



PRELIMINARY

User Manual

for

820942 ADD-DVI-CRT card

820943 ADD-CRT-Internal card

820944 820943 + 821516 CRT Bracket

Digital Visual Interface and analogue CRT
Designed for 886LCD-M ADD connector



	ADD-DVI-CRT	ADD-CRT-Internal	ADD-CRT-Internal +CRT Bracket
Part no.	820942	820943	820944
PCB no.	30103246	30103246	30103246
Ass. no.	68210001	68200101	68200101
Note	Incl. DVI-CRT Adapter	As 820942 but wo. DVI part	Assembly of 820943 + 821516



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Revision History

Revision	Release Date	By	Comment
A	Nov. 12 th 2007	MLA	Updated PN's. Mechanical Drawing added. Minor changes.
0	September 1st th 2005	MLA	Preliminary release

Kontron Technology has adapted many displays and more displays will be added in the future. A document called "886LCD-M Supported Displays List" is available on homepage and contains information about all approved displays and optionally cable kits and other information. On the homepage, also BIOS with driver support for all approved displays and BIOS programming tools can be found.

KONTRON Technology A/S is known worldwide for its quality and solid MB (MotherBoards).

KONTRON Technology A/S is a company that keeps up with the latest development and concentrate on developing and manufacturing embedded MB and Add ON's.

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www.kontron-emea.com



Introduction

The 720942 ADD-DVI-CRT card contains a DVI-I interface and an extra pin row connector for the analogue RGB signals. The card is also available in version 720943 ADD-CRT-Internal or version 720944 ADD-CRT-Internal + CRT Bracket. Both of these versions are without the DVI-I connector.

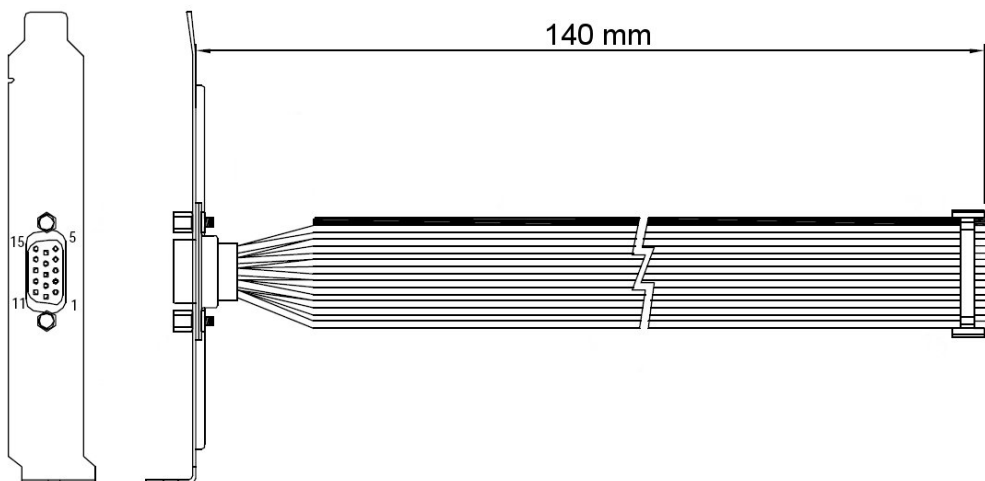
The ADD-DVI-CRT card is an ADD card designed for the Kontron Technology 886LCD-M Mother Board family. The card receives DVO signals via the AGP connector controlled by the Mother board. The card is based on the Chrontel CH7301 which converts the DVO signals to TMDS™ signals for LCD display and analogue RGB signals for CRT monitor.

The 886LCD-M with ADD-DVI-CRT support dual-display features so that one of the displays is driven by the analogue CRT output or the LVDS output available on the 886LCD-M and the other is driven by either the TMDS signals or the analogue RGB signals.

