



NETGEAR[®]

ProSAFE[®]
Fully Managed Switch

Reviewer's Guide

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NETGEAR® CONTACT INFO

If you have any questions or technical issues, please contact your assigned NETGEAR® contacts for this review listed below.

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PRODUCT CATEGORY

Switches	Wireless	Storage	Security
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OVERVIEW

Thank you for taking the time to evaluate the NETGEAR ProSAFE® line of fully managed switches. NETGEAR is the global market leader in number of switch ports shipped. NETGEAR switches are reliable, affordable, and simple; built for businesses ranging from SOHO to mid-enterprise.

The NETGEAR fully managed switch line ranges from Core Modular Chassis switches, to 10 Gigabit Aggregation switches, to Next-Gen Edge switches with virtual chassis stacking technology, all the way to the access layer with our Intelligent Edge switches.

WHAT'S NEW

We are always working on adding new useful features to our products. Be sure to take these features into consideration during the review.

New M6100 Series Chassis Switch

The ProSAFE M6100 switch series is a **high-quality, high-density** chassis alternative to stackable switches for **midsize enterprise edge** and **SMB core** deployments. It is the world's first all-in-one passive backplane chassis priced under \$10k* - with zero licensing charges, truly providing SMB customers with a more affordable, uniquely flexible, and higher performing chassis.



The M6100 Chassis Switch

M6100 Highlights

- 3-slot switch chassis in a compact 4U form-factor
- Up to 144 x RJ45 10/100/1000 ports or 120 x SFP 100/1000 ports
- Up to 72 x RJ45 10GBASE-T ports or 48 x SFP+ 1000/10GBASE-X ports
- 1.4 Tbps routing/switching capacity, up to 1071 Mpps throughput, 480Gbps distributed inter-module fabric
- IPv6 L3 features (OSPF, PBR, BGP, DCBX, PFC, ETS, FIP Snooping)
- Fabric and Management redundancy and passive backplane

*\$10k is based on the M6100 Starter Kit XCM8903SK-10000S MSRP. Actual pricing variances will apply in region and will also dependent on final configuration.

- Distributed fabric removes the need for a dedicated supervisory module
- Non-stop switching, non-stop routing with hitless failover
- N+1 redundancy for power supplies
- Full PoE+ provisioning and UPOE support
- Full Lifetime Warranty, Lifetime NBD, Lifetime Technical Support via chat



M6100 Series Options

Model name	Form-Factor	FRONT		REAR	SIZE		Model number
		I/O Slots	PSU Bay	Fan Tray	Height	Depth	
M6100-3S	Chassis	3 open line-card slots	4 power supply slots (N+1) 8 with additional 1U shelf	Front to back EPS connectors	4U height 7 in (17.78 cm)	17.39 in (44.16 cm)	XCM8903

Model name	Form-Factor	LINE-CARDS				Model number
		10/100/1000BASE-T RJ45 ports	100/1000BASE-X Fiber SFP ports	100/1000/10GBASE-T RJ45 ports	1000/10GBase-X Fiber SFP+ ports	
XCM8948	I/O Blade	48	-	-	-	XCM8948
XCM8944	I/O Blade	40	-	2	2 (independent)	XCM8944
XCM8944F	I/O Blade	-	40	2	2 (independent)	XCM8944F
XCM8924X	I/O Blade	-	-	24	16 (shared with 10GBASE-T)	XCM8924X

Model name	Form-Factor	ACCESSORIES		Model number
		Notes		
XCM89P	Daughter Card	Add PoE+ 802.3at functionality to XCM8948 and XCM8944 blades (1 card per blade)		XCM89P
XCM89UP	Daughter Card	Add UPOE functionality to XCM8948 and XCM8944 blades (1 card per blade)		XCM89UP
APS1000W	Power Supply	PSU 1,000W AC		APS1000W
AFT603	Fan Tray	Fan Tray for M6100-3S chassis (front-to-back cooling principle)		AFT603
RPS4000v2	External PSU Bay	Additional 1U power shelf (EPS unit with four open power supply slots)		RPS4000v2

M6100-44G4-POE+ Starter Kit






The M6100-3S base chassis is not orderable as a separate SKU. The starter kit (XCM8903SK-10000S) is the base ordering sku and includes the following:

M6100-3S Base chassis (XCM8903)

- 1 blade 40x1G + 4x10G (XCM8944)
- 1 PoE+ daughter card (XCM89P)
- 1 power supply unit (APS1000W)
- 1 fan tray front to back (AFT603)
- 2 blank panels for open blade slots
- 3 blank panels for empty PSU slots
- Handles for rack-mount kit
- Rack-mount kit for 2-post racks + Sliding rails kit for 4-post racks
- Ordering SKU: **XCM8903SK-10000S**

MODELS

Below is a comparison table on the differences between the NETGEAR Fully Managed Switch categories.

