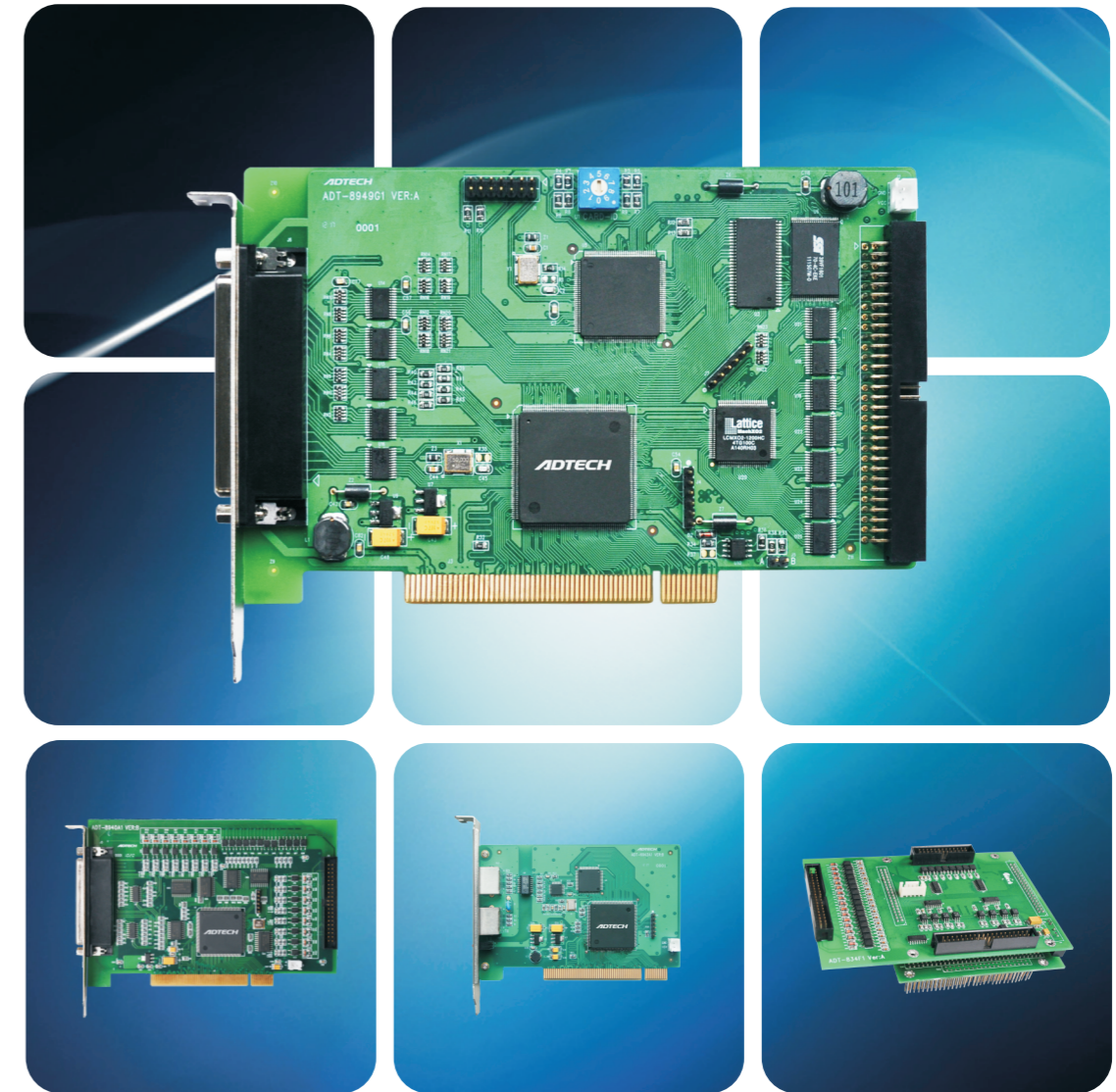


The leader of domestic motion control solution provider



The leader of domestic motion control solution provider

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Motion control card selection booklet

Content

PCI bus

Multi-axis motion control card feature reference table.....	03
ADT-8940A1.....	05
ADT-8940G1.....	07
ADT-8948A1.....	09
ADT-8949G1.....	11
ADT-856.....	13
ADT-8960.....	15
ADT-8912A1.....	17

RTEX bus

ADT-6943A1.....	19
-----------------	----

PCI bus I/O card

ADT-IO3224.....	21
ADT-IO7142.....	22

PC104 bus

ADT-834.....	23
ADT-836.....	25

Offline bus

ADT-IO4226.....	27
-----------------	----

Wiring method

Multi-axis motion control card pulse / direction output signal wiring methods.....	28
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As China's leading motion control solution supplier, ADTECH establishes 2 product systems : motion control system (motion controller, stepper & servo driver, motor and industry application software) ; Industrial robot, widely used in machines, plastic industry, aerospace, medical instrument, electronic assemble, metal cutting, daily use chemical industry and so on, ADTECH is becoming a typical brand in motion control application area.

ADTECH has set up liaison office in 10 major cities in China, service center in more than 30 cities, building up global sales & service network, ADTECH products have been sold to 103 countries including Europe & America, the middle east, southeast Asia, Hongkong, Taiwan and so on.



ShenZhen Headquarter



Marketing Center











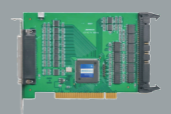

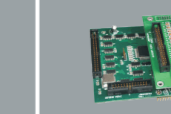


R&D department



Training centre

Multi-axis motion control card feature reference table

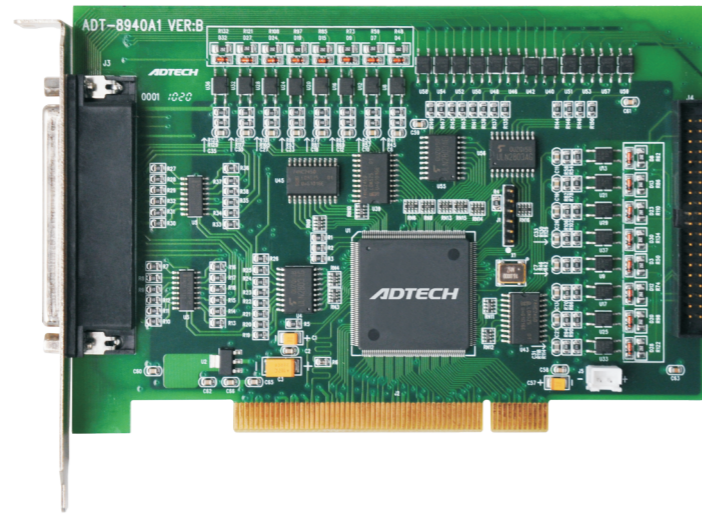
	PCI bus							RTEX bus	I/O card				
Pictures													
Model	ADT-8920A1 ADT-8940A1	ADT-8940G1	ADT-8948A1	ADT-8949G1	ADT-856	ADT-8960	ADT-8912A1	ADT-6943A1	ADT-IO4226	ADT-IO3224	ADT-IO7142	ADT-834	ADT-836
Number of axis	2/4	4	4	4	6	6	12	32	0	0	0	4	6
Digital input	24/40	36	32	36	48	32	68	16*N	42	32	67	32	48
Digital output	12/16	32	32	32	32	16	24	16*N	26	24	42	32	32
Encoder	0/4	4	4	4	6	6	12	32	0	0	2	4	6
Line interpolation	Any 2-4 axis	Any 2-4 axis	Any 2,3 axis	Any 2-4 axis	Fixed 2-6 axis	Any 2-6 axis	Any 2-12axis	Any 2-6 axis				Fixed 2-4 axis	Fixed 2-6 axis
Circular interpolation	Software arc	Software arc	Hardware arc	Any 2,3 axis	Hardware arc	Software arc	Software arc					Hardware arc	Hardware arc
Hardware cache	2M hardware cache achieved	2M hardware cache achieved	One command cache achieved	Ten thousand segment massive cache	One command cache achieved	2M hardware cache achieved		512 segment cache				One command cache achieved	One command cache achieved
Pulse frequency	2MHz	2MHz	4MHz	5MHz	4MHz	2MHz	2MHz	8MHz				4MHz	4MHz
Basic functions	T, S-type acceleration and deceleration ; to achieve changing speed and target position ; hardware stop function ; multiaxial with move/stop at the same time ; latched position ; handwheel function	T, S-type acceleration and deceleration ; to achieve changing speed and target position ; hardware stop function ; multiaxial with move/stop at the same time ; latched position ; handwheel function	Symmetric and asymmetric T, S-type acceleration and deceleration ; continuous interpolation function ; variable ring function ; to achieve changes in the speed and target position ; fixed or non-fixed line speed mode ; position latch function ; handwheel functions ; hardware emergency stop function ; signal filtering	Symmetric and asymmetric T, S, E, C-type deceleration ; speed forward , continuous interpolation function ; spline function ; gantry double drive functions ; position latch function ; to achieve changes in the speed and target position ; hardware stops ; cache increase output control function ; multiple processes simultaneously control functions ; signal filtering	Symmetric and asymmetric T, S-type acceleration and deceleration ; continuous interpolation function ; to achieve changes in the speed and target position ; variable ring function ; multi-mode automatic homing ; manual deceleration function ; signal filtering .	T, S-type acceleration and deceleration ; to achieve change speed and target position ; hardware stop function ; latched position ; manual deceleration function ; with 16 configurable input / output IO ; handwheel function	T, S-type acceleration and deceleration ; arbitrary 2-12 axis linear interpolation ; to achieve change speed and target position ; probe function ; 8-channel high-speed probe in response to input.	T, S-type acceleration and deceleration ; support position, speed and torque control modes ; position latch function ; to achieve changes in the speed and target position ; immediately stop , deceleration stop , pause function ; hardware stop function ; closed loop control ; servo parameters to read and write ; monitoring the servo parameters .	Network communications, extended input / output	Input / output	Input / output	Symmetric and asymmetric T, S-type acceleration and deceleration ; continuous interpolation function ; variable ring function ; position comparison function ; to achieve changes in the speed and target position ; fixed or non- fixed line speed mode ; position latch function ; hardware emergency stop function ; signal filtering ;	Symmetric and asymmetric T, S-type acceleration and deceleration ; continuous interpolation function ; variable ring function ; position comparison function ; to achieve changes in the speed and target position ; fixed or non- fixed line speed mode ; position latch function ; hardware emergency stop function ; signal filtering ;

ADT-8940A1

High performance 4 axis servo/stepper control card

Overview :

ADT-8940A1 motion control card is one of ADTECH axis motion control card PCI bus computer-based members, a system can support up to 16 control card, can control 64 servo / stepper motor, plug and play. Mainly used in multi-axis motion control point, with T-type, S-curve acceleration and deceleration, hardware stop, linear interpolation, hardware cache, position latch function, the product is widely used in testing, advertising, printing, PCB processing and other industries.



