

User Manual

for the Add-On card:

820954 ADD2-CRT

AGP Digital Display second generation card with Analogue RGB (CRT) output
Designed primarily for 986LCD-M family and KT965/Flex motherboards



820954 ADD2-CRT

	ADD2-CRT
Part no.	820954
PCB no.	30103301
Ass. no.	68310000

Document revision history.

Revision	Date	By	Comment
C	May 18 th 2009	MLA	Text corrected on front page.
B	Nov. 25 th 2008	MLA	BIOS version info added.
A	Sep. 24 th , 2007	MLA	Minor corrections.
0	Sep. 17 th , 2007	MLA	Preliminary version.

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Before Contacting Support: Please be prepared to provide as much information as possible:

- ADD-On Board
 1. Type.
 2. Part-number (Number starting with "68").
- Configuration
 1. Motherboard Type
 2. BIOS Revision (Find the Version Info (BIOS ID) in the BIOS Setup Menu)
 3. BIOS Settings different than *Default* Settings (Display related settings).
 4. O/S Make and Version.
 5. Graphic Driver Version numbers.
 6. Attached Monitors etc.

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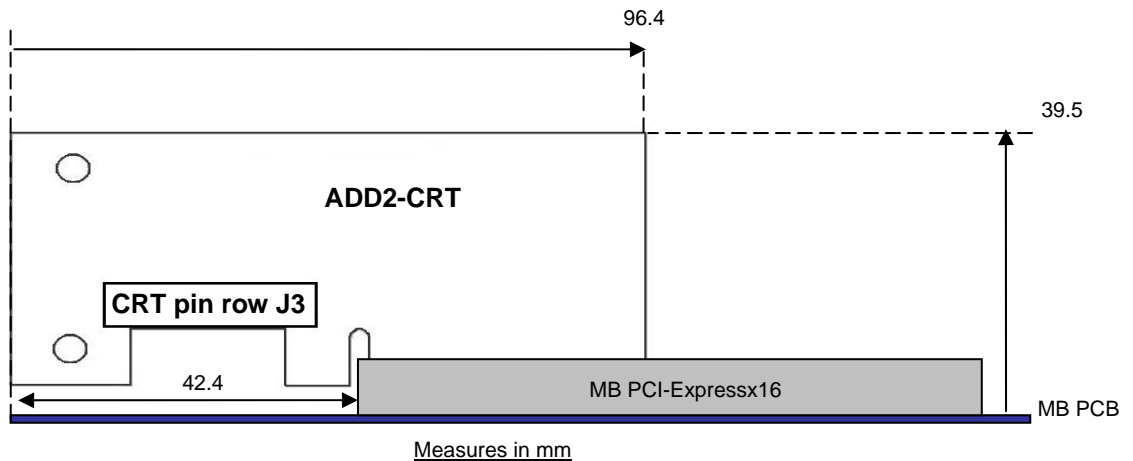
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Introduction

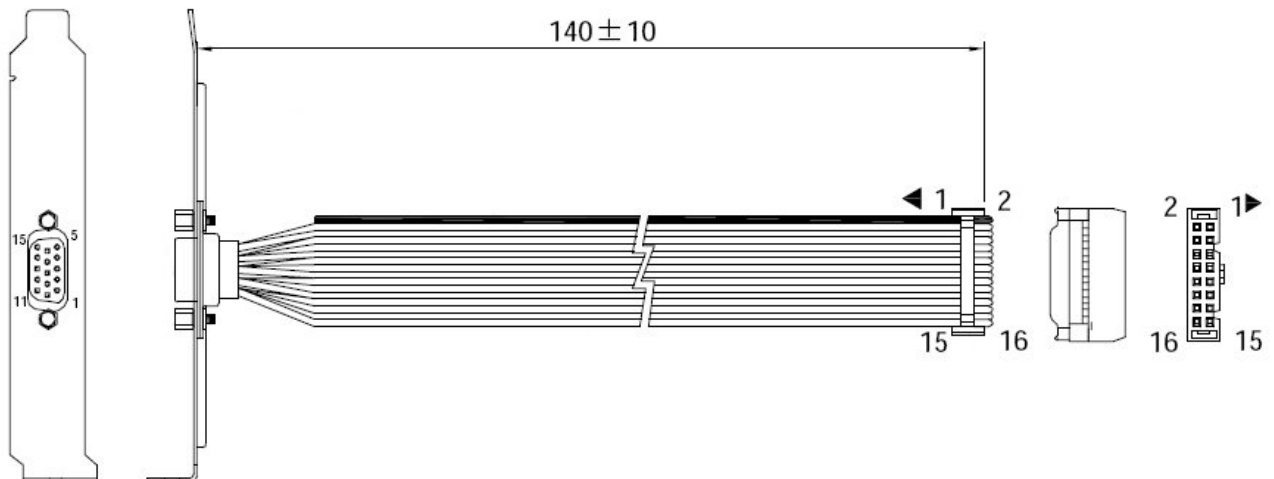
- Output Analogue RGB generated by three 10-bit video DAC's
- Output to HDB15 standard CRT RGB connector via pin-row connector and cable kit (821516)
- 821516 CRT Bracket cable is included
- PCB is prepared for optional onboard HDB15 connector
- Input is SDVO via ADD2 interface (Intel multiplexed dual SDVO and PClex16 interface)
- The SDVO is high-speed serial DVO (1G~2Gbps) at clock rates up to 165Mpixels/s
- Complete Windows driver support
- Panel resolution up to 1600x1200 (frame rate 60 Hz)
- Monitor Detection supported through Hot Plug

The ADD2-CRT card is based on the Chrontel CH7317A Analogue RGB transmitter. The ADD2-CRT supports resolutions up to 1600x1200 at 60 Hz frame rate. The card is designed for the PCI-Expressx16 connector which on the 986LCD-M family of motherboards and on the KT965/Flex motherboard is multiplexed PCI-Expressx16 and SDVO. When the ADD2-DVI card is plugged into the PCI-Expressx16 connector then the motherboard automatically detects the card and select SDVO output.

