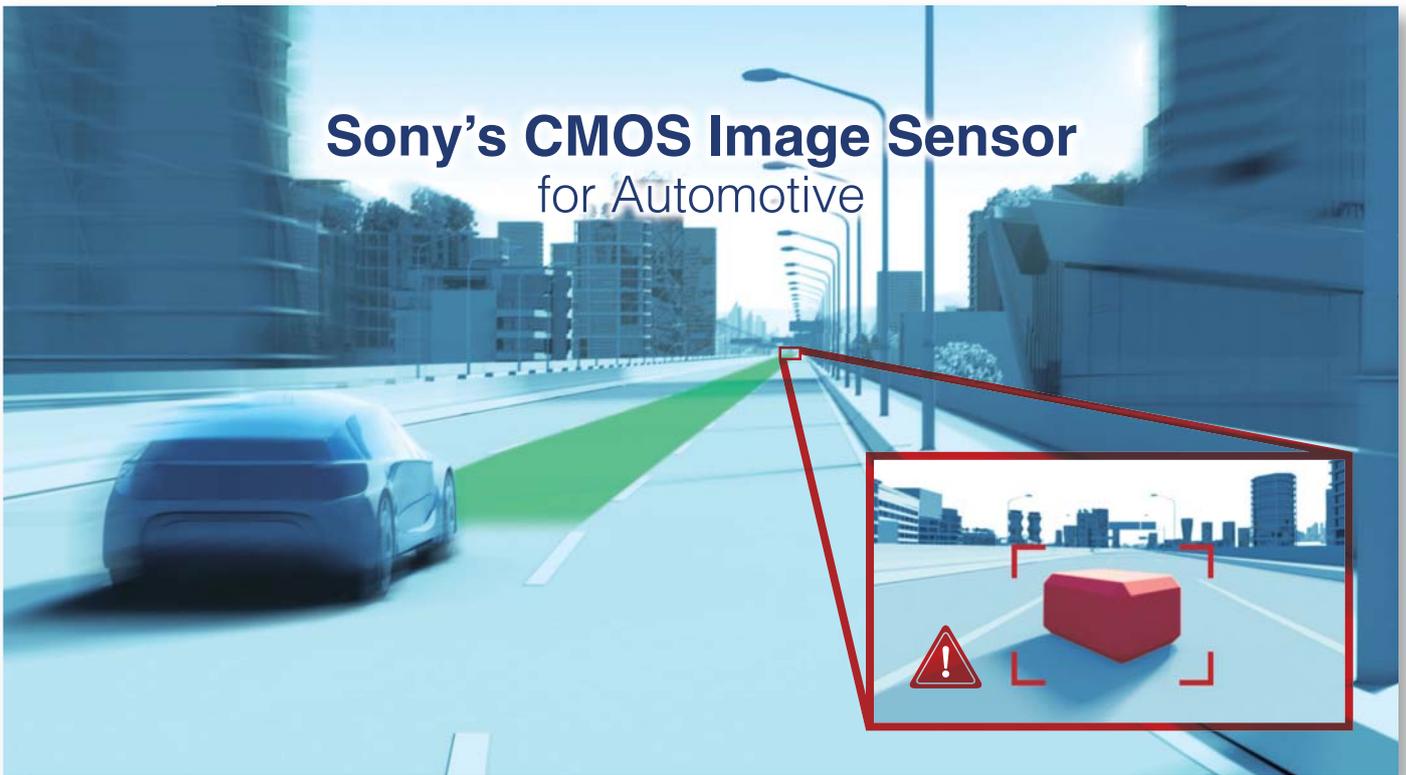
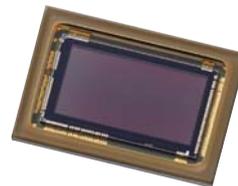


Sony's CMOS Image Sensor for Automotive



IMX324 IMX424

1/1.7 7.42megapixels CMOS image sensor



1. The industry's highest resolution*1 7.42 megapixels, enabling high-definition image capture of distant objects or wider field.
2. High sensitivity of 2666mV(IMX324), 2101mV(IMX424) with a pixel binning mode. Captures dark sections at high-sensitivity settings with RCCC filter*2 (IMX324), RCCB filter*3 (IMX424) as well as bright sections at high resolution alternately.
3. Industry's first*1 automotive grade stacked image sensor that delivers both a compact size and low power consumption.
4. Industry's first*1 image sensor equipped with a security feature for automotive.

