### Gigabit PoE+ Smart Managed Pro Switches

Data Sheet

GS728TPv2, GS728TPPv2, GS752TPv2 and GS752TPP





# All ports PoE+ with up to 760W PoE budget – Select your new network engine!

As a leading provider of network equipment for SMBs, NETGEAR® understands the importance of providing a great choice of PoE port counts and power budgets that can adapt to your business' needs, whether in the hospitality, catering, education or retail domains.

The GS728TPv2, GS728TPPv2, GS752TPv2 and GS752TPP Gigabit Ethernet Switches with PoE+ and 4 SFP Ports join the NETGEAR Standalone Smart Managed Pro Switches family, adding full 24 and 48 port PoE+ support for deployment of modern high-power PoE devices. Cautious spender organizations can now deploy denser PoE+ devices connected to a cost-effective switch, with a reasonable PoE power budget of 190W over 24-port, or 380W over 48-port. Organizations who buy infrastructure for the long term and want future proofing for the unforeseeable can now select a switch with a PoE power budget of 380W over 24-port, or 760W over 48-port providing more headroom.

Temperature– and load–based fan–speed control combines accurate monitoring with minimized system acoustic noise: the GS728TPv2 supports quiet rack mounting operation with a maximum of 27.08dB even at full PoE power with traffic on all ports and 25°C (77°F) ambient. Following the same measurements, the GS728TPPv2 is rated at 33.42dB, the GS752TPv2 at 36.94dB and the GS752TPP at 39.74dB.

### **Highlights**

The NETGEAR PoE+ Gigabit Smart Managed Pro Switches provides a great value, with configurable L2 network features like VLANs and PoE operation scheduling, allowing SMB customers to deploy PoE-based VoIP phones, IP cameras, video-over-IP endpoints and Wireless access points simply and securely. Advanced features such as IPv4/IPv6 Layer 3 static routing, LACP link aggregation, DiffServ QoS, Private VLANs, Multicast VLAN Registration and Spanning Tree will satisfy even the most advanced small business networks.

#### Key features include:

- Quiet rack mounting operation with 27.08dB to 39.74dB at 25°C (77°F) ambient
- Layer 3 static routing with 32 routes (IPv4 and IPv6) for interVLAN local routing
- Advanced VLAN and Private VLAN support for better network segmentation
- L2/L3/L4 access control lists (ACLs) for granular network access control including 802.1x port authentication
- Advanced per port PoE controls for remote power management of PoE connected devices including operation scheduling (e.g. Wireless APs, IP security cameras, LED lighting, secure access door locks, IoT devices...)

- Advanced QoS (Quality of Service) for traffic prioritization including port-based, 802.1p and L2/L3/L4 DSCP-based
- · Auto "denial-of-service" (DoS) prevention
- IGMP Snooping and Querier for multicast optimization
- Multicast VLAN Registration (MVR) for larger L2 multicast networks and AV over IP deployment
- Dynamic ARP for increased security targeting a class of Man in the Middle attack
- Rate limiting and priority queuing for better bandwidth allocation
- Port mirroring for network monitoring
- Energy Efficient Ethernet (IEEE 802.3az) for maximum power savings
- Cable test to troubleshoot connection issues
- SNMP v1, v2c, v3 and RMON remote monitoring

## Build a future-proof network with NETGEAR:

- Solid performance with non-blocking architecture, 16K MAC addresses, 256 VLANs, 100 shared (ingress) ACLs and 512 Multicast groups
- Comprehensive IPv6 supporting management, QoS, ACL and routing, ensuring investment protection and a smooth migration to IPv6-based network

- PoE+ support on all models and on all ports
- 4 Dedicated SFPs, not only providing fiber uplinks, but also uplink redundancy and failover, improving reliability and availability for the network

#### Smart IT, not Big IT

- Easy-to-use Web browser-based management GUI makes setup and management simple
- Standards-based technology ensures interoperability with any standards-based devices in the existing network
- Dual firmware images improve reliability and uptime to your network
- Worry-free with NETGEAR ProSAFE® LIFETIME Hardware Warranty\*
- Minimal down-time with NETGEAR ProSAFE LIFETIME Next-Business-Day Replacement Warranty
- Get deployment assistance with 90-days
   Free 24x7 Advanced Technical Phone
   Support\*\*
- LIFETIME Online Chat Technical Support







