

SA-FDH series

## Fiber Distribution Hub

Modular FDH

Pole/Pad Mount

Enclosure

Usage For

PON

FTTX

MDU



**Series Code:**

**SA-FDH-144F/SA-FDH-144F-D30m**

**SA-FDH-288F/SA-FDH-288F-D30m**

**SA-FDH-432F/SA-FDH-432F-D30m**

Fiber Distribution Hubs (FDH) are a weatherproof family of metal enclosures for outdoor use which can be pole, wall or pad mounted. The FDH is configured as a high-density modular cassette PON solution for up to 432 customer service drops. Flexible design and options support a wide range of deployment styles including fusion splicing, field termination, and are backwards compatible to multiple suppliers' PLC splitter modules.

**KEY PRODUCT BENEFITS**

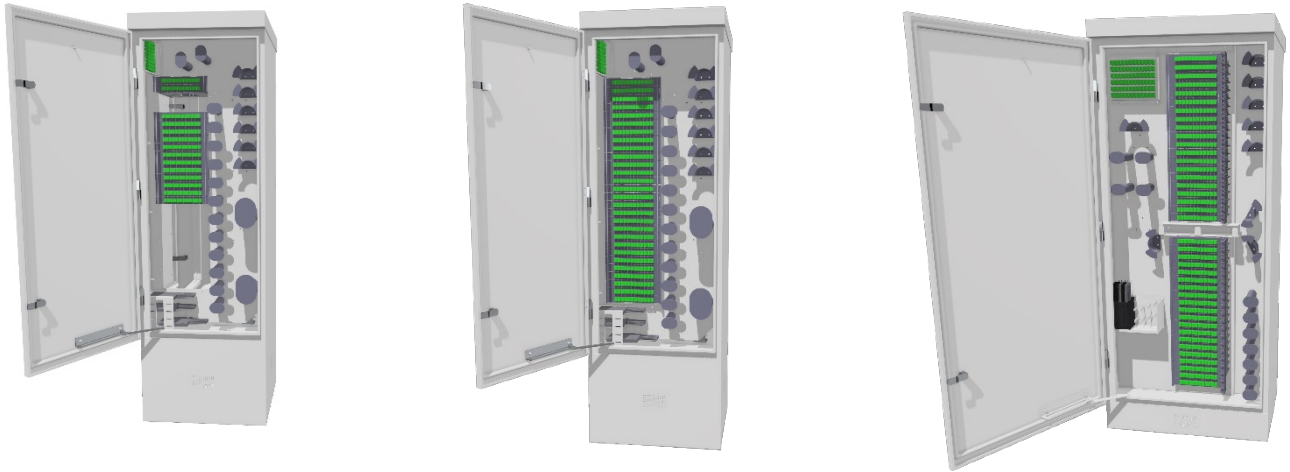
- 432 fiber distribution and PON splitting
- Modular patch & splice cassettes for added flexibility
- Available with feeder and distribution factory stubs
- Additional splicing capacity for express cables
- Side door distribution access
- Removable doors with padlock hasp
- Pole, wall and pad mount options
- Pad skirt options for extra slack storage

**INDUSTRY STANDARDS COMPLIANCE**

GR-3125, GR-1209, GR-1221, GR-326, GR-20

## Fiber Distribution Hub SPECIFICATION

SA-FDH-144F / SA-FDH-288F / SA-FDH-432F series



### Overview

The SureAlign FDH series are the complete solution for managing 12 to 432 port distribution fibers for an outside plant FTTx PON application. Through the incremental design of the Cassette, user capacity can be scaled from as few as 12 ports to the maximum configuration of the cabinet, allowing the service provider to align the investment in capital equipment to the turn-up of revenue-generating circuits.

