rf IDEAS

Product Guide

Card Readers
Presence Detectors
Converters

Proximity 125 kHz
Contactless 13.56 MHz

Trust begins here.™

www.rfIDEAS.com

Safe, trusted authentication for any device.

Opportunity begins with trust. rf IDEAS provides the world's most trusted contactless authentication solutions for secure print management, identity and access management, time and attendance, and other critical applications. Count on our credential readers to keep your data safe and your people productive. **Trust begins here.™**

About rf IDEAS

rf IDEAS, founded in 1995, is the innovator of WAVE ID® technology, the standard for credential-based authentication and identification solutions powered by rf IDEAS readers. rf IDEAS manufactures a complete line of card readers and products that support nearly every proximity and contactless smart card in use worldwide.

rf IDEAS readers are used in numerous applications such as single sign-on, secure printing and attendance-tracking across several vertical markets including healthcare, manufacturing, government and enterprise. rf IDEAS is a subsidiary of Roper Technologies, a constituent of the S&P 500, Fortune 1000, and the Russell 1000 indices.

Applications:

Secure Print
Add the ability to use the existing employee ID badge system to access and interact with printers.

Mobile Credentials
Enable the simplicity and convenience of using mobile devices for identification and authentication throughout the workplace with readers that incorporate **Bluetooth**® Low Energy technology.

Single Sign-on
Simplify the log-on and log-off process with a wave or tap of an employee badge for identification and authentication, granting users access into their desktop and other applications.

Manufacturing
Use the existing employee ID badge system for secure access to automation, data collection, quality control and job costing.

Attendance Tracking
Track time and attendance to increase overall workforce productivity and reduce payroll errors, giving the existing employee ID badge more versatility.

OEM Integrations
Integrate rf IDEAS devices directly into systems such as printers, vending, mobile devices, kiosks, truck scales and much more.

Point of Sale
Using the existing employee ID badge system, users can make cashless transactions with customized, easy-to-manage solutions throughout the facility.

Dispensing
Provide secure, automated access to material for items requiring high levels of control and compliance.

Biometrics
Provide identification and authorized access to areas and systems with high-level controlled security, along with monitoring and tracking user credentials.

Form Factors


Desktop

Nano (Vertical)


Nano (Horizontal)

