Global United Technology Services Co., Ltd.

Report No.: GTS202204000132F01

TEST REPORT

Applicant: INTERNATIONAL DEVELOPMENT COMPANY

Address of Applicant: 899 Henrietta Creek Road, Roanoke, Texas 76262, United

States

Manufacturer/Factory: 1. Zhongshan Quanxin Lighting Electrical Co., Ltd.

2. Solana Smart Lighting Co., Ltd.

Address of Manufacturer/Factory:

1. Hong Ji Street, Shalang, Long Ping Cun, West District,

Zhongshan Guangdong 528411 China

2. No.268 Moo 7, Huasamrong Sub-district, Plaengyao District, Chachoengsao Province, Thailand 24190

Equipment Under Test (EUT)

Product Name: Remote Controller

Model No.: LV30RM01A-06

FCC ID: 2AP35-LV30RM01A06

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: April 13, 2022

Date of Test: April 14-22, 2022

Date of report issued: April 22, 2022

Test Result: PASS *

Authorized Signature:

Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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



2 Version

| Version No. | Date | Description |
|-------------|----------------|-------------|
| 00 | April 22, 2022 | Original |
| | | |
| | | |
| | | |
| | | |

| Prepared By: | Tranklu | Date: | April 22, 2022 |
|--------------|------------------|-------|----------------|
| | Project Engineer | | |
| Check By: | Johnson Lust | Date: | April 22, 2022 |
| | Reviewer | | |

GTS

Report No.: GTS202204000132F01

3 Contents

| 1 COVER PAGE 2 VERSION | | | | Page |
|--|----------|-------|--|------|
| 3 CONTENTS 4 TEST SUMMARY 5 GENERAL INFORMATION 5.1 GENERAL DESCRIPTION OF EUT 5.2 TEST MODE 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER | 1 | COV | ER PAGE | 1 |
| 3 CONTENTS 4 TEST SUMMARY 5 GENERAL INFORMATION 5.1 GENERAL DESCRIPTION OF EUT 5.2 TEST MODE 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER | 2 | VED | SION | 2 |
| 4 TEST SUMMARY 5 GENERAL INFORMATION 5.1 GENERAL DESCRIPTION OF EUT. 5.2 TEST MODE. 5.3 DESCRIPTION OF SUPPORT UNITS. 5.4 DEVIATION FROM STANDARDS. 5.5 ABNORMALITIES FROM STANDARD CONDITIONS. 5.6 TEST FACILITY | _ | | | |
| 5 GENERAL INFORMATION 5.1 GENERAL DESCRIPTION OF EUT 5.2 TEST MODE 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 7.5.2 Radiated Emission Method 7.5.3 TEST SETUP PHOTO | 3 | CON | TENTS | 3 |
| 5 GENERAL INFORMATION 5.1 GENERAL DESCRIPTION OF EUT 5.2 TEST MODE 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 7.5.2 Radiated Emission Method 7.5.3 TEST SETUP PHOTO | | TEO | T OUMAN DV | |
| 5.1 GENERAL DESCRIPTION OF EUT 5.2 TEST MODE 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 8 TEST SETUP PHOTO | 4 | IES | I SUMMARY | 4 |
| 5.2 TEST MODE 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7 7.5.1 Conducted Emission Method 7 7.5.2 Radiated Emission Method 7 1 TEST SETUP PHOTO | 5 | GEN | ERAL INFORMATION | 5 |
| 5.3 DESCRIPTION OF SUPPORT UNITS 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY | | 5.1 | GENERAL DESCRIPTION OF EUT | 5 |
| 5.4 DEVIATION FROM STANDARDS 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 7.5.2 Radiated Emission Method 8 TEST SETUP PHOTO | | 5.2 | | |
| 5.5 ABNORMALITIES FROM STANDARD CONDITIONS 5.6 TEST FACILITY | | 5.3 | DESCRIPTION OF SUPPORT UNITS | 6 |
| 5.6 TEST FACILITY | | 5.4 | | |
| 5.7 TEST LOCATION 5.8 ADDITIONAL INSTRUCTIONS | | 5.5 | | |
| 5.8 ADDITIONAL INSTRUCTIONS | | | | |
| 6 TEST INSTRUMENTS LIST 7 TEST RESULTS AND MEASUREMENT DATA 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 8 TEST SETUP PHOTO | | | | |
| 7.1 ANTENNA REQUIREMENT | | | | |
| 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 8 TEST SETUP PHOTO | 6 | TES | T INSTRUMENTS LIST | 7 |
| 7.1 ANTENNA REQUIREMENT 7.2 CONDUCTED OUTPUT POWER 7.3 CHANNEL BANDWIDTH 7.4 POWER SPECTRAL DENSITY 7.5 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS 7.5.1 Conducted Emission Method 7.5.2 Radiated Emission Method 8 TEST SETUP PHOTO | 7 | TES | T RESULTS AND MEASUREMENT DATA | 9 |
| 7.2 CONDUCTED OUTPUT POWER | | | | |
| 7.4 POWER SPECTRAL DENSITY | | | | |
| 7.5 Spurious Emission in Non-restricted & restricted Bands 1 7.5.1 Conducted Emission Method 1 7.5.2 Radiated Emission Method 1 8 TEST SETUP PHOTO 1 | | 7.3 | CHANNEL BANDWIDTH | 11 |
| 7.5.1 Conducted Emission Method | | 7.4 | POWER SPECTRAL DENSITY | 12 |
| 7.5.2 Radiated Emission Method | | 7.5 | Spurious Emission in Non-restricted & restricted Bands | 13 |
| 8 TEST SETUP PHOTO | | 7.5.1 | Conducted Emission Method | 13 |
| | | 7.5.2 | Radiated Emission Method | 14 |
| 9 FUT CONSTRUCTIONAL DETAILS | 8 | TES | T SETUP PHOTO | 33 |
| | a | FUT | CONSTRUCTIONAL DETAILS | 33 |



