







































**J20A: PC/104 Connector – 64 pin****J20B: PC/104 Connector – 40 pin**

Pin#	Signal Name	Pin #	Signal Name
1.	IOCHCHK*	2	GND
3	SD7	4	RESETDRV
5	SD6	6	VCC
7	SD5	8	IRQ9
9	SD4	10	-5V
11	SD3	12	RDQ2
13	SD2	14	-12V
15	SD1	16	OWS
17	SD0	18	+12V
19	IOCHRDY	20	GND
21	AEN	22	SMEMW*
23	SA19	24	SMEMR*
25	SA18	26	IOW*
27	SA17	28	IOR*
29	SA16	30	DACK3*
31	SA15	32	DRQ3
33	SA14	34	DACK1*
35	SA13	36	DRQ1*
37	SA12	38	REFRESH*
39	SA11	40	SYSCLK
41	SA10	42	IRQ7
43	SA9	44	IRQ6
45	SA8	46	IRQ5
47	SA7	48	IRQ4
49	SA6	50	IRQ3
51	SA5	52	DACK2*
53	SA4	54	TC
55	SA3	56	BALE
57	SA2	58	VCC
59	SA1	60	OSC
61	SA0	62	GND
63	GND	64	GND

Pin#	Signal Name	Pin #	Signal Name
1.	GND	2	GND
3	MEMCS16*	4	SBHE*
5	IOCS16*	6	SA23
7	IRQ10	8	SA22
9	IRQ11	10	SA21
11	IRQ12	12	SA20
13	IRQ15	14	SA19
15	IRQ14	16	SA18
17	DACK0*	18	SA17
19	DRQ0	20	MEMR*
21	DACK5*	22	MEMW*
23	DRQ5	24	SD8
25	DACK6*	26	SD9
27	DRQ6	28	SD10
29	DACK7	30	SD11
31	DRQ7	32	SD12
33	VCC	34	SD13
35	MASTER*	36	SD14
37	GND	38	SD15
39	GND	40	NC

**J21: DC power output**

(Interconnect to PC/104 J20)

Pin#	Signal Name
1.	-5V
2	-12V
3	+12V
4	GND

**J23: Line-out**

Pin#	Signal Name
1.	LOUTR
2	GND
3	GND
4	LOUTL

**J24: MIC-in**

Pin#	Signal Name
1.	MICVREF
2	GND
3	GND
4	MIC-IN

**J25: Touch screen connector**

Pin#	Signal Name
1.	Y-
2	X-
3	Y+
4	X+

\*\*Onboard SPI ROM (optional) won't be available when Touch function is selected.

**J26: Parallel**

Pin#	Signal Name	Pin #	Signal Name
1	STB-	14	AFD-
2	PD0	15	ERR-
3	PD1	16	INIT-
4	PD2	17	SLIN-
5	PD3	18	GND
6	PD4	19	GND
7	PD5	20	GND
8	PD6	21	GND
9	PD7	22	GND
10	ACK-	23	GND
11	BUSY	24	GND
12	PE	25	GND
13	SLCT	26	NC

**J27: Power Connector**

Pin#	Signal Name
1.	+5V
2	GND

## System Mapping

Memory Mapping		
Address	Description	Usage
00000000 – 0009FFFF	System RAM	*
000A0000 – 000AFFFF	EGA/VGA Video Memory	*
000B0000 – 000B7FFF	MDA RAM, Hercules graphics display RAM	*
000B8000 – 000BFFFF	CGA display RAM	*
000C0000 – 000C7FFF	EGA/VGA BIOS ROM	*
000C8000 – 000CFFFF	Boot ROM enable	
000CC000 – 000CFFFF	Console Redirection enable	
000D0000 – 000D7FFF	Expansion ROM space	
000D8000 – 000D8FFF	SPI Flash Emulation Floppy A Enable	
000DC000 – 000DFFFF	Expansion ROM Space	
000E0000 – 000EFFFF	USB Legacy SCSI ROM space	
000F0000 – 000FFFFFF	Motherboard BBIOS	*
FEFDBC00 – FEFDBCFF	Standard OpenHCD USB Host Controller	*
FEFBB400 – FEFBB4FF	Onboard Ethernet Adapter	*
FEFDB800 – FEFDBFFF	Standard Enhanced PCI to USB Host Controller	*

