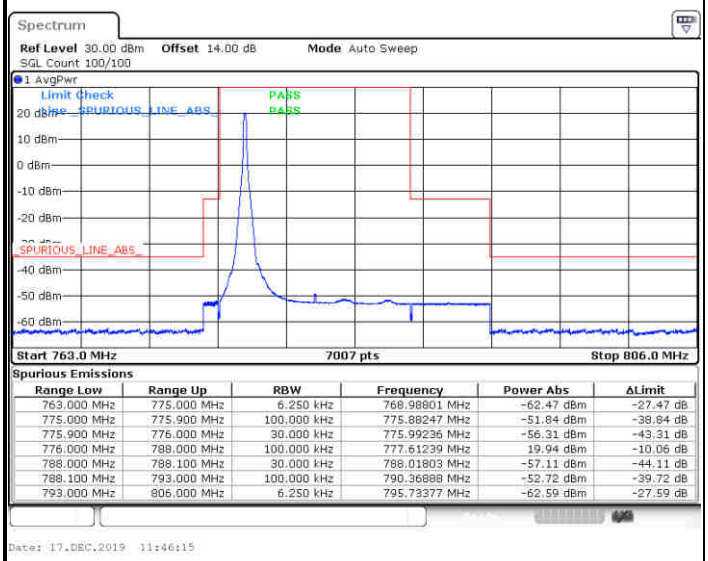
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

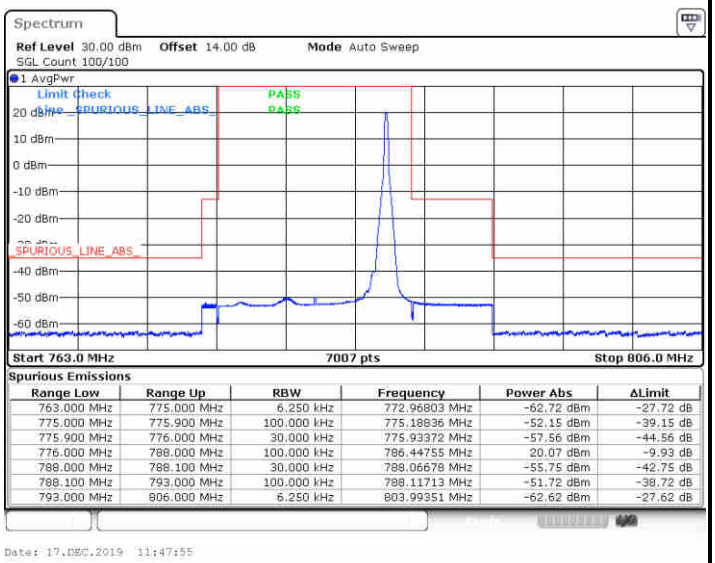


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	768.98801 MHz	-62.47 dBm	-27.47 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88247 MHz	-51.84 dBm	-38.84 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99236 MHz	-56.31 dBm	-43.31 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.61239 MHz	19.94 dBm	-10.06 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.01803 MHz	-57.11 dBm	-44.11 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.36888 MHz	-52.72 dBm	-39.72 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.73377 MHz	-62.59 dBm	-27.59 dB

Date: 17.DEC.2019 11:46:15

Highest Band Edge / 1 RB

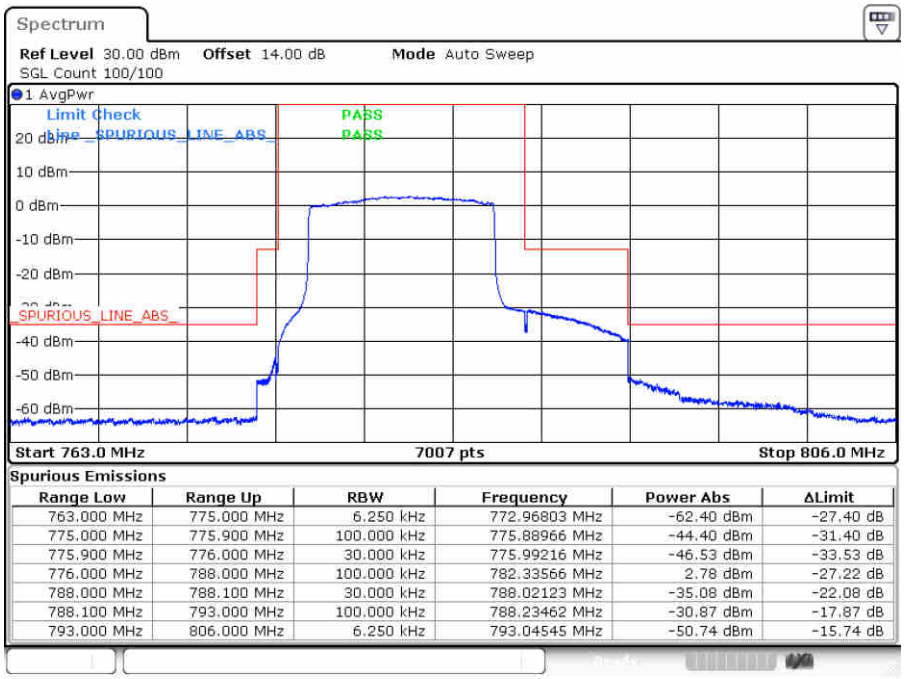


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.96803 MHz	-62.72 dBm	-27.72 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.18836 MHz	-52.15 dBm	-39.15 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.93372 MHz	-57.56 dBm	-44.56 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.44755 MHz	20.07 dBm	-9.93 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.06678 MHz	-55.75 dBm	-42.75 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.11713 MHz	-51.72 dBm	-38.72 dB
793.000 MHz	806.000 MHz	6.250 kHz	803.99351 MHz	-62.62 dBm	-27.62 dB

Date: 17.DEC.2019 11:47:55

Band Edge / Full RB



Spurious Emissions

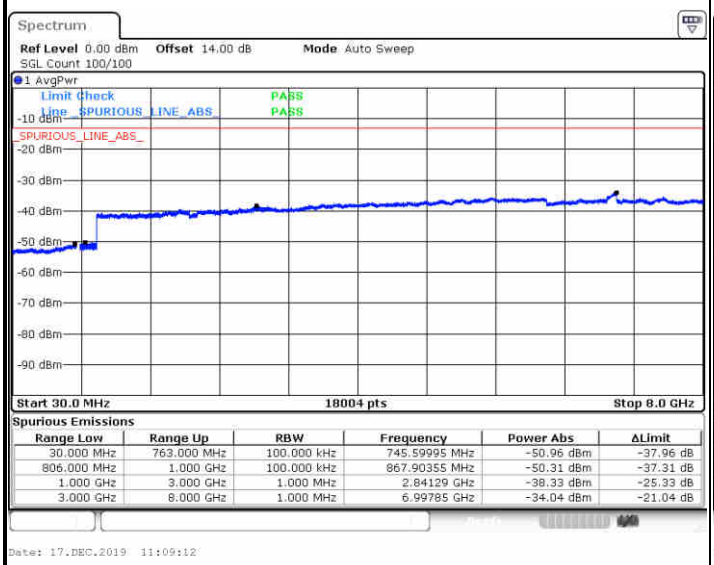
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.96803 MHz	-62.40 dBm	-27.40 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88966 MHz	-44.40 dBm	-31.40 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99216 MHz	-46.53 dBm	-33.53 dB
776.000 MHz	788.000 MHz	100.000 kHz	782.33566 MHz	2.78 dBm	-27.22 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.02123 MHz	-35.08 dBm	-22.08 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.23462 MHz	-30.87 dBm	-17.87 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.04545 MHz	-50.74 dBm	-15.74 dB

Date: 17.DEC.2019 11:44:35

Conducted Spurious Emission

LTE Band 13 / 5MHz

Lowest Channel / QPSK

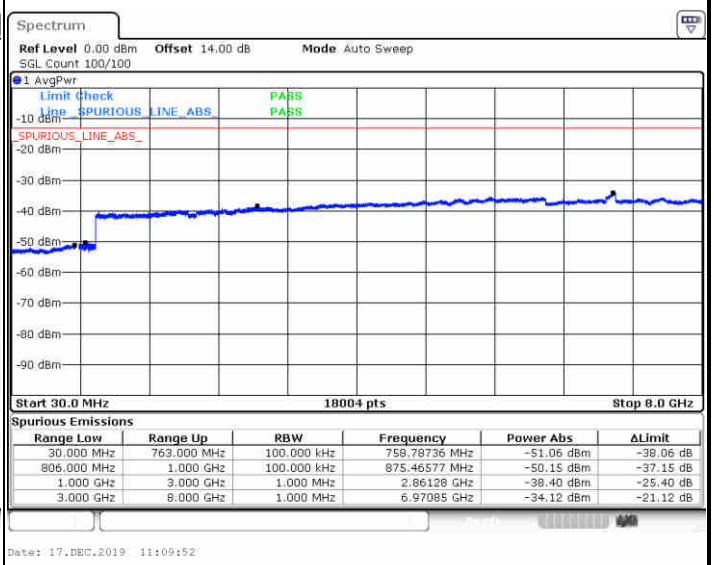


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	745.59995 MHz	-50.96 dBm	-37.96 dB
806.000 MHz	1.000 GHz	100.000 kHz	867.90355 MHz	-50.31 dBm	-37.31 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.84129 GHz	-38.33 dBm	-25.33 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99785 GHz	-34.04 dBm	-21.04 dB

Date: 17.DEC.2019 11:09:12

Lowest Channel / 16QAM

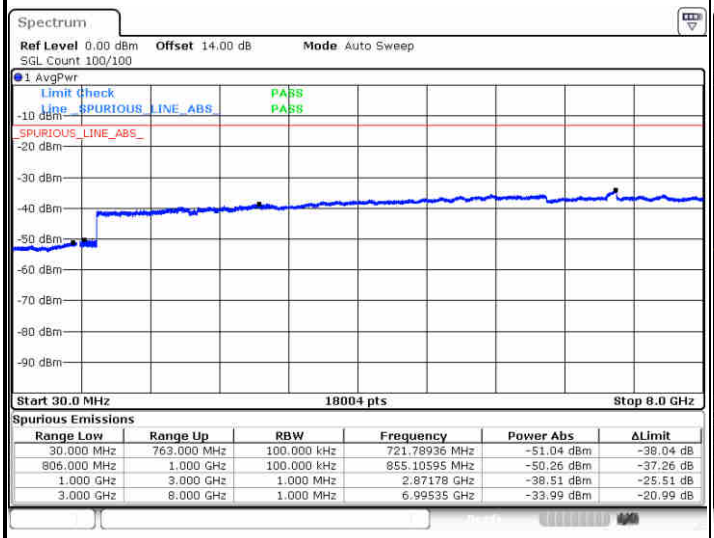


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	758.78736 MHz	-51.06 dBm	-38.06 dB
806.000 MHz	1.000 GHz	100.000 kHz	875.46577 MHz	-50.15 dBm	-37.15 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.86128 GHz	-38.40 dBm	-25.40 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.97085 GHz	-34.12 dBm	-21.12 dB

Date: 17.DEC.2019 11:09:52

Middle Channel / QPSK

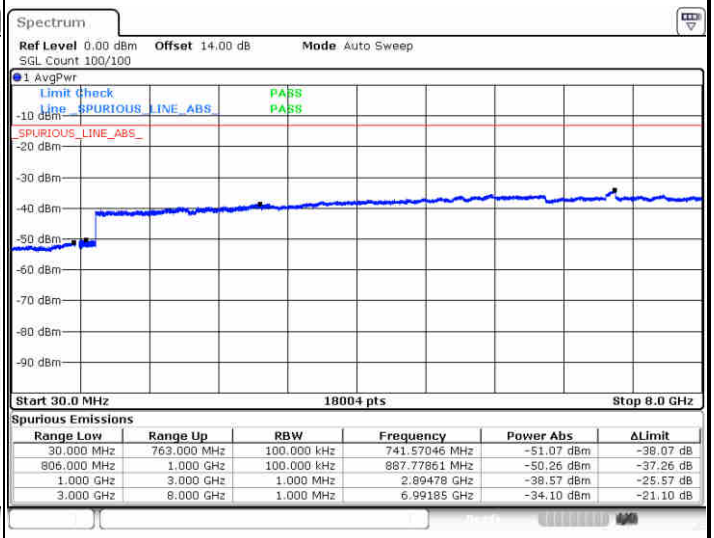


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	721.78936 MHz	-51.04 dBm	-38.04 dB
806.000 MHz	1.000 GHz	100.000 kHz	855.10595 MHz	-50.26 dBm	-37.26 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.87178 GHz	-38.51 dBm	-25.51 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99535 GHz	-33.99 dBm	-20.99 dB

Date: 17.DEC.2019 11:11:12

Middle Channel / 16QAM



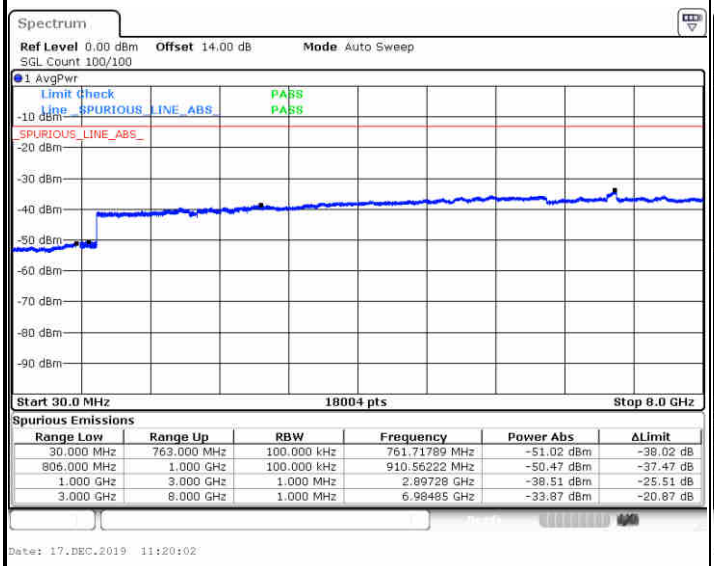
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	741.57046 MHz	-51.07 dBm	-38.07 dB
806.000 MHz	1.000 GHz	100.000 kHz	887.77861 MHz	-50.26 dBm	-37.26 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.89478 GHz	-38.57 dBm	-25.57 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99185 GHz	-34.10 dBm	-21.10 dB

Date: 17.DEC.2019 11:10:32

LTE Band 13 / 5MHz

Highest Channel / QPSK

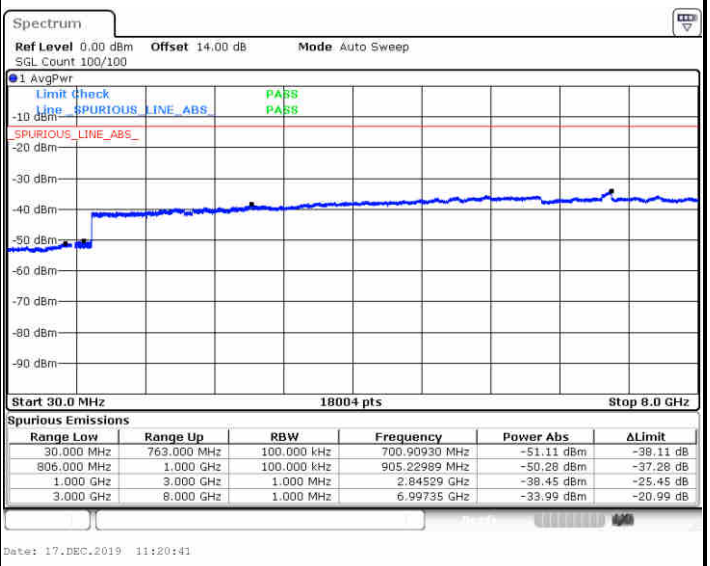


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	761.71789 MHz	-51.02 dBm	-38.02 dB
806.000 MHz	1.000 GHz	100.000 kHz	910.56222 MHz	-50.47 dBm	-37.47 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.89728 GHz	-38.51 dBm	-25.51 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.98485 GHz	-33.87 dBm	-20.87 dB

Date: 17.DEC.2019 11:20:02

Highest Channel / 16QAM



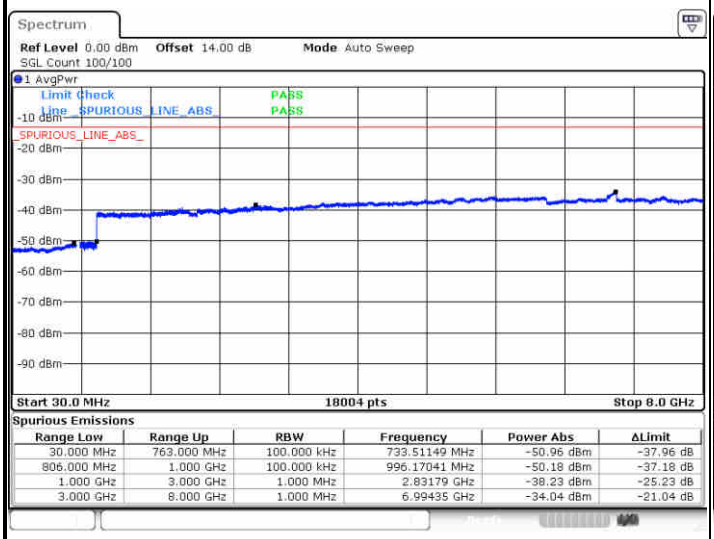
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	700.90930 MHz	-51.11 dBm	-38.11 dB
806.000 MHz	1.000 GHz	100.000 kHz	905.22989 MHz	-50.28 dBm	-37.28 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.84529 GHz	-38.45 dBm	-25.45 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99735 GHz	-33.99 dBm	-20.99 dB

Date: 17.DEC.2019 11:20:41

LTE Band 13 / 10MHz

Middle Channel / QPSK

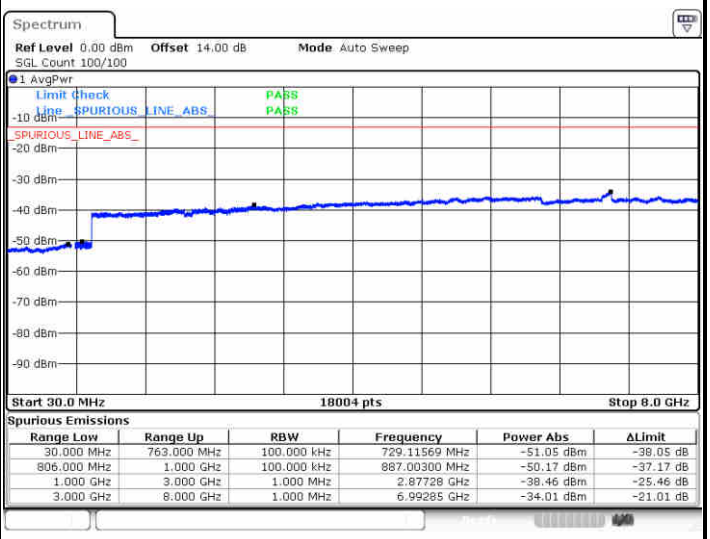


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	733.51149 MHz	-50.96 dBm	-37.96 dB
806.000 MHz	1.000 GHz	100.000 kHz	996.17041 MHz	-50.18 dBm	-37.18 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.83179 GHz	-38.23 dBm	-25.23 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99435 GHz	-34.04 dBm	-21.04 dB

Date: 17.DEC.2019 11:42:33

Middle Channel / 16QAM



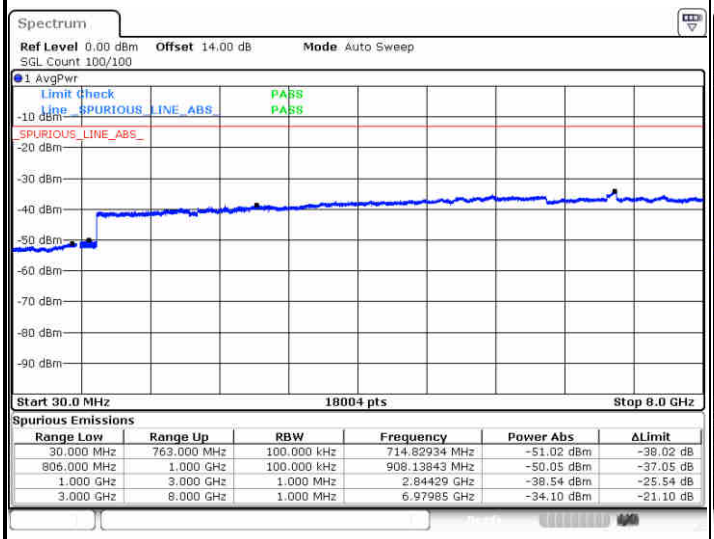
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	729.11569 MHz	-51.05 dBm	-38.05 dB
806.000 MHz	1.000 GHz	100.000 kHz	887.00300 MHz	-50.17 dBm	-37.17 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.87728 GHz	-38.46 dBm	-25.46 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99285 GHz	-34.01 dBm	-21.01 dB

Date: 17.DEC.2019 11:41:53

LTE Band 13 / 5MHz

Lowest Channel / 64QAM

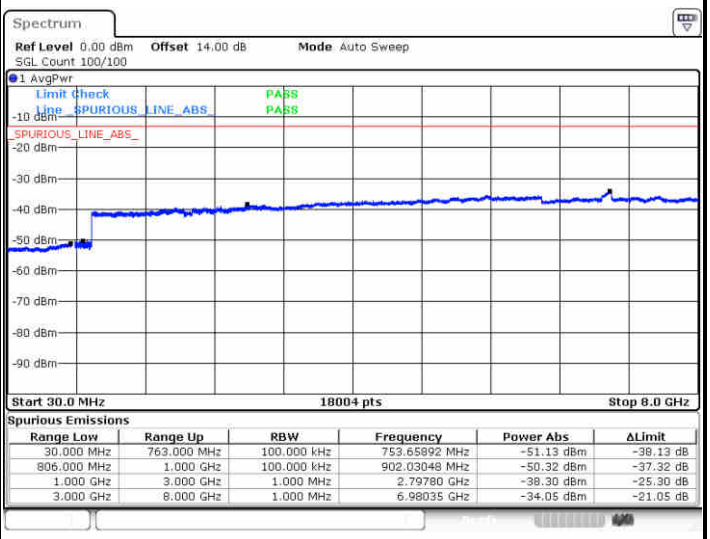


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	714.82934 MHz	-51.02 dBm	-38.02 dB
806.000 MHz	1.000 GHz	100.000 kHz	908.13843 MHz	-50.05 dBm	-37.05 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.84429 GHz	-38.54 dBm	-25.54 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.97985 GHz	-34.10 dBm	-21.10 dB

