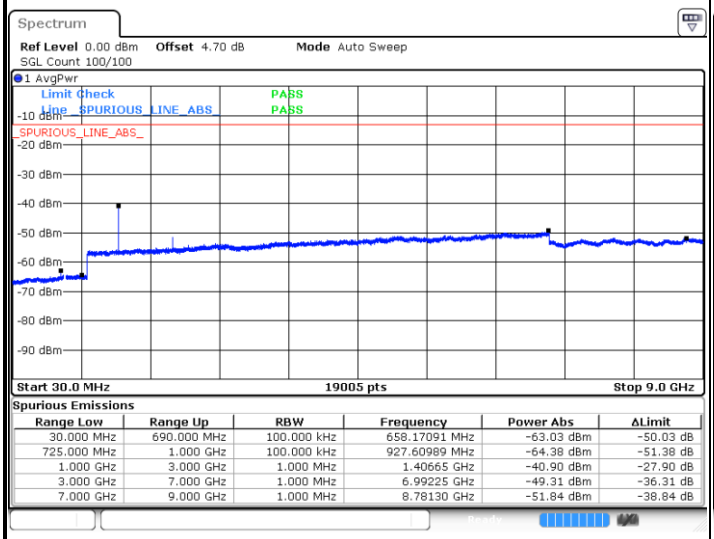
LTE Band 12 / 10MHz

Middle Channel / QPSK

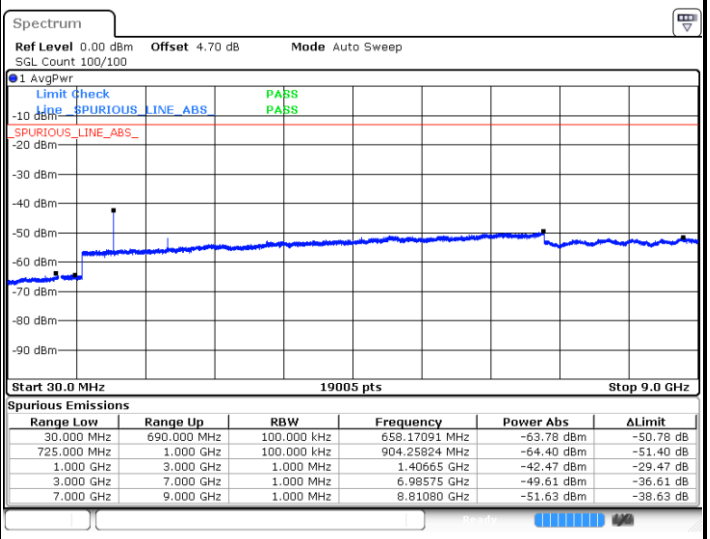


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	658.17091 MHz	-63.03 dBm	-50.03 dB
725.000 MHz	1.000 GHz	100.000 kHz	927.60989 MHz	-64.38 dBm	-51.38 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.40665 GHz	-40.90 dBm	-27.90 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99225 GHz	-49.31 dBm	-36.31 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.78130 GHz	-51.84 dBm	-38.84 dB

Date: 3.FEB.2020 18:39:33

Middle Channel / 16QAM

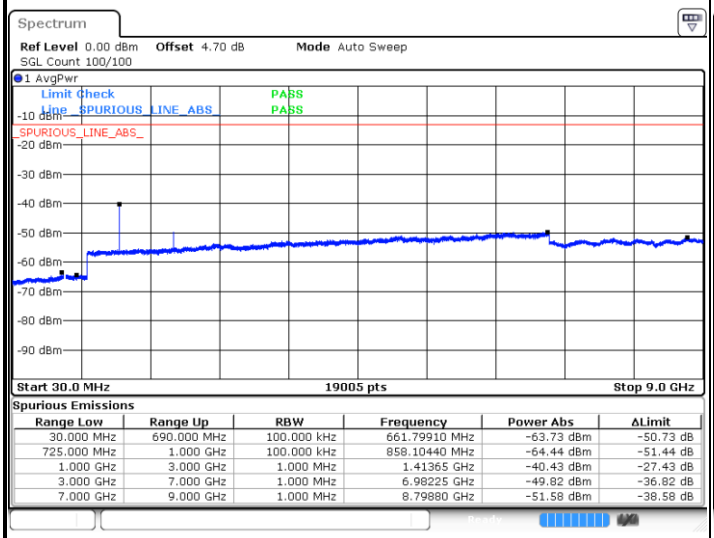


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	658.17091 MHz	-63.78 dBm	-50.78 dB
725.000 MHz	1.000 GHz	100.000 kHz	904.25824 MHz	-64.40 dBm	-51.40 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.40665 GHz	-42.47 dBm	-29.47 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98575 GHz	-49.61 dBm	-36.61 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.81080 GHz	-51.63 dBm	-38.63 dB

Date: 3.FEB.2020 18:38:39

Highest Channel / QPSK

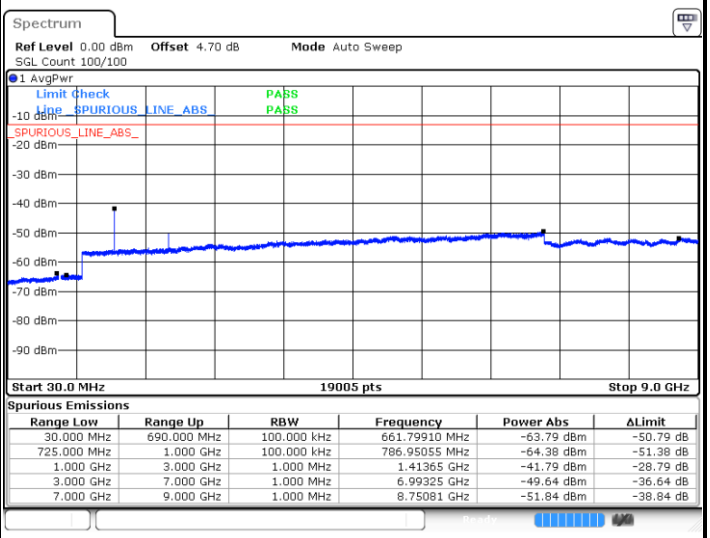


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	661.79910 MHz	-63.73 dBm	-50.73 dB
725.000 MHz	1.000 GHz	100.000 kHz	858.10440 MHz	-64.44 dBm	-51.44 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.41365 GHz	-40.43 dBm	-27.43 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98225 GHz	-49.82 dBm	-36.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.79880 GHz	-51.58 dBm	-38.58 dB

Date: 3.FEB.2020 18:40:28

Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	661.79910 MHz	-63.79 dBm	-50.79 dB
725.000 MHz	1.000 GHz	100.000 kHz	786.95055 MHz	-64.38 dBm	-51.38 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.41365 GHz	-41.79 dBm	-28.79 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99325 GHz	-49.64 dBm	-36.64 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.75081 GHz	-51.84 dBm	-38.84 dB

Date: 3.FEB.2020 18:41:23

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0004	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =3.8 V.；Battery End Point (BEP) =3.6 V.；Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

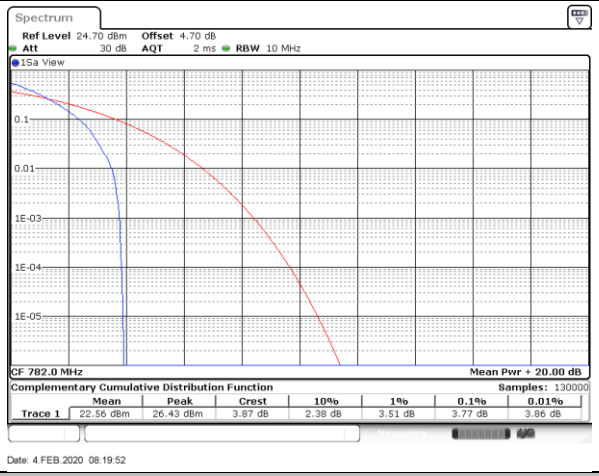
LTE Band 13

Peak-to-Average Ratio

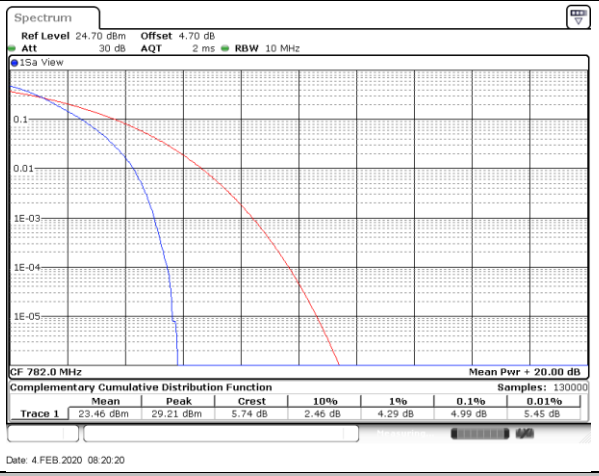
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH					PASS
Middle CH	3.77	4.99	4.70	5.77	
Highest CH					

LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB

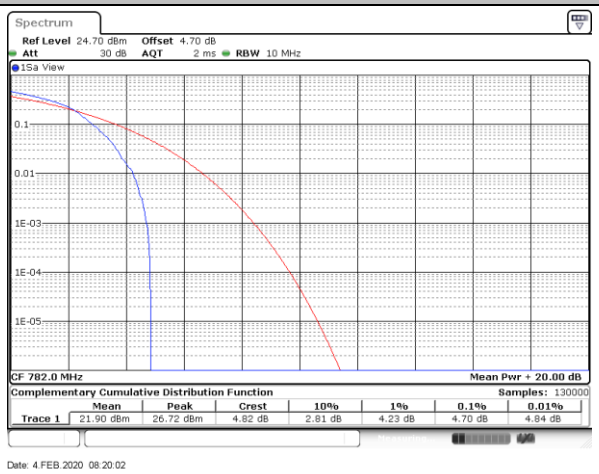


Middle Channel / Full RB

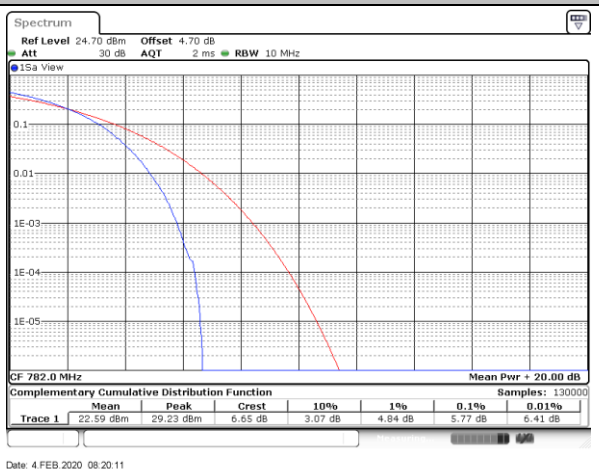


LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Middle Channel / Full RB

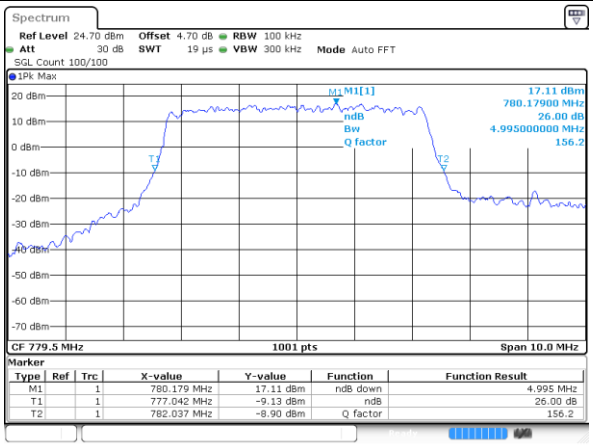


26dB Bandwidth

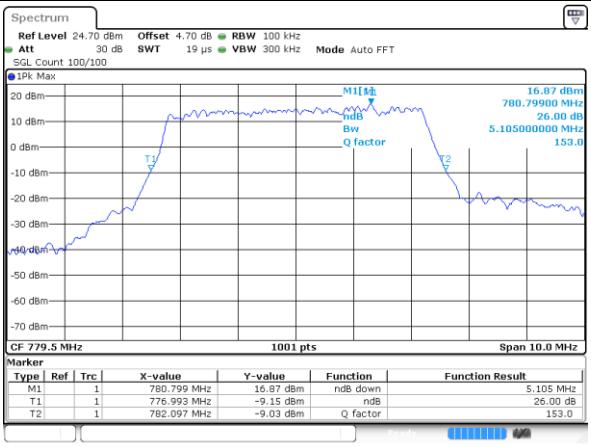
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH					5.00	5.11						
Middle CH					5.12	5.02	10.03	10.01				
Highest CH					4.85	4.88						

LTE Band 13

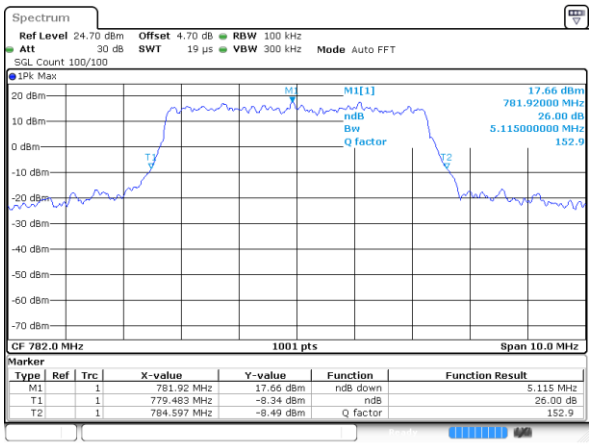
Lowest Channel / 5MHz / QPSK



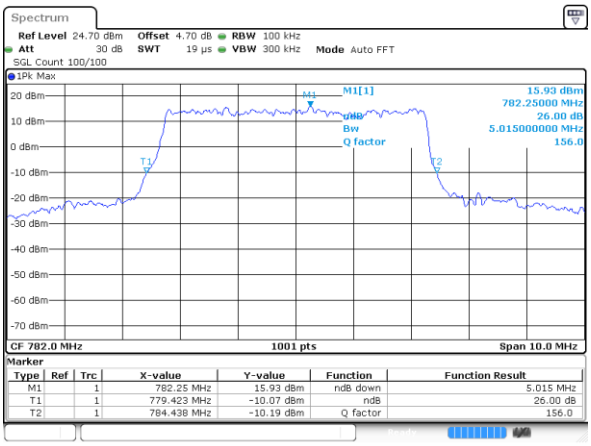
Lowest Channel / 5MHz / 16QAM



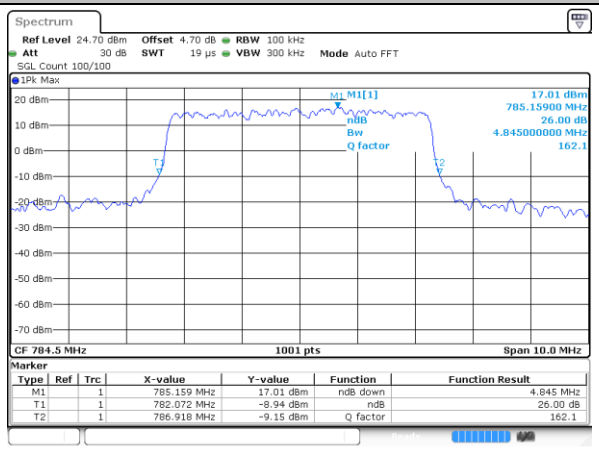
Middle Channel / 5MHz / QPSK



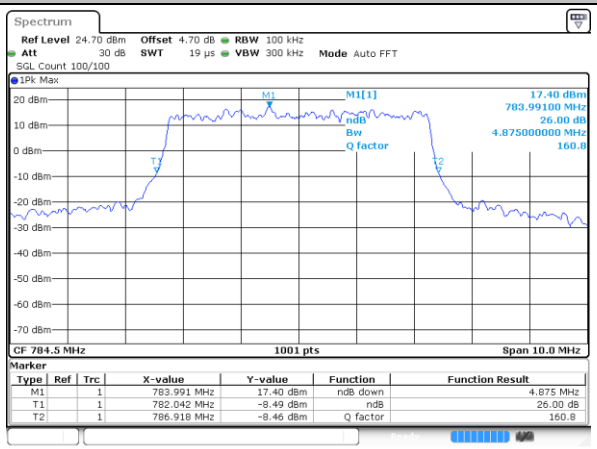
Middle Channel / 5MHz / 16QAM

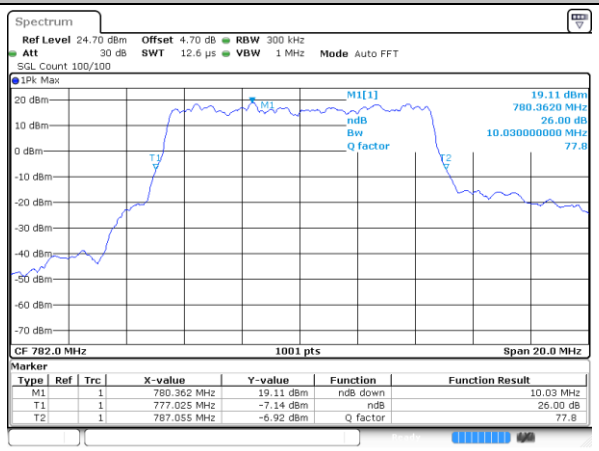
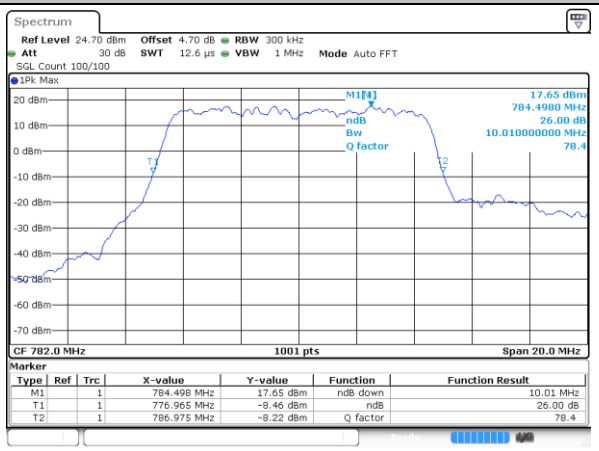


Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM



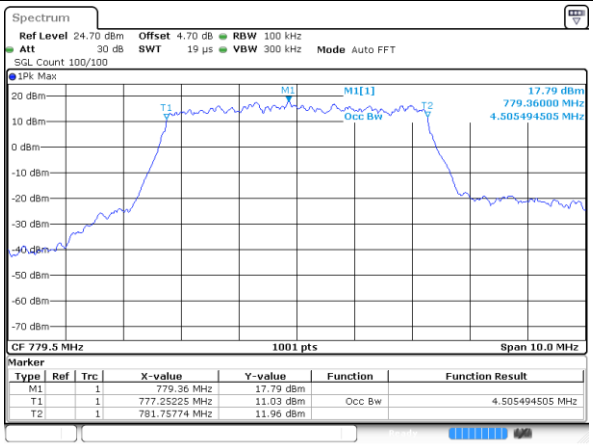
LTE Band 13	
Middle Channel / 10MHz / QPSK	**Middle Channel / 10MHz / 16QAM**
	

Occupied Bandwidth

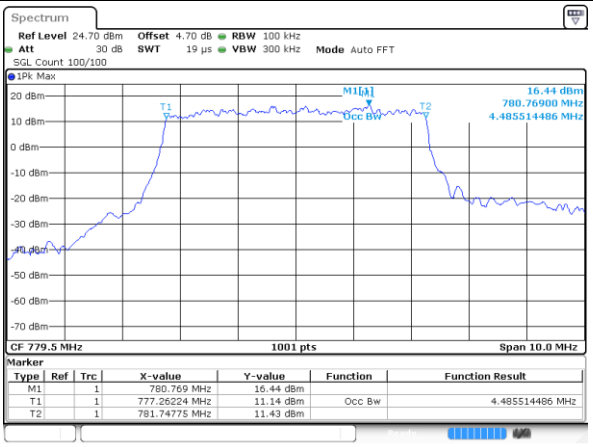
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH					4.51	4.49						
Middle CH					4.49	4.49	9.05	9.03				
Highest CH					4.51	4.50						

LTE Band 13

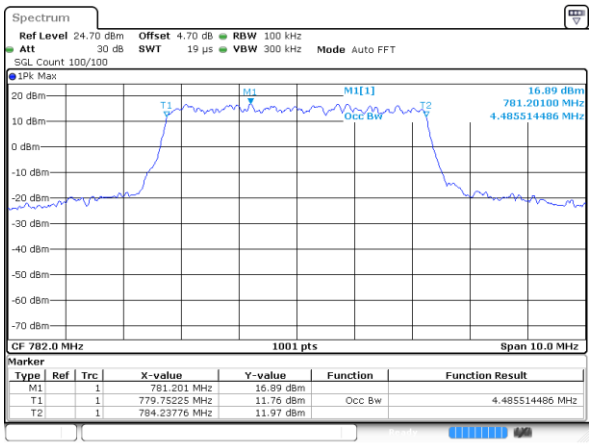
Lowest Channel / 5MHz / QPSK



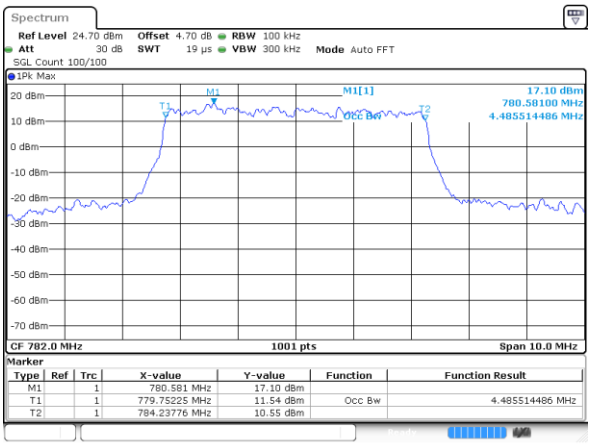
Lowest Channel / 5MHz / 16QAM



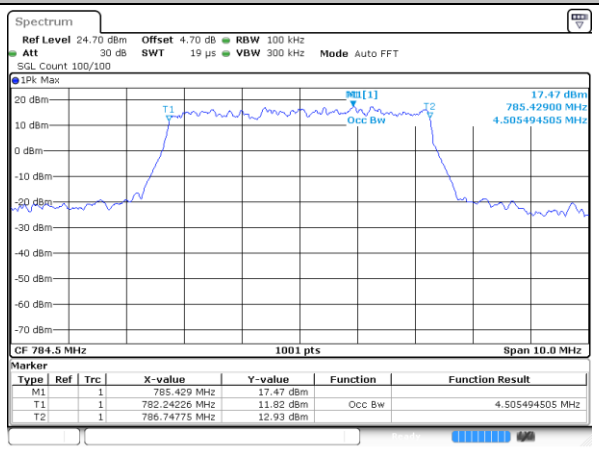
Middle Channel / 5MHz / QPSK



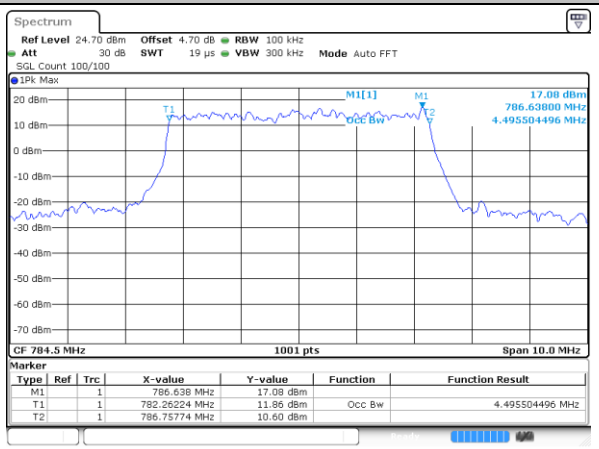
Middle Channel / 5MHz / 16QAM

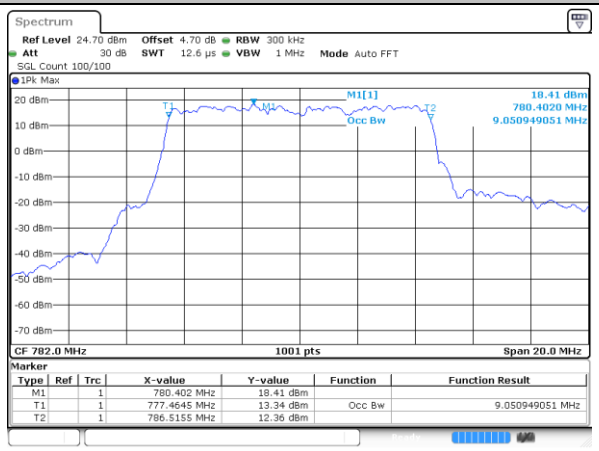
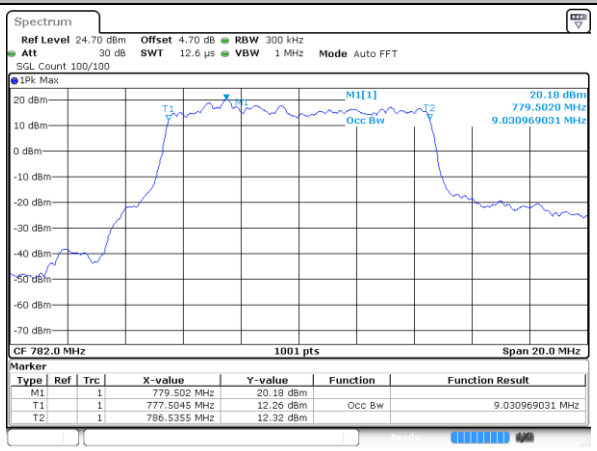


Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM

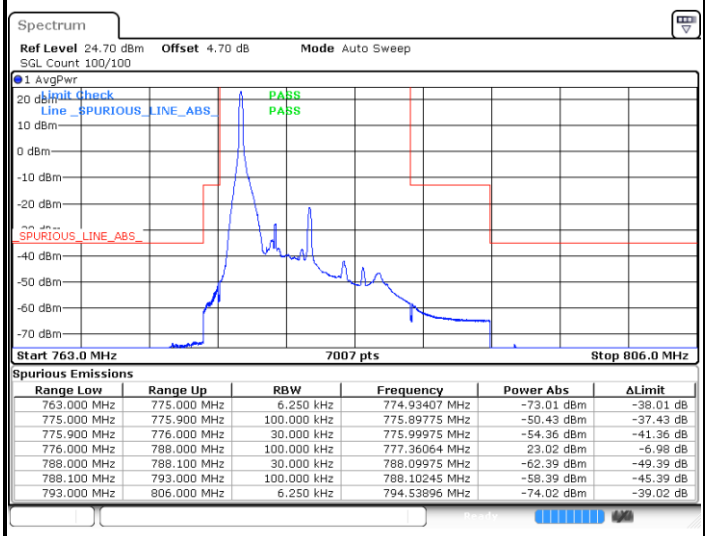


LTE Band 13	
Middle Channel / 10MHz / QPSK	**Middle Channel / 10MHz / 16QAM**
	

Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

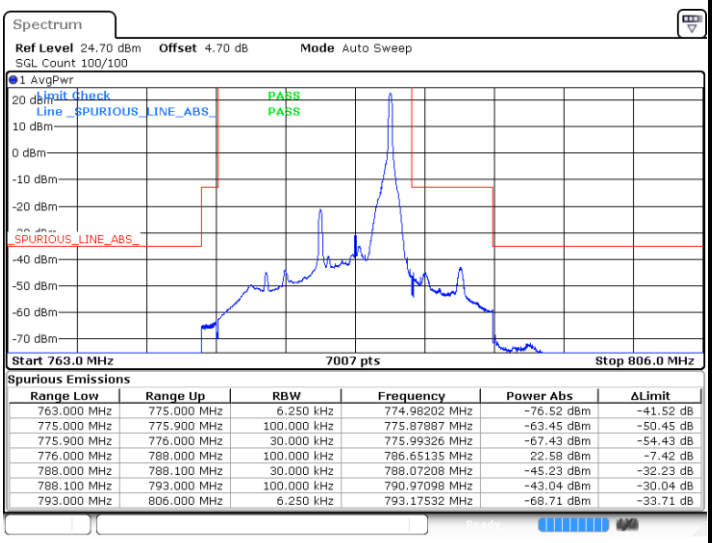


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.93407 MHz	-73.01 dBm	-38.01 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89775 MHz	-50.43 dBm	-37.43 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99975 MHz	-54.36 dBm	-41.36 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.36064 MHz	23.02 dBm	-6.98 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09975 MHz	-62.39 dBm	-49.39 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-58.39 dBm	-45.39 dB
793.000 MHz	806.000 MHz	6.250 kHz	794.53896 MHz	-74.02 dBm	-39.02 dB

Date: 4.FEB.2020 07:52:14

Highest Band Edge / 1 RB

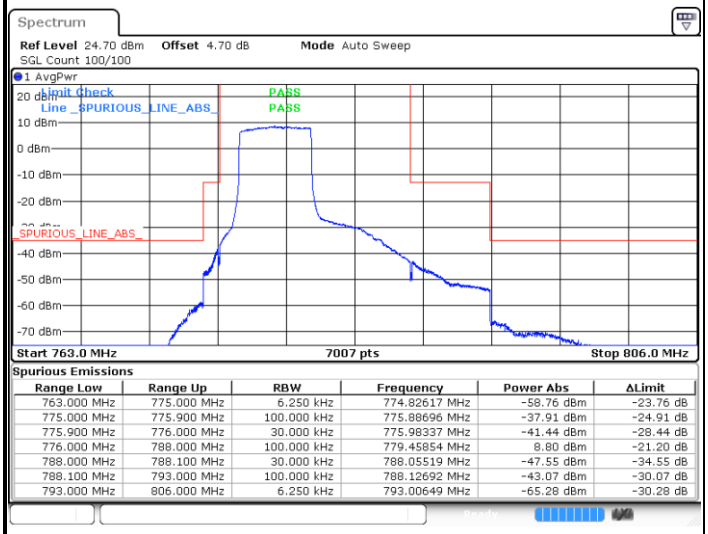


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.98202 MHz	-76.52 dBm	-41.52 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.87887 MHz	-63.45 dBm	-50.45 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99326 MHz	-67.43 dBm	-54.43 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.65135 MHz	22.58 dBm	-7.42 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.07208 MHz	-45.23 dBm	-32.23 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.97098 MHz	-43.04 dBm	-30.04 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.17532 MHz	-68.71 dBm	-33.71 dB

Date: 4.FEB.2020 08:03:44

Lowest Band Edge / Full RB

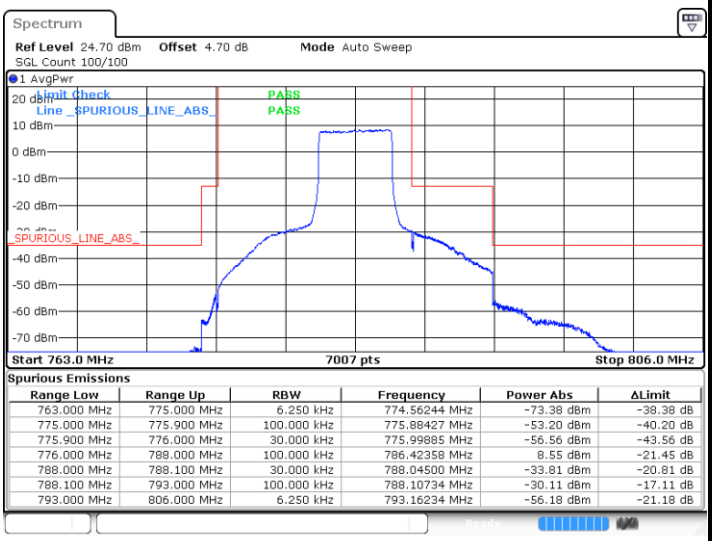


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.82617 MHz	-58.76 dBm	-23.76 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88696 MHz	-37.91 dBm	-24.91 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.98337 MHz	-41.44 dBm	-28.44 dB
776.000 MHz	788.000 MHz	100.000 kHz	779.45854 MHz	8.80 dBm	-21.20 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.05519 MHz	-47.55 dBm	-34.55 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.12692 MHz	-43.07 dBm	-30.07 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.00649 MHz	-65.28 dBm	-30.28 dB

Date: 4.FEB.2020 07:50:36

Highest Band Edge / Full RB



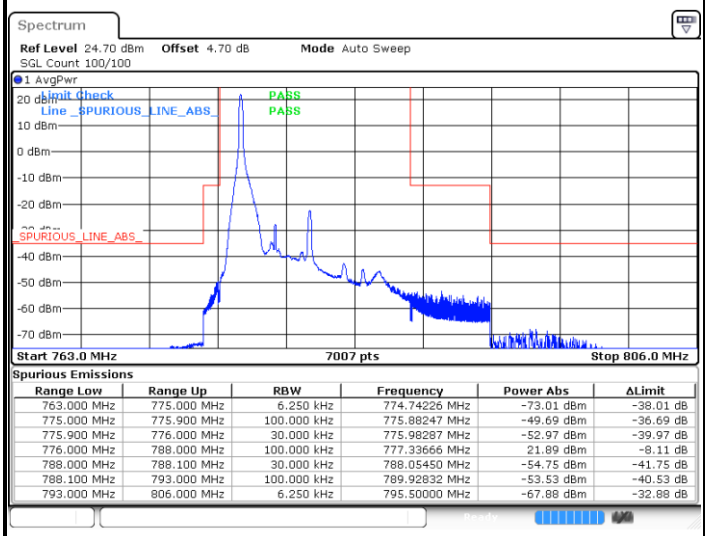
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.56244 MHz	-73.38 dBm	-38.38 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88427 MHz	-53.20 dBm	-40.20 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99885 MHz	-56.56 dBm	-43.56 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.42358 MHz	8.55 dBm	-21.45 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.04500 MHz	-33.81 dBm	-20.81 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10734 MHz	-30.11 dBm	-17.11 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.16234 MHz	-56.18 dBm	-21.18 dB

