



OGOTC1B

400 x 400 Product Brief



World's Smallest, Lowest-Power Global Shutter CMOS Image Sensor for AR/VR/MR Tracking Cameras

The OGOTC1B BSI global shutter (GS) CMOS image sensor for eye and face tracking in AR/VR/MR consumer headsets and glasses features on-chip single exposure DCG™ technology for ghost-free HDR imaging. It consumes less than 40% of the power at 30 fps compared with the previous-generation sensor and is pin-to-pin compatible for easy upgrades.

With a package size of just 1.64 mm x 1.64 mm, the OGOTC1B is an ultra-small, low-power image sensor for optimizing primarily inward-facing tracking cameras. It features a 2.2 μm pixel built on PureCel®Plus-S stacked-die technology. Nyxel® technology enables the best QE at the 940 nm NIR wavelength for sharp, accurate images of moving objects and the sensor's high MTF enables sharper images with greater contrast and more detail.

The 400 x 400 resolution GS sensor supports a flexible interface, including MIPI with multi-drop and CPHY.

Applications

- Eye/face tracking
- Gesture tracking
- Machine vision

Features

- **Active array size:** 400 x 400
- **Maximum image transfer rate:**
 - 400 x 400: 240 fps
 - 200 x 200: 480 fps
- **Power supply:**
 - Analog: 2.8V (nominal)
 - Core: 1.0V (nominal C-PHY), 1.1V (nominal D-PHY)
- **Output interfaces:** 1-lane MIPI D-PHY @ 1 Gbps / 1-trio C-PHY @ 1 Gbps
- **Output formats:** 8/10/12/14-bit RAW
- **Lens size:** 1/14.464"
- **Pixel size:** 2.2 μm x 2.2 μm



OGOTC1B
1.64 mm x 1.64 mm

