

Specification

Manual Swipe Type Magnetic Stripe Card Reader

SRM -1210/1211	ISO-1	Read Only
SRM -1220/1221	ISO-2	Read Only
SRM -1230/1231	ISO-3	Read Only
SRM -1240/1241	JIS-II	Read Only
SRM -1250/1251	ISO-1/2	Read Only
SRM -1260/1261	ISO-2/3	Read Only
SRM -1271	ISO-1 2 3	Read Only

For more Information

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Overview This specification describes the electrical, operational, environmental and mechanical requirements of the model SRM-12XX respectively. SRM manual swipe modules are for reading magnetically encoded data on the cards with either high or low energy stripe that confirm to all ANSI/ISO track combination.

Abbreviations and Definitions

ANSI	American National Standard Institute
ISO	International Standard Organization
BPI	Bit per Inch
IATA	International Air Transportation Association
ABA	American Banks Association
MINTS	Mutual Institutions National Transfer Systems
CPD	Card Present Detect
RCP	Read Clock Pulse
RDD	Read Data

Card Specification

The cards which are used in JSR-11X0 should be complied with ISO 7810, 7811 and 7812.

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)
Card Thickness	0.76 mm \pm 0.08 mm		

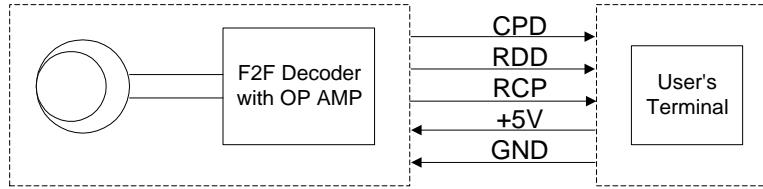
Electrical Requirements

Voltage and Ripple	+5 VDC (3.0 V ~ 5.5 V), Less then 50 mVp-p
Current Standby	Less than 1.5 mA (Single) / 3.0 mA (Dual) / 4.5 mA (Triple)
Current Operating	Less than 3.0 mA (Single) / 6.0 mA (Dual) / 9.0 mA (Triple)
Output Levels	High Level (0) : 3.5Vmin. (Ioh=6 mA) Low Level (1) : 0.4Vmax. (Iol=6 mA)

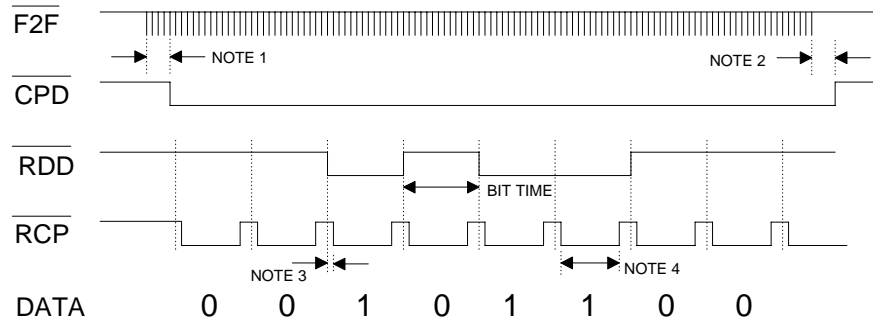
Interface

Pin No.	Cable Color	Signal Name		
		SRM-1270 /1271	SRM-1250 /1251/1260 /1261	SRM-1210/1211, 1220/1221, 1230/1231, 1240/1241
1	Red	+ 5V	+ 5V	+ 5 V
2	Black	Ground	Ground	Ground
3	Brown	RDD2	RDD2	RDD
4	Orange	RCP2	RCP2	RCP
5	Yellow	CPD 1+ 2+ 3	CPD 1+ 2/2+ 3	CPD
6	Green	RDD1	RDD1 or 3	
7	Blue	RCP1	RCP1 or 3	
8	Grey	RDD3	CPD1,3(OPTION)	
9	White	RCP3		
10 •Purple Purple	CPD1+ 3(Option)			

Block Diagram and Output Signals



Timing Chart



- NOTES:**
1. 8 or 9 head flux reversals for low density configuration.
 2. TIMEOUT of the CPD signal approx. 50msec after last Head Signal transition.
 3. The RDD is valid at 1.6us (min.) before negative edge of the RCP.
 4. The low pulse width of RCP is approx. 70% of the bit time.

\overline{RDD}	The DATA signal is valid while the RCP is low. If the RDD signal is high, the bit is zero. If low, the bit is one
\overline{RCP}	The RCP signal indicates that RDD is valid. The RDD should be loaded by the user when the RCP signal goes low.
\overline{CPD}	CPD signal will go to low after the 8 or 9 th flux reversal and will return to high when the 20msec approx. was elapsed.

Operational Requirements

Installation	Indoors only
Performance	10 – 120Cm/sec
Head Reliability	Standard 500,000 passes (min)
Error Rate	Less than 0.5%

Environmental Requirements

Temperature Range	-20°C ~ 50°C (Working) / -30°C ~ 70°C (Storage)
Humidity	90% relative humidity to 40°C. Non condensing
Shock Resistance	10 ms at 10G along the 3 axes
Vibration	0.2mm from 10 – 50 Hz along the 3 axes for 15min

Mechanical Requirements

Weight	35 g
Connector (STD)	Molex 5051-05 (SRM-121X, 122X,123X,124X) Molex 5051-07 (SRM-125X,126X) Molex 5051-09 (SRM-127X)
Cable Length	180 mm
	* Customized connectors are also available.
Dimension	Non Cover : 90.0 mm (D) x 21.0 mm (W) x 23.9 mm (H) With Cover : 90.0 mm (D) x30.0 mm (W) x 28.1 mm (H)

SRM -12XX Dimension Drawings

