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**Copper Cabling Systems**  
North America

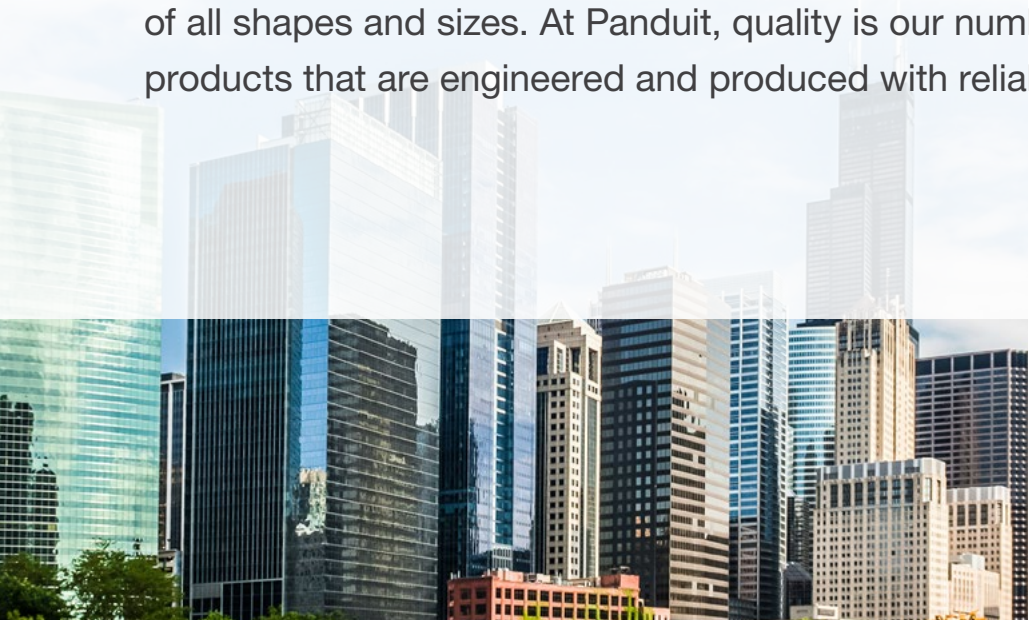


**Innovative Connectivity Solutions  
for Maximum Performance**



## Copper Cabling Systems

Panduit offers a range of copper cabling solutions to fit the needs of all types of applications. From trading floors to operating rooms, classrooms to store fronts, Panduit's copper systems provide the infrastructure needed to support networks of all shapes and sizes. At Panduit, quality is our number one concern, resulting in products that are engineered and produced with reliability and durability in mind.



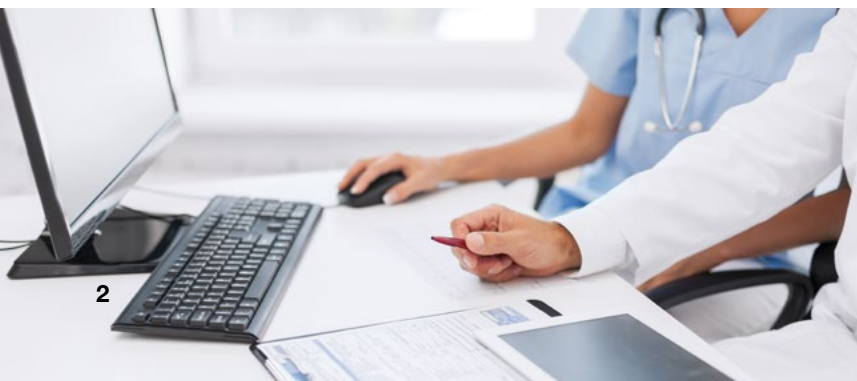
### Innovations in Structured Cabling

- First tool-less jack for ease of installation and better performance
- 500+ patents on network infrastructure
- Invented cable management to improve organization, air flow, and aesthetics
- Pioneered 28 AWG cabling to help reduce footprint
- Over 250 million jacks installed globally

### Applications Supported by Copper Cabling

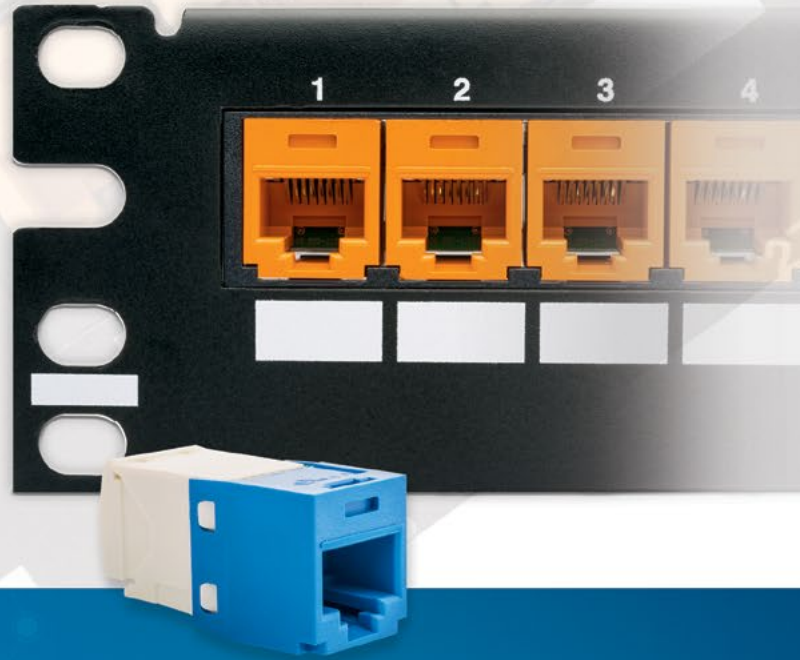
- Power over Ethernet
- Wireless connectivity
- Intelligent lighting
- Security cameras
- Audio/visual, including HDBaseT\*
- Building automation systems

\*HDBaseT is a registered trademark of Valens Semiconductor Ltd.



