



CAT 6A F/UTP MILLENNIUM[™] SYSTEM

The ATLAS-X1 FDT Category 6A shielded system is a secure, structured cabling system designed for 10GBASE-T applications. It is ideal for environments where electromagnetic/radio frequency interference (EMI/RFI) may be present.

RECOMMENDED FOR:

10GBASE-T network applications and mission-critical systems

Optimal total cost of ownership for financial, health care, government, transportation, and education environments

Space-constrained retrofits and upgrades

Network applications sensitive to EMI/RFI

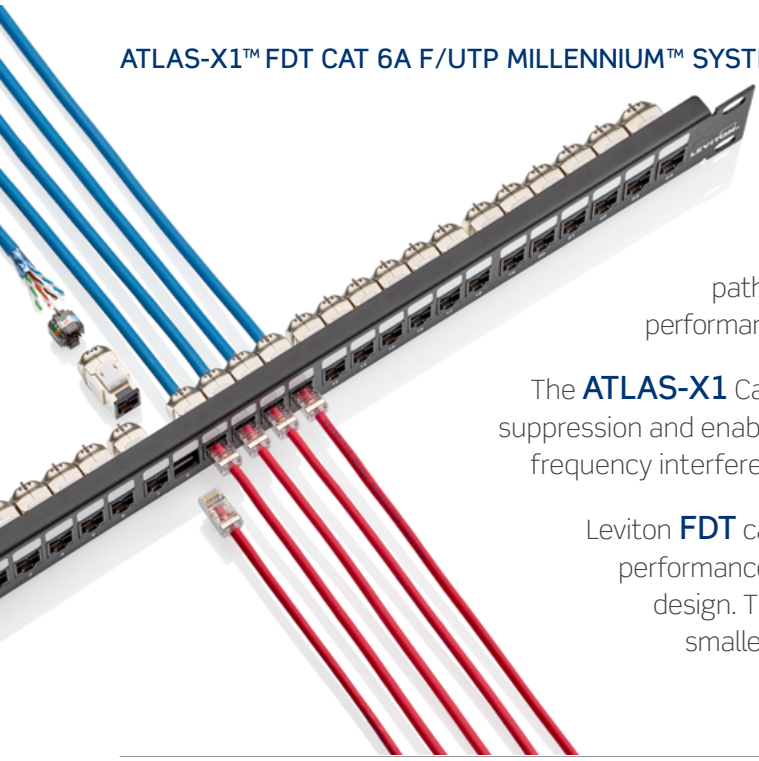
Networks with high bandwidth utilization requirements

Applications where ensuring data security and integrity is critical

Applications requiring PoE support up to 100 watts

AV systems for high-end conference rooms and classrooms

Wireless applications supporting IEEE 802.11ac/Wi-Fi 5 and higher



ATLAS-X1™ FDT MILLENNIUM Cat 6A shielded systems are intended for 10Gbps high-density environments where pathway space is limited. Ideal for applications that require Cat 6A performance with enhanced data security and integrity.

The **ATLAS-X1** Category 6A Shielded jack provides superior alien crosstalk (AXT) suppression and enables industry-leading protection from electromagnetic/radio frequency interference (EMI/RFI).

Leviton **FDT** cable is ideal for applications that require advanced cable performance and the additional signal isolation advantages of an F/UTP design. The next generation fillerless cable design delivers the industry's smallest and easiest to install Cat 6A shielded system.

Use Cases

Global Deployments	Enhanced Data Security	High-Density Applications	Ease of Installation
With availability in all global fire requirements, universal electrical performance, and common installation procedures, this system enables a single specification globally.	Recommended for high-density applications requiring 10G network performance, data security, and protection from external noise such as government, military, healthcare, finance, or manufacturing.	A high density Cat 6A system with the ability to provide more connection points for smart building devices and applications in pathways that were designed for Cat 6.	Small diameter, lightweight, flexible design enables deployment in constrained spaces with less installation fatigue. Also, enables faster installation with toolless termination for ATLAS jacks, and easy to ground single foil, no cross filler design.

