



Common Access (CAC) Card and Smart Card Reader

Contact Smart Card Reader for Motorola MC91XX and MC90XX



Compatibility

This accessory for the MC91XX and MC90XX series of terminals provides a Smart Card Reader capable of reading Common Access (CAC) Cards as well as Smart Cards compliant with ISO7816-1,2,3,4. The Smart Card Reader supports T=0 and T=1 protocols, Class A and Class B cards. A PC/SC compliant driver is provided.

The smartcard reader attaches as a snap on to the bottom of the terminal using standard quick release clips allowing operation with the full MC91XX and MC90XX range. The smartcard reader can be quickly detached to allow the use of standard cradles but the reader includes a DC input and Mini USB socket. The DC input socket is used with a standard Motorola power supply (Part Number 50-14000-148R, PWRS-14000-148R or PWRS-14000-148C) to charge the mobile computer without removing the smartcard reader.

The mini USB socket can be used to communicate with a PC for ActiveSync connections or other peripherals, such as printers (subject to suitable driver and USB host support on the terminal).

Durability

The smart card connector meets the requirements of ISO 7816-2 and is rated for a minimum of 500 000 insertion cycles. It uses landing contacts which touch the card only when it is almost fully inserted to minimize card and contact wear. It is suitable for ID-1 format cards as per ISO 7810.

Features:

- ✓ Provides simple upgrade path for standard MC91XX and MC90XX terminals
- ✓ Compliant to ISO7816-1,2,3,4
- ✓ Communication speed up to 115.2 kbits/s to host, 420 kbits/s to card
- ✓ Supports embossed cards
- ✓ Compact enclosure - 95x80x40 mm
- ✓ Matches drop specification of host terminal
- ✓ Powered by host terminal
- ✓ Suitable for Class I, II, III Division 2 Hazardous Locations - DUE Q2 2013
- ✓ Lightweight - 155g

Preliminary Specification

1139 Contact Smart Card Reader for Motorola MC91XX and MC90XX

TSL 1139 Specifications

Physical Characteristics

Dimensions:	95 x 80 x 40 mm (including clips)
Weight:	155g
Mechanical attachment:	Standard quick release clips
User feedback:	Green LED indicates smartcard reader powered on Orange LED indicates smartcard being read.
Power:	Peripheral powered by host terminal

Smart Card Reader

Compliance:	<ul style="list-style-type: none">✓ ISO7816-1,2,3,4✓ T=0, T=1 Protocol✓ 2 wire (SLE 4432/42, S=10), 3 wire (SLE 4418/28, S=9) and I²C (S=8) also supported by reader hardware.
Power Source:	Host computer switched 3.3V output
Average Current consumption:	Maximum 70mA supplying maximum smartcard current (Voltage Class A)

Environmental Characteristics

Operating Temp.:	-20 °C to +50 °C (-4 °F to 122 °F)
Storage Temp.:	-40 °C to +70 °C (-40 °F to 158 °F)
Humidity:	95% RH Non Condensing
Enclosure material:	PC
Enclosure IP rating:	Internal electronics IP 64

Regulatory

EMC:	<ul style="list-style-type: none">✓ EN 55022:2010, EN 55024:2010✓ USA - FCC Part 15 Class B✓ Canada - ICES-003 Class B
Ordinary Location Safety:	<ul style="list-style-type: none">✓ EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011✓ UL 60950-1✓ CSA C22.2 No. 60950-1-07 + A1:2011, EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011
Hazardous Locations:	Class I, II, III, Division 2 Groups A,B,C,D,F,G (only in combination with a terminal rated for Hazardous Location operation) - Due Q2 2013

Part Numbers

1139-01-S0-MC9X00-CAC	Smart Card Reader for MC91xx and MC90xx
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Warranty

The TSL 1128 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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