Biometric *Tri* Scan Reader with optical finger sensor for the Motorola MC75

+ *Features and benefits:*

- + High resolution (500dpi) optical fingerprint sensor
- + ISO7816 compliant contact smartcard reader
- + Contactless smartcard reader supporting ISO14443 (including MIFARE, CAC, TWIC, FRAC cards as well as ICAO ePassports) and ISO15693
- + Rugged, snap on peripheral for MC75
- + Standards based solution simplifies application development.
- + Powered by MC75
- + MC75 can be charged with peripheral attached
- + ActiveSync over USB supported

PART NO.

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- + The Biometric ***Tri Scan*** reader combines **CONTACT SMART CARD**, **CONTACTLESS SMART CARD** and **FINGERPRINT BIOMETRIC CAPTURE**. The biometric core uses a rugged, high image quality optical fingerprint sensor. The ***Tri scan*** reader is compatible with most contact AND contactless Smart Cards including all *Mifare* and *iClass* contactless cards. The contactless card reader is hardware compatible with the CAC, TWIC, FRAC cards as well as ICAO ePassports.
- + The ***Tri Scan*** *reader* attaches as a snap-on unit to the base of the MC75 - the mechanical design of the module enables the attachment to remain compatible with existing MC75 accessories such as the desktop charge cradle and the car charger. The module may be quickly removed from the MC75, or semi permanently attached with two screws.
- + The fingerprint reader sensor provides a rugged, reliable solution even in dusty or damp environments. The sealed sensor with a toughened platen provides immunity to Electro Static Discharge and protection from scratching and mechanical damage.immunity to 15kV and the ability to withstand everyday wear and tear (rated to >2 million touches). The reader conforms to the FIPS 201 specification for Single Finger Capture Devices.
- + The contact smartcard reader is compliant to ISO7816-1,2,3,4, and supports T=0 and T=1 protocols and 2-wire and 3-wire modes. The reader is based on industry standards, including PC/SC and EMV 2000 Level 1 to address a wide range of applications across government, enterprise and financial sectors.
- + The contactless smartcard reader provides the ability to read and write to a wide variety of transponders at 13.56 MHz compliant to ISO14443A, ISO14443B, ISO 15693 and HID *iClass*.
- + The Tri Scan reader is supported by demonstration software and a Software Development Kit (SDK). The SDK is required for application development and provides the means to capture finger images. The fingerprint reader directly supports template extraction and matching in ANSI INCITS 378-2004, MINEX A, ISO/IEC 19794-2 and SAGEM proprietary formats. Templates may be stored on a remote database, on a contact or contactless smartcard or locally on the reader and used for 1:1 and 1:N verification.
- + Communication is via the MC75 USB port which is automatically switched to allow ActiveSync of the MC75 with a host device.

Fingerprint Sensor	
Sensor resolution	500dpi
Identification time (1:500)	1s typical
Authentication time (1:1)	0.9s typical
False Acceptance Rate (FAR)	Adjustable down to 10^{-8}
Pixel array	256 x 400 pixels
Sensor area	14 x 22 mm
ESD protection	IEC 61000-4-2 Level 4 ±15kV
Raw image size	Approximately 100kbyte
Template size	Algorithm dependent – typically 100-400 bytes
Local storage capacity	500 users, 1000 templates
Contact Smartcard Reader	
Compliance	ISO7816-1,2,3,4 PC/SC, EMV2000 Level 1 capable. T=0, T=1 Protocol. I2C
Connector	Meets ISO 7816-2, rated for >100 000 insertions.
Card size	Full (ID-1)
Card support	Up to 420Kbps card interface, clock frequency up to 8MHz, 5V, 3V, 1.8V smart cards.
Contactless Smartcard Reader	
RF Transmit Frequency	13.56MHz
Supported RFID Standards	ISO14443A, ISO14443B, ISO 15693
Supported contactless cards	✓ ISO15693 ✓ ISO14443A/B ✓ Philips: MIFARE®, DESFire®, MIFARE ProX®, SMART MX, and iCode® ✓ HID: *iCLASS*®
Reading distance	Intended for in-slot card reading, capable of reading up to 2.5cm (1") from back surface dependent on transponder type.
Connection Interfaces	
Charging of host terminal	Host terminal charged through the reader
Reader power supply	Powered from host terminal
ActiveSync	via USB, automatically switched when connected to a PC

Physical Characteristics	
Dimensions	90 (h)×82(w)×36(d)mm (3.54"x3.23"x1.42") maximum
Weight	110g (3.9 oz)
Enclosure material	Lexan Polycarbonate
Colour	Grey
Material finish	Sparked surface
Mechanical attachment	Snap-on action with optional locking screws
Docking	Attachment maintains dockability with Motorola docking cradle for charging and ActiveSync
Environmental	
Operating Temperature	-10°C to +50°C (14°F to 122°F)
Storage Temperature	-40°C to +60°C (-40°F to 140°F)
Humidity	Up to 90% Relative humidity Non Condensing
Drop specification	1.3m (4.26ft) to concrete, 6 drops per 6 sides over operating temperature; 1.5m (5ft) to concrete, 2 drops per 6 sides at ambient temperature 23ºC (73ºF)
Sealing	Internal components conformal coated
Electrostatic discharge	+/-15kV air discharge, +/-8kV direct discharge
Construction	RoHS compliant
Regulatory	
EMI/RFI	TBC
Electrical Safety	TBC

+ About TSL

TSL designs and manufactures both standard and custom embedded, snap on and standalone peripherals for handheld computer terminals. Embedded technologies include:

- RFID - Low Frequency, High Frequency and UHF
- Bluetooth
- GPRS/GSM
- IrDA
- Contact Smartcard
- Fingerprint Biometrics
- 1D and 2D Barcode Scanning
- GPS
- 802.11 Wi-Fi
- Magnetic Card Readers
- OCR-B and ePassport

Utilizing class leading Industrial design, TSL develops products from concept through to high volume manufacture for Blue Chip companies around the world. Using the above technologies TSL develops innovative products in a timely and cost effective manner for a broad range of handheld devices.

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ALSO AVAILABLE:

1084-02-SO-TSR	**Capacitive Triscan reader**
1084-04-SO-TSR	**Contact and contactless card reader**

Rev 1.1 – 17th February 2010