



## THE WIRED ETHERNET SWITCH FOR UNIFIED WIRED-WIRELESS NETWORKS

# EX 3500 ETHERNET SWITCH

GET ALL THE WIRED NETWORKING FEATURES YOU NEED, PLUS THE SIMPLICITY OF A SINGLE POINT OF MANAGEMENT FOR ALL YOUR WIRELESS AND WIRED NETWORK INFRASTRUCTURE

The perfect complement for your Motorola Solutions WLAN, the EX 3500 addresses all the access layer needs in your branch and remote office deployments. This economical, standalone solution offers all the features you need in a wired access switch, with the advantages of centralized management through your Motorola WiNG-based NX Integrated Services Platforms. Now, not only can you easily support your wired networking requirements, you can also monitor and manage all your wired and wireless equipment with the simplicity of a single pane of glass, reducing management time and complexity.

### FEATURES AND BENEFITS HIGHLIGHTS

#### High performance GbE wired switch for your converged network

- Fixed configuration 24 GbE and 48 GbE ports for all the branch/low-density converged wired networking requirements.
- 4 front panel SFP GbE ports for upstream connectivity.

#### Comprehensive security features keep your network and data safe

- User access and authentication features include access control, standards-based 802.1x port-level access control, MAC authentication, MAC limiting.
- Threat detection features include DHCP snooping, Dynamic ARP inspection, Proxy ARP, IP source guard, Broadcast/multicast storm control, MAC based port security.

#### Easy and cost-effective deployment with Power-over-Ethernet (PoE)

- Eliminates the cost of running power to wired devices, such as access points, IP phones and video cameras.
- PoE available on all ports, both 24 and 48 port models, simultaneously.
- Comprehensive protocol support for 802.3af/802.3at (PoE/PoE+) at 15.4W or 30W provides future proofing, ensuring that the EX 3500 you buy today can provide power to the PoE-enabled devices of the future.

#### Quality of Service (QoS) ensures network performance

- Supports multi-layer QoS including 802.1p CoS and DiffServ standards for data/voice and video traffic and maintaining end-to-end traffic prioritizations.
- Scheduling policy options include Strict, WRR and Strict-WRR.

#### Auto-discovery and centralized remote management — through your NX Integrated Services Platforms

- Industry standard LLDP (Link Layer Discovery Protocol) and LLDP-MED (Link Layer Discovery Protocol-Media Endpoint Discovery) enable auto discovery of devices, VLAN configuration and identification of power requirements for efficient power management.
- Remotely stage, configure, monitor and manage the wired EX 3500 through your NX Integrated Services Platforms, just like all of your wireless infrastructure, providing the simplicity of a single management windowpane for your entire wired and wireless network.

TECHNICAL SPECIFICATIONS

PART NUMBERS
EX-3524-0000-00-WR: 24GE + 4SFP Wired PoE/PoE+ Switch
EX-3548-0000-00-WR: 48GE + 4SFP Wired PoE/PoE+ Switch

	EX 3524	EX 3548
PHYSICAL CHARACTERISTICS		
Form factor	1U Rack Mount	
Dimensions (WxDxH)	44.0 x 28.0 x 4.4 cm 17.32 x 11.0 x 1.73 in.	44.0 x 40.9 x 4.4 cm 17.32 x 16.10 x 1.73 in.
Weight	3.6 kg (7.83 lb.)	6.6 kg (14.55 lb.)
AC input	100-240 V, 50-60Hz, 6A	100-240 V, 50-60Hz, 12A
Power Budget (PoE)	Up to 370W	Up to 740W
Ethernet Ports	24xGbE + 4x1G SFP	48xGbE + 4x1G SFP
ENVIRONMENTAL RANGES		
Operating temperature	32° F to 122° F/0° C to 50° C	
Storage temperature	-40° F to 158° F/-40° C to 70° C	
Operating altitude	4,004 m (13,136 ft.)	2,000 m (6,561 ft.)
Non-operating altitude	4572 m (15,000 ft.)	
Operating humidity	10% to 90% (non-condensing)	
Storage humidity	10% to 90% (non-condensing)	
SWITCHING/LAYER-2 THROUGHPUT		
Packet switching in Gbps	56	104
Throughput in Mpps	41.664	77.376
COMMON FEATURES		
Optics and connectors		
100BASE-FX: 100 Mbps at full duplex (SFP)		
1000BASE-T: 10/100 Mbps at half/full duplex, 1000 Mbps at full duplex		
1000BASE-SX/LX/LH: 1000 Mbps at full duplex (SFP)		
Layer-2 switching		
Max MAC addresses: 16K		
Jumbo frames (bytes): 10K		
Number of VLANs: 4K (256 active)		
Port-based-VLAN		

