### ProSAFE® 10-Gigabit Ethernet Smart Managed Switches

Data Sheet

XS708T, XS716T, XS728T, XS748T





### Leading the industry with the 2nd generation of 10-Gigabit Smart Managed Switches, Purposely Designed for SMB with Cost-Effective 10GBASE-T Connectivity and Advanced L2+/ Layer 3 Lite Features

As a leading provider of network equipment for SMBs, NETGEAR® understands the importance of reliable and high performance networks. With the growth of virtualization, cloud-based services and applications like VoIP, video streaming and IP surveillance, SMB networks need to extend beyond simple reliability to higher speed and performance. The 10-Gigabit Smart Managed Switch series from NETGEAR presents the right solution for this requirement; delivering unprecedented non-blocking 10-Gigabit bandwidth at an affordable cost.

The NETGEAR ProSAFE® XS708T, XS716T, XS728T, and XS748T are powerful Smart Managed Switches that come with 8, 16, 24, or 44 10-Gigabit Copper ports and either 2 Shared (Combo) Copper/SFP+ ports (XS708T/XS716T) or 4 additional Dedicated SFP+ ports (XS728T/XS748T) for 10G Fiber links. The NETGEAR 10-Gigabit Smart Managed Switches are purposely designed as a cost-effective way to provide 10G connections to 10G-capable servers and NAS (Network Attached Storage) systems. They can be used at the "center of a small business network" or as an aggregation / access switch in a larger organization including workgroup access, connecting to a 10-Gigabit NETGEAR ProSAFE Fully Managed Switch on one end and extending the 10G connections to the edge. The XS708T and XS716T are also ideal for smaller workgroups that need high bandwidth for sharing, collaborating, editing, and publishing high-density content like video or animation.

### Highlights

The ProSAFE 10G Smart Managed Switches provide comprehensive L2+/Layer 3 Lite features in order to meet current and future needs on virtualization, converged networking and mobility. Some of the main features include:

- Advanced VLAN features such as Protocolbased VLAN, MAC-based (Media Access Control) VLAN and 802.1x Guest VLAN
- Advanced QoS (Quality of Service) with L2/ L3/L4 awareness and 8 priority queues
- IPv4 and IPv6 static routing
- · Private VLAN
- · Dynamic VLAN assignment
- · IGMP and MLD snooping
- Advanced Security
- $\cdot$  IPv6 for management, QoS and ACL

#### 10-Gigabit Transition with BASE-T

- 10GBASE-T, like other BASE-T technologies, uses the standard RJ45 Ethernet jack
- It is backward compatible, auto-negotiating between higher and lower speeds – thereby not forcing an all-at-once network equipment upgrade
- Cat5/Cat5e are supported for Gigabit speeds up to 100 meters

- Cat6 twisted pair copper cabling supports
   10-Gigabit speeds up to 45 meters
- Cat6a or newer Cat7 cabling will allow for up to 100 meter 10GBASE-T connections

#### Designed as Core Switch for SMB Network

- 10G connection to 10G-capable servers and network storage
- Powerful L2+/Layer 3 Lite features make them the most cost-effective core switches for SMB and virtualization environment
- Future-proof your network with 10G bandwidth, advanced traffic management and comprehensive IPv6 support
- Static routing helps to route internal traffic for more efficient use of network resources
- IGMP and MLD snooping provide advanced multicast filtering

## Act as Aggregation Switch for Medium Sized Networks

- 10-Gigabit switches help to resolve the congestion issue between network edge and core, which is caused by the broader adoption of Gigabit-to-the-desktop
- 10-Gigabit Ethernet provides greater scalability than multiple Gigabit Ethernet links, resulting in a simplified and highly efficient network infrastructure

- Up to eight 10-Gigabit Ethernet links can be aggregated into a virtual 80-Gbps connection
- 10-Gigabit Ethernet reduces cabling complexity and uses existing cabling efficiently

