

Blue Chip Technology

Single Board Computer

NEUTRON

NEUTRON

5x86 PC/104 SBC with CRT and LCD

- AM5x86-P75/133MHz CPU
- ALi Finali PCI chipset
- 16MB DRAM on-board
- 0-144MB Flash options (DiskOnChip)
- Chips&Technologies 690X0 PCI SVGA for LCD and CRT
- Resolutions to 1280x1024x256, 1024x768x64K, 800x600x16M, 640x480x16M
- 2 or 4MB of video memory
- PC/104 (ISA) expansion
- EIDE interface supporting two drives
- Floppy interface supporting two drives
- 4 Digital inputs (option)
- 2 RS232 Serial ports
- Bi-directional SPP/EPP/ECP parallel port
- Real-time clock with support for off-board battery
- Watchdog timer
- Keyboard port

Blue Chip Technology's NEUTRON is a 5x86 based PC/104 form factor single board computer with on-board LCD and CRT support.

The design is based on the AMD AM5x86 running at 133MHz, providing an equivalent performance to a P75. 16MB of DRAM is fitted on-board and Flash options range from 0MB to 144MB using DiskOnChip plug-in modules.

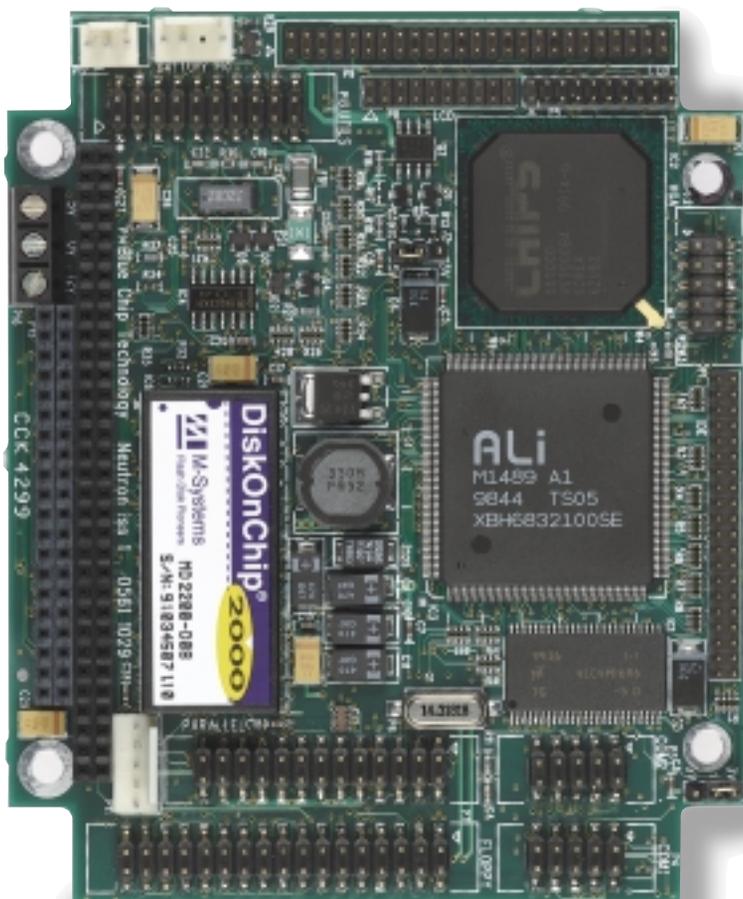
NEUTRON utilises the ALi Finali PCI chipset, which has a long life cycle and contains an integrated PCI Bus EIDE controller with a high performance IDE interface allowing up to two IDE devices (such as hard drives, CD-ROM readers, etc.).

The Chip&Technologies 690X0 video controller supports both CRT and LCD displays, simultaneously if required. The board is fitted with a 10 way header providing standard VGA signals for interfacing CRTs, dual headers for the interfacing of a wide range of LCD panels up to 36 bits and a dedicated connector for popular LCDs. The video controller integrates 2 or 4MB of video memory supporting LCD and CRT resolutions to 1280x1024x256, 1024x768x64K, 800x600x16M, 640x480x16M.

The SMC 37C665 Super I/O controller integrates the standard PC/I/O functions: floppy interface, two FIFO serial ports and one EPP/ECP capable parallel port. Up to four digital inputs are supported.

For expansion, NEUTRON has a standard PC/104 (ISA) connector which supports up to four PC/104 expansion modules.

NEUTRON is available with a full set of software drivers and utilities allowing customers to develop embedded PC applications using advanced operating systems such as Windows NT, Windows 95/98 and Windows CE.



BS EN ISO 9001
Certificate No 33069

3
YEAR
WARRANTY

Blue Chip Technology

NEUTRON Single Board Computer

NEUTRON

5x86 PC/104 SBC with CRT and LCD

TECHNICAL SPECIFICATION

PROCESSORS SUPPORTED & SPEED

AM5x86/133MHz

MAIN CHIP SET

ALi Finali

DRAM

16MB EDO or FPM on-board

FLASH SOCKET

M-Systems DOC supported
0-144MB options

EEPROM

128 bytes

BIOS

AMI BIOS

VIDEO

Chips&Technologies 690X0 PCI
SVGA for LCD and CRT
2 or 4 MB Video memory
CRT and LCD Resolutions:
1280x1024x256, 1024x768x64K,
800x600x16M, 640x480x16M,
848x480x16M Plasma panels
3.3V and 5V panel power support
Up to 36bit LCD support via 2mm
pitch header

HARD DISK

Fixed Disk Controller for 1
EIDE HDD unit (2 devices)

FLOPPY DISK

Floppy Disk Controller for 2 FDD
to 2.88MB

BUS INTERFACE

PC/104 16 bit interface

REAL TIME CLOCK

Battery backed via off-board
Lithium cell

WATCHDOG

Software enabled/disabled
0.5 sec time interval (other options
available)

SERIAL PORTS

2 x RS232

PARALLEL PORT

1 x Enhanced Bi-Directional
SPP/EPP/ECP

KEYBOARD PORT

AT and PS/2 compatible via header

RESET PORT

Via I/O port or reset switch

PERIPHERALS HEADER

Reset, Speaker, LEDs,
Keyboard

BATTERY

Off-board 3 Volt Lithium battery
connector

Supports Real Time Clock and
CMOS RAM

Field replaceable

BOARD DIMENSIONS

114mm x 96mm (this includes the
connector areas as defined by the
PC/104 standard)

MOUNTING

Via 4 x 3mm holes

ENVIRONMENTAL

0°C to 60°C Operational temp

-25°C to 85°C Storage temp

Non-condensing Relative

Humidity 10% to 90%

POWER MANAGEMENT

Standby and suspend modes

SUPPLY VOLTAGE

+5 Volts for true embedded
applications

On-board switching regulators for
low voltage devices

EMC

Compliant with EN55022 and
EN50082

OPERATING SYSTEMS

MS-DOS

Windows 95/98

Windows CE

WARRANTY

3 years

ACCESSORIES

NEUTRON hard copy User Manual

NEUTRON cable kit: includes
cables for Utilities, HDD and FDD

NEUTRON LCD Solution:
includes cable assembly and BIOS
upgrade (Please call for details of
panels supported and part numbers)

ORDER GUIDE

Please call or refer to our price list
for detailed ordering information.



YEAR 2000
Compliance

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