Date: 17.DEC.2019 11:25:04

Middle Channel / 64QAM

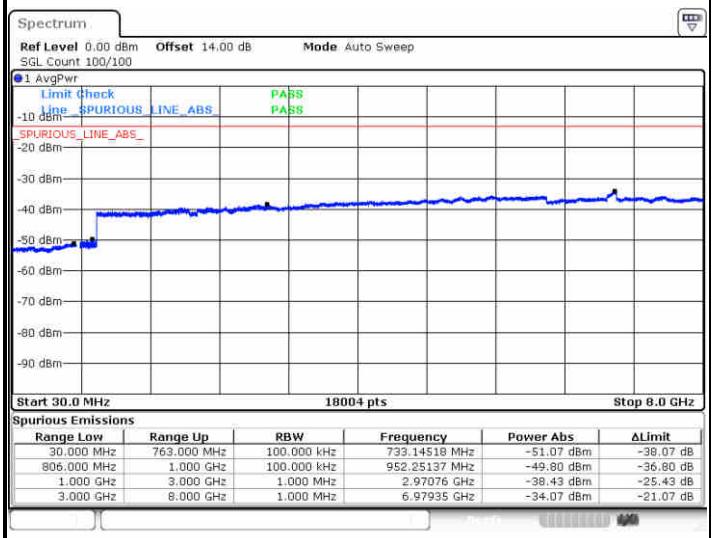


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	753.65892 MHz	-51.13 dBm	-38.13 dB
806.000 MHz	1.000 GHz	100.000 kHz	902.03048 MHz	-50.32 dBm	-37.32 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.79780 GHz	-38.30 dBm	-25.30 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.98035 GHz	-34.05 dBm	-21.05 dB

Date: 17.DEC.2019 11:25:44

Highest Channel / 64QAM



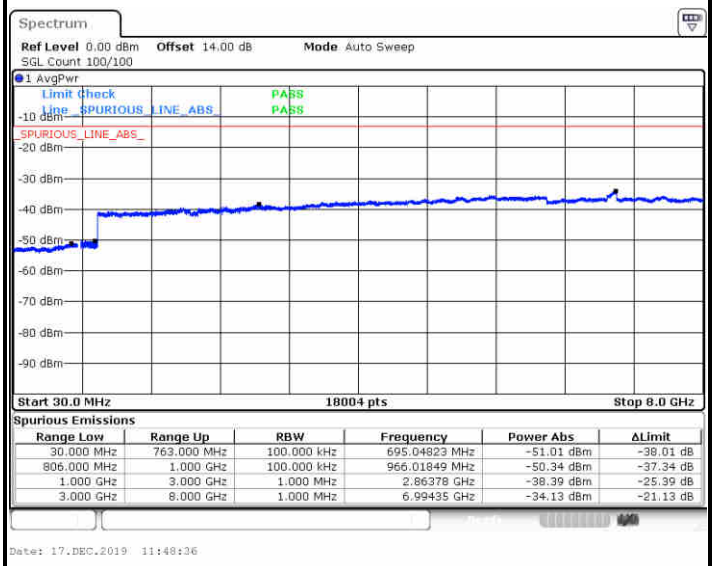
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	733.14518 MHz	-51.07 dBm	-38.07 dB
806.000 MHz	1.000 GHz	100.000 kHz	952.25137 MHz	-49.80 dBm	-36.80 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.97076 GHz	-38.43 dBm	-25.43 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.97935 GHz	-34.07 dBm	-21.07 dB

Date: 17.DEC.2019 11:30:28

LTE Band 13 / 10MHz

Middle Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	695.04823 MHz	-51.01 dBm	-38.01 dB
806.000 MHz	1.000 GHz	100.000 kHz	966.01849 MHz	-50.34 dBm	-37.34 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.86378 GHz	-38.39 dBm	-25.39 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.99435 GHz	-34.13 dBm	-21.13 dB

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	0.0072	PASS
40	Normal Voltage	0.0096	
30	Normal Voltage	0.0096	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0068	
0	Normal Voltage	0.0053	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0097	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage =3.87 V.；Battery End Point (BEP) =3.6 V.；Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

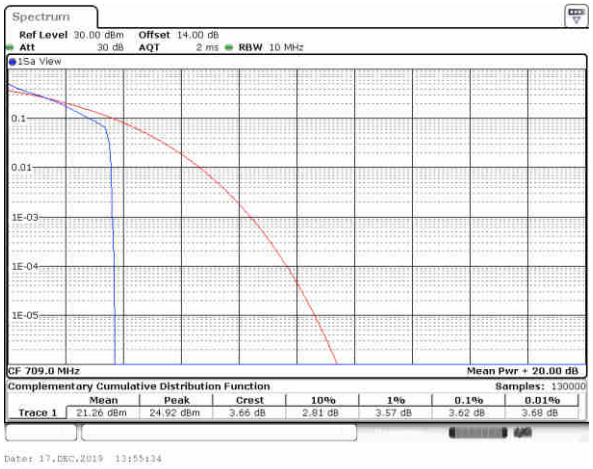
LTE Band 17

Peak-to-Average Ratio

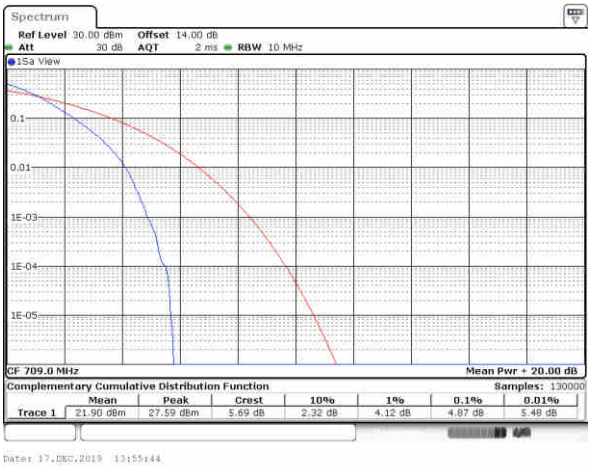
Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.87	5.16	5.83	PASS
Middle CH	3.65	4.90	5.19	5.80	
Highest CH	3.77	4.99	5.36	5.86	
Mode	LTE Band 17 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	5.77	5.83	-	-	PASS
Middle CH	5.54	5.83	-	-	
Highest CH	5.57	5.83	-	-	

LTE Band 17 / 10MHz / QPSK

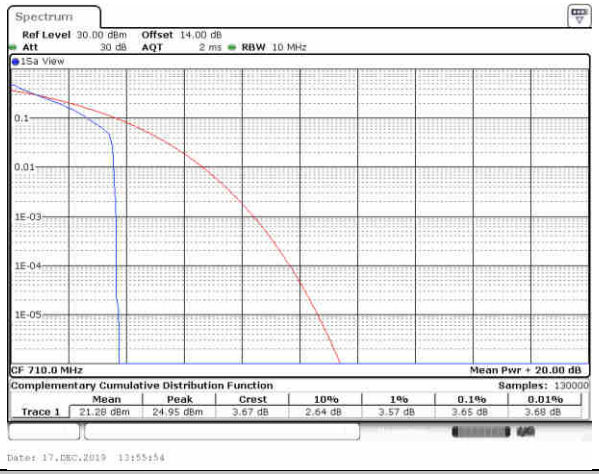
Lowest Channel / 1RB



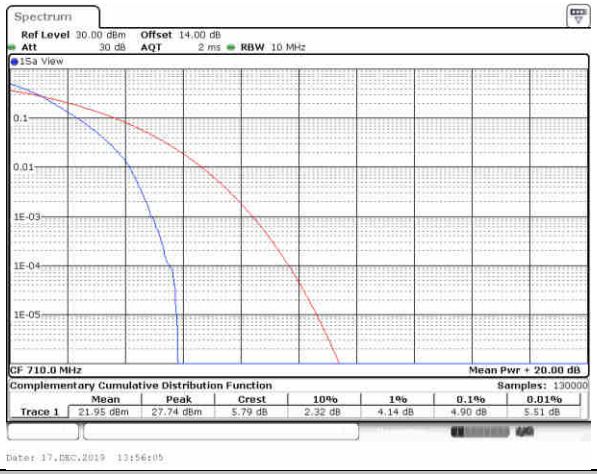
Lowest Channel / Full RB



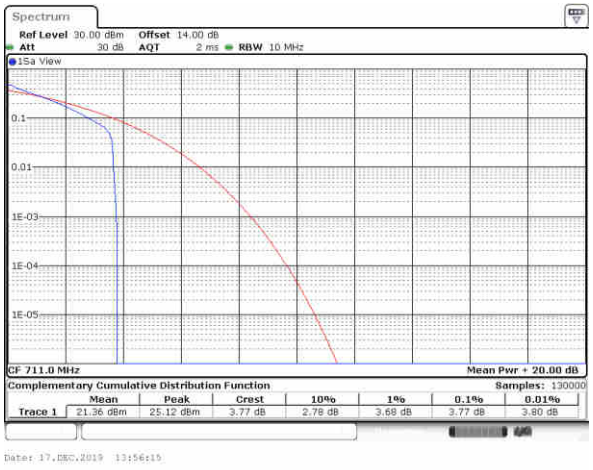
Middle Channel / 1RB



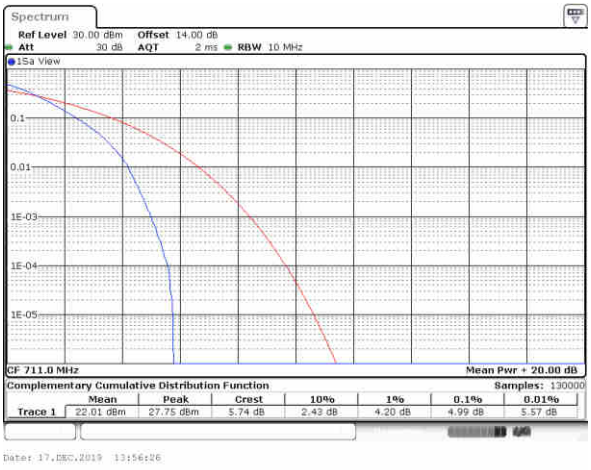
Middle Channel / Full RB



Highest Channel / 1RB

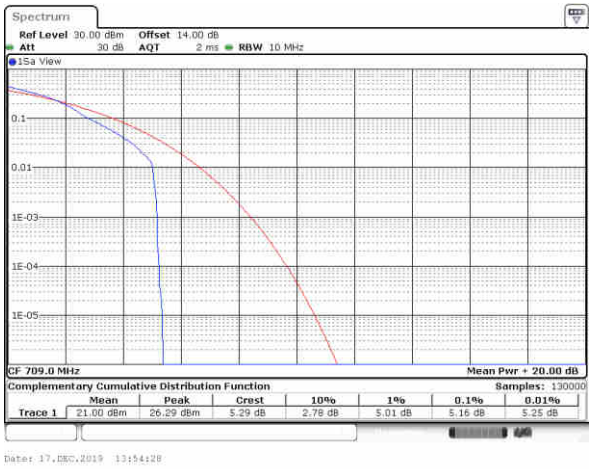


Highest Channel / Full RB

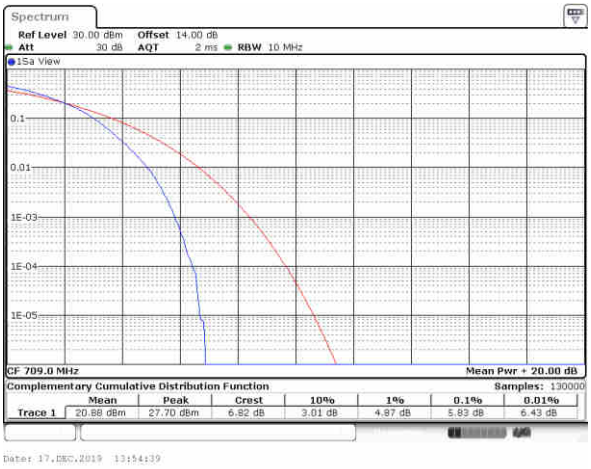


LTE Band 17 / 10MHz / 16QAM

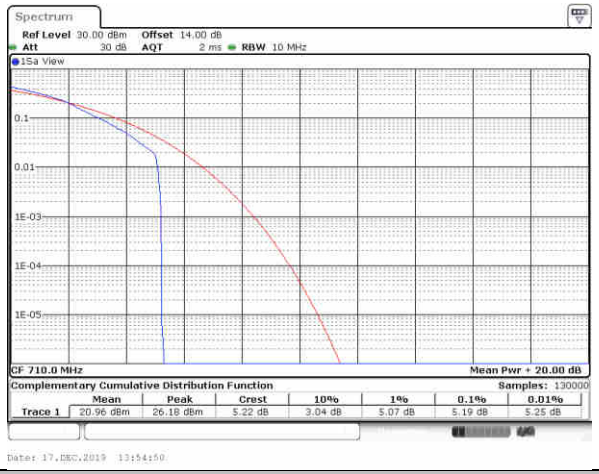
Lowest Channel / 1RB



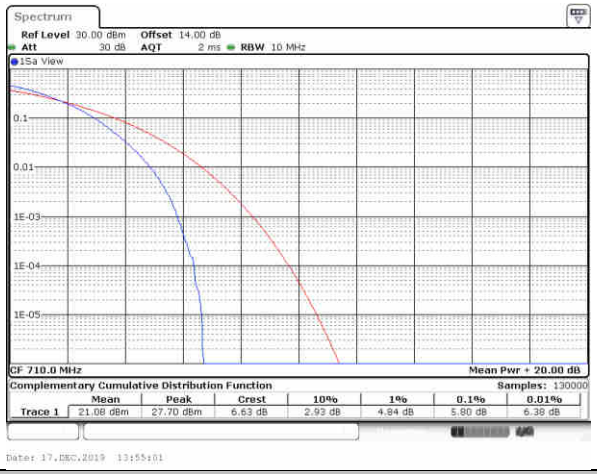
Lowest Channel / Full RB



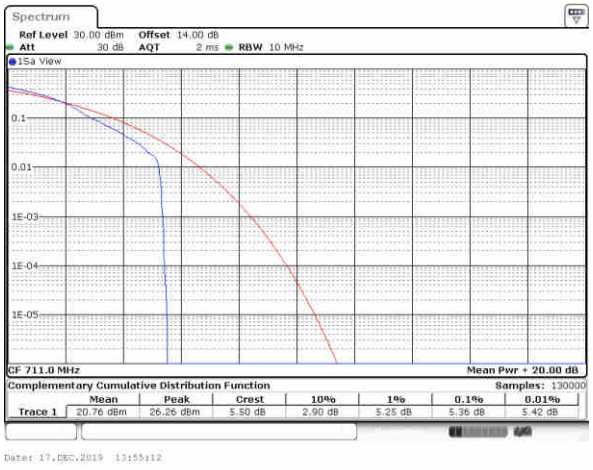
Middle Channel / 1RB



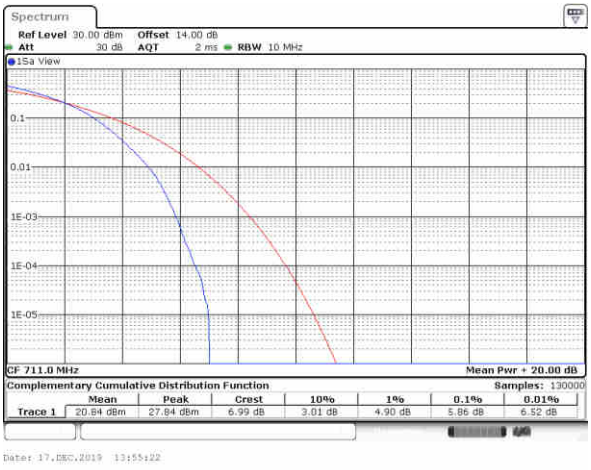
Middle Channel / Full RB



Highest Channel / 1RB

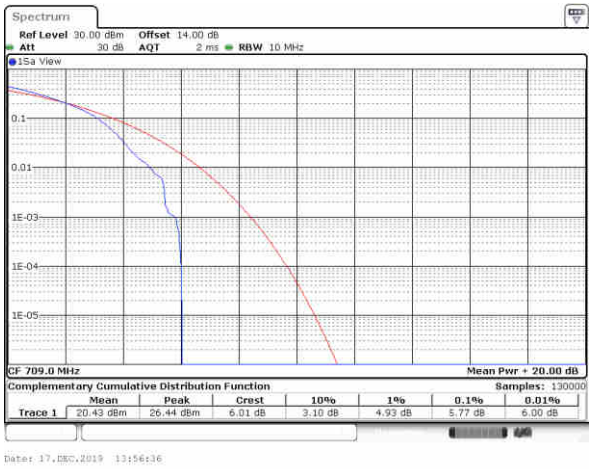


Highest Channel / Full RB

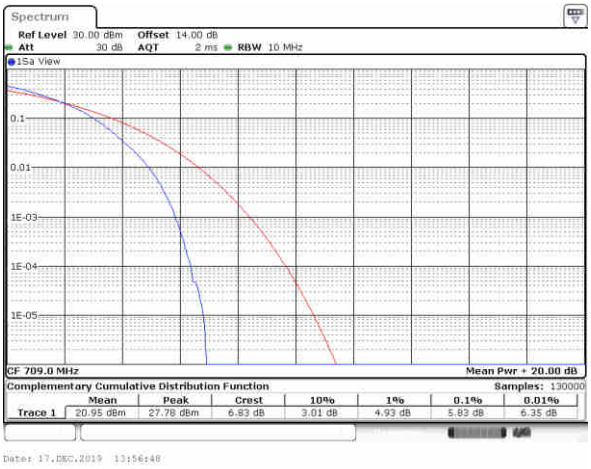


LTE Band 17 / 10MHz / 64QAM

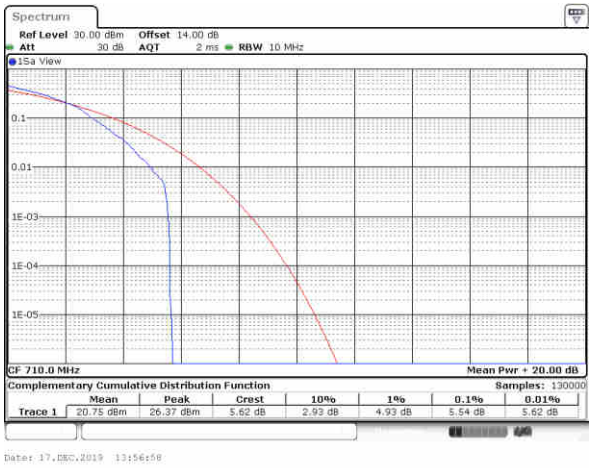
Lowest Channel / 1RB



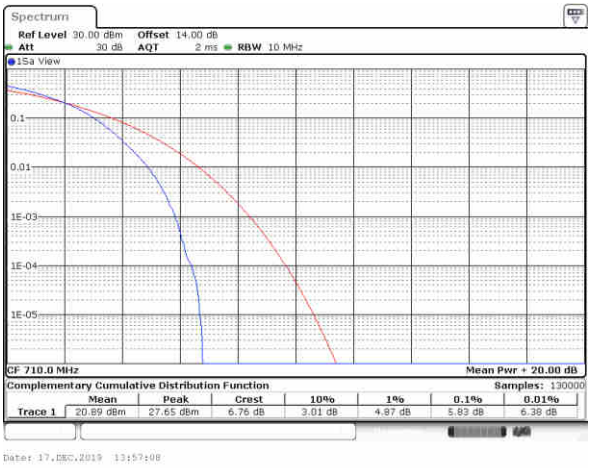
Lowest Channel / Full RB



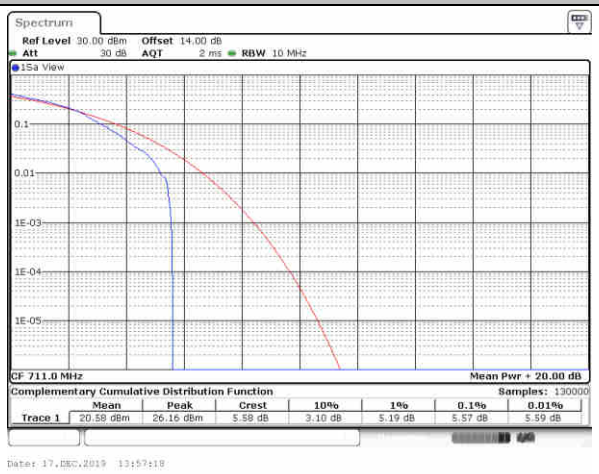
Middle Channel / 1RB



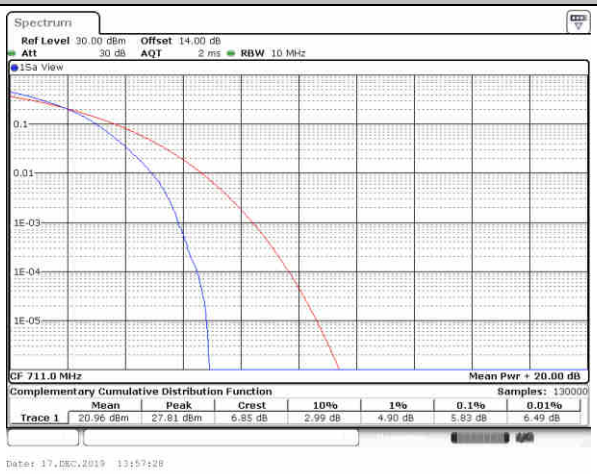
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



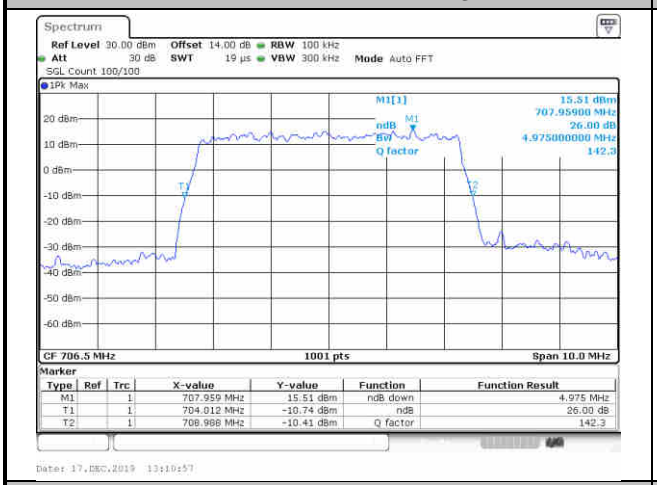
26dB Bandwidth

Mode	LTE Band 17 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.98	4.87	9.73	9.93
Middle CH	4.85	4.83	9.73	9.63
Highest CH	4.84	4.83	9.71	9.81

