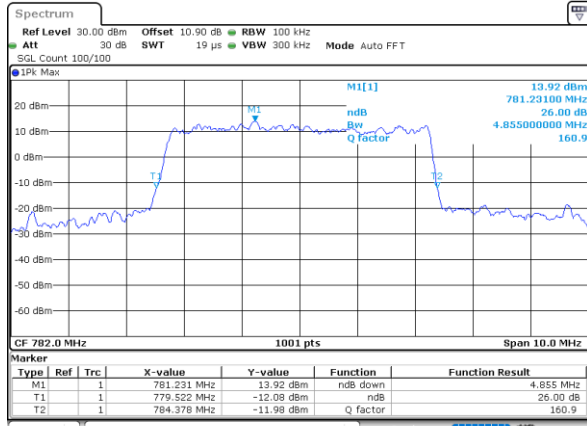




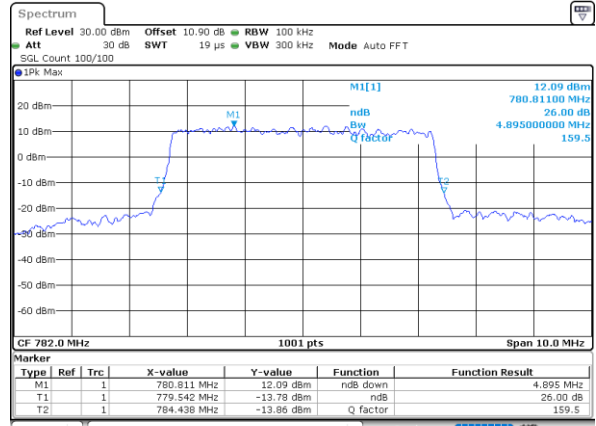
LTE Band 13

Middle Channel / 5MHz / QPSK



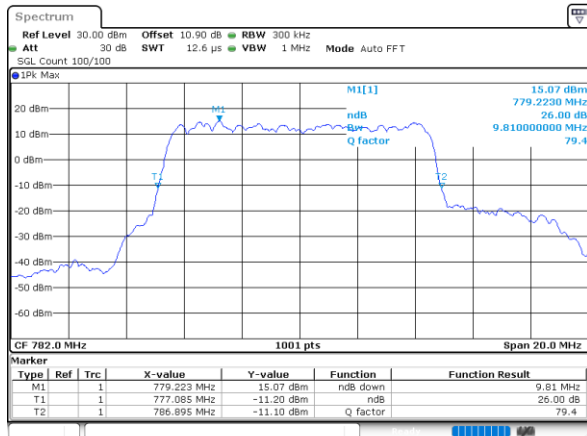
Date: 3.FEB.2021 11:22:02

Middle Channel / 5MHz / 16QAM



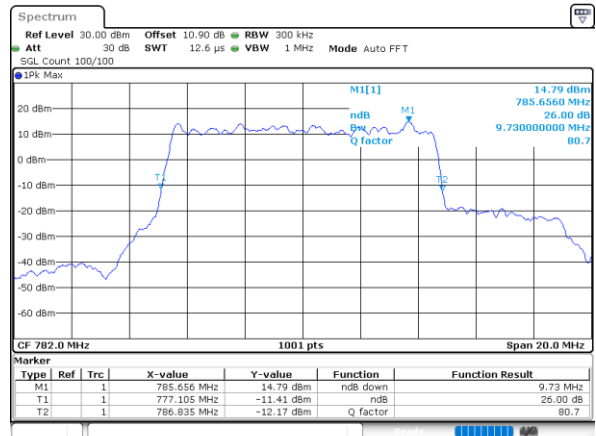
Date: 3.FEB.2021 11:22:16

Middle Channel / 10MHz / QPSK



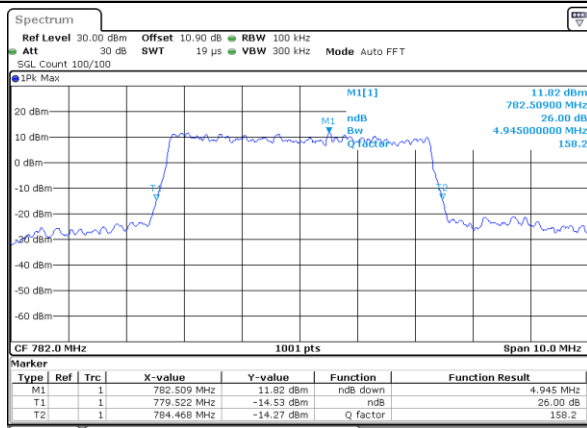
Date: 3.FEB.2021 11:38:50

Middle Channel / 10MHz / 16QAM



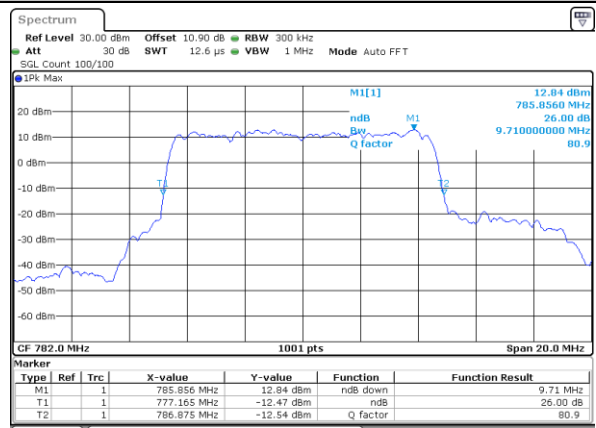
Date: 3.FEB.2021 11:38:37

Middle Channel / 5MHz / 64QAM



Date: 3.FEB.2021 11:34:16

Middle Channel / 10MHz / 64QAM



Date: 3.FEB.2021 11:50:32

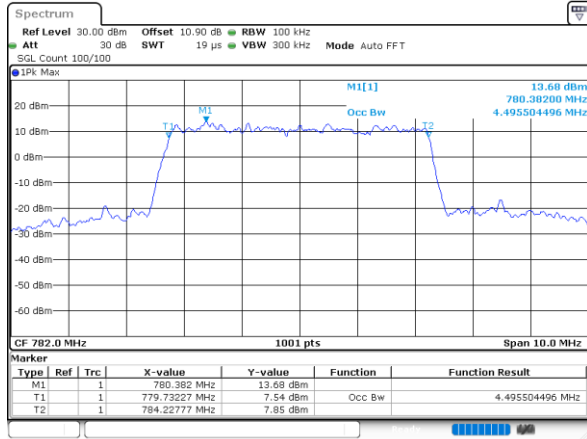
**Occupied Bandwidth**

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.50	4.50	9.05	9.01	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Middle CH	-	-	-	-	4.51	-	9.03	-	-	-	-	-

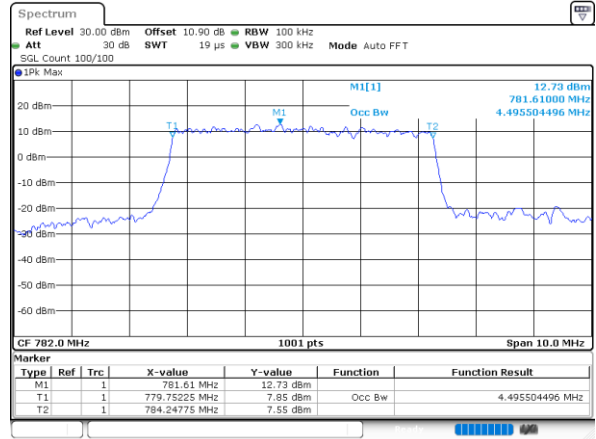


LTE Band 13

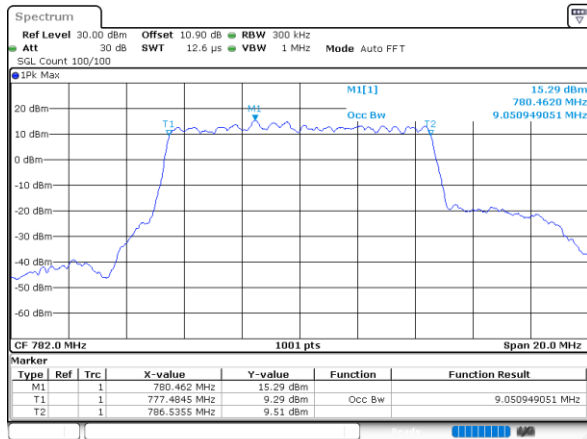
Middle Channel / 5MHz / QPSK



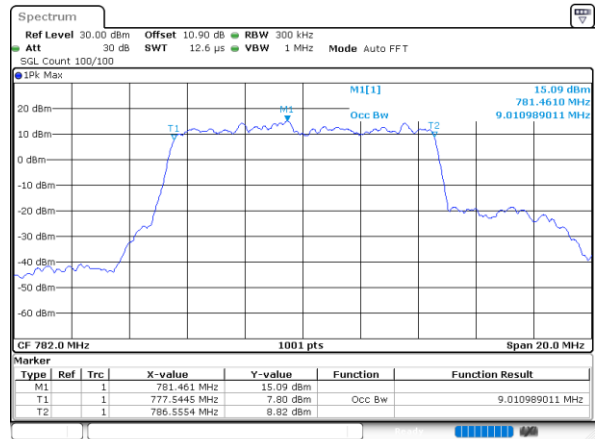
Middle Channel / 5MHz / 16QAM



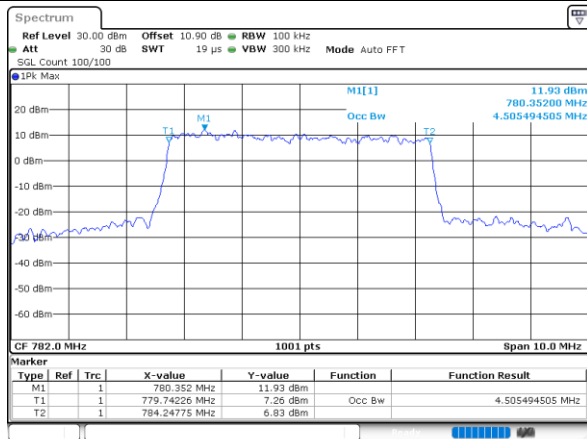
Middle Channel / 10MHz / QPSK



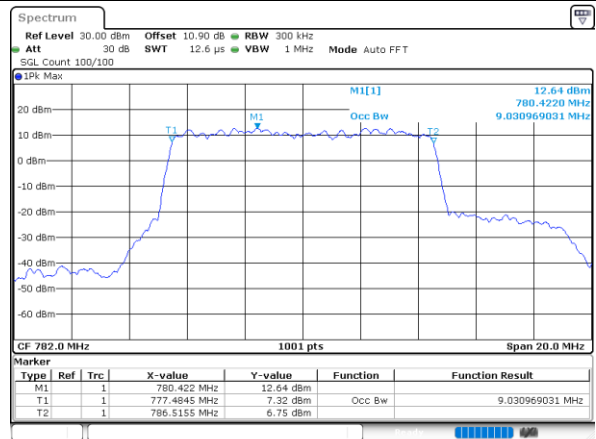
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

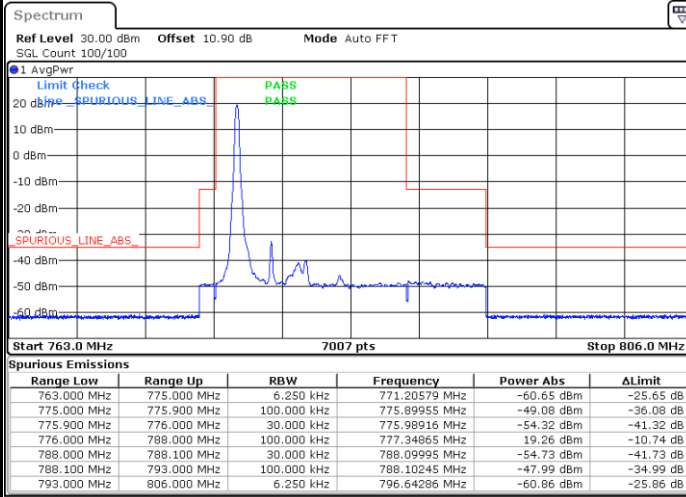




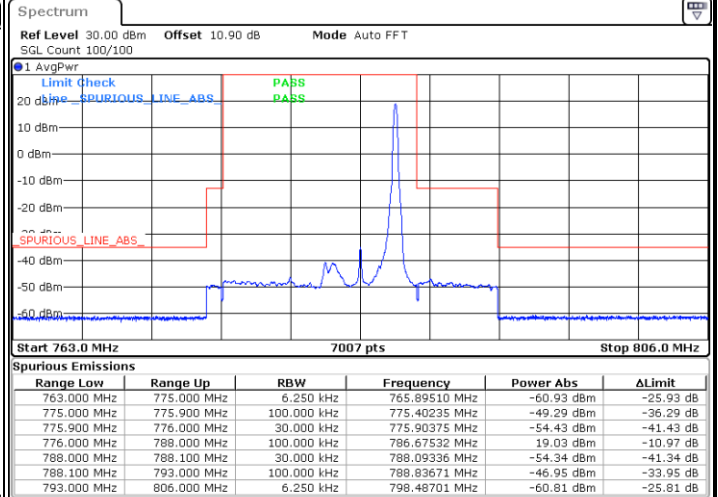
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

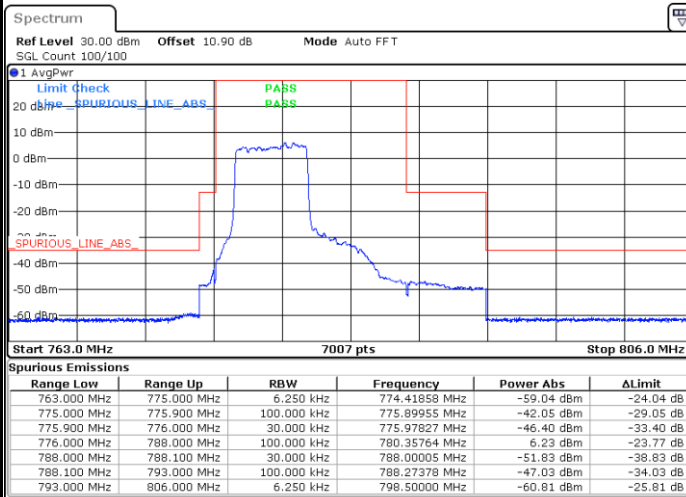
Lowest Band Edge / 1 RB



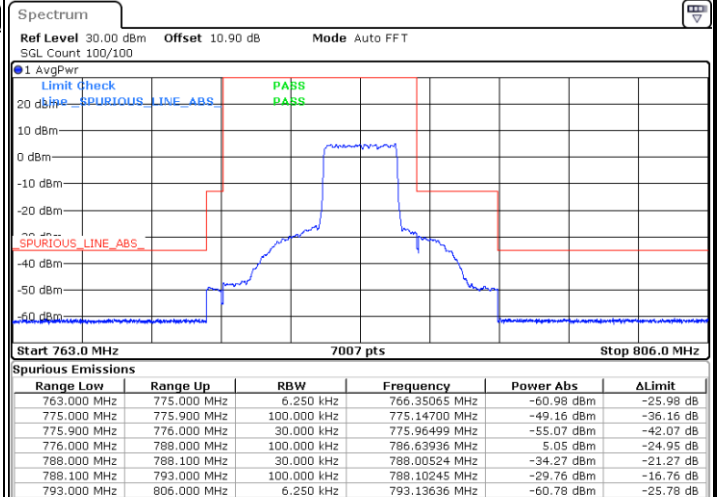
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



