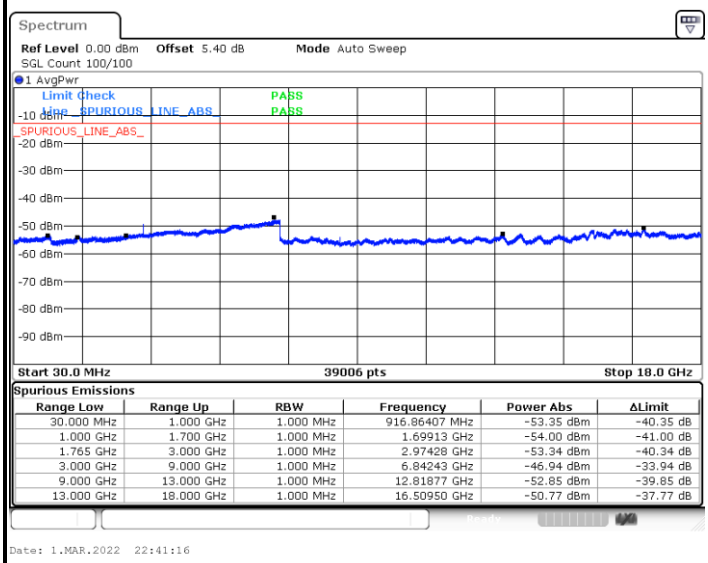
LTE Band 4 / 10MHz

Lowest Channel / QPSK

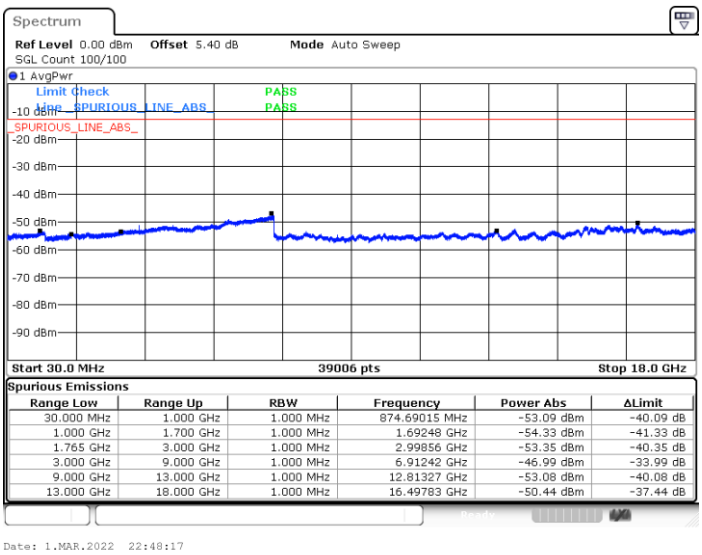


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	916.86407 MHz	-53.35 dBm	-40.35 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69913 GHz	-54.00 dBm	-41.00 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.97428 GHz	-53.34 dBm	-40.34 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.84243 GHz	-46.94 dBm	-33.94 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.81877 GHz	-52.85 dBm	-39.85 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.50950 GHz	-50.77 dBm	-37.77 dB

Date: 1.MAR.2022 22:41:16

Middle Channel / QPSK

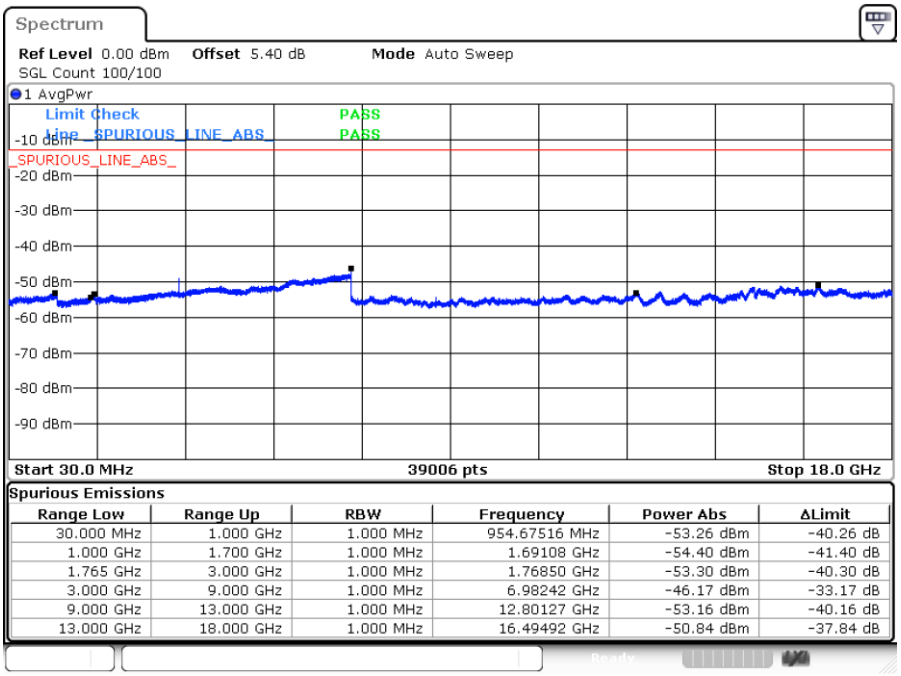


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	874.69015 MHz	-53.09 dBm	-40.09 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69248 GHz	-54.33 dBm	-41.33 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.99856 GHz	-53.35 dBm	-40.35 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.91242 GHz	-46.99 dBm	-33.99 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.81327 GHz	-53.08 dBm	-40.08 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.49783 GHz	-50.44 dBm	-37.44 dB

Date: 1.MAR.2022 22:48:17

Highest Channel / QPSK



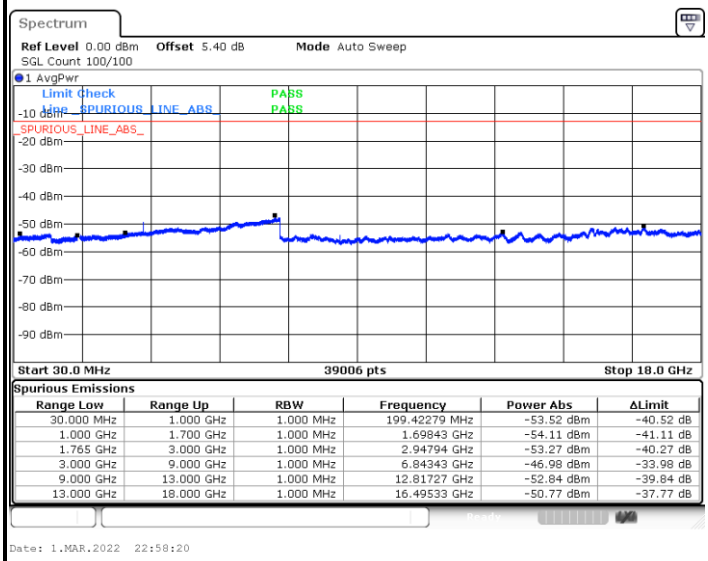
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	954.67516 MHz	-53.26 dBm	-40.26 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69108 GHz	-54.40 dBm	-41.40 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.76850 GHz	-53.30 dBm	-40.30 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.98242 GHz	-46.17 dBm	-33.17 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.80127 GHz	-53.16 dBm	-40.16 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.49492 GHz	-50.84 dBm	-37.84 dB

Date: 1.MAR.2022 22:50:19

LTE Band 4 / 15MHz

Lowest Channel / QPSK

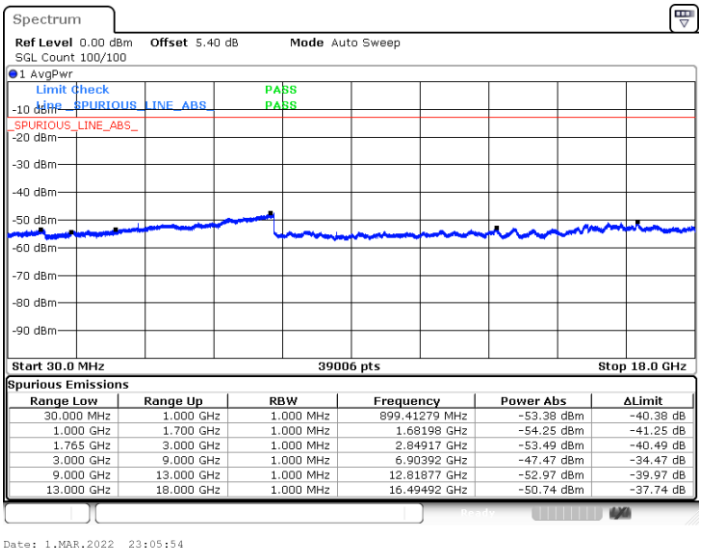


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	199.42279 MHz	-53.52 dBm	-40.52 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69843 GHz	-54.11 dBm	-41.11 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.94794 GHz	-53.27 dBm	-40.27 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.84343 GHz	-46.98 dBm	-33.98 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.81727 GHz	-52.84 dBm	-39.84 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.49533 GHz	-50.77 dBm	-37.77 dB

Date: 1.MAR.2022 22:58:20

Middle Channel / QPSK

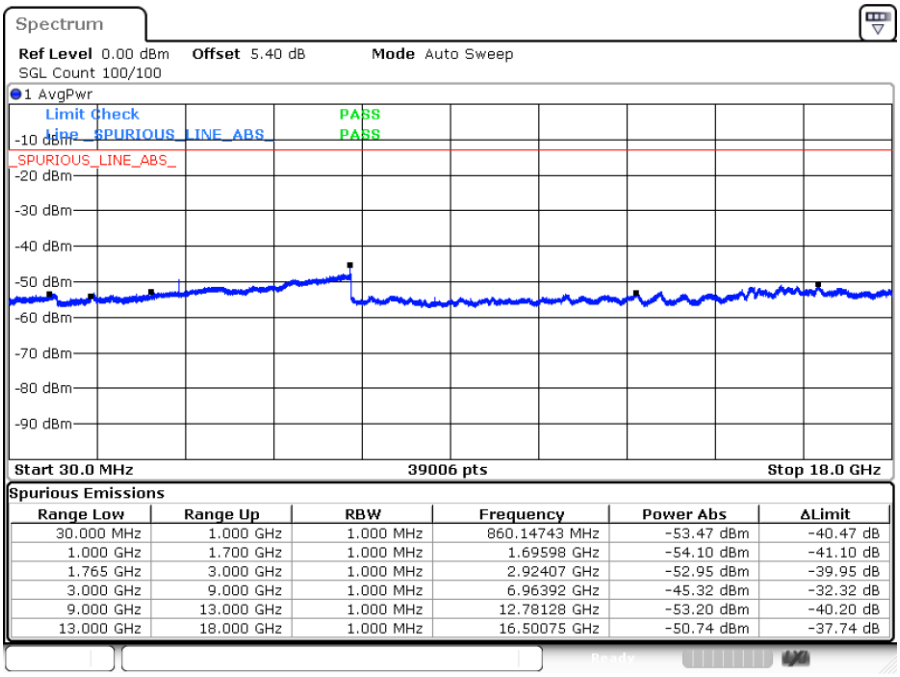


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	899.41279 MHz	-53.38 dBm	-40.38 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.68198 GHz	-54.25 dBm	-41.25 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.84917 GHz	-53.49 dBm	-40.49 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.90392 GHz	-47.47 dBm	-34.47 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.81877 GHz	-52.97 dBm	-39.97 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.49492 GHz	-50.74 dBm	-37.74 dB

Date: 1.MAR.2022 23:05:54

Highest Channel / QPSK



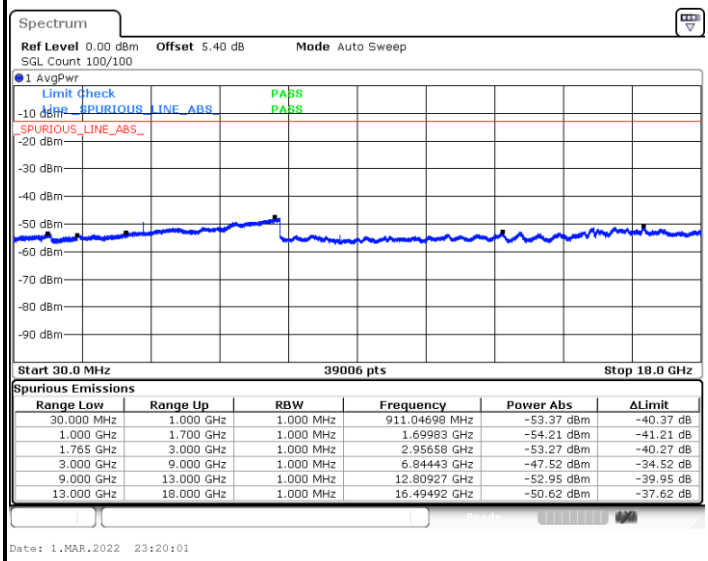
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	860.14743 MHz	-53.47 dBm	-40.47 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69598 GHz	-54.10 dBm	-41.10 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.92407 GHz	-52.95 dBm	-39.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.96392 GHz	-45.32 dBm	-32.32 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.78128 GHz	-53.20 dBm	-40.20 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.50075 GHz	-50.74 dBm	-37.74 dB

Date: 1.MAR.2022 23:08:13

LTE Band 4 / 20MHz

Lowest Channel / QPSK

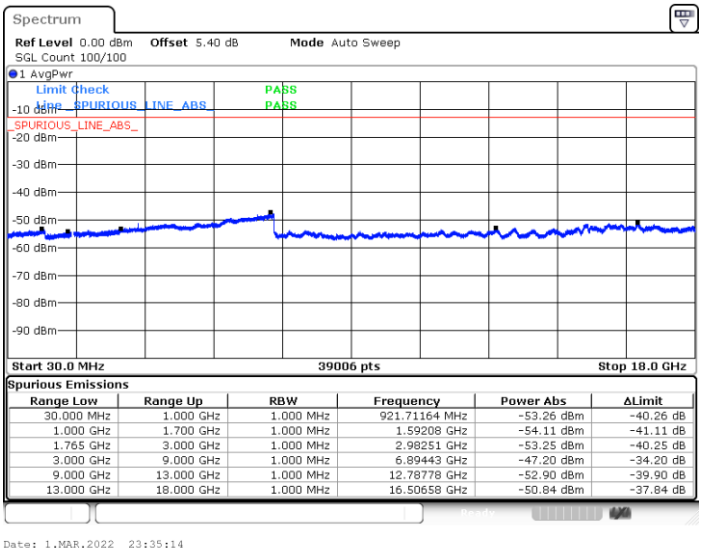


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	911.04698 MHz	-53.37 dBm	-40.37 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69983 GHz	-54.21 dBm	-41.21 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.95658 GHz	-53.27 dBm	-40.27 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.84443 GHz	-47.52 dBm	-34.52 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.80927 GHz	-52.95 dBm	-39.95 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.49492 GHz	-50.62 dBm	-37.62 dB

Date: 1.MAR.2022 23:20:01

Middle Channel / QPSK

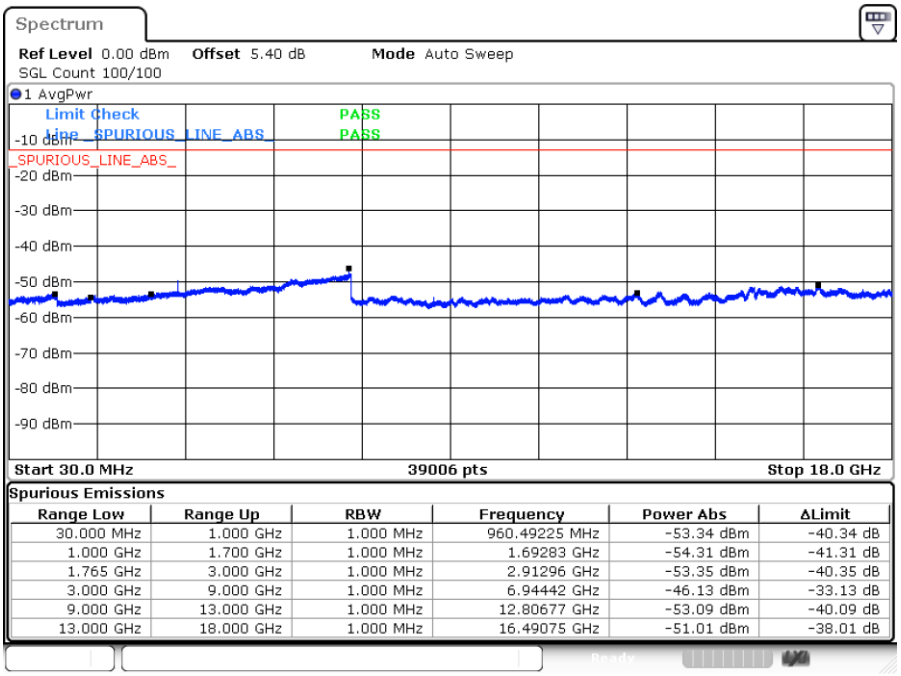


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	921.71164 MHz	-53.26 dBm	-40.26 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.59208 GHz	-54.11 dBm	-41.11 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.98251 GHz	-53.25 dBm	-40.25 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.89443 GHz	-47.20 dBm	-34.20 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.78778 GHz	-52.90 dBm	-39.90 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.50658 GHz	-50.84 dBm	-37.84 dB

Date: 1.MAR.2022 23:35:14

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	960.49225 MHz	-53.34 dBm	-40.34 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69283 GHz	-54.31 dBm	-41.31 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.91296 GHz	-53.35 dBm	-40.35 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.94442 GHz	-46.13 dBm	-33.13 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.80677 GHz	-53.09 dBm	-40.09 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.49075 GHz	-51.01 dBm	-38.01 dB

Date: 1.MAR.2022 23:42:47

Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0007	

Note:

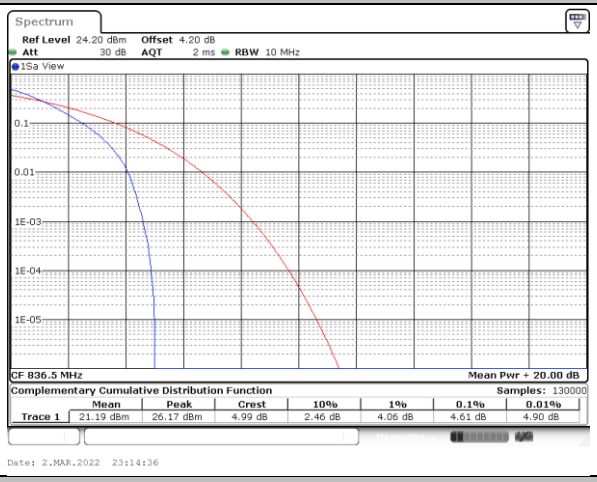
1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 5

