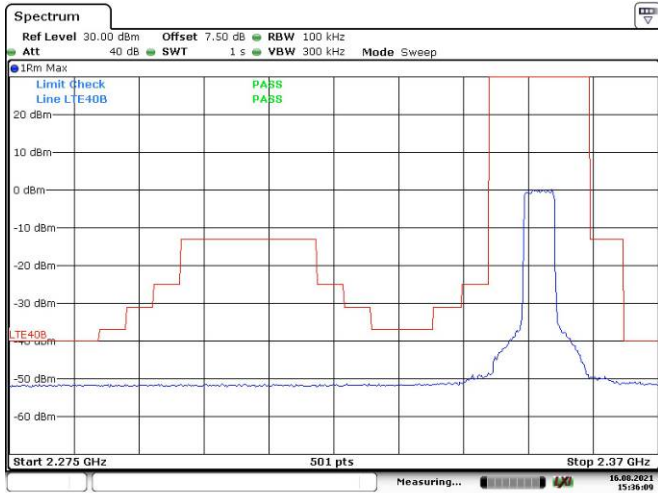
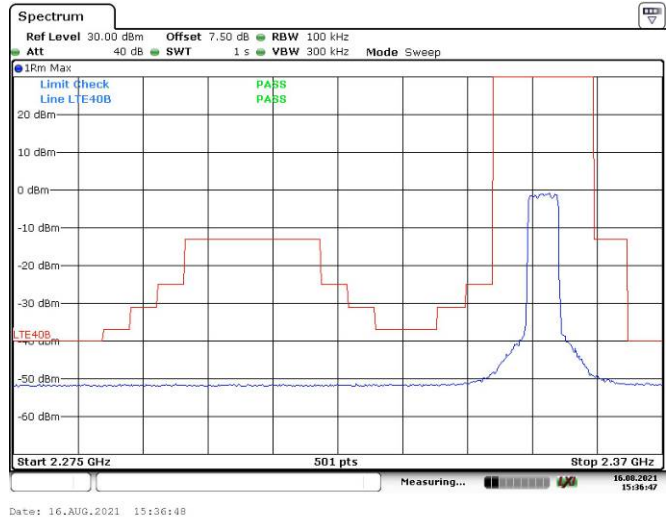


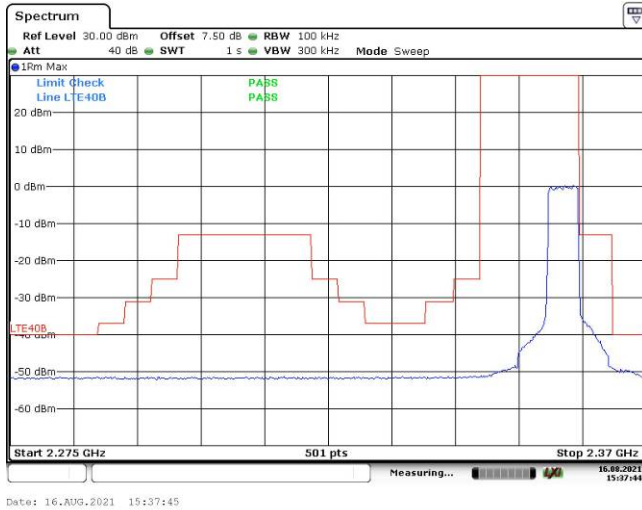
LTE Band 40 Upper: 5M, QPSK, Left Band Edge