Nano USB-C


Mobile/BLE


SP/SP Plus


Bio


Surface mount


OEM


Analyze

Ethernet 241


Sonar

Products and Specifications

	WAVE ID® Plus		WAVE ID® Solo	WAVE ID® Mobile			WAVE ID® SP Plus	WAVE ID® SP
								
DESCRIPTION	**800 Series**	**805 Series**		**Safetrust Mobile Wallet**	**Orange Business Services PackID**	**HID Mobile Reader**		
	Dual frequency: 125 kHz and 13.56 MHz		**Single frequency: 125 kHz proximity OR 13.56 MHz contactless**	**Dual frequency: 125/132 kHz and 13.56 MHz**	**Dual frequency: 125/132 kHz and 13.56 MHz**	**Dual frequency: 125/132 kHz and 13.56 MHz**	**Dual frequency: 125 kHz and 13.56 MHz**	**Single frequency: 13.56 MHz only**
	Supports iCLASS, SE and SEOS ID in addition to all card types supported by the 805 Series	Supports nearly all physical card types worldwide	Models that support nearly all proximity and contactless smart cards	Supports nearly all physical card types worldwide in addition to the Safetrust Wallet mobile credential	Supports nearly all physical card types worldwide in addition to the Orange Business Services Pack ID mobile credential	Supports nearly all physical card types worldwide and the HID Mobile Access® credential	• Supports nearly all physical card types worldwide • Optional models that Support both LEGIC advant and prime smart cards, as well as MIFARE secure memory	• Supports nearly all 13.56MHz contactless cards worldwide • Optional models that Support both LEGIC advant and prime
	• Provides error-free ID card / badge access identification • Allows employees to use any 125 kHz or 13.56 MHz ID badge for various forms of logical access throughout the workplace		• Identification and enrollment reader for proximity OR contactless smart cards • Provides error-free ID badge access identification • Eliminates need for manual entry • Allows for use of existing 125 kHz OR 13.56 MHz employee ID badges for various forms of logical access throughout the workplace	• Easily phased into the existing reader network for seamless integration, eliminating the need for additional badges or readers while increasing the number of applications • Emulates a keyboard by keystroking badge information into a standard text editor • No additional software required for integration with most common operating systems • Compatible with USB keyboard inputs	• Eliminate the need to manually enter usernames and passwords with simplified authentication • Use existing proximity card or contactless smart card systems • Sync with mobile devices for applications far beyond basic door access • Eliminate errors and streamline workflows through instant identification and authentication • As the first vendor authorized to resell the Pack ID credential, benefit from a single source to enable secure mobile access for a wide variety of applications from logical access to mobile wallet to cashless vending	• HID Mobile Access incorporates the highly secure SEOS® platform as its underlying technology and is delivered through a highly reliable, easy-to-use and secure online management portal as an annual subscription service • Easily integrates into existing credential systems • Eliminates the need for additional credentials or readers • Increases the number of applications that can support contactless employee authentication and identification	• Small, thin form factor enables embedded and integrated applications or OEM installations in recessed compartments or external mounting configurations • Streamlines the sign-on process, improving access control, security, and organizational workflow • With flash memory and supporting nearly all card types, the programmable reader allows users to quickly configure the reader's output to meet their needs	• Delivers card ID in formats that multiple applications recognize • Standard four card configurations (two are preset; two are user-definable) • User-adjustable beeper volume can be set to high, low or off as appropriate for the work environment • 13.56 MHz auto-tuning ensures optimal power transfer to avoid interference
FEATURES	• Both 125 kHz & 13.56 MHz frequency • Helps meet HIPAA regulations • Helps meet CJIS Advanced Authentication compliance • IP67 compliant (IP67 surface mount) • Versatile mounting options		• 125 kHz OR 13.56 MHz frequency • Helps meet HIPAA regulations • Helps meet CJIS Advanced Authentication compliance • IP67 compliant (IP67 surface mount) • Versatile mounting options	• Dual card reader and Bluetooth® Low Energy module in one device, saving a USB port for other peripherals • Instant identification and authentication with your mobile smart device or employee ID badge • Four credential configurations to accommodate multi-card systems and mobile credentials • User-selectable volume control including a beeper on/off setting selection	• Seamless integration with existing reader networks • Eliminates the need for additional badges or readers while increasing the number of applications • Emulates keyboard by keystroking badge information into a standard text editor • No additional software required for integration with most common operating systems • All applications are compatible with USB keyboard input	• A dual card reader and Bluetooth Low Energy module in one device, saving a USB port for other peripherals • Instant identification and authentication with mobile smart devices and employee ID cards • Four ID credential configurations to accommodate multi-card systems • User-selectable volume control including a beeper on/off setting	• USB models connect directly to a USB port and can be configured to send data as keystroking or non-keystroking • Compatible with a variety of purpose-built devices such as multifunction printers, time clocks, kiosks or protective enclosures • Standard four card configurations (two are preset; two are user-definable) • Ideal for enrollment into third-party software or for single sign-on integrators • User-adjustable beeper volume can be set to high, low or off as appropriate for the work environment • 13.56 MHz auto-tuning ensures optimal power transfer to avoid interference	• Four ID card configurations (two are preset and all four are user-definable) • Auto-tuning for 13.56 MHz antenna to optimize performance in various environments • User-selectable volume control including a beeper on/off setting
SDK	Compatible with rf IDEAS Universal SDK		Compatible with rf IDEAS Universal SDK	Compatible with rf IDEAS Universal SDK	Compatible with rf IDEAS Universal SDK	Compatible with rf IDEAS Universal SDK	Compatible with rf IDEAS Universal SDK	Compatible with rf IDEAS Universal SDK
INTERFACE	• USB (Keyboard Wedge) • USB DLL (82 Series) • USB Virtual COM » Serial DB9 » PoE • E/IP PoE IP		• USB (Keyboard Wedge) • USB DLL (82 Series) • USB Virtual COM » Serial DB9 » PoE • E/IP PoE	USB (keyboard wedge)	USB (keyboard wedge)	USB (keyboard wedge)	USB (keyboard wedge)	USB (keyboard wedge)
POWER	• USB self-powered • 5V PS/2 RS232 • 5V pin 9 RS232 • 5V USB power tap RS232 (Some RS-232 models require external power source) • 9V pin 9 RS232 • PoE		• USB self-powered • 5V PS/2 RS232 • 5V pin 9 RS232 • 5V USB power tap RS232 (Some RS-232 models require external power source) • 9V pin 9 RS232	• USB self-powered	USB self-powered	USB self-powered	USB self-powered	• USB self-powered • Some RS-232 models require external power source
FORM FACTORS	• Desktop • Surface Mount • OEM		• Desktop • Surface Mount • OEM	• Desktop	• Desktop	• Desktop	• Desktop (slim profile) • Surface Mount • OEM	• Desktop (slim profile) • Surface mount • OEM

	WAVE ID® Nano		WAVE ID® Bio	WAVE ID® Embedded OEM	WAVE ID® Sonar	Ethernet 241™	WAVE ID® Analyze
							