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### Hardware at a Glance

		F	REAR	SIDE		
Model Name	Form-Factor	10/100/1000 Base-T RJ45 ports	1000BASE-X Fiber SFP Ports	PoE+ 802.3at Ports (Budget)	Power Supply	Fans
GS728TPv2	Rackmount	24	4	24 PoE+ (190W)	1 internal PSU, fixed	2 internal fans, fixed
GS728TPPv2	Rackmount	24	4	24 PoE+ (380W)	1 internal PSU, fixed	2 internal fans, fixed
GS752TPv2	Rackmount	48	4	48 PoE+ (380W)	1 internal PSU, fixed	2 internal fans, fixed
GS752TPP	Rackmount	48	4	48 PoE+ (760W)	1 internal PSU, fixed	3 internal fans, fixed

### Software at a Glance

		LAYER 2+ / LAYER 3 LITE FEATURES					
Management	IPv4/IPv6 ACL and QoS	IPv4/IPv6 Multicast Filtering	Auto-VoIP Auto-Video	IEEE (802.3az) Energy Efficient Ethernet	VLANs	Convergence	IPv4 & IPv6 Static Routing
Web Browser-based GUI (HTTP/HTTPS), PC-Based Smart Control Center Utility (SCC) RMON, SNMP	L2, L3, L4, ingress	IGMP and MLD Snooping	Yes	Yes	Static, Dynamic, Voice, MAC, Protocol-based, and Private VLAN	LLDP-MED, RADIUS, 802.1X	Yes

### Performance at a Glance

Model Name	Packet buffer	CPU	ACLs	MAC Address Table ARP Table VLANs	Fabric	Latency (Max Connection Speed)	Static Routes (IPv4 & IPv6)	Multicast IGMP Group
GS728TPv2		MIPS-34Kc 700MHz			56Gbps			
GS728TPPv2	1.5MB	Single Core	100 16K MAC 512 ARP 256 VLANs			1G Copper: <3.35µs 1G Fiber: <2.5µs	IPv4: 32 IPv6: 32	F12
GS752TPv2	1.5///6	128MB DDR RAM			104Gbps			512
GS752TPP		32MB FLASH			line-rate			

## **Ordering Information**

Model Name	Americas	Europe	Asia Pacific	India
GS728TPv2	GS728TP-200NAS	GS728TP-200EUS	GS728TP-200AJS	GS728TP-200INS
GS728TPPv2	GS728TPP-200NAS	GS728TPP-200EUS	GS728TPP-200AJS	GS728TPP-200INS
GS752TPv2	GS752TP-200NAS	GS752TP-200EUS	GS752TP-200AJS	GS752TP-200INS
GS752TPP	GS752TPP-100NAS	GS752TPP-100EUS	GS752TPP-100AJS	GS752TPP-100INS



