

Industrial Compact PC based on PC/104 Standard



IPC/COMPACTA1 "XS-Family"



- Smallest compact device
- Rugged
- Maintenance-free
- Long term available
- No rotating parts
- DIN rail mounting
- No cables inside



Features

System

- **Industrial ARM Processor**
- up to 200MHz
- SDRAM on Board
- Flash ROM Drive
- Socket for SRAM, NV-RAM
- Socket for CompactFlash
- Analog VGA output
- Ethernet, USB, PS/2
- RS422/485, RS232, CAN

Industrial specific properties

- Real Time Clock
- Watchdog
- Temperature supervisor
- Socket for battery buffered Memory
- ESD-protection on all interfaces
- DIN Rail Mounting
- No active cooling required
- 24V Power Supply Voltage

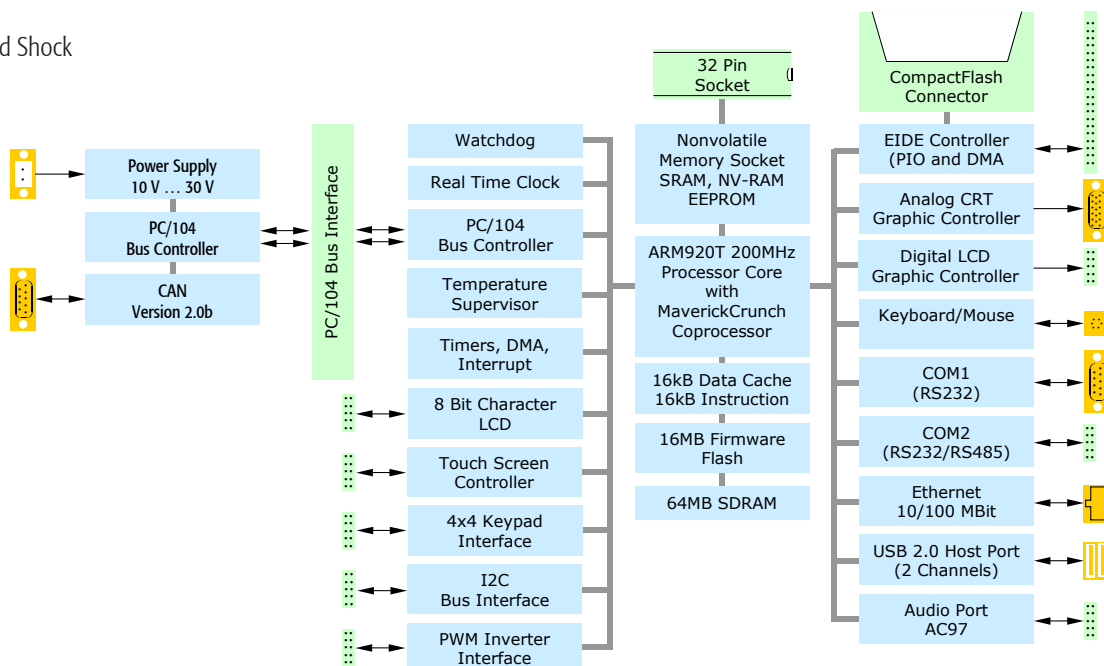
Operating Systems

- Windows CE
- Linux
- others on request

Tests/Certifications

- CE
- Vibration and Shock
- EMV
- ESD
- Burn-In

Blockdiagram IPC/COMPACTA1-1F



Specifications and Order Information

Order Code	IPC/COMPACTA1-1E	IPC/COMPACTA1-1EE	IPC/COMPACTA1-1F	IPC/COMPACTA1-1FE	IPC/COMPACTA1-1G	IPC/COMPACTA1-1GE
Standard Temperature Range	•	•	•	•	•	•
Extended Temperature Range	•	•	•	•	•	•
Processor / Performance						
ARM920T 32bit Core with MMU	•	•	•	•	•	•
Processor Clock Speed - Commercial [MHz]	200		200		200	
Processor Clock Speed - Industrial [MHz]		184		184		184
Memory						
Instruction Cache [kB]	16	16	16	16	16	16
Data Cache [kB]	16	16	16	16	16	16
SDRAM standard [MB]	64	64	64	64	64	64
SDRAM optional [MB] ¹	16-128	16-128	16-128	16-128	16-128	16-128
Firmware Flash standard [MB]	16	16	16	16	16	16
Firmware Flash optional [MB] ¹	2-32	2-32	2-32	2-32	2-32	2-32
32 Pin Socket for SRAM, NV-RAM, EEPROM ² , DiskOnChip ²	1	1	1	1	1	1
Socket for CompactFlash Type 1 (IDE Mode)	1	1	1	1	1	1
Peripherals						
VGA Graphics Interface (DSUB15HD)	1	1	1	1	1	1
XGA 18Bit TTL LCD Controller ³	1	1	1	1	1	1
8Bit Character LCD Interface ³	1	1	1	1	1	1
4-, 5-, 8-wire Touch Screen Interface ³	1	1	1	1	1	1
4x4 Keypad Interface ³	1	1	1	1	1	1
IDE Interface Standard (1 Master, 1 Slave) 44 Pin ³	1	1	1	1	1	1
Keyboard/Mouse (PS/2)	1	1	1	1	1	1
PC/104 Bus Interface ³	1	1	1	1	1	1
Audio Line Interface (AC97) ³	1	1	1	1	1	1
I2C Bus Connector ³	1	1	1	1	1	1
PWM Inverter Interface ³	1	1	1	1	1	1
Real Time Clock, battery buffered	•	•	•	•	•	•
Hardware Watchdog (100ms or 1.6s)	•	•	•	•	•	•
Temperature supervision	•	•	•	•	•	•
Communication Interfaces						
USB Version 2.0 (full/low speed host)	2	2	2	2	2	2
Ethernet 10/100 Mbit (RJ45)	1	1	1	1	1	1
RS232 ESD protected	2 ⁴	2 ⁴	2 ⁵	2 ⁵	2 ⁵	2 ⁵
RS422/485 ESD protected, isolated					1	1
CAN Version 2.0b, SJA1000, ESD protected, isolated			1	1		
Technical Data						
Dimensions w109 x h48 x d127 mm (Connector View)	•	•	•	•	•	•
Input Voltage 10...30V	•	•	•	•	•	•
Max. Power Consumption in Watt @ 24V without Add-ins	8	8	9	9	8	8
Operating Temperature (ambient) 0° ~ +55° C	•	•	•	•	•	•
Operating Temperature (ambient) -40° ~ +70° C ⁶		•		•		•
Storage Temperature -40° ~ +90° C	•	•	•	•	•	•
Shock: designed to meet EN60068-2-27	•	•	•	•	•	•
Vibration: designed to meet EN60068-2-6	•	•	•	•	•	•
EMI-Conformity EN-55022/55024/61000-6-2/61000-6-4	•	•	•	•	•	•
User Documentation						
System: DOC/COMPACTA1_XYE	•	•	•	•	•	•
CPU: DOC/IPC_NETARM-E	•	•	•	•	•	•
Base Board: DOC/COMPACGP-1EE.pdf	•	•				
Base Board: DOC/COMPACGP-1FE.pdf			•	•		
Base Board: DOC/COMPACGP-1GE.pdf					•	•

¹ Please contact factory for minimum order quantity information

² For DiskOnChip, EEPROM support please contact factory

³ Board connector (internal)

⁴ COM2 without handshake-signals

⁵ Second RS232 Interface at board connector (internal) without handshake-signals

⁶ -40°C on component level, board tested down to -25°C