Introduction to Outside Plant Solutions
FieldSmart® Products

The goal of today's outside plant deployment is to cost-effectively consolidate and distribute fiber deeper into the network.

At Clearfield®, Outside Plant FieldSmart products are designed from the ground up based on field-proven experience and offer truly unique solutions for today's FTTx rapid deployment demands. FieldSmart Fiber Scalability Center (FSC) Cabinets use the same modular components as FieldSmart FxDS Frame Kits deployed in the Inside Plant, allowing technicians the ease of working with a single fiber management platform regardless of Inside or Outside Plant deployment.

FieldSmart Fiber Scalability Center (FSC) Cabinets

The FieldSmart Fiber Scalability Center (FSC) line of products sets the bar for fiber access, protection and density among outside plant cabinets for PON, cross-connect or hub collapse environments. With the Clearview® Cassette as its foundation, the FieldSmart FSC line uses the same components as the FieldSmart FxDS deployed in the inside plant. This enables service providers to standardize on a single building block, allowing a single fiber management component to be deployed for both environments. This provides technicians the ease of working with a single fiber management platform regardless of inside or outside plant deployment - saving training and installation time.

- In a PON configuration, the FSC Cabinet is the complete solution for managing 288, 432, 576 or an astounding 1,152 fibers for outside plant FTTx applications.
- In a cross-connect configuration, 432, 864 or 1,728 feeder/distribution ports can be deployed and the cabinet supports a user defined feeder-to-distribution ratio without any real estate penalty.
- The FieldSmart Hub Collapse Cabinet (HCC) is designed for the cable operator looking to separate their passive infrastructure from the electronics without the need for standard hub architecture and it reduces operating costs associated with moves, adds and changes.

FieldSmart Fiber Active Cabinets (FAC)

FieldSmart Fiber Active Cabinet (FAC) outdoor enclosure systems are specifically designed to complement the service delivery and network migration capabilities of advanced electronic systems. The FAC offers the wireline and wireless carriers the ultimate housing for Clearfield's unrivaled fiber management and the vendor's electronic equipment of your choice.

Splicing

FieldSmart changes the rules of fiber management as splicing can be done inside of the Clearview Cassette - allowing service providers to enjoy the cost savings of patch and splice (Clearfield's in-cassette splicing solution) without the hassles of traditional field splicing.

Splitter Density

Splitter density is maximized through the use of splitter modules that stack together in a top-loaded or side-by-side splitter cage that is easily accessed from the front of the cabinet. These ruggedized, outside plant-rated splitters ship with the individual legs "pre-staged" within a FieldSmart Staging Plate for easy and quick deployment.

FieldSmart Fiber Scalability Center (FSC) Makwa® Fiber Distribution Hub (FDH)

The FieldSmart Makwa, incorporates all of the features found in our above ground cabinets and adds the ability to deploy the FieldSmart FSC Distribution Hub 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.

Providing 12 to 288 ports of connectivity for PON or 12 to 432 port of connectivity for cross-connect, the Makwa utilizes patch and splice or patch only technology in any network environment. The FieldSmart FSC Makwa is scalable to meet customer's specific requirements and has the ability to be mounted either above or below-ground, taking the potential above grade aesthetics issue out of the deployment equation.

FieldSmart Cabinets (Passive)

FieldSmart Cabinets (Powered)

Inspect and clean EVERY connector BEFORE inserting into adapter. See page 305 for cleaning instructions.

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

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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

- Telcordia GR-3125-CORE Issue 2 Certified
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Compliant to Telcordia GR-20, GR-409,GR-487, GR-771, GR-1209 and GR-1221
- NEMA 4 compliant
- Constructed out of UV resistant plastic
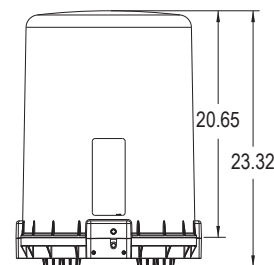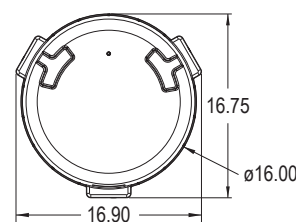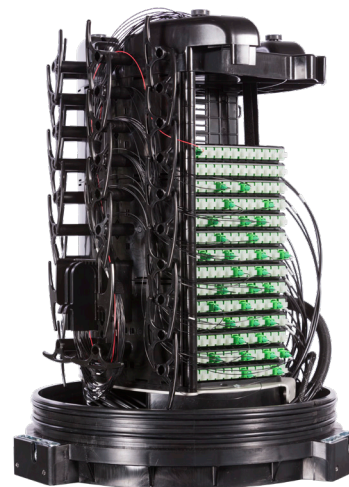- Stainless steel fasteners and hardware

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

16.75
ø16.00
16.90

20.65
23.32

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

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Technical Specifications

FieldSmart Makwa Fiber Distribution Hub - 288 PON Cabinet	
Dimensions	22⅜" 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

[2] Select Distribution Port Count

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

[3] Select Connector

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

[4] Select Mode and Type

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

[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)

[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

[8] Select # of 96 Fiber Distribution OSP Cables

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

[9] Select # of 72 Fiber Distribution OSP Cables

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

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet

* Order mounting brackets separately

FieldSmart® Makwa® Fiber Distribution Hub (FDH)
432 Cross-Connect Cabinet

Application

The FieldSmart Makwa FDH 432 Cross-Connect Cabinet provides 12 to 432 ports of connectivity for cross-connect applications 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 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. Scalable to meet customer requirements, Makwa can be configured to accommodate 12 to 432 ports for cross-connect applications as required.

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, 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
- Telcordia GR-3125-CORE Issue 2 Certified
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Compliant to Telcordia GR-20, GR-409,GR-487, GR-771, GR-1209 and GR-1221
- NEMA 4 compliant
- Constructed out of UV resistant plastic with 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
- In 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 cross-connect options
- Patch and splice configurations provide maximum flexibility for customer designed networks
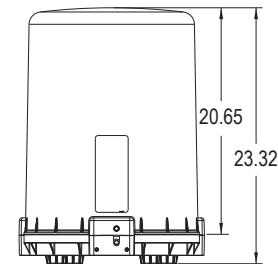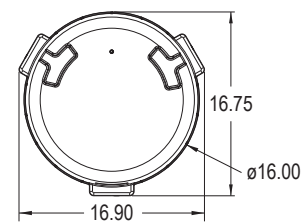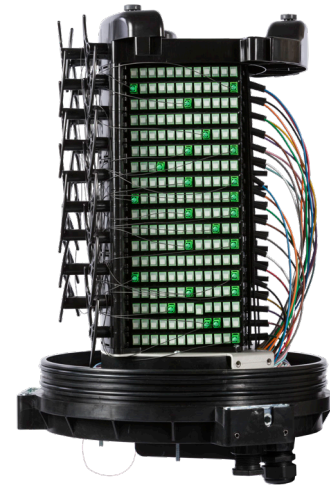
FieldSmart® Makwa® Fiber Distribution Hub (FDH)
432 Cross-Connect Cabinet

Technical Specifications

FieldSmart Makwa Fiber Distribution Hub - 432 Cross-Connect Cabinet	
Dimensions	22⅜" 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	432
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
Recommended Jumper Length	2-3 Meter, 900 um Fiber Jumper Cables. Clearfield's PF1 series located on p. 199 in Application Guide.
Mounting Options	Above Grade: pole mount; Below Grade: in vault mount
Material	Property Blended UV Resistant Plastic

Accessories

- 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 - P Z - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___   XXXM or XXXF

[1] [2] [3]   [4]   [5] [6] [7]   [8]   [9] [10] [11]

1 Select Connector

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

2 Select Mode and Type

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

3 Select Jacket Construction

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

4 Select Feeder Count (Available in Increments of 12) *

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

5 Select # of 288 Fiber Feeder OSP Cables

0 = 0
1 = 1

6 Select # of 144 Feeder OSP Cables

0 = 0   2 = 2
1 = 1

7 Select # of 96 Fiber Feeder OSP Cables

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

8 Select Distribution Count (Available in Increments of 12) *

012 = 12	048 = 48
024 = 24	144 = 144
036 = 36	

9 Select # of 288 Fiber Distribution OSP Cables

0 = 0
1 = 1

10 Select # of 144 Fiber Distribution OSP Cables

0 = 0   2 = 2
1 = 1

11 Select # of 96 Fiber Distribution OSP Cables

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

XXXM or XXXF

XXXF = Length of pigtail in feet
XXXM = Length of pigtail in meters

* Order mounting brackets separately
** 216 ports maximum

FieldSmart® Makwa® Fiber Distribution Hub (FDH)

Above Grade Application Scenarios

Below Grade in Vault

Description

With the ability to be housed in a 30" x 48" x 36" (762.00 mm x 1219.20 mm x 914.40 mm) vault or hand-hole, FieldSmart Makwa can be placed in any below grade environment including the boulevard or area between the curb and sidewalk. As this space is typically owned by the municipality, only a single permit is required expediting the pre-construction engineering process.

Recommended Vaults

With Swing Arm Installed

Part Number	Description
V7B-AZP-SARM	Vault, below grade Pencell, 30 x 48 x 36" (762.00 mm x 1219.20 mm x 914.40 mm), solid HDPE lid, hex bolts, green, straight wall, with swing arm
V7B-BZP-SARM	Vault, below grade Pencell, 30 x 48 x 36" (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, straight wall, with swing arm
V7B-EZP-SARM	Vault, below grade Pencell, 30 x 48 x 36" (762.00 mm x 1219.20 mm x 914.40 mm), split polymer concrete lid, hex bolts, green, straight wall, with swing arm

Pre-Configured Part Numbers

Part Number	Description
VA-SWING-ARM	Swing arm for Makwa

* Both items need to be ordered together
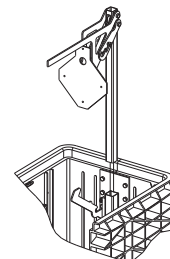
FieldSmart® Makwa® Fiber Distribution Hub (FDH)
Above Grade Application Scenarios

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Above Grade Pole Mount

Description

The FieldSmart Makwa FDH is approximately half the size of a conventional Fiber Distribution Hub, allowing the broadband service provider the choice of where to deploy the cabinet without sacrificing performance or access. The Makwa FDH Pole Mount Kit allows both the 288 port PON and 432 port cross-connect versions to be pole mounted, while providing access to the FDH for moves, adds, and changes.

Pre-Configured Part Numbers

Part Number	Description
016902	Bracket, aerial, Makwa pole mount

FieldSmart® Fiber Scalability Center (FSC)
PON Cabinets: 288, 432, 576 and 1,152 Ports

Application

FieldSmart FSC PON Cabinets provide an interconnect environment from the feeder network through the optical passive splitter to the distribution network in an FTTH PON OSP cabinet. The four different cabinet sizes provide scalability from 12 ports to 1,152 ports. Designed for the outside plant environment, these cabinets provide a single distribution point to distribute FTTH in urban or dense neighborhood.

Description

The FieldSmart FSC PON is the complete solution for managing 12 to 1,152 port distribution fibers for an outside plant FTTx PON application. Through the incremental design of the Clearview® 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 and Benefits

Integrity
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Designed to comply to Telcordia GR-20, GR-487 and GR-3125
- Constructed with 0.125 (3.125 mm) aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets

Protection
- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs

Access
- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Easy two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Top exit available in 288 and 432 PON Cabinets

Investment
- 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 or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with jacketed IFC cabling, hand-holes and splice cases

Accessories

- Risers: 4" (101.60 mm) and 12" (304.80 mm)
- Exterior Ground Box — Available with 12" Riser Only
- Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit
- Pole Mount Kit
- Optional top exit available in 288 and 432 PON
- Optional LGX Adapter Bracket Kit (P/N 014380) available to accommodate 6 LGX style modules or 13, ½ wide LGX modules. Max port capacity decrease by 84 (7 cassettes) when used.
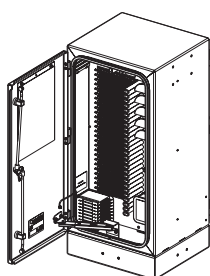
FieldSmart® Fiber Scalability Center (FSC)
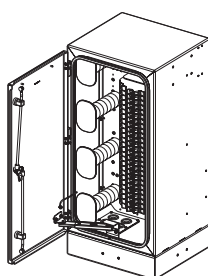## *PON Cabinets: 288, 432, 576 and 1,152 Ports*

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## Technical Specifications

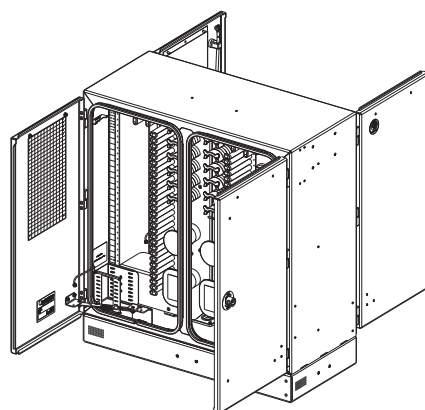| FieldSmart FSC PON Cabinets	288 Port	432 Port	576 Port	1,152 Port
Dimensions *(without riser)*	32" H x 16.78" W x 16.9" D (812.80 mm x 426.21 mm x 429.26 mm)	36.67" H x 21.17" W x 16.9" D (931.42 mm x 537.72 mm x 429.26 mm)	32" H x 33" W x 16.9" D (812.80 mm x 838.20 mm x 429.26 mm)	64" H x 33" W x 16.9" D (1625.60 mm x 838.20 mm x 429.26 mm)
Weight	54 lbs (24.49 kg)	66 lbs (29.94 kg)	86 lbs (39.01 kg)	172 lbs (78.02 kg)
Port Density	288	432	576	1,152
Feeder/Express Ports	48	48	96	192
Cables Entrances	6	6	12	12
Mounting Options (Hoist kits included with each cabinet)	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pad mount	Vault mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 16 lbs (304.80 mm; 7.26 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)
Splitters Slots	9	14	18	36
Cassette Types Supported	Clearview® Blue			
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 Cassette			
Material	0.125 (3.175 mm) aluminum with almond powder coating			

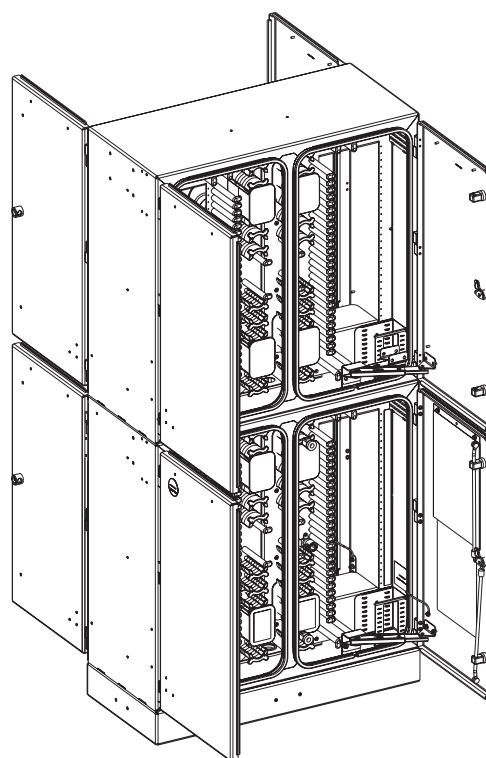
288 Port - Front

288 Port - Rear
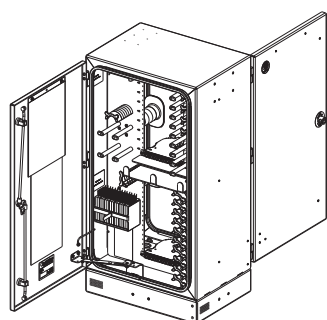
432 Port - Front

576 Port - Front

1,152 Port - Rear

FieldSmart® Fiber Scalability Center (FSC)
PON Cabinets: 288, 432, 576 and 1,152 Ports

Configured Part Numbers

288 Port Cabinet

R ___ ___ - ___ ___ ___ - ___ ___ ___ ___ ___ - ___   XXXM or XXXF*

[1] [2]   [3]   [4] [5] [6] [7] [8] [9]   [A]

[1] Select Cabinet Type

N = Patch only with 4" (101.60 mm) riser
P = Patch and splice with 4" (101.60 mm) riser
3 = Patch only with 12" (304.80 mm) riser
4 = Patch and splice with 12" (304.80 mm) riser

[2] Select Feeder Port Count

1 = 12 ports in a cassette
2 = 24 ports – two cassettes
3 = 36 ports – three cassettes
4 = 48 ports – four cassettes

[3] Select Distribution Port Count

X X X = port count in increments of 12

[4] Select Connector Style

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

[5] Select Mode / Type

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

[6] Select Cable Construction

B = OSP riser
E = OSP, non-rated
F = Patch and splice
M = OSP armored
Z = None or patch and splice ribbon

[7] Select Qty of 144 - Fiber OSP Cables

0 = 0
1 = 1
2 = 2

[8] Select Qty of 96 - Fiber OSP Cables

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

[9] Select Qty of 72 - Fiber OSP Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

[A] Extras

B = Clearview Blue Cassettes
D = Top exit with Clearview Blue
F = Vented door with Clearview Blue
J = Vented door with top exit and
    Clearview Blue
M = Ground Box in riser and Clearview Blue
N = Ground Box in Riser, vented door,
    and Clearview Blue

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet

* 200 feet maximum
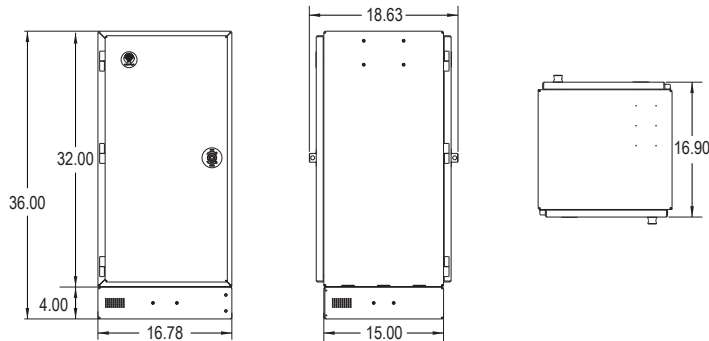
Vault Options

288 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencell, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencell, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencell, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Scalability Center (FSC)
PON Cabinets: 288, 432, 576 and 1,152 Ports

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Configured Part Numbers
432 Port Cabinet

R ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ - ___   XXXM or XXXF*

[1] [2] [3] [4] [5] [6] [7] [8] [9] [A]

[1] Select Cabinet Type
A = Patch only with a 12" (304.80 mm) riser
B = Patch only with 4" (101.60 mm) riser
C = Patch and splice with 12" (304.80 mm) riser
D = Patch and splice with 4" (101.60 mm) riser

[2] Select Feeder Port Count
1 = 12 ports in one cassette
2 = 24 ports – two cassettes
3 = 36 ports – three cassettes
4 = 48 ports – four cassettes

[3] Select Distribution Port Count
X X X = port count in increments of 12

[4] Select Connector Style
A = SC/UPC
C = SC/APC
F = LC/UPC
H = LC APC

[5] Select Mode / Type
1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

[6] Select Cable Construction
B = OSP riser
E = OSP, non-rated
F = Patch and splice
M = OSP armored