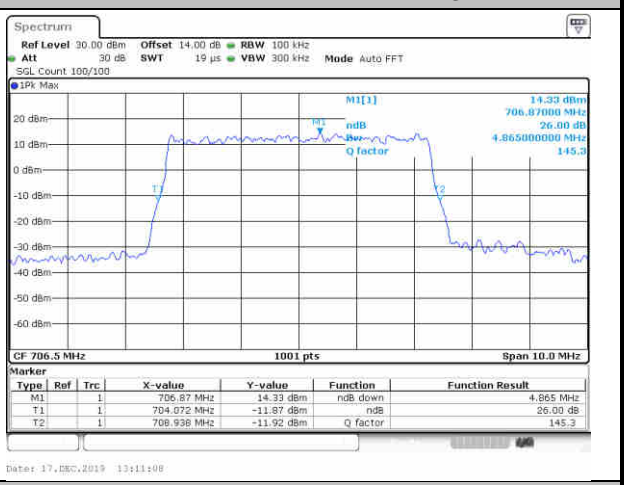
Mode	LTE Band 17 : 26dB BW(MHz)	
BW	5MHz	10MHz
Mod.	64QAM	64QAM
Lowest CH	4.87	9.87
Middle CH	4.88	9.83
Highest CH	4.83	9.77

LTE Band 17

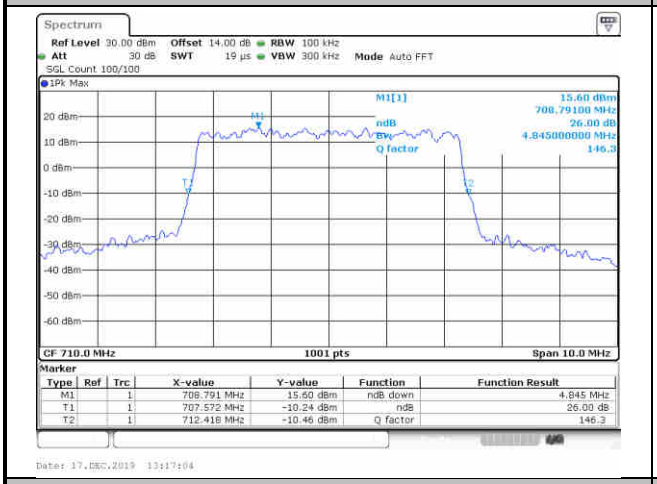
Lowest Channel / 5MHz / QPSK



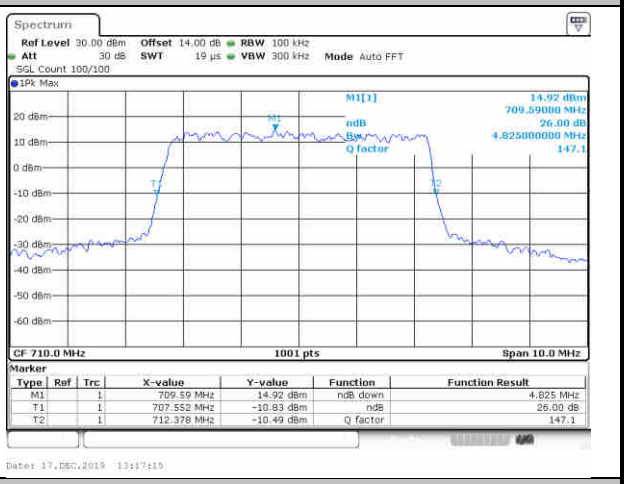
Lowest Channel / 5MHz / 16QAM



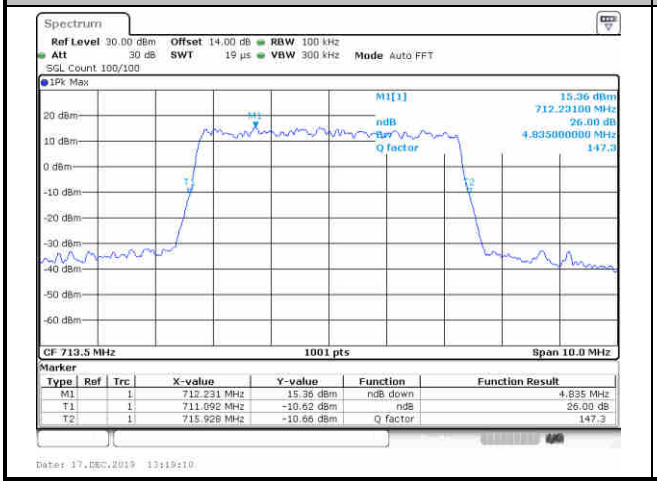
Middle Channel / 5MHz / QPSK



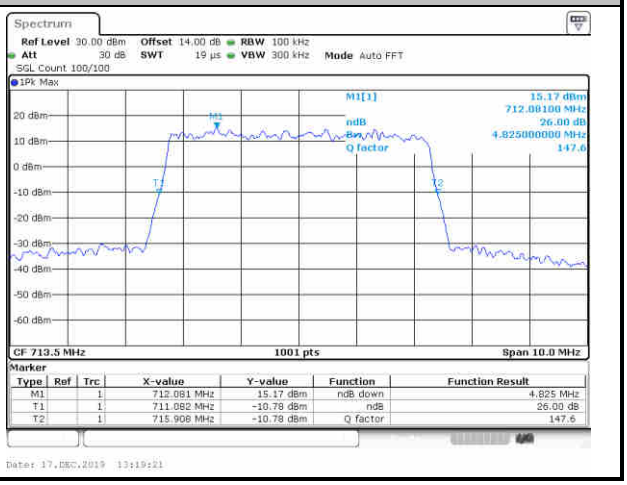
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

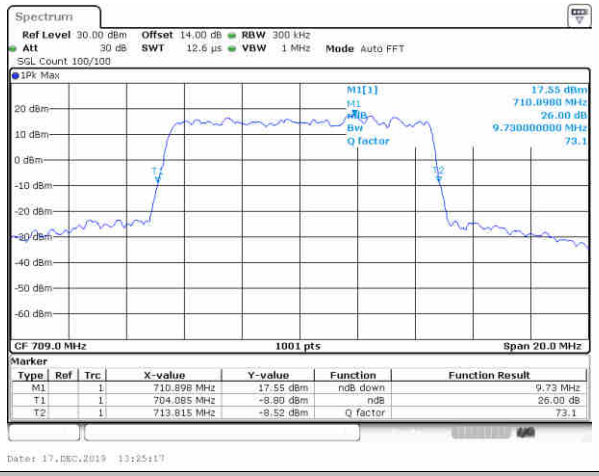


Highest Channel / 5MHz / 16QAM

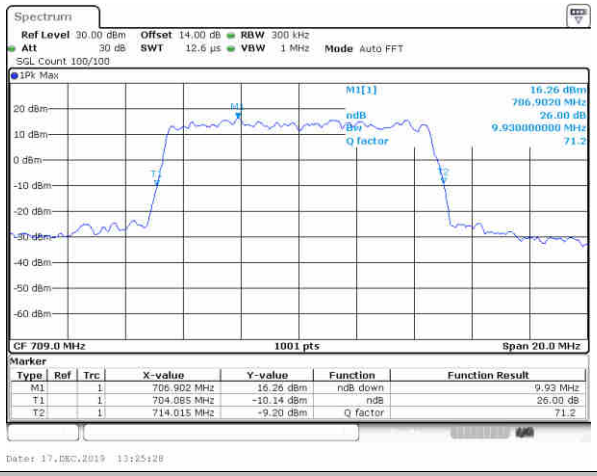


LTE Band 17

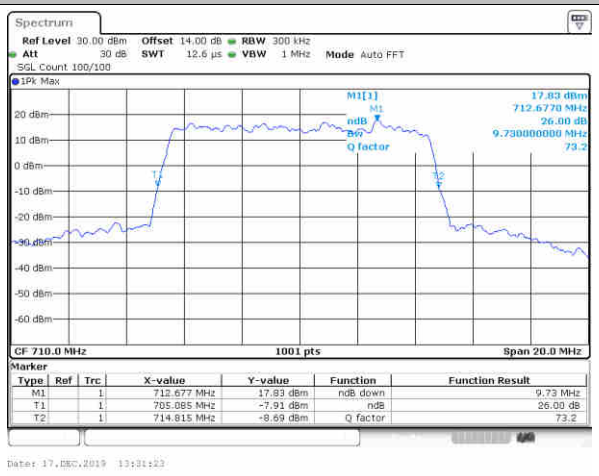
Lowest Channel / 10MHz / QPSK



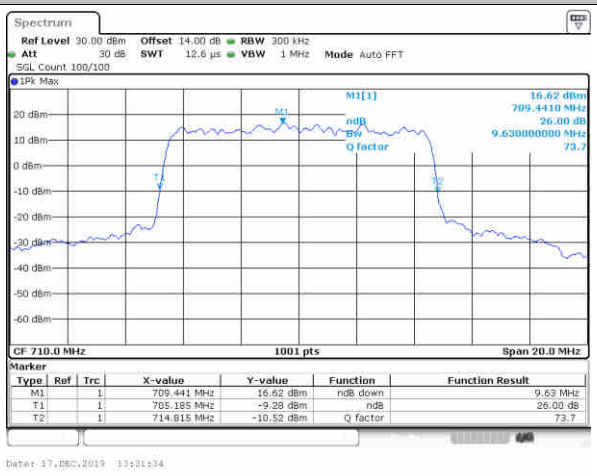
Lowest Channel / 10MHz / 16QAM



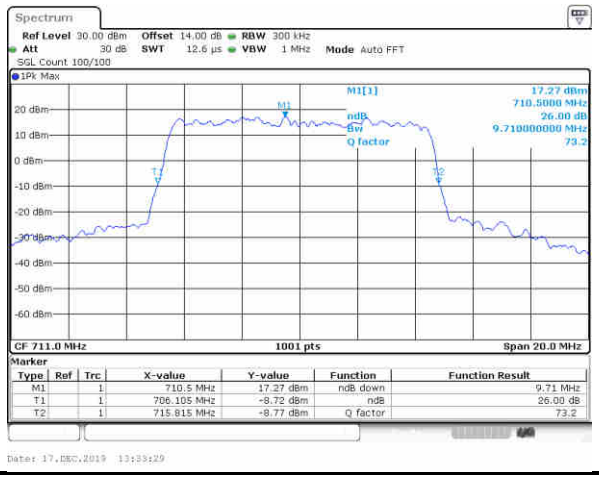
Middle Channel / 10MHz / QPSK



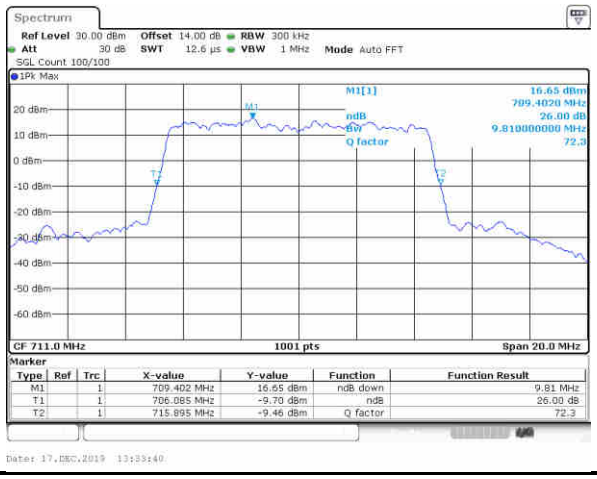
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

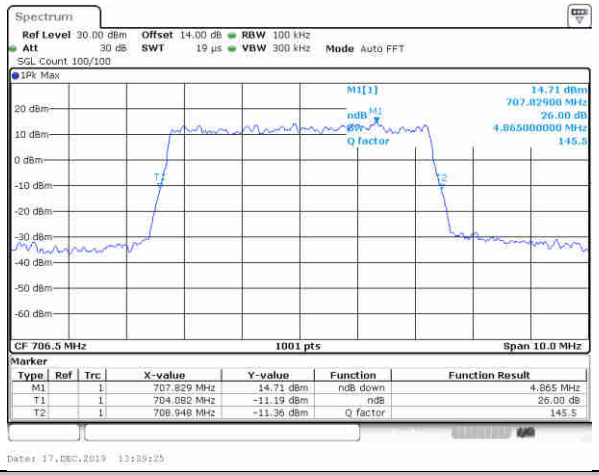


Highest Channel / 10MHz / 16QAM

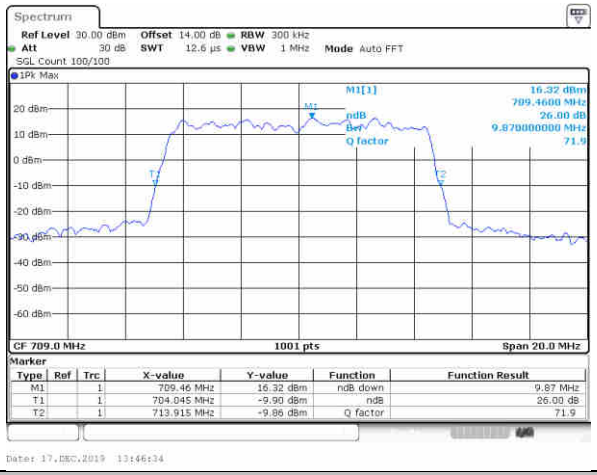


LTE Band 17

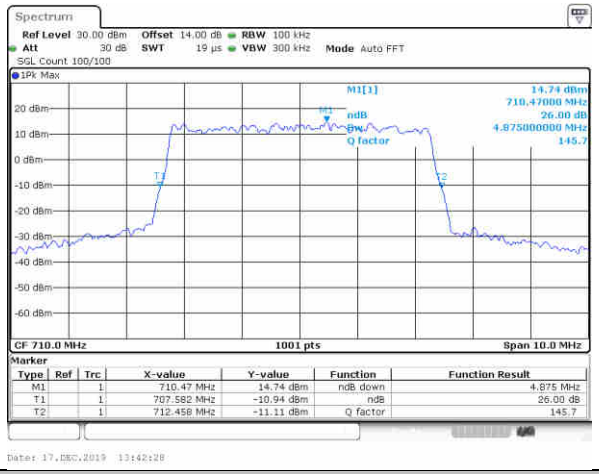
Lowest Channel / 5MHz / 64QAM



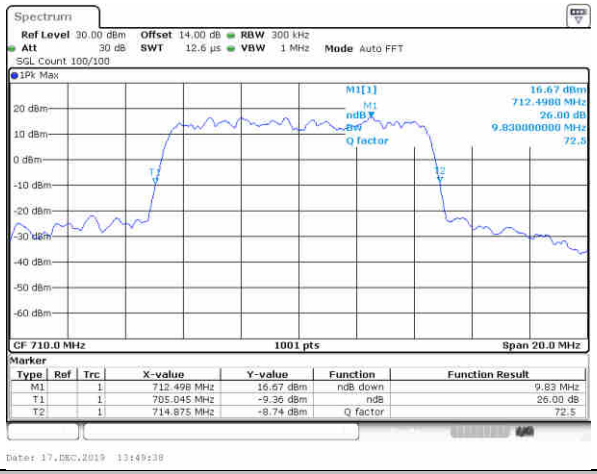
Lowest Channel / 10MHz / 64QAM



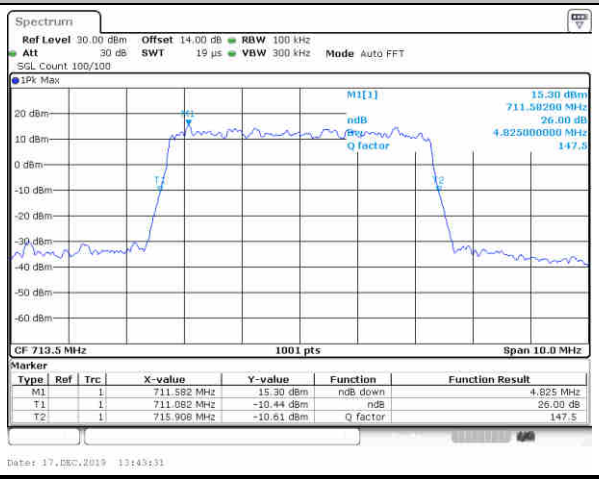
Middle Channel / 5MHz / 64QAM



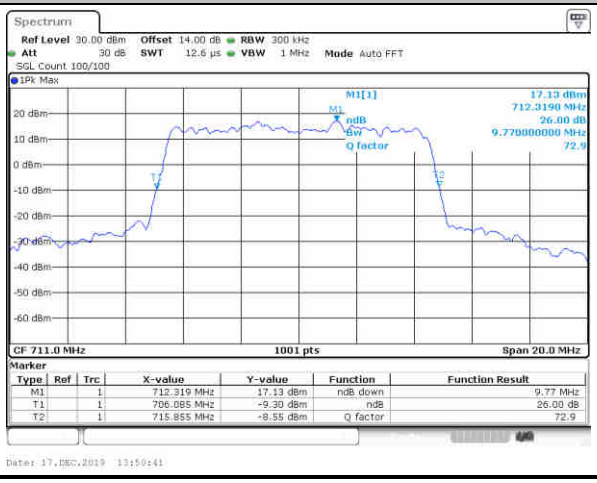
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM

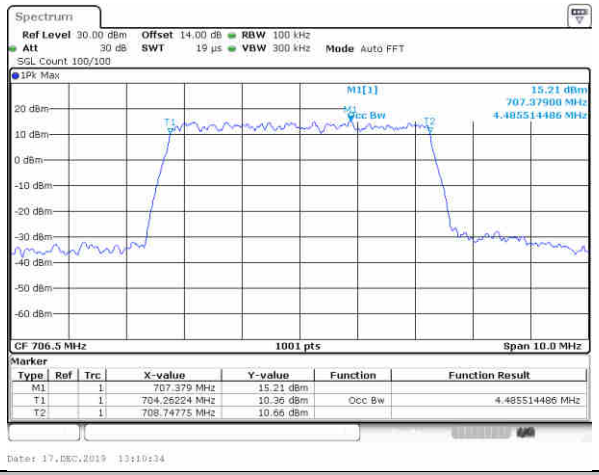


Occupied Bandwidth

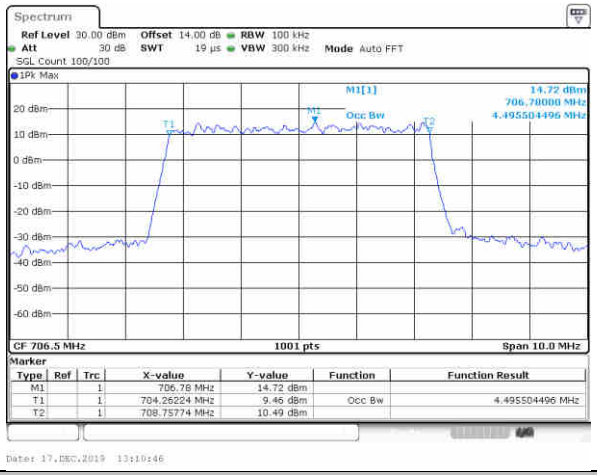
Mode	LTE Band 17 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.49	4.50	9.03	9.01
Middle CH	4.50	4.49	8.99	9.03
Highest CH	4.49	4.51	8.99	8.99
Mode	LTE Band 17 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	64QAM		64QAM	
Lowest CH	4.51		8.99	
Middle CH	4.50		8.93	
Highest CH	4.51		8.99	

LTE Band 17

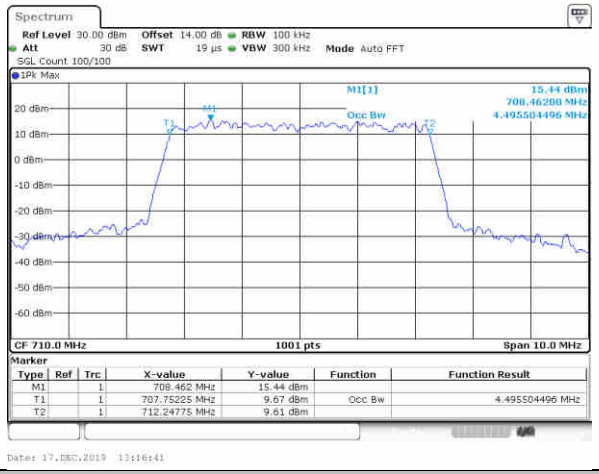
Lowest Channel / 5MHz / QPSK



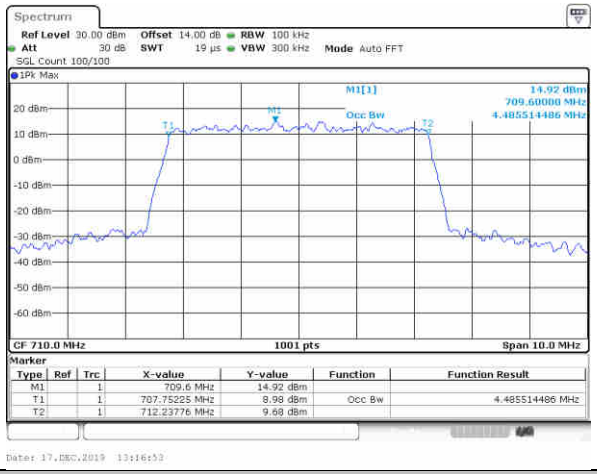
Lowest Channel / 5MHz / 16QAM



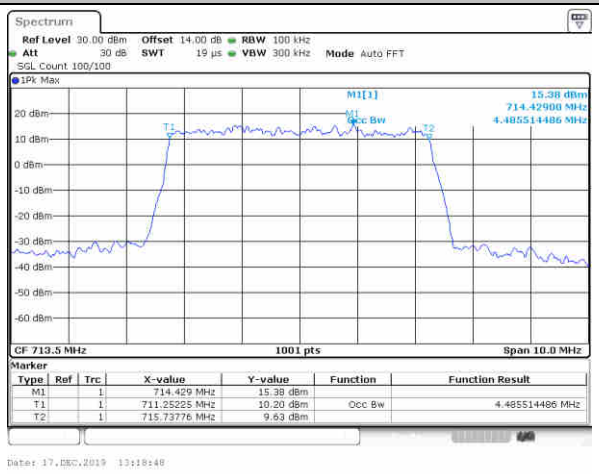
Middle Channel / 5MHz / QPSK



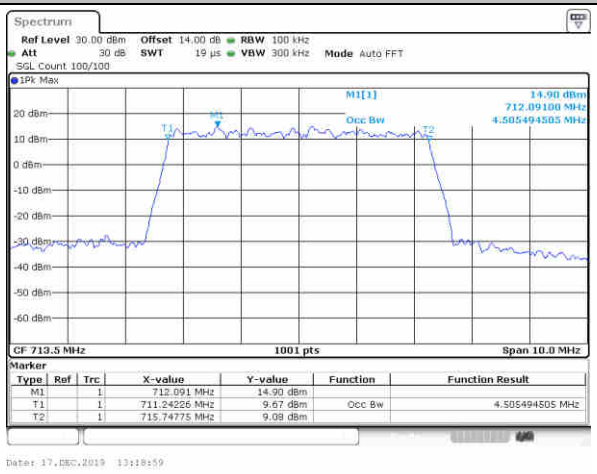
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

