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# Revision History

Revision	Date	Remark
1.0	June 13, 2016	First release
2.0	June 8, 2016	New Add: (1) Working temperature for Dual Core version (2) Cable set for VDX3-6724 with Compact Flash

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# 1 General Information

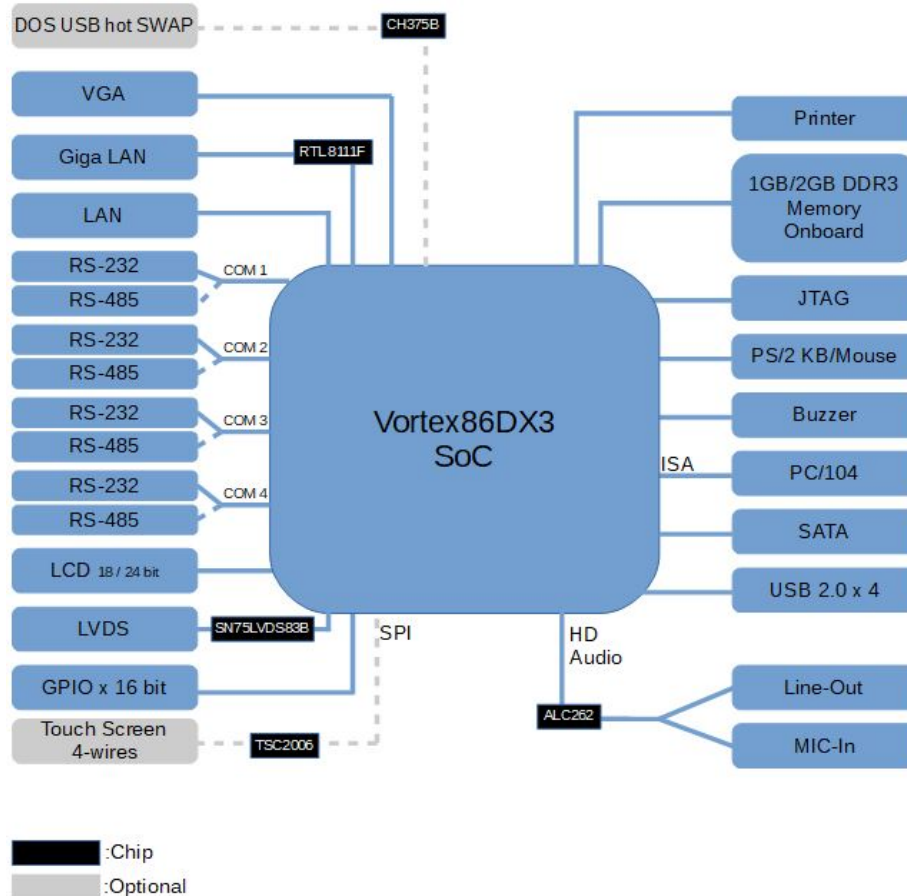
## 1.1 Overview

The VDX3-6724 is a low-power CPU module which compliant with ISA standard. It takes the advantage of Vortex86DX3 1GHz x86 CPU which integrate the SATA, I2C, VGA, LVDS, PS/2, USB, HD Audio and even with 16-bit ISA bus support.

The VDX3-6724 is designed as a plug in replacement, with backward compatibility to support legacy software to help extend existing product life cycle without heavy re-engineering.

## 1.2 Block diagram

Board Block Diagram



## 1.3 Specifications

Processor	DM&P SoC CPU Vortex86DX3 - 1GHz L1:32K I-Cache, 32K D-Cache, L2 Cache:512KB	
RAM	1GB/2GB DDR3 Onboard	
BIOS	AMI BIOS	
Bus	PC/104 Standard Compliant	
Display	Integrated 2D VGA chip with dual display support (VGA + TTL / VGA + LVDS) VGA: Maximum resolution up to 1920x1080 @ 60Hz LVDS: Maximum resolution up to 1024x768 @ 60Hz Single channel 24-bit LVDS	
LAN	Integrated 10/100Mbps Ethernet x1 Realtek 81111F GbE x1	
Disk Support	SATA DOM Compact Flash (Optional)	Onboard eMMC 512MB/4GB (Optional)
I/O Interface	RS232 x4 USB (ver. 2.0) x4 Parallel x1 HD Audio	16-bit GPIO x1 PS/2 touch controller x1 (Optional) DOS hot SWAP x1 (Optional)
Connectors	2.54mm 26-pin box header for Parallel x1 2.54mm 20-pin box header for GPIO x1 2.54mm 10-pin box header for USB x2 2.54mm 10-pin box header for RS232 x3 2.54mm 2-pin pin header for Reset x1 2.54mm 104-pin PC/104 connector x1 2.0mm 44-pin box header for LCD x1 2.0mm 20-pin pin header for LVDS x1 2.0mm 8-pin pin header for Ethernet x1 1.25mm 4-pin wafer connector for Line-out/MIC-in x2 7-pin SATA connector for SATA DOM x1 2-pin box header for DC +5V output x1 15-pin D-Sub female connector for VGA x1 9-pin D-Sub male connector for RS232 x1 Type I/II Compact Flash slot x1 (Optional) Terminal block for DC input x1 PS/2 connector for Keyboard/Mouse x1	

