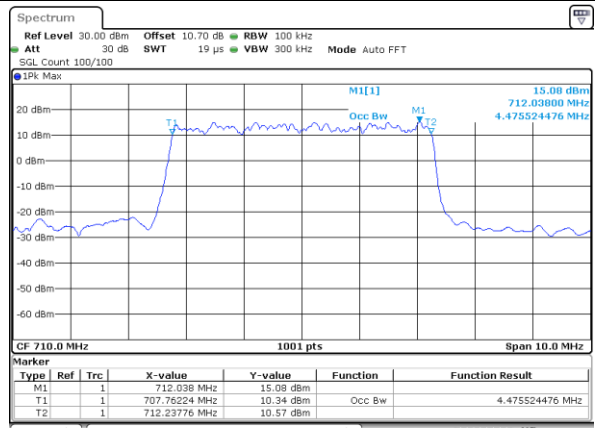
Date: 12.FEB.2020 17:09:54

Middle Channel / 5MHz / QPSK



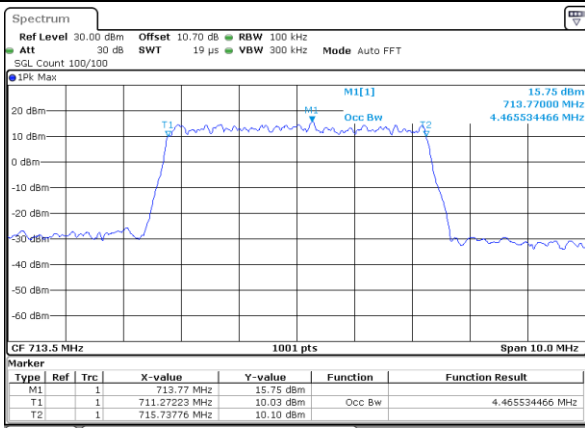
Date: 12.FEB.2020 17:17:10

Middle Channel / 5MHz / 16QAM



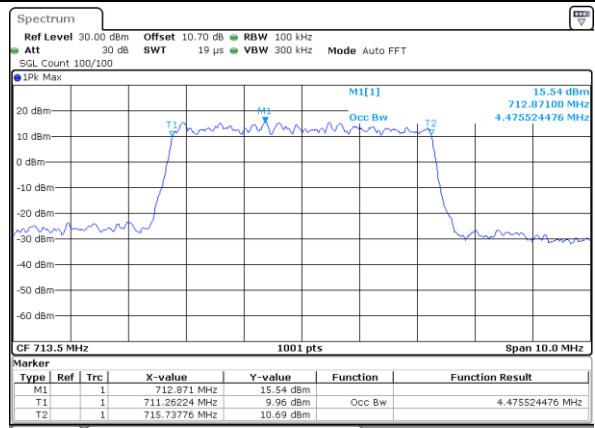
Date: 12.FEB.2020 17:17:24

Highest Channel / 5MHz / QPSK



Date: 12.FEB.2020 17:19:52

Highest Channel / 5MHz / 16QAM

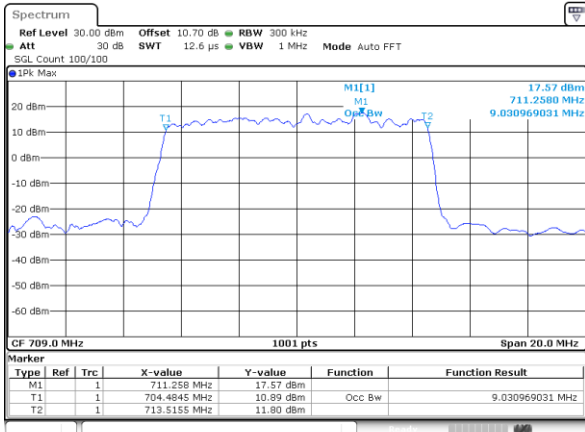


Date: 12.FEB.2020 17:20:06



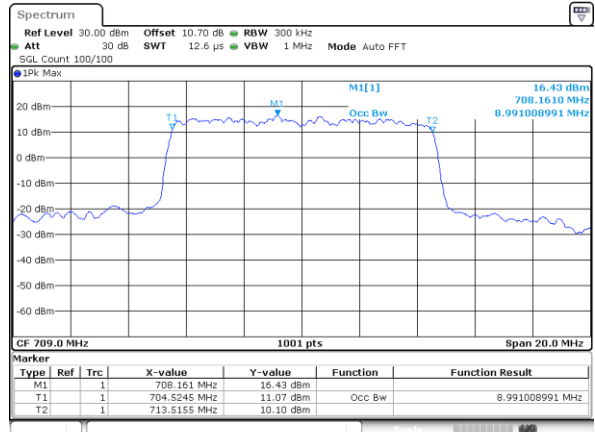
LTE Band 17

Lowest Channel / 10MHz / QPSK



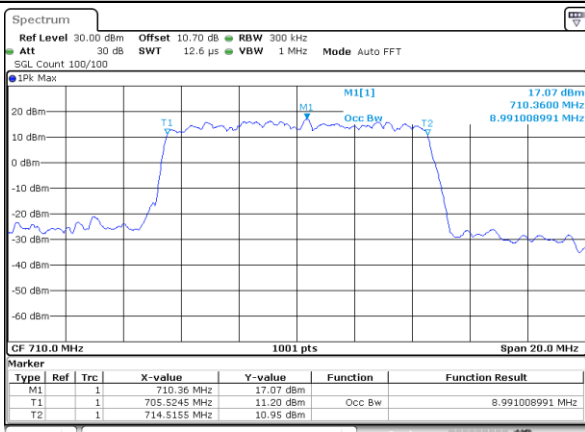
Date: 12.FEB.2020 17:27:25

Lowest Channel / 10MHz / 16QAM



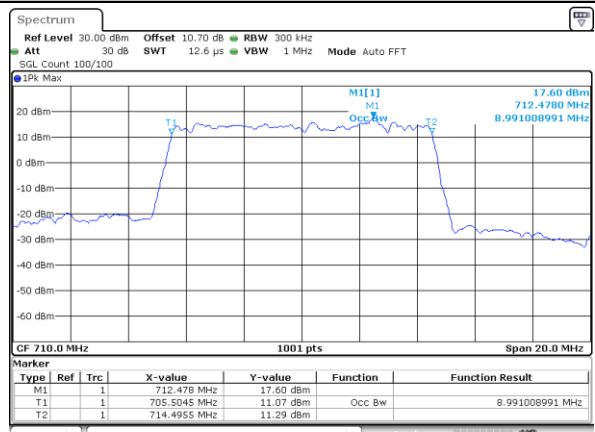
Date: 12.FEB.2020 17:27:39

Middle Channel / 10MHz / QPSK



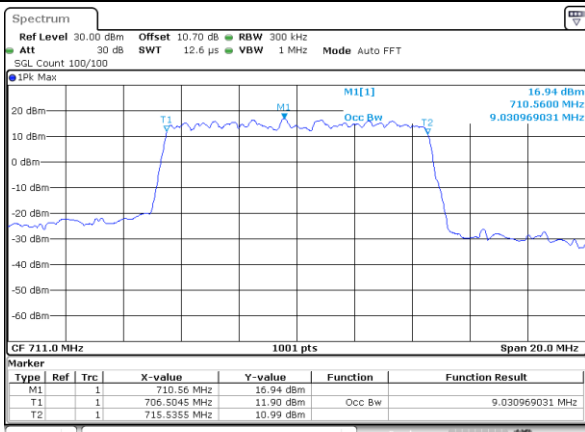
Date: 12.FEB.2020 17:34:56

Middle Channel / 10MHz / 16QAM



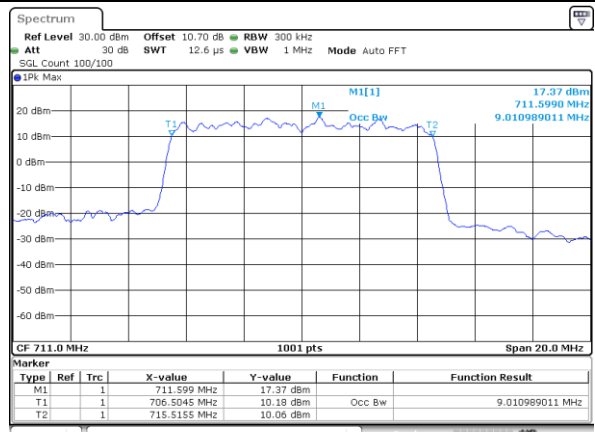
Date: 12.FEB.2020 17:38:01

Highest Channel / 10MHz / QPSK



