GRANDSTREAM
CONNECTING THE WORLD

GWN7823P

Layer 3 Multi-Gigabit Network Switch



The GWN7823P delivers high-performance, a fully manageable Layer 3 multi-gigabit PoE switch tailored for medium-to-large enterprises. Engineered to power scalable, secure, and smart business networks, it provides intelligent and dynamic PoE output for hardware like IP phones, HD IP cameras, and Wi-Fi 6/6E/7 access points. Device management is seamless via an intuitive local web UI and CLI. It also offers full integration into Grandstream's robust network management ecosystems: GDMS Networking for cloud deployment and GWN Manager for on-premises oversight. Combining granular end-to-end Quality of Service (QoS) with sophisticated security configurations, the GWN7823P offers unmatched value in enterprise-grade network switching.

Feature Highlights

Supports stacking for simplified management via a single interface while providing redundancy across multiple devices.

Utilizes built-in QoS mechanisms for intelligent network traffic prioritization, including features optimized for Pro AV.

Protects network security via features including ARP Inspection, IP Source Guard, DoS protection, port security, DHCP snooping and more.

Enhances network resilience through critical hardware and software protections, including fault detection, dual boot, dual system file redundancy, link aggregation, and storm control.

Provides Access Control List (ACL) filtering with configurable matching rules, processing operations, and time schedules for flexible security access control policies.

Offers twenty-four 2.5 GbE ports paired with six high-speed 10 GbE SFP+ uplinks to match diverse deployment scales.

Offers flexible management via local web UI, CLI, GWN Manager, GDMS or GWN App, with support for protocols including SNMP, RMON, as well as NETCONF and pending TR-069.

Delivers dynamic and automated power allocation across PoE, PoE+, and high-output PoE++.

Leveraging AI capabilities within GDMS Networking, admins can convert natural language instructions into command lines, while automated data uploads enable instant AI diagnostics and cross-device log analysis.

Application Scenarios

Designed for advanced network management, the GWN7823P is equipped with high-performance 2.5G PoE ports and 10G SFP+ uplinks. It seamlessly powers next-generation endpoints, including Wi-Fi 6/6E/7 wireless APs and 4K/8K ultra-HD IP cameras, directly through its 2.5G PoE ports. For high-capacity backhaul, the 10G SFP+ ports connect inter-building fiber backbones or serve as core uplinks, ensuring completely non-blocking network transmission.

Each switch comprehensively covers wireless deployment, high-speed wired connectivity, long-range links, robust PoE delivery, and cross-segment routing. It is the ideal networking choice for enterprise headquarters, smart campuses, and multi-building complexes.



Multi-Building Complexes



Enterprise Headquarters



Smart Campuses

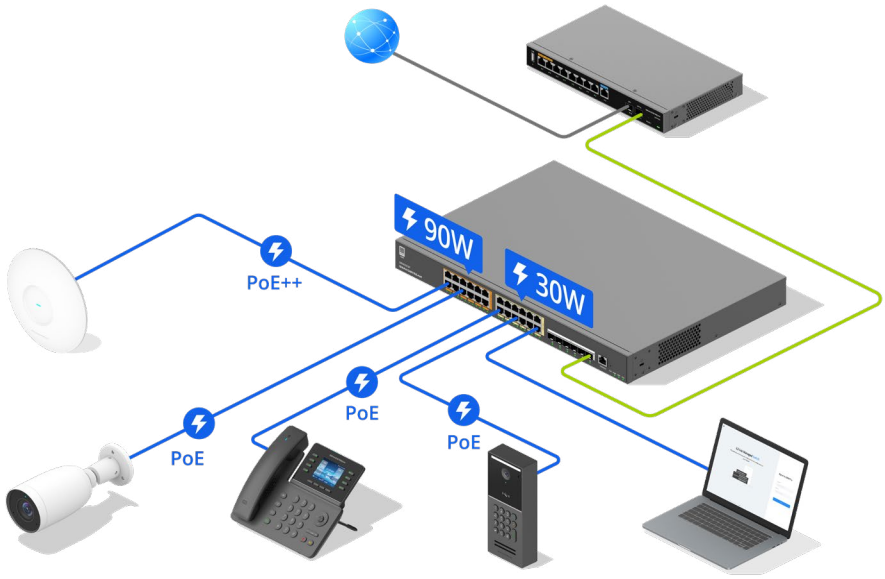
Reliable PoE and Data Transmission

1. Perpetual/Fast PoE and Monitoring

This model maintains a perpetual PoE power supply even during reboots or maintenance, ensuring continuous operation of endpoints and preventing device downtime.

