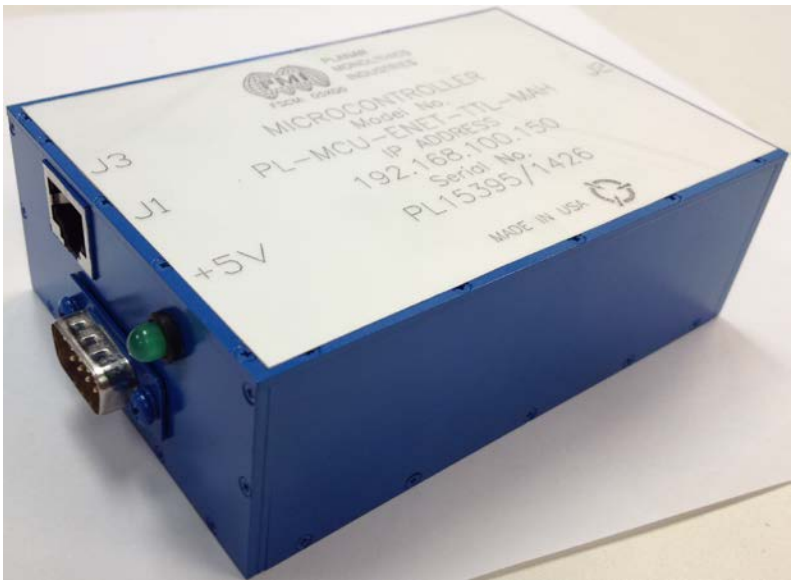
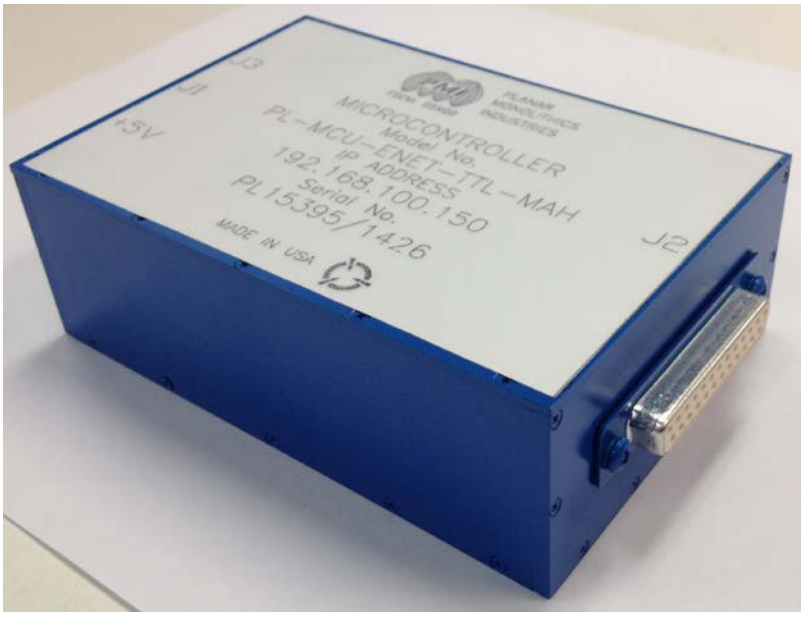
TYPICAL CHARACTERISTICS
ON
PL-MCU-ENET-TTL-MAH

PMI MODEL NUMBER PL-MCU-ENET-TTL-MAH IS AN ETHERNET MICROCONTROLLER TEST BOX WHICH ALLOWS FOR AN ETHERNET COMMAND TO BE SENT AND UP TO 18 PARALLEL TTL OUTPUT BITS.





