



## Power over LAN™

# PowerDsine 6024/6012/6006 | Power over LAN™ Hubs

IEEE 802.3af Compliant Power Distribution over Standard LAN Infrastructure

- **Installation Cost Savings**  
Cost-effective installation of WLAN Access Points, IP Phones, Web Cameras and other Ethernet devices
- **Easy and Simple Installation**  
No need for bulky AC adapter, power cord and local UPS
- **Power Backup**  
Continuous operation of IP phones and WLAN Access Points during power failures
- **Scalable Solution**  
Variety of products to fit a different types of installations
- **IEEE 802.3af Fully Compliant**  
Interoperable with a wide range of Ethernet terminals
- **Safe Powering**  
Automatic detection and protection of legacy, non-powered Ethernet terminals
- **Remote Management**  
Easy online supervision and configuration using a web browser, via SNMP



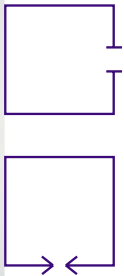
**PowerDsine 6024** | 24-Port Power over LAN Hub



**PowerDsine 6012** | 12-Port Power over LAN Hub



**PowerDsine 6006** | 6-Port Power over LAN Hub



Powering Converged Networks

Power over LAN™



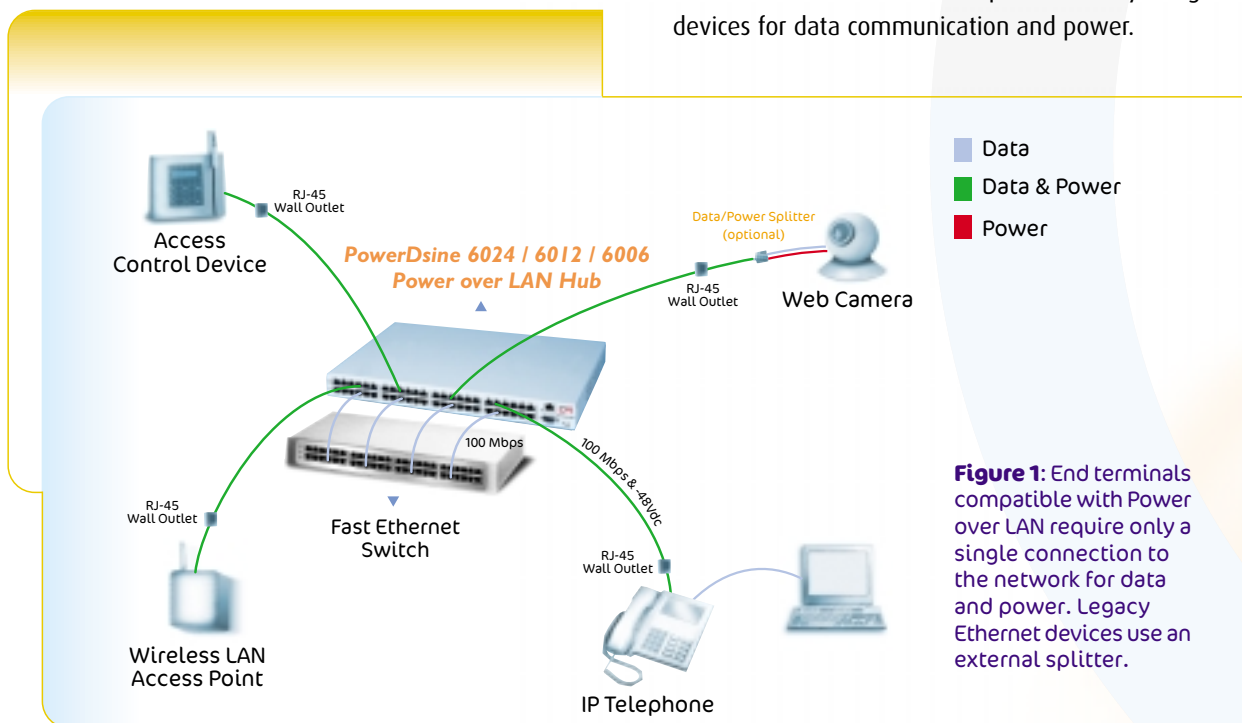
# Power over LAN™

## Features

- Remote Power Feeding** – The *PowerDsine 6024 / 6012 / 6006* Power over LAN Hubs connect to existing Ethernet or Fast Ethernet infrastructure via standard Category 5 unshielded twisted-pair and shielded twisted-pair cabling. By sending -48 V over 100 meters, Ethernet terminals (IP phones, wireless LAN access points and Web-cameras) can be powered by the *PowerDsine 6024 / 6012 / 6006* Power over LAN Hubs (Figure 1). An external splitter is installed where a device is not compatible with the Power Hub. This splitter separates the DC voltage and the Ethernet data, into two separate outputs terminating at a power port and a RJ-45 jack.
- Scalable Solution** – The *PowerDsine 6024 / 6012 / 6006* Power over LAN Hubs support up to twenty-four Ethernet terminals. Multiple hubs can be mounted in a wiring cabinet to support additional terminals, resulting in a simple, cost effective method for expanding the network, as requirements evolve. PowerDsine's Power over LAN Family includes the PowerDsine 6001, 6006 and 6012 and 6024 Power over LAN Hubs featuring 1, 6, 12 and 24 port, respectively.

- Centralized Power Distribution** – Deploying Power over LAN in conjunction with a central UPS provides a cost-effective way to distribute back-up power and ensures uninterrupted operation of IP telephony during electrical power failures. IT managers can protect each IP phone with a small UPS, but the overall cost of installing and maintaining hundreds of such devices would be prohibitive.
- Smart Ethernet Wiring** – The *PowerDsine 6024 / 6012 / 6006* directly transfer data transmissions originating from Ethernet terminals over pairs 1/2 and 3/6. The Power over LAN Hubs act as a normal patch panel for Ethernet connections, ensuring continuous and reliable performance. Power is provided only over unused Ethernet pairs 4/5 and 7/8.