Environmentally Conscious Design

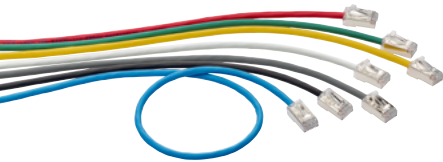
Environmentally optimized components have been selected for this system to minimize environmental impact, while delivering strong performance beyond category specifications, as well as user-friendly design to enable fast, easy installations.



Bulk Packaging for Jacks
Select colors of ATLAS-X1 jacks are available in 12-pack GREENPACK™, a compact, reusable, and recyclable packaging, which reduces jobsite waste.



Sustainably Smart Packaging
Multiple product packaging options that are 100% recyclable with no single-use plastics.



Less Material Required for New Patch Cord Plug and Boot
Using 72% less plastic in our new patch cord boot also makes our cords lighter to reduce shipping energy and cost.



Sustainable Product Design
The copper, insulation, or filler materials in our category cables incorporate recycled materials to reduce the overall carbon footprint.

Visit leviton.com/sustainability for details of the Leviton CN2030 program.

Look for this leaf on the following pages for specific points of environmentally conscious product design.

- Exceeds ANSI/TIA-568.2-D Cat 6A and ISO/IEC 11801-1 Class EA requirements for channel, link, and component requirements to support IEEE 10GBASE-T networks
- Ensures excellent AXT and EMI/RFI immunity with margin guarantees
- Error-free performance up to 10 Gigabit Ethernet with full duplex transmission
- Backwards compatible with Gigabit Ethernet to provide seamless migration path to 10GBASE-T and supports all Cat 6 and Cat 5e system requirements
- IEEE 802.3 PoE Type 1, 2, 3, 4 (100 watts max)

Guaranteed¹ System Performance Parameters

Parameter	Margin Guarantee
Insertion Loss	For performance data, contact your local sales person. Leviton.com/ns/global-locations
NEXT	
PSNEXT	
ACR-F (ELFEXT)	
PSACR-F (PSELFEXT)	
Return Loss	
ACR-N	
PSACR-N	
TCL	
ELTCTL	
PSANEXT	
PSAACRF	

¹ Values represent guaranteed margins to ANSI/TIA-568.2-D standard at 20°C ambient temperature. All parameters comply with ANSI/TIA-568.2-D Cat 6A and ISO/IEC 11801-1 Class E, requirements across the entire frequency range. All values represent worst-case margins for 17 to 100 meter channel configurations (or 17 to 93 meters when using 28 AWG (H6A10) patch cords). System performance margin guarantees are representative of the specific components and topologies as listed on page 7 of this solution data sheet document. Contact your Leviton technical representative for more information on alternative components and channel configurations. Details at Leviton.com/NS/Warranty. Guaranteed System Performance applies exclusively when the system is installed and tested by Leviton Network Solutions Certified Installers. Guaranteed margin values apply at the time of installation.

Notes: Extended time system warranty is available and can be found on Leviton.com/support/resources/warranties/network-solutions when projects are installed by Leviton certified integrators.

Extended Length Channels
(Greater than 100 meters)

Leviton strongly recommends that all cabling systems be installed in compliance with relevant standards to ensure support for current and future applications designed to run on standards-based architectures. Should the need arise to install a channel longer than 100 meters, the risk of a reduction in interoperability is increased and performance becomes dependent on the active equipment used.^{1,2}

Extended Application and PoE Distances

The configurations and products in the system topologies on page 7 will support the applications listed in Table 1 at the indicated distances in up to 4-connector channels. The distances below went through rigorous testing and engineering modeling to ensure full support of the indicated IEEE 802.3 applications.^{3,4,5}

Table 1

	IEEE 802.3 PoE			
	Type 1 (15.4 W)	Type 2 (30 W)	Type 3 (60 W)	Type 4 (90 W)
10BASE-T	For performance data, contact your local sales person. Leviton.com/ns/global-locations			
100BASE-TX				
1000BASE-T				
2.5GBASE-T				
5GBASE-T				
10GBASE-T				

¹ Extended distances listed in table 1 are backed by Leviton's 25-year Applications Assurance Warranty when tested to Leviton specified test limits.

