COMMANDO LightningFIBER 25GBASE-SR

SFP-SR-25G Data Sheet



© 2026 COMMANDO Networks Pvt Ltd. All rights reserved.

Contents

Product Overview
Product Highlights
Features and Benefits
Hardware
Specifications
Support and Warranty
Ordering Information
Document History

© 2026 COMMANDO Networks Pvt Ltd. All rights reserved.

Product Overview

COMMANDO LightningFIBER SFP-SR-25G, SFP28 (Small Form-factor Pluggable Twenty Eight) operates at 850nm is on multi-mode fiber transceiver based on 25G Ethernet IEEE 802.3by standard and compliant with FC-PI-6, SFF-8402、SFF-8419, SFF-8432 and SFF-8472, providing a fast and reliable interface for 25G Ethernet applications. The product implements Digital Diagnostics Monitoring (DDM) via a 2-wire serial bus, compliant with the SFF-8472 standard.

The module is designed to offer multi-vendor compatibility offering users flexibility, scalability without incurring additional overhead and increasing interoperability.

COMMANDO SFP28 transceiver module is for transmission at 850nm over Multimode fiber. The SFP28 transceiver is featured with low-power, high-density, high-speed and offers an efficient way to help your IT infrastructure to be quickly scaled up and ready for up to 25Gbps transmission. It supports distances up to 70m on OM3 or 100m OM4 fiber on MMF via an LC duplex connector. It offers customers a wide variety of 25Gbps connectivity to multi-vendor equipment like routers, switches, server, NICs of data center, enterprise wiring closet, and service provider transport applications. It is ideal for Internet Service Provider (ISP) Gigabit Ethernet communication links, Enterprise LAN & SAN Networks, Data Center LAN & SAN networks, and other optical links. It can be used as uplinks for 25Gbps Small Form-Factor Pluggable Twenty eight (SFP28) Fiber Network Module for delivering robust performance and Cloud networking needs of growing businesses, data centers and high-end campus networks.

© 2026 COMMANDO Networks Pvt Ltd. All rights reserved.

Product Highlights

- Multi-vendor platform compatible
- Supports Up to 25.78Gbps bi-directional data links
- Hot-pluggable SFP28 footprint
- 850nm VCSEL laser transmitter
- Duplex LC connector
- Compliant with Compatible IEEE 802.3by, 25GBASE-SR
- Compliant with FC-PI-6, SFF-8402, SFF-8419, SFF-8432 and SFF-8472
- Built-in Digital Diagnostic Monitoring (DDM) functions
- Up to 70m on OM3 MMF
- Up to 100m on OM4 MMF
- Low power consumption (Module work consumption <1W)
- Single power supply 3.3V
- RoHS-6 Compliant
- Class 1 laser product complies with EN 60825-1
- Clock data recovery on transmit and receive channels CDR
- Operating temperature range (Case Temperature): 0◦C to 70◦C
- Applications: 25GBASE-SR Ethernet, 25G Fiber Channel, eCPRI Wireless Networks
- Standard and compact size, fully metallic enclosure for Low EMI

© 2026 COMMANDO Networks Pvt Ltd. All rights reserved.

© 2026 COMMANDO Networks Pvt Ltd. All rights reserved.

Features and Benefits

Easy to Use

COMMANDO SFP28 Transceivers are easy to use with simple and hassle-free setup. Its compact and standard size makes it ideal for all top brand devices along with COMMANDO products. Easy Installation, Plug-and-play installation with no configuration required.

25 Gigabit speed with Reliable performance

It provides and offers 25Gbps speed. These SFP28 are well built and rigorously tested and can sustain in very rough environment to provide reliable performance.

Dust proof Enclosure

It has a resilient dust proof enclosure protects against harsh outdoor condition with no ingress of dust.

Support uninterrupted critical network infrastructure

It is protected from any hardware failures with Extra Long operational life. With this feature protect on cost and the impact to your business by losing these network devices and thus the users/servers connected to them.

Cost Efficient

State of art quality product that can serve with world's top brand products along with COMMANDO devices on real time high-speed Performance, highly reliable, conformance to international open standards, durable, serviceable, aesthetics, perceived quality, enhanced performance leads to value to money.

Green Technology

It automatically adjusts power consumption according to the link status to limit the carbon footprint of your network. It also complies with RoHS-6, prohibiting the use of certain hazardous materials. Moreover, most of the packaging material can be recycled and reused.

