



# 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 network controller embedded in the 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.



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



Provides quaternary binding of IP, MAC, VLAN & port; 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



Built-in QoS allows for prioritization of network traffic

	GWN7801	GWN7801P	GWN7802	GWN7802P	GWN7803	GWN7803P
<b>Network Protocol</b>	IPv4, IPv6, IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.3af/at, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1w, IEEE 802.1d, IEEE 802.1s					
<b>Gigabit Ethernet Ports</b>	8		16		24	
<b>Gigabit SFP Ports</b>	2		4			
<b>Console</b>	1					
<b># of PoE Ports</b>	/	8	/	16	/	24
<b>Integrated Power Supply</b>	30W		270W		400W	
<b>Max Output Power per PoE Port</b>	/	30W	/	30W	/	30W
<b>Max Total PoE Output Power</b>	/	120W	/	240W	/	360W
<b>PoE Standards</b>	/	IEEE 802.3af/at	/	IEEE 802.3af/at	/	IEEE 802.3af/at
<b>Auxiliary Ports</b>	1x Reset Pinhole					
<b>Forwarding Mode</b>	Store-and-forward					
<b>Total non-blocking throughput</b>	10Gbps		20Gbps		28Gbps	
<b>Switching Capability</b>	20Gbps		40Gbps		56Gbps	
<b>Forwarding Rate</b>	14.88M packets per second		29.76M packets per second		41.66M packets per second	
<b>Packet Buffer</b>	4.1MB					
<b>Switching</b>	<ul style="list-style-type: none"> <li>• 8K static, dynamic and filtering MAC addresses</li> <li>• 4K VLANs, port-based VLAN, IEEE 802.1Q VLAN tagging, voice VLAN</li> <li>• VLAN virtual interface</li> <li>• GVRP (pending)</li> <li>• 8 link aggregation groups</li> <li>• Spanning tree, 64 instances for STP/RTSP/MSTP</li> </ul>					
<b>Multicast</b>	IGMP Snooping, MLD Snooping, MVR					
<b>QoS/ACL</b>	<ul style="list-style-type: none"> <li>• Auto detection and prioritization of voice/video/RTP/SIP/other latency-sensitive packets (pending)</li> <li>• Port priority</li> <li>• Priority mapping</li> <li>• Queue scheduling, including SP, WRR, WFQ, SP-WRR and SP-WFQ</li> <li>• Traffic shaping</li> <li>• Rate limit</li> <li>• 1.5K ACL for Ethernet, IPv4 and IPv6</li> </ul>					
<b>DHCP</b>	DHCP server, DHCP relay, Option 82, 60,160 and 43					
<b>Maintenance</b>	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					
<b>Security</b>	<ul style="list-style-type: none"> <li>• User hierarchical management and password protection, HTTPS, SSH, Telnet</li> <li>• 802.1X authentication</li> <li>• AAA authentication including RADIUS, TACACS+</li> <li>• Storm control</li> <li>• Port isolation, port security, sticky MAC</li> <li>• Filtering MAC address</li> <li>• IP source guard, DoS attack prevention, ARP inspection</li> <li>• DHCP Snooping</li> <li>• Loop protection including BPDU protection, root protection and loopback protection</li> <li>• Kensington Security Slot (Kensington Lock) support</li> </ul>					
<b>Mounting</b>	Desktop/ Wall-Mount		Desktop, wall-mount, or rack-mount (rack-mount brackets included)			
<b>LEDs</b>	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
<b>Fan</b>	/	/	/	1	/	2
<b>Environmental</b>	Operation: 0°C to 45°C, humidity 10-90% RH(Non-condensing) Storage: -10°C to 60°C, humidity: 5% to 95%(Non-condensing)					
<b>Dimensions</b>	30mm(L)*175mm(W)*44(H)		440mm(L)*200mm(W)*44mm(H)			
<b>Unit Weight</b>	1.8Kg	2Kg	2.6Kg	3Kg	2.7Kg	3.3Kg
<b>Package Content</b>	Switch, 1x 1.2m(10A) AC Cable, 1x Ground Cable, 4x Rubber Feet, 2x Lug Ear		Switch, 1x 1.2m(10A) AC Cable, Rack-mounting Standard Brackets, 1x Ground Cable, 4x Rubber Feet, 2x Lug Ear			
<b>Compliance</b>	FCC, CE, RCM, IC, UKCA					

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# Features & Benefits

## Powerful Business Processing Capabilities

- Unicast routing via ACL for data communication routing between different network segments. Supports DHCP Server and Relay to assign IP address to hosts within the network.
- GVRP for VLAN dynamic distribution, registration and attribute propagation, to reduce the amount of manual configuration, and ensure the correctness of configuration.
- QoS, including Port Priority, Priority Mapping, Queue Scheduling, Traffic Shaping and Rate Limit.
- ACL is used to recognize 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 for the network transition from IPv4 to IPv6.

## Multiple Security Prevention Mechanism

- Static and dynamic MAC table and supports MAC table filtering to avoid network attacks.
- Packet filtering based on binding IP address, MAC address, VLAN and port.
- ARP Inspection protects against ARP spoofing and ARP flooding attacks such as gateway spoofing, man-in-the middle attack etc. that are common in LAN environment.
- IP Source Guard to prevent illegal 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+ authentications to provide authentication and authorization for LAN devices.
- Supports port security; when the number of MAC addresses learned by a port reaches the maximum number, it will be set to error-down state automatically to prevent MAC address attack and control the network traffic of the port.
- DHCP Snooping. Only allow DHCP packets from trusted ports to keep the enterprise DHCP environment safe.

## Diverse Reliability Protection

- STP/RSTP/MSTP to guarantee fast convergence, improve fault tolerance, ensure network stability and provide link load balance and redundancy.
- Loopback detection to identify and remove loops on the network.
- VRRP (pending) to minimize network downtime caused by gateway failure.
- Link aggregation to increase bandwidth and improve reliability.
- Storm control to prevent traffic interruption caused by broadcast, multicast, or certain unicast packets.

## PoE Power Supply Capability(Only GWN7800P series support)

- PoE power delivery complies with the IEEE 802.3af/at standards to meet the PoE power requirements for security monitoring, audio and video conferencing, wireless signal coverage and more.
- Supports setting user-defined time period to control the power supply of the PoE port.
- Priority setting of PoE ports; when remaining power is insufficient, it will power the ports based on priorities.
- Users can configure the maximum power allowed per port. The maximum limit is 30W per port.
- Dynamic power negotiation via LLDP-MED

## Easy Management and Maintenance

- Routers can be managed by Web GUI, CLI (Console, Telnet) and SNMP (v1/ v2c/v3).
- Monitoring of CPU and memory usage. Supports common networking tools such as Ping, Traceroute, UDLD (TBD) and Copper Test to analyze networking issues.
- Supports RMON, Syslog, traffic statistics and sFlow (pending) for network optimization.
- LLDP and LLDP-MED for automatic discovery, provisioning and management of endpoint devices.
- Managed by GWN.Cloud, GWN Manager, and Embedded controller

## 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.