² Extended distance performance requires Leviton modular patch panels and QUICKPORT™ jacks only and does not apply to channels constructed with punch-down panels. Actual application performance will vary depending on the device manufacturer, part number, software, model, revision, and/or configuration.

³ The use of 28 AWG patch cords in a channel over 100 meter is not allowed.

⁴ Channels that exceed 100 meters become application specific.

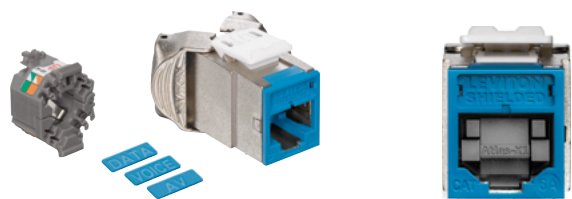
⁵ Any moves, adds, or changes to the channel will void the warranty.

System Application Score

Traditional LAN testing methodologies don't accurately measure the performance of cabling under the strain of increasing bandwidth demand, high power PoE, and environmental noise. To address this challenge, Leviton has developed a new testing methodology called the System Application (SA) Score.



Visit leviton.com/sa-score for details.



Jacks

ATLAS-X1™ Cat 6A Shielded QUICKPORT™ Jacks

- Third-party tested and verified to exceed performance requirements
- Tested and approved for use in air-handling spaces (plenum rating) in accordance with UL Standard 2043
- Patented Retention Force Technology protects against tine damage and maintains contact force between plug and jack, preventing arcing from intermittent disconnects in PoE applications
- PoE optimized tine geometry prevents arcing damage where plug and jack make contact, extending the life of the jack and ensuring maximum performance (see specification sheets for full PoE capabilities)
- Solid metal body dissipates 53% more heat than plastic, minimizing damage from excess heat in PoE applications
- Available with internal shutter to protect from dust and debris
- Unique, tool-free design requires no specialized termination or re-termination tool
- Short jack design supports a wider range of applications (e.g. shallow boxes, enclosures, bend radius, etc.)
- Interchangeable icons in 13 colors (VOICE, DATA, AV, and blank) make it easy to identify and track data, voice, or other functions (select jacks include color matching icons)
- QUICKPORT jacks are compatible with all Leviton modular panels, wallplates, and surface-mount boxes
- Engineered and manufactured for real-world ruggedness, longevity, and reliability
- Select colors available in recyclable 12 pack GREENPACK™ bulk packaging, eliminating single-use polybags and reducing plastic waste
- Capable of multiple re-terminations, minimizing waste and maximizing re-use
- Designed for durability and longevity, reducing the need for replacement over the life of the network

Description	Part No.	Typical Region
ATLAS-X1 Cat 6A Shielded QUICKPORT Jack	6ASJK-R*6	Global
ATLAS-X1 Cat 6A Shielded QUICKPORT Jack, GREENPACK 12-Pack	6ASJK-C*6	
ATLAS-X1 Cat 6A Shielded QUICKPORT Jack with Shutter	6ASJK-S*6	
ATLAS-X1 Bulk Icons, pack of 72	ICONS-IC*	

* Color: White (W), Lt. Almond (T), Ivory (I), Yellow (Y), Orange (O), Crimson (C), Dark Red (R), Purple (P), Blue (L), Green (V), Gray (G), Black (E), Brown (B)
* Color: White (W), Black (E), Gray (G)
Note: Not all pack modes are available in all regions. Contact your Leviton representative for details.



