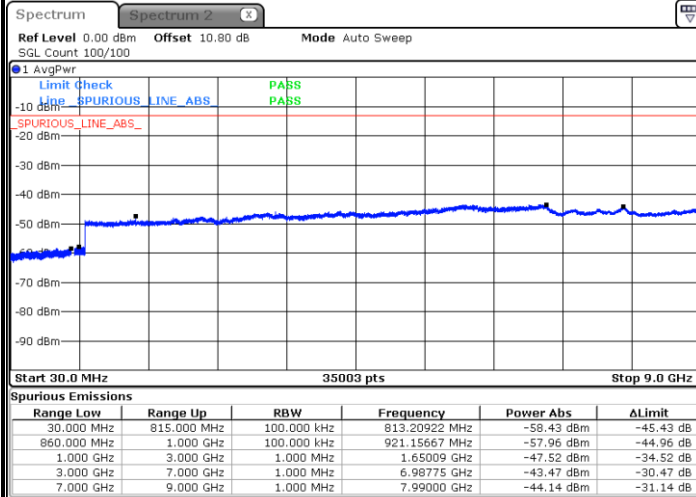




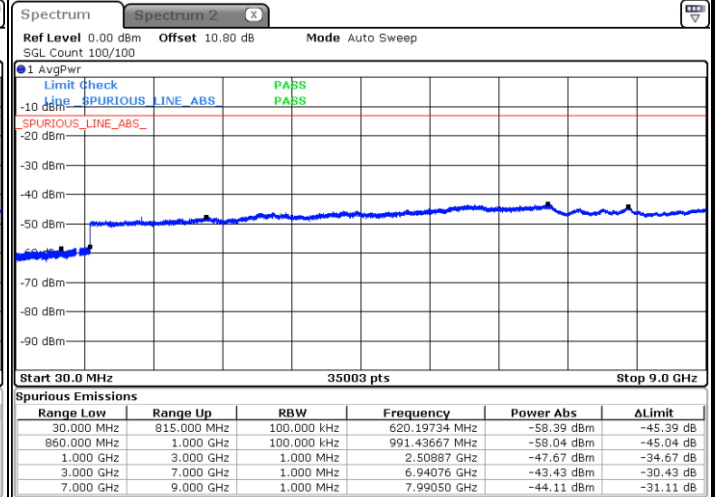
LTE Band 5 / 5MHz

Lowest Channel / QPSK



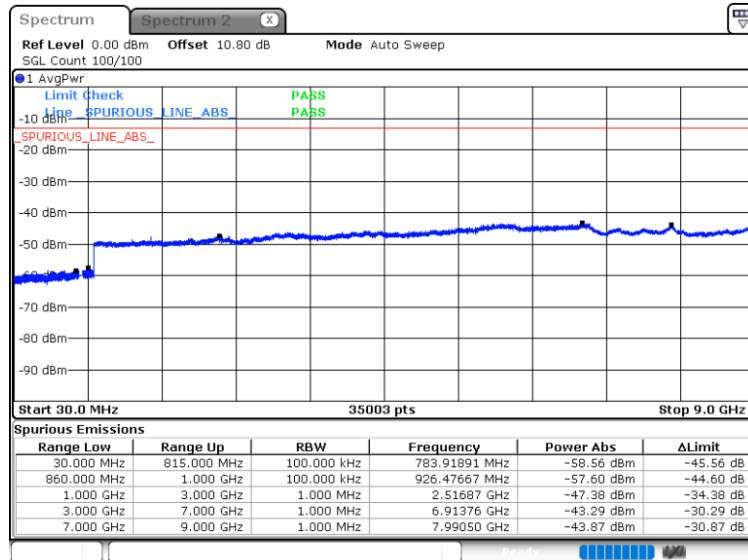
Date: 25.MAY.2021 09:36:23

Middle Channel / QPSK



Date: 25.MAY.2021 09:38:27

Highest Channel / QPSK

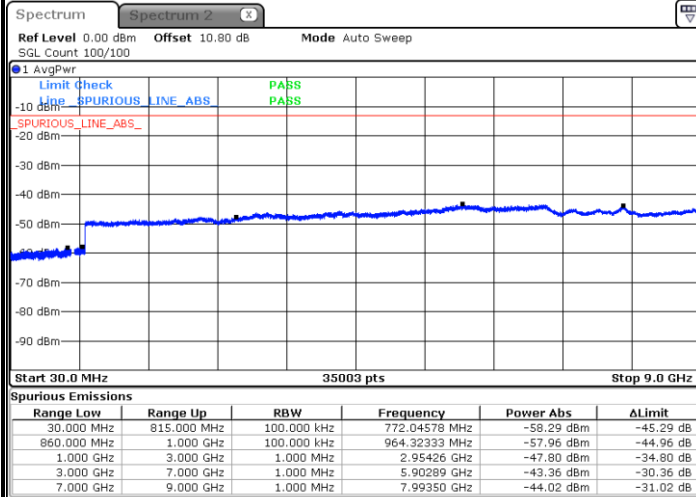


Date: 25.MAY.2021 09:49:19



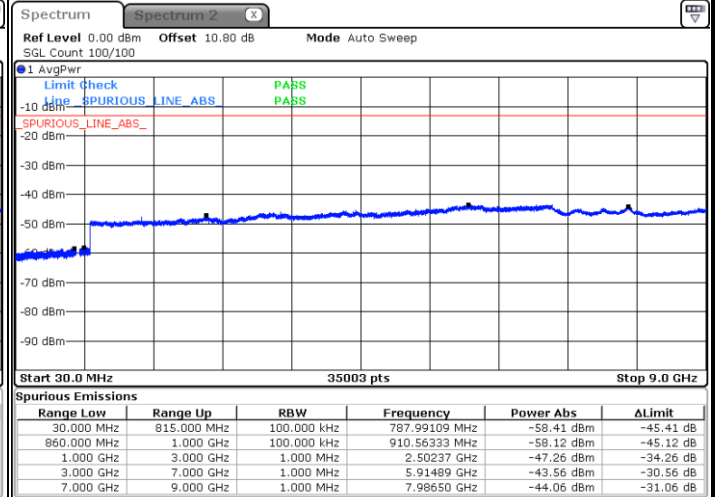
LTE Band 5 / 10MHz

Lowest Channel / QPSK



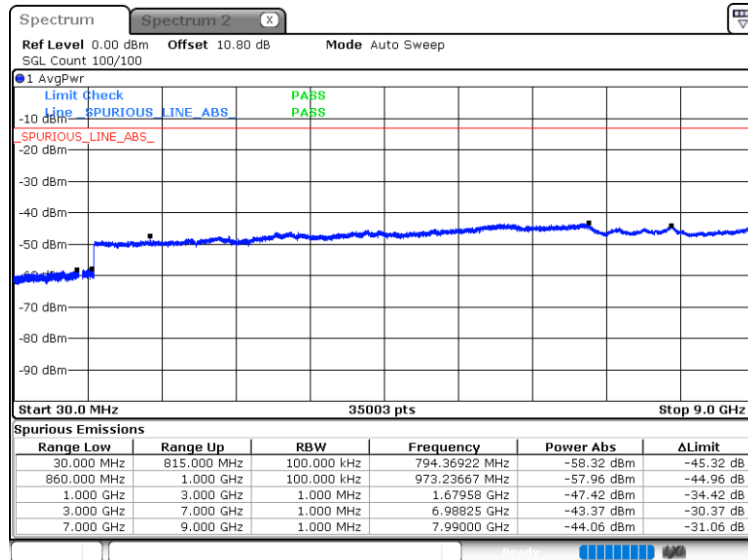
Date: 25.MAY.2021 10:05:30

Middle Channel / QPSK



Date: 25.MAY.2021 10:07:34

Highest Channel / QPSK



Date: 25.MAY.2021 10:15:37

Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0105	
30	Normal Voltage	0.0065	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0118	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0055	
-30	Normal Voltage	0.0075	
20	Maximum Voltage	0.0139	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

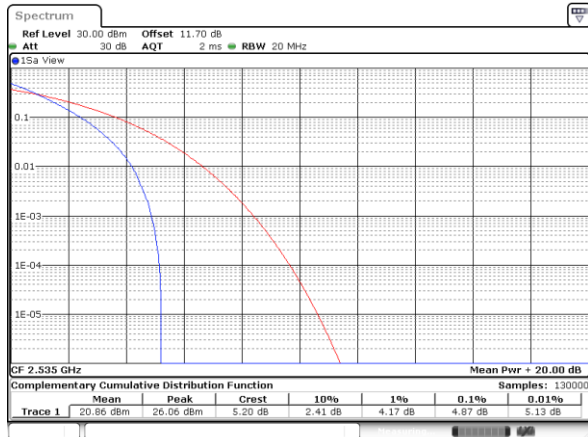
**LTE Band 7****Peak-to-Average Ratio**

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.87	5.83	6.41	-	PASS



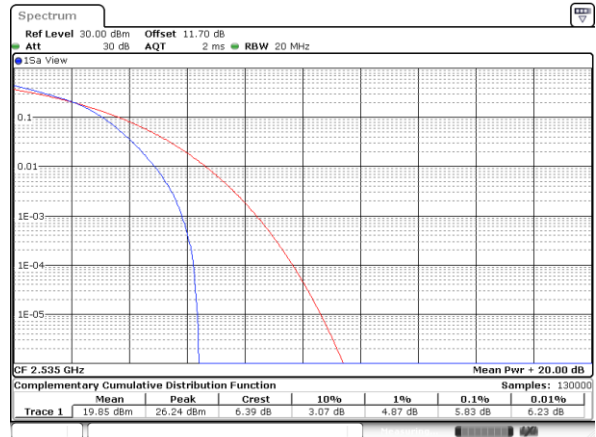
LTE Band 7 / 20MHz / QPSK

Middle Channel / Full RB



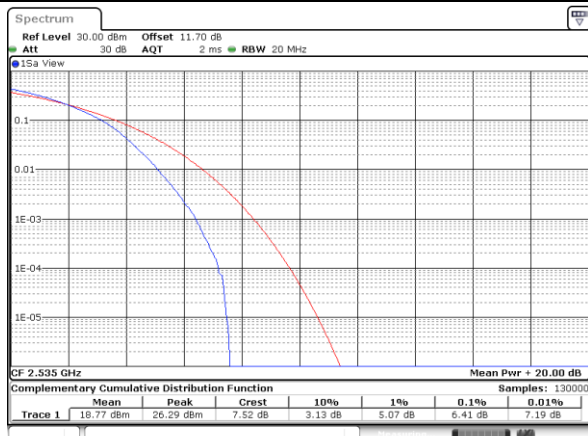
LTE Band 7 / 20MHz / 16QAM

Middle Channel / Full RB



LTE Band 7 / 20MHz / 64QAM

Middle Channel / Full RB



LTE Band 7 / 20MHz / 256QAM

Middle Channel / Full RB

N/A

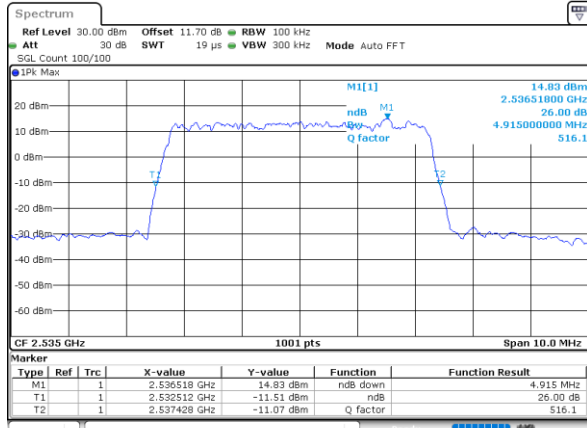
**26dB Bandwidth**

Mode	LTE Band 7 : 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	-	-	-	-	4.92	4.90	9.85	9.67	14.30	14.42	19.14	18.78
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.89	-	9.69	-	14.42	-	19.06	-