July 11, 2014
Designed and Tested By: Dave Durbin

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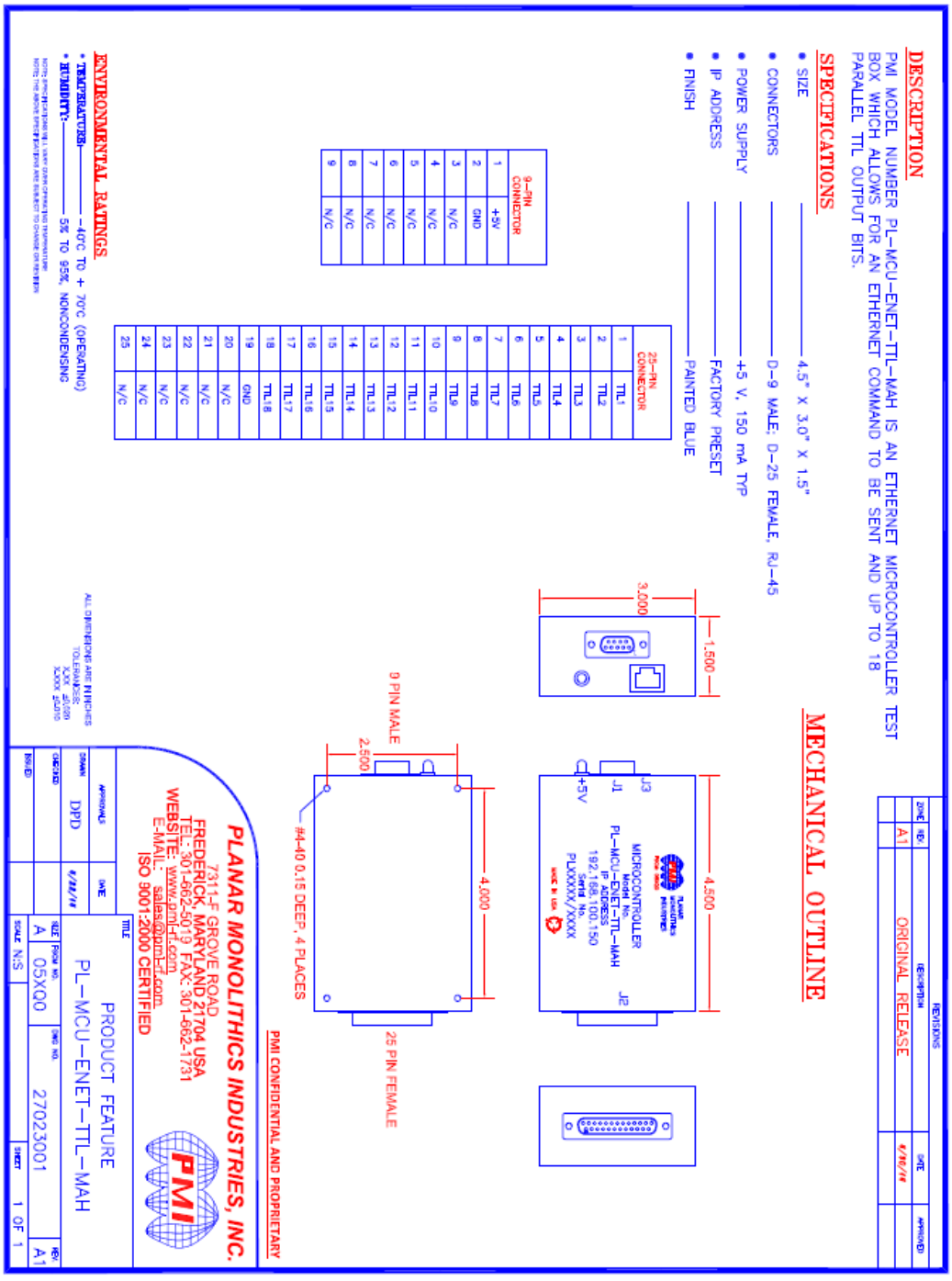
OUTLINE DRAWING



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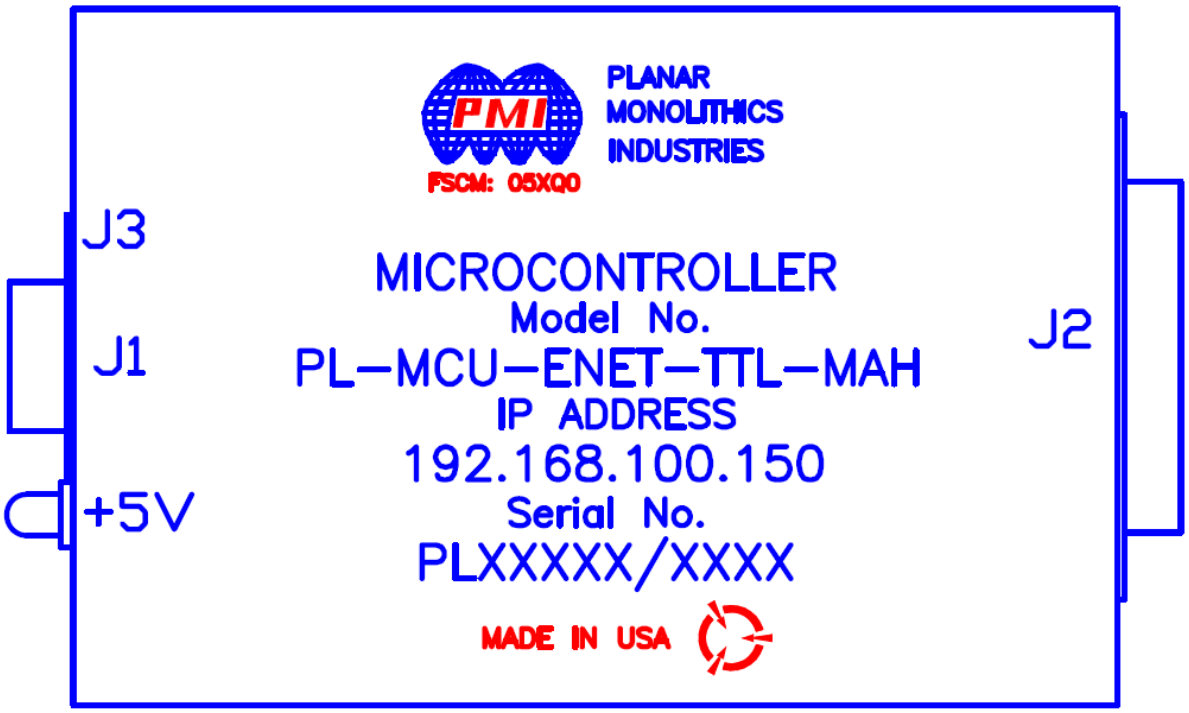
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS
1	TTL Outputs:	Pins 1 – 18 Toggle High/Low with Ethernet Commands	Pins 1 – 18 Toggle High/Low with Ethernet Commands
2	Power:	+5 V @ 150 mA Typ	**+5 V @ 148 mA**

Ethernet to TTL Microcontroller

PL-MCU-ENET-TTL-MAH

Operating Instructions



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1) PL-MCU-ENET-TTL-MAH

PMI Model Number PL-MCU-ENET-TTL-MAH is a microcontroller box which inputs an Ethernet command that allows 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:	192.168.100.150
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.