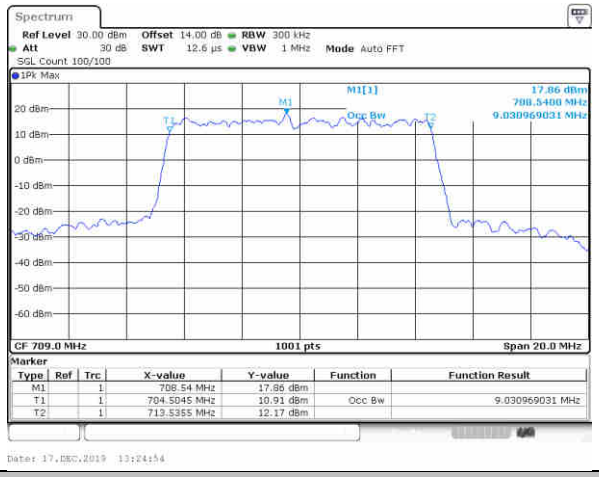


Highest Channel / 5MHz / 16QAM

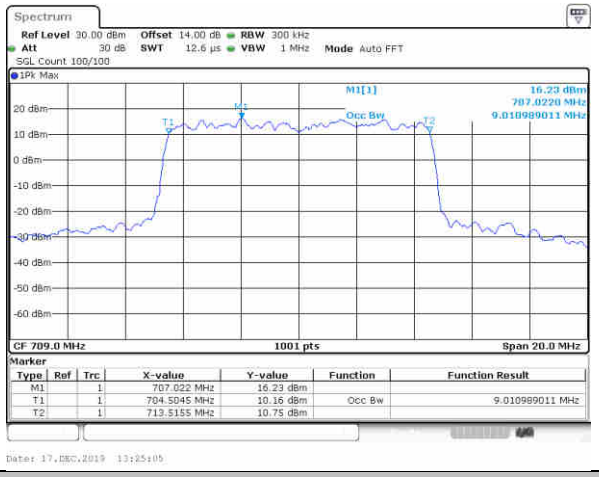


LTE Band 17

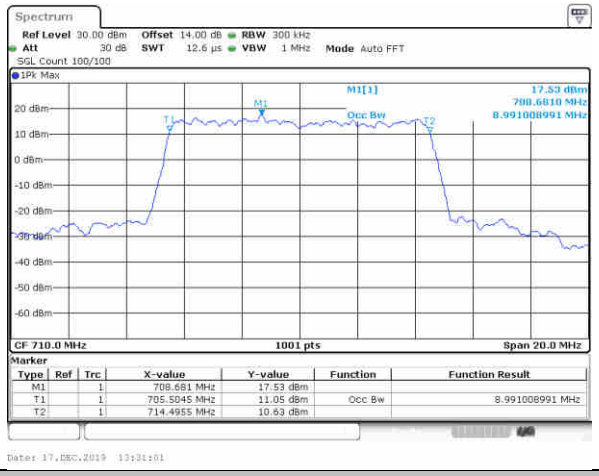
Lowest Channel / 10MHz / QPSK



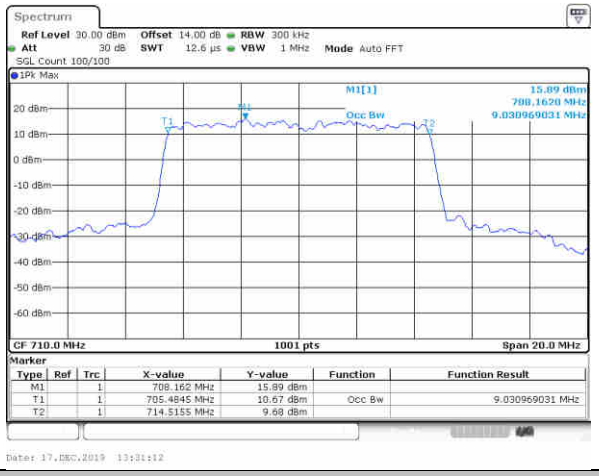
Lowest Channel / 10MHz / 16QAM



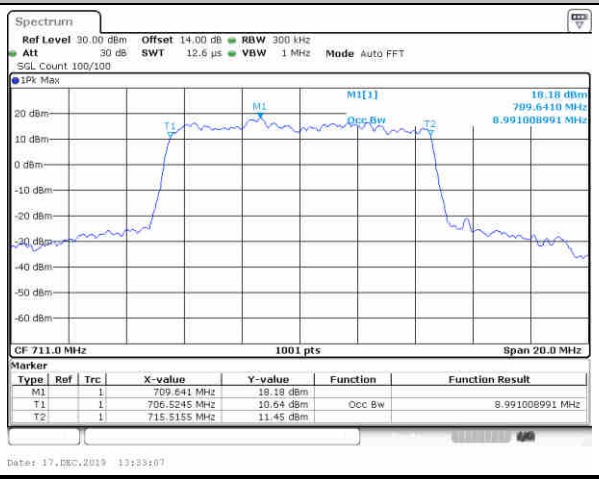
Middle Channel / 10MHz / QPSK



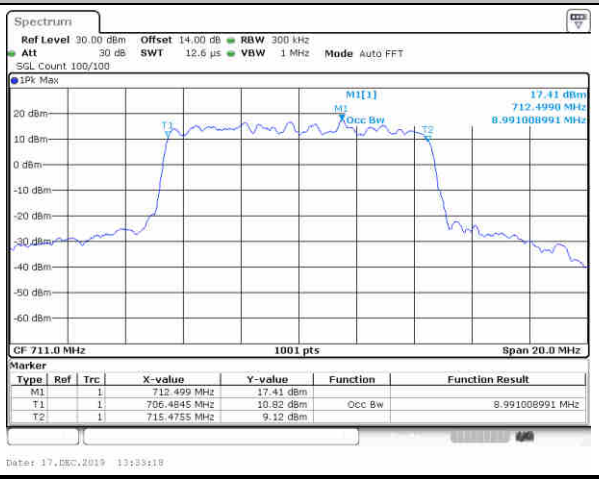
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

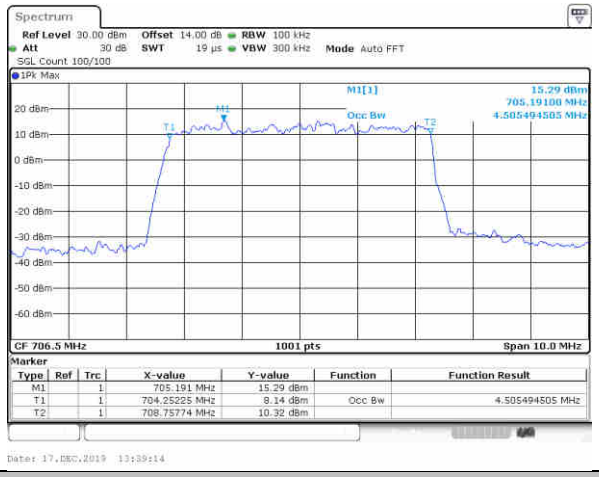


Highest Channel / 10MHz / 16QAM

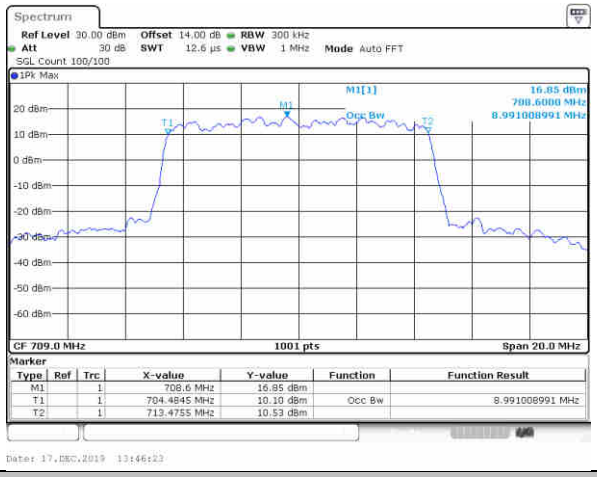


LTE Band 17

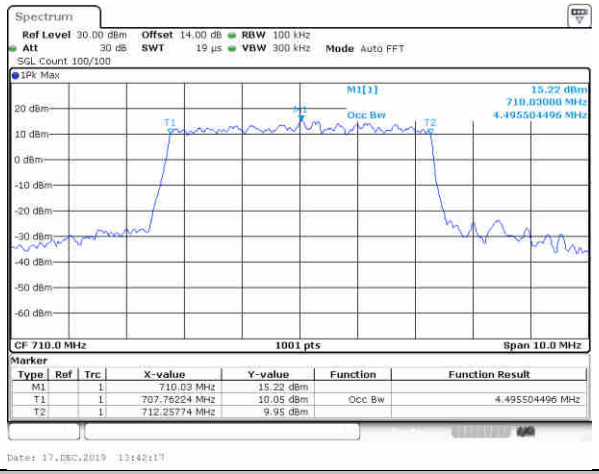
Lowest Channel / 5MHz / 64QAM



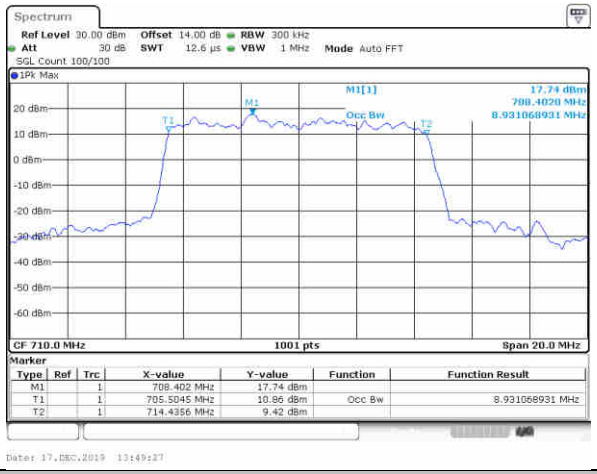
Lowest Channel / 10MHz / 64QAM



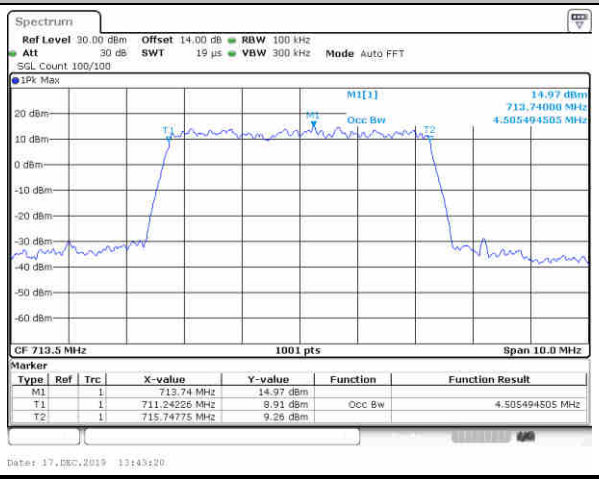
Middle Channel / 5MHz / 64QAM



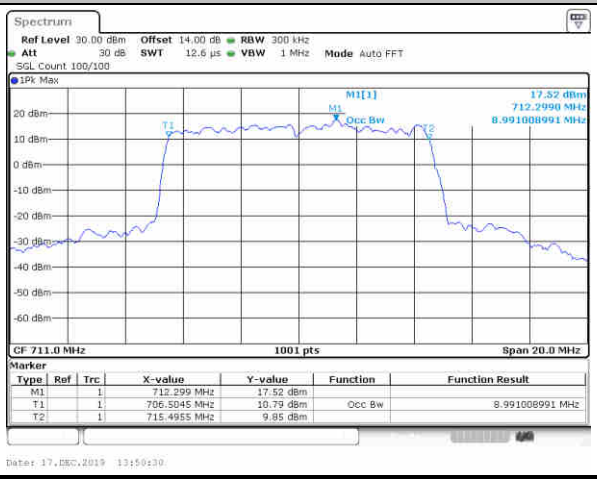
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



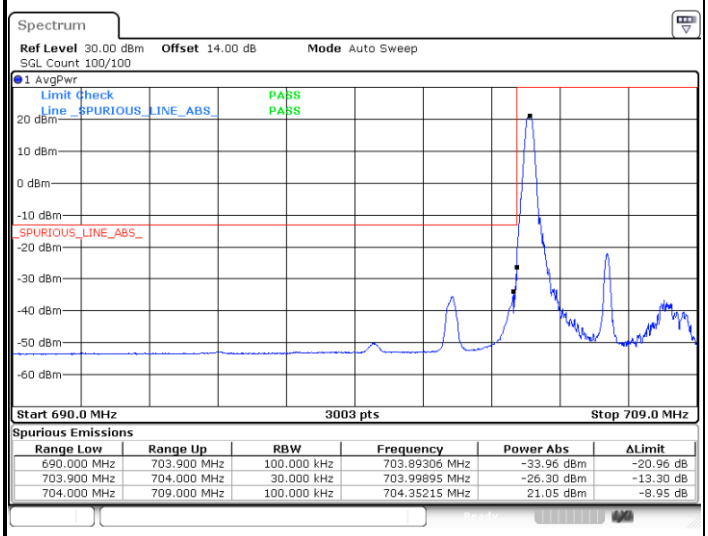
Highest Channel / 10MHz / 64QAM



Conducted Band Edge

LTE Band 17 / 5MHz / QPSK

Lowest Band Edge / 1 RB

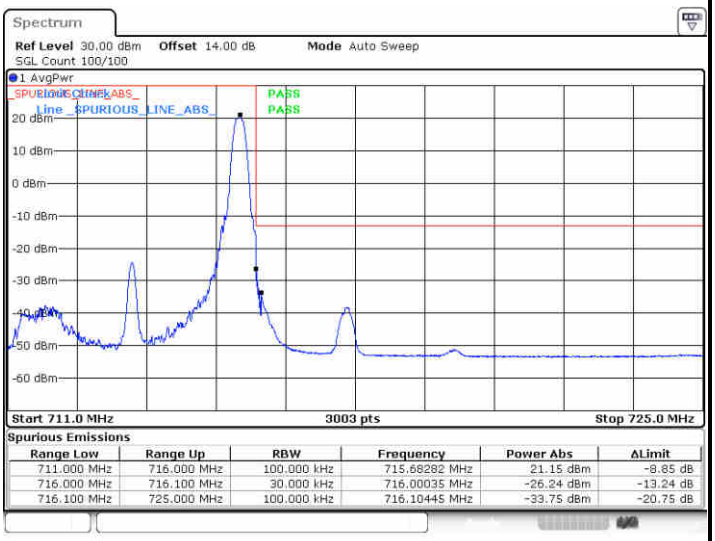


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-33.96 dBm	-20.96 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99895 MHz	-26.30 dBm	-13.30 dB
704.000 MHz	709.000 MHz	100.000 kHz	704.35215 MHz	21.05 dBm	-8.95 dB

Date: 17.DEC.2019 13:12:07

Highest Band Edge / 1 RB

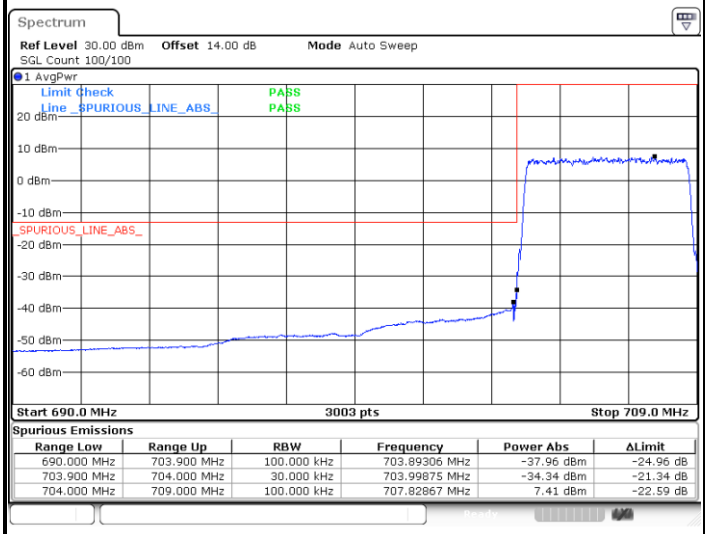


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.68282 MHz	21.15 dBm	-8.85 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00035 MHz	-26.24 dBm	-13.24 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-33.75 dBm	-20.75 dB

Date: 17.DEC.2019 13:20:21

Lowest Band Edge / Full RB

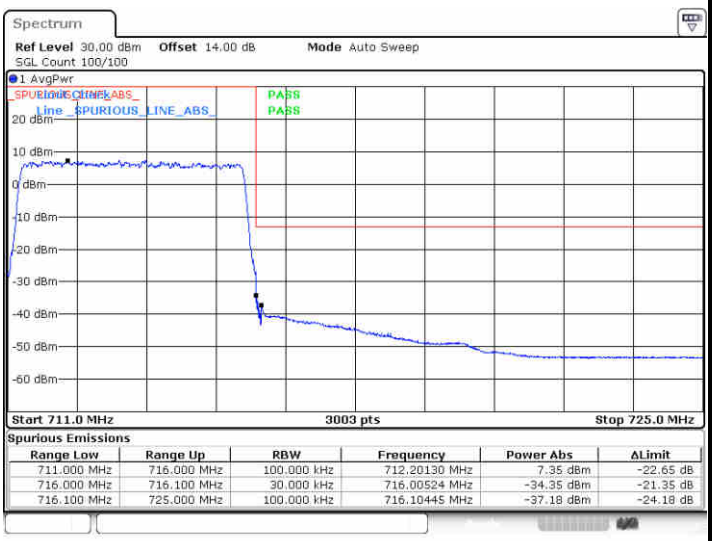


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-37.96 dBm	-24.96 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99875 MHz	-34.34 dBm	-21.34 dB
704.000 MHz	709.000 MHz	100.000 kHz	707.82867 MHz	7.41 dBm	-22.59 dB

Date: 17.DEC.2019 13:14:07

Highest Band Edge / Full RB



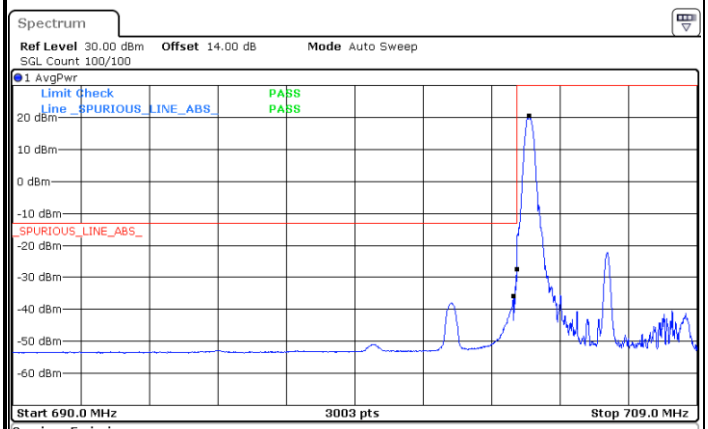
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	712.20130 MHz	7.35 dBm	-22.65 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00524 MHz	-34.35 dBm	-21.35 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-37.18 dBm	-24.18 dB

Date: 17.DEC.2019 13:22:21

LTE Band 17 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

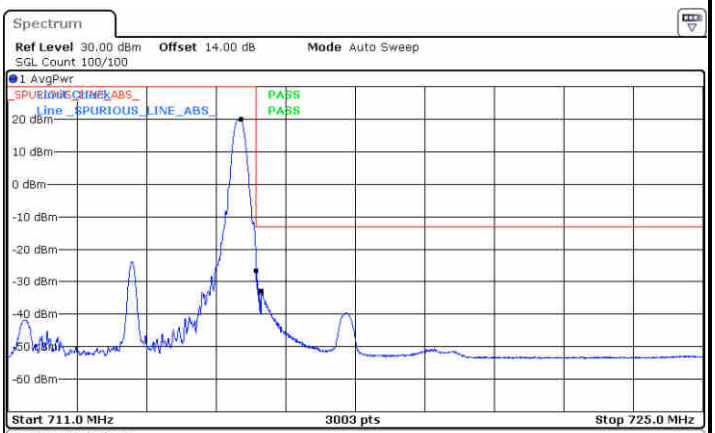


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-35.76 dBm	-22.76 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99915 MHz	-27.33 dBm	-14.33 dB
704.000 MHz	709.000 MHz	100.000 kHz	704.33716 MHz	20.50 dBm	-9.50 dB

Date: 17.DEC.2019 13:13:07

Highest Band Edge / 1 RB

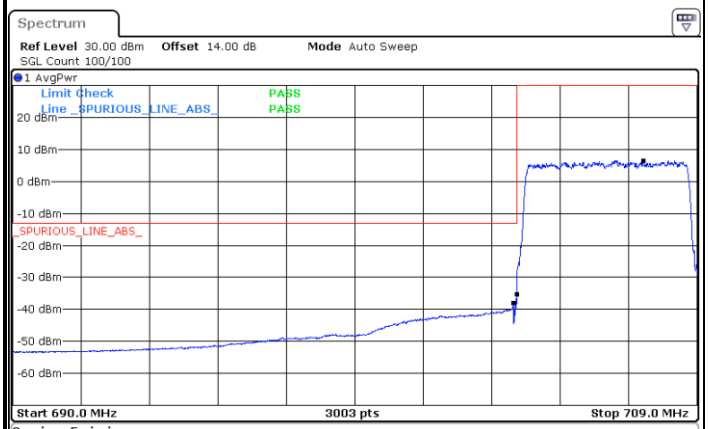


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.69780 MHz	20.02 dBm	-9.98 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00055 MHz	-26.61 dBm	-13.61 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-32.96 dBm	-19.96 dB

