**Test Report issued under the responsibility of:**

# TEST REPORT
## IEC 62368-1
## Audio/video, information and communication technology equipment
## Part 1: Safety requirements

| | |
|---|---|
| **Report Number..... :** | SHES200400699504-M3 |
| Date of issue..... : | 2020-05-14; Amendment 1: 2021-11-01; Amendment 2: 2023-02-03; Amendment 3: 2023-04-18 |
| Total number of pages..... : | 21 pages |
| **Name of Testing Laboratory preparing the Report .....:** | SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. |
| **Applicant's name ..... :** | Hangzhou Hikvision Digital Technology Co., Ltd. |
| Address..... : | No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China. |
| **Test specification:** | |
| Standard ..... : | IEC 62368-1:2014 |
| Test procedure..... : | CB Scheme |
| Non-standard test method ..... : | N/A |
| **TRF template used..... :** | IECEE OD-2020-F1:2021, Ed.1.4 |
| **Test Report Form No. ..... :** | IEC62368_1D |
| Test Report Form(s) Originator ..... : | UL(US) |
| Master TRF..... : | Dated 2022-04-14 |



**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

**General disclaimer:**

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing Testing Laboratory.
The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

| | |
|---|---|
| Test Item description .....: | Tripod Turnstile |
| Trade Mark .....: | HIKVISION |
| Manufacturer.....: | Same as applicant |
| Model/Type reference .....: | See page 8 |
| Ratings .....: | 100 – 240 V a.c., 50/60 Hz, 1,44 – 0,6 A; Class I |

| | | | |
|---|---|---|---|
| **Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):** | | | |
| ☒ | **CB Testing Laboratory:** | SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. | |
| **Testing location/ address..... :** | | 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China. | |
| **Tested by (name, function, signature) ..... :** | | Emilien Li<br>Project engineer | |
| **Approved by (name, function, signature)..... :** | | Leo Wang<br>Reviewer | |
| ☐ | **Testing procedure: CTF Stage 1:** | | |
| **Testing location/ address..... :** | | | |
| **Tested by (name, function, signature) ..... :** | | | |
| **Approved by (name, function, signature)..... :** | | | |
| ☐ | **Testing procedure: CTF Stage 2:** | | |
| **Testing location/ address..... :** | | | |
| **Tested by (name, function, signature) ..... :** | | | |
| **Witnessed by (name, function, signature) ..... :** | | | |
| **Approved by (name, function, signature)..... :** | | | |
| ☐ | **Testing procedure: CTF Stage 3 :** | | |
| ☐ | **Testing procedure: CTF Stage 4:** | | |
| **Testing location/ address..... :** | | | |
| **Tested by (name, function, signature) ..... :** | | | |
| **Witnessed by (name, function, signature) ..... :** | | | |
| **Approved by (name, function, signature)..... :** | | | |
| **Supervised by (name, function, signature) ..... :** | | | |

**List of Attachments (including a total number of pages in each attachment):**

Attachment 1- 14 pages of photo information.

**Summary of testing:**

The sample(s) tested complies with the requirements of IEC 62368-1: 2014 (Second Edition) and EN 62368-1:2014+A11:2017.

Unless otherwise specified, the EUT with model DS-K3G501-R/M was selected as representative model for full testing.

Heating test (5.4.1.4):

Tma = 65°C (declared by manufacturer)

K-type thermocouple used for temperature measurement.

Tests performed (name of test and test clause):

☐ 4. General requirements
☐ 5. Electrically-caused injury
☐ 6. Electrically-caused fire
☐ 7. Injury caused by hazardous substances
☐ 8. Mechanically-caused injury
☒ 9. Thermal burn injury
☐10. Radiation
☐ Annex B. Normal operating condition tests, abnormal operating condition tests and single fault condition tests
☐ Annex F.3.9. Performance of Marking test
☐ Annex M Equipment containing batteries and their protection circuits
☐ Annex Q. Limited Power Source
☐ Annex T. Mechanical strength tests
☐ Annex V. Determination of accessible parts

**Testing location:**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

**Summary of compliance with National Differences:**

**List of countries addressed**

1. EU Group Differences (EN 62368-1:2014+A11:2017)
2. EU Special National Conditions, EU A-deviations: DE, DK, FI, GB, IE, NO, SE

Explanation of used codes: DE=Germany, DK=Denmark, FI=Finland, GB= United Kingdom, IE=Ireland, NO=Norway, SE=Sweden

The product fulfils the above requirements, which have been considered in original CB test report Ref. SHES200400699501, dated on 2020-05-14, SHES200400699501-M1, dated on 2021-11-01, SHES200400699501-M2, dated on 2023-02-03 and this report.

**Use of uncertainty of measurement for decisions on conformity (decision rule) :**

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty (“simple acceptance” decision rule, previously known as “accuracy method”).

☐ Other:… (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

**Information on uncertainty of measurement:**

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by

OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

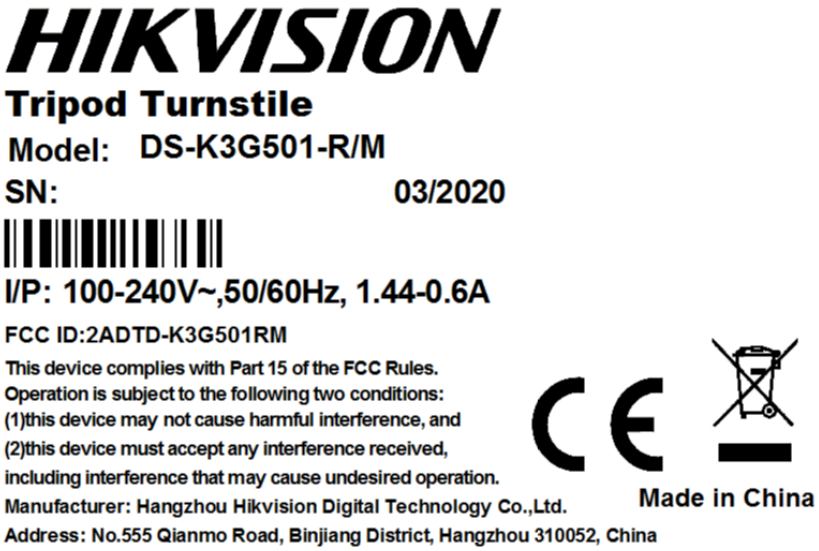
IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

**Copy of marking plate:**

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective National Certification Body that own these marks.

**Marking for DS-K3G501-R/M**




Remark:

1) The Height of CE logo shall not be less than 5 mm; Height of WEEE logo shall not be less than 7 mm.

2) The marking plates for other models are of the same pattern except for model name.

3) As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being placed on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.

| TEST ITEM PARTICULARS: | |
|---|---|
| **Classification of use by..... :** | ☒ Ordinary person<br>☒ Instructed person<br>☒ Skilled person<br>☒ Children likely to be present |
| **Supply Connection ..... :** | ☒ AC Mains ☐ DC Mains<br>☐ External Circuit - not Mains connected<br>- ☐ ES1 ☐ ES2 ☐ ES3 |
| **Supply % Tolerance ..... :** | ☒ +10%/-10%<br>☐ +20%/-15%<br>☐ +____%/ -_____%<br>☐ None |
| **Supply Connection – Type ..... :** | ☐ pluggable equipment type A -<br>☐ non-detachable supply cord<br>☒ appliance coupler<br>☐ direct plug-in<br>☐ mating connector<br>☐ pluggable equipment type B -<br>☐ non-detachable supply cord<br>☐ appliance coupler<br>☒ permanent connection<br>☐ mating connector ☐ other: Not directly connected to mains |
| **Considered current rating of protective device as part of building or equipment installation .....:** | ___20___ A;<br>Installation location: ☒ building; ☐ equipment |
| **Equipment mobility .....:** | ☐ movable ☐ hand-held ☐ transportable<br>☒ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted |
| **Over voltage category (OVC) .....:** | ☐ OVC I ☒ OVC II ☐ OVC III<br>☐ OVC IV ☐ other: Not directly connected to mains |
| **Class of equipment .....:** | ☒ Class I ☐ Class II ☐ Class III<br>☐ Class II with functional earthing<br>☐ Not classifed |
| **Access location .....:** | ☐ restricted access location ☒ N/A |
| **Pollution degree (PD) .....:** | ☐ PD 1 ☒ PD 2 ☐ PD 3 |
| **Manufacturer's specified maxium operating ambient.....:** | 65 °C |
| **IP protection class .....:** | ☒ IPX0 ☐ IP___ |
| **Power Systems .....:** | ☒ TN ☒ TT ☐ IT - ____ V L-L; ☐ dc mains<br>☐ N/A |
| **Altitude during operation (m) .....:** | ☒ 2000 m or less ☐ _____ m |
| **Altitude of test laboratory (m) .....:** | ☒ 2000 m or less ☐ 100 m |
| **Mass of equipment (kg) .....:** | ☒ 39,2kg |
| | |

| | |
|---|---|
| **Possible test case verdicts:** | |
| **- test case does not apply to the test object .....:** | N/A |
| **- test object does meet the requirement .....:** | P (Pass) |
| **- test object does not meet the requirement .....:** | F (Fail) |
| **Testing .....:** | |
| **Date of receipt of test item .....:** | 2023-04-10 |
| **Date (s) of performance of tests .....:** | 2023-04-10 to 2023-04-12 |

**GENERAL REMARKS:**

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

**Throughout this report a ☒ comma / ☐ point is used as the decimal separator.**

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:**

| | |
|---|---|
| The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... : | ☒ **Yes**<br>☐ **Not applicable**<br><br>**Factory declaration: Declaration letter-Tripod Turnstile.pdf, date on 2022-12-12** |

**When differences exist; they shall be identified in the General product information section.**

| | |
|---|---|
| **Name and address of factory (ies) .....:** | 1. Hangzhou Hikvision Technology Co., Ltd.<br>No. 700, Dongliu Road, Binjiang District, Hangzhou City, Zhejiang, 310052, China.<br>2. Hangzhou Hikvision Electronics Co., Ltd.<br>No. 299, Qiushi Road, Tonglu Economic Development Zone, Tonglu County, Hangzhou, Zhejiang, 311500, China.<br>3. Chongqing Hikvision technology Co., Ltd<br>No. 118, Haikang Road, Area C, Jianqiao Industrial Park, Dadukou District, Chongqing, 401325, China. |

**GENERAL PRODUCT INFORMATION:**

**Product Description –**

| | |
|---|---|
| Functions | The EUT is a Tripod Turnstile which power by 100-240Vac, maximum temperature 65°C. |
| Material of enclosure | Metal, Plastic |
| Model difference | All models are identical with each other except model name and screen printing. |

Model/Type reference:

| | | |
|---|---|---|
| DS-K3G501SX-R/E | DS-K3G501SX-R/M | DS-K3G501SX-R |
| DS-K3G501SX-RUHK | DS-K3G501SX-RCKV | DS-K3G501SX-RUVS |
| DS-K3G501SX-RKVO | DS-K3G501SX-RHUN | DS-K3G501SX-R/E 868 |
| DS-K3G501SX-R/M 868 | DS-K3G501SX-R 868 | DS-K3G501SX-RUHK 868 |
| DS-K3G501SX-RCKV 868 | DS-K3G501SX-RUVS 868 | DS-K3G501SX-RKVO 868 |
| DS-K3G501SX-RHUN 868 | DS-K3G501-R/E | DS-K3G501-R/M |
| DS-K3G501-R | DS-K3G501-RUHK | DS-K3G501- RCKV |
| DS-K3G501-RUVS | DS-K3G501-RKVO | DS-K3G501-RHUN |
| DS-K3G501-R/E 868 | DS-K3G501-R/M 868 | DS-K3G501-R 868 |
| DS-K3G501-RUHK 868 | DS-K3G501-RCKV 868 | DS-K3G501-RUVS 868 |
| DS-K3G501-RKVO 868 | DS-K3G501-RHUN 868 | -- |

**Amendment 1 Report:**

The original Test Report Ref. No. SHES200400699501, dated on 2020-05-14 was modified to include following changes and/or additions:

- Add new models, please see above table in boldface for details.

After comparison, no test was considered necessary.

