

TEST REPORT

Application No.: SZCR2103000030AT(SHEM2011009697CR)
FCC ID: 2APJ4-SLM500
Applicant: MeiG Smart Technology Co., Ltd
Address of Applicant: 3/F,No.88,Qinjiang Road, Xuhui District, Shanghai, China.
Manufacturer: MeiG Smart Technology Co., Ltd
Address of Manufacturer: 5/F,Bld G,No.2337,Gudai Road,Minghang District,Shanghai,China
Equipment Under Test (EUT):
EUT Name: Smart module
Model No.: SLM500
Trade mark: Meig Link
Standard(s) : 47 CFR Part 2
47 CFR Part 22
47 CFR Part 24
47 CFR Part 27
Date of Receipt: 2020-11-19
Date of Test: 2020-12-22 to 2021-01-08
Date of Issue: 2021-01-11

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

Keny Xu
EMC Laboratory Manager





Revision Record			
Version	Description	Date	Remark
00	Original	2021-01-11	/

Authorized for issue by:			
		<i>Bill Chen</i>	
		Bill Chen / Project Engineer	
		<i>Eric Fu</i>	
		Eric Fu / 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(b) §27.50(c) §27.50(d) §27.50(h)	ERP≤7W(LTE Band 5,26) EIRP≤ 3W(LTE Band 12,13,17) EIRP≤ 2W(LTE Band 2,7,25) EIRP≤ 1W(LTE Band 4,66)	PASS
Peak-Average Ratio	§24.232 §27.50(c) §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 §22.917 §24.238 §90.691 §27.53(c) §27.53(h) §27.53(g)	≤ -13dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block LTE Band 13 should follow FCC §27.53(c): On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB. On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.	PASS
Spurious emissions at antenna terminals	§2.1051 §22.917 §24.238 §90.691 §27.53(c) §27.53(h) §27.53(g)	≤ -13dBm	PASS
Field strength of spurious radiation	§2.1051 §22.917 §24.238 §90.691 §27.53(c) §27.53(h) §27.53(g)	≤ -13dBm	PASS
Frequency stability	§2.1055, §22.355, §24.235 §27.54	≤ ±2.5ppm.	PASS



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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 3.8V by DC power supply
Test voltage:	DC 3.8V
Serial Number:	M500QE8BYA071000060
Firmware version:	SLM500Q_EQ000_2774.2AAF2F74.BCA2CDE_200628_100_V01_T09
Sample Type:	Portable production
LTE Operation Frequency Band:	LTE Band 2,4,5,7,12,13,17,25,26,,66
Modulation Type:	QPSK, 16QAM
Antenna Type:	Dipole Antenna
Antenna Gain:	Band 2:1dBi Band 4: 1dBi Band 5: 1dBi Band 7: 1dBi Band 12: 1dBi Band 13: 1dBi Band 17: 1dBi Band 25: 1dBi Band 26: 1dBi Band 66: 1dBi
Extreme temp. Tolerance:	-10°C to +55°C
Extreme vol. Limits:	3.5VDC to 4.2VDC (nominal: 3.8VDC)
IMEI:	863188040006347

Note:

The antenna gain value is provided by the customer. The test lab will not be responsible for wrong test result due to incorrect information about antenna gain values.



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4.2 Test Frequency

Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD 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
LTE FDD 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
LTE FDD Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829.0	836.5	844.0
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560



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Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD 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	707.5	711
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 13	5	779.5	782	784.5
	10	/	782	/
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 17	5	706.5	710	713.5
	10	709	710	711
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 25	1.4	1850.7	1880	1914.3
	3	1851.5	1880	1913.5
	5	1852.5	1880	1912.5
	10	1855.0	1880	1910
	15	1857.5	1880	1907.5
	20	1860.0	1880	1905
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 26	1.4	814.7	831.5	848.3
	3	815.5	831.5	847.5
	5	816.5	831.5	846.5
	10	819	831.5	844
	15	821.5	831.5	841.5



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Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 66	1.4	1710.7	1745	1779.3
	3	1711.5	1745	1778.5
	5	1712.5	1745	1777.5
	10	1715	1745	1775
	15	1717.5	1745	1772.5
	20	1720	1745	1770

4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	48%	
Atmospheric Pressure:	1015Pa	
Temperature:	TN	25 °C
Voltage:	VL	3.5 V
	VN	3.8 V
	VH	4.2 V

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

4.4 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
DC Power Supply	Laboratory	N/A	E903131



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4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 ⁻⁸
2	Timeout	2s
3	Duty cycle	0.37%
4	Occupied Bandwidth	3%
5	RF conducted power	0.6dB
6	RF power density	2.84dB
7	Conducted Spurious emissions	0.75dB
8	RF Radiated power	4.6dB (Below 1GHz)
		4.1dB (Above 1GHz)
9	Radiated Spurious emission test	4.2dB (Below 30MHz)
		4.4dB (30MHz-1GHz)
		4.8dB (1GHz-18GHz)
		5.2dB (Above 18GHz)
10	Temperature test	1°C
11	Humidity test	3%
12	Supply voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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4.6 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.7 Test Facility

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

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006. IC#: 4620C.

