



TEST REPORT

Applicant: BRAYTRON S.R.L.

Address of Applicant: B.DUL IULIU MANIU, NR.616, CORP B, ETAJ 1 SECTOR 6,
061129, BUCHAREST, ROMANIA

Equipment Under Test (EUT)

Product Name: LED OUTDOOR LIGHTING FIXTURE

Brand Name: 

Model No.: Please Refer To Page 5-7.

Applicable standards: EN IEC 55015:2019+A11:2020

EN 61547:2009

EN IEC 61000-3-2:2019

EN 61000-3-3:2013+A1:2019

Date of sample receipt: October 8, 2021

Date of Test: October 8, 2021 To October 14, 2021

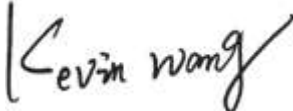
Date of report issued: October 15, 2021

Test Result : PASS *

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

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives.

Authorized Signature



Kevin Wang
Laboratory Manager





2 Version

| Version No. | Date | Description |
|-------------|------------------|-------------|
| 00 | October 15, 2021 | Original |
| | | |
| | | |
| | | |
| | | |

Prepared By:

Gary Wang

Date:

October 15, 2021

Project Engineer

Reviewed By:

Kevin Wang

Date:

October 15, 2021

Reviewer





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4 Test Summary

| Test Item | Test Requirement | Test Method | Class / Severity | Result |
|---------------------------------------|------------------|------------------|--|--------|
| Radiated Emissions (30MHz-1000MHz) | EN IEC 55015 | EN IEC 55015 | Table 10 | Pass |
| Radiated Emissions (9kHz-30MHz) | EN IEC 55015 | EN IEC 55015 | Table 8 | Pass |
| Conducted Emissions | EN IEC 55015 | EN IEC 55015 | Table 1 | Pass |
| Harmonic Current Emission | EN IEC 61000-3-2 | EN IEC 61000-3-2 | Class C | Pass |
| Voltage Fluctuations and Flicker | EN 61000-3-3 | EN 61000-3-3 | Clause 5 of EN61000-3-3 | Pass |
| Electrostatic discharges | EN 61547 | EN 61000-4-2 | Contact 4 kV Air 8 kV | Pass |
| Radiated Immunity | EN 61547 | EN 61000-4-3 | 3V/m 80%, 1kHz, AM | Pass |
| Electrical Fast Transients | EN 61547 | EN 61000-4-4 | AC 1.0kV | Pass |
| Surges | EN 61547 | EN 61000-4-5 | 0.5kV Line to Line 1kV Line to Ground | Pass |
| Conducted Immunity | EN 61547 | EN 61000-4-6 | 3Vrms (emf), 80%, 1kHz Amp. Mod. | Pass |
| Voltage dips and Interruptions | EN 61547 | EN 61000-4-11 | 0 % UT for 0.5per 70 % UT for 10per UT is Supply Voltage | Pass |

Remark:

UT* is the nominal supply voltage.



Model No.:

| | | | |
|------------|------------|------------|------------|
| BC17-001XX | BC17-002XX | BC17-003XX | BC17-004XX |
| BC17-005XX | BC17-006XX | BC17-007XX | BC17-008XX |
| BC17-009XX | BC17-010XX | BC17-011XX | BC17-012XX |
| BC17-013XX | BC17-014XX | BC17-015XX | BC17-016XX |
| BC17-017XX | BC17-018XX | BC17-019XX | BC17-020XX |
| BC17-021XX | BC17-022XX | BC17-023XX | BC17-024XX |
| BC17-025XX | BC17-026XX | BC17-027XX | BC17-028XX |
| BC17-029XX | BC17-030XX | BC17-031XX | BC17-032XX |
| BC17-033XX | BC17-034XX | BC17-035XX | BC17-036XX |
| BC17-037XX | BC17-038XX | BC17-039XX | BC17-040XX |
| BC17-041XX | BC17-042XX | BC17-043XX | BC17-044XX |
| BC17-045XX | BC17-046XX | BC17-047XX | BC17-048XX |
| BC17-049XX | BC17-050XX | BC17-051XX | BC17-052XX |
| BC17-053XX | BC17-054XX | BC17-056XX | BC17-057XX |
| BC17-058XX | BC17-059XX | BC17-060XX | BC17-061XX |
| BC17-062XX | BC17-063XX | BC17-064XX | BC17-065XX |
| BC17-066XX | BC17-067XX | BC17-068XX | BC17-069XX |
| BC17-070XX | BC17-071XX | BC17-072XX | BC17-073XX |
| BC17-074XX | BC17-075XX | BC17-076XX | BC17-077XX |
| BC17-078XX | BC17-079XX | BC17-080XX | BC17-081XX |
| BC17-082XX | BC17-083XX | BC17-084XX | BC17-085XX |
| BC17-086XX | BC17-087XX | BC17-088XX | BC17-089XX |
| BC17-090XX | BC17-091XX | BC17-092XX | BC17-093XX |
| BC17-094XX | BC17-095XX | BC17-096XX | BC17-097XX |
| BC17-098XX | BC17-099XX | BG38-001XX | BG38-002XX |
| BG38-003XX | BG38-004XX | BG38-005XX | BG38-006XX |
| BG38-007XX | BG38-008XX | BG38-009XX | BG38-010XX |
| BG38-011XX | BG38-012XX | BG38-013XX | BG38-014XX |
| BG38-015XX | BG38-016XX | BG38-017XX | BG38-018XX |
| BG38-019XX | BG38-020XX | BG38-021XX | BG38-022XX |
| BG38-023XX | BG38-024XX | BG38-025XX | BG38-026XX |
| BG38-027XX | BG38-028XX | BG38-029XX | BG38-030XX |
| BG38-031XX | BG38-032XX | BG38-033XX | BG38-034XX |
| BG38-035XX | BG38-036XX | BG38-037XX | BG38-038XX |
| BG38-039XX | BG38-040XX | BG38-041XX | BG38-042XX |
| BG38-043XX | BG38-044XX | BG38-045XX | BG38-046XX |
| BG38-047XX | BG38-048XX | BG38-049XX | BG38-050XX |
| BG38-051XX | BG38-052XX | BG38-053XX | BG38-054XX |
| BG38-056XX | BG38-057XX | BG38-058XX | BG38-059XX |
| BG38-060XX | BG38-061XX | BG38-062XX | BG38-063XX |
| BG38-064XX | BG38-065XX | BG38-066XX | BG38-067XX |
| BG38-068XX | BG38-069XX | BG38-070XX | BG38-071XX |

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| | | | |
|------------|------------|------------|------------|
| BG38-072XX | BG38-073XX | BG38-074XX | BG38-075XX |
| BG38-076XX | BG38-077XX | BG38-078XX | BG38-079XX |
| BG38-080XX | BG38-081XX | BG38-082XX | BG38-083XX |
| BG38-084XX | BG38-085XX | BG38-086XX | BG38-087XX |
| BG38-088XX | BG38-089XX | BG38-090XX | BG38-091XX |
| BG38-092XX | BG38-093XX | BG38-094XX | BG38-095XX |
| BG38-096XX | BG38-097XX | BG38-098XX | BG38-099XX |
| BG39-001XX | BG39-002XX | BG39-003XX | BG39-004XX |
| BG39-005XX | BG39-006XX | BG39-007XX | BG39-008XX |
| BG39-009XX | BG39-010XX | BG39-011XX | BG39-012XX |
| BG39-013XX | BG39-014XX | BG39-015XX | BG39-016XX |
| BG39-017XX | BG39-018XX | BG39-019XX | BG39-020XX |
| BG39-021XX | BG39-022XX | BG39-023XX | BG39-024XX |
| BG39-025XX | BG39-026XX | BG39-027XX | BG39-028XX |
| BG39-029XX | BG39-030XX | BG39-031XX | BG39-032XX |
| BG39-033XX | BG39-034XX | BG39-035XX | BG39-036XX |
| BG39-037XX | BG39-038XX | BG39-039XX | BG39-040XX |
| BG39-041XX | BG39-042XX | BG39-043XX | BG39-044XX |
| BG39-045XX | BG39-046XX | BG39-047XX | BG39-048XX |
| BG39-049XX | BG39-050XX | BG39-051XX | BG39-052XX |
| BG39-053XX | BG39-054XX | BG39-056XX | BG39-057XX |
| BG39-058XX | BG39-059XX | BG39-060XX | BG39-061XX |
| BG39-062XX | BG39-063XX | BG39-064XX | BG39-065XX |
| BG39-066XX | BG39-067XX | BG39-068XX | BG39-069XX |
| BG39-070XX | BG39-071XX | BG39-072XX | BG39-073XX |
| BG39-074XX | BG39-075XX | BG39-076XX | BG39-077XX |
| BG39-078XX | BG39-079XX | BG39-080XX | BG39-081XX |
| BG39-082XX | BG39-083XX | BG39-084XX | BG39-085XX |
| BG39-086XX | BG39-087XX | BG39-088XX | BG39-089XX |
| BG39-090XX | BG39-091XX | BG39-092XX | BG39-093XX |
| BG39-094XX | BG39-095XX | BG39-096XX | BG39-097XX |
| BG39-098XX | BG39-099XX | BG40-001XX | BG40-002XX |
| BG40-003XX | BG40-004XX | BG40-005XX | BG40-006XX |
| BG40-007XX | BG40-008XX | BG40-009XX | BG40-010XX |
| BG40-011XX | BG40-012XX | BG40-013XX | BG40-014XX |
| BG40-015XX | BG40-016XX | BG40-017XX | BG40-018XX |
| BG40-019XX | BG40-020XX | BG40-021XX | BG40-022XX |
| BG40-023XX | BG40-024XX | BG40-025XX | BG40-026XX |
| BG40-027XX | BG40-028XX | BG40-029XX | BG40-030XX |
| BG40-031XX | BG40-032XX | BG40-033XX | BG40-034XX |
| BG40-035XX | BG40-036XX | BG40-037XX | BG40-038XX |
| BG40-039XX | BG40-040XX | BG40-041XX | BG40-042XX |
| BG40-043XX | BG40-044XX | BG40-045XX | BG40-046XX |

