

## Guaranteed Performance Beyond the Standards TX6A™ and TX6A-SD™ 10Gig™ UTP Copper Cabling Systems

Panduit® TX6A™ and TX6A-SD™ 10Gig UTP Copper Cabling Systems are designed for optimum network performance, design flexibility and reliability to protect network investments well into the future. Each system provides users with headroom assurance that will exceed ANSI/TIA-568-C.2 Category 6A and ISO 11801 Edition 2.1 Class E<sub>A</sub> standards for the following key electrical parameters: Insertion Loss (IL), Near-End Alien Crosstalk (NEXT), Power Sum NEXT, Power Sum ACR-F, Return Loss, Power Sum ACR-N, Power Sum Alien NEXT, and Power Sum AACR-F.

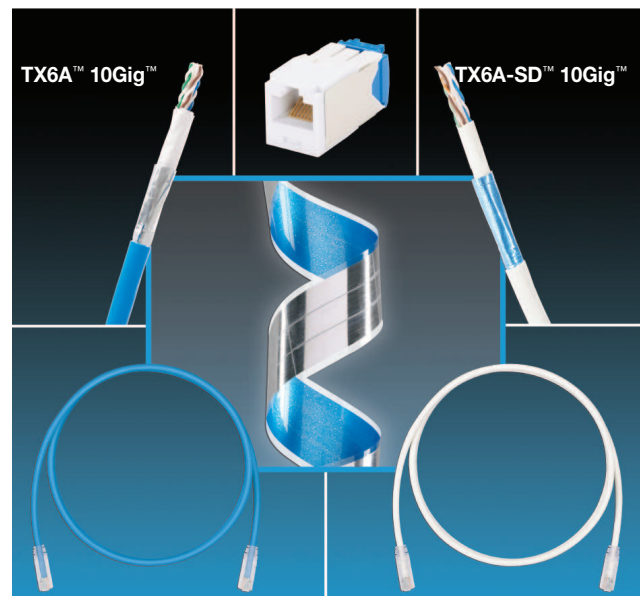
The design of the horizontal and patch cable utilizes patent pending MaTriX Technology and advanced connector compensation techniques to achieve channel bandwidth performance above industry standard requirements. This innovative design reduces the weight and diameter of Category 6A UTP cabling, improving pathway capacity up to 30% when installing the TX6A™ 10Gig™ UTP Cabling System (100 meter system) and up to 115% when installing the TX6A-SD™ 10Gig™ UTP Copper Cabling System (70 meter system), resulting in improved airflow through dense data center enclosures without compromising alien crosstalk performance.

To determine the guaranteed headroom performance, long and short channels of four connector topologies were constructed, tested, and analyzed. To ensure true worst case conditions, channels were tested under the following conditions:

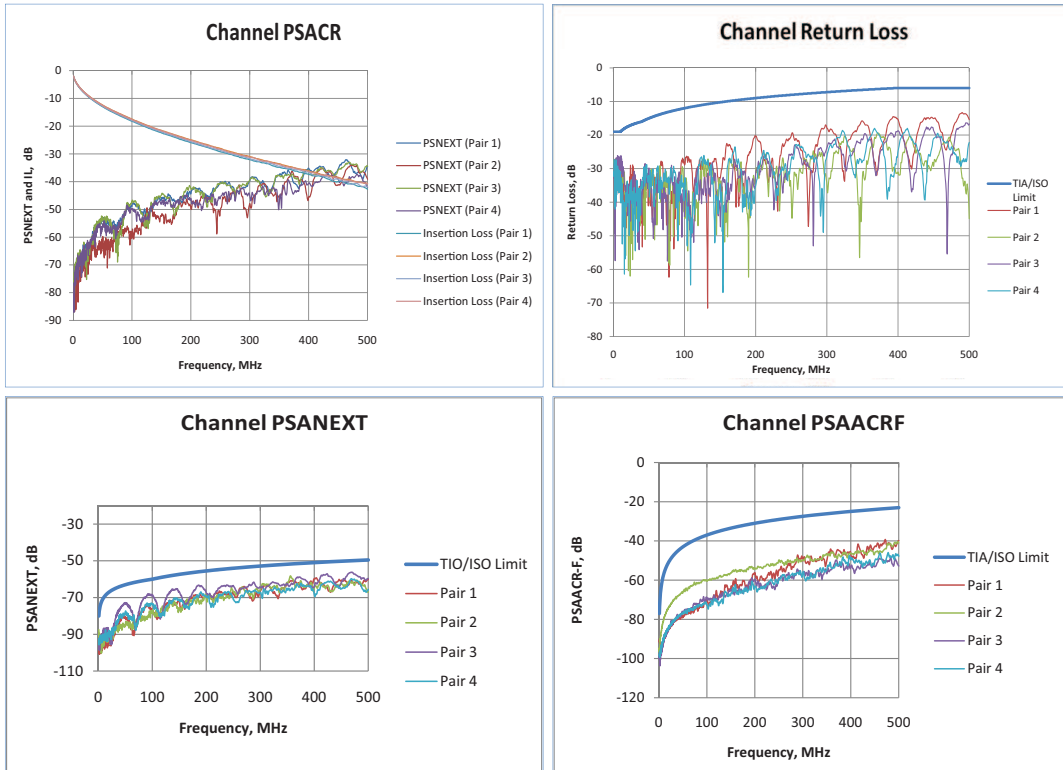
- Six-around-one configuration – bundled horizontal cables and patch cords are tied every 6-8 inches and laid so the disturbed cable is always in the center of the bundle down the full length of the channel
- Four connector topologies – the TX6A™ 10Gig™ UTP Cabling System, per configuration one (up to 100 meters) and three of the ANSI/TIA-568-C.2 Category 6A standard
- Four connector topologies – the TX6A-SD™ 10Gig™ UTP Cabling System, per configuration one (up to 70 meters) and three of the ANSI/TIA-568-C.2 Category 6A standard
- Channels were configured with high density patch panels (48-ports, 1 RU) and short 1 meter patch cords, at swept frequencies from 1 MHz to 500 MHz per industry standards
- Under “real world” conditions through the use of industry recognized hand-held testers, no test analyzers or computer models

