200G QSFP56 SR4 Transceiver

ET7452-SR4

Product Features

- Up to 50Gbps data rate per channel by PAM4 modulation
- 4 duplex-channel transmitters and receivers
- Integrated 850nm VCSEL array and PD array
- Single MPO-12 connector optical interface
- Single +3.3 V power supply
- Implements DDM functions
- Hot-pluggable QSFP56 form factor
- Maximum link length of 100m on 12 core MPO OM4 (MMF) fiber
- Low power dissipation:<5W
- International Class 1 laser safety certified
- Operating temperature range: 0°C ~ +70 °C
- Compliant with ROHS10

Applications

- 200GBASE-SR4 Ethernet
- Switch and router connection
- Data centers
- Other 200G interconnect requirements.

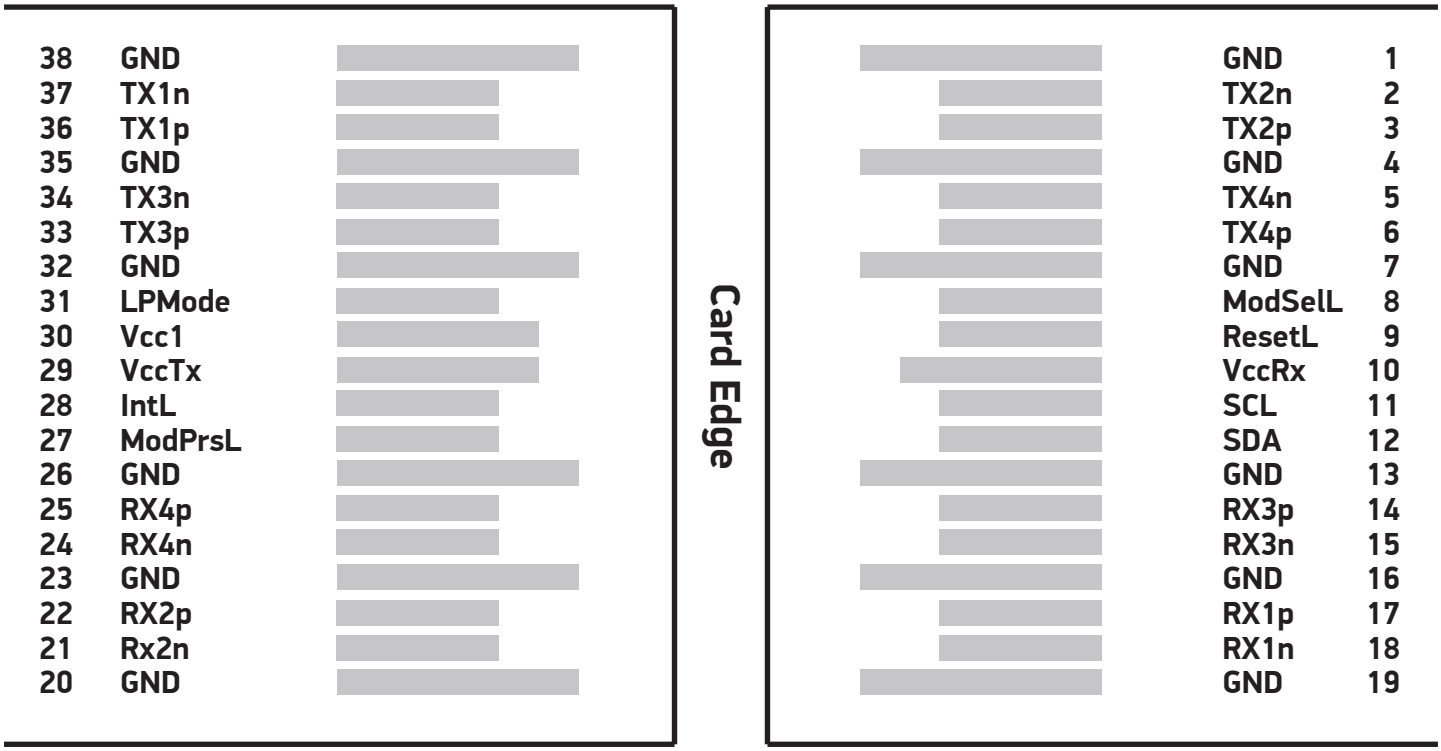
Description

The 200G QSFP56 SR4 transceiver is designed to transmit and receive serial optical data at up to 50 Gb/s (per channel) by PAM4 modulation over multimode fiber. The device is a small-form-factor, hot-pluggable transceiver module integrated with a high-performance VCSEL laser and a high-sensitivity PIN receiver.

Ordering Information

Part Number	Transmitter	Output Power	Sensitivity	Reach	Temp	DDM	RoHS
ET7452-SR4	850 nm	-6.5 ~ +4	-6.5dBm@SECQ=1.4dB	100 m	0~ 70 °C	Available	Compliant

Pin Description



Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these or any other conditions in excess of those given in the operational sections of the datasheet. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature	Ts	-40	85	°C
Relative Humidity	RH	5	85	%
Supply Voltage	Vcc	-0.5	4.0	V

Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Case Temperature	Tc	0	25	70	°C
Supply Voltage	Vcc	3.135	3.3	3.465	V
Data Rate PER Channel	-	-	26.5625	-	GBd

Transceiver Electrical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Module Supply Current	Icc	-	-	1.5	A	
Power Dissipation	P_D	-	-	5	W	

Transmitter Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Launch Optical Power	Po	-6.5	-	4	dBm	-
Center Wavelength Range	λc	840	850	860	nm	-
Extinction Ratio	ER	3	-	-	dB	-
Average Launch Power per Lane	TxPx	-6.5		4	dBm	
Tx OMA per lane	TxOMA	-4.5		3	dBm	
Launch Power in OMAouter minus TDECQ (min)		-5.9			dBm	
Transmitter and Dispersion Eye Closure (TDECQ), each lane				4.5	dB	

Receiver Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Center Wavelength	λc	840	850	860	nm	-
Receiver sensitivity (OMAouter) Each Lane (SECQ=1.4dB)	S	-	-	6.5	dBm	-
Receiver Overload in Average Power	P_{OL}	5	-	-	dBm	
Average Receive Power per Lane	RxPx	-8.4		4	dBm	
Receive Power, each Lane (OMAouter)				3	dBm	
Stressed Receiver Sensitivity (OMAouter), Each Lane				-3.4	dBm	
Receiver Sensitivity (OMAouter) Each Lane (SECQ=1.4 dB)				-6.5	dBm	

Warranty
Please check www.edge-core.com for the warranty terms in your country.

For More Information
To find out more about Edgecore Networks Corporation products and solutions, visit www.edge-core.com.

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