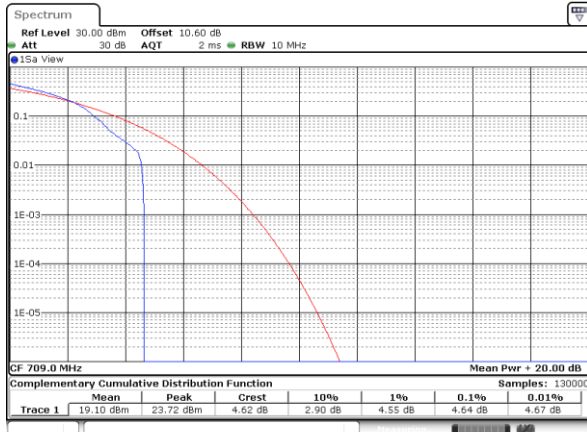




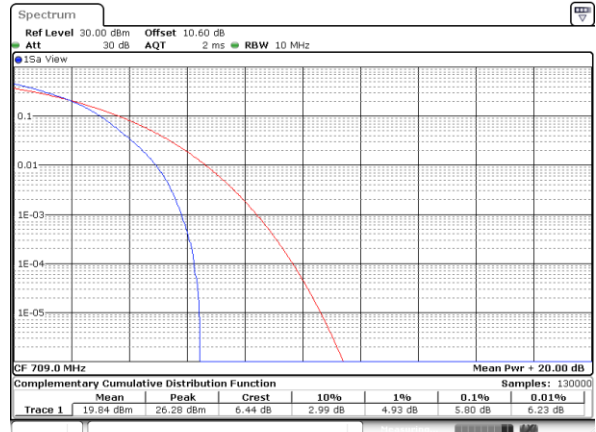
LTE Band 17 / 10MHz / 16QAM

Lowest Channel / 1RB



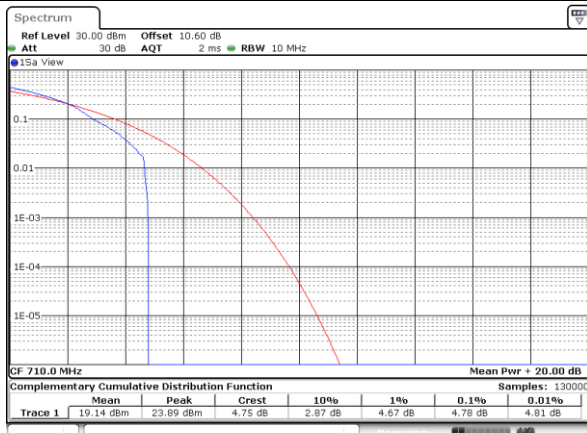
Date: 16, JAN, 2020 10:05:06

Lowest Channel / Full RB



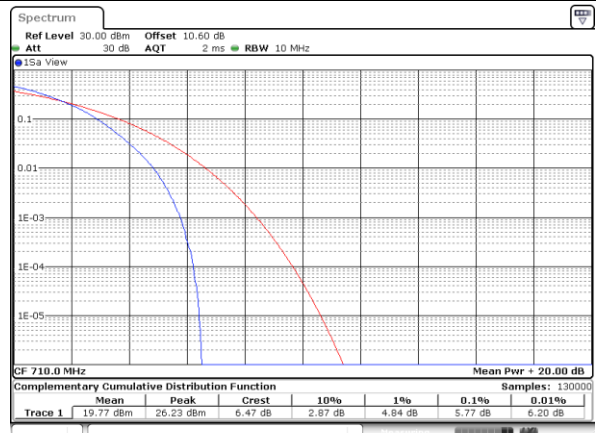
Date: 16, JAN, 2020 10:05:18

Middle Channel / 1RB



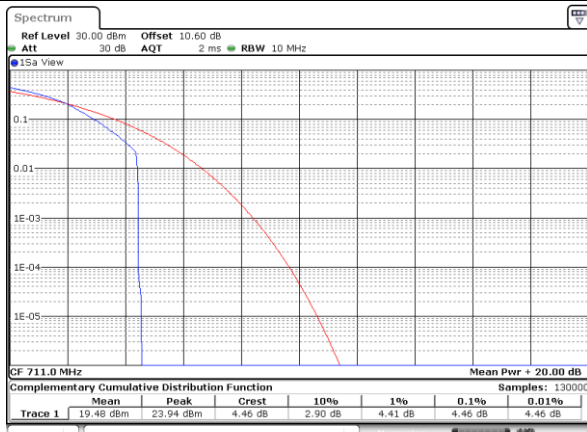
Date: 16, JAN, 2020 10:05:31

Middle Channel / Full RB



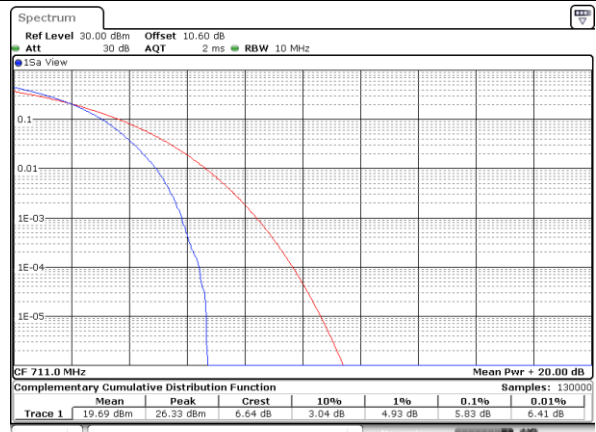
Date: 16, JAN, 2020 10:05:44

Highest Channel / 1RB



Date: 16, JAN, 2020 10:05:56

Highest Channel / Full RB

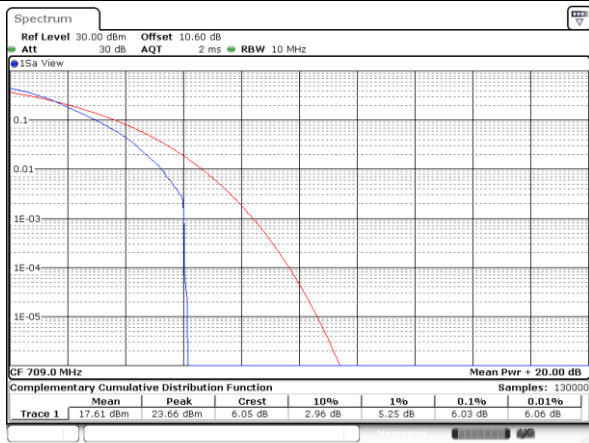


Date: 16, JAN, 2020 10:06:09



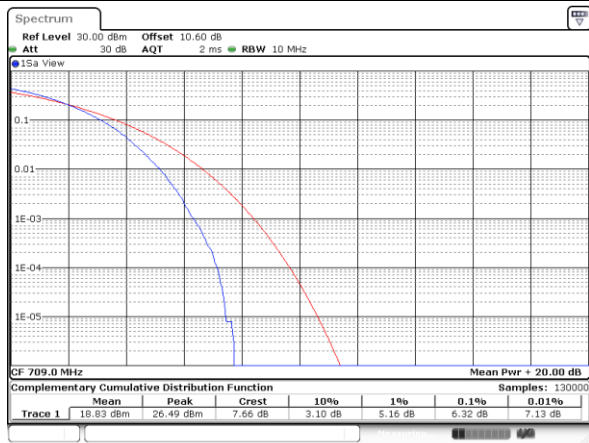
LTE Band 17 / 10MHz / 64QAM

Lowest Channel / 1RB



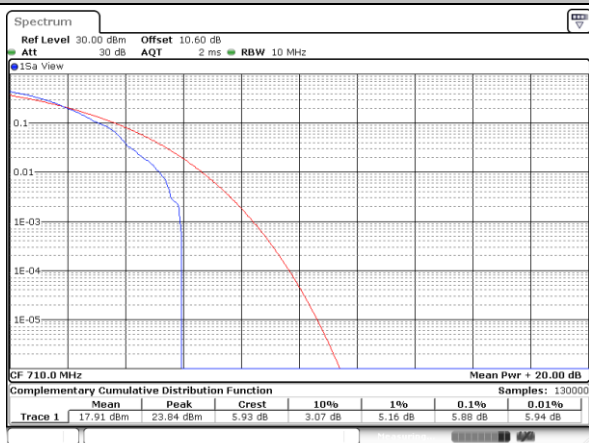
Date: 16, JAN, 2020 10:07:41

Lowest Channel / Full RB



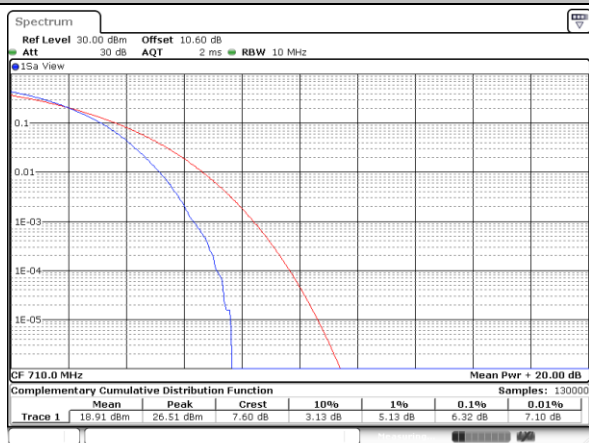
Date: 16, JAN, 2020 10:07:54

Middle Channel / 1RB



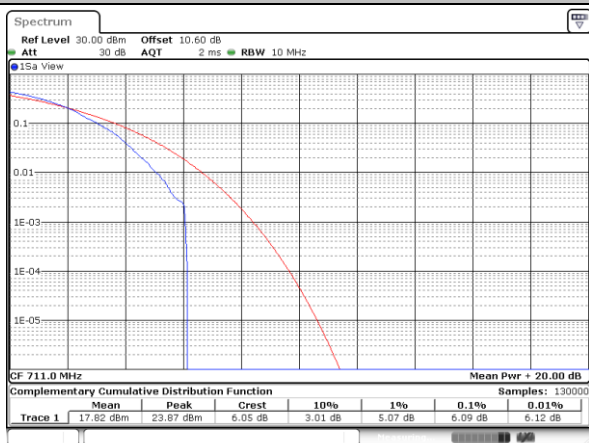
Date: 16, JAN, 2020 10:08:07

Middle Channel / Full RB



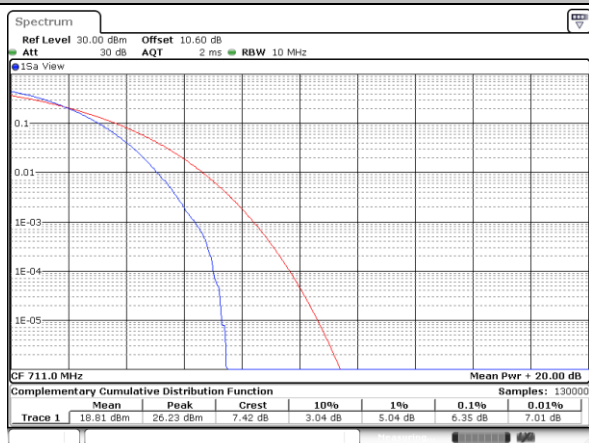
Date: 16, JAN, 2020 10:08:20

Highest Channel / 1RB



Date: 16, JAN, 2020 10:08:33

Highest Channel / Full RB



Date: 16, JAN, 2020 10:08:48



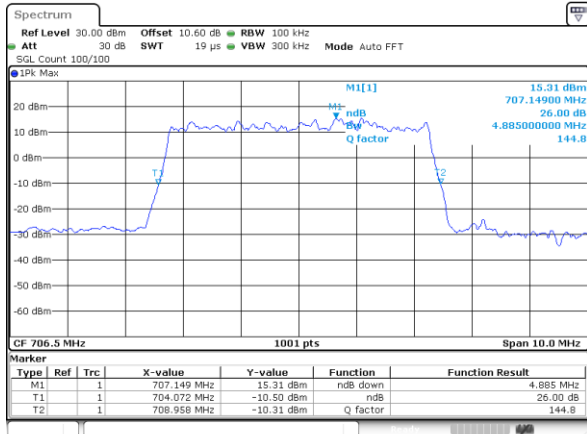
**26dB Bandwidth**

Mode BW	LTE Band 17 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.89	4.80	9.73	9.79	-	-	-	-
Middle CH	-	-	-	-	4.94	4.90	9.81	9.69	-	-	-	-
Highest CH	-	-	-	-	4.88	4.91	9.87	9.75	-	-	-	-
Mode	LTE Band 17 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.86	-	9.73	-	-	-	-	-
Middle CH	-	-	-	-	4.93	-	9.75	-	-	-	-	-
Highest CH	-	-	-	-	4.89	-	9.71	-	-	-	-	-



