adept
electronic solutions
The Machine Vision and
Imaging Speciaists

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1 GHz
DSP Power

VC4458

The VC4458 is one of the world's fastest and most excellent smart cameras with computational power of 8000 MIPS rivalling a 7.2 GHz Pentium. It has 64 MB DRAM, 4 MB Flash EPROM for program and data storage (Expanded by the standard 512 MB SD card inside). It can acquire full frame 640 x 480 pixels at 200 frames per second!

The own internal operating system ''VCRT'' of the VC4458 is multitasking. This means that multiple processes can be executed in parallel.

The camera has also a High Speed Trigger input with absolute constant capture delay, which allows absolutely jitter-free image acquisition even at very high speed processes.

And whereas a standard progressive scan camera gets a trigger, starts exposure and then reads out the pixel data, the VC4458 has optimized the image acquisition process so that exposure, readout and the image processing can be done in parallel.

It has an 8 bit colour overlay which can operate in opaque or semi-transparent mode so that you can block out or still see the underlying image.

All Vision Components Smart Cameras are built for industrial applications. They are insensitive to shock and vibration, and have multiple I/O lines for direct control of external equipment. For more complex control tasks, they can easily be interfaced to a PLC.

Specifications	VC4458
Sensor:	1/3", 640 (H) x 480 (V) Pixel
Shutter:	High-speed: up to 5 µsec Low-speed: up to 20 sec adjustable integration time
Integration:	Full Frame Progressive Scan
Frame rate:	242 fps (484 fps with 2 times binning)
Acquisition:	Asynchronous, program controlled or external trigger, full frame
A/D conversion:	1 x 33 MHz / 10 Bit
Processor:	8000 MIPS, 1 GHz Texas Instruments TMS320C64xx
Image display:	B&W or pseudo color from 3x8 bit RGB lookup table
Image/Data memory:	64 MBytes SDRAM (option for 128)
Flash memory:	4 MBytes Flash EPROM (non volatile memory) for programs and data, programmable in the system
Dig. I/O's:	4 inputs / 4 outputs optically decoupled 24V, outputs 4 x 500 mA
Interfaces:	RS232 up to 115.200 Baud max. **and** 100Mbit Ethernet
Video output:	SVGA 800x600 (VESA standard)
Supply voltage:	24V +/-20% DC, max. 300 mA
Electrical connections:	I/O (DC IN, PLC, 12-pin), V24 (6-pin), Trig (Trigger/keypad, 6-pin), VGA Out (10-pin)
Dimensions:	Approx. 110 x 80 x 35 mm, approx. 500 g

(No liability is assumed for possible errors!)

Vision Components
The Smart Camera People

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