

# signotec Omega

LCD Colour Signature Pad

Description and data sheet



**MADE IN GERMANY**

■ ■ ■ Quality • Security • Ecology

Version: 4.3

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# HIGHLIGHTS

- Self-sufficient slide show with up to 10 graphics
- Including free of charge software packages incl. SDK for several programming languages
- Unique RSA-signature creation device and RSA-encryption methods inside the pad
- „Content Signing“ allows to directly sign the content displayed on the LCD, to assure to sign the correct document
- Secure mode for real time display
- Several options for secure certificate and key management inside the pad

- Affordable signature tablet with 5" colour TFT
- High resolution colour display with 640 x 480 pixels
- Adjustable LED-backlight
- Flat and extraordinary design
- Very flat surface without depressions or edges
- No special pen or batteries required
- USB cable is firmly linked with the pad (Anti-theft protection)
- Long service life and robust
- Outstanding technical data for digitising signatures
- High security due to encrypted data transfer
- Internal RSA-signature creation device and RSA-encryption methods
- Customer-defined case colour and logo
- Multi-Interface-Support: HID-USB, WinUSB, virtual COM-port
- Optional with integrated NFC-Reader
- Graphic compression to reduce transmission time
- Optional internal USB converter – virtual serial port for terminal server support
- Automatic pad recognition
- Self-sufficient slide show with up to 10 graphics
- Display of coloured graphics, buttons and text
- Display of various fonts and font sizes
- Scroll function for graphics up to a size of 640 x 960 pixels
- Output of up to 500 samples per second of the X-, Y-, time and pressure coordinates
- The model number and firmware version of the pad is retrievable
- Retrievable explicit serial number
- Auto-Power-Off with relevant signal on USB bus
- Signature display in real time
- Secure mode is only transmitting unusable data of the signature for real time display



# TECHNICAL DATA

Alterations for the technical progress, manufacturing tolerances and mistakes reserved at any time!  
We reserve the right to alter the technical data without prior notice.

Dimensions	
Height	15 mm
Width	180 mm
Length	191 mm

Display	
Type	5" (12.5 cm), full colour-TFT with backlight
Number of colours	65.536
Resolution	640 x 480 pixel absolute $\pm$ 161 x 161 ppi
Scroll function	For graphics up to a size of 640 x 960 pixels
Pixel size	0,0529 x 0,1587 mm
Visible area	101 x 76 mm

Near Field Communication (NFC)	
Availability	Optional, integration under the hand rest
Type	NXP PR533
Integration	Microsoft or Linux Smart Card API
Power consumption	The power consumption with NFC-Reader increases by ca. 90 mA
Compatibility	<ul style="list-style-type: none"> <li>Reader/writer functionality compatible with ISO/IEC 14443 A&amp;B, MIFARE™, FeliCa, and NFC Forum tag types (Jewel, MIFARE Ultralight, FeliCa, FeliCa lite, MIFARE DESFire), and supports I-class (Picopass B type modulation)</li> <li>ISO18092 passive Initiator</li> <li>Complies with German eID, ICAO, and EMVCo 2.1</li> <li>Supports PCSC part 3 release 2.01.07</li> <li>Integrated support for MIFARE Reader</li> <li>USB 2.0 host interface, CCID protocol Support</li> <li>Validated with Microsoft Windows and Linux CCID native drivers</li> </ul>

Sensor	
Active signing area	100 x 75 mm
Resolution	4096 x 4096 pixel absolute $\pm$ 1388 x 1040 ppi
Linearity	$\pm$ 1,5 % in x-, y- und z- direction
Input method	Special sensor for pen input
Surface	Special surface for pen input
Pressure sensor unit	1024 pressure stages
Pen	No special pen – cheap replacement

Electronics/Digitisation	
Output rate of coordinates	Up to 500 Hz 4D samples (consisting of x, y, time, pressure)
Internal sampling rate	6.000 samples per second
USB port	USB-HID Full-Speed (full-speed interrupt transfers) and USB-Full-Speed (full-speed bulk transfers) (from Rev. M)
Serial port	Optional via internal virtual serial COM-port
USB standby support	Yes, when relevant signal is present the device will switch off
Driver	Not necessary for HID-USB. Only for virtual serial port and WinUSB
Software/SDK/Tools	SDK and tools free of charge incl. updates and new versions
Data transfer	AES 256 encrypted data transfer between PC and pad via RSA key exchange
Serial number	Unique and retrievable internal serial number
Status display	2 coloured and freely programmable LEDs
Power consumption	430mA; while in standby 13mA in HID/WinUSB mode and 8mA in serial mode
Plug'n'Play	Yes, for both connection types (HID and virtual serial)
Readout protection of the firmware	Yes, flash memory is protected against readout

Miscellaneous	
Cable port	USB
Cable length	2,0 m or 5 m
Weight	356 grams
Pen attachment	Highly flexible textile tether
Certifications and standards	TÜV, CE, DIN EN 60950-1, DIN EN 61000-6-1, EN 61000-6-3
ROHS	ROHS compliant
Tamper-proof closure	Optionally the case can be glued
Barcode	A barcode with a serial number is located on the device and the cardboard box
WEEE-Reg.-Nr. (German register for used devices)	DE 41995888
Operating systems	Windows XP (SP3) and later, Windows Server 2003 and later, Windows Terminalserver support, Linux; 32 and 64 Bit
Protection class	IP 52

Operating and storage conditions	
Operating temperature	- 10° C to + 45° C
Storage temperature	- 25° C to + 70° C
Max. humidity for operating and storage	<= 90 % non-condensing
Air pressure for operating and storage	> 700 hPa

Reliability/Quality assurance	
Quality test	Individual testing of devices with test log
High temperature test of the components	240 hours at 80° C
Low temperature test of the components	240 hours at - 40° C
Humidity test of the components	240 hours at 60° C and 90 % humidity
Thermal shock test of the components	30 minutes at - 40° C and directly 30 minutes at + 80° C (10x in succession)

Article numbers	
signotec Omega with HID-USB – 2,0 m	ST-CE1075-2-U100
signotec Omega with virtual COM-Port via USB – 2,0 m (USB 2serial)	ST-CE1075-2-FT100
signotec Omega with HID-USB – 5,0 m	ST-CE1075-5-U100
signotec Omega with virtual COM-Port via USB – 5,0 m (USB2serial)	ST-CE1075-5-FT100
signotec Omega NFC, HID-USB with integrated NFC-Reader, 2,0 m	ST-CE1075-2-UNFC100
<i>Note: For technical reasons, the hybrid-system with NFC Reader is available with 2.0m cable length only.</i>	

#### Article number description:

ST	Manufacturer (signotec)
C	Colour LCD
E	Encrypted data transfer
1075	Sensor size (10 cm x 7,5 cm)
2,(5),(0.2)	USB cable length (2, 5 or 0,2 meter)
U	HID-USB
FT	Internal virtual COM-port converter (USB2Serial)
NFC	Near Field Communication (NFC) Reader
100	Standard colour regarding the overlay and case

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