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## I/O Point With Embedded LONWORKS™ Power Line Networking

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### **Features**

- 12 Digital I/Os
- Service and Reset pins
- 10MHz Echelon PL3120-E4T10 Power Line Smart Transceiver
- 5V and 10.8V-18V (VA) power input pins
- Transmit (TX), receive (RX), and band in use (BIU) network activity pins
- Compact 2.4"x1.6" pluggable module
- Simple external coupling circuit
- Ready-Made Applications available or develop your own
- Programmable over the network
- Reliable standard field proven EIA709 Power Line networking

### **Applications**

The IOPoint-PL module is an easy way to add power line remote control to your project.

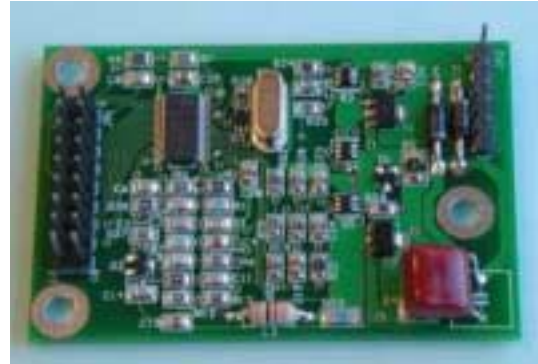
Reliable two-way communications insures your remote I/O will work properly. The fully acknowledged protocol insures your message made it to the other end.

Interfacing with all kinds of I/O is easy for the IOPoint modules. Over 34 flexible I/O models are available for the IOPoint-PL including but not limited to:

- PWM outputs
- Frequency outputs
- Level Detect inputs
- Pulse counting inputs
- Basic bit and byte I/O
- UART and SPI I/O
- And many more!!

See our Ready-Made applications and EVB schematics for examples.

Custom applications may be developed using the NodeBuilder development tool available from Echelon ([www.echelon.com](http://www.echelon.com)).



### **Compatible with Mini-EVK**

Developing your own applications is now more affordable!! Our IOPoint-PL is compatible with Echelon's Mini-EVK software. Use the Mini-EVK from Echelon ([www.echelon.com](http://www.echelon.com)) to develop applications targeted to the PL3120-E4T10 chip. Affordable custom power line devices are now within your reach!

### **Evaluation Boards**

Bibaja sells evaluation boards (IOPoint-EVB) to assist you with prototyping your IOPoint-PL based application. The IOPoint-EVB includes a small proto area, power supply, and I/O pin connections. Status LEDs are included for power, service, and network activity. Service and reset buttons are included for installation and debugging.

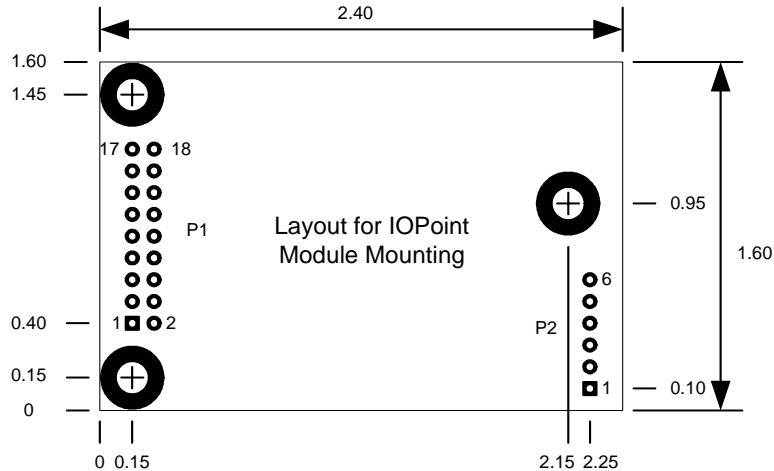
Available configuration options for the EVB:

- 4-20ma output
- Two-channel 12-bit A/D input
- Three wire RS232 port (RXD, TXD, and GND)
- Pulse metering input

Ready-Made applications are available for all EVB configurations. Need a custom application developed just for you? [Contact us](#) for a custom application development quote.

## Specifications

Microcontroller	10MHz PL3120-E4T10 Smart Transceiver (See <a href="http://www.echelon.com">http://www.echelon.com</a> for more information)
VDD5 Input	4.75 to 5.25V, 5V typical
VA Input	10.8V to 18V (See PL 3120®/PL 3150® Power Line Smart Transceiver Data Book for details)
Operating Temperature	-20C to 85C
Storage Temperature	-50C to 85C



Reference	Pad O.D.	Plated Hole Diameter
3 Mounting Holes	0.285	0.152
P1, P2	0.060	0.040

Dimensions are in inches.

IOPoint-PL Module pin assignments:

Name	P1 Pin #	P1 Pin #	Name
IO8	17	18	SERVICE_
IO7	15	16	IO10
IO6	13	14	IO9
IO5	11	12	VDD5
RESET_	9	10	IO4
GND	7	8	IO3
GND	5	6	IO2
GND	3	4	IO1
IO11	1	2	IO0

Name	P2 Pin #
RXIN	6
VA	5
PKD	4
BIU	3
TXON	2
GND	1

## Ordering Information

IOPoint-PL	Programmable I/O Module with LONWORKS Power Line Communications
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