RFID vs NFC

RFID Frequency Ranges

- **Ultra High Frequency (UHF)**: Longest read range, works through metals, liquids, and skin.
- **High Frequency (HF)**: Shorter wavelength, higher frequency, lower energy.
- **Low Frequency (LF)**: Longer wavelength, lower frequency, lower energy.

NFC (Near Field Communication)

- **Invented in 2002**
- **Improves upon QR codes**
- **Can be read quickly in batches**
- **Does not require line of sight**
- **Increased security**
- **Added intelligence**
- **Exclusive content**
- **1:1 messaging**
- **Product gamification**
- **Product registration**
- **Store check-in**
- **Protect your brand**
- **Eliminates registration lines**
- **Upsell experience**
- **Resell experience**

RFID (Radio Frequency Identification)

- **Invented in the 1980’s**
- **Improves upon printed barcodes**
- **Does not require line of sight**
- **Increased read range**
- **Can be read quickly in batches**
- **Stores and transmits simple ID’s**
- **Inventory tracking through the supply chain**
- **Loss prevention**
- **Stores and transmits multiple data types**
- **Adds utility to products during use**
- **Does not require line of sight**
- **Increased read range**

Product Lifecycle

- **RFID Track and Trace**
- **NFC Customer Experience**

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**What Can RFID Be Used For?**

- **Track and trace inventory management**
- **Alerts stolen products**
- **Access control**
- **Race timing**
- **Provides a seamless race-day experience**
- **Attendee tracking**
- **Eliminates registration lines**
- **Pet / livestock identification**

**What Can NFC Be Used For?**

- **Content Channel**
  - Embedded experiences
  - Exclusion content
  - Product gamification
- **Customer acquisition across sales channels**
- **Product registration / Brand protection**
- **Mobile payments**
- **Upsell experience**
- **Resell experience**

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**Reid Centric**

- **Invented in the 1980’s**
- **Improves upon printed barcodes**
- **Does not require line of sight**
- **Increased read range**
- **Can be read quickly in batches**
- **Stores and transmits simple ID’s**
- **Inventory tracking through the supply chain**
- **Loss prevention**

**User Centric**

- **Invented in 2002**
- **Improves upon QR codes**
- **Can be read quickly in batches**
- **Does not require line of sight**
- **Increased security**
- **Added intelligence**
- **Exclusive content**
- **1:1 messaging**
- **Product gamification**
- **Product registration**
- **Store check-in**
- **Protect your brand**
- **Eliminates registration lines**
- **Upsell experience**
- **Resell experience**

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**Tag Reader:** Smartphone

**Tag Price:** <$0.10

**Time to connect:** <1ms

**Read Range:** 0cm-10cm

**Tag Reader:** Fixed infrastructure reader / handheld reader

**Tag Price:** $0.10

**Time to connect:** <1ms

**Read Range:** 0cm-10cm

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**Product Compatibility**

- **iPhone 7 and newer**
- **Windows 10**
- **Android**
- **Blackberry Tablets**
- **Talise**

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**FACTORY** ➔ **SHIPPING** ➔ **WAREHOUSING** ➔ **RETAIL INVENTORY** ➔ **POST-SALE EXPERIENCE** ➔ **RECYCLE**

**RFID Track and Trace**

- **FACTORY** ➔ **IN-STORE EXPERIENCE**
- **SHIPPING** ➔ **AUTHENTICATED**
- **WAREHOUSING** ➔ **PROTECT YOUR BRAND**
- **RETAIL INVENTORY** ➔ **UPSELL EXPERIENCE**
- **POST-SALE EXPERIENCE** ➔ **RECYCLE**