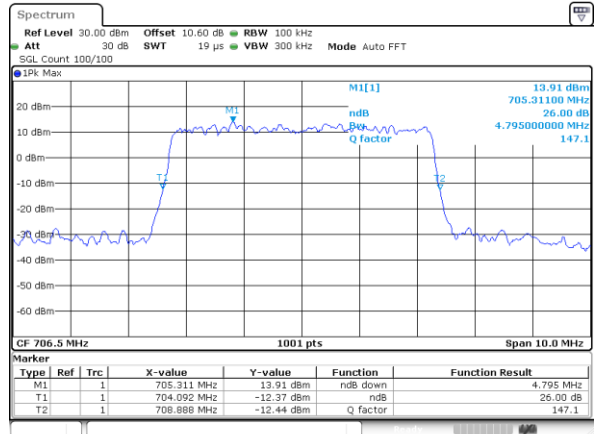
LTE Band 17

Lowest Channel / 5MHz / QPSK



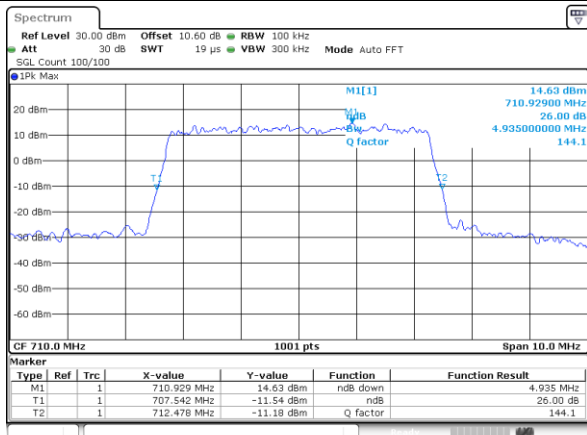
Date: 16, JAN, 2020 09:07:05

Lowest Channel / 5MHz / 16QAM



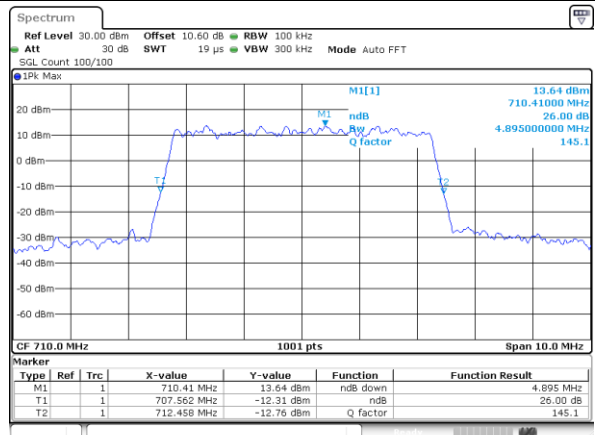
Date: 16, JAN, 2020 09:07:19

Middle Channel / 5MHz / QPSK



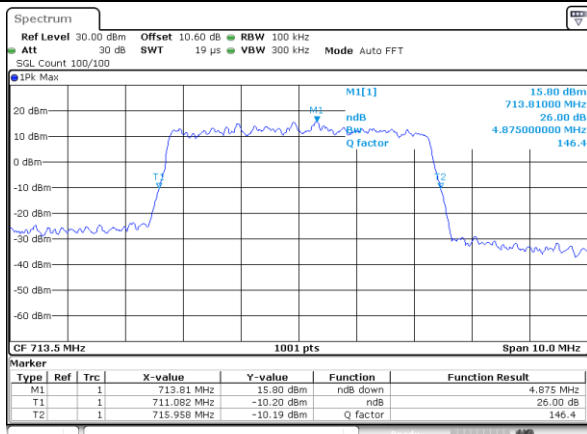
Date: 16, JAN, 2020 09:13:55

Middle Channel / 5MHz / 16QAM



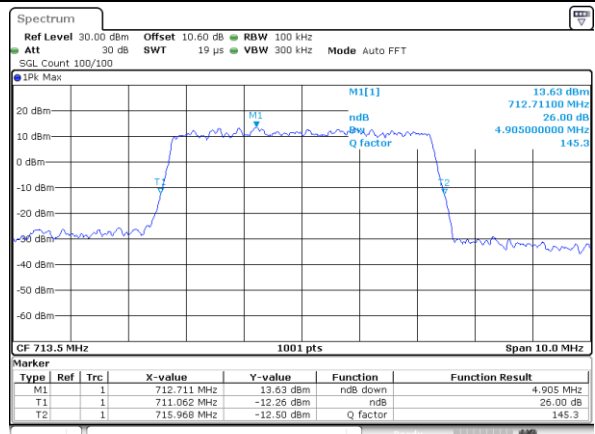
Date: 16, JAN, 2020 09:14:08

Highest Channel / 5MHz / QPSK



Date: 16, JAN, 2020 09:16:38

Highest Channel / 5MHz / 16QAM

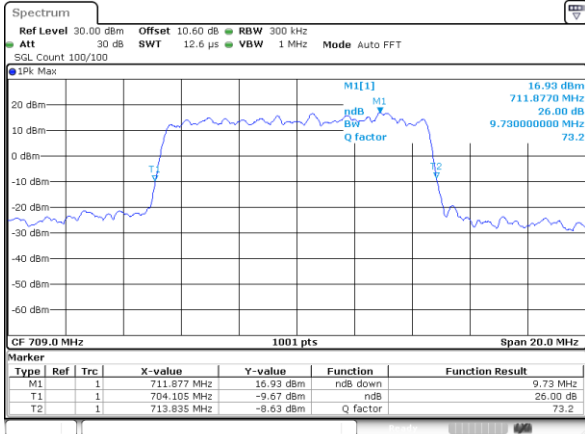


Date: 16, JAN, 2020 09:16:51



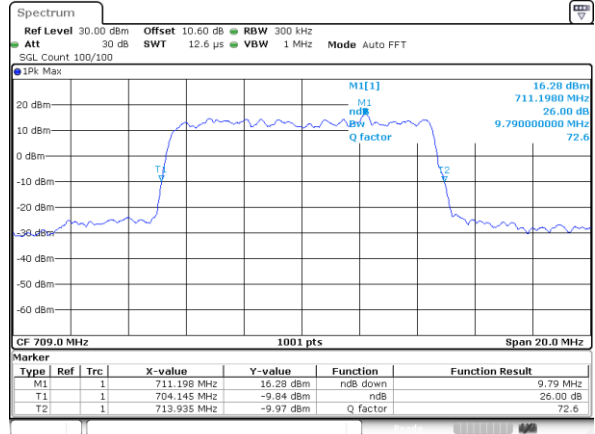
LTE Band 17

Lowest Channel / 10MHz / QPSK



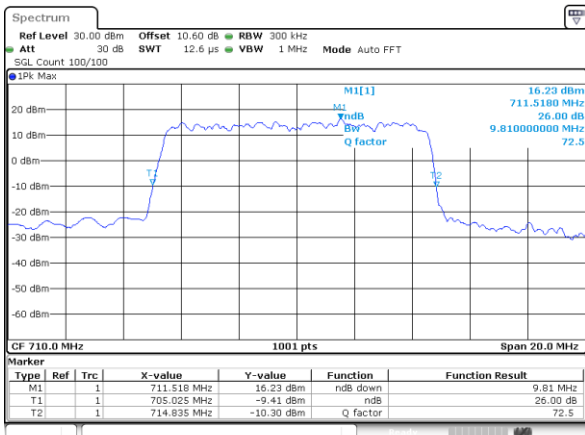
Date: 16\_JAN\_2020 09:23:32

Lowest Channel / 10MHz / 16QAM



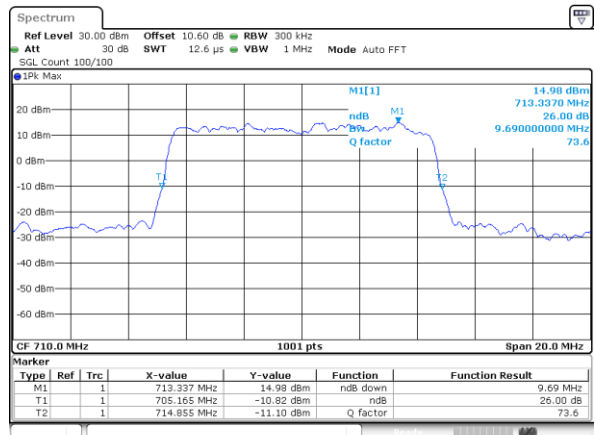
Date: 16\_JAN\_2020 09:23:46

Middle Channel / 10MHz / QPSK



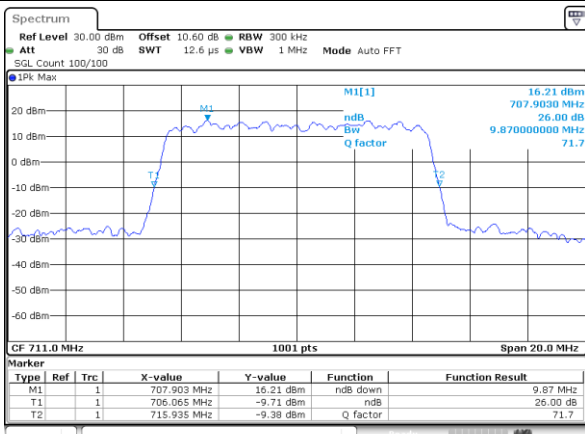
Date: 16\_JAN\_2020 09:30:22

Middle Channel / 10MHz / 16QAM



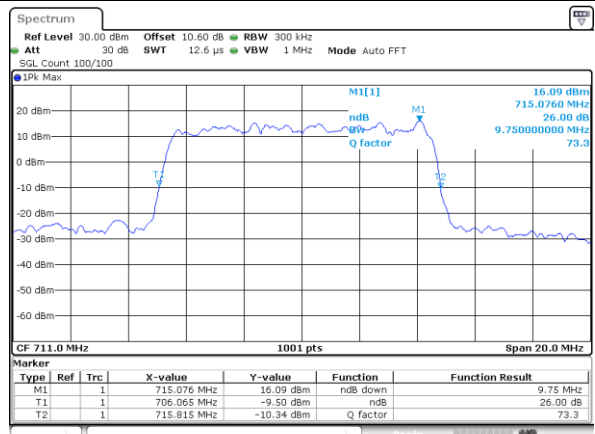
Date: 16\_JAN\_2020 09:30:35

Highest Channel / 10MHz / QPSK



Date: 16\_JAN\_2020 09:33:06

Highest Channel / 10MHz / 16QAM

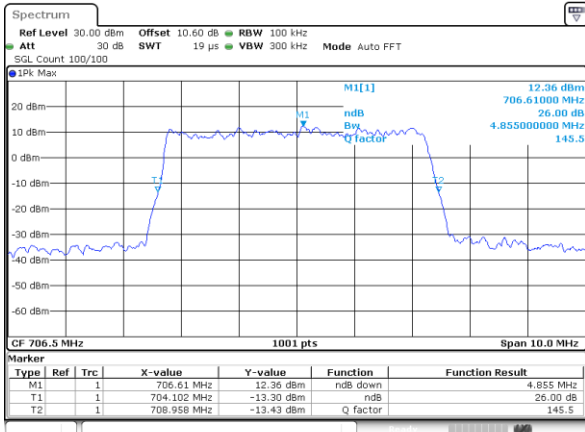


Date: 16\_JAN\_2020 09:33:20



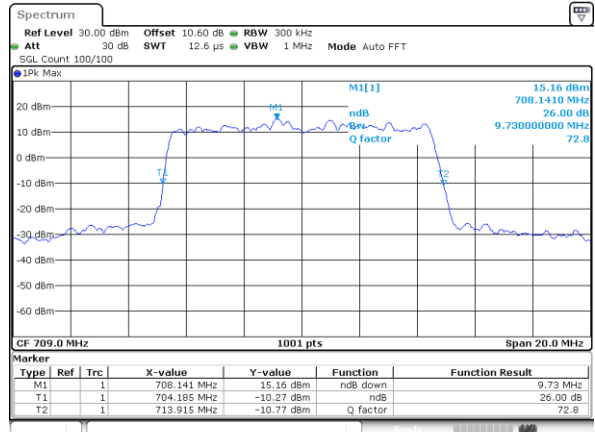
LTE Band 17

Lowest Channel / 5MHz / 64QAM



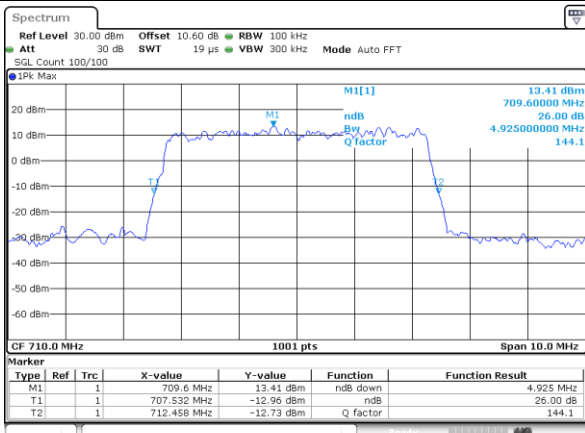
Date: 16, JAN, 2020 09:39:44

Lowest Channel / 10MHz / 64QAM



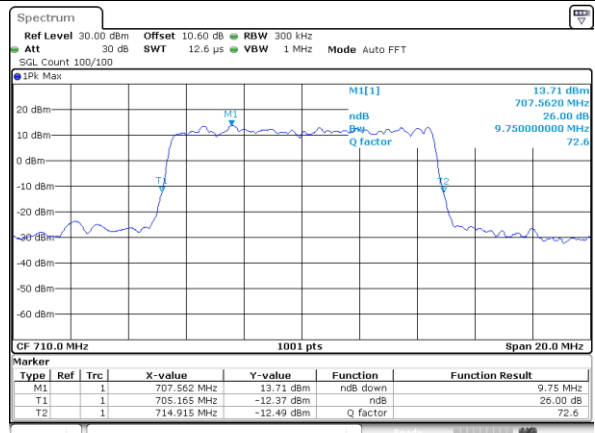
Date: 16, JAN, 2020 09:48:03

Middle Channel / 5MHz / 64QAM



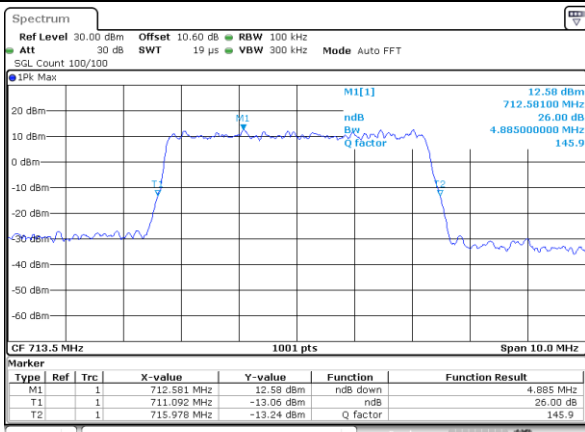
Date: 16, JAN, 2020 09:43:12

Middle Channel / 10MHz / 64QAM



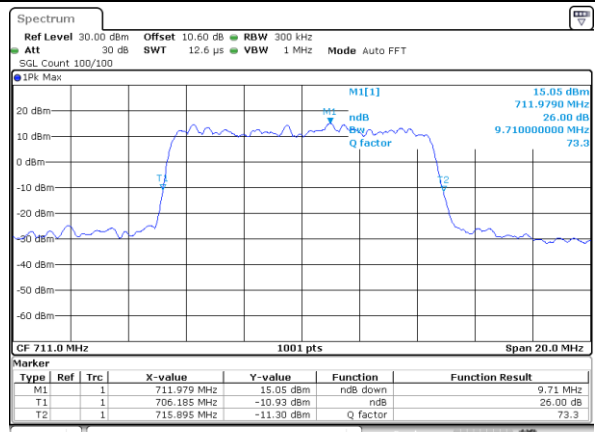
Date: 16, JAN, 2020 09:58:37

Highest Channel / 5MHz / 64QAM



Date: 16, JAN, 2020 09:44:37

Highest Channel / 10MHz / 64QAM



Date: 16, JAN, 2020 10:01:52



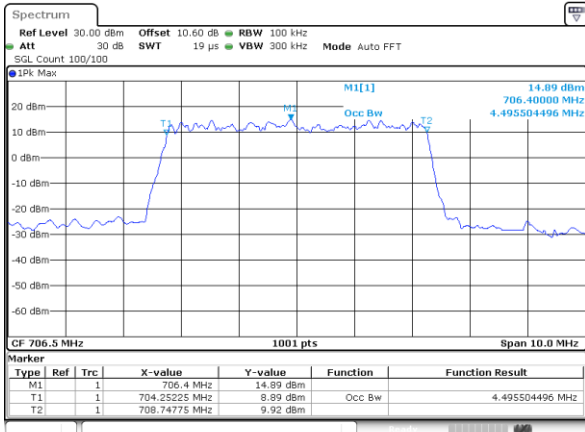
**Occupied Bandwidth**

Mode BW	LTE Band 17 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.50	4.51	9.05	8.99	-	-	-	-
Middle CH	-	-	-	-	4.52	4.47	8.99	9.01	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	9.05	8.97	-	-	-	-
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	-	9.01	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	9.01	-	-	-	-	-
Highest CH	-	-	-	-	4.52	-	9.01	-	-	-	-	-



