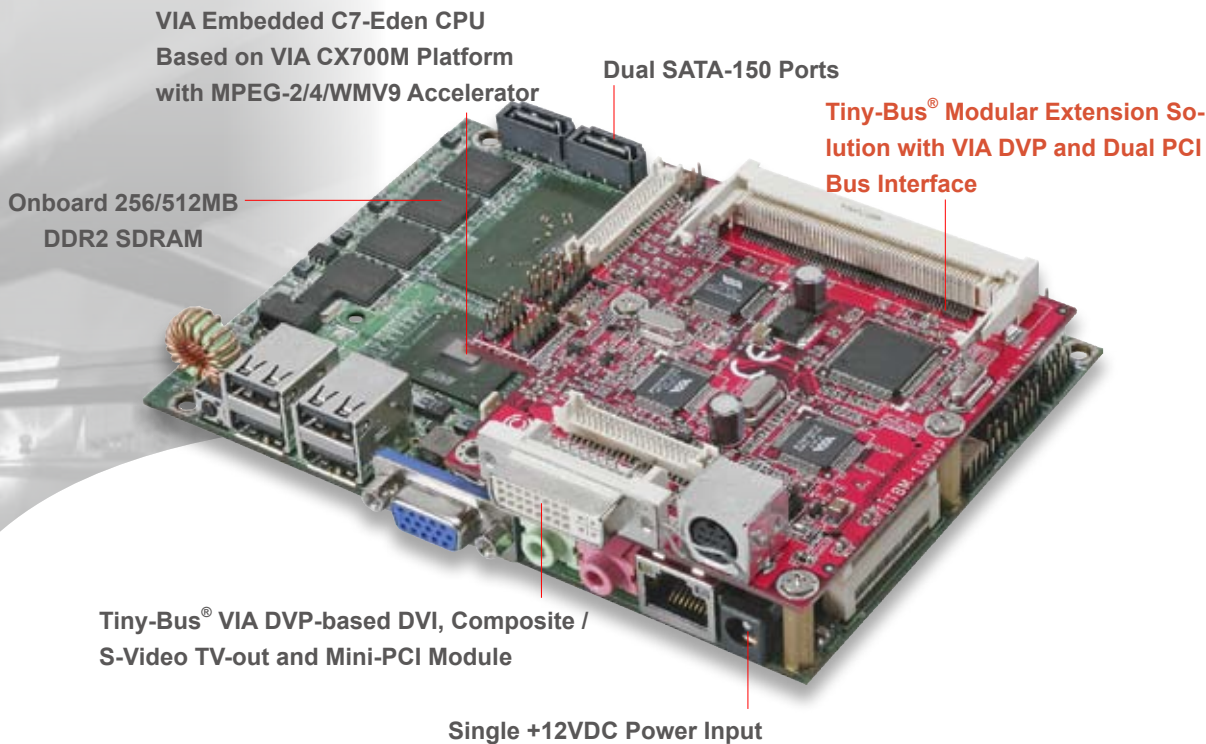


# EMB-3700

## 3.5" VIA C7-Eden CX700M Multimedia EmBoard with Tiny-Bus® Modular Extension Solution



### Overview

The Liantec EMB-3700 is an all-in-one industrial embedded multimedia motherboard based on the 3.5" drive size form factor with 146 x 101 mm of dimension, VIA embedded C7-Eden CX700M platform with built-in MPEG-2, MPEG-4 and WMV9 accelerator, features the onboard 512MB DDR2 SDRAM, HD audio, Fast Ethernet, CompactFlash socket and the Liantec Tiny-Bus® Modular Extension Solution with VIA DVP and dual bus master PCI bus interfaces. With the Liantec Tiny-Bus® Modular Extension Solution, the EMB-3700 can be upgradable with additional VIA DVP-based DVI, TV-out, HDTV, and PCI-based Tiny-Bus® modules for the industrial Small Form Factor (SFF) x86-based embedded computing applications.

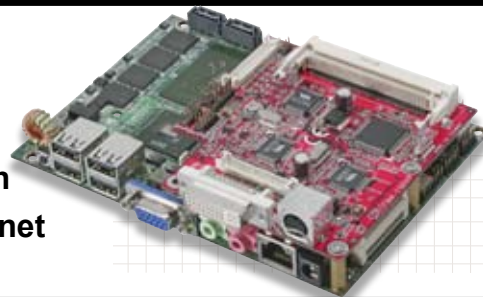
### Key Features

- VIA embedded C7-Eden CPU with PadLock security engine.
- Onboard VIA Eden and Eden ULV CPU for fanless operating.
- Onboard optional 256 / 512 MB DDR2 SDRAM.
- VIA CX700M chipset built-in UniChrome Pro II graphics engine with MPEG-2, MPEG-4, WMV9 accelerator.
- VIA CX700M chipset built-in single / dual channel 18-/24-bit LVDS transmitter.
- **Tiny-Bus® Modular Extension Solution with VIA DVP video extension and dual PCI bus master interfaces, support Tiny-Bus® VIA DVP-based DVI, AV / S-Video TV-out, HDTV and mini-PCI module, and other VIA DVP-/PCI-based Tiny-Bus® modules.**
- Onboard HD audio, Fast Ethernet, SATA, and CompactFlash sockets.
- Single +12V DC power operating with external power jack.
- Compact, slim type and fanless barebone solutions are available.