Patch Panels

Shielded QUICKPORT Patch Panels

- Accepts all QUICKPORT-style shielded connectors
- 4S255-S24 and 4S255-S48 include cable management bars and write-on port blocks
- Available in an angled design that allows for cords to easily route directly into vertical managers
- Select panel configurations available in white finish
- Shielding protects against Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI), and provides excellent alien crosstalk (AXT) suppression
- High-density panels are designed to minimize carbon footprint per port
- Designed and manufactured in an ISO14001 facility

e2XHD Snap-In Cassette Patching System

- E2XHD panels allow a mix-and-match of Leviton UTP, shielded, or fiber snap-in cassettes
- The e2XHD cassettes quickly snap in and pull out of the high-density panels, making installations, moves, adds, and changes easier than ever
- Cassettes are available empty or on pre-terminated trunks (see [Leviton.com/configurator](#))
- Copper jacks easily snap into cassettes after termination
- System accessories include rear cable managers, blank cassette inserts for unused cassette openings and a cover for the angled panel, minimizing dust or debris

Description	Part No.	Typical Region
Modular Panels		
1RU 24-Port Flat Shielded QUICKPORT Patch Panel, black	4S255-S24	Global
1RU 48-Port Flat Shielded QUICKPORT Patch Panel, black	4S255-D48*	Global
2RU 48-Port Flat Shielded QUICKPORT Patch Panel, black	4S255-S48	United States, Canada, LATAM
e2XHD Snap-In Cassette Panels		
1RU 48-Port e2XHD Angled Universal Patch Panel, black	E2X1A-S48	United States, Canada, LATAM
1RU 48-Port e2XHD Flat Universal Patch Panel, black	E2X1F-S48	
1RU 48-Port e2XHD Angled Universal Patch Panel, black	E2X1A-E48	Europe, Middle East
1RU 48-Port e2XHD Flat Universal Patch Panel, black	E2X1F-E48	

*Cable management bar sold separately.

Cable

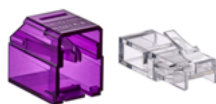
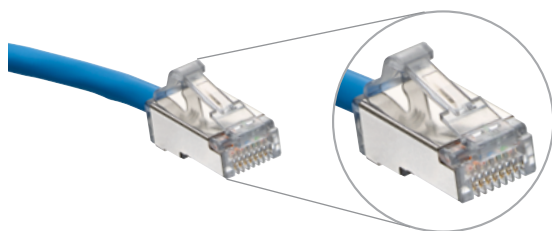
FDT Cat 6A F/UTP Cable

- Reduced Diameter Technology Cat 6A F/UTP cable that exceeds Cat 6A XLT requirements
- Great choice for wireless access points and other systems requiring 10 Gb/s connection speeds
- Recommended for ultra-high-density applications with data security requirements or high levels of external noise such as those found in government, military, healthcare, finance, or manufacturing
- The cable's small diameter enables it to fit into pathways originally designed for Cat 5e and Cat 6 cables
- Shielded construction provides optimal heat management for hi-PoE deployment
- Third-party verified to Cat 6A/Class E_A
- Fillerless design minimizes jobsite waste
- Small diameter enables better airflow, reducing energy required for cooling in congested pathways
- Compact design reduces cable carbon footprint
- CPR rated LSZH cables are made using 100% renewable energy in our PAS2060 carbon neutral manufacturing facility in the UK
- Reusable cable reels
- Recyclable boxes



