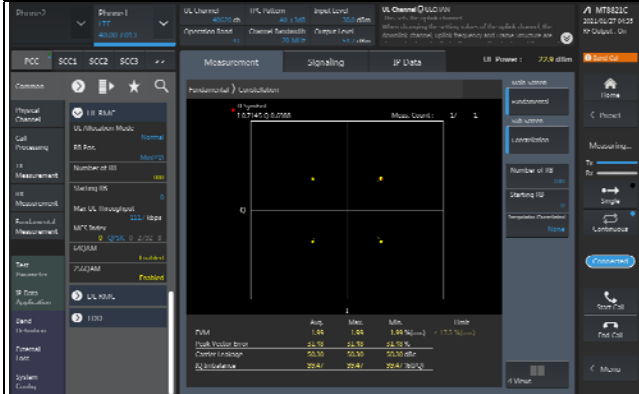


LTE Band 41

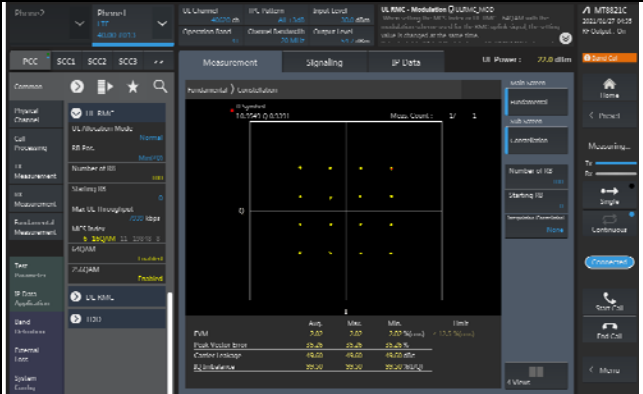
Spectrum Plot of Measurement Value

Channel: 40620 / Frequency (MHz): 2593.0 MHz

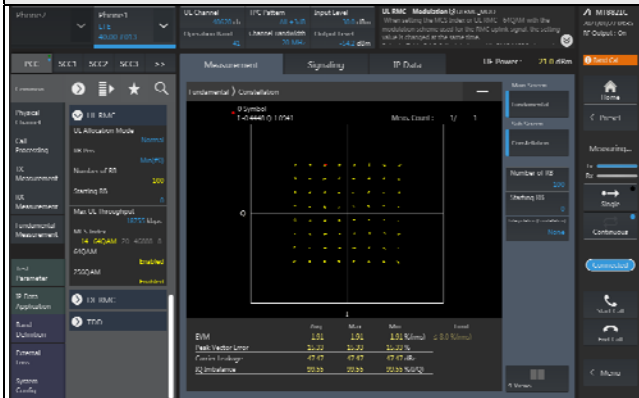
QPSK



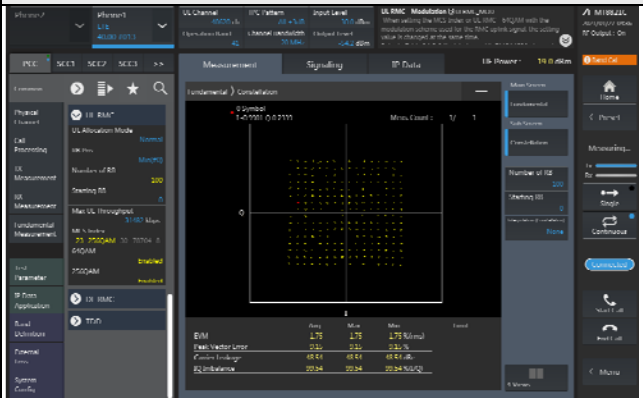
16QAM



64QAM



256QAM

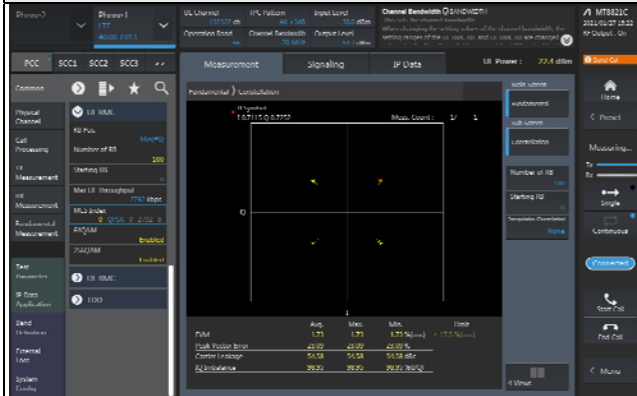


LTE Band 66

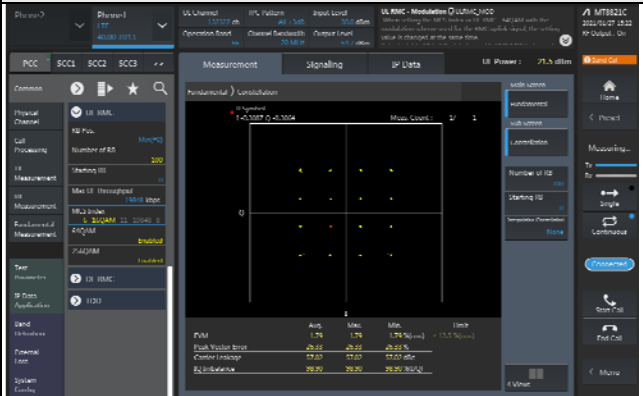
Spectrum Plot of Measurement Value

Channel: 132322 / Frequency (MHz): 1745.0 MHz

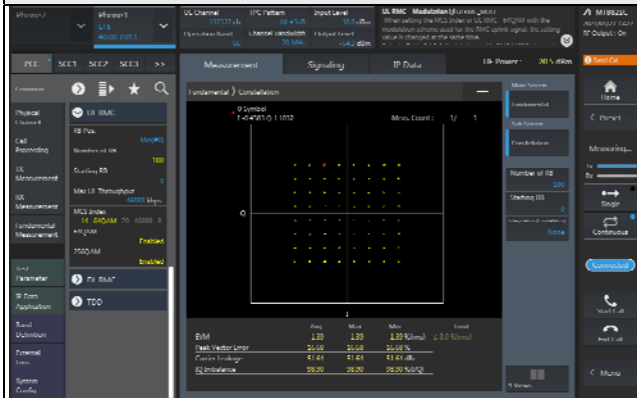
QPSK



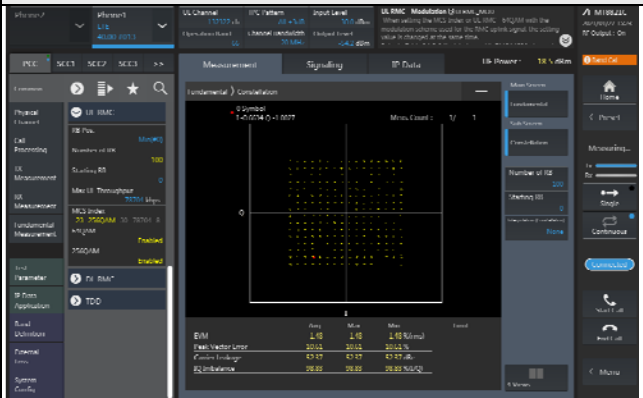
16QAM



64QAM



256QAM

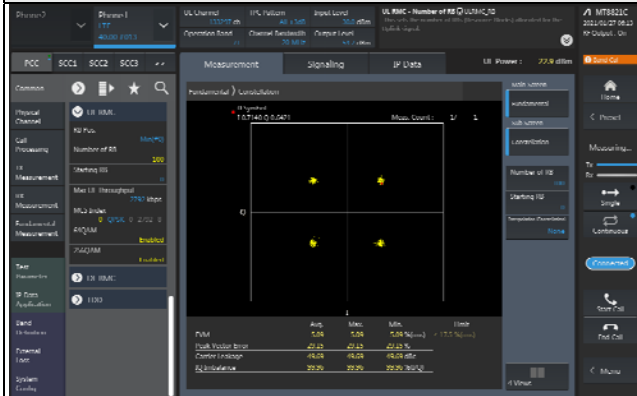