Date: 17.DEC.2019 13:21:21

Lowest Band Edge / Full RB

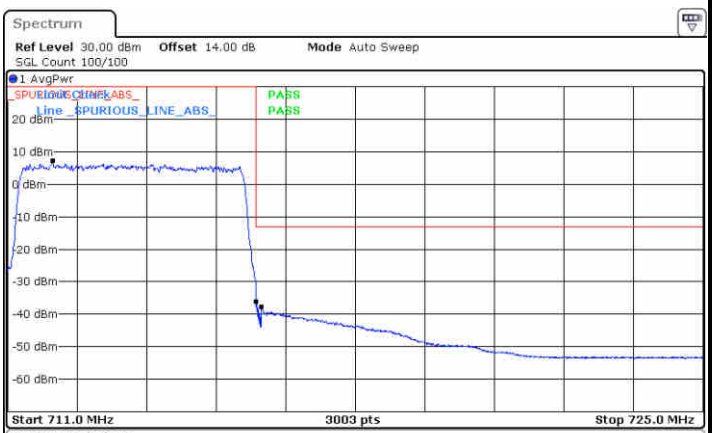


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-38.01 dBm	-25.01 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99985 MHz	-35.29 dBm	-22.29 dB
704.000 MHz	709.000 MHz	100.000 kHz	707.49900 MHz	6.53 dBm	-23.47 dB

Date: 17.DEC.2019 13:15:07

Highest Band Edge / Full RB



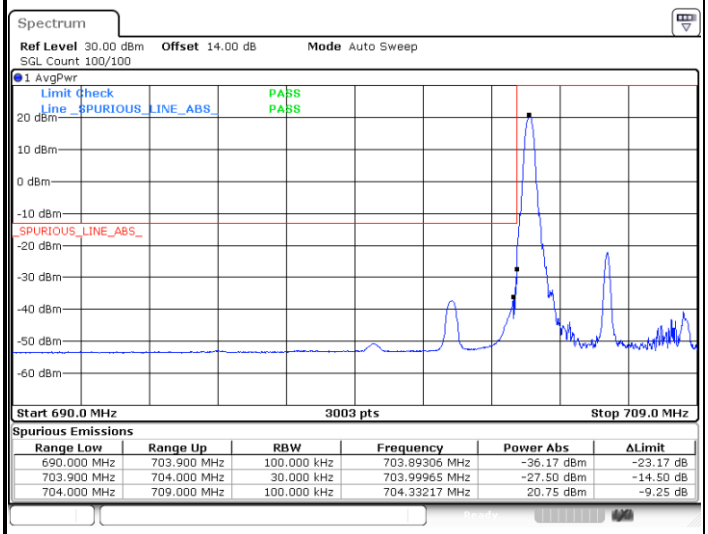
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	711.90160 MHz	7.25 dBm	-22.75 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00215 MHz	-36.10 dBm	-23.10 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-37.85 dBm	-24.85 dB

Date: 17.DEC.2019 13:23:21

LTE Band 17 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

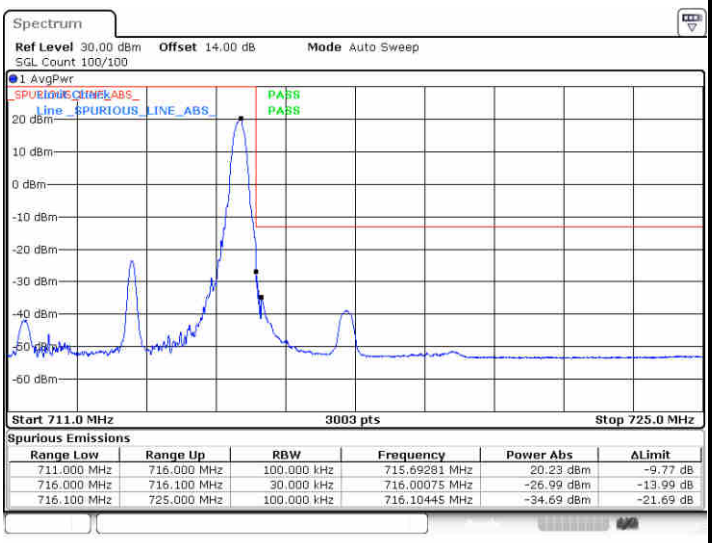


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-36.17 dBm	-23.17 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99965 MHz	-27.50 dBm	-14.50 dB
704.000 MHz	709.000 MHz	100.000 kHz	704.33217 MHz	20.75 dBm	-9.25 dB

Date: 17.DEC.2019 13:40:24

Highest Band Edge / 1 RB

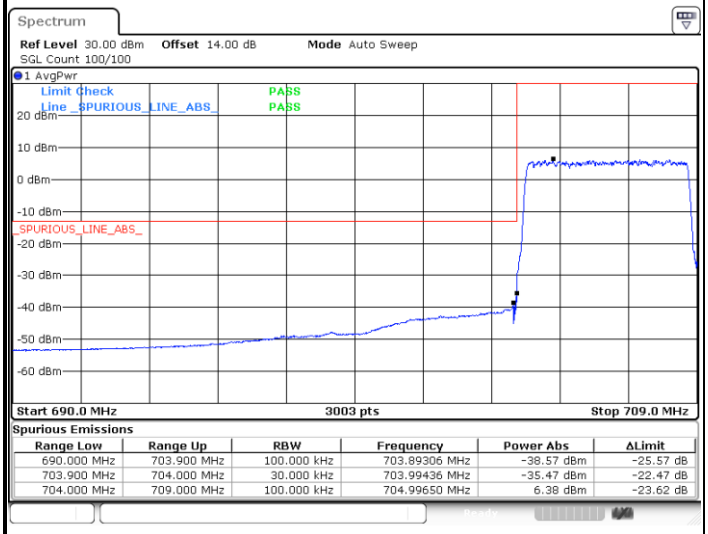


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.69281 MHz	20.23 dBm	-9.77 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00075 MHz	-26.99 dBm	-13.99 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-34.69 dBm	-21.69 dB

Date: 17.DEC.2019 13:44:30

Lowest Band Edge / Full RB

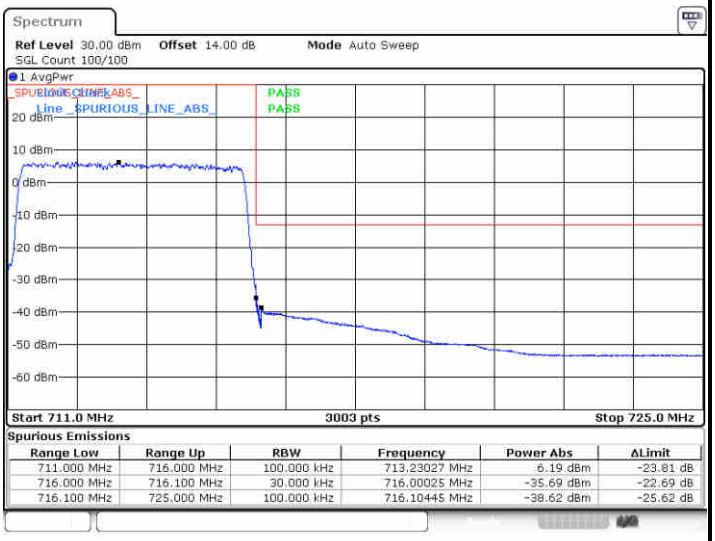


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-38.57 dBm	-25.57 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99436 MHz	-35.47 dBm	-22.47 dB
704.000 MHz	709.000 MHz	100.000 kHz	704.99650 MHz	6.38 dBm	-23.62 dB

Date: 17.DEC.2019 13:41:24

Highest Band Edge / Full RB



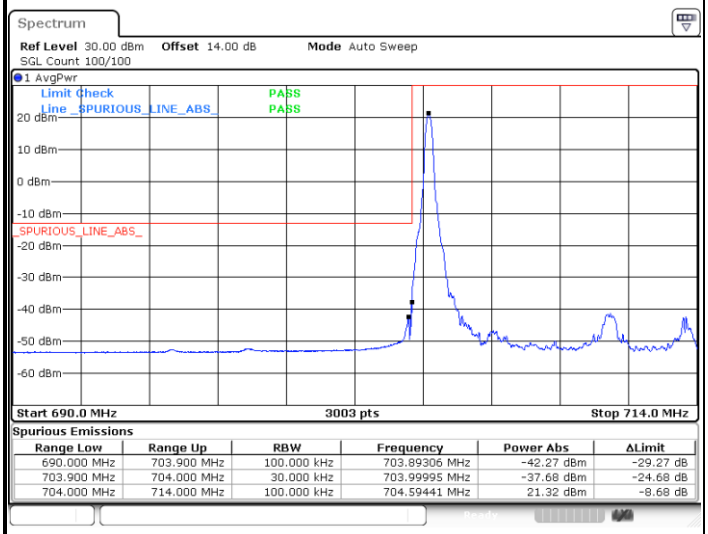
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	713.23027 MHz	6.19 dBm	-23.81 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00025 MHz	-35.69 dBm	-22.69 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-38.62 dBm	-25.62 dB

Date: 17.DEC.2019 13:45:30

LTE Band 17 / 10MHz / QPSK

Lowest Band Edge / 1 RB

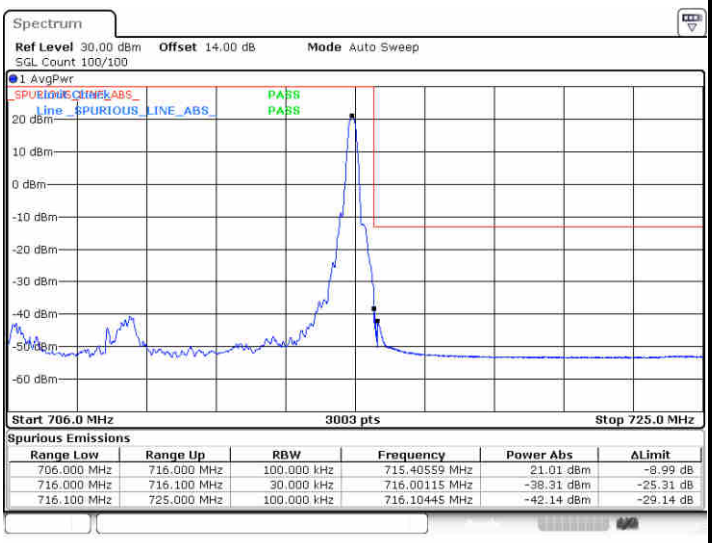


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-42.27 dBm	-29.27 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99995 MHz	-37.68 dBm	-24.68 dB
704.000 MHz	714.000 MHz	100.000 kHz	704.59441 MHz	21.32 dBm	-8.68 dB

Date: 17.DEC.2019 13:26:27

Highest Band Edge / 1 RB

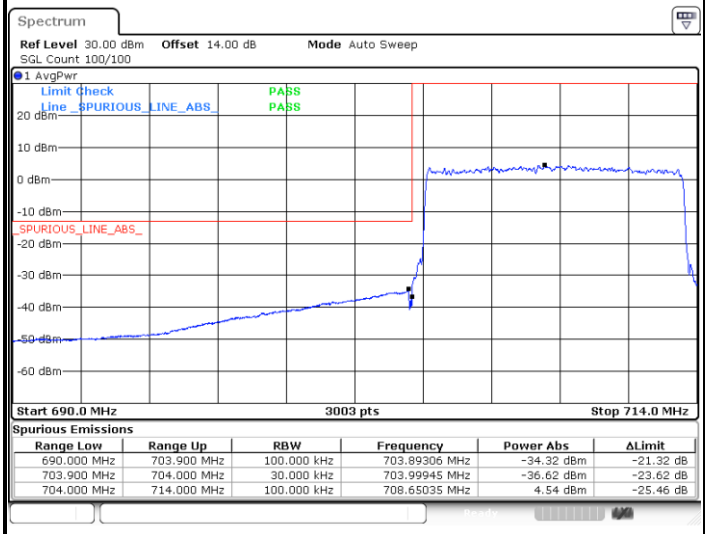


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.40559 MHz	21.01 dBm	-8.99 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00115 MHz	-38.31 dBm	-25.31 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-42.14 dBm	-29.14 dB

Date: 17.DEC.2019 13:34:39

Lowest Band Edge / Full RB

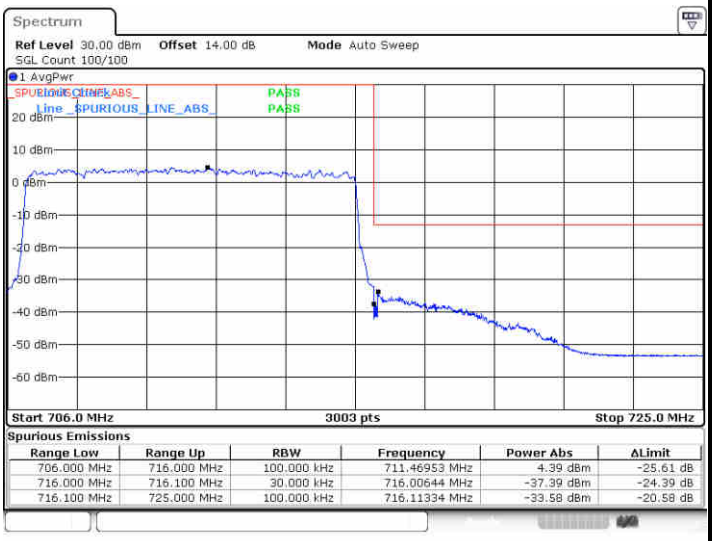


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-34.32 dBm	-21.32 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99945 MHz	-36.62 dBm	-23.62 dB
704.000 MHz	714.000 MHz	100.000 kHz	708.65035 MHz	4.54 dBm	-25.46 dB

Date: 17.DEC.2019 13:28:27

Highest Band Edge / Full RB



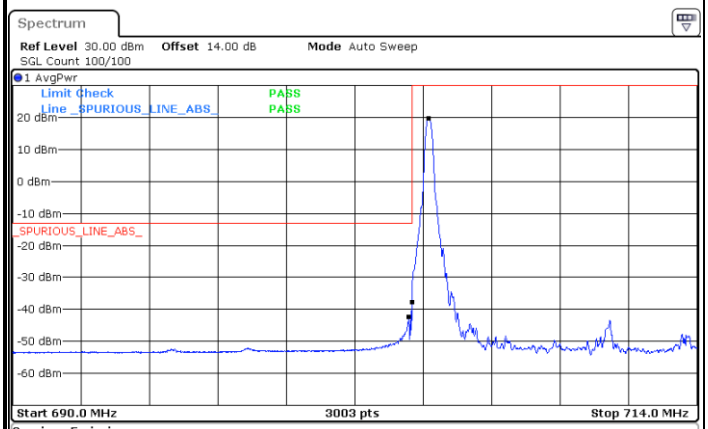
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	711.46953 MHz	4.39 dBm	-25.61 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00644 MHz	-37.39 dBm	-24.39 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.11334 MHz	-33.58 dBm	-20.58 dB

Date: 17.DEC.2019 13:36:39

LTE Band 17 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

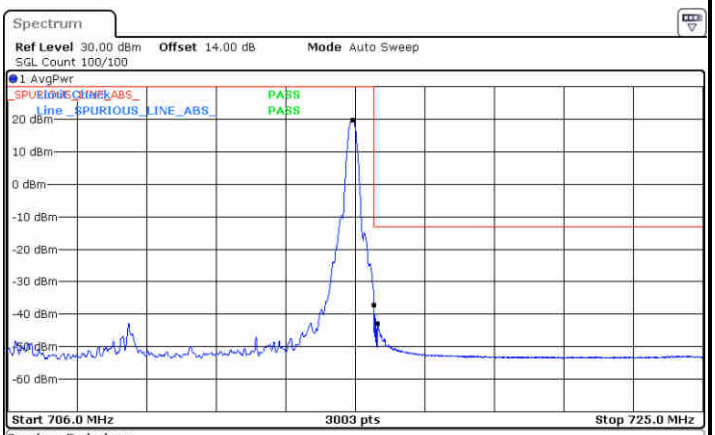


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-42.45 dBm	-29.45 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99006 MHz	-37.73 dBm	-24.73 dB
704.000 MHz	714.000 MHz	100.000 kHz	704.59441 MHz	19.65 dBm	-10.35 dB

Date: 17.DEC.2019 13:27:27

Highest Band Edge / 1 RB

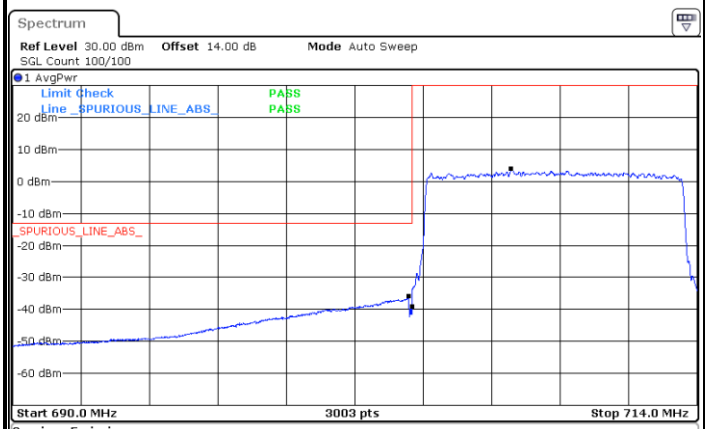


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.42557 MHz	19.73 dBm	-10.27 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00225 MHz	-37.12 dBm	-24.12 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-42.93 dBm	-29.93 dB

Date: 17.DEC.2019 13:35:39

Lowest Band Edge / Full RB

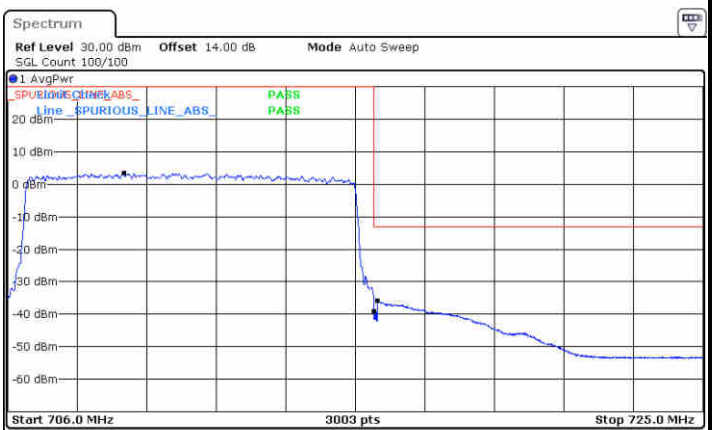


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-35.90 dBm	-22.90 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99895 MHz	-39.11 dBm	-26.11 dB
704.000 MHz	714.000 MHz	100.000 kHz	707.48152 MHz	3.91 dBm	-26.09 dB

Date: 17.DEC.2019 13:29:27

Highest Band Edge / Full RB



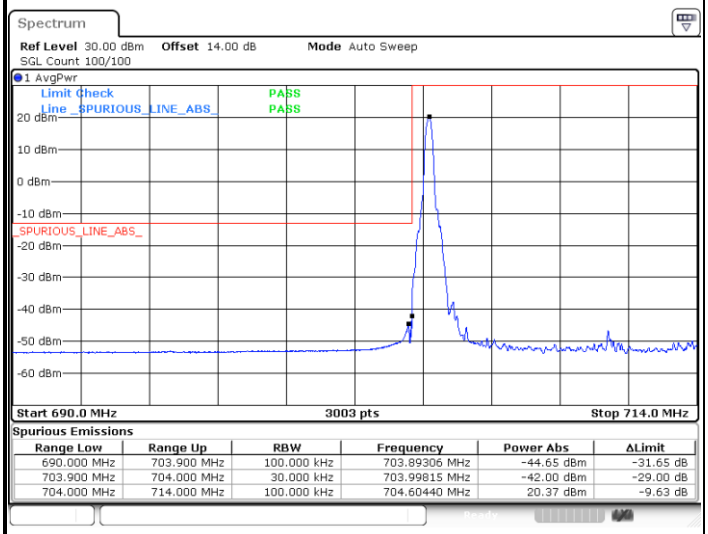
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	709.17183 MHz	3.40 dBm	-26.60 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.01553 MHz	-39.09 dBm	-26.09 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-35.77 dBm	-22.77 dB

Date: 17.DEC.2019 13:37:39

LTE Band 17 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

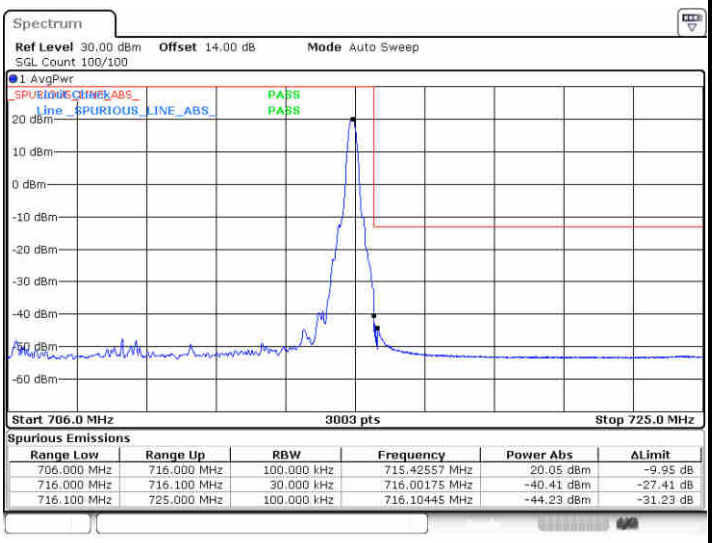


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-44.65 dBm	-31.65 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99815 MHz	-42.00 dBm	-29.00 dB
704.000 MHz	714.000 MHz	100.000 kHz	704.60440 MHz	20.37 dBm	-9.63 dB