Description	Part No.	Packaging	Typical Region
Plenum (CMP)			
FDT Cat 6A F/UTP Cable, CMP, white	11143337	1000 ft (305 m) Reel	United States, Canada
FDT Cat 6A F/UTP Cable, CMP, blue	11143338	1000 ft (305 m) Reel	
FDT Cat 6A F/UTP Cable, CMP, gray	11143339	1000 ft (305 m) Reel	
CPR EuroClass (B2ca, Cca, Dca, Eca)			
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, violet	FDT-Eca-500VT	1640 ft (500 m) Reel	Europe
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, violet	FDT-Eca-B305VT	1000 ft (305 m) TEKPAK™ Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, blue	FDT-Eca-500BU	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, blue	FDT-Eca-B305BU	1000 ft (305 m) TEKPAK Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, white	FDT-Eca-500WH	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, white	FDT-Eca-B305WH	1000 ft (305 m) TEKPAK Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Dca, blue	FDT-Dca-500BU	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Dca, blue	FDT-Dca-B305BU	1000 ft (305 m) TEKPAK Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Dca, white	FDT-Dca-500WH	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Dca, white	FDT-Dca-B305WH	1000 ft (305 m) TEKPAK Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Cca, green	FDT-Cca-500GN	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Cca, green	FDT-Cca-B305GN	1000 ft (305 m) TEKPAK Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass B2ca, orange	FDT-B2ca-500OR	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass B2ca, orange	FDT-B2ca-B305OR	1000 ft (305 m) TEKPAK Box	
Low Smoke Halogen Free (LSHF/LSZH)			
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, violet	FDT-Eca-500VT	1640 ft (500 m) Reel	Europe, Middle East, LATAM, APAC
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, violet	FDT-Eca-B305VT	1000 ft (305m) TEKPAK Box	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, white	FDT-Eca-500WH	1640 ft (500 m) Reel	
FDT Cat 6A F/UTP Cable, LSHF/LSZH EuroClass Eca, white	FDT-Eca-B305WH	1000 ft (305m) TEKPAK Box	

Also available in a range of non-standard colors.



Secure RJ Housing
and Plug



Patch Cord Color Clips



GREENPACK bulk packs are available in Sustainably Smart packaging

Patch Cords

Cat 6A High-Flex Patch Cords

- Tested and verified for TIA Cat 6A component and channel requirements
- Nominal OD of 4.7 mm to maximize cable pathway capacity
- Enhanced flexibility and short boot to minimize installed bend radius requirements
- CM and LSZH rated to support Global specifications
- Compatible with Leviton's Secure RJ system for physical port security, and color clips for additional network identification
- Supports Power over Ethernet (PoE) — see individual product specifications sheets for full PoE capabilities
- Living Building Challenge Red List Free product
- Optional GREENPACK™ Sustainably Smart Packaging eliminates single use plastics in packaging and reduces jobsite time removing cords from individual bags

CAT 6A Standard Patch Cords

- Tested and verified for ISO Cat 6A component and channel requirements
- Nominal OD of 6.0 mm
- CMR or LSZH materials as standard
- Short boot to reduce installed bend radius requirements
- Supports Power over Ethernet (PoE) — see individual product specifications sheets for full PoE capabilities
- Compatible with Leviton's Secure RJ system for physical port security, and color clips for additional network identification

VXC Coupler

- UTP or shielded installations
- Cat 6A component rated
- Compatible with 22-26 AWG cables solid and stranded
- Termination does not require any proprietary tools
- Durable zinc alloy body



Description									Typical Region
High-Flex Dual-Rated CM/LSZH		White	Blue	Gray	Yellow	Red	Green	Black	
Cat 6A Small-Diameter High-Flex Patch Cord		H6A10-xxW	H6A10-xxL	H6A10-xxS	H6A10-xxY	H6A10-xxR	H6A10-xxG	H6A10-xxE	Global
Cat 6A Small-Diameter High-Flex Patch Cord, GREENPACK ≤ 10FT (3M) 24 cords per GREENPACK; > 10FT (3M) 12 cords per GREENPACK		H6AP0-xxL (Blue stocked. All other colors will be non-stocked options)							United States, Canada, LATAM
Standard CMR		White	Blue	Gray	Yellow	Red	Green	Black	
Cat 6A Standard Patch Cord CMR Rated		6AS10-yyW	6AS10-yyL	6AS10-yyS	6AS10-yyY	6AS10-yyR	6AS10-yyG	6AS10-yyE	United States, Canada, LATAM
Standard LSZH	White	Blue	Gray	Yellow	Red	Green	Black		
Cat 6A Standard Patch Cord LSZH Rated	AC6PCFyyv-3CCHB	AC6PCFyyv-4CCHB	AC6PCFyyv-8CCHB	AC6PCFyyv-6CCHB	AC6PCFyyv-1CCHB	AC6PCFyyv-5CCHB	AC6PCFyyv-2CCHB	Europe, Middle East, APAC, LATAM	
CP Cords	Eca (Violet)		Dca (Blue)		Cca (Green)		B2ca (Orange)		
Cat 6A CP Cord LSZH Rated	CP-AC6+EcaxxxV*^-A		CP-AC6+DcaxxxB*^-A		CP-AC6+CcaxxxG*^-A		CP-AC6+B2caxxxO*^-A		Europe, Middle East, APAC
Coupler									
VXC Coupler		SBCPI-00S							Global
Secure RJ		White	Yellow	Red	Blue	Green	Purple	Orange	Black
Secure RJ Plug, GREENPACK of 48		SRJPL-00W	—	—	—	—	—	—	—
Secure RJ Housing, GREENPACK of 48, with 1 extraction tool, compatible with 6AS10, H6A10 and AC6PCF patch cords		SRJHS-00W	SRJHS-00Y	SRJHS-00R	SRJHS-00L	SRJHS-00G	SRJHS-00P	SRJHS-00O	SRJHS-00B
Color Clips			Yellow		Red		Blue		Green
Patch Cord Clip, bag of 24, works with 6AS10, H6A10, and AC6PCF patch cords			PCCLP-BYM		PCCLP-BCM		PCCLP-BLM		PCCLP-BVM

