

Specification

Manual Swipe Type Magnetic Stripe Card Reader(slim)

SRM -1020	ISO-2	Read Only
SRM -1030	ISO-3	Read Only
SRM -1050	ISO-1/2	Read Only
SRM -1060	ISO-2/3	Read Only
SRM -1070	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-10XX 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 SRM-10XX 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		

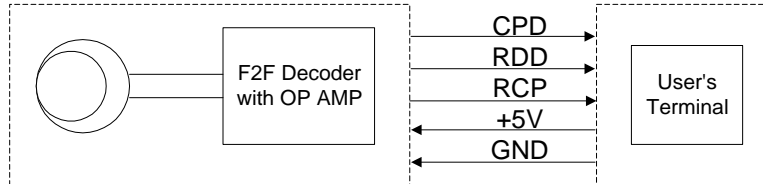
Electrical Requirements

Voltage and Ripple	+5 VDC (3.0 V ~ 5.5 V), Less then 50 mVp-p
Current Standby	Less than 1.5 mA (Single) / Less than 3.0 mA (Dual) / 4.5 mA (Triple)
Current Operating	Less than 3.0 mA (Single) / Less than 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)

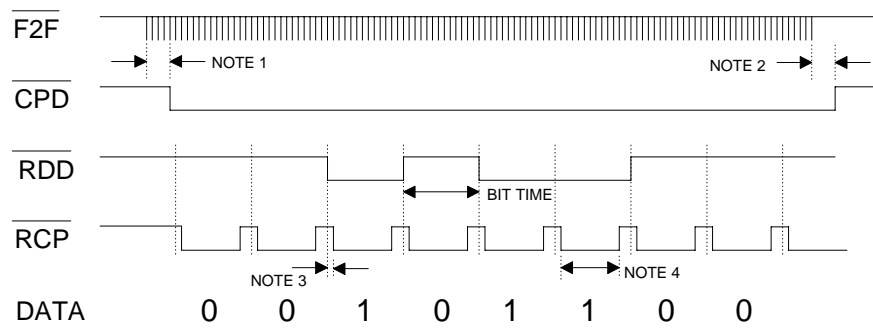
Interface

Pin No.	Cable Color	Signal Name		
		SRM-1070 (Triple)	SRM-1050/1060 (Dual)	SRM-1020/1030 (Single)
1	Red	+ 3V~+ 5V	+ 3V~+ 5V	+ 3V~+ 5V
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		

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.

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
RCP	The RCP signal indicates that RDD is valid. The RDD should be loaded by the user when the RCP signal goes low.
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	Amplitude 2mm within 2G or less, 10 ~ 55Hz X, Y, Z directions for 30min

Mechanical Requirements

- Weight** 23 g
- Connector (STD)** Molex 5051-05 (SRM-1020, 1030,)
Molex 5051-07 (SRM-1050, 1060)
- Cable Length** 180 mm
- * Customized connector are also available.
- Dimension** 43.0 mm (D) x 16 mm (W) x 22.6 mm (H)

Dimension Drawings

The drawings include:

- Section A-A:** Shows internal components: PCB(1.0Thk), Insert Plate(SUS301), and Magnetic Head. Dimensions include 2.60 and 3.90.
- Front View:** Shows a 1.5 Pitch 7Pin Connector, J5X00 ports, and overall dimensions of 42.60 (width) and 43.00 (depth).
- Side View:** Shows the profile with dimensions 16.00 (width), 22.60 (height), and 43.00 (depth). It also indicates 2-Ø2.80 holes.
- Top View:** Shows the layout of components with dimensions 16.00 (width), 43.00 (depth), and 22.60 (height).
- Bottom View:** Shows the base with dimensions 11.40, 2.89, 2.00, 2.00, 9.10, and 2.60. It also notes 2-TRUE R1.00 and 2-Ø2.0 TAPPING SCREW 3.0L.

NO.	PART NO.	DESCRIPTION	QTY	SPECIFICATION	REMARKS
1	ASSY-43-S	ASSY-43-SLIM	1		

주기사항

1. 상기 모델은 MSR 43mm Slim size임.
2. 제품 장착시 2-Ø2.8 Hole를 이용하여 부착.
3. 2-Ø2.8 Hole 이용시 취부되는 보스의 외경은 Ø5.8까지 할수있음.
4. 취부시 나사는 Ø2.6 Screw 사용할것.

SIGNATURES		DATE			
DR	오경호	020308			
CHK				TITLE ASSY-43MM SLIM	
APP				MODEL NO.	43 SLIM
APP				REVISION NO.	
MATERIAL		PART NO.	ASSY-43-S		
FINISHED		UNIT : MM	SCALE : /	SHEET OF	

REV.	DATE	HISTORY & REASON	CHECK
2001			
2001			