## Mini-Com<sup>®</sup> Cabling System

For the most demanding applications, the Mini-Com Copper Cabling System is designed to provide the most innovative features and the lowest cost of ownership over the life of your network. We strive to provide the perfect solution for any application, which means offering custom cable assemblies, a wide range of colors and lengths, and a large selection of patch panel and faceplate types to suit your needs. If network performance is critical to helping you achieve your business goals, choose the Mini-Com Copper Cabling System for unsurpassed performance, quality, and innovation to accommodate the latest technologies. Receive a 25-year system warranty when using an end-to-end Mini-Com Solution.



## NetKey<sup>®</sup> Cabling System

The Keystone Copper Cabling System delivers high quality and trusted performance with an industry-compatible footprint for use with any keystone opening. Designed to support the network demands of our daily lives, the NetKey Product Family is ideal for the classroom, conference room, office building, or doctor's office. With component-compliant jacks and the same quality measures as our Mini-Com Product Line, NetKey Products provide the performance and durability you need with the flexibility to integrate with specialty applications such as audio/visual systems, office furniture with integrated connectivity, designer faceplates, and brownfield retrofits. Receive a 15-year system warranty when using an end-to-end NetKey Solution.



# Mini-Com<sup>®</sup> Copper Cabling System – Unshielded

Category 6A utilizes MaTriX technology to provide end-to-end integrated alien crosstalk suppression

Jack features optional integrated shutter for protection against dust and debris



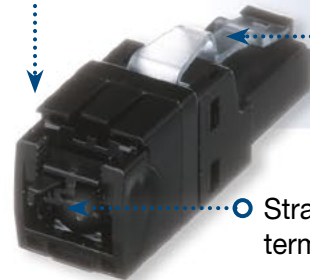
100% production tested for quality performance

Connector rated to 75° C for optimal PoE++ performance

2-piece construction for easy installation

Easily connect cabling directly to end device

Connectivity rated to 2500 mating cycles with integrated arc suppression for longest-lasting performance, even running PoE++



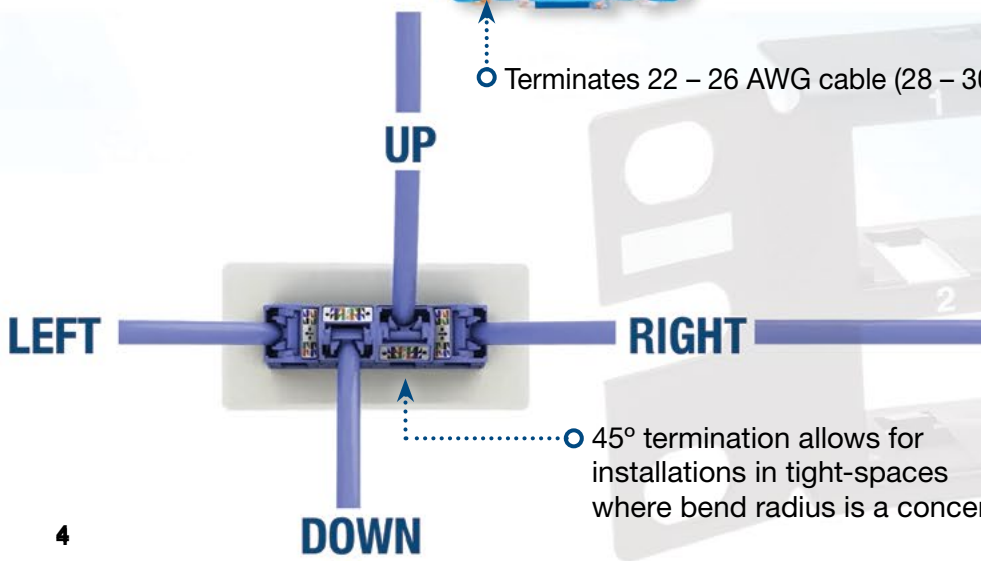
Straight or angled termination options



Tool-less termination maintains conductor twist to the point of termination for reliable performance and provides the highest performing and fastest termination

Retermine up to 20 times

Terminates 22 – 26 AWG cable (28 – 30 AWG jack also available)



45° termination allows for installations in tight-spaces where bend radius is a concern





←.....○ The *RapidID™* Network Mapping System automates labor-intensive and error-prone cable documentation, resulting in a faster, easier way to place and trace cables and patch cords. It is a practical alternative to traditional manual approaches that is ideally suited for data center audits, enterprise environments, and remote locations.