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### Features at a Glance

risk of running out of PoE ports.  Four dedicated Gigabit SFP ports for aggregation to the network core. Support for Fiber and Copper module Can also build dual redundancy by a trunked uplink with link aggregation and failover.  For dedicated Gigabit SFP ports for aggregation to the network core. Support for Fiber and Copper module Can also build dual redundancy by a trunked uplink with link aggregation and failover.  For also build dual redundancy by a trunked uplink with link aggregation and failover.  190W, 380W or 760W PoE budget available across 24 or 48 Gigabit PoE+ ports (802.3at) — Connect mul power demanding devices to your network with a single wire for power and connectivity.  Temperature-based fan-speed control minimizes system acoustic noise in any environment starting at 27.0 at 25 °C (77°F) ambient.  Energy Efficient Ethernet (IEEE 802.3az)  Maximum power reduction for ongoing operation cost savings.  BENEFITS  Comprehensive IPv6 Support for Management, ACL and QoS  IPv4 & IPv6 Static Routing  A simple way to provide segmentation of the network with internal routing through the switch — reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  802.1 x authentication (EAP)  802.1 x authentication (EAP)  802.1 x authentication (EAP)  803.2 x authentication (EAP)  804.2 x authentication (EAP)  805.4 x authentication (EAP)  806.4 x across 24 or 48 Gigabit PoE+ ports (802.3at) — Connect mul power demanding devices to your network with a single wire for power and connectivity.  Build a secured, converged network with future in mind. Ensure investment protection and a smooth migration to an IPv6-based network without switch replacement.  Build a secured, converged network with future in mind. Ensure investment protection and a smooth migration to an IPv6-based or protection and a smooth migration to an IPv6-based or protection and a smooth migration to an IPv6-based or protection and a smooth migration to an IPv6-based or protection and	HARDWARE FEATURES	BENEFITS
Can also build dual redundancy by a trunked uplink with link aggregation and failover.  Great choice of PoE port counts and PoE power budgets that can adapt to the business's needs  190W, 380W or 760W PoE budget available across 24 or 48 Gigabit PoE+ ports (802.3at) – Connect mul power demanding devices to your network with a single wire for power and connectivity.  Energy Efficient Ethernet (IEEE 802.3az)  Temperature-based fan-speed control minimizes system acoustic noise in any environment starting at 27.0i at 25°C (77°F) ambient.  Energy Efficient Ethernet (IEEE 802.3az)  Maximum power reduction for ongoing operation cost savings.  SOFTWARE FEATURES  BENEFITS  Comprehensive IPv6 Support for Management, ACL and QoS  IPv4 & IPv6 Static Routing  A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  802.1x authentication (EAP)  Port-based security by locked MAC  ACL filtering to permit or deny traffic based on MAC and IP addresses  Comprehensive QoS features:  Port-based or 802.1p-based prioritization  Layer 3-based (DSCP) prioritization  Layer 3-based (DSCP) prioritization  Layer 3-based (DSCP) prioritization  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Auto-VoIP, Auto-Voice VLAN, and Auto-Video  VLAN  Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the	1000BASE-T Copper Ethernet PoE+ connections	Support high-density VoIP, Surveillance and Wi-Fi AP deployments, scalable for future growth. Never face the risk of running out of PoE ports.
budgets that can adapt to the business's needs  Dower demanding devices to your network with a single wire for power and connectivity.  Temperature-based fan-speed control minimizes system acoustic noise in any environment starting at 27.01 at 25°C (77°F) ambient.  Energy Efficient Ethernet (IEEE 802.3az)  Maximum power reduction for ongoing operation cost savings.  SOFTWARE FEATURES  BENEFITS  Comprehensive IPv6 Support for Management, ACL and QoS  IPv4 & IPv6 Static Routing  A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  802.1x authentication (EAP)  Port-based security by locked MAC  ACL filtering to permit or deny traffic based on MAC and IP addresses  Comprehensive QoS features:  Port-based or 802.1p-based prioritization  Layer 3-based (DSCP) prioritization  Layer 3-based (DSCP) prioritization  Port-based ingress and egress rate limiting  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Auto-VolP, Auto-Voice VLAN, and Auto-Video  VLAN  Automatic Voice over IP prioritization (Auto-VolP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the	1000BASE-X Fiber SFP ports	Four dedicated Gigabit SFP ports for aggregation to the network core. Support for Fiber and Copper modules. Can also build dual redundancy by a trunked uplink with link aggregation and failover.
at 25 °C (77°F) ambient.  Energy Efficient Ethernet (IEEE 802.3az)  Maximum power reduction for ongoing operation cost savings.  BENEFITS  Comprehensive IPv6 Support for Management, ACL and QoS  IPv4 & IPv6 Static Routing  A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  802.1x authentication (EAP)  Port-based security by locked MAC  ACL filtering to permit or deny traffic based on MAC and IP addresses  Comprehensive QoS features:  Port-based or 802.1p-based prioritization  Layer 3-based (DSCP) prioritization  Port-based ingress and egress rate limiting  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Auton-VolP, Auto-Volce VLAN, and Auto-Video  VLAN  Automatic Voice over IP prioritization (Auto-VolP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the		190W, 380W or 760W PoE budget available across 24 or 48 Gigabit PoE+ ports (802.3at) – Connect multiple power demanding devices to your network with a single wire for power and connectivity.