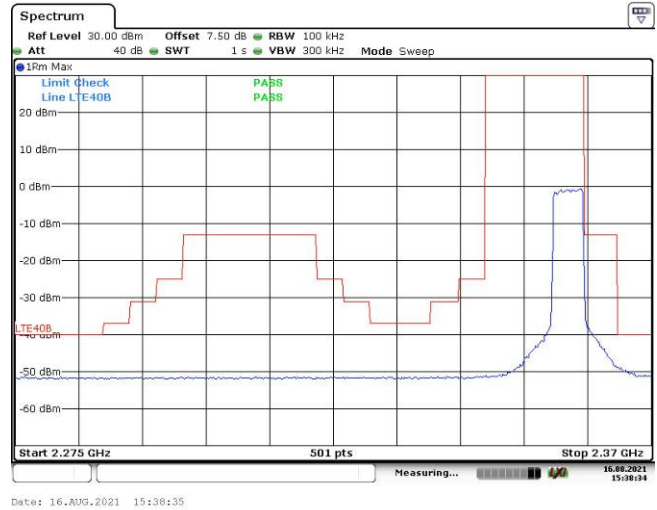
5M, QPSK, Right Band Edge



5M, 16QAM, Left Band Edge



5M, 16QAM, Right Band Edge



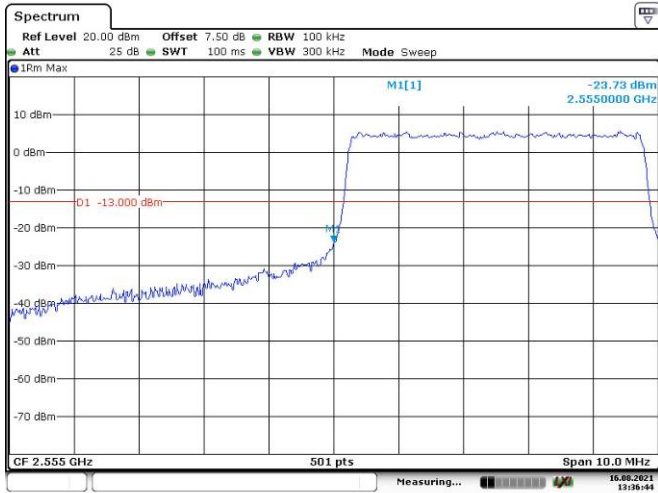
10M, QPSK



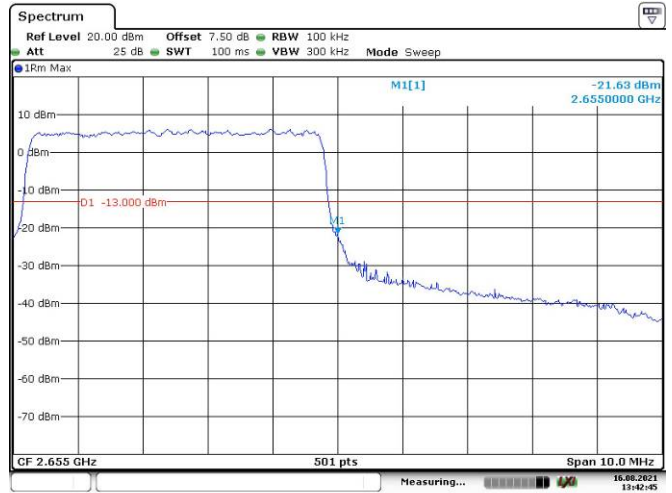
10M, 16QAM



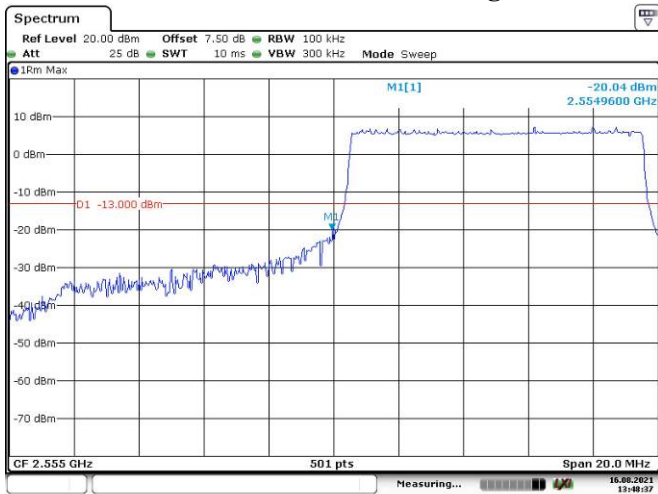
LTE Band 41: 5M, QPSK, Left Band Edge



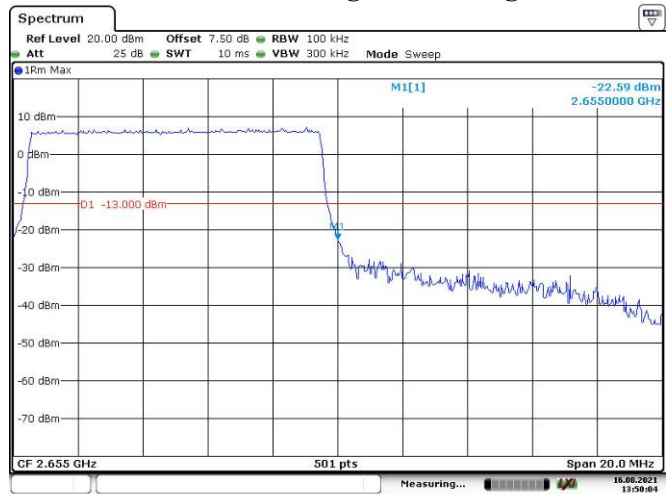
5M, QPSK, Right Band Edge



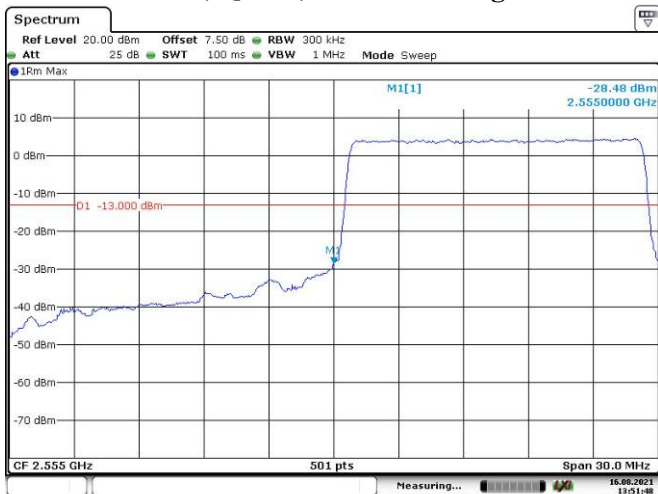
10M, QPSK, Left Band Edge



10M, QPSK, Right Band Edge



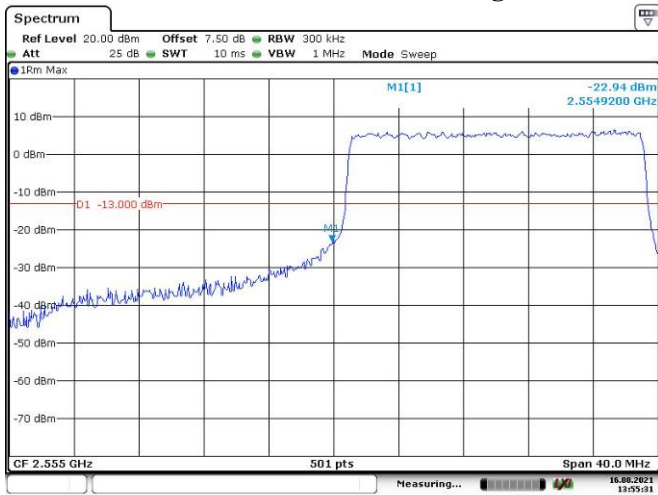
15M, QPSK, Left Band Edge



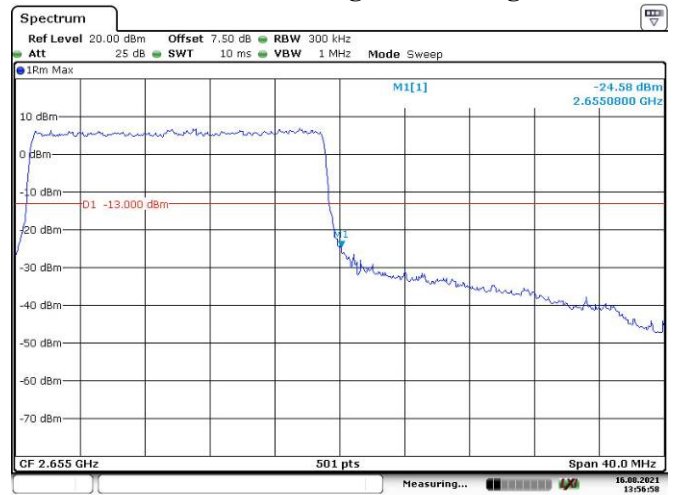
15M, QPSK, Right Band Edge