Hardware Index

- 32-bit PCI bus, Plug and Play
- Controllable number of axis: 4 axis
- Differential pulse output for each axis, the maximum frequency 2MHz;
- Each shaft encoder feedback channel A / B phase difference between the pulse input, 32 count frequencies up to 2MHz;
- Pulse Output Type : Pulse + direction (PUL + DIR) or double-pulse (CW + CCW)
- Large-capacity hardware cache, the maximum hold 2048 bytes.

Control function

- T-shaped, S-shaped curve acceleration and deceleration ;
- Any hardware 2-4 axis linear interpolation ;
- Hardware buffer interpolation, circular interpolation software ;
- Change the speed and movement to achieve the target position ;
- Hardware stop function, multi-axis to move/stop at the same time ;
- Multi-axis position of the external signal to trigger the latch ;
- Zero function in many ways ;
- Handwheel and external signals operating quantitatively driven, continuous driving .

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95% non-condensing

Dedicated purpose IO

- Machinery positive and negative limit position, origin signal
- Position latch input signal
- Handwheel control signal
- Hardware stop signal
- Alarm input signal
- Alarm clear signal
- Servo enable signal

General purpose IO

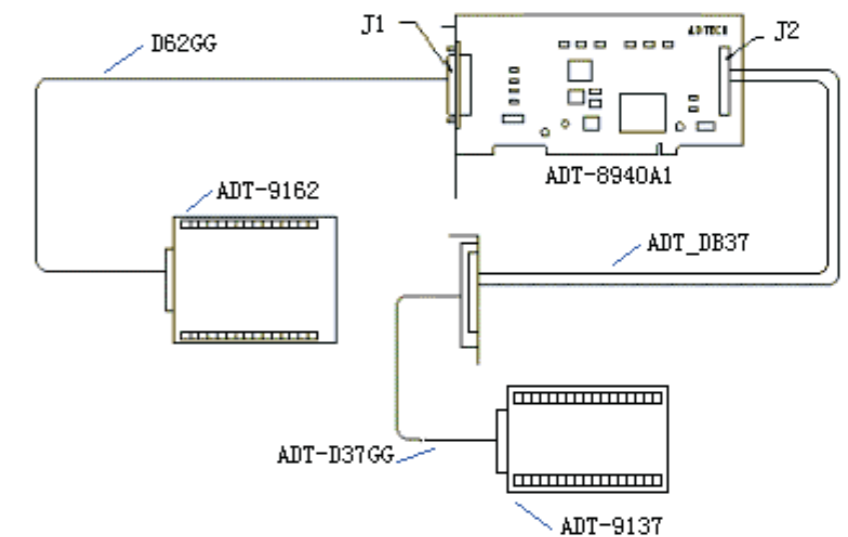
- Special signal when not in use can be set to Universal IO, can be up to ;
- 32 general-purpose digital inputs, all optocoupler isolation;
 - 16 open collector outputs.

Configuration Checklist

	Name	Model description	Quantity
Standard configuration	Motion control card	ADT-8940A1	1
	Terminal Blocks	ADT-9137	1
	Terminal Blocks	ADT-9162	1
	Data transmission lines	ADT-D37GG	1.5M*1
	Data transmission lines	ADT-D62GG	1.5M*1
	Flat line	DB37	280MM*1
Optional accessories	Data transmission lines	ADT-D37GG	0.5M
	Data transmission lines	ADT-D37GG	3M
	Data transmission lines	ADT-D62GG	0.5M
	Data transmission lines	ADT-D62GG	3M

Wiring diagram

Main card dimension : 160*107mm
Terminal block/wiring board dimension :
9137-125*87.6mm
9162-136*72mm



Application industries

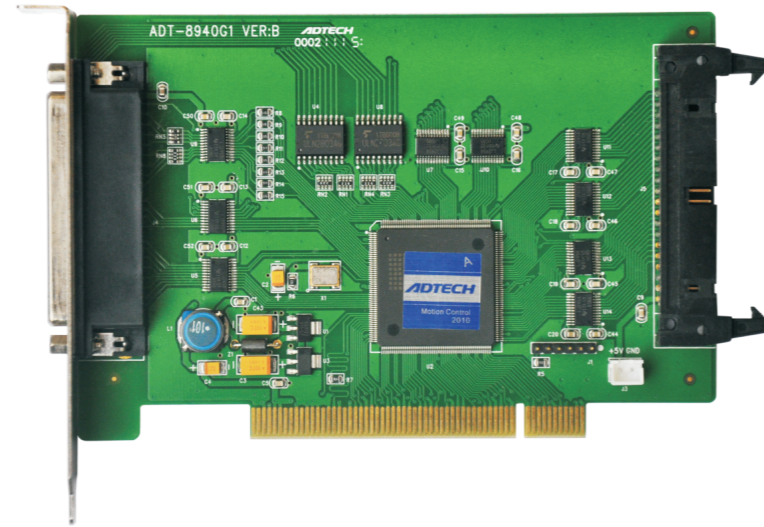
Biological, medical equipment;
Semiconductor automatic processing and testing equipment ;
Packaging Equipment: automatic packaging machine
Advertising Equipment : Drawing word machine, slot machine, printing&pressing machine;
PCB processing equipment; SMT machine, PCB drilling machine .

ADT-8940G1

High performance 4 axis servo/stepper control card

Overview :

ADT-8940A1 motion control card is one of ADTECH axis motion control card PCI bus computer-based members, a system can support up to 16 control card, can control 64 servo / stepper motor, plug and play. Mainly used in multi-axis motion control point, with T-type, S-curve acceleration and deceleration, hardware stop, linear interpolation, hardware cache, position latch function, the product is widely used in testing, advertising, printing, PCB processing and other industries.



Hardware Index

- 32-bit PCI bus, Plug and Play
- Controllable number of axis: 4 axis
- Differential pulse output for each axis, the maximum frequency 2MHz;
- Pulse Output Type: Pulse + direction (PUL + DIR) or double-pulse (CW + CCW)
- Large-capacity hardware cache, the maximum hold 2048 bytes.

Control function

- T-shaped, S-shaped curve acceleration and deceleration;
- Any hardware 2-4 axis linear interpolation;
- Hardware buffer interpolation, circular interpolation software;
- Change the speed and movement to achieve the target position;
- Hardware stop function, multi-axis to move/stop at the same time;
- Multi-axis position of the external signal to trigger the latch;
- Handwheel and external signals to operate;
- Zero function in many ways.

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE, WIN7
- Programming environments: C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature: -20-80°C
- Temperature: 5-95% non-condensing

Dedicated purpose IO

- Machinery positive and negative limit position, origin signal
- Position latch input signal
- Handwheel control signal
- Hardware stop signal
- Alarm input signal
- Alarm clear signal
- Servo enable signal

General purpose IO

- Special signal when not in use can be set to Universal IO, can be up to ;
- 32 general-purpose digital inputs, all optocoupler isolation;
 - 32 open collector outputs.

Configuration Checklist

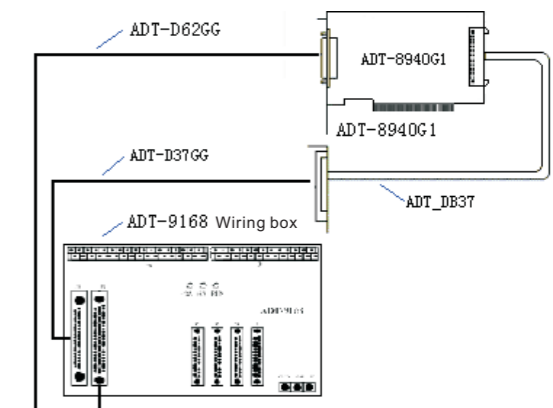
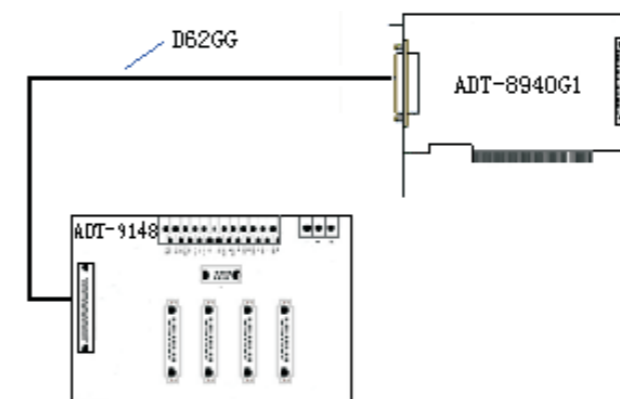
	Name	Model	Unit/pc
Standard Configure1	Motion control card	ADT-8940G1	1
	Terminal board	ADT-9148	1
	Data cable	ADT-D62GG	1.5M*1
Standard Configure2	Motion control card	ADT-8940G1	1
	Terminal board	ADT-9168	1
	Data cable	ADT-D62GG	1.5M*1
	Data cable	ADT-D37GG	1.5M*1
	Flat wire	DB37	280MM*1
Optional accessories	Data cable	ADT-D37GG	0.5M
	Data cable	ADT-D37GG	3M
	Data cable	ADT-D62GG	0.5M
	Data cable	ADT-D62GG	3M

