Z-MAX™ PRODUCT CATALOG

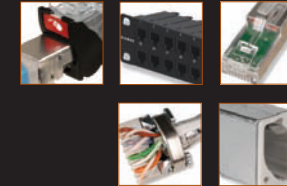![mh] **mulder-hardenberg** group

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CONNECTING THE WORLD TO A HIGHER STANDARD

SIEMON™

SIEMON'S Z-MAX™ NETWORK CABLING SOLUTIONS

A Higher Standard of Choice

TABLE OF CONTENTS

Innovation
everywhere you look

The development of the Z-MAX line began with a simple goal - design and build the best RJ-45 based cabling solution - **period**.

And "best" was not a vague metric. Z-MAX was built to be best across the board:

☐ **Highest performance margins across all critical transmission parameters**
☐ **Fastest, easiest and most reliable termination process**
☐ **Superior transmission consistency**
☐ **The best customer focused usability, efficiency and ergonomic features**

To meet these goals, we did what we have done for over a century - *innovate.*

As you explore the Z-MAX line, you'll see Siemon innovation at every turn. From our patent-pending Zero-Cross™ termination to the exclusive PCB-based smart plug technology integrated into every Z-MAX cord to our hybrid flat/angled outlets to the easy-to-use Z-TOOL, no opportunity to improve this family was overlooked.

Siemon Innovations that make it possible. . .

Highest-Performing Category 6A Systems

	Z-MAX 6A UTP	Z-MAX 6A F/UTP
IL	3 %	3 %
NEXT	3.0 dB	3.0 dB
PSNEXT	3.5 dB	3.5 dB
ACR-F	7 dB	7 dB
PSACR-F	10 dB	10 dB
RL	3 dB	3 dB
PSANEXT	1 dB	10 dB
PSAACR-F	1 dB	5 dB
ACR-N	6 dB	6 dB
PSACR-N	6.5 dB	6.5 dB

Performance based on use of 2M cords and 24 cords and 24 port /1U density. Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

With Z-MAX, Siemon has shattered the RJ-45 barrier. We have achieved best-in-class performance through an innovative "matched" system which combines an optimally tuned plug with a higher performance outlet.

☐ Best guaranteed category 6A margin in the industry
☐ Leading performance on all parameters, not just NEXT
☐ Exceptional alien crosstalk performance
☐ TIA channel, link (draft) compliant
☐ ISO channel, link (draft) compliant
☐ Consistent, superior performance, eliminates marginal reporting (*pass)

Patent-Pending Smart Plug Technology

A critical element of Z-MAX systems' exceptional performance is our smart-plug technology. The Z-MAX smart plug contains a tuned printed circuit board (PCB), normally only found in outlets, to achieve high performance tuning. This advancement in miniaturization has packaged the tuning capability and consistency of a PCB in an industry standard RJ-45 footprint, giving the Z-MAX patch cord unsurpassed performance capabilities.

☐ Patent pending PCB-based plug enables performance levels not possible with traditional cords
☐ Narrower NEXT range provides capability to tune to higher channel performance levels
☐ Advanced contact technology and automated assembly results in decreased performance variability compared with crimp-type plugs
☐ Smart-Plug is fully backwards-compatible and standards compliant
☐ PCB-based contacts eliminate pair-crossing condition present in traditional cords
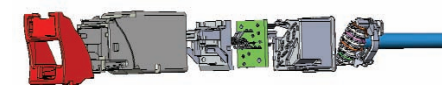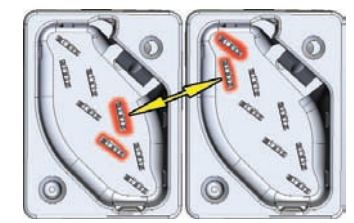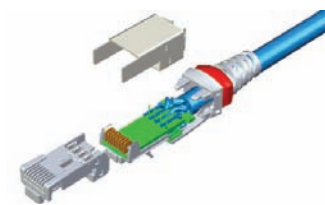
Zero-Cross™ Terminations

The crossing of cable pairs has long been recognized as a source of variability and performance degradation in connector systems. The linear design of the Z-MAX termination module allows conductors to feed naturally into position without the need for pair crossing.
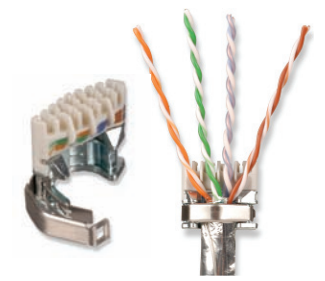
☐ Linear design eliminates variability caused by operator rearrangement of pairs
☐ Removes a significant source of noise and interference present in all other RJ-45 outlets
☐ Dramatically speeds and simplifies cable prep and conductor alignment
☐ Maintains and protects cable pair structure for optimized transmission performance consistency
☐ Intuitive cable lacing significantly minimizes miswires that lead to costly reworks

Diagonal IDC Contact Orientation

Siemon engineers thought "outside of the box" when they developed our diagonally-oriented IDC contact technology. This unique configuration places contacts on a single plane yet varies the alignment of each individual contact within the Z-MAX outlet.   This design provides distinct performance benefits compared with traditional rectangular contact layouts.

☐ Maximizes pair-to-pair separation from adjacent outlets to miminize alien crosstalk even in the most dense category 6A patching environments
☐ Enhances NEXT performance within outlets
☐ Limits untwist of pairs at termination to maximize cable performance
☐ Fully enclosed IDC's eliminates exposure of uninsulated conductors

E-Catalog

Z-MAX™ Information

WEB RESOURCES

Please visit us online for more Z-MAX information, tools and resources:

- Video instructions
- Detailed e-catalog data and spec sheets
- Informational whitepapers
- Technical briefs

. . . and much more

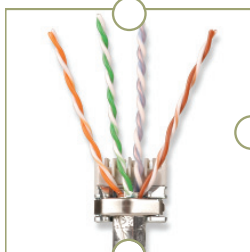### Video Instructions

www.siemon.com

DON'T BLINK

Best-in-class category 6A performance for UTP and Shielded **in as little as 60 seconds**

① **0:30 sec.**

Prep cable and place into Z-MAX's patent-pending Zero-Cross™ lacing cap. Close hinged cable retention/grounding clip.

② **0:45 sec.**

Lace conductor pairs into color-coded linear lacing channels and trim excess.

③ **0:60 sec.**

Insert lacing cap into Z-MAX outlet and terminate with the one-step Z-TOOL™.