Additionally, Fast PoE reduces the time powered devices require to receive power from a switch after a power cycle.

Real-time PoE power monitoring enables the detection of abnormalities and allows for quick adjustments to power distribution.



2. PoE Watchdog

Anomaly Detection

The PoE switch continuously monitors the network status of connected powered devices, such as cameras, APs, and IP phones.

Automatic Restart

If a device fails to respond within the set time, the PoE Watchdog feature will proactively cut off its power supply and reboot it to restore functionality.

Minimized On-Site Maintenance

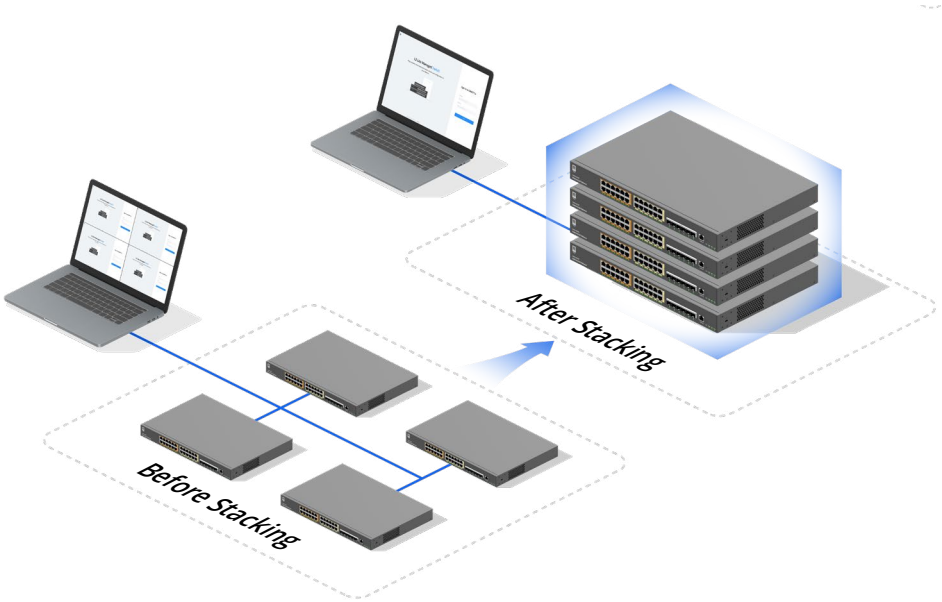
By automatically power-cycling unresponsive devices, the feature eliminates the need for physical resets, enhancing network uptime and reducing maintenance costs.

Unified Management for Stacked Switches

The GWN7823P provides powerful network expansion capabilities, allowing you to easily scale capacity, port density, and overall processing power by adding member devices to a stacking system.

The GWN7823P supports stacking up to four switches into a single logical unit, which enhances device-level reliability through redundancy between member devices, and link-level reliability via cross-device link aggregation.

Once stacking is formed, multiple physical switches operate as a single virtual device, allowing you to log into the local web UI of any member device to uniformly configure and manage all units across the entire stack.



Pro AV

The GWN7823P features advanced Pro AV functionality, acting as a high-performance bridge between audio/video inputs at one end and display outputs at the other. By optimizing media transmission, routing, and stream management, this built-in feature delivers a low-latency, reliable, and engaging audiovisual experience for business, academia, entertainment, and media.

Simplified Deployment and Management: After devices are connected, each port can be configured with professional AV functions via the graphical user interface. Users can apply templates with the preset audio or video protocols for each Pro AV function.

