Data Sheet

PowerDsine 8000 Series

High-power, securely managed & highly reliable Power over Ethernet Midspan Family

PowerDsine 8012, 8006, 8001

PowerDsine 8000 series is a unique High Power over Ethernet Midspan family providing up to 39 watts over the existing Ethernet infrastructure. It is a secure, managed, safe and cost-effective solution comprising 12, 6 and 1-port models that allow flexible installations in organizations of all sizes.

While many Ethernet switches today offer standard PoE capabilities, the 8000 Midspan series is a unique solution for installations that require higher levels of power.

High Power over Ethernet (PoE) broadens the power limitations set by the PoE standard beyond 15.4 watts per channel. It enables the powering of heavier power consumers such as multi-band WLAN access points, Pan-Tilt-Zoom network cameras, RFID readers and Video IP phones. The installation of such devices is significantly accelerated as the AC outlet presence is no longer a barrier for quick and cost-effective deployment.

The 8000 Midspan resides between the Ethernet switch and the data terminal, injecting power into the line. Power is carried over all 4-pairs of the Ethernet cable to avoid any potential thermal effects on the infrastructure.

Besides supporting high power consumption terminals, the 8000 Midspan also operates standard PoE terminals in accordance with the IEEE 802.3af standard, limiting the maximum power on those specific ports to 15.4 watts, over 2-pairs only.

With full support of SNMPv3, the 8006/12 series offers an advanced and secure network management using either web browser or SNMP station.

PoE
High Power

Features

- Delivers up to 39 watts per port
- Safe & reliable High Power over Ethernet solution
- Designed to meet IEEE 802.3af standard when connected to standard terminals
- Remote SNMPv3 and Web management
- High level of network security
- Protects network infrastructure (8006/12)
- Scalable 12, 6 & 1-port models

PowerDsine™

PowerDsine 8000 Series

High Power over Ethernet Midspan Family

Key Benefits

Unique High-Power Solution
PowerDsine 8000 series is a unique solution, providing a highly cost-effective, safe and reliable means for powering IP terminals having high-power requirements, such as Multi Channel Wireless LAN Access Points, Pan Tilt Zoom (PTZ) Network Cameras, RFID Readers and others.

User Friendly
The 8000 Midspan is fully plug-and-play. Once turned on it initiates a negotiation process with all terminals and powers the ones found valid. The user can then easily manage and monitor the system using a user-friendly web application or any standard SNMP station.

Powerful Management for 8012
PowerDsine PowerView Pro is a Web / SNMP management application for system configuration and monitoring. It runs on Windows platform and on various management stations as HP OpenView, SNMPc and others. With PowerView Pro, specific ports can be turned on and off, parameters are set and power activity is monitored.

Security for 8006/8012
Advanced algorithms (MD5 & DES) ensure safe operation during authentication and runtime, protecting the Midspan from hacking hostilities.

Backward Compatible
The 8000 series supports high-power but is designed to meet IEEE 802.3af specifications when sensing 802.3af terminals. It can also power legacy applications, such as Cisco terminals, using proprietary pre-standards. Installed in conjunction with an Active Splitter, the Midspan provides power to legacy devices which are not equipped with PoE.

Scalability & Flexibility
The series comprises one, six and twelve port models. Multiple Midspans can be mounted in a wiring closet to support additional terminals, resulting in a simple, cost-effective method for expanding the network as requirements evolve.

Centralized Power Distribution
Reinforced with a central UPS, the Midspan provides a centralized distribution of backed-up power and ensures uninterrupted operation during power failures.

Future-Proof Investment
The 8000 series keeps your network ready for next-generation PoE applications as power requirements grow higher.

Cost-Effective
Independent of AC outlet presence, the Midspan saves installation costs in remote locations. The installation itself imposes only negligible network downtime resulting in higher organizational productivity.

