TEST REPORT

Application No.:	GZCR2111021352AT
Applicant:	Zhongshan Transtek Electronics Co., Ltd
Address of Applicant:	No. 23, Jin'an Road, Minzhong, Zhongshan, Guangdong, China
Manufacturer:	Zhongshan Transtek Electronics Co., Ltd
Address of Manufacturer:	No. 23, Jin'an Road, Minzhong, Zhongshan, Guangdong, China
Equipment Under Test (EUT):	
EUT Name:	Cellular Body Scale
Model No.:	GBS-2104-G
Standard(s) :	47 CFR Part 2 47 CFR Part 22 subpart H 47 CFR Part 24 subpart E 47 CFR Part 27 subpart C
Date of Receipt:	2021-10-18
Date of Test:	2021-10-18 to 2021-11-05
Date of Issue:	2022-02-18
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Kobe Jian
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		*2022-02-18*		*Original*

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

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2 Test Summary

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §22.913 §24.232 §27.50(d) §27.50(h)	EIRP≤ 2W(LTE Band 2, 25) ERP≤ 3W(LTE Band 12,13) EIRP≤ 1W(LTE Band 4)	PASS
Peak-Average Ratio	§22.913 §24.232 §27.50(d)	≤13dB	PASS
Bandwidth	§2.1049(h)	OBW: No limit EBW: No limit	PASS
Band Edge Compliance	§2.1051 §22.917 §24.238 §27.53(h) §27.53(m)	≤ -13dBm	PASS
Spurious emissions at antenna terminals	§2.1051 §22.917 §24.238 §27.53(h) §27.53(m)	≤ -13dBm	PASS
Field strength of spurious radiation	§2.1051 §22.917 §24.238 §27.53(h) §27.53(m)	≤ -13dBm	PASS
Frequency stability	§2.1055 §22.355 §24.235 §27.54	≤ ±2.5ppm.	PASS

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	DC 6V by 4*AA battery.
Sample Type:	Portable production
LTE Operation Frequency Band:	CateM1 Band 2, 4, 12, 13, 25
Modulation Type:	QPSK, 16QAM
LTE Power Class:	Level 3
Antenna Type:	PIFA Antenna
Antenna Gain:	Band2: 3.5dBi; Band4: 3.1dBi; Band12:1.3dBi; Band13:1.1dBi; Band25: 3.5dBi
Extreme vol. Limits:	5.4VDC to 6.6VDC (nominal: 6VDC)

4.2 Test Frequency

Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
CateM1 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**
CateM1 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
CateM1 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
Test mode:	**Nominal Bandwidth (MHz)**	**RF Channel**		
		Low (L)	**Middle (M)**	**High (H)**
		MHz	**MHz**	**MHz**
CateM1 Band 13	5	779.5	782.0	784.5
	10	/	782.0	/
Test Mode	**Nominal Bandwidth (MHz)**	**RF Channel**		
		Low (L)	**Middle (M)**	**High (H)**
		MHz	**MHz**	**MHz**
CateM1 Band 25	1.4	1850.7	1882.5	1914.3
	3	1851.5	1882.5	1913.5
	5	1852.5	1882.5	1912.5
	10	1855.0	1882.5	1910.0
	15	1857.5	1882.5	1907.5
	20	1860.0	1882.5	1905.0

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4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	52%	
Atmospheric Pressure:	1000Pa	
Temperature:	TN	20 °C
Voltage:	VL	5.4 V
	VN	6.0 V
	VH	6.6 V

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

4.4 Description of Support Units

The EUT has been tested independent unit.

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:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663
Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **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 conducted test					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. Date**	**Cal. Due date**
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
				2021-10-31	2022-10-30
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Wideband Radio Communication Tester(CMW500)	R&S	CMW500	EMC2215	2020-09-20	2021-09-19
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch 2	SEM009-02	2021-05-19	2022-05-18
Temperature Chamber	GZ GongWen Co.Ltd.	GDJW-100	EMC0039	2021-07-04	2022-07-03

RE in Chamber(below 1GHz)					
Test 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	2021-05-26	2022-05-25
Chamber cable	HangTianXing	N/A	EMC0542	2020-09-09	2022-09-08
Trilog Broadband Antenna(25MHz-1GHz)	SCHWARZBECK	VULB 9160	EMC2025	2020-09-24	2023-09-23
Signal Generator (10MHz-20GHz)	Rohde & Schwarz	SMR20	EMC0516	2021-01-11	2022-01-10
Wideband Radio Communication Tester(CMW500)	R&S	CMW500	EMC2215	2021-09-19	2022-09-18