	RJ45 connector for GbE x1	
Power Requirement	DC +5V @ 1000mA (Typical)	
Operating Temp.	-20°C to +70°C (Single Core) -10°C to +60°C (Dual Core) -40°C to +85°C (Optional for Single Core) -20°C to +70°C (Optional for Dual Core)	
Dimensions	184 x 122mm	
Weight	180g	
O/S Support	Windows 7	Linux
	Windows Embedded Compact 7	DOS
	Windows XP Professional	POS Ready (WePOS)
	Windows Embedded Standard 7	QNX
	Windows Embedded CE6.0	VxWorks
	Windows Embedded 2009	Free BSD



## 1.4 Ordering Information

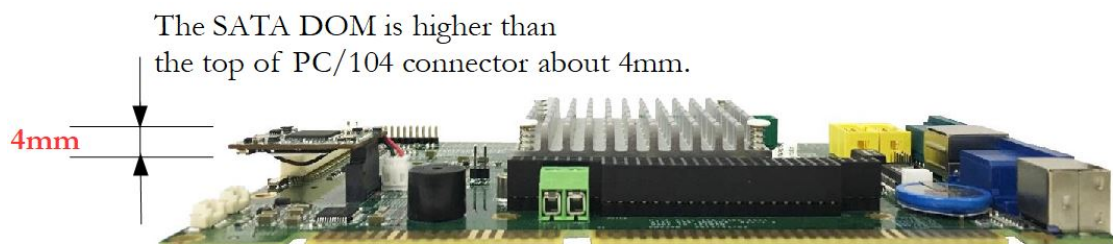
Part Number	Product Description
VDX3-6724-1G	Vortex86DX3 Half-Size CPU Module with 1GB DDR3
VDX3-6724-2G	Vortex86DX3 Half-Size CPU Module with 2GB DDR3
VDX3-6724-2C-1G	Vortex86DX3 Half-Size Dual Core CPU Module with 1GB DDR3
VDX3-6724-2C-2G	Vortex86DX3 Half-Size Dual Core CPU Module with 2GB DDR3
VDX3-6724-CF-1G	Vortex86DX3 Half-Size CPU Module with 1GB DDR3 with CF card slot
VDX3-6724-2C-CF-1G	Vortex86DX3 Half-Size Dual Core CPU Module with 1GB DDR3 with CF card slot
VDX3-6724-CF-2G	Vortex86DX3 Half-Size CPU Module with 2GB DDR3 with CF card slot
VDX3-6724-2C-CF-2G	Vortex86DX3 Half-Size Dual Core CPU Module with 1GB DDR3 with CF card slot
CABLE-6724-SET	GPIO (2.54) x1                      Printer (2.54) x1 RS-232 (2.54) x3                      USB (2.54) x2 Audio Line x2                              NET 4x2 (2.0) x1
CABLE-6724-CF	RS-232 (2.54) x3                      USB (2.54) x2 Audio Line x2                              NET 4x2 (2.0) x1
ICOP-0096	Vortex86 LVDS 18-bit Converter Kit for LCD Panel Display
CABLE-LVDS-30	18-Bit LVDS Cable

\*Default setting for processor on VDX3-6724 is Single-core. If Dual-core processor is required, please contact ICOP ([info@icop.com.tw](mailto:info@icop.com.tw)).

