



Serial Reader

Rugged Indoor/Outdoor UHF RFID reader

ThingMagic's Serial UHF RFID reader is built around ThingMagic's award winning, high performance M5e UHF RFID reader module. Tough and rugged, the Serial reader meets the harsh environmental operating standards required for use in trucks and automobiles. This makes it ideal for deployment in a wide variety of indoor and outdoor RFID applications. The Serial reader utilizes local personal computer (not included) to provide command and control.

Tag / Transponder Protocols	
RFID Protocol Support	EPCglobal Gen 2 (ISO 18000-6C) with Anti-Collision, DRM, and advanced anti-jamming
Regional Support	Certified for use in North America (902-928 MHz). Supports, but not yet certified for, Europe (ETSI), Korea, and China (PRC); configurable for other Asia-PAC countries.
RF Interface	
Antenna connector	Three reverse-TNC antenna ports supporting monostatic 50 Ohm antennas (for best performance VSWR should be less than 1.5:1 in operating frequency range)
RF Power Output	Separate read and write levels, command-adjustable from 5 dBm to 30 dBm (1 W), +/-1 .0 dBm accuracy*
Data/Control Interface	
Data/Control	9-pin serial connector, supporting RS232 with asynchronous data rates up to 921.6 kbps. DTR signal turns off reader completely to conserve power.
GPIO Sensors and Controls	2 General Purpose inputs and one output, accessible via Molex [®] Connector
Protocol	Command-response protocol protected by length field and 16-bit CRC.
Physical	
Dimensions	8.5 in L x 5.25 in W x 1.5 in H (21.6 cm x 13.3 cm x 3.8 cm)

Power	
AC/DC Power Required	Reader alone: 10-16 VDC, 8 W maximum at 12 V when transmitting Reader with AC Power Adapter: 100-240 VDC, 50-60 Hz, 10 W maximum when transmitting
Environment	
Operating Temp.	Reader: -40 C to +75 C AC Power Adapter: 0 C to +40 C
Storage Temp.	Reader: -40C to +85C AC Power Adapter: -10 C to +70 C
Automotive Environmental Standards	Powered Thermal Cycle Thermal Shock Resistance A & B Powered Vibration Endurance Mechanical Shock Humidity-Temperature Cycle Water/Fluids Ingress Connector/Harness Pull-Push Voltage Overstress Electrostatic Discharge
Architecture	
RFID ASIC	Intel R1000
User-accessible Flash Memory	16 kB
Tag Buffer	200 tags
Performance	
Tag Read Rate	Over 190 tags/second
Tag Read Distance	Over 30 feet (9 m) with 6 dBi antenna (36 dBm EIRP)
Ordering Information	
Reader with AC Power Adapter	SR-M5E-1



*With an absolute maximum of +30 dBm as certified. Maximum power may have to be reduced to meet regulatory limits, which specify the combined effect of the module, antenna, cable, and enclosure shielding of the integrated product

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