

U30-DUAL-MT9V034 WIKI PAGE

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- [ON_Semiconductor-MT9V034C12STM-DP1-datasheet.pdf](#)

Software Download:

- [U30-DUAL-MT9V034 Software Download](#)

Features

- Array format: Wide-VGA, active 752H x 480V (360,960 pixels)
- Global shutter photodiode pixels; simultaneous integration and readout
- RGB Bayer or Monochrome: NIR enhanced performance for use with non-visible NIR illumination
- Readout modes: progressive or interlaced
- Shutter efficiency: >99%
- Simple two-wire serial interface
- Real-time exposure context switching - dual register set
- Register lock capability
- Window size: User programmable to any smaller format (QVGA, CIF, QCIF). Data rate can be maintained independent of window size
- Binning: 2 x 2 and 4 x 4 of the full resolution
- ADC: On-chip, 10-bit column-parallel (option to operate in 12-bit to 10-bit companding mode)
- Automatic controls: Auto exposure control (AEC) and auto gain control (AGC); variable regional and variable weight AEC/AGC
- Support for four unique serial control register IDs to control multiple imagers on the same bus
- Data output formats: – Single sensor mode: 10-bit parallel/stand-alone 8-bit or 10-bit serial LVDS – Stereo sensor mode: Interspersed 8-bit serial LVDS
- High dynamic range (HDR) mode

Applications

- Security
- High dynamic range imaging
- Unattended surveillance
- Stereo vision
- Video as input
- Machine vision
- Automation

Table 1: Key Performance

Parameters Parameter Value

Optical format 1/3-inch Active imager size 4.51mm(H) x 2.88mm(V) 5.35mm diagonal Active pixels 752H x 480V Pixel size 6.0μm x 6.0μm Color filter array Monochrome or color RGB Bayer Shutter type Global shutter Maximum data rate master clock 27 Mp/s 27 MHz Full resolution 752 x 480 Frame rate 60 fps (at full resolution) ADC resolution 10-bit column-parallel Responsivity 4.8 V/lux-sec (550nm) Dynamic range >55dB linear; >100dB in HDR mode Supply voltage 3.3V +0.3V(all supplies) Power consumption <160mW at maximum data rate (LVDS disabled); 120W standby power at 3.3V Operating temperature -30°C to +70°C ambient Packaging 48-pin CLCC

