

# PCI-M114G



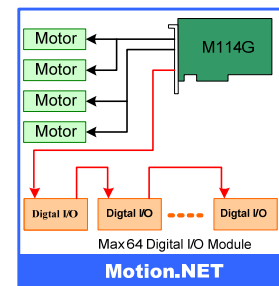
Advanced Motion.NET PCI Master Card with 4-Axes Motion Control Card

## Features

- ◆ Max. 6.5MHz, 4-Axes pulse output
- ◆ Linear, circular and continuous interpolation
- ◆ High speed position latch function
- ◆ Manual pulse generator input interface
- ◆ Simultaneously start/stop on multiple axes
- ◆ Programmable acceleration and deceleration time
- ◆ Programmable pulse output and interrupt
- ◆ Position compare and trigger output
- ◆ 1 Ring of Motion.NET master
- ◆ Programmable baud-rate up to 20Mbps transfer rate
- ◆ Max. 64 Motion.NET digital slave modules support
- ◆ Easy installation with RJ45 phone jack and LED diagnostic



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## Specifications

### Motion Control

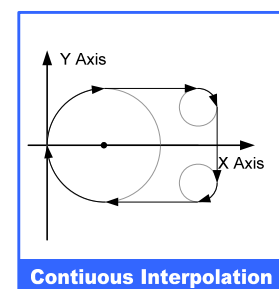
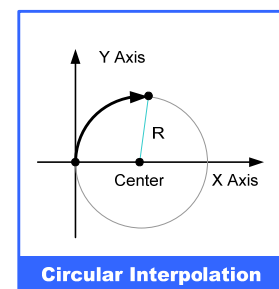
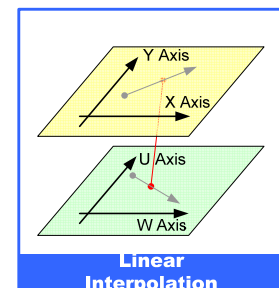
- ◆ Pulse output mode:  $\pm$ OUT/DIR,  $\pm$ CW/CCW
- ◆ Pulse output rate: Max. 6.5Mpps / Min. 0.05pps
- ◆ Position range: 28bits( $\pm$ 134,217,728 pulses)
- ◆ Home return mode: 13 types
- ◆ Velocity profiles: T-curve, S-curve
- ◆ Interpolation mode: linear, circular and continuous
- ◆ Counter for encoder feedback signals: 28bits up/down x 4
- ◆ Position latch input: LTC x 4
- ◆ Position compare output: CMP x4
- ◆ Incremental encoder input:  $\pm$ EA x 4,  $\pm$ EB x 4
- ◆ Encoder index signal input:  $\pm$ EZ x 4
- ◆ Machine interface: PEL x 4, MEL x 4, ORG x 4, SLD x 4
- ◆ Servo driver interface: ALM x 4, RDY x 4, SVON x 4, INP x 4, ERC x 4
- ◆ Simultaneous start/stop motion input: STA, STP
- ◆ General input: IN x 3
- ◆ General output: OUT x 4
- ◆ I/O pin type: optically isolated with 2.5KVrms on all SCSI 68 pins

### Motion.NET

- ◆ Number of Ring: 1
- ◆ Serial interface: half duplex RS-485 with transformer isolation
- ◆ Cable type: CAT5 UTP/STP Ethernet cable
- ◆ Surge protection: 10KV
- ◆ Transmission speed: 2.5Mbps, 5Mbps, 10Mbps and 20Mbps
- ◆ Data flow control : automatic
- ◆ Communication distance: Max. 100m
- ◆ Slave module function: digital I/O or Motion slave module (Max. 64 slaves)

### General

- ◆ PCI Spec. 2.2; supports 32-bit, 3.3V/5V DC operation
- ◆ Power consumption: +5V DC at 0.5A typical
- ◆ Working temperature: 0 to 60°C



## Software Supporting

### ◆ Windows 2000/XP WDM driver

Support BCB/VB/VC++ programming on Windows 2000/XP platform with DLL

### ◆ WINDOWS CE.NET BSP

### ◆ MotionNAVI

MotionNAVI is a Windows utility assists the customer to debug

### ◆ Motion.NET EzLINK

Motion.NET EzLINK is a windows utility assists the customers to diagnose

## Ordering Infomation

### ◆ PCI-M114G

Advanced Motion.NET PCI Master Card with 4-Axes Motion Control

### ◆ 106-T421-DUM

Terminal board for dummy

### ◆ 106-T424-YS2

Terminal board for Yaskawa Sigmall.