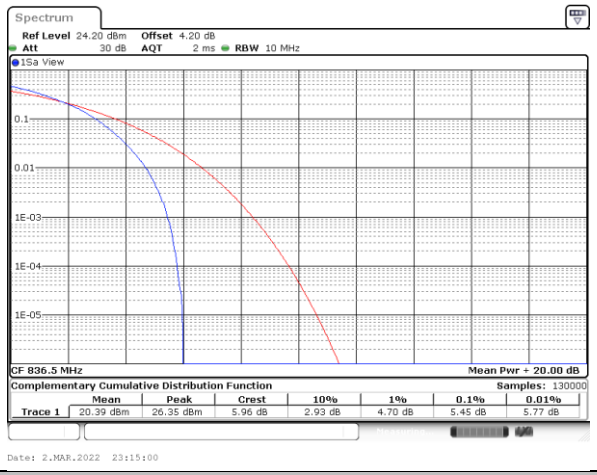
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.61	5.45	6.17	PASS

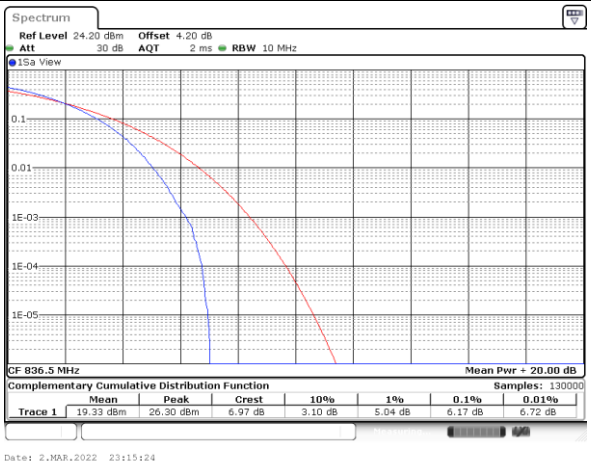
LTE Band 5 / 10MHz
Middle Channel / Full RB/ QPSK



Middle Channel / Full RB/ 16QAM



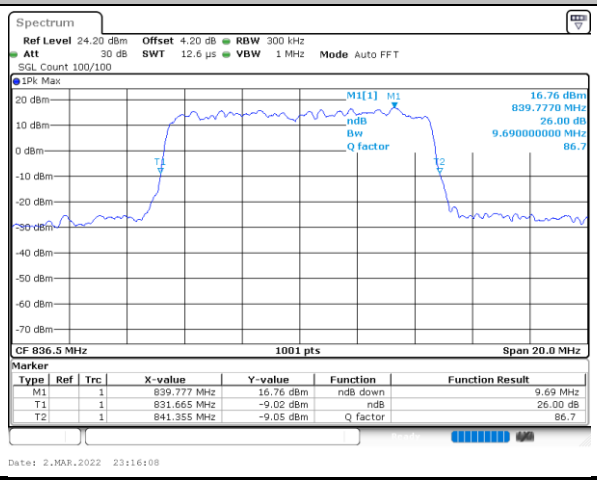
Middle Channel / Full RB/ 64QAM

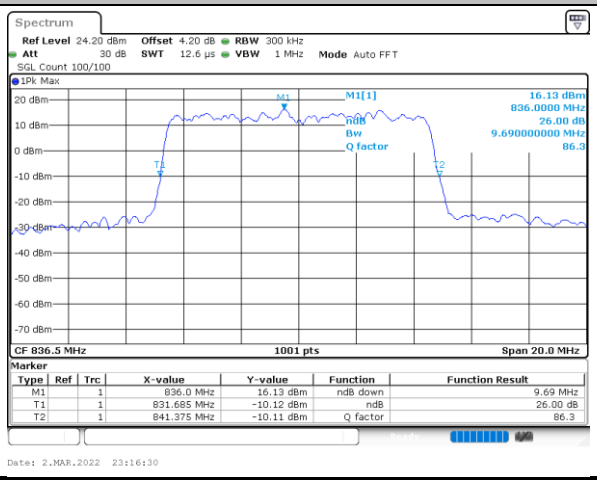


26dB Bandwidth

Mode	LTE Band 5 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.69	9.69

LTE Band 5	
Middle Channel / 10MHz / QPSK	Middle Channel / 10MHz / 16QAM



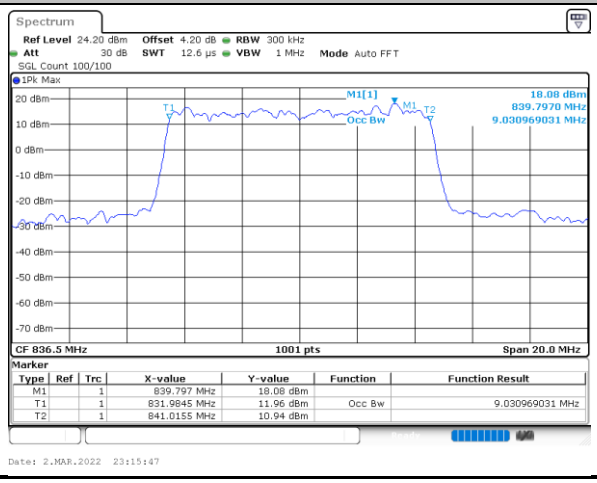


Occupied Bandwidth

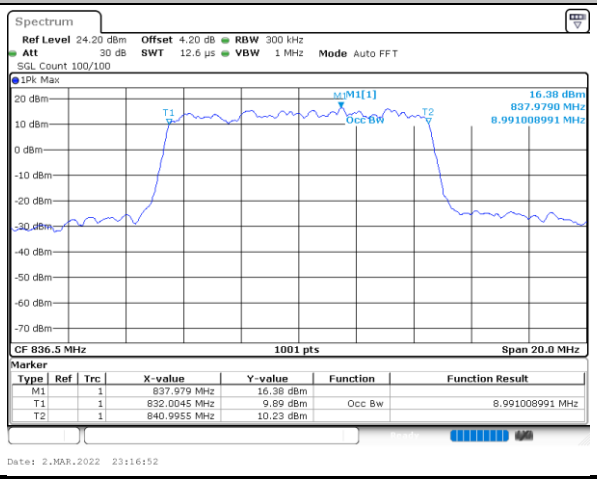
Mode	LTE Band 5 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.03	8.99

LTE Band 5

Middle Channel / 10MHz / QPSK



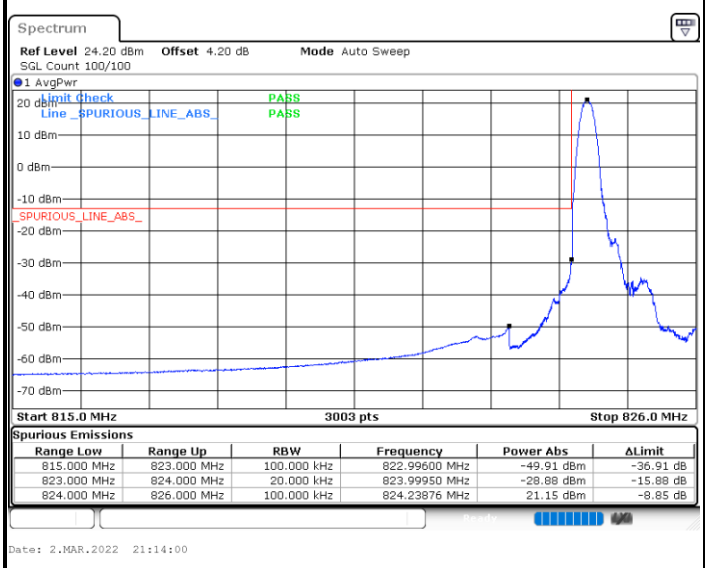
Middle Channel / 10MHz / 16QAM



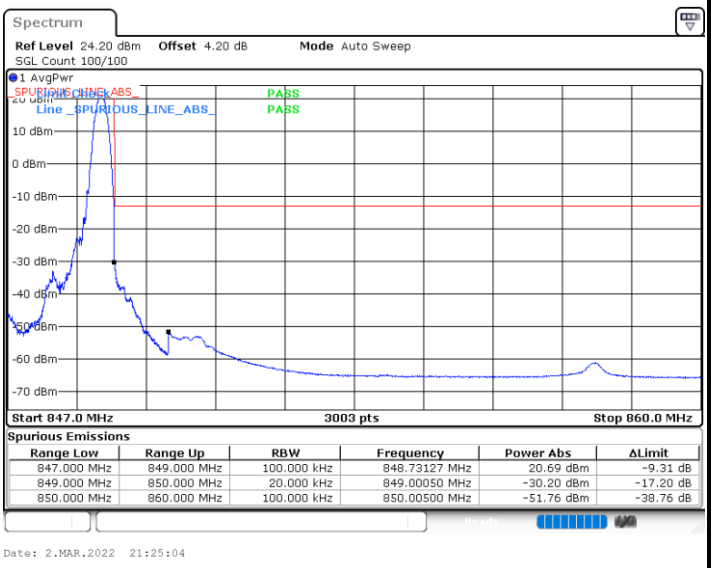
Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

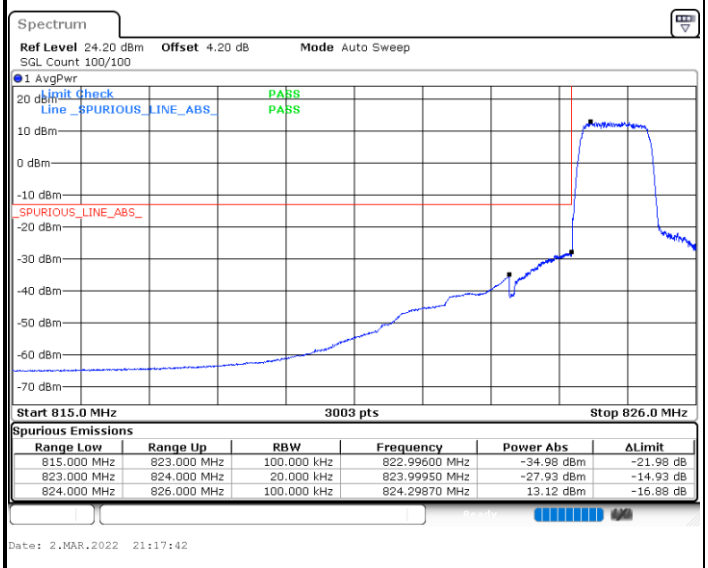
Lowest Band Edge / 1RB



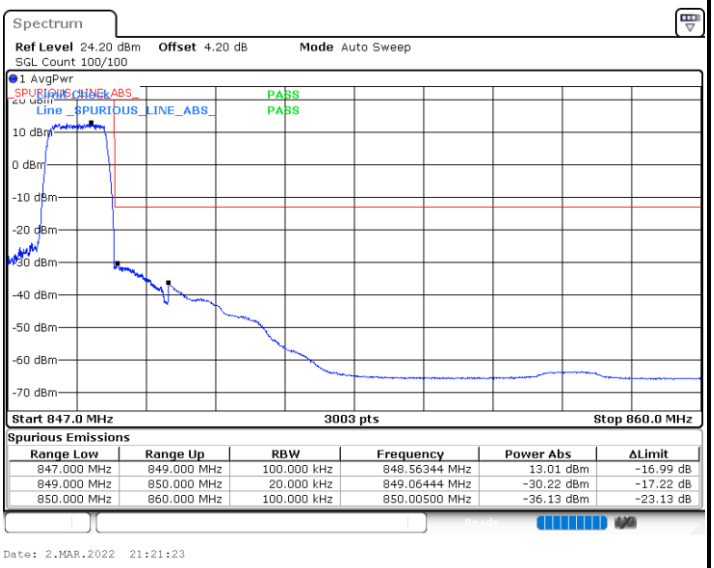
Highest Band Edge / 1RB



Lowest Band Edge / Full RB

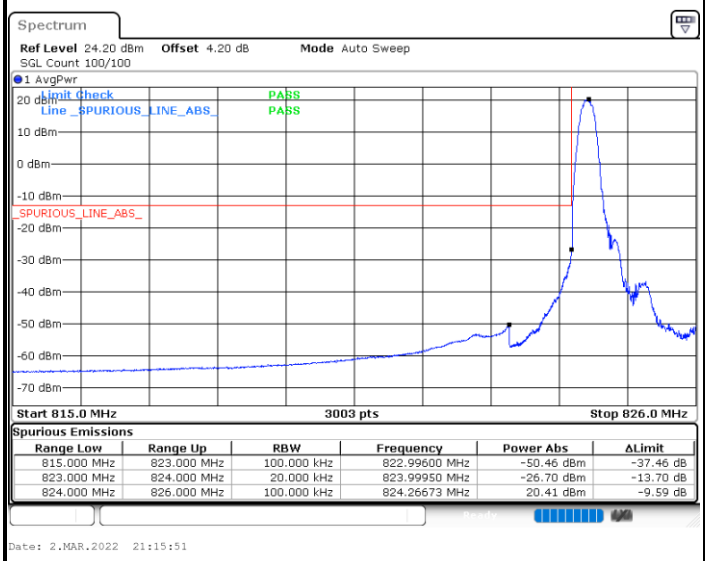


Highest Band Edge / Full RB



LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



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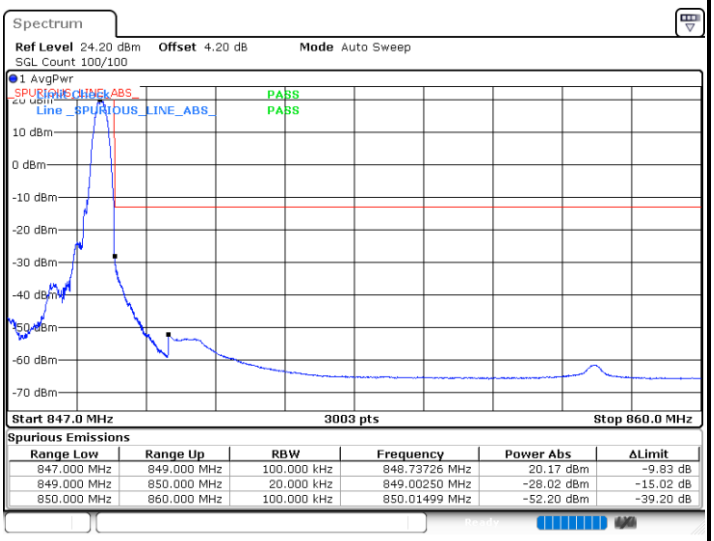
Highest Band Edge / 1 RB



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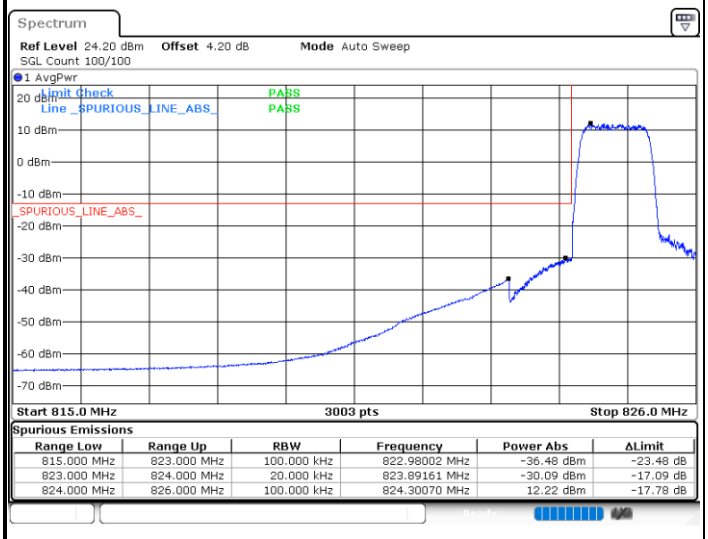
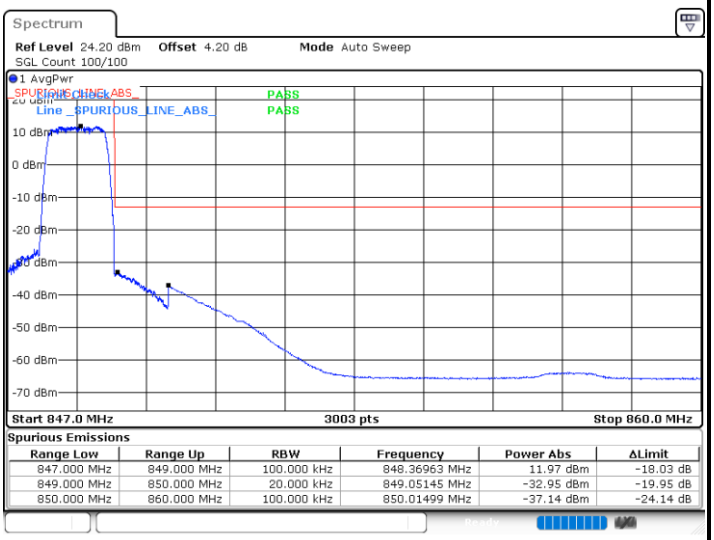
Lowest Band Edge / Full RB



Date: 2.MAR.2022 21:19:33

Highest Band Edge / Full RB



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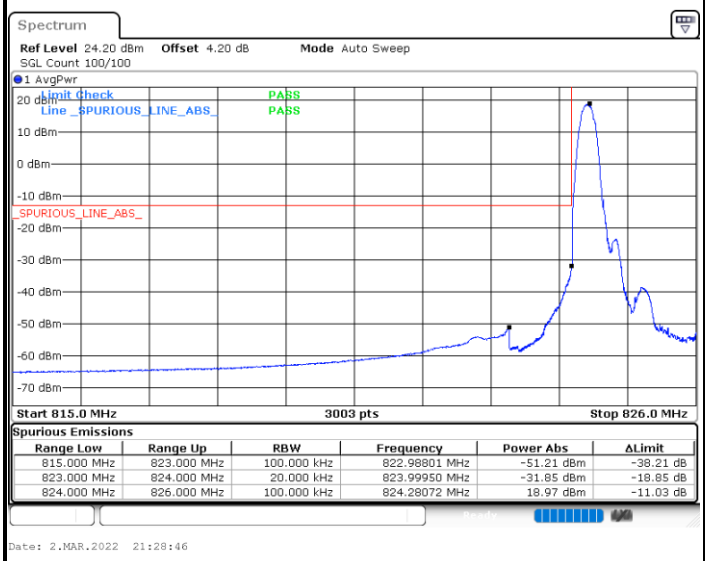
LTE Band 5 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