Date: 12.FEB.2020 17:40:31

Highest Channel / 10MHz / 16QAM

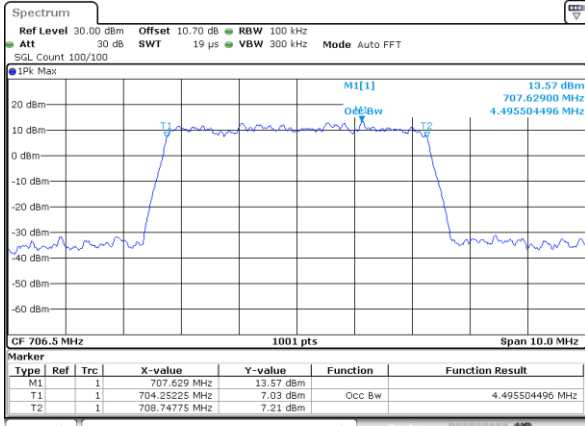


Date: 12.FEB.2020 17:40:45



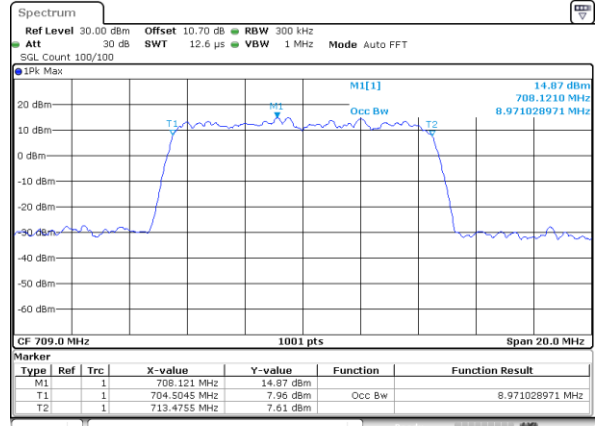
LTE Band 17

Lowest Channel / 5MHz / 64QAM



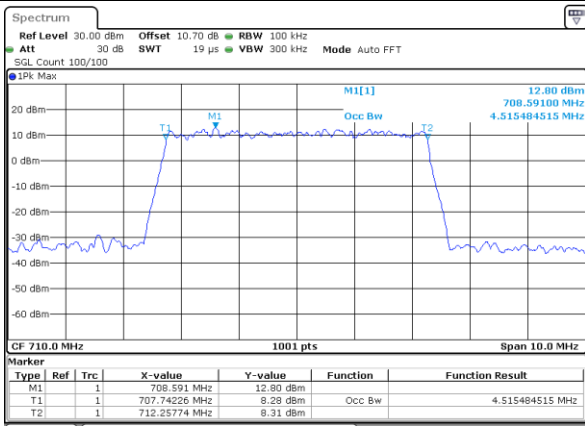
Date: 12.FEB.2020 17:48:02

Lowest Channel / 10MHz / 64QAM



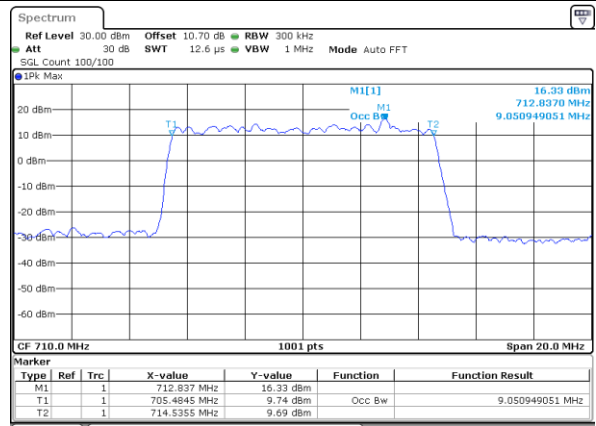
Date: 12.FEB.2020 17:56:53

Middle Channel / 5MHz / 64QAM



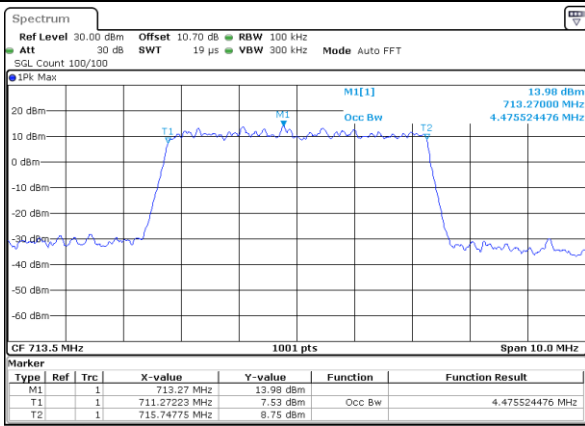
Date: 12.FEB.2020 17:51:46

Middle Channel / 10MHz / 64QAM



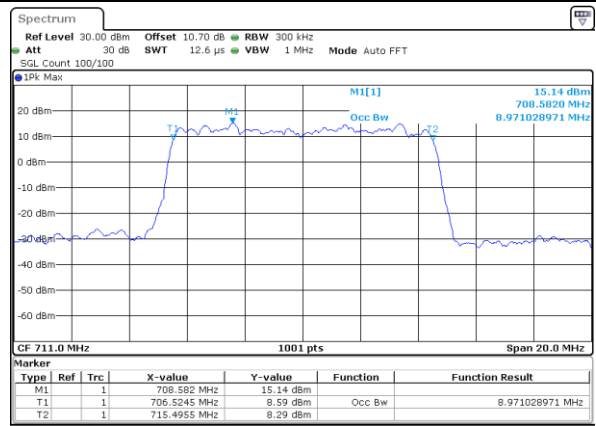
Date: 12.FEB.2020 18:00:38

Highest Channel / 5MHz / 64QAM



Date: 12.FEB.2020 17:53:08

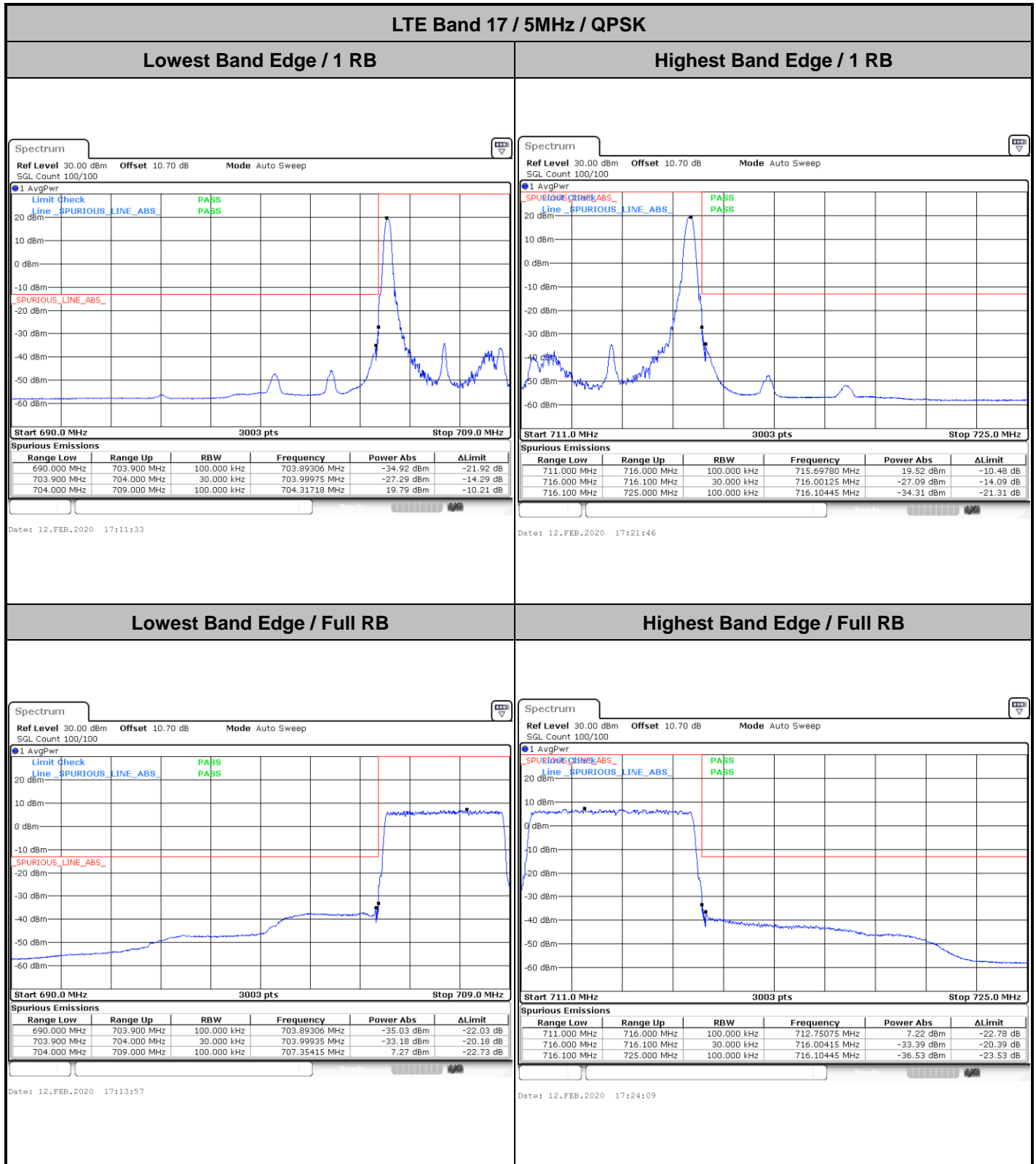
Highest Channel / 10MHz / 64QAM



Date: 12.FEB.2020 18:01:59



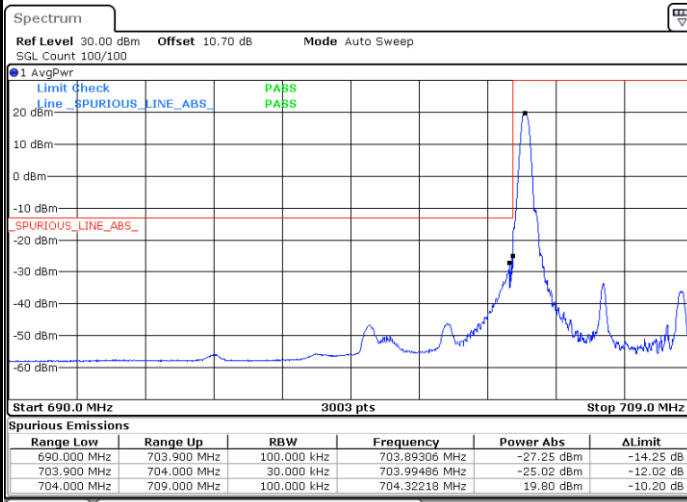
Conducted Band Edge





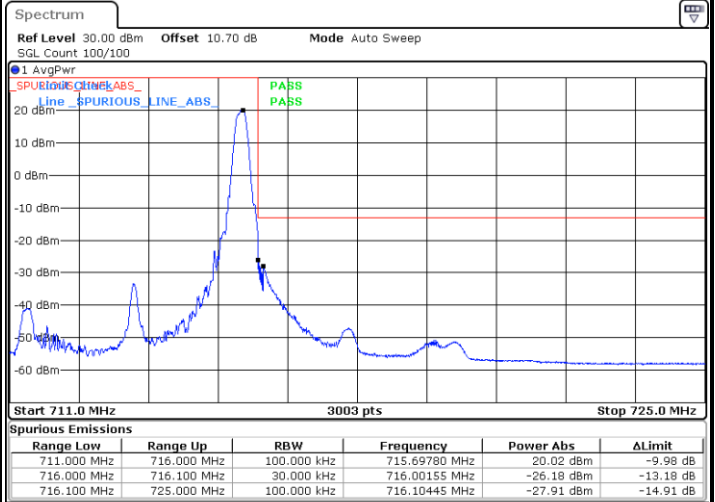
LTE Band 17 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



