Datasheet

Neutron Series
Managed Gigabit Switches
Optimal Performance, Enterprise Features & Robust Management Options

Neutron Series EWS Managed Gigabit Switches offer enterprise-class features, simplified network configuration, monitoring, and management options and optimal network performance for small to mid-size organizations.

Choose between 8-, 24-, and 48-Gigabit ports and Power-over-Ethernet (PoE+)-ready Layer 2 switches with 1-10 Gbps SFP+ ports. EWS Managed Switch model options also include desktop and rack mountable, fanless and SmartFan designs.

EWS Managed Gigabit Switches support easy deployment and operation. Organizations with limited IT support and budgets can create a reliable, efficiently managed network in no time.

Features & Benefits
• 10/100/1000 GbE Ports
• On-Board Network Management Tools
• 802.3at/af PoE+ Ready
• Network Troubleshooting, Monitoring & Email Alerts
• 1-10 Gbps SFP+ Slots Extend Connectivity via Fiber Uplinks, Redundancy & Failover
• Full-Featured Layer 2 Switching
• Topology View Displays Network Devices & Relationships
• Added Bonus: License-Free AP Management Built-In
• Added Bonus: License-Free Remote Management With ezMaster™
In-Switch Management

Simplified Network Management, Visibility & Troubleshooting

Achieve network management, visibility, and troubleshooting locally through the switch’s on-board Web interface tools. Establish event-based email alerts for notification of predetermined activities.

Supports 4 Different Types of Management

1. **Wired LAN Only**
   - Manage via third-party SNMP manager

2. **Wired LAN+ Local Management**
   - Manage locally via on-board tools

3. **Wired LAN + Wireless APs + Local Management**
   - Manage locally via built-in controller

4. **Wired LAN + Wireless APs + Remote Management**
   - Manage remote and distributed networks via ezMaster™

**In-Depth Network Visibility**

Network Topology View automatically maps the network deployment to display device relationships across the infrastructure. Troubleshoot issues without manual tracking, and access the management interface of other EWS Switches directly from Topology View with QuickLink.

Full-Feature Layer 2 Gigabit Switching

**High-Speed Gigabit**

Provide reliable Gigabit access for networked devices and reduce delays that interrupt communications. The switch’s 1 or 10 Gbps SFP+ slot options are suitable for connecting wired network segments throughout buildings that extend beyond the limitations of Ethernet cabling.

**Power & Connect Multiple Devices**

Optimize the installation and power management of network devices such as access points, IP cameras, and VoIP phones by providing 802.3at/af PoE+ power and data on all ports. Regulate power budgets according to device requirements and remotely power cycle individual ports.
Network Traffic Management
Neutron full-featured Layer 2 Switches offer performance-enhancing features that reduce multicasting traffic, speed up port blocking and port forwarding, and increase bandwidth via load balancing. Control each port’s available bandwidth speeds for connected devices like APs in areas where more or less speed is needed, such as in lobbies or conference rooms.

VLAN/Voice & Quality of Service
Segment the network by departments or traffic types for increased performance and security with 802.1Q VLAN. While 802.1p Class of Service prioritizes compliant VoIP and video traffic ensuring bandwidth intensive, time-sensitive data is forwarded immediately for clear, smooth voice and video delivery.

Access Control & Security
Protect the network via 802.1X port-based client authentication and security through a RADIUS server. Utilizing Access Control Lists (ACLs), administrators can see who has access to network segments while screening traffic from unauthorized MAC or IP addresses. Establish a Guest VLAN to grant and limit Internet resources for visitors while keeping the network secure.

Network Monitoring & Troubleshooting
Enable 3rd party SNMP management and monitor the network’s performance by viewing port statistics, system logs, and RMON data. Perform port diagnostics through Ping Tests, diagnose cable failure and trace the route data takes through the network to troubleshoot slowdowns or connection issues.

Added Bonus: License-Free Access Point & Remote Management

Locally Manage Network Devices With On-Board Tools
Quickly discover, configure and monitor network devices and manage up to 50 APs, Switches, or IP Cameras within the local subnet, license-free, through the switch’s suite of wireless management features.

Centrally Manage Wired & Wireless Devices via ezMaster
Manage Access Points, Switches, and IP Cameras through ezMaster Network Management Software for remote, centralized management of hundreds of devices across the network or multiple sites regardless of size or location without licensing or subscription fees.

Utilize ezWiFi Planner and upload your designed Wi-Fi floorplans into the switch’s interface or ezMaster to show optimized Access Point placement.