PowerDsine PD-AS-801 Active Splitter

PowerDsine PD-AS-801 High Power Splitter is installed in conjunction with the PowerDsine 8012/8006/8001 High Power Midspans to power legacy terminals with non-standard power characteristics as defined by the IEEE 802.3af standard, i.e. non 48Vdc input and more than 12.95W power consumption.

The PD-AS-801 splitter receives one data and power input cable from the High Power Midspan and separates them into two outputs, terminating at a power port and RJ-45 jack.

The active splitter supplies a totally secure power source, keeping the Ethernet device fully protected against any misuse or mistaken connection.

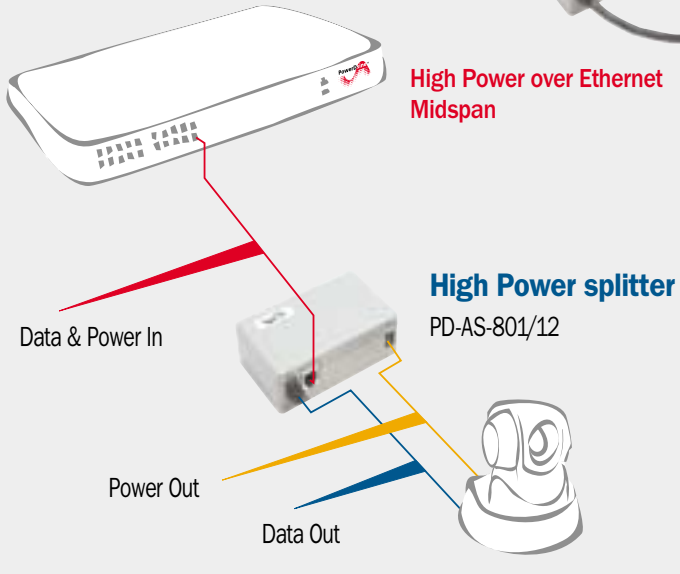
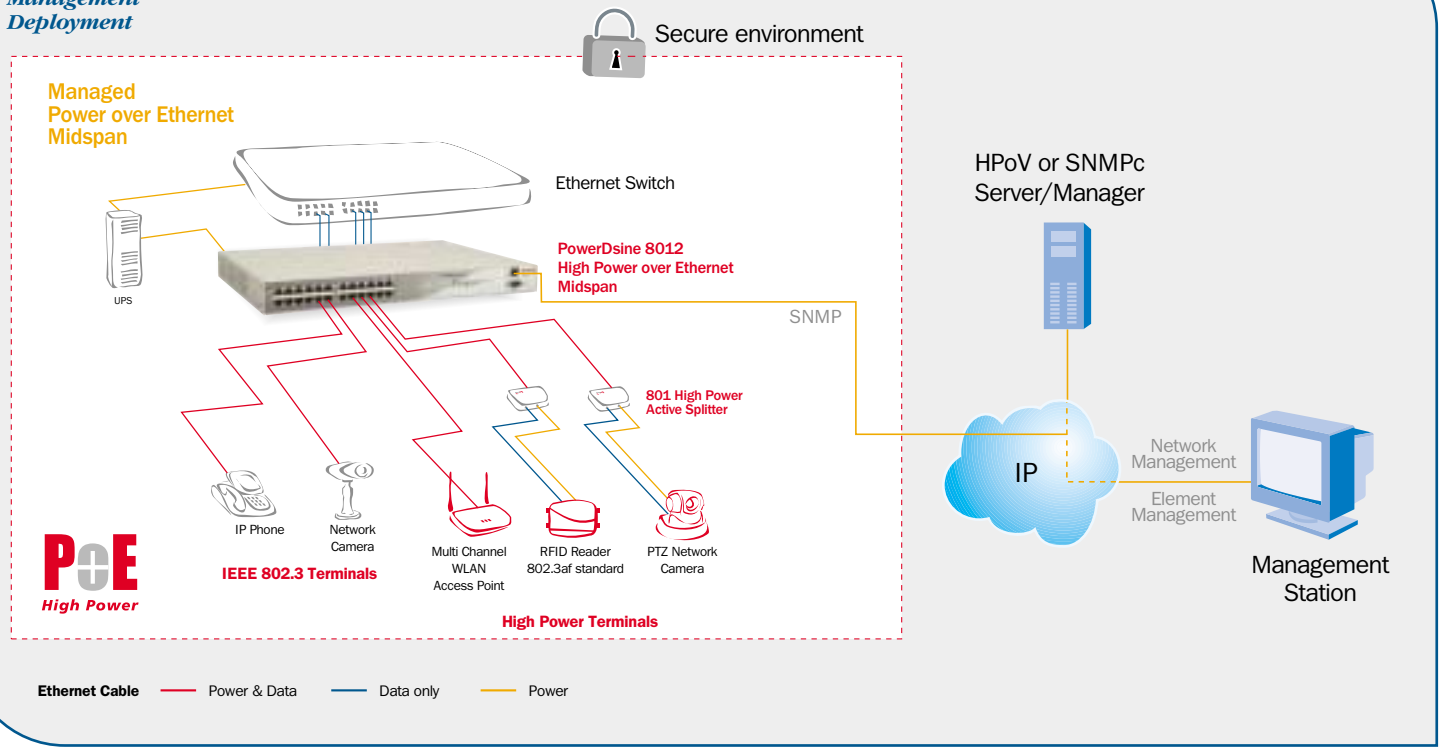