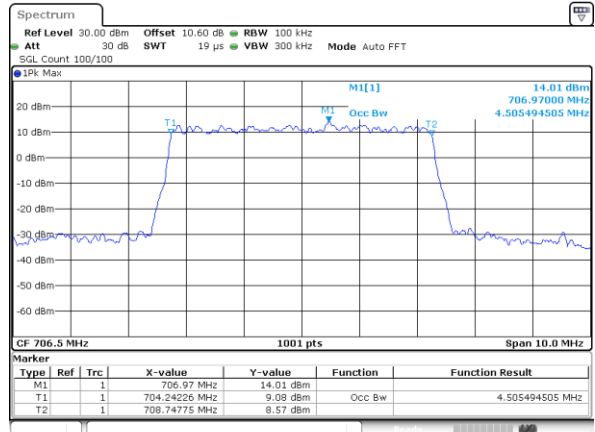
LTE Band 17

Lowest Channel / 5MHz / QPSK



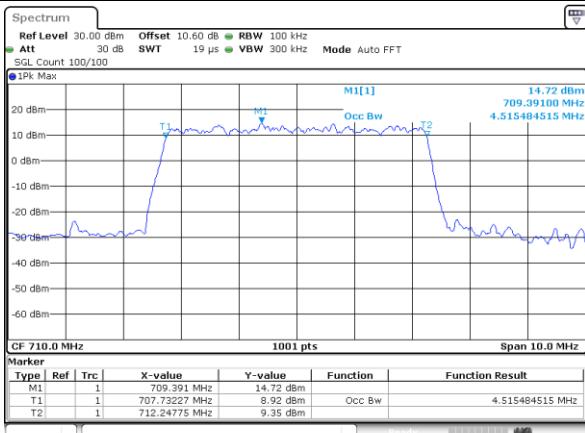
Date: 16, JAN, 2020 09:06:37

Lowest Channel / 5MHz / 16QAM



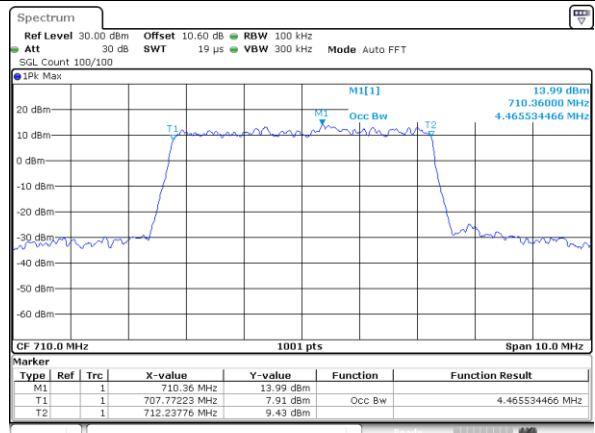
Date: 16, JAN, 2020 09:06:51

Middle Channel / 5MHz / QPSK



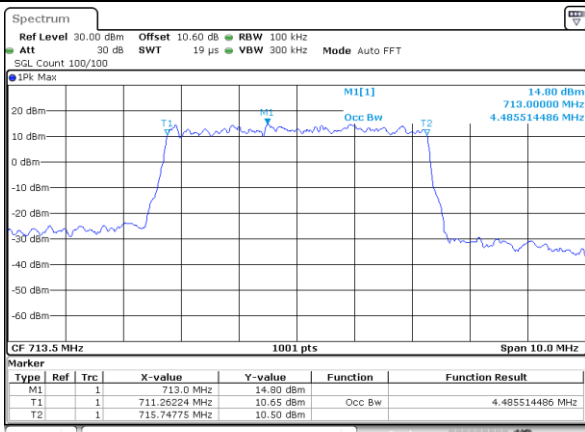
Date: 16, JAN, 2020 09:13:29

Middle Channel / 5MHz / 16QAM



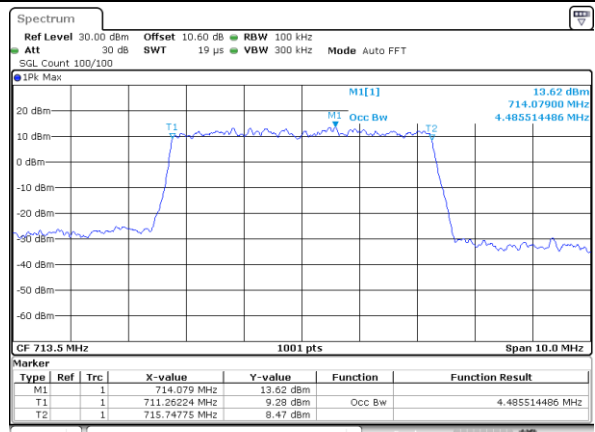
Date: 16, JAN, 2020 09:13:42

Highest Channel / 5MHz / QPSK



Date: 16, JAN, 2020 09:16:10

Highest Channel / 5MHz / 16QAM



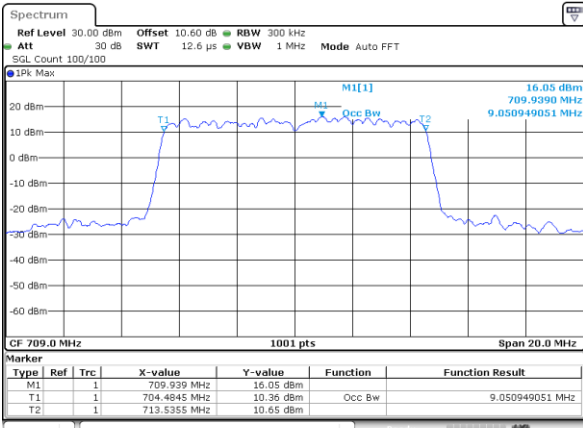
Date: 16, JAN, 2020 09:16:24





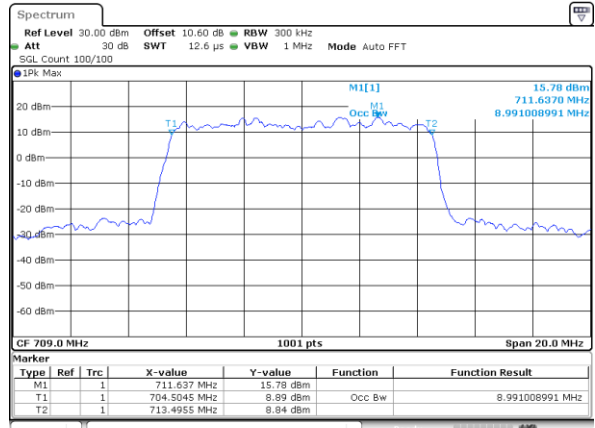
LTE Band 17

Lowest Channel / 10MHz / QPSK



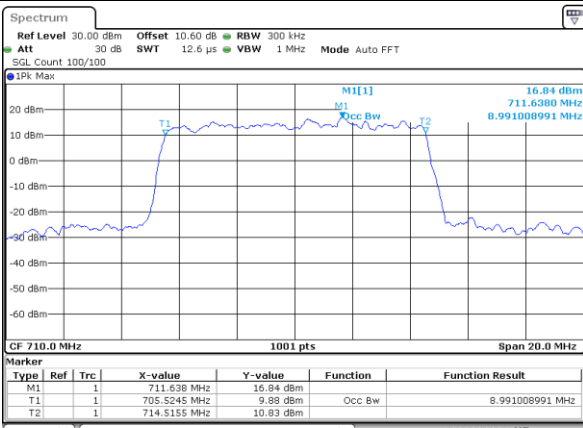
Date: 16, JAN, 2020 09:23:04

Lowest Channel / 10MHz / 16QAM



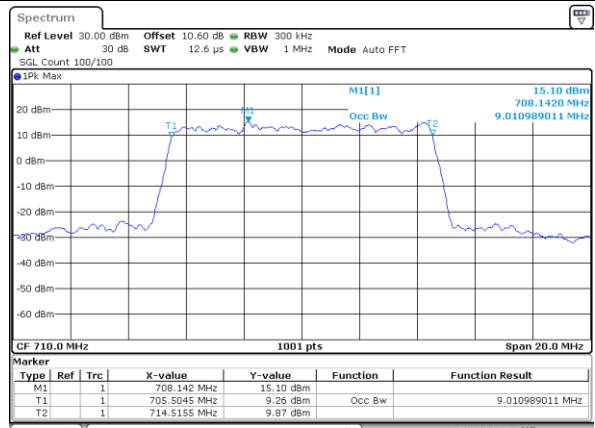
Date: 16, JAN, 2020 09:23:18

Middle Channel / 10MHz / QPSK



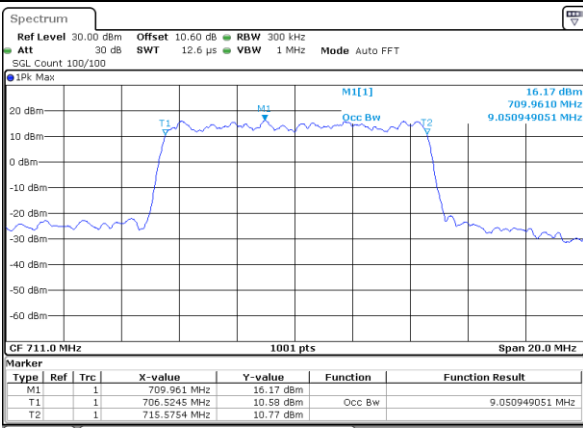
Date: 16, JAN, 2020 09:29:56

Middle Channel / 10MHz / 16QAM



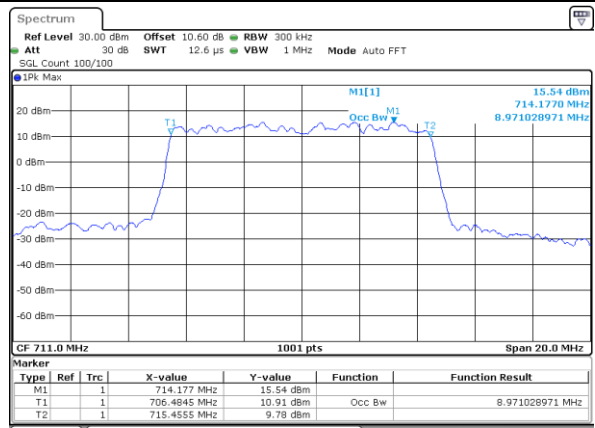
Date: 16, JAN, 2020 09:30:09

Highest Channel / 10MHz / QPSK



Date: 16, JAN, 2020 09:32:38

Highest Channel / 10MHz / 16QAM

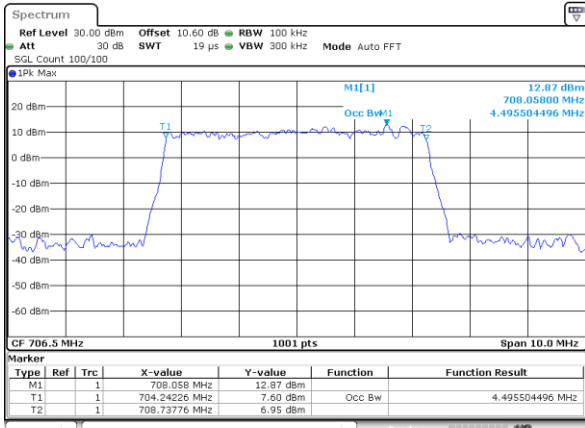


Date: 16, JAN, 2020 09:32:52



