

## Reference Guide

### Interface Options - “U” USB -Universal Serial

#### Bus

Selectable Cable

#### Lengths

Our most common interface is USB keyboard emulation (Human Interface Devices, just like a USB keyboard). Power is supplied via 5VDV, 100ma USB speed. Our readers have a Vendor ID, Product ID and Device ID, so it might be useful to check for VID & PID (not DID since that is our firmware version and it can change). Simply stated, if you can connect a USB keyboard and type numbers into a text field in the authentication software, then these readers are compatible.

### “O” USB – Virtual Communication

#### Port

Selectable Cable

#### Length

Data Communication and electrical contact are supplied via a standard Version 2.0 USB physical connector type, but functions as RS232 data TX/RX Data Communication Port.

### RS232 – Serial

#### Connectivity

Fixed

#### Cable Length, 6’

“2” 5VDC PS/2, mini din connector for an available power tap

“5” 5VDC is supplied on Pin9

“6” 9VDC is supplied on Pin9

“7” 9VDC external power supply required (use option, #LPS-9V670MAMULTIPLUG)

“8” 5VDC external power supply required (use option, #LPS-05VDC2.0A or LPS-05V241PS-M)

“9” 5VDC USB standard 2.0 version connector for an available for power tap

### Ethernet

#### Connectivity

Fixed Cable

#### Length, 3’

“B-P” EtherNet/IP PoE (Rockwell Industrial Protocol w/ Power over Ethernet)

“E” Ethernet Connection w/ 5VDC power supply (#LSP-05V241PS-M)

“E-P” Ethernet Connection w/ PoE (Power over Ethernet)

## RDR-8058x Series Readers

**pcProx Plus** is a dual-frequency (125 kHz & 13.56 MHz), multi-card technology reader that can replace all but a few of the pcProx models. Does not read the HID iClass Bld. ID Number

### USB

<u>Model #</u>	<u>Desc. &amp; Interface</u>	<u>Connection type examples</u>
RDR-8058xAKU	pcProx Plus Enroll Black USB power from same USB	(PCs)

81 Series, Data Output = Keystroke

82 Series, Data Output = Binary Code (**requires SDK, #DK-PCPRX-DOWNLOAD**)

### Serial

<u>Model #</u>	<u>Desc. &amp; Interface</u>	<u>Connection</u>
RDR-8058xAK0	pcProx Plus Enroll Black USB W/ Virtual COM power from same USB	(PCs)
RDR-80581AK2	pcProx Plus Enroll Black 5VDC PS2/RS232 power at PS2 connect	(PCs)
RDR-80581AK5	pcProx Plus Enroll Black 5VDC pin9 RS232 Barcode/mag. stripe replacement	
RDR-80581AK6	pcProx Plus Enroll Black 9VDC Pin 9 RS232 Barcode/mag. stripe replacement	
RDR-80581AK7	pcProx Plus Enroll Black 9VDC ext p.s. RS232 Universal, Controllers, etc.	
RDR-80581AK8	pcProx Plus Enroll Black 5VDC ext p.s. RS232 Universal, Controllers, etc.	
RDR-80581AK9	pcProx Plus Enroll Black 5VDC USB (PS) RS232 (PCs) Power from USB Port	

81 Series, Data Output = ASCII

82 Series, Data Output = Binary Code (**requires SDK, #DK-PCPRX-DOWNLOAD**)

### Ethernet

<u>Model #</u>	<u>Desc. &amp; Interface</u>
RDR-80581AKB-P	pcProx Plus Enroll Black Ethernet/IP POE Reader *

Requires a power injector RDR-80581AKE pcProx Plus Enroll Black Ethernet Reader w/Power Supply (LSP-05V241PS-M)  
RDR-80581AKE-P pcProx Plus Enroll Black Ethernet POE Reader

81 Series, Data Output = ASCII

82 Series Data Output = Binary Code (*requires SDK, #DK-PCPRX-DOWNLOAD*)

### Available Cable Lengths

Standard Cable Length for USB and RS232 models is 6 feet. **Except wall mount USB = 13"**

Add "-C06" as the number suffix, to order with a 6-inch cable (example: RDR-80581AKU-C06)

Add "-C16" as the number suffix to order with a 16-inch cable (example: RDR-80581AKU-C16)

### Additional Form Factors

OEM-805xxxxx OEM Integration Board

RDR-805Nxxxx Bare Board, No Housing

RDR-805Wxxxx Wall Mount

### RDR-8008x Series Readers

Is a dual-frequency (125 kHz & 13.56 MHz), multi-card technology reader that can replace all but a few of the pcProx models. RDR-800XX series provide support for HID iCLASS ID and iCLASS SE.

