NETGEAR®

Gigabit PoE+ Smart Managed Pro Switches

Data Sheet

GS724TPv2

*In Worldwide Market Share according to IHS Infonetics, December 2016

Going Gigabit and PoE+ Just Got More Cost-Effective!

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

The GS724TPv2 24-Port Gigabit Switch with PoE+ and 2 SFP Ports joins the NETGEAR Standalone Smart Managed Pro Switches family, adding full 24 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.

NETGEAR Smart Managed Pro Switches offer powerful Layer 2 features, great PoE functionality, and enhanced performance and usability. These switches are the ideal solution even for the most advanced small and medium organizations looking for the best combination of features, performance, and value: they are purposely designed for converged networks where voice, video, data are all carried on a single network platform.

Temperature- and load-based fan-speed control combines accurate monitoring with minimized system acoustic noise: the GS724TPv2 supports quiet rack mounting operation with a maximum of 32.4dB even at full power and 25°C (77°F) ambient.

Highlights

The GS724TPv2 24-Port Gigabit Smart Managed Pro Switch provides a great value, with configurable L2 network features like VLANs and PoE operation scheduling, allowing SMB customers to deploy PoE-based VoIP phones and IP surveillance. Advanced features such as Access Control Lists (ACLs), L2/L3/L4 QoS (DiffServ), LACP link aggregation and Spanning Tree will satisfy even the most advanced small business networks.

Key features include:

- Advanced 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
- 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 high-value network with NETGEAR:

- Solid performance with 52Gbps non-blocking architecture, 8K MAC addresses, 256 VLANs, 100 shared ACLs and 128 Multicast groups
- PoE+ support on all ports, providing flexibility in the future to add more power-hungry devices such as video phone, PTZ camera and 11ac Wireless APs into the network
- 2 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

NETGEAR®

Gigabit PoE+ Smart Managed Pro Switches

Data Sheet

GS724TPv2

Hardware at a Glance

	FRONT				REAR	SIDE
Model Name	Form-Factor	10/100/1000BASE-T RJ45 Ports	1000BASE-X Fiber SFP Ports	PoE+ 802.3at Ports (Budget)	Power Supply	Fans
GS724TPv2	Rackmount	24	2	24 PoE+ (190W)	1 internal PSU, fixed	2 internal fans, fixed

GS724TPv2: 24-port Gigabit PoE+ Smart Managed Pro Switch

- 24 x 1000BASE-T PoE+ Copper ports
- 2 x 1000BASE-X Dedicated Fiber SFP ports
- 190W PoE budget (max 32.4dB @ 25°C / 77°F ambient)

Software at a Glance

LAYER 2 FEATURES						
Management	IPv4 ACL and QoS	IPv4 Multicast Filtering	Auto-VoIP	IEEE (802.3az) Energy Efficient Ethernet	VLANs	Convergence
Web Browser-based GUI (HTTP/HTTPS), PC-Based Smart Control Center Utility (SCC) RMON, SNMP	L2, L3, L4 Ingress	IGMP	Yes	Yes	Static, Dynamic, Voice	LLDP-MED, RADIUS, 802.1X

Performance at a Glance

Model Name	Packet buffer	CPU	ACLs	MAC Address Table VLANs	Fabric	Latency (64-byte packets)	Multicast IGMP Groups
GS724TPv2	0.5 MB	500 Mhz MIPS-4Kec CPU 128MB RAM 32MB SPI FLASH	100 shared	8K MAC 256 VLANs	52Gbps line-rate	1G Copper: <3.749 µs 1G Fiber: <3.129 µs	128