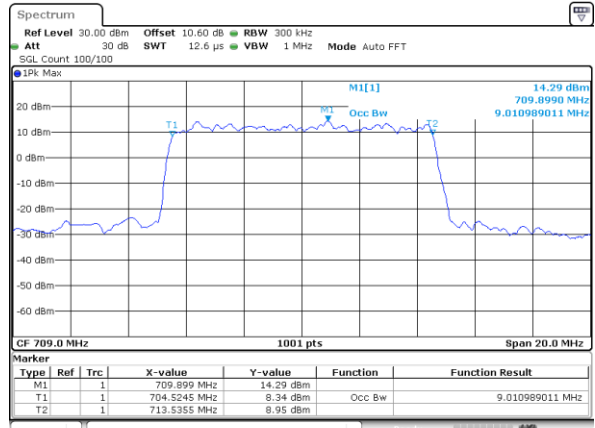
LTE Band 17

Lowest Channel / 5MHz / 64QAM



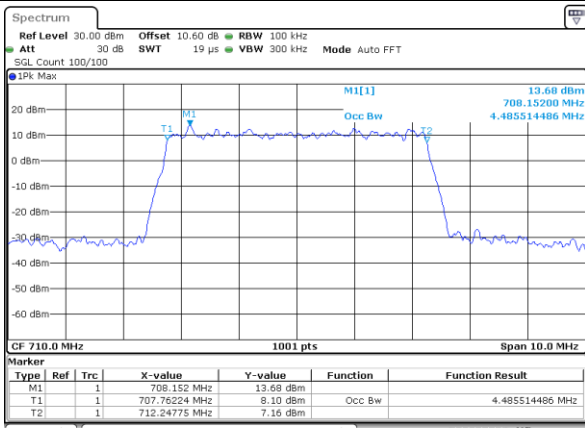
Date: 16, JAN, 2020 09:39:30

Lowest Channel / 10MHz / 64QAM



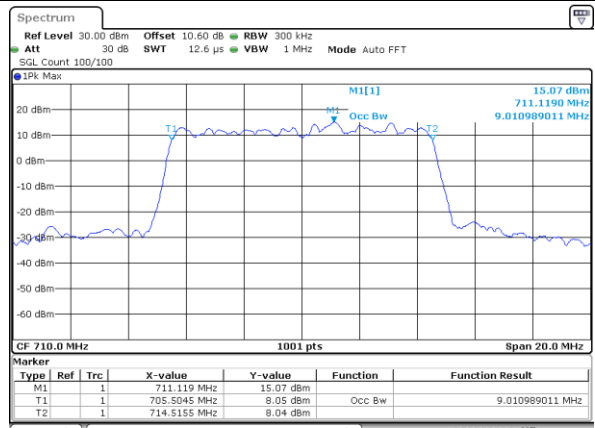
Date: 16, JAN, 2020 09:47:49

Middle Channel / 5MHz / 64QAM



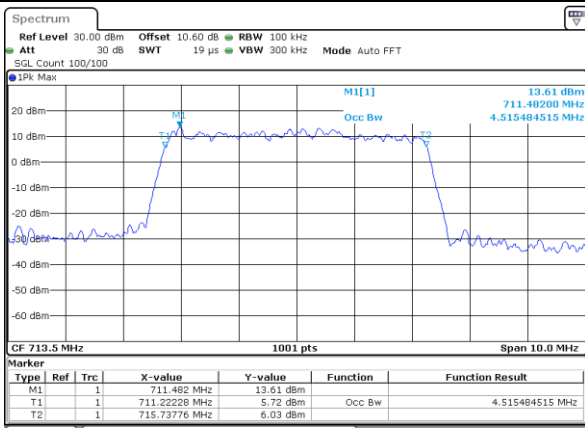
Date: 16, JAN, 2020 09:42:59

Middle Channel / 10MHz / 64QAM



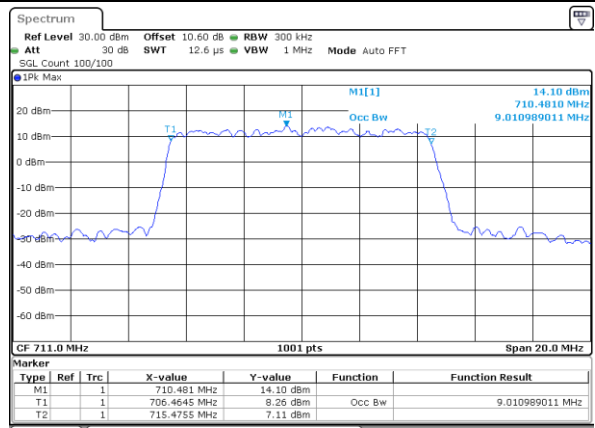
Date: 16, JAN, 2020 09:58:24

Highest Channel / 5MHz / 64QAM



Date: 16, JAN, 2020 09:44:21

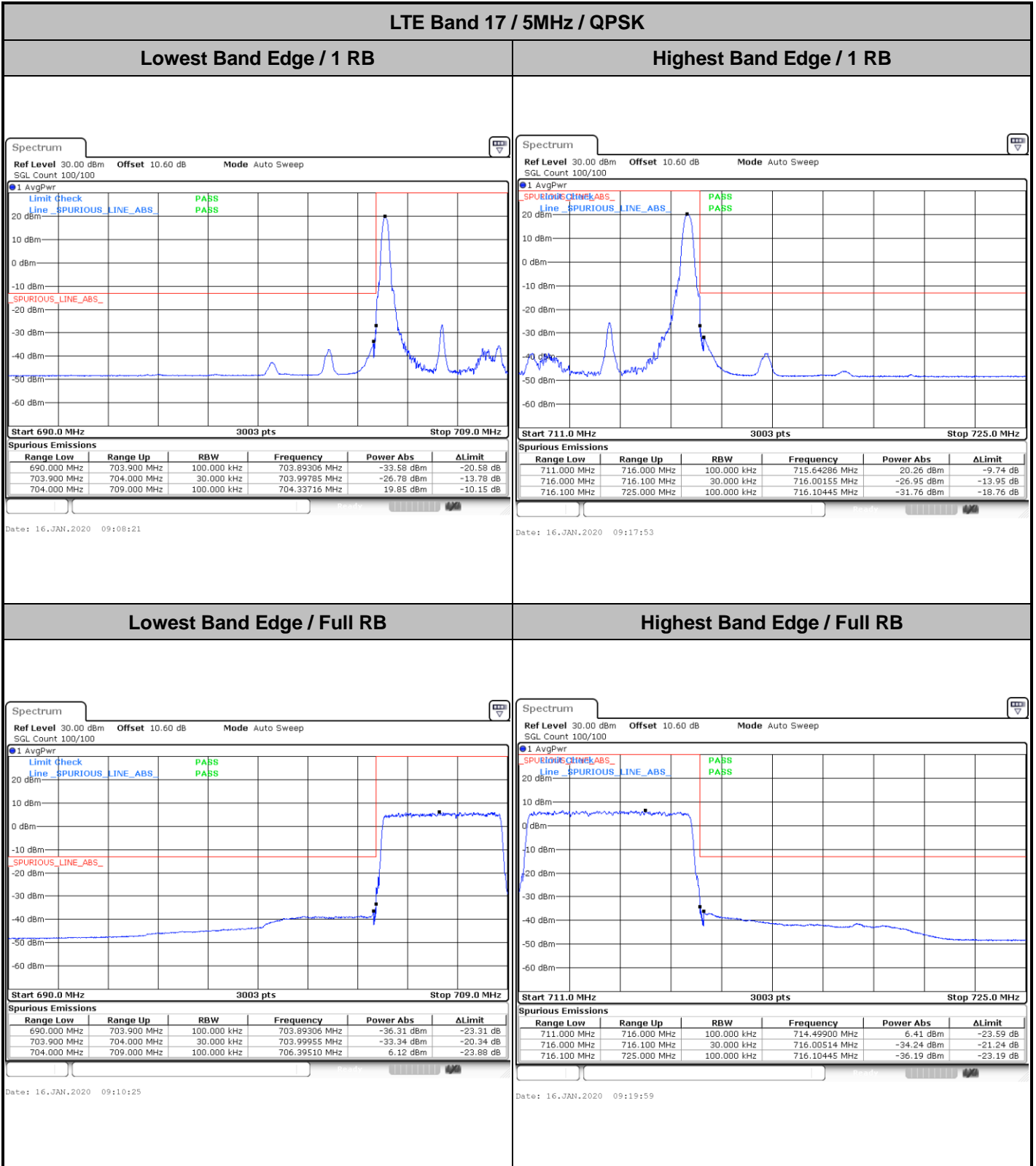
Highest Channel / 10MHz / 64QAM



Date: 16, JAN, 2020 10:01:38



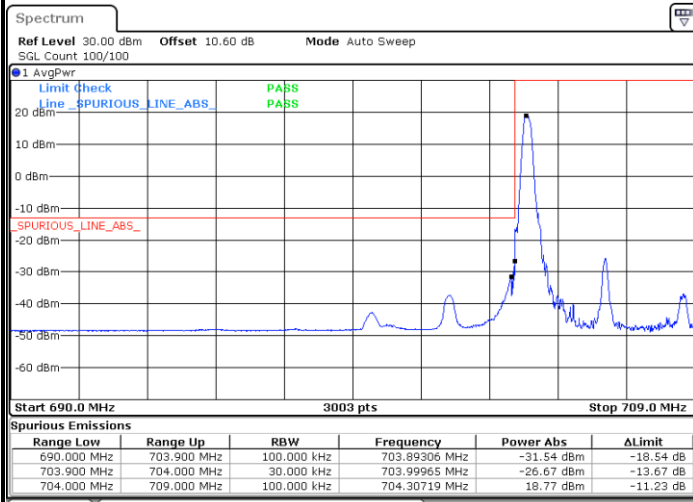
# Conducted Band Edge





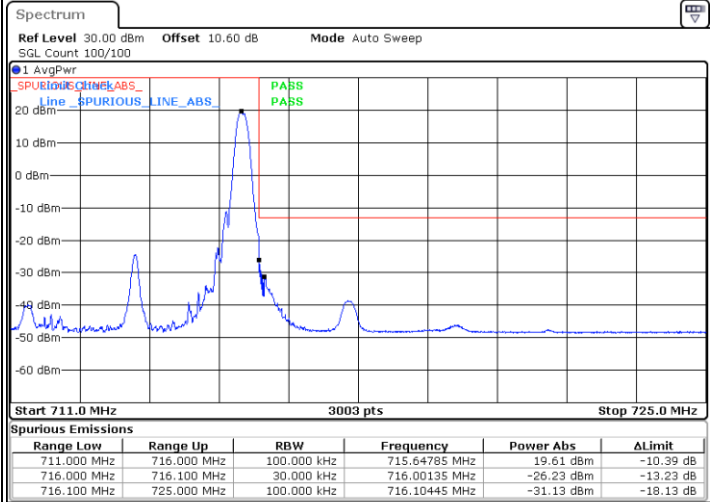
LTE Band 17 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



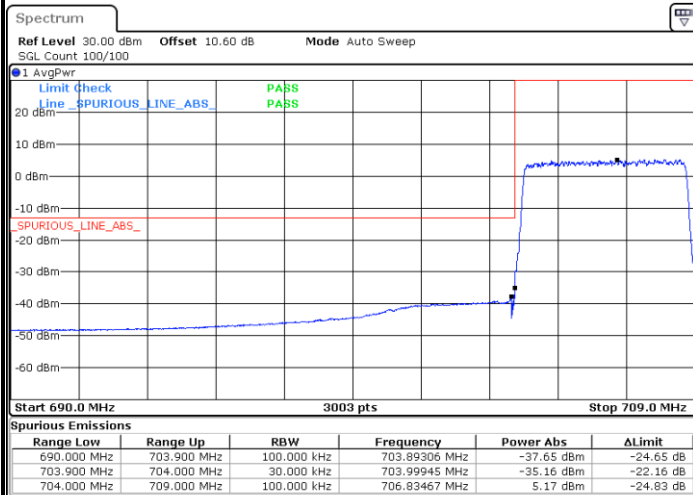
Date: 16.JAN.2020 09:09:23

Highest Band Edge / 1 RB



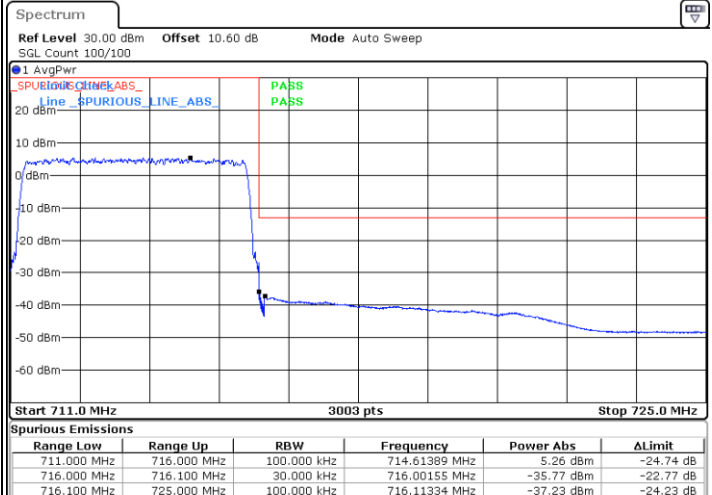
Date: 16.JAN.2020 09:18:55

Lowest Band Edge / Full RB



Date: 16.JAN.2020 09:11:27

Highest Band Edge / Full RB

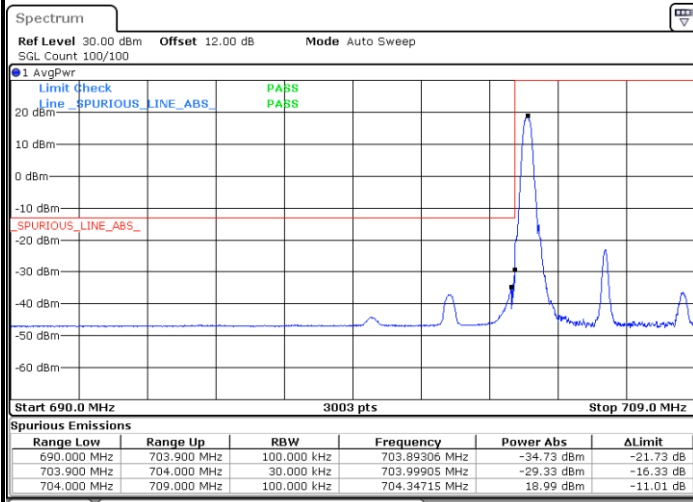


Date: 16.JAN.2020 09:21:00



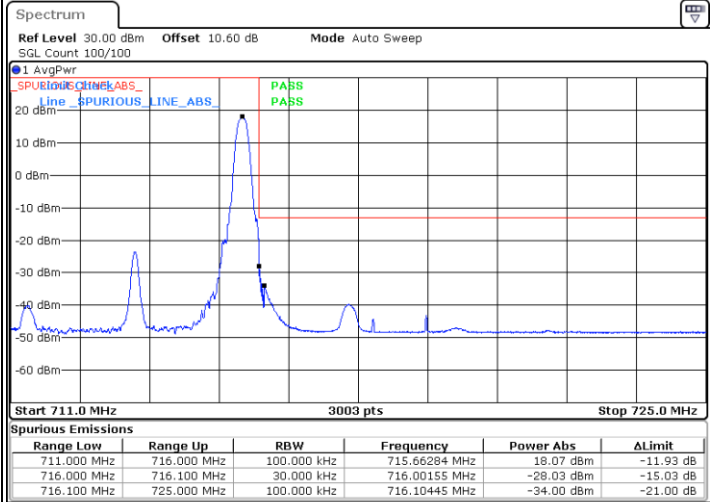
LTE Band 17 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



