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 automated detection & prioritization of latency sensitive voice/video 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 GWN7800 series switch, any GWN7000 series router with integrated local master, Grandstream's free on-premise network management software (GWN Manager), as well as Grandstream's cloud network management platform (GWN.Cloud). The GWN7800 series are best value enterprise-grade 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

Provides quaternary binding of IP, MAC, VLAN & port; ARP Inspection, IP Source Guard, DoS protection, port security & DHCP snooping

Device management via SNMP, RMON, CLI, HTTPS, TR069, GWN Manager, GWN.Cloud

QoS

Advanced QoS auto detects and prioritizes latency-sensitive audio/video/RTP/VoIP/SIP packets

	GWN7801	GWN7801P	GWN7802	GWN7802P	GWN7803	GWN7803P
Network Protocol	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					
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	/	360W
PoE Standards	/	IEEE 802.3af/at	/	IEEE 802.3af/at	/	IEEE 802.3af/at
Auxiliary Ports	1x Reset Pinhole					
Forwarding Mode	Store-and-forward					
Total non-blocking throughput	10Gbps		20Gbps		28Gbps	
Switching Capability	20Gbps		40Gbps		56Gbps	
Forwarding Rate	14.88M packets per second		29.76M packets per second		41.66M packets per second	
Packet Buffer	4.1MB					
Switching	• 8K static, dynamic and filtering MAC addresses • 4K VLANs, port-based VLAN, IEEE 802.1Q VLAN tagging, voice VLAN • VLAN virtual interface • GVRP • 8 link aggregation groups • Spanning tree, 64 instances for STP/RTSP/MSTP					
Multicast	IGMP Snooping, MLD Snooping, MVR					
QoS/ACL	• Auto detection and prioritization of voice/video/RTP/SIP/other latency-sensitive packets • 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	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 • 802.1X authentication • AAA authentication including RADIUS, TACACS+ • Storm control • Port isolation, port security, sticky MAC • Filtering MAC address • IP source guard, DoS attack prevention, ARP inspection • DHCP Snooping • Loop protection including BPDU protection, root protection and loopback protection • Kensington Security Slot (Kensington Lock) support					
Mounting	Desktop/ Wall-Mount		Desktop, wall-mount, or rack-mount (rack-mount brackets included)			
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) Storage: -10°C to 60°C, humidity: 5% to 95%(Non-condensing)					
Dimensions	30mm(L)*175mm(W)*44(H		440mm(L)*200mm(W)*44mm(H)			
Unit Weight(TBD)	1.8Kg	2Kg	2.6Kg	3Kg	2.7Kg	3.3Kg
Package Content	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			
Compliance	FCC, CE, RCM, IC, UKCA					

Features & Benefits

Powerful Business Processing Capabilities

- Unicast routing via ACL to realize routing data communication between different network segments. Simpler, more efficient and more reliable. Support DHCP Server and Relay to assign IP address to hosts in the network.
- GVRP to realize VLAN dynamic distribution, registration and attribute propagation, 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 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 to meet the needs of 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 to protect 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 and comply 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 scenarios.
- Supports setting user-defined time period to control the power supply of 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. Support common networking tools such as Ping, Traceroute, UDLD (TBD) and Copper Test to analysis 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 GWN700X & GWN701X routers

IPv4/IPv6 Dual Protocol Stack

- IPv4 routing protocol, including IPv4 unicast routing to satisfy different networking needs.
- IPv6 routing protocols, including IPv6 unicast routing to satisfy different networking needs.
- Supports an IPv4, IPv6 or IPv4/IPv6 hybrid environment.