Wiring diagram

Main card size : 150*100mm

Terminal board size : 9148-260*153*30.6mm

Terminal board size : 9168-270*165*30mm



Application industries

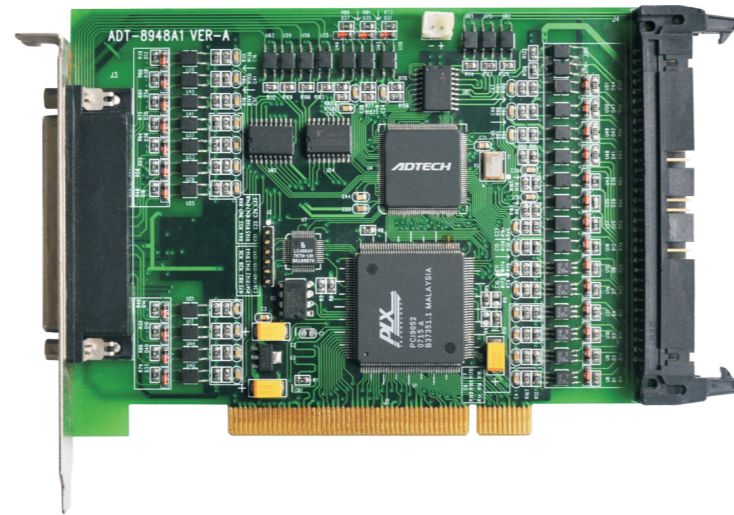
Biological, medical equipment;
Semiconductor automatic processing and testing equipment ;
Packaging Equipment: automatic packaging machine
Advertising Equipment : Drawing word machine, slot machine, printing&pressing machine;
PCB processing equipment; SMT machine, PCB drilling machine.

ADT-8948A1

High performance 4 axis servo/stepper control card

Overview :

ADT-8948A1 motion control card is one of Adtech axis motion control card PCI bus computer -based members , a system can support up to 16 control card , can control 64 servo / stepper motor, plug and play . Has a T- shaped curve , S -shaped curve symmetrical and non- symmetrical curve , the position variable ring , speed protection, it also has multi-axis continuous interpolation , circular interpolation hardware motion planning and other advanced features , improve processing efficiency and accuracy , particularly suitable for both sports have a little bit interpolated motion control requirements of the occasion . The product is widely used in engraving and milling , engraving , cutting, dispensing , among coordinate measuring , PCB processing industries.



Hardware Index

- 32-bit PCI bus , plug and play ;
- Controllable axes: 4 axes
- Differential pulse output for each axis , the maximum frequency 4MHz
- Each shaft encoder feedback channel A / B phase difference between the pulse input, 32 count , frequency up to 4MHz, pulse rate : 4.2.1 ;
- Pulse Output Type : Pulse + direction or double-pulse
- Instruction buffer

Control Function

- ymmetric and asymmetric T-shaped, S-curve acceleration and deceleration;
- Real-time changes in the speed and movement of the target location;
- Any 2-3 axis linear interpolation;
- Any 2-axis circular interpolation hardware;
- Continuous interpolation function, the maximum driving speed 2MHz
- The variable ring function;
- Fixed or fixed linear velocity mode
- Multi-axis position of the external signal to trigger the latch;
- Zero function in many ways;

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95% non-condensing

Dedicated purpose IO

- Each axis positive and negative hardware limit, origin signal (positive and negative limit can not be set as invalid and can not be used as general-purpose input, the origin of the signal can be set to null, as a general purpose inputs)
- Position latch signal;
- Servo position signal;
- Hardware emergency stop signal;
- Handwheel input signal (common terminal must be connected 5V)

General purpose IO

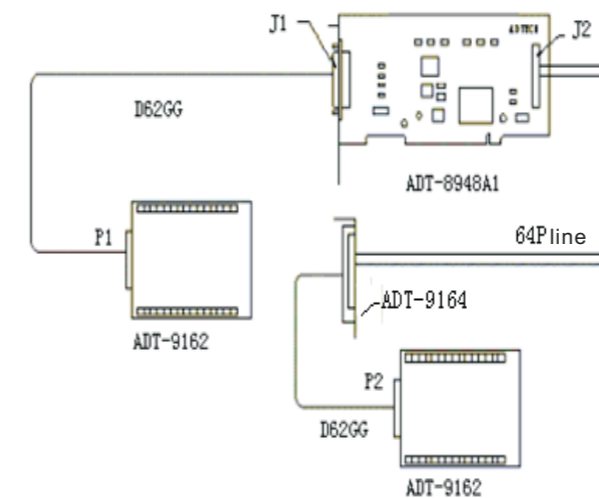
- Special signal when not in use can be set to Universal IO, can be up to ;
- 37 general-purpose digital inputs, all optocoupler isolation;
 - 32 open collector outputs.

Configuration Checklist

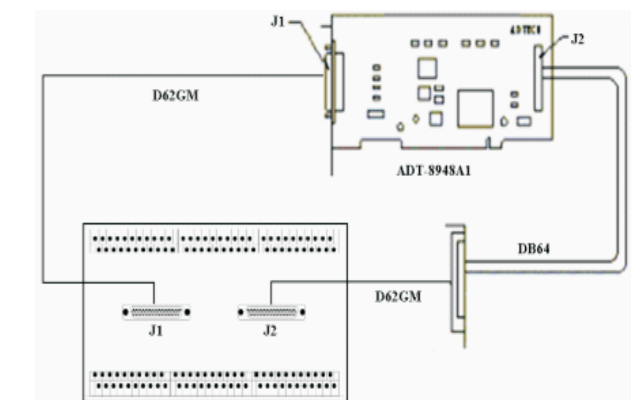
	Name	Model	Unit/pc
Standard Configure1	Motion control card	ADT-8948A1	1
	Terminal board	ADT-9162	2
	Data cable	ADT-62GG	1.5M*2
	Terminal board	ADT-9164	1
	FPC	64P · 28AWG	270MM*1
Standard Configure2	Motion control card	ADT-8948A1	1
	Terminal board	ADT-9167	1
	Exchange board	ADT-9164	1
	Data cable	ADT-62GM	1.5M*2
	FPC	64P , 28AWG	270MM*1
Optional accessories	Data cable	ADT-62GM	3M

Wiring diagram

Main card size: 160*110mm
Terminal board size: 9162A/B-136*72mm
9164-101*58mm



Terminal board size: 9167-277.5*140mm



Application

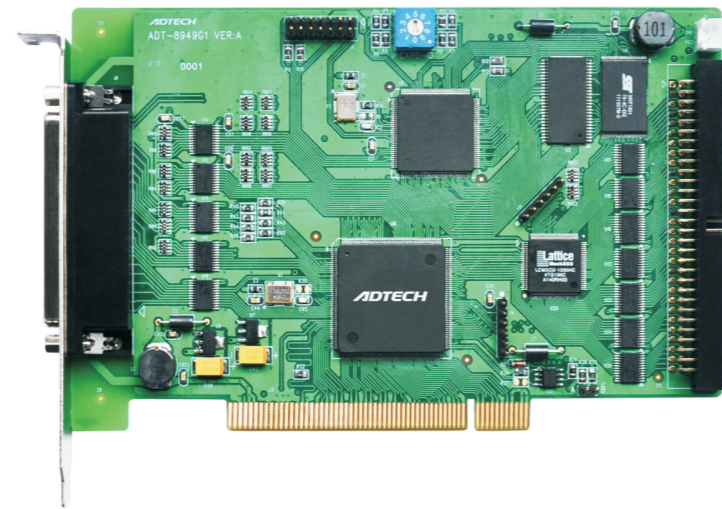
Machine vision and automated testing equipment ; medical equipment ; cutting equipment
Engraving and milling equipment: engraving and milling , engraving
CNC machining equipment : CNC machine tools
Processing and assembly of electronic products : screen printing machine , SMT machines , PCB drilling machine ;
Dispensing Equipment: Dispensing ; non-standard automation equipment

ADT-8949G1

High performance 4 axis servo/stepper control card

Overview :

Summary: ADT-8949G1 motion control card is the four axis for hng based on high performance computer PCI bus motion control card, a member of a system can support up to 10 pieces of control card, servo/step motor can control 40 road.T, S, C and E a variety of deceleration, point and trajectory planning function, also have electronic gear, electronic CAM synchronous motion planning function, linear interpolation, arc interpolation programming function, spline curve, follow, and other functions. Especially suitable for high speed, high precision accurate position control requirements of the occasion. The products are widely used in testing, semiconductor packaging, mechanical arm, point glue, packing, sculpture, PCB processing industries. Movement control CARDS - PCI bus
High performance four axis servo, stepper control card



Hardware Index

- Hardware indicators
- The 32 bit PCI bus, plug and play
- Can control shaft number: four axis
- Maximum 5 MHz pulse output frequency
- Each shaft encoder feedback channel A/B or phase difference between the pulse input and pulse input, the 32-bit count, frequency up to 2 MHz, 4 ratio
- Pulse output type: pulse direction + + DIR (PUL) or double pulse (the CW and CCW)
- Large capacity of multi-axis cache interpolation function, can store 10000 interpolation instruction
- 2 road, DA output, range of 0 to 10 v
- 1 road 485 communication interface
- Support hardware serial number, but a third party hardware encryption

