



# 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 GWN.Cloud 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.



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



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; GWN. Cloud and GWN Manager, Grandstream's cloud and on-premise network management platform



Built-in QoS allows for prioritization of network traffic

	GWN7811	GWN7811P	GWN7812P	GWN7813	GWN7813P
<b>Network Protocols</b>	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				
<b>PoE Standards</b>	/	IEEE 802.3af/at	IEEE 802.3af/at	/	IEEE 802.3af/at/bt
<b>Gigabit Ethernet Ports</b>	8		16	24	
<b>10Gigabit SFP+ Ports</b>	2		4		
	Note: Supports DAC cable, and must be ≤ 5m				
<b>Maximum no. of Supported Modules</b>	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				
<b>Console</b>	1				
<b># of PoE Ports</b>	/	8	16	/	24
<b>Link Aggregation</b>	5		10	14	
<b>External Redundant Power Supply( RPS)</b>	/	/	/	12V/5A(60W)	54V(300W)
<b>Max Output Power per PoE Port</b>	/	30W	30W	/	60W(1-8,PoE++) 30W(9-24)
<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/bt
<b>Surge Protection</b>	± 6KV CM and DM for power ± 4KV CM for network ports				
<b>ESD</b>	± 12KV for contact discharge				
<b>Auxiliary Ports</b>	1x Reset Pinhole				
<b>Forwarding Mode</b>	Store-and-forward				
<b>Total non-blocking throughput</b>	28Gbps		56Gbps	64Gbps	
<b>Switching Capability</b>	56Gbps		112Gbps	128Gbps	
<b>Forwarding Rate</b>	41.644Mpps		83.328Mpps	95.232Mpps	
<b>Packet Buffer</b>	12MB				
<b>Network Latency</b>	<4µs				
<b>Switching</b>	<ul style="list-style-type: none"> <li>• 16K 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>• Spanning tree, 32 instances for STP/RSTP/MSTP</li> </ul>				
<b>Routing</b>	<ul style="list-style-type: none"> <li>• Static routing</li> <li>• Dynamic routing, including RIP, RIPng, OSPF and OSPFv3</li> <li>• Policy routing (pending)</li> </ul>				
<b>Multicast</b>	<ul style="list-style-type: none"> <li>• IGMP Snooping</li> <li>• MLD Snooping</li> <li>• MVR (pending)</li> </ul>				
<b>QoS/ACL</b>	<ul style="list-style-type: none"> <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>• 2K ACL for Ethernet, IPv4 and IPv6</li> </ul>				
<b>DHCP</b>	DHCP server, DHCP relay, DHCP Option 82, 60, 160 and 43				
<b>Maintenance</b>	CPU and memory monitoring, SNMP, RMON, LLDP&LLDP-MED, backup and restore, syslog, 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(pending) and loopback protection(pending)</li> <li>• Kensington Security Slot (Kensington Lock) support</li> </ul>				
<b>Mounting</b>	Desktop, Wall-Mount, or Rack-Mount(rack-mounting kits included)				
<b>System LEDs</b>	1x tri-color LED for device tracking and status indication				
<b>Power Supply LEDs</b>	/	/	/	2x bi-color LEDs for per power supply PWR&RPS	
<b>Data Transferring LEDs</b>	10x green-color LEDs		20x green-color LEDs	28x green-color LEDs	
<b>PoE Powered LEDs</b>	/	8x yellow-color LEDs	16x yellow-color LEDs	/	24x yellow-color LEDs
<b>Fan</b>	/	/	2	/	3
<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% RH(Non-condensing)				
<b>Dimensions</b>	330mm(L)x176mm(W)x44mm(H)		440mm(L)x200mm(W)x44mm(H)		440mm(L)x300mm(W)x44mm(H)
<b>Unit Weight</b>	1.45Kg	2.17Kg	3.03Kg	2.94Kg	4.69Kg
<b>Package Content</b>	<ul style="list-style-type: none"> <li>1x Switch</li> <li>1x 1.2m(10A) AC Cable</li> <li>1x 25cm Ground Cable</li> <li>4x Rubber Footpads</li> <li>1x Power Cord Anti-Trip</li> <li>8x Screws (KM 3*6)</li> <li>1x Quick Installation Guide</li> <li>1x Console Cable(Optional)</li> </ul>				
	2x Extended Rack-Mounting Kits		2x Rack-Mounting Kits		
	/		1x RPS, External Redundant Power Supply (Optional)		
<b>Compliance</b>	FCC, CE, RCM, IC, UKCA				



