

800G OSFP to 4xQSFP112 Cable Assembly



OSFP Series

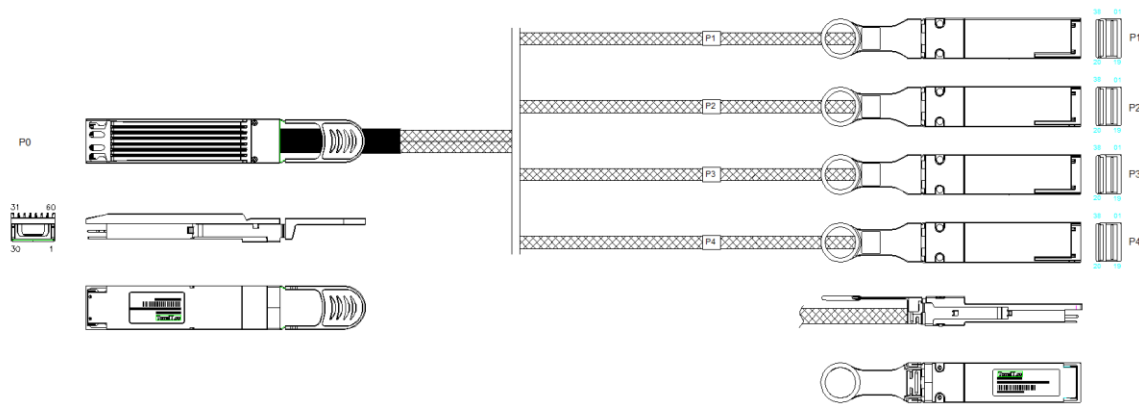
- **Passive DAC breakout cable**
- **Supports 800GbE and 4 × 200GbE**
- **OSFP to 4 × QSFP112 fan-out**
- **100 Ω low-loss twinax cable**
- **Low insertion loss**
- **Excellent EMI performance**
- **Hot-pluggable**
- **Available from 0.5 m to 3 m**
- **RoHS compliant**

Ascent's 800G OSFP to 4x200G QSFP112 Passive Direct Attach Copper (DAC) Breakout Cable is a high-performance, low-power interconnect solution designed for next-generation AI clusters, cloud data centers, and high-speed Ethernet switching platforms. Supporting aggregate data rates of up to 800Gb/s, the cable enables a single 800G OSFP port to seamlessly fan out into four independent 200G QSFP112 connections, maximizing switch port utilization while reducing cabling complexity and overall deployment cost.

Built with premium 100 Ω twinax copper cable and high-quality OSFP and QSFP112 connectors, the assembly delivers outstanding signal integrity, low insertion loss, and excellent electromagnetic performance for short-reach interconnect applications. The passive design eliminates additional power consumption while providing reliable, low-latency connectivity for AI fabrics, GPU clusters, Ethernet switches, and high-performance computing (HPC) systems.

Compliant with the OSFP MSA and QSFP112 MSA specifications, the cable assembly is fully tested to ensure mechanical reliability and electrical performance. Available in multiple cable lengths and wire gauges, it provides a cost-effective solution for high-density 800G networking environments.

Outline Dimension



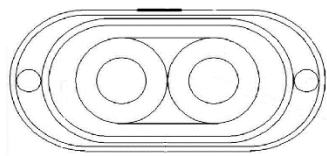
Product Design

Connector

OSFP connector meets OSFP MSA Specification, QSFP connector meets SFF8661 Specification.

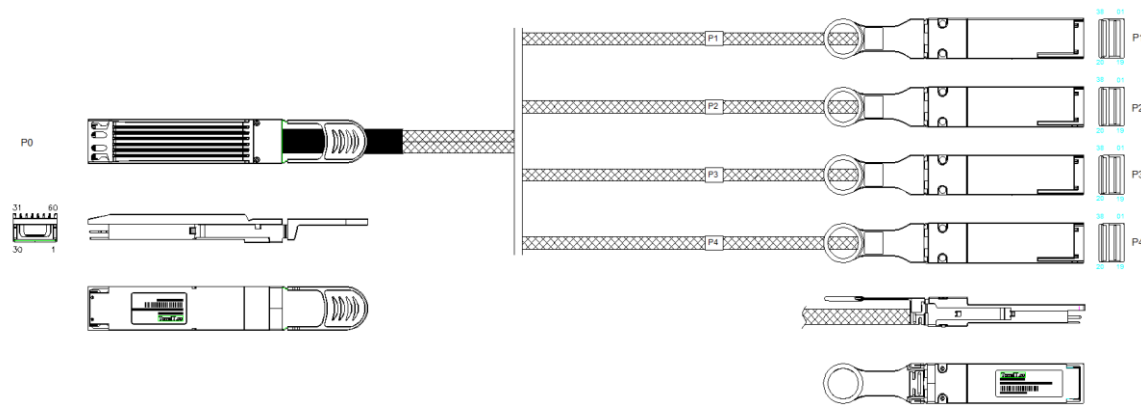
Cable

Cable type is a 100 ohm twinax cable which composedddd by 16 parallel pairs, Coved with the shielded braiding and BES, each parallel pair consists of two signal wires and two drain wires.



