



CAT 6A UTP MILLENNIUM™ SYSTEM

A **high-density** Cat 6A structured cabling system that features ATLAS-X1 jacks and RDT cable. It is ideal for **enterprise applications** that require a compact design and 10GBASE-T performance. MILLENNIUM Systems are global solutions available everywhere.

RECOMMENDED FOR:

Sustainable enterprise systems that require reduced transportation emissions and material usage

Upgrading Cat 5e and Cat 6 cabling in existing pathways or where pathway capacity is constrained

Network applications for commercial, healthcare, education, government, transportation hubs, and stadium environments

Applications requiring PoE support up to 100 watts

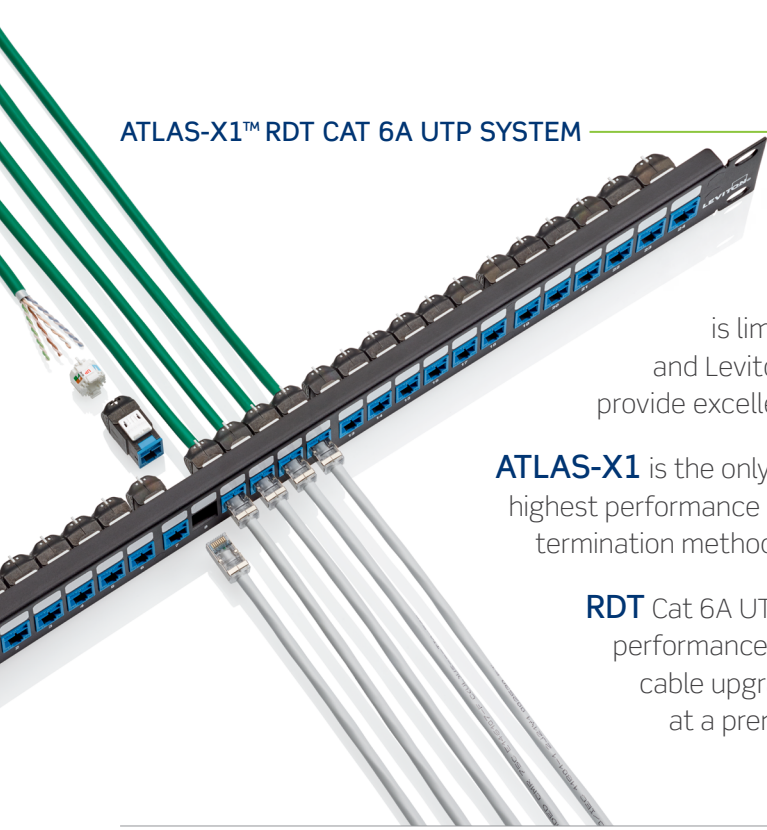
IP-based security and building automation systems utilizing UTP cabling

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

Intelligent building applications optimizing environmental sustainability

Global enterprises that want dependable 6A system performance everywhere

ATLAS-X1™ RDT CAT 6A UTP SYSTEM



ATLAS-X1 RDT MILLENNIUM Cat 6A systems are intended for high-density applications where pathway space is limited. They include the high-performance ATLAS-X1 jacks and Leviton RDT cables, the latest evolution of Cat 6A technology to provide excellent 10Gbps performance in a size similar to Cat 6 cables.

ATLAS-X1 is the only category-rated metal-bodied UTP jack that delivers the highest performance and reliability in a scalable, unified form factor and termination method.

RDT Cat 6A UTP cables feature a reduced outside diameter and deliver performance margins above the Cat 6A standard, making them ideal for cable upgrades, retrofit applications, or areas where space is at a premium.

Use Cases

High-Density Applications

Deploy the industry's highest performing connectivity and smallest Cat 6A cable in applications where space is limited and 10G transmission is required.

PoE Up to 100 Watts

Power and bandwidth requirements for PoE-enabled devices can vary, so it's important to have the right cabling infrastructure to support these applications.

Global Deployments

With availability in all global fire requirements, universal electrical performance, and common installation procedures, this system enables a single specification across all territories globally.

Sustainable Network Infrastructure

Networks need to support today's performance challenges and future bandwidth requirements and do so in a manner that also provides for a reduced carbon footprint.

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.



