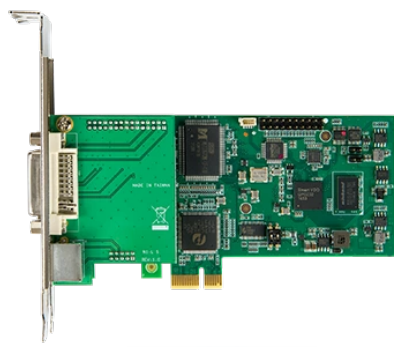


6/3/2024

Datasheet

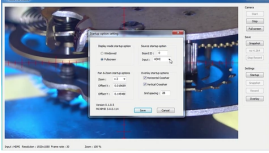
Piccolo HD 3G DVI

3G 60FPS DVI high-definition 1080p video capture card



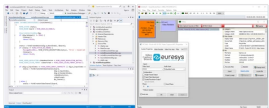
- Video and audio capture from DVI, Y/Pr/Pb, S-Video or CVBS video sources
- HD 1920x1080p50/60
- SD 525i60 and 625i50
- 16 general purpose IO lines
- PCIe (2.0) Gen2 x1 bus

Main benefits



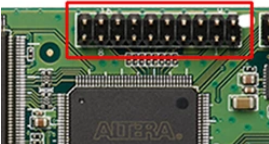
Picolo HD Studio

- Demonstration and evaluation program compatible with the Picolo HD series of video capture cards
 - Demonstrates the acquisition and live display of HD video, the use of non-destructive overlays, with an option to display a reticle cross or any graphics on the video
 - Able to save images
 - Available as an executable application and as source code
-



APIs

- MultiCam for Picolo HD 32- and 64-bit binary libraries for ISO-compliant C/C++ compilers
 - DirectShow filters for Microsoft Visual C++ compilers, for 32- and 64-bit applications
 - DirectShow .NET C#
-



16 general purpose IO lines

16 general purpose IO lines



Analog Y/Pb/Pr, audio and watchdog cables included

Analog Y/Pb/Pr, audio and watchdog cables included

Other benefits

Compatible with a wide range of HD and SD video sources

- DVI
 - Y/Pb/Pr
 - S-Video
 - CVBS
-

Audio signal acquisition

- Stereo
- 16-bit linear PCM
- 32, 44.1, 48 kHz

Specifications

Mechanical

Form factor

PCI Express card

Format

Low profile, half length, 1-lane PCI Express card with optional "Bypass module" on second slot bracket

Dimensions

L 135 mm x H 68 mm

L 5.31 in x H 2.68 in

Weight

Net weight: 290 g [10.2 oz]

Gross weight: 412 g [14.5 oz]

Host bus

Standard

PCI Express 2.0

Link width

1 lane

Link speed

5.0 GT/s (PCIe 2.0)

Peak delivery bandwidth

512 MB/s

Power consumption

Max. 4.1 W

Camera / video inputs

Camera interface standard

DVI-I, Analog

Interface standard(s)

DVI-D for HD digital video

DVI-A and Y/Pb/Pr for HD analog video

S-Video for SD analog Y/C video

CVBS for SD analog composite video

Connectors

DVI-I Input: DVI-I socket(female) connector on the bracket for digital and analog video inputs

YCbCr/AVS Inputs: mini-DIN female connector on the bracket for one of the following cable:

Y/Pb/Pr/L/R component cable

S-Video/CVBS/L/R component cable

The Y/Pb/Pr/L/R component cable provides:

Y/Pb/Pr: three RCA female connectors for analog HD component video inputs

The S-Video/CVBS/L/R component cable provides:

S-Video: one 4-pin mini-DIN female connector for analog SD component video inputs

CVBS: one RCA female connector for analog SD composite video input

Formats and standards (HD)

Up to 1080p60 / 1080i60 / 720p60

Formats and standards (SD)

525i60 (NTSC M, NTSC J, PAL M)

625i50 (PAL B/D/G/H/I, PAL N)

Number of cameras

1

Maximum number of cameras

1

Video delivery

Raw video format(s)

YUY2, Packed YUV 4:2:2

Deliverable video resolution (HD)

1080p or 1080i source : 1920 x 1080 down to 640 x 480

720p source: 1280 x 720 down to 640 x 480

Deliverable video resolution (SD)

