



**SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch**

EMC-TRF-01 Rev 1.0

Report No.: GZCR210802099002

Page: 1 of 27

FCC ID:2A22N204001

TEST REPORT

Application No.: GZCR2108020990AT
Applicant: My Everyday Health LLC
Address of Applicant: 6951A N Hanley Rd, Hazelwood, Missouri, United States 63042
Manufacturer: Guangdong Transtek Medical Electronics Co., Ltd
Address of Manufacturer: Zone A, No.105, Dongli Road, Torch Development District, 528437 Zhongshan, Guangdong, China
Factory: Guangdong Transtek Medical Electronics Co., Ltd
Address of factory: Zone B, No.105, Dongli Road, Torch Development District, 528437 Zhongshan, Guangdong, China

Equipment Under Test (EUT):

EUT Name: HUB
Model No.: 204001
Trade Mark: Me.
Standard(s) : 47 CFR Part 2
47 CFR Part 24 subpart E
47 CFR Part 27 subpart C

Date of Receipt: 2021-08-13
Date of Test: 2021-08-13 to 2021-09-01
Date of Issue: 2021-09-03

Test Result:	Pass
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* In the configuration tested, the EUT complied with the standards specified above.

Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2021-09-03		Original

Authorized for issue by:				
				
		Curry Wu/Project Engineer		
				
		Ricky Liu/Reviewer		



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2 Test Summary

CatM1 Band 2

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §24.232	EIRP≤2W	PASS
Peak-Average Ratio	§2.1046 §24.232	≤13dB	PASS
Modulation Characteristics	§2.1047	Digital modulation	PASS
Bandwidth	§2.1049(h)	OBW: No limit EBW: No limit	PASS
Band Edge Compliance	§2.1051 §24.238	≤ -13dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	PASS
Spurious emissions at antenna terminals	§2.1051 §24.238	≤ -13 dBm/1MHz, from 9 kHz to 10th harmonics but outside authorized operating frequency ranges.	PASS
Field strength of spurious radiation	§2.1053 §24.238	≤ -13dBm/1MHz	PASS
Frequency stability	§2.1055 §24.235	≤ ±2.5ppm	PASS

CatM1 Band 4

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §27.50(d)	EIRP≤1W	PASS
Peak-Average Ratio	§2.1046 §27.50(d)	≤13dB	PASS
Modulation Characteristics	§2.1047	Digital modulation	PASS
Bandwidth	§2.1049(h)	OBW: No limit EBW: No limit	PASS
Band Edge Compliance	§2.1051 §27.53(h)	≤ -13dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	PASS
Spurious emissions at antenna terminals	§2.1051 §27.53(h)	≤ -13 dBm/1MHz, from 9 kHz to 10th harmonics but outside authorized operating frequency ranges.	PASS
Field strength of spurious radiation	§2.1053 §27.53(h)	≤ -13dBm/1MHz	PASS
Frequency stability	§2.1055 §27.54	≤ ±2.5ppm	PASS



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CatM1 Band 12

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §27.50(c)	ERP≤3W	PASS
Peak-Average Ratio	§2.1046 §27.50(c)	≤13dB	PASS
Modulation Characteristics	§2.1047	Digital modulation	PASS
Bandwidth	§2.1049(h)	OBW: No limit EBW: No limit	PASS
Band Edge Compliance	§2.1051 §27.53(g)	≤ -13dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	PASS
Spurious emissions at antenna terminals	§2.1051 §27.53(g)	≤ -13 dBm/100 kHz, from 9 kHz to 10th harmonics but outside authorized operating frequency ranges.	PASS
Field strength of spurious radiation	§2.1053 §27.53(g)	≤ -13dBm/100KHz	PASS
Frequency stability	§2.1055 §27.54	≤ ±2.5ppm	PASS



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4 General Information

4.1 Details of E.U.T.

Power supply:	AC Adapter Model: BLJ06L050100P-U Input: AC 100-240V, 50/60Hz, 0.2A Max Output: DC 5V, 1000mA
USB Type C cable	AC cable:190cm unshielded
Internal Source:	More than 108MHz
Sample Type:	Fixed device
Operation Frequency Band:	CatM1 Band 2, 4, 12
Modulation Type:	QPSK, 16QAM
Antenna Type:	PIFA Antenna
Antenna Gain:	1.5dBi;
Extreme temp. Tolerance:	-30°C to +50°C
Extreme vol. Limits:	4.25VDC to 5VDC (nominal: 5VDC)





4.2 Test Frequency

Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
CatM1 Band 2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855.0	1880	1905.0
	15	1857.5	1880	1902.5
	20	1860.0	1880	1900.0
Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
CatM1 Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715.0	1732.5	1750.0
	15	1717.5	1732.5	1747.5
	20	1720.0	1732.5	1745.0
Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
CatM1 Band 12	1.4	699.7	707.5	715.3
	3	700.5	707.5	714.5
	5	701.5	707.5	713.5
	10	704.0	707.5	711.0



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4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	52%	
Atmospheric Pressure:	1015Pa	
Temperature:	TL	-30°C
	TN	+20°C
	TH	+50°C
Voltage:	VL	4.25 V
	VN	5 V
	VH	5 V

NOTE: VL= lower extreme test voltage
VN= nominal voltage
VH= upper extreme test voltage
TL= lower extreme test temperature
TN= normal temperature
TH= upper extreme test temperature

4.4 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
The EUT has been tested as an independent unit.			