[7] Select Qty of 144 - Fiber OSP Cables
0 = 0   2 = 2
1 = 1   3 = 3

[8] Select Qty of 96 - Fiber OSP Cables
0 = 0   2 = 2
1 = 1   3 = 3

[9] Select Qty of 72 - Fiber OSP Cables
0 = 0   4 = 4
1 = 1   5 = 5
2 = 2   6 = 6
3 = 3

[A] Extras
B = Clearview Blue Cassettes
D = Top exit with Clearview Blue
F = Vented door with Clearview Blue
J = Vented door with top exit and
     Clearview Blue
M = Ground Box in riser and Clearview Blue
N = Ground Box in riser, vented door,
     and Clearview Blue

XXXM or XXXF
XXXM = Length in meters
XXXF = Length in feet

* 200 feet maximum

18.63
36.67
40.67
4.00
21.17
15.00
16.90

Vault Options
432 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencell, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencell, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencell, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit -ordered separately
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Scalability Center (FSC)
PON Cabinets: 288, 432, 576 and 1,152 Ports

CLEARFIELD

Configured Part Numbers

576 Port Cabinet

R ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ - ___   XXXM or XXXF*

【1】【2】【　　3　　】【4】【5】【6】【7】【8】【9】【A】

【1】 Select Cabinet Type

K = Patch only with 4" (101.60 mm) riser
M = Patch and splice with 4" (101.60 mm) riser
1 = Patch only with 12" (304.80 mm) riser
2 = Patch and splice with 12" (304.80 mm) riser

【2】 Select Feeder Port Count

1 = 12 ports in a cassette
2 = 24 ports – two cassettes
3 = 36 ports – three cassettes
4 = 48 ports – four cassettes
5 = 60 ports – five cassettes
6 = 72 ports – six cassettes
7 = 84 ports – seven cassettes
8 = 96 ports – eight cassettes

【3】 Select Distribution Port Count

X X X = port count in increments of 12

【4】 Select Connector Style

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

【5】 Select Mode / Type

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

【6】 Select Cable Construction

B = OSP riser
E = OSP, non-rated
F = Patch and splice
M = OSP armored

【7】 Select Qty of 144 - Fiber OSP Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

【8】 Select Qty of 96 - Fiber OSP Cables

0 = 0   4 = 4
1 = 1   5 = 5
2 = 2   6 = 6
3 = 3

【9】 Select Qty of 72 - Fiber OSP Cables

0 = 0   5 = 5
1 = 1   6 = 6
2 = 2   7 = 7
3 = 3   8 = 8
4 = 4

【A】 Extras

B = Clearview Blue Cassettes
F = Vented door with Clearview Blue
M = Ground Box in riser and Clearview Blue
N = Ground Box in riser, vented door,
      and Clearview Blue

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet

* 200 feet maximum
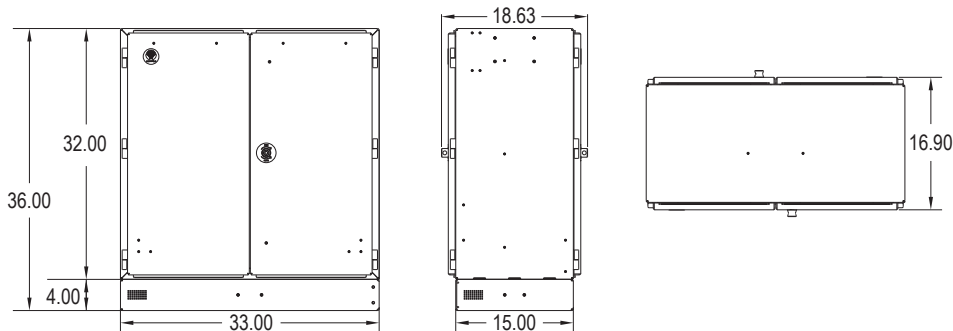
Vault Options

576 Port Cabinet

Part Number	Description
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with knock-out for FieldSmart Cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V8A-CZP-F	Vault, Pencell 36" x 60" x 24" (914.40 mm x 1524.00 mm x 609.60 mm), complete split lid with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V8B-CZP-F	Vault, Pencell 36 x 60 x 36" (914.40 mm x 1524.00 mm x 914.40 mm), complete split lid, with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V9B-HZP-F	Vault, Quazite 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, fiberglass straight wall, requires 020538 Bolt Kit - ordered separately

FieldSmart® Fiber Scalability Center (FSC)
PON Cabinets: 288, 432, 576 and 1,152 Ports
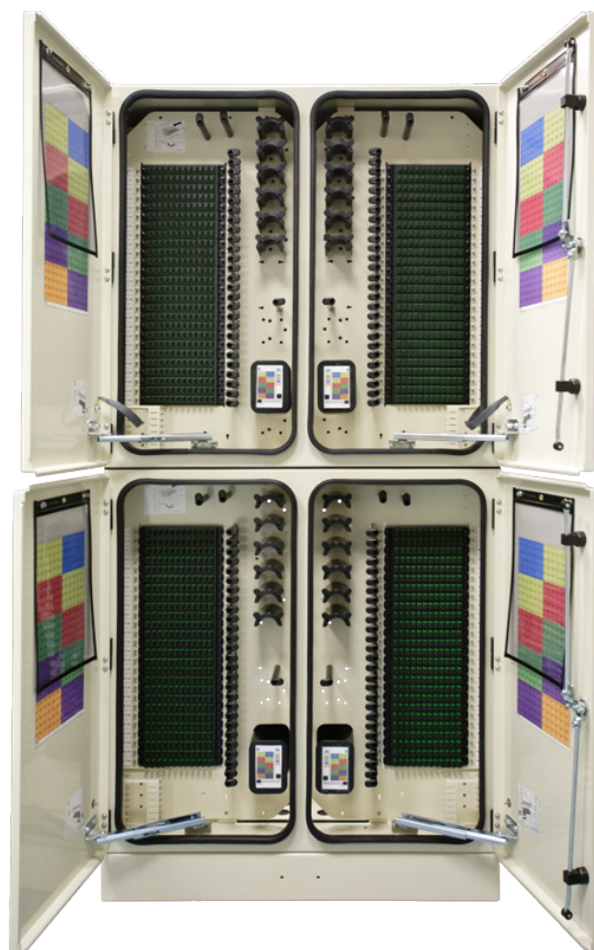
CLEARFIELD

Configured Part Numbers

1,152 Port Cabinet
Please contact your Clearfield® representative for more information on ordering this option.

Vault Options

1,152 Port Cabinet

Part Number	Description
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with knock-out for FieldSmart Cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V8A-CZP-F	Vault, Pencell 36" x 60" x 24" (914.40 mm x 1524.00 mm x 609.60 mm), complete split lid with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V8B-CZP-F	Vault, Pencell 36 x 60 x 36" (914.40 mm x 1524.00 mm x 914.40 mm), complete split lid, with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V9B-HZP-F	Vault, Quazite 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, fiberglass straight wall, requires 020538 Bolt Kit - ordered separately

FieldSmart® Fiber Distribution Hub (FDH)
144-Port PON Cabinet

Application

FieldSmart Fiber Distribution Hub (FDH) 144-Port PON Cabinet provides an interconnect environment from the feeder network through the optical passive splitter to the distribution network. Designed for the outside plant environment, these cabinets provide a single distribution point to distribute FTTH in urban or dense neighborhoods. Providing distribution scalability from 12 to 144 ports, network architecture can be maximized for both existing subscribers as well as future growth opportunities.

Description

The FieldSmart FDH 144-Port PON Cabinet is the complete solution for managing up to 144 port distribution fibers for an outside plant FTTx PON application. Integrated into the cabinet design is the 12 port Clearview® Cassette, providing multiple cabinet configurations and allowing the service provider to align the investment in capital equipment to the turn-up of revenue-generating circuits.

The FieldSmart FDH 144-Port PON Cabinet incorporates a new pyramid shaped roof/solar shield and venting ports, providing additional protection for deployed fiber. Mounting options include pole mounted or pad/vault mounted with either a 4" or 12" (101.60 mm or 304.80 mm) riser.

Features and Benefits

Integrity
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Designed to comply to Telcordia GR-20, GR-487, and GR-3125
- Constructed with 0.125 aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets
- Same mounting (riser) as FieldSmart 288-port PON Cabinet

Protection
- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- WaveSmart Ruggedized Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs
- Pyramid roof and venting provide additional protection in all environments

Access
- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Easy two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Bottom exit/entrance for fiber cables

Investment
- 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 or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with additional hand-holes and splice cases

FieldSmart® Fiber Distribution Hub (FDH)
144-Port PON Cabinet

Technical Specifications

FieldSmart FDH 144-Port PON Cabinet	
Cabinet Dimensions (Without Risers or Pole Mount Brackets)	17.81" W x 18.53" D x 21.62" H (452.37 mm x 470.66 mm x 549.15 mm)
Optional Risers (same riser as 288 cabinet) Weight and Exterior Dimensions	4" (101.60 mm)/6 lbs. (2.72 kg) or 12" (304.80 mm)/12 lbs. (5.44 kg) 16.78" W x 15" D x 4" or 12" High (426.21 mm x 381.00 m x 101.60 mm or 304.80 mm)
Weight	Approx. 40 lbs. (18.14 kg)
Feeder/Express Ports	12 or 24
Cable Entrances	6 - Bottom only
Mounting Options (Hoist Kits Included with Each Cabinet)	Vault mount, pole mount, pad mount
Splitter Slots for WaveSmart Ruggedized Splitters	4
Cassette Type Supported	Clearview Blue
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 Cassette
Material	0.125 aluminum with almond powder coating

Accessories

- Pole Mount Kit
- Risers: 4" and 12" (101.60 mm or 304.80 mm)
- Exterior Ground Box - Available with 12" Riser Only
- WaveSmart Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit

Configured Part Numbers

R - C ___ ___ - ___ ___ ___ - ___ ___ ___ - 0 ___ ___ ___ - B XXXM or XXXF

[1] [2] [3] [4] [5] [6] [7] [8] [9]

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
C = No Riser With Pole Mount Kit
D = 4" (101.60 mm) Riser with Pole Mount Kit

2 Select Feeder

1 = 12
2 = 24
Z = No Feeder

3 Select Distribution Port Count

012 = 12	096 = 96
024 = 24	108 = 108
036 = 36	120 = 120
048 = 48	132 = 132
060 = 60	144 = 144
072 = 72	000 = No Dist.
084 = 84	

4 Select Connector

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

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored (non-rated) Gel-Filled

7 Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1

8 Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1

9 Select Qty. of 72 Fiber OSP Cables

0 = 0
1 = 1
2 = 2

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet

FieldSmart® Fiber Distribution Hub (FDH)
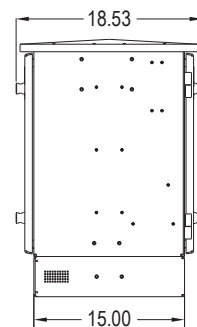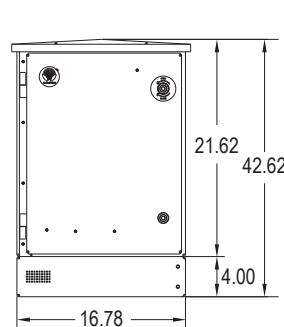## *144-Port PON Cabinet*

Pre-Configured Part Numbers

Vault Options

| Part Number	Description
V6A-CZP	Vault, below grade Pencell, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencell, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencell, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split PC lid, hex bolts, gray, with cut out for FieldSmart Cabinets, straight wall
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
FMA-H3Z-BC-SUB	Pole Mount Kit, for FieldSmart FDH cabinets, 144
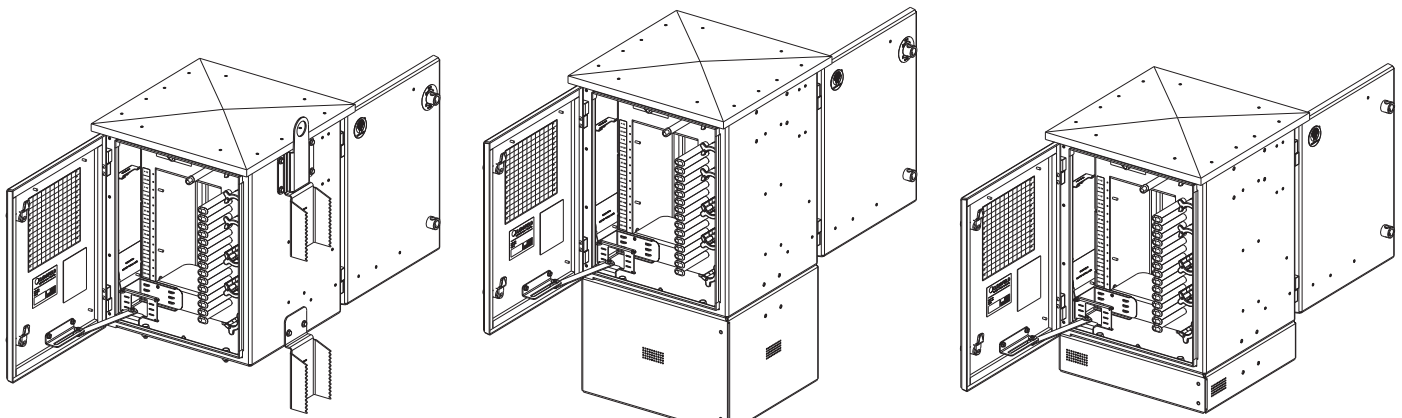
144 with Pole Mount Brackets

144 with 12" (304.80 mm) Riser

144 Interior View
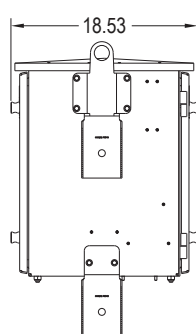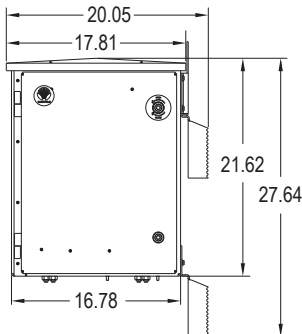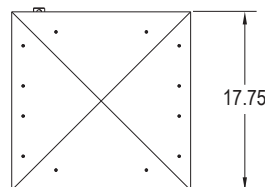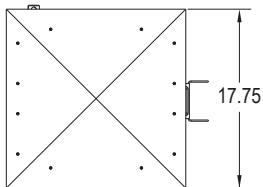
144 with Pole Mount Kit - Dimensions

144 with 4" (101.60 mm) Riser - Dimensions

FieldSmart® Fiber Distribution Hub (FDH)
864-Port PON Cabinet

Application

FieldSmart Fiber Distribution Hub (FDH) 864-Port PON Cabinet provides an interconnect environment from the feeder network through the optical passive splitter to the distribution network. Designed for the outside plant environment, these cabinets provide a single distribution point to distribute FTTH in urban or dense neighborhoods. Providing distribution scalability from 12 to 864 ports, network architecture can be maximized for both existing subscribers as well as future growth opportunities.

Description

The FieldSmart FDH 864-Port PON Cabinet is the complete solution for managing up to 864 port distribution fibers for an outside plant FTTx PON application. Integrated into the cabinet design is the 12 port Clearview® Cassette, providing multiple cabinet configurations and allowing the service provider to align the investment in capital equipment to the turn- up of revenue-generating circuits.

The FieldSmart FDH 864-Port PON Cabinet incorporates a new pyramid shaped roof/solar shield and venting ports, providing additional protection for deployed fiber. Mounting options include pad or vault mounted with either a 4" or 12" riser.

Features and Benefits

Integrity
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Compliant to Telcordia GR-20, GR-487 and GR-3125
- Constructed with 0.090 aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets
- Optional 4" and 12" risers, can be stacked to raise cabinet if required

Protection
- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- WaveSmart Ruggedized Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs
- Pyramid roof and venting provide additional protection in all environments

Access
- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Bottom exit/entrance for fiber cables

Investment
- 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 or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with additional hand-holes and splice cases

FieldSmart® Fiber Distribution Hub (FDH)
864-Port PON Cabinet

Technical Specifications

FieldSmart FDH 864-Port PON Cabinet	
Cabinet Dimensions (Without Risers or Pole Mount Brackets)	41.89" W x 18.53" D x 37.92" H
Optional Risers (same riser as 288 cabinet) Weight and Exterior Dimensions	4" (12 lbs.) or 12" (25 lbs.)
	41.89" W x 14.95" D x 4" or 12" High
Weight	Approx. 95 lbs.
Feeder/Express Ports	Up to 96
Cable Entrances	12 - Bottom only
Mounting Options (Hoist Kits Included with Each Cabinet)	Vault mount or pad mount
Splitter Slots for WaveSmart Ruggedized Splitters	28
Cassette Type Supported	Clearview Blue
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 Cassette
Material	0.090 aluminum with almond powder coating

Accessories

- Risers: 4" and 12" (101.60 mm or 304.80 mm)
- Exterior Ground Box - Available with 12" Riser Only
- WaveSmart Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit

Configured Part Numbers

R - H ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ - ___ XXXM or XXXF

[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11]

[1] Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

[2] Select Feeder

1 = 12 in a cassette
2 = 24 in 2 cassettes
3 = 36 in 3 cassettes
4 = 48 in 4 cassettes
5 = 60 in 5 cassettes
6 = 72 in 6 cassettes
7 = 84 in 7 cassettes
8 = 96 in 8 cassettes
Z = No Feeder

[3] Select Distribution Port Count

012 = 12	144 = 144
024 = 24	288 = 288
036 = 36	576 = 576
048 = 48	864 = 864
072 = 72	ZZZ = No Dist.
096 = 96	

[4] Select Connector

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

[5] Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

[6] Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = 900 µm TB Patch and Splice
M = OSP Armored (Non-Rated) Gel Filled

[7] Select Qty. of 288/216 Fiber OSP Cables

0 = 0	A = 1-216
1 = 1-288	B = 2-216
2 = 2-288	C = 3-216
3 = 3-288	D = 4-216

[8] Select Qty. of 144 Fiber OSP Cables

0 = 0	4 = 4
1 = 1	5 = 5
2 = 2	6 = 6
3 = 3	

[9] Select Qty. of 96 Fiber OSP Cables

0 = 0	5 = 5
1 = 1	6 = 6
2 = 2	7 = 7
3 = 3	8 = 8
4 = 4	9 = 9

[10] Select Qty. of 72 Fiber OSP Cables

0 = 0	5 = 5
1 = 1	6 = 6
2 = 2	7 = 7
3 = 3	8 = 8
4 = 4	9 = 9

[11] Select Ground Box/Extras

B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview Blue Cassettes

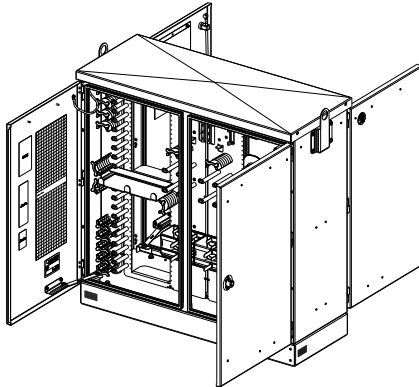**XXXM or XXXF**

XXXM = Length in meters
XXXF = Length in feet

FieldSmart® Fiber Distribution Hub (FDH)
864-Port PON Cabinet

CLEARFIELD

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V9B-HZP-F	Vault, Quazite 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), Complete Split Polymer Concrete Lid, Cut Out for 864 Cabinet, Fiberglass Straight Wall

864 Interior View with 4" Riser
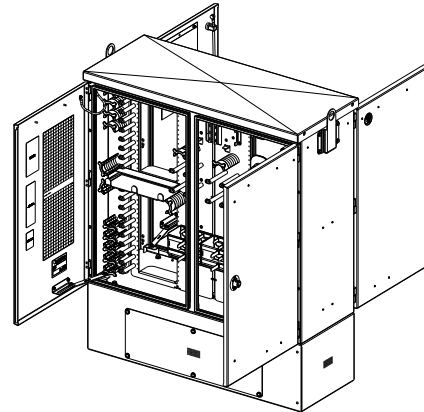
864 Interior View with 12" Riser

864 with 4" (101.60 mm) Riser - Dimensions

864 with 4" (101.60 mm) Riser - Dimensions

FieldSmart® Fiber Scalability Center (FSC)
Cross-Connect Cabinets: 432, 864 and 1,728 Ports

CLEARFIELD

Application

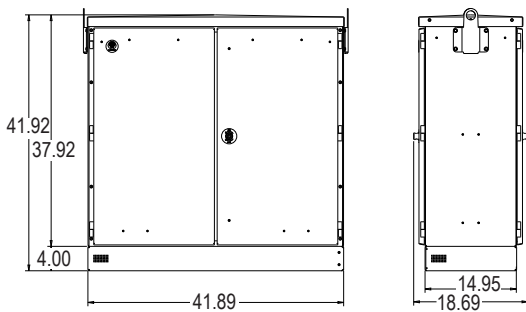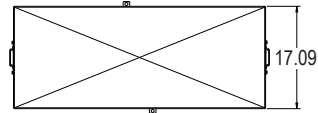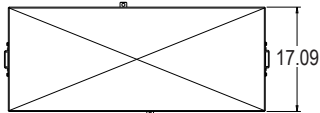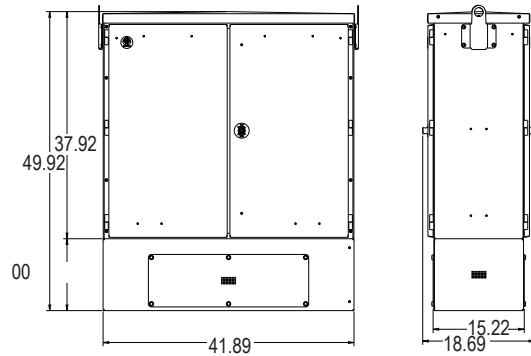The FieldSmart FSC Cross-Connect Cabinet is the complete solution for managing up to 1,728 fibers in most any feeder/distribution ratio for an outside plant FTTx application. This solution provides an interconnect environment from the feeder network and the distribution field in a FTTH network.

