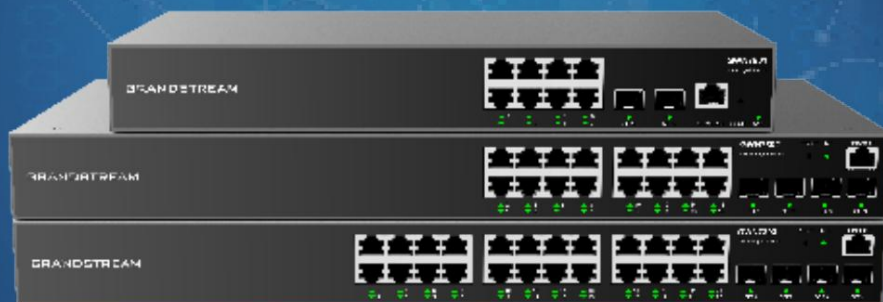




Managed Layer 2+ Enterprise Network Switch

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

The GWN7800 series are Layer 2+ managed network switches that enable small and medium-sized businesses (SMBs) to build scalable, secure, high-performance, and intelligent business networks that are fully manageable. They offer advanced VLANs for flexible and sophisticated traffic segmentation, advanced QoS for prioritizing network traffic, IGMP Snooping for optimizing network performance, and comprehensive security capabilities against potential attacks. The PoE models provide intelligent dynamic PoE output to power IP phones, IP cameras, Wi-Fi access points, and other PoE devices. The GWN7800 series can be managed in several ways, including through the GWN7800 series switch's local web user interface. The series is also compatible with GDMS Networking and GWN Manager, Grandstream's local and cloud-based Wi-Fi management platform and GWN series router. The enterprise-grade GWN7800 series are ideal managed network switches for small and medium-sized businesses (SMBs).



8/16/24 gigabit Ethernet ports and
2/4 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.



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



Integrated controller for
Manage the switch. GDMS
Networking and GWN Manager,
Grandstream's local, cloud-based Wi-
Fi management platform, and using
the GWN series router.



Integrated QoS allows prioritizing
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, IEEE 802.1x					
Memory	128MB RAM, 32MB Flash					
Jumbo frame (bytes)	10240					
PoE Standards	/	IEEE 802.3af/at	/	IEEE 802.3af/at	/	IEEE 802.3af/at
Gigabit Ethernet Ports	8		16		24	
1G SFP Ports	2		4			
Console	1					
Number of PoE ports	/	8	/	16	/	24
Integrated power supply	30W	150W	30W	270W	30W	400W
Maximum output power per PoE port	/	30W	/	30W	/	30W
Total maximum 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 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	10Gbps		20Gbps		28Gbps	
Switching capacity	20Gbps		40Gbps		56Gbps	
Media forwarding	14.88Mpps		29.76Mpps		41.66Mpps	
Packet buffer	4.1Mb					
Network latency	Avg<4μs					
Switching	• 8K MAC addresses, including static, dynamic, filtering, and fixed MAC addresses • 4K VLANs, port-based VLANs, IEEE 802.1Q VLAN tagging, MAC-based VLANs, protocol-based VLANs, QinQ • Voice VLAN including Auto Voice VLAN, Tagged OUI and Untagged OUI • 16 VLAN virtual interface with 9216 MTU • 256 ARP/NDP • GVRP (pending) • 8 link aggregation groups • Spanning tree, 16 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 • 1.5K ACLs for Ethernet, IPv4 and IPv6					
DHCP	DHCP server, DHCP relay, options 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 • Alert • 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 via DHCPoption/TR-069 (pending)/GDMS Networking/GWN Manager/router GWN					
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)					
LED	1 Tri-color LED for device tracking and status indication, 10 green LEDs for data ports	1 Tri-color LED for device tracking and status indication, 10 green LEDs for data ports, 8 yellow LEDs for PoE ports	1 Tri-color LED for device tracking and status indication, 20 green LEDs for data ports	1 Tri-color LED for device tracking and status indication, 20 green LEDs for data ports, 16 yellow LEDs for PoE ports	1 Tri-color LED for device tracking and status indication, 28 green LEDs for data ports	1 Tri-color LED for device tracking and status indication, 28 green LEDs for data ports, 24 yellow LEDs for PoE ports
Fan	/	/	/	2	/	2
Climatic conditions	Operating temperature: 0°C to 45°C, humidity 10-90% RH (non-condensing) 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 mount kits included)					
Package contents	1 Switch 1 x 1.2 m (10 A) AC cable 1 ground cable of 25 cm. 4 rubber pads 8 screws (KM3*6) 1 Simplified Quick Installation Guide 1 regulatory role					
	2 extended rack mounting kits			2 rack mounting kits		
Compliance	FCC, CE, RCM, IC, UKCA					

