



NV04G

GLOBAL SHUTTER CMOS IMAGE SENSOR

CHIEF APPLICATION

NV04G chip is a global pixel CMOS image sensor chip designed to meet the needs of machine vision applications based on the self-developed global pixel unit, through the full digital adjustable mode selection control, the use of high-precision, low-power digital-analog mixed signal design, through advanced CIS process processing. Effective pixel array of the chip is 2048X2048. The maximum frame rate of 180fps is LVDS high-speed data interface. The NV04G features high resolution, high frame rate, high definition, on-chip temperature sensor and global shutter exposure, and supports both color and black and white versions to provide customers with options for different application needs.

Specification

| Item | Parameters |
|--------------------------------|---------------------------------------|
| Active Array Size | 2048(H)*2048(V) |
| Pixel Size | 5.5 um x 5.5 um |
| Shutter | Global Shutter |
| Optical Format | 1inch |
| Chip Size | 13.5mm*13.5mm |
| Input Clock Frequency | 5-48MHz |
| Frame Rate | 37fps@12bit, 180fps@10bit |
| Package | CLCC-92 |
| Supply Voltage | 1.2V/2.5V/3.3V |
| Sensitivity | 9.8V/lux.s |
| Conversion Gain | 65uV/e ⁻ (10bit mode) |
| SNR | 41.4dB |
| Dynamic Range | 60 dB |
| Read Noise | 10e ⁻ |
| QE | 66.7%540nm (RGB) 83.1%540nm (Mono) |
| Power Consumption | <600mW @16ch |
| Operating Junction Temperature | -40~85°C |



Application (Reference)

Application Scenarios

- Industrial Camera
- Machine Vision

Product Feature

- High Frame rate
- Low Power consumption
- Programming Control
- Built-in Temperature sensor