4.8 Deviation from Standards

None

4.9 Abnormalities from Standard Conditions

None





5 Equipment List

Conducted Tests					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12
MXA Signal Analyzer(10Hz-26.5GHz)	KEYSIGHT	N9020A	SEM004-17	2020-05-21	2021-05-20
Signal Generator (9kHz-40GHz)	KEYSIGHT	N5173B	SEM006-05	2020-09-23	2021-09-22
MXG Vector Signal Generator	KEYSIGHT	N5182A	SEM006-14	2020-03-23	2021-03-22
ESG Vector Signal Generator	KEYSIGHT	E4438C	SEM006-15	2020-09-23	2021-09-22
DC Power Supply	Rohde & Schwarz	NGSM 32/10	SEM011-04	2020-03-24	2021-03-23
Manual Step Attenuator	KEYSIGHT	8494B	SEM021-05	2020-04-09	2021-04-08
Manual Step Attenuator	KEYSIGHT	8496B	SEM021-06	2020-04-09	2021-04-08
Power Sensor	KEYSIGHT	U2021XA	SEM009-20	2020-05-21	2021-05-20
Power Sensor	KEYSIGHT	U2021XA	SEM009-21	2020-05-21	2021-05-20
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2020-03-25	2021-03-24
Universal Radio Communication Tester	Rohde & Schwarz	CMW 500	SEM010-03	2020-04-01	2021-03-31
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-03	2020-07-10	2021-07-09





Radiated Tests					
RE in Chamber <1GHz					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2020-07-19	2023-07-18
MXE EMI receiver(3Hz-3.6GHz)	KEYSIGHT	N9038A	SEM004-15	2020-11-02	2021-11-01
BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-02	2019-05-24	2022-05-23
Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEM005-01	2020-04-01	2021-03-31
Measurement Software	Farad	EZ-EMC	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2020-07-10	2021-07-09
RE in Chamber >1GHz					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
EXA Signal Analyzer (10Hz-44GHz)	Agilent Technologies Inc	N9010A	SEM004-12	2020-04-09	2021-04-08
Horn Antenna (800MHz-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12
Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEM004-11	2020-09-23	2021-09-22
Pre-amplifier (26-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2020-04-01	2021-03-31
Measurement Software	Farad	EZ-EMC	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2020-07-10	2021-07-09



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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(b), §27.50(c), §27.50(d), §27.50(h)

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

Limit:
 ERP ≤ 7W (LTE Band 5, 26)
 EIRP ≤ 3W (LTE Band 12, 13, 17)
 EIRP ≤ 2W (LTE Band 2, 7, 25)
 EIRP ≤ 1W (LTE Band 4, 66)

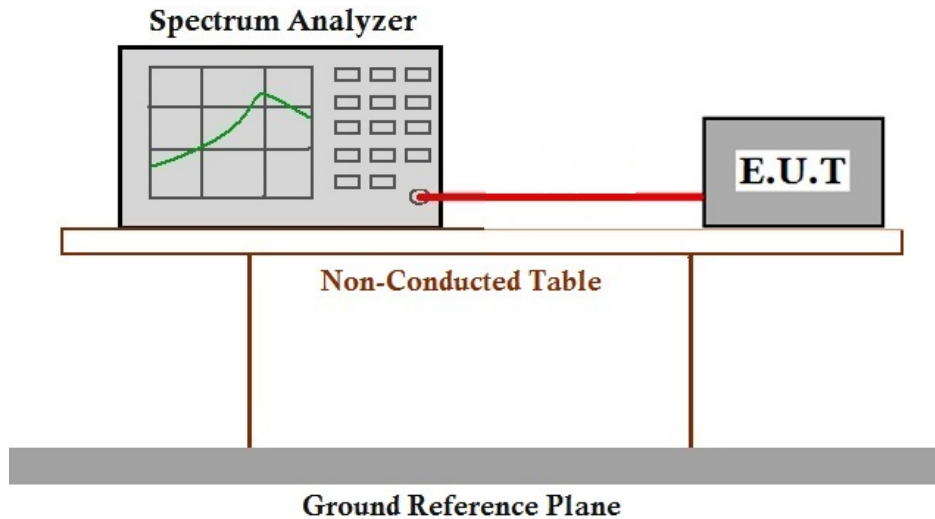
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.1.2 Test Setup Diagram