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|------------|------------|-----------------------|------------|
| BG40-047XX | BG40-048XX | BG40-049XX | BG40-050XX |
| BG40-051XX | BG40-052XX | BG40-053XX | BG40-054XX |
| BG40-056XX | BG40-057XX | BG40-058XX | BG40-059XX |
| BG40-060XX | BG40-061XX | BG40-062XX | BG40-063XX |
| BG40-064XX | BG40-065XX | BG40-066XX | BG40-067XX |
| BG40-068XX | BG40-069XX | BG40-070XX | BG40-071XX |
| BG40-072XX | BG40-073XX | BG40-074XX | BG40-075XX |
| BG40-076XX | BG40-077XX | BG40-078XX | BG40-079XX |
| BG40-080XX | BG40-081XX | BG40-082XX | BG40-083XX |
| BG40-084XX | BG40-085XX | BG40-086XX | BG40-087XX |
| BG40-088XX | BG40-089XX | BG40-090XX | BG40-091XX |
| BG40-092XX | BG40-093XX | BG40-094XX | BG40-095XX |
| BG40-096XX | BG40-097XX | BG40-098XX | BG40-099XX |
| BG43-001XX | BG43-002XX | BG43-003XX | BG43-004XX |
| BG43-005XX | BG43-006XX | BG43-007XX | BG43-008XX |
| BG43-009XX | BG43-010XX | BG43-011XX | BG43-012XX |
| BG43-013XX | BG43-014XX | BG43-015XX | BG43-016XX |
| BG43-017XX | BG43-018XX | BG43-019XX | BG43-020XX |
| BG43-021XX | BG43-022XX | BG43-023XX | BG43-024XX |
| BG43-025XX | BG43-026XX | BG43-027XX | BG43-028XX |
| BG43-029XX | BG38-00102 | BC17-21100 | BC17-21130 |
| BG38-02200 | BG38-02201 | BG38-02300 | BG38-02301 |
| BG38-02401 | BG38-02501 | BG38-02601 | BG38-02701 |
| BG38-01401 | BG38-01501 | BG37-00200 | BG37-00201 |
| BG37-00381 | BG37-00481 | X=0,1,2,3,4,5,6,7,8,9 | |

Remark: All models are identical in the same PCB layout, interior structure and electrical circuits. The only differences are the model name and appearance color for commercial purpose.

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5 General Information

5.1 Client Information

| | |
|--------------------------|--|
| Applicant: | BRAYTRON S.R.L. |
| Address of Applicant: | B.DUL IULIU MANIU, NR.616, CORP B, ETAJ 1 SECTOR 6, 061129, BUCHAREST, ROMANIA |
| Manufacturer: | DEMGRUP INTERNATIONAL LIGHTING LIMITED |
| Address of Manufacturer: | UNIT D 16/F, ONE CAPITAL PLACE, 18 LUARD ROAD, WAN CHAI, HONG KONG |

5.2 General Description of E.U.T

| | |
|-----------------|---|
| Product Name: | LED OUTDOOR LIGHTING FIXTURE |
| Brand Name: |  |
| Model No.: | Please Refer To Page 5-7. |
| Test Model No.: | BG38-00102 |
| Power Supply: | AC220-240V, 50/60Hz, 15W |

5.3 Test mode

| | |
|---------|-----------------------|
| On mode | Keep the EUT lighting |
|---------|-----------------------|

5.4 Description of Support Units

| |
|-------|
| None. |
|-------|

5.5 Deviation from Standards

| |
|-------|
| None. |
|-------|

5.6 Abnormalities from Standard Conditions

| |
|-------|
| None. |
|-------|

5.7 Monitoring of EUT for All Immunity Test

| | |
|---------|-----------------------------|
| Visual: | Monitor the lighting of EUT |
| Audio: | N/A |



6 Test Instruments List

| Radiated Emission: (30MHz-1000MHz): | | | | | | |
|-------------------------------------|-------------------------------------|--------------------------------|-----------------------------|---------------|---------------------|-------------------------|
| 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 | N/A | N/A |
| 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 | ESRP | GTS602 | Mar. 19 2021 | Mar. 18 2022 |
| 4 | BiConiLog Antenna | SCHWARZBECK | VULB 9168 | GTS606 | Mar. 19 2021 | Mar. 18 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) | N/A | LNA 0920N | GTS605 | Mar. 19 2021 | Mar. 18 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. 8 2021 | Oct. 7 2022 |
| 22 | Amplifier | TDK | PA-02-02 | GTS574 | Oct. 8 2021 | Oct. 7 2022 |
| 23 | Amplifier | TDK | PA-02-03 | GTS576 | Oct. 8 2021 | Oct. 7 2022 |
| 24 | PSA Series Spectrum Analyzer | Rohde & Schwarz | FSP | GTS578 | June. 24 2021 | June. 23 2022 |

| Conducted Emission | | | | | | |
|--------------------|---------------------------|-------------------------|----------------------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Shielding Room | ZhongYu Electron | 7.3(L)x3.1(W)x2.9(H) | GTS252 | May.15 2019 | May.14 2022 |
| 2 | EMI Test Receiver | R&S | ESCI 7 | GTS552 | June. 24 2021 | June. 23 2022 |
| 3 | Coaxial Switch | ANRITSU CORP | MP59B | GTS225 | June. 24 2021 | June. 23 2022 |
| 4 | ENV216 2-L-V-NETZNACHB.DE | ROHDE&SCHWARZ | ENV216 | GTS226 | June. 24 2021 | June. 23 2022 |
| 5 | Coaxial Cable | GTS | N/A | GTS227 | N/A | N/A |
| 6 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A |
| 7 | Thermo meter | KTJ | TA328 | GTS233 | June. 24 2021 | June. 23 2022 |
| 8 | Absorbing clamp | Elektronik-Feinmechanik | MDS21 | GTS229 | June. 24 2021 | June. 23 2022 |

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| | | | | | | |
|---|-----|-------------|-----------|--------|---------------|---------------|
| 9 | ISN | SCHWARZBECK | NTFM 8158 | GTS565 | June. 24 2021 | June. 23 2022 |
|---|-----|-------------|-----------|--------|---------------|---------------|

| Radiated Emissions (9kHz-30MHz): | | | | | | |
|----------------------------------|----------------------|------------------|----------------------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Shielding Room | ZhongYu Electron | 7.3(L)x3.1(W)x2.9(H) | GTS252 | May.15 2019 | May.14 2022 |
| 2 | EMI Test Receiver | R&S | ESCI 7 | GTS552 | June. 24 2021 | June. 23 2022 |
| 3 | TIPIPLE-LOOP ANTENNA | EVERFINE | LLA-2 | GTS539 | June. 24 2021 | June. 23 2022 |

| ESD | | | | | | |
|------|----------------|--------------|-----------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | ESD Simulator | KIKUSUI | KES4021A | GTS242 | June. 24 2021 | June. 23 2022 |
| 2 | Thermo meter | KTJ | TA328 | GTS243 | June. 24 2021 | June. 23 2022 |

| Conducted Immunity | | | | | | |
|--------------------|------------------|-----------------|----------------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Signal Generator | ROHDE & SCHWARZ | SMB 100A | GTS553 | June. 24 2021 | June. 23 2022 |
| 2 | CDN | LionCEL | CDN-M3-16 | GTS554 | June. 24 2021 | June. 23 2022 |
| 3 | CDN | CYBERTEK | EM 5070 | GTS559 | June. 24 2021 | June. 23 2022 |
| 4 | Power amplifier | rflight | NTWPA-00010475 | GTS555 | June. 24 2021 | June. 23 2022 |
| 5 | ATT | SUNWAVE | SJ-50-06DB | GTS556 | June. 24 2021 | June. 23 2022 |
| 6 | Clamp | SCHAFFNER | KEMZ 801 | GTS558 | June. 24 2021 | June. 23 2022 |

| Harmonic/ Flicker | | | | | | |
|-------------------|--------------------|--------------|-----------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Power Analyzer H/F | EMTEST | DPA500 | GTS235 | June. 24 2021 | June. 23 2022 |
| 2 | AC POWER SUPPLY | EMTEST | ACS500 | GTS236 | June. 24 2021 | June. 23 2022 |
| 3 | Thermo meter | KTJ | TA328 | GTS256 | June. 24 2021 | June. 23 2022 |

| EFT, Surge, Voltage dips and Interruption | | | | | | |
|---|----------------|--------------|-----------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | EMTEST system | EMTEST | UCS500N | GTS239 | June. 24 2021 | June. 23 2022 |
| 2 | Clamp | EMTEST | HFK | GTS557 | June. 24 2021 | June. 23 2022 |
| 3 | Thermo meter | KTJ | TA328 | GTS238 | June. 24 2021 | June. 23 2022 |

| Radiated Immunity | | | | | | |
|-------------------|---|-----------------------|-----------|---------------|---------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | Fully-Anechoic Chamber 2 | Chang Zhou Zhong Shuo | 854 | SEM001-05 | May. 08 2021 | May. 07 2022 |
| 2 | Power Sensor | Rohde & Schwarz | NRP-Z91 | SEM009-09 | Mar. 31 2021 | Mar. 30 2022 |
| 3 | Stacked Log.-Per.-Broadband Antenna (70MHz-10GHz) | Schwarzbeck | STLP 9129 | SEM003-25 | N/A | N/A |
| 4 | Signal Generator | Rohde & Schwarz | SMB100A | SEM006-11 | Mar. 31 2021 | Mar. 30 2022 |

