WAVE ID® SP Plus

VERSATILE SLIM-PROFILE READERS

The ultra-slim WAVE ID SP Plus and WAVE ID SP merge form with function.

Desktop or External Mount Applications

Without housing | Dual Frequency | Single Frequency

These multi-purpose, slim card readers for identification, authentication and logical access are available in either dual frequency (WAVE ID SP Plus) or single frequency (WAVE ID SP). The small, thin form factor enables various integrated or OEM installations in recessed compartments, as well as external mounting configurations. Additionally, the reader can fit into a variety of purpose-built devices such as time clocks, kiosks, or protective enclosures.

Designed for Flexibility and Adaptability

Versatile and scalable, the WAVE ID SP Plus combines proximity and contactless technologies into one reader, while the WAVE ID SP offers convenience for users who only utilize contactless credentials. The WAVE ID SP iClass Elite (ICE) reader offers additional convenience for users to program their own Elite and custom keys. The WAVE ID SP Plus incorporates a SIM card slot for expansion to read additional secure card types. These card readers are designed for customers seeking to leverage their existing card system for applications. The reader, combined with existing or new employee badges and application software, is the perfect trifecta for deploying solutions.

Features include:

- Four ID badge (card) configurations to accommodate multi-card systems
- Auto-tuning 13.56 MHz antenna to optimize performance in various environments
- User-selectable volume control including a beeper off setting for high noise or quiet zones
- The dual frequency pcProx Plus SP enables secure card types with a SIM card supporting iCLASS SE® and Seos® (enables additional secure card types)

Keyboard Emulation

Connecting directly into a USB port, the WAVE ID SP Plus reader emulates a keyboard and outputs the badge ID and/or site code to the cursor's location on the screen. When an employee badge is presented to the reader, employee credentials will pass instantly to an organization's back-end network for authentication and access validation with an employee database, application, or active directory. The reader is highly configurable using the rf IDEAS Configuration Utility.

User Programmable Elite and Custom Keys

In addition to reading both proximity cards (125 kHz) and contactless smart cards (13.56 MHz), this reader also interacts with Bluetooth Low Energy enabled mobile devices. These devices can carry secure authentication and identification credentials, including MIFARE Secure, to provide a convenient identity access solution for a variety of applications in every industry.

Trust begins here.™

Common Applications

Badge-based reader solutions help streamline work-flow and avoid identification errors by eliminating the need to manually enter user names and passwords. Here are some of the most common applications in key industries.

	HEALTHCARE	GOVERNMENT	MANUFACTURING	ENTERPRISE
Single Sign-on	✚	✚	✚	✚
Time & Attendance	✚	✚	✚	✚
Training Compliance	✚	✚	✚	✚
Point-of-Sale	✚	✚	✚	✚
Secure Print Management	✚	✚	✚	✚

STANDARD FEATURES	Dual Frequency	Single Frequency
Model Series	**RDR-805H1AKU** WAVE ID SP Plus Keystroke Reader **RDR-805H2AKU** WAVE ID SP Plus Non-Keystroke Reader **RDR-800H1AKU-ICE** WAVE ID SP PLUS iClass Elite Key Keystroke Reader **RDR-30MH1CKU-MXS** WAVE ID SP Plus HID Mobile Access and MIFARE Secure Keystroking Reader **RDR-300H1CKU-MXS** WAVE ID SP Plus HID Mobile Access Keystroking Reader	**RDR-75H1AKU** WAVE ID SP Non-Keystroke Reader
Operating Frequency	125/132 kHz and 13.56 MHz	13.56 MHz
Interface	USB	USB
Software Developer Kit (SDK)	Yes	No
PHYSICAL CHARACTERISTICS		
Dimensions (desktop reader)	Height 0.6" (1.52cm) x Width 2.0" (5.08cm) x Length 3.0" (7.62cm)	
Weight (desktop reader w 6' USB cable)	2.7 oz (76.6gm)	
Housing Color	Black	
Cables	Cable and OEM support	
Indicators	LED indicator (green, amber, red) Adjustable beeper volume (off, low, medium, high)	
Form Factors	Slim Profile	
Minimum Voltage	5V	
Power Supply	USB self-powered	
Power Consumption	70 mA typical, 100 mA maximum	
ENVIRONMENT		
Operating Temperature Range	-22° to 150°F (-30° to 65°C)	
Operating Humidity Range	5% to 95% relative humidity, non-condensing	
Storage Temperature Range	-40° to 185°F (-40° to 85°C)	
OTHER		
Certifications *(Please contact rf IDEAS for information about other global certifications)*	FCC-United States; CE Mark-Europe; RCM-Australia; IC-Industry Canada; UL Environmental: RoHS, REACH. Contact rf IDEAS for additional global country certification details.	
Compatible Operating Systems	Windows XP®, 7®, 8.1®, 10® and Linux	
Card Types	Supports nearly all card types worldwide. For a complete list, visit https://www.rfideas.com/cardcompatibility	Supports reading CSN of 13.56 MHz contactless smartcards (excludes Seos®, iCLASS® and SE®)