# Enterprise Layer 3 Managed Network Switch

## GWN7816(P)

The GWN7816(P) are 48-port 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 GWN7816P provides smart dynamic PoE output to power IP phones, IP cameras, Wi-Fi access points and other PoE endpoints. The GWN7816(P) can be managed in several ways, including the local Web user interface of the switch, and CLI, the command-line interface. It is also supported by GWN.Cloud and GWN Manager, Grandstream's cloud and on-premise network management platform. With an advanced set of features, comprehensive security protection, and flexible management options, the GWN7816(P) is ideal for enterprises and medium-to-large businesses who require high-performance networks with maximum capacity and control.



48 Gigabit Ethernet ports and 6 Gigabit SFP+ ports



Smart power control to support dynamic PoE/PoE+, PoE++ (GWN7816P) power allocation per port for the PoE models



Supports deployment in IPv6 and IPv4 networks



Reliability features including fault detection, device protection, dual boot, dual system file redundancy, link aggregation, storm control, and more



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 network management platform, CLI management

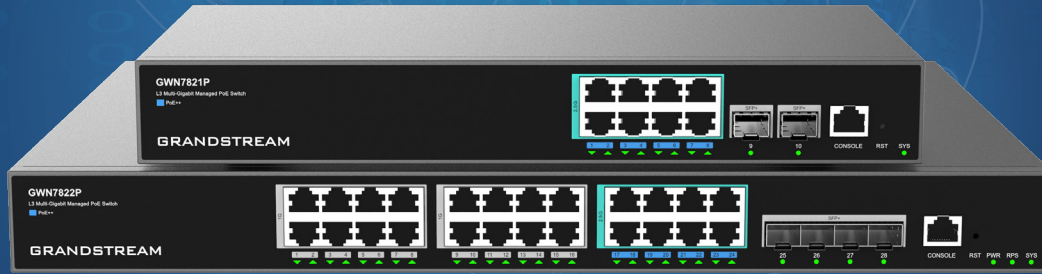


Built-in QoS allows for prioritization of network traffic



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

	GWN7816	GWN7816P
<b>Network Protocols</b>	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 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1d, IEEE 802.1s, IEEE 802.1w, IEEE 802.1x	
<b>PoE Standards</b>	/	IEEE 802.3af/at/bt
<b>Gigabit Ports</b>	48	
<b>SFP+ Ports</b>	6	
	Note: Support DAC cable, and must be ≤ 5m	
<b>Maximum Amount of Supported Modules</b>	SM-10G: 6 MM-10G: 6 RJ45-10G: 3	
	Note: RJ45-10G modules must be interval inserted	
<b>Console</b>	1	
<b># of PoE Ports</b>	/	48
<b>PSUs</b>	1 PSU of 70W by default, support 1 Hot swap PSU(Purchased Separately)	1 PSU of 920W by default, support 1 Hot swap PSU(Purchased Separately)
<b>Maximum Output Power Per PoE Port</b>	/	60W(1-8,PoE++) 30W(9-48)
<b>Max Total PoE Output Power</b>	/	740W with 1 PSU
<b>PoE Standards</b>	/	IEEE 802.3af/at/bt
<b>Surge Protection</b>	± 4KV CM and ± 2KV DM for power ± 4KV CM for network ports	
<b>ESD</b>	± 12KV for contact discharge	
<b>Auxiliary Ports</b>	1x Reset Pinhole	
<b>Forwarding Mode</b>	Store-and-forward	
<b>Total non-blocking throughput</b>	108Gbps	
<b>Switching Capability</b>	216Gbps	
<b>Forwarding Rate</b>	160.704Mpps	
<b>Packet Buffer</b>	16Mb	
<b>Network Latency</b>	<4µs	
<b>Switching</b>	<ul style="list-style-type: none"> <li>• 32K MAC addresses, including static, dynamic and filtering MAC address</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>• 27 link aggregation</li> <li>• Spanning tree, 64 instances for STP/RTSP/MSTP/PVST(+)</li> </ul>	
<b>Routing</b>	<ul style="list-style-type: none"> <li>• Static routing</li> <li>• Dynamic routing, including RIP, RIPng, OSPF and OSPFv3</li> <li>• Policy routing(pending)</li> </ul>	
<b>Multicast</b>	<ul style="list-style-type: none"> <li>• IGMP Snooping with IGMPv2 and IGMPv3</li> <li>• MLD Snooping with MLDv1 and MLDv2</li> <li>• MVR(pending)</li> </ul>	
