

ITX-6945

Mini-ITX Intel Mobile 945 EmBoard

Intel Mobile Core 2 Duo, Core Duo, Core Solo and Core-based Celeron M CPU on Mobile 945 Express Platform with GMA950 Graphic Core

x1 PCI Express Expansion Slot

Tiny-Bus[®] Modular Expansion Solution with x16 PCI Express and Intel Dual Channel SDVO Graphics, PCI-Express x1/x4 (4-lane) and PCI Bus Interface

PCI Expansion Slot with 2 Bus Master PCI

2 SATA-II (Serial ATA) Ports

Gigabit Ethernet

Composite / S-Video TV-out

6 External USB 2.0 Ports

Dual Channel 3GB DDR2-533/667 SDRAM

Dual Channel 18-bit LVDS TFT LCD Interface

Intel Azalia HD Audio Interface with 7.1 Channel Phone Jack

The Liantec ITX-6945 is an all-in-one industrial embedded motherboard based on the Mini-ITX form factor and Intel mobile Core 2 Duo platform with Intel mobile Core 2 Duo, Core Duo, Core Solo and Core-based Celeron M CPU, Intel mobile 945 Express chipset, and features the Tiny-Bus[®] Modular Expansion Solution with x16 PCI Express and Intel dual channel SDVO Graphics, PCI Express x1 / x4 (4-lane) and PCI bus interface. With the Intel mobile computing platform technology, Mini-ITX form factor and embedded Tiny-Bus[®] Modular Expansion Solution, the ITX-6945 offers the Small Form Factor (SFF) industrial x86 PC-based computing solution with embedded and flexible modular expansibility.

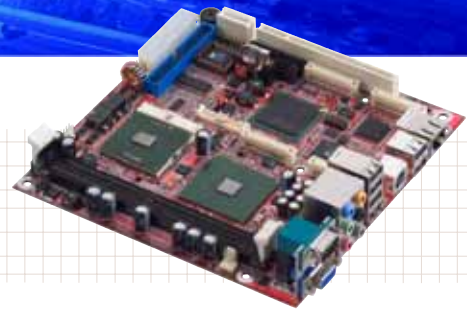
Key Features

- Intel embedded mobile 945 Express platform with Intel mobile Core 2 Duo, Core Duo, Core Solo, and Core-based Celeron M CPU, 3GB DDR2 SDRAM and Intel 945GME GMCH built-in GMA950 graphic core.
- Customized onboard-mounted Intel uFC-BGA mobile Core 2 Duo LV / ULV, Core Duo LV / ULV, Core Solo ULV and Core-based Celeron M ULV CPU for fanless and low power consumption computing application.
- Intel 945GME GMCH built-in 2 x 18-bit LVDS and S-Video TV-out interface.
- Optional Tiny-Bus[®] Intel SDVO-based DVI, HDTV, and mini-PCI module.
- 7.1-CH Intel Azalia HD audio, Gigabit Ethernet and SATA-II interfaces.
- **Tiny-Bus[®] Modular Expansion Solution with x16 PCI Express and Intel dual channel SDVO Graphics, PCI Express x1 / x4 (4-lane) and PCI bus interface.**
- Compact, slim type and fanless barebone solutions are available.



ITX-6945

Mini-ITX Intel Mobile Core 2 Duo EmBoard Intel Embedded 945GME Express Platform with LVDS, TV-out, Audio, Gbit Ethernet, SATA-II and Tiny-Bus® Modular Expansion Solution



Form Factor

Mini-ITX / Mini-FlexATX form factor at 170 x 170 mm

CPU

Intel mobile Core 2 Duo, Core Duo, Core-based Celeron M CPU at 667 / 533 MHz FSB at uFC-PGA478 package
[Customized onboard-mounted Intel uFC-BGA mobile Core 2 Duo LV / ULV, Core Duo LV / ULV, Core Solo ULV and Core-based Celeron M ULV CPU fanless operating for OEM project.](#)

