

100G-PDAC-QSFP

Copper DAC Cable



Key Features

- Cable Type: **Passive Direct Attach Cable (PDAC)**
- Cable Configuration: **Point-to-Point**
- Connector Type: **QSFP28 to QSFP28**
- Supported Data Rate: **44.8 Gbps - 112.2 Gbps**
- Maximum Distance: **5 m**
- AWG (Wire Gauge): **AWG30 (0.5-1.5m) | AWG28 (2-3m) | AWG26 (4-5m)**
- Fiber Type: **N/A**
- DDM/DOM: **Supported**

Product Description

Our EDGEOPTIC 100G-PDAC-QSFP is a multi-vendor compatible 100G QSFP28 passive direct attach copper cable designed for ultra-high-performance 100 Gigabit Ethernet, Fiber Channel, and InfiniBand applications within modern data center environments. The 100G-PDAC-QSFP cable features point-to-point configuration with QSFP28 connectors on both ends, delivering reliable high-bandwidth connectivity for short-reach interconnects between spine and leaf switches, high-performance servers, and storage systems.

The cable supports multi-rate operation from 44.8 to 112.2 Gbps, accommodating the demanding bandwidth requirements of contemporary data center architectures. For Ethernet deployments, the cable handles 100G Ethernet at 103.125 Gbps, supporting the latest generation of network infrastructure. Fiber Channel support includes 4×32G FC at 112.2 Gbps aggregate throughput, making the cable ideal for high-performance storage area network connectivity in enterprise and hyperscale environments. Additionally, the cable supports InfiniBand EDR at 100 Gbps for high-performance computing clusters and machine learning infrastructure.

As a passive DAC solution, the 100G-PDAC-QSFP requires no external power and introduces zero latency to signal transmission, making it the preferred choice for latency-sensitive applications such as financial trading platforms, real-time analytics, and distributed computing workloads. The cable construction utilizes high-quality twinax copper with optimized wire gauges for each length range: AWG30 for 0.5 to 1.5 meters, AWG28 for 2 to 3 meters, and AWG26 for 4 to 5 meters. This progressive wire gauge selection ensures optimal signal integrity at 25 Gbps per lane while maintaining practical cable flexibility for installation in high-density environments.



The electrical interface conforms to QSFP28 MSA, SFF-8436, and SFF-8665 specifications, ensuring broad compatibility with standard QSFP28 host systems from multiple equipment vendors. Our 100G QSFP28 DAC cables can be encoded for compatibility with over 80 different equipment brands including major networking, server, and storage vendors. The cable incorporates DDM/DOM (Digital Diagnostic Monitoring) functionality, providing real-time diagnostic data including module temperature and supply voltage through the MSA-compatible interface for proactive network monitoring.

Standards compliance includes IEEE 802.3ba alongside QDR InfiniBand specifications. The cable operates within a 0 to 70°C temperature range, suitable for controlled data center environments. With an MTBF rating of 1,000,000 hours, the cable delivers long-term reliability for mission-critical 100G infrastructure deployments.

Typical deployment scenarios include spine-leaf switch interconnects, server-to-ToR connectivity in hyperscale environments, high-performance storage links, and HPC cluster backbones. The passive design eliminates power consumption and reduces overall system power budget compared to active alternatives.

Our 100G QSFP28 passive DAC is CE/RoHS certified and compliant with product safety standards. Because our focus is providing top quality service, we perform comprehensive quality checks before delivery including electrical parameter measurements, connector inspection tests, and QSFP28 EEPROM memory data validation tests.

Technical Specifications

Specification	Value
Cable Type	Passive Direct Attach Cable (PDAC)
Cable Configuration	Point-to-Point
Connector Type	QSFP28 to QSFP28
Supported Data Rate	44.8 Gbps - 112.2 Gbps
Supported Ethernet Applications	100G Ethernet (103.125 Gbps)
Supported Fiber Channel Applications	4x 32G Fiber Channel (112.2Gbps)
Supported InfiniBand Applications	InfiniBand EDR (100 Gbps)
Maximum Distance	5 m
Media Type	Twinax Copper Cable



AWG (Wire Gauge)	AWG30 (0.5-1.5m) AWG28 (2-3m) AWG26 (4-5m)
DDM/DOM	Supported
Temperature Range	Standard 0°-70°C
MTBF	1000000 hours
Compliance	CE, RoHS, QSFP28 MSA, SFF-8436, SFF-8665, IEEE 802.3ba, QDR InfiniBand

Ordering Info

SKU	Description
100G-PDAC-QSFP-0.5	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 0.5m, AWG30, 0-70°C)
100G-PDAC-QSFP-1	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 1m, AWG30, 0-70°C)
100G-PDAC-QSFP-1.5	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 1.5m, AWG30, 0-70°C)
100G-PDAC-QSFP-2	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 2m, AWG28, 0-70°C)
100G-PDAC-QSFP-3	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 3m, AWG28, 0-70°C)
100G-PDAC-QSFP-4	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 4m, AWG26, 0-70°C)
100G-PDAC-QSFP-5	100G QSFP28 to QSFP28 Passive DAC Twinax Cable (44.8-112.2 Gbps, 5m, AWG26, 0-70°C)

Warranty

EDGE Optic's provides a limited warranty for **sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.



Compatibility

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more than 100 vendor brands in data and telecom communications industry:

MS - General MSA	MS - EdgeWare	MS - KyLand	MS - Ruijie Networks
MS - Advantech	MS - Eltex	LN - Lenovo	MS - Sandvine
MS - Allied Telesis	MS - Emulex	ML - Mellanox (NVIDIA)	MS - Silicom
AR - Arista	MS - Enterasys	ME - Meraki (Cisco)	MS - SolarFlare
MS - Arris	ER - Ericsson	MS - MikroTik	SW - Sonicwall
AG - Avago	EX - Extreme Networks	MS - MRV	MS - Sophos
AV - Avaya	F5 - F5 Networks	NC - NEC	MS - Sumitomo
MS - Barracuda	MS - Finisar	MS - NetApp	MS - Supermicro
BR - Broadcom	FO - Fortinet	MS - Netgear	MS - Synology
QL - Cavium (Qlogic)	MS - Fujitsu	MS - Netinsight	MS - Telco Systems
MS - Ceragon	HI - Hirschmann	NK - Nokia (Alcatel)	MS - TP-LINK
CH - Checkpoint	HP - HP	MS - Nortel	TM - Transmode
MS - Chelsio	AU - HP Aruba	NS - NSN	MS - Trendnet
CN - Ciena	HU - Huawei	MS - OE Solutions	MS - Ubiquiti Networks
CI - Cisco	IB - IBM	MS - Oracle	MS - WatchGuard
MS - Comnet	IF - Infinera	MS - Palo Alto Network	WS - Waystream
MS - D-link	MS - Innolight	MS - Planet	WT - Westermo
MS - Dahua	IN - Intel	QL - Qlogic (Oracle)	MS - ZTE
MS - DCN	MS - Ixia	MS - QNAP	MS - Zyxel
DL - Dell	MS - JDSU	RD - RAD	XX - Other
MS - DZS(Dasan-Zhone)	JU - Juniper	MS - RadWare	
MS - EdgeCore	MS - KeyMile	MS - Ruckus	

Version Control

Version: 2.0

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CERTIFIED
ISO 9001



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