oclea
by Teknique

Janus Camera Module

The Oclea™ Janus Camera Module allows for easy integration of a high performance camera system into any product requiring a vision subsystem. The complete Janus Camera Module package combines a number of interconnecting PCBs to create a fully functional camera system.

The Oclea™ Janus Camera Module reduces time-to-market and development cost for products that require a vision-based subsystem. Example applications include IP cameras, access control solutions, kiosks, machine vision and products integrating video recording or streaming.

At the front end of the system, the Oclea™ Image Sensor PCBA paired with your lens feeds the digital video input interface. A number of image sensors ranging in resolution from 1 MP to 12 MP are supported including both global and rolling shutter options.

The Oclea™ S5L µSoM is utilized to process the incoming video data. The Janus Camera Module baseboard provides the additional peripherals that make up a full camera vision system, including I/O, communications, storage and connectors.

The optional PoE (Power-over-Ethernet) PCBA enables GigE Ethernet as well as a high current output driver for controlling external devices such as lighting and door locks.
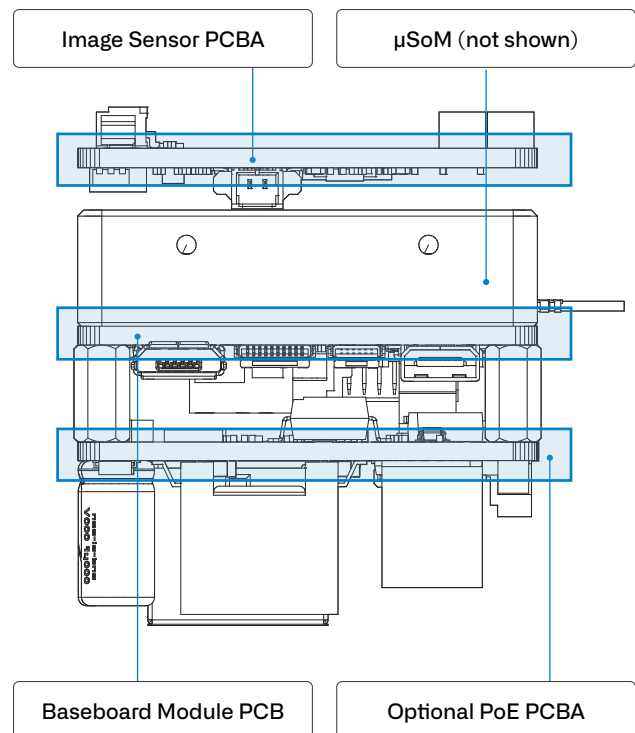
- Powerful Ambarella™ ISP and DSP with up to 4K30 + 480p H.264/H.265 encoding performance, and integrated Quad-ARM Cortex-A53 Cores @ 1GHz.

- Accelerates time-to-market and reduces development effort by using a modular approach to hardware and software.

- Small form factor, low power, high speed peripherals and networking hardware on-board.

- Software Development Kit (SDK) is shipped* with example applications with full source code for video recording, streaming, ISP control, WebRTC and more.

- Secure component supply chain. Western designed and manufactured. No US tariffs.

*The development SDK and engineering support are available separately. Please discuss with your Teknique representative.

ACTUAL SIZE

T490 3010A
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38mm

38mm
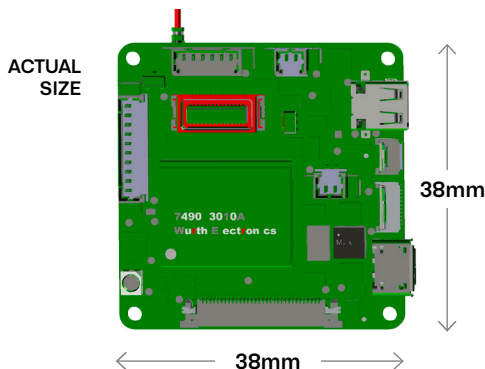
The Oclea™ Janus Camera Module Package
Size 38 x 38 x 25-35 mm (thickness depends on configuration)

