

# ISM-MT9M024

## Image Sensor Module

The ISM-MT9M024 integrates Aptinas MT9M024 image sensor, oscillator, voltage control and a M12 or CS-mount lens-holder to support numerous M12 or CS-mount lenses at a size of 30 x 40mm.

The MT9M024 CMOS digital image sensor from Aptina has an active-pixel-array of 1280H x 960V (1.2MP). This sensor can capture in either liner or high-dynamic-range (HDR) mode with rolling-shutter readout. The sensor can be programmed via a simple I<sup>2</sup>C interface and offers some sophisticated camera functions such as auto exposure control, windowing and both video and single frame modes. The sensor is able to capture in continuous mode for videos or single frame mode for clear sharp images for both low light and high dynamic range scenes.

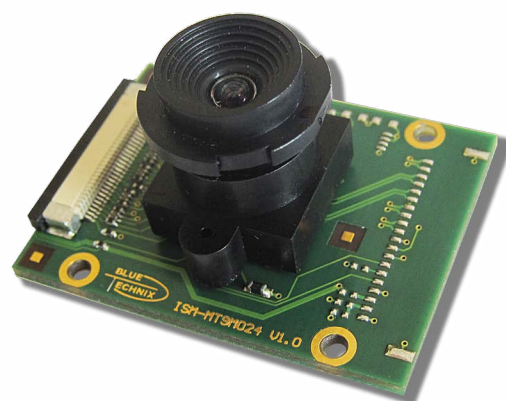
### Features

<b>OPTICAL FORMAT</b>	1/3-inch (6mm)
<b>ACTIVE ARRAY</b>	1280H x 960V (1.2MP)
<b>IMAGING AREA</b>	3.54mm(H) x 2.69mm(V)
<b>PIXEL SIZE</b>	3.75µm
<b>RESPONSIVITY</b>	5.48 V/lux-sec
<b>SNR MAX</b>	43.9 dB
<b>MAX DYNAMIC RANGE</b>	>115dB
<b>FRAME RATE</b>	Full resolution 45fps 720p 60fps
<b>CHROMA *</b>	Color, Mono, RCCC
<b>SHUTTER TYPE</b>	ERS - Electronic Rolling Shutter
<b>DATA RATE</b>	27Mb/s
<b>INPUT CLOCK</b>	50MHz
<b>OUTPUT SERIAL</b>	HiSPI 12, 14 or 20 bit on request
<b>OUTPUT PARALLEL</b>	12 bit
<b>SUPPLY VOLTAGE</b>	Power supply 2.5V - 3.1V IO reference 1.8V - 3.1V
<b>POWER CONSUMPTION</b>	270mW (1280x720 60fps Parallel output Linear Mode) 460mW (1280x720 60fps Parallel output HiDy Mode)
<b>OPERATING TEMPERATURE</b>	-40°C to +85°C
<b>RoHS COMPLIANT</b>	Yes
<b>BLT-CAM-CONNECTOR</b>	Yes
<b>LENS HOLDER</b>	M12 or CS-mount objective lens holder
<b>CS-MOUNT COMPATIBLE</b>	Yes
<b>SIZE</b>	30 x 40mm

\*depends on version - see ordering information

get further details at

<http://www.bluetechnix.com/goto/ism-mt9m024>



ISM-MT9M024

### Applications

- » Lane Departure Warning (LDW)
- » Traffic Sign Recognition (TSR)
- » Stereo Vision
- » High Beam Control (HBC)
- » Driver Monitoring
- » Rear View
- » Surround View
- » Blind Spot Monitoring
- » Machine Vision
- » Video Surveillance
- » Object Recognition

### Ordering Information

Order No.	Info
100-3200-1	ISM-MT9M024-Mono
100-3206-1	ISM-MT9M024-Color
100-3208-1	ISM-MT9M024-RCCC

BLUETECHNIX MECHATRONISCHE SYSTEME GMBH

Waidhausenstrasse 3/19  
1140 Wien, Austria  
[www.bluetechnix.com](http://www.bluetechnix.com)

Tel.: +43 (1) 9142091 x 0  
Fax.: +43 (1) 9142091 x 99  
Email: [office@bluetechnix.at](mailto:office@bluetechnix.at)

