

Product Change Notice

This statement is to address your recent concerns regarding the Advantech PCI 4-axis motion control cards, namely PCI-1240-A and PCI-1240U-A.

Since there is a shortage of the MCX-314 motion chip, PCI-1240-A is being replaced by PCI-1240U-A. PCI-1240U-A is practically identical to its predecessor, but has a few improvements. It uses the MCX-314AS motion chip, which is manufactured with a lead-free process and has smaller dimensions. PCI-1240U-A supports a larger position counter than PCI-1240-A, and the encoder input voltage is extended to 5~ 30V in PCI-1240U-A.

To response to customers' request, Advantech has added a Universal PCI interface on the newly revised PCI-1240U-A. This means the card accepts both old 5 V and new 3.3 V PCI slots.

Please be informed that PCI-1240-A is planned to be phased-out in November 2005 since the new PCI-1240U-A can replace the version A completely. You are assured that the specifications and functions of PCI-1240-A and PCI-1240U-A are totally compatible.

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Specifications

		PCI-1240-A	PCI-1240U-A
Description		4-Axis Stepping/Pulse-type Servo Motor Control Card	
Number of Axis		4 Axes	
2/3-Axis Linear Interpolation	Range	-8,388,608 ~ +8,388,607 for each axis	-2,147,483,646 ~ +2,147,483,646 for each axis
	Speed	1 PPS ~ 4 MPPS	
	Precision	± 0.5 LSB	
2-Axis Circular Interpolation	Range	-8,388,608 ~ +8,388,607 for each axis	-2,147,483,646 ~ +2,147,483,646 for each axis
	Speed	1 PPS ~ 4 MPPS	
	Precision	± 1 LSB	
Continuous Interpolation	Speed	1 PPS ~ 2 MPPS	
Drive Output Pulses	Output Signal*	nP+P/N, nP-P/N	
	Range	1 PPS ~ 4 MPPS	
	Precision	± 0.1%	
	Change of Acceleration for S Curve	954 ~ 31.25 x 10 ⁹ PPS/sec ²	
	Acceleration/Deceleration	125 ~ 500 x 10 ⁶ PPS/sec	

	Initial Velocity	1 PPS ~ 4M PPS			
	Drive Speed	1 PPS ~ 4M PPS (Can be changed during driving)			
Drive Output Pulses	Number of Output Pulses	0 ~268,435,455 (fixed pulse driving)		0 ~4,294,967,295 (fixed pulse driving)	
	Pulse Output Type	Pulse/Direction (1-pulse, 1-direction type) or Up/Down (2-pulse type)			
	Output Signal Modes	Differential line driving output Single-ended output			
	Speed Curve	T/S-curve Acceleration/Deceleration			
Encoder Input					
Input Pulse for Encoder Interface	Input Signal*	nECAP/N, nECBP/N, nIN0P/N			
	Encoder Pulse Input Type	Quadrature (A/B phase) or Up/Down			
	Counts per Encoder Cycle	x1, x2, x4 (A/B phase only)			
	Max. Input Frequency	1 MHz			
	Input Voltage	Low	3 VDC max	Low	2 VDC max
		High	10 VDC min.	High	5 VDC min.
			30 VDC max		30 VDC max
	Protection	2,500 VDC isolation			

Software Compatibility

To support the new sub-device ID function, it is necessary to update with a new driver shipped with PCI-1240U-A. The package version is V2.1.12.001 or above. Compatibility tests have been done with both PCI-1240-A and PCI-1240U-A. Based on the new driver, the existing program will have no problems to run with both PCI-1240-A and PCI-1240U-A.

Board Design

All connectors and jumpers on PCI-1240U-A are kept identical with PCI-1240-A. Please refer to the following pictures for details.

