

OMNIKEY® 5127CK Reader Core

Embedded CCID and keyboard
wedge RFID reader board



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.



KEY BENEFITS:

- **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 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

For further information please visit the Developer Center
hidglobal.com/developer-center/omnikey-5x27ck-developer-center

OMNIKEY® 5127CK Reader Core



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

Base Model Number	OMNIKEY 5127CK Reader Core	
Dimensions	Reader Core (W x D x H) 1.06" x 1.02" x 0.21" (27 x 26 x 5.3mm) W and D +/- 0.20mm (0.008") H +/- 0.20mm HF/LF Antenna (W x D x H) 1.46" x 1.09" x 0.035" (37.1 x 27.6 x 0.9mm) W and D +/- 0.20mm (0.008") H +/- 0.20mm – 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 , MIFARE DESFire 0.6, MIFARE DESFire EV1/EV2 MIFARE Ultralight C, MIFARE Ultralight FeliCa (Idm) CEPAS (CAN) ISO 11443A/B, ISO15693 NFC Tag (1,2,3,4,5) T=CL, SmartMx, Student ID in Apple Wallet	
Cards & Protocols Low Frequency*	HID PROX®, Indala Prox, EM Prox, EM4100/4102/4200/4305/4450, AWID Prox, Hitag 1.2.3, ASK, PSK, FSK	
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	

*For up to date credential support please refer to [Credential Support Matrix](#)



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For more information, please [click here](#).