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4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.25×10^{-8}
2	Duty cycle	0.37%
3	Occupied Bandwidth	3%
4	RF conducted power	0.75dB
5	RF power density	2.84dB
6	Conducted Spurious emissions	0.75dB
7	RF Radiated power	5.14dB (below 1GHz)
		5.08dB (above 1GHz)
8	Radiated Spurious emission test	5.14dB (below 1GHz)
		5.08dB (above 1GHz)
9	Temperature test	1°C
10	Humidity test	3%
11	Supply voltages	1.5%
12	Time	3%

4.6 Test Location

All tests were performed at:

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198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663

Tel: +86 20 82155555

Fax: +86 20 82075059

No tests were sub-contracted.



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4.7 Test Facility

• NVLAP (Lab Code: 200611-0)

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

• ACMA

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

• SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

• CNAS (Lab Code: L0167)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

• FCC Recognized Accredited Test Firm(Registration No.: 486818)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

• ISED (Registration No.: 4620B, CAB identifier: CN0052)

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

• VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

• CBTL (Lab Code: TL129)

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.8 Deviation from Standards

None

4.9 Abnormalities from Standard Conditions

None





5 Equipment List

RF test system					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
EXA Signal Analyzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
Wideband Radio Communication Tester(CMW500)	R&S	CMW500	EMC2215	2020-09-20	2021-09-19

RE in Chamber(below 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Trilog Broadband Antenna(25MHz-1GHz)- Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
EMI Test Receiver(1Hz- 8GHz)	Rohde & Schwarz	ESW8	EMC2220	2021/5/26	2022/5/25
Substitution Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Signal Generator (10MHz-20GHz)	Rohde & Schwarz	SMR20	EMC0516	2021-01-11	2022-01-10



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RE in Chamber(above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08
Substitution Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
Signal Generator (10MHz-20GHz)	Rohde & Schwarz	SMR20	EMC0516	2021-01-11	2022-01-10

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2021-07-05	2022-07-05
DMM	Fluke	73	EMC0007	2021-07-05	2022-07-05



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6 Radio Spectrum Matter Test Results

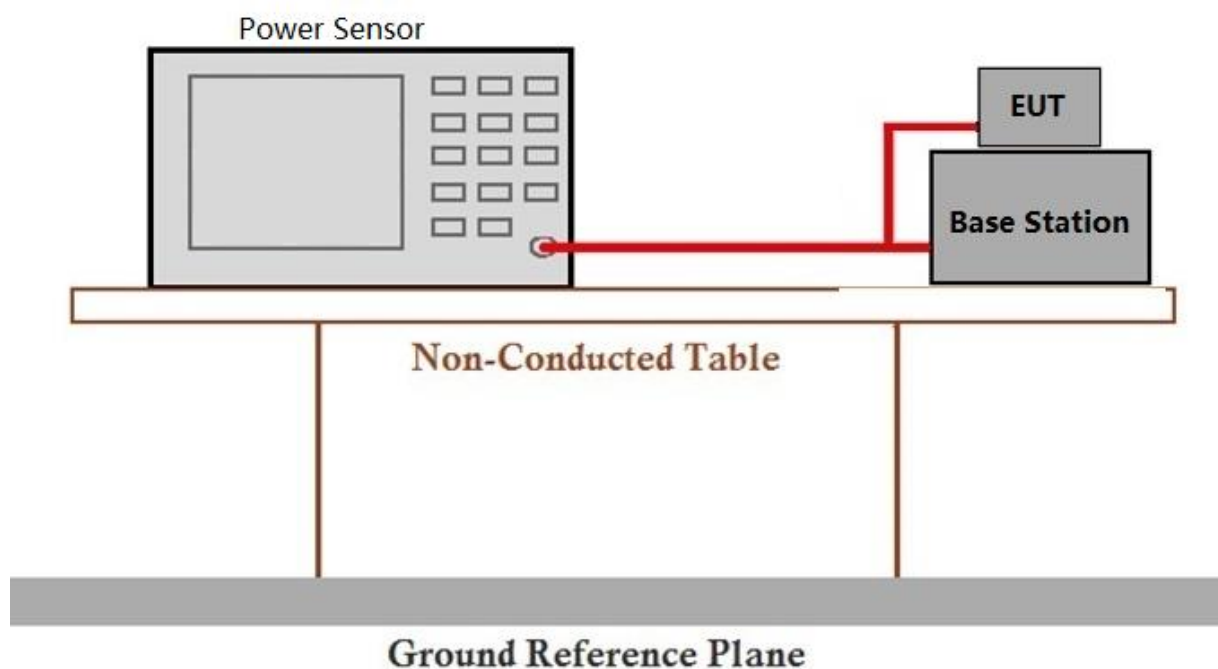
6.1 Effective (Isotropic) Radiated Power Output Data

