Technology Solutions (UK) Ltd

Snap-on LF RFID Reader

1067 Low Frequency RFID Reader for Motorola MC70/75/75A

Dual LF Support at 125kHz / 134.2kHz

This snap-on accessory provides the Motorola™ MC70/75/75A terminal with Low Frequency (LF) RFID functionality. The reader attaches as a snap-on to the Motorola terminal and houses both the RFID reader and the antenna.

The LF RFID reader provides the ability to read and write to a wide variety of Low Frequency transponders including ISO 11784, ISO 11785 and ISO 18000-2. Supported Manufacturer specific transponders include NXP (Philips) HITAG (1,2 and S), EM Microelectronic and Texas Instruments.

All power for the reader is supplied by the Motorola terminal, with the reader designed to minimise current consumption and maximise terminal run time.

The host terminal retains full bar code and wireless LAN functionality

Flash upgradeability of the RFID reader firmware provides future proofing of the reader. The data output from the RFID reader may be simply incorporated into a Pocket PC application using the Software Development Kit (SDK).

The Reader is available individually or as an Explorer kit containing the reader, sample RFID tags and a Software Development Kit (which includes a demonstration application, the source code for that application and full API documentation)

Features:

Low Frequency RFID reading & writing

Supports reading and writing (when supported by the transponder) to Low Frequency RFID tags, including those compatible with industry standards ISO 11784, ISO 11785 and ISO 18000-2

Compatibility

The reader remains compatible with existing MC70/75/75A accessories such as the single slot cradle and car charger

Connectivity

USB and MC70/75/75A charge connections are brought through to the base of the LF RFID reader to allow charging and ActiveSync over USB with the Reader attached

Applications

- Logistics
- Authentication
- Animal Tagging
- Time and Attendance

TSL 1067 Specifications

Physical Characteristics

Dimensions:	90 × 82 × 32mm (3.54" x 3.23" x 1.26")
Weight:	95g (3.35 oz)
Enclosure material:	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

LF RFID Reader

Frequency:	125kHz, 134.2kHz
Supported RFID Standards:	ISO 11784, ISO 11785, ISO 18000-2
Supported Tag-ICs :	NXP HITAG 1, HITAG 2, HITAG S Sokymat Q5 EM Microelectronics EM4x02, EM4x05 (ISO FDX B), EM4x50 Texas Instruments 64bit Read Only, 64bit Read Write, 1088bit Multipage.
Typical read time (serial number only)	HITAG 2 – 30ms HITAG S – 59ms EM4002 – 65ms EM4005 – 58ms EM4050 – 95ms Q5 – 55ms Texas Instruments – 93ms
Host interface:	Serial interface on COM1 of MC70/MC75, ASCII or Binary Protocols 9600bit/s to 115200bit/s 8,N,1.
Read Distance:	Dependent on transponder type and antenna. Typically up to 8cm for Texas Instruments 32mm glass, up to 7cm for EM4102 50mm disc.

Current consumption

Current Consumption:	Typically 50mA whilst active (dependent on transponder types)
	0mA in shutdown mode

User indication

Red, Green LEDs:	Flash indicating activity (function may also be customised)

Connection Interfaces

Physical interface:	USB and power in to charge MC70/75/75A
Reader power supply:	Powered from host terminal
ActiveSync:	via USB

Environmental

Operating Temp.:	-10°C to +50°C (14°F to 122°F)
Storage Temp.:	-40°C to +60°C (-40°F to 140°F)
Humidity:	Up to 90% Relative humidity Non Condensing
Drop Spec:	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 23°C (73°F)
Sealing:	Internal components conformal coated
Electrostatic Discharge (ESD):	+/-15kV air discharge, +/-8kV direct discharge
Construction:	RoHS compliant

Notes

All PCBs are conformally coated

Part Numbers

1067-01-SO-MC75-LF-RFID	Low Frequency RFID Reader for Motorola MC70/75/75A

Warranty

The TSL 1067 reader is warranted against defects in workmanship and materials for a period of one year (12 months) from date of shipment, provided the product remains unmodified and is operated under normal and proper conditions.

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 & UHF
Bluetooth
Contact Smartcard
Fingerprint Biometrics
1D and 2D Barcode Scanning
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.

Contact TSL

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