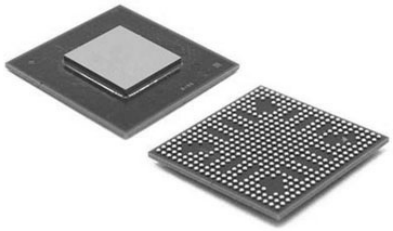
OV10635-N29Y-PB

Image Sensor Color 1280x800Pixels 129-Pin aCSP Tray

Manufacturer:	OmniVision Technologies
Package/Case:	CSP
Product Type:	Optical Sensors
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The OV10635 system-on-chip (SoC) sensor raises the standard in automotive imaging by combining megapixel resolution with color HDR. The AEC-Q100 qualified OV10635 comes with a full set of automatic controls and an image processing pipeline for display and sensing applications. Ideally suited for wide field of view and multi-camera applications, the OV10635 also incorporates special features and output formats for automotive machine vision applications. With its proprietary capability to simultaneously deliver high image quality and superior scene information, the OV10635 is designed for automotive applications that perform vision and sensing functions in tandem.

The sensor is built on a 4.2-micron OmniPixel 3-HS pixel, enabling best-in-class low-light sensitivity of 3.65 V/lux-sec to capture detail-rich, high-definition color video in any environment. Using a proprietary new high dynamic range (HDR) concept and processing technology, this automotive sensor delivers excellent scene reproduction in the most demanding lighting conditions, achieving a dynamic range up to 115 dB in color and black-and-white. The OV10635 not only has the ability to accurately reproduce high-contrast scenes, but also employs auto dynamic range control to adjust to changing lighting and scene conditions to produce a clear, detailed and low-noise color image in any automotive situation. A proprietary approach to generating HDR images also dramatically reduces or eliminates many typical HDR image sensor artifacts such as motion ghost artifacts and other unwanted effects.

The OV10635 offers all required automatic image control functions, including automatic exposure control, automatic white balance, automatic black level calibration, as well as defective pixel correction, gamma correction and lens shading correction. The sensor supports a digital video parallel port, and provides full-framed or windowed 10- or 8-bit YUV and 10- to 18-bit combined HDR RAW output format with complete user control over formatting and output data transfer.

Camera functions are programmable through the serial camera control bus (SCCB) interface. Additional features include a horizontal and vertical windowing capability, external frame sync capability, 50/60 Hz flicker cancellation and low power consumption.

The OV10635 comes in an a-CSP package.

Key Features

Support for image sizes:
– WXGA (1280×800)
– HD 720p (1280×720)
– WVGA (752×480)
– VGA (640×480)
– 600 x 400
– 352 x 288
– QVGA (320×240)
Support for output formats:
– YUV
– Separated and combined RAW
Parallel DVP interface
High sensitivity
Automatic exposure/gain
Horizontal and vertical windowing capability
Auto white balance control
Aperture/gamma correction
Serial camera control bus (SCCB) for register programming
Low power consumption
External frame sync capability
50/60 Hz flicker cancellation
Defective pixel correction

Recommended For You

OV07955-N53V-PE
OmniVision Technologies
CSP

OV00493-B69G-TB
OmniVision Technologies
BGA

OV00490-B00G-TB
OmniVision Technologies
BGA

OV00490-B00G-1B
OmniVision Technologies
BGA100

OV00491-B69G-1C
OmniVision Technologies
CSP

OV00491-B69G-TC
OmniVision Technologies
BGA

OV10642-N79Y-PF
OmniVision Technologies
CSP

OV10640-N79Y-PF
OmniVision Technologies
CSP

OV10650-E85Y-1D
OmniVision Technologies
CSP

OV09716-E66Y-1G
OmniVision Technologies
CSP

OV02735-H66A-1B
OmniVision Technologies
CSP-66

OV07261-N35Y-MA
OmniVision Technologies
BGA

OV00495-U69G-TC

OmniVision Technologies

BGA

OV00495-U69G-2C

OmniVision Technologies

BGA

OV00493-B69G-1B

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