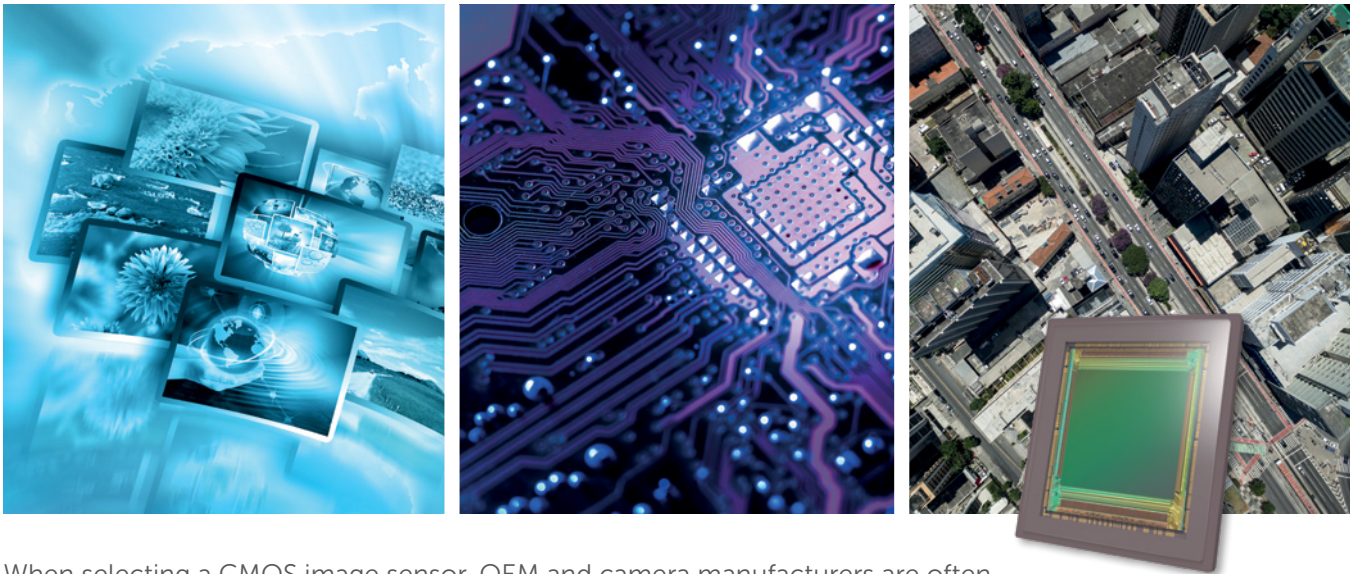


Emerald 67M

Perfectly Combining Precision and Speed



When selecting a CMOS image sensor, OEM and camera manufacturers are often forced to compromise between precision or speed. The new Emerald 67M uniquely delivers both, enabling vision specialists to create extremely accurate and high speed vision systems.

SENSOR FEATURES

Ultra-high precision
– 8k resolution per side

More objects captured in a single high resolution shot with up to 64 ROIs

Cost-effective optics
with an APS-C optical format

High image processing throughput with 60fps frame rate @ full resolution

CUSTOMER BENEFITS

Cost-effective
and seamless integration

Easier long-distance object identification

Extremely accurate detection
of short and open circuits

More efficient inspection
for TFT-LCD and OLED panels



SENSOR CHARACTERISTICS

| | EMERALD 67M High speed | EMERALD 67M Ultra-high speed |
|---------------------------------------|-------------------------------------|---------------------------------|
| Resolution – pixels | 8,192 (H) x 8,192 (V) | |
| Pixel size/type – square | Global Shutter / 2.5 µm | |
| Size type | APS-C (29 mm diagonal) | |
| Aspect ratio | 1:1 | |
| Max frame rate @ 8-10 bit @ 12 bit | 32 fps 16 fps | 65 fps 31 fps |
| Readout noise | 2.5 e- @ 8-10 bit / 2.2 e- @ 12 bit | |
| Dynamic range | 64.5 dB @ 8-10 bit / 67 dB @ 12 bit | |
| SNRmax | 38 dB | |
| Q.E. – %, @ 500 nm | 66 | |

SYSTEM INTEGRATION

- » Options:
 - Color Filter Array: B&W or color
 - Speed grades: High speed or Ultra-high speed
 - AR coating or temporary window (upon request)
- » Package: ceramic µPGA, 37 x 42 mm²
- » Optical center centered in package
- » Pin-to-pin compatible with Emerald 36M
- » Power consumption: ≤3.5W @ full speed & full resolution
- » Scalable LVDS outputs (64, 32 or 16 channels)
- » Versatility between 8, 10 or 12 bit depth
- » SPI controls

EMBEDDED FEATURES

- » Horizontal sub sampling
- » Look-up table
- » Defective pixel correction
- » FPN correction
- » Flipping/mirroring
- » Image statistics and context output
- » Multiple trigger modes
- » SPI controls
- » ROI (up to 64, overlap and independent configurations allowed)
- » High Dynamic Range modes
- » Binning

TYPICAL APPLICATIONS

- » High-end electronic and FPD inspection
- » 3D AOI & metrology
- » High-end surveillance
- » Aerial imaging & mapping
- » Earth observation
- » Scientific cameras and microscopy
- » Entertainment
- » Medical

ORDER CODES – EMERALD 67M

| | HIGH SPEED | ULTRA-HIGH SPEED |
|----------------|--------------------|--------------------|
| B&W | EV2S67MB-CLV0350-T | EV2S67MB-CLV0650-T |
| COLOR | EV2S67MC-CLV0350-T | EV2S67MC-CLV0650-T |