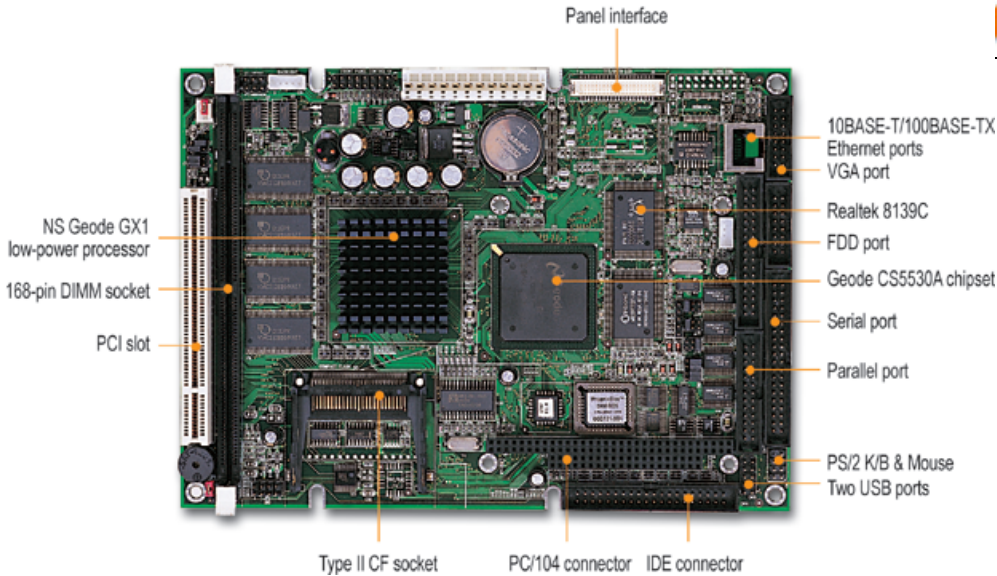# ROBO-504

5.25" ESB, based on low power NS GX1 processor with CRT/LCD, LAN and audio

Feature

- **On-board NS Geode GX1 processor**
- **NS Geode CS5530 chipset for CRT and 18-bit TFT panel support**
- **On-board 64 MB with one 168-pin DIMM socket**
- **Realtek 8139C 10BASE-T/ 100BASE-TX Fast Ethernet**
- **Type II CompactFlash socket**
- **AC '97 2.0 sound blaster compatible audio**
- **Simultaneously utilizing PCI and PC/104 expansion slot**

System

CPU	On-board low power NS Geode GX1 processor 200/300 MHz
System Memory	On-board 64 MB with one 168-pin DIMM socket
L2 Cache Memory	N/A
Chipset	NS Geode CS5530A
BIOS	Award (2 Mb Flash ROM)
SSD	One type II CompactFlash socket
Storage Device	Two EIDE devices; two FDDs
Watchdog Timer	Programmable via software from 32 sec. to 254 min., 1 min./step
Hardware Monitoring	Yes
Expansion Interface	PC/104 x 1, PCI x 1
Power Consumption	+5V@2A w/ GX1 300MHz
Operating Temperature	0 to 60˚C
Storage Temperature	-20 to +75˚C
Relative Humidity	5 to 95%, non-condensing
Dimension	203(L) x 146(W) mm; 8"(L) x 5.75(W)"

I/O

MIO	RS-232 x 3, RS-232/422/485 x 1, Parallel Port x 1
IrDA	Yes
Ethernet	Realtek 8139C, 10BASE-T/100BASE-TX, RJ-45 x 1
Audio	AC '97 2.0
USB	2
Mouse & KB	1

Display

Chipset	NS Geode CS5530A
Memory Size	Up to 4 MB shared display memory
Display Type	Non-interlaced CRT and up to 18-bit TFT LCD display
TV-out	N/A

Notes

EBX Type Embedded is defined and widely promoted by Ampro and Motorola. The standard is based on the demand of tiny motherboard and some daughter boards' expansion for the embedded system. It almost have the same dimension as "Little board" from Ampro and the 5.25" embedded board from Taiwan suppliers, but has the better expansion standard such as PC/104 and PC/104-plus for both ISA and PCI card expansion. The EBX board standard is quite popular in the USA market and the demands come from customers is getting more and more.

The cost is quite concerned by the embedded application, so some advanced Taiwan supplies start to enter into the EBX board market. They not only manufacture the board, but also upgrade the board with better function and specification to meet customer's special requirements. We believe that the join of Taiwan suppliers will make the EBX board as the major standard of embedded appliance.

To adopt the PC/104 and PC/104-plus as the daughter board standard may be right in the past, but for future expansion concern, Portwell believes that the mini-PCI and PCI standard from Intel will make the board expansion easier!

Ordering Guide

ROBO-504	5.25" low power NS Geode GX1 processor based ESB with TTL interface for LCD
ROBO-504D	5.25" low power NS Geode GX1 processor based ESB with LVDS interface for LCD

Embedded Computing Board