

PRODUCT DATA SHEET



OPTICAL FIBER 4U RACK MOUNT PATCH PANEL

PDS-0203





### DESCRIPTION

Wirewerks' NextSTEP Technology™ Fiber Management System is a complete solution for optical fiber networking and management in Data Center, Broadband and Enterprise applications. The NextSTEP system includes rack-mount patch panels, wall-mount enclosures and a FDF system (fiber distribution frame) that accept any combination of NextSTEP Fiber Modules and cassettes for fiber patching, distribution, splicing, splitter and WDM applications in virtually any fiber network application. Please contact us for more information and your copy of the complete NextSTEP Solutions Guide.

Wirewerks' **NextSTEP™ 4U Rack Mount Patch Panel** accept up to forty-eight NextSTEP Fiber Modules in any combination, in any slot position. NextSTEP 4U Patch Panels feature an innovative horizontal slot design that is compatible with all formats and types of NextSTEP Modules. NS 4U Patch Panels feature unrestricted front and rear access allowing NextSTEP Modules to slide in or out from the front or rear of the panel, without tools, for faster, easier installation and maintenance activities. Each slot of the NS 4U Patch Panel is equipped with precision guide-rails that secure NextSTEP Modules in-place. The guide-rail system features 'click in-place' stops that provide positive feedback when modules are properly seated in their correct operating position, or when partially withdrawn, from the front or rear, for inspection or servicing.

#### Effective in Data Centers, Broadband Networks, and Enterprise LANs

NextSTEP Fiber Modules used in NextSTEP 4U Rack-Mount Patch Panels are produced in two Series (physical formats), with several different types of modules (based on functionality) available in each Series. All Series and types of NextSTEP Modules are fully compatible with all NextSTEP panels and enclosures.

**NS 1-Series Modules** occupy one horizontal slot in NextSTEP panels and enclosures, typically managing fibers in discrete groups of 12F per module as recommended under ANSI/TIA-942-B Data Center Cabling Standards and ANSI/BICSI 002-2019 Data Center Design & Implementation Best Practices. NS 1-Series Modules take full advantage of the NS 4U Patch Panel's exclusive 'stepped' (offset) slot design to provide manageable high-density (typically 144F per 1RU) in Data Center and Enterprise LAN environments. NS 1-Series (single slot format) Modules are available in many functional types, including patch modules, distribution modules, splice trays, adapter modules, splitter modules and WDM modules.



NextSTEP 1-Series Modules DESCRIPTION

**NS 3-Series Modules** occupy three horizontal slots in NextSTEP panels and enclosures, typically managing up to 24F per module. NS 3-Series Modules feature a flush front design with all front connectors presented in the same vertical plane. NS 3-Series Modules allow network operators to deploy NextSTEP solutions in 96F per 1RU designs with flush mounted front ports, as often preferred in broadband network environments. NS 3-Series (three slot format) Modules are available in many functional types, including patch modules, distribution modules and WDM modules.



NextSTEP 3-Series Modules

**NextSTEP Base-2, Base-8 and Base-12 NextSTEP Fiber Modules,** fully compatible with NextSTEP 4U Patch Panels and other NS enclosures, provide network designers with options for their current needs, along with a migration path to the future 40/100/400 Gbps network speeds of tomorrow's Data Centers, Broadband Networks and Enterprise LANs.

#### Typical NextSTEP 4U Patch Panel Configurations

The NextSTEP 4U Patch Panel is suitable for virtually any fiber networking application regardless of network topology, installation environment, fiber type, connector type, or fiber termination methodology.

Fiber counts in 4RU for typical configurations include up to 576F with LC-Patch or Distribution Modules; up to 1,152F with Splice Tray Modules; and up to 4,608F with MPO-24F Adapter Strip Modules.

## **Exclusive Fiber Management Features and Accessories**

The NextSTEP 4U Patch Panel offers integrated fiber routing, strain-relief and bend-radius control features to ensure fiber performance and reliability.

Additionally, NS 4U Patch Panels include a supply of Wirewerks' exclusive CableTree™ magnetic fiber management accessories and CableGrip™ strain reliefs.



NextSTEP CableBundle™ (left)

NextSTEP CableTree™ (right)



FEATURES and BENEFITS

#### NextSTEP 4U Rack Mount Patch Panel Exclusive Features and Benefits

- Industry first **horizontal 'stepped' (offset) slot design** increases accessibility for manageable high density
- Bottom-hinged **Front Door** with clear plexi viewing panel, magnetic closure and removable labeling plate
- Bottom-hinged **Rear Door** with magnetic closure
- Hinged **Rear Management Bar** for improved accessibility
- Adjustable depth rack-mount ears for installation flexibility





- Award-winning **CableTree™** and **CableBundle™** magnetic cable management accessories are infinitely repositionable providing fiber routing, bend-radius control and active strain-relief -- and assist techs in managing high fiber counts during installation and maintenance activities.
- **CableGrip™** strain relief provides robust, secure cable entry for any size/type of cable at either side of the 4U Patch Panel. CableGrip eliminates cable-ties that may be overtightened, crushing cables and creating performance-robbing micro-bends. CableGrip eliminates unwanted cable movement without restricting desirable fiber movement within loose-tube cables.