### Features

1. Galvanized steel plate body with painted ensures excellent performance of anti-erosion, aging resistance and pleasing appearance.
2. The cabinet has functions of cable termination, as well as fiber distribution, splice, storage and dispatch.
3. Solid and fully-closed structure with the advantages of good performance of dust-proof, pleasing and neat appearance.
4. Structure of cabinet: Double-layered with round angles, front and back door cabinet design.
5. Excellent waterproof and dustproof performance meet IP54 Rating by IEC 60529.
6. Lock provided on every cabinet ensures the safety of the fibers.
7. Re-usable type cable gland for 20 years.
8. Enclosure life span for 20 years.
9. Specified enclosure color, RAL1015.
10. Screw type clamp mechanism.
11. Auto-locking triangle shaped lock on front door and back door, universal key, and additional padlock.
12. Floor mounting kits only be accessible from inside of cabinet.
13. Bending radius protection.
14. Separate space for in-coming and out-coming optical fiber management.
15. Easy connector, cable access and proper cable routing to ensure fiber cable are not damaged.
16. Design of the FDH doesn't impose any danger to operator.

## Design reliability

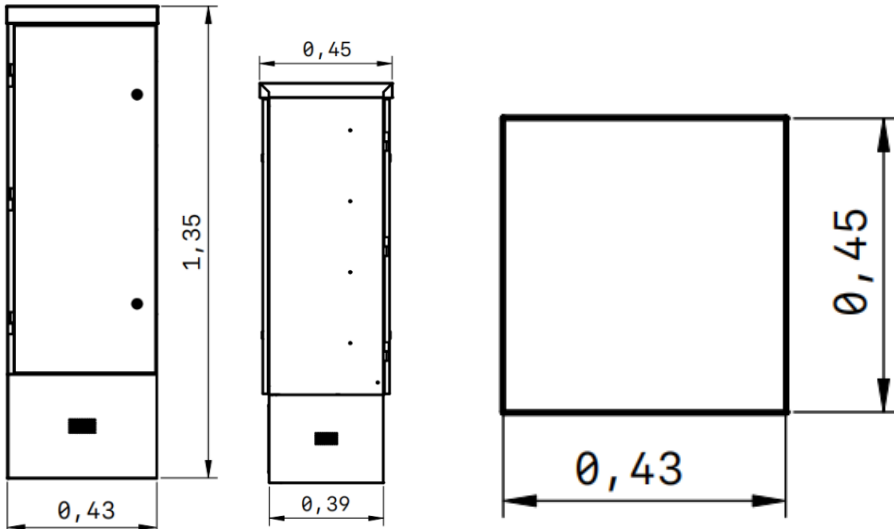
- IEC 61753-1 Table A.1 (Ground level environment), operating environment
- IEC 60529, IP54, Water resistance
- IEC 60068-2-6, Vibration Test
- IEC 61753-1 Table A.10 (Ground environments), Impact Test
- ISO 14001:2004, Environment Management2
- ISO 18001:2007, OHSAS

## Technical Specification

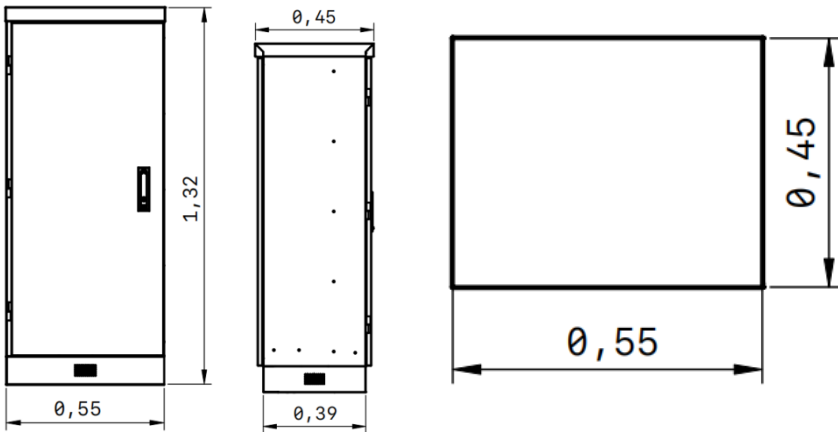
Part Number	SA-FDH-144F	SA-FDH-288F	SA-FDH-432F
FDH Cabinet	144 Cores	288 Cores	432 Cores
Dimensions	1350×450×430mm	1350×450×430mm	1320×550×450mm
Weight	54kg	57kg	58kg
Port Density	144	288	432
Feeder/Express Ports	48	48	48
Cable Entrances	6	6	6
Mounting Options	Vault mount	Vault mount	Vault mount
Splitter Slots	9	9	14
Cassette Types Supported	12 cores Splice Cassette	12 cores Splice Cassette	12 cores Splice Cassette
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC		
Cable Types	Indoor/Outdoor, Outdoor (Riser/Non-Rated), Outdoor Armored (Riser/Non-Rated)		
Splice Capacity	12 splices in each Splice Cassette		
Ground Locate Box	Yes - Optional		
Material	Galvanized steel plate with powder coating		