© 2023 COMMANDO Networks Inc. All rights reserved.

Hardware

High Performance

- Low power consumption <1W typically, saving power
- 100us typical latency, MTBF over 1 million hours
- SFP28 Multi source Agreement (MSA) Compliant
- Input Voltage: 3.1V DC to 3.5V DC Maximum / 3.3V DC Typical.
- Input Current 300mA Maximum / 200mA Typical.

Extra Long operational life

- Stainless steel material
- Anti-corrosion and salt spray resistance
- Storage Relative Humidity: 5% to 95%
- Exceptional Performance in Harsh Outdoor Climates with dust proof enclosure ensuring it can withstand harsh outdoor and indoor environments.

Operating temperature range

- Commercial temperature range: 0 to 70°C (32 to 158°F)
- COMMANDO Extended temperature range: -5°C to 85°C (23 to 185°F)
- Storage temperature range: -40 to 85°C (-40 to 185°F)

© 2023 COMMANDO Networks Inc. All rights reserved.

Table 1 COMMANDO SFP28 Hardware Specifications Comparison

Product Code	Form Factor	Maximum Speed	IEEE Standard Compliance	Connector Type	TX Power (dBm)	Receiver Sensitivity (dBm)
SFP-SM-1G	SFP	1000Mbps	1000BASE-LX/LH	LC duplex	-9.5 ~ -3dBm	< -23dBm
SFP-MM-1G	SFP	1000Mbps	1000BASE-SX	LC duplex	-9.5 ~ -3dBm	< -17dBm
SFP-UTP-1G	GBIC-T, SFP	1000Mbps	1000BASE-T	RJ-45	Standard	<1W
SFP-SR-10G	SFP+	10.3125Gbps	10GBASE-SR	LC Duplex	-7.3~-1dBm	< -11.1dBm
SFP-LR-10G	SFP+	10.3125Gbps	10GBASE-LR	LC Duplex	-8.2~0.5 dBm	<-14.4dBm
SFP-ER-10G	SFP+	10.3125Gbps	10GBASE-ER	LC Duplex	-7.3~-1dBm	< -11.1dBm
SFP-ZR-10G	SFP+	11.3Gbps	10GBASE-ZR	LC Duplex	0~5dBm	<-23dBm
SFP-UTP-10G	10GBASE-T, SFP+	10Gbps	10GBASE-T	Copper CAT 6a/7	Standard	<1W
SFP-SR-25G	SFP28	25.78Gbps	25GBASE-SR	LC Duplex	-9.40 --3.40	–10.3dBm
SFP-LR-25G	SFP28	26.5Gbps	25GBASE-LR	LC Duplex	-7.97--2.8	14.4/-13.3dBm
QSFP-SR4-40G	QSFP+	41.2Gbps	40GBASE-SR4	MTP/MPO-12 Male	-7.6~1dBm	<-11.1dBm
QSFP -LR4-40G	QSFP+	44.6Gbps	40GBASE-LR4	LC duplex	-7~2.3dBm	<-11.5dBm
QSFP-SR4-100G	QSFP28	103.1 Gbps	100GBASE-SR4	MTP/MPO-12	-8.4~2.4 dBm	<-10.3dBm
QSFP-LR4-100G	QSFP28	103.125Gbps	100GBASE-LR4	LC duplex	-4.3~4.5 dBm	<-10.6dBm

Specifications

COMMANDO SFP-SR-25G, SFP28 is used for speed 25Gbps Ethernet fiber speed and It is a compact, hot-swappable device that plugs into a physical port of a network device. SFP28 optics are used in communication networks and have a transmitting side (Tx) and a receiving side (Rx) work with 850nm wavelengths & supports up up to 100m link lengths over OM4 MMF (70m over OM3 MMF) via an LC duplex connector.

