EMX-ESG I/O
Ethernet, Serial and GPS I/O Module

Key Features
♦ Two Gigabit Ethernet ports
♦ Six serial ports:
  – 4 RS-232/422/485
  – 2 RS-232 (3.3V logic level optional)
♦ 14 GPIO lines
♦ Support for GPS receiver
♦ Driver support for:
  – Windows Embedded Standard 7
  – Windows CE 6
  – Linux 2.6
♦ +5VDC or +3.3VDC
♦ EMX expansion bus for stackable I/O
♦ EMX Compact form factor (95 x 95 mm)
♦ Extremely rugged -40°C to +85°C (-40°F to +185°F) operating temperature

EMX form factor I/O module with Ethernet ports, serial ports and support for a GPS receiver

Full Featured EMX I/O Module
EMX-ESG is an EMX Compact form factor I/O module featuring two PCI Express Gigabit Ethernet ports, an LPC UART with 6 serial ports, 14 GPIO lines, and support for a GPS receiver.

GPS Receiver
EMX-ESG supports a Condor 23-channel GPS receiver.

EMX Bus Interface
EMX-ESG provides a full EMX stackthrough bus interface, allowing it to be integrated into any EMX stack. The EMX bus supports four PCIe x 1 lanes and the LPC bus.

Rugged Design
Extended temperature operation of -40°C to +85°C is tested and guaranteed. EMX-ESG was designed with harsh applications in mind.
EMX-ESG: LAN, Serial and GPS I/O

**ORDERING INFORMATION**

- **EMX-ESG777**: EMX-ESG I/O module with 6 serial, 2 LAN, 24 GPIO
- **EMX-ESG624**: EMX-ESG I/O module with 6 serial, 24 GPIO
- **EMX-ESG200**: EMX-ESG I/O module with dual Gigabit Ethernet
- **EMX-ESG777-GC**: EMX I/O module with 6 serial, 2 LAN, 24 GPIO, GPS
- **EMX-ESG624-GC**: EMX I/O module with 6 serial, 24 GPIO, GPS

**SPECIFICATIONS**

**Ethernet**
- 2 Gigabit Ethernet ports based on Intel 82574IT Ethernet chips

**Serial**
- 4 RS-232/422/485 ports
- 2 RS-232 ports (3.3V logic level optional)
- All 6 ports from SMSC SCH3116 UART

**GPIO**
- 14 general purposed digital I/O lines
- Programmable direction with I/O buffers
- 3.3V logic level with 5V compatibility

**GPS Receiver**
- Supports Condor 23-channel GPS receiver

**Input Power**
- +5VDC or +3.3VDC

**Bus Interface**
- EMX bus passthrough

**Form Factor**
- EMX Compact 3.75” x 3.75” (95mm x 95mm)

**Operating Temperature**
- -40°C to +85°C (-40°F to +185°F)

**Weight**
- 3.2oz (90.7g)

**RoHS**
- Compliant

**Software Support**

EMX-ESG is supplied with all required firmware and drivers, enabling its immediate operation without any development effort. This includes drivers for Windows Embedded Standard 7, Windows CE 6 and Linux 2.6.

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