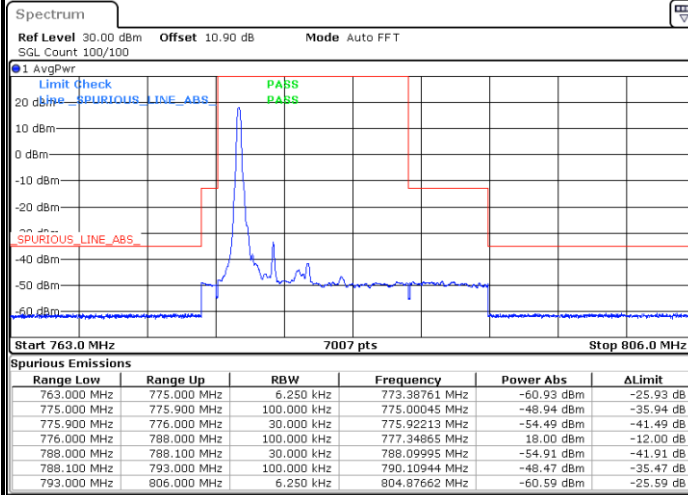
Highest Band Edge / Full RB





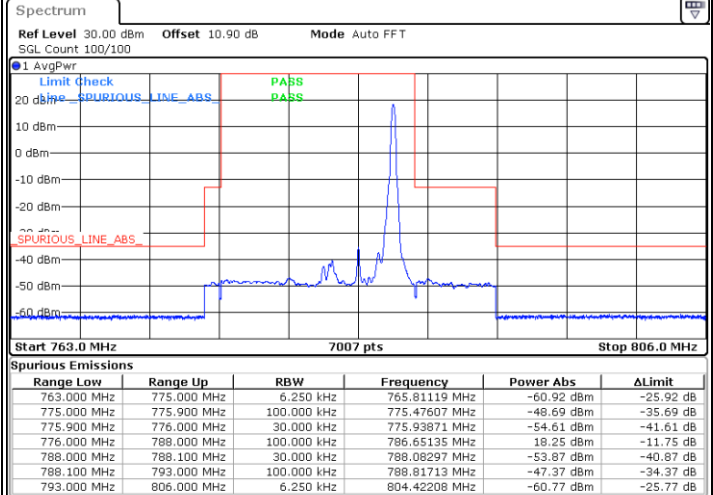
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



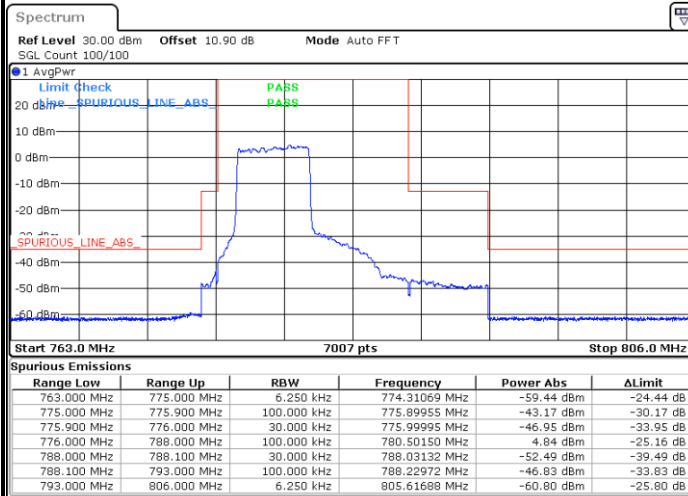
Date: 3.FEB.2021 11:18:02

Highest Band Edge / 1 RB



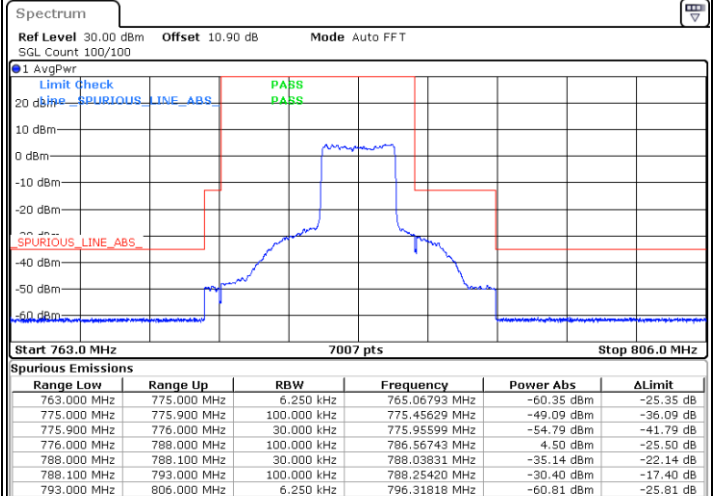
Date: 3.FEB.2021 11:27:51

Lowest Band Edge / Full RB



Date: 3.FEB.2021 11:16:19

Highest Band Edge / Full RB

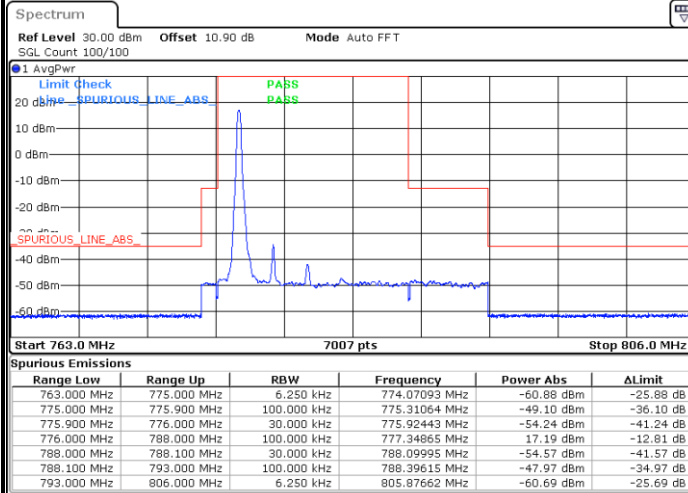


Date: 3.FEB.2021 11:26:09



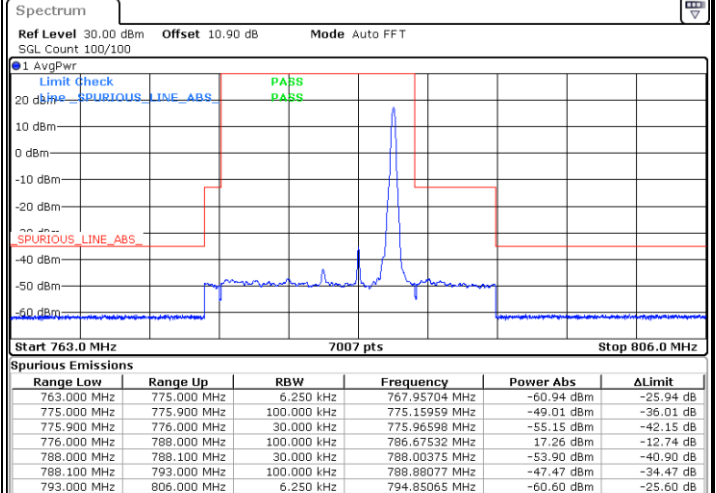
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



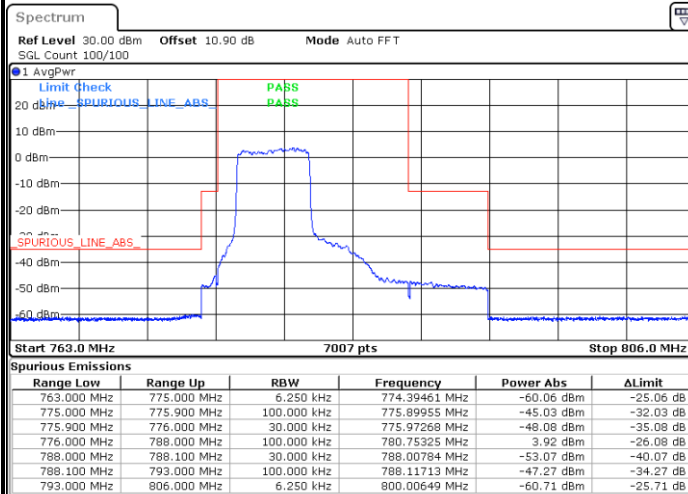
Date: 3.FEB.2021 11:34:02

Highest Band Edge / 1 RB



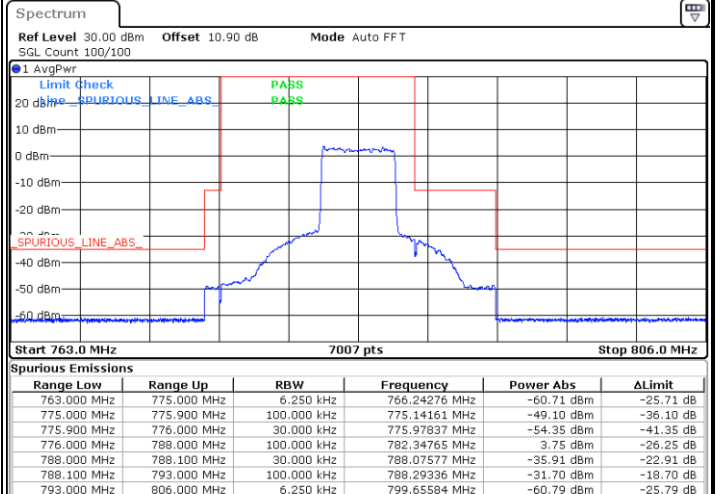
Date: 3.FEB.2021 11:37:55

Lowest Band Edge / Full RB



Date: 3.FEB.2021 11:32:19

Highest Band Edge / Full RB

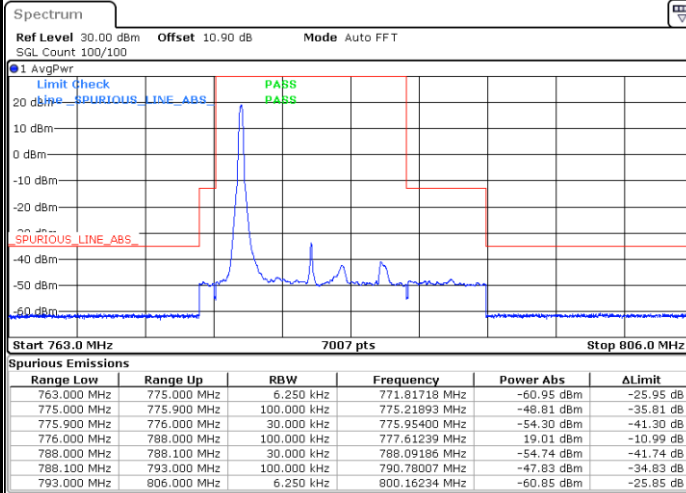


Date: 3.FEB.2021 11:36:12



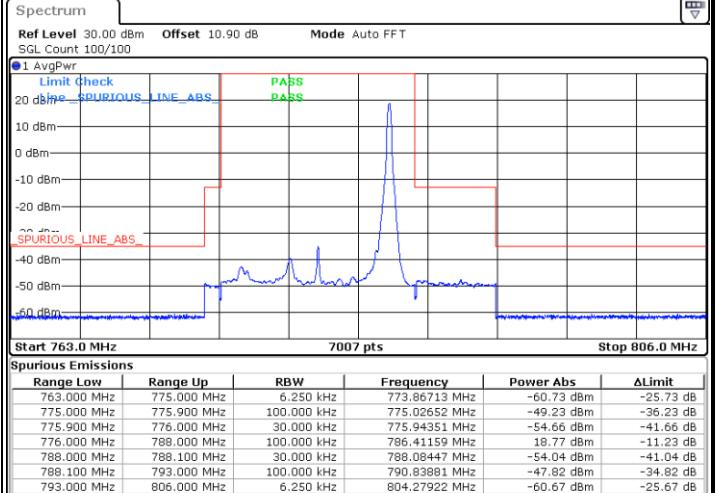
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



