Product overview
The HP 5810-48G Switch delivers unparalleled QoS across 48 10/100/1000BASE-T Ethernet ports, two multiplex Gigabit Ethernet (GbE) combination SFP ports, and two 10-GbE SFP+ ports for the most demanding enterprise network environments.

Key features
• High performance for core and distribution
• Powerful IPv4/IPv6 ACL/QoS/VoQ
• Powerful buffer capability—24M buffering
• Redundant, hot-swappable power supplies
Features and benefits

Management

• **Remote configuration and management**: is available through a secure Web browser or a command-line interface (CLI)

• **IEEE 802.1ab LLDP discovery**: advertises and receives management information from adjacent devices on a network

• **USB support**:
  – **File copy**: allows users to copy switch files to and from a USB flash drive

• **DHCP options**: client allows automatic setting of IP address

• **SNMPv1, v2c, and v3**: facilitate centralized discovery, monitoring, and secure management of networking devices

• **NEW Network Time Protocol (NTP)**: synchronizes timekeeping among distributed time servers and clients; keeps consistent timekeeping among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time

Connectivity

• **Auto-MDIX**: automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 ports

• **Jumbo frames**: on Gigabit Ethernet and 10-Gigabit ports, they allow high-performance remote backup and disaster-recovery services

Performance

• **Hardware-based wire-speed access control lists (ACLs)**: feature-rich ACL implementation (TCAM-based) helps ensure high levels of security and ease of administration without impacting network performance

Resiliency and high availability

• **Virtual Router Redundancy Protocol (VRRP)**: allows groups of two routers to dynamically back each other up to create highly available routed environments

• **Device Link Detection Protocol (DLDP)**: monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

Manageability

• **RMON (remote monitoring)**: provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events

• **Web interface**: allows configuration of the switch from any Web browser on the network

• **Multiple configuration files**: allow multiple configuration files to be stored to a flash image

• **Troubleshooting**: ingress and egress port monitoring enable network problem solving

Layer 2 switching

• **16K MAC address table**: provides access to many layer 2 devices

• **4,094 port-based VLANs**: provide security between workgroups

• ** Gigabit Ethernet port aggregation**: allows grouping of ports to increase overall data throughput to a remote device

• **10 GbE port aggregation**: allows grouping of ports to increase overall data throughput to a remote device

• **Spanning Tree/MSTP, RSTP, and STP Root Guard**: prevent network loops

Layer 3 services

• **Address Resolution Protocol (ARP)**:
  – **Static IP routing**: provides basic routing (supporting up to 1K static routes); allows manual configuration of routing

Layer 3 routing

• **Layer 3 IP routing**:

Security

• **Advanced processor queuing mechanism**: helps prevent denial-of-service (DoS) attacks, while DHCP snooping helps ensure that devices can only receive an IP address from a legitimate DHCP server on the network

• **IP Source Guard**: helps prevent IP spoofing attacks

• **HTTPS management**: provides secure Web management
• **RADIUS/HWTACACS**: eases switch management security administration by using a password authentication server

• **Secure Shell (SSHv2)**: encrypts all transmitted data for secure, remote CLI access over IP networks

**Convergence**

• **LLDP-MED**: is a standard extension that automatically configures network devices, including LLDP-capable IP phones

**Monitor and diagnostics**

• **Port mirroring**: enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

• **Remote Span (Rspan)**: RSPAN extends SPAN by enabling remote monitoring of multiple switches across your network.

