



May 15, 2020

**SUBJECT:** PPCI7443 Product Discontinuation Notice

Dear Valued Customers and Distributors:

We would like to take this time to thank you for your business with Nippon Pulse America, Inc. We truly appreciate you and hope that you and your family are staying safe and healthy during the pandemic.

Our records indicate that your company has purchased at least one PPCI7443 control board from our company within the past six years, and we are writing to let you know that this product is being discontinued.

1. **Discontinuation Item:**

PPCI7443 –4-axis control board; PCI-bus interface/pulse output motion control board.

2. **Reason for Discontinuation:**

Production and sales of our 4-axis pulse-control LSI, PCL6045B, the main control LSI for this board, were discontinued at the end of 2016. We had retained a quantity of PCL6045B in order to continue production of the PPCI7443 board. As we near the depletion of that supply, it is time to terminate production of this control board as well.

3. **Discontinuation Schedule:**

Announce discontinuation to affected customers by:	May 15, 2020
Deadline to place a last-time buy order:	December 15, 2020
Last shipment from the factory:	February 26, 2021

4. **Alternate Item:**

Nippon Pulse offers a PCI-Express bus board whose hardware and software are almost compatible with the 4-axis control board.

The part number and description are PPCIe-8443, a PCI-Express Bus interface/pulse output motion control board which utilizes our PCL6046 control LSI.

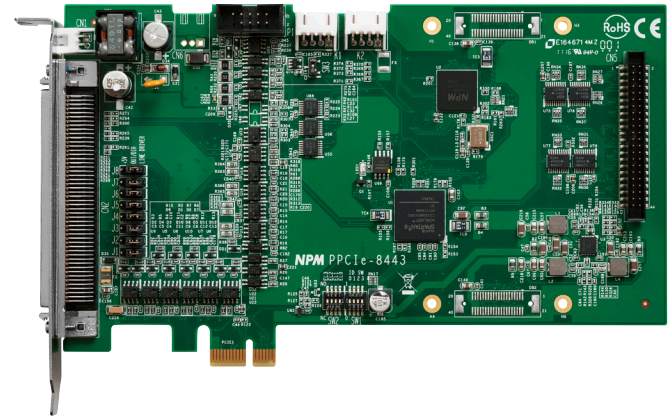
The datasheet for the PPCIe-8443 is attached to this letter. If you have any questions or need additional information, please feel free to contact your [local sales representative](#).

Sincerely,

Yoshiyuki Kozono  
Product Manager

PPCIe-8443 is a PCI-Express interface 4-axis control board equipped with our pulse control LSI chip, PCL6046. High-speed pulses (6.5 MHz) can be generated by dedicated LSI, and pulse input type stepping motors and servo motors can be controlled.

PPCIe8443 Specifications	
Adaptive motor	Pulse input type servo motor and stepping motor
Bus interface	PCI-Express
Onboard LSI	PCL6046 (manufactured by NPM)
Axis control connector	SCSI-type 100-pin connector
Operating temperature	0°C ~ 50°C
Storage temperature	-20°C ~ 80°C
Humidity	5% ~ 85% with no condensation
Environment/standards compliant	RoHS Directive (2011/65/EU) CE marking (EN 55022: 2010/AC: 2011 EN 61000-3-2: 2014 EN 61000-3-3: 2013 EN 55024: 2010)
Bus power supply (input)	±12V DC ± 5%, 250mA Max
External power supply (input)	±24V DC ± 5%, 500mA Max
External power supply (output)	±5V DC ± 5%, 500mA Max
Size	185mm (L) x 98.4mm (H)



### Features of the PPCIe8443

1. Linear/S-curve acceleration/deceleration
2. Arbitrary two-axis circular interpolation, linear interpolation of 2 to 4 axes, and continuous interpolation
3. Override of velocity / position, 13 types of homing, trigger output at the specified position is possible by position comparison using FIFO in the board.
4. Operations requiring complicated operations are internally processed, so the load on the axis control of the CPU is reduced.
5. Utility software that runs on Windows for application development and information on all axes and input/output signal status are displayed on the PC screen, so it is convenient for system debugging at the initial stage of the project.
6. Function libraries (DLL) that can be used in the Windows development environment, definition files for VC, VB, C # language, and sample programs.

Performance Specifications	
Number of control axes	4
Maximum output frequency	6.5Mpps (constant speed operation, linear/S-curve acceleration/deceleration operation)
Reference clock	19.6608MHz
Positioning control range	-2,147,483,648 ~ +2,147,483,647 (32 bit)
Speed range (speed multiplication factor)	0.1pps ~ 6553.5pps (when it is 0.1x) 1pps ~ 65,535pps (when it is 1x) 100pps ~ 6,553,500pps (when it is 100x)

Motion Control I/O Specifications	
Command pulse output	OUT, DIR (each axis)
Incremental type encoder input	EA, EB (each axis)
Encoder Z phase input	EZ (each axis)
Mechanical input	+EL, -EL, SD / PCS, ORG (each axis)
Servo driver I/F	INP, ALM, ERC (each axis)
Position latch input	LTC (Axis 2, Axis 3)
Comparator output	CMP (Axis 0, Axis 1)
General purpose output	SVON (each axis)
General purpose input	RDY (each axis)
Pulser signal input	PA, PB (common to all axes, motion symmetric axis selected by software)
Simultaneous start/stop input/output	STA, STP
Emergency stop input	EMG
Photocoupler insulation, withstand voltage	2500 Vrms (excluding STA, STP, EDI, EDO)
Extended general purpose input/output	Input 16 points, output 16 points (EDI, EDO)