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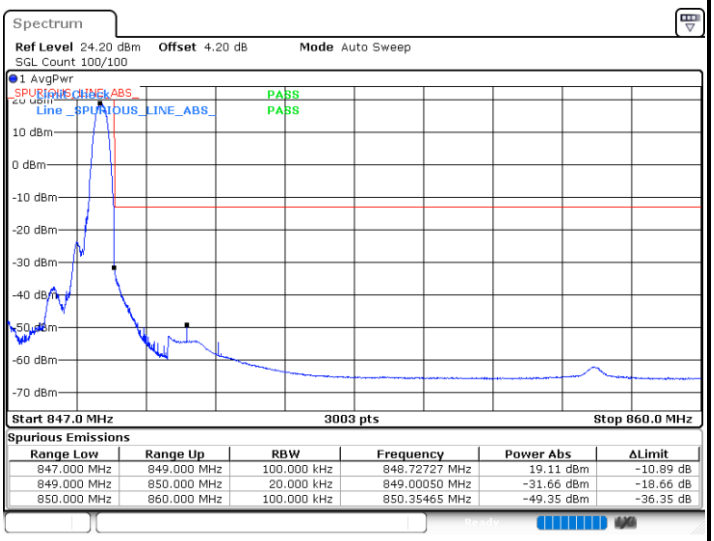
Highest Band Edge / 1 RB



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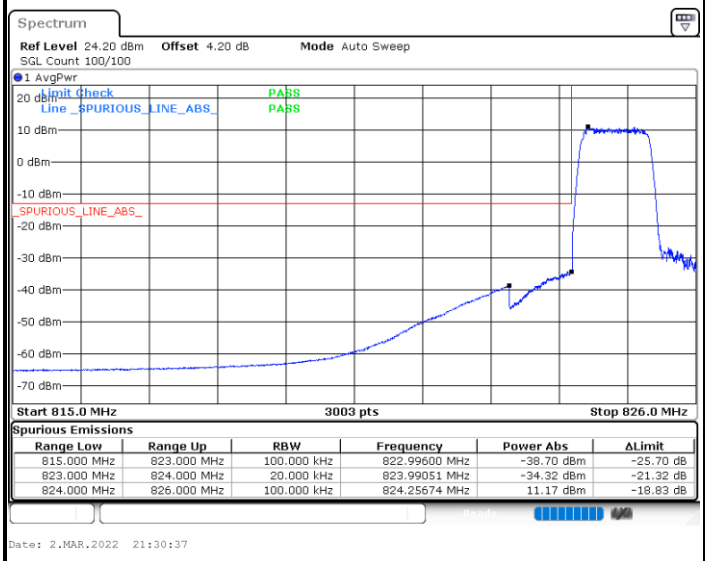
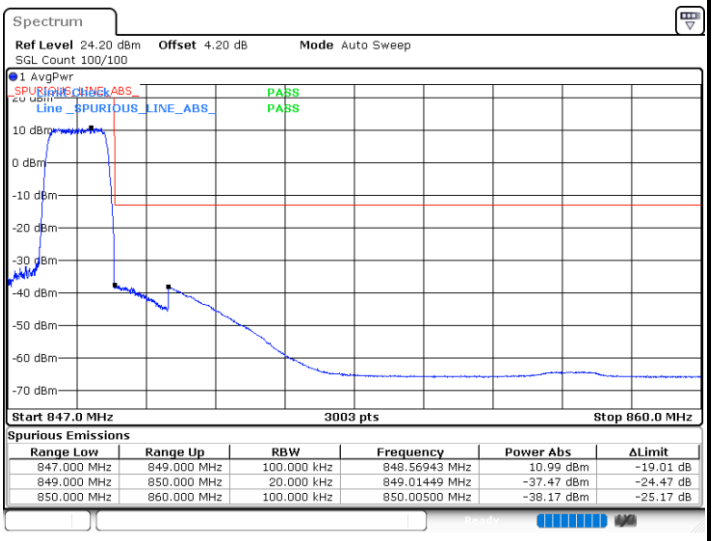
Lowest Band Edge / Full RB

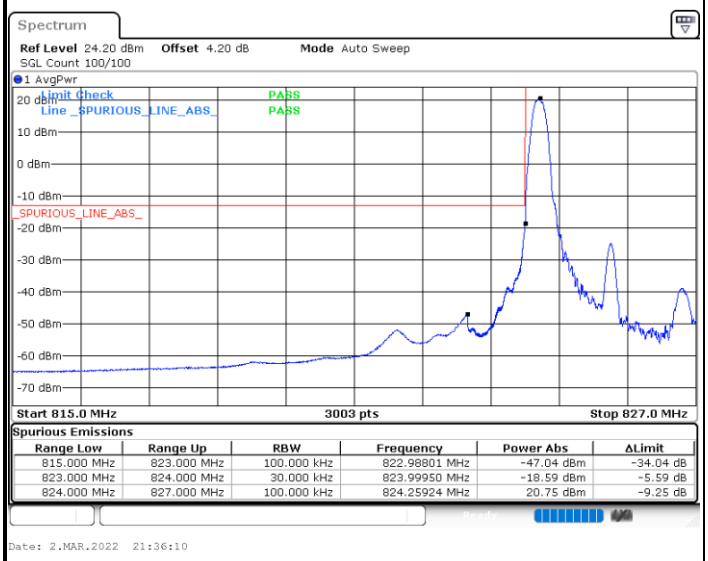
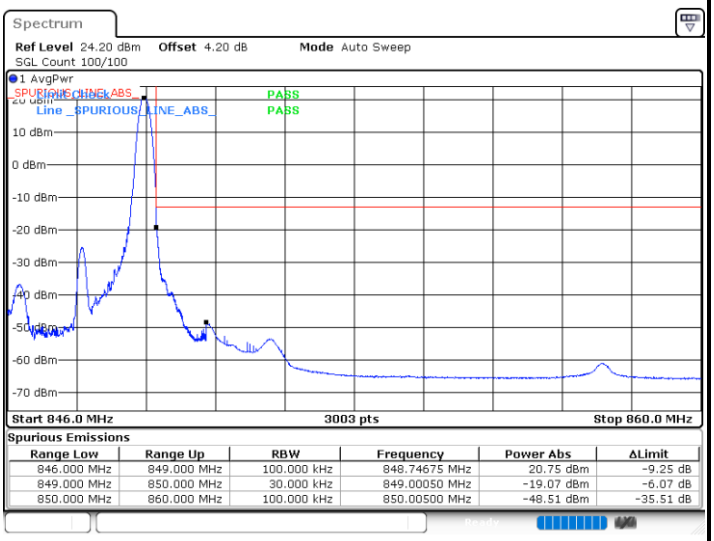
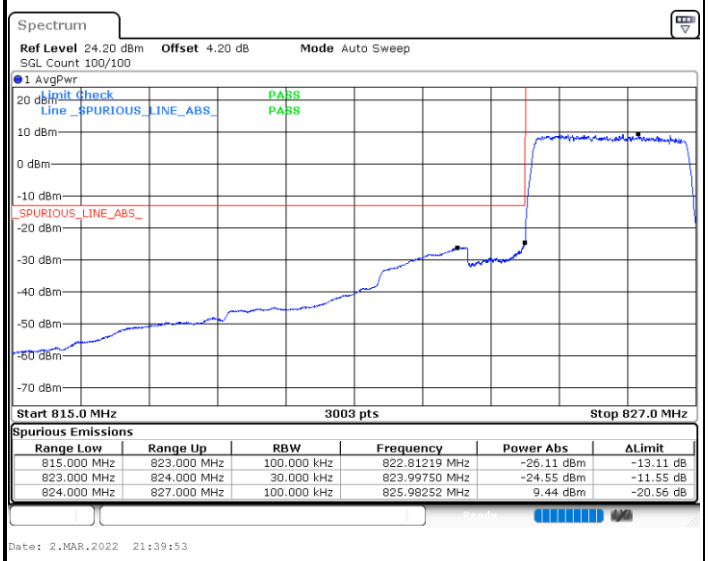
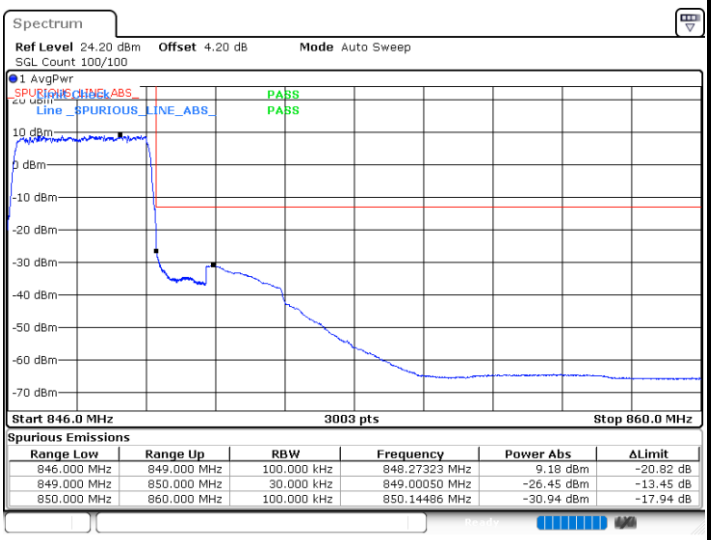


Date: 2.MAR.2022 21:30:37

Highest Band Edge / Full RB

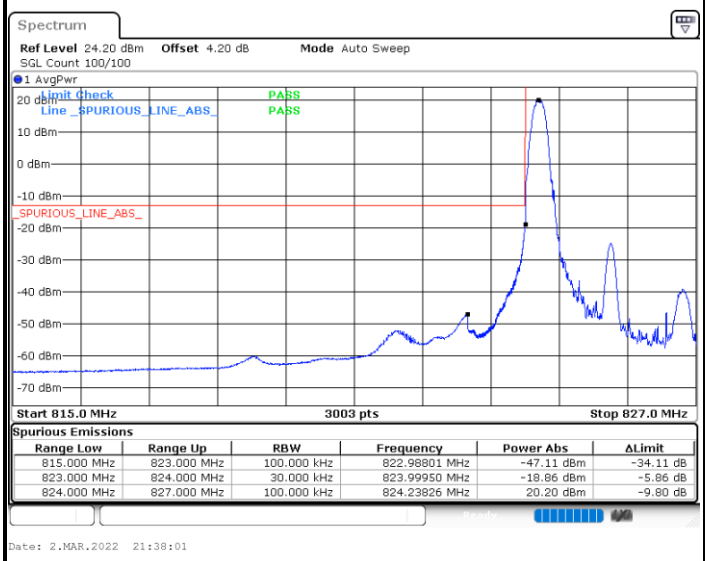


Date: 2.MAR.2022 21:32:27

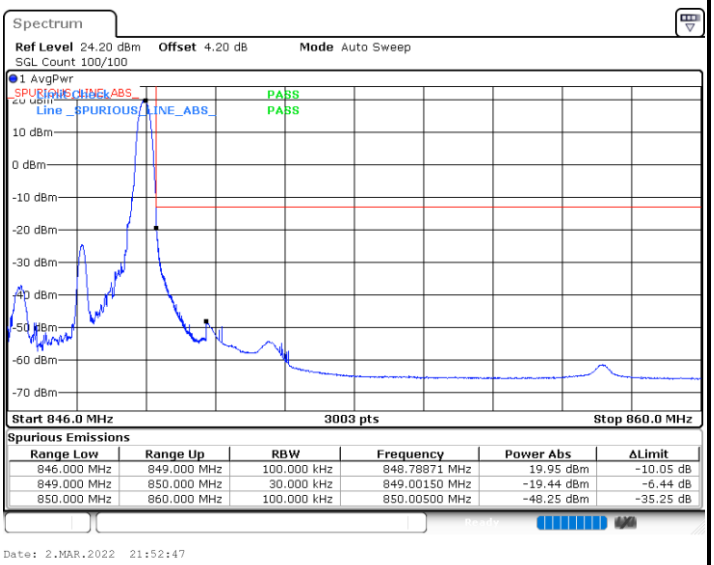
LTE Band 5 / 3MHz / QPSK	
Lowest Band Edge / 1RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