Control Function

- Any 2-4 axis hardware linear interpolation, 2-3 axis hardware arc interpolation
- Forward speed, continuous interpolation function
- Spline interpolation function
- Gantry double drive control function
- An external signal trigger multi-axis position latch
- Movement of the real-time change speed and target position
- Hardware stop function, multi-axis with moving with stop
- The cache increases the output control functions
- Multiple processes and control function
- A variety of ways to zero
- Signal filter

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95% non-condensing

Dedicated purpose IO

- Mechanical or limit, the origin
- Position latch input signal
- The handwheel control signal
- Hardware stop signal
- Alarm input signal
- Alarm clear signal
- Servo enabled signal

General purpose IO

Special signals need not when can be set to general IO, most can be achieved

- General purpose digital input, 36 road all optical coupling isolation
- 32 open collector output

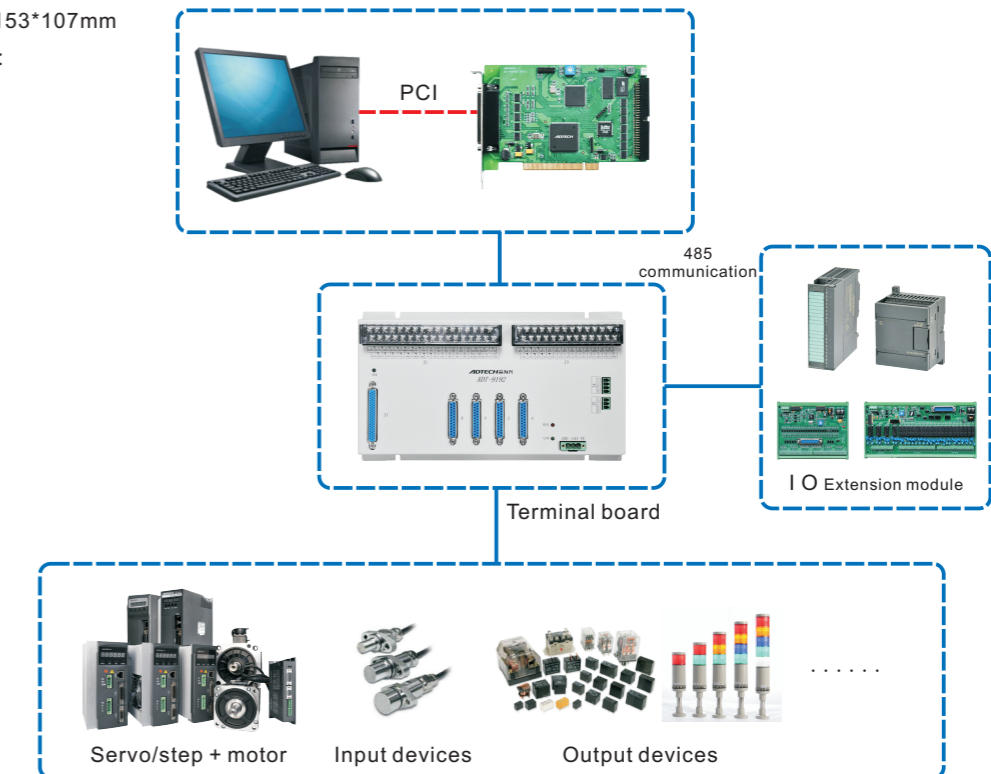
Can be extended through 485 communication interface and general IO module

Configuration Checklist

	Name	Model	Quantity
The standard configuration	Motion control card	ADT-8949G1	1
	Wiring board	ADT-9192	1
	Data link	ADT-D62GG	1.5M*1
Optional accessories	The input terminal	ADT-ET102A	1
	The output terminal	ADT-ET202A	1

Wiring diagram

The main card size : 153*107mm
The patch panel size : 9192-274*160*30mm



Application

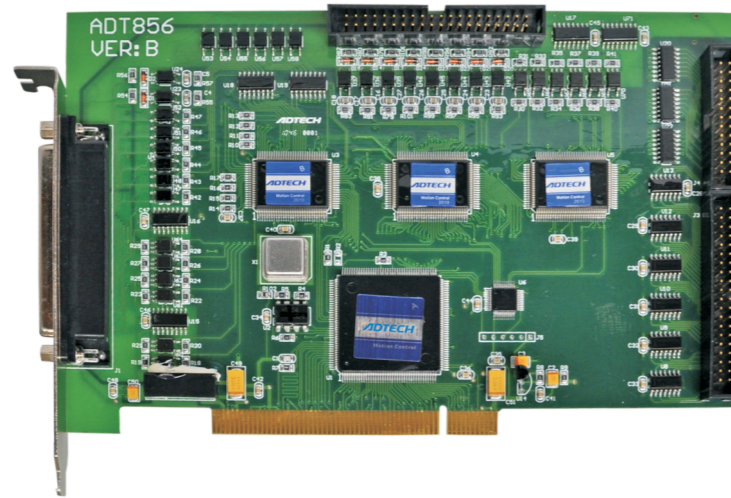
Machine vision and automatic detection equipment
Biology, medicine automatic sampling device
Cutting equipment: diamond cutting machine, sponge cutting machine
Motor processing industry: dispensing
Semiconductor packaging industry: solid crystal machine
Industry: CNC machine
Packaging and printing equipment, printing machine, pad printing machine
Engraving equipment; Industrial robot equipment; PCB processing and other industries

ADT-856

High-performance six-axis servo / stepper control card

Overview :

ADT-856 motion control card is one of the public members of the six-axis motion control card for the PCI bus-based computer Xing, a system can support up to 16 control card, can control 96 servo / stepper motor, plug and play . Has a T-shaped symmetrical and non-symmetrical curve, S-shaped curve, the position of the variable ring, speed protection function, the formula has a multi-axis continuous interpolation, circular interpolation hardware motion planning and other advanced features, improve processing efficiency and accuracy, especially applies to both have a little bit motion interpolation motion control requirements of the occasion. The product is widely used in engraving and milling engraving and cutting dispensing welding machetes processing industries.



Hardware Index

- 32-bit PCI bus,
- plug and play each shaft encoder feedback channel A / B phase difference between the upper and lower pulse input or pulse input, 32 count, frequency up 4MHZ, pulse multiplier: 4,2,1 ;
- Controllable axes: 6-axis; differential pulse output for each axis, the maximum frequency 4MHZ; pulse output types: Pulse + direction or double-pulse hardware cache.

Control Function

- Symmetric and asymmetric T-shaped, S-curve acceleration and deceleration;
- any hardware 2-6 axis linear interpolation, multi-axis with the same stop moving;
- arbitrary 2-axis circular interpolation function hardware;
- continuous interpolation function, the maximum driving speed 2MHZ;
- fixed or non-fixed line speed sport mode;
- in real-time to change the speed and target position;
- variable ring function; signal filtering;
- manual deceleration function, multi-axis move with the same stop.

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINGE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Dedicated purpose IO

- Machinery positive and negative limit, origin signal;
- servo position signal;
- alarm input signal;
- servo alarm signal;
- servo enable signal.

General purpose IO

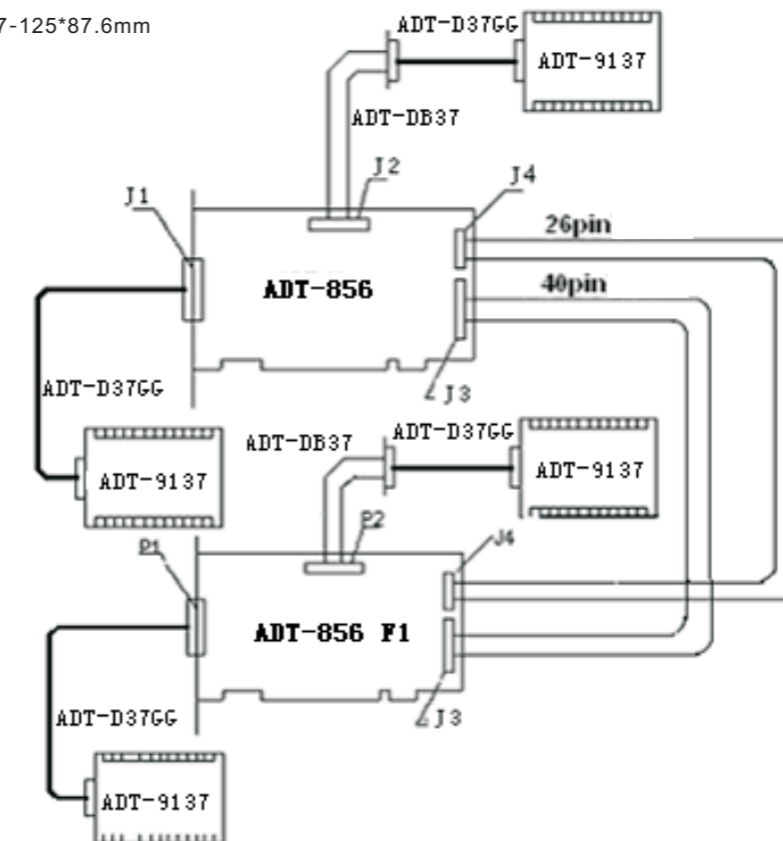
- Special signal when not in use can be set to Universal IO, can be up to ;
- 48 general-purpose digital inputs, all optocoupler isolation;
 - 32 open collector outputs.

