

■ Outside Plant for
Business-Critical Continuity

NetSpan™ FDH Series *Integrated Fiber Distribution Hub Solution*





*NetSpan™ FDH
Cross-Connect Cabinet*

Description

The NetSpan™ FDH (Fiber Distribution Hub) series of enclosures provides connections between fiber optic cables and passive optical splitters in the outside plant environment for FTTx applications. The FDH series is constructed of heavy-gauge aluminum with an off-white powder coat finish. These corrosion-resistant enclosures provide environmental and mechanical protection for cables and optical components, all in accordance to Telcordia GR-3125-CORE specifications.

High performance 1x32 optical splitters have terminated connector pigtailed that are pre-parked in modules of 16. Bend insensitive fiber allows for a compact

design and minimizes loss due to tighter fiber routing. A splitter shelf secures each splitter module and pigtailed are stored in a parking lot at a separate path to reduce fiber congestion. Centrally located radius limiting spools take up any fiber slack, whether the pigtailed are parked or connected to the distribution modules. Splitter modules are compliant with Telcordia GR-1209-CORE and GR-1221-CORE.

The NetSpan™ FDH series is available in 144, 288, 432, and 576 fiber distribution configurations. Other fiber counts are also available upon request. All FDH cabinets are available pre-terminated with a fiber stub for feeder and distribu-

tion cables or non-stubbed for in-cabinet splicing. For fiber stubbed versions, all dielectric loose tube or ribbon and armored fiber cable are available, as well as options for pole or pad-mount applications. A modular distribution panel assembly can be partially loaded in either 72-port or 144-port configurations, which can be populated in the field. This enables a “grow as you go” implementation as service take rates increase.

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ity solutions for today's telecommunications
and data network infrastructure*

Application

The NetSpan™ FDH series of enclosures is ideal as a Local Convergence Point (LCP) for aggregation in a centralized splitting Passive Optical Network (PON) FTTx architecture.

Features & Benefits

FDH Cabinet

- **Complete front access** — for distribution module and splitter
- **Incremental slack take-up** — eliminates sagging in jumpers
- **Modular distribution panel assembly configured in either 72 or 144-port configuration** — for installation flexibility
- **Distribution configurations accommodate 144, 288, 432 or 576 fibers**
- **Standard pass-through ports** — permit the splitter to be bypassed in high bandwidth applications
- **Radius limiting spools and separate path for unused splitter ports** — improve fiber management and cable organization
- **Intuitive cable routing** — makes jumper connection easy
- **Pre-terminated fiber stub or in-cabinet splicing configuration**
- **Empty or preloaded with splitter modules**

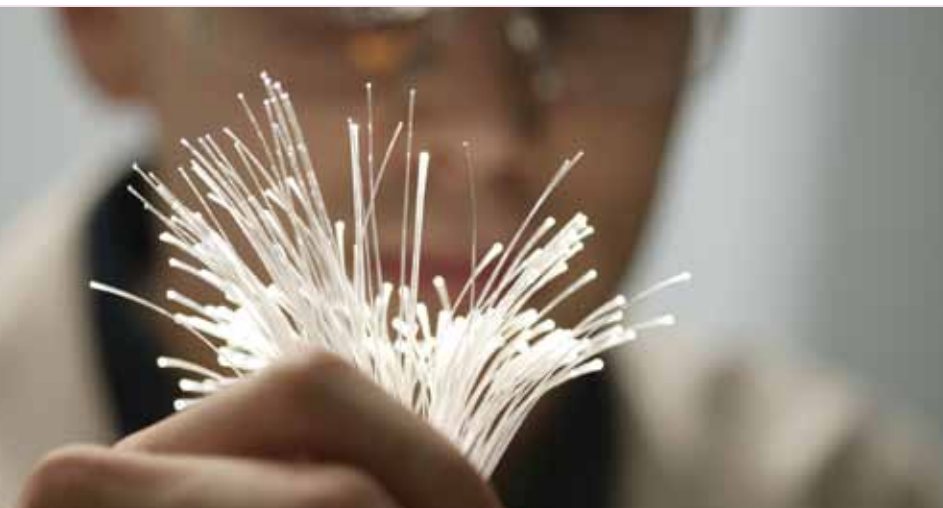
Splitter Module

- **High-density, high performance 1x32 modular optical splitter**
- **Pre-terminated with SC APC or SC UPC connectors**
- **Bend insensitive fiber**
- **Pre-parked pigtailed** — for convenient fiber storage
- **Front access feeder pigtail design**



