

Single Board Computer - based on PC/104 Standard

IPC/NETARM-1A(E)



- Low power, high performance
- Fanless, no rotating parts
- High connectivity
- Extended temperature
- Maintenance-free
- Long term available
- Low cost solution



Features

System

- 200MHz ARM9 32-bit processor
- MaverickCrunch co-processor
- Digital and analog graphic output
- Character LCD interface
- 4x4 keypad interface
- 4-, 5- and 8-wire touch screen interface
- I²C bus connector
- PWM inverter interface
- Ethernet, USB, RS232, RS485, PS/2
- Audio interface AC97

Industrial specific properties

- Real Time Clock
- Watchdog
- Temperature supervisor
- Flash/RAM onboard soldered
- Socket for CompactFlash
- Socket for SRAM, NV-RAM
- Socket for battery buffered Memory
- ESD-protection on all interfaces
- No active cooling required
- Extended temperature operation

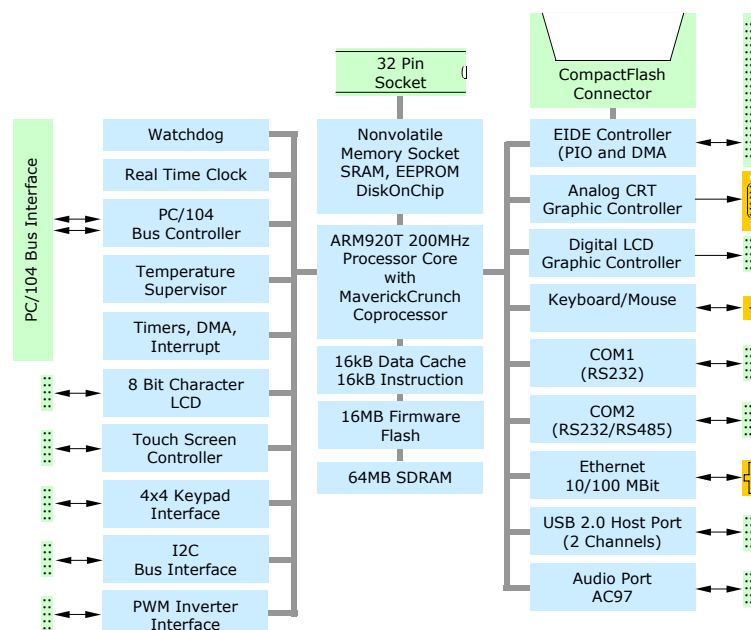
Operating Systems

- BSP for Windows CE
- BSP for Linux
- Others on request

Tests/Certifikations

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

Blockdiagram IPC/NETARM-1A(E)



Specifications and Order Informations

	IPC/NETARM-1A	IPC/NETARM-1AE
Standard Temperature Range	•	
Extended Temperature Range		•
Processor / Performance		
ARM920T 32bit Core with MMU	•	•
Processor Clock Speed - Commercial [MHz]	200	
Processor Clock Speed - Industrial [MHz]		184
Memory		
Instruction Cache [kB]	16	16
Data Cache [kB]	16	16
SDRAM standard [MB]	64	64
SDRAM optional [MB] ¹	16-128	16-128
Firmware Flash standard [MB]	16	16
Firmware Flash optional [MB] ¹	2-32	2-32
32 Pin Socket for SRAM, NV-RAM, EEPROM ² , DiskOnChip ²	1	1
Socket for CompactFlash Type 1 (IDE Mode)	1	1
Peripherals		
XGA Graphic Controller (DSUB15HD)	1	1
XGA 18Bit TTL LCD Controller	1	1
8Bit Character LCD Interface	1	1
4-, 5-, 8-wire Touch Screen Interface	1	1
4x4 Keypad Interface	1	1
IDE Interface Standard (1 Master, 1 Slave) 44 Pin	1	1
Keyboard/Mouse (PS/2)	1	1
PC/104 Bus Interface	1	1
Audio Line Interface (AC97)	1	1
I2C Bus Connector	1	1
PWM Inverter Interface	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
Ethernet 10/100 Mbit (RJ45)	1	1
RS232 ESD protected	2 ³	2 ³
RS485 optional on COM2 (half-duplex, not isolated) ³	1	1
Technical Data		
Dimensions w100x h20 x d125 mm (Connector View) ⁴	•	•
Max. Power Consumption in Watt @ 5V	3.5	3.5
Operating Temperature (ambient) 0° ~ +70° C	•	
Operating Temperature (ambient) -40° ~ +85° C ⁵		•
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	•	•
Software		
Board Support Package for Windows CE	•	•
Board Support Package for Linux	•	•
User Documentation		
DOC/IPC_NETARM-E	•	•

¹ Please contact factory for minimum order quantity information

² For DiskOnChip, EEPROM support please contact factory

³ COM2 without handshake-signals

⁴ Non standard PC/104 mechanical dimensions

⁵ -40°C on component level, board tested down to -25°C