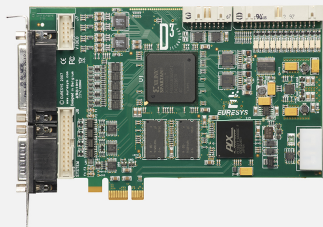




Domino Symphony PCIe

用于四个单头非标模拟摄像机的图像采集卡



一览

- 带有 8 或 10 位 LUT 的四个 10 位 65 MHz A/D 转换器
- PCIe x1 总线
- 极低同步抖动的 D \square 技术
- 支持百万像素逐行扫描和隔行摄像机、异步复位和曝光控制
- 触发，闪光及通用 I/O 线

优势

享受低成本模拟摄像机的数字质量，感谢我们的 D \square 专利技术

- 极低的噪音、真正的 10 位图像采集
- 最低的抖动：使用复合视频信号时，对于大多数精确测量，抖动 0.5 纳秒（或 0.008 像素）
- 无需使用像素时钟

利用好市场上现成的成本最低的工业摄像机

提供 Windows 和 Linux 驱动程序

应用

一般制造业的机器视觉

用于检测机器的来自工业模拟摄像机的低成本图像采集

利用好市场上现成的带有 Domino 和 Picolo 系列卡的成本最低的工业摄像机。

规范

Mechanical

Form Factor	PCI Express card
Format	Standard profile, half length, 1-lane PCI Express card
Dimensions	L 167.65 mm x H 111.15 mm L 6.6 in x H 4.38 in
Weight	135 g, 4.76 oz

Host bus

Standard	PCI Express 1.0
Link width	1 lane
Link speed	2.5 GT/s (PCIe 1.0)
DMA	32-bit
Peak delivery bandwidth	256 MB/s
Effective (sustained) delivery bandwidth	180 MB/s (Host PC motherboard dependent)
Power consumption	Typ. 8.3 W (940 mA @ +3.3V, 430 mA @ +12V), excluding I/O power output

Camera / video inputs

Interface standard(s)	Non-standard Analog
Connectors	<ul style="list-style-type: none">• CAMERAS: high-density sub-D 44-pin male connector for video and camera control• Internal video: 10-pin shrouded header video connector on the PCB
Termination resistor	Selectable by software
Number of cameras	Four single-tap cameras
Number of cameras (at full frame rate)	4
Line-scan cameras supported	No
A/D converter	Four, 10-bit, 65 MHz
Maximum camera line rate	52.5 kHz

On-board processing

On-board memory	64 MB (32 MB for image data)
Input LUT (Look-Up-Table)	4 x 8- or 10-bit LUT

General Purpose Inputs and Outputs

Number of lines	32 I/O lines: <ul style="list-style-type: none">• 4 contact inputs (Factory I/O: IN)• 12 relay outputs (Factory I/O: OUT)• 4 TTL inputs/outputs (System: IO)• 4 differential inputs (System: TR)• 4 opto-isolated outputs (System: ST)• 4 full-duplex serial com ports (Camera COM: RX/TX)
Connectors	<ul style="list-style-type: none">• EXTERNAL SYSTEM: 26-pin high-density male sub-D connector on the bracket• INTERNAL SYSTEM: 26-pin dual-row 0.1" shrouded header on the PCB• FACTORY I/O: 34-pin dual-row 0.1" shrouded header on the PCB• CAMERA COM: 16-pin dual-row 0.1" shrouded header on the PCB• Molex 4-pin connector on the PCB for powering cameras
Usage	<ul style="list-style-type: none">• Camera and image acquisition trigger• Light strobe trigger• General purpose IO
Electrical specifications	<ul style="list-style-type: none">• TR: Inputs compatible with TTL, LVTTTL, differential LVDS, differential RS422, differential RS-485 signals, protected against electrostatic discharge, with choke for the rejection of common-mode noise• ST: Opto-isolated outputs, compatible with signals up to 60V, with 3 μs fall time, isolated up to 500V• IO: Inputs or outputs compatible with TTL signals, protected against electrostatic discharge, with high-frequency noise filter• IN: Polarity-free inputs, compatible with TTL, 12V and 24V signals, opto-couplers, relays and switches• OUT: Opto-isolated potential-free and polarity-free solid-state outputs, compatible with signals up to 30V, with 4 μs fall time, isolated up to 500V• COM: RS232 asynchronous serial communication lines to control the cameras (exposed to the OS as standard COM ports)

Software

Host PC Operating System	<ul style="list-style-type: none">• Microsoft Windows 10, 8.1, 8, 7, XP• Microsoft Windows Server 2012 R2, 2012, 2008 R2• Linux Kernel versions from 2.6 up to 3.13, compatible with a wide range of distributions• 32- and 64-bit versions
APIs	<ul style="list-style-type: none">• MultiCam 32-bit and 64-bit binary libraries (Windows and Linux), for ISO-compliant C/C++ compilers• DirectShow filters (Windows only) for Microsoft Visual C++ compilers (32-bit only)

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	• The European Council EMC Directive 2004/108/EC
EMC - Emission	• EN 55022:2010 Class B
EMC - Immunity	• EN 55024:2010 Class B
Flammability	PCB compliant with UL 94 V-0
RoHS	Compliant with the European Union Directive 2011/65/EU (ROHS2)
REACH	Compliant with the European Union Regulation No 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	• 1601 - Domino Symphony PCIe
Optional accessories	6011 - Symphony Spider Cable



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