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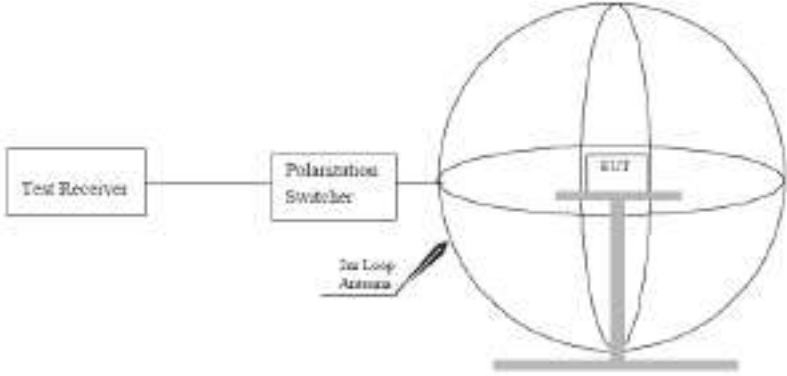
| | | | | | | |
|---|----------------------------------|-----------------|----------------|-----------|----------------|----------------|
| | (9kHz-6GHz) | | | | | |
| 5 | Broadband Amplifier (80MHz-1GHz) | Rohde & Schwarz | BBA150-BC250 | SEM005-12 | Sep. 22 2021 | Sep. 21 2022 |
| 6 | Broadband Amplifier(800MHz-3GHz) | Rohde & Schwarz | BBA150-D110 | SEM005-13 | Mar. 31 2021 | Mar. 30 2022 |
| 7 | Broadband Amplifier(2.5GHz-6GHz) | Rohde & Schwarz | BBA150-E60 | SEM005-16 | April. 10 2021 | April. 09 2022 |
| 8 | Measurement Software | Rohde & Schwarz | EMC32 V9.25.00 | N/A | N/A | N/A |

| 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 |

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7 Emission Test Results

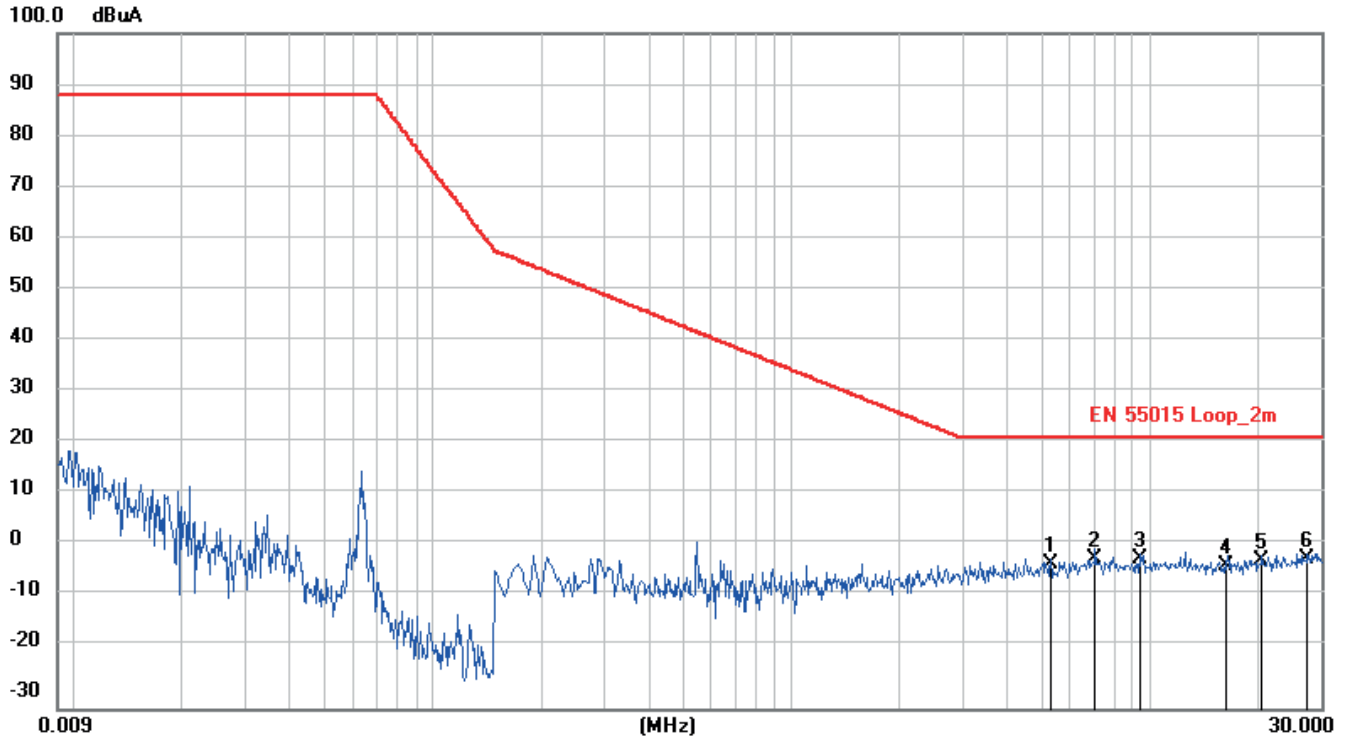
7.1 Radiated Emissions (9kHz-30MHz)

| | | | |
|--|--|-------------|--------------------------------------|
| Test Requirement: | EN IEC 55015 | | |
| Test Method: | EN IEC 55015 | | |
| Test Frequency Range: | 9kHz to 30MHz | | |
| Limit: | Frequency range (MHz) | | Limits for loop diameter dBuA @2m |
| | 0.009-0.070 | | 88 |
| | 0.070-0.150 | | 88 to 58* |
| | 0.15-3.0 | | 58 to 22* |
| | 3.0-30 | | 22 |
| <p>*Decreasing linearly with the logarithm of the frequency.</p> <p>For electrodeless lamps and luminaires, the limit in the frequency range of 2,2 MHz to 3,0 MHz is 58 dB(μA) for 2 m, 51dB(μA) for 3 m and 45 dB(μA) for 4 m loop diameter.</p> | | | |
| Test Setup: |  | | |
| Test procedure | <ol style="list-style-type: none"> 1. An initial pre-scan was performed in the 2m loop antenna using the spectrum analyser in peak detection mode. 2. The EUT was measured for X(A), Y(B), Z(C) polarities. 3. No further quasi-peak measurements were performed since no peak emissions from the EUT were detected within 6dB of the limit for 2m diameter loop antenna. | | |
| Test Instruments: | Temp.: 25 C | Humid.: 50% | Press.: 1012mbar |
| Measurement Record: | Uncertainty: ± 4.5dB | | |
| Test Instruments: | Refer to section 6 for details | | |
| Test mode: | Refer to section 5.3 for details. | | |
| Test results: | Pass | | |