The smallest diameter Category 6A patch cord - 28 AWG, 0.185 in. (4.7mm) ○



○ 100% production tested for quality performance ○

Tangle free latch prevents cables from snagging ○.....○



Category 6A, Vari-MaTriX foil provides best-in-class immunity to external noise while optimizing alien crosstalk and PoE performance with the smallest Category 6A cable diameter. ○

Category 6A cable is rated to 105° C ○

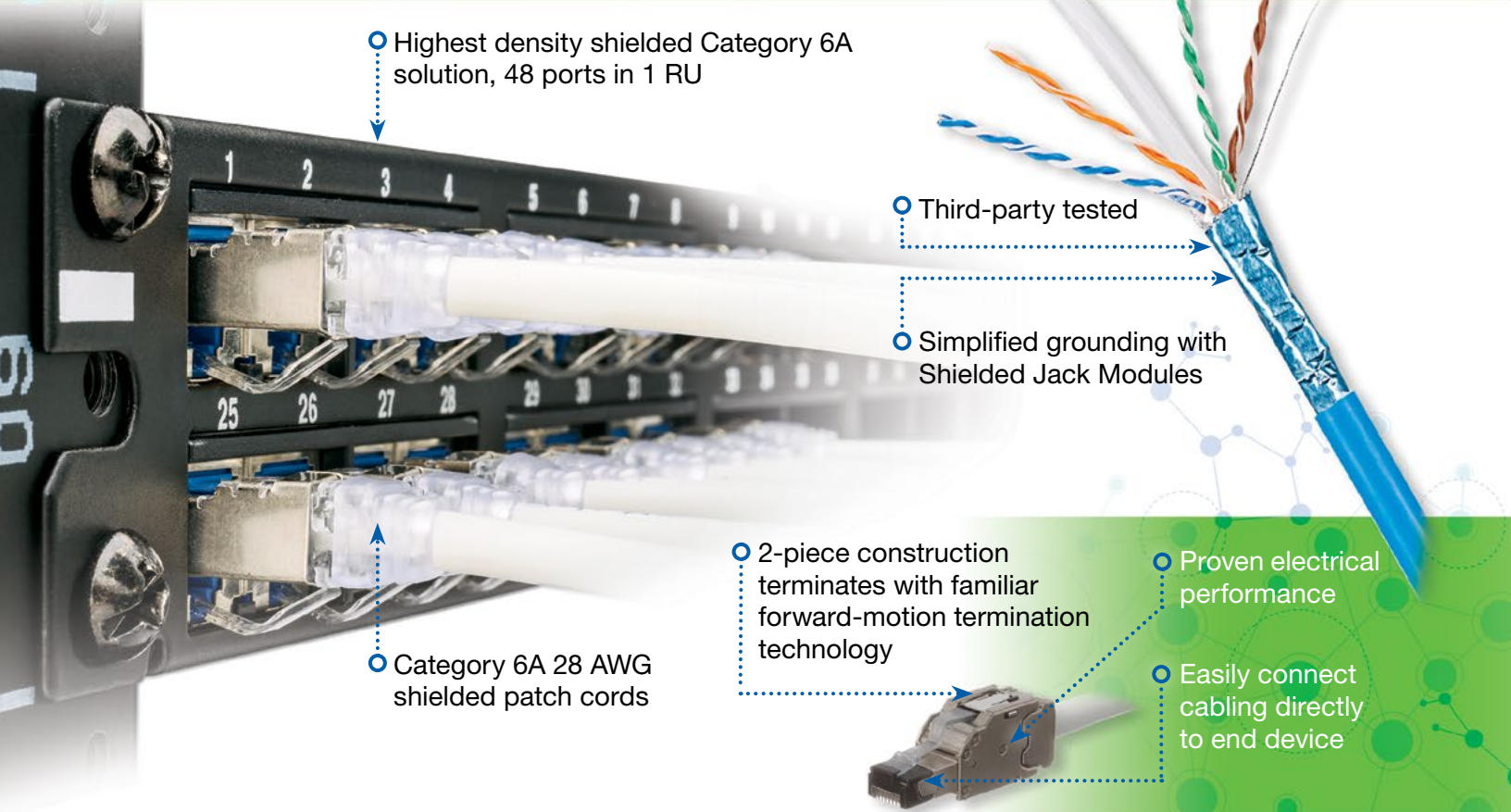
Third-party tested ○

The most stringent testing requirements for headroom ○



○ Pioneered angled patch panel design

# Mini-Com® Copper Cabling System – Shielded



○ Highest density shielded Category 6A solution, 48 ports in 1 RU

○ Third-party tested

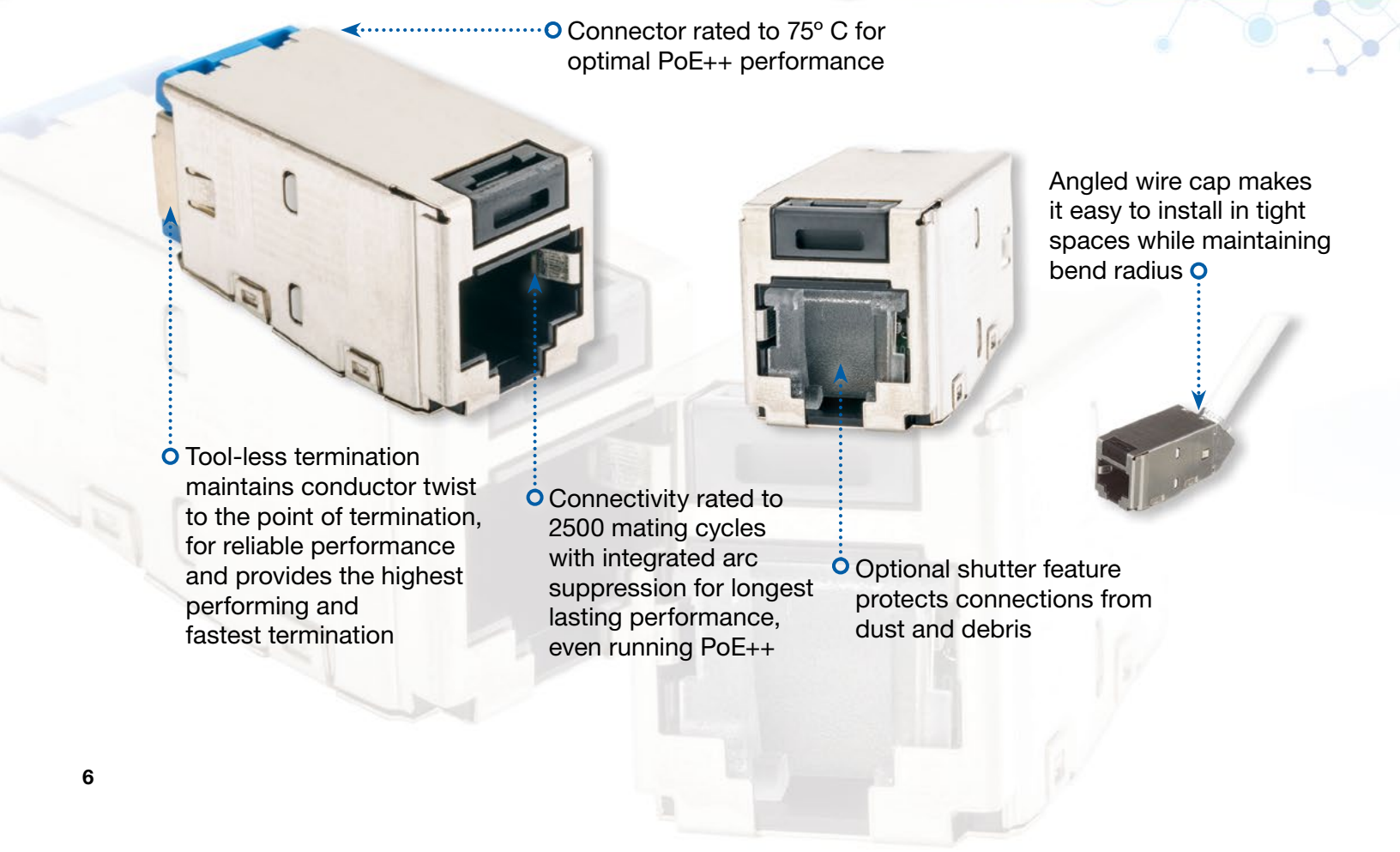
○ Simplified grounding with Shielded Jack Modules

○ 2-piece construction terminates with familiar forward-motion termination technology