Memory

Two DDR2 DIMM support 3GB dual channel DDR2 SDRAM

Chipset

Intel embedded mobile 945GME GMCH and ICH7-M chipset

Watchdog Timer

Programmable system reset watchdog timer

SATA and IDE (PATA) Port

One 40-pin ATA100 IDE port and 2 SATA-II 300MBps ports

Expansion Bus Interface

One dual bus master PCI slot and one x1 PCI Express slot
[Liantec Tiny-Bus® embedded modular expansion solution with x16 PCIe and Intel SDVO, PCIe and PCI bus interface](#)

Video Interface (VGA, LVDS, TV-out)

Intel mobile 945GME GMCH built-in GMA950 VGA core with 2x18-bit LVDS transmitter and TV-out encoder
External DB15 female connector for VGA on rear I/O panel
External AV / S-Video TV-out connector on rear I/O panel
Onboard 40-pin Hirose DF13-40DP-1.25V LVDS connector

Audio Interface

Intel Azalia High Definition (HD) audio with ACL888S codec
Supports 7.1 / 5.1 channel and S/P DIF audio interface
External 6 phone jack and internal pin header connector

Ethernet Interface

PCI-Express Intel 82573L Gigabit Ethernet controller
External RJ45 connector with LED on rear I/O panel

Hi-Speed USB 2.0 and Multi-I/O Port

6 external and 2 internal Hi-Speed USB 2.0 ports
One external and one internal RS232 COM port

External Rear I/O Port

DB15 female VGA and DB9 male COM port
7.1 channel and S/P DIF audio port
Four USB 2.0 ports
Composite AV / S-Video TV-out
Dual USB ports
RJ45 Gigabit Ethernet port
Other external ports on add-on Tiny-Bus® module

Environment

Power Requirement: onboard 20-pin ATX power connector
Board Dimension: 170 x 170 mm (L x W)
Operation Temperature: 0 ~ 60°C (32 ~ 140°F)

Tiny-Bus® Modular Expansion Solution

ITX-6945 supports Tiny-Bus® Modular Expansion Solution with x16 PCI Express and Intel dual channel SDVO Graphics, PCI Express x1 / x4 (4-lane) and PCI bus interface.

- **TBM-1610:** PCI-EG MXM Mobile Graphics Module
- **TBM-16SDVO:** Intel SDVO DVI, HDTV, Mini-PCI Module
- **TBM-1410:** PCIe ExpressCard and Mini-PCI Module
- **TBM-1420:** PCIe 4ch/120fps Video Capture Module
- **TBM-1200:** Dual Mini-PCI Module
- **TBM-1210:** Dual PCMCIA CardBus and Mini-PCI Module
- **TBM-1220:** Video Capture and Mini-PCI Module
- **TBM-1222:** 4ch/120fps Video Capture and Mini-PCI Module
- **TBM-1230:** 4-Port Switch Hub and Mini-PCI Module
- **TBM-1240:** 4-Port Gbit Ethernet and Mini-PCI Module
- **TBM-1250:** 4-/8-Port RS232 COM and Mini-PCI Module

Other customized x16 PCIe Graphics / Intel SDVO / PCIe / PCI-based Tiny-Bus® modules for ODM / OEM project. For the further information about Liantec embedded Tiny-Bus® modules, please visit the website at <http://www.liantec.com>.

Ordering Code

ITX-6945N: Mini-ITX Intel Mobile 945 Express EmBoard with VGA, LVDS, Audio, TV-out, Gbit Ethernet and Tiny-Bus Modular Expansion Solution

ITX-6945NDHP: ITX-6945N with **TBM-16SDVO** module
Supports DVI, HDTV and Mini-PCI Socket

ITX-6945NEP: ITX-6945N with **TBM-1410** module
Supports ExpressCard and Mini-PCI Socket

ITX-6945-OEM: Customized ITX-6945 based EmBoard with onboard Intel compatible uFC-BGA LV / ULV CPU and Tiny-Bus® Expansion Module.

Please visit the website of <http://www.liantec.com> for the further information.