SOFTWARE FEATURES  Comprehensive IPv6 Support for Management, ACL and QoS  IPv4 & IPv6 Static Routing  A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  802.1x authentication (EAP)  Port-based security by locked MAC  ACL filtering to permit or deny traffic based on MAC and IP addresses  Comprehensive QoS features:  Port-based or 802.1p-based prioritization  Layer 3-based (DSCP) prioritization  Port-based ingress and egress rate limiting  Auto-VolP, Auto-Voice VLAN, and Auto-Video  VLAN  Automatic Voice over IP prioritization (Auto-VolP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the	Low Acoustics	Temperature-based fan-speed control minimizes system acoustic noise in any environment starting at 27.08dB at 25 °C (77 °F) ambient.
Comprehensive IPv6 Support for Management, ACL and QoS  IPv4 & IPv6 Static Routing  A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  • 802.1x authentication (EAP)  • Port-based security by locked MAC  • ACL filtering to permit or deny traffic based on MAC and IP addresses  Comprehensive QoS features:  • Port-based or 802.1p-based prioritization  • Layer 3-based (DSCP) prioritization  • Port-based ingress and egress rate limiting  Auto-VoIP, Auto-Voice VLAN, and Auto-Video  VLAN  Build current network with future in mind. Ensure investment protection and a smooth migration to an IPv6-based network without switch replacement.  Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware while allowing secure access for authorized users.  Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware while allowing secure access for authorized users.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Auto-VoIP, Auto-Voice VLAN, and Auto-Video  VLAN  Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the	Energy Efficient Ethernet (IEEE 802.3az)	Maximum power reduction for ongoing operation cost savings.
A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Robust security features:  802.1x authentication (EAP)  Port-based security by locked MAC  ACL filtering to permit or deny traffic based on MAC and IP addresses  Comprehensive QoS features:  Port-based or 802.1p-based prioritization  Layer 3-based (DSCP) prioritization  Port-based ingress and egress rate limiting  Auto-VolP, Auto-Voice VLAN, and Auto-Video  VLAN  Port-based network without switch replacement.  A simple way to provide segmentation of the network with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient.  Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware while allowing secure access for authorized users.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the	SOFTWARE FEATURES	BENEFITS
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<ul> <li>802.1x authentication (EAP)</li> <li>Port-based security by locked MAC</li> <li>ACL filtering to permit or deny traffic based on MAC and IP addresses</li> <li>Comprehensive QoS features:         <ul> <li>Port-based or 802.1p-based prioritization</li> <li>Layer 3-based (DSCP) prioritization</li> <li>Port-based ingress and egress rate limiting</li> </ul> </li> <li>Auto-VoIP, Auto-Voice VLAN, and Auto-Video VLAN</li> <li>VLAN</li> <li>malware while allowing secure access for authorized users.</li> <li>Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.</li> <li>Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.</li> </ul> <li>Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the</li>	IPv4 & IPv6 Static Routing	
<ul> <li>Port-based or 802.1p-based prioritization</li> <li>Layer 3-based (DSCP) prioritization</li> <li>Port-based ingress and egress rate limiting</li> <li>Auto-VoIP, Auto-Voice VLAN, and Auto-Video</li> <li>VLAN</li> <li>Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the</li> </ul>	<ul> <li>802.1x authentication (EAP)</li> <li>Port-based security by locked MAC</li> <li>ACL filtering to permit or deny traffic based on</li> </ul>	
VLAN deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the	<ul><li>Port-based or 802.1p-based prioritization</li><li>Layer 3-based (DSCP) prioritization</li></ul>	
other ordinary traffic by classifying traffic, and enabling correct egress queue configuration. Similarly, Auto-V VLAN enables IGMP snooping to minimize broadcast streams.		deployments either based on protocols (SIP) or on OUI bytes (default database and user-based OUIs) in the phone source MAC address, providing the best class of service to VoIP streams (both data and signaling) over other ordinary traffic by classifying traffic, and enabling correct egress queue configuration. Similarly, Auto-Video
IGMP (IPv4) and MLD (IPv6) Snooping and Querier modes with Fast Leave  Facilitate fast receiver joins and leaves for multicast streams. Save cost and improve network efficiency by ensuring multicast traffic only reaches designated receivers without the need of an extra multicast router.		
Protected Ports  Ensure no exchange of unicast, broadcast, or multicast traffic between the protected ports on the switch, thereby improving the security of your converged network. This allows your sensitive phone conversations to stay private and your surveillance video clips can be forwarded to their designated storage device without leakage or alteration.	Protected Ports	thereby improving the security of your converged network. This allows your sensitive phone conversations to stay private and your surveillance video clips can be forwarded to their designated storage device without
DHCP Snooping and Dynamic ARP Inspection  Ensure IP address allocation integrity by only allowing DHCP messages from trusted DHCP servers and dropping malformed DHCP messages with a port or MAC address mismatch. Use the DHCP snooping bindings database per port and per VLAN to drop incoming packets that do not match any binding and to enforce source IP/MAC addresses for malicious users traffic elimination.	DHCP Snooping and Dynamic ARP Inspection	dropping malformed DHCP messages with a port or MAC address mismatch. Use the DHCP snooping bindings database per port and per VLAN to drop incoming packets that do not match any binding and to
	Dynamic VLAN Assignment (RADIUS)	IP phones and PCs can authenticate on the same port but under different VLAN assignment policies. Users are free to move around and enjoy the same level of network access regardless of their physical location on the network.
Dual Firmware Images Dual firmware images for transparent firmware updates with minimum service interruption.	Dual Firmware Images	Dual firmware images for transparent firmware updates with minimum service interruption.