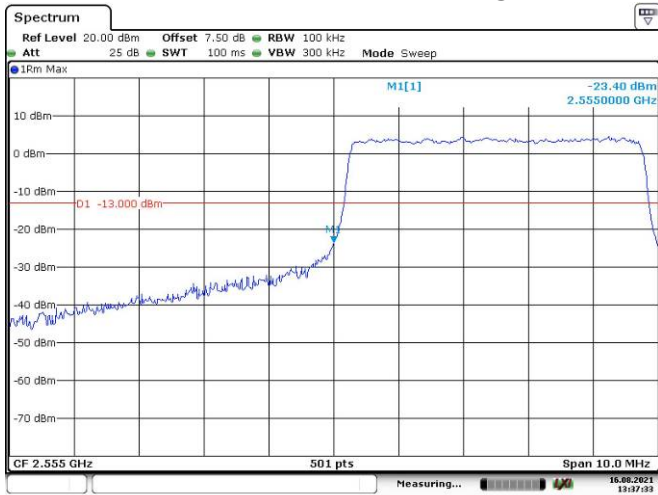
20M, QPSK, Left Band Edge



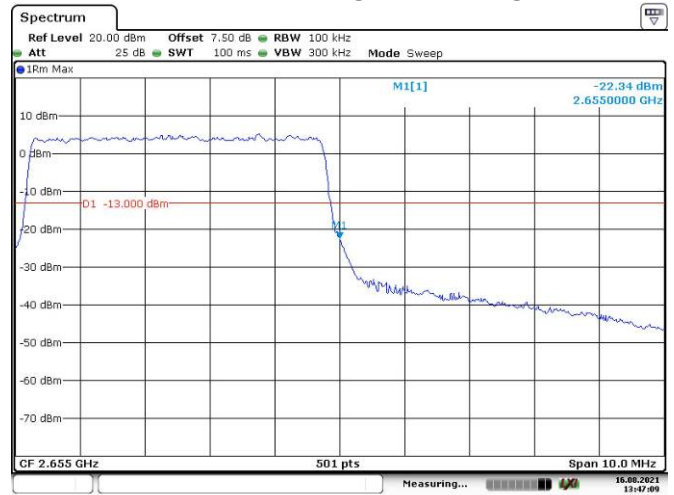
20M, QPSK, Right Band Edge



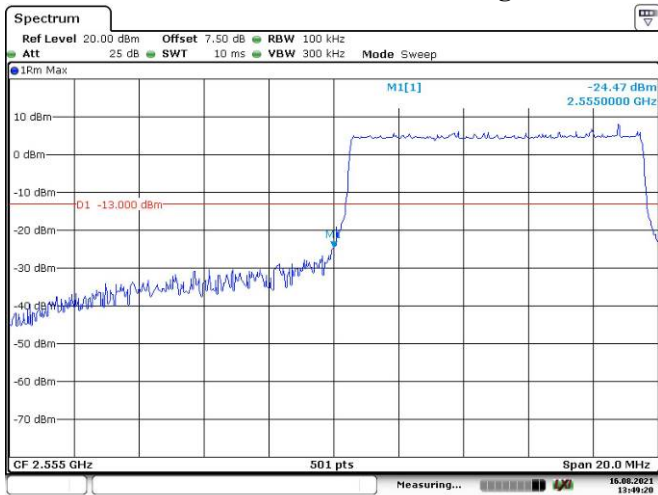
5M, 16QAM, Left Band Edge



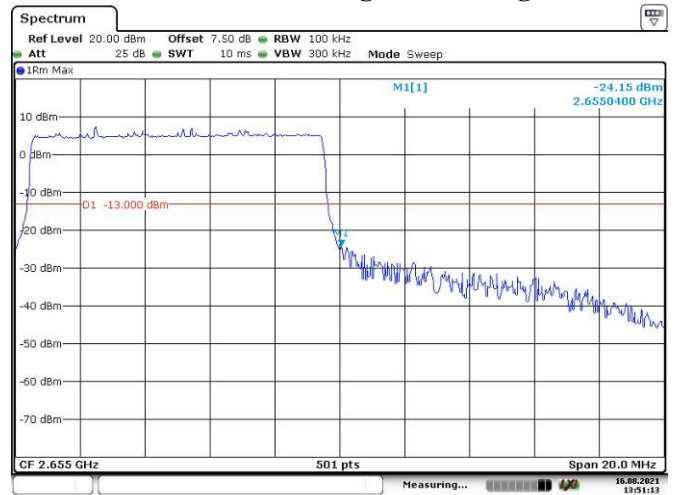
5M, 16QAM, Right Band Edge



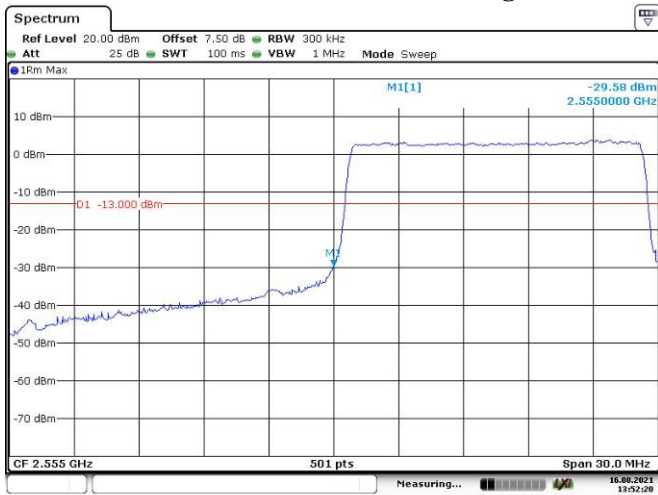
10M, 16QAM, Left Band Edge



10M, 16QAM, Right Band Edge

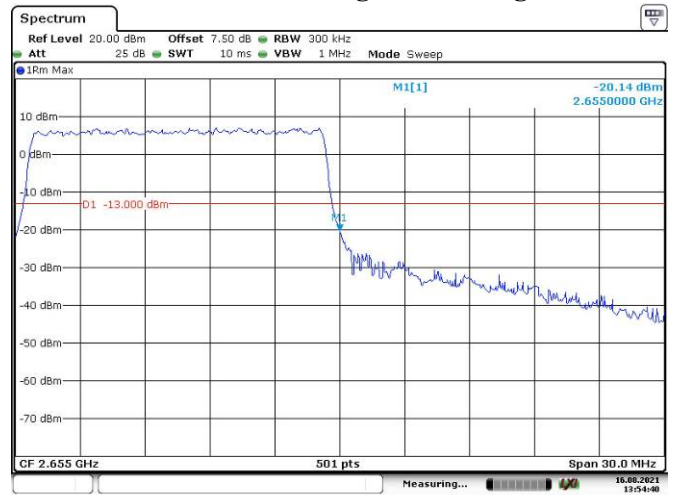


15M, 16QAM, Left Band Edge



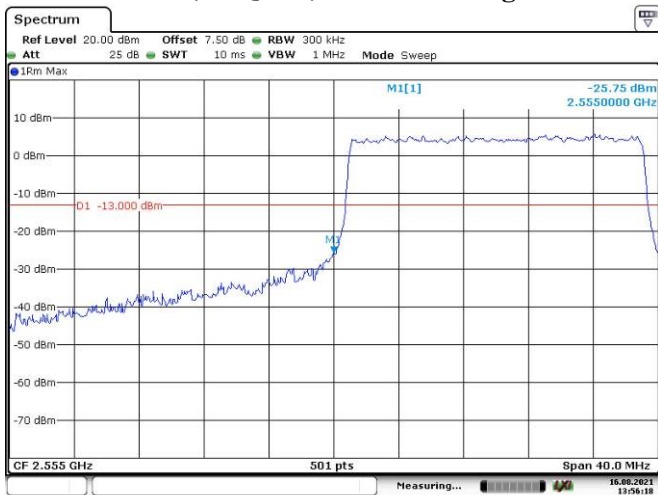
Date: 16.AUG.2021 13:52:20

15M, 16QAM, Right Band Edge



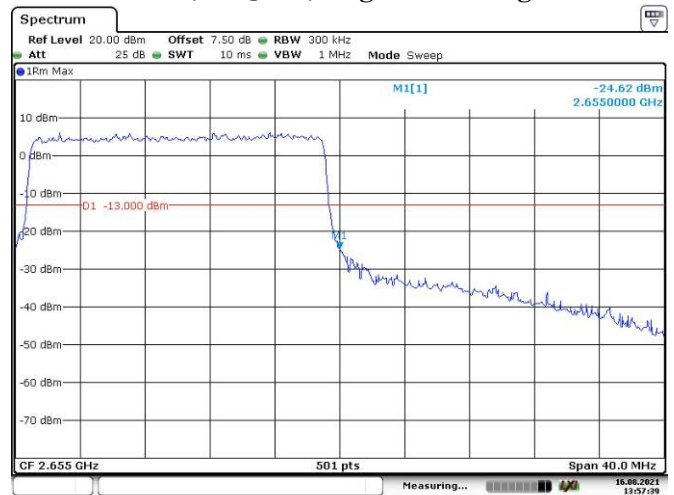
Date: 16.AUG.2021 13:54:40

20M, 16QAM, Left Band Edge



