GRANDSTREAM
CONNECTING THE WORLD

Enterprise Layer 3 Managed Network Switch

GWN7811(P) - GWN7812P - GWN7813(P)

The GWN7810 series are Layer 3 managed network switches that allow medium-to-large 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/MLD 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. GWN7810 series can be managed in a number of ways, including the local Web user interface of the GWN7810 series switch and CLI, the command-line interface. The series is also supported by GDMS Networking and GWN Manager, Grandstream's cloud and on-premise network management platform. The GWN7810 series are the best value enterprise-grade managed network switches for medium-to-large businesses.

Gigabit

8/16/24 Gigabit Ethernet ports and 2/4 10Gigabit SFP+ ports

PoE

Smart power control to support dynamic PoE/PoE+ power allocation per port for the PoE models, Ports 1-8 on the GWN7813P supports PoE++

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 network management platform

QoS

Built-in QoS allows for prioritization of network traffic

Supports stacking (pending) for easy management on one interface while creating redundant backup between multiple devices

	GWN7811	GWN7811P	GWN7812P	GWN7813	GWN7813P
Network Protocols	IPv4, IPv6, IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ae, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1w, IEEE 802.1d, IEEE 802.1s, IEEE 802.3az, IEEE 802.3ad, IEEE 802.3AB, IEEE 802.1p, IEEE 802.1D, IEEE 802.1x				
PoE Standards	/	IEEE 802.3af/at	IEEE 802.3af/at	/	IEEE 802.3af/at/bt
Gigabit Ethernet Ports	8		16	24	
10Gigabit SFP+ Ports	2		4		
	Note: Supports DAC cable, and must be ≤ 5m				
Maximum no. of Supported Modules	SM-10G: 2 MM-10G: 2 RJ45-10G: 2		SM-10G: 4 MM-10G: 4 RJ45-10G: 2		
			Note: RJ45-10G modules must be interval inserted		
Console	1				
# of PoE Ports	/	8	16	/	24
Link Aggregation	5		10	14	
External Redundant Power Supply(RPS)	/	/	/	12V/5A(60W)	54V(300W)
Max Output Power per PoE Port	/	30W	30W	/	60W(1-8,PoE++) 30W(9-24)
Max Total PoE Output Power	/	120W	240W	/	370W
PoE Standards	/	IEEE 802.3af/at	IEEE 802.3af/at	/	IEEE 802.3af/at/bt
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	28Gbps		56Gbps	64Gbps	
Switching Capability	56Gbps		112Gbps	128Gbps	
Forwarding Rate	41.644Mpps		83.328Mpps	95.232Mpps	
Packet Buffer	12MB				
Network Latency	<4μs				
Switching	• 16K static, dynamic and filtering MAC addresses • 4K VLANs, port-based VLAN, IEEE 802.1Q VLAN tagging, voice VLAN • VLAN virtual interface • GVRP (pending) • Spanning tree, 32 instances for STP/RSTP/MSTP				
Routing	• Static routing • Dynamic routing, including RIP, RIPng, OSPF, OSPFv3, BGP • Policy routing				
Multicast	• IGMP Snooping • MLD Snooping • MVR (pending)				
QoS/ACL	• Port priority • Priority mapping • Queue scheduling, including SP, WRR, WFQ, SP-WRR and SP-WFQ • Traffic shaping • Rate limit • 2K ACL for Ethernet, IPv4 and IPv6				
DHCP	DHCP server, DHCP relay, DHCP Option 82, 60, 160 and 43				
Maintenance	CPU and memory monitoring, SNMP, RMON, LLDP&LLDP-MED, backup and restore, syslog, 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(pending) and loopback protection(pending) • Kensington Security Slot (Kensington Lock) support				
Mounting	Desktop, Wall-Mount, or Rack-Mount(rack-mounting kits included)				
System LEDs	1x tri-color LED for device tracking and status indication				
Power Supply LEDs	/	/	/	2x bi-color LEDs for per power supply PWR&RPS	
Data Transferring LEDs	10x green-color LEDs		20x green-color LEDs	28x green-color LEDs	
PoE Powered LEDs	/	8x yellow-color LEDs	16x yellow-color LEDs	/	24x yellow-color LEDs
Fan	/	/	2	/	3
Environmental	Operation: 0°C to 45°C, humidity 10-90% RH(Non-condensing) Storage: -10°C to 60°C, humidity: 5% to 95% RH(Non-condensing)				
Dimensions	330mm(L)x176mm(W)x44mm(H)		440mm(L)x200mm(W)x44mm(H)		440mm(L)x300mm(W)x44mm(H)
Unit Weight	1.45Kg	2.17Kg	3.03Kg	2.94Kg	4.69Kg
Package Content	1x Switch				
	1x 1.2m(10A) AC Cable				
	1x 25cm Ground Cable				
	4x Rubber Footpads				
	1x Power Cord Anti-Trip				
	8x Screws (KM 3*6)				
	1x Quick Installation Guide				
	1x Console Cable(Optional)				
	2x Extended Rack-Mounting Kits		2x Rack-Mounting Kits		
	/			1x RPS, External Redundant Power Supply (Optional)	
Compliance	FCC, CE, RCM, IC, UKCA				

Features & Benefits

Powerful Business Processing Capabilities

- Routing including static routing, dynamic routing and policy routing to realize routing data communication between different network segments. Simpler, more efficient and more reliable.
- 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 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.
- Dynamic ARP Inspection to protect against ARP spoofing and ARP flooding attacks such as gateway spoofing, man-in-the middle attacks and 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 Attack Defense, including Land Attack, Smurf Attack, TCP SYN Attack, Ping Flooding and more.
- 802.1X, RADIUS, AAA, TACACS+ authentications to provide authentication function 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 status automatically or stop learning to prevent MAC address attack and control the network traffic of the port.
- Supports 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 stable network and provide link load balance, and redundancy.
- ERPS (pending), 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, improve reliability and load balancing.
- Storm control to prevent traffic interruption caused by broadcast, multicast or certain unicast packets.

PoE Power Supply Capability (Only GWN7810P series support)

- PoE power supply and comply with the IEEE 802.3af/at/bt standards to meet the PoE power supply requirements of 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 on Web GUI.
- Setting priority 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, even 60W for some port.
- Dynamic power negotiation via LLDP-MED.

Easy Management and Maintenance

- Managed by Web GUI, CLI(Console, Telnet, SSH) 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 GDMS Networking and GWN Manager.

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.