	Core Modular Solutions M8800 Series	10 Gigabit Aggregation M7300/M7100 Series	Campus Edge and SMB Core Chassis M6100 Series	Next-Gen Edge M5300 Series	Intelligent Edge M4100 Series
					
Models	XCM8806 XCM8810	M7100-24X M7300-24XF	M6100-3S	M5300-28G M5300-52G M5300-28G3 M5300-52G3 M5300-28GF3 M5300-28G-POE+ M5300-52G-POE+	M4100-D10-POE M4100-26-POE M4100-50-POE M4100-D12G M4100-D12G-POE+ M4100-12GF M4100-12G-POE+ M4100-26G M4100-50G M4100-26G-POE M4100-24G-POE+ M4100-50G-POE+
Highlights	<p>Hardware High Availability: redundant supervisor modules with automated failover, and redundant power supplies.</p> <p>Software High Availability: pre-emptive multitasking OS, failure monitoring and automated recovery.</p> <p>Enterprise grade security for in-depth defense against threats, intrusions, and denial-of-service attacks</p>	<p>Full 10 Gigabit switch w/backwards compatibility for 1 Gigabit connections</p> <p>Virtual Chassis Stacking Technology – Up to 80Gbps backplane</p> <p>Distributed LACP allows for active-active server teaming to easily deploy resilient virtualization</p> <p>10 Gigabit performance: 480Gbps, 357Mpps, <1.59µs latency</p> <p>Data Center availability: hot swap dual PSU, front-to-back air cooling, two replaceable fan trays</p>	<p>High Availability: non-stop switching, non-stop routing and hitless failover supported for both fabric and management. N+1 redundancy for power supplies Fabric and Management redundancy and passive backplane</p> <p>Performance: 1.4 Tbps total routing/switching capacity and up to 1,071 Mpps intra-blade throughput 480 Gbps distributed fabric</p> <p>High Density: Only 4U height Supports 144 RJ45 10/100/1000 ports, or 120 SFP 100/1000 ports, or 72 RJ45 10GBASE-T ports, or 48 SFP+ 1000/10GBASE-X ports, or a combination of</p>	<p>Virtual Chassis Stacking Technology – Up to 48Gbps backplane</p> <p>10 Gigabit Uplinks</p> <p>Distributed LACP allows for active-active server teaming to easily deploy resilient virtualization</p>	<p>Designed for cost effective, converged voice, video and data</p> <p>Comprehensive L2, Lite L3 and L4 Switching</p>
Target Deployments	For deployment at the network core	Top-of-Rack in datacenters Distribution layer for enterprise networks	At the network edge for: Enterprise/ Campus networks Network core for SMB	At the network edge for: Enterprise networks Campus networks Healthcare Hospitalities	At the network edge for: Enterprise networks Campus networks Healthcare Hospitalities
Centralized Management	NETGEAR NMS300 Network Management System*				
Support		<ul style="list-style-type: none"> Lifetime Next Business Day replacement Lifetime Tech Support (Except for XCM8810/XCM8806) 			
Warranty	3 Year Warranty	Lifetime Warranty			

*Available Q3 2013

For more information and detailed specs on the different models please visit:
<http://www.netgear.co.uk/business/products/switches/managed/>

GLOBAL LINEUP

Here you will find the global model lineup for all NETGEAR Fully Managed Switches

