

Take Scanning and Barcode Reading to the Next Level



KEY BENEFITS

- » Small, low noise global shutter CMOS pixel (2.8µm x 2.8µm)
- » 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 organic package
- » MIPI CSI-2 outputs for glueless embedded imaging systems

FEATURES

- » Low noise global shutter with 1,920 x 1,080 active pixels
- » 2.8µm pixel size
- » B&W and color with 12° and 0° CRA options
- » Above 100fps @8 bits, above 68fps @10 bits, above 55fps @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, 1.8V, 1.2V power supplies
- » Package: 112 pins Fan-out organic



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.

TYPICAL APPLICATIONS

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

SENSOR CHARACTERISTICS

	SNAPPY 2MP		
Resolution – pixels	1,920 (V) x 1,080 (H)		
Pixel size – square	2.8µm		
Size type – inch	1 / 2.8		
Aspect ratio	16:9		
Max frame rate	>100fps @8 bit	>68fps @10 bit	>55fps @12 bit
Bit depth	8/10/12		
Readout noise – e-	3		
Qsat – e-	> 7,000		
Dynamic range – dB	65 (normal mode) 100+ (HDR mode)		
SNRmax – dB	>39		
Q.E. – %, @550nm	>62		

ORDER CODES – PRODUCTION

- » EV2S02MB-OM20300-T
Snappy 2MP: B&W, Fan-out organic, CRA 12°, Tray = 152 units
- » EV2S02MC-OM20300-T
Snappy 2MP: Color, Fan-out organic, CRA 12°, Tray = 152 units
- » EV2S02MB-OM20000-T
Snappy 2MP: B&W, Fan-out organic, CRA 0°, Tray = 152 units
- » EV2S02MC-OM20000-T
Snappy 2MP: Color, Fan-out organic, CRA 0°, Tray = 152 units

ORDER CODES – SAMPLES

- » EV2S02MB-OM20300-P
Snappy 2MP: B&W, Fan-out organic, CRA 12°, TRAY = 2 units
- » EV2S02MC-OM20300-P
Snappy 2MP: Color, Fan-out organic, CRA 12°, TRAY = 2 units
- » EV2S02MB-OM20000-P
Snappy 2MP: B&W, Fan-out organic, CRA 0°, TRAY = 2 units
- » EV2S02MC-OM20000-P
Snappy 2MP: Color, Fan-out organic, CRA 0°, TRAY = 2 units

ORDER CODES – EVALUATION KITS

- » EV2E02MB-OU3D300-U
DK Snappy 2MP: Mono, 12°, USB3-C, Fan-out
- » EV2E02MC-OU3D300-U
DK Snappy 2MP: Color, 12°, USB3-C, Fan-out
- » EV2E02MB-OU3D000-U
DK Snappy 2MP: Mono, 0°, USB3-C, Fan-out
- » EV2E02MC-OU3D000-U
DK Snappy 2MP: Color, 0°, USB3-C, Fan-out