Guaranteed Channel Headroom		
Electrical Value	TIA/EIA Category 6A	ISO Class E <sub>A</sub>
Insertion Loss	3%	3%
NEXT	3.5 dB	2.5 dB
PSNEXT	5 dB	4 dB
PSACR-F	10 dB	10 dB
Return Loss	3 dB	3 dB
PSACR-N	6.5 dB	6.5 dB
PSANEXT	2 dB	2 dB
PSAACR-F	10 dB	10 dB

\*Electrical values above are specified standards and consist of worst pair margin per ANSI/TIA-568-C.2 Category 6A and ISO 11801 Edition 2.1 Class E<sub>A</sub> standards.



## Electrical Channel Performance Data



Description	TX6A™ 10Gig™ UTP Copper Cabling System (100 meter)	TX6A-SD™ 10Gig™ UTP Copper Cabling System (70 meter)
<b>Copper Cable</b>		
Riser	PUR6A04 <sup>+</sup> -UG <sup>1</sup>	PUR6ASD04 <sup>+</sup> -CG <sup>2</sup>
Plenum	PUP6A04 <sup>+</sup> -UG	PUP6ASD04 <sup>+</sup> -UG
LSZH (60332-1)	PUL6A04 <sup>+</sup> - <sup>^</sup> G	PUL6ASD04 <sup>+</sup> -EG
LSZH (60332-3)	PUZ6A04 <sup>+</sup> -EG	NA
CM	PUC6A04 <sup>+</sup> -EG	PUC6ASD04 <sup>+</sup> -EG
<b>Patch Cords</b>		
CM	UTP6A <sup>^^</sup>	UTP6ASD <sup>^^</sup>
LSZH	—	UTP6ASDL <sup>^^</sup>
<b>Jack Module</b>		
UTP	CJ6X88TG <sup>**</sup>	
<b>Mini-Com® Modular Patch Panels</b>		
24-port, Angled, 1 RU	CPPA24FMWBLY	
48-port, Angled, 1 RU	CPPA48FMWBLY	
72-port, Angled, 2 RU	CPPA72FMWBLY	
24-port, Flat, 1 RU	CPP24FMWBLY	
48-port, Flat, 1 RU	CPP48FMWBLY	
72-port, Flat, 2 RU	CPP72FMWBLY	

<sup>1</sup>Available in standard colors BU (Blue), WH (White), IG (International Gray), or YL (Yellow).  
<sup>2</sup>Substitute PUR6A04<sup>+</sup>-CG for alternative manufacturing location.  
<sup>3</sup>Substitute PUR6ASD04<sup>+</sup>-UG for alternative manufacturing location.  
<sup>4</sup>Available in standard colors BU (Blue) or WH (White).  
<sup>5</sup>Add suffix E when placing orders for Europe, Middle East, or Africa.  
<sup>6</sup>^^Patch cords are available in a variety of colors and lengths (feet and meters). Visit [www.panduit.com](http://www.panduit.com) or contact customer service for additional information.  
<sup>7</sup>\*\*Available in standard colors IW (Off White), EI (Electric Ivory), WH (White), AW (Arctic White), IG (International Gray), BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange) and VL (Violet).

For a copy of the Panduit warranty, visit [www.panduit.com/warranty](http://www.panduit.com/warranty).