NETGEAR ProSafe Gigabit Switches Reference Guide

NETGEAR offers a complete line of reliable, affordable Gigabit switches from Layer 3 managed to lightly managed Smart Switches to unmanaged switches. All NETGEAR ProSafe switches are standards based, fully-compatible with existing 10/100/1000 network infrastructure and easy to use and install.

NETGEAR ProSafe Gigabit Layer 2 and Layer 3 Managed Switches

NETGEAR's ProSafe line of Layer 2 and Layer 3 Gigabit Managed Switches maximizes network management and performance. With a full set of QoS features that enhance network capabilities while protecting your infrastructure investment, these cost-effective, feature-rich switches also deliver wire-speed, non-blocking performance for maximum throughput where you need it —high-performance workgroups at the edge of the network, a backbone for Fast Ethernet switches or Gigabit servers in demanding growing networks.

					
	Layer 3 Managed	**Layer 3 Managed**	**Layer 2 Managed**	**Layer 2 Managed**	**Layer 2 Managed**
Product Name	GSM7324	GSM7312	GSM7248	GSM7224	GSM7212
Product Description	ProSafe 24 Port Gigabit Layer 3 Managed Switch	ProSafe 12 Port Gigabit Layer 3 Managed Switch	ProSafe 48 Port Gigabit L2 Managed Switch	ProSafe 24 Port Gigabit L2 Managed Switch	ProSafe 12 Port Gigabit L2 Managed Switch
Key Features	• 24 10/100/1000 Mbps Copper Ethernet ports • 2 10/100/1000 Mbps Copper/Fiber combo ports	• 12 10/100/1000 Mbps Copper Ethernet ports • 12 10/100/1000 Mbps Copper/Fiber combo ports	• 48 10/100/1000 Mbps ports • 4 Small form-factor pluggable (SFP) slots for optional fiber gigabit connectivity	• 24 10/100/1000 Mbps ports • 4 Small form-factor pluggable (SFP) slots for optional fiber gigabit connectivity	• 12 10/100/1000 Mbps ports • 12 Small form-factor pluggable (SFP) slots for optional fiber gigabit connectivity
Switching	• Layer 3 - OSPF, RIP I/RIP II, Static, VLAN routing, ACLs, QoS • Layer 2 - Trunking, VLAN, QoS, ACLs		Layer 2 - Trunking, VLAN, QoS, ACLs		
Management	SNMP, RMON, DHCP, Jumbo Frames		SNMP, RMON, DHCP, Jumbo Frames		
Security	802.1x, RADIUS log-in, trusted MAC, trusted IP, MAC lock-down		802.1x, RADIUS log-in, trusted MAC, trusted IP, MAC lock-down		
Other	Optimized for ProSafe Network Management Software NMS100		Optimized for ProSafe Network Management Software NMS100		
Ideal for	Layer 3 switching for the core of your network; server farms and high-speed workgroups.		Ideal for high density, high performance desktop, server and backbone connectivity. Upgrade larger, congested desktop or server environments to speedy Gigabit Ethernet connectivity.		

NETGEAR ProSafe Gigabit Smart Switches

NETGEAR's family of ProSafe Gigabit Smart Switches fill the gap between unmanaged and fully managed switches. Priced like unmanaged switches, they offer popular features like centralized control, monitoring, SNMP, and troubleshooting—capabilities traditionally found on more expensive, fully managed switches. Ideal for growing businesses that want control over their network, without the cost and complexity of a full Layer 2/Layer 3 management implementation.

			
Model Number	**GS748T**	**GS724T**	**GS716T**
Product Name	ProSafe 48 Port Gigabit Smart Switch	ProSafe 24 Port Gigabit Smart Switch	ProSafe 16 Port Gigabit Smart Switch
Features	• 48 10/100/1000 Mbps Copper Ethernet ports • 4 Small Form-factor Pluggable (SFP) GBIC slots	• 24 10/100/1000 Mbps Copper Ethernet ports • 2 Small Form-factor Pluggable (SFP) GBIC slots	• 24 10/100/1000 Mbps Copper Ethernet ports • 2 Small Form-factor Pluggable (SFP) GBIC slots
Switching	Layer 2 - Trunking, VLAN, prioritization		
Web-based Management	SNMP v1, Spanning Tree, VLAN, DHCP, Jumbo Frames		
Other	Optimized for ProSafe Network Management Software NMS100		
Ideal for	• Cost-effective Gigabit wiring closet solution or a high performance backbone aggregation device for power users and high-demand servers in small and medium sized businesses • Small businesses, multimedia classrooms, creative or engineering departments, workgroups, or gaming groups using bandwidth intensive applications.		