○ **Complete!**

Watch Z-MAX termination video at www.siemon.com/go/zmax

The Fastest, Highest Performing Terminations. . . Every Time

Compared to all other RJ-45 products on the market today the Z-MAX™ termination process embraces the principle that simpler is better. By establishing straight forward steps that eliminate potential errors, Siemon has been able to set a new benchmark for UTP and shielded category 6A outlet termination speed and consistency.
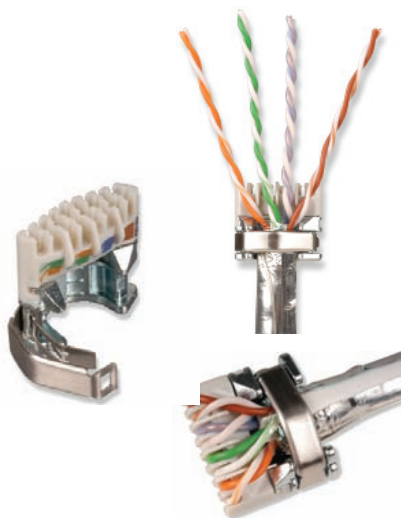
10 Ways Z-MAX Ensures the Highest Performance...Every time

1. Zero-Cross™ termination module accelerates wire placement and lacing

2. Intuitive design optimizes each step to eliminate errors that lead to delays and rework

3. Rapid Z-TOOL™-based termination eliminates variability that can degrade performance

4. Easy wiring verification via color-coding on two surfaces

5. UTP and shielded outlets terminate in exactly the same way

While speed is vital, it is also essential for the quality of the system that the installer can terminate with ease and consistency. The Z-MAX outlet was designed with the mind set that installers shouldn't have to spend too much time reading the instructions to get the job done. The intuitive design of the Z-MAX outlet optimizes each step of the termination process to eliminate errors that lead to delays and rework.

6. Common components and practices for both work area and patching terminations

7. Zero-impact, one-hand termination with the Z-TOOL

8. No cutting blades or high-impact steps for safer terminations

9. Rapid insertion and removal from patch panels with the Quick-Snap design

10. Quick-Ground™ technology automatically terminates cable shield and grounds the outlet to the panel with no additional steps
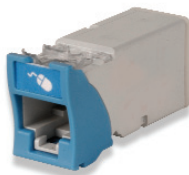
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Z-MAX System Overview

Z-MAX is a complete end-to-end cabling system including outlets, modular cords, patch panels, Z-TOOL™ and trunk assemblies. When combined with Siemon copper cable, Z-MAX provides best-in-class UTP and shielded systems.

Z-MAX HYBRID FLAT/ANGLED WORK AREA OUTLETS

Z-MAX Shielded

Z-MAX UTP

Z-MAX PANEL OUTLETS
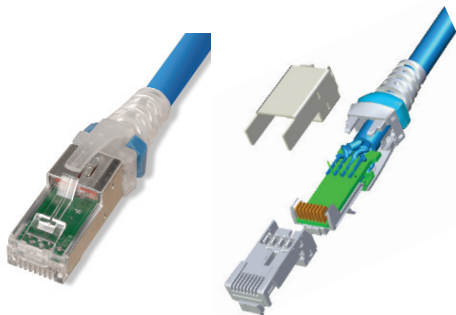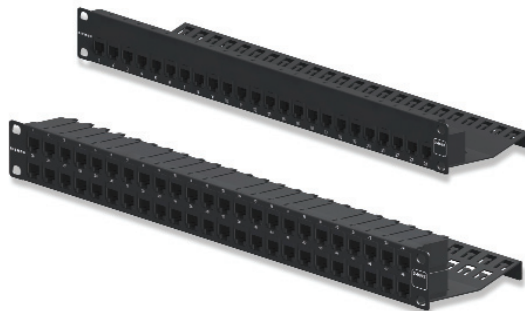### (FOR USE IN Z-MAX PATCH PANELS)

Z-MAX UTP

Z-MAX Shielded

Z-MAX UTP AND SHIELDED MODULAR CORDS
WITH PCB-BASED SMART PLUG TECHNOLOGY

Z-MAX UTP AND SHIELDED PATCH PANELS

CATEGORY 6A CABLE

F/UTP

UTP

Z-TOOL™

SIEMON

Z-MAX 6A Shielded System Features and Benefits

Combining consistent best-in-class performance, unparalleled usability and speed of termination with the security and robust noise immunity of a shielded cabling system, Siemon's Z-MAX 6A shielded end-to-end solution represents the cutting edge of category 6A cabling. The Z-MAX 6A shielded system provides the highest margins on all TIA and ISO performance requirements for category 6A/class E_A, including critical alien crosstalk parameters.

Siemon's Z-MAX 6A shielded channel consists of the shielded Z-MAX 6A outlet, Siemon category 6A F/UTP cable and Z-MAX patch panels as well as shielded, stranded or solid cord options.

Z-TOOL™ Termination
- Fast
- Simple
- Consistent
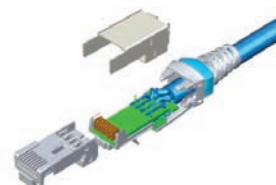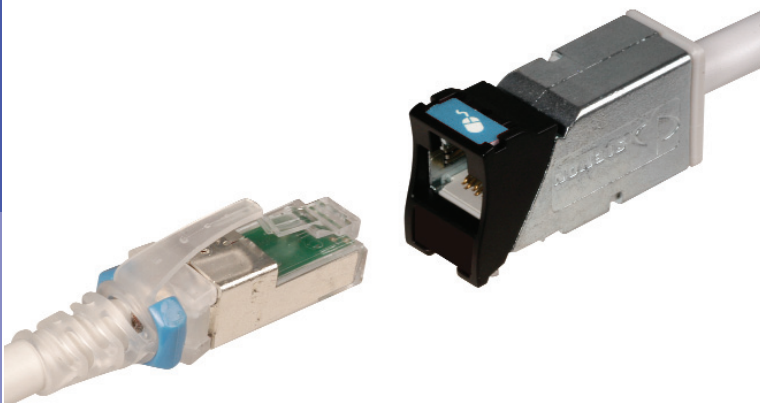
PCB-based Smart Plug
Z-MAX cords feature exclusive PCB-based smart plug specifically tuned to maximize overall system performance

Features and Benefits

☐ Hybrid work area outlets mount in either flat or angled orientation

☐ Industry's fastest termination time accelerates project completion

☐ Guided, tool-based termination process enhances system quality and reliability

☐ Field-terminated outlets or pre-terminated trunking cables can be quickly snapped into patch panels and released to enable rapid deployment or changes

☐ High density 48 port, 1U options provide the flexibility to work within strict space limitations saving valuable rack and cabinet space

☐ Integrated Quick-Ground™ outlet shield and panel connections ensures fast and reliable grounding

☐ Shielded outlet and modular cord color-coding provides the capability to code and customize your cabling system

Rapid Deployment
Modular Quick-Snap panel design speeds initial deployment and subsequent MACs

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System Performance Overview

Standards Compliance

- ☐ **ISO/IEC 11801 Class E_A**
- ☐ **TIA/EIA-568-B.2-10**
- ☐ **UL-listed**
- ☐ **IEEE 802.3an**

Z-MAX 6A F/UTP Performance

GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 2.1 (1 - 500 MHz)

PARAMETER	VALUE
IL	3 %
NEXT	3 dB
PSNEXT	3.5 dB
ACR-F	7 dB
PSACR-F	10 dB
RL	3 dB
PSANEXT	10 dB
PSAACR-F	5 dB
ACR-N	6 dB
PSACR-N	6 dB

Performance based on use of 2M cords and 24 cords and 24 port /1U density.
Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

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Z-MAX 6A Shielded Outlets

The shielded Z-MAX outlet offers best-in-class performance in every critical specification, exceeding all category 6A performance requirements, including alien crosstalk. Its innovative features not only speed and simplify termination, but remove installation variability for consistently high and repeatable performance - every termination, every time!