Date: 16.AUG.2021 13:56:18

20M, 16QAM, Right Band Edge



Date: 16.AUG.2021 13:57:40

FCC §2.1055, §22.355 & §24.235 & §27.54 & §90.213 - FREQUENCY STABILITY

Applicable Standard

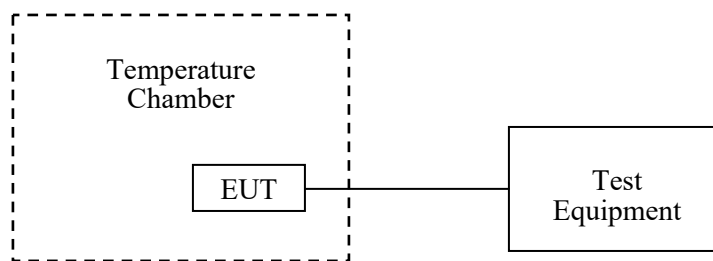
FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235, §27.54, §90.213

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set from 85% to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2021-07-22	2022-07-21
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010012	Each time	N/A
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41005011	Each time	N/A
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A
E-Microwave	Blocking Control	EMDCB-00036	0E01201047	Each time	N/A
Unknown	Attenuator	UNAT-3+	15529	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	110479	2020-09-23	2021-09-22
BACL	TEMP&HUMI Test Chamber	BTH-150	30022	2021-02-24	2022-02-23
UNI-T	Multimeter	UT39A	M130199938	2020-08-25	2021-08-24
Pro instrument	DC Power Supply	pps3300	3300012	N/A	N/A
R&S	Universal Radio Communication Tester	CMU200	106 891	2020-09-23	2021-09-22

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	24.4~28.3 °C
Relative Humidity:	46~50 %
ATM Pressure:	99.5kPa
Tester:	Lay Lei
Test Date:	2021-08-02~2021-08-15

Test Result: Compliance.

