



A WORLD CLASS COMPANY

GarrettCom... leading the way in manufacturing and supplying industrial grade networking products for over 20 years

INDUSTRIAL NETWORKING LEADERSHIP

Unrivalled experience in power utilities, surveillance & security, transportation, industry automation, carrier & telecommunications, and water treatment industries.

SUPPORTED...

By a comprehensive three year warranty, ISO9001 certification and an installed base of more than 30 million node connections.

REPRESENTATIVE CUSTOMERS INCLUDE:

ADT, Alcatel Lucent, Areva, BHP Billiton, Duke Energy, Georgia DOT, Invensys, Johnson Controls, National Grid, Northeast Utilities, Nevada Power, SEL, Siemens, Sperry Marine, Tekelec, and L3 Communications and many more!



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TOUGHER

GarrettCom produces hardened networking products by housing all components in a tough metal casing. The components themselves are all made of premium quality materials and are thoroughly tested to ensure operation whatever the conditions, from -40°C to 75°C, in high or low humidity, in dusty or corrosive conditions.

SMARTER

The importance of monitoring and managing industrial networks, is rapidly increasing as the levels of automation develop. Our products provide all the latest functionality to ensure high levels of security combined with excellent monitoring and management.

MORE ROBUST

GarrettCom manufactures the most hardened networking devices available. All products are designed to provide high MTBFs and extreme EMC characteristics. MTBF figures are calculated using the Bellcore Telcordia method commonly used for military applications.

KEY FEATURES REVIEW

- Extended temperatures -40°C to 75 °C
- Extensive fiber options
- AC and DC power options
- Dual source power options
- Conformal coating
- UL, CE/IEC, FCC and CB complaint
- NEBS/ETSI certified
- Hardened construction with metal casings
- Market leading security features
- Variety of mounting options
- DIN-Rail mountable
- 19" RETMA/23"ETSI rack mountable
- Reverse mountable - cables rear/LED's at front

STANDARDS



IEC 61850



NEMA TS-2 and TEES standards for traffic control applications.



Full range of DNV compliant products pending, for use in marine applications.



EN50155 certified for use in railway applications.



Conformal coating, ATEX, for use in hazardous areas in oil, gas and petrochemical applications.



ETSI and NEBS L3 standards for carrier class applications in the telecoms market.



All products fully compliant with RoHS standards.



SOLUTIONS

- Power Utilities
- Surveillance & Security
- Transportation
- Industrial Automation
- Military
- Telecommunications
- Water Treatment



**10KT Managed Switches** include industry-leading IEEE 1588 v2 precision timing for utility applications, the first dual hot-swappable power supplies in a 1U rack-mount switch, 61850-3 compliance, and up to 36 ports in 10 slots, highly configurable to meet the needs of each installation.



**10ETS Managed Terminal Servers** offer up to 36 configurable ports, including up to eight Ethernet ports, which may be switched or routed; the first dual hot-swappable power supplies in a 1U rack-mount terminal server; 61850-3 compliant.



**The Magnum 12KX Gigabit Managed Switches** features 16 combo ports for copper and/or fiber and advanced bandwidth capacity. The workhorse backbone switch includes optional Layer 3 Switching capability, which allows the switch to more rapidly route large amounts of data in applications using complex networking including VLANs on multicast routing strategies.

PRODUCTS

- Managed and unmanaged Ethernet switches
- Comprehensive management functions and security measures
- Converter and Edge Switches
- Industrial Routers
- Media Converters
- Terminal Servers
- Power Over Ethernet switches

PRODUCT REFERENCE BROCHURE



**GarrettCom**  
Industrial Networking at Its Best™

MANAGED ETHERNET SWITCHES  
(RACK MOUNT WITH FANS)



- 6K32F** - up to 32 ports, configurable for all media and port types, up to eight Gigabit or 32 fiber ports.
- 6K32FR** - same as above but reverse mount.
- 6K32T** - rack-mount package, 16 copper and up to 16 fiber and/or up to four Gigabit ports.
- 6K32TR** - same as above but reverse mount.
- 6K25e** - up to 26 ports, configurable for all media and port types, up to eight Gigabit and/or 24 fiber ports.
- 6K25Re** - same as above but reverse mount
- 6K16** - up to 16 ports configurable for all port and media types. Two 6K16's side-by-side fit in a 1U 19" rack.

MANAGED ETHERNET SWITCHES  
(HARDENED WITHOUT FANS)



- 6K32FC** - convection cooled, up to 32 ports, configurable for all media and port types, up to eight Gigabit or 32 fiber ports.
- 6K32TRC** - up to 32 ports, advanced patented thermal design, convection-cooled, reverse 1U rack-mount, configurable with 16 copper and up to 16 fiber and/or up to 4 Gigabit ports. -40°C to 75°C.
- 6K16V** - up to 16 ports, configurable for all port and media types. Vertically mounted. -40°C to 75°C.
- 6KQ** - managed field switch with up to 16 ports of all media and connector types; advanced thermal design; metal case with a ribbed surface for optimum heat dissipation. -40°C to 75°C.
- 6KL** - up to ten ports with fiber options, compact and configurable, managed, DIN rail mountable and IP52 rated. -40°C to 75°C.
- 6K8** - up to eight ports, compact and configurable, managed field switch; IP52-rated, metal case acts as a heat sink. -40°C to 75°C.

UNMANAGED SWITCHES  
(RACK MOUNT WITH FANS)



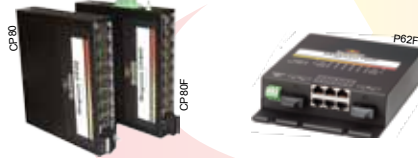
- 4K8** - eight port 10/100Mb with single duplex fiber port option.
- 4K16** - 16 port 10/100Mb with dual duplex fiber port option.
- 4K24** - 24 port 10/100Mb with dual duplex fiber port option.