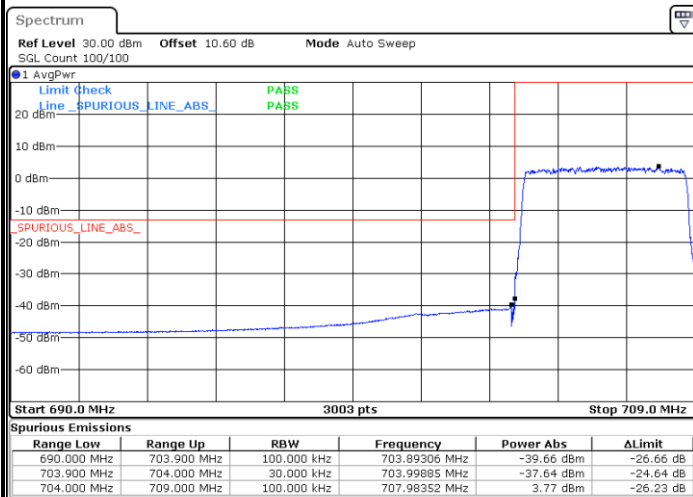
Date: 16.JAN.2020 09:40:49

Highest Band Edge / 1 RB



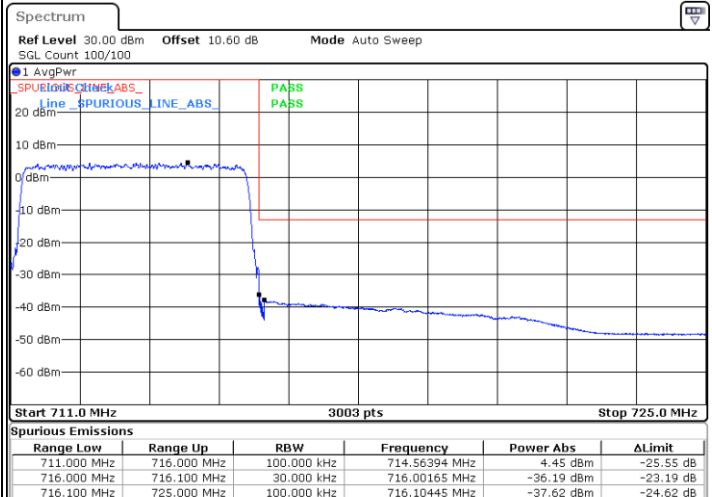
Date: 16.JAN.2020 09:45:39

Lowest Band Edge / Full RB



Date: 16.JAN.2020 09:41:50

Highest Band Edge / Full RB

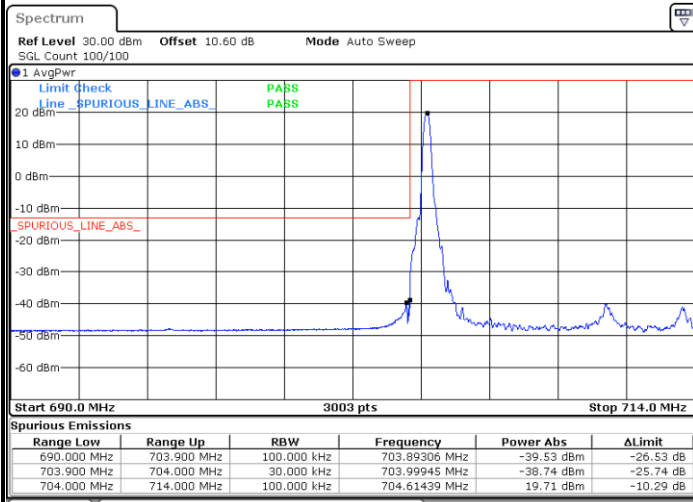


Date: 16.JAN.2020 09:46:40



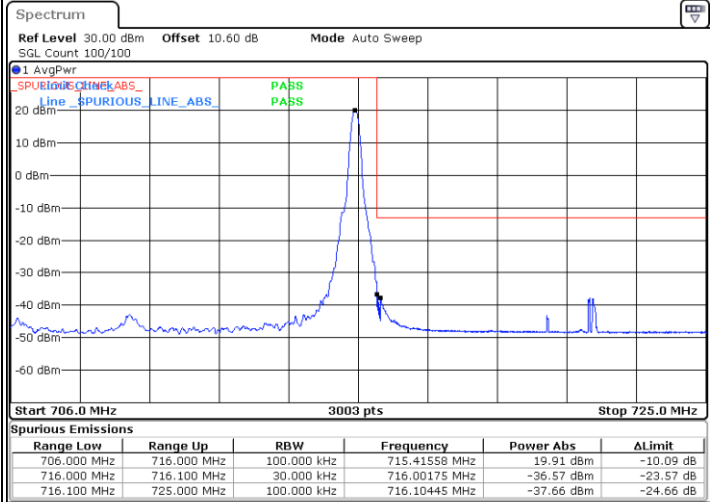
LTE Band 17 / 10MHz / QPSK

Lowest Band Edge / 1 RB



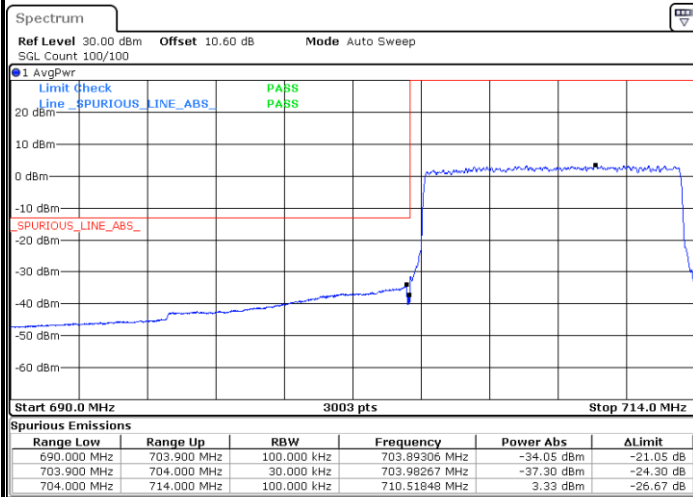
Date: 16.JAN.2020 09:24:48

Highest Band Edge / 1 RB



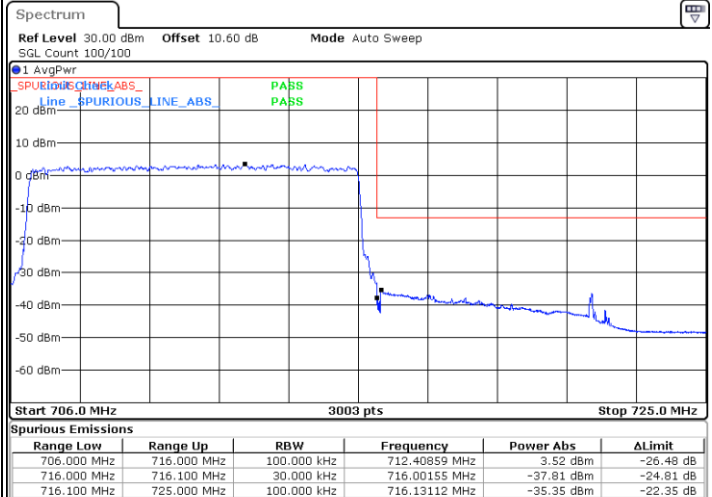
Date: 16.JAN.2020 09:34:22

Lowest Band Edge / Full RB



Date: 16.JAN.2020 09:26:51

Highest Band Edge / Full RB

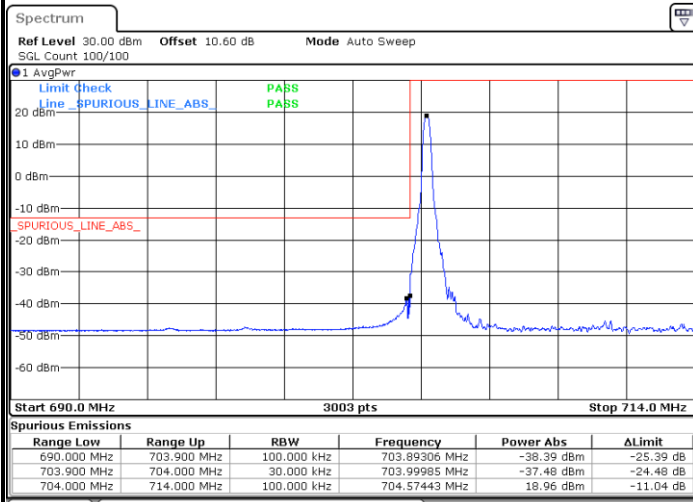


Date: 16.JAN.2020 09:36:25



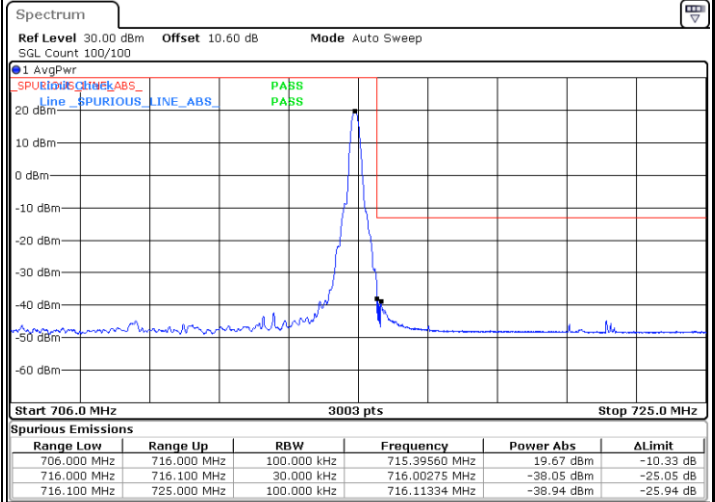
LTE Band 17 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



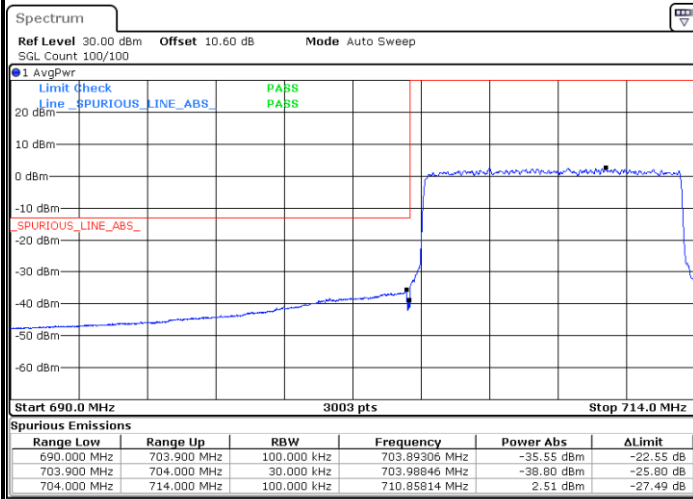
Date: 16.JAN.2020 09:25:49

Highest Band Edge / 1 RB



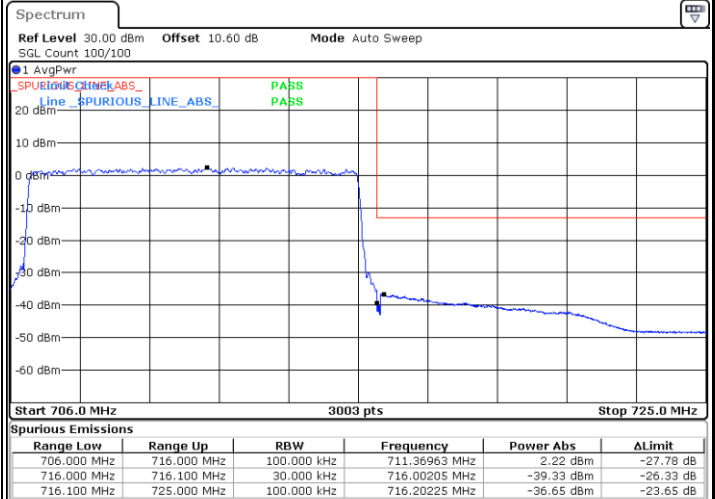
Date: 16.JAN.2020 09:35:23

Lowest Band Edge / Full RB



Date: 16.JAN.2020 09:27:52

Highest Band Edge / Full RB

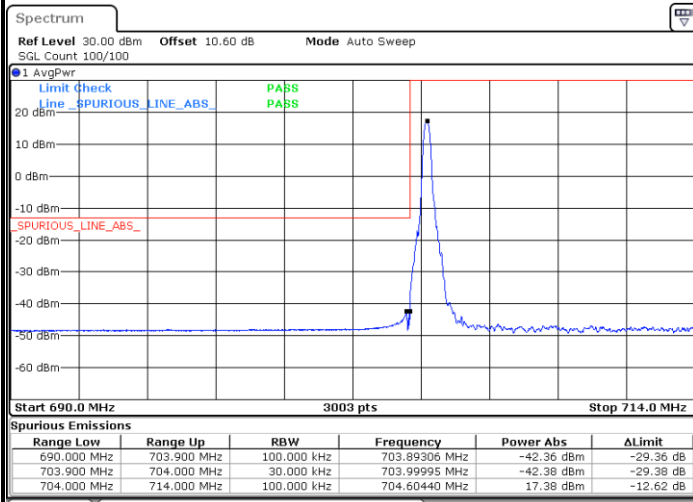


Date: 16.JAN.2020 09:37:26



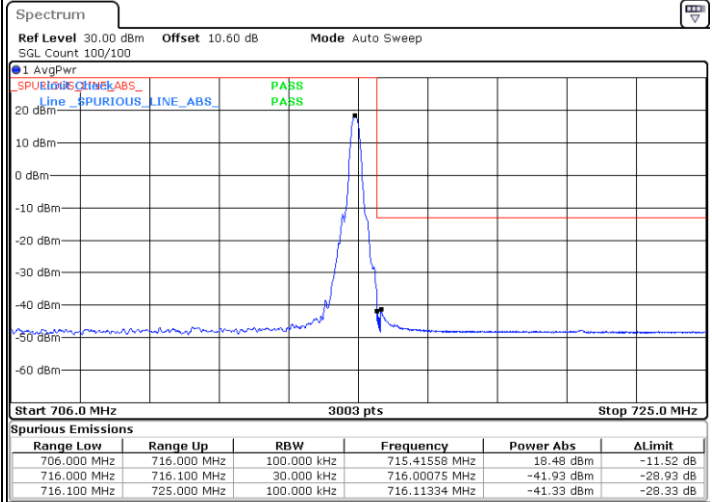
LTE Band 17 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



