

S-IPC

Atom Dual Core



The S-IPC is a C-DIAS industrial PC with an Intel Atom Dual Core processor. The SpeedStep function of the Atom Dual Core processor enables passive cooling with a heat sink. A 7-segment display and 6 status LEDs provide information on the actual module status. Two CompactFlash cards can be used as program or date memory. An exchangeable drive unit can be equipped with two additional IDE devices (hard drive, CD ROM). Among other things, the S-IPC also has an S-DVI interface for a display terminal and a USB 2.0 interface. Two PCI expansion cards can also be inserted. The S-IPC is completely compatible with the PC and operates with standard PC BIOS; no SIGMATEK-specific BIOS settings are therefore needed. Windows XP is provided as the operating system.

Performance Data

Processor	Intel Atom D510 (1.66 GHz, Dual Core)/1-Mbyte L2 Cache
Internal program memory (CompactFlash)	2x CompactFlash Typ I or II
Drive unit	1x 40-Gbyte hard drive 1x CD-ROM/DVD-Combo drive/40-Gbyte hard drive
Internal program memory (SRAM)	256-Kbyte (battery powered)
Internal program memory (SDRAM)	1-Gbyte DDR2 SDRAM

Performance Data

Interfaces	2x Ethernet 10/100 Mbit 1x RS232 – COM1 1x RS232/RS485 – COM2 1x LPT 2x PS/2 – keyboard and mouse 1x DIAS intelligent (connected over 2 pugs) 1x C-DIAS-Bus 1x CAN for PLC 1x CAN for a terminal 1x S-DVI interface for a terminal (TFT display, USB, CAN keyboard) 1x DVI interface for a monitor 1x VGA – analog RGB 3x USB V2.0 1x Optional connection for fan unit (2 fans, monitored)
Expansion cards	2x PCI-Bus (+5 V, half-size)
Data buffer	Lithium battery
Status display	yes
Status LEDs	yes
Real-time clock	yes
IDE devices:	2x CompactFlash 1x Hard drive 1x CD-ROM/DVD-Combo/Hard drive

Electrical Requirements

Supply voltage	typically +24 V DC +18 ... +30 V DC
Supply voltage current consumption	up to 5.0 A (depending on the PCI slots and external devices)
Inrush current	maximum 10 A for 100 ms
Available current for CAN (+5 V)	maximum 1.0 A
Available current for C-DIAS (+5 V)	maximum 1.5 A
Available current for S-DVI (+24 V)	maximum 1.5 A
Available current for PCI (+3.3 V)	maximum 5.0 A
Available current for PCI (+5 V)	maximum 3.0 A
Available current for PCI (+12 V)	maximum 1.0 A
Available current for PCI (-12 V)	maximum 0.5 A
Available current for PCI (+5 V)	maximum 1.5 A

Mechanical Dimensions

With heat sink	143.5 mm x 288.5 mm x 221 mm (W x H x D)
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Article Number and Miscellaneous

Article connections S-IPC complete devices	Article number	DDR-Ram-Mbyte	HDD Gbytes	CD-Rom/DVD-Combo	Fan/heat sink
S-IPC with fan	12-400-161	1-Gbyte	40.0	DVD-Combo	Fan
S-IPC with heat sink	12-400-162	1-Gbyte	40.0	DVD-Combo	Heat sink
Article numbers for replacement parts	Article number	40.0-Gbyte hard drive	CD-Rom DVD-Combo	Fan +24 V	
Fan unit (2 fans)	12-410-011	-	-	2x (80x80x25)	
Drive unit (HDD)	12-410-021	yes	-	-	
Drive unit (HDD + CD)	12-410-031	yes	CD-Rom	-	
Drive unit (HDD + DVD)	12-410-041	yes	DVD-Combo	-	
Module identification on DIAS bus	no				
Hardware Version	1.x				
Normung	UL (E247993)				

Environmental Conditions

Storage temperature	-20 ... +65 °C	
Operating temperature	S-IPC without using the PCI slots	S-IPC using the PCI slots
Cooling with the fan unit	+5 ... +60 °C	+5 ... +57 °C
Cooling with a heat sink	+5 ... +50 °C	+5 ... +45 °C
Humidity	in accordance with EN 61000-6-2 (industrial area)	
EMC stability	in accordance with EN 61000-6-2 (industrial area)	
Shock resistance	EN 60068-2-27	150 m/s²
Protection Type	EN 60529	IP20

Notes