

## AMT-PVR-50

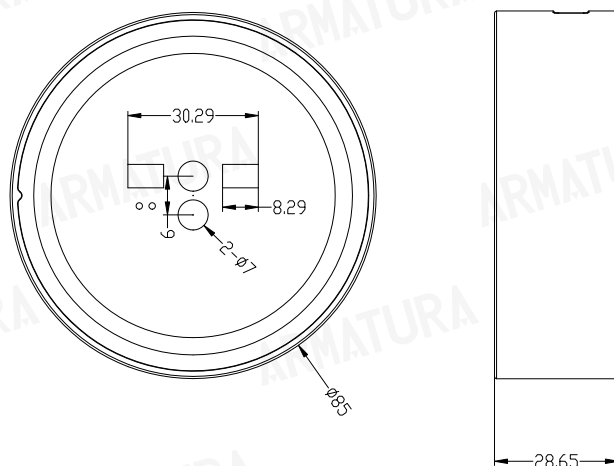
### Standalone Dual-Camera Palm Reader



#### Overview

- Dual cameras to capture high-quality color and grayscale palm images of palm print and palm vein.
- Wide-angle and short-focus lens for an excellent user experience.
- Built-in algorithms for palm detection, liveness detection and feature extraction, providing fast development and flexible deployment.
- Adaptable to wide range of varying lighting conditions from 0.01 LUX to 100,000 LUX.
- 2-in-1 USB cable for both power supply and data communication offers convenience, cost savings, space efficiency, compatibility, and versatility.
- Supports 125 kHz, 13.56 MHz frequency credentials. Supports multi-tech RFID card types, covering most of the common card formats in the market.
- Compatible with MultiBio SDK and supports Windows, Android and Linux mainstream platforms.
- Easy to use, fast identification and safe privacy protection. The palm reader provides excellent biometric authentication experiences with a simple wave of the hand.
- Fields of application: Physical and digital security, point of sales and payment service, patient identity in healthcare, public transport and airport or border control, campus security and attendance services, customer identification and VIP access for retail business, etc.

#### Module Dimensions and Connection PIN Specifications



All dimensions are in millimeters (mm)

General Information	
Processor	800 MHz Dual Core Cortex A53 Processor, 1.5 TOPs NPU
Memory	256MB RAM and 256MB Flash
Camera	1.3 MP infrared camera; 1.3MP visible light camera
Interface	USB 2.0
Operating Frequency/ Standards	125KHz 13.56MHz: ISO14443A, ISO14443B, JIS X6319-4, ISO15693
Card Type	ID card, IC card, MF card
Communication	UVC and HID Protocol
Power Supply	DC 5.0V/ 1.0A
Power Consumption	< 2.0W (standby); < 4.0W (operation)
Operating Temperature	-10°C to 55°C / 14°F to 131°F
Storage Temperature	-20°C to 65°C / -4°F to 149°F
Operating Humidity	15% to 95% RH ( non-condensing)
Dimensions	85.0 (L) x 85.0(W) x 28.7(H) (±1 mm)
Weight	150g
Certifications(s)	CE, FCC, RoHS

Sensor		
Camera Type	Visible Light Camera	Infrared Light Camera
CMOS	1/5" CMOS, 1.3MP	
Optical Wavelength	440 nm to 650 nm	850 nm
Image Type	24-bit RGB true color	256 Grayscale Levels
Illumination Range	0.01 Lux to 100,000 Lux	
Exposure Mode	Auto Expose on Region of Interest (AE on ROI)	
Image Resolution (Pixel)	Raw: 1024W * 1280H Output: 720W * 1280H	Raw: 1024W * 1280H Output: 720W * 1280H
Shutter Type	Global shutter	
Field of View (FOV)	Horizontal: 116°, Vertical 95°, Diagonal: 145°	
Frame per second	25fps /30fps	
Distortion Rate	<2%	

Built-In Algorithms	
Biometric Recognition Method	Palm
Recognition Distance	5cm-15cm
Authentication Mode <sup>[1]</sup>	1:1, 1:N
1:N Capacity <sup>[2]</sup> :	30,000
Palm Liveness Detection Time	<20ms (infrared-visible light mode; Infrared light mode)
Feature Template Extraction Time	<25ms
Comparison Time	<30ms
Posture Adaptability	Yaw≤ 30°, Pitch≤ 45°, Roll≤180°, Bends≤ 20°
Accuracy*	FRR=0.17% when FAR=0.001%
Authentication Speed **	< 100ms

Notes:

\* The accuracy is assessed based on the Armatura proprietary palm datasets. FRR: False Rejection Rate, FAR: False Accept Rate.

\*\* The performance is tested based on image resolution of 480 \* 640 and Quad-Core Cortex A9 CPU@1.5GHz platform.

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