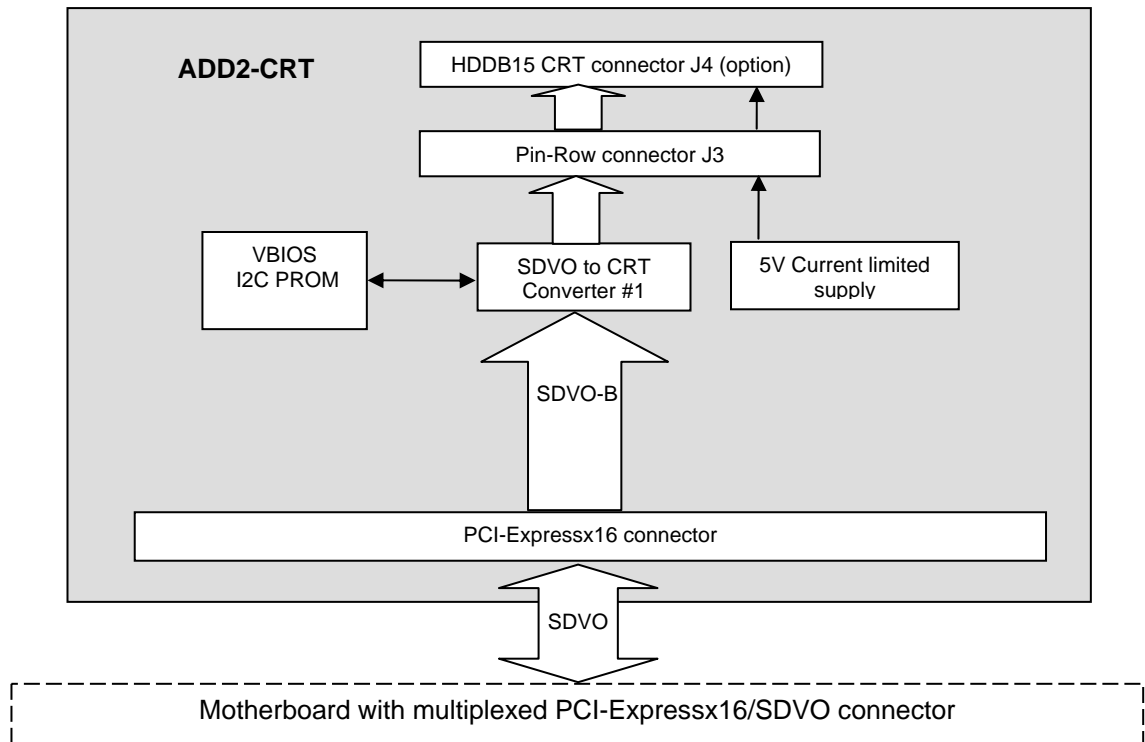
Mechanical Drawing



The ADD2-CRT includes CRT Bracket cable (item no. 821516), see picture below.



Functional Diagram



Note that VBIOS located in I2C is not used as default. The reason is that the BIOS used in the Kontron Motherboards of 986LCD-M and KT965 families are supporting the ADD2-DVI card directly.

Connector/Cable kit descriptions

The 821516 CRT Bracket cable kit is 140mm long and is based on a pin socket connector (16 terminals) and a HDDB15 standard VGA CRT connector. Optionally the ADD2-CRT card has a HDDB15 connector (J4) having the same pinning as the cable kit HDDB15 connector.

821516 cable wiring:

Pin-Row J3 Pin No.	HDDB15 J4 and cable kit Pin No.	Signal
1	11	NC
2	15	DDC Clock
3	10	GND
4	8	GND
5	14	Vsync
6	4	NC
7	9	+5V (55mA)
8	13	Hsync
9	3	Blue
10	7	GND
11	12	DDC Data
12	2	Green
13	6	GND
14	-	NC
15	1	Red
16	5	GND

Installation Guide

Connect 821516 CRT Bracket cable to the ADD2-CRTcard
Plug in the ADD2-CRT card to the PCIe-x16 slot (nearest CPU)
Fix the ADD2-DVI card by bracket etc (not included)

Boot and enter BIOS

For the 986LCD-M BIOS 986LCD18 or above:

Select Chipset > North Bridge Configuration > Video Function Configuration >
Boot Type = [CRT+CRT2]
SDVO = [CRT]

For the KT965 BIOS KT965009 or above:

Select Chipset > North Bridge Configuration > Video Function Configuration >
Boot Type = [CRT+CRT2]

Select Exit menu.

Hint: Using also Secure CMOS = [Enabled] will make sure that Windows will not change Boot Type in BIOS.

Save Changes and Exit.

Boot into OS and load Intel Graphics Media Driver. For Windows install version 6.14.10.4859 (win2K_xp1431.exe) or newer.

Select output to Monitor 2 (or another configuration as requested).

Electrical Specification

Power consumption:

The +5V available on the CRT connector can deliver minimum 55mA continuously and 1A peak. The output is protected by thermal shutdown circuit.

3.3V 0.8W max.

12V 0.5W max.

Operating temperature: 0-60°C