LTE Band 71

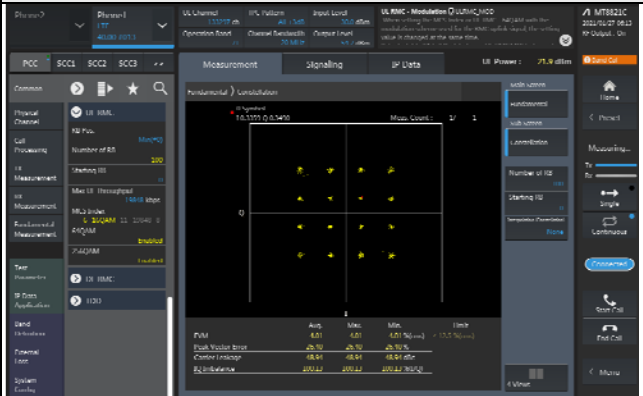
Spectrum Plot of Measurement Value

Channel: 133297 / Frequency (MHz): 680.5MHz

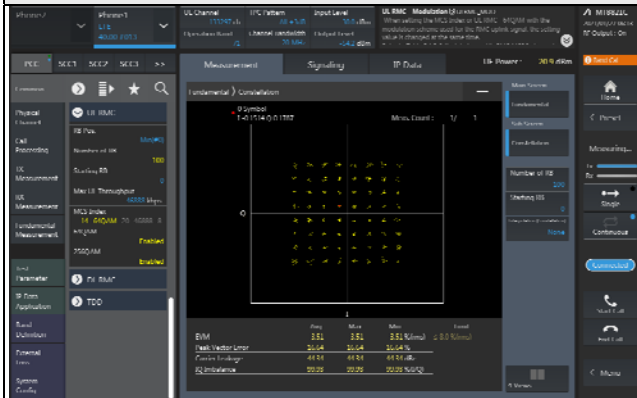
QPSK



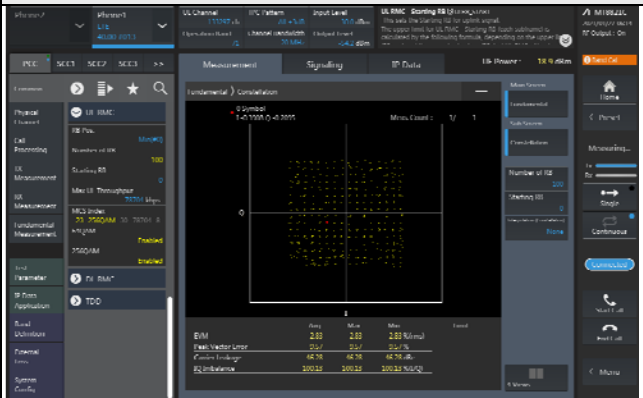
16QAM



64QAM



256QAM



4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

According to the FCC part 2.1055 shall be tested the frequency stability. The rule is defined that "The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block." The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with specification of EUT $-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$.

