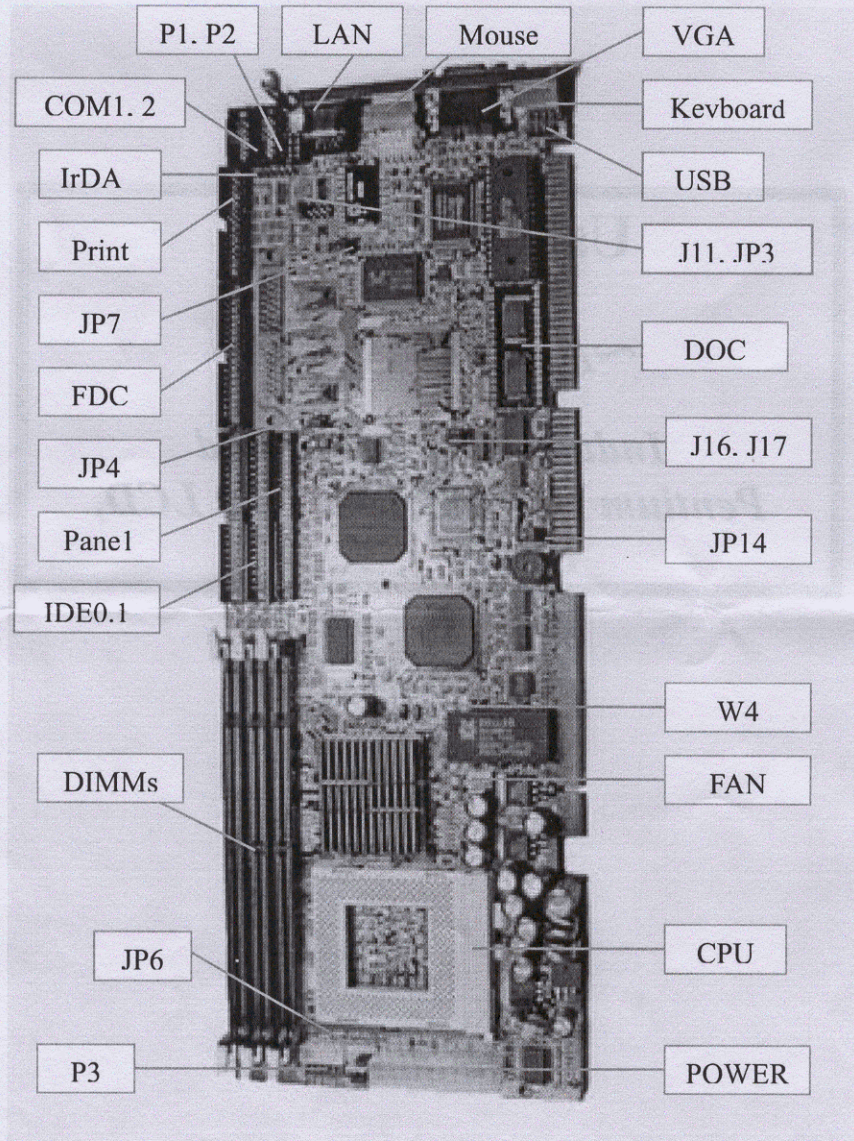


# **AR-B1682V**

*Industrial Single Board  
( Industrial SBC )*

Pentium III CPU Card with LCD,  
Ethernet,SCSI

## Location of Connectors and Jumpers



## Jumpers and connectors

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

The following tables list the function of each of the board's jumpers and connectors.

### Jumpers

Label	Function	Page
JP6	On board standby power select	
W4, (JP11)	Clear CMOS	
P1, P2, J11, JP3	COM2 RS-232/422/485 select (option)	
JP4	LCD driving voltage select	
J16, J17	DOC address select	
JP14	Watch dog output select	
JP7	Ethernet select	

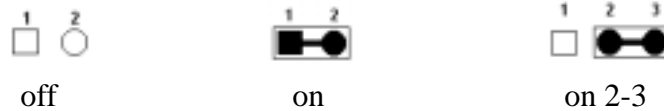
## Connectors

<b>Label</b>	<b>Function</b>	<b>Page</b>
P3	Power on button, Reset, ALM LED, IDE LED, Key-lock, speaker, and power LED	
FAN	CPU fan power connector	
POWER	Power connector	
IDE0	IDE hard drive connector (Primary)	
IDE1	IDE hard drive connector (Secondary)	
USB	USB connector	
FDC1	Floppy drive connector	
PRINT1	Parallel port connector	
COM1	COM1 RS-232 serial port connector	
COM2	COM2 RS-232/422/485 serial port connector	
IrDA	IrDA connector	
KB, Mouse	Keyboard and PS/2 mouse connector	
DOC	DiskOnChip Socket	
VGA	VGA display connector	
PANEL	LCD display connector	
LAN	100Base-Tx Ethernet connector	

## Setting jumpers

You can configure system to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To jumper you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2, and 3. In this case you would connect either pins 1 and 2 or 2 and 3.

