



Managed Layer 2+ Enterprise Network Switch

GWN7806(P)

The GWN7806(P) is a stackable Layer 2+ managed network switch that enables small and medium-sized businesses (SMBs) to create intelligent, scalable, secure, and high-performance enterprise networks that are fully manageable. It supports advanced VLANs for flexible and sophisticated traffic segmentation, advanced QoS for prioritizing network traffic, IGMP/MLD Snooping for optimizing network performance, and comprehensive security capabilities against potential attacks. The GWN7806P provides intelligent dynamic PoE output to power IP phones, IP cameras, Wi-Fi access points, and other PoE devices. The GWN7806(P) is easy to deploy and manage, and can be managed via the switch's local web user interface, CLI, and command-line interface. The switch is also compatible with GWN series routers, GDMS Networking, and GWN Manager—Grandstream's local and cloud-based network management platform. The GWN7806(P) is the best value enterprise-level managed switch for SMEs.



48 gigabit Ethernet ports and 6 x 10 gigabit SFP+ ports



Intelligent power control to enable dynamic PoE/PoE+ power allocation per port for PoE models



It allows implementation in IPv6 and IPv4 networks.



Reliability features include fault detection, device protection, dual boot, dual system file redundancy, link aggregation, storm control, and more.



ARP inspection, IP source protection, DoS protection, port security, and DHCP snooping



Integrated controller for manage the switch, GWN, GWN series routers.
Cloud and GWN Manager; manageable from the Grandstream cloud and local Wi-Fi management platform



Integrated QoS allows prioritizing network traffic



It allows stacking for easy management of up to 4 switches on one interface while creating redundant backups across multiple devices

	GWN7806	GWN7806P
Network protocols	IPv4, IPv6, IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ae, IEEE 802.3az, IEEE 802.3ad, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.3AB, IEEE 802.1p, IEEE 802.1D, IEEE 802.1s, IEEE 802.1w, IEEE 802.1x	
Poe Standards	/	IEEE 802.3af/at
Gigabit Ports	48	
10G SFP+ ports	6	
Maximum number of compatible modules	Note: Allows DAC cable and must be y 5 m	
	SM-10G: 6 MM-10G: 6 RJ45-10G: 3	
	Note: RJ45-10G modules must be inserted at intervals	
Console	1	
Number of PoE ports	/	48
Integrated power supply	60W	470W
Maximum output power per PoE port	/	30W
Total maximum PoE output power	/	400W
PoE Standards	/	IEEE 802.3af/at
Protection against voltage variations	± 6KV CM and DM for power supply ± 4KV CM for network ports	
ESD	±12KV for contact discharge	
Auxiliary ports	1 reset hole.	
Forwarding mode	Store and forward	
Total non-blocking throughput	108 Gbps	
Switching capability	216 Gbps	
Media forwarding	160.704 Mpps	
Pack buffer	16 Mb	
Network latency	<4µs	
Switching	• 32K MAC addresses, including static, dynamic, filtering, and fixed MAC addresses • 4K VLAN, Port-based VLAN, IEEE 802.1Q VLAN tagging, MAC-based VLAN, Protocol-based VLAN, QinQ • Voice VLAN including Auto Voice VLAN, Tagged OUI and Untagged OUI • 32 VLAN virtual interface with 9216 MTU • 1K ARP/NDP • GVRP (pending) • Aggregation of 32 links • Spanning tree, 64 instances for STP/RTSP/MSTP/PVST(+)/RPVST(+) • ERPS (pending)	
Routing	32(IPv4)/32(IPv6) static routing	
Multicast	• IGMP Snooping with IGMPv2 and IGMPv3, 256 IGMP Snooping groups • MLD Snooping with MLDv1 and MLDv2, 256 MLD Snooping groups • MVR	
QoS/ACL	• Port priority • Priority mapping • Queue scheduling, including SP, WRR, WFQ, SP-WRR, and SP-WFQ • Traffic shaping • Fare limit • 4K ACL for Ethernet, IPv4 and IPv6	
DHCP	DHCP server, DHCP relay, DHCP option 82, 60, 160 and 43	
Maintenance	• CPU and memory monitoring • Fan fault detection and alarm. • SNMP, including SNMPv1, SNMPv2c, SNMPv3 • RMON • LLDP and LLDP-MED • Backup and restore • System log • Diagnostics including Ping, Traceroute, Mirroring, including SPAN and RSPAN, UDLD (TBD) and copper test • Update via FTPS / TFTP / HTTP / HTTPS or local upload, bulk provisioning using DHCP option / TR-069 (pending) / GDMS networks / GWN manager / GWN series routers	
Security	• Hierarchical user management and password protection, HTTPS, SSH, Telnet • Identity authentication including 802.1X and MAC authentication • AAA authentication including RADIUS, TACACS+ • Storm control • Port isolation, port security, fixed MAC • MAC address filtering • IP/IPv6 source protection, DoS attack prevention, ARP inspection • DHCP/DHCPv6 snooping • Loop protection including BPDU protection, root protection, and reverse loop protection • Allows Kensington security slot (Kensington Lock)	
Mounting	Desktop, rack mountable (rack mounting kits included)	
LEDs	1 Tri-color LED for device tracking and status indication 54 green LEDs for data transfer 48 yellow LEDs for PoE power supply (GWN7806P)	
Fan	3	
Climatic conditions	Operating temperature: 0°C to 45°C, humidity: 10% to 90% RH (non-condensing) Storage: -10°C to 60°C, humidity: 10% to 90% RH (non-condensing)	
Dimensions	440mm(L)x301mm(W)x44mm(H)	
Unit weight	4.0 Kg 5.1 Kg	
Package contents	Switch, 1 x 1.2 m (10 A) AC cable, 1 x 25 cm ground cable, 4 rubber pads, 2 rack mounting kits, 8 screws (PM 3*6), 1 anti-disconnect power cable, 1 simplified quick installation guide	
	1x regulatory paper	
Compliance	FCC, CE, RCM, IC, UKCA	