Test Requirement: Reference test summary
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: Reference test summary

6.1.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
 Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.1.2 Test Setup Diagram



6.1.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_RF power

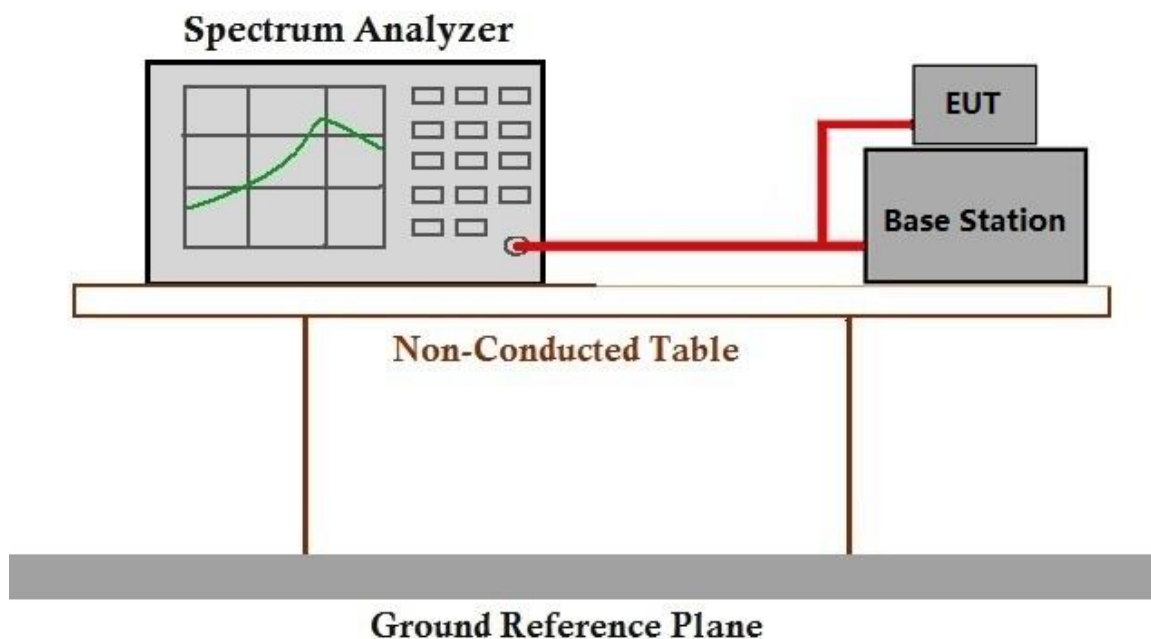
6.2 Peak-Average Ratio

Test Requirement: Reference test summary
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: $\leq 13\text{dB}$

6.2.1 E.U.T. Operation

Operating Environment:
Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.2.2 Test Setup Diagram