NETGEAR Fully Manager Switches			
NETGEAR INTELLIGENT EDGE			
   	M4100 Series	Standalone L2+ series, Fast Ethernet / Gigabit	
	Model Name	Description	Ordering SKU
	M4100-D10-POE	Desktop 8 x FE PoE 802.3af (66W) + 2 combo GE RJ45/SFP	FSM5210P-100NES
	M4100-26-POE	24 x FE PoE 802.3af (380W) + 2 combo GE RJ45/SFP	FSM7226P-100NES
	M4100-50-POE	48 x FE PoE 802.3af (380W) + 2 combo GE RJ45/SFP	FSM7250P-100NES
	M4100-D12G	Desktop 12 x GE RJ45 with 2 shared SFP, Desktop PD mode	GSM5212-100NES
	M4100-D12G-POE+	Desktop 12 x GE PoE+ 802.3at (125W) with 4 shared SFP, Pass-Through mode	GSM5212P-100NES V1H2
	M4100-12GF	12 x GE RJ45 with 12 shared SFP, 4 x GE PoE+ 802.3at (150W)	GSM7212F-100NES V1H2
	M4100-12G-POE+	12 x GE PoE+ 802.3at (380W) + 4 shared SFP	GSM7212P-100NES V1H2
	M4100-26G	26 x GE RJ45 with 4 shared SFP	GSM7224-200NAS V2H2
	M4100-50G	50 x GE RJ45 with 4 shared SFP	GSM7248-200NAS V2H2
	M4100-26G-POE	24 x GE PoE 802.3af (190W) + 2 GE and 4 shared SFP	GSM7226LP-100NES
	M4100-24G-POE+	24 x GE PoE+ 802.3at (380W) + 4 shared SFP	GSM7224P-100NES V1H2
	M4100-50G-POE+	48 x GE PoE+ 802.3at (380W) + 2 GE + 4 shared SFP	GSM7248P-100NES
NETGEAR NEXT-GEN EDGE			
   	M5300 Series	Stackable L2+ / L3 series, Gigabit / 10 Gigabit	
	Model Name	Description	Ordering SKU
	M5300-28G	24 x GE RJ45 + 4 shared SFP + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L2+ with L3 upgrade)	GSM7228S-100NES
	M5300-52G	48 x GE RJ45 + 4 shared SFP + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L2+ with L3 upgrade)	GSM7252S-100NES
	M5300-28G-POE+	24 x GE PoE+ 802.3at (384W) + 4 shared SFP + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L2+ with L3 upgrade)	GSM7228PS-100NAS V1H2
	M5300-52G-POE+	48 x GE PoE+ 802.3at (384W) + 4 shared SFP + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L2+ with L3 upgrade)	GSM7252PS-100NAS V1H2
	M5300-28GF3	24 x SFP + 4 shared GE RJ45 + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L3)	GSM7328FS-200NES
	M5300-28G3	24 x GE RJ45 + 4 shared SFP + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L3)	GSM7328S-200NAS V2H2
M5300-52G3	48 x GE RJ45 + 4 shared SFP + 2 combo SFP+/10GBase-T + 2 additional 10GE bays (L3)	GSM7352S-200NAS V2H2	
NETGEAR CAMPUS EDGE SMB CORE			
   	M6100 Series	Edge/Core L2+/L3 Chassis	
	Model Name	Description	Ordering SKU
M6100-3S	4-slot chassis starter kit	XCM8903SK-10000S	
NETGEAR 10 GIGABIT AGGREGATION			
   	M7100 Series	Standalone 10GbE L2+ Copper	
	Model Name	Description	Ordering SKU
	M7100-24X	24 x 10GBase-T + 4 shared SFP+	XSM7224-100NES
	M7300 Series	Stackable 10GbE L2+ / L3 Fiber	
Model Name	Description	Ordering SKU	
M7300-24XF	24 x SFP+ ports + 4 shared 10GBase-T	XSM7224S-100NAS	
NETGEAR CORE MODULAR			
	M8800 Series	Core L3 Chassis	
	Model Name	Description	Ordering SKU
	XCM8806	6-slot chassis	XCM8806-10000S
	XCM8810	10-slot chassis	XCM8810-10000S

TESTING & DEPLOYMENT

Note: Please make sure the switch is installed with the latest firmware before testing.

The latest firmware can be found at: <http://support.netgear.co.uk/>.

You can also contact your assigned NETGEAR technical contact for the latest firmware.

To find the latest firmware:

1. Go to <http://support.netgear.co.uk> and enter the model number into the **Find Your Product** field.
2. Once you are on the support page for the product you will see a link to the latest firmware.
3. Download the latest firmware to your computer.
4. Login to the switch web GUI and go to **Maintenance -> Download -> HTTP File Download**.
5. Select the file type as **Archive**
6. Select which of the firmware images you want to replace
7. Click **Select File**, choose the firmware image file you just downloaded and click **OK**
8. Click **APPLY**
9. After the file is successfully transferred, go to **Maintenance -> File Management -> Dual Image Configuration** and check the box next to the image the new firmware resides on.
10. Under **Next Active Image**, change the value to **True**.
11. Click **APPLY**
12. Go to **Maintenance -> Reset -> Device Reboot**
13. Click **APPLY**

