

SNR-MR800 Motorized Multi-Card Reader/Writer

Secure multi-card reader/writer for magnetic, contact IC, contactless IC, SAM and anti-theft card processing applications.

Overview

The SNR-MR800 is a motorized multi-card reader/writer designed for self-service terminals that require secure magnetic stripe card read/write, contact IC card read/write, contactless IC card read/write and SAM card support in one module. It also supports anti-theft magnetic reading, encryption, electrically controlled gate operation and power-failure card handling for demanding unattended deployments.



Key Features

- Motorized multi-card reader/writer for magnetic stripe, contact IC, contactless IC and SAM card applications.
- Supports magnetic card Track 1 / Track 2 / Track 3 read and write, including Lo-Co and Hi-Co cards.
- Contact IC card support includes CPU cards, memory cards and logic encryption cards.
- Contactless card read/write supports 13.56 MHz Mifare Classic and ISO/IEC 14443 Type A/B cards.
- Supports SAM card operation with integrated SAM card slot and status detection.
- Anti-theft reading design uses magnetic card electromagnetic interference to help prevent side-channel reading and card theft.
- Power failure protection can move the card to the holding position or rear retention area with backup capacitor support.
- Supports hardware and algorithm-based encryption for secure card processing workflows.
- Passed EMV 4.3d Level 1, PBOC 3.0 Level 1, CE and RoHS compliance testing according to source specification.

Quick Specifications

Model	SNR-MR800
Product Type	Electric Multi-Card Reader/Writer
Card Functions	Mag read/write, IC read/write, RF read/write, SAM support
Anti-Theft Reading	Magnetic electromagnetic interference support
Interface	RS-232 half-duplex, DB-9pin
Power Supply	24VDC +/-10%
Card Thickness	0.7-0.9 mm
Card Speed	260 mm/s +/-5%; max 400 mm/s
Power Failure Protection	Backup capacitor supported
Weight	Approx. 1.0 kg

Typical Applications

- Banking and financial self-service terminals.
- Payment kiosks and secure card verification systems.
- Access control, membership and ID card processing terminals.
- Parking, transportation and service card read/write equipment.
- Card personalization, initialization and secure transaction devices.
- Self-service terminals requiring anti-theft magnetic reading and power-failure card handling.

Technical Specifications

Main card reading, security, electrical and reliability parameters for SNR-MR800 integration projects.

Model	SNR-MR800
Product Category	Motorized Multi-Card Reader/Writer
Main Material	PC+GF composite plastic with stainless steel embedded in the card passage side walls
Main Color	Black
Gate Design	Electrically controlled safety gate, default closed; command-activated opening
Card Transport	Motor-driven front loading/unloading and rear card retention; rubber roller-based transport
Insertion Methods	Command-based insertion and magnetic sensing insertion
Magnetic Card Read/Write	ISO/IEC Track 1, Track 2 and Track 3 read/write; Lo-Co 300 Oe and Hi-Co 2750 Oe supported
Contact IC Support	ISO/IEC 7816-1/2/3 CPU cards T=0/T=1; synchronous IC cards; SL4442/SLE4428 and AT24C01-AT24C64 memory cards; AT88SC102 read support
Contactless IC Support	13.56 MHz; Mifare Classic, ISO/IEC 14443-1/2/3/4 Type A/B read/write
SAM Card Support	1 integrated SAM card slot with SAM card status detection
Anti-Theft Reading	Magnetic card electromagnetic interference to help prevent side-channel reading and card theft
Certifications	EMV 4.3d Level 1, PBOC 3.0 Level 1, CE and RoHS according to source specification
Encryption	Hardware and algorithm-based encryption supported
Card Size	Length 85.47-85.9 mm; width 53.92-54.18 mm; thickness 0.7-0.9 mm
Transmission Speed	Standard speed 260 mm/s +/-5% for magnetic card read/write; maximum speed 400 mm/s
Transmission Time	Approx. 1.5 s from card entry to reader position
Card Exit Length	32 mm +/-2 mm at card holding position
Operating Voltage	24VDC +/-10%, ripple <200 mV
Current	Peak current <2.5A; static current <0.1A
Communication	RS-232 standalone asynchronous half-duplex; DB-9pin male connector
Operating Environment	0 deg C to 50 deg C; 20%-80% RH, non-condensing
Storage Environment	-15 deg C to 55 deg C; 20%-80% RH
Lifetime	Full device >1.2 million cycles; magnetic heads >1 million cycles; IC contacts >1 million cycles; drive motor/belt/roller >1.2 million cycles
Reliability	Magnetic and IC card error rate 1/1000 under standard test conditions
Power Failure Protection	Voltage threshold below 20V for over 15 ms; backup capacitor >0.33F, 2A for >=2 s at 18-25V
MTBF	>200,000 hours for electronic components only
Self-Test	Power-on self-test, operation self-test and command self-test
Net Weight	Approx. 1.0 kg

Integration Notes

- Confirm magnetic stripe, IC card and RF card requirements before deployment.
- Use RS-232 DB-9 communication for host control and status handling.
- For backup power design, connect main power and backup power according to the power interface definition.
- When main power returns above 20V, communication resumes after power-failure handling.
- Avoid hot-plugging connectors; keep the module clean and free from oil contamination.

Why Choose SNR-MR800?

SNR-MR800 is suitable for projects that need secure multi-card processing in one compact module. Compared with basic card readers, it combines magnetic read/write, contact IC, contactless IC, SAM card support, anti-theft reading, encryption and power-failure protection, helping kiosk integrators build more secure banking, payment, access control and card verification terminals.

Note: Specifications may vary according to final reader configuration, card type, encryption requirements and project installation conditions. Please confirm card samples, security workflow and communication protocol before mass deployment.