#### 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







## ProSAFE® 10-Gigabit Ethernet Smart Managed Switches

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#### Hardware at a Glance

			F	REAR			
Model Name	Form-Factor	100M/1G/10G Copper Ports	1G/10G Copper Ports	1G/10G SFP+ Ports	Firmware/ Config Access	Power Supply	Fans
XS708T	Rackmount	8		2 shared (combo)	1 x USB	1 internal PSU, fixed	1 internal, fixed fan
XS716T	Rackmount	16		2 shared (combo)	1 x USB	1 internal PSU, fixed	2 internal, fixed fans
XS728T	Rackmount		24	4 dedicated	1 x USB	1 internal PSU, fixed	4 internal, fixed fans
XS748T	Rackmount		44	4 dedicated	1 x USB	1 internal PSU, fixed	4 internal, fixed fans





XS708T: 8-port 10-Gigabit Smart Managed Switch

- 8 x 10GBASE-T copper ports supporting 10G/1G/100M speeds
- 2 x Shared (combo) 10GBASE-T copper/10GBASE-X SFP+ ports supporting 10G/1G speeds

XS728T: 28-port 10-Gigabit Smart Managed Switch

- 24 x Dedicated 10GBASE-T copper ports supporting 10G/1G speeds
- 4 x Dedicated 10GBASE-X SFP+ 10G ports supporting 10G/1G speeds





XS716T: 16-port 10-Gigabit Smart Managed Switch

- 16 x 10GBASE-T copper ports supporting 10G/1G/100M speeds
- 2 x Shared (combo) 10GBASE-T copper/10GBASE-X SFP+ ports supporting 10G/1G speeds

XS748T: 48-port 10-Gigabit Smart Managed Switch

- 44 x Dedicated 10GBASE-T copper ports supporting 10G/1G speeds
- 4 x Dedicated 10GBASE-X SFP+ 10G ports supporting 10G/1G speeds

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### 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 Effiecient 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	LLDP-MED, RADIUS, 802.1X	Yes	

### Performance at a Glance

Model Name	Packet buffer	CPU	ACLs	MAC Address Table RP/NDP Table VLANs	Fabric	Latency (Max Connection Speed)	Static Routes (IPv4 & IPv6)	Multicast IGMP Group
XS708T	2 MB	600 MHz Cortex-A9 Single Core, 512MB RAM 8MB SPI + 256 NAND FLASH	100 shared	16K MAC 738 ARP/NDP 256 VLANs	160Gbps line-rate	10GBASE-T: <3.012 μs 10GBASE- X SFP+: <2.466 μs	IPv4: 32 IPv6: 32	512
XS716T	2 MB	600 MHz Cortex-A9 Single Core, 512MB RAM 8MB SPI + 256 NAND FLASH	100 shared	16K MAC 738 ARP/NDP 256 VLANs	320Gbps line-rate	10GBASE-T: <2.624 μs 10GBASE-X SFP+: <2.128 μs	IPv4: 32 IPv6: 32	512
XS728T	3 MB	800 MHz Dual Core, 512MB RAM 8MB SPI + 256MB NAND Flash	164 shared	16K MAC 1K ARP/NDP 512 VLANs	560Gbps line-rate	10GBASE-T: <11.649 μs 10GBASE-X SFP+: <2.619 μs	IPv4: 64 IPv6: 64	512
XS748T	3 MB	800 MHz Dual Core, 512MB RAM 8MB SPI + 256MB NAND Flash	164 shared	16K MAC 1K ARP/NDP 512 VLANs	960Gbps line-rate	10GBASE-T: <3.674 μs 10GBASE-X SFP+: < 3.693 μs	IPv4: 64 IPv6: 64	512

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## Features at a glance

HARDWARE FEATURES	BENEFITS
10GBASE-T Copper Ethernet connections	Support low-latency, line-rate 10G Copper "BASE-T" technology with backward compatibility to Fast Ethernet and Gigabit Ethernet. Cost-effectively migrate current network to 10G capacity by utilizing the existing Cat6 RJ45 short connections (up to 30m) and Cat6a/Cat7 connections up to 100m.
10GBASE-X SFP+ ports	Providing flexibility to uplink to 10G-capable core or aggregation switches that support fiber links. Backward compatible to Gigabit fiber. Support copper or fiber modules.
USB Configuration Port	Quickly and conveniently upgrade or restore firmware, load or backup configuration files, or download system log files for troubleshooting.
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	Build current network with future in mind. Ensure investment protection and a smooth migration to an IPv6-based network without switch replacement.
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	Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware while allowing secure access for authorized users.
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.
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, H.323 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. Similarly, Auto-Video VLAN enables IGMP snooping to minimize broadcast streams.
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.
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 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.
Private VLAN	Private VLANs help reduce broadcast with added security.
Dual Firmware Images and Configuration Files	Dual firmware images and dual configuration files for transparent firmware updates/configuration changes with minimum service interruption.

