AX92352 NEW

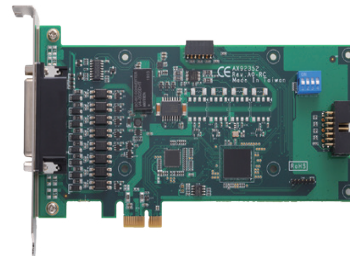## 2-CH Encoder Card with Real-time trigger I/O

Features

- Synchronizes devices via real-time I/O
- Applied to area scan and line scan applications
- Integrates multiple I/O
  - 2-CH 32-bit incremental quadrature encoder input
  - 4-CH trigger input
  - 4-CH trigger output
  - 8-CH isolated DI, 8-CH isolated DO
- Programmable interrupt functions
- PCI Express x1 compliant

▲ Side View

Introduction

The AX92352 integrates advanced vision I/O capabilities for machine vision applications, such as synchronizing multiple frame grabbers in line scan and multiple cameras in area scan. It provides 2-CH encoder input with the FIFO function to achieve the tasks of position comparison and linear trigger. Furthermore, it also has trigger I/O with a microsecond-scale real-time control camera to capture images, as well as isolated DIO that can be used with other devices for your vision cases. The AX92352 vision I/O card can fit in the PCI Express slot of any vision control system to simplify the deployment of your machine vision platform.

Specifications

Isolated Encoder Input

Channels	2-CH 32-bit incremental quadrature encoder input (A/B/Z)
Type	Differential or single-ended 5V, 12V open collector
Counter Mode	x1/4, x1/3, x1/2, x1, x2, x4
Input Filter	Programmable de-bounce filter
Frequency Input	Max. 1MHz
Operating Mode	Linear function, FIFO, Position latch

Isolated Trigger Input

Channels	4-CH
Type	Sink
Input range	On (Logic 1): 3.3 to 30 VDC Off (Logic 0): 0 to 2 VDC
Response Time	1us (from trigger input to trigger output)
Input Filter	Programmable de-bounce filter

Isolated Trigger Output

Channels	4-CH
Output Voltage	0 to 30 VDC, sink, open collector
Output Current	Current: max. 100mA per channel
Response Time	1us (from trigger input to trigger output)
Configuration	Derived from 4CH trigger input or encoder input. The user can set the pulse delay time and duration time
Trigger Sources	4CH trigger input/encoder: 4 x Linear function, 2 x FIFO (each channel supports two sources)

Isolated Digital Input

Channels	8-CH
Type	Sink/Source
Input Voltage	On (Logic 1): 10 to 30 VDC or dry contact Off (Logic 0): 0 to 3 VDC
Impedance	7.5KΩ

Isolated Digital Output

Channels	8-CH
Output type	Sink, open collector
Supply voltage	5 to 30 VDC
Sink current	Max. 200 mA per channel

Interrupt

Sources	Two interrupt sources from DI, Trigger/Latch input, Encoder Z phase, FIFO empty, encoder overflow and encoder linear function

General Specifications

Bus Type	PCI Express x1
I/O Connector	D-sub 44-pin female connector
Isolation Voltage	2 kVDC
Power Requirements	180mA @ +3.3V (Max.) 120mA @ +12V (Max.)
Dimensions	168 x 100 mm
Board ID	Yes, 4-bit
Operating Temperature	0°C to +70°C (32°F to +158°F)
Storage Temperature	-20°C to +80°C (-4°F to +176°F)
Humidity	10 to 95% RH, non-condensing

Software Support

EOS Support	Windows® 7/Windows® 10 (32/64bit)
Software Compatibility	C#, C/C++

Ordering Information

AX92352	2-CH Encoder Card with Real-time trigger I/O
AX92353	4-CH lighting control module (this optional module cannot be operating independently, please apply with AX92352)

Accessories

5A244AP1200E	44-pin DIN-rail terminal board DM44-AP12
594DM443500E	44-pin D-SUB cable, L=1m WHDM44/1.0-6954
594DM443510E	44-pin D-SUB cable, L=2m WHDM44/2.0-6954
594DM443520E	44-pin D-SUB cable, L=3m WHDM44/3.0-6954

*Specifications and certifications are based on options and may vary.

Smart Display Modules

8

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660