The ThingMagic USB Plus+ RFID Reader is ideal for applications that require reading and writing of EPC Global Gen2 tags on a desk or workstation and in areas where space is limited. The USB Plus+ is controlled and powered by a host PC or laptop through a USB interface and is compatible with ThingMagic’s application development tools, permitting rapid creation of RFID solutions. With a software adjustable read distance up to 3 ft (0.91 m), the USB Plus+ supports a variety of applications, including RFID tag commissioning, manufacturing WIP, document tracking, library book check in/out, retail point of sale, event and hospitality services, hospital patient workflows, and more. The high-performance internal antenna of the USB Plus+ is also ideal for commissioning high memory tags and reading small form factor RFID tags more effectively.

### Ordering Information

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### Tag / Transponder Protocols

- **RFID Protocol Support**
  - EPCglobal Gen 2 (ISO 18000-6C) with Anti-Collision and DRM

### RF Interface

- **Antenna**
  - Internal linear polarized antenna with peak Gain 1 dBi from 860-960 MHz
- **RF Power Output**
  - Separate read and write levels (into the antenna) are command-adjustable from 10 dBm to 23 dBm (200mW), +/- 1.0 dBm accuracy
- **Frequency**
  - Pre-configured for the following regions:
    - FCC 902-928 MHz (Americas)
    - ETSI 865.6-867.6 MHz, 869.85 MHz (EU)
    - KCC 917-920.8 MHz (Korea)
    - TRAI 865-867 MHz (India)
    - ACMA 920-926 MHz (Australia)
    - SRRC-MII 920-925 MHz (P. R. China)
    - ‘Open’ (Customizable) 860-960 MHz

### Data/Control Interface

- **Physical**
  - USB mini-B connector, with 2 foot (61 cm) cable terminated in A-type plug
- **Signaling**
  - Asynchronous serial interface with 3.3/5V logic levels; baud rates from 9600 to 921,600 bps
- **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**
  - 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

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### Power

- **DC Power Required**
  - DC Voltage: 5 VDC (Powered by USB interface)
  - DC Power: 2.7 W (540 mA ) max
- **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.**
  - -20°C to +60°C
- **Storage Temp.**
  - -40°C to +85°C

### Architecture

- **User-accessible Flash Memory**
  - 16 kB
- **Tag Buffer**
  - 200 tags

### Performance

- **Tag Read Rate**
  - Up to 200 tags/second
- **Max Read Distance**
  - Up to 3 ft (0.91 m) depending on tag sensitivity and orientation

Specifications subject to change without notice.
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.

Developers Kit
Everything needed to read and write RFID tags and begin developing RFID-enabled applications:
- Test chassis
- Cables
- Antenna
- Sample Tags
- Full schematics to help you design your own complementary components

Mercury API
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. Reduces complexity for novice users while permitting low-level control for advanced developers.