<b>QoS/ACL</b>	<ul style="list-style-type: none"> <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>• 4K ACL for Ethernet, IPv4 and IPv6</li> </ul>	
<b>DHCP</b>	DHCP server, DHCP relay, DHCP Option 82, 60, 160 and 43	
<b>Maintenance</b>	CPU and memory monitoring, fault detection and alarm for power supply and fan, SNMP, RMON, LLDP&LLDP-MED, backup and restore, syslog, diagnostics including Ping, Traceroute, port mirroring, UDLD(pending) 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(pending) and loopback protection(pending)</li> <li>• Kensington Security Slot (Kensington Lock) support</li> </ul>	
<b>Mounting</b>	Desktop, or Rack-Mount (rack-mounting kits included)	Desktop, or Rail-Mount (rack-mounting kits included)
<b>LEDs</b>	1x tri-color LED for device tracking and status indication 2x bi-color LEDs for per power supply PSU1/2 54x green-color LEDs for data transferring 48x yellow-color LEDs for PoE powered (GWN7816P)	
<b>Fan</b>	4	
<b>Environmental</b>	Operation: 0°C to 45°C, humidity 10-90% RH(Non-condensing) Storage: -10°C to 60°C, humidity: 10% to 90% RH(Non-condensing)	
<b>Dimensions</b>	440mm(L)x300mm(W)x44mm(H)	440mm(L)x380mm(W)x44mm(H)
<b>Unit Weight</b>	4.7Kg	6Kg
<b>Package Content</b>	1x Switch	
	1x 1.2m AC Cable	
	1x 25cm Ground Cable	
	4x Rubber Footpads	
	/	1x Power Cord Anti-Trip
	2x Front Rack-Mounting Kits	
	/	2x Rear Rack-Mounting Kits
	/	2x Rear Slideways
8x Screws(KM 3*6)	16x Screws(KM 3*6)	
	1x Quick Installation Guide	
<b>Hot-Swappable PSU</b>	Available for Separate Purchase	
<b>Compliance</b>	FCC, CE, RCM, IC, UKCA	



## Layer 3 Multi-Gigabit Network Switches

### GWN7821P - GWN7822P

The GWN7820 series are Layer 3 multi-gigabit managed PoE 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, comprehensive security capabilities against potential attacks, and provides smart dynamic PoE output to power IP phones, IP cameras, Wi-Fi access points and other PoE endpoints. GWN7820 series can be managed in a number of ways, including the local Web user interface of the GWN7820 series switch and CLI, the command-line interface, and GWN router. The series is also supported by GDMS Networking and GWN Manager, Grandstream's cloud and on-premise network management platform. With complete end-to-end quality of service and flexible security settings, the GWN7820 series are the best value enterprise-grade managed PoE switches for medium-to-large businesses.



8 & 24 Gigabit Ethernet ports and 2 & 4 Gigabit SFP+ ports



Smart power control to support dynamic PoE/PoE+ and PoE++



Supports deployment in IPv6 and IPv4 networks



Reliability features including fault detection, device protection, dual boot, dual system file redundancy, link aggregation, storm control, and more



ACL filtering of data packets by configuring matching rules, processing operations and time schedule, and provides flexible security access control policies



Management options include: Embedded controller; GDMS Networking and GWN Manager, Grandstream's free cloud and on-premise network management platform; CLI management; GWN router