GMSK, Middle Channel, $f_c = 836.6$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.85	8	0.00956	2.5
-20		-6	-0.00717	
-10		10	0.01195	
0		14	0.01673	
10		-8	-0.00956	
20		12	0.01434	
30		15	0.01793	
40		16	0.01913	
50		12	0.01434	
20		3.6	11	
20	4.4	10	0.01195	

GMSK, Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V _{DC}	Hz	ppm	
-30	3.85	16	0.00851	Pass
-20		12	0.00638	
-10		10	0.00532	
0		15	0.00798	
10		13	0.00691	
20		14	0.00745	
30		11	0.00585	
40		12	0.00638	
50		14	0.00745	
20		3.6	15	
20	4.4	16	0.00851	

8PSK, Middle Channel, $f_c = 836.6\text{MHz}$				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
$^{\circ}\text{C}$	V_{DC}	Hz	ppm	ppm
-30	3.85	16	0.01913	2.5
-20		14	0.01673	
-10		10	0.01195	
0		12	0.01434	
10		-8	-0.00956	
20		8	0.00956	
30		12	0.01434	
40		-14	-0.01673	
50		18	0.02152	
20		3.6	16	
20	4.4	13	0.01554	

8PSK, Middle Channel, $f_c = 1880\text{ MHz}$				
Temperature	Voltage	Frequency Error	Frequency Error	Result
$^{\circ}\text{C}$	V_{DC}	Hz	ppm	
-30	3.85	16	0.00851	Pass
-20		15	0.00798	
-10		-10	-0.00532	
0		12	0.00638	
10		14	0.00745	
20		15	0.00798	
30		-10	-0.00532	
40		18	0.00957	
50		16	0.00851	
20		3.6	14	
20	4.4	12	0.00638	

WCDMA Band II: R99

Middle Channel, $f_c = 1880.0$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V _{DC}	Hz	ppm	
-30	3.85	16	0.00851	Pass
-20		18	0.00957	
-10		15	0.00798	
0		14	0.00745	
10		16	0.00851	
20		22	0.01170	
30		24	0.01277	
40		18	0.00957	
50		15	0.00798	
20		3.6	16	
20	4.4	18	0.00957	

WCDMA Band IV: R99

Rel 99 Middle Channel					
Power Supplied	Temperature	F _L	Limit	F _H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.527800	1710	1754.511200	1755
	-20	1710.528500		1754.512400	
	-10	1710.528200		1754.512600	
	0	1710.528600		1754.511700	
	10	1710.528400		1754.511500	
	20	1710.528900		1754.511000	
	30	1710.528100		1754.511700	
	40	1710.528300		1754.511200	
	50	1710.529200		1754.511300	
3.6	20	1710.528500		1754.511800	
4.4	20	1710.528700		1754.512700	

WCDMA Band V: R99

Middle Channel, $f_c = 836.6$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V _{DC}	Hz	ppm	ppm
-30	3.85	26	0.03108	2.5
-20		18	0.02152	
-10		14	0.01673	
0		15	0.01793	
10		16	0.01913	
20		24	0.02869	
30		22	0.02630	
40		18	0.02152	
50		-12	-0.01434	
20		3.6	22	
20	4.4	18	0.02152	

LTE Band 2:

QPSK, Channel Bandwidth:20MHz				
Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V_{DC}	Hz	ppm	
-30	3.85	-7.080000	-0.0038	Pass
-20		-6.810000	-0.0036	
-10		7.880000	0.0042	
0		5.490000	0.0029	
10		8.650000	0.0046	
20		-6.930000	-0.0037	
30		-5.530000	-0.0029	
40		-7.580000	-0.004	
50		-9.440000	-0.005	
20		3.6	-5.060000	
20	4.4	-8.750000	-0.0047	

16QAM, Channel Bandwidth:20MHz				
Middle Channel, $f_c = 1880$ MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Result
°C	V_{DC}	Hz	ppm	
-30	3.85	-2.190000	-0.0012	Pass
-20		6.390000	0.0034	
-10		7.020000	0.0037	
0		-8.020000	-0.0043	
10		9.940000	0.0053	
20		-6.120000	-0.0033	
30		6.560000	0.0035	
40		-9.100000	-0.0048	
50		8.760000	0.0047	
20		3.6	5.770000	
20	4.4	-5.560000	-0.003	

LTE Band 4

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.528700	1710	1754.515200	1755
	-20	1710.528200		1754.511500	
	-10	1710.528400		1754.511600	
	0	1710.528600		1754.511400	
	10	1710.528300		1754.511700	
	20	1710.528900		1754.511000	
	30	1710.528200		1754.511800	
	40	1710.528800		1754.512300	
50	1710.528500	1754.511700			
3.6	20	1710.528700		1754.511500	
4.4	20	1710.528400		1754.511600	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	1710.528700	1710	1754.471200	1755
	-20	1710.528200		1754.471700	
	-10	1710.528100		1754.471200	
	0	1710.528800		1754.471400	
	10	1710.528700		1754.471200	
	20	1710.528900		1754.471100	
	30	1710.527800		1754.471700	
	40	1710.528600		1754.471200	
50	1710.529200	1754.471500			
3.6	20	1710.528400		1754.471100	
4.4	20	1710.528200		1754.471400	

