

40 Gb/s QSFP+ SR4 Transceiver with DDM



QSFP+ Series

Product Overview

Ascent's QSFP-AQ-MP-85-03 QSFP transceivers are designed for use in 40 Gigabit per second links over multimode fiber. They are compliant with the QSFP+ MSA and IEEE 802.3ba 40GBASE-SR4.

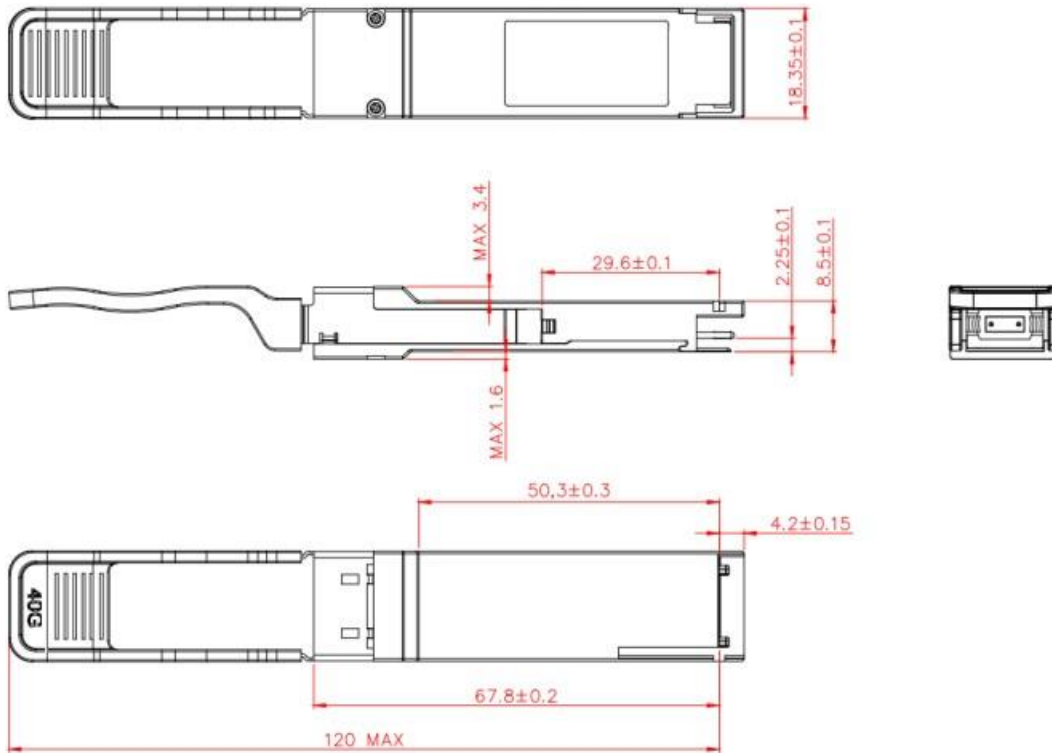
The optical transmitter portion of the transceiver incorporates a 4-channel VCSEL array, a 4-channel input buffer and laser driver, diagnostic monitors, control and bias blocks. For module control, the control interface incorporates a two-wire serial interface of clock and data signals. Diagnostic monitors for VCSEL bias, module temperature, transmitted optical power, received optical power and supply voltage are implemented and results are available through the TWS interface. Alarm and warning thresholds are established for the monitored attributes. Fault detection or channel deactivation through the TWS interface will disable the channel. Status, alarm/warning and fault information are available via the TWS interface.

The optical receiver portion of the transceiver incorporates a 4-channel PIN photodiode array, a 4-channel TIA array, a 4-channel output buffer, diagnostic monitors, and control and bias blocks. Diagnostic monitors for optical input power are implemented and results are available through the TWS interface. Alarm and warning thresholds are established for the monitored attributes.

Key Features

- Compliant with QSFP+ MSA Specification
- Operating Temperature(0°C to 70°C)
- 4x10Gbps 850nm VCSEL-based Transmitter
- Maximum Link Length of 300m via OM3 Multimode Fiber(MMF)
- Be compliant to the 40GbE XLPI electrical specification per IEEE 802.3ba-2010
- Be compliant to the IEEE 802.3ae 10GBASE-SR optical specification

Outline Diagram



Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	T _c	0		70	°C	
Power Supply Voltage	V _{cc}	3.135	3.3	3.465	V	
Operating Distance	D			300	m	OM3 MMF
Signaling Rate, each lane (range)	GBb		10.3125		GBb	
Center Wavelength	λ	840	850	860	nm	
Average Launch Power, each Lane	P _f	-4		2.4	dBm	
Signaling rate, each lane (range)	GBb		10.3125		GBb	
Center Wavelength	λ	840		860	nm	
Damage threshold		3.4			dBm	
Average power at receiver input, each lane		-11.5		2.4	dBm	
Receive power, each lane (OMA)				3	dBm	

Ordering Information

Product Name

QSFP-AQ-MP-85-03

Product Description

QSFP+ Plug-in, 40 Gbps, 300 m OM3 fiber, 400 m OM4 fiber, TX/RX 850 nm SR4, with DDM on two multi-mode fibers, MPO connector

Contact Information



Ascent Communication Technology Ltd

AUSTRALIA

140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

Hong Kong SAR

Room 1210, 12th Floor, Wing Tuck Commercial Centre
181 Wing Lok Street, Sheung Wan , Hong Kong SAR
Phone: +852-2851 4722

CHINA

Unit 1933, 600 Luban Road
200023, Shanghai, CHINA
Phone: +86-21-60232616

USA

2710 Thomes Ave
Cheyenne, WY 82001, USA
Phone: +1 203 350 9822

EUROPE

Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

VIETNAM

11th Floor, Hoa Binh Office Tower
106 Hoang Quoc Viet Street, Nghia Do Ward
Cau Giay District, Hanoi 10649, VIETNAM
Phone: +84-24-37955917

WEB: www.ascentcomtec.com

EMAIL: sales@ascentcomtec.com

Specifications and product availability are subject to change without notice.
Copyright © 2026 Ascent Communication Technology Limited. All rights reserved.
Ver. ACT_QSFP-AQ-MP-85-03_Datasheet_V1e_Jan_2020