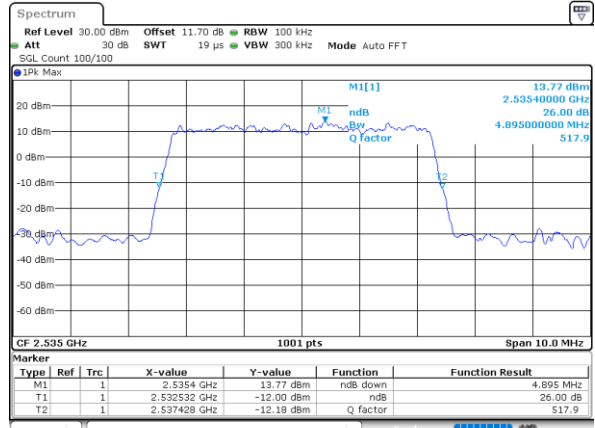
LTE Band 7

Middle Channel / 5MHz / QPSK



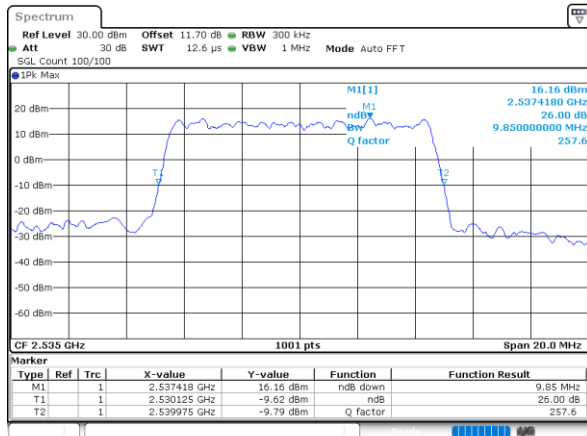
Date: 24.MAY.2021 14:46:03

Middle Channel / 5MHz / 16QAM



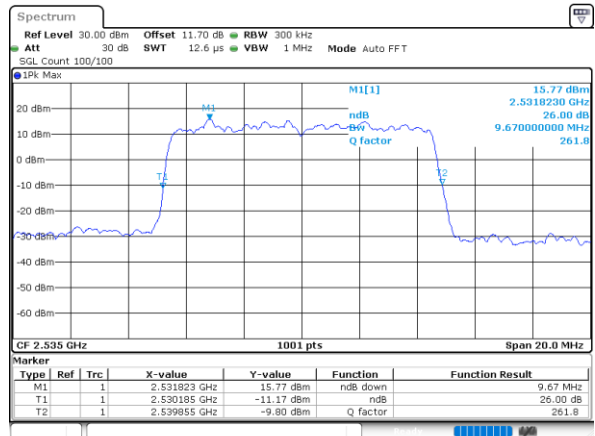
Date: 24.MAY.2021 14:46:24

Middle Channel / 10MHz / QPSK



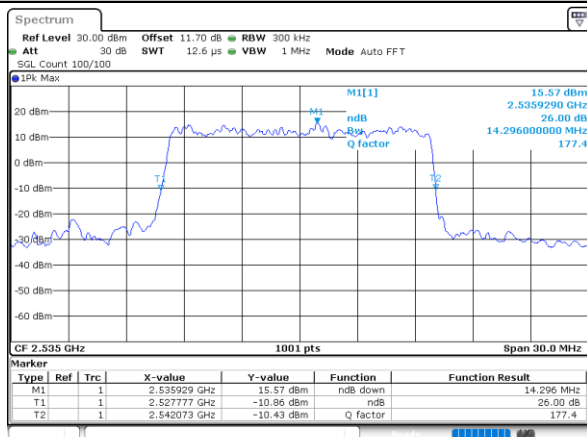
Date: 24.MAY.2021 14:56:23

Middle Channel / 10MHz / 16QAM



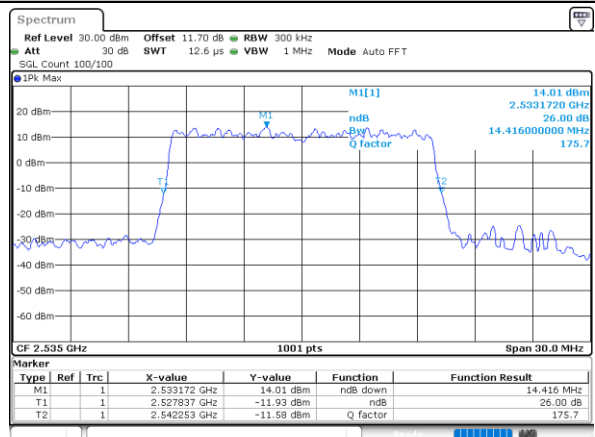
Date: 24.MAY.2021 14:56:44

Middle Channel / 15MHz / QPSK



Date: 24.MAY.2021 15:06:44

Middle Channel / 15MHz / 16QAM

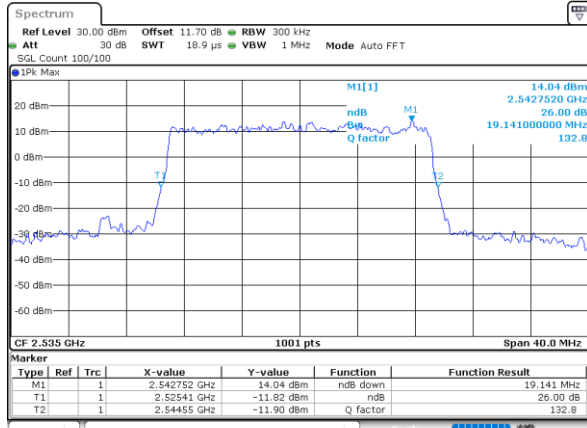


Date: 24.MAY.2021 15:07:05



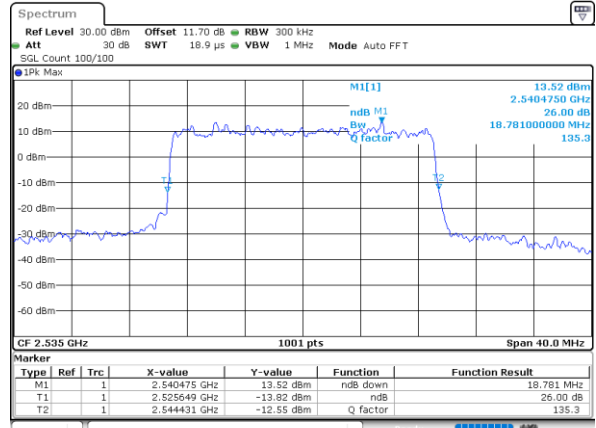
LTE Band 7

Middle Channel / 20MHz / QPSK



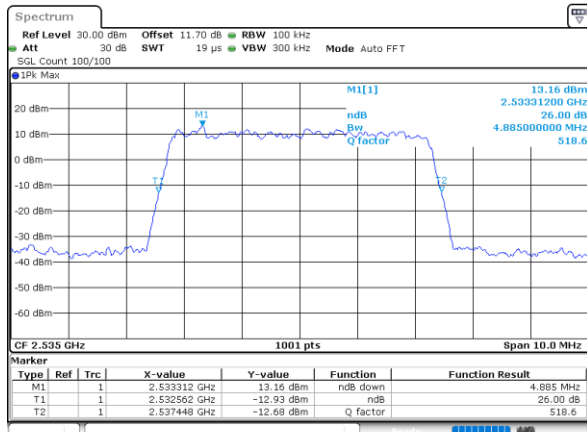
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Middle Channel / 20MHz / 16QAM



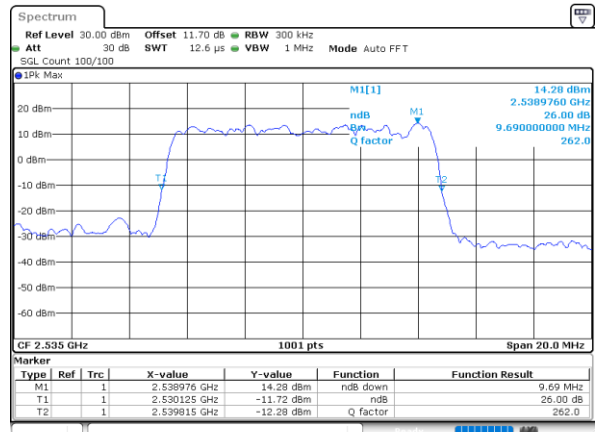
Date: 24.MAY.2021 15:17:27

Middle Channel / 5MHz / 64QAM



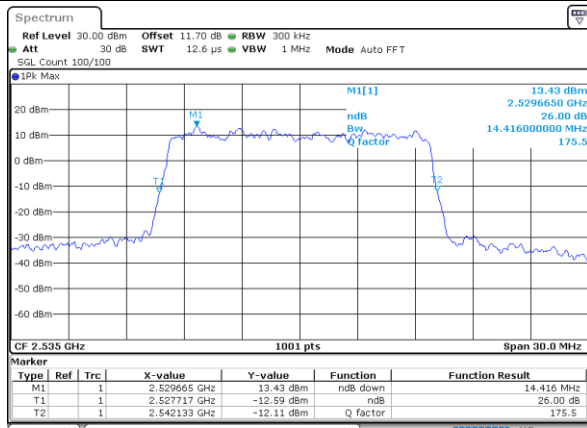
Date: 24.MAY.2021 14:51:42

Middle Channel / 10MHz / 64QAM



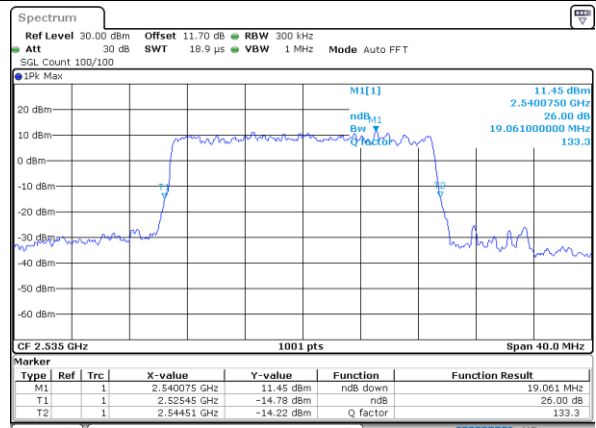
Date: 24.MAY.2021 15:02:02

Middle Channel / 15MHz / 64QAM



Date: 24.MAY.2021 15:12:23

Middle Channel / 20MHz / 64QAM



Date: 24.MAY.2021 15:22:45

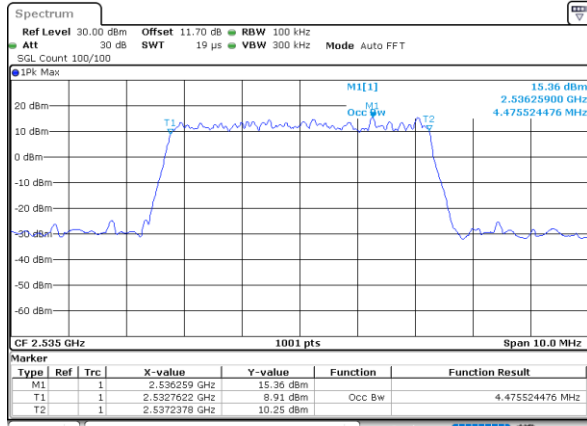
**Occupied Bandwidth**

Mode	LTE Band 7 : 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	4.50	9.05	9.01	13.43	13.46	17.82	17.74
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.48	-	9.03	-	13.40	-	17.86	-



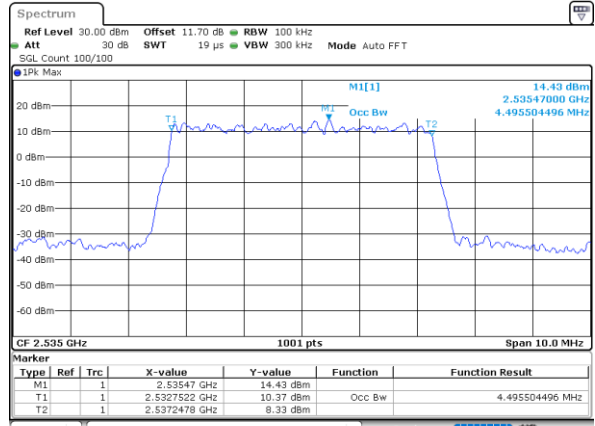
LTE Band 7

Middle Channel / 5MHz / QPSK



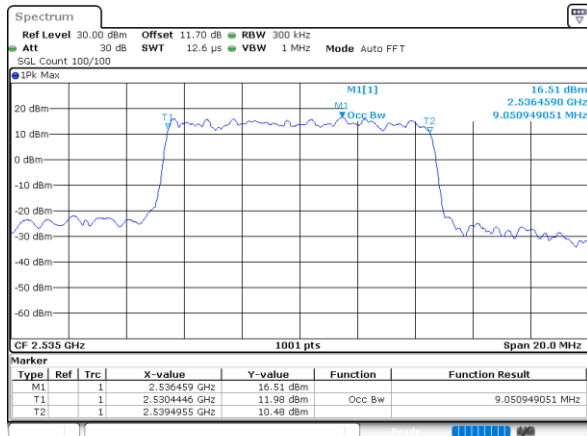
Date: 24.MAY.2021 14:45:10

Middle Channel / 5MHz / 16QAM



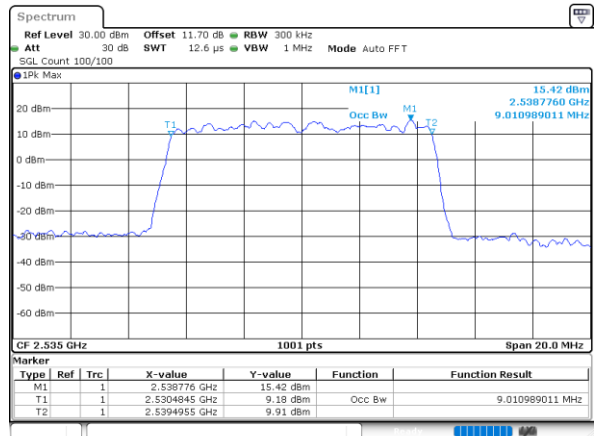
Date: 24.MAY.2021 14:45:41

Middle Channel / 10MHz / QPSK



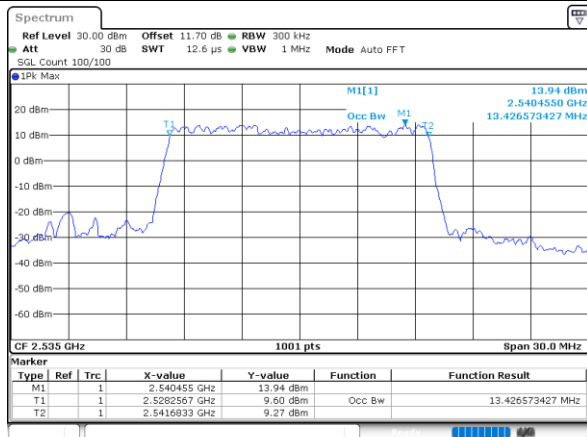
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Middle Channel / 10MHz / 16QAM