Features and benefits

Powerful processing capabilities

- Static routing for easy, efficient, and reliable data communication between different segments of the network.
- Integrated DHCP server and relay for assigning IP addresses to hosts of the network.
- GVRP (pending) for dynamic VLAN distribution, registration, and attribute propagation reduces manual configuration and ensures proper configuration
- Integrated QoS, including port priority, priority assignment, queue scheduling, traffic shaping, and rate limiting.
- The access control list (ACL) recognizes and filters data packets by configuring matching rules, processing operations, and schedules, while providing flexible security access control policies.
- IGMP Snooping and MLD Snooping to meet the needs of multi-terminal video implementations, including video surveillance, conferencing, and more.
- Allows IPv6 and IPv4 to coordinate the network transition from IPv4 to IPv6.
- Stacking provides powerful network expansion capabilities and easy management. By adding member devices, users can easily expand the number of ports, bandwidth, and processing capacity of the stacking system.

Multi-layered security protection

- Static MAC tables, dynamic MAC tables, and MAC table filtering allow the data transmission and prevent network attacks.
- Packet filtering based on binding IP address, MAC address, VLAN and port.
- Dynamic ARP inspection protects against ARP spoofing and Common ARP flood attacks in LAN environments, including gateway spoofing, man-in-the-middle attacks, and more.
- IP/IPv6 Source Guard to prevent illegal address spoofing, including IP(v6)/MAC/VLAN spoofing and IP(v6)/VLAN spoofing.
- Defense against DoS attacks, including ground attacks, smurf attacks, TCP SYN attacks, ping floods, and more.
- 802.1X, MAC, RADIUS, AAA, TACACS+ authentications to provide authentication functionality for LAN devices.
- Enables port security. When the number of MAC addresses learned by a port reaches the maximum, it will automatically enter an inactive error state or stop learning to prevent MAC address attacks and control network traffic on the port.
- Enables DHCP/DHCPv6 snooping. Allows only DHCP/DHCPv6 packets from trusted ports to maintain a secure enterprise DHCP/DHCPv6 environment.

Dual IPv4/IPv6 protocol

- It supports IPv4 and IPv6 routing protocols, including routing unicast, to satisfy all networks.
- Allows a hybrid IPv4, IPv6 or IPv4/IPv6 environment.

Green energy and energy efficiency

- All Ethernet ports support EEE (Energy Efficient Ethernet). It provides fast and smooth transitions between normal operation and low-power states with low traffic and low energy consumption.
- The integrated intelligent fan control automatically adjusts the fan speed according to the ambient temperature and provides precise temperature control, energy saving, and noise reduction.

Enterprise-level confidence

- fan, and automatically adjusts the fan speed according to temperature changes to adapt to the environment.
- Multiple reliability protection at the device level, such as overcurrent protection, overvoltage protection, overheating technology, 6KV surge protection for power supply and 4KV surge protection for network interfaces.
- Hardware-level dual boot: the GWN7806 uses two FLASH chips to store the boot software (system boot program), achieve a hardware-level boot redundancy backup, and prevent switching failures due to FLASH chip failures.
- Redundant backup of dual system files ensures normal system startup and operation and improves device stability.
- STP/RSTP/MSTP ensures rapid convergence, improves fault tolerance, guarantees network stability, and provides link load balancing and redundancy.
- Compatible with PVST(+)/RPVST(+) for faster convergence. Network performance optimization through VLAN-based network load balancing.
- ERPS loopback detection (pending) identifies and eliminates loops in the grid.
- VRRP (pending) minimizes network downtime caused by gateway failures.
- Link aggregation increases bandwidth and improves reliability and load balancing.
- Storm control prevents traffic disruption caused by broadcast, multicast, or other unicast packets.

Smart PoE capabilities

- Intelligent power control for dynamic PoE/PoE+ power allocation by port.
- IEEE 802.3af/at compatibility meets PoE power requirements for security monitoring, audio and video conferencing, Wi-Fi networks and more.
- Allows user-defined time periods to control supply Power from the PoE port through the web user interface.
- Prioritize PoE ports: when remaining power is insufficient, this The configuration will power the ports according to priority.
- Users can configure the maximum power allowed per port. The maximum limit is 30W.
- Dynamic energy negotiation via LLDP-MED.

Easy management and maintenance

- Managed by GDMS Networking, GWN Manager and GWN series routers.
- Supports management via web GUI, CLI (Console, Telnet, SSH) and SNMP (v1/v2c/v3).
- Provides monitoring of CPU and memory usage for network analysis by enabling common network tools including Ping, Traceroute, UDLD (pending) and copper testing.
- Enables RMON, Syslog, traffic statistics and sFlow (pending) for network optimization.
- LLDP and LLDP-MED provide automatic discovery, provisioning, and management of end devices.
- Stacking simplifies setup and management: once a stacking configuration is formed, multiple physical devices become a single virtual device. Users can log into the stacking system from any member device to uniformly configure and manage all member devices within the stacking system.