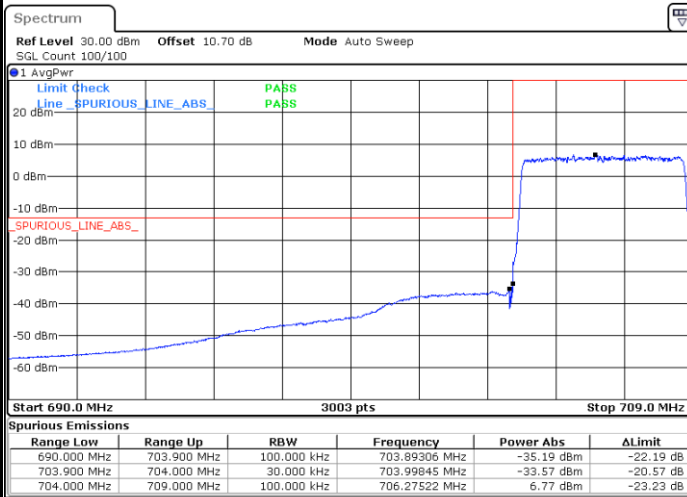
Date: 12.FEB.2020 17:12:45

Highest Band Edge / 1 RB



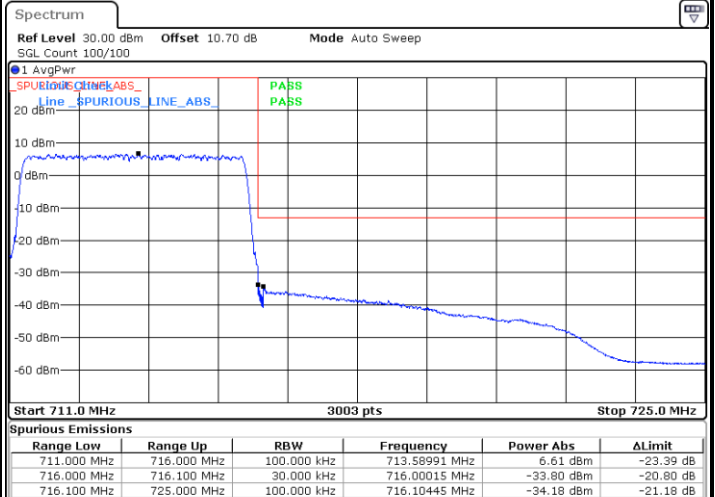
Date: 12.FEB.2020 17:22:57

Lowest Band Edge / Full RB



Date: 12.FEB.2020 17:15:09

Highest Band Edge / Full RB



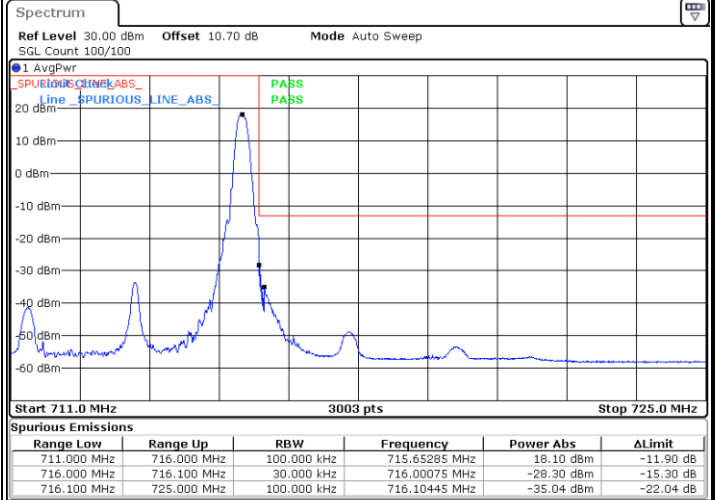
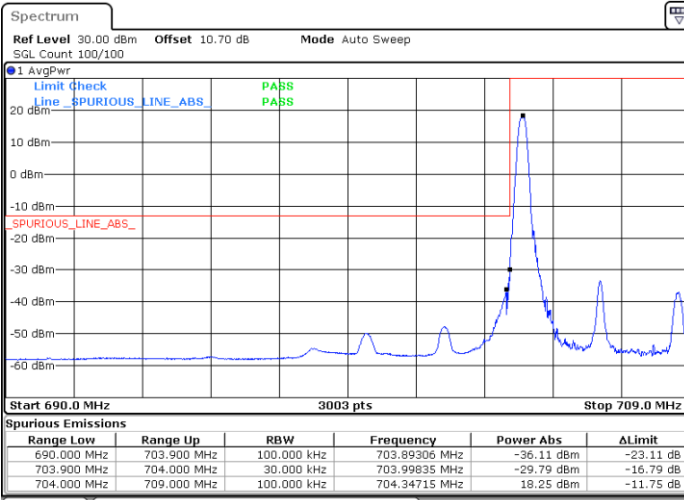
Date: 12.FEB.2020 17:25:21



LTE Band 17 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

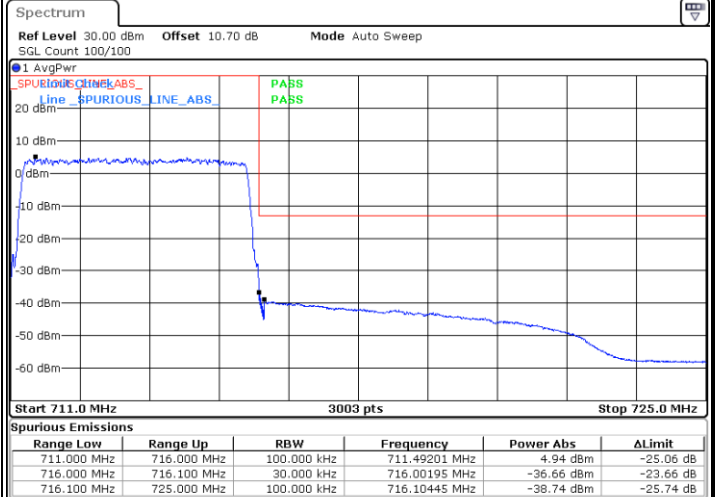
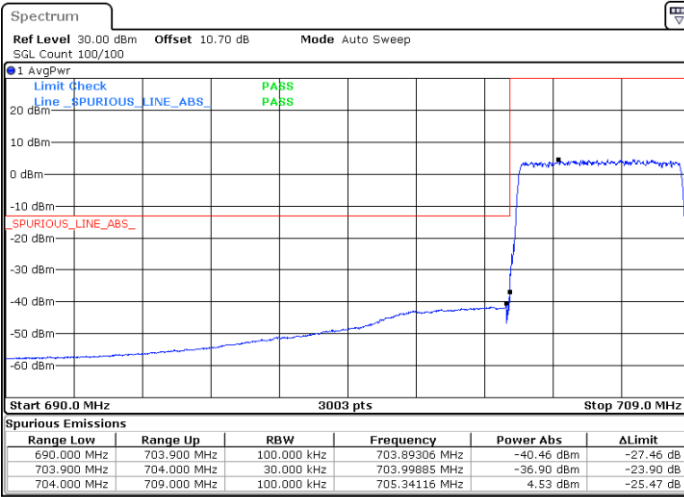