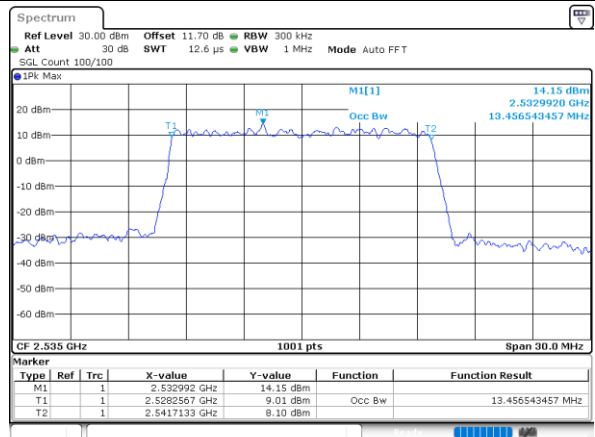
Date: 24.MAY.2021 14:56:01

Middle Channel / 15MHz / QPSK



Date: 24.MAY.2021 15:05:59

Middle Channel / 15MHz / 16QAM

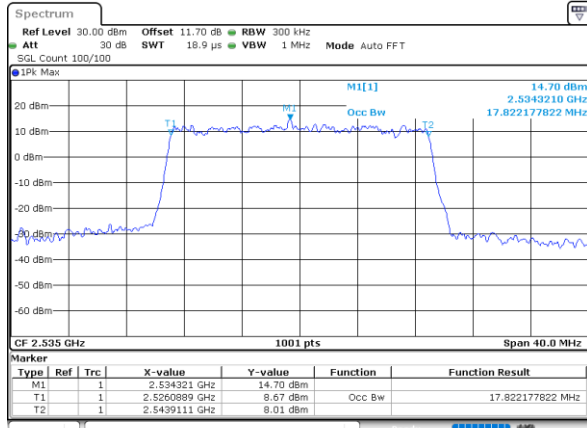


Date: 24.MAY.2021 15:06:22

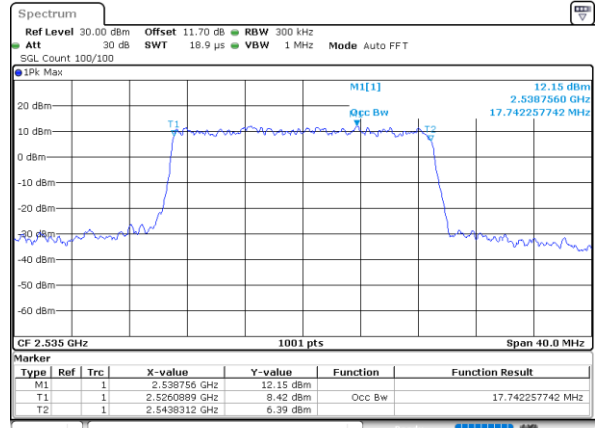


LTE Band 7

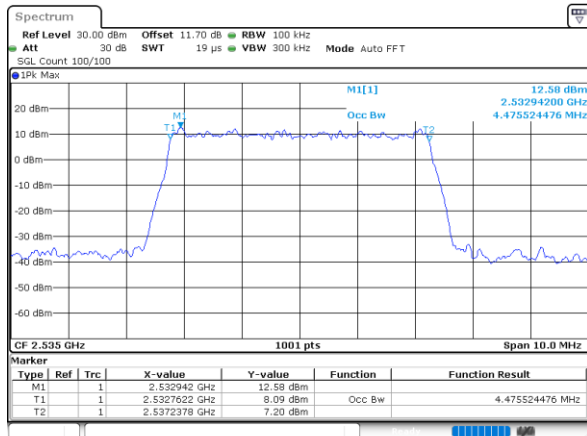
Middle Channel / 20MHz / QPSK



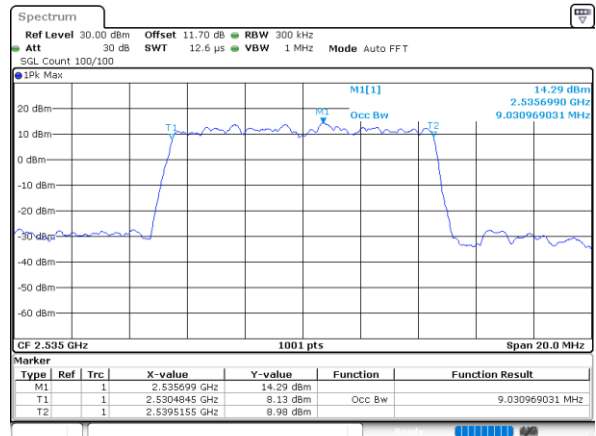
Middle Channel / 20MHz / 16QAM



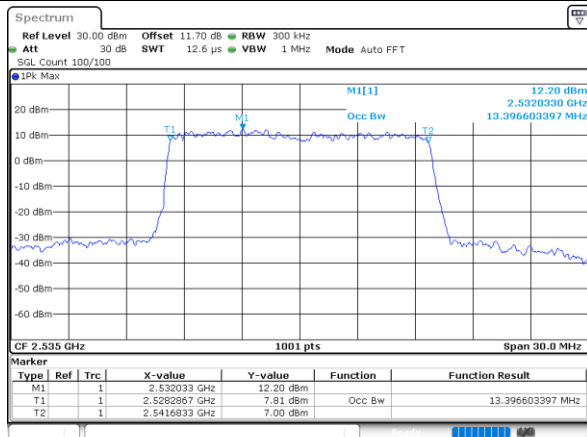
Middle Channel / 5MHz / 64QAM



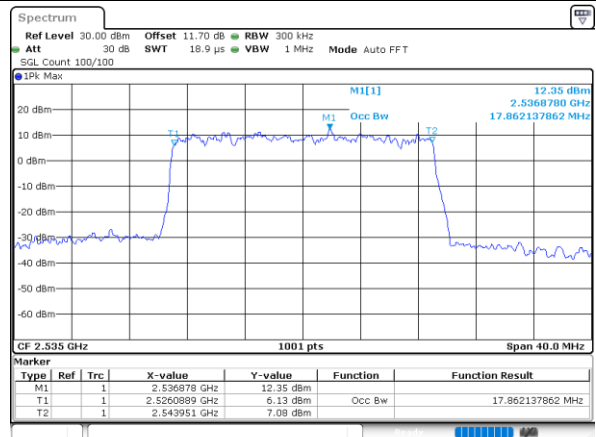
Middle Channel / 10MHz / 64QAM

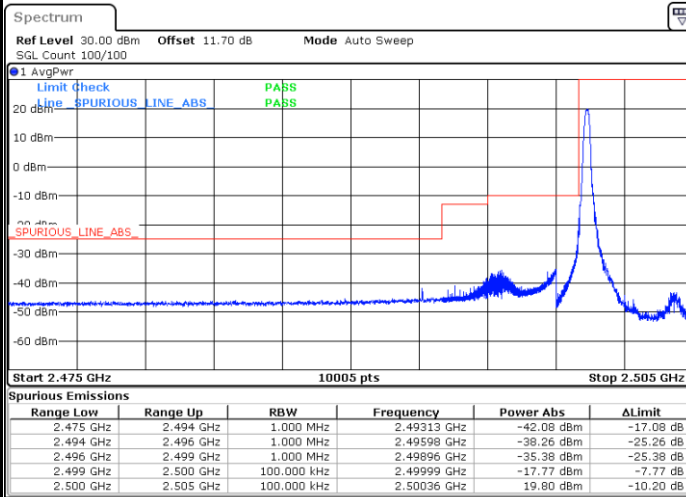
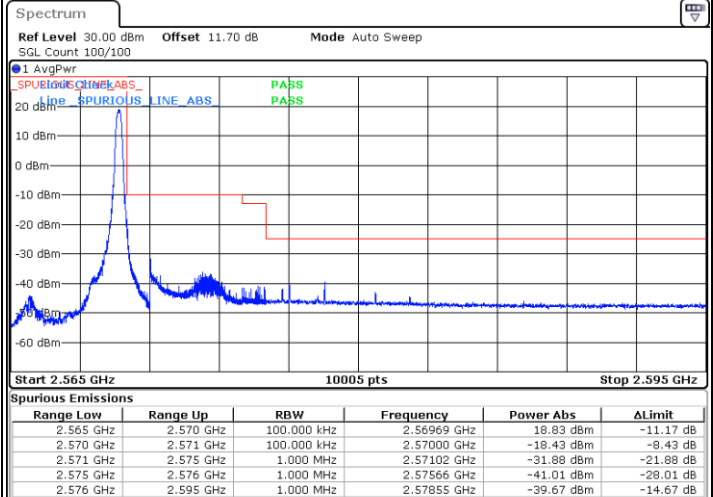
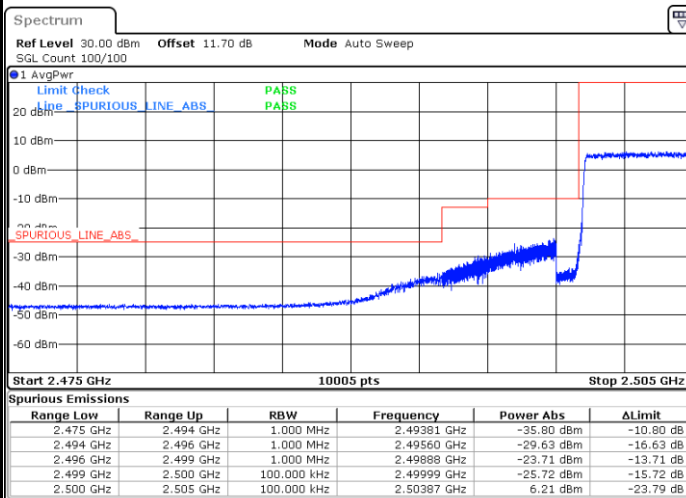
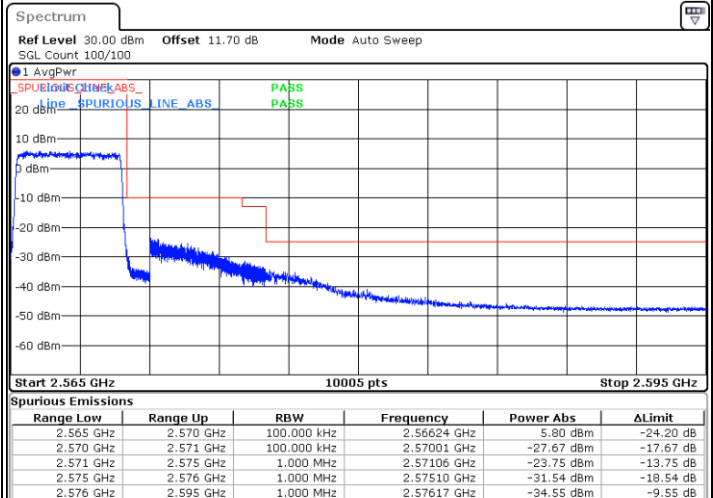


Middle Channel / 15MHz / 64QAM



Middle Channel / 20MHz / 64QAM

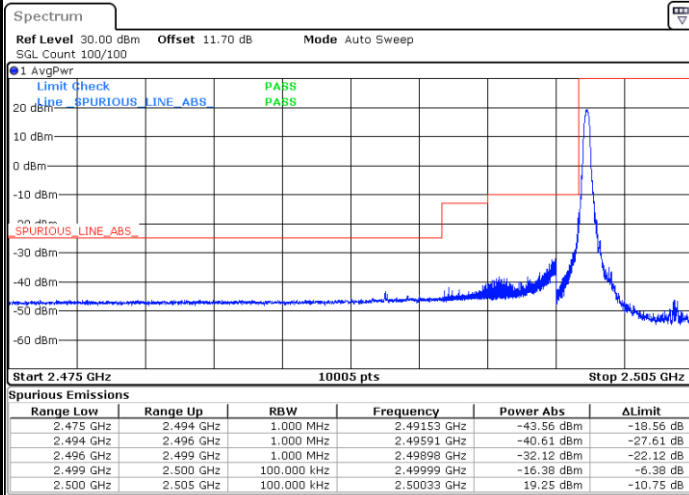


**Conducted Band Edge****LTE Band 7 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

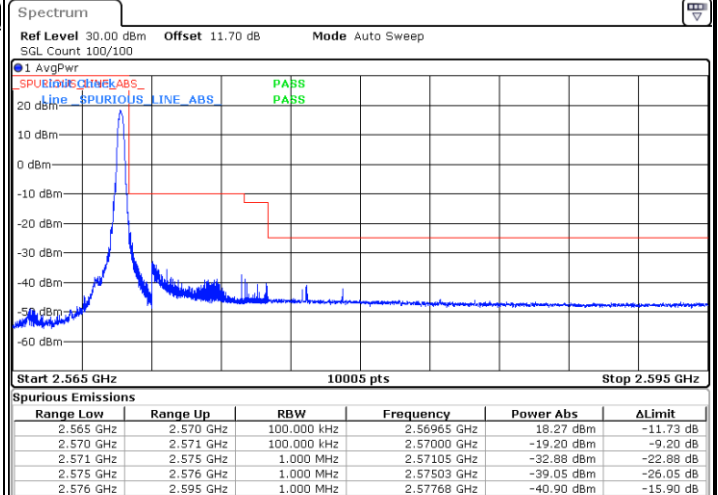


LTE Band 7 / 5MHz / 16QAM

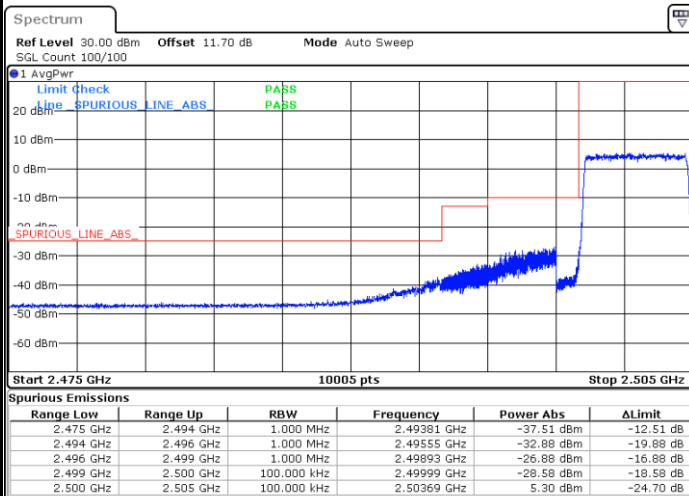
Lowest Band Edge / 1RB



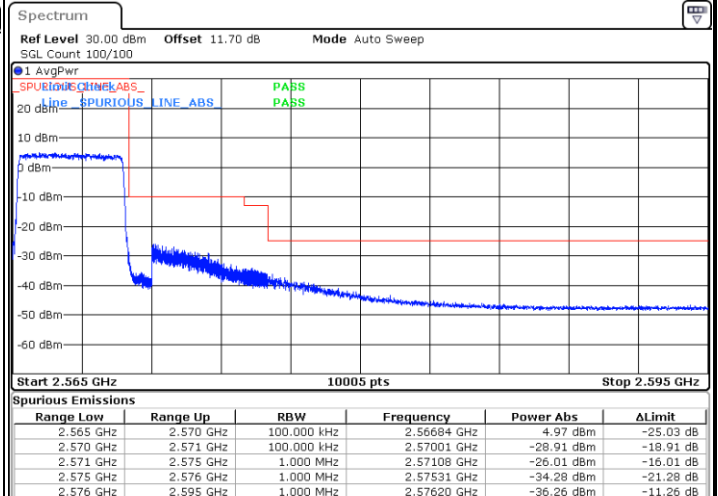
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



