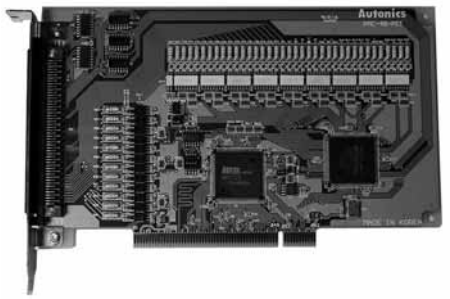
PMC-4B-PCI

4-Axis board type programmable motion controller

▣Features



- ●Available to control 4-axis independent AC servo motor and stepping motor
- ●PC-PCI Card
- ●Auto home search and synchronous operation
- ●Interpolation on circular/linear, Bit pattern/continuous/ ac • deceleration drive
- ●2/3-Axis constant linear velocity.
- ●Compatible with Windows 98, NT, 2000, XP
- ●Apply the library which can be operated in C++

⚠ **Please read "Caution for your safety" in operation manual before using.**

▣Ordering information

PMC – 4B – PCI

PCI	Connection type
4B	4-Axis Board Type
PMC	Programmable Motion Controller

▣Specifications

Model		PMC-4B-PCI
Control axis		4-Axis
CPU Data bus		8/16 Bit selectable
2/3-Axis linear interpolation	Interpolation range	Axis -2,147,483,646 ~ +2,147,483,646
	Interpolation speed	1pps ~ 4 Mpps
	Shortcut position accuracy	Max. ±0.5LSB(Within interpolation range)
Circular interpolation	Interpolation range	Axis -2,147,483,646 ~ +2,147,483,646
	Interpolation speed	1pps ~ 4 Mpps
	Shortcut position accuracy	Max. ±1 LSB(Within the whole interpolation range)
2/3-Axis bit pattern interpolation speed		1~4MPPS(Dependent only on CPU data setup)
Other interpolation function		Selectable axis, Linear speed, Continuous interpolation, Interpolation step(Command, External signal)
Driver pulse output (X, Y common specifications) (CLK=16MHz)		Output speed range : 1 pps ~ 4 Mpps
		Output speed accuracy : Max ±0.1%(For setting value)
		Speed rate : 1 ~ 500
		S-curve Ac.acceleration rate : 954 ~ 62.5×10^6 PPS/SEC^2(At rate=1) (Rate of increase) 477×10^3~ 31.25×10^6 PPS/SEC^2(At rate=500)
		Ac.deceleration : 125 ~ 1×10^6 PPS/SEC^2 (At rate=1) 62.5×10^3 ~ 500×10^6 PPS/SEC^2 (At rate=500)
		Super high speed : 1 ~ 8,000PPS (At rate=1) 500 ~ 4×10^6 PPS/SEC^2(At rate=500)
		Drive speed : 1 ~ 8,000PPS (At rate=1) 500 ~ 4×10^6 PPS/SEC^2 (At rate=500)
		Output pulse : 0 ~ 4,294,967,295(Fixed quantity pulse drive)
		Speed curve:Constant speed/Linear ac.deceleration/Parabola S-curve Ac.acceleration drive
		Deceleration mode of fixed pulse drive(Available asymmetry linear ac.deceleration speed) / Manual deceleration
		Output pulse on Driving, Available to change drive speed
		Selectable dependent 2pulse / 1pulse direction type
		Selectable logic level, Changeable output terminal
Encoder input pulse		2-Phase pulse / Up down pulse input, 2-Phase pulse 1, 2, 4 magnifying selectable

▣Specifications

Position Counter	Logic position counter(For output pulse) count range : −2,147,483,648 ~ +2,147,483,647 Real position counter(For input pulse) count range : −2,147,483,648 ~ +2,147,483,647
Compare register	COMP+ register position campare range : −2,147,483,648 ~ +2,147,483,647
	COMP− register position campare range : −2,147,483,648 ~ +2,147,483,647
	Status output and signal output the magnitude with position counter
	Available operating as a software limit
Auto home search	Step 1(High speed near home search) → Step 2(Low speed near home search) → Step 3(Low speed encoder nearby search) → Step 4 (Selectable enable/disable, detection direction for each step)
Interrupt function (Except for interpolation)	• 1drive pulse output • On changing position counter ≥ COMP− • On changing position counter 〈 COMP− • Starting fixed speed on ac.deceleration drive • On changing position counter ≥ COMP+ • On changing position counter 〈 COMP+ • Completing fixed speed on ac.deceleration drive • On drive ending
Drive shortcut by external signal	Able to drive fixed quantity • continual speed of +/− direction by EXPP, EXPM signal
	2−Phase encoder signal mode(Encoder input) drive
E decelerate stop / Immediate stop signal	IN0 ~ 3 axis 4 points
	Selectable enable/disable signal and detection of direction, able to use as a common input
Input signal for servo motor	Selectable enable/disable signal and detection direction
Output signal for common	OUT4 ~ 7square axis 4points(Multiple 4 combines MULT CHIP shortcut signal and terminal)
Signal output on drive	ASND (Ascend speed), DSND(Descend speed)
	CMPP(Position ≥ COMP+), CMPM(Position 〈 COMP−)
	DRIVE(Driver pulse output), Read at status register
Overrun limit signal input	Direction +, − each one, Selectable logic level
	Selectable emergency stop/deceleration stop for active
Emergency stop signal input	EMG 1point in all axis, make drive pulse of all axis immediately stop
Integral type filter built−in	Built−in intergration filter on each input terminal, selectable passing time(8 hours)
Etc.	Selectable axis, Constant linear speed, Continuous interpolation, Interpolation step transmission(Command, External signal)
Power supply	5VDC (Using PC inner power)
External power supply	12−24VDC
Allowable voltage fluctuation range	90~100% of power supply
Operation temp. range	0℃ ~ +45℃(at non−dew or non−freezing status)
Storage temperature	−10℃ ~ +55℃(at non−dew or non−freezing status)
Ambient humidity	35 ~ 85%RH

▣System