OMNIKEY®
Smart Card Readers
Install Guide

Drivers and Manuals: www.hidglobal.com/omnikey

Americas and Corporate
611 Center Ridge Drive
Austin, TX 78753
USA

Asia Pacific
Unit A, 5/F, High Fashion
Center, 1-11 Kwai Hei Street,
Kwai Chung, N.T. Hong Kong

Europe, Middle East and Africa
3 Cae Gwyrdd, Green Meadow Springs
Cardiff CF15 7AB
United Kingdom

https://support.hidglobal.com

eBase Models
OMNIKEY 1021, 3021, 3121,
5021, 5022, 5023, 5025, 5027,
5127, 5421, 5422, 5427, 6121

SRD Models
5021, 5022, 5025, 5027,
5421, 5422, 5427, OK5127CKMINI

Introduction

This guide describes physical behaviour and conformities of OMNIKEY Smart Card Readers.

1021 USB - Desktop smart card reader in a small form factor for desktop and mobile usage.

3021 USB - High-performance smart card reader, with a USB interface and small form factor for desktop and mobile usage.

3121 USB - High-performance smart card reader for desktop use with multiple standing base options in a robust housing.

5021 USB - Contactless Reader with USB interface for desktop use that reads/writes to 13.56 MHz smart cards.

5022 USB - Contactless Reader with USB CCID-compliant interface for desktop use that reads/writes to 13.56 MHz smart cards.

5023 USB - A 5022 Reader with Secure Element, which supports iCLASS® and Seos®.

5027 USB - Contactless Reader with USB Keyboard Wedge interface for desktop use that reads 13.56MHz smart cards including iCLASS and Seos.

5025 CL USB - Contactless Reader with USB CCID-compliant interface for desktop use that reads contactless (125 kHz) Prox cards.

5127 / 5427 CK/ 5427 UE USB - Contactless 13.56MHz/125kHz reader with CCID/Keyboard wedge interface.

5127CK MINI / 5127CK READER CORE - Contactless 13.56MHz/125kHz reader with CCID-compliant/Keyboard wedge/UART interface and BLE.

5427 Gen2 - Contactless 13.56MHz/125kHz reader with CCID/Keyboard wedge interface and BLE.

5421 / 5422 USB - Dual interface PC-linked reader that reads/writes to 13.56 MHz contactless cards and virtually any contact smart card. 5422 includes CCID.

6121 Mobile USB - Dongle-sized smart card reader for SIM-sized smart cards, especially well suited for use with mobile devices.

Parts

- Smart Card Reader
- Installation Guide

Find drivers, reader documentation supporting various operating systems at:
www.hidglobal.com/omnikey

See the application note for card loading and handling instructions at:
www.hidglobal.com/omnikey

Specifications and installation

For further information, contact HID support:
https://support.hidglobal.com

For driver setup, consult the OMNIKEY Smart Card User Guide.

CAUTION: Install the drivers prior to attaching the OMNIKEY reader with the computer.

ATTENTON: Vous devez installer le driver avant de connecter le lecteur OMNIKEY à l'ordinateur.

USB connected reader specifications

Operating Temperature	32°F to 131°F (0°C to 55°C)
PC Connector Cable	**59.1 in (150 cm)** 1021, 3021, 3121, 5021, 5022, 5023, 5025 CL, 5027, 5422, 5427 G2 **78.7 in (200 cm)** 5421, 5427 CK
Mean Time Between Failures (MTBF)	500,000 Hours
Host Interface	USB 2.0 CCID (USB 1.1 Compatible)
Host Data Transmission Speed	12 Mbps (USB 2.0 Full Speed)
Power Supply	Bus Powered

USB connected reader installation

1. Connect the reader with computer; plug the USB connector into your computer's USB port.
2. When the reader is operational, the LED illuminates.
3. For contactless operation, hold the card next to the reader logo. For contact smart cards, insert the card into the reader with contacts facing up.
4. The LED blinks when the reader is exchanging data with a card (reading/writing).

To ensure that RF exposure levels remain at or below the tested levels, a minimum safe separation distance of 10 cm between the user and the reader is required for US/Canadian RF exposure compliance.

Pour garantir que les niveaux d'exposition aux RF restent égaux ou inférieurs aux niveaux testés, une distance de sécurité minimale de 10 cm entre l'utilisateur et le lecteur est requise pour être conforme aux normes américaines et canadiennes en matière d'exposition aux RF.

Regulatory

CAUTION: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

ATTENTION: Tout changement ou modification de cet appareil sans approbation explicite du manufacturer vous enlève les droits d'usage de cet équipement.