#### **USB**

<u>Model #</u>	<u>Desc. &amp;</u>	<u>Connection type</u>
RDR-8008xAKU	pcProx Plus Enroll Black USB power from same USB	(PCs)

81 Series, Data Output = Keystroke

82 Series, Data Output = Binary Code (*requires SDK, #DK-PCPRX-DOWNLOAD*)

#### **Serial**

<u>Model #</u>	<u>Desc. &amp; Interface</u>	<u>Connection</u>
	<u>type examples</u>	

RDR-8008xAK0 pcProx Plus Enroll Black USB W/ Virtual COM (PCs)  
power from same USB

RDR-80081AK2 pcProx Plus Enroll Black 5VDC PS2/RS232 (PCs)  
power at PS2 connect

RDR-80081AK5 pcProx Plus Enroll Black 5VDC Pin9  
RS232 Barcode/mag. stripe replacement

RDR-80081AK6 pcProx Plus Enroll Black 9VDC Pin 9  
RS232 Barcode/mag. stripe replacement

RDR-80081AK7 pcProx Plus Enroll Black 9VDC ext p.s.  
RS232 Universal, Controllers, etc.

RDR-80081AK8 pcProx Plus Enroll Black 5VDC ext p.s.  
RS232 Universal, Controllers, etc.

RDR-80081AK9 pcProx Plus Enroll Black 5VDC USB (P) RS232 (PCs)  
Powered from USB Port

81 Series Data Output = ASCII

82 Series Data Output = Binary Code (***requires SDK, #DK-PCPRX-DOWNLOAD***)

### **Ethernet**

Model #                      Desc. & Interface

RDR-80581AKB-P pcProx Plus Enroll Black Ethernet/IP POE Reader \*  
Requires a power injector

RDR-80581AKE pcProx Plus Enroll Black Ethernet Reader w/Power  
Supply (LSP-05V241PS-M)

RDR-80581AKE-P pcProx Plus Enroll Black Ethernet POE Reader

81 Series Data Output = ASCII

82 Series Data Output = Binary Code (***requires SDK, #DK-PCPRX-DOWNLOAD***)

### **Available Cable Lengths**

Standard Cable Length for USB and RS232 models is 6 feet.                      **Except**  
**wall mount USB = 13"**

Add "-C06" as the number suffix, to order with a 6-inch cable                      (example:  
RDR-80081AKU-C06)

Add "-C16" as the number suffix to order with a 16-inch cable                      (example  
RDR-80081AKU-C16)

### **Additional Form Factors**

RDR-800Nxxxx                      Bare Board, No Housing

RDR-800Wxxxx Wall Mount **RDR-6x81/6x82 Series Readers**  
**RDR-7x81/6x82 Series Readers**

*pcProx* readers are for all 125 kHz proximity and 13.56 MHz contactless smartcard technologies with each reader specific to the specified badge technology

**USB**

<u>Model #</u>	<u>Desc. &amp;</u>	<u>Connection type examples</u>
RDR-6/7x8xAKU	pcProx Plus Enroll Black USB power from same USB	(PCs)

81 Series Data Output = Keystroke

82 Series Data Output = Binary Code (*requires SDK, #DK-PCPRX-DOWNLOAD*)

**Serial**

<u>Model #</u>	<u>Desc. &amp;</u>	<u>Connection type examples</u>
RDR-6/7x8xAK0	pcProx Plus Enroll Black USB W/ Virtual COM power from same USB	(PCs)
RDR-6/7x8xAK2	pcProx Plus Enroll Black 5VDC PS2/RS232 power at PS2 Connector	(PCs)
RDR-6/7x8xAK5	pcProx Plus Enroll Black 5VDC Pin9 RS232 Barcode/mag. stripe replacement	
RDR-6/7x8xAK6	pcProx Plus Enroll Black 9VDC Pin 9 RS232 Barcode/mag. stripe replacement	
RDR-6/7x8xAK7	pcProx Plus Enroll Black 9VDC ext p.s. RS232 Universal, Controllers, etc.	
RDR-6/7x8xAK8	pcProx Plus Enroll Black 5VDC ext p.s. RS232 Universal, Controllers, etc.	
RDR-6/7x8xAK9	pcProx Plus Enroll Black 5VSC USB (PS) RS232 Powered from USB Port	(PCs)

