NETGEAR®
BUSINESS

Experience the New Generation of Gigabit Smart Switches

The NETGEAR® new generation of Gigabit Smart switches offers new, powerful L2+/Layer 3 Lite features with enhanced performance and usability. They are purposely designed for the future where increased traffic and application-oriented tasks demands more intelligence at the edge, higher realiability and improved network efficiency on top of operational cost savings and ease of management.

There are two products in this series: a 24-port and a 48-port Gigabit Ethernet Smart switch.

The GS724T comes with 2 dedicated Gigabit SFP ports for fiber connectivity while the GS748T comes with 2 dedicated Gigabit SFP and 2 combo copper/ SFP ports, all with increased number of simultaneously connected ports.

This new generation of Gigabit Smart switch from NETGEAR is the optimized solution providing the best value at an affordable SMB price point.

Highlights

Designed for Converged Network, Big or Small

- Gigabit speed with non-blocking architecture supporting 100% Gigabit throughput

- Auto Voice VLAN for fast and reliable deployment of VoIP

- Auto Video VLAN, following the same concept of Auto Voice, help speed up your deployment of IP-based surveillance system

- Static routing, helps to route internal traffic for more efficient use of network resources

- IGMP and MLD snooping, providing advanced multicast filtering

Build a Future-proof Network with NETGEAR

- Solid performance with non-blocking architecture, 16K MAC addresses, 256 VLANs, 100 shared ACL entries, 32static routes, and 512 Multicast Groups

- Comprehensive IPv6 supporting management, QoS and ACL, ensuring investment protection and a smooth migration to IPv6-based network

- Dedicated SFPs instead of combo ports, offering more connectivity ports and providing better value and usability at no extra cost

- Energy Efficient Ethernet (IEEE802.3az) support for more energy saving in the future when more IEEE-compliant end devices come to market

- Advanced QoS with IPv4/ IPv6 traffic filtering and prioritization

- Dynamic VLAN assignment for easy user authentication and location-independent access to network

- Multicast VLAN Registration for eliminating unnecessary multicast traffic and improve the efficiency of network utilization

Network Development Made Easy

- Auto Voice VLAN for easy development of VoIP

- Auto Video for simple deployment of IP Surveillance

- ACL Wizard for a guided tour to set up your network access control

- Network Management System (NMS300), allowing all NETGEAR business products to be deployed and managed through this single management interface

Small IT, not Big IT

- Easy to manage via web-based management GUI for multi-switch deployment

- Standard-based technology, ensuring interoperability with any standard-based devices in the existing network

- Dual firmware images, improving reliability and uptime to your network

- Worry-free with NETGEAR limited lifetime hardware warranty*

- Assist with customer deployment with 1-year Free 24x7 advanced Technical support*

Hardware-at-a-Glance

Model Name	Form-Factor	FRONT		REAR	
		10/100/1000Base-T RJ45 ports	100/1000X Fiber SFP ports	Power Supply	Fans
GS724T	Rack mount	24	2 (Dedicated)	Internal	No
GS748T	Rack mount	48	2 (Dedicated) + 2 (Combo)	Internal	1

GS724T: 24-port 1000base-T Gigabit Smart Switch

- 24 Gigabit copper ports
- 2 dedicated SFP ports
- Fanless

GS748T: 48-port 1000base-T Gigabit Smart Switch

- 48 Gigabit copper ports
- 2 dedicated SFP ports and 2 combo copper/SFP ports

Software-at-a-Glance

Management	IPv4 / IPv6 Multicast filtering	Auto-VoIP	EEE (802.3az) Auto-EEE	VLANs	Convergence
Web GUI: HTTPs; RMON SNMP	IGMP and MLD Snooping	Yes	Yes	Static, Voice Video, MAC, Protocol-based	LLDP-MED, RADIUS, 802.1X

