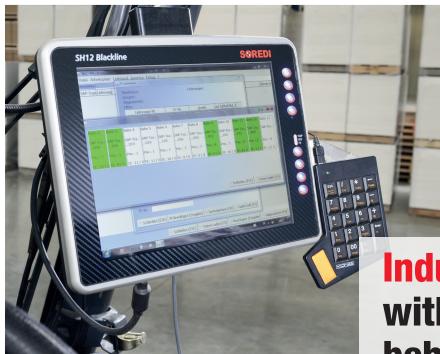
SH Blackline

SH10, SH12, SH15 and SH21





The powerful computer for industry of the series **SH Blackline** in display sizes SH 10, SH 12, SH 15 and SH 21 offer highly-sensitive multi-touch technology behind safety glass.

Industrial PC
with multitouch panel
behind safety glass

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

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



The strong 4 mm anti-glare bulletproof glass layer above the screen withstands acid, cleaning fluids and disinfectants as well as extreme operational demands. Behind the glass there is a projective capacitive touch panel. A special sensitivity control allows for reliable gesture control — and this even when wearing gloves.

In its slim and light chassis the IPC contains either an energy saving Intel® Dual Core-, Intel® Quad Core-, Intel® Core i3- or Intel® Core i5-processor. By using LED displays they operate without any problems in temperature range from -35°C to +55°C.

The IPC **Blackline** SH10, SH12, SH15 and SH21 are especially suited for the use in a rough production area, commissioning trucks, incoming goods entrance in logistic centers or cold stores.

Highlights

- Multi-Touch operation on the anti-glare glass panel, also when wearing gloves
- Particularly resistant against mechanical impact like shock and vibration
- □ Good protection against dust and moisture (IP65/67)
- Low temperature usage in a temperature range from -35°C to +55°C
- □ Display with LED-Backlight, to XGA and 500 cd/m² or Full HD, 1920 x 1080 at 21 Inch
- □ Intel® Dual Core 2 x 1,46 GHz with 4 GB,
- Intel® Quad Core 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, Linux
- Motion sensor, programmable unit controller
- Extensive options like integrated LEGIC-reader or UHF reader for identification of pallets

SH Blackline

SH10, SH12, SH15 and SH21



Mounting Bracket for stationary and mobile use SHID: 278 x 223 x 60 mm, SH12: 325 x 254 x 66 mm, SH15: 380 x 305 x 67 mm, SH2: 325 x 254 x 66 mm, SH15: 380 x 305 x 67 mm, SH2: 325 x 254 x 66 mm, SH15: 380 x 305 x 67 mm, SH2: 325 x 254 x 66 mm, SH15: 10.0 mm SHID: 10.0 mm, SHID: 13.0 kg, SH12: 4.7 kg, SH15: 6.5 kg, SH21: 10.8 kg, Welpt Core i3 and i5 + 0.5 kg SH2: 12.1 kg Colour-FT; X63 x 800 x 600	Chassis		Coated Aluminium, no-fan design
Size		Mounting	
SH21: 555 x 360 x 84 mm, Depth by Core 13 and 16 ± 10 mm			·
Display LED (Intern)			
Section Sect		Weight	
SH10: 10.4" Farb. TFT, XGA 1024 x 788, 400 cd/m², 4,8 Watt	Display LED (intern)		
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 788, 400 cd/m², 9,5 watt			
SH21: 21,5" Colour-TFT, WU XGA 1920 x 1080, 300 cd/m², 19,5 watt			
Multi-Touch, Projective Capacitive Touch incl. glassfront in carbon design			
Architecture	Touch-Screen		
Intel® E3845, 4 x 1,91 GHz Quad-Core, 4 GB RAM Intel® Core is 3-5010U, 2 x 2,1 GHz, 4 / 8 or 16 GB RAM Intel® Core is 3-5050U, 2 x 1,8 GHz, 4 / 8 or 16 GB RAM Intel® Core is 3-5050U, 2 x 1,8 GHz, 4 or 8 GB RAM On Board: Intel® high definition audio (intel® HD audio) incl. amplifier Windows® 7 Professional, Windows® 10 IoT, Linux Windows® 10 or Windows® 10 IoT, Linux Windows® 10		CPU / RAM	
Intel® Core i3-5010U, 2 x 2,1 GHz, 4 / 8 or 16 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® HD audio) incl. amplifier Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 9 GB RAM Intel® Core i5-5350U, 2 x 1,8 GB RA	7 Horntootal o	0.07.12.111	
Intel® Core i5-5350U, 2 x 1,8 GHz, 4 or 8 GB RAM			
Soltware Operating-System Windows® 7 Professional, Windows® Embedded 7			
Software Operating-System Windows® 7 Professional, Windows® Embedded 7 Windows® 10 of Windows® 10 of Windows® 10 of Linux		Sound	
Mindows 10 or Windows 10 loT, Linux	Software		
Software certified Topsystem Pick by Voice, Citrix Client, SOTI, SAP Client		operaning operani	·
Topsystem Pick by Voice, Citrix Client, SOTI, SAP Client Reader		Emulation/Browser	
Reader	Software certified	Zilidiation, Brottool	
SSD 80 to 600 GB, industrial incl. write-protect			
SDHC 16 to 64 GB CFast 16, 32, 64, 128 GB Interfaces below RS232 2 x RS 232, COM1 with 5 and COM 2 with 5/12 VDC available for scanner 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 WiFi WiFi, BT 1 x PCle Mini Card for WiFi or combimodul WiFi/Bluetooth WiFi IEEE 802.11 a / b / g / n, Bluetooth 4.0 Aerial Dual aerial or TNC, RP-TNC for offset aerial Power supply (internal) for AC voltage 110/230 VAC, 64 W, 50 to 60 Hz Direct current 12/24 VDC and 24/48 VDC, 40 W, galvanically isolated, voltage lack up to 10 Volts for max. 20 ms bridgeable internal USV optional 30 min. Power consumption Typically 18 W to 40 Watt, Green Power EUP 2011 < 0,5 Watt idling cycle Automatic switchoff via ignition signal or On/Off switch at the front Automatic brightness control for the display Screenblanking Status LED at the front for WiFi and Bluetooth Front keys S1-84, KEY request, light/dark Environmental conditions Protective system P65 / 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		SSD	
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Interfaces below RS232 2 x RS 232, COM1 with 5 and COM 2 with 5/12 VDC available for scanner 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 WiFi WiFi, BT 1 x PCIe Mini Card for WiFi or combimodul WiFi/Bluetooth WiFi IEEE 802.11 a / b / g / n, Bluetooth 4.0 Aerial Power supply (internal) for Direct current Direct current 12/24 VDC and 24/48 VDC, 40 W, galvanically isolated, voltage lack up to 10 Volts for max. 20 ms bridgeable internal USV optional 30 min. Power consumption Features Automatic shut-off Automatic switchoff via ignition signal or On/Off switch at the front Automatic brightness control for the display Screenblanking Status LED at the front for WiFi and Bluetooth Front keys Environmental conditions Frotective system Test symbol CE Class A (Europe), FCC (USA), CSA (Canada), CCC (China) Temperature ranges Operation: -35° to +55°C, Storage: -40° to +70°C			
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