Date: 12.FEB.2020 17:49:27

Date: 12.FEB.2020 17:54:33

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



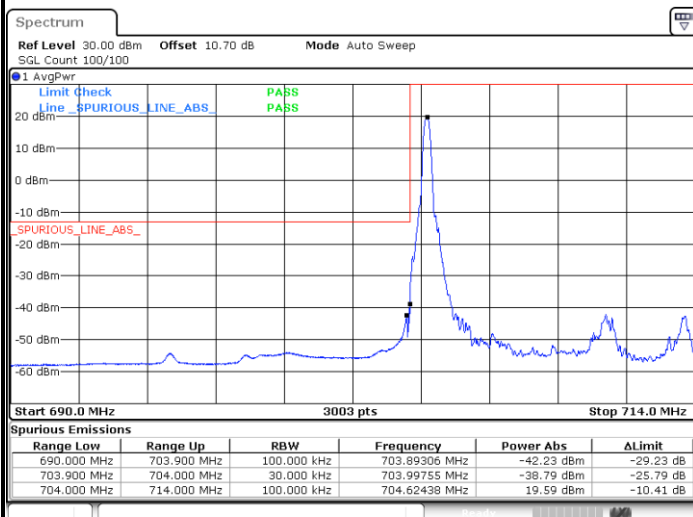
Date: 12.FEB.2020 17:50:39

Date: 12.FEB.2020 17:55:45



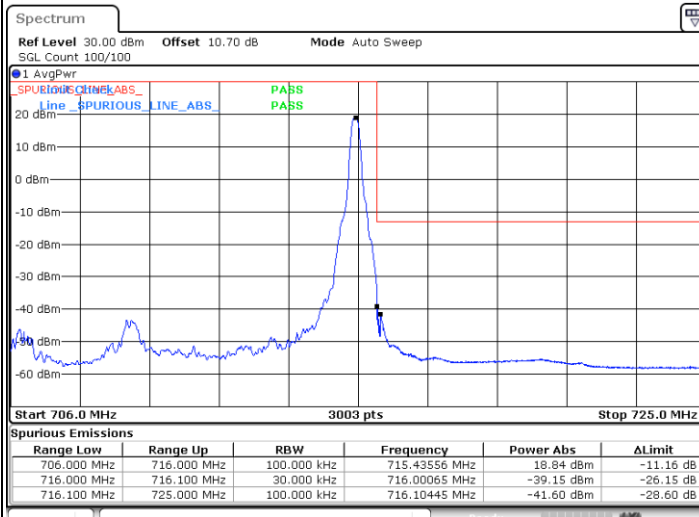
LTE Band 17 / 10MHz / QPSK

Lowest Band Edge / 1 RB



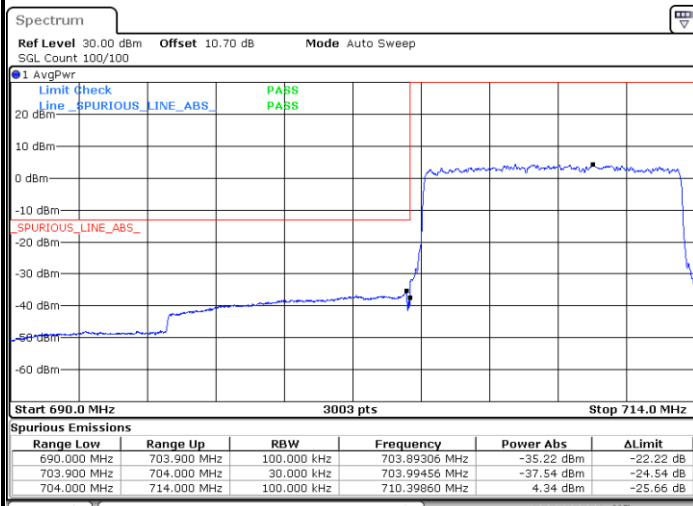
Date: 12.FEB.2020 17:29:19

Highest Band Edge / 1 RB



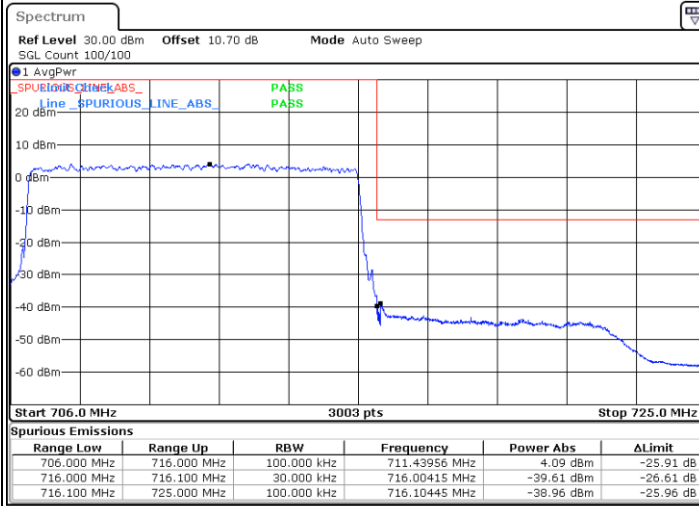
Date: 12.FEB.2020 17:42:24

Lowest Band Edge / Full RB



Date: 12.FEB.2020 17:31:42

Highest Band Edge / Full RB

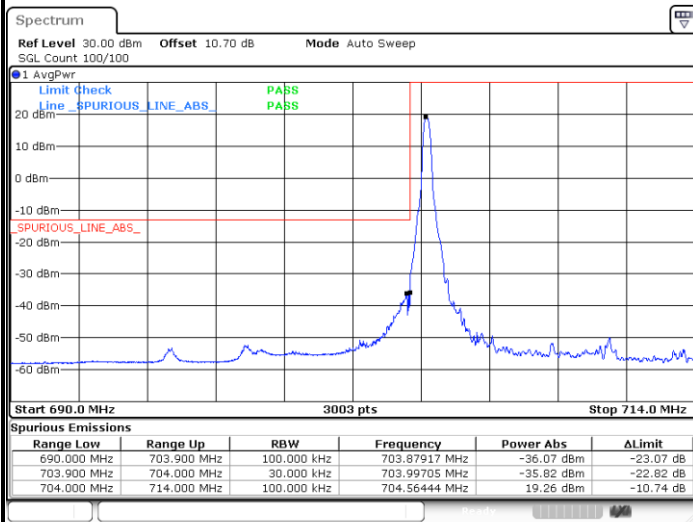


Date: 12.FEB.2020 17:44:47

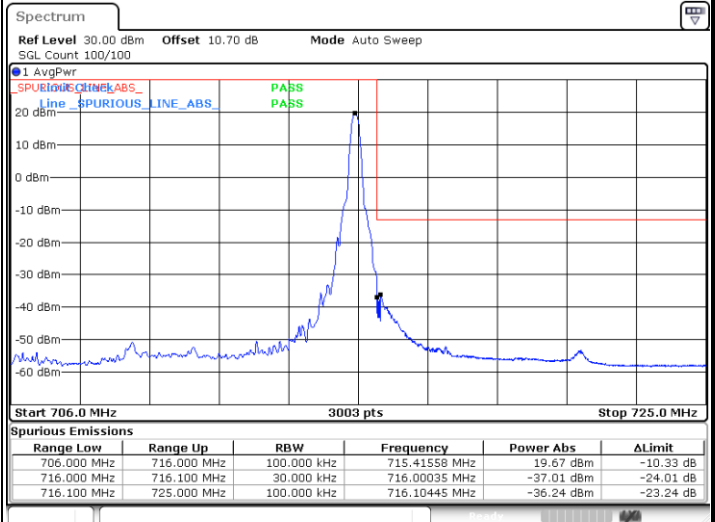


LTE Band 17 / 10MHz / 16QAM

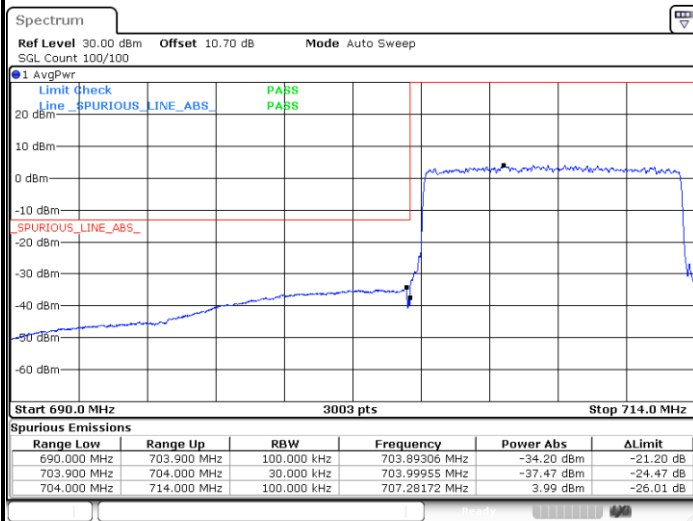
Lowest Band Edge / 1 RB



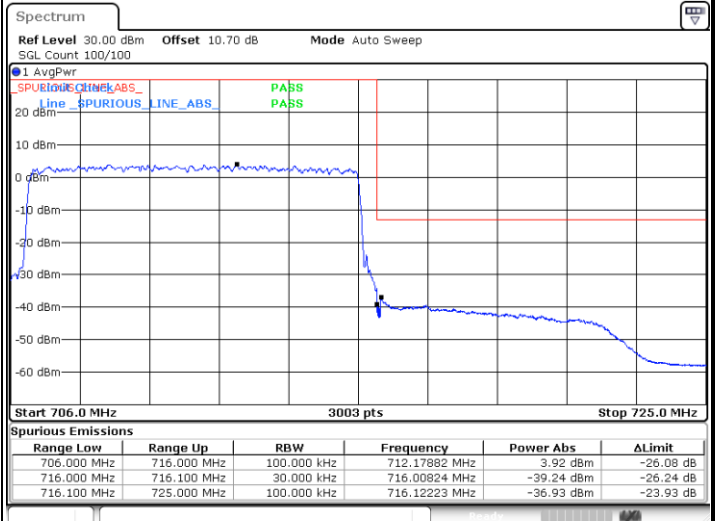
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



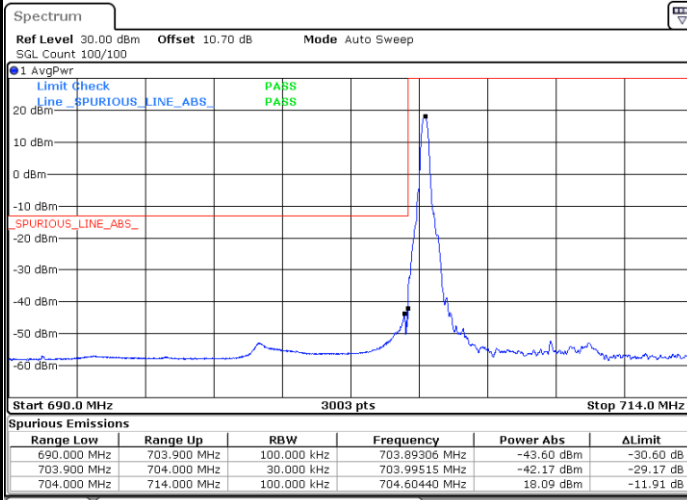
Highest Band Edge / Full RB





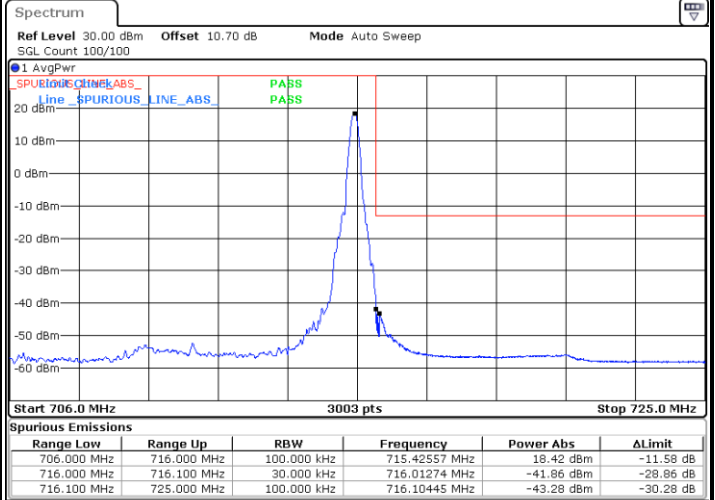
LTE Band 17 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