FEATURES and BENEFITS

- Horizontal 'stepped' (offset) slot design improves visual and physical access to modules and fiber management features
- High-density fiber counts save space and reduce costs:
  - Up to 576F in Patch/Distribution Modules with LC/SC connectors
  - Up to 1,152F in Splice Tray Modules (12/24F ribbon or single fiber)
  - Up to 4,608F with MPO-24F Adapter Strip Modules
- Full support for all fiber applications, connectors and termination methods:
  - Pre-terminated/Plug & Play (Factory-sealed Distribution Modules; LC, SC and MPO Adapter Strip Modules; FLEX Modules)
  - Field-terminated fusion slicing (Patch Module)
  - Pigtail fusion splicing (Patch Module)
  - Ribbon-cable, single fiber fusion splicing (Splice Tray)
  - S/C/D-WDM Modules
  - Splitter Modules
  - Splice Bay (Splice Tray Modules)
- Precision engineered and quality manufactured using robust carrier-class materials for reliability and extended operational lifespan
- Adjustable rack-mount ears allow depth control in racks and cabinets
- Complete front and rear access to all installed Modules
- Slide-in/out Modules, from the front or rear, no tools required
- Front/Rear Covers are easily removed/replaced without tools for greater accessibility and easier, faster installation and maintenance routines
- CableTree<sup>™</sup> and CableBundle<sup>™</sup> magnetic cable management accessories for fiber routing, bend-radius protection, and strain-relief
- CableGrip<sup>™</sup> strain relief secures cable entry; eliminates cable-ties that may cause performance degrading micro-bends in fibers
- Labeling space for easy, accurate port identification
- Complete installation hardware and Instruction Manual

# APPLICATIONS

- Data Centers
- Enterprise, Healthcare, Education, Financial, Government and other premise/campus network applications
- Broadband/MSO/Carrier wireline and wireless networks



ORDERING INFORMATION

Part Number	Description	
NS-PP-W4U1	NextSTEP™ 4U Rack Mount Patch Panel	

## INCLUDED

Part Number	Included
NS-PP-W4U1 4U Rack Mount Patch Panel	<ul> <li>Front and rear doors</li> <li>Rear management bars</li> <li>Labeling plate</li> <li>Self-adhesive port identification label, 4.0" x 3.25"; 1 sheet of 6 labels</li> <li>1 x strain-relief bracket</li> <li>4 x CableGrip cable attachment devices</li> <li>2 x danger/caution safety sticker</li> <li>4 x machine screw 12-24, 1/2" long, Philips head</li> <li>4 x machine screw 10-32, 1/2" long, Philips head</li> <li>6 x machine screw, M4x0.7, 6mm long, Phillips head</li> <li>8 x NextSTEP<sup>™</sup> CableTree<sup>™</sup> Magnetic Cable Managers</li> <li>6 x NextSTEP CableBundle Magnetic Cable Managers</li> </ul>

## PACKAGING and SHIPPING

Description	Dimensions	Shipping Weight
Cardboard boy 1 unit/boy	22" x 11" x 22" (559mm x 280mm x 559mm)	27.1lbs (12.29kg)

PHYSICAL
SPECIFICATIONS

Attribute	Value
Dimensions	19" x 6.97" x 17.6" (482mm x 177mm x 447mm)
Weight	22.65lbs (10.27kg)
Plastic Materials	UL 94V-0 Thermoplastic
Panel Materials	18 & 16 Gauge Cold Rolled Steel (CRS)
Panel Finish	Silver Cloud powder paint

# MECHANICAL SPECIFICATIONS

Parameter	Value
Operating Temperature	-25° to 40°C (-13° to 104°F)
Storage Temperature	-25° to 55°C (-13° to 131°F)



# OPTICAL FIBER 4U RACK MOUNT PATCH PANEL

# STANDARDS COMPLIANCE

ANSI/TIA-942-B Telecommunications Infrastructure Standard for Data Centers

**ANSI/TIA-568.3-D** Optical Fiber Cabling Components Standard

**TIA-569-E** Commercial Building Standard for Telecommunications Pathways and Spaces

**EIA/ECA-310-E** Cabinets, Racks, Panels and Associated Equipment Standard ANSI/TIA/EIA-606-C

Administration Standard for Telecommunications Infrastructure

**GR-449-CORE** Generic Requirements and Design Consideration for Fiber Distributing Frames

**UL 94** Tests for Flammability of Plastic Material for Parts in Devices

RoHS

Directive on Restriction of Hazardous Substances