Configuration Checklist

	Name	Model	Quantity
The standard configuration	Motion control card	ADT-856	1
	Terminal board	ADT-9137	4
	Motion control card	ADT-856F1	1
	Data link	ADT-D37GG	1.5M*4
	Flat wire	DB37	280MM*2

Wiring diagram

The main card size : 153*107mm
The patch panel size : 9137-125*87.6mm



Application

Welding equipment: laser welding machine
Cutting equipment: diamond cutting machine, sponge cutting machine
Engraving and milling equipment: engraving and milling engraving
CNC machining equipment: CNC machine tools
Processing and assembly of electronic products: screen printing machine, SMT machines, PCB drilling machine
Dispensing Equipment: Dispensing, machetes processing equipment

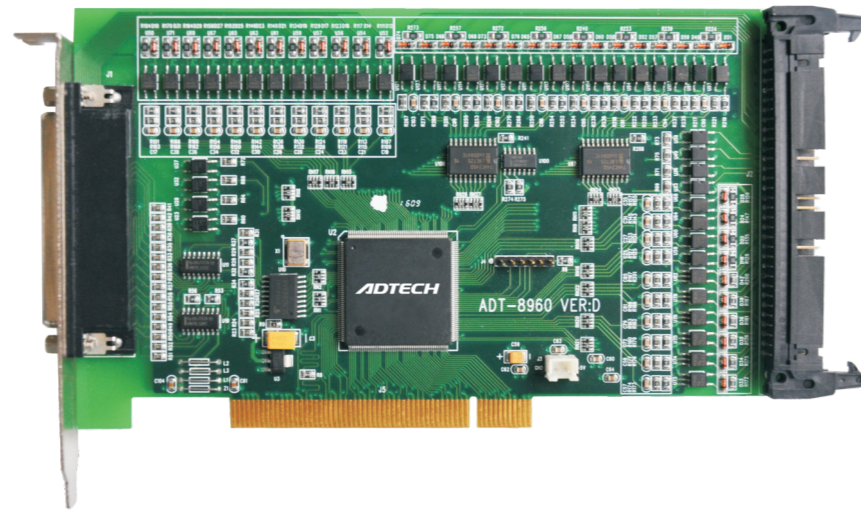
Motion control card-PCI BUS

ADT-8960

High-performance six-axis servo / stepper control card

Overview :

ADT-856 motion control card is one of the public members of the six-axis motion control card for the PCI bus-based computer Xing, a system can support up to 16 control card, can control 96 servo / stepper motor, plug and play . Mainly used in multi-axis motion control point with T-type / S-shaped curve, hardware stop, position the latch, encoder feedback, automatically returns to zero, the hand-wheel drive, linear interpolation, caching interpolation functions, the product widely used in testing, advertising, printing, placement and other industries.



Hardware Index

- 32-bit PCI bus,
- Number of controllable axes: 6-axis;
- the highest frequency 2MHZ;
- pulse output types: Pulse + direction or double-pulse;
- plug and play each shaft encoder feedback channel A / B phase difference between the pulse input, 32 count, frequency up 2MHZ,
- 2M-capacity hardware cache.

Control Function

- T-type, S-type acceleration and deceleration;
- any 2-6 axis linear interpolation,
- any large-capacity cache 2-6 axis interpolation;
- the movement to change the speed and real-time target position;
- hardware stop function, multi-axis with the same stop moving;
- external signal multi-axis position of the trigger latch;
- external signal (handwheel or universal input signal) quantitatively driven, continuous drive;
- manual deceleration function;
- multi-mode zero function.

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Dedicated purpose IO

- Machinery positive and negative limit,
- origin signal;
- position latch input signal;
- handwheel control signal;
- hardware stop signal;
- alarm input signal;
- alarm clear signal;
- servo enable signal.

General purpose IO

- Special signal when not in use can be set to Universal IO, can be up to ;
- 32 general-purpose digital inputs, all optocoupler isolation;
 - 16 open collector outputs.

Configurable IO

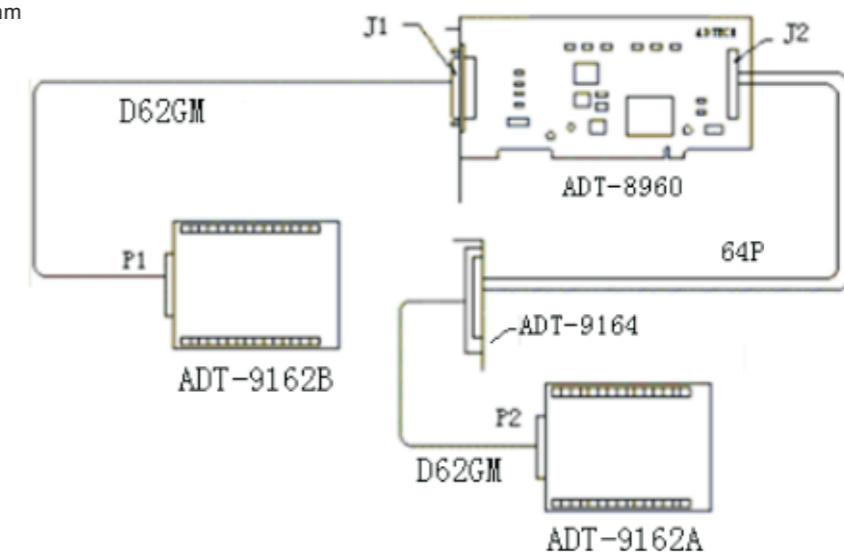
- 16 configurable input / output signals, each 8-way as a group, can be set to input or output.

Configuration Checklist

	Name	Model	Quantity
The standard configuration	Motion control card	ADT-8960	1
	Terminal board	ADT-9162A	1
	Terminal board	ADT-9162B	1
	Data link	ADT-D62GG	1.5M*1
	Data link	ADT-D62GM	1.5M*1
	Terminal board	ADT-9164	1
Optional accessories	Data link	ADT-D62GG	0.5M
	Data link	ADT-D62GG	3M

Wiring diagram

The main card size : 178*109mm
The patch panel size :
9162A/B-136*72mm
9164-101*58mm



Application

Machine vision and automatic testing equipment, diamond cutting machines, printing presses, dispenser, wire bonders; PCB processing equipment: screen printing machine, SMT machines, PCB drilling machines, multi-axis control equipment.

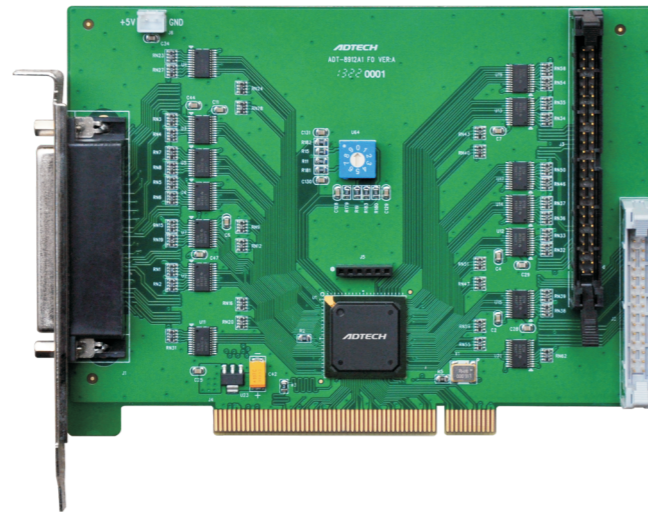
Motion control card-PCI BUS

ADT-8912A1

ADT-8912A1 high-performance twelve -axis servo / stepper control card

Overview :

ADT-8912A1 motion control card is one of the member of ADTECH's twelve axis motion control card which is based on computer PCI bus , one system can support up to 10 control cards, 120 road servo / stepper motor can be controlled, insert machine can be used . Mainly used in multi-axis motion controller, with functions of T velocity curve , linear interpolation, encoder feedback , continuous driving , speed and target position can be real-time changed while moving, hardware cache, etc, which are widely used in testing, advertising , printing, spring machines and others' industries.



Hardware Index

- 32-bit PCI bus , plug and play ;
- Controllable axes: 12 axes
- Differential pulse output for each axis , the maximum frequency 2MHz;
- Each axes encoder feedback channel A / B phase difference between pulse input, 32-bit count, frequencies up to 2MHz, pulse frequency multiplication: 4 frequency multiplication;
- Pulse Output Type : Pulse + direction (PUL + DIR) or double-pulse (CW + CCW).

Control Function

- T type acceleration and deceleration ;
- Arbitrary 2-12 axis linear interpolation ;
- 2M capacity hardware cache ;
- Changing the speed and target position in real time while moving;
- Can read out the logical position, actual position, the driving speed, acceleration, the driving state in real time while moving;
- Probe features: 8-channel high-speed probe response input ;
- Zero function in many ways .

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Special IO

- Machinery positive and negative limit, origin signal (not set to generic IO);
- Probe input signal;
- Alarm input signal ;
- Alarm cancellation signal ;
- Servo using a signal.

General purpose IO

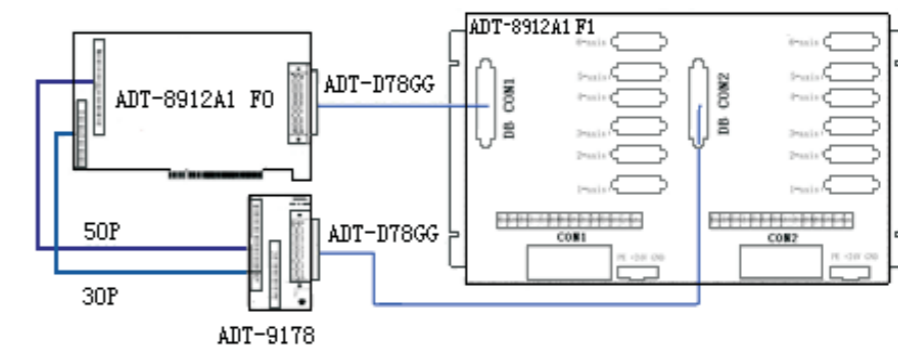
- Special signal when not in use can be set to Universal IO, can be up to ;
- 48 general-purpose digital inputs, all optocoupler isolation;
 - 32 open collector outputs.