UNMANAGED SWITCHES  
(SMALL SIZE)



- S14** - four port switch, 10/100Mb.
- ES42** - six port switch with dual or single fiber options, LLL and dual homing.
- ESD42** - six port switch with dual or single fiber options, LLL and dual homing.

UNMANAGED SWITCHES  
(SMALL SIZE HARDENED)



- PS14H/P** - (PoE) four PoE ports in a compact switch. -40°C to 75°C.
- PES42H/P** - (PoE) four port switch with an additional two ports with dual or single fiber options. -40°C to 75°C.
- S14H/P** - four port switch. -40°C to 75°C.
- ES42H/P** - eight port switch with dual or single fiber options. -40°C to 75°C.
- ESD42H/P** - eight port switch with dual or single fiber options. -40°C to 75°C.
- P62** - eight port switch with six 10/100Mb and two optional fiber ports.
- CP80** - eight port 10/100Mb switch an optional fiber port.

MEDIA CONVERTERS & HUBS

- TB14/H** - BNC to RJ45 media converter.
- 14E/H** - 100Mb fiber to RJ45 media converter.
- FT14/H** - 10Mb fiber to RJ45 media converter.

GarrettCom produce a variety of 10Mb, 10/100Mb, and mixed media hubs. The range starts from five ports and goes to 24 ports - most with AC or DC power variants.

CONVERTER SWITCHES



Combine a Media Converter with a small Ethernet Switch and you get a Converter Switch. Our converter switches offer two copper ports and one fiber port.

- CSG14UH/P** - Converts any Gigabit fiber to RJ45
- CSG14H/P** - Gigabit fiber to RJ45
- CS14** - 100Mb fiber to RJ45 (two switched RJ45 ports)
- CSN14** - 10Mb fiber to RJ45 (two switched RJ45 ports)

ROUTERS/SERIAL TERMINAL SERVERS



- DX40** offers two Serial and two Ethernet ports (including fiber), combining features of a Serial Device Server, Ethernet Switch and IP Router in a single product.
- DX940** offers up to four 10/100 Ethernet ports, configurable as RJ45 ports or SFP ports as well as two optional Gb Ethernet ports. Four serial ports may be added. WAN ports are optional as well, and are available as a cellular WAN port, T1/E1 or Frame Relay options.
- DX1000** offers 12 Serial, five Ethernet ports and up to two WAN ports; combines features of a Serial Device Server, Ethernet Switch and IP Router in a single product.



- DynaStar 1500 Ethernet Terminal Servers** (DS1500-ETS) integrates three often discrete networking functions: Terminal Server (Async serial device support), Ethernet switch (local switching and router access), and IP Router.
- DynaStar 1500 Industrial Frame Routers** (DS1500 - IFR) in a single product, the DS1500-IFR integrates five often discrete networking functions: Terminal Server, Ethernet switch, IP Router, Frame Relay Access Device, and DSU/CSU.
- Dynastar 2000 Family** supports multiple serial and Ethernet interfaces, T1/E1 or DDS or other popular WAN interfaces. Robust advanced software for all types of substation network applications, including support for MPLS services.

DYMEC LINKS CONVERTERS



- Links Single Channel Serial Media Converter** converts RS232 or TTL level copper to amplitude based fiber output.
- Links Multi-Channel Serial Media Converter** full duplex converter for RS232 or TTL level copper to amplitude based fiber output.
- Links RS485 Serial Media Converter** hardened media converters and repeaters for EIA 422 and 485 data connections.

PoE  
(POWER OVER ETHERNET)



GarrettCom offers a range of different Power over Ethernet (PoE) products with four and eight port modules, which will fit into the 6K series of managed switches and the smaller, more rugged, PS14, PES42 PoE switches and PESD42 PoE Edge switches.

Mobile Ethernet Switches

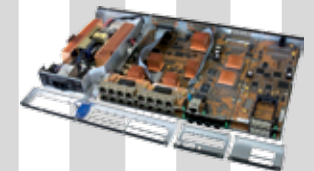


**6KM** are designed to withstand shock and vibration to provide Ethernet network connectivity under rough mobile conditions in transportation applications. These managed switches include M12-type heavy duty connectors.

SOFTWARE

- Magnum MNS-6K software** with RSTP2004, SNMP, VLANs, Secure Web Management, CLI, RSTP, Telnet, DHCP, SSH, SSL, Access Control, RADIUS, TACACS+, and more.
- Magnum MNS-6K-SECURE software** for those demanding extra security in their networks, MNS-6K-SECURE offers all of the features of MNS-6K plus RADIUS IEEE 802.1x, TACACS+, Secure FTP, SSH and SSL, SNTIP Server, and more.
- S-Ring** redundancy manager software product, built upon networking industry standards enabling 6K switches to simplify and speed up recovery of faults within a LAN ring structure.
- Magnum MNS-DX software** for Magnum DX products. It includes a wide range of networking functions, including IP routing, serial-IP terminal services, Ethernet switching, frame-relay based routed and non-routed Wide Area Network services. MNS-DX also includes network security functions including stateful firewall and world-class VPNs for security and advanced networks.

CONFORMAL COATING



Conformal coating refers to a protective coating designed to conform to the surface of an assembled printed circuit or PWA. This coating protects the circuitry from humidity, moisture, dust, and corrosion which can be caused by exposure to extreme environments. Both 5-mil and 14-mil silicone are available.

Conformal coating (sometimes also known as "tropical treatment") is an RFQ option on all GarrettCom industrial Ethernet products.

For more information, visit the website:

[www.GarrettCom.com](http://www.GarrettCom.com)