

NANEYE MODULE

IMAGE SENSOR MODULES



The NanEye 2D sensor provides a true system on chip camera head with fully self timed readout sequencing, AD

conversion to 10 bit and bit serial data transmission over LVDS. ams Sensors Belgium's proprietary data interface technology permits cable length's up to 3m with out any additional components at the distal end. Due to the low energy dissipation on the interface no complicated shielding is required to meet EMC norms. With it's 250 x 250 pixels at 3um pitch the sensors provide clear and sharp images with outstanding MTF in a very compact size. A frame rate of 44FPS permit synchronization to any type of display. The NanEye sensor provides delay free, smooth video operation resulting in a safe operation and a clear diagnosis. The sensors are connected to minimal diameter cabling solutions. A small lens is assembled to the chip, this option does not increase the total diameter of the sensor, making it the world most compact digital camera.

For pricing and lead time please contact ISS.CIS_info@ams.com.

SPECIFICATIONS

| | |
|------------------------------------|--|
| Part status | Production |
| Resolution | 0.0625MP - 250 (H) x 250 (V) |
| Pixel size | 3 x 3 |
| Optical format | 1/15" |
| Shutter type | Electronic rolling shutter |
| Frame rate | 42 - 55 FPS |
| Output interface | 10 bit digital LVDS |
| Sensitivity | 11.5 DN/nJ/cm ² at maximum gain |
| Full well charge | 15 ke- |
| Dark noise | 1.1 DN rms |
| Dynamic range | 58 dB |
| SNR max | 41 |
| Fixed pattern noise | DSNU: 2.8 [DN] PRNU: 4.8% |
| Chroma | Mono and RGB |
| Supply voltage | 1.8V - 2.4V |
| Power | 4.2 mW at nominal supply 2.1V |
| Operating temperature range | 0°C - 60°C |
| RoHS compliance | Yes |
| Package | Chip + Lens + Cable |

ORDERING INFO - NANEYE MODULE

| Part Number | Version | Chroma | Microlens | Package | Glass |
|--|---|-----------|-----------|---------------------|-------|
| NanEye-B&W-F2.7-FOV90-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | Mono | No | Chip + Lens + Cable | N/A |
| NanEye-RGB-F2.7-FOV90-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | RGB Bayer | No | Chip + Lens + Cable | N/A |
| NanEye-B&W-F4.0-FOV90-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | Mono | No | Chip + Lens + Cable | N/A |
| NanEye-RGB-F4.0-FOV90-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | RGB Bayer | No | Chip + Lens + Cable | N/A |
| NanEye-B&W-F6.0-FOV90-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | Mono | No | Chip + Lens + Cable | N/A |
| NanEye-RGB-F6.0-FOV90-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | RGB Bayer | No | Chip + Lens + Cable | N/A |
| NanEye-B&W-F2.8-FOV120-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | Mono | No | Chip + Lens + Cable | N/A |
| NanEye-RGB-F2.8-FOV120-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | RGB Bayer | No | Chip + Lens + Cable | N/A |
| NanEye-B&W-F2.4-FOV160-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | Mono | No | Chip + Lens + Cable | N/A |
| NanEye-RGB-F2.4-FOV160-Painted-CableBended | Black Painted, Cable (15cm, 1m, 2m, 3m) | RGB Bayer | No | Chip + Lens + Cable | N/A |