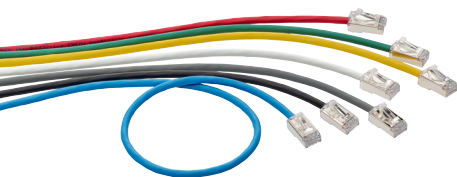
Bulk Packaging for Jacks

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.

- Meets ISO/IEC 11801-1 Class E_A and ANSI/TIA-568.2-D Cat 6A requirements for channel, permanent link, and component requirements to support IEEE 10GBASE-T networks
- Improved system margin performance supported by fast installation
- Backwards compatible with Gigabit Ethernet to provide seamless migration 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)

Guaranteed* System Performance

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	
PSAACR-F	

* Values represent guaranteed margins to ANSI/TIA-568.2-D standard at 20 °C (68 °F) ambient temperature. All parameters comply with ANSI/TIA-568.2-D Cat 6A and ISO/IEC 11801-1 Class E_A requirements across the entire frequency range. All values represent worst-case margins for 17 to 100 meters (56 to 328 feet) channel configurations (or 17 to 93 meter (56 to 305 feet) 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 and third-party test report. 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.

Extended Application Distances

Expected Values (Non-PoE)

The configurations and products in the topologies on page 7 will support the applications listed in Table 1 at the indicated distances in a 2- to 4-connector channel.^{1,4}

Extended PoE Distances

Typical Values

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 architecture. Should the need arise to run PoE longer than 100 meters (328 feet), the configurations and products in the topologies on page 7 will support the applications listed in Table 1 at the indicated distances in a 2- to 4-connector channel.^{2,3,4}

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

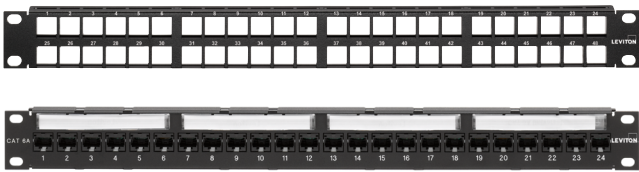
ATLAS-X1 Cat 6A Component-Rated QUICKPORT™ Jacks

- 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 time 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 UTP QUICKPORT Jack	6AUJK-R*6	Global
ATLAS-X1 Cat 6A UTP QUICKPORT Jack, GREENPACK 12-Pack	6AUJK-C*6	
ATLAS-X1 Cat 6A UTP QUICKPORT Jack with Shutter	6AUJK-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), Blue (L)

Note: Not all pack modes are available in all regions. Contact your Leviton representative for details.



Patch Panels

QUICKPORT Modular Patch Panels

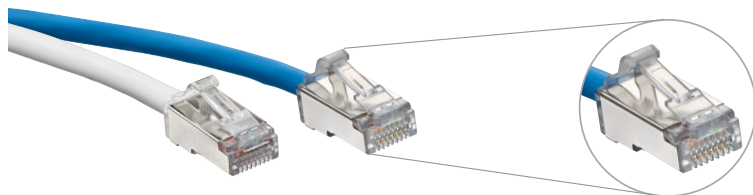
- Accepts all QUICKPORT-style connectors
- Select panel configurations available in white finish
- Available in a front loading UTP QUICKPORT configuration that supports jack installation from front or rear
- 49255-H24 and 49255-H48 include cable management bars and write-on blocks
- Select panels available with magnifying lens label holders to ensure visibility of port labels
- Available in an angled design that allows for cords to easily route directly into vertical managers
- High-density panels are designed to minimize carbon footprint per port
- Designed and manufactured in an ISO14001 facility

Cat 6A 110-Style Patch Panels

- Third-party tested and verified to exceed performance requirements
- In-line IDC field is consistent with existing 110-style panel designs
- Conductor-retention feature holds individual conductors in place during termination
- Pair Separation Towers facilitate separation of Cat 6A conductors
- Separated blocks provide room to work with larger Cat 6A cables and help to identify first-pair position
- Terminates up to 50% faster than Cat 6A panels requiring additional termination manager
- Reversible card shows T568 A and B wiring schemes separately
- IDC stuffer caps provide termination strain relief
- Magnifying lens label holders ensure visibility of port labels