Features and benefits

Powerful enterprise processing capabilities

- Unicast routing via ACLs for data routing between network segments.
- DHCP server and relay to assign IP addresses to hosts the network.
- GVRP (pending) for dynamic VLAN distribution, logging, and Attribute propagation reduces manual configuration and guarantees configuration.
- Integrated QoS, including port priority, priority assignment, queue scheduling, traffic shaping, and rate limiting.
- ACL to perform data packet filtering using the configuration of matching rules, processing operations and schedules, and provide flexible security access control policies.
- IGMP Snooping and MLD Snooping to meet the needs of multi-terminal HD video surveillance and videoconferencing.
- IPv6 to meet the needs of the network transition from IPv4 to IPv6.

Multiple security prevention mechanism

- Static MAC table, dynamic MAC table to allow transmission of MAC filtering data and table to prevent network attacks.
- Packet filtering based on IP address, MAC address, VLAN, and port binding. • ARP inspection to protect against ARP spoofing and ARP flooding attacks, such as gateway spoofing and man-in-the-middle attacks, which are common in LANs. • IP/IPv6 Source Guard to prevent illegal address spoofing.

including IP(v6)/MAC/VLAN spoofing and IP(v6)/ spoofing VLAN.

- DoS protection, including ground attacks, smurf attacks, and other attacks TCP SYN, ping flooding, and more.
- 802.1X, MAC, RADIUS, AAA, TACACS+ authentications to provide authentication functionality for LAN devices.
- Port security. When the number of MAC addresses When the number of MAC addresses learned by a port reaches the maximum, it will automatically be set to an inactive error state or stop learning to prevent attacks on MAC addresses and control the port's network traffic.
- DHCP/DHCPv6 snooping. Allows DHCP/DHCPv6 packets only from trusted ports to maintain a secure DHCP environment. Enterprise DHCPv6.

Diverse reliability protection

- It allows fault detection and alarm for the power supply and fan, and automatically adjusts the fan speed according to temperature changes to better suit the environment.
- Multiple reliability protection at the device level, such as Overcurrent protection, overvoltage protection, overheating technology and surge protection.
- STP/RSTP/MSTP to ensure rapid convergence, improve fault tolerance, guarantee network stability and link load balancing, and provide redundant link utilization.
- Compatible with PVST(+)/RPVST(+) for faster convergence.
- Network performance optimization through VLAN-based network load balancing.
- ERPS (pending), reverse loop detection to identify and eliminate loops in the network
- Loopback detection to keep the port in normal use.
- Link aggregation to increase bandwidth, improve the Reliability and load balancing. • Storm control to avoid traffic impact.

PoE power supply capability (only allows GWN780XP series)

- PoE power supply and complies with IEEE 802.3af standards/ to meet the PoE power supply requirements for security monitoring, audio and video conferencing, wireless signal coverage, and more scenarios.
- Allows the configuration of a time period defined by the user to control the PoE port power supply in the web GUI.
- Configure the PoE port priority in the web GUI. When the remaining power is insufficient, it will power the device on the highest priority port.
- The maximum output power is 30W per port. Users They can configure the maximum power they can provide through the web GUI.
- Dynamic energy negotiation via LLDP-MED.

Easy management and maintenance

- Managed via web GUI, CLI (Console, Telnet), and SNMP (v1/v2c/v3). • CPU and memory monitoring, Ping, Traceroute, UDLD (TBD), and testing copper to easily analyze the failed network node.
- RMON, Syslog, traffic statistics and sFlow (pending) for optimization the network.
- LLDP and LLDP-MED for convenient consultations and status assessment of switching.
- Manageable via GDMS Networking, GWN Manager and also through a GWN router

Green energy and energy efficiency

- All Ethernet ports support EEE (Energy Efficient Ethernet), fast transitions between normal operation and low-power states with low traffic and low energy consumption.
- Intelligent fan speed control based on the ambient temperature. Precise temperature control, energy saving and noise reduction.

Dual IPv4/IPv6 protocol

- IPv4 routing protocol, including static IPv4 routing to meet different network needs.
- IPv6 routing protocols, including IPv6 static routing to meet different network needs.
- It is not only implemented in purely IPv4 or IPv6 networks, but which is also implemented in IPv4 and IPv6 networks, to fully meet network needs.