6.2.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_PAR

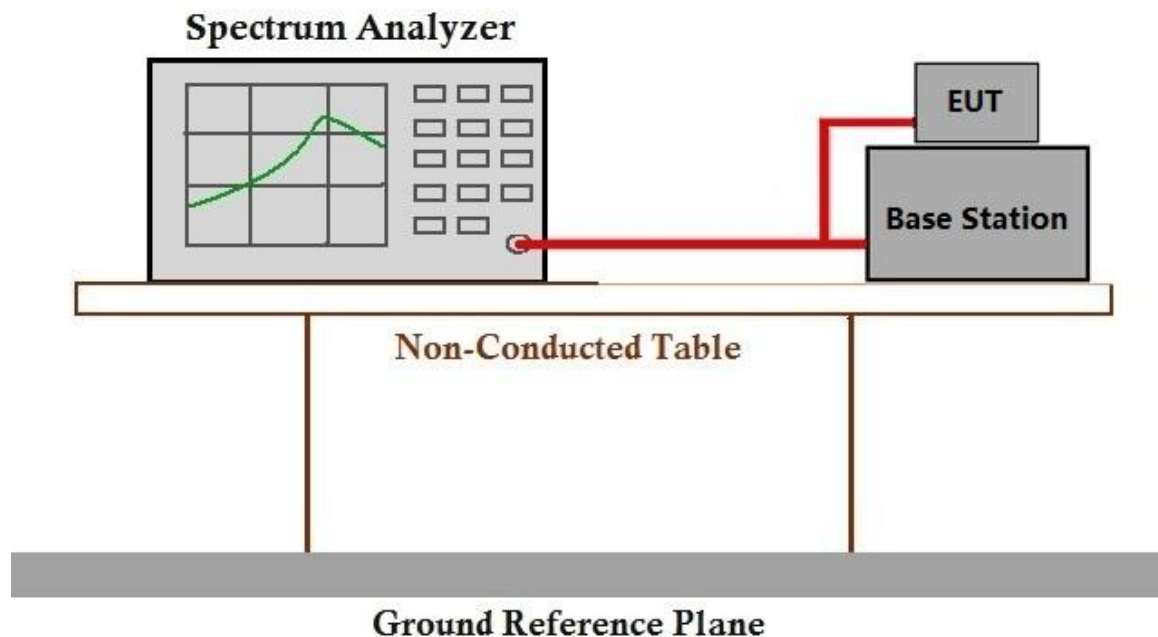
6.3 Bandwidth

Test Requirement: Reference test summary
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: OBW: No limit
 EBW: No limit

6.3.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
 Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.3.2 Test Setup Diagram



6.3.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_Bandwidth

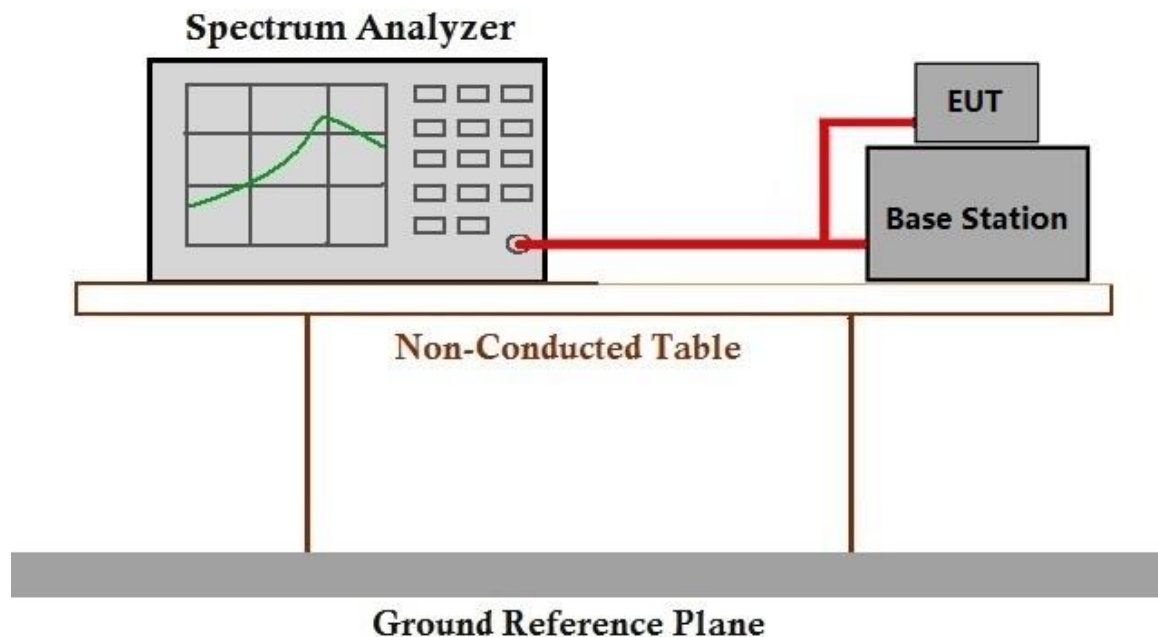
6.4 Band Edge Compliance

Test Requirement: Reference test summary
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: Reference test summary

6.4.1 E.U.T. Operation

Operating Environment:
Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.4.2 Test Setup Diagram



