#### **SH Industrial Computer**

## SH10, SH12, SH15





The powerful computer for industry of the series SH in display sizes SH 10, SH 12 and SH 15 offer highly-robust, fan-less PC technology in a completely closed chassis for stationary as well as mobile use.

# Industrial Computer for stationary as well as mobile use.

The IPC have been developed and produced in-house. They are designed especially for operation in rough environments.

For this reason the series SH is made of modern industry-proven components, which ensure reliable performance under extreme conditions.



The IPC are based on an energy saving Intel® Dual Core-, Intel® Quad Core-, Intel® Core i3- or Intel® Core i5-architecture in an extreme slim and light chassis.

By using LED displays they operate without any problems in temperature range of +55°C to -35°C. As touch components the industructible 2-tail technology with a very sturdy surface and a buffer layer are deployed.

The Industrial PC SH10, SH12 and SH15 have

been designed especially for mobile use in industrial-, forklift-trucks or commissioning trucks. It can also be used stationary at the incoming goods area in logistic center and cold-stores. Its resistance on hard demands in production environments makes it eligible for successful operation in machine control or access control.

#### Highlights

- Completely closed fan-less chassis, developed and produced in Germany
- Extremely resistable against mechanical impacts as shock or vibration
- Allround protected agains dust and humidity (IP65/67)
- Low temperature usage in a temperature range from -35°C to +55°C
- Especially slim and all the same robust chassis design
- Display with LED-Backlight, to XGA and 500 cd/m² to Full HD
- □ Intel® DualCore 2 x 1,46 GHz with 2 GB,
- □ Intel® QuadCore 4 x 1,91 GHz with 4 GB,
- □ Intel® Core i3 or Core i5 with 4 / 8 or 16 GB
- Windows® 7 Prof. and Windows® Emb. Standard 7 Windows® 10 or Windows® 10 loT, WEC 7 (CE 7), Linux
- Motion Sensor, programmable unit controller
- Extensive options like integrated LEGIC-reader or UHF reader for identification of pallets

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Chassis		Coated Aluminium, no-fan design
	Mounting	Bracket for stationary and mobile use
	Size	SH10: 278 x 223 x 64 mm, SH12: 325 x 254 x 64 mm, SH15: 380 x 305 x 64 mm
	Weight	SH10: 3,4 kg, SH12: 4,1 kg, SH15: 5,6 kg
Display LED (internal)		SH10: 10,4" Colour-TFT, SVGA 800 x 600, 400 cd/m <sup>2</sup> , 4,8 watt
		SH12: 12.1" Colour-TFT, XGA 1024 x 768, 500 cd/m², 9,0 watt
		SH12: 12.1" Colour-TFT, XGA 1024 x 768, 1100 cd/m², 12,0 watt
		SH15: 15,0" Colour-TFT, XGA 1024 x 768, 400 cd/m², 9,5 watt
Touch-Screen		Resistive Analog-Touch-Screen, 4 or 8 Wire, Bufferlayer
		and Two-Tail connection
Architecture	CPU / RAM	Intel® Dual Core 2 x 1,46 GHz, 2 GB RAM
		Intel® Quad Core 4 x 1,91 GHz, 4 GB RAM
		Intel® Core i3-5010U, 2 x 2,1 GHz, 4 / 8 or 16 GB RAM
	0	Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM
	Sound	On Board: Intel® high definition audio (Intel® HD audio) incl. amplifier
Software	Operating-System	Windows® 7 Professional, Windows® Embedded 7
	Family 1' (Dames and	Windows® 10 or Windows® 10 loT, WEC 7 (CE 7), Linux
Definions conflicted	Emulation/Browser	VT100, VT220, IBM 5250, Wavelink, Freefloat, Naurtech
Software certified		Topsystem Pick by Voice, Citrix Client, SOTI, SAP Client
Reader	CCD	RFID Legic, Mifare, Hitag und UHF
Mass storage	SSD	80 to 600 GB, industrial incl. write-protect
	SDHC	16 to 64 GB
nterfaces below	CFast RS232	16, 32, 64, 128 GB 2 x RS 232, COM1 with 5 and COM 2 with 5/12 VDC available for scanner
interraces below	USB	1 x USB 3.0, 2 x USB 2.0
	RJ45	Ethernet 10/100/1000 MBit/s on Board
Interfaces on-top	USB	1 x USB, 1 x SDHC
	HDMI	1 x HDMI for monitor connection
	CFast	1 x CFast base
WLAN	WLAN, BT	1 x PCIe Mini Card for WLAN or combimodul WLAN/Bluetooth
	WLAN	IEEE 802.11 a / b / g / n, Bluetooth 4.0
Aerial	112/111	Dual aerial or TNC, RP-TNC for offset aerial
Power supply (internal) for	AC voltage	110/230VAC, 64 W, 50 to 60Hz
oner cupply (internal) ter	Direct current	12/24 VDC and 24/48 VDC voltage, 40 W, galvanically isolated,
		voltage lack up to 10 Volts for max. 20 ms bridgeable
		Intern USV optional 30 min.
	Power consumption	Typically 18 W to 40 Watt, Green Power EUP 2011 < 0,5 Watt idling cycle
Features	Automatic shut-off	Automatic switchoff via firing signal or On/Off switch at the front
		Automatic brightness control for the display
		Screenblanking
		Status LED at the front for WLAN and Bluetooth
	Front keys	S1-S4, KEY request, light/dark
Environmental conditions	Protective system	IP65 / IP67 (after approved assembly of the cable cover)
	Test symbol	CE Class A (Europe), FCC (USA), CSA (Canada), CCC (China)
	Temperature ranges	Operation: -35° to +55°C, Storage: -40° to +70°C