**Amendment 2 Report:**

The original Test Report Ref. No. SHES200400699501, dated on 2020-05-14 and SHES200400699501-M1, dated on 2021-11-01 were modified to include following changes and/or additions:

- Add an power supply which reserved for powering the face recognition machine, and DC Fan. Detail see table 4.1.2 and attachment 1.

After comparison, test Cl B.2.5, 5.4.1.4, 6.3.2, 9.0, B.2.6, B.4, 5.4.9, 5.6.6.2, 5.7.2.2, 5.7.4, 8.5 were considered necessary.

**Amendment 3 Report:**

The original Test Report Ref. No. SHES200400699501, dated on 2020-05-14 and SHES200400699501-M1, dated on 2021-11-01, SHES200400699501-M2, dated on 2023-02-03 were modified to include following changes and/or additions:

- Add an alternative power supply. Detail see table 4.1.2 and attachment 1.

After comparison, test Cl B.2.5, 5.4.1.4, 6.3.2, 9.0, B.2.6, B.4, 5.4.9, 5.7.2.2, 5.7.4 were considered necessary.

This test report is not valid without the original CB Test Report Ref. SHES200400699501, dated on 2020-05-14, SHES200400699501-M1, dated on 2021-11-01 and SHES200400699501-M2, dated on 2023-02-03.

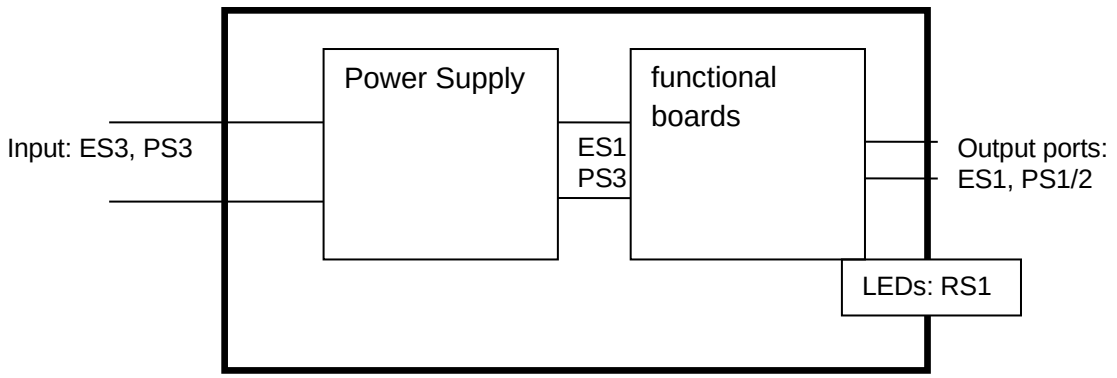
**Additional application considerations – (Considerations used to test a component or sub-assembly) –**

N/A

| ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE: | |
|---|---|
| (Note 1: Identify the following six (6) energy source forms based on the origin of the energy.)<br>(Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3. | |
| **Electrically-caused injury (Clause 5):**<br>(Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification)<br>Example: +5 V dc input ES1 | |
| **Source of electrical energy** | **Corresponding classification (ES)** |
| Internal Power Supply primary circuits | ES3 |
| other internal circuits | ES1 |
| Enclosure | ES1 |
| **Electrically-caused fire (Clause 6):**<br>(Note: List sub-assembly or circuit designation and corresponding energy source classification)<br>Example: Battery pack (maximum 85 watts): PS2 | |
| **Source of power or PIS** | **Corresponding classification (PS)** |
| Power input | PS3 |
| All internal circuits | PS3 |
| Signal ports | PS1/2 |
| **Injury caused by hazardous substances (Clause 7)**<br>(Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.)<br>Example: Liquid in filled component Glycol | |
| **Source of hazardous substances** | **Corresponding chemical** |
| -- | -- |
| **Mechanically-caused injury (Clause 8)**<br>(Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.)<br>Example: Wall mount unit MS2 | |
| **Source of kinetic/mechanical energy** | **Corresponding classification (MS)** |
| Sharp edges and corners | MS1 |
| Equipment mass | MS3 |
| Fan | MS1 |
| **Thermal burn injury (Clause 9)**<br>(Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.)<br>Example: Hand-held scanner – thermoplastic enclosure TS1 | |
| **Source of thermal energy** | **Corresponding classification (TS)** |
| Accessible parts | TS1 |
| **Radiation (Clause 10)**<br>(Note: List the types of radiation present in the product and the corresponding energy source classification.)<br>Example: DVD – Class 1 Laser Product RS1 | |
| **Type of radiation** | **Corresponding classification (RS)** |
| LEDs | RS1 |
| | |

**ENERGY SOURCE DIAGRAM**

Indicate which energy sources are included in the energy source diagram. Insert diagram below




Enclosure: ES1, MS1, TS1
Mass: MS3;

■ **ES** ■ **PS** ■ **MS** ■ **TS** ■ **RS**

| **OVERVIEW OF EMPLOYED SAFEGUARDS** | | | | |
|---|---|---|---|---|
| **Clause** | **Possible Hazard** | | | |
| 5.1 | Electrically-caused injury | | | |
| Body Part (e.g. Ordinary) | Energy Source (ES3: Primary Filter circuit) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| Ordinary person (metal enclosure) | ES3: Power Supply primary circuits | Basic Insulation | Protective Earthing | - |
| Ordinary person (secondary accessible ports) | ES3: Power Supply primary circuits | Basic Insulation | Supplementary Insulation | - |
| 6.1 | Electrically-caused fire | | | |
| Material part (e.g. mouse enclosure) | Energy Source (PS2: 100 Watt circuit) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| Internal combustible materials | PS3: Internal circuits | 1. No ignition occurred.<br>2. No parts exceeding 90% of its spontaneous ignition temperature.<br>3. combustible material outside fire enclosure is of min HB | 1. PCB is of min V-1 material<br>2. All other components were mounted on min V-1 PCB or of min V-2 or small parts of combustible material less than 4g.<br>3. Fire enclosure provided | N/A |
| 7.1 | Injury caused by hazardous substances | | | |
| Body Part (e.g., skilled) | Energy Source (hazardous material) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| N/A | N/A | N/A | N/A | N/A |
| 8.1 | Mechanically-caused injury | | | |
| Body Part (e.g. Ordinary) | Energy Source (MS3:High Pressure Lamp) | Safeguards | | |
| | | Basic | Supplementary | Reinforced (Enclosure) |
| Ordinary person | MS1: Sharp edges and corners | N/A | N/A | N/A |
| Ordinary person | MS3: Equipment mass | N/A | N/A | The product is fixed on the ground |
| 9.1 | Thermal Burn | | | |
| Body Part (e.g., Ordinary) | Energy Source (TS2) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |

| | | | | |
|---|---|---|---|---|
| Ordinary person | TS1: Accessible parts | N/A | N/A | N/A |
| 10.1 | Radiation | | | |
| Body Part (e.g., Ordinary) | Energy Source (Output from audio port) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| Ordinary person | RS1: LEDs | N/A | N/A | N/A |
| Supplementary Information:<br>(1) See attached energy source diagram for additional details.<br>(2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault | | | | |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.4 | Insulation materials and requirements | | P |
| 5.4.1.2 | Properties of insulating material | | P |
| 5.4.1.3 | Humidity conditioning .....: | approved internal power supply | P |
| 5.4.1.4 | Maximum operating temperature for insulating materials .....: | | P |
| 5.4.2 | Clearances | | P |
| 5.4.2.2 | Determining clearance using peak working voltage | (See appended table 5.4.2.2) | P |
| 5.4.2.3 | Determining clearance using required withstand voltage .....: | (See appended table 5.4.2.3) | P |
| | a) a.c. mains transient voltage.....: | 2500 | — |
| | b) d.c. mains transient voltage .....: | | — |
| | c) external circuit transient voltage .....: | | — |
| | d) transient voltage determined by measurement : | | — |
| 5.4.2.4 | Determining the adequacy of a clearance using an electric strength test | (See appended table 5.4.2.4) | N/A |
| 5.4.2.5 | Multiplication factors for clearances and test voltages .....: | | N/A |
| 5.4.3 | Creepage distances .....: | (See appended table 5.4.3) | P |
| 5.4.9 | Electric strength test.....: | (See appended table 5.4.9) | P |
| 5.4.9.1 | Test procedure for a solid insulation type test | | N/A |
| 5.4.9.2 | Test procedure for routine tests | | N/A |
| 5.6 | Protective conductor | | P |
| 5.6.2 | Requirement for protective conductors | | P |
| 5.6.2.1 | General requirements | | P |
| 5.6.2.2 | Colour of insulation | | P |
| 5.6.3 | Requirement for protective earthing conductors | | P |
| | Protective earthing conductor size ($mm^2$) ..... : | min. 0,75 | — |
| 5.6.4 | Requirement for protective bonding conductors | | P |
| 5.6.4.1 | Protective bonding conductors | | P |
| | Protective bonding conductor size ($mm^2$). ..... : | min. 0,75 | — |
| | Protective current rating (A) ..... : | <25A | — |
| 5.6.4.3 | Current limiting and overcurrent protective devices | | P |
| 5.6.5 | Terminals for protective conductors | | P |
| 5.6.5.1 | Requirement | | P |
| | Conductor size ($mm^2$), nominal thread diameter (mm). ..... : | min. 0,75$mm^2$, min. 3,5mm | P |
| 5.6.5.2 | Corrosion | | P |
| 5.6.6 | Resistance of the protective system | | P |
| 5.6.6.1 | Requirements | | P |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.6.6.2 | Test Method Resistance (Ω)..... : | (See appended table 5.6.6.2) | P |
| 5.6.7 | Reliable earthing | | N/A |
| 5.7 | Prospective touch voltage, touch current and protective conductor current | | P |
| 5.7.2 | Measuring devices and networks | | P |
| 5.7.2.1 | Measurement of touch current..... : | (See appended table 5.7.4) | P |
| 5.7.2.2 | Measurement of prospective touch voltage | | P |
| 5.7.3 | Equipment set-up, supply connections and earth connections | | P |
| | System of interconnected equipment (separate connections/single connection) ..... : | | — |
| | Multiple connections to mains (one connection at a time/simultaneous connections) ..... : | | — |
| 5.7.4 | Earthed conductive accessible parts..... : | (See appended Table 5.7.4) | P |
| **B** | **NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS** | | P |
| B.2 | Normal Operating Conditions | | P |
| B.2.1 | General requirements..... : | (See Test Item Particulars and appended test tables) | P |
| | Audio Amplifiers and equipment with audio amplifiers ..... : | No such part. | N/A |
| B.2.3 | Supply voltage and tolerances | | P |
| B.2.5 | Input test..... : | (See appended table B.2.5) | P |
| B.4 | Simulated single fault conditions | | P |
| B.4.2 | Temperature controlling device open or short-circuited ..... : | (See appended table B.4) | N/A |
| B.4.3 | Motor tests | | P |
| B.4.3.1 | Motor blocked or rotor locked increasing the internal ambient temperature ..... : | (See Clause G.5) | P |
| B.4.4 | Short circuit of functional insulation | | N/A |
| B.4.4.1 | Short circuit of clearances for functional insulation | | N/A |
| B.4.4.2 | Short circuit of creepage distances for functional insulation | | N/A |
| B.4.4.3 | Short circuit of functional insulation on coated printed boards | | N/A |
| B.4.5 | Short circuit and interruption of electrodes in tubes and semiconductors | | N/A |
| B.4.6 | Short circuit or disconnect of passive components | | P |
| B.4.7 | Continuous operation of components | | N/A |
| B.4.8 | Class 1 and Class 2 energy sources within limits during and after single fault conditions | | P |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| B.4.9 | Battery charging under single fault conditions ... : | (See Annex M) | P |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 4.1.2 | TABLE: List of critical components | | | | P |
|---|---|---|---|---|---|
| Object / part No. | Manufacturer/ trademark | Type / model | Technical data | Standard | Mark(s) of conformity[1] |
| Metal enclosure | Interchangeable | Interchangeable | Min. thickness:1,5mm | IEC/EN 62368-1 | Test with appliance |
| Plastic enclosure | Covestro Deutschland AG [PC Resins] | FR3010 | 5VA, 3,2mm,85°C | UL94 | UL E41613 |
| Plastic enclosure K3B501-light-Fixed part | SABIC | LUX7630C(f1)(gg*) | 5VA, 3mm, 120°C | UL94 | UL E207780 |
| Plastic enclosure Face RECG P2-Main Components 2-BK-HJ-EN | SABIC | LUX7630C(f1)(gg*) | V-0, 1,5 mm, 120°C | UL94 | UL E207780 |
| PCB | HUIZHOU CHINA EAGLE ELECTRONIC TECHNOLOGY CO LTD | CA-F121 | V-0,130°C | UL796 | UL E198681 |
| Alternative | GUANGZHOU FAST-PRINT CIRCUIT TECHNOLOGY CO LTD | M11 | V-0,130°C | UL796 | UL E204460 |
| Alternative | WENZHOU OULONG ELECTRIC CO LTD | OL-D | V-0,130°C | UL796 | UL E231017 |
| Alternative | WENZHOU GALAXY ELECTRONICS CO LTD | 01V0 | V-0,130°C | UL796 | UL E157634 |
| Alternative | SHENZHEN KINWONG ELECTRONIC CO LTD | 8B | V-0,130°C | UL796 | UL E243951 |
| Alternative | SHENZHEN XUNJIEXING CIRCUIT TECH CO LTD | JX02 | V-0,130°C | UL796 | UL E305654 |
| Alternative | VICTORY GIANT TECHNOLOGY (HUIZHOU) CO LTD | SH | V-0,130°C | UL796 | UL E248779 |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Alternative | WENZHOU GALAXY ELECTRONICS CO LTD | 01V0 | V-0,130°C | UL796 | UL E157634 |
| Alternative | SUZHOU CIRCUIT ELECTRONIC CO LTD | HLH-2 | V-0,130°C | UL796 | UL E214229 |
| Alternative | Interchangeable | Interchangeable | Min V-1,130°C | UL796 | UL |
| Polymeric Thermistors-RPT2, RPT1 | CYG Wayon Circuit Protection Co., Ltd | LP-MSM010 | 0,1A, 60V | EN 62319-1: 2005 EN 62319-1-1: 2005 | TUV R 50318402 |
| Polymeric Thermistors-R44 | CYG Wayon Circuit Protection Co., Ltd | LP-MSM150 | 1,5A, 24V | EN 62319-1:2005 EN 62319-1-1:2005 | TUV Rh 50318402 |
| Polymer PTC Thermistor for Current Limiting-R1 | Shanghai Changyuan Wayon Circuit Protection Co.,Ltd | LP30-250F | 2,5A, 30V | Annex J of EN 60730-1:2000+A1+A2+ A12-A16 | TUV Rh J50184540 |
| Kaltleiter-R45 | Shenzhen Jinke Special Materials Co.,Ltd | JK30-185 | 30V, 40A | EN 60738-1:2006+A1 EN 60738-1-1:2008 | TUV R50243478 |
| Kaltleiter-R50 | Shenzhen Jinke Special Materials Co.,Ltd | JK30-110 | 1,1A, 30V | EN 60738-1:2006+A1 EN 60738-1-1:2008 | TUV R50243478 |
| Lithium Batteries-J28 | SEIKO INSTRUMENTS INC MICRO-ENERGY DIV | MS621FE | Max Charging Current: 300mA, Max Charging Voltage: 3,4Vdc | UL1642 | UL MH15628 |
| DC Fan | Sunonwealth Electric Machine Industry Co.,Ltd | EE80251B3-000C-A99 | DC12V, 1,1W, 33CFM | EN 62368-1:2014/A11:2017 | TUV R 50007213 |
| Alternative | Dongguan Protechnic Electric Co., Ltd. | MGA8012KB-O25 | DC12V, 0,088A, 35,75CFM | EN 62368-1:2014/A11:2017 | TUV R 50007213 |
| Low voltage electrical accessories | zhejiang Chint Electrics Co.,Ltd. | NB1L | 240VAC(1P+N) , 0,03A | EN 61543 | Intertek SH 12021093-V1 |
| Switching Power Supply | Mean Well Enterprises Co.,Ltd | LRS-100-24 | Input:100-240Vac,50/60Hz, 1,9A Max; Output:24V/4,5A,108W Max | IEC 62368-1:2014 | TUV Rh CB Cert: JPTUV-098884; CB report: 50261876 001 |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Alternative Power Supply | DELTA ELECTRONICS( THAILAND) INC | PMC-12V100W1AJ | Input:AC100-240~, 50-60Hz, DC125-250V, 2,8A MAX; Output:12Vdc,8,34 A. maxoutputpower100W | IEC 62368-1:2014 | TUV Rh CB Cert: JPTUV-098737; CB report: 50274240001 |
| Switching Power Supply for face recognition machine | DELTA ELECTRONICS INC | PMT-12V50W1AA | Input:AC100-240~, 50-60Hz, 1,5A; Output:12Vdc,4,2A. Maxoutputpower: 50W | IEC62368-1:2018 | UL CB Cert: DK-132409-UL; Report: E131881-A6848-CB-1 |
| **Alternative Switching Power Supply for face recognition machine** | **DELTA ELECTRONICS INC** | **PMT-24V100W2BA** | **Input:AC100-240~, 50-60Hz, 2,3A; Output: 24Vd.c.,4,05A(For 100V-114V) 24Vd.c.,4,5A(For 115V-240V)** | **IEC 62368-1:2014** | **TUV Rh CB Cert: JPTUV-132911; CB report: CN227P38001** |

