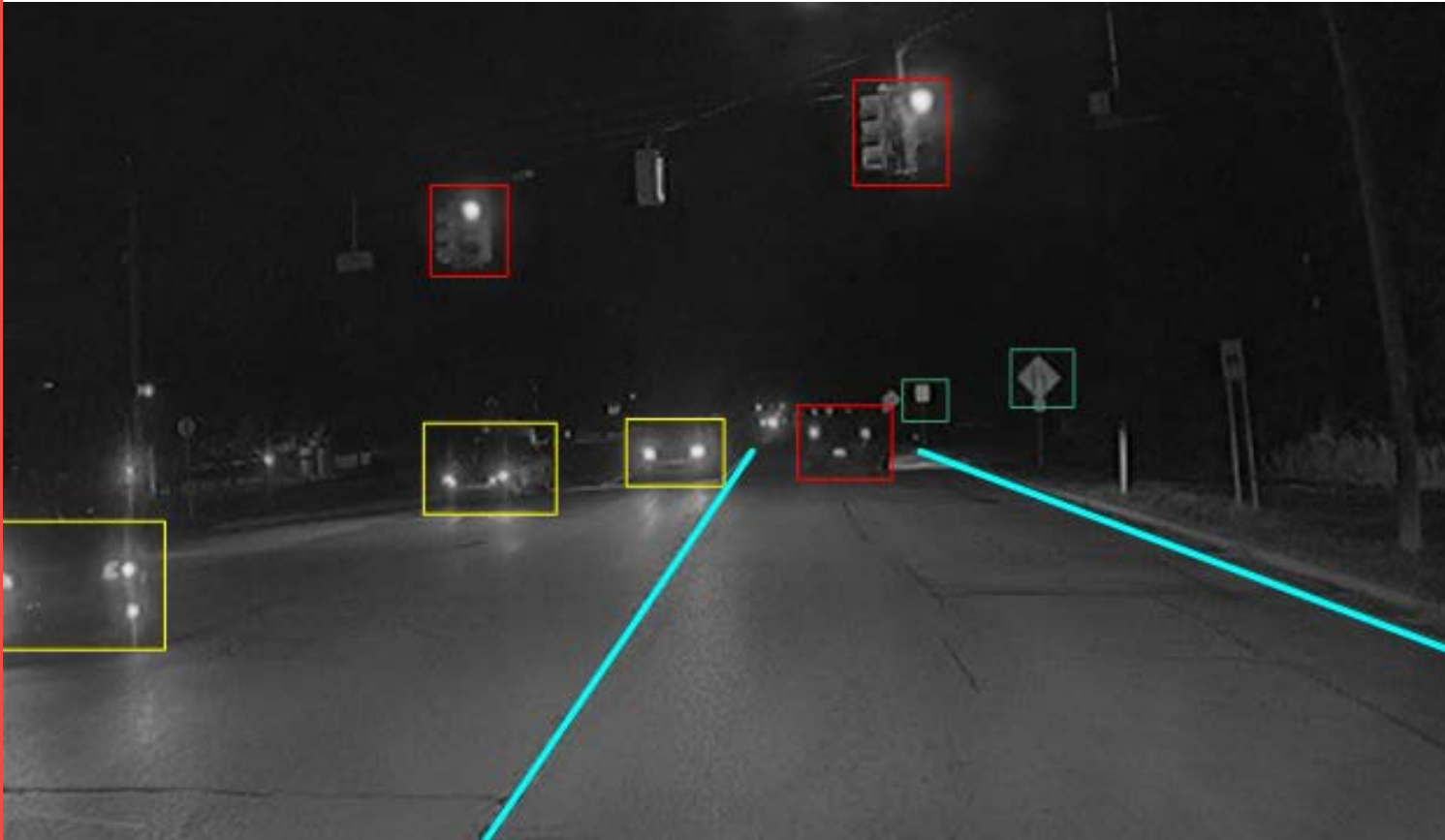


OV10625 HD HDR product brief



Industry-Leading Sensitivity and High Dynamic Range for Next-Generation Automotive Applications



available in
a lead-free
package

OmniVision's new OV10625 image sensor is a high performance OmniHDR® imaging solution that brings industry-leading sensitivity and best-in-class high dynamic range (HDR) to advanced driver assistance systems (ADAS).

The sensor's benefits enable a host of ADAS features, including: pedestrian detection, lane-departure warning, lane keeping assist, blind spot detection, and traffic signal recognition, among others.

The 1/3.2-inch OV10625 delivers HDR performance of up to 120 dB combined with best-in-class low-light sensitivity of 15 V/lux-sec ensures accurate scene reproduction in a wide range of driving conditions.

The OV10625 supports digital RAW data output and fits into one of the industry's most compact and efficient packages.

Find out more at www.ovt.com.



