

Cool RoadRunner-945GSE

PC/104-Plus Single Board Computer

Intel® Atom™ N270 Processor



Feature

Intel Atom N270, 1.6GHz, 512MB/1 GB/2 GB soldered DDR2-RAM

Graphics up to 2048x1536 pixel, CRT and LVDS, with backlight

Gigabit LAN, 8 x USB 2.0

2 GB Solid State Disk, 2 x SATA

2 x serial, RS232/RS422/RS485

Optional, extended temperature range -40°C...+85°C

Specifications

Board Format PC/104-Plus with wings, 115.6 x 95.9mm

Processor Intel Atom N270

Speed 1.6GHz

Core Logic Northbridge Intel 945GSE
Southbridge Intel ICH7-M

RAM 512 MB or 1 GB SDDR2, 533 MHz opt. 2 GB. Soldered on board

FSB 533MHz

Graphics Intel Graphics Media Accelerator 950

CRT Analog VGA
2048 x 1536 pixel at 85 Hz max.

LVDS Single channel, 18 bits
1600 x 1200 pixel at 60 Hz max.

Audio HD Audio
- Analog input/output
(max 96/192 kHz sampling rate)
- S/PDIF input/output (max. 24 bit,
max. 192kHz sampling)

USB 8 x USB 2.0 host

Ethernet 1000/100/10 MBit

Serial 2 x RS232/RS422/RS485, selectable in BIOS

SATA 2 host ports

SSD 2 GB Solid State Disk with > 100.000 write cycles and wear levelling

Watchdog Yes

PCI Bus PC/104-Plus

ISA Bus PC/104

I²C bus Supported

RTC Backup On-board battery

Status LED HDD, power, standby, power mode, life, 3x Ethernet, watchdog

Power Supply 5 V ±5 %
All necessary voltages are generated on-board.

Power Consumption 12.5 watts

Operating temperature 0 °C...+60°C (commercial, all versions)
-20 °C...+60°C (industrial, all versions)
-40°C...+85°C (extended, optional)

Cooling Passive
A heat spreader is included with the board

MTBF 159 899 hours @ 25 °C

BIOS Award BIOS
BIOS parameters are also saved in FEPRAM

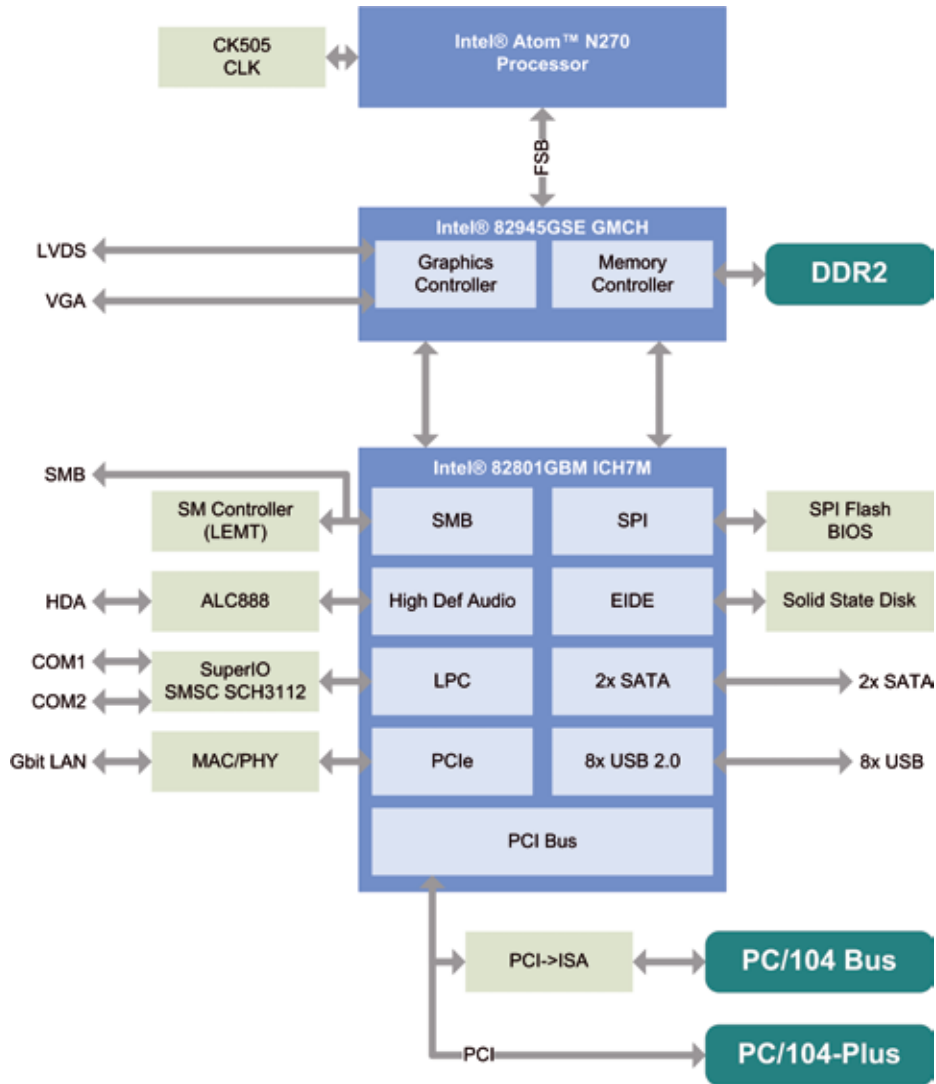
Supported OS Windows XP, XP Embedded,
Windows CE, Linux, QNX

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Block Diagram



Ordering Information

Ordering Number	Description
t03-0022-10	PC/104-Plus processor module with Intel Atom N270, 1 GB, including heat spreader

Note: t denotes the temperature range. Use 7 for commercial, 8 for industrial and 9 for extended temperature range. Other memory configurations are available on request.