5. AxConfigGPIO(): Set GPIO configuration to input or output. If GPIO0 is digital input and GPIO1~7 are digital outputs, the *GPIO1[0]* value will be 0x01.

Function	**BOOL AxConfigGPIO(byte *GPIO1[]*, byte *GPIO2[]*, byte *GPIO3[]*, byte *GPIO4[]*);**
Arguments	All GPIO configuration values for setting are placed in four 1-byte arrays: *GPIO1[]*: The 1-byte array for GPIO0~7 configuration. *GPIO2[]*: The 1-byte array for GPIO8~15 configuration. *GPIO3[]*: The 1-byte array for GPIO16~23 configuration. *GPIO4[]*: The 1-byte array for GPIO24~31 configuration.
Return	TRUE: No error. FALSE: Function fails.

6. AxSetDO() : Set digital output status. If GPIO0 is set to High, the *SetDO1[0]* value will be 0x01.

Function	**BOOL AxSetDO(byte *SetDO1[]*, byte *SetDO2[]*, byte *SetDO3[]*, byte *SetDO4[]*);**
Arguments	All digital output values for setting are placed in four 1-byte arrays: *SetDO1[]*: The 1-byte array for GPIO0~7 output status. *SetDO2[]*: The 1-byte array for GPIO8~15 output status. *SetDO3[]*: The 1-byte array for GPIO16~23 output status. *SetDO4[]*: The 1-byte array for GPIO24~31 output status.
Return	TRUE: No error. FALSE: Function fails.

7. AxGetDI(): Get digital input status. If GPIO0 read back is High, the *ReadDI1[0]* value will be 0x01.

Function	**BOOL AxGetDI(byte *ReadDI1[]*, byte *ReadDI2[]*, byte *ReadDI3[]*, byte *ReadDI4[]*);**
Arguments	All digital input values read back are placed in four 1-byte arrays: *ReadDI1[]*: The 1-byte array for GPIO0~7 input status. *ReadDI2[]*: The 1-byte array for GPIO8~15 input status. *ReadDI3[]*: The 1-byte array for GPIO16~23 input status. *ReadDI4[]*: The 1-byte array for GPIO24~31 input status.
Return	TRUE: No error. FALSE: Function fails.

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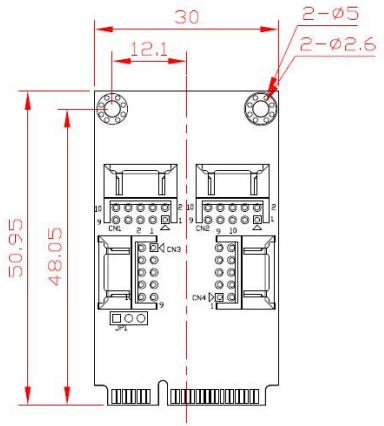
AX92904 Quick Installation Guide

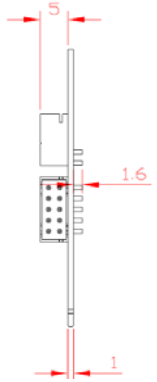
Checklist

✓ AX92904 module x1
✓ Quick installation guide x1
✓ Utility CD x1

Dimension and Fixing Holes

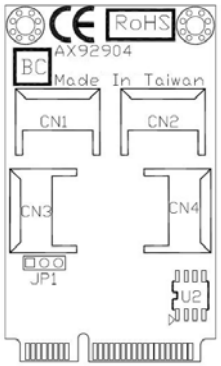


Top View

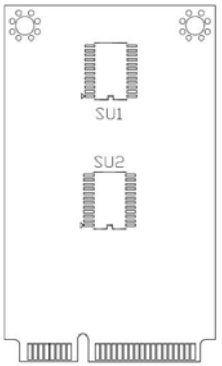


Side View

Module Layout



Top View



Bottom View

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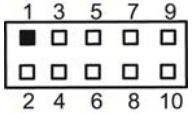
Connectors

Connector	Description
CN1~CN4	Digital I/O Connectors

Digital I/O Connectors (CN1~CN4)
CN1~CN4 are JST S10B-PHD-S-S, 2x5-pin p=2.0mm Dip connectors for digital I/O interface. The AX92904 is equipped with four 8-bit digital I/O connectors that meet requirements for a system customary automation control. These digital I/O signals are from two 16-bit PCA9535:

CN1/CN2/CN3/CN4:

Pin	Signal	Pin	Signal
1	DIO7/15/23/31	2	DIO0/8/16/24
3	DIO6/14/22/30	4	DIO1/9/17/25
5	DIO5/13/21/29	6	DIO2/10/18/26
7	DIO4/12/20/28	8	DIO3/11/19/27
9	GND	10	+5VS

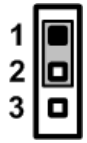


Note: ***Please contact your local vendors if any damaged or missing items. DO NOT apply power to the module if there is any damaged component.***

Jumper Setting

Before applying power to AX92904, please make sure all jumper(s) are in factory default positions.

Jumper	Description		Setting
JP1	EEPROM Slave Address: A8	First group (CN1 and CN2), slave address: 0x48	1-2 Close (Default)
		Second group (CN3 and CN4), slave address: 0x4A	
	EEPROM Slave Address: AA	First group (CN1 and CN2), slave address: 0x4C	2-3 Close
		Second group (CN3 and CN4), slave address: 0x4E	



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Programming Guide

A set of application programming interface (AxDIO32 DLL) functions are released for users to access/control hardware. With these API functions, users can more easily design their own software.

Note: ***To run the accompanied demo program, make sure that .Net framework 3.5 is installed on your operating system. Also copy AxDIO32.dll, AxWIO32.dll, AXWIO32.sys and DIO_for_AX92904 files to the same folder.***

Description of each API function is given as follows:

1. AxInit(): Initiates AxWIO.

Function	**BOOL AxInit();**
Arguments	None.
Return	TRUE: No error. FALSE: Function fails.

2. AxClose(): Terminate AxWIO.

Function	**BOOL AxClose();**
Arguments	None.
Return	TRUE: No error. FALSE: Function fails.

3. AxInitGPIO() : Set GPIO registers to default value.

Function	**BOOL AxInitGPIO();**
Arguments	None.
Return	TRUE: No error. FALSE: Function fails.

4. AxGetConfigGPIO(): Get GPIO configuration (as digital input or digital output)

Function	**BOOL AxGetConfigGPIO(byte *GPIO1[]*, byte *GPIO2[]*, byte *GPIO3[]*, byte *GPIO4[]*);**
Arguments	All GPIO configuration values read back are placed in four 1-byte arrays: *GPIO1[]*: The 1-byte array for GPIO0~7 configuration. *GPIO2[]*: The 1-byte array for GPIO8~15 configuration. *GPIO3[]*: The 1-byte array for GPIO16~23 configuration. *GPIO4[]*: The 1-byte array for GPIO24~31 configuration.
Return	TRUE: No error. FALSE: Function fails.

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