Layer-2 switching (continued)
MAC-based-VLAN
Voice VLAN
Private VLAN: Traffic Segmentation
Multicast VLAN registration
IEEE 802.1a/b Link Layer Discovery Protocol (LLDP)
LLDP-MED with VoIP integration
IEEE 802.1d: Spanning Tree Protocol
IEEE 802.1p: CoS prioritization
IEEE 802.1v: Protocol-based VLAN
IEEE 802.1Q: VLAN tagging
IEEE 802.1Q-in-Q: VLAN stacking
IEEE 802.1s: Multiple Spanning Tree protocol (MSTP)
Number of MST instances: 32
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
IEEE 802.1x: Port Authentication
IEEE 802.3: 10BASE-T
IEEE 802.3u: 100BASE-T
IEEE 802.3ab: 1000BASE-T
IEEE 802.3z: 1000BASE-X
IEEE 802.3af: PoE
IEEE 802.3at: PoE+
IEEE 802.3ad: Link Aggregation Control Protocol (LACP)
Layer-3 features
Static Routing
Max IPv4 unicast routes: 32
Max ARP entries: 104
Security and access control
DHCP snooping
Dynamic ARP inspection
Proxy ARP
IP Source guard
IP Filter (Management IP Filter for Telnet/HTTP/SNMP access)

**PRODUCT SPEC SHEET**  
EX 3500

<b>Security and access control (continued)</b>
Port security (MAC based)
Access Control Lists (512 entries)
Port-based ACL
802.1x port authentication
MAC authentication
MAC limiting
Storm control: Broadcast, multicast traffic threshold
<b>Quality of service (QoS) and rate-limiting</b>
Scheduling: Strict, Strict-WRR, WRR
802.1p, DSCP/IP precedence trust and marking
Queues per port: 4
Input/output rate limits (per port)
<b>Port trunking/mirroring</b>
Mirroring: 6 sessions (multi-source-to-one-destination)
Static trunks (EtherChannel compliant)
802.3ad: Dynamic trunks (LACP)
Number of LAGs supported: 12
Max number of ports/LAG: 8
<b>Multicast</b>
IGMP snooping: 255 groups
IGMP: v1, v2, v3
<b>Management/services</b>
CLI
Web interface
Out-of-band management : Console port
SSH v1, v2
BOOTP client
DCHP client
DNS client, proxy
Remote Monitoring (RMON) Groups 1,2,3,9
Simple Network Time Protocol (SNTP)

<b>Management/services (continued)</b>
Simple Network Management Protocol (SNMP): v1, v2, v3
RADIUS (client)
TACACS+ (client)
HTTP/HTTPS
Logging: Syslog
FTP/TFTP
Telnet
<b>Troubleshooting</b>
Diagnostics: show and debug commands
Traffic mirroring (port-mirroring)

Simplify the deployment and management of your wired and wireless network with the **EX 3500 Ethernet Switch**.

For more information on the EX 3500, please visit [www.motorolasolutions.comwlan](http://www.motorolasolutions.comwlan) or access our global contact directory at [www.motorolasolutions.com/contactus](http://www.motorolasolutions.com/contactus)

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**UNLEASH OPTIMAL**