4.3.2 Test Procedure

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

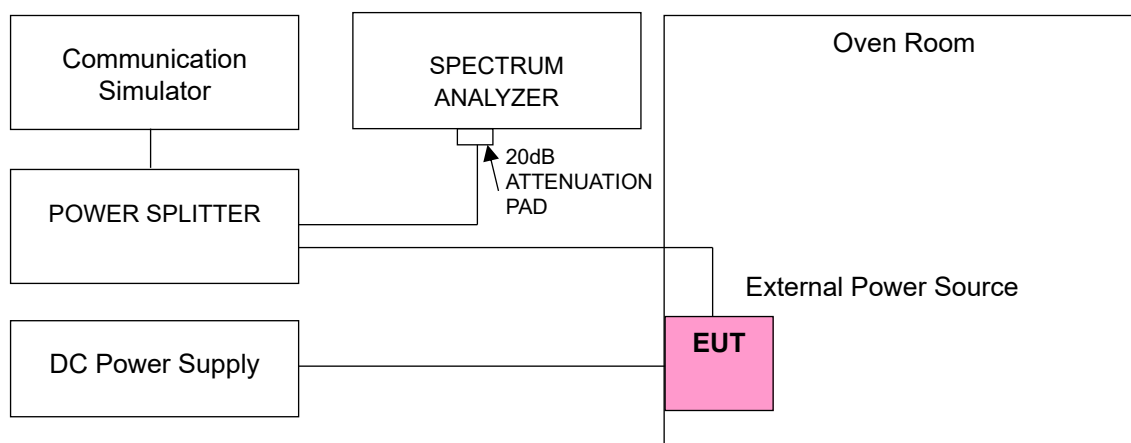
Note: The frequency error was recorded frequency error from the communication simulator.

4.3.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Radio Communication Analyzer Anritsu	MT8820C	6201010284	Dec. 28, 2020	Dec. 27, 2021
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	Dec. 24, 2020	Dec. 23, 2021
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2020	Jun. 22, 2021
DC Power Supply Topward	6306A	727263	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.4 Test Setup



4.3.5 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 4			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1710.699994	-0.003390	1754.299999	-0.000342
3.40	1710.699993	-0.003975	1754.300003	0.001482
4.40	1710.699999	-0.000643	1754.299997	-0.001995

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1710.699993	-0.003975	1754.299998	-0.000969
-20	1710.699995	-0.002806	1754.299998	-0.000969
-10	1710.699999	-0.000526	1754.299993	-0.004275
0	1710.699997	-0.001929	1754.299996	-0.002451
10	1710.699992	-0.004618	1754.300008	0.004446
20	1710.699995	-0.003098	1754.300005	0.003021
30	1710.699998	-0.001403	1754.299997	-0.001710
40	1710.700004	0.002163	1754.299998	-0.001140
50	1710.699995	-0.003098	1754.299994	-0.003249

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 4			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1711.499996	-0.002571	1753.500003	0.001654
3.40	1711.499993	-0.004207	1753.500008	0.004562
4.40	1711.500002	0.001052	1753.499995	-0.002623

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1711.500001	0.000584	1753.499994	-0.003251
-20	1711.499997	-0.001578	1753.500004	0.002509
-10	1711.499994	-0.003623	1753.499999	-0.000342
0	1711.499999	-0.000760	1753.500001	0.000456
10	1711.500004	0.002279	1753.499999	-0.000513
20	1711.499996	-0.002571	1753.499999	-0.000342
30	1711.500006	0.003739	1753.500008	0.004448
40	1711.499994	-0.003564	1753.499998	-0.001084
50	1711.500007	0.003798	1753.500006	0.003308

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 4			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1712.499994	-0.003562	1752.500006	0.003310
3.40	1712.500002	0.000934	1752.499996	-0.002168
4.40	1712.499993	-0.003854	1752.500004	0.002225

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.499999	-0.000876	1752.499997	-0.001769
-20	1712.500005	0.003153	1752.500004	0.001997
-10	1712.500001	0.000584	1752.500007	0.003709
0	1712.499997	-0.001577	1752.499999	-0.000342
10	1712.499998	-0.000934	1752.499999	-0.000685
20	1712.500008	0.004613	1752.499994	-0.003252
30	1712.500008	0.004672	1752.499999	-0.000856
40	1712.500004	0.002453	1752.499999	-0.000342
50	1712.499997	-0.001752	1752.499994	-0.003538

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 4			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1714.999995	-0.003090	1749.999993	-0.003943
3.40	1714.999992	-0.004431	1750.000006	0.003543
4.40	1714.999999	-0.000408	1750.000002	0.001143

