

SFP Cable Assemblies

10G/25G/50G/100G

Amphenol’s SFP cable assemblies are designed to support applications for Ethernet and Fibre Channel. The Amphenol SFP products offer an ultra-high-performance, cost-effective solution for 10G/25G/50G/100G speed applications in switched fabric I/O, switches, routers, data storage arrays, and high-performance computer (HPC) clusters. The Small Form Factor Pluggable (SFP) interface supports a variety of communications standards including Fibre Channel, 10G/25G/50G/100G Ethernet, InfiniBand, and SONET.

- 10G/25G/50G/100G Ethernet, Fibre Channel, InfiniBand & SONET multi-platform support
- Low cross-talk and pair to pair skew with Amphenol SkewClear® Twinax Wire
- Enjoy a reduced power budget and lower port cost compared to optical.
- Supports several lengths for both passive and active solutions.
- Fully compatible with Amphenol’s SFP+/28/56/112 board connectors and cages as well as other competitive industry standard connector systems



TARGET MARKETS



FEATURES

- Fully compliant to the latest SFP MSA
- Optimized PCB with auto soldering process
- Stamped EMI Ground Finger
- EEPROM in cable assembly
- Enables 10/25/50/100Gb/s per channel transmission
- 30AWG – 26AWG cable sizes
- Passive Direct Attachment Cables (DAC) and Active Linear Copper Cables (ACC)
- Active Electrical or micro-controller capability (AEC)
- Cable unlatching options either push-to-release or pull-to-release
- RoHS2 compliant

BENEFITS

- Support to connect any security free SFP port
- Exceeds 10G/25G/50G/100G electrical performance requirement
- Assure 360° EMI shielding effectiveness
- Industry memory map compliance or customized
- Supports industry standards like GbE, FC, etc.
- Supports cable length from 0.25 meter to 15 meter
- Lower loss or coded EEPROM access supported
- Supports 112G up to 5m
- Choose the cable release function that best fits the application (pull-to-release is better for high density applications than push-to-release)
- Environmentally friendly

TECHNICAL INFORMATION

MATERIAL

- Nickel plated Zinc die cast shells & latching mechanism parts
- EM-888k laminated PCB with Gold finger and solder pads
- Differential 2-pair cable with EMI shielding braid and LSZH or PVC jacketing
- Thermoplastic cable pull tab (pull-to-release only)
- Stainless steel EMI finger and other assembly hardware

ELECTRICAL PERFORMANCE

- Differential Impedance: $100\Omega \pm 10\Omega$
- SI performance per 10G/25G/50G/100G Ethernet
- Dielectric Withstanding Voltage per EIA 364-20

MECHANICAL PERFORMANCE

- Durability: 50 cycles.
- Mating Force: 18N max.
- Latch Strength Axial Load: 180N min.
- Cable Axial Strain Relief: 90N min.
- Cable Flex: 180° flex; 15 cycles per EIA 364-41

ENVIRONMENTAL

- Thermal Shock: EIA 364-32, Condition 1, 25 cycles, -55°C to $+85^\circ\text{C}$.
- Temperature Life: EIA 364-17, Method A, Condition 2, Time Condition C, 500 hours, 70°C

APPROVALS AND CERTIFICATIONS

- Ethernet Alliance Interoperability Compliance
- FCIA Interoperability Compliance
- RoHS2 Compliant

SPECIFICATION

- Refer to the latest revision specification of the SFP small form factor pluggable module.
- Applicable IEEE specifications
- SFF-8431
- IEEE802.3by
- IEEE802.3cd
- IEEE802.3ck

