

PCA-6742 EVA-X4300 Half-Size CPU Card

Startup Manual

Packing List

Before you begin installing your system, please make sure that the following materials have been shipped:

- 1 PCA-6742 Series Half-size CPU Card
- 1 hard disk drive (IDE) interface cable (40-pin) p/n:1701400452
- 1 keyboard / PS2 mouse cable p/n:1700060202
- 1 COM2 + parallel port cable p/n:1701260305
- 1 USB cable with 4 ports (2.0 mm pitch) p/n:1700008887
- 1 Jumper pack p/n:9689000002
- 1 Warranty Certificate

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note 1: For detailed contents of the PCA-6742 Series, please refer to the enclosed CD-ROM or disk (in PDF format).

Standard SBC Functions

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the PCA-6742 Series Rev.A1.

Part No. 2002674211

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Specifications

- CPU: Advantech EVA-X4300 up to 300MHz
- BIOS: Award integrated 256KB ROM in Advantech EVA-X4300
- System memory: Onboard 64 MB DDR2 and optionally supports up to 128 MB
- Enhanced IDE interface: 1 EIDE channel for two devices. BIOS auto-detect up to UDMA -100
- USB interface: Support 4 USB 2.0 ports and USB 1.1 under DOS
- Serial ports: one RS-232 on real I/O, one RS-232/RS-422/RS-485 on one 2.54mm pitch wafer box and two RS-232 on one 2.0mm pitch wafer box
- Parallel port: One parallel port, supports SPP/EPP mode
- Infrared port: One support IrDA version 1.0 SIR protocol up to 115K bps, support SHARP ASK-IR protocol up to 57600 bps.
- Keyboard/mouse connector: Mini-Din connector supports standard PC/AT keyboard and PS/2 mouse
- Watchdog timer: 255 level timer interval. System reset or IRQ11

Local-bus Flat Panel/VGA Interface

- Chipset: SM712 graphic chip
- Display memory: 4 MB display memory
- Display type: Supports CRT, TFT and LVDS (optional) LCDs. Able to display both CRT and flat panel simultaneously
- Flat-panel display mode: Panel resolution supports up to 1024 x 768 @ 18/24 bit TFT LCD Panel and LVDS LCD Panel (Optional)
- CRT display mode: CRT monitor resolutions up to 1024 x 768 @ 24bit true color

Ethernet Interface (PCA-6740)

- Chipset: Realtek RTL8100CL
- Ethernet interface: PCI 10/100 Mbps Ethernet. IEEE 802.3 U protocol compatible
- Connection: On-board RJ-45 connector
- Built-in boot ROM

Solid State Disk

- Supports CompactFlash™ Type I/II, shared with secondary IDE

Mechanical and Environmental

- Dimensions (L x W): 185 mm x 122 mm
- Power supply voltage: +5 V (4.75 V ~ 5.25 V)
- Power requirements: 1.6 A @ 5 V
- Operating temperature: 0 ~ 60° C (32 ~ 140° F)
- Weight: 0.185 kg (0.4 lbs.)

Jumpers and Connectors

Connectors on the board link it to external devices such as hard disk drives, a keyboard or expansion bus connectors. In addition, the board has a number of jumpers that allow you to configure your system to suit your application.

The tables below list the functions of each of the board's jumpers and connectors:

Jumpers

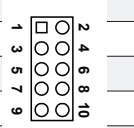
Label	Function
CMOS1	CMOS Clear
JSETCOM2	COM2 function selection
JWDT1	Watchdog timer output selection
JOBS1	HW Monitor Alarm
VGASW1	LCD settings
VGASW2	LCD settings

Connectors



Label	Function
JFP1(1-2)	HDD LED
JFP1(3-4)	Power LED
JFP1(5-6)	N/C
JFP1(7-8)	Reset switch
JFP1(9-10)	N/C
JFP2(1-2)	Fail LED
JFP2(3-4)	Buzzer Enable
JIR1	IR connector
IDE1	IDE connector (Primary channel)
CF1	CF connector (Secondary channel)
LPT1	Parallel port
USB12	USB port 1,2
USB34	USB port 3,4
COMD1	Serial Port: COM1
COM2	Serial Port: COM2 (RS232/422/485)
COM34	Serial Port COM3/COM4
KBMS1	PS/2 keyboard and mouse connector
KBMS2	External keyboard and mouse connector