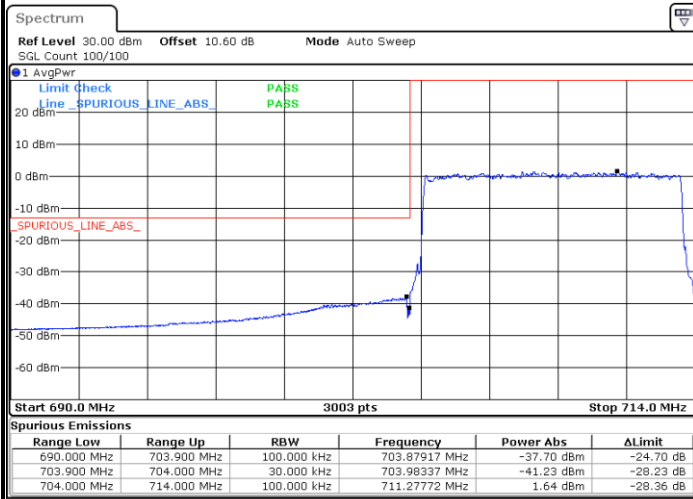
Date: 16.JAN.2020 09:49:05

Highest Band Edge / 1 RB



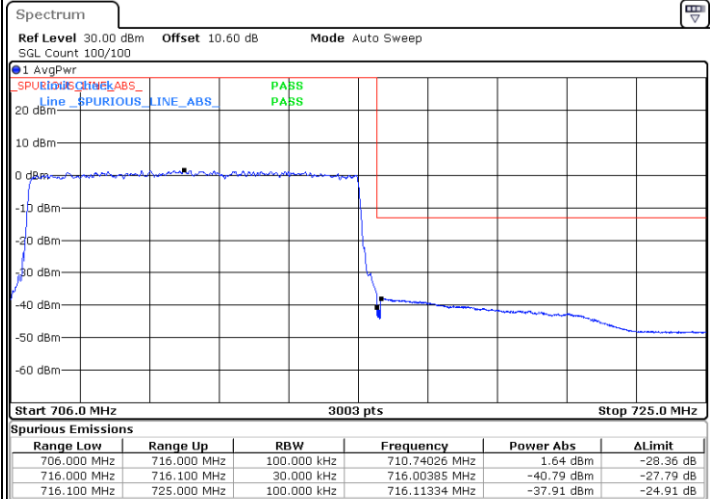
Date: 16.JAN.2020 10:02:53

Lowest Band Edge / Full RB



Date: 16.JAN.2020 09:50:06

Highest Band Edge / Full RB

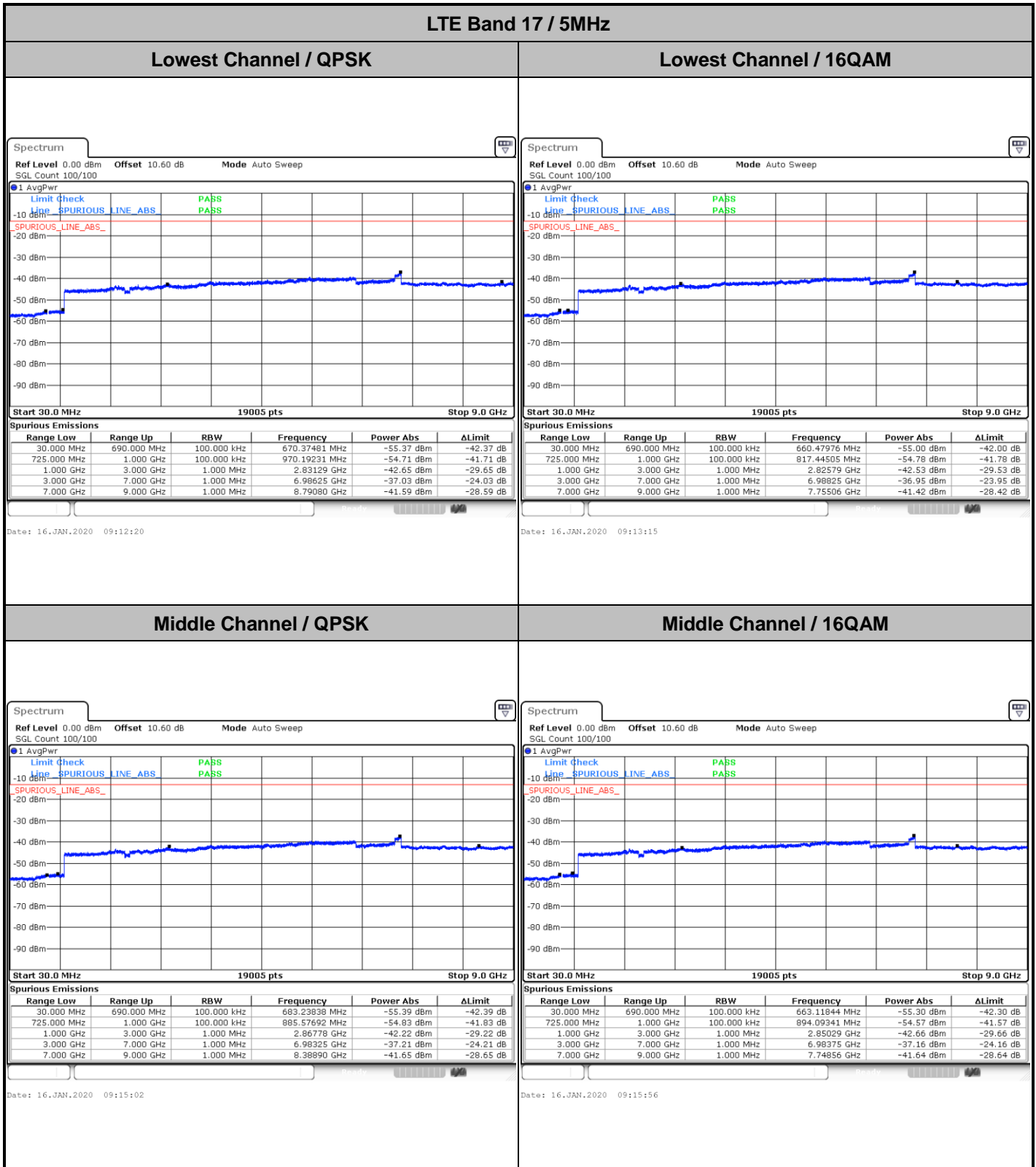


Date: 16.JAN.2020 10:03:55





# Conducted Spurious Emission

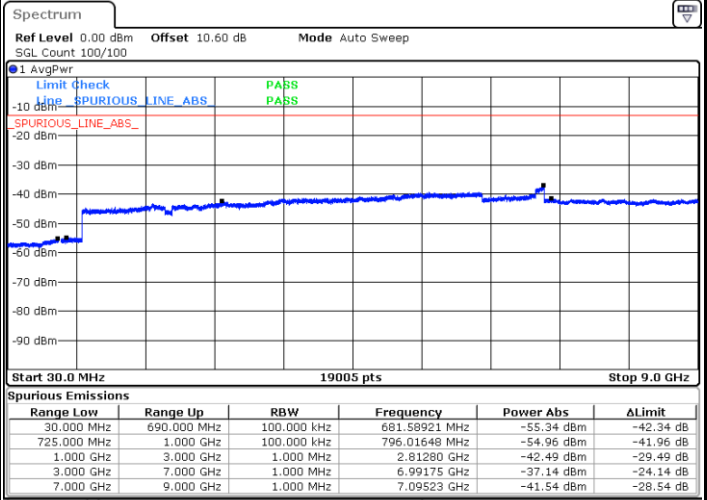
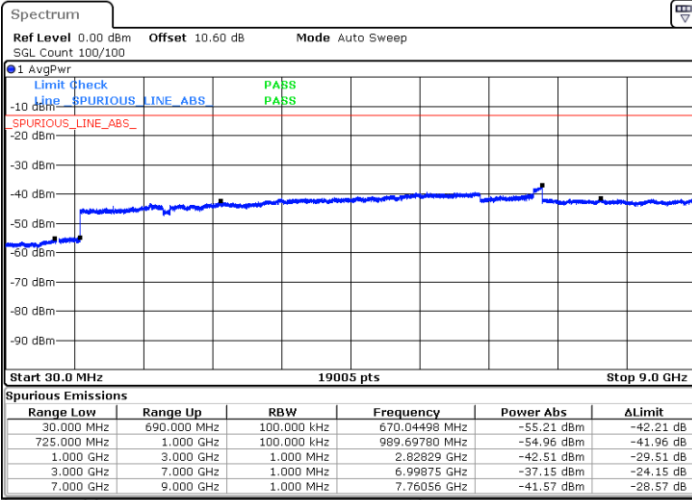




LTE Band 17 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



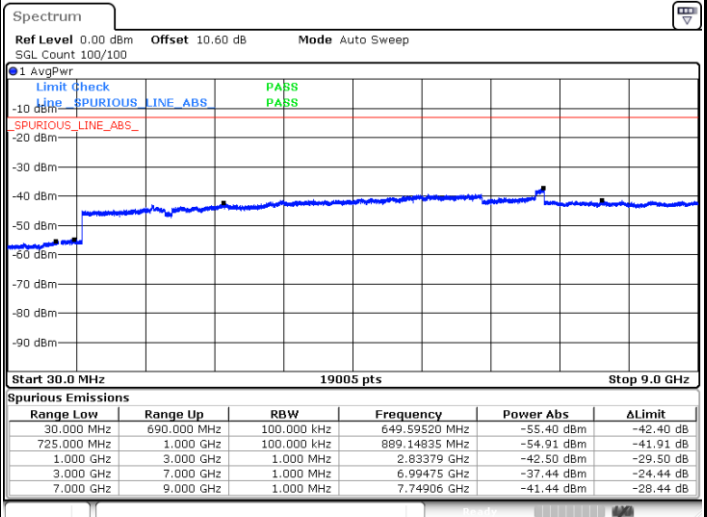
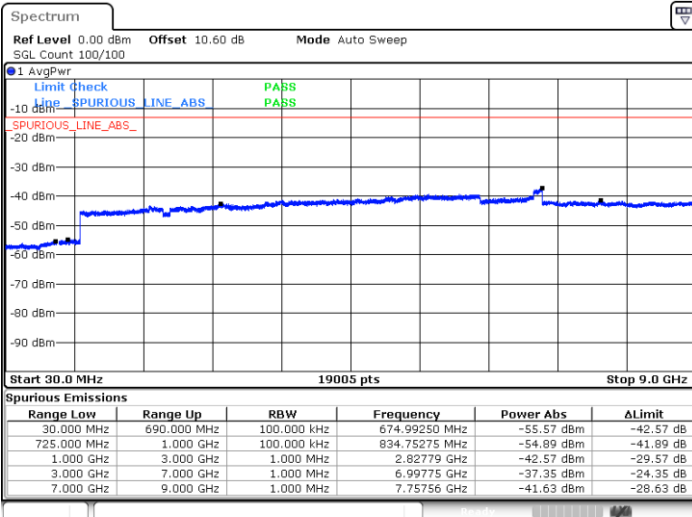
Date: 16.JAN.2020 09:21:54

Date: 16.JAN.2020 09:22:50

LTE Band 17 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 16.JAN.2020 09:28:46

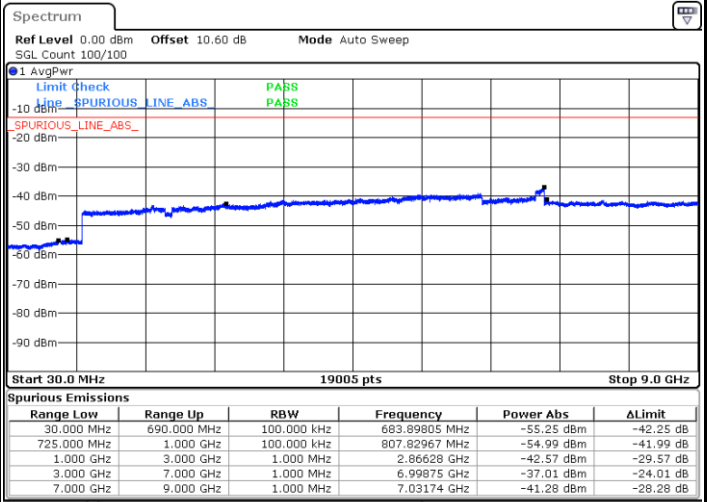
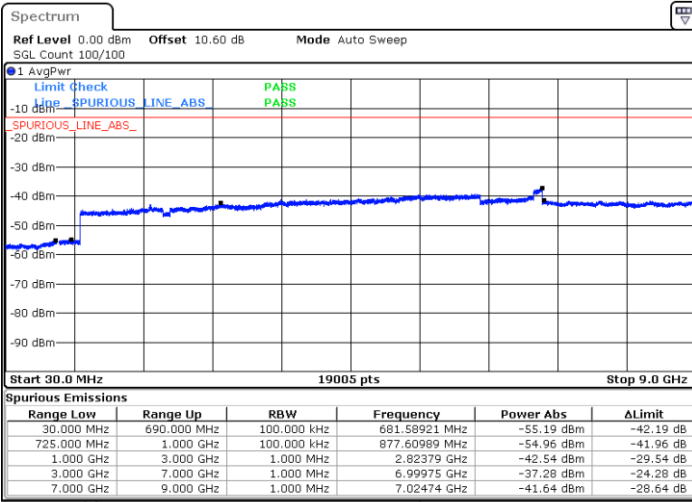
Date: 16.JAN.2020 09:29:42



LTE Band 17 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

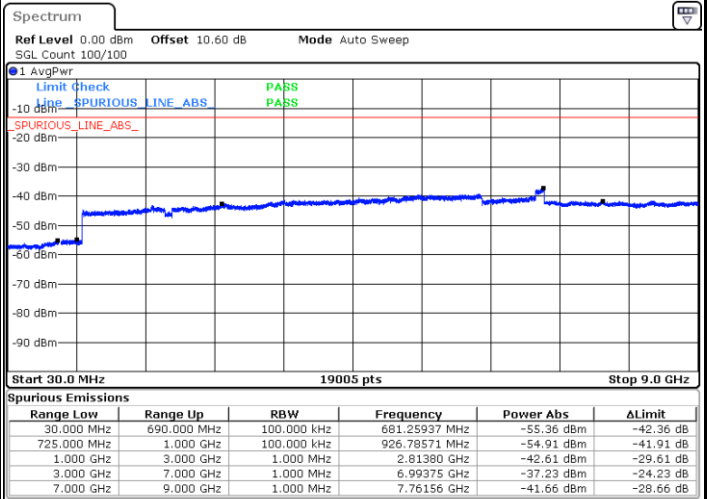
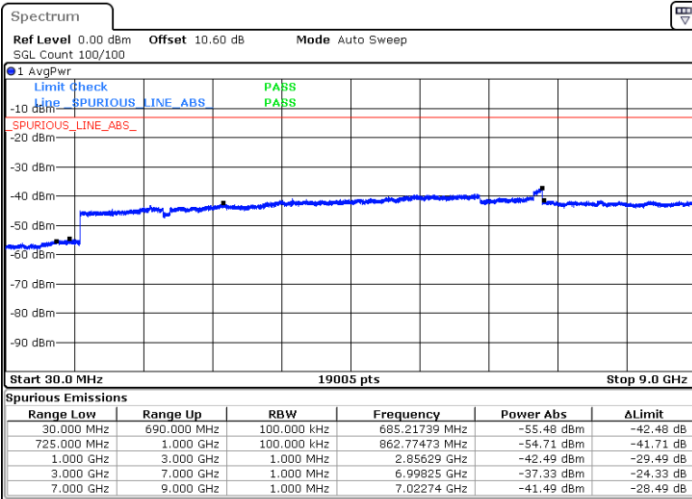


Date: 16. JAN. 2020 09:31:30

Date: 16. JAN. 2020 09:32:24

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 16. JAN. 2020 09:38:20

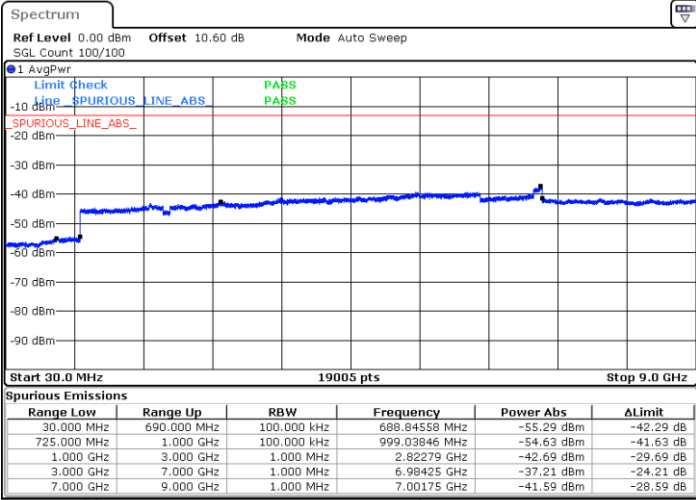
Date: 16. JAN. 2020 09:39:15



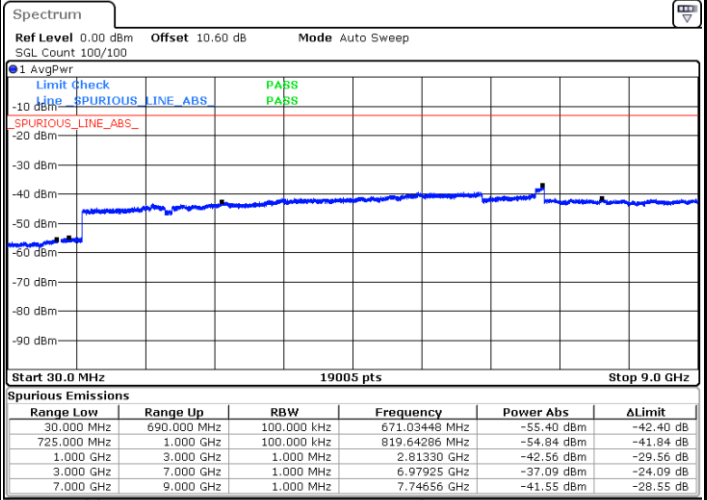
LTE Band 17 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