LTE Band 5:

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V_{DC}	Hz	ppm	ppm
-30	3.85	-5.180000	-0.0062	2.5
-20		-7.390000	-0.0088	
-10		9.550000	0.0114	
0		5.690000	0.0068	
10		7.460000	0.0089	
20		6.440000	0.0077	
30		6.170000	0.0074	
40		9.610000	0.0115	
50		-6.430000	-0.0077	
20		3.6	-8.310000	
20	4.4	8.890000	0.0106	

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V_{DC}	Hz	ppm	ppm
-30	3.85	-4.480000	-0.0054	2.5
-20		-9.280000	-0.0111	
-10		7.320000	0.0088	
0		-7.030000	-0.0084	
10		5.720000	0.0068	
20		-6.250000	-0.0075	
30		6.770000	0.0081	
40		-7.310000	-0.0087	
50		9.170000	0.011	
20		3.6	-7.010000	
20	4.4	5.050000	0.006	

LTE Band 7

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2500.528200	2500	2569.511400	2570
	-20	2500.528500		2569.511500	
	-10	2500.528900		2569.512100	
	0	2500.528400		2569.512200	
	10	2500.528700		2569.512300	
	20	2500.528900		2569.511000	
	30	2500.528200		2569.511700	
	40	2500.528700		2569.511800	
3.6	20	2500.528200		2569.512300	
4.4	20	2500.528200		2569.511700	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2500.489200	2500	2569.511200	2570
	-20	2500.489500		2569.511300	
	-10	2500.489400		2569.511200	
	0	2500.489800		2569.511400	
	10	2500.489700		2569.511800	
	20	2500.489000		2569.511000	
	30	2500.489100		2569.511600	
	40	2500.489200		2569.511400	
3.6	20	2500.489700		2569.511700	
4.4	20	2500.489200		2569.511800	

LTE Band 12

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F _L	Limit	F _H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	699.528400	699	715.471200	716
	-20	699.528500		715.471400	
	-10	699.528300		715.471600	
	0	699.528700		715.471700	
	10	699.528500		715.471200	
	20	699.528900		715.471100	
	30	699.528700		715.471400	
	40	699.528600		715.471700	
3.6	20	699.528100		715.471400	
4.4	20	699.528300		715.471700	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F _L	Limit	F _H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	699.527100	699	715.471200	716
	-20	699.527500		715.471700	
	-10	699.528400		715.471500	
	0	699.528600		715.471600	
	10	699.528200		715.471700	
	20	699.528900		715.471100	
	30	699.528100		715.471700	
	40	699.528200		715.471500	
3.6	20	699.528200		715.471700	
4.4	20	699.528800		715.471800	

LTE Band 13

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	777.489200	777	786.471700	787
	-20	777.489400		786.471500	
	-10	777.489600		786.471400	
	0	777.489700		786.471300	
	10	777.489200		786.471500	
	20	777.489000		786.471100	
	30	777.489500		786.471200	
	40	777.489900		786.471300	
50	777.489500	786.471800			
3.6	20	777.489800		786.471200	
4.4	20	777.489200		786.471700	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	777.489200	777	786.471500	787
	-20	777.489400		786.471700	
	-10	777.489100		786.471400	
	0	777.489900		786.471200	
	10	777.489700		786.471400	
	20	777.489000		786.471100	
	30	777.489200		786.471300	
	40	777.489300		786.471700	
50	777.489000	786.471000			
3.6	20	777.489700		786.471200	
4.4	20	777.489500		786.471700	

LTE Band 17:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	704.528700	704	715.511400	716
	-20	704.528100		715.511500	
	-10	704.528200		715.511800	
	0	704.528500		715.511700	
	10	704.528600		715.511300	
	20	704.528900		715.511000	
	30	704.528700		715.511700	
	40	704.528500		715.511800	
50	704.528600	715.511900			
3.6	20	704.528200		715.512400	
4.4	20	704.528700		715.512700	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	704.489500	704	715.471500	716
	-20	704.489700		715.471600	
	-10	704.489600		715.471400	
	0	704.489700		715.471200	
	10	704.489200		715.471700	
	20	704.489000		715.471100	
	30	704.489100		715.471500	
	40	704.489200		715.471400	
50	704.489700	715.471700			
3.6	20	704.489300		715.471200	
4.4	20	704.489700		715.471400	

LTE Band 26

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V_{DC}	Hz	ppm	ppm
-30	3.85	-2.690000	-0.0014	2.5
-20		-8.050000	-0.0043	
-10		8.100000	0.0043	
0		5.500000	0.0029	
10		5.640000	0.003	
20		-5.700000	-0.003	
30		6.580000	0.0035	
40		-6.880000	-0.0037	
50		9.140000	0.0049	
20		3.6	5.440000	
20	4.4	-6.060000	-0.0032	