**FDH Drawing:**

144/288 cores

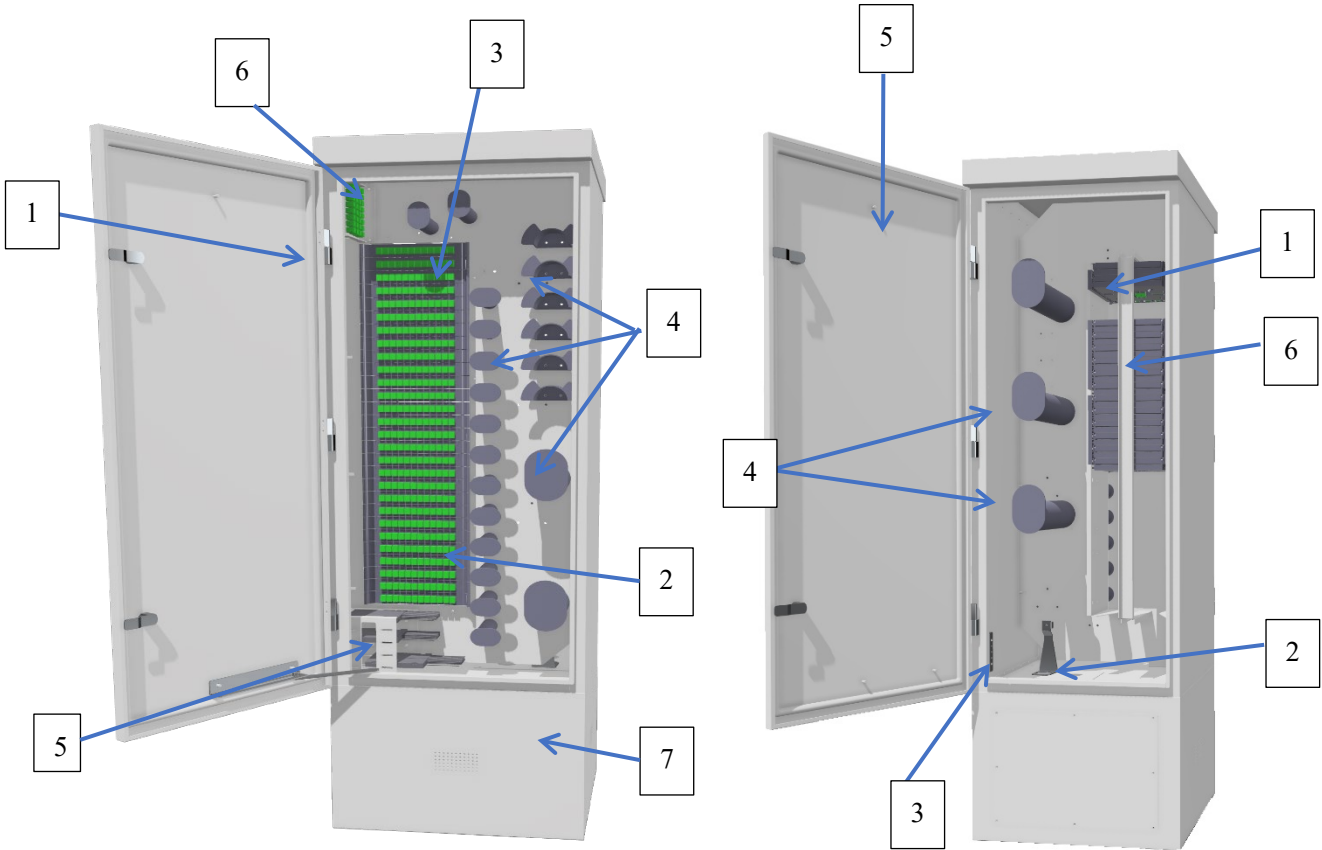


432 cores



**FDH Illustration**

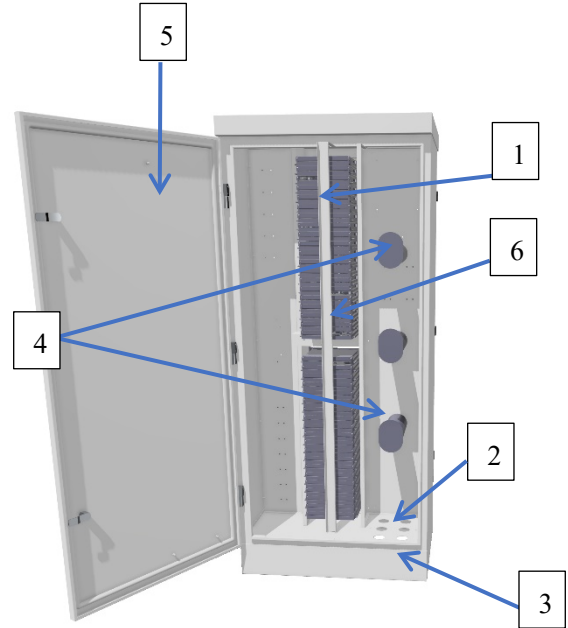
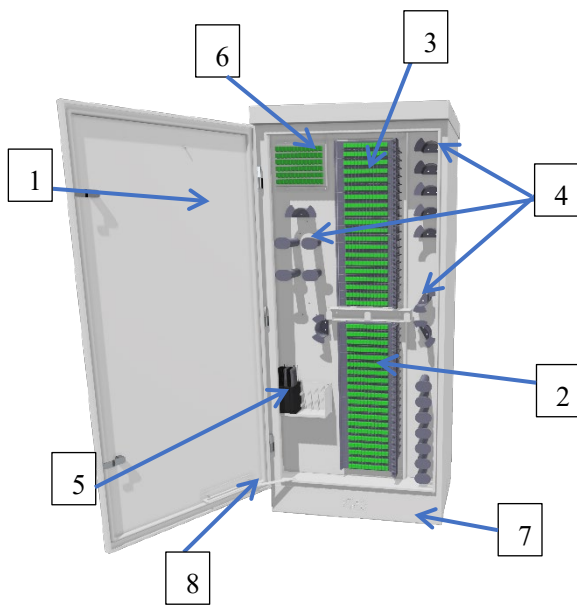
144/288 core FDH with full mount splice tray



- 1. Designation Card
- 2. Distribution Cassettes
- 3. Feeder Cassettes
- 4. Fiber Management Rods and Spools
- 5. Fiber Splitter Storage
- 6. Connector Parking Plate
- 7. Riser

- 1. Distribution and Feeder Cassettes
- 2. Distribution and Feeder Cable Ports
- 3. Grounding wire
- 4. Fiber Management Rods and Spools
- 5. Tools storage pocket
- 6. Splice Cassettes magnetic fixing bar