Flexibility and Simplified Ordering
A single hybrid outlet supports both angled and flat mounting orientations

Enhanced Shielding Effectiveness
High level of shielded effectiveness exceeds ISO 360 degree shielding requirements via die cast housing and hinged cable retention/grounding clip

100% jack-to-jack plastic isolation
Plastic bezels prevent contact between metal housings when side stacking to ensure ground quality and ANEXT performance

Quick-Ground™ Termination
Cable shield is automatically terminated to the outlet without additional steps

1 **Fastest Termination Time** – Zero-Cross™ termination module and Z-TOOL™ termination process combine for best-in-class termination time

2 **High-Visibility Icon System** – Printed icons allow designation for voice / data applications and also provide an additional color coding option

3 **Compact** – Slim and side-stackable for high-density applications. Supports "pass-thru" feature to mount from the front or rear of a faceplate

4 **Guided Termination Features** – Linear lacing channels guide correct conductor placement while 2-sided color-coding provide wiring verification before and after lacing

5 **Color Coding Capability** – Bezel allows outlets to be color coded for customer identification to match faceplates and other mounting accessories

6 **Robust Hinged Cable Retention** – Clip accommodates multiple cable diameters

Ordering Information:

Z6A-S(X)(XX) - Shielded Z-MAX 6A outlet, T568A/B

Mounting Style

(Blank) - Hybrid Flat/Angled
K - Keystone

Bezel Color
01 - Black **07** - Green
02 - White **09** - Orange
03 - Red **20** - Ivory
04 - Grey **80** - Light Ivory
05 - Yellow
06 - Blue

Outlet terminates S/FTP, F/FTP and F/UTP cable constructions with 22 – 26 AWG (0.64 – 0.51mm) solid and 26 AWG (0.48mm) stranded conductors, with up to 0.60mm diameter conductors and up to 1.48mm diameter over insulation.

Each Z-MAX 6A hybrid outlet includes 1 printed icon set with the following color/print options.
Additional color options on page 21.

1 - Red Data   **1** - Red Voice
1 - Blue Data   **1** - Blue Voice
1 - Bezel Color-matching Data **1** - Bezel Color-Matching Voice
1 - White Blank   **1** - Bezel Color-Matching Blank

Front   **Rear**

Note: Z-MAX 6A Shielded outlets utilize MAX faceplates, (details on page 22).

Z-MAX 6A Shielded Modular Cords

Combining the unparalleled performance of an exclusive PCB-based plug, noise-resistant shielded construction and a host of innovative user friendly features, the shielded Z-MAX 6A modular cords are the ultimate category 6A cord. All cords are 100% factory-tested to ensure performance and compliance.
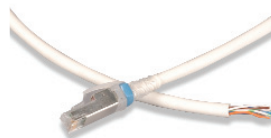
Excellent Bend Relief
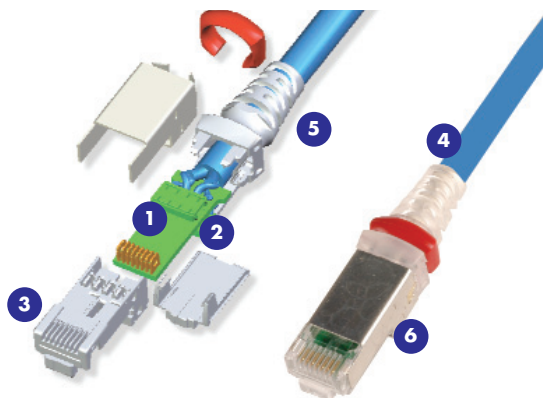Boot ensures proper bend relief, critical for category 6A performance

Colored Clips
Removable clips allow field color coding even when cords are connected

Solid Cord Option
Solid F/UTP assemblies are available for consolidation point and equipment cord applications

① Integrated PCB – PCB equipped smart plugs optimize signal tuning for exceptional transmission

② Superior Performance Consistency – Rear contacts maintain cable pair symmetry to point of termination and provide robust strain relief

③ Fixed Front Contacts – Ensure proper mating with outlets to eliminate the performance variability of traditional crimp-style terminations

④ High Performance Cable – Patch cords feature category 7 S/FTP stranded cable for optimal transmission performance while eliminating alien cross-talk

⑤ Low Profile Boot Design – Optimizes side-stackability of patch cords and allows use in even the most dense patching environments

⑥ Cantilevered Latch – Allows latch activation from further back on the boot for superior accessibility in high density environments

Ordering Information:

ZM6A-S(XX)-(XX) . . . . Z-MAX 6A shielded (S/FTP), double-ended, stranded modular cord, clear boot, T568A/B, LS0H

Jacket Color
01 - Black   **05** - Yellow
02 - White   **06** - Blue
03 - Red   **07** - Green
04 - Grey   **09** - Orange

Length
03 - 3 ft.
05 - 5 ft.
07 - 7 ft.
10 - 10 ft.
15 - 15 ft.
20 - 20 ft.

Ⓑ *Add "B" to end of part number for bulk project pack of 100 cords.*

CLIP-(XX) . . . . Color coding clip, bag of 25

Clip Color
01 - Black   **03** - Red   **05** - Yellow   **07** - Green
02 - White   **04** - Grey   **06** - Blue   **09** - Orange

ZC6A-S(XX)(X)-(X)(X) . . . . . Z-MAX 6A shielded (F/UTP) solid modular cord, blue jacket, clear boot*

Plugs
(Blank) - Single-ended
D - Double-ended (T568A/B)

Jacket Type
P - Plenum
R - Riser

Wiring
A - T568B
T - T568A

Length
10 - 10 ft.
20 - 20 ft.
30 - 30 ft.
40 - 40 ft.
50 - 50 ft.
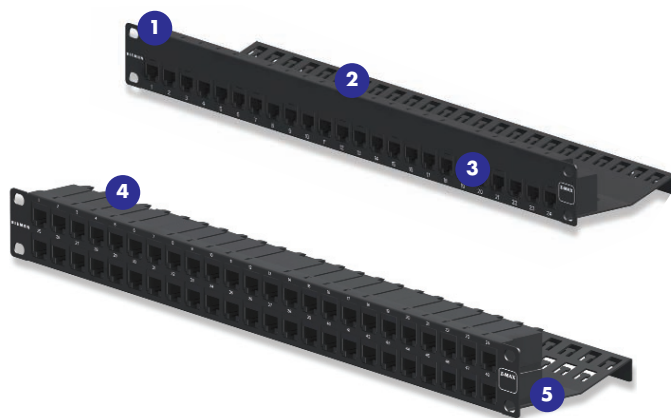**60** - 60 ft.