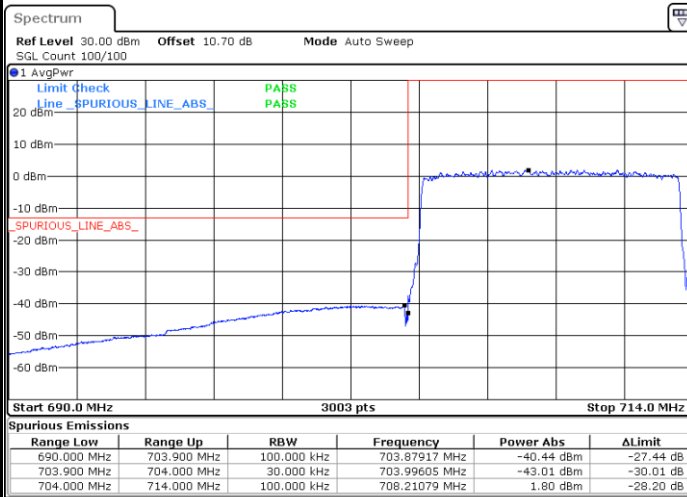
Date: 12.FEB.2020 17:58:19

Highest Band Edge / 1 RB



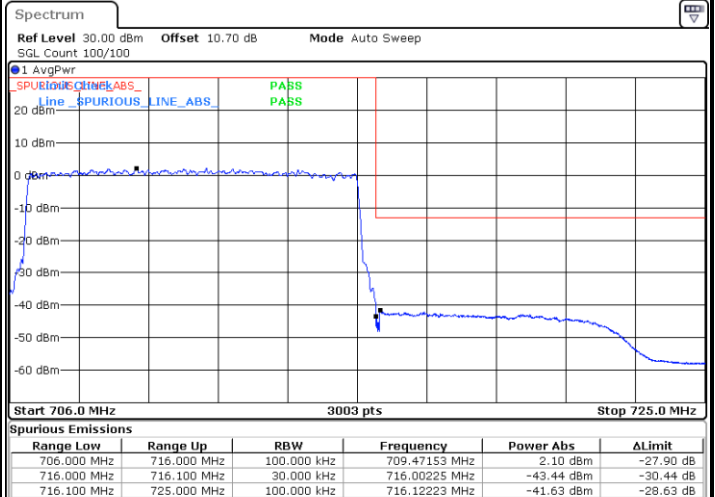
Date: 12.FEB.2020 18:03:25

Lowest Band Edge / Full RB



Date: 12.FEB.2020 17:59:30

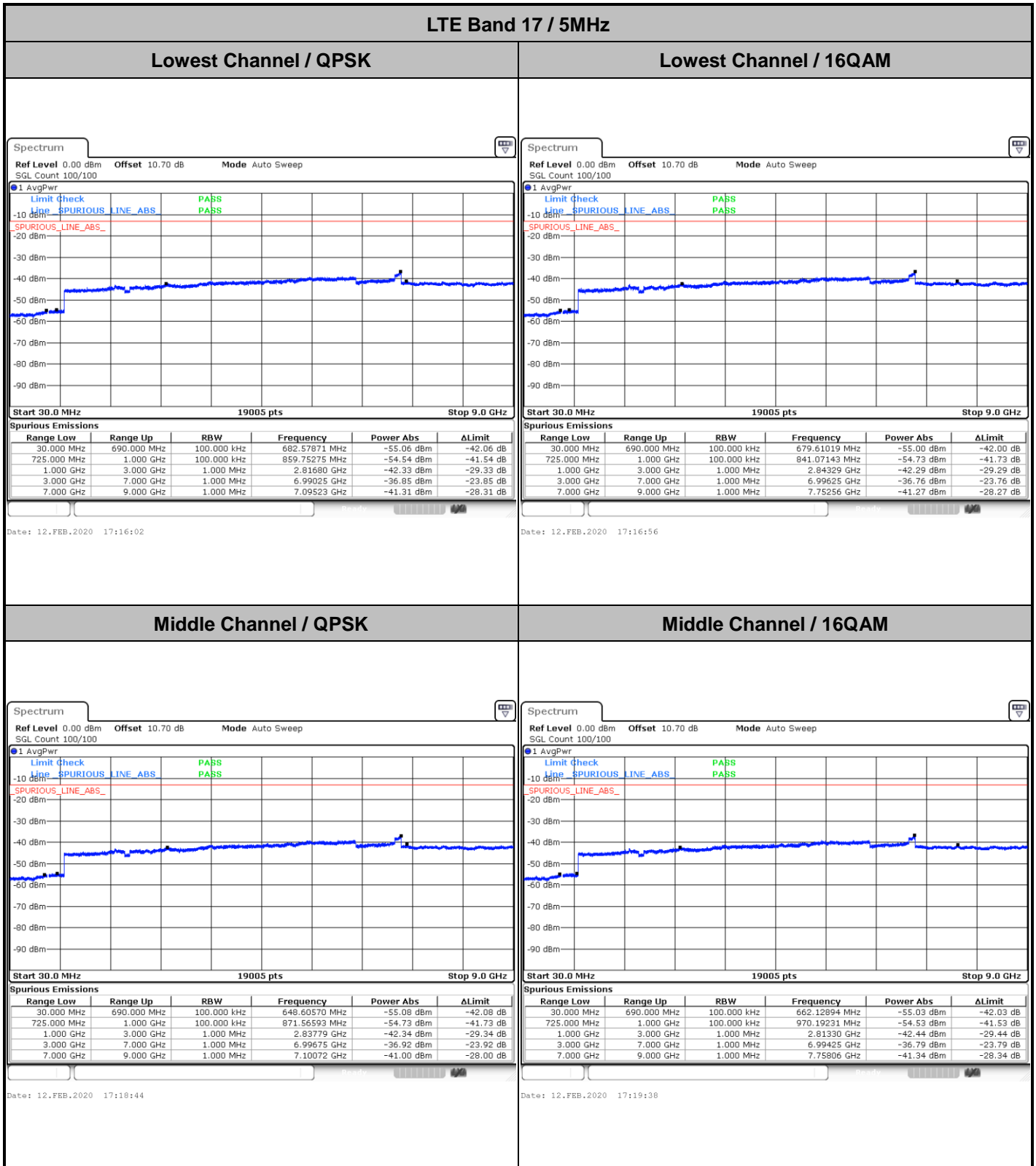
Highest Band Edge / Full RB



Date: 12.FEB.2020 18:04:36



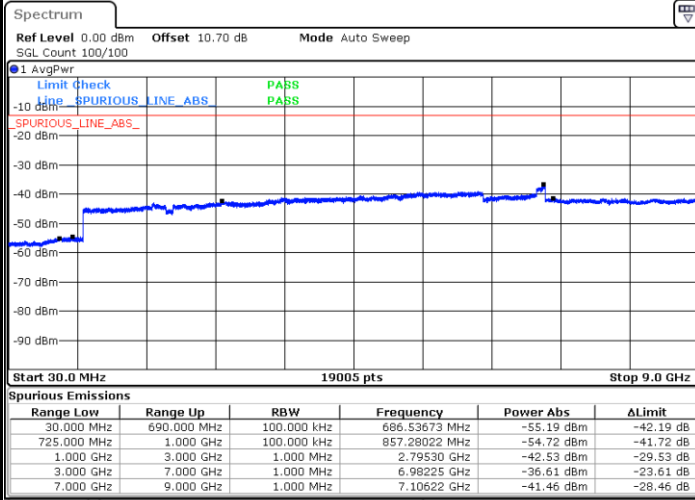
Conducted Spurious Emission





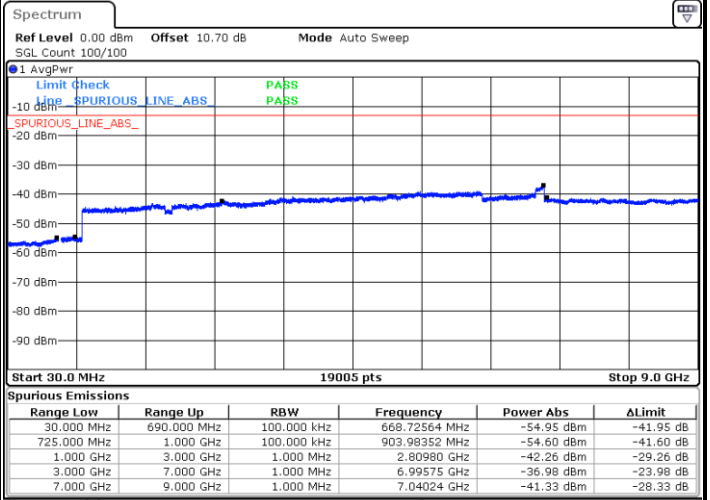
LTE Band 17 / 5MHz

Highest Channel / QPSK



Date: 12.FEB.2020 17:26:15

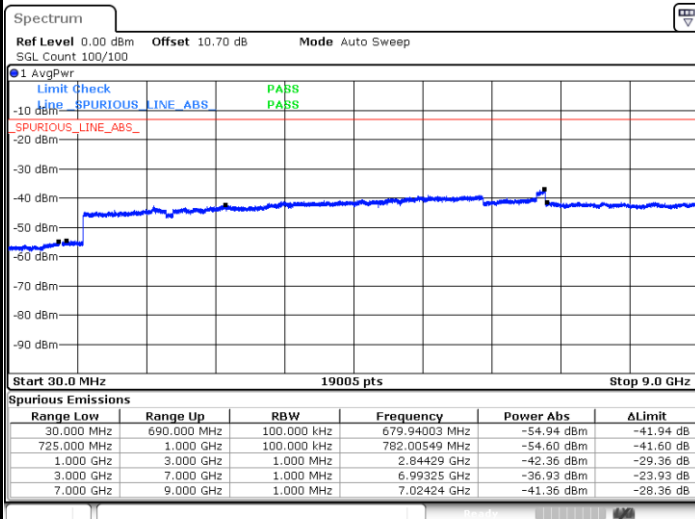
Highest Channel / 16QAM



Date: 12.FEB.2020 17:27:10

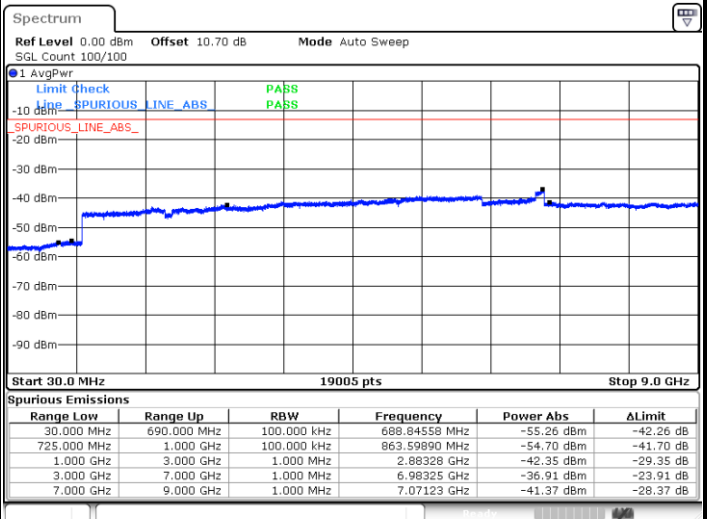
LTE Band 17 / 10MHz

Lowest Channel / QPSK



Date: 12.FEB.2020 17:33:47

Lowest Channel / 16QAM



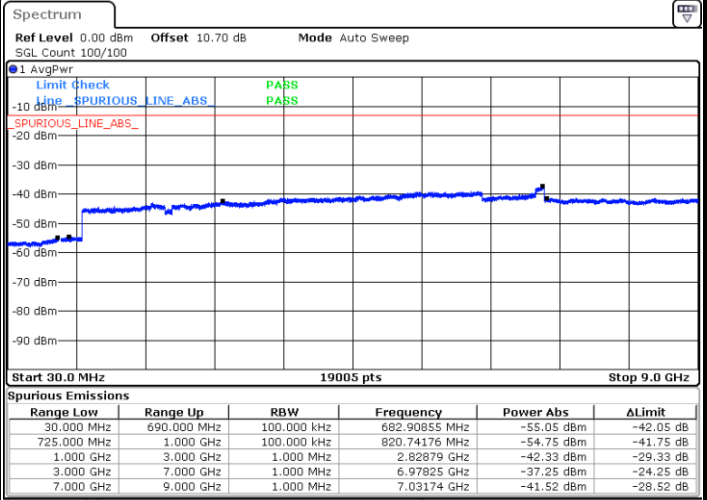