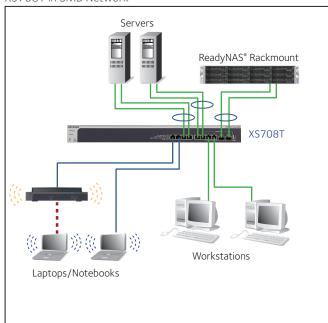
## ProSAFE® 10-Gigabit Ethernet Smart Managed Switches

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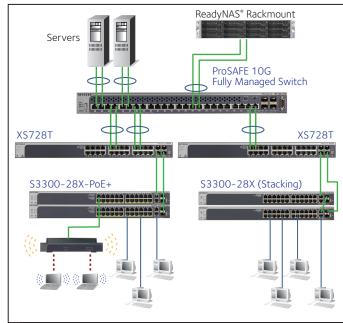
XS708T, XS716T, XS728T, XS748T

#### **Target Application**

#### XS708T in SMB Network



XS728T in Medium-sized Network



— 10GE link — GE link ---- Wireless link

#### Why 10-Gigabit Switches and Why from NETGEAR?

NETGEAR introduced the industry's first cost-effective 10-Gigabit Switches for SMBs in 2013 and is the leading provider for 10G solutions at affordable price points:

- · Ideal for SMBs to use as the core switch, connecting to 10G-capable Servers and network storage.
- Expand network capacity, remove performance bottlenecks and/or support premise expansion needs.
- Cost-effectively expand 10G bandwidth from core switch in medium-sized networks to access switches which are equipped with 10G uplinks.
- Powerful feature sets with advanced L2+/Layer 3 Lite functions, enhanced security measures, static routing, dynamic VLAN assignment and IPv6 management and support.
- · Improved usability for easier and smoother deployment of voice, video, and WLAN on the same converged platform.
- LIFETIME warranty on hardware, LIFETIME Next-Business-Day (NBD) replacement, LIFETIME tech support online chat, and 90-days Free Advanced Tech Phone Support\*\* for peace-of-mind.

# ProSAFE® 10-Gigabit Ethernet Smart Managed Switches

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## **Technical Specifications**

PRODUCT	XS708T XS716T		XS728T	XS748T			
100M/1G/10G RJ-45 copper ports	8	16	n/a	n/a			
1G/10G copper ports	n/a	n/a	24	44			
1G/10G SFP+ (fiber) ports	2 shared (combo)	2 shared (combo)	4 (dedicated)	4 (dedicated)			
USB port (for config file upload/backup & firmware updates)		Yı	es				
PERFORMANCE SPECIFICATION							
Packet buffer memory (Dynamically shared across only used ports)	21	МВ	31	МВ			
Forwarding modes		Store-and	d-forward				
Bandwidth	160Gbps	320Gbps	560Gbps	960Gbps			
Priority queues		{	3				
Priority queuing		Weighted Round Robin (	(WRR) and Strict Priority				
MAC Address database size (48-bit MAC addresses)		10	5K				
Multicast groups	512						
Number of IPv4 static routes	3	2	64				
Number of IPv6 static routes	3	2	64				
Number of VLANs	256		512				
Number of ARP cache entries	738 1024						
Number of DHCP snooping bindings	8	K	1	K			
Access Control Lists (ACLs)	100 shared for MAC, IP and IPv6 ACLs		164 shared for MA	C, IP and IPv6 ACLs			
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	119.0	238.0	416.6	714.2			
Jumbo frame support	Up to 9K p	acket size	Up to 10K packet size				
Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)	27.4 dBA	29.1 dBA	41.6 dBA	47.8 dBA			
Mean Time Between Failures (MTBF) @ 25°C	276,197 hours	276,832 hours	514,977 hours	483,808 hours			
L2 SERVICES - VLANS							
IEEE 802.1Q VLAN tagging		Y	es				
IP-based VLANs	Yes						
MAC-based VLANs	Yes						
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address voice packets must have 802.1Q VLAN tag						
Auto-VoIP	Yes, based o	n protocols (SIP, H.323 and S	SCCP). Prioritzes traffic to a l	nigher queue			
Voice VLAN	Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.			lo			
Auto-Video VLAN	Yes						
Private VLAN		Y	es				