I/O Mapping		
Address	Description	Usage
0000h – 000Fh	DMA 8237-1	*
0020h – 0021h	PIC 8259-1	*
0022h – 0023h	Indirect Access Registers (6117D configuration port)	*
0040h – 0043h	Timer Counter 8254	*
0060h	Keyboard / Mouse data port	
0061h	Port B + NMI control port	*
0062h – 0063h	8051 download 4k address counter	
0064h	Keyboard/ Mouse status/ command port	
0065h	WatchDog0 reload counter	
0070h – 0071h	CMOS RAM port	*
0072h – 0075h	MTBF control register	*
0078h – 007Ch	GPIO port 0,1,2,3,4 default setup	*
0080h – 008Fh	DMA page register	
0092h	System control register	*
0093h – 0097h	GPIO port 6,7,8,9,A direction control	*
0098h – 009Dh	GPIO port 0,1,2,3,4,5 direction control	*
00A0h – 00A1h	PIC 8259-2	*
00A8h – 00ADh	WatchDog1 control counter	*
00AEh	WatchDog1 reload counter	*
00C0h – 00DFh	DMA 8237-2	*
00E0h – 00EFh	DOS 4G Page access	*
0100h – 0105h	GPIO port 5,6,7,8,9,A default setup	*
0170h – 0177h	IDE 1(IRQ 15)	*
0278h – 027Fh	Printer port (IRQ7, DMA 0)	*
02E8h – 02EFh	COM4 (IRQ 11)	*
02F8h – 02EFh	COM2 (IRQ 3)	*
03E8h – 03EFh	COM3 (IRQ 10)	*
03F6h	IDE1 ATAPI device control write only register	*
03F8h – 03FFh	COM1 (IRQ 4)	*
0480h – 048Fh	DMA High page register	*
0490h – 0499h	Instruction counter register	*
04D0h – 04D1h	8259 Edge / level control register	*
0CF8h – 0CFFh	PCI configuration port	*
DE00h – DEFFh	On board LAN	*
FC00h – FC05h	SPI Flash BIOS control register	*

FC08h – FC0Dh	External SPI BUS control register	*
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IRQ Mapping		
Address	Description	Usage
IRQ0	System Timer	*
IRQ1	Keyboard Controller	*
IRQ2	Cascade for IRQ8~15	
IRQ3	Serial port 2	*
IRQ4	Serial port 1	*
IRQ5	USB	*
IRQ6	USB	
IRQ7	Printer Port	*
IRQ8	Real Timer Clock	*
IRQ9	ACPI	*
IRQ10	Serial Port 3	*
IRQ11	Serial Port 4	*
IRQ12	Mouse	*
IRQ13	Math Coprocessor	*
IRQ14	Multimedia Device	*
IRQ15	Hard Disk Controller #2	*

DMA Mapping		
Address	Description	Usage
DMA0		
DMA1		
DMA2		
DMA3		
DMA4		
DMA5		
DMA6		
DMA7		

## 3 Software Resources

### 3.1 Technical Resource Website

In the following website, you will find our latest user manuals, including OS support resources systems such as evaluation images for Windows Embedded Compact 7, Windows Embedded CE 6.0, Windows Embedded CE 5.0, and Windows XP Embedded

## 4 Technical support

### 4.1 Display Introduction

The VDX3-6726 offers two different interfaces which support maximum resolution up to 1920 x 1080 (@ 60MHz) connecting to VGA and 24-bit LVDS LCD Flat Panel.

### 4.2 BIOS Introduction

Featuring AMI BIOS, the VDX3-6726 module is a one stable module board for your applications. In this section, we will introduce you some basic AMI BIOS setting such as CPU speed adjusting, console redirection, and IDE configuration, etc.