4 Test Summary

| Test Item | Section in CFR 47 | Result |
|----------------------------------|-------------------|--------|
| Antenna requirement | 15.203/15.247 (c) | Pass |
| AC Power Line Conducted Emission | 15.207 | N/A |
| Conducted Output Power | 15.247 (b)(3) | Pass |
| Channel Bandwidth | 15.247 (a)(2) | Pass |
| Power Spectral Density | 15.247 (e) | Pass |
| Band Edge | 15.247(d) | Pass |
| Spurious Emission | 15.205/15.209 | Pass |

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.

2. Test according to ANSI C63.10:2013

Measurement Uncertainty

| Frequency Range | Measurement Uncertainty | Notes |
|-----------------|--|--|
| 9kHz-30MHz | 3.1dB | (1) |
| 30MHz-200MHz | 3.8039dB | (1) |
| 200MHz-1GHz | 3.9679dB | (1) |
| 1GHz-18GHz | 4.29dB | (1) |
| 18GHz-40GHz | 3.30dB | (1) |
| 0.15MHz ~ 30MHz | 3.44dB | (1) |
| | 30MHz-200MHz 200MHz-1GHz 1GHz-18GHz 18GHz-40GHz | 30MHz-200MHz 3.8039dB 200MHz-1GHz 3.9679dB 1GHz-18GHz 4.29dB 18GHz-40GHz 3.30dB |

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960 Page 4 of 33



5 General Information

5.1 General Description of EUT

| Product Name: | Remote Controller |
|----------------------|---------------------------------|
| Model No.: | LV30RM01A-06 |
| Serial No.: | QXLV30RM01A06 |
| Test sample(s) ID: | GTS202204000132-1 |
| Sample(s) Status | Engineered sample |
| Operation Frequency: | 2420MHz, 2450MHz, 2470MHz |
| Channel numbers: | 3 |
| Modulation type: | GFSK |
| Antenna Type: | PCB antenna |
| Antenna gain: | -0.5dBi(Declared by applicant) |
| Power supply: | DC 3V(2*1.5V Size"AAA" Battery) |

The test frequencies are below:

| Channel | Frequency |
|---------------------|-----------|
| The lowest channel | 2420MHz |
| The middle channel | 2450MHz |
| The Highest channel | 2470MHz |



5.2 Test mode

Transmitting mode Keep the EUT in continuously transmitting mode.

Remark: During the test, the duty cycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data. New battery is used during all test.

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

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

• FCC—Registration No.: 381383

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

• IC —Registration No.: 9079A

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

• NVLAP (LAB CODE:600179-0)

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480 Fax: 0755-27798960

5.8 Additional Instructions

| Test Software | Continuous transmitter provided by manufacturer |
|-------------------|---|
| Power level setup | Default |



