

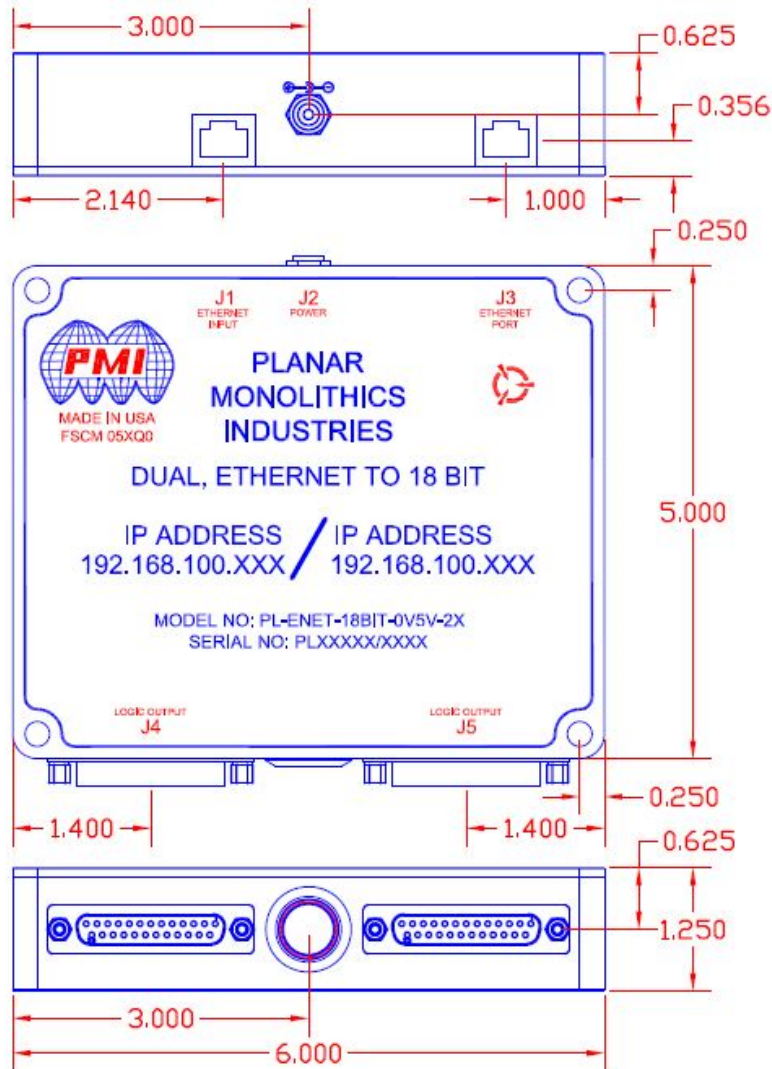


Ethernet to TTL Microcontroller

PL-ENET-18BIT-0V5V-2X

Rev A1

Operating Instructions



Planar Monolithics Industries, Inc.

East Coast Operations
7311-F Grove Road
Frederick, MD 21704
Phone: (301) 662-5019
Fax: (301) 662-1731

West Coast Operations
4921 Robert J. Mathews Parkway, Suite 1
El Dorado Hills, CA 95762
Phone: (916) 542-1401
Fax: (916) 265-2597

Email: sales@pmi-rf.com
Web: www.pmi-rf.com



1) PL-ENET-18BIT-0V5V-2X

PMI Model Number PL-ENET-18BIT-0V5V-2X is a microcontroller box which inputs an Ethernet command that allows 2 X 18 parallel TTL bits to be toggled high and low.

2) Ethernet Connection

The microcontroller box has the following Ethernet connection through the RJ45 Port on the box:

IP Address: 192.168.100.200* and 192.168.100.201*
Subnet Mask: 255.255.255.0
Default Gateway: 10.10.6.1
Connection Port: 3000

Note: If directly connecting a computer to the box, a crossover cable must be used. If the computer and box are both connected to the same network, a standard Ethernet cable can be used.

*These IP addresses will be used unless otherwise specified. If multiple units are ordered, PMI will increment the final digit of each IP address by 2. IE unit #2 would have 192.168.100.202 and 192.168.100.203, unit #3 would have 192.168.100.204 and 192.168.100.205, etc.

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3) Ethernet Command Structure

The Ethernet command structure is set up to input 18 text characters containing either a 1 or 0 for each of the 18 parallel TTL outputs in the order of MSB to LSB.

Example: The table below shows the command to send just the LSB high, just the MSB high, or all bits high. Any bit or combination of bits can be toggled by placing a text character 1 in its place in the 18 character string.

Output	MSB																LSB	
LSB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
MSB	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All High	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

LSB high all other bits low “000000000000000001”

MSB high all other bits low “100000000000000000”

All bits high “111111111111111111”

4) TTL Outputs

The 2 X 18 TTL Outputs are fitted with a series 1 k resistor to protect the microcontroller from short circuit conditions on the outputs. They will toggle from 0 V with a “0” input to +5 V with a “1” input.

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5) J2 - Pin Assignment

Pin No.	Function	Description
1	TTL1	MSB
2	TTL2	
3	TTL3	
4	TTL4	
5	TTL5	
6	TTL6	
7	TTL7	
8	TTL8	
9	TTL9	
10	TTL10	
11	TTL11	
12	TTL12	
13	TTL13	
14	TTL14	
15	TTL15	
16	TTL16	
17	TTL17	
18	TTL18	LSB
19	GND	GND
20	NC	No Connection
21	NC	No Connection
22	NC	No Connection
23	NC	No Connection
24	NC	No Connection
25	NC	No Connection

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