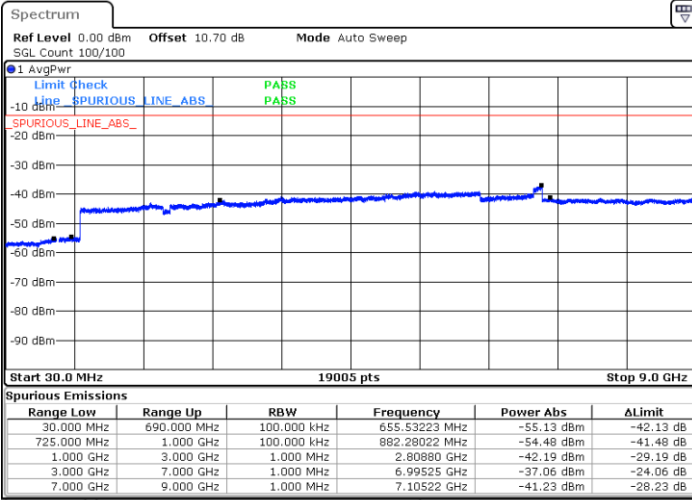
Date: 12.FEB.2020 17:34:42



LTE Band 17 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

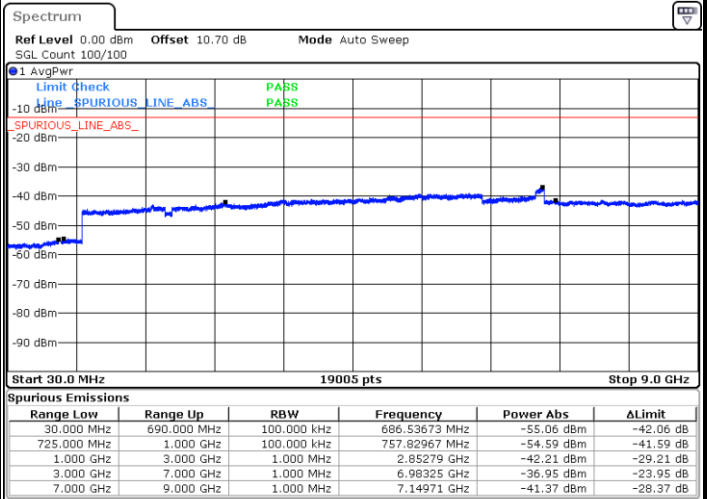
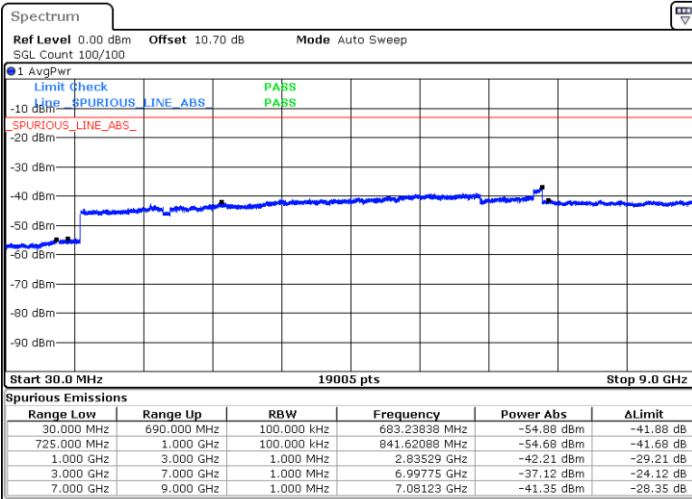


Date: 12.FEB.2020 17:39:22

Date: 12.FEB.2020 17:40:17

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.FEB.2020 17:46:52

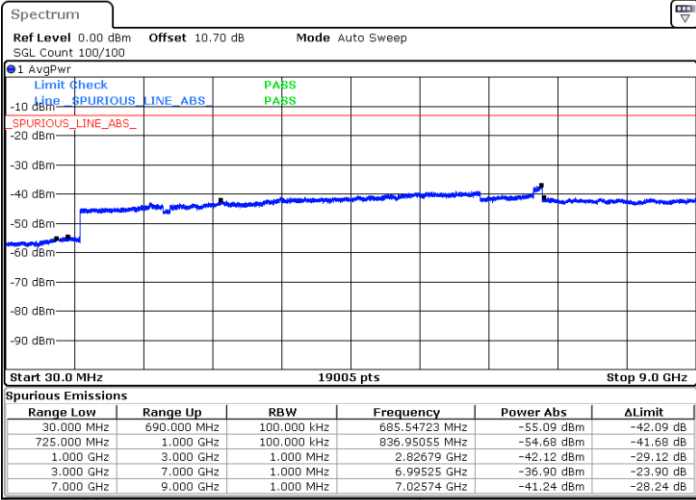
Date: 12.FEB.2020 17:47:47



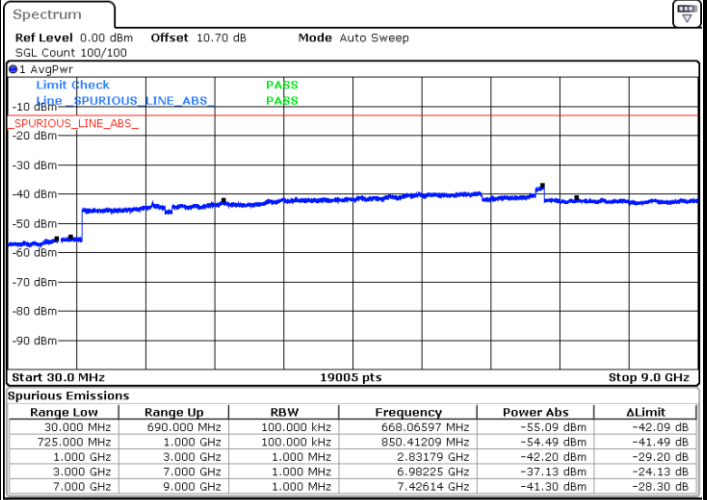
LTE Band 17 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

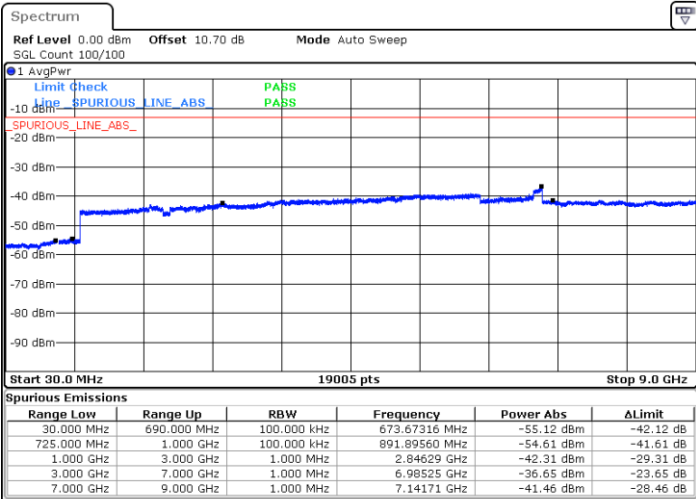


Date: 12.FEB.2020 17:51:32



Date: 12.FEB.2020 17:52:54

Highest Channel / 64QAM



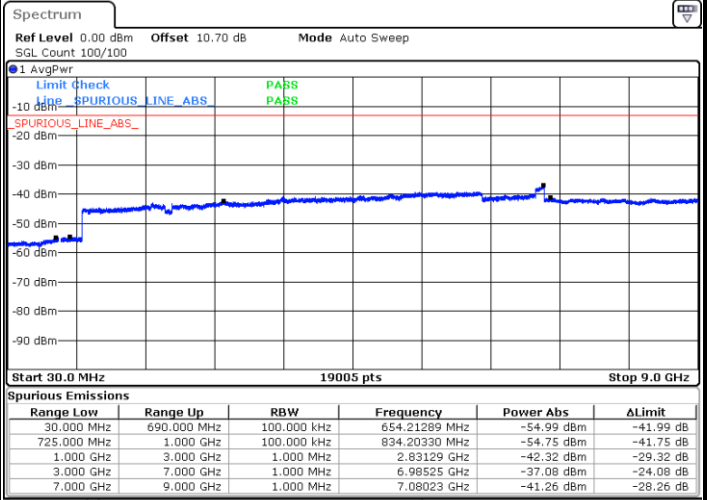
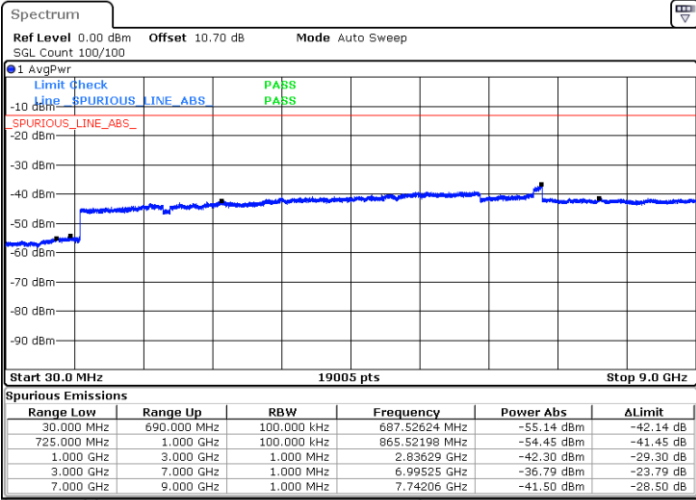
Date: 12.FEB.2020 17:56:39