6 Test Instruments list

| Radi | Radiated Emission: | | | | | |
|------|-------------------------------------|--------------------------------|-----------------------------|------------------|------------------------|----------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | 3m Semi- Anechoic Chamber | ZhongYu Electron | 9.2(L)*6.2(W)* 6.4(H) | GTS250 | July. 02 2020 | July. 01 2025 |
| 2 | Control Room | ZhongYu Electron | 6.2(L)*2.5(W)* 2.4(H) | GTS251 | N/A | N/A |
| 3 | EMI Test Receiver | Rohde & Schwarz | ESU26 | GTS203 | June. 24 2021 | June. 23 2022 |
| 4 | BiConiLog Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | GTS214 | June. 24 2021 | June. 23 2022 |
| 5 | Double -ridged waveguide horn | SCHWARZBECK MESS-ELEKTRONIK | BBHA 9120 D | GTS208 | June. 24 2021 | June. 23 2022 |
| 6 | Horn Antenna | ETS-LINDGREN | 3160 | GTS217 | June. 24 2021 | June. 23 2022 |
| 7 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A |
| 8 | Coaxial Cable | GTS | N/A | GTS213 | June. 24 2021 | June. 23 2022 |
| 9 | Coaxial Cable | GTS | N/A | GTS211 | June. 24 2021 | June. 23 2022 |
| 10 | Coaxial cable | GTS | N/A | GTS210 | June. 24 2021 | June. 23 2022 |
| 11 | Coaxial Cable | GTS | N/A | GTS212 | June. 24 2021 | June. 23 2022 |
| 12 | Amplifier(100kHz-3GHz) | HP | 8347A | GTS204 | June. 24 2021 | June. 23 2022 |
| 13 | Amplifier(2GHz-20GHz) | HP | 84722A | GTS206 | June. 24 2021 | June. 23 2022 |
| 14 | Amplifier (18-26GHz) | Rohde & Schwarz | AFS33-18002 650-30-8P-44 | GTS218 | June. 24 2021 | June. 23 2022 |
| 15 | Band filter | Amindeon | 82346 | GTS219 | June. 24 2021 | June. 23 2022 |
| 16 | Power Meter | Anritsu | ML2495A | GTS540 | June. 24 2021 | June. 23 2022 |
| 17 | Power Sensor | Anritsu | MA2411B | GTS541 | June. 24 2021 | June. 23 2022 |
| 18 | Wideband Radio Communication Tester | Rohde & Schwarz | CMW500 | GTS575 | June. 24 2021 | June. 23 2022 |
| 19 | Splitter | Agilent | 11636B | GTS237 | June. 24 2021 | June. 23 2022 |
| 20 | Loop Antenna | ZHINAN | ZN30900A | GTS534 | June. 24 2021 | June. 23 2022 |
| 21 | Breitband hornantenne | SCHWARZBECK | BBHA 9170 | GTS579 | Oct. 17 2021 | Oct. 16 2022 |
| 22 | Amplifier | TDK | PA-02-02 | GTS574 | Oct. 17 2021 | Oct. 16 2022 |
| 23 | Amplifier | TDK | PA-02-03 | GTS576 | Oct. 17 2021 | Oct. 16 2022 |
| 24 | PSA Series Spectrum Analyzer | Rohde & Schwarz | FSP | GTS578 | June. 24 2021 | June. 23 2022 |



| RF C | RF Conducted Test: | | | | | |
|------|--|--------------|------------------|------------|------------------------|----------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Serial No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | MXA Signal Analyzer | Agilent | N9020A | GTS566 | June. 24 2021 | June. 23 2022 |
| 2 | EMI Test Receiver | R&S | ESCI 7 | GTS552 | June. 24 2021 | June. 23 2022 |
| 3 | Spectrum Analyzer | Agilent | E4440A | GTS533 | June. 24 2021 | June. 23 2022 |
| 4 | MXG vector Signal Generator | Agilent | N5182A | GTS567 | June. 24 2021 | June. 23 2022 |
| 5 | ESG Analog Signal Generator | Agilent | E4428C | GTS568 | June. 24 2021 | June. 23 2022 |
| 6 | USB RF Power Sensor | DARE | RPR3006W | GTS569 | June. 24 2021 | June. 23 2022 |
| 7 | RF Switch Box | Shongyi | RFSW3003328 | GTS571 | June. 24 2021 | June. 23 2022 |
| 8 | Programmable Constant Temp & Humi Test Chamber | WEWON | WHTH-150L-40-880 | GTS572 | June. 24 2021 | June. 23 2022 |

| Gene | General used equipment: | | | | | | |
|------|---------------------------------|--------------|-----------|------------------|------------------------|----------------------------|--|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | |
| 1 | Humidity/ Temperature Indicator | KTJ | TA328 | GTS243 | June. 24 2021 | June. 23 2022 | |
| 2 | Barometer | ChangChun | DYM3 | GTS255 | June. 24 2021 | June. 23 2022 | |



7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement: FCC Part15 C Section 15.203 /247(c)

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The antenna is PCB antenna, the best case gain of the are antennas -0.5dBi, reference to the appendix II for details

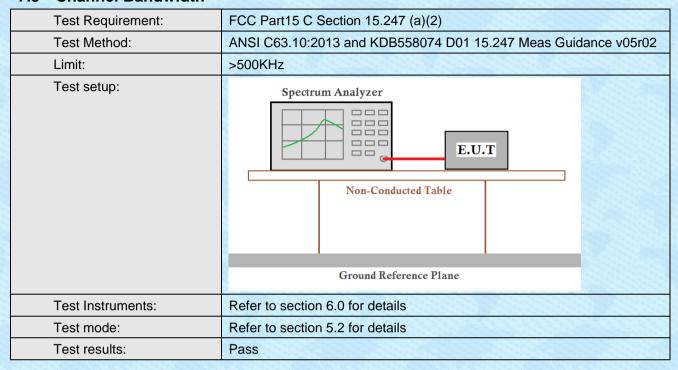


7.2 Conducted Output Power

| Test Requirement: | FCC Part15 C Section 15.247 (b)(3) | | |
|-------------------|---|--|--|
| Test Method: | ANSI C63.10:2013 and KDB558074 D01 15.247 Meas Guidance v05r02 | | |
| Limit: | 30dBm | | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | | |
| Test Instruments: | Refer to section 6.0 for details | | |
| Test mode: | Refer to section 5.2 for details | | |
| Test results: | Pass | | |