Supplementary information:

[1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.

[2)] Description line content is optional. Main line description needs to clearly detail the component used for testing

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| **5.4.1.4, 6.3.2, 9.0, B.2.6** | **TABLE: Temperature measurements** | | | | | | P |
|---|---|---|---|---|---|---|---|
| | Supply voltage (V) ..... : | 90V/ 60Hz | 264V/ 50Hz | -- | -- | -- | — |
| | Ambient $T_{min}$ (°C) ..... : | 25,0 | 25,0 | -- | -- | -- | — |
| | Ambient $T_{max}$ (°C) ..... : | 25,0 | 25,0 | -- | -- | -- | — |
| | Tma (°C) ..... : | 65,0 | 65,0 | -- | -- | -- | — |
| Maximum measured temperature T of part/at: | | T (°C) | | | | | Allowed $T_{max}$ (°C) |
| EUT with power supply model PMT-24V100W2BA | | | | | | | |
| T1 coil | | 82,4 | 84,7 | -- | -- | -- | 110 |
| T1 core | | 83,9 | 86,1 | -- | -- | -- | 110 |
| CN1 L Pin | | 76,2 | 78,5 | -- | -- | -- | 105 |
| FL1 coil | | 77,6 | 79,6 | -- | -- | -- | 130 |
| CX1 near FL2 | | 78,9 | 80,6 | -- | -- | -- | 105 |
| PCB under BD1 | | 77,2 | 80,8 | -- | -- | -- | 130 |
| C32 near T1 | | 78,8 | 81,1 | -- | -- | -- | 130 |
| IC51 | | 77,9 | 80,2 | -- | -- | -- | 110 |
| L1 coil | | 73,0 | 76,0 | -- | -- | -- | 130 |
| PWB near BD1 | | 73,0 | 76,8 | -- | -- | -- | 130 |
| C1 body | | 73,2 | 76,9 | -- | -- | -- | 105 |
| C31 near T1 | | 74,6 | 77,2 | -- | -- | -- | 105 |
| IC33 body | | 74,4 | 77 | -- | -- | -- | 105 |
| L101 coil | | 73,8 | 76,3 | -- | -- | -- | 130 |
| PWB under Q1 | | 74,0 | 77,4 | -- | -- | -- | 130 |
| PWB under FB101 | | 74,3 | 76,8 | -- | -- | -- | 130 |
| PCB near UA1(18044 V1.1) | | 75,4 | 77,5 | -- | -- | -- | 130 |
| PCB(DS-18913(V2.0)) near U3 | | 74,6 | 77,8 | -- | -- | -- | 130 |
| RTC battery | | 71,5 | 74,8 | -- | -- | -- | Ref. |
| Internal plastic enclosure near light | | 68,8 | 72,5 | -- | -- | -- | 85 |
| External plastic enclosure near light* | | 28,6 | 31,9 | -- | -- | -- | 77 |
| Enclsoure metal near power supply* | | 28,2 | 31,6 | -- | -- | -- | 70 |

Supplementary information:

| Temperature T of winding: | $t_1$ (°C) | $R_1$ (Ω) | $t_2$ (°C) | $R_2$ (Ω) | T (°C) | Allowed $T_{max}$ (°C) | Insulation class |
|---|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | -- | -- |

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

Supplementary information:
Note 1: Tma should be considered as directed by appliable requirement
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)
* The test results of touchable surface temperature were considered base on ambient temperature 25°C.
Other temperture point list in this table has shifted to Tma 65°C
The limit of building-in power supply was refer to the CB report of power supply.

| **5.4.9** | **TABLE: Electric strength tests** | | **P** |
|---|---|---|---|
| Test voltage applied between: | Voltage shape (AC, DC) | Test voltage (V) | Breakdown Yes / No |
| Functional: | | | |
| -- | -- | -- | -- |
| Basic/supplementary: | | | |
| L/N -metal enclosure | DC | 2500 | No |
| Reinforced: | | | |
| L/N -Plastic enclosure | DC | 4000 | No |
| L/N - Secondary output | DC | 4000 | No |
| Routine Tests: | | | |
| -- | -- | -- | -- |
| Supplementary information: | | | |

| **5.7.2.2, 5.7.4** | **TABLE: Earthed accessible conductive part** | P |
|---|---|---|
| Supply voltage .....: | 264V | — |
| Location | Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7 | Touch current (mA) |
| Earthing Pin | 1 | 0,542[1)] |
| | 2* | - |
| | 3 | - |
| | 4 | - |
| | 5 | - |
| | 6 | - |
| | 8 | - |

Supplementary Information:
Notes:
[1] Supply voltage is the anticipated maximum Touch Voltage
[2] Earthed neutral conductor [Voltage differences less than 1% or more]
[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3

| IEC 62368-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

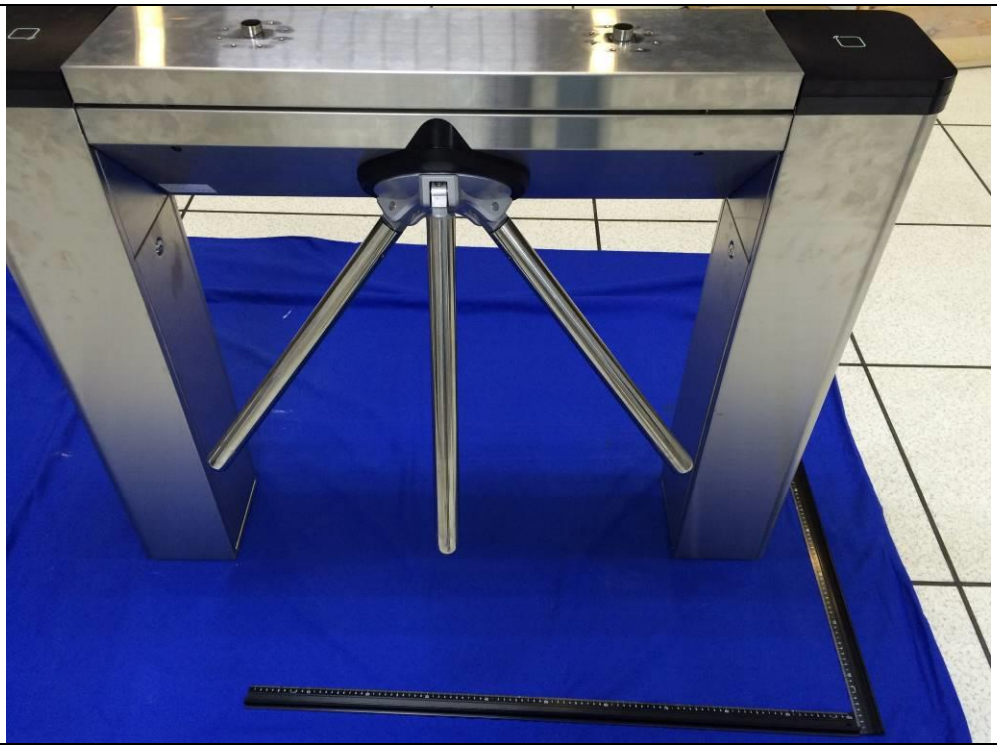
1) Worst case of normal and reverse condition.