Middle Channel, $f_c = 836.5$ MHz, Channel Bandwidth:10MHz				
Temperature	Voltage	Frequency Error	Frequency Error	Limit
°C	V_{DC}	Hz	ppm	ppm
-30	3.85	-3.820000	-0.002	2.5
-20		6.590000	0.0035	
-10		-7.090000	-0.0038	
0		-7.130000	-0.0038	
10		-7.420000	-0.0039	
20		6.650000	0.0035	
30		6.530000	0.0035	
40		-7.110000	-0.0038	
50		-9.130000	-0.0049	
20		3.6	-9.480000	
20	4.4	7.840000	0.0042	

LTE Band 38

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2570.528700	2570	2619.511800	2620
	-20	2570.528500		2619.511900	
	-10	2570.528200		2619.511200	
	0	2570.528100		2619.511400	
	10	2570.528300		2619.511600	
	20	2570.528900		2619.511000	
	30	2570.528400		2619.511700	
	40	2570.528700		2619.511500	
50	2570.528800	2619.511600			
3.6	20	2570.528400		2619.511700	
4.4	20	2570.528600		2619.511300	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2570.528800	2570	2619.471200	2620
	-20	2570.528100		2619.471700	
	-10	2570.528500		2619.471400	
	0	2570.528400		2619.471700	
	10	2570.528900		2619.471500	
	20	2570.528900		2619.471100	
	30	2570.528800		2619.471400	
	40	2570.528200		2619.471700	
50	2570.528300	2619.471600			
3.6	20	2570.528700		2619.471400	
4.4	20	2570.528700		2619.471700	

LTE Band 40 Lower:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2305.528700	2305	2314.471500	2315
	-20	2305.528400		2314.471400	
	-10	2305.528100		2314.471500	
	0	2305.528200		2314.471200	
	10	2305.528600		2314.471500	
	20	2305.528900		2314.471100	
	30	2305.528700		2314.471600	
	40	2305.528500		2314.471400	
50	2305.528700	2314.471500			
3.6	20	2305.528600		2314.471700	
4.4	20	2305.528500		2314.471600	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2305.528700	2305	2314.471200	2315
	-20	2305.528500		2314.471500	
	-10	2305.528200		2314.471700	
	0	2305.528400		2314.471500	
	10	2305.528200		2314.471400	
	20	2305.528900		2314.471100	
	30	2305.528400		2314.471700	
	40	2305.528100		2314.471500	
50	2305.528200	2314.471300			
3.6	20	2305.528700		2314.471400	
4.4	20	2305.528700		2314.471700	

LTE Band 40 Upper:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2350.528200	2350	2359.511700	2360
	-20	2350.528700		2359.511500	
	-10	2350.528600		2359.511600	
	0	2350.528700		2359.511700	
	10	2350.528400		2359.511800	
	20	2350.528900		2359.511000	
	30	2350.528200		2359.511700	
	40	2350.528700		2359.511300	
50	2350.528400	2359.511700			
3.6	20	2350.528700		2359.511400	
4.4	20	2350.528200		2359.511700	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2350.528500	2350	2359.471200	2360
	-20	2350.528400		2359.471400	
	-10	2350.528700		2359.471600	
	0	2350.528600		2359.471700	
	10	2350.528700		2359.471400	
	20	2350.528900		2359.471100	
	30	2350.528200		2359.471200	
	40	2350.528400		2359.471300	
50	2350.528500	2359.471700			
3.6	20	2350.528600		2359.471800	
4.4	20	2350.528200		2359.471900	

LTE Band 41:

QPSK, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2555.528700	2555	2654.471300	2655
	-20	2555.528500		2654.471800	
	-10	2555.528600		2654.471700	
	0	2555.528400		2654.471200	
	10	2555.528400		2654.471700	
	20	2555.528900		2654.471100	
	30	2555.528100		2654.471200	
	40	2555.528200		2654.471300	
50	2555.528600	2654.471700			
3.6	20	2555.528700		2654.471800	
4.4	20	2555.528200		2654.471200	

16-QAM, Channel Bandwidth:10MHz					
Power Supplied	Temperature	F_L	Limit	F_H	Limit
Vdc	°C	MHz	MHz	MHz	MHz
3.85	-30	2555.528900	2555	2654.511000	2655
	-20	2555.528900		2654.511000	
	-10	2555.528900		2654.511000	
	0	2555.528900		2654.511000	
	10	2555.528900		2654.511000	
	20	2555.528900		2654.511000	
	30	2555.528900		2654.511000	
	40	2555.528900		2654.511000	
50	2555.528900	2654.511000			
3.6	20	2555.528900		2654.511000	
4.4	20	2555.528900		2654.511000	

Note: The fundamental emissions stay within the authorized bands of operation based on the frequency deviation measured is small, the extreme voltage was declared by applicant.

******* END OF REPORT *******