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1714.999993	-0.004373	1749.999992	-0.004457
-20	1714.999995	-0.002682	1750.000002	0.001086
-10	1715.000003	0.001516	1750.000005	0.003086
0	1715.000007	0.004082	1750.000004	0.002514
10	1715.000008	0.004373	1750.000002	0.001200
20	1714.999993	-0.004257	1750.000008	0.004571
30	1715.000004	0.002157	1749.999999	-0.000686
40	1715.000003	0.001866	1749.999994	-0.003257
50	1714.999992	-0.004490	1750.000002	0.001257

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 4			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1717.500007	0.004309	1747.499993	-0.004177
3.40	1717.499994	-0.003785	1747.500002	0.000916
4.40	1717.499992	-0.004483	1747.500005	0.002747

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1717.500003	0.001572	1747.500002	0.000973
-20	1717.500003	0.001456	1747.499998	-0.001431
-10	1717.499998	-0.001106	1747.499992	-0.004521
0	1717.499992	-0.004658	1747.499997	-0.001946
10	1717.500006	0.003202	1747.500007	0.003720
20	1717.499995	-0.003202	1747.499993	-0.004177
30	1717.499999	-0.000524	1747.499996	-0.002518
40	1717.500006	0.003668	1747.499996	-0.002346
50	1717.500008	0.004600	1747.500005	0.002804

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 4			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1720.000005	0.002791	1744.999997	-0.001605
3.40	1720.000001	0.000291	1744.999998	-0.001203
4.40	1720.000008	0.004419	1744.999993	-0.004011

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1719.999995	-0.002733	1745.000008	0.004355
-20	1719.999996	-0.002558	1744.999993	-0.004069
-10	1720.000003	0.001512	1745.000002	0.000974
0	1720.000001	0.000698	1744.999993	-0.003840
10	1719.999997	-0.001802	1745.000007	0.004241
20	1719.999996	-0.002384	1744.999992	-0.004527
30	1719.999992	-0.004593	1744.999995	-0.002751
40	1719.999995	-0.002965	1745.000001	0.000573
50	1720.000005	0.002907	1744.999999	-0.000802

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 7			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2502.500007	0.002837	2567.500006	0.002181
3.40	2502.499992	-0.003117	2567.499997	-0.001363
4.40	2502.500000	-0.000200	2567.499999	-0.000428

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2502.500003	0.001199	2567.500005	0.001792
-20	2502.499993	-0.002677	2567.500001	0.000389
-10	2502.500003	0.000999	2567.500007	0.002882
0	2502.499996	-0.001678	2567.500005	0.001792
10	2502.500001	0.000200	2567.500003	0.001246
20	2502.500004	0.001718	2567.500004	0.001714
30	2502.499994	-0.002318	2567.499999	-0.000312
40	2502.499998	-0.000719	2567.500002	0.000662
50	2502.499995	-0.002078	2567.500002	0.000623

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 7			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2505.000006	0.002395	2564.999997	-0.001092
3.40	2504.999998	-0.000798	2564.999996	-0.001559
4.40	2505.000001	0.000240	2564.999996	-0.001598

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2504.999996	-0.001437	2564.999992	-0.003002
-20	2505.000008	0.002994	2565.000008	0.002963
-10	2504.999998	-0.000639	2564.999992	-0.003119
0	2505.000004	0.001756	2565.000004	0.001365
10	2505.000004	0.001517	2565.000008	0.003080
20	2504.999995	-0.002156	2565.000004	0.001637
30	2505.000003	0.001317	2564.999994	-0.002495
40	2505.000004	0.001717	2565.000002	0.000780
50	2505.000006	0.002555	2564.999993	-0.002924

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 7			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2507.499997	-0.001037	2562.499998	-0.000976
3.40	2507.499994	-0.002313	2562.499999	-0.000234
4.40	2507.500004	0.001476	2562.499993	-0.002654

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2507.500004	0.001715	2562.499999	-0.000585
-20	2507.500003	0.001236	2562.500002	0.000702
-10	2507.499996	-0.001436	2562.500007	0.002849
0	2507.499994	-0.002273	2562.499999	-0.000546
10	2507.499995	-0.001834	2562.499994	-0.002420
20	2507.500002	0.000638	2562.499994	-0.002459
30	2507.500006	0.002353	2562.500002	0.000780
40	2507.499998	-0.000718	2562.499997	-0.001288
50	2507.499997	-0.001077	2562.499997	-0.001171

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 7			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2509.999994	-0.002271	2559.999994	-0.002422
3.40	2509.999996	-0.001753	2560.000004	0.001445
4.40	2510.000000	0.000120	2560.000003	0.001250

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2509.999997	-0.001235	2560.000002	0.000742
-20	2510.000002	0.000956	2559.999995	-0.001875
-10	2509.999999	-0.000438	2559.999993	-0.002930
0	2510.000001	0.000279	2559.999999	-0.000234
10	2510.000006	0.002390	2560.000000	-0.000117
20	2510.000005	0.002112	2559.999996	-0.001680
30	2510.000002	0.000717	2560.000006	0.002227
40	2509.999993	-0.002948	2560.000003	0.001133
50	2509.999998	-0.000797	2559.999995	-0.001953