7.3 Channel Bandwidth





7.4 Power Spectral Density

| Test Requirement: | FCC Part15 C Section 15.247 (e) | |
|-------------------|---|--|
| Test Method: | ANSI C63.10:2013 and KDB558074 D01 15.247 Meas Guidance v05r02 | |
| Limit: | 8dBm/3kHz | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | |
| Test Instruments: | Refer to section 6.0 for details | |
| Test mode: | Refer to section 5.2 for details | |
| Test results: | Pass | |



7.5 Spurious Emission in Non-restricted & restricted Bands

7.5.1 Conducted Emission Method

| Test Requirement: | FCC Part15 C Section 15.247 (d) | |
|-------------------|---|--|
| Test Method: | ANSI C63.10:2013 and KDB558074 D01 15.247 Meas Guidance v05r02 | |
| Limit: | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | |
| Test Instruments: | Refer to section 6.0 for details | |
| Test mode: | Refer to section 5.2 for details | |
| Test results: | Pass | |

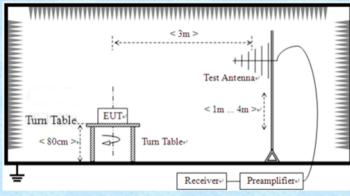


7.5.2 Radiated Emission Method

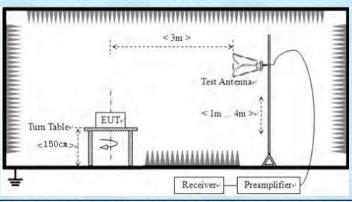
| 7.5.2 Radiated Emission Wet | ilou | | | | |
|-----------------------------|----------------------|-------------|---------------------|--------|-------------------------|
| Test Requirement: | FCC Part15 C Section | on 15.209 | | | |
| Test Method: | ANSI C63.10:2013 | | | | |
| Test Frequency Range: | 9kHz to 25GHz | | | | |
| Test site: | Measurement Distar | nce: 3m | | | |
| Receiver setup: | Frequency | Detector | RBW | VBW | Value |
| | 9KHz-150KHz | Quasi-peak | 200Hz | 600Hz | Quasi-peak |
| | 150KHz-30MHz | Quasi-peak | 9KHz | 30KHz | 2 Quasi-peak |
| | 30MHz-1GHz | Quasi-peak | 120KHz | 300KH | z Quasi-peak |
| | Above 1GHz | Peak | 1MHz | 3MHz | Peak |
| | Above TOTIZ | Peak | 1MHz | 10Hz | Average |
| Limit: | Frequency | Limit (u | V/m) | Value | Measurement Distance |
| | 0.009MHz-0.490M | IHz 2400/F(| KHz) | QP | 300m |
| | 0.490MHz-1.705M | IHz 24000/F | (KHz) | QP | 30m |
| | 1.705MHz-30MH | lz 30 | | QP | 30m |
| | 30MHz-88MHz | 100 | | QP | |
| | 88MHz-216MHz | z 150 | | QP | |
| | 216MHz-960MH | z 200 | | QP | 3m |
| | 960MHz-1GHz | 500 | | QP | OIII |
| | Above 1GHz | | A | verage | |
| | 71001010112 | 500 | 0 | Peak | |
| Test setup: | For radiated emiss | < 3m > | Antenna Im Receiver | lz | |
| | | | | | |



For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



Test Procedure:

- 1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.



| Report No.: GTS202204000132F01 | | | | | | |
|--------------------------------|-------------|----------------------------------|---------|-----|---------|----------|
| Test Instruments: | Refer to se | Refer to section 6.0 for details | | | | |
| Test mode: | Refer to se | Refer to section 5.2 for details | | | | |
| Test environment: | Temp.: | 25 °C | Humid.: | 52% | Press.: | 1012mbar |
| Test voltage: | AC 120V, | AC 120V, 60Hz | | | | |
| Test results: | Pass | Pass | | | | |

Measurement data:

Remark:

Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

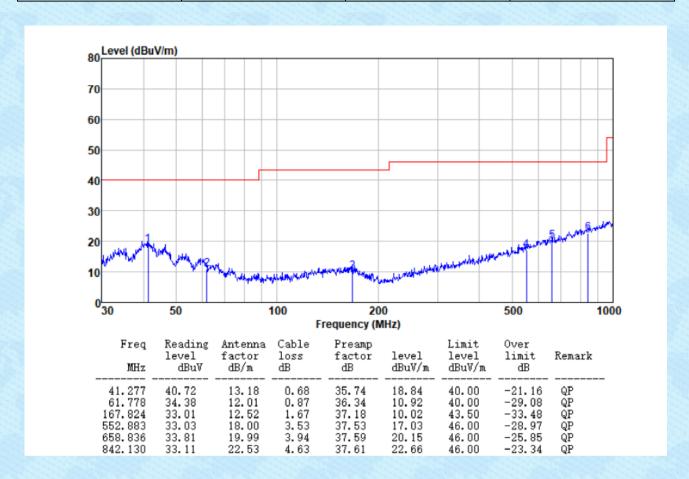
■ 9kHz~30MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.