LTE Band 17 / 10MHz

Lowest Channel / 64QAM

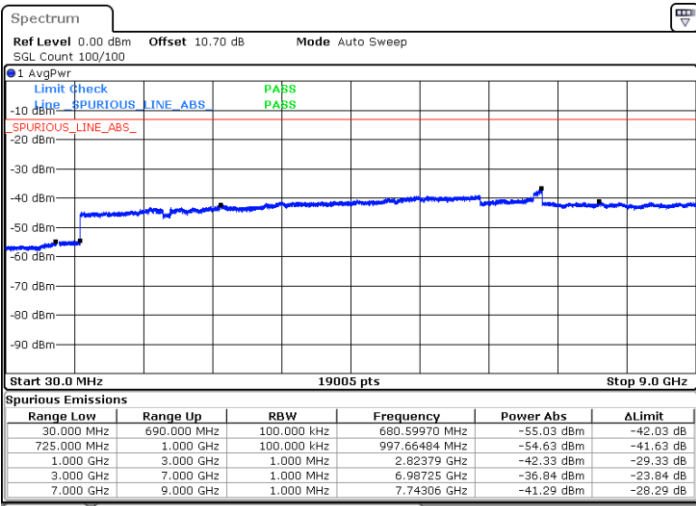
Middle Channel / 64QAM



Date: 12.FEB.2020 18:00:24

Date: 12.FEB.2020 18:01:45

Highest Channel / 64QAM



Date: 12.FEB.2020 18:05:30



Frequency Stability

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0145	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0165	
0	Normal Voltage	0.0186	
-10	Normal Voltage	0.0168	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0169	
20	Maximum Voltage	0.0189	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0173	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 26

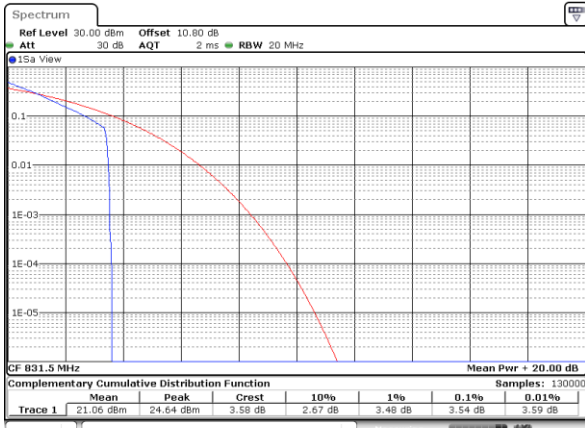
Peak-to-Average Ratio

Mode	LTE Band 26 / 15MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.96	5.28	5.45	PASS
Middle CH	3.62	4.96	4.96	5.57	
Highest CH	3.54	4.75	4.81	5.54	
Mode	LTE Band 26 / 15MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.20	6.49	-	-	PASS
Middle CH	6.03	6.38	-	-	
Highest CH	5.86	6.35	-	-	