Call for availability

Z-MAX 6A Shielded Patch Panels

Z-MAX patch panels provide outstanding performance and aesthetics in a shielded, high-density modular solution. The Z-MAX panels provide rapid and reliable installation by accelerating outlet mounting, grounding, and cable tie-down operations.

In addition to traditional 24 port / 1U flat and angled versions, the Z-MAX shielded panels are also available in 48 port / 1U configurations to permit high density installations.

Installation Friendly
Quick-Snap feature allows Z-MAX panel outlets to quickly inserted and removed

Trunking Applications
Ideal for Trunking applications combine Z-MAX trunk assemblies (with panel outlets) and empty Z-MAX panels for rapid data center deployment

Kits
Panels available as complete kits including patch panel, Z-MAX panel outlets and all necessary accessories. Empty panels are also available for use with Z-MAX trunk assemblies

1 **High-Density** – Provides up to 48 ports in just 1U to reduce valuable rack/cabinet space consumption

2 **Port Identification** – High visibility magnifying labeling system enables quick identification of outlets

3 **Durable** – Lightweight, high strength steel with black finish and scratch/fade resistant port marking

4 **Flexible** – Both flat and angled panel options

5 **Integrated Quick-Ground™** – Panels feature embedded conductive strips to automatically ground Z-MAX modules to panel upon insertion

Ordering Information:

Z6AS-PNL(X)-24(X)...........24 Port, Z-MAX 6A shielded patch panel, 1U, black

Modules
K -Kit w/ 24 Z-MAX panel outlets
E - Empty (no outlets) for use with trunks

Mounting Style
(Blank) - Flat
A - Angled

Z6AS-PNL(X)-U48(X).........48 Port, Z-MAX 6A shielded patch panel, 1U, black

Modules
K -Kit w/ 48 Z-MAX panel outlets
E - Empty (no outlets)

Mounting Style
(Blank) - Flat
A - Angled

Panels Include: Cable Ties, Icon/Label Holders, Labels, #6 AWG Grounding Lug, and Mounting Hardware

Panel Accessories

Z-PNL-PL24...........Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48...........Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-P ....Patch panel label holder, bag of 25
Z6A-SP ....Z-MAX 6A shielded panel outlet

Z-MAX shielded panels designed for use with Z-MAX shielded panel outlets only

TERA®-MAX Patch Panels

TERA-MAX patch panels provide outstanding performance and reliability in a shielded, high-density modular solution. As outlets are snapped into place, resilient ground tabs assure that each outlet is properly grounded for maximum protection from outside interference. No secondary outlet grounding operations are required, reducing overall installation time.

Integrated Grounding
Panels feature integrated grounding via resilient Quick-Ground™ tabs automatically engaged during Z-MAX outlet insertion.
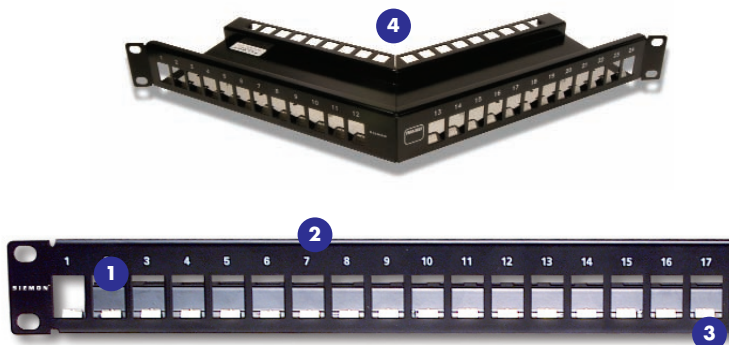

Single Outlet Solution
Hybrid (flat/angled) shielded Z-MAX outlets used in the work area are required for use in TERA-MAX panels creating a common outlet solution for all locations


Future Flexibility
TERA-MAX panels also accept TERA outlets to support potential future infrastructure upgrades

1. **High Density** – 24 ports in 1U
2. **Port Identification** — Bold port numbering enables quick identification of outlets
3. **Durable** – Lightweight, high strength steel with black or metallic finish
4. **Angled TERA-MAX** – Allows direct routing of cables to vertical managers, eliminating the need for horizontal cable managers

Ordering Information:

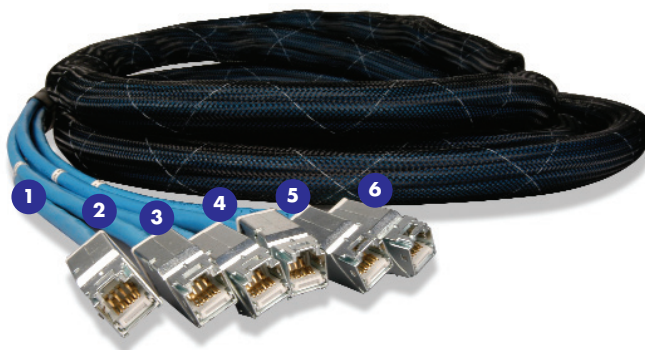| Part #	Description
TM-PNLZ-24-01	24-port TERA-MAX panel, black, 1U
TM-PNLZ-24	24-port TERA-MAX panel, metallic, 1U
TM-PNLZA-24-01	24-port Angled TERA-MAX panel, black, 1U
TM-PNLZA-24	24-port Angled TERA-MAX panel, metallic, 1U
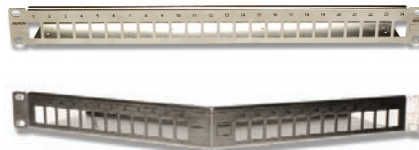
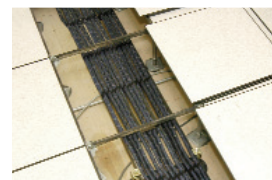*Panels include designation labels, cable ties and mounting hardware.*

TERA-MAX panels are designed for use with hybrid (flat/angled) shielded Z-MAX outlets. Also compatible with shielded MAX or TERA outlets

Z-MAX 6A Shielded Trunking Cable Assemblies

Featuring factory terminated and tested shielded Z-MAX outlets and Siemon category 6A F/UTP cable, Z-MAX 6A shielded copper trunking cable assemblies were designed with data center applications in mind, providing high-performance category 6A performance in a quickly implemented, efficient and cost effective alternative to individual field-terminated components.

Data Centers
Ideal for data center, raised floor and ladder rack environments enabling up to 75% faster deployment time

Simple Installation
Pre-terminated Z-MAX panel outlets utilize the Quick-Snap feature for easy installation and removal from Z-MAX panels

Protective Packaging
Each assembly is packaged individually to protect factory terminations

1 **Proper Orientation** – Each leg is labeled for proper outlet orientation

2 **Category 6A F/UTP Cable** – Utilizes high quality Siemon category 6A F/UTP cable

3 **Factory Terminated and Tested** – Utilizes shielded Z-MAX outlet, factory terminated and tested for high performance

4 **Identification** – Each cable assembly is coded with a unique identification number for administrative purposes

5 **Breakout Kit** – Unique breakout kit creates optimal cable orientation and limits cable crossing

6 **Quick-Ground™** – Shielded Z-MAX 6A outlets are automatically grounded upon insertion into Z-MAX panels

Ordering Information:

TE(X)D6E-(XXXX)(XXX)F . . . . 6 Leg Double-Ended Trunking Cable Assembly

Length

009-295 - Indicate length in feet (increments of 3 feet)

Cable Jacket

R - Riser rated (CMR), blue jacket

P - Plenum rated (CMP), blue jacket

Connector Types

P7P7 - Z-MAX panel outlets for use with Z-MAX panels

H1H1 - Z-MAX hybrid (flat/angled) outlets for use with TERA-MAX panels

P7J7 - Z-MAX panel outlets to Z-MAX plugs

H1J7 - Z-MAX hybrid flat/angled outlets to Z-MAX plugs

Standard wiring is T568B.