Date: 17.DEC.2019 13:47:34

Highest Band Edge / 1 RB

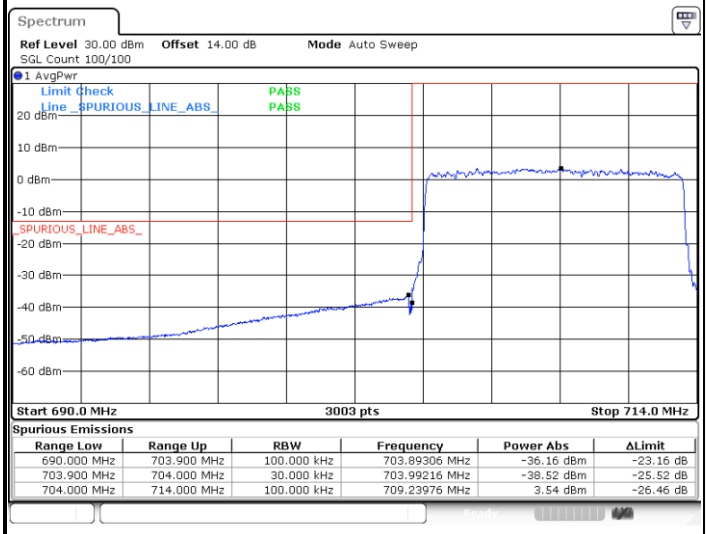


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.42557 MHz	20.05 dBm	-9.95 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00175 MHz	-40.41 dBm	-27.41 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-44.23 dBm	-31.23 dB

Date: 17.DEC.2019 13:51:40

Lowest Band Edge / Full RB

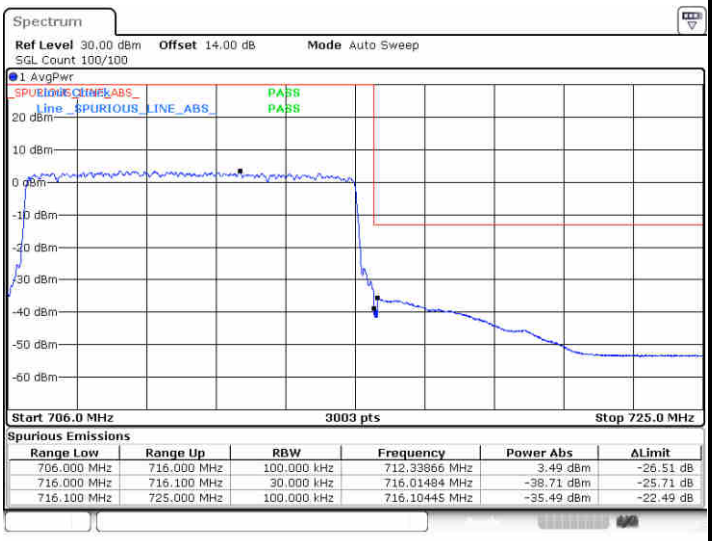


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-36.16 dBm	-23.16 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99216 MHz	-38.52 dBm	-25.52 dB
704.000 MHz	714.000 MHz	100.000 kHz	709.23976 MHz	3.54 dBm	-26.46 dB

Date: 17.DEC.2019 13:48:34

Highest Band Edge / Full RB



Spurious Emissions

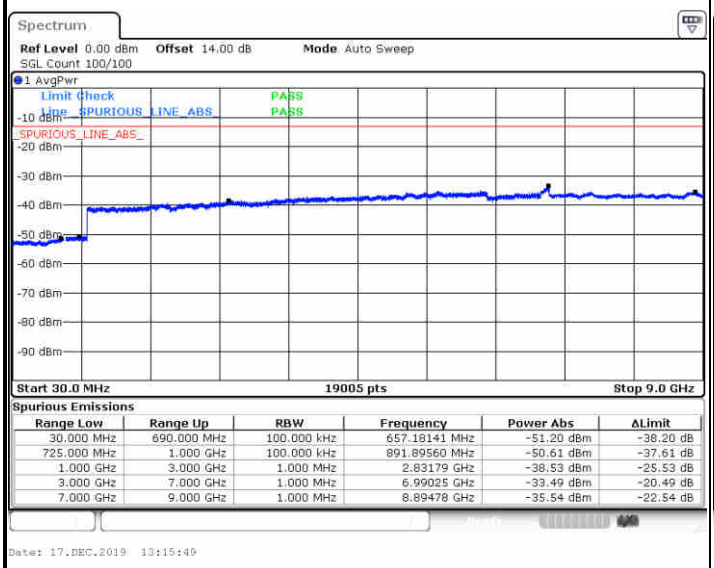
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	712.33866 MHz	3.49 dBm	-26.51 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.01484 MHz	-38.71 dBm	-25.71 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-35.49 dBm	-22.49 dB

Date: 17.DEC.2019 13:52:40

Conducted Spurious Emission

LTE Band 17 / 5MHz

Lowest Channel / QPSK

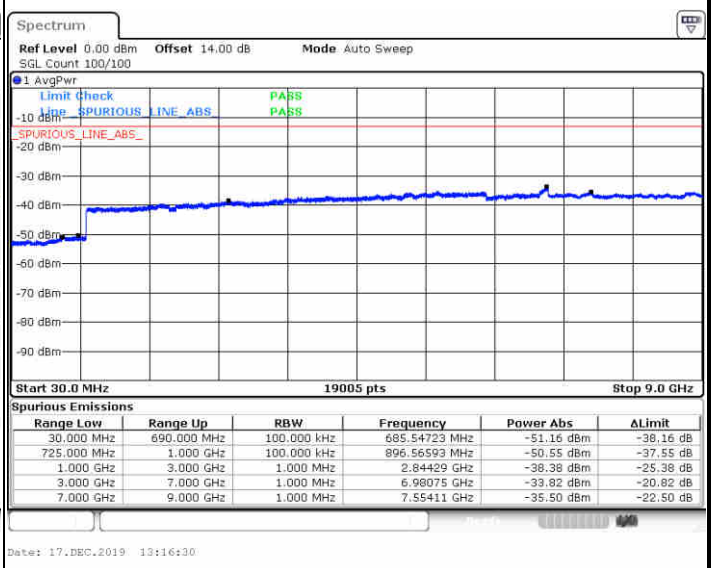


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	657.18141 MHz	-51.20 dBm	-38.20 dB
725.000 MHz	1.000 GHz	100.000 kHz	891.89560 MHz	-50.61 dBm	-37.61 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.83179 GHz	-38.53 dBm	-25.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99025 GHz	-33.49 dBm	-20.49 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89478 GHz	-35.54 dBm	-22.54 dB

Date: 17.DEC.2019 13:15:49

Lowest Channel / 16QAM

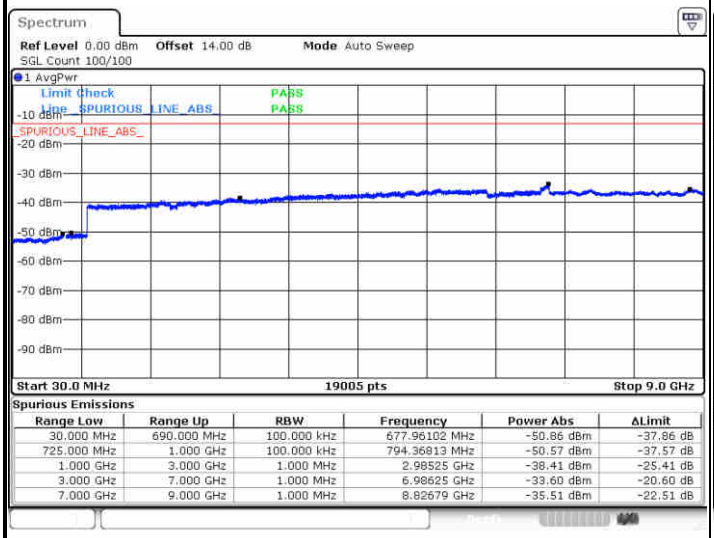


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	685.54723 MHz	-51.16 dBm	-38.16 dB
725.000 MHz	1.000 GHz	100.000 kHz	896.56593 MHz	-50.55 dBm	-37.55 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.84429 GHz	-38.38 dBm	-25.38 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98075 GHz	-33.82 dBm	-20.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.55411 GHz	-35.50 dBm	-22.50 dB

Date: 17.DEC.2019 13:16:30

Middle Channel / QPSK

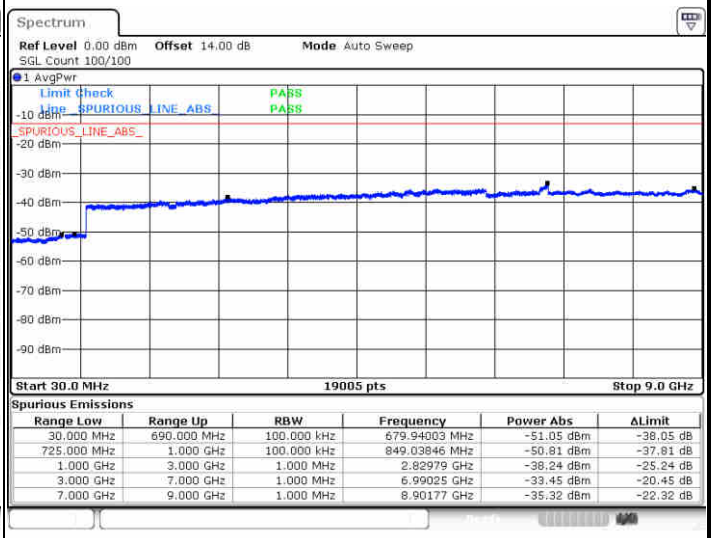


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	677.96102 MHz	-50.86 dBm	-37.86 dB
725.000 MHz	1.000 GHz	100.000 kHz	794.36813 MHz	-50.57 dBm	-37.57 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98525 GHz	-38.41 dBm	-25.41 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98625 GHz	-33.60 dBm	-20.60 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.82679 GHz	-35.51 dBm	-22.51 dB

Date: 17.DEC.2019 13:17:56

Middle Channel / 16QAM



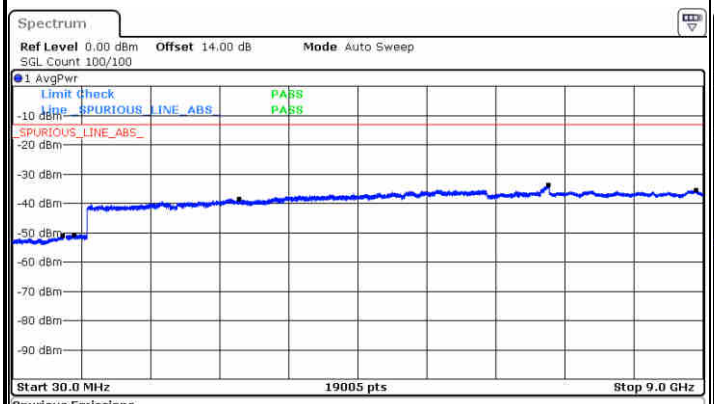
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	679.94003 MHz	-51.05 dBm	-38.05 dB
725.000 MHz	1.000 GHz	100.000 kHz	849.03846 MHz	-50.81 dBm	-37.81 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.82979 GHz	-38.24 dBm	-25.24 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99025 GHz	-33.45 dBm	-20.45 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.90177 GHz	-35.32 dBm	-22.32 dB

Date: 17.DEC.2019 13:18:37

LTE Band 17 / 5MHz

Highest Channel / QPSK

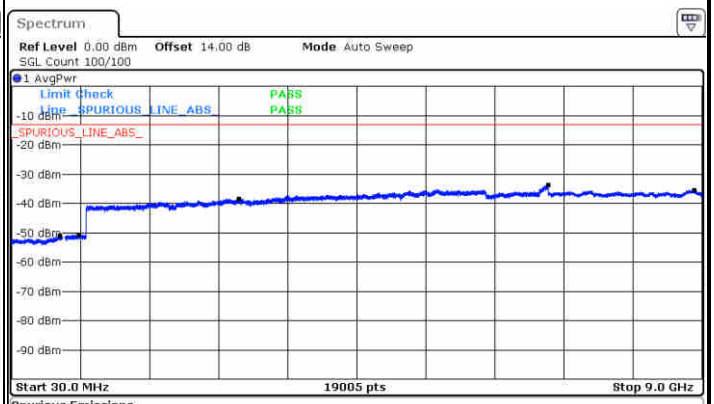


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	682.90855 MHz	-51.12 dBm	-38.12 dB
725.000 MHz	1.000 GHz	100.000 kHz	826.23626 MHz	-50.71 dBm	-37.71 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.97576 GHz	-38.40 dBm	-25.40 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98775 GHz	-33.68 dBm	-20.68 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.90827 GHz	-35.39 dBm	-22.39 dB

Date: 17.DEC.2019 13:24:02

Highest Channel / 16QAM



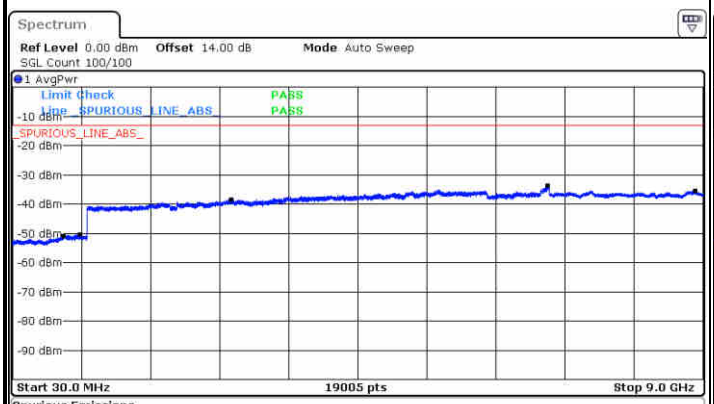
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	654.87256 MHz	-51.15 dBm	-38.15 dB
725.000 MHz	1.000 GHz	100.000 kHz	904.25824 MHz	-50.71 dBm	-37.71 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98325 GHz	-38.59 dBm	-25.59 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99625 GHz	-33.84 dBm	-20.84 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89728 GHz	-35.51 dBm	-22.51 dB

Date: 17.DEC.2019 13:24:43

LTE Band 17 / 10MHz

Lowest Channel / QPSK

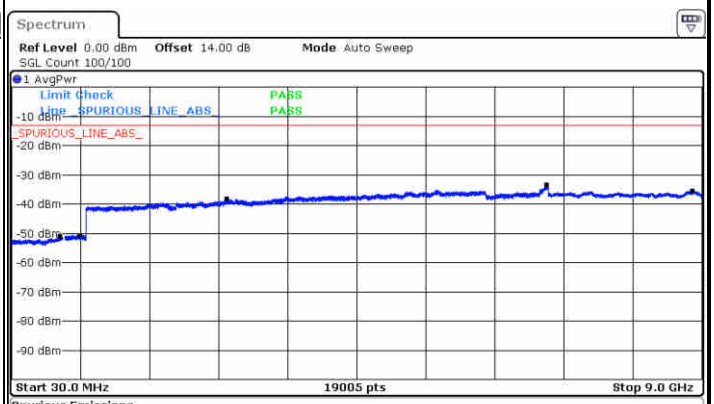


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.17541 MHz	-51.01 dBm	-38.01 dB
725.000 MHz	1.000 GHz	100.000 kHz	901.51099 MHz	-50.54 dBm	-37.54 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.86928 GHz	-38.46 dBm	-25.46 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97325 GHz	-33.62 dBm	-20.62 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.90227 GHz	-35.43 dBm	-22.43 dB

Date: 17.DEC.2019 13:30:09

Lowest Channel / 16QAM



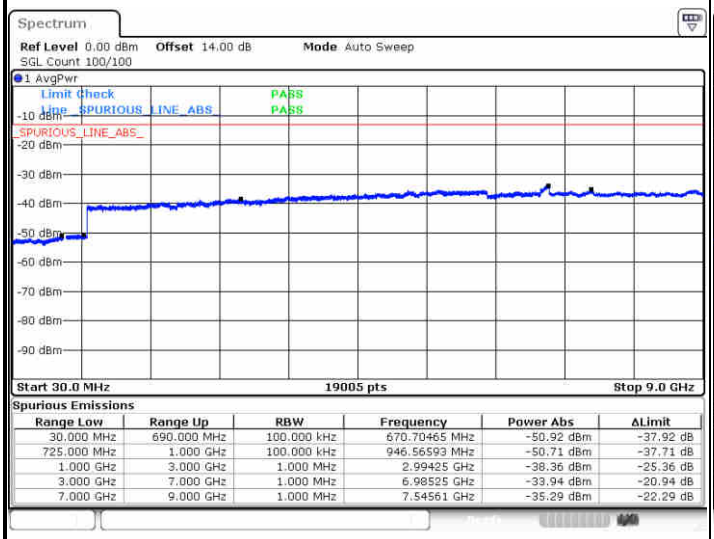
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	656.52174 MHz	-51.03 dBm	-38.03 dB
725.000 MHz	1.000 GHz	100.000 kHz	911.67582 MHz	-50.68 dBm	-37.68 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.81930 GHz	-38.21 dBm	-25.21 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98175 GHz	-33.40 dBm	-20.40 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.87978 GHz	-35.47 dBm	-22.47 dB

Date: 17.DEC.2019 13:30:50

LTE Band 17 / 10MHz

Middle Channel / QPSK

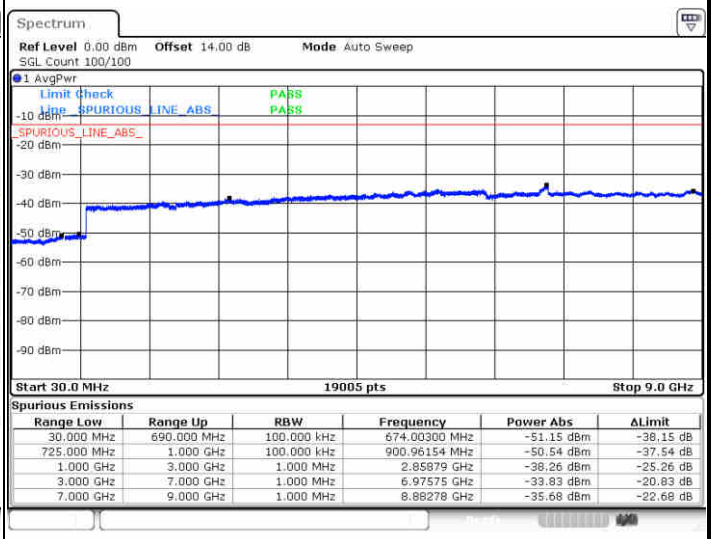


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	670.70465 MHz	-50.92 dBm	-37.92 dB
725.000 MHz	1.000 GHz	100.000 kHz	946.56593 MHz	-50.71 dBm	-37.71 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99425 GHz	-38.36 dBm	-25.36 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98525 GHz	-33.94 dBm	-20.94 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54561 GHz	-35.29 dBm	-22.29 dB

Date: 17.DEC.2019 13:32:15

Middle Channel / 16QAM

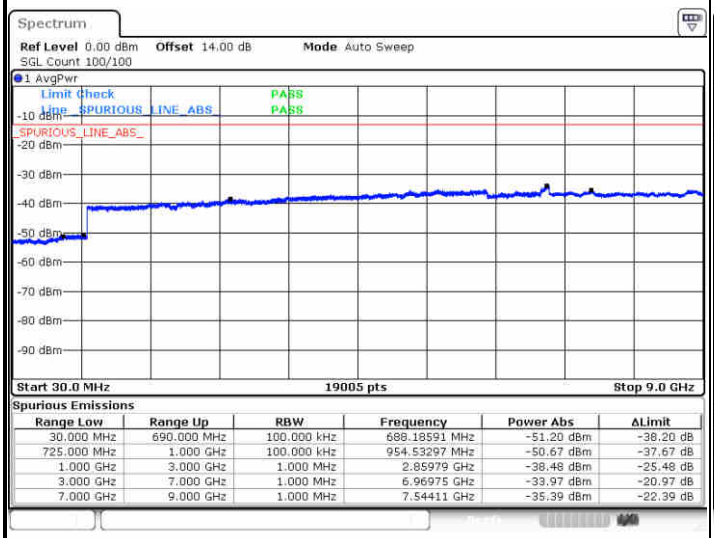


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	674.00300 MHz	-51.15 dBm	-38.15 dB
725.000 MHz	1.000 GHz	100.000 kHz	900.96154 MHz	-50.54 dBm	-37.54 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.85879 GHz	-38.26 dBm	-25.26 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97575 GHz	-33.83 dBm	-20.83 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.88278 GHz	-35.68 dBm	-22.68 dB

Date: 17.DEC.2019 13:32:56

Highest Channel / QPSK

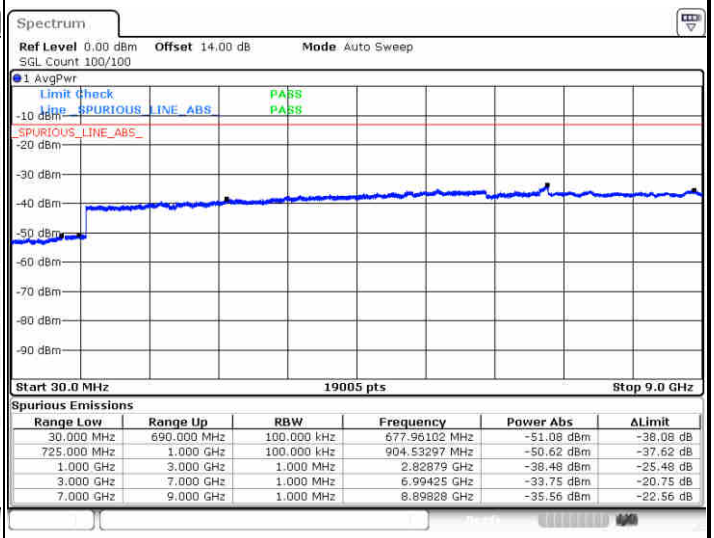


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	688.18591 MHz	-51.20 dBm	-38.20 dB
725.000 MHz	1.000 GHz	100.000 kHz	954.53297 MHz	-50.67 dBm	-37.67 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.85979 GHz	-38.48 dBm	-25.48 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96975 GHz	-33.97 dBm	-20.97 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54411 GHz	-35.39 dBm	-22.39 dB

