



1/4-Inch VGA, Ultra Low-Power, CMOS Digital Image Sensor Camera System-on-a-Chip

Micron's DigitalClarity® Image Sensor for Networked Security Cameras

Built for home and commercial security systems, Micron's MT9V131 comes loaded with DigitalClarity technology, composite video output, and high functionality. Our unique low-noise, stable-temperature design enables it to capture extraordinarily clear images. Requiring less light than a single candle produces, the MT9V131 creates crisp images for networked security applications that are just as effective on the darkest nights as on the brightest days.

MT9V131 Applications

- 802.11 wireless network cameras
- Power line modem camera
- IP camera
- uPNP AV
- WiFi, UWB cameras
- Small office monitoring
- Home monitoring

Professional Quality for Home Systems

Until the introduction of Micron's MT9V131 device for security applications, designers were forced to sacrifice performance for cost. Micron's 1/4-inch VGA camera system-on-a-chip (SOC) changes that. It offers best-in-class performance while producing full-color video, making scenes and stills clear enough to enable e-mail or remote viewing. This versatile imager meets the strong demand for low cost, excellent color fidelity, and low-light sensitivity in video sensors for home security.

All-Inclusive Camera System Reduces Parts and Costs

The MT9V131 is a complete camera SOC solution. Its programmable on-chip processor performs extensive camera functions including color recovery and correction; gamma correction; sharpening; auto black level offset correction; auto exposure; lens shading; flicker detection and avoidance; white balance; and on-the-fly defect identification and correction. With all the necessary functionality built in, this all-in-one solution reduces the bill of materials and the cost of a home security camera system.

Contact a Dedicated Digital Video Expert

We realize that security subsystem suppliers and manufacturers are looking for a dedicated source for image sensors. One who manufactures parts based on yet-to-be-realized home security customer demands. One who knows how to make fully integrated, high-performance digital video sensors. One who can assist with a design from inception to implementation.

For world-class products and support, call Micron at 208-368-3900, or visit us on the Web at www.micron.com. Let our dedicated experts tell you more about the technical details of the MT9V131 and how it can enhance your digital security systems.



Specifications

● Pixel Size:	5.6μm x 5.6μm	● ADC:	10-bit, on-chip
● Array Format (Active):	640H x 480V	● Data Rate:	12–13.5 megapixels per second (master clock, 24–27 MHz)
● Imaging Area:	3.584mm x 2.688mm	● Responsivity:	1.9 V/lux-sec (550nm)
● Color Filter Array:	RGB Bayer color filters	● Data Output Formats:	Progressive ITU_R BT.656 (YCbCr), YUV 4:2:2 (progressive), 656RGB, 555RGB, and 444RGB
● Optical Format:	1/4-inch (4:3)	● Dynamic Range:	60dB
● Frame Rates:	30 fps @ 640H x 480V	● Maximum Analog Gain:	16
● Scan Mode:	Progressive	● Supply Voltage:	2.8V ±0.25V
● Shutter:	Electronic rolling shutter (ERS)	● Power Consumption:	<80mW
● Window Size:	Programmable to VGA, QVGA, CIF, and QCIF	● Operating Temp. Range:	–20°C to +60°C
● Automatic Functions:	Exposure, white balance, black level offset correction, flicker avoidance, color saturation, defect identification and correction, frame rate, and back light compensation	● Storage Temp. Range:	–40°C to +125°C
● Programmable Controls:	Gain, frame rate, ADC reference, left-right and top-bottom image reversal	● Package:	48-pin CLCC, die in reconstructed wafer form

www.micron.com

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