ProSafe Gigabit Unmanaged Switches

The standards-based ProSafe Gigabit Unmanaged Switches are ideal for small offices, conference rooms, workgroups or classrooms. Available in two form factors: compact size for desktops and small spaces as well as rackmountable size for installation into standard 19" racks. All switches are housed in a sturdy metal case for years of dependable use and packed with ease-of-use features to simplify your workday experience.

	Desktop			**Rackmount**				
								
Model number	**GS116**	**GS108**	**GS105**	**GS524T**	**GS516T**	**JGS524**	**JGS524F**	**JGS516**
Description	ProSafe 16 Port Gigabit Desktop Switch	ProSafe 8 Port Gigabit Desktop Switch	ProSafe 5 Port Gigabit Desktop Switch	ProSafe 24 Port Gigabit Rackmount Switch	ProSafe 16 Port Gigabit Rackmount Switch	ProSafe 24 Port Gigabit Rackmount Switch	ProSafe 24 Port Gigabit Rackmount Switch & 2 SFP slots	ProSafe 16 Port Gigabit Rackmount Switch
Ideal for	Ideal for small office, small or medium sized conference rooms, classrooms, home office, small workgroups, study groups or desktop connectivity			Ideal for small and medium size office, power users, workgroups, multimedia classrooms or businesses, creative departments or to quickly upgrade workstations to Gigabit.				

