

# 8 Axes Point To Point Motion Controller

## Overview

Based on 32-bit “Blackfin” DSP + FPGA architecture, Googol Tech’s GTS-800 series motion controller grand the machine with more efficiency in motion control as well as in programmable resources. The new GTS series motion controller could realize T-Curve, S-Curve, PT(Position-Time profiling), E-Gear, E-Cam functions with more accuracy and better performance.



## Application Areas

1. Multi-profiling functions with the accuracy and repeatability for high speed motion control ensure the fulfillment of the advanced machine performance in Wire-Bond, Die-Bond, PCB Drilling etc.
2. PT Profiling:
  - A. Applicable to Robotic Arm Motion Planning, making the programming in robotics easier.
  - B. Small segment interpolation function can be implemented. Applicable to point to point motion application with simple interpolation function. For example, PCB drilling.
  - C. User defined velocity profiling function can be implemented. Enrich the customization ability of the control system and complicated velocity profile is possible with this function.
3. E-CAM and E-Gear can be applied to multiple area for the synchronization functions, like cut on fly, packaging, advanced printing, sewing machine, etc.
4. Linear motor control with high performance.

## Technical Specifications

<b>Motion Control Functions</b>	<b>Hardware:</b> <ul style="list-style-type: none"><li>• Up to 8 axes servo/stepper motors control</li><li>• Close loop for PV type</li><li>• Up to 1MHZ pulse</li><li>• 32-bit incremental encoder reading</li><li>• Support INDEX, HOME hardware capture</li></ul>
	<b>Software:</b> <ul style="list-style-type: none"><li>• 125us control cycle (configurable)</li><li>• Support Point to Point, PT, E-gear, E-Cam, Jog</li><li>• Configurable IOs through software</li><li>• Support 32 downloadable logic programs, save more CPU resources for user, increase the real time ability of the system.</li><li>• Support soft limits.</li><li>• Support gantry mode</li><li>• With actual position and planned position flags for different positioning judgment.</li><li>• “PID+Vff+Aff” adapted control + digital filter</li></ul>
<b>Software</b>	Library files and sample programs under Windows CE, Windows XP
<b>Interface</b>	PCI Bus
<b>Dimension</b>	122mm×185mm

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<b>Power</b>	<ul style="list-style-type: none"> <li>● <math>\pm 5V</math>, <math>I_{cc}=2A</math> Supplied by PCI</li> <li>● <math>\pm 12V</math>, <math>I_{cc}=60mA</math> Supplied by PCI</li> </ul>
<b>Working Environment</b>	<ul style="list-style-type: none"> <li>● Temperature: <math>0\sim 55^{\circ}C</math></li> </ul>

## Ordering Guide

Model No.	No. of Axis	Motor	Motion Mode
GT-800-PV-PCI-G	8	Velocity/Position Analog/Pulse	Point to Point, PT, E-gear, E-Cam, Jog
GT-800-PG-PCI-G	8	Position Pulse	Point to Point, PT, E-gear, E-Cam, Jog

## Packing List

	Part Name	Description	Qty
<b>Standard</b>	Motion Controller	GT-800-PV-PCI-G/GT-800-PG-PCI-G	1
	Interface Board	GT-800-PCI-ACC1+64pin Flat Cable	1
	Terminal Board	GT2-800-ACC2-V/GT2-800-ACC2-G	1
	SCSI Cable	68pin $\cdot$ 1.5/3.0 M	2
<b>Optional</b>	Driver Cable	1.5M	

## Accessories



GT-800-PCI-ACC1  
& 64pin Flat Cable



Terminal Board



SCSI Cable

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