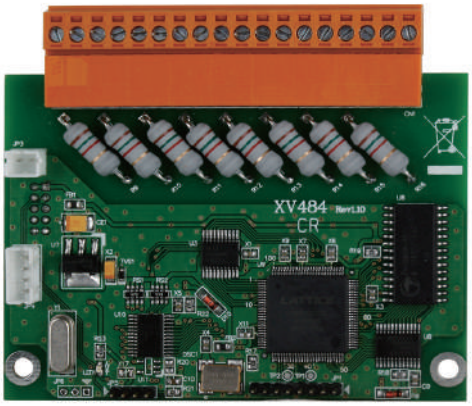


XV484

4/8-ch Counter/Frequency/Encoder Input Expansion Board

Features

- 8 Up Counter/Frequency Channels or 4 Encoder Input Channels
- Programmable Digital Filter
- 32-bit Counter
- Individual Channel Configuration
- Virtual Battery Backup to Preserve Counter Values
- ±4 kV ESD Protection
- Preset Values for Counter Input
- RoHS Compliant
- Wide Operating Temperature Range: -25 to +75°C

Introduction

The XV484 is a 32-bit high-speed Counter/Frequency/Encoder input Expansion Board that offers a variety of mode options, including "Up Counter", "Frequency Input", "Up/Down Counter", "Direct/Pulse Counter" and "A/B Phase Counter" modes. The mode combinations can be individual set for all 8 channels, where some channels can be set to "Up Counter" mode and other channels can be simultaneously set to "Frequency", "Up/ Down Counter" or "Encoder input" mode. The built-in digital filter can filter out noise where the high/ low pulse width is smaller than the minimum high/low width of the digital filter.

Specifications

Isolation	
Intra-module Isolation	2000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact For Each Terminal ±8 kV Air For Random Terminal
Counter/Frequency/Encoder Input	
Channels	4-channel Up/Down Counter (CW/CCW) 4-channel Dir/Pulse Counter (Bi-direction) 4-channel A/B Phase (Quadrant Counting) 8-channel Up Counter 8-channel Frequency
Type	Counter, Frequency or Encoder, Wet Contact
Sink/Source (NPN/PNP)	Sink
Counter/Encoder Bits	32-bit (4,294,967,295)
ON Voltage Level	+5 VDC ~ +24 VDC
OFF Voltage Level	+3 VDC Max
Frequency Accuracy	1 Hz ~ 200 kHz = ±0.025% of Input Frequency (Note1) 200 kHz ~ 1 MHz = ±0.1% of Input Frequency
Individual Channel Configuration	Yes
Counter Mode	Up or Up/Down
Encoder Mode	CW/CCW, Dir/Pulse, AB Phase
Max. Speed	1 MHz
COM Ports	
Ports	1 x RS-232
Baud Rate	115200 bps
Data Format	N, 8, 1
Protocol	Modbus/RTU

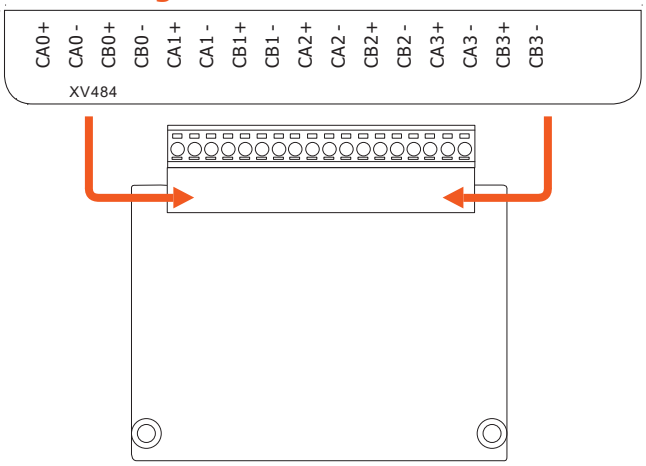
Power	
Consumption	1.2 W
Powered from Terminal Block	5 VDC
Mechanical	
Dimensions (mm)	59 mm x 82 mm x 13 mm (W x L x H)
Environmental	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing

Note1:

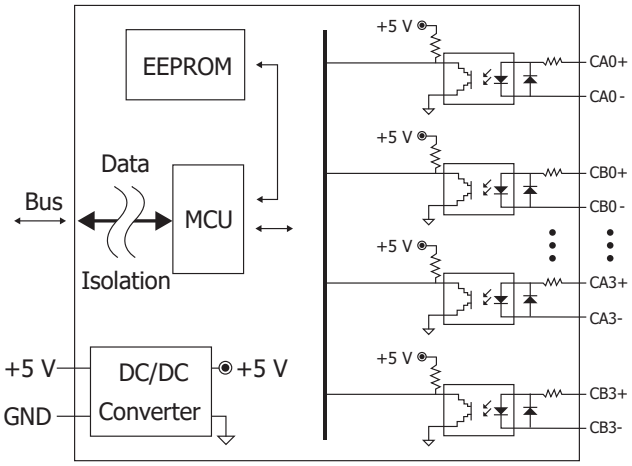
Frequency Range	**Frequency Error (Typical)**
1 Hz ~ 10 Hz	0.01 Hz
10 Hz ~ 10 KHz	0.5 Hz
10 KHz ~ 100 KHz	15 Hz
100 KHz ~ 200 KHz	30 Hz

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Pin Assignments



Internal I/O Structure



Wire Connections

	Counter Type
Up	Up+ — CAx+ Up - — CAx-
Up/Down	Up+ — CAx+ Up - — CAx- Down+ — CBx+ Down - — CBx-
Dir/Pulse	Pulse+ — CAx+ Pulse - — CAx- Dir+ — CBx+ Dir - — CBx-
A/B Phase	A0+ — CAx+ A0 - — CAx- B0+ — CBx+ B0 - — CBx-

	Frequency Type
Frequency	Freq+ — CAx+ Freq - — CAx-

Ordering Information

XV484 CR	4/8-ch Counter/Frequency/Encoder Input Expansion Board (RoHS)

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