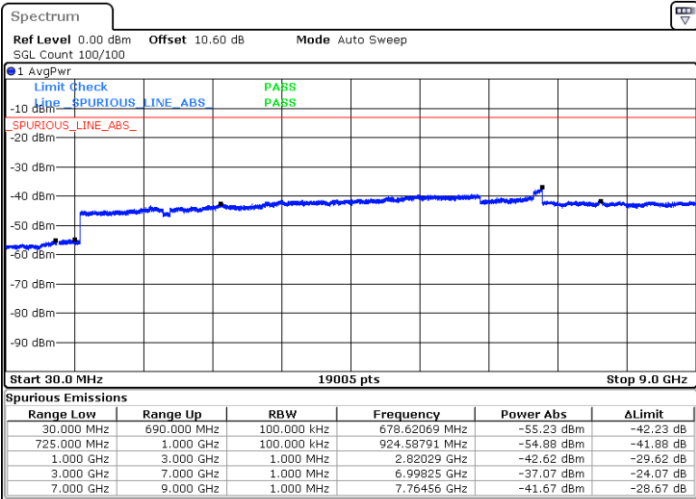


Date: 16. JAN. 2020 09:42:45



Date: 16. JAN. 2020 09:44:06

Highest Channel / 64QAM



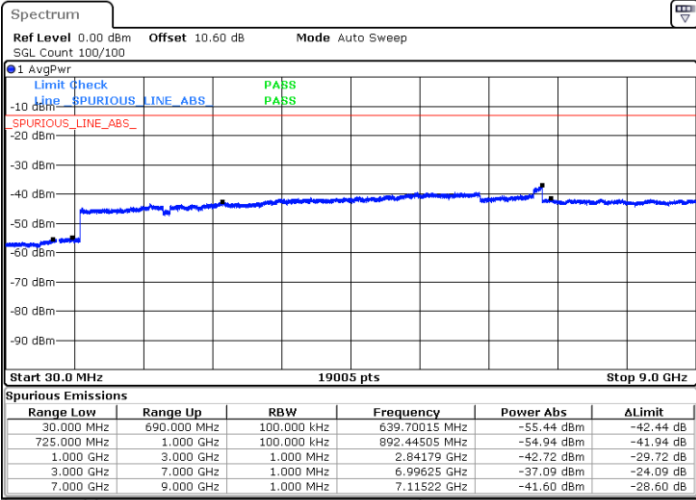
Date: 16. JAN. 2020 09:47:35



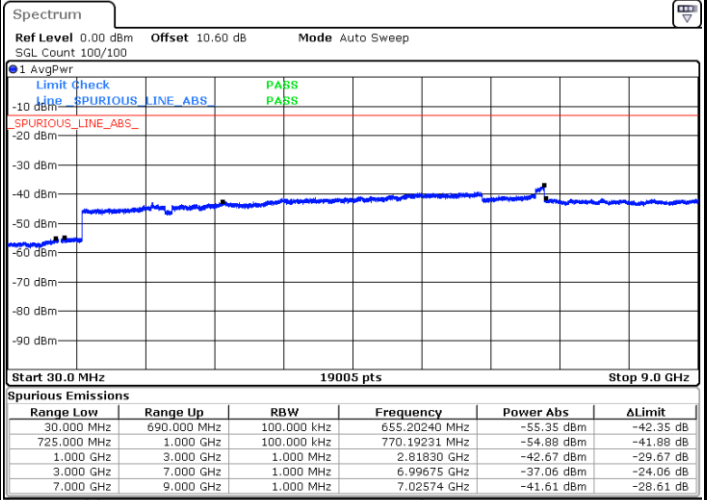
LTE Band 17 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

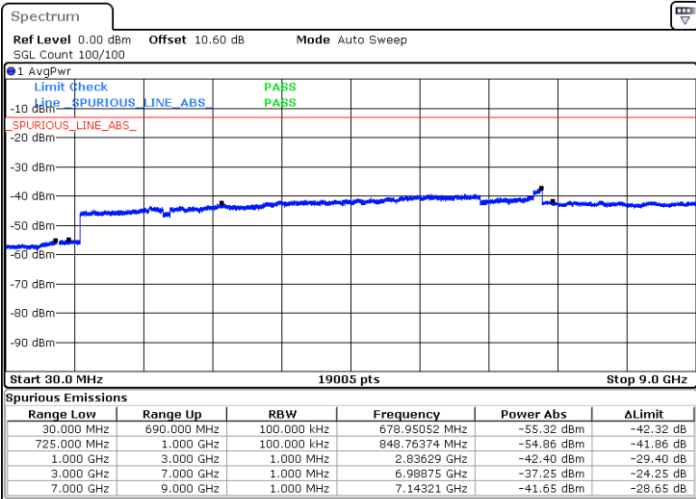


Date: 16.JAN.2020 09:58:10



Date: 16.JAN.2020 09:59:31

Highest Channel / 64QAM



Date: 16.JAN.2020 10:04:49



**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	0.0141	PASS
40	Normal Voltage	0.0118	
30	Normal Voltage	0.0052	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0127	
0	Normal Voltage	0.0121	
-10	Normal Voltage	0.0128	
-20	Normal Voltage	0.0144	
-30	Normal Voltage	0.0154	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

**Note:**

- 1. Normal Voltage =3.9 V. : Battery End Point (BEP) =3.4 V. : Maximum Voltage =4.35 V.
- 2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 66

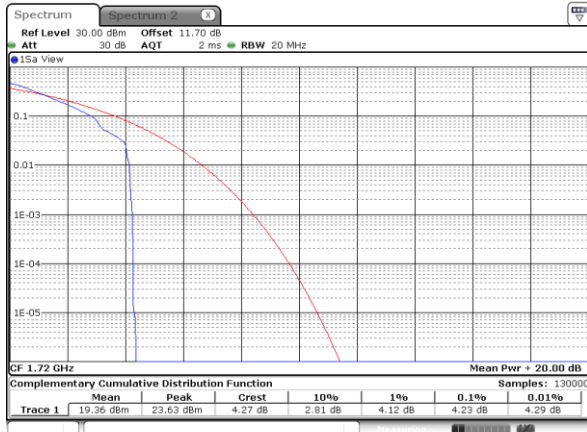
## Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.23	4.72	5.39	5.77	<b>PASS</b>
Middle CH	3.74	5.01	4.61	5.88	
Highest CH	3.59	5.04	5.36	5.86	
Mode	LTE Band 66 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.28	5.77	-	-	<b>PASS</b>
Middle CH	4.64	5.83	-	-	
Highest CH	5.28	5.86	-	-	



