signotec Pad Sigma

LCD Signature Tablet
with or without backlight

Description and data sheet

MADE IN GERMANY

Quality · Security · Ecology

Version: 3.8
Date: 2015-01-06

HIGHLIGHTS

- **The LCD is available with or without backlight**
- **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, monochrome LCD signature tablet
- Ultra-slim design – only 1cm thick
- Very flat surface without depressions or edges
- Compact size for stationary and mobile use
- High-resolution display for luminous text and graphics
- 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
- Customer-defined case colour and logo
- Unique RSA-signature creation device and RSA-encryption methods inside the pad
- HID-USB – no driver installation necessary
- Optional internal USB to serial converter for terminal server support
- Automatic pad recognition

- Control of 2 LEDs in the front
- Signature input area can be defined and deleted
- Buttons can be defined, queried and cancelled on the display
- The application interface version is retrievable
- The model number and firmware version of the pad is retrievable as well
- Retrievable explicit serial number
- Output of up to 500 samples per second of X, Y, time and pressure coordinates
- 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

Dimensions

Thickness	10 mm
Width	160 mm
Height	120 mm

Display

Type	4" (10,5 cm), monochrome, with optional backlight
Resolution	320 x 160 pixel absolute ≜ 86 x 86 ppi
Pixel size	0,275 mm
Visible area	92 x 47 mm

Sensor

Active signing area	92 x 47 mm
Resolution	4096 x 4096 pixel absolute ≜ 2214 x 1130 ppi
Linearity	$\pm$ 1,5 % in x-, y- und z- direction
Input method	Special sensor for pen input
Surface	Special surface with wear protection
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	HID-USB 2.0. Full-Speed-Mode (12 MBit/s), downward compatible
Serial port	Optional via internal virtual serial COM-Port
USB standby support	Yes, when relevant signal is present the device will switch off
Power consumption	Standby-Mode: < 500 μA, operating without BL: 45 mA, with BL 165 mA.
Driver	Not necessary for HID-USB. Only for virtual serial port
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
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	1,5 m or 5 m
Weight	200 gram
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
Transport protection	Protective soft case for transportation
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 + 60° 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 Sigma *without* backlight	
Sigma with HID-USB – 1,5 m	ST-ME105-2-U100
Sigma with virt. COM-Port via USB – 1,5 m	ST-ME105-2-FT100
Sigma with HID-USB – 5 m	ST-ME105-5-U100
Sigma with virt. COM-Port via USB – 5 m	ST-ME105-5-FT100

Article numbers Sigma *with* Backlight	
Sigma with HID-USB – 1,5 m	ST-BE105-2-U100
Sigma with virt. COM-Port via USB – 1,5 m	ST-BE105-2-FT100
Sigma with HID-USB – 5 m	ST-BE105-5-U100
Sigma with virt. COM-Port via USB – 5 m	ST-BE105-5-FT100

Article number description:

ST   Manufacturer (signotec)

M   Monochrome LCD

B   Monochrome LCD with backlight

E   Encrypted data transfer

105   Sensor size (10 cm x 5 cm)

2(5)   USB cable length (2 or 5 meter)

U   HID-USB

FT   Internal virtual COM-port converter (USB2Serial)

100   Standard colour regarding the overlay and case

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