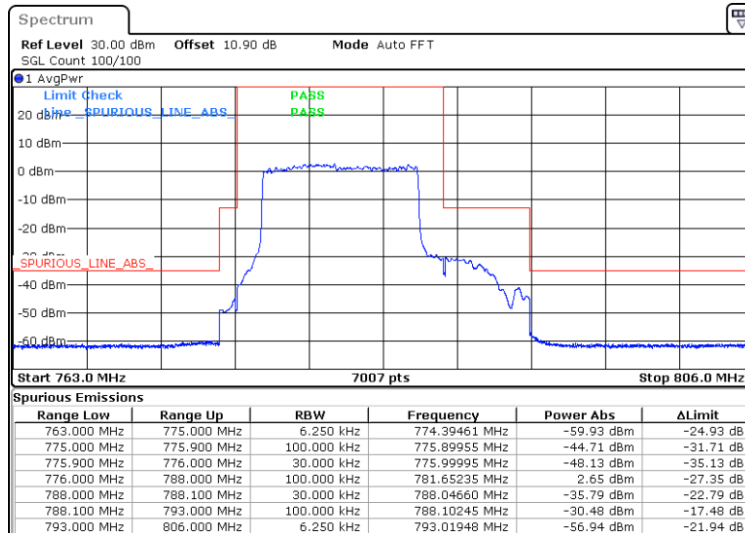
Date: 3.FEB.2021 11:45:39

Highest Band Edge / 1 RB



Date: 3.FEB.2021 11:47:21

Band Edge / Full RB

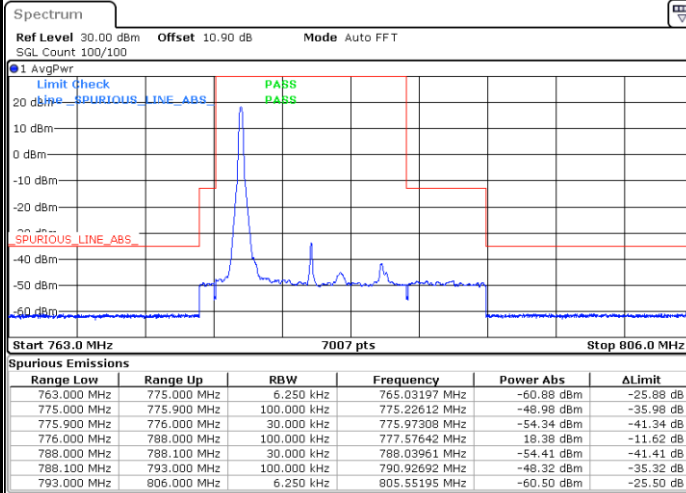


Date: 3.FEB.2021 11:40:33

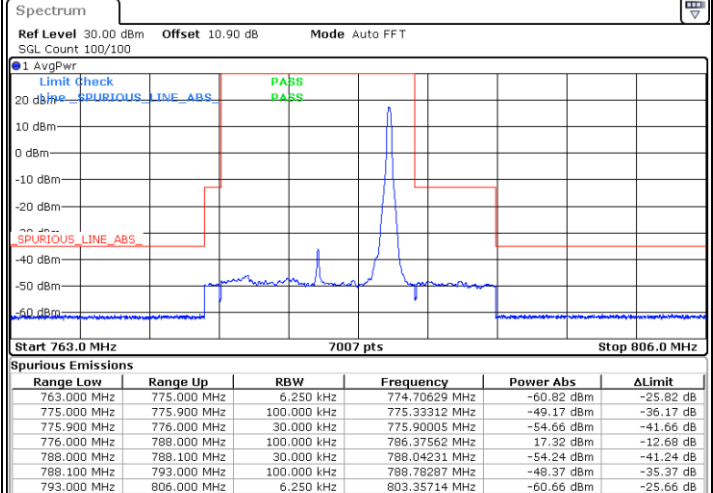


LTE Band 13 / 10MHz / 16QAM

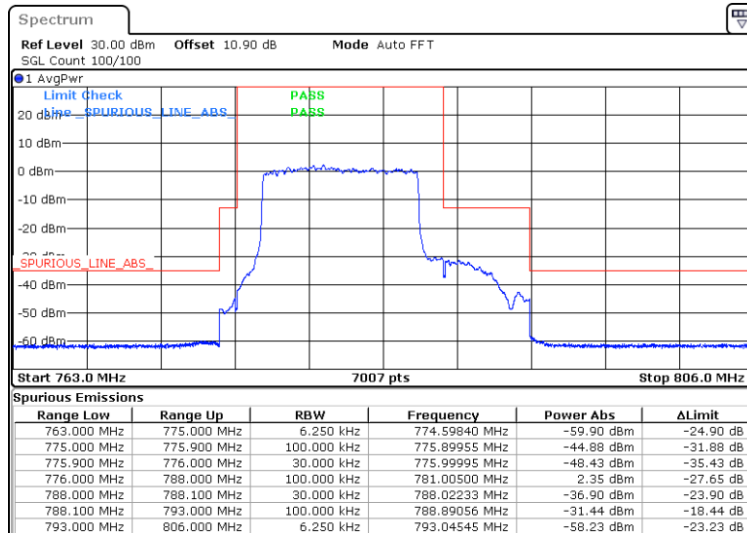
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



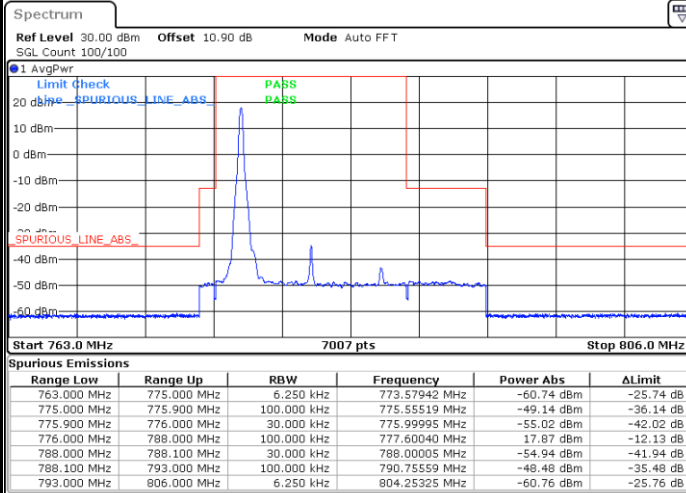
Band Edge / Full RB





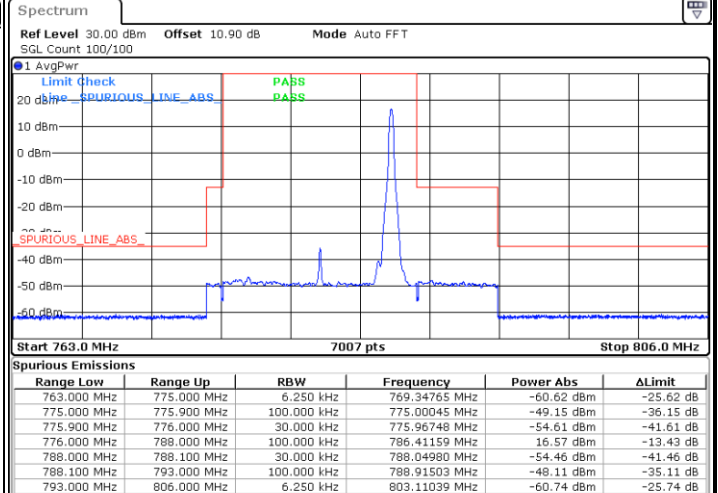
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



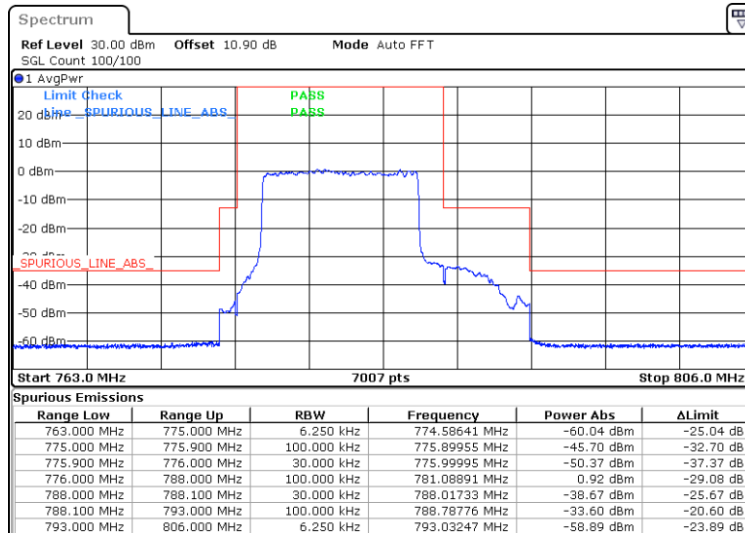
Date: 3.FEB.2021 11:53:57

Highest Band Edge / 1 RB



Date: 3.FEB.2021 11:55:39

Band Edge / Full RB



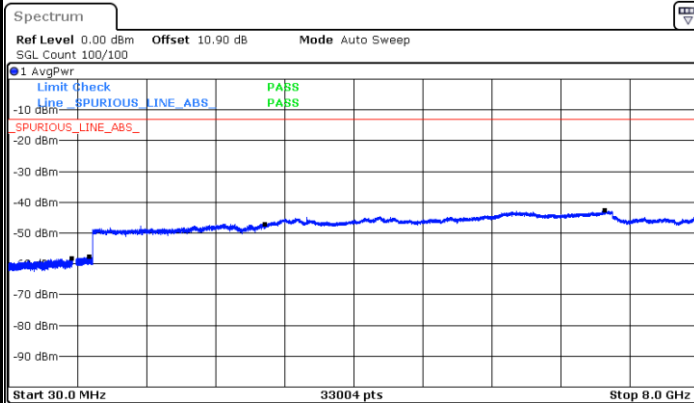
Date: 3.FEB.2021 11:52:14



Conducted Spurious Emission

LTE Band 13 / 5MHz

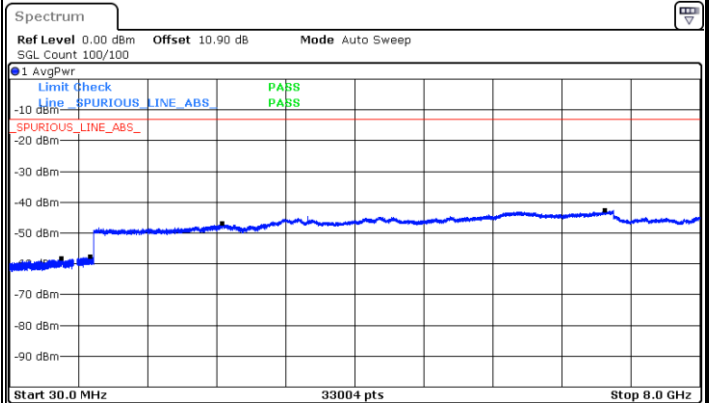
Lowest Channel / QPSK



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	756.28128 MHz	-58.34 dBm	-45.34 dB
806.000 MHz	1.000 GHz	100.000 kHz	957.30642 MHz	-57.74 dBm	-44.74 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98475 GHz	-47.02 dBm	-34.02 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.91236 GHz	-42.75 dBm	-29.75 dB

Date: 3.FEB.2021 11:20:47

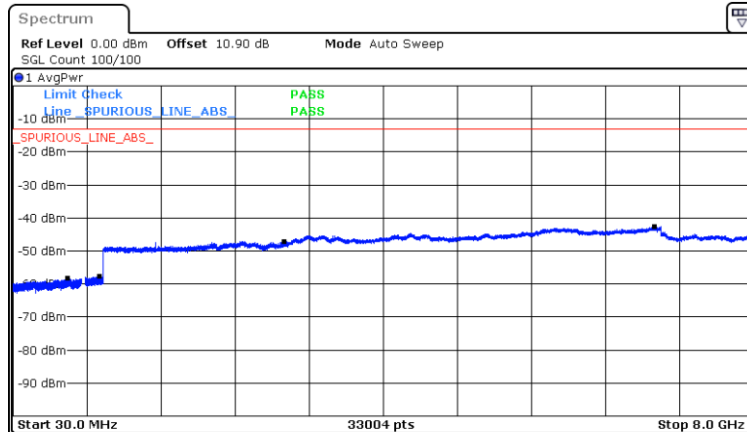
Middle Channel / QPSK



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	628.21029 MHz	-58.35 dBm	-45.35 dB
806.000 MHz	1.000 GHz	100.000 kHz	954.10622 MHz	-57.58 dBm	-44.58 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.48388 GHz	-47.02 dBm	-34.02 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.90036 GHz	-42.62 dBm	-29.62 dB

Date: 3.FEB.2021 11:21:49

Highest Channel / QPSK



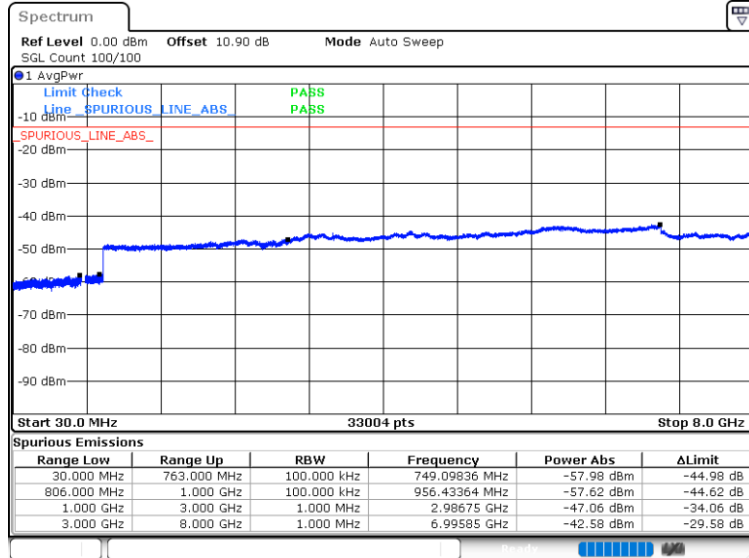
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	617.80238 MHz	-58.26 dBm	-45.26 dB
806.000 MHz	1.000 GHz	100.000 kHz	956.82154 MHz	-57.78 dBm	-44.78 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.94526 GHz	-47.09 dBm	-34.09 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.92736 GHz	-42.58 dBm	-29.58 dB

Date: 3.FEB.2021 11:30:36



LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 3.FEB.2021 11:50:05

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	0.0180	PASS
40	Normal Voltage	0.0240	
30	Normal Voltage	0.0121	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0219	
0	Normal Voltage	0.0036	
-10	Normal Voltage	0.0046	
-20	Normal Voltage	0.0074	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0046	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0129	

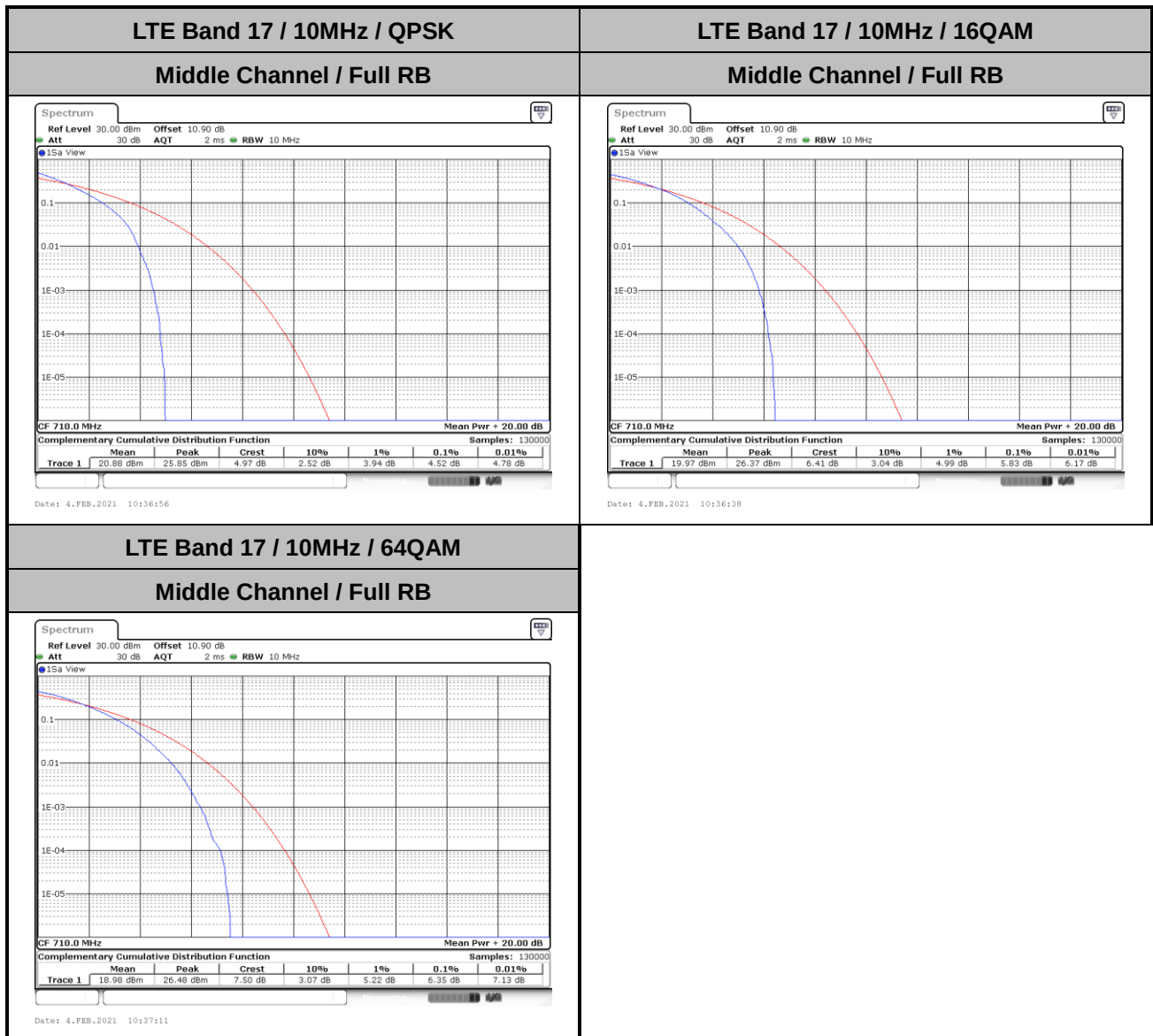
Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 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	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.52	5.83	6.35	PASS