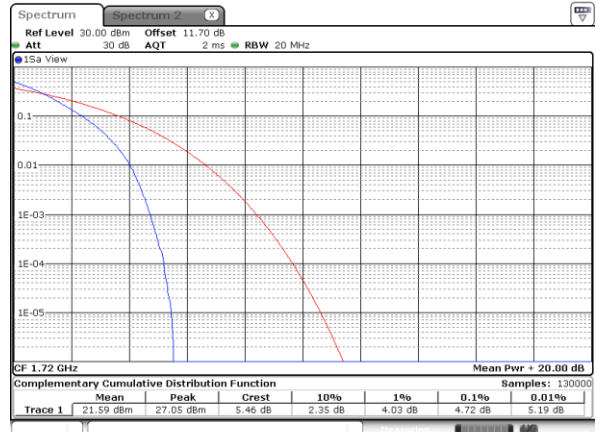
LTE Band 66 / 20MHz / QPSK

Lowest Channel / 1RB



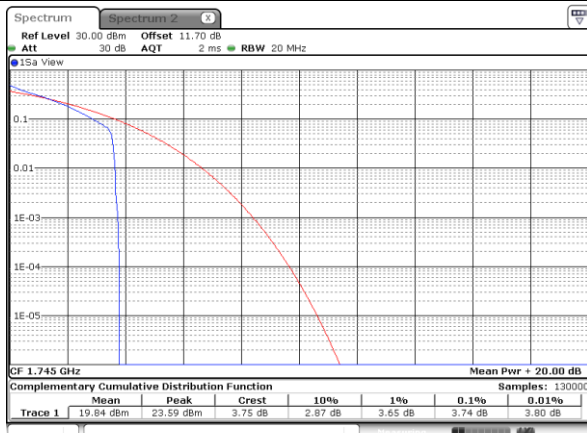
Date: 15\_JAN.2020 16:14:34

Lowest Channel / Full RB



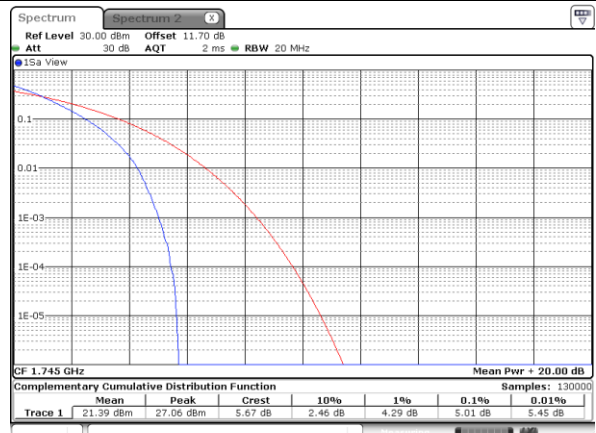
Date: 15\_JAN.2020 16:14:47

Middle Channel / 1RB



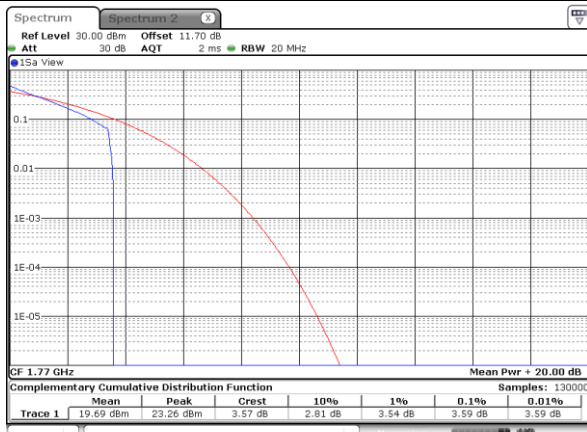
Date: 15\_JAN.2020 16:15:02

Middle Channel / Full RB



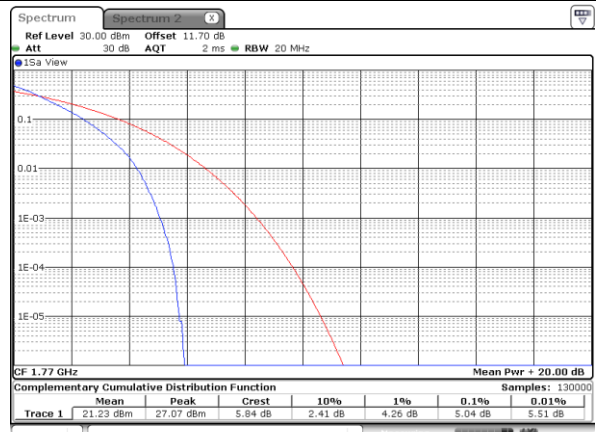
Date: 15\_JAN.2020 16:15:16

Highest Channel / 1RB



Date: 15\_JAN.2020 16:15:30

Highest Channel / Full RB



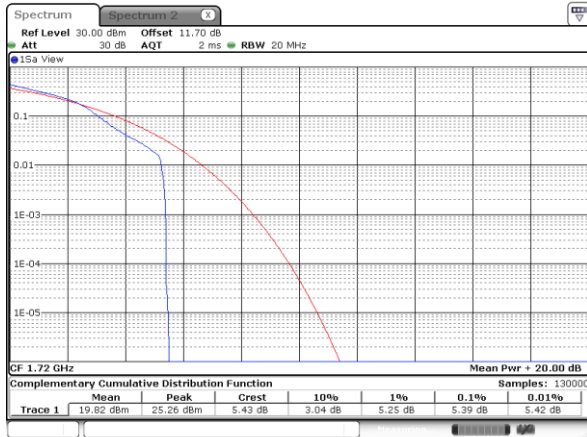
Date: 15\_JAN.2020 16:15:44





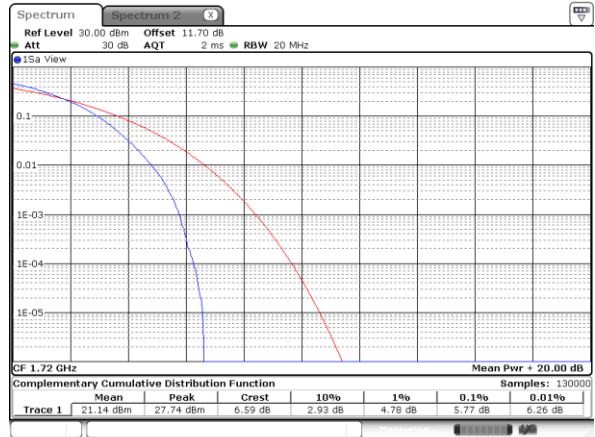
LTE Band 66 / 20MHz / 16QAM

Lowest Channel / 1RB



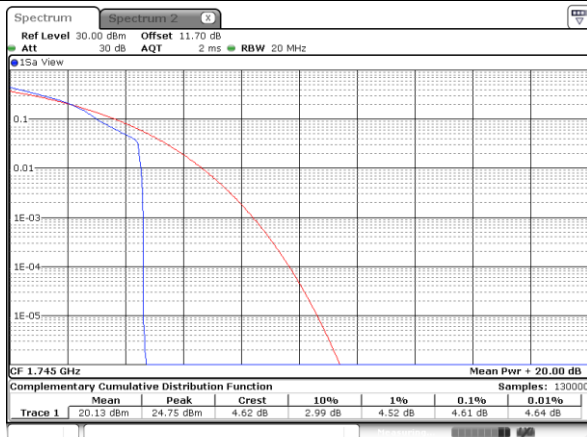
Date: 15\_JAN\_2020 16:13:01

Lowest Channel / Full RB



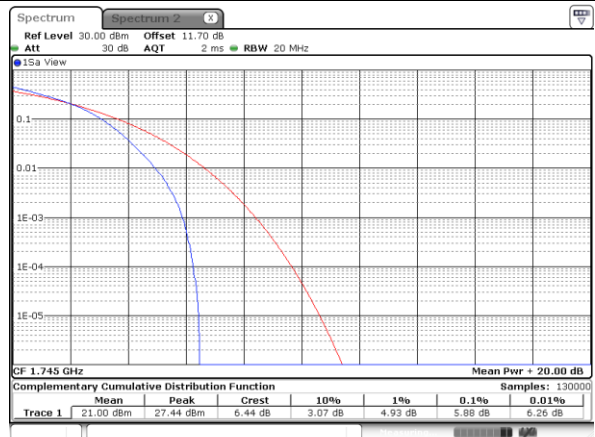
Date: 15\_JAN\_2020 16:13:16

Middle Channel / 1RB



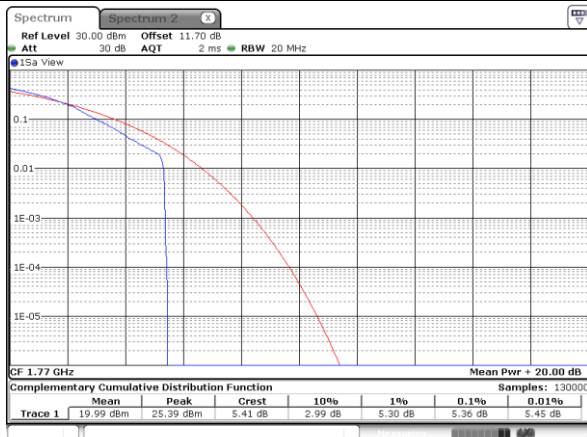
Date: 15\_JAN\_2020 16:13:29

Middle Channel / Full RB



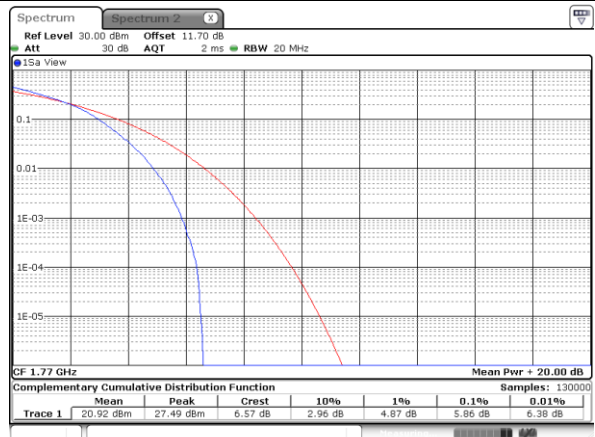
Date: 15\_JAN\_2020 16:13:43

Highest Channel / 1RB



Date: 15\_JAN\_2020 16:13:58

Highest Channel / Full RB

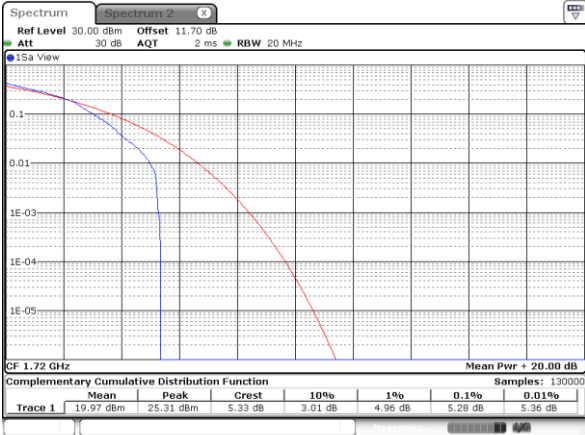


Date: 15\_JAN\_2020 16:14:12



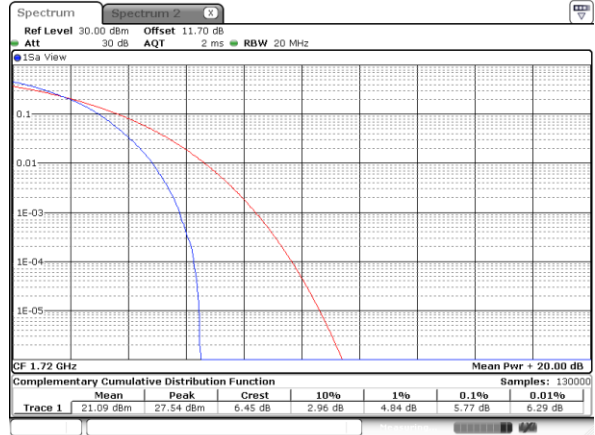
LTE Band 66 / 20MHz / 64QAM

Lowest Channel / 1RB



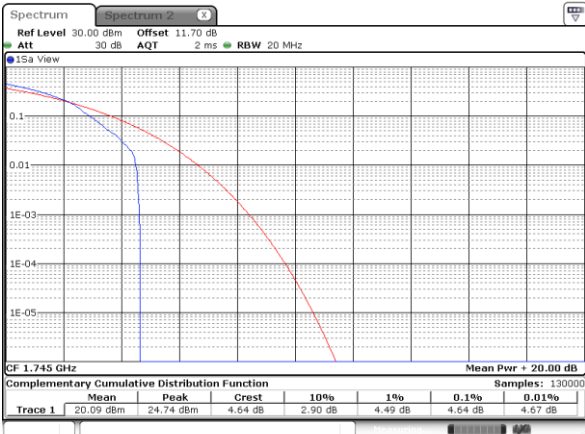
Date: 15\_JAN.2020 16:15:50

Lowest Channel / Full RB



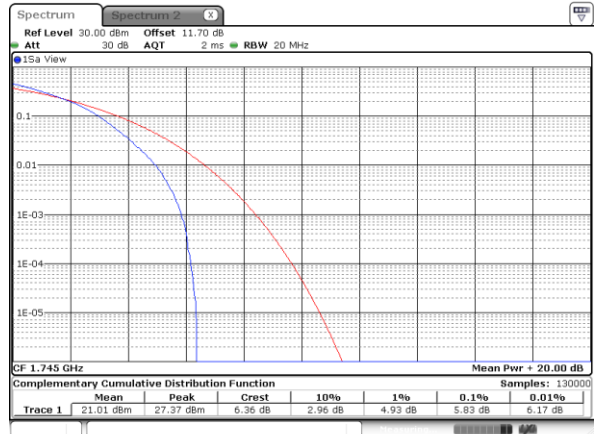
Date: 15\_JAN.2020 16:16:13

Middle Channel / 1RB



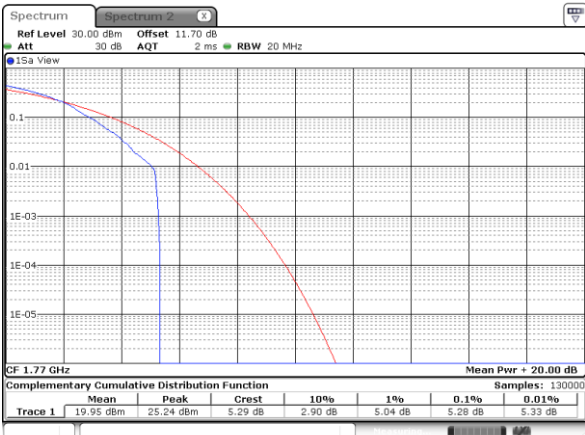
Date: 15\_JAN.2020 16:16:27

Middle Channel / Full RB



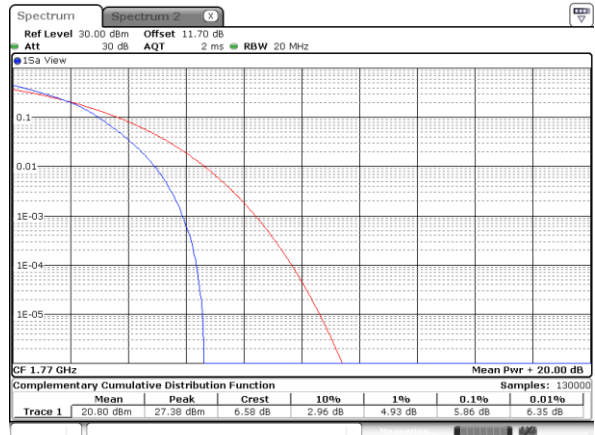
Date: 15\_JAN.2020 16:16:41

Highest Channel / 1RB



Date: 15\_JAN.2020 16:16:55

Highest Channel / Full RB



Date: 15\_JAN.2020 16:17:09



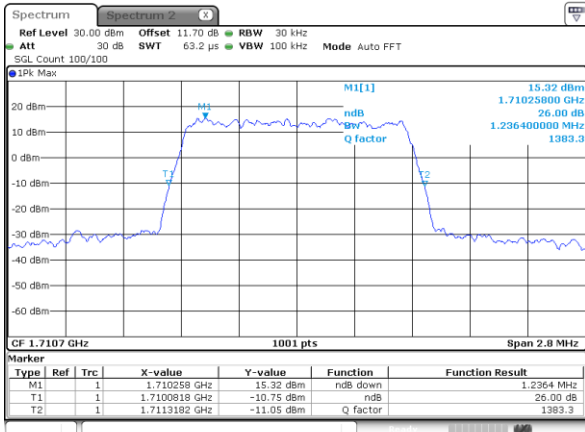
**26dB Bandwidth**

Mode BW	LTE Band 66 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.24	1.22	3.03	3.01	4.88	4.89	9.83	9.81	14.39	14.27	18.98	18.70
Middle CH	1.21	1.22	3.04	3.03	4.92	4.93	9.81	9.67	14.57	14.36	19.22	18.86
Highest CH	1.22	1.21	3.05	3.02	4.89	4.86	9.71	9.71	14.21	14.42	18.90	18.74
Mode BW	LTE Band 66 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	3.03	-	4.90	-	9.75	-	14.48	-	18.86	-
Middle CH	1.23	-	3.06	-	4.94	-	9.71	-	14.42	-	18.94	-
Highest CH	1.23	-	2.99	-	4.92	-	9.89	-	14.27	-	18.82	-



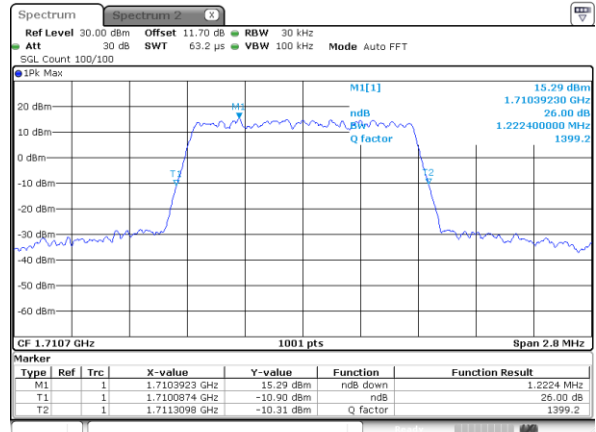
LTE Band 66

Lowest Channel / 1.4MHz / QPSK



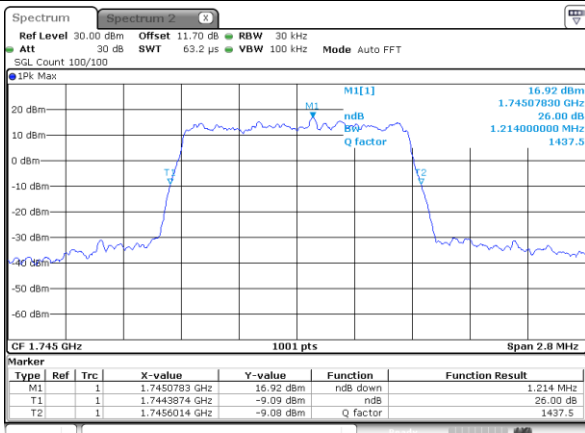
Date: 15\_JAN.2020 06:21:01

Lowest Channel / 1.4MHz / 16QAM



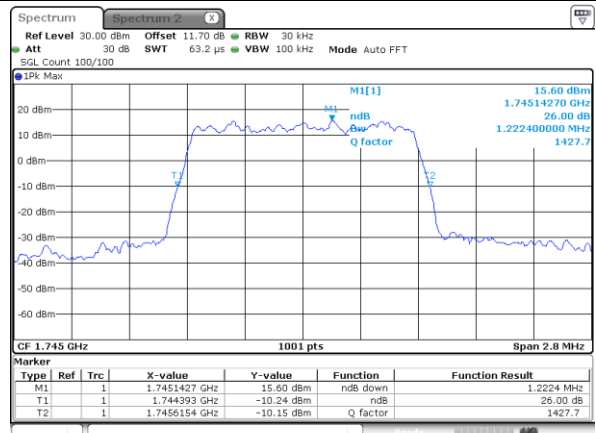
Date: 15\_JAN.2020 06:21:15

Middle Channel / 1.4MHz / QPSK



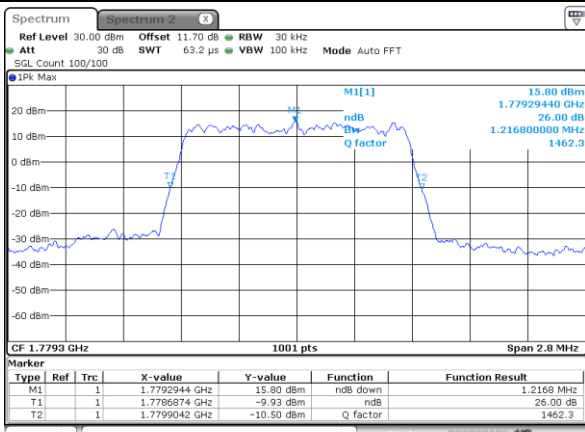
Date: 15\_JAN.2020 06:31:50

Middle Channel / 1.4MHz / 16QAM



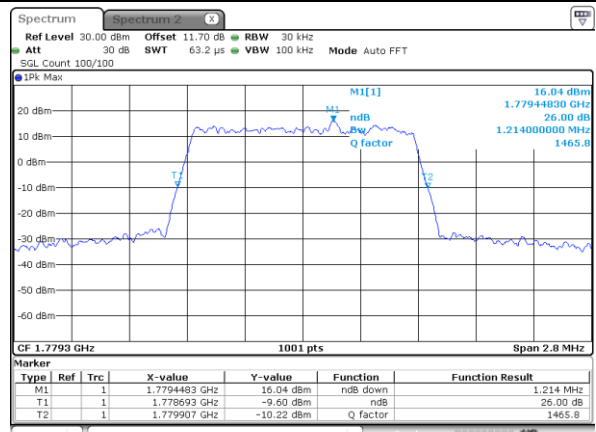
Date: 15\_JAN.2020 06:32:03

Highest Channel / 1.4MHz / QPSK



Date: 15\_JAN.2020 06:34:30

Highest Channel / 1.4MHz / 16QAM



Date: 15\_JAN.2020 06:34:44