

LittleBoard™ 735

Extreme Rugged™ EBX Single Board Computer with Intel® Atom™ Processor



Features

- Legacy migration solution
- Dual Gigabit Ethernet
- 4x COM, 6x USB, audio
- SATA, IDE, Compact Flash
- PCIe Mini Card socket
- Full-featured Atom™ platform
- Extreme Rugged™ operating temperature: -40°C to +80°C

Specifications

Core System

| | |
|--------------------|---|
| CPU | Intel® Atom™ Processor N270 1.6GHz |
| Cache | 512KB Level 2 |
| Memory | Up to 2GB DDR2 667 SODIMM |
| Chipset | Mobile Intel® 945GSE Express Chipset |
| FSB | 533MHz |
| System Controllers | PC-compatible DMA and interrupt controllers and timers |
| Real Time Clock | Battery-backed RTC / CMOS |
| Watchdog Timer | Yes |
| Powerfail Reset | Triggers when key voltage drops below predetermined threshold |
| BIOS | AMI with ACPI 2.0 |
| Expansion Buses | PC/104-Plus (PCI and ISA) |

I/O Interfaces

| | |
|----------------|---|
| PATA | Single Ultra DMA CompactFlash socket |
| SATA | 2 devices PCIe Mini Card socket |
| Serial | 4 ports, two are RS-232/422/485 |
| Parallel | Floppy shared |
| USB | 6 USB 2.0 ports (7 th available through PCIe Mini Card socket) |
| Keyboard/Mouse | PS/2 interface |
| Audio | High Definition Audio |
| GPIO | Eight general-purpose digital I/O pins |

Ethernet

Dual Intel® 82574IT Gigabit Ethernet

Video

| | |
|------------|--|
| Controller | Integrated Intel® GMA 950 core Dual Channel 18-bit LVDS Dual display with independent pipes VGA via chipset DACs TV-Out |
|------------|--|

Power

Power Requirements 2.4A @5V (with 2GB RAM, 100% loading)

Mechanical and Environmental

| | |
|---|---|
| Form factor | EBX |
| Dimensions | 203 x 146 mm (8.00 x 5.75") |
| Board Thickness | 2.36 mm (0.093") |
| Operating Temperature (100 LFM system air flow) | Standard: -20°C to +70°C Extreme Rugged™: -40°C to +80°C |
| Storage Temperature | -55°C to +85°C |

Operating Systems

| | |
|------------------------|--|
| Standard Support | Windows XP, Linux |
| Extended Support (BSP) | Win XPe, WinCE 5.0/6.0, VxWorks 5.5/6.6, QNX 6.3/6.4 |

Ordering Information

Modules

| Model Number | Description/Configuration |
|--------------------|---|
| LB-735-R-18 | LittleBoard™ 735, 1.6 GHz Atom™ N270, PC/104-Plus, Dual Ethernet, SATA, CompactFlash, Video, 0MB DDR RAM, passive heatsink, industrial operating temperature -20°C to +70°C, RoHS |
| LB-735-P-18 | LittleBoard™ 735, 1.6 GHz Atom™ (clockdown to 800MHz) CPU, 0MB DDR RAM, video, Ethernet, passive heatsink, extreme rugged operating temperature -40°C to +80°C |
| LB-735-F-18 | LittleBoard™ 735, 1.6 GHz Atom™ CPU, 0MB RAM, video, Ethernet, heatsink with fan for extreme rugged operating temperature -40°C to +80°C |
| LB-735-L-18 | LittleBoard™ 735, 1.6 GHz QuickStart Kit, R-8 Board with 1GB DDR2 RAM, cables, passive heatsink documentation, software, RoHS |

Accessories

| Model Number | Description/Configuration |
|--------------------|---|
| DDR2 Memory | Verified industrial grade 1GB, 2GB DDR2 SODIMM memory available |

Recommended Configurations

| Model Number | Description/Configuration |
|--|--|
| LB-735-R-18, 1G, 512MB CF (ETT), (CC) | LB-735-R-18, 1G industrial grade RAM, 512MB CF card installed, -20°C to +70°C (optional), coating (optional) |
| LB-735-R-18, 2G (ETT), (CC) | LB-735-R-18, 2G industrial grade RAM, -20°C to +70°C (optional), coating (optional) |
| LB-735-F-18, 2G (ETT) | LB-735-F-18, 2G industrial grade RAM, -20°C to +80°C (optional) |