Image Sensor PCBA

µSoM (not shown)

Baseboard Module PCB

Optional PoE PCBA

Interconnecting Boards
- Oclea™ S5L μSoM
- Oclea™ Image Sensor PCBA
- Optional Oclea™ PoE PCB with GigE Ethernet

Networking and Storage Options
- Ethernet Options
  - 10/100 Mb/s Ethernet OR
  - GigE Ethernet (with PoE 802.3af)
- Wireless and Storage Options
  - Dual-band WiFi 802.11a/b/g/n with Bluetooth 5.0 Module OR
  - SD Card with Micro Connector

Video Input Interface
- Oclea™ Image Sensor PCBA
- A Range of Fully Supported Image Sensors:
  - Selections From 1 MP to 12 MP
  - Both Global and Rolling Shutter Options Available

Video Output Interface
- HDMI v1.4b via micro-HDMI connector

Audio Interface
- Stereo 48KHz Audio Codec with
- Digital Mic and Speaker Connection

Peripheral Interfaces
- USB 2.0 Host or Slave (Configurable)
- UART Debug Console
- Micro-SD Card Socket
- Four (4) GPIO Connectors for Relay or IO Integration
- Digital PIR Connector
- IR Cut Filter Driver
- IR LED Driver
- One (1) RGB LED and Two (2) Push Buttons

System Requirements

PC running Ubuntu Linux 20.04 or later • At least 150GB free disk space • Internet connection (for download of tool-chain image)

The Oclea™ Janus Camera Module Block Diagram
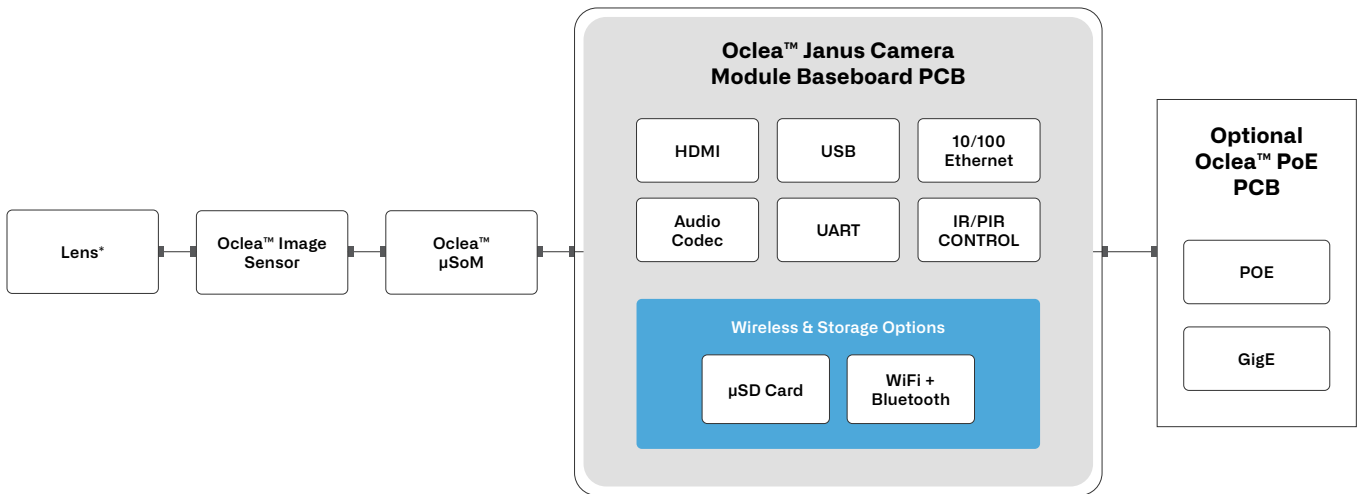
* Lens is not included in the Janus Camera Module package

PB-Janus-2.0

Contact us today
enquiries@oclea.com

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