○ Proven electrical performance

○ Easily connect cabling directly to end device

○ Category 6A 28 AWG shielded patch cords



○ Connector rated to 75° C for optimal PoE++ performance

Angled wire cap makes it easy to install in tight spaces while maintaining bend radius ○

○ Tool-less termination maintains conductor twist to the point of termination, for reliable performance and provides the highest performing and fastest termination

○ Connectivity rated to 2500 mating cycles with integrated arc suppression for longest lasting performance, even running PoE++

○ Optional shutter feature protects connections from dust and debris

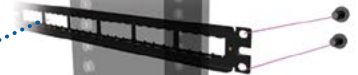
# Grounding Made Easy



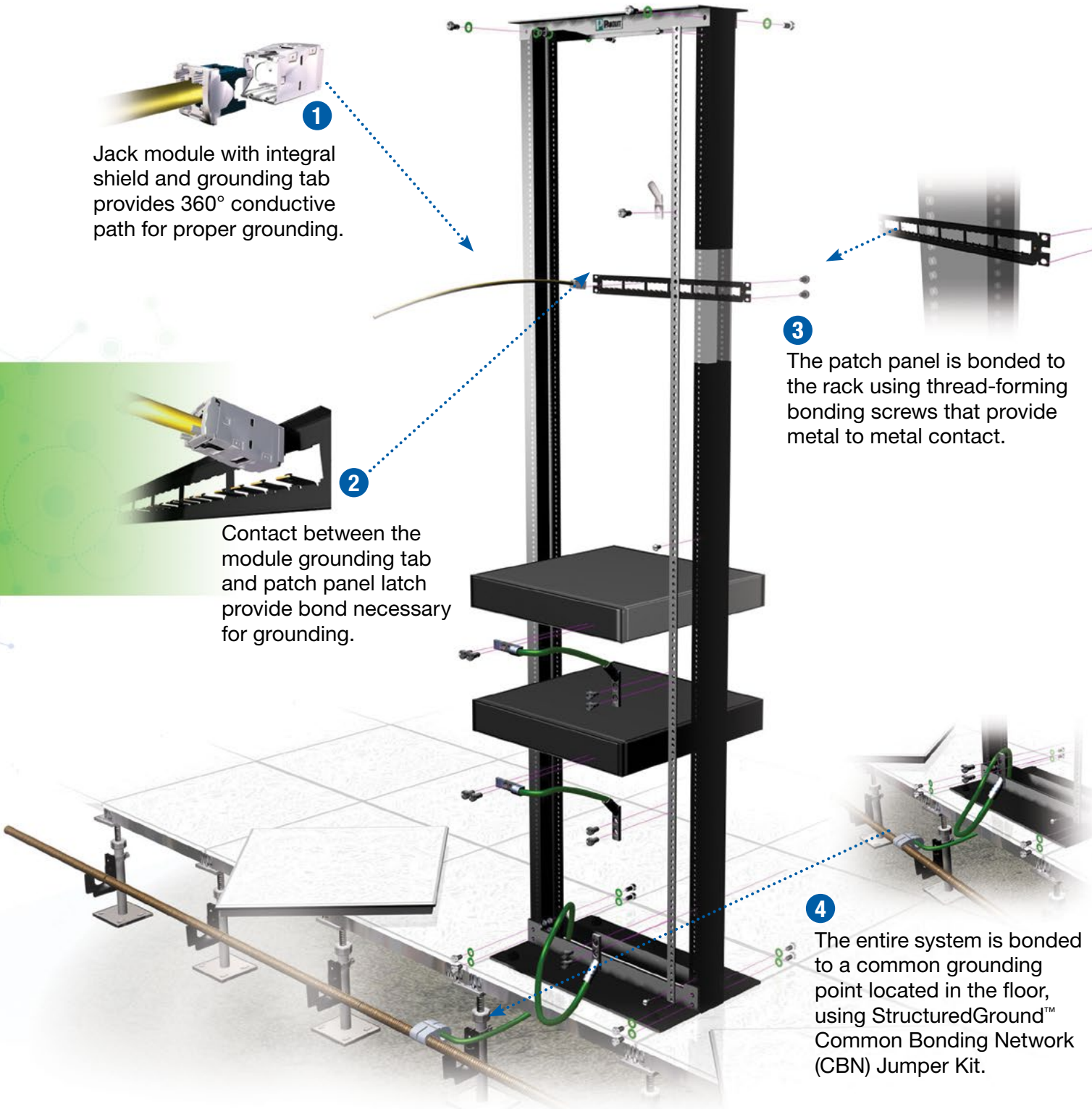
1  
Jack module with integral shield and grounding tab provides 360° conductive path for proper grounding.



