



Bridging the Gap between Real World and Computer

EMA8308/D



Software key function

Introduction

EMA8308 is an Ethernet analog I/O module.

Some models have 24-bit unipolar analog input which can be wired as single end or differential input. The other model have 24-bit bipolar analog input but only differential input.

As the models have 2 channel analog output with optional 12-bit or 16-bit bipolar output.

It can work as a standalone web server to provide control directly by web page. It also provide password to prevent un-authorized change.

DII is provided for WinXP, Win7 and later or LINUX platform and sample programs come with VB source code.

Applications

- ▶ For remote analog voltage sensing
 - sensor signal sensing
 - analog voltage monitoring
- ▶ For remote voltage output
 - speed control
 - light dimmer control
 - temperature control

Software Support

▶ PC OS Support

WinXP, Win7 and later or Linux O.S.
Embedded XP, Win CE (at request)

▶ Library

DLLs, VI library

▶ Develop Software

Visual C++, Visual Basic,
Borland C/C++ Builder, LabVIEW etc

▶ Example Source Code

Visual Basic

Ordering Information

- ▶ **EMA8308** : Ethernet I/O module, 24-bit uni-polar 8 differential /16 single end analog input, 2 16-bit analog output
- ▶ **EMA8308D** : Ethernet I/O module, 24-bit bi-polar 8 differential analog input, 2 16-bit analog output
- ▶ **JD52000** : 110/220Vac to 24Vdc @1.5A power supply
- ▶ **JS52026** : 110/220Vac to 24Vdc @0.75A power adapter

Ethernet Module Analog I/O

Features

- ▶ Over-voltage protection on analog input
- ▶ Over-load protection on analog output
- ▶ 24-bit accuracy
- ▶ 10 samples per second
- ▶ -10V~ +10V output
- ▶ IP re-assignment
- ▶ 10/100M auto detection
- ▶ UDP and TCP/MODBUS protocol
- ▶ Peer to peer response time < 2ms
- ▶ **16 Single end analog input (EMA8308)**
- ▶ **Multiple analog input range : 0~5V, 0~10V, 4~20mA, 0~20mA**
- ▶ **8 Differential analog input (EMA8308D)**
- ▶ **High common mode voltage up to 10V**
- ▶ **Multiple analog input range : -5~ +5V, -10~ +10V 4~20mA, 0~20mA**
- ▶ **Standalone function : step sequence control instruction, device to device communication**

Specifications

Analog Input

- ▶ Input Channels : **EMA8308 : 16 channels unipolar single**
Single end or differential
EMA8308D : 8 channels differential
- ▶ Resolution : 24-bit
- ▶ Offset Error : 2.5uV(typ), 5uV(max)
- ▶ Offset Error Drift : 20nV / °C
- ▶ Input Common Mode Rejection : 120dB
- ▶ Sample Rate : 10 samples/second (pre channel)
- ▶ Input Type : differential or single end (port programmable)
- ▶ Input Range :
0~5V(23-bit), 0~10V(24-bit), 0~20mA(23-bit),
4~20mA(22-bit) (EMA8308)
-5V ~ +5V(23-bit), -10V ~ +10V(24-bit),
0~20mA(23-bit), 4~20mA(22-bit) (EMA8308D)
- ▶ Input Filter : 7.03K, 3.52K, 1.76K, 879Hz
- ▶ Over-voltage Protection : 20Vdc(max)

Analog Output

- ▶ Output Points : 2 channels
- ▶ Resolution : 16-bit (EMA8308, EMA8308D)
- ▶ Output Range : -10Vdc ~ +10Vdc
- ▶ Over Load Protection : 50mA(peak)

Ethernet

- ▶ 10/100M auto switch x 2 port
- ▶ WDT : 1~1000sec based on 0.1 sec time base for communication discontinuity detect
- ▶ Response time 2ms

Main Card General

- ▶ Power Requirement : 12Vdc ~ 24Vdc
- ▶ Operation Temperature : 0 °C ~ +70 °C
- ▶ Storage Temperature : -20 °C ~ +80 °C
- ▶ Operation Humidity : 5~95% RH, non-condensing
- ▶ Dimensions : 115.4(D)*136(W)*34(H)mm
4.6(D)*5.4(W)*1.4(H)in