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microUSB2 CAMextension

Optimized high data transfer over USB 2 interface

Easy connection to host PC without power supply

Flexible hardware and software concept.

Interface to VHDL programming programming le

Extensible on a frame grabber le





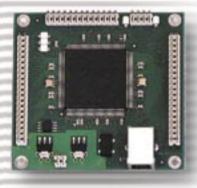
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microUSB2 microUSB2 CAMextension

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Benchmarks

- assured bandwidth of 48 MByte/sec. isochronous data transfer
- · core generator to create hardware applets
- VHDL interface to implement customized programs (by merging a custom netlist and microUSB2 netlist)
- connectivity to C⁺⁺ based FPGA hardware programming tool



Technical feature

Hardware feature

- embedded data and vision preprocessor
- Xilinx Spartan XC2S 200E FPGA processor
- USB 2 interface
- 66 freely configurable digital inputs/outputs
- 2 clocks
- 3 status LED
- 2 programmable LED
- · no external power supply necessary

General features

- bandwidth up to 48 MBytes/sec.
- image preprocessings implementable
- · usage as an embedded data processor
- usage as an embedded frame grabber

•	usage	as a	an	additional	image	preprocessor
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 adaptation to customized hardware and customized applications

Customized applets

- creation by integrated core generator
- creation by VHDL
- creation by C⁺⁺ based FPGA hardware programming tool

Software features

- software development kit (SDK)
- hardware self test tool
- · documentation and applet examples

Supported OS

- Windows 2000
- Windows XP

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Hardware feature

- CAMextension combines microUSB2 and a frame grabber daughterboard
- miniaturized stand-alone frame grabber for mobile, embedded and industrial applications.
- operation as one-channel frame grabber up to 48 MBytes/sec.
- supports CameraLink and LVDS cameras.
- frame grabber with real time image preprocessing capability.



Camera interfaces

- I x CameraLink BASE configuration
- I x LVDS 16-bit
- trigger interface with 2 x input, 4 x output,
 I x LVDS trigger out
- additional power supply

Software features

- software development kit (SDK)
- microDisplay
- hardware diagnostic tool
- documentation and examples

Availability

• Q1 / 2004

microUSB2 CAMextension CameraLink **LVDS** camera support camera clock 66 MHz 66 MHz **BASE** 16 bit format 2 / 4 IOs LVDS trg out trigger CL cable serial comm performance 2k * 2k 2k * 2k resolution transfer rate 48 MBytes/s 48 MBytes/s

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