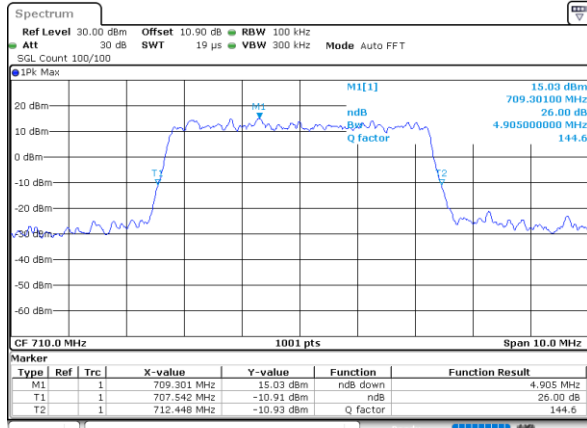
**26dB Bandwidth**

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
Middle CH	-	-	-	-	4.91	4.89	9.75	9.71	-	-	-	-
Mode	LTE Band 17 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Middle CH	-	-	-	-	4.86	-	9.75	-	-	-	-	-

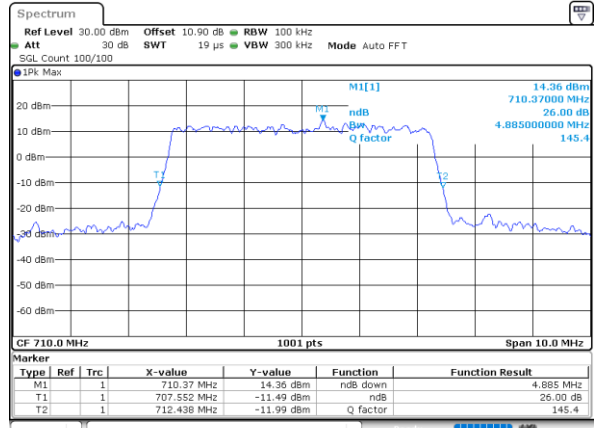


LTE Band 17

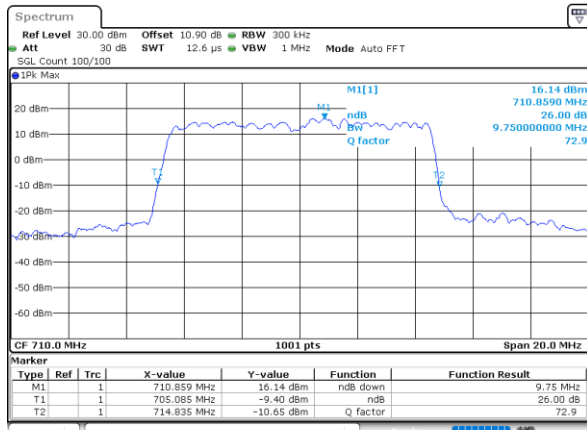
Middle Channel / 5MHz / QPSK



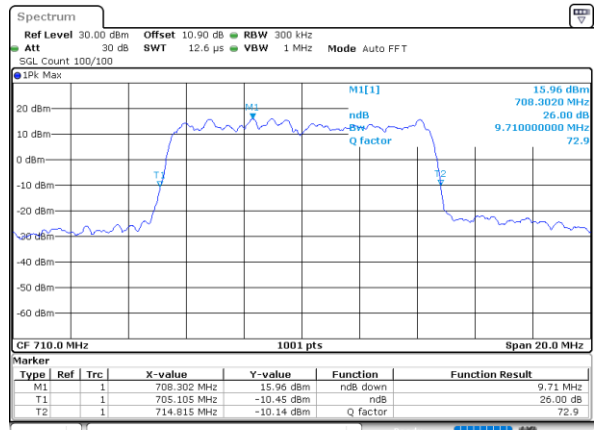
Middle Channel / 5MHz / 16QAM



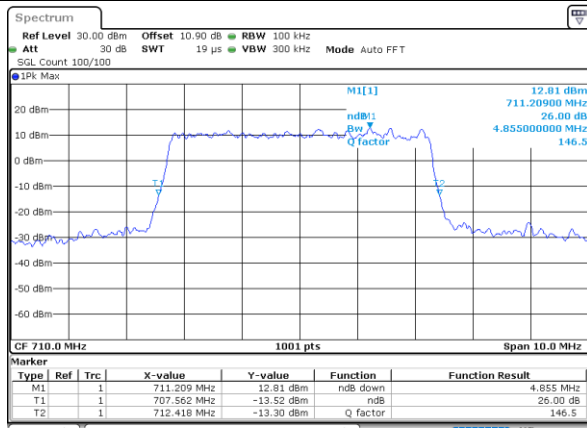
Middle Channel / 10MHz / QPSK



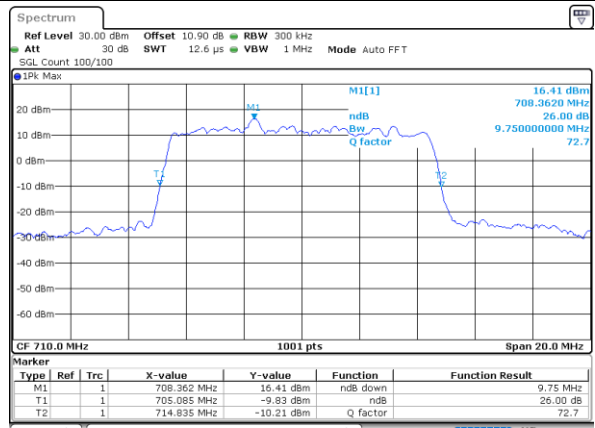
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



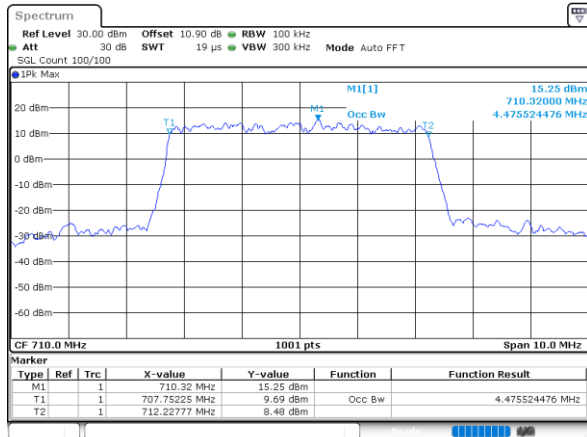
**Occupied Bandwidth**

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
Middle CH	-	-	-	-	4.48	4.49	9.01	8.93	-	-	-	-
Mode	LTE Band 17 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Middle CH	-	-	-	-	4.49	-	9.01	-	-	-	-	-

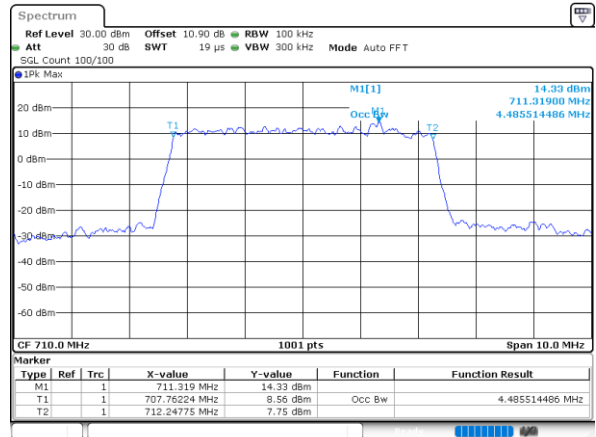


LTE Band 17

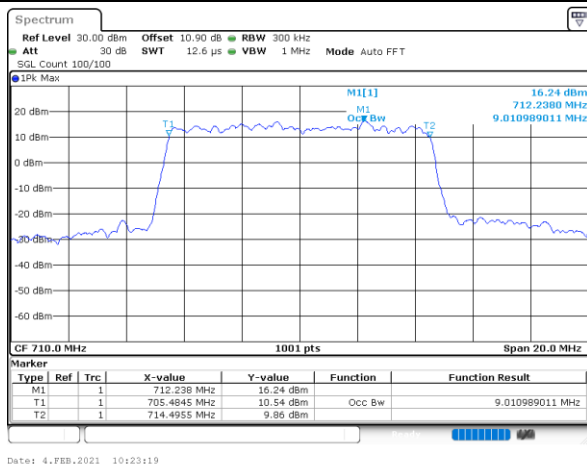
Middle Channel / 5MHz / QPSK



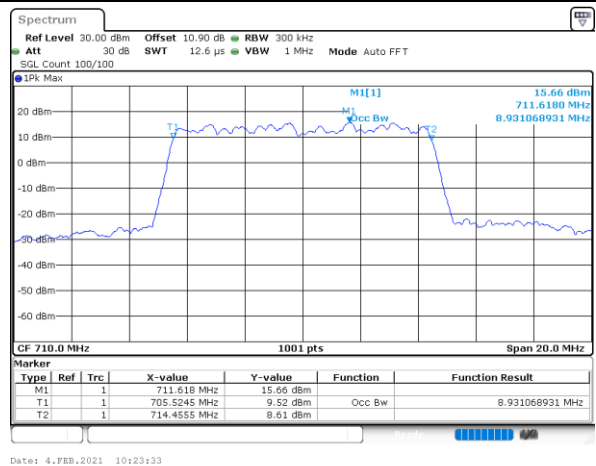
Middle Channel / 5MHz / 16QAM



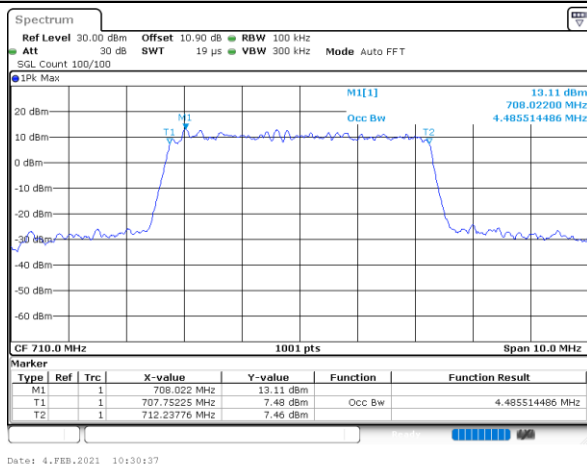
Middle Channel / 10MHz / QPSK



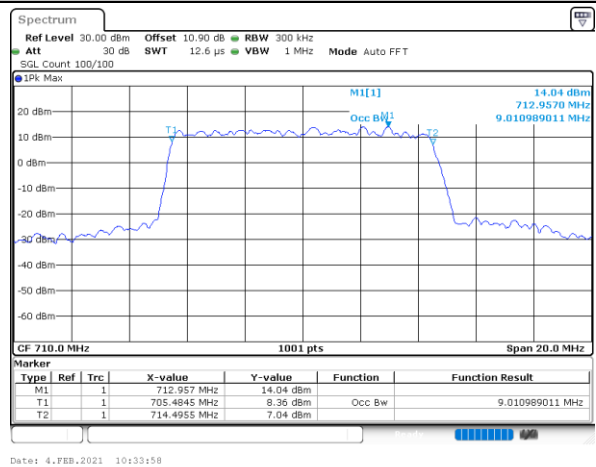
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