Table 2. COMMANDO SFP Model Comparison

Product Code	Center Wavelength (nm)	Media Type	Max Transmission Distance	Digital Diagnostics Monitoring Supported
SFP-SM-1G	GBIC-LX/LH, 1310nm	MMF/SMF	550m/20km	DDM
SFP-MM-1G	GBIC-SX, 850nm	MMF	550m	DDM
SFP-UTP-1G	GBIC-T, RJ-45	Copper	100m	Standard
SFP-SR-10G	10GBASE-SR, 850nm	MMF	300m	DDM
SFP-LR-10G	10GBASE-LR, 1310nm	SMF	20km	DDM
SFP-ER-10G	10GBASE-ER, 1550nm	SMF	40km	DDM
SFP-ZR-10G	10GBASE-ZR/ZW, 1550nm	SMF	80km	DDM
SFP-UTP-10G	10GBASE-T RJ-45	Copper CAT 6a/7	80m	Standard

© 2023 COMMANDO Networks Inc. All rights reserved.

SFP-SR-25G	25GBASE-SR, 850nm	MMF	70/100m	DDM
SFP-LR-25G	10GBASE-LR/25GBASE-LR, 1310nm	SMF	10km	DDM
QSFP-SR4-40G	40GBASE-SR4, 850nm	MMF	100m	DDM
QSFP-LR4-40G	40GBASE-LR4, 1310nm	SMF	10km	DDM
QSFP-SR4-100G	100GBASE-SR4, 850nm	MTP/MPO-12, MMF	100m	DDM
QSFP-LR4-100G	100GBASE-LR4, 1310nm	LC Duplex, SMF	10km	DDM

General Specifications

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Data rate	DR	-	25.78		Gbps	1
Bit error rate	BER	-	-	$5x10^{-5}$	-	2
OM3 multimode fiber (bandwidth 2000MHz*km)	L	-	-	70	M	3
OM4 multimode fiber (bandwidth 4700MHz*km)	L	-	-	100	M	3

Notes:

1. IEEE802.3by

2.Measured with data rate at 25.78Gbps, PRBS 2^{31}-1

3.This module requires RS-FEC on the host ports for operation at 25G

© 2023 COMMANDO Networks Inc. All rights reserved.

Link Distances

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Data rate	DR	-	25.78	-	Gbps	1
Bit error rate	BER	-	-	$5x10^{-5}$	-	2
OM3 multimode fiber (bandwidth 2000MHz*km)	L	-	-	70	M	3
OM4 multimode fiber (bandwidth 4700MHz*km)	L	-	-	100	M	3

Optical – Characteristics – Transmitter

V_{CC}=3.15V to 3.46V, T_C=0°C to 70°C

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Average Output Optical Power	P_{TX}	-8.4	-	2.4	dBm	-
Optical Center Wavelength	λ_C	840	850	860	nm	-
Optical Modulation Amplitude	OMA	-6.4	-	3	dBm	-
Extinction Ratio	ER	2	-	-	dB	-
Spectral Width (RMS)	$\Delta\lambda$	-	-	0.6	nm	-
Transmitter Dispersion Eye Closed	TDEC	-	-	4.3	dB	-

© 2023 COMMANDO Networks Inc. All rights reserved.

Optical – Characteristics – Receiver

V_{CC}=3.15V to 3.46V, T_C=0°C to 70°C

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Optical Center Wavelength	λ_C	840	850	860	nm	-
Receive Sensitivity	P_{RX}	–10.3	-	3	dBm	1
Optical Return Loss	ORL	12	-	-	dB	-
LOS Assert	LOS_A	-30	-	-	dBm	-
LOS De-Assert	LOS_D	-	-	-11	dBm	-
LOS Hysteresis	LOS_H	0.5	-	-	dB	-

Note:

1. Average, measured with data rate at 25.78Gbps, PRBS 2^{31}-1 , BER $5x10^{-5}$, without fiber

Electrical – Characteristics – Transmitter

V_{CC}=3.15V to 3.46V, T_C=0°C to 70°C

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Input differential impedance	R_{IN}	-	100		Ω	-
Differential data input swing	$V_{IN\ PP}$	180	-	1600	mV	-
Transmit Disable Voltage	V_D	2	-	V_{CC}	V	-
Transmit Enable Voltage	V_{EN}	V_{EE}	-	V_{EE}+0.8	V	-

Electrical – Characteristics – Receiver

V_{CC}=3.15V to 3.46V, T_C=0°C to 70°C

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Differential output swing	$V_{OUT\ PP}$	370	600	850	mV	-
LOS Assert	LOS_A	2	-	V_{CC} HOST	V	-

© 2023 COMMANDO Networks Inc. All rights reserved.