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WAVE ID® SP Plus

VERSATILE SLIM-PROFILE READERS

The ultra-slim WAVE ID SP Plus and WAVE ID SP merge form with function.

Desktop or External Mount Applications

Without housing | Dual Frequency | Single Frequency

These multi-purpose, slim card readers for identification, authentication and logical access are available in either dual frequency (WAVE ID SP Plus) or single frequency (WAVE ID SP). The small, thin form factor enables various integrated or OEM installations in recessed compartments, as well as external mounting configurations. Additionally, the reader can fit into a variety of purpose-built devices such as time clocks, kiosks, or protective enclosures.

Designed for Flexibility and Adaptability

Versatile and scalable, the WAVE ID SP Plus combines proximity and contactless technologies into one reader, while the WAVE ID SP offers convenience for users who only utilize contactless credentials. The WAVE ID SP iClass Elite (ICE) reader offers additional convenience for users to program their own Elite and custom keys. The WAVE ID SP Plus incorporates a SIM card slot for expansion to read additional secure card types. These card readers are designed for customers seeking to leverage their existing card system for applications. The reader, combined with existing or new employee badges and application software, is the perfect trifecta for deploying solutions.

Features include:

- Four ID badge (card) configurations to accommodate multi-card systems
- Auto-tuning 13.56 MHz antenna to optimize performance in various environments
- User-selectable volume control including a beeper off setting for high noise or quiet zones
- The dual frequency pcProx Plus SP enables secure card types with a SIM card supporting iCLASS SE® and Seos® (enables additional secure card types)

Keyboard Emulation

Connecting directly into a USB port, the WAVE ID SP Plus reader emulates a keyboard and outputs the badge ID and/or site code to the cursor's location on the screen. When an employee badge is presented to the reader, employee credentials will pass instantly to an organization's back-end network for authentication and access validation with an employee database, application, or active directory. The reader is highly configurable using the rf IDEAS Configuration Utility.

Trust begins here.™

Common Applications

Badge-based reader solutions help streamline work-flow and avoid identification errors by eliminating the need to manually enter user names and passwords. Here are some of the most common applications in key industries.

	HEALTHCARE	GOVERNMENT	MANUFACTURING	ENTERPRISE
Single Sign-on	✚	✚	✚	✚
Time & Attendance	✚	✚	✚	✚
Training Compliance	✚	✚	✚	✚
Point-of-Sale	✚	✚	✚	✚
Secure Print Management	✚	✚	✚	✚