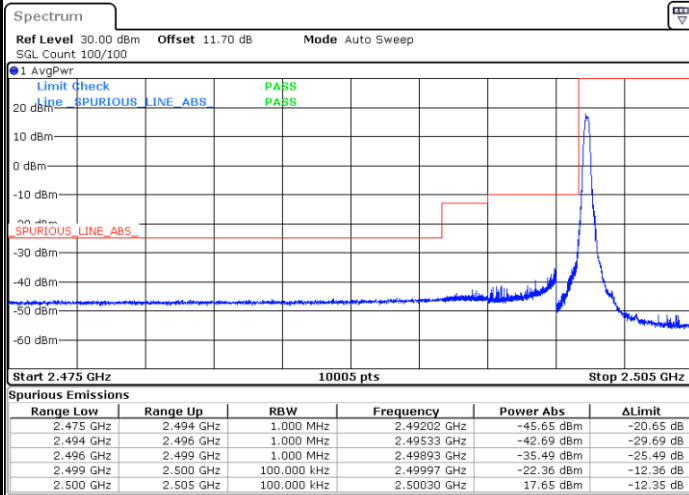
Highest Band Edge / Full RB



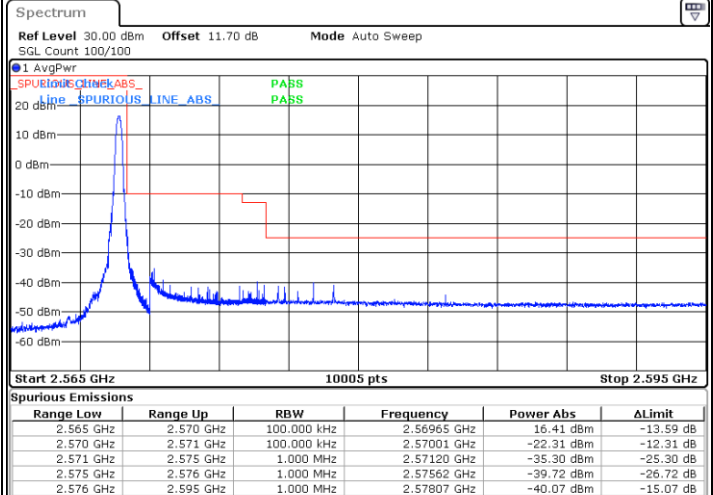


LTE Band 7 / 5MHz / 64QAM

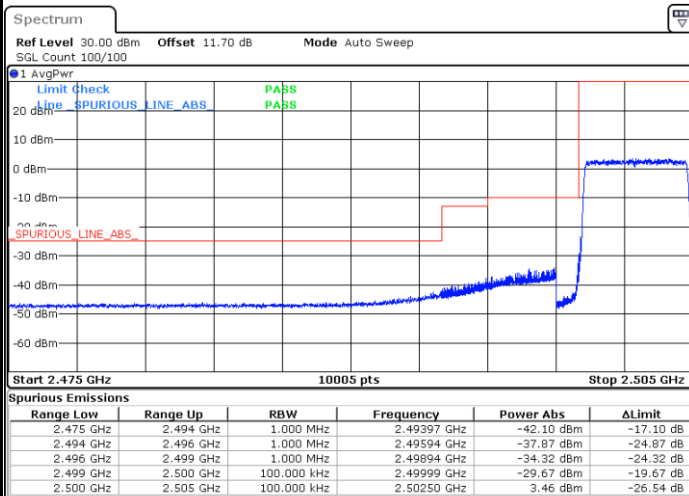
Lowest Band Edge / 1RB



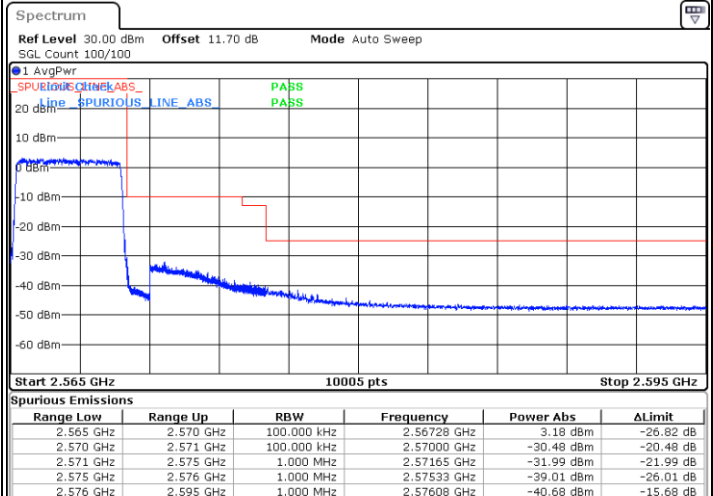
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



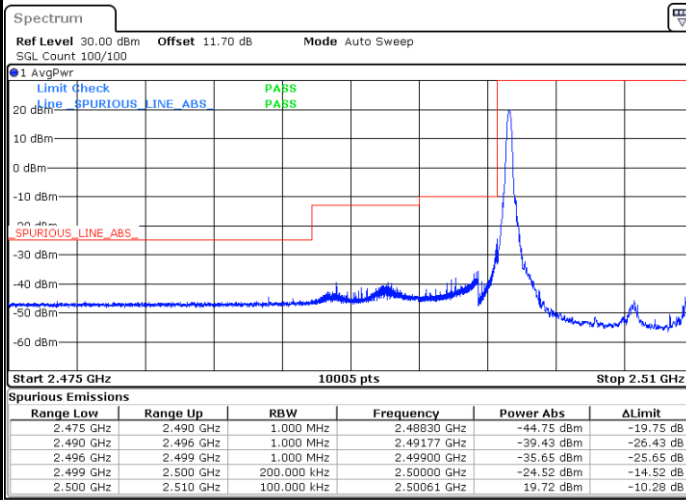
Highest Band Edge / Full RB



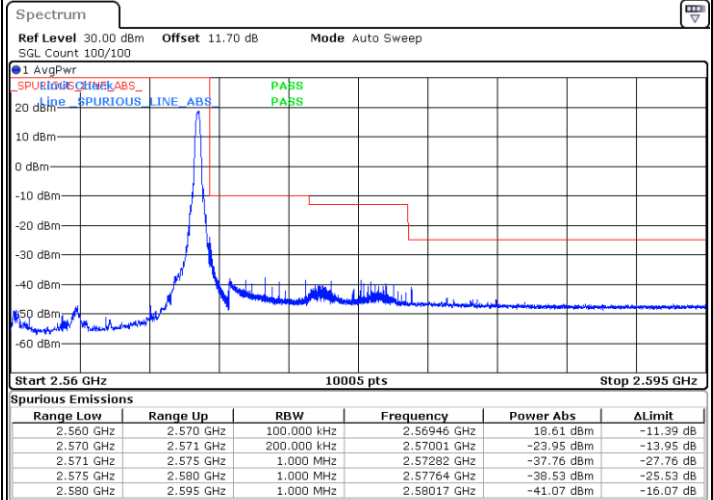


LTE Band 7 / 10MHz / QPSK

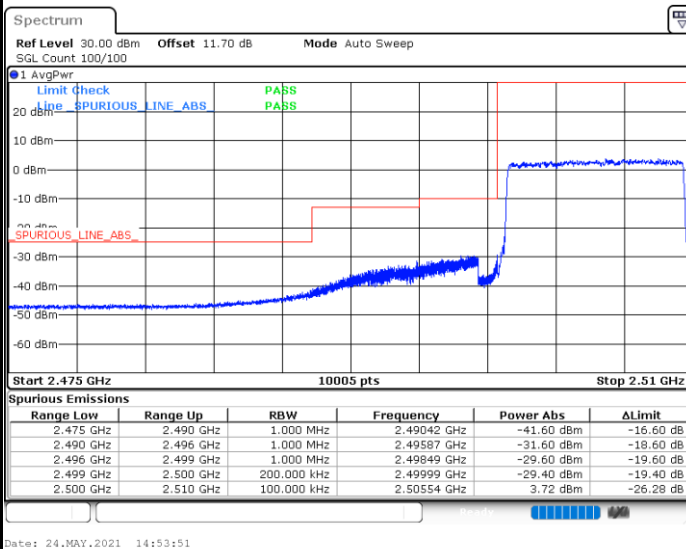
Lowest Band Edge / 1 RB



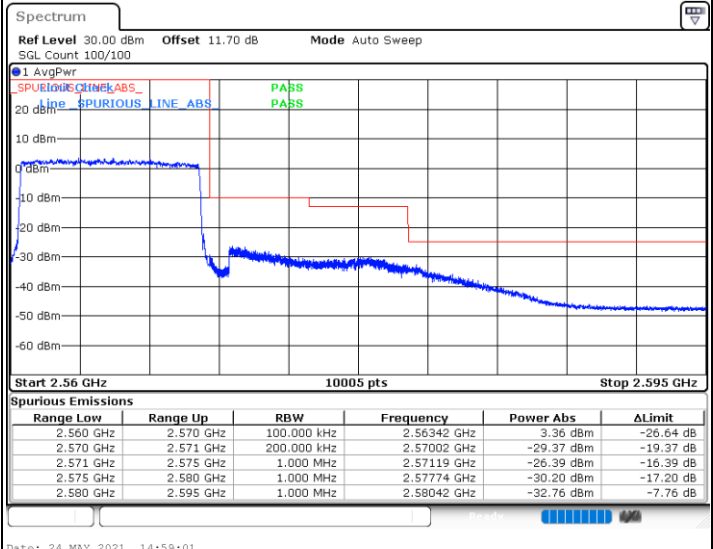
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



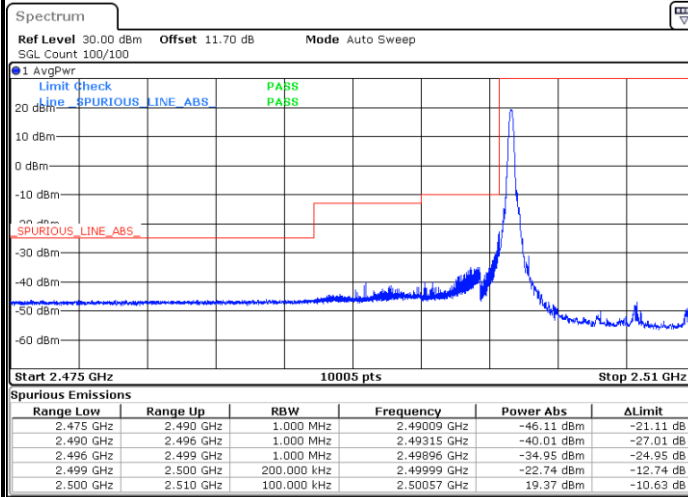
Highest Band Edge / Full RB





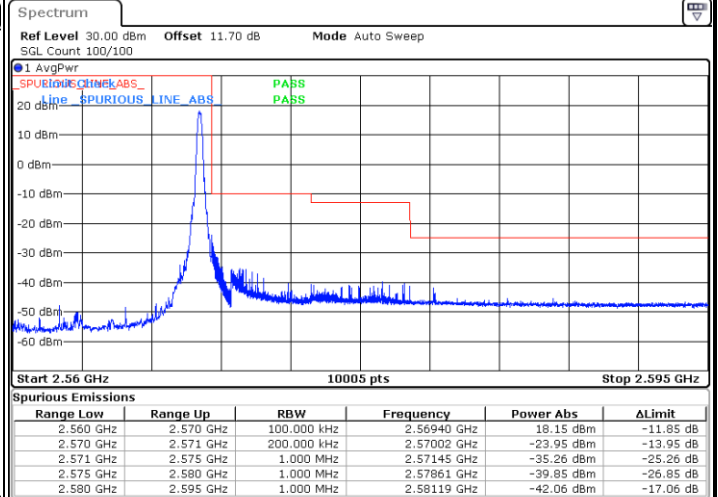
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



