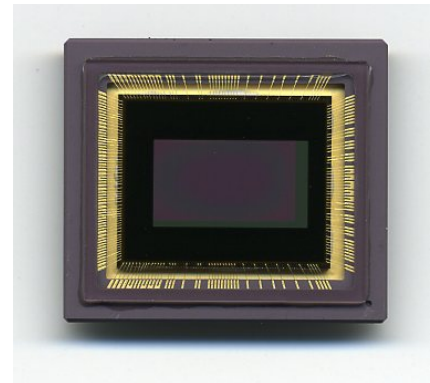


ProCamHD™ 4560: 2/3-inch 2.5Mpixel CMOS iSoC 1080p60 *imaging* System-on-Chip

Key Features:

- High Efficiency Microlens and Enhanced Blue Sensitivity
- 14-b Signal Processing, 12-b Output with >11-bit Dynamic Range at 74.125MHz
- 1920x1080 video at standard 2/3" Optical Format
- Maximum Imaging Format 2112(H) x 1188(V)
- Patented Low-Noise, High-Speed Video Architecture
- Patented Tapered Reset Pixel Noise Suppression
- Dynamic Fixed Pattern Noise Correction
- Dynamic Correction of Raster Noise
- Programmable Gain at 0.006, 3 & 6 dB resolution
- Progressive Readout with Electronic Rolling Shutter
- Variable Electronic Shutter with Master/Slave Operation
 - External Shutter/Flash Synchronization
 - External Frame and/or Line Sync clocks
- 1x12b or 2x12b Video Bus
- 97-pin μ PGA Ceramic Package
- Programmable Operation via 3-Wire Serial Interface:
 - 1080p60 (75MHz \times 2)
 - 720p120 (1/2-inch optical format)
 - Video Gain from -24 to 72 dB
 - Windowing with 1 Row and 4 Column Resolution
- Supports various video timing protocols including SMPTE 274M
- i-SoC Power Consumption <600 mW at 74.25 MHz Video Rate



ProCamHD™ is 12-bit imaging System-on-Chip (iSoC) technology delivering HDTV resolution and beyond at the highest video rates, lowest power and lowest random noise currently available. The ProCamHD™ 4560 is the world's first video sensor to fully support progressive imaging of 2.1 Mpixels at up to 60Hz frame rate. In addition to highest level HDTV at 1080p60, the sensor supports 720p120, and convenient resolution doubling of NTSC, PAL and CCIR-601. The unique architecture simultaneously facilitates high video rate and fill factor at low noise. iSoC integration includes programmable state machine, 14-bit analog & digital signal processing, low-power 12-bit digitization, gain amplification, and clock and bias generators. Sophisticated iSoC algorithms support on-chip correction of column fixed pattern noise and horizontal shading, on-chip real-time correction of line-dependent noise and continuous black level compensation.

ProCamHD™ iSoCs sensor features and specifications are subject to change without notice. ProCamHD™ iSoCs, like other integrated circuits (IC), are susceptible to damage by electrical static discharge (ESD) which may damage and degrade the sensor's overall performance.