

Features

- Provides 24 fixed copper ports, and one modular slot for configuration flexibility of up to 32 ports
- Dense 1U rack-mount package, NEBS compliant member of Magnum 6K family
- Modular slot for combinations of 100Mb, 10 Mb, Gigabit, and more 10/100 copper ports
- Non-blocking wire speed performance on all ports, 802.1p QoS prioritization
- Options include -48VDC, 24VDC, 125VDC power, dual source, or AC, "reverse" rack mount, ETSI and 23" Telco brackets



The Magnum™ 6K32 Managed Switch offers up to 32-ports in a 1U rack-mount package, ideal for heavy duty Carrier Class and Industrial applications that require high-port density to save in cost and rack space. The 6K32 provides 24 fixed 10/100 Mb copper ports plus a modular slot. The modular slot provides the flexibility to configure some 100 Mb fiber ports, and/or some 10 Mb fiber ports, and/or one or two Gigabit ports, or some more copper ports. Standard GBIC ports can be configured for a variety of Gigabit fiber cabling types and distances.

Magnum 6K32 Managed Switches come with LAN software support including SNMP management, SNMPc™ and Openview™ for Windows, web management, redundant LANs support, and many network management security features. See the Managed Networks Software (MNS-6K) datasheet for additional details on the comprehensive set of software packages and options that are used across the Magnum 6K Switches family of products.

High performance hardware features include non-blocking wire speed on all ports and 802.1p QoS Traffic Prioritization. Magnum 6K32s are "plug-and-play" ready for use as backbone switches where a mix of bursty data traffic and priority streaming traffic for VoIP and audio/video applications is present. Fan cooling provides long operating life and increased system availability. Regular chassis models (port connectors and LEDs on the same side) and reverse chassis models (connectors and cables in the rear, LEDs in front) are offered.

Magnum 6K32s are ideal for building a switched network infrastructure when used in applications connected to communications computers, routers, hubs, or other switches. Designed for use in Carrier Class and Industrial networks with segments requiring Gigabit backbone interconnections among network centers, the Magnum 6K32 is easy to install and operate. Addresses of attached nodes are automatically learned and maintained, adapting the switching services to network changes and expansions to provide plug-and-play operation.

Magnum 6K32 Managed Switches have rugged metal cases and auto-ranging power supplies for operation with standard AC power worldwide. Internal DC power supplies are optional. The 6K32s and all other Magnum products are designed and manufactured in the USA and backed by a three year warranty.

PERFORMANCE:

RJ-45 Ports: 10/100 Mb speed, full- or half-duplex mode, auto-negotiating, auto-cross MDI-MDIX per port, individually determined.

Gigabit Ports, 1000 Mb: Configurable, std. GBIC transceivers, 2 ports max

Fiber Ports, 100 Mb (multi-mode and single-mode): Configurable in the module, SFF (Small Form Factor) featured for high fiber port density, up to 8 total, each FDX or HDX, default is FDX mode

Fiber Ports, 10 Mb: Configurable, four ST ports max. in the module, multi-mode or single-mode. Each port may be FDX or HDX, default is HDX

All Ports non-blocking:

Processing type: Store and Forward with IEEE 802.3x full-duplex flow control
System aggregate forward and filter rate: 6.6Mpps (24 ports @ 100Mb speed FDX, 2 ports @ Gb speed FDX)

Address table: 4K nodes, self-learning, with address aging

Packet buffers: 720 KB per 10/100 and 120KB per 1000 Mb port

Latency: 6µs + packet time max (TX - TX, TX - FX, FX - FX, TX-G, G-G)

NETWORK STANDARDS:

IEEE 802.3z, 802.3ab, 802.1p: 100BASE-TX, -FX, 1000BASE-SX, -LX

Auto-negotiation on TP, IEEE 802.3u

See MNS-6K datasheet for software network standards, network security, redundant LANs management, and other software features.

OPERATING ENVIRONMENT:

UL 60950 "Component Parts" temperature rating: 130°F (55°C)

IEC 60068 "Type Test" rating: -40° to 185°F (-40° to 85°C)

Storage: -40° to 185°F (-40° to 85°C),

Ambient relative humidity: 5% to 95% (non-condensing)

Altitude: -200 to 13000ft (-60 to 4000m)

Conformal coating (humidity protection) option: Request quote

RELAY CONTACTS FOR ALARMS (OPTIONAL):

Form C, one NC indicating internal power, one NC software controllable.

NETWORK CABLE CONNECTORS:

1000 Mb ports: all standard GBIC Transceiver types supported

100 Mb Copper: Category 5 UTP/STP; 10 Mb: Cat. 3,4, 5 UTP/STP

100 Mb Fiber ports connector options: multi-mode FX-MTRJ, LC, ST, SC; single-mode LC, 20Km SC, and 40Km "long reach" single-mode SC.

