GRANDSTREAM
CONNECTING THE WORLD


# Enterprise Layer 2+ Managed Network Switch

## GWN7801(P) - GWN7802(P) - GWN7803(P)

The GWN7800 series are Layer 2+ managed network switches that allow small-to-medium enterprises to build scalable, secure, high performance, and smart business networks that are fully manageable. It supports advanced VLAN for flexible and sophisticated traffic segmentation, advanced QoS for prioritization of network traffic, IGMP Snooping for network performance optimization, and comprehensive security capabilities against potential attacks. The PoE models provide smart dynamic PoE output to power IP phones, IP cameras, Wi-Fi access points and other PoE endpoints. The GWN7800 series can be managed in a number of ways, including the local web user interface of the GWN7800 series switch. The series is also supported by GWN.Cloud and GWN Manager, Grandstream's cloud and on-premise Wi-Fi management platform. The enterprise-grade GWN7800 series are the ideal managed network switches for small-to-medium businesses.

Gigabit

8/16/24 Gigabit Ethernet ports and 2/4 Gigabit SFP ports

PoE

Smart power control to support dynamic PoE/PoE+ power allocation per port for the PoE models

Supports deployment in IPv6 and IPv4 networks

ARP Inspection, IP Source Guard, DoS protection, port security & DHCP snooping

Embedded controller to manage switch; GWN.Cloud and GWN Manager, Grandstream's cloud and on-premise Wi-Fi management platform

QoS

Built-in QoS allows for prioritization of network traffic

| | GWN7801 | GWN7801P | GWN7802 | GWN7802P | GWN7803 | GWN7803P |
|---|---|---|---|---|---|---|
| **Network Protocols** | IPv4, IPv6, IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1w, IEEE 802.1d, IEEE 802.1s | | | | | |
| **PoE Standards** | / | IEEE 802.3af/at | / | IEEE 802.3af/at | / | IEEE 802.3af/at |
| **Gigabit Ethernet Ports** | 8 | | 16 | | 24 | |
| **Gigabit SFP Ports** | 2 | | 4 | | | |
| **Console** | 1 | | | | | |
| **# of PoE Ports** | / | 8 | / | 16 | / | 24 |
| **Integrated Power Supply** | 30W | 150W | 30W | 270W | 30W | 400W |
| **Max Output Power per PoE Port** | / | 30W | / | 30W | / | 30W |
| **Max Total PoE Output Power** | / | 120W | / | 240W | / | 370W |
| **PoE Standards** | / | IEEE 802.3af/at | / | IEEE 802.3af/at | / | IEEE 802.3af/at |
| **Surge Protection** | ± 6KV CM and DM for power<br>± 4KV CM for network ports | | | | | |
| **ESD** | ± 12KV for contact discharge | | | | | |
| **Auxiliary Ports** | 1x Reset Pinhole | | | | | |
| **Forwarding Mode** | Store-and-forward | | | | | |
| **Total non-blocking throughput** | 10Gbps | | 20Gbps | | 28Gbps | |
| **Switching Capability** | 20Gbps | | 40Gbps | | 56Gbps | |
| **Forwarding Rate** | 14.88Mpps | | 29.76Mpps | | 41.66Mpps | |
| **Packet Buffer** | 4.1Mb | | | | | |
| **Network Latency** | Avg<4µs | | | | | |
| **Switching** | • 8K static, dynamic and filtering MAC addresses<br>• 4K VLANs, port-based VLAN, IEEE 802.1Q VLAN tagging, voice VLAN<br>• VLAN virtual interface<br>• GVRP (pending)<br>• 8 link aggregation groups<br>• Spanning tree, 16 instances for STP/RSTP/MSTP | | | | | |
| **Multicast** | IGMP Snooping, MLD Snooping, MVR | | | | | |
| **QoS/ACL** | • Auto detection and prioritization of voice/video/RTP/SIP/other latency-sensitive packets (pending)<br>• Port priority<br>• Priority mapping<br>• Queue scheduling, including SP, WRR, WFQ, SP-WRR and SP-WFQ<br>• Traffic shaping<br>• Rate limit<br>• 1.5K ACL for Ethernet, IPv4 and IPv6 | | | | | |
| **DHCP** | DHCP server, DHCP relay, Option 82, 60,160 and 43 | | | | | |
| **Maintenance** | CPU and memory monitoring, SNMP, RMON, LLDP&LLDP-MED, backup and restore, syslog, alert, diagnostics including Ping, Traceroute, port mirroring, UDLD(TBD) and copper test | | | | | |
| **Security** | • User hierarchical management and password protection, HTTPS, SSH, Telnet<br>• 802.1X authentication<br>• AAA authentication including RADIUS, TACACS+<br>• Storm control<br>• Port isolation, port security, sticky MAC<br>• Filtering MAC address<br>• IP source guard, DoS attack prevention, ARP inspection<br>• DHCP Snooping<br>• Loop protection including BPDU protection, root protection and loopback protection<br>• Kensington Security Slot (Kensington Lock) support | | | | | |
| **LEDs** | 1x tri-color LED for device tracking and status indication, 10x green LEDs for data ports | 1x tri-color LED for device tracking and status indication, 10x green-color LEDs for data ports, 8x yellow-color LEDs for PoE ports | 1x tri-color LED for device tracking and status indication, 20x green LEDs for data ports | 1x tri-color LED for device tracking and status indication, 20x green-color LEDs for data ports, 16x yellow-color LEDs for PoE ports | 1x tri-color LED for device tracking and status indication, 28x green LEDs for data ports | 1x tri-color LED for device tracking and status indication, 28x green-color LEDs for data ports, 24x yellow-color LEDs for PoE ports |
| **Fan** | / | / | / | 1 | / | 2 |
| **Environmental** | Operation: 0°Cto 45°C, humidity 10-90% RH(Non-condensing)<br>Storage: -10°C to 60°C, humidity: 5% to 95%(Non-condensing) | | | | | |
| **Dimensions** | 330mm(L)x175mm(W)x44mm(H) | | 440mm(L)x200mm(W)x44mm(H) | | | |
| **Unit Weight** | 1.8Kg | 2Kg | 2.6Kg | 3Kg | 2.7Kg | 3.3Kg |
| **Mounting** | Desktop, Wall-Mount, or Rack-Mount(rack-mounting kits included) | | | | | |
| **Package Content** | 1x Switch<br>1x 1.2m(10A) AC Cable<br>8x screws<br>1x Ground Cable<br>4x Rubber Feet<br>1x Quick Installation Guide<br>1x Power Cord Anti-Trip | | | | | |
| | 2x Extended Rack-Mounting Kits | | 2x Rack Mounting Kits | | | |
| **Compliance** | FCC, CE, RCM, IC, UKCA | | | | | |