6.1.3 Measurement Data

Please refer to Appendix G for SZCR210300003007



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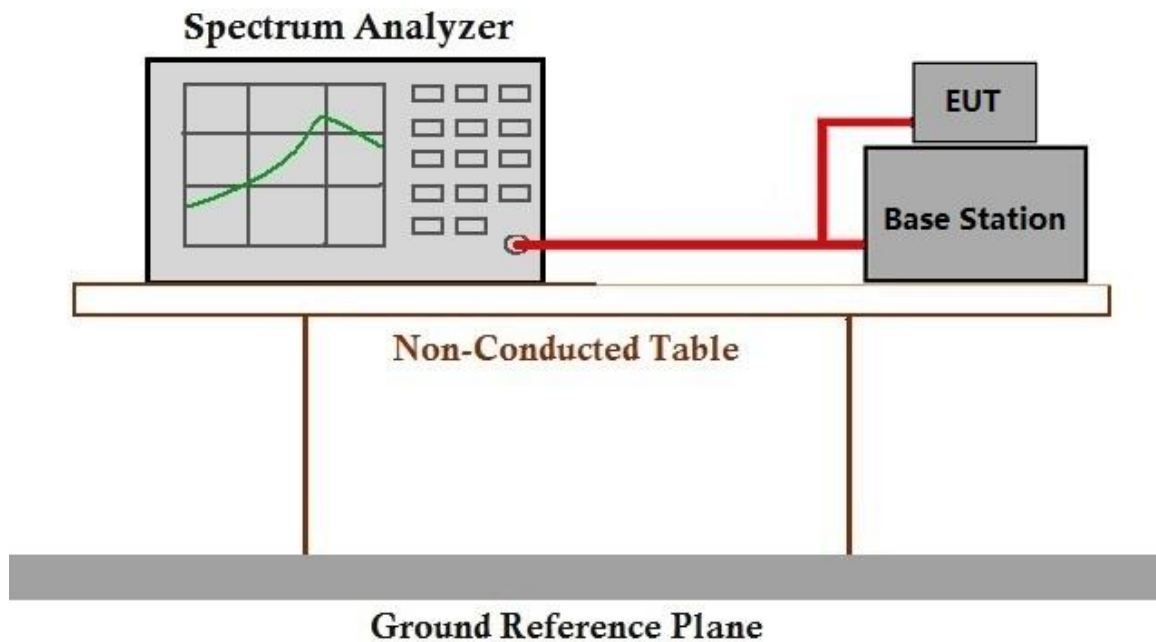
6.2 Peak-Average Ratio

Test Requirement: §2.1046
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: ≤13dB

6.2.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar
 Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.2.2 Test Setup Diagram



6.2.3 Measurement Data

Please refer to Appendix G for SZCR210300003007



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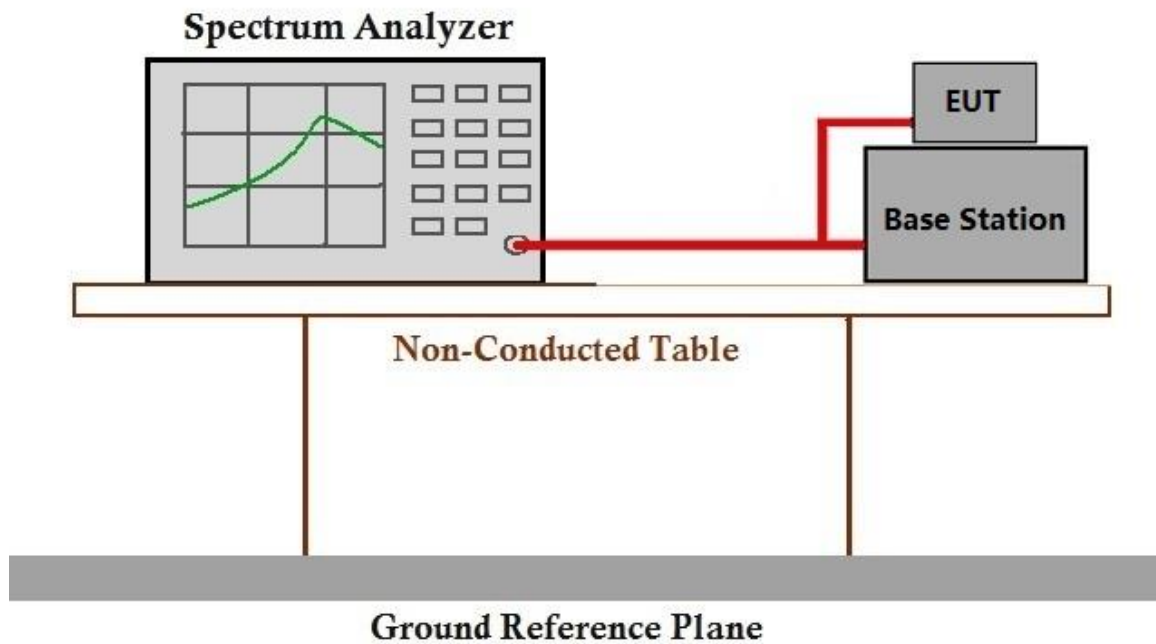
6.3 Bandwidth

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: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar
 Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.3.2 Test Setup Diagram



6.3.3 Measurement Data

Please refer to Appendix G for SZCR210300003007



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6.4 Band Edge Compliance

Test Requirement: §2.1051

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

Limit: $\leq -13\text{dBm}/1\% \cdot \text{EBW}$, in 1 MHz bands immediately outside and adjacent to the frequency block

LTE Band 13 should follow FCC §27.53(c): On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB.

