XS+31LC40D

A multi-rate SFP/SFP+/SFP28 optical module for long-distance single-mode fiber connections.

- *40 km reach*
- *25G max speed*
- *1310 nm wavelength*
- *DDM monitoring*



***1G, 10G**, or **25G** – now up to **40 km**!*

Extend your fiber links up to 40 km without giving up flexibility. The XS+31LC40D supports 1.25G, 10G, and 25G connectivity in a single module, making it a practical choice for connecting distant network sites, expanding ISP infrastructure, and building high-speed links across longer routes.

Operating at 1310 nm, the module features digital diagnostic monitoring (DDM) for keeping track of optical performance and an extended operating temperature range of −40°C to +85°C.

Where can you use it?

ISP distribution and aggregation

Connect distant points of presence, distribution switches, and network aggregation sites over single-mode fiber.

Remote facilities and industrial networks

Extend high-speed connectivity to offices, production facilities, and other locations separated by long fiber routes.

Flexible network upgrades/scalability

Run 1G or 10G links today and move to 25G when the connected equipment supports it – without replacing the optical module.

Example MikroTik companions for the XS+31LC40D:



CRS310-8G+2S+IN

a compact switch with two 10G SFP+ ports for distribution and remote-site connections.



CCR2004-1G-12S+2XS

a versatile router with twelve 10G SFP+ and two 25G SFP28 ports for mixed-speed networks



CRS510-8XS-2XQ-IN

a high-capacity switch with eight 25G SFP28 ports and two 100G QSFP28 ports for aggregation infrastructure.

The module includes built-in digital diagnostics (DDM) for monitoring optical power, voltage, temperature, laser bias current, and other key parameters. These functions help detect abnormal activity or when customizable operating limits are exceeded. Monitoring makes it easier to plan ahead, make informed decisions, and schedule upgrades or maintenance based on real performance data.

Specifications

Product code	XS+31LC40D
Format	SFP / SFP+ / SFP28
Connector	Dual LC UPC
Mode	Single Mode
Data Rate	1G / 10G / 25G
Wavelength	1310nm
Distance	40km
Temperature	-40°C to 70°C
Max Power Consumption	1.8 W

Electrical characteristics	Min.	Max.	Unit	Note
Receiver				
Receiver differential output voltage	350	800	mVpp	1
LOS output Voltage-High	2.0	Vcc	V	2
LOS output Voltage-Low		0.8	V	2

1. Into 100Ω differential termination.
2. LOS is LVTTL. Logic 0 indicates normal operation; logic 1 indicates no signal detected.

Optical characteristics	Min.	Max.	Unit	Note
Transmitter				
Output power	-1	5	dBm	1
Receiver				
Receiver sensitivity (OMA)		-19.6	dBm	2
LOS-Deasserted (Avg.)		-20	dBm	
LOS-Asserted (Avg.)	-30		dBm	
LOS-Hysteresis	0.5	5	dB	

1. The optical power is launched into SMF.
2. Measured with a PRBS 2^31-1 test pattern,25.78G@BER=5E-5.