The jumper settings are schematically depicted in this manual as follows:



## On board standby power select

**Before power on the system, have to check the power resource and choice the right “standby power select jumper”. The jumper must put on the right position otherwise system will not work.**

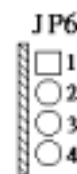
If the power comes from back-end only, the JP6 (on board standby power select) select “3-4 on”.

If the power direct connect to AR-B1682V “POWER” connect, the JP6 (on board standby power) select “3-4 off”.

Normal





Power Direct Connect  
to CPU Card



### Clear CMOS (option I for Dallas 12887A only)

When Dallas 12887A on board, you can use W4 to clear the CMOS data if necessary. To reset the CMOS data, set W4 to 1-2 closed for just a few seconds, and then move off the jumper.



Clear CMOS (W4)

	Normal	Clear CMOS
W4	 *default	

### Clear CMOS (option II for Lithium Battery only)

You can use JP11 to clear the CMOS when the system with Lithium Battery not Dallas 12887A. To reset the CMOS data, set JP11 to 2-3 for just a few seconds, and then move the jumper back to 1-2.

Clear CMOS (JP11)

	Normal	Clear CMOS
JP11	 * default	

## COM2 RS232/422/485 Select

The AR-B1682V COM2 serial port can be select as RS-232 or RS-422/485

by setting P1, P2, J11 and JP3.



### COM2 RS-232/422/485

	P1 & P2	JP11 & JP3
RS-232		
		*Default
RS-422		
		*Option only
RS-485		
		*Option only

## LCD driving voltages select (JP4)

You can select the LCD connector “PANEL” driving voltage by setting JP4. The configurations are as follows:

LCD driving voltages select (JP4)

	5V	3.3V
JP4		 * default

Please contact your LCD panel supplier for makes sure a correct LCD's working voltage.

\*\* Any mistake will cause defect your LCD panel



## DOC addresses select (J16, J17)

The DiskOnChip 2000 occupies an 8 Kbytes window in the upper memory address range of D4000 to DC000. You should ensure this does not conflict with any other device's memory address. J16, J17 selects the memory address window of the Flash disk.

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DiskOnChip 2000 memory address J16, J17

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Memory Address (HEX)

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D4000



\*default

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D8000



---

DC000



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Disable






These addresses might conflict with the ROM BIOS of other peripheral boards. Please select the appropriate memory address to avoid memory conflicts.

## Watch Dog Counter Select (JP14)

The watch dog counter can be selected for IRQ11, NMI or system RESET by setting the JP14.

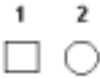

### Watch Dog Counter Select (JP14)

IRQ11	NMI	Reset
<p>JP14</p> 	<p>JP14</p> 	<p>JP14</p> 
		* default

## Ethernet Select (JP7)

The RTL8139 Ethernet can be enable or disable by setting the JP7

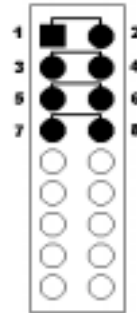
### Ethernet select (JP7)

	Disable	Normal
P7		
		*default

## Front side multi-function connector (P3)

The pin 1 and pin 2 of P3 is used for “power on” switch. You can short these two pins to turn on the power when the power direct connects to AR-B1682V “POWER” connector.

1 - 2	Power On
3 - 4	Reset
5 - 6	Hardware ALM LED
7 - 8	IDE LED



The pin 3 and pin 4 of P3 is used for reset system. You can short these two pins to reset the system.

The pin7 and pin8 of P3 is used for hard disk drive active LED. You can connect LED to these two pins to indicate HDD active.

The pin 9 and pin 15 of P3 is used for speaker connector function. You can connect these two pins to the external speaker. Normal the pin 15 and pin 17 be short for internal buzzer.

The pin10 and pin 12 of P3 is used for key-lock function. You can use a switch (or a lock) to disable the keyboard so the PC will not respond to any keyboard input. This is useful if you do not want anyone to change or stop a running program.

The pin 14 and pin 18 (or pin 16) is used for “system on” function. You can use an LED to indicate when the CPU card is on. Pin 18, pin16 are supplying the LED’s power, and Pin14 is the ground.

9 - 15	Speaker Connect
10 - 12	Key Lock
14 - 18	Power LED