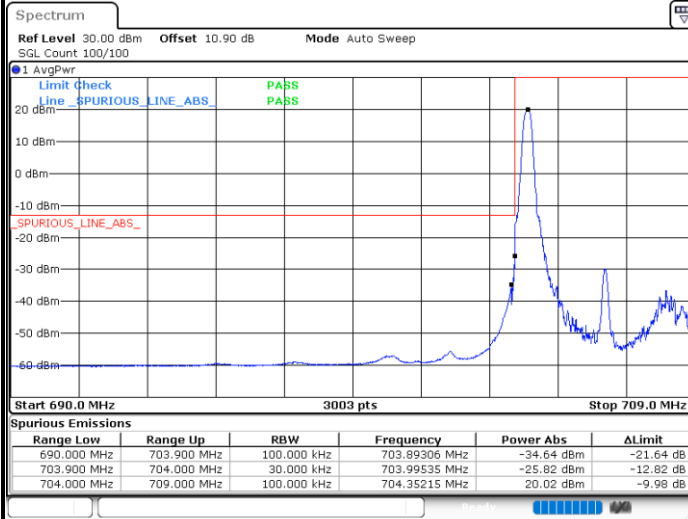




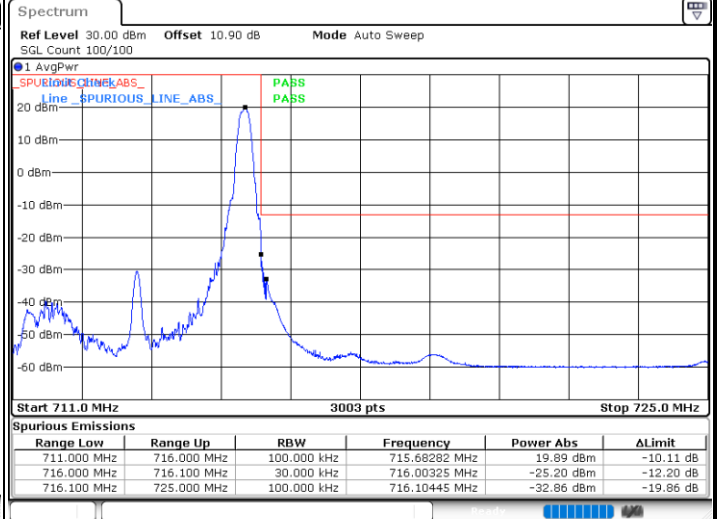
Conducted Band Edge

LTE Band 17 / 5MHz / QPSK

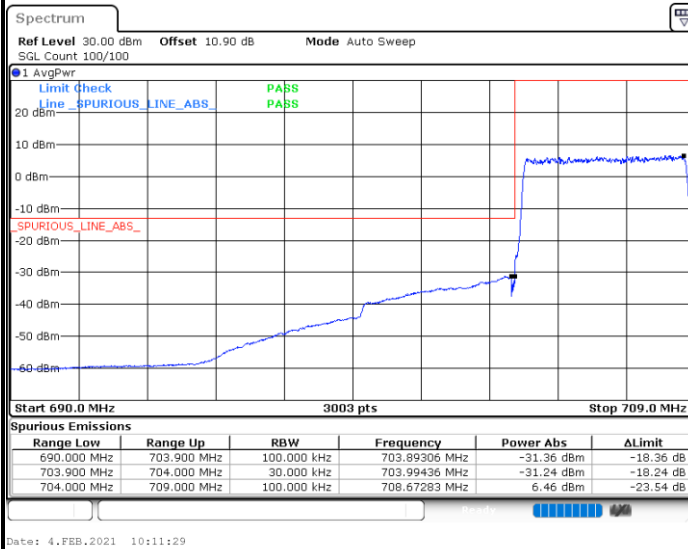
Lowest Band Edge / 1 RB



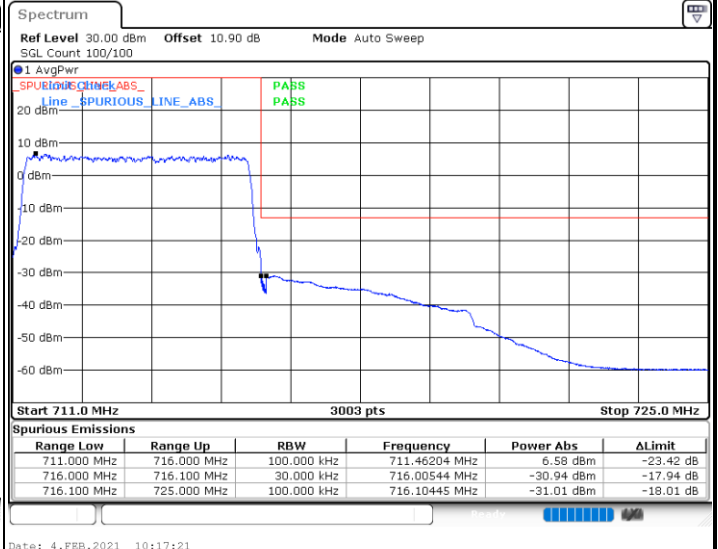
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



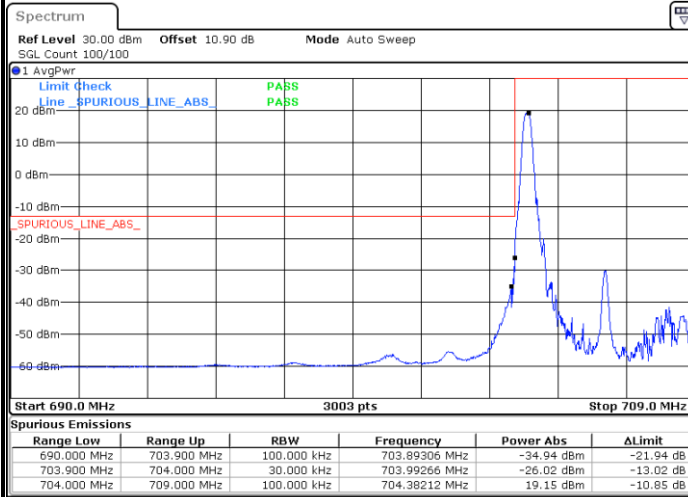
Highest Band Edge / Full RB



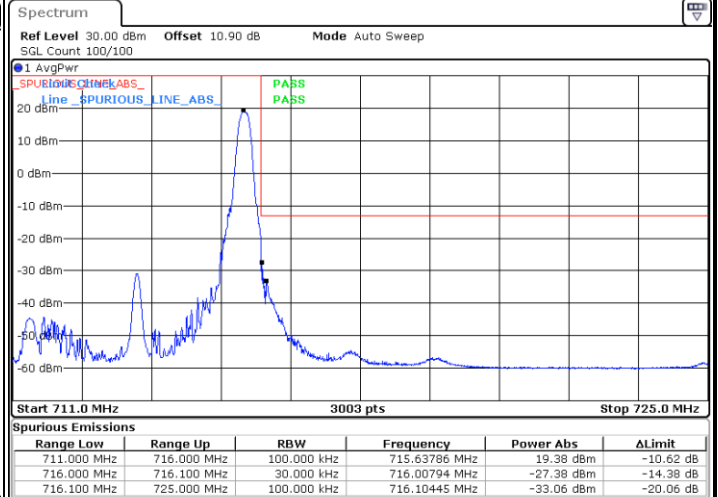


LTE Band 17 / 5MHz / 16QAM

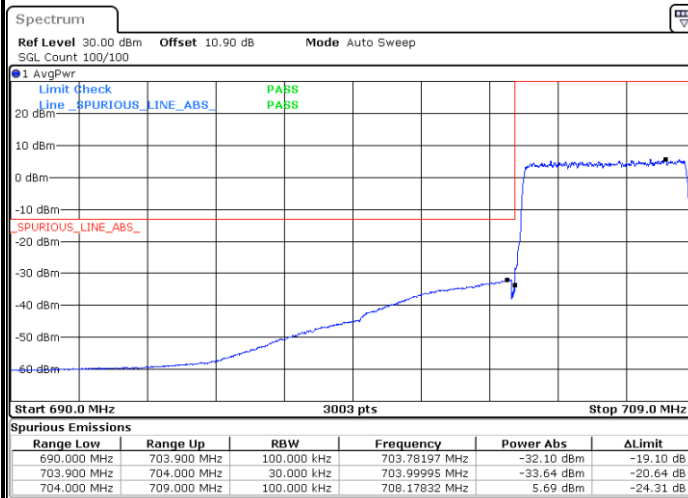
Lowest Band Edge / 1 RB



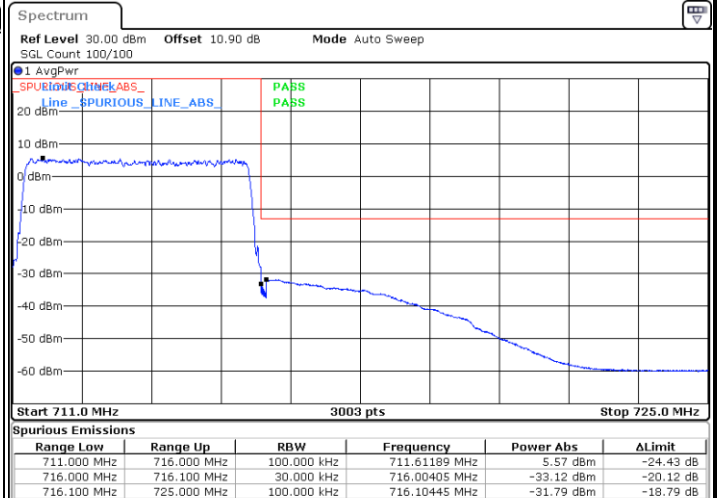
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



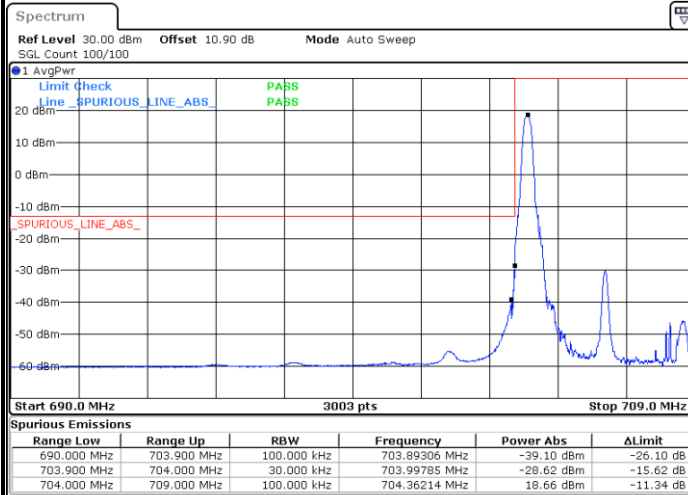
Highest Band Edge / Full RB



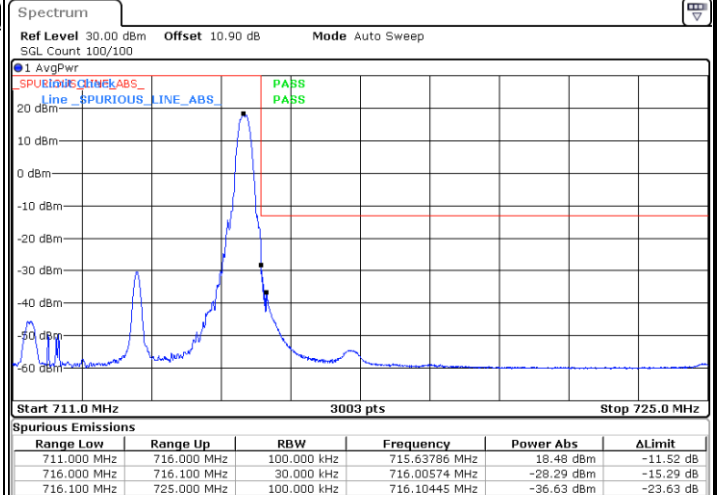


LTE Band 17 / 5MHz / 64QAM

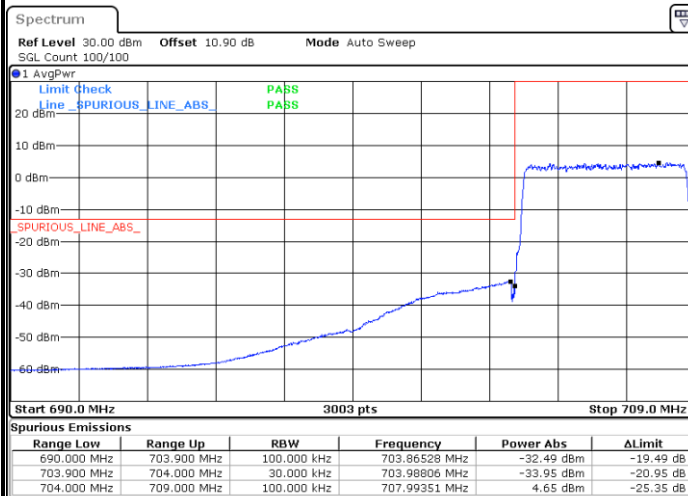
Lowest Band Edge / 1 RB



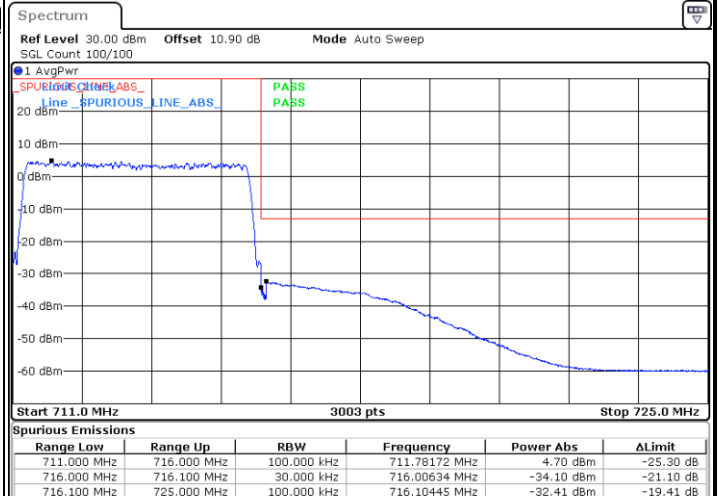
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



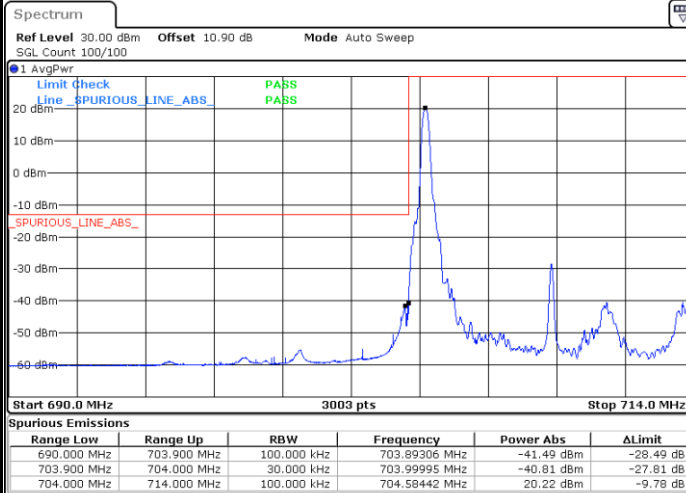
Highest Band Edge / Full RB



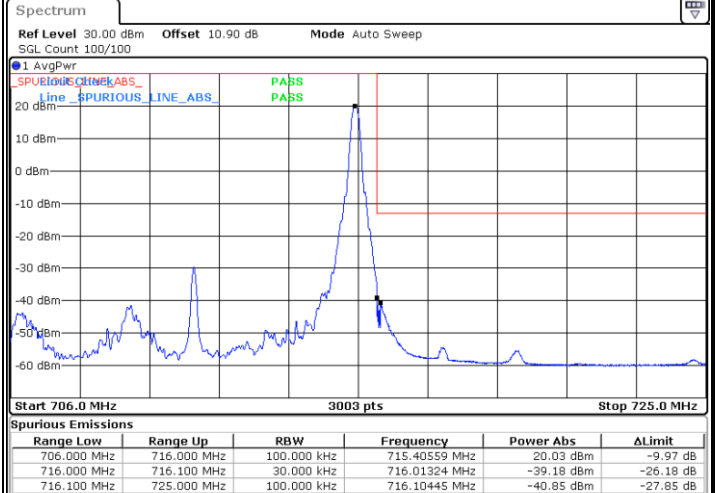


LTE Band 17 / 10MHz / QPSK

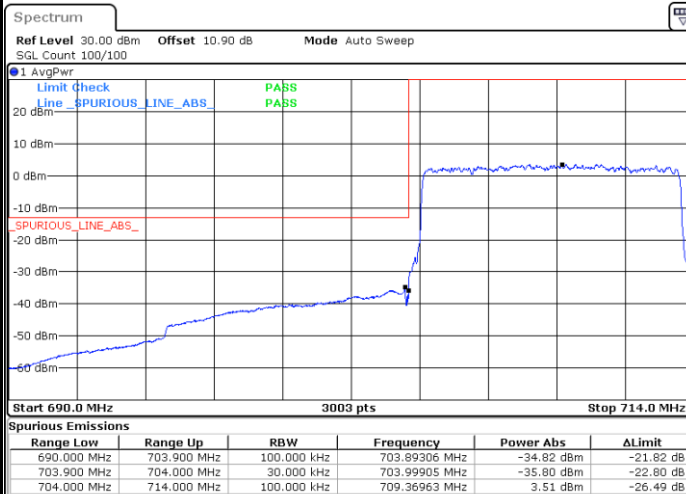
Lowest Band Edge / 1 RB



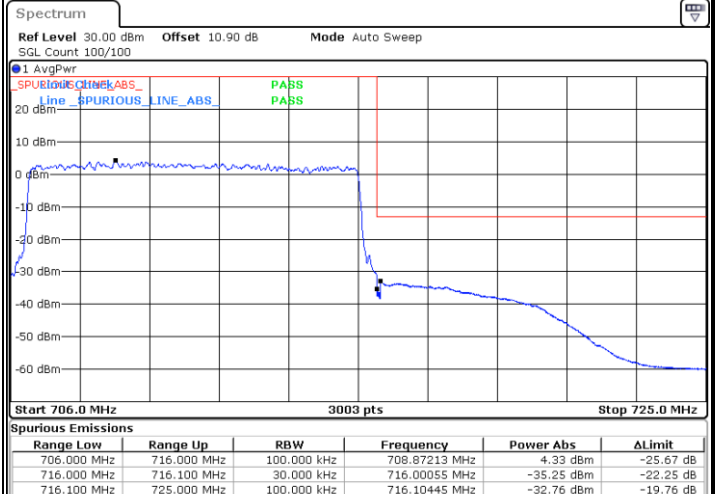
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