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RE in Chamber(above 1GHz)					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. Date**	**Cal. Due date**
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
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-09-08	2022-09-07
Wideband Radio Communication Tester(CMW500)	R&S	CMW500	EMC2215	2021-09-19	2022-09-18
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	2022-07-04
DMM	Fluke	73	EMC0007	2021-07-05	2022-07-04

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6 Radio Spectrum Matter Test Results

6.1 Effective (Isotropic) Radiated Power Output Data

Test Requirement: §2.1046, §22.913, §24.232, §27.50(d), §27.50(h)

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: EIRP≤ 2W(LTE Band 2, 25)
ERP≤ 3W(LTE Band 12,13)
EIRP≤ 1W(LTE Band 4)

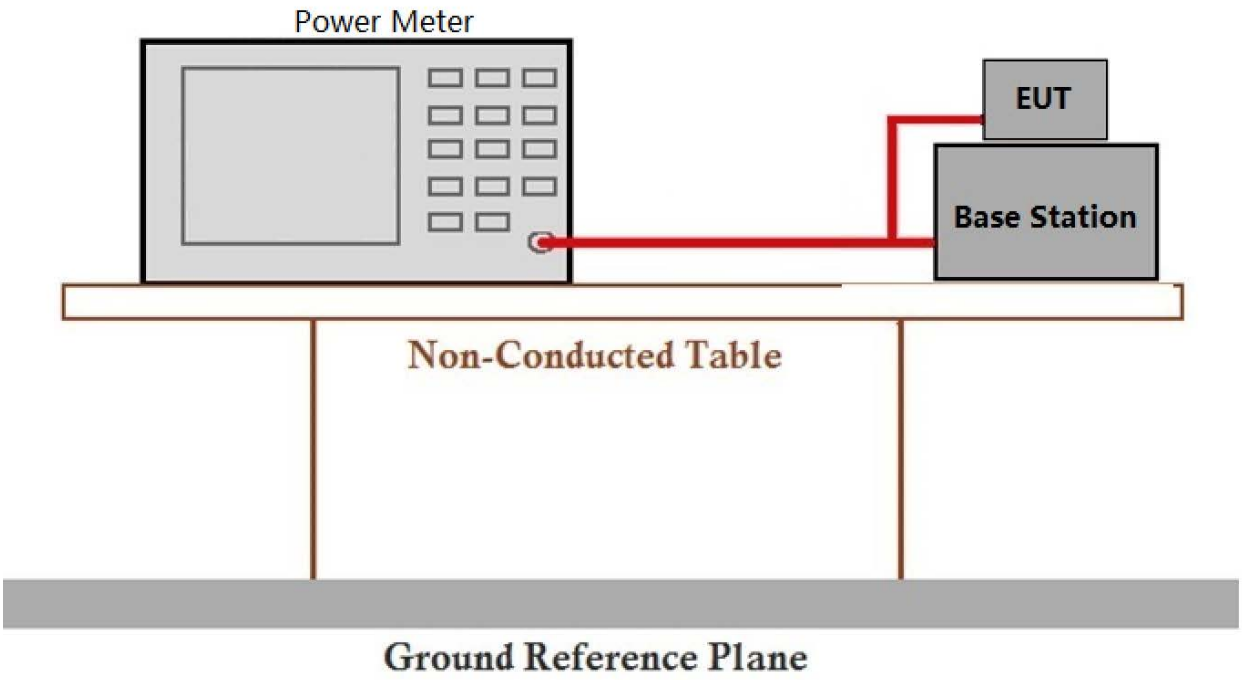
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar

Test mode 09: TX mode_Keep the EUT in transmitting mode

6.1.2 Test Setup Diagram



6.1.3 Measurement Data

Please refer to Appendix_LTE_RF power

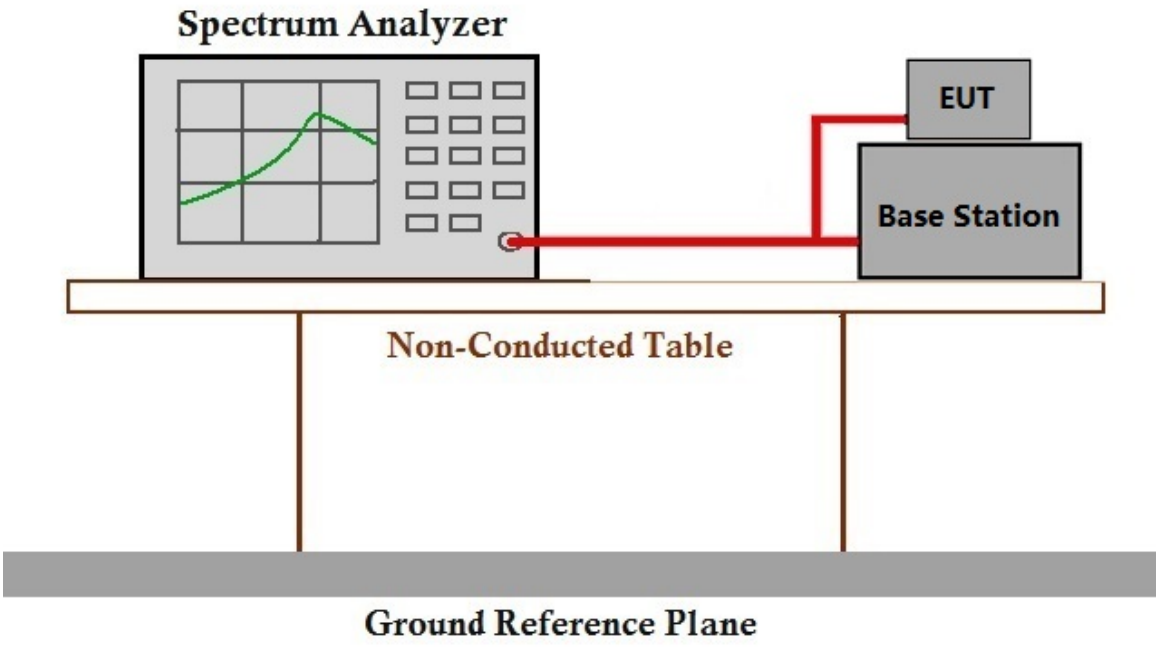
6.2 Peak-Average Ratio

Test Requirement: §22.913, §24.232, §27.50(d)
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: ≤13dB

6.2.1 E.U.T. Operation

Operating Environment:
Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar
Test mode 09: TX mode_Keep the EUT in transmitting mode

6.2.2 Test Setup Diagram



6.2.3 Measurement Data

Please refer to Appendix_LTE_Peak-Average Ratio

6.3 Bandwidth

Test Requirement: §2.1049(h)

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: OBW: No limit
EBW: No limit

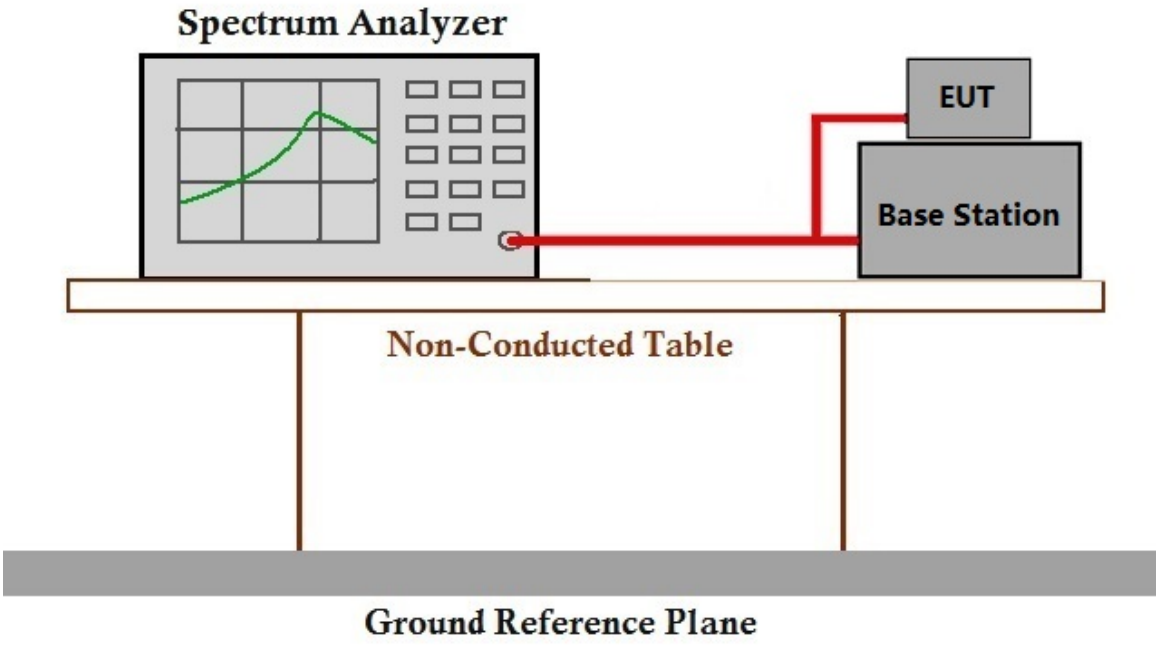
6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar

Test mode 09: TX mode_Keep the EUT in transmitting mode

6.3.2 Test Setup Diagram



6.3.3 Measurement Data

Please refer to Appendix_LTE_99% & 26dB Bandwidth

6.4 Band Edge Compliance

Test Requirement: §2.1051, §22.917, §24.238,§27.53(h), §27.53(m)