Simplified Device Management
Centralized device management is easy through both the switch’s on-board tools and ezMaster Software. Group devices for streamlined configuration, provisioning and monitoring; view wired and wireless traffic via a comprehensive at-a-glance dashboard and get rich analytics and reporting.
# Managed Gigabit PoE+ Switches

<table>
<thead>
<tr>
<th>Models</th>
<th>EWS7952FP</th>
<th>EWS7952P</th>
<th>EWS7926EFP</th>
<th>EWS1200-28TFP</th>
<th>EWS7928P</th>
<th>EWS5912FP</th>
<th>EWS2910P</th>
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</thead>
<tbody>
<tr>
<td>10/100/1000 Base-T, PoE+</td>
<td>48</td>
<td>48</td>
<td>24</td>
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<td>8</td>
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<tr>
<td>10/100/1000/10000 SFP+ Ports</td>
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<td>RJ45 Console Port</td>
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<td>Auto Uplink Gigabit Ports</td>
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<td>Rackmount</td>
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<td>19&quot; 1U</td>
<td>19&quot; 1U</td>
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<td>13&quot; 1U</td>
<td>9.45&quot; (desktop)</td>
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<td>Total PoE Budget</td>
<td>740W</td>
<td>410W</td>
<td>410W</td>
<td>185W</td>
<td>130W</td>
<td>61.6W</td>
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<td>PoE+ Capable Ports</td>
<td>1-48</td>
<td>1-48</td>
<td>1-24</td>
<td>1-24</td>
<td>1-8</td>
<td>1-8 (802.3af only)</td>
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<tr>
<td>Switching Capacity</td>
<td>104 Gbps</td>
<td>104 Gbps</td>
<td>56 Gbps</td>
<td>56 Gbps</td>
<td>24 Gbps</td>
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<td>MAC Address Table</td>
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<td>Packet Buffer Memory</td>
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<td>100 to 240 VAC 50/60Hz</td>
<td>100 to 240 VAC 50/60Hz</td>
<td>100 to 240 VAC 50/60Hz</td>
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<td>Full Load Power Consumption</td>
<td>885.23 Watts</td>
<td>509 Watts</td>
<td>497.74 Watts</td>
<td>409.74 Watts</td>
<td>235.3 Watts</td>
<td>152.8 Watts</td>
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<td>Management</td>
<td>Wireless AP Controller, ezMaster Network Management Software, Web GUI, CLI, SNMP, RMON, HTTPS, Dual Image</td>
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<td>Wireless EWS AP Support</td>
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<td>Up to 50</td>
<td>Up to 50</td>
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<td>Up to 50</td>
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<td>Advanced QoS with IPv4/IPv6 Multicast Filtering</td>
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<td>IGMP and MLD Snooping</td>
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<td>Auto-VoIP</td>
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<td>VLANs</td>
<td>Max 4094 Static Groups, Voice VLAN</td>
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<tr>
<td>Network Standards</td>
<td>IEEE 802.3 Ethernet</td>
<td>IEEE 802.3i 10Base-T Ethernet</td>
<td>IEEE 802.3u 100Base-TX Fast Ethernet</td>
<td>IEEE 802.3ab 1000Base-T Gigabit Ethernet</td>
<td>IEEE 802.3af Full Duplex Power Control</td>
<td>IEEE 802.3az Gigabit Ethernet 1000Base-SX/LX</td>
<td>IEEE 802.3ad Link Aggregation (Trunking)</td>
</tr>
</tbody>
</table>
Technical Specifications

Network Ports

**EWS2910P**
- 8 x 10/100/1000 Mbps Ports
- 2 x 100/1000 Mbps SFP Slot

**EWS5912FP**
- 8 x 10/100/1000 Mbps Ports
- 2 x 100/1000 Mbps SFP Slot

**EWS7912FP**
- 8 x 10/100/1000 Mbps Ports
- 2 x 100/1000 Mbps SFP Slot
- 2 x 100/1000 Mbps Uplink

**EWS7928P/EWS1200-28TFP/EWS7926EFP**
- 24 x 10/100/1000 Mbps Ports
- 2 x 10/100/1000/10000 SFP+ Slot (EWS7926EFP only)
- 4 x 100/1000 Mbps SFP Slot (EWS7928P/EWS1200-28TFP only)
- 1 x RJ45 Console Port

**EWS7952P/EWS7952FP**
- 48 x 10/100/1000 Mbps Ports
- 4 x 100/1000 Mbps SFP Slot
- 1 x RJ45 Console Port

Switching Capacity

**EWS2910P**: 20 Gbps

**EWS5912FP**: 24 Gbps

**EWS7912FP**
- 24 x 10/100/1000 Mbps Ports
- 2 x 10/100/1000/10000 SFP+ Slot (EWS7926EFP only)
- 4 x 100/1000 Mbps SFP Slot (EWS7928P/EWS1200-28TFP only)
- 1 x RJ45 Console Port

