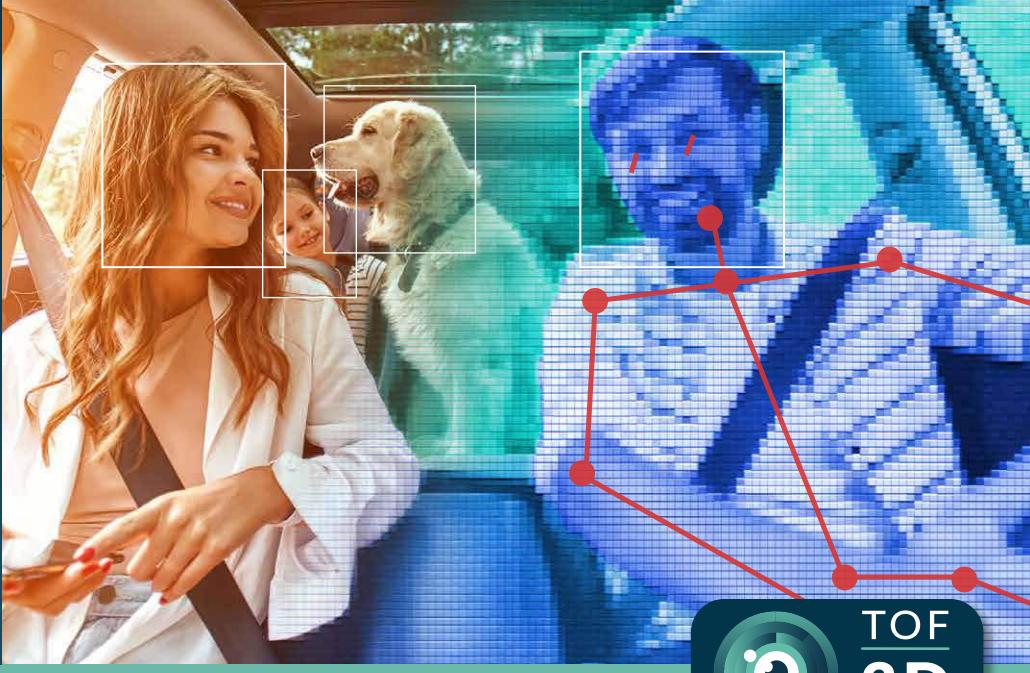


VGA / QVGA time-of-flight 3D camera

MLX75027 / MLX75026

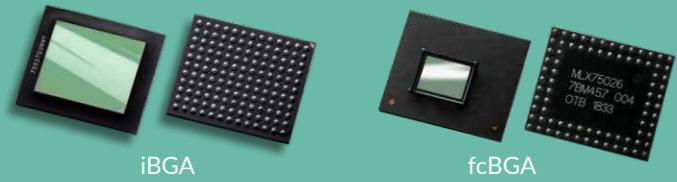
The MLX75027 (VGA) and MLX75026 (QVGA) sensors, featuring a BSI pixel array, provide control signals for illumination units (e.g. VCSELs) and utilize a high-speed interface to stream data to the host processor. These sensors enable the design of highly compact 3D cameras.



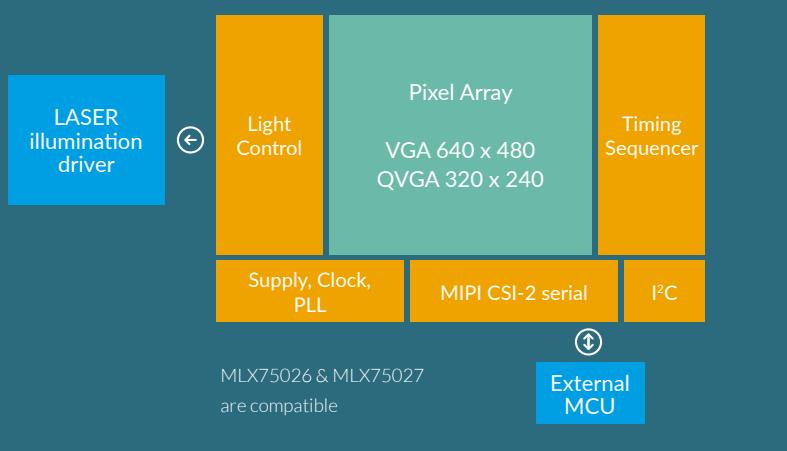
Key features

- ✓ 1/2" optical VGA (640 x 480) or 1/4" optical QVGA (320 x 240)
- ✓ High distance accuracy (modulating frequencies up to 100MHz)
- ✓ Full resolution readout up to 120FPS VGA / 180 FPS QVGA
- ✓ Configurable over I²C (up to 400kHz)
- ✓ CSI-2 serial data output, MIPI D-PHY
- ✓ Region of interest (ROI) selection
- ✓ Integrated support for binning (2x2, 4x4, 8x8)
- ✓ Horizontal mirror & vertical flip image modes
- ✓ Per-phase statistics & diagnostics
- ✓ Double sided arc (anti-reflective coating)
- ✓ 940 nm bandpass filter (MLX75076, on-demand for MLX75027)
- ✓ Support up to ASIL B system integration
- ✓ AEC-Q100 qualified (grade 2)

- ✓ Ambient operating temperature range
 - -40 +105°C (automotive)
 - -20 +85°C (industrial)
- ✓ Packages RoHS compliant
 - iBGA (TI) 11 x 9.5 mm² (MLX75027)
 - fcBGA (TH) 9.2 x 7.8 mm² (MLX75026)



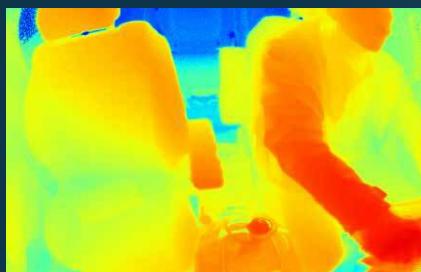
Block diagram



Evaluation kit



EVK75026 & EVK75027 evaluation kits are available



Applications

- Driver monitoring (DMS)
- In-Cabin monitoring (ICM)
- Car exterior cocooning
- Robotics
- Autonomous transport (AGVs)
- People and object detection in industry, retail, logistics and smart cities



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