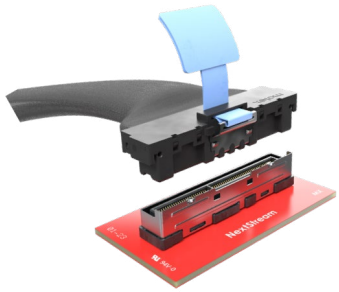
DATASHEET

NextStream Connector System ›



The next-generation NextStream Connector System delivers high-speed data transmission rates up to 64 Gbps PAM-4 and meets the PCI Express (PCIe) Generation 6 standard, enabling data centers to upgrade and meet the needs of data-intensive applications like AI, NVMe-EDSFF storage, CXL, UPI systems and high-performance computing.

ADVANTAGES AND FEATURES

Delivers upgradable high-speed performance to future-proof systems with a 64 Gbps PAM-4 transmission rate for high-speed, low-latency data-intensive applications with ACC re-driver cable capability, and future upgradability to PCIe Generation 7 with 128 Gbps PAM-4 data rates

Fulfills system needs by supporting standardized applications and protocols including PCIe Gen 6, NVMe-EDSFF, CXL, UPI 2.0 and OCP DC-MHS, plus customized interfaces as needed

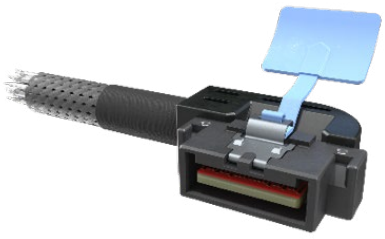
Offers high performance in space-constrained applications with an optimized mating height as low as 11.90mm for PCIe Gen 6 speeds in a miniaturized package

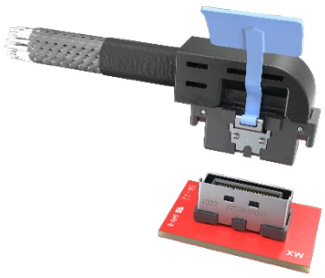
Improves signal loss performance and system gain over longer cable distances and thinner cable using an industry-first internal active re-driver channel

Number of Circuits	38 to 154
Data Rate (max.)	64 Gbps PAM-4 (Upgradable to 128 Gbps PAM-4)
Data Transmission Standard	PCIe Generation 6 (Upgradable to PCIe Gen 7)
Small Form Factor	SFF-TA-1035
Mating Height (min.)	11.90mm
Operating Temperatures	-40 to +80°C

Helps ensure excellent signal integrity (SI) for high-speed applications using a fully shrouded cable plug housing and enhanced paddle card/gold fingers protection that meets PCIe Gen 6 standards for insertion loss, return loss and crosstalk

Simplifies installation for operators and helps eliminate mis-mating errors using anti-slant, anti-reverse and guiding/stopping features as well as Poka-Yoke to make installation faster and easier





DATASHEET

NextStream Connector System

MARKETS AND APPLICATIONS

Servers and Storage
Cloud computing
Hyperscale data centers
AI infrastructure
Switches
Servers
Storage devices
Just a bunch of memory (JBOM) systems

Networking
Chassis applications
Interposer cards
Routers
Just a bunch of disks (JBOD) systems

Consumer
Connected home systems
Internet of things (IoT) devices

Hyperscale Data Centers

Servers and Routers

IoT Devices

SPECIFICATIONS

Reference Information
Packaging: Tape and Reel
Designed in: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Capable: Yes
Data Rate Standard: PCIe Generation 6
Upgradable to PCIe Generation 7
Small Form Factor Standard: SFF-TA-1035

Electrical
Data Rate (max.): 64 Gbps PAM-4
Upgradable to 128 Gbps PAM-4
PCIe Channel: X4/X6 (42P), X8/X12 (80P),
X16/X20 (130P), X20/X24 (160P)
Impedance: 850 Ohms
Voltage (max.): 12V AC per contact
Current (max.): 1.1A per contact

Mechanical
Mated Height: 11.9mm
Connector Length: 30.40mm
Fix/Lock: Latch fixed
Mating Force (max.): 54N upon 80 pins
Latch Retention Force (min.): 50N
Wire Gauge: 28 to 32 AWG
Wire Type: Discrete and ribbon twinax cable
Pitch: 0.60mm
Cable Plug Type: Straight; right-angle down;
right exit; left exit
Receptacle Type: Vertical, right-angle
Receptacle Mounting: SMT soldering
Circuit Size: 38, 44, 74, 80, 124, 130, 148 or 154 circuits
Durability (max.): 250 cycles

Physical
Housing: LCP
Contact: Copper Alloy
Plating: Contact area—Gold
Operating Temperatures: -40 to +80°C

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Order No. 987652-5532 Rev.1 USA/0k/GF/2024.02