

Magnum 4K220

40-port Ethernet
10/100 Switch, 4K-Series

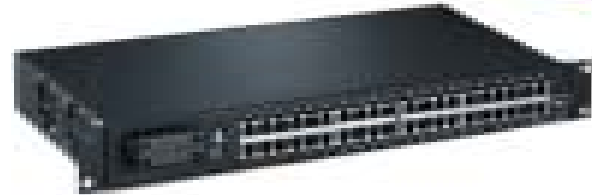
Features

- High port density, with 40 ports in a 1U rack-mount package, LEDs in front, connectors in rear
- NEBS compliant - 48VDC, dual-source optional
- 40 switched ports, organized in two banks of 20 ports each with a 200Mb/sec internal trunk interconnect
- Has metal case and an auto-ranging internal power supply.
- Available options include -48VDC, 24VDC, and 125VDC power, dual-source, NEBS and ETSI compliant, "Reverse" rack mount, ETSI and 23" Telco brackets, Class A EMI, and extended temperature range operation

Front View



Rear View



"The Rack-Space-Saver"

Magnum™ Model 4K220 40-port Switches provide high port density in the wiring center, and low cost per switched port. They boost the performance of Ethernet LANs, with the flexibility of 10Mb or 100Mb switching speed, full- or half-duplex per port for low cost per switched user port.

Where vertical rack space is at a premium, the 1U 4K220 is very economical. For an equal number of ports, other solutions take double the rack space or more. With the 4K220, all rack-mount situations are covered by available brackets, including 19", ETSI, and 23" Telco.

The 40-port density in a 1U (1¾ inches high) rack-mount "reverse" package is obtained by dedicating the front of the unit to the LED indicators, and the rear of the unit to wiring and power connectors. When the unit is in operation, the status LEDs may be monitored without interference from the wiring and cables on the other side.

Designed for use in Carrier Class network traffic center applications, the 40-port Magnum 4K220 Switches are easy to install and use. Addresses of attached nodes are automatically learned and maintained, adapting the switching services to network changes and expansions to provide plug-and-play operation. LEDs provide status information on each port.

The Magnum 4K220 Switches are non-blocking on 20-port banks, and include large 2MB packet buffers for advanced performance, even with unbalanced loads. The dynamic 4K-node address table allows the 40-port Magnum Switches to support large networks. All of the Magnum 4K-Series, with store-and-forward switching, filter all faulty packets to minimize traffic congestion.

Magnum Model 4K220 Switches have a rugged metal case and an auto-ranging power supply for operation with standard AC power worldwide. Models with optional DC input power are available. The 4K-Series and all other Magnum products are made in the USA and backed by a three-year warranty.



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PERFORMANCE:

RJ-45 Ports: 100 or 10Mbps speed, full- or half-duplex mode, per port, individually determined by auto-negotiation.

Processing type: Store and Forward with IEEE 802.3x full-duplex flow control, non-blocking per bank, two 100Mb/s trunks between 20-port banks

System aggregate forwarding and filter rate: 3M pps within each 20 port bank (all ports 100Mb speed), 298K pps between port banks, 6M pps for all (40) ports

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

Packet buffers: 2 MB dynamic

Latency: 5 μ s + packet time max (TX - TX)

PDV: 50BT

NETWORK STANDARDS:

IEEE 802.3u : 100BASE-TX, IEEE 802.3: 10BASE-T

Auto-negotiation on TP, IEEE 802.3u

OPERATING ENVIRONMENT:

Ambient: 32° to 120°F (0° to 50°C)

Storage: -40° to 160°F (-40° to 70°C)

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

Conformal coating (humidity protection) option: Request quote

UP-LINK:

Thumb-operated slide switch, converts right-most lower Port 39 from a regular (= position) port to a crossover (X position) Up-Link for on/off connection to a cascaded hub or switch.

LED INDICATORS ON CHASSIS:

PWR: Steady on when power applied

NETWORK CABLE CONNECTORS:

RJ-45 shielded female ports, qty = 40

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

AC POWER SUPPLY (INTERNAL):

AC Power Connector: IEC-type, male recessed.

Power Input Voltage: 100 to 240 VAC (auto ranging)

Power Input Frequency: 47 to 63 Hz

Power Consumption: 28 Watts typical, 35 Watts max.

DC POWER SUPPLY OPTIONS:

-48VDC: Input -36 to -70VDC

24VDC: Input 20 to 40VDC

125VDC: Input 120 to 160VDC

Std. Terminal Block: "-", GND, "+",

Power Consumption: Same as AC

DC DUAL POWER SOURCE (OPTIONAL)

The Magnum 4K220 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, and 125VDC input types.

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 @ 7 cfm

Dimensions: 1.75 in H x 17.0 in W x 9.0 in D

(4.45 cm H x 43.2 cm W x 22.9 cm D)

Weight: 5.0 lb. (2.3 kg)

LED INDICATORS PER PORT:

FDX / Col: Steady on for FDX, blinking for HDX collisions.

LINK /ACT: On with Link enabled, blinking for RX port activity

100 / 10: ON = Link at 100Mbps, OFF = 10 Mbps or No Link

AGENCY APPROVALS:

UL Listed (UL60950), cUL, CE

Emissions meet FCC Part 15, Class A

WARRANTY:

Three years

Made in USA

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Ordering Information

Magnum 4K220CR Ethernet Switch with 40 RJ-45 ports, each auto-sensing for 100Mb / 10Mb FDX / HDX operation. Each port is switched and provides a full-speed traffic domain with non-blocking performance per bank. The 4K220 is internally organized as two 20-port switch banks with a 200Mb/sec trunk interconnecting them. Includes internal auto-ranging power supply, cooling fan, and metal brackets for 19" rack-mounting. "Reverse" models only; LEDs are in the front, AC power and user connectors are in the rear.

4K220CR-48VDC Same as above, except with -48VDC power supply. NEBS compliant. Separately order Dual-source and rack-mount options as desired.



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