LTE Band 5 / 3MHz / 16QAM

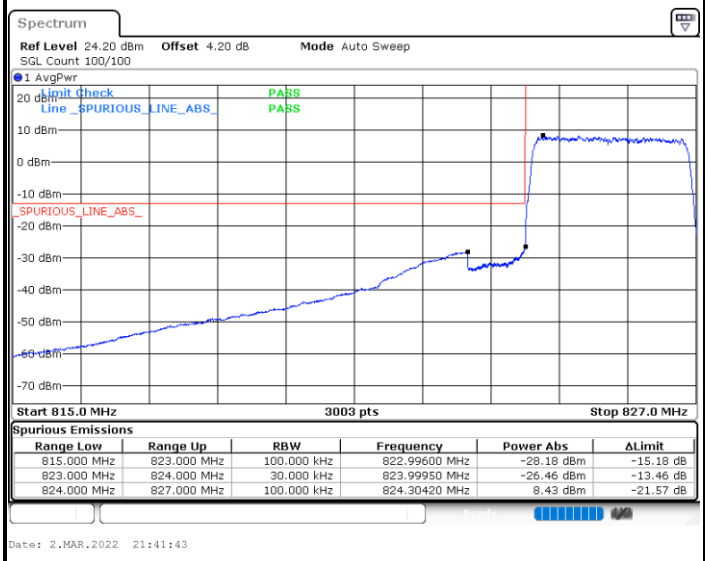
Lowest Band Edge / 1 RB



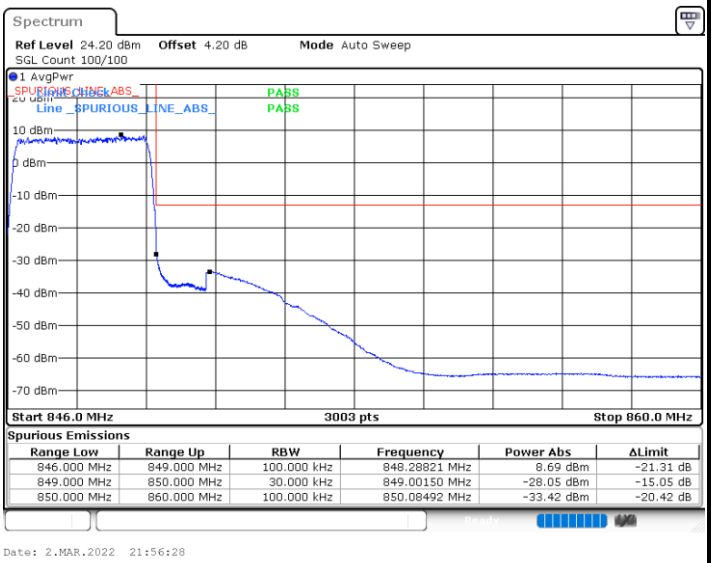
Highest Band Edge /1 RB



Lowest Band Edge / Full RB

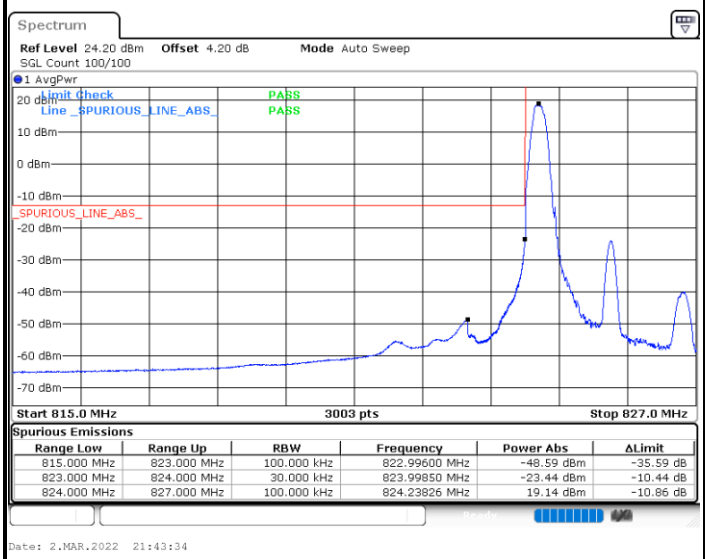


Highest Band Edge / Full RB

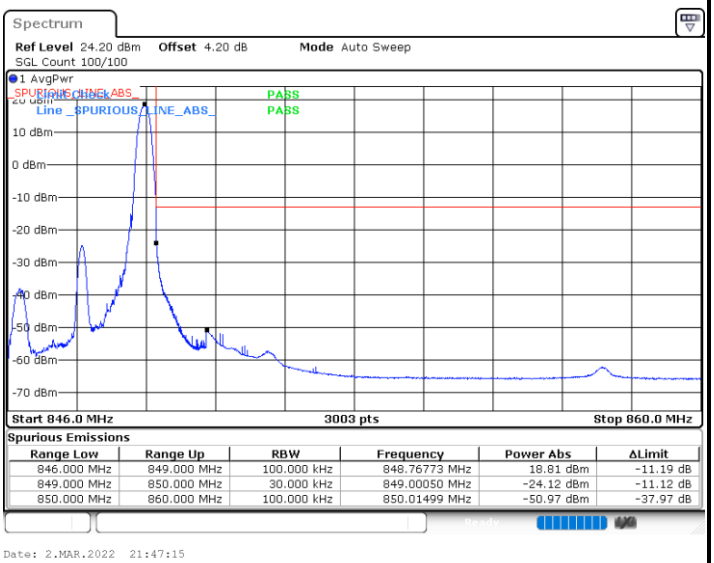


LTE Band 5 / 3MHz / 64QAM

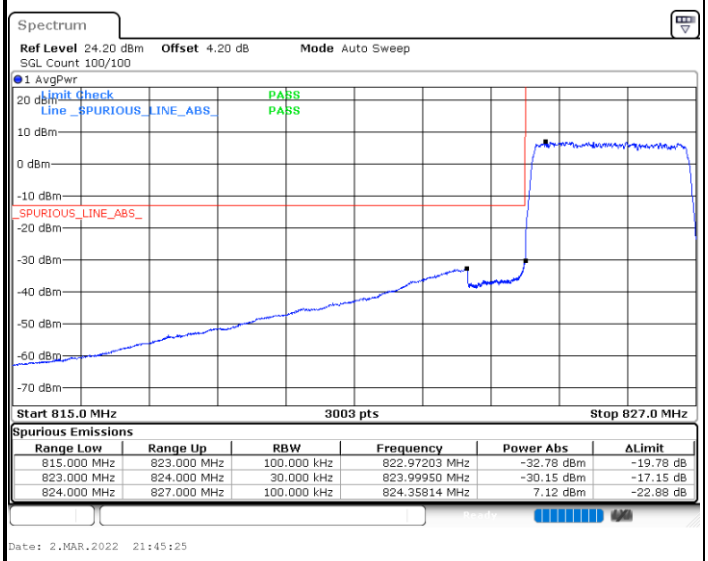
Lowest Band Edge / 1 RB



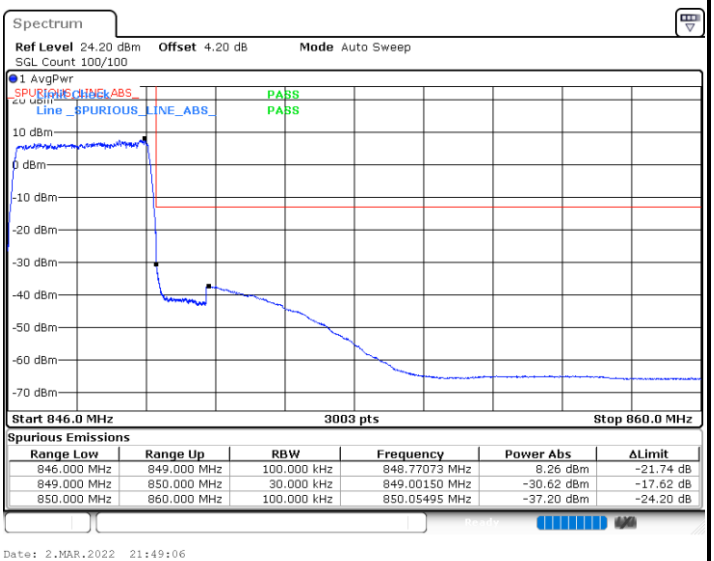
Highest Band Edge /1 RB



Lowest Band Edge / Full RB

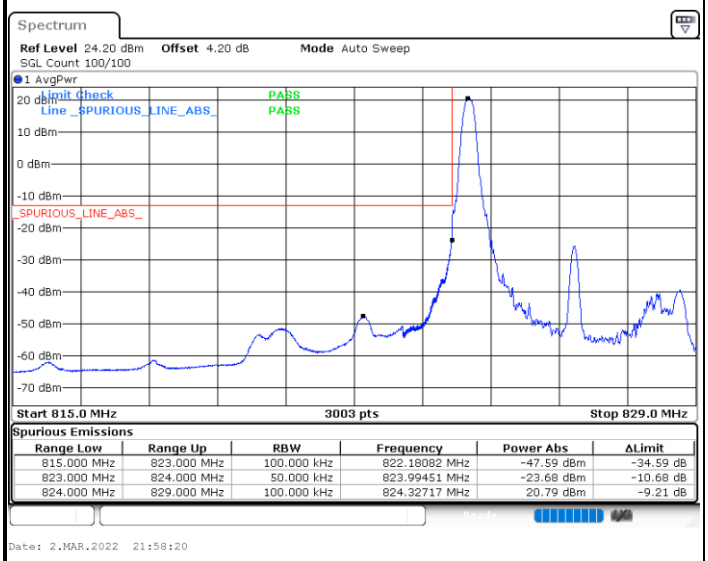


Highest Band Edge / Full RB



LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1 RB

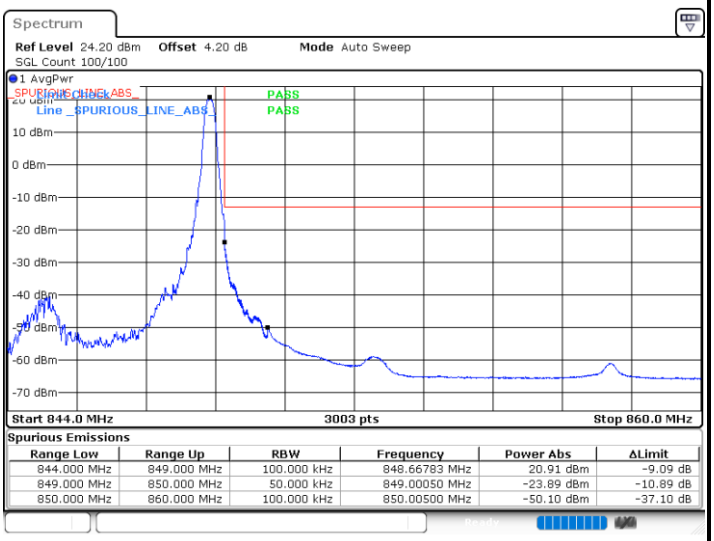


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.18082 MHz	-47.59 dBm	-34.59 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99451 MHz	-23.68 dBm	-10.68 dB
824.000 MHz	829.000 MHz	100.000 kHz	824.32717 MHz	20.79 dBm	-9.21 dB

Date: 2.MAR.2022 21:58:20

Highest Band Edge / 1 RB

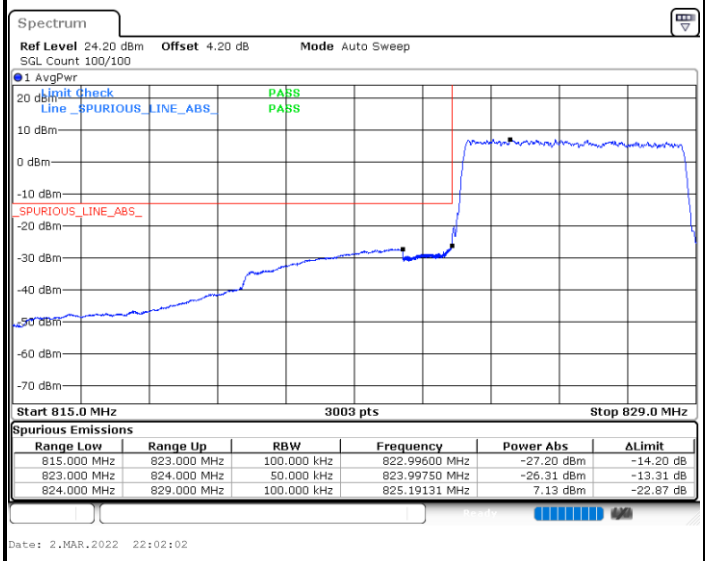


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	848.66783 MHz	20.91 dBm	-9.09 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00050 MHz	-23.89 dBm	-10.89 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-50.10 dBm	-37.10 dB

Date: 2.MAR.2022 22:13:05

Lowest Band Edge / Full RB

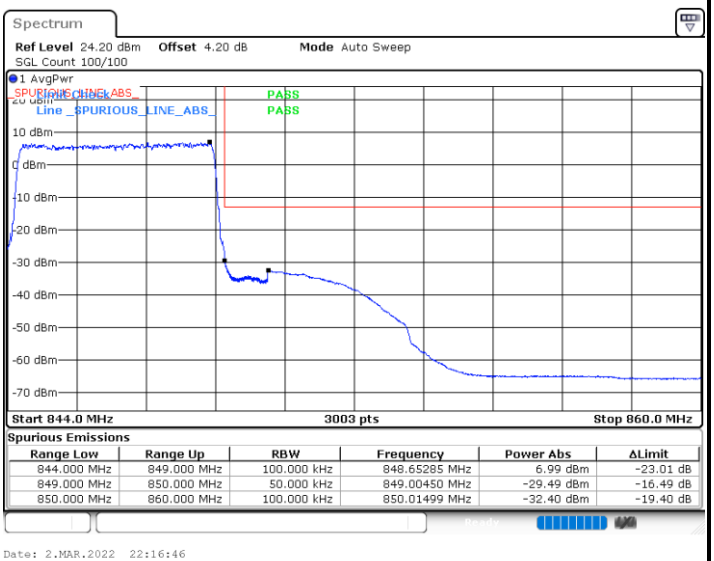


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-27.20 dBm	-14.20 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99750 MHz	-26.31 dBm	-13.31 dB
824.000 MHz	829.000 MHz	100.000 kHz	825.19131 MHz	7.13 dBm	-22.87 dB

Date: 2.MAR.2022 22:02:02

Highest Band Edge / Full RB



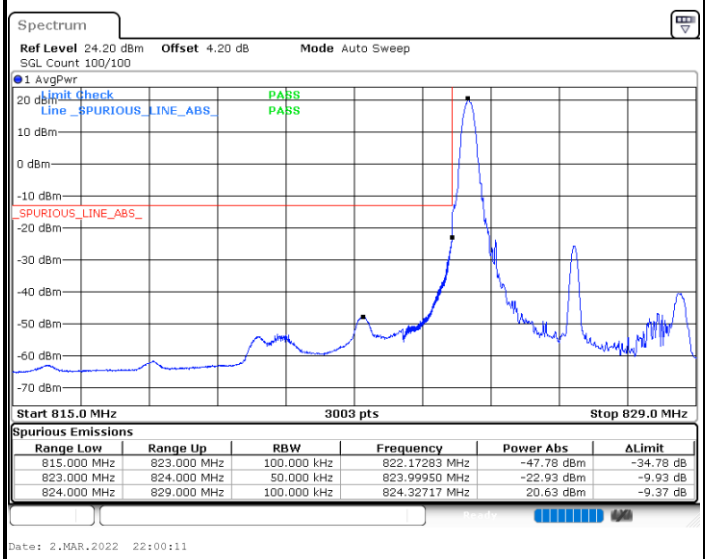
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	848.65285 MHz	6.99 dBm	-23.01 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00450 MHz	-29.49 dBm	-16.49 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.01499 MHz	-32.40 dBm	-19.40 dB

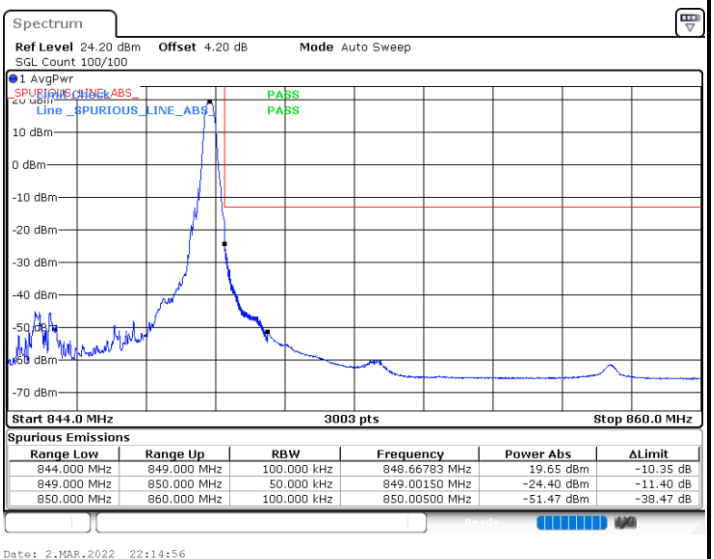
Date: 2.MAR.2022 22:16:46

LTE Band 5 / 5MHz / 16QAM

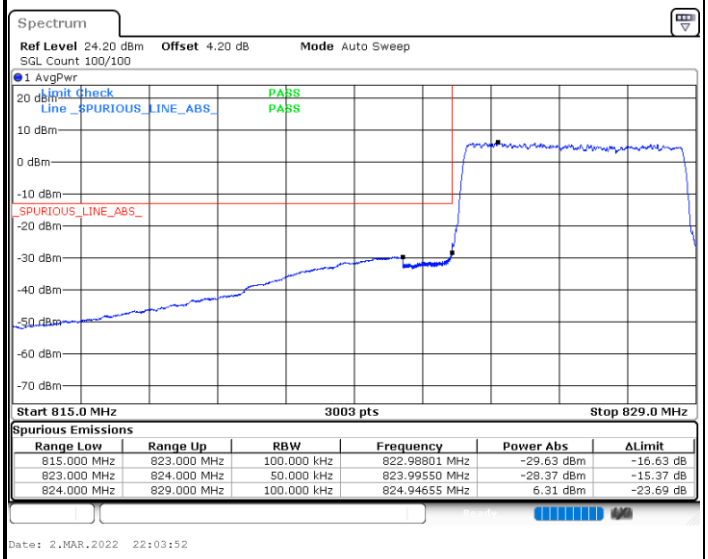
Lowest Band Edge / 1RB



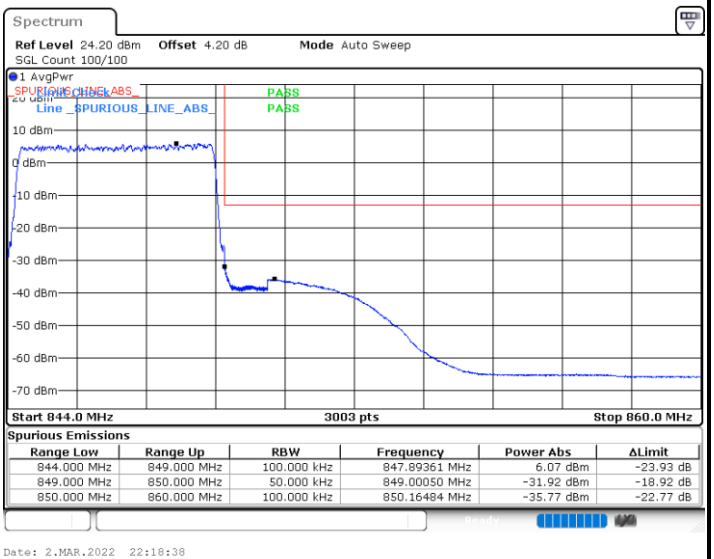
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

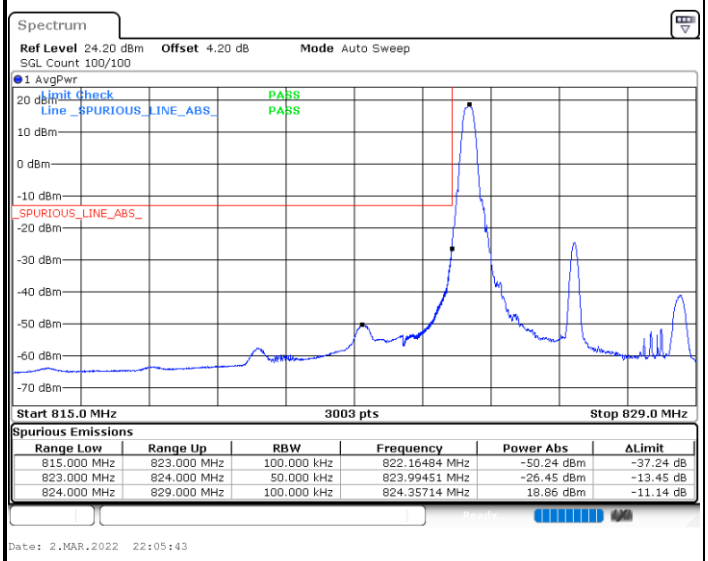


Highest Band Edge / Full RB

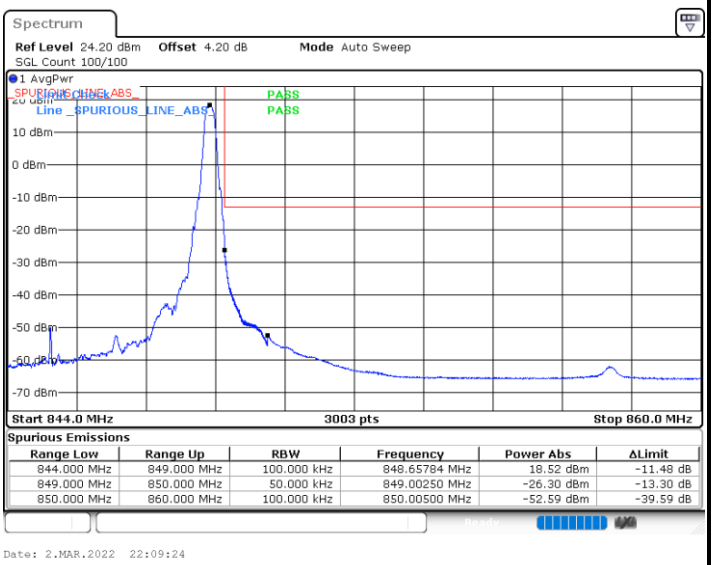


LTE Band 5 / 5MHz / 64QAM

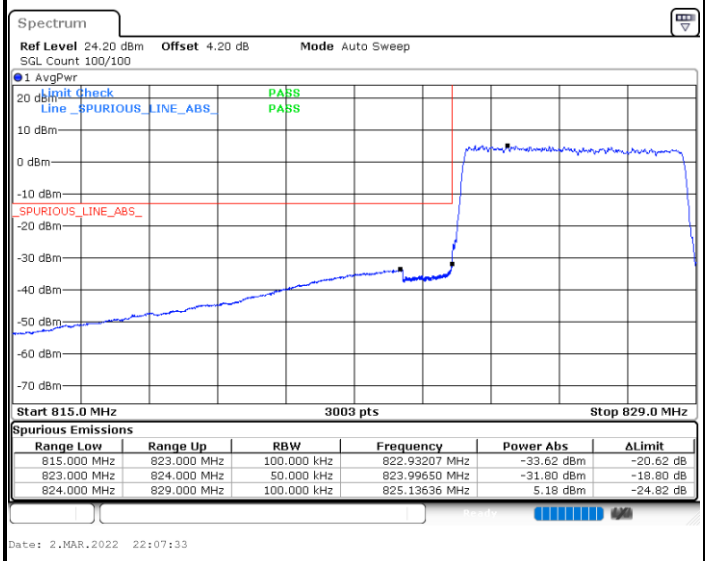
Lowest Band Edge / 1RB



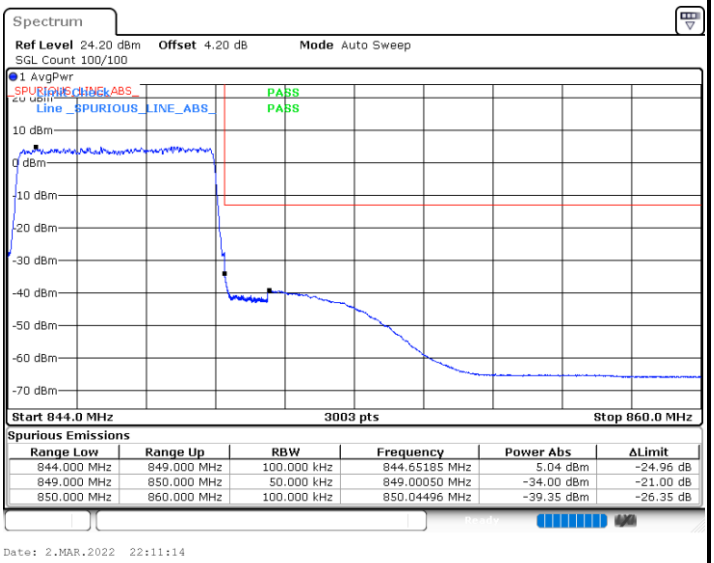
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