xx = Length in feet: 1 - 50 (0.3-6.1 meters)

yy = Length in feet: 1 - 72 (0.3 - 21 meters)

* = Cable type: Z=Zone Cable, S = S/FTP, U=UTP, F = F/UTP, D = F/FTP

* = Jack type: S = Shielded, T = Shielded with Shutter, U = UTP, V = UTP with Shutter

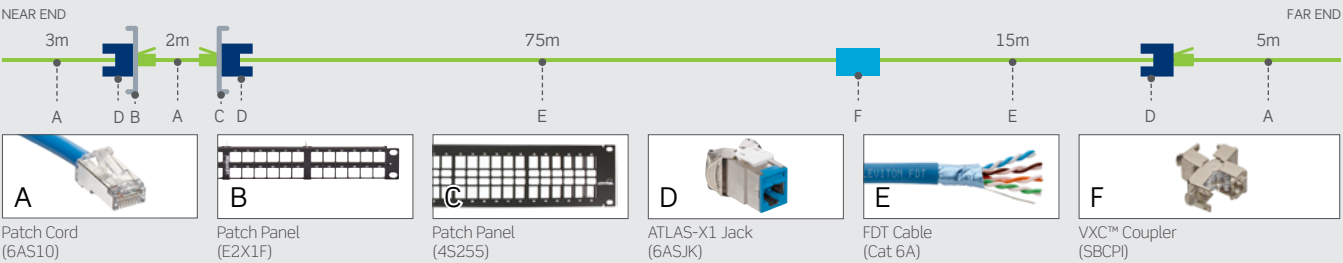
xxx = Length in meters: 2 - 50

yyy = Length in meters: 0.5 - 20

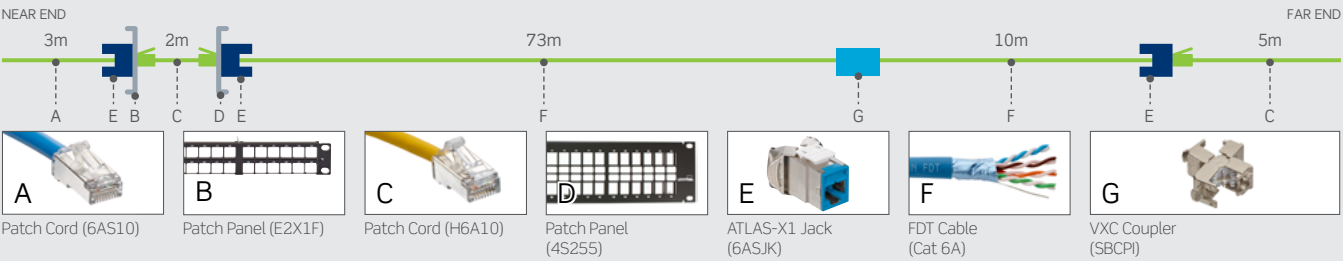
* = Labeling: S = Standard, C = Custom

System Topologies

