

800GbE to 800GbE (QSFP-DD to QSFP-DD) Active copper Cable P/N: GQD-AC801-DXXC

Features

- ✓ Hot-plug QSFP-DD form factor with 16 pair cables
- ✓ Support up to 8x 100Gb/s PAM4 and 10~50Gbps NRZ
- ✓ Support up to 4m length with 26AWG cable
- ✓ 100Ohm differential impedance system
- ✓ 3.3V power supply & typical power consumption 2.5W
- ✓ Commercial case temperature range of 0°C to 70°C
- ✓ Latency less than 20ns with 4m length
- ✓ I2C management

Applications

- ✓ Infiniband NDR/HDR/EDR
- ✓ Switch / router / HBA
- ✓ Enterprise network
- ✓ Data Center Network
- ✓ Data storage and communication industry

STANDARDS COMPLIANCE

- ✓ IEEE P802.3ck D3.0
- ✓ QSFP-DD MSA HW Rev 6.01
- ✓ CMIS 4.0
- ✓ ROHS

Description

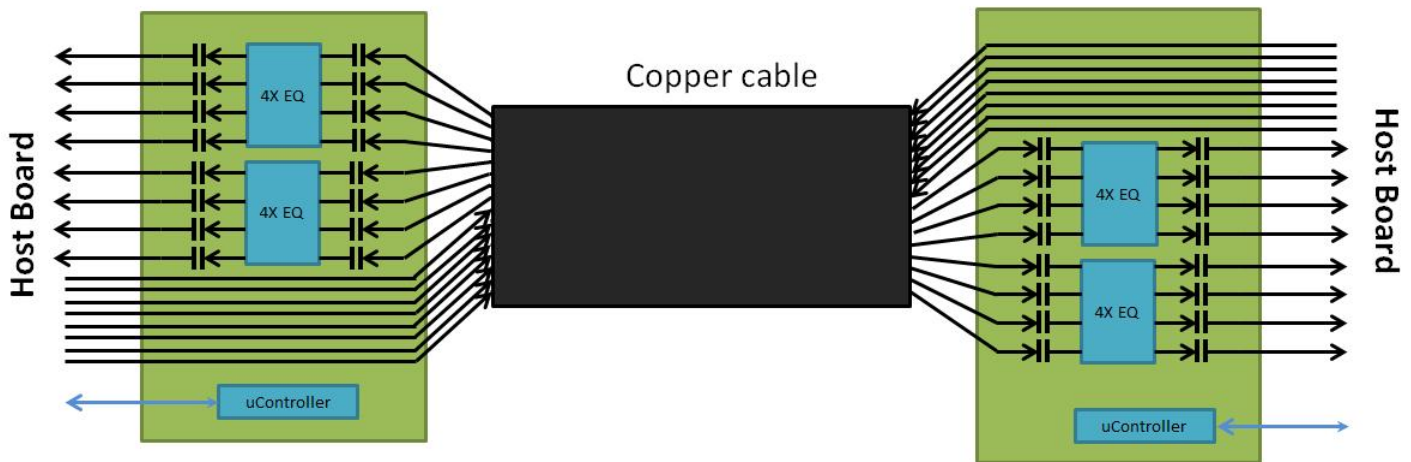
Gigalight's QSFP-DD800 ACC(Active Copper Cable) assembly series product provide superior signal integrity performance and reliability, comparing to PCC and AOC, ACC is a re-drive solution which built-in linear equalizer to compensate transmission loss, it is an effective solution with low power, low latency, low cost to help high-speed data centers even AI high-computational applications.

Gigalight's GQD-AC801-DxxC cable connects data signals from each of the 16 pairs on the single QSFP-DD end to the other QSFP-DD end, each pair operates at data rates of up to 100Gb/s and can be adaptive downward compatibility. The product operates 3.3V power supply and comply with QSFP-DD-MSA and



IEEE802.3ck ,it's high performance & cost effective I/O solutions for LAN, HPC and SAN. The high speed cable assemblies meet and exceed 800Gigabit Ethernet, Infiniband EDR /HDR and temperature requirements for performance and reliability.