2  
Contact between the module grounding tab and patch panel latch provide bond necessary for grounding.



3  
The patch panel is bonded to the rack using thread-forming bonding screws that provide metal to metal contact.



4  
The entire system is bonded to a common grounding point located in the floor, using StructuredGround™ Common Bonding Network (CBN) Jumper Kit.

- Integrated grounding and bonding provides an easy to install shielded cabling system

# NetKey® Keystone Copper Cabling System

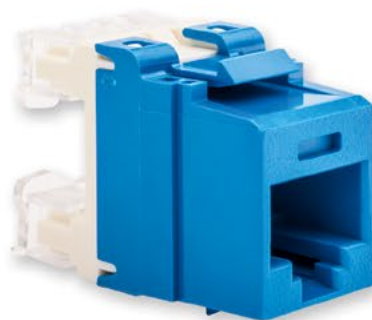
○ Third-party tested, component-compliant connectivity for reliable performance

Familiar 110-punchdown termination ○

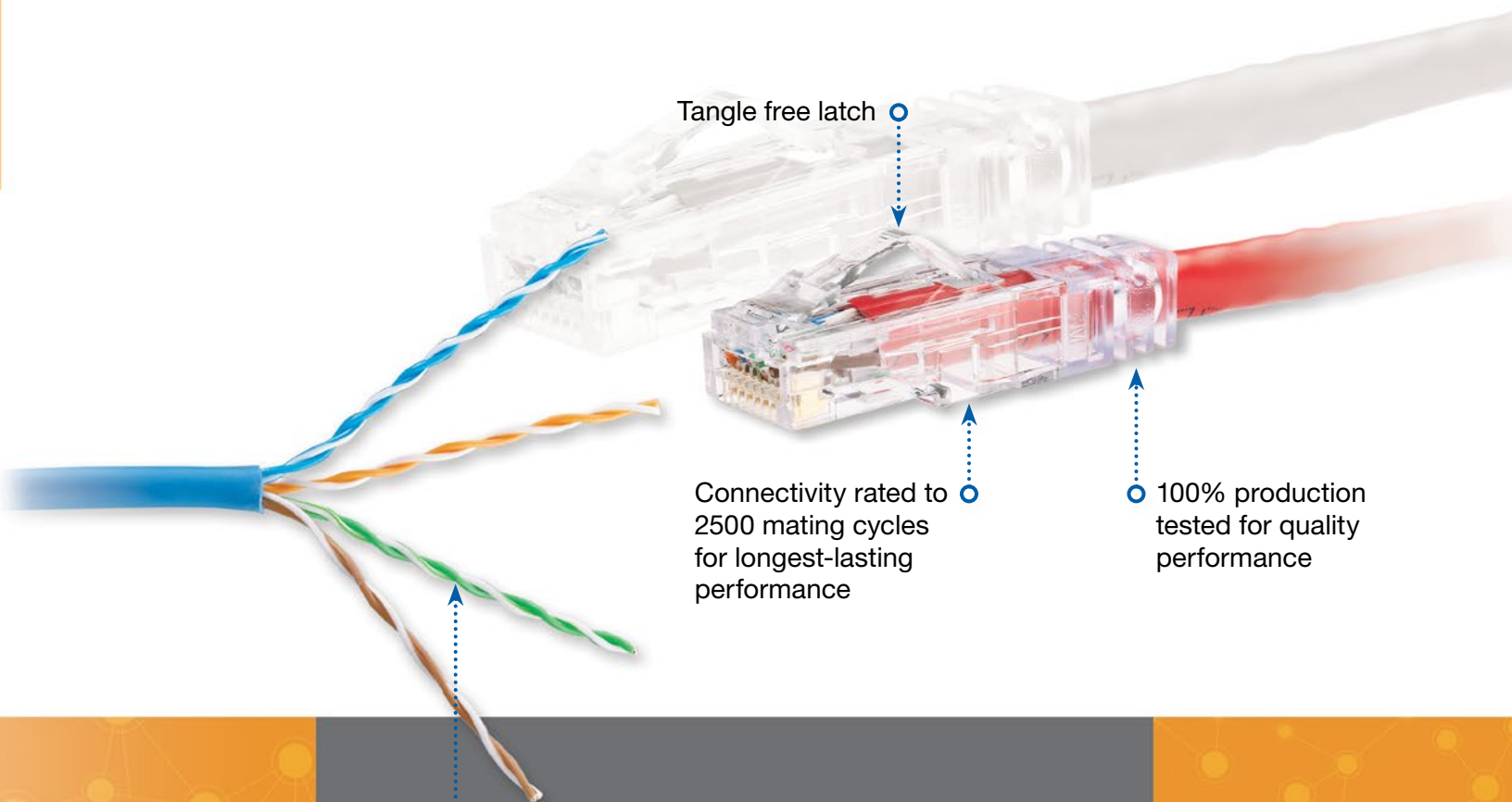
○ The most stringent testing requirements for Category 6 headroom

