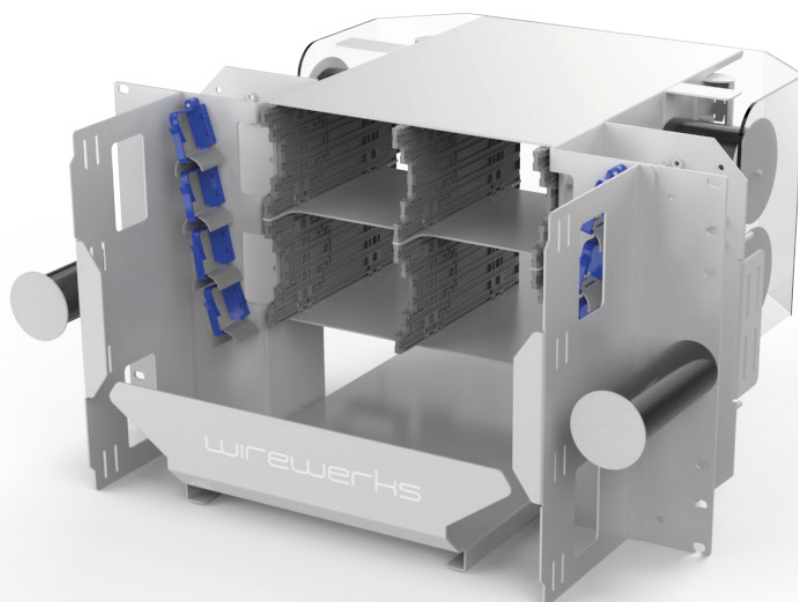


**NEXTSTEP™**FIBER  
DISTRIBUTION FRAME

PDS-0237



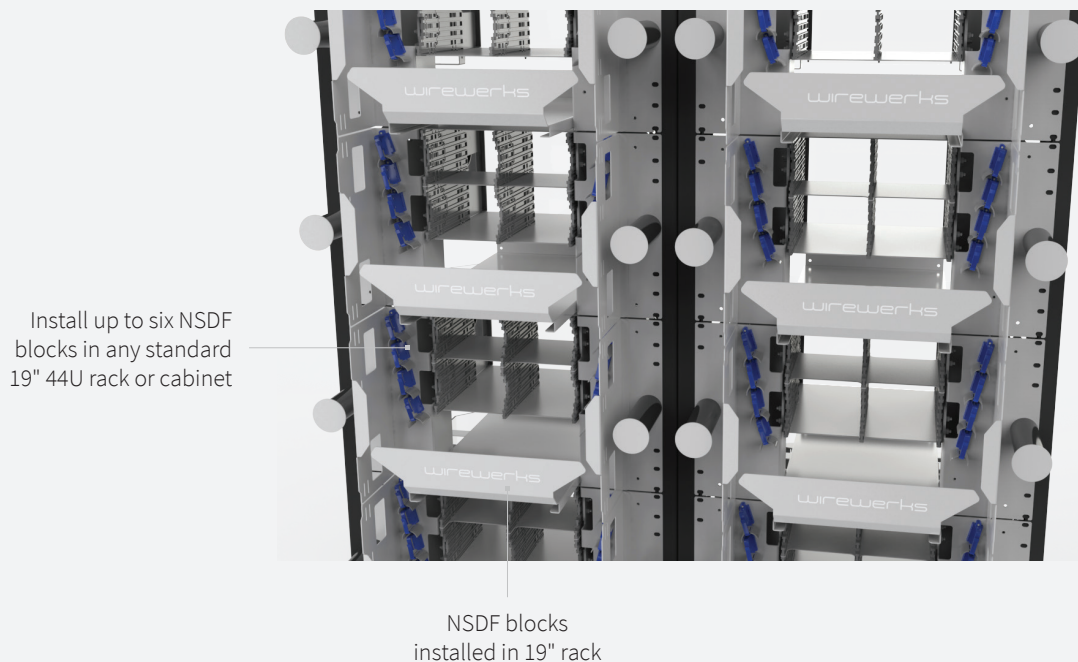
Wirewerks' **NextSTEP™ Distribution Frame (NSDF)** is the industry's first **modular** optical fiber distribution frame (FDF) designed to install in **any standard 19" rack or cabinet**. The NSDF is the industry's only fiber distribution frame that provides fiber connectivity and vertical cable management in standard 19" racks/cabinets, with the **highest fiber density/in<sup>2</sup>** in the industry today.