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 12			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	699.700007	0.010433	715.299994	-0.008947
3.40	699.699997	-0.004716	715.300002	0.003355
4.40	699.699995	-0.007289	715.300001	0.001398

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 12			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	699.699995	-0.007432	715.300003	0.003914
-20	699.699995	-0.007861	715.300002	0.003355
-10	699.699997	-0.004716	715.299995	-0.007409
0	699.699994	-0.008861	715.299992	-0.010625
10	699.699992	-0.011433	715.299995	-0.006710
20	699.700006	0.008289	715.299998	-0.002377
30	699.699994	-0.008289	715.300003	0.004613
40	699.700008	0.011291	715.300008	0.011044
50	699.699998	-0.002287	715.299996	-0.005872

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 12			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	700.500007	0.009422	714.499994	-0.008118
3.40	700.500002	0.002855	714.500001	0.001400
4.40	700.499996	-0.005282	714.499998	-0.003499

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 12			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	700.499997	-0.003854	714.499994	-0.007838
-20	700.499997	-0.004711	714.499996	-0.005038
-10	700.500002	0.002284	714.499996	-0.005598
0	700.500005	0.006424	714.500004	0.005598
10	700.499993	-0.010421	714.500003	0.004059
20	700.499995	-0.007852	714.500004	0.005038
30	700.500006	0.009136	714.500004	0.005038
40	700.499999	-0.001999	714.500002	0.002239
50	700.499998	-0.003426	714.500000	-0.000700

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 12			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	701.499994	-0.009266	713.499995	-0.007708
3.40	701.500006	0.009123	713.500001	0.001682
4.40	701.499995	-0.006557	713.500001	0.001962

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 12			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	701.499997	-0.004847	713.499998	-0.003504
-20	701.499998	-0.002994	713.499999	-0.000841
-10	701.500008	0.011404	713.499995	-0.007428
0	701.499993	-0.010691	713.499996	-0.005186
10	701.499996	-0.006415	713.500002	0.002803
20	701.500005	0.007413	713.499994	-0.008549
30	701.500006	0.008553	713.500003	0.003924
40	701.499998	-0.003421	713.500001	0.001261
50	701.499998	-0.003136	713.499999	-0.001682

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 12			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	703.999997	-0.003693	711.000001	0.001125
3.40	703.999995	-0.007386	711.000005	0.007173
4.40	703.999993	-0.009517	710.999993	-0.010127

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 12			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	703.999997	-0.004688	711.000006	0.008579
-20	704.000002	0.002841	711.000001	0.000985
-10	703.999999	-0.001847	711.000003	0.004782
0	703.999994	-0.009233	710.999996	-0.005626
10	703.999994	-0.008523	710.999996	-0.005767
20	703.999993	-0.009943	710.999994	-0.008439
30	703.999997	-0.003835	711.000005	0.006892
40	704.000007	0.009375	711.000002	0.002110
50	704.000003	0.004688	711.000005	0.006470

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 13			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	779.499993	-0.009622	784.500007	0.008668
3.40	779.500008	0.009750	784.499994	-0.007521
4.40	779.499996	-0.005003	784.499999	-0.001912

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 13			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	779.500003	0.003977	784.500002	0.002804
-20	779.500006	0.007441	784.499993	-0.009178
-10	779.500002	0.002053	784.500002	0.002294
0	779.500000	-0.000385	784.500008	0.009560
10	779.499997	-0.004362	784.500006	0.007903
20	779.500003	0.004233	784.499995	-0.006373
30	779.499994	-0.008339	784.500004	0.004461
40	779.499999	-0.001283	784.500008	0.009943
50	779.500007	0.008339	784.499994	-0.007648

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 13	
	Channel Bandwidth 10MHz	
	Frequency (MHz)	Frequency Error (ppm)
3.85	781.999997	-0.003325
3.40	782.000001	0.000639
4.40	781.999994	-0.008312

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 13	
	Channel Bandwidth 10MHz	
	Frequency (MHz)	Frequency Error (ppm)
-30	782.000004	0.004604
-20	781.999998	-0.002685
-10	781.999996	-0.004987
0	781.999992	-0.010230
10	781.999995	-0.006522
20	782.000007	0.008951
30	781.999994	-0.007673
40	782.000007	0.009335
50	781.999994	-0.007417

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 17			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	706.499992	-0.010757	713.500003	0.003504
3.40	706.500006	0.008776	713.499994	-0.008129
4.40	706.500004	0.005379	713.500000	-0.000701

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 17			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	706.500006	0.007785	713.499998	-0.002803
-20	706.500004	0.005379	713.499997	-0.004064
-10	706.500002	0.002689	713.500007	0.009110
0	706.500001	0.001274	713.499995	-0.007148
10	706.500002	0.002831	713.499998	-0.003364
20	706.500003	0.004105	713.500000	-0.000701
30	706.499995	-0.006511	713.499994	-0.009110
40	706.500004	0.005237	713.499999	-0.001402
50	706.499998	-0.003255	713.499996	-0.005326

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 17			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	708.999993	-0.010296	710.999992	-0.010830
3.40	709.000007	0.009309	710.999996	-0.005204
4.40	709.000001	0.001410	711.000001	0.001125

