



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 GDMS Networking and GWN Manager, Grandstream's cloud and on-premise Wi-Fi management platform, and GWN Series Router. The enterprise-grade GWN7800 series are the ideal managed network switches for small-to-medium businesses.



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



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; GDMS Networking and GWN Manager, Grandstream's cloud and on-premise Wi-Fi management platform, and GWN Series Router



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, 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					
# 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 ± 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	<ul style="list-style-type: none"> • 8K MAC addresses, including static, dynamic, filtering and sticky MAC address • 4K VLANs, 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 • 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	<ul style="list-style-type: none"> • IGMP Snooping with IGMPv2 and IGMPv3, 256 IGMP Snooping groups • MLD Snooping with MLDv1 and MLDv2, 256 MLD Snooping groups • MVR 					
QoS/ACL	<ul style="list-style-type: none"> • Port priority • Priority mapping • Queue scheduling, including SP, WRR, WFQ, SP-WRR and SP-WFQ • Traffic shaping • Rate limit • 1.5K ACL for Ethernet, IPv4 and IPv6 					
DHCP	DHCP server, DHCP relay, Option 82, 60,160 and 43					
Maintenance	<ul style="list-style-type: none"> • CPU and memory monitoring • Fault detection and alarm for fan • SNMP including SNMPv1, SNMPv2c, SNMPv3 • RMON • LLDP&LLDP-MED • Backup and restore • Syslog • Alert • Diagnostics including Ping, Traceroute, Mirroring including SPAN and RSPAN, UDLD(TBD) and coppertest • Upgrade via FTPS / TFTP / HTTP / HTTPS or local upload, mass provisioning using DHCPOption/TR-069(pending) / GDMS Networking / GWN Manager / GWN router 					
Security	<ul style="list-style-type: none"> • User hierarchical 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, sticky MAC • Filtering MAC address • IP/IPv6 source guard, DoS attack prevention, ARP inspection • DHCP/DHCPv6 Snooping • Loop protection including BPDU protection, root protection and loopback protection • 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	/	/	/	2	/	2
Environmental	Operation: 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-mounting kits included)					
Package Content	1x Switch 1x 1.2m(10A) AC Cable 1x 25cm Ground Cable 4x Rubber Footpads 8x Screws (KM3*6) 1x Simplified Quick Installation Guide 1x Regulatory Paper					
	2x Extended Rack-Mounting Kits			2x Rack Mounting Kits		
Compliance	FCC, CE, RCM, IC, UKCA					

Features & Benefits

Powerful Business Processing Capabilities

- Unicast routing via ACL for data routing between network segments.
- DHCP Server and Relay to assign IP address to hosts in the network.
- GVRP(pending) for dynamic VLAN distribution, registration and attribute propagation, reduces manual configuration and ensure configuration.
- Built-in QoS, including Port Priority, Priority Mapping, Queue Scheduling, Traffic Shaping and Rate Limit.
- ACL to realize the filtering of data packets by configuring matching rules, processing operations and time schedule, and provide flexible security access control policies.
- IGMP Snooping and MLD Snooping to meet the needs of multi-terminal HD video surveillance and video conference.
- 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 data transmission, and filter MAC table to avoid network attacks.
- Packet filtering based on binding of IP address, MAC address, VLAN and port.
- ARP Inspection to protect against ARP spoofing and ARP flooding attacks such as gateway spoofing and man-in-the-middle attacks that are common in LANs.
- IP/IPv6 Source Guard to prevent illegal address spoofing including IP(v6)/MAC/VLAN spoofing and IP(v6)/VLAN spoofing.
- DoS Protection, including Land Attack, Smurf Attack, TCP SYN Attack, Ping Flooding and more.
- 802.1X, MAC, RADIUS, AAA, TACACS+ authentications to provide authentication function for LAN devices.
- Port security. When the number of MAC addresses learned by a port reaches the maximum number, it will be set to error-down status automatically or stop learning to prevent MAC address attack and control the network traffic of the port.
- DHCP/DHCPv6 Snooping. Only allow DHCP/DHCPv6 packets from trusted ports to keep the enterprise DHCP/DHCPv6 environment safe.

Diverse Reliability Protection

- Support fault detection and alarm for power supply and fan, and automatically adjust the fan speed based on temperature changes to better adapt to the environment.
- Multiple reliability protection at device level, such as overcurrent protection, overvoltage protection, overheat technology and surge protection.
- STP/RSTP/MSTP to guarantee fast convergence, improve fault tolerance, ensure network stability and link load balance, and provide redundant link utilization.
- Compatible with PVST(+)/RPVST(+) for faster convergence. Optimizing network performance through VLAN-based network load balance.
- ERPS(pending), loopback detection to identify and remove loops on the network
- Loopback detection to keep the port in normal use.
- Link aggregation to increase bandwidth, improve reliability and load balancing.
- Storm control to prevent traffic impact.

PoE Power Supply Capability (Only GWN780XP serials support)

- PoE power supply and comply with the IEEE 802.3af/at standards to meet the PoE power supply requirements of security monitoring, audio and video conferencing, wireless signal coverage and more scenarios.
- Support setting user-defined time period to control the power supply of PoE port on Web GUI.
- Setting priority of PoE port on Web GUI. When remaining power is insufficient, it will power the device of high-priority port.
- The maximum output power is 30w per port. Users can set the maximum power that can provide via Web GUI.
- Dynamic power negotiation via LLDP-MED.

Easy Management and Maintenance

- Managed by Web GUI, CLI(Console, Telnet) and SNMP(v1/v2c/v3).
- Monitoring CPU and memory, Ping, Traceroute, UDLD(TBD) and Copper Test to analysis failed network node easily.
- RMON, Syslog, traffic statistics and sFlow(pending) to optimize network.
- LLDP and LLDP-MED for convenient query and communication status judgement.
- Managed by GDMS Networking and GWN Manager, and also support managed by GWN router

Power & Green Energy Efficiency

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

IPv4/IPv6 Dual Protocol Stack

- IPv4 routing protocol, including IPv4 static routing to satisfy different networking needs.
- IPv6 routing protocols, including IPv6 static routing to satisfy different networking needs.
- Not only deployed in pure IPv4 or IPv6 networks, but also deployed both in IPv4 and IPv6 networks, to fully meet the networking needs.