USB*Pro* RFID Reader

World-class UHF RFID Desktop Reader

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 through additional license. Based on ThingMagic's best-in-class M6e-Micro LTE UHF RFID module, the **USB*Pro*** RFID Reader is controlled and powered by a host PC or laptop through a USB interface, and, in addition, supports autonomous operation. The ThingMagic **USB*Pro*** RFID Reader is compatible with ThingMagic's application development tools, including Universal Reader Assistant, permitting rapid creation of solutions to support a wide range of applications, including tag commissioning, manufacturing WIP, document tracking, retail POS, 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 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
I/O	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

Physical

Dimensions (not including stand)	97 mm L x 61 mm W x 25 mm H (3.8 in L x 2.4 in W x 1.0 in H)

Regulatory & Safety

Regulatory	FCC 47 CFR Ch. 1 Part 15, Industrie Canada RSS-21 0, ETSI EN 302 208 V1.4.1
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

OperatingTemp.	-40C to +60C*
StorageTemp.	-40C to +85C

Architecture

User Memory	16 kB
Tag Buffer	200 tags

Performance

Tag Read Rate	50 tags/second
Tag Read Distance	Up to 4 feet (1.2m) depending on tag sensitivity and orientation with internal antenna. Up to 20 feet (6.1m) with external 6dBi linearly polarized wideband antenna.

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

MAKING RFID EASY TO USE

ThingMagic is dedicated to driving the barriers to deploying RFID technology as low as possible. We design our products to be easy to use out-of-the-box and to deliver predictable, reliable, and repeatable performance. Our development tools require little RFID expertise, enabling you to rapidly design, test, and deploy your RFID solutions.

Hardware Developers Kit

Everything needed to read and write RFID tags and begin developing RFID-enabled applications:

- ☒ USB*Pro* Reader
- ☒ SMA to RP-SMA Cable
- ☒ USB Cable
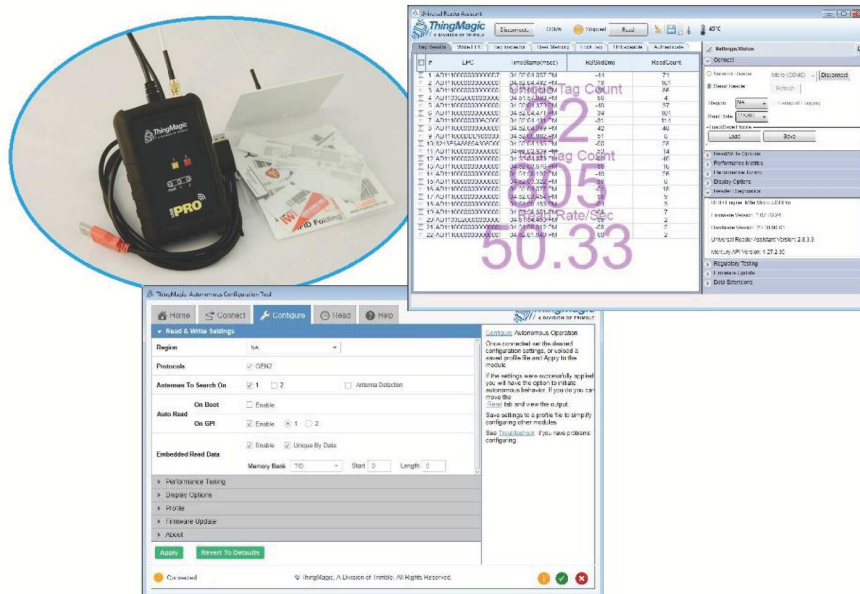- ☒ Antenna
- ☒ Sample Tags

Mercury API SDK

A common development platform, supporting an extensive variety of hardware to connect, configure, and control ThingMagic readers.

Universal Reader Assistant

A utility for advanced demo, testing, and tuning of all ThingMagic readers.

Autonomous Configuration Tool

Utility to configure USBpro reader to operate without a host controller.