



# MSTronic Co., Ltd.

2F, 12, Gongshang Rd., Wugu District, New Taipei City, 248 Taiwan

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MIT-21G-1224

Gigabit 802.3at PoE Converter

12V/24V Switchable

## SPECIFICATION

### 1. INPUT :

1.1 Input Voltage: DC40V to DC60V NORMAL= 56V

1.2 Under Voltage Lockout: DC -32V

### 2. OUTPUT :

2.1 Output Voltage & Current: 12V/24V switchable

| OUTPUT      | +12V    | +24V    |
|-------------|---------|---------|
| Max. load   | 1A      | 1.041A  |
| Power       | 12W Max | 25W Max |
| Min. Load   | 0A      | 0A      |
| Load reg. % | 5%      | 5%      |
| Line reg. % | 1%      | 1%      |
| Ripple %    | 2%      | 2%      |
| Noise %     | 5%      | 5%      |

TOTAL POWER :25W, 12V only 12W

Note 1: Ripple & Noise bandwidth is from DC to 20Mhz.

Terminated With a 47uF Capacitor and 0.1uf MPE Capacitor of Proper Polarity.

3. EFFICIENCY : 80% min @56Vin dc

4.

### 4. PROTECTION

4.1 Short Circuit Protection

output Short GND Terminal will not damage the Power Supply and will Auto-Reset.

4.2 Operation frequency is 150KHZ (min)

4.3 Isolation Voltage : 1500Vdc

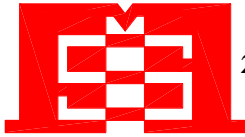
4.4 Isolation Resistance :100M ohms (min)

4.5 Input Set class Resistance : 25K ohms

4.6 Maximum Capacitive Load : 470UF (24V = 100UF)

4.7 LED Green work as 802.3at Model.

LED Red work as 802.3af Model



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## 5. GENERAL DESCRIPTION

- 5.1 Operation Temperature: -25 - +50 Degree
- 5.2 Storage Temperature: -40 - +85 Degree
- 5.3 Operation Humidity: 5% - 90% 45 Degree
- 5.4 Cooling: Free air cooling
- 5.5 SIZE : 85\*78\*36 (L\*W\*H)m/m

## 6. CHANNEL CONNECTORS & PINOUT :

- 6.1 Power-Hub RJ45 Socket (per channel) data & Power-Hub RJ45 Socket

| RJ-45 Input (Data & Power) |                 |                                   |
|----------------------------|-----------------|-----------------------------------|
| Pin                        | Symbol          | Description                       |
| 1                          | BI_DA+, Vin +/- | Data Pairs A+/ Feeding power(+/-) |
| 2                          | BI_DA-, Vin +/- | Data Pairs A-/ Feeding power(+/-) |
| 3                          | BI_DB+, Vin +/- | Data Pairs B+/ Feeding power(+/-) |
| 4                          | BI_DC+, Vin +/- | Data Pairs C+/ Feeding power(+/-) |
| 5                          | BI_DC-, Vin +/- | Data Pairs C-/ Feeding power(+/-) |
| 6                          | BI_DB-, Vin +/- | Data Pairs B-/ Feeding power(+/-) |
| 7                          | BI_DD+, Vin +/- | Data Pairs D+/ Feeding power(+/-) |
| 8                          | BI_DD-, Vin +/- | Data Pairs D-/ Feeding power(+/-) |
| 9                          | Shield          | Connector shielding               |

| RJ-45 Output (Data & Power) |             |                       |
|-----------------------------|-------------|-----------------------|
| Pin                         | Symbol      | Description           |
| 1                           | BI_DA+      | Data Pair A+          |
| 2                           | BI_DA-      | Data Pair A-          |
| 3                           | BI_DB+      | Data Pair B+          |
| 4                           | BI_DC+, Vo+ | power(+)+Data Pair C+ |
| 5                           | BI_DC-, Vo+ | power(+)+Data Pair C- |
| 6                           | BI_DB-      | Data Pair B-          |
| 7                           | BI_DD+, Vo- | power(-)+Data Pair D+ |
| 8                           | BI_DD-, Vo- | power(-)+Data Pair D- |
| 9                           | Shield      | Connector shielding   |

