SBC-GX1 *EBX 300MHz AMD Geode™GX1 embedded PC*
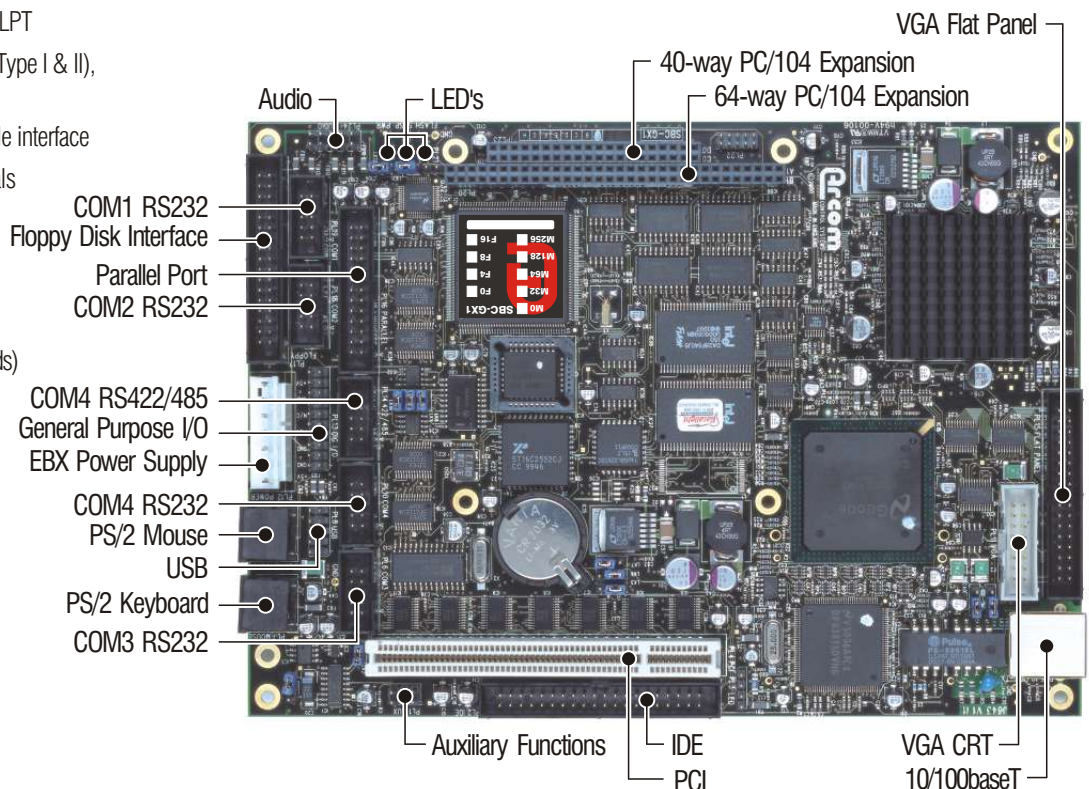
Features

- AMD Geode™GX1 300MHz
  - 16k L1 write-back cache
- Up to 256Mbytes 144-pin SODIMM socket *(on solder side)*
- Up to 16Mbytes onboard Intel® StrataFlash
  - Datalight FlashFX Flash media management
- 128Kbytes battery backed SRAM (factory fit)
- CRT/TFT Graphics controller (XVGA)
  - 1280 x 1024
  - 18-bit 3.3V/5V TFT panels
  - 1.5 - 4Mbytes SDRAM Video Memory
- National Semiconductor DP83815 10/100baseTx Ethernet via RJ-45
- FDD, HDD, Resident Flash, CompactFlash *(on solder side)*
- Four 16C550 compatible high speed UARTs
  - 3 x RS-232, 1 x RS-232/422/485
- PC peripherals Keyboard, mouse, LPT
- Expansion CompactFlash socket (Type I & II), PC/104 bus, PCI slot (5V)
- 16-bit Soundblaster/Pro compatible interface
- 8 general purpose digital I/O signals
- Two USB ports
- LED indicators
  - Power/Suspend/Flash access
- Hardware Watchdog timer (jumper selectable for 2 or 8 seconds)
- Two user links
- Extended temperature operation -20°C to +60°C (-4°F to +140°F)
- Award or General Software BIOS
- Onboard temperature monitor
- Industry standard EBX form factor
- RoHS-5 compliant