Ordering Information

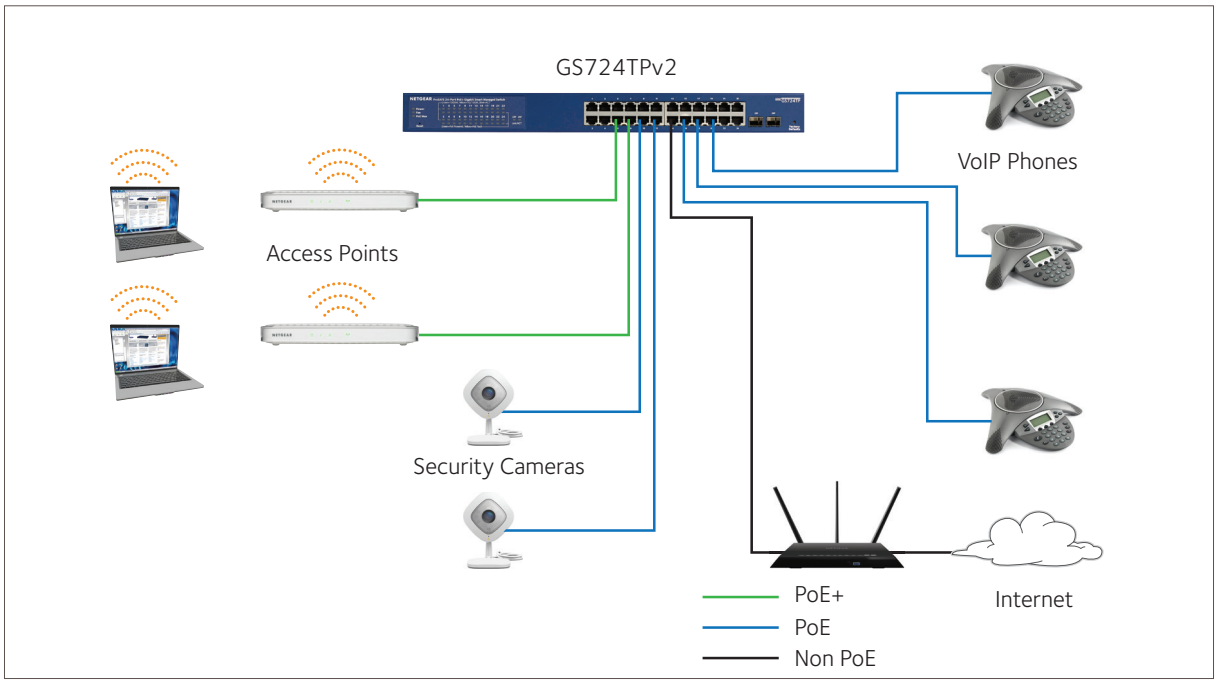
Model Name	Americas	Europe	Asia Pacific	India	China
GS724TPv2	GS724TP-200NAS	GS724TP-200EUS	GS724TP-200AJS	GS724TP-200INS	GS724TP-200PRS

Features at a glance

HARDWARE FEATURES	BENEFITS
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.
1000BASE-X Fiber SFP ports	Two dedicated Gigabit SFP ports for aggregation to the network core. Support for Fiber and Copper modules.
Low Acoustics	Temperature- and load-based fan-speed control allow for quiet operation in both desktop or rackmount configuration.
Energy Efficient Ethernet (IEEE 802.3az)	Maximum power reduction for ongoing operation cost savings.
L2 SOFTWARE FEATURES	**BENEFITS**
Advanced per port PoE controls	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...).
ACL filtering to permit or deny traffic based on	Provide granular network access control including L2/L3/L4 access control lists (ACLs).
Robust security features: • 802.1x authentication (EAP) • Port-based security by locked MAC	Build a secured, converged network with all types of traffic by preventing external attacks and blocking Malware, while allowing secure access for authorized users with RADIUS 802.1x port authentication.
Comprehensive QoS features: • Port-based or 802.1p-based prioritization • Layer 3-based (DSCP) prioritization • Port-based ingress rate limiting	Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.
Auto-VoIP and Auto-Voice VLAN	Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based 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.
IGMP Snooping	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.
DHCP Snooping	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.
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 and Configuration Files	Dual firmware images and dual configuration files for transparent firmware updates/configuration changes with minimum service interruption.

Target Application

PoE+ Rackmount Switch



The new standalone GS724TPv2 switch is designed with 24 ports PoE+ and 190W power to meet the current and future needs of wireless converged networks. Within small and medium-sized organizations, there is growing adoption of PoE devices such as VoIP phones, IP security cameras, wireless access points, proximity sensors, LED lighting, door locks, and other IoT devices that require network switches capable of supporting dense PoE installations. Wireless access points and pan-tilt-zoom HD cameras using Wave 2 802.11ac Wi-Fi also require PoE+ power (802.3at), increasing the power demands on PoE switches.

"PoE devices are putting a strain on switching power demands." As a leading provider of network equipment for SMBs, NETGEAR understands the importance of providing great choice of PoE port counts and power budgets that can adapt to the business's needs, whether in the hospitality, catering, education or retail domains.

This switch provides a great value, with configurable Layer 2 network features like VLANs and PoE operation scheduling. Advanced features such as DiffServ QoS, LACP link aggregation and Spanning Tree will satisfy even the most advanced small business networks.