○ 100% production tested for quality performance

○ Keystone footprint for compatibility with any keystone opening







Tangle free latch

Connectivity rated to 2500 mating cycles for longest-lasting performance

100% production tested for quality performance

Available as an end-to-end solution for easy order and delivery



Compatible with Fluke®\* JackRapid Tool for fast, easy termination

\*Fluke is a registered trademark of Fluke Corporation.

# Industry-Leading Category 6A Solution

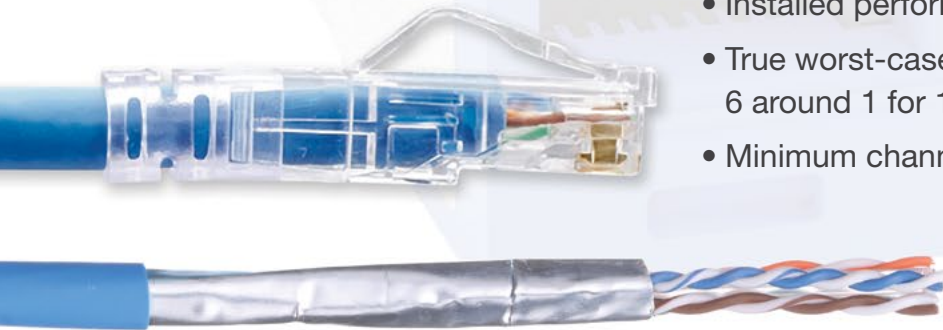
## Vari-MaTriX Technology

- Discontinuous metallic foil used on cable and connectors
- Offers optimal PoE performance
- Benefits of unshielded and shielded combined
- The smallest diameter cable (0.23 inches) for ideal fill ratio
- Variable-length foil delivers optimal alien crosstalk and immunity to external noise



## Industry's Leading Headroom Performance

- Installed performance using real world testers
- True worst-case scenarios, with 48 1 RU panels and 6 around 1 for 100 meters
- Minimum channel length of 5 meters



## Designed for Next Generation Applications

- 100BASE-T, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, 10GBASE-T
- Wireless access points 802.11ax
- Power over Ethernet 802.3af, 802.3at, and 802.3bt
- HDBaseT\*

\*HDBaseT is a registered trademark of Valens Semiconductor Ltd.

## Designed for Next Generation Power over Ethernet

The unique Panduit® Category 6A Vari-MaTriX HD system provides the industry's best cabling solution to support the PoE++ 802.3bt standard for power levels up to 100 watts.

### Cable

- Vari-MaTriX foil provides optimal heat dissipation
- Highest operating temperature – 105° C
- Largest bundle sizes
- Longest allowed cable runs in hotter temperatures
- LP ratings of 0.7A (plenum)

### Connectors

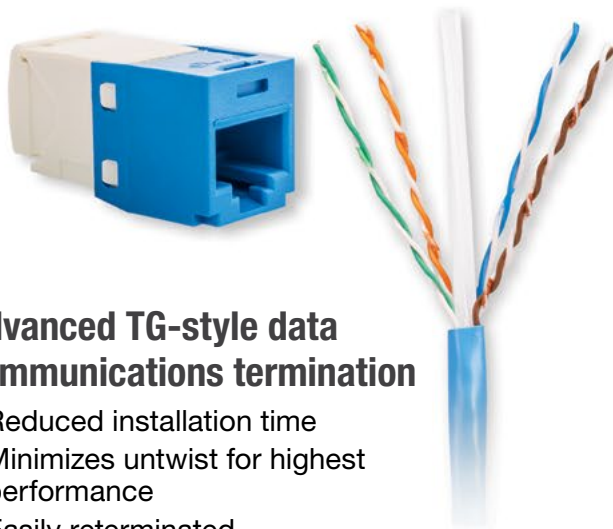
- Integrated arc suppression technology
- Rated to 2,500 live PoE++ connections
- Highest operating temperature – 75° C
- Deliver PoE++ over 24 AWG to 28 AWG patch cords

# Highest Quality Category 6 Solutions

## The Highest Quality Category 6 Offering

- Mini-Com® and NetKey® Products built to the same quality standards
- All products held to the same stringent quality standards
- Jacks, patch cords, and cable are component compliant
- Supports PoE, PoE+, and PoE++
- Robust construction

## Enhanced Category 6 System



### Advanced TG-style data communications termination

- Reduced installation time
- Minimizes untwist for highest performance
- Easily reterminated

### Advanced cable technology with 650 MHz cable bandwidth

### Industry leading Category 6 headroom

- Extra margin protects cable from installation and usage
- Supports 10GBASE-T over limited distances
- Minimum channel length of 5 meters
- Channel performance guaranteed with CJ688TG^ jack and PUP/PUR6004 cable

## Keystone Category 6 System



### Keystone footprint for interoperability with industry faceplates and panels

### Reliable punchdown terminations

### Quality cable technology with 550 MHz cable bandwidth

### Superior Category 6 headroom

- Protects from standard usage and installation
- Minimum channel length of 9 meters
- Channel performance guaranteed with NK688M^ jack and PUP/PUR6C04 cable

^ = Color code: IW = Off White, EI = Electric Ivory, IG = International Gray, BL = Black, BU = Blue, GR = Green, RD = Red, OR = Orange, VL = Violet, YL = Yellow, WH = White



Note: Colors shown may differ slightly from actual jack colors.