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.

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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 "0000000000000001"
MSB high all other bits low "1000000000000000"
All bits high "1111111111111111"

4) TTL Outputs

The 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.

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

6) J1 - Pin Assignment

Pin No.	Function	Description
1	+5V	Supply Voltage
2	GND	Ground
3	NC	No Connection
4	NC	No Connection
5	NC	No Connection
6	NC	No Connection
7	NC	No Connection
8	NC	No Connection
9	NC	No Connection

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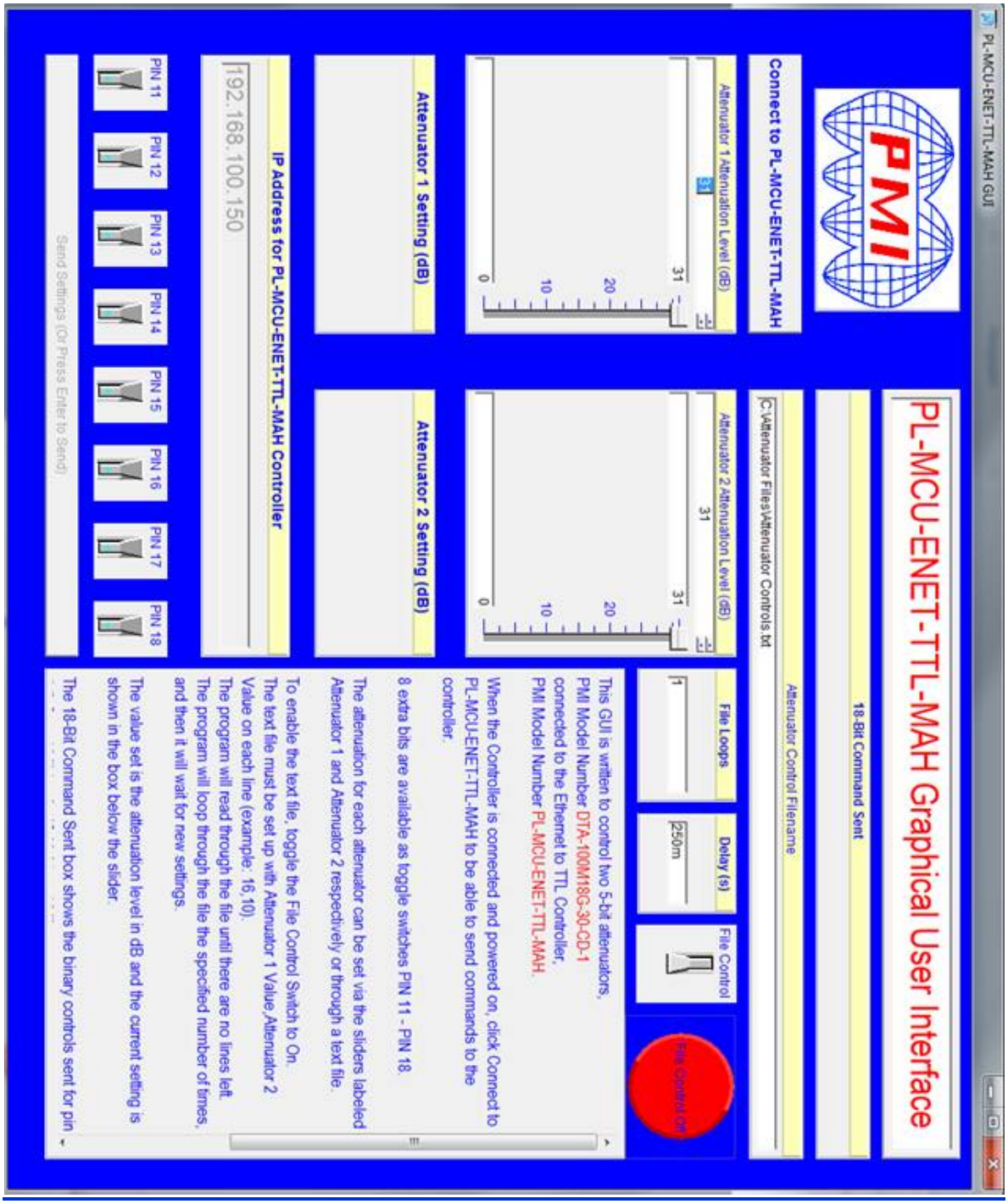
Graphical User Interface



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