Technical Specifications

PRODUCT	GS724TPv2
	
10M/100M/1G RJ-45 copper ports	24
PoE / PoE+ ports	24 PoE+ (190W PoE budget)
1G SFP (fiber) ports	2 (dedicated)
PERFORMANCE SPECIFICATION	
CPU	500 Mhz MIPS-4Kec CPU 128MB RAM 32MB SPI FLASH
Packet buffer memory (Dynamically shared across only used ports)	0.5 MB
Forwarding modes	Store-and-forward
Bandwidth	52 Gbps
Priority queues	8
Priority queuing	Weighted Round Robin (WRR) and Strict Priority
MAC Address database size (48-bit MAC addresses)	8K
Multicast groups	128
Number of VLANs	256
Number of DHCP snooping bindings	256
Access Control Lists (ACLs)	100 shared for MAC, IP and UDP/TCP ACLs (ingress)
Packet forwarding rate (64 byte packet size) (Mpps)	38.68
Jumbo frame support	Up to 9K packet size
Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)	32.4 dBA
Mean Time Between Failures (MTBF) @ 25°C	1,051,375 hours
100M Copper Latency(64-byte; 1518-byte; 9216-byte frames)	6.38µs ; 6.267µs ; 6.059µs
1G Copper Latency(64-byte; 1518-byte; 9216-byte frames)	3.749µs ; 4.675µs ; 3.762µs
1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)	3.129µs ; 4.213µs ; 4.197µs
L2 SERVICES - VLANS	
IEEE 802.1Q VLAN tagging	Yes
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, manuel or automatic assigment of VoIP phone traffic based on OUI bytes (default database and user-based OUIs) in the phone source MAC address to Voice VLAN associated with high priority QoS parameters
L2 SERVICES - AVAILABILITY	
Broadcast, multicast, unknown unicast storm control	Yes
IEEE 802.3ad - LAGs (LACP)	Yes
IEEE 802.3x (full duplex and flow control)	Yes
IEEE 802.1D Spanning Tree Protocol	Yes
IEEE 802.1w Rapid Spanning Tree Protocol	Yes
IEEE 802.1s Multiple Spanning Tree Protocol	Yes
L2 SERVICES - MULTICAST FILTERING	
IGMP snooping (v1, v2 and v3)	Yes
IGMP snooping querier	Yes

PRODUCT	GS724TPv2
DHCP SERVICES	
DHCP client	Yes
DHCP snooping	Yes
LINK AGGREGATION	
IEEE 802.3ad - LAGs (LACP)	Yes
Manual Static LAG	Yes
# of Static or LACP LAGs # of Members in each LAG	8 LAGs with max 8 members in each LAG
NETWORK MONITORING AND DISCOVERY SERVICES	
802.1ab LLDP	Yes
SNMP	v1, v2c, v3
RMON group 1,2,3,9	Yes
NETWORK SECURITY	
IEEE 802.1x	Yes (EAP)
Guest VLAN	Yes
RADIUS-based VLAN assignment via .1x	Yes
RADIUS accounting	Yes
Access Control Lists (ACLs)	L2 / L3 / L4 ingress
IP-based ACLs (IPv4)	Yes
MAC-based ACLs	Yes
TCP/UPD-based ACLs	Yes
MAC lockdown	Yes
MAC lockdown by the number of MACs	Yes
Control MAC # Dynamic learned entries	600
Control MAC # Static entries	20
IEEE 802.1x RADIUS port access authentication	Yes
Port-based security by locked MAC addresses	Yes
Broadcast, multicast, unknown unicast storm control	Yes
DoS attacks prevention	Yes
QUALITY OF SERVICE (QOS)	
Port-based rate limiting	Yes egress
Port-based QoS	Yes
DiffServ QoS	Yes ingress
IEEE 802.1p COS	Yes
Destination MAC and IP	Yes
IPv4 DSCP	Yes
IPv4 ToS	Yes
TCP/UDP-based	Yes
Weighted Round Robin (WRR)	Yes