The DVI-I connector contains one TMDS link and analogue RGB. If required the analogue RGB signals can be converted to a standard HDB-15 VGA CRT connector by use of the 822001 DVI-CRT Adapter:



Instead of using the analogue RGB via the DVI-I connector, the pin row connector can be used. The pin row connector is intended to be used for "Internal CRT solution" where the Motherboard with ADD-DVI-CRT card is build into the same enclosure, or as a dual VGA CRT solution where the system has two independent VGA CRT connectors by adding a CRT bracket to the pin row connector. The Kontron Technology P/N 821516 is an example of a CRT Bracket.





Highlights

TMDS™ Interfaced LCD Panel Display (720942 only)

- * Supports one link of TMDS Transmitter Function.
- * Supports TFT –24bit, TFT-18bit, TFT-12bit Monitor
- * Maximum Display Resolution/Frame rate is UXGA 1600x1200/ 60hz
- * Supports Secondary Flat Panel Display as Primary CRT or Primary LVDS Independent Display

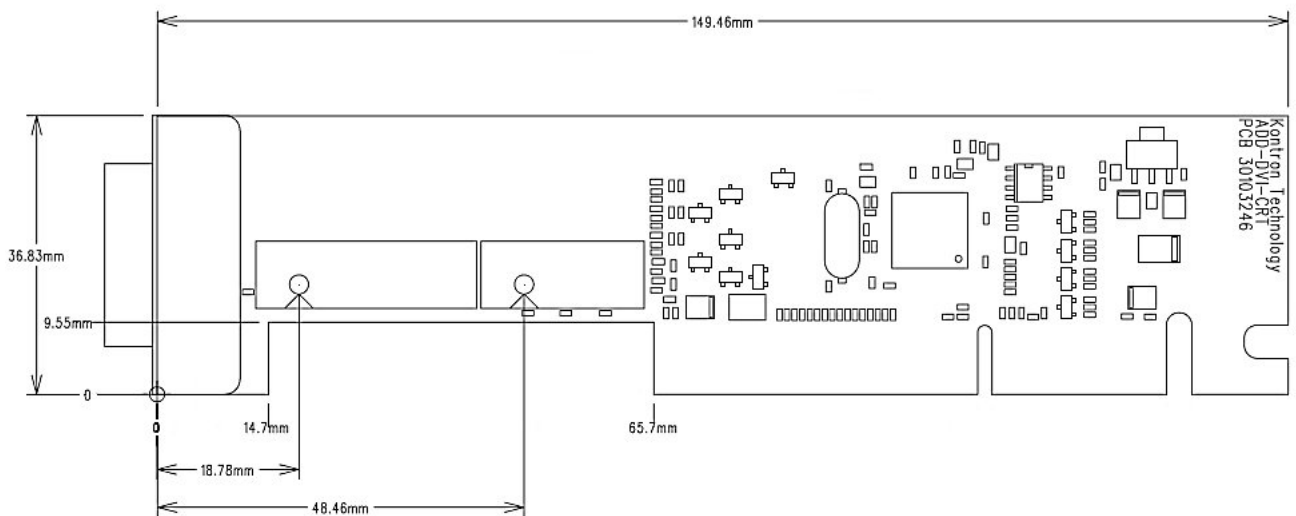
CRT Display via DVI connector (720942 only)

- * Supports Secondary CRT as Primary CRT or Primary LVDS Independent Display
- * Maximum Display Resolution/Frame rate is UXGA 1600x1200/ 60hz
- * Included P/N 822001 DVI-CRT Adapter (720942 only)

