



DATA SHEET

3Com® Power over Ethernet Multiport Midspan Solution

Key Benefits

Distribute data and power across the network using your existing LAN cabling

Power over Ethernet

Powers up to 24 data connections for network jacks, wireless LAN access points, IP phones, and other Power over Ethernet-compatible networked devices—over your existing network infrastructure.

Cost Savings

Centrally distributed power helps lower operating costs and eliminates a clutter of local power hardware, cords, and battery backups.

Easy Installation

No new wiring for power required. Midspan solution introduces power to connections coming from the switch, preserving investments in existing data equipment and Ethernet wiring.

Reliable Power

Combining an uninterruptible power supply (UPS) and midspan solution in the wiring closet helps ensure continuous availability of IP phones and wireless LAN access points during power failures.

The 3Com Power over Ethernet Multiport Midspan Solution powers network jacks, NBX telephones, Wi-Fi access points, and other Power over Ethernet-compatible devices using standard Ethernet cabling. Installing this 24-port midspan power source in a secure wiring closet or other centralized location gives administrators easy access and manageability, along with the assurance of reliable and available network power.

Scalable Solution

24-port solution powers a variety of Ethernet infrastructures and devices. Multiple power sources can be configured to support additional devices.

IEEE P802.3af compliant

Fully compliant with the IEEE P802.3af draft specification, to help ensure interoperability with a wide range of Ethernet technologies and hardware.

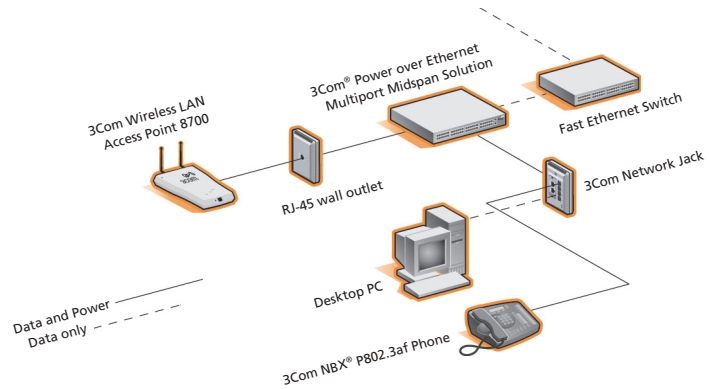
Safe Power Source

Resistive power discovery automatically detects power-compatible devices. Power is withheld from legacy, nonstandard, and unpowered devices—for maximum flexibility and safety.

Backwards Compatible

3Com® NBX® Phone Power Module enables a 3Com NBX phone to receive Power over Ethernet from any P802.3af-compliant power source, including 3Com Network Jacks.

Network Diagram



The 3Com Power over Ethernet Multiport Midspan Solution injects 48 VDC power into the LAN infrastructure, enabling end devices to receive power and data over the same network connection.

Features and Benefits

Feature	Benefit
Installation	
Cost savings	Integrate power and data connections for 3Com Network Jacks, 3Com 11 Mbps Wireless LAN Access Points, 3Com NBX Phones, and other networked devices.
Compact size	1 RU-high case mounts in standard 19-inch wiring closet rack; removes worksite clutter of AC power supplies, power cords, and battery backups.
Easy installation and configuration	Provides plug-and-play installation and automatic device detection; device ports located on front panel for easy access.
Centralized power	Simplifies power distribution and backup for multiple networked devices; UPS (purchased separately) can be installed in same wiring closet.
Performance, Availability	
24/7 power source	Centralized power source and backup help ensure continuous operation of business-critical devices, such as IP phones and WLAN access points, during power failures.
Scalable configuration	Supports a variety of devices and hardware installations; multiple midspan solutions can be mounted in the same wiring cabinet to support expanding networks.
Safe power source	Automatic signal detection protects legacy nonstandard and unpowered devices; enables powered and unpowered devices to safely share the same Ethernet infrastructure.

Feature	Benefit
Compatibility, Reliability	
IEEE P802.3af compliant	Complies with the P802.3af draft specification standard for interoperability with a wide range of network devices.
Smart Ethernet wiring	Provides data and power over the same network wiring; power is transmitted over unused wiring pairs, keeping it separate from data wiring pairs.
Shielded power	Reduces signal interference (crosstalk) and insertion losses via shielded connectors, intelligent wiring layout, and optimized line termination.
Power Management	
Advanced autosensing algorithm	Detects and tests devices using resistive power discovery scheme; backwards compatible with draft standard and prestandard detection algorithms.
Power management	Controls power output to stay within power budgets.
LED displays	Provides real-time network monitoring through bicolor LEDs on the front panel.

Specifications

Device Ports, Connectors

24 MDI-X device ports
Device connectors: shielded RJ-45, EIA 568A/568B
Management connectors: DB-9 female port

Cables and Operating Distances

Category 5 or 5e, UTP or STP Ethernet cabling up to 100 m (328 ft)

Data Output

Pin assignments: data transmitted over wiring-pair pins 1/2 and 3/6
Rates: autonegotiating 10BASE-T or 100BASE-TX

Device Detection

P802.3af-compliant resistive power discovery algorithm with 25 K Ω resistor in the powered device

Incoming Power Requirements

AC voltage: 88-264 VAC
AC frequency: 47-63 Hz
AC current: 3.5 A @ 110 VAC, 1.8 A @ 240 VAC
DC current: 10 A @ 48 V
Volt amperes rating: 0.48 KVA (-48 V) 0.30 KVA (110 VAC)

Power over Ethernet Output

Pin assignments and polarity: power transmitted over unused wiring-pair pins 4/5 (RTN) and 7/8 (-V)
Voltage: -48 VDC
Device ports: 15.4 W minimum per port
Cumulative: 200 W total output
Power feeding: P802.3af-compliant devices can be connected directly to existing standard Category 5/5e-cabled LANs; for nonstandard or unpowered devices, an external splitter can be installed to separate power and data transmissions into two separate outputs terminating at the end device; phone products can receive power by installing a power module between the phone and power source

LED Indicators

AC power: green/orange
DC power: green/orange
User/channel power: green/orange

Dimensions

Height: 4.4 cm (1.75 in); 1 RU
Width: 43.3 cm (17.0 in); 19-inch rack
Depth: 30.2 cm (11.9 in)

Weight

4 kg (8.8 lbs)

Environmental

Temperature: 0° to 40° C (32° to 104° F) operating; -20° to 75° C (-4° to 167° F) storage
Humidity (noncondensing): Up to 90 percent operating; up to 95 percent storage
Altitude: -304.8 to 3,048 m (-1,000 to 10,000 ft) operating
Thermal rating: 285 BTU

Networking Standards Compliance

802.3 (unpowered state), 802.3u, P802.3af (draft)

Regulatory Compliance

CE marking, C-tick

Electromagnetic Compliance

FCC Part 15 Class B, ICES-003 Class B, EN55022 Class B (emission), EN55024 (immunity), VCCI (Japan), MIC (Korea)

Safety Approvals

UL/cUL 60950; EN 60950; GS mark, IEC 60950, NOM-001-SCFI-1993 (Mexico)

Specifications, continued

Package Contents

Midspace power source equipment and power cord; regional power options are available. Please consult our online 3Com Network Jack, Power Options, and Country Selection Guide at www.3com.com/networkjack_selector for a detailed listing

Product Warranty

The 3Com Power over Ethernet Multiport Midspan Solution is backed by a Limited One-Year Warranty. Additional support packages, including extended service contracts, are available. For details on warranties and services, refer to the product manual or visit our warranty support page at www.3com.com.

Customer Support

3Com Knowledgebase offers proven answers and technical expertise—7 days a week, 24 hours per day. Explore our Knowledgebase, as well as product information, technical tips, and FAQs by visiting www.3com.com.

Power over Ethernet Compatible Products

3Com offers a full range of IEEE P802.3af draft-compatible devices, including midspan solutions, network jacks, wireless access points, VoIP phones, and integrated data/power switches. For additional information on these products—such as technical tips, product data sheets, technology white papers, frequently asked questions, user guides, and more—visit www.3com.com.

P802.3af Power over Ethernet Switch

3Com SuperStack® 3 Switch 4400 PWR	3C17205-xx
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Devices That Forward P802.3af Power over Ethernet

3Com NJ100 Network Jack	3CNJ100-BLK, 3CNJ100-CRM
3Com NJ200 Network Jack	3CNJ200-BLK, 3CNJ200-CRM

Devices That Receive P802.3af Power over Ethernet

Network Jacks	3Com NJ90 Network Jack	3CNJ90
	3Com NJ95 Network Jack	3CNJ95, available in Europe only
	3Com NJ100 Network Jack	3CNJ100-BLK, 3CNJ100-CRM
	3Com NJ200 Network Jack	3CNJ200-BLK, 3CNJ200-CRM
WiFi Wireless	3Com 11 Mbps Wireless LAN Access Point 8000	3CRWE80096B
	3Com 11 Mbps Wireless LAN Access Point 8200	3CRWE820096A
	3Com 11 Mbps Wireless LAN Access Point 8500	3CRWE850096A
	3Com Wireless LAN Building-to-Building Bridge	3CRWE91096B
	3Com 11 Mbps Wireless LAN Outdoor Bridge Solution	3CRWEASY96A
IP Phones	3Com NBX Phone Power Module	3CNJVOIPMOD-NBX

The following IP phone products can receive P802.3af draft-compliant PoE when modified using the 3CNJVOIPMOD-NBX power module.

3Com NBX 1102 Business Phone	3C10121
3Com NBX 1102B Business Phone	3C10281B
3Com NBX 2101 Basic Phone	3C10248B
3Com NBX 2102 Business Phone	3C10226A
3Com NBX 2102-IR Business Phone with IR	3C10228IRA
3Com NBX 2102B Business Phone	3C10226B
3Com NBX 2102-IRB Business Phone with IR	3C10228IRB

Ordering Information

3Com Power over Ethernet Multiport Midspan Solution	3CNJPSE24-xx
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Please note: Part numbers ending with *-xx* indicate that regional options are available. For details, please visit www.3com.com/networkjack_selector.



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To learn more about 3Com solutions, visit www.3com.com. 3Com is publicly traded on NASDAQ under the symbol COMS.

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