



MITS Component & System Corp

High Power PoE Splitter

POE-HSP Series

Datasheet

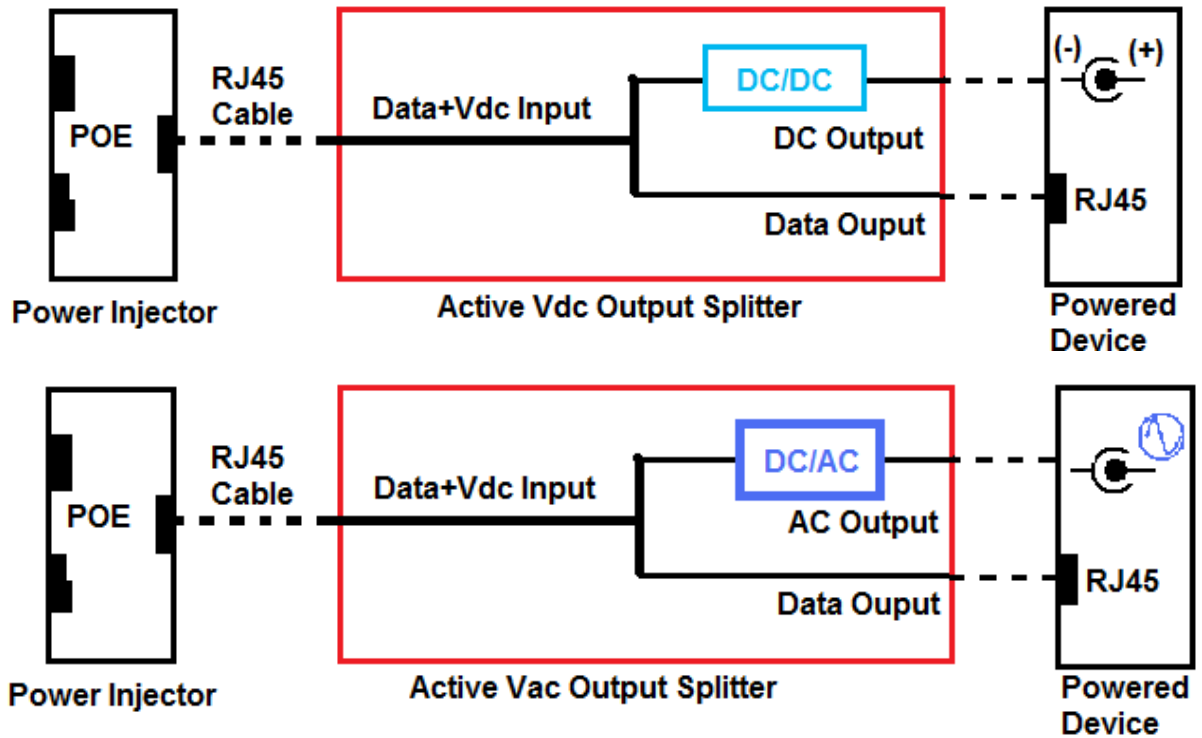


DS-PoE_HSP

Rev 2.1

8/25/2009

Functional Diagrams



Features

- ±36~±60V DC input
- +5~+24V Vdc output Or 24V Vac
- 1.1~5A Output Current
- 25~40W Output Power
- 75% min Efficiency
- Short circuit and Over load protection
- Meet FCC class B radiation standard
- Meet NE55022 class B radiation standard.
- Optional features:
 - IEEE 802.3af detection
 - High-Operating temperature.
 - TVS function

Applications

- IP Phone
- IP Camera
- Access Point
- Door Security
- Security CAM
- WiMAX BS/CPE
- Mini Notebook PC
- Network terminals which require high power feed. (IPC, POS.....etc.)__

Revision History

| Revision | Author | Description |
|----------|---------|------------------------------------|
| Rev 2.1 | Bruce | Update cable information |
| Rev 2.0 | Bruce | New form, update 55W specification |
| Rev 1.0 | Michael | First release |
| | | |
| | | |
| | | |

1. Description

The PoE-HSP series of Splitter is a high Power over Ethernet (PoE) Splitter. It can work with IEEE 802.3af PSE (Power Sourcing Equipment) and MITS proprietary high Power over Ethernet (PoE) Injector (P/N: POE-HIJ series). It provides 25W / 40W output power maximum. The POE-HSP is perfect for PoE installation in high power requirement of WLAN AP, IP Camera or other applications.