Low-Latency Transmission: Seamlessly transmits audio and video to the endpoints at high speeds with reliable performance, minimizing latency and preventing frame loss or playback lag.

Intelligent Stream Traffic Management: Quickly identifies audio and video streams, providing prioritized transmission channels to efficiently handle high-volume, concurrent multi-channel traffic.

Uncompromised Reliability: Built for endurance, this model can support continuous 24/7 operation.



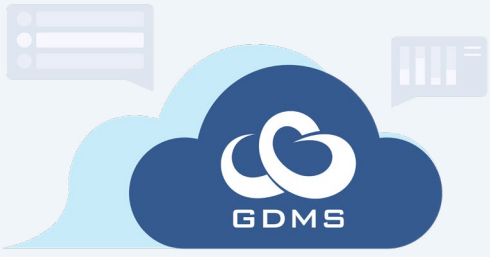
Flexible Provisioning and Management

Versatile Management Options: Beyond local management via an intuitive web interface for rapid on-site configuration, you can also manage the switches via GDMS Networking, GWN Manager, or GWN App for distributed network oversight.

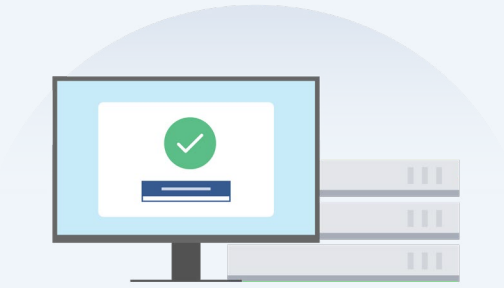
Unified Cloud-Based Device Management: Users can maintain and manage the switches within a single, unified interface, including device discovery, monitoring and upgrading, ensuring smooth operation for distributed networks.

Zero-Touch Provisioning: Automatic configuration download upon network connection for true plug-and-play replacement.

Centralized Lifecycle Management: After device adoption, users can easily discover, monitor and upgrade GWN7823P switches within a single interface, ensuring streamlined maintenance across distributed networks.



