

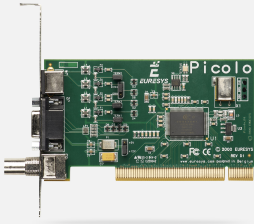


# Piccolo

Video capture cards for standard PAL/NTSC cameras and high-definition 1080P cameras

## At a Glance

- PCI/PCIe video capture cards compatible with standard cameras
- Support of composite and S-Video signals (selected models)



## Benefits

Robust, reliable, dependable video capture card

Take advantage of the lowest-cost industrial cameras available on the market

Supports S-Video signals for the highest quality color images

Windows drivers available

## Applications

### Machine Vision for the General Manufacturing Industries

- Low cost image acquisition from industrial analog cameras for inspection machines

### Life Sciences & Medical

- Standard and high-definition image acquisition for endoscopy applications
- Standard and high-definition image acquisition for dental applications

### Microscopy

- High-definition image acquisition for offline inspection stations
- High-definition image acquisition for laboratory and measuring microscopes

## Specifications

### Mechanical

|             |                                                             |
|-------------|-------------------------------------------------------------|
| Form Factor | PCI card                                                    |
| Format      | Standard profile, half-length, 32-bit Conventional PCI card |
| Dimensions  | L 120.90 mm x H 69.83 mm                                    |

## Host bus

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Standard          | PCI 32-bit, 33 MHz, 5 V signaling                   |
| DMA               | 32-bit                                              |
| Power consumption | Max. 1 W (200 mA @ +5V), excluding I/O power output |

## Camera / video inputs

|                                        |                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interface standard(s)                  | NTSC-M, PAL-B/G, RS-170, CCIR                                                                                                                                                                                                                                                                                                               |
| Connectors                             | <ul style="list-style-type: none"><li>• VIDEO 1: BNC female connector on the bracket for composite video input</li><li>• S-VIDEO: 4-pin mini-DIN female connector on the bracket for components video input</li><li>• DB9: 9-pin sub-D female connector on the bracket</li><li>• Internal: 10-pin shrouded male header on the PCB</li></ul> |
| Termination resistor                   | Selectable using jumpers on the PCB                                                                                                                                                                                                                                                                                                         |
| Native resolution                      | Square pixels, broadcast and custom resolutions                                                                                                                                                                                                                                                                                             |
| Frame rate                             | Up to 25/30 images per second, 50/60 fields per second                                                                                                                                                                                                                                                                                      |
| Number of cameras                      | 3                                                                                                                                                                                                                                                                                                                                           |
| Number of cameras (at full frame rate) | 1                                                                                                                                                                                                                                                                                                                                           |
| Line-scan cameras supported            | No                                                                                                                                                                                                                                                                                                                                          |

## Video delivery

|                                   |                                                  |
|-----------------------------------|--------------------------------------------------|
| Raw video format(s)               | Planar, packed, YUV and RGB color formats        |
| Deliverable video resolution (SD) | Frame, field, CIF, QCIF and custom image formats |

## General Purpose Inputs and Outputs

|                           |                                                                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of lines           | 4 I/O lines (IO)                                                                                                                                                       |
| Connectors                | <ul style="list-style-type: none"><li>• DB9: 9-pin female sub-D connector on the bracket</li><li>• INTERNAL: 10-pin dual-row 0.1" shrouded header on the PCB</li></ul> |
| Usage                     | General purpose IO                                                                                                                                                     |
| Electrical specifications | IO: TTL-compatible I/O lines                                                                                                                                           |

## Software

|                          |                                                                                                                                                                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host PC Operating System | <ul style="list-style-type: none"><li>• Microsoft Windows 10, 8.1, 7 for x86 (32-bit) and x86-64 (64-bit) processor architectures</li><li>• Linux for x86 (32-bit) and x86-64 (64-bit) processor architectures</li></ul> <p>Refer to release notes for details</p> |
| APIs                     | <ul style="list-style-type: none"><li>• MultiCam 32- and 64-bit binary libraries (Windows and Linux), for ISO-compliant C/C++ compilers</li><li>• DirectShow 32- and 64-bit filters (Windows only), for Microsoft Visual C++ compilers</li></ul>                   |

## Environmental conditions

|                                   |                               |
|-----------------------------------|-------------------------------|
| Operating ambient air temperature | 0 to +50 °C / +32 to +122 °F  |
| Operating ambient air humidity    | 10 to 90% RH non-condensing   |
| Storage ambient air temperature   | -20 to +70 °C / -4 to +158 °F |
| Storage ambient air humidity      | 10 to 90% RH non-condensing   |

## Certifications

|                                 |                                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic - EMC standards | <ul style="list-style-type: none"><li>• European Council EMC Directive 2004/108/EC</li><li>• United States FCC rule 47 CFR 15</li></ul> |
| EMC - Emission                  | <ul style="list-style-type: none"><li>• EN 55022:2010 Class B</li><li>• FCC 47 Part 15 Class B</li></ul>                                |

|                  |                                                                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC - Immunity   | <ul style="list-style-type: none"> <li>• EN 55024:2010 Class B</li> <li>• EN 61000-4-2</li> <li>• EN 61000-4-3</li> <li>• EN 61000-4-6</li> </ul> |
| KC Certification | Korean Radio Waves Act, Article 58-2, Clause 3                                                                                                    |
| Flammability     | PCB compliant with UL 94 V-0                                                                                                                      |
| RoHS             | European Union Directive 2011/65/EU (ROHS2)                                                                                                       |
| 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 code - Description | <ul style="list-style-type: none"> <li>• 1155 - Picolo</li> </ul> |
|----------------------------|-------------------------------------------------------------------|

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