81 Series Data Output = ASCII

82 Series Data Output = Binary Code (*requires SDK, #DK-PCPRX-DOWNLOAD*)

**Ethernet**

<u>Model #</u>	<u>Desc. &amp; Interface</u>
RDR-6/7x81AKE	pcProx Plus Enroll Ethernet/IP POE Reader w/Power

Supply (#LSP-5VAKE)

RDR-6/7x81AKE-E pcProx Plus Enroll Ethernet POE Reader, a Power Supply is not included

81 Series Data Output = ASCII

### Available Cable Lengths

Standard Cable Length for USB and RS232 models is 6 feet **Except wall mount USB = 13"**

Add "-C06" as the number suffix, to order with a 6-inch cable (example: RDR-6081AKU-C06)

Add "-C16" as the number suffix to order with a 16-inch Cable (example RDR-7081AKU-C16)

### Additional Form Factors

RDR-6/7xDxxxx	USB Dongle
RDR-6/7xExxxx	ExpressCard
RDR-6/7xNxxxx	Bare Board, No Housing
RDR-6/7xPxxxx	PCMCIA Card
RDR-6/7xWxxxx	Wall Mount

### Software Developer's Kits

[www.rfideas.com/products/software\\_developer\\_kits/](http://www.rfideas.com/products/software_developer_kits/)

**SDK** provides read/write capabilities for proximity and contactless readers and proximity cards, prox cards, contactless smart cards, *iCLASS* contactless smart cards and MIFARE contactless smart cards.

DK-PCPRX-DOWNLOAD SDK for pcProx Enroll, pcSwipe, pcProx Sonar, and Wiegand converters

DK-7080-DOWNLOAD SDK which allows developers complete access to HID's *iCLASS* or NXP's MIFARE contactless read/write cards

### pcSwipe Enroll

[www.rfideas.com/products/magnetic\\_stripe\\_reader/pcswipe\\_enroll/](http://www.rfideas.com/products/magnetic_stripe_reader/pcswipe_enroll/)

**pcSwipe** is a 3 track magnetic card reader for identification and enrollment capable of reading magnetic stripe cards. Available Interfaces; USB, RS-232,

Ethernet

MS3-00M1

Three Track Magnetic Stripe Reader

BKT-BASE (Optional)

Magnetic Stripe Reader Base Accessory

### **pcProx® Sonar**

[www.rfideas.com/products/presence\\_detector/pcprox\\_sonar/](http://www.rfideas.com/products/presence_detector/pcprox_sonar/)

**pcProx Sonar** is a plug-and-play, hands-free, auto locking presence detector. It detects a user's presence so the computer will not lock until the user physically steps away, avoiding awkward time-out settings.

BSE-PCPRX-SNR  
detector (includes: BKT-Angle)

pcProx-Sonar, presence

**Converters** [www.rfideas.com/products/converters/](http://www.rfideas.com/products/converters/)

RF IDEas supplies additional converters designed for proximity and contactless smart card readers.

OEM-W2RS232-V3, OEM-W2RS485-V3, OEM-W2USB-V3 = 26-64 bit format length.

OEM-W2RS232-CHUID = 26-255 bit format length.

### **Software Solutions & Applications**

**OEM Applications** [www.rfideas.com/applications/oem\\_reader.php](http://www.rfideas.com/applications/oem_reader.php)

RF IDEas' product offering is suited for direct integration or embedding into systems such as printers, vending machines, mobile devices, kiosks, medical devices and more. Available interface options - USB, TTL, Serial and Weigand

### **PLC Applications**

Our readers can be easily integrated in these applications to provide increased security and control via card data input to Allen-Bradley PLC, Rockwell Software Automation and other digital computers for a wide range of control machinery on factory and assembly floor. Other

applications include amusement rides, light fixtures and industrial equipment.

**Windows Log-On** [www.rfideas.com/products/air\\_id\\_writers\\_readers/](http://www.rfideas.com/products/air_id_writers_readers/)  
Need to log into Windows using an ID badge, then our pcProx playback starter kit is a good way to get started. We offer two different starter kits, one for MIFARE, another for *iClass* badges. Using the appropriate writer in the kit, you can program a user name and password into the memory sectors of the MIFARE or *iClass* badge. Then, using the appropriate playback reader, those log-in credentials programmed into the badge can be entered as keystrokes into your Windows log-in screen. Thus eliminates the need for manual entry and improving workflow.