Date: 17.DEC.2019 13:38:21

Highest Channel / 16QAM



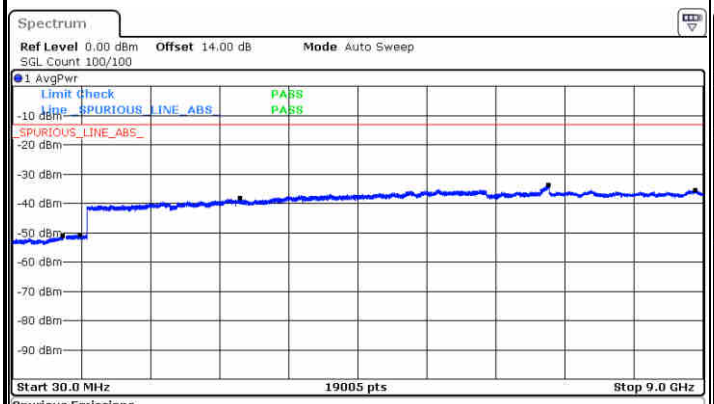
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	677.96102 MHz	-51.08 dBm	-38.08 dB
725.000 MHz	1.000 GHz	100.000 kHz	904.53297 MHz	-50.62 dBm	-37.62 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.82879 GHz	-38.48 dBm	-25.48 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99425 GHz	-33.75 dBm	-20.75 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89828 GHz	-35.56 dBm	-22.56 dB

Date: 17.DEC.2019 13:39:03

LTE Band 17 / 5MHz

Lowest Channel / 64QAM

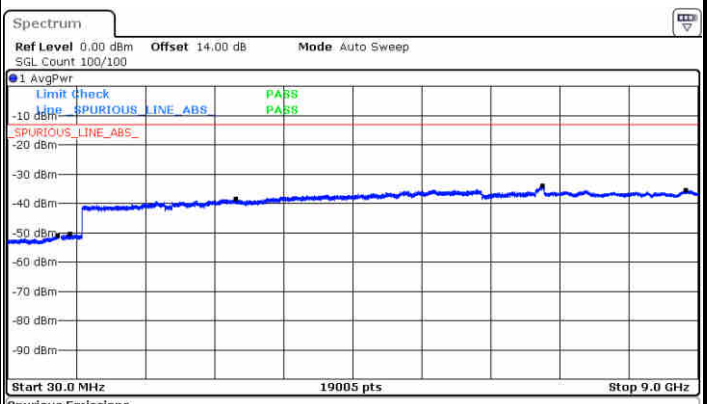


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	676.31184 MHz	-51.18 dBm	-38.18 dB
725.000 MHz	1.000 GHz	100.000 kHz	902.33516 MHz	-50.65 dBm	-37.65 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98425 GHz	-38.27 dBm	-25.27 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99525 GHz	-33.88 dBm	-20.88 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89928 GHz	-35.46 dBm	-22.46 dB

Date: 17.DEC.2019 13:42:05

Middle Channel / 64QAM

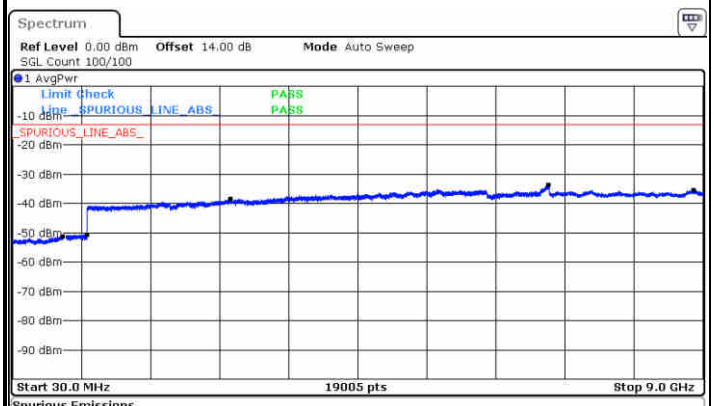


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	676.97151 MHz	-50.94 dBm	-37.94 dB
725.000 MHz	1.000 GHz	100.000 kHz	840.24725 MHz	-50.56 dBm	-37.56 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98825 GHz	-38.61 dBm	-25.61 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97575 GHz	-33.98 dBm	-20.98 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.84379 GHz	-35.55 dBm	-22.55 dB

Date: 17.DEC.2019 13:43:09

Highest Channel / 64QAM



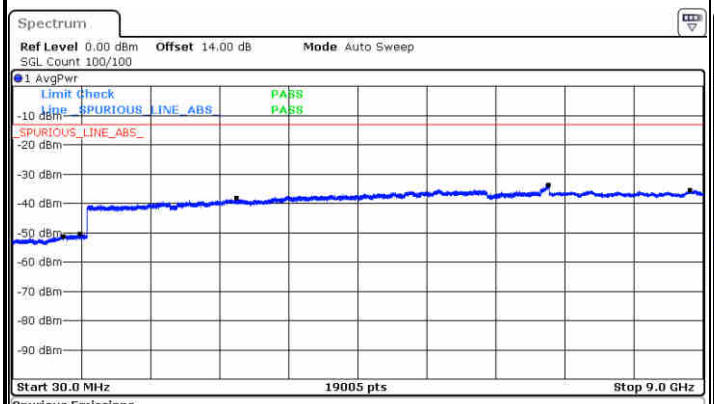
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	679.94003 MHz	-51.23 dBm	-38.23 dB
725.000 MHz	1.000 GHz	100.000 kHz	999.31319 MHz	-50.65 dBm	-37.65 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.85279 GHz	-38.57 dBm	-25.57 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99425 GHz	-33.60 dBm	-20.60 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.88028 GHz	-35.62 dBm	-22.62 dB

Date: 17.DEC.2019 13:46:12

LTE Band 17 / 10MHz

Lowest Channel / 64QAM

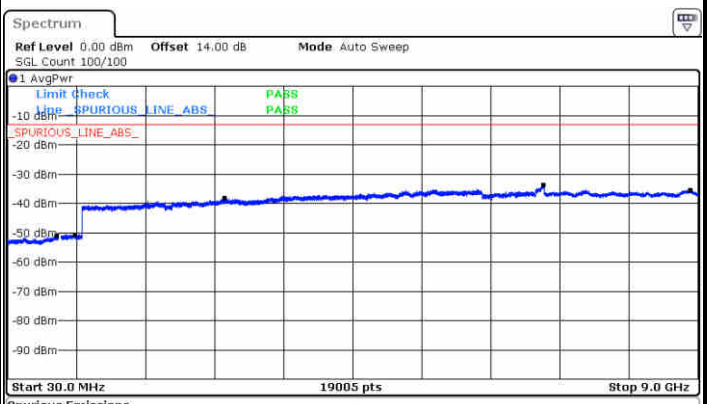


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	683.23838 MHz	-51.24 dBm	-38.24 dB
725.000 MHz	1.000 GHz	100.000 kHz	900.41209 MHz	-50.47 dBm	-37.47 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.94176 GHz	-38.27 dBm	-25.27 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99125 GHz	-33.85 dBm	-20.85 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.82679 GHz	-35.44 dBm	-22.44 dB

Date: 17.DEC.2019 13:49:15

Middle Channel / 64QAM

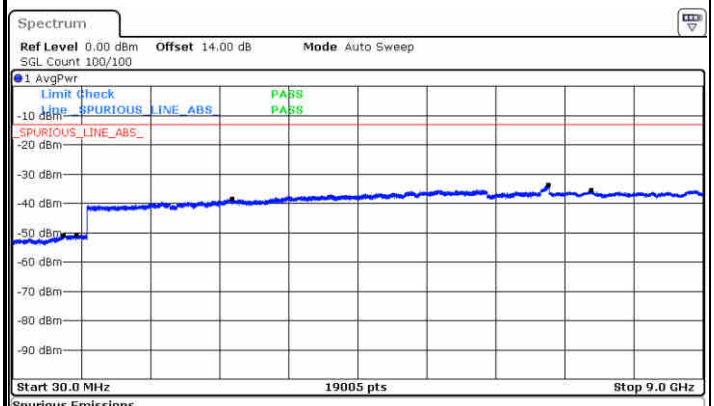


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	668.06597 MHz	-51.06 dBm	-38.06 dB
725.000 MHz	1.000 GHz	100.000 kHz	903.70879 MHz	-50.63 dBm	-37.63 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.84879 GHz	-38.19 dBm	-25.19 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98725 GHz	-33.62 dBm	-20.62 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.90127 GHz	-35.39 dBm	-22.39 dB

Date: 17.DEC.2019 13:50:19

Highest Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	686.53673 MHz	-51.05 dBm	-38.05 dB
725.000 MHz	1.000 GHz	100.000 kHz	864.69780 MHz	-50.60 dBm	-37.60 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.88328 GHz	-38.63 dBm	-25.63 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98475 GHz	-33.60 dBm	-20.60 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54411 GHz	-35.40 dBm	-22.40 dB

Date: 17.DEC.2019 13:53:22

Frequency Stability

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0104	PASS
40	Normal Voltage	0.0042	
30	Normal Voltage	0.0037	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0061	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0038	
-20	Normal Voltage	0.0069	
-30	Normal Voltage	0.0063	
20	Maximum Voltage	0.0047	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0061	

Note:

1. Normal Voltage =3.87 V.；Battery End Point (BEP) =3.6 V.；Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

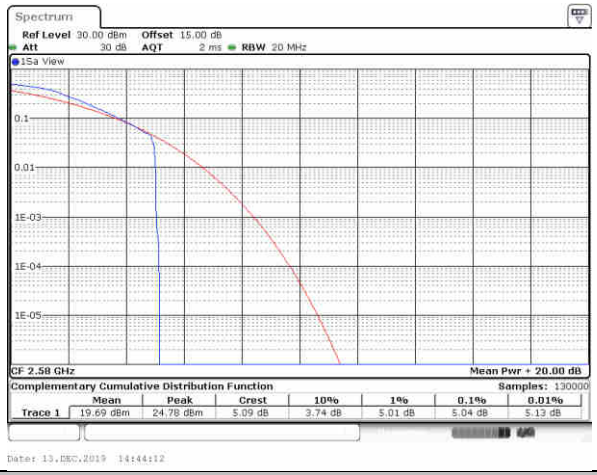
LTE Band 38

Peak-to-Average Ratio

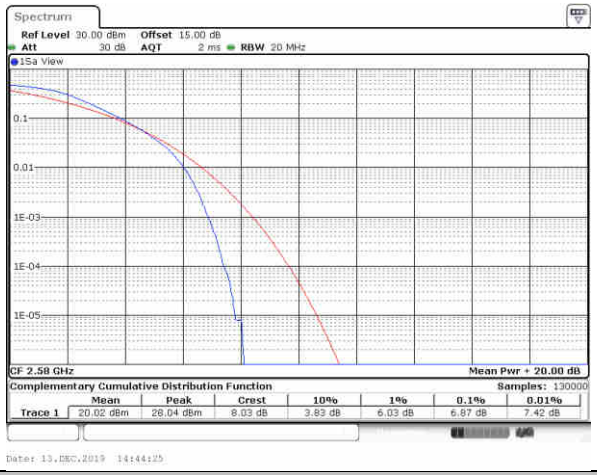
Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.04	6.87	5.91	6.12	PASS
Middle CH	5.48	5.68	5.88	6.32	
Highest CH	3.68	5.94	6.61	6.67	
Mode	LTE Band 38 / 20MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	5.65	6.23	-	-	PASS
Middle CH	6.09	7.45	-	-	
Highest CH	5.94	6.06	-	-	