525i60 source: 720 x 480

625i50 source: 720 x 576

Audio / Video Outputs

Loop-through

All digital and analog, audio and video input signals are replicated on the connectors of the bypass module

Connectors

DVI-I Output: DVI-I socket(female) connector on the bypass module bracket for digital and analog video outputs

YCbCr/AVS Outputs: mini-DIN female connector on the bypass module bracket for one of the following cables:

Y/Pb/Pr/L/R component cable

S-Video/CVBS/L/R component

The Y/Pb/Pr/L/R component cable provides:

Y/Pb/Pr: 3 RCA female connectors for analog HD component video outputs

The S-Video/CVBS/L/R component cable provides:

S-Video: 14-pin mini-DIN female connector for analog SD component video outputs

CVBS: 1 RCA female connector for analog SD composite video

Audio inputs

Number of inputs

1, Stereo

Type

L/R Audio: Two line-level analog audio inputs

Audio format

16-bit Linear PCM

32 kHz, 44.1 kHz or 48 kHz

Connectors

YCbCr/AVS Inputs: mini-DIN female connector on the bracket for one of the following cable:

Y/Pb/Pr/L/R component cable

S-Video/CVBS/L/R component cable

The Y/Pb/Pr/L/R component cable provides:

L/R : one twin RCA female connector for analog audio inputs

The S-Video/CVBS/L/R component cable provides:

L/R: two RCA female connectors for analog audio inputs

Audio outputs

Connectors

YCbCr/AVS INPUTS: mini-DIN female connector on the bracket for one of the following cables:

Y/PB/Pr/L/R component cable

S-video/CVBS/L/R component cable

The Y/PB/Pr/L/R component cable provides:

L/R : 1 twin RCA female connector for analog audio outputs

The S-video/CVBS/L/R component cable provides:

L/R: 2 RCA female connectors for analog audio outputs

General Purpose Inputs and Outputs

Number of lines

16 I/O lines (IO)

Connectors

I/O: 20-pin dual-row 0.1" header on the PCB

WATCHDOG: 4-pin dual-row 0.1" header on the PCB

Usage

General purpose IO

Electrical specifications

IO: Quasi-bidirectional I/O lines, individually configurable as input or output

Host system requirements

Processor

Minimum: Core 2 Duo or better

Recommended: Intel 2nd/ 3rd Generation Core i3/i5/i7

System memory

Minimum: 2GB DDR3

Recommended: 4GB DDR3 (dual channel) or better

Graphic card

Minimum: Supports DirectX 9 or higher

Recommended: Intel HD2000/2500/3000/4000 or better

Software

Host PC Operating System

Microsoft Windows 10 for x86 (32-bit) and x86-64 (64-bit) processor architectures

Microsoft Windows 11 for x86-64 (64-bit) processor architecture

APIs

MultiCam for Pico HD 32- and 64-bit binary libraries for ISO-compliant C/C++ compilers

DirectShow filters for Microsoft Visual C++ compilers, for 32- and 64-bit applications

DirectShow .NET C#

Environmental conditions

Operating ambient air temperature

0 °C to +50 °C / +32 °F to +122 °F

Operating ambient air humidity

10% to 90% RH non-condensing

Storage ambient air temperature

-20 °C to +70 °C / -4 °F to +158 °F

Storage ambient air humidity

10% to 90% RH non-condensing

Certifications

EMC standards

European Council EMC Directive 2014/30/EU

United States FCC rule 47 CFR 15

EMC - Emission

EN 55022:2010 Class B

FCC 47 Part 15 Class B

EMC - Immunity

EN 55024:2010 / CISPR 24:2010

EN 61000-4-2:2009

EN 61000-4-3:2006 + A2:2010

EN 61000-4-4:2012

EN 61000-4-8:2010

RoHS

European Union Directive 2015/863 (ROHS3)

REACH

European Union Regulation 1907/2006

WEEE

Must be disposed of separately from normal household waste and must be recycled according to local regulations

Ordering Information

Product status

Released

Product code - Description

PC1843-2 Picolo HD 3G DVI

Included accessories

PC1844 - Picolo HD Y/Pb/Pr/L+R Analog A/V Cable

PC1845 - Picolo HD S-Video/CVBS/L+R Analog A/V Cable

PC1846 - Picolo HD Watchdog Cable

Related products

PC1845 Picolo HD S-Video/CVBS/L+R Analog A/V Cable

PC1846 Picolo HD Watchdog Cable

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