FDH Specifications

FDH Size	144	288	432	576
Pad Mount (H x W x D)	39" x 24.5" x 21.5"	39" x 24.5" x 21.5"	46.5" x 24.5" x 21.5"	56" x 24.5" x 21.5"
Pole Mount (H x W x D)	31" x 24.5" x 21.5"	31" x 24.5" x 21.5"	38.5" x 24.5" x 21.5"	48" x 24.5" x 21.5"
Feeder Cable Configuration	(1) 24-fiber	(1) 24-fiber	(1) 36-fiber	(1) 36-fiber
Distribution Cable Configuration	(1) 144-fiber	(1) 288-fiber	(1) 144 & (1) 288-fiber	(2) 288-fiber
Splitter Module Capacity				
(1 x 8 / 2 x 8)	18	36	N/A	N/A
(1 x 16 / 2 x 16)	9	18	27	36
(1 x 32 / 2 x 32)	5	9	14	18
Splitter Parking Capacity	96-port	96-port	96-port	96-port



Emerson offers a comprehensive line of NetSpan™ Integrated Solutions pre-configured for FTTx deployment.



Ordering Matrix: NSFDH a b c d e f

Cross-Connect Cabinet	NSFDH = NetSpan™ Fiber Distribution Hub
a) Distribution Count	144 = 144 fibers 288 = 288 fibers 432 = 432 fibers 576 = 576 fibers
b) Connector Type	U = SC UPC A = SC APC
c) Quantity of Splitter Modules Populated	1 = One 2 = Two 3 = Three X = None
d) Feeder & Distribution Cable Lengths	050 = 50 feet 100 = 100 feet 200 = 200 feet X = Non-stubbed splice version
e) Feeder & Distribution Cable Type	D = All dielectric loose tube A = Armored loose tube DR = Dielectric ribbon AR = Armored ribbon X = Non-stubbed splice version
f) Cabinet Application	1 = Pad mount 2 = Pole mount

Example: Catalog number NSFDH288AX100D1 represents a NetSpan™ Fiber Distribution Hub (FDH) 288-fiber cabinet terminated with SC APC connectors, no splitter modules, 100-ft. all dielectric stub for feeder and distribution, pad-mounted application.



Splitter Modules

The FDH cabinet can be equipped with high performance Planer Lightwave Circuit (PLC) splitter modules that utilize bend insensitive fiber, terminated with either SC APC or SC UPC connectors.

These splitters feature:

- **Low insertion loss**
- **Low polarization dependent loss**
- **High port uniformity**
- **2mm pigtail**

Available in the following configurations:
1 x 8, 1 x 16, 1 x 32, 2 x 8, 2 x 16 or 2 x 32.



**Splitter Module
(1 x 32 SC APC)**



Splitter Module Specifications (1 x 32 SC APC)

Operating Wavelength	1280 - 1650 nm
Insertion Loss (includes loss from connector)	17.5 dB (max.) 17.0 dB (typ.)
Uniformity	≤ 1.50 dB
Return Loss	≥ 55 dB
Directivity	> 60 dB
PDL (max.)	≤ 0.30 dB
Operating Temperature	-40 °C to 85 °C

Splitter Ordering Information

Catalog Number	Part Number	Description
NSSPLT132AA	F1008236	1 x 32 splitter for 144 & 288-fiber FDH
NSSPLT132AB	F1008144	1 x 32 splitter for 432 & 576-fiber FDH

Vault Manufacturers

Manufacturer	SKU Number	Description
Carson Industries	30484029	2-piece flush cover assembly for 3048 vault series (covers only)
Carson Industries	30481035	3048-36 vault body and cover assembly (complete assembly)

NOTE: Emerson does not sell or provide these vaults.

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