STANDARD FEATURES	Dual Frequency	Single Frequency
Model Series	RDR-805H1AKU WAVE ID SP Plus Keystroke Reader RDR-805H2AKU WAVE ID SP Plus Non-Keystroke Reader RDR-800H1AKU-ICE WAVE ID SP PLUS iClass Elite Key Keystroke Reader	RDR-75H1AKU WAVE ID SP Non-Keystroke Reader
Operating Frequency	125/132 kHz and 13.56 MHz	13.56 MHz
Interface	USB	USB
Software Developer Kit (SDK)	Yes	No
PHYSICAL CHARACTERISTICS		
Dimensions (desktop reader)	Height 0.6" (1.52cm) x Width 2.0" (5.08cm) x Length 3.0" (7.62cm)	
Weight (desktop reader w 6' USB cable)	2.7 oz (76.6gm)	
Housing Color	Black	
Cables	Cable and OEM support	
Indicators	LED indicator (green, amber, red) Adjustable beeper volume (off, low, medium, high)	
Form Factors	Slim Profile	
Minimum Voltage	5V	
Power Supply	USB self-powered	
Power Consumption	70 mA typical, 100 mA maximum	
ENVIRONMENT		
Operating Temperature Range	-22° to 150°F (-30° to 65°C)	
Operating Humidity Range	5% to 95% relative humidity, non-condensing	
Storage Temperature Range	-40° to 185°F (-40° to 85°C)	
OTHER		
Certifications *(Please contact rf IDEAS for information about other global certifications)*	FCC-United States; CE Mark-Europe; RCM-Australia; IC-Industry Canada; UL Environmental: RoHS, REACH. Contact rf IDEAS for additional global country certification details.	
Compatible Operating Systems	Windows XP®, 7®, 8.1®, 10® and Linux	
Card Types	Supports nearly all card types worldwide. For a complete list, visit https://www.rfideas.com/cardcompatibility	Supports reading CSN of 13.56 MHz contactless smartcards (excludes Seos®, iCLASS® and SE®)

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WAVE ID® SP Plus HID® Mobile Access and MIFARE® Secure Reader

MULTI-USE READER

Our Most Advanced and Versatile Ultra-Slim, Multi-Purpose Credential Reader Featuring HID Mobile Authentication

The WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader is an ultra-slim, multi-purpose credential reader for identification, authentication, and logical access. Its small, thin form factor enables various integrated or OEM installations in recessed compartments, as well as external mounting configurations. Additionally, the reader can be integrated into a variety of purpose-built devices such as time clocks, kiosks, or protective enclosures.

Designed for Flexibility and Adaptability

Versatile and scalable, the WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader combines physical proximity smart card and contactless technologies along with **Bluetooth**® Low Energy (BLE) support for HID Mobile Access credentials onto one platform. This reader is a future-proof investment with its SIM card slot for expansion with additional secure card types. Support for HID Mobile Access enables end users to leverage their existing credential system for applications beyond building access. This reader offers additional convenience for users to program their own HID ELITE CUSTOM keys and HID MOB keys. The WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader is a popular addition to the rf IDEAS portfolio of card readers known for quality and versatility.

Key features include:

- Four ID card configurations to accommodate multi-card systems
- Auto-tuning 13.56MHz antenna to optimize performance in various environments
- User-selectable volume control including a beeper-off setting for high noise or quiet zones
- Slot for SE4831 SIM (enables HID iCLASS SE®, HID iCLASS® SEOS®, and HID Mobile Access)
- Support for the MIFARE family of secure memory cards
- BLE support for HID Mobile Access credentials

Keyboard Emulation

Connecting directly into a USB port, the WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader emulates a keyboard for output of the credential data. When an employee credential is presented to the reader, it will pass instantly to an organization's back-end network for authentication and access validation , application, or active directory. The reader is highly configurable using the rf IDEAS Configuration Utility and the Smartcard Manager tool.

rf IDEAS Configuration Utility and WAVE ID Smartcard Manager

The rf IDEAS Configuration Utility and the Smartcard Manager allow users to configure the reader to read both encrypted and unencrypted data on any of the four configuration settings. It also allows users to select the desired MIFARE card technologies such as DESFire.® Users can manage deployment of encrypted MIFARE Secure Keys to the reader maintaining the secure chain of custody for these encryption keys.

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WAVE ID® SP Plus HID® Mobile Access and MIFARE® Secure Reader

Security

The WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader supports both the MIFARE and the HID SE/SEOS secure credential technologies.

MIFARE

For MIFARE, the reader supports the full family of MIFARE secure credential technologies, including DESFire EV1/EV2, Classic, Plus and Ultralight. The reader uses the NXP AV2 Secure Application Module (SAM). The AV2 SAM enables the cryptographic keys can be stored and used securely. It also provides secure communication in a variety of infrastructures. The connection between the SAM and the reader is performed using security protocols based on symmetric cryptography (TDEA and AES). The protocols comply with the state-of-art standards and thereby ensure data confidentiality and integrity.