## 7. EMI

Meet FCC Class B standard

Meet EN55022 Class B standard

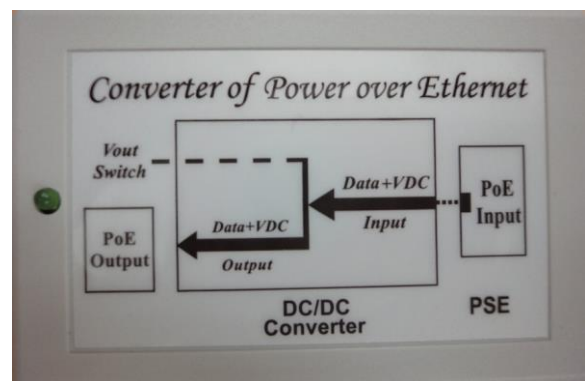
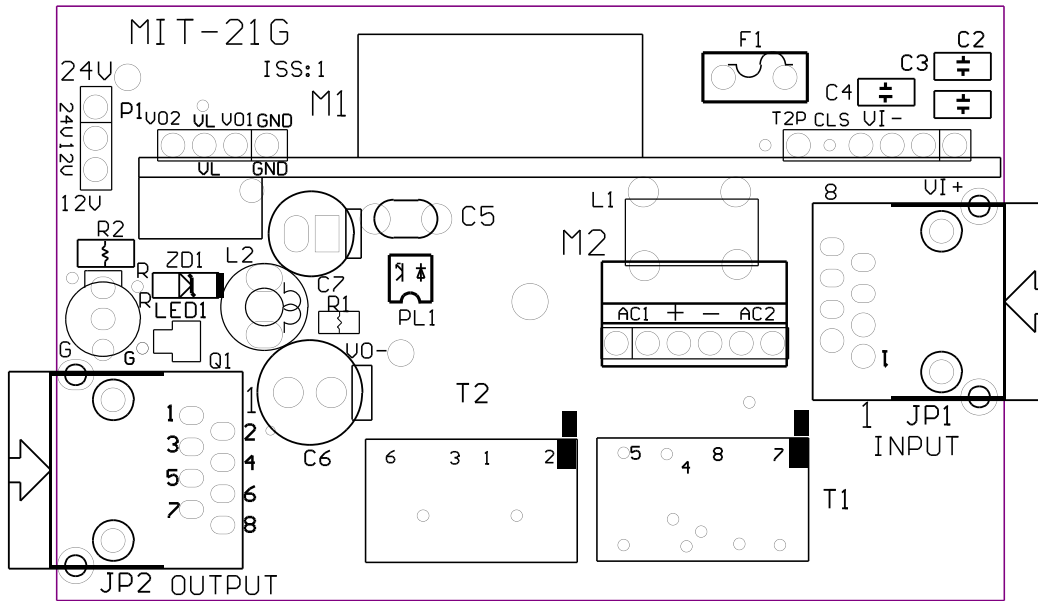


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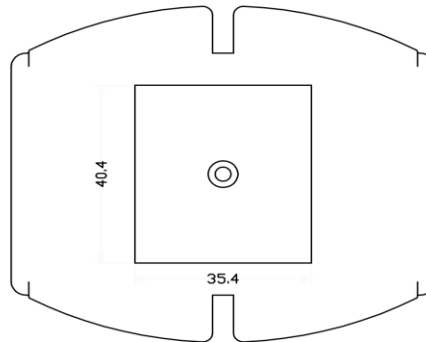
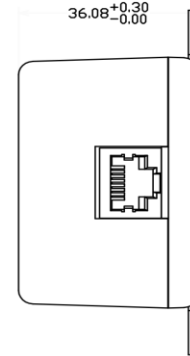
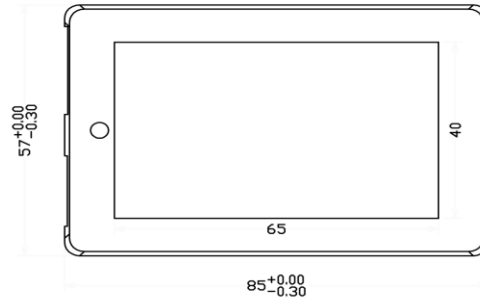
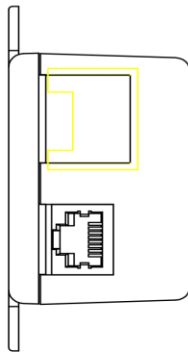
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## SPEC. of SURGE/LIGHTNING PROTECTION



## WS24DLC-B

Order Code: WS24DLC-B

Transient Voltage Suppressor

### Features

- 500 Watts Peak Pulse Power per Line (tp = 8/20μs)
- Bidirectional Configuration
- Protects One Power or I/O Port
- Low Clamping Voltages
- Ultra Low Capacitance: 1.0 pF Typical



### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5(Lightning) 9A (8/20μs)

### Electrical characteristics

| PART NUMBER<br>(See Note 1 & Note 2) | DEVICE MARKING | RATED STAND-OFF VOLTAGE<br><br>V <sub>WM</sub> (Volts) | MINIMUM BREAKDOWN VOLTAGE<br><br>@ 1mA<br>V <sub>BR</sub> (Volts) | MAXIMUM CLAMPING VOLTAGE<br>(See Fig. 2)<br><br>@ IPP = 1A<br>V <sub>C</sub> (Volts) | MAXIMUM CLAMPING VOLTAGE<br>(See Fig. 2)<br><br>@8/20μs<br>V <sub>C</sub> @ IPP | MAXIMUM LEAKAGE CURRENT<br><br>@V <sub>WM</sub><br>I <sub>d</sub> (μA) | TYPICAL CAPACITANCE<br><br>@0V, 1 MHz<br>C(pF) |
|--------------------------------------|----------------|--|---|--|---|--|--|
| WS24DLC-B                            | CB             | 24.0   | 26.7  | 33.0   | 54.0V @ 9.0A  | 1  | 1  |