Enterprise Layer 2+ Managed Network Switch

GWN7801P

The GWN7801P are Layer 2+ managed network switches that enable small and medium-sized businesses to build business networks that are scalable, secure, high-performance and intelligent, and fully manageable. It supports advanced VLANs for flexible and sophisticated traffic segmentation, advanced QoS to prioritize network traffic, IGMP Snooping to optimize network performance, and comprehensive security capabilities against potential attack. GWN7801P provide smart dynamic PoE output to power IP phones, IP cameras , Wi-Fi access points and other PoE endpoints. The GWN7801P can be managed in a number of ways, including the GWN7801P Switch's web user interface. The product line is also supported by GWN.Cloud and GWN Manager, Grandstream's cloud-based and on-premises Wi-Fi management platforms. The enterprise-grade GWN7801P series are ideal managed network switches for small and medium-sized businesses.

Gigabit

8 Gigabit Ethernet Ports
2 Gigabit SFP Ports

Supports deployment in IPv6 and IPv4 networks

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

QoS

Built-in QoS allows for prioritization of network traffic

	GWN7801P
Network Protocols	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
PoE Standards	IEEE 802.3af/at
Gigabit Ethernet Ports	8
Gigabit SFP Ports	2
Console	1
Integrated Power Supply	150W
Max Output Power per PoE Port	30W
Max Total PoE Output Power	120W
Auxiliary Ports	1x Reset Pinhole
Forwarding Mode	Store-and-forward
Total non-blocking throughput	10Gbps
Switching Capability	20Gbps
Forwarding Rate	14.88Mpps
Packet Buffer	4.1Mb
Network Latency	Avg<4μs
Switching	• 8K static, dynamic and filtering MAC addresses • 4K VLANs, port-based VLAN, IEEE 802.1Q VLAN tagging, voice VLAN • VLAN virtual interface • GVRP (pending) • 8 link aggregation groups • Spanning tree, 16 instances for STP/RSTP/MSTP
Multicast	IGMP Snooping, MLD Snooping, MVR
QoS/ACL	• Auto detection and prioritization of voice/video/RTP/SIP/other latency-sensitive packets (pending) • 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
Management	Quản lý Cloud, GWN manager, Https, CLI, TR069
Use	PC, Camera, Wifi, IP phone...
LEDs	1x tri-color LED for device tracking and status indication, 10x green-color LEDs for data ports, 8x yellow-color LEDs for PoE ports
Fan	None
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	330mm(L)x175mm(W)x44mm(H)
Unit Weight	2Kg
Mounting	Desktop, Wall-Mount, or Rack-Mount(rack-mounting kits included)
Package Content	1x Switch 1x 1.2m(10A) AC Cable 8x screws 1x Ground Cable 4x Rubber Feet 1x Quick Installation Guide 1x Power Cord Anti-Trip 2x Extended Rack-Mounting Kits
Compliance	FCC, CE, RCM, IC, UKCA

Features & Benefits

Powerful Processing Capabilities
- Unicast routing via ACL for data routing between network segments
- DHCP Server and Relay to assign IP addresses to network hosts
- GVRP for dynamic VLAN distribution, registration and attribute propagation reduces manual configuration & ensures configuration
- Built-in QoS supports Port Priority, Priority Mapping, Queue Scheduling, Traffic Shaping and Rate Limit
- Access Control List (ACL) recognizes and filters data packets by configuring matching rules, processing operations and time schedule, and providing flexible security access control policies
- IGMP Snooping and MLD Snooping allows the GWN7800 Series to support multi-terminal video deployments, including surveillance, video conferencing, intercom, and more IPv6 and IPv4 support

Multi-layer Security Protection
- Static & dynamic MAC tables / table filtering prevents network attacks
- Packet filtering based on binding IP address, MAC address, VLAN and port
- ARP Inspection protects against ARP spoofing & ARP flooding attacks in LAN environments, including gateway spoofing & man-in-the middle attacks
- IP Source Guard prevents 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+ to provide comprehensive authentication and authorization for LAN devices
- Supports port security: when the number of MAC addresses learned by a port reaches the maximum, it will be set to error-down state automatically to prevent MAC address attacks and control the network traffic of the port
- DHCP Snooping ensures DHCP packets are only allowed from trusted ports to keep the DHCP environment safe

Smart PoE Capabilities
- Smart power control for dynamic PoE/PoE+ power allocation p/ port
- IEEE 802.3af/at support meets the power requirementsfor security monitoring, audio/video conferencing, Wi-Fi networks and more
- User-defined time periods control the power supply of the PoE port
- Prioritize PoE ports: when remaining power is insufficient, this setting will power the ports based on priority
- Up to 30W per port - configure maximum power allowed per port
- Dynamic power negotiation via LLDP-MED

Network Optimization Tools
- STP/RSTP/MSTP guarantees fast convergence, improves fault tolerance, ensures network stability and provides link load balancing and redundancy
- Loopback detection identifies and removes loops on the network
- VRRP minimizes network downtime caused by gateway failures
- Link aggregation increases bandwidth and improves reliability
- Storm control prevents traffic interruptions caused by broadcast, multicast, or other unicast packets

Easy Management and Maintenance
- Management via GWN.Cloud, GWN Manager and Embedded controller
- Management options also include Web GUI, CLI (Console, Telnet) and SNMP (v1/ v2c/v3)
- CPU and memory usage monitoring is supported
- Common networking tools supported such as Ping, Traceroute, UDLD (TBD) and Copper Test to analyze networking issues
- RMON, Syslog, traffic statistics and sFlow (pending) for network optimization.
- LLDP and LLDP-MED for automatic discovery, provisioning, and management of endpoint devices

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.