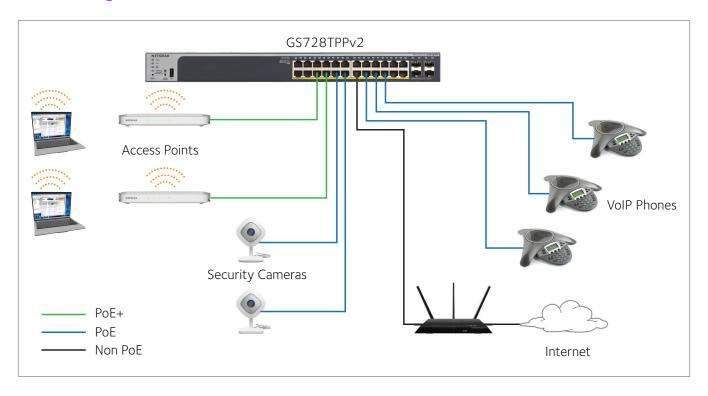
### Gigabit PoE+ Smart Managed Pro Switches

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GS728TPv2, GS728TPPv2, GS752TPv2 and GS752TPP

#### **Target Application**

#### Network Convergence



Within small and medium-sized organizations — especially in the hospitality, catering, education, and retail industries — there is growing deployment of VoIP phones, IP security cameras, video-over-IP endpoints, proximity sensors, LED lighting, secure access door locks, and other IoT devices. The dense proximity of these devices requires network switches capable of supporting PoE so a network manager can add power-hungry devices to the network with a single wire for power AND connectivity. Wave 2 802.11ac wireless access points and pan-tilt-zoom HD surveillance cameras with features such as night vision and built-in motion tracking also require PoE+ power (802.3at), increasing the power demands on PoE switches.

The new 24-port and 48-port NETGEAR Smart Managed Pro Switches support dense deployments of these modern high-power PoE+ devices. They offer powerful Layer 2 and Lite Layer 3 (static routing) features for IPv4 and IPv6 with enhanced performance and a focus on usability within SMB environments:

- 190W (GS728TPv2) or 380W (GS728TPPv2) PoE budget across 24 Gigabit PoE+ ports
- 380W (GS752TPv2) or 760W (GS752TPP) PoE budget across 48 Gigabit PoE+ ports
- $\cdot$  4 dedicated Gigabit SFP fiber ports for aggregation to the network core
- Quiet rack mounting operation with 27.08dB to 39.74dB max at 25°C (77°F) ambient
- · Layer 3 static routing with 32 routes (IPv4 and IPv6) for interVLAN local routing
- IGMP Snooping, IGMP Querier and IGMP Fast Leave for multicast optimization
- $\boldsymbol{\cdot}$  Include VLANs, Private VLAN, PoE scheduling, ACLs, DiffServ, LACP, MVR and STP
- Easy-to-use Web browser-based management GUI No need for an IT expert
- LIFETIME Limited Warranty, Next Business Day Replacement, Tech support

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PRODUCT	GS728TPv2	GS728TPPv2	GS752TPv2	GS752TPP	
			[( <del>**********************************</del>	<b>-</b> (************************************	
10M/100M/1G RJ-45 copper ports	24	24	48	48	
PoE / PoE+ ports	24 PoE+ (190W PoE budget)	24 PoE+ (380W PoE budget)	48 PoE+ (380W PoE budget)	48 PoE+ (760W PoE budget)	
1G SFP (fiber) ports	4 (dedicated)	4 (dedicated)	4 (dedicated)	4 (dedicated)	
USB port (for config file upload/backup & firmware updates)		Ye	es		
PERFORMANCE SPECIFICATION					
CPU		MIPS-34Kc 700	MHz Single Core		
Packet buffer memory (Dynamically shared across only used ports)		1.5	5 MB		
Forwarding modes		Store-an	d-forward		
Bandwidth	56 Gbps	56 Gbps	104 Gbps	104 Gbps	
Priority queues			8		
Priority queuing	Weighted Round Robin (WRR)				
MAC address database size (48-bit MAC addresses)	16K				
Multicast groups		5	12		
Number of IPv4 static routes		3	32		
Number of IPv6 static routes		3	32		
Number of VLANs		2	56		
Number of ARP cache entries		512	ARP		
Number of DHCP snooping bindings		2	56		
Access Control Lists (ACLs)		100 shared for MAC, IF	and IPv6 ACLs (ingress)		
Packet forwarding rate (64 byte packet size) (Mpps)	41.67	41.67	77.38	77.38	
Jumbo frame support (bytes)		Up to 10K	packet size		
Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)	27.08dBA	33.42dBA	36.94dBA	39.74dBA	
Mean Time Between Failures (MTBF) @ 25°C	1,250,365 hours	1,071,896 hours	1,737,411 hours	1,107,549 hours	
100M Copper Latency (64-byte; 1518-byte; 9216-byte frames)	8.916µs; 9.258µs; 9.009µs	8.916µs; 9.258µs; 9.009µs	8.314µs; 8.612µs; 8.451µs	8.314µs; 8.612µs 8.451µs	
1G Copper Latency (64-byte; 1518-byte; 9216-byte frames)	3.388µs; 3.625µs; 3.716µs	3.388µs; 3.625µs; 3.716µs	3.614µs; 3.545µs; 3.628µs	3.614µs; 3.545µs; 3.628µs	
1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)	3.204µs; 3.209µs; 3.298µs	3.204µs; 3.209µs; 3.298µs	2.980µs; 3.101µs; 3.179µs	2.980µs; 3.101µs; 3.179µs	
_2 SERVICES - VLANS					
IEEE 802.1Q VLAN tagging		Υ	'es		
IP-based VLANs	Yes				
MAC-based VLANs	Yes				

