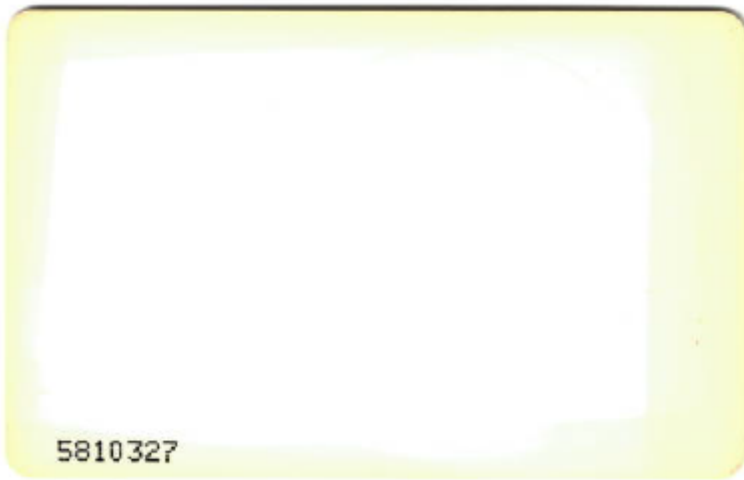


HP Universal Card Reader X3D03A - EM410x ISO 125khz on HP devices

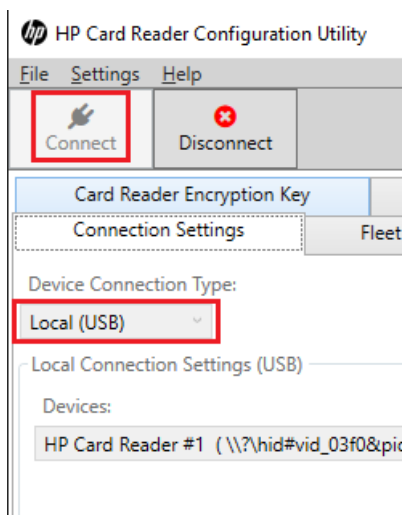


For this example we will be using the card pictured above.

HP Card Reader Configuration Utility

Firstly, we must configure the reader to read the specific card type. This reader can read up to 4 different card types at the same time (both 13.5mhz and 125khz).

1. Plug the card reader into the USB port of a Windows PC and start the **HP Card Reader Configuration Utility**.
2. On the **Connection Settings** tab, change the Device Connection Type to Local (USB).
3. Click **Connect**. It might fail to connect on first try. If so, try again.



4. Click the **Card Reader Global Settings** tab.
5. Ensure one of the selected card types is **EM/Marin 410x (FB01)**.
6. Click **Write to FLASH**.

HP Card Reader Configuration Utility

File Settings Help

Connect Disconnect

Card Reader Encryption Key Card Profile Configuration Decode Card Data Firmware Upgrade

Connection Settings Fleet Configuration Card Reader Information **Card Reader Global Settings**

System Configuration

Continuous Output Mode: Disabled Silent Output Mode: Disabled Pad USB Packets: Disabled EP1 Output Response: Disabled

Include Card Type With Data: Enabled Card Type Priority: CardType1

Card Type 1: HID Prox (EF04) Card Type 2: RDR-785X Equivalent (6F01) **Card Type 3: EM/Marin 410x (FB01)** Card Type 4: Auid (FA02)

Logical Unit ID: 0

Accepted Card Bitcounts

Use these controls to configure a "white-list" of accepted card bitcounts. An empty list means all card bitcounts are acceptable

Beeper Settings

Beep Control: Automatic

Beep Type: Short Beep Count: 2 Beep Volume: Current

LED Settings

LED Control: Automatic

Reader Ready: Red Reading Data: Green Good Data: Green Sending Data: Amber

Restore Factory Settings **Write to FLASH** Load from FLASH Load from File Save to File

7. Now test that the reader is working by clicking the **Decode Card Data** tab and scanning the card. If it doesn't scan, perhaps the card type is incorrect. Try setting a different Card Type and then **Write to FLASH** and try again.
8. Our example card above resulted in Card Data of R00FB012897A858000F and decoded card data of 64430319767.

HP Card Reader Configuration Utility

File Settings Help

Connect Disconnect

Connection Settings Fleet Configuration Card Reader Information Card Reader Global Settings

Card Reader Encryption Key Card Profile Configuration Decode Card Data Firmware Upgrade

Card Data: R00FB012897A858000F Card Read Status: Complete

Card Type: EM/Marin 410x Edit Card Format

Card Data Format

These settings control how the card data is parsed to return the FAC/ID.

Parity Settings

Strip Leading Bits: 0

Strip Trailing Bits: 0

FAC Settings

☐ Send FAC

☐ Send FAC as HEX

FAC Digits: 3

FAC/ID Delimiter: :

ID Settings

☒ Send ID

☐ Send ID as HEX

Id Bit Count: 40

ID Digits: 5

Other Settings

☐ Force Data to length

☐ 64 Bit Math

☐ Read Only Card Size

Card Size: 40

Wiegand Settings

☐ Invert Data

☐ Reverse Bits

☐ Reverse Bytes

Decode Card Data

INPUT REPORT

<= 38-39-37-41-38-35-38-30 (897A8580)

INPUT REPORT

<= 30-30-46-0D (00F'\r')

CARD TYPE:FB01

DECODED CARD DATA:64430319767

Device Status: Device connected | Model: HP USB Universal Card Reader

Card settings – Resource Manager

Now plug the card reader into the HP device.

1. Open Resource Manager and navigate to **Device Management > Shared Devices**.
2. Double click the HP device.
3. On the **Controller** tab, ensure the **Controller Type** is set to **HP Integrated**.
4. On the **Authentication** tab, in the **Authentication type** frame, ensure the **Identification method** drop-down is set to either **Card swipe or keypad login** or **Card swipe only**.
5. Click the **Auth Device** tab.
6. In the **USB device registration** frame, click the **Choose known VID/PID** button.
7. Choose **HP Universal Card Reader X3D03A** and click **OK**.
8. In the **Card reader settings** frame:
 - a. Choose whether self-registration of cards will be allowed and the authentication requirements for self-registration.
 - b. In the **Byte conversion method** drop down, choose **Bytes are ascii codes for Hex characters**.
 - c. In the **Data ordering** drop-down, choose **Reverse bytes**.

- d. Now the **Start bit** and **Bit length** must be set based on the number you would like to extract from the binary string. For example, to get the number 64430319767 that the HP Configuration Utility decodes, we would choose **Start bit: 0** and **Bit length: 40**. However, to get the number printed on the card 5810327, choose **Start bit: 8** and **Bit length: 32**.

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