Performance-at-a-Glance

Model Name	Packet buffer	ACLs	MAC address table VLANs Multicast Group	Fabric	Static Routes IP interfaces
GS724T GS748T	2Mb	100 shared ACLs (MAC, IP4 and IPv6)	16K MAC 256 VLANs 512 Multicast Groups	all models line-rate	32 static routes IPv4

Features and Benefits

Hardware Features	
Dedicated SFP Fiber Uplinks	Dedicated SFP ports provides fiber uplinks without sacrificing any down-link Gigabit port. Up to 4 SFP ports provide not only redundant uplinks, but can also build dual redundancy by a trunked uplink with link aggregation and failover, the dual-redundancy, a powerful design for the network virtualization
Fanless Design (GS724T)	Quiet operation makes these switches ideal solution for business environments which favor no noise from networking gears such as libraries, class rooms, offices and etc.
Energy Efficient Ethernet (IEEE 802.3az)	Maximum power reduction for onging operational cost savings
Software Features	
Dynamic VLAN Assignment	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 in the network
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
Comprehensive IPv6 Support for Management, ACL and QoS	Build current network with future in mind. Ensure investment protection and a smooth migration to IPv6-based network without switch replacement
IGMP Snooping and MLD 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.
Robust Security Features: • 802.1x authentication • DHCP Snooping • Port-based security by locked MAC • ACL filtering to permit or deny traffic based on MAC and IP addresses	Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware while allowing secure access for authorized users
Auto Voice and Auto Video	Automatic Voice over IP prioritization with Auto-VoIP simplifies most complex multi-vendor IP telephones deployments either based on protocols (SIP, H323 and SCCP) 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. When deployed IP phones are LLDP-MED compliant, the Voice VLAN will use LLDP-MED to pass on the VLAN ID, 802.1P priority and DSCP values to the IP phones, accelerating convergent deployments
Comprehensive QoS Features: • Port-based or 802.1p-based prioritization • Layer 3-based (DSCP) prioritization • Port-based egress rate limiting	Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video
DHCP Snooping	Ensure IP address allocation integrity by allowing only clients with specific IP/MAC addresses to have access to the network
Dual Firmware Images and Configuration Files	Dual firmware image and dual configuration file for transparent firmware updates/configuration changes with minimum service interruption