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Auto-VoIP  /oice VLAN  Auto-Video VLAN		s, based on protocols (SIP). P	rioritzes traffic to a higher qu	iene			
	nacko						
auto-Video VLAN	packe	Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.					
	Yes						
SARP with GVRP	Yes						
rivate VLAN	Yes						
SERVICES - AVAILABILITY							
Broadcast, multicast, unknown unicast storm ontrol	Yes						
EEE 802.3ad - LAGs (LACP)		Y	es				
EEE 802.3x (full duplex and flow control)		Υ	es				
EEE 802.1D Spanning Tree Protocol		Υ	es				
EEE 802.1w Rapid Spanning Tree Protocol		Υ	es				
EEE 802.1s Multiple Spanning Tree Protocol		Υ	es				
ayer 2 DHCP Relay		Υ	es				
SERVICES - MULTICAST FILTERING							
GMP snooping (v1, v2 and v3)	Yes						
ALD snooping support (v1 and v2)	Yes						
GMP snooping querier (v2)	Yes						
ALD snooping querier (v1)		Υ	es				
Aulticast VLAN Registration (MVR)		Υ	es				
S SERVICES - DHCP							
DHCP client		Υ	es				
DHCP snooping		Υ	es				
3 SERVICES - ROUTING							
Pv4 static routing		3	32				
Pv6 static routing		3	32				
/LAN routing		Y	es				
lost ARP table (number of entries)		512	ARP				
CMP Router Discovery Protocol (IRDP)		Υ	es				
lumber of IP VLAN interfaces (routed VLANs)		1	5				
NK AGGREGATION							
EEE 802.3ad – LAGs (LACP)		Υ	es				
Nanual Static LAG		Υ	es				
of Static or LACP LAGs of members in each LAG		16 LAGs with max	8 ports in each LAG				

# Gigabit PoE+ Smart Managed Pro Switches

Data Sheet

GS728TPv2, GS728TPPv2, GS752TPv2 and GS752TPP

PRODUCT	GS728TPv2	GS728TPPv2	GS752TPv2	GS752TPP			
NETWORK MONITORING AND DISCOVERY SERVI	RVICES						
802.1ab LLDP		Υe	25				
SNMP	v1, v2c, v3						
RMON group 1,2,3,9	Yes						
NETWORK SECURITY							
IEEE 802.1x		Y	es				
Guest VLAN		Y	es				
RADIUS-based VLAN assignment via .1x		Y	es				
MAC-based .1x		Y	es				
RADIUS accounting		Y	es				
Access Control Lists (ACLs)		L2 / L3 /	L4 ingress				
IP-based ACLs (IPv4 and IPv6)		Y	es				
MAC-based ACLs		Y	es				
TCP/UDP-based ACLs		Y	es				
MAC lockdown	Yes						
MAC lockdown by the number of MACs		Y	es				
Control MAC # Dynamic learned entries	4096						
Control MAC # static entries	48						
IEEE 802.1x RADIUS port access authentication		Y	es				
Port-based security by locked MAC addresses		Y	es				
Dynamic ARP inspection		Y	es				
Broadcast, unicast, multicast DoS protection		Y	es				
DoS attacks prevention		Y	es				
QUALITY OF SERVICE (QOS)							
Port-based rate limiting		Yes ingress	and egress				
Port-based QoS		Yı	es				
Support for IPv6 fields		Yı	es				
DiffServ QoS		Yes in	ngress				
IEEE 802.1p COS		Y	es				
Destination MAC and IP		Y	es				
IPv4 and v6 DSCP		Y	es				
IPv4 and IPv6 ToS		Y	es				
TCP/UDP-based		Y	es				
Weighted Round Robin (WRR)		Y	es				
Strict priority queue technology	Yes						
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI by	rtes (default database and us	er-based OUIs) in the phone	source MAC address			