SPECIFICATION

- Individually packed in anti-static bags
- Cable ends packaged with dust covers

TARGET MARKETS/APPLICATIONS



Adapter Card
Wireless BBU



Data Center
High Performance Computing (HPC)
Router
Server Storage
Switch

PART NUMBERS

Description	Type	Part Numbers	Type
10G Ethernet Copper Cable	Pull-to-Release, 30AWG, 0.5 meter	NDCCDA-0006	Passive
10G Ethernet Copper Cable	Pull-to-Release, 30AWG, 1.0 meter	NDCCDA-0001	Passive
10G Ethernet Copper Cable	Pull-to-Release, 30AWG, 1.5 meter	NDCCDA-0002	Passive
10G Ethernet Copper Cable	Pull-to-Release, 30AWG, 2.0 meter	NDCCDA-0003	Passive
10G Ethernet Copper Cable	Pull-to-Release, 30AWG, 2.5 meter	NDCCDA-0004	Passive
10G Ethernet Copper Cable	Pull-to-Release, 30AWG, 3.0 meter	NDCCDA-0005	Passive
10G Ethernet Copper Cable	Pull-to-Release, 28AWG, 4.0 meter	NDCCDB-0004	Passive
10G Ethernet Copper Cable	Pull-to-Release, 26AWG, 5.0 meter	NDCCDD-0005	Passive
10G Ethernet Copper Cable	Pull-to-Release, 24AWG, 7.0 meter	NDCCDE-0007	Passive
25G Ethernet Copper Cable	Pull-to-Release, 30AWG, 0.5 meter	NDCCGF-0006	Passive
25G Ethernet Copper Cable	Pull-to-Release, 30AWG, 1.0 meter	NDCCGF-0001	Passive
25G Ethernet Copper Cable	Pull-to-Release, 30AWG, 1.5 meter	NDCCGF-0002	Passive
25G Ethernet Copper Cable	Pull-to-Release, 30AWG, 2.0 meter	NDCCGF-0003	Passive
25G Ethernet Copper Cable	Pull-to-Release, 30AWG, 2.5 meter	NDCCGF-0004	Passive
25G Ethernet Copper Cable	Pull-to-Release, 30AWG, 3.0 meter	NDCCGF-0005	Passive
25G Ethernet Copper Cable	Pull-to-Release, 26AWG, 3.5 meter	NDCCGJ-0009	Passive
25G Ethernet Copper Cable	Pull-to-Release, 26AWG, 4.0 meter	NDCCGJ-0004	Passive
25G Ethernet Copper Cable	Pull-to-Release, 26AWG, 4.5 meter	NDCCGJ-0010	Passive
25G Ethernet Copper Cable	Pull-to-Release, 26AWG, 5.0 meter	NDCCGJ-0005	Passive
25G Ethernet Copper Cable	Pull-to-Release, 26AWG, 5.5 meter	NDCCGJ-0011	Passive
50G Ethernet Copper Cable	Pull-to-Release, 30AWG, 0.5 meter	NDCCMF-0004	Passive
50G Ethernet Copper Cable	Pull-to-Release, 30AWG, 1.0 meter	NDCCMF-0001	Passive
50G Ethernet Copper Cable	Pull-to-Release, 30AWG, 1.5 meter	NDCCMF-0002	Passive
50G Ethernet Copper Cable	Pull-to-Release, 30AWG, 2.0 meter	NDCCMF-0003	Passive
50G Ethernet Copper Cable	Pull-to-Release, 26AWG, 3.5 meter	NDCCMJ-0005	Active
50G Ethernet Copper Cable	Pull-to-Release, 30AWG, 5.0 meter	NJDDFF-0005	Active
50G Ethernet Copper Cable	Pull-to-Release, 28AWG, 7.0 meter	NJDDFG-0007	Active
100G Ethernet Copper Cable	Pull-to-Release, 25AWG, 1.0 meter	NJDDGN-0001	Passive
100G Ethernet Copper Cable	Pull-to-Release, 25AWG, 2.0 meter	NJDDGN-0002	Passive
100G Ethernet Copper Cable	Pull-to-Release, 25AWG, 3.0 meter	NJDDGN-0003	Passive