oclea
by Teknique

Access Control RDK

SOLUTIONS FOR COMMERCIAL AND INDUSTRIAL APPLICATIONS

The Oclea™ Access Control Reference Design Kit removes the risk and friction from developing your vision-based biometric identity product.

Biometric Access Control systems create a secure and contactless safeguard for critical areas in commercial and industrial spaces; reduce cost and overhead for managing lost key cards; and enhance the customer experience in the hospitality sector.

With reliable and fast face-recognition at the edge many security relevant applications are about to change forever.

The Oclea™ Access Control RDK ships with fully functional hardware and software - specifically designed to accelerate the entry into this emerging market.

The included Oclea™ OS provides demonstration software and an easy pathway for implementing your custom application. Together with sector-leading Face Recognition partners we provide a platform for secure access control with 3D anti-spoofing.

Our validated design ensures all components of your final product work together to accelerate time-to-value for your innovation.

Oclea™ CV25 ISP
Powerful Ambarella™ CV25 ISP with H.264/H.265 encoding performance, and integrated Quad-ARM Cortex-A53 Cores @ 1GHz.

Machine Learning on the Edge
Integrated CNN acceleration engine ideal for facial recognition applications.

Proven Hardware
Accelerate time-to-market and reduce development effort by using a modular approach to hardware and software.

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

Included SDK
Software Development Kit (SDK) is shipped with example applications for video recording, facial recognition, streaming, object detection, segmentation, WebRTC and more.

131mm

24mm

45mm

Oclea™ Liveness Module

2.1 MPx RGBIR Image Sensor

19 kD Structured Light Projector

UI Elements

RGB LED

Microphone

Loudspeaker

Oclea™ CV25 μSoM

8GB eMMC MCP Flash Storage

2GB LPDDR4-3200 SDRAM

GENERAL SPECIFICATIONS

INTERCONNECTING PCBS
- Oclea™ CV25 μSoM
- Oclea™ Access Control RDK Baseboard
- Oclea™ Liveness Module
- Supplementary UX boards

NETWORKING
- 10/100 Mb/s Ethernet
- POE 802.3af (15W)

POWER
- 12-24VDC Input, 8W
- Power by DC or POE
- DC Output Passthrough (Fused)

SDK SYSTEM REQUIREMENTS
- PC with x86-64 architecture
- Ubuntu Linux 20.04 LTS
- 1TB free disk space

OCLEA™ LIVENESS MODULE
- Onsemi AR0237 RGB+IR Image Sensor (2.1MPx)
- Structure Light Projector w/ 19k dots

AUDIO
- PDM Microphone
- Loudspeaker
- Supports 2-way communication

LIGHTING
- RGB LED - User Interface indicator
- 2x High-Powered IR LEDs for low-light applications

WHAT'S IN THE RDK
- Access Control RDK Hardware Schematics and PCB design files
- 12VDC Power Supply
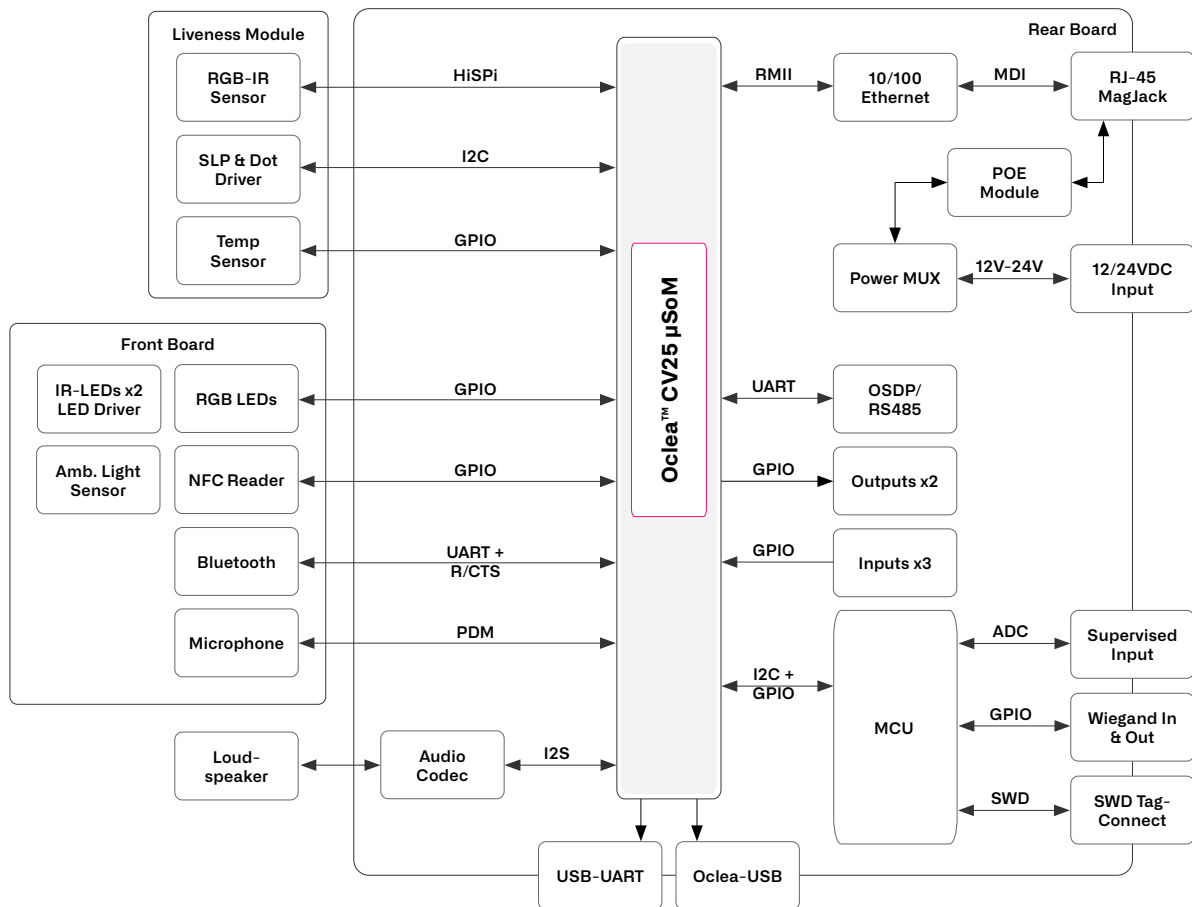
PERIPHERAL INTERFACES
- Bluetooth 5.0
- NFC w/ Apple ECP support
- 2x Wiegand headers (In, Out)
- RS485/OSDP header
- 2x SS Relay Outputs
- 3x Digital Input + 1x Supervised Input
- Built-In Tamper Detection
- UART Debug Console over USB Type-C

SOFTWARE
- Oclea™ OS
- Paravision Biometric Identity

- Schematics and PCB design files
- Engineering and design support via support.oclea.com online portal

Block Diagram

OCLEA_PB-AC-RDK-1.0

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Contact us today
enquiries@oclea.com

oclea.com