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Auto-VoIP	Ye:	s, based on protocols (SIP). Pr	rioritzes traffic to a higher qu	ieue	
Voice VLAN	packe	Yes, based on either VLA	AN ID or 802.1p priority, ecting VoIP phone using LLD	P-MED	
Auto-Video VLAN		Y	es		
IEEE NETWORK PROTOCOLS					
<ul> <li>IEEE 802.3 Ethernet</li> <li>IEEE 802.3u 100BASE-T</li> <li>IEEE 802.3ab 1000BASE-T</li> <li>IEEE 802.3af PoE</li> <li>IEEE 802.3at PoE+</li> <li>IEEE 802.3az Energy Efficient Ethernet (EEE)</li> </ul>	<ul> <li>IEEE 802.1Q VLAN Tagging</li> <li>IEEE 802.1AB LLDP with ANSI/TIA-1057 (LLDP-MED)</li> <li>IEEE 802.1p Class of Service</li> <li>IEEE 802.1D Spanning Tree (STP)</li> <li>IEEE 802.1s Multiple Spanning Tree (MSTP)</li> <li>IEEE 802.1w Rapid Spanning Tree (RSTP)</li> </ul>				
• IEEE 802.3az Energy Efficient Ethernet (EEE) • IEEE 802.1w Rapid Spanning Tree (RSTP) • IEEE 802.3x RADIUS Network Access Control • IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX • IEEE 802.3x Full-Duplex Flow Control					
MANAGEMENT					
Password management	Yes				
Configurable management VLAN	Yes				
Admin access control via RADIUS and TACACS+	Yes				
IPv6 management	Yes				
SNTP client over UDP port 123		Y	es		
SNMP v1/v2c		Y	es		
SNMP v3 with multiple IP addresses		Y	es		
RMON group 1,2,3,9		Y	es		
Port mirroring		Yes ingress	and egress		
Many-to-one port mirroring	28	28	52	52	
Web browser-based graphical user interface (GUI)		Y	es		
Smart Control Center (SCC) for multi-switch management	Yes				
Dual software (firmware) image		Y	es		
Cable test utility	Yes				
TLS/HTTPS Web-based access (version)		Yes (	v1.2)		
File transfers (uploads, downloads)		TFTP ,	/ HTTP		
HTTP upload/download (firmware)		Y	es		
Syslog (RFC 3164)		Yes			
USB port for firmware and config upload/ download					

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PRODUCT	GS728TPv2	GS728TPPv2	GS752TPv2	GS752TPP		
LEDS						
Per port		Speed, Link, Activity; o	or PoE in different mode			
Per device		Power, Fa	n, PoE Max			
PHYSICAL SPECIFICATIONS						
Dimensions (W x D x H)	440 x 257 x 43.2 mm (17.3 x 10.1 x 1.7 in)	440 x 257 x 43.2 mm (17.3 x 10.1 x 1.7 in)	440 x 310 x 43.2 mm (17.3 x 12.2 x 1.7 in)	440 x 310 x 43.2 mm (17.3 x 12.2 x 1.7 in)		
Weight	3.78 kg (8.32 lb)	5.03 kg (11.08 lb)				
POWER CONSUMPTION						
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)	226W	439W	446W	861W		
Max power without PoE (worst case, all ports used, line-rate traffic) (Watts)	36W	59W	66W	101W		
Iddle power consumption (all ports link-down standby) (Watts)	20W	22.5W	28W	30W		
Heat Dissipation (worst case, all ports used, full PoE, line-rate traffic) (BTU/hr)	772.9 BTU/hr	1,501.3 BTU/hr	1,525.32 BTU/hr	2,944.6 BTU/hr		
Energy Efficient Ethernet (EEE) IEEE 802.3az		Yes (deactiva	ted by default)			
Fan	2	2	2	3		
ENVIRONMENTAL SPECIFICATIONS						
Operating						
Operating temperature		0° to 50°C (	32° to 122°F)			
Humidity		90% maximum relative hur	nidity (RH), non-condensing			
Altitude		10,000 ft (3,0	00 m) maximum			
Storage						
Storage temperature		-20° to 70°C	(– 4° to 158°F)			
Humidity		95% maximum relative h	numidity, non-condensing			
Altitude		10,000 ft (3,0	00 m) maximum			
ELECTROMAGNETIC EMISSIONS AND IMMUNIT	Υ					
Certifications		CE mark,	commercial			
		FCC Part 15 Clas	ss A, VCCI Class A			
		Class A EN 55022	(CISPR 22) Class A			
	Class A C-Tick					
	EN 55024					
	CCC					
	47 CFR FCC Part 15, SubpartB, Class A					
	ICES-003: 2016 Issue 6, Class A					
			3.4:2014			
	IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013					
		AN/NZS CISPR 22:20	09+A1:2010 CLASS A			