**EWS7928P/EWS1200-28TFP/EWS7926EFP**: 56 Gbps

**EWS7952FP/EWS7952P**: 104 Gbps

Forwarding Mode

Store and Forward

SDRAM

256 MB

Flash Memory

32 MB

**EWS1200-28TFP/EWS7952P/EWS5912FP/EWS2910P**
- Packet Buffer Memory: 512 KB

**EWS7952FP/EWS7952P**
- Packet Buffer Memory: 1.5 MB

PoE Capable Ports

**EWS2910P**
- PoE Standard: Ports 1~8 Support IEEE 802.3af

**EWS5912FP**
- PoE Standard: Ports 1~8 Support IEEE 802.3at/af

**EWS7928P/EWS1200-28TFP/EWS7926EFP**
- PoE Standard: Ports 1~24 Support IEEE 802.3at/af

**EWS7952FP/EWS7952P**
- PoE Standard: Ports 1~48 Support IEEE 802.3at/af

PoE Output

**EWS2910P**
- Ports 1~8 Output Up to 15W

**EWS5912FP**
- Ports 1~8 Output Up to 30W

**EWS7928P**
- All Gigabit Ethernet Ports Up to 30W

**EWS1200-28TFP/EWS7926EFP**
- All Gigabit Ethernet Ports Up to 30W

**EWS7952FP/EWS7952P**
- All Gigabit Ethernet Ports Up to 30W

Total PoE Budget

**EWS2910P**: 61.6W

**EWS5912FP**: 130W

**EWS7928P**: 185W

**EWS1200-28TFP/EWS7926EFP**: 410W

**EWS7952FP/EWS7952P**: 740W

Power & Source

**EWS7952FP**
- Full Load Power Consumption: 885.23 Watts
  - 110 to 240 VAC 50/60Hz

**EWS7928P**
- Full Load Power Consumption: 509 Watts
  - 110 to 240 VAC 50/60Hz

**EWS1200-28TFP/EWS7926EFP**
- Full Load Power Consumption: 409.74 Watts
  - 110 to 240 VAC 50/60Hz

**EWS7928P**
- Full Load Power Consumption: 235.3 Watts
  - 110 to 240 VAC 50/60Hz

**EWS5912FP**
- Full Load Power Consumption: 152.8 Watts
  - 110 to 240 VAC 50/60Hz

**EWS2910P**
- Full Load Power Consumption: 79.4 Watts
  - 110 to 240 VAC 50/60Hz

LED Indicators

1 x Power LED
1 x Fault LED
1 x PoE Max LED
1 x LAN Mode LED
1 x PoE Mode LED

Copper Ports: LAN/PoE Mode, Link/Act

SFP Ports: Link/Act, Speed (EWS2910P, EWS7952FP, EWS7926EFP only)

Software Features

Layer 2 Features

- 802.3ad Link Aggregation
- Maximum of 8 Groups/8 Ports per Group
- Port Mirroring
  - One-to-One
  - Many-to-One
- Spanning Tree Protocol
  - 802.1D Spanning Tree Protocol (STP)
  - 802.1w Rapid Spanning Tree Protocol (RSTP)
  - 802.1s Multiple Spanning Tree Protocol (MSTP)
- MAC Address Table
  - 8K Entries
- Static MAC Address
  - 256 Entries
- 802.1ab Link Layer Discovery Protocol
- IGMP Snooping
  - IGMP v1/v2/v3 Snooping
  - Supports 4094 IGMP Groups
  - IGMP per VLAN
  - IGMP Snooping Querier
  - IGMP Snooping Fast Leave
- MLD Snooping
  - MLD Snooping v1/v2
  - Supports 4,094 MLD Groups
  - MLD per VLAN
- Jumbo Frame
  - Up to 9,216 bytes
- 802.3x Flow Control
- 802.3az Energy Efficient Ethernet

VLAN

- 802.1Q Support
- VLAN Group
  - Max 4,094 Static VLAN Groups
- Voice VLAN

LED Indicators

1 x Power LED
1 x Fault LED
1 x PoE Max LED
1 x LAN Mode LED
1 x PoE Mode LED

Copper Ports: LAN/PoE Mode, Link/Act

SFP Ports: Link/Act, Speed (EWS2910P, EWS7952FP, EWS7926EFP only)
Technical Specifications continued

**QoS**
- 802.1p Quality of Service
  - 8 Queues per Port
- Queue Handling
  - Strict
  - Weighted Round Robin (WRR)
- QoS Based on:
  - 802.1p Priority
  - DSCP
- Bandwidth Control
  - Port-Based (Ingress/Egress, 64 Kbps~1000 Mbps)
  - Broadcast/Unknown Multicast/Unknown Unicast Storm Control

**Access Control List (ACL)**
- Layer 2/3
  - Supports Maximum 32 Entries (ACL)
  - Supports Maximum 256 Entries (ACE)
- ACL Based on:
  - MAC Address
  - VLAN ID
  - 802.1p Priority
  - Ethertype
  - IP Address
  - Protocol Type
  - DSCP