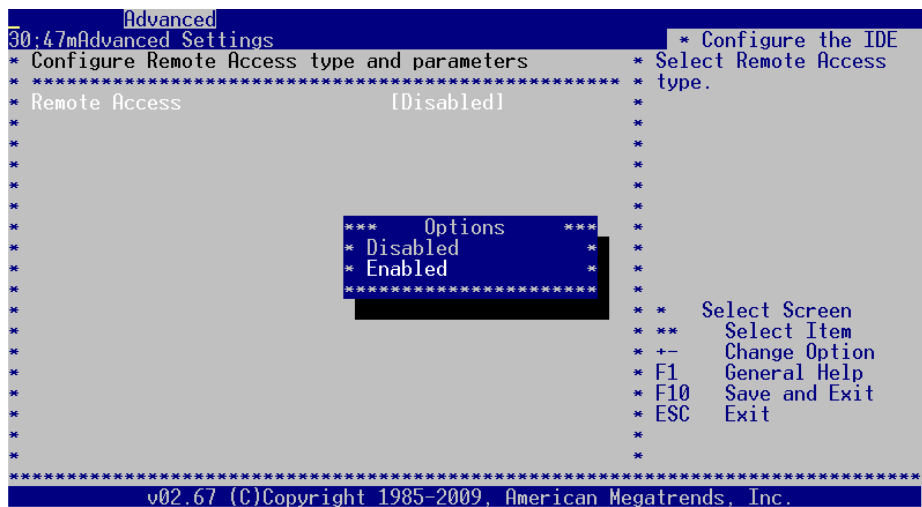
#### 4.2.1 CPU Clock Adjusting

For CPU clock adjusting, please contact your contact support directly

### 4.2.2 Console Direction

Access to computer board through serial port, you can work on VDX3-6726 without VGA display or monitor. The default access port is COM1 and disabled. If you would like to use this function, please go to the path below to enable Console Redirection.

**Path: Advanced >Remote Access Configuration >Remote Access [Enabled]**





### 4.2.3 Serial Ports Switching

Serial ports on VDX3-6726 are set RS232 as default. If you need RS485 be your default serial ports. Please contact your contact support directly. And you can refer to the below instruction to select the IRQ mode according to your demands.

**Path: Advanced >Serial/Parallel Port Configuration**

```

Advanced
*****
* SB Serial Port 1          [3F8]          * RDC Internal UART *
*   Serial Port IRQ 1      [IRQ4]          * Serial Port       *
*   Serial Port Boud Rate  [115200 BPS] *                  *
* PWM & COM2 Pin Select    [SB Serial Port 2] *                  *
* SB Serial Port 2        [2F8]          *                  *
*   Serial Port IRQ 2      [IRQ3]          *                  *
*   Serial Port Boud Rate  [115200 BPS] *                  *
* SB Serial Port 3        [3E8]          *                  *
*   Serial Port IRQ 3      [IRQ10]         *                  *
*   Serial Port Boud Rate  [115200 BPS] *                  *
* SB Serial Port 4        [2E8]          *                  *
*   Serial Port IRQ 4      [IRQ11]         *                  *
*   Serial Port Boud Rate  [115200 BPS] *                  *
* SB Parallel Port Address [378]          * * Select Screen   *
*   Parallel Port Mode     [EPP 1.7 AND SPP] * ** Select Item   *
*   Parallel Port IRQ      [IRQ7]          * +- Change Option *
*                               * F1 General Help  *
*                               * F10 Save and Exit *
*                               * ESC Exit         *
*                               *                  *
*****
v02.67 (C)Copyright 1985-2009, American Megatrends, Inc.

```



## 4.2.5 Advanced Configuration

Two statuses for IRQ setting:

[Reserved]: IRQ will free to be allocated by PnP BIOS.

[Available]: IRQ will not free to be allocated by PnP BIOS.

**Path: PCIPnP >IRQ**

```

Main   Advanced  PCIPnP  Boot   Security  Exit
*****
* Advanced PCI/PnP Settings                               ** Available: Specified *
* ***** IRQ is available to be *****                ** IRQ is available to be *
* WARNING: Setting wrong values in below sections      ** used by PCI/PnP    **
*               may cause system to malfunction.       ** devices.           **
*                                                       ** Reserved: Specified *
* Clear NVRAM                                           ** IRQ is reserved for *
* Plug & Play O/S                                       ** use by L           **
* PCI Latency Timer                                     ** devices.           **
* Allocate IRQ to PCI VGA                               **                    **
* Palette Snooping [Disabled]                          **                    **
* PCI IDE BusMaster [Enabled]                          **                    **
*                                                       **                    **
* IRQ3 [Reserved]                                       ** *   Select Screen   **
* IRQ4 [Reserved]                                       ** **  Select Item     **
* IRQ5 [Available]                                       ** +-  Change Option   **
* IRQ6 [Available]                                       ** F1  General Help    **
* IRQ7 [Available]                                       ** F10 Save and Exit   **
* IRQ9 [Reserved]                                       ** ESC  Exit            **
* IRQ10 [Available]                                      **                    **
* IRQ11 [Available]                                      **                    **
*****
v02.67 (C)Copyright 1985-2009, American Megatrends, Inc.
    
```