Description

With the Clearview® Cassette as its foundation, the FieldSmart FSC Cross-Connect Cabinet uses the same components as the FieldSmart Fiber Crossover Distribution System (FxDS) deployed in the central office. This enables service providers to standardize on a single building block, allowing them to stock a single fiber management component for either environment. Technicians also have the ease of working with a single fiber architecture for central office or outside plant deployment - saving training and installation time. Using Clearview, FieldSmart changes the rules of fiber management. Optimal access is ensured to all ports and superior fiber protection is integrated within the Clearview Cassette. Through the incremental design of the Clearview 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. Further, labor and other field costs are minimized through this craft-friendly layout.
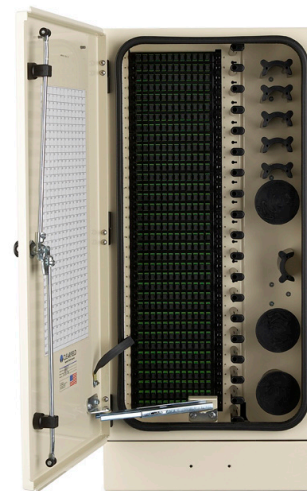
Features and Benefits

Integrity
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Designed to comply to Telcordia GR-20, GR-487 and GR-3125
- Constructed with 0.125 (3.175 mm) aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets

Protection
- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable fittings protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations

Access
- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Easy two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Top exit available in 432 Cross-Connect Cabinets

Investment
- 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 or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with jacketed IFC cabling, hand-holes and splice cases

FieldSmart® Fiber Scalability Center (FSC)
Cross-Connect Cabinets: 432, 864 and 1,728 Ports

CLEARFIELD

Technical Specifications

FieldSmart FSC Cross-Connect Cabinets	432 Port	864 Port	1,728 Port
Dimensions *(without riser)*	32" H x 16.78" W x 16.9" D (812.80 mm x 426.21 mm x 429.26 mm)	32" H x 33" W x 16.9" D (812.80 mm x 838.20 mm x 429.26 mm)	64" H x 33" W x 16.9" D (1625.60 mm x 838.20 mm x 429.26 mm)
Weight	54 lbs (24.49 kg)	86 lbs (39.01 kg)	172 lbs (78.02 kg)
Port Density	432	864	1,728
Cables Entrances	6	12	12
Mounting Options (Hoist kits included with each cabinet)	Vault mount; pole mount; pad mount	Vault mount; pad mount	Vault mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)
Cassette Types Supported	Clearview® Blue		
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 Cassette		
Material	0.125 (3.175 mm) aluminum with almond powder coating		
Recommended Jumper Length	2 meters	2 meters	4 meters

Accessories

- Risers: 4" (101.60 mm) and 12" (304.80 mm)
- Exterior Ground Box — Available with 12" Riser Only
- FieldSmart Mid-Span/Feed-Through Plate Kit
- Pole Mount Kit
- Optional top exit available on 432 cross-connect
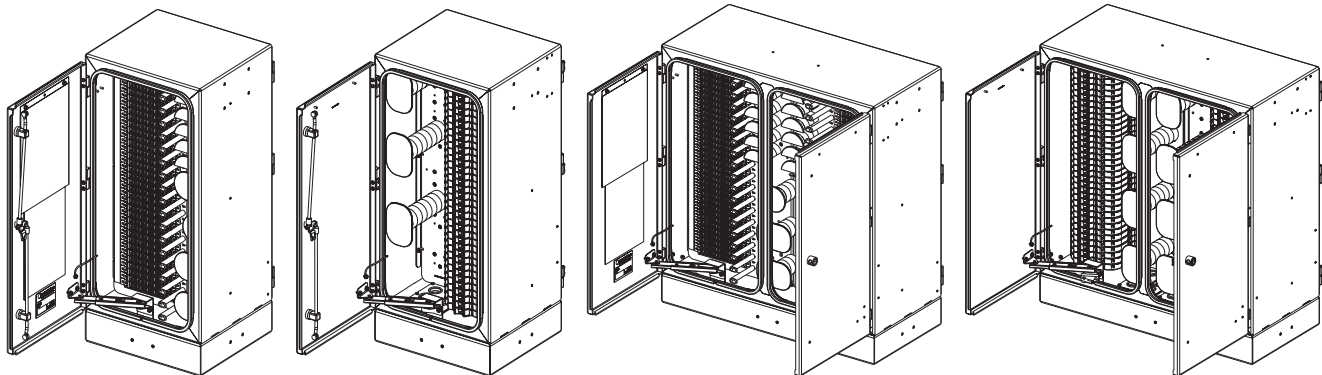
432 Port - Front   432 Port - Rear   864 Port - Front   864 Port - Rear

FieldSmart® Fiber Scalability Center (FSC)
Cross-Connect Cabinets: 432, 864 and 1,728 Ports

CLEARFIELD

Configured Part Numbers
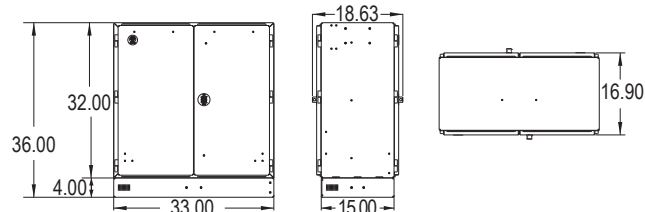
432 Port Cabinet

R ___ Z - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ XXXM or XXXF*

1   2 3 4   5   6 7 8   9   A B C D

1   Select Cabinet Type

S = Patch only with 4" (101.60 mm) riser
T = Patch & splice with 4" (101.60 mm) riser
7 = Patch only with 12" (304.80 mm) riser
8 = Patch & splice with 12" (304.80 mm) riser

2   Select Connector Style

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

3   Select Mode / Type

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

4   Select Cable Construction

B = OSP riser
E = OSP, non-rated
F = Patch and splice
M = OSP armored
Z = None or patch and splice ribbon

5   Select Feeder Port Count

X X X = port count in increments of 12

6   Select # of 144 - Fiber Feeder Cables

0 = 0
1 = 1

7   Select # of 96 - Fiber Feeder Cables

0 = 0
1 = 1
2 = 2

8   Select # of 72 - Fiber Feeder Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

9   Select Distribution Port Count

X X X = port count in increments of 12

A   Select # of 144 – Fiber Distribution Cables

0 = 0
1 = 1
2 = 2

B   Select # of 96 – Fiber Distribution Cables

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

C   Select # of 72 – Fiber Distribution Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

D   Extras

B = Clearview Blue Cassettes
D = Top exit with Clearview Blue
F = Vented door with Clearview Blue
J = Vented door with top exit and
    Clearview Blue
M = Ground Box in riser and Clearview Blue
N = Ground Box in riser, vented door,
    and Clearview Blue

XXXM or XXXF

XXXM = Length of pigtails in meters
XXXF = Length of pigtails in feet

*200 feet maximum

18.63   32.00   36.00   4.00   16.78   15.00   16.90

Vault Options

432 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencell, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencell, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencell, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with know outs for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Scalability Center (FSC)
Cross-Connect Cabinets: 432, 864 and 1,728 Ports

CLEARFIELD

Configured Part Numbers

864 Port Cabinet

R ____ Z - ____ ____ ____ - ____ ____ ____ - ____ - ____ ____ ____ - ____ ____ ____ - ____ **XXXM or XXXF***

| 1 | | 2 | 3 | 4 | | 5 | | 6 | 7 | 8 | | 9 | | A | B | C | | D |

1 Select Cabinet Type

Q = Patch only with 4" (101.60 mm) riser
R = Patch and splice with 4" (101.60 mm) riser
5 = Patch only with 12" (304.80 mm) riser
6 = Patch and splice with 12" (304.80 mm) riser

2 Select Connector Style

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

3 Select Mode / Type

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

4 Select Cable Construction

B = OSP riser
E = OSP, non-rated
F = Patch and splice
M = OSP armored
Z = None or patch and splice ribbon

5 Select Feeder Port Count

X X X = port count in increments of 12

6 Select # of 144 - Fiber Feeder Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

7 Select # of 96 - Fiber Feeder Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

8 Select # of 72 - Fiber Feeder Cables

0 = 0   4 = 4
1 = 1   5 = 5
2 = 2   6 = 6
3 = 3

9 Select Distribution Port Count

X X X = port count in increments of 12

A Select # of 144 – Fiber Distribution Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

B Select # of 96 – Fiber Distribution Cables

0 = 0   3 = 3
1 = 1   4 = 4
2 = 2

C Select # of 72 – Fiber Distribution Cables

0 = 0   4 = 4
1 = 1   5 = 5
2 = 2   6 = 6
3 = 3

D Extras

B = Clearview Blue Cassettes
F = Vented door with Clearview Blue
M = Ground Box in riser and Clearview Blue
N = Ground Box in riser, vented door, and Clearview Blue

XXXM or XXXF

XXXM = Length of pigtails in meters
XXXF = Length of pigtails in feet

*200 feet maximum

18.63

32.00

36.00

4.00

33.00

15.00

16.90

Vault Options

864 and 1,728 Port Cabinets

Part Number	Description
V7A-CZP	Vault, below grade Pencell, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencell, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencell, 30" x 48" x 36" (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with knock out for FieldSmart Cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V8A-CZP-F	Vault, Pencell 36" x 60" x 24" (914.40 mm x 1524.00 mm x 609.60 mm), complete split lid with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V8B-CZP-F	Vault, Pencell 36 x 60 x 36 (914.40 mm x 1524.00 mm x 914.40 mm), complete split lid, with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V9B-HZP-F	Vault, Quazite 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer lid, cut out for 864 FieldSmart cabinets, fiberglass straight wall, requires 020538 Bolt Kit - ordered separately

Configured Part Numbers

1,1728 Port Cabinet
Please contact your Clearfield® representative for more information on ordering this option.

FieldSmart® Fiber Scalability Center (FSC)
Hub Collapse Cabinet

Application

The FieldSmart Hub Collapse Cabinet (HCC) provides a centralized location within a service provider's network that houses both fiber terminations and optical components. This eliminates the need for a physical "hub" location, thereby saving land, maintenance and permitting expenses. Service providers increase revenue by collapsing multiple locations into one centralized service point.

Description

The FieldSmart Hub Collapse Cabinet (HCC) is designed for the cable operator looking to separate their passive infrastructure from the electronics without the need for a traditional, and expensive, standard hub architecture. Hub collapse environments allow passive architecture to be placed in the most craft-friendly place for circuit and wavelength allocation and associated MAC (moves, adds, and changes) work - on the ground. Providing up to 120-fiber terminations using the Clearview® Cassette and up to 32 LGX compatible CWDM/DWDM modules, the FieldSmart Hub Collapse Cabinet (HCC) separates critical active components typically protected in the node, such as Cisco's O-Hub platform or Aurora V-Hub, and allows existing optical components to be reused throughout the network.

Clearfield's Hub Collapse Cabinet (HCC) provides a centralized location that will accommodate both optical components and fiber terminations, making it an ideal solution for service providers looking to maximize existing fibers within their network. With a small footprint (32" H x 16.78" W x 16.9" D - 812.80 mm x 1426.21 mm x 429.26 mm), real estate costs can be minimized with a variety of mounting options (pole, pad or vault mount).

Features and Benefits

Integrity
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Designed to comply to Telcordia GR-20, GR-487 and GR-3125
- Constructed with 0.125 (3.125 mm) aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets

Protection
- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations

Access
- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Easy two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Top exit available on HCC Cabinet
- Optional ground/locate box available

Investment
- 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 or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with jacketed IFC cabling, hand-holes and splice cases
- Eliminates building costs and permits for physical hub location structures

18.63
32.00
36.00
4.00
16.78
15.00
16.90
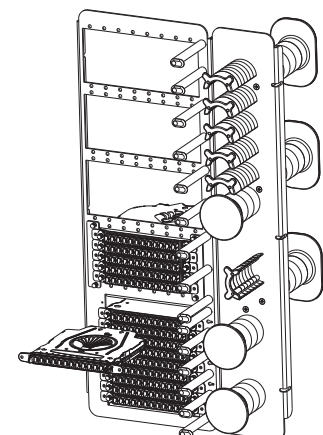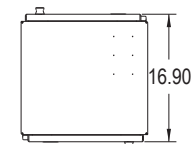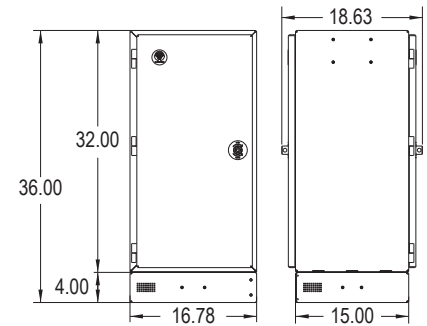
HCC Bracket: 014375

FieldSmart® Fiber Scalability Center (FSC)
Hub Collapse Cabinet

CLEARFIELD

Technical Specifications

FieldSmart FSC Hub Collapse Cabinet	
Dimensions *(without riser)*	32" H x 16.78" W x 16.9" D (812.80 mm x 426.21 mm x 429.26 mm)
Weight	54 lbs (24.49 kg)
Port Density	120 *can add five additional cassettes - 60 ports per LGX slot using adapter plates*
LGX Compatible Bulkhead Slots	32
Cassette Types Supported	Clearview® Blue
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 Cassette
Cables Entrances	6
Recommended Jumper Length	Two meters
Mounting Options (Hoist kit included with each cabinet)	Vault mount; pole mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)
Material	0.125 aluminum with almond powder coating

Accessories

- Risers: 4" (101.60 mm) and 12" (304.80 mm)
- Exterior Ground Box — Available with 12" Riser Only
- FieldSmart Mid-Span/Feed-Through Plate Kit
- Pole Mount Kit
- Adapter Brackets (014375) - For adding cassettes into LGX slots (one set comes standard with each HCC Cabinet, additional sets can be ordered)
- Optional top exit available on HCC Cabinet

Configured Part Numbers

R - A ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ XXXM or XXXF*

[1] [2] [3] [4] [5] [6] [7]

[1] Select Riser Size

A = 4" (101.60 mm)
B = 12" (304.80 mm)

[2] Select Tie Plate Option

A = Tie plate option (3 slots)
Z = None

[3] Select Distribution Port Count

012 = 12	072 = 72
024 = 24	084 = 84
036 = 36	096 = 96
048 = 48	108 = 108
060 = 60	120 = 120

[4] Select Connector

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

[5] Select Mode and Type

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

[6] Select Jacket Construction

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

[7] Extras

B = Clearview Blue Cassettes
D = Top exit with Clearview Blue
F = Vented door with Clearview Blue
J = Vented door with top exit and Clearview Blue
M = Ground Box in riser and Clearview Blue
N = Ground Box in riser, vented door, and Clearview Blue

XXXM or XXXF

XXXM = Length of pigtails in meters
XXXF = Length of pigtails in feet

*200 feet maximum

FieldSmart® Fiber Scalability Center (FSC)
## *Accessories*

Pole Mount Kit

Description

The FieldSmart Fiber Scalability Center (FSC) Pole Mount Kit provides the ability to pole mount the 144 port, 288 port and 432 port PON, 432 port cross-connect, and Hub Collapse cabinets. Also available are the Pole Mount Under Plate Kits. It has an easy to install hook and tab design with a rugged thru-pole lag bolt for security.

Pre-Configured Part Numbers

Part Number	Description	Application/Where Used
FMA-H3Z-BC-SUB	Pole mount kit only, for 144 FDH	144 FDH PON
FMA-H3Z-KIT-SUB	Kit, includes Pole Mount Kit and under plate kit	288 PON, 432 cross-connect, hub collapse
FMA-H3Z-KIT-SUB-144	Kit, includes Pole Mount Kit and under plate kit	144 FDH PON
FMA-H3Z-KIT-432-SUB	Kit, includes Pole Mount Kit and under plate kit	432 PON only
FMA-H3Z-PLT-STRG-SUB	Pole Mount Under Plate Kit, with security clamp	288 PON, 432 cross-connect, hub collapse
FMA-H3Z-PLT-SUB	Pole Mount Under Plate Kit	144 & 288 PON, 432 cross-connect, hub collapse
FMA-H3Z-SUB	Pole Mount Kit	288 PON, 432 PON, 432 cross-connect, hub collapse
015292	432-Port PON Pole Mount Under Plate Kit	432 PON Only
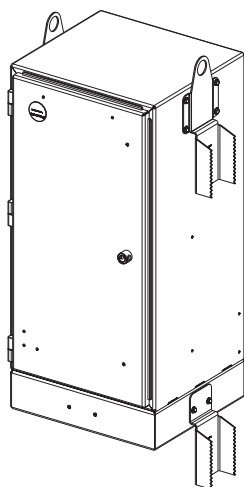
FMA-H3Z-SUB
FSC Pole Mount Kit
(288 and 432 PON, 432 Cross-Connect and HCC only)
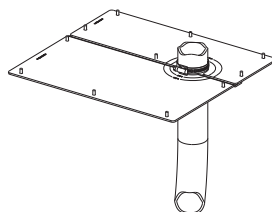
015292
432 Port PON Pole Mount Under Plate Kit
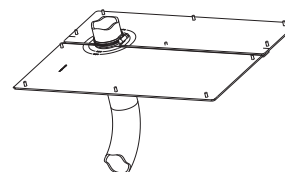
FMA-H3Z-PLT-SUB
FSC Box Pole Mount Underplate Kit
(288 and 432 PON, 432 Cross-Connect and HCC only)

Cabinet Entrance Expansion Kit

Description

The FieldSmart Cable Expansion Kit includes all the material to add up to 3 additional cables to any of our FieldSmart Cabinets. It includes sealcons, nuts, o-rings, grommets and strength member tie off clamps.