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: ≤ -13dBm

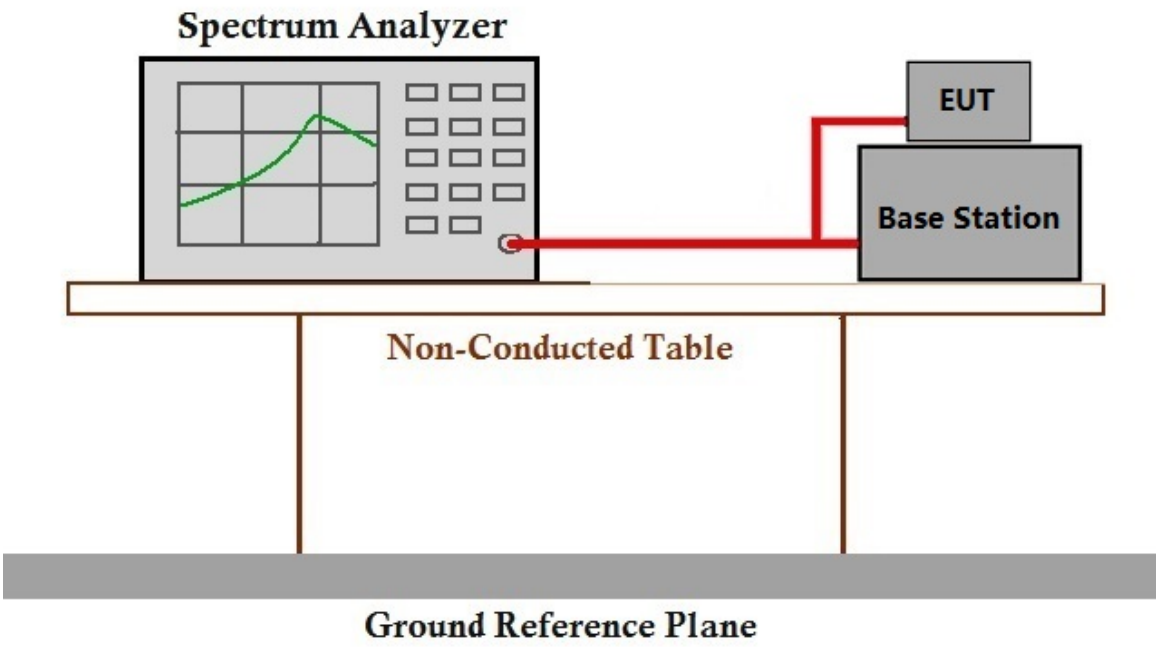
6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar

Test mode 09: TX mode_Keep the EUT in transmitting mode

6.4.2 Test Setup Diagram



6.4.3 Measurement Data

Please refer to Appendix_LTE_Spurious Emission at antenna port

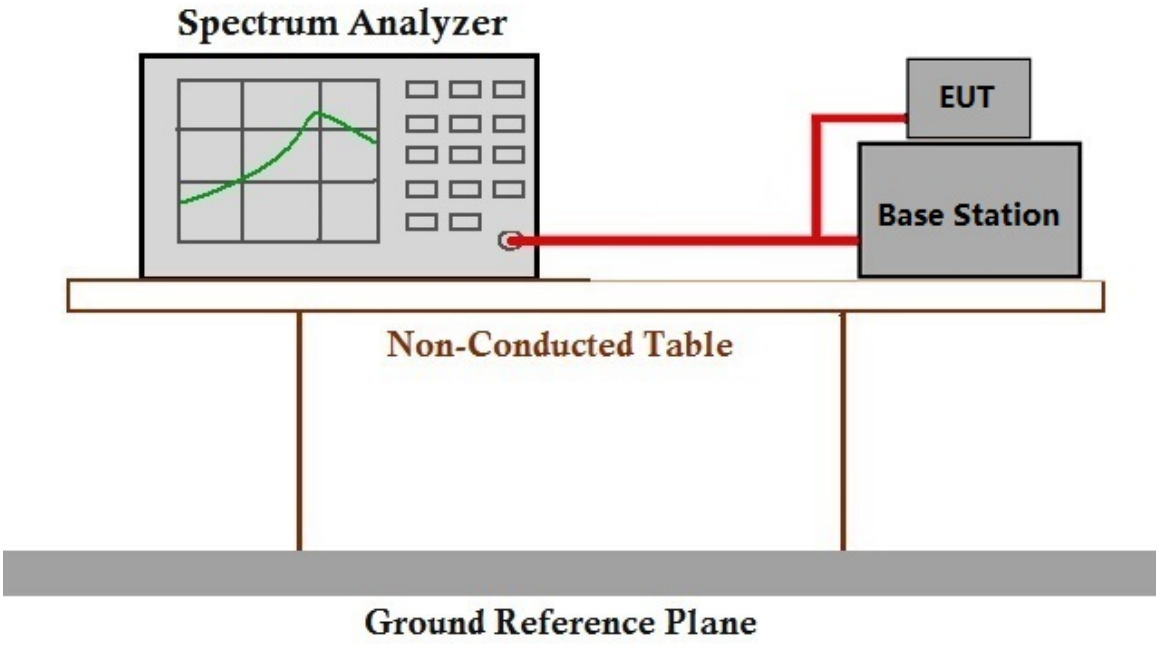
6.5 Spurious emissions at antenna terminals