**Security**
- 802.1X
  - Port-Based Access Control
  - Supports RADIUS Authentication
- Port Security
  - Up to 256 MAC Addresses per Port
- Port Isolation
- DoS Attack Prevention
- BDPU Attack Prevention

**Management**
- Web Graphical User Interface (GUI)
- Command Line Interface (CLI)
- BootP/DHCP Client/DHCPv6 Client
- SSH Server
- Telnet Server
- TFTP Client
- HTTPS
- SNMP
  - Supports v1/v2c/v3
  - SNMP Trap
  - Configuration Restore/Backup
  - Dual Images
  - Email Alerts

**Wireless Management Features (with Neutron Series Access Points & ezMaster)**
- AP VLAN Management
- VLANs for Access Point - Multiple SSIDs
- Secured Guest Network
- Capture Portal
- Access Point Status Monitoring
- Rogue AP Detection
- Email Alert
- Wireless Client Monitoring
- Background Scanning
- Wireless Traffic & Usage Statistics
- Real-Time Throughput Monitoring
- Visual Topology View
- Floor Plan View
- Map View
- Wireless Coverage Display
- Secure Control Messaging (SSL Certificate)
- Local MAC Address Database
- Remote MAC Address Database (RADUIS)
- Unified Configuration Import/Export
- Intelligent Diagnostics
- Bulk Firmware Upgrade Capability
- One-Click Update
- Kick/Ban Clients
- Wi-Fi Scheduler

**ezMaster System Requirements**

**CPU**
- Intel® Core™ i7 Quad-core or above
- Intel® Xeon® Processor E3 or above

**RAM**
- 4 GB minimum
- 4 GB minimum

**HDD**
- 500 GB (actual requirement dependent on log size)
- 500 GB (actual requirement dependent on log size)

**OS**
- Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software
- Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software

**Recommended environment for managing 1,000+ APs**
- CPU: Intel® Core™ i7 Quad-core or above
- RAM: 4 GB minimum
- HDD: 500 GB (actual requirement dependent on log size)
- OS: Microsoft® Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software

**Browser Requirements**
- Internet Explorer 10 or better
- Firefox 34.0 or better
- Chrome 31.0 or better
- Safari 8.0 or better

**Network Topology Requirements**
- At sites where APs are deployed: A DHCP-enabled network for APs to obtain an IP address
## Technical Specifications continued

### Environmental & Mechanical

#### Temperature Range
- **EWS2910P**
  - Operating: 32°F to 104°F (0°C to 40°C)
  - Storage Temperature: -40°F to 158°F (-40°C to 70°C)
- **EWS5912FP/EWS7928P/EWS1200-28TFP/EWS7926EFPEWS7952FP/EWS7952P**
  - Operating: 32°F to 122°F (0°C to 50°C)
  - Storage Temperature: -40°F to 158°F (-40°C to 70°C)

#### Humidity (non-condensing)
- Operating: 5% - 95%

### Device Dimensions & Weights

#### EWS2910P
- Weight: 1.36 lbs. (620 g)
- Width: 9.45” (240 mm)
- Length: 4.13” (105 mm)
- Height: 1.06” (27 mm)

#### EWS5912FP
- Weight: 4.4 lbs. (1.9 kg)
- Width: 13.00” (330.20 mm)
- Length: 9” (228.60 mm)
- Height: 1.73” (43.94 mm)

#### EWS7928P
- Weight: 7.82 lbs. (3.5 kg)
- Width: 17.3” (439 mm)
- Length: 10.24” (260 mm)
- Height: 1.73” (44 mm)

#### EWS7952FP
- Weight: 12.3 lbs. (5.6 kg)
- Width: 17.32” (440 mm)
- Length: 10.23” (260 mm)
- Height: 1.73” (44 mm)

#### EWS7952P
- Weight: 14.15 lbs. (6.4 kg)
- Width: 17.32” (439.9 mm)
- Length: 16.14” (409.9 mm)
- Height: 1.73” (43.9 mm)

### Package Contents
- 1x EWS Managed Gigabit Switch
- 1x Quick Installation Guide
- **EWS2910P**
  - 1x Power Adapter
  - 1x Power Cord
  - 1x Wall Mount Kit
  - 1x Ground Screw Set
- **EWS5912FP/EWS7928P/EWS1200-28TFP/EWS7926EFPEWS7952FP/EWS7952P**
  - 1x Power Cord
  - 1x RJ45 Console Cable
  - 1x Rack Mount Kit

### Certifications
- CE, FCC, IC

### Warranty
- 1 Year
Maximum data rates are based on IEEE 802.11 standards. Actual throughput and range may vary depending on distance between devices or traffic and bandwidth load in the network.