

DESCRIPTION

25.5W PD(Powered Device) Integrated Module (Isolation Type)

FEATURES

- EEE802.3af/at compliant.
- Low cost.
- Support PoE applications in both of Fast / Gigabit Ethernet environments.
- Support wide input voltage range 37Vdc to 57Vdc.
- Thermal cut off.
- Short circuit protection.
- Over current protection
- High DC/DC converting efficiency.
- Less external component one output decoupling capacitor.
- Isolation level 1.5KVrms.
- Enhanced surge protection
- Internal build in 2 channel bridge rectifiers

Product List

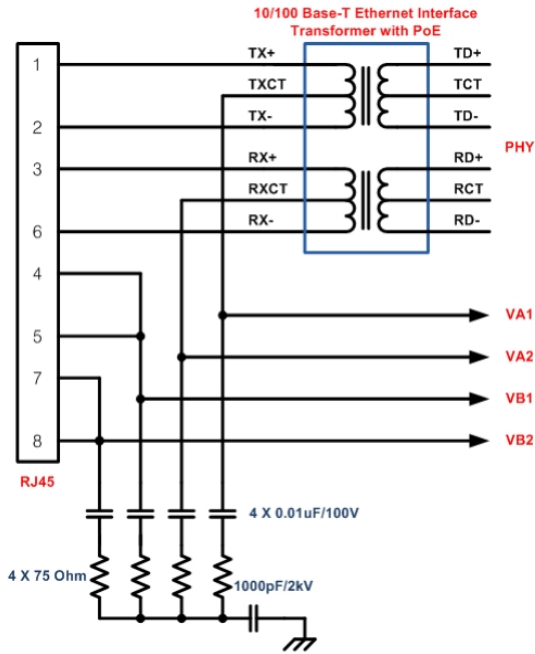
| Part Number | Nominal Output Voltage / Current | Maximum Output Power | Nominal Input Voltage |
|------------------------|---|-----------------------------|------------------------------|
| DP9700 at-5V4A | 5Vdc / 4A | 20W @ 25°C | 48Vdc |
| DP9700 at-12V2A | 12Vdc / 2A | 24W @ 25°C | 48Vdc |
| DP9700 at-24V1A | 24Vdc/1A | 24W @ 25°C | 48Vdc |

PIN ASSIGNMENT

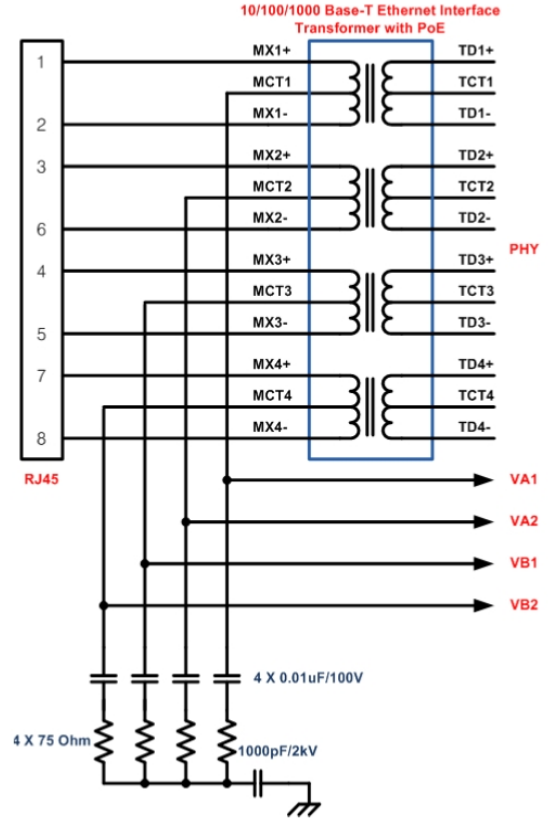
| Pin | Name | Description |
|------|------|--|
| 1 | VA1 | RX Input (1). This input pin is used in conjunction with VA2 and connects to the centre tap of the transformer connected to pins 1 & 2 of the RJ45 connector (RX) - it is not polarity sensitive. |
| 2 | VA2 | TX Input (2). This input pin is used in conjunction with VA1 and connects to the centre tap of the transformer connected to pins 3 & 6 of the RJ45 connector (TX) - it is not polarity sensitive. |
| 3 | VB1 | Direct Input (1). This input pin is used in conjunction with VB2 and connects to pin 4 & 5 of the RJ45 connector - it is not polarity sensitive. |
| 4 | VB2 | Direct Input (2). This input pin is used in conjunction with VB1 and connects to pin 7 & 8 of the RJ45 connector - it is not polarity sensitive. |
| 5,6 | NC | No Connection |
| 7 | -VDC | DC Return. This pin is the return path for the +VDC output. |
| 8 | +VDC | DC Output. This pin provides the regulated output from the DC/DC converter. |
| 9,10 | NC | No Connection |

Typical Application

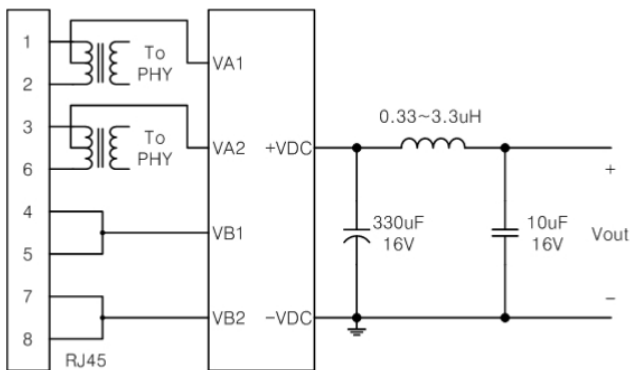
10/100 Base-T APPLICATION



10/100/1000 Base-T APPLICATION



OPTIONAL EXTERNAL LC FILTER FOR LOWER RIPPLE AND NOISE



ELECTRICAL SPECIFICATIONS

| No | Item | Specification | Comment |
|----|---------------------------|---------------|---------|
| 1 | Input Voltage | 37~57V | |
| 2 | Output Voltage | 5V Typ. | DP9705 |
| | | 12V Typ. | DP9712 |
| | | 24V Typ. | DP9724 |
| 3 | Output Current (Vin=56V) | 4A Max. | DP9705 |
| | | 2A Max. | DP9712 |
| | | 1A Max. | DP9724 |
| 4 | Line Regulation | 1% | |
| 5 | Load Regulation | 1% | |
| 6 | Ripple & Noise | 200mVp-p max. | |
| 7 | Efficiency | 83% max. | DP9705 |
| | | 87% max. | DP9712 |
| | | 85% max | DP9724 |
| 8 | Input to Output Isolation | 1.5 KV | |
| 9 | Type of DC/DC Converter | Flyback Type | |
| 10 | Operating Temperature | -40 ~ +85 °C | |

Package

