

MDR-1

Mobile Document Reader





Mobile Document Reader MDR-1

The new MDR-1 document reader fulfill the needs for fast and reliable reading , verification and authentication of personal documents such as passports, visas, ID cards and driver licenses.

The MDR-1 offers superior flexibility with various configuration options and has unprecedented data capture capabilities.

For example reading contact and contactless electronic chips, scanning 2D barcodes, reading the MRZ band on passports and ID cards via an Optical Character Recognition swipe reader (OCR).

It is the complete biometrics solution for verification, authentication and identification with fingerprint module and precise iris module.

Highly configurable and feature rich, MDR-1 supports all relevant ICAO and industry standards. This makes it ideal for the integration in large scale projects.

Mainly employed for border control or airport security, MDR-1 is also excellent choice for mobile deployment in immigration offices, consulates and for commercial applications such as in hotels, banking or access control applications.

Smartcard Chips (contact and contactless)

The device reads contactless ePassport chip as required by recent biometric identity verification solutions. The contactless chip is compliant with the ISO/IEC 14443 A&B standard as specified by ICAO 9303.

For increased usability, contact smartcard identification documents like personal ID and working permit cards are also supported, compliant to ISO 7816 1/2/3

Fingerprint Module

The sensor capture, reads and recognize fingerprints with 500 dpi resolution. Optionally with embedded database for templates, or with WiFi connection, verification time is < 0,8 sec.

Iris Module

Sensor of the Iris Capture Camera is working in distance 3~5 cm, with 50 Lux~10,000 Lux illumination, achieving recognition speed 0,1~0,2 sec.

UV LED Bar Module

The High Power UV LED Bars integrating white light and UV light in 365 nm are designed for easy checking of travel documents, banknotes, checks, or personal documents on security paper.

Software

SPC delivers full fledged Software Application with Front-End functionality and Back-Office implementation depending on customer requirements.

MDR-1 can be delivered alternatively with Software Development Kit [SDK], enabling customers to develop their own customized application..



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Technical data

Specifications	
Model Platform	PXA270 Marvell Xscale, 32bit RISC CPU, 128 MB Flash, 128 MB RAM [optional 256 MB Flash and 512 MB RAM]
Operating System	MS Windows CE
Wireless Communication	<ul style="list-style-type: none">● 802.11b/g: Optional expansion module (via Compact Flash) operating in the 2.4GHz band.<ul style="list-style-type: none">○ Supports IEEE 802.11b data rates of 1, 2, 5.5 and 11Mbps using Direct Sequence Spread Spectrum (DSSS).○ Supports IEEE 802.11g data rates of 6, 9, 12, 24, 36, 48 and 54 Mbps, using Orthogonal Frequency Division Multiplexing (OFDM) baseband modulation● GSM/GPRS EDGE (via expansion interface)<ul style="list-style-type: none">○ Quad-Band – 850/900/1800/1900○ Voice and Data○ GPRS Class B, Multi-Slot Class 12○ EGPRS Class B, Multi-Slot Class 12● Integrated Bluetooth class II, V 2.0 + EDR● Note: 802.11b/g, GSM, and Bluetooth are available simultaneously
OCR- B Swipe Reader	<ul style="list-style-type: none">● Bi-directional hand-swipe.● Machine Readable Travel Document conforming to ICAO Document 9303.● Machine Readable Passports (MRP) 2 lines of 44 characters● Machine Readable Visas (MRV) 2 lines of 44 characters, 2 lines of 36 (size II)● Machine Readable Travel Cards. 2 lines of 36 (size II), 3 lines of 30 (size I)
Contactless Card Reader	<ul style="list-style-type: none">● ICAO 9303 compliant: Fully interoperable to read all type of e-passports.● Compliant with ISO 14443 type A and B standards, including SR176 tags, Philips mifare® family, ISO 15693 tags, ISO 18000-3, EPC and UID tags.● 2 SAM interfaces available
Contact Card Reader	<ul style="list-style-type: none">● Fully interoperable to read all type of e-ID documents.● Compliant to ISO 7816 1/2/3 (T=0 & T=1).● High performance smartcard interface supports up to 420 kbps when supported by card.● 2 SAM interfaces available
Fingerprint Module	<ul style="list-style-type: none">● Mechanical:<ul style="list-style-type: none">○ Mount Plastic Casing○ L= 53.7; W=33.7; H=13.5mm○ Weight: 20 g● Sensor:<ul style="list-style-type: none">○ Capacity sensor○ 500dpi @ 8-bit per pixel○ Active area: 14mm x 22mm● Processor:<ul style="list-style-type: none">○ Powered by an ARM9™ family CPU core Power Consumption○ Voltage supply: 3V to 5.5V, Standby mode: 500 iA max at 5V○ Fully operating sensor on: 300 mA max @ 5V○ Fully operating sensor off: 100 mA @ 5V● Database:<ul style="list-style-type: none">○ Most common operations supported○ Storage capacity: 1000 templates