| B.4 | TABLE: Fault condition tests | | | | | | | | P |
|---|---|---|---|---|---|---|---|---|---|
| Ambient temperature (°C) .....: | | | | 25°C if not specified | | | | | — |
| Power source for EUT: Manufacturer, model/type, output rating .: | | | | -- | | | | | — |
| Component No. | Fault Condition | Supply voltage, (V) | Test time (ms) | Fuse no. | Fuse current, (A) | T-couple | Temp. (°C) | Observation | |
| DC Fan | locked | 90 | 3h | F1 | 0,56 | K | T1 coil: 39,7°C, T1 core: 41,4°C; Metal enclosure : 26,6°C; Ambient: 24,1°C | EUT work normally. No damage, no hazard | |
| Supplementary information:<br>Sc=Short circuit; Ol=Over load. | | | | | | | | | |

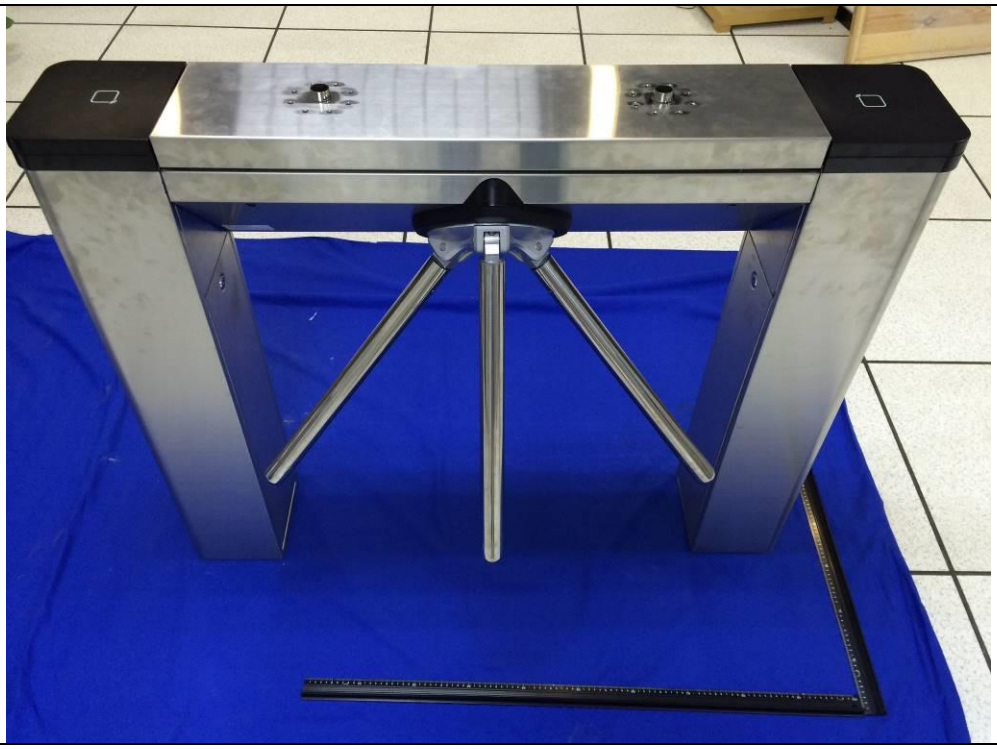
| B.2.5 | TABLE: Input test | | | | | | P |
|---|---|---|---|---|---|---|---|
| U (V) | I (A) | I rated (A) | P (W) | P rated (W) | Fuse No | I fuse (A) | Condition/status |
| 90V 50Hz | 0,57 | -- | 33,89 | -- | F1 | 0,57 | Normal operated condition, |
| 100V 50Hz | 0,53 | 1,44 | 33,94 | -- | F1 | 0,53 | Normal operated condition, |
| 240V 50Hz | 0,27 | 0,60 | 31,79 | -- | F1 | 0,27 | Normal operated condition, |
| 264V 50Hz | 0,24 | -- | 31,36 | -- | F1 | 0,24 | Normal operated condition, |
| 90V 60Hz | 0,56 | -- | 33,96 | -- | F1 | 0,56 | Normal operated condition, |
| 100V 60Hz | 0,49 | 1,44 | 33,39 | -- | F1 | 0,49 | Normal operated condition, |
| 240V 60Hz | 0,26 | 0,60 | 32,07 | -- | F1 | 0,26 | Normal operated condition, |
| 264V 60Hz | 0,25 | -- | 32,70 | -- | F1 | 0,25 | Normal operated condition. |
| Supplementary information:<br>Equipment may be have rated current or rated power or both. Both should be measured. | | | | | | | |

