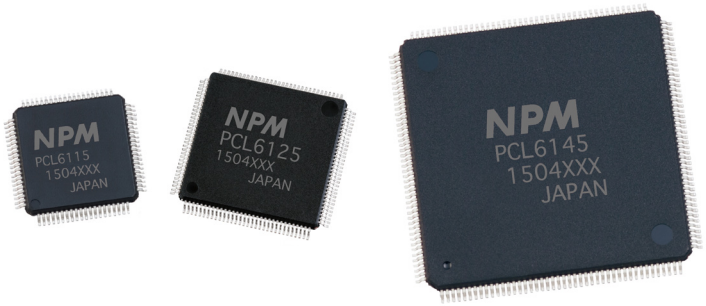
Nippon Pulse
Your Partner in Motion Control

PCL61x5
Controller Chip

Nippon Pulse's PCL61x5 series of controller chips are pulse control LSIs designed to output high-speed pulses for stepper motor or servomotor control while reducing the burden on the CPU. Advanced features can be controlled through simple commands.



Specifications	PC6115	PCL6125	PCL6145
Number of axes	1	2	4
Max. Output Frequency	9.8Mpps (Max. 15 Mpps)		
CPU Interface	8/16 bit parallel bus I/F 4 Serial bus I/F		
Package Type	80 pin QFP	128 pin QFP	176 pin QFP
Power Supply Voltage	+3.0V ~ +3.6V		
Standard Reference Clock (Max.)	19.6608MHz (Max. 30 MHz)		
No. Speed Setting Registers	2 (FL, FH)		
Speed Setting Step Range	1 ~ 16,383 (14 bit)		
Speed Multiplication Rate Range	0.3 ~ 600x		
Acceleration Rate Setting Range	1 ~ 65,535 (16 bit)		
Deceleration Rate Setting Range	1 ~ 65,535 (16 bit)		
No. of Positioning Pulse Setting Range	-2,147,483,648 ~ +2,147,483,647 (32 bit)		
Slow-down Point Setting Range	0 ~ 16,777,215 (24 bit)		
External Dimensions (Mold Part)	12x12 mm	14x14 mm	24 x 24 mm
Operating Temp. Range	-40 ~ +85°C		
S-Curve	Yes		
Encoder Input	Yes, each axis		
Up/Down Counter (Present Position Counter)	Yes, each axis (32 bit x2)		
Comparators	Yes, each axis (32 bit x 4) (Software limit only x2)		
Interrupt Signal Output	Yes (32 factors)		
Prebuffer/Preregister	Yes (1 stage)		
Automatic Start	Yes		
Pulser Input	Yes, each axis (no multiplication/division function)		
Linear Interpolation	Yes		
Continuous Interpolation	Yes		
General Purpose I/O Terminal	Yes (8 points each axis)		
Ring Count Function	Yes		
Programmed Soft Limit	Yes		
Interface	Yes		
RoHS2 Compliant	Yes		

Standard maximum output rate is the rate available with the reference clock input and the maximum rate in parenthesis, with the maximum reference clock input.