Unified Cloud-Based Device Management



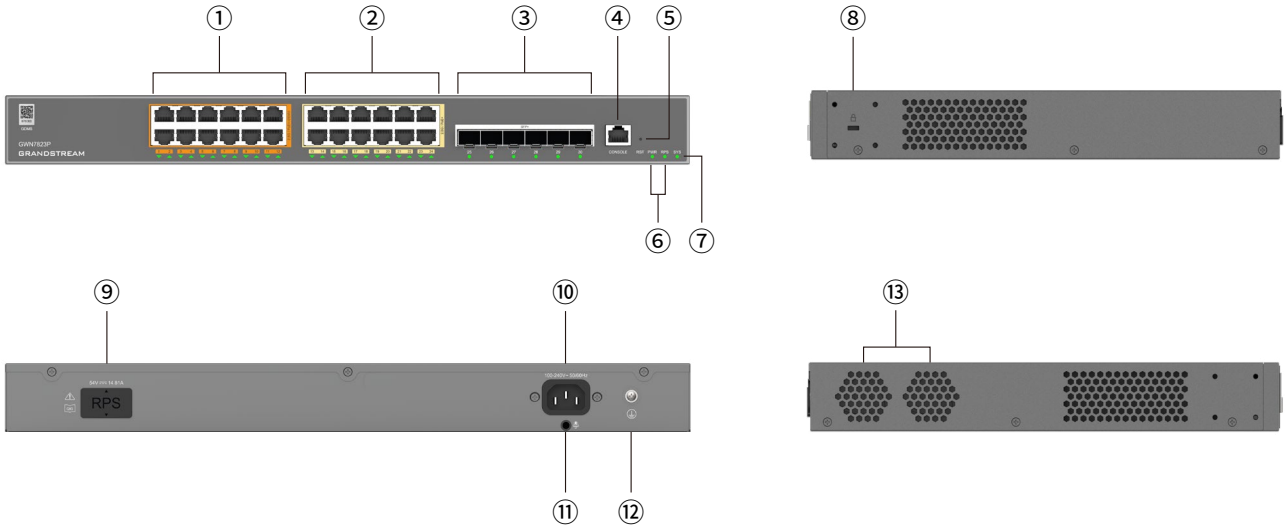
Zero-Touch Provisioning

AI-Powered CLI Configuration

Fully integrated with the GDMS Networking platform, this premium GWN7823P features an advanced AI-powered CLI that translates natural language instructions into precise command lines. While traditional CLIs force administrators to memorize complex command formats for provisioning, the GWN7823P simplifies and accelerates switch configuration. Best of all, it keeps you in complete control by ensuring total deployment security through a seamless manual review of all generated commands before they go live on your switches.



Hardware Overview



GWN7823P

① **2.5G/PoE++**	② **2.5G/PoE+**	③ **10G SFP+**	④ **Console Port**	⑤ **Reset**
⑥ **Power Supply LEDs**	⑦ **System LED**	⑧ **Kensington Lock**	⑨ **RPS Input**	⑩ **Power Socket**
⑪ **Grounding**	⑫ **Cable Clamp Slot**	⑬ **Fans**		

Technical Specifications

		GWN7823P
Basic	Unit Dimensions	440 mm × 300 mm × 44 mm (17.32" × 11.81" × 1.73")(L × W × H)
	Package Dimensions	520 mm × 415 mm × 115 mm (20.47" × 16.34" × 4.53")
	Unit Weight	4.5 kg (9.92 lb)
	Package Weight	5.9 kg (13.01 lb)
	Mounting	Desktop, or rack mount
	Number of Fans	4
Interfaces	Ethernet Ports	24 × 2.5G (10/100/1000/2500 Mbps)
	SFP+ Ports	6 × 10G (100/1000/2500/10000 Mbps) *Note: To support DAC, cable must be less than 5 m (16.40 ft)*
	Max Number of Supported Modules	SM-10G: 6 MM-10G: 6 RJ45-10G: 3 *Note: RJ45-10G modules must be inserted into alternating slots*
	MGMT Port	1 × Console port
	Other Ports	1 × Reset Pinhole
LEDs	System LEDs	1 × tri-color LED for device tracking and status indication
	Power Supply LEDs	2 × green LEDs, one for each power source (PWR & RPS)
	Data Transferring LEDs	30 × green-color LEDs
	PoE Supply LEDs	24 × yellow-color LEDs
System	Flash	8 MB NOR Flash, 128 MB NAND Flash
	RAM	256 MB RAM
	CPU	Dual-Core 1 GHz MIPS InterAptive CPU
	Forwarding Mode	Store-and-forward
	Total Non-Blocking Throughput	120 Gbps
	Switching Capacity	240 Gbps
	Forwarding Rate	178.56 Mpps
	Packet Buffer	16 Mb
	Network Latency (64-Byte Packet)	• 1G Copper: <5.4 µs • 2.5G Copper: <8.1 µs • 10G SFP+ Fiber: <1.1 µs
Power Supply	Power Supply	100–240 V AC, 50/60 Hz
	Power Redundancy Scheme	1+1 External RPS
	External Redundant Power Supply (Pending)	54 V (800 W)
	Max Power Consumption	• 71.1 W (Full Load) • 871.2 W (Full PoE Output)
	Max Output Power	871.2 W
PoE	PoE Standards	IEEE 802.3af/at/bt
	PoE Ports	24
	Max Output Power per PoE Port	90 W (Port 1–12) 30 W (Port 13–24)
	Max Total PoE Output Power	720 W
Environmental Endurance	Operating Temperature	0 °C to 45 °C (32 °F to 113 °F)
	Storage Temperature	-10 °C to 60 °C (14 °F to 140 °F)
	Humidity	10% to 90% (RH), Non-condensing
	Surge Protection	±6 kV CM for power ±4 kV CM for network ports
	ESD	±12 kV for contact discharge