	<ul style="list-style-type: none"> ● Biometric Features: <ul style="list-style-type: none"> ○ 1:1 and 1:N search ○ Verification time < 0.8s ○ Identification time < 1s ○ Tunable false acceptance rate ● Certification: <ul style="list-style-type: none"> ○ CE, UL and FCC15
Iris Module	<ul style="list-style-type: none"> ● Iris Capture Camera <ul style="list-style-type: none"> ○ Sensor: IRIS 2030N CMOS sensor (1/4 inch) ○ Object Distance: 3~5 cm (0.5~1 cm depth of focus) ○ Illumination: 1 White LED, 1 Infrared LED ○ Iris Guide: Concave Mirror ● Embedded Engine <ul style="list-style-type: none"> ○ Processor: Analog Blackfin processor 500Mhz ○ Memory: 16 MB of SDRAM ○ Flash Memory: 1 MB ● Connection <ul style="list-style-type: none"> ○ USB 1.1, USB 2 ● Power consumption: <ul style="list-style-type: none"> ○ Operation: 1,4 W ○ Standby: 300 mW
UV LED Bar	<ul style="list-style-type: none"> ● Dimensions: 157 x 33 x 28 mm ● USB 1.1, USB 2 connection ● White light ● UV light 365 nm
Barcode Applications	<ul style="list-style-type: none"> ● Optional 1D imager expansion module ● Optional 2D imager expansion module ● Optional 1D SE955 laser scanner expansion module ● Optional 1D SE1223 High Performance laser scanner expansion module
User Interface - Screen	<ul style="list-style-type: none"> ● Color Touch Screen Display 9.144 cm (3.6 in.) diagonal ● Full VGA 480x640 resolution ● Transflective, portrait mode TFT ● High reliable adjustable LED backlight ● Sunlight readable (for outdoor use) ● Easily replaceable and customizable bezel
Expansion Slots	<ul style="list-style-type: none"> ● One SD/MMC memory card slot – user accessible ● End-cap USB Interface supports GPS expansion module. ● 100-PIN expansion interface: supports PCMCIA (type II), GSM/GPRS EDGE and other third-party expansion modules ● Can be extended with Hardware Developer Kit. ● Flex cable interface with robust connector: supports scanner (serial) and imager (USB) modules ● One Type II CF Card Slot
External Connectors	<ul style="list-style-type: none"> ● One Tether connection with full RS232 and USB On-The-Go (USB 1.1) functionality ● One Low-Insertion Force (LIF) docking connector ● DC Power Jack



Power Management	<ul style="list-style-type: none">● Optional 3.7V, 3000 mAh High Capacity Battery Pack● Optional 3.7V, 4000 mAh Super High Capacity Battery Pack● Advanced Smart Battery with gas gauge● 3 power source options: Runs off battery, AC power, or automotive power supplies● Built in charger● Rechargeable, user replaceable backup battery pack
Environmental	<ul style="list-style-type: none">● Withstands 26 drops (on 12 edges, 8 corners, 6 faces) at 1.20 meters (4 ft.) to polished concrete while powered on and configured with accessories such as CF radio, scanner/imager.● Dust & Rain Protection: IP54, IEC 60529● Operating Temperature: -10°C to +50°C (14°F to 122°F)● 5%-95% RH non-condensing● Storage Temperature: -40°C to +60°C (-40°F to 140°F)
Dimensions and Weight	<ul style="list-style-type: none">● 200 mm x 75/100 mm x 31/42 mm (7.87" x 2.95"/3.94" x 1.22"/1.65")● 815g