Configuration Checklist

	Name	Model	Quantity
The standard configuration	Motion control card	ADT-8912	1
	Junction Box	ADT-8912A1 F1 V.A	1
	Terminal Board	ADT-9178	
	Data transmission lines	ADT-D78GG	1.5M*1
	Data transmission lines	ADT-D78GG	1.5M*1
	Flexible Flat Cable	50PIN	30CM*1
	Flexible Flat Cable	30PIN	30CM*1

Wiring diagram

The main card size : 150*100mm
The patch panel size : 8912A1 F1-310*212*28mm



Application

Machine vision and automatic test equipment, printing presses, wire bonders
PCB processing equipment: screen printing machine, SMT machines ,
PCB drilling machines, multi-axis control equipment, spring maker.

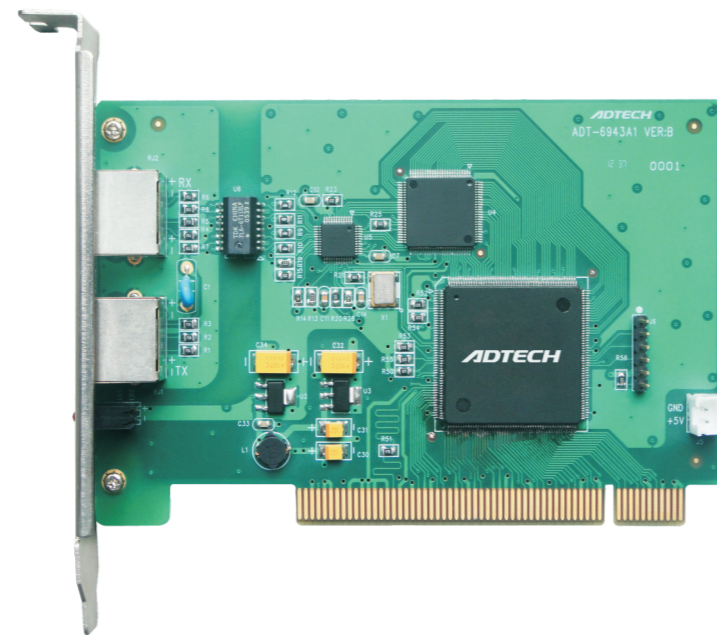
Motion control card-RTEX BUS

ADT-6943A1

high performance sixteen axes RTEX bus control card

Overview :

Comply with the development trend of multi-axis motion control technology, ADTECH push out the ADT-6943A1 which is a new RTEX total linear movement control cards, a system can support up to 16 pieces control cards, its wiring is very simple, using standard Ethernet 100BASE-TX standard, supports 100Mbit speed, totally solving high speed and high-throughput data transmission. There are 32 nodes in single card, can control up to 32 axes. Can be connected directly Panasonic A4N / A5N servo drives and connect common pulse servo through pulse transfer plate, networking convenience, wiring is simple and effectively save space of cost and capital cost for customers. Widely used: lithium battery production machine, lamination machine, testing equipment, LED SMT machines, multi-axis metal processing machines;



Hardware Index

- 32-bit PCI bus, plug and play;
- With 32 nodes, can control up to 32 axes, the length between each node up to 100m;
- The maximum pulse output frequency 8MHz;
- Each shaft encoder feedback channel 32 counts, frequencies up to 2MHz;
- Pulse output type: pulse + direction (PUL + DIR) or double-pulse (CW + CCW);
- Exchangeable 32 axis servo data in a fixed 0.5ms instruction cycle;
- 512 segment hardware cache space.

Control Function

- Position control supports linear acceleration/deceleration, speed control supports linear and S-curve acceleration and deceleration;
- Any 2-6 axis linear interpolation and cache interpolation;
- Support the position, speed and torque control mode, control mode of each axis is independently and can be switched at any time;
- Supported absolute position, relative position, the latch movement, continuous movement functions;
- Bus servo can be changed in real time speed and target position while moving;
- Return to zero function in many ways.
- Position control have immediately stopped, decelerating stop, pause feature function;
- Hardware stop function, multi-axis with moving and stop at the same time;
- With Panasonic servo drives achieve fully closed control;
- Support parameter of any servo axis read and write;
- Movement can monitor a variety of position, speed, servo temperature, inertia ratio and so on. At least 30 species parameters;

Digital IO modules(each module is a node)

ET101A: 16 Road with opto-isolator input
ET201A: 16 road with opto-isolator output

Pulse adapter plate modules(Each module count four nodes)

- Control 4 road pulse output, 4 road encoder input
- Machinery positive and negative limit, origin signal
- Alarm input, servo in-position signal
- Alarm cancellation signal, servo using signal
- As well as 4 road general-purpose input signal device

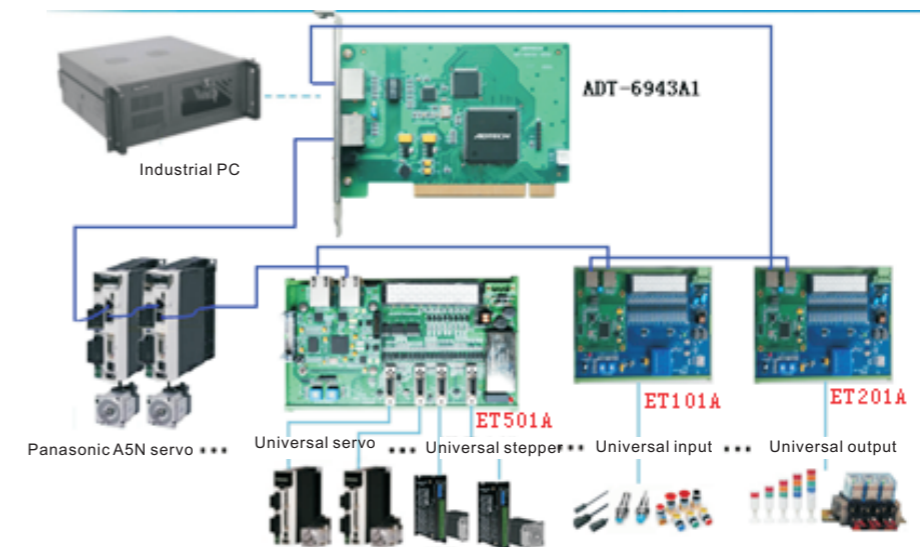
See panasonic A5N series' instructions for detailed info of bus servo drives

Configuration Checklist

Model Description	Name	Model Description	Quantity	
ADT-6943A1	Standard configuration	Motion Control Card	ADT-6943A1	1
		Network cable	CAT5E SFTP	5M*1
		Network cable	CAT5E SFTP	3M*1
ADT-ET501A	Standard configuration	Pulse adapter plate	ADT-ET501A	1
		Network cable	CAT5E SFTP	0.5M*1
		DB head	DB head	4
ET101A	Standard configuration	IO input board	ET101A	1
		Network cable	CAT5E SFTP	0.5M*1
ET201A	Standard configuration	IO output board	ET201A	1
		Network cable	CAT5E SFTP	0.5M*1
ADT-6943A1 Bus Products	Optional Configuration	Network cable	CAT6E SFTP	1M
		Network cable	CAT7E SFTP	1.5M
		Network cable	CAT8E SFTP	2M

Wiring diagram

The main card size : 160*107mm



Application

Applications
Solar automation equipment
Multiaxial metal processing machine
Wafer scribing machine
LCD SMT machine
LED Inspection Machine

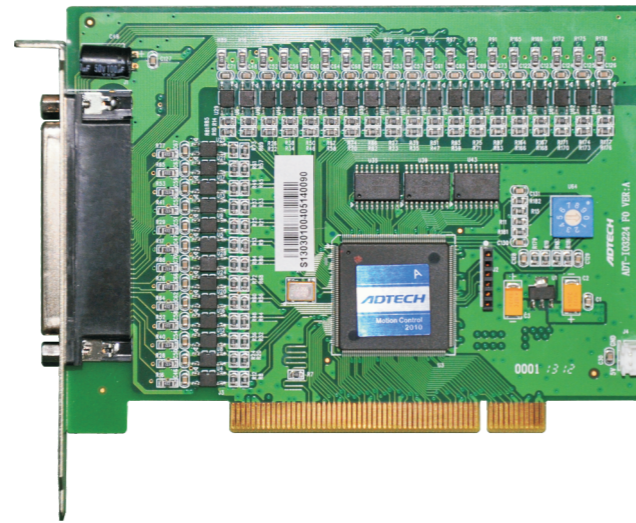
PCB board drilling and milling machine
LCD Inspection Machine
Pelletter machines, lamination machines, factory assembly line work
Distributed mechanical processing

ADT-IO3224

base on PCI of IO motion control card

Overview :

ADT-IO3224 control card is the number of motion control card which is based on computer PCI bus by ADTECH, using four bit set dial code switch settings to set card number, ranging from 0-9 , a system can use 10 pieces. With digital input and output, input and output are used optocoupler isolation and filtering techniques, effectively isolate the interference of external circuits, improve system reliability, the product is widely used in switching signals, transducer signal input, relays, lamps and other controls.



Feature

- 32-bit PCI bus , plug and play ;
- 32 road opto-isolated digital inputs, isolation voltage 2500VDC
- 24 road opto -isolated digital inputs, maximum current 1A.