LOS De-Assert	LOS_D	V_{EE}	-	V_{EE}+0.8	V	-

Digital Diagnostic Monitor (DDM) Functions

COMMANDO SFP-SR-25G supports the 2-wire serial communication protocol defined in SFF-8472, which accesses digital diagnostic information through a 2-wire interface with the address 0xA2. The digital diagnosis defaults to internal calibration, and the internal micro-control unit accesses the module operating parameters in real time, such as module temperature, laser bias current, emission power, received light power and module power supply voltage. The module realizes the alarm function of SFF-8472, which sets the alarm flag bit when the specific working parameters are out of the normal range and cancels the alarm flag bit when the specific working parameters return to the normal range.

DDM Threshold Information

Parameter	High Alarm	High Warning	Low Warning	Low Alarm
Temperature(°C)	75.00(4B00h)	70.00(4600h)	0.00(0000h)	-5.0(FB00h)
Voltage(V)	3.63(8DCCh)	3.46(8728h)	3.13(7A44h)	2.97(7404h)
Bias Current(mA)	12.00(1770h)	11.50(1676h)	2.00(03E8h)	1.00(01F4h)
Tx Power(dBm)	3.40(5575h)	2.40(43E2h)	-8.4(05A5h)	-9.4(047Ch)
Rx Power(dBm)	3.40(5575h)	2.40(43E2h)	-10.3(03A5h)	-11.3(02E5h

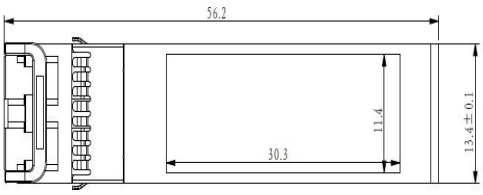
© 2023 COMMANDO Networks Inc. All rights reserved.

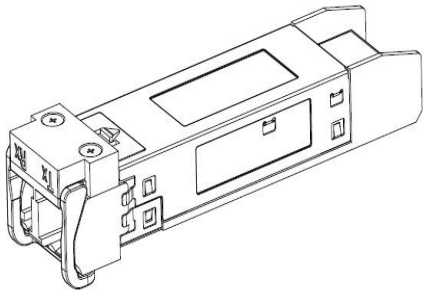
Product Weight

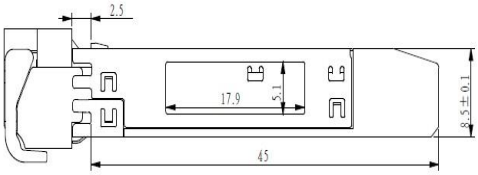
Module Weight：16.0 g Dust

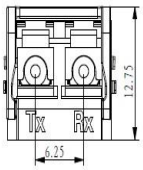
Cap Weight：0.95 g

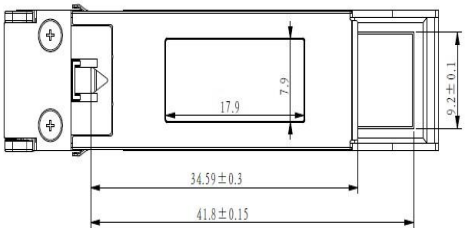
Dimensions

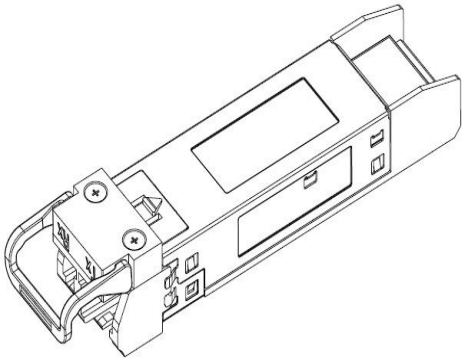












ALL DIMENSIONS ARE ±0.2mm UNLESS OTHERWISE SPECIFIED UNIT: mm

© 2023 COMMANDO Networks Inc. All rights reserved.

Included in the bundle/box

All COMMANDO SFP-SR-25G, SFP28 Transceivers are made available for use globally along with accessory used to facilitate or enhance operations. COMMANDO SFP-SR-25G, SFP28 Transceivers comes with following Accessories.

1x (COMMANDO 25G SFP28 Transceiver Module) SFP-SR-25G

© 2023 COMMANDO Networks Inc. All rights reserved.