# Mini-Com® Unshielded System Components



Mini-Com Jack Modules	Category 5e	Category 6	Category 6A
Standard Jack Modules	<a href="#">CJ5E88TG^</a>	<a href="#">CJ688TG^</a>	<a href="#">CJ6X88TG^</a>
Shuttered Jack Modules	<a href="#">CJH5E88TG^</a>	<a href="#">CJH688TG^</a>	<a href="#">CJH6X88TG^</a>
45° Angled Jack Modules	-	<a href="#">CJ#688TG^</a>	<a href="#">CJ#6X88TG^</a>

Bulk Packs: Standard jack modules available in bulk packs, which reduce single-use plastics.

Add -24 after part number for packs of 24.

Add -C after part number for packs of 100.

# = LR for left/right angle; UD for Up/Down angle.

^ = Color code: IW = Off White, EI = Electric Ivory, IG = International Gray, BL = Black, BU = Blue, GR = Green, RD = Red, OR = Orange, VL = Violet, YL = Yellow, WH = White



Note: Colors shown may differ slightly from actual jack colors.

## Copper Cabling System Ordering Guide



Field Terminable Plugs	Straight	Angled
Modular Plug (Compatible with Category 5e, 6 and 6A)	<a href="#">FP6X88MTG</a>	<a href="#">FPUD6X88MTG</a>



Punchdown Patch Panels	Category 5e	Category 6	Category 6A
24-Port Flat	<a href="#">DP245E88TGY</a>	<a href="#">DP24688TGY</a>	<a href="#">DP246X88TGY</a>
24-Port Angled	<a href="#">DPA245E88TGY</a>	<a href="#">DPA24688TGY</a>	<a href="#">DPA246X88TGY</a>
48-Port Flat	<a href="#">DP485E88TGY</a>	<a href="#">DP48688TGY</a>	<a href="#">DP486X88TGY</a>
48-Port Angled	<a href="#">DPA485E88TGY</a>	<a href="#">DPA48688TGY</a>	<a href="#">DPA486X88TGY</a>



Patch Cords	Category 5e	Category 6	Category 6A
Standard Patch Cords	<a href="#">UTPCH*^Y</a>	<a href="#">UTPSP*^Y</a>	<a href="#">UTP6AX*^</a>
28 AWG Patch Cords	<a href="#">UTP28CH*^</a>	<a href="#">UTP28SP*^</a>	<a href="#">UTP28X*^</a>

\* = Length in feet

^ = Color code: Off White (default, no designation needed), BL = Black, BU = Blue, GR = Green, RD = Red, OR = Orange, VL = Violet, YL = Yellow, GY = Gray



Note: Colors shown may differ slightly from actual cable colors.

# Mini-Com® Unshielded System Components



Cable	Category 5e	Category 6	Category 6A
Plenum Copper Cable	PUP5c04BU-F	PUP6004BU-WLP, PUP6004BU-WLPZ, PUP6c04BU-W, PUP6c04BU-WZ, or PUP6c04BU-WLPZ	PUP6AHD04BU-G
Riser Copper Cable	PUR5c04BU-F	PUR6004BU-W or PUR6C04BU-U	PUR6AHD04BU-G

Contact Panduit customer service for more color options.

The proper labeling, strain relief, and network security will enhance the functionality of your network. Consider these solutions:

- RJ45 lock-in device: PSL-DCPLRE
- RJ45 blockout device: PSL-DCJB
- Strain relief bar: SRB19D5BL

See [www.panduit.com](http://www.panduit.com) for additional offerings in network security and strain relief, and for our complete offering of cable management accessories and identification products.



Mini-Com Modular Patch Panels	Flat	Angled
Flush Mount Modular Patch Panels, 24-port, 1 RU	CPP24FMWBLY	CPPA24FMWBLY
Flush Mount Modular Patch Panels, 48-port, 2 RU	CPP48FMWBLY	CPPA48FMWBLY
High Density Flush Mount Modular Panels, 48-port, 1 RU	CPP48HDWBLY	CPPA48HDWBLY



Mini-Com Faceplates	1-Port	2-Port	4-Port
Furniture Faceplate without Labels	—	CFFPA2BL	CFFP4BL
Furniture Faceplate with Labels	—	CFFPL2BL	CFFPL4BL
Furniture Faceplate, Herman Miller	—	—	CFFPHM4BL
Classic Faceplate Single Gang without Labels	CFP1^	CFP2^	CFP4^
Classic Faceplate Single Gang with Labels	—	CFPL2^Y	CFPL4^Y

^ = Colors available: EI (Electric Ivory), IW (Off White), WH (White)

# Mini-Com® Shielded System Components



Mini-Com Jack Modules	Category 5e	Category 6	Category 6A
Standard Jack Modules	<a href="#">CJS5E88TGY</a>	<a href="#">CJS688TG^Y</a>	<a href="#">CJS6X88TG^Y</a>
Shuttered Jack Modules	<a href="#">CJSH5E88TGY</a>	<a href="#">CJSH688TG^Y</a>	<a href="#">CJSH6X88TG^Y</a>
Angled Jack Modules	-	-	<a href="#">CJS#6X88TGY</a>

Bulk Packs: Standard jack modules available in bulk packs, which reduce single-use plastics.  
 Add -24 after part number for packs of 24.  
 Add -C after part number for packs of 100.  
 # = LR for left/right angle; UD for Up/Down angle  
 ^ = Color code: No designation = Black, BU = Blue, GR = Green, RD = Red, VL = Violet, YL = Yellow



Note: Colors shown may differ slightly from actual jack colors.



