

## 40G QSFP+ Cable Assemblies

### THE MOST RELIABLE 40G I/O CABLE SOLUTION IN THE INDUSTRY

Amphenol ICC's QSFP (Quad Small Form Factor Pluggable) cable assemblies are designed to meet emerging data center and high performance computing application needs for high density cabling interconnect systems capable of delivering aggregate data bandwidths of 40Gb/s. This interconnect system is fully compliant with existing industry standard specifications such as the QSFP MSA and IBTA (InfiniBand Trade Association). The QSFP cables support bandwidth transmission requirements as defined by IEEE802.3ba (40Gb/s) and Infiniband QDR (4x10Gb/s per channel).

Amphenol ICC offers cable assemblies that enable the use of a copper based interconnect system for applications with cable lengths up to 7 meter with passive design and 12 meter with active design.

- 40G Ethernet, 6G SAS, InfiniBand & SONET multi-platform support
- Exceeds 40G Ethernet or Infiniband QDR with optimized PCB and auto soldering
- Enjoy a reduced power budget and lower port cost compared to optical
- Supports up to a maximum 12 meter for passive plus active copper solution
- Fully compatible with different I/O connector brands in the industry

#### FEATURES

- Fully compliant to the latest QSFP+ MSA
- Optimized PCB with auto soldering process
- Robust zinc die cast QSFP+ connectors with pull-to-release latching
- EEPROM in cable assembly
- Enables 10Gb/s per channel transmission
- 33AWG – 26AWG cable sizes
- Active or micro-controller capability
- RoHS2 compliant



#### TARGET MARKETS



#### BENEFITS

- Support to connect any security free SFP+ port
- Exceeds 10G/channel electrical performance requirement
- Assure 360° EMI shielding and easy latch release
- Industry memory map compliance or customized
- Supports industry standards like 40GbE, FC, etc.
- Supports cable length from 0.25 meter to 12 meter
- Lower loss or coded EPROM access support
- Environmentally friendly

# TECHNICAL INFORMATION

## MATERIAL

- Nickel plated zinc die cast shells & latching mechanism parts
- EM-888k laminated PCB with gold finger pads and solder pads
- Differential 8-pair cable with EMI shielding braid and LSZH or PVC jacketing
- Thermoplastic cable pull tab (pull-to-release only)

## ELECTRICAL PERFORMANCE

- Differential Impedance:  $100\Omega \pm 10\Omega$
- SI performance per 40G Ethernet
- Dielectric Withstanding Voltage per EIA 364-20

## MECHANICAL PERFORMANCE

- Durability: 50 cycles
- Mating Force: 40N 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°C
- Temperature life: EIA 364-17, Method A, Condition 2, Time Condition C, 500 hours, 70°C

## APPROVALS AND CERTIFICATIONS

- Ethernet Alliance Interoperability compliance
- IBTA Interoperability compliance
- RoHS2 compliant

## SPECIFICATION

- Product Specification: 60302xxxx cable assemblies, passive un-equalized, 60416xxxx cable assemblies, full active equalized.

## PACKAGING

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

## TARGET MARKETS/APPLICATIONS



Adapter Card  
Routers  
Switches  
Wireless BBU



Data Center  
High Performance Computing (HPC)  
Server  
Storage

PART NUMBERS

Description	Type	Length	Part Numbers
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, passive	0.5 meter	603020000
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, passive	1.0 meter	603020001
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, passive	1.5 meter	603020008
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, passive	2.0 meter	603020002
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, passive	2.5 meter	603020009
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, passive	3.0 meter	603020003
40G Ethernet Copper Cable	Pull-to-Release, 26AWG, passive	4.0 meter	603020004
40G Ethernet Copper Cable	Pull-to-Release, 26AWG, passive	5.0 meter	603020005
40G Ethernet Copper Cable	Pull-to-Release, 26EXD, passive	6.0 meter	603020006
40G Ethernet Copper Cable	Pull-to-Release, 26EXD, passive	7.0 meter	603020007
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, active	1.0 meter	604160001
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, active	2.0 meter	604160002
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, active	3.0 meter	604160003
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, active	5.0 meter	604160005
40G Ethernet Copper Cable	Pull-to-Release, 30AWG, active	7.0 meter	604160007
40G Ethernet Copper Cable	Pull-to-Release, 28AWG, active	10.0 meter	604160010
40G Ethernet Copper Cable	Pull-to-Release, 28AWG, active	12.0 meter	604160012

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