Date: 4.FEB.2020 08:02:06

LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge /1 RB

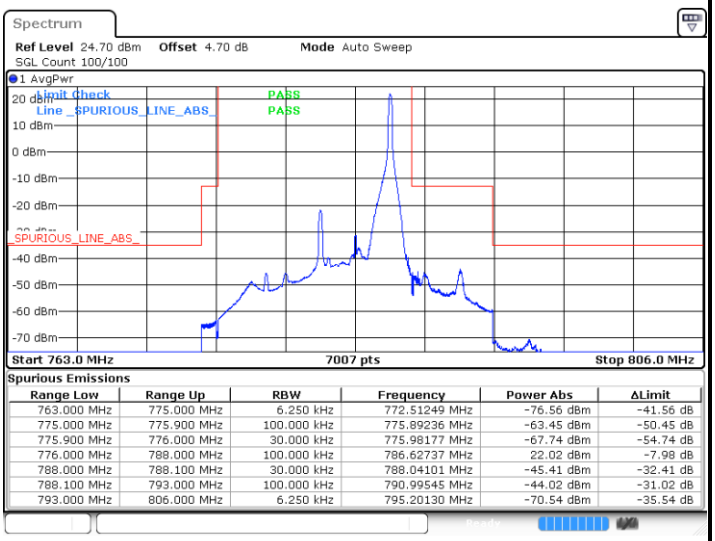


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.74226 MHz	-73.01 dBm	-38.01 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88247 MHz	-49.69 dBm	-36.69 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.98287 MHz	-52.97 dBm	-39.97 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.33666 MHz	21.89 dBm	-8.11 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.05450 MHz	-54.75 dBm	-41.75 dB
788.100 MHz	793.000 MHz	100.000 kHz	789.92832 MHz	-53.53 dBm	-40.53 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.50000 MHz	-67.88 dBm	-32.88 dB

Date: 4.FEB.2020 07:53:52

Highest Band Edge / 1 RB

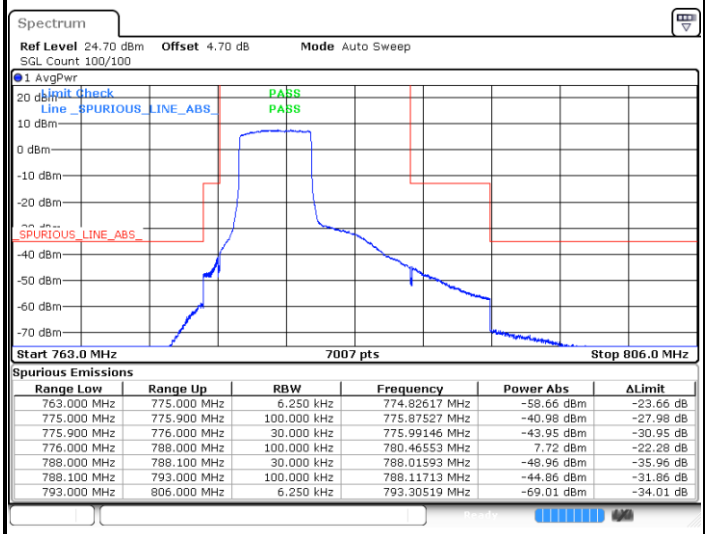


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.51249 MHz	-76.56 dBm	-41.56 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89236 MHz	-63.45 dBm	-50.45 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.98177 MHz	-67.74 dBm	-54.74 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.62737 MHz	22.02 dBm	-7.98 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.04101 MHz	-45.41 dBm	-32.41 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.99545 MHz	-44.02 dBm	-31.02 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.20130 MHz	-70.54 dBm	-35.54 dB

Date: 4.FEB.2020 08:05:22

Lowest Band Edge / Full RB

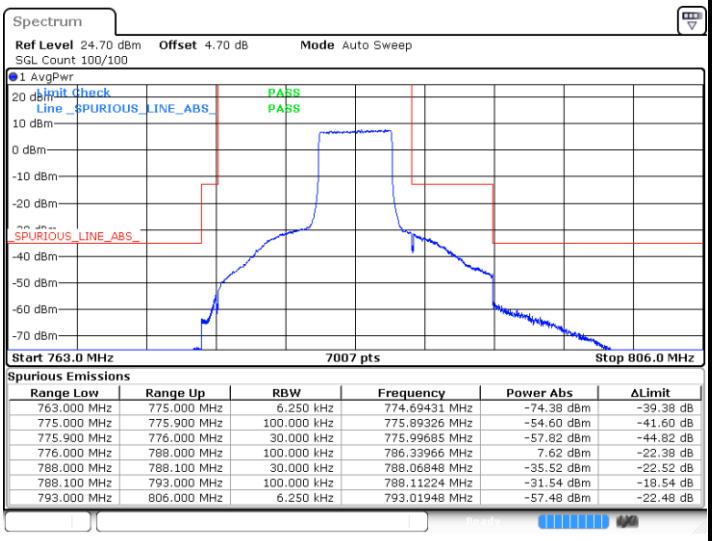


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.82617 MHz	-58.66 dBm	-23.66 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.87527 MHz	-40.98 dBm	-27.98 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99146 MHz	-43.95 dBm	-30.95 dB
776.000 MHz	788.000 MHz	100.000 kHz	780.46553 MHz	7.72 dBm	-22.28 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.01593 MHz	-48.96 dBm	-35.96 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.11713 MHz	-44.86 dBm	-31.86 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.30519 MHz	-69.01 dBm	-34.01 dB

Date: 4.FEB.2020 07:48:58

Highest Band Edge / Full RB



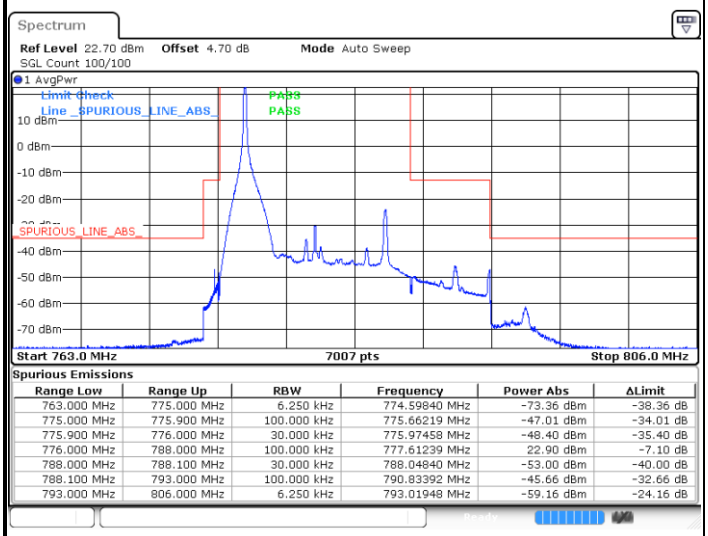
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.69431 MHz	-74.38 dBm	-39.38 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89326 MHz	-54.60 dBm	-41.60 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99685 MHz	-57.82 dBm	-44.82 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.33966 MHz	7.62 dBm	-22.38 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.06848 MHz	-35.52 dBm	-22.52 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.11224 MHz	-31.54 dBm	-18.54 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.01948 MHz	-57.48 dBm	-22.48 dB

Date: 4.FEB.2020 08:00:28

LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

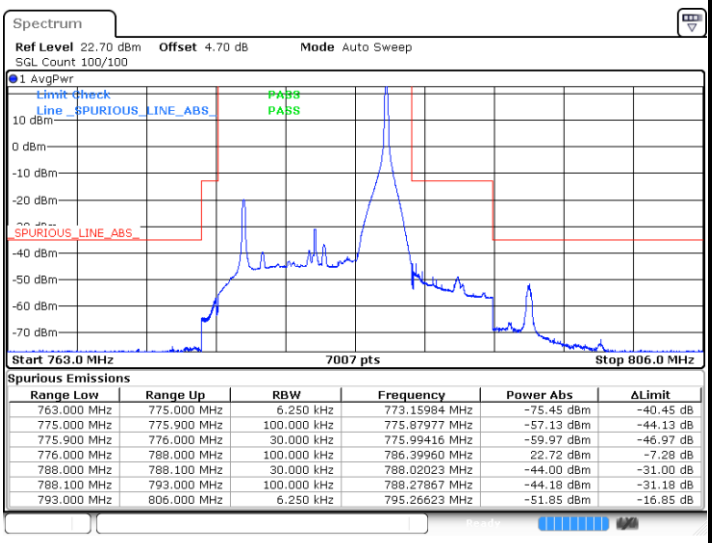


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.59840 MHz	-73.36 dBm	-38.36 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.66219 MHz	-47.01 dBm	-34.01 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97458 MHz	-48.40 dBm	-35.40 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.61239 MHz	22.90 dBm	-7.10 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.04840 MHz	-53.00 dBm	-40.00 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.83392 MHz	-45.66 dBm	-32.66 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.01948 MHz	-59.16 dBm	-24.16 dB