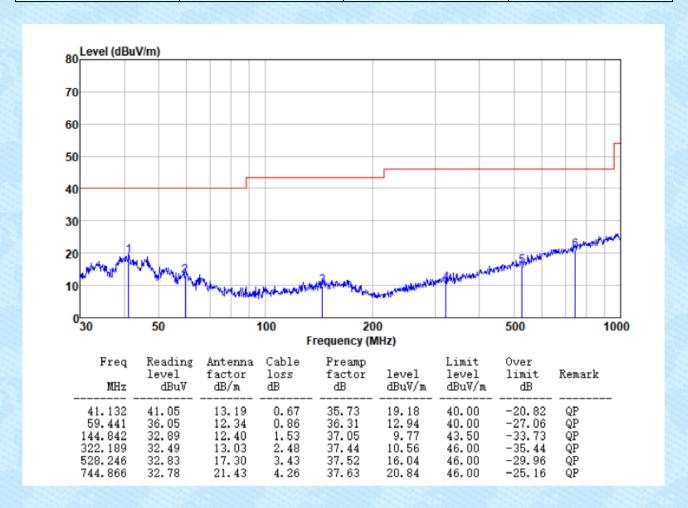
■ Below 1GHz

| st channel: Lowest Polarization: Horizonta | |
|--|--|
|--|--|



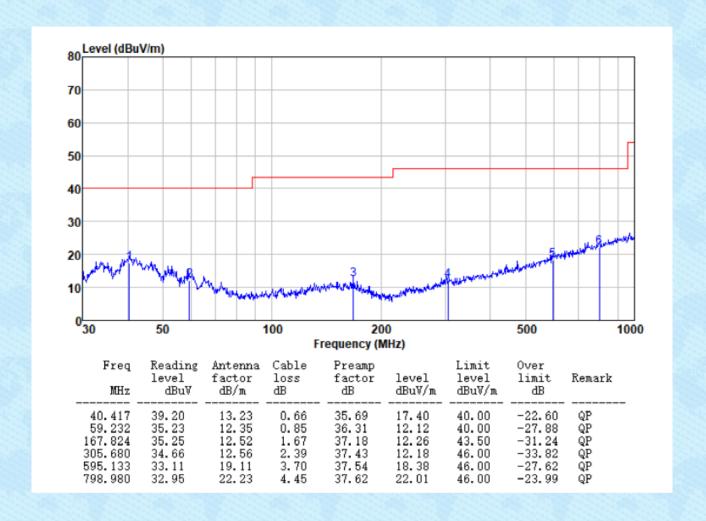


Test channel: Lowest Polarization: Vertical





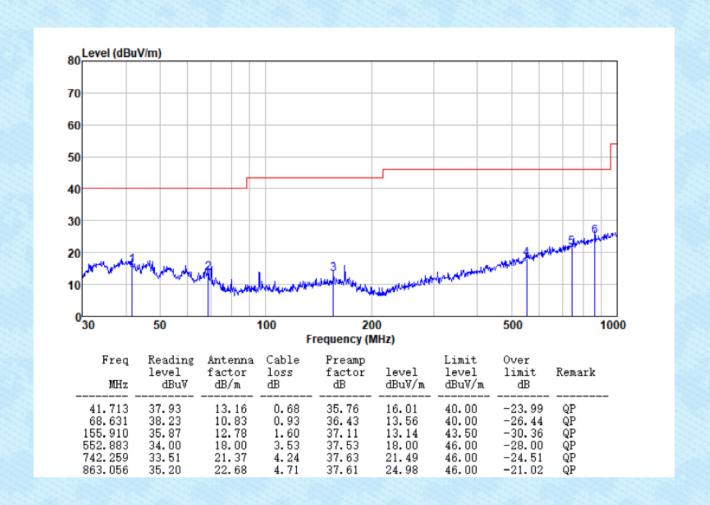
| | Test channel: | Middle | Polarization: | Horizontal | |
|--|---------------|--------|---------------|------------|--|
|--|---------------|--------|---------------|------------|--|



Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

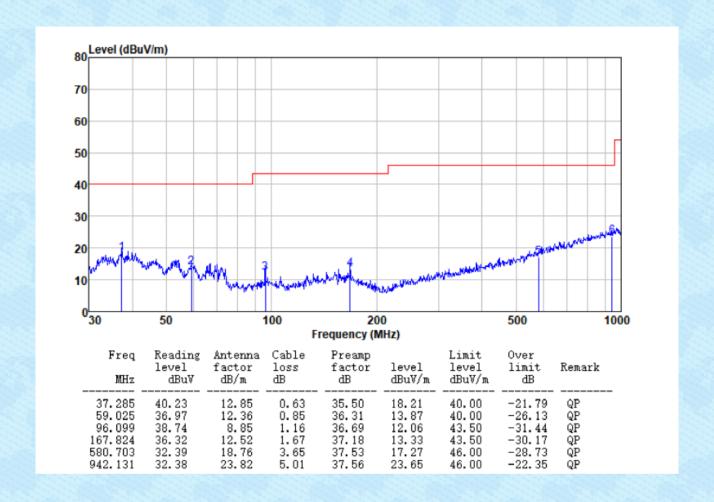


| Test channel: Middle Polarization: Vertical |
|---|
|---|



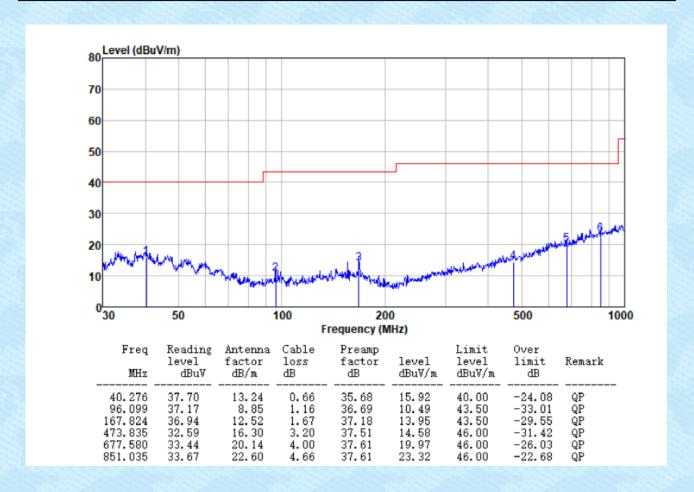


| Test channel: Highest Polarization: Horizontal | |
|--|--|
|--|--|





Test channel: Highest Polarization: Vertical

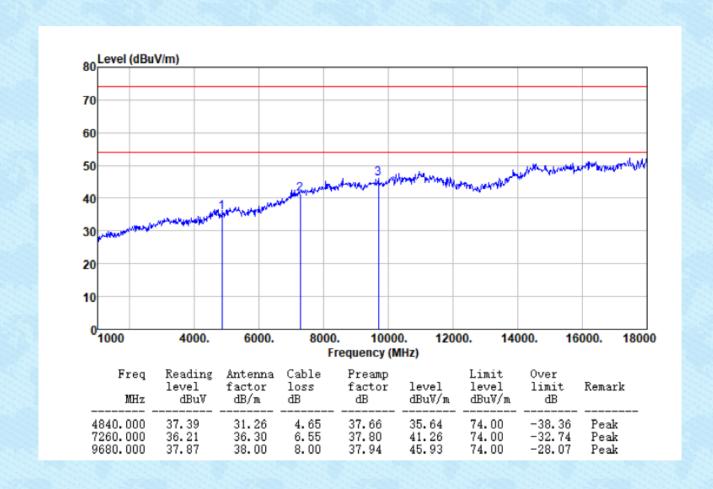




■ Above 1GHz

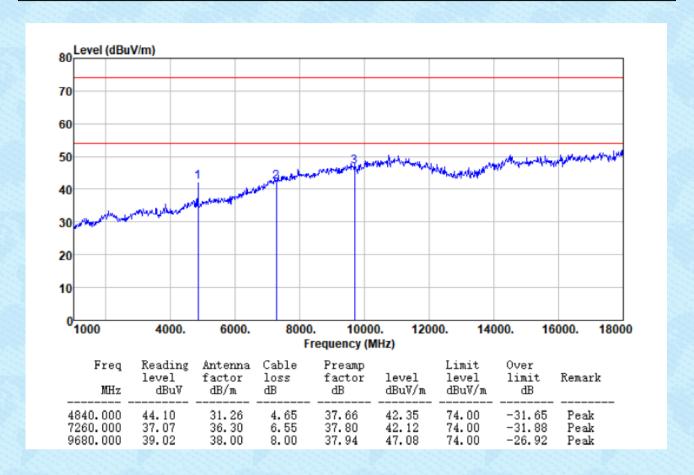
Unwanted Emissions in Restricted Frequency Bands

| Test channel: | Lowest | Polarization: | Horizontal |
|------------------|--------|---------------|---------------|
| 1 Got Gridifici. | LOWCOL | i dianzadon. | 1 10112011tai |