NETGEAR®
BUSINESS

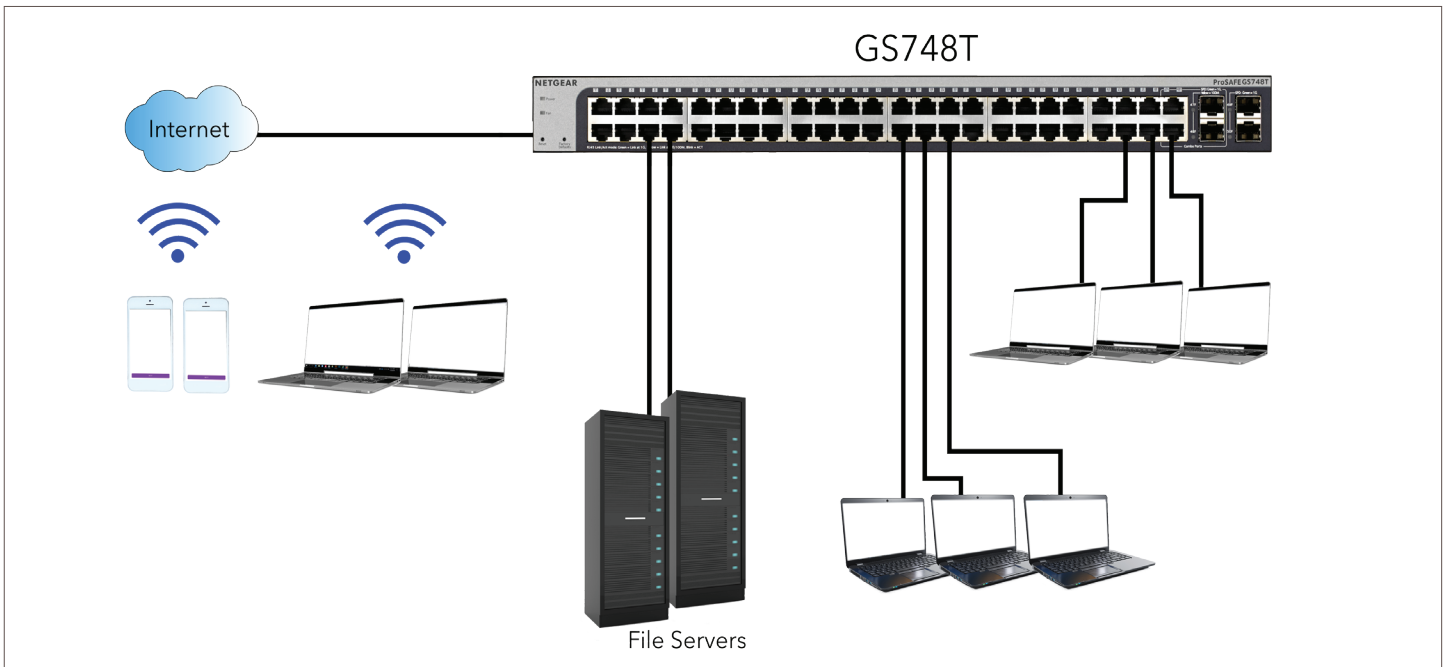| Software Features (continued)	
Protected Ports	Ensure no exchange of unicast, broadcast, or multicast traffic between the protected ports on the switch, therefore, improve the security of your converged network where your sensitive phone conversation can stay private and your surveillance video clips can be forwarded to their designated storage device without leakage or alteration
Dynamic ARP Inspection	Prevents a class of man-in-the-middle attacks, where an unfriendly station intercepts traffic for other stations by poisoning the ARP caches of its unsuspecting neighbors
Multicast VLAN Registration	Eliminates the replication of the same multicast traffic for every VLAN by sending multicast traffic only on to the dedicated multicast/source VLAN, resulting in more efficient utilization of network bandwidth

Example Application

Converged Network Application

GS748T

Internet

File Servers

Why is the NETGEAR latest generation of Gigabit Smart switch the right choice for SMBs?

NETGEAR Gigabit Smart switches offer the best return on your investment:

- Well-staged for future network upgrade with Gigabit to desktop and network virtualization

- Cost-effectively bring intelligence to the edge of the network with traffic management features from the Smart switches

- Improved usability for easier and smoother deployment of voice, video and WLAN on the same converged platform

- Limited lifetime* warranty and 1-year free advanced Tech support for peace-of-mind

Technical Specifications	GS724Tv4	GS748Tv5
Interfaces	24 10/100/1000 Mbps auto-sensing Gigabit-Ethernet switching ports, and two dedicated 1000M SFP fiber ports	48 10/100/1000 Mbps auto-sensing Gigabit-Ethernet switching ports, and two dedicated 1000Mbps SFP fiber ports, and two combo 1000Mbps SFP fiber ports
Performance Specification		
Forwarding modes	Store-and-forward	
Bandwidth	52 Gbps	100 Gbps
Priority queues	8	8
Priority queuing	Weighted Round Robin (WRR)	
MAC Address database size	16k media access control (MAC) addresses	
Addressing	48-bit MAC address	
Multicast groups	512	
Number of static routes	32	
Number of routed VLANs	15	
Number of ARP Cache entries	512	
Number of DHCP snooping bindings	8K	
Number of DHCP static entries	1024	
ACL	100 shared for MAC, IP and IPv6 ACLs	
Jumbo frame support	up to 9K packet size	
Acoustic noise (ANSI-S10.12)	0 dBA	37.2 dBA
Mean Time Between Failures (MTBF)	567,680 hours	390,728 hours
L2 Services - VLANs		
IEEE 802.1Q VLAN Tagging	Yes	
Protocol based VLANs	Yes	
MAC based VLANs	Yes	
Voice VLAN	Based on phones OUI bytes (internal database, or user-maintained) or protocols (SIP, H323 and SCCP)	
Protocol-based VLAN	Yes	
Network Security		
IEEE 802.1x	Yes	
Guest VLAN	Yes	
RADIUS based VLAN assignment via .1x	Yes	
MAC-based .1x	Yes	
RADIUS Accounting	Yes	
Network Storm Protection, DoS	Yes	
Broadcast, Unicast, Multicast DoS Protection	Yes	
DoS Attacks	Yes	
Dynamic ARP inspection	Yes	