6.4.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_Bandedge

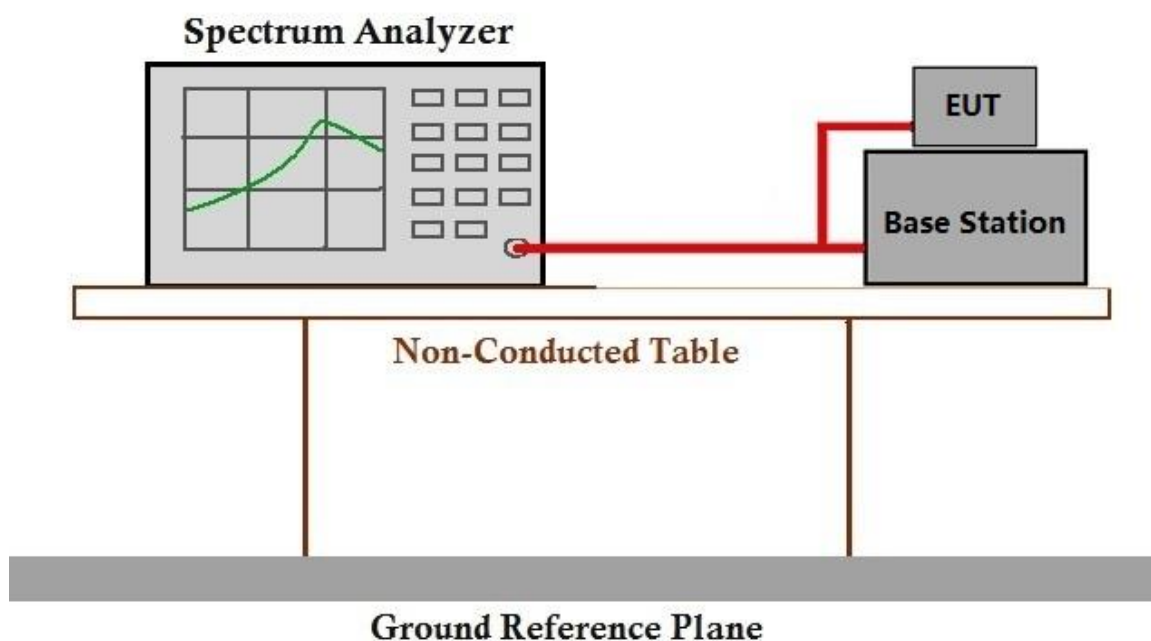
6.5 Spurious emissions at antenna terminals

Test Requirement: Reference test summary
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: Reference test summary

6.5.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
 Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.5.2 Test Setup Diagram



6.5.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_Spurious emission

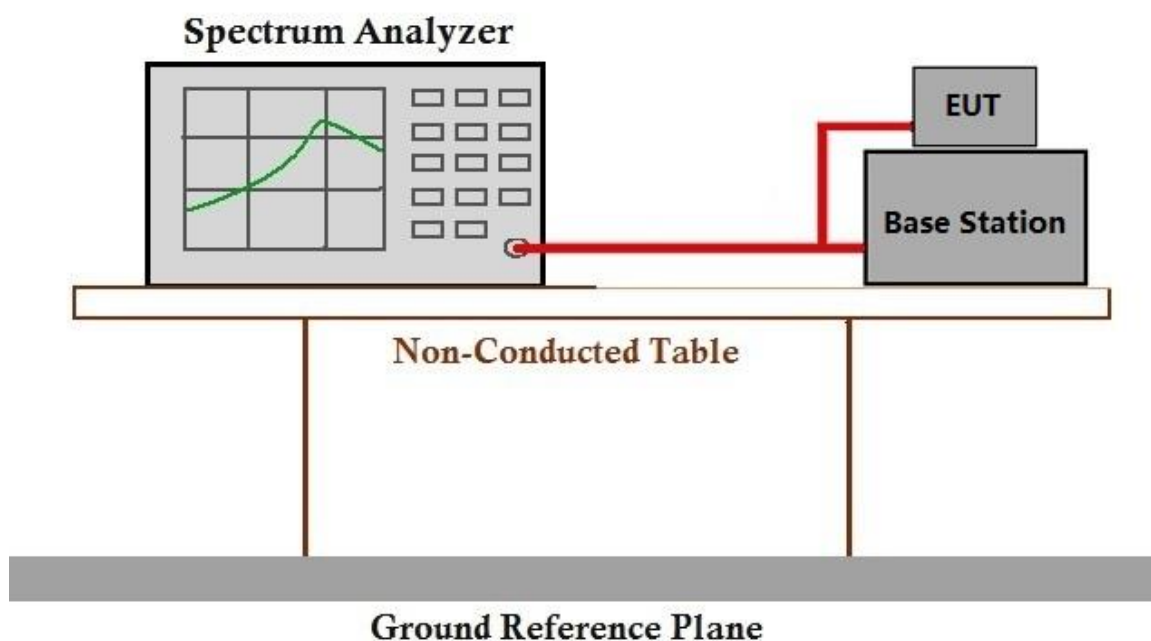
6.6 Emission Mask

Test Requirement: Reference test summary
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: Reference test summary

6.6.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
 Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.6.2 Test Setup Diagram