PRODUCT	GS724TPv2
Strict priority queue technology	Yes
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, manuel or automatic assigment of VoIP phone traffic based on OUI bytes (default database and user-based OUIs) in the phone source MAC address to Voice VLAN associated with high priority QoS parameters
IEEE NETWORK PROTOCOLS	
• IEEE 802.3 Ethernet • IEEE 802.3u 100BASE-T • IEEE 802.1Q VLAN Tagging • IEEE 802.3ab 1000BASE-T • IEEE 802.3af PoE • IEEE 802.3at PoE+ • IEEE 802.3az Energy Efficient Ethernet (EEE) • IEEE 802.3ad Trunking (LACP)	• IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX • IEEE 802.3x Full-Duplex Flow Control • IEEE 802.1AB LLDP with ANSI/TIA-1057 (LLDP-MED) • IEEE 802.1p Class of Service • IEEE 802.1D Spanning Tree (STP) • IEEE 802.1s Multiple Spanning Tree (MSTP) • IEEE 802.1w Rapid Spanning Tree (RSTP) • IEEE 802.1x RADIUS Network Access Control
MANAGEMENT	
Password management	Yes
Configurable management VLAN	Yes
Admin access control via RADIUS and TACACS+	Yes
SNTP client over UDP port 123	Yes
SNMP v1/v2c	Yes
SNMP v3 with multiple IP addresses	Yes
RMON group 1,2,3,9	Yes
Port mirroring	Yes
Many-to-one port mirroring	25
Web browser-based graphical user interface (GUI)	Yes
Smart Control Center (SCC) for multi-switch management	Yes
Dual software (firmware) image	Yes
Dual configuration file	Yes
Cable test utility	Yes
HTTPS/TLS Web-based access (version)	Yes (v1.0)
File transfers (uploads, downloads)	TFTP / HTTP
HTTP upload/download (firmware)	Yes
Syslog (RFC 3164)	Yes
LEDS	
Per port	Speed, Link, Activity
Per device	Power and Fan
PHYSICAL SPECIFICATIONS	
Dimensions (W x D x H)	440 x 204 x 43 mm (17.3 x 8 x 1.7 in)
Weight	3.15 kg (6.96 lb)

PRODUCT	GS724TPv2
POWER CONSUMPTION	
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)	228.53 W
Max power without PoE (worst case, all ports used, line-rate traffic) (Watts)	21.27 W
Heat Dissipation (worst case, all ports used, full PoE, line-rate traffic) (BTU/hr)	780.20 BTU/hr
Heat Dissipation without PoE (worst case, all ports used, line-rate traffic) (BTU/hr)	72.61 BTU/hr
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)
Short Cable Power Reduction	Yes (deactivated by default)
Auto Power Down	Yes (deactivated by default)
Fan	2
ENVIRONMENTAL SPECIFICATIONS	
Operating	
Power	Internal 100-240VAC 50-60Hz
Operating temperature	0° to 50°C (32° to 122°F)
Humidity (relative)	90% maximum relative humidity (RH), non-condensing
Altitude	10,000ft (3,000m) maximum
Storage	
Storage temperature	–20° to 70°C (– 4° to 158°F)
Humidity (relative)	95% maximum relative humidity, non-condensing
Altitude	10,000ft (3,000m) maximum
ELECTROMAGNETIC EMISSIONS AND IMMUNITY	
Certifications	CE mark, commercial
	FCC Part 15 Class 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
	ANSI C63.4:2014
	IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013
	AN/NZS CISPR 22:2009+A1:2010 CLASS A

PRODUCT	GS724TPv2
SAFETY	
Certifications	CB mark, commercial
	CSA certified (CSA 22.2 #950)
	UL listed (UL 1950)/cUL IEC 950/EN 60950
	EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
	IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013
	AN/NZS 60950.1:2015
	CCC (China Compulsory Certificate)
WARRANTY AND SUPPORT	
ProSAFE Lifetime Warranty	Included, Lifetime* (excluding mounting hardware, belts or straps)
Lifetime 24x7 Online Technical Support*	Included, Lifetime*
Lifetime Next-Business-Day (NBD) Replacement	Included, Lifetime*
ProSUPPORT OnCall 24x7, Service Packs**	Category 1: PMB0311 (1 yr.), PMB0331 (3 yrs.), PMB0351 (5 yrs.)

Ordering Information

PACKAGE CONTENT	
All Models	24-Port Gigabit Ethernet PoE+ Smart Managed Pro Switch
	Power cord (localized to country of sale)
	Rack-mounting kit
	Rubber footpads for tabletop installation
	Quick install guide
	Resource CD with installation guides, Smart Control Center utility software, MIB files, and links to additional online documentation including the Web browser-based management GUI User Manual and datasheet.
ORDERING INFORMATION	
GS724TP-200NAS	North America, Latin America
GS724TP-200EUS	Europe, UK
GS724TP-200AJS	Asia Pacific and Australia
GS724TP-200PRS	China
GS724TP-200INS	India
OPTIONAL MODULES 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

* 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.

** 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.

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

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