Technical Specifications

	L3 Managed		L2 Managed			Smart Switch			Unmanaged Rackmount					Unmanaged Desktop		
	GSM7324	GSM7312	GSM7212	GSM7224	GSM7248	GS716T	GS724T	GS748T	GS524T	GS516T	JGS524	JGS524F	JGS516	GS116	GS108	GS105
10/100 Mbps ports	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/100/1000 Mbps ports	24	12	12	24	48	16	24	48	24	16	24	24	16	16	8	5
GBIC Module slots*	4 SFP	2 SFP	12 SFP	4 SFP	4 SFP	2 SFP	2 SFP	4 SFP	0	0	0	2	0	0	0	0
Auto Uplink every port	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RS232 Console port	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
# of priority queues	4	4	4	4	4	2	2	2	0	0	0	0	0	0	0	0
Bandwidth/backplane	40 Gbps	24 Gbps	24 Gbps	48 Gbps	96 Gbps	32 Gbps	48 Gbps	80 Gbps	48 Gbps	32 Gbps	48 Gbps	48 Gbps	48 Gbps	32 Gbps	16 Gbps	10 Gbps
MAC Addresses	16,000	16,000	8,000	4,000	8,000	8,000	8,000	16,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Packet forwarding	29.6 Mpps	17.9 Mpps	17.9 Mpps	35.7 Mpps	71.4 Mpps	34 Mpps	34 Mpps	57 Mpps	34 Mpps	23 Mpps	34 Mpps	34 Mpps	23 Mpps	23 Mpps	11 Mpps	7 Mpps
Accoustic Noise	60 dB	60 dB	41.6 dB	60 dB	47 dB	< 45 dB	< 45 dB	< 45 dB	0	0	0	0	0	0	0	0
Latency	20 µ (max)	20 µ	<20 µ	20 µ (max)	<20 µ	20 µ (max)	20 µ (max)	20 µ (max)	30 µ	30 µ	20 µ	20 µ	20 µ	10 µ (max)	10 µ (max)	10 µ (max)
Mean Time Between Failure	166,600 hours	166,600 hours	61,349 hours	58,300 hours	57,800 hours	126,700 hours	126,700 hours	69,300 hours			87,600	87,600	87,600	220,000	113,890	193,000
Queue Buffer Memory (per port)	122 Kbytes	122 Kbytes	171 Kbytes	122 Kbytes	122 Kbytes	512 Kbytes	512 Kbytes	1,632 Kbytes	?? Kbytes	?? Kbytes	?? Kbytes	?? Kbytes	?? Kbytes	512 Kbytes	32 Kbytes	12 Kbytes
Status LEDs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
802.1x	✓	✓	✓	✓	✓											
Access Control Lists (ACL)	✓	✓														
Broadcast Control	✓	✓	✓	✓	✓											
DHCP client	✓	✓	✓	✓	✓	✓	✓	✓								
DHCP server	✓	✓	✓	✓	✓											
DiffServ	✓	✓	✓	✓	✓											
Jumbo Frames	✓	✓	✓	✓	✓	✓	✓	✓								
Layer 4 prioritization	✓	✓														
Management (CLI, Telnet)	✓	✓	✓	✓	✓											
Management (web-based)	✓	✓	✓	✓	✓	✓	✓	✓								
Password protected	✓	✓	✓	✓	✓	✓	✓	✓								
Policy Based QoS	✓	✓														
Port Configuration	✓	✓	✓	✓	✓	✓	✓	✓								
Port Mirroring	✓	✓	✓	✓	✓	✓	✓	✓								
Port Trunking	Manual & LACP	Manual & LACP	Manual & LACP	Manual & LACP	Manual & LACP	Manual	Manual	Manual								
Radius Authentication	✓	✓	✓	✓	✓											
Rate Limiting	✓	✓														
RIP I/RIP II, OSPF	✓	✓														
RMON	1,2,3 & 9	1,2,3 & 9	1,2,3 & 9	1,2,3 & 9	1,2,3 & 9											
Routing Redundancy	VRRP	VRRP														
SNMP	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3	v1	v1	v1								
Spanning Tree, Rapid	✓	✓	✓	✓	✓											
Spanning Tree, Multiple	✓	✓	✓	✓	✓											
Spanning Tree	✓	✓	✓	✓	✓	✓	✓	✓								
SSL/SSH & HTTPS	✓	✓	✓	✓	✓											
Traffic Prioritization (802.1p)	✓	✓	✓	✓	✓	✓	✓	✓								
VLAN (# supported)	228	228	512	512	512	64	64	64								
Dimensions	W 17.32" (440 mm) x D 15.16" (385 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.16" (285 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.16" (257 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.16" (257 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.16" (257 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.25" (260 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.25" (260 mm) x H 1.7" (43 mm)	W 17.32" (440 mm) x D 10.25" (260 mm) x H 1.7" (43 mm)	W 13" (330 mm) x D 8" (202 mm) x H 1.7" (43 mm)	W 13" (330 mm) x D 8" (202 mm) x H 1.7" (43 mm)	W 13" (330 mm) x D 8.2" (207 mm) x H 1.7" (43 mm)	W 13" (330 mm) x D 8.2" (207 mm) x H 1.7" (43 mm)	W 13" (330 mm) x D 8.2" (207 mm) x H 1.7" (43 mm	W 11.22" (285 mm) x D 4.06" (103 mm) x H 1.06" (27 mm)	W 11.29" (287 mm) D x 3.93" (100 mm) x H 0.98" (25 mm)	W 6.22" (158 mm) x D 4.13" (105 mm) x H .98" (25 mm)
IEEE Standards Compliance	IEEE 802.3i 10BASE-T, - IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3x Flow Control, IEEE 802.1Q, IEEE 802.1p, IEEE 802.1D, IEEE 802.1ad, IEEE 802.1x, IEEE 802.1w, IEEE 802.1s, RIPv2/OSPFv2, IGMP		IEEE 802.3i 10BASE-T, - IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3x Flow Control, IEEE 802.1Q, IEEE 802.1p			IEEE 802.3i 10BASE-T, - IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3x Flow Control, IEEE 802.1Q, IEEE 802.1p, IEEE 802.1D, IEEE 802.1ad, IEEE 802.1x			IEEE 802.3i 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, IEEE 802.3x Flow Control (GS116 only: IEEE 802.1p, WWR scheduling)							
Operating System	Windows®, MAC OS, NetWare®, Linux®		Windows®, MAC OS, NetWare®, Linux®			Windows®, MAC OS, NetWare®, Linux®			Windows®, MAC OS, NetWare®, Linux®							
Module Add On	AGM731F 1000BASE-SX SFP GBIC AGM732F 1000BASE-LX SFP GBIC AGM733 1000BASE-ZX SFP GBIC		AGM731F 1000BASE-SX SFP GBIC AGM732F 1000BASE-LX SFP GBIC AGM733 1000BASE-ZX SFP GBIC			AGM731F 1000BASE-SX SFP GBIC AGM732F 1000BASE-LX SFP GBIC AGM733 1000BASE-ZX SFP GBIC						AGM731F 1000BASE-SX SFP GBIC AGM732F 1000BASE-LX SFP GBIC AGM733 1000BASE-ZX SFP GBIC				
Package Contents	Null modem cable, Rubber footpads, Power cable, Rack-mount kit, Installation Guide, Resource CD, ProSafe NMS100 30-Day Trial CD-ROM, Support/Warranty card		Rubber footpads, Power cable, Rack-mount kit, Installation Guide, Support/Warranty card			Null modem cable, Rubber footpads, Power cable, Rack-mount kit, Installation Guide, Resource CD, ProSafe NMS100 30-Day Trial CD-ROM, Support/Warranty card			Rack-mount kit, AC adapter, Installation guide, Warranty/Support information card					Wall mount kit, AC adapter, Installation guide, Warranty/Support information card		
Warranty	Ltd Lifetime		5 years			5 years			5 years			5 years		5 years		
Warranty power supply	Ltd Lifetime		5 years			5 years			2 years			2 years		2 years		
Premium Support & Switch Support Pack Available	P3L31/1-Year / P3L33/3-Year		P3L21 - 1-Year / P3L23 - 3-Year			P3L21 - 1-Year / P3L23 - 3-Year										

Notes: GBIC is a standard for Gigabit Ethernet Modules. SFP is Small Form-factor Pluggable GBIC.

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