

Zeus Camera Module

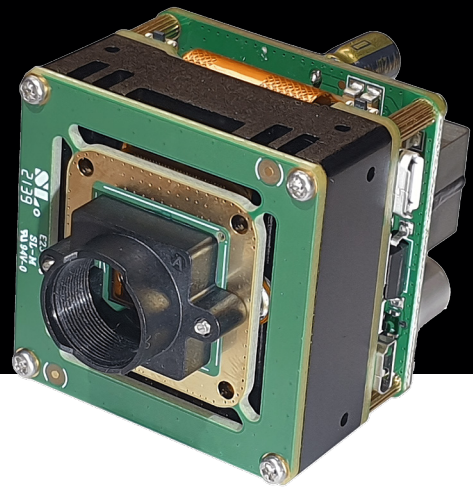
The Oclea™ Zeus Camera Module allows for easy integration of a high performance camera system into any product requiring a vision subsystem. The complete Zeus Camera Module package combines a number of interconnecting PCBs to create a fully functional camera system.

The Oclea™ Zeus Camera Module reduces time-to-market and development cost for products that require a vision-based AI 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.

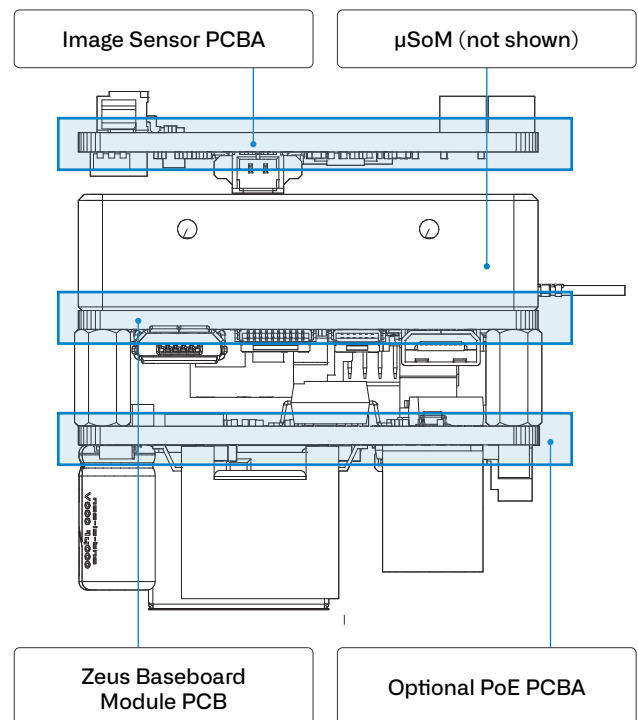
The Oclea™ CV25 μSoM is utilized to process the incoming video data. The Zeus Camera Module baseboard provides the additional peripherals that make up a full camera vision system, including I/O, communications, storage and connectors.

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.



The Oclea™ Zeus Camera Module

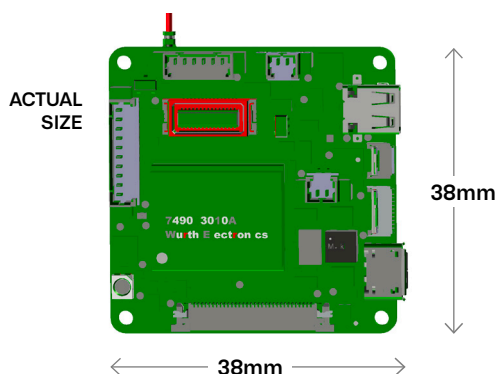
Size 38 x 38 x 25-35 mm • **Weight** 8g
(thickness depends on configuration)



HIGHLIGHTS

- Powerful Ambarella™ ISP and DSP with up to 4K30 + 480p H.264/H.265 encoding performance, and integrated Quad-ARM Cortex-A53 Cores @ 1 GHz.
- Integrated CNN acceleration engine for edge-AI applications.
- 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, object detection, segmentation, 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.

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



Interconnecting PCBS

- Oclea™ CV25 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

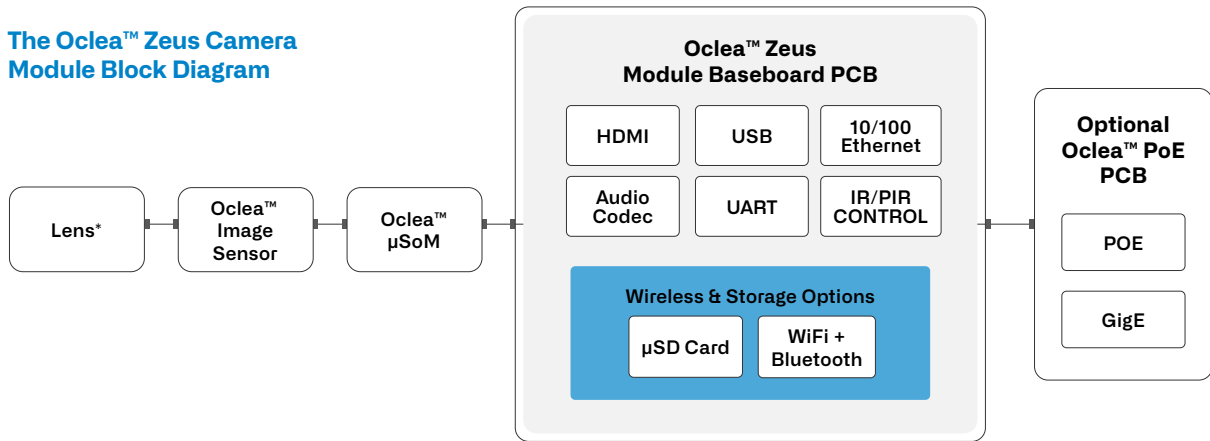
Peripheral Interfaces

- 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 18.04 or later • At least 1GB free disk space • Internet connection (for download of tool-chain image)

The Oclea™ Zeus Camera Module Block Diagram



* Lens is not included in the Zeus Camera Module package

	Zeus	Janus
SOC	Ambarella S5L	Ambarella CV25
CPU	Quad-Core ARM Cortex A53 1GHz	Quad-Core ARM Cortex A53 1GHz
CVFlow Accelerator		Y
Storage	8GB eMMC Flash	8GB eMMC Flash
Memory	1GB DDR3	2GB LPDDR4
Encoding performance	4Kp30 + 720p30	4Kp30 + 480p30
OS	Linux Kernel 4.9	Linux Kernel 5.4
Image Sensor Availability	Same	Same

PB-Zeus-2.0

Copyright Teknique Ltd. All rights reserved. Teknique, Oclea, the Oclea logo and the Teknique logo are trademarks of Teknique Ltd. All other brands, product names and company names are trademarks of their respective owners. The information in this document is believed to be reliable, but may project preliminary functionality not yet available. Teknique Ltd. makes no guarantee or warranty concerning the accuracy and availability of said information and shall not be responsible for any loss or damage whatever nature resulting from the use of, or reliance upon it. Teknique Ltd. does not guarantee that the use of any information contained herein will not infringe upon patent, trademark, copyright, or other rights of third parties. Teknique Ltd. reserves the right to make changes in the product and/or its specifications presented in this publication at any time without notice.