2. Specifications

.2.1 Input Port (Ethernet Port)

| | |
|------------------------------|--------------------------|
| Input Voltage | ±36~±60V DC input |
| Nominal Input Voltage | -48Vdc |
| Under voltage lockout | -31V ~ -35V |
| Start voltage | -33V ~ -35V |

Table 2-1

2.2 Output Port Voltage and Current

| Output Voltage | +5Vdc | +9Vdc | +12Vdc | +24Vdc | +12Vdc | +24Vdc | 24Vac |
|--------------------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|
| Max. Load | 5A | 2.78A | 2.1A | 1.1A | 3.33A | 1.66A | 1.66A |
| Max. Power | 25W | 25W | 25W | 25W | 40W | 40W | 40W |
| 802.3af detection | Yes | Yes | Yes | Yes | No | No | No |
| Min. Load | 0.1A | | | | | | |
| Load reg. % | 5% | | | | | | |
| Line reg. % | 1% | | | | | | |
| Ripple % | 1% | | | | | | |

Table 2-2

Note 1: the Waveform of 24Vac output splitter is Square Waveform, frequency is 60 Hz ±5hz

Note 2: Ripple & Noise bandwidth is from DC to 20Mhz. Terminated With a 47uF Capacitor and 0.1uf MPE Capacitor of Proper Polarity.

Note3: For DC Output splitter, there is 470uF filter capacitor embedded.

Note4: For AC Output splitter, there is 50% space for overloading.

2.3 Efficiency

| | |
|------------|-----------------------|
| Efficiency | 75% min. at -48Vin dc |
|------------|-----------------------|

Table 2-3

2.4 Protection

| | | |
|----------------------------|--|------------------------------|
| Short Circuit Protection | It will not damage the PoE Injector if Output Short to GND by other Terminal. The PoE Injector process Auto-Recover when Load status comes back. | |
| Over Voltage Protection | Vdc Output | Hiccough mode, auto-recovery |
| | Vac Output | Flyback mode , auto-recovery |
| Min. Operation frequency | 70KHz | |
| Min. Isolation voltage | 1500Vac | |
| Min. Isolation resistance | 100M ohm | |
| Input set class resistance | 24.9K ohm | |

Table 2-4

2.5 Surge / Lightning Protection (option)

| | Signal |
|-----------------------|----------------------------|
| Operating Voltage | Data 5V |
| Clamping Voltage | Data 11V |
| Peak Pulse Current | 36A (10/1000uS) |
| Pin Protected | 4 pin protected (1/2, 3/6) |
| Protection Mode | Common Mode |
| Max. Shut Capacitance | <5 pF |
| Data Rate | 100 Mbps |
| Response Time | <1 nS |

Table 2-5

2.6 Safety and Approval

| | |
|-----|----------------------|
| EMC | FCC - Class B |
| | CE - NE55022 Class B |

Table 2-6

2.7 Recommended Operating Conditions

| | | |
|-----------------------|------------------------|---------------|
| Operation Temperature | Normal Grade | -15°C to 60°C |
| | High Temperature Grade | T.B.D |
| Storage Temperature | -40 - +70 °C | |
| Operation Humidity | 5% - 90% @45 °C | |
| Cooling | Free air cooling | |

Table 2-7

3. RJ-45 & Power Connector

MITS PoE HSP series RJ-45 Input port can get power from “Spare pairs” (pin 4,5,7,8) or “Data Pairs” (pin 1,2,3,6). It can be auto detected both kinds of power feed mode.

3.1 PSE feeds power via Spare pairs

| Pin | RJ-45 Input (Data & Power) | | RJ-45 Output (Data Only) | |
|-----|----------------------------|------------------|--------------------------|---------------|
| | Symbol | Description | Symbol | Description |
| 1 | Rx+ | Data Receive | Rx+ | Data Receive |
| 2 | Rx- | Data Receive | Rx- | Data Receive |
| 3 | Tx+ | Data Transmit | Tx+ | Data Transmit |
| 4 | Vin +/- | Feeding power(±) | -Vdc_return(+) | Not Connected |
| 5 | Vin +/- | Feeding power(±) | -Vdc_return(+) | Not Connected |
| 6 | Tx- | Data Transmit | Tx- | Data Transmit |
| 7 | Vin +/- | Feeding power(±) | -V dc | Not Connected |
| 8 | Vin +/- | Feeding power(±) | -V dc | Not Connected |

Table 3-1

3.2 PSE feeds power via Data pairs

| Pin | RJ-45 Input (Data & Power) | | RJ-45 Output (Data Only) | |
|-----|----------------------------|----------------------------------|--------------------------|---------------|
| | Symbol | Description | Symbol | Description |
| 1 | Rx+ & Vin(±) | Data Receive & Feeding power(±) | Rx+ | Data Receive |
| 2 | Rx- & Vin(±) | Data Receive & Feeding power(±) | Rx- | Data Receive |
| 3 | Tx+ & Vin(±) | Data Transmit & Feeding power(±) | Tx+ | Data Transmit |
| 4 | NC | Not Connected | NC | Not Connected |
| 5 | NC | Not Connected | NC | Not Connected |
| 6 | Tx- & Vin(±) | Data Transmit & Feeding power(±) | Tx- | Data Transmit |
| 7 | NC | Not Connected | NC | Not Connected |
| 8 | NC | Not Connected | NC | Not Connected |