On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

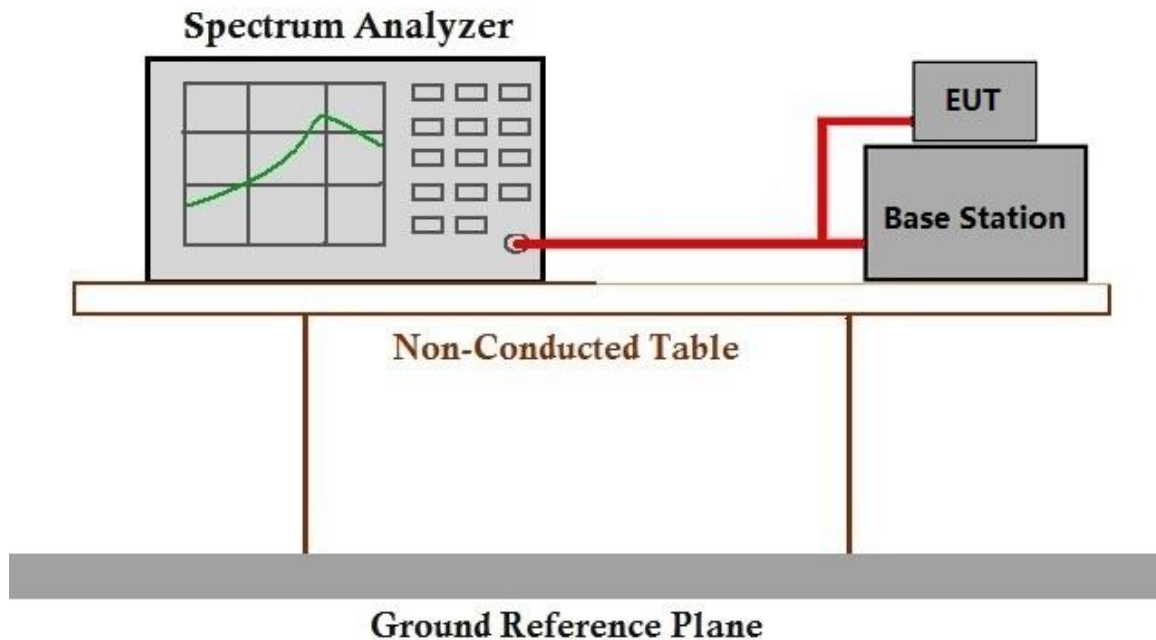
6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.4.2 Test Setup Diagram



6.4.3 Measurement Data

Please refer to Appendix G for SZCR210300003007

Remark: The emission of frequencies between 793MHz-805MHz meets the requirements of FCC, test plots don't reflected in the report.



6.5 Spurious emissions at antenna terminals

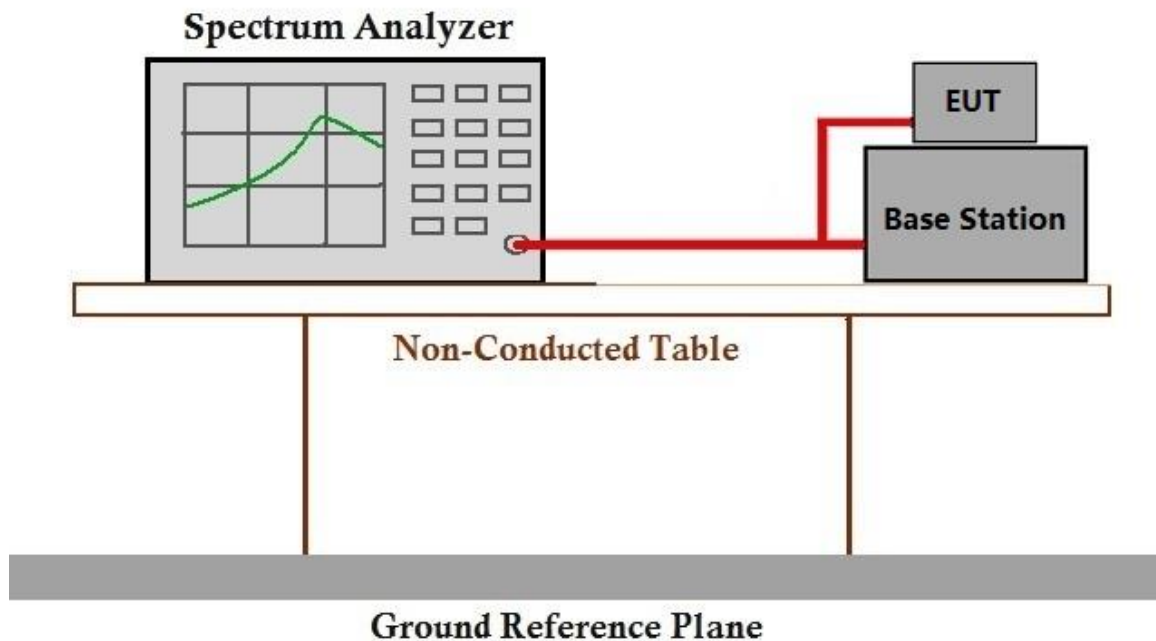
Test Requirement: §2.1051
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: ≤ -13dBm

For operations in the 775-788MHz, emissions in the 1559-1610MHz shall be limited to -70dBW/MHz, The limit of emissions is equal to -40dBm.