Test Requirement: §2.1051, §22.917, §24.238,§27.53(h), §27.53(m)
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: ≤ -13dBm

6.5.1 E.U.T. Operation

Operating Environment:
Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar
Test mode 09: TX mode_Keep the EUT in transmitting mode

6.5.2 Test Setup Diagram



6.5.3 Measurement Data

Please refer to Appendix_LTE_Spurious Emission at antenna port

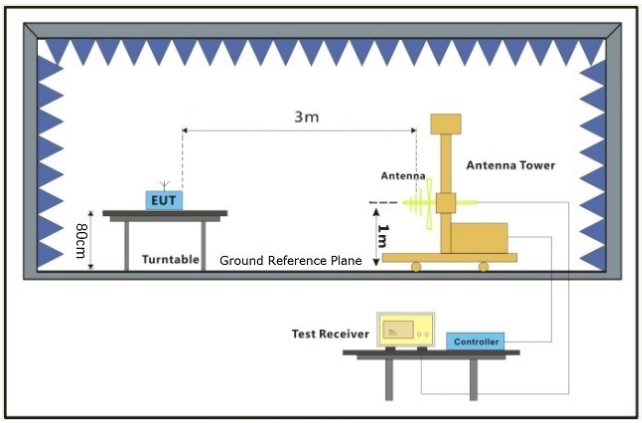
6.6 Field strength of spurious radiation

Test Requirement: §2.1051, §22.917, §24.238, §27.53(h), §27.53(m)
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: ≤ -13dBm

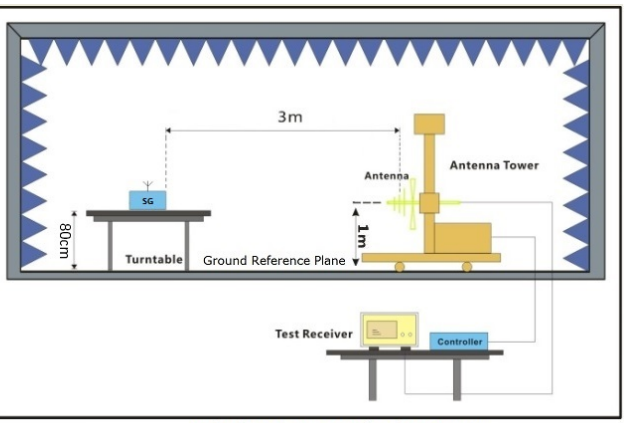
6.6.1 E.U.T. Operation

Operating Environment:
Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar
Test mode 09: TX mode_Keep the EUT in transmitting mode