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

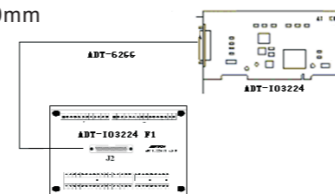
- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Configuration list

Name	Model Description	Quantity
Motion Control Card	ADT-IO3224	1
Junction Box	ADT-IO3224 F1	1
Data transmission lines	ADT-D62GG	1.5M*1

Schematic diagram of wiring

Master Card Size : 145*110mm
Wiring board size : 156*107mm



Applications

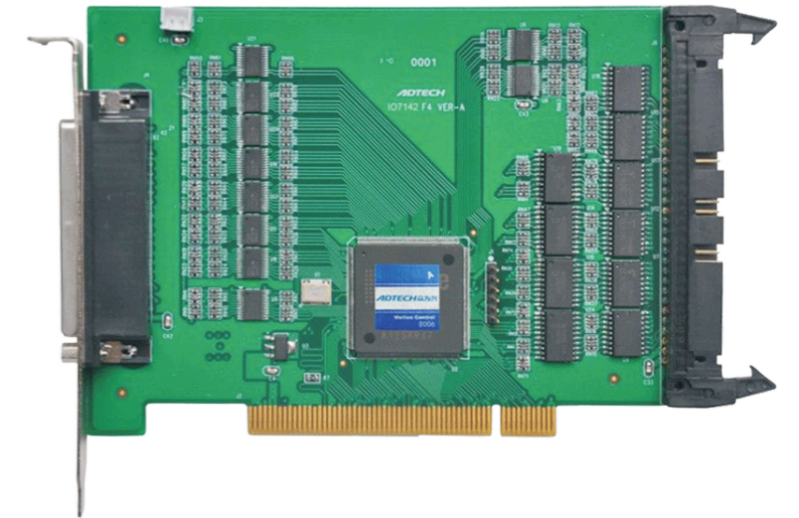
Switching signal , the sensor signals or other input control signals.
Relays, solenoids, lights or output control of other devices.

ADT-IO7142

base on PCI of IO motion control card

Overview :

ADT-IO7142 control card is the number of motion control card which is based on computer PCI bus by ADTECH, a system can support up to 16 piece control card. With digital input and output, A, B phase input. Input and output are used optocoupler isolation and filtering techniques, effectively isolate the interference of external circuits, improve system reliability, the product is widely used in switching signals, transducer signal input, relays, lamps and other controls.



Feature

- 32-bit PCI bus, plug and play ;
- 69 road opto -isolated digital inputs, isolation voltage 2500VDC
- 42 road opto -isolated digital inputs, maximum current 100mA.
- 2 road A, B phase input , the maximum frequency 2MHz.
- With an external handheld box port.

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

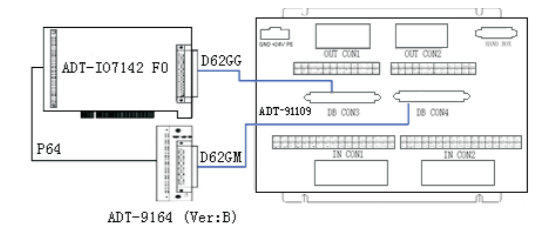
- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Configuration list

Name	Model Description	Quantity
Motion Control Card	ADT-IO7142	1
Junction Box	ADT-91109	1
Adapter plate	ADT-9164	1
Data transmission lines	ADT-D62GG	1.5M*1
Data transmission lines	ADT-D62GM	1.5M*1
Flat cable	64PIN	270MM*1

Schematic diagram of wiring

Master Card Size : 153*106mm
Wiring board size : 9164-101*58mm 91109-252*192*28mm



Applications

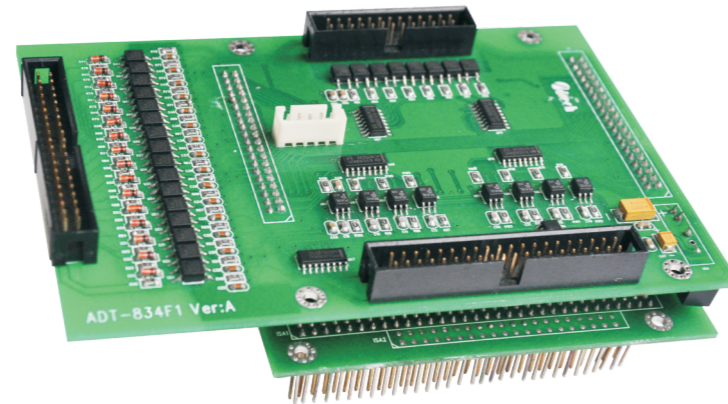
Switching signal , the sensor signals or other input control signals.
Relays, solenoids, lights or output control of other devices.

ADT-834

ased on high-performance four-axis control card PC104 bus

Overview :

ADT-834 multi-axis motion control card is one of four-axis motion control card Adtech based on computer PC104 bus members , with T- symmetrical and non- symmetrical curve , S -shaped curve , the position of the variable ring , speed protection , its also has multi-axis continuous interpolation , circular interpolation motion planning of hardware and other advanced features , improve processing efficiency and accuracy , especially for a little bit both have to be interpolated motion control technique occasion. The product is widely used in engraving and milling , engraving , cutting , dispensing , welding , machetes processing industries.



Hardware Index

- 32 PC104 bus , plug and play.
- Can control the number of axes : four axis .
- Differential pulse output for each axis , the highest frequency 4Mz.
- Each shaft encoder feedback channel A / B phase phase difference or upper and lower pulse input or pulse input , 32 count , frequency up to 4MHz, pulse multiplier : 4,2,1 .
- Pulse Output Type : Pulse + direction (PUL + DIR) or double-pulse (CW + XXW)
- Instruction cache.

Control Function

- Symmetric and asymmetric T-shaped , S -curve acceleration and deceleration (S -curve acceleration and deceleration can not be used for circular interpolation) ;
- Fixed 2-4 axis linear interpolation ;
- Fixed 2-axis circular interpolation function hardware ;
- Continuous interpolation function, the maximum driving speed of 2MHz;
- Position compare function (two 32-bit compare register that location or size of the logical position counter can be used for software limit) ;
- deformable function;
- Fixed or non- fixed linear velocity mode

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、 WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Special IO

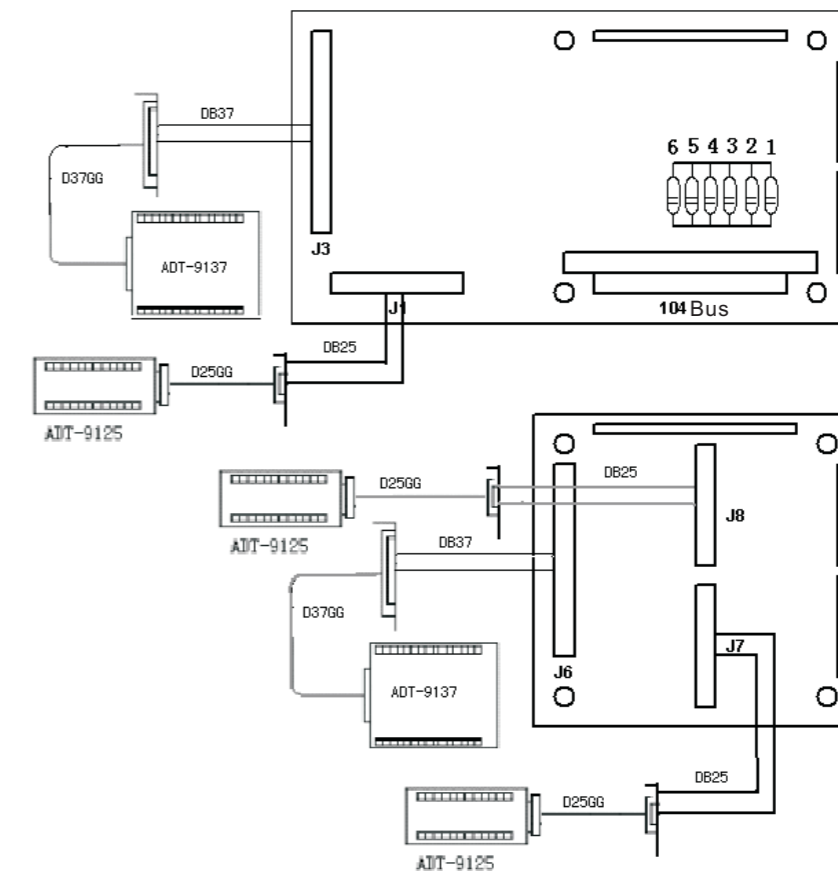
- Negative hardware limit for each axis , the origin, the deceleration signal (positive and negative limit can not be set is invalid and can not be used as general-purpose input , the other dedicated input signals such as STOP , servo alarm can be set to an invalid until , as a general-purpose inputs)
- Alarm input signal
- Position latch input signal
- Alarm clear signal
- Servo enable signal
- STOP signal

General purpose IO

- Special signal when not in use can be set to Universal IO, can be up to ;
- 32 general-purpose digital inputs, all optocoupler isolation;
 - 32 open collector outputs.

Wiring diagram

Above board size : 99*99.5mm
following board size : 140*96mm

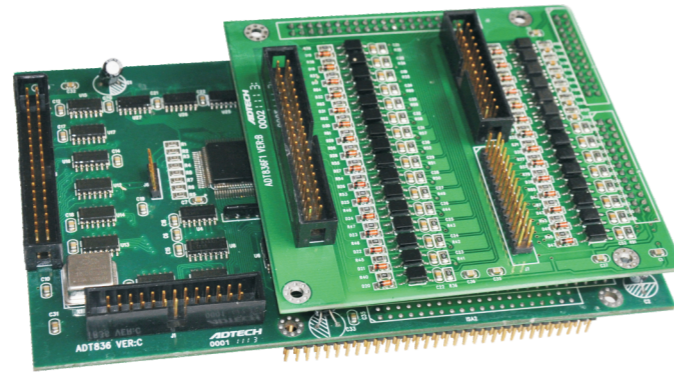


Applications

Welding equipment : laser welding machine;
Cutting equipment : diamond cutting machine, sponge cutting machine;
Engraving and milling equipment: engraving and milling , engraving ;
CNC machining equipment : CNC machine tools;
Processing and assembly of electronic products : screen printing machine , SMT machines , PCB drilling machine;
Dispensing Equipment: Dispensing , machetes processing equipment

ADT-836 top board

High performance of six axis control card based on PC104 bus



Overview :

ADT-836 multi-axis motion control card is based on one of Adtech axis motion control card computer PC104 bus members , with T- symmetrical and non- symmetrical curve , S -shaped curve , the position of the variable ring , speed protection , its also has multi-axis continuous interpolation , circular interpolation motion planning of hardware and other advanced features , improve processing efficiency and accuracy , especially for a little bit both have to be interpolated motion control technique occasion. The product is widely used in engraving and milling , engraving, cutting , dispensing , welding , machetes processing industries.