## 5.2 Basic BIOS Setting for LCD

If you would like to use LCD panel with VDX3-6726, please follow below instruction:

### Boot Display Device [VBIOS]

LCD Panel Index according to your LCD resolution from VBIOS to 5.

Options	Resolution of the LCD Panel
VBIOS	the Required LCD Specification
1	640 x 480
2	800 x 480
3	800 x 600
4	1024 x 600
5	1024 x 768

### Path of Boot Display Device setting:

**Boot >Boot Settings Configuration >Boot Display Device [VBIOS]**





# Technical Support Directly

To offer you more accurate and specific solutions for the technical situations you have, please prepare the information below before contacting:

—Product name and serial number

—Description of the H/W environment ( i.e.: working temperature, I/O board information, information of connection between main board and IO boards, and/or other devices, etc)

—Description of the S/W environment (i.e: operating system, version, application software, and/or other related information, etc.)

—A detailed description and photos of the technical situation

—Any complement or technical situations you need support more focused

on

## User Manual Feedback

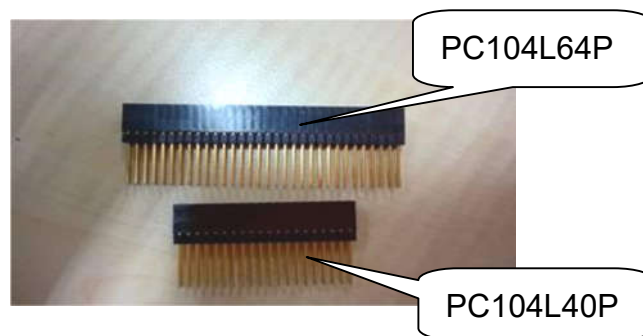
To make this user manual more complete, if you have any comments or feedbacks to this manual.



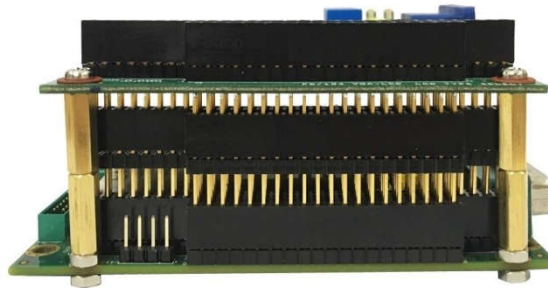
# Appendix

## Stacking Solution for Daughter Board

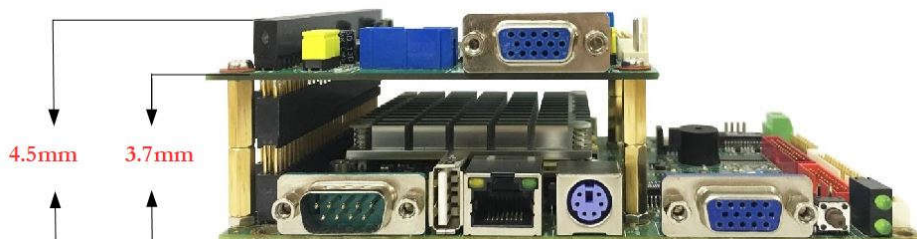
1. Please prepare PC104L40P x 1 and PC104L64P x 1 (as the image below shown).



2. Put on the nuts, pillars, screws and PC104 connector (as the image below shown)



3. As the image below shown after stacking.  
Note: Please contact us if the nuts, pillars and screws are required.



# Warranty

This product is warranted to be in good working order for a period of one year (12 months from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it without additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster. Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, originality to use this product. Vendor will not be liable for any claim made by any other related party. Return authorization must be obtained from the vendor before returned merchandise is accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA number. Returned goods should always be accompanied by a clear problem description. Should you have questions about warranty and RMA service, please contact us directly.