Magnum 6K32T and 6K32TR

32-port Managed Switches

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, and 250VDC power, dual source, or AC

6K32T shown

The Magnum™ 6K32T and 6K32TR (Reverse Model) Managed Switches offer 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 and 6K32TR provide 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 and 6K32TR 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 and 6K32TRs 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 and 6K32TRs 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 switches are 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 and 6K32TR 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 6K switches and all other Magnum products are designed and manufactured in the USA with a three year warranty.

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Industrial Networking at Its Best™

Specifications

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: 480KB + 120KB for 1000 Mb
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:
IEC 60068 Operating temp. per "Type Test" -40° to 185°F (-40° to 85°C)
UL 60950 "Component Parts" temperature rating: 130°F (55°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 (PoE input range: -44 to -57VDC)
24VDC: Input 20 to 40VDC
125VDC, 250VDC, and 110VDC nominal: Input 88 to 300VDC
Std. Terminal Block: "-, GND, +", **Power Consumption:** Same as AC

DC DUAL POWER SOURCE (OPTIONAL)
Magnum 6K32T and 6K32TR 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 -48V, 24V, 125V, or 250V.

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
IEC61850 EMC and Operating Conditions Class C for Power Substations
IEEE 1613 Class 2 Environmental Std for Electric Power Substations
NEBS Level 3 and ETSI Compliant; NEMA TS-2 for traffic control
EN50155 Compliant; DNV certified

WARRANTY:
Three years

Made in USA

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.
Magnum 6K32TR	"Reverse" model, same as Model 6K32T 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 6K32T & 6K32TR 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 20km 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.
6KP7-1GSFP6RJ	"G+6" module for 6Ks, w/one SFP Gigabit Port and six 10/100 Mb RJ45 ports
6KP7-1G2RJ4MLC	"G+4+2" module for 6Ks, w/one SFP Gigabit Port, four multi-mode LC fiber ports, and two 10/100 RJ-45
6KP7-1G2RJ4SLC	"G+4+2" module for 6Ks, w/one SFP Gigabit Port, four single-mode LC fiber ports, and two 10/100 RJ-45
6KP7-1G2RJ4SLCL	"G+4+2" module for 6Ks, w/one SFP Gb Port, four sgl-mode long-haul LC fiber ports, and two 10/100 RJ-45
GBPM-2OTX	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.

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