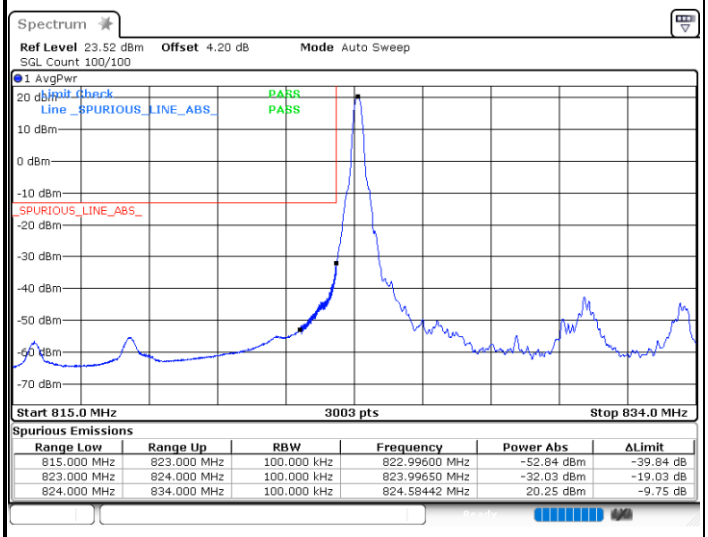


Highest Band Edge / Full RB



LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1 RB

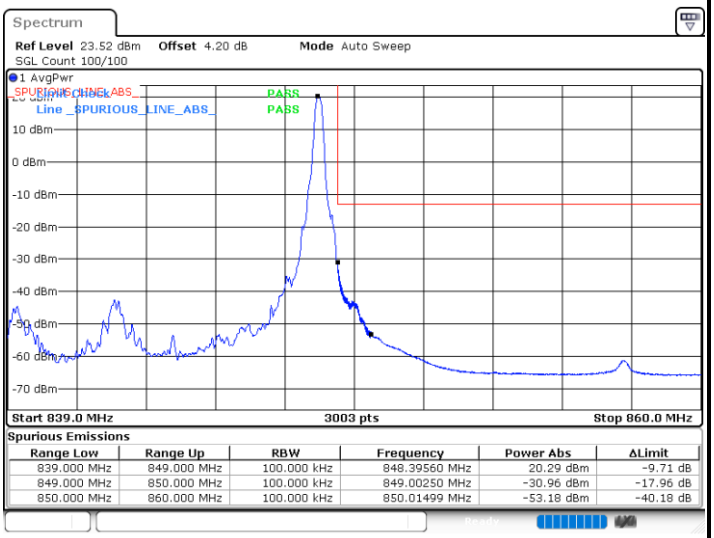


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-52.84 dBm	-39.84 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99650 MHz	-32.03 dBm	-19.03 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.58442 MHz	20.25 dBm	-9.75 dB

Date: 2.MAR.2022 22:36:06

Highest Band Edge / 1 RB

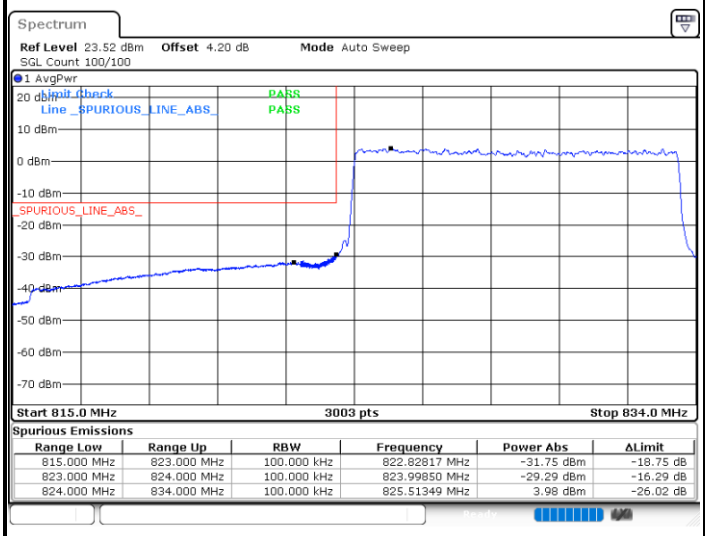


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.39560 MHz	20.29 dBm	-9.71 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00250 MHz	-30.96 dBm	-17.96 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.01499 MHz	-53.18 dBm	-40.18 dB

Date: 2.MAR.2022 22:43:31

Lowest Band Edge / Full RB

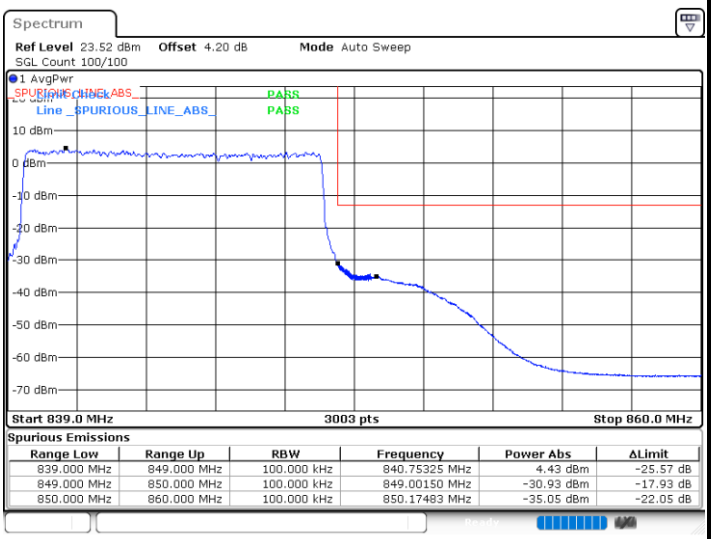


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.82817 MHz	-31.75 dBm	-18.75 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99850 MHz	-29.29 dBm	-16.29 dB
824.000 MHz	834.000 MHz	100.000 kHz	825.51349 MHz	3.98 dBm	-26.02 dB

Date: 2.MAR.2022 22:39:49

Highest Band Edge / Full RB



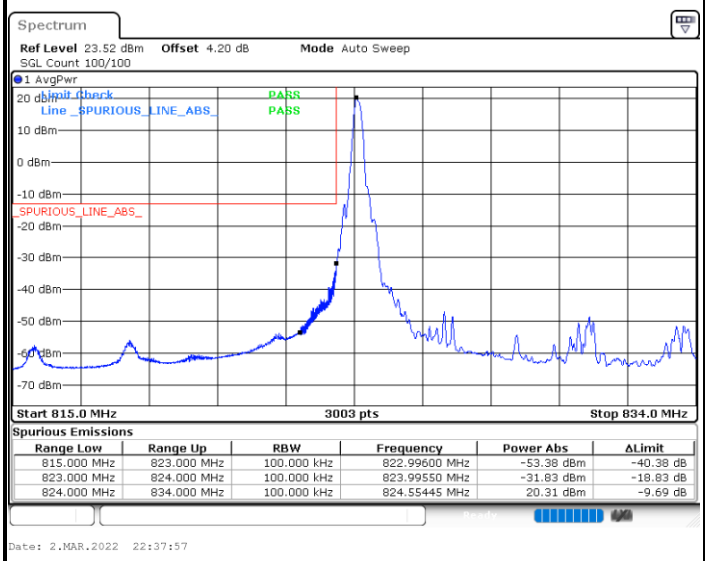
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	840.75325 MHz	4.43 dBm	-25.57 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00150 MHz	-30.93 dBm	-17.93 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.17483 MHz	-35.05 dBm	-22.05 dB

Date: 2.MAR.2022 22:47:13

LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

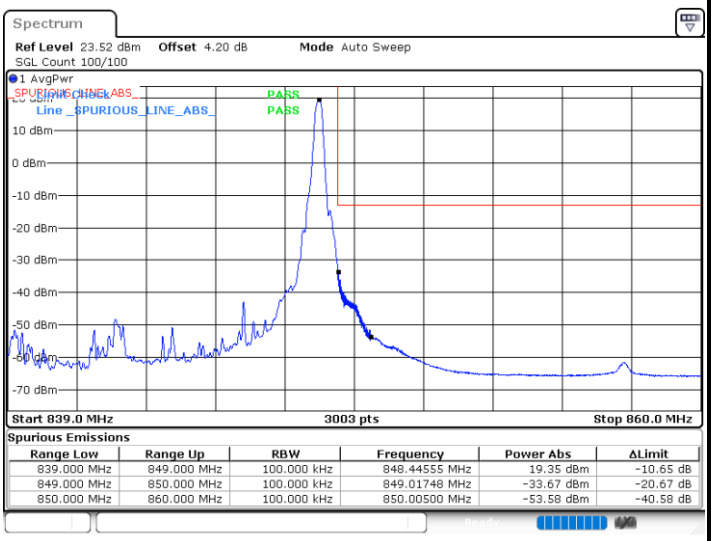


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-53.38 dBm	-40.38 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99550 MHz	-31.83 dBm	-18.83 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.55445 MHz	20.31 dBm	-9.69 dB

Date: 2.MAR.2022 22:37:57

Highest Band Edge / 1 RB

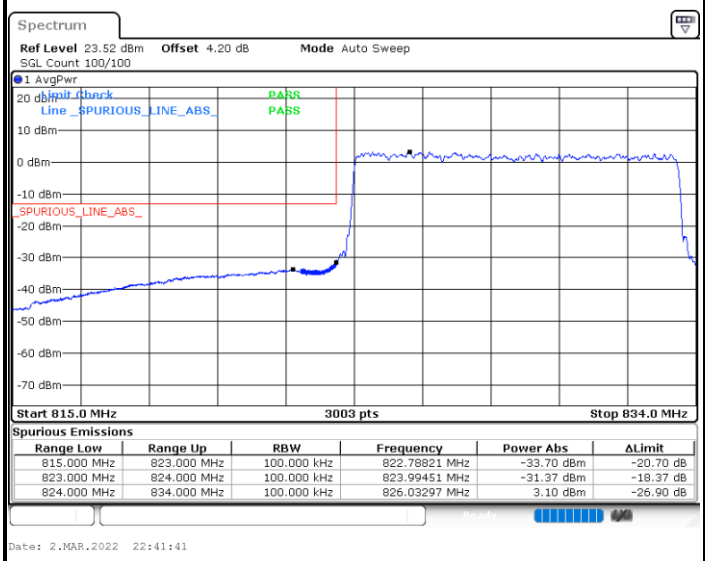


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.44555 MHz	19.35 dBm	-10.65 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.01748 MHz	-33.67 dBm	-20.67 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-53.58 dBm	-40.58 dB

Date: 2.MAR.2022 22:45:22

Lowest Band Edge / Full RB

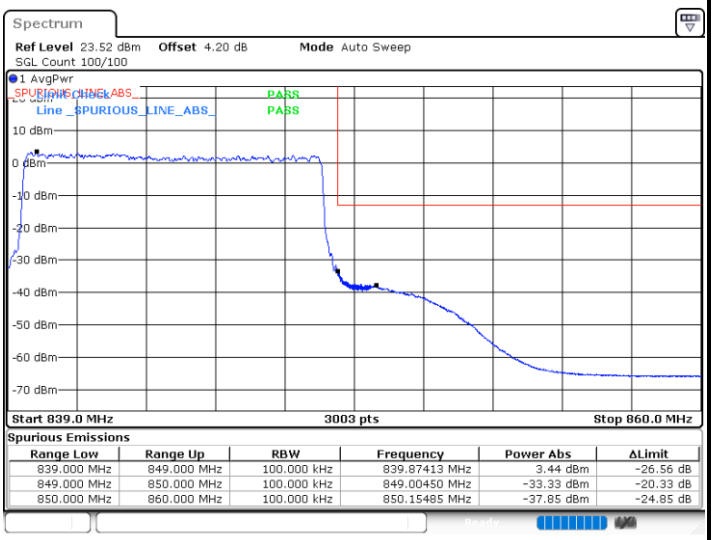


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.78821 MHz	-33.70 dBm	-20.70 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99451 MHz	-31.37 dBm	-18.37 dB
824.000 MHz	834.000 MHz	100.000 kHz	826.03297 MHz	3.10 dBm	-26.90 dB

Date: 2.MAR.2022 22:41:41

Highest Band Edge / Full RB



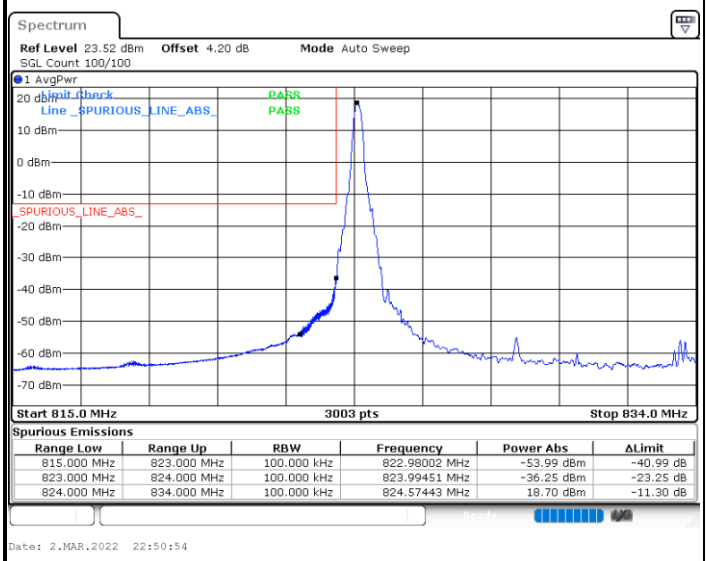
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	839.87413 MHz	3.44 dBm	-26.56 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00450 MHz	-33.33 dBm	-20.33 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.15485 MHz	-37.85 dBm	-24.85 dB

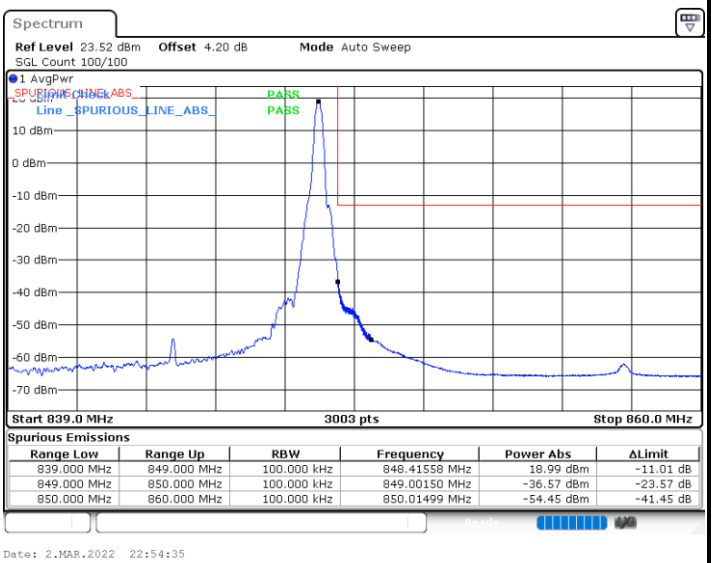
Date: 2.MAR.2022 22:49:03

LTE Band 5 / 10MHz / 64QAM

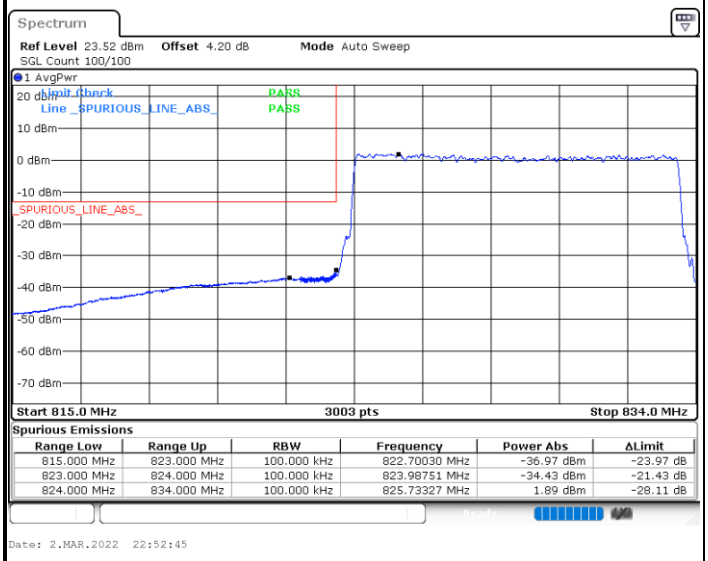
Lowest Band Edge / 1 RB



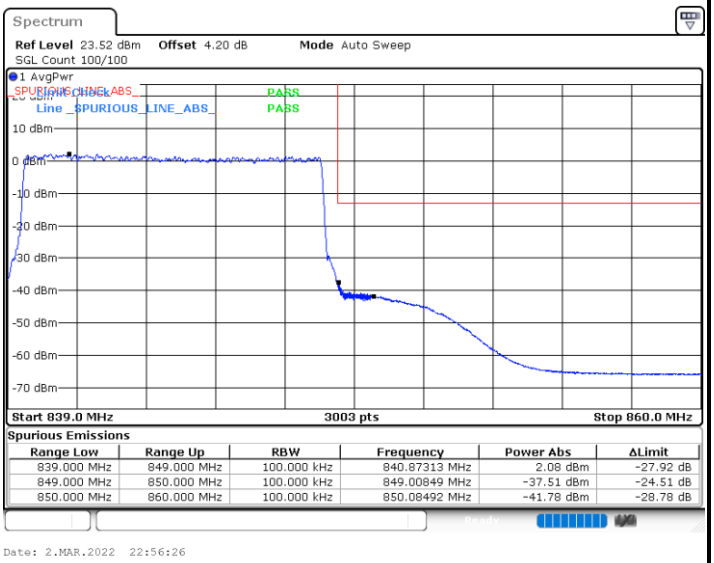
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