		GWN7823P
System Monitoring	CPU Usage Monitoring	Monitors CPU usage; generates alarms for CPU over-utilization
	Memory Usage Monitoring	Monitors memory usage; generates alarms for memory over-utilization
	Power Supply Monitoring	Monitors power supply model and status; generates power failure alarms
	Fan Monitoring	Supports automatic fan speed adjustment and fan failure alarms
	Temperature Monitoring	Monitors device temperature; generates over-temperature alarms
	Fiber Module Monitoring	Fiber module monitoring, including temperature alarming, voltage alarming, Tx power alarming, Rx power alarming, and bias current alarming
Certification	Compliance	FCC, CE, RCM, IC

Key Features

		GWN7823P
Protocols and Standards	Network Protocol	IPv4, IPv6, IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ae, IEEE 802.3az, IEEE 802.3ad, IEEE 802.3ax, IEEE 802.3x, IEEE 802.3af/at/bt, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1x
Scalability	Stacking	Yes, up to 4 switches in a stack via chain or ring topology
Switching	Jumbo Frame	Maximum length: 12288 bytes
	VLAN	• 4K VLANs, port-based VLANs, IEEE 802.1Q VLAN tagging • QinQ • MAC-based VLANs • Protocol-based VLANs • VLAN translation including VLAN mapping and VLAN stacking • Private VLANs • Voice VLAN including auto voice VLAN, tagged OUI and untagged OUI • GVRP
	ERPS	Supports 1 ring
	Link Aggregation	Supports static and LACP Up to max 32 LAGs and up to 8 members per LAG
	MAC Address	32K MAC addresses (static, dynamic and filtering), supports MAC address migration
	STP	STP/RSTP/MSTP/PVST(+)/RPVST(+); up to 64 instances for MSTP/PVST(+)/RPVST(+)
IP Service	IP Interface	512 VLAN virtual interfaces, 128 physical port IP interfaces, supports up to 9216-byte MTU
	DHCP	DHCP Client, DHCP Server, DHCP Relay, and DHCP Snooping
	DHCPv6	DHCPv6 client and DHCPv6 snooping ND snooping
	DNS	Dynamic and static domains
	Neighbor Table	4K ARP/ND; supports static and dynamic ARP/ND
IP Routing	Routes	12K (IPv4) | 4K (IPv6) routes
	Static Routes	32 (IPv4)/32 (IPv6) static routes Supports user-defined static routing entries
	Policy-Based Routing	Forwards traffic based on user-defined policies
	Dynamic Routing	Supports dynamic routing protocols including RIP, RIPng, OSPF, OSPFv3 and BGP
	Routing-Based Policy	Controls the advertisement and reception of routes by filtering or modifying routing attributes *Note: Currently applicable only to BGP routing.*
	VRRP	Version v2/v3, Max 32 groups
Multicast	IGMP Snooping	Supports IGMPv2 and IGMPv3, up to 768 multicast groups
	MLD Snooping	Supports MLDv1 and MLDv2, up to 768 multicast groups
	MVR	Multicast VLAN Registration; supports up to 768 multicast groups
AV Control	Pro AV	Supports AES67, Dante, and NDI