IMX324 is expected to be compatible with the "EyeQ®4" and "EyeQ®5"*4 image processors currently being developed by Mobileye, an Intel Company headquartered in Israel, for use in ADAS and autonomous vehicle technology.

*1. According to Sony research as of October 2017.

*2. A color filter of IMX324 that combines R (red), C (clear).

*3. A color filter of IMX424 that combines R (red), C (clear), and B(Blue).

*4. Registered trademark of Mobileye.

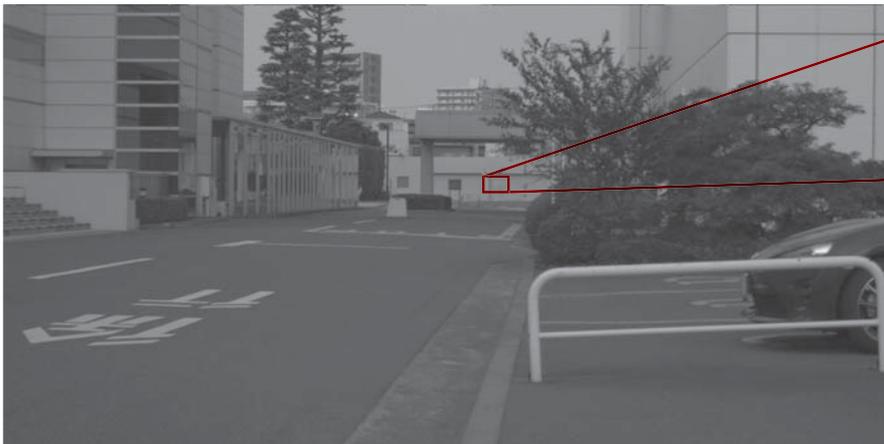
Product Features

- 1/1.7-type back-illuminated stacked CMOS image sensor with a RCCC (IMX324), RCCB (IMX424) pixel array
- Unit cell size: 2.25 μ m
- Number of recommended recording pixels; 3840 (H) \times 1920 (V) approx. 7.37M pixel
- Maximum frame rate in full pixel reading: 40 frame/s
- High dynamic range (HDR) function with 120dB (EMVA standard 1288)
- Variable-speed shutter function
- Pixel binning mode, equipped with a unique function which switches pixel binning mode and full pixel mode for each frame alternately
- MIPI CSI-2 serial data output (4 lane /2 lane)
- Temperature sensor
- Support security feature for automotive
- ISO 26262/ASIL-B(D)
- AEC-Q100 Grade 2

Product Specifications

Model name		IMX324 / IMX424	
Number of effective pixels		3849 (H) × 1929 (V) 7.42 megapixels	
Image size		Diagonal 9.69mm (type 1/1.7)	
Unit cell size		2.25μm (H) × 2.25μm (V)	
Color filter		IMX324: RCCC, IMX424: RCCB	
Frame rate	Full pixel reading	Max. 40 fps	
Dynamic range (EMVA standard 1288)		120dB	
Sensitivity (Standard Value: F5.6, 1/30 sec. exposure time, 3200K color temperature)		IMX324	784mV (Clear Pixel), 2666mV (pixel binning mode)
		IMX424	784mV (Clear Pixel), 2101mV (pixel binning mode)
Saturation signal (minimum value)		800mV	
Power supply	Analog	2.9V	
	Digital	1.1V	
	Interface	1.8V	
Interface		MIPI CSI-2 serial output (4 lane / 2 lane)	
Package		108pin plastic BGA	
Package size		13.23 mm x 8.97 mm	

Distant sample image comparison



IMX324 (7.42M) magnified image



IMX224 (1.27M) magnified image

Low-light (0.1 lux) image comparison



IMX324 (Pixel binning mode) sample image



IMX224 (1.27M) sample image