



ID Ident 5000
Combined Reader for Optical Codes and HF-RFID

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1 Function Description

1.1 Intended Use

This device is for reading the UID of RFID tags standard ISO14443A and optical codes.

1.2 Hardware Settings

There is only one jumper so configure power supply via the USB-A connection.

1.3 Status Indication

A red LED indicates the supply power is present.

1.4 Safety Notes

The device may only be used for the intended purpose designed by the manufacturer. The operation manual should be conveniently always kept available for each user.

Unauthorized changes and the use of spare parts and additional devices that have not been sold or recommended by the manufacturer may cause fire, electric shocks, or injuries. Such unauthorized measures shall exclude any liability by the manufacturer.

The liability-prescriptions of the manufacturer in the issue valid at the time of purchase are valid for the device. The manufacturer shall not be held legally responsible for inaccuracies, errors, or omissions in the manual or automatically set parameters for a device or for an incorrect application of a device.

Repairs may be executed by the manufacturer only.

Only qualified staff should carry out installation, operation, and maintenance procedures.

Use of the device and its installation must be in accordance with national legal requirements and local electrical codes.

When working on devices the valid safety regulations must be observed.

1.5 Reference Documents

None.

2 Commands

All these commands can be used on the Virtual Com-Port (VCP) and the Ethernet. The values are all shown in hexadecimal numbers, that means, the communication is binary.

2.1 Get Version Info (0x86)

This command requests the firmware version information.

>> AA 00 01 86 87 BB

<< AA 00 1C 00 49 44 20 49 64 65 6E 74 20 35 30 30 30 20 56 31 2E 30 20 32 35 30 35 31 34 50 4D 25 BB = ID Ident 5000 V1.0 250514PM

2.2 Control_Led (0x88)

Configuration Command from PC to RFID device

>> AA 00 03 88 18 0A 99 BB

The Reply from the RFID device to the PC (Success)

<< AA 00 02 00 80 82 BB

The Reply from the RFID device to the PC (Error)

AA 00 02 01 89 8A BB

The Bytes in Detail

AA = Start of Telegram

00 = Device Address

02 = Bytes of Payload (Status + Error Code)

01 = Status, 0x01 = Error

89 = Error code, setting not possible

8A = BCC

BB = End of Telegram

Examples

>> AA 00 03 88 32 0A B3 BB – gives single light signal, length controlled by 2nd parameter, 10 seconds.

>> AA 00 03 88 32 02 BB BB – gives single light signal, length controlled by 2nd parameter, 2 seconds.

2.2.1 SetBuzzer (0x89)

Configuration Command from PC to RFID device

>> AA 00 03 89 18 0A 98 BB

<< AA 00 02 00 80 82 BB

>> AA 00 03 89 32 01 B9 BB - maximum length of 50 = 0x32

>> AA 00 03 89 32 02 BA BB

>> AA 00 03 89 32 06 BE BB

2.2.2 SetRelay (0x8E)

This command is simply for switching the relay on or off.

Switch relay ON:

>> AA 00 02 8E 01 8D BB

<< AA 00 02 00 80 82 BB

Switch relay OFF:

```
>> AA 00 02 8E 00 8C BB
<< AA 00 02 00 80 82 BB
```

2.2.3 SetRelayTime(0x8F)

Example, relay control time in 100ms:

```
>> AA 00 03 8F 00 0A 86 BB
<< AA 00 02 00 80 82 BB
```

AA STX
00 address, fixed
03 length
8F CMD
00 0A duration time, unit as 10ms
86 BCC
BB ETX

2 Seconds for door opener

```
>> AA 00 03 8F 00 C8 44 BB
<< AA 00 02 00 80 82 BB
```

2.2.4 Configure Prefixes and Postfixes

8 Prefixes of ASCII and 8 Postfixes of ASCII.

Configuration Command from PC to RFID device

AA = Start of Telegram
00 = Device Address
11 = Bytes of Payload (Command + Parameters)
FE = Command Code
00 = Prefix1
00 = Prefix2
00 = Prefix3
00 = Prefix4
00 = Prefix5
00 = Prefix6
00 = Prefix7
00 = Prefix8
00 = Postfix1
00 = Postfix2
00 = Postfix3
00 = Postfix4
00 = Postfix5
00 = Postfix6
00 = Postfix7
00 = Postfix8
F3 = BCC
BB = End of Telegram

The Reply from the RFID device to the PC (Success)

AA 00 02 00 80 82 BB

The Bytes in Detail

AA = Start of Telegram

00 = Device Address

02 = Bytes of Payload (Status + Error Code)