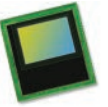
Applications

- Automotive
 - pedestrian detection
 - lane-departure warning
 - lane keeping assist
- blind spot detection
- traffic signal recognition

Product Features

- support for image size:
 - WVGA
 - VGA
 - QVGA, and any cropped size
- high dynamic range
- high sensitivity
- safety features
- low power consumption
- image sensor processor functions:
 - automatic exposure/gain control
 - lens correction
 - defective pixel cancellation
 - HDR combination and tone mapping
 - automatic black level correction
- supported output formats: RAW
- horizontal and vertical sub-sampling
- serial camera control bus (SCCB) for register programming
- external frame synchronization capability
- 50/60 Hz flicker cancellation
- parallel 16-bit DVP output
- embedded temperature sensor
- one time programmable (OTP) memory

OV10625



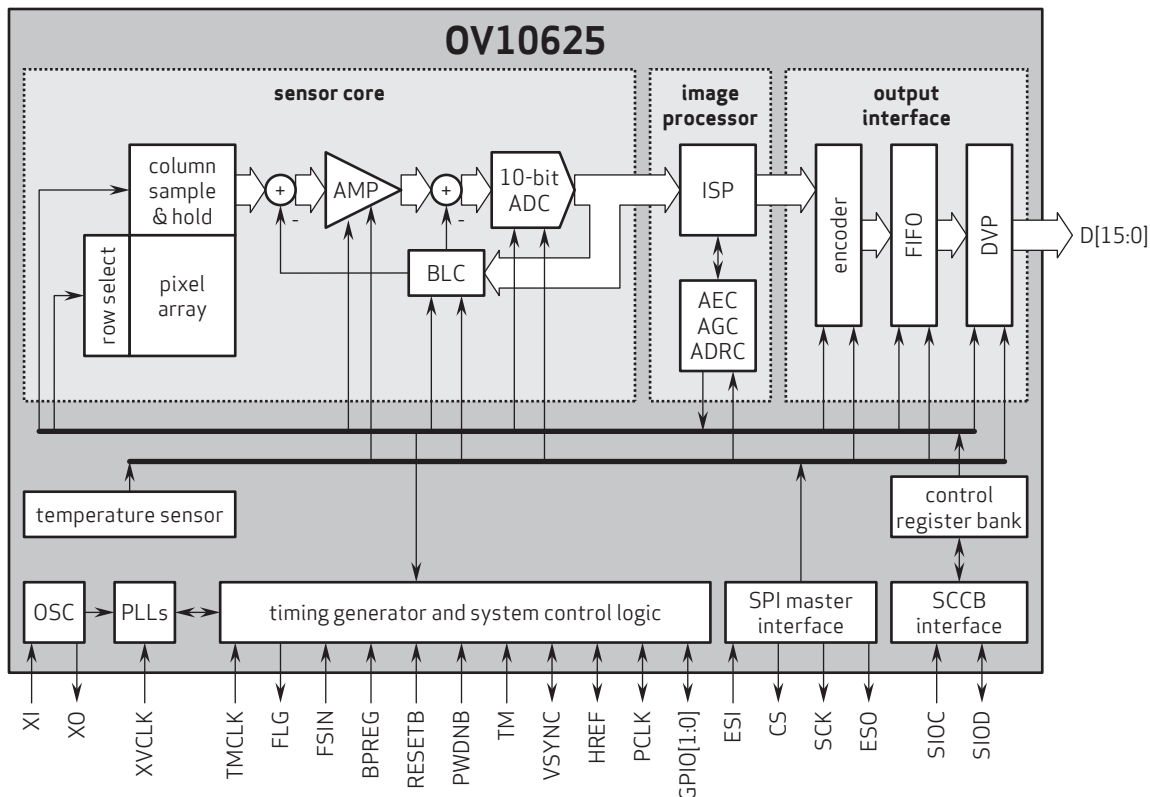
Ordering Information

- OV10625-N02V-1A-Z (lead-free)
102-pin a-CSP™, rev 1A, packed in tray with protective film

Technical Specifications

- active array size: 752 x 548
- maximum image transfer rate: 60 fps full resolution
- power supply:
 - core: 1.425 - 1.575V
 - analog: 3.14 - 3.47V
 - I/O: 1.7 - 3.47V
- power requirements:
 - active: 380 mW typical @ 3.3V AVDD, 1.5V DVDD, and 1.8V DOVDD
 - standby: 260 μW typical @ 3.3V AVDD, 1.5V DVDD, and 1.8V DOVDD
- temperature range:
 - operating: -40°C to +105°C
 - sensor ambient temperature and -40°C to +125°C junction temperature (operating sensor junction temperatures above +60°C may result in degraded image quality)
- output interfaces: 16-bit parallel DVP
- output formats: up to 20-bit combined RAW, separated 8-/10-bit RAW
- lens size:
 - VGA: 1/3.7"
 - WVGA: 1/3.2"
- lens chief ray angle: 9°
- scan mode: progressive
- shutter: rolling shutter
- pixel size: 6 μm x 6 μm
- image area: 4608 μm x 3384 μm

Functional Block Diagram



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