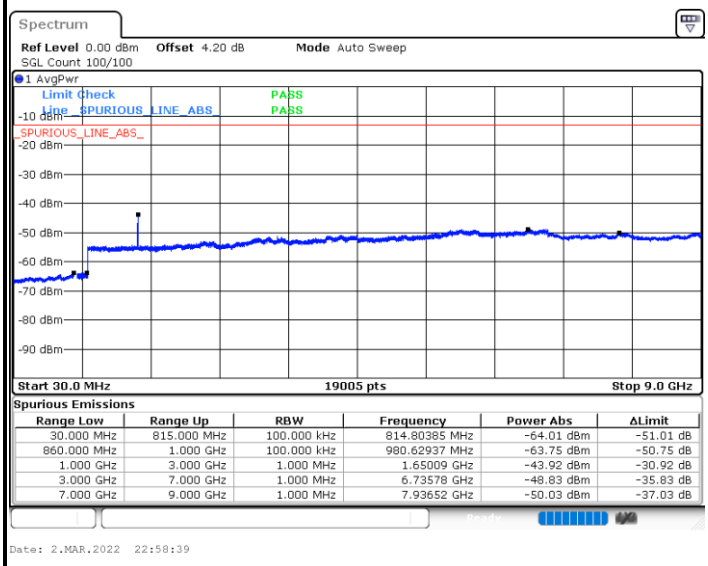
Highest Band Edge / Full RB



Conducted Spurious Emission

LTE Band 5 / 1.4MHz

Lowest Channel / QPSK

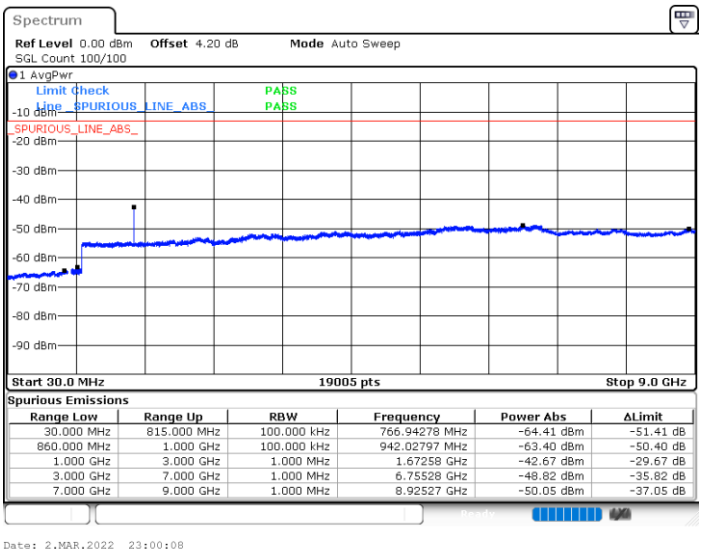


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	814.80385 MHz	-64.01 dBm	-51.01 dB
860.000 MHz	1.000 GHz	100.000 kHz	980.62937 MHz	-63.75 dBm	-50.75 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.65009 GHz	-43.92 dBm	-30.92 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.73578 GHz	-48.83 dBm	-35.83 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.93652 GHz	-50.03 dBm	-37.03 dB

Date: 2.MAR.2022 22:58:39

Middle Channel / QPSK

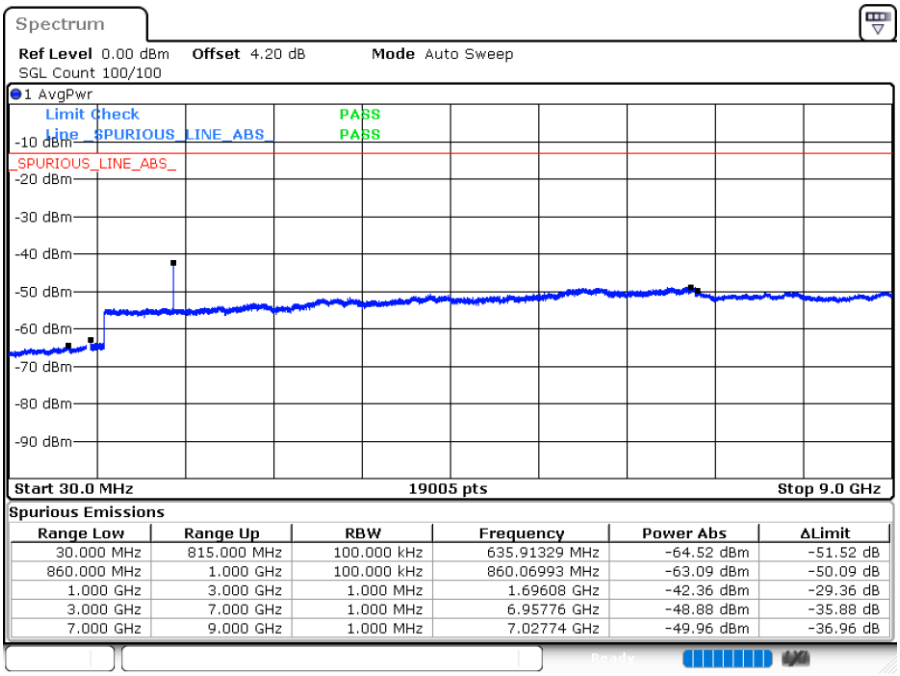


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	766.94278 MHz	-64.41 dBm	-51.41 dB
860.000 MHz	1.000 GHz	100.000 kHz	942.02797 MHz	-63.40 dBm	-50.40 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.67258 GHz	-42.67 dBm	-29.67 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.75528 GHz	-48.82 dBm	-35.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92527 GHz	-50.05 dBm	-37.05 dB

Date: 2.MAR.2022 23:00:08

Highest Channel / QPSK



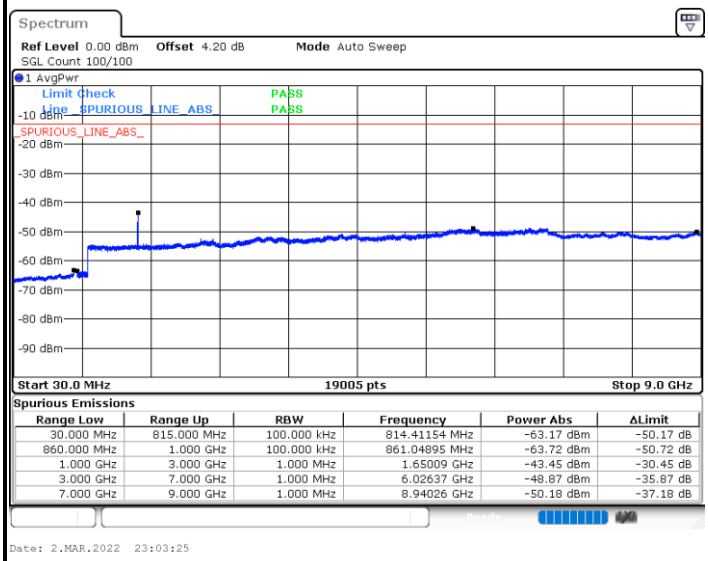
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	635.91329 MHz	-64.52 dBm	-51.52 dB
860.000 MHz	1.000 GHz	100.000 kHz	860.06993 MHz	-63.09 dBm	-50.09 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.69608 GHz	-42.36 dBm	-29.36 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95776 GHz	-48.88 dBm	-35.88 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.02774 GHz	-49.96 dBm	-36.96 dB

Date: 2.MAR.2022 23:02:03

LTE Band 5 / 3MHz

Lowest Channel / QPSK

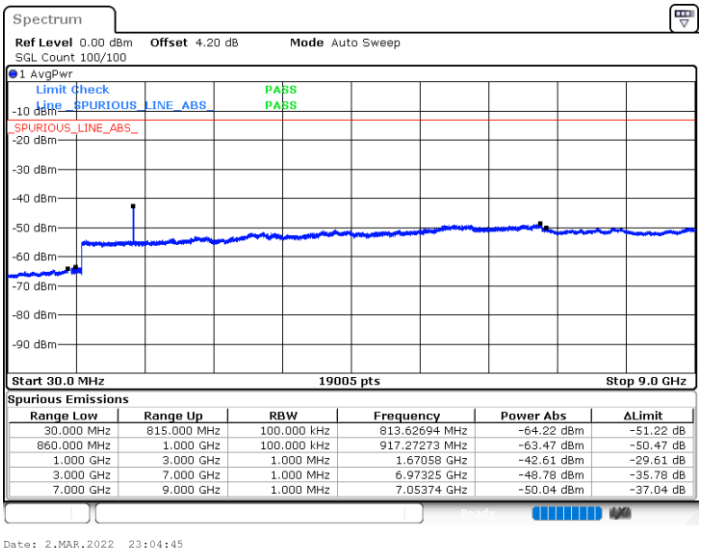


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	814.41154 MHz	-63.17 dBm	-50.17 dB
860.000 MHz	1.000 GHz	100.000 kHz	861.04895 MHz	-63.72 dBm	-50.72 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.65009 GHz	-43.45 dBm	-30.45 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.02637 GHz	-48.87 dBm	-35.87 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.94026 GHz	-50.18 dBm	-37.18 dB

Date: 2.MAR.2022 23:03:25

Middle Channel / QPSK

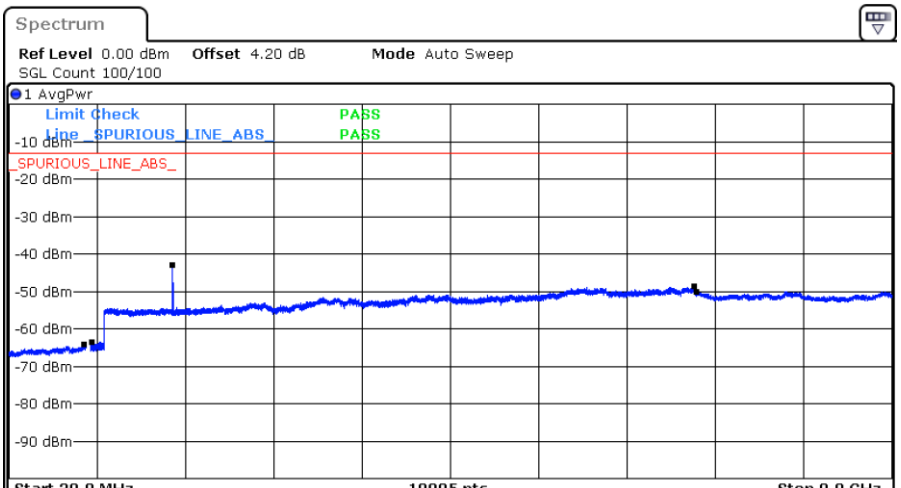


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	813.62694 MHz	-64.22 dBm	-51.22 dB
860.000 MHz	1.000 GHz	100.000 kHz	917.27273 MHz	-63.47 dBm	-50.47 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.67058 GHz	-42.61 dBm	-29.61 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97325 GHz	-48.78 dBm	-35.78 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05374 GHz	-50.04 dBm	-37.04 dB

Date: 2.MAR.2022 23:04:45

Highest Channel / QPSK



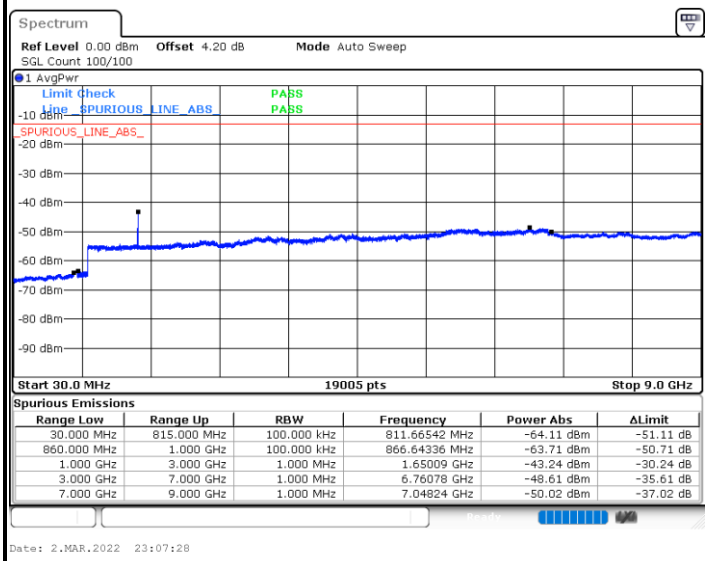
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	791.26562 MHz	-64.31 dBm	-51.31 dB
860.000 MHz	1.000 GHz	100.000 kHz	864.82517 MHz	-63.53 dBm	-50.53 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.69308 GHz	-42.89 dBm	-29.89 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99325 GHz	-48.66 dBm	-35.66 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01225 GHz	-50.18 dBm	-37.18 dB

Date: 2.MAR.2022 23:06:06

LTE Band 5 / 5MHz

Lowest Channel / QPSK

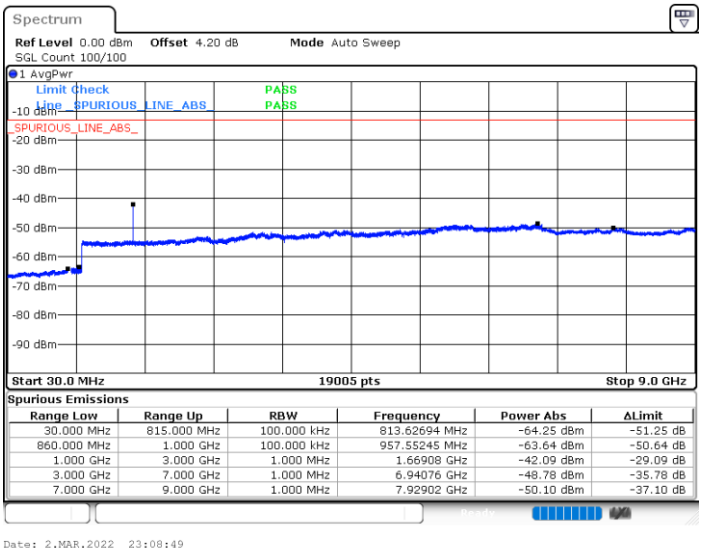


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	811.66542 MHz	-64.11 dBm	-51.11 dB
860.000 MHz	1.000 GHz	100.000 kHz	866.64336 MHz	-63.71 dBm	-50.71 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.65009 GHz	-43.24 dBm	-30.24 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.76078 GHz	-48.61 dBm	-35.61 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04824 GHz	-50.02 dBm	-37.02 dB

Date: 2.MAR.2022 23:07:28

Middle Channel / QPSK

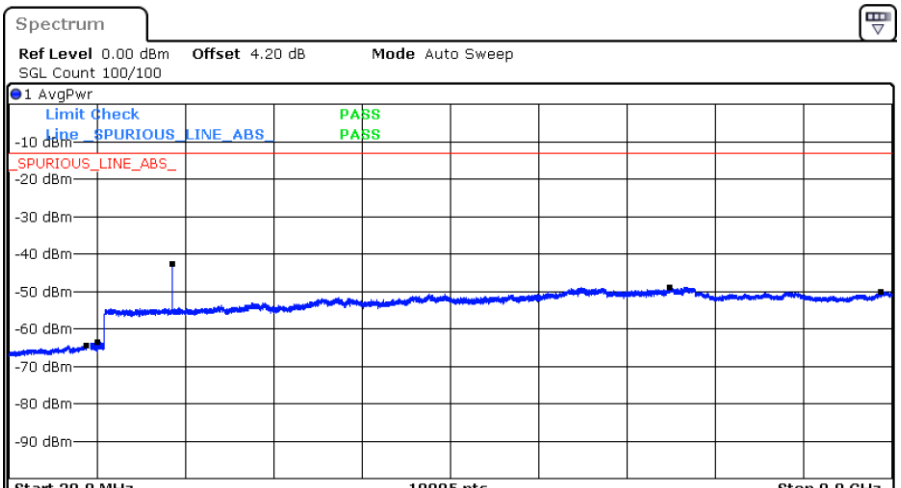


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	813.62694 MHz	-64.25 dBm	-51.25 dB
860.000 MHz	1.000 GHz	100.000 kHz	957.55245 MHz	-63.64 dBm	-50.64 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.66908 GHz	-42.09 dBm	-29.09 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94076 GHz	-48.78 dBm	-35.78 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.92902 GHz	-50.10 dBm	-37.10 dB

Date: 2.MAR.2022 23:08:49

Highest Channel / QPSK



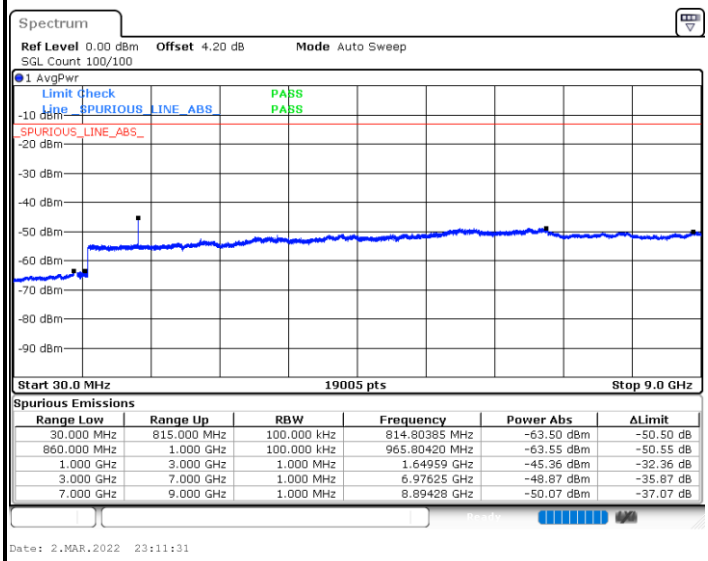
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	811.27311 MHz	-64.52 dBm	-51.52 dB
860.000 MHz	1.000 GHz	100.000 kHz	932.37762 MHz	-63.45 dBm	-50.45 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.68908 GHz	-42.66 dBm	-29.66 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.73578 GHz	-48.86 dBm	-35.86 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89028 GHz	-50.18 dBm	-37.18 dB