**Storages:**

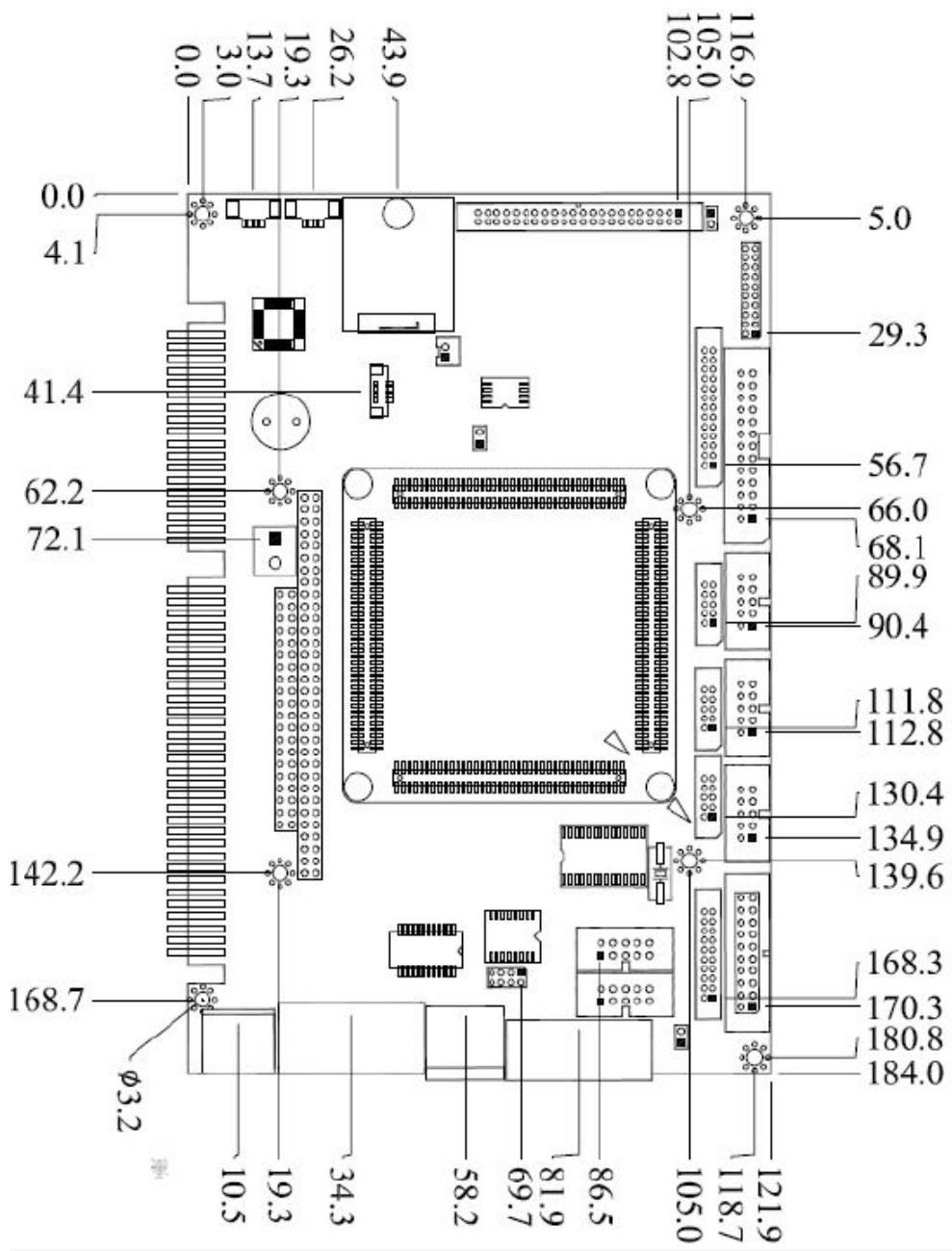
Product Name	MLC	SLC	0°C to +70°C	-40°C to +85°C
SDM-SST-2G-H-M	V		V	
SDM-SST-4G-H-M	V		V	
ISATA-8G-H-M	V		V	
ISATA-16G-H-M	V		V	
ISATA-32G-H-M	V		V	
ISATA-4G-H-M-X	V			V
ISATA-8G-H-M-X	V			V
ISATA-16G-H-M-X	V			V
ISATA-32G-H-M-X	V			V
ISATA-1G-H-S		V	V	
ISATA-2G-H-S		V	V	
ISATA-4G-H-S		V	V	
ISATA-8G-H-S		V	V	
ISATA-16G-H-S		V	V	
SDM-SST-2G-H-S-X		V		V
SDM-SST-4G-H-S-X		V		V
SDM-SST-8G-H-S-X		V		V
ISATA-16G-H-S-X		V		V