6.6.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_Spurious emission

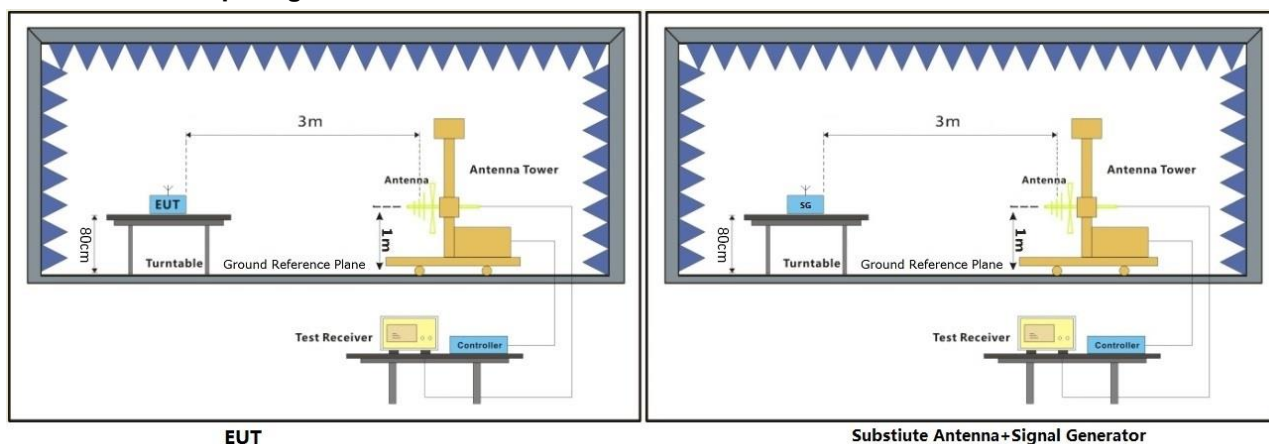
6.7 Field strength of spurious radiation

Test Requirement: Reference test summary
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: Reference test summary

6.7.1 E.U.T. Operation

Operating Environment:
 Temperature: 21.6 °C Humidity: 51.8 % RH Atmospheric Pressure: 1010 mbar
 Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.7.2 Test Setup Diagram



6.7.3 Measurement Procedure and Data

Test Procedure:

- (1) On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- (2) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- (3) The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- (4) The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- (5) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- (6) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- (7) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- (8) The maximum signal level detected by the measuring receiver shall be noted.
- (9) The measurement shall be repeated with the test antenna set to horizontal polarization.
- (10) Replace the antenna with a proper Antenna (substitution antenna).
- (11) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- (12) The substitution antenna shall be connected to a calibrated signal generator.
- (13) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- (14) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- (15) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- (16) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- (17) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.



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CatM Band 2-20MHz Low channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3702	-34.33	-13	-21.33	-44.01	2.92	12.6	Horizontal	Pass
5553	-42.36	-13	-29.36	-52.31	3.15	13.1	Horizontal	Pass
7404	-43.58	-13	-30.58	-51.88	3.4	11.7	Horizontal	Pass
3702	-37.59	-13	-24.59	-47.27	2.92	12.6	Vertical	Pass
5553	-43.96	-13	-30.96	-53.91	3.15	13.1	Vertical	Pass
7404	-43.13	-13	-30.13	-51.43	3.4	11.7	Vertical	Pass

CatM Band 2-20MHz Middle channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3742	-34.85	-13	-21.85	-44.53	2.92	12.6	Horizontal	Pass
5613	-41.44	-13	-28.44	-51.39	3.15	13.1	Horizontal	Pass
7484	-42.62	-13	-29.62	-50.92	3.4	11.7	Horizontal	Pass
3742	-39.42	-13	-26.42	-49.1	2.92	12.6	Vertical	Pass
5613	-46.18	-13	-33.18	-56.13	3.15	13.1	Vertical	Pass
7484	-42.16	-13	-29.16	-50.46	3.4	11.7	Vertical	Pass

CatM Band 2-20MHz High channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3782	-36.05	-13	-23.05	-45.73	2.92	12.6	Horizontal	Pass
5673	-43.11	-13	-30.11	-53.06	3.15	13.1	Horizontal	Pass
7564	-43.55	-13	-30.55	-51.1	3.85	11.4	Horizontal	Pass
3782	-41.74	-13	-28.74	-51.42	2.92	12.6	Vertical	Pass
5673	-46.72	-13	-33.72	-56.67	3.15	13.1	Vertical	Pass
7564	-43.3	-13	-30.3	-50.85	3.85	11.4	Vertical	Pass



