10-Gigabit/Multi-Gigabit Ethernet Unmanaged Switches

Data Sheet

XS505M/XS508M



Unlock the Potential of your 10G/Multi-Gig devices

The XS505M and XS508M come with Copper Ethernet ports that provide either FastEthernet, 1-Gigabit, 2.5-Gigabit, 5-Gigabit or 10-Gigabit connectivity, as well as 1 SFP+ Fiber port with 1-Gigabit or 10-Gigabit connectivity.

Each port automatically detects which speed is needed by the connected device and provides the adequate speed. As opposed to regular 10-Gigabit switches that will only provide 1-Gigabit connectivity to any device that require less than 10-Gigabit, the XS505M gives the exact speed required, no downgrade. Also, the new NETGEAR Multi-speed switch ports can be connected with regular Cat5E Ethernet cables, without the need to upgrade to Cat6 wiring, therefore reducing wiring costs and hassle



Highlights

Multi-Speed Technology

• Expand your network instantly, and give your devices either 100Mb, 1, 2.5, 5 or 10 Gigabit, automatically

Plug and Play

Simple set up with no software or configuration needed

Flexible Mounting

 $\cdot \ {\sf Rackmount} \ {\sf or} \ {\sf Desktop} \ {\sf Switches}$

SFP+ Port

 One SFP+ Fiber port with 1-Gigabit or 10-Gigabit connectivity – Ideal for high-speed uplink connectivity to your core network

High Quality and Reliable Performance

 Durable metal case and long product life (shown by MTBF numbers)

Whisper Quiet

· Whisper Quiet switch with an active fan

Industry leading warranty

- · LIFETIME 24/7 Technical Support
- LIFETIME Hardware Warranty*







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Hardware at a Glance

Model Name	Form-Factor	10-Gig/Multi-Gig Copper Ports	Internal Power Supply	10G SFP+ Ports	LED's	Case Material	Fans
XS505M	Rackmount/ Desktop	4	Yes	1	Power, Fan, Port Link/Speed/Activity	Metal	Active Fan
XS508M	Rackmount/ Desktop	71	Yes	1 x 10G/1G SFP+ and Copper (combo)	Power, Fan, Port Link/Speed/Activity	Metal	Active Fan



XS505M

- 4 x 10-Gig/Multi-Gig Copper Ports
- 1 x SFP+ Ports
- 19-inch Rackmountable



XS505M-Back

· Internal PSU



XS508M

- 71 x 10-Gig/Multi-Gig Copper Ports
- 1 x 10G/1G SFP+ and Copper (combo)
- 19-inch Rackmountable



XS508M-Back

• Internal PSU

Performance at a Glance

Model Name	Fabric	Packet buffer	Latency (Max Connection Speed)	VLANS	MAC Address Table	Priority Queues	Multicast IGMP Group	Packet Forwarding Rate (64 byte)	Jumbo Frames (bytes)
XS505M	100 Gbps line-rate	128KB	10Gbps: 4.845us 1000Mbps: <4us 100Mbps: <6us	N/A	2K Entries (dynamic)	8 (WRR)	N/A	10Gbps: 14,880,952fps 5Gbps: 7,440,476fps	up to 9K
XS508M	160Gbps line-rate	128KB	10Gbps: 4.913us 1000Mbps: <4us 100Mbps: <6us	N/A	2K Entries (dynamic)	8 (WRR)	N/A	2500Mbps: 3,720,238fps 1000Mbps: 1,488,095fps 100Mbps: 148,810fps	up to 9K

¹ Port #8 is a combo Port

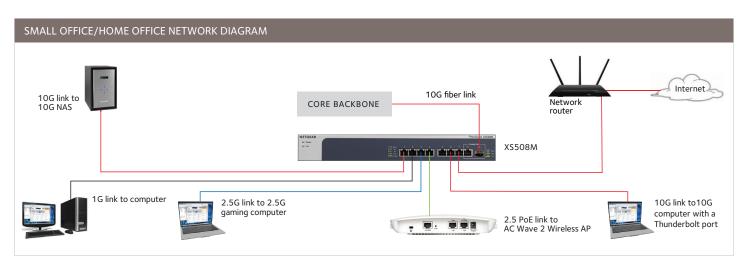
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Example Application

XS505M/XS508M in a Business Environment



Cables and Speed

The following table describes the network cables that you can use for the switch connections and the speeds that these cables can support, up to 100 meters (328 feet).