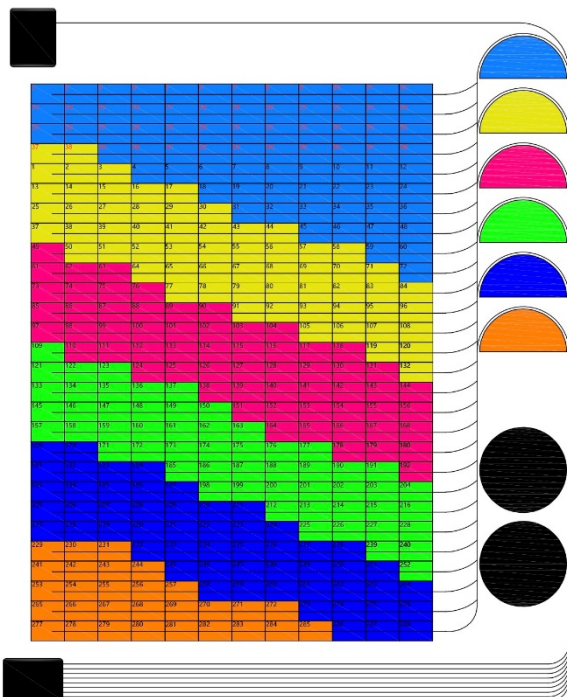
## 432 core FDH with full mount splice tray



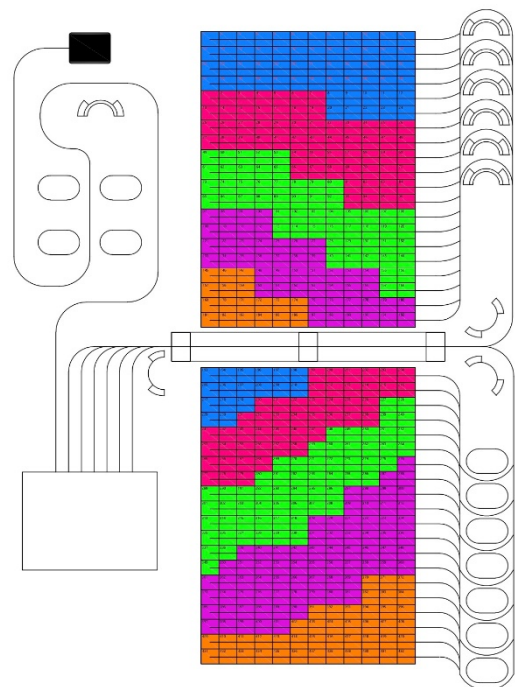
1. Designation Card
2. Distribution Cassettes
3. Feeder Cassettes
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8. Grounding wire

1. Distribution and Feeder Cassettes
2. Distribution and Feeder Cable Ports
3. Riser
4. Fiber Management Rods and Spools
5. Tools storage pocket
6. Splice Cassettes magnetic fixing bar

**Fiber route for SA-FDH-144/288F**

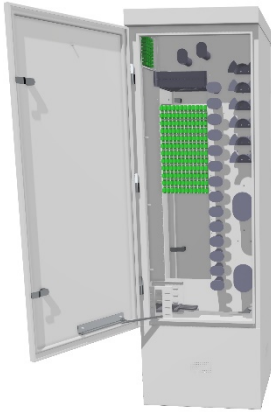


**Fiber route for SA-FDH-432F**



## FDH with 30m drop fiber cable, cassette-less

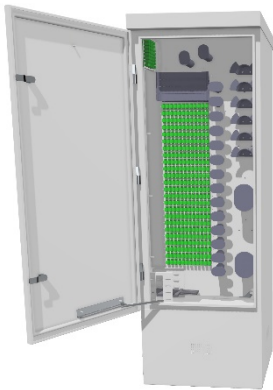
Instead of splice tray, we also provide FDH spliced already, with a 30m drop fiber cable directly connected. Shipped together with our FDH.



144f with drop cable front view



144f with drop cable back view



288f with drop cable front view



288f with drop cable back view



432f with drop cable front view





432f with drop cable back view

## Accessories

### - 12 Fiber Splice Cassette Tray

Splice tray can be customized on demand.