Measurement Data

Axial: X

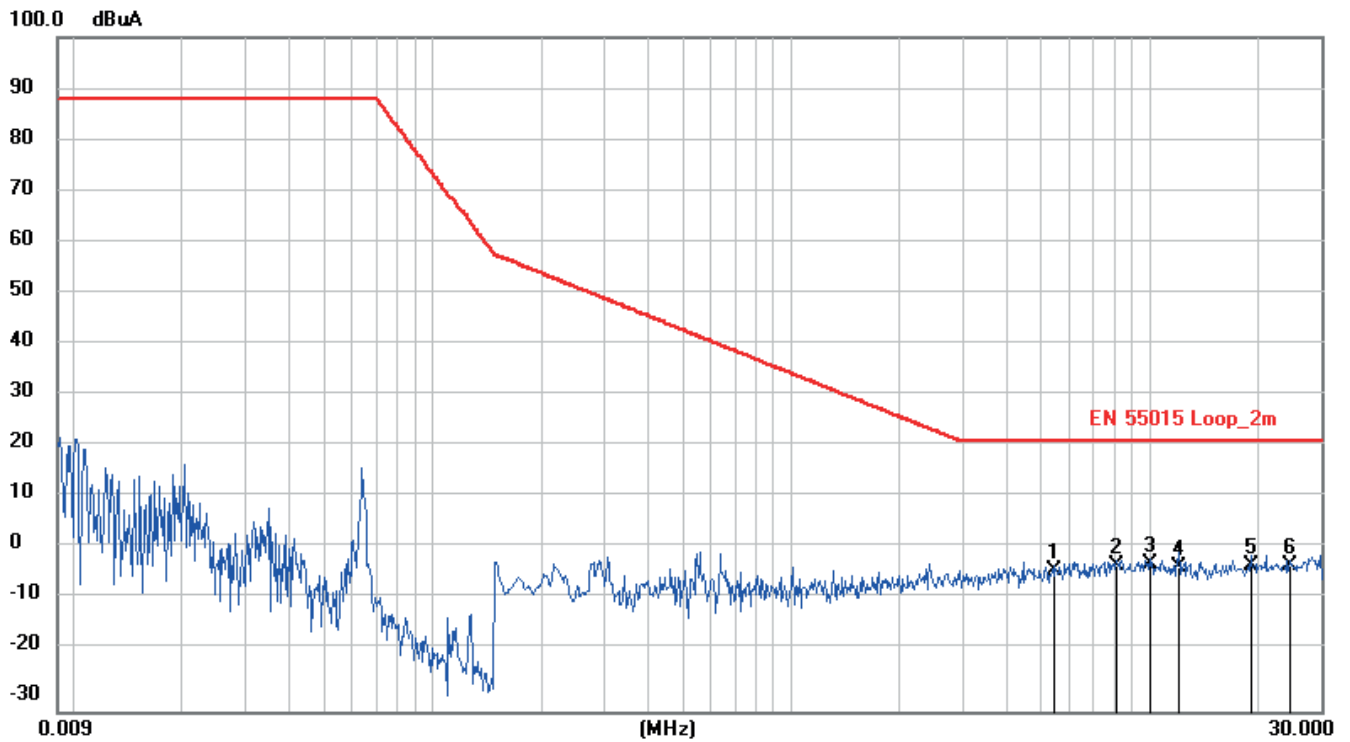


| No. | Frequency (MHz) | Reading (dBuA) | Correct (dB) | Result (dBuA) | Limit (dBuA) | Margin (dB) | Remark |
|-----|-----------------|----------------|--------------|---------------|--------------|-------------|--------|
| 1 | 5.3251 | -36.64 | 34.55 | -2.09 | 22.00 | -24.09 | QP |
| 2 | 7.0306 | -36.05 | 34.83 | -1.22 | 22.00 | -23.22 | QP |
| 3 | 9.3886 | -36.23 | 34.90 | -1.33 | 22.00 | -23.33 | QP |
| 4 | 16.3096 | -37.52 | 34.87 | -2.65 | 22.00 | -24.65 | QP |
| 5 | 20.6251 | -36.54 | 34.91 | -1.63 | 22.00 | -23.63 | QP |
| 6 | 27.5731 | -36.22 | 35.10 | -1.12 | 22.00 | -23.12 | QP |

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Axial: Y



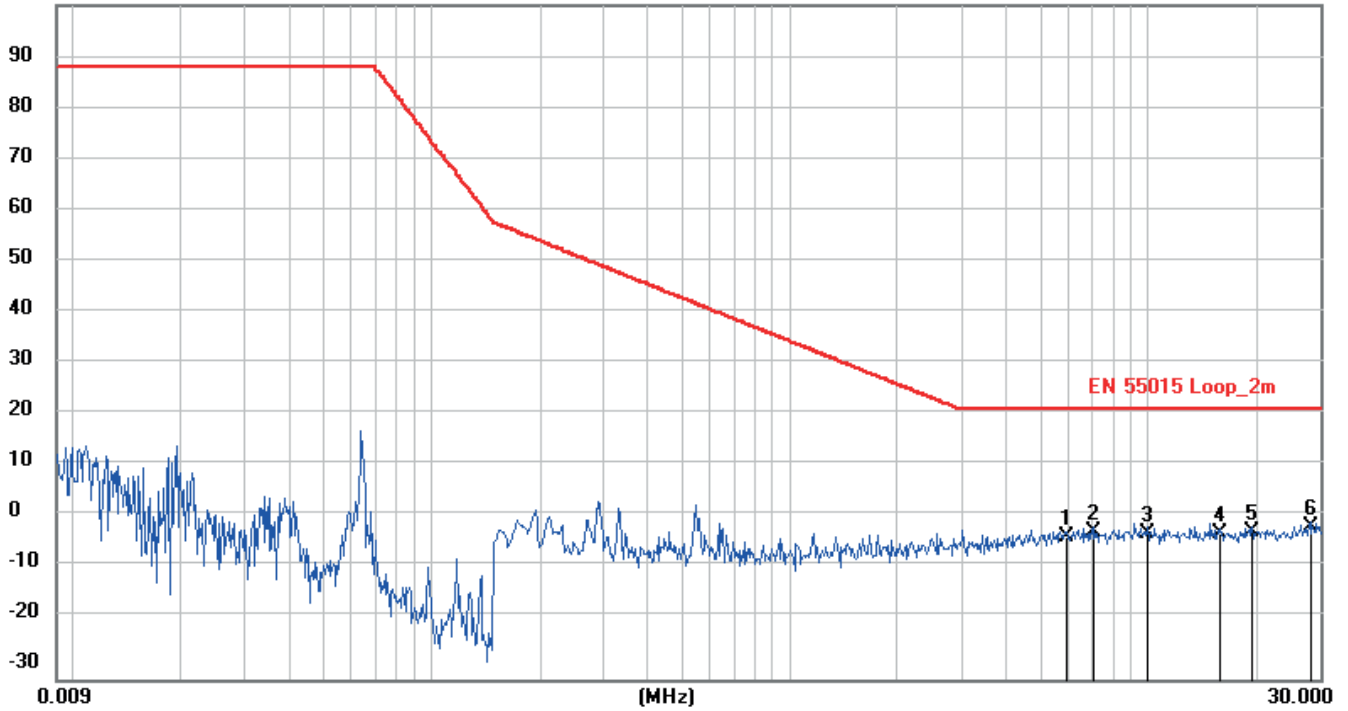
| No. | Frequency (MHz) | Reading (dBuA) | Correct (dB) | Result (dBuA) | Limit (dBuA) | Margin (dB) | Remark |
|-----|-----------------|----------------|--------------|---------------|--------------|-------------|--------|
| 1 | 5.3881 | -37.38 | 34.56 | -2.82 | 22.00 | -24.82 | QP |
| 2 | 8.1196 | -36.77 | 34.86 | -1.91 | 22.00 | -23.91 | QP |
| 3 | 10.0096 | -36.48 | 34.92 | -1.56 | 22.00 | -23.56 | QP |
| 4 | 12.0301 | -36.94 | 34.89 | -2.05 | 22.00 | -24.05 | QP |
| 5 | 19.1851 | -36.80 | 34.89 | -1.91 | 22.00 | -23.91 | QP |
| 6 | 24.6571 | -37.01 | 35.04 | -1.97 | 22.00 | -23.97 | QP |

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Axial: Z

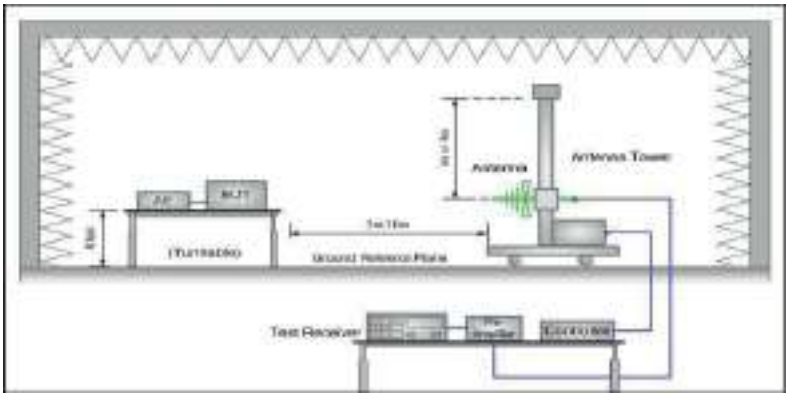
100.0 dBuA



| No. | Frequency (MHz) | Reading (dBuA) | Correct (dB) | Result (dBuA) | Limit (dBuA) | Margin (dB) | Remark |
|-----|-----------------|----------------|--------------|---------------|--------------|-------------|--------|
| 1 | 5.8921 | -37.26 | 34.69 | -2.57 | 22.00 | -24.57 | QP |
| 2 | 7.0261 | -36.45 | 34.83 | -1.62 | 22.00 | -23.62 | QP |
| 3 | 9.9061 | -36.89 | 34.92 | -1.97 | 22.00 | -23.97 | QP |
| 4 | 15.8686 | -36.63 | 34.86 | -1.77 | 22.00 | -23.77 | QP |
| 5 | 19.4146 | -36.47 | 34.89 | -1.58 | 22.00 | -23.58 | QP |
| 6 | 28.1356 | -35.78 | 35.10 | -0.68 | 22.00 | -22.68 | QP |