FCC (All Readers)
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC (Readers 1021, 3021, 3121, 5027, 6121)
Tested to comply with FCC standards FOR HOME AND OFFICE USE

Product Radio Certifications

The OMNIKEY 5022 CL, 5127CK READER CORE, and 5127CK MINI Module were tested under the FCC rules and Industry Canada rules for a Modular Approval and therefore the following shall apply: (reference below FCC/IC IDs)

- Provided that the Antenna and tuning network have not been changed in any way, the Final Product label may contain the HIID Global FCC ID. Provided no other radio devices exist within the final assembly. The end integrator may use these IDs, as long at the original HID Global Label is visible.
- FCC ID: JQ6-OK5022CL or IC ID: 2236B-OK5022CL
- FCC ID: JQ6-OK5127CKMINI or IC ID: 2236B-OK5127CKMINI
- FCC ID: JQ6-5127MODMIN or IC ID: 2236B-5127MODMIN
- The End User/Manufacturer, will not need to repeat the intentional emissions testing (actual radio certification), however the unintentional emissions testing will need to meet the FCC and IC requirements with the module installed into the final assembly or product. This also applies to CE Marking as defined by the Radio Equipment Directive (RED).
- However, in many cases, the module may need to be retuned, due to the effects of the product enclosure and assemblies within this enclosure, and the de-tuning affect that this may have on the radio circuitry. In this case and if other radios exist, Class 2 Permissive Change is required.
- In the event that the HID OEM modules Kit is modified in any way, the radio transmitter operating at either 125 kHz, 13.56 MHz and Bluetooth, when the module is integrated into the OEM's final product, Radio Certification is required for the final product.
- Obtain FCC Certification by submitting the final product to a Telecommunications Certified Body (TCB) laboratory that performs the testing and issue the FCC Grant. Standard: Part 15, Subpart C.
- Often the same TCB tests to Canada requirements and grants certification as a Certification Body (CB). Standard: RSS-210, RSS-GEN and RSS-310, where applicable.
- The same laboratory may also be an EU Communications Assessment Body (CAB) that is accredited to test to Radio Equipment Directive (RED) requirements for CE Marking. Applicable standards:
  EN 300 330, EN 301 489-3, EN 50130-4, and IEC60950.
- A laboratory that is a CAB testing to Radio Equipment Directive (RED) requirements will also be testing to Australia and New Zealand requirements because of a common test standard. Standard:
  AS/NZS 4268.
- Asian country certifications are obtained on an individual country basis.

OEM Final Product US Dept. of Commerce Bureau of Industry and Security (BIS) approval is required for USA based companies who export and re-export products using encryption.

Regulatory Compliance Assistance - HID Global provides technical assistance and laboratory recommendations, as required.

CAUTION: Any changes or modifications to this devise not explicitly approved by the manufacturer could void your authority to operate this equipment.

Canada Radio Certification (All Readers)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Mexico (Readers 5022, 5023, 5422, 5427 G2)

La operación de este equipo está sujeta a las siguientes dos condiciones: 1) es posible que este equipo o dispositivo no cause interferencia perjudicial y 2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

CE Marking (All Readers)

HID Global hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Por el presente, HID Global declara que estos lectores de proximidad cumplen con los requisitos esenciales y otras disposiciones relevantes de la Directiva 2014/53/EU.

HID Global déclare par la présente que ces lecteurs à proximité sont conformes aux exigences essentielles et aux autres stipulations pertinentes de la Directive 2014/53/EU.

A HID Global, por meio deste, declara que estes leitores de proximidade estão em conformidade com as exigências essenciais e outras condições da diretiva 2014/53/EU.

HID Global bestätigt hiermit, dass die Leser die wesentlichen Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU erfüllen.

HID Global dichiara che i lettori di prossimità sono conformi ai requisiti essenziali e ad altre misure rilevanti come previsto dalla Direttiva europea 2014/53/EU.

Download the Radio Equipment Directive (RED) Declaration of Conformity (DoC) at:
http://www.hidglobal.com/certifications

Brazil (Readers 5022 CL, 5027, OK5127CKMINI, 5422 and 5427 G2)

Para maiores informações, consulte o site da ANATEL **www.gov.br/anatel/**. Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

Chile (Readers 5022, 5422 and 5427 G2)

China (Readers 1021, 5022, 5422, 5427 and 5427 G2)

Hong Kong (Readers 5022, 5023, 5422 and 5427 G2)

India (Readers 5022, 5023, 5422 and 5427 G2)

Japan MIC (Reader 4121)

この装置は総務省の型式指定を受けています。
本製品は電波を使用したRFID機器の読み取り・書き込み装置です。
そのため使用する用途・場所によっては、医療機器に影響を与える恐れがあります。

Korean KC (Readers 1021, 3121, 4040, 4321, 5021, 5022, 5325, 5326, 5421, 5422, 5427, 5427 G2, 6121, 6221, 6321)

이 기기는 가정용(B급)으로 전자파 적합 등록을 한 기기 로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

항목	규격	항목	규격
송신주파수	RFID:13.56 MHz	전파형식	A1D
수신주파수	RFID:13.56 MHz	발진방식	X-tal
출력	RFID: 10m에서 24.19mv이하	변조방식	AM
전원	DC 5		

Singapore (Reader 5427 CK)

Complies with
IMDA Standards
DA103548

Singapore (Reader 5427 G2)

Complies with
IMDA Standards
DB106440

Taiwan

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

此模組於取得認證後，將依規定於模組本體標示審驗合格標籤，並要求平台廠商於台上標示「本產品內含射頻模組“ CCAL0LP0700T0”

According to "Administrative Regulations on Low Power Radio Waves Radiated Devices" Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to an approved low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act.

The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

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