

ProSAFE® 10 Gigabit Aggregation Managed Switches



Auto-iSCSI
DETECTION
OPTIMIZATION

M7100 series

The 10 Gigabit Aggregation M7100 series switches are NETGEAR affordable fully managed switches for 1G/10G server access layer in campus and enterprise networks, and for high-density, high-performance 10GbE backbone architectures. The M7100 series delivers pure line-rate performance for top-of-rack virtualization or convergence, without having to pay the exorbitant acquisition and maintenance costs associated by other networking vendors. NETGEAR 10 Gigabit Aggregation solutions combine latest advances in hardware and software engineering for higher availability, lower latency and stronger security, at a high-value price point. Like all NETGEAR products, the M7100 series delivers more functionality with less difficulty: Auto-iSCSI optimization, Private VLANs and Local Proxy ARP take the complexity out of delivering network services for virtualized servers and 10 Gigabit infrastructures.

NETGEAR 10 Gigabit M7100 series key features:

- Line-rate 10G Copper "Base-T" switch solution with low latency
- 24 ports 10GBase-T (RJ45) supporting Fast Ethernet, Gigabit Ethernet and 10 Gigabit speeds for server and network progressive upgrade
- 4 ports SFP+ for 1G/10G fiber uplinks and other DAC connections
- IPv4 routing in Layer 2+ package (static routing) with IPv4/IPv6 ACLs and QoS
- Enterprise-class L2/L3 tables with 32K MAC, 6K ARP/NDP, 1K VLANs, 128 static L3 routes
- Two redundant, hot-swap power supplies (one PSU comes with the switch; second optional PSU is ordered separately)
- Two removable fan trays and front-to-back cooling airflow for best compatibility with data center hot aisle/cold aisle airflow patterns
- Auto-EEE Energy Efficient Ethernet associated with Power Back Off for 15% to 20% less consumption when short copper cables

NETGEAR 10 Gigabit M7100 series software features:

- Innovative multi-vendor Auto-iSCSI capabilities for easier virtualization optimization, iSCSI flow acceleration and automatic protection/QoS
- Automatic multi-vendor Voice over IP prioritization based on SIP, H323 and SCCP protocol detection
- Voice VLAN and LLDP-MED for automatic IP phones QoS and VLAN configuration
- IPv4/IPv6 Multicast filtering with IGMP and MLD snooping, Querier mode and MVR for simplified video deployments
- Advanced classifier-based hardware implementation for L2 (MAC), L3 (IP) and L4 (UDP/TCP transport ports) security and prioritization
- Unidirectional Link Detection Protocol (UDLD) prevents forwarding anomalies

NETGEAR 10 Gigabit M7100 series link aggregation and channeling features:

- Flexible Port-Channel/LAG (802.3ad) implementation for maximum compatibility, fault tolerance and load sharing with any type of Ethernet channeling
- Including static (selectable hashing algorithms) or dynamic LAGs (LACP)
- Multi Chassis Link Aggregation (MLAG) between two M7100 switches overcomes limitations of Spanning Tree, increasing bandwidth while preserving redundancy

NETGEAR 10 Gigabit M7100 series management features:

- DHCP/BootP innovative auto-installation including firmware and configuration file upload automation
- Industry standard SNMP, RMON, MIB, LLDP, AAA, sFlow and RSPAN implementation
- Selectable serial RS232 DB9 and Mini-USB port for management console
- Standard USB port for local storage, logs, configuration or image files
- Dual firmware image and configuration file for updates with minimum service interruption
- Industry standard command line interface (CLI) for IT admins used to other vendors commands
- Fully functional Web console (GUI) for IT admins who prefer an easy to use graphical interface

NETGEAR 10 Gigabit M7100 series warranty and support:

- NETGEAR ProSAFE Lifetime Hardware Warranty*
- Included Lifetime Online Chat Technical Support
- Included Lifetime Next Business Day Hardware Replacement



Hardware at a Glance

	FRONT				REAR		
Model name	100/1000/10GBase-T RJ45 ports	1000/10GBase-X Fiber SFP+ ports	Management console	Storage (image, config)	Modular PSUs (redundant, hot-swap)	Modular Fan Trays (front-to-back cooling, hot-swap)	Model number
M7100-24X	24	4 (shared)	1 x RS232 DB9, 1 x Mini-USB (selectable)	1 x USB	2 (Part-number: APS300W) (1 power supply already installed)	2 (Part-number: AFT200) (2 fan trays already installed)	XSM7224 v1h1



M7100-24X is a 24 x 10Gbase-T version, Layer 2+ 4 shared SFP+



M7100 series rear view

2 modular, redundant PSUs

- Each M7100 series ships with one installed modular PSU
- Additional PSU unit is available for hot swap HA (APS300W)

2 modular fan trays

- Each M7100 series ships with two installed fan trays
- Spare units are available for hot swap HA (AFT200)

Software at a Glance

	LAYER 2+ PACKAGE							
Model name	IPv4/IPv6 ACL and QoS	IPv4/IPv6 Multicast filtering	Auto-iSCSI Auto-VoIP	EEE (802.3az) Auto-EEE	VLANs	Convergence	IPv4 Unicast Static Routing	Model number
M7100-24X	L2, L3, L4, ingress, egress, 1 Kbps	IGMP and MLD Snooping, Querier mode, MVR	Yes	Yes	Static, Dynamic, Voice, MAC, Subnet, Protocol-based, QoQ, Private VLANs	LLDP-MED, RADIUS, 802.1X, timer	Yes (Port-based, Subnet, VLANs)	XSM7224 v1h1

Performance at a Glance

	TABLE SIZE									
Model name	Packet buffer	CPU	ACLs	MAC address table ARP/NDP table VLANs DHCP server	Fabric	Latency	Static Routes	Multicast IGMP Group membership	sFlow	Model number
M7100-24X	16 Mb	800Mhz 256M RAM 128M Flash	1K ingress 512 egress	32K MAC 6K ARP/NDP VLANs: 1K DHCP: 16 pools 1,024 max leases	480Gbps line-rate	10GBase-T <3.7 µs SFP+ <1.8 µs	128 IPv4	2K	32 samplers 52 pollers 8 receivers	XSM7224 v1h1

* 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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