**Additional information**

• **Green IT and power**: use the latest advances in silicon development, shut off unused ports, and use variable-speed fans to improve energy efficiency

**Warranty and support**

• **Lifetime warranty**: for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†

• **Electronic and telephone support**: limited electronic and telephone support is available from HP; to reach our support centers, refer to [www.hp.com/networking/contact-support](http://www.hp.com/networking/contact-support); for details on the duration of support provided with your product purchase, refer to [www.hp.com/networking/warrantysummary](http://www.hp.com/networking/warrantysummary)

• **Software releases**: to find software for your product, refer to [www.hp.com/networking/support](http://www.hp.com/networking/support); for details on the software releases available with your product purchase, refer to [www.hp.com/networking/warrantysummary](http://www.hp.com/networking/warrantysummary)
# HP 5810-48G Switch

## Specifications

| Ports | 48 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)  
|       | 2 SFP 100/1000 Mbps ports  
|       | 2 SFP+ 10-GbE ports; Duplex: full only  
|       | 1 RJ-45 serial console port  
|       | 1 RJ-45 out-of-band management port |

| Power supplies | 2 power supply slots  
|                | 1 minimum power supply required  
|                | includes: 1 x JC087A (HP 5800 300W AC Power Supply) |

| Physical characteristics | 17.32(w) x 16.54(d) x 1.72(h) in (44 x 42 x 4.36 cm) (1U height)  
|                          | 17.64 lb (8 kg) |

| Memory and processor | 512 MB SDRAM, 512 MB flash; packet buffer size: 24 MB |

| Mounting | Mounts in EIA-standard 19 in. telco rack or equipment cabinet (hardware included) |

| Performance | Throughput: up to 101 million pps  
|             | Routing/Switching capacity: 136 Gbps  
|             | MAC address table size: 16000 entries |

| Environment | Operating temperature: 32°F to 113°F (0°C to 45°C)  
|            | Operating relative humidity: 10% to 90%, noncondensing |

| Electrical characteristics | Maximum heat dissipation: 614 BTU/hr (647.77 kJ/hr)  
|                           | Voltage: 100-120/200-240 VAC  
|                           | Frequency: 50/60 Hz |

| Safety | UL 60950-1; EN 60825-1 Safety of Laser Products Part 1; EN 60825-2 Safety of Laser Products Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance |


| Management | IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management; SNMP Manager; Telnet; HTTPS; RMON1; FTP |

| Notes | The 5810 switch provides a power module when shipped. Customer can select two power modules to implement 1+1 power supply redundancy. |

| Services | 3-year, 4-hour onsite, 13x5 coverage for hardware (HQ663E)  
|          | 3-year, 4-hour onsite, 24x7 coverage for hardware (HQ64E)  
|          | 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HQ67E)  
|          | 3-year, 24x7 SW phone support, software updates (HQ68E)  
|          | 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR549E)  
|          | 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR57E)  
|          | 4-year, 4-hour onsite, 13x5 coverage for hardware (HQ686E)  
|          | 4-year, 4-hour onsite, 24x7 coverage for hardware (HQ696E)  
|          | 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ076E)  
|          | 4-year, 24x7 SW phone support, software updates (HQ074E)  
|          | 5-year, 4-hour onsite, 13x5 coverage for hardware (HQ071E)  
|          | 5-year, 4-hour onsite, 24x7 coverage for hardware (HQ072E)  
|          | 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ077E)  
|          | 5-year, 24x7 SW phone support, software updates (HQ073E) |
### HP 5810-48G Switch (JF242A)

- **3 Yr 6 hr Call-to-Repair Onsite (HQ065E)**
- **4 Yr 6 hr Call-to-Repair Onsite (HQ070E)**
- **5 Yr 6 hr Call-to-Repair Onsite (HQ073E)**
- **1-year, 6 hour Call-To-Repair Onsite for hardware (HR573E)**
- **1-year, 24x7 software phone support, software update (HR572E)**
- **1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS666E)**
- **1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS667E)**

Refer to the HP website at [www.hp.com/networking/services](http://www.hp.com/networking/services) for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