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CatM Band 4-20MHz Low channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3422	-37.1	-13	-24.1	-45.61	2.99	11.5	Horizontal	Pass
5133	-32.12	-13	-19.12	-41.82	3	12.7	Horizontal	Pass
6844	-45.43	-13	-32.43	-54.85	3.08	12.5	Horizontal	Pass
3422	-34.81	-13	-21.81	-43.32	2.99	11.5	Vertical	Pass
5133	-41.15	-13	-28.15	-50.85	3	12.7	Vertical	Pass
6844	-45.86	-13	-32.86	-55.28	3.08	12.5	Vertical	Pass

CatM Band 4-20MHz Middle channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3447	-39.83	-13	-26.83	-48.34	2.99	11.5	Horizontal	Pass
5170.5	-32.33	-13	-19.33	-42.03	3	12.7	Horizontal	Pass
6894	-45.58	-13	-32.58	-55	3.08	12.5	Horizontal	Pass
3447	-36.31	-13	-23.31	-44.82	2.99	11.5	Vertical	Pass
5170.5	-41.86	-13	-28.86	-51.56	3	12.7	Vertical	Pass
6894	-45.95	-13	-32.95	-55.37	3.08	12.5	Vertical	Pass

CatM Band 4-20MHz High channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3472	-34.62	-13	-21.62	-43.13	2.99	11.5	Horizontal	Pass
5208	-35.13	-13	-22.13	-44.83	3	12.7	Horizontal	Pass
6944	-44.5	-13	-31.5	-53.92	3.08	12.5	Horizontal	Pass
3472	-34.03	-13	-21.03	-42.54	2.99	11.5	Vertical	Pass
5208	-41.74	-13	-28.74	-51.44	3	12.7	Vertical	Pass
6944	-45.12	-13	-32.12	-54.54	3.08	12.5	Vertical	Pass



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CatM Band 12-10MHz Low channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1399	-40.1	-13	-27.1	-43.53	2.57	6	Horizontal	Pass
2098.5	-46.45	-13	-33.45	-53.45	3.4	10.4	Horizontal	Pass
2798	-51.7	-13	-38.7	-59.09	3.21	10.6	Horizontal	Pass
1399	-43.56	-13	-30.56	-46.99	2.57	6	Vertical	Pass
2098.5	-49.77	-13	-36.77	-56.77	3.4	10.4	Vertical	Pass
2798	-50.96	-13	-37.96	-58.35	3.21	10.6	Vertical	Pass

CatM Band 12-10MHz Middle channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1406	-35.73	-13	-22.73	-39.16	2.57	6	Horizontal	Pass
2109	-45.13	-13	-32.13	-52.13	3.4	10.4	Horizontal	Pass
2812	-50.26	-13	-37.26	-57.65	3.21	10.6	Horizontal	Pass
1406	-39.14	-13	-26.14	-42.57	2.57	6	Vertical	Pass
2109	-51.42	-13	-38.42	-58.42	3.4	10.4	Vertical	Pass
2812	-50.62	-13	-37.62	-58.01	3.21	10.6	Vertical	Pass

CatM Band 12-10MHz High channel, Modulation: QPSK, 1 RB								
Frequency (MHz)	EIRP (dBm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1413	-46.08	-13	-33.08	-49.51	2.57	6	Horizontal	Pass
2119.5	-47.25	-13	-34.25	-54.25	3.4	10.4	Horizontal	Pass
2826	-50.77	-13	-37.77	-58.16	3.21	10.6	Horizontal	Pass
1413	-39.11	-13	-26.11	-42.54	2.57	6	Vertical	Pass
2119.5	-50.45	-13	-37.45	-57.45	3.4	10.4	Vertical	Pass
2826	-49.91	-13	-36.91	-57.3	3.21	10.6	Vertical	Pass

Note: All modes have been tested and we found QPSK test mode has the worst test result. Only record the worst test result.