10 Mb Fiber port connector: multi-mode and single-mode ST

POWER SUPPLY (INTERNAL):

AC Power Connector: IEC-type, male recessed, ON/OFF switch (optional)

Power Input, AC: 100 to 240 VAC, 47 to 63 Hz (auto ranging)

Power Consumption: 45 watts typical with a fully-loaded fiber module, 30 watts typical for a copper-only 24-port model.

DC POWER SUPPLY OPTIONS:

-48VDC: Input -36 to -70VDC

24VDC: Input 20 to 40VDC

125VDC and 110VDC nominal: Input 88 to 150VDC

Std. Terminal Block: "-", GND, "+", **Power Consumption:** Same as AC

DC DUAL POWER SOURCE (OPTIONAL)

Magnum 6K32 and 6K32R models may be ordered with optional Dual DC power input, for continuity of operation when either one of the DC input sources is interrupted. Available for -48VDC, 24VDC, or 125VDC.

MECHANICAL:

Enclosure: Rugged high-strength sheet metal. Suitable for stand-alone or 1U rack-mounting.

Rack-mounting brackets: 19" included; ETSI and 23" Telco optional.

Cooling Method: Fan cooled, internal @ 25cfm

Dimensions: 1.70 in H x 17.0 in W x 9.0 in D

4.32 cm H x 43.2 cm W x 22.9 cm D

Weight: rack-mount 5.0 lbs. (2.0 kg)

LED INDICATORS PER RJ-45 PORT:

LK: On when twisted-pair link is operational.

ACT: Blinking with port activity. Note: LK and ACT combined on fixed ports FDX/HDX: ON = full-duplex mode, OFF = half-duplex mode.

100/10 ON = 100Mb speed, OFF = 10Mb

LED INDICATORS, 100Mb and 10Mb FIBER PORTS:

LK: Steady on when fiber link is operational.

ACT: On with port activity, FDX/HDX

PORT-SPECIFIC SETTINGS:

The copper module has an internal switch for MDIX crossover on port #1. Other port-specific user settings (such as FDX or HDX, and copper 10/100 speed) can be set using software commands.

AGENCY APPROVALS AND STANDARDS COMPLIANCE:

UL Listed (UL60950), cUL, CE, Emissions meet FCC Part 15, Class A

NEBS Level 3 and ETSI Compliant for Carrier Central Offices

IEEE 1613 Environmental Standard for Electric Power Substations

IEC61850 EMC and Operating Conditions Class C for Power Substations

WARRANTY:

Three years

Made in USA

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Ordering Information

Magnum 6K32

Magnum 6K32 Managed Switch, base unit. Provides 24 fixed 10/100 RJ-45 ports and one optional port module slot which may be configured with a selection of 10/100/1000 Mb fiber and copper connector types, 8 ports max. For licensed management software, see applicable MNS-6K datasheet.

Magnum 6K32R

"Reverse" model, same as Model 6K32 except user ports and the power input connectors are in the rear. Two sets of LEDs (both rear and front) provide duplicate status data for viewing from either side.

Configuration Options: Each Magnum 6K32 and 6K32R base unit has one port module slot which may be one of the modules below.

6KP8-45MT

"4+4" module for 6Ks, w/four 10/100 RJ-45 and four 100 Mb 2km multi-mode FX MTRJ connectors

6KP8-SLC

SFF Fiber module for 6K Switches, w/eight 100 Mb 15km single-mode FX LC connectors

6KP8-RJ45

TP Module w/eight 10/100 Mb auto-negotiating RJ-45 ports

6KP8-MTRJ

SFF Fiber module for 6K Switches, w/eight 100 Mb 2km multi-mode FX MTRJ connectors

6KP8-45SLC

"4+4" module for 6Ks, w/four 10/100 RJ-45 and four 100 Mb 15km single-mode FX LC connectors

6KP6-RJMST

"4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 2km multi-mode FX ST connectors

6KP6-RJSSC

"4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 20km single-mode FX SC connectors

6KP6-RJSSCL

"4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 40km single-mode FX SC connectors

6KP6-RJ10ST

"4+2" module for 6Ks, w/four 10/100 RJ-45 and two 10 Mb 2km FL ST connectors

6KP4-FXSC

"2+2" 100 Mb Fiber module for 6K Switches, w/four 100 Mb FX SC connectors.

6KP4-F10ST

"2+2" 10 Mb fiber module for 6K Switches, w/four 10Mb 2km FL ST connectors

Note: Several other Port Module types are available. See Configuration Guide.

