# HID® U.ARE.U™ Camera Identification System

The HID U.ARE.U Camera Identification System enables best in class facial recognition, identification and verification, with industry leading passive liveness security in order to verify that the person in front of the camera is real. The camera identification system is based on fusion artificial intelligence (AI) that combines multispectral imaging (MSI) with modern AI and machine learning algorithms to provide superior facial recognition and Presentation Attack Detection (PAD) in environments with widely changing light conditions, from bright light to limited or no light conditions.

By combining multiple cameras in a single device, the HID U.ARE.U Camera Identification System provides the highest level of matching performance and accuracy for customers that require the best user experience. The HID U.ARE.U Camera Identification System is ideal for applications in the banking and financial industry including ATM and branch offices, retail, healthcare, hospitality, time and attendance and physical access control.

## ADVANCED PRESENTATION ATTACK DETECTION (PAD) TECHNOLOGIES

Facial recognition security needs to protect systems from spoofing attacks such as using mobile phone displays, tablets and monitors, photographs, paper puppets or 3D masks while accepting legitimate individuals wearing eyeglasses and face masks. While single camera systems can have strong independent anti-spoofing capabilities, they can also suffer from these specific attacks that become widely known to defeat PAD and liveness algorithms.

The HID Camera Identification System benefits from a multispectral imaging approach spanning visible to Near-Infrared (NIR) lighting. It supports a combination of camera sensing technology (RGB, active structured 3D depth sensing, high resolution periocular and 2D NIR facial flood projection) and PAD algorithms to determine whether the image is an actual spoofing attack or a legitimate user. By incorporating advanced machine learning PAD algorithms, the HID Camera System is positioned to achieve a high resilience against spoof attacks conforming to the industry standard (ISO 30107-3).

## HIGH PERFORMANCE IN CHALLENGING LIGHTING

By utilizing a combination of RGB and NIR, the HID Camera Identification System can address the challenges of total darkness or bright light for indoor use with variable light conditions. Options are available for NIR-only or NIR/RGB combined.

#### MATCHING AT THE EDGE

The HID Camera Identification System has the ability to do facial matching and AI processing at the edge for on-board facial recognition, liveness detection, presentation attack detection, template extraction and matching.

### DESIGNED TO FIT YOUR REOUIREMENTS

The HID Camera Identification
System has a USB interface and can
use the HID U.ARE.U Face Software
Development Kits (SDKs) to interface
with your systems and applications.
Alternatively, the camera has an
Ethernet interface with a integrated
camera API that allows it to be
directly addressable from the internet
without the need for a separate
SDK. As an option, the camera can
be used with HID's ArcID Biometric
Server and ArcID Device Manager
to support a wide variety of server
managed use cases.



#### **FUNCTIONALITY:**

- Integrated multispectral camera system
- · 3D structured depth projection
- · Does not require external light source
- · Face detection
- · Automatic face capture
- · Automatic image quality check
- Presentation Attack Detection (PAD) conforming to ISO 30107-3 standard
- Face template extraction
- · Face template match
- Match on device with local identification database
- Neural processing unit for fast and reliable operation
- Top ranking in NIST Face Recognition Vendor Test (FRVT)
- · Unattended operation
- · Multi-face detection
- Continuous authentication
- Compact module available for fast integration
- Optional HID ArcID™ Biometric Server connectivity with matching, identification and database synchronization capabilities



## HID U.ARE.U Camera Identification System



Front



Back



**Bottom** 

Product Name	HID U.ARE.U. Camera Identification System
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Camera Sensing Technology	Multi-Spectral RGB-IR Day/Night Sensing     Active Structured 3D Depth Projector with 2D Flood Illuminator @ 940 nm
Image Sensor	8 MP 1.4 um NIR Enhanced BSI Technology     Full HD Video Outputs (1920x1080, 3x Streams Visible, NIR, Depth)
Modalities	Enroll and Match on Device     1:1 and 1:N Authentication On Device     Passive HD Video Surveillance (UVC over USB or MJPEG over Ethernet)     Continuous Face Recognition @10 fps with PAD Authentication @4 fps     Multi-Face Logic Support
Ambient Lighting	• 0-20 KIx (NIR) • 2-10 KIx (RGB)
Working Distance	• 20-150 cm / 7.87-59 in. (Face Recognition) • 40-100 cm / 15.75-39.37 in. (Face Recognition with PAD enabled)
Face Recognition Performance	User Configurable FMR 1e-4, 1e-5, 1e-6
Field of View (camera mounting dependent)	Portrait Mode 74° V x 45° H
On-board Database Capacity	0-100K facial templates for 1:1 or 1:N matching
Supported Formats	PNG, JPG
Communication Interface	USB 2.0 (USB-C connector) Fast Ethernet (10/100Mbps, RJ45 connector)
Average Power Consumption	Idle: 2.6W     Low-Power Face Monitoring – no face detected: 2.8W     Active Face Capture – face detected: 4.3W
Power Supply	USB interface: 5V/3A RJ45/Phantom interface: 12V - 48V/300mA - 1150mA
Dimensions:	88 L x 42 H x 41 D mm (~3.5 L x 1.65 H x 1.61 D in.)
Operating Temperature	USB powered: Ambient temperature 0° C - 50° C (32° F - 122° F), non-condensing     RJ45 Phantom powered: Ambient temperature 0° C - 45° C (32° F - 113° F), non-condensing
Storage Temperature	-25° C - 60° C (-13° F - 140° F), non-condensing
Supported Operating System	Windows® 7, Windows® 10, Windows® 11, Linux® 32/64-bit, Android®
Optional Solution Components	HID U.ARE.U Face SDKs HID ArcID Biometric Server HID ArcID ID Proofing Server HID ArcID Device Manager HID Biometric Professional Services
Presentation Attack Detection	ISO 30107-3 Level 1 (Level 2 pending)
Certifications	CE, UKCA, FCC, RoHS, WEEE, UL, CB, IEC 60825-1 Class 1, IEC 61000-4-2 Level 3
Security Features	<ul> <li>Secure Boot</li> <li>Secure Key Storage</li> <li>Mutual Authentication</li> <li>Cipher Suites for Template/Channel Encryption including AES, TDES, etc.</li> <li>Secure Firmware Updates</li> </ul>

Data subject to change without notice



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