Figure 1

High Power Splitter connected to PTZ Network Camera with non-standard Power consumption

Figure 2

Management Deployment



PowerView Pro

PowerDsine's Secure Web-based Remote Management System

PowerView Pro Capabilities

The PowerDsine PowerView Pro application runs on any standard PC, providing remote management of all Midspans deployed in the network (see Figure 2). Advanced security algorithms (MD5 for authentication and DES for privacy) ensure high system safety. A built-in web server enables remote network monitoring using any web browser, with integrated SNMPv3 MIB.

Control and monitoring functions may be applied at both network and single-element levels:

Network level - PowerView Pro can monitor and configure any number of Midspans. The system may be managed via MIB-based management platforms, such as HP OpenView or SNMPc.

Element level - Single element management is performed at both unit and single-port levels. Parameters that may be directly retrieved from Midspans include: product identification, active power source, product status and unit power consumption. Single-port level parameters include: maximum per-port power, port priority level, port status and the type of powered device connected to the port.

PowerView Pro Features

- Real-time remote PoE monitoring and configuration via:
  - Secure Web management (SSL)
  - Secure SNMP (though SNMPv3)
  - Telnet (Terminal over Network)
- Graphical user interface with iconic representation of remote devices
- Status indicators and alarms
- multi-manager capabilities
- Event and performance data logging
- System status display
- Runs on any Window-based PC platform
- Plug-and-play - no software installation required prior to operation

8000 Midspan Family Specifications

Number of Ports	12/6/1
Data Rates	10/100 Mbps
High PoE Output	Powering on 4 pairs simultaneously Pin Assignment and Polarity: 4/5 (+), 7/8 (–) and 1/2 (–), 3/6 (+) **8006/8012:** Output Voltage (typ.): 55.5Vdc Port Power (typ.): 39W (using Power management) Available Power: 200 W **8001:** Output Voltage (typ.): 55.5Vdc Port Power (typ.): 32W
Input Power Requirements	**8006/8012:** AC Input Voltage: 90 to 264 Vac AC Input Current: 4 A at 110 Vac, 2 A at 220 Vac AC Frequency: 47 to 63 Hz **8001:** AC Input Voltage: 90 to 264 Vac
Dimensions	**8006/8012:** 1.75 x 17.0 x 11.9 in. (h * w * d) 4.4 x 43.8 x 30.2 cm (h * w * d) **8001:** 1.75 X 4.17 X 5.5 in. (h * w * d) 4.4 X 10.6 X 14.0 cm (h * w * d)
Weight	**8006/8012:** 8.8 lbs (4 kg) **8001:** 1.0 lbs (350 g)
Indicators	**8006/8012:** System Indicator: AC Power (Green/Orange) User Indicator: Channel Power (Green/Orange) **8001:** System Indicator: AC Power (Green) User Indicator: Power on Spare (Green) Power on Data (Green)
Connectors	Shielded RJ-45, EIA 568A and 568B DB-9, Female (8006/12 only)
Environmental Conditions	Operating Ambient Temperature: 32 to 104 F (0 to 40 C) Operating Humidity: maximum 90%, non-condensing Storage Temperature: –4 to 158 F (–20 to 70 C) Storage Humidity: Maximum 95%, Non-condensing Operating Altitude: –1000 to 10,000 ft. (–304.8 to 3048 m)
Thermal Rating	**8006/8012:** 200 BTU/hrs **8001:** 28 BTU/hrs
Regulatory Compliance	CE
Electromagnetic Emission & Immunity	FCC Class B Part 15 with FTP cabling EN55022 (CISPR 22) class B with FTP cabling EN55024 (CISPR 24)
Safety Approval	UL/cUL per EN 60950 GS Mark per EN 60950
Management (8006/12 Only)	SNMPv3 and Telnet Multiple agents accessible through single management entity Web-Management via PowerView Pro application Security: MD5 authentication DES privacy algorithm
Reliability	MTBF: 100,000 hours @ 25 C
Service Contacts	USA: Tel: 1-877-480-2323 UK: Tel: 0-800-085-8814 International: Tel: +972-9-7755123 E-Mail: customer.care@powerdsine.com

High Power Splitter Specifications

Input Power Requirements	RJ-45 Data and 48V power input on spare and data pairs
Outputs	RJ-45 Data Output connector DC Voltage 12V output (DC connectors: 5.5x3.3x1 and 5.5x2.5) Output Power continuous: 22W Output Power Peak: 26W (up to 10 sec.)
Detection Mechanism	IEEE 802.3af signature on both Data and spare pairs
Efficiency	Min 73%
Dimensions	1.26 x 3.0 in. x 4.8 in. (h * w * d) 33 x 75 x 120 mm (h * w * d)
Environmental Conditions	Operating Ambient Temperature: 32 to 47.6 F (0 to 40 C) Operating Humidity: maximum 93%, non-condensing Storage Temperature –14.4 to 183.6 F (–20 to 70 C) Operating Altitude: –1000 to 10,000 ft./304.8 to 3048 m)
Regulatory Compliance	CE
Electromagnetic Emission & Immunity	FCC Class B Part 15 with FTP cabling EN55022 (CISPR 22) class B with FTP cabling EN55024 (CISPR 24)

Ordering Information

Order Number	Description
PD-8001/AC	1 Port High Power over Ethernet Midspan
PD-8006/AC/M	6 Port High Power over Ethernet Midspan
PD-8012/AC/M	12 Port High Power over Ethernet Midspan
PD-AS-801/12-55331	High Power Splitter 48 Vdc to 12 Vdc
PD-KIT-8001-12V	1-Port High Power Midspan + 48Vdc to 12Vdc Splitter

International Headquarters
PowerDsine Ltd.
1 Hanagar St.
P.O.Box 7220
Hod Hasharon 45421
Israel
Tel: +972-9-7755100
Fax: +972-9-7755111
sales@powerdsine.com

North America
PowerDsine, Inc.
290 BroadHollow Road
Suite 305E
Melville, NY 11747
Tel: +1-631-756-4680
Fax: +1-631-756-4691
sales@powerdsineusa.com

Europe
PowerDsine UK
Lakeside House
1 Furzeground Way
Stockley Park, Uxbridge
UB11 1BD, United Kingdom
Tel: +44 (0) 208 622 3107
Fax: +44 (0) 208 622 3200
uk@powerdsine.com

PowerDsine™

www.powerdsine.com

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