TECHNOLOGY SOLUTIONS UK LTD

Multi-ISO HF RFID reader for Motorola MC75 Terminal

+ ***Features and benefits:***

- ✓ Mounts on the base of the MC75 terminal
- ✓ Motorola MC75 retains full laser bar code functionality and wireless LAN
- ✓ RFID reader is powered from the host terminal
- ✓ Multi ISO RFID reading and writing at 13.56 MHz
- ✓ High frequency (HF) industry standard ISO 15693 smart labels including Texas Instruments Tag-it™ and Philips ICODE™ II ISO15693 – 13.56 MHz
- ✓ Support for full Mifare™ family of ISO14443 transponders
- ✓ Software development kit (SDK) available for development of custom applications
- ✓ Integrated SAM slot
- ✓ Customer installable assembly - easily removed from handheld but with the option of locking screws where a more permanent attachment is required.
- ✓ Compatible with existing Motorola single slot desktop docking/charging cradle.

PART NO.

1059-01-SO-MC75-RFID

+ The reader provides the Motorola™ MC75 with High Frequency (HF) RFID functionality. The HF RFID attaches as a snap-on to the Motorola terminal and houses both the RFID reader and the antenna. Power for the reader is obtained from the MC75. The HF RFID reader provides the ability to read and write to a wide variety of transponders at 13.56 MHz including ISO 15693, ICODE (I & II) and the complete Mifare family of ISO14443 (A&B). 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 as an Explorer kit which contains the reader, sample RFID tags, a Software Development Kit (which includes a demonstration application, the source code for that application and full reader documentation)
+ Applications include: e-Payment, e-Toll Road Pricing, Authentication, e-Ticketing for Events & Public Transport, Logistics & Supply Chain Management.
+ USB and MC75 charge connections are brought through to the base of the HF RFID reader to allow charging and ActiveSync over USB with the Reader attached.

Performance Characteristics

RF Transmit Frequency	13.56MHz
Supported RFID Standards	ISO14443A, ISO14443B, ISO15693, ISO18000-3, ICODE
Supported Tag-ICs :	✓ Tag-it HF-I
	✓ Tag-it HF-I Light S
	✓ Philips ICODE SL2
	✓ Infineon ISO15693
	✓ MIFARE® Standard
	✓ MIFARE® 4k
	✓ MIFARE® Pro
	✓ MIFARE® Ultralight
	✓ MIFARE® DESFIRE
	✓ MIFARE® SmartMX
	✓ SLE 55Rxx
	✓ SRF55VxxP +S
	✓ SLE 66CL160S
	✓ SLE 66CLX320P
	✓ SR176
	✓ SRIX4K
	✓ LRI 12
	✓ LRI 64
	✓ LRI 512
	✓ EM4135
	✓ KSW Temp Sense
	✓ Sharp S
	✓ ASK GTML
	✓ ASK GTML2ISO
	✓ TOSMART P064
	✓ Jewel Tag (IRT0302B11 KSW)
	✓ ISO14443A Tags
	✓ ISO14443B Tags
	✓ ISO15693 Tags

Reading distance	Up to 8cm (3") using ISO7810 size credit card format transponders.
RF Transmission Speed	Up to 848 kBit/s
SAM support	
SAM clock	3.39MHz
SAM VCC	5V
SAM type	Form factor compatible with GSM SIM footprint
Current consumption	
Current Consumption	< 150 mA during RFID read
	< 30mA in standby mode
	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 MC75
Reader power supply	Powered from host terminal
ActiveSync	via USB
Physical Characteristics	
Dimensions	90×82×32mm (3.54"x3.23"x1.26")
Weight	95g (3.35 oz)
Enclosure material	Grey Polycarbonate
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	EN 300 330, EN 301 489, CE marked
	USA - FCC Part 15
Electrical Safety	Europe - EN60950-1 USA - UL60950
Notes	
All PCBs are conformally coated	

+ 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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