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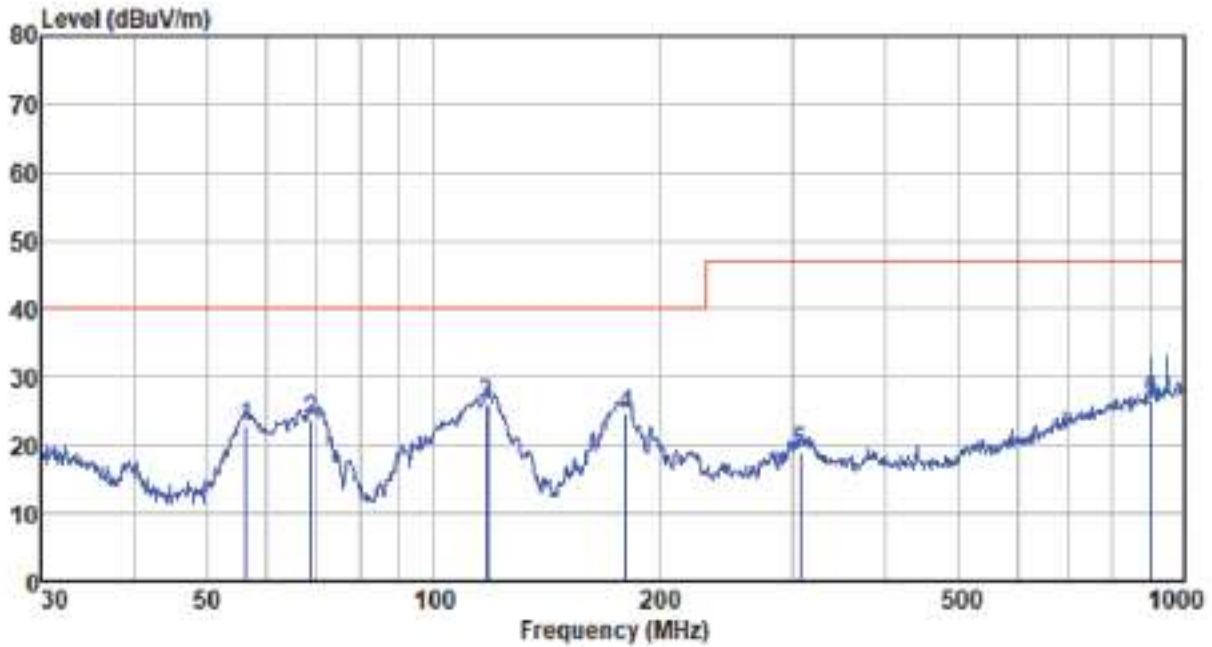
7.2 Radiated Emissions (30MHz-1000MHz)

| | | | |
|------------------------------|--|----------------|------------------|
| Test Requirement: | EN IEC 55015 | | |
| Test Method: | EN IEC 55015 | | |
| Test Frequency Range: | 30MHz to 1000MHz | | |
| Measurement Distance: | 3m | | |
| Limit: | Frequency range(MHz) | Limit (dBuV/m) | |
| | 30 to 230 | 40.00 | |
| | 230 to 1000 | 47.00 | |
| | | | |
| Test setup: |  | | |
| Test procedure | <ol style="list-style-type: none"> 1. The radiated emissions test was conducted in a semi-anechoic chamber. 2. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation. 3. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT. 4. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization. | | |
| Test Instruments: | Temp.: 25 C | Humid.: 50% | Press.: 1012mbar |
| Measurement Record: | Uncertainty: ± 4.50dB | | |
| Test Instruments: | Refer to section 6 for details | | |
| Test mode: | Refer to section 5.3 for details. | | |
| Test results: | Pass | | |



Measurement Data

| | | | |
|------------|---------|-------------------|------------|
| Test mode: | On mode | Antenna Polarity: | Horizontal |
|------------|---------|-------------------|------------|

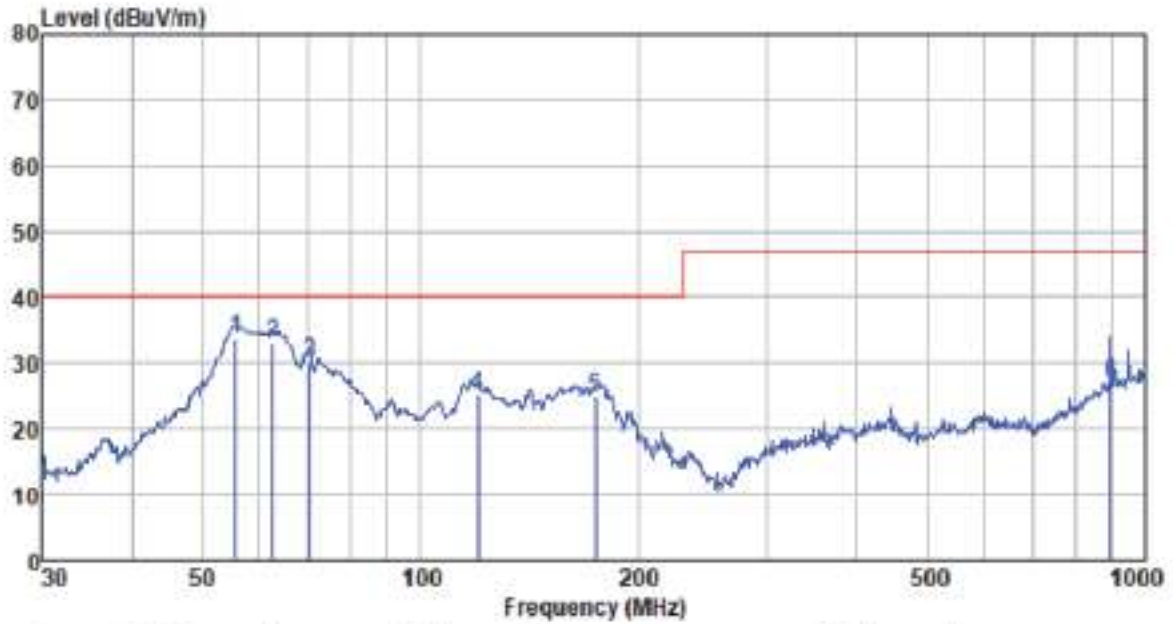


| Freq MHz | Reading level dBuV | Antenna factor dB/m | Cable loss dB | Preamp factor dB | level dBuV/m | Limit level dBuV/m | Over limit dB | Remark |
|-------------|--------------------------|---------------------------|---------------------|------------------------|-----------------|--------------------------|---------------------|--------|
| 56.395 | 38.49 | 12.80 | 1.33 | 29.75 | 22.87 | 40.00 | -17.13 | QP |
| 68.631 | 41.95 | 10.39 | 1.43 | 30.08 | 23.69 | 40.00 | -16.31 | QP |
| 117.773 | 43.88 | 11.07 | 1.81 | 30.77 | 25.99 | 40.00 | -14.01 | QP |
| 180.849 | 41.56 | 11.55 | 2.25 | 30.97 | 24.39 | 40.00 | -15.61 | QP |
| 307.831 | 32.32 | 14.91 | 3.00 | 31.24 | 18.99 | 47.00 | -28.01 | QP |
| 903.309 | 27.04 | 24.82 | 6.16 | 31.33 | 26.69 | 47.00 | -20.31 | QP |

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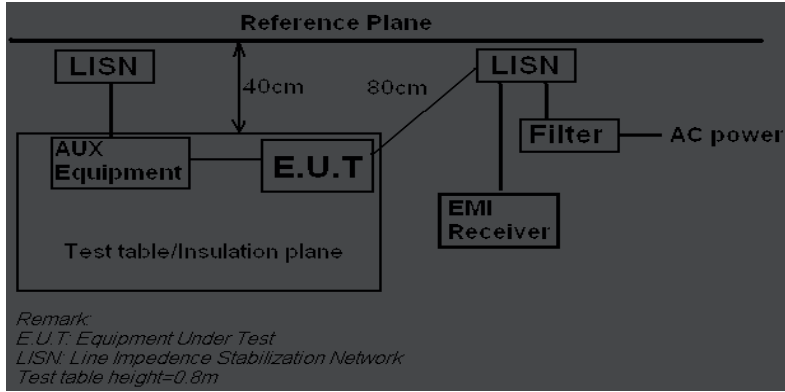
| | | | |
|------------|---------|-------------------|----------|
| Test mode: | On mode | Antenna Polarity: | Vertical |
|------------|---------|-------------------|----------|



| Freq MHz | Reading level dBuV | Antenna factor dB/m | Cable loss dB | Preamp factor dB | level dBuV/m | Limit level dBuV/m | Over limit dB | Remark |
|-------------|--------------------------|---------------------------|---------------------|------------------------|-----------------|--------------------------|---------------------|--------|
| 55.809 | 52.14 | 10.06 | 1.32 | 29.73 | 33.79 | 40.00 | -6.21 | QP |
| 62.651 | 52.54 | 9.02 | 1.38 | 29.93 | 33.01 | 40.00 | -6.99 | QP |
| 70.337 | 50.58 | 8.14 | 1.45 | 30.12 | 30.03 | 40.00 | -9.97 | QP |
| 119.856 | 46.33 | 7.68 | 1.83 | 30.78 | 25.06 | 40.00 | -14.94 | QP |
| 174.424 | 43.51 | 10.05 | 2.22 | 30.95 | 24.83 | 40.00 | -15.17 | QP |
| 895.997 | 27.65 | 24.45 | 6.13 | 31.33 | 26.90 | 47.00 | -20.10 | QP |

