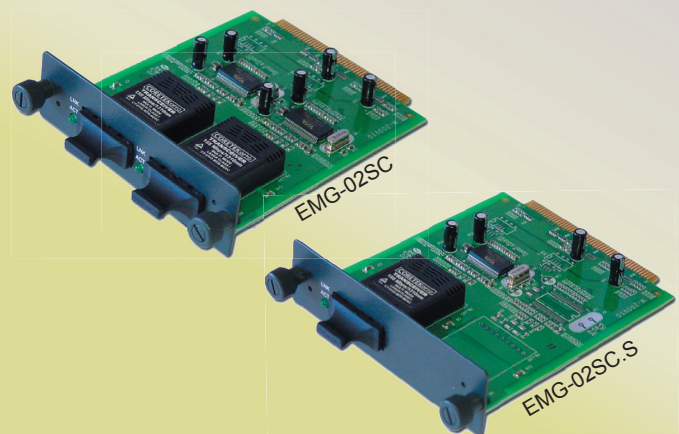# ALLOY
SWITCH

ESM-24T02M Managed Switch

The EtherGuard series of high-performance switches comprises web-managed SNMP/RMON and port-based managed model. EtherGuard switches are ideal for both smaller networks and larger enterprises, with 24 fixed 10/100Mbps Fast Ethernet ports, and the flexibility of an MDA Module Slot into which a wide range of Megabit and Gigabit switch modules can be installed.

The **ESM-24T02M** is a non-blocking switch operating at maximum wire speed. It supports Auto-Negotiation and Parallel Detection. Every port fully auto-negotiates speed and duplex with its partner device (i.e. another Switch or Network Adapter), while the Auto-MDIX function on every port ensures Plug and Play cable connectivity to any type of device. A full range of management options are supported, accessible via an intelligent, user-friendly web browser interface, Telnet or RS-232 Console Port. The devices' SNMP and RMON management is ideal for critical networks that require real-time fault diagnostics and alerts. A full range of management features are offered, including; *port-based and 802.1q tagged VLAN; Port Trunking*; *IP Multicasting/IGMP snooping*; *port-based Rate Control* for bandwidth setting to individual ports; *802.1p Priority Queuing*; Spanning Tree Protocol; *802.1X Security* protocol, and *Port Mirroring/Sniffing*.

KEY FEATURES

- Non-blocking, full-line speed, store-and-forward Layer 2 switch
- Auto-negotiation & auto-MDIX on all 10/100/1000 copper ports
- 24x fixed 10/100 RJ-45 ports, and MDA Slot for copper or fibre dual or single port Megabit/Gigabit Port Modules
- 3MB packet buffer and 1MB control buffer
- Up to 14K MAC entries and 4K VLAN entries
- Support for Flow Control for both half or full-duplex operation
- Supports Head-of-Line blocking prevention
- Web/SNMP managed function with user-friendly interface
- RMON group 1,2,3,9
- Supports broadcast storm filtering
- Support for port-based VLAN and 802.1Q tagged-VLAN with both IVL and SVL
- Support for protocol-based VLAN classification
- Supports IP Multicasting, IGMP snooping
- Supports 2 levels of priority queuing
- Support for Port-Trunking with flexible load distribution control and fail-over functions
- Provides 7 trunk groups of up to 4 member ports within 26 ports
- Support 802.1X Security protocol
- Supports ingress port security mode
- Supports port-based Rate Control in 100K increments
- Comprehensive LED suite: status display for each port; link, activity and speed status; fan operation status: normal or fail

ESM-24T02M Alloy SNMP Switch

EMG-02SC

EMG-02SC.S

On-line brochures available for related products: *http://www.alloy.com.au/Resource.asp*
*Unmanaged Switches *Converters *Network Adapters *Fibre Optic Networking *and much more*

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ALLOY SWITCH

EtherGuard Managed Switch

		ESM-24T02M
GENERAL	Standards	1000Base-T IEEE 802.3z 1000Base-SX IEEE 802.3z 1000Base-LX IEEE 802.3z 100Base-TX IEEE 802.3u 100Base-FX IEEE 802.3x 10Base-T IEEE 802.3 IEEE 802.3x Flow Control (Full duplex ports) IEEE 802.1D Spanning Tree IEEE 802.1w Rapid Reconfiguration IEEE 802.1s Multiple Spanning Trees IEEE 802.1Q VLAN IEEE 802.1v Port-based VLAN IEEE 802.1p Class of Service IEEE 802.3ad Port Trunking IEEE 802.1x Port-based network access control
	Network Protocol	CSMA/CD
	Topology	Star
	Fixed 10/100 Ports	24x Nway 10/100Mbps switched ports
	Fixed Port Connector	RJ-45, shielded
	MDI/MDIX Support	Yes, all RJ-45 ports
	Module Slots	1