L2 Services - Availability	GS724Tv4	GS748Tv5
IEEE 802.3ad - LAGs	Yes	
LACP	Yes (26 LAGS with max. of 8 members in each LAG)	
Broadcast Storm Control	Yes	
IEEE 802.3x (Full Duplex and flow control)	Yes	
IEEE 802.1D Spanning Tree Protocol	Yes	
IEEE 802.1w Rapid Spanning Tree	Yes	
IEEE 802.1s Multiple Spanning Tree	Yes	
L2 Services - Multicast Filtering		
IGMP Snooping (v1, v2 and v3)	Yes	
MLD Snooping Support (v1 and v2)	Yes	
IGMP Snooping Queries	Yes	
Block Unknown Multicast	Yes	
Multicast VLAN Registration	Yes	
L2 Services - Multicast Filtering		
IGMP Snooping (v1, v2 and v3)	Yes	
MLD Snooping Support (v1 and v2)	Yes	
IGMP Snooping Queries	Yes	
Block Unknown Multicast	Yes	
Multicast VLAN Registration	Yes	
L3 Services - DHCP		
DHCP Client	Yes	
DHCP Snooping	Yes	
L3 Services - IPv4 Routing		
Static Routing	Yes	
VLAN Routing	Yes	
IP Source Guard	Yes	
Network Monitoring and Discovery Services		
802.1ab LLDP	Yes	
SNMP	v1, v2c, v3	
RMON 1,2,3,9	Yes	
Network Traffic		
Access Control Lists (ACLs)	L2 / L3 / L4	
IP-based ACLs (IPv4 and IPv6)	Yes	
MAC-based ACL	Yes	
TCP/UDP-based ACL	Yes	
MAC lockdown	Yes	
MAC lockdown by the number of MACs	Yes	
IEEE 802.1x Radius Port Access Authentication	Yes	

Network Traffic	GS724Tv4	GS748Tv5
Port-based security by locked MAC addresses	Yes	
Dynamic VLAN Assignment	Yes	
Dynamic ARP inspection	Yes	
Quality of Service (QoS)		
Access Lists	Yes	
L2 MAC, L3 IP and L4 Port ACLs	Yes	
Egress rate limiting	Yes	
Support for IPv6 fields	Yes	
DiffServ QoS	Yes	
IEEE 802.1p COS	Yes	
Dst MAC and IP	Yes	
IPv4 and v6 DSCP	Yes	
IPv4 and v6 TOS	Yes	
WRR (Weighted Round Robin)	Yes	
Strict Priority Queue Technology	Yes	
Auto-VoIP	Yes, based on protocols (SIP, H323 and SCCP) or on OUI bytes (default database and user-based OUIs) in the phone source MAC address	
Auto Video	Yes	
Port Mirroring	Yes	
IEEE Network Protocols		

- IEEE 802.3 Ethernet
- IEEE 802.3i 10BASE-T
- IEEE 802.3u 100BASE-T
- IEEE 802.3ab 1000BASE-T
- IEEE 802.1Q VLAN Tagging
- IEEE 802.3x Full-Duplex Flow Control
- IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX
- IEEE 802.3ae 10-Gigabit Ethernet
- IEEE 802.3ad Trunking (LACP)