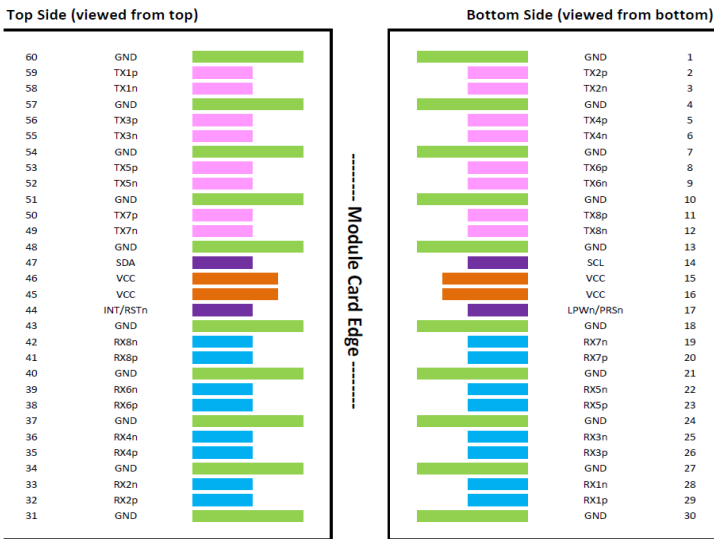
Cable Assembly

Cable Bulk shield is directly to be connected to the connector backshell to minimize EMI. Each cable assembly is labelled with a unique identification label. P1 side is OSFP, P2 side is 4xQSFP.

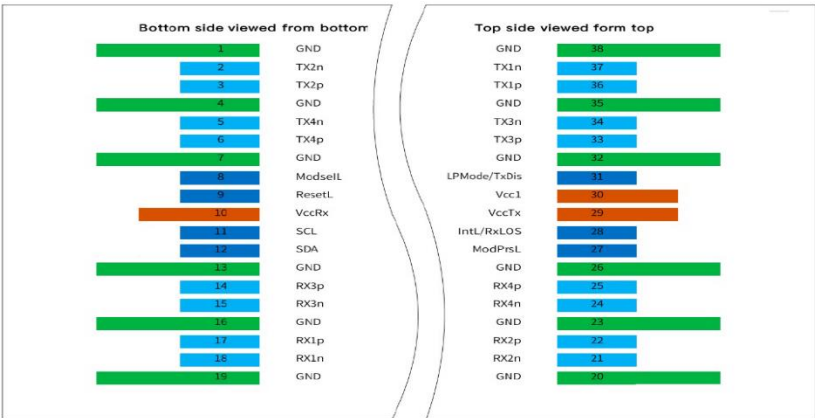


Pin Assignment

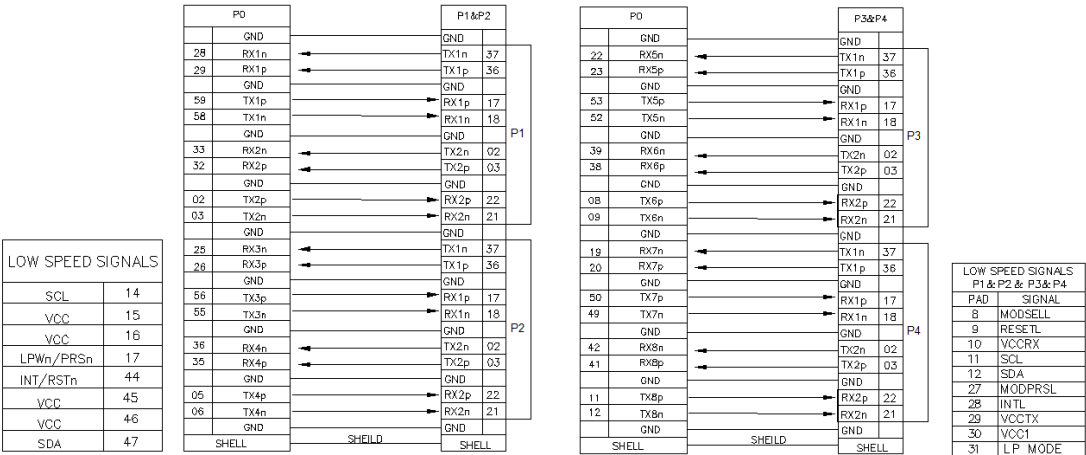
OSFP pin definitions as OSFP MSA defined.