Date: 2.MAR.2022 23:10:10

LTE Band 5 / 10MHz

Lowest Channel / QPSK

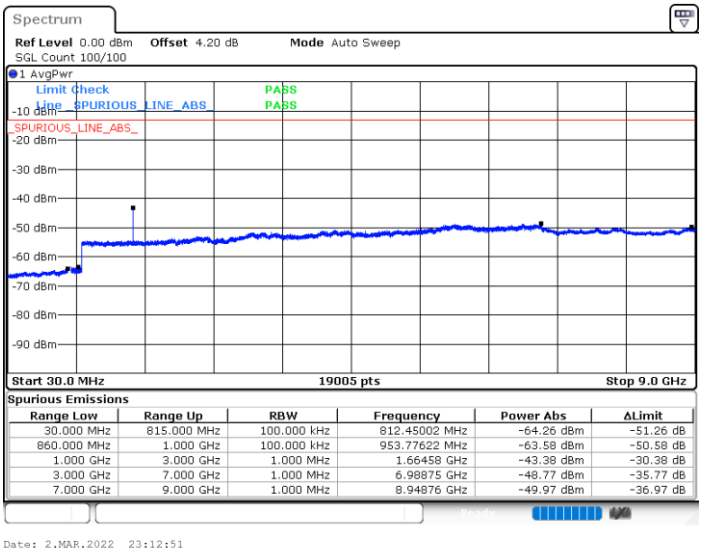


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	814.80385 MHz	-63.50 dBm	-50.50 dB
860.000 MHz	1.000 GHz	100.000 kHz	965.80420 MHz	-63.55 dBm	-50.55 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64959 GHz	-45.36 dBm	-32.36 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97625 GHz	-48.87 dBm	-35.87 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89428 GHz	-50.07 dBm	-37.07 dB

Date: 2.MAR.2022 23:11:31

Middle Channel / QPSK

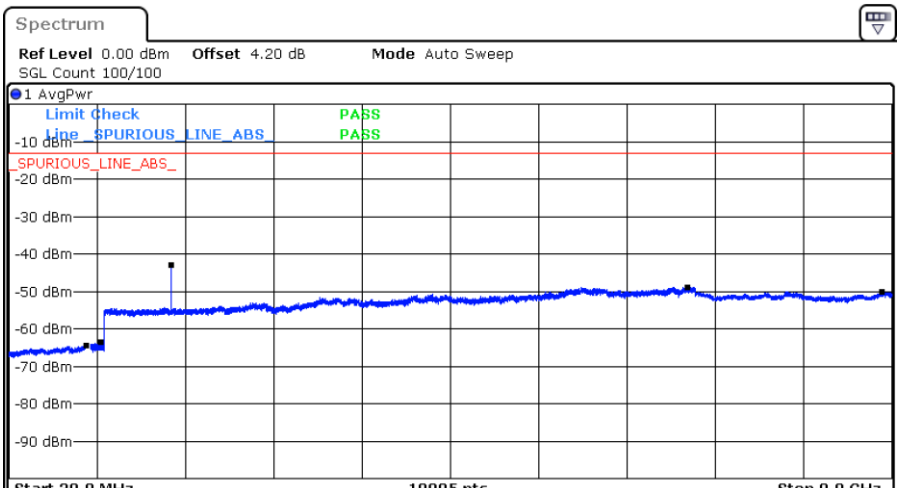


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	812.45002 MHz	-64.26 dBm	-51.26 dB
860.000 MHz	1.000 GHz	100.000 kHz	953.77622 MHz	-63.58 dBm	-50.58 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.66458 GHz	-43.38 dBm	-30.38 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98875 GHz	-48.77 dBm	-35.77 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.94876 GHz	-49.97 dBm	-36.97 dB

Date: 2.MAR.2022 23:12:51

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	812.45002 MHz	-64.51 dBm	-51.51 dB
860.000 MHz	1.000 GHz	100.000 kHz	964.54545 MHz	-63.54 dBm	-50.54 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.67958 GHz	-43.02 dBm	-30.02 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92726 GHz	-48.82 dBm	-35.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89478 GHz	-50.11 dBm	-37.11 dB

Date: 2.MAR.2022 23:14:12

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	0.0012	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0022	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0009	
20	Normal Voltage	0.0025	
20	Battery End Point	0.0021	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.

2. Note: The frequency fundamental emissions stay within the authorized frequency block.

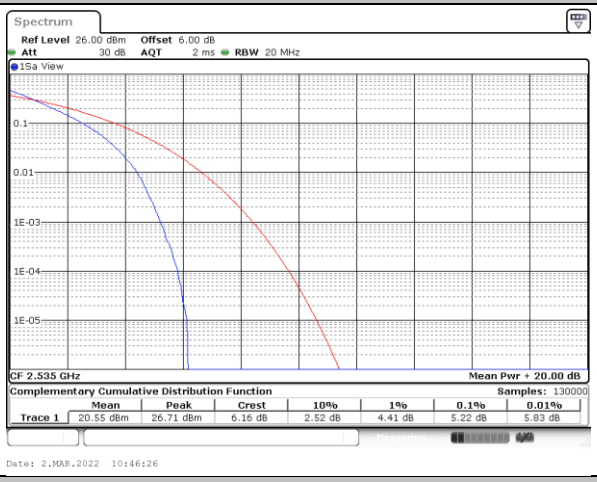
LTE Band 7

Peak-to-Average Ratio

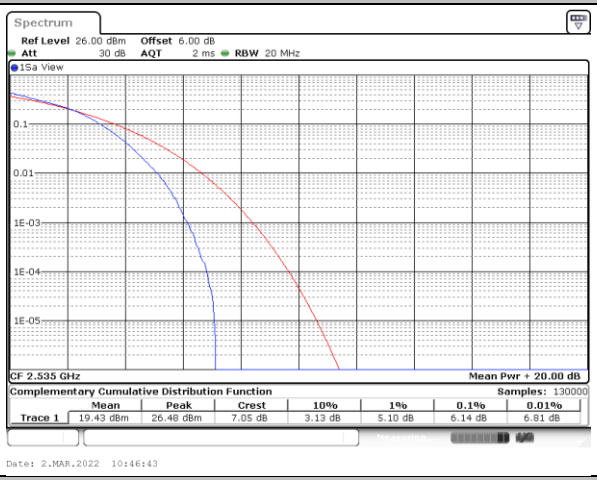
Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.22	6.14	6.12	PASS

LTE Band 7 / 20MHz

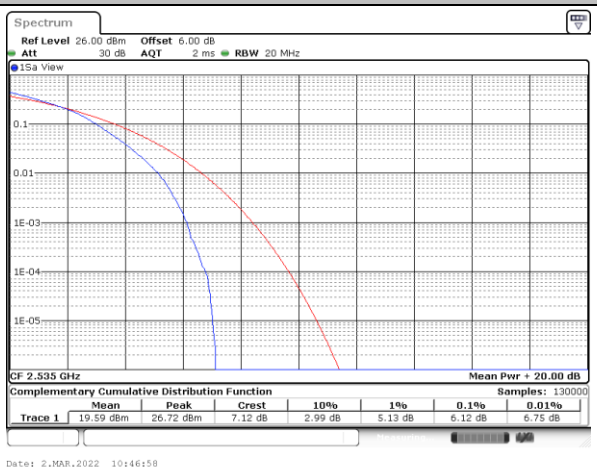
Middle Channel / Full RB/ QPSK



Middle Channel / Full RB/ 16QAM



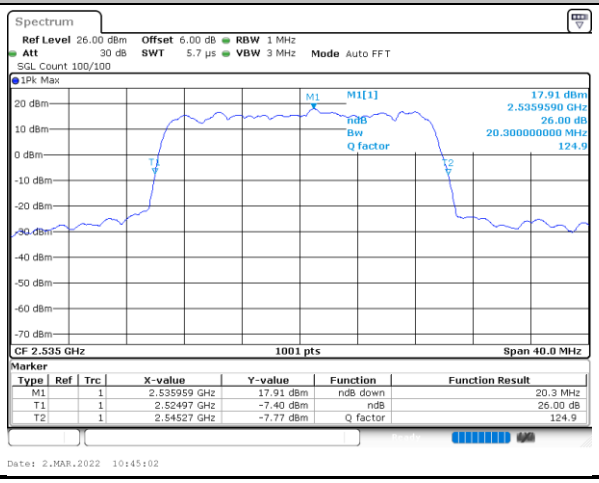
Middle Channel / Full RB/ 64QAM

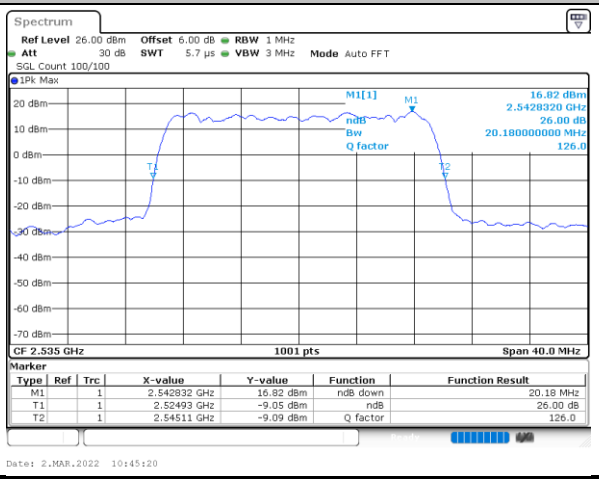


26dB Bandwidth

Mode	LTE Band 7 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.30	20.18

LTE Band 7	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM



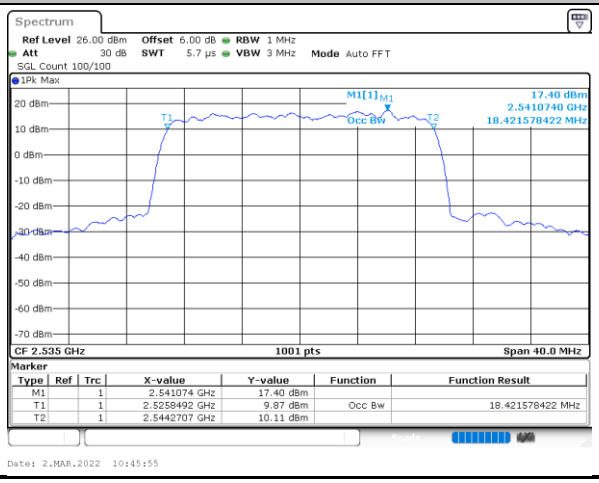


Occupied Bandwidth

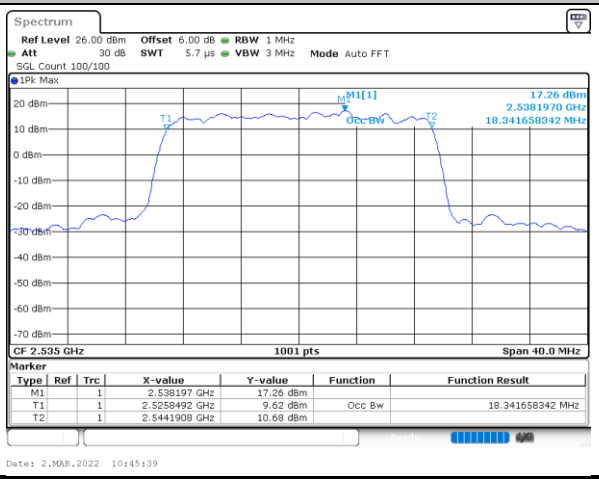
Mode	LTE Band 7 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.42	18.34

LTE Band 7

Middle Channel / 20MHz / QPSK



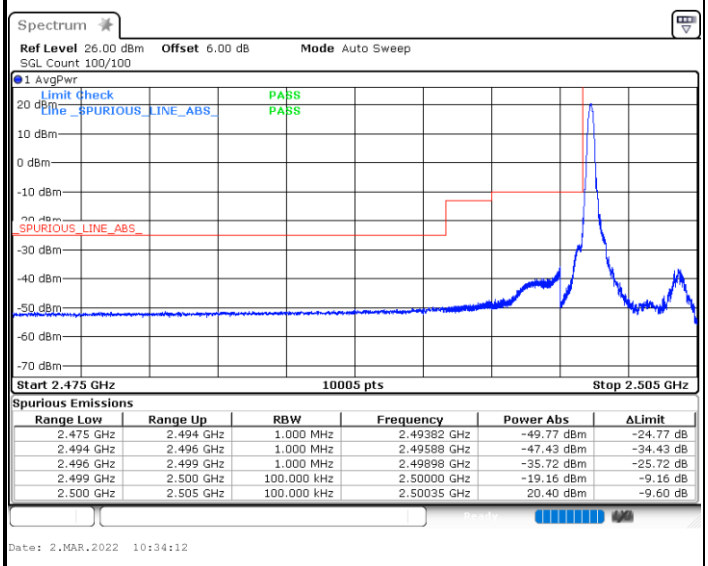
Middle Channel / 20MHz / 16QAM



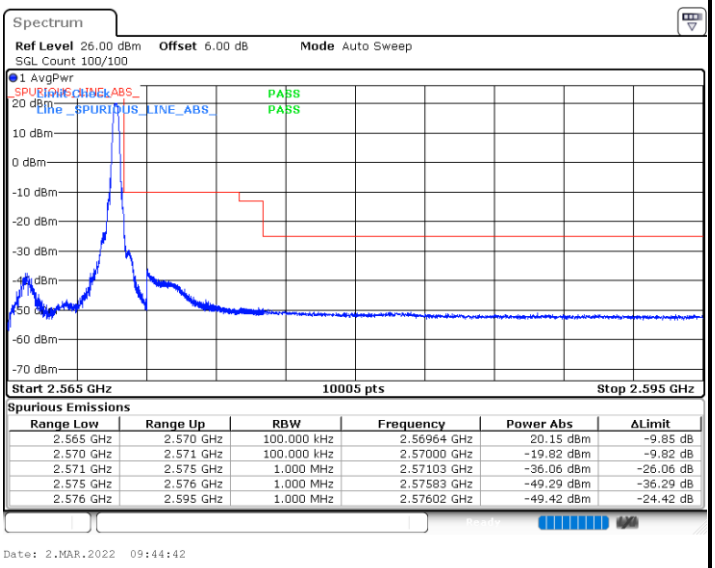
Conducted Band Edge

LTE Band 7 / 5MHz / QPSK

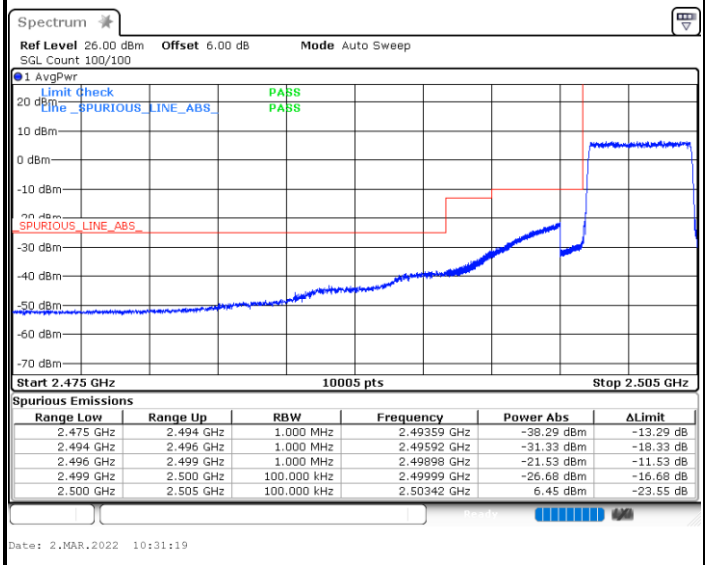
Lowest Band Edge / 1 RB



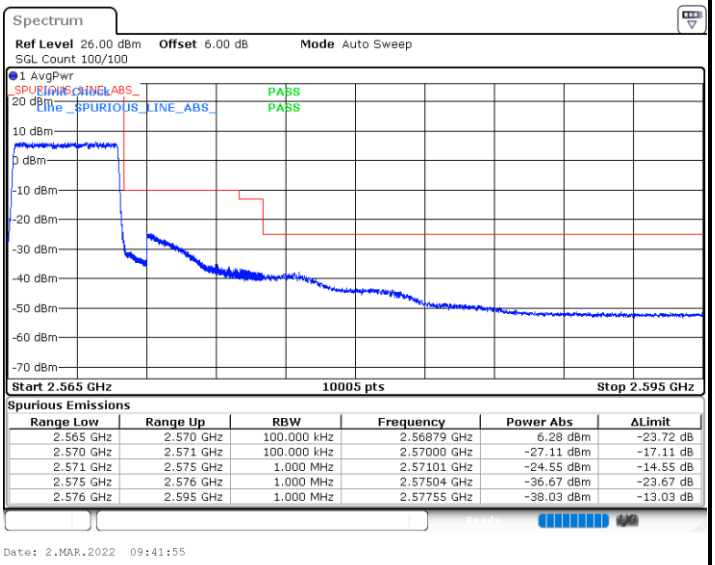
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