Front Panel Connectors (JFP1)

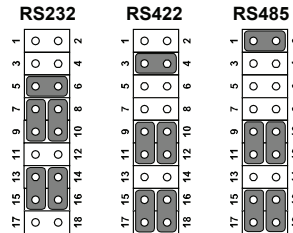
Pin	Signal
1	HDD LED+
2	HDD LED-
3	Power LED+
4	Power LED-
5	N/C
6	N/C
7	Reset Switch
8	GND
9	5 VSB (Reserved)
10	Power Switch (Reserved)





CMOS1 CMOS Clear

Setting	Function
1-2	CMOS Clear 
2-3	Normal operation 



JSETCOM2 COM2 function selection



JWDT1 Watchdog timer output selection

Setting	Function
1-2	IRQ11 
2-3	System reset 

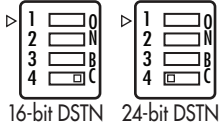
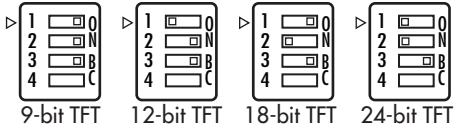
JOBS1 HW Monitor Alarm

Setting	Function
1-2 Closed	Enable OBS alarm 
1-2 Open	Disable OBS alarm 

VGASW1

Setting				Function
1	2	3	4	(switch)
0	0	0	-	9-bit TFT
1	0	0	-	12-bit TFT
0	1	0	-	18-bit TFT
1	1	0	-	24-bit TFT
-	-	-	0	16-bit DSTN
-	-	-	1	24-bit DSTN

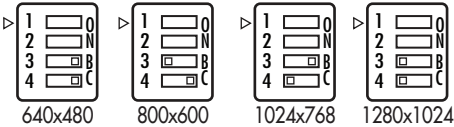
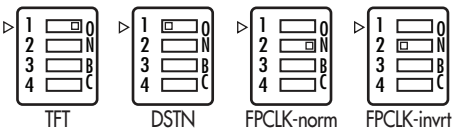
Key: 0 means ON; 1 means OFF; - means doesn't matter.



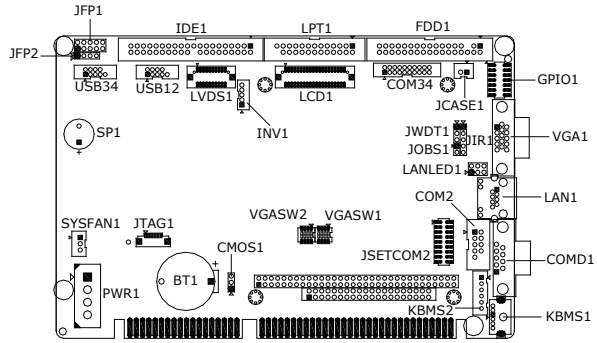
VGASW2

Setting				Function
1	2	3	4	(switch)
0	-	-	-	TFT
1	-	-	-	DSTN
-	0	-	-	FPCLK normal
-	1	-	-	FPCLK inverted
-	-	0	0	640 x 480
-	-	1	0	800 x 600
-	-	0	1	1024 x 768
-	-	1	1	1280 x 1024

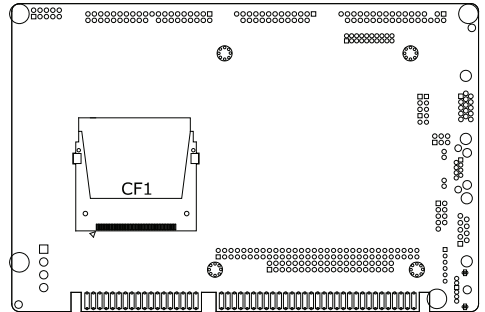
Key: 0 means ON; 1 means OFF; - means doesn't matter.



Locating Connectors and Jumpers



Jumper and Connector Locations (component side)



Jumper and Connector Locations (solder side)