		GWN7823P
QoS and ACL	QoS	• Port priority and trust modes (802.1p, DSCP, 802.1p-DSCP, and IP precedence) • Priority mapping, including 802.1p mapping, DSCP mapping and IP precedence mapping • Queue scheduling, including SP, WRR, WFQ, SP-WRR and SP-WFQ • Traffic shaping • Rate limit
	ACL	• 256 ACLs for Ethernet, IPv4 and IPv6 with 4K ACEs • Up to max 128 rules per ACL • MAC ACLs (hardware ACLs based on source MAC address, destination MAC address, optional Ethernet type, and time range) • IPv4 ACLs (hardware ACLs based on source IP address, destination IP address, optional protocol type, and time range) • IPv6 ACLs (hardware ACLs based on source IPv6 address, destination IPv6 address, optional protocol type, and time range) • ACL redirection • ACL advanced settings, including statistics, mirroring, priority mapping, and rate limit • ACL binding, including port and VLAN
Security and Maintenance	Security	• User hierarchical management and password protection, HTTPS, SSH, Telnet • Configurable HTTPS TLS versions, including TLS 1.0, 1.1, 1.2 and 1.3 • Identity authentication, including 802.1X and MAC authentication • AAA (Authentication, Authorization, and Accounting) via RADIUS and TACACS+ • Storm control • Port isolation • Port security, sticky MAC address, and invalid MAC address filtering • IP/IPv6 Source Guard, DoS attack prevention, ARP inspection, CPU protection • Loop protection, including port loopback detection, BPDU protection, root protection, and loopback protection • Kensington Security Slot (Kensington Lock) support • Firmware signature
	Reliability	• Power supply modules in 1+1 redundancy mode • Intelligent Stack upgrade • VRRPv2/VRRPv3 redundancy
	Maintenance	• NTP • IEEE 1588v2 TC (PTPv2, RFC 8173) for precise time synchronization • CPU and memory monitoring • Fault detection and alarm for power supply and fan • SNMP including SNMPv1, SNMPv2c, SNMPv3 • RMON including history groups, event groups, alarm groups, and statistics groups • NETCONF • LLDP & LLDP-MED • Backup and restore • Syslog • Alert • Diagnostics, including Ping, Traceroute, Ping watchdog, port mirroring including SPAN and RSPAN, capture, copper test, fiber module, remote support, and one-click debugging • sFlow • Upgrade via FTPS/ TFTP/ HTTP/ HTTPS or local upload; mass provisioning using DHCP Option/TR-069 (pending)/ GDMS Networking/ GWN Manager
Management	Local Management	Local Web UI: Built-in web interface via the embedded controller
	Centralized Management	• GDMS Networking: Provides free cloud management platform for an unlimited number of GWN7823P switches • GWN Manager: On-premises software controller for centralized management • GWN App: Allows logging into the app through GDMS Networking and GWN Manager to manage GWN7823P switches
	Management Interface	• CLI: Command line interface via Console/SSH/Telnet • Web CLI: Embedded browser-based command line console
	Management Protocols	• SNMP: Provides standardized status polling and alarm receiving capabilities • RMON: Implements an active performance warning mechanism based on thresholds • NETCONF: Offers a reliable channel for distribution of transactional configuration • TR-069 (pending): Enables active NAT penetration for zero-config provisioning and batch upgrades, ensuring simplified O&M

Package Contents

		GWN7823P
Standard Items	Primary Unit	1 × GWN7823P Layer 3 Multi-Gigabit Network Switch
	Power and Cables	1 × 1.2 m (3.94 ft) 10 A AC Power Cable 1 × 25 cm (9.84") Ground Cable
	Manual and License	1 × Simplified Quick Installation Guide 1 × Certification Regulatory Information
	Installation Accessories	4 × Rubber Footpads 1 × Power Cable Clamp 8 × Flat Head Machine Screws (M3 × 6 mm) 2 × Rack-Mounting Kits

Ordering Information

	Item	Description
GWN7820 Series	GWN7823P	24 × 2.5 GbE (10/100/1000/2500 Mbps), 6 × 10G SFP+ (100/1000/2500/10000 Mbps), L3 Stackable Multi-Gigabit Managed PoE Switch
Optical Transceivers & Cables	F-SM1310-20KM-1.25G	1.25G SFP LR, Single-Mode Fiber (20 km, 1,310 nm, duplex LC, DDM)
	F-MM850-550M-1.25G	1.25G SFP SR, Multi-Mode Fiber (0.3 km (OM1)/0.55 km (OM2), 850 nm, duplex LC, DDM)
	F-SM1310-10KM-10G	10G SFP+ LR, Single-Mode Fiber (10 km, 1,310 nm, duplex LC, DDM)
	F-MM850-300M-10G	10G SR SFP+, Multi-Mode Fiber (0.3 km, 850 nm, duplex LC, DDM)
	DAC-1M-10G	10G SFP+ Passive Direct Attach Copper Cable, 1-meter, 30 AWG
	DAC-3M-10G	10G SFP+ Passive Direct Attach Copper Cable, 3-meter, 26 AWG

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