6.5.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar
 Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.5.2 Test Setup Diagram



6.5.3 Measurement Data

Please refer to Appendix G for SZCR210300003007



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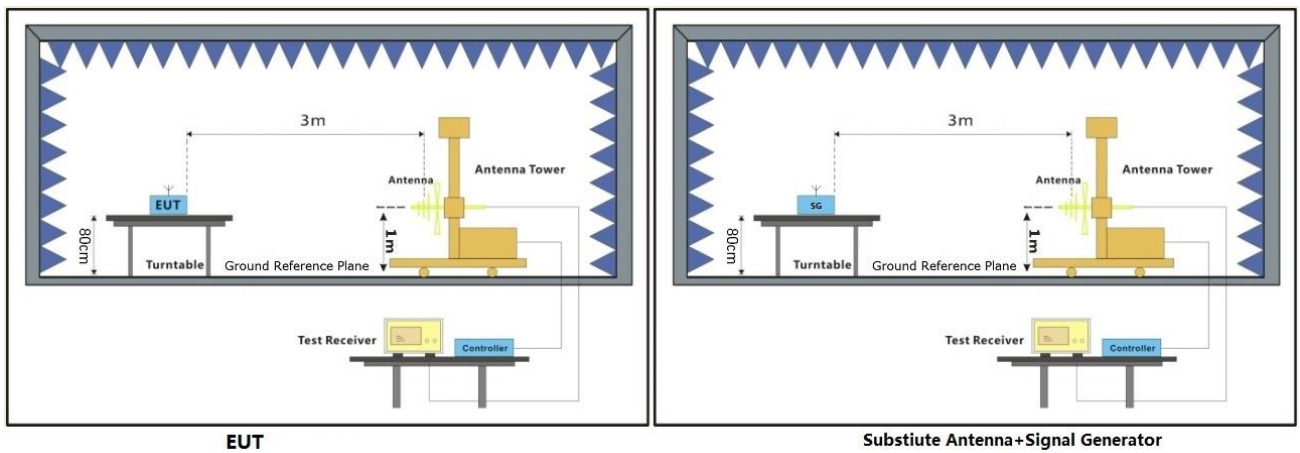
6.6 Field strength of spurious radiation

Test Requirement: §2.1051
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: $\leq -13\text{dBm}$

6.6.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar
 Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.6.2 Test Setup Diagram



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 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.





LTE BAND 2-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3720.000	-55.11	-13	-42.11	Horizontal
5580.000	-58.03	-13	-45.03	Horizontal
7440.000	-54.48	-13	-41.48	Horizontal
3720.000	-56.23	-13	-43.23	Vertical
5580.000	-60.69	-13	-47.69	Vertical
7440.000	-54.35	-13	-41.35	Vertical

LTE BAND 2-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3760.000	-57.96	-13	-44.96	Horizontal
5640.000	-60.02	-13	-47.02	Horizontal
7520.000	-57.48	-13	-44.48	Horizontal
3760.000	-50.20	-13	-37.20	Vertical
5640.000	-60.90	-13	-47.90	Vertical
7520.000	-57.79	-13	-44.79	Vertical

LTE BAND 2-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3800.000	-58.56	-13	-45.56	Horizontal
5700.000	-60.83	-13	-47.83	Horizontal
7600.000	-56.82	-13	-43.82	Horizontal
3800.000	-55.98	-13	-42.98	Vertical
5700.000	-59.55	-13	-46.55	Vertical
7600.000	-55.31	-13	-42.31	Vertical



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LTE BAND 4-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3440.000	-56.50	-13	-43.50	Horizontal
5160.000	-56.61	-13	-43.61	Horizontal
6880.000	-56.45	-13	-43.45	Horizontal
3440.000	-53.57	-13	-40.57	Vertical
5160.000	-59.85	-13	-46.85	Vertical
6880.000	-52.87	-13	-39.87	Vertical

LTE BAND 4-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3465.000	-59.39	-13	-46.39	Horizontal
5197.500	-59.22	-13	-46.22	Horizontal
6930.000	-58.40	-13	-45.40	Horizontal
3465.000	-51.36	-13	-38.36	Vertical
5197.500	-58.44	-13	-45.44	Vertical
6930.000	-57.00	-13	-44.00	Vertical

LTE BAND 4-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3490.000	-54.07	-13	-41.07	Horizontal
5235.000	-61.61	-13	-48.61	Horizontal
6980.000	-55.53	-13	-42.53	Horizontal
3490.000	-51.54	-13	-38.54	Vertical
5235.000	-63.58	-13	-50.58	Vertical
6980.000	-56.19	-13	-43.19	Vertical