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L2 SERVICES - AVAILABILITY  Broadcast, multicast, unknown unicast storm control  IEEE 802.3ad - LAGs (LACP)  IEEE 802.3x (full duplex and flow control)  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1w Rapid Spanning Tree Protocol  IEEE 802.1s Multiple Spanning Tree Protocol  Yes  IEEE 802.1s Multiple Spanning Tree Protocol  ICEE 802.1s Multiple Spanning Tree Protocol  Yes  ICEE 802.1s Multiple Spanning Tree Protocol  Yes	48T					
Broadcast, multicast, unknown unicast storm control  IEEE 802.3ad - LAGs (LACP)  IEEE 802.3x (full duplex and flow control)  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1w Rapid Spanning Tree Protocol  IEEE 802.1s Multiple Spanning Tree Protocol  Yes  IEEE 802.1s Multiple Spanning Tree Protocol  IGMP snooping (v1, v2 and v3)  MLD snooping support (v1 and v2)  IGMP snooping queries  Yes  IGMP snooping queries						
storm control  IEEE 802.3ad - LAGs (LACP)  IEEE 802.3x (full duplex and flow control)  Yes  IEEE 802.1D Spanning Tree Protocol  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)  MLD snooping support (v1 and v2)  IGMP snooping queries  Yes						
IEEE 802.3x (full duplex and flow control)  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1w Rapid Spanning Tree Protocol  IEEE 802.1s Multiple Spanning Tree Protocol  Yes  IEEE 802.1s Multiple Spanning Tree Protocol  Yes  L2 SERVICES - MULTICAST FILTERING  IGMP snooping (v1, v2 and v3)  Yes  MLD snooping support (v1 and v2)  IGMP snooping queries  Yes						
IEEE 802.1D Spanning Tree Protocol  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)  MLD snooping support (v1 and v2)  IGMP snooping queries  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 MLD snooping support (v1 and v2) Yes IGMP snooping queries Yes						
IEEE 802.1s Multiple Spanning Tree Protocol  L2 SERVICES - MULTICAST FILTERING  IGMP snooping (v1, v2 and v3)  MLD snooping support (v1 and v2)  IGMP snooping queries  Yes						
L2 SERVICES - MULTICAST FILTERING  IGMP snooping (v1, v2 and v3)  MLD snooping support (v1 and v2)  IGMP snooping queries  Yes						
IGMP snooping (v1, v2 and v3)  MLD snooping support (v1 and v2)  IGMP snooping queries  Yes						
MLD snooping support (v1 and v2)  IGMP snooping queries  Yes						
IGMP snooping queries Yes						
Block unknown multicast Yes						
Multicast VLAN Registration (MVR)  Yes  No						
L3 SERVICES - DHCP						
DHCP client Yes						
DHCP snooping Yes						
L3 SERVICES - ROUTING						
IPv4 static routing 32 64	64					
IPv6 static routing 32 64	64					
VLAN routing Yes	S					
Host ARP table (number of entries) 738 1024						
ICMP Router Discovery Protocol (IRDP)  Yes  No						
Number of IP VLAN interfaces (routed VLANs) 15 32						
LINK AGGREGATION						
IEEE 802.3ad - LAGs (LACP) Yes						
Manual Static LAG Yes						
8 L A(3 with max 8 members in each L A(3	vith max 8 n each LAG					
NETWORK MONITORING AND DISCOVERY SERVICES						
802.1ab LLDP Yes						
SNMP v1, v2c, v3	v1, v2c, v3					
RMON group 1,2,3,9 Yes						
NETWORK SECURITY						
IEEE 802.1x Yes	Yes					
Guest VLAN Yes						
RADIUS-based VLAN assignment via .1x Yes						
MAC-based .1x Yes						
RADIUS accounting Yes						
Access Control Lists (ACLs)  L2 / L3 / L4						
IP-based ACLs (IPv4 and IPv6) Yes						
MAC-based ACLs Yes						