## Demonstration of “SDM-SST” SATA DoM on VDX3-6724



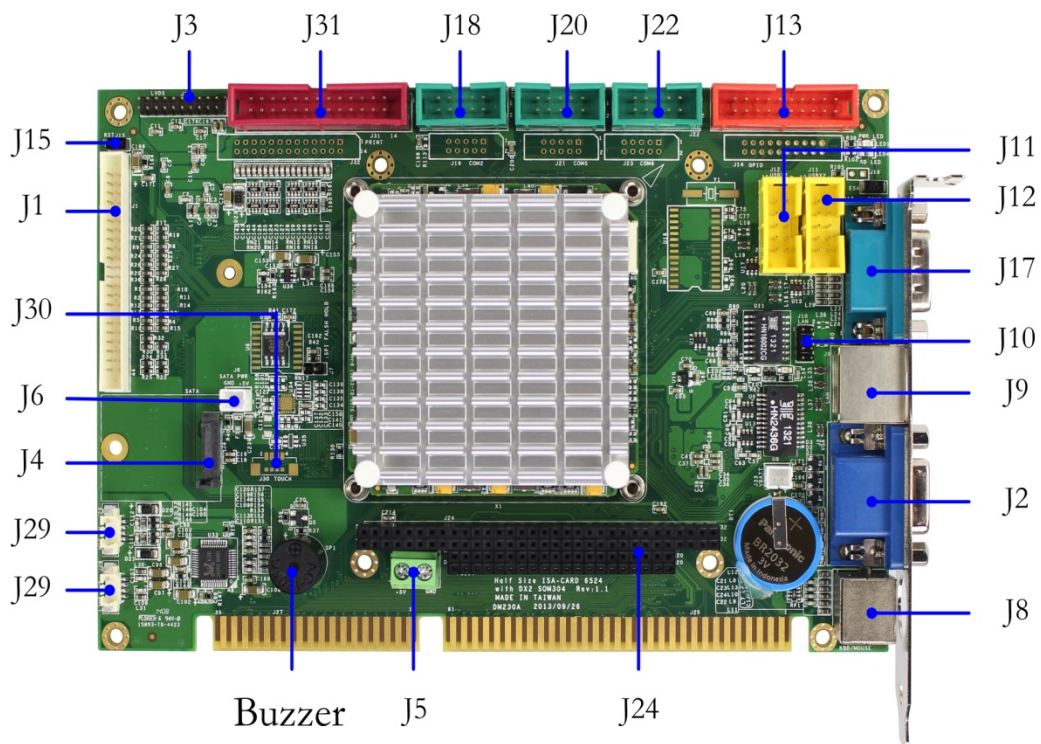
# 2 Hardware Information

## 2.1 Board Dimension



## 2.2 Board Outline

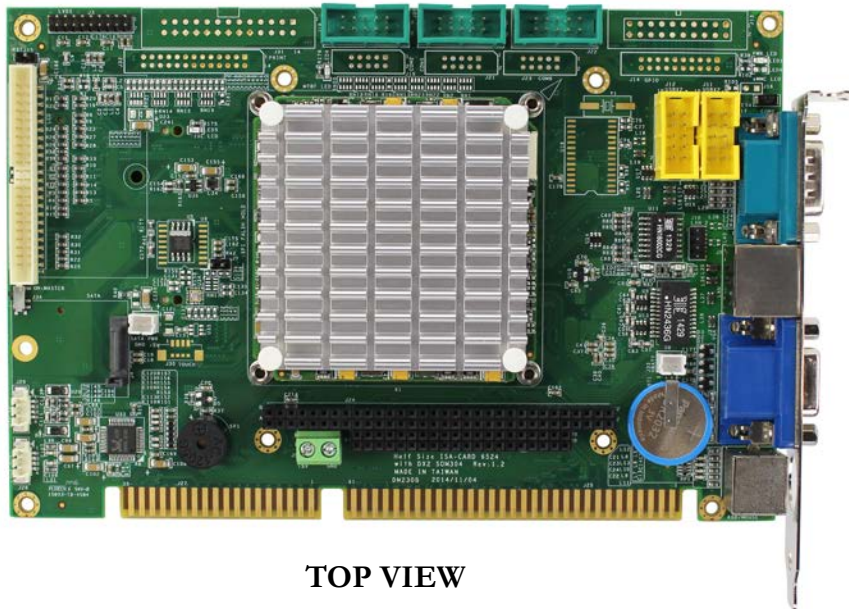
# VDX3-6724



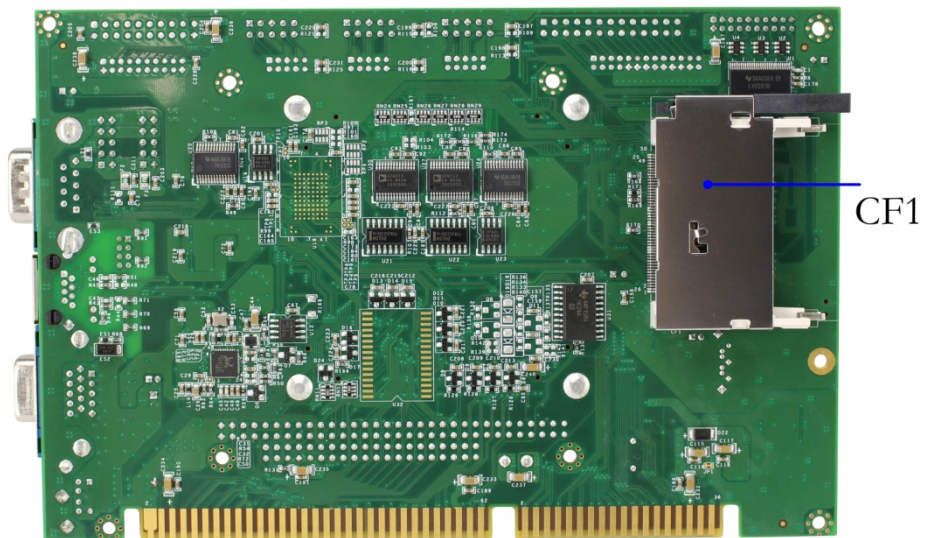
### Note:

1. COM RS232/485 is selected by BIOS.
2. Onboard SPI ROM (optional) and PS/2 Mouse will be disabled when Touch function (optional) is selected.
3. GPIO will be occupied when eMMC is selected on VDX3-6724.
4. LPT, eMMC, and GPIO are not available on VDX3-6724-CF.
5. CF card slot is only available on VDX3-6724-CF. (see the image below)

# VDX3-6724-CF



TOP VIEW



BOTTOM VIEW

## 2.3 Connector Summary

Nbr.	Name	Type of Connections	Nbr of Pin
J1	LCD	Box Header, 2.0mm, 2x22	44
J2	VGA	15-pin D-Sub Female	15
J3	LVDS (24 bits)	Pin Header, 2.0mm, 10x2	20
J4	SATA DOM	SATA 7P Connector, 7x1	7
J5	Power Connector	Terminal Block, 5.0mm, 2x1	2
J6	SATA DOM Power	Box Header, 2.0mm, 1x2	2
J8	PS/2 connector (Keyboard/Mouse)	Mini-DIN Female	6
J9	LAN1 (10/100/1000)	RJ45 Connector	8
J10	LAN2 (10/100)	Pin Header, 2.0mm, 4x2	8
J11	USB0&1	Box Header, 2.54mm, 5x2	10
J12	USB2&3	Box Header, 2.54mm, 5x2	10
J13	GPIO (Port6/7)	Box Header, 2.54mm, 10x2	20
J15	Reset	Pin Header, 2.54mm, 1x2	2
J17	COM1(RS232/485 or optional TTL/P4)	D-Sub Male	9
J18	COM2(RS232/485 or optional TTL/P5)	Box Header, 2.54mm, 5x2	10
J20	COM5(Optional TTL/P0)	Box Header, 2.54mm, 5x2	10
J22	COM6(Optional TTL/P1)	Box Header, 2.54mm, 5x2	10
J24A	PC104 Connector – 64 pins	Box Header, 2.54mm, 32x2	64
J24B	PC104 Connector – 40 pins	Box Header, 2.54mm, 20x2	40
J28	Line-Out	Wafer, 1.25mm, 4x1	4
J29	MIC-In	Wafer, 1.25mm, 4x1	4
J30	Touch screen Controller (Optional)	Wafer, 1.25mm, 4x1	4
J31	Parallel	Box Header, 2.0mm, 13x2	26
J34	Master/Slave for CF Card	Slide switch	3
CF1	CF card slot		
SP1	Buzzer		

