HDF3168 Fiber Distribution System

A high-density fiber optic frame that prepares the data center for growth, minimizes patching footprint, reduces installation time, and saves you money.
HDF3168
FIBER DISTRIBUTION SYSTEM

The Leviton high-density HDF3168 Fiber Distribution System is a main cross-connect or inter-connect frame that can handle up to 3168 fibers using LC in just one tile of floor space. Ideal for service providers, central office facilities, large enterprise and cloud data centers, the HDF3168 Fiber Distribution System will reduce your patching footprint, free up valuable space, and save you money. Separated trunk cable, and patch cord management improves accessibility and enables easy moves, adds, and changes. In addition, the system is fully scalable and modular, supporting consolidation and growth.
**INDUSTRY-LEADING DENSITY**
The HDF system accomplishes such high density through its unique patch deck design. One frame holds up to 22 decks, each configured with your choice of HDX cassettes, HDX adapter plates, or injection-molded splice trays.

**BUILT-IN CABLE MANAGEMENT & ROUTING**
The frame keeps pathways clean and organized, using integrated cable management for minimum bend radius, better slack storage, and protection within the frame. Patch decks contain patch cord and MTP® trunk routing for individual trays. And enhanced labeling improves deck and fiber identification to simplify moves, adds, or changes. Use of one patch cord length (3m) for cross-connect within frame.

**SUPERIOR SCALABILITY**
HDF3168 frames can be ganged together easily and handle future growth with pass-through cross-frame routing kits. And with 24-fiber MTP connectivity, they are ideal for migration from 10G to 40G to 100G and beyond.

**ADDITIONAL SECURITY**
The HDF frame includes rear doors that lock to protect and conceal trunk cabling. Locking front doors (sold separately) are transparent to allow visibility.

**EASY ACCESSIBILITY**
The frame’s open design greatly reduces time and labor for maintenance, as it allows unobstructed access to patch cord connections on the cassettes and adapter plates. And the one-tile footprint makes it easier to access the space beneath a raised floor.
Data center infrastructure standards like TIA-942 recommend driving all network cabling back to patching in the main distribution area, or MDA. Following these standards, the HDF3168 is designed to be installed in the MDA, serving as the main cross-connect patching location for all fiber channels in the data center. It can support cabling from network servers, core switches, the SAN, mainframe, and disk or tape storage.

The HDF3168 Frame consolidates patching for all fiber channels in the data center into an incredibly small footprint. Since it doesn’t require the use of standard 19" cabinets which often require additional width and depth, it uses less space for patching. And as the frame occupies only one floor tile, it’s easy to access space beneath a raised floor.

By reducing overall floor-space requirements, the HDF system creates significant yearly cost savings.

**HDF3168 CAPACITY CHART** (Based on use of 48-fiber trunks)

<table>
<thead>
<tr>
<th>CONNECTIVITY</th>
<th>MAX. FIBER STRANDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC</td>
<td>3,168</td>
</tr>
<tr>
<td>SC</td>
<td>1,584</td>
</tr>
<tr>
<td>12-Fiber MTP®</td>
<td>7,776</td>
</tr>
<tr>
<td>24-Fiber MTP®</td>
<td>15,552</td>
</tr>
</tbody>
</table>

HDF3168 Frame

Space Savings

Core Switches

Main Distribution Area

Equip. Distribution Area (Servers)

Storage Area Network

Tape & Disk Storage

Mainframe

HDF3168 FIBER DISTRIBUTION SYSTEM

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# Examples of Yearly Savings with the HDF3168

Assumes typical cabinet is 48” D × 32” W, 42RU (36U usable)
Data center cost per month per square foot is $50

## Example 1: Small-to-Medium Data Center, with Top-of-Rack Patching

<table>
<thead>
<tr>
<th>Zones in DC</th>
<th>Total Number of Cabinets/Devices</th>
<th>Total Number of Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server Cabinets, SAN, Core Switch, other</td>
<td>83</td>
<td>1,328</td>
</tr>
</tbody>
</table>

### Traditional MDA

<table>
<thead>
<tr>
<th>RU Required</th>
<th>Number of Cabinets</th>
<th>Sq. Ft.</th>
<th>First Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>176</td>
<td>5</td>
<td>53.35</td>
<td>$32,010</td>
</tr>
</tbody>
</table>

### HDF MDA

<table>
<thead>
<tr>
<th>Decks Required</th>
<th>Number of HDF Frames</th>
<th>Sq. Ft.</th>
<th>First Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>3</td>
<td>12</td>
<td>$7,200</td>
</tr>
</tbody>
</table>

**SAVINGS with the HDF3168**

Percent: **345%**
Sq. Ft: **41.4**
First Year Savings: **$24,810**

Calculate your Yearly Savings at [apps.leviton.com/hdfcalculator](apps.leviton.com/hdfcalculator)

## Example 2: Large Data Center

<table>
<thead>
<tr>
<th>Zones in DC</th>
<th>Total Number of Cabinets/Devices</th>
<th>Total Number of Fiber Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server Cabinets, Network Switches, SAN, Storage, Tape</td>
<td>162</td>
<td>16,536</td>
</tr>
</tbody>
</table>

### Traditional MDA

<table>
<thead>
<tr>
<th>RU Required</th>
<th>Number of Cabinets</th>
<th>Sq. Ft.</th>
<th>First Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>702</td>
<td>20</td>
<td>213</td>
<td>$128,040</td>
</tr>
</tbody>
</table>

### HDF MDA

<table>
<thead>
<tr>
<th>Decks Required</th>
<th>Number of HDF Frames</th>
<th>Sq. Ft.</th>
<th>First Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>258</td>
<td>12</td>
<td>48</td>
<td>$28,800</td>
</tr>
</tbody>
</table>

**SAVINGS with the HDF3168**

Percent: **345%**
Sq. Ft: **165**
First Year Savings: **$99,240**

Calculate your Yearly Savings at [apps.leviton.com/hdfcalculator](apps.leviton.com/hdfcalculator)
HDF3168 FIBER DISTRIBUTION SYSTEM | Frame, Patch & Splice Decks

FIBER DISTRIBUTION FRAME
- Integrated cable management and routing solutions for minimum bend radius, better slack storage, and protection
- Holds up to 22 decks, each can be configured with cassettes, adapter plates, or splice trays
- Lockable rear doors included to protect and conceal trunk cabling
- Optional front door kits (sold separately) are transparent and lockable for additional security
- Occupies only one 2-foot square tile
- Seismic certified to GR-63-CORE, Zone 4, cULus 2416 Listed

PATCH DECK
- Modular 3.5" deck accepts up to 144 fibers (using LC) capacity
- Holds 6 independent sliding and removable trays and accepts up to 12 MTP® cassettes or adapter plates
- Magnifying port identification label holders for better visibility
- Integrated minimum bend radius protection

SPLICE DECK
- Modular 3.5-inch-high deck accepts up to three independent splice trays
- Sliding trays are removable for ease of splicing
- Heat-shrink fusion splicing of individual 250 µm or 900 µm tight-buffer fibers for up to 144 fibers per deck
- Mass ribbon fusion splicing available as custom order

HDX ADAPTER PLATES
- Connect to field-terminated backbone cabling or pre-terminated trunks
- Easy one-hand installation and removal
- Offered in OM1/OM2, OM3/OM4, and OS2 fiber types
- LC, SC, and MTP styles in 6, 12, or up to 72/144-fiber configurations are available
- Visible sequential numbering to identify ports (for Tx and Rx)

HDX MTP CASSETTES
- 12- or 24-fiber MTP configurations
- Select from LC or MTP connectors for 10G, 40G, or 100G applications
- Configure up to 48 fibers for 24 channels (10G) and 6 channels (40G)
- Easy to migrate from 10G to 40/100G when used with Opt-X® Unity trunks, harnesses, or patch cords
- Pre-terminated fiber eliminates the need for complicated field terminations and splices
- A variety of fiber types are available including single-mode, multimode, and laser-optimized multimode
- Easy, one-hand installation and removal
### HDF3168 FIBER OPTIC DISTRIBUTION SYSTEM

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PART NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Distribution Frame, 7’ H x 2’ W x 2’ D</td>
<td>F3168-22F</td>
</tr>
<tr>
<td>Patch Deck, 2RU, empty (includes horizontal cable management and cable clamp kit)</td>
<td>F3168-DCK</td>
</tr>
<tr>
<td>Splice Deck, 2RU, empty (includes horizontal cable management and cable clamp kit)</td>
<td>F3168-SPD</td>
</tr>
<tr>
<td>Cross-Frame Routing Kit</td>
<td>F3168-CFR</td>
</tr>
<tr>
<td>Front Doors Kit</td>
<td>F3168-FDR</td>
</tr>
<tr>
<td>Cable Clamp Kit (for additional fiber trunks)</td>
<td>F3168-CCK</td>
</tr>
<tr>
<td>Seismic Zone 4 Kit</td>
<td>F3168-EQK</td>
</tr>
<tr>
<td>2RU Blank Panel (for frame)</td>
<td>F3168-BLK</td>
</tr>
</tbody>
</table>

