

OMNIKEY® SE Reader Core

The HID® OMNIKEY SE Reader Core represents the future of intelligent physical and logical access for connected environments within the enterprise, education, healthcare industries and more.

The OMNIKEY SE Reader Core allows integrators to design next-level mobile functionality into devices for physical access, including doors, elevators, turnstiles, secure printing, vending, smart lockers, as well as logical access to laptops and secure IT applications. Customers and partners gain integrated capabilities and increase options for trusted identities.



MODULES FOR AN ECOSYSTEM OF ACCESS

• Easy Integration

Featuring a compact smart card reader module with external antennas, the OMNIKEY SE Reader Core allows for straightforward integration into small, mobile, or battery-operated devices like locks.

• Optimized RFID Performance

An external pre-tuned antenna enables an effortless pathway to sought-after HID credentials including Seos® technology for mobile phones, iCLASS®, Prox and other industry-standard credentials (MIFARE®, MIFARE® DESFire®, etc.).

• Low Power Consumption

Ideal for battery-powered applications where continuous power supply isn't feasible (such as smart lockers), ensuring efficient operation without compromise.

• Future-Proof

Your investment evolves with the trusted, ever-expanding HID OMNIKEY platform to adapt and grow with emerging access use cases, ensuring longevity and value.

New customers enter a world of premier RFID authentication and identification capabilities when leveraging HID technologies. Existing HID customers can upgrade iCLASS SE Reader Modules to the OMNIKEY SE Reader Core to gain enhanced integration, optimized performance and a future-proof platform that supports the expanding capabilities of RFID technology.

The OMNIKEY SE Reader Core is mobile-ready and comes equipped with Apple's Enhanced Contactless Polling (ECP), enabling seamless support for credentials stored in Apple Wallet. It also supports Google Wallet.



KEY BENEFITS:

- **External Antenna:** Bypass mechanical integration constraints, allowing for greater flexibility in incorporating a broader range of credential technologies
- **Triple Frequency:** Supports high and low frequency credentials, including HID Mobile Access via Bluetooth® Low Energy (Android & iOS) and NFC (Android), as well as credentials stored in Apple Wallet and Google Wallet
- **Flexible Reader Options:** Select from two reader configurations — the Standard version with additional connectors or the Mini version, which features a 30-way connector optimized for a compact footprint
- **External API Mode:** Simplifies control with a "single command set" for easy reader management, firmware upgrades, and configuration
- **Comprehensive Development Tools:** Integration is streamlined with essential tools included in the Developer Toolkit (DTK) and the OMNIKEY Local Reader Manager
- **Seamless Upgrade Path:** Transition effortlessly from iClass® SE™ Reader Modules without changing the external footprint. Continue utilizing existing Low Frequency/High Frequency antennas and benefit from integrated Bluetooth® Low Energy hardware, eliminating the need for an additional Xtender module.

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MORE INTELLIGENCE INSIDE & OUT:

- Small Form Factor
- External Antenna for Ultimate Optimization
- Optimized low power consumption
- Improved In-Field Firmware Updates
- External API Mode
- Full Developer Tool Kit
- Uncomplicated Deployment and Upgrades



Base Part Number	RCS55100000	RCL55100000
SRD Model	RC55510	RCL5510
Dimensions	28.0 x 30.5 x 7.1mm (1.1" x 1.2" x 0.28")	33.0 x 43.1 x 7.4mm (1.3" x 1.7" x 0.29")
Weight	3.9g (0.14oz)	5.8g (0.21oz)
Operating Voltage¹	Normal supply: 3.6 - 6V 3V3 Direct supply: 3.1 - 3.5V	
Current Draw	Autonomous - pinger: 7.5 uA at 5V, interval 250 ms Autonomous - polling: 52 mA at 5V	
Storage Temperature	-45°C to 85°C (-49°F to 185°F)	
Operating Temperature	-25°C to 65°C (-13°F to 149°F)	
CONTACTLESS HF SMART CARD INTERFACE		
RF Transmit Frequency	13.56 MHz +/- 50 ppm	
Smart Card Technologies	ISO14443A/B ISO15693	
Supported Credentials & IC's²	HID: iCLASS® Standard/SE/SR/Seos; Secure Identity Object® (SIO®) MIFARE® Classic, MIFARE DESFire® 0.6, EV1, EV2 and EV3, MIFARE® plus Mobile credentials powered by Seos (HID Mobile Access), Credentials in Apple Wallet and Google Wallet	
Transmission Rate	Up to 848 kb/s (depending on IC & OS)	
CONTACTLESS LF PROX CARD INTERFACE		
RF Transmit Frequency	125 kHz +/- 1 kHz	
Supported Credentials & IC's	HID Prox	
CONTACTLESS BLUETOOTH LOW ENERGY INTERFACE		
RF Transmit Frequency	2.4GHz - 2.48GHz	
Supported Devices	Mobile devices featuring Bluetooth 4.x (or higher), Android 4.3 (or higher), iOS 7 (or higher)	
GENERAL FEATURES		
Antenna Support	External antenna x 3 (1 x LF + 1 xHF + 1x Bluetooth)	
I/O	Green LED/Card present, Red LED, Blue LED, Buzzer, Data Hold, Reset, Tamper, 2x GPIO and others	
Firmware Upgrade	Upgrade of firmware via OMNIKEY Reader Manager providing firmware improvements, device configuration and feature enhancement capability	
Device Management	External API, OSDP, OMNIKEY Reader Manager (Mobile Device), OMNIKEY Reader Manager (PC app)	
Connectors	1 x 30 Pin – General Purpose (Serial I/F, I/O and PSU) Solder pads also available	2 x 15 Pin - Serial I/F and Host 1 x 5 Pin - Antenna 1 x 30 Pin - General Purpose (Serial I/F, I/O and PSU)
Communication and Host connection	Wiegand, UART, USART, OSDP, I2C ³ , USB/CCID ³	
Global Certifications	UL 62368-1 for USA and Canada, Safety, FCC 47 Part 15 modular approval, CE, UKCA, India WPC, Brazil Anatel, Japan MIC, Japan Giteci, Taiwan NCC, Australia/New Zealand RCM, RoHS, REACH, WEEE	
Patents	www.hidglobal.com/patents	

¹ LF Credential reading operates with both power schemes and voltage ranges

² MIFARE DESFire EV2 and EV3 support EV1 compatibility mode

³ i2C & USB/CCID future capability



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2025-04-10-1dt-omnikey-se-reader-core-ds-en

PLT-08156

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