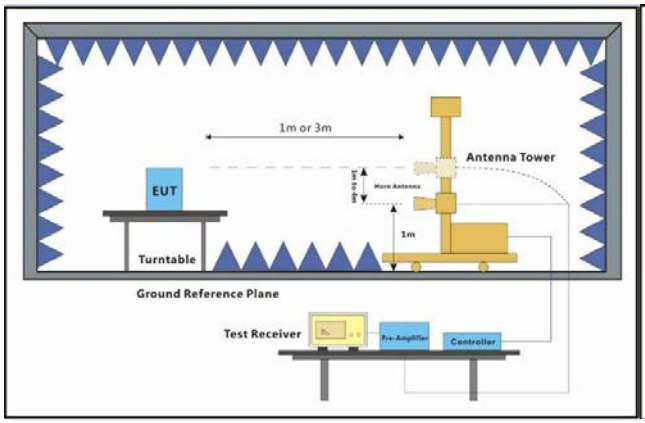
6.6.2 Test Setup Diagram



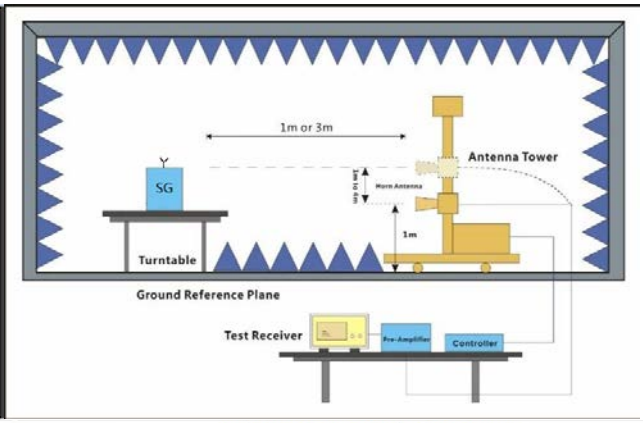
EUT



Substiute Antenna+Signal Generator



EUT



Substiute Antenna+Signal Generator

6.6.3 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 than 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.

LTE Band 2-20M Low channel, Modulation: QPSK, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3700.14	-50.4	-13	-37.4	-57.29	0.71	7.6	Horizontal	Pass
5550.21	-45.45	-13	-32.45	-54.9	0.85	10.3	Horizontal	Pass
7400.28	-42.83	-13	-29.83	-54.73	1	12.9	Horizontal	Pass
3700.14	-50.22	-13	-37.22	-57.11	0.71	7.6	Vertical	Pass
5550.21	-46	-13	-33	-55.45	0.85	10.3	Vertical	Pass
7400.28	-44.01	-13	-31.01	-55.91	1	12.9	Vertical	Pass

LTE Band 2-20M Middle channel, Modulation: QPSK, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3758.74	-50.47	-13	-37.47	-57.36	0.71	7.6	Horizontal	Pass
5638.11	-47.08	-13	-34.08	-56.53	0.85	10.3	Horizontal	Pass
7517.48	-43.95	-13	-30.95	-56.16	0.99	13.2	Horizontal	Pass
3758.74	-50.86	-13	-37.86	-57.75	0.71	7.6	Vertical	Pass
5638.11	-44.72	-13	-31.72	-54.17	0.85	10.3	Vertical	Pass
7517.48	-43.7	-13	-30.7	-55.91	0.99	13.2	Vertical	Pass

LTE Band 2-20M High channel, Modulation: QPSK, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3817.34	-50.2	-13	-37.2	-57.09	0.71	7.6	Horizontal	Pass
5726.01	-47.08	-13	-34.08	-56.53	0.85	10.3	Horizontal	Pass
7634.68	-44.14	-13	-31.14	-56.35	0.99	13.2	Horizontal	Pass
3817.34	-49.69	-13	-36.69	-56.58	0.71	7.6	Vertical	Pass
5726.01	-46.59	-13	-33.59	-56.04	0.85	10.3	Vertical	Pass
7634.68	-43.63	-13	-30.63	-55.84	0.99	13.2	Vertical	Pass

LTE Band 4-20M Low channel, Modulation: QPSK, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3420.14	-50.85	-13	-37.85	-56.4	0.65	6.2	Horizontal	Pass
5130.21	-47.46	-13	-34.46	-56.24	0.82	9.6	Horizontal	Pass
6840.28	-46.59	-13	-33.59	-57.44	0.95	11.8	Horizontal	Pass
3420.14	-49.72	-13	-36.72	-55.27	0.65	6.2	Vertical	Pass
5130.21	-46.67	-13	-33.67	-55.45	0.82	9.6	Vertical	Pass
6840.28	-45.62	-13	-32.62	-56.47	0.95	11.8	Vertical	Pass

LTE Band 4-20M Middle channel, Modulation: QPSK, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3463.74	-51.64	-13	-38.64	-57.19	0.65	3463.74	Horizontal	Pass
5195.61	-46.45	-13	-33.45	-55.23	0.82	5195.61	Horizontal	Pass
6927.48	-45.88	-13	-32.88	-56.73	0.95	6927.48	Horizontal	Pass
3463.74	-50.72	-13	-37.72	-56.27	0.65	3463.74	Vertical	Pass
5195.61	-46.11	-13	-33.11	-54.89	0.82	5195.61	Vertical	Pass
6927.48	-46.36	-13	-33.36	-57.21	0.95	6927.48	Vertical	Pass

LTE Band 4-20M High channel, Modulation: QPSK, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3507.34	-51.64	-13	-38.64	-58.53	0.71	7.6	Horizontal	Pass
5261.01	-46.52	-13	-33.52	-55.3	0.82	9.6	Horizontal	Pass
7014.68	-46.22	-13	-33.22	-58.12	1	12.9	Horizontal	Pass
3507.34	-51.28	-13	-38.28	-58.17	0.71	7.6	Vertical	Pass
5261.01	-46.48	-13	-33.48	-55.26	0.82	9.6	Vertical	Pass
7014.68	-46.99	-13	-33.99	-58.89	1	12.9	Vertical	Pass

