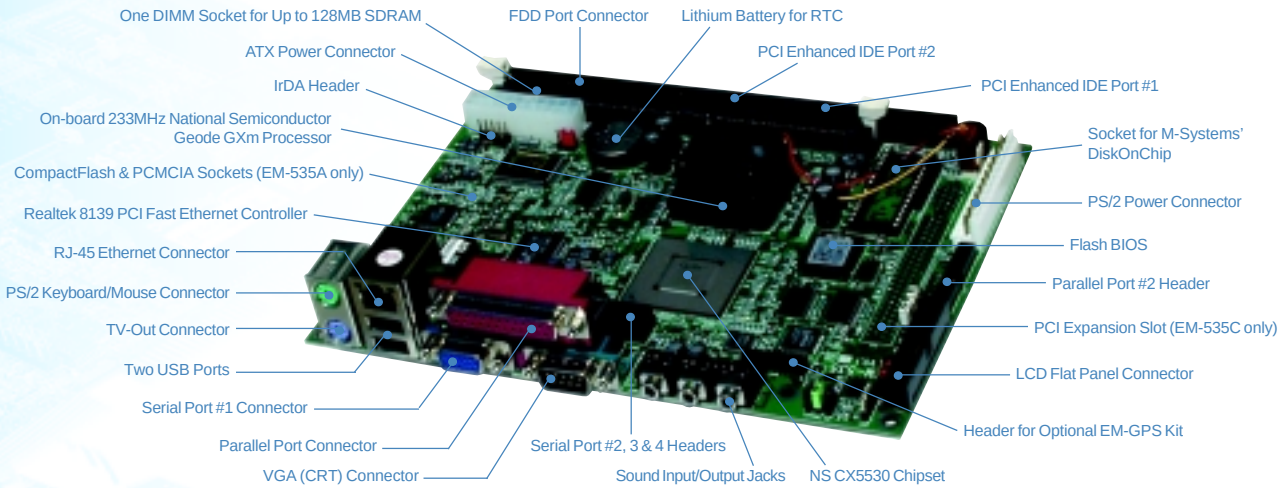
EM-535 Series 5.25" Embedded SBC with Onboard NS Geode GXm CPU

Embedded SBC



■ Introduction

The EM-535 embedded SBC is a great choice for any multimedia applications, such as kiosk, set-top box, POS, panel PC, and HMI.

The on-board **National Semiconductor Geode GXm** processor and its companion CS5530 chipset support up to 128B memory and provide full functionality and performance you need.

EM-535 features **TFT LCD Panel/CRT** display function that supports resolutions and color depth up to 1024x768 at 64K colors, **TV output**, and **sound functions**. And the Realtek RTL8139 chip provides **Fast Ethernet** for network connectivity.

EM-535A includes one **CompactFlash** socket and one **PCMCIA** socket. While the EM-535C has one **PCI expansion slot**, but no CF or PCMCIA socket.

■ Ordering Information

- **EM-535A:** 5.25" Embedded SBC with on-board 233MHz NS Geode GXm processor and VGA/ LCD/Fast Ethernet/Sound/CompactFlash socket/ PCMCIA socket.
- **EM-535C:** 5.25" Embedded SBC with on-board 233MHz NS Geode GXm processor and VGA/ LCD/Fast Ethernet/Sound/PCI slot.
- **EM-535x/200~300:** 5.25" Embedded SBC with 200/266/300MHz NS Geode GXm processor. Special order only. Call Lanner USA for detail.

■ Specifications

- **Processor**
  On-board 233MHz National Semiconductor Geode GXm 32-bit x86, MMX technology compatible processor with integrated FPU and 16KB L1 cache. (200/266/300MHz processor optional)
- **Chipset**
  NS CS5530 companion chipset & Winbond 83977F I/O chip.
- **BIOS**
  256KB Award licensed flash BIOS.
- **System Memory**
  One 168-pin DIMM socket supports up to 128MB of SDRAM.
- **Solid State Disk (SSD)**
  One 32-pin DIP socket supports M-Systems' DiskOnChip up to 144MB.
- **Video**
  NS CS5530 2D graphics with shared 2MB video memory. Supports CRT & 18-bit TFT LCD display at resolutions and color depth up to 1024x768 x 16bpp.
- **Ethernet**
  Realtek RTL8139x PCI Fast Ethernet (10/100Base-T) controller with RJ-45 connector.
- **Sound**
  Built-in sound functions by AD1819A Audio CODEC, include Mic-in, Line-in, Line-out and Speaker-out jacks.
- **TV Out**
  CHRONTEL CH7003B TV Encoder with composite/S-Video/RGB TV output connectors for NTSC and PAL modes.
- **CompactFlash (EM-535A only)**
  One CompactFlash socket supports Type I and Hot-plug function.
- **PCMCIA (EM-535A only)**
  RICOH R5C476II PCMCIA Bridge with one PCMCIA socket supports Type I or II and Hot-plug function.
- **IDE Interface**
  Two PCI Enhanced IDE interface supports up to four (PCI Bus Master, Ultra DMA/33, Multiword DMA & PIO mode 0-4) IDE devices.
- **FDD Interface**
  One FDD interface supports up to two floppy devices.
- **Serial I/O**
  Four 16550 serial ports, three RS-232 and one RS-232/422/485 selectable.
- **Parallel I/O**
  Two parallel ports supports for EPP, ECP and SPP modes.
- **Keyboard, Mouse and USB**
  One 6-pin Mini-Din PS/2 keyboard/mouse connector and Two USB Ports.
- **IR Interface**
  One IrDA header.
- **GPS**
  Reserved header for optional GPS kit.
- **Power Connector**
  ATX and PS/2 power connectors.
- **Power Mangement**
  I/O peripheral devices support power saving and doze/standby/suppend modes. APM 1.2 compliant.
- **Expansion Bus (EM-535C only)**
  One PCI expansion slot.
- **Real Time Clock**
  Internal RTC with Lithium battery.
- **Mechanical / Environmental**
  Dimension: 146X203mm (5-3/4" x 8")
  Weight: 334.5g (11.8oz)
  Operating Temperature: 0°C ~ 60°C
  Storage Temperature: -20°C ~ 70°C
  Operating Humidity: 10% ~ 90% RH, non-condensing
  Power: 3.25A at +5V, 0.01A at -5V
  0.01A at +12V, 0.01A at -12V
  (max w/ 233MHz CPU and 128MB RAM)

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