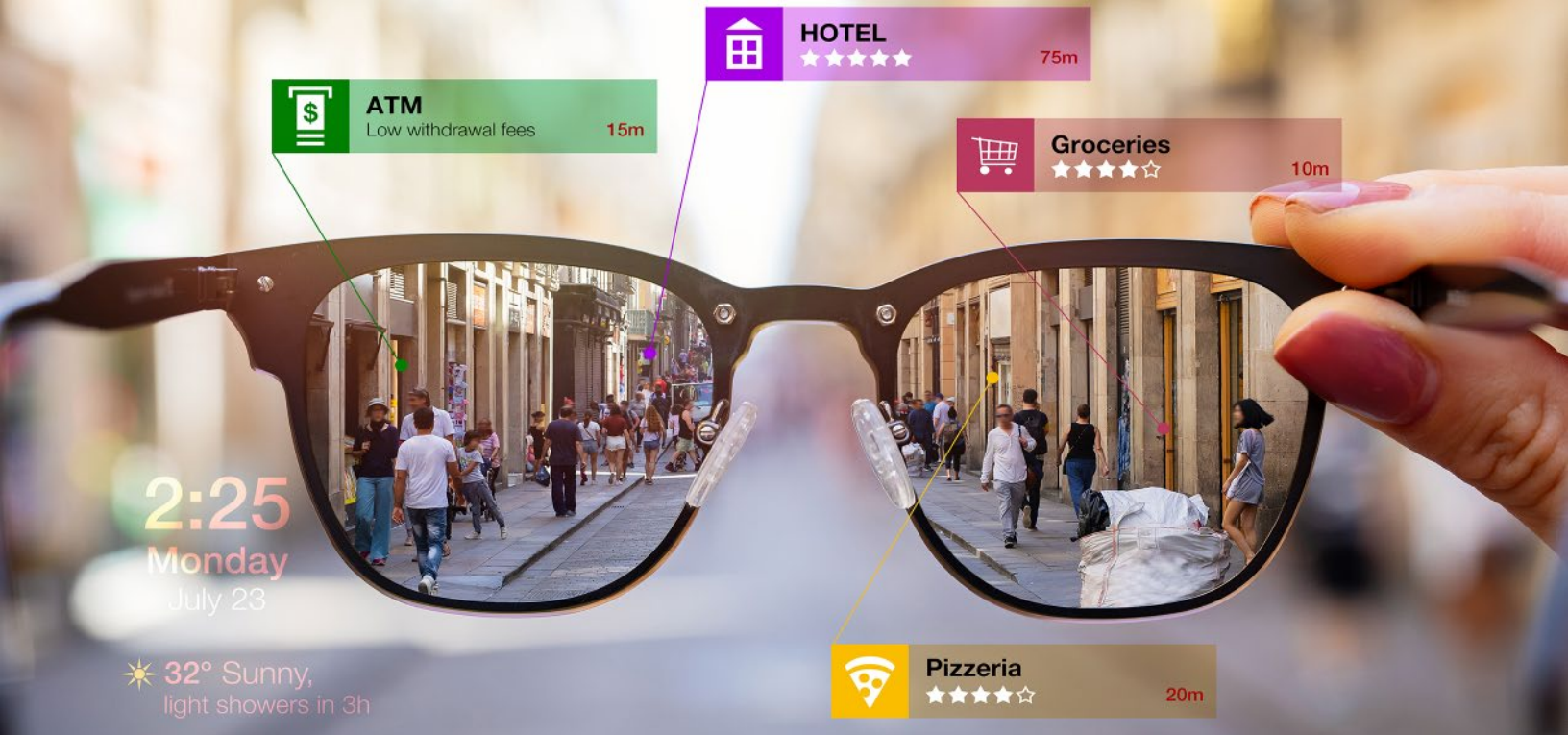




OG12B10

12-Megapixel Product Brief



12-Megapixel BSI CMOS Image Sensor for Smart Glasses with On-Chip Edge AI Compute

The OG12B10 is a 12-megapixel (MP) backside-illuminated (BSI) image sensor that integrates a central processing unit (CPU) for customer-defined algorithms, a neural processing unit (NPU), on-chip static random access memory (SRAM), always-on (AON) functionality for all-day use and advanced low-power pixel technology into a single chip dedicated for artificial intelligence (AI)-enabled edge devices, including smart glasses.

The OG12B10 sensor delivers high-quality, high speed 4K video and low power in an ultrasmall size. Its integrated processing capability reduces workload, lowers system data bandwidth and improves overall power efficiency, while giving

customers more freedom to run their algorithms on the sensor and optimize system performance for their own unique applications. The integrated processing engine supports a broad range of customer-defined on-sensor processing tasks, including object detection, recognition, gesture recognition and contextual awareness functions.

The OG12B10 has a 1.0-micron pixel size with 1/3.57-inch optical format. It features a high frame rate (up to 60 frames per second) at 12MP resolution. The OG12B10 is available for sampling now and will be in mass production in Q3 2026.

Applications

- Smart Glasses
- Smart Phones

Features

- Active array size:** 4032 x 3024
- Maximum image transfer rate:**
 - 4032 x 3024: 60 fps
 - 2016 x 1512: 120 fps
- Power supply:**
 - I/O: 1.8V or 1.2V
 - Analog: 2.8V
 - Digital: 0.9V
- Output interfaces:** Up to 4-lane D-PHY MIPI interface with speeds up to 3.0 Gbps/lane, 1/2/3-trio C-PHY MIPI interface, up to 4.5 Gsps/trio
- Output formats:**
 - 10-bit RGB RAW for normal mode
 - 12/14-bit for HDR combination mode
 - 10/8-bit RGB RAW for ULP mode
- Lens size:** 1/3.571"
- Pixel size:** 1.00 μm x 1.00 μm

Version 1.1, April 2026