

## Low Frequency RFID reader for Motorola MC55/65

### + *Features and benefits:*

- ✓ Dual LF support at 125kHz and 134.2kHz
- ✓ Mounts on the base of the Motorola MC55/65 terminal
- ✓ LF RFID reader is powered from the host terminal
- ✓ Host terminal retains full bar code and wireless LAN functionality
- ✓ Supports manufacturer specific transponders including NXP (Philips) HITAG (1,2 and S), EM Microelectronic and Texas Instruments
- ✓ Supports reading and writing when supported by the transponder
- ✓ Full API documentation provided for development of custom applications
- ✓ The reader remains compatible with existing MC55/65 accessories such as the single slot cradle and car charger



PART NO.

1134-01-SO-MC65-LF-RFID

- + The reader provides the Motorola MC55/65 with Low Frequency (LF) Radio Frequency Identification (RFID) functionality. The LF RFID 1134 attaches as a snap-on to the Motorola terminal and houses both the RFID reader and the antenna. The reader supports a wide variety of LF transponders, including those compatible with the ISO 11784, ISO 11785 and ISO 18000-2.
- + All power for the reader is supplied by the Motorola terminal, with the reader designed to minimise current consumption and maximise terminal run time.
- + USB and MC55/65 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 include Logistics, Authentication, Animal Tagging and Time and Attendance.

<b>Performance Characteristics</b>	
RF Transmit Frequency	125kHz, 134.2kHz
Supported RFID Standards	ISO 11784, ISO 11785, ISO 18000-2
Supported Tag-ICs :	<ul style="list-style-type: none"> <li>✓ NXP HITAG 1, HITAG 2, HITAG S</li> <li>✓ Sokymat Q5</li> <li>✓ EM Microelectronics EM4x02, EM4x05 (ISO FDX B), EM4x50</li> <li>✓ Texas Instruments 64bit Read Only, 64bit Read Write, 1088bit Multipage.</li> </ul>
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, ASCII or Binary Protocols 9600bit/s to 115200bit/s 8,N,1.
Reading range	Dependent on transponder type and antenna. Typically up to 8cm for Texas Instruments 32mm glass, up to 6cm for EM4102 30mm diameter disc.
<b>Current consumption</b>	
Current Consumption	< 100mA during RFID read
	< 60mA in idle mode
	< 30mA in standby mode
<b>User indication</b>	
Red, Green LEDs	Flash indicating activity (function may also be customised)
<b>Connection Interfaces</b>	
Physical interface	USB and power in to charge MC55/MC65
Reader power supply	Powered from host terminal
ActiveSync	via USB

### 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

### Environmental

Operating Temperature	-10°C to +50°C (14°F to 122°F)
Storage Temperature	-40°C to +70°C (-40°F to 158°F)
Tumble	250 0.5m tumbles (500 drops)
Drop specification	1.2m (4ft) to concrete
Sealing	IP54
Electrostatic discharge	+/-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 2.31.0002 or higher

### Regulatory

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



#### + 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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Rev 1.01 – 31<sup>st</sup> January 2012