Date: 4.FEB.2020 08:12:55

Highest Band Edge / 1 RB

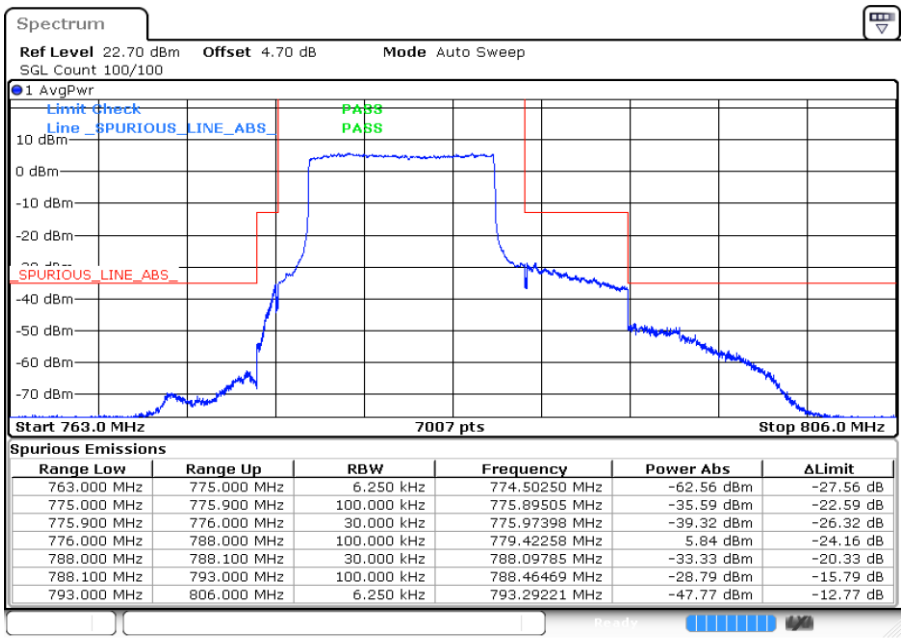


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	773.15984 MHz	-75.45 dBm	-40.45 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.87977 MHz	-57.13 dBm	-44.13 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99416 MHz	-59.97 dBm	-46.97 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	22.72 dBm	-7.28 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.02023 MHz	-44.00 dBm	-31.00 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.27867 MHz	-44.18 dBm	-31.18 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.26623 MHz	-51.85 dBm	-16.85 dB

Date: 4.FEB.2020 08:19:26

Band Edge / Full RB



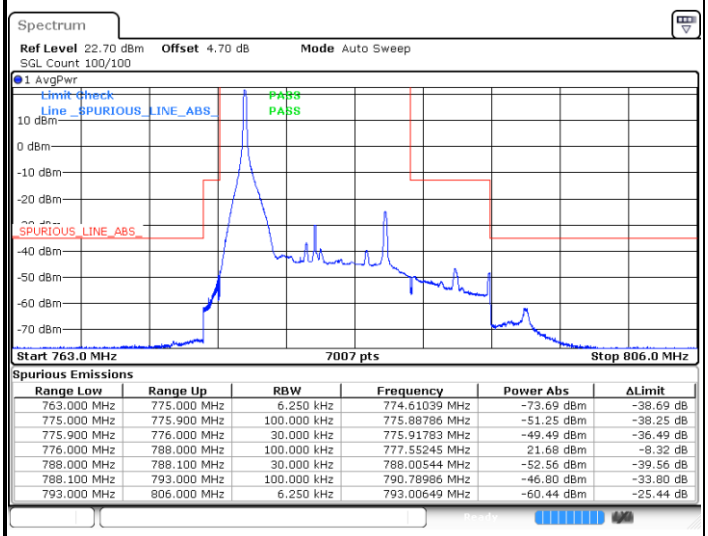
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.50250 MHz	-62.56 dBm	-27.56 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89505 MHz	-35.59 dBm	-22.59 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97398 MHz	-39.32 dBm	-26.32 dB
776.000 MHz	788.000 MHz	100.000 kHz	779.42258 MHz	5.84 dBm	-24.16 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09785 MHz	-33.33 dBm	-20.33 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.46469 MHz	-28.79 dBm	-15.79 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.29221 MHz	-47.77 dBm	-12.77 dB

Date: 4.FEB.2020 08:14:33

LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

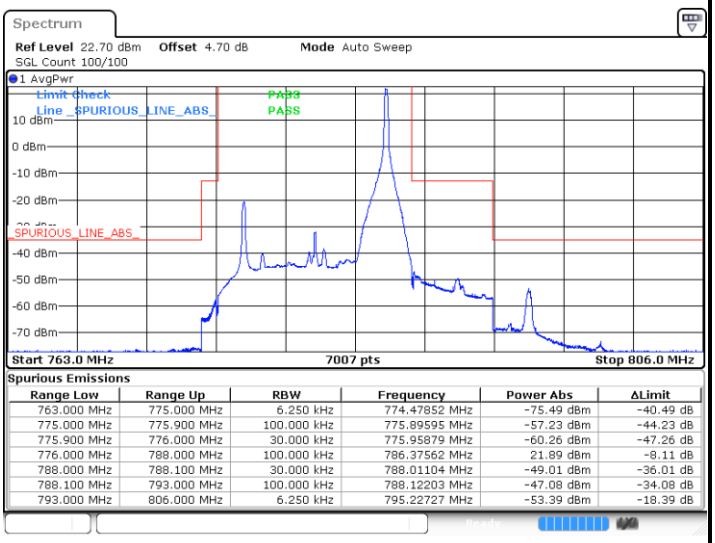


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.61039 MHz	-73.69 dBm	-38.69 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88786 MHz	-51.25 dBm	-38.25 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.91783 MHz	-49.49 dBm	-36.49 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.55245 MHz	21.68 dBm	-8.32 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00544 MHz	-52.56 dBm	-39.56 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.78986 MHz	-46.80 dBm	-33.80 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.00649 MHz	-60.44 dBm	-25.44 dB

Date: 4.FEB.2020 08:11:18

Highest Band Edge / 1 RB

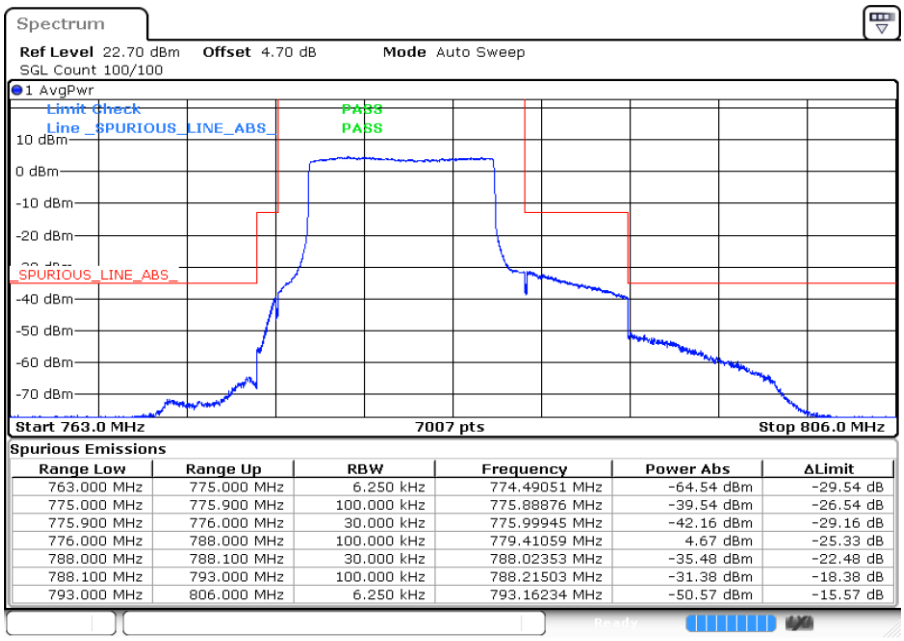


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.47852 MHz	-75.49 dBm	-40.49 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89595 MHz	-57.23 dBm	-44.23 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.95879 MHz	-60.26 dBm	-47.26 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.37562 MHz	21.89 dBm	-8.11 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.01104 MHz	-49.01 dBm	-36.01 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.12203 MHz	-47.08 dBm	-34.08 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.22727 MHz	-53.39 dBm	-18.39 dB