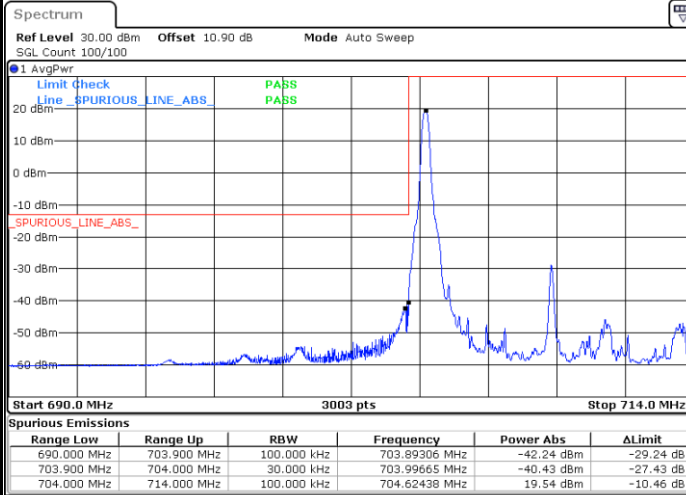
Highest Band Edge / Full RB



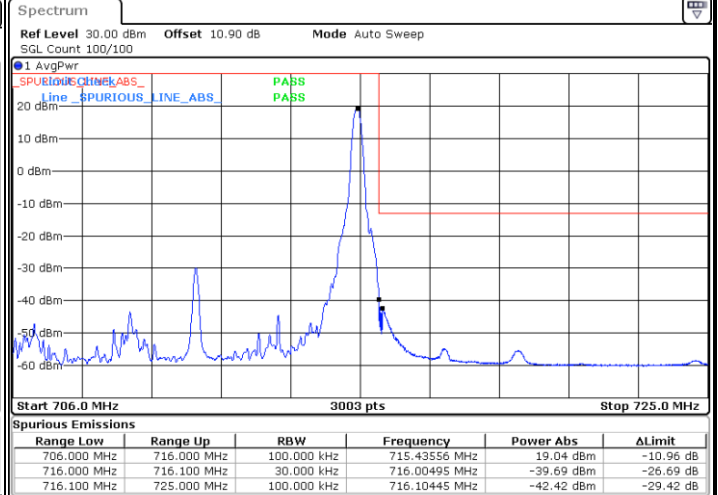


LTE Band 17 / 10MHz / 16QAM

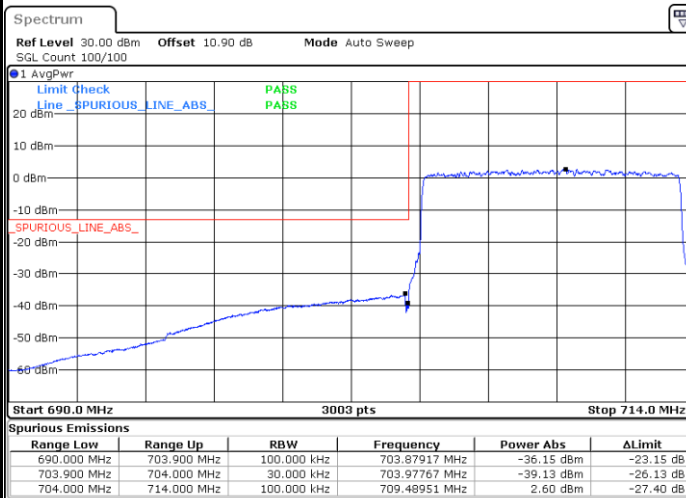
Lowest Band Edge / 1 RB



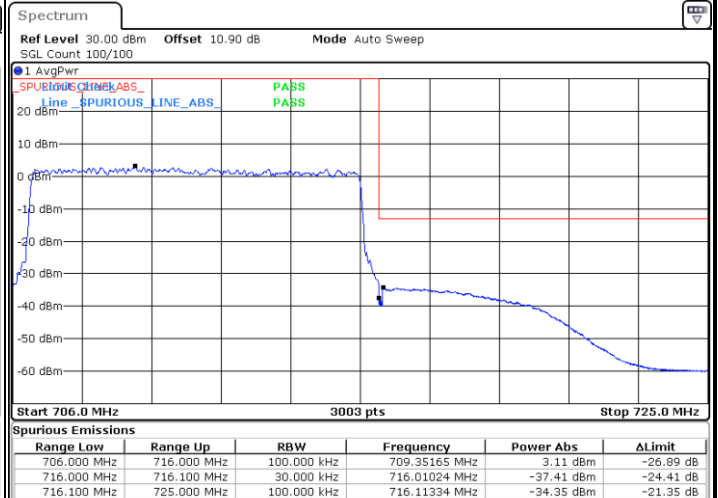
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



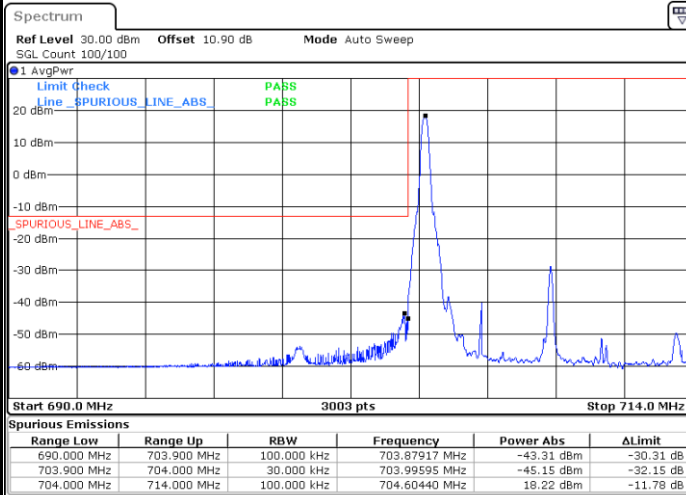
Highest Band Edge / Full RB



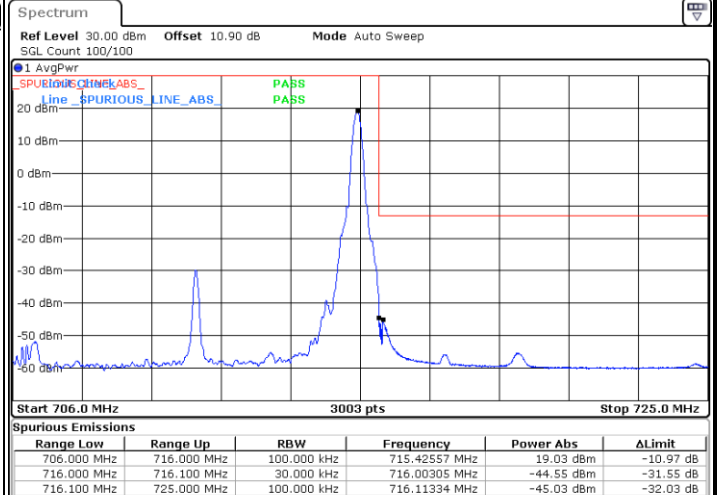


LTE Band 17 / 10MHz / 64QAM

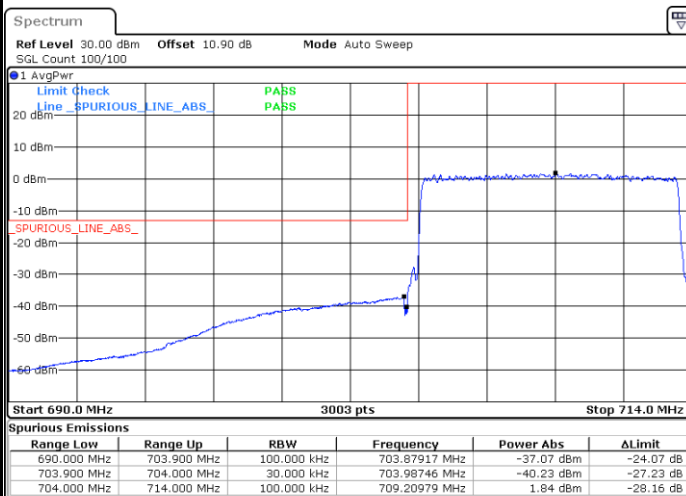
Lowest Band Edge / 1 RB



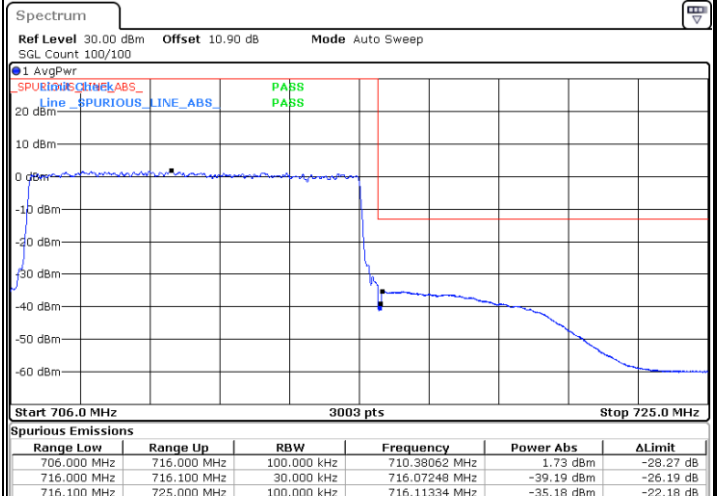
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