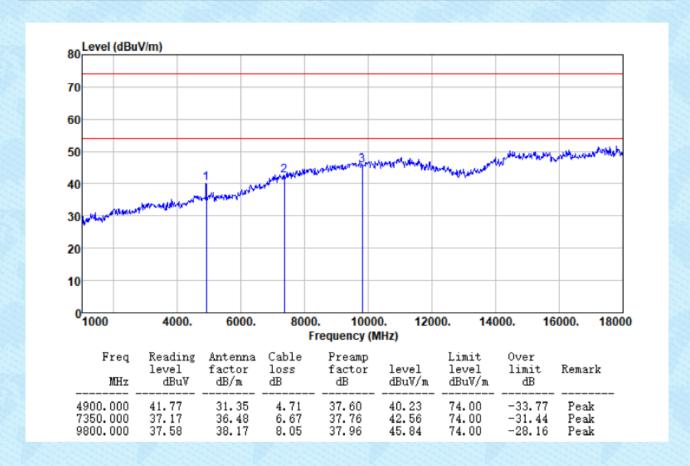


| Test channel: | Lowest | Polarization: | Vertical | |
|---------------|---------|---------------|----------|--|
| 1 oot onarmon | 2011001 | i dianzation. | | |



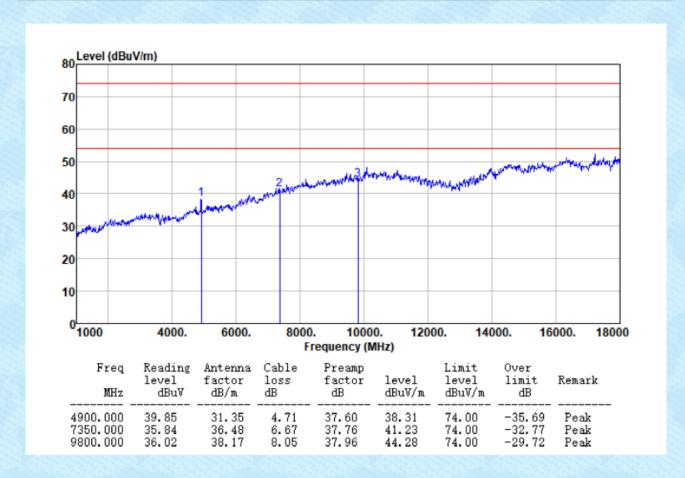


| Test channel: Middle | Polarization: | Horizontal |
|----------------------|---------------|------------|
|----------------------|---------------|------------|



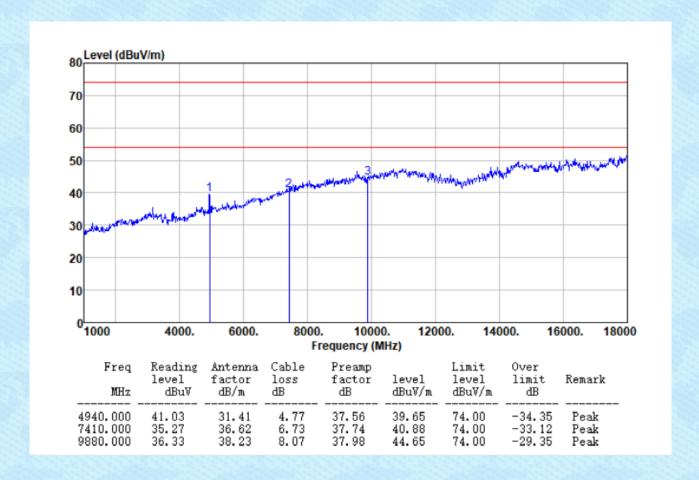


| Test channel: Middle | Polarization: | Vertical |
|----------------------|---------------|----------|
|----------------------|---------------|----------|



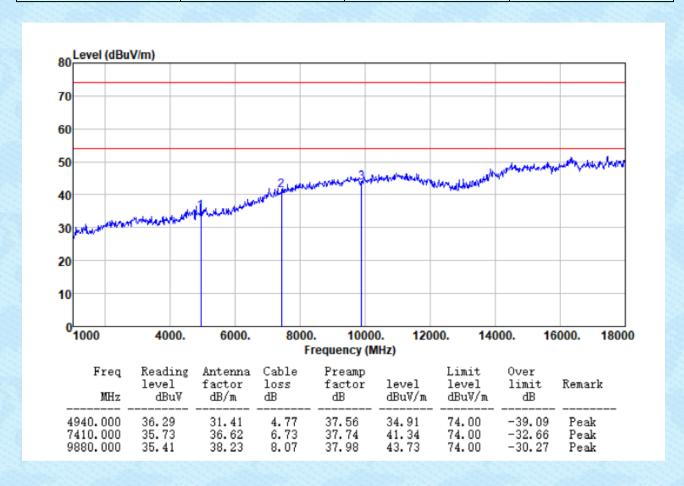


| Test channel: Highest Polarization: Horizontal | |
|--|--|
|--|--|





| lest channel: Highest Polarization: Vertical | Test channel: | Highest | Polarization: | Vertical |
|--|---------------|---------|---------------|----------|
|--|---------------|---------|---------------|----------|



