

# OMNIKEY® 5127CK Reader Core



## EMBEDDED CCID AND KEYBOARD WEDGE RFID READER BOARD

- **Multi Interface Support** - CCID, UART, USB and keyboard wedge interfaces offer flexible integration options for a wide range of applications
- **Dual Frequency RFID plus Mobile Access** - Simultaneously support tradition low and high frequency credentials including iCLASS Seos®, HID Prox®, iCLASS SE®, MIFARE™ Classic and MIFARE™ DESFire™ EV1 and also NFC and Bluetooth for mobile devices
- **Compact Design with External Off-board Antennas** - Very small footprint for embedded applications
- **USB suspend/resume and remote wakeup support** - The reader has the capability to go into suspend state and wake up the host upon presentation of a credential.

HID Global's OMNIKEY 5127CK Reader Core opens market opportunities for system integrators seeking simple integration and development of readers using standard interfaces such as CCID, UART or keyboard wedge.

The new OMNIKEY 5127CK Reader Core compliments the existing 5127CK Mini and 5427CK Reader by providing a very compact design for installation in space constrained solutions such as mobile devices. External off-board HF/LF and Bluetooth Smart antennas offer flexibility to design custom antennas to meet specific embedded requirements. The addition of full support for USB suspend/resume and remote wake-up provides a solution for power sensitive applications.

The CCID, Interface enables integrators to design finished solutions without the need to install or maintain drivers, eliminating complex software lifecycle management issues in the field and accelerating introduction of finished devices in the market.

With the keyboard wedge functionality, the reader can retrieve data from a card that is

presented to the reader and directly input the card data into an application using keystroke emulation. This eliminates the need for customers to manually enter the card data into an application.

The OMNIKEY 5127CK Reader Core offers the market proven OMNIKEY reader feature set supporting low and high frequency technology within a single device as well as the capability of providing support for the latest Mobile Access Solutions via NFC or Bluetooth Smart.

Key features of the OMNIKEY 5127CK Reader Core include support for the most common low and high frequency card technologies, including Seos, iCLASS SE, MIFARE Classic and HID Prox. It also includes an integrated management tool that enables field updates to readers for new firmware or changing configuration settings.

For quick and easy integration, HID Global provides a Developer Tool Kit (DTK) for the OMNIKEY 5127CK Reader Core. The DTK provides the necessary tools, documentation and developer resources material to shorten integration cycles and speed time to market with finished products.

### HID Mobile Access Enabled Reader Features

- Includes Apple's Enhanced Contactless Polling (ECP) application to support credentials in Apple Wallet
- Adjustable read settings control overall power and read range of Mobile IDs, enabling flexibility for both close-proximity "tap" and long-range "twist and go" distances
- Read settings administered using mobile phone during installation
- Separate directional antenna enables long-range reading distances up to 2m in correct orientation



#### CCID Support

- Native CCID implementation supporting Windows®, LINUX® and Mac® operating systems

#### Keyboard Wedge

- Fully configurable and programmable keyboard wedge functionality featuring an integrated management console
- Flexible configuration of data structures and output modes

#### UART

- Fully featured serial protocol allowing low level integration
- Autonomous credential processing with card data sent directly over the serial interface

#### USB

- USB 2.0 fully supporting suspend/resume operation and remote wakeup

#### Broad Credential Support

- NFC and Bluetooth support for Mobile devices
- Dual frequency functionality allowing support for both low and high frequency credentials simultaneously
- HID Prox®, Indala® & EM Prox, MIFARE® Classic, MIFARE® DESFire® EV1, iCLASS®, iCLASS SE®, iCLASS® Seos®, iCLASS Elite®, and other SIO enabled credentials
- Includes Apple's Enhanced Contactless Polling (ECP) application to support credentials in Apple Wallet

#### Enhanced Lifecycle Management

- Easy firmware updates and configuration setting utilizing a Web interface, SNMP messages and configuration cards
- Developer Tool Kit (DTK) available that contains product samples, development documentation, sample code and access to HID's developer portal

## SPECIFICATIONS

Base Model Number		OMNIKEY 5127CK Reader Core	
Dimensions	Reader Core 1.06" x 1.02" x 0.21" (27 x 26 x 5.3mm) HF/LF Antenna: 1.46" x 1.09" x 0.035" (37.1 x 27.6 x 0.9mm) - Cable 0.57" (14.6mm)		
Weight	Reader Core: 3.5g HF/LF Antenna: 1.3g		
Power Supply	Bus Powered		
Current Requirements (HF, LF and Bluetooth Smart Polling)	With Credential in the field: 350mA No Credential in the field: 125mA Standby (Sleep Current): 1.2mA		
Operating Temperature	-4° - 158° F (-20° - 70° C)		
Operating Humidity	0 - 90% Relative Humidity		
Storage Temperature	-40° - 176° F (-40° to 80° C)		
HOST INTERFACE			
Host Interface	USB 2.0 (also compliant with USB 1.1) USB suspend/resume operation and remote wakeup is fully supported		
Transmission Speed	12 Mbps (USB 2.0 full speed)		
CONTACTLESS SMART CARD INTERFACE			
	CCID	KEYBOARD WEDGE	
Card & Protocols High Frequency	iCLASS, iCLASS SE/SR, iCLASS Seos MIFARE Classic 1K / 4K, Ultra Light, Ultra Light C, Plus, MIFARE DESFire 0.6, MIFARE DESFire EV1, MIFARE SE, DESFire EV1 SE, T=CL, ISO 14443A, ISO14443B CSN, FeliCa, SmartMX with up to 848 kbps transmission rate (depending on card1), ISO 15693 with up to 26 kbps transmission rate (depending on card), Student ID in Apple Wallet	The following credentials can be handled autonomously: iCLASS, iCLASS SE/SR, iCLASS Seos MIFARE SE, DESFire EV1 SE MIFARE Classic 1K / 4K, Ultra Light, Ultra Light C, Plus (Security Lvl 1) , MIFARE DESFire 0.6, MIFARE DESFire EV1 (MAC / DES/3DES / 3K3DES / AES) CEPAS (C AN), FeliCa (1dm), PIV ISO14443B (CSN), Student ID in Apple Wallet	
Cards & Protocols Low Frequency	HID PROX®, Indala Prox, EM Prox, AWID Prox		
Operating Systems	Windows 10/8.1/8/7/Server 2016/Server 2012/Server 2008R2 Linux Debian 6.0+ / Ubuntu 11.04+/ Fedora 15+; Open SUSE 11.4+ Mac OS X**; Android™ 4.x to 9.x**		
PC/SC Driver Support	CCID native driver from operating system (Windows/Linux/Mac)		
Supported API's	PC/SC - API, SAM - API		
Antennas	1 x External Combined HF/LF Antenna 1 x External Bluetooth Smart Antenna		
Connectors	10 way contacts-up FFC Connector - USB, UART, LED, Buzzer connections 6 way contacts-up FFC Connector - HF/LF Antenna connections U. FL Coaxial Connector for Bluetooth Antenna		
Optional Accessories	OMNIKEY 5x27CK Development Toolkit		
Approvals/Environmental	Compliant to ROHS/REACH, WEEE, IEC 60950-1, CE, FCC Modular, IC (Canada)		
Warranty	One year manufacturer's warranty		

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