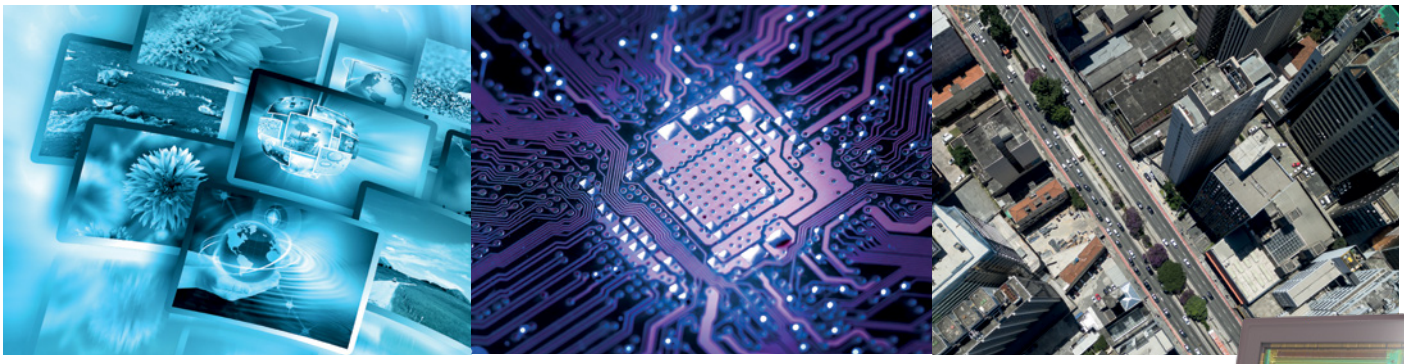
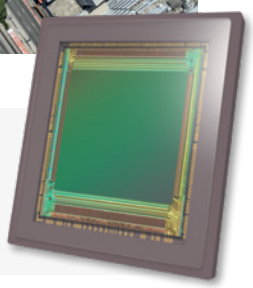
EMERALD 67M
PERFECTLY COMBINING PRECISION AND SPEED





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 60 fps 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