SMART AGGREGATION SWITCH
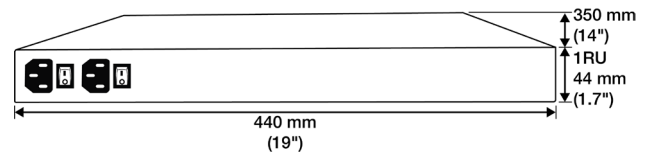## ONS-S8

OPTiGO NETWORKS

Build your Operational Technology (OT) network around an Optigo Smart Aggregation Switch

Optigo's ONS-S8 Smart Aggregation Switch creates a flexible and efficient building network that fits any Smart building foot print. The switch aggregates traffic from Edge Switches to connect building automation and security devices to their management systems and servers through the building's fiber-optic backbone.

The Aggregation Switch enables the connection of up to 256 Edge Switches using a cost-effective and efficient fiber backbone that saves significant installation time, equipment, and money. The Smart Aggregation Switch comes in an ideal form factor for fast and simple installation.
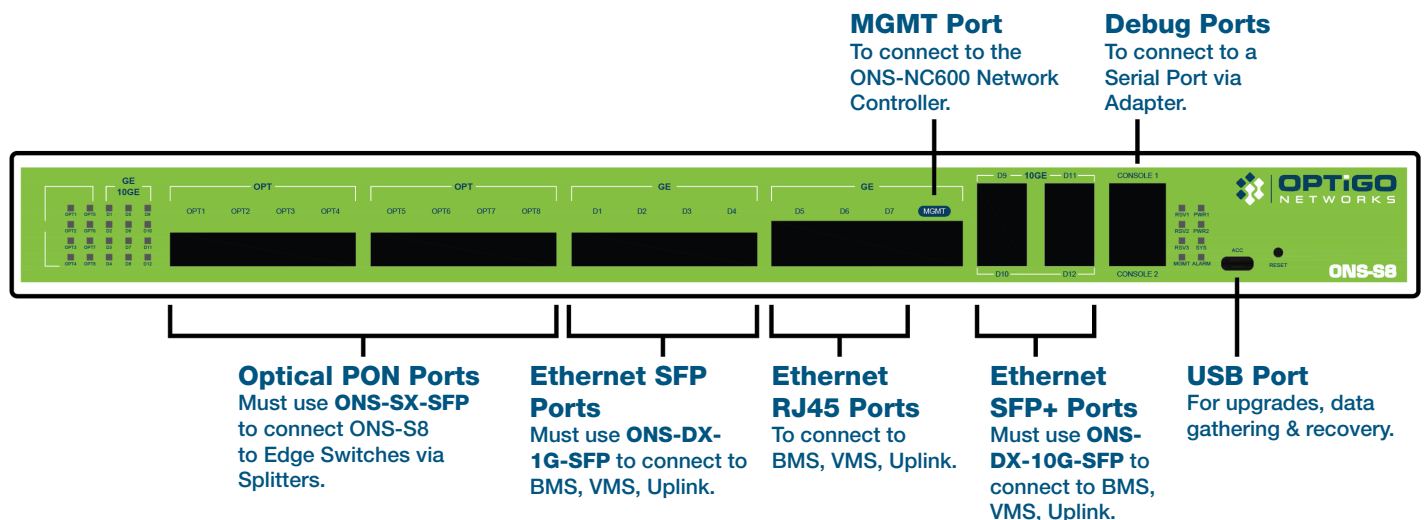

ONS-S8
Smart Aggregation Switch

350 mm (14")
1RU
44 mm (1.7")
440 mm (19")

Dimensions and Power Connections

Product Highlights

- **Innovative Redundancy** achieved with auto-switching Active/ Standby.
- **Connect and manage** up to 256 Edge Switches.
- **Create a flexible fiber-optic backbone** for your Smart building.
- **10 GE SFP+ uplink ports** are supported.

ONS-S8 Ports and Connections

MGMT Port
To connect to the ONS-NC600 Network Controller.

Debug Ports
To connect to a Serial Port via Adapter.

Optical PON Ports
Must use **ONS-SX-SFP** to connect ONS-S8 to Edge Switches via Splitters.