	Port Modules (optional)	***Megabit** Single and Dual Port:*
		• 1x 100Base-FX MultiMode Fibre (SC)
		• 2x 100Base-FX MultiMode Fibre (SC)
		• 1x 100Base-FX SingleMode Fibre (SC)
		• 2x 100Base-FX SingleMode Fibre (SC)
		***Gigabit** Single and Dual Port:*
		• 2x 10/100/1000Base-T RJ-45
		• 1x Port 10/100/1000Base-T RJ-45 *plus*
		   1x GBIC (SC) MultiMode Fibre
		• 1x Port 10/100/1000Base-T RJ-45 *plus*
		   1x GBIC (SC) SingleMode Fibre
		• 1x 1000Base-SX MultiMode Fibre (SC)
		• 2x 1000Base-SX MultiMode Fibre (SC)
		• 1x 1000Base-LX SingleMode Fibre (SC)
		• 2x 1000Base-LX SingleMode Fibre (SC)
		• 2x Mini-GBIC *requires mini LC GBIC Modules*

	Console Port	Yes
PERFORMANCE	Transmission Method	Store-and-forward
	Data Transfer Rate	Ethernet: 10/20Mbps* Fast Ethernet: 100/200Mbps* Gigabit Ethernet: 1000/2000Mbps*
	Duplex Mode	Full and Half, all ports
	Bus	Embedded 'On chip' bus
	Port Latency	Fixed 10/100Mbps: 4.4ms average Installed Port Module: 3.4ms average
	Filtering Forwarding Rate	Gigabit Ethernet: 1,488,100 pps Fast Ethernet: 148,000 pps Ethernet: 4,880 pps
	Buffer Memory	Embedded 'On chip' Buffer: Control: 1MB; Packet Buffers: 3MB
	MAC Address Tables	MAC Address: 6K, self-learning, auto-aging VLAN: 4K, self-learning, auto-aging Pro VLAN: 2K, self-learning, auto-aging Multicast: 2K, self-learning, auto-aging
	Flow Control	Full duplex: IEEE 802.3x Half duplex: Back Pressure, collision & carrier
	LED Suite	System: 1x Power, 1x DIAG 2x FAN status 10/100 Ports: 1x LINK/ACT, 1x SPEED 10/100/1000 Ports: 1x LINK/ACT, 2x SPEED
MANAGEMENT	Interface	HTTP, Telnet, Console Port
	SNMP	YES
	RMON	YES – Groups 1,2,3,9
	VLAN	802.1Q Tagged VLAN, 802.1v Port-based
	Port Trunking	802.3ad: Fail-over on multiple ports/multiple groups (Static or LACP); Flexible load distribution control. Up to 4 ports per group.
	Multicast	IP Multicasting for IGMP snooping function
	Rate Control	Define port bandwidth allocation, 100K blocks
	Priority Queuing	• "All high before low" scheduling • "Weighted Round Robin" scheduling • FCFS scheduling
	Class of Service	802.1P CoS with 2-level priority queuing
	Spanning Tree	IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Reconfiguration IEEE 802.1s Multiple Spanning Trees
	Security	• 802.1X Security Protocol for port-based security with compatible OS's or RADIUS servers • Ingress port security mode
	Port Mirroring	Supports Port Mirroring, Sniffing
	Counters	29 Counter per port to support MIB II-RFC1213 (RMON), RFC1493 (Bridge MIB) and RFC1643 (Ether-Like)
ENVIRONMENT	Power Requirement	AC Line Mains Power, 90–260VAC, 50/60 Hz
	Power Consumption	36W
	Temperature	5-45^0 Degrees Celsius (operating) -20-70^0 Degrees Celsius (storage)
	Operating Humidity	10%-90% (non-condensing)
	Mounting	Rackmount (kit included)
	Dimensions	440(W) x 184(D) x 44(H) mm
	Weight	2 Kg
	Compliance	FCC Part 15 Class A, CE Class A, C-Tick