# EMB-3700

**3.5" VIA C7-Eden CX700M Multimedia EmBoard  
VIA CX700M IGP with MPEG-2/4, WMV9 Acceleration  
with 512MB DDR2 SDRAM, LVDS, Audio, Fast Ethernet  
and Tiny-Bus® Modular Extension Solution**



Industrial  
Mini-ITX EmBoard

Embedded Single  
Board Computer

Tiny-Bus  
Expansion Module

Fanless  
Computing Platform

Industrial  
Computing Platform

Industrial  
Embedded Peripheral

## Form Factor

3.5-inch drive size form factor at 146 x 101 mm of dimension

## CPU

VIA embedded C7-Eden CPU with PadLock engine  
Optional onboard VIA compatible C7 and Eden ULV CPU as :

- ▶ Eden ULV 500MHz CPU (fanless operating)
- ▶ Eden ULV 1.0 / 1.6 GHz CPU (low power operating)
- ▶ C7 1.0 / 1.5 GHz CPU (with CPU fan)
- ▶ Other VIA compatible C7-Eden CPU

## Memory

Onboard optional 256 / 512MB DDR2 SDRAM

## Chipset

VIA embedded CX700M chipset with built-in UniChrome Pro graphics engine including MPEG-2/4 and WMV 9 accelerator

## Watchdog Timer

Programmable system reset watchdog timer

## Serial ATA (SATA) and IDE (PATA) Port

One 44-pin UltraATA100/133 IDE ports  
Two SATA ports with 150MBps of data transfer bandwidth

## CompactFlash Interface

Onboard CompactFlash socket supports CompactFlash Card (CFC) with PIO mode 4 / Multi-Word mode 2  
Jumper selectable master / slave mode on primary IDE port

## Extension Bus Interface (Tiny-Bus®)

Liantec Tiny-Bus® embedded modular extension solution with VIA DVP and dual bus master PCI bus interface

## Video Interface (VGA and LVDS)

VIA CX700M built-in UniChrome Pro II 3D graphics engine with MPEG-2/4/WMV9 accelerator and 2x24-bit LVDS transmitter  
LVDS interface supports up to 1600 x 1200 of resolution  
External DB15 female connector for VGA on rear I/O panel  
Onboard 40-pin Hirose DF13-40DP-1.25V LVDS connector

## DVI and TV-out Interface (with TBM-15DVP)

TBM-15DVP Tiny-Bus® module with VIA DVP-based VT1632 DVI transmitter and VT1625 TV-out encoder  
DVI interface supports up to 1600 x 1200 of resolution  
TV-out interface supports AV / S-Video with NTSC / PAL mode  
External DVI and AV / S-Video TV-out connectors

## Audio Interface (HD Audio)

VIA CX700M with onboard VIA VT1708 HD audio codec  
External line-out and mic-in phone jacks on rear I/O panel

## USB 2.0 and RS232 COM Port

4 external USB 2.0 ports and 2 internal RS232 COM ports

## Ethernet Interface

Onboard RTL8100C Fast Ethernet Interface  
External RJ45 connector with LED on rear I/O panel

## External I/O Port and Indicated LED

Power switch, two dual USB 2.0, VGA, line-out / Mic-in audio, RJ45 Ethernet and DC power jack.  
DVI and TV-out on TBM-15DVP Tiny-Bus® module  
Other external ports on add-on Tiny-Bus® module

## Environment

Power Requirement: single +12V DC power operating  
Board Dimension: 146 x 101 mm (L x W)  
Operation Temperature: 0 ~ 60°C (32 ~ 140°F)

## Tiny-Bus® Modular Extension Solution

The EMB-3700 EmBoard supports the embedded Tiny-Bus® Modular Extension Solution with VIA DVP video extension and dual bus master PCI bus interfaces including (but not only) :

- ▶ **TBM-15DVPA** : VIA DVP DVI, TV-out and Mini-PCI Module
- ▶ **TBM-1200**: Dual Mini-PCI Type-III/A/B Module
- ▶ **TBM-1210**: Dual PCMCIA CardBus and Mini-PCI Module
- ▶ **TBM-1220**: 30fps Video Capture and Mini-PCI Module
- ▶ **TBM-1222**: 4-CH/120fps Video Capture, Mini-PCI Module
- ▶ **TBM-1230**: 4-Port Switch Hub and Mini-PCI Module
- ▶ **TBM-1240**: 4-Port Gbit Ethernet and Mini-PCI Module
- ▶ **TBM-1242**: Dual Fast Ethernet with Bypass Module
- ▶ **TBM-1250**: 4-/8-Port RS-232 COM and Mini-PCI Module
- ▶ **TBM-1251**: RS-232/422/485 COM and Mini-PCI Module
- ▶ **TBM-1260**: IEEE1394 Firewire and Mini-PCI Module
- ▶ **TBM-1261**: Hi-Speed USB 2.0 and Mini-PCI Module

Other customized compatible Tiny-Bus® modules for ODM / OEM projects. For the further information about Tiny-Bus® modules, please visit the website at <http://www.liantec.com>.

## Ordering Code

### EMB-3700MU5-512

3.5" VIA C7-Eden CX700M Multimedia EmBoard with VIA Eden ULV 500MHz CPU, 512MB DDR2 SDRAM, VGA, LVDS, Audio, Fast Ethernet, SATA, CF Socket, and Tiny-Bus® Modular Extension Solution

### EMB-3700MU16-512

Same as above but with VIA Eden ULV 1.6GHz CPU

### EMB-3700MC15-512

Same as above but with VIA C7 1.5GHz CPU (with fan)

## Customized ODM/OEM Service

Customized OEM service based on the EMB-3700 EmBoard with VIA C7-Eden CPU, optional function configuration and embedded Tiny-Bus® Extension modules.

For the further information, please visit the website of <http://www.liantec.com>.