FieldSmart® Fiber Crossover High Density (FxHD)
## *Frame*

Application

With the FieldSmart FxHD front access design, Clearview® Cassettes are shifted to the outside of the frame and away from a fixed panel configuration. Instead of traditional panel configurations, the frame is configured with a series of Clearview Blue cassettes teamed with building brackets built into user-defined building blocks. The FxHD Frame provides the ultimate in modularity and flexibility to scale from 12 to 2,016 ports in any fiber count optimizing your ability to maximize fiber investment and assets. Clearview Blue's in-cassette buffer tube storage allows the FxHD to reclaim the space used for traditional panels and mass buffer storage and to redeploy it by using building blocks of Clearview Blue Cassettes.

Description

The FieldSmart High Density Fiber Crossover Distribution System (FxHD) is the highest density fiber management frame solution available in the industry today, providing 2,016 SC terminations in a 7' (2133.60 mm) frame or when mounted back-to-back, FxHD supports a maximum density of 4,032 terminations in a space savings footprint of 9 square feet (36" x 36") (914.40 mm x 914.40 mm).

FieldSmart FxHD is an integrated fiber management solution utilizing the Clearview Blue Cassette. Designed around the same footprint as the FxDS fiber frame at 18" x 36" (457.20 mm x 914.40 mm) and utilizing the same full length doors for maximum physical fiber protection, the FxHD easily integrates alongside existing FieldSmart FxDS or other industry standard frame systems. Those deploying the FieldSmart FxHD can start with one Clearview Blue Cassette and add additional cassettes as additional capacity is needed, up to a total of 168 cassettes and 2016 ports of connectivity.

Cube Bracket

This port count represents an additional 288 ports in a standard 7' (2133.60 mm) frame – or a 17% increase in density over the FxDS frame solution. With instant access to all cassettes, adapters and jumpers, the frame is designed as a front access frame. This means that all of your installation, MAC (moves, adds and changes) work and routing of jumpers is done from one side of the frame providing you the option to reclaim the aisle space required for frame solutions that require rear access - and to use that space for other equipment or more frames. The FxHD can be placed against a wall, a cage in data center collocation environments or installed back to back. The FxHD frame solution provides a 40% reduction in floor space requirement while still meeting 30" (762.00 mm) aisle spacing requirements.

Designed in conjunction with Clearview Blue, the FxHD extends the Clearfield® commitment to modular and scalable solutions by introducing tech-friendly, tool-less deployment to standard building blocks. Individual components are configured to application requirements while providing bend-radius protection, physical fiber protection and route-path diversity for the consolidation and distribution of fiber.

User-defined Clearview building blocks configured to exact port count specifications can be deployed in seconds with Smart-Connect tool-less fasteners. Clearview Blue Cassettes simply slide into building block assemblies with a "hard-stop" feature ensuring perfect alignment every time. Additional buffer tube/ribbon slack is stored within each cassette eliminating buffer tube congestion, pile-up or identification miscues. The dedicated "w-shaped" intrabay route scheme ensures long term reliability of circuits by maximizing proper slack storage of any jumper length, greatly reducing the chance of jumper tie-in or weaving. Full length doors provide complete physical fiber protection when closed and instant visual and physical access to the entire frame when opened.

For scenarios where maximizing real estate is a premium, service providers may choose to deploy an FxHD front only access, allowing frames to be mounted back-to-back or against structures such as walls, existing frame equipment or building supports.