Support and Warranty

- Same-day assistance.
- Comprehensive 24-hour support using common communication/chat platforms, Email and Telephone.
- Provide FAQs and troubleshooting help online (self-service) through cloud-based solutions.
- Highly technical and trained representatives to resolve issues.
- One-year default warranty with option of warranty extension up to 3 years

COMMANDO WarrantyX Program available on: www.commandonetworks.com/warranty

© 2023 COMMANDO Networks Inc. All rights reserved.

Table 3. Support and Warranty

Warranty and Support	
Products covered	COMMANDO LightningFIBER 25GBASE-SR, SFP28, 850nm, 70/100m, MMF, DDM (SFP-SR-25G)
Warranty duration	One Year RTB (Return To Base) replacement warranty – optionally extendable up to 3 years.
Hardware replacement	COMMANDO, its resellers, or its service center will use commercially reasonable efforts to replace the product subject to stock availability. Otherwise, a replacement will be arranged within 15 working days after receipt of the Return Materials Authorization (RMA) request.
End-of-life policy	In case of discontinuation of the product, support is limited to 3 years from announcement date.
Effective date	Hardware warranty commences from the date of shipment to customer (and in case of resale by a COMMANDO reseller, not more than 90 days after original shipment by COMMANDO).
Support duration	Lifetime support.
COMMANDO Care	COMMANDO will provide 24x7 support for basic configuration, diagnosis, and troubleshooting of device-level problems for up to one year from the date of shipment of the originally purchased product. This support does not include solution or network-level support beyond the specific device under consideration.
Online Portal Access	Warranty allows guest access to commandonetworks.com for all available technical queries.

© 2023 COMMANDO Networks Inc. All rights reserved.

Ordering Information

Ordering information for the COMMANDO SFP-SR-25G, SFP+ Transceivers, To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/catalog

Table 4. Ordering Information

Product Code	Description
SFP-SM-1G	COMMANDO LightningFIBER 1000BASE-LX/LH, SFP, 1310nm, 20km, SMF, DDM
SFP-MM-1G	COMMANDO LightningFIBER 1000BASE-SX, SFP, 850nm, 550m, MMF, DDM
SFP-UTP-1G	COMMANDO LightningCOPPER 1000BASE-T SFP, Copper, RJ-45, 100m, Standard
SFP-SR-10G	COMMANDO LightningFIBER 10GBASE-SR, SFP+, 850nm, 300m, MMF, DDM
SFP-LR-10G	COMMANDO LightningFIBER 10GBASE-LR, SFP+, 1310nm, 20km, SMF, DDM
SFP-ER-10G	COMMANDO LightningFIBER 10GBASE-ER, SFP+, 1550nm, 40km, SMF, DDM
SFP-ZR-10G	COMMANDO LightningFIBER 10GBASE-ZR/ZW, SFP+, 1550nm, 80km, SMF, DDM
SFP-UTP-10G	COMMANDO LightningCOPPER 10GBASE-T Copper RJ-45, SFP+, Up to 80m, CAT 6a/7
SFP-SR-25G	COMMANDO LightningFIBER 25GBASE-SR, SFP28, 850nm, 70/100m, OM3/4 MMF, DDM, Multi-vendor Compatible
SFP-LR-25G	COMMANDO LightningFIBER 10/25GBASE-LR, SFP28, 1310nm, 10km, SMF, DDM, Multi-vendor Compatible
QSFP-SR4-40G	COMMANDO LightningFIBER 40GBASE-SR4, QSFP+, 850nm, 100m, MMF, DDM
QSFP-LR4-40G	COMMANDO LightningFIBER 40GBASE-LR4, QSFP+, 1310nm, 10km, SMF, DDM
QSFP-SR4-100G	COMMANDO LightningFIBER 100GBASE-SR4, QSFP28+, 850nm, 100m, MTP/MPO-12, MMF, DDM
QSFP-LR4-100G	COMMANDO LightningFIBER 100GBASE-LR4, QSFP28+, 1310nm, 10km, SMF, DDM

© 2023 COMMANDO Networks Inc. All rights reserved.

Document History

Release	What's new	Date
Release 1	First Release	March 24, 2021
Release 2	Multi-brand compatible model launch	November 9, 2022
Release 3	Model adjustment	September 18, 2023
Release 4	25G Model added	October 13, 2023

© 2023 COMMANDO Networks Inc. All rights reserved.