

# 1134 LOW FREQUENCY RFID READER FOR MOTOROLA MC55/65/67 SNAP-ON LF RFID READER



## Dual LF Support at 125kHz / 134.2kHz

This snap-on accessory provides the Motorola™ MC55/65/67 terminal with Low Frequency (LF) RFID functionality. The reader attaches as a snap-on to the base of the Motorola terminal and houses both the RFID reader and 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 MC55/65/67 accessories such as the single slot cradle and car charger

### Connectivity

USB and MC55/65/67 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

# SPECIFICATIONS

## Physical Characteristics

Dimensions:	85×100×30mm (3.35"x3.93"x1.18")
Weight:	95g (3.35 oz)
Enclosure material:	Polycarbonate
Colour:	Black
Material finish:	Sparked surface
Mechanical attachment:	Snap-on action
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 COM2 of MC55/MC65/MC67, 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 6cm for EM4102 30mm diameter disc.

## SAM support

Current Consumption:	< 100 mA during RFID read
	< 60mA in idle mode
	< 30mA in standby mode

## User indication

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

Physical interface:	USB and power in to charge MC55/65/67
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 +70°C (-40°F to 158°F)
Tumble:	250 0.5m tumbles (500 drops)
Drop Spec:	1.2m (4ft) to concrete
Sealing:	IP54
Electrostatic Discharge (ESD):	+/-15kV air discharge, +/-8kV direct discharge
Construction:	RoHS compliant

## Supported Operating Systems

Terminal	Supported OEM OS
MC5590	Windows Mobile 6.1, OS 3.38.0004 or higher Windows Mobile 6.5, OS 3.38.0004 or higher
MC55A0	Windows Mobile 6.5, OS 1.34.0005 or higher
MC55N0	Windows Mobile 6.5, OS 1.36.0017 or higher
MC659B	Windows Mobile 6.5, OS 2.40.0211 or higher
MC67*	Windows Mobile 6.5, OS 1.27.36 or higher

\*MC67 is supported by TSL 1134 Readers with serial number 1134-002000 or higher

## Regulatory

Electrical Safety:	Europe - EN60950-1 with CB Scheme Group and National Differences USA - UL60950-1
EMI/RFI:	EN 300 330-2, EN 301 489-3, FCC CFR47 Part 15(c), IC RSS210

# PART NUMBERS

1134-01-SO-MC65-LF-RFID

Low Frequency RFID Reader for Motorola MC55/65/67

## WARRANTY

The TSL 1134 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® wireless technology
- 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

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