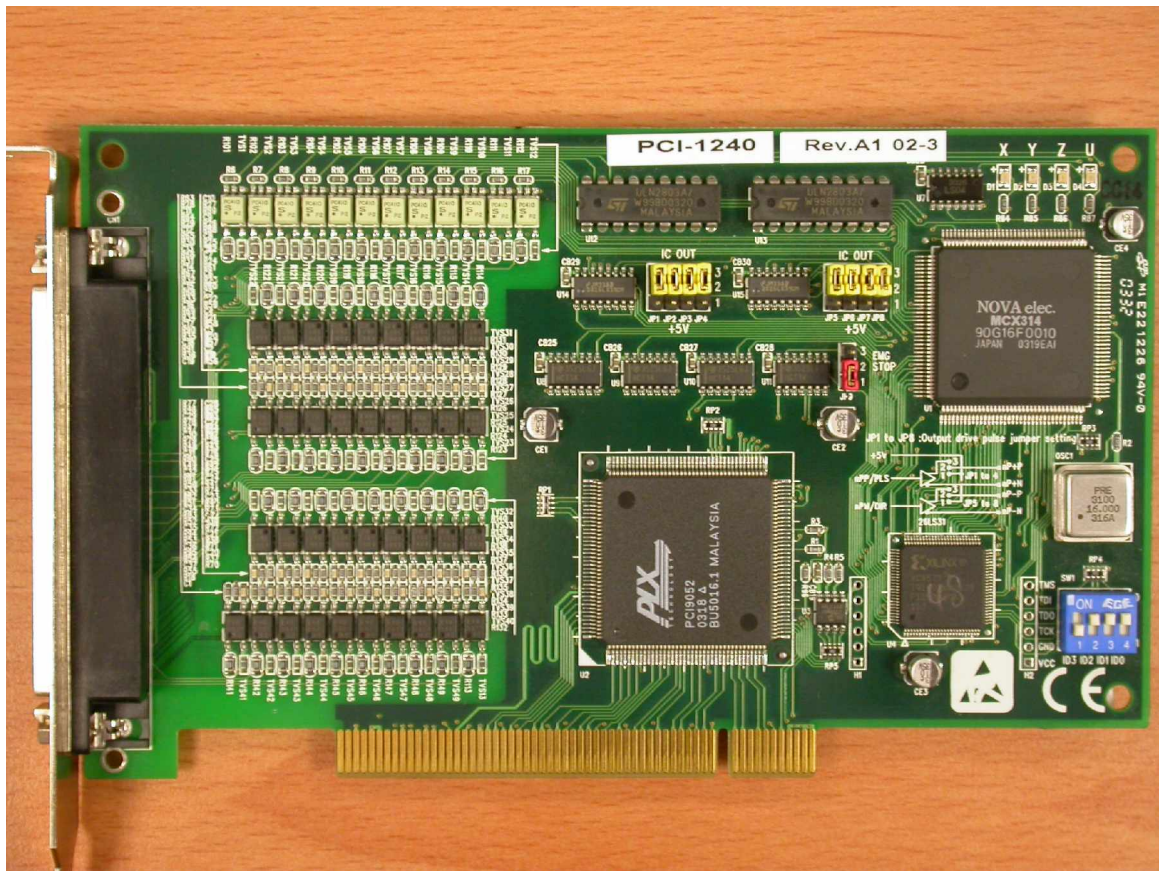


Figure1 PCI-1240-A

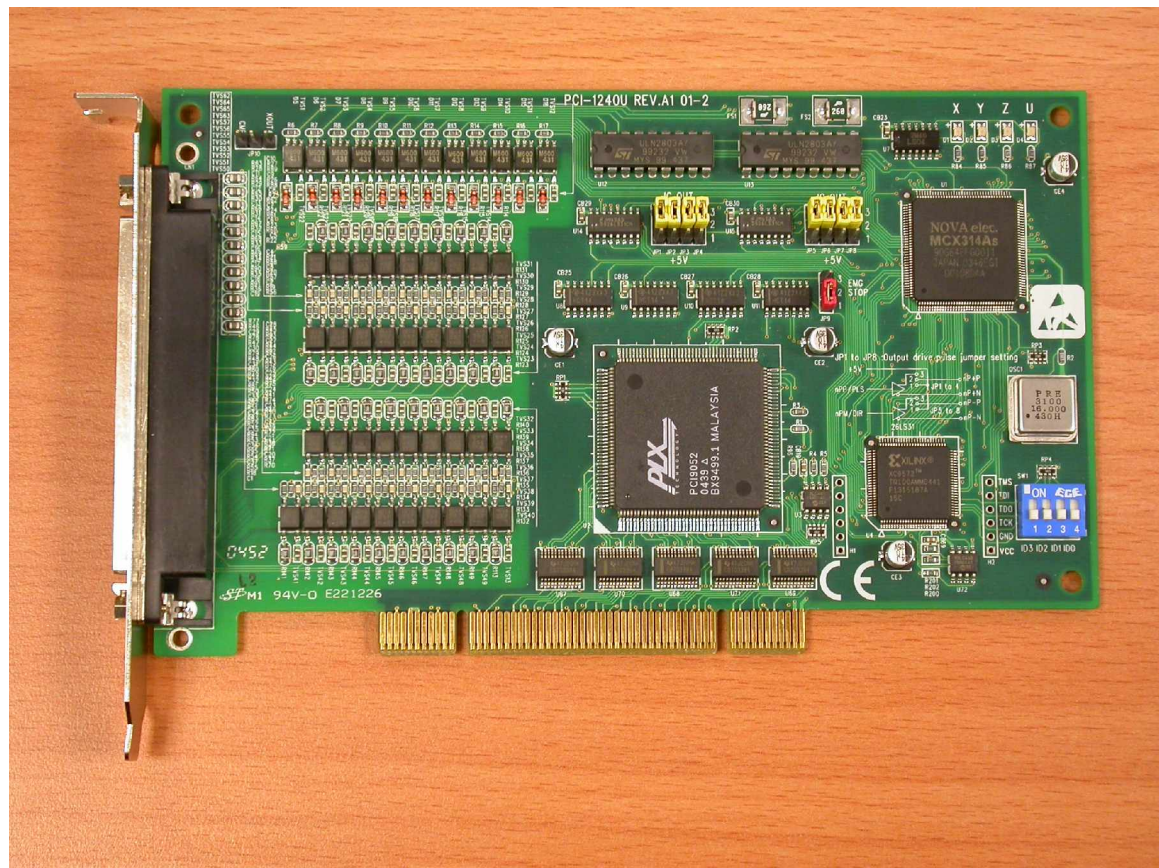


Figure2 PCI-1240U-A

If you have any further questions regarding compatibility or applications, please feel free to contact us at any time.

Best regards,

Peishan Juan

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