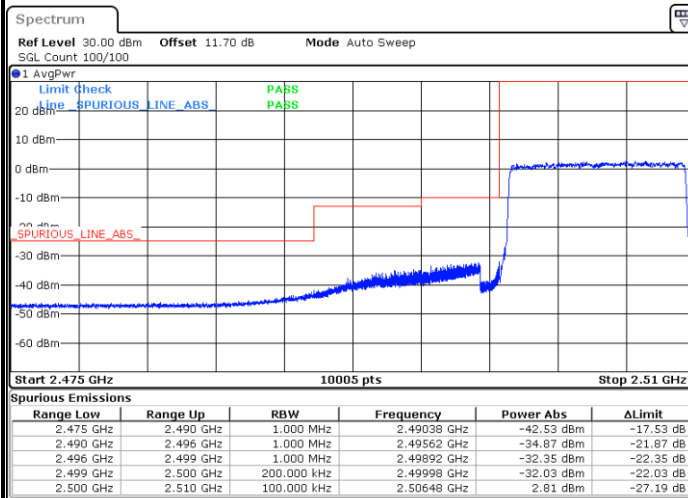
Date: 24.MAY.2021 14:53:25

Highest Band Edge / 1 RB



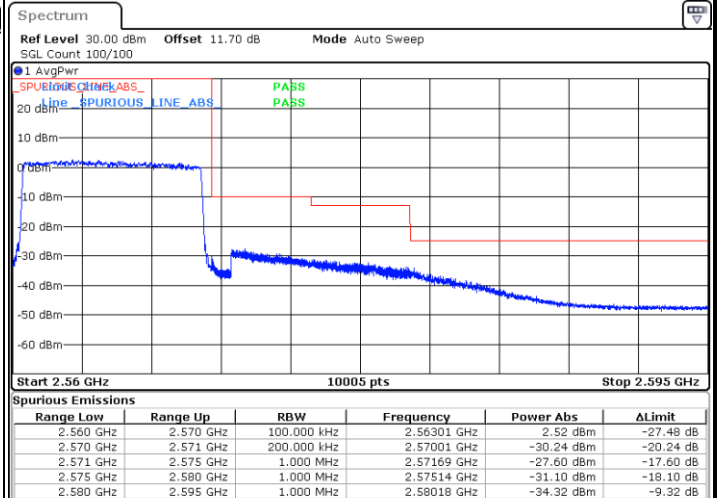
Date: 24.MAY.2021 14:58:35

Lowest Band Edge / Full RB



Date: 24.MAY.2021 14:54:17

Highest Band Edge / Full RB

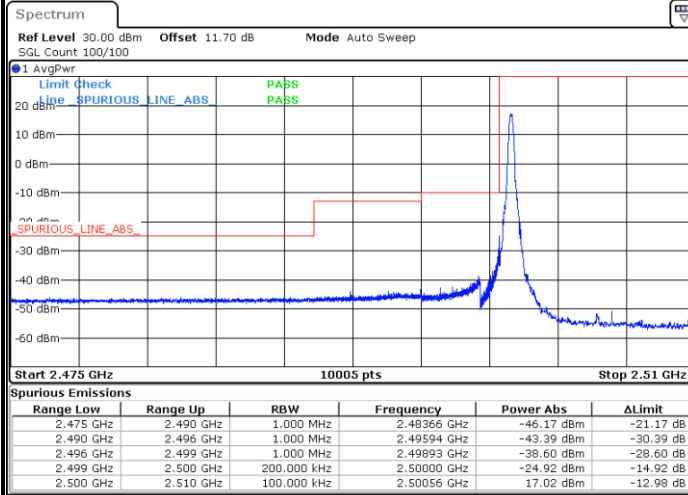


Date: 24.MAY.2021 14:59:26

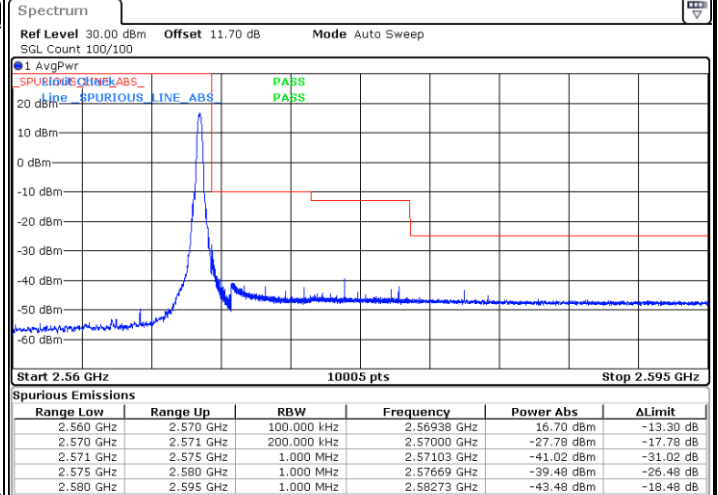


LTE Band 7 / 10MHz / 64QAM

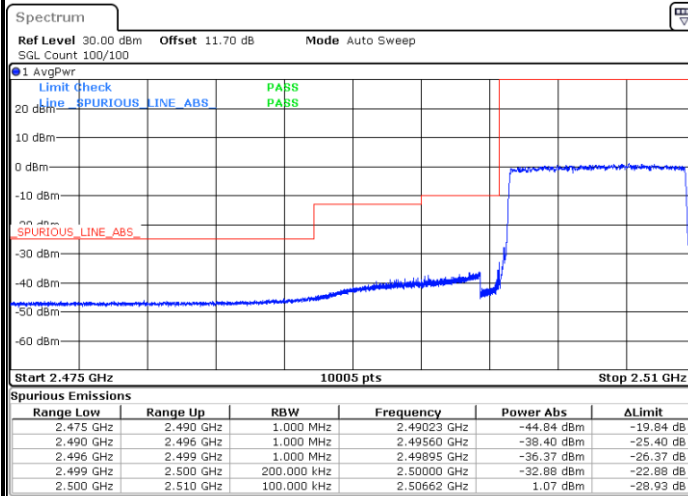
Lowest Band Edge / 1 RB



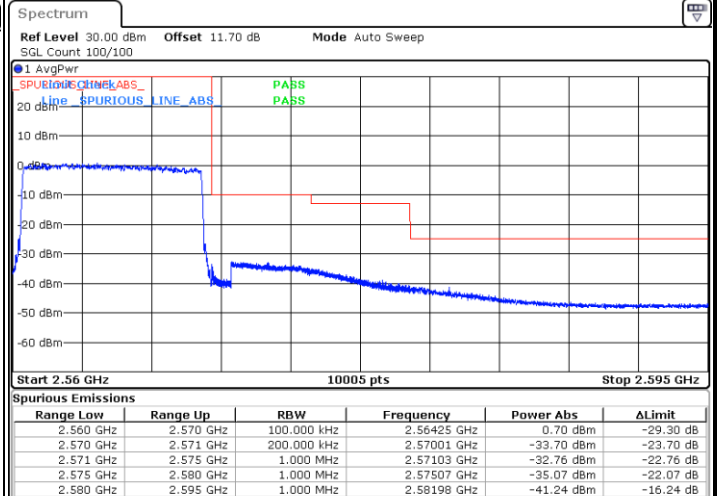
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



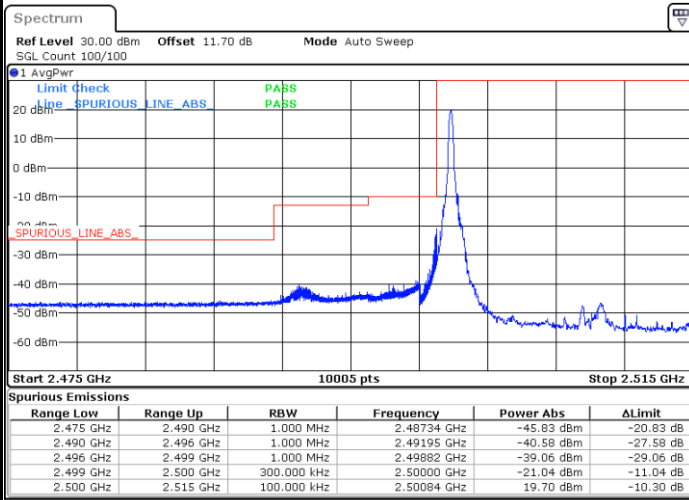
Highest Band Edge / Full RB



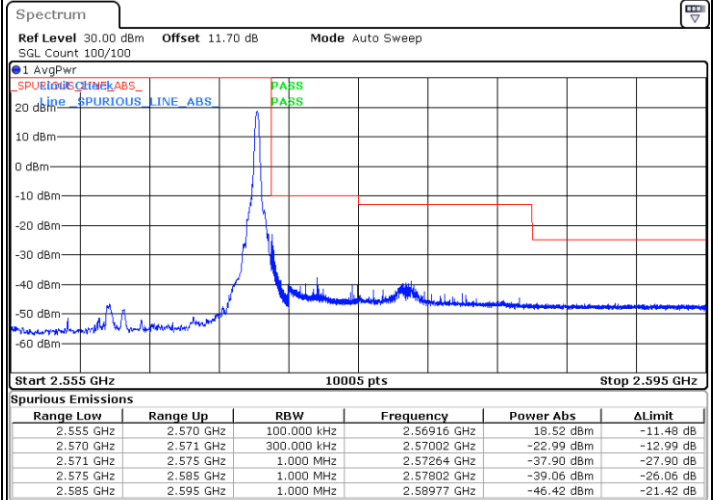


LTE Band 7 / 15MHz / QPSK

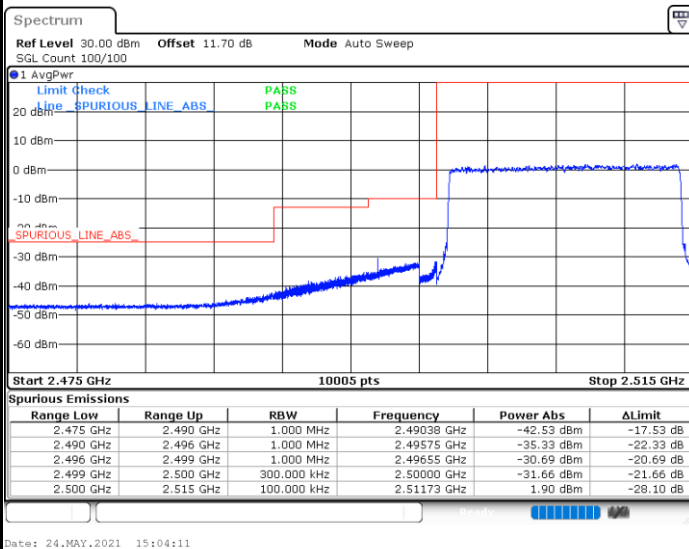
Lowest Band Edge / 1 RB



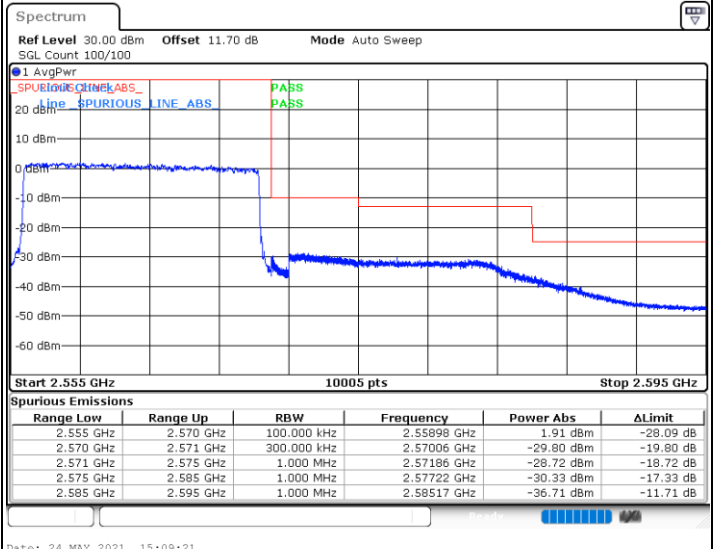
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



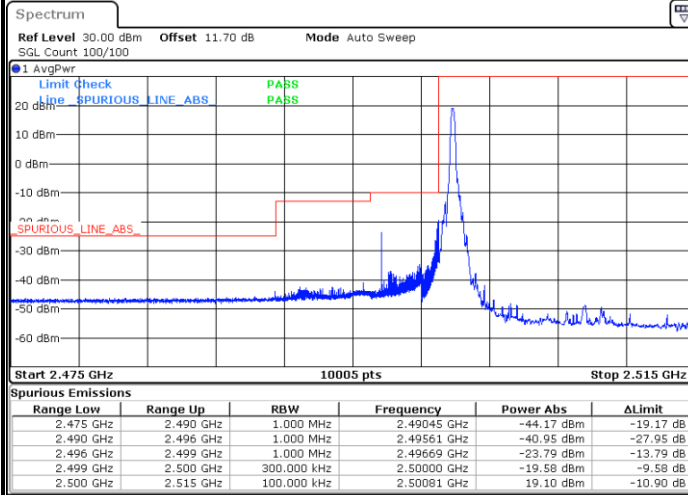
Highest Band Edge / Full RB



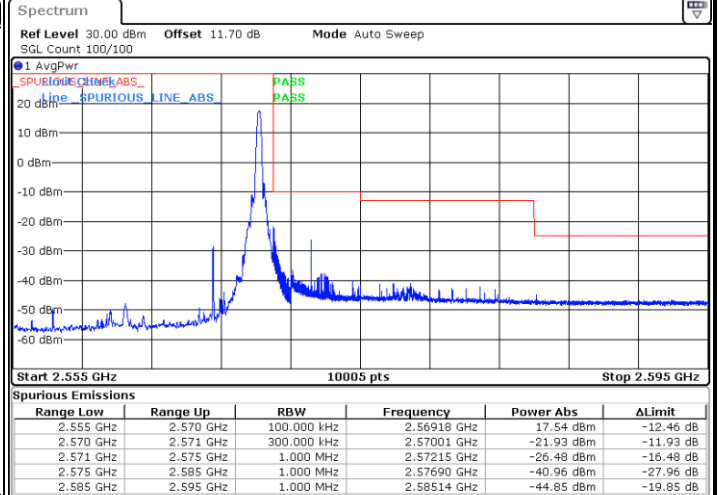


LTE Band 7 / 15MHz / 16QAM

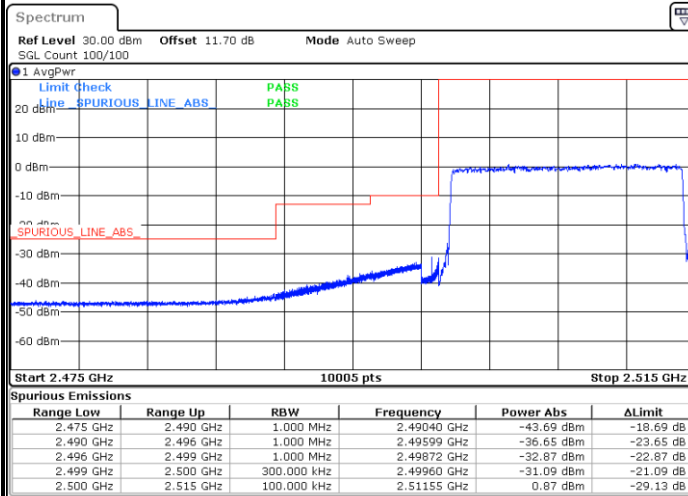
Lowest Band Edge / 1 RB



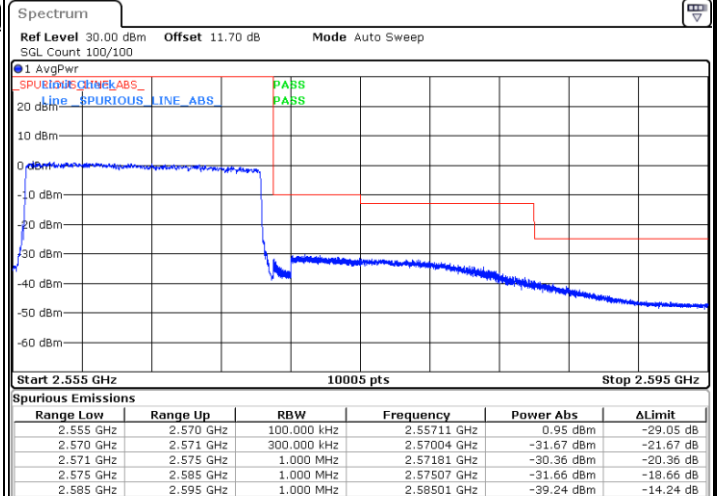
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



