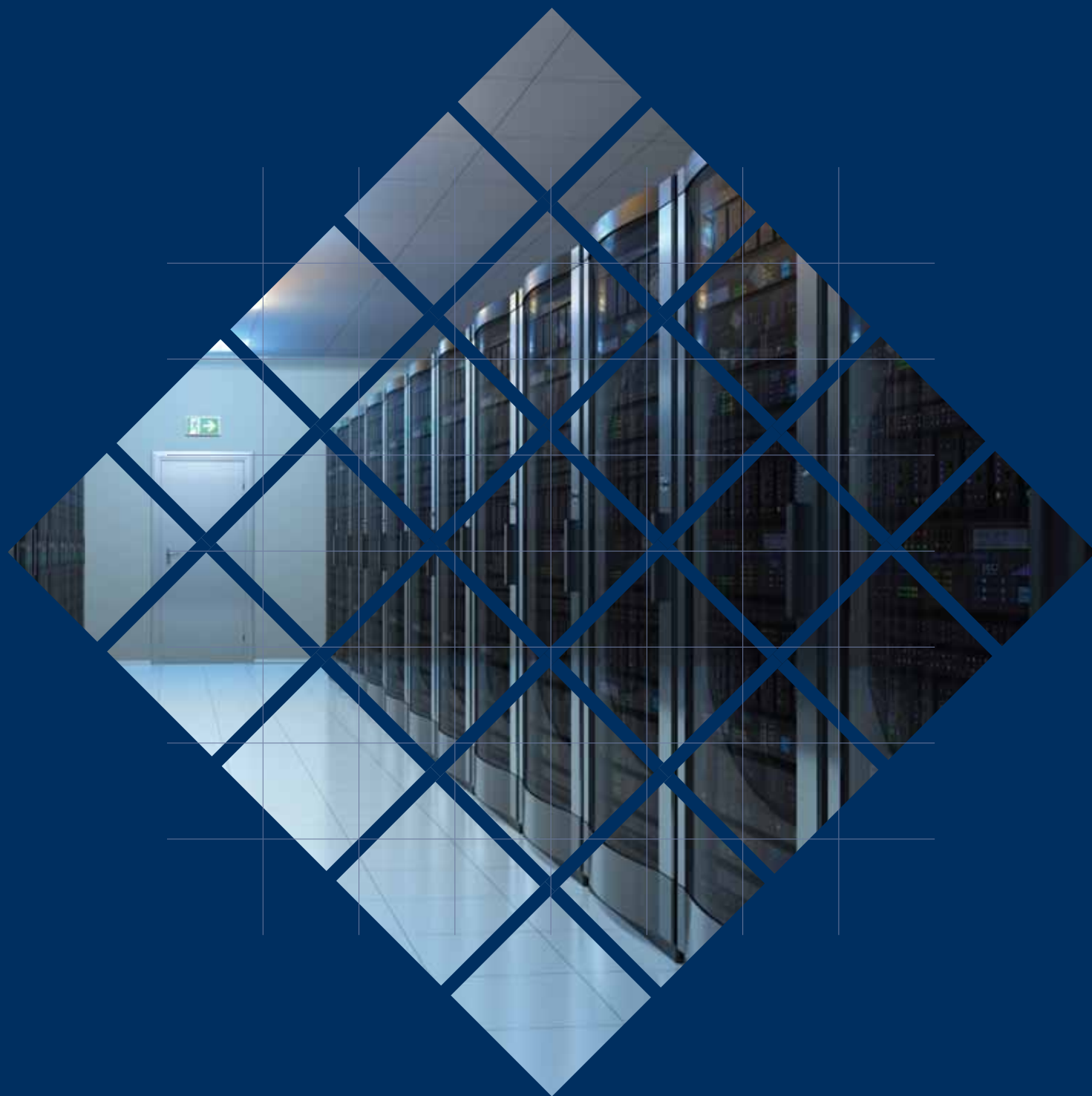


# DATA CENTER

## Solutions Guide



**HUBBELL**<sup>®</sup>  
Premise Wiring



Integrated Copper and Fiber Products





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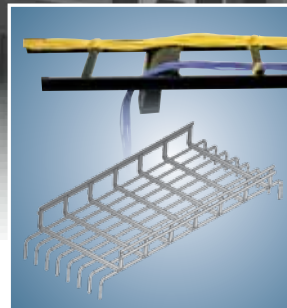
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# Infrastructure Design in the Data Center



The data center is a critical asset of today's information-intensive enterprise. Hubbell solutions will assist in improving space utilization, reduced onsite labor, help lower start-up costs, and provide a reliable network cabling infrastructure. Designing and sustaining a data center capable of supporting these applications is a considerable undertaking.

## Design

A properly designed infrastructure will maintain network up-time and security, provide operational efficiency, support future technology and sustain regulatory changes. Data Center Infrastructure Management (DCIM) is the integration of information technology and facility management disciplines to centralize monitoring, management and capacity planning of a data center's critical systems.

Infrastructure design decisions can affect long-term reliability and total cost of ownership. Designing simple features into the infrastructure will dramatically improve data center performance parameters such as: Air Flow, Response Time, Administration, Space Utilization, Security and Aesthetics.

## Managing Increased Power Consumption

With the use of high-density servers, SANs and switches, heat loads in the data center have increased dramatically over the past ten years. This increase has also driven the demand for equipment cooling which adds to the overall power consumption. This trend in power consumption is expected to double over the next five years. In fact, experts estimate a requirement of over 50 kilowatts for each cabinet or rack space. A properly designed infrastructure will manage cabinet airflow to optimize cooling of critical equipment for increased performance and extended lifespan.



## Cost Impact of Downtime

Studies show that losses from downtime can run into the millions of dollars. More than 50% of all data center infrastructure failures result from improper design, maintenance or administration activities<sup>(1)</sup>. The infrastructure must enable IT managers to deploy equipment, complete reconfigurations, and respond to maintenance issues as quickly as possible.

## Efficient Utilization of Floor Space

Space utilization must be carefully considered and efficiently managed with the rising cost of data center real estate, combined with the expense to cool the active equipment. It is important to capitalize on data center floor space deployment, also the infrastructure must optimize rack space, minimize connections and increase cabling density.

## Enhanced Security

The protection of data and equipment in today's information-intensive enterprise has called for an increase in both logical and physical security. Not only do IT managers need to ensure that proper encryption and firewalls are in place, but the physical infrastructure must also protect and secure connections and equipment. Infrastructure products including robust, tamper-resistant enclosures and keyed lockable connections provide security for these critical assets.

## Modern Aesthetics

While data center reliability is paramount, the data center must also showcase a company's commitment to technology. When designing the infrastructure, innovative cable management solutions can greatly improve the overall look and aesthetics of the data center.

## The Hubbell Commitment

As a global manufacturer of Cabling Infrastructure Systems, Hubbell Premise Wiring can help IT managers respond to the key data center issues of airflow, response time, administration, space utilization, security and aesthetics. Hubbell is dedicated to delivering product innovation, advanced technology, the highest quality and customer service excellence.

Hubbell's **MISSION CRITICAL**® program gives IT managers the assurance of system success with a 25-year guarantee on the components, performance and installation integrity of your data center's structured cabling infrastructure.



<sup>(1)</sup> "Site Uptime® Procedures and Guidelines for Safely Performing Work in an Active Data Center", CompuSite Engineering, Inc. and the Uptime Institute (2007).

## Total Cost of Ownership

Hubbell's extensive range of products can help you minimize the Total Cost of Ownership of your data center by providing interactive solutions that exceed all of the design requirements. Hubbell solutions help minimize start-up costs, operating costs and assist in maximizing long-term reliability. Hubbell Solutions are covered by a Hubbell 25-year **MISSION CRITICAL**® Cabling System Warranty.

### Airflow

The increasing array of active equipment designed into smaller packages results in more heat generation, increased cable congestion and impedes airflow which can cause over-heating of equipment.

<b>Impact</b>	Lower operating costs, longer equipment life expectancy.
<b>Design Objectives</b>	<ul style="list-style-type: none"> <li>• Define air pathways</li> <li>• Eliminate airflow obstructions</li> <li>• Reduce cable bulk</li> <li>• Condense connection form factor</li> </ul>

### Security

Protection of mission critical data, adherence to regulatory requirements and defending against unauthorized access to equipment are key requirements for today's data center environment.

<b>Impact</b>	Minimized risk of downtime. Protection of proprietary information. Increased owner confidence.
<b>Design Objectives</b>	<ul style="list-style-type: none"> <li>• Control access to data center</li> <li>• Factory-sealed components</li> <li>• Limit physical access to network connections</li> <li>• Intrinsically secure media</li> <li>• Use fault-tolerant connections</li> </ul>

### Administration

The ability to locate equipment, cables, and connections at all times is critical in the dynamic data center environment. Hubbell delivers pre-labeled interconnect products to meet the needs of data center administration.

<b>Impact</b>	Lower operating costs.
<b>Design Objectives</b>	<ul style="list-style-type: none"> <li>• Utilize a structured identification system</li> <li>• Minimize infrastructure components</li> <li>• Defined cable pathways and accessibility</li> </ul>

### Space Utilization

Maximizing utilization of expensive data center real estate is a key to controlling operating expenses.

<b>Impact</b>	Lower operating expense. Accommodate future expansion.
<b>Design Objectives</b>	<ul style="list-style-type: none"> <li>• Minimize number of connections</li> <li>• Maximize connection density</li> <li>• Maximize floor space utilization</li> <li>• Minimize cable pathway congestion</li> <li>• Maximize rack and cabinet utilization</li> </ul>

### Response Time

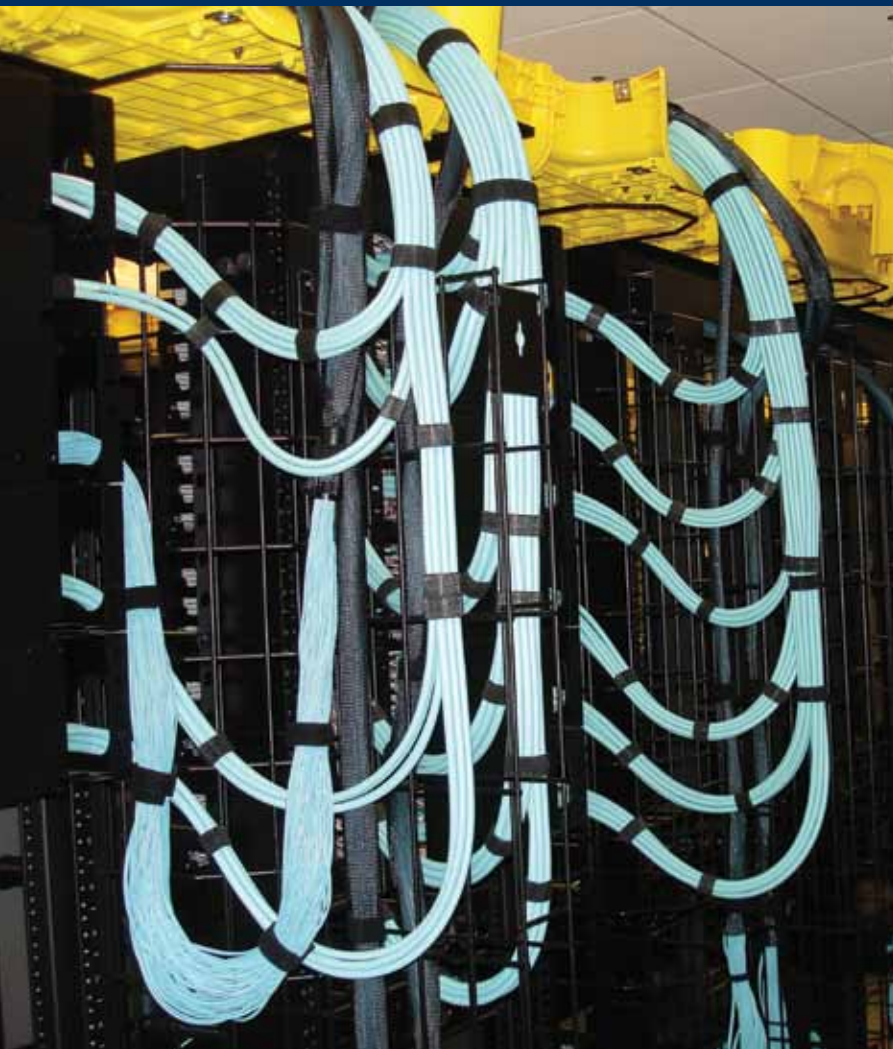
As the enterprise strives to be more competitive, the organization must be able to dynamically and rapidly transform its communication and technology infrastructure for future growth.

<b>Impact</b>	Maximize uptime.
<b>Design Objectives</b>	<ul style="list-style-type: none"> <li>• Minimize number of system component parts</li> <li>• Factory-tested components</li> <li>• Plug and play connections</li> <li>• Maximum flexibility for moves, adds and changes (MACs)</li> </ul>

### Aesthetics

The Data Center is a reflection of the proficiency and the capability of the enterprise.

<b>Impact</b>	Positive customer perception - internal pride.
<b>Design Objectives</b>	<ul style="list-style-type: none"> <li>• Covered cable management</li> <li>• Stylized equipment racks and cabinets</li> <li>• Minimize clutter and cable congestion</li> <li>• Color-coded cabling and components</li> </ul>



### Airflow

- Small form 12 strand fiber in a 3mm jacket is a significantly smaller profile than most cables
- Hubbell's new high density 144-port 1U enclosure provides the lowest profile to enhance rack cooling efficiency
- Optical fiber cables and cords do not carry electrical signals and therefore have minimal heat dissipation

### Security

- Factory-sealed cassettes provide a layer of protection
- Optical fiber is immune to signal tapping
- Fiber networks are less susceptible to "direct connect" access

### Administration

- Custom pre-labeled interconnect products coordinate with infrastructure identification
- Application - specific color coding of cabling and components provides easy visual identification

### Space Utilization

- High bandwidth fiber transmits more data per cable for optimum use of cable pathways
- Using laser optimized fiber enables lower cost migration to new applications, without adding more infrastructure

### Response Time

- Factory-terminated trunk assemblies reduce on-site installation time by 75%
- 100% optically tested for reliable performance
- High quality factory terminations assure maximum performance

### Aesthetics

- Fewer cables eliminate unsightly clutter
- Factory terminated cables are coordinated with equipment connections for a professional appearance



## FCR HD Rack Mount Enclosures



### Cable Management

Utilizes MTP custom made trunk assemblies.



### High Density

Fits 144 LC ports in a 1U rack space.



### Efficiency

Advanced 3-drawer ultra compact design.

## FCR Rack Mount Enclosures



### Cable Management

Enhanced front bend radius and cable management features.



### Administration

New clip-on labeling system.

# Hubbell OptiChannel High Density FCR Fiber Enclosures and Cassettes



## High Density 144 Port 1U Enclosures

- 144 Max LC Port Capacity
- 1 Rack Unit
- Dimensions in Inches (mm):  
H: 1.75" (44) x W: 19" (483) x D: 17" (432)

Black                      Gray

**FCRHD1UBK              FCRHD1UGY**



FCRHD1UBK loaded with OCLCHD50G3

## Ultra Compact LC to MTP Cassettes

- MM total insertion loss: < 1.5dB max
- SM total insertion loss: < 1.1dB max
- SM return loss: > 50dB
- Material: 5052 aluminum
- Polarity: TIA-568-C.3, Type "A"

Port Count	Height x Width x Depth in Inches (mm)	Fiber Type	Catalog No.
12	0.5" (13) x 3.5" (89) x 5.2" (132)	50µm, OM3	<b>OCLCHD50G3</b>
12	0.5" (13) x 3.5" (89) x 5.2" (132)	50µm, OM4	<b>OCLCHD50G4</b>
12	0.5" (13) x 3.5" (89) x 5.2" (132)	SM, OS2	<b>OCLCHDSM</b>



OCLCHD50G3



## Enhanced Rack Mounted Enclosures

Rack Units	Height x Width x Depth in Inches (mm)	Capacity			Catalog No.*
		MPO Cassettes	Splice Tray	Max LC Port	
1	1.75" (44) x 17" (432) x 17" (432)	3	2	72	<b>FCR1U3SP</b>
2	3.5" (89) x 17" (432) x 17" (432)	6	6	144	<b>FCR2U6SP</b>
3	5.25" (133) x 17" (432) x 17" (432)	12	12	288	<b>FCR3U12SP</b>
4	7.00" (178) x 17" (432) x 17" (432)	15	16	360	<b>FCR4U15SP</b>

\*Add an "L" suffix to the catalog number for locking version.  
 Also accepts FSP Panels. See page 9.



FCR3U12SP loaded with various FSP Series panels  
 Can be used with MPO Cassettes (shown below) or FSP Panels (shown on page 9).

## Standard SC/LC-MPO Cassettes

Description	Port Count	Fiber Type	Catalog No.
SC duplex	12	50µm, OM3	<b>OCSC50G</b>
LC duplex	12	50µm, OM3	<b>OCLC50G</b>
LC duplex	24	50µm, OM3	<b>OCLCD50G</b>
LC quad	24	50µm, OM3	<b>OCLCQ50G</b>
SC duplex	12	50µm, OM4	<b>OCSC50G4</b>
LC duplex	12	50µm, OM4	<b>OCLC50G4</b>
LC duplex	24	50µm, OM4	<b>OCLCD50G4</b>
LC quad	24	50µm, OM4	<b>OCLCQ50G4</b>

Note: Standard LC-MPO cassettes are not compatible with the HD enclosures.  
 24-Port versions supplied with two MPO 12-fiber receptacles.



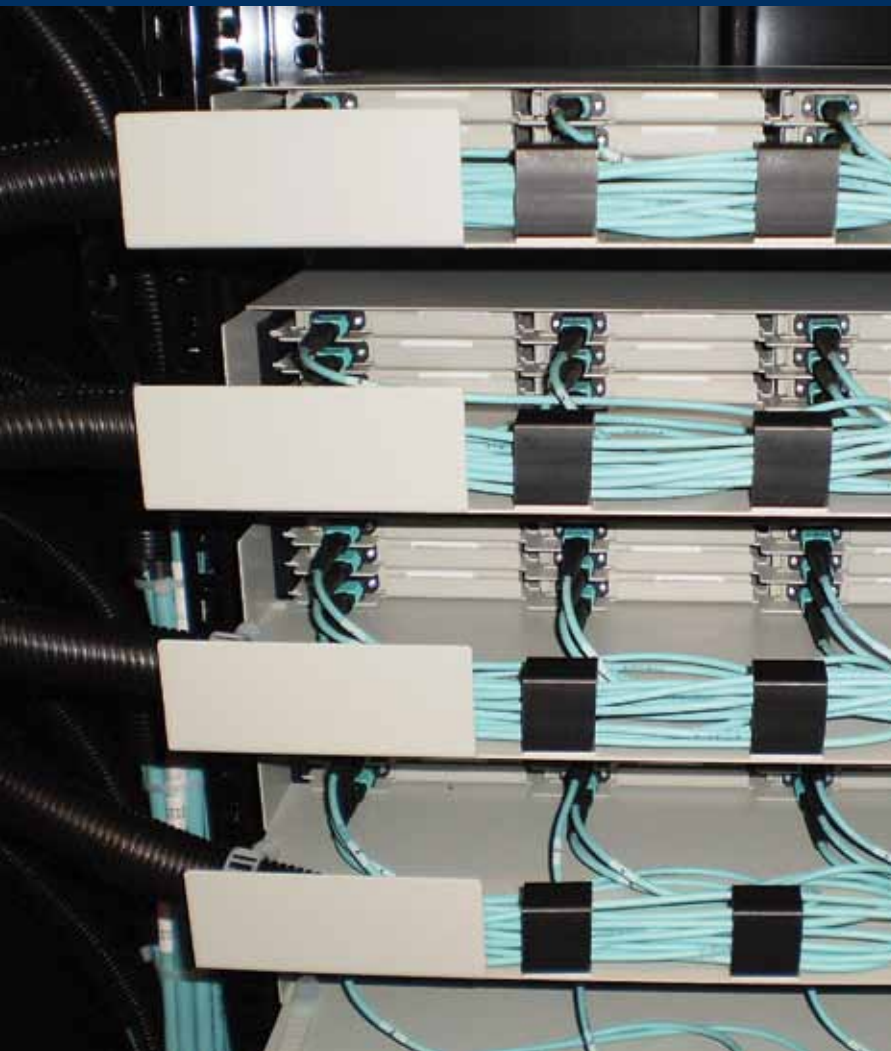
SC Duplex



LC Duplex



LC Quad



### Airflow

- High density adapter panels provide additional connections within a small cabling footprint.

### Security

- Compact plug-n-play cassette interconnections are stored securely in an enclosure inside the cabinet
- Keyed LC products add protection from unauthorized access

### Administration

- Individual channels are labeled consistently on all trunks and patch cords from the factory
- Pre-labeled trunk assemblies eliminate contractor error
- Application specific color coding for enhanced visual identification

### Space Utilization

- High bandwidth fiber transmits more data per cable for optimum use of cable pathways
- Pre-terminated trunks and cassettes reduce installation labor by 75%

### Response Time

- Plug-n-Play trunk assemblies can be installed, changed or upgraded in minutes
- Fiber cassette panels snap in and out of all enclosures for easy customization and rapid change-outs

### Aesthetics

- Custom engineered fiber trunks and modular cassettes eliminate splices and break-outs for a clean, professional appearance



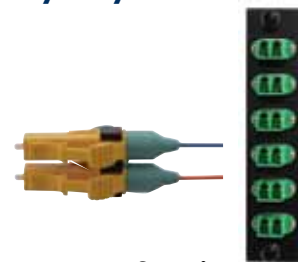
### PROclick® Connectors



#### Termination

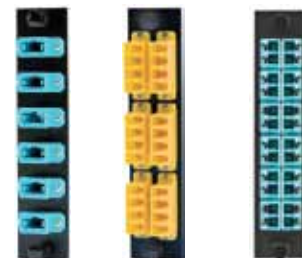
Insert fiber and activate clamp in one simple motion.

### Keyed System



#### Security

Protection from unauthorized access.



### Color Coded Panels

Custom application-specific colors to facilitate administration.



### Fiber Patch Cords

Small form duplex and uni-boot style for high density deployments.



# Hubbell OptiChannel Fiber Connectors, Cords and Panels

## PROclick® LC Pre-Polished Connectors

• 900/250 μM Cable Type

Fiber Type	Color	12 Pack	100 Pack
50μM, OM3	Aqua	<b>FCLC900K50GM12</b>	<b>FCLC900K50GM100</b>
50μM, OM2	Black	<b>FCLC900K50M12</b>	<b>FCLC900K50M100</b>
62.5μM, OM1	Beige	<b>FCLC900K62M12</b>	<b>FCLC900K62M100</b>
SM, OS2	Blue	<b>FCLC900KSM12</b>	<b>FCLC900KSM100</b>

## PROclick® SC Pre-Polished Connectors

• 900/250 μM Cable Type

Fiber Type	Color	12 Pack	100 Pack
50μM, OM3	Aqua	<b>FCSC900K50GM12</b>	<b>FCSC900K50GM100</b>
50μM, OM2	Black	<b>FCSC900K50M12</b>	<b>FCSC900K50M100</b>
62.5μM, OM1	Beige	<b>FCSC900K62M12</b>	<b>FCSC900K62M100</b>
UPC SM, OS2	Blue	<b>FCSC900KSM12</b>	<b>FCSC900KSM100</b>
APC SM, OS2	Green	<b>FCSC900KASM12</b>	-

## LC Duplex

Description	Zirconia Ceramic Singlemode/Multimode
LC 12-port (6 LC duplex)	<b>FSPLCDS6xx</b>
LC 24-port (12 LC duplex)	<b>FSPLCDS12xx</b>

xx = Color: **AQ** (Aqua), **BE** (Beige), **BK** (Black), **B** (Blue), **GN** (Green), **OR** (Orange), **R** (Red), and **Y** (Yellow).

## SC Duplex, FSP Adapter Panels

Description	Zirconia Ceramic Singlemode/Multimode
SC 6-port (3 SC duplex)	<b>FSPSCDS3xx</b>
SC 8-port (4 SC duplex)	<b>FSPSCDS4xx</b>
SC 12-port (6 SC duplex)	<b>FSPSCDS6xx</b>

xx = Color: **AQ** (Aqua), **BE** (Beige), **BK** (Black), **B** (Blue), **GN** (Green), **OR** (Orange), **R** (Red), and **Y** (Yellow).

## High Density Uni-Boot LC Patch Cords, OFNR Riser

Connector type	Fiber type	Catalog No.
LC to LC	50μm, OM3	<b>HDPCLC50G3Myy</b>
LC to SC	50μm, OM3	<b>HDPCLCSC50G3Myy</b>
LC to LC	50μm, OM4	<b>HDPCLC50G4Myy</b>
LC to SC	50μm, OM4	<b>HDPCLCSC50G4Myy</b>

yy = 1, 2, 3, 4, 5, 6, 8, 10 meters.

## Keyed LC Pre-Polished Connectors

Fiber type	Boot Color	Catalog No.
50μM, OM3	Aqua	<b>FCKLCP50GM12xx</b>
50μM, OM2	Black	<b>FCKLCP50M12xx</b>
62.5μM, OM1	Beige	<b>FCKLCP62M12xx</b>
SM, OS2	Blue	<b>FCKLCP5M12xx</b>
LC duplex clip, black	-	<b>FCKLCDCLP12BK</b>

xx = Standard Housing Colors: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).  
Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).

## Keyed LC Multimode OM3 Patch Cords

Fiber type		Catalog No.
Keyed LC to keyed LC	50μm, OM3	<b>KLCDFP50GMyyxx</b>
Keyed LC to standard LC	50μm, OM3	<b>KLCDFP50GMyyxx</b>
Keyed LC to standard SC	50μm, OM3	<b>KLCDFP50GMyyxx</b>

yy = Standard Lengths: 01, 02, 03, 05, and 10 meters.

xx = Standard Housing Colors: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).  
Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).

## Hubbell OptiChannel Keyed LC Adapter Panels

Description	Port	Catalog No.
Adapter panel, keyed LC duplex	12	<b>FSPKLCDS6xx</b>
	24	<b>FSPKLCDS12xx</b>

Note: Individually bagged with dust caps installed.

xx = Standard Housing Colors: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).  
Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).

## MSFP to LC Equipment Patch Cords

Description	Fiber Type	Catalog No.
MSFP to LC,	50μm, OM3	<b>MSFPLC50G3Myy</b>
MSFP to LC	50μm, OM4	<b>MSFPLC50G4Myy</b>

Replace yy with standard lengths of **1, 2, 3, 4, 5, 6, 8** or **10** meters.

## MPO to MPO 12-Fiber Round Cords, OFNP Rated Plenum

Fiber type	Catalog No.
50μm, OM3	<b>FPCPMT50G3Mxnf</b>
50μm, OM4	<b>FPCPMT50G4Mxnf</b>
SM, OS2	<b>FPCPMT5xnf</b>

x = Length in meters or feet (no zeros preceding value)

f = Feet (leave blank for meters)

n = No pulling eye



**Performance**

Premium OM3 and OM4 multimode fiber; bend insensitive OS2 singlemode fiber; featuring low loss MTP terminations.



**Custom Made to Order**

Configured to exact customer specifications.



**Environmental**

Provides exact lengths and number of connections needed per application. Eliminate unwanted cable and packaging on the job site.



**Reliability**

100% factory tested in a controlled environment.

**Airflow**

- Small form 12 strand fiber in a 3mm jacket has a very small profile
- Lowest possible cable profile minimizes obstruction of airflow

**Security**

- Factory-sealed cassettes provide a layer of protection
- Optical fiber is immune to signal tapping
- Fiber networks are less susceptible to "direct connect" access

**Administration**

- Reduced cable congestion makes it easier to identify and trace ports and cables
- Consolidation of channels into small form cables or bundles reduces the number of cable runs

**Space Utilization**

- High bandwidth fiber and copper transmits more data per cable for optimum use of cable pathways
- Using laser optimized fiber enables lower cost migration to new applications

**Response Time**

- Factory-terminated trunk assemblies reduce on-site installation time less 75%
- 100% optically tested for reliable performance
- High quality factory terminations assure maximum performance

**Aesthetics**

- Fewer cables eliminate unsightly clutter
- Factory terminated cables are coordinated with equipment connections for a professional appearance

All BIDnet fiber trunk assemblies are custom made-to-order items. Please call our insides sales team for price and lead time. Refer to product data sheets for nomenclature and detailed design information. Application limits apply to available lengths.

# Hubbell BIDnet Pre-Terminated Fiber Trunk Assemblies



## 40 Gb/s and 100 Gb/s MTP Fiber Cords

### Available Options

- Connectors: MTP female, 12-fiber or 24-fiber
- Fiber types: 50/OM3, 50/OM4
- 40 Gb/s fiber strand count: 12, 24 and 48 fibers
- 100 Gb/s fiber strand count: 24 and 48 fibers
- Cable: plenum, riser, or LSZH
- Polarity: 40GBASE-SR4 or 100GBASESR10
- Lengths: 1 to 150 meters (3 to 500 ft)
- Application limits:
  - OM3 40G/100G limit: 100 m (328 ft)
  - OM4 40G/100G limit: 150 m (492 ft)



## Distribution Trunks and Pigtails

### Available Options

- Connectors: LC, MSFP, keyed LC, SC, SC/APC, ST, FC, FC/APC
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 6, 12, 24, 48, 72, and 96 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Fan-out options: 900 micron buffer



## Transition Assemblies

### Available Options

- Connectors: MTP female to LC or SC duplex
- Fiber types: 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 12, 24 and 48 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Polarity: TIA-568C.3, Type A,B or C
- Fan-out: 2.0mm furcation tubing



## Distribution Fan-Out Trunks and Pigtails

### Available Options

- Connectors: LC, MSFP, keyed LC, SC, SC/APC, ST, FC, FC/APC
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 6, 12, 24, 48, 72, 96
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Fan-out: 2.0mm furcation tubing



## Mesh Bundle Trunks (2.0mm Duplex Zip Cord)

### Available Options

- Connectors: LC, MSFP, keyed LC, SC, SC/APC, ST, FC, FC/APC
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 6, 12, 24, 48, 72, 96
- Cable: plenum, riser, or LSZH
- Outer sheath: polyester mesh

# Hubbell BIDnet Pre-Terminated Copper Trunk Assemblies

## Jack to Open



## Jack to Jack



## Jack to Plug



## Specifications

### Jacks

- Nose contact material: beryllium copper with precious metal plating over nickel under-plating
- Contact performance: confirmed over the full range of TIA plug deflection limits

### Plugs

- Mechanical: cable to plug tensile strength: 20+ lbs  
Mating cycles: 2000+
- Material  
Plug body: polycarbonate UL 94-V0  
Plug boot: PVC
- Contact: high strength copper alloy
- Plating: 50 micro-inch precious metal over 100 micro-inch under-plating

### Available Options

- Lengths: 10'–295'
- Legs: 1, 4 and 6
- Category: 5e, 6 and 6A
- Connection: RJ45 jack; RJ45 plug; open end
- Cable: Plenum, riser and LSZH
- UTP: Category 5e; Category 6; Category 6A
- FTP: Category 6 (10G Base-T)
- Color: Blue and white

All BIDnet pre-terminated cable assemblies are made-to-order items. Please call our inside sales team for lead-time and availability.



# HUBBELL NEXTSPEED



## Airflow

- Designed specifically for 10G Base-T applications providing a solid foundation for critical data intensive applications

## Security

- Optional Patch Cord Locking Tabs for intentional and unintentional engagement
- Optional RJ45 port blockers available for security port protection

## Administration

- All NEXTSPEED® Ascent 10G Base-T components have provisions for labeling for easy administration
- Hubbell complements each product with standardized labels that simplify the task of identification

## Space Utilization

- Angled UDX panels eliminate horizontal cable management allowing for maximized rack space utilization
- High density 36- and 48-port UDX panels maximize the total amount of jacks for each rack unit

## Response Time

- Termination time reduced by 75% through the use of quick lace design and the TX4PP 1-Punch tool

## Aesthetics

- 10G Base-T bandwidth per cable minimizes cable count, improving appearance
- Stylized panel aesthetics



### Category 6A Jacks

Third party component compliant performance provides significant headroom over TIA and ISO standards.



### Category 6A Jacks Capacity

Small form factor allows up to 48 jacks in a 1-U panel.



### Angled Category 6A Patch Panels

Ideal for high density applications for easy patch cord routing and eliminates horizontal patch cord management panels.



### NEXTSPEED® Ascent Category 6A Patch Cords

Ascent wiring technology improves crosstalk providing increased performance.



### Category 6A Cable

Patented cable design suppresses AXT delivering full 10GBase-T error free transmission.

# Category 6A UTP System

## NEXTSPEED® Ascent Category 6A, Component Compliant Jacks

Color	Single Pack	25-Pack	Color	Single Pack	25-Pack
Almond	<b>HJ6AAL</b>	<b>HJ6AAL25</b>	Light Almond	<b>HJ6ALA</b>	<b>HJ6ALA25</b>
Black	<b>HJ6ABK</b>	<b>HJ6ABK25</b>	Office White	<b>HJ6AOW</b>	<b>HJ6AOW25</b>
Blue	<b>HJ6AB</b>	<b>HJ6AB25</b>	Orange	<b>HJ6AOR</b>	<b>HJ6AOR25</b>
Brown	<b>HJ6ABN</b>	<b>HJ6ABN25</b>	Purple	<b>HJ6AP</b>	<b>HJ6AP25</b>
Electric Ivory	<b>HJ6AEI</b>	<b>HJ6AEI25</b>	Red	<b>HJ6AR</b>	<b>HJ6AR25</b>
Gold	<b>HJ6AGL</b>	<b>HJ6AGL25</b>	White	<b>HJ6AW</b>	<b>HJ6AW25</b>
Gray	<b>HJ6AGY</b>	<b>HJ6AGY25</b>	Yellow	<b>HJ6AY</b>	<b>HJ6AY25</b>
Green	<b>HJ6AGN</b>	<b>HJ6AGN25</b>			

Note: Light Almond is the same color as Office White.



## NEXTSPEED® Ascent Category 6A, Component Compliant Patch Panels

Ports	Height	Width	Rack Units	Style	Color	
	Inches (mm)	Inches (mm)			Black	Silver
24	1.75" (45)	19" (483)	1	Straight	<b>HP6A24U</b>	<b>HP6A24US</b>
48	3.50" (89)	19" (483)	2	Straight	<b>HP6A48U</b>	<b>HP6A48US</b>
96	7.00" (178)	19" (483)	4	Straight	<b>HP6A96U</b>	<b>HP6A96US</b>
24	1.75" (45)	19" (483)	1	Angle	<b>HP6A24AU</b>	
48	3.50" (89)	19" (483)	2	Angle	<b>HP6A48AU</b>	

Note: **HP6Axx** angled panel protrudes 4.46" from the plane of the rack. Hubbell recommends one (1) extra inch of space between the door and panel angle.



## NEXTSPEED® Ascent Category 6A, Component Compliant Patch Cords

	Catalog Number									
	Blue	Black	Brown	Green	Orange	Pink	Purple	Red	White	Yellow
1'	<b>HC6AB01</b>	<b>HC6ABK01</b>	<b>HC6ABN01</b>	<b>HC6AGN01</b>	<b>HC6AOR01</b>	<b>HC6APK01</b>	<b>HC6AP01</b>	<b>HC6AR01</b>	<b>HC6AW01</b>	<b>HC6AY01</b>
3'	<b>HC6AB03</b>	<b>HC6ABK03</b>	<b>HC6ABN03</b>	<b>HC6AGN03</b>	<b>HC6AOR03</b>	<b>HC6APK03</b>	<b>HC6AP03</b>	<b>HC6AR03</b>	<b>HC6AW03</b>	<b>HC6AY03</b>
5'	<b>HC6AB05</b>	<b>HC6ABK05</b>	<b>HC6ABN05</b>	<b>HC6AGN05</b>	<b>HC6AOR05</b>	<b>HC6APK05</b>	<b>HC6AP05</b>	<b>HC6AR05</b>	<b>HC6AW05</b>	<b>HC6AY05</b>
7'	<b>HC6AB07</b>	<b>HC6ABK07</b>	<b>HC6ABN07</b>	<b>HC6AGN07</b>	<b>HC6AOR07</b>	<b>HC6APK07</b>	<b>HC6AP07</b>	<b>HC6AR07</b>	<b>HC6AW07</b>	<b>HC6AY07</b>
10'	<b>HC6AB10</b>	<b>HC6ABK10</b>	<b>HC6ABN10</b>	<b>HC6AGN10</b>	<b>HC6AOR10</b>	<b>HC6APK10</b>	<b>HC6AP10</b>	<b>HC6AR10</b>	<b>HC6AW10</b>	<b>HC6AY10</b>
15'	<b>HC6AB15</b>	<b>HC6ABK15</b>	<b>HC6ABN15</b>	<b>HC6AGN15</b>	<b>HC6AOR15</b>	<b>HC6APK15</b>	<b>HC6AP15</b>	<b>HC6AR15</b>	<b>HC6AW15</b>	<b>HC6AY15</b>
20'	<b>HC6AB20</b>	<b>HC6ABK20</b>	<b>HC6ABN20</b>	<b>HC6AGN20</b>	<b>HC6AOR20</b>	<b>HC6APK20</b>	<b>HC6AP20</b>	<b>HC6AR25</b>	<b>HC6AW20</b>	<b>HC6AY20</b>

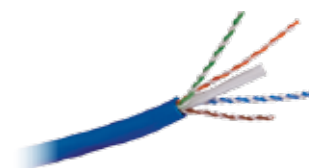
Made-to-order lengths are available from 1ft to 30ft in 1ft increments and 30ft to 100ft in 5ft increments.



## NEXTSPEED® Ascent Category 6A, Component Compliant Cable

Color	Plenum Spool	Riser Spool
Blue	<b>C6ASPB</b>	<b>C6ASRB</b>
Gray	<b>C6ASPGY</b>	<b>C6ASRGY</b>
White	<b>C6ASPW</b>	<b>C6ASRW</b>
Yellow	<b>C6ASPY</b>	<b>C6ASRY</b>

Note: All category rated cable is packaged in 1000 foot quantities.





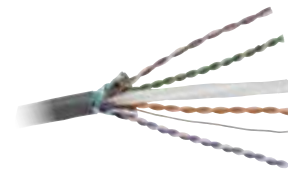
10GbE channel tested delivering 10dB of headroom @ 417MHz providing true 10GbE application assurance.



Wiring technique compartmentalizes pairs, ensuring maximum headroom.



Patented cable design suppresses AXT delivering full 10GBase-T error free transmission.



Small OD construction provides increased capacity in cabling runways.



Ascent technology improves AXT, increasing performance.



Two piece conductor sled design optimizes pair separation and maximizes NEXT performance.

### Airflow

- Category 6A FTP cable's reduced OD optimizes airflow throughout the infrastructure

### Administration

- All NEXTSPEED® Ascent Category 6A components have provisions for labeling for easy administration

### Space Utilization

- PSJ24 UDX panels maximize the total amount of shielded jacks for one rack unit

### Response Time

- The NEXTSPEED® Ascent Category 6A enhanced performance FTP cabling system is designed specifically for 10GbE applications and provides a solid foundation for critical data intensive applications
- Tool-less jack termination reduces FTP termination under two minutes

### Aesthetics

- One-piece shielded jack construction
- Smaller cable diameter reduces cable congestion

# Category 6A Shielded System

## NEXTSPEED® Shielded Category 6A Jacks

Unit of Measure	A-Wired	B-Wired
2 per bag	<b>SJ6A2A</b>	<b>SJ6A2B</b>
24 per bag	<b>SJ6A24A</b>	<b>SJ6A24B</b>



## NEXTSPEED® Shielded Patch Panels, Unloaded

Ports	Height Inches (mm)	Width Inches (mm)	Rack Units	Type	Color	Catalog No.
24	1.75" (45)	19" (483)	1	Flat	Silver	<b>PSJ24S</b>
24	1.75" (45)	19" (483)	1	Flat	Black	<b>PSJ24BK</b>
48	3.50" (89)	19" (483)	2	Flat	Silver	<b>PSJ48S</b>
48	3.50" (89)	19" (483)	2	Flat	Black	<b>PSJ48BK</b>
24	1.75" (45)	19" (483)	1	Angled	Black	<b>PSJ24AU</b>
48	3.50" (89)	19" (483)	2	Angled	Black	<b>PSJ48AU</b>



## NEXTSPEED® Ascent Shielded Category 6A Patch Cords

Length	Catalog Number			
	Black	Blue	Gray	Yellow
3'	<b>PC6ABK03</b>	<b>PC6AB03</b>	<b>PC6AGY03</b>	<b>PC6AY03</b>
5'	<b>PC6ABK05</b>	<b>PC6AB05</b>	<b>PC6AGY05</b>	<b>PC6AY05</b>
7'	<b>PC6ABK07</b>	<b>PC6AB07</b>	<b>PC6AGY07</b>	<b>PC6AY07</b>
10'	<b>PC6ABK10</b>	<b>PC6AB10</b>	<b>PC6AGY10</b>	<b>PC6AY10</b>
15'	<b>PC6ABK15</b>	<b>PC6AB15</b>	<b>PC6AGY15</b>	<b>PC6AY15</b>
20'	<b>PC6ABK20</b>	<b>PC6AB20</b>	<b>PC6AGY20</b>	<b>PC6AY20</b>
25'	<b>PC6ABK25</b>	<b>PC6AB25</b>	<b>PC6AGY25</b>	<b>PC6AY25</b>

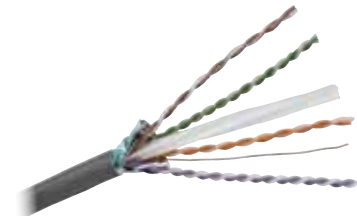
Made-to-order lengths are available from 30ft to 75ft in 5ft increments.  
Spec sheets are available for these products online. Type the part number into the search box.

