

JERICO REFERENCE DESIGN

HIGH SECURITY MADE SIMPLE.

Jericho is a reference design tailored for the smartphone and tablet markets. This solution is a superior combination of optical and algorithmic elements that enable unmatched security and ease-of-use. Jericho includes off-the-shelf near-infrared illumination, a commercially available image sensor, proprietary lensing for illumination and the image sensor, and leading-edge enrollment and authentication algorithms. The hardware is adaptable - one or two illuminator modules can be implemented and the optical solution can be tailored for desired OEM device thickness and for the desired working distance. The software for Jericho is designed to run in a secure processing environment in an application processor or system on chip (SOC) for maximum security.



THE GOLD STANDARD IN BIOMETRICS

- Every iris is unique - second only to DNA as a definitive identifier.
- Extremely high level of entropy prevents a stolen biometric template from being re-used.
- Single-iris False Match Rate of 1 in 1.5 million.
- Robust liveness detection.
- Anti-spoof protection.
- Enables identity certainty and data protection/integrity.

EyeLock is an acknowledged leader in advanced iris authentication for the Internet of Things (IoT). Our proprietary pulsed illumination method reduces power consumption, increases IR safety, and improves performance. EyeLock provides a whole system solution for iris authentication hardware, software, optics, algorithms, and backend matching.

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FEATURES

USABILITY

- "Arms-length" working distance.
- Works with eyeglasses.
- Works with most sunglasses.
- Works with most sunglasses.
- Works in daylight and darkness.
- Hygienic -- nothing to touch, no biometric left behind.
- Liveness testing and authentication in less than a second.

HARDWARE/MECHANICAL

- Near-infrared illumination LED(s)
- 5 megapixel monochrome imager with MIPI interface
- Optical solutions for nominal 30 cm, 45 cm, and 60 cm "Working Distance"
- Imager module thickness (z-dimension) 3.0 mm (30 cm), 4.1 mm (45 cm) and 5.7 mm (60 cm)

SECURITY

- Single iris False Match Rate (FMR) of 1 in 1.5 million.
- Optional dual-iris authentication.
- False Non Match Rate (FNMR) less than 2%.
- Robust liveness testing.
- Anti-spoof protection.
- Revocable/recallable biometric template.
- AES 256 encrypted biometric template.

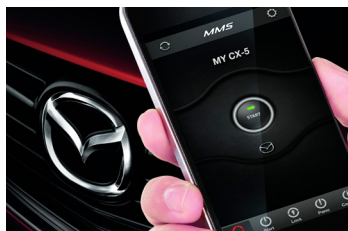
SOFTWARE

- Portable to Linux, Android, Windows, and iOS.
- Flexible matching topologies: 1:1, 1:few, 1:many, local, network, cloud, multifactor.
- Algorithms are portable to a secure processing environment.
- Algorithms library available to support customer application creation.
- EyeLockApp: sample Java code available for streamlined customer software development.

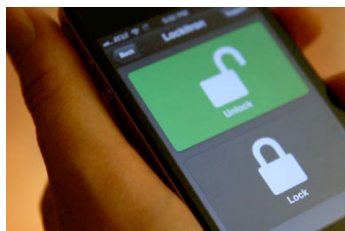
SAFETY/COMPLIANCE

- IEC 62471:2006 & CIE S009/E-002 IR lamp safety standard.

APPLICATIONS / ENVIRONMENTS



AUTHORIZATION



ACCESS



AUTHENTICATION



POS / BANKING

FOR MORE INFORMATION, PLEASE CONTACT EYELOCK AT EMBEDDED_APPLICATIONS@EYELOCK.COM.