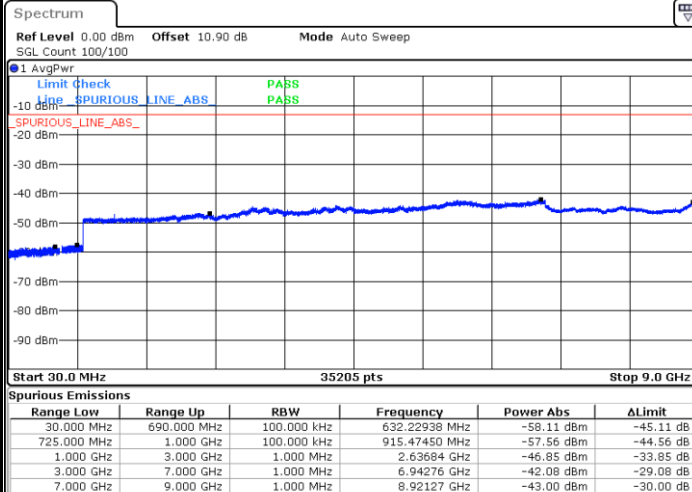




Conducted Spurious Emission

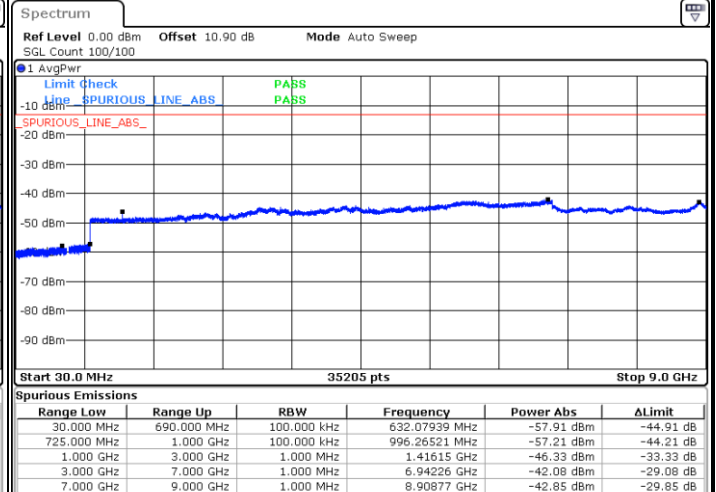
LTE Band 17 / 5MHz

Lowest Channel / QPSK



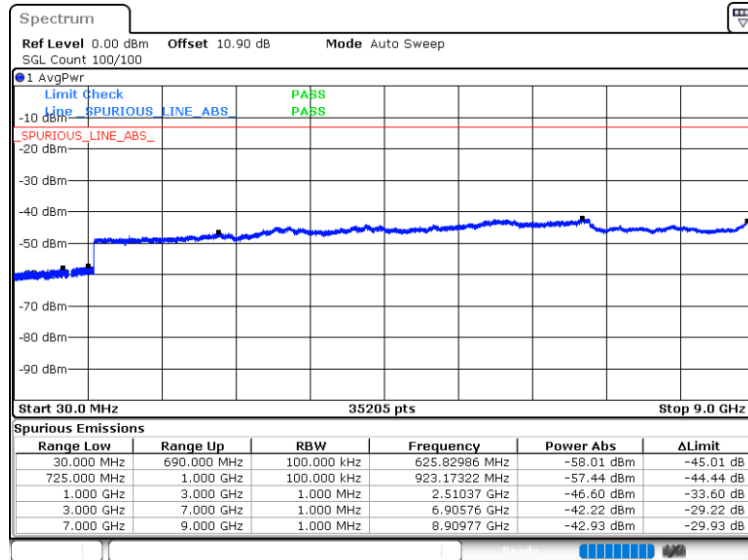
Date: 4.FEB.2021 10:13:16

Middle Channel / QPSK



Date: 4.FEB.2021 10:15:13

Highest Channel / QPSK

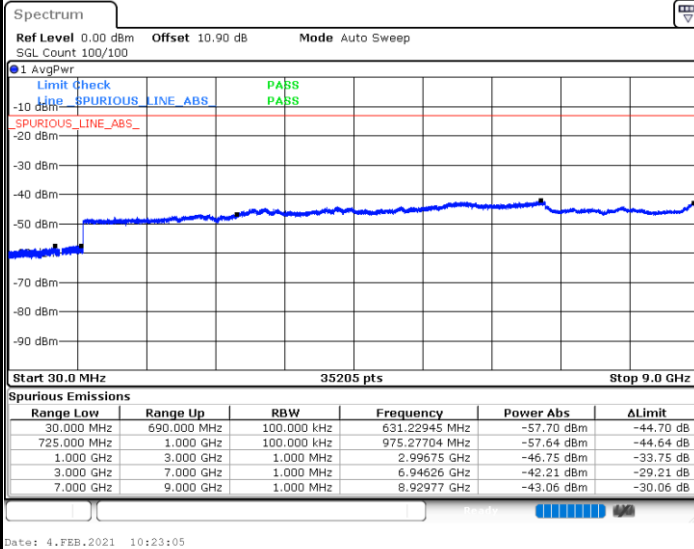


Date: 4.FEB.2021 10:19:06

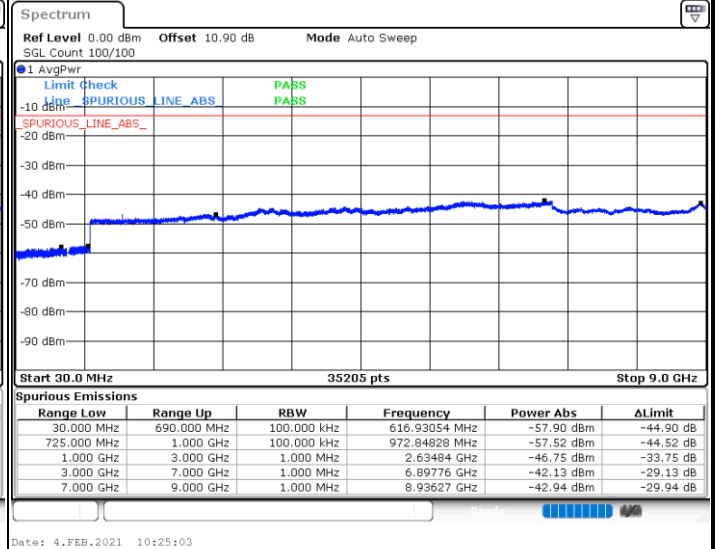


LTE Band 17 / 10MHz

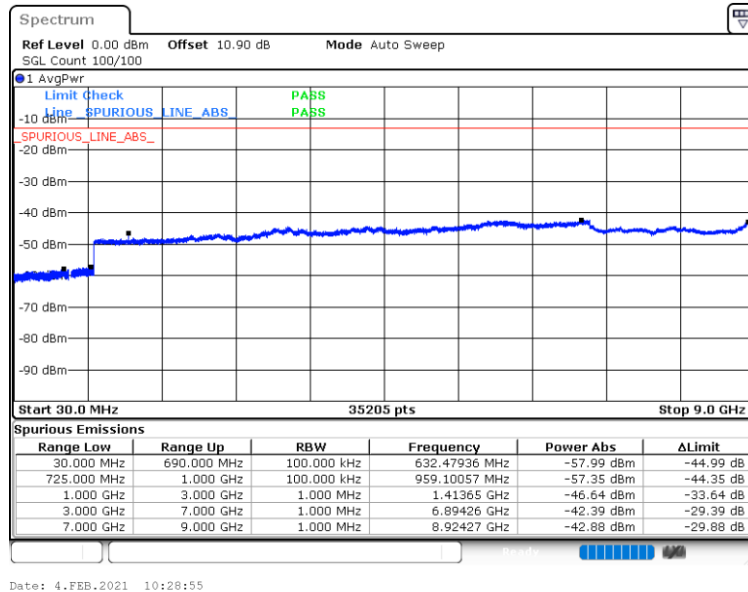
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK



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	0.0146	PASS
40	Normal Voltage	0.0044	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0090	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0032	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0192	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0132	

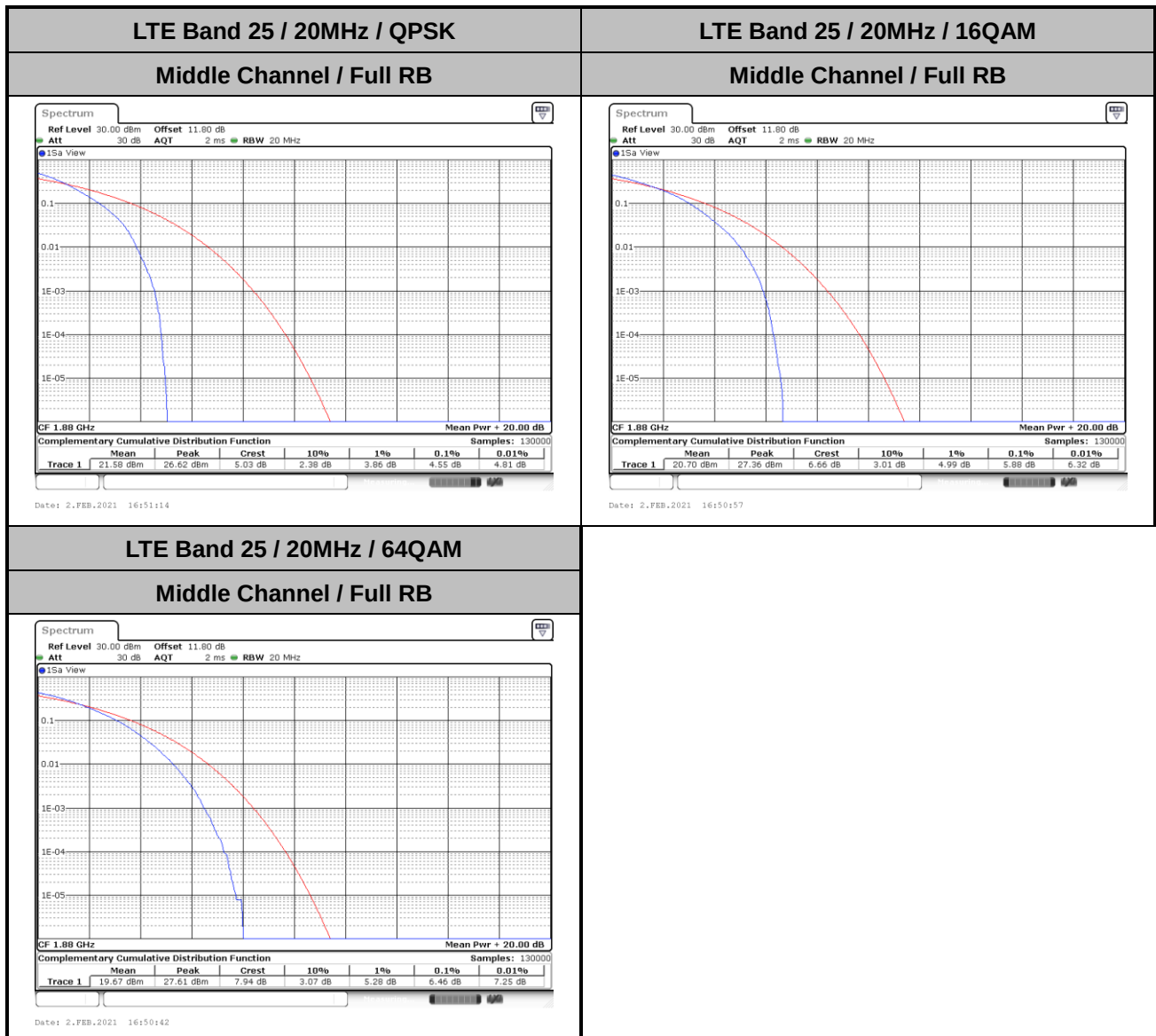
Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 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	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.55	5.88	6.46	PASS



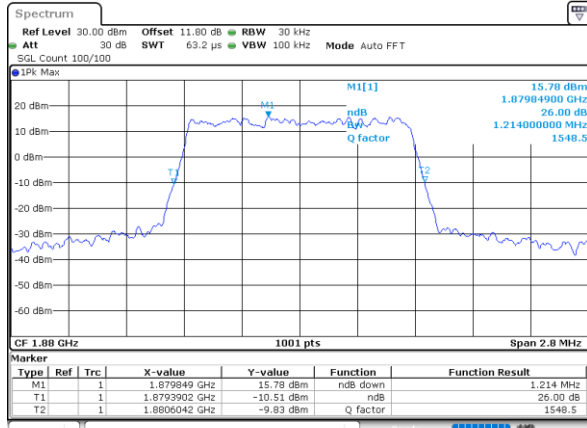
**26dB Bandwidth**

Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.21	1.24	2.95	3.03	4.89	4.82	9.87	9.81	14.45	14.33	19.06	19.06
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Middle CH	1.22	-	3.05	-	4.94	-	9.79	-	14.21	-	18.66	-