### ◆ 106-T427-PMA

Terminal board with encoder output and linear scale input for Panasonic driver

### ◆ 106-T110-DUM

Terminal board with SCSI 20 pins for manual pulse generator

### ◆ SCB-144-20A

SCSI 68 pins cable, 2m length to motion terminal board

### ◆ SCB-111-20A

SCSI 20 pins cable, 2m length

### ◆ SCB-133-20A

SCSI 50 pins cable, 2m length

### ◆ SCB-2311-20A

SCSI 50 – 2\* SCSI 20pins cable, 2m length (106-T427-PMA for Mistubishi J2S Series Driver)

### ◆ SCB-135-20A

SCSI 50 – SCSI 26 pins cable , 2m length (106-T427-PMA for Fuji Faldic W Series Driver)

### ◆ 106-D2XX/D4XX series digital input/output slave module

Motion.NET digital I/O slave modules

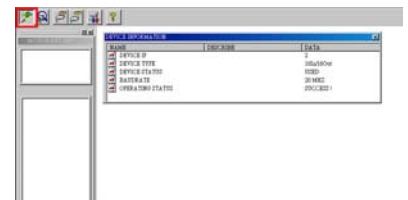
### ◆ SCB-1BB-20A

CAT5 UTP/STP LAN cable, 2m length

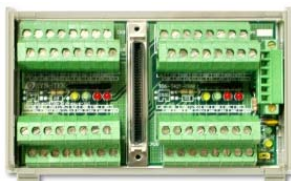
Terminal Board



**MotionNAVI**



**Motion.NET EzLINK**



**106-T421-DUM**

Stepping Driver  
Or  
General Servo Driver  
(L-124 x W-72 x H-53 mm)



**106-T427-PMA**

Panasonic Servo Driver  
Minas A Series  
(L-124 x W-72 x H-53 mm)

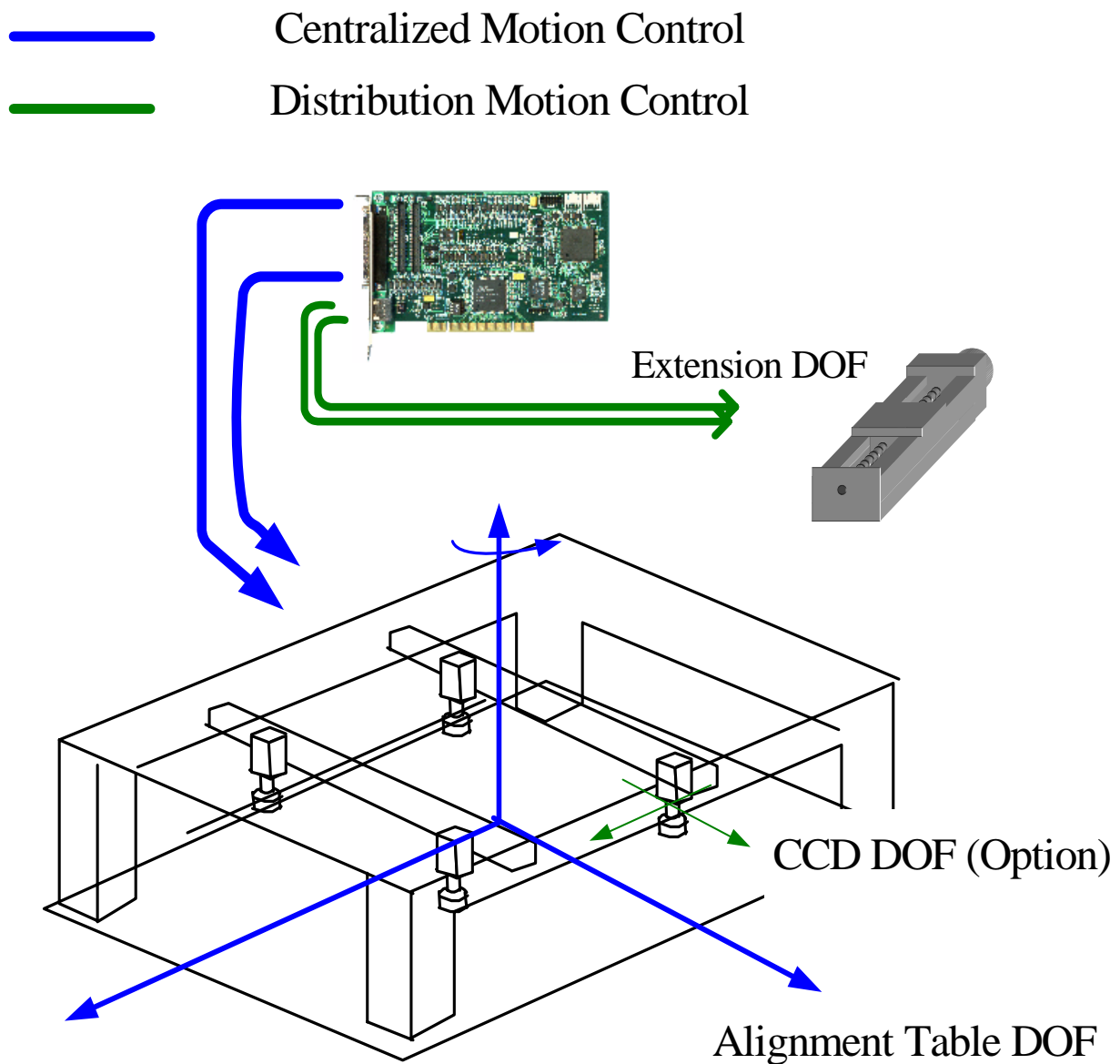


**106-T424-YS2**

Yaskawa Servo Driver  
Sigma II Series  
(L-124 x W-72 x H-53 mm)

# Reference Application

Because of the optional DOF, there are many different alignment systems. SYNTEK PCI-M114G provide the most convenient architecture to expand your motion control system.



Advanced Master PCI-M114G