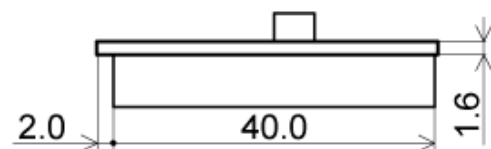
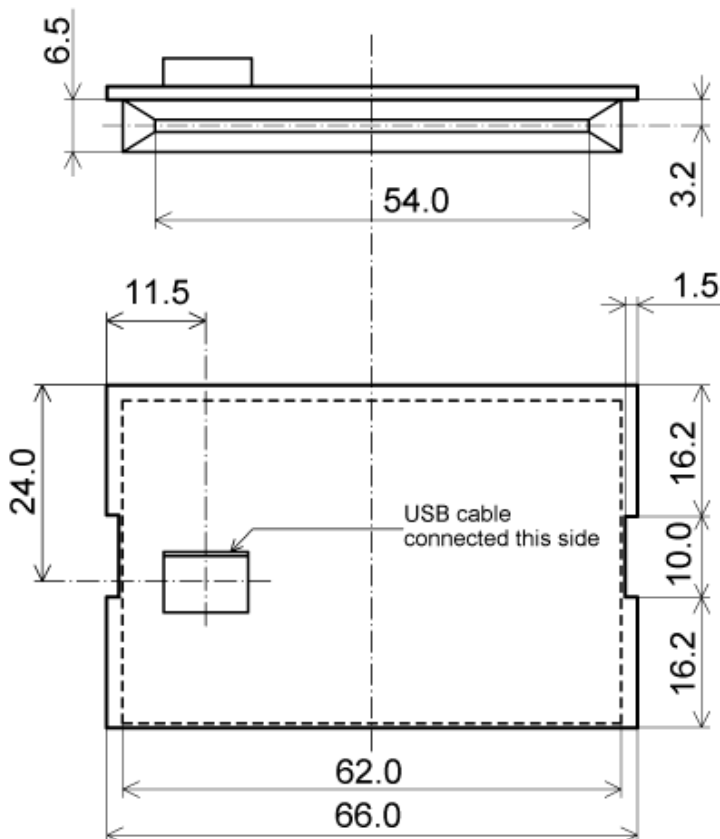


## CardMan® 3121 Reader Board

### USB connected contact Smart Card Reader PCB

OMNIKEY, one of the world's leading manufacturers of innovative smart card readers, has developed a modern and state-of-the-art smart card reader. The CardMan® 3121 Reader provides the easy possibility to embed leading OMNIKEY contact smart card technology in a single USB device for OEMs



all dimensions in mm

Maximum component height is 4mm (crystal)

USB Connector Size:  
11.0 x 5.0 mm

#### OMNIKEY's CardMan® 3121 Reader Board

The CardMan® 3121 Reader Board is a PC-linked reader that reads/writes to virtually any contact smart card. The contact interface economically supports OEM environments where contact smart card technology may be in use. The ready-to use desktop device CardMan® 3121 is fully certified so that certification of your devices with the built-in OMNIKEY reader is no problem.

It can be used and tested as is, following the well-known high quality standards of our housed readers.

#### Supported Applications

The CardMan® 3121 Reader Board shares the same driver platform with the CardMan® 3121 desktop device and is therefore usable in any application based on the supported operating systems.



If you are using our well known and reliable contact smart card readers for desktop applications, use the same technology for OEM devices and applications today!

Consistent with OMNIKEY's tradition of offering robust, technically superior firmware and driver support, the CardMan® 3121 Reader Board guarantees the highest level of interoperability available on the market. By sharing the same state-of-the-art technology features of the Desktop 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.

All certifications mentioned below are for the CardMan® 3121, where the Reader Board is built in.

## CardMan® 3121 Reader Board

Host Interface	
USB 2.0 CCID <sup>1</sup> (also supports USB 1.1)	✓
Transmission speed	12 Mbps
Power supply	Bus powered
Contact Smart Card Interface	
Compliant with ISO 7816 and EMV <sup>2</sup> 2000	✓
Supports T=0, T=1	✓
Supports 2-wire: SLE 4432/42 (S=10), 3-wire: SLE 4418/28 (S=9), SLE 4404	✓
Supports I <sup>2</sup> C	✓
Card Size	ID-1 (full size)
High-performance smart card interface (up to 420 Kbps when supported by card)	✓
Smart card clock frequency up to 8 MHz	✓
Supports 5V, 3V, and 1.8V smart cards ISO 7816 Type A, B and C	✓
Supplies 60 mA current to power the smart card	✓
Smart card movement detection with auto power-off	✓
Automatic detection of smart card type	✓
Short circuit and thermal protection	✓
8 pin handling (C4/C8 supported)	✓
Other Features	
Duo LED status indicator	✓
Compliance/Certification	
Microsoft® WHQL <sup>3</sup> certified	✓
EMV <sup>2</sup> 2000 Level 1 certified	✓
ISO 7816	✓
HBCI <sup>4</sup>	✓
USB 1.1 and 2.0	✓
CCID	✓

API	
PC/SC driver	✓
CT-API (on top of PC/SC)	✓
OCF (on top of PC/SC)	✓
Synchronous API (on top of PC/SC)	✓
PC /SC Driver Support	
Windows® 98/ME	✓
Windows® 2000	✓
Windows® 2003 Server	✓
Windows® XP	✓
Windows® XP 64bit (AMD64, EM64T, IA64)	✓
Windows® Vista (32bit & 64bit)	✓
Windows CE	✓
Linux®	✓
MacOS X (PowerPC & Intel)	✓
Hardware Specifications	
Dimensions (LxBxH)	66 x 42,4 x 12mm 2.6" x 1.6.7" x 0.47"
Weight with cable	75 gr/ 2.65 ounces
Operating temperature	0-55°C/ 32-131°F
Operating humidity	10-90% rH
Connector cable	180cm/ 70.9"
Durability	100,000 Insertions
Meantime between failure (MTBF)	500,000 Hours
Safety and Environmental Standards	
CE	✓
FCC	✓
UL	✓
MIC	✓
VCCI	✓



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



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