Description	Part No.	Typical Region
1RU 24-Port Flat QUICKPORT Patch Panel, black	49255-H24	Global
2RU 48-Port Flat QUICKPORT Patch Panel, black	49255-H48	United States, Canada, LATAM
1RU 48-Port Flat QUICKPORT Patch Panel, black	49255-Q48*	Global
1RU 24-Port Cat 6A Flat 110-Style Patch Panel, black	6A586-U24	United States, Canada, LATAM, and Middle East
2RU 48-Port Cat 6A Flat 110-Style Patch Panel, black	6A586-U48	

* Cable management bar sold separately



GREENPACK bulk packs are available in Sustainably Smart packaging

Patch Cords

CAT 6A Small-Diameter High-Flex Patch Cords

- Available in white, yellow, gray, black, red, green, and blue
- Dual rated CM/LSZH rated jacket
- Accommodate use in high-density switches, routers, and other electronics
- Bend radius is a narrow 0.74 inches, versus 1.0 inch for typical Cat 6A patch cords
- Reduce patch cord density in a 24-port patch panel by 25 percent when compared to typical Cat 6A patch cords
- Universal patch cord can be used in both UTP or shielded installations
- 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

- Universal patch cord can be used in both UTP and shielded channels
- CMR or LSZH materials as standard
- Nominal OD of 6.0 mm
- Compatible with Leviton's Secure RJ system for physical port security, and color clips for additional network identification
- Designed to have a repeatable, controlled, and consistent assembly ensuring optimum performance
- Performance assessed through rigorous quality control in compliance with the demands of industry standards
- Supports Power over Ethernet (PoE) — see individual product specifications sheets for full PoE capabilities

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	Global
Cat 6A Small-Diameter High-Flex Patch Cord		H6A10-xxW	H6A10-xxL	H6A10-xxS	H6A10-xxY	H6A10-xxR	H6A10-xxG	H6A10-xxE	
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)							
Standard CMR		White	Blue	Gray	Yellow	Red	Green	Black	United States, Canada, LATAM
Cat 6A Standard Patch Cord CMR Rated		6AS10-yyW	6AS10-yyL	6AS10-yyS	6AS10-yyY	6AS10-yyR	6AS10-yyG	6AS10-yyE	
Standard LSZH		White	Blue	Gray	Yellow	Red	Green	Black	Europe, Middle East, APAC
Cat 6A Standard Patch Cord LSZH Rated		AC6PCFyyy-3CCHB	AC6PCFyyy-4CCHB	AC6PCFyyy-8CCHB	AC6PCFyyy-6CCHB	AC6PCFyyy-1CCHB	AC6PCFyyy-5CHB	AC6PCFyyy-2CCHB	
CP Cords		Eca (Violet)		Dca (Blue)		Cca (Green)		B2ca (Orange)	Europe, Middle East, APAC
Cat 6A CP Cord LSZH Rated		CP-AC6+EcaxxxV*^*-A		CP-AC6+DcaxxxB*^*-A		CP-AC6+CcaxxxG*^*-A		CP-AC6+B2caxxxO*^*-A	
Coupler									Global
VXC Coupler		SBCPI-00S							