Pre-Configured Part Numbers

Part Number	Description
FMA-XXX-14	Cabinet Entrance Expansion Kit, contains extra sealcon and grommets

FieldSmart® Fiber Scalability Center (FSC)
Accessories

Deep Socket Wrenches

Description

The handy, light weight Deep Socket Wrench is manufactured from alloy steel. In a patch and splice (Clearfield's in-cassette splicing solution) cabinet where the customer installs the incoming cable, the cable must go through the watertight fittings that are provided with each cabinet. Watertight fittings must then be installed into the FieldSmart Cabinet. These wrenches are designed to make tightening of the dome, thread and lock nuts more manageable. The wrench encloses the dome nut on five sides, giving the nut additional rigidity during tightening. This is especially important if a stiff cable is used.

Note: Does not work with all Flex Fittings. One of each style wrench (40 mm and 42 mm) is needed to tighten the 1" watertight fitting used on all FieldSmart Cabinets.

Torque Recommendations for Strain Relief Fittings

Torque in Inch Pounds - in lb. (Newton Meters - Nm)

	Metal Strain Relief Fittings	Plastic Strain Relief Fittings
Dome Nuts	59.0 (6.67)	44.2 (5.00)
Thread and Lock Nuts	88.5 (10.0)	66.4 (7.50)

Pre-Configured Part Numbers
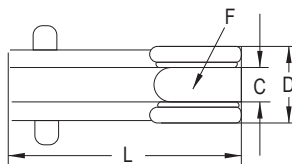
Part Number	Wrenching Flats (F)	Length (L)	Inner Diameter (C)	Outer Diameter (D)
013190	1.57" (40 mm)	3.94" (100 mm)	0.98" (25 mm)	2.07" (52.5 mm)
013191	1.65" (42 mm)	3.94" (100 mm)	1.06" (24.7 mm)	2.15" (54.5 mm)

Mid-Span Opening Feed-Through Plate Kit

Description

The FSC Mid-Span Opening Feed-Through Plate Kit is specifically designed for Clearfield® FieldSmart Fiber Scalability Centers (FSC). It provides the hardware components to confidently secure the ring cut/mid-span fiber optic cable in an OSP cabinet. This kit utilizes the existing cable entry/exit ports in the Clearfield OSP cabinets. It saves the customer time and money by allowing them to only splice the required fiber counts needed into the cabinet.
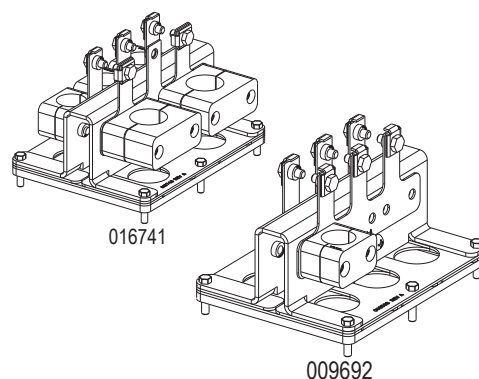
016741

009692

Pre-Configured Part Numbers

Part Number	Description
009692	FieldSmart Mid-Span Opening Feed-Through Plate Kit for cables up to 1" (25.4 mm) O.D.; includes strength member tie off clamp
016741	FieldSmart Mid-Span Opening Feed-Through Plate Kit for cables up to 1.25" (31.75 mm) O.D.; includes strength member tie off clamp
016757	Strength member tie off kit - for retro fit or older version of 009692

# FieldSmart® Fiber Scalability Center (FSC)
Accessories

Cassette - Cabinet Adapter Brackets

Description

Vertical bracket kit for FieldSmart Hub Collapse Cabinets. These brackets mount vertically in one of the 4 LGX slots and will allow the customer to add up to 5 additional cassettes per slot. We are including one set of these brackets with every HCC that is sold – as part of the standard product offering. If the customer needs additional brackets, please have them order additional kits.
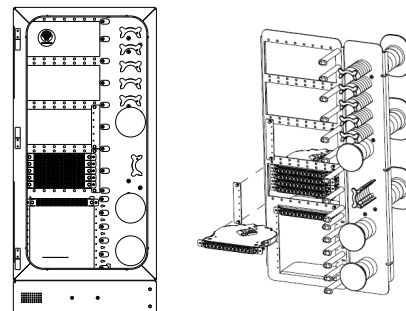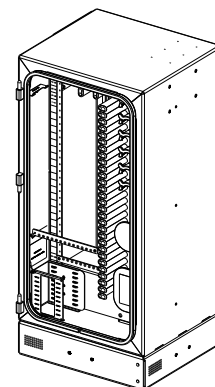
Pre-Configured Part Numbers

Part Number	Description
014375	Cassette - Cabinet Adapter Brackets

LGX - Cabinet Adapter Brackets

Description

Horizontal bracket kit for FieldSmart 144 PON, 288 PON, 432 PON, 576 PON, 864 PON, 1152 PON, 432 Cross Connect, 864 Cross Connect and 1728 Cross Connect. These brackets mount horizontally within the cabinet and will allow the customer to mount up to 6 LGX style modules and 13 ½ wide LGX modules inside of the cabinet. The brackets will reduce the capacity of terminations within the cabinet by 84 ports (7 cassettes). These kits will be available as an optional item and should be ordered separately by the customers.

KIT CONSUMES 7 CLEARVIEW CASSETTE SLOTS IN CABINET
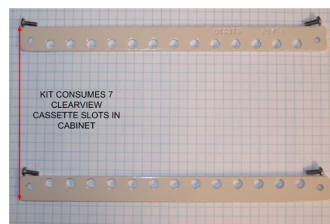
Pre-Configured Part Numbers

Part Number	Description
014380	LGX - Cabinet Adapter Brackets

FieldSmart® Fiber Scalability Center (FSC)
Accessories

CLEARFIELD

Cable Protection Boot

Description

The FieldSmart Cable Protection Boot is a dark gray, vacuum-formed plastic, one piece boot that is attached to the pole and designed to provide additional cable protection where the cables enter/exit the pole mount cabinet. Designed to work in conjunction with a standard 2" U-Channell, it provides additional security and encases all incoming cables and conduit. Designed to fit any Clearfield pole mount FSC Cabinet, the FieldSmart Cable Protection Boot provides additional security and aesthetic appeal by encasing the incoming and outgoing fiber or conduit between the cabinet and the pole.

Pre-Configured Part Numbers

Part Number	Description
014681	Pole Mount Protection Boot

Riser Kits

Description

Specifically designed for FieldSmart Cabinets, these kits can be installed onto existing risers (included with each cabinet). Risers are available in 4" or 12". All 12" Riser Kits include an access panel, allowing for easy access to cable entrance area underneath the cabinet.
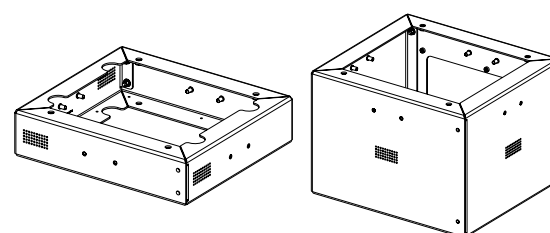
These riser kits can be stacked, allowing the cabinet to be raised to the required height depending on the individual application requirements. Each kit includes the riser and mounting bolt kit.

Pre-Configured Part Numbers

Riser Kits	FDH 144, FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 PON, 864 CC	864 PON FDH	FSC 1152 PON, 1728 CC
4"	012873	014370	012875	020892	012875
12"	012874	014371	012876	020893	012876
12" with Ground Box	012874-G	014371-G	012876-G	020893-G	012876-G

FieldSmart®
Fiber Active Cabinet (FAC) 400

Application

The FieldSmart Fiber Active Cabinet (FAC) 400 broadband enclosure has been designed with the philosophy of modularity and flexibility, while maintaining a maximum heat dissipation capability. The cabinet's small form factor design allows for speedy delivery of subscriber services in an assortment of deployment scenarios. Compliant with GR-487, the FAC 400 is the ideal outdoor cabinet solution for the harshest outdoor conditions, providing a sealed internal environment where external air and humidity are completely isolated from the electronic equipment.

Description

The FAC 400 is an environmentally-controlled enclosure constructed of powder-coated aluminum. The FAC 400's equipment bay features a 19" vertical equipment rack, accommodating up to 4RU of active electronics equipment. The FAC 400 provides up to 192 internal fiber distribution ports for subscriber PON deployments, along with complementary splitter capacity. The FAC 400 accepts local AC power and uses a door mounted integrated air-to-air heat exchanger and DC-powered fans to cool the equipment inside the cabinet. A separate, vented, under-cabinet compartment houses optional batteries.

Features and Benefits

Integrity
- Designed to seamlessly integrate a variety of standard options that are expected in remote cabinets, such as the rectifier system, battery base, battery warmers and field configurable fiber or copper distribution frames
- Supports a variety of cabinet mounting options including pad, pole, wall and H-frame eliminating concern with right-of-way issues and problematic installation locations

Protection
- Telcordia GR-487 compliant and UL-60950/UL-50 spec
- Environmentally sealed design protects internal equipment investment from dust and rain
- Rated for deployments in harsh environments per GR-487: -40°F to +115°F (-40°C to +46°C)

Access
- Provides front and side doors for full access to the equipment
- Designed to allow access to all complementary elements of a remote outdoor cabinet deployment such as the copper or fiber cables, fiber splicing and distribution modules, power and DC distribution systems, AC power and battery charge breakers, AC outlet, etc, in a compact form factor
- Door security and hardware features designed to protect from vandalism and theft

Investment
- Cabinet engineered features designed to ensure ease of maintenance and eliminate service interruptions
- Provides an ideal platform for the migration of copper access services to fiber access infrastructure and electronics

FieldSmart®
Fiber Active Cabinet (FAC) 400

Technical Specifications

FieldSmart FAC 400	
Dimensions	48"H (with battery base) x 24"W x 29"D
Weight	Local AC power w/ single 60 Ah battery base: 156 lbs. Equipped with one 60 Ah battery string: 340 lbs. Local AC power w/ dual 60 Ah battery base: 184 lbs. Equipped with two 60 Ah battery strings: 525 lbs.
Mounting Options	Pour-in-Place Template, Pole Mount, Wall Mount, Vault/Riser and Pre-Cast Pad (3rd party supplied)
AC Power Center Options	Optional integrated AC load center, 110–240 VAC single phase, 30 Amp service with UL listed service disconnect, high power Joslyn AC surge protector
AC/DC Rectifier Option	Alpha Cordex 1RU -48 VDC Rectifier System Two 25 Amp rectifier modules, auto-senses and adjusts for low and high AC input. CXCM1+ Controller
	Low input (100–185 VAC): Max. total power output 1200 Watts; Max. total current 25 Amps (2 modules, non-redundant)
	High input (185–264 VAC): Max. total power output 2400 Watts; Max. total current 50 Amps (2 modules, non-redundant)
Cooling/Environmental	700 Watt cooling capacity with Dantherm door mount heat exchanger
	Ambient temperature per GR-487: –40° F to +115° F (-40°C to +46°C)
Wired Capacity	Fiber: Up to 192 subscriber fiber drops (SC connectors); (6) 1x32 PON splitters
	Copper: Up to 288 copper lines with MS2 or 710 splice options
Fiber Management Options	12-position fiber splice tray (default), up to 192-position fiber distribution in 48- or 96-port increment assemblies; SC connector fiber spool and routing facilities. Integrated 1:16 or 1:32 GPON Splitters (option) LGX based 6-position cassette for fiber splicing or termination.
Copper Protection Options	Standard 5-pin protection blocks — modular in 48-pair increments. Up to six 48-pair protection blocks
Available Rack Units	4
Safety and Compliance	UL-60950, Standard for Safety, Issue 1, April 1, 2003 CAN/CSA-C22.2 No. 60950 EMC FCC Part 15 Class A ICES-003 Class A
	Telcordia, GR-63-CORE, NEBS Telcordia, GR-487, Generic Requirements for Electronic Equipment Cabinets

Pre-Configured Part Numbers

Part Number	Description
R-1ZDA-ZZZZ-ZZZ-ZZZ-ZZ	FieldSmart Fiber Active Cabinet, FAC 400 Enclosure, Vertical 19 Inch Equipment Rack, 300W Heat Exchanger, No Load Center, No Rectifier, No Battery String, No Bulkhead

FieldSmart®
Fiber Active Cabinet (FAC) 400

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Configured Part Numbers

R - 1 Z D A - ___ ___ ___ Z - ___ ___ ___ - Z Z Z - Z ___

              1   **2**   **3**   **4**   **5**

1 **Select AC Power Source**

1 = AC Load Center
2 = AC Load Center/Generator Connect
Z = None

2 **Select Rectifier**

1 = 48 VDC Rectifier
Z = None

3 **Select Number of Battery Strings**

1 = One String
2 = Two Strings
4 = One String with Battery Warmer
5 = Two Strings with Battery Warmer
Z = None

4 **Select Distribution Ports**

00A = 1 Empty 48 Port Bulkhead
00B = 2 Empty 48 Port Bulkhead
00C = 3 Empty 48 Port Bulkhead
00D = 4 Empty 48 Port Bulkhead
ZZZ = None

5 **Select Accessories**

D = 9 POS Splitter Card Cage
Z = None

Mounting Options

Mounting Option	Part Number	Description
Pad Mount	140-00022	Fiber Active Cabinet 400 Pour-in-Place Template
Pole Mount	140-00043	Fiber Active Cabinet 400 Pole/Wall Mount Kit for 60 AH Battery Base
Wall/H-Frame Mount	140-00043	Fiber Active Cabinet 400 Pole/Wall Mount Kit for 60 AH Battery Base

Battery Options

Battery Option	Part Number	Description
60 AH Battery String	140-00042	Fiber Active Cabinet 400 60 AH Northstar NSB 60 Ft. Battery String
62 AH Battery String	140-00039	Fiber Active Cabinet 400 62 AH Enersys SBS B14 Battery String

FieldSmart®
Fiber Active Cabinet (FAC) 900 ————————————————————————

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Application

The FieldSmart Fiber Active Cabinet (FAC) 900 has been designed to offer a low profile and compact size. It complies with a 36" height requirement that allows a minimum intrusive effect in urban, suburban and residential areas. Compliant with GR-487, the FAC 900 is the ideal outdoor cabinet solution for the harshest outdoor conditions, providing a sealed internal environment where external air and humidity are completely isolated from the electronic equipment.

Description

The FAC 900 is an environmentally-controlled enclosure constructed of powder-coated aluminum. The FAC 900 cabinet's equipment compartment features a 19" swing frame front and rear, accommodating up to, 9RU of active electronics equipment. The FAC 900 provides up to 576 internal fiber distribution ports for subscriber PON deployments, along with complementary splitter capacity. The FAC 900 accepts local AC power and uses a door mounted integrated air-to-air heat exchanger and DC-powered fans to cool the equipment inside the cabinet. A separate, vented, internal compartment houses an optional battery string. In addition, an optional under-cabinet battery compartment can be ordered.

Features and Benefits

Integrity
- Designed to seamlessly integrate a variety of standard options that are expected in remote cabinets, such as the rectifier system, battery base, battery warmers and field configurable fiber or copper distribution frames
- Supports a variety of cabinet mounting options including pad, pole, wall and H-frame eliminating concern with right-of-way issues and problematic installation locations

Protection
- Telcordia GR-487 compliant and UL-60950/UL-50 spec
- Environmentally sealed design protects internal equipment investment from dust and rain
- Rated for deployments in harsh environments per GR-487: -40°F to +115°F (-40°C to +46°C)

Access
- Provides front and side doors for full access to the equipment
- Designed to allow access to all complementary elements of a remote outdoor cabinet deployment such as the copper or fiber cables, fiber splicing and distribution modules, power and DC distribution systems, AC power and battery charge breakers, AC outlet, etc.
- Door security and hardware features designed to protect from vandalism and theft

Investment
- The FAC 900 is designed for modular expansion, allowing cost effective service deployment and scalability
- Cabinet engineered features designed to ensure ease of maintenance and eliminate service interruptions
- Provides an ideal platform for the migration of copper access services to fiber access infrastructure and electronics

FieldSmart®
Fiber Active Cabinet (FAC) 900 ────────────────────────

CLEARFIELD

Technical Specifications

FieldSmart FAC 900	
Dimensions	Base cabinet: 36"H x 25"W x 57"D (battery box internal to cabinet)
	Riser options for cabinet: 6", 12" or 16" H
Weight	Local AC power w/ 100 Ah battery enclosure: 290 lbs. Equipped with one 100 Ah battery string: 575 lbs.
Mounting Options	Pre-Cast or Pour-in-Place Pad Template, Wall/H-Frame Mount, Vault/Riser (3rd Party Supplied)
AC Power Center Options	AC Power feed: 240 VAC single phase, 50/60HZ, 30 Amp service with UL listed service disconnect, high power Joslyn AC surge protector
AC/DC Rectifier Option	Alpha Cordex 1RU -48 VDC Rectifier System Two 25 Amp rectifier modules, auto-senses and adjusts for low and high AC input. CXCM1+ Controller
	Low input (100–185 VAC): Max. total power output 1200 Watts; Max. total current 25 Amps (2 modules, non-redundant)
	High input (185–264 VAC): Max. total power output 2400 Watts; Max. total current 50 Amps (2 modules, non-redundant)
Cooling/Environmental	1050 Watt cooling capacity with Dantherm door mount heat exchanger, as per GR-487 Generic Requirement
	Ambient temperature (per GR-487): -40°F to +115°F (-40°C to +46°C)
Wired Capacity	Fiber: Up to 576 subscriber fiber terminations with internal battery box in cabinet, up to 576 subscriber fiber terminations (with or without internal battery box in cabinet). Up to 18 integrated PON splitters.
	Copper: Up to 384 copper lines with MS2 or 710 splice options
Fiber Management Options	12- or 24-position Clearfield Fiber Splice and distribution on 19/23" mount. Support for in-cabinet GPON and ActiveE fiber management: Up to 576 position fiber distribution in 12-, 24-, 48-, or 96-port increment assemblies; SC/APC connector, loose tube or ribbon. Up to eighteen integrated 1x2, 1x16, 1x32 GPON Splitters (optional).
Copper Protection Options	Standard 5-pin protection blocks — modular in 48-pair increments, up to eight 48-pair protection blocks
Available Rack Units	Up to 9RU in a 19" rack
Safety and Compliance	UL-60950, Standard for Safety, Issue 1, April 1, 2003 CAN/CSA-C22.2 No. 60950 EMC FCC Part 15 Class A ICES-003 Class A
	Telcordia, GR-63-CORE, NEBS Telcordia, GR-487, Generic Requirements for Electronic Equipment Cabinets

Pre-Configured Part Numbers

Part Number	Description
R-2ZDB-ZZZZ-ZZZ-ZZZ-ZZ	FieldSmart Fiber Active Cabinet, FAC 900 Enclosure, Vertical 19 Inch Equipment Rack, 750W Heat Exchanger, No Load Center, No Rectifier, No Battery String, No Bulkhead

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V10.19

FieldSmart®
Fiber Active Cabinet (FAC) 900

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Configured Part Numbers

R - 2 Z D B - ___ ___ ___ Z - ___ ___ ___ - Z Z Z - Z ___

[1] [2] [3] [4] [5]

[1] Select AC Power Source

1 = AC Load Center
2 = AC Load Center/Generator Connect
Z = None

[2] Select Rectifier

1 = 48 VDC Rectifier
Z = None

[3] Select Number of Battery Strings

1 = One String
4 = One String with Battery Warmer
Z = None

[4] Select Distribution Ports

00H = 1 Empty 192 Port Bulkhead
00J = 2 Empty 192 Port Bulkheads
00K = 3 Empty 192 Port Bulkheads
00P = 1 Empty 96 Port Bulkhead
00Q = 2 Empty 96 Port Bulkheads
00R = 3 Empty 96 Port Bulkheads
00S = 4 Empty 96 Port Bulkheads
00T = 5 Empty 96 Port Bulkheads (No Battery)
00U = 6 Empty 96 Port Bulkheads (No Battery)
00V = 7 Empty 96 Port Bulkheads (No Battery)
ZZZ = None

[5] Select Accessories

E = 18 POS Splitter Card Cage
Z = None

Mounting Options

Mounting Option	Part Number	Description
Pad Mount	140-00048	Fiber Active Cabinet 900 Pad Mount Kit With Pour in Place Template
Wall/H-Frame Mount	140-00049	Fiber Active Cabinet 900 Wall/H-Frame/Pole Mount Kit

Battery Options

Battery Option	Part Number	Description
100 Ah Battery String	140-00002	Fiber Active Cabinet Northstar Battery String Kit, 100 Ah - Front Access

FieldSmart®
Fiber Active Cabinet (FAC) 3200

Application

The FieldSmart Fiber Active Cabinet (FAC) 3200 has been designed with the philosophy of modularity and flexibility, while maintaining a maximum cooling capability for the active electronics investment. Compliant with GR-487, the FAC 3200 is the ideal outdoor cabinet solution for the harshest outdoor conditions, providing a sealed internal environment where external air and humidity are completely isolated from the electronic equipment.

Description

The FAC 3200 outdoor cabinet is an environmentally-controlled enclosure constructed of powder-coated aluminum. The FAC 3200 cabinet's equipment compartment features a 23", 16RU equipment mounting rack front and rear, accommodating up to 32RU of active electronics equipment. The FAC 3200 provides up to 432 internal fiber distribution ports for subscriber PON deployments along with complementary splitter capacity. The FAC 3200 accepts local AC power and uses a door mounted integrated air-to-air heat exchanger and DC-powered fans to cool the equipment inside the cabinet. A vented, integrated-cabinet compartment below the equipment chamber houses optional batteries.

Features and Benefits

Integrity
- The FAC 3200 can accommodate equipment in the front compartment, as well as auxiliary and complementary options in the rear compartment and the splice chamber. The 23" equipment racks in front, rear and splice compartments, allow for a variety of deployment options.
- Designed to seamlessly integrate a variety of standard options that are expected in remote cabinets, such as the rectifier system, battery warmers and field upgradeable fiber bulkheads
- Supports a variety of cabinet mounting options including pad, pole, wall or H-frame, eliminating concern with right-of-way issues and problematic installation locations

Protection
- Telcordia GR-487 compliant and UL-60950/UL-50 spec
- Environmentally sealed design protects internal equipment investment from dust and rain
- Rated for deployments in harsh environments per GR-487: -40°F to +115°F (-40°C to +46°C)

Access
- Provides 3-point latching doors for quick access to all three compartments
- Designed to allow access to all complementary elements of a remote outdoor cabinet deployment such as the copper or fiber cables, fiber splicing and distribution modules, power and DC distribution systems, AC power and battery charge breakers, AC outlet, etc.
- Door security and hardware features designed to protect from vandalism and theft

Investment
- The FAC 3200 is designed for modular expansion, allowing for cost effective expansion of services in the future
- Cabinet engineered features designed to ensure ease of maintenance and eliminate service interruptions
- Provides an ideal platform for the migration of copper access services to fiber access infrastructure and electronics

FieldSmart®
Fiber Active Cabinet (FAC) 3200 ——————————————

Technical Specifications

FieldSmart FAC 3200	
Dimensions	38"W x 43"D x 55"H
Weight	560 lbs. (Equipped with Northstar 170 Ah batteries: 1000 lbs.)
Mounting Options	Pad, Pole, H-frame, Wall, 3rd Party Pedestal
AC Power Center Options	Power feed: 240 VAC single phase, 60-Amp service with UL listed service disconnect. Redundant AC feeds to rectifier. Redundant DC feeds to systems. Low voltage DC disconnect. (–42V), high-power Joslyn surge protector.
AC/DC Rectifier Option	Eltek CC9S-ANL-VC Compact Power System 120 Amp max. total capacity (90A N+1). Rectifier modules: (4) 30 Amp modules supported (Configured part numbers include two modules).
Cooling/Environmental	1800 watt cooling capacity with Dantherm door mount heat exchanger, as per GR-487 generic requirement Ambient temperature per GR-487: -40°F to +115°F (-40°C to +46°C)
Wired Capacity	Fiber: Up to 432 subscriber fiber terminations utilizing bulkhead option. Up to 14 integrated PON splitters. Copper: Up to 576 copper lines with MS2 or 710 splice options
Fiber Management Options	12- or 24-position Clearfield fiber splice and distribution on 19/23" mount. Support for in-cabinet GPON and ActiveE fiber management: Up to 432 position fiber distribution in 12-, 24-, 48-, or 96-port increment assemblies; SC/APC connector, loose tube or ribbon. Up to fourteen integrated 1x2, 1x16, 1x32 GPON Splitters (optional).
Copper Protection Options	Standard 5-pin protection blocks — modular in 48-pair increments. Up to (12) 48-pair protection blocks.
Available Rack Units	32 RU 23" rack with optional 19" vertical frames
Safety and Compliance	UL-60950, Standard for Safety, Issue 1, April 1, 2003 CAN/CSA-C22.2 No. 60950 EMC FCC Part 15 Class A ICES-003 Class A Telcordia, GR-63-CORE, NEBS Telcordia, GR-487, Generic Requirements for Electronic Equipment Cabinets

Pre-Configured Part Numbers

Part Number	Description
R-3ZFC-ZZ1Z-ZZZ-ZZZ-ZZ	FieldSmart Fiber Active Cabinet, FAC 3200 Enclosure, Standard 23 Inch Equipment Rack, 1600W Heat Exchanger, No Load Center, No Rectifier, Supports 1 Battery String, No Bulkhead

FieldSmart®
Fiber Active Cabinet (FAC) 3200

CLEARFIELD

Configured Part Numbers

```
R - 3 Z ___ C - ___ ___ ___ Z - ___ ___ ___ - Z Z Z - Z Z
         [1]        [2] [3] [4]            [5]
```

[1] Select Rack Mounting

F = Standard 23"
G = Standard 23" with Vertical 19" Brackets

[2] Select AC Power Source

1 = AC Load Center
2 = AC Load Center/Generator Connect
Z = None

[3] Select Rectifier

1 = 48 VDC Rectifier
Z = None

[4] Select Number of Battery Strings

1 = One String
2 = Two Strings
4 = One String with Battery Warmer
5 = Two Strings with Battery Warmer
Z = None

[5] Select Distribution Ports

00W = 1 Empty 432 Port Bulkheads
ZZZ = None

Mounting Options

Mounting Option	Part Number	Description
Pad Mount	140-00007	Fiber Active Cabinet 3200 Pad Mount Kit With Pour in Place Template
Pole Mount	140-00008	Fiber Active Cabinet 3200 Wall/H-Frame/Pole Mount Kit
Wall/H-Frame Mount	140-00008	Fiber Active Cabinet 3200 Wall/H-Frame/Pole Mount Kit

Battery Options

Battery Option	Part Number	Description
100 Ah Battery String	140-00002	Fiber Active Cabinet Northstar Battery String Kit, 100 Ah - Front Access
170 Ah Battery String	140-00010	Fiber Active Cabinet 3200 Northstar Battery String Kit, 170 Ah - Front Access
190 Ah Battery String	140-00038	Fiber Active Cabinet Enersys Battery String Kit, 190 Ah - Front Access

FieldSmart®
Fiber Active Cabinet (FAC) 5400 ——————————————————————

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Application

The FieldSmart Fiber Active Cabinet (FAC) 5400 is the largest cabinet offering from Clearfield. It has been designed with the philosophy of modularity and flexibility, while maintaining a maximum cooling capability for the active electronics. Compliant with GR-487, the FAC 5400 is the ideal outdoor cabinet solution for the harshest outdoor conditions, providing a sealed internal environment where external air and humidity are completely isolated from the electronic equipment.

Description

The FAC 5400 is an environmentally-controlled enclosure constructed of powder-coated aluminum. The FAC 5400 cabinet's equipment compartment features a 23", 27RU swing frame front and rear, accommodating up to 54RU of active electronics equipment. The FAC 5400 provides up to 960 internal fiber distribution ports for subscriber PON deployments along with complementary splitter capacity. The FAC 5400 accepts local AC power and uses two door mounted integrated air-to-air heat exchangers and DC-powered fans to cool the equipment inside the cabinet. A vented, integrated-cabinet compartment below the equipment compartment houses optional batteries.

Features and Benefits

Integrity
- The FAC 5400 can accommodate equipment in the front compartment, as well as auxiliary and complementary options in the rear compartment and the splice compartment. The 23" equipment racks in front, rear and splice compartment, allow for a variety of deployment options.
- Designed to seamlessly integrate a variety of standard options that are expected in remote cabinets, such as the rectifier system, battery warmers and field upgradeable fiber bulkheads

Protection
- Telcordia GR-487 compliant and UL-60950/UL-50 spec
- Environmentally sealed design protects internal equipment investment from dust and rain
- Rated for deployments in harsh environments per GR-487: -40°F to +115°F (-40°C to +46°C)

Access
- Equipment swing frames provide for front and rear access to the equipment within the cabinet
- Designed to allow access to all complementary elements of a remote outdoor cabinet deployment such as the copper or fiber cables, fiber splicing and distribution modules, power and DC distribution systems, AC power and battery charge breakers, AC outlet, etc.
- Door security and hardware features designed to protect from vandalism and theft

Investment
- The FAC 5400 is designed for modular expansion, allowing for cost effective expansion of services in the future
- Cabinet engineered features designed to ensure ease of maintenance and eliminate service interruptions

FieldSmart®
Fiber Active Cabinet (FAC) 5400 ———————————————

CLEARFIELD

Technical Specifications

FieldSmart FAC 5400	
Dimensions	49" W x 58"D x 74"H
Weight	1,175 lbs. (Not including batteries)
Mounting Options	Pad
AC Power Center Options	Power feed: 240 VAC single phase, 60-Amp service with UL listed service disconnect. Redundant AC feeds to rectifier. Redundant DC feeds to C7 shelf. Low voltage DC disconnect. (–42V) High power AC surge protection (Joslyn).
Optional AC/DC Rectifier Options	Eltek CC9S-ANL-VC Compact Power System 120 Amp max. total capacity (90A N+1). Rectifier modules: (4) 30 Amp modules supported (Configured part numbers include two default).
Cooling/Environmental	Dantherm door mount heat exchanger options (1800 Watts – up to two 3600 Watts total with front and rear door options). Ambient temperature per GR-487: –40° F to +115° F (-40°C to +46°C)
Wired Capacity	Fiber: Up to 960 subscriber fiber terminations utilizing bulkhead options. Up to 18 integrated PON splitters. Copper: Up to 1152 copper lines with MS2 or 710 splice options
Fiber Management Options	12- or 24-position Clearfield fiber splice and distribution on 19/23" mount. Support for in-cabinet GPON and ActiveE fiber management: Up to 960 position fiber distribution in 12-, 24-, 48-, or 96-port increments assemblies; SC/APC connector, loose tube or ribbon. Up to eighteen integrated 1x2, 1x16, 1x32 GPON Splitters (optional).
Copper Protection Options	Standard 5-pin protection blocks — modular in 48-pair increments, up to (24) 48-pair protection blocks
Available Rack Units	54RU 23" swing frame rack with optional 19" vertical frames
Safety and Compliance	UL-60950, Standard for Safety, Issue 1, April 1, 2003 CAN/CSA-C22.2 No. 60950 EMC FCC Part 15 Class A ICES-003 Class A Telcordia, GR-63-CORE, NEBS Telcordia, GR-487, generic requirements for electronic equipment cabinets

Pre-Configured Part Numbers

Part Number	Description
R-4ZFC-ZZ1Z-ZZZ-ZZZ-ZZ	FieldSmart Fiber Active Cabinet, FAC 5400 Enclosure, Standard 23 Inch Equipment Rack, 1600W Heat Exchanger, No Load Center, No Rectifier, Supports 1 Battery String, No Bulkhead
R-4ZFD-ZZ1Z-ZZZ-ZZZ-ZZ	FieldSmart Fiber Active Cabinet, FAC 5400 Enclosure, Standard 23 Inch Equipment Rack, 3200W Heat Exchanger, No Load Center, No Rectifier, Supports 1 Battery String, No Bulkhead

FieldSmart®
Fiber Active Cabinet (FAC) 5400

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Configured Part Numbers

R - 4 Z ___ ___ - ___ ___ ___ Z - ___ ___ ___ - Z Z Z - Z ___

1 **2** **3** **4** **5** **6** **7**

1 **Select Rack Mounting**

F = Standard 23"
G = Standard 23" with Vertical 19" Brackets
H = Standard 23" with 2 Vertical 19" Brackets

2 **Select Heat Exchange**

C = 1600W HX
D = 3200W HX

3 **Select AC Power Source**

1 = AC Load Center
2 = AC Load Center/Generator Connect
Z = None

4 **Select Rectifier**

1 = 48 VDC Rectifier
2 = 48 VDC Rectifier with Additional 20 POS
    Fuse Panel
Z = None

5 **Select Number of Battery Strings**

1 = One String
2 = Two Strings
4 = One String with Battery Warmer
5 = Two Strings with Battery Warmer
Z = None

6 **Select Distribution Ports**

00H = 1 Empty 192 Port Bulkhead
00J = 2 Empty 192 Port Bulkhead
00K = 3 Empty 192 Port Bulkhead
00M = 4 Empty 192 Port Bulkhead
00N = 5 Empty 192 Port Bulkhead
00Y = No Bulkhead, Fiber Management Only

7 **Select Accessories**

E = 18 POS Splitter Card Cage
Z = None

Mounting Option

Mounting Option	Part Number	Description
Pad Mount	140-00013	Fiber Active Cabinet 5400 Pad Mount Kit With Pour in Place Template

Battery Options

Battery Option	Part Number	Description
100 Ah Battery String	140-00002	Fiber Active Cabinet Northstar Battery String Kit, 100 Ah - Front Access
170 Ah Battery String	140-00010	Fiber Active Cabinet 3200 Northstar Battery String Kit, 170 Ah - Front Access
190 Ah Battery String	140-00038	Fiber Active Cabinet Enersys Battery String Kit, 190 Ah - Front Access

FieldSmart® Fiber Delivery Point (FDP)
96 Port PON in Pedestal Insert Kit or Direct Bury

Application

The FieldSmart Fiber Delivery Point (FDP) 96 Port PON in Pedestal Insert Kit or Direct Bury provides splice or interconnect functionality in industry standard pedestals for drops to the home in the last mile of the access network. Additionally, it provides up to 96-homes served in PON environments.

Description

The FieldSmart FDP 96 Port PON Pedestal Insert Kit or Direct Bury provides a cost-effective solution to service up to 96-homes within a Clearview® optimized design for PON applications. Accepting up to nine Clearview Cassettes and three WaveSmart® Ruggedized Splitters or WDMs, the PON Insert Kit scales to meet the network requirements when placing a larger PON cabinet is not desired or cost-effective. Providing the ultimate future-proof flexibility, the FDP Pedestal Insert can be deployed as a drop only pedestal, then easily converted to a distributed PON solution when required.

The FieldSmart Fiber Delivery Point (FDP) Pedestal Insert incorporates field-tested designs to provide a solution that is easily installed and modified. Whether your environment calls for splice only drops or demands the sophistication of a Clearview Cassette solution, a FieldSmart (FDP) Pedestal Insert can be configured to support any access point configuration. Compatible with a variety of RUS listed pedestals, the insert provides splicing and/or interconnect connectivity with slack-storage for drop cable scenarios or mid-span and ring-cut functionality for up to a 288 OSP fiber sheath.

Features and Benefits

Integrity
- RUS listed
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Inserted into RUS pedestals
- Compliant to Telcordia GR-20

Protection
- RUS listed industry standard pedestals
- Clearview Cassette for physical fiber protection, bend-radius protection, access
- Buffer tube slack storage fully bend-radius protected
- Both metallic and non-metallic pedestals
- Can wrench accessible designs

Access
- Lift off dome covers are non-metallic
- Clearview Cassette for quick access to terminations
- Cupboard style front and rear access-Metallic
- Fits into select Channell, Pencell, Emerson metallic BD7 and ProFORM 12

Investment
- Low cost entry with RUS listed pedestals
- Scalable with Clearview Multiplied design for cost alignment to subscriber revenue
- Future proof with drop only to PON distributed migration
- Patch only or patch and splice configurations supported
- Flexible integration into a variety of RUS listed pedestals with simple bracket kits

Accessories

- Ruggedized Splitter

FieldSmart® Fiber Delivery Point (FDP)
96 Port PON in Pedestal Insert Kit or Direct Bury

CLEARFIELD

Technical Specifications

FieldSmart Fiber Delivery Point 96 Port PON in Pedestal Insert Kit or Direct Bury	
Dimensions *(for insert only)*	22.41" H x 12.96" W x 11.18" D (569.21 mm x 329.18 mm x 283.97 mm)
Port Density	96
Feeder/Express Ports	12
Cassette Types Support	Clearview® Blue - Right Exit
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 Cassette
Splitter Slots	3
Material	14 gauge cold rolled steel with almond powder coating

Configured Part Numbers

J ____ ____ - ____ ____ ____ - ____ ____ ____ - Z Z Z - B XXXM or XXXF

1 **2** **3** **4** **5** **6** **7**

1 Select Pedestal Type

Insert With Pedestals
3 = PON, Patch and splice insert with non-metallic direct bury Pencell Pedestal
4 = PON, Patch only insert with non-metallic direct bury Pencell Pedestal
6 = PON, Patch and Splice insert with non-metallic direct bury Channell Pedestal
J = PON, Patch only insert with non-metallic direct bury Channell Pedestal
7 = PON, Patch and Splice insert with non-metallic direct bury Proform 12 Pedestal
K = PON, Patch only insert with non-metallic direct bury Proform 12 Pedestal
A = PON, Patch and Splice insert with metallic BD7 Pedestal
M = PON, Patch only insert with metallic BD7 Pedestal

Inserts Only
V = PON, Patch and Splice insert only for Pencell Pedestal – no pedestal included
Y = PON, Patch Only insert only for Pencell Pedestal – no pedestal included
B = PON, Patch and Splice insert only for Channell Pedestal – no pedestal included
N = PON, Patch Only insert only for Channell Pedestal – no pedestal included
C = PON, Patch and Splice 96 port insert only for Proform 12 Pedestal – no pedestal included
P = PON, Patch Only 96 port insert only for Proform 12 Pedestal – no pedestal included
D = PON, Patch and Splice 96 port insert only for BD7 Pedestal – no pedestal included
Q = PON, Patch Only 96 port insert only for BD7 Pedestal – no pedestal Included

2 Select Feeder Port Count

A = No feeders
B = 12 ports (1 cassette)
Z = N/A

3 Select Distribution Port Count

X X X = port count in increments of 12
Z Z Z = N/A

4 Select Connector Style

A = SC/UPC   F = LC/UPC
C = SC/APC   H = LC/APC
Z = N/A

5 Select Mode / Type

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

6 Select Cable Construction

B = OSP Riser
E = OSP Non-Rated
F = Patch and splice
Z = N/A

XXXM or XXXF

XXXM = Length of pigtails in meters
XXXF = Length of pigtails in feet

200 feet maximum

www.SeeClearfield.com   1-800-422-2537

V10.19

FieldSmart® Fiber Delivery Point (FDP)
96 Port PON in Pedestal Insert Kit/Vault Mount

CLEARFIELD

Application

The FieldSmart Fiber Delivery Point (FDP) 96 Port PON Pedestal Insert Kit/Vault Mount provides splice or interconnect functionality, in industry standard Channell or Pencell pedestals and vaults, for drops to the home in the last mile of the access network. Additionally, it provides for a maximum capacity of 96-homes served, and is configured for PON environments.

Description

The FieldSmart FDP 96 Port PON Pedestal Insert Kit/Vault Mount provides for a drop cable scenarios in the access network with splicing and/or interconnect connectivity with a Clearview® optimized design. Accepting up to nine Clearview Cassettes and three WaveSmart® Ruggedized Splitters or WDMs used throughout the Clearfield® FieldSmart product line, the insert will scale up to 96-homes served for PON applications.

Features and Benefits

Integrity
- RUS listed
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Inserted into RUS pedestals
- Compliant to Telcordia GR-20

Protection
- Clearview Cassette for physical fiber protection, bend-radius protection, access
- Buffer tube slack storage fully bend-radius protected
- Flood-proof non-metallic pedestals
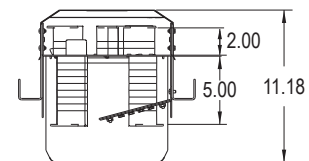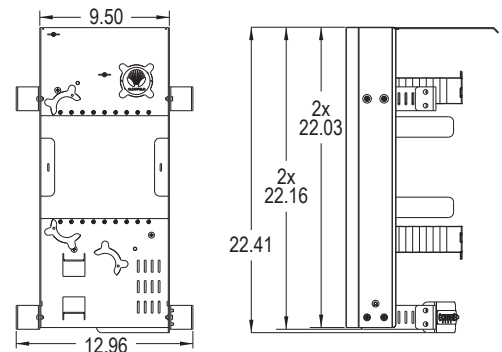- Can wrench accessible designs

Access
- Lift off flood-proof dome covers are non-metallic
- Clearview Cassette for quick access to terminations
- Cupboard style front and rear access-Metallic
- Split lid Channell or Pencell vault

Investment
- Low cost entry with RUS listed pedestals
- Scalable with Clearview Multiplied design for cost alignment to subscriber revenue
- Future proof with drop only to PON distributed migration
- Patch only or patch and splice configurations supported
- Flexible integration into a variety of RUS listed pedestals with simple bracket kits

Accessories

- Ruggedized Splitter

Vault and Pedestal

V6A-ZZZ-03-P - 24 x 36 x 24" (609.60 mm x 914.40 mm x 609.60 mm) with 12" (304.80 mm) cut out for Pencell 12" (304.80 mm) pedestal (includes pedestal)

VXZ-ZZZ-02-P - Vault Only

FPP-121230-LG - Pedestal for vault

FieldSmart® Fiber Delivery Point (FDP)
96 Port PON in Pedestal Insert Kit/Vault Mount

CLEARFIELD

Technical Specifications

FieldSmart Fiber Delivery Point 96 Port PON in Pedestal Insert Kit/Vault Mount	
Dimensions *(for insert only)*	22.41" H x 12.96" W x 11.18" D (569.21 mm x 329.18 mm x 283.97 mm)
Port Density	96
Feeder/Express Ports	12
Cassette Types Support	Clearview® Blue - Right Exit
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 Cassette
Splitter Slots	3
Material	14 gauge cold rolled steel with almond powder coating

Configured Part Numbers

J ____ ____ - ____ ____ ____ - ____ ____ ____ - Z Z Z - B XXXM or XXXF

1 **2** **3** **4** **5** **6**

1 **96 Port Insert**

8 = PON, Patch and splice insert with non-metallic direct bury Pencell Pedestal, vault included
9 = PON, Patch only insert with non-metallic direct bury Pencell Pedestal, vault included
F = PON, Patch and splice insert with Channell Pedestal, vault included
S = PON, Patch only insert with Channell Pedestal, vault included
E = PON, Patch and splice insert with Channell Pedestal (to fit Channel Vault), vault not included
R = PON, Patch only insert with Channell Pedestal (to fit Channel Vault), vault not included

2 **Select Feeder Port Count**

A = No feeders
B = 12 ports (1 cassette)
Z = N/A

3 **Select Distribution Port Count**

X X X = port count in increments of 12
Z Z Z = N/A

4 **Select Connector Style**

A = SC/UPC F = LC/UPC
C = SC/APC H = LC/APC
Z = N/A

5 **Select Mode / Type**

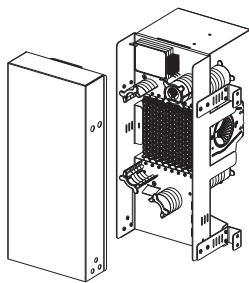1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

6 **Select Cable Construction**

B = OSP Riser
E = OSP Non-Rated
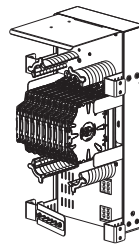F = Patch and splice
M = Armored OSP Non-Rated
Z = N/A

XXXM or XXXF

XXXM = Length of pigtails in meters
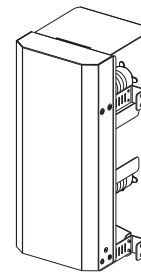XXXF = Length of pigtails in feet

200 feet maximum

Cover for Emerson, Proform and Channell Pedestals

Back of PON PED Insert

Cover for Pencell Pedestals

FieldSmart® Fiber Delivery Point (FDP)
144 Port PON in Pedestal Insert Kit or Direct Bury

Application

The FieldSmart Fiber Delivery Point (FDP) 144 Port in PON Pedestal Insert Kit or Direct Bury provides splice or interconnect functionality in industry standard pedestals for drops to the home in the last mile of the access network. Additionally, it provides up to 144 homes served in PON environments.

Description

The FieldSmart FDP 144 Port PON Pedestal Insert Kit or Direct Bury provides a cost-effective solution to service up to 144 homes within a Clearview® optimized design for PON applications. Accepting up to 13 Clearview Cassettes and five WaveSmart® High Density Splitters or WDMs, the PON Insert Kit scales to meet the network requirements when placing a larger PON cabinet is not desired or cost-effective. Providing the ultimate future-proof flexibility, the FDP Pedestal Insert can be deployed as a drop only pedestal, then easily converted to a distributed PON solution when required.

The FieldSmart Fiber Delivery Point (FDP) Pedestal Insert incorporates field-tested designs to provide a solution that is easily installed and modified. Whether your environment calls for splice only drops or demands the sophistication of a Clearview Cassette solution, a FieldSmart (FDP) Pedestal Insert can be configured to support any access point configuration. Compatible with a variety of RUS listed pedestals, the insert provides splicing and/or interconnect connectivity with slack-storage for drop cable scenarios or mid-span and ring-cut functionality for up to a 288 OSP fiber sheath.

Features and Benefits

Integrity
- RUS listed
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Inserted into RUS pedestals
- Compliant to Telcordia GR-20

Protection
- RUS listed industry standard pedestals
- Clearview Cassette for physical fiber protection, bend-radius protection, access
- Buffer tube slack storage fully bend-radius protected
- Both metallic and non-metallic pedestals
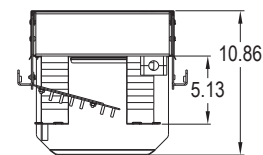- Can wrench accessible designs

Access
- Lift off dome covers are non-metallic
- Clearview Cassette for quick access to terminations
- Cupboard style front and rear access-Metallic
- Fits into select Channell or Pencell pedestals

Investment
- Low cost entry with RUS listed pedestals
- Scalable with Clearview Multiplied design for cost alignment to subscriber revenue
- Future proof with drop only to PON distributed migration
- Patch only or patch and splice configurations supported
- Flexible integration into a variety of RUS listed pedestals with simple bracket kits

Accessories
- WaveSmart High Density Splitter

FieldSmart® Fiber Delivery Point (FDP)
144 Port PON in Pedestal Insert Kit or Direct Bury

CLEARFIELD

Technical Specifications

FieldSmart Fiber Deliver Point 144 Port PON in Pedestal Insert Kit or Direct Bury	
Dimensions *(for insert only)*	23.78" H x 12.75" W x 10.86 D (604.01 mm x 328.85 mm x 275.84 mm)
Port Density	144
Feeder/Express Ports	12
Cassette Types Supported	Clearview® Blue - Left Exit
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 Cassette
Storage Capacity	Up to 5 - with High Density Splitter (KE series)
Material	14 gauge cold rolled steel with almond powder coating

Configured Part Numbers

J ___ ___ - ___ ___ ___ - ___ ___ ___ - A Z Z - B XXXXM or XXXXF

1 **2** **3** **4** **5** **6**

1 **Select Pedestal Type**

Insert with Pedestal
3 = PON, Patch and splice insert with non-metallic direct bury Pencell Pedestal
4 = PON, Patch only insert with non-metallic direct bury Pencell Pedestal
6 = PON, Patch and splice insert with non-metallic direct bury Channell Pedestal
J = PON, Patch only insert with non-metallic direct bury Channell Pedestal

Inserts Only
V = PON, Patch and splice insert only for Pencell Pedestal – no pedestal included
Y = PON, Patch only insert only for Pencell Pedestal – no pedestal included
B = PON, Patch and splice insert only for Channell Pedestal – no pedestal included
N = PON, Patch only insert only for Channell Pedestal – no pedestal included

2 **Select Feeder Port Count**

A = No feeders
B = 12 ports (1 cassette)
Z = N/A

3 **Select Distribution Port Count**

X X X = port count in increments of 12
Z Z Z = N/A

4 **Select Connector Style**

A = SC/UPC　　　F = LC/UPC
C = SC/APC　　　H = LC/APC
Z = N/A

5 **Select Mode / Type**

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

6 **Select Cable Construction**

B = OSP Riser
E = OSP Non-Rated
F = Patch and splice
M = Armored OSP Non-Rated
Z = N/A

XXXXM or XXXXF

XXXXM = Length of Pigtail in Meter
XXXXF = Length of Pigtail in Feet

144 PON Insert - Front

144 PON Insert - Back

144 PON Insert with Cover

FieldSmart® Fiber Delivery Point (FDP)
144 Port PON in Pedestal Insert Kit/Vault Mount

CLEARFIELD

Application

The FieldSmart Fiber Delivery Point (FDP) 144 Port PON Pedestal Insert Kit/Vault Mount provides splice or interconnect functionality, in industry standard Channell or Pencell pedestals and vaults, for drops to the home in the last mile of the access network. Additionally, it provides for a maximum capacity of 144 homes served, and is configured for PON environments.

Description

The FieldSmart FDP 144 Port PON Pedestal Insert Kit/Vault Mount provides for a drop cable scenarios in the access network with splicing and/or interconnect connectivity with a Clearview® optimized design. Accepting up to 13 Clearview Cassettes and five WaveSmart® High Density Splitters or WDMs, the insert will scale up to 144 homes served for PON applications.

Features and Benefits

Integrity
- RUS listed
- Terminations are designed and tested to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Inserted into RUS pedestals
- Compliant to Telcordia GR-20
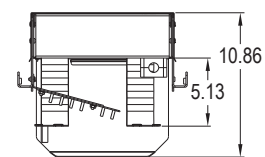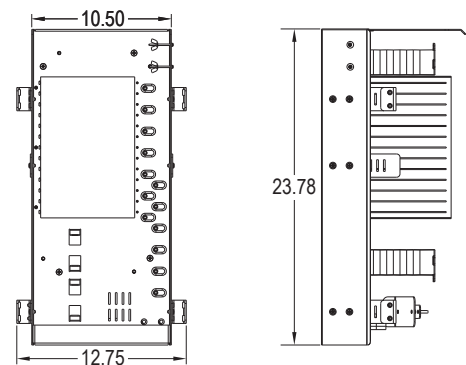
Protection
- Clearview Cassette for physical fiber protection, bend-radius protection, access
- Buffer tube slack storage fully bend-radius protected
- Flood-proof non-metallic pedestals
- Can wrench accessible designs

Access
- Lift off flood-proof dome covers are non-metallic
- Clearview Cassette for quick access to terminations
- Cupboard style front and rear access-Metallic
- Split lid Channell or Pencell vault

Investment
- Low cost entry with RUS listed pedestals
- Scalable with Clearview Multiplied design for cost alignment to subscriber revenue
- Future proof with drop only to PON distributed migration
- Patch only or patch and splice configurations supported
- Flexible integration into a variety of RUS listed pedestals with simple bracket kits

Accessories
- WaveSmart High Density Splitter

Vault and Pedestal

V6A-ZZZ-03-P - 24 x 36 x 24" (609.60 mm x 914.40 mm x 609.60 mm) with 12" (304.80 mm) cut out for Pencell 12" (304.80 mm) pedestal (includes pedestal)

VXZ-ZZZ-02-P - Vault Only

FPP-121230-LG - Pedestal for vault

FieldSmart® Fiber Delivery Point (FDP)
144 Port PON in Pedestal Insert Kit/Vault Mount

CLEARFIELD

Technical Specifications

FieldSmart Fiber Delivery Point 144 Port PON in Pedestal Insert Kit/Vault Mount	
Dimensions *(for insert only)*	23.78" H x 12.75" W x 10.86" D (604.01 mm x 328.85 mm x 275.84 mm) with brackets
Port Density	144
Feeder/Express Ports	12
Cassette Types Support	Clearview® Blue - Left Exit
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 Cassette
Splitter Capacity	5 with High Density Splitter (KE series)
Material	14 gauge cold rolled steel with almond powder coating

Configured Part Numbers

J ___ ___ - ___ ___ ___ - ___ ___ ___ - A Z Z - B XXXXM or XXXXF

[1] [2] [3] [4] [5] [6]

1 **144 Port Insert**

8 = PON, Patch and splice insert with non-metallic direct bury Pencell Pedestal, vault included
9 = PON, Patch only insert with non-metallic direct bury Pencell Pedestal, vault included
F = PON, Patch and splice insert with Channell Pedestal, vault included
S - PON, Patch only insert with Channell Pencell Pedestal, vault included
E = PON, Patch and splice insert with Channell Pedestal (to fit Channel Vault), vault not included
R = PON, Patch only insert with Channell Pedestal (to fit Channel Vault), vault not included

2 **Select Feeder Port Count**

A = No feeders
B = 12 ports (1 cassette)
Z = N/A

3 **Select Distribution Port Count**

X X X = port count in increments of 12
Z Z Z = N/A

4 **Select Connector Style**

A = SC/UPC   F = LC/UPC
C = SC/APC   H = LC/APC
Z = N/A

5 **Select Mode / Type**

1 = Singlemode - non-ribbon
2 = Singlemode - ribbon

6 **Select Cable Construction**

B = OSP Riser
E = OSP Non-Rated
F = Patch and splice
M = Armored OSP Non-Rated
Z = N/A

XXXXM or XXXXF

XXXXM = Length of Pigtail in Meter
XXXXF = Length of Pigtail in Feet

144 PON Insert - Front

144 PON Insert - Back

144 PON Insert with Cover

FieldSmart® Fiber Delivery Point (FDP)
Splice Only Pedestal

Application

The FieldSmart FDP Splice Only Pedestal provides splice or interconnect connectivity at the access point for the last mile drop.

Description

The FieldSmart FDP Splice Only Pedestal incorporates field-tested slack management and fiber splice trays to provide a craft-friendly splice only access solution. The splice only pedestal can be configured to support the specific drop cable, multi-fiber and ring cut requirements. The Clearfield® designed back plane makes it possible for the bulkheads to integrate into industry standard pedestals.

Features and Benefits

Integrity
- RUS listed
- Compliant to Telcordia GR-13

Protection
- Open architecture
- Strength, rigidity and security all in a high-performance thermo-plastic or metallic material designed to Telcordia GR-13 and RUS PE-91 specifications
- Single point self-locking cover provides secure pedestal locking and eased craft access
- Available in metallic and non-metallic pedestals

Access
- Removable front covers on metallic versions
- Can wrench fasteners
- Easy lift-off dome on thermo-plastic models - allows for 360° access permits complete access to all wire work and equipment

Investment
- Low cost entry with RUS listed pedestal
- Utilizes cost effective
- Up to 16 splice trays with Clearfield regular drop cable assembly or industry standard HFOC
- Integrates distribution splices, splitters and slack cable for a cost-effective flexible option for any FTTP deployment

Accessories

- Splice Tray - Each splice-slot holds up to 2 fibers. 12 splice-slots in each tray hold up to 24 fibers.
  10 mm H x 163 mm W x 126 mm D

FieldSmart® Fiber Delivery Point (FDP)
Splice Only Pedestal

CLEARFIELD

Technical Specifications

FieldSmart Splice Only Ped	Metallic BD5	Non-metallic ProFORM 12	Non-metallic Pencell 10x10
Dimensions	43.25" H x 10.5" W x 10.5" D (1098.55 mm x 266.70 mm x 266.70 mm)	45" H x 10.5" W x 14.5" D (1143.00 mm x 266.70 mm x 368.30 mm)	31.4" H x 13" W x 13" D (797.56 mm x 330.20 mm x 330.20 mm)
Cover Height	31.25" (793.75 mm)	30" (762.00 mm)	20" (508.00 mm)
Base Height (Buried)	12" (304.80 mm)	15" (381.00 mm)	11.4" (289.56 mm)
Material	Galvanized steel	High performance thermo-plastic	HDPE/LDPE
Density	Up to 384 splices		Up to 144 splices
Number of Splice Trays	Up to 16		Up to 6
Splice Capacity	24 splices in each splice tray		
Splice Tray Dimensions	10 mm H x 163 mm W x 126 mm D		

Configured Part Numbers

J ____ Z - ____ ____ ____ - Z Z Z - Z Z Z

[1]   [2]

[1] Select Pedestal Type

2 = Emerson BD5
3 = Pencell 10 x 10
W = Proform non-metallic

[2] Select Distribution Port Count

X X X = port count in increments of 12 up to 144 ports
Z Z Z = N/A

Metallic BD5
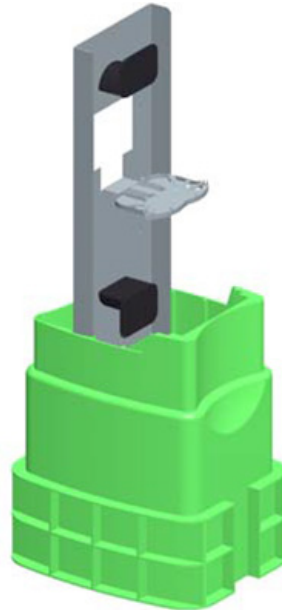
ProFORM 12 Non-Metallic

Pencell

CraftSmart®
Fiber Protection Vaults (FPV)

Application

CraftSmart Fiber Protection Vaults (FPV) can be used to securely mount a FieldSmart®
Fiber Scalability Center (FSC) 288, 432, 576 or 1,152 port PON cabinet, a 432 or 864 port
cross-connect cabinet or FieldSmart Fiber Delivery Point (FDP) pedestal for above grade
deployment with below grade slack cable storage. FPVs are equally suited for drop cable,
splicing, interconnect and mid-span scenarios, which allows for maximum flexibility and
customization in the customers' network.

