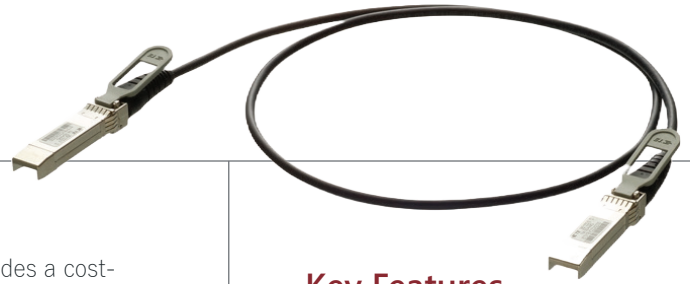


SP25TW

Twinax Direct Attach Cable



Overview

SP25TW SFP28 direct attach copper (DAC) twinax cable assembly provides a cost-effective solution for short-reach, high-speed interconnect applications. The assembly supports serial data transmission rates up to 25.78 Gbps per direction, meeting SFP28 and IEEE 25G Ethernet requirements.

The passive twinax copper construction offers excellent signal integrity while also acting as a natural heat sink, helping to dissipate thermal energy without additional power consumption. With low power dissipation and low latency, this DAC assembly is an efficient and economical choice for in-rack and adjacent rack (rack-to-rack) connections in data center and high-performance networking environments.

These copper cables, known as “direct attach” or “Twinax,” connect from one SFP28 slot to another without the need for SFP+ transceivers. This is an economical solution for making short 25 Gigabit connections between products and most servers, network switches and monitoring equipment that have SFP28 slots.

The direct attach cable is terminated on both ends with mechanical connectors that plug directly into SFP28 slots in the same manner as SFP28 transceiver modules. The one and three meter cables are both passive design. They contain no active signal conditioning, buffers, or amplifiers. Passive operation reduces power consumption and simplifies system integration while maintaining reliable performance for short-reach 25G links.

Low Latency and Low Power

The passive Twinax direct attach cable uses SFP28 connectors and supports 25 Gb/s full-duplex data transmission. This direct attach copper solution delivers ultra-low latency and minimal power consumption for short-reach 25G links.

This makes the Twinax cable well suited for latency-sensitive applications such as data center switching and high-performance computing.

SPECIFICATIONS

	Operating Temperature	Transmit		
		Maximum data rate	Operating temperature	Distance
SP25TW	Twinax direct attach	25.78 Gbps	0°C to 70°C (32°F to 158°F)	1 or 3 m

Environmental

Operating temperature: 0°C to 70°C (32°F to 158°F)
 Storage temperature: -40°C to 85°C (-40°F to 185°F)
 Relative humidity: 0 to 85% non-condensing

ORDERING INFORMATION

AT-SP25TW1	SFP28 Twinax direct cable (1 m)
AT-SP25TW3	SFP28 Twinax direct cable (3 m)

Key Features

- SFP28 MSA compliant (SFF-8402 / SFF-8432)
- Broadband serial data rate support up to 25.78 Gb/s
- Passive Direct Attach Copper (DAC) design
- Low power consumption (host-port dependent; no cable power draw)
- 100 Ω differential impedance
- EEPROM signature
- Retractable pull-to-release latch mechanism
- 360° cable braid termination for improved grounding and EMI performance
- Enhanced EMI shielding and skirt design
- 30 AWG twinax cable construction (optimized for short-reach 25G links)
- SFP28 connectors on both ends
- Optimized for short-distance, low-latency data center interconnects
- Meets IEEE 802.3 25GbE electrical requirements
- Two year warranty

*Warranties may be region-specific. For local warranty periods, please visit alliedtelesis.com/support, or contact your local sales office.