UHF RAIN RFID Desktop Reader

97 mm L x 61 mm W x 25 mm H
(3.8"L x 2.4" W x 1.0"H)

The ThingMagic USB*Pro* RFID Reader allows solutions developers to support applications that require desktop reading and writing of EPC Global Gen2 tags, as well as other protocols such as ISO18000-6B, IPx and AEI ATA (read only) through additional license. Based on ThingMagic's M6e-Micro module, the USB*Pro* RFID Reader is controlled and powered by a host PC or laptop through a USB interface and supports autonomous operation. The USB*Pro* RFID Reader is compatible with ThingMagic's MercuryAPI application development tools, including Universal Reader Assistant, permitting rapid creation of solutions. USB*Pro* supports a wide range of applications, including tag commissioning, manufacturing work in progress, document tracking, retail Point of Sale, and workflows for healthcare, events, and hospitality.

Ordering Information

Reader	USB-6EP
Development Kit	USB-6EP-DEVKIT

Tag / Transponder Protocols

RFID Protocol Support	EPC Gen2V2 ISO18000-63 standard ISO18000-6B, IPx, AEI ATA (read only) are available through additional license

RF Interface

Antenna Ports	Internal antenna with an average gain of +1 dBi from 865-869MHz and 902-928MHz, External RP-SMA antenna connector
RF Power Output	Separate read and write levels (into the antenna) are command-adjustable from -5 dBm to 30 dBm* (1W), +/- 1.0 dBm accuracy with +20dBm default
Frequency	Pre-configured for the following regions: FCC 902-928,917.4-927,917.5-922.5 MHz (Americas) ETSI 865.6-867.6 MHz, 869.85 MHz (EU) TRAI 865-867 MHz (India) KCC 917-920.8 MHz (Korea) ACMA 920-926 MHz (Australia) SRRC-MII 920-925 MHz (P. R. China) MIC 916.7-920.9 MHz (Japan) Open (Customizable) 865-869 and 902-928 MHz

Data/Control Interface

Physical	USB Micro-B connector, with removable six (6) foot cable with dual USB-A type plug
Signaling	USB 2.0
Input/Output	Two I/O command controlled LEDs and two I/O command queried switches
Protocol	Command-response protocol protected by length field and 16-bit CRC

Regulatory Information

Regulatory	FCC 47 CFR Ch. 1 Part 15, Industrie Canada RSS-21 0, ETSI EN 302 208 v3.1.1 (RED 2014/53/EU)
Safety	IEC 60950-1 (ed.2) US-17650-UL

Power

DC Power Required	DC Voltage: 4.5 to 5.5 VDC from USB cable DC Power: 6.2 W max. Supplied interface cable terminates in two type-A plugs: one for power and signal, the second for additional power if needed
Idle Power Consumption	0.35 W max at idle (Power management modes can be used to reduce this to as little as 0.1 W)

Environment

Operating Temp.	-40°C to +60°C*
Storage Temp.	-40°C to +85°C

Architecture

User Memory	16 kB
Tag Buffer	200 tags

Performance

Tag Read Rate	50 tags/second
Tag Read Distance	Up to 10 m (30 feet) with external antenna and up to 1.2 m (4 feet) depending on tag Sensitivity and orientation with internal Antenna with max RF power.

*Duty cycle restrictions based on temperature, tx power >23dB

Novanta