

**Pentium class SBC designed for  
Mobile and Outdoor applications**

**-40°C to +85°C Operating Temp.  
operated from +12V DC**

# Gx103

**200/300 MHz CPU, PC-CARD SLOTS, 512K battery backed SRAM,**

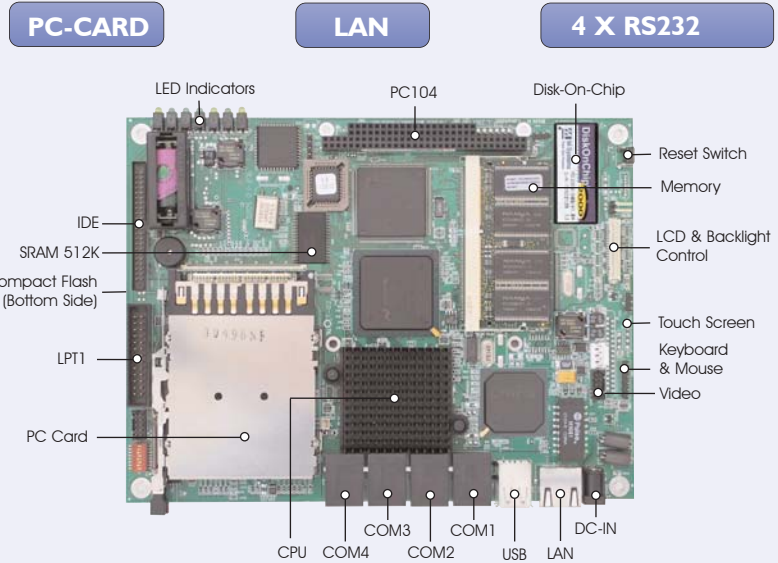
The Shortest path from ideas...to product.

## Features

- Ultra low power, fanless operation up to 300 MHz
- Over 250,000 hours MTBF
- 5 year product availability guarantee
- 32 to 128 MB SODIMM SDRAM
- CRT/LCD interface up to 4 MB display memory
- Compact flash socket up to 512 MB
- 10/100Base-T Ethernet interface
- 4 serial ports, dual USB, 512 Bytes EEPROM, 64-bit unique electronic ID
- Dual-Slot PC Card interface

## Applications

Robotic  
Medical  
Test & Measurement  
Transportation  
Avionics  
Mil/Aerospace  
e-Kiosks  
Industrial Automation  
Inventory Management  
Point Of Sale Terminal



## Technical Data

### System

CPU	Embedded NS Geode GX1 200 to 300 MHz low power processor (fanless)
SYSTEM MEMORY	32 to 128 MB system RAM
CHIPSET	NS CS5530
BIOS	GS customized emdedded BIOS on 256 KB flash memory
SSD	Supports CompactFlash™ card
BUS	PCI (33 MHz) / ISA (8.33 MHz)
POWER CONSUMPTION	Typical: 12 V @ 0.6 A [200 MHz CPU]
SIZE	6.05" x 8.10"
TEMPERATURE	-40°C ~ 85°C operating
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing

### I/O

STANDARD I/O	EIDE (Ultra DMA33), 1 x K/B, 1 x Mouse, 4 x RS-232, 1 x LPT, 2 USB ports (USB 1.0 compliant)
NETWORK	10/100BASE-T (AMD 79C973 chipset)

### Display

CHIPSET	NS CS5530
MEMORY SIZE	1-4 MB UMA share memory
RESOLUTION	Supports up to 1024x768 @ 16 bpp (60 Hz)
LCD INTERFACE	18-bit TFT panels up to SVGA resolution

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## Features Description

<b>CPU</b>	Embedded low power NS GX1 200 to 300 MHz processor L1 Cache - 16 KB write-back data Five-stage pipelined integer unit Integrated Floating Point Unit (FPU) Memory Management Unit (MMU) Supports Intel's MMX instruction set extension for multimedia acceleration Core voltage - 1.8V - 2.2V Passive heatsink
<b>Chipset</b>	NS Geode GX1 CS5530A embedded chipset
<b>System BUS</b>	66/100 MHz system bus frequency PCI: 33 MHz (Internal only) ISA: 8.33 MHz ( PC104 BUS)
<b>BIOS</b>	System and video BIOS with TME extensions in 256 KB flash device programmable on-board
<b>Memory</b>	One 144-pin SODIMM socket support 3.3V SDRAM 32 to 128 MB (PC-100 and PC-133)
<b>Flash / Disk Interface</b>	Compact Flash socket for on-board flash disk up to 512 MB
<b>Video Interface</b>	NS CS5530 with 1-4 MB UMA share memory CRT and LCD up to 1024x768@16-bit color resolution 2D Graphics Accelerator Supports LCD/TFT/STN/EL 3.3V or 5V displays Supports up to 18-bit LCD on TTL interface
<b>Network Interface</b>	AMD 79C973 chipset IEEE 802.3u 100 BASE-T Fast Ethernet
<b>PC Card Interface</b>	TI PCI1225 PCI-to-PC Card Controller supports two independent card sockets
<b>EIDE Interface</b>	Enhanced IDE interface supports up to two IDE devices. PIO Mode 4 transfers at up to 16 MB/sec. Support for Ultra DMA/33 synchronous DMA mode transfers at up to 33 MB/sec
<b>COM1-4 Interface</b>	RS-232, 16C550 compatible
<b>LPT Interface</b>	Bi-directional/EPP/ECP compatible
<b>USB Interface</b>	Two USB ports
<b>Other Embedded Features</b>	Electronic ID APM (Advanced Power Management) for Legacy power management Serial EEPROM - supports batteryless boot capability 128 Bytes EEPROM available for OEM use Battery Backed SRAM up to 512 KB (optional) ESD 10,000V MTBF 250,000 hours

## Ordering Information

GX103L-20-1-C	GX103 WITH 200MHZ CPU, 64 MB SDRAM, 4 RS232, LAN, USB, DUAL PC-CARD SLOTS, -0°C TO +65°C OPERATING TEMPERATURE
GX103L-30-1-C	GX103 WITH 300MHZ CPU, 64 MB SDRAM, 4 RS232, LAN, USB, DUAL PC-CARD SLOTS, -0°C TO +65°C OPERATING TEMPERATURE
GX103L-20-1-E	GX103 WITH 200MHZ CPU, 128 MB SDRAM, 4 RS232, LAN, USB, DUAL PC-CARD SLOTS, -40°C TO +85°C OPERATING TEMPERATURE
GX103L-30-2-C	GX103 WITH 300MHZ CPU, 128 MB SDRAM, 4 RS232, LAN, USB, DUAL PC-CARD SLOTS, -0°C TO +65°C OPERATING TEMPERATURE

CONTACT TME FOR OTHER CONFIGURATIONS

