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

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/2)
- 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: 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: G#, 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.

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