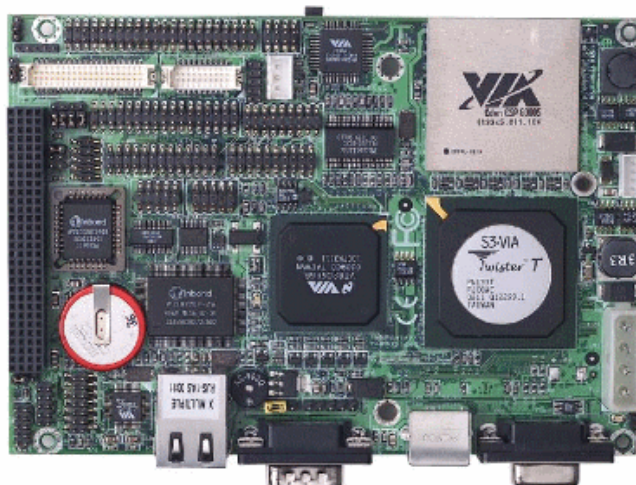# GENE-6310

VIA C3™, series Processor SubCompact Board with LCD, LVDS, TV-out, TV-out, Ethernet, Audio, CompactFlash™, USB & 4 COMs * Please note the picture demonstrates Rev. B.

Introduction

The GENE-6310, a highly integrated multimedia Pentium III level SBC, combines outstanding computing performance with competitive price. The central processing unit incorporated into the GENE-6310 is the VIA C3 series EBGA CPU. Running at 400/667MHz and 1GHz, this low power-consumption CPU performs at the highest standards.

Onboard memory consists of a single 144-pin SODIMM socket which providing the capability of accessing up to 512 MB system memory. Also, located on the solder side is a Type II CompactFlash socket.

GENE-6310 utilizes the Savage4 AGP4X 2D/3D graphic controller integrated in the VT8606 chipset. With optimized Shared Memory Architecture, it allows system memory to be efficiently shared by the graphic controller up to 32MB.TV output signals can also be achieved, through the VT1621 digital TV encoder (supporting both PAL and NTSC).

The remaining features include a south bridge VT82C686B with AC97 2.0 compliant audio codec VT1612A for audio input/output. Other capabilities include the ability to use (2) IDE devices (2) Floppy Disk Drives (1) Parallel port, (4) USB ports, (1) IrDA port and (2) Serial ports.

These features and functions represent the best SubCompact Board that money can buy. Our price point will make your decision to use the GENE-6310 in your application all the easier.

Features

- Onboard VIA Eden™ series (400/667MHz), C3™ 1GHz EBGA mobile CPU
- Integrated AGP 4X 2D/3D Graphics Accelerator
- 10/100Mbps Fast Ethernet
- Dual Channel LVDS interface
- Supports CRT and 36-bit TFT panels

- Supports NTSC/PAL TV output
- Integrated AC-97 2.0 SoundBlaster-Compatible legacy Audio
- Supports Type II CompactFlash™ Memory
- 2 or 4 COMs / 1 Parallel / 4 USB / 1 IrDA
- 5V only operation

Application

- Portable devices
- Portable POS
- Building/Factory automation

- Compact information system
- Medical equipment
- Panel PC

Specifications

System

- **CPU**
  VIA Eden series (400/667MHz), C3 1GHz mobile EBGA integrated processor with FSB 100/133 MHz (400MHz for Rev. A)
- **System Memory**
  144 pin SDRAM SODIMM x 1, Max. 512MB
- **Chipset**
  VIA VT8606 + VT82C686B
- **I/O Chipset**
  VIA VT82C686B(Rev. A); VIA VT82C686B+Winbond 83977EF (Rev. B)
- **BIOS**
  Award 256Kb FLASH ROM
- **Ethernet**
  Realtek RTL8139C (Rev. A) / RTL8100BL (Rev. B), 10/100Base-TX RJ-45 connector x 1
- **SSD**
  Type II CompactFlash slot
- **Watchdog Timer**
  Generate a system reset, IRQ or NMI. Software selectable time-out interval
- **Expansion Interface**
  PCI-104 socket x 1
- **Battery**
  Lithium battery
- **H/W Status Monitoring**
  Supports power supply voltages, fan speed (Rev. B Only), and temperature monitoring
- **Power Supply Voltage**
  +5V. AT (Rev. A), AT / ATX (Rev. B)

- **Board Size**
  5.75" (L) X 4" (W) (146mm x 101.6mm)
- **Gross Weight**
  0.88lb. (0.4kg)
- **Operating Temperature**
  32˚F to 140˚F (0˚C to 60˚C)

I/O

- **MIO**
  IDE (UDMA33) x 1, FDD x 1, KB+Mouse x 1, RS-232 x 1 (3 for Rev. B), RS-232/422/485 x 1, Parallel x 1
- **IrDA**
  One IrDA Tx / Rx header
- **Audio**
  VIA VT82C686B with AC97 2.0 compliant audio CODEC VT1612
- **USB**
  Two 5x2 pin headers support 4 USB 1.1 ports

Display

- **Chip**
  VIA VT8606
- **Memory Size**
  Shared memory up to 32MB
- **Resolution**
  up to 1280x 1024 @ 32bpp colors for CRT (Rev. A); Up to 1600 x 1200@ 32bpp colors for CRT (Rev. B); Up to 1024 x 768 @ 18bpp colors for LCD (Both Rev. A & B)
- **LCD Interface**
  18/36-bit TTL/dual channel LVDS TFT LCD
- **TV-out**
  VIA 1621 supports NTSC/PAL composite outputs

Supports CRT and LCD simultaneous display (Rev. A); Support CRT/LCD or CRT/TV simultaneous display (Rev. B)

Ordering Information

GENE-6310 Rev. A

- **GENE-6310-A11**
  SubCompact Board, Eden 6000S, with LCD, LVDS, LAN, Audio, TV-Out, CF, Rev.A1.1

GENE-6310 Rev. B

- **GENE-6310-B10-01**
  SubCompact Board, Eden 6000S, with LCD, LVDS, LAN, Audio, TV-out, CF, 4COM, Rev.B1.0
- **GENE-6310-B10-03**
  SubCompact Board, Eden 4000, with LCD, LVDS, LAN, Audio, TV-out, CF, 4COM, Rev.B1.0
- **GENE-6310-B10-04**
  SubCompact Board,C3 1. 0G, LCD-TV, SDM, LAN, Audio, 4COM, USB, CF, PCI-104 Rev. B1. 0
- **GENE-6310-B11**
  SubCompact Board,Eden 667, LCD-TV, SDM, LAN, Audio, 4COM, USB, CF, PCI-104 Rev.B1.1
- **GENE-6310-B11-01**
  SubCompact Board,C3 1, 0G, LCD-TV, SDM, LAN, Audio, 4COM, USB, CF, PCI-104 Rev.B1.1

- **GENE-6310-B11-02**
  SubCompact Board, Eden 400, LCD-TV, SDM, LAN, Audio, 4COM, USB, CF, PCI-104 Rev.B1.1

Accessory Options

- **1702200205 (for GENE-6310 Rev.B)**
  Converted Cable for AT to ATX Power Supply (200 ± 10mm) for GENE-6310B/6320/6330
- **OS-CE-420-6310**
  Windows CE .NET (Rev.4.2) SDK for GENE-6310, English Version
- **OS-CE-500-6310B**
  Windows CE .NET (Rev.4.2) SDK for GENE-6310 Rev.B, English Version

Packing List

- **Cable Kit**
  9681631000
- **Jumper Cap**
  9657666600
- **Quick Installation Guide**
- **Utility CD**