HID

For the HID secure technology, the reader uses a SIM built on HID SE processor. The iCLASS SE Processor is part of HID Global's open iCLASS SE platform that enables customers to future-proof their Secure identity infrastructures. The iCLASS SE Processor supports new SIO (Secure Identity Object™)-enabled credentials based on a variety of technologies, such as iCLASS® SE™, iCLASS Elite®, iCLASS SEOS.

Finally, the WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader supports optional encryption of the card data before it is sent to the HOST system.

Mobile Credentials

With advancements in mobile credentials, the WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader is an ideal investment to enable mobility for greater business performance while supporting existing infrastructures. The reader is compatible with the industry-leading HID Mobile Access credential, available from HID Global through rf IDEAS.

HID Mobile Access incorporates this highly secure platform as its underlying technology, delivered through a reliable, easy-to-use and secure online management portal as an annual subscription service. Together with the WAVE ID SP Plus HID Mobile Access and MIFARE Secure reader, the credential provides a complete logical access solution for today's mobile-dominated business environment.

Trust begins here.™

WAVE ID® SP Plus HID® Mobile Access and MIFARE® Secure Reader

FEATURES & SPECIFICATIONS

Common Applications

Credential-based reader solutions help streamline workflow and avoid identification errors by eliminating the need to manually enter usernames and passwords. Here are some of the most common applications in key industries.

	HEALTHCARE	GOVERNMENT	MANUFACTURING	ENTERPRISE
Single Sign-On	✚	✚	✚	✚
Time & Attendance	✚	✚	✚	✚
Training Compliance	✚	✚	✚	✚
Point-of-Sale	✚	✚	✚	✚
Secure Printing	✚	✚	✚	✚

STANDARD FEATURES	
Model Series	RDR-30MH1CKU-MXS-HP, WAVE ID SP Keystroke HID Mobile Access & MIFARE Secure USB reader Credentials: MID-SUB-T100: HID Mobile Access Annual Subscription MID-SUB-T100-ADD: HID Mobile Access Add-On Subscription
Operating Frequency	RFID: 125/132 kHz and 13.56 MHz and 2402 – BLE (Bluetooth Low Energy): 2480MHz
Interface	USB Keyboard Emulation
PHYSICAL CHARACTERISTICS	
Dimensions	Height 0.6" (1.52cm) x Width 2.0" (5.08cm) x Length 3.0" (7.62cm)
Weight	2.7 oz (76.6gm)
Housing Color	Black (gray inlay)
Cables	6FT USB-A and 2.5in righ-angle MINI USB included (other cable kits available)
Indicators	LED indicator (green, amber, red) Adjustable beeper volume (off, low, medium, high)
Form Factors	Desktop; flush mount
Minimum Voltage	5V
Power Supply	USB powered
Power Consumption	Reader only: 70 mA typical, 100 mA maximum Reader and Bluetooth on: 85mA typical, 120 mA maximum
ENVIRONMENTAL	
Operating Temperature Range	-22° to 150°F (-30° to 65°C)
Operating Humidity Range	5% to 95% relative humidity, noncondensing
Storage Temperature Range	-40° to 185°F (-40° to 85°C)
SECURITY	
Cryptographic Module	HID SE PROCESSOR | MIFARE AV2 SAM
OTHER	
Certifications *(Please contact rf IDEAS for information about other global certifications)*	FCC; Industry Canada; CE Mark; RCM; Japan. Environmental: RoHS, REACH.
Compatible Operating Systems	Windows XP®/7®/8.1®, 10® , Linux, HP OXP
Supported Card Types	All proximity and contactless cards supported by the WAVE ID® Plus platform (see https://www.rfideas.com/support/tools/supported-card-types), with the addition of MIFARE DESFire EV1/EV2, Classic, Plus and Ultralight/Ultralight-C secure memory; HID Mobile Access mobile credentials

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rf IDEAS

WAVE ID® SP Plus

Dual-Frequency Credential Reader with MIFARE® Optional Secure Memory

Merge Form and Function in an Ultra-Slim Format for Multi-Purpose Authentication

The WAVE ID SP Plus is an ultra-slim, multi-purpose credential reader for identification, authentication and logical access. Its small, thin form factor enables various integrated or OEM installations in recessed compartments, as well as external mounting configurations. Additionally, the WAVE ID SP Plus can fit into a variety of purpose-built devices such as time clocks, kiosks, or protective enclosures.