LTE Band 38 / 20MHz / QPSK

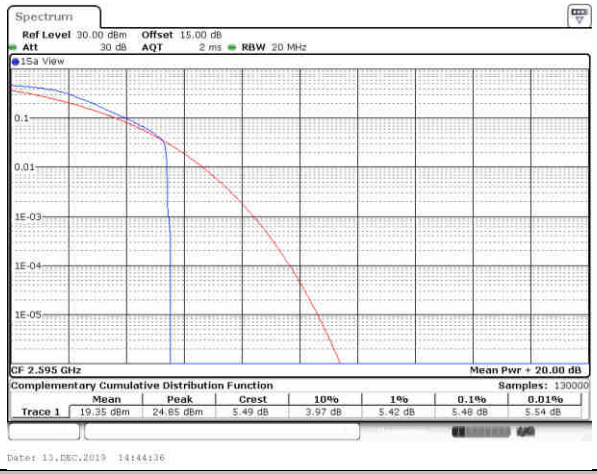
Lowest Channel / 1RB



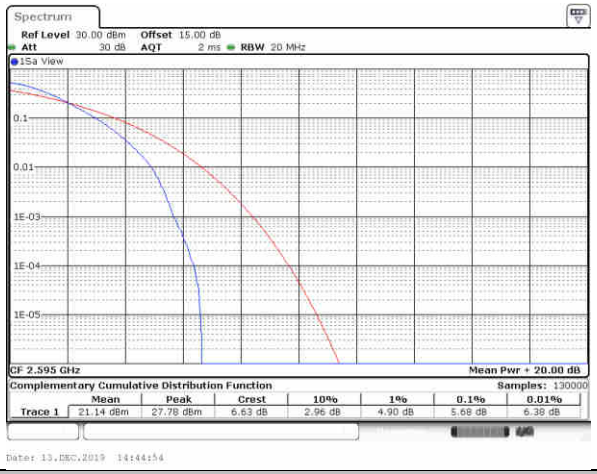
Lowest Channel / Full RB



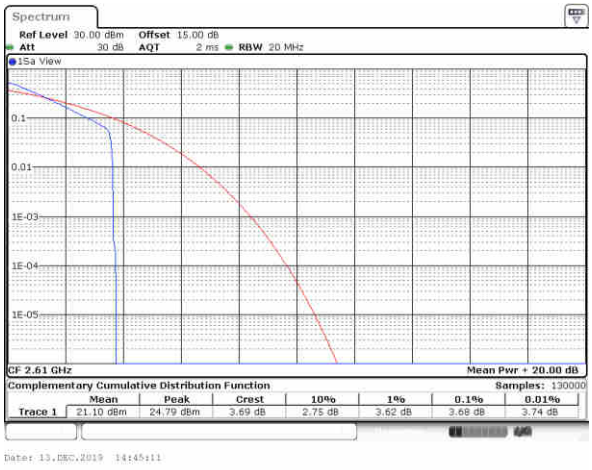
Middle Channel / 1RB



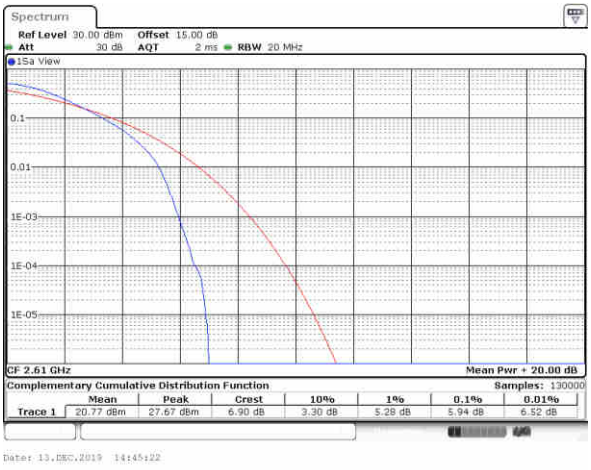
Middle Channel / Full RB



Highest Channel / 1RB

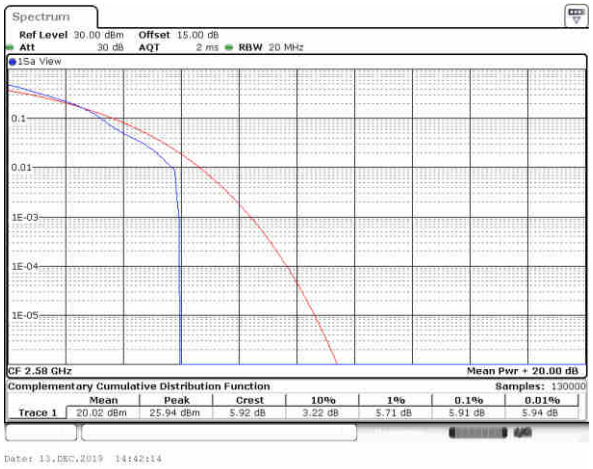


Highest Channel / Full RB

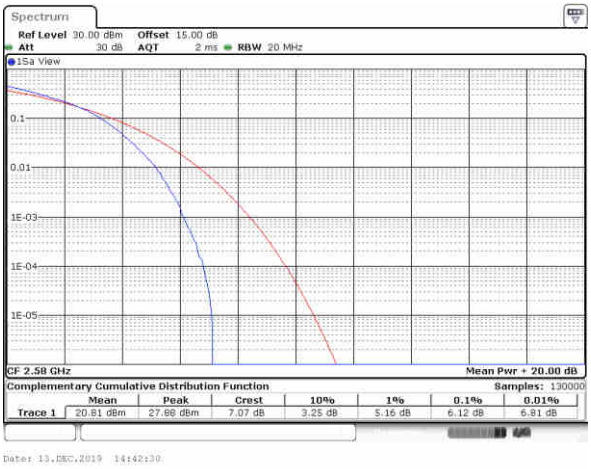


LTE Band 38 / 20MHz / 16QAM

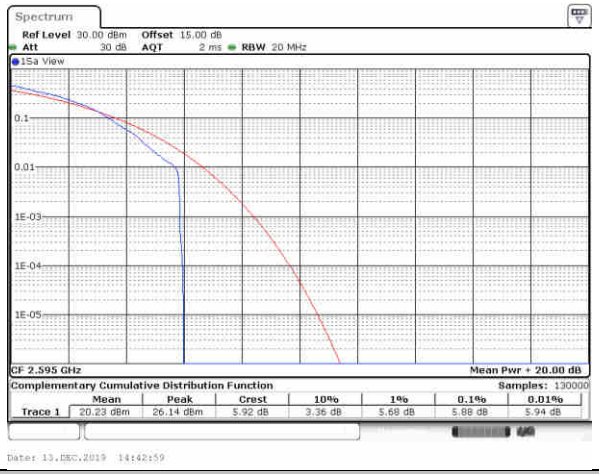
Lowest Channel / 1RB



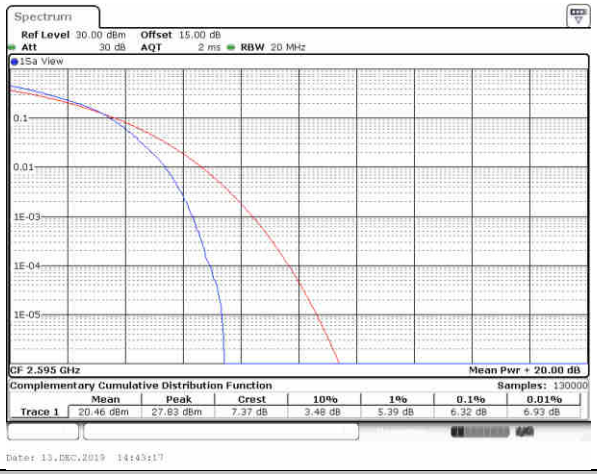
Lowest Channel / Full RB



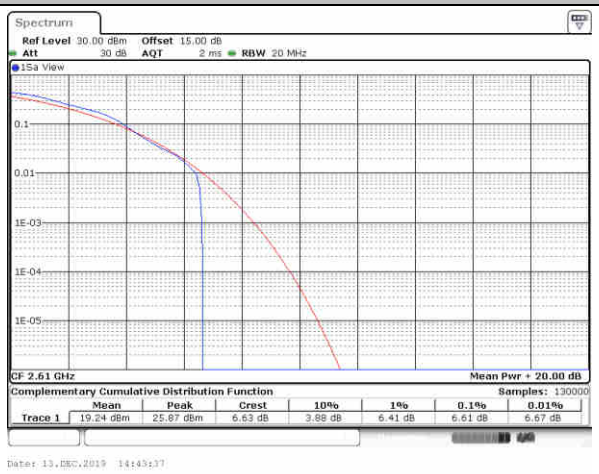
Middle Channel / 1RB



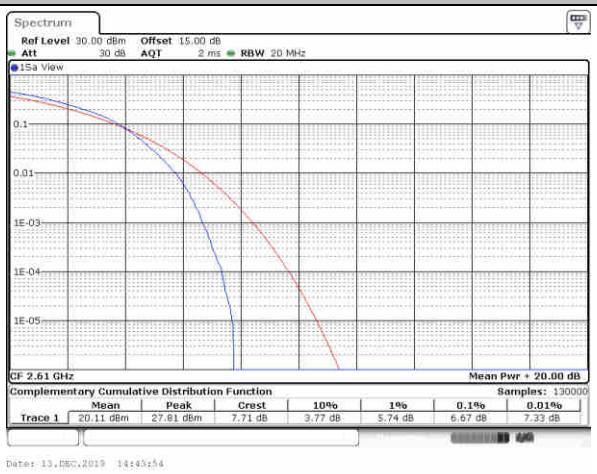
Middle Channel / Full RB



Highest Channel / 1RB

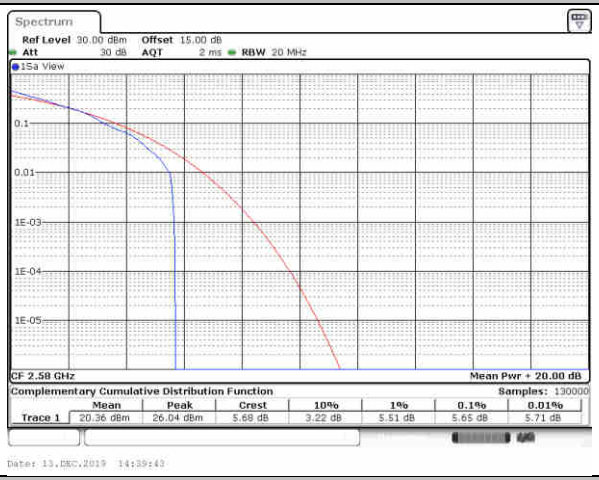


Highest Channel / Full RB

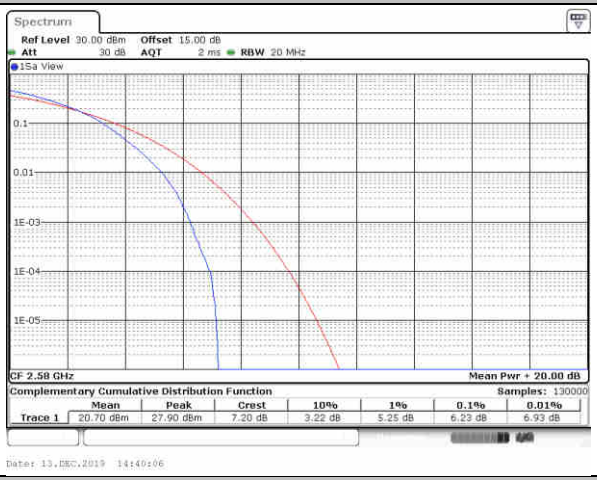


LTE Band 38 / 20MHz / 64QAM

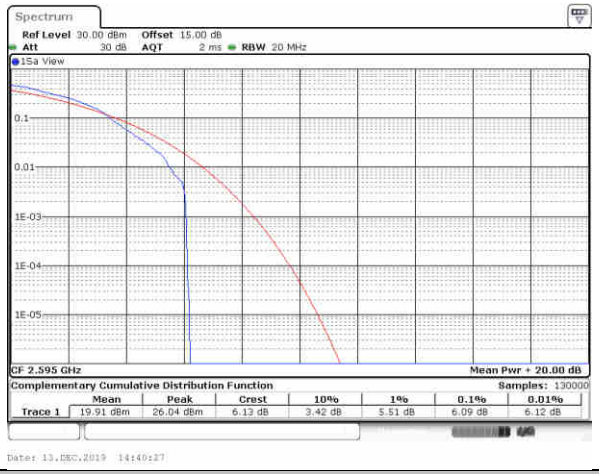
Lowest Channel / 1RB



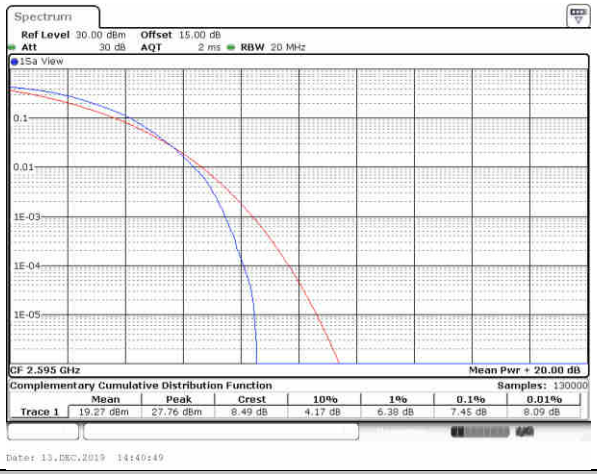
Lowest Channel / Full RB



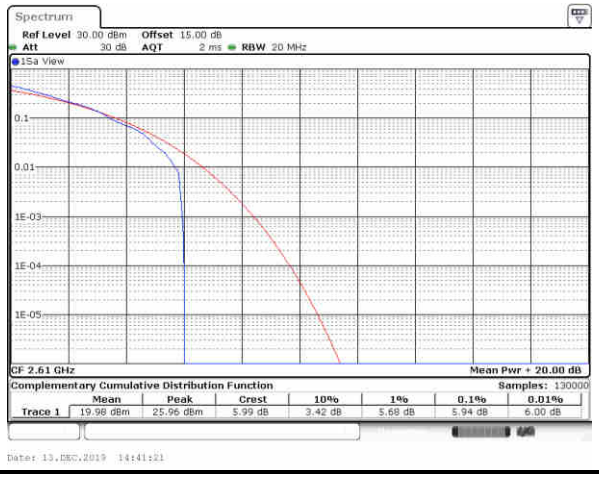
Middle Channel / 1RB



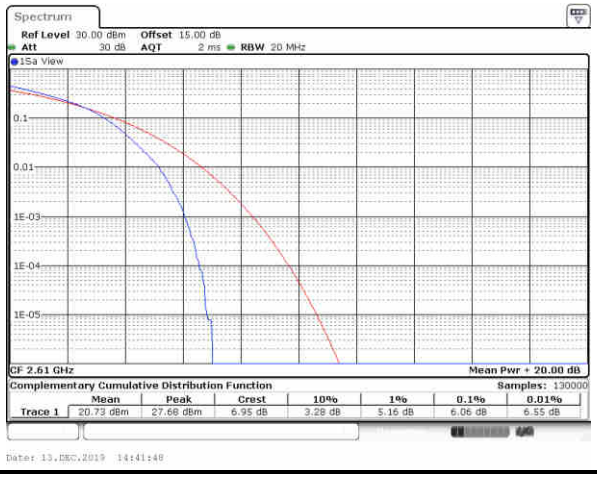
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



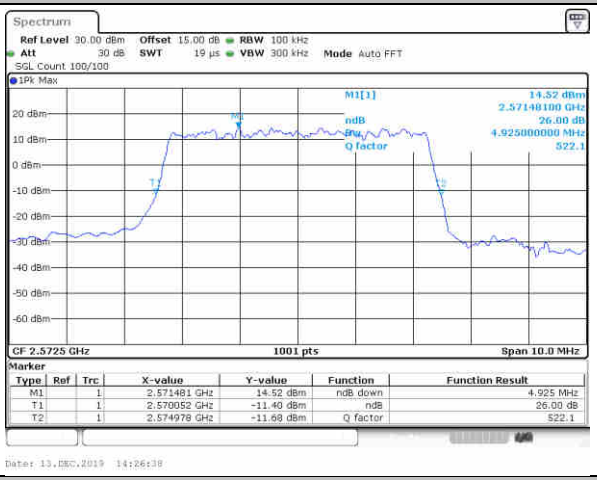
26dB Bandwidth

Mode	LTE Band 38 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.93	4.91	9.73	9.61	14.12	14.72	19.14	18.94
Middle CH	4.74	4.88	9.75	9.73	14.36	14.15	18.86	18.66
Highest CH	4.86	4.90	9.63	9.79	14.54	14.36	18.90	18.66

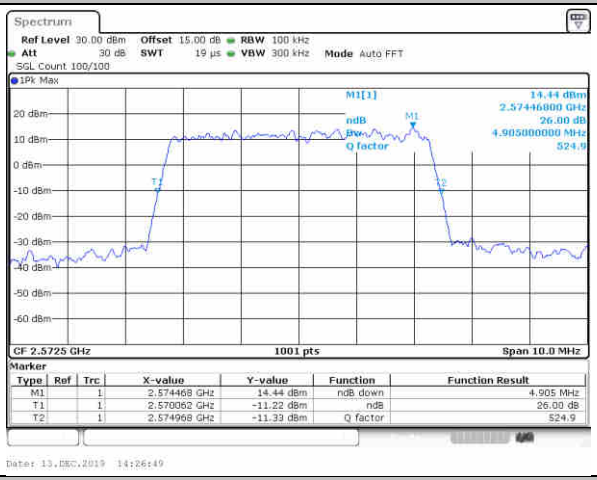
Mode	LTE Band 38 : 26dB BW(MHz)			
BW	5MHz	10MHz	15MHz	20MHz
Mod.	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.88	9.63	14.09	18.82
Middle CH	4.90	9.81	14.24	18.98
Highest CH	4.92	9.75	14.09	18.86

LTE Band 38

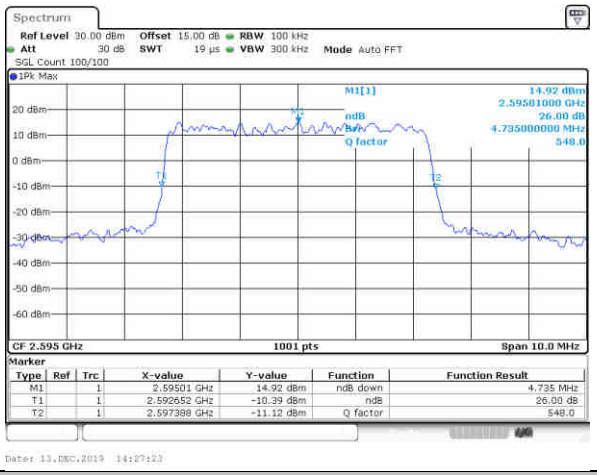
Lowest Channel / 5MHz / QPSK



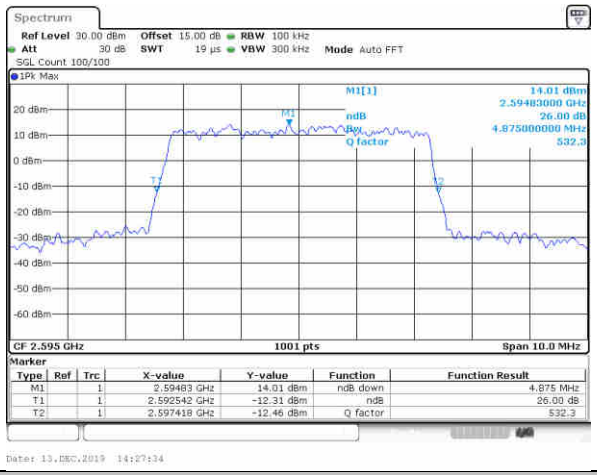
Lowest Channel / 5MHz / 16QAM



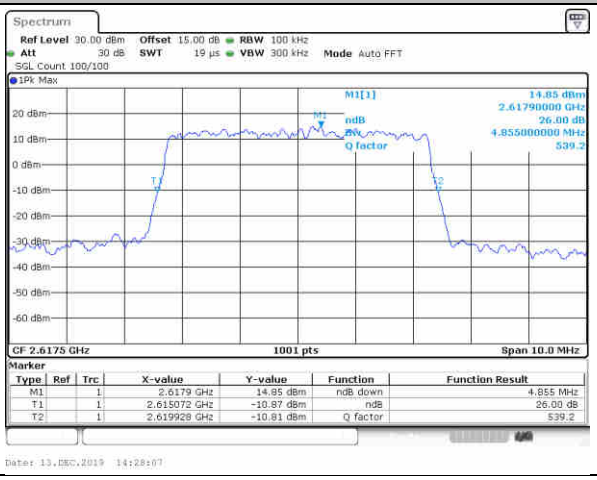
Middle Channel / 5MHz / QPSK



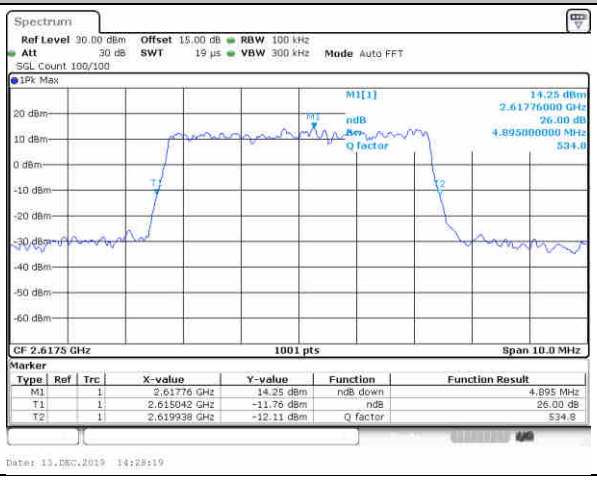
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

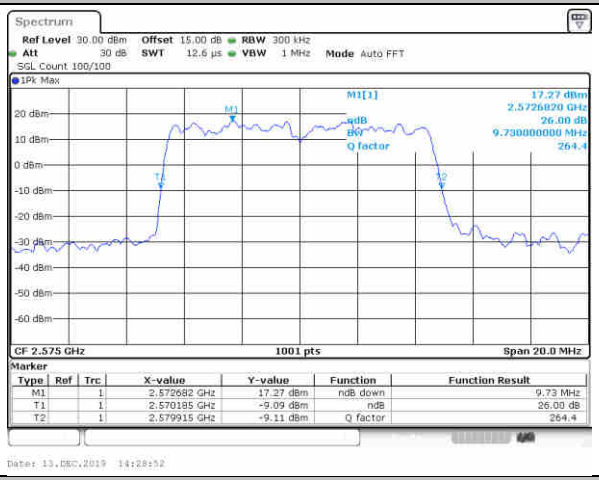


Highest Channel / 5MHz / 16QAM

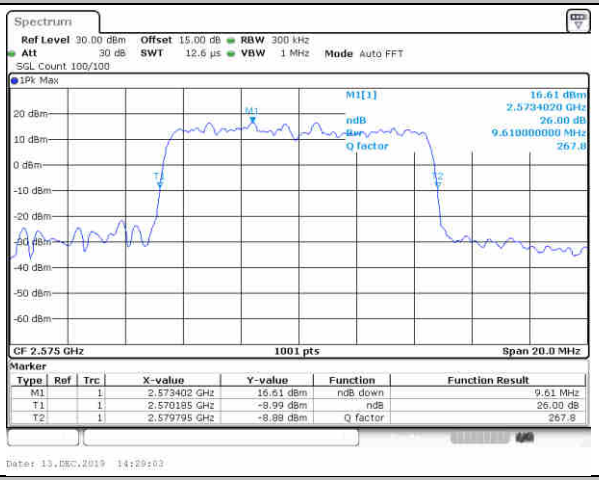


LTE Band 38

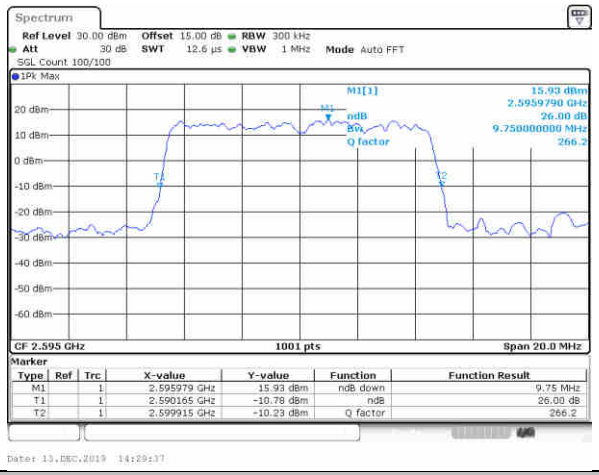
Lowest Channel / 10MHz / QPSK



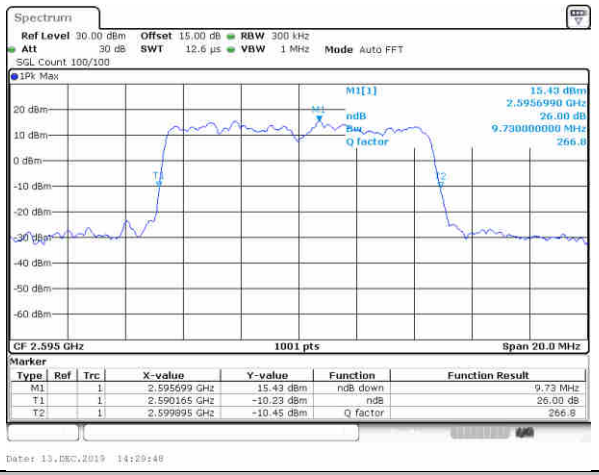
Lowest Channel / 10MHz / 16QAM



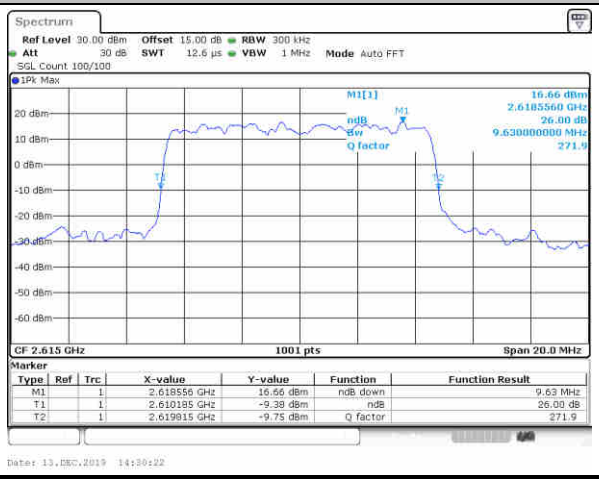
Middle Channel / 10MHz / QPSK



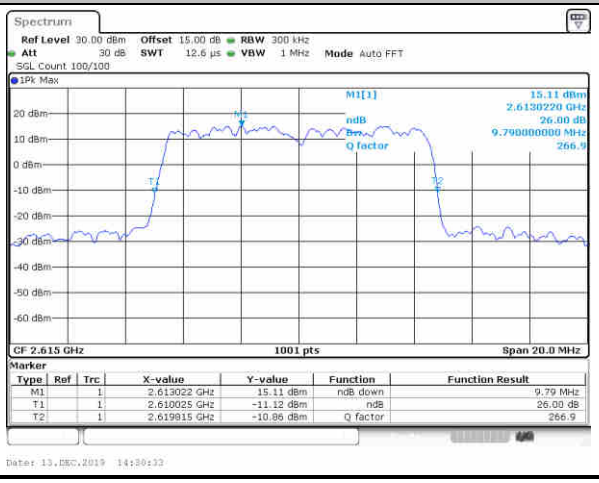
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

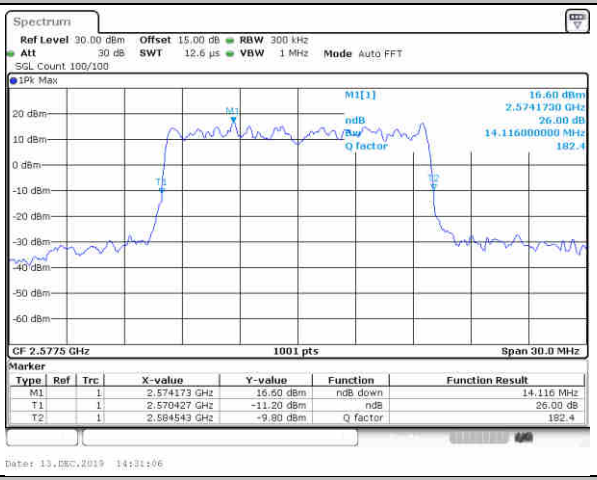


Highest Channel / 10MHz / 16QAM

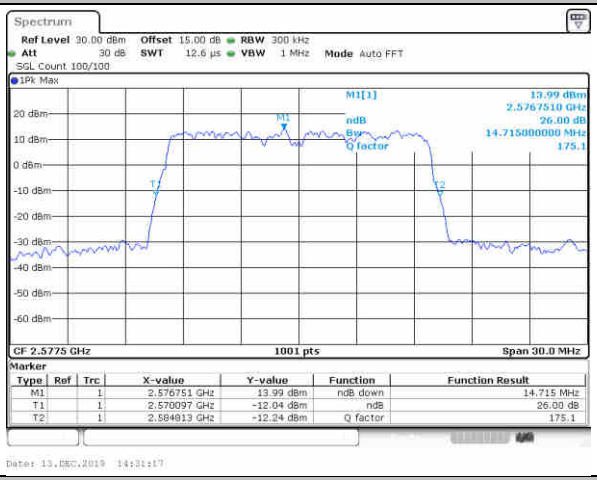


LTE Band 38

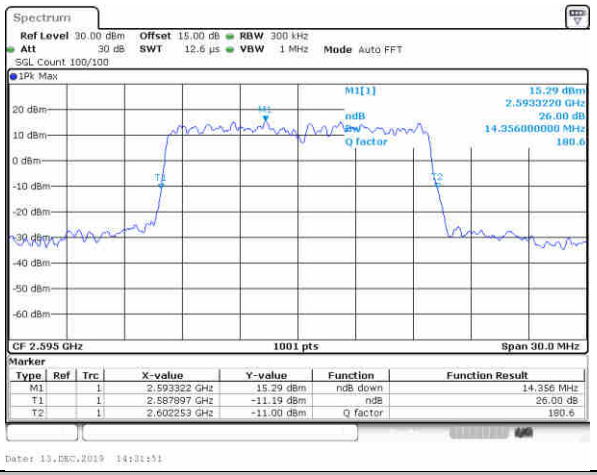
Lowest Channel / 15MHz / QPSK



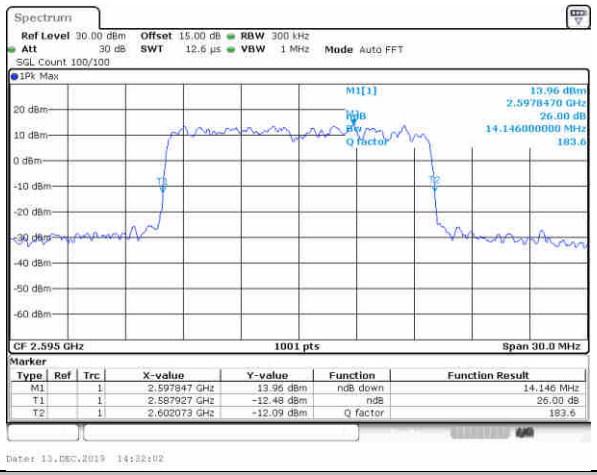
Lowest Channel / 15MHz / 16QAM



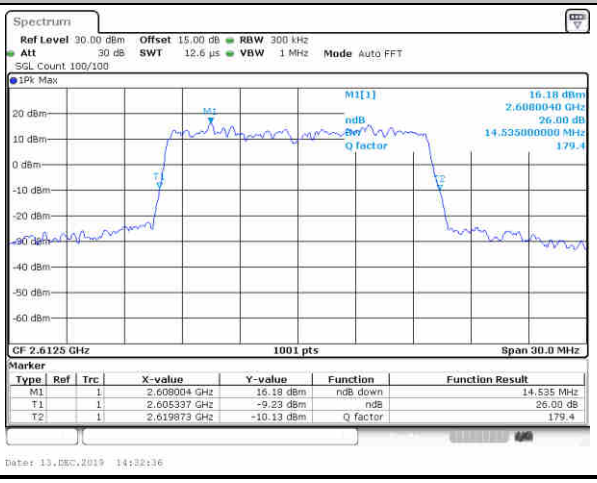
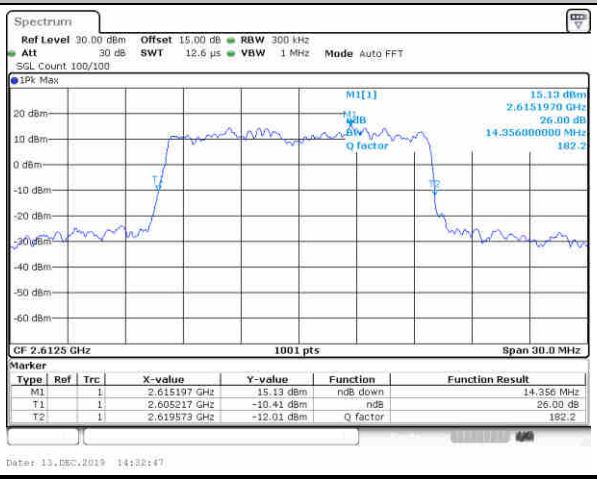
Middle Channel / 15MHz / QPSK



Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



Highest Channel / 15MHz / 16QAM