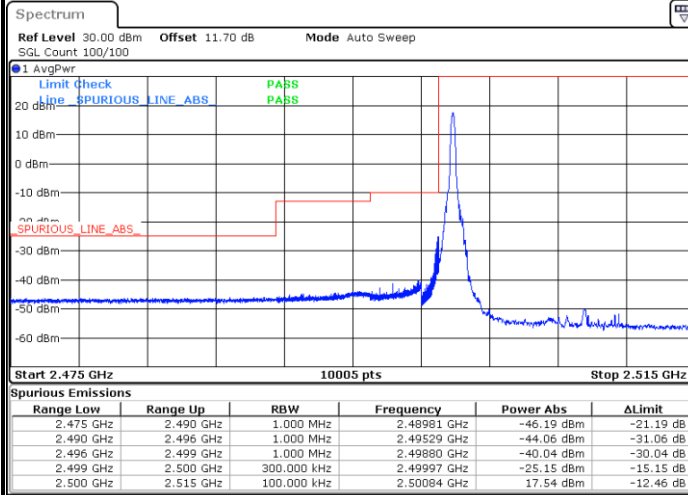
Highest Band Edge / Full RB



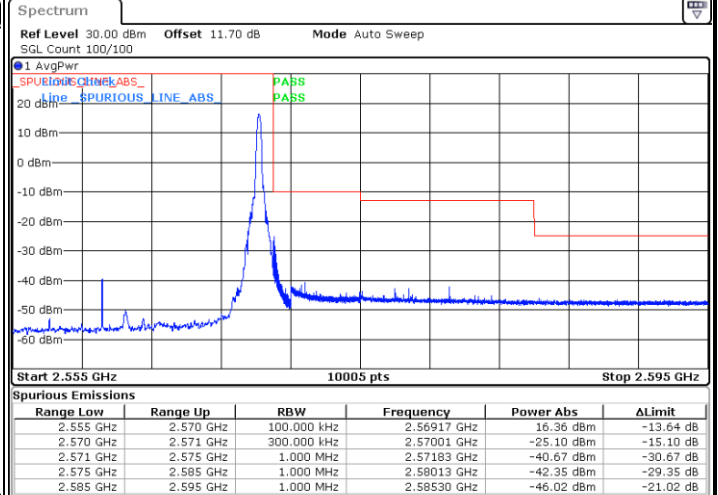


LTE Band 7 / 15MHz / 64QAM

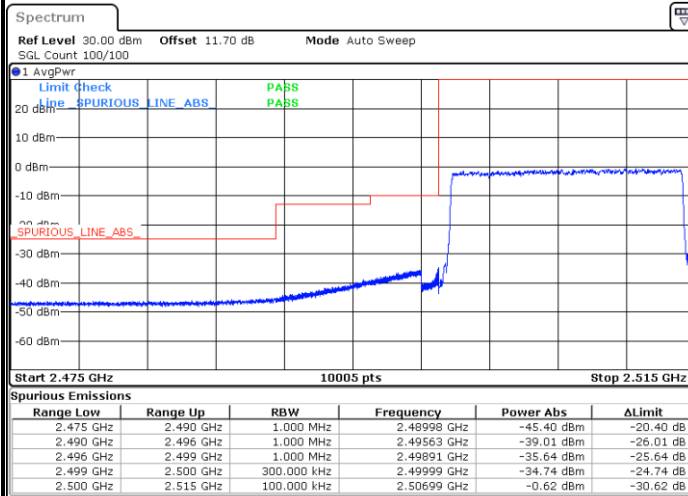
Lowest Band Edge / 1 RB



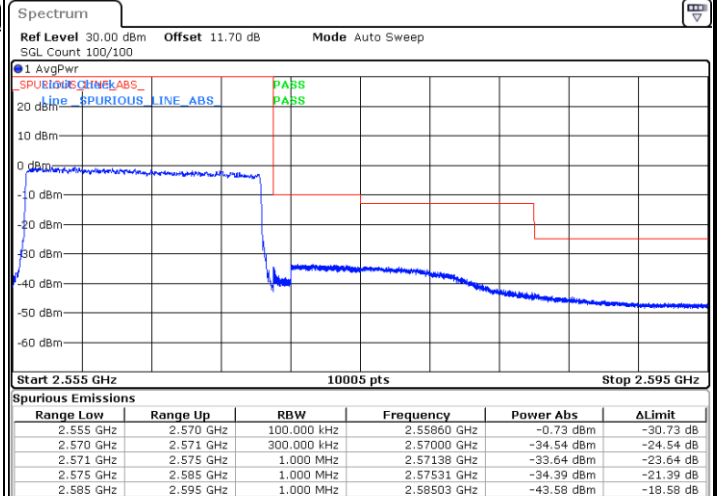
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



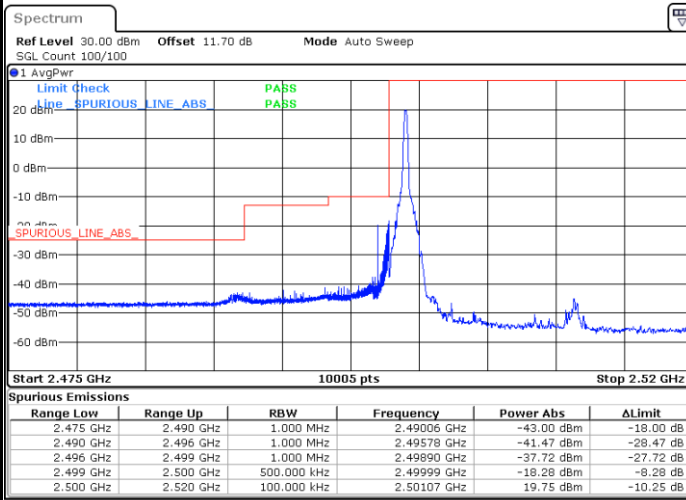
Highest Band Edge / Full RB



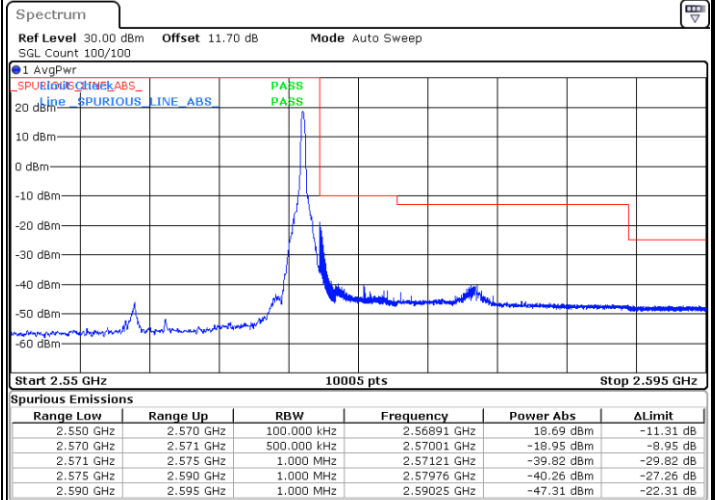


LTE Band 7 / 20MHz / QPSK

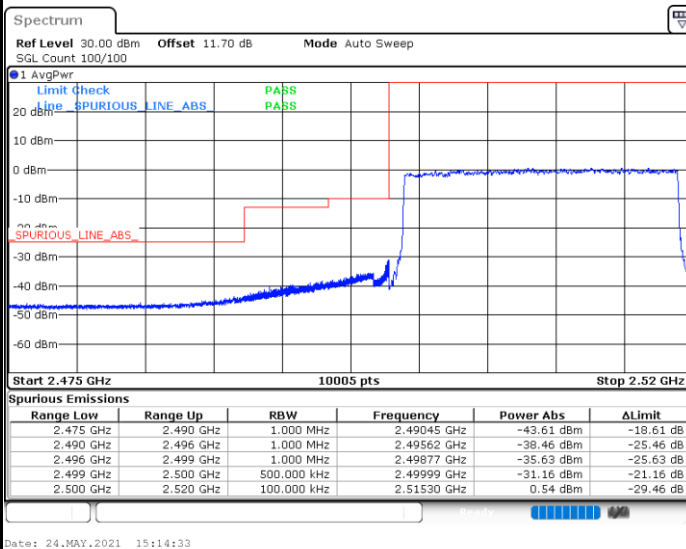
Lowest Band Edge / 1 RB



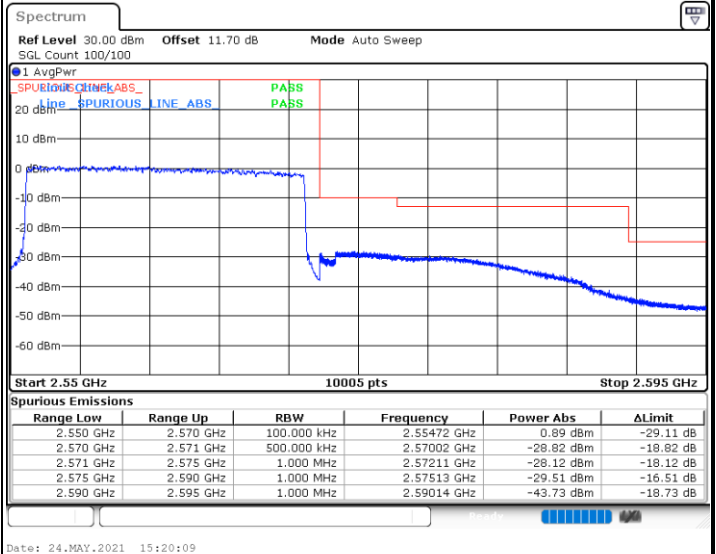
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



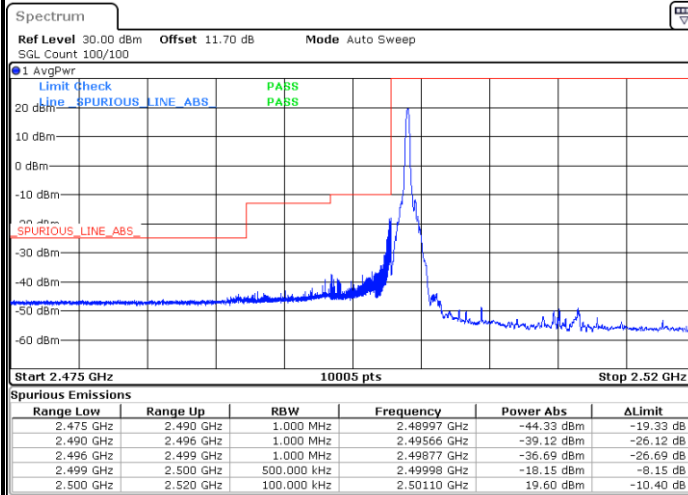
Highest Band Edge / Full RB



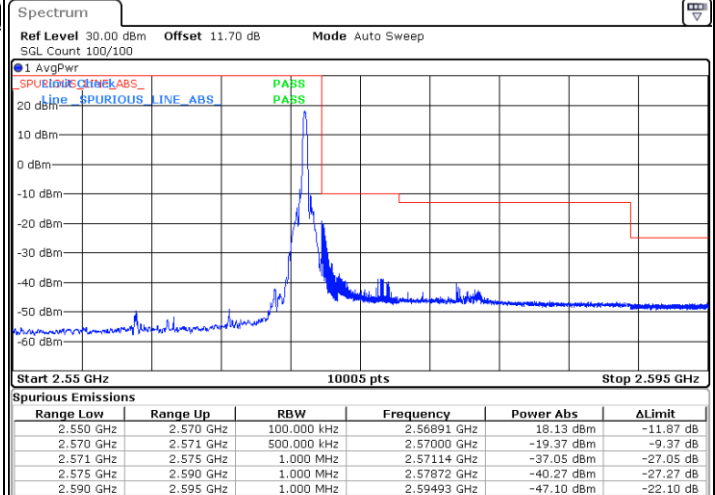


LTE Band 7 / 20MHz / 16QAM

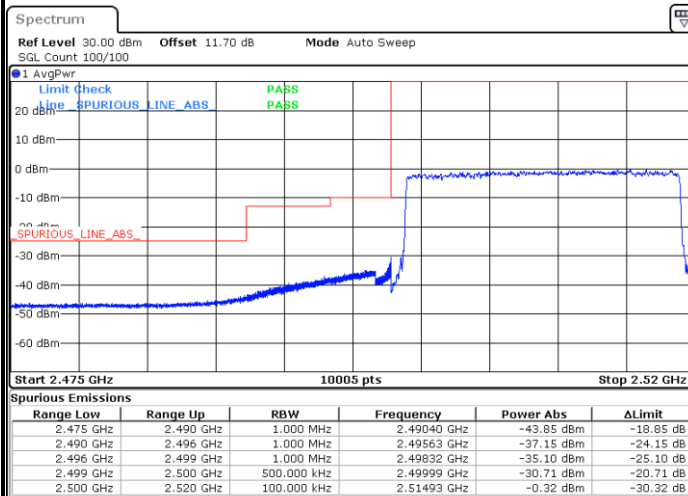
Lowest Band Edge / 1 RB



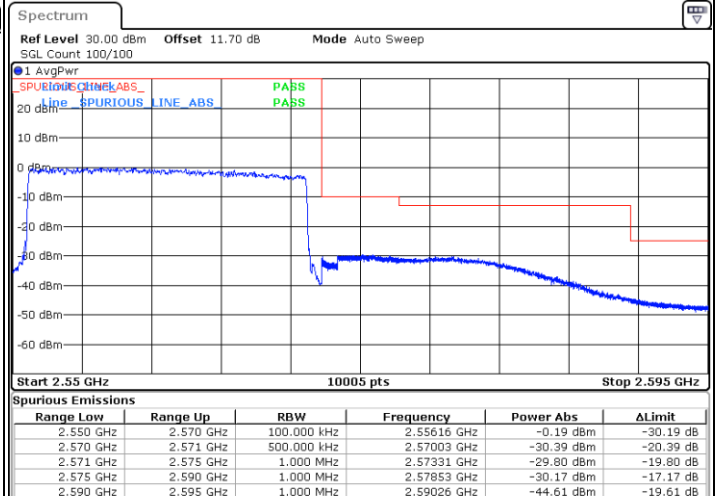
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