## DESCRIPTION

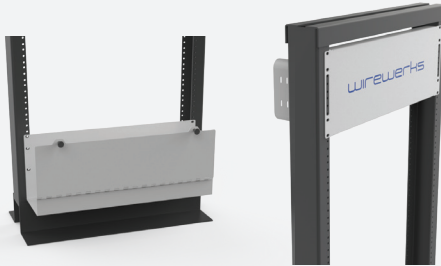
Wirewerks' **NextSTEP™ Distribution Frame (NSDF)** is a modular optical fiber distribution frame (FDF) designed to install in any standard 19" rack/cabinet. The modular design allows customers to source and supply their own preferred brand/spec of 19" rack/cabinet from their local supplier. Additionally, the modular design approach and use of locally sourced racks/cabinets dramatically **reduces project lead-times**, with NSDF blocks ready to ship as you grow.

Each NSDF block provides complete fiber connectivity and vertical cable management within the 19" rack/cabinet width while offering the highest fiber density per in<sup>2</sup> of footprint in the industry today.

The NextSTEP™ Distribution Frame is a fully integrated component within Wirewerks' NextSTEP Technology™ fiber management system. This means that the NSDF accepts any NextSTEP fiber management module, utilizes NextSTEP cable management accessories, and may be co-located with any other type of NextSTEP rack mount patch panel for custom-designed fiber management solutions to suit any application or environment.



Each NSDF block is 6U high, allowing up to six blocks in a standard 44U rack/cabinet with a **4U NSDF Bottom Tray** for cable routing and a **4U NSDF Top Panel** to restrict aisle-to-aisle airflow. Fiber counts and fiber density may be increased by using 52U racks/cabinets populated with seven NSDF blocks (versus six NSDF blocks in 44U racks/cabinets).



Each 6U NSDF block provides **24 horizontal slots in 2 vertical columns** ready to accept any type of NextSTEP Fiber Module, including any combination of patch, distribution, and C/D-WDM modules, MPO/LC/SC adapter strips, fusion splice trays, and blank adapter strips. As with all NextSTEP enclosures, the slots for the fiber modules in the NSDF are staggered (or ‘stepped’) to allow easier visual and physical access to installed fiber modules from either the front or rear of the NSDF.



NSDFs equipped with appropriate **NextSTEP Fiber Modules** are capable of managing virtually all fiber types and cable constructions, supporting all popular installation techniques including MPO, pre-term and fusion splicing.

Each NSDF block provides generous vertical and horizontal cable management pathways with integrated fiber management features to provide proper routing, slack management, bend-radius protection, and strain-relief. NSDF blocks are fully compatible with Wirewerks’ exclusive magnetic fiber cable management accessories that may be positioned/repositioned virtually anywhere within the NSDF to gently route and manage fibers during installation or maintenance activities.

High fiber count feeder cables with any combination of sub-units and cable types (OSP, ribbon, loose-tube, tight-buffered, SM, MM) enter and attach to the NSDF using Wirewerks’ exclusive ruggedized fan-out and strain-relief collars.

Wirewerks’ recommended best practices for fiber routing and management within the NSDF are intuitive and easy for technicians to master; resulting in repeatable, uniform installations that are optimized for easy maintenance and change management in high-density, high-fiber-count applications.

While many customers will take delivery of NSDF modular blocks for installation in their own racks/cabinets, others may prefer a **factory assembled NSDF solution**, complete with racks/cabinets and loaded with factory terminated and tested NextSTEP Fiber Modules.

	Height	Width	Depth	Footprint	Max Fiber Capacity	Density
<b>NextSTEP™ Distribution Frame</b>	84"	20.5"	15.25"	312.6 in <sup>2</sup>	1728	5.53F/in <sup>2</sup>
<b>Industry Average</b>	84"	28"	24"	672in <sup>2</sup>	2880	4.25F/in <sup>2</sup>

**NextSTEP Distribution Frame** configured with:

- **6 x NSDF modular Blocks** (each populated with 24 x 12F-NextSTEP LC Patch Modules)
- **144 x 12F-NextSTEP LC Patch Modules** (on-board 12F fusion splicing, 900µm or ribbon)
- **44U Density = 144 Modules x 12F/Module = 1,728F/312.6 in<sup>2</sup> footprint = 5.53F/in<sup>2</sup>**
- **52U Density = 2016F/312.6 in<sup>2</sup> footprint = 6.45F/in<sup>2</sup>**