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

	GWN7821P	GWN7822P
<b>Network Protocols</b>	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 802.3x, IEEE 802.3af/at/bt, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1x	
<b>Memory</b>	256MB RAM 8MB Nor Flash, 128MB Nand Flash	
<b>Jumbo Frame (Bytes)</b>	10240	
<b>PoE Standards</b>	IEEE 802.3af/at/bt	
<b>Gigabit Ports</b>	8x 2.5G	16x 1G, 8x 2.5G
<b>SFP+ Ports</b>	2 (To Support DAC, cable must be ≤ 5m)	4 (To Support DAC, cable must be ≤ 5m)
<b>Maximum Amount of Supported Modules</b>	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)
<b>Console</b>	1	
<b>Link Aggregation Groups</b>	5	14
<b>Integrated Power Supply</b>	280W(54V/5.19A)	420W(54V/7.78A)
<b>External Redundant Power Supply (RPS)</b>	/	54V(300W)
<b>Maximum Output Power Per PoE Port</b>	60W	30W for port 1-16, 60W for port 17-24
<b>Max Total PoE Output Power</b>	240W	360W
<b>Surge Protection</b>	± 6KV CM and DM for power ± 4KV CM for network ports	
<b>ESD</b>	± 12KV for contact discharge	
<b>Auxiliary Ports</b>	1x Reset Pinhole	
<b>Forwarding Mode</b>	Store-and-forward	
<b>Total non-blocking throughput</b>	40Gbps	76Gbps
<b>Switching Capability</b>	80Gbps	152Gbps
<b>Forwarding Rate</b>	59.52Mpps	113.088Mpps
<b>Packet Buffer</b>	12Mb	
<b>Network Latency</b>	<4µs	
<b>Stacking</b>	Yes, up to 4 devices	
<b>Switching</b>	<ul style="list-style-type: none"> <li>• 16K MAC addresses, including static, dynamic and filtering MAC address</li> <li>• 4K VLANs, port-based VLAN, IEEE 802.1Q VLAN tagging, MAC-based VLAN, Protocol-based VLAN, voice VLAN</li> <li>• Private VLAN (pending)</li> <li>• VLAN virtual interface with 9216 MTU</li> <li>• 256 ARP/NDP</li> <li>• Spanning tree, 32 instances for STP/RTSP/MSTP/PVST(+)</li> </ul>	
<b>Routing</b>	<ul style="list-style-type: none"> <li>• 512 (IPv4)/128(IPv6) routes</li> <li>• 32 static routing</li> <li>• Policy routing</li> <li>• Dynamic routing, including RIP, RIPng, OSPF, OSPFv3, BGP and IS-IS(pending)</li> <li>• Routing policy</li> <li>• VRRP(pending)</li> </ul>	
<b>Multicast</b>	<ul style="list-style-type: none"> <li>• IGMP Snooping with IGMPv2 and IGMPv3</li> <li>• MLD Snooping with MLDv1 and MLDv2</li> <li>• MVR</li> </ul>	
<b>QoS/ACL</b>	<ul style="list-style-type: none"> <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>• 2K 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, diagnostics including Ping, Traceroute, mirroring, UDLD(pending) and copper test	
<b>Security</b>	<ul style="list-style-type: none"> <li>• User hierarchical management and password protection, HTTPS, SSH, Telnet</li> <li>• Identity authentication including 802.1X and MAC 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, or Rack-Mount (rack-mounting kits included)	
<b>System LEDs</b>	1x tri-color LED for device tracking and status indication	
<b>Power Supply LEDs</b>	/	2x green-color LEDs for per power supply PWR&RPS
<b>PoE Powered LEDs</b>	8x yellow-color LEDs	24x yellow-color LEDs
<b>Data Transferring LEDs</b>	10x green-color LEDs	28x green-color LEDs
<b>Fan</b>	2	2
<b>Environmental</b>	Operation: 0°C to 45°C, humidity 10% to 90% RH(Non-condensing) Storage: -10°C to 60°C, humidity: 10% to 90% RH(Non-condensing)	
<b>Dimensions</b>	330mm(L)x175mm(W)x44mm(H)	440mm(L)x300mm(W)x44mm(H)
<b>Unit Weight</b>	1.9Kg	4.1Kg
<b>Package Content</b>	1x Switch	
	1x 1.2m AC Cable	
	1x 25cm Ground Cable	
	4x Rubber Footpads	
	1x Power Cord Anti-Trip	
	2x Extended Rack-Mounting Kits	2x Rack-Mounting Kits
	/	1x RPS, External Redundant Power Supply(Optional)
<b>Compliance</b>	8x Screws(KM 3*6)	
	1x Quick Installation Guide	
	1x Console Cable (Optional)	
<b>Compliance</b>	FCC, CE, RCM, IC	