### HDX ADAPTER PLATES

| Adapter Plate, OM1 & OM2, Quad LC (Beige), 12 fibers, phosphor bronze sleeve | 5FUHD-2IL |
| Adapter Plate, OM1 & OM2, Duplex SC (Beige), 6 fibers, phosphor bronze sleeve | 5FUHD-6IC |
| Adapter Plate, OM1 & OM2, Duplex SC (Beige), 12 fibers, zirconia ceramic sleeve | 5FUHD-6LC |
| Adapter Plate, OM1 & OM2, Duplex SC (Black), key up/key up | 5FUHD-6MB |
| Adapter Plate, OM1 & OM2, Blank (Black) | 5FUHD-BLK |

### HDF3168 FRAME OPTIONS

<table>
<thead>
<tr>
<th># OF PATCH DECKS</th>
<th># OF CASSETTES OR ADAPTER PLATES</th>
<th>FIBER COUNT</th>
<th>FIBER TYPE</th>
<th>CASSETTE/PLATE CONNECTOR TYPE (FRONT)</th>
<th>CASSETTE/PLATE CONNECTOR TYPE (REAR)</th>
<th>CASSETTE POLARITY</th>
<th>FRONT DOORS KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>1-12</td>
<td>12</td>
<td>OM2</td>
<td>LC</td>
<td>SC</td>
<td>Method A</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24</td>
<td>OM3</td>
<td></td>
<td>MTP</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
<td>OM4</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>OM5</td>
<td></td>
<td></td>
<td></td>
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### HDF3168 PATCH DECK OPTIONS

<table>
<thead>
<tr>
<th># OF CASSETTES OR ADAPTER PLATES PER DECK</th>
<th>CASSETTE FIBER COUNT</th>
<th>FIBER TYPE</th>
<th>CASSETTE/PLATE CONNECTOR TYPE (FRONT)</th>
<th>CASSETTE/PLATE CONNECTOR TYPE (REAR)</th>
<th>CASSETTE POLARITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>12</td>
<td>OM2</td>
<td>LC</td>
<td>SC</td>
<td>Method A</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>OM3</td>
<td></td>
<td>MTP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>OM4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HDX MTP CASSETTE OPTIONS

<table>
<thead>
<tr>
<th>FIBER TYPE</th>
<th>FIBER COUNT</th>
<th>CONNECTOR TYPE (FRONT)</th>
<th>MTP TYPE (REAR)</th>
<th>POLARITY</th>
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</thead>
<tbody>
<tr>
<td>OM2</td>
<td>12</td>
<td>LC</td>
<td>12-Fiber MTP</td>
<td>Method A</td>
</tr>
<tr>
<td>OM3</td>
<td>24</td>
<td>MTP</td>
<td>24-Fiber MTP</td>
<td>Method B</td>
</tr>
<tr>
<td>OM4</td>
<td>48</td>
<td></td>
<td></td>
<td>Method C</td>
</tr>
<tr>
<td>OM5</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For Method B polarity, you must order one each of the Core and Edge cassettes.

For assistance customizing your cassettes, please visit leviton.com/configurator or call Tech Support at 800.824.3005.
THE SMART CHOICE FOR A BETTER NETWORK

High-performance connectivity backed by the industry’s best service and support

We invent the industry’s best technologies. We build them to last. And we stand behind every product and every installation – delivering industry-leading performance and unbeatable service and support – throughout the life of your structured cabling system.

Add in the peace of mind that comes from working with a stable, century-old supplier and you get far and away the highest return on investment in the industry.

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You might also be interested in...

Fiber Raceway System
This easy to install cable management system provides a dedicated path for critical network cabling. Connection components snap together tool-free, saving time and money.

Premium Patch Cords & Pigtails
Premium Series Patch Cords and Pigtails feature advanced polishing and assembly techniques, with insertion loss and return loss tested to industry-leading standards.

Overhead Infrastructure Platform
A full overhead support for cabling pathways, power, lighting, and other infrastructure. Platforms can carry the load of cables and ladder trays while freeing up rack space by adding patching above cabinets or racks. Since racks and cabinets are not attached to the overhead infrastructure, power and cabling can be quickly disconnected from the cabinet without removing hardware.