**SSO/Logical Access** [www.rfideas.com/partners/partnerlist/](http://www.rfideas.com/partners/partnerlist/)  
SSO is solution that allows log-in to multiple programs within your IT domain using a single credential once. RF IDEas partners with multiple software companies, to offer you an integrated solution using our readers. These programs are tailored to your specific IT environment.  
RF IDEas WaveID SSO Partners

### **MFP Applications**

[www.rfideas.com/applications/multifunction\\_printers.php](http://www.rfideas.com/applications/multifunction_printers.php)  
ID badge authentication - pcProx readers can be used within a system to pass the ID badge number as the password/PIN. Software is required on the MFP to provide the authentication layer. This could be native to your system or through Print Management software companies, provided you have an API or development platform for embedding the software. The software is where the user database is handled, access rights and permissions are assigned and features such as pull printing and cost recovery are provided. Our readers provide access to your system via a simple tap of the badge to the reader for authentication.

RF IDEas WaveID MFP Partners

### **Compatibility With Desktop Readers**

#### **Multi-Card Readers**

##### **pcProx Plus**

**RDR-8058xxxx**

HID Prox

Casi Rusco

Indala Prox

MIFARE

**RDR-8008xxxx**

iCLASS SE

iCLASS ID

HID Prox

Casi Rusco



LEGIC  
Pyramid  
**\*Partial List**

Indala Prox  
MIFARE  
**\*Partial List**

**Complete list;**

**[www.rfideas.com/support/learning\\_center/pcprox\\_plus\\_card\\_types.php](http://www.rfideas.com/support/learning_center/pcprox_plus_card_types.php)**

**Card Specific Readers**

**pcProx Enroll**

**RDR-6x8xxxx**

125 kHz (Proximity)

HID Prox

Casi Rusco

Indala Prox

Pyramid

AWID

**\*Partial List**

**pcProx Enroll/Writer**

**RDR-7x8xxxx**

13.56 MHz (Contactless)

HID iClass

MIFARE

LEGIC

Sony Felica

FIPS201

**\*Partial List**

**pcProx Playback**

**RDR-7085AKU, RDR-7585AKU**

13.56 MHz (Contactless)

HID iclass

MIFARE

**Credentials** [www.rfideas.com/products/credentials/](http://www.rfideas.com/products/credentials/)

**Accessories** [www.rfideas.com/products/accessories.php](http://www.rfideas.com/products/accessories.php)

**Part Number Legend**

**Example - RDR-7081AKU**

RDR – Standard Card Reader (Reader Type)

7 – 13.56 MHz (Frequency Type)

0 – HID (Supported Card Format)

8 - Desktop housing (Housing Type) N- none (OEM pc board); 7 - larger housing for custom reader;

P - PCMCIA; D - Dongle\*; E – Expresscard

; W - Wallswitch

1 - keystroker or ASCII serial data (Output Type) 2; RAW Data (Output

Type)

**A** – Version

**K** – Black (Housing Color) **K** = Black, **P**=Pearl (desktop only), **W**=White (wall Switch only)

**U** - USB Port with either key stroke or SDK driven output (Interface Type)

'**x**' – Denotes multiple options within category

2: PS/2 pass-thru connector taps power from keyboard/mouse connector

5: DB9 data and 5 VDC Power supplied on Pin 9 of DB 9 connector

6: DB9 data and 9 VDC Power supplied on Pin 9 of DB 9 connector

7: Connector allows for external 9 VDC power supply wall adaptor

8: DB9 data and 5VDC wall power supply connector cable

9: DB9 and USB 5 VDC power tap

0 - USB connector output as Virtual COM

' \* ' - Denotes availability in Dongle housing

'yyy' - Denote custom format number for HID *iClass* readers

### Frequency Legend

#### Example – RDR-6x81AKU

#### Example – RDR-7x81AKU

**125Khz (PROXIMITY)  
(CONTACTLESS)**

**13.56 MHz**

0 – HID Prox

0 – HID

*iClass*

2 – Casi

5 – MIFARE / CSN

3 – Indala

6 – ISO 15693 CSN,

14443A CSN

4 – Pyramid

F – FelicaCa/Sony

7 – Kantech ioProx

J - Seilox

8 – AWID

L – Legic, Advant

CSN

M – MIFARE,

A – ID Tech , RF Logic

Ultralight CSN, Philips/NXP

B - - Stadt Fulda

P – FIPS201

C – Cardax

T – Tag-IT, Texas

Instruments

D – Diester

Y - XceedID,

Ingersoll Rand

E – EM/Rosliare (410X/4200)

Z – Secura

Key -01, Radio Key

G – G-Prox II

H - Hitag

I - Intel

K- Keri (prox only)

N -Honeywell Nextwatch, NexKey

Y - XceedID , Ingersoll Rand

Z - Radio Key, SecuraKey -02