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LTE BAND 5-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1658.000	-60.26	-13	-47.26	Horizontal
2487.000	-57.56	-13	-44.56	Horizontal
3316.000	-53.69	-13	-40.69	Horizontal
1658.000	-56.83	-13	-43.83	Vertical
2487.000	-58.18	-13	-45.18	Vertical
3316.000	-55.98	-13	-42.98	Vertical

LTE BAND 5-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1673.000	-53.43	-13	-40.43	Horizontal
2509.500	-58.95	-13	-45.95	Horizontal
3346.000	-58.32	-13	-45.32	Horizontal
1673.000	-54.54	-13	-41.54	Vertical
2509.500	-61.71	-13	-48.71	Vertical
3346.000	-56.09	-13	-43.09	Vertical

LTE BAND 5-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1688.000	-55.32	-13	-42.32	Horizontal
2532.000	-63.15	-13	-50.15	Horizontal
3376.000	-56.22	-13	-43.22	Horizontal
1688.000	-54.67	-13	-41.67	Vertical
2532.000	-60.30	-13	-47.30	Vertical
3376.000	-53.50	-13	-40.50	Vertical



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LTE BAND 7-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
5020.000	-57.80	-25	-32.80	Horizontal
7530.000	-58.70	-25	-33.70	Horizontal
10040.000	-54.06	-25	-29.06	Horizontal
5020.000	-57.57	-25	-32.57	Vertical
7530.000	-57.01	-25	-32.01	Vertical
10040.000	-55.01	-25	-30.01	Vertical

LTE BAND 7-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
5070.000	-50.46	-25	-25.46	Horizontal
7605.000	-61.83	-25	-36.83	Horizontal
10140.000	-57.35	-25	-32.35	Horizontal
5070.000	-59.84	-25	-34.84	Vertical
7605.000	-58.94	-25	-33.94	Vertical
10140.000	-59.81	-25	-34.81	Vertical

LTE BAND 7-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
5120.000	-56.44	-25	-31.44	Horizontal
7680.000	-58.86	-25	-33.86	Horizontal
10240.000	-54.06	-25	-29.06	Horizontal
5120.000	-61.22	-25	-36.22	Vertical
7680.000	-61.25	-25	-36.25	Vertical
10240.000	-54.08	-25	-29.08	Vertical



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LTE BAND 12-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1408.000	-52.32	-13	-39.32	Horizontal
2112.000	-58.70	-13	-45.70	Horizontal
2816.000	-53.40	-13	-40.40	Horizontal
1408.000	-50.99	-13	-37.99	Vertical
2112.000	-56.24	-13	-43.24	Vertical
2816.000	-56.91	-13	-43.91	Vertical

LTE BAND 12-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1415.000	-59.83	-13	-46.83	Horizontal
2122.500	-58.60	-13	-45.60	Horizontal
2830.000	-56.40	-13	-43.40	Horizontal
1415.000	-59.82	-13	-46.82	Vertical
2122.500	-58.96	-13	-45.96	Vertical
2830.000	-59.33	-13	-46.33	Vertical

LTE BAND 12-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1422.000	-60.18	-13	-47.18	Horizontal
2133.000	-63.28	-13	-50.28	Horizontal
2844.000	-54.61	-13	-41.61	Horizontal
1422.000	-58.23	-13	-45.23	Vertical
2133.000	-60.46	-13	-47.46	Vertical
2844.000	-52.65	-13	-39.65	Vertical



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LTE BAND 13-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1559.000	-58.35	-40	-18.35	Horizontal
2338.500	-56.72	-13	-43.72	Horizontal
3118.000	-54.45	-13	-41.45	Horizontal
1559.000	-57.68	-40	-17.68	Vertical
2338.500	-60.51	-13	-47.51	Vertical
3118.000	-54.87	-13	-41.87	Vertical

LTE BAND 13-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1564.000	-54.74	-40	-14.74	Horizontal
2346.000	-58.91	-13	-45.91	Horizontal
3128.000	-58.03	-13	-45.03	Horizontal
1564.000	-53.71	-40	-13.71	Vertical
2346.000	-61.10	-13	-48.10	Vertical
3128.000	-59.13	-13	-46.13	Vertical

LTE BAND 13-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1569.000	-58.68	-40	-18.68	Horizontal
2353.500	-59.94	-13	-46.94	Horizontal
3138.000	-53.42	-13	-40.42	Horizontal
1569.000	-56.71	-40	-16.71	Vertical
2353.500	-63.31	-13	-50.31	Vertical
3138.000	-56.11	-13	-43.11	Vertical



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LTE BAND 17-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1418.000	-54.51	-13	-41.51	Horizontal
2127.000	-58.65	-13	-45.65	Horizontal
2836.000	-55.92	-13	-42.92	Horizontal
1418.000	-52.84	-13	-39.84	Vertical
2127.000	-58.19	-13	-45.19	Vertical
2836.000	-54.37	-13	-41.37	Vertical