Other lengths and configurations available upon request.

Note: These products are made to order. Call for lead time and part number availability in your region.

STRAIGHT CUT

Siemon Category 6A F/UTP 4-Pair Cable —North America

CABLE CONSTRUCTION

- F/UTP
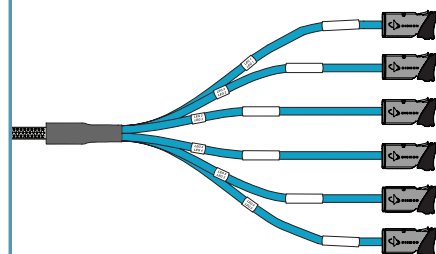- 0.57mm (0.023 in.) (23 AWG) solid bare copper
- 7.4mm (0.29 in.) max jacket diameter
- Central isolation member
- Shield is an aluminum foil tape enclosing a 0.51mm (0.20 in.) (24 AWG) tinned copper drain wire

COMPLIANCE

- TIA-568-B.2-10
- UL CMR and CSA FT4
- UL CMP and CSA FT6

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)	50mm (2.0 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)	-20 to 60°C (-4 to 140°F)

Ordering Information:

9A6(X)4-A5-(XX)-R1A . . . . 305m (1000 ft.) Reel (North America Only)

Jacket Material
P - Plenum (CMP, CSA FT6)
R - Riser (CMR, CSA FT4)

Jacket Color
02 - White
04 - Grey
05 - Yellow
06 - Blue

Siemon Category 6A F/UTP 4-Pair Cable — South/Central America
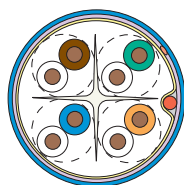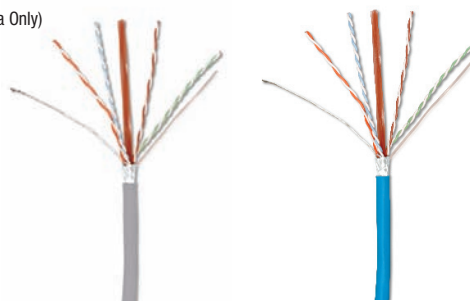
CABLE CONSTRUCTION

- F/UTP
- 0.57mm (0.023 in.) (23 AWG) solid bare copper
- 7.4mm (0.29 in.) max jacket diameter
- Central isolation member
- Shield is an aluminum foil tape enclosing a 0.51mm (0.20 in.) (24 AWG) tinned copper drain wire

COMPLIANCE

- ISO/IEC 11801:2002, Amendment 2 (Category 6$_A$, draft)
- TIA-568-B.2-10 (draft)
- UL CM and IEC 60332-1
- UL CMR and CSA FT4
- LS0H IEC 60332-1, IEC 60754, IEC 61034

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)	50mm (2.0 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)	-20 to 60°C (-4 to 140°F)
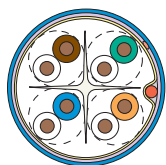
Ordering Information:

9A6(X)4-A5 . . . . 305m (1000 ft.) Reel (South/Central Americas Only)

Jacket Material
M - PVC (CM, IEC 60332-1), Gray Jacket
R - Riser (CMR, CSA FT4), Blue Jacket
**L** - LS0H (IEC 60332-1) Violet Jacket

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Z-MAX 6A UTP System Features and Benefits

Siemon's Z-MAX 6A UTP solution was developed from the ground up with a single goal: shattering the limitations of category 6A UTP cabling as we know it today. Combining patent-pending PCB-based smart plugs, optimized outlets, reduced diameter cable and high-density patch panels, the Z-MAX 6A UTP system provides outstanding margin on all TIA and ISO performance requirements for category 6A/class E_A, including critical alien crosstalk parameters.

And, the innovative Z-TOOL™ termination process eliminates the variability of field terminations, providing faster, more user-friendly and less-error-prone category 6A UTP installations.
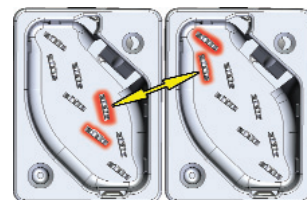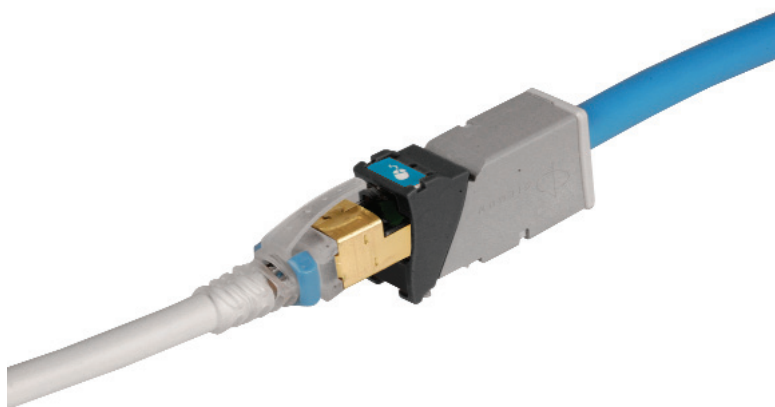
Optimized For Alien Crosstalk Elimination
Diagonal IDC alignment maximizes outlet to outlet pair separation to achieve AXT performance in high-density environments

Reduced Diameter Cable
Siemon's next generation category 6A UTP cable uses an innovative cable construction which results in a smaller, more flexible design to reduce the demands for larger pathway sizing

PCB-Based Smart Plug
Exclusive PCB-based smart plug is specifically tuned to maximize overall system performance

Features and Benefits

- ☐ **High density 48 port, 1U panels provides the flexibility to maximize rack/cabinet space while maintaining excellent alien crosstalk isolation**
- ☐ **Industry's fastest termination time accelerates project completion**
- ☐ **Guided, tool-based termination process enhances system quality and reliability**
- ☐ **Hybrid work area outlets can be mounted in either flat or angled orientation**
- ☐ **Field-terminated outlets or pre-terminated trunking cables can be quickly snapped into patch panels and released enabling rapid deployment or changes**
- ☐ **Outlet and modular cord color-coding provides the capability to code and customize your cabling system**