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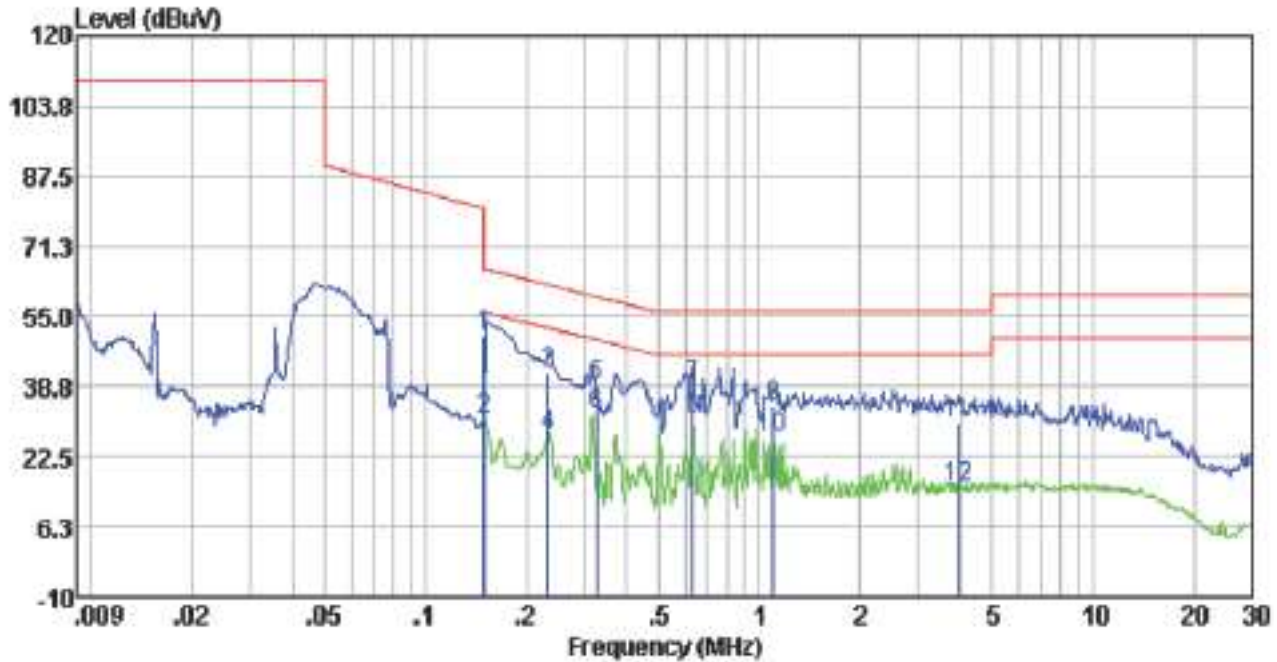
7.3 Conducted Emissions

| | | | |
|--|---|--------------|------------------|
| Test Requirement: | EN IEC 55015 | | |
| Test Method: | EN IEC 55015 | | |
| Test Frequency Range: | 9kHz to 30MHz | | |
| Limit: | Frequency range (MHz) | Limit (dBuV) | |
| | | Quasi-peak | Average |
| | 0.009-0.05 | 110 | - |
| | 0.05-0.15 | 90-80* | - |
| | 0.15-0.5 | 66 to 56* | 56 to 46* |
| | 0.5-5 | 56 | 46 |
| | 5-30 | 60 | 50 |
| * Decreases with the logarithm of the frequency. | | | |
| Test setup: |  <p><i>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</i></p> | | |
| Test procedure | <ol style="list-style-type: none"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to EN55022 Class B on conducted measurement. | | |
| Test Instruments: | Temp.: 25 C | Humid.: 50% | Press.: 1012mbar |
| Measurement Record: | Uncertainty: 3.45dB | | |
| Test Instruments: | Refer to section 6 for details | | |
| Test mode: | Refer to section 5.3 for details. | | |
| Test results: | Pass | | |



Measurement Data

| | | | |
|------------|---------|-------------------|------|
| Test mode: | On mode | Antenna Polarity: | Line |
|------------|---------|-------------------|------|

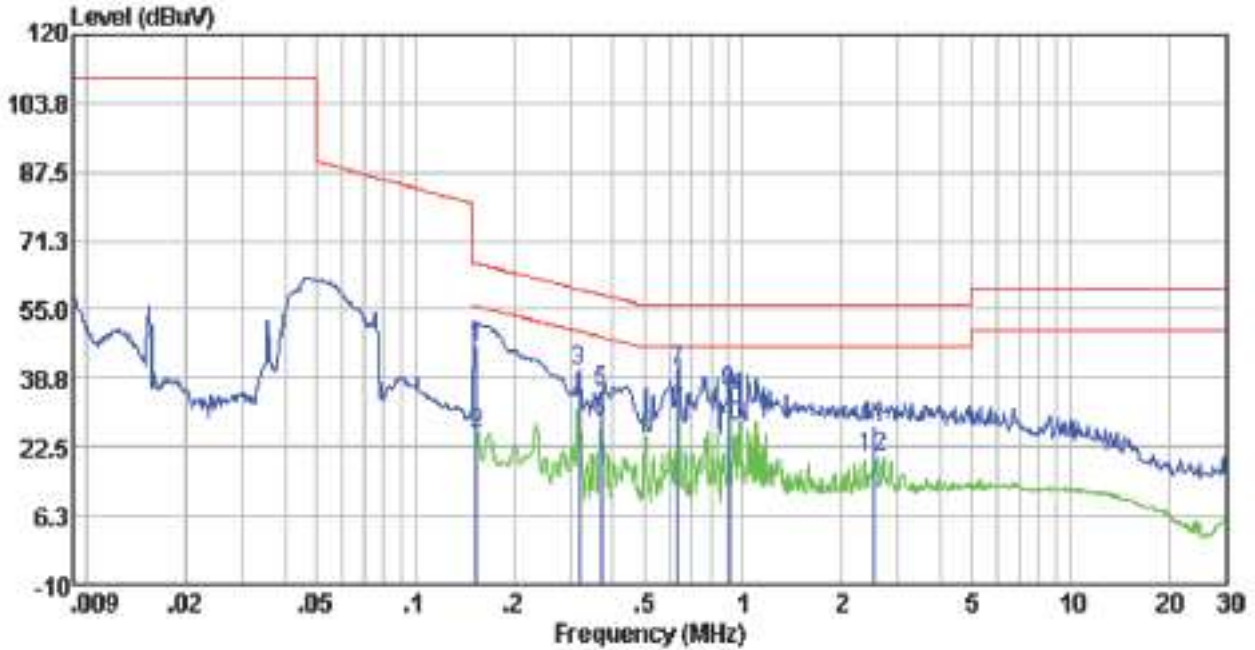


| Freq MHz | Reading level dBuV | LISN/ISN factor dB | Cable loss dB | Level dBuV | Limit level dBuV | Over limit dB | Remark |
|-------------|--------------------------|--------------------------|---------------------|---------------|------------------------|---------------------|---------|
| 0.15 | 40.02 | 10.40 | 0.10 | 50.52 | 66.00 | -15.48 | QP |
| 0.15 | 20.76 | 10.40 | 0.10 | 31.26 | 56.00 | -24.74 | Average |
| 0.23 | 31.20 | 10.40 | 0.10 | 41.70 | 62.35 | -20.65 | QP |
| 0.23 | 16.96 | 10.40 | 0.10 | 27.46 | 52.35 | -24.89 | Average |
| 0.33 | 28.68 | 10.39 | 0.10 | 39.17 | 59.57 | -20.40 | QP |
| 0.33 | 21.06 | 10.39 | 0.10 | 32.35 | 49.57 | -17.22 | Average |
| 0.63 | 28.53 | 10.28 | 0.10 | 38.91 | 56.00 | -17.09 | QP |
| 0.63 | 20.76 | 10.28 | 0.10 | 31.14 | 46.00 | -14.86 | Average |
| 1.11 | 23.93 | 10.20 | 0.10 | 34.23 | 56.00 | -21.77 | QP |
| 1.11 | 16.68 | 10.20 | 0.10 | 26.98 | 46.00 | -19.02 | Average |
| 3.94 | 20.03 | 10.20 | 0.10 | 30.33 | 56.00 | -25.67 | QP |
| 3.94 | 5.04 | 10.20 | 0.10 | 15.34 | 46.00 | -30.66 | Average |

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| | | | |
|------------|---------|-------------------|---------|
| Test mode: | On mode | Antenna Polarity: | Neutral |
|------------|---------|-------------------|---------|



| Freq MHz | Reading level dBuV | LISN/ISN factor dB | Cable loss dB | Level dBuV | Limit level dBuV | Over limit dB | Remark |
|-------------|--------------------------|--------------------------|---------------------|---------------|------------------------|---------------------|---------|
| 0.15 | 35.51 | 10.40 | 0.10 | 46.01 | 65.78 | -19.77 | QP |
| 0.15 | 15.17 | 10.40 | 0.10 | 25.67 | 55.78 | -30.11 | Average |
| 0.32 | 29.93 | 10.39 | 0.10 | 40.42 | 59.80 | -19.38 | QP |
| 0.32 | 21.89 | 10.39 | 0.10 | 32.38 | 49.80 | -17.42 | Average |
| 0.37 | 25.20 | 10.37 | 0.10 | 35.67 | 58.52 | -22.85 | QP |
| 0.37 | 17.86 | 10.37 | 0.10 | 28.33 | 48.52 | -20.19 | Average |
| 0.63 | 29.88 | 10.28 | 0.10 | 40.26 | 56.00 | -15.74 | QP |
| 0.63 | 20.85 | 10.28 | 0.10 | 31.23 | 46.00 | -14.77 | Average |
| 0.91 | 25.06 | 10.22 | 0.10 | 35.38 | 56.00 | -20.62 | QP |
| 0.91 | 17.04 | 10.22 | 0.10 | 27.36 | 46.00 | -18.64 | Average |
| 2.53 | 17.14 | 10.20 | 0.10 | 27.44 | 56.00 | -28.56 | QP |
| 2.53 | 10.01 | 10.20 | 0.10 | 20.31 | 46.00 | -25.69 | Average |