00 = Status, 0x00 = OK

80 = Configuration successfully changed

82 = BCC

BB = End of Telegram

The Reply from the RFID device to the PC (Error)

AA 00 02 01 89 8A BB

The Bytes in Detail

AA = Start of Telegram

00 = Device Address

02 = Bytes of Payload (Status + Error Code)

01 = Status, 0x01 = Error

89 = Error code, setting not possible

8A = BCC

BB = End of Telegram

Value	Description
0x00	No Prefix/Postfix
0x01...FF	Use this value as Prefix/Postfix value

3 Configuring the Ethernet Interface

Configuration of the WizNet Ethernet Client via Webinterface or with S2E ConfigTool_V1.4.exe

Tab "Basic Settings"

- 1: Select the desired network interface of your PC from the drop-down menu.
- 2: Click on [Search], now the device you want to set should be listed.
- 3: Select the desired device to set.
- 4: Click on "Use the Follow IP Address" and the desired Ethernet parameters of the device.
- 5: Device Name: Here you can give the device a name that is helpful to you.
User Name/Password: this is the user name and password for access via the web interface. You can use this to block access. In addition, you can disguise access to the web interface with an HTTP port that differs from the standard.
- 6: Please do not forget to save changed settings with [Apply Settings].

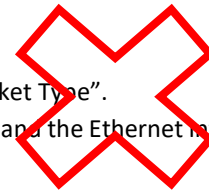
Tab "Port 1"

- 1: Enter your server address and port here.
- 2: This is port to send commands to this RFID device.
- 3: In case you prefer DHCP, you can configure the device to automatically send a message for identification.
- 4: This will prevent random data to be sent.

In case you need to change settings, please do not forget to save changed settings with [Apply Settings].

Important Note!

Please do not change the values "Baud Rate", "Data/Stop/Parity", "Flow Control", "Socket Type".
These settings are important for the internal communication between the RFID module and the Ethernet interface module.



4 Installation

4.1 General Instructions

- Keep the device away from direct sunlight, high humidity, extreme temperatures, and sources of electromagnetic interference. Any combination of these conditions might degrade performance or shorten the life of the device.
- Connect the device as defined in electrical connections section.

4.2 Avoiding Interference

The device usually operates without any interference caused by radio communication if it is

- used as intended and,
- correctly installed.

This is an RFID device. It is part of its normal functions to emit radio waves. The operation free of radio disturbance cannot be guaranteed for each application.

If the device causes radio disturbance in an application, the following instructions will help:

- Realign the antenna.
- Change the position of the antenna.
- Increase the distance between the device and the antenna.
- Change the power supply of the device.
- Contact the support of the manufacturer.

4.3 Electrical Installation - TBD

4.4 Mechanical Installation - TBD

5 Maintenance, Repair and Disposal

5.1 Maintenance

The electronics are maintenance-free. Protect it against dirt and liquids.

5.2 Repair

There are no user-serviceable parts. Do not attempt repairs. Do not allow any unauthorized service centre or personnel to repair or modify the product.

In the event your electronics fails, contact iDTRONIC GmbH via the service e-mail address: support@idtronic.de

5.3 Disposal

After use dispose of the device in an environmentally friendly way in accordance with the applicable national regulations.

Do not dispose of this device in normal household waste. Contact your local council for information on disposal options for electronic devices in your area.

6 **Revision History**

Version	Date	Notes
0.1	2025-09-xx	Initial User’s Guide Version

7 Technical Data

Do you have a data sheet and user manual of the optical code reader?

Electrical Specifications	
Power Supply	+5 Vdc via USB-C or other USB connector (selectable by jumper) +7...24 Vdc via dedicated connector (if you supply to this connector, do not set jumper for USB supply) PoE
Current consumption	Max. 200 mA @ 5 Vdc, app. 1 W max
Relay	Max. switching power: 30W/37.5VA Max. switching voltage: 220Vdc/250Vac Max. switching current: 1A Max. carrying current: 1A Initial contact resistance: Maximum 100 mΩ (initial) Contact material: Silver alloy with gold overlay All contacts accessible: COM, NO, NC
Reader IC	NXP CV520

Mechanical Specifications	
Dimensions	TBD
Weight	TBD
Housing Material	TBD

Environmental Conditions	
Operating Temperature	TBD
Storage Temperature	TBD
Humidity	up to 95 %, non condensing
MTBF	200'000 h

Supported Standards / Tags	
ISO 14443 A and compatible	Automatically reads UID of all ISO14443A type tags, e.g.: MIFARE® Classic Mini / 1K / 4K, MIFARE Ultralight®, MIFARE Ultralight® C, MIFARE® DESFire®EV1, MIFARE® Smart MX, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 21x
Optical codes	TBD