Product Information

# CV1-AMBIENT • *CompactPCI*® DVI Graphics Controller

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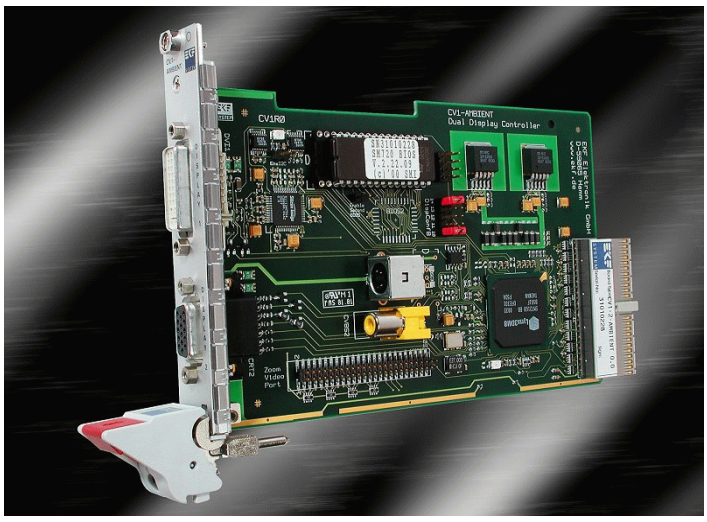
*The **CV1-AMBIENT** is a universal, dual-screen 3D graphics adapter for use within CompactPCI® systems. Housed on a 3U Eurocard, the CV1-AMBIENT is equipped with both, DVI and D-SUB connectors for simultaneous attachment of digital display units and analog monitors. The board is built upon a 128-bit drawing engine, resulting in superior performance (e.g. playing of DVD movies with full frame rate). Analog monitors with a resolution up to 1600x1200 and TFT flat-panel displays up to 1280x1024 pixels are supported by the hardware.*

When operated under Windows™, the CV1-AMBIENT allows for simultaneous use of two screens. *Multi-Display* means applications available at the same time across multiple display devices, and *Dual View* is a synonym for displaying any rectangular portion of the primary display zoomed up on the secondary screen.

Drivers are provided for all Windows™ operating systems and Linux.



CV1-AMBIENT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The CV1-AMBIENT is based on the Lynx3DM (Silicon Motion), a low power high performance graphics controller chip. The video memory is integrated into the chip package (available as 4/8MB) and delivers up to 1.6GB/s bandwidth, resulting in fast 3D rendering, and real-time full frame video playback of MPEG2/DVD content without the need for additional hardware.

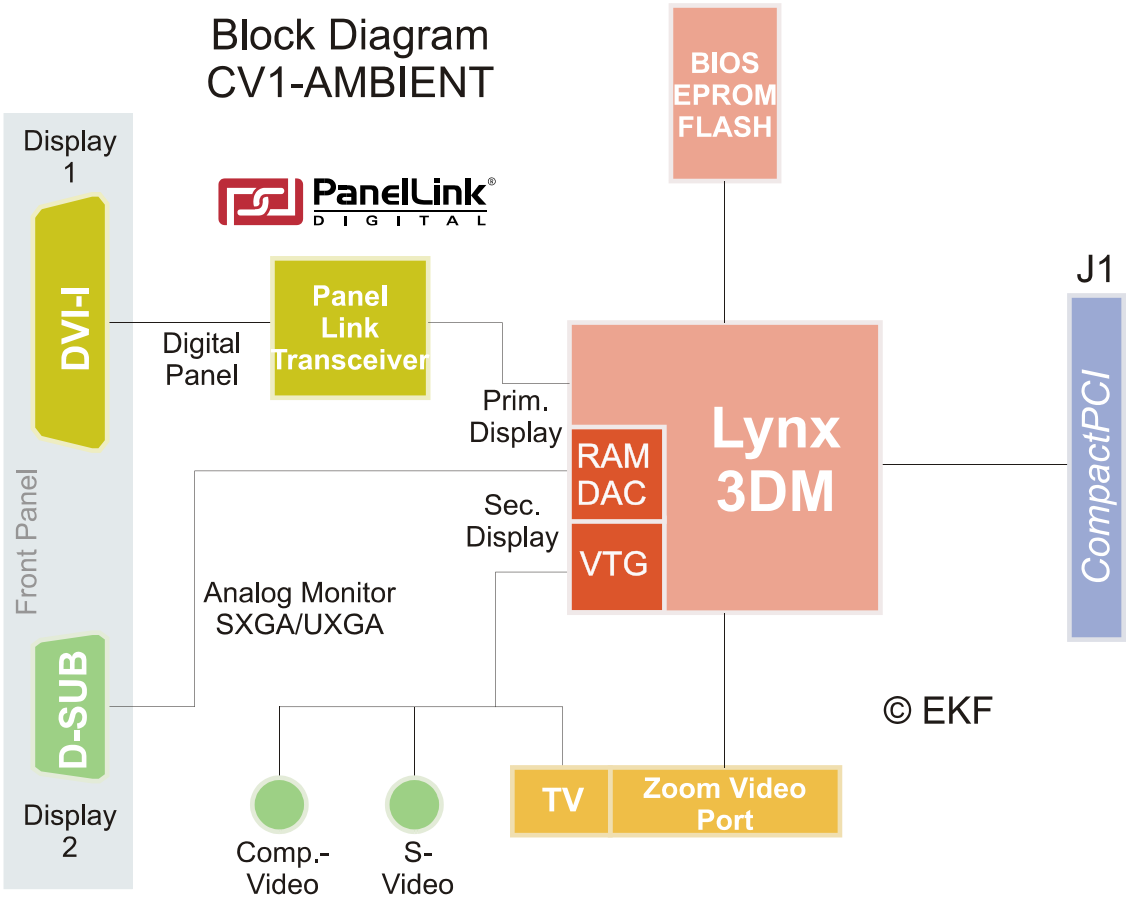
The CV1-AMBIENT is suitable for attachment to all popular video monitors. Displays provided with a *D*igital *V*isual *I*nterface (typically flat panel TFT style screens) can be connected to the DVI receptacle (*Primary Display*). For all legacy monitors with analog inputs, the CV1-AMBIENT is provided with an additional D-SUB connector (*Secondary Display*). Both graphics outputs of the CV1-AMBIENT are independent from each other and can deliver different content, e.g. motion video, simultaneously to their respective screens.

