



OS02H10-1B

2-Megapixel Product Brief



1080p CMOS Image Sensor Brings Premium Performance to Mainstream Surveillance Applications

OMNIVISION's OS02H10-1B is a 2.9-micron, 1080p CMOS image sensor that provides a high value option for ultra low light performance of its PureCel®Plus technology to mainstream surveillance cameras. This sensor also offers multiple high dynamic range (HDR) options for the best quality 1080p still and video captures of fast-moving objects at 60 frames per second (fps).

The OS02H10-1B provides a high value option for adding premium NIR, ultra low light and HDR performance to high volume, mainstream security systems with AI functionality. It also offers an ultra low power mode that consumes 97.7% less power than the normal mode to support long battery life.

By combining OMNIVISION's PureCel®Plus technology with multiple HDR options, the OS02H10-1B works equally well in all lighting conditions. The PureCel®Plus pixel architecture provides a superior low-noise design, enabling the OS02H10-1B to offer an SNR1 that is 70% better than OMNIVISION's prior-generation 1080p, 2.8-micron mainstream security sensor.

The OS02H10-1B is pin-to-pin compatible with the OS02H10, and also supports RAW 12-bit output.

Applications

- Security surveillance systems
- IP cameras
- HD analog cameras

Features

- **Active array size:** 1920 x 1080
- **Maximum image transfer rate:**
 - 1920 x 1080: 60 fps
- **Power supply:**
 - Core: 1.2V
 - Analog: 2.8V
 - I/O: 1.8V
- **Output interfaces:** MIPI 1/2-lane
- **Output formats:** RAW10/RAW12 RGB
- **Lens size:** 1/2.818"
- **Pixel size:** 2.9 μm x 2.9 μm

Version 1.0, June 2026