*** End of Test report ***

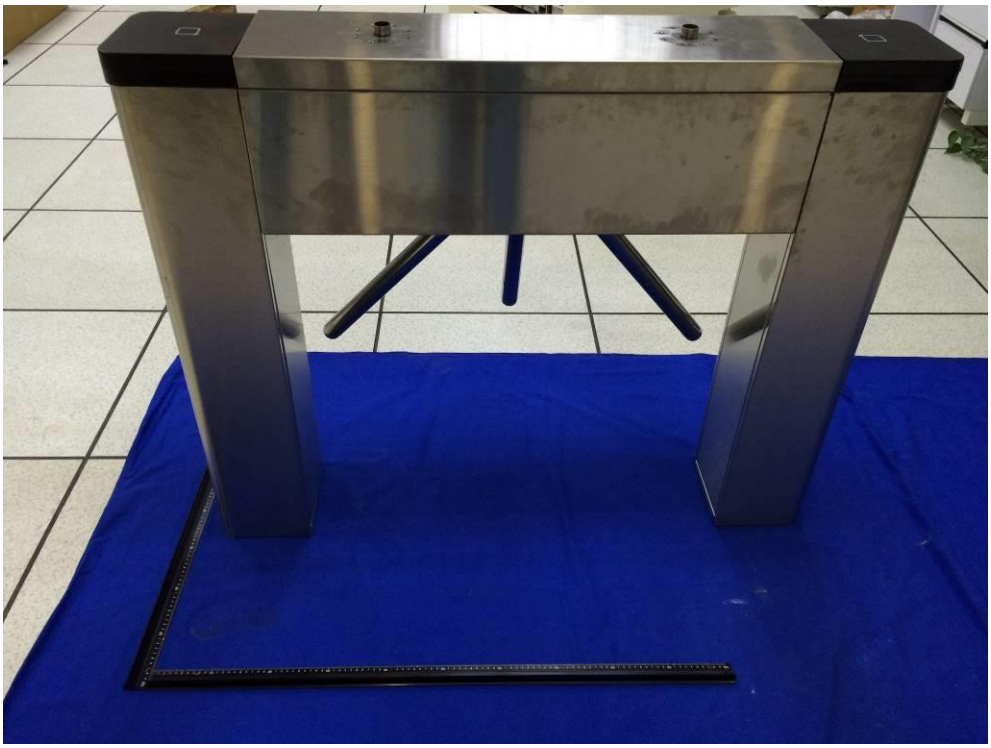
Details of: General view



Details of: General view

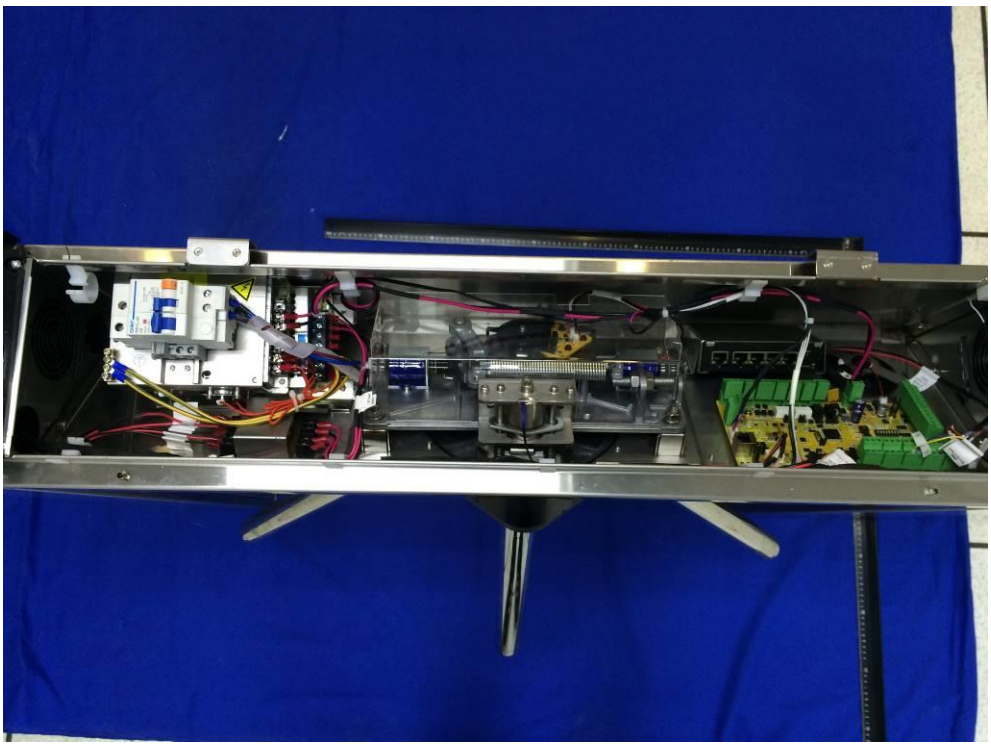


Details of: General view

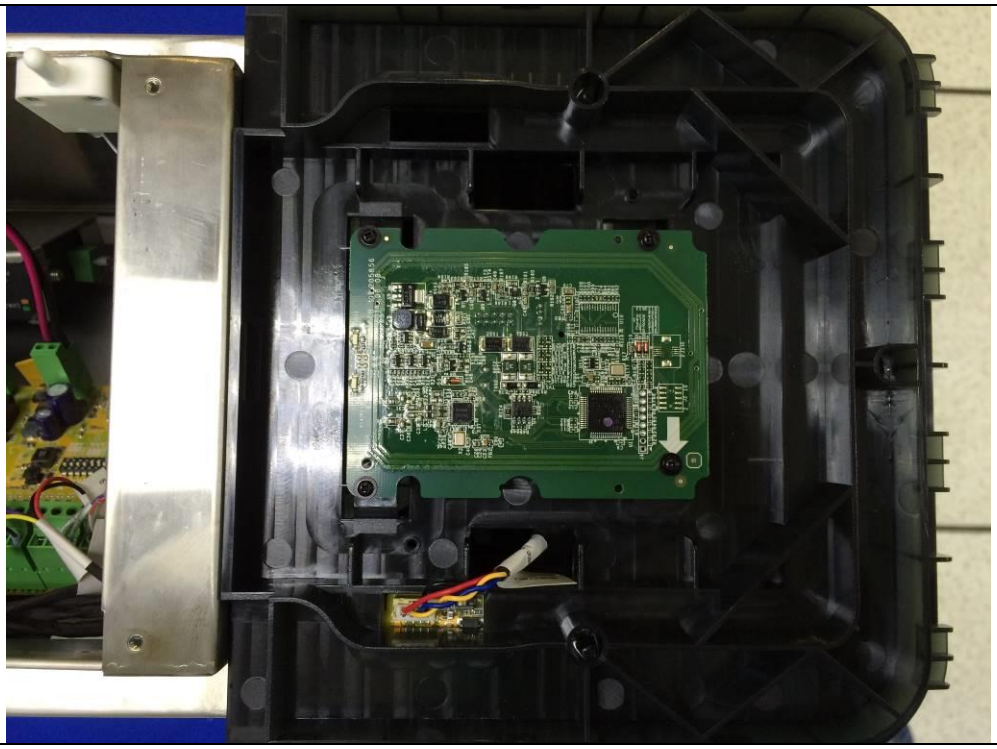


Details of: General view

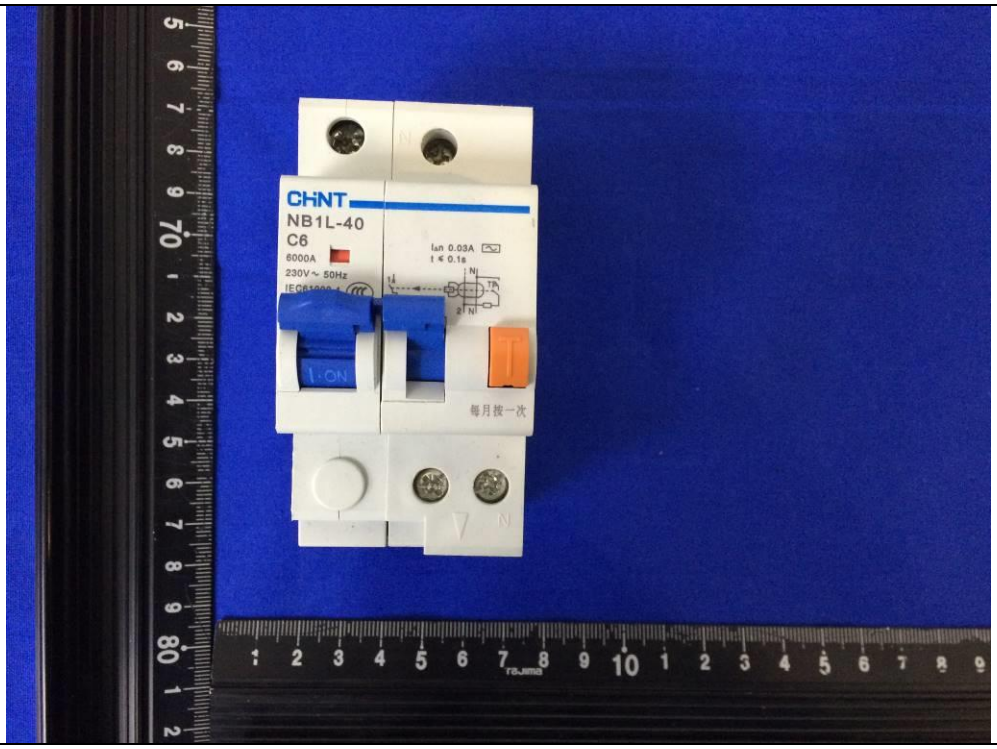
Details of: Internal view



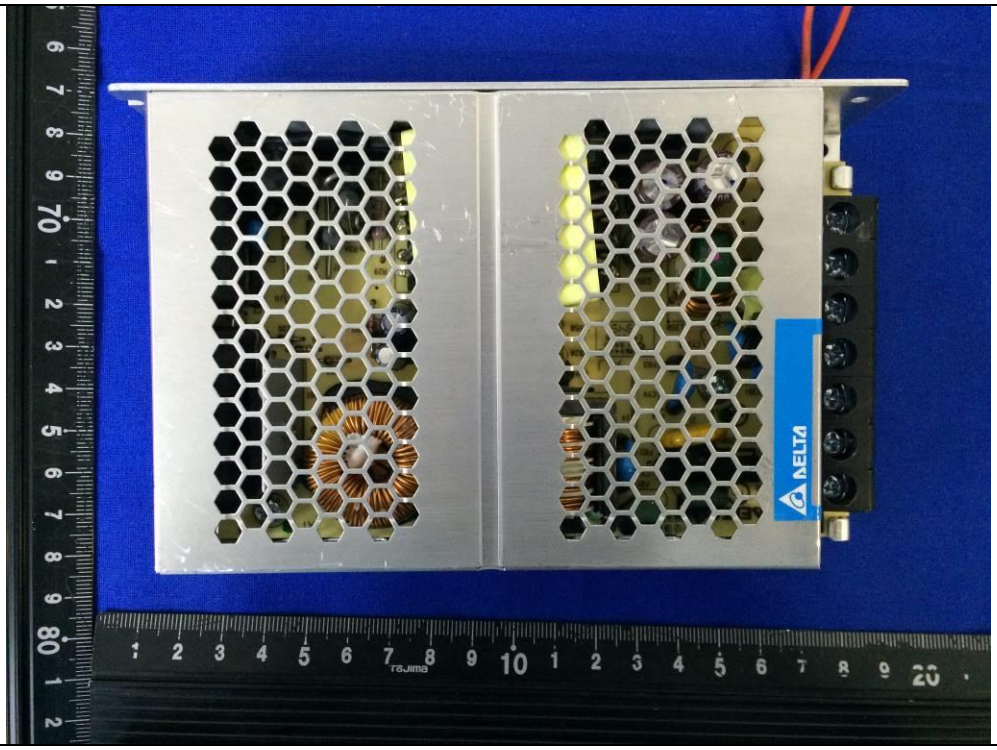
Details of: Internal view



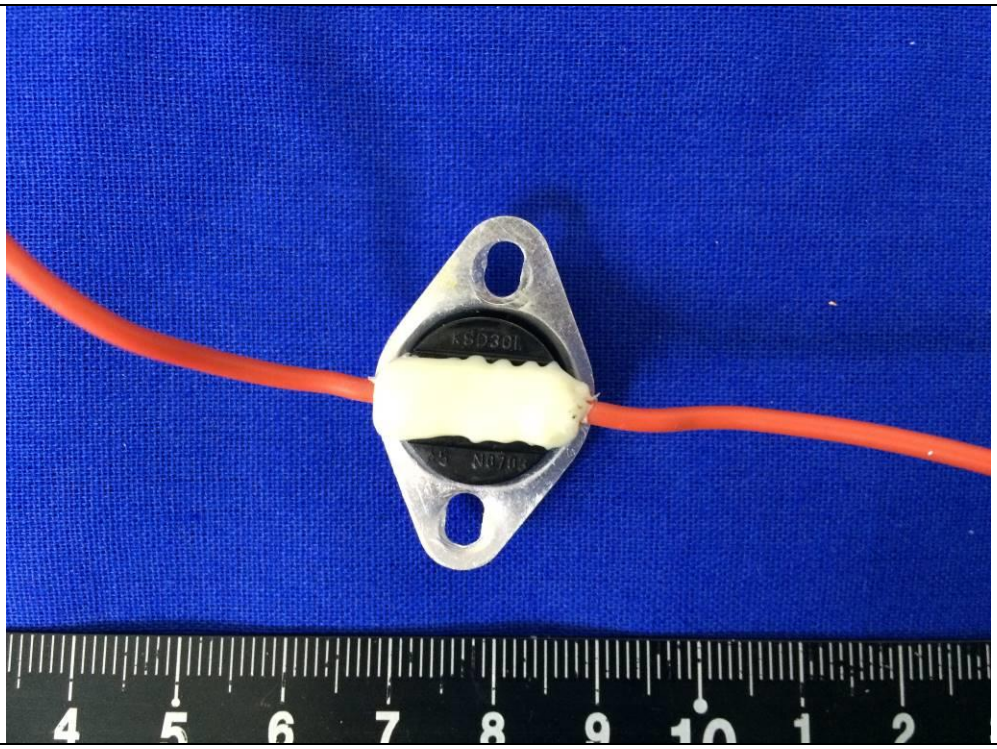
Details of: Switch



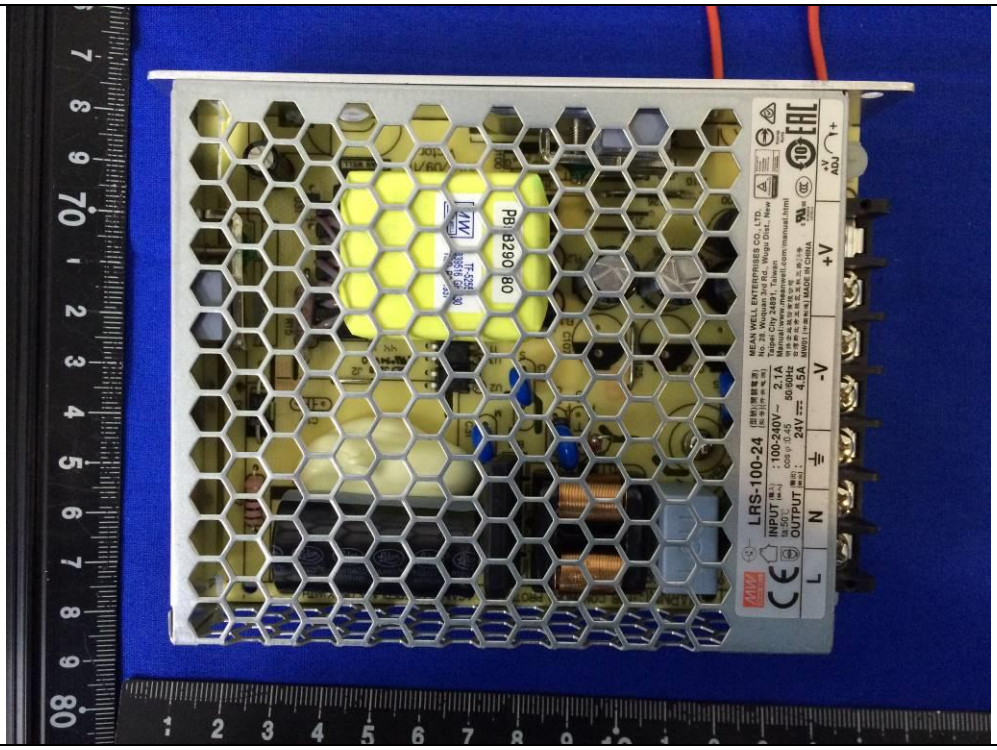

Details of: Power supply



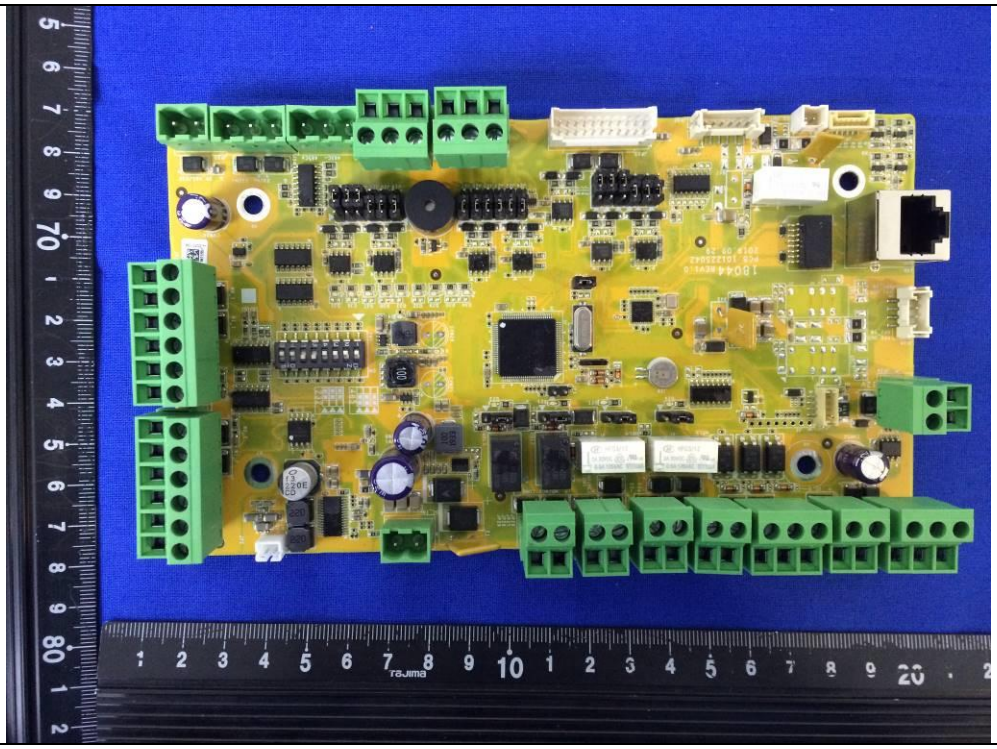
Details of: components



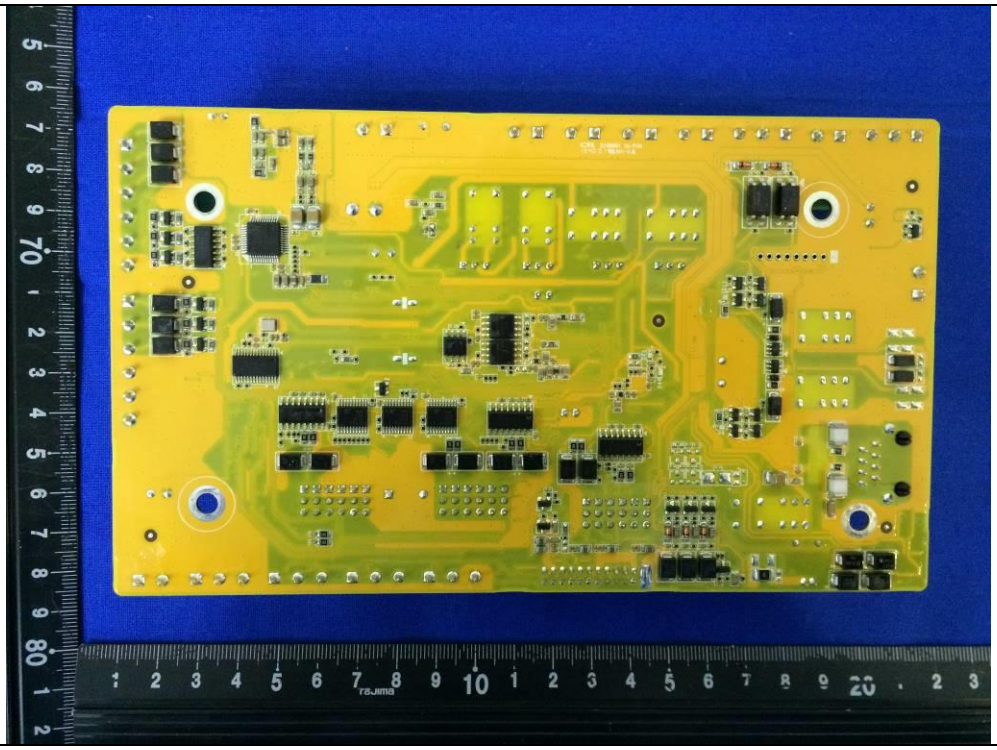
Details of: Power supply(LRS-100-24)



