

# 25G/100G DAC

# PRODUCTS

Driving Your Next Generation DataCenter

# SFP28 QSFP28

## QSFP28 Passive Copper Cable Assemblies

10Gtek's QSFP28 passive copper cable assemblies feature eight differential copper pairs, providing four data transmission channels at speeds up to 28 Gbps per lane, and meet 100G Ethernet and Infiniband Enhanced Data Rate (EDR) requirements. Offered in a broad range of wire gages (from 30AWG through 26AWG), this 100G copper cable assembly features low insertion loss and low cross talk. QSFP28 form factors can be used with current 40G and 100G applications with substantial signal integrity margin.

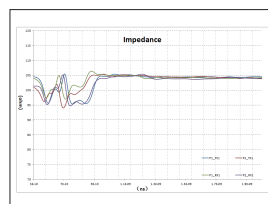
10Gtek's SFP28 passive copper cable contains a single high-speed copper pair, operating at data rates of up to 25 Gb/s. The cables are compliant with IEEE P802.3by Ethernet standard and SFF-8402 SFP28 standard. Each SFP28 connector comprises an EEPROM providing product information which can be read by the host system.

### Features

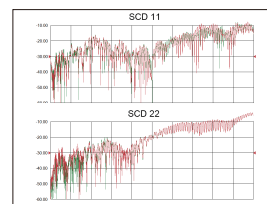
- Low insertion loss and cross talk
- Low EMI radiation
- Pull-to-release slide latch design
- 30AWG through 26AWG cable
- Straight and breakout assembly configurations options
- Customizable EEPROM mapping for cable signature
- RoHS compliant

### Applications

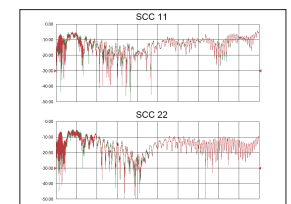
- Switches, servers and routers
- Data Center networks
- Storage area networks
- High performance computing
- Telecommunication and wireless infrastructure
- Medical diagnostics and networking
- Test and measurement equipment



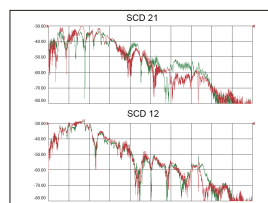
26AWG 5M  
Differential Impedance



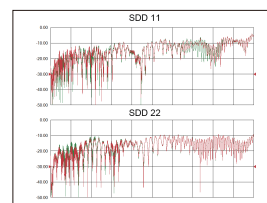
Differential to  
Common Mode Return Loss



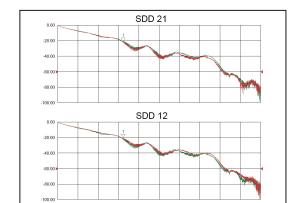
Common mode  
reflection coefficient



Differential to Common  
Mode Conversion Loss



Return Loss



Insertion Loss

|  | Part Number      | Description  | Data Rate | Length (Meters) | AWG   |
|--|------------------|--|-----------|-----------------|-------|
|  | CAB-ZQP/ZQP-P1M  | 100G QSFP28 (EDR) DAC Cable                        | 100Gbps   | 1M              | 30    |
|  | CAB-ZQP/ZQP-P2M  |  |           | 2M              | 26/30 |
|  | CAB-ZQP/ZQP-P3M  |  |           | 3M              | 26    |
|  | CAB-ZQP/2ZQP-P1M | 100G QSFP28 to 2x 50G QSFP28 Copper Breakout Cable | 100Gbps   | 1M              | 30    |
|  | CAB-ZQP/2ZQP-P2M |  |           | 2M              | 28/30 |
|  | CAB-ZQP/2ZQP-P3M |  |           | 3M              | 28    |
|  | CAB-ZQP/4ZSP-P1M | 100G QSFP28 to 4x 25G SFP28 Copper Breakout Cable  | 100Gbps   | 1M              | 30    |
|  | CAB-ZQP/4ZSP-P2M |  |           | 2M              | 28/30 |
|  | CAB-ZQP/4ZSP-P3M |  |           | 3M              | 28    |
|  | CAB-ZSP/ZSP-P1M  | 25G SFP28 DAC Cable                                | 25Gbps    | 1M              | 30    |
|  | CAB-ZSP/ZSP-P2M  |  |           | 2M              | 30    |
|  | CAB-ZSP/ZSP-P3M  |  |           | 3M              | 26    |
|  | CAB-ZSP/ZSP-P5M  |  |           | 5M              | 26    |

# QSFP28 Active Copper Cable Assemblies

QSFP28 active copper cable design has a signal amplification and a class 25G Clock and Data Recovery (CDR) technology to support longer distances than standard passive DAC cables. The cables use state-of-the-art signal processing technology to fill the expanding need for cost effective data center interconnects that cannot be served with passive copper solutions. 10Gtek offers in a broad range of length: from 1meter to 10 meters.

## Features

- Compliant with SFF-8665
- Fully compatible with IEEE802.3bj and Infiniband
- 4 independent duplex channels operating at 25~28 Gbps
- Low power <2W, low latency analog circuitry
- Uses advanced analog signal processing technology
- All-metal housing for superior EMI performance
- BER better than 10<sup>-15</sup>
- AC coupling of PECL signals
- Ultra low crosstalk for improved performance
- EEPROM for cable signature & system communications
- Tested in an end-to-end system
- RoHS compliant

## Applications

- High performance computing interconnect
- InfiniBand Trade Association (IBTA)
- Datacom and Telecom Servers, Switches, Routers
- Networked storage systems
- External storage systems
- Data Center networking

|  | Part Number     | Description                    | Data Rate | Length (Meters) | AWG |
|--|-----------------|--------------------------------|-----------|-----------------|-----|
|  | CAB-ZQP/ZQP-A3M | 100GBASE-CR4 DAC Cable, Active | 100Gbps   | 3M              | 30  |
|  | CAB-ZQP/ZQP-A5M |                                |           | 5M              | 30  |
|  | CAB-ZQP/ZQP-A7M |                                |           | 7M              | 28  |

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