## 2.4 Pin Assignments & Jumper Settings

### J1: LCD

Pin#	Signal Name	Pin #	Signal Name
1	+3.3V	2	+3.3V
3	LG2	4	LG3
5	LG4	6	LG5
7	NC	8	NC
9	LR0	10	LR1
11	LR2	12	LR3
13	LR4	14	LR5
15	GND	16	NC
17	NC	18	NC
19	NC	20	GND
21	NC	22	NC
23	LB0	24	LB1
25	LB2	26	LB3
27	LB4	28	LB5
29	NC	30	NC
31	LG0	32	LG1
33	GND	34	GND
35	NC	36	LCLK
37	NC	38	LDE
39	NC	40	LHSYNC
41	NC	42	LVSYNC
43	LBACKL	44	LVDDEN

**(Please refer to Appendix for TFT Flat Panel Data Output)**

**J2: VGA**

Pin#	Signal Name	Pin #	Signal Name
1.	R OUT	2	G OUT
3	B OUT	4	NC
5	GND	6	GND
7	GND	8	GND
9	NC	10	GND
11	NC	12	DDCDAT
13	HSYNC	14	VSYNC
15	DDCCLK		

**J3: LVDS** (24-bit Support Only)

Pin#	Signal Name	Pin #	Signal Name
1	VCC3 (+3.3V)	2	VCC3 (+3.3V)
3	GND	4	GND
5	RxIN0+	6	RxIN0-
7	RxIN1-	8	GND
9	GND	10	RxIN1+
11	RxIN2+	12	RxIN2-
13	CKIN-	14	GND
15	GND	16	CKIN+
17	RxIN3-	18	GND
19	GND	20	GxIN3+

**J4: SATA DOM**

Pin#	Signal Name	Pin #	Signal Name
1	GND	2	TX+
3	TX-	4	GND
5	RX-	6	RX+
7	GND		



**J5: Power Connector** (Terminal Block 5.0mm)

Pin#	Signal Name
1	+5V
2	GND

**J6: SATA DOM POWER**

Pin#	Signal Name	Pin #	Signal Name
1	VCC	2	GND

**J10: LAN2 (10/100)**

Pin#	Signal Name	Pin #	Signal Name
1	ATX+	2	ATX-
3	ARX+	4	LED0
5	LED0+	6	ARX-
7	LED1+	8	LED1

**J11: USB0&1**

Pin#	Signal Name	Pin #	Signal Name
1.	VCC	2	VCC
3	LUSBD0-	4	LUSBD0-
5	LUSBD0+	6	LUSBD1+
7	GND	8	GND
9	GGND	10	GGND

**J12: USB2&3**

Pin#	Signal Name	Pin #	Signal Name
1.	VCC	2	VCC
3	LUSBD2-	4	LUSBD3-
5	LUSBD2+	6	LUSBD3+
7	GND	8	GND
9	GGND	10	GGND

\*USB3 supports DOS USB hot SWAP (Optional). For more detail, please contact ICOP sales.

**J13: GPIO (Port 6/7)**

Pin#	Signal Name	Pin #	Signal Name
1.	GND	2	VCC
3	GP60	4	GP70
5	GP61	6	GP71
7	GP62	8	GP72
9	GP63	10	GP73
11	GP64	12	GP74
13	GP65	14	GP75
15	GP66	16	GP76
17	GP67	18	GP77
19	VCC	20	GND

\*When onboard eMMC is enabled, GPIO will be disabled.

\*\*Not available on VDX3-6724-CF

**J15: RESET**

Pin#	Signal Name	Pin #	Signal Name
1.	RST_SW	2	GND

**J17: COM1 RS232/485 D-Sub 9 pin**

(Optional: TTL/ GPIO-P4)

Pin#	Signal Name	Pin #	Signal Name
1.	DCD1/1RS485-	2	RXD1/1RS485+
3	TXD1	4	DTR1
5	GND	6	DSR1
7	RTS1	8	CTS1
9	RI1	10	NC

**J18: COM2 RS232/485**

(Optional: TTL/ GPIO-P5)

Pin#	Signal Name	Pin #	Signal Name
1.	DCD2/2RS485-	2	RXD2/2RS485+
3	TXD2	4	DTR2
5	GND	6	DSR2
7	RTS2	8	CTS2
9	RI2	10	NC

**J20: COM5 RS232**

(Optional: TTL/ GPIO-P6)

Pin#	Signal Name	Pin #	Signal Name
1.	DCD5	2	RXD5
3	TXD5	4	DTR5
5	GND	6	DSR5
7	RTS5	8	CTS5
9	RI5	10	NC

**J22: COM6 RS232**

(Optional: TTL/ GPIO-P1)

Pin#	Signal Name	Pin #	Signal Name
1.	DCD6	2	RXD6
3	TXD6	4	DTR6
5	GND	6	DSR6
7	RTS6	8	CTS6
9	RI6	10	NC

**J24A: PC/104 Connector – 64 pin****J24B: 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

**J28: Line-out**

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

**J29: MIC-in**

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

**J30: Touch screen** (Optional)

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

\*Onboard SPI ROM (optional) and PS/2 Mouse will be disabled when Touch function (optional) is selected.