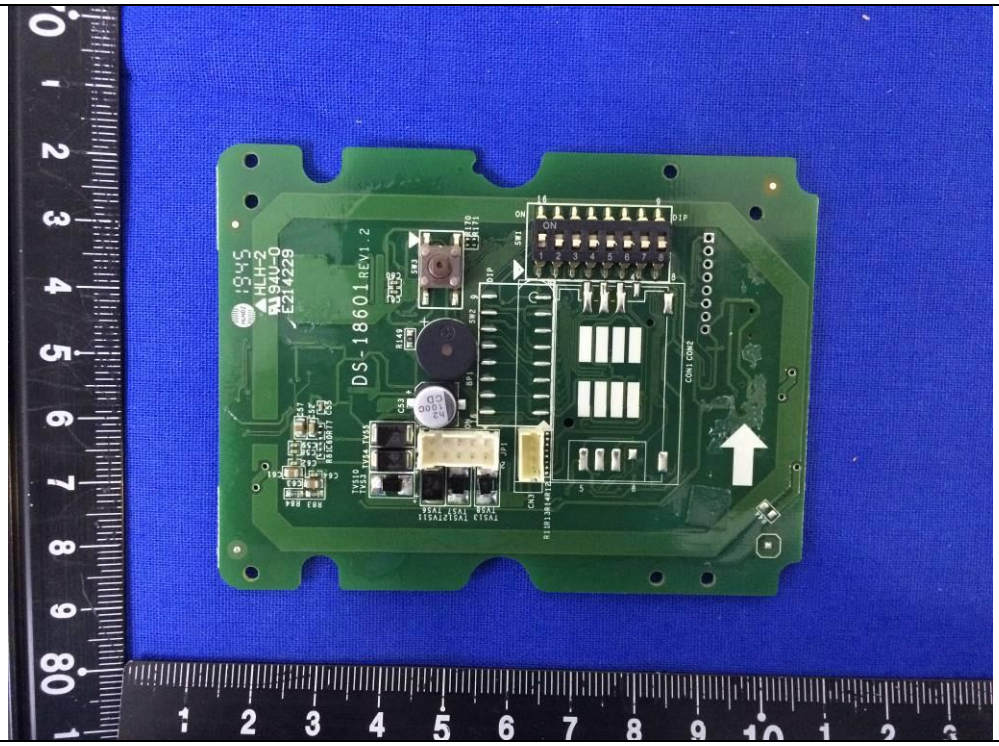
Details of: PCB-1



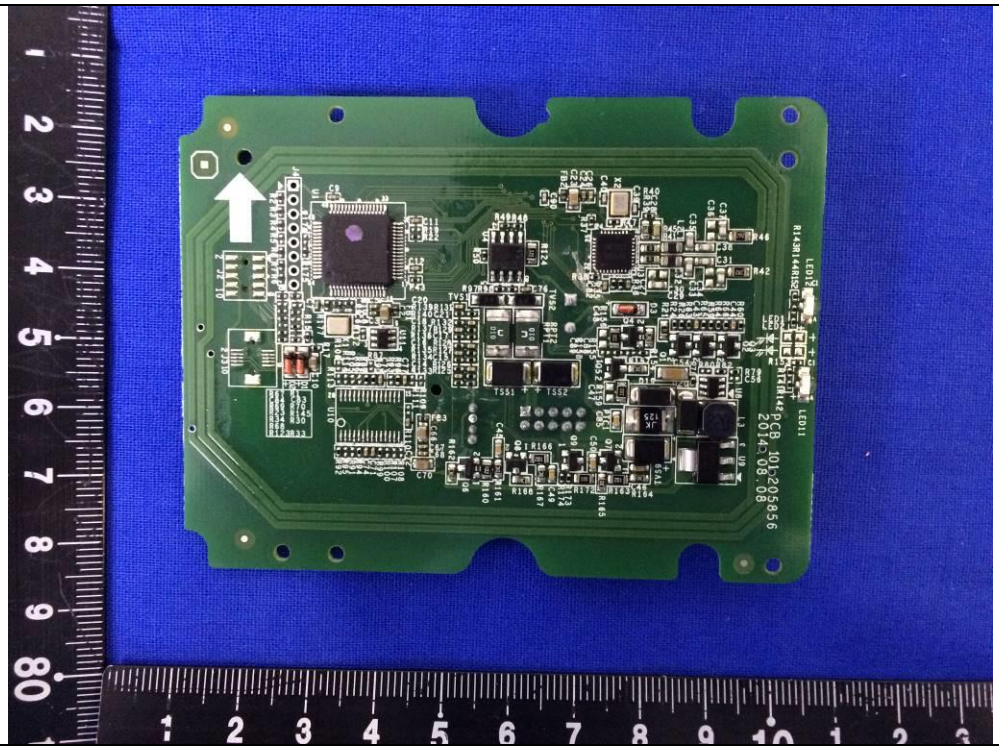
Details of: PCB-1



Details of: PCB-2

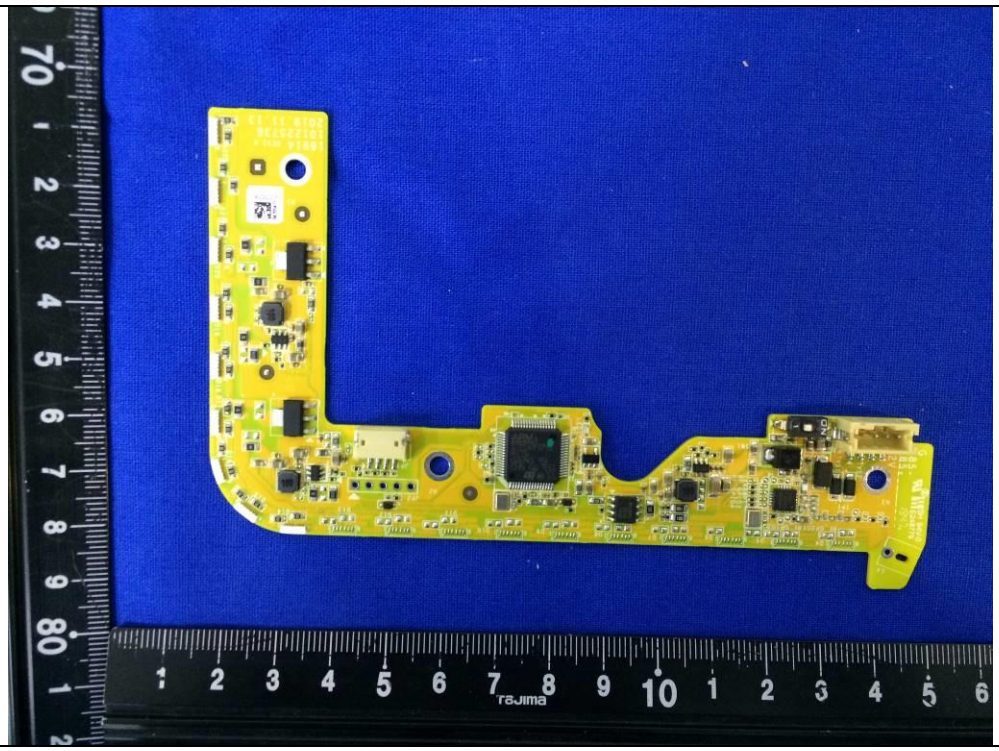



Details of: PCB-2

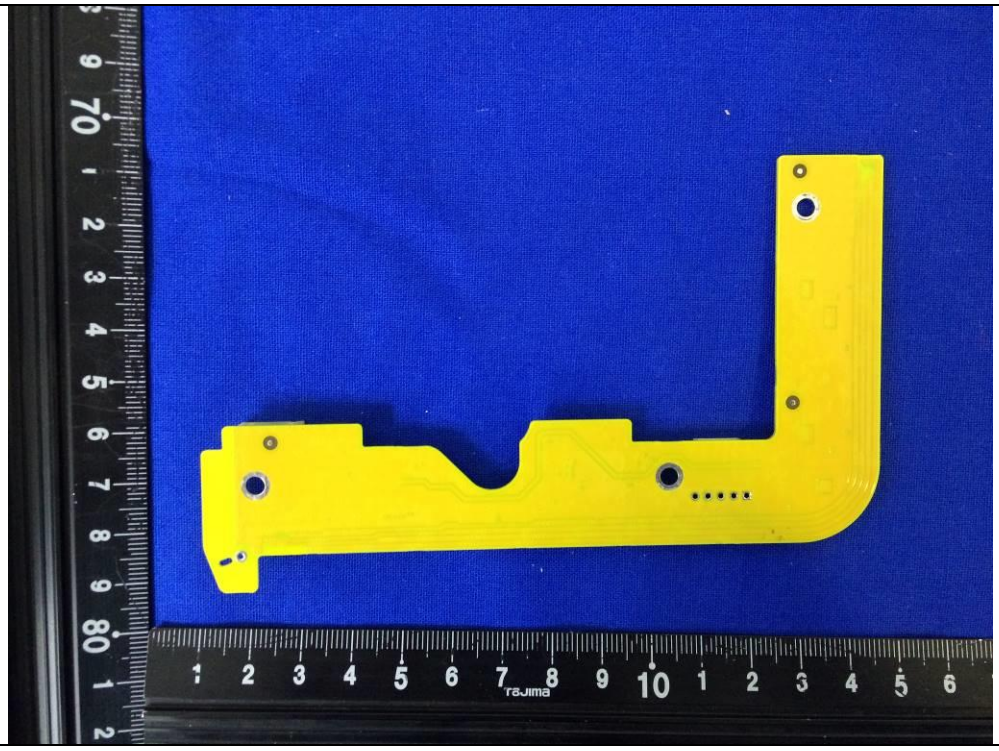


Details of: Switches

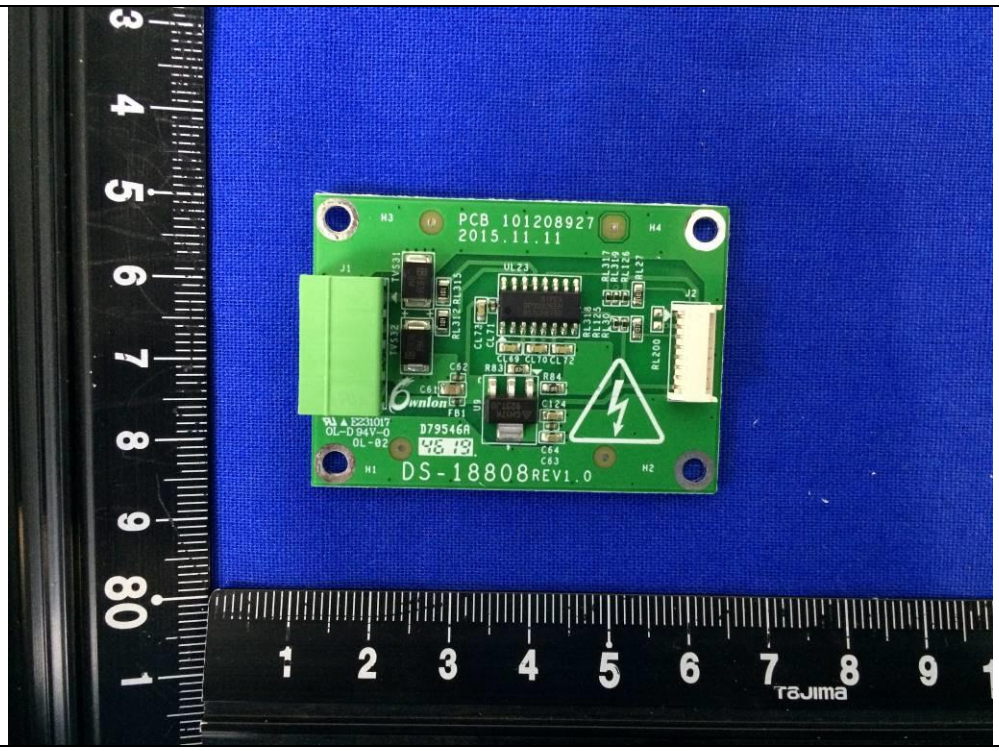

Details of: PCB-3