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SAFETY					
Certifications		CB mark, c	ommercial		
		CSA certified (C	SA 22.2 #950)		
		UL listed (UL 1950)/cl	JL IEC 950/EN 60950		
	EN 60	950-1: 2006 + A11:2009 +	- A1:2010 + A12:2011 + A2:	:2013	
		IEC 60950-1:2005 (ed	.2)+A1:2009+A2:2013		
		AN/NZS 60	950.1:2015		
		CCC (China Comp	oulsory Certificate)		
WARRANTY AND SUPPORT					
ProSAFE Lifetime Warranty	Included, Lifetime*				
Technical Support via Phone and Email*	90 days				
Lifetime 24x7 Online Chat Technical Support*		Included,	Lifetime*		
Lifetime Next-Business-Day (NBD) Replacement		Included,	Lifetime*		
ProSUPPORT OnCall 24x7 Service Packs**	Category 1:	Category 1:	Category 2:	Category 2:	
OnCall 24x7 extends the 90-day phone and email warranty entitled technical support for standard and advanced features to the length of the contract term.	PMB0311 (1 yr.) PMB0331 (3 yrs.) PMB0351 (5 yrs.)	PMB0311 (1 yr.) PMB0331 (3 yrs.) PMB0351 (5 yrs.)	PMB0312 (1 yr.) PMB0332 (3 yrs.) PMB0352 (5 yrs.)	PMB0312 (1 yr.) PMB0332 (3 yrs.) PMB0352 (5 yrs.)	
PACKAGE CONTENT					
All Models	Smart Managed Pro Switch	1			
	AC Power cord with C13 connector (localized to region of sale)				
	Brackets and screws for rack mounting				
	Rubber footpads for tabletop installation				
	Rubber protection caps, which are already installed in the SFP sockets				
	Installation guide				
	Resource CD with Smart Control Center utility software and links to additional online documentation including the Hardware installation guide, the Web browser-based management GUI User Manual and datasheet				

### Gigabit PoE+ Smart Managed Pro Switches

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### **Ordering Information**

ORDERING INFORMATION	
GS728TP-200NAS	North America, Latin America
GS728TP-200EUS	Europe
GS728TP-200AJS	Asia Pacific and Australia
GS728TP-200INS	India
GS728TPP-200NAS	North America, Latin America
GS728TPP-200EUS	Europe
GS728TPP-200AJS	Asia Pacific and Australia
GS728TPP-200INS	India
GS752TP-200NAS	North America, Latin America
GS752TP-200EUS	Europe
GS752TP-200AJS	Asia Pacific and Australia
GS752TP-200INS	India
GS752TPP-100NAS	North America, Latin America
GS752TPP-100EUS	Europe
GS752TPP-100AJS	Asia Pacific and Australia
GS752TPP-100INS	India
OPTIONAL MODULES, SOFTWARE LICE	NSES AND ACCESSORIES
AGM731F	SFP Transceiver 1000BASE-SX (Short range, multimode)
AGM732F	SFP Transceiver 1000BASE-LX (Long range, single mode)
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC



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DS- GS728TPv2/GS728TPPv2/GS752TPv2/GS752TPP-0

<sup>\*</sup> This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and modifications to product may void the warranty; covers hardware, fans, and internal power supplies—not software or external power supplies; see http://www.netgear.com/about/warranty/ for details. Lifetime technical support includes basic phone support for 90 days from purchase date and lifetime online chat support when purchased from a NETGEAR authorized reseller.

<sup>\*\*</sup> The NETGEAR OnCall 24x7 contract provides unlimited phone and email technical support for your networking product. For ProSAFE products purchased prior to 06/2014, also includes next-business-day hardware replacement.

<sup>&</sup>lt;sup>†</sup> NETGEAR #1 in Fixed Web(Smart)-Managed Worldwide Market Share according to IHS Infonetics Ethernet Switches Market Share and Forecast, 1Q17 Edition, Dec 2016.