Designed for Flexibility and Adaptability

Versatile and scalable, the WAVE ID SP Plus combines proximity and contactless technologies into one reader and is a future-proof investment with its SIM card slot for expansion with additional secure card types. These credential readers are designed for customers seeking to leverage their existing credential system for applications beyond building access. The reader, combined with existing or new employee credentials and application software, is the perfect trifecta for deploying solutions.

The WAVE ID SP Plus reader is a popular addition to the WAVE ID family of readers, known for its quality and versatility. Key features include:

- Four ID card configurations to accommodate multi-card systems
- Auto-tuning 13.56MHz antenna to optimize performance in various environments
- User-selectable volume control including a beeper off setting for high noise or quiet zones
- Slot for optional SIM secure module (HID iCLASS SE® and HID iCLASS® Seos®; NXP AV2 for MIFARE® and MIFARE® DESFire® EV1 and EV2.) enables additional secured types

Keyboard Emulation

Connecting directly into a USB port, the WAVE ID SP Plus reader emulates a keyboard and outputs the credential ID and/or site code to the cursor's location on the screen. When an employee credential is presented to the reader, it will pass instantly to an organization's back-end network for authentication and access validation with an employee database, application, or active directory. The reader is highly configurable using the WAVE ID Configuration Utility.

Smartcard Manager

The Smartcard Manager allows users to configure the reader to read both encrypted and unencrypted data on any of the four configuration settings. It also allows users to select the desired MIFARE card technologies such as DESFire® Users can deploy an encrypted MIFARE Secure Key to the reader which prevents exposure of the keys.

Embedded Applications *Integrated Applications*

Common Applications

Credential-based reader solutions help streamline workflow and avoid identification errors by eliminating the need to manually enter user names and passwords. Here are some of the most common applications in key industries.

	HEALTHCARE	GOVERNMENT	MANUFACTURING	ENTERPRISE
Single Sign-On	✚	✚	✚	✚
Time & Attendance	✚	✚	✚	✚
Training Compliance	✚	✚	✚	✚
Point-of-Sale	✚	✚	✚	✚
Secure Printing	✚	✚	✚	✚

STANDARD FEATURES	
Model Series	RDR-805H1AKU WAVE ID SP Plus Keystroke Reader RDR-80MH1AKU WAVE ID SP Plus MIFARE Secure Memory Keystroke Reader (comes with AV2 SAM) RDR-80MH1AKU-LF WAVE ID SP LEAF Keystroke Reader (requires AV2 SAM with LEAF key)
Operating Frequency	125/132 kHz and 13.56 MHz
Interface	USB
WAVE ID Plus SDK available for writing apps to the reader	Yes
PHYSICAL CHARACTERISTICS	
Dimensions	Height 0.6" (1.52cm) x Width 2.0" (5.08cm) x Length 3.0" (7.62cm)
Weight	2.7 oz (76.6gm)
Housing Color	Black
Cables	Cables supported
Indicators	LED indicator (green, amber, red) Adjustable beeper volume (off, low, medium, high)
Form Factors	Desktop; flush mount
Minimum Voltage	5V
Power Supply	USB powered
Power Consumption	70 mA typical, 100 mA maximum
ENVIRONMENTAL	
Operating Temperature Range	-22° to 150°F (-30° to 65°C)
Operating Humidity Range	5% to 95% relative humidity, noncondensing
Storage Temperature Range	-40° to 185°F (-40° to 85°C)
OTHER	
Certifications *(Please contact rf IDEAS for information about other global certifications)*	FCC; Industry Canada; CE Mark; RCM; Japan. Environmental: RoHS, REACH.
Compatible Operating Systems	Windows XP®/7®/8.1®, 10® and Linux
Card Types	Supports nearly all card types worldwide. RDR-80MH1AKU-LF: supports the LEAF credential in addition to all card types supported by the WAVE ID Plus platform (no support for iClass ID/SE or SEOS). Visit https://leafidentity.com/ for details on the LEAF credential RDR-80MH1AKU: Supports all card types supported by WAVE ID plus platform, with the addition of MIFARE DESFire EV1/EV2, MIFARE Classic, MIFARE Mini and MIFARE SmartMX (contactless only). No support for iClass ID/SE or SEOS.

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