

TAKE SCANNING AND BARCODE READING TO THE NEXT LEVEL



From pixel performance, to integrated real-time features, to MIPI output; every aspect of the new Snappy family of CMOS sensors has been designed and optimized for cost-effective and fast scanning of end products for barcode and other 2D scanning applications. Our patented Self Fast-Exposure mode assures that the first image frame is correctly exposed to enable the fastest possible identification and decoding by the image processing system, even in rapidly changing light conditions.

KEY BENEFITS

- Small, low noise global shutter CMOS pixel (2.8 μm x 2.8 μm)
- Cost effective with ultra-small optical format (1/3") at full HD format
- Embeds unique features for the highest scanning speeds (Fast Self Exposure mode, dual-trigger modes)
- Excellent SNR at low light (yields illumination system cost savings)
- HDR modes for wide dynamic scenes (tolerance to light band reflection on curved reflective surfaces)
- Tracking simultaneous image regions due to single and multi-ROI modes
- Fast and easy to integrate with a new ultra-lightweight glass package
- MIPI CSI-2 outputs for glueless embedded imaging systems

FEATURES

- Low noise global shutter with 1,920 x 1,080 active pixels
- 2.8 μm pixel size
- B&W and color with 12° and CRA 5° options
- Frame Rate up to 115 fps @8 bits, 80 fps @10 bits, 60 fps @12 bits (at full resolution)
- Embedded features for barcode reading and other 2D scanning applications
- MIPI CSI-2, 1.2Gbits lanes (selectable down to single lane)
- SPI and two wire control with 4 x chip addresses for multiple sensor platforms
- 3.3V and 1.2V power supplies
- Package: 112 pins Fan-out glass



Sensor Characteristics

	SNAPPY 2MP		
Resolution – pixels	1,920 (V) x 1,080 (H)		
Pixel size – square	2.8 µm		
Size type – inch	1 / 2.8		
Aspect ratio	16:9		
Max frame rate	115 fps @8 bit	80 fps @10 bit	60 fps @12 bit
Bit depth	8/10/12		
Readout noise – e-	2.8		
Qsat – e-	7,000		
Dynamic range – dB	68 (normal mode) 100+ (HDR mode)		
SNRmax – dB	>38		
Q.E. – %, @550nm	>62		

TYPICAL APPLICATIONS

- Barcode scanners
- Embedded vision systems
- IoT edge devices
- Drones/UAV
- Virtual reality/augmented reality
- Biometric systems

ORDER CODES – PRODUCTION

EV2S02MB-FM20300-T
 Snappy 2MP: B&W, Fan-out
 glass, CRA 12°, Tray = 152 units

EV2S02MC-FM20300-T
 Snappy 2MP: Color, Fan-out
 glass, CRA 12°, Tray = 152 units

EV2S02MB-FM20100-T
 Snappy 2MP: B&W, Fan-out
 glass, CRA 5°, Tray = 152 units

EV2S02MC-FM20100-T
 Snappy 2MP: Color, Fan-out
 glass, CRA 5°, Tray = 152 units

ORDER CODES – EVALUATION KITS

EV2E02MB-FU3D300-U
 EK Snappy 2MP: Mono, CRA 12°,
 USB3-C, Fan-out glass

EV2E02MC-FU3D300-U
 EK Snappy 2MP: Color, CRA 12°,
 USB3-C, Fan-out glass

EV2E02MB-FU3D150-U
 EK Snappy 2MP: Mono, CRA 5°,
 USB3-C, Fan-out glass

EV2E02MC-FU3D150-U
 EK Snappy 2MP: Color, CRA 5°,
 USB3-C, Fan-out glass