

OPTICAL TRANSCEIVERS · SFP AND SFP+

SFP / SFP+ Modules

Gigabit and 10 Gigabit Optical Transceivers for Foredge Switches

Hot-Pluggable

LC Duplex

DDM Supported

Gigabit & 10 Gigabit



The four transceiver types — Gigabit SFP and 10 Gigabit SFP+, multimode and single-mode

Four hot-pluggable LC duplex transceivers cover every fibre slot in the Foredge switch range: two Gigabit SFP modules for access and edge links, and two 10 Gigabit SFP+ modules for uplinks. Multimode versions carry a building; single-mode versions carry ten kilometres between sites. All four include digital diagnostic monitoring, so optical power can be read from the switch instead of a meter.

4

Module types

1.25 / 10

Gbps

500 m

Multimode gigabit

10 km

Single-mode reach

LC

Duplex connector

DDM

Diagnostic monitoring

Key Capabilities

Past the 100-Metre Copper Limit

Copper Ethernet stops at 100 metres. A multimode pair reaches 500 metres on gigabit and 300 metres on 10 gigabit; a single-mode pair reaches 10 kilometres — enough to link a gate house, a second building or a remote camera cabinet without a mid-span rack.

Matched to the Switch Range

Gigabit SFP for the 1G fibre slots, 10 Gigabit SFP+ for the uplink slots. The pairing table on this sheet removes the most common ordering error — a 10G module bought for a 1G slot, or the reverse.

Immune to Electrical Noise

Fibre carries no current and no earth reference. Between buildings, across a car park, or beside motor drives and lighting circuits, it removes the surge path and the noise coupling that copper brings.

Digital Diagnostic Monitoring

Every module reports temperature, supply voltage, bias current and transmit and receive optical power to the switch. A degrading link shows as a falling receive level in the web interface, weeks before it drops.

Hot-Pluggable

Modules seat and release under power. A failed link is swapped without taking the switch down, and a spare of each type in the rack turns a fibre fault into a five-minute job.

Always Ordered in Pairs

A fibre link needs one identical module at each end. Multimode pairs with multimode, single-mode with single-mode — mixing the two will not link.

Typical Applications

Building-to-building links

Car parks & perimeter cabinets

Camera aggregation over fibre

Campus distribution

Choosing Between the Four

Two decisions only: the speed of the slot, and whether the fibre already installed is multimode or single-mode.

Multimode

850 nm over OM3 fibre — 500 m on gigabit, 300 m on 10 gigabit. The economical choice inside one building.

Single-mode

1310 nm over G.652 fibre — 10 km on both speeds. The choice between buildings and across a site.

DDM

Temperature, voltage, bias current and optical power reported to the switch, so a fading link is seen before it fails.

Hot-Pluggable

Seat and release under power; a fibre fault becomes a swap, not an outage.

Technical Specifications — Hardware

Module types	4 — two Gigabit SFP, two 10 Gigabit SFP+
Form factor	SFP (1.25 Gbps) and SFP+ (10 Gbps), hot-pluggable
Connector	LC duplex on all four modules
Multimode wavelength	850 nm
Single-mode wavelength	1310 nm
Gigabit multimode reach	Up to 500 m — SF310M-LC-500M
Gigabit single-mode reach	Up to 10 km — SF312A-LC-10KM
10 Gigabit multimode reach	Up to 300 m — SF410M-LC-300M
10 Gigabit single-mode reach	Up to 10 km — SF412A-LC-10KM
Diagnostics	Digital diagnostic monitoring (DDM) on all four modules
Fibre type	OM3 or better for multimode · G.652 single-mode
Deployment	One identical module required at each end of the link

Warranty & Support

Warranty	Two years from date of purchase
Stock & replacement	Held in Riyadh · replacement within 48 hours
Technical support	Pre-sales design, configuration assistance and firmware from the distributor
Country of manufacture	China — Shenzhen Fengrunda Technology Co., Ltd.

Ordering Information

MODEL	TYPE	FIBRE	WAVELENGTH	CONNECTOR	REACH
SF310M-LC-500M	1.25 Gbps SFP	Multimode	850 nm	LC duplex	up to 500 m
SF312A-LC-10KM	1.25 Gbps SFP	Single-mode	1310 nm	LC duplex	up to 10 km
SF410M-LC-300M	10 Gbps SFP+	Multimode	850 nm	LC duplex	up to 300 m
SF412A-LC-10KM	10 Gbps SFP+	Single-mode	1310 nm	LC duplex	up to 10 km

Which Module for Which Slot

SLOT TYPE	MODULES	FOREEDGE SWITCHES
Gigabit SFP slots	SF310M-LC-500M · SF312A-LC-10KM	S5700-24GP-4FR · PS3024GS · AI1016G · AI2010GX · IS108GP
10 Gigabit SFP+ slots	SF410M-LC-300M · SF412A-LC-10KM	S5700-48GP-4TFR · S5700-24GP-4TFR · S5700-24F uplink slot

All Foredge switches in the range are held in Riyadh stock.

Panel Reference

Slot type	Gigabit SFP or 10 Gigabit SFP+ — see the pairing table
Insertion	Hot-pluggable; latch closed before seating
Connector	LC duplex — transmit and receive on one clip
Diagnostics	Read optical power from the switch web interface
Cleaning	Clean both ferrules before every insertion
Spares	Keep one spare of each type used on site

Notes

- Optical modules are ordered in pairs — one at each end of the link. A single module cannot form a link.
- Multimode and single-mode modules do not interoperate. Check which fibre is already installed before ordering.
- Specifications are taken from the manufacturer's published data and are subject to change without notice.
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