Features and Benefits

Integrity
- One frame size accommodates up to 2,016 ports or 4,032 ports when back-to-back
- Supports all industry standard singlemode and multimode connectors
- 100% performance tested for insertion loss, return loss and final mechanical inspection
- Supports distribution, tight-buffer and ribbon fiber types for inside and outside plant constructions

Protection
- Full length doors provide visual and physical access to the entire frame when opened and complete physical fiber protection when closed
- Complete bend-radius protection throughout all routing schemes
- Diverse route-paths minimize cable pile-up and ensure long term reliability of circuits

18.17

35.07

36.48
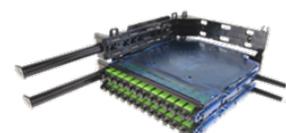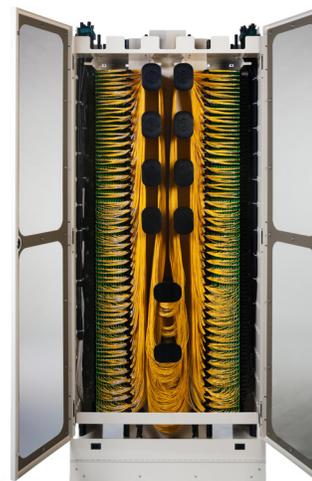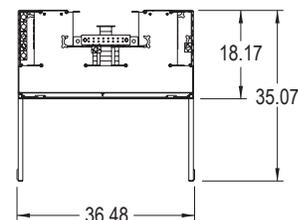
- Integrated "w-shaped" intrabay route scheme does not compete with adjacent frames and maximizes proper slack storage of any jumper length, greatly reducing the chance of jumper tie-in or weaving (4 meters suggested)
- Radius protected storage for up to 10 feet (3.04 M) of buffer tube slack provided in Clearview Blue Cassette

Access
- FxHD is front access only to ensure maximum accessibility to achieve 2016 SC terminations or 4032 in a back-to-back frame system
- Top entry/exit through horizontal fiber trough and bottom entry through raised floors supported front and rear of frame
- Fold-down trough door allows complete access to interbay lay-in routing for 6,000 jumpers (3,000 left and 3,000 right) through the frame and adjacent frames
- A four meter jumper can get you from any port to any port
- Supports SmartRoute rear interbay troughing route-paths
- Uses Clearview® Blue Cassette front access with removable 12-pack adapter plate allowing quick and easy access to back of adapters for troubleshooting, maintenance and cleaning without disturbing live circuits in other cassettes

Investment
- Fully loaded or "grow-as-you-go" integration allows the user choices to provide for cost containment as subscriber take-rates dictate
- Compatible alongside FxDS frame line up as well as traditional 19" (482.60 mm) or 23" (584.20 mm) frame solutions
- Pre-configured/pre-loaded factory terminated assemblies
- Custom configured with standard building blocks supporting all application environments
- Patch and splice (Clearfield's in-cassette splicing solution), patch only and plug-and-play configurations supported

Technical Specifications

FieldSmart FxHD Frames	
Dimensions	7' H x 36" W x 18" D (2133.60 mm x 914.40 mm x 457.20 mm)
Ratings	Designed to comply to Telcordia GR-449
Port Density	2,016 SC or 4,032 LC (front access only, back-to-back mounting)
Cassette Types Supported	Clearview Blue
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC, MPO (additional options available upon request)
Cable Types	Indoor Riser, Indoor Plenum, Indoor/Outdoor, Outdoor (Riser/Non-Rated), Outdoor Armored (Riser/Non-Rated), FieldShield®
Splice Capacity	12-24 splices in each Clearview Cassette
Storage Capacity	One meter of 900 µm fiber and up to three meters of jacketed fiber
Cable Entry Compatibility	Top and bottom (floor) entry
Cable Entry Clamp Location	16 (eight left, eight right) *Note: Center clamping compatible for left and right same sheath distribution of buffer tubes/sub units*
Recommended Jumper Length	Four meters, plus two meters (13' + 6.6') for each additional frame
Material	Stainless steel with almond powder coating

Pre-Configured Part Numbers

Part Number	Description
014602-PATCH AND SPLICE	FxHD kit, patch and splice, front access only, maximum 2,016 ports (includes built in fiber management and cassette mounting brackets, doors, iso pad, floor mount kit)
014602-PATCH ONLY	FxHD kit, patch only, front access only, maximum 2,016 ports (includes built in fiber management, two doors, iso pad, floor mount kit)
014743	FxHD 576 port PON Insert (Select one of the following part numbers for feeder ports.)