13.56 MHz Contactless Smart Card Reader Technology



CardMan® 5321

PC-Linked 13.56 MHz RFID Smart Card Reader

OMNIKEY, one of the world's leading manufacturers of innovative smart card readers, has developed a modern and state-of-the-art dual interface smart card reader. The CardMan® 5321 combines the advantages of contactless and contact smart card technology in a single USB desktop device.





OMNIKEY's CardMan® 5321

The CardMan® 5321 is a dual interface PC-linked reader that reads/writes to both a 13.56 MHz contactless smart card and virtually any contact smart card. The dual interface feature economically supports end-user environments where both contactless and contact smart card technology may be in use. The reader supports contactless smart cards with up to 848kbps in the fastest ISO 14443 transmission mode.

Purpose of a Dual Interface Reader

Many end-users currently use a contactless smart card for building access, as a corporate or student ID, or for transit or cashless vending applications. The CardMan® 5321 provides an economical means for end-users to implement new PC-linked applications without having to re-badge.

The addition of contact smart card capability allows for future expansion as needs change or as users within the facility require different levels of security or functionality. Should you require contact smart card functionality only, OMNIKEY offers a diversified product portfolio that is designed to support any smart card for any application on any computer.

Supported Applications

The CardMan® 5321 allows users to experience the convenience, speed, and security of contactless technology for applications including log-on to Windows®, networks, websites, or the secure storage of user names, passwords, and personal information. The use of contactless smart card technology for PC-linked applications is limited only to your imagination!

Contactless Smart Cards Supported

The CardMan® 5321 is based on a 13.56 MHz contactless smart card interface that is compliant with ISO specifications 14443 A and B and 15693. The reader works with a variety of 13.56 MHz contactless smart cards including, but not limited to:

- Philips: MIFARE®, DESFire®, MIFARE ProX®, SMART MX. and i.code
- HID: *iCLASS*®
- Texas Instruments: TagIT®
- ST Micro: x-ident, SR 176, SR 1X 4K
- Infineon: My-d (in secure mode UID only)
- Atmel: AT088RF020
- KSW MicroTech: KSW TempSens
- JCOP in RSA mode

If you are using a 13.56 MHz contactless smart card for other applications, use the same card for PC-linked applications today!

Technical Specifications



Consistent with OMNIKEY's tradition of offering robust, technically superior firmware and driver support, the CardMan® 5321 guarantees the highest level of interoperability available on the market. By sharing the same state-of-the-art technology features of the CardMan® 3121, OMNIKEY's contact smart card reader with USB interface, compliance with major standards such as ISO 7816, PC/SC, Microsoft WHQL, and EMV 2000 Level 1 specifications is guaranteed.

CardMan® 5321

Host Interface		
USB 2.0 CCID¹ (also supports USB 1.1)	\checkmark	
Transmission speed	12 Mbps	
Power supply	Bus powered	
Contact Smart Card Interface		
Compliant with ISO 7816 and EMV ²	$\sqrt{}$	
2000	,	
Supports T=0, T=1	V	
Supports 2-wire: SLE 4432/42 (S=10),	\checkmark	
3-wire: SLE 4418/28 (S=9), SLE 4404 Supports I°C	-/	
Card Size	ID-1 (full size)	
High-performance smart card interface	ID-1 (Iuli Size)	
(up to 420 Kbps when supported by	$\sqrt{}$	
card)		
Smart card clock frequency up to 8 MHz	\checkmark	
Supports 5V, 3V, and 1.8V smart cards	\checkmark	
Supplies 60 mA current to power the	1/	
smart card	V	
Smart card movement detection with		
auto power-off		
Automatic detection of smart card type	√ ′	
Short circuit and thermal protection	$\sqrt{}$	
8 pin handling (C4/C8 supported)	•	
Contactless (RFID) Smart Card Int	ertace	
ISO 14443 A (848 Kbps transmission rate depending on card)	\checkmark	
ISO 14443 B (848 Kbps transmission		
rate depending on card)	\checkmark	
ISO 15693 (26 Kbps transmission rate	,	
depending on card)	٧	
Other Features		
LED status indicator	√	
Options		
Customer specific logo or label	√	
Customer specific colors	V	
· -	-	

Compliance/Certification	
Microsoft® WHQL³ certified	$\sqrt{}$
EMV ² 2000 Level 1 certified	$\sqrt{}$
ISO 7816	$\sqrt{}$
HBCl⁴	\checkmark
USB 1.1 and 2.0	$\sqrt{}$
CCID (contact interface only)	$\sqrt{}$
API	
PC/SC driver	\checkmark
CT-API (on top of PC/SC, for contact interface)	$\sqrt{}$
OCF (on top of (PC/SC, for contact interface)	\checkmark
Synchronous API (on top of (PC/SC, for contact less interface)	\checkmark
PC /SC Driver Support	
Windows® 98	
Windows® ME	
Windows® 2000	
Windows® XP	$\sqrt{}$
Windows® XP 64bit (AMD64, EM64T, IA64)	√
Linux®	$\sqrt{}$
Mac® OS X (for contact interface only)	$\sqrt{}$
Hardware Specifications	
Color	Dark gray
Dimensions (LxBxH)	115 x 96.5 x25.5mm 4.53" x 3.8" x .1.0"
Weight	approx 160 gr/ 5.64 ounces
Operating temperature	10-55°C/ 32-131°F
Operating humidity	10-90% rH
Composition	ABS
Connector cable	180-200cm/ 70.9"-78.8"
Durability	100,000 Insertions
Meantime between failure (MTBF)	500,000 Hours
Safety and Environmental Standard	S
CE	√
FCC	√
UL	V



1= Chip Card Interface Device 2= Europay® MasterCard® Visa® 3= Windows® Hardware Quality Lab 4= Homebanking Computer Interface



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