

# ET-5MS-OEM Industrial Ethernet Switch

Sixnet Networking Series



## ▶▶▶ OEM Industrial Ethernet Managed Switch

The ET-5MS-OEM is a 6 port industrial Ethernet switch designed for OEM embedded applications. It allows you to easily and quickly create your own custom switch or Ethernet enable your existing OEM system. This powerful off-the-shelf solution will save you time and money!

### PRODUCT HIGHLIGHTS

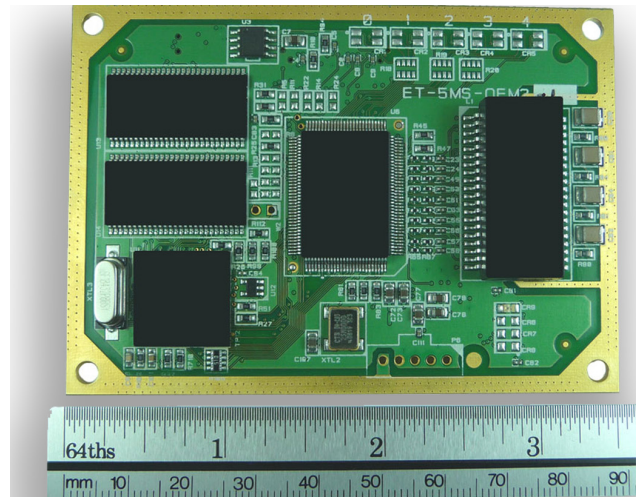
- Board level design for embedded applications
- 6 ports for flexible interfacing including one MII
- Complete Ethernet PHY and magnetics on-board
- Extra output lines to drive external LEDs
- Low power consumption – less than 2 Watts

### REAL-TIME ETHERNET PERFORMANCE

- Fast wire-speed switching
- Intelligent message routing - No collisions!
- Real-time Ring® and Rapid Spanning Tree (RSTP) for fast redundant ring or mesh connections
- SNMPv1 and v2 network management
- SNMPv3 authentication & encryption for security
- SNMP notifications (traps) for report on event
- Priority Queuing (QoS/CoS) for real-time operation
- IGMP for Multicast filtering (snooping & querying)
- VLAN for convenient traffic segregation
- Broadcast & multicast storm protection
- RMON & port mirroring for advanced diagnostics
- Security with HTTPS, SSL, SSH, SNMPv3 & more
- Easy to use interfaces: web, CLI or Telnet
- Free firmware upgrades forever

### INDUSTRIAL TOUGH – READY FOR ANY APPLICATION

- Ultra-reliable 1,000,000+ hours MTBF
- UL/CSA (CUL), CE and hazloc (Zone 2) rated
- -40 to 75°C operating range
- Self-test/alarm output signal



Create your own unique products as shown



Ideal for commercial off the shelf solutions

### Sixnet Knows Industrial

We have been designing industrial hardware such as Remote Terminal Units for over 30 years and have used this expertise to design the toughest Ethernet switches on the market. Don't trust your critical communications to so-called industrial hardware from commercial switch manufacturers. Sixnet switches give you proven assurance that your system will keep running for years to come.

# ET-5MS-OEM Industrial Ethernet Switch Specifications

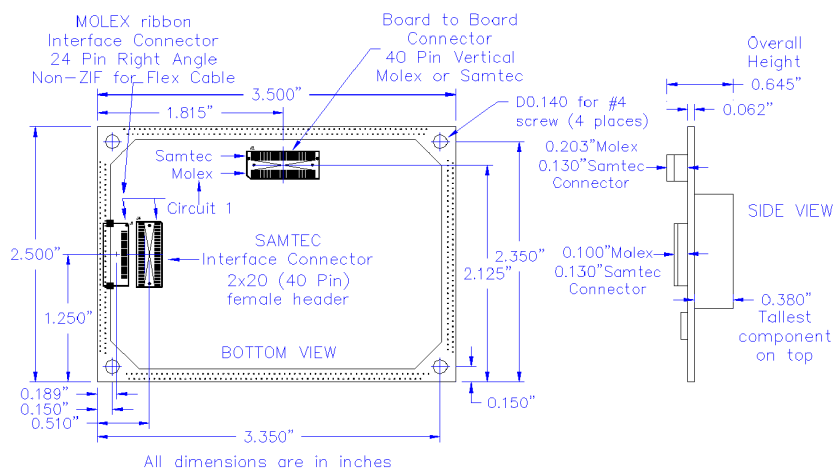
## ETHERNET PERFORMANCE

- Fully managed with 6 Ethernet ports
- Store & forward wire-speed switching
- Automatic address learning, aging and migration
- Full duplex operation with flow control (no collisions)
- All IEEE 802.3 Ethernet protocols supported
- MAC addresses supported 2048
- Memory bandwidth 3.2 Gbps
- Typical latency (varies on load and settings)
  - @ 100 Mbps: 5  $\mu$ s + frame time
  - @ 10 Mbps: 16  $\mu$ s + frame time
- Ethernet isolation 1500 VRMS 1 minute

## ETHERNET PORTS

- 6 fast (10/100) Ethernet ports total
- 4 with on-board PHYs and magnetics; these are available through board-to-board or ribbon connector
- 1 with on board PHY (by requires external magnetics); available through board-to-board connector
- 1 is an MII port for interface to an external CPU or PHY or fiber optic transceiver; available through board-to-board connector
- Ports support plug and play operation
  - Auto-negotiation for 10 or 100 Mbps
  - Auto-MDI/MDIX-crossover for either cable type
  - Auto-polarity corrects for crossed +/- signals

## MECHANICAL DRAWING



All specifications are subject to change. Consult factory for latest info.

## ETHERNET COMPLIANCE

- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3x (Full-Duplex with Flow Control)
- IEEE 802.1D/w, 802.1p, 802.1Q and much more

## POWER INPUT

- Power input voltage: 3.3 VDC (regulated)
- Input power (typical - all ports active at 100 Mbps)
  - <1.65 W (<500 mA @ 3.3 VDC)

## ENVIRONMENTAL

- Operating temperature: -40 to +75°C (cold startup at -40)
- Storage temperature: -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH
- Vibration and shock: IEC60068-2-6

## STANDARDS COMPLIANCE

- Electrical safety - UL508/CSA C22.2/14, EN61010-1, CE
- EMC - FCC part 15, ICES-003; EN61000-6, CE
- Hazardous locations: UL1604/CSA C22.2/213 (Class I, Div. 2); EN60079-15 (Zone 2, Category 3), CE (ATEX)

## ORDERING GUIDE

|                        |   |
|------------------------|---|
| <b>ET-5MS-OEM-2-1</b>  | OEM switch with Molex connectors                    |
| <b>ET-5MS-OEM-2-1B</b> | OEM switch with Samtec connectors plus Molex ribbon |

Reference mechanical diagram

