MARKLAND

MZR 03

Biometric ID Reader
with FBI FAP 20



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Fingerprint Recognition

Format	Optical fingerprint
Capture Mode	Press
Capture Speed	< 0.6 sec
Fake Finger Detection	Yes
Liveness Detection	Yes
FBI Compliant	FAP 20
Sensor	Optical
Resolution	500 dpi
Grayscale	256 grayscales
Image Size	276 x 433 pixels
Supported Image Formats	RAW, ISO 19794-4, or WSQ compressed (under license) images
Certifications	• FBI PIV IQS / ISO 19794-4: 2011 (Annex B) • MINEX & FIPS 201 compliant algorithms • STQC • CE, CB, FCC, UL • RoHS, REACH, WEEE

Contactless Smart Card Interface

Card Size	• ID-1 (Full size) • Tokens • NFC-enabled smartphones
Card Types	National e-ID Cards, Residence Permits, Driver's Licenses, Health Cards, Payment Cards, Transit Cards, Access Control Cards, NFC Tags, Mobile Phones with NFC
Standards	• ISO/IEC 14443 Type A & B Parts 1-4 • ISO/IEC 18092 (NFC)
Supported Card Types	• ISO 14443 Type A & B • MIFARE™ (Classic, Ultralight, Ultralight C, MIFARE PLUS, DESFire, DESFire EV1 2/4/8k) • FeliCa™ • NFC Forum Tag types 1, 2, 3, 4

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Operating Frequency	13.56 MHz
Reading Distance	Up to 50 mm (Depending on tag type)
Read / Write Speed	Up to 848 kbps (ISO14443)
Supported NFC Mode	Card Reader/Writer

Contact Smart Card Interface

Card Size	ID-1 (Full size) and ID-000
Card Types	National ID Cards, Residence Permits, Driver's Licenses, Health Cards, EMV Chip Cards (Banking)
Standards	ISO/IEC 7816 Part 1 to 4
Supported Card Types	Class A: 5V; Class B: 3.3V; Class C: 1.8V
Protocols	Asynchronous: T=0, T=1
Insertion Cycles	10,000
Interface Speed	Up to 600 kbps
Clock Frequency	Up to 12 MHz
Detection	Card present switch; Automatic power on/off; Short circuit protection
8-Pin Handling	C4/C8 supported; ID-1 Sliding Contact Socket (8 pin)

Host Interface

Protocol	USB CCID
Connector Type	USB Type- A connector; 150 cm cable
Speed	USB 2.0 Full Speed (12 Mbps)
Supply Voltage	5VDC
Current Consumption	Max. 400 mA
USB Firmware Upgrade	Supported

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Physical Characteristics

Dimension	80 x 65 x 39.7 mm
Weight (±5 g)	187 g
Status Indicator	Green & Red LED

Operating Conditions

Operating Temperature	0° to 50° C
Operating Humidity	10-95% rH
Storage Temperature	-25° to 85° C

Certification & Compliance

Certifications	CE, RoHS, Microsoft® WHQL, FBI PIV-071006, Mobile ID FAP 20
Compliance	ISO/IEC 7816, ISO/IEC 14443, USB 2.0 Full Speed, USB CCID

Drivers & Support

Driver Supported OS	• Windows® 7/8/10/11 (32/64 bit) • Server 2008/2012/2016/2019 • Windows XP • macOS 10.9.x - 12.2.x • Linux 2.6.x, 3.x, 4.x, 5.x (32/64 bit) • Android 4.0 and higher
Supported APIs	PC/SC - API

Warranty

Warranty	1 year