## 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

#### 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 on any computer for any application.

#### **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 <sup>2</sup>	$\checkmark$
2000	,
Supports T=0, T=1	V
Supports 2-wire: SLE 4432/42 (S=10),	
3-wire: SLE 4418/28 (S=9), SI F 4404	V
Supports I°C	<b>√</b>
Card Size	ID-1 (full size)
High-performance smart card interface	,
(up to 420 Kbps when supported by	$\checkmark$
card)	
Smart card clock frequency up to 8 MHz	$\sqrt{}$
Supports 5V, 3V, and 1.8V smart cards	$\sqrt{}$
Supplies 60 mA current to power the	$\checkmark$
smart card Smart card movement detection with	
auto power-off	$\checkmark$
Automatic detection of smart card type	$\checkmark$
Short circuit and thermal protection	$\sqrt{}$
8 pin handling (C4/C8 supported)	$\checkmark$
Contactless (RFID) Smart Card Interface	
ISO 14443 A (424 Kbps transmission	V
rate depending on card)	
ISO 14443 B (424 Kbps transmission	$\checkmark$
rate depending on card) ISO 15693 (26 Kbps transmission rate	
depending on card)	$\checkmark$
Other Features	
LED status indicator	√
Options	
Customer specific logo or label	$\sqrt{}$
Customer specific colors	$\sqrt{}$

Compliance/Certification	
Microsoft® WHQL³ certified	$\checkmark$
EMV <sup>2</sup> 2000 Level 1 certified	$\checkmark$
ISO 7816	$\checkmark$
HBCI⁴	$\checkmark$
USB 1.1 and 2.0	$\checkmark$
CCID (contact interface only)	$\checkmark$
API	
PC/SC driver	
CT-API (on top of PC/SC, for contact interface)	V
OCF (on top of (PC/SC, for contact interface)	V
Synchronous API (on top of (PC/SC, for	-/
contact less interface)	V
PC /SC Driver Support	
Windows® 98	$\sqrt{}$
Windows® ME	$\checkmark$
Windows® 2000	$\checkmark$
Windows® XP	$\checkmark$
Windows® XP 64bit (AMD64, EM64T,	-/
IA64]	V
Linux®	$\checkmark$
Mac® OS X (for contact interface only)	$\checkmark$
Hardware Specifications	
Color	Gray
Dimensions (LxBxH)	115 x 96.5 x25.5mm
Weight	4.53" x 3.8" x .1.0" approx 150 gr/
vveigiti	5.29 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	In preparation
FCC	In preparation
UL	In preparation

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



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