EIRP= S.G. Power- Cable loss+ Antenna Gain



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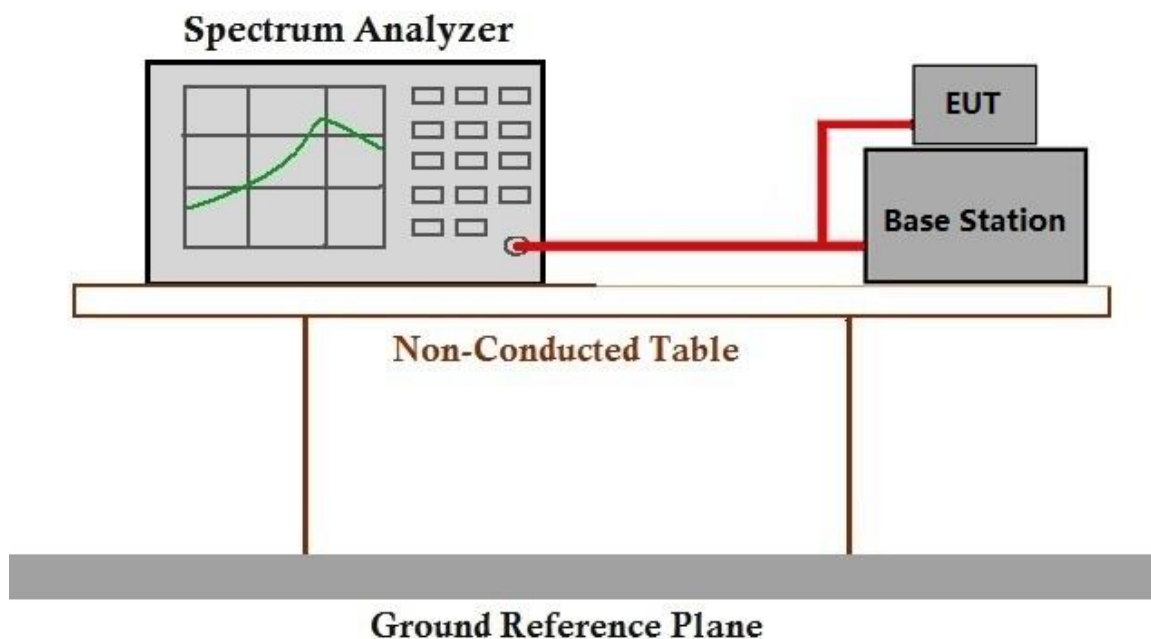
6.8 Frequency stability

Test Requirement: Reference test summary
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: Reference test summary

6.8.1 E.U.T. Operation

Operating Environment:
Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.8.2 Test Setup Diagram



6.8.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_Frequency stability





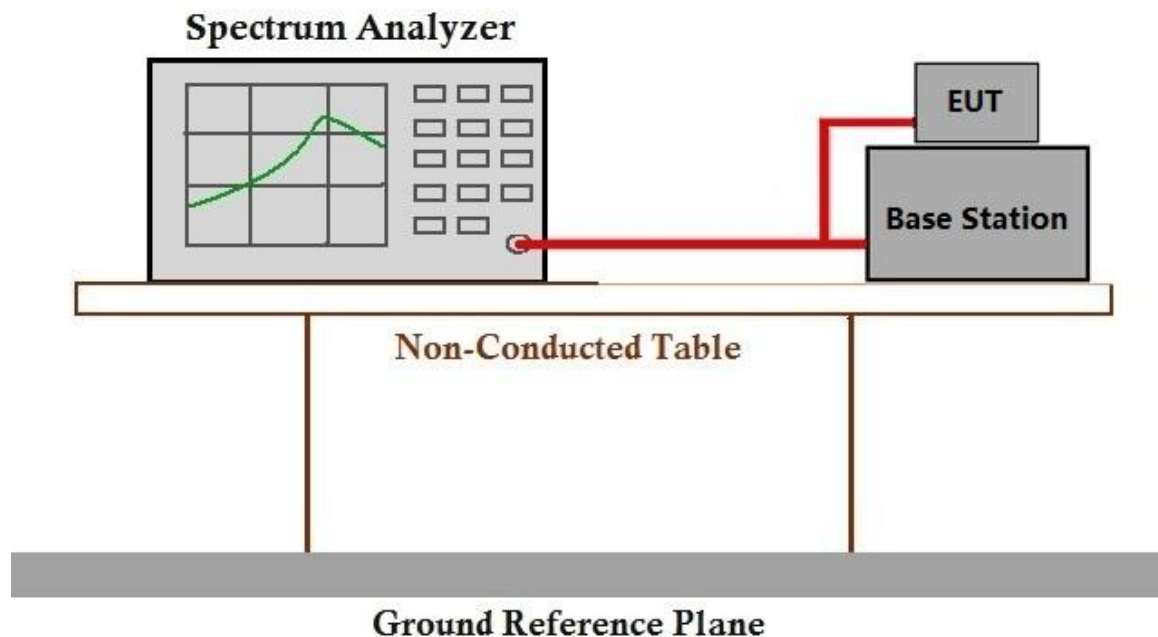
6.9 Modulation Characteristics

Test Requirement: Reference test summary
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: Digital modulation

6.9.1 E.U.T. Operation

Operating Environment:
Temperature: 22.2 °C Humidity: 52.6 % RH Atmospheric Pressure: 1010 mbar
Test mode 03: Tx mode, Keep the EUT in transmitting mode.

6.9.2 Test Setup Diagram



6.9.3 Measurement Data

Please refer to Appendix_FCC_CatM_4G_Modulation Characteristics





7 Test Setup Photo

Refer to Appendix – Test Setup Photos for GZCR2108020990AT

8 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos for GZCR2108020990AT

- End of the Report -



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