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7.4 Harmonics Current Emission

| | |
|-------------------|---|
| Test Requirement: | EN IEC 61000-3-2 |
| Test Method: | EN IEC 61000-3-2 |
| Frequency range: | 100Hz to 2kHz |
| Measurement Time: | 2.5 min |
| Class/Severity: | Class C |
| Detector: | As per EN 61000-3-2 |
| Test environment: | Temp.:24 C Humid.: 51% Press.: 1012mbar |
| Test Instruments: | Refer to section 6 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

7.5 Voltage Fluctuations and Flicker

| | |
|-------------------|---|
| Test Requirement: | EN 61000-3-3 |
| Test Method: | EN 61000-3-3 |
| Class/Severity: | Clause 5 of EN 61000-3-3 |
| Measurement Time: | 10 min |
| Detector: | As per EN 61000-3-3 |
| Test environment: | Temp.:24 C Humid.: 51% Press.: 1012mbar |
| Test Instruments: | Refer to section 6 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

Measurement Data

| | EUT values | Limit | Result |
|----------|------------|-------|--------|
| Pst | 0.036 | 1.00 | PASS |
| dc [%] | 0.000 | 3.30 | PASS |
| dmax [%] | 0.053 | 4.00 | PASS |
| dt [s] | 0.000 | 0.50 | PASS |



8 Immunity Test Results

8.1 Performance Criteria Description of EN 61547

| | |
|--------------|--|
| Criterion A: | During the test no change of the luminous intensity shall be observed and the regulating control, if any, shall operate during the test as intended. |
| Criterion B: | During the test the luminous intensity may change to any value. After the test the luminous intensity shall be restored to its initial value within 1 min. Regulating controls need not function during the test, but after the test the mode of the control shall be the same as before the test provided that during the test no mode changing commands were given. |
| Criterion C: | During and after the test any change of the luminous intensity is allowed and the lamp(s) may be extinguished. After the test, within 30 min, all functions shall return to normal if necessary by temporary interruption of the mains supply and/or operating the regulating control. |

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| | | | |
|--------------------------|--|-------------|------------------|
| | 4. Indirect discharge for vertical coupling plane At least 10 single discharges were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated. | | |
| Test environment: | Temp.: 24 C | Humid.: 51% | Press.: 1012mbar |
| Test mode: | Refer to section 5.3 for detail | | |
| Test Instruments: | Refer to section 6 for details | | |
| Test results: | Pass | | |

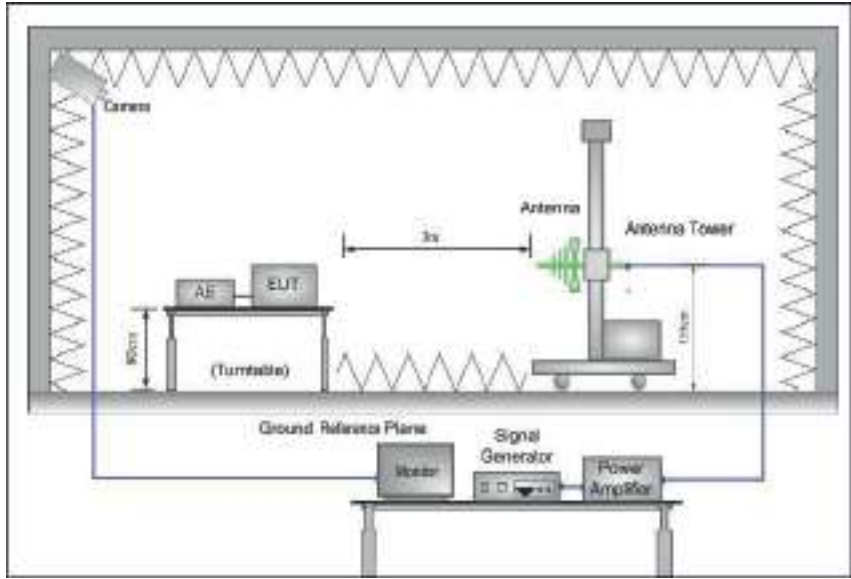
Measurement Record:

| | | | | |
|-------------------------------|--|--------------------|---|---------------|
| Test points: | I: Screw, Metal cover | | | |
| | II: Seams | | | |
| Direct discharge | | | | |
| Discharge Voltage (KV) | Type of discharge | Test points | Observations (Performance Criterion) | Result |
| 4 | Contact | I | A | Pass |
| 8 | Air | II | A | Pass |
| Indirect discharge | | | | |
| Discharge Voltage (KV) | Type of discharge | Test points | Observation Performance | Result |
| 4 | HCP-Bottom/Top/ Front/Back/Left/Right | Edge of the HCP | A | Pass |
| 4 | VCP-Front/Back /Left/Right | Center of the VCP | A | Pass |

Remark:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.3 Radiated Immunity

| | |
|-------------------------------|--|
| Test Requirement: | EN 61547 |
| Test Method: | EN 61000-4-3 |
| Frequency range: | 80MHz to 1GHz |
| Test Level: | 3V/m |
| Modulation: | 80%, 1kHz Amplitude Modulation |
| Performance Criterion: | A |
| Test setup: |  |
| Test Procedure: | <ol style="list-style-type: none"> 1. For table-top equipment, the EUT was placed in the chamber on a non-conductive table 0.8m high. For arrangement of floor-standing equipment, the EUT was mounted on a non-conductive support 0.1m above the supporting plane. For human body-mounted equipment, the EUT may be tested in the same manner as table top items. 2. If possible, a minimum of 1 m of cable is exposed to the electromagnetic field. Excess length of cables interconnecting units of the EUT shall be bundled low-inductively in the approximate center of the cable to form a bundle 30 cm to 40 cm in length. 3. The EUT was initially placed with one face coincident with the calibration plane. The EUT face being illuminated was contained within the UFA (Uniform Field Area). 4. The frequency ranges to be considered were swept with the signal modulated and pausing to adjust the RF signal level or to switch oscillators and antennas as necessary. Where the frequency range was swept incrementally, the step size was not exceed 1 % of the preceding frequency value. 5. The dwell time of the amplitude modulated carrier at each frequency was not be less than the time necessary for the EUT to be exercised and to respond, and was not less than 0,5 s. 6. The test normally was performed with the generating antenna facing |

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| | | | |
|--------------------------|---|-------------|------------------|
| | each side of the EUT. 7. The polarization of the field generated by each antenna necessitates testing each selected side twice, once with the antenna positioned vertically and again with the antenna positioned horizontally. 8. The EUT was performed in a configuration to actual installation conditions, a video camera and/or a audio monitor were used to monitor the performance of the EUT. | | |
| Test environment: | Temp.: 25 C | Humid.: 52% | Press.: 1012mbar |
| Test Instruments: | Refer to section 6 for details | | |
| Test mode: | Refer to section 5.3 for details | | |
| Test results: | Pass | | |

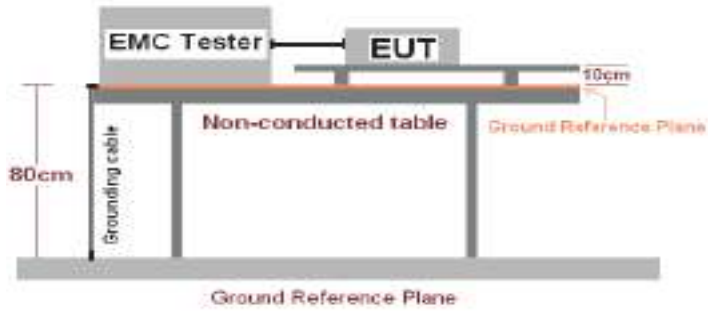
Measurement Record:

| Frequency | Level | Modulation | Antenna Polarization | EUT Face | Observations (Performance Criterion) |
|--------------|-------|---|----------------------|----------|---|
| 80 MHz-1 GHz | 3 V/m | 1 kHz, 80 % Amp. Mod, 1 % increment, dwell time=3seconds | V | Front | A |
| | | | H | | A |
| | | | V | Rear | A |
| | | | H | | A |
| | | | V | Left | A |
| | | | H | | A |
| | | | V | Right | A |
| | | | H | | A |
| | | | V | Top | A |
| | | | H | | A |
| | | | V | Bottom | A |
| | | | H | | A |

Remarks:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.4 Electrical fast transients

| | |
|-------------------------------|---|
| Test Requirement: | EN 61547 |
| Test Method: | EN 61000-4-4 |
| Test Level: | 1.0kV on AC port |
| Polarity: | Positive & Negative |
| Repetition Frequency: | 5kHz |
| Burst Duration: | 15ms |
| Burst Period: | 300ms |
| Test Duration: | 2 minute per level & polarity |
| Performance Criterion: | B |
| Test setup: |  |
| Test Procedure: | <ol style="list-style-type: none"> 1. The EUT and its simulators were placed on the ground reference plane and were insulated from it by a wood support 0.1m + 0.01m thick. 2. The ground reference plane was 1m*1m metallic sheet with 0.65mm minimum thickness. 3. This reference ground plane was project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane was more than 0.5m. All cables to the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables. 4. The EUT is connected to the power mains through a coupling device that directly couples the EFT/B interference signal. 5. Each of the Line and Neutral conductors is impressed with burst noise for 2 minutes. 6. The length of the signal and power lines between the coupling device and the EUT is 0.5m |
| Test environment: | Temp.: 26 C Humid.: 54% Press.: 1012mbar |
| Test Instruments: | Refer to section 6 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

