# High Frequency RFID
## Technologies

**MIFARE**



## TYPES OF HF RFID READERS
### YOU CAN HAVE IN YOUR GRABBA

### X002 – *Mifare / I-Code*

**Technology**

Reads and writes onto 13.56 MHz tokens, cards and tags. The read/write range of the HF RFID reader will depend upon the actual token being read. The HF RFID chip allows to integrate security layers in the communication interface.

**Contactless Smart Card Reader**

It can read form and write to the most common RFID HD cards in the market including DESFire®, Felica™, Mifare® and NFC.

**Standards Compatible**

Uses Mifare, I-Code and ISO14443-4 , ISO14443 A/B, ISO19693, PicoPass protocols.
It is compliant with ICAO passports.
VisaWave®, PayWave®, PayPass® and ExpressPay® compatible.



*From the top left: Grabba S-Series in use with iPhone 6, Grabba S-Series in use with iPhone 6 Plus and Q-Series with iPhone 6 Plus.*

## ABOUT OUR HF RFID TECHNOLOGY

Grabba High Frequency RFID reader utilizes Grabba Proprietary Technology to ensure the highest performance levels. Its uses include reading contactless payment cards and cards and tags for Membership ID, Asset Tracking, Logistics, Healthcare, Pharmaceutical, Transport, Mass Transit and Site Access.

Grabba High Frequency RFID reader provides an ability to read the chip in e-Passports combined with 2D barcode scanner (that will read all driver's licenses in the US and Canada) and an MRZ reader (that will read passports and passport cards) making the package the most comprehensive mobile identification available today, and already utilized by Law Enforcement and Border Control.

The Grabba innovative and configurable design allows the user to select not only the correct RFID reader, but also up to five other technologies to include in the one Grabba unit, so as to precisely and cost-effectively meet the needs of the use case. Those other technologies include Barcode scanners, MRZ (passport) readers, Fingerprint readers, Contact Smartcard readers and Magnetic Stripe readers.

Another advantage of the unique Grabba design is that it allows Grabba units to be simply upgraded to work with later model smartphones and to add other technologies without the need to purchase new Grabba units. This substantially reduces the Total Cost of Ownership of Grabba units.

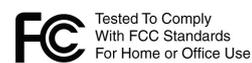**Our High Frequency RFID reader is available for:**

Grabba **S-Series**

Grabba **Q- Series**

Grabba **Z-Series**

**android**  **iOS**

**Windows Phone**

FCC Tested To Comply With FCC Standards For Home or Office Use  C€

N14052  **RoHS** compliant

## Performance Specifications

| | |
|---|---|
| Supported card types | Mifare® Standard, Mifare® 4k, Mifare® Pro, Mifare® Ultralight, Mifare® DESFIRE, Mifare® SmartMX, Mifare® Plus S/X (SL1, SL2), I-CODE SLI (SL2 ICS 20), I-CODE EPC (SL2 ICS 10), I-CODE UID (SL2 ICS 11), I-CODE, Tag-it™ HF-I Standard, Tag-it™, ISO14443A, ISO14443B and ISO15693 Tags Contactless payment cards such as VisaWave®, PayWave®, PayPass® and ExpressPay® iClass card serial number (CSN) only |
| Range (up to) | 60 mm |
| Transmission protocols | Mifare® , I-CODE & ISO 14443-4 |
| Transmit frequency | 13.56 MHz |
| Storage temperature | -20° to +70° C (-4° to 158° F) |

*Actual read range is very dependent on the actual token being read.*

## Supported Software

| | |
|---|---|
| Smartphone/PDA Operating Systems | Android, iOS, Windows Phone, BlackBerry 10 |
| Development Environments | Android Studio, Eclipse, Xcode, Visual Studio. |
| Development SDK | SDK available through Free Membership in our Software Developer Program |
| Free Software available on every app store | Keyboard Wedge and Demo Program for all platforms and Grabba Browser for iOS |

## WHY CHOOSE GRABBA

### Secure USB Connection

As the Grabba unit plugs into the USB port of the smartphone or tablet, all communication and data transfer are hard-wired and therefore more secure than wireless transmissions.

### One solution, One charger.

The Grabba connection to the smartphone or tablet allows the Grabba charger to charge both the Grabba unit and the attached device at the same time. This single-charger convenience ensures that a completely charged solution is ready at the start of each work day.

### Technical Support

The Grabba engineering and support teams are constantly developing and improving the Grabba solutions and are available, at no charge, to assist customers with any issues they may have.

### Wide Compatibility

The unique Grabba design ensures that Grabba units are compatible with a wide variety of commercially available smartphones and tablets.

### Upgradeable

The unique Grabba design allows a Grabba unit to be quickly and easily upgraded to attach to and work with later model smartphones or tablets and to add new technologies if required by changing use-cases. There is no need to purchase new Grabba units. This benefit greatly reduces the Total Cost of Ownership of Grabba units.

### Instant Wakeup

No need to wait long time to run the solution or establishing the linkage. Pairing is not required. Just connect and start grabbing.

## ABOUT GRABBA

Grabba is a world leader in the design, engineering and manufacture of data capture units that attach to and work with commercially available smartphones and tablets. Utilizing the Grabba patented USB communication methodology provides high accuracy, reliable and efficient mobile, handheld units.

Grabba unique designs, the ability to include multiple technologies in the one Grabba unit to exactly suit the requirements of the use-case, combined with the ease of upgrading new technologies or to later model smartphones or tablets, results in cost-effective solutions now and in the future.

Grabba units have been successfully utilized in almost every vertical market in more than 80 countries. Find out what Grabba can do for you.

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