## FEATURES and BENEFITS

- Fiber connectivity and vertical cable management in 19" rack/cabinet
- Modular design
- 6U NSDF blocks: install up to 6/7 in standard 19" 44U/52U rack/cabinet
- 6U NSDF blocks: install in pedestals and other 19" compatible OSP cabinets
- Scalable, modular offering ready to ship as you grow
- Local sourcing of racks/cabinets reduces transportation costs
- Fully compatible with all NextSTEP Technology fiber modules, patch panels, and cable management accessories
- Generous vertical/horizontal cabling pathways for easy management in high-density, high-fiber-count configurations
- Integrated fiber management features provide proper routing, slack management, bend-radius protection, and strain-relief
- Small footprint and high fiber capacity yields industry-best fiber density
- Robust design for reliability and long-life in carrier and DC environments
- High-strength, light-weight materials reduce weight and load-factor on raised floors
- NSDF + NextSTEP fiber modules support virtually all fiber types, cable constructions, and installation techniques including MPO, pre-term and fusion splicing
- High fiber count feeder cables attach to NSDF blocks with Wirewerks' exclusive ruggedized feeder cable and sub-unit collars, with fan-out and strain-relief functionality
- Simple installation process and fiber routing strategies produce repeatable, uniform installations with minimal training
- Precision engineered and manufactured using 18/16 ga. powder-coated steel and high-strength, high-impact ABS thermoplastics for strength and durability
- Complete assembly, termination, testing, and shipping service available from Wirewerks

## APPLICATIONS

- ISPs
- Central Offices
- Broadband/MSO Headends
- Mobile Network Switching Centers
- Cloud, Multi-Tenant, Edge and Colo Data Centers
- Enterprise Data Centers
- SANs, NAS

## ORDERING INFORMATION

Part Number	Description
NSDF-W6U1	NextSTEP™ Distribution Frame 6U Block, 144/288F
NSDF-T4U1	NextSTEP™ Distribution Frame top management 4U
NSDF-B4U1	NextSTEP™ Distribution Frame bottom management 4U
NSDF-W44U	NextSTEP™ Distribution Frame 1728F

## INCLUDED

Part Number	Included
NSDF-W6U1	1 x NextSTEP™ Distribution Frame 6U Block, 144/288F 1 x Port identification booklet 4 x Machine screw 12-24, 1/2" long, Philips head 4 x Machine screw 10-32, 1/2" long, Philips head 11 x NextSTEP™ Magnetic bundle management
NSDF-T4U1	1 x NextSTEP™ Distribution Frame 4U cover plate 2 x NextSTEP™ Distribution Frame strain relief 4 x Plastic tie wrap, 8" 4 x Machine screw 12-24, 1/2" long, Philips head 4 x Machine screw 10-32, 1/2" long, Philips head
NSDF-B4U1	1 x NextSTEP™ Distribution Frame bottom management 4 x Machine screw 12-24, 1/2" long, Philips head 4 x Machine screw 10-32, 1/2" long, Philips head
NSDF-W44U	6 x NSDF-W6U1 1 x NSDF-T4U1 1 x NSDF-B4U1

## PACKAGING and SHIPPING

Description
Cardboard Box: 1 Unit/Box

## PHYSICAL SPECIFICATIONS

Attribute	NSDF-W6U1	NSDF-T4U1	NSDF-B4U1
Dimensions	19" x 10.5" x 17.7" (483mm x 267mm x 450mm)	19" x 7" x 4" (483mm x 178mm x 102mm)	19" x 7.7" x 5.8" (483mm x 196mm x 147mm)
Weight	13.5 lbs (6.12 kg)	3.5 lbs (1.6 kg)	6.3 lbs (2.86 kg)
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° C (-13° F) ~ 40° C (104° F)
Storage Temperature	-25° C (-13° F) ~ 55° C (131° F)

## OPTICAL PERFORMANCE

Parameter	Value
Installation Temperature	-25° C (-13° F) ~ 40° C (104° F)
Storage Temperature	-25° C (-13° F) ~ 55° C (131° F)
Relative Humidity	≤ 85% (30° C)

## STANDARDS COMPLIANCE

### ANSI/TIA-942-A

Telecommunications Infrastructure Standard for Data Centers

### ANSI/TIA-568-C.3

Optical Fiber Cabling Components Standard

### TIA-569-B

Commercial Building Standard for Telecommunications Pathways and Spaces

### CEA/EIA-310-E

Cabinets, Racks, Panels and Associated Equipment Standard

### ANSI/TIA/EIA-606-A

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