Hardware Index

- 32 PC104 bus , plug and play.
- Can control the number of axes : Six -axis.
- Differential pulse output for each axis , the highest frequency 4Mz.
- Each shaft encoder feedback channel A / B phase phase difference or upper and lower pulse input or pulse input , 32 count , frequency up to 4MHz, pulse multiplier : 4,2,1 .
- Pulse Output Type : Pulse + direction (PUL + DIR) or double-pulse (CW + CCW)
- Instruction cache.

Control Function

- Symmetric and asymmetric T-shaped , S -curve acceleration and deceleration (S -curve acceleration and deceleration can not be used for circular interpolation) ;
- Fixed 2-6 axis linear interpolation ;
- Fixed 2-axis circular interpolation function hardware ;
- Continuous interpolation function, the maximum driving speed of 2MHz;
- Position compare function (two 32-bit compare register that location or size of the logical position counter comparing actual position counter can be used for software limit);
- deformable function;
- Fixed or non- fixed linear velocity mode

Software support

- Operating system: DOS/WINDOWS95/98/NT/2000XP/WINCE、WIN7
- Programming environments : C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC
- Application examples of open- DOS and Windows

Application environment

- Operating temperature: 0-60°C
- Storage temperature : -20-80°C
- Temperature: 5-95 % non-condensing

Special IO

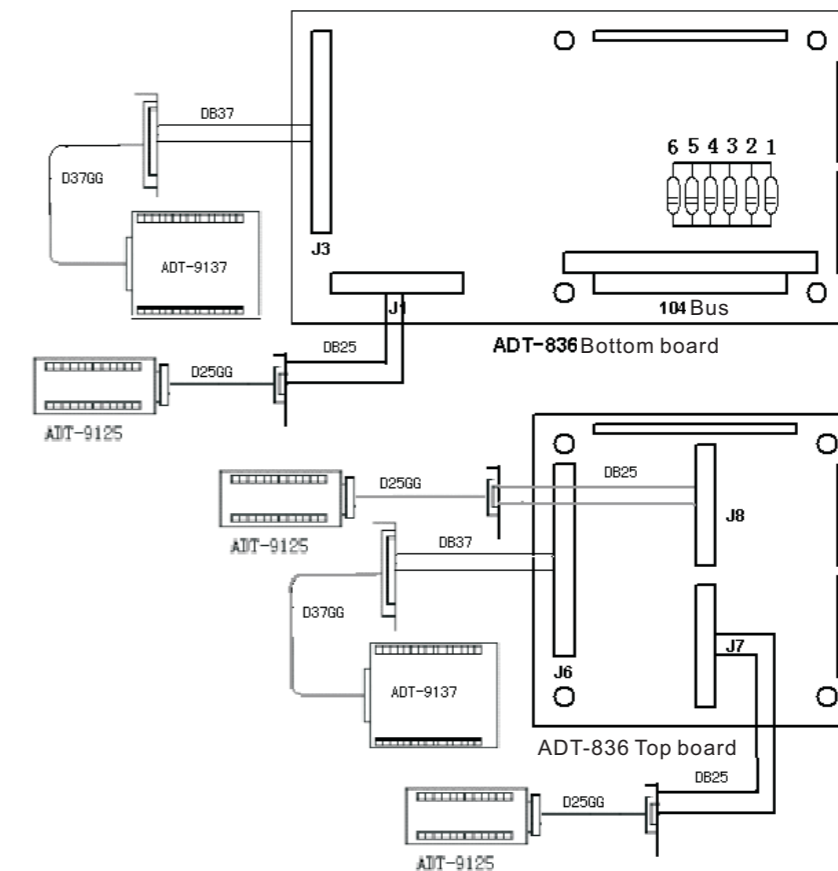
- Negative hardware limit for each axis , the origin, the deceleration signal (positive and negative limit can not be set is invalid and can not be used as general-purpose input , the other dedicated input signals such as STOP , servo alarm can be set to an invalid until , as a general-purpose inputs)
- Alarm input signal
- Position latch input signal
- Alarm clear signal
- Servo enable signal
- STOP signal

General purpose IO

- Special signal when not in use can be set to Universal IO, can be up to ;
- 48 general-purpose digital inputs, all optocoupler isolation;
 - 32 open collector outputs.

Wiring diagram

Above board size : 95*98mm
following board size : 156*97mm



Applications

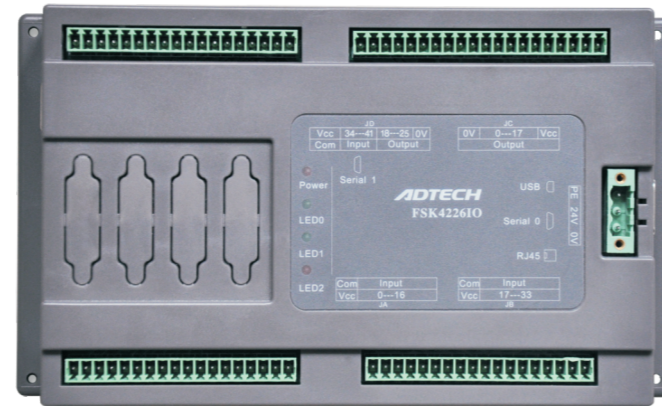
Welding equipment : laser welding machine;
Cutting equipment : diamond cutting machine, sponge cutting machine;
Engraving and milling equipment: engraving and milling , engraving ;
CNC machining equipment : CNC machine tools;
Processing and assembly of electronic products : screen printing machine , SMT machines , PCB drilling machine;
Dispensing Equipment: Dispensing , machetes processing equipment

ADT-IO4226

Offline Bus

Overview :

ADT-IO4226 control card is offline Adtech IO control card , hardware uses a high-speed microprocessors , high mass customized integrated circuit chip, hardware stability , improve performance , mature, one system can support up to 64 control card. Containing 42 inputs, 26 outputs , with two -way RS232 communication module , USB interface, network interface.



Performance

- Using SANSUNG series S3C44BOX CPU clocked at up to 66MHz
- 42 opto -isolated digital inputs, isolation voltage 2500VDC
- 26 opto -isolated digital output , the maximum current 0.5A;
- RS232 \ Ethernet interface, enabling automation equipment for multiple network control and remote control ;
- USB interface , U disk connection , data exchange with the outside world is more convenient , faster updates ;
- Buzzer , and has a power-down protection ;
- Control diverse ways : offline , online , consoles, free combination.

Software Support

- Operating system : WINDOWS95/98/NT/2000/XP、WINCE、WIN7
- On-line mode、 PC supports C/BC++/VC/VB/C#/C++Builder/Delphi/LabVIEW/EVC。
- Offline mode using C-style command and control program

Applications Environment

- Voltage requirements : DC 24V
- power : 3.6W—5.0W
- operating temperature : 0 ~ 60 °C
- storage temperature : -40~ 55 °C
- umidity: 5 ~ 95% non-condensing

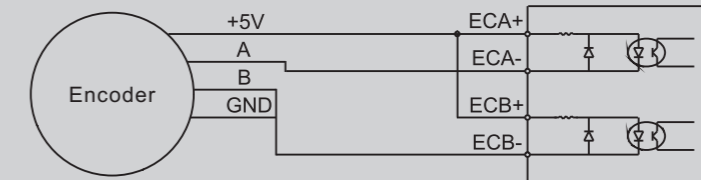
Configure list

Mingcheng		Model No. Description	number
Standard configuration	Motion Control Card	ADT-IO4226	1
	cable		2M
optional	serial cable		1
	SB download cable		1

applied range

Switch signal , the input control the sensor signal or of other signals .
Output control relays , solenoids , lights or other devices.

Encoder input signal connection



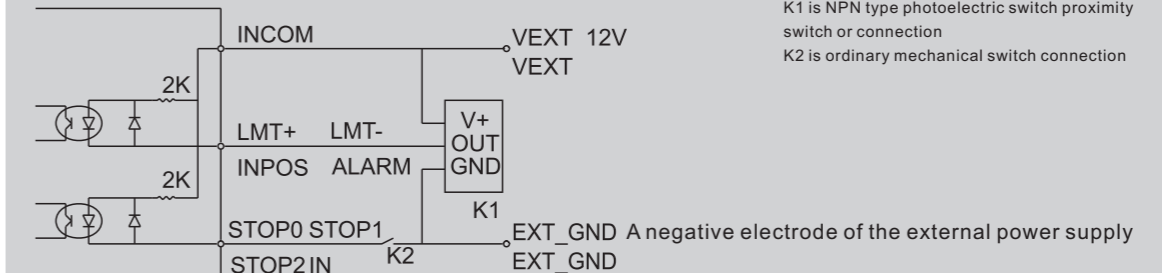
Use the + 5V power supply to encoder as an example : + 5V power supply can use the internal power supply , but also external 5V power supply

Digital output connector



*If perceptual negative, such as relays, etc. , should be added to the freewheeling diode across the load , as shown in J4

Connecting digital inputs



K1 is NPN type photoelectric switch proximity switch or connection
K2 is ordinary mechanical switch connection