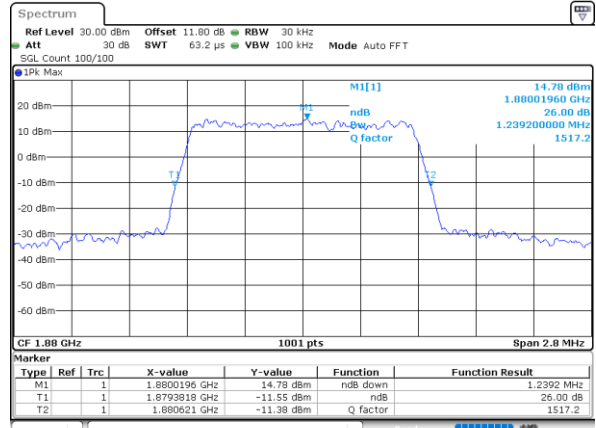
LTE Band 25

Middle Channel / 1.4MHz / QPSK



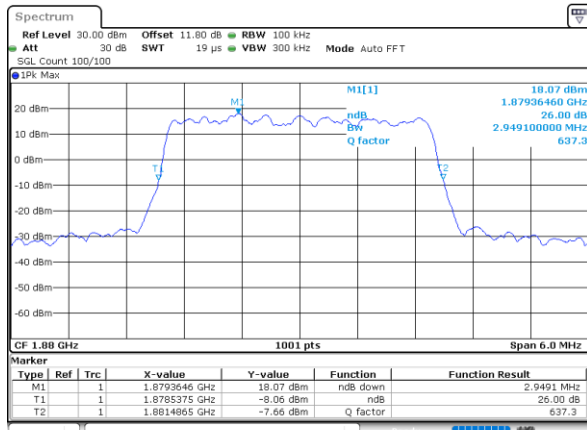
Date: 2.FEB.2021 15:17:18

Middle Channel / 1.4MHz / 16QAM



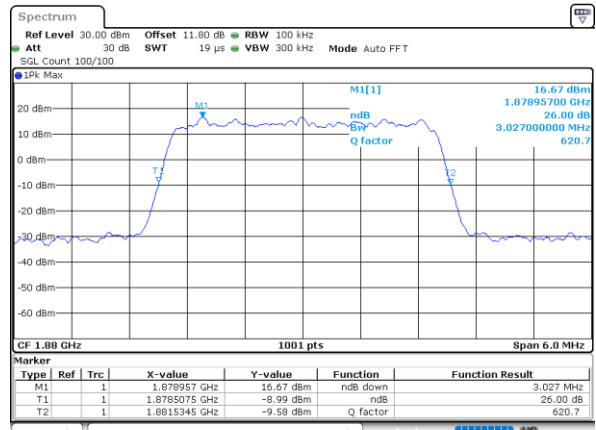
Date: 2.FEB.2021 15:17:32

Middle Channel / 3MHz / QPSK



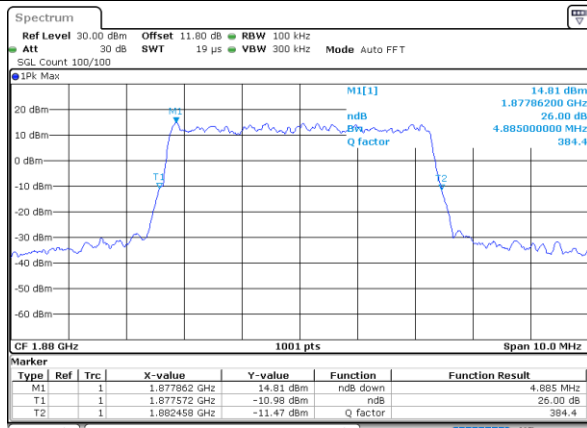
Date: 2.FEB.2021 15:31:01

Middle Channel / 3MHz / 16QAM



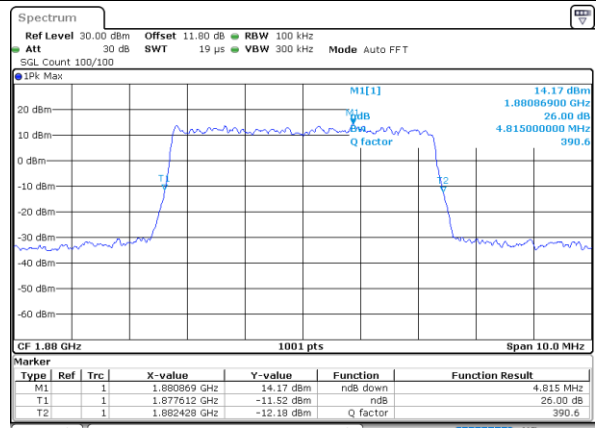
Date: 2.FEB.2021 15:31:16

Middle Channel / 5MHz / QPSK



Date: 2.FEB.2021 15:39:27

Middle Channel / 5MHz / 16QAM

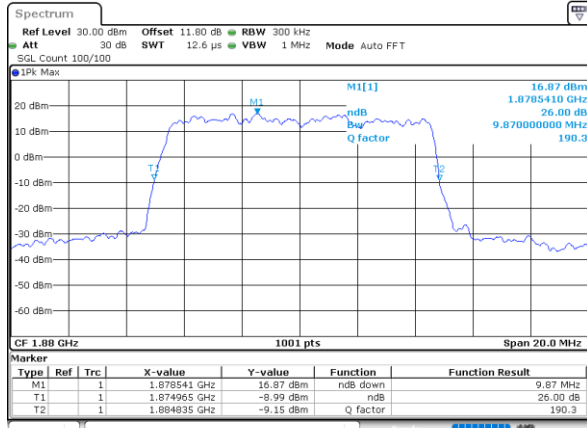


Date: 2.FEB.2021 15:39:42



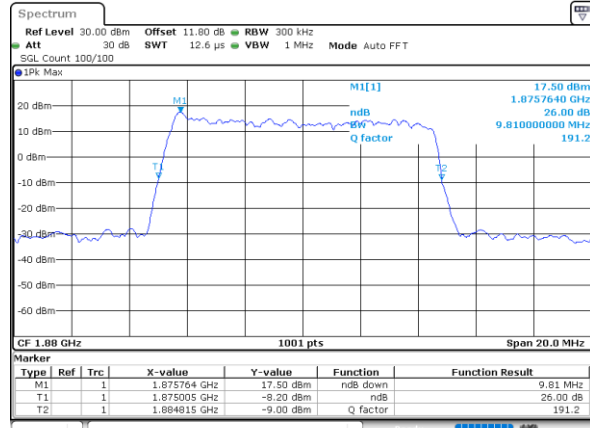
LTE Band 25

Middle Channel / 10MHz / QPSK



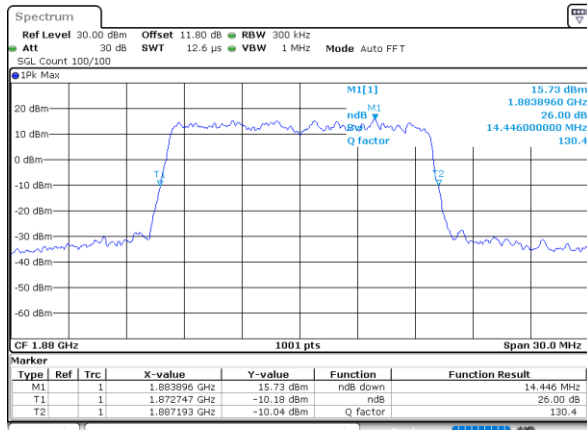
Date: 2.FEB.2021 15:50:32

Middle Channel / 10MHz / 16QAM



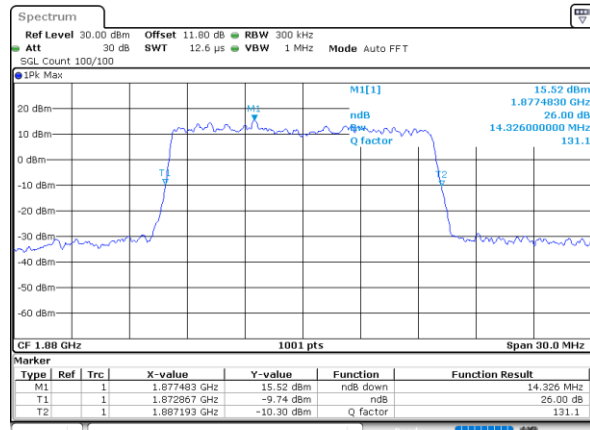
Date: 2.FEB.2021 15:50:47

Middle Channel / 15MHz / QPSK



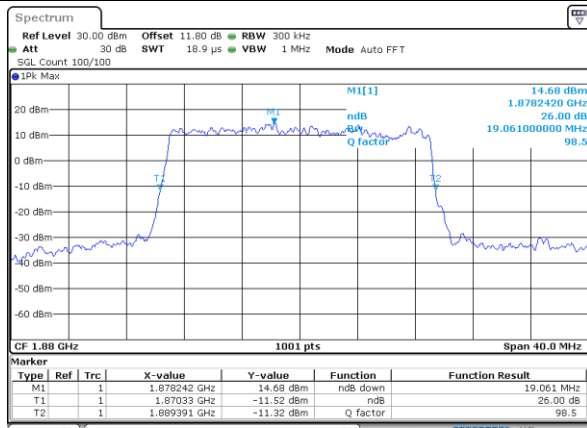
Date: 2.FEB.2021 16:04:15

Middle Channel / 15MHz / 16QAM



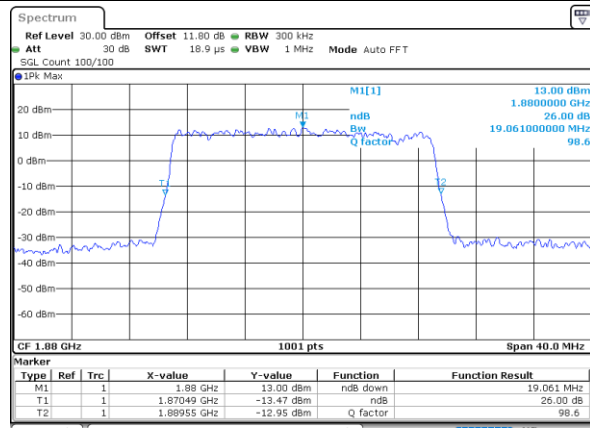
Date: 2.FEB.2021 16:04:30

Middle Channel / 20MHz / QPSK



Date: 2.FEB.2021 16:43:16

Middle Channel / 20MHz / 16QAM

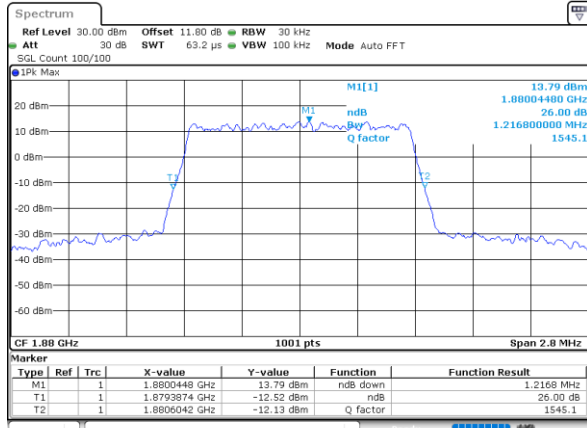


Date: 2.FEB.2021 16:43:31



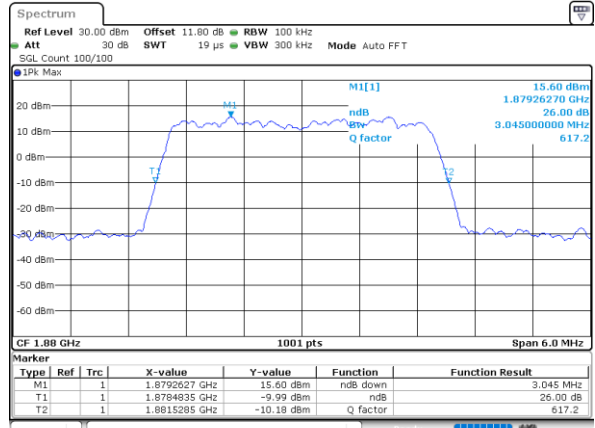
LTE Band 25

Middle Channel / 1.4MHz / 64QAM



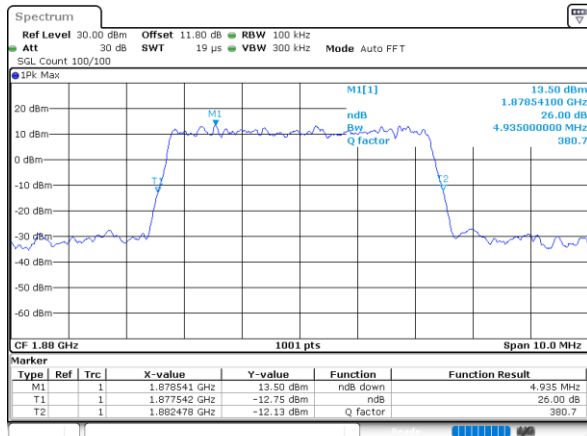
Date: 2.FEB.2021 15:23:21

Middle Channel / 3MHz / 64QAM



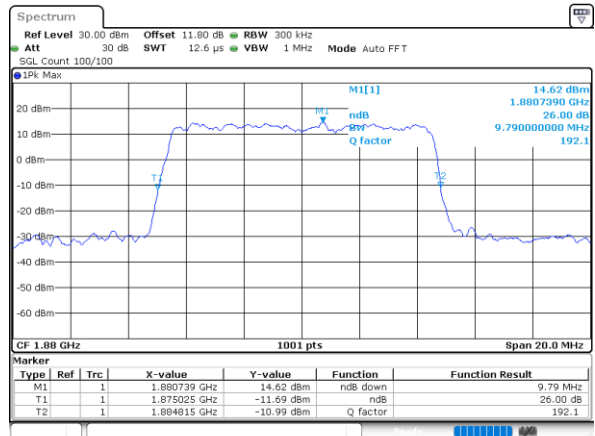
Date: 2.FEB.2021 15:26:00

Middle Channel / 5MHz / 64QAM



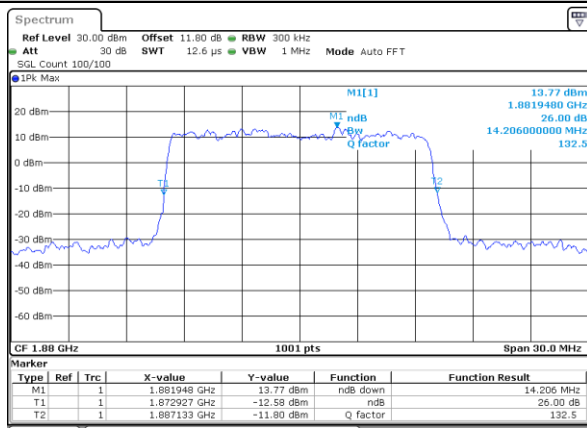
Date: 2.FEB.2021 15:45:31

Middle Channel / 10MHz / 64QAM



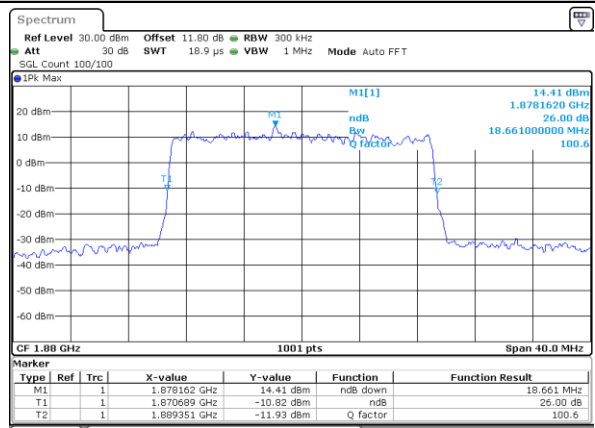
Date: 2.FEB.2021 15:56:35

Middle Channel / 15MHz / 64QAM



Date: 2.FEB.2021 15:59:14

Middle Channel / 20MHz / 64QAM



Date: 2.FEB.2021 16:49:20

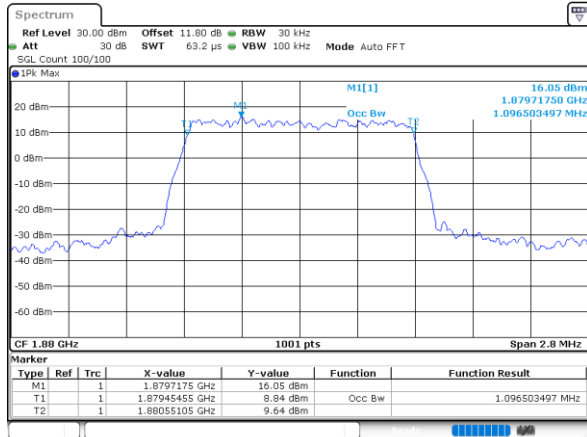
**Occupied Bandwidth**

Mode	LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.10	1.09	2.72	2.72	4.52	4.53	8.97	9.05	13.40	13.49	17.82	17.94
Mode	LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-
Middle CH	1.09	-	2.73	-	4.50	-	9.05	-	13.40	-	17.86	-

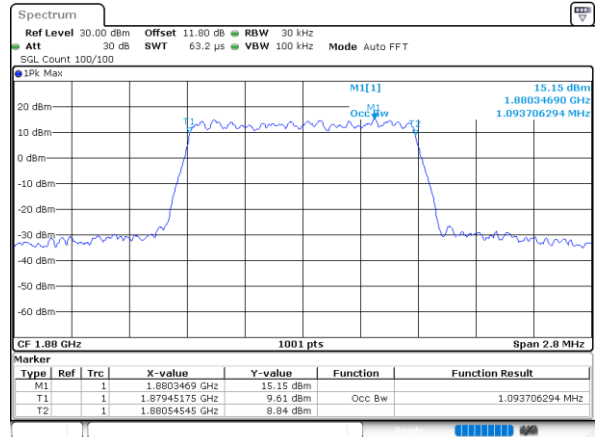


LTE Band 25

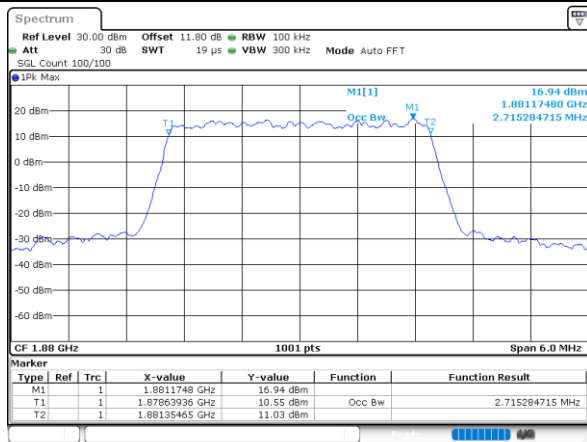
Middle Channel / 1.4MHz / QPSK



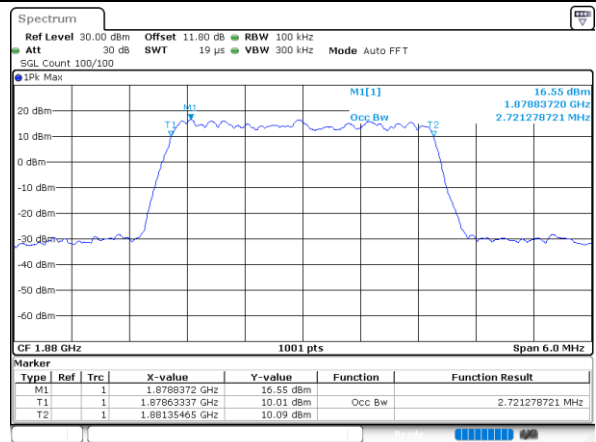
Middle Channel / 1.4MHz / 16QAM



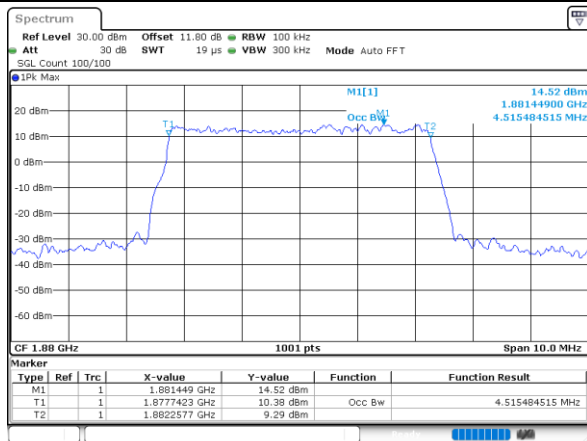
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM