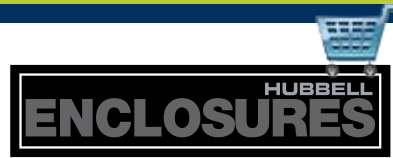


## NEXTSPEED® Ascent 10GbE, FTP Cable, 4-Pair

Color	Plenum Spool	Riser Spool
Blue	<b>C6AFTSPB</b>	<b>C6AFTSRB</b>
Gray	<b>C6AFTSPGY</b>	<b>C6AFTSRGY</b>
White	<b>C6AFTSPW</b>	<b>C6AFTSRW</b>
Yellow	<b>C6AFTSPY</b>	<b>C6AFTSRY</b>

Note: All category rated cable is packaged in 1000 foot quantities.





**Flexible**

These Network Cabinets offer a high degree of flexibility and ease when managing cables.



**Identification**

RMU identification markings.



**Efficiency**

Perforated front and rear doors to optimize air flow.



**Access**

The network cabinets' extra width provides enhanced internal cable management maximizing the quantity of cables while allowing access to gear.

**Airflow**

- Intuitive design optimizes airflow by creating designated cable pathways away from center of cabinet
- Can be used in front to rear, side to side, and bottom to top airflow configurations

**Security**

- 3-Point door locking system
- Standard locks for side covers

**Administration**

- Easier to identify and trace ports and cables
- Cable management spools with label fields to identify bundles of cable
- Unobscured cable pathways simplify tracing cables

**Space Utilization**

- Enhanced cable management features allow cable storage within the cabinet

**Response Time**

- Rack positions are identified on all four uprights aiding the installation of new gear
- Cable management spools snap into place
- Optional split rail kits maximize cabinet utilization by accommodating servers and switchgear in one cabinet

**Aesthetics**

- Stylized look enhances appearance of any computer room
- Cable management focused design manages and conceals cable bundles



# Hubbell Enclosures Full Size Cabinets

## Network Cabinet

Type	Rack Units	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	Color	Catalog No.
Standard w/sides	43	80" (2032)	30" (762)	32" (813)	Black	<b>H2N8032</b>
Standard w/sides	43	80" (2032)	30" (762)	36" (914)	Black	<b>H2N8036</b>
Standard w/sides	45	84" (2134)	30" (762)	32" (813)	Black	<b>H2N8432</b>
Standard w/sides	45	84" (2134)	30" (762)	36" (914)	Black	<b>H2N8436</b>
Seismic Z4 w/sides	43	80" (2032)	30" (762)	32" (813)	Black	<b>H2N8032Z4</b>
Seismic Z4 w/sides	43	80" (2032)	30" (762)	36" (914)	Black	<b>H2N8036Z4</b>
Seismic Z4 w/sides	45	84" (2134)	30" (762)	32" (813)	Black	<b>H2N8432Z4</b>
Seismic Z4 w/sides	45	84" (2134)	30" (762)	36" (914)	Black	<b>H2N8436Z4</b>
Without sides	43	80" (2032)	30" (762)	32" (813)	Black	<b>H2N8032E</b>
Without sides	43	80" (2032)	30" (762)	36" (914)	Black	<b>H2N8036E</b>
Without sides	45	84" (2134)	30" (762)	32" (813)	Black	<b>H2N8432E</b>
Without sides	45	84" (2134)	30" (762)	36" (914)	Black	<b>H2N8436E</b>



## Server Cabinet

Type	Rack Units	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	Color	Catalog No.
Standard w/sides	43	80" (2032)	24" (610)	42" (1067)	Black	<b>H2S8042</b>
Seismic Z4 w/sides	43	80" (2032)	24" (610)	42" (1067)	Black	<b>H2S8042Z4</b>
Without sides	43	80" (2032)	24" (610)	42" (1067)	Black	<b>H2S8042E</b>



## Joining Kit



Contents	Catalog No.
6 each of the following: 1/4"-20 x 3/4" hex bolts, 1/4" lock washers, 1/4" flat washers, 1/4"-20 hex nuts	<b>HPWJKIT</b>

## Caster Kit

Catalog No.
<b>H2KMB</b>



## Vertical Cable Management Bar

Size	Catalog No.
For 80" cabinet	<b>H280CM</b>
For 84" cabinet	<b>H284CM</b>



## Cabinet Fan Kit, 460 CFM

- Enclosure will accept 2 Fan Kits

Description	Catalog No.
Network Cabinet Fan Kit	<b>H2KNF</b>
Server Cabinet Fan Kit	<b>H2KSF</b>



## Equipment Shelves, Cantilevered

- Content: Stationary 16ga shelf, #12-24 mounting hardware

Type	Load Capacity	Dimensions In (mm)	Catalog No.
Solid	50lb	3.5" (89)H x 17" (432)W x 14" (356)D	<b>MCCCS19</b>
Perforated	50lb	3.5" (89)H x 17" (432)W x 14" (356)D	<b>MCCCS19P</b>
Solid	200lb	7.0" (178)H x 19" (483)W x 20" (508)D	<b>MCCCS19HD</b>



## Equipment Shelves, Center-Weighted

- Content: Stationary 16ga shelf, #12-24 mounting hardware

Type	Load Capacity	Dimensions In (mm)	Catalog No.
Solid	75lb	3.5" (89) H x 17" (432) W x 19" (483) D	<b>MCCCS19</b>





## Airflow

- Open design removes all barriers to forced and convective airflow

## Administration

- Cable management spools with label fields to identify bundles of cable
- Un-obscured cable pathways simplify tracing cables much easier to identify and trace ports and cables

## Space Utilization

### iFRAME®

- Columns mount on 2' pitch to align with floor and ceiling grids
- 1,400 lb load capacity and 100% utilization of rack space maximizes equipment density per square foot

### NEXTFRAME®

- Modular components can be field configured to meet the unique needs of each application

## Response Time

- Cable pathways are easily and completely open facilitating movement and additions of servers

### iFRAME®

- Top ladder pieces cut to length and pre-drilled for 4" square work boxes at factory

- Cable management spools snap into place

### NEXTFRAME®

- Organizers designed with rounded components to reduce the risk of cold flow and cable kinks to optimize transmission performance

## Aesthetics

- Double hinging covers project image of quality
- Stylized look enhances appearance of any computer room



## iFrame® Network Hardware Management System

### Design

Innovative iFRAME® column system integrates grounding and bonding, power distribution, cable management, and equipment racking.

### Simplified

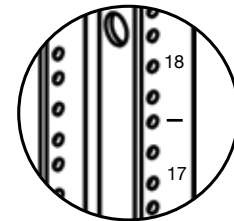
Straightforward, structured, comprehensive system.

### Installation

Integrated vertical management with racking system consolidates hardware infrastructure components.



## NextFrame® Equipment Racks



### Identify

Rack mount unit is individually numbered for easy equipment location.



### Rigidity

6" rack supplies additional support for larger cable bundling and Category 6A applications.



### Versatility

Available in a variety of sizes and mounting configurations, NEXTFRAME® racks provide easy access to cabling and equipment.

# iFrame Network Hardware Management System

## iFRAME® Column

Contents: 1 iFRAME® column weldment, 1 bottom alignment installation aid and 1 iFRAME® top plate floor template, 1 full height front cover with 4 heavy-duty floor anchor washers dual-acting hinges and 2 dual-acting front cover hinges (not included in **IS7E**), 20 #12-24 x 5/8" dog point machine screws, 4 4" gates (Catalog No. **VCG4**) and washers, 12 snap in place cable routing spools, and 1 assembly hardware kit.

Rack Units	Height Inches (mm)		Width In. (mm)	Rail Depth In. (mm)	Overall Depth In. (mm)	Hole Type	Color	Catalog No.
	Overall	Usable						

### Use: Without Raised Floor

45	84" (2134)	78.8" (2002)	5" (13)	3" (8)	14.17" (360)	12-24 Threaded	Black	<b>IS7</b>
45	84" (2134)	78.8" (2002)	10" (25)	3" (8)	14.17" (360)	12-24 Threaded	Black	<b>IS710</b>
45	84" (2134)	78.8" (2002)	15" (38)	3" (8)	14.17" (360)	12-24 Threaded	Black	<b>IS715</b>

### Use: Square Holes with Cage Nuts

45	84" (2134)	78.8" (2002)	5" (13)	3" (8)	14.17" (360)	Square	Black	<b>IS7M6</b>
45	84" (2134)	78.8" (2002)	10" (25)	3" (8)	14.17" (360)	Square	Black	<b>IS7M610</b>

### Use: As the Rear Columns in 4-Post Applications

45	84" (2134)	78.8" (2002)	5" (13)	3" (8)	14.17" (360)	12-24 Threaded	Black	<b>IS7E</b>
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Note: Order two columns for the first rack in a line, then order only one column for each additional rack.

### iFRAME Column Seismic

45	84" (2134)	78.8" (2002)	5" (13)	3" (8)	14.17" (360)	12-24 Threaded	Black	<b>IS7Z4</b>
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IS7

Shown: door open, door closed

## NextFrame Equipment Racks

### 3" Equipment Rack

Rack Units	Height Inches (mm)	Width Inches (mm)	Rail Depth Inches (mm)	Hole Type	Color	Catalog No.
24	48" (1219)	19" (483)	3" (76)	#12-24 Threaded	Black	<b>HPW48RR19*</b>
24	48" (1219)	23" (584)	3" (76)	#12-24 Threaded	Black	<b>HPW48RR23*</b>
36	68.5" (1676)	19" (483)	3" (76)	#12-24 Threaded	Black	<b>HPW66RR19*</b>
45	84" (2134)	19" (483)	3" (76)	#12-24 Threaded	Black	<b>HPW84RR19*</b>
45	84" (2134)	23" (584)	3" (76)	#12-24 Threaded	Black	<b>HPW84RR23*</b>
48	89.7" (2286)	19" (483)	3" (76)	#12-24 Threaded	Black	<b>HPW90RR19*</b>
48	89.7" (2286)	23" (584)	3" (76)	#12-24 Threaded	Black	<b>HPW90RR23</b>
51	96" (2438)	19" (483)	3" (76)	#12-24 Threaded	Black	<b>HPW96RR19*</b>
51	96" (2438)	23" (584)	3" (76)	#12-24 Threaded	Black	<b>HPW96RR23*</b>

\*Add "ML" at end of Catalog No. for Mill Finish.

### 6" Equipment Rack

Rack Units	Height Inches (mm)	Width Inches (mm)	Rail Depth Inches (mm)	Hole Type	Color	Catalog No.
45	84" (2134)	19" (483)	6" (152)	#12-24 Threaded	Black	<b>HPW84RR19D</b>

### 4-Post, 19" Equipment Rack

Rack Units	Overall Height Inches (mm)	Usable Height Inches (mm)	Overall Width Inches (mm)	Depth Inches (mm)	Hole Type	Color	Catalog No.
45	84" (2134)	79" (2007)	20.2" (513)	24" (610)	#12-24 Threaded	Black	<b>SF841924T</b>
45	84" (2134)	79" (2007)	20.2" (513)	29.23" (742)	#12-24 Threaded	Black	<b>SF841929T</b>
45	84" (2134)	79" (2007)	20.2" (513)	36" (914)	#12-24 Threaded	Black	<b>SF841936T</b>
45	84" (2134)	79" (2007)	20.2" (513)	24" (610)	Square M6	Black	<b>SF841924</b>
45	84" (2134)	79" (2007)	20.2" (513)	29.23" (742)	Square M6	Black	<b>SF841929</b>
45	84" (2134)	79" (2007)	20.2" (513)	36" (914)	Square M6	Black	<b>SF841936</b>



HPW84RR19



HPW84RR19D



SF841924T



### Ladder Rack



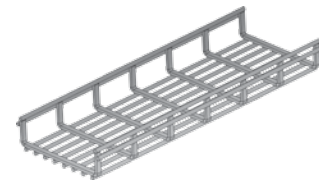
### Modular System

Easily Configured for New and Existing Cable Routing

### Versatility

Mounts to Floors, Walls, Ceilings, Equipment Racks and Cabinets

### Wire Tray



### Configurable

Tray can be installed overhead or under raised floors.



### Ease of Use

Splice kit installs easily for joining tray sections and building corners.

### Versatility

Shaped cross bars have more surface area and reduce pressure/strain on cables.



**Round**



**Flat Style**

Cross sectional view of cross members.

### Security

- Pathways keep cabling secure and away from unnecessary handling
- High side walls help to contain cables

### Administration

- Ladder Rack and Wire Tray have smooth welds to avoid snags when pulling cable

### Space Utilization

- Wire Tray can be installed in overhead or in raised floor applications
- Configuring on-site allows for efficient space usage and installing around obstacles

### Response Time/Performance

- Ladder rack and Wire Tray have high weight loading per foot capacities to meet the most demanding installation
- Wire Basket flat style ribbing has greater surface area to reduce cabling jacket stress, this reduces strain and protects cabling integrity

### Aesthetics

- Available in standard powder coated stock colors, additional colors available for wire basket at request
- Hubbell's Basket Tray sweeps or right angled options allow for an easy installation

# NextFrame Cable Management

## Ladder Rack

### Straight Section

Width Inches (mm)	6' (1829) Length		10' (3048) Length	
	Black	Gray	Black	Gray
6" (152)	<b>HLS0606B</b>	<b>HLS0606G</b>	<b>HLS1006B</b>	<b>HLS1006G</b>
12" (305)	<b>HLS0612B</b>	<b>HLS0612G</b>	<b>HLS1012B</b>	<b>HLS1012G</b>
18" (457)	<b>HLS0618B</b>	<b>HLS0618G</b>	<b>HLS1018B</b>	<b>HLS1018G</b>
24" (610)	<b>HLS0624B</b>	<b>HLS0624G</b>	<b>HLS1024B</b>	<b>HLS1024G</b>

Note: Please order straight sections in multiples of 10 pieces. Width = outside to outside dimensions.



Width

### 90° Turns

Width Inches (mm)	Inside Radius 90° Black	Flat Turns 90° Black	Outside Radius 90° Black
6" (152)	<b>HLI0690B</b>	<b>HLF0690B</b>	<b>HLO0690B</b>
12" (305)	<b>HLI1290B</b>	<b>HLF1290B</b>	<b>HLO1290B</b>
18" (457)	<b>HLI1890B</b>	<b>HLF1890B</b>	<b>HLO1890B</b>
24" (610)	<b>HLI2490B</b>	<b>HLF2490B</b>	<b>HLO2490B</b>



Width Inches (mm)	Inside Radius 90° Gray	Flat Turns 90° Gray	Outside Radius 90° Gray
6" (152)	<b>HLI0690G</b>	<b>HLF0690G</b>	<b>HLO0690G</b>
12" (305)	<b>HLI1290G</b>	<b>HLF1290G</b>	<b>HLO1290G</b>
18" (457)	<b>HLI1890G</b>	<b>HLF1890G</b>	<b>HLO1890G</b>
24" (610)	<b>HLI2490G</b>	<b>HLF2490G</b>	<b>HLO2490G</b>

## Wire Tray for Overhead

### Wire Trays



Round

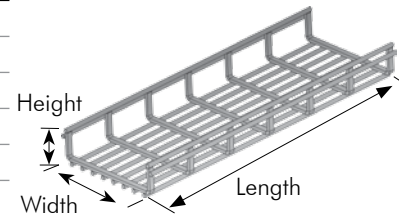


Flat Style

Height x Width x Length Inches (mm)	Round Wire Tray		Flat Style Wire Tray	
	Pre-Galvanized	Black	Pre-Galvanized	Black
x 4" (102) x 118" (3000)	<b>HPWW0x04</b>	<b>HPWW0x04BK</b>	<b>HPWW0x04S</b>	<b>HPWW0x04SBK</b>
x 6" (152) x 118" (3000)	<b>HPWW0x06</b>	<b>HPWW0x06BK</b>	<b>HPWW0x06S</b>	<b>HPWW0x06SBK</b>
x 8" (203) x 118" (3000)	<b>HPWW0x08</b>	<b>HPWW0x08BK</b>	<b>HPWW0x08S</b>	<b>HPWW0x08SBK</b>
x 12" (305) x 118" (3000)	<b>HPWW0x12</b>	<b>HPWW0x12BK</b>	<b>HPWW0x12S</b>	<b>HPWW0x12SBK</b>
x 16" (406) x 118" (3000)	<b>HPWW0x16</b>	<b>HPWW0x16BK</b>	<b>HPWW0x16S</b>	<b>HPWW0x16SBK</b>
x 18" (457) x 118" (3000)	<b>HPWW0x18</b>	<b>HPWW0x18BK</b>	<b>HPWW0x18S</b>	<b>HPWW0x18SBK</b>
x 20" (508) x 118" (3000)	<b>HPWW0x20</b>	<b>HPWW0x20BK</b>	<b>HPWW0x20S</b>	<b>HPWW0x20SBK</b>

Note: x= Height: 2 (2" 51mm), 4 (4" 102mm), 6 (6" 152mm) or 8 (8" 203mm)  
All dimensions are +/- 0.25".

