

General Description

PDR Active Optical Cable (AOC) assemblies are available across four industry-standard form factors — SFP+ (10G), SFP28 (25G), QSFP+ (40G) and QSFP28 (100G) — with cable lengths from 0.5 m to 100 m, making them a highly reliable and cost-effective alternative to transceiver modules for data centre, HPC and enterprise deployments. All PDR AOC variants use flexible OM3 multimode fiber and operate at 850 nm, delivering low power consumption with a maximum of 1.9 W per end (100G). Every cable is equipped with Digital Diagnostic Monitoring (DDM) for real-time I²C parameter supervision and features a high-strength pull-tab latching system for secure, hot-swappable installation. PDR AOC assemblies comply with Ethernet, InfiniBand and MSA standards, eliminating interoperability issues across all major platforms.



Key Features

- Available in SFP+ (10G), SFP28 (25G), QSFP+ (40G) and QSFP28 (100G) form factors to suit all data rate requirements
- Cable lengths from 0.5 m to 100 m — ideal for rack-to-rack, top-of-rack and inter-row data centre links
- Low power consumption across all variants: from ≤1.0 W (10G/25G) to max 1.9 W per end (100G)
- Hot-swappable form factor with high-strength pull-tab latching for secure installation in dense environments
- Digital Diagnostic Monitoring (DDM/DOM) with I²C real-time parameter supervision and automatic alerts
- Flexible OM3 multimode fiber cable with slim 3.0 mm OD for superior bend performance and airflow
- 850 nm operating wavelength — compliant with 10GBASE-SR, 25GBASE-SR, 40GBASE-SR4 and 100GBASE-SR4
- Ethernet, InfiniBand and MSA compliant across all variants — fully interoperable with major platforms
- Thin-diameter design enables smaller cable bundles, promoting better airflow in high-density deployments
- RoHS/REACH compliant and TÜV/UL certified for global deployment

Standards Compliance

- SFP+ / SFP28 / QSFP+ / QSFP28 MSA
- IEEE 802.3ae (10G) / 802.3by (25G) / 802.3ba (40G) / P802.3bm (100G)
- 10GBASE-SR / 25GBASE-SR / 40GBASE-SR4 / 100GBASE-SR4
- 10G / 25G / 40G / 100G InfiniBand
- CML Compatible Electrical I/O
- RoHS/REACH compliant • TÜV/UL certified

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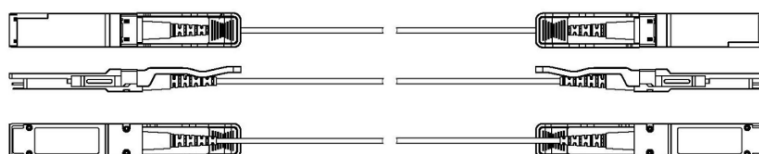
Technical Specifications

Parameter	10G SFP+	25G SFP28	40G QSFP+	100G QSFP28
Form Factor	SFP+ to SFP+	SFP28 to SFP28	QSFP+ to QSFP+	QSFP28 to QSFP28
Nominal Data Rate	10.3125 Gbps	25.78 Gbps	4 × 10.3125 Gbps	4 × 25.78 Gbps
Channels	1 (full-duplex)	1 (full-duplex)	4, bi-directional	4, bi-directional
Operating Wavelength	850 nm	850 nm	850 nm	850 nm
Fiber Type	OM3 multimode	OM3 multimode	OM3 multimode	OM3 multimode
Cable OD	3.0 ± 0.20 mm	3.0 ± 0.20 mm	3.0 ± 0.20 mm	3.0 ± 0.20 mm
Min. Bend Radius	20 × OD (free) 10 × OD (loaded)	20 × OD (free) 10 × OD (loaded)	20 × OD (free) 10 × OD (loaded)	20 × OD (free) 10 × OD (loaded)
Max. Reach	100 m	70 m	100 m	100 m
Max Power (per end)	≤ 1.0 W	≤ 1.0 W	≤ 1.5 W	≤ 1.9 W
Supply Voltage	3.13 – 3.47 V (3.3 V typical)	3.13 – 3.47 V (3.3 V typical)	3.13 – 3.47 V (3.3 V typical)	3.13 – 3.47 V (3.3 V typical)
Case Temp (Operating)	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C
Storage Temp	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Rel. Humidity	0 – 85% (storage & operating)	0 – 85%	0 – 85%	0 – 85%
DDM / DOM	Yes	Yes	Yes	Yes
Hot-Swap	Yes	Yes	Yes	Yes
Available Lengths	1–10 m	1–10 m	1–30 m	0.5–100 m

Applications

- Data centre interconnects — rack-to-rack, top-of-rack and inter-row high-speed links across all data rates
- High performance computing (HPC) clusters, storage networking and server fabric interconnects
- Ethernet infrastructure deployment for 10G, 25G, 40G and 100G network upgrades
- InfiniBand and proprietary fabric interconnects in enterprise and hyperscale environments
- Telecommunications network construction and backbone high-capacity connectivity
- Field deployment where lightweight, flexible, low-latency optical cabling is required

Overall Dimensions



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Ordering Information

Standard Package Contents

Item	Quantity
Active Optical Cable (AOC)	1
Dust Caps (per connector)	2
Product Label / Documentation	1

Ordering Codes

Order Code	Form Factor	Data Rate	Available Lengths
PDR-AOC-SFP-XXM	SFP+ to SFP+	10G	1, 2, 3, 5, 7, 10 m
PDR-AOC-SFP28-XXM	SFP28 to SFP28	25G	1, 2, 3, 5, 7, 10 m
PDR-AOC-QSFP-XXM	QSFP+ to QSFP+	40G	1, 2, 3, 5, 10, 20, 30 m
PDR-AOC-QSFP28-XXM	QSFP28 to QSFP28	100G	0.5, 1, 2, 3, 5, 7, 10, 15, 20, 30, 50, 100 m

* Replace XX with the required cable length in metres (e.g. PDR-AOC-QSFP28-10M = 100G, 10 m cable).

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