6KP5-G4RJ

"G+4" module, uses, one 6K slot and provides one GBIC open transceiver port for a user-selectable GBIC transceiver module, plus 4 10/100Mb copper ports. Includes front-panel.

6KP3-G2SC

"G+2" module, uses one 6K slot and provides one GBIC open transceiver port for a user-selectable GBIC Transceiver module, plus 2 100Mb 2km FX SC fiber ports. Includes front panel.

GBPM-20TX

GBIC-SXSC

Two-port Gigabit 6K module, provides two GBIC open transceiver ports.

GBIC-LXSC10

GBIC transceiver module for use in GBPM-COTX, one SX port with multi-mode SC fiber connector

Note: Single-mode GBICs are available at 10Km, 25Km, 40Km, and 70Km.

6KP2-2GSX

Two-port one-slot Gigabit 6K module, uses one 6K slot and provides two Gigabit Fiber

6KP2-2GCU

SXSC (1000BASE-SX multi-mode) ports. Includes front-panel sheet metal cover.

6KP5-1CU4MT

Two-port one-slot Gigabit 6K module, uses one 6K slot and provides two Gigabit Copper (1000BASE-T) auto-negotiating ports. Includes front-panel sheet metal cover.

6KP5-1CU4MT

Five-port one-slot Gigabit 6K module, uses one 6K slot and provides one Gigabit Copper (1000BASE-T) auto-negotiating port and four 100 Mb MTRJ Fiber FX multi-mode ports. Includes front panel.

6KP3-1CU2FXT

Three-port one-slot Gigabit 6K module, uses one 6K slot and provides one Gigabit

6KM-BLNC

Copper (1000BASE-T) auto-negotiating port and two 100 Mb ST Fiber FX multi-mode ports.

Blank cover for slot opening in a Magnum 6K chassis



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Magnum 6K32 Magnum 6K32 Managed Switch, base unit. Provides 24 fixed 10/100 RJ-45 ports and one optional port module slot which may be configured with a selection of 10/100/1000 Mb fiber and copper connector types, 8 ports max. Wire-speed filtering and forwarding across all ports, 802.3x flow control, 802.1p priority packet processing, self-learning 4K-node address table, and 720KB+ packet buffers. For licensed management software, see applicable MNS-6K datasheet.

Magnum 6K32R "Reverse" model, same as Model 6K32 except user ports and the power input connectors are in the rear. Two sets of LEDs (both rear and front) provide duplicate status data for viewing from either side.

Configuration Options: Each Magnum 6K32 and 6K32R base unit has one port module slot which may be one of the modules below.

6KP8-45MT "4+4" module for 6Ks, w/four 10/100 RJ-45 and four 100 Mb 2km multi-mode FX MTRJ connectors
6KP8-SLC SFF Fiber module for 6K Switches, w/eight 100 Mb 15km single-mode FX LC connectors
6KP8-RJ45 TP Module for 6K32 switches, w/eight 10/100 Mb auto-negotiating RJ-45 ports
6KP8-MTRJ SFF Fiber module for 6K Switches, w/eight 100 Mb 2km multi-mode FX MTRJ connectors
6KP8-45SLC "4+4" module for 6Ks, w/four 10/100 RJ-45 and four 100 Mb 15km single-mode FX LC connectors
6KP6-RJMST "4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 2km multi-mode FX ST connectors
6KP6-RJMSC "4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 2km multi-mode FX SC connectors
6KP6-RJSSC "4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 20km single-mode FX SC connectors
6KP6-RJSSCL "4+2" module for 6Ks, w/four 10/100 RJ-45 and two 100 Mb 40km single-mode FX SC connectors
6KP6-RJ10ST "4+2" module for 6Ks, w/four 10/100 RJ-45 and two 10 Mb 2km FL ST connectors
6KP4-FXSC "2+2" 100 Mb Fiber module for 6K Switches, w/four 100 Mb FX SC connectors.
6KP4-FXST "2+2" 100 Mb Fiber module for 6K Switches, w/four 100 Mb 2km FX ST connectors.
6KP4-F10ST "2+2" 10 Mb fiber module for 6K Switches, w/four 10Mb 2km FL ST connectors

Note: Several other Port Module types are available. Request Quote.

GBPM-2OTX Two-port Gigabit 6K module for 6K32 switches, provides two GBIC open transceiver port for a user-selectable GBIC transceiver module.
GBIC-SXSC GBIC transceiver module for use in GBPM-COTX, one SX port with multi-mode SC fiber connector
GBIC-LXSC10 GBIC transceiver module for use in GBPM-COTX, one LX port with single-mode SC 10Km

Note: Single-mode GBICs are available at 10Km, 25Km, 40Km, and 70Km.

6K-BLNK Blank cover for slot opening in a Magnum 6K32 or 6K32R chassis