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 17			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	708.999993	-0.010014	711.000007	0.009564
-20	708.999993	-0.009450	710.999999	-0.001547
-10	709.000004	0.005501	711.000004	0.005767
0	708.999993	-0.010437	710.999993	-0.009705
10	709.000004	0.004937	711.000002	0.002532
20	709.000005	0.007616	711.000002	0.003094
30	709.000006	0.007757	711.000006	0.007876
40	708.999998	-0.002962	711.000002	0.003094
50	709.000004	0.005642	711.000006	0.009001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 30			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2307.499995	-0.002124	2312.499996	-0.001816
3.40	2307.499993	-0.002904	2312.499999	-0.000303
4.40	2307.499994	-0.002730	2312.500008	0.003373

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 30			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2307.499996	-0.001820	2312.500007	0.002941
-20	2307.500006	0.002687	2312.499992	-0.003459
-10	2307.499993	-0.002904	2312.500008	0.003373
0	2307.500007	0.002860	2312.500007	0.002854
10	2307.500001	0.000390	2312.499993	-0.003157
20	2307.500004	0.001733	2312.499998	-0.000692
30	2307.499998	-0.000910	2312.499998	-0.001081
40	2307.500004	0.001733	2312.499999	-0.000649
50	2307.499998	-0.001083	2312.500004	0.001903

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 30	
	Channel Bandwidth 10MHz	
	Frequency (MHz)	Frequency Error (ppm)
3.85	2309.999999	-0.000476
3.40	2310.000006	0.002771
4.40	2310.000002	0.000866

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 30	
	Channel Bandwidth 10MHz	
	Frequency (MHz)	Frequency Error (ppm)
-30	2310.000001	0.000433
-20	2310.000001	0.000476
-10	2310.000002	0.000996
0	2309.999997	-0.001342
10	2310.000008	0.003333
20	2310.000008	0.003290
30	2310.000001	0.000433
40	2309.999997	-0.001255
50	2310.000001	0.000346

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 38			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2572.500007	0.002877	2617.500005	0.001757
3.40	2572.500007	0.002643	2617.499999	-0.000573
4.40	2572.499997	-0.001322	2617.500008	0.002980

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 38			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2572.499997	-0.001050	2617.499994	-0.002254
-20	2572.500008	0.003032	2617.500006	0.002139
-10	2572.500007	0.002604	2617.499996	-0.001452
0	2572.499999	-0.000466	2617.500001	0.000191
10	2572.499998	-0.000972	2617.500003	0.001299
20	2572.500007	0.002838	2617.500005	0.002063
30	2572.500001	0.000428	2617.499993	-0.002521
40	2572.499996	-0.001594	2617.500003	0.001223
50	2572.500005	0.002099	2617.499995	-0.002063

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 38			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2575.000002	0.000738	2614.999998	-0.000612
3.40	2575.000001	0.000194	2614.999995	-0.002027
4.40	2574.999999	-0.000388	2615.000001	0.000382

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 38			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2575.000008	0.002990	2615.000005	0.001874
-20	2575.000004	0.001398	2614.999998	-0.000727
-10	2575.000007	0.002524	2614.999997	-0.001262
0	2575.000001	0.000350	2615.000004	0.001338
10	2575.000004	0.001437	2614.999997	-0.001033
20	2574.999993	-0.002563	2615.000008	0.003021
30	2574.999996	-0.001553	2614.999997	-0.001300
40	2575.000003	0.001204	2614.999995	-0.001874
50	2574.999996	-0.001631	2614.999995	-0.001759

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 38			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2577.499994	-0.002289	2612.499994	-0.002144
3.40	2577.499993	-0.002832	2612.499999	-0.000459
4.40	2577.499999	-0.000310	2612.499997	-0.001340

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 38			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2577.499994	-0.002444	2612.500002	0.000919
-20	2577.500004	0.001552	2612.499997	-0.001187
-10	2577.499993	-0.002910	2612.499999	-0.000459
0	2577.500002	0.000737	2612.500005	0.001837
10	2577.500003	0.001319	2612.499998	-0.000880
20	2577.500007	0.002755	2612.499996	-0.001569
30	2577.499998	-0.000621	2612.500004	0.001608
40	2577.500002	0.000776	2612.500008	0.002909
50	2577.499993	-0.002638	2612.500008	0.002986

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 38			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2579.999996	-0.001667	2609.999997	-0.001226
3.40	2580.000005	0.001977	2609.999999	-0.000345
4.40	2580.000003	0.000969	2610.000000	0.001379

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 38			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2580.000006	0.002481	2609.999999	-0.000421
-20	2580.000005	0.001977	2610.000004	0.001571
-10	2580.000002	0.000930	2610.000008	0.002874
0	2580.000006	0.002442	2609.999994	-0.002452
10	2579.999996	-0.001589	2610.000006	0.002414
20	2579.999997	-0.001357	2609.999995	-0.001877
30	2580.000004	0.001512	2609.999994	-0.002222
40	2579.999993	-0.002597	2610.000001	0.000498
50	2580.000001	0.000388	2609.999999	-0.000345

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 41			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2498.500003	0.001001	2687.499996	-0.001340
3.40	2498.500006	0.002441	2687.500004	0.001637
4.40	2498.499997	-0.001241	2687.500001	0.000186