Additional widths available. Consult the Premise full line catalog for further details.



### Supports

Width Inches (mm)	Shelf Support	Ceiling Support
4" (102)	<b>HPWWSSP04</b>	-
6" (152)	<b>HPWWSSP06</b>	-
8" (203)	<b>HPWWSSP08</b>	-
12" (305)	<b>HPWWSSP12</b>	<b>HPWWGSP12</b>
16" (406)	<b>HPWWSSP16</b>	<b>HPWWGSP16</b>
18" (457)	<b>HPWWSSP18</b>	<b>HPWWGSP18</b>
20" (508)	<b>HPWWSSP20</b>	<b>HPWWGSP20</b>
24" (610)	<b>HPWWSSP24</b>	<b>HPWWGSP24</b>



### Accessories

Description	Catalog No.
Splice kit	<b>HPWWSKT</b>



### Complete Installation Ground Kit

Kits provide all components, mounting hardware and supplies to complete the installation to code requirements. See page 23 for ground kit part number configurator.

### Raised Floor Clamps

Complete Installation Ground Wire Kits all components, mounting hardware and supplies to complete the installation to code.

### Administration

- Raised floor clamps used in Mesh Bonding Network can be installed in either Parallel or Grid configurations
- Grid Configured Floor Clamp has the easiest and quickest installation in the industry

### Space Utilization

- Clamping devices allow for installation in overhead or underfloor applications
- Grounding kits are available in many configurations of lengths and mounting lug options to conform to unique installations

### Response Time/Performance

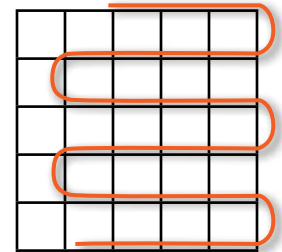
- A properly designed and installed grounding system that adheres to UL, BICSI or TIA Standard will protect active equipment from electrical interferences

### Aesthetics

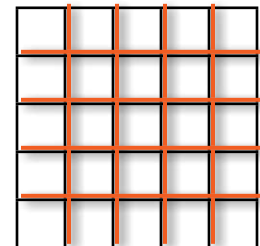
- Full Grounding and Bonding products are compatible with Busbars, Lugs, Grounding Kits, Terminals, for a uniform installation



Parallel Configuration



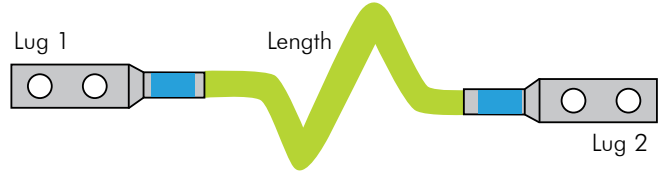
Grid Configuration



### Busbars

Busbars for on-rack, in-cabinet, in room or in entrance facility. Tin plating options for required environments and standards.

# ShieldBond Grounding and Bonding



## #6 AWG Ground Wire Kit Contents

Lugs	Installed and Die Index verified
Labeled	Installed Caution label applied at both ends
AntiOxidant	0.5oz tube Penetrox A
Hardware	Mounting to Rack Busbar M6 and #12-24 Mounting to TGB/TMGB ¼" nuts and bolts

Lug	Hole Size	Hole Spacing	Angle
D	0.25"	0.625"	0
DF	0.25"	0.625"	45
DN	0.25"	0.625"	90
DA	0.25"	0.75"	0
DB	0.375"	1.0"	0

## Complete Installation Ground Kit Part Number Configurator

To create a ground kit part number, add 3 characteristics to the base **HGRKT**. For Example **HGRKTDA30DN**

BASE	LUG 1	LENGTH (IN)	LUG 2
Catalog No.	Catalog No.	Catalog No.	Catalog No.
<b>HGRKT</b>	<b>D</b>	<b>30</b>	<b>D</b>
	<b>DA</b>	<b>45</b>	<b>DF</b>
	<b>DB</b>	<b>60</b>	<b>DN</b>
		<b>90</b>	<b>DA</b>
		<b>144</b>	<b>DB</b>

<b>HGRKT</b>	<b>DA</b>	<b>30</b>	<b>DN</b>
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Many configurations possible to fit any installation.

## Raised Floor Clamps



Catalog No.	<b>HGBGXP1828RF</b>	<b>HGBGRF4C3</b>	<b>HGBGP1526G1</b>
Pedestal Size	0.75" (19) – 2.0" (51)	0.75" (19) – 1" (25)	1" (25) – 1.25" (32)
Pedestal Type	Round or Square	Round or Square	Round
Ground Wire Min.	6 AWG	8 AWG	4 AWG
Ground Wire Max.	4/0 AWG	2 AWG	2/0 AWG
Configuration	Grid or Parallel	Parallel	Parallel

## Busbars

Insulator standoffs included

99% Copper UL Listed	99% Copper Tin Plated UL Listed	Hole/Stud	Spacing	Total QTY	Double Lug QTY	Lug Type
<b>HBBBHR19KT</b> -19" Rack Mount -Mounting Hardware	<b>HBBBHR19KTTP</b> -19" Rack Mounted -Mounting Hardware	6-32 UNF	1.0"	8	4	S
<b>HBBBVR36KT</b> -36" Vertical Mount -Mounting Hardware	<b>HBBBVR36KTTP</b> -36" Vertical Mount -Mounting Hardware	¼-20	0.625"	16	8	D/DF/DN
<b>HBBB14210A</b> TGB: 2" X 10"	<b>HBBB14210ATP</b> 2" X 10"	0.25"	0.625"	16	8	D/DF/DN
<b>HBBB14224B</b> TGB: 2" X 24"	<b>HBBB14224BTP</b> 2" X 24"	0.25"	0.625"	18	9	D/DF/DN
<b>HBBB14416H</b> TMGB: 4" X 16"	<b>HBBB14416HTP</b> 4" X 16"	0.25"	0.75"	18	9	DA
<b>HBBB14420J</b> TMGB: 4" X 20"	<b>HBBB14420JTP</b> 4" X 20"	0.44"	1.0"	16	8	DB
		0.25"	0.75"	16	8	DA
		0.44"	1.0"	34	17	DB
		0.25"	0.75"	34	17	DA



# DATA CENTER

Wiring Devices for  
Power Distribution, Surge Protection,  
Support and Energy Savings



Hubbell Twist-Lock® Power Devices prevent unintentional disconnects to ensure uptime of critical active equipment. Available in 15A, 20A and 30A configurations. Watertight Safety-Shroud® designs further enhance safety and reliability of data center electrical connections. Twist-Lock Receptacles can be integrated into vertical and horizontal power strips.



Escalating data center power requirements are easily managed with Hubbell 50A Insulgrip® Twist-Lock® plugs and connectors. These super tough nylon devices provide maximum safety, heat resistance, and strain relief. Their rigid construction and stainless steel shroud assures reliable mating and secure terminations.



Hubbell IEC Pin and Sleeve 20A to 100A connections enable distribution of 3 phase electrical power to server cabinets, extending the capacity of power distribution units for space savings and reducing the amount of power cables beneath the raised floor for effective airflow and cooling.



Hubbell lighting controls used throughout all areas of the data center save energy by automatically turning lights on when the area is occupied and off when vacant. Lighting controls can also be deployed to trigger a security alert when motion is detected in the data center.



Kellems® strain relief grips support power drops from above to help remove obstacles from airflow in plenum spaces. They also reduce waste by eliminating the need for rigid wire management systems and ensure reliable electrical connections through proper strain relief, which reduces costly data center downtime.



Hubbell SpikeShield® service entrance and branch panel surge protection devices reliably handle peak amperage capacity of 40kA to 320kA. They can be easily installed next to the panel to prevent over voltage that can impact sensitive data center equipment and mechanical systems.

For complete wiring device offerings, visit [www.hubbell-wiring.com](http://www.hubbell-wiring.com)



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