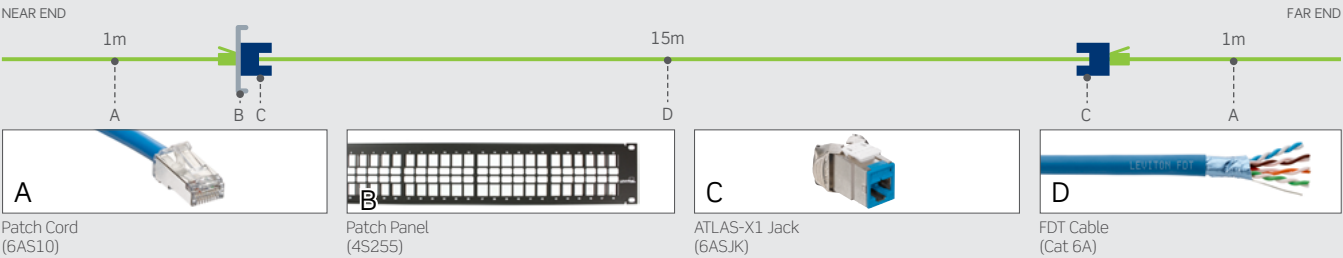
Typical 4-Connector Channel Topology – Standard Patch Cords



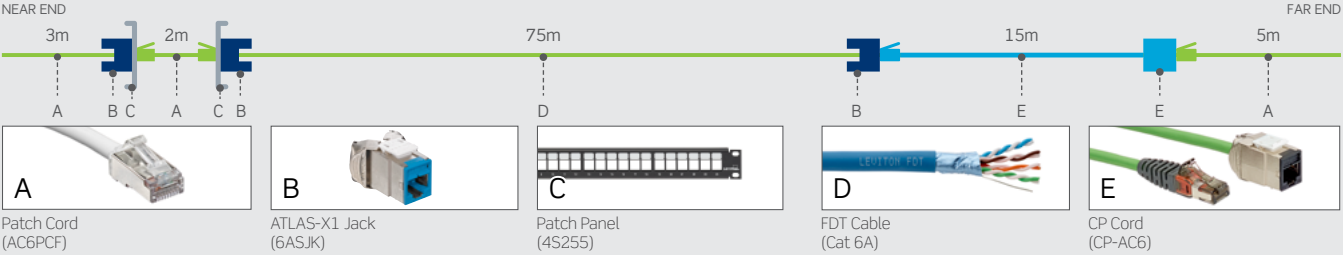
Typical 4-Connector Channel Topology – High Flex Patch Cords



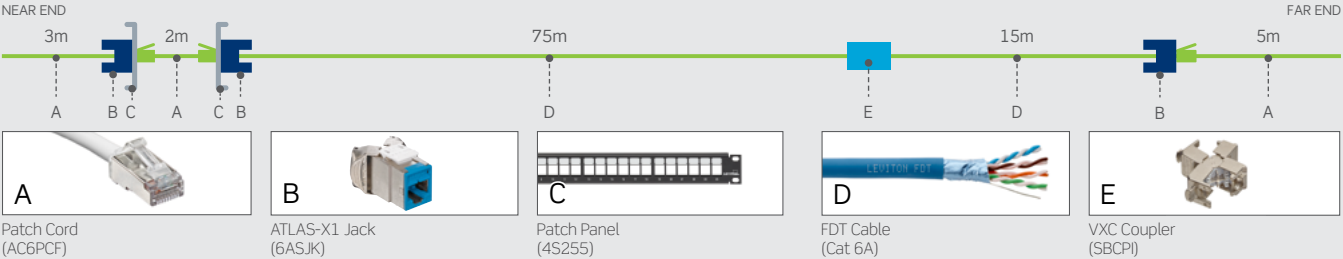
Typical 2-Connector Channel Topology



Typical European 4-Connector Channel Topology – CP Cord



Typical European 4-Connector Channel Topology – VXC Coupler



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