Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Product Information

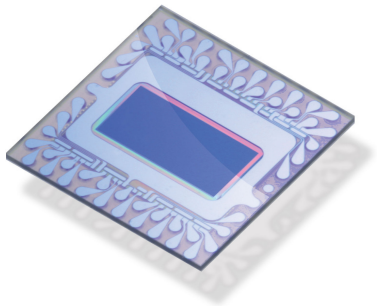
"Avocet"

154dB High Dynamic Range (HDR) Automotive CMOS Image Sensors

MLX75411-MLX75412-MLX75413

Melexis
Microelectronic Integrated Systems

The MLX75411-12-13 "Avocet" CMOS image sensors feature 1024x512 pixels, high sensitivity and 154dB extended high dynamic range (HDR). The MLX75412 includes automatic exposure (AE), automatic frame-by-frame HDR control and optimized screen viewing algorithms. The MLX75413 includes "Nightbrite" HDR color processing.



Applications

- Driver assistance: lane departure warning, automatic high beam control, forward collision warning, pedestrian detection, etc.
- Night vision and Color Night Vision
- 360degree Around View and HDR Rear View
- Day/night surveillance camera
- Fleet management and Fleet safety camera's
- Stereovision

Features

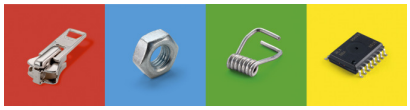
- 1024x512 pixels
  - 1/3" Optical format for full 1024 x 512 resolution
  - 1/4" Optical format for windowed 640 x 480 resolution
- Monochrome, RGBG, RGBi, RCCC
- Digital 12 bit output (monochrome) and RGB888 (color)

Outperform

- 154dB High Dynamic range
- Superior low-light sensitivity
- Automotive operating temperature range -40°C...+125°C
- On-Chip algorithms (MLX75412)
  - "Autobrite" automatic frame-by-frame HDR control
  - "Autoview" dynamic contrast enhancement
- Off-Chip algorithms (MLX75413)
  - "Nightbrite" HDR color processing

Easy-to-use

- MLX75412 (monochrome) and MLX75413 (color) for full automatic cameras



Small things make a big difference.

Advanced Features

• Pixel Size	5.6µ
• Frame rate at full resolution	60 Hz
• Maximum pixel rate @ internal clock rate	54Mps @ 54MHz
• Input clock range	20MHz to 54MHz
• Exposure time range at full resolution at full speed	1 µs—33 ms
• Serial Command Interface	I²C
• Video Interface	Standard 8/10/12bit parallel with programmable HSYNC/VSYNC
• Signal Processing	Defect pixel interpolation, FPN correction, DC offset correction, Dynamic contrast enhancement, Algorithm Sharpening
• Scanning Modes	Progressive, Subwindow, Master/Slave operation

154dB Wide Dynamic Range

MLX75413 Color Night Vision

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