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| SPECIFICATION | | Specification No. | S-141300C11-12 | | | |
| | | Drawing No. | S-141300C11 | Revision | d | Page |
| Product Name | SPD for LAN GUARDIAN NET Model : LAN-1000IS-2 | Enactment Date | 15.June.2015 | Revision Date | 22.Aug.2022 | |
| | | Drawing Section | Product Development Department | | | |

1. General

This products protect a personal computer or other equipment that is connected to a LAN against abnormal voltages resulting from a lightning surge.

This products support 2.5GBase-T, 1000Base-T, 100Base-TX, 10Base-T, and this product are adopted the insulation type for no grounding.

This products are adopted RJ45 interface, and the UTP cable or STP cable can be connected.

2. Environmental characteristic

- 2.1 Use place : Indoor
 2.2 Rating and storage temperature : -40°C ~ +85°C
 2.3 Rating and storage humidity : ≤ 90%(no condensation)

3. Structure

3.1 Appearance, Structure and Dimension

Appearance, Structure and Dimensions are figured by S-141300A11.

3.2 Marking

The following display is marked on the product.

- (1) Product name
- (2) Manufacturer name
- (3) Production name
- (4) Correspondence line

4. Applicable Standards

Applicable Standards of this product is Table.1

Table. 1 Applicable Standards

| Item | Standard name |
|------------------------------|--|
| Surge protection performance | IEC 61643-351:2016 / JIS C 5381-351:2019 |
| | IEC 61643-352:2018 / JIS C 5381-352:2020 |

5. Electrical Characteristics

The Electrical Characteristics of this product is Table.2

Table.2 Electrical Characteristics

| No. | Item | Condition | Performance | Remarks |
|-----|---------------------------------|-----------|--|---|
| 1 | Connector type | --- | RJ45 | |
| 2 | Ethernet | --- | 10Base-T 100Base-TX 1000Base-T 2.5GBase-T | IEEE802.3 IEEE802.3u IEEE802.3ab IEEE802.3bz |
| 3 | Transmission band | --- | 1~100MHz | |
| 4 | Attenuation | --- | ≤ 2.0dB | |
| 5 | Near End Crosstalk(NEXT) | --- | ≥ 30.1dB | |
| 6 | AC Withstand Voltage | 1mA, 1min | ≥ 4kV | Between Primary and Secondary |
| 7 | Rated Impulse Withstand Voltage | 1.2/50 μs | ≥ 15kV | Between Primary and Secondary |
| | | 10/700 μs | ≥ 15kV | |
| 8 | Insulation resistance | 500VDC | ≥ 500MΩ | Between Primary and Secondary |

Note 1) Test conditions

Temperature 20±15°C, Humidity 65±20%(IEC-60160(normal condition of test place))

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6. Inspection

The inspection of electrical characteristics, mechanical characteristics and exterior shall be held as following Table.3

Table.3 Inspection condition

| Item | Inspection Type | Judgment Standard |
|---------------------------------|---------------------|--|
| Attenuation | Total Inspection | It depends on clause 5. |
| Near End Crosstalk(NEXT) | Model Inspection | |
| AC Withstand Voltage | Model Inspection | |
| Rated Impulse Withstand Voltage | Model Inspection | |
| Insulation resistance | Total Inspection | |
| Appearance | Total Inspection | It depends on Structure`s figured by S-141300A11 |
| Dimension | Sampling Inspection | |

Note1) The sampling Inspection of dimensions, I assume it n=5,Ac=0,Re=1

Note2) Model Inspection; This inspection is executed more than one about the first lot that was able to expand in a production process. However, the item from which the performance is confirmed by the same type of product might be omitted.

7. Packaging and marking of wrapping box

7.1 Packaging

The product is packed in wrapping box.

7.2 Marking of wrapping box

Following particulars are marking on wrapping box.

(1)Product Name (2)Manufacturer Name (3) Date of manufacture

8. Quality assurance and warranty period

The warranty period of this product has been one year since the product was delivered.

If defective product claims are found to be justifiable, replacement products meeting the applicable specification will be provided.

9. Environmental correspondence (RoHS compliant)

This product does not contain more than specified provisions for substances subject to regulation (10 substances) in the EU RoHS Directive (*), except for exemptions.

10 substances: Lead, Mercury, Cadmium, Hexavalent Chromium, PBB, PBDE, DEHP, BBP, DBP, DIBP.

* European Parliament / Council Directive 2011/65 / EU, (EU)2015/863

10. Cautions

(1) The shield is not connected inside this product . If you use the STP cable, shield will be open.

(2) Withstand voltage value of this product will be reduced by the environment (humidity, dust, etc.).