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 41			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2498.499998	-0.000680	2687.499998	-0.000633
-20	2498.499997	-0.001321	2687.500001	0.000372
-10	2498.500005	0.002001	2687.499995	-0.002009
0	2498.499993	-0.002682	2687.500004	0.001377
10	2498.499995	-0.001921	2687.499998	-0.000930
20	2498.500004	0.001761	2687.499998	-0.000819
30	2498.499994	-0.002401	2687.500007	0.002567
40	2498.499993	-0.002962	2687.500005	0.001712
50	2498.499999	-0.000560	2687.500007	0.002419

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 41			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2500.999995	-0.001919	2685.000005	0.001825
3.40	2501.000001	0.000400	2685.000003	0.001229
4.40	2500.999999	-0.000400	2685.000005	0.001713

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 41			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2500.999993	-0.002759	2685.000006	0.002123
-20	2500.999994	-0.002319	2684.999995	-0.002011
-10	2500.999993	-0.002719	2684.999992	-0.002831
0	2501.000005	0.002039	2684.999993	-0.002756
10	2501.000005	0.001919	2684.999995	-0.001862
20	2501.000002	0.000960	2684.999994	-0.002272
30	2501.000003	0.001359	2684.999995	-0.001750
40	2501.000005	0.002039	2685.000003	0.001229
50	2501.000002	0.000800	2685.000002	0.000745

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 41			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2503.500002	0.000719	2682.499995	-0.001864
3.40	2503.499999	-0.000320	2682.499999	-0.000522
4.40	2503.499995	-0.001997	2682.500001	0.000373

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 41			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2503.500003	0.000999	2682.499994	-0.002349
-20	2503.499998	-0.000719	2682.500002	0.000895
-10	2503.500006	0.002197	2682.500007	0.002759
0	2503.500003	0.001238	2682.500004	0.001603
10	2503.500002	0.000799	2682.500001	0.000261
20	2503.499999	-0.000320	2682.499993	-0.002498
30	2503.499994	-0.002277	2682.500002	0.000708
40	2503.499998	-0.000919	2682.500005	0.002013
50	2503.499996	-0.001518	2682.500002	0.000671

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 41			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	2505.999992	-0.003152	2679.999993	-0.002799
3.40	2506.000004	0.001476	2679.999992	-0.002836
4.40	2506.000001	0.000479	2679.999996	-0.001418

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 41			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2505.999999	-0.000599	2680.000006	0.002313
-20	2506.000001	0.000399	2680.000001	0.000373
-10	2505.999995	-0.001836	2679.999996	-0.001493
0	2505.999995	-0.001955	2679.999996	-0.001530
10	2506.000004	0.001437	2679.999995	-0.001716
20	2505.999995	-0.002035	2679.999996	-0.001604
30	2505.999993	-0.002793	2680.000006	0.002239
40	2506.000000	0.000080	2680.000006	0.002239
50	2505.999999	-0.000479	2679.999997	-0.001306

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1710.699999	-0.000818	1779.299998	-0.001349
3.40	1710.699992	-0.004676	1779.300002	0.001124
4.40	1710.700006	0.003274	1779.300006	0.003541

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1710.699995	-0.003040	1779.299994	-0.003541
-20	1710.699994	-0.003390	1779.299992	-0.004328
-10	1710.699996	-0.002338	1779.299998	-0.001124
0	1710.699995	-0.002689	1779.300006	0.003428
10	1710.700001	0.000526	1779.300006	0.003597
20	1710.700001	0.000585	1779.300006	0.003091
30	1710.699994	-0.003741	1779.299994	-0.003428
40	1710.699999	-0.000643	1779.299993	-0.003709
50	1710.699996	-0.002572	1779.300003	0.001574

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1711.499998	-0.000935	1778.499993	-0.004217
3.40	1711.499994	-0.003623	1778.500007	0.003992
4.40	1711.499999	-0.000351	1778.500001	0.000731

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1711.499994	-0.003389	1778.499997	-0.001855
-20	1711.499999	-0.000526	1778.499999	-0.000394
-10	1711.499994	-0.003330	1778.500002	0.001293
0	1711.500001	0.000526	1778.499996	-0.002362
10	1711.500004	0.002337	1778.500008	0.004217
20	1711.500005	0.003155	1778.500005	0.002924
30	1711.499994	-0.003681	1778.499998	-0.000956
40	1711.500002	0.001052	1778.500008	0.004386
50	1711.500005	0.002863	1778.500005	0.002755

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1712.499992	-0.004555	1777.500002	0.000844
3.40	1712.500002	0.001226	1777.499998	-0.001181
4.40	1712.500007	0.004088	1777.499995	-0.002869

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.500001	0.000584	1777.500008	0.004444
-20	1712.500005	0.002861	1777.500007	0.003938
-10	1712.500005	0.003095	1777.499994	-0.003207
0	1712.499997	-0.002044	1777.499993	-0.003826
10	1712.499998	-0.001109	1777.500002	0.001125
20	1712.500001	0.000584	1777.499995	-0.002700
30	1712.499997	-0.002044	1777.499994	-0.003150
40	1712.500007	0.003854	1777.500004	0.002307
50	1712.499995	-0.002745	1777.499993	-0.003826