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PRODUCT	XS708T	XS716T	XS728T	XS748T		
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	)	6	00		
IEEE 802.1x RADIUS port access authentication		Υ	es			
Port-based security by locked MAC addresses		Υ	es			
Dynamic ARP inspection	Ye	S	1	No		
Broadcast, multicast, unknown unicast storm control		Y	es			
DoS attacks prevention	Ye	S	1	No		
QUALITY OF SERVICE (QOS)						
Port-based rate limiting	Egress	only	Ingress and egress			
Port-based QoS		Υ	S			
Support for IPv6 fields	Yes					
DiffServ QoS	Yes					
IEEE 802.1p COS	Yes					
Destination MAC and IP	Yes					
IPv4 and v6 DSCP	Yes					
IPv4 and IPv6 ToS	Yes					
TCP/UDP-based	Yes					
Weighted Round Robin (WRR)		Υ	es			
Strict priority queue technology	Yes					
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI bytes user-based OUIs) in the ph		based OUIs) in the phone	default database and user- source MAC address, voice e 802.1Q VLAN tag		
Auto-VoIP	Yes, based or	n protocols (SIP, H.323 and	SCCP). Prioritzes traffic to a	higher queue		
Voice VLAN	Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED		No			
Auto-Video VLAN	Yes					

#### IEEE NETWORK PROTOCOLS

- IEEE 802.3 Ethernet
- IEEE 802.3u 100BASE-T (XS708T/XS716T only)
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3an 10GBASE-T 10Gbps Ethernet Over Copper Twisted Pair Cable
- IEEE 802.3ae 10-Gigabit Ethernet Over Fiber (10GBASE-LRM) XS708T/ XS716T only
- IEEE 802.3ae 10-Gigabit Ethernet Over Fiber (10GBASE-SR, 10GBASE-LR, 10GBASE-ER, 10GBASE-LX4) All models
- IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX
- IEEE 802.3x Full-Duplex Flow Control

- IEEE 802.1Q VLAN Tagging
- IEEE 802.3ad Trunking (LACP)
- 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
- IEEE 802.3az Energy Efficient Ethernet (EEE)

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PRODUCT	XS708T	XS716T	XS728T	XS748T		
MANAGEMENT						
Password management		Υ	'es			
Configurable management VLAN	Yes					
Admin access control via RADIUS and TACACS+		Υ	'es			
IPv6 management		Υ	'es			
SNTP client over UDP port 123		Υ	'es			
SNMP v1/v2c		Υ	'es			
SNMP v3 with multiple IP addresses		Υ	'es			
RMON group 1,2,3,9		Υ	'es			
Port mirroring		Υ	'es			
Many-to-one port mirroring	8	16	8	8		
Web browser-based graphical user interface (GUI)		Y	es es			
Smart Control Center (SCC) for multi-switch management		Υ	es es			
Dual software (firmware) image		Υ	'es			
Dual configuration file	Yes					
Cable test utility	Yes					
SSL/HTTPS Web-based access (version)	Yes (v3) Yes (v2)					
TLS Web-based access (version)	Yes (v1.0) Yes (v1.0 ~ v1.2)					
File transfers (uploads, downloads)		TFTP / HTTP				
HTTP upload/download (firmware)	Yes					
Syslog (RFC 3164)		Υ	'es			
USB port for firmware and config upload / download	Yes					
LEDS						
Per port		Speed, Lii	nk, 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)	440 x 204 x 43 mm (17.3 x 8 x 1.7 in)	440 x 310 x 43 mm (17.3 x 12.2 x 1.7 in)	440 x 310 x 43 mm (17.3 x 12.2 x 1.7 in)		
Weight	2.61 kg (5.76 lb)	2.98 kg (6.57 lb)	5.04 kg (11.11 lb)	6.25 kg (13.78 lb)		
POWER CONSUMPTION						
Max power (worst case, all ports used, line-rate traffic) (Watts)	49.5 W	96.0 W	134.9 W	262.8 W		
Min power (link-down standby) (Watts)	26.3 W	45.3 W	67. 8W	97.6 W		
Heat Dissipation (max and min) (BTU/hr)	Max: 169.00 BTU Min:: 89.79 BTU	Max: 327.74 BTU Min: 154.65 BTU	Max: 460.55 BTU Min: 231.57 BTU	Max: 897.17 BTU Min: 333.14 BTU		
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)					
Power back-off	No Drops power consumption by 15% to 20% when sho copper cables are detected					
Fan	1	2	4	4		