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Measurement Record:

| Lead under Test | Level (kV) | Coupling Direct/Clamp | Observations (Performance Criterion) | Result |
|------------------------|-------------------|----------------------------------|---|---------------|
| L | 1.0 | Direct | A | Pass |
| N | 1.0 | Direct | A | Pass |
| L-N | 1.0 | Direct | A | Pass |

Remarks:

Performance Criteria: A, B, C: Refer to section 8.1 for details



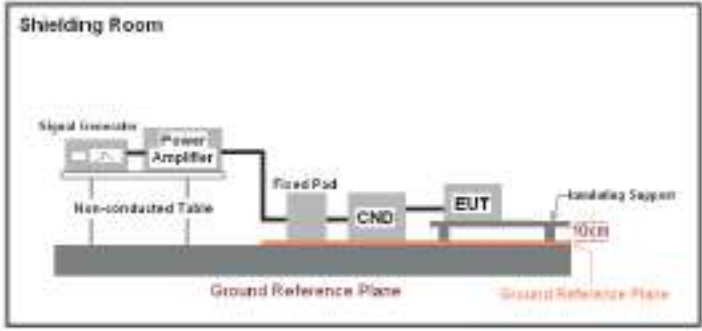
Measurement Record:

| Location | Level(kV) | Pulse No | Surge Interval | Phase(deg) | Observations (Performance Criterion) | Result |
|----------|-----------|----------|----------------|------------|---|--------|
| L-N | +0.5 | 5 | 60s | 90 | A | Pass |
| | -0.5 | | | 270 | | |

Remarks:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.6 Conducted Immunity

| | | | |
|-------------------------------|--|-------------|------------------|
| Test Requirement: | EN 61547 | | |
| Test Method: | EN 61000-4-6 | | |
| Frequency range: | 0.15MHz to 80MHz | | |
| Test Level: | 3V rms on AC Ports (unmodulated emf into 150) | | |
| Modulation: | 80%, 1kHz Amplitude Modulation | | |
| Performance Criterion: | A | | |
| Test setup: |  | | |
| Test Procedure: | <ol style="list-style-type: none"> 1. The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible). 2. The disturbance signal described below is injected to EUT through CDN. 3. The EUT operates within its operational mode(s) under intended climatic conditions after power on. 4. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion. | | |
| Test environment: | Temp.: 24 C | Humid.: 51% | Press.: 1012mbar |
| Test Instruments: | Refer to section 6 for details | | |
| Test mode: | Refer to section 5.3 for details | | |
| Test results: | Pass | | |



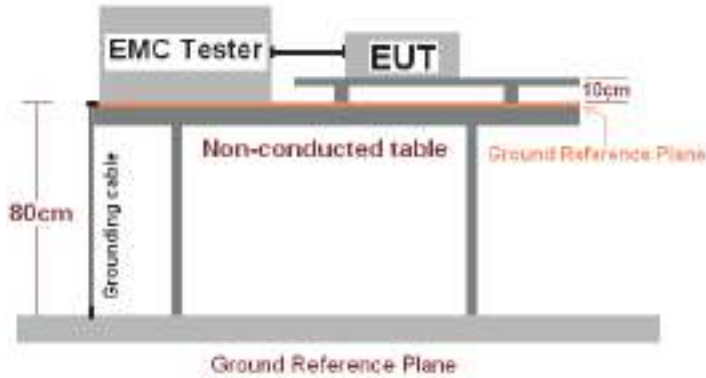
Measurement Record:

| Frequency | Injected Position | Level | Modulation | Observations (Performance Criterion) | Result |
|-----------------|-------------------|-------|---|--------------------------------------|--------|
| 150kHz to 80MHz | AC Mains | 3Vrms | 1 kHz, 80 % Amp. Mod, 1 % increment, dwell time=2seconds | A | Pass |

Remark:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.7 Voltage Dips and Interruptions

| | |
|-------------------------------------|--|
| Test Requirement: | EN 61547 |
| Test Method: | EN 61000-4-11 |
| Test Level: | 0% of U_T (Supply Voltage) for 0.5 Periods 70 % of U_T (Supply Voltage) for 10 Periods |
| No. of Dips / Interruptions: | 3 per Level |
| Performance Criterion: | 100% VD ----Performance criterion: B 30% VD ----Performance criterion: C |
| Test setup: |  |
| Test Procedure: | <ol style="list-style-type: none"> The EUT and test generator were setup as shown on above setup photo. The interruptions are introduced at selected phase angles with specified duration. Record any degradation of performance. |
| Test environment: | Temp.: 26 C Humid.: 53% Press.: 1 012mbar |
| Test Instruments: | Refer to section 6 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

Measurement Record:

| Test Level % U_T | Duration (Periods) | Phase angle | No. of drop out | Time between dropout | Observations (Performance Criterion) | Result |
|--------------------|--------------------|-----------------|-----------------|----------------------|--------------------------------------|--------|
| 0 | 0.5 | 0 ,90 ,180 ,270 | 3 | 10s | A | Pass |
| 70 | 10 | 0 ,90 ,180 ,270 | 3 | 10s | B | Pass |

Remark:

Performance Criteria: A, B, C: Refer to section 8.1 for details

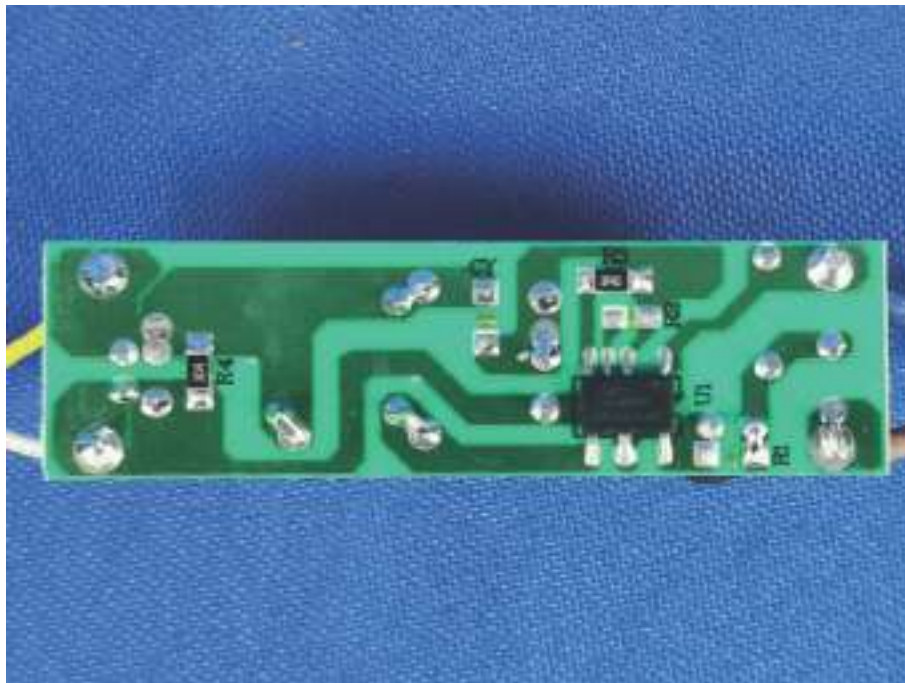
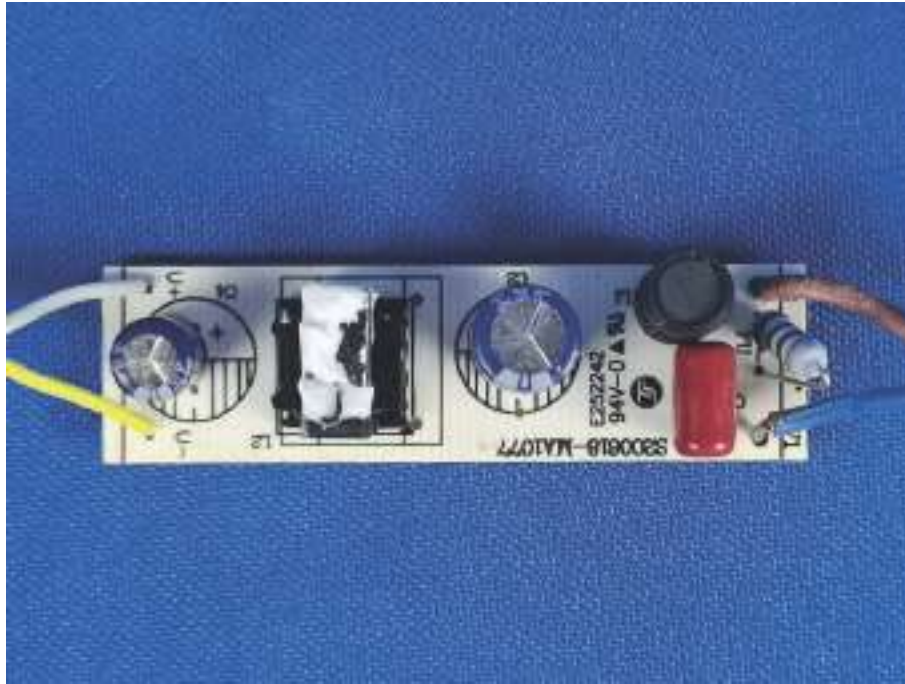
9 EUT Constructional Details



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