Ethernet SFP Ports
Must use **ONS-DX-1G-SFP** to connect to BMS, VMS, Uplink.

Ethernet RJ45 Ports
To connect to BMS, VMS, Uplink.

Ethernet SFP+ Ports
Must use **ONS-DX-10G-SFP** to connect to BMS, VMS, Uplink.

USB Port
For upgrades, data gathering & recovery.

ONS-S8 Smart Aggregation Switch Specifications

APPLICATION

TARGET APPLICATION	• Building Automation: HVAC, Lighting, Elevator, Power Metering, Solar • Physical Security: Surveillance, Access Control, Alarm, Intercom
TYPICAL DEPLOYMENT	• Large/High-Bandwidth Security • Multi-service OT Networks

PORTS

EPON	8 × 1 Gbps, EPON SFP
SFP ETHERNET	4 × 1 Gbps, SFP
SFP+ ETHERNET	4 × 10 Gbps, SFP+
BACKPLANE CAPACITY	8 port OLT with 4×10GE backplane capacity is 112G. 8 port OLT with 2×10GE backplane capacity is 72G. Main Switch MAX address table capacity is 16K.
RJ45 ETHERNET	4 × 10/100/1000 Mbps, Port 8 reserved for management
USB	Functionality reserved

PHYSICAL CHARACTERISTICS

LED STATUS INDICATORS	Power, Alarm, and Link
POWER	100–240 VAC 70 W max Dual Redundant Power Supplies
OPERATING ENVIRONMENT	0°C ~ 50°C (32°F ~ 122°F) 10–90% Humidity (non-condensing)
DIMENSIONS	440 mm × 350 mm × 44 mm (19" × 14" × 1RU)
WEIGHT	6.0 kg (13.2 lb)
MOUNTING	Rack (brackets included)
CERTIFICATIONS	CE, FCC, RoHS, UL (Pending)
WARRANTY	3 years

NETWORKING FEATURES

EPON STANDARD	IEEE 802.3ah GEPON, 1 Gbps bidirectional, 1310/1490 nm
FIBER SUPPORT	Single-strand, Single-mode Optical Fiber OS1/OS2 9/125 μm, up to 20 km reach
SYSTEM SCALING	Up to 256 Edge Switches, 4096 ports
EPON PORT	SFP insert SC/UPC female
OPTICAL TX POWER	2.5 ~ 7.0 dBm
OPTICAL RX SENSITIVITY	-20 ~ -6 dBm
LOOP DETECTION	IEEE 802.1w RSTP plus Advanced intra/inter-switch device loop redundancy
MTU	2000 bytes
802.1Q VLAN	4K VLANs – Configurable for each port in Trunk, Access, or Local mode
TRAFFIC HANDLING	Ethernet, TCP/IP or UDP/IP, BACnet/Ethernet, BACnet/IP

ADVANCED MANAGEMENT WITH OPTIGO ONEVIEW™

OPTIGO ONEVIEW™	HTTP/HTTPS server included
BANDWIDTH	Detailed port counters with real-time bandwidth/utilization monitoring
MAINTENANCE	Configuration, Diagnostics, Reset & Software Upgrades from OneView Interface
PORT SECURITY	OneClick Secure™ – Instant MAC lock-down and disable of all unused ports

Ordering Information

AC power cable and rack mounting brackets included.

SFP (Small Form-factor Pluggable) optics must be ordered separately.	**ONS-SX-SFP** for OPT ports
	ONS-DX-1G-SFP for D ports
	ONS-DX-10G-SFP for 10G D ports (SFP+)
Please order either 1 or more ONS-SX-SFP for each Aggregation Switch.	At least 1 SFP is required for operation.
	Up to 8 SFPs are required to use all of the Optical Ports. This provides more bandwidth and allows more flexibility in network design.
	Additional ONS-SX-SFP may be ordered as spares.
Only Optigo **ONS-CX-SFP** may be used for Optigo Edge Switches.	

OPTiGO NETWORKS

Contact us for more information and to order:
info@optigo.net | 1-888-629-6559
#1200 - 555 W. Hastings St.
Vancouver, BC V6B 4N6