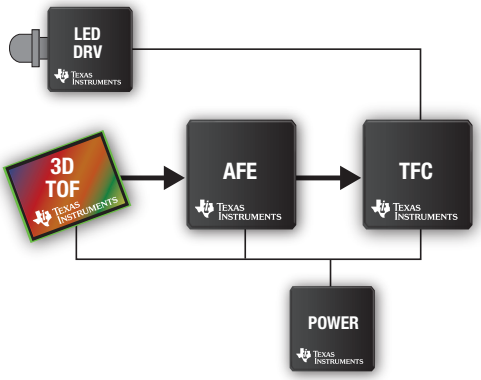
OPT8130 and OPT8140

3D Time of Flight Analog Output DepthSense® Image Sensors

Overview

The OPT8130/OPT8140 Time of Flight (ToF) sensors measure the distance to an object for each pixel in the field of view. The OPT8130 has QQVGA (160 x 120) resolution with 30 µm pixel size while the OPT8140 features QVGA (320 x 240) with 15 µm pixel size. DepthSense® pixel technology offers industry leading sensitivity and depth resolution enabling optimized system level performance. Global reset and shutter functions eliminate motion artifacts seen in rolling shutter systems. Direct digital addressing of the array permits flexible Region of Interest (RoI) specification on a frame-by-frame basis.

Chipset Solution



- 3D Time of Flight (ToF) Sensors
  - OPT8130 – QQVGA (160 x 120)
  - OPT8140 – QVGA (320 x 240)
- VSP5324 – Analog Front End
- TFC – Time of Flight Controller
- Supporting Solutions:
  - Power Management
  - LED Driver

Benefits

- Optical responsivity
  - OPT8130: 0.25 A/W at 870 nm
  - OPT8140: 0.15 A/W at 850 nm
- Output format
  - OPT8130: one pair single-ended outputs
  - OPT8140: two pair single-ended outputs
- Operation
  - Global reset
  - Global shutter
  - Supports dynamic Region of Interest (RoI)
- Optimized 44 pin BGA optical package

Target Applications

- Object identification
- Gesture recognition in TVs and PCs
- Robotics
- Security/surveillance

For more information visit **ti.com/3dtof**

SLAB063

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