### Standards and protocols

<table>
<thead>
<tr>
<th>General protocols</th>
<th>MIbs</th>
<th>Network management</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEEE 802.1D MAC Bridges</td>
<td>IEEE8021 PAE-MIB</td>
<td>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</td>
</tr>
<tr>
<td>IEEE 802.1p Priority</td>
<td>IEEE8023 LAG-MIB</td>
<td>RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)</td>
</tr>
<tr>
<td>IEEE 802.1Q VLANs</td>
<td>RFC 1213 MIB II</td>
<td>RFC 3176 6flow</td>
</tr>
<tr>
<td>IEEE 802.1x (802.1X)</td>
<td>RFC 1493 Bridge MIB</td>
<td>ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)</td>
</tr>
<tr>
<td>IEEE 802.1q VLAN classification by Protocol and Port</td>
<td>RFC 2011 SNMPv2 MIB for IP</td>
<td>SNMPv1/v2/v3</td>
</tr>
<tr>
<td>IEEE 802.1w Rapid Reconfiguration of Spanning Tree</td>
<td>RFC 2013 SNMPv2 MIB for UDP</td>
<td></td>
</tr>
<tr>
<td>IEEE 802.3ad Link Aggregation Control Protocol [LACP]</td>
<td>RFC 2233 Interface MIB</td>
<td></td>
</tr>
<tr>
<td>IEEE 802.3ae 1G Gigabit Ethernet</td>
<td>RFC 2273 SNMP NOTIFICATION-MIB</td>
<td></td>
</tr>
<tr>
<td>IEEE 802.3ax Flow Control</td>
<td>RFC 2571 SNMP Framework MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 7568 UDP</td>
<td>RFC 2572 SNMP-MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 792 ICMP</td>
<td>RFC 2573 SNMP Notification MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 793 TCP</td>
<td>RFC 2618 RADIUS Client MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 826 ARP</td>
<td>RFC 2620 RADIUS Accounting MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 854 Telnet</td>
<td>RFC 2665 Ethernet Like-MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 925 Multi-LAN Address Resolution</td>
<td>RFC 2674 802.1p and IEEE 802.1Q Bridge MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 951 BOOTP</td>
<td>RFC 2674 MAU-MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 1519 CDP</td>
<td>RFC 2819 RMON MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 1542 BOOTP Extensions</td>
<td>RFC 2925 Ping MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 2131 DHCP</td>
<td>RFC 3414 SNMP-User-based SM MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 3576 Ext to RADIUS (CoA only)</td>
<td>RFC 3415 SNMP-View-based ACM MIB</td>
<td></td>
</tr>
<tr>
<td>RFC 4675 RADIUS VLAN &amp; Priority</td>
<td>RFC 3418 MIB for SNMP-v3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RFC 3826 AES for SNMP’s USM MIB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RFC 4133 Entity MIB (Version 3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LLDP-EXT-DOT1-MIB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LLDP-EXT-DOT3-MIB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LLDP-MIB</td>
<td></td>
</tr>
</tbody>
</table>
HP 5810-48G Switch accessories

Transceivers
- HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A)
- HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A)
- HP X125 1G SFP LC LH70 Transceiver (JD063B)
- HP X110 100M SFP LC LH40 Transceiver (JD090A)
- HP X110 100M SFP LC LH80 Transceiver (JD091A)
- HP X130 10G SFP+ LC SR Transceiver (JD092B)
- HP X130 10G SFP+ LC LRM Transceiver (JD093B)
- HP X130 10G SFP+ LC LR Transceiver (JD094B)
- HP X110 100M SFP LC FX Transceiver (JD102B)
- HP X120 1G SFP LC SX Transceiver (JD118B)
- HP X120 1G SFP LC LX Transceiver (JD119B)
- HP X110 100M SFP LC LX Transceiver (JD120B)
- HP X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable (JD095C)
- HP X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable (JD096C)
- HP X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (JD097C)
- HP X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable (JG081C)

Cables
- HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)
- HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)
- HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)
- HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)
- HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)
- HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)

Power Supply
- HP 5800 300W AC Power Supply (JC087A)

Fan Tray
- HP 5800 1RU Spare Fan Assembly (JC098A)

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