Block Diagram



Absolute Maximum Ratings

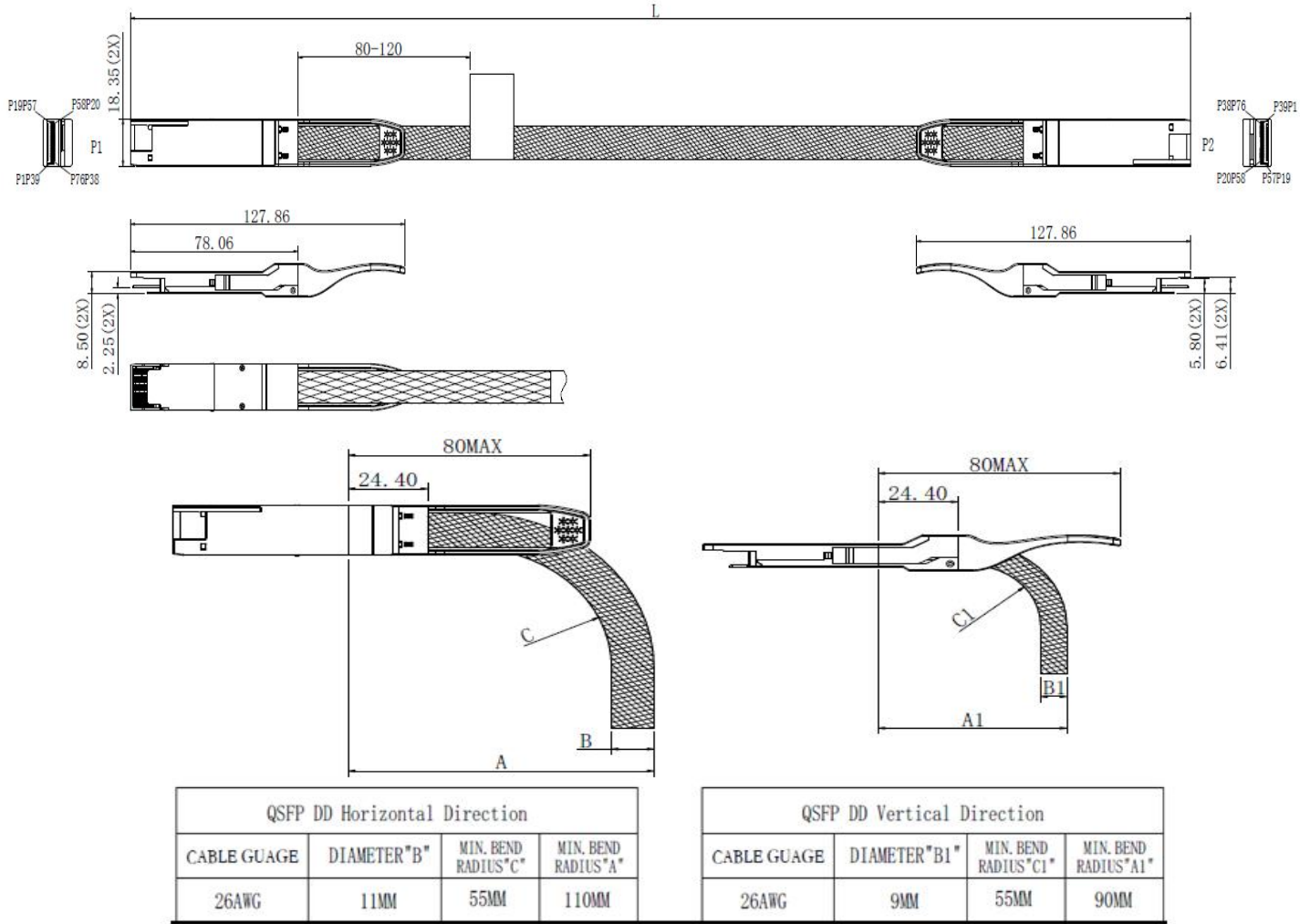
Parameter	Symbol	Min	Max	Unit
Storage Temperature	T_s	-20	85	°C
Humidity (non-condensing)	Rh	5	95	%
Supply Voltage	Vcc	-0.3	3.6	V
Latency(4m)	DL		20	ns
Weight(4m)	W		650	g

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	T_c	0		70	°C
Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Consumption	PD		2.5		W
Data Rate per Lane (PAM4)	Fd1			53.125	GBaud/s
Data Rate per Lane (NRZ)	Fd2	10.3125		53.125	Gbps

Parameter	Symbol	Min	Typical	Max	Unit
Humidity	Rh	5		85	%

Mechanical Dimensions



Ordering information

Part Number	GQD-AC801-DXXC
Length (meter)	2~4
Wire gauge (AWG)	26

If length(meter) is decimal, PN should be as GQD-AC801-DXXC, the default wire gauge is 26AWG cable for 2~4m. It's recommend to choose Gigalight's QSFP-DD800 DAC for less than 2m reach.

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Gigalight before they become applicable to any particular order or contract. In accordance with the Gigalight policy of continuous improvement specifications may change without notice. The publication of information in this data sheet does not imply freedom from patent or other protective rights of Gigalight or others. Further details are available from any Gigalight sales representative.

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Revision History

Revision	Date	Description
V0	May-24-2023	Advance Release.