

# DATA SHEET

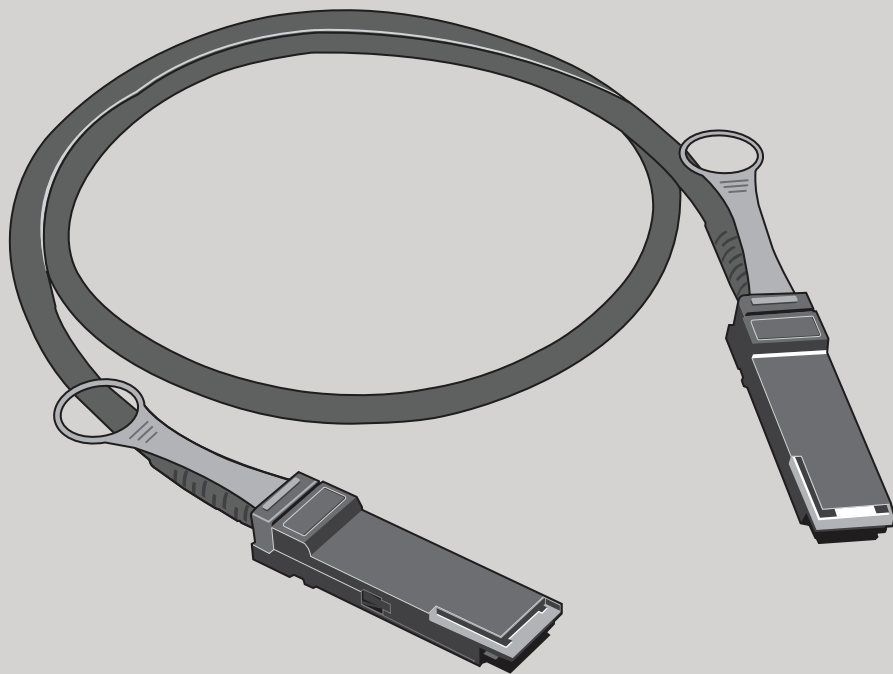
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QSFP-H40G-CUXM-BB SERIES

# 40G DIRECT ATTACH CABLE NETWORKING

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24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT [BLACKBOX.COM](http://BLACKBOX.COM)



**BLACK BOX**

# OVERVIEW

## 40G DIRECT ATTACH CABLE FOR NETWORKING DATA SHEET



QSFP-H40G-CU1M-BB

### INTRODUCTION

Black Box® 40G Direct Attach Cables provide premium, error-free performance for data, storage, and high-performance computing (HPC) interconnectivity. 100% compatible to Cisco® QSFP-H40G-CUXM-, these cables connect your Cisco switches, routers and servers. Constructed for full compliance with the QSFP+ Multi-Source Agreement (MSA) and SFF-8436 industry standards, you can also make connections among your non-Cisco, 40G compatible networking equipment. Programmed, tested and serialized to ensure compliance and functionality, Black Box Direct Attach Cables are the ideal solution for 40G Ethernet and Fiber Channel applications and more.

#### Low-cost, Low-power Solution Ideal for In-Rack High-Density, High-Bandwidth Applications

When it comes to connecting networking equipment in High-Density, High-Bandwidth applications, Direct Attach Cables that operate over passive copper are the most cost-effective solution available. Perfect for inter-rack connections of switches, routers and servers, they are also an ultra-efficient solution when it comes to power. In comparison to Active Optical Cables (AOC) and modular Transceiver solutions, you can't beat the value of a low cost copper solution that consumes practically zero power.

#### All-in-One Solution Makes for Simple Connections with Low Latency

With an all-in-one, hot-swappable cable design, Direct Attach Cables provide you with an easy to connect solution that doesn't require purchasing multiple transceivers and cabling. The lack of additional connection points also means lower latency, so you can be confident of your data integrity. Hot-swappability makes upgrades and equipment replacements a breeze, minimizing downtime to your network connectivity.