QSFP112 MSA Specification



Wire Connection



Specifications

Parameter	Unit	Value
Operating Voltage	V	3.135 to 3.465
Operating Temperature	°C	0 to +70
Storage Temperature	°C	-40 to +85
Humidity		85% MAX
Insertion/Removal Cycles	cycles	OSFP Module : 50 QSFP Module : 50

Materials

Connector

- The Backshell material is Nickel Plated Zinc
- The PCB has gold plated pads
- All materials are RoHS complaint
- The PCBs are certified by UL

Cable

- The conductors are solid copper with silver plating.
- The dielectric is consisted by FEP.
- All materials are RoHS complaint.
- Flame retardant: VW-1, 80°C, UL certified.

Product Performance

Electrical Performance Requirements

No.	Test Items	Test Condition	Characteristics
1	Current		0.5A per contact
2	Voltage		30v DC per contact
3	LLCR	EIA 364-23, 20mVdc, 100mA	less than 2 ohms
4	Continuity	Verify the continuous electrical path	No open, short, or high resistance

SI Requirements

No.	Test Items	Characteristics	Notes
1	SDD21&SDD12	≤19.75 dB Min. @26.56 GHz; ≥ 11.0 dB max. @26.56GHz;	From 0.01 GHz to 26.56GHz
2	ERL	Minimum cable assembly ERL(*): ≥ 8.25dB	/
3	SCD12-SDD12	≥ 10	0.05GHz≤f<12.89GHz
	SCD21-SDD21	≥ 14-0.3108f	12.89GHz≤f≤40GHz (up to 40GHz)

Mechanical Performance Requirements

No.	Test Items	Test Condition	Specification
1	Mating Forces	A rate of 10mm per minute	OSFP<40N, QSFP<60N
2	Un-mating Forces	A rate of 10mm per minute	OSFP<30N, QSFP<30N
3	Latch Strength	Pull to separate module from cage, Test with connector, cage & module (latch engaged)	Minimum of an 125N force
4	Bulk Cable Retention in Module	Pull to separate bulk cable from module,Test with cable assembly only	Minimum of an 90N force
5	Wire Flex	Flex cable 180° for 10 cycles at X/Y axis, 20 times/minutes, with an 1kg suspended weight Type C EIA 364-41, test condition I	No microsecond discontinuities are allowed
6	Durability	Perform 50 unplug/plug cycles	No evidence of physical damage
7	Cable Minimum Bend Radius	Min. bending radius allowed repeated 10X ø single 5X ø	No physical damage Verify continuity and SI

Ordering Information

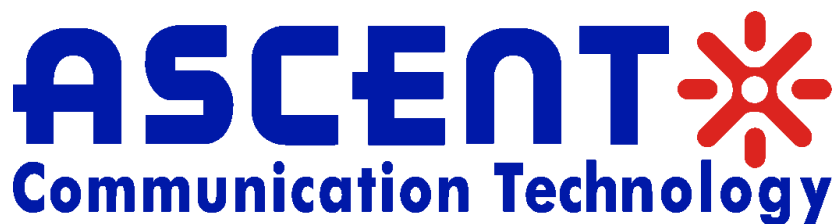
Product Name

O8-4Q112-DAC-D05
O8-4Q112-DAC-001
O8-4Q112-DAC-D15
O8-4Q112-DAC-002
O8-4Q112-DAC-D25
O8-4Q112-DAC-003

Product Description

800Gbps Twin-port OSFP to 4x200Gbps QSFP112 DAC Splitter Cable, 0.5m, AWG30
800Gbps Twin-port OSFP to 4x200Gbps QSFP112 DAC Splitter Cable, 1.0m, AWG30
800Gbps Twin-port OSFP to 4x200Gbps QSFP112 DAC Splitter Cable, 1.5m, AWG26
800Gbps Twin-port OSFP to 4x200Gbps QSFP112 DAC Splitter Cable, 2.0m, AWG26
800Gbps Twin-port OSFP to 4x200Gbps QSFP112 DAC Splitter Cable, 2.5m, AWG26
800Gbps Twin-port OSFP to 4x200Gbps QSFP112 DAC Splitter Cable, 3.0m, AWG26

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Ver. ACT_O8-4Q112-DAC-XXX_Datasheet_V1b_Jun_2025