Date: 4.FEB.2020 08:17:49

Band Edge / Full RB



Spurious Emissions

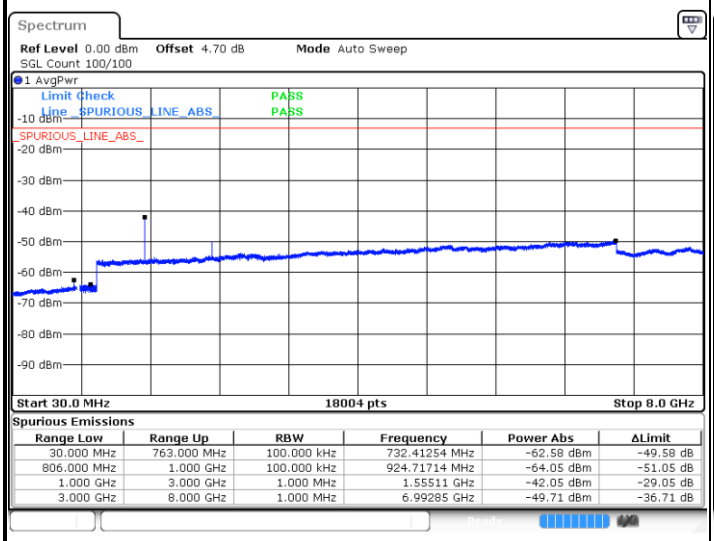
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.49051 MHz	-64.54 dBm	-29.54 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88876 MHz	-39.54 dBm	-26.54 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99945 MHz	-42.16 dBm	-29.16 dB
776.000 MHz	788.000 MHz	100.000 kHz	779.41059 MHz	4.67 dBm	-25.33 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.02353 MHz	-35.48 dBm	-22.48 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.21503 MHz	-31.38 dBm	-18.38 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.16234 MHz	-50.57 dBm	-15.57 dB

Date: 4.FEB.2020 08:16:11

Conducted Spurious Emission

LTE Band 13 / 5MHz

Lowest Channel / QPSK

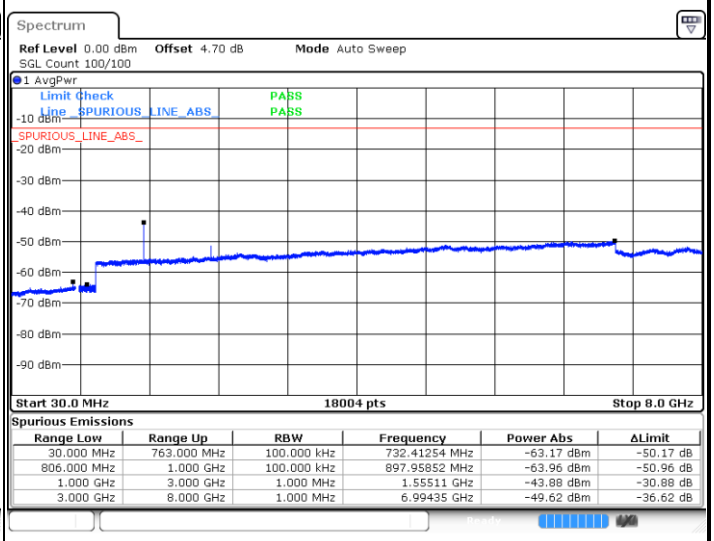


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	732.41254 MHz	-62.58 dBm	-49.58 dB
806.000 MHz	1.000 GHz	100.000 kHz	924.71714 MHz	-64.05 dBm	-51.05 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.55511 GHz	-42.05 dBm	-29.05 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99285 GHz	-49.71 dBm	-36.71 dB

Date: 4.FEB.2020 07:55:40

Lowest Channel / 16QAM

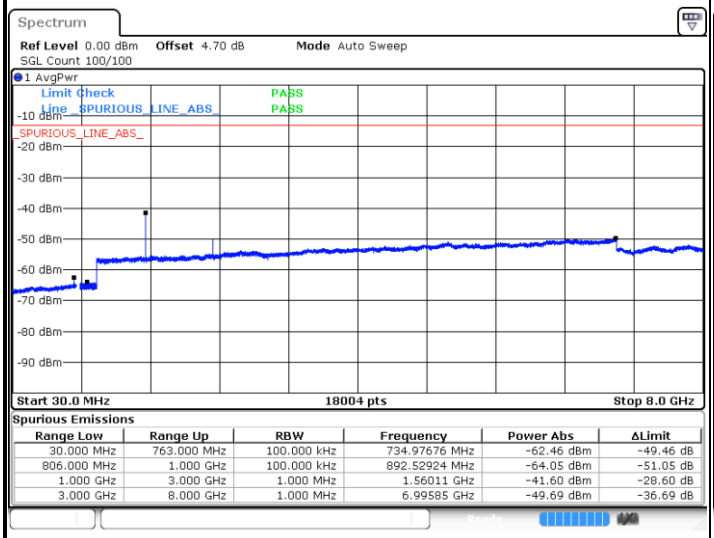


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	732.41254 MHz	-63.17 dBm	-50.17 dB
806.000 MHz	1.000 GHz	100.000 kHz	897.95852 MHz	-63.96 dBm	-50.96 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.55511 GHz	-43.88 dBm	-30.88 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99435 GHz	-49.62 dBm	-36.62 dB

Date: 4.FEB.2020 07:54:45

Middle Channel / QPSK

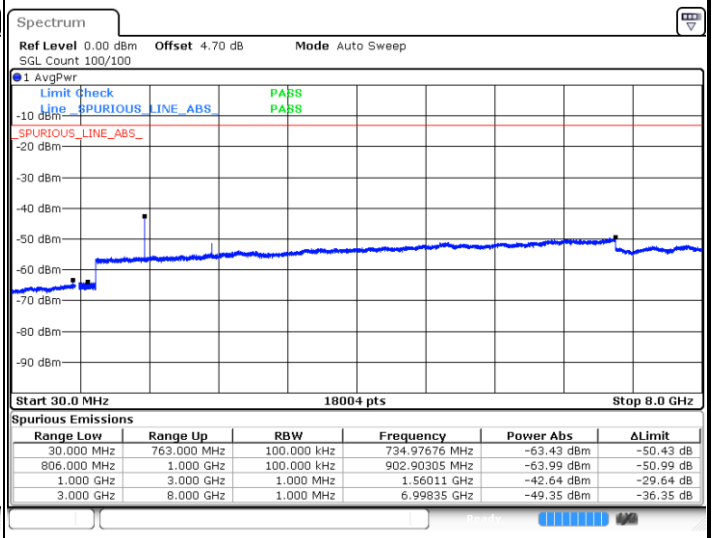


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	734.97676 MHz	-62.46 dBm	-49.46 dB
806.000 MHz	1.000 GHz	100.000 kHz	892.52924 MHz	-64.05 dBm	-51.05 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.56011 GHz	-41.60 dBm	-28.60 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99585 GHz	-49.69 dBm	-36.69 dB

Date: 4.FEB.2020 07:57:15

Middle Channel / 16QAM



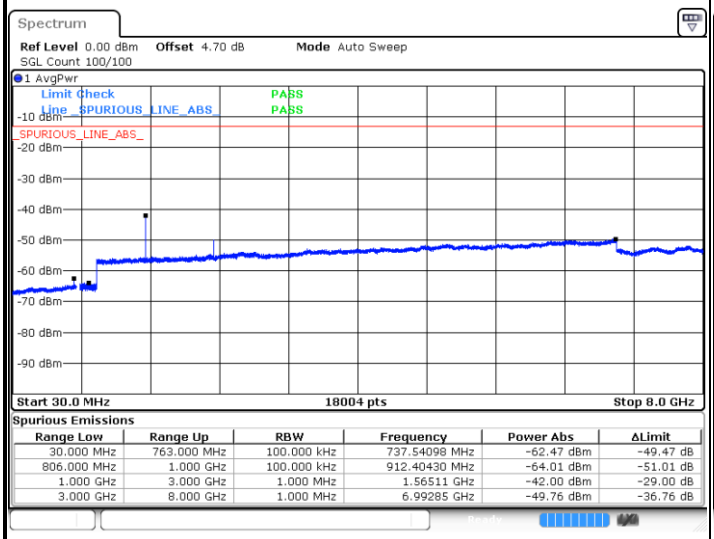
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	734.97676 MHz	-63.43 dBm	-50.43 dB
806.000 MHz	1.000 GHz	100.000 kHz	902.90305 MHz	-63.99 dBm	-50.99 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.56011 GHz	-42.64 dBm	-29.64 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99835 GHz	-49.35 dBm	-36.35 dB