**J31: 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

\*Not available on VDX3-6724-CF

## 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 ICOP 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 CE6.0, and Windows XP Embedded (Win XPe), etc. For details, please visit <http://tech.icop.com.tw/>.

## 4 Basic BIOS Setting

### 4.1 Introduction

Featuring AMI BIOS, the VDX3-6724 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.

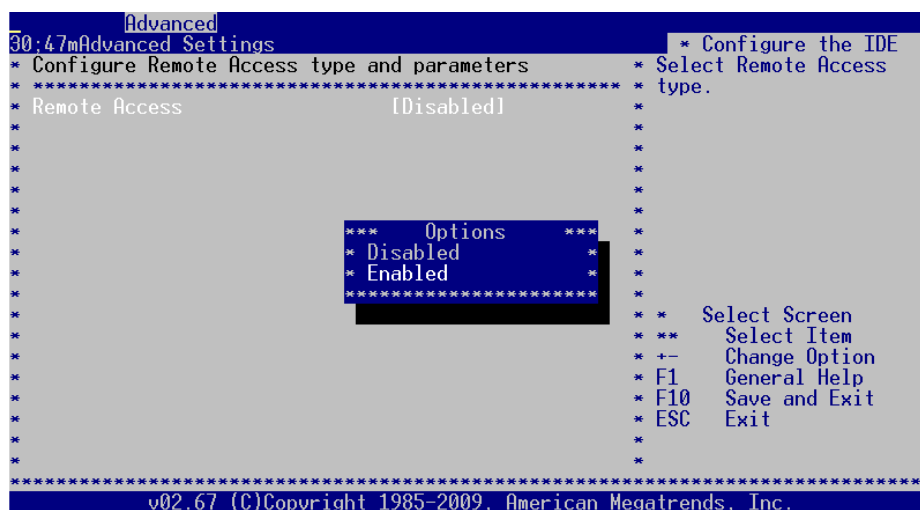
### 4.2 CPU Clock Adjusting

For CPU clock adjusting, please contact your contact window directly or mail [info@icop.com.tw](mailto:info@icop.com.tw).

### 4.3 Console Redirection

Access to computer board through serial port, you can work on VDX3-6724 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]**



## 4.4 Serial Ports Switching

Serial ports on VDX3-6724 are set RS232 as default. If you need RS485 be your default serial ports. Please contact your contact window directly or mail [info@icop.com.tw](mailto:info@icop.com.tw). 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         *
*                                     *
*****
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```

## 4.5 IDE Configuration

The default IDE configuration is for Windows Operating System, and the setting as below:

**Onboard IDE Operate Mode: [Legacy Mode]  
IDE Compatibility: [Disabled].**

If you would like to use Linux on VDX3-6724, please follow below instructions:

**Onboard IDE Operate Mode: [Native Mode]  
IDE Compatibility: [Enabled].**

**Path of Onboard IDE Operate Mode:  
Advanced >IDE Configuration >Onboard IDE Operate Mode [Native Mode]**

```

Advanced
*****
* IDE Configuration                               * ! Notice ! Native Mode *
* *****                                       * ONLY for Windows(R) XP *
* OnBoard PCI IDE Controller   [Secondary]       * and 2000.               *
* * Secondary IDE Master       : [Not Detected]  *                       *
* *                               *                       *
* Hard Disk Write Protect      [Disabled]        *                       *
* IDE Detect Time Out (Sec)    [35]              *                       *
* ATA(PI) 80Pin Cable Detecti *** Options ***   *                       *
* Hard Disk Delay              * Legacy Mode    * *                       *
* OnBoard IDE Operate Mode     * Native Mode   * *                       *
* SATA PHY Speed               *****          *                       *
*                               *                       *
*                               * * Select Screen *
*                               * * Select Item  *
*                               * +- Change Option *
*                               * F1 General Help *
*                               * F10 Save and Exit *
*                               * ESC Exit       *
*                               *                       *
*****
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```

## 4.6 Advanced PCI-PnP Setting

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 used by PCI/PnP devices. **
* WARNING: Setting wrong values in below sections may cause system to malfunction. **
* Clear NVRAM [No] ** Reserved: Specified IRQ is reserved for use by L devices. **
* Plug & Play O/S [No] **
* PCI Latency Timer [64] **
* Allocate IRQ to PCI VGA [Yes] **
* 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] **
*****
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```







## 5.2 Pin Assignment of LVDS

Please refer Page 20 for LVDS pin assignment.

## 5.3 Basic BIOS Setting for LCD

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

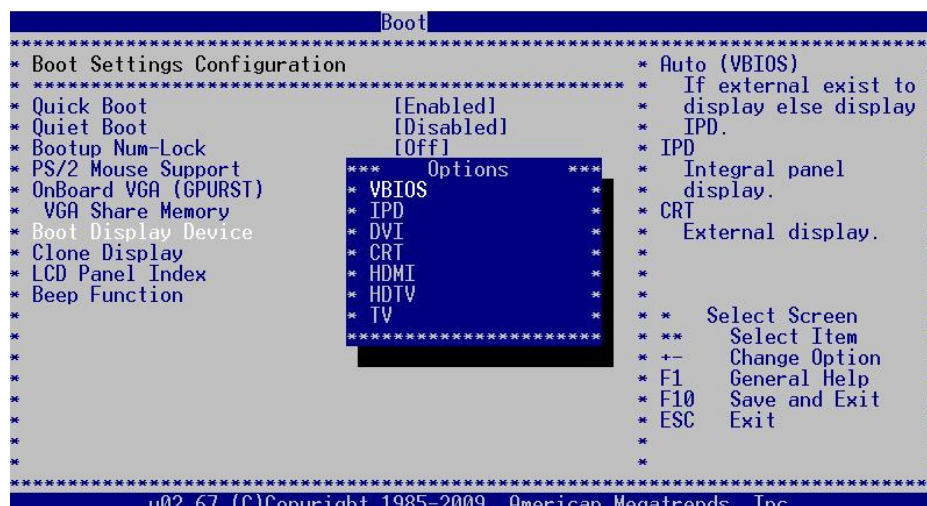
### Boot Display Device [VBIOS]

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

