



## Durable Indoor/Outdoor UHF RFID reader



ThingMagic's Vega reader is built around our award winning, high performance M5e UHF RFID module. The Vega reader meets the harsh environmental operating standards required for use in trucks and automobiles (In Vehicle Reader model), and is ideal for deployment in a wide variety of indoor and outdoor applications. A version is available to support applications which call for the maximum permissible output power allowed by EU regulations. The Vega reader utilizes a local personal computer (not included) to provide command and control via its RS-232 serial interface.

Ordering Information	
Reader	V5-RS-NA, V5-RS-EU <sup>+</sup> In-Vehicle version: V5-IVR-NA, V5-IVR-EU <sup>+</sup>
Development Kit	V5-DEVKIT-NA, V5-DEVKIT-EU <sup>+</sup>

Tag / Transponder Protocols		
RFID Protocol Support	EPCglobal Gen 2 (ISO 18000-6C) with Anti- Collision, DRM, and advanced anti-jamming	
Regional Support	Certification obtained, or in process, for the following regions: North and South America, EU, Korea and other Asia-PAC countries	
RF Interface		
Antenna connector	Three reverse-TNC antenna ports support - ing 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	21.6 cm L x 13.3 cm W x 3.8 cm H (8.5 in L x 5.25 in W x 1.5 in H)	

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	
Idle Power Consumption	1.7 W max at idle (Power management modes can be used to reduce this to as little as 0.1 W)	
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	
Environmental Standards	Confirmed to meet in-vehicle standards for: 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	
Safety	IEC 60950-1 (ed.2) US-17640-UL	
Architecture		
User-accessible Flash Memory	16 kB	
Tag Buffer	200 tags	
Performance		
Tag Read Rate	Up to 200 tags/second	
Tag Read Distance	Over 30 feet (9m) with 6 dBiL antenna (36 dBm EIRP)	
Max Receive Sensitivity	-65 dBm at full transmit power with typical antenna***	



\*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.



## Develop

Create RFID-enabled solutions using industry-standard tools

# **Deploy**

Enable r apid deployment and reliable operation of RFID solutions within a wide variety of new and existing environments

### **Optimize**

Maximiz e productivity, improve ROI, and lower operating costs



**USA Office** 7279 William Barry Blvd. North Syracuse, NY

13212-3349

+1 315.701.0678 Phone +1 315.701.0679 Fax email: info@jadaktech.com European Office Emmastraat 16 4811 AG Breda The Netherlands

+31 (0)76.522.5588 Phone +31 (0)76.522.4747 Fax email: info@jadak.eu

#### **Asia Pacific Office**

Building 8
Gangtian Industrial Square
GangTian Road
Suzhou Industrial Park
JiangSu, China 215024

+86 512.6283.7080 Phone email: info@jadaktech.com