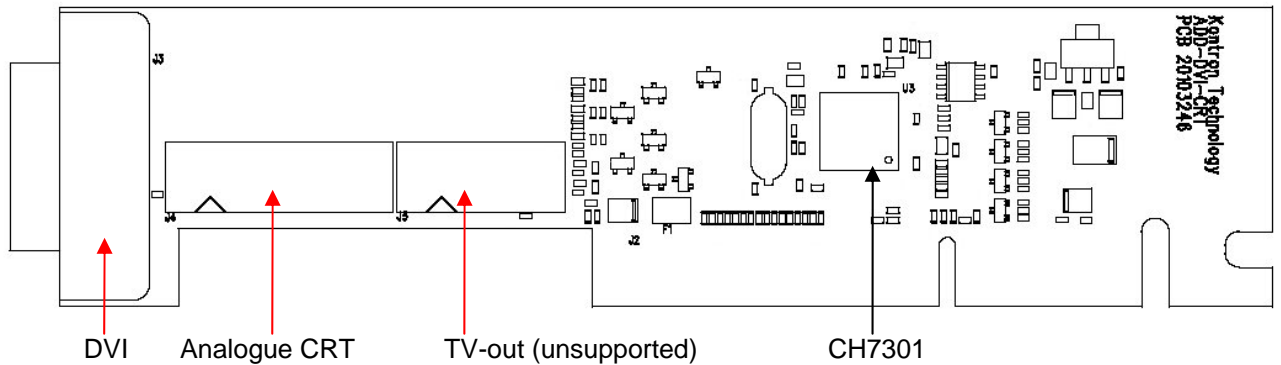
CRT Display via Pin Row connector

- * Supports Secondary CRT as Primary CRT or Primary LVDS Independent Display
- * Maximum Display Resolution/Frame rate is UXGA 1600x1200/ 60hz
- * Included P/N 821516 CRT Bracket (720944 only)

Mechanical Drawing

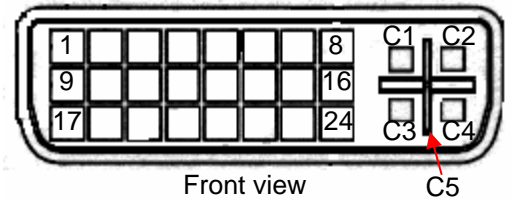


Connectors



DVI connector (J3)

The DVI connector (type DVI-I) is a Molex 74320-1004 (or similar).



Pin No.	Signal	Type	Pull U/D	note
1	T.M.D.S. Data 2-	OT		
2	T.M.D.S. Data 2+	OT		
3	T.M.D.S. Data 2/4 Shield	PWR		
4	N.C.	-		
5	N.C.	-		
6	DDC Clock	IO	2K2	
7	DDC Data	IO	2K2	
8	Analogue Vertical Sync	AO		
9	T.M.D.S. Data 1-	OT		
10	T.M.D.S. Data 1+	OT		
11	T.M.D.S. Data 1/3 Shield	PWR		
12	N.C.	-		
13	N.C.	-		
14	+5V Fused (200mA)	PWR		
15	GND	PWR		return for +5V, Hsync, VSync
16	Hot Plug Detect	I		
17	T.M.D.S. Data 0-	OT		
18	T.M.D.S. Data 0+	OT		
19	T.M.D.S. Data 0/5 Shield	PWR		
20	N.C.	-		
21	N.C.	-		
22	T.M.D.S. Clock Shield	PWR		
23	T.M.D.S. Clock+	OT		
24	T.M.D.S. Clock-	OT		
C1	Analogue Red	AO		
C2	Analogue Green	AO		
C3	Analogue Blue	AO		
C4	Analogue Horizontal Sync	AO		
C5	Analogue Ground	PWR		analogue R, G, and B return



Analogue CRT connector (J4)

This connector is available on the 720942 ADD-DVI-CRT and 720943 ADD-CRT-Internal.

Connector is a 16-pole standard 8x2 pin row 2.54mm pitch type (Molex 70246-1621 or similar).

Pin No.	Signal	Type	Pull U/D	Note
1	NC	-		
2	DDC-CLK	IO	2K2	
3	GND	PWR		
4	GND	PWR		
5	Vsync	AO		
6	NC	-		
7	VCC	PWR		
8	Hsync	AO		
9	Blue	AO		
10	GND	PWR		
11	DDC-Data	IO	2K2	
12	Green	AO		
13	GND	PWR		
14	NC	-		
15	Red	AO		
16	GND	PWR		

TV-Out connector (J5) (Unsupported function)

This connector is not available on the 720942 ADD-DVI-CRT and 720943 ADD-CRT-Internal.



Installation

TBD

BIOS settings

TBD

OS setup

TBD

Trouble shooting

TBD

Please try the key combination <ctrl><alt><F1> to turn on onboard CRT and <ctrl><alt><F3> to turn on onboard LVDS and <ctrl><alt><F4> to turn on ADD card.