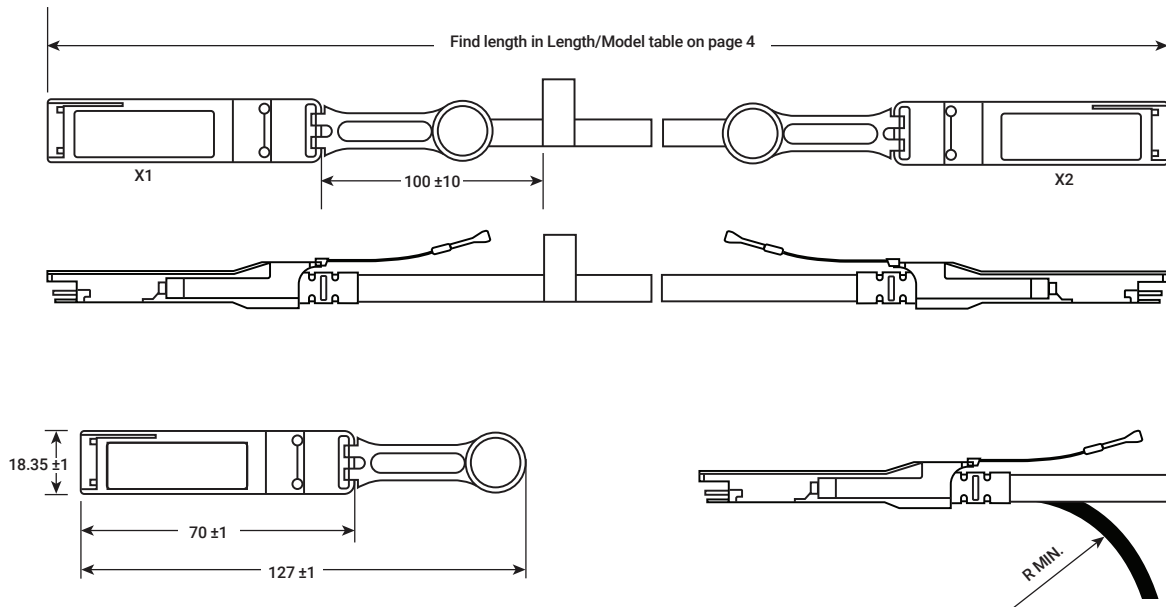
### FEATURES

- 100% COMPATIBLE TO CISCO QSFP-H40G-CUXM=
- COMPLIES WITH QSFP+ MULTI-SOURCE AGREEMENT (MSA) AND SFF-8436 STANDARDS
- CONSUMES JUST 0.003 W OF POWER, SAVING ON CONSUMPTION IN COMPARISON TO AOCs AND TRANSCEIVERS
- PERFECT FOR POINT-TO-POINT, INTRA-RACK AND RACK-TO-RACK CONNECTIONS OF 40G EQUIPMENT
- CONSTRUCTED USING CL2 RATED PVC JACKETING
- CASE SUPPORTS OPERATING TEMPERATURE RANGE OF -4 TO 185° F (-20 TO 85° C)
- LIFETIME WARRANTY



# DIMENSIONAL DIAGRAMS AND SPECIFICATIONS

## 40G DIRECT ATTACH CABLE FOR NETWORKING DATA SHEET



BEND RADIUS	
CABLE AWG	R MIN
30 AWG	33 mm
28 AWG	31.5 mm
26 AWG	46 mm
24 AWG	46.5 mm

PIN ASSIGNMENT		
X1	X2	Remark
18 (RX1-)	37 (TX1-)	Pair
17 (RX1+)	36 (TX1+)	
15 (RX3-)	34 (TX3-)	Pair
14 (RX3+)	33 (TX3+)	
6 (TX4+)	25 (RX4+)	Pair
5 (TX4-)	24 (RX4-)	
3 (TX2+)	22 (RX2+)	Pair
2 (TX2-)	21 (RX2-)	

PIN ASSIGNMENT		
X1	X2	Remark
37 (TX1-)	18 (RX1-)	Pair
36 (TX1+)	17 (RX1+)	
34 (TX3-)	15 (RX3-)	Pair
33 (TX3+)	14 (RX3+)	
25 (RX4+)	6 (TX4+)	Pair
24 (RX4-)	5 (TX4-)	
22 (RX2+)	3 (TX2+)	Pair
21 (RX2-)	2 (TX2-)	

# SPECIFICATIONS AND ORDERING INFORMATION

## 40G DIRECT ATTACH CABLE FOR NETWORKING DATA SHEET

SPECIFICATIONS	
CONNECTOR A	QSFP+ male
CONNECTOR B	QSFP+ male
CABLE JACKET TYPE	CL2 rated PVC jacketing
CABLE IMPEDANCE	100 ± 10 ohms
CABLE GAUGE	30 AWG (up to 3 m)/24 AWG (up to 5 m)
COLOR	Black
DATA TRANSFER RATE	40 Gbps
NEAR-END CROSSTALK (NEXT)	<26 dB @ 5 GHz
OPERATING TEMPERATURE	-4 to 185° F (-20 to 85° C)
STORAGE TEMPERATURE	-40 to +185° F (-40 to +85° C)
POWER CONSUMPTION	0.003 W
STANDARDS	QSFP+ MSA, SFF-8436, 802.3ba 40GBASE-CR4
APPROVALS	RoHS, CE, FCC

LENGTH	MODEL
50-cm	QSFP-H40G-CU50CM-BB
1-m	QSFP-H40G-CU1M-BB
2-m	QSFP-H40G-CU2M-BB
3-m	QSFP-H40G-CU3M-BB
5-m	QSFP-H40G-CU5M-BB
7-m	QSFP-H40G-CU7M-BB

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