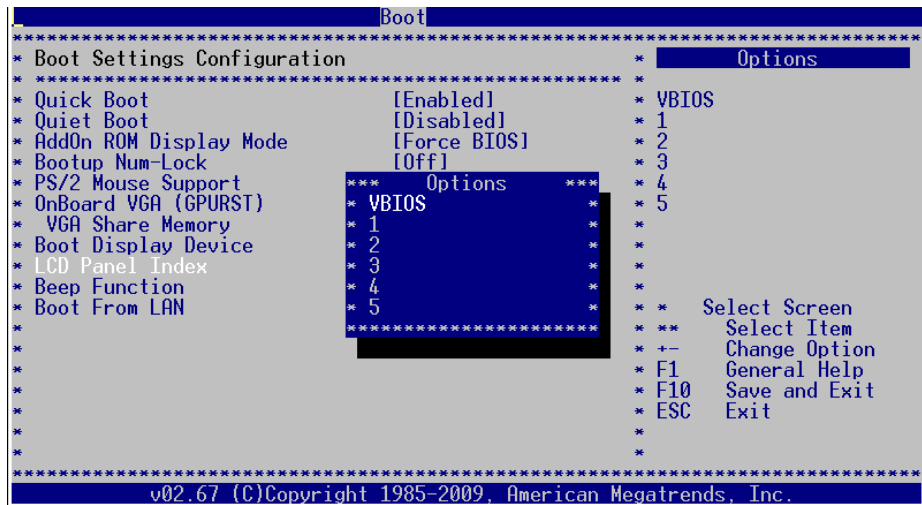
### Path of Boot Display Device setting:

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



**Path of LCD Panel Index setting:**

**Boot >Boot Settings Configuration >LCD Panel Index [    ]**



**\*\*\***The [VBIOS] difference between **Boot Display Device** and **LCD Panel Index**:

**Boot Display Device [VBIOS]:** Display Output Setting

**LCD Panel Index [VBIOS]:** Display Resolution Setting

# Technical Support Directly from ICOP

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

- 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 want ICOP more focusing on

## User Manual Feedback

To make this user manual more complete, if you have any comments or feedbacks to this manual, please feel free to write to [info@icop.com.tw](mailto:info@icop.com.tw) or contact your ICOP sales representative.

# Appendix

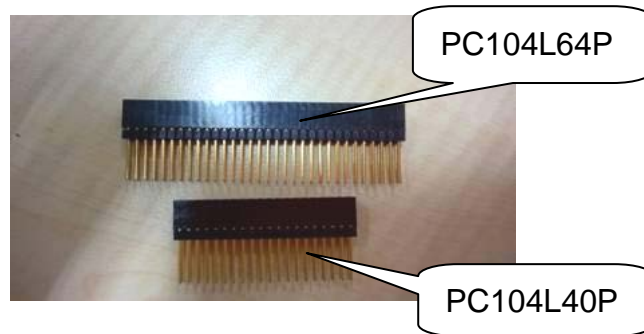
## TFT Panel Data Output

LCD Pin#	Signal Name	Digital 18 Bits	RGB 24 Bits
1	LCDVCC (+3.3)	VDD	VDD
2	LCDVCC (+3.3)	VDD	VDD
3	FPD12	G2	G4
4	FPD13	G3	G5
5	FPD14	G4	G6
6	FPD15	G5	7
7	FPD16	/	R0
8	FPD17	/	R1
9	FPD18	R0	R2
10	FPD19	R1	R3
11	FPD20	R2	R4
12	FPD21	R3	R5
13	FPD22	R4	R6
14	FPD23	R5	R7
15	GND	VSS	VSS
16	NC	/	/
17	NC	/	/
18	NC	/	/
19	NC	/	/
20	GND	VSS	VSS
21	FPD0	/	B0
22	FPD1	/	B1
23	FPD2	B0	B2
24	FPD3	B1	B3
25	FPD4	B2	B4
26	FPD5	B3	B5
27	FPD6	B4	B6
28	FPD7	B5	B7
29	FPD8	/	G0
30	FPD9	/	G1

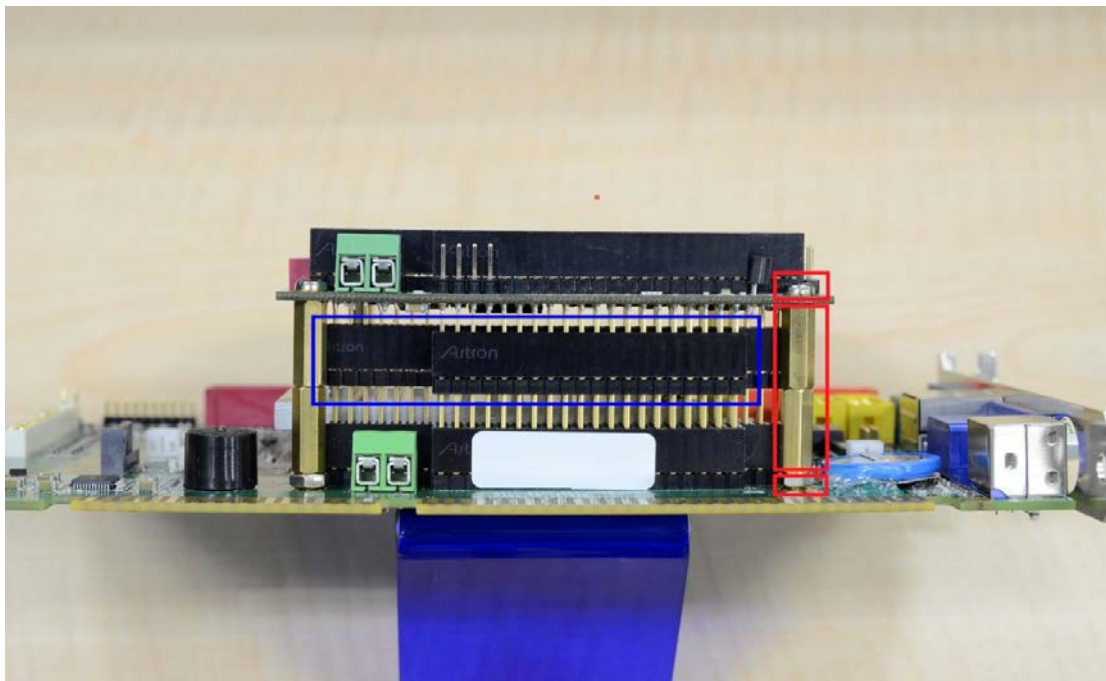
LCD#	Signal Name	Digital 18 Bits	RGB 24 Bits
31	FPD10	G0	G2
32	FPD11	G1	G3
33	GND	VSS	VSS
34	GND	VSS	VSS
35	NC	/	/
36	FP1CLK	XCLK	XCLK
37	NC	/	/
38	FP1DE	DEN	DEN
39	NC	/	/
40	FP1HS	HSYNC	HSYNC
41	NC	/	/
42	FP1VS	VSYNC	VSYNC
43	FPENBLT	ADJ	ADJ
44	FPENVDD	VDDEN	VDDEN

## Stacking Solution for Daughter Board

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

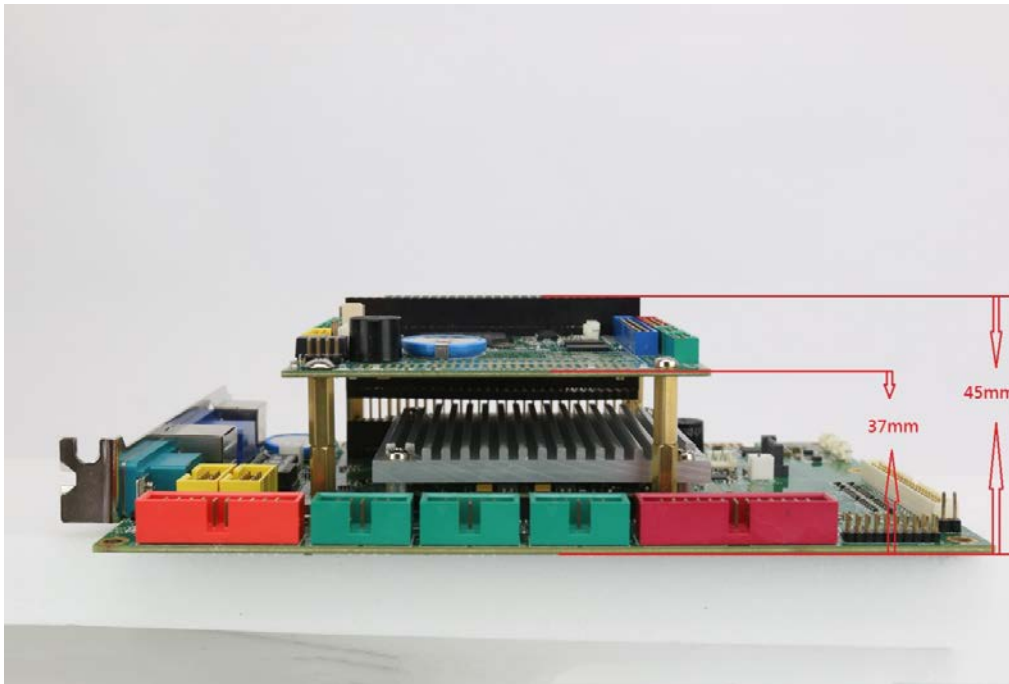


2. Put on the nuts, pillars, screws and PC104 connector (as the image below shown)



3. As the image below shown after stacking.

Note: Please contact ICOP 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.

## **ICOP Technology Inc.**

Address: No. 15 Wugong 5th Road, Xinzhuang Dist.

New Taipei City, Taiwan (R.O.C.) 24890

TEL: +886-2-8990-1933

FAX: +886-2-8990-2045

Mail: [info@icop.com.tw](mailto:info@icop.com.tw)

Website: <http://www.icop.com.tw>