Field Terminable Plugs	Straight
Modular Plug	<a href="#">FPS6X88MTG</a>

Compatible with Category 5e, 6 and 6A.



Patch Cords	Category 6/6A
Category 6A Standard Patch Cords (26 AWG)	<a href="#">STP6X*M^</a>
Category 6A 28 AWG Patch Cords	<a href="#">STP28X*M^</a>

\* = Length in meters  
 ^ = Color code: IG = International Gray, BL = Black, BU = Blue, GR = Green, RD = Red, OR = Orange, VL = Violet, YL = Yellow



Notes: Colors shown may differ slightly from actual cable colors.



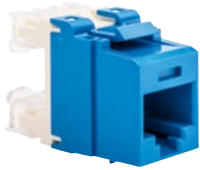
Cable	Category 6	Category 6A
Plenum Copper Cable, F/UTP	<a href="#">PFR6c04BU-UG</a>	<a href="#">PFP6X04BU-UG</a>
Riser Copper Cable, F/UTP	<a href="#">PFR6c04BU-UG</a>	<a href="#">PFR6X04BU-CG</a>

Contact Panduit customer service for more color options.



Mini-Com Shielded Patch Panels	Flat	Angled
Flush Mount Modular Patch Panels, 24-port, 1 RU	<a href="#">CP24BLY</a>	<a href="#">CPA24BLY</a>
Flush Mount Modular Patch Panels, 48-port, 2 RU	<a href="#">CP48BLY</a>	<a href="#">CPA48BLY</a>
High Density Flush Mount Modular Panels, 48-port, 1 RU	<a href="#">CP48HDBL</a>	<a href="#">CPA48HDBL</a>

# NetKey® System Components



Keystone Jack Modules	Category 5e	Category 6	Category 6A
NetKey Punchdown Jack Modules	<a href="#">NKP5E88M^</a>	<a href="#">NK688M^</a>	<a href="#">NK6X88M^</a>

Bulk Packs: Jack modules available in bulk packs, which reduce single-use plastics.

Add -Q to end of part number for box of 25 jacks.

^ = Color code: IW = Off White, EI = Electric Ivory, IG = International Gray, BL = Black, BU = Blue, GR = Green, RD = Red, OR = Orange, VL = Violet, YL = Yellow, WH = White



Note: Colors shown may differ slightly from actual jack colors.



NetKey Punchdown Patch Panels	Category 5e	Category 6	Category 6A
24-Port Flat	<a href="#">NK5EPPG24Y</a>	<a href="#">NK6PPG24Y</a>	<a href="#">NK6XPPG24Y</a>
48-Port Flat	<a href="#">NK5EPPG48Y</a>	<a href="#">NK6PPG48Y</a>	<a href="#">NK6XPPG48Y</a>



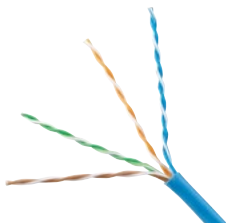
NetKey Patch Cords	Category 5e	Category 6	Category 6A
Patch Cords*	<a href="#">NK5EPC*^</a>	<a href="#">NK6PC*^</a>	<a href="#">NK6APC*BU</a>

\* = Length in feet

^ = Color code: Off White (default, no designation needed), BL = Black, BU = Blue, GR = Green, RD = Red, YL = Yellow



Note: Colors shown may differ slightly from actual cable colors.



Copper Cable	Category 5e	Category 6	Category 6A
Panduit Plenum Copper Cable	<a href="#">PUP5c04BU-F</a>	<a href="#">PUP6C04BU-WZ</a>	<a href="#">PUP6XHD04BU-G</a>
Prysmian Plenum Copper Cable	<a href="#">5131278E</a>	<a href="#">7131800</a>	<a href="#">7151849</a>
Panduit Riser Copper Cable	<a href="#">PUR5c04BU-F</a>	<a href="#">PUR6C04BU-U</a>	<a href="#">PUR6AHD04BU-G</a>
Prysmian Riser Copper Cable	<a href="#">5133299E</a>	<a href="#">7133800</a>	<a href="#">7143849</a>

Contact Customer Service for additional colors.



Keystone Modular Patch Panels	24-Port Flat	24-Port Angled	48-Port Flat	48-Port Angled
Flush Mount Modular Patch Panels	<a href="#">NKPP24FMY</a>	<a href="#">NKPPA24FMY</a>	<a href="#">NKPP48FMY</a>	<a href="#">NKPPA48FMY</a>



Keystone Faceplate Frames+	2-Port	4-Port
NetKey Classic Faceplates with Labels	<a href="#">NK2FIWY</a>	<a href="#">NK4FIWY</a>
NetKey Classic Faceplates with No Labels	<a href="#">NK2FNIW</a>	<a href="#">NK4FNIW</a>
NetKey Furniture Faceplate	—	<a href="#">NK4MFLBL</a>
NetKey Furniture Faceplate with Labels	—	<a href="#">NK4MFLBL</a>
NetKey Surface Mount Boxes	<a href="#">NK2BXIW-A</a>	<a href="#">NK4BXIW-AY</a>

Colors: Replace IW (Off White) in part number with WH (White) or EI (Electric Ivory)



**PANDUIT®**

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**[www.panduit.com](http://www.panduit.com)**

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