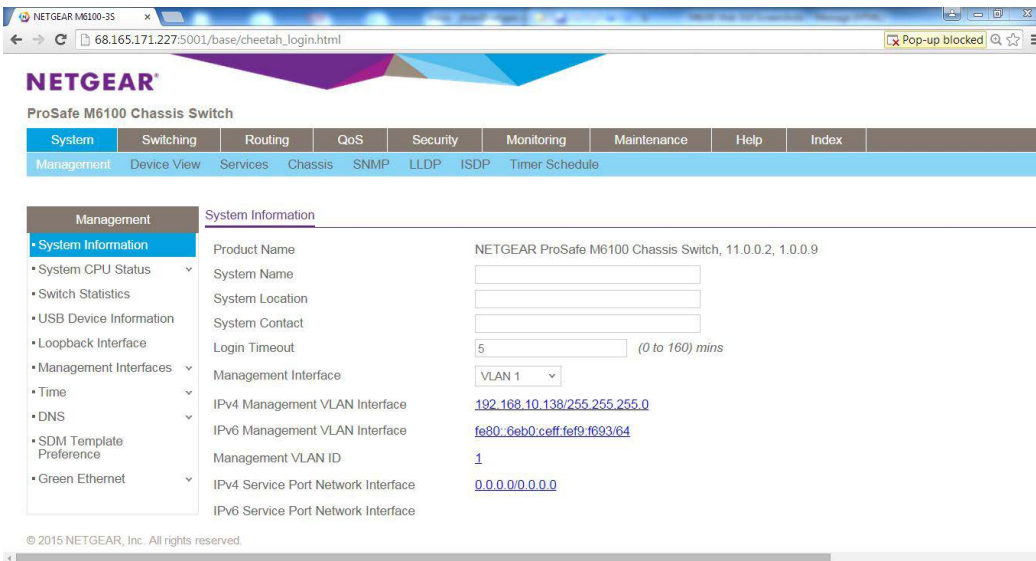
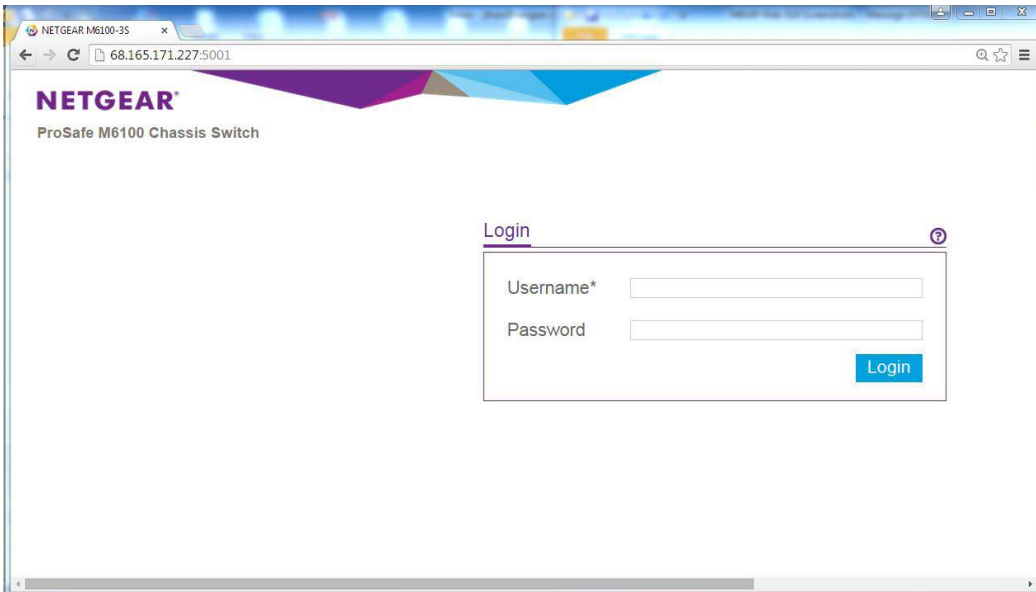
For detailed instructions on the installation steps, please reference **Installation Guide** included in the box.

If there is a DHCP server on the network the switch will obtain an IP address from the DHCP server.

If no DHCP server is present, the switch assumes a default IP address of **169.254.100.100** and a subnet mask of **255.255.0.0**.

Alternatively, you can connect to the switch CLI via a serial connection.

To access the Web managed UI of the switch simply point your browser to http://<IP_address_of_switch>.



The default login for NETGEAR fully managed switches is as follows:

Username: admin

Password: <leave blank>