SPEED	CABLE TYPE	
100Mbps	Category 5 (Cat 5) or higher rated	
1Gbps, 2.5Gbps, or 5Gbps	Category 5e (Cat 5e) or higher rated	
10Gbps	Category 6A (Cat 6A) or higher rated	

Note: For speeds of 10 Gbps, if the cable length is shorter than 45 meters (148 feet), you can use a Cat 5e cable.

Why the NETGEAR 10-Gig/Multi-Gig Switches are ideal for SMB

- 1. Plug-and-play, automatic connectivity to your router or modem of 4 additional wired connections. No need for an IT expert!
- 2. Expand your network instantly, and give your devices either 100Mb, 1, 2.5, 5 or 10-Gigabit, automatically
- 3. Small and silent desktop or rackmount form factor for quiet operation Adapts to your needs and configuration in any environment
- 4. ProSAFE® LIFETIME Warranty, Next Business Day replacement and 24/7 chat with a NETGEAR expert
- 5. Energy efficient switches that automatically adjust power consumption according to the link status and cable length.

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Technical Specifications

PRODUCT	XS505M	XS508M		
100M/1G/2.5G/5G/10G RJ-45 copper ports	4	7		
10G SFP+ ports	1	1 x 10G/1G SFP+ and Copper (combo)		
Form Factor	Desktop/Rackmount	Desktop/Rackmount		
PERFORMANCE SPECIFICATION				
Packet buffer memory (Dynamically shared across only used ports)	128K	BMB		
Forwarding modes	Store-and	l-forward		
Bandwidth	100Gbps	160Gbps		
MAC Address database size (48-bit MAC addresses)	2	K		
Packet forwarding rate (64 byte packet size) (Mpps)	10Gbps: 14,880,952fps 5Gbps: 7,440,476fps 2500Mbps: 3,720,238fps 1000Mbps: 1,488,095fps 100Mbps: 148,810fps			
Speed / Latency	100Mbps: <6µs 1Gbps: <4µs 2.5Gbps: TBD 5Gbps: TBD 10Gbps : TBD			
Jumbo frame support	Up to 9K packet size			
Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)	22.5			
Mean Time Between Failures (MTBF) @ 25°C	1093237 hours	1145157 hours		
POWER/ENERGY EFFICIENCY)				
802.1p-based QoS/CoS Supported	Yes			
Auto Power Down	Yes			
Short Cable Detection/Power Saving	Yes			
QUALITY OF SERVICE (QOS)				
IEEE 802.3az (Energy Efficient Ethernet)	Yes			
Honors DSCP (DiffServ) Tags	Yes			
Weighted Round Robin (WRR)	Yes			
Priority Queues	8			
IEEE NETWORK PROTOCOLS				

- IEEE 802.3 Ethernet
- IEEE 802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3x Full-Duplex Flow Control
- IEEE 802.1p Class of Service
- IEEE 802.3az Energy Efficient Ethernet (EEE

- IEEE 802.3an 10GBASE-T
- IEEE 802.3bz 5Gbps and 2.5Gbps Ethernet Over Copper Twisted Pair Cable
- IEEE 802.3ae 10-Gigabit Ethernet Over Fiber
- IEEE 802.3aq 10-Gigabit over Fiber (10GBASE-LRM)
- IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX

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PRODUCT	XS505M		XS508M		
LEDS					
Per port	Speed, Link, Activity				
Per device	Power and Fan				
PHYSICAL SPECIFICATIONS					
Dimensions (W x D x H)	328 x 169 x 43.2 mm (12.91 x 6.65 x 1.7 in)				
Weight	1.38kg		1.49kg		
POWER CONSUMPTION					
Power Supply	Fixed internal PSU, 100-240V. Power cord localized to		Fixed internal PSU, 100-240VAC, 50-60Hz, 1.5A max Power cord localized to country of sale		
Max power (worst case, all ports used, line-rate traffic) (Watts)	22.5W		39W		
Min power (link-down standby) (Watts)	12.25		21.31		
Heat Dissipation (max and min) (BTU/hr)	85.3/46.	4	147.86/80.8		
Fan(s)		Х	.1		
ENVIRONMENTAL SPECIFICATIONS					
Operating					
Operating temperature		0° to 50°C (3	32° to 122°F)		
Humidity (relative)	95% maximum relative humidity (RH), non-condensing				
Altitude	10,000 ft (3,000 m) maximum				
Storage					
Storage temperature		−20° to 70°C	(– 4° to 158°F)		
Humidity (relative)	95	% maximum relative hun	nidity (RH), non-condensing		
Altitude		10,000 ft (3,00	10,000 ft (3,000 m) maximum		
ELECTROMAGNETIC EMISSIONS AND IMMUN	ITY				
Certifications		ICES-003:2016	5, SubpartB, ClassB 6 Issue 6, ClassB 3.4:2014		
	EN 55022:2010 + AC:2011, Class A EN 55024:2010 EN 61000-3-2:2014, Class A EN 6100-3-3:2013				
	AS/NZS CISPR 22:2009 + A1:2010, Class B				
	VCCI V-3/2015.04, Class A V-4/2012.4				
	Russia EAC mark				
	Korea KC mark				
	CNS 13438				
Electromagnetic Compliance (Class A or B)		Cla	ss B		

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PRODUCT	XS505M	XS508M			
SAFETY CERTIFICATIONS					
Certifications	CB mark, commercial IEC 60950-1:2005(ed.2) + A1:2009 + A2:2013				
	UL/cUL Listed (UL 60950-1)/CAN/CSA C22.2 No. 60960-1-07				
	EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013				
	IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013				
	AS/NZS 60950.1:2015				
	Russia EAC mark				
WARRANTY AND SUPPORT					
	ProSAFE Limited I	Lifetime Warranty			
	Lifetime 24x7 Online Technical Support*				
	Lifetime Next-Business-	Day (NBD) Replacement			
ProSUPPORT OnCall 24x7, Service Packs**	Category 1: PMB0311 (1 yr.) PMB0331 (3 yrs.) PMB0351 (5 yrs.)				

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Ordering Information

PACKAGE CONTENT					
All Models	XS505M or XS508M 10-Gigabit/Multi-Gigabit Ethernet Unmanaged Switch				
	Power cord (localized to country of sale)				
	Rack-mounting kit				
	Quick install guide				
Easy-Mount additional options (GS418TPP)	Mount for attachment to a wall, or rectangular pole				
	Rubber belts				
	Velcro straps				
	Power cord locker				
ORDERING INFORMATION					
XS505M-100NAS	North America and Latin America				
XS505M-100EUS	Europe and United Kingdom				
XS505M-100AJS Asia Pacific and Australia					
XS508M-100NAS	North America and Latin America				
XS508M-100EUS	Europe and United Kingdom				
XS508M-100AJS	Asia Pacific and Australia				
OPTIONAL MODULES AND ACCESSORIES					
AFM735	SFP Transceiver 100BASE-FX (multimode)				
AGM731	SFP Transceiver 1000BASE-SX (Short range, multimode)				
AGM732F	SFP Transceiver 1000BASE-LX (Long range, single mode)				
AGM734 SFP Transceiver 1000BASE-T Copper RJ45 GBIC					
AXC761	10GSFP+ Cu (passive) SFP+ to SFP+ Direct Attach Cable 1m				
AXC763	10GSFP+ Cu (passive) SFP+ to SFP+ Direct Attach Cable 3m				
AXM761	10GBASE-SR SFP+ GBIC (OM3/OM4 Multimode)				
AXM762	10GBASE-LR SFP+ GBIC (Single mode)				
AXM763	10GBASE-LRM SFP+ GBIC (Long Reach Multimode for OM1/OM2, also compatible with OM3/OM4)				
AXM764	10GBASE-LR LITE SFP+ GBIC (Single mode)				

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^{*} 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.