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1714.999995	-0.003032	1775.000004	0.001972
3.40	1715.000001	0.000350	1775.000001	0.000563
4.40	1714.999997	-0.001516	1775.000005	0.002592

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1714.999994	-0.003324	1775.000002	0.001070
-20	1715.000001	0.000583	1774.999994	-0.003662
-10	1715.000008	0.004373	1775.000003	0.001634
0	1715.000002	0.001399	1775.000004	0.002141
10	1715.000006	0.003615	1775.000008	0.004282
20	1715.000001	0.000583	1775.000003	0.001803
30	1714.999992	-0.004548	1775.000005	0.002986
40	1715.000001	0.000700	1775.000007	0.003775
50	1714.999996	-0.002449	1774.999998	-0.000958

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1717.499996	-0.002445	1772.499995	-0.003103
3.40	1717.499995	-0.003086	1772.500002	0.001016
4.40	1717.499995	-0.002969	1772.499996	-0.002144

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1717.500004	0.002038	1772.499995	-0.002934
-20	1717.499992	-0.004483	1772.499993	-0.004006
-10	1717.500003	0.001689	1772.500002	0.001128
0	1717.500005	0.003086	1772.500005	0.002708
10	1717.500006	0.003668	1772.500004	0.002426
20	1717.499997	-0.001921	1772.500005	0.002595
30	1717.499993	-0.004192	1772.500006	0.003272
40	1717.499997	-0.001572	1772.499997	-0.001467
50	1717.499995	-0.003028	1772.500007	0.004062

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	1720.000007	0.004302	1769.999992	-0.004350
3.40	1720.000002	0.000988	1769.999996	-0.002316
4.40	1720.000001	0.000581	1770.000006	0.003333

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1719.999994	-0.003663	1770.000001	0.000734
-20	1720.000002	0.000988	1770.000007	0.004124
-10	1720.000002	0.001337	1770.000008	0.004520
0	1719.999997	-0.001977	1770.000004	0.002260
10	1719.999997	-0.001919	1769.999993	-0.003785
20	1719.999998	-0.001047	1769.999997	-0.001695
30	1720.000005	0.003140	1770.000008	0.004407
40	1719.999999	-0.000465	1770.000002	0.001073
50	1720.000005	0.002791	1770.000003	0.001412

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 71			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	665.500004	0.005409	695.500007	0.009346
3.40	665.500006	0.008715	695.500007	0.010208
4.40	665.499998	-0.002705	695.500002	0.003451

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 71			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	665.500004	0.005860	695.500006	0.008339
-20	665.499992	-0.011570	695.499999	-0.001438
-10	665.499998	-0.003606	695.500004	0.006039
0	665.499995	-0.007663	695.500008	0.011359
10	665.500001	0.001503	695.500003	0.003738
20	665.499997	-0.004358	695.499995	-0.007333
30	665.500006	0.008866	695.500008	0.011071
40	665.500001	0.000751	695.500004	0.006183
50	665.500003	0.005109	695.499995	-0.007477

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 71			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	667.999998	-0.003593	693.000005	0.006782
3.40	668.000007	0.010180	693.000004	0.005916
4.40	668.000006	0.008533	693.000007	0.009957

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 71			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	668.000004	0.005988	692.999992	-0.011255
-20	667.999995	-0.007036	693.000004	0.005339
-10	668.000002	0.002545	693.000002	0.002453
0	667.999994	-0.009581	692.999999	-0.002020
10	667.999997	-0.005240	693.000001	0.001010
20	667.999996	-0.006437	692.999993	-0.009524
30	667.999998	-0.002695	693.000002	0.002453
40	667.999998	-0.003743	693.000001	0.001443
50	667.999993	-0.011228	692.999994	-0.008947

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 71			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	670.499999	-0.002237	690.500004	0.005358
3.40	670.500002	0.002386	690.499995	-0.007386
4.40	670.499998	-0.002535	690.499996	-0.006083

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 71			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	670.499996	-0.006264	690.500004	0.005938
-20	670.499997	-0.004922	690.499996	-0.005214
-10	670.499992	-0.011633	690.500001	0.001448
0	670.499994	-0.008501	690.500004	0.006372
10	670.500003	0.004176	690.500002	0.002896
20	670.500003	0.005071	690.499998	-0.003621
30	670.499992	-0.011782	690.500002	0.002462
40	670.500002	0.003579	690.499994	-0.009413
50	670.500004	0.005518	690.500002	0.002172

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 71			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.85	672.999997	-0.005052	687.999999	-0.000872
3.40	673.000005	0.007429	687.999999	-0.001017
4.40	672.999997	-0.004903	687.999994	-0.009448

Note: The applicant defined the normal working voltage is from 3.40Vdc to 4.40Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 71			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	673.000006	0.008767	688.000001	0.001308
-20	673.000001	0.001189	688.000006	0.009302
-10	672.999995	-0.007429	688.000006	0.009012
0	673.000003	0.004755	688.000003	0.004651
10	673.000001	0.001932	688.000008	0.011047
20	673.000002	0.002972	688.000002	0.002907
30	672.999998	-0.002377	688.000007	0.010610
40	673.000004	0.006092	687.999994	-0.008866
50	673.000004	0.006389	687.999994	-0.009448