# Features & Benefits

## Powerful Processing Capabilities

- Unicast routing via ACL for data routing between network segments
- DHCP Server and Relay to assign IP addresses to network hosts
- GVRP for dynamic VLAN distribution, registration and attribute propagation reduces manual configuration & ensures configuration
- Built-in QoS supports Port Priority, Priority Mapping, Queue Scheduling, Traffic Shaping and Rate Limit
- Access Control List (ACL) recognizes and filters data packets by configuring matching rules, processing operations and time schedule, and providing flexible security access control policies
- IGMP Snooping and MLD Snooping allows the GWN7800 Series to support multi-terminal video deployments, including surveillance, video conferencing, intercom, and more
- IPv6 and IPv4 support

## Multi-layer Security Protection

- Static & dynamic MAC tables / table filtering prevents network attacks
- Packet filtering based on binding IP address, MAC address, VLAN and port
- ARP Inspection protects against ARP spoofing & ARP flooding attacks in LAN environments, including gateway spoofing & man-in-the middle attacks
- IP Source Guard prevents address spoofing including IP/MAC/VLAN spoofing and IP/VLAN spoofing
- DoS Protection, including Land Attack, Smurf Attack, TCP SYN Attack, Ping Flooding and more
- 802.1X, RADIUS, AAA and TACACS+ to provide comprehensive authentication and authorization for LAN devices
- Supports port security: when the number of MAC addresses learned by a port reaches the maximum, it will be set to error-down state automatically to prevent MAC address attacks and control the network traffic of the port
- DHCP Snooping ensures DHCP packets are only allowed from trusted ports to keep the DHCP environment safe

## Network Optimization Tools

- STP/RSTP/MSTP guarantees fast convergence, improves fault tolerance, ensures network stability and provides link load balancing and redundancy
- Loopback detection identifies and removes loops on the network
- VRRP minimizes network downtime caused by gateway failures
- Link aggregation increases bandwidth and improves reliability
- Storm control prevents traffic interruptions caused by broadcast, multicast, or other unicast packets

## Smart PoE Capabilities

- Smart power control for dynamic PoE/PoE+ power allocation p/ port
- IEEE 802.3af/at support meets the power requirements for security monitoring, audio/video conferencing, Wi-Fi networks and more
- User-defined time periods control the power supply of the PoE port
- Prioritize PoE ports: when remaining power is insufficient, this setting will power the ports based on priority
- Up to 30W per port - configure maximum power allowed per port
- Dynamic power negotiation via LLDP-MED

## Easy Management and MaintenanceM

- Management via GWN.Cloud, GWN Manager and Embedded controller
- Management options also include Web GUI, CLI (Console, Telnet) and SNMP (v1/ v2c/v3)
- CPU and memory usage monitoring is supported
- Common networking tools supported such as Ping, Traceroute, UDLD (TBD) and Copper Test to analyze networking issues
- RMON, Syslog, traffic statistics and sFlow (pending) for network optimization.
- LLDP and LLDP-MED for automatic discovery, provisioning, and management of endpoint devices
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## IPv4/IPv6 Dual Protocol Stack

- Supports limited IPv4/IPv6 static routing to satisfy different networking needs (pending)
- Supports an IPv4, IPv6 or IPv4/IPv6 hybrid environment.