- IIEEE 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	
Web-based Graphical User Interface (GUI)	Yes	
IPv6 Management	Yes	
Dual Software (firmware) Image	Yes	
Dual Configuration File	Yes	

Management	GS724Tv4	GS748Tv5
SNTP Client over UDP Port 123	Yes	
SNMP v1/v2C	Yes	
SNMP v3 with Multiple IP Addresses	Yes	
RMON 1,2,3,9	Yes	
Port Mirroring	Yes	
Many to One Port Mirroring	Yes	
Cable Test Utility	Yes	
SSL/HTTPS and TLS v1.0 for Web-based access	Yes	
File Transfers (uploads, downloads)	TFTP / HTTP	
HTTP Download (firmware)	Yes	
Syslog (RFC 3164)	Yes	
LEDs		
Per Port	Speed, Link, Activity	
Per Device	Per Device Power and Fan (GS748T only)	
Physical Specifications		
Weight (kg)	2.74 kg	3.46 kg
Dimensions (WxDxH) mm	440 x 204 x 43 mm	440 x 257 x 43 mm
Power Consumption (when all ports used, line-rate traffic and max PoE if applicable)		
Worst case, all ports used, line-rate traffic	17.4W	41.1W
Environmental Specifications		
Operating		
Operating Temperature	32° to 122°F (0° to 50°C)	
Humidity	90% maximum relative humidity, non-condensing	
Altitude	10,000 ft (3,000 m) maximum	
Storage		
Storage Temperature	– 4° to 158°F (–20° to 70°C)	
Humidity (relative)	(relative) 95% maximum relative humidity, non-condensing	
Altitude	0,000 ft (3,000 m) 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 RCM EN 50082-1 EN 55024 CCC	

Safety	GS724Tv4	GS748Tv5
Certifications	CE mark, commercial CSA certified (CSA 22.2 #950) UL listed (UL 1950)/cUL IEC 950/EN 60950	
Warranty and Support		
Hardware Limited Warranty	Limited Lifetime*	
Lifetime 24x7 online Technical Support*	Limited Lifetime*	
Lifetime Next-Business-Day (NBD) Replacement	Limited Lifetime*	
ProSUPPORT OnCall 24x7**	Category 1 PMB0311 (1 yr) PMB0331 (3 yr) PMB0351 (5 yr)	Category 1 PMB0311 (1 yr) PMB0331 (3 yr) PMB0351 (5 yr)
Package Contents		
All models	Gigabit Smart switch Power cord Rack mount kit Installation guide	
Ordering Information		
GS724T		
GS724T-400AJS	Asia	
GS724T-400EUS	Europe	
GS724T-400INS	India	
GS724T-400NAS	North America and Latin America	
GS724T-400PRS	China	
GS748T		
GS748T-500AJS	Asia	
GS748T-500EUS	Europe	
GS748T-500NAS	North America and Latin America	
GS748T-500PRS	China	
Optional Modules, Software License and Accessories		
GS724TAV-20000S	Ethernet Audio/Video (EAV) software license for GS724T-400	
GS748TAV-20000S	Ethernet Audio/Video (EAV) software license for GS748T-500	
AGM731F	1000Base-SX SFP GBIC (Multimode)	
AGM732F	1000Base-LX SFP GBIC (Single mode)	
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC	
AFM735-10000S (GS748T only, for combo port only)	100Base-FX SFP LC GBIC	

*This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and covers unmodified hardware, fans and internal power supplies – not software or external power supplies, and requires product registration at https://www.netgear.com/business/registration within 90 days of purchase; see https://www.netgear.com/about/warranty for details. Intended for indoor use only.

**The NETGEAR OnCall 24x7 contract provides unlimited phone, chat and email technical support for your networking product.