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

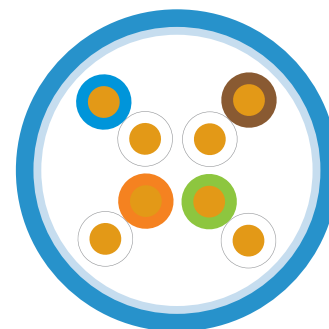
yyy = Length in meters: 0.5 - 20

* = Labeling: S = Standard, C = Custom

Cable

RDT Cat 6A UTP Cable

- The industry's smallest family of Cat 6A UTP cables delivering Cat 6A performance in a Cat 6 size cable
- Reduced Diameter Technology Cat 6A UTP cable with noise cancelling isolation wrap
- Exceeds Cat 6A Alien Crosstalk performance requirements
- Isolation wrap provides optimal heat management for high-PoE deployment
- Good choice for wireless access points and other systems requiring 10 Gb/s connection speeds
- Recommended for ultra-high-density applications and installations
- Third-party tested and certified
- Features a fillerless design that makes installations easier and faster
- Small diameter enables better airflow, reducing energy required for cooling in congested pathways
- Compact design reduces cable carbon footprint
- CPR and 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)			
RDT Cat 6A UTP Cable, CMP, white	11141651	1000 ft (305 m) Reel	United States, Canada
RDT Cat 6A UTP Cable, CMP, blue	11141650	1000 ft (305 m) Reel	
RDT Cat 6A UTP Cable, CMP, gray	11141959	1000 ft (305 m) Reel	
RDT Cat 6A UTP Cable, CMP, white	11142628	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A UTP Cable, CMP, blue	11142454	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A UTP Cable, CMP, gray	11142571	1000 ft (305 m) TEKPAK™ Box	
RDT Indoor/Outdoor Cat 6A UTP Cable, CMP, black	11142753	1000 ft (305 m) Reel	
RISER (CMR)			
RDT Cat 6A UTP Cable, CMR, white	11143100	1000 ft (305 m) Reel	United States, Canada
RDT Cat 6A UTP Cable, CMR, blue	11142398	1000 ft (305 m) Reel	
RDT Cat 6A UTP Cable, CMR, gray	11142285	1000 ft (305 m) Reel	
RDT Cat 6A UTP Cable, CMR, white	11142629	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A UTP Cable, CMR, blue	11142455	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A UTP Cable, CMR, gray	11142608	1000 ft (305 m) TEKPAK™ Box	
CPR EuroClass (B2ca, Cca, Dca, Eca)			
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, violet	RDT-Eca-500VT*	1640 ft (500 m) Reel	Europe
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, violet	RDT-Eca-B305VT	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, blue	RDT-Eca-500BU*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, blue	RDT-Eca-B305BU	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, white	RDT-Eca-500WH*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, white	RDT-Eca-B305WH	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Dca, blue	RDT-Dca-500BU*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Dca, blue	RDT-Dca-B305BU	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Dca, white	RDT-Dca-500WH*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Dca, white	RDT-Dca-B305WH	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Cca, green	RDT-Cca-500GN*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Cca, green	RDT-Cca-B305GN	1000 ft (305 m) TEKPAK™ Box	
Low Smoke Halogen Free (LSHF/LSZH)			
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, violet	RDT-Eca-500VT*	1640 ft (500 m) Reel	Europe, Middle East, LATAM, APAC
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, violet	RDT-Eca-B305VT	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, blue	RDT-Eca-500BU*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, blue	RDT-Eca-B305BU	1000 ft (305 m) TEKPAK™ Box	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, white	RDT-Eca-500WH*	1640 ft (500 m) Reel	
RDT Cat 6A U/UTP Cable, LSHF/LSZH EuroClass Eca, white	RDT-Eca-B305WH	1000 ft (305 m) TEKPAK™ Box	

Also available in a range of non-standard colors.

* Also available in 1000ft (305m) reels

System Topologies

Typical 4-Connector Channel Topology – Standard Patch Cords

NEAR END

3 m

2 m

75 m

15 m

5 m

FAR END

A Patch Cord (6AS10)

B Patch Panel (6A586)

C Patch Panel (49255)

D ATLAS-X1 Cat 6A Jack (6AUJK)

E RDT Cable (Cat 6A)

F Consolidation Point (41D6A)

Typical 4-Connector Channel Topology – High Flex Patch Cords

NEAR END

3 m

2 m

73 m

10 m

5 m

FAR END

A Patch Cord (6AS10)

B Patch Panel (6A586)

C Patch Cord (H6A10)

D Patch Panel (49255)

E ATLAS-X1 Cat 6A Jack (6AUJK)

F RDT Cable (Cat 6A)

G Consolidation Point (41D6A)

Typical 2-Connector Channel Topology

NEAR END

1 m

15 m

1 m

FAR END

A Patch Cord (6AS10)

B Patch Panel (49255)

C ATLAS-X1 Jack (6AUJK)

D SST Cable (Cat 6A)

Typical European 4-Connector Channel Topology – CP Cord

NEAR END

3 m

2 m

75 m

15 m

5 m

FAR END

A Patch Cord (AC6PCF)

B ATLAS-X1 Cat 6A Jack (6AUJK)

C Patch Panel (49255)

D RDT Cable (Cat 6A)

E CP Cord (CP-AC6)

Typical European 4-Connector Channel Topology – VXC Coupler

NEAR END

3 m

2 m

75 m

15 m

5 m

FAR END

A Patch Cord (AC6PCF)

B ATLAS-X1 Cat 6A Jack (6AUJK)

C Patch Panel (49255)

D RDT Cable (Cat 6A)

E VXC Coupler (SBCPI)

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