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System Performance Overview

Standards Compliance

☐ **ISO/IEC 11801 Class E_A**
☐ **TIA-568-B.2-10**
☐ **UL-listed**
☐ **IEEE 802.3an**
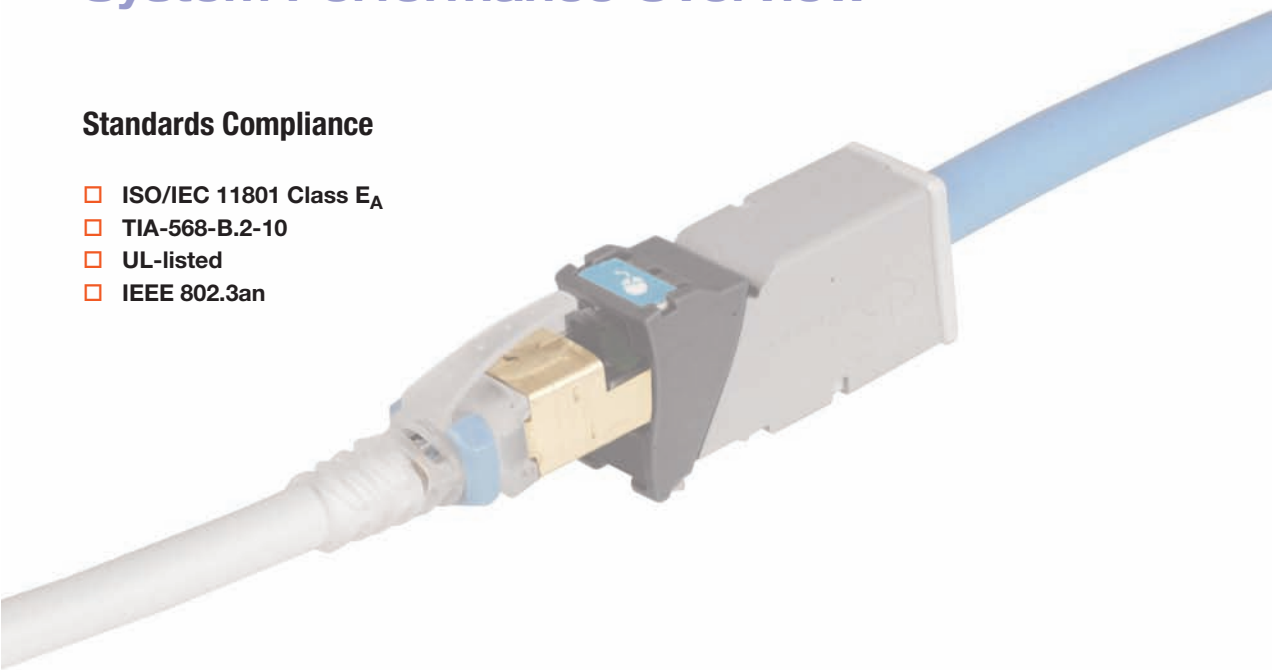
Z-MAX 6A UTP Performance

GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 2.1 (1 - 500 MHz)

PARAMETER	VALUE
IL	3 %
NEXT	3.0 dB
PSNEXT	3.5 dB
ACR-F	7 dB
PSACR-F	10 dB
RL	3 dB
PSANEXT	1 dB
PSAACR-F	1 dB
ACR-N	6 dB
PSACR-N	6.5 dB

Performance based on use of 2M cords and 24 cords and 24 port /1U density.
Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

Z-MAX 6A UTP Outlets

The category 6A UTP Z-MAX outlet offers best-in-class performance in every critical specification, exceeding all category 6A performance requirements, including alien crosstalk. Its innovative features not only accelerate and simplify termination, but remove installation variability for consistently high and repeatable performance - every termination, every time!
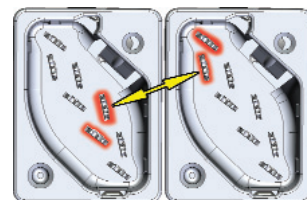
Optimized For Alien Crosstalk Isolation

Diagonal IDC alignment maximizes outlet to outlet pair separation to archive AXT performance in high-density, environments

1 **Fastest Termination Time** – Zero-Cross™ termination module and 2-step Z-TOOL™ termination process combine for best-in-class termination time

2 **High-Visibility Icon System** – Printed icons allow designation for voice / data applications and also provide an additional color coding option

3 **Compact** –Slim and side-stackable for high-density applications. Supports "pass-thru" feature to mount from the front or rear of a faceplate

4 **Guided Termination Features** – Lacing channels guide correct conductor placement while 2-sided color-coding provide wiring verification before and after lacing

5 **Enclosed IDC Terminations** – IDC terminations are fully enclosed in the outlet housing for robust protection

6 **Robust Hinged Cable Retention** – Hinged clip accommodates multiple cable diameters

Flexibility and Simplified Ordering

A single hybrid outlet supports both angled and flat mounting orientations

Ordering Information:

Z6A-(X)(XX) . . . . .UTP Z-MAX 6A outlet, T568A/B

Mounting Style
(Blank) - Hybrid Flat/Angled
K - Keystone

Bezel Color	
01 - Black	**06** - Blue
02 - White	**07** - Green
03 - Red	**09** - Orange
04 - Grey	**20** - Ivory
05 - Yellow	**80** - Light Ivory

Outlet terminates UTP cable constructions with 22 – 26 AWG (0.64 – 0.51mm) solid and 26 AWG (0.48mm) stranded conductors, with up to 0.60mm diameter conductors and up to 1.48mm diameter over insulation.

Z-MAX 6A UTP outlets utilize 10G MAX faceplates and cannot be side-stacked in standard MAX faceplates (details on page 22).

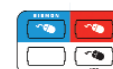Each Z-MAX 6A UTP hybrid flat/angled outlet includes 1 printed icon set with the following color/print options.

Additional color options on page 21.

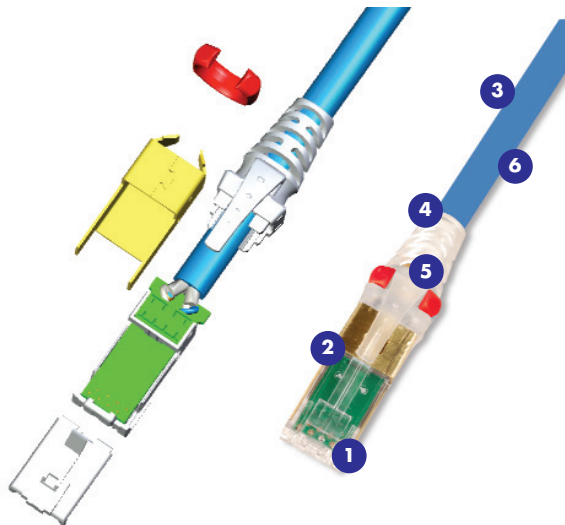|	
1 - Red Data	**1** - Red Voice
1 - Blue Data	**1** - Blue Voice
1 - Bezel Color-matching Data	**1** - Bezel Color-Matching Voice
1 - White Blank	**1** - Bezel Color-matching Blank

Front

Rear

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Z-MAX 6A UTP Modular Cords

Combining the unparalleled performance of an exclusive PCB-based smart plug, alien crosstalk resistant construction and a host of innovative user-friendly features, the Z-MAX 6A UTP modular cords sets the bar for category 6A UTP patching.