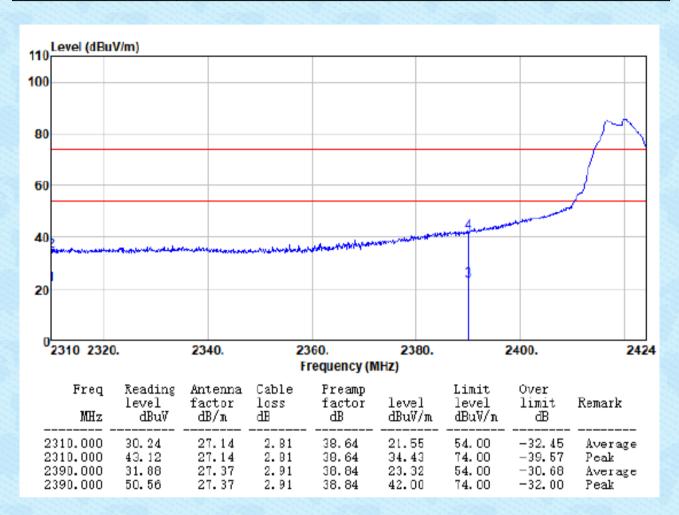
Remarks:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.

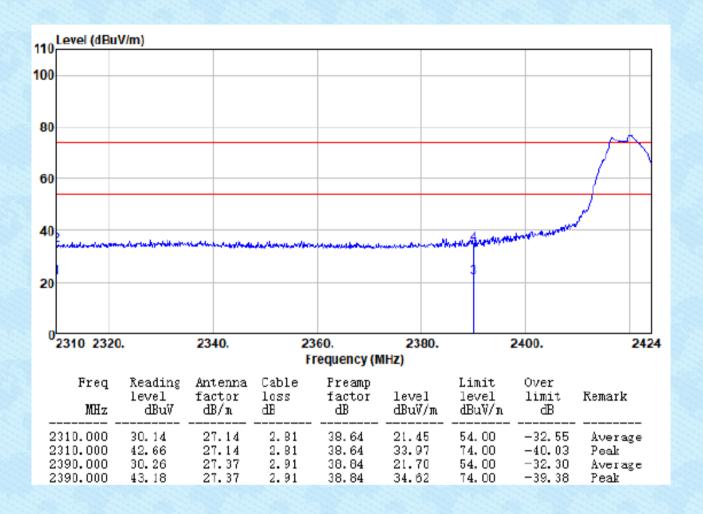


■ Unwanted Emissions in Non-restricted Frequency Bands

| Test channel: | Lowest | Polarization: | Horizontal |
|---------------|--------|---------------|------------|
|---------------|--------|---------------|------------|

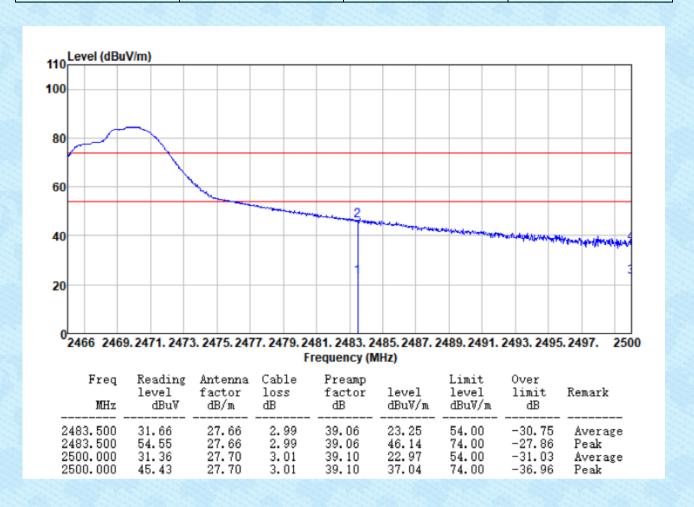






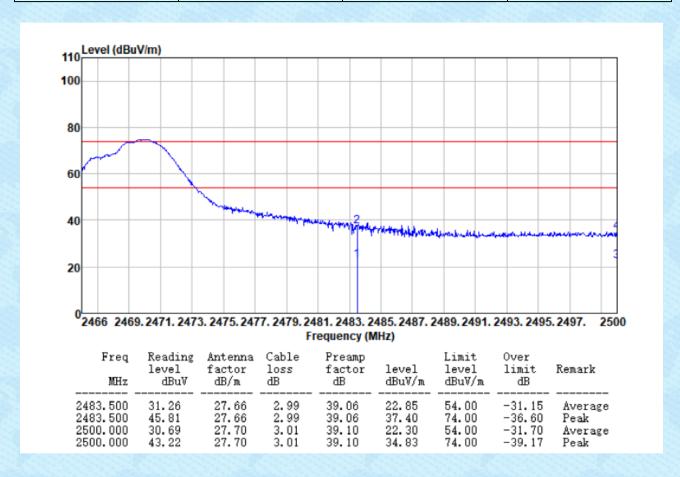


| Test channel: | Highest | Polarization: | Horizontal |
|-----------------|------------|---------------|------------|
| i cot charilei. | i ligitost | i dianzation. | Honzontal |





| Test channel: Highest Polarization: Vertical |
|--|
|--|



Remarks:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



8 Test Setup Photo

Reference to the appendix I for details.

9 EUT Constructional Details

Reference to the appendix II for details.

-----End-----