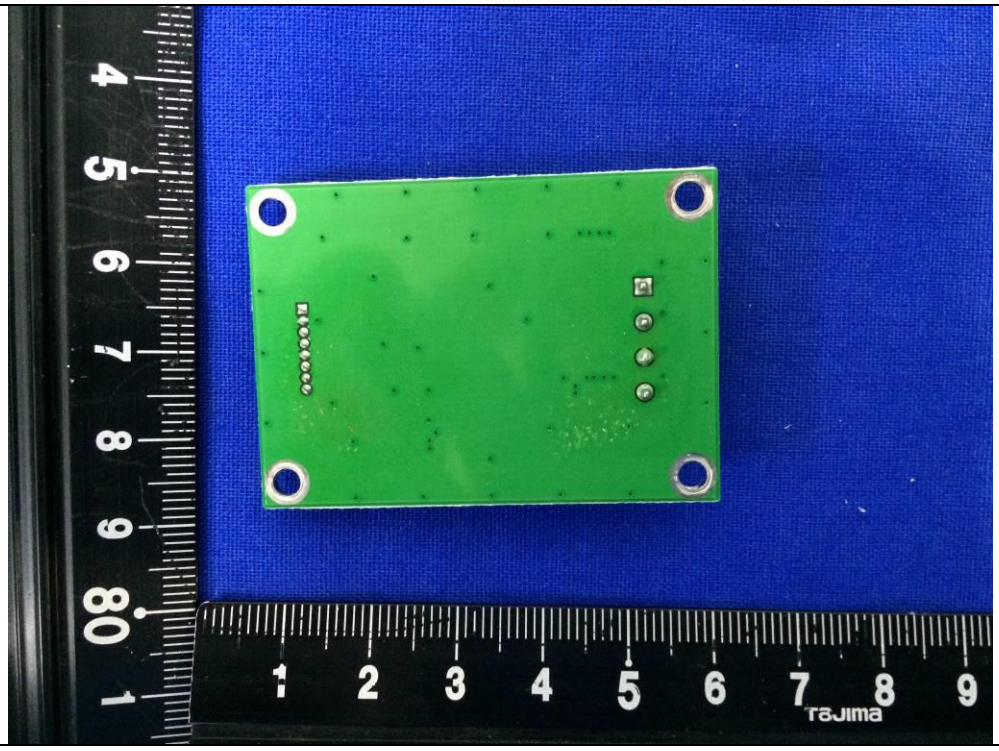
Details of: PCB-3



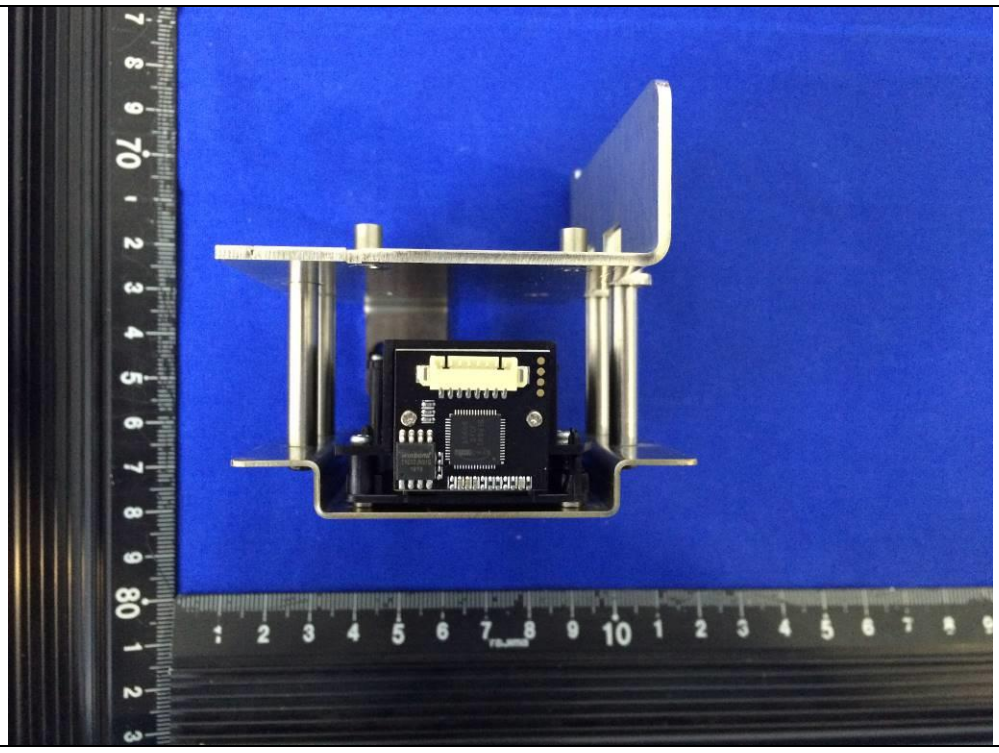
Details of: PCB-4



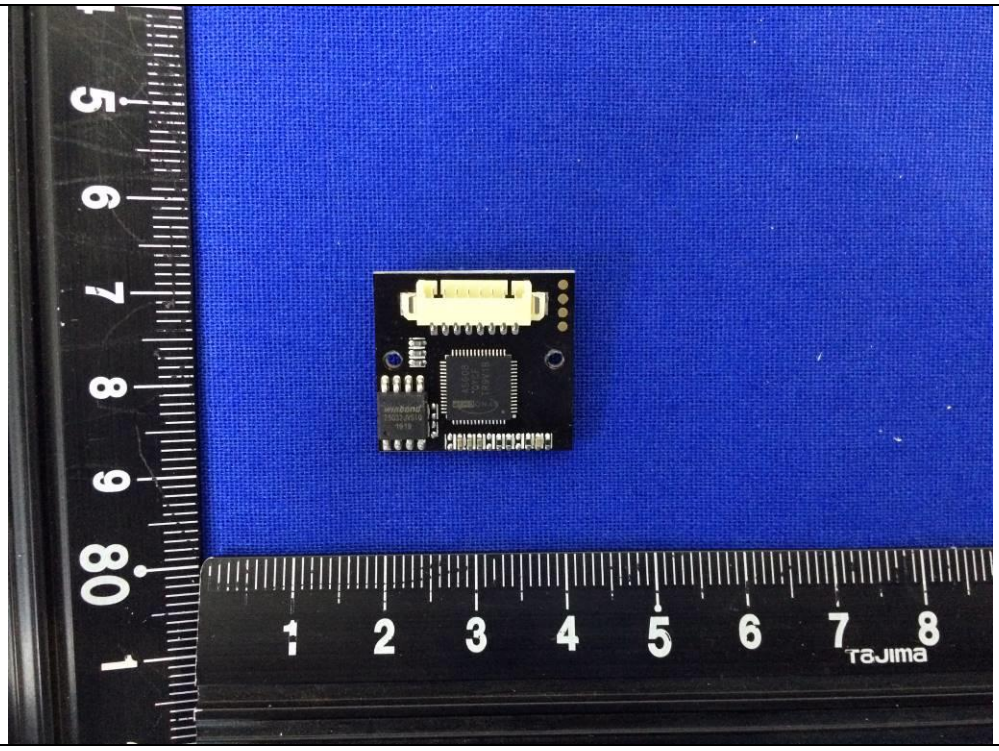
Details of: PCB-4



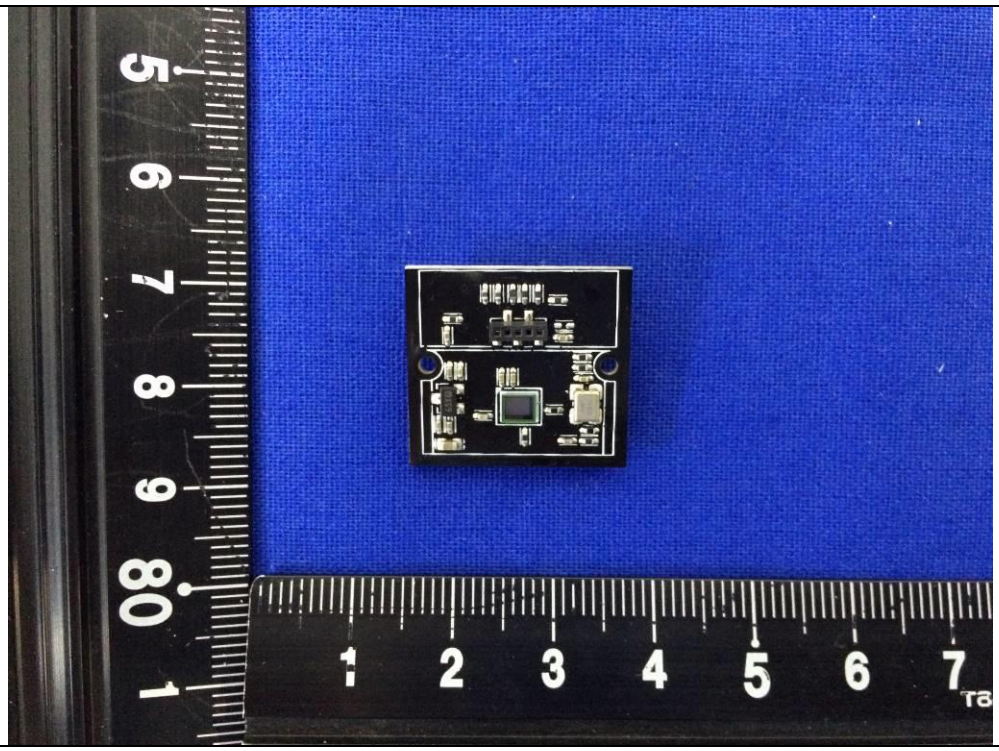

Details of: PCB



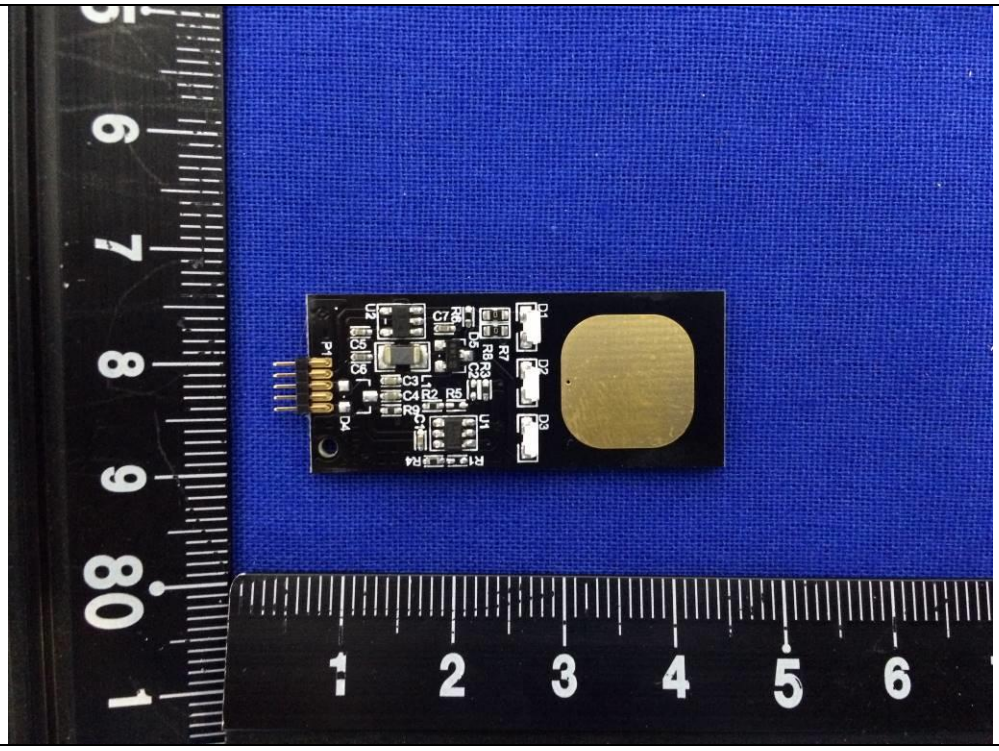
Details of: PCB-5



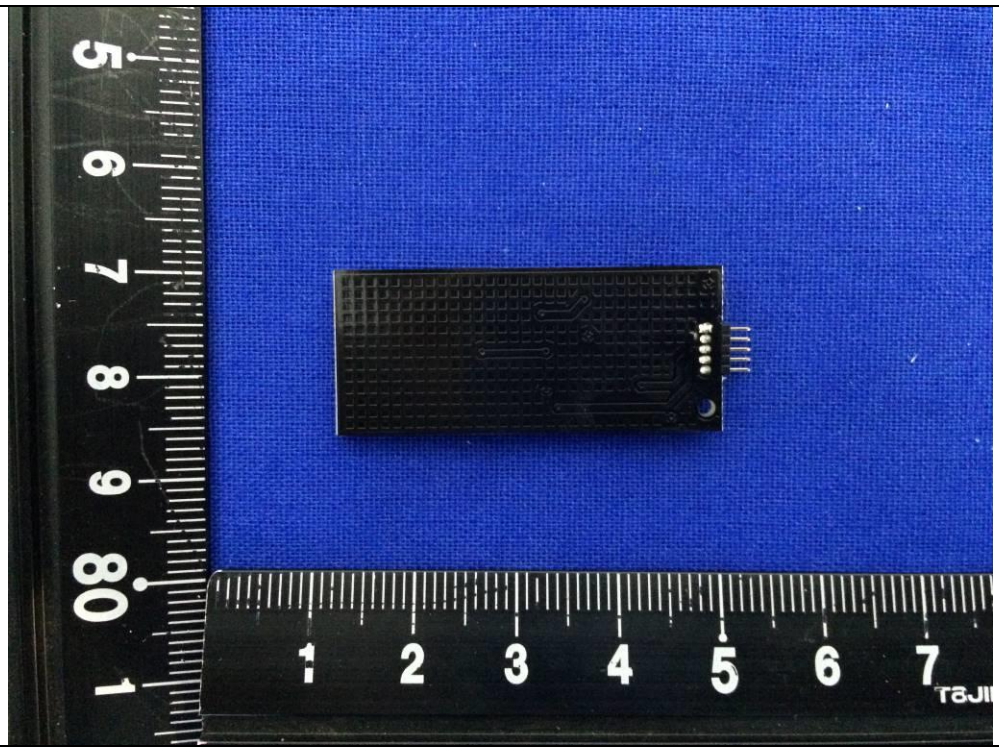

Details of: PCB-5