The boards video capture feature processes incoming video data from the Zoom Video Port and sends the data to the local frame buffer. By using a flat ribbon cable, this interface can be directly connected to the CP2-HIPHOP (PC Card adapter) or CF4-HIHAT (IEEE 1394 FireWire host adapter).

Complete OS software support is available for Linux, Windows™ 98, ME, NT, 2000, and XP.

The CV1-AMBIENT is a 3U Eurocard. For use within 6U CPCI card cages, EKF offers the CR9-ADAPT, a mechanical kit for the front panel extension.

CR9-ADAPT





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| Technical Specifications | | |
|---|---|---|
| Printed Circuit Board | Dimensions | 3U Eurocard (100x160mm$^2$), front panel 4HP (20.2mm) EMV shielded, ejection lever |
| Graphics | *Primary Display Port*<br>Digital Display Connector<br>DVI | Supports digital monitors, e.g. TFT flat panel displays, DVI-I [1] receptacle mounted into the boards front panel, up to 1280x1024 pixel, 16M colors, 85Hz refresh rate, interface electronics based on PanelLink Digital Technology (Silicon Image), Hot Plug Detection, immunity against noise by differential signaling according to TMDS (**T**ransition **M**inimized **D**ifferential **S**ignaling), Single Link.<br>[1] Though DVI-I preserves some pins for analog signals, these pins are NC on the CV1-AMBIENT, resulting in a functionality identical to DVI-D (D = digital). The DVI-I (I = integrated analog and digital) receptacle however allows use of both, DVI-I and DVI-D cables and accessories at your convenience. |
| | *Secondary Display Port*<br>Analog Monitor Connector D-SUB15 | Supports analog monitors, e.g. multi-sync displays, SXGA/UXGA compatible, Mini D-SUB 15-pos. socket mounted into the boards front panel, up to 1600x1200 pixel [2], 16M colors, 85Hz refresh rate, RAMDAC 200MHz<br>[2] Currently available Windows™ drivers unfortunately do not support the maximum resolution |
| | Video Outputs | S-Video socket Mini-DIN/Hosiden 4-pos. (S-VHS, Hi-8)[3]<br>Composite Video jack Cinch/RCA (CVBS, FBAS)[3]<br>[3] Due to lack of free space in the cards front panel, the TV video connectors are mounted in the middle of the board, thus suitable for internal wiring or open experimental card frames. Functionally, these outputs are dedicated to the Secondary Display Port. |
| | Zoom Video Port | 40/50-pos. pin header, metric 2mm, compatible to EKF boards providing Zoom Video Port e.g. CP2-HIPHOP (PC Card adapter) and CF4-HIHAT (IEEE 1394 controller) |
| | Graphics Controller Chip | Low power high performance controller Lynx3DM, 2D, 3D and DVD motion display, 128-bit drawing engine, integrated video memory 4/8MB, Dual-View and Multi-Display support under Microsoft Windows™, Zoom Video Port |
| *CompactPCI*® Bus | Connector J1 | 32-Bit, 33MHz (133MB/s)<br>32-Bit DMA bus master (133MB/s)<br>3.3V or 5V interface |
| Power Consumption | Connector J1 | +5V ±5% 0.1A max.<br>+3.3V ±0.3V 0.3A max. |
| Temperature Humidity | Commercial Grade Version | Operation temperature 0-70°C (industrial grade temperature range available on special request)<br>Relative humidity 5-90% non condensing |
| Software | Drivers, API, Tools | Linux (Xfree86), Microsoft Windows™ 98, ME, NT 4.0, 2000, XP, VxWorks (planned 1.Q. 2002), BIOS, Windows™ Control Panel, Windows™ API |