100% Factory-Tested
Cords are 100% transmission tested to ensure compliance with applicable standards requirements

Colored Clips
Removable clips allow field color coding even when cords are connected

Excellent Bend Relief
Boot ensures proper bend relief, critical for category 6A performance

1 Integrated PCB – PCB equipped smart plugs optimize signal tuning for exceptional transmission

2 Superior Performance Consistency – Precision PCB-based conductor terminations eliminate the performance variability of traditional direct wire to contacts

3 High Performance Cable – Z-MAX 6A UTP cords feature dual jacket construction for excellent alien crosstalk performance

4 Low Profile Boot Design – Optimizes side-stackability of modular cords and allows use in even the most dense equipment

5 Cantilevered Latch Guard – Allows latch activation from further back on the boot for superior accessibility in high density environments

6 Solid Cord Option – Solid UTP cords are available for consolidation point and equipment cord applications

Ordering Information:

ZM6A-(XX)-(XX) . . . . Z-MAX 6A UTP, double-ended, stranded modular cord, clear boot, T568A/B, CMG

Jacket Color
01 - Black	**05** - Yellow
02 - White	**06** - Blue
03 - Red	**07** - Green
04 - Grey	**09** - Orange

Length
03 - 3 ft.
05 - 5 ft.
07 - 7 ft.
10 - 10 ft.
15 - 15 ft.
20 - 20 ft.

Ⓑ *Add "B" to end of part number for bulk project pack of 100 cords.*

CLIP-(XX) . . . . Color coding clip, bag of 25

Clip Color
01 - Black	**03** - Red	**05** - Yellow	**07** - Green
02 - White	**04** - Grey	**06** - Blue	**09** - Orange

ZC6A-(XX)(X)-(X)(X) . . . . Z-MAX 6A UTP, solid modular cord, blue jacket, clear boot*

Plugs
(Blank) - Single-ended
D - Double-ended (T568A/B)

Jacket Type
P - Plenum
R - Riser

Length
10 - 10 ft.
20 - 20 ft.
30 - 30 ft.
40 - 40 ft.
50 - 50 ft.
60 - 60 ft.

Wiring
A - T568B
T - T568A

*Call for availability

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Z-MAX 6A UTP Patch Panels

Z-MAX patch panels provide outstanding 10 Gb/s performance and aesthetics in a high-density, modular UTP solution. The Z-MAX UTP panels provide rapid and reliable installation by accelerating module mounting, and cable tie-down operations.

In addition to traditional 24 port / 1U flat and angled versions, the Z-MAX UTP panels are also available in 48 port / 1U configurations to permit high density installations.

Kits
Panels available as complete kits including patch panel, Z-MAX panel outlets and all necessary accessories. Empty panels are also available for use with Z-MAX trunk assemblies

Ideal for Trunking Applications
Combine Z-MAX trunk assemblies (with panel outlets) and empty Z-MAX panels for rapid data center deployment

Integrated Cable Management
Ensures proper cable management practices for all installations, critical to category 6A performance

1 **High Density** — Provides 48 ports in just 1U while still meeting strict category 6A Alien Crosstalk parameter

2 **Installation Friendly** — Quick-Snap feature allows outlets to quickly be snapped into place

3 **Port Identification** —High visibility magnifying labeling system enables quick identification of outlets

4 **Durable** — Lightweight, high strength steel with black finish and scratch/fade resistant port marking

5 **Aesthetics** - The Z-MAX panel provides a clean front surface to improve the installation appearance

Ordering Information:

Z6A-PNL(X)-24(X)............24 Port, Z-MAX 6A UTP Patch Panel, 1U, Black

Modules
K -Kit w/ 24 Z-MAX Modules
E - Empty (no outlets) for use with trunks

Mounting Style
(Blank) - Flat
A - Angled

Z6A-PNL(X)-U48(X)...........48 Port, Z-MAX 6A UTP Patch Panel, 1U, Black

Modules
K -Kit w/ 48 Z-MAX Modules
E - Empty (no outlets) for use with trunks

Mounting Style
(Blank) - Flat
A - Angled

*Call for availability

Panels Include: Cable Ties, Icon/Label Holders, Labels and Mounting Hardware
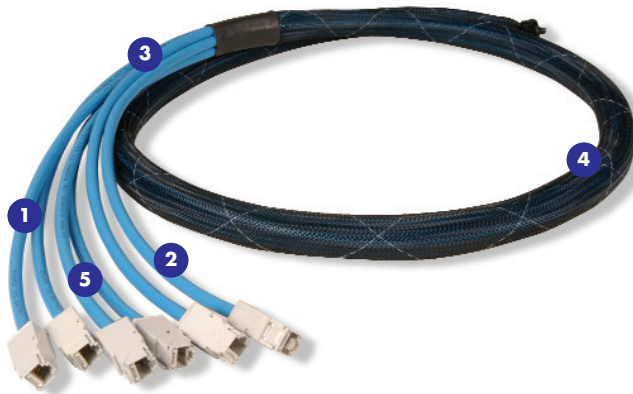
Panel Accessories

Z-PNL-PL24................Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48................Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-PS ....Patch panel label holder, bag of 25
Z6A-P ....Z-MAX 6A UTP panel outlet

Note: Z-MAX UTP panels are designed for use with Z-MAX UTP panel outlets only

Z-MAX 6A UTP
Trunking Cable Assemblies

Siemon's Z-MAX 6A UTP trunking cable assemblies provide an easily installed and cost effective alternative to individual field-terminated channels. Combining factory terminated and tested Z-MAX outlets with Siemon's category 6A UTP cable in a high-performance modular cable assembly, Z-MAX 6A UTP trunking cable assemblies are designed to simplify the installation of category 6A systems in data centers and other high-density high-performance environments.

Data Centers
Ideal for Data Center, raised floor and ladder rack environments enabling up to 75% faster deployment time
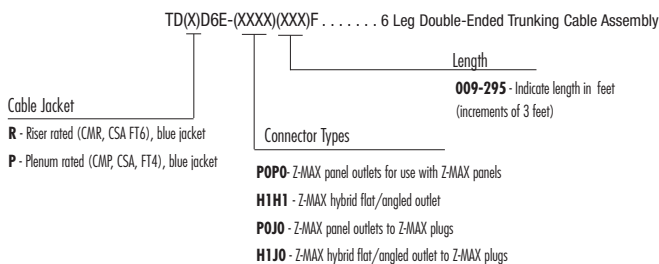
Simple Installation
Pre-terminated Z-MAX panel outlets utilize the Quick-Snap feature for easy installation and removal from Z-MAX panels

1 **Proper Orientation** — Each leg is cut and labeled for proper module orientation

2 **Factory Terminated and Tested** — Utilizes Z-MAX 6A UTP outlets, factory terminated and tested for high performance