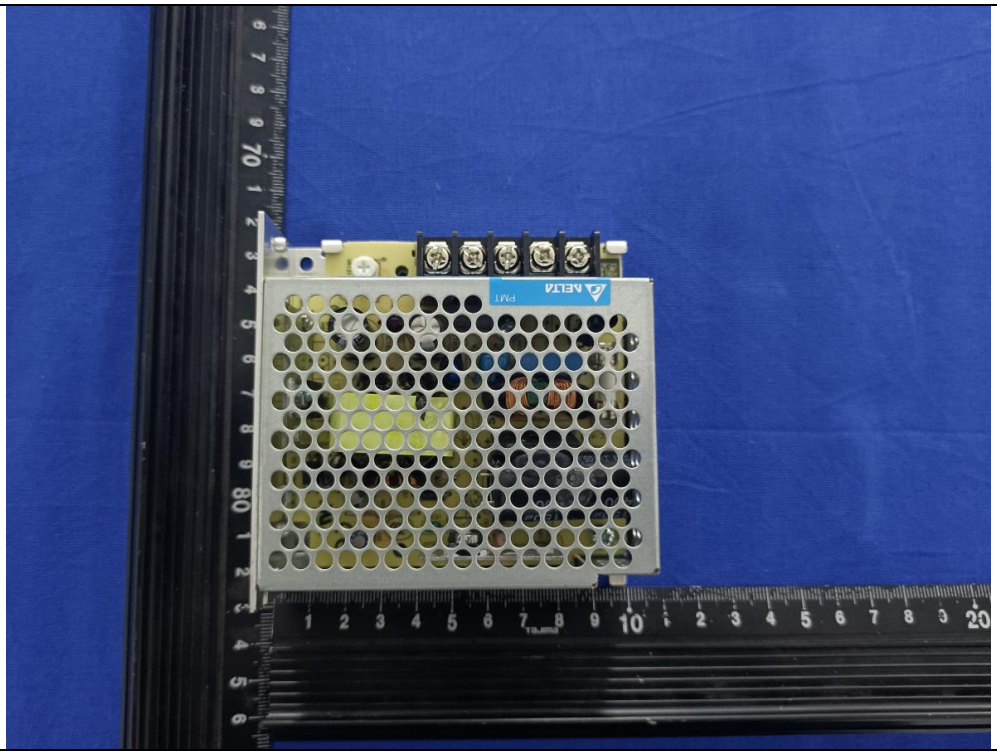
Details of: PCB-6



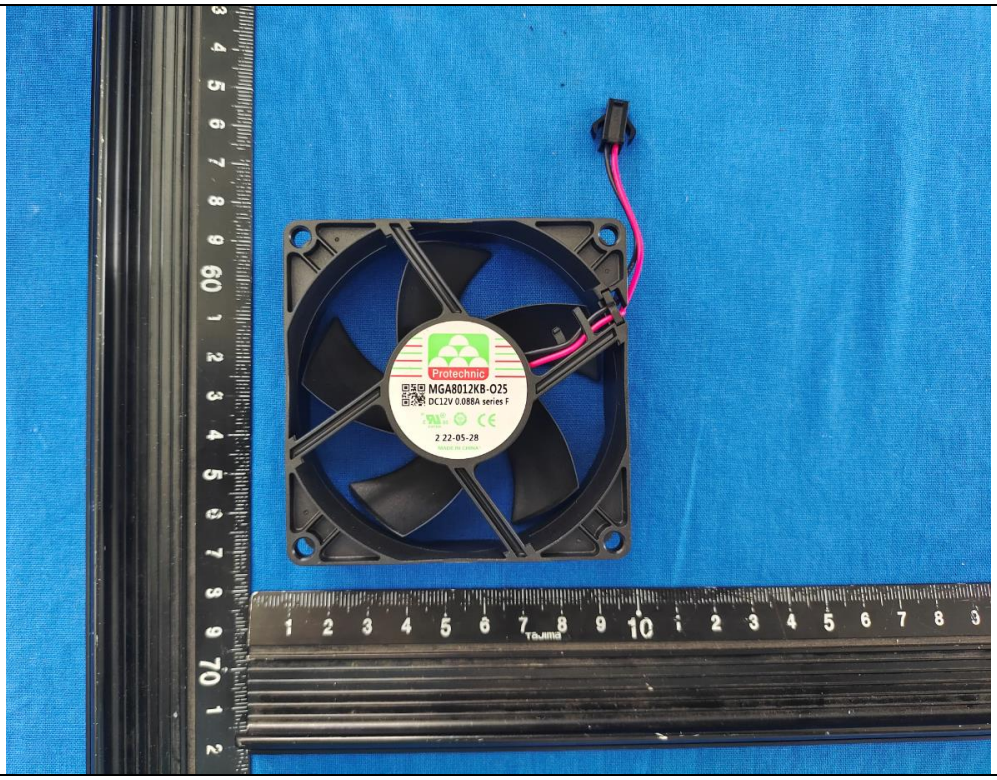
Details of: PCB-6



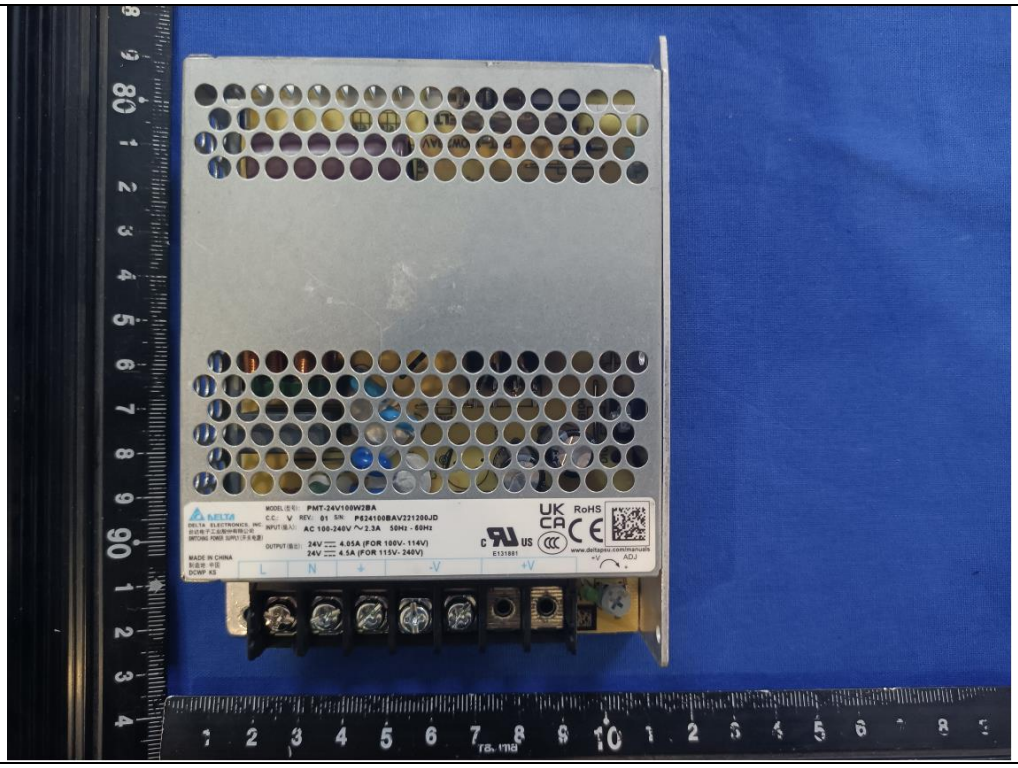
Details of: Power Supply (PMT-12V50W1AA)




Details of: Alternative DC Fan (MGA8012KB-O25)



Details of: Alternative Power Supply (PMT-24V100W2BA)




*******End of Attachment 1*******