Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

POE-xxi
Power-Over-Ethernet

POWER-OVER-ETHERNET

Power Supply / Inserter

The POE-xxi is an advanced power supply / power inserter. The power supply is autoranging on the input and has a regulated voltage output. It has overload and short circuit protection in addition to Ethernet surge suppression built-in. The POE-xxi is not a proprietary unit. It will function with any equipment that is compliant with the IEEE 802.3af POE standards. For all "i" models, the power is supplied on ethernet pins 4/5 (V+) and 7/8 (V-). For the "iR" models, the power is supplied on Ethernet pins 4/5 (V-) and 7/8 (V+). The POE-xxi comes complete with a standard North American 115 VAC power cord. International cords are available upon request. A Current Indicator (-CI) model is available. The LED will be AMBER until >35 mA current flows to the end device which will turn the LED to GREEN. This is a good way to remotely monitor the connection between the Power-Over-Ethernet (POE) and the end device, and to indicate that the end device is turned on. To order this model, add a "–CI" suffix to the standard part number.

Using POE to power remote devices has several advantages including;

- The power supply can be centrally located where it can be attached to an uninterruptible power supply.
- The user has the ability to easily power on reset the attached equipment from a remote location.
- There is no need to run additional power cabling to the device as power can be supplied over the CAT5 ethernet cable.

FEATURES AND BENEFITS:

- "Carrier class" power over ethernet system
- Auto ranging power supply/ inserter
- Built-in Ethernet surge protection to prevent equipment damage
- Overload and short circuit protection
- Minimum cross-talk and insertion loss
- Advanced switching technology – runs cool
- Powers clients which accept power on unused Ethernet pins 4, 5, 7, 8
- FCC and CE approved
- Current indicator (CI) option available

APPLICATIONS:

- Remote routers, access points and bridges
- Remote networking equipment
- SOHO equipment
- IP camera systems
- 400 MHz to 10 GHz systems
- IP phone systems
- WiMAX

global solutions: local support™

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POE-xxi
Power-Over-Ethernet

POE-xxi POWER SUPPLY/INJECTOR	
Input Voltage	90 – 264 VAC @ 47 – 63 Hz
Input Current	0.3 A @ 120 VAC 0.2 A @ 230 VAC
Inrush Current	<15 A peak @ 120 VAC <30 A peak @ 230 VAC
Efficiency	70% Min.
Output Voltage	POE-48i 48 VDC @ 0.50 A POE-24i 24 VDC @ 0.8 A POE-24iR 24 VDC @ 0.8 A POE-18i 18 VDC @ 0.9 A POE-12i 12 VDC @ 1.3 A
Output Ripple	1% Max
Switching Frequency	200 KHz Typ
Line Regulation	+/- 0.5%
Load Regulation	+/- 1%
Operating Temperature	-10 to +60°C
Storage Temperature	-20 to +85°C
Operating Humidity	5% to 90% non condensing
Size (L x W x H)	3.25 x 3 x 1.5 in (83 x 76 x 38 mm)
Weight	5.2 oz (147 gm)
AC Connector	IEC-320 C6 (Supercom SC-14)
Data IN Conn.	RJ45 Shielded Socket
Data/POE OUT Conn.	RJ45 Shielded Socket
LED	(Amber) Green
Surge Protection	Common Mode
Clamping Voltage	11 V Data, 775 V Power
Max Surge Discharge Current	1200 A (8/20 uS) Power
Peak Pulse Current	36 A (10/1000 uS) Data
Shunt Capacitance	<5 pf Data
Response Time	<1 nS

COMPLIANCE:	
IEEE	802.3af POE Standard Mode B
EMI	EMI EN55022 (CISPR22) class B Meets CE
EMS	EN61000-4-2,3,4,5,6,8,11

SYSTEM ORDERING:

POE-48i
48 VDC @ .50 A POE Power Supply / Inserter

POE-24i
24 VDC @ .8 A POE Power Supply / Inserter

POE-18i
18 VDC @ .9 A POE Power Supply / Inserter

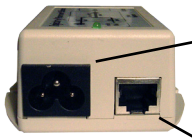
POE-12i
12 VDC @ 1.3 A POE Power Supply / Inserter

POE-24iR Reverse Polarity
24 VDC @ .8 A POE Power Supply / Inserter
(Pins 4/5 V-, Pins 7/8 V+)

* All include AC Power Cord

NOTES:

- All shipments F.O.B. Schaumburg, IL 60173



Power Supply Inserter AC Power IN (90-264 VAC)

Power Supply Inserter Data IN

Power Supply Inserter Data/POE OUT

802.3af POE Power Up Sequence

1. Detection – Look for 802.3af compliant signature
2. Startup – Ramp power safely
3. Operation – Continuously monitor for short circuit or overload