



PCI/PC Bus Operation

The ACR1505 is Parker's low-price, PCI performance leader. The ACR1505 is a half-slot PCI card capable of operating four axes of servo or stepper motion control with four encoder inputs at up to 30 MHz (post-quadrature). The ACR1505, with its 120 Mega Floating Point Operations per Second (MFLOPS), brings new levels of performance to the price-competitive OEM marketplace.

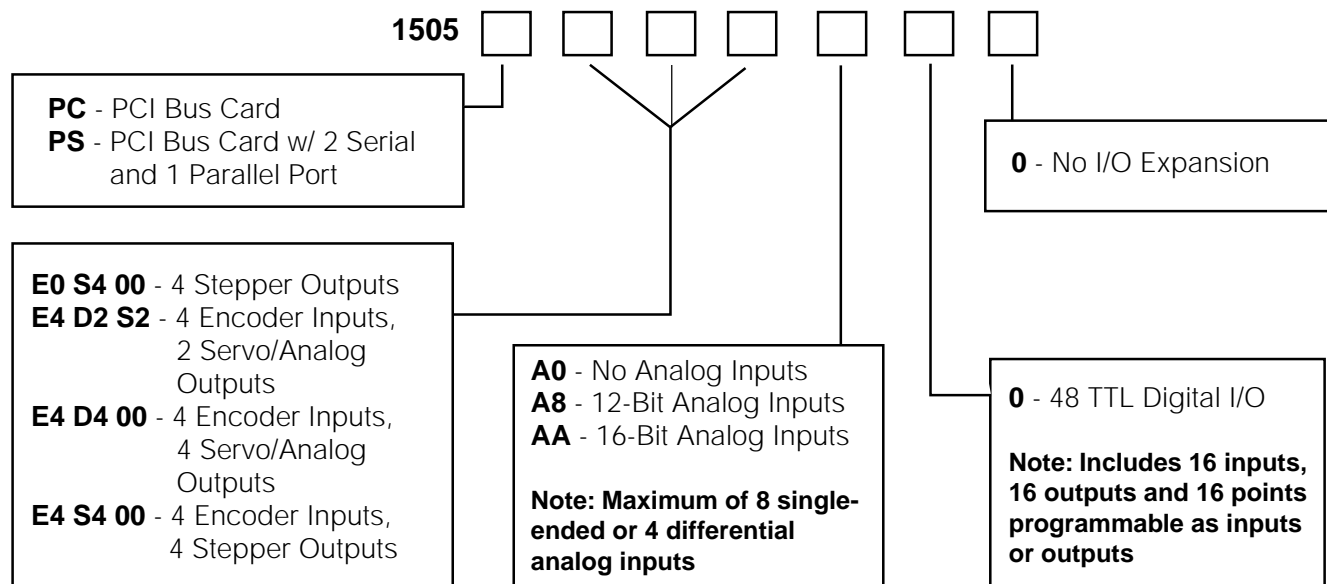
The ACR1505 can also be equipped with eight analog inputs using 12- or 16-bit analog-to-digital converters for general-purpose inputs or for closing a servo loop. All of the ACR products use the same system software and programming language; this assures users complete flexibility in upgrading their hardware while maintaining their investment in program development.

Parker's ACR1505 offers affordable, high-performance PCI control when real-time speed and ease of programming are needed most.

ACR1505 Exclusives

- 120 MFLOPS, 32-bit floating-point DSP
- Half-size PCI card
- 4 axes of servo or stepper control
- 4 encoder inputs at 30 MHz (post-quadrature)
- User and system memory 512 KB each
- Onboard 48 TTL I/O with industry standard Opto 22, 50-pin connectors
- Optional communication module available, including 2 serial and 1 parallel port
- Optional analog input module available, including eight 12- or 16-bit inputs

ACR1505 (1 to 4 Axes) Ordering



ACR1505 Specifications

	Value
Hardware	
Axes/controller	2-4 axes
PC-Bus interface	PCI
Standalone option	NA
Processor	32-bit floating-point DSP @ 120 MFLOPS / 60 MHz
Trajectory calculation	64-bit precision
User memory	512 KB
System memory	512 KB
Firmware	Flash-based
Flash memory	8 MB
Size	Half-size PCI
Operating system	Multi-tasking RTOS
Performance	
Multi-tasking	16 coordinated systems, motion/PLC programs
Trajectory update	Every 100-500 usec
Servo update	25 usec/axis
Ladder Logic PLC	100-500 usec scan time
Interpolation	Linear, circular, sinusoidal, helical and elliptical, splines, NURBS, 3D arcs
Servo loop	PID, velocity feedforward, acceleration feedforward notch, LoPass filtering
Position regulation	Hardware, < 1usec
Communications	Simultaneous PCI, serial and LPT ports
Communications	
PC bus	Bus mastering PCI with dual-port memory
Optional interface	2 serial ports (RS232 and/or RS422), 1 parallel port (8 bits)
Inputs	
Encoder input	4 at 30 MHz post-quadrature
Optional analog input	8 at 12- or 16-bit resolution
Command Signal	
Analog outputs	Up to 4 (16-bit precision)
Stepper outputs	Up to 4 @ 6 MHz
Digital I/O	
Onboard fixed	16 inputs, 16 outputs, 5V TTL
Onboard configurable	16 I/O points, 5V TTL
Software Support	
Standard language	Visual Basic, Visual C++, C++
Program tools	AcroVIEW Motion/PLC Program
Development tools	ActiveX controls/OCX controls
Operating system	Windows® NT, 98, 2000, XP
Additional firmware highlights	Triggered floating point electronic GEARING Triggered segmented electronic CAM On-the-fly position and velocity matching Ladder Logic PLC Interruptible moves Either analog or digital feedback for position or velocity loops Dual-encoder feedback Data teach and learn functions Parameter-based with over 15,000 addressable pre-defined hardware registers Sinusoidal commutation NURBS and splines 3D arcs Automatic tangential tool operation
Compatible Drives	
Compumotor	Aries, Gemini GV, Gemini GT, E-AC, E-DC, OEM770, OEM750 and Dynaserv G2
General	5V TTL enable