Date: 4.FEB.2020 07:58:09

LTE Band 13 / 5MHz

Highest Channel / QPSK

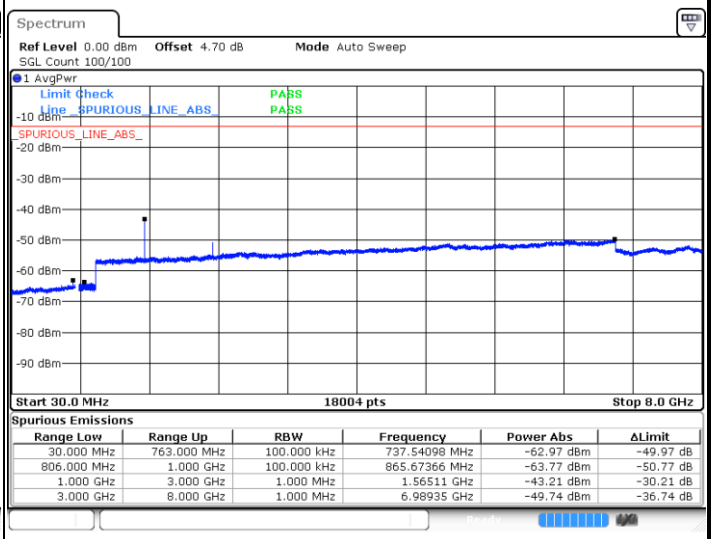


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	737.54098 MHz	-62.47 dBm	-49.47 dB
806.000 MHz	1.000 GHz	100.000 kHz	912.40430 MHz	-64.01 dBm	-51.01 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.56511 GHz	-42.00 dBm	-29.00 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99285 GHz	-49.76 dBm	-36.76 dB

Date: 4.FEB.2020 08:07:10

Highest Channel / 16QAM



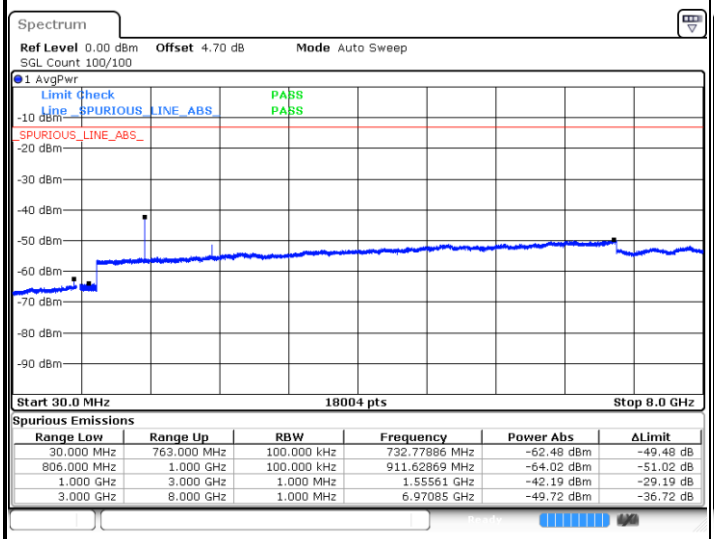
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	737.54098 MHz	-62.97 dBm	-49.97 dB
806.000 MHz	1.000 GHz	100.000 kHz	865.67366 MHz	-63.77 dBm	-50.77 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.56511 GHz	-43.21 dBm	-30.21 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.98935 GHz	-49.74 dBm	-36.74 dB

Date: 4.FEB.2020 08:06:15

LTE Band 13 / 10MHz

Middle Channel / QPSK

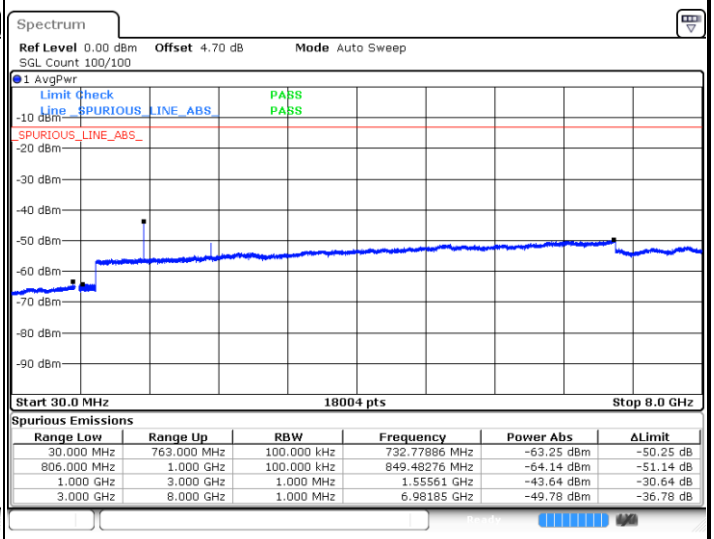


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	732.77886 MHz	-62.48 dBm	-49.48 dB
806.000 MHz	1.000 GHz	100.000 kHz	911.62869 MHz	-64.02 dBm	-51.02 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.55561 GHz	-42.19 dBm	-29.19 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.97085 GHz	-49.72 dBm	-36.72 dB

Date: 4.FEB.2020 08:08:04

Middle Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	732.77886 MHz	-63.25 dBm	-50.25 dB
806.000 MHz	1.000 GHz	100.000 kHz	849.48276 MHz	-64.14 dBm	-51.14 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.55561 GHz	-43.64 dBm	-30.64 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.98185 GHz	-49.78 dBm	-36.78 dB

Date: 4.FEB.2020 08:08:59

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	0.0019	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0009	

Note:

1. Normal Voltage =3.8 V.；Battery End Point (BEP) =3.6 V.；Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3741	-53.44	-13	-40.44	-65.70	2.64	14.90	H
	5613	-47.81	-13	-34.81	-59.67	2.94	14.80	H
	7488	-50.29	-13	-37.29	-60.06	3.39	13.16	H
	9360	-37.33	-13	-24.33	-47.81	4.00	14.48	H
	3741	-56.93	-13	-43.93	-69.19	2.64	14.90	V
	5613	-50.60	-13	-37.60	-62.46	2.94	14.80	V
	7488	-49.48	-13	-36.48	-59.25	3.39	13.16	V
	9360	-40.50	-13	-27.50	-50.98	4.00	14.48	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3447	-54.24	-13	-41.24	-64.98	2.604	13.34	H
	5172	-46.88	-13	-33.88	-57.39	3.011	13.52	H
	6900	-53.19	-13	-40.19	-63.39	3.271	13.47	H
	8616	-33.66	-13	-20.66	-40.63	5.527	12.5	H
	10344	-41.23	-13	-28.23	-48.09	6.038	12.9	H
	3447	-57.26	-13	-44.26	-68.00	2.604	13.34	V
	5172	-51.96	-13	-38.96	-62.47	3.011	13.52	V
	6894.36	-52.97	-13	-39.97	-63.17	3.271	13.47	V
	8616	-31.95	-13	-18.95	-38.92	5.527	12.50	V
	10344	-44.19	-13	-31.19	-51.05	6.038	12.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-67.72	-13	-54.72	-74.69	1.58	10.70	H
	2496	-61.64	-13	-48.64	-69.89	2.102	12.50	H
	3330	-63.36	-13	-50.36	-72.25	2.856	13.90	H
	1664	-67.33	-13	-54.33	-74.30	1.58	10.70	V
	2496	-57.79	-13	-44.79	-66.04	2.10	12.50	V
	3330	-62.86	-13	-49.86	-71.75	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 10MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1406	-67.42	-13	-54.42	-74.39	1.58	10.70	H
	2109.27	-65.61	-13	-52.61	-73.86	2.102	12.50	H
	2812	-62.82	-13	-49.82	-71.71	2.856	13.90	H
	1406	-67.65	-13	-54.65	-74.62	1.58	10.70	V
	2110	-65.31	-13	-52.31	-73.56	2.10	12.50	V
	2812	-62.94	-13	-49.94	-71.83	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 13 / 5MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1560	-67.53	-42.15	-25.38	-70.16	1.09	5.87	H
	2340	-59.79	-13	-46.79	-62.19	1.37	5.92	H
	3120	-62.89	-13	-49.89	-66.78	1.64	7.68	H
	1560	-67.66	-42.15	-25.51	-70.29	1.09	5.87	V
	2340	-57.07	-13	-44.07	-59.47	1.37	5.92	V
	3120	-62.21	-13	-49.21	-66.10	1.64	7.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 13 / 10MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1556	-67.23	-42.15	-25.08	-69.86	1.09	5.87	H
	2332	-61.80	-13	-48.80	-64.20	1.37	5.92	H
	3108	-62.47	-13	-49.47	-66.36	1.64	7.68	H
	1556	-67.64	-42.15	-25.49	-70.27	1.09	5.87	V
	2332	-60.30	-13	-47.30	-62.70	1.37	5.92	V
	3108	-62.74	-13	-49.74	-66.63	1.64	7.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.