LTE BAND 17-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1420.000	-58.28	-13	-45.28	Horizontal
2130.000	-57.27	-13	-44.27	Horizontal
2840.000	-56.64	-13	-43.64	Horizontal
1420.000	-53.01	-13	-40.01	Vertical
2130.000	-60.29	-13	-47.29	Vertical
2840.000	-57.76	-13	-44.76	Vertical

LTE BAND 17-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1422.000	-61.49	-13	-48.49	Horizontal
2133.000	-61.94	-13	-48.94	Horizontal
2844.000	-53.14	-13	-40.14	Horizontal
1422.000	-55.95	-13	-42.95	Vertical
2133.000	-61.87	-13	-48.87	Vertical
2844.000	-53.25	-13	-40.25	Vertical



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LTE BAND 25-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3720.000	-59.49	-13	-46.49	Horizontal
5580.000	-57.85	-13	-44.85	Horizontal
7440.000	-53.93	-13	-40.93	Horizontal
3720.000	-60.65	-13	-47.65	Vertical
5580.000	-60.64	-13	-47.64	Vertical
7440.000	-54.78	-13	-41.78	Vertical

LTE BAND 25-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3760.000	-54.89	-13	-41.89	Horizontal
5640.000	-57.50	-13	-44.50	Horizontal
7520.000	-57.48	-13	-44.48	Horizontal
3760.000	-51.46	-13	-38.46	Vertical
5640.000	-59.99	-13	-46.99	Vertical
7520.000	-55.08	-13	-42.08	Vertical

LTE BAND 25-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3810.000	-51.73	-13	-38.73	Horizontal
5715.000	-62.34	-13	-49.34	Horizontal
7620.000	-54.53	-13	-41.53	Horizontal
3810.000	-56.83	-13	-43.83	Vertical
5715.000	-59.24	-13	-46.24	Vertical
7620.000	-56.96	-13	-43.96	Vertical



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LTE BAND 26-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1643.000	-56.53	-13	-43.53	Horizontal
2464.500	-58.34	-13	-45.34	Horizontal
3286.000	-55.95	-13	-42.95	Horizontal
1643.000	-57.85	-13	-44.85	Vertical
2464.500	-57.27	-13	-44.27	Vertical
3286.000	-55.89	-13	-42.89	Vertical

LTE BAND 26-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1663.000	-59.15	-13	-46.15	Horizontal
2494.500	-62.10	-13	-49.10	Horizontal
3326.000	-55.63	-13	-42.63	Horizontal
1663.000	-50.46	-13	-37.46	Vertical
2494.500	-57.37	-13	-44.37	Vertical
3326.000	-58.97	-13	-45.97	Vertical

LTE BAND 26-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1683.000	-53.33	-13	-40.33	Horizontal
2524.500	-58.69	-13	-45.69	Horizontal
3366.000	-56.77	-13	-43.77	Horizontal
1683.000	-57.54	-13	-44.54	Vertical
2524.500	-61.05	-13	-48.05	Vertical
3366.000	-56.83	-13	-43.83	Vertical



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LTE BAND 66-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3440.000	-59.89	-13	-46.89	Horizontal
5160.000	-57.42	-13	-44.42	Horizontal
6880.000	-57.77	-13	-44.77	Horizontal
3440.000	-55.45	-13	-42.45	Vertical
5160.000	-58.65	-13	-45.65	Vertical
6880.000	-55.37	-13	-42.37	Vertical

LTE BAND 66-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3490.000	-55.36	-13	-42.36	Horizontal
5235.000	-59.75	-13	-46.75	Horizontal
6980.000	-57.50	-13	-44.50	Horizontal
3490.000	-53.00	-13	-40.00	Vertical
5235.000	-62.05	-13	-49.05	Vertical
6980.000	-57.01	-13	-44.01	Vertical

LTE BAND 66-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3540.000	-57.32	-13	-44.32	Horizontal
5310.000	-61.62	-13	-48.62	Horizontal
7080.000	-52.83	-13	-39.83	Horizontal
3540.000	-53.97	-13	-40.97	Vertical
5310.000	-60.07	-13	-47.07	Vertical
7080.000	-55.31	-13	-42.31	Vertical

Remark:

We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



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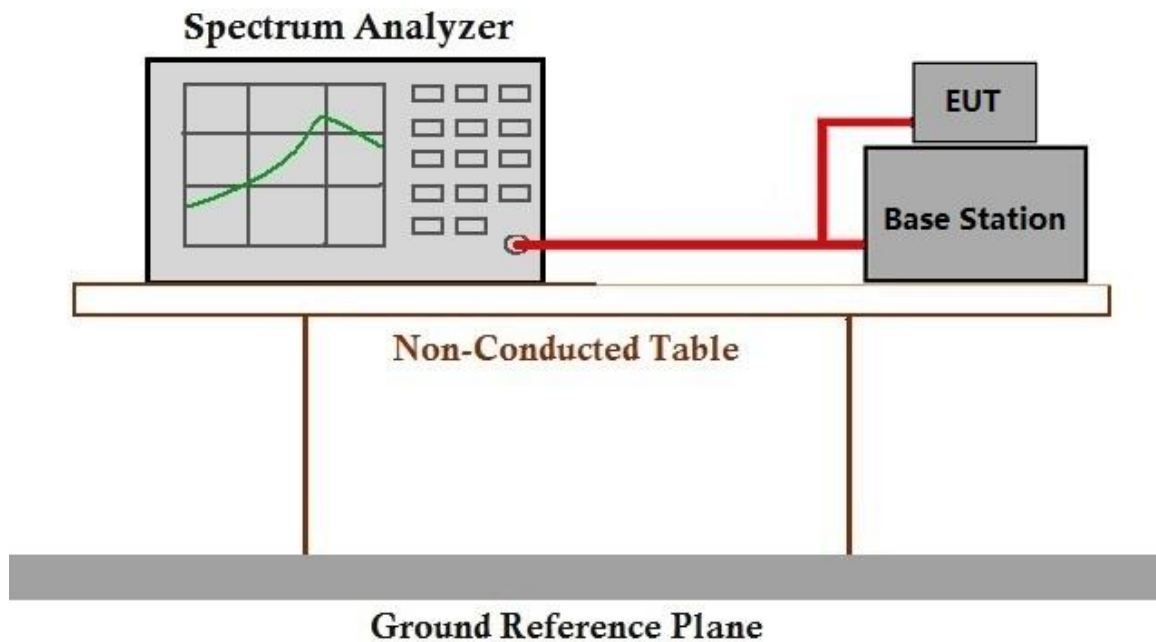
6.7 Frequency stability

Test Requirement: §2.1055
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: $\leq \pm 2.5\text{ppm}$.

6.7.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar
 Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.7.2 Test Setup Diagram



6.7.3 Measurement Data

Please refer to Appendix G for SZCR210300003007



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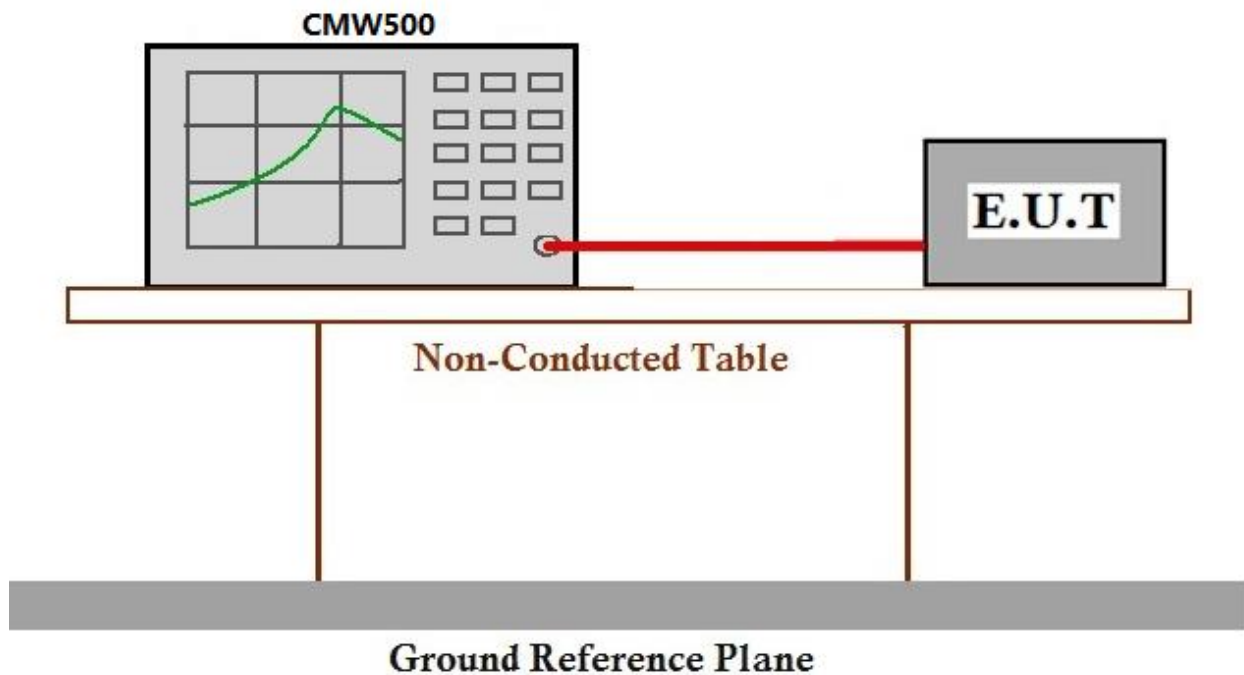
6.8 Modulation Characteristics

Test Requirement: §2.1047
 Test Method: ANSI C63.26
 Limit: Digital modulation

6.8.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.7 °C Humidity: 68.2 % RH Atmospheric Pressure: 1030 mbar
 Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.8.2 Test Setup Diagram



6.8.3 Measurement Data

Please refer to Appendix G for SZCR210300003007



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7 Test Setup Photographs

Refer to the < Test Setup photos-FCC>.

8 EUT Constructional Details

Refer to the < Internal Photos >.

- End of the Report -