*subject to change without further notice*


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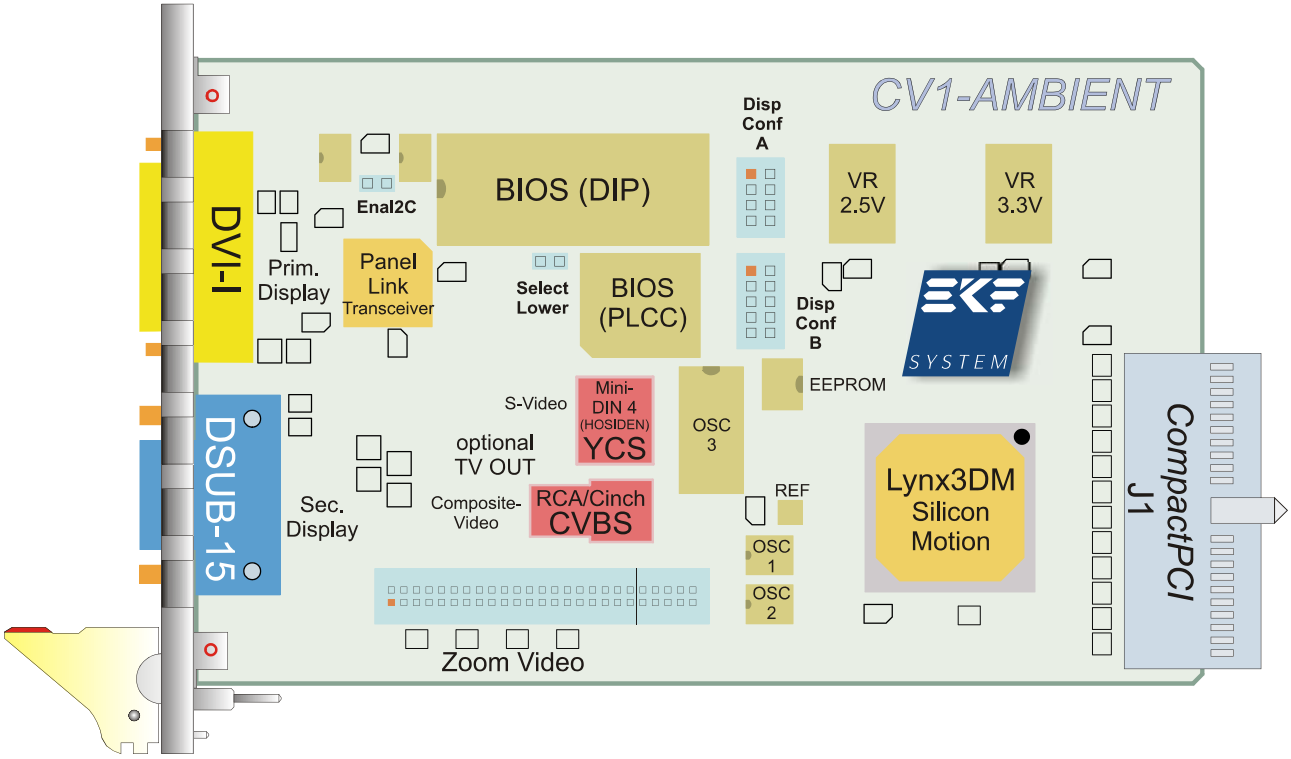


Assembly Drawing CV1-AMBIENT

## Ordering Information

| Alias | Ordering Number | Short Description |
|---|---|---|
| AMBIENT | CV1-1-AMBIENT | 3U CompactPCI graphics controller, 4MB |
| *AMBIENT* | *CV1-2-AMBIENT* | *3U CompactPCI graphics controller, 8MB* [1] |
| | CR9-1-ADAPT | Mechanical kit, extends front panel to 6U |

[1] please mail to sales@ekf.de for availability of this particular version

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