- Minimal Crosstalk and Insertion Losses** – Normally, introducing DC into an Ethernet network increases noise susceptibility of the system, thereby degrading the Ethernet signal. PowerDsine's state-of-the-art design ensures that power distribution does not interfere with concurrent network operation. The hubs include high-performance, robust RJ-45 shielded connectors, intelligent wiring layout and optimized line termination. This combination allows the Power over LAN hubs to operate as fully integrated devices for data communication and power.



**Figure 1:** End terminals compatible with Power over LAN require only a single connection to the network for data and power. Legacy Ethernet devices use an external splitter.

- **Standard Compliance** – *PowerDsine 6024 / 6012 / 6006* hubs are fully compatible with IEEE 802.3 standard (when no inline power is supplied) and with IEEE 802.3af, DTE Power via Media Dependent Interface (MDI).

- **Advanced Auto-Sensing Algorithm** – *PowerDsine 6024 / 6012 / 6006* hubs feature a standard IEEE 802.3af auto-sensing algorithm, as well as backward compatibility to the pre-standard algorithm. This mechanism automatically detects power-ready terminals and supplies inline power. The per-port, sophisticated power control and monitoring circuit ensures continuous proper operation of devices, such as ordinary Network Interface Cards (NICs) that do not expect power on their Ethernet connection.

- **Power Management** – *PowerDsine 6024 / 6012 / 6006* hubs include enhanced power management capabilities by controlling the output power per port in the event of limited available power. Parameters of Maximum Available Power, Ports priority, and Maximum Allowable Power per Port, can be set in accordance to the specific application and customer's needs.

- **Easy to Use** – The *PowerDsine 6024 / 6012 / 6006* Power over LAN Hubs are plug-and-play products. Once turned on, they automatically detect all Power over LAN Ethernet terminals and supply inline power. All port interfaces are located on the front panel for easy access.

- **Concise LED Displays** – Real-time network monitoring through the front panel, includes a bi-color LED, per port, indicating normal, overload or short-circuit conditions. Additional LED indicators are included for main power supply and internal self-test monitoring.

- **Compact Size** – The standard 19-inch, 1U high Power over LAN Hub allow easy rack mounting, while occupying minimal space in the wiring closet.

- **SNMP Remote Management** – The SNMP Management System (*PowerView*) offers complete management capabilities for easy on-line supervision, configuration, monitoring and control of the hubs. *PowerView* is based on a PC platform with Windows graphic user interface and features web-browsed management capabilities. The system offers three levels of password protection for user-access to control system usage or for making changes by authorized personnel.



**The PowerDsine 6000 Power over LAN™ series**



# Power over LAN™

## Specifications

### No of Users

24/12/6

### Data Rates

10/100 Mbps

### Power over LAN Output Specification

Pin Assignment and Polarity:

4/5 (RTN.), 7/8 (-V)

Output Power Voltage: -48 V

User Port Power:

15.4W minimum

Power Management

Aggregate Power:

6024/6012: 200W

6006: 100W

### Input Power Requirements

AC Input Voltage: 88 to 264 Vac

AC Frequency: 47 to 63 Hz

AC Input Current:

3.5 A at 110 Vac, 1.8 A at 240 Vac

DC Input Current:

10 A at 48 V

Volt Amperes Rating:

0.48 KVA (-48 V)

0.30 KVA (110 Vac)

### Dimensions

1.75 x 17.0 x 11.9 in. (h\*w\*d)

4.4 x 43.3 x 30.2 cm (h\*w\*d)

### Weight

8.8 lbs. (4 kg)

### Management

Local LED Display

SNMP Management - Optional

### Indicators

System Indicator:

AC Power (Green/Orange)

DC Power (Green/Orange)

User Indicator:

Channel Power (Green/Orange)

### Connectors

Shielded RJ-45, EIA 568A and 568B,

DB-9, Female (Management)

### Environmental Conditions

Operating Ambient Temperature: 32° to 104°F (0° to 40°C)

Operating Humidity: Maximum 90%, Non-condensing

Storage Temperature -4° to 167°F (-20° to 75°C)

Storage Humidity: Maximum 95%, Non-condensing

Operating Altitude: -1,000 to 10,000 ft. (-304.8 to 3048 m)

### Thermal Rating:

285 BTU

### Regulatory Compliance

CE Compliance

### Electromagnetic Emission and Immunity

FCC Part 15 Class B

EN55022 Class B (Emission)

EN50082-1 (Immunity)

### Safety Approval

UL 1950

CSA C22.2 No. 950

EN 60950

TUV EN 60950

### Ordering Information

#### 6-Port Power over LAN Hub

Order Number	Description
PD-6006/AC-X	AC input, -48 V output
PD-6006/ACDC-X	AC & DC inputs, -48 V output
PD-6006/DC-X	DC input, -48 V output
PD-6006/AC/M-X	AC input, SNMP Management
PD-6006/ACDC/M-X	AC & DC inputs, SNMP Management
PD-6006/DC/M-X	DC input, SNMP Management

#### 12-Port Power over LAN Hub

Order Number	Description
PD-6012/AC-X	AC input, -48 V output
PD-6012/ACDC-X	AC & DC inputs, -48 V output
PD-6012/DC-X	DC input, -48 V output
PD-6012/AC/M-X	AC input, SNMP Management
PD-6012/ACDC/M-X	AC & DC inputs, SNMP Management
PD-6012/DC/M-X	DC input, SNMP Management

#### 24-Port Power over LAN Hub

Order Number	Description
PD-6024/AC-X	AC input, -48 V output
PD-6024/ACDC-X	AC & DC inputs, -48 V output
PD-6024/DC-X	DC input, -48 V output
PD-6024/AC/M-X	AC input, SNMP Management
PD-6024/ACDC/M-X	AC & DC inputs, SNMP Management
PD-6024/DC/M-X	DC input, SNMP Management

X = Type of Power Cord (US, UK, EUR, JP, KR, AUS)



## Powering Converged Networks

### 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.  
1865 New Highway  
Farmingdale, NY 11735, USA  
Tel: +1-631-756-4680  
Fax: +1-631-756-4691  
sales@powerdsineusa.com

### Europe

PowerDsine Europe  
Händelstr. 21  
D-61130 Nidderau, Germany  
Tel: +49-6187-900-849  
Fax: +49-6187-292-848  
europe@powerdsine.com

### PowerDsine Sweden

Ekbackvagen 28  
16869 BROMMA, Sweden  
Tel: +46(0)8-555-361-46  
Fax: +46(0)8-555-361-08  
sweden@powerdsine.com

### Japan

PowerDsine Japan  
7-2-5-209 Minamikasai  
Edogawa-Ku, Tokyo  
134-0085, Japan  
TEL: +81-3-5676-8499  
FAX: +81-3-5676-8499  
japan@powerdsine.com

### Korea

PowerDsine Korea  
Rm 1117, Daewoo Maison Officetel  
750-1 Janghang-Dong, Ilsan-Gu  
Goyang-City, Gyunggi-Do, Korea, 411-837  
Tel: +82-31-817-6447  
Fax: +82-31-817-6448  
korea@powerdsine.com

www.powerdsine.com