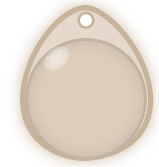




RFID

vs

UWB



RFID, or Radio-Frequency IDentification is a technology that utilizes electromagnetic fields to automatically identify and track tags attached to objects.

Pros:

- No line-of-sight needed
- Fast & accurate
- Long read range
- Low recurring costs
- No tag power consumption

Cons:

- Initial setup cost
- Metal & water interference
- Tag size limits read range



Use cases:

- Retail inventory
- Access control
- Logistics tracking
- Inventory management
- Asset tracking
- Race timing



RFID costs:

Setup costs

- RFID hardware - \$1,000 - \$6,000
- RFID tags - \$0.05+ per tag
- Software - custom or purchased

Recurring costs

- RFID tags
- Software
- Printer ribbon (if printer is purchased)

→ Ideal for:

Tracking low, medium, or high value items throughout a warehouse, facility, or business; checking items in or out of a facility; managing inventory counts; replacing manual counting or timing.



Ultra-Wide Band (UWB) is a wireless communication technology known for its ability to transmit data over a broad range of frequency bands with very low energy levels.

Pros:

- Precise localization
- No interference problems
- Low tag power consumption

Cons:

- Limited range
- Complex infrastructure
- High setup costs
- Ongoing maintenance required



UWB costs:

Recurring costs

- UWB tags
- Maintenance costs
- Software

Setup costs

- UWB anchors - \$100+
- UWB tags - \$10+
- UWB networking equipment - \$1,000 - \$12,000
- Software - custom or purchased

Ideal for: ←

Pinpoint positioning and monitoring of high value equipment, technology, or machinery that does not leave a general area.