IEEE 1394 MegaPixel Digital Camera

Megapixel resolution
IEEE 1394 6 pin cable
Low power and compact
Standard CS-mount lenses

VIDERE DESIGN

MEGA-DCS

The MEGA-DCS Megapixel Digital Camera is designed for easy integration into research and industrial machine vision applications. The all-digital camera delivers superb video quality in a small package. Power, control and video are combined in a convenient IEEE 1394 FireWire interface External (bus) synchronization allows maximum flexibility in integrating networks of MEGA-DCS devices. Driver software and a graphical viewing application let you start using the camera immediately.

less than 0.75 watts of power, provided through the IEEE 1394 bus.

The MEGA-DCS is an all-digital megapixel resolution camera for machine vision tasks. High performance and low power in a compact package, with a simple IEEE 1394 (FireWire) interface. Uncompressed video at megapixel resolu-tion (15 fps) or VGA (60 fps), color or monochrome. System includes standard lens, driver software, and a graphical application for "out of the box" utility.

Digital Camera standards

The MEGA-DCS conforms to the Digital Camera 1.30 specification, for easy integration into existing applications. Maximum resolution is 1280x960 for detail work. On-chip subsampling gives 640x480 resolution for reduced bus traffic.

Synchronization

Several MEGA-DCS devices on the same IEEE 1394 bus will synchronize their image acquisition to the bus clock. All images captured by a networked array of MEGA-DCS's will be synchronized to within 60 µs, for precise registration of multiple views

Superior image quality, low power, compact size

The MEGA-DCS contains a megapixel color or monochrome image sensors in a ½" format. The large pixel size, CS mount lens, and low noise levels contribute to excellent image quality from the device. The imager supports on-chip binning at 640x480 resolution – four pixels are combined to produce a low-noise output.

Because of high integration and a single IEEE 1394 interface, the MEGA-DCS uses

Specifications

Imager	½" format CMOS 1280x960 active area Progressive scan Color or monochrome
Digital Camera Specification	Version 1.30
Formats	1280x960, 640x480 On-chip binning 8 bit monochrome or Bayer color pattern
Frame Rates	3.75, 7.5, 15, 30, 60 Hz Max 60 Hz at 640x480 Max 15 Hz at 1280x960
Exposure	1 line time to full frame
Gain	0 – 16 dB
Sensitivity	2.5 V/lux-sec, gain off
S/N	> 55 dB, gain off
Power	< 750 mW
Synchronization	Automatic to any other MEGA-DS on the IEEE 1394 bus, to within 60 us
Lens	6.0 mm F 1.4 CS mnt included 3.6 mm, 8 mm, 12 mm and 16 mm lenses optional
Size	1.75" high x 2.65" long x 1.25" deep (excluding lenses)
Stereo Baseline	9 mm
Driverand sam-ple software	Linux kernel 2.4 MSW 98SE, 2000 and XP

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