DESCRIPTION	**USB-A**	**USB-C**					
	Single frequency: 125 kHz proximity OR 13.56 MHz contactless	**Single frequency: 125 kHz proximity OR 13.56 MHz contactless**	**Dual frequency: 125 kHz and 13.56 MHz**	**Dual frequency: 125 kHz and 13.56 MHz**	**N/A**	**N/A**	**Single frequency: 13.56 MHz contactless**
	Visit rfIDEAS.com/cardcompatibility for the full list of supported card types.	Visit rfIDEAS.com/cardcompatibility for the full list of supported card types.	• Supports nearly all physical card types worldwide • Supports prime™ smart cards	Visit rfIDEAS.com/cardcompatibility for the full list of supported card types.	N/A	N/A	The WAVE ID Analyze can identify the most number of card types in use worldwide.
	• Compact solution perfect for single sign-on, time and attendance, training, POS, secure print • Small size avoids longer dongle style reader breakage • Easy integration • Reduces hardware needed when embedded within housings, control panels or keyboards • Portability for access on the go	• Ultra-compact and highly resistant USB form factor • Easily integrates into existing 125 kHz proximity or 13.56 MHz contactless smart card systems • Complies with select MIL-STD-810 requirements that address "hostile environment" usage • Compact solution perfect for single sign-on, time and attendance, training, POS, secure print	• All-in-one biometric and physical credential reader • Compliant with upcoming Electronic Prescribing of Controlled Substances (EPCS) as well as the Healthcare Insurance Portability and Accountability Act (HIPAA • Provides a higher level of identity access than conventional readers, delivering a secure, future-focused technology investment • Capable of reading most proximity and contactless credentials, along with biometric data	• Proven and secure authentication solutions from world-leading producers • OEM readers available in device-specific forms for internal integration • rf IDEAS expertise simplifies the go-to-market process, delivering cost-savings • Progressive design development anticipates market trends and needs	• Plug-and-play, hands-free presence detector • Enables automatic secure logon session when user is present • Automatically locks a computer when a user steps away • Emulates a keyboard device, allowing for individual keystrokes to be defined by users • Offers definable delay and trigger distance settings to detect user presence	• Leverages existing employee ID badge systems with both multifunction and desktop printers • Provides one serial port and one USB port for use with WAVE ID credential readers and one mini USB 5 VDC power port • Serial/USB to Ethernet device that enables secure print via employee ID badge identification for any network printer	• Easy interface: the WAVE ID Analyze connects directly to a USB port • When credentials are tapped or placed on the device, it outputs card type, data size, raw data as keystrokes • Deposits output in text field of any application or to Microsoft® Notepad • WAVE ID Analyze is compatible with computers supporting USB keyboards • Compatible with operating systems: Windows 7®, 8®, 10® and Linux Ubuntu
FEATURES	• Includes features of desktop and surface mount readers in ultra-compact USB • Auto tuning for contactless counters effects of card variability or environment • Available in either 125 kHz proximity or 13.56 MHz contactless formats, integrating into existing contactless smart card systems • Provides up to four badge/card configurations (13.56 MHz only) • Revolutionary small size offers ultimate solution flexibility	• Includes features of desktop and surface mount readers in ultra-compact USB • Auto tuning for contactless counters effects of card variability or environment • Available in either 125 kHz proximity or 13.56 MHz contactless formats, integrating into existing contactless employee badge systems • Provides up to four badge/card configurations • Revolutionary small size offers ultimate solution flexibility	• Meets EPCS and HIPAA compliance • Four ID card configurations (two are preset and all four are user definable) • Auto-tuning for 13.56 MHz antenna to optimize performance in various environments • User-selectable volume control including a beeper on/off setting • Bluetooth functionality enabled through the Bluegiga BLE113 Bluetooth Smart Module • TouchChip® TCE FIPS201 certified silicon fingerprint module from HID	• Diverse device and application solutions for user identification and authentication • Choice of both proximity and contactless card configurations • Single frequency or dual frequency readers targeted to any needs	• Easily attaches to the PC via a USB port and emulates a keyboard device • Solves security risks and privacy concerns with unattended computers without requiring additional software or user action • Helps meet HIPAA regulations	• Enables secure print features on any network printer for security, compliance, flexibility, cost savings, and going green potential • Eliminates the need for additional network drop installations and associated costs	• On-site identification of proximity or contactless card technology • Verification of card function • Determines the rf IDEAS compatible reader
SDK	Compatible with rf IDEAS Universal SDK	Compatible with rf IDEAS Universal SDK	• Compatible with rf IDEAS Universal SDK • Silicon Labs SDK for the BLE113 • U.are.U SDK for the fingerprint sensor from HID (Crossmatch)	Compatible with rf IDEAS Universal SDK	N/A	N/A	N/A
INTERFACE	• USB (keyboard wedge) • USB DLL (82 series)	• USB (keyboard wedge) • USB DLL (82 series)	• USB (keyboard wedge) • USB DLL (82 series)	USB, Serial RS-232, UART	USB (keyboard wedge)	N/A	USB (keyboard wedge)
POWER	USB self-powered	USB self-powered	USB self-powered	• USB self-powered • 5V PS/2 RS232 » 5V pin 9 RS232 » 5V USB power tap RS232 » 9V pin 9 RS232 » PoE	USB	5 VDC power via mini USB port	USB self-powered
FORM FACTORS	• Vertical nano reader • Horizontal nano reader	Vertical nano reader	Fingerprint desktop	OEM	Sonar	N/A	Desktop