

MARKLAND

MCR 7003

All-in-one Contact & Contactless Smart
Card Reader with QR and SAM



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All-in-One Reader

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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
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)
Card Types	National ID Cards, Residence Permits, Driver's Licenses, Health Cards, EMV Chip Cards (Banking), SAM (Secure Access Module)
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	500,000
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; 2 x ID-1 Sliding Contact Socket (8 pin) – one can be used as SAM

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QR Interface

Sensor	CMOS
Resolution	640 x 480 px
Field of View (FOV)	Horizontal: 60°, Vertical: 48°
Scan Angle	Roll: 360°, Pitch: ±55°, Skew: ±55°
QRs	Supported 1D/2D barcodes and PDF 417

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. 450 mA
USB Firmware Upgrade	Supported

Physical Characteristics

Dimension	108.3 x 73.1 x 49.3 mm
Weight (±5 g)	218 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

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Certification & Compliance

Certifications	CE, RoHS, Microsoft® WHQL
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Compliance	ISO/IEC 7816, ISO/IEC 14443, USB 2.0 Full Speed, USB CCID
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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 8.0 and higher
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Supported APIs	PC/SC - API
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Warranty

Warranty	1 year
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