Table 3-2

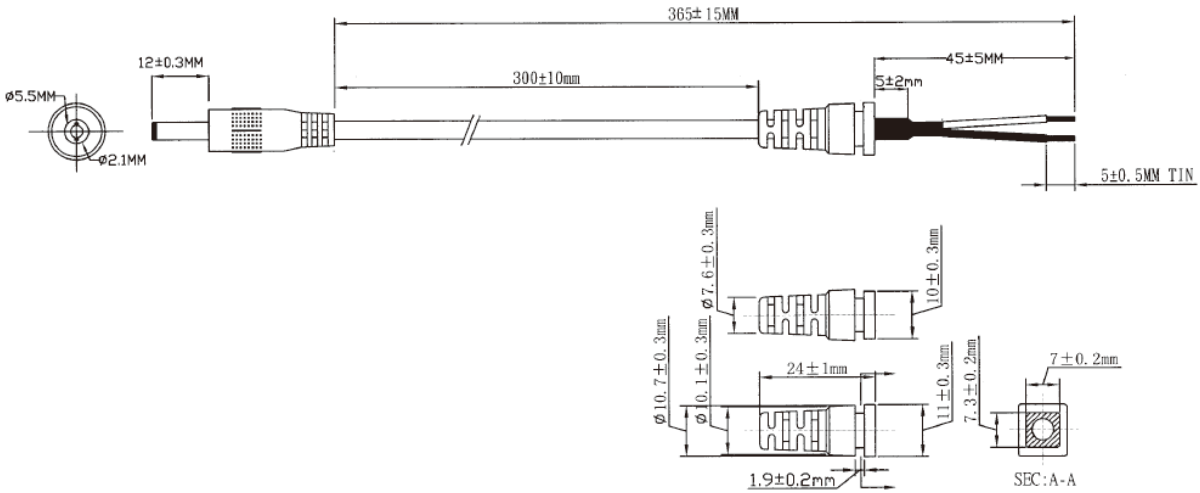
4. Mechanical & Dimension

4.1 Housing:

| | | |
|------------------------|-------------------------------|----------------------------|
| Plastic Case Material | PC | |
| Plastic Case Finish | Texture | |
| Plastic Case Color | Gray | |
| Plastic Case Dimension | 125 x 75 x 38 (L x W x H) mm. | |
| DC/AC Out Power Plug | Diameter | 2.1 / 5.5mm or 2.5 / 5.5mm |
| | Length | 12 +/- 0.5mm. 180° angle. |

Table 4-1

4.3 Power Cable



5. Package

| | |
|---------------------------------------|------------------------------------|
| Number of unit in one Carton | 50 |
| Weight of Carton Volume | N.W. : 15Kg. G.W. : 16Kg. 1.3Cuft. |
| Weight of Unit / Weight of Box | 175g / 210g |
| Dimension of Box | 165 x 82.5 x 44 (L x W x H) mm |

Table 5-1

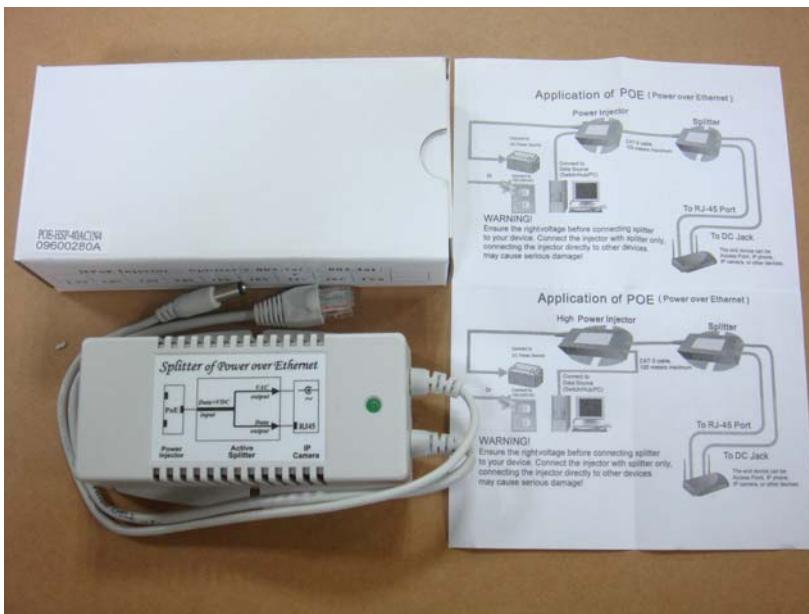


Photo 5-1 High PoE Splitter Package

6. Ordering Information

