

Smart Cameras made in Germany



VC4012nano

VCBASE

The new 5 mega Smart Camera **VC4012nano** with a CMOS sensor is an extremely fast intelligent camera and one of the fastest intelligent cameras all over the world. With its exceptionally small dimensions of only 80x45x20 mm, it is almost certainly the smallest vision system in the world. Thanks to an open application programming interface (API), the use of VC4012nano has no limits. With a computational power of 3200 MIPS rivalling a 2.6 GHz Pentium. It has 64 MB DRAM, 4 MB Flash EPROM for program and data storage and can acquire full frame 2592 x 1944 pixels at 11,6 frames per second!

The internal operating system "VCRT" of the **VC4012nano** is multitasking. This means that user interface commands can execute in parallel without stopping the inspection process. It has a video output onto a PC via 100 Mbit Ethernet interface and also a high-speed trigger input with absolute constant capture delay, which allows absolutely jitterfree image acquisition even at very high-speed processes.

Like all VC products, the **VC4012nano** is a complete machine vision system on a single board which is suitable for stand-alone operation. As a result, external PCs are no longer necessary. Because of its tiny size, the VC4012nano is ideal for applications where space is at a premium.

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	VC4012 nano (Also available as colour version!)
CMOS SENSOR	1/2.5", 2592 (H) x 1944 (V) pixels
SHUTTER	high-speed: 28,4 μ s (in steps of 43,7 μ s) low-speed: up to 30 s (adjustable integration time)
INTEGRATION	ERS/ GRR*
FRAME RATE	11,6 fps (skipping binning = 102 fps)
ACQUISITION	asynchronous, program controlled, or triggered externally, full frame, acquisition jitterfree
A/D CONVERSION	1 x 80 MHz / 12 bit
PROCESSOR	3200 MIPS, 400 MHz Texas Instruments TMS320C64xx
IMAGE/DATA MEMORY	64 MB SDRAM
FLASH MEMORY	4 MB Flash EPROM (non volatile memory) for programs and data, programmable in the system
DIG. I/O'S	2 inputs / 4 outputs, 24 V, outputs 4 x 400 mA, 1 picture trigger input, 1 flash trigger output (24 V)
INTERFACES	Ethernet 10/100 Mbit TCP/IP
VIDEO OUTPUT	via 100 Mbit Ethernet onto PC
SUPPLY VOLTAGE	24 V +/-20 % DC, max. 300 mA
ELECTRICAL CONNECTIONS	I/O (DC In, PLC, 12-pin), Ethernet (6-pin)
DIMENSIONS	80 x 45 x 20 mm, ca. 90gr

* ERS= ELECTRONIC ROLLING SHUTTER; GRR = GLOBAL RESET RELEASE
NO LIABILITY IS ASSUMED FOR POSSIBLE ERRORS!

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