FDD LTE Band 12-Low channel, Modulation: QPSK, Bandwidth: 10MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1398.14	-55.59	-13	-42.59	-57.06	0.43	1.9	Horizontal	Pass
2097.21	-56.56	-13	-43.56	-59.68	0.53	5.8	Horizontal	Pass
2796.28	-52.27	-13	-39.27	-54.83	0.59	5.3	Horizontal	Pass
1398.14	-56.38	-13	-43.38	-55.7	0.43	1.9	Vertical	Pass
2097.21	-55.77	-13	-42.77	-58.89	0.53	5.8	Vertical	Pass
2796.28	-53.63	-13	-40.63	-56.19	0.59	5.3	Vertical	Pass

FDD LTE Band 12-Middle channel, Modulation: QPSK, Bandwidth: 10MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1413.74	-57	-13	-44	-58.47	0.43	1.9	Horizontal	Pass
2120.61	-56.08	-13	-43.08	-59.2	0.53	5.8	Horizontal	Pass
2827.48	-53.03	-13	-40.03	-55.59	0.59	5.3	Horizontal	Pass
1413.74	-57.76	-13	-44.76	-57.08	0.43	1.9	Vertical	Pass
2120.61	-55.31	-13	-42.31	-58.43	0.53	5.8	Vertical	Pass
2827.48	-53.06	-13	-40.06	-55.62	0.59	5.3	Vertical	Pass

FDD LTE Band 12-High channel, Modulation: QPSK, Bandwidth: 10MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1429.34	-56.22	-13	-43.22	-57.69	0.43	1.9	Horizontal	Pass
2144.01	-56.2	-13	-43.2	-59.32	0.53	5.8	Horizontal	Pass
2858.68	-52.78	-13	-39.78	-55.34	0.59	5.3	Horizontal	Pass
1429.34	-56.65	-13	-43.65	-55.97	0.43	1.9	Vertical	Pass
2144.01	-56.43	-13	-43.43	-59.55	0.53	5.8	Vertical	Pass
2858.68	-53.05	-13	-40.05	-55.61	0.59	5.3	Vertical	Pass

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

FDD LTE Band13- Low channel, Modulation: QPSK, Bandwidth: 10MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1554.5	-58.79	-13	-45.79	-64.27	0.52	6	Horizontal	Pass
2331.75	-55.18	-13	-42.18	-58.3	0.53	5.8	Horizontal	Pass
3109	-51.98	-13	-38.98	-55.38	0.65	6.2	Horizontal	Pass
1554.5	-58.74	-13	-45.74	-62.07	0.52	6	Vertical	Pass
2331.75	-54.42	-13	-41.42	-57.54	0.53	5.8	Vertical	Pass
3109	-52.81	-13	-39.81	-56.21	0.65	6.2	Vertical	Pass

FDD LTE Band13-Middle channel, Modulation: QPSK, Bandwidth: 10MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1559.5	-58.14	-13	-45.14	-63.62	0.52	6	Horizontal	Pass
2339.25	-56.69	-13	-43.69	-59.81	0.53	5.8	Horizontal	Pass
3119	-52.13	-13	-39.13	-55.53	0.65	6.2	Horizontal	Pass
1559.5	-58.47	-13	-45.47	-61.8	0.52	6	Vertical	Pass
2339.25	-56.58	-13	-43.58	-59.7	0.53	5.8	Vertical	Pass
3119	-51.64	-13	-38.64	-55.04	0.65	6.2	Vertical	Pass

FDD LTE Band13-Middle channel, Modulation: QPSK, Bandwidth: 10MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1564.5	-58.82	-13	-45.82	-64.3	0.52	6	Horizontal	Pass
2346.75	-56.29	-13	-43.29	-59.41	0.53	5.8	Horizontal	Pass
3129	-52.44	-13	-39.44	-55.84	0.65	6.2	Horizontal	Pass
1564.5	-57.96	-13	-44.96	-61.29	0.52	6	Vertical	Pass
2346.75	-55.94	-13	-42.94	-59.06	0.53	5.8	Vertical	Pass
3129	-51.85	-13	-38.85	-55.25	0.65	6.2	Vertical	Pass

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FDD LTE Band25- Low channel, Modulation: QPSK, Bandwidth: 20MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3827.34	-50.15	-13	-37.15	-57.04	0.71	7.6	Horizontal	Pass
5741.01	-46.53	-13	-33.53	-55.98	0.85	10.3	Horizontal	Pass
7654.68	-43.75	-13	-30.75	-55.96	0.99	13.2	Horizontal	Pass
3827.34	-50.07	-13	-37.07	-56.96	0.71	7.6	Vertical	Pass
5741.01	-46.05	-13	-33.05	-55.5	0.85	10.3	Vertical	Pass
7654.68	-43.74	-13	-30.74	-55.95	0.99	13.2	Vertical	Pass