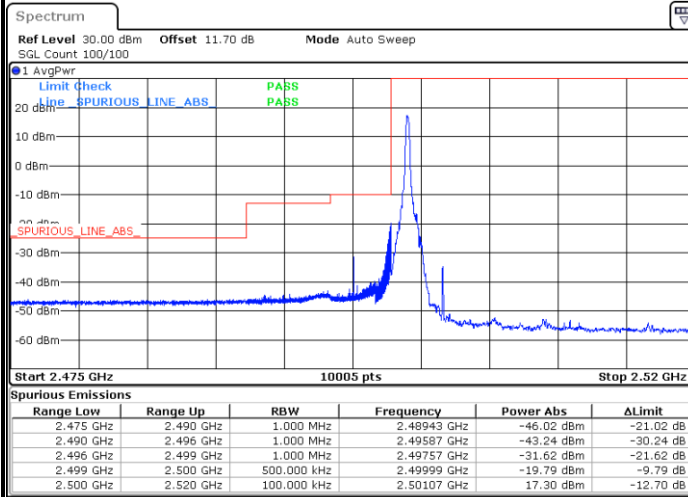
Highest Band Edge / Full RB





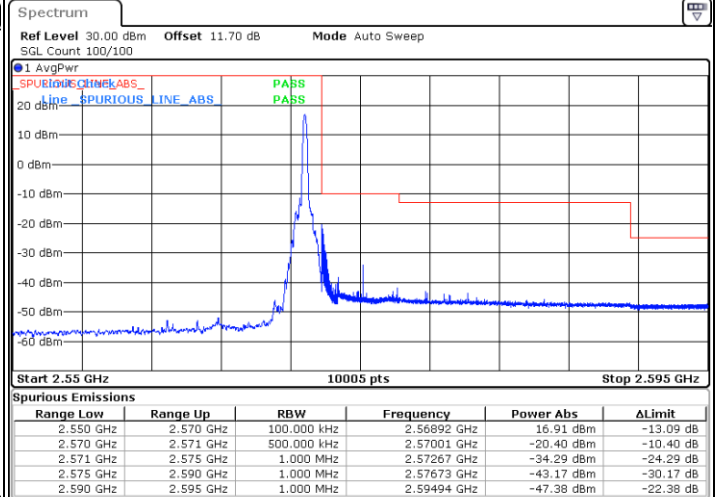
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