Description

The Clearfield® CraftSmart product line provides physical fiber protection for products. It
completes and delivers a turn-key passive solution from the central office/headend to the
customer premise. CraftSmart Fiber Protection Vaults (FPV) provide the most cost-effective
thermoplastic enclosures in the industry - meeting and exceeding the industry standards for
strength, reliability and environmental concerns.

Formed from a High Density Polyethylene (HDPE) Thermoplastic, these vaults provide a
solid base and light-weight material alternative to traditional polymer concrete enclosures.
Multiple industry standard sizes can be ordered with solid covers or pre-cut covers to accommodate various FieldSmart cabinet solutions.

Features and Benefits

Integrity
- RUS accepted
- Compliant to Telcordia GR-902
- Compliant to ANSI/SCTE 77 2010 as specified by N.E.C. ANSI C57 Enclosure Integrity
- Compliant to Western Underground Guide 3.6
- Stainless steel hardware

Protection
- Hex head security bolts
- All boxes incorporate a unique "T" style overlapping cover design to reduce soil mitigation into box

Access
- Multiple cover options, including single piece solid thermoplastic, split thermoplastic, solid or split polymer concrete, provide ease of
  access and the ability to be used in multiple applications for the products
- Mounting bolts and templates are available for HDPE split lids for FieldSmart cabinet mounting
- Custom split lids with cut outs for FieldSmart cabinets

Investment
- High strength rigid construction ensures long term reliability in the harshest environments
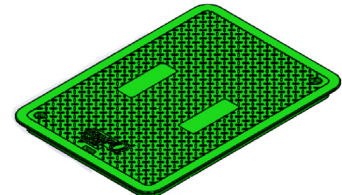- Lighter and easier to handle than concrete, which increases the overall safety factor

Cover Options
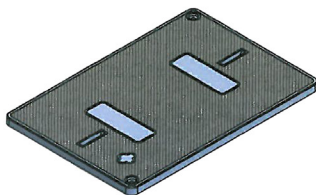
Polymer Concrete Cover
Application: Sidewalk
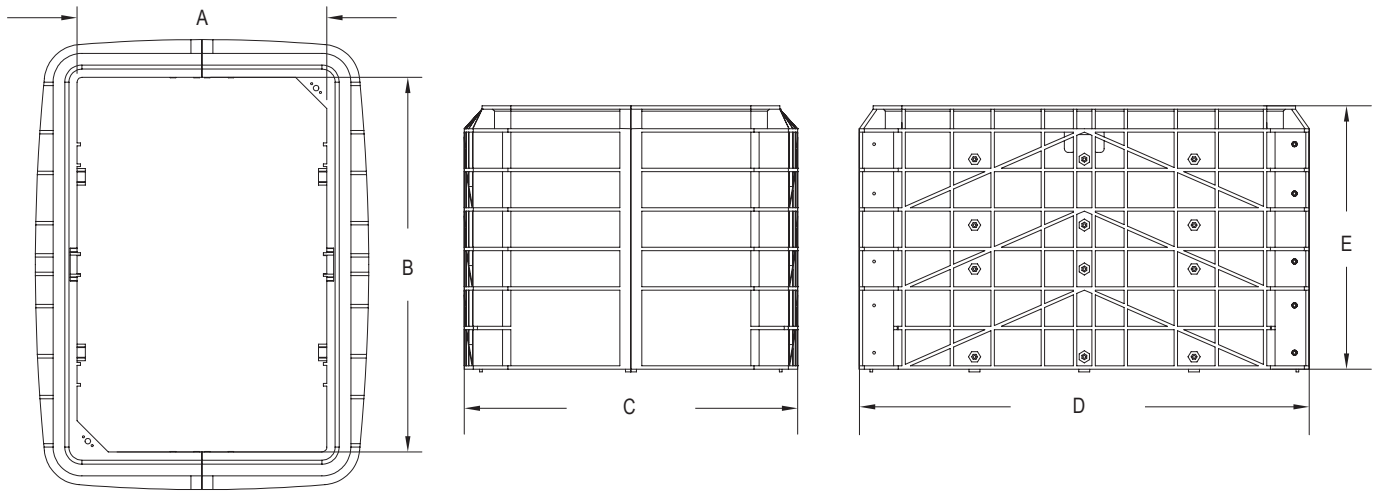Static Load: 15,000 lbs
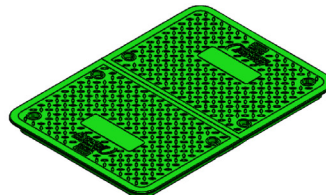
Split Thermoplastic Cover
Application: Greenbelt
Static Load: 5,000 lbs

StandardThermoplastic Cover
Application: Greenbelt
Static Load: 5,000 lbs

CraftSmart®
Fiber Protection Vaults (FPV)

CLEARFIELD

Technical Specifications

Straight Wall	A Inside Dim. Width	B Inside Dim. Width	C Outside Dim. Width	D Outside Dim. Width	E Height	Approx. Weight with HDPE Cover	Recommended Clearfield® Product
17 x 30" (431.80 mm x 762.00 mm)	16¹⁄₁₆" (407.99 mm)	29¹⁄₁₆" (738.19 mm)	22¹⁄₁₆" (560.39 mm)	35 ¹⁄₁₆" (890.59 mm)	24 ½" (622.30 mm)	40 lbs (18.14 kg)	YOURx-Terminal
24 x 36" (609.60 mm x 914.40 mm)	22¾" (577.85 mm)	34⅛" (866.78 mm)	30⅜" (771.53 mm)	41" (1041.40 mm)	24" (609.60 mm)	83 lbs (37.65 kg)	YOURx-Terminal, FieldSmart® 144, 288 and 432 PON or 432 Cross-Connect Cabinet, Hub Collapse Cabinet
30 x 48" (762.00 mm x 1219.20 mm)	28¾" (730.25 mm)	46⅛" (1171.58 mm)	37⅛" (942.98 mm)	53½" (1358.90 mm)	24⅝" (625.48 mm)	195 lbs (88.45 kg)	YOURx-Terminal, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet, Makwa™

Flared Wall	A Inside Dim. Width	B Inside Dim. Width	C Outside Dim. Width	D Outside Dim. Width	E Height	Approx. Weight with HDPE Cover	Recommended Clearfield Product
36 x 36" (914.40 mm x 914.40 mm)	36⅛" (917.58 mm)	36⅛" (917.58 mm)	40⅞" - 46¾" (1038.23 mm - 1187.45 mm)	40⅞" - 46¾" (1039.23 mm - 1187.45 mm)	24" (609.60 mm)	135 lbs (61.24 kg)	YOURx-Terminal, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet
36 x 48" (914.40 mm x 1219.20 mm)	36⅛" (917.58 mm)	40⅛" (1019.18 mm)	40⅞" - 46¾" (1038.23 mm - 1187.45 mm)	52⅞" - 58¾" (1343.03 mm - 1492.25 mm)	24" (609.60 mm)	155 lbs (70.31 kg)	YOURx-Terminal, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet
36 x 60" (914.40 mm x 1524.00 mm)	36⅛" (917.58 mm)	60⅛" (1527.18 mm)	40⅞" - 46¾" (1038.23 mm - 1187.45 mm)	64⅞" - 70¾" (1647.83 mm - 1797.05 mm)	24" (609.60 mm) 36" (914.40 mm)	170 lbs (77.11 kg) 235 lbs (106.59 kg)	YOURx-Terminal, FieldSmart 576 or 1,152 PON or 864 or 1,727 Cross-Connect Cabinet, Makwa

CraftSmart®
Fiber Protection Vaults (FPV)

CLEARFIELD

Pre-Configured Part Numbers

FieldSmart® Cabinets

Part Number	Description	Application/Where Used				
		Slack Storage	FDH 144, FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 & 1,152 PON or 864 & 1,728 CC	Makwa™: Below Grade In Vault
Vault Size – 13" x 24" (330.20 mm x 609.60 mm)						
VAE-FZP	Vault, below grade Pencell, polymer concrete lid, straight wall 13" W x 24" L x 13" D (330.20 mm x 609.60 mm x 303.20 mm)	✓				
VAD-FZP	Vault, below grade Pencell, polymer concrete lid, straight wall 13" W x 24" L x 18" D (330.20 mm x 609.60 mm x 457.20 mm)	✓				
Vault Size – 17" x 30" (431.80 mm x 762.00 mm)						
V5A-AZP	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall 17" W x 30" L x 24" D (431.80 mm x 762.00 mm x 609.60 mm)	✓				
V5A-DZP	Vault, below grade Pencell, solid polymer concrete lid, hex bolts, gray, straight wall 17" W x 30" L x 24" D (431.80 mm x 762.00 mm x 609.60 mm)	✓				
VA-1730-3	Spacer for below grade Pencell vault 17" W x 30" L x 3" High (431.80 mm x 762.00 mm x 76.20 mm)	Optional 3" Spacer				
Vault Size – 24" x 36" (609.60 mm x 914.40 mm)						
V6A-AZP	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓				
V6D-AZP	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall 24" W x 36" L x 18" D (609.60 mm x 914.40 mm x 457.20 mm)	✓				
V6A-BZP	Vault, below grade Pencell, split HDPE lid, hex bolts, green, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓				
V6A-CZP	Vault, below grade Pencell, split HDPE Lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included		
V6A-DZP	Vault, below grade Pencell, solid polymer concrete lid, hex bolts, gray, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓				
V6A-DZP-F	Vault, below grade Pencell, solid polymer concrete lid, hex bolts, gray, flared wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓				
V6B-AZP	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm)	✓				
V6B-BZP	Vault, below grade Pencell, split HDPE lid, hex bolts, green, straight wall 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm)	✓				
V6B-CZP	Vault, below grade Pencell, split HDPE Lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included		
V6B-DZP	Vault, below grade Pencell, solid polymer concrete lid, hex bolts, gray, straight wall 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm)	✓				
V6B-HZP	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, w/ cut out for FieldSmart Cabinets, straight wall 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm)		✓	✓		
VA-2436-6	Spacer for below grade Pencell vault 24" W x 36" L x 6" H (609.60 mm x 914.40 mm x 152.40 mm)	Optional 6" Spacer				

CraftSmart®
Fiber Protection Vaults (FPV)

Pre-Configured Part Numbers

FieldSmart® Cabinets

Part Number	Description	Slack Storage	FDH 144, FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 & 1,152 PON or 864 & 1,728 CC	Makwa™: Below Grade In Vault
			Application/Where Used			
Vault Size – 30" x 48" (762.00 mm x 1219.20 mm)						
V7A-AZP	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)	✓				
V7A-AZP-F	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, flared wall 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)	✓				
V7A-BZP	Vault, below grade Pencell, split HDPE lid, hex bolts, green, straight wall 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)	✓				
V7A-CZP	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V7A-EZP	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, straight wall, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)	✓				
V7B-AZP	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)	✓				✓
V7B-BZP	Vault, below grade Pencell, split HDPE lid, hex bolts, green, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)	✓				✓
V7B-CZP	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V7B-EZP	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)	✓				✓
V7B-HZP	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, with knock out for FieldSmart cabinets, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)		✓	✓	✓	
V7B-AZP-SARM	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, straight wall, with swing arm 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)					✓
V7B-BZP-SARM	Vault, below grade Pencell, split HDPE lid, hex bolts, green, straight wall, with swing arm 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)					✓
V7B-EZP-SARM	Vault, below grade Pencell, split polymer concrete lid, hex bolts, green, straight wall, with swing arm 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)					✓
VA-3048-6	Spacer for below grade Pencell vault 30" W x 48" L x 6" H (762.00 mm x 1219.20 mm x 152.40 mm)	Optional 6" Spacer				
Vault Size: 36" x 36" (914.40 mm x 914.40 mm)						
VBA-AZP-F	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, flared wall 36" W x 36" L x 24" D (914.40 mm x 914.40 mm x 609.60 mm)	✓				
VBA-BZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, flared wall 36" W x 36" L x 24" D (914.40 mm x 914.40 mm x 609.60 mm)	✓				
VBA-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 36" L x 24" D (914.40 mm x 914.40 mm x 609.60 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	

CraftSmart®
Fiber Protection Vaults (FPV)

CLEARFIELD

Pre-Configured Part Numbers

FieldSmart® Cabinets

Part Number	Description	Slack Storage	FDH 144, FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 & 1,152 PON or 864 & 1,728 CC	Makwa™: Below Grade In Vault
			Application/Where Used			
Vault Size: 36" x 36" (914.40 mm x 914.40 mm) Continued						
VBA-EZP-F	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, flared wall 36" W x 36" L x 24" D (914.40 mm x 914.40 mm x 609.60 mm)	✓				
VA-3636-6-GREEN	Spacer for below grade Pencell vault, for HDPE lids 36" W x 36" L x 6" H (914.40 mm x 914.40 mm x 152.40 mm)	Optional 6" spacer for green HDPE lids				
VA-3636-6-GRAY	Spacer for below grade Pencell vault, for PC lids 36" W x 36" L x 6" H (914.40 mm x 914.40 mm x 152.40 mm)	Optional 6" spacer for gray polymer concrete lids				
Vault Size: 36" x 48" (914.40 mm x 1219.20 mm)						
V3A-AZP-F	Vault, below grade Pencell, solid HDPE lid, hex bolts, green, flared wall 36" W x 48" L x 24" D (914.40 mm x 1219.20 mm x 609.60 mm)	✓				
V3A-BZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, flared wall 36" W x 48" L x 24" D (914.40 mm x 1219.20 mm x 609.60 mm)	✓				
V3A-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 48" L x 24" D (914.40 mm x 1219.20 mm x 609.60 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V3G-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 48" L x 30" D (914.40 mm x 1219.20 mm x 762.00 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V3B-CFP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 48" L x 36" D (914.40 mm x 1219.20 mm x 914.40 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
VA-3648-6	Spacer for below grade Pencell vault 36" W x 48" L, 6" High (914.40 mm x 1219.20 mm, 152.4 mm H)	Optional 6" Spacer				
Vault Size: 36" x 60" (914.40 mm x 1524.00 mm)						
V8A-BZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, flared wall 36" W x 60" L x 24" D (914.40 mm x 1524.00 mm x 609.60 mm)	✓				
V8A-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 60" L x 24" D (914.40 mm x 1524.00 mm x 609.60 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V8A-EZP-F	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, flared wall 36" W x 60" L x 24" D (914.40 mm x 1524.00 mm x 609.60 mm)	✓				
V8B-BZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, flared wall, no floor 36" W x 60" L x 36" D (914.40 mm x 1524.00 mm x 914.40 mm)	✓				
V8B-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 60" L x 36" D (914.40 mm x 1524.00 mm x 914.40 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V8B-EZP-F	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, flared wall 36" W x 60" L x 36" D (914.40 mm x 1524.00 mm x 914.40 mm)	✓				
V8C-AZP-F	Vault, below grade Pencell, Solid HDPE Lid, hex bolts, green, flared wall 36" W x 60" L x 48" D (914.40 mm x 1524.00 mm x 1219.20 mm)	✓				

Pre-Configured Part Numbers

FieldSmart® Cabinets

Part Number	Description	Application/Where Used				
		Slack Storage	FDH 144, FSC 288 PON, 432 CC or HCC	FSC 432 PON	FSC 576 & 1,152 PON or 864 & 1,728 CC	Makwa™: Below Grade In Vault
Vault Size: 36" x 60" (914.40 mm x 1524.00 mm) Continued						
V8C-BZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, flared wall 36" W x 60" L x 48" D (914.40 mm x 1524.00 mm x 1219.20 mm)	✓				
V8F-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 60" L x 42" D (914.40 mm x 1524.00 mm x 1066.80 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
V8C-EZP-F	Vault, below grade Pencell, split polymer concrete lid, hex bolts, gray, flared wall 36" W x 60" L x 48" D (914.40 mm x 1524.00 mm x 1219.20 mm)	✓				
V8G-CZP-F	Vault, below grade Pencell, split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, flared wall, with bolt kit 36" W x 60" L x 30" D (914.40 mm x 1524.00 mm x 762.00 mm)		✓ Bolt Kit Included	✓ Bolt Kit Included	✓ Bolt Kit Included	
VA-3660-6	Spacer, for below grade Pencell vault 36" W x 60" L, 6" High (914.40 mm x 1524.00 mm, 152.40 mm H)	Optional 6" Spacer				
Vault Size: 48" x 48" (1219.20 mm x 1219.20 mm)						
V9B-HZP-F	Vault, Quazite, complete split polymer concrete lid, cut out for 864 cabinet, fiberglass straight wall, requires 020538 bolt kit (order separately) 48" W x 48" L, 36" High (1219.20 mm x 1219.20 mm, 914.40 mm H)	864 PON Only				

FieldSmart® PON in Pedestal

Part Number	Description	Application/Where Used	
		96 & 144 PON in Pedestal	YOURx-Terminal
Pedestal on Lid - Vault Size: 24" x 36" (609.60 mm x 914.40 mm)			
FPP-121230-DG-PED	Pedestal cover/bracket for vault above 12 x 12 x 30" (304.80 mm x 304.80 mm x 762.00 mm)	✓	✓
VXZ-ZZZ-02-P	Below grade vault only, split lid, I-bolt, green, telecommunications, 12 x 12" (304.80 mm x 304.80 mm) hole for pedestal mount, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓	✓
V6A-ZZZ-03-P	Below grade vault and pedestal cover with bracket split lid, I-bolt, green, telecom, 12 x 12" (304.80 mm x 304.80 mm) pedestal cover with bracket, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓	✓
V6A-ZZZ-04-P	Vault, Pencell, split HDPE lid, knockout for 12" ped, short base, ped cover, u-bracket, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)	✓	✓
V6A-ZZZ-05-P	Vault, Pencell, split HDPE lid, knockout for 10" ped, short base, ped cover, u-bracket, straight wall 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm)		✓

CraftSmart®
Fiber Protection Vaults (FPV)

CLEARFIELD

Pre-Configured Part Numbers

FieldSmart® PON in Pedestal

Part Number	Description	Application/Where Used	
		96 & 144 PON in Pedestal	YOURx-Terminal
Pedestal on Lid - Vault Size: 30" x 48" (762.00 mm x 1219.20 mm)			
V7A-ZZZ-01-P	Below grade vault and pedestal cover with bracket, split lid, I-bolt, green, telecom, 12 x 12" (304.80 mm x 304.80 mm) pedestal cover with bracket, straight wall 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)	✓	✓
V7B-ZZZ-02-P	Below grade vault and pedestal cover with bracket, split lid, I-bolt, green, telecom, 12 x 12" (304.80 mm x 304.80 mm) pedestal cover with bracket, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)		✓
V7A-ZZZ-03-P	Vault, Pencell, split HDPE lid, knockout for 12" ped, short base, ped cover, u-bracket, straight wall 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)	✓	✓
V7B-ZZZ-04-P	Vault, Pencell, split HDPE lid, knockout for 12" ped, short base, ped cover, u-bracket, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)	✓	✓
V7A-ZZZ-05-P	Vault, Pencell, split HDPE lid, knockout for 10" ped, short base, ped cover, u-bracket, straight wall 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm)		✓
V7B-ZZZ-06-P	Vault, Pencell, split HDPE lid, knockout for 10" ped, short base, ped cover, u-bracket, straight wall 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm)		✓

FieldSmart Electronics Cabinets (Active)

Part Number	Description	Application/Where Used
		Electronic Cabinet
Vault Size: 48" x 48" (1219.20 mm x 1219.20 mm)		
V8F-CZP-F	Vault, below grade Pencell, solid polymer concrete lid, hex bolts, gray, flared wall 48" W x 48" L x 24" D (1219.20 mm x 1219.20 mm x 609.60 mm)	✓
VA-3660-6	Spacer for below grade Pencell vault 48" W x 48" L x 6" H (1219.20 mm x 1219.20 mm x 152.40 mm)	Optional 6" Spacer

Bolt Kits

Part Number	Description	Application/Where Used
009097	Bolt Kit for Vaults With HDPE Lids	All FSC/FDH Cabinets Mounted on HDPE Lid
020538	Bolt Kit for Vaults With Polymer Concrete Lids	All FSC/FDH Cabinets Mounted on PC Lid
FPP-BOLT KIT	Pedestal Bolts for mounting base to HDPE lid	All Pedestals Mounted on HDPE Lid

CraftSmart®
Fiber Protection Boxes (FPB)

Application

The CraftSmart Fiber Protection Boxes (FPB) provide a place for below grade cable slack storage and access in greenbelt and light pedestrian traffic applications.