Description

The SBC-GX1 is a low profile EBX form factor board, based on the 300MHz MMX-enhanced AMD Geode™ GX1 processor. It includes all the standard PC interfaces as well as a full range of multimedia features: VGA video (XpressGraphics), 10/100baseTx Ethernet (PCI 2.1 compatible), onboard 16Mbytes Resident Flash drive (supplied with Flash media manager software), dual USB, soundblaster compatible interface and four serial ports. The board is capable of driving high resolution modes on CRT and flat panel displays simultaneously. A wide range of expansion options are provided via a CompactFlash socket, PC/104 bus connector and a standard PCI slot.

Labels (clockwise): VGA Flat Panel, 40-way PC/104 Expansion, 64-way PC/104 Expansion, Audio, LED's, COM1 RS232, Floppy Disk Interface, Parallel Port, COM2 RS232, COM4 RS422/485, General Purpose I/O, EBX Power Supply, COM4 RS232, PS/2 Mouse, USB, PS/2 Keyboard, COM3 RS232, Auxiliary Functions, IDE, PCI, VGA CRT, 10/100baseT

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SBC-GX1
EBX 300MHz AMD Geode GX1 embedded PC

Specifications

Temperature
- Operating -20°C to +60°C (-4°F to +140°F)
- Storage -40°C to +85°C (-40°F to +185°F)

Humidity
- 10% to 90% RH (non-condensing)

Real Time Clock accuracy
- +/- 1min/month @ 25°C (77°F)

Software (boards supplied with onboard Flash memory)
- Datalight ROM-DOS operating system
- Datalight FlashFX Flash media management

Datalight
System Software for Bright Ideas™

Power requirements
- +5V +/- 5% 1.5A (typical)

Battery
- 3.0V Lithium 180mAh (CR2032 Coin Cell)
- Maximum discharge current 2µA

Dimensions
- EBX compatible format
- 5.75" x 8.00" (146mm x 203mm)

Weight
- 270 grams

MTBF (based on MIL-HDBK-217F using generic failure rates)
- 90,000 hours

Ordering Information

SBC-GX1-M0-F0	No Flash memory fitted
SBC-GX1-M0-F16	Fitted with 16Mbytes Flash

Contact Arcom for more information & availability of SBC-GX1 boards pre-installed with SDRAM options.

RoHS Compliance

The SBC-GX1 SBC is available as a RoHS-5 compliant option (refer to website for full details). This is designated by a -R5 suffix on the order code. Please contact our Sales team to discuss your requirements.

RoHS Pb

Typical Applications

The SBC-GX1 is targeted at applications which require the benefits and compatibility of a standard PC along with low power, embedded, fan-less systems design. The integrated 2D graphics accelerator makes the SBC-GX1 ideal for human-machine interface panels, kiosks and information terminals.

Associated Products

SBC-GX1 Development Kits

Arcom offers rapid application Development Kits for the SBC-GX1 embedded PC, supporting Windows CE .NET / 5.0, Windows XP Embedded, embedded Linux (with Java technology), VxWorks, QNX Neutrino and ROM-DOS.

Arcom is a **Gold level** partner in the Windows Embedded Partner program

Microsoft® Windows® Embedded Partner
Gold-level Member

IBM Business Partner

Linux 2.6 POWERED

Analog Resistive Touchscreen Controller

The TSC1 is designed to interface between the SBC-GX1 and analog resistive touchscreens. The controller can be user configured to control 4-wire, 5-wire or 8-wire resistive touchscreens. The board interfaces with the processor board via a RS-232 serial port.

High-performance multimedia EBX format compact enclosure

- A fully CE/UL compliant enclosure for the SBC-GX1 single board computer
- Universal AC input 90 - 132 / 180 - 264 (auto-ranging) with switched IEC input socket
- Operating temperature range 0°C to 55°C (32°F to 131°F)
- PS/2 mouse/keyboard sockets
- VGA outlet (D-type 15 way socket)
- 4 serial ports (D-type 9 way plugs)
- RJ45 Ethernet (10/100baseT)
- 2 USB channels
- Stereo line input/output, microphone input
- Expansion space for up to two PC/104 cards
- Printer port (D-type 25 way socket)
- Space for 2.5" IDE hard disk

Check our website for more details