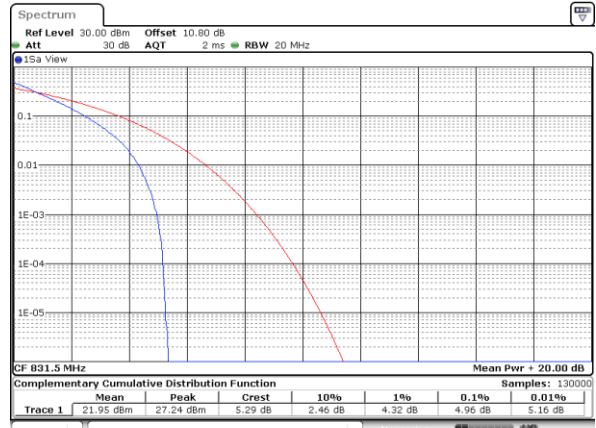
LTE Band 26 / 15MHz / QPSK

Lowest Channel / 1RB



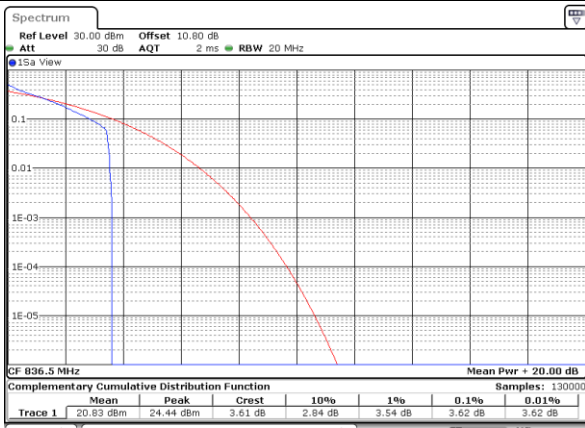
Date: 15.FEB.2020 04:42:45

Lowest Channel / Full RB



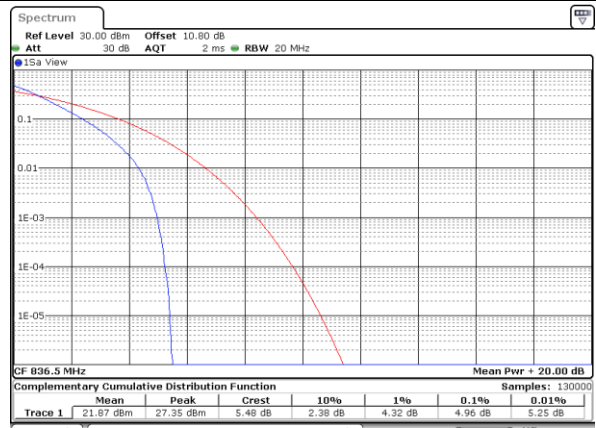
Date: 15.FEB.2020 04:41:12

Middle Channel / 1RB



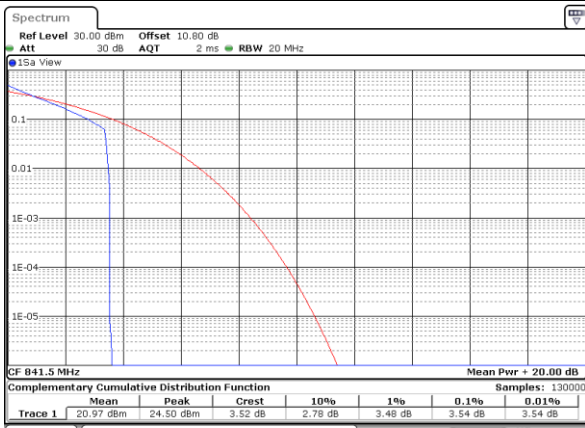
Date: 15.FEB.2020 04:43:57

Middle Channel / Full RB



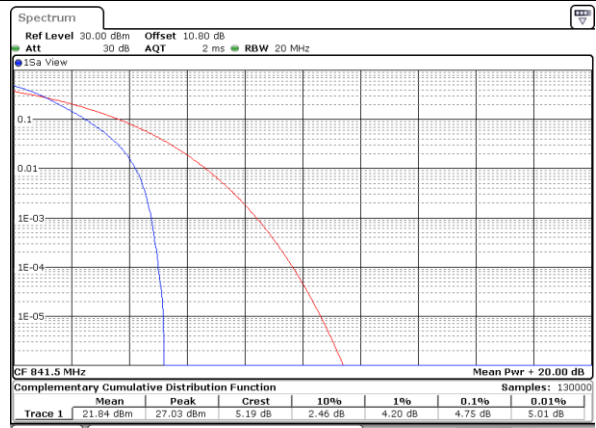
Date: 15.FEB.2020 04:44:57

Highest Channel / 1RB



Date: 15.FEB.2020 04:46:27

Highest Channel / Full RB

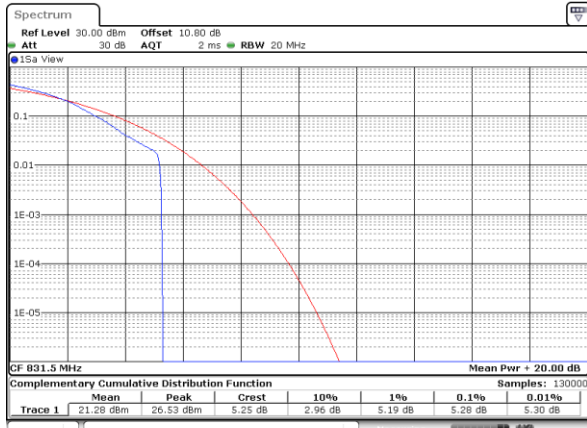


Date: 15.FEB.2020 04:45:12



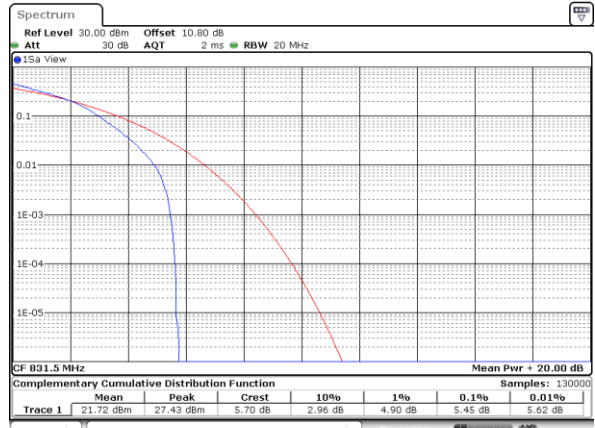
LTE Band 26 / 15MHz / 16QAM

Lowest Channel / 1RB



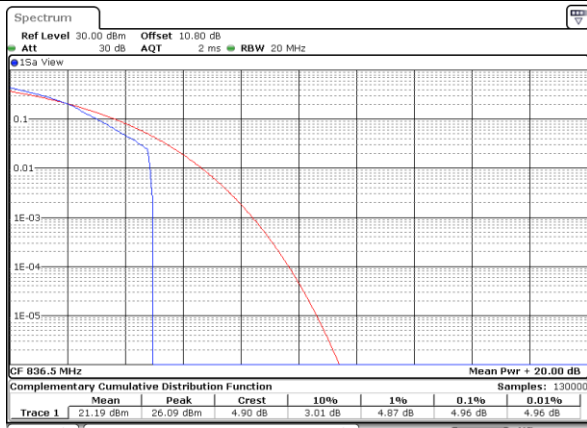
Date: 15.FEB.2020 04:42:32

Lowest Channel / Full RB



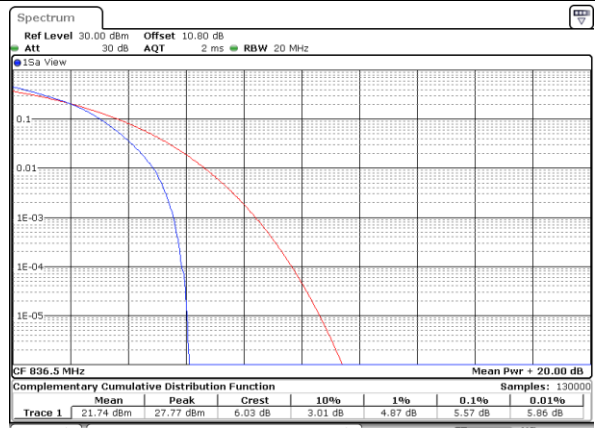
Date: 15.FEB.2020 04:41:26

Middle Channel / 1RB



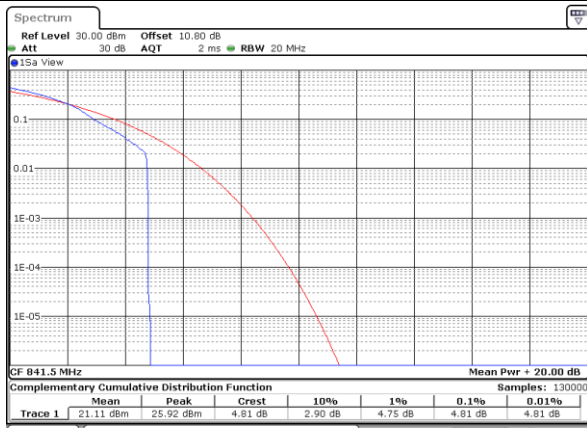
Date: 15.FEB.2020 04:44:14

Middle Channel / Full RB



Date: 15.FEB.2020 04:44:32

Highest Channel / 1RB



Date: 15.FEB.2020 04:46:13

Highest Channel / Full RB

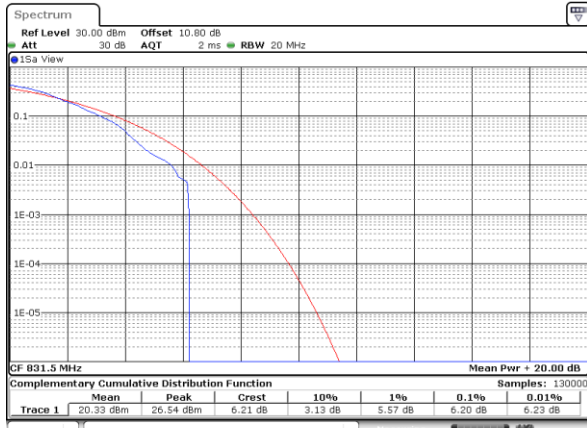


Date: 15.FEB.2020 04:45:53



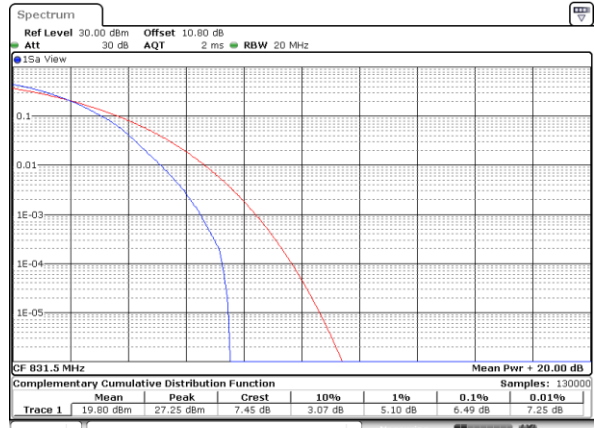
LTE Band 26 / 15MHz / 64QAM

Lowest Channel / 1RB



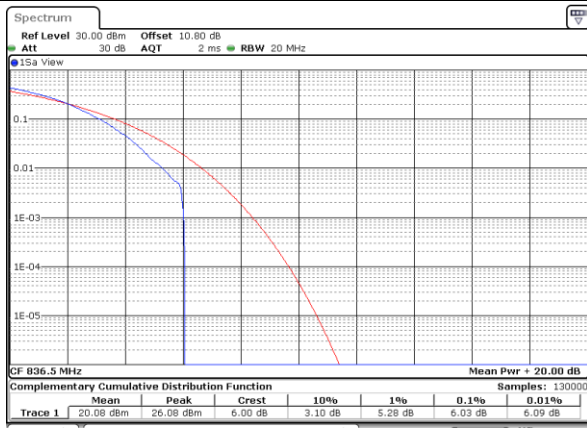
Date: 15.FEB.2020 04:47:10

Lowest Channel / Full RB



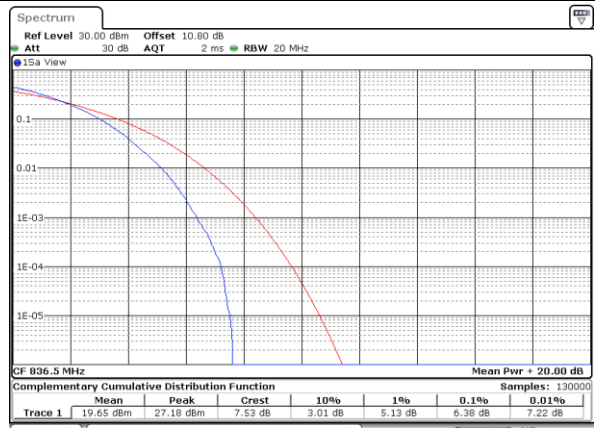
Date: 15.FEB.2020 04:46:43

Middle Channel / 1RB



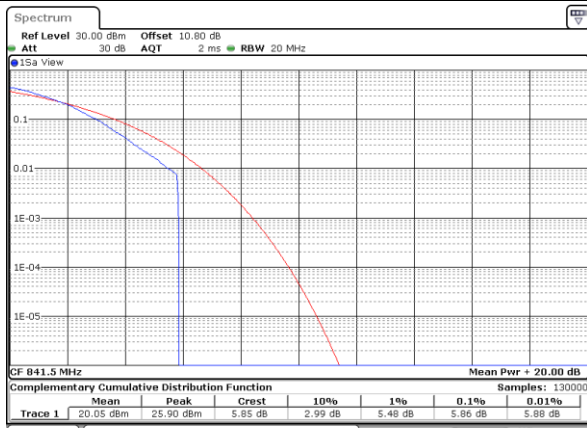
Date: 15.FEB.2020 04:47:24

Middle Channel / Full RB



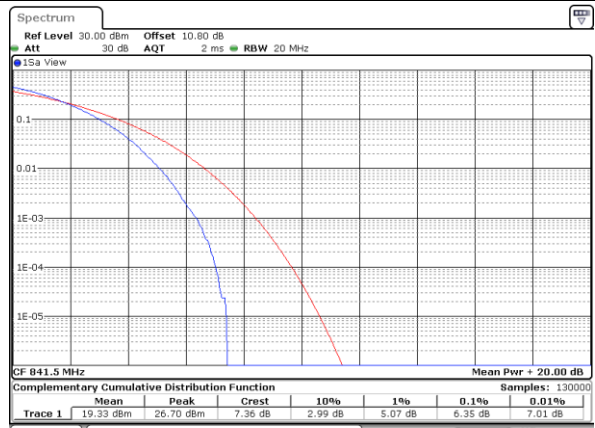
Date: 15.FEB.2020 04:47:40

Highest Channel / 1RB



Date: 15.FEB.2020 04:48:09

Highest Channel / Full RB



Date: 15.FEB.2020 04:47:54



26dB Bandwidth

Mode	LTE Band 26 : 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	1.21	1.21	3.02	3.02	4.93	5.02	9.75	9.83	14.33	14.57	-	-
Middle CH	1.24	1.23	3.02	3.04	4.90	5.01	9.83	9.83	14.39	14.57	-	-
Highest CH	1.22	1.22	3.03	2.99	4.90	4.88	9.87	9.65	14.42	14.33	-	-
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.21	-	3.03	-	4.94	-	9.89	-	14.60	-	-	-
Middle CH	1.22	-	3.00	-	4.97	-	9.87	-	14.48	-	-	-
Highest CH	1.22	-	3.02	-	4.90	-	9.93	-	14.33	-	-	-