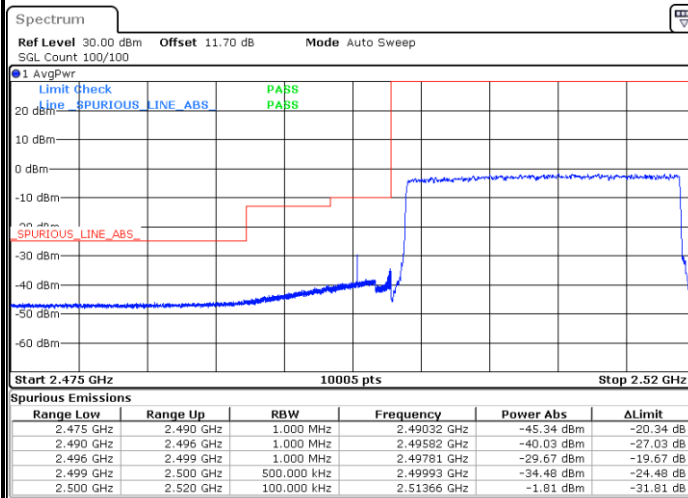
Date: 24.MAY.2021 15:21:35

Highest Band Edge / 1 RB



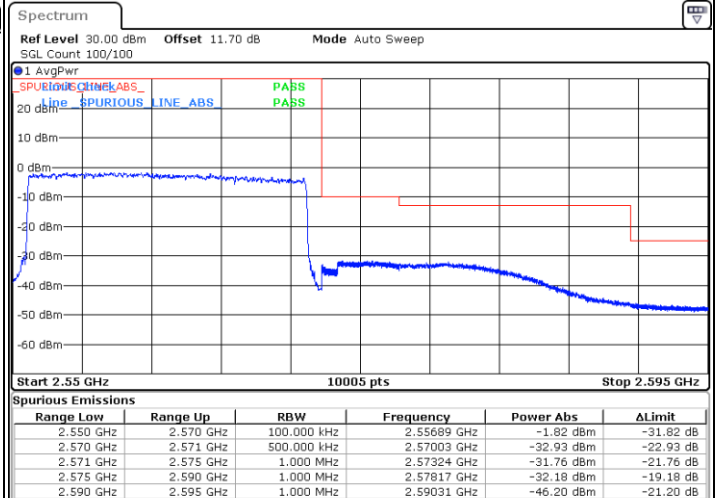
Date: 24.MAY.2021 15:23:10

Lowest Band Edge / Full RB



Date: 24.MAY.2021 15:22:01

Highest Band Edge / Full RB



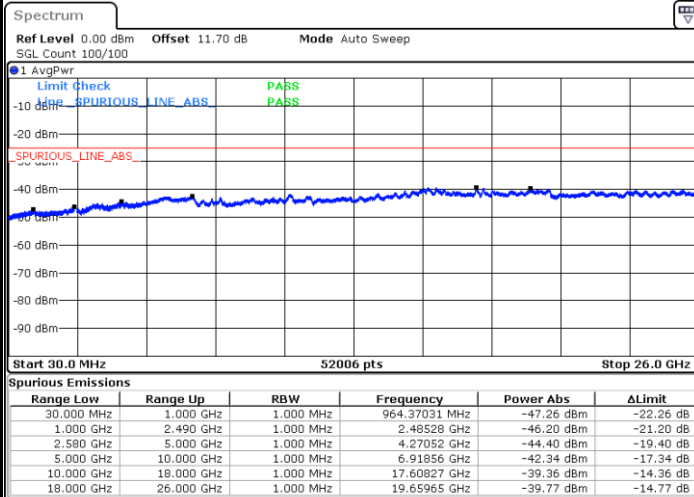
Date: 24.MAY.2021 15:23:36



Conducted Spurious Emission

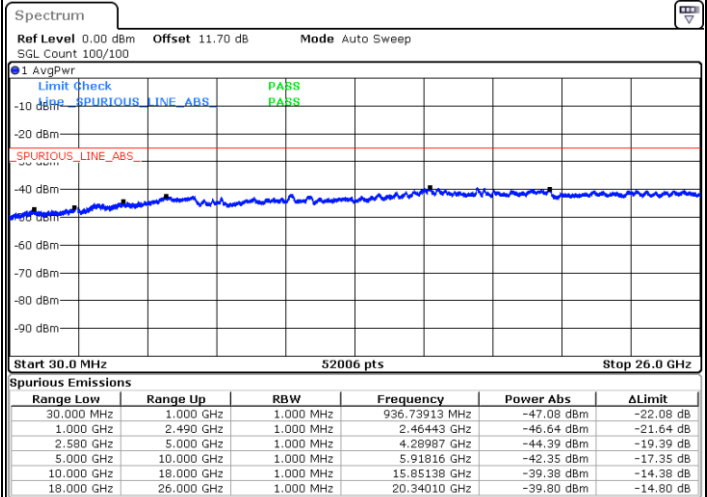
LTE Band 7 / 5MHz

Lowest Channel / QPSK



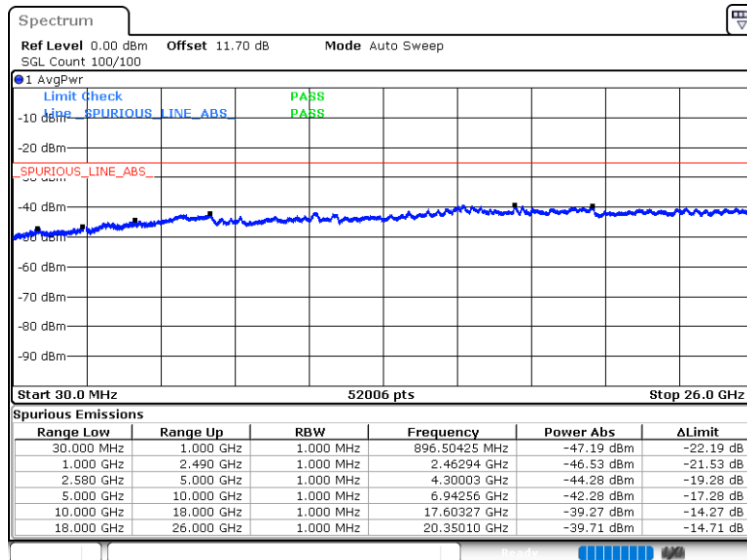
Date: 24.MAY.2021 14:44:56

Middle Channel / QPSK



Date: 24.MAY.2021 14:47:23

Highest Channel / QPSK

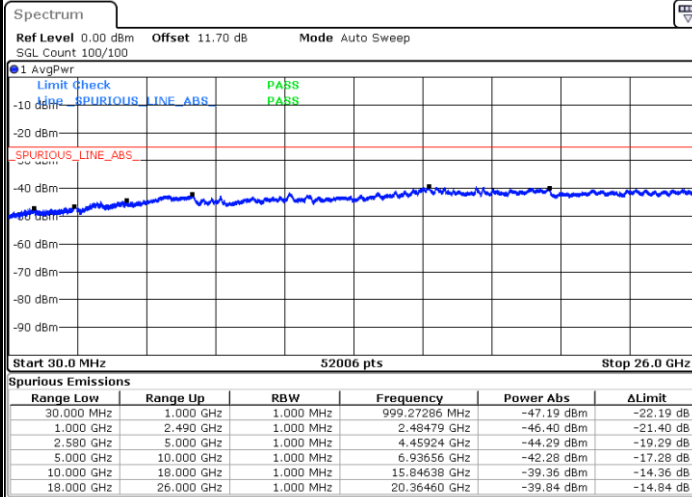


Date: 24.MAY.2021 14:50:06



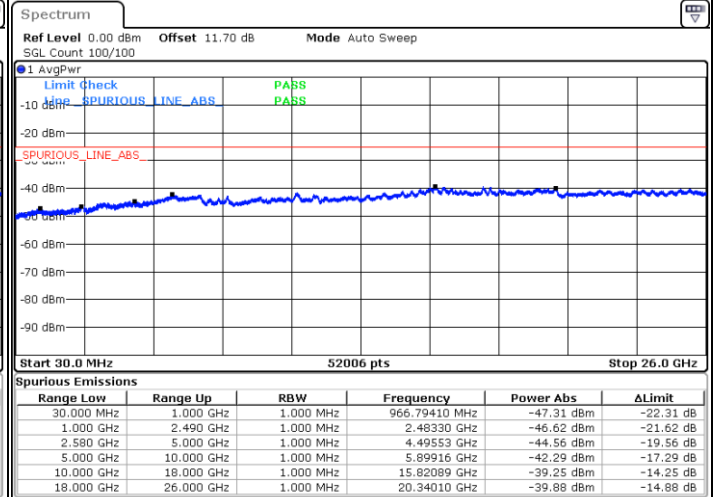
LTE Band 7 / 10MHz

Lowest Channel / QPSK



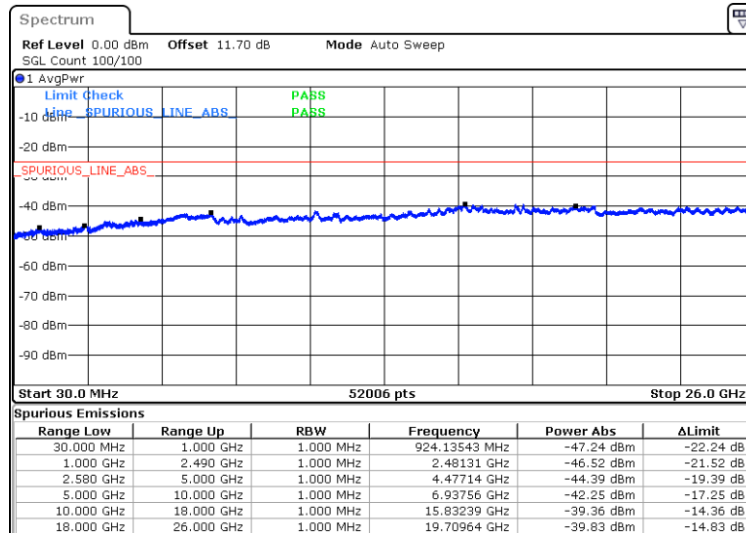
Date: 24.MAY.2021 14:55:16

Middle Channel / QPSK



Date: 24.MAY.2021 14:57:42

Highest Channel / QPSK

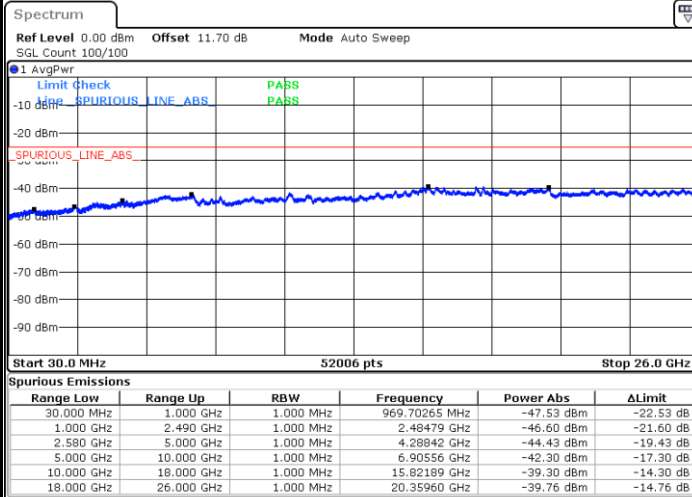


Date: 24.MAY.2021 15:00:26



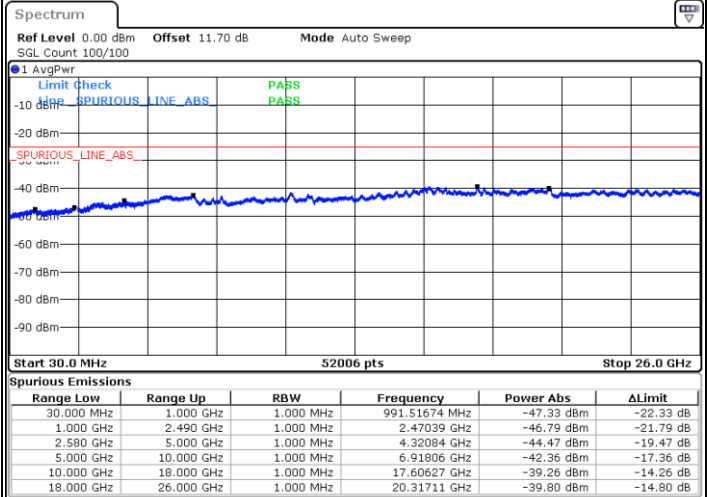
LTE Band 7 / 15MHz

Lowest Channel / QPSK



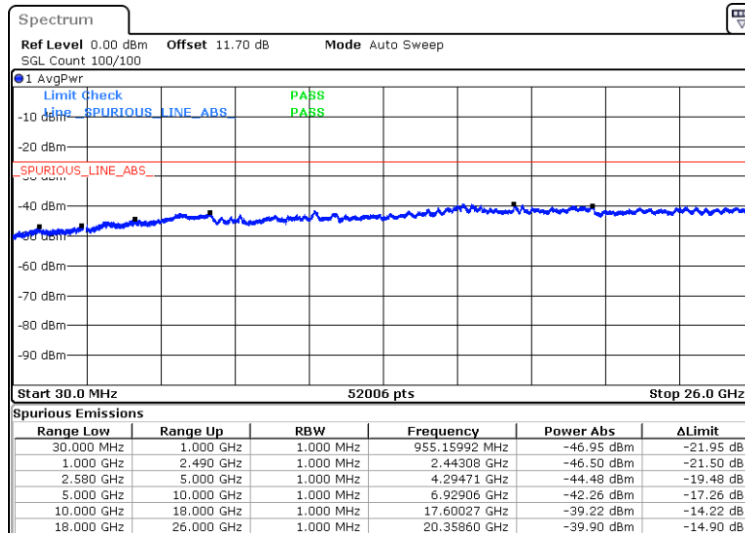
Date: 24.MAY.2021 15:05:37

Middle Channel / QPSK



Date: 24.MAY.2021 15:08:04

Highest Channel / QPSK

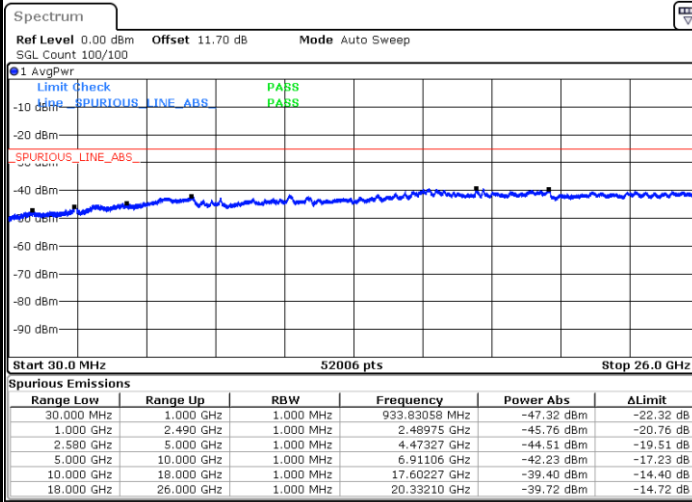


Date: 24.MAY.2021 15:10:46



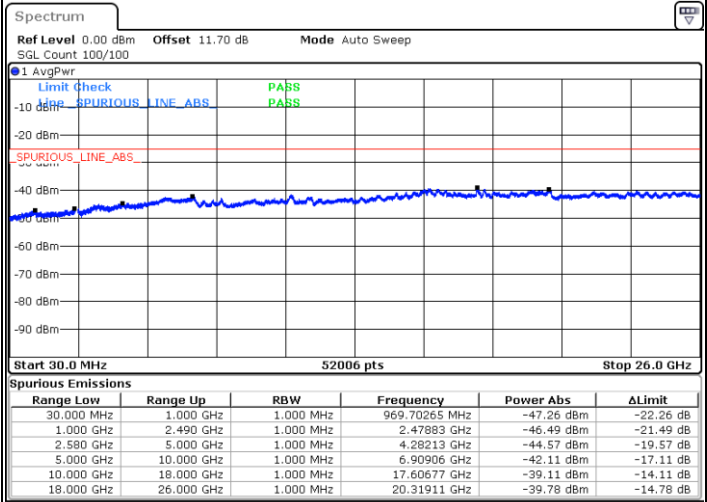
LTE Band 7 / 20MHz

Lowest Channel / QPSK



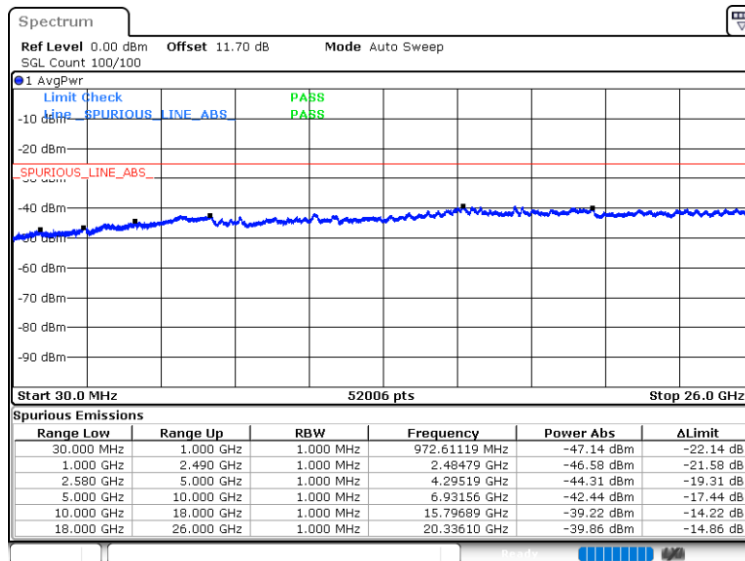
Date: 24.MAY.2021 15:15:58

Middle Channel / QPSK



Date: 24.MAY.2021 15:18:26

Highest Channel / QPSK



Date: 24.MAY.2021 15:21:08

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0052	
30	Normal Voltage	0.0058	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0045	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0060	
-30	Normal Voltage	0.0059	
20	Maximum Voltage	0.0037	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0043	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

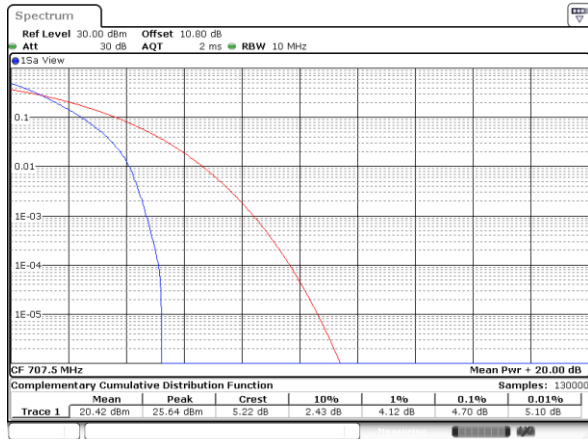
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.70	5.68	6.23	-	PASS



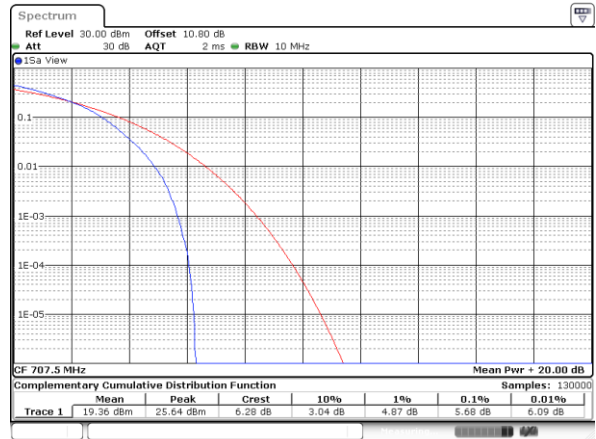
LTE Band 12 / 10MHz / QPSK

Middle Channel / Full RB



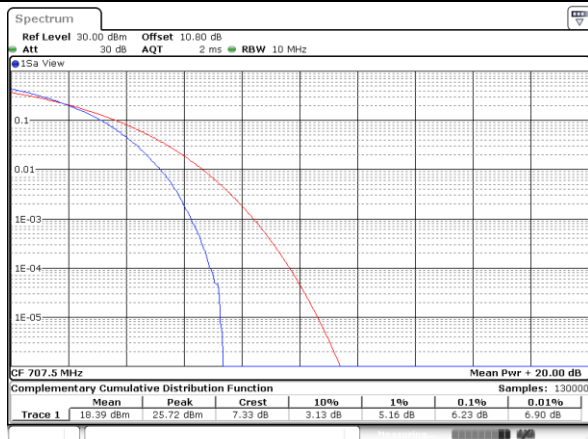
LTE Band 12 / 10MHz / 16QAM

Middle Channel / Full RB



LTE Band 12 / 10MHz / 64QAM

Middle Channel / Full RB



LTE Band 12 / 10MHz / 256QAM

Middle Channel / Full RB

N/A

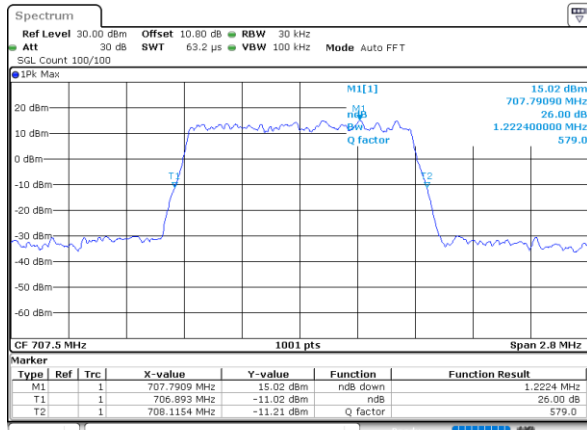
**26dB Bandwidth**

Mode	LTE Band 12 : 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	1.22	1.21	2.98	3.00	4.92	4.88	9.75	9.87	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.21	-	3.00	-	4.87	-	9.81	-	-	-	-	-

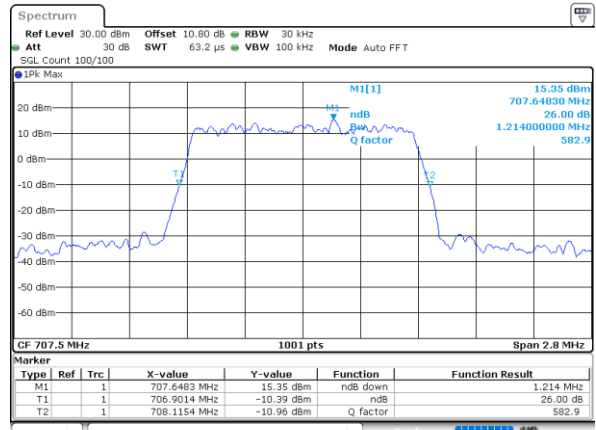


LTE Band 12

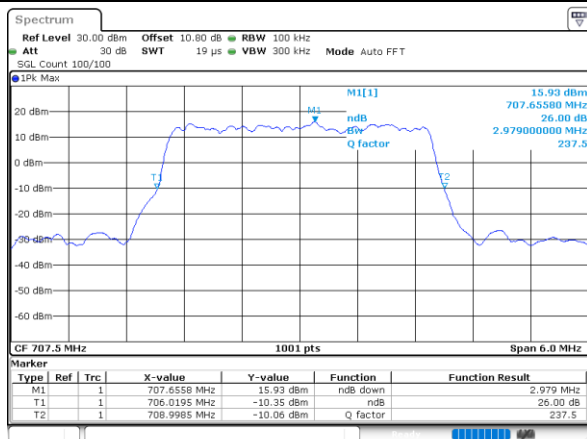
Middle Channel / 1.4MHz / QPSK



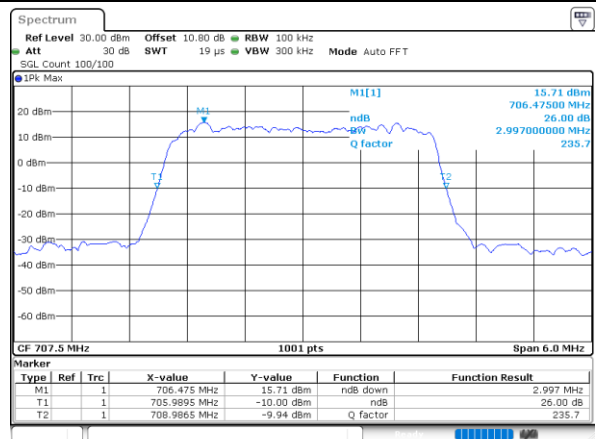
Middle Channel / 1.4MHz / 16QAM



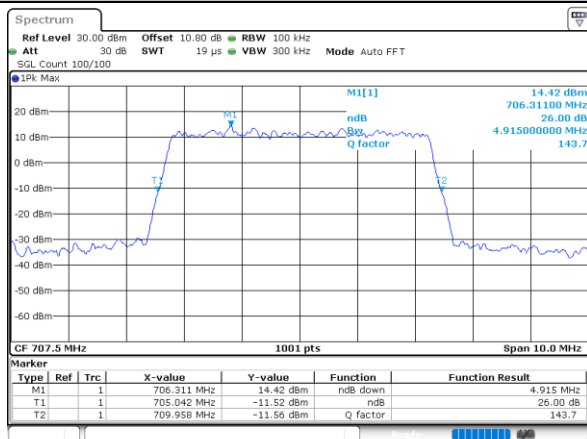
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM

