



DATA SHEET

3Com® IntelliJack™ Switch Family

Innovative "in the Wall" Solution: International-Standard

Key Benefits

Transform a simple LAN outlet into a four-port, "in the wall" Fast Ethernet switch

Cost-Saving Infrastructure Expansion

Quadruple your LAN ports with significantly lower costs and fewer disruptions than pulling extra cables.

Adaptable Device Connectivity

Each 3Com® IntelliJack™ switch provides four 10/100 Mbps switched LAN ports and an uplink. Choose the managed NJ225 or unmanaged NJ105 models, each with an optional "pass through" port giving an additional LAN connection. Use the NJ225 FX model when the uplink cable is fiber.

"In the Wall" Design

Compact wall-mounted unit reduces workspace clutter and safeguards network connectivity from tampering, damage, or theft.

Flexible Power

Power options include IEEE 802.3af Power over Ethernet and power forwarding for reliable wiring-closet power, and local AC power. Power is ordered separately to lower overall installation cost.

3Com IntelliJack Switches are unique "in the wall" devices that quickly and easily convert a single LAN wall outlet into four autonegotiating 10/100 Mbps LAN ports. These international-standard models were specially designed for installation in cut-outs and raceways that follow E.U. and U.K. standards with 60 mm screw separations.

Available are managed and unmanaged models with a 10/100 uplink connection;

Designed for E.U. and U.K. Cut-Out Standards

The IntelliJack switch "international standard" models are designed for fast, safe and secure installation in wall cut-outs and raceways following E.U. and U.K. cut-out standards. Switches mount without disturbing wall spaces, making them particularly suited for older or hard-to-wire facilities.

Converged, Secure Networks

Advanced capabilities—including traffic prioritization, standards-based VLANs, and a "location mapping" feature—optimize IntelliJack Switch NJ225 connections for voice, video, and data.

Seamless Integration

Standards compliance includes Ethernet, Fast Ethernet, Voice over IP (VoIP), Power over Ethernet, and building and telecommunications wiring specifications.

a 100BASE-FX uplink fiber version is available as managed-only.

IntelliJack switches work in almost any network environment—including small-office or enterprise businesses, government offices, dormitories, hospitals, classrooms, public kiosks, and conference rooms. Unlike freestanding hubs or switches, IntelliJack switches are not easily damaged or disconnected; nor are they susceptible to theft.

3Com IntelliJack Switch Setup

Figure 2: Mounting the IntelliJack switch NJ225 FX into a raceway as commonly found in Germany.

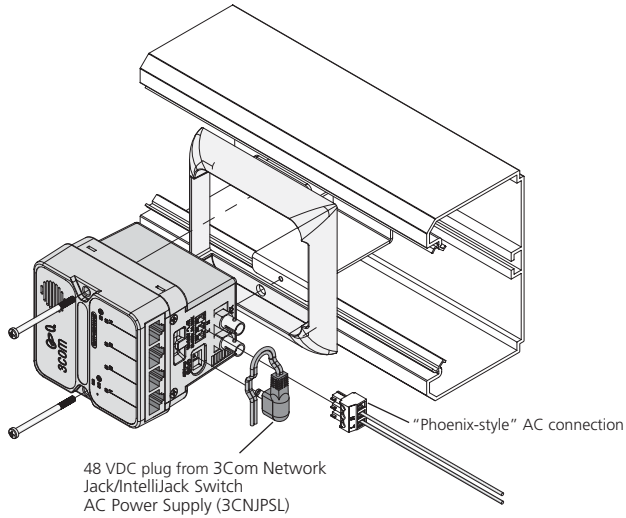


Figure 1: Mounting the IntelliJack switch NJ105, NJ225

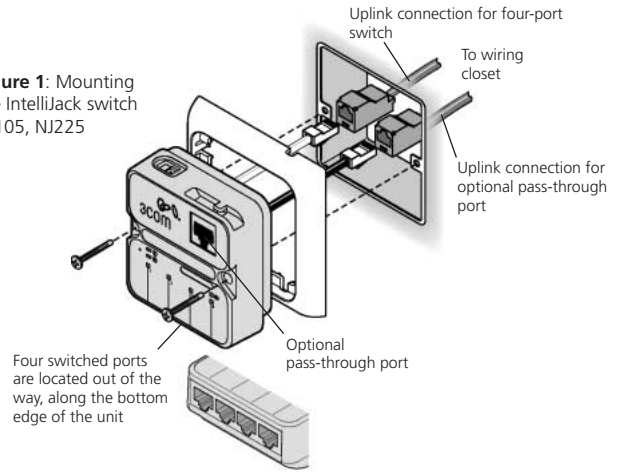


Figure 3: 802.3af-compliant Power over Ethernet network configuration with power forwarding to another device.

- 1 3Com SuperStack® 3 Switch 4400 PWR (3C17205) delivers data and power over Category 5/5e cabling.
- 2 The IntelliJack switch prioritizes voice and data traffic for connected devices.
- 3 Either model, NJ105 or NJ205, can forward Power over Ethernet to a 3Com NBX® 802.3af Phone or other 802.3af-compliant device.

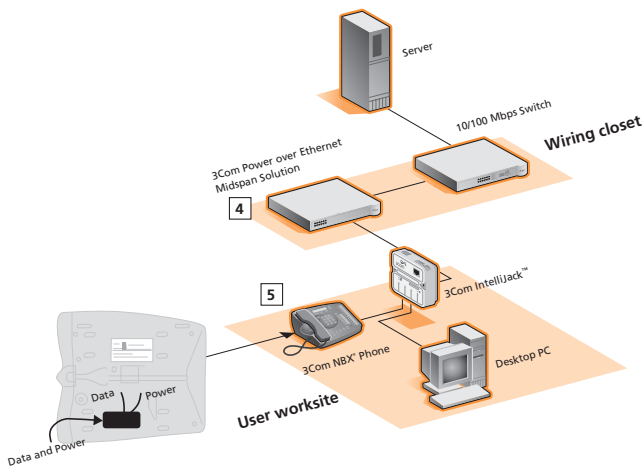
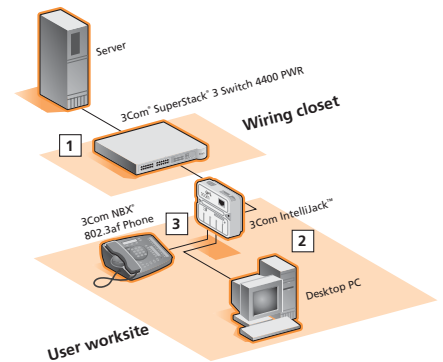


Figure 4: Retrofitting an existing Ethernet infrastructure to support Power over Ethernet.

- 3 3Com Power over Ethernet Multi-Port or Single-port Midspan Solution (3CNJPSE24, 3CNJPSE) injects 48 VDC Power over Ethernet into existing 10/100 Mbps switched connections.
- 5 A prestandard 24-volt NBX phone can be modified with the 3Com NBX Phone Power Module (3CNJVOIPMOD-NBX) to accept 48 VDC Power over Ethernet.

IntelliJack Models Give Deployment Choice

3Com IntelliJack Switch NJ225

The NJ225 model is for enterprise accounts looking for a managed solution to quadruple ports in an infrastructure with copper 10/100 connections. This "in the wall" managed switch comes bundled with software utilities that help streamline administration tasks and boost network security. Advanced switching and management features make it ideal for connecting networked telephony. Enterprise ready, this model can be discovered and controlled by most SNMP-compliant management platforms — including 3Com Network Supervisor and HP OpenView.

3Com IntelliJack Switch NJ225 FX

The NJ225 FX model shares the management capabilities of the NJ225 model. It is designed for environments where the uplink connection will be 100BASE-FX fiber.

3Com IntelliJack Switch NJ105

The NJ105 provides the same 10/100 copper-based connectivity options as the NJ225, but without Network Login security and management support.

Model Comparison

	IntelliJack NJ225	IntelliJack NJ225 FX	IntelliJack NJ105
U.K./E.U.-standard wall cut-out support	✓	✓	✓
Connection ports	4 x 10/100	4 x 10/100	4 x 10/100
Uplink ports	1 x 10/100	1 x 100BASE-FX	1 x 10/100
IEEE 802.1X Network Login security	✓	✓	
VLANs	IEEE 802.1Q	IEEE 802.1Q	
IEEE 802.1p Traffic prioritization	✓	✓	
Rate limiting	✓	✓	
Location Mapping	✓	✓	
Powered by IEEE 802.3af Power over Ethernet	✓		✓
Powered by local power adapter	✓	✓	✓
Powered by integrated power supply		✓	
Power forwarding of IEEE 802.3af Power over Ethernet	✓	✓	✓
Warranty	Limited Lifetime	3 Year	Limited Lifetime

IntelliJack Powering and Power over Ethernet

IntelliJack switches come with no means to directly power the unit; switch power sources are required and sold separately.

Power over Ethernet (PoE) support with the IntelliJack switches helps lower deployment costs. The NJ105 and NJ225 models can utilize standards-based IEEE 802.3af PoE power obtained from their 10/100 uplink connection. If a source for PoE power is needed, 3Com has an integrated endspan solution, the 3Com SuperStack® 3 Switch 4400 PWR, combining an enterprise-class switch

with power injection in a single device; also available are mid-span PoE options to add power to an existing Ethernet wiring infrastructure.

When Power over Ethernet is not used to power the IntelliJack, a local AC power adapter can be purchased. The NJ225 FX model can also be powered by a "phoenix-style" connection common in Germany; this is supported "out of the box" and requires nothing additional to use.

3COM® INTELLIJACK™ SWITCH FAMILY DATA SHEET, INTERNATIONAL-STANDARD MODELS

Performance	Switching capacity: 1.0 Gbps; Forwarding rate: 1.0 Mpps
Layer 2 Switching	
MAC Address	512 MAC addresses Secure MAC addresses (32 addresses)
VLAN	64 VLANs (IEEE 802.1Q)*
Auto-negotiation	Auto-negotiation of port speed and duplex
Traffic control	IEEE 802.3x full-duplex flow control
Convergence	
Priority Queues	Four hardware queues per port Strict priority queuing Weighted Round Robin queuing
Traffic Prioritization	Priority based on: <ul style="list-style-type: none"> • IEEE 802.1pCoS • DSCP (DiffServ Code Point) • Default port priority
Traffic Shaping	Egress rate limiting, port-based: <ul style="list-style-type: none"> • 128 Kbps to 64 Mbps in 16 steps; no limit
Security	
Network Login	IEEE 802.1X user authentication <ul style="list-style-type: none"> • RADIUS authentication • Secure Mode (locks MAC address)
Switch Management	Local management of switch passwords
Management	
Remote Management	SNMP v1 User-selectable management VLAN
Software	Backup and restore Configuration upload via Central Configuration Manager
Configuration	Central Configuration Manager Local Configuration Manager Web-based SNMP
Mirror port / RAP (Roving Analysis Port)	One-to-one
RMON (Remote Monitoring)	Statistics
IP address allocation	DHCP Manual
Remote management	3Com Network Supervisor <ul style="list-style-type: none"> • Topology discovery • Change management reporting • Capacity planning • Event logging • Fault identification and troubleshooting • Utilization monitoring

* Not available with NJ105

Specifications

Connectors

Switch connectivity
4 auto-negotiating 10BASE-T/100BASE-TX ports configured as Auto MDI/MDIX

Uplink connection
NJ105, NJ225: One 10/100BASE-TX

NJ225 FX-SC: One 100BASE-FX, SC connector

NJ225 FX-TC: One 100BASE-FX, ST connector

Optional pass-through
One pass-through RJ-45 port (NJ105 and NJ225 only)

Power Options

Power over Ethernet: Supported by any 802.3af-compliant source and most 24 VDC and 48 VDC inline sources (not applicable for NJ225 FX models)

Power forwarding: Receiving device must be 802.3af-compliant or selected phones with power-conversion module (3CNJVOIPMOD-NBX, 3CNJVOIP-CPOD)

Local AC power: 3Com Network Jack AC Power Supply (3CNJPSL) is required for LANs that do not have Power over Ethernet capabilities

NJ225 FX models only: Integrated power supply can accept 100–240 VAC (as supplied by selected raceways); local AC power (3CNJPSL) may also be used

Management

Compatible with SNMP v1, IEEE 802.1p Packet Prioritization/QoS, IEEE 802.1Q VLANs, IEEE 802.1X Security, DHCP, most SNMP-compliant management platforms; 3Com Network Supervisor recommended

Standards Compliance

Ethernet Protocols

IEEE 802.1D (bridging)

IEEE 802.1p (CoS)

IEEE 802.1Q (VLANs)

IEEE 802.1X (Security)

IEEE 802.3 (Ethernet)

IEEE 802.3af (PoE)

IEEE 802.3i (10BASE-T)

IEEE 802.3u (Fast Ethernet)

Building: U.K. and DIN Standard

Safety, Emissions: CE marking, EN60950, EN55022 Class B (NJ225 FX, Class A only), EN55024

Environmental

Temperature: 0° to 35° C (32° to 95° F) operating; -30° to 90° C (-22° to 194° F) storage

Humidity (noncondensing): 10%–90% operating; 5%–95% storage

LED Indicators

Unit power, link activity/status of ports; power forwarding

Dimensions

IntelliJack Switch NJ105, NJ225

Height: 7.5 cm (3.0 in)

Width: 7.0 cm (2.8 in)

Depth: 2.8 cm (1.1 in)

IntelliJack Switch NJ225 FX

Height: 7.5 cm (3.0 in)

Width: 7.0 cm (2.8 in)

Depth: 7.0 cm (2.8 in)

Power over Ethernet Multi-port Midspan Solution

Height: 4.40 cm (1.7 in)

Width: 43.3 cm (17.0 in)

Depth: 30.2 cm (11.9 in)

Power over Ethernet Single-port Midspan Solution

Height: 2.6 cm (1.0 in)

Width: 6.4 cm (2.5 in)

Depth: 10.2 cm (4.0 in)

AC Power Supply

Height: 3.8 cm (1.5 in)

Width: 5.1 cm (2.0 in)

Depth: 8.9 cm (3.5 in)

NBX Phone Power Module

Height: 2.4 cm (0.9 in)

Width: 7.8 cm (3.1 in)

Depth: 3.8 cm (1.5 in)

48-volt Phone Power Module

Height: 1.9 cm (0.8 in)

Width: 2.5 cm (1.0 in)

Depth: 5.1 cm (2.0 in)

Product Warranty

For details on product warranties, support, and service—including extended service contracts—please 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.

*Available with NJ225 and NJ225 FX models only

Ordering Information

3Com IntelliJack Switch NJ105 unmanaged 4-port switch 3CNJ105

3Com IntelliJack Switch NJ105 managed 4-port switch, 20-pack 3CNJ105-20

3Com IntelliJack Switch NJ225 managed 4-port switch 3CNJ225

3Com IntelliJack Switch NJ225 FX-SC managed 4-port switch, SC fiber uplink 3CNJ225FX-SC

3Com IntelliJack Switch NJ225 FX-ST managed 4-port switch, ST fiber uplink 3CNJ225FX-ST

Accessories

3Com IntelliJack Switch Int'l Model Extension Trim Ring 3CNJMP-EXT

3Com IntelliJack Switch Int'l Model Floor Box Mounting Plate 3CNJMP-FLR

3Com IntelliJack Switch Int'l Model Raceway Mounting Plate 3CNJMP-FR

3Com IntelliJack Switch Int'l Model Trim Ring Spacer 3CNJMP-SPR

3Com IntelliJack Switch Int'l Model Double-gang Mounting Plate (U.K.-style) 3CNJMPD-UK

Power Supplies

3Com SuperStack 3 Switch 4400 PWR 3C17205

3Com Power over Ethernet Multi-port Midspan Solution 3CNJPSE24

3Com Power over Ethernet Single-port Midspan Solution 3CNJPSE

3Com IntelliJack Switch AC Power Supply 3CNJPSL

3Com NBX Phone Power Module 3CNJVOIPMOD-NBX

3Com NBX Phone Power Module, 20-pack 3CNJVOIPMOD-20

3Com IntelliJack Switch to 48-Volt VoIP Phone Power Module 3CNJVOIP-CPOD

3Com IntelliJack Switch to 48-Volt VoIP Phone Power Module, 20-pack 3CNJVOIP-CPOD-20

Please note: 3Com IntelliJack switches require power from either inline Power over Ethernet or a local AC source. This must be ordered separately. NJ225 FX model can also be powered by a "phoenix-style" connection common in Germany.