3 **Identification** — Each cable assembly is coded with a unique identification number for administrative purposes

4 **Siemon Category 6A UTP Cable** — Utilizes high quality Siemon category 6A UTP cable

5 **Breakout Kit** — Unique breakout kit creates optimal cable orientation and limits cable crossing
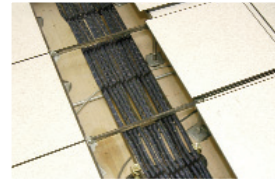
Protective Packaging
Each assembly is packaged individually to protect factory terminations

Ordering Information:

TD(X)D6E-(XXXX)(XXX)F . . . . 6 Leg Double-Ended Trunking Cable Assembly

Length

009-295 - Indicate length in feet
(increments of 3 feet)

Cable Jacket

R - Riser rated (CMR, CSA FT6), blue jacket

P - Plenum rated (CMP, CSA, FT4), blue jacket

Connector Types

P0P0 - Z-MAX panel outlets for use with Z-MAX panels

H1H1 - Z-MAX hybrid flat/angled outlet

P0J0 - Z-MAX panel outlets to Z-MAX plugs

H1J0 - Z-MAX hybrid flat/angled outlet to Z-MAX plugs
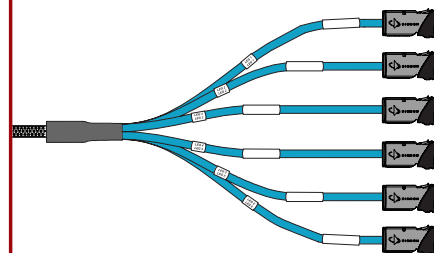
Standard wiring is T568B. Other lengths and configurations available upon request.

Note: These products are made to order. Call for lead time and part number availability in your region.

STRAIGHT CUT

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Category 6A UTP 4-Pair Cable — Americas

CABLE CONSTRUCTION

- UTP
- 0.58mm (0.022 in.) (23 AWG) solid bare copper
- 8.1mm (0.32 in.) max jacket diameter
- Round jacket with Internal Longitudinal Striations (ILS)
- Trisolator pair separation

COMPLIANCE

- TIA-568-B.2-10
- UL CMR and CSA FT4
- UL CMP and CSA FT6

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	30.5mm (1.2 in.)	30.5mm (1.2 in.)
Installation Temperature	0 to 50°C (+32 to 122°F)	0 to 50°C (+32 to 122°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-10 to 60°C (-14 to 140°F)	-20 to 60°C (-4 to 140°F)

Ordering Information:

9C6(X)4-A5-(XX)-R1A . . . . 305m (1000 ft.) Reel

Jacket Material

P - Plenum (CMP, CSA FT6)
R - Riser (CMR, CSA FT4)

Jacket Color
02 - White
03 - Red
04 - Grey
05 - Yellow
06 - Blue
07 - Green
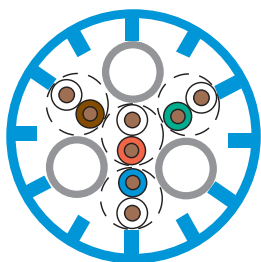
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Z-TOOL™ and Accessories

The Z-TOOL is an integral part of the exclusive Z-MAX™ termination process and is used with both UTP and shielded Z-MAX modules. This easy-to-use and ergonomic designed tool is used both to secure the cable retention/grounding clip and to fully enage the termination module into the back of the outlet.

1 Ergonomic — Minimal hand strain, limited pressure and zero-impact for comfortable repeatability

2 Alignment Aids — Keyed guide ensures correct outlet insertion during termination

3 One-Handed Activation — Allows final Z-MAX termination step to be accomplished with one hand for operation space-restricted areas

4 Retention Clip Locking — Additional function closes and locks hinged cable retention/grounding clip

5 Slim Profile — To fit in a pocket or toolbox

6 Attachment Point — For key ring or lanyard and rack-mount capability

Part #	Description
Z-TOOL	Z-MAX Termination Tool
CPT-RGTP	AllPrep™ cable preparation tool for twisted pair cables
CPT-DIE-6A	Replacement All-Prep 6A die (green)

Z-MAX Icon Cards

The innovative Z-MAX icon card contains four high-visibility print, 2-sided icons to provide a variety of options for outlet identification and supplemental color coding. The icons are secured in a durable frame to eliminate loose and easily lost parts.

All Cards Include:
- Red and blue icons with voice and data symbols
- Supplemental/color-matched icon with voice, data, and blank designation
- 1 white blank icon for field designation
- Fully recyclable material

Z-ICON-(XX)B. . . . . Z-MAX Icon Card, bag of 100

Primary Color

01 - Black	**03** - Red	**05** - Yellow	**07** - Green	**20** - Ivory
02 - White	**04** - Grey	**06** - Blue	**09** - Orange	**80** - Light Ivory

Front   Rear

Faceplates and Mounting Accessories

MAX® MODULAR FACEPLATES

MX-FP-S-(XX)-(XX) . . . . Single gang faceplate

Color
01 - Black   **20** - Ivory
02 - White   **80** - Light Ivory
04 - Grey

Ports
01 - 1 port
02 - 2 port
03 - 3 port
04 - 4 port
06 - 6 port

*Note: Z-MAX™ 6A UTP hybrid outlets cannot be slide-stacked in modular faceplates.
10G MAX faceplates must be used for the Z-MAX 6A UTP System*

10G™ MAX FACEPLATES

10GMX-FPS(XX)-(XX) . . . . Single gang 10G faceplate

Color
01 - Black   **20** - Ivory
02 - White   **80** - Light Ivory
04 - Grey

Ports
02 - 2 port
04 - 4 port
06 - 6 port

Faceplates include designation labels, clear label covers, and #6-32x1 mounting screws.
Ⓑ *Add "B" to end of part number for bulk project pack of 100 faceplates.*

Z-MAX (MX-SMZ) SURFACE MOUNT BOXES

MX-SMZ(X)-(XX) . . . . Z-MAX Surface mount box with cover base, 2 port multimedia bezel, cable ties, adhesive tape and mounting screws

Color
02 - White
20 - Ivory
80 - Light Ivory

Ports
1 - 1 port
2 - 2 port*
4 - 4 port*
6 - 6 port*

* Includes designation labels and label covers

Add "-M" for optional magnets.

Note: Standard MX-SM surface mount boxes require use of multimedia bezel. Part number MX-SMB-MM-(XX)

Z-MAX ANGLED ADAPTERS

Designed for use in standard CT faceplates and modular furniture adapters, adapters feature angled bezel orientation to reduce mounting depth requirements for Z-MAX outlets and facilitates gravity feed installation design.

CTE-MXA-(XX)-02 . . . . Angled CT adapter for Z-MAX hybrid outlets, white

Ports
01 - 1 port
02 - 2 port

CTE-HZA-02-(XX) . . . . Horizontal angled CT adapter for two shielded Z-MAX hybrid outlets

Color
01 - Black
02 - White

* *Z-MAX 6A UTP hybrid outlets cannot be side-stacked in CTE-HZA adapters.*

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