

MSR-110 SERIES

**MANUAL SWIPE MAGNETIC
STRIPE CARD READER**



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1. OVERVIEW

MSR-110 series is 154mm manual swipe card reader.

With programming capability on Enable or change on Prefix, Suffix, LRC, etc

MODEL	DIMENSION	ISO TRACKS						INTERFACE
		SINGLE			DUAL		TRIPLE	
	L x W x H(mm)	I	II	III	I & II	II & III	I & II & III	
MSR-110	154 x 40 x 48.6	T1	T2	T3	T12	T23	Default	USB
MSR-111		T1	T2	T3	T12	T23	Default	PS2
MSR-112		T1	T2	T3	T12	T23	Default	RS232

2. BASIC SPECIFICATION

Dimension	154mm(W) x 40mm(L) x 48.6mm(H)
Weight	190g(approx.)
Power Supply	+5V DV \pm 5%
Ripple	50mVp-p max.
Power consumption	65mA (max.)

3. SPECIFICATION

Card Standard	ISO7811/7812,AAMVA,CADMV		
Track Position	ISO 1 (IATA)	ISO 2 (ABA)	ISO 3 (MINTS)
Recording Density	210 BPI	75 BPI	210 BPI
Recording Capacity	79 Characters (7bits)	40 Characters (5bits)	107 Characters (5bits)
Interface	USB/PS2/RS232		
Card Thickness	Plastic 0.76 \pm 0.08mm		
Head Function	Read only 1.5mm		
Operation Speed	10 ~ 150cm/sec		
Life of Head	500,000 card passes (1 pass : one swipe)		
Error Rate	0.5% Less Than (JSE Test card)		

4. ENVIRONMENTAL REQUIREMENTS

Ambient Temperature

Storage: -30°C to +70°C

Operating: -20°C to +70°C

Ambient Relative Humidity

Storage: 0% to 95% RH

Operating: 20% to 90% RH

5. INDICATOR LED DESCRIPTION

Color	Signal	Description
Green	Good	Card reading is normal

TRANSMISSION DATA FORMAT

STX	SS	DATA	ES	CR	ETX	
0x02	%	DATA	?	0x0d	0x03	Track I
0x02	:	DATA	?	0x0d	0x03	Track II
0x02	+	DATA	?	0x0d	0x03	Track III

6. DEFINITION OF INTERFACE

RS-232 interface:

JP1 RS-232 Interface

PIN 1	GND
PIN 2	VCC (+5V)
PIN 3	TXD
PIN 4	RXD

JP2 Interface of magnetic head wire

PIN1	TK1-
PIN2	TK1+
PIN3	GND
PIN4	TK2-
PIN5	TK2+
PIN6	GND
PIN7	TK3-
PIN8	TK3+

PS/2 interface:

JP1 PS/2 Interface

PIN 1	PC_CLK
PIN 2	PC_DAT
PIN 3	VCC (+5V)
PIN 4	GND
PIN5	KEYBOARD_CLK
PIN6	KEYBOARD_DAT

JP2 Interface of magnetic head wire

PIN1	TK1-
PIN2	TK1+
PIN3	GND
PIN4	TK2-
PIN5	TK2+
PIN6	GND
PIN7	TK3-

PIN8 TK3+

USB interface:

JP1 USB Interface

PIN 1 GND
 PIN 2 VCC (+5V)
 PIN 3 D+
 PIN 4 D-

JP3 SPI Interface

PIN1 VCC (+5V)
 PIN2 RESETT
 PIN3 GND
 PIN4 SCK
 PIN5 MISO
 PIN6 MOSI

JP2 Interface of magnetic head wire

PIN1 TK1-
 PIN2 TK1+
 PIN3 GND
 PIN4 TK2-
 PIN5 TK2+
 PIN6 GND
 PIN7 TK3-
 PIN8 TK3+

7. COMMUNICATION PROTOCOL

Data Format:

Track I: (% DATA ?)
 Track II: (; DATA ?)
 Track III: (+ DATA ?)
 CR

8. DIMENSION DRAWING

