

### Features

- Provides 16 fixed copper ports and two modular slot for configuration flexibility of up to 4 GB ports or 32 total ports
- Dense 1U rack-mount package, NEBS compliant member of Magnum 6K family
- Two modular slots for combinations of Gigabit, fiber at 100Mb and 10 Mb, and more 10/100 copper ports
- Non-blocking wire speed performance on all ports, 802.1p QoS prioritization
- Options include 24VDC, -48VDC, 125VDC power, dual source, or AC, ETSI and 23" Telco rack mount brackets



The Magnum™ 6K32T 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 6K32T provides 16 fixed 10/100 Mb copper ports plus two configuration slots. The modular slots provide the flexibility to configure up to sixteen 100 Mb fiber ports, and/or some 10 Mb fiber ports, and/or one to four Gigabit ports, or some more copper ports. Standard GBIC ports can be configured for a variety of Gigabit fiber cabling types and distances.

Magnum 6K32T Managed Switches come with LAN software support including SNMP management, SNMPc™ and Openview™ for Windows, Secure Web Management, redundant LANs support, and many network management security and ease-of-use 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 6K32Ts 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.

Magnum 6K32Ts 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 Ethernet and Industrial networks with segments requiring multiple Gigabit backbone interconnections among network centers, the Magnum 6K32T 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 6K32T 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 6K32Ts and all other Magnum products are designed and manufactured in the USA and backed by a three year warranty.

### PERFORMANCE:

**RJ-45 Ports:** 100 or 10 Mb speed, full- or half-duplex mode, per port, individually determined. 10/100 auto-negotiating & auto-cross, 32 ports max.

**Gigabit Ports, 1000 Mb:** Configurable, std. See selection of modules.

**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 per module, each FDX or HDX, default is FDX mode

**Fiber Ports, 10 Mb:** Configurable, up to 4 ST ports max. per 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: 8.3Mpps (16 ports @ 100Mb speed FDX and 4 ports @ Gb speed FDX)

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

Packet buffers: 960KB

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 and auto-crossover 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: standard GBICs supported, see modules description

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 two fully-loaded fiber modules, 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 300VDC

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

### DC DUAL POWER SOURCE (OPTIONAL)

Magnum 6K32T and 6K32T 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 1U rack-mounting or stand-alone.

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

Cooling Method: Fan cooled, internal @ 25cfm

Dimensions: 1.70inHx17.0inWx9.0inD (4.32cmHx 43.2cmW x 22.9cmD)

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. 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, 100 Mb and 10 Mb FIBER PORTS:

LK: Steady on when fiber link is operational.

ACT: On with port activity, FDX/HDX

### PORT-SPECIFIC SETTINGS:

Port-specific user settings (such as FDX or HDX, and copper 10/100 speed) can be set using software commands.

The RJ-45 copper ports are auto-negotiating and auto-crossover, there are no user controls for auto-crossover.

### 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 6K32T

Magnum 6K32T Managed Switch, base unit. Provides 16 fixed 10/100 RJ-45 ports and two optional ports module slot which may be configured with a selection of 10/100/1000 Mb fiber and copper connector types, 8 ports max. each slot. For licensed management software, see applicable MNS-6K datasheet.

**Configuration Options:** Each Magnum 6K32T base unit has two port module slots, each of 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 6K32T 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-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 for 6K32T Switches, 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 for 6K32T Switches, 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** Two-port Gigabit 6K module for 6K32T switches, provides two GBIC open transceiver ports.

**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.**

**6KP2-2GSX** Two-port one-slot Gigabit 6K module for 6K32T switches, uses one 6K slot and provides two Gigabit Fiber SXSC (1000BASE-SX multi-mode) ports. Includes front-panel sheet metal cover.

**6KP2-2GCU** Two-port one-slot Gigabit 6K module for 6K32T switches, 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 for 6K32T switches, uses one 6K slot and provides one Gigabit Copper (1000BASE-T) auto-negotiating port and four 100Mb MTRJ Fiber FX multi-mode ports. Includes front panel.

**6KP3-1CU2FXT** Three-port one-slot Gigabit 6K module for 6K32T switches, uses one 6K slot and provides one Gigabit Copper (1000BASE-T) auto-negotiating port and two 100Mb ST Fiber FX multi-mode ports.

**6KM-BLNK** Blank cover for slot opening in a Magnum 6K32T chassis