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PRODUCT	XS708T	XS716T	XS728T	XS748T			
ENVIRONMENTAL SPECIFICATIONS							
Operating							
Operating temperature	-5° to 55°C	(23° to 131°F)	0° to 50°C (	(32° to 122°F)			
Humidity (relative)		90% maximum relative humidity (RH), non-condensing					
Altitude		10,000ft (3,0	00m) maximum				
Storage							
Storage temperature	-10° to 70°C	-10° to 70°C (- 14° to 158°F) -20° to 70°C (- 4° to 158°					
Humidity (relative)		95% maximum relative l	numidity, non-condensing				
Altitude		10,000ft (3,0	00m) maximum				
ELECTROMAGNETIC EMISSIONS AND IMMI	JNITY						
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						
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*				
Lifetime 24x7 Online Technical Support*	Included, Lifetime*						
Lifetime Next-Business-Day (NBD) Replacement		Included	, Lifetime*				
ProSUPPORT OnCall 24x7, Category 2**	Category 1:	Category 2:	Category 3:	Category 4:			
Service Packs	PMB0311 (1 yr.) PMB0331 (3 yrs.) PMB0351 (5 yrs.)	PMB0312 (1 yr.) PMB0332 (3 yrs.) PMB0352 (5 yrs.)	PMB0313 (1 yr.) PMB0333 (3 yrs.) PMB0353 (5 yrs.)	PMB0314 (1 yr.) PMB0334 (3 yrs.) PMB0354 (5 yrs.)			

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XS708T, XS716T, XS728T, XS748T

### **Ordering Information**

PACKAGE CONTENT						
All Models	ProSAFE® 10-Gigabit Ethernet Smart Managed 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						
XS708T-100NES	North America, Latin America and Europe					
XS708T-100AJS	Asia Pacific and Australia					
XS708T-100PRS	China					
XS708T-100INS	India					
XS716T-100NES	North America, Latin America and Europe					
XS716T-100AJS	Asia Pacific and Australia					
XS716T-100PRS	China					
XS716T-100INS	India					
XS728T-100NES	North America, Latin America and Europe					
XS728T-100AJS	Asia Pacific and Australia					
XS728T-100PRS	China					
XS728T-100INS	India					
XS748T-100NES	North America, Latin America and Europe					
XS748T-100AJS	Asia Pacific and Australia					
OPTIONAL MODULES AND ACCES	SSORIES					
AXM761-10000S	SFP+ Transceiver 10GBASE-SR (Short range, multimode)					
AXM762-10000S	SFP+ Transceiver 10GBASE-LR (Long range, single mode)					
AXM763-10000S	SFP+ Transceiver 10GBASE-LRM (Long range, multimode) - XS708T/XS716T only					
AXM764-10000S	SFP+ Transceiver 10GBASE-LR Lite (Long range lite, single mode)					
AGM731F-10000S	SFP Transceiver 1000BASE-SX (Short range, multimode)					
AGM732F-10000S	SFP Transceiver 1000BASE-LX (Long range, single mode)					
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC					
AXC761-10000S	SFP+ DAC CABLE (1m)					
AXC763-10000S	SFP+ DAC CABLE (3m)					

<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.

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<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, 1Q15 Edition, June 2015.