Description

The CraftSmart Fiber Protection Boxes are part of a full line of above and below grade field enclosures. They provide full optimization of a fiber deployment when used alongside a Clearfield® FieldSmart® platform of inside plant panels, outside plant cabinets and wall boxes.

Boxes are designed to meet a broad range of fiber, coax and copper needs of the broadband, telecommunications and utilities industries. The FPBs provide a place for below grade cable slack storage and are a good fit for access in greenbelt areas, places that are undeveloped, wild or agricultural areas and similar locations where there is light pedestrian traffic, such as a sidewalk.

The CraftSmart Fiber Protection Box is available in five different sizes. Functioning as a stand-alone, the FPB provides below grade slack storage for fiber or other media. The body is formed with a High Density Polyethylene (HDPE) Thermoplastic and a solid Thermoplastic lid that ensures strength and stability of the product.

Features and Benefits

Integrity
- High-quality HDPE designed body distributes load evenly across sidewalls
- Solid Thermoplastic lid ensures strength and stability

Protection
- Universal bolt security system
- All boxes incorporate a unique "T" style overlapping cover design to reduce soil mitigation into box

Access
- Single piece solid thermoplastic cover provides ease of access into boxes
- All the plastic lids on these boxes are rated at light duty or greenbelt as listed with the SCTE77 specification: 5,000 lbs

Investment
- High strength rigid construction ensures long term reliability in the harshest environments
- Lighter and easier to handle than concrete, which increases the overall safety factor

Accessories

- Grounding option
  - FST-GND-BAR-KIT: Kit, ground bar and mounting hardware for use in flowerpots and vaults. Includes ground bar, ground lug and mounting bolts.
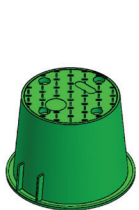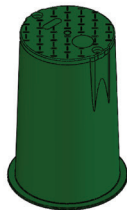

FPB609
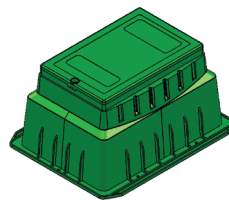Bolt on Cover
Top Diameter: 7 ⅜"
Bottom Diameter: 10"
Depth: 9"

FPB910
Bolt on Cover
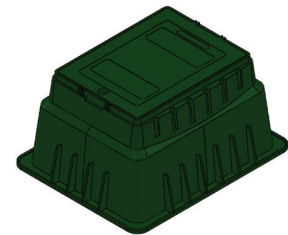Top Diameter: 9 ⅞"
Bottom Diameter: 12 ½"
Depth: 9"

FPB1019
Bolt on Cover
Top Inside Diameter: 10 ⅛"
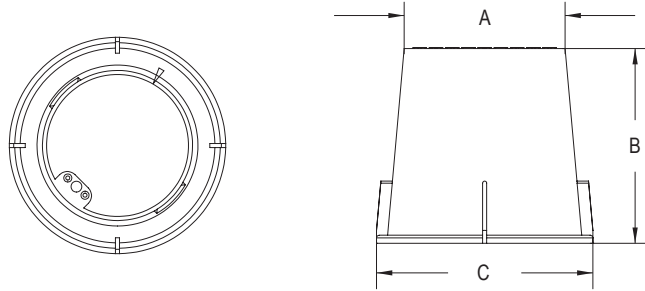Depth: 18"

FPB1014
Bolt on Cover
Top Inside Dimensions: 10" W x 14" L
Bottom Outside Dimensions: 19" W x 23 ½" L
Depth: 12"

FPB1220
Bolt on Cover
Top Inside Dimensions: 16" W x 20" L
Bottom Outside Dimensions: 24" W x 30" L
Depth: 15 ¾"

CraftSmart®
Fiber Protection Boxes (FPB)

CLEARFIELD

Technical Specifications

Part Number	A	B	C	Application
FPB609	7⅜" (187.33 mm)	9" (228.60 mm)	10" (254.10 mm)	Slack cable storage
FPB910	9⅞" (250.83 mm)	9" (228.60 mm)	12½" (317.50 mm)	Slack cable storage
FPB1019	10⅛" (257.18 mm)	18" (457.20 mm)	12¹³⁄₁₆" (325.44 mm)	Slack cable storage
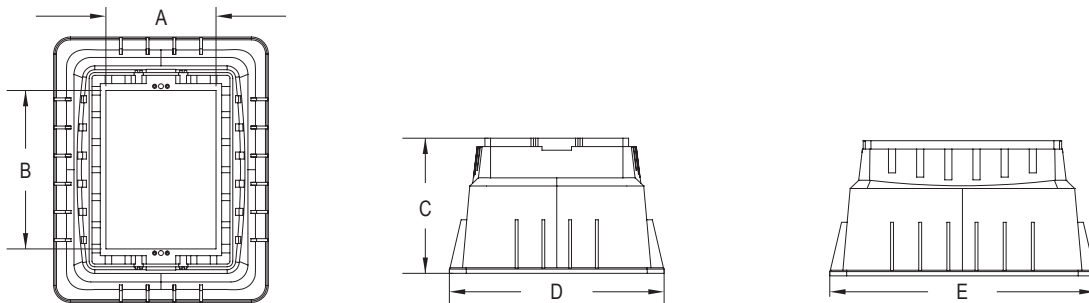
Part Number	A	B	C	D	E	Application
FPB1014	10" (254.50 mm)	14" (355.60 mm)	12" (304.80 mm)	19" (482.60 mm)	23 ½" (596.90 mm)	YOURx-Terminal
FPB1220	12" (304.80 mm)	20" (508.00 mm)	15 ¾" (400.05 mm)	24" (609.60 mm)	30" (762.00 mm)	YOURx-Terminal

Pre-Configured Part Numbers

Part Number	Description
FPB609	7¾" (187.33 mm) round top x 9" (228.60 mm) deep, green, bolt on cover
FPB910	9⅞" (250.83 mm) round top x 9" (228.60 mm) deep, green, bolt on cover
FPB1019	10" W x 18" L (254.00 mm x 457.00 mm) round top, green, bolt on cover
FPB1014	10" W x 14" L (254.00 mm x 355.60 mm) rectangular top x 12" (304.80 mm) deep, green, bolt on cover
FPB1220	12" W x 20" L (304.80 mm x 508.00 mm) rectangular top x 15¾" (400.05 mm) deep, green, bolt on cover
FST-GND-BAR-KIT	Kit, ground bar and mounting hardware for use in flowerpots and vaults. Includes ground bar, ground lug and mounting bolts.

CraftSmart®
Fiber Protection Pedestals (FPP)

CLEARFIELD

Application

The CraftSmart Fiber Protection Pedestals (FPP) provide a secure, above ground access point for drop cable and/or splitter deployment. They are optimized to be used with a Clearfield® PON in a PED and YOURx™ products.

Description

Clearfield's CraftSmart product line provides physical fiber protection for Clearview® Cassette-based products, completing and delivering a turn-key passive solution from the central office/headend to the customer premise. The CraftSmart Fiber Protection Pedestals (FPP) provide the most cost-effective thermoplastic enclosures in the industry - meeting and exceeding the industry standards for strength, reliability and environmental concerns.

FPPs are a two part system - base and cover, with an internal U-channel for mounting various products inside of the pedestal. Designed and tested to withstand the harshest of environmental conditions, including UV, chemical and impact resistance. It is available with stainless steel hex-bolt locking hardware and is formed from a High Density Polyethylene (HDPE) Thermoplastic. The five different size boxes are designed to meet the broad range of fiber, coax and copper needs of the broadband, telecommunications and utilities industries.

These round pedestals are available in light or dark green. They feature direct-bury bases with a removable self-locating and locking cover.

Features and Benefits

Integrity
- Constructed of durable, UV resistant material for maximum security and service life
- Two part system - HDPE base and molded impact resistant cover
- Dark green and light green available

Protection
- Self-locating ⁷⁄₁₆" (11.11 mm) hex head lock on cover ensures pedestals lock without special alignment
- Direct bury base provides a uniform and secure installation, while reducing the chances of leaning or tilting
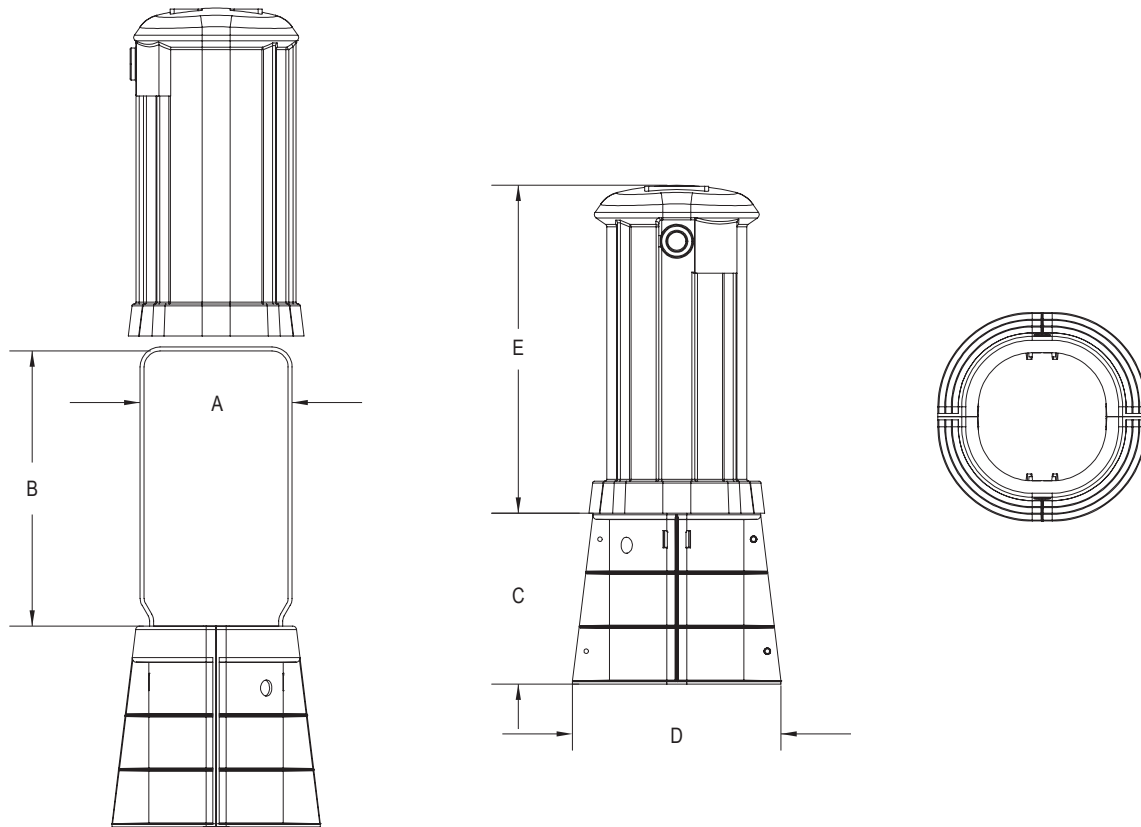
Access
- Three different sizes for maximum flexibility
- Internal U-bracket provides multiple mounting options for equipment
- Cover lifts completely off for 360 degree access to equipment inside

Investment
- High strength rigid construction ensures long term reliability in the harshest environments

CraftSmart®
Fiber Protection Pedestals (FPP)

CLEARFIELD
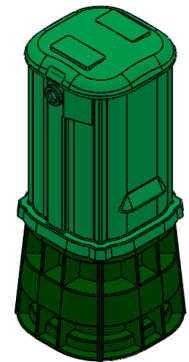
Technical Specifications

Part Number	A	B	C	D	E	Application
FPP-8820	9" (228.60 mm)	17³⁄₁₆" (436.56 mm)	10¹¹⁄₁₆" (271.46 mm)	13¹⁄₁₆" (331.79 mm)	20" (508.00 mm)	YOURx-Terminal
FPP-101020	10⅝" (269.88 mm)	17¹⁄₁₆" (433.39 mm)	11⅜" (288.93 mm)	14⅜" (365.13 mm)	20" (508.00 mm)	YOURx-Terminal
FPP-121230	12¾" (323.85 mm)	29" (736.60 mm)	12⁹⁄₁₆" (319.09 mm)	17⅛" (434.98 mm)	30" (762.00 mm)	YOURx-Terminal, PON in PED Insert

Pre-Configured Part Numbers

Part Number	Description	Application
FPP-8820	Pedestal, 8" x 8" x 20" (203.20 mm x 203.20 mm x 508.00 mm), medium green vented, direct bury, hex head lock	YOURx-Terminal
FPP-101020-DG	Pedestal, 10" x 10" x 20" (254.00 mm x 254.00 mm x 508.00 mm), dark green vented, direct bury, hex head lock	YOURx-Terminal
FPP-101020-LG	Pedestal, 10" x 10" x 20", (254.00 mm x 254.00 mm x 508.00 mm) light green vented, direct bury, hex head lock	YOURx-Terminal
FPP-121230-DG	Pedestal, 12" x 12" x 30" (304.80 mm x 304.80 mm x 762.00 mm), dark green vented, direct bury, hex head lock	YOURx-Terminal, PON in PED Insert
FPP-121230-LG	Pedestal, 12" x 12" x 30" (304.80 mm x 304.80 mm x 762.00 mm), light green vented, direct bury, hex head lock	YOURx-Terminal, PON in PED Insert

FieldSmart®
Cabinet and Vault Options

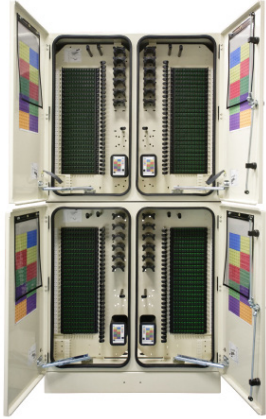**FieldSmart 144, 288 PON, 432 Cross-Connect, 432 PON or Hub Collapse Cabinet**

Part Number	Description
V6A-CZP	Vault, Below Grade Pencell, 24 x 36 x 24", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V6B-CZP	Vault, Below Grade Pencell, 24 x 36 x 36", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V6B-HZP	Vault, Below Grade Pencell, 24 x 36 x 36", Split PC Lid, Hex Bolts, Gray, with Cut Out for FieldSmart FSC Cabinets, Straight Wall, Requires 020538 Bolt Kit - Ordered Separately
V7A-CZP	Vault, Below Grade Pencell, 30 x 48 x 24", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V7B-CZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V7B-HZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split PC Lid, Hex Bolts, Gray, With Knock Outs for FieldSmart Cabinets, Straight Wall, Requires 020538 Bolt Kit - Ordered Separately

FieldSmart 576 PON or 864 Cross-Connect Cabinet

Part Number	Description
V7A-CZP	Vault, Below Grade Pencell, 30 x 48 x 24", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V7B-CZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V7B-HZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split PC Lid, Hex Bolts, Gray, With Knock Outs for FieldSmart Cabinets, Straight Wall, Requires 020538 Bolt Kit - Ordered Separately
V8A-CZP-F	Vault, Below Grade Pencell, 36 x 60 x 24", Complete Split Lid, with 1/2 Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Flared Wall
V8B-CZP-F	Vault, Below Grade Pencell, 36 x 60 x 36", Complete Split Lid, with 1/2 Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Flared Wall
V9B-HZP-F	Vault, Quazite 48 x 48 x 36", Complete Split Polymer Concrete Lid, Cut Out for 864 Cabinet, Fiberglass Straight Wall, Requires 020538 Bolt Kit - Ordered Separately

FieldSmart®
Cabinet and Vault Options

CLEARFIELD

FieldSmart 1152 PON or 1728 Cross-Connect Cabinet

Part Number	Description
V7B-CZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split HDPE Lid, Hex Bolts, Green, with Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Straight Wall
V7B-HZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split PC Lid, Hex Bolts, Gray, With Knock Outs for FieldSmart Cabinets, Straight Wall, Requires 020538 Bolt Kit - Ordered Separately
V8A-CZP-F	Vault, Below Grade Pencell, 36 x 60 x 24", Complete Split Lid, with 1/2 Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Flared Wall
V8B-CZP-F	Vault, Below Grade Pencell, 36 x 60 x 36", Complete Split Lid, with 1/2 Cut Out for FieldSmart FSC Cabinets, With Bolt Kit, Flared Wall
V9B-HZP-F	Vault, Quazite 48 x 48 x 36", Complete Split Polymer Concrete Lid, Cut Out for 864 Cabinet, Fiberglass Straight Wall, Requires 020538 Bolt Kit - Ordered Separately

FieldSmart 864 Port PON FDH Cabinet

Part Number	Description
V9B-HZP-F	Vault, Quazite 48 x 48 x 36", Complete Split Polymer Concrete Lid, Cut Out for 864 Cabinet, Fiberglass Straight Wall, Requires 020538 Bolt Kit - Ordered Separately

FieldSmart Makwa FDH - In Vault

Part Number	Description
V7B-AZP	Vault, Below Grade Pencell, 30 x 48 x 36", Solid HDPE Lid, Hex Bolts, Green, Straight Wall
V7B-BZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split HDPE Lid, Hex Bolts, Green, Straight Wall
V7B-EZP	Vault, Below Grade Pencell, 30 x 48 x 36", Split Polymer Concrete Lid, Hex Bolts, Gray, Straight Wall
VA-SWING-ARM	Swing Arm for Makwa

Vaults with Swing Arm Installed

Part Number	Description
V7B-AZP-SARM	Vault, Below Grade Pencell, 30 x 48 x 36", Solid HDPE Lid, Hex Bolts, Green, Straight Wall, With Swing Arm
V7B-BZP-SARM	Vault, Below Grade Pencell, 30 x 48 x 36", Split HDPE Lid, Hex Bolts, Green, Straight Wall, With Swing Arm
V7B-EZP-SARM	Vault, Below Grade Pencell, 30 x 48 x 36", Split Polymer Concrete Lid, Hex Bolts, Green, Straight Wall, With Swing Arm