



NEO2-UHF-HID

Notice

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1 Introduction

This device is in an automatic operating mode and automatically detects UHF RFID data tags. It then outputs the PC information (Protocol Control, 16 bits/2bytes = 4 characters) and the EPC as a keyboard entry on the connected computer. The length of the EPC can be between 4 and 62 bytes. This means that a further 8 to 124 characters are output after the 4 characters of the PC data value.

Used abbreviations:

PC	Protocol Control
RFU	Reserved for Future Use
AFI	Application Field Identifier (central registered number for specific usage, e.g. baggage handling)
CRC	Cyclic Redundancy Check

1.1 Installation

No drivers are required for this function. After plug-in, the device logs on to the computer as a standard keyboard.

2 Examples

“<<” indicates data that is send from the device to the computer

Example 1

<< 3000E2004219ED90601400975E1D

PC: 3000 -> the following EPC is 12 bytes long

EPC: E2004219ED90601400975E1D

Example 2

<< 4800010203040506070809101112131415161718

PC: 4800 -> the following EPC is 18 bytes long

EPC: 010203040506070809101112131415161718

Example 3

<< 58000102030405060708090A0B0C0D0E0F10111213141516

PC: 5800 -> the following EPC is 22 bytes long

EPC: 0102030405060708090A0B0C0D0E0F10111213141516

3 PC explanation

Bit addresses	Description
0x00 – 0x0F	CRC (2 bytes)
0x10 – 0x1F	PC (2 bytes)
>= 0x20	EPC (0..31 bytes)

PC (absolute in reference to the EPC memory bank):

Bit addresses	Description
0x10 – 0x14	Length
0x15	User Memory Indicator
0x16	XPC_W1 indicator
0x17	Numbering system identifier toggle
0x18 – 0x2F	RFU or AFI

PC (relative inside the PC word):

Bit addresses	Description
0x00 – 0x04	Length
0x05	User Memory Indicator
0x06	XPC_W1 indicator
0x07	Numbering system identifier toggle
0x08 – 0x1F	RFU or AFI

3.1 PC Example

2000 = 0010.0000.0000.0000

-> 0010.0 = 4 words of 16 bit = 8 bytes EPC

3400 = 0011.0100.0000.0000

-> 0011.0 = 6 words of 16 bit = 12 bytes EPC

1 = User Memory Indicator, e.g. if memory is locked

0 = XPC_W1 indicator

0 = numbering system identifier toggle

0000.0000 = RFU or AFI

4000 = 0100.0000.0000.0000

-> 0100.0 = 8 words of 16 bit = 18 bytes EPC

0 = User Memory Indicator

0 = XPC_W1 indicator

0 = numbering system identifier toggle

0000.0000 = RFU or AFI

6800 = 0110.1000.0000.0000

-> 0110.1 = 13 words of 16 bit = 26 bytes EPC

7800 = 0111.1000.0000.0000

-> 0111.1 = 15 words of 16 bit = 30 bytes EPC

F800 = 1111.1000.0000.0000

-> 1111.1 = 31 words of 16 bit = 62 bytes EPC