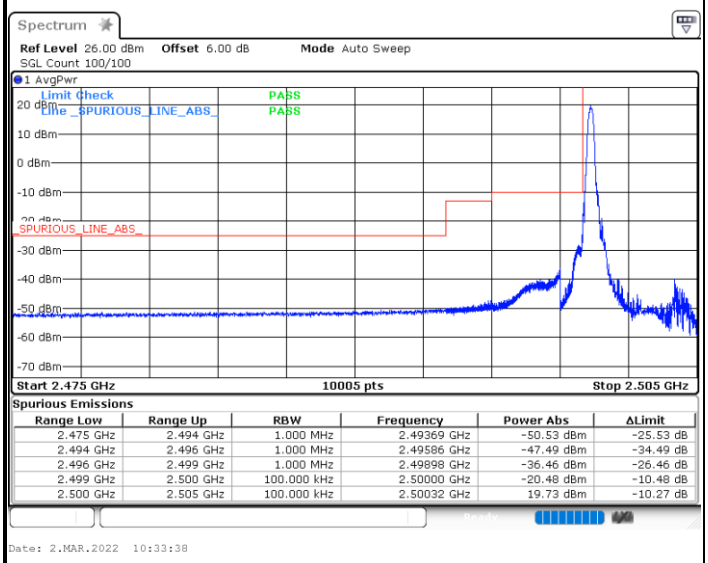


Highest Band Edge / Full RB



LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB

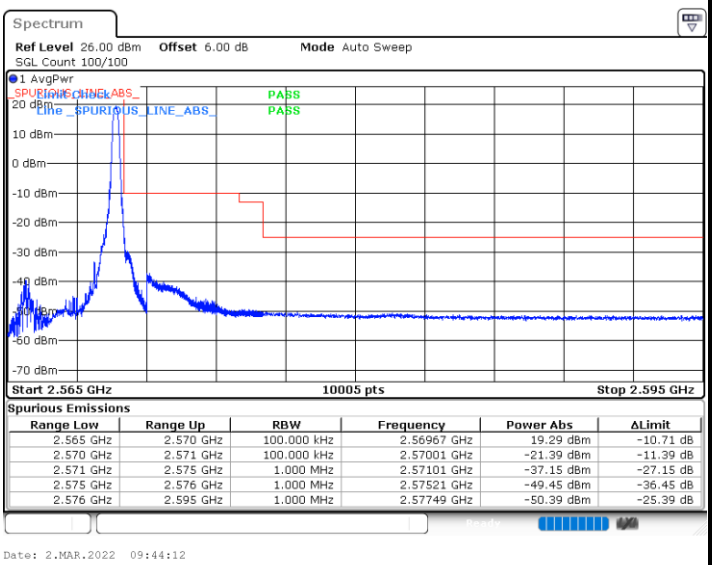


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49369 GHz	-50.53 dBm	-25.53 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49586 GHz	-47.49 dBm	-34.49 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49898 GHz	-36.46 dBm	-26.46 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-20.48 dBm	-10.48 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50032 GHz	19.73 dBm	-10.27 dB

Date: 2.MAR.2022 10:33:38

Highest Band Edge / 1 RB

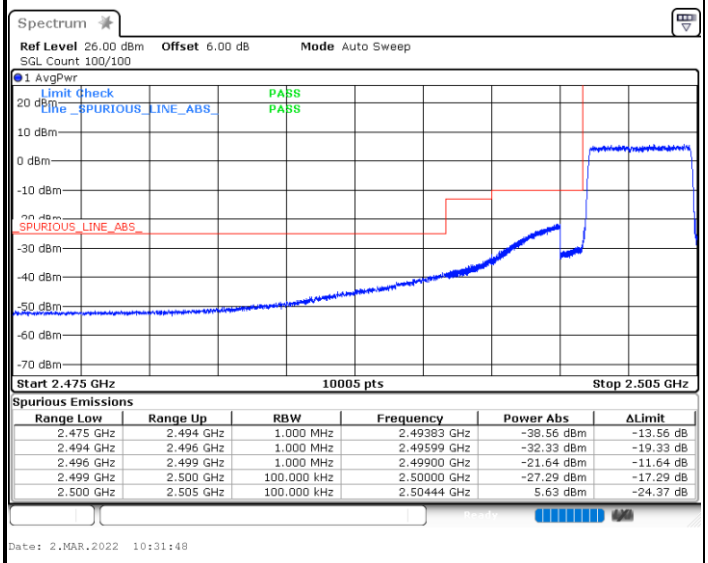


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56967 GHz	19.29 dBm	-10.71 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-21.39 dBm	-11.39 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-37.15 dBm	-27.15 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57521 GHz	-49.45 dBm	-36.45 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57749 GHz	-50.39 dBm	-25.39 dB

Date: 2.MAR.2022 09:44:12

Lowest Band Edge / Full RB

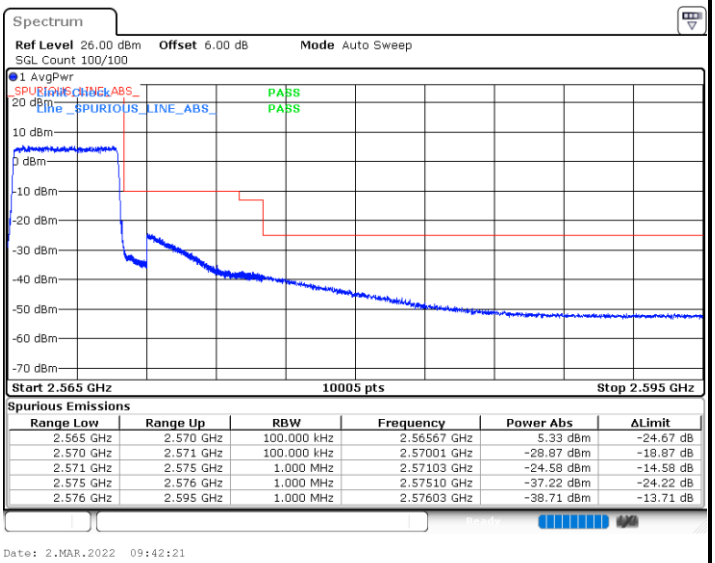


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49383 GHz	-38.56 dBm	-13.56 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49599 GHz	-32.33 dBm	-19.33 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49900 GHz	-21.64 dBm	-11.64 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-27.29 dBm	-17.29 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50444 GHz	5.63 dBm	-24.37 dB

Date: 2.MAR.2022 10:31:48

Highest Band Edge / Full RB



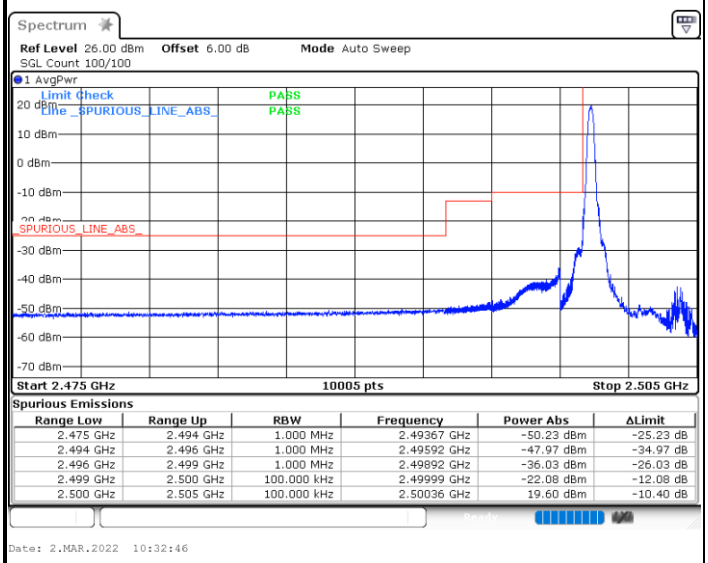
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56567 GHz	5.33 dBm	-24.67 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-28.87 dBm	-18.87 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57103 GHz	-24.58 dBm	-14.58 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57510 GHz	-37.22 dBm	-24.22 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57603 GHz	-38.71 dBm	-13.71 dB

Date: 2.MAR.2022 09:42:21

LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB

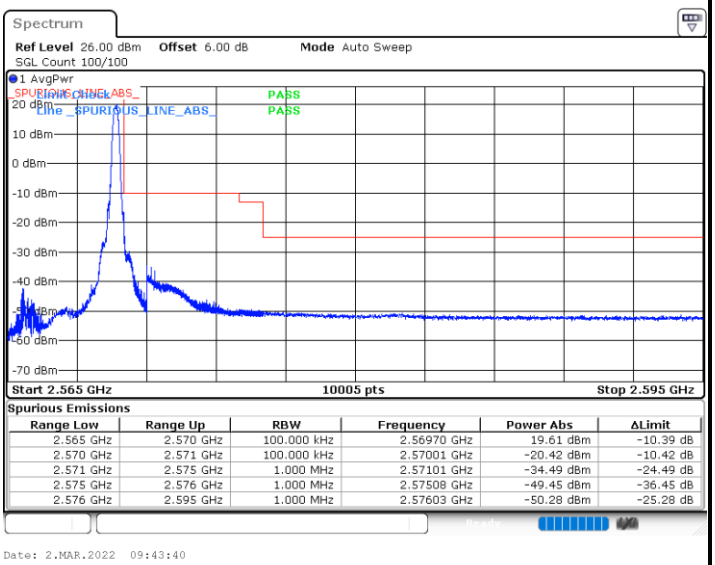


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49367 GHz	-50.23 dBm	-25.23 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49592 GHz	-47.97 dBm	-34.97 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49892 GHz	-36.03 dBm	-26.03 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-22.08 dBm	-12.08 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50036 GHz	19.60 dBm	-10.40 dB

Date: 2.MAR.2022 10:32:46

Highest Band Edge / 1 RB

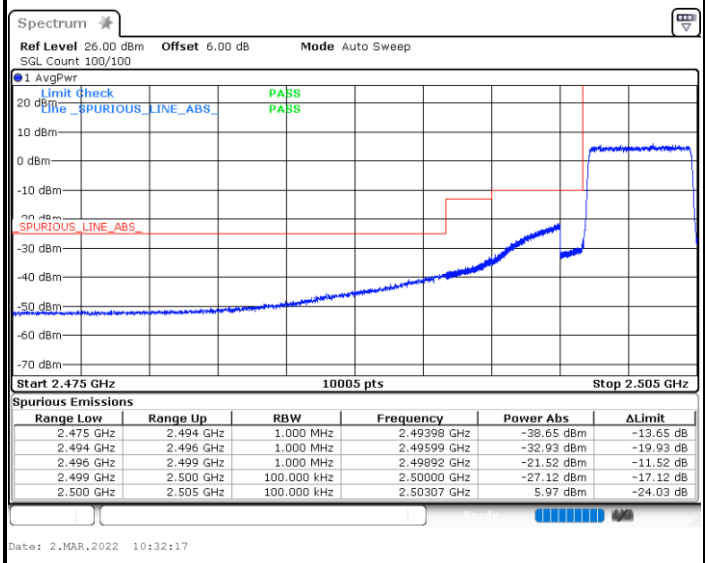


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56970 GHz	19.61 dBm	-10.39 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-20.42 dBm	-10.42 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-34.49 dBm	-24.49 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57508 GHz	-49.45 dBm	-36.45 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57603 GHz	-50.28 dBm	-25.28 dB

Date: 2.MAR.2022 09:43:40

Lowest Band Edge / Full RB

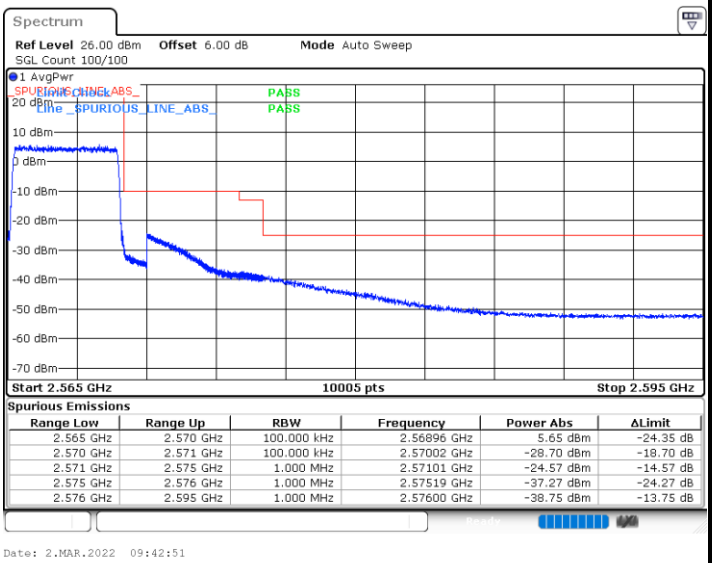


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49398 GHz	-38.65 dBm	-13.65 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49599 GHz	-32.93 dBm	-19.93 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49892 GHz	-21.52 dBm	-11.52 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-27.12 dBm	-17.12 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50307 GHz	5.97 dBm	-24.03 dB

Date: 2.MAR.2022 10:32:17

Highest Band Edge / Full RB



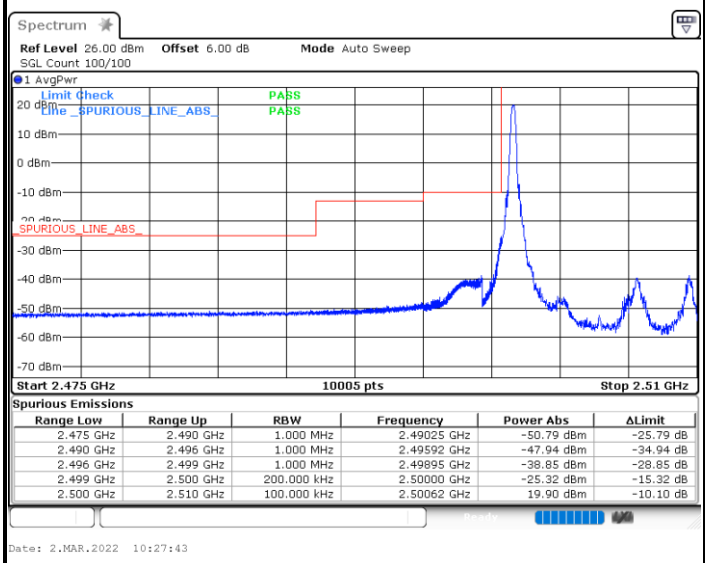
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56896 GHz	5.65 dBm	-24.35 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57002 GHz	-28.70 dBm	-18.70 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-24.57 dBm	-14.57 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57519 GHz	-37.27 dBm	-24.27 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57600 GHz	-38.75 dBm	-13.75 dB

Date: 2.MAR.2022 09:42:51

LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49025 GHz	-50.79 dBm	-25.79 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49592 GHz	-47.94 dBm	-34.94 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49895 GHz	-38.85 dBm	-28.85 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-25.32 dBm	-15.32 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50062 GHz	19.90 dBm	-10.10 dB

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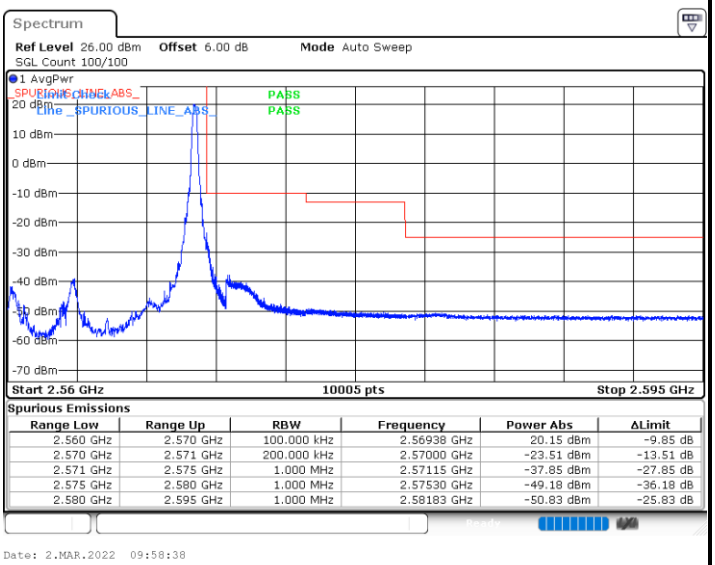
Highest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56938 GHz	20.15 dBm	-9.85 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57000 GHz	-23.51 dBm	-13.51 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57115 GHz	-37.85 dBm	-27.85 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57530 GHz	-49.18 dBm	-36.18 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58183 GHz	-50.83 dBm	-25.83 dB

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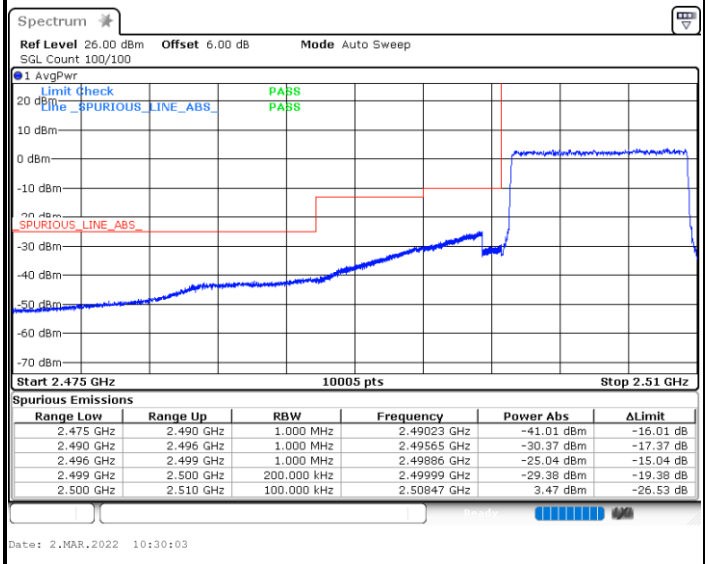
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49023 GHz	-41.01 dBm	-16.01 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49565 GHz	-30.37 dBm	-17.37 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49886 GHz	-25.04 dBm	-15.04 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-29.38 dBm	-19.38 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50847 GHz	3.47 dBm	-26.53 dB

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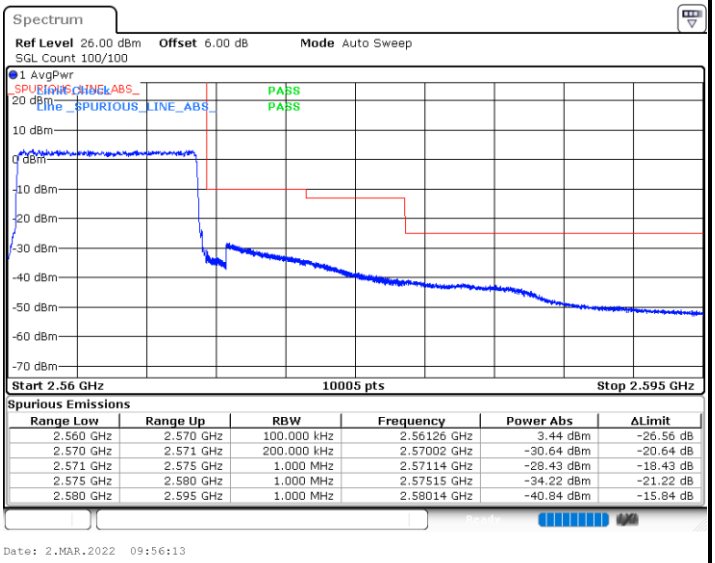
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56126 GHz	3.44 dBm	-26.56 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57002 GHz	-30.64 dBm	-20.64 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57114 GHz	-28.43 dBm	-18.43 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57515 GHz	-34.22 dBm	-21.22 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58014 GHz	-40.84 dBm	-15.84 dB

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