Technity P/N	Photos	Description
SA-CST-12F		SC/APC 12 Fiber On Pigtail G657A1 PVC 0.9mm 1.5M  14 trays in 144 core FDH 28 trays in 288 core FDH 40 trays in 432 core FDH
SA-CST-12FR		SC/APC 12 Fiber Splice On Ribbon Fanout Pigtail 1.5M  14 trays in 144 core FDH 28 trays in 288 core FDH 40 trays in 432 core FDH

### - Box type PLC Splitter



Box PLC Specification											
Wavelength(nm)	1260-1650										
Fiber Type	Single mode (G657.A2)										
Optical Fiber Length	1500mm, can be customized										
Jacket O.D.	2.0mm, can be customized										
Splitter Ratio	1×4	1×8	1×16	1×32	1×64	2×4	2×8	2×16	2×32	2×64	
Insertion Loss (with connector) (dB)	≤7.4	≤10.5	≤13.8	≤17.1	≤20.4	≤7.5	≤10.8	≤14.1	≤17.4	≤21	
Uniformity (dB)	≤0.8	≤0.8	≤1.0	≤1.3	≤2.0	≤1.0	≤1.0	≤1.5	≤2.0	≤2.5	
PDL(dB)	≤0.2	≤0.2	≤0.19	≤0.18	≤0.17	≤0.2	≤0.18	≤0.17	≤0.16	≤0.19	
Size(H×W×L)(mm)	10×80×100		18×80×120		18×115×141		10×80×100		18×80×120		18×115×141
Return Loss(dB)	UPC≥50 APC≥55										
Directivity(dB)	≥55										
Temperature Range(°C)	-40~+85										
Storage Temperature(°C)	-40~+85										



## Order Information

FDH product is high customized products, the ordering information just be used as the reference for customer order:

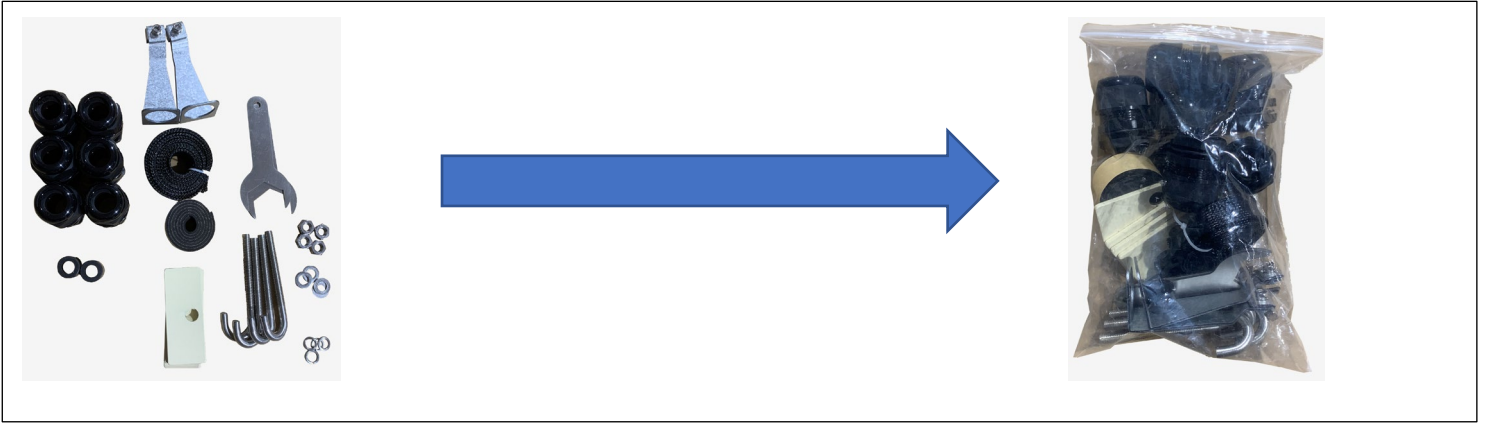
P/N	Product Description
SA-FDH-144F	1 set 144 cores FDH load with 144 pcs SC/APC 1m 0.9mm LSZH G657A1 pigtails and 144 pcs SC/APC simplex adapters
SA-FDH-288F	1 set 288 cores FDH load with 288 pcs SC/APC 1m 0.9mm LSZH G657A1 pigtails and 288 pcs SC/APC simplex adapters
SA-FDH-432F	1 set 432 cores FDH load with 432 pcs SC/APC 1m 0.9mm LSZH G657A1 pigtails and 432 pcs SC/APC simplex adapters
SA-FDH-144F-D30m	1 set 144 cores FDH load with 144 pcs SC/APC adaptor with 30m drop cable spliced ready. Cable is SA-OFC-GYDXY, Gel-free Single Jacket Central Tube Optic Ribbon Fiber Cable.
SA-FDH-288F-D30m	1 set 288 cores FDH load with 288 pcs SC/APC adaptor with 30m drop cable spliced ready. Cable is SA-OFC-GYDXY, Gel-free Single Jacket Central Tube Optic Ribbon Fiber Cable.
SA-FDH-432F-D30m	1 set 432 cores FDH load with 432 pcs SC/APC adaptor with 30m drop cable spliced ready. Cable is SA-OFC-GYDXY, Gel-free Single Jacket Central Tube Optic Ribbon Fiber Cable.
SA-FDH-144F-D30mA	1 set 144 cores FDH load with 144 pcs SC/APC adaptor with 30m drop cable spliced ready. Cable is SA-OFC-GYDXW, Gel-free Single Jacket Single Armor Central Tube Optic Ribbon Fiber Cable
SA-FDH-288F-D30mA	1 set 288 cores FDH load with 288 pcs SC/APC adaptor with 30m drop cable spliced ready. Cable is SA-OFC-GYDXW, Gel-free Single Jacket Single Armor Central Tube Optic Ribbon Fiber Cable
SA-FDH-432F-D30mA	1 set 432 cores FDH load with 432 pcs SC/APC adaptor with 30m drop cable spliced ready. Cable is SA-OFC-GYDXW, Gel-free Single Jacket Single Armor Central Tube Optic Ribbon Fiber Cable

### Accessories

Box type PLC splitter, order on demand

P/N	Description
SA-BPLC- <b>XXX</b> - <b>YYY</b>	Box type PLC, with selection of different connector type and splitter ratio. Cable O.D. is 2.0mm. Input and output length can be customized, default are 1.5 meter.
	<p><b>connector type</b></p> <p>SCA - SC/APC</p> <p>SCU - SC/UPC</p> <p>LCA - LC/APC</p> <p>LCU - LC/UPC</p>
	<p><b>splitter ratio</b></p> <p>104 - 1:4 type</p> <p>108 - 1:8 type</p> <p>116 - 1:16 type</p> <p>132 - 1:32 type</p> <p>164 - 1:64 type</p> <p>204 - 2:4 type</p> <p>208 - 2:8 type</p> <p>216 - 2:16 type</p> <p>232 - 2:32 type</p> <p>264 - 2:64 type</p>

## Installation Kits Photo:

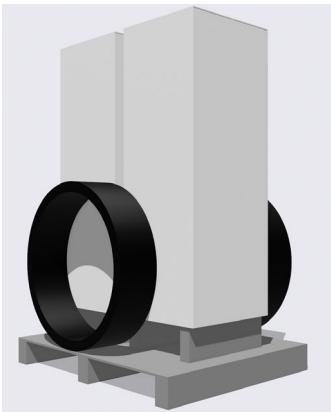


## Packing Method

Standard FDH packing method



FDH with 30m drop cable packing method



Provided by: Mega Hertz | 800-883-8839 | [info@go2mhz.com](mailto:info@go2mhz.com) | [www.go2mhz.com](http://www.go2mhz.com)

<https://www.go2mhz.com/product/fiber-distribution-hub/>