FDD LTE Band25-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3700.3	-49.84	-13	-36.84	-56.73	0.71	7.6	Horizontal	Pass
5550.45	-45.47	-13	-32.47	-54.92	0.85	10.3	Horizontal	Pass
7400.6	-43.54	-13	-30.54	-55.44	1	12.9	Horizontal	Pass
3700.3	-50.3	-13	-37.3	-57.19	0.71	7.6	Vertical	Pass
5550.45	-45.26	-13	-32.26	-54.71	0.85	10.3	Vertical	Pass
7400.6	-43.07	-13	-30.07	-54.97	1	12.9	Vertical	Pass

FDD LTE Band25-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, 1 RB0								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
3762.3	-49.95	-13	-36.95	-56.84	0.71	7.6	Horizontal	Pass
5643.45	-47.11	-13	-34.11	-56.56	0.85	10.3	Horizontal	Pass
7524.6	-42.55	-13	-29.55	-54.76	0.99	13.2	Horizontal	Pass
3762.3	-50.1	-13	-37.1	-56.99	0.71	7.6	Vertical	Pass
5643.45	-47	-13	-34	-56.45	0.85	10.3	Vertical	Pass
7524.6	-43.87	-13	-30.87	-56.08	0.99	13.2	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.

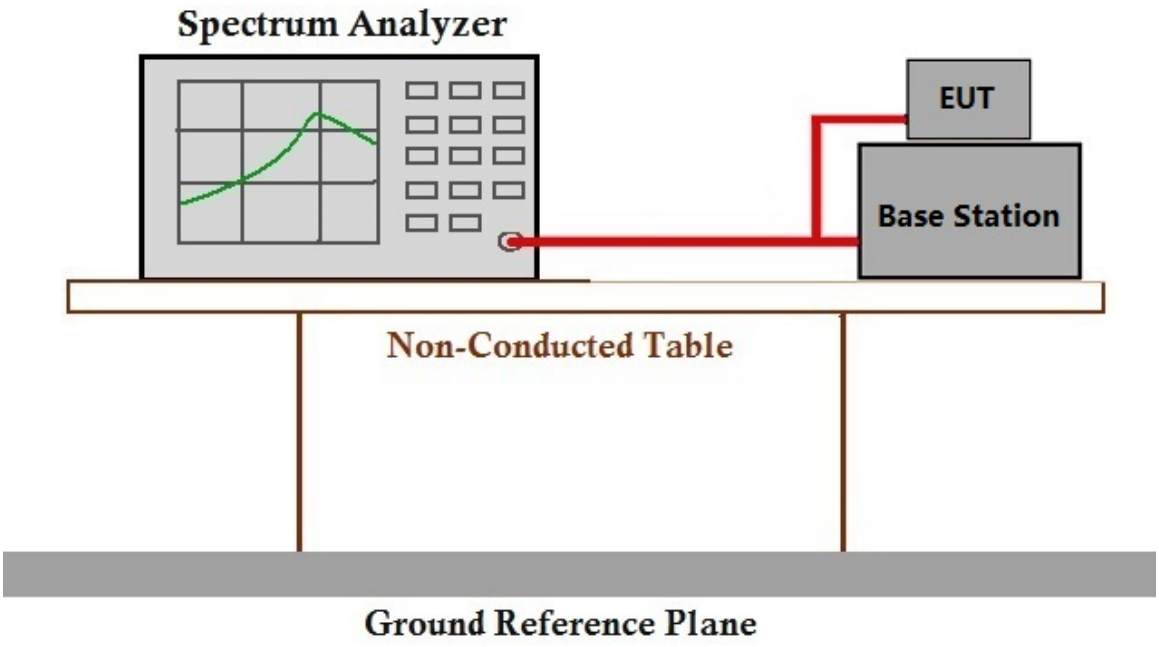
6.7 Frequency stability

Test Requirement: §2.1055, §22.355, §24.235, §27.54
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: ≤ ±2.5ppm.

6.7.1 E.U.T. Operation

Operating Environment:
Temperature: 25.9 °C Humidity: 48.5 % RH Atmospheric Pressure: 1000 mbar
Test mode 09: TX mode_Keep the EUT in transmitting mode

6.7.2 Test Setup Diagram



6.7.3 Measurement Data

Please refer to Appendix_LTE_Frequency stability

7 Photographs

7.1 Test Setup Photos

Refer to Appendix - Setup Photos-4G

7.2 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos

- End of the Report -