

FieldSmart® Makwa® Fiber Distribution Hub (FDH) 288 PON Cabinet



Application

The FieldSmart Makwa FDH 288 PON Cabinet provides 12 to 288 ports of connectivity for PON and utilizes patch and splice (Clearfield's in-cassette splicing solution) or patch only technology in any network environment. The FieldSmart Makwa is scalable to meet a customer's specific requirements and has the ability to be mounted either above or below ground. Below grade mounting eliminates the potential above grade aesthetics issues from the deployment equation.

Description

The FieldSmart Makwa incorporates all of the features found in our above ground cabinets and adds the ability to deploy the Makwa in a below grade application. Roughly 50% smaller than existing above grade cabinets, Makwa reduces real estate costs and improves density without compromising critical design elements of accessibility, bend-radius protection, physical fiber protection and route path diversity.

The FieldSmart Makwa consists of four basic elements: a top cover (dome), a base plate, an internal backplane and the Clearview® Black Cassettes. All components are pre-assembled and loaded into the Makwa – making it field ready for deployment. The Makwa is scalable to meet customer requirements and can be configured to accept 12 to 48 feeder ports and 12 to 288 distribution ports in a PON application. It will accept up to nine 1 x 32 ruggedized splitters and provides staging plates for PON networks.

Patch and splice versions are shipped with the Clearview Black Cassette preloaded. Patch only configurations are shipped complete with pre-terminated lengths of OSP cables that are terminated into the Clearview Black Cassettes. They come fully installed into the Makwa, making it ready for deployment right out of the package.

Features and Benefits

Integrity

- Designed, tested and certified to Telcordia GR-3125
- Terminations designed, tested and certified to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Fiber cable certified to Telcordia GR-20 and GR-409
- Splitters designed to comply with Telcordia GR-1209/GR-1221
- Designed to comply with NEMA 4
- Constructed out of UV resistant plastic
- Stainless steel fasteners and hardware

Protection

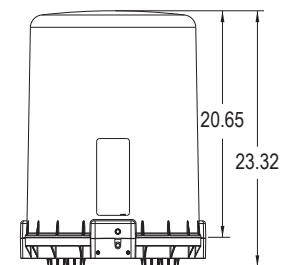
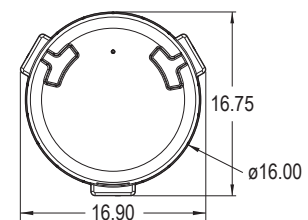
- Provides protection from water intrusion if fully submerged
- Single molded cover with double o-ring sealing technology for additional protection
- Watertight cable entrance fittings
- Each 12-fiber Clearview Black houses a 12-fiber subunit of patch and splice or patch only, protecting fiber from both environmental and human factors

Access

- Pole mount or in vault
- Vault mount option allows unit to be hidden from site and accessed only when service needs to be performed
- Removable/resealable dome allows service technicians to access fiber without damaging fiber or disrupting existing service
- Cable management integrated into the Makwa unit – including slack storage and staging plates for splitters

Investment

- All fiber is deployed in increments of 12, providing the users the ability to scale from 12 ports to full capacity, aligning capital investment with network layout and subscriber revenue
- User defined feeder to distribution ratios for PON applications
- MFS patch and splice configurations provide maximum flexibility for customer designed networks



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Technical Specifications

FieldSmart Makwa Fiber Distribution Hub - 288 PON Cabinet	
Dimensions	22 ³ / ₈ " H x 16" W x 16" D (592.33 mm H x 425.45 mm W x 425.45 mm D)
Weight	35 lbs (15.88 kg)
Port Density	Up to 288
Feeder/Express Ports	Up to 48
Cassette Types Supported	Clearview® Black
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 Clearview Black Cassette
Storage Capacity	Up to ten feet of jacketed fiber
Cables Entrances	4
Splitters Slots (1 x 32 Splitter)	9 (using HD Ruggedized Splitter)
Mounting Options	Above Grade: pole mount; Below Grade: in vault mount
Material	Proprietary Blended UV Resistant Plastic

Accessories

- HD Ruggedized Splitter – designed specifically for Makwa
- Below Grade: Swing Arm (VA-SWING-ARM) - can be ordered by itself or pre-installed in a 30 x 48 x 36" (762.00 mm x 1219.20 mm x 914.40 mm) CraftSmart® Vault
- Above Grade: Pole Mount Kit (016902)
- CraftSmart Vaults – minimum size required: 30" W x 48" T x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)

Configured Part Numbers

R - B Z - - - - - - - - - **XXXM or XXXF**

1 2 3 4 5 6 7 8 9

1 Select Feeder

1 = 12 in a Cassette
2 = 24 in 2 Cassettes
3 = 36 in 3 Cassettes
4 = 48 in 4 Cassettes
Z = No feeder

4 Select Mode and Type

1 = Singlemode (non-ribbon)
2 = Singlemode (ribbon)

8 Select # of 96 Fiber Distribution OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3

2 Select Distribution Port Count

012 = 12 072 = 72
024 = 24 096 = 96
036 = 36 144 = 144
048 = 48 288 = 288

5 Select Jacket Construction

B = OSP riser
E = OSP (non-rated)
F = Loose tube patch and splice
M = OSP armored (non-rated)
Z = None (ribbon patch and splice)

9 Select # of 72 Fiber Distribution OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3

3 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

6 Select # of 288 Fiber Distribution OSP Cables

0 = 0
1 = 1

7 Select # of 144 Fiber Distribution OSP Cables

0 = 0
1 = 1
2 = 2

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet

* Order mounting brackets separately