

Open Fiber Distribution Hub (FDH)

OCP Telco Engineering Workshop 05.14.2018



OPEN
Compute Project

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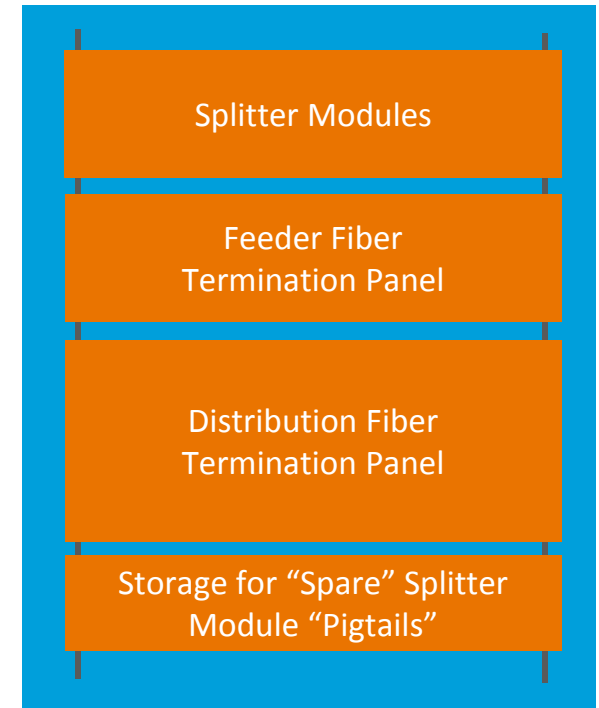
Timeline

- The Open Fiber Distribution Hub concept was introduced to the community at the OCP Telco Engineering Workshop in Dallas on 9/25/2017.
- The first draft of the Specification was shared with the community on 12/7/2017.
- The Specification was revised with input from the community and the final draft was shared with the community on 4/6/2018
- The Specification Checklist was presented to the Incubation Committee on 4/19/2018

Major Features

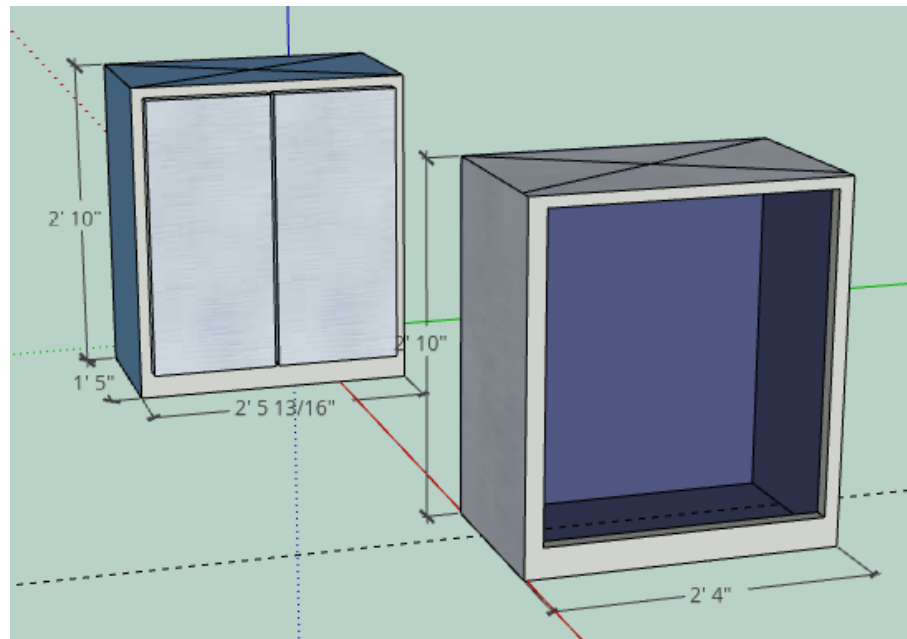
- The Fiber Distribution Hub (FDH) is an Outside Plant cabinet deployed for Passive Optical Networks (PON).
- Interface Point between the Feeder Fibers from the Telco Central Office (CO) and the Distribution Fibers placed in the neighborhood.
- Houses the Optical Splitters
- Provides Fiber Management
- FDH Sizes
 - 864
 - 432
 - 288
- Mounts
 - Pad
 - Pole
 - Rack

| FDH Size | F2 Terminations | F1 Terminations | Storage Capacity | Splitter Module Shelves |
|----------|-----------------|-----------------|------------------|-------------------------|
| 864 | 864 | 288 | 144 | 3 |
| 432 | 432 | 144 | 144 | 2 |
| 288 | 288 | 72 | 144 | 1 |



Building Blocks – Cabinet

- Grounding
- Withstand 150 mph
- GR-3125
- GR-2898
- GR-487
- GR-63
- GR-326
- GR-1209
- GR-1221



Building Blocks – Fiber Termination Panels

- SC/APC (Angle Polish Connector)
- GR-3125
- GR-2898
- GR-487
- GR-63
- GR-449
- GR-3123
- GR-326
- GR-1209
- GR-1221



<https://www.seeclearfield.com/products/category/panels.html>

Building Blocks – Splitter Module

- LGX 118 mm Form Factor
- Wavelength bandpass
- Insertion loss
- Uniformity
- Directivity
- Return Loss
- Polarization Dependent Loss

Splitter Module Frame



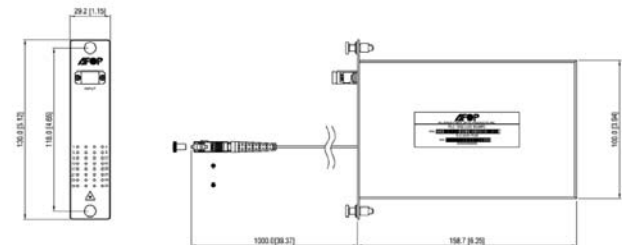
LGX Form Factor Splitter Modules



PLC Splitter LGX® Module

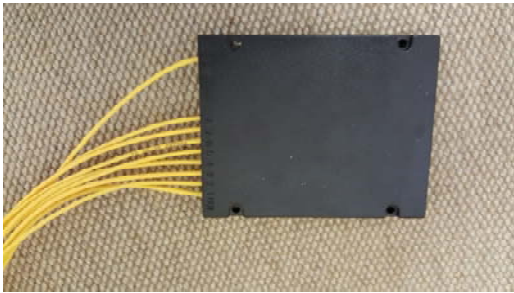
CORNING

MECHANICAL DRAWING OF 1x32 SC PLC SPLITTER LGX MODULE



Building Blocks – Splitter Module

- “Box” Type Splitter Modules can be used with an adaptor



“Box” Splitter Module

+



LGX Adaptor

=



Method to use “Box” Splitters

Next Steps

- Clearfield providing AT&T Open FDH for evaluation
- New cabinet design to add 19” rails
- Existing Clearfield Products
 - Fiber panels
 - “Box” Splitters with adaptors
- Interoperability / Interchangeability Proof of Concept
 - Add LGX Form Factor Splitter Modules provided by other suppliers



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