KR 1000 Series

USB Smartcard reader and fingerprint devices for highly secure desktop and mobile applications

Reliable
Ergonomic Design
User Friendly

All-in-one solution:
Superior Performance for Enrollment, Verification and Identification

FIPS 201 and Minex compliant features with onboard Extractor & Matcher onboard

FBI PIV IQS certification and fake finger detection available

Extensive security features, including encryption and digital signature

Smartcard reader with the fastest Mykad reading time, below 6s

KR 1000 Series

The KR1000 Series is a range of compact biometric readers with smartcard reading capability. It can be connected to desktops and a wide range of smartphones and tablets via a USB cable, making it perfect for eKYC, mobile and over the counter solution. It uses Morpho's patented optical technology and fingerprint algorithm which are acknowledged worldwide for their high level of performance and exceptional robustness. Morpho's fingerprint technology is ranked #1 by NIST for accuracy.

KR1010

KR1015

KR1020

High quality fingerprint acquisition

Large acquisition surface for optimized capture and repeatable placement.

Utilizing IDEMIA's fingerprint module which has a capture surface of 14 x 22 mm ensures that the richest area of the fingerprint is systematically captured all the time.

Acquisition surface contribute significantly to the overall biometric performance.

Richest Area

Capture

Placement variations on smaller sensors
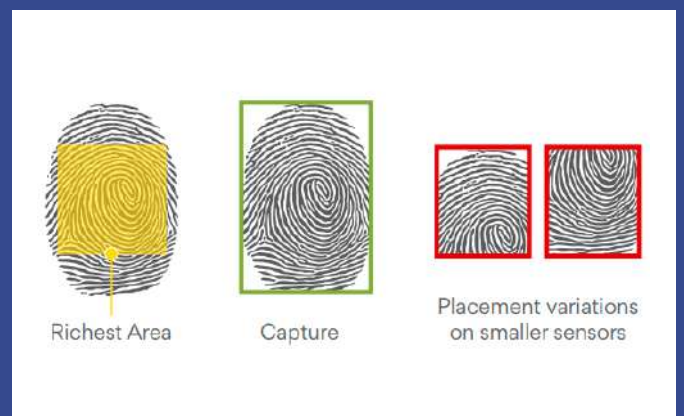
MULTIPLE APPLICATIONS

Logical access control

- Banking and finance:
  secure and swift access to core banking applications or over-the-counter transaction
- Enterprise:
  biometric PC login and Single-Sign-On solutions (no more passwords)
- Healthcare:
  access to confidential medical records by authorized staff

Easy and secure payment

- Fast, convenient, cashless payment at checkouts in store, supermarkets or restaurants
- E-commerce secure payment

Electronic sign-up

- Sign-Up for businesses and recreational membership program
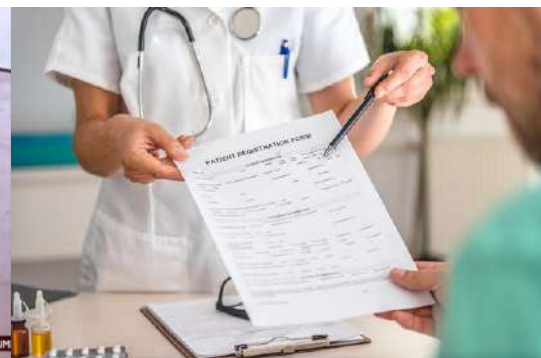- Institute of Higher Learning registration

SOFTWARE PACKAGES

The KTMykad SDK enables a rapid integration and the use of device-embedded capabilities

- Available for Windows, Linux and Android platforms
- Includes a BioAPI interface

Low level protocol(ILV) is also available

The KR 1000 Series can be used with MorphoKit™, advance SDK for the capture and processing of fingerprint images, authentication and identification

TECHNICAL SPECIFICATIONS

Model	KR1010	KR1015 (V3/E3)	KR1020 (V3/E3)
Hardware			
Sensor	-	Optical	Optical
CBM Version	-	V3	V3
Fake Finger Detection	-	E3(Optional)	E3(Optional)
Sensing Area	-	14 x 22mm	14 x 22mm
Interface	USB1.1/2.0/OTG	USB1.1/2.0/OTG	USB1.1/2.0
Supply Voltage	5V (USB power supply)		
Current Consumption	≤50mA	≤300mA	≤300mA
Cable	OTG -Micro USB(F) to Micro USB(M)/Type C	OTG -Micro USB(F) to Micro USB(M)/Type C	Type A-1.8m(Fixed Cable)
LED Indication	Yes		
Dimension (LxWxH)	63 x 87.3 x 20mm	63 x 87.3 x 33mm	95 x 80 x 54.5mm
Weight	40g	70g	265g
Smartcard Reader			
Contact Card (ID-1)	Yes		
Reading Time	≤6s		
Biometrics			
Fingerprint Image	-	Image Size : 400*256 pixels Resolution : 500 dpi	Image Size : 400*256 pixels Resolution : 500 dpi
Image Gray Scale	-	256 level	256 level
Image Format	-	RAW, ISO19794-4, WSQ	RAW, ISO19794-4, WSQ
Template Type	-	Proprietary, ISO19794-2, ANSI-378	Proprietary, ISO19794-2, ANSI-378
Fingerprint Image Distortion	-	≤1%	≤1%
Enrollment Time	-	≤1s	≤1s
Matching Time	-	0.6s in 1:1 / 0.7s in 1:500 mode	

TECHNICAL SPECIFICATIONS

Model	KR1010	KR1015 (V3/E3)	KR1020 (V3/E3)
Matching Mode	-	1:1/1:N	
FAR	-	Configurable down to 10^{-8}	
Environment			
Operating Temperature	-10°C to +50°C		
Storage Temperature	-20°C to +60°C		
Operating Humidity	10% < RH < 85%		
Storage Humidity	RH < 95%		
Supported Operating Systems	Windows XP/7/8/10, Android		
Certification of Sensor			
FBI PIV IQS	-	Yes (E3)	
MINEX & FIPS 201	-	Yes	
STQC	-	Yes (E3)	
CE, CB, FCC, UL	-	Yes	
RoHS, REACH, WEEE	-	Yes	
WHQL drivers	-	Yes	

CBM E3 Features

Enhance Image Quality
- Image fingerprint that is certified PIV IQS by the FBI
- Image quality (equivalent to ISO19749-4:2011 Annexure B)

Fake finger detection
- Able to detect fake fingerprints made with various materials such as Latex, Plasticine, Kapton, transparent film, rubber, Play-Doh, graphite or paper

ACCESSORIES

KR1010 & KR1015 OTG Cable

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