

Industrial PC

IPC 221



The IPC 221 is an industrial PC with a Celeron1020E processor. It is used to control S-DIAS modules and has various interface connections such as: a VARAN Manager with 2 VARAN Out interfaces. A 7-segment display and 3 status LEDs provide information on the actual status of the CPU directly on the IPC.

A CompactFlash card can be used as program memory.

PC compatible.

The IPC works with a standard PC BIOS, where SIGMATEK specific settings can be made.

Performance Data

Processor	Intel Celeron 1020E
Addressable I/O/P module	VARAN bus: 65,280 CAN bus: > 100 S-DIAS bus: 64
Internal program memory (CompactFlash)	512-Mbyte CompactFlash card (12-610-051, included in delivery)
Internal data memory (SRAM)	256 kbytes (battery powered)
Internal memory (DDR3 RAM)	2-Gbyte (SO-DIMM DDR3 1600 MHz) expandable up to 8 Gbytes
Internal cache	2-Mbyte L3 Cache
Interfaces	1x Ethernet1 10/100 (front) 1x Ethernet2 10/100 (front) 2x VARAN Out - Out 1 (front) - Out 2 (side, above the fan housing) 2x CAN 1x USB 2.0 (front) 1x DVI (front) 1x S-DVI (front) 2x UART - RS232 (front) 3x KTY temperature measuring (front) 1x machine EEPROM (for article 12-250-031) (front) 1x S-DIAS

Performance Data

Data buffer	yes (SRAM battery buffered)
Status display	yes
Status LEDs	yes
Real-time clock	yes

KTY Temperature Sensor Specifications

Number of channels	3
Measurement range	1367-2980 Ω KTY10 -20 ... +80 °C
Converter resolution	16-bit
Conversion time per channel	1 ms
Sensor current	typically 0.3 mA at 25 °C
Cable break monitor	yes
Input filter	typically 2 Hz low pass 3 rd order
Precision of analog channel measurement	±1 % of maximum measurement value
Voltage protection	up to +30 V

Electrical Requirements

Supply voltage	+18 ... +30 V DC
Supply voltage Current consumption (maximum total current)	maximum 5.5 A
Inrush current	maximum 6 A (10-500 ms, load-dependent)
Supply voltage Current consumption without external devices (+24 V)	0.8 A
Current available for S-DIAS (+5 V)	maximum 1.6 A
Current available for S-DIAS (+24 V)	maximum 1.6 A
Available current for S-DVI (+24 V)	maximum 2 A
Available current for PCI (+5 V)	maximum 0.5 A (per USB connection)
UL standard	for UL: must be supplied with SELV / PELV and Limited Energy

Mechanical Dimensions

IPC 221	218.5 x 110.3 x 77.2 mm (W x H x D)
---------	-------------------------------------

Article Number and Miscellaneous

Article number	20-450-221
Standard	UL 61010-1, UL 61010-2-201 (E247993)
Project backup	internally on CompactFlash card

Environmental Conditions

Storage temperature	-20 ... +85 °C	
Environmental temperature	0 ... +50 °C	
Environmental temperature	+120 °C (automatic cut-off)	
Maximum processor temperature	0 ... +50 °C	
Humidity	10-90 % non-condensing	
Operating conditions	Indoor use pollution degree 2 Altitude up to 2000 m	
EMC resistance	in accordance with EN 61000-6-2 (industrial area)	
EMC noise generation	in accordance with EN 61000-6-4 (industrial area)	
Vibration resistance	EN 60068-2-6	3,5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	15 g
Protection type	EN 60529	IP20 (no UL-rating)

Notes

