



**RAPTORX BROADBAND VHF/UHF NETWORKING SYSTEM**  
**PCB AND INTERNAL IMAGES OF NETWORK SHELF AND REDUNDANT POWER SHELF**  
**FCC ID: 2ABCU-50739**  
**05/01/15**

**Network Shelf Images:**

- Figure 24: Top View, RaptorX 24 GHz to VHF/UHF Translator Board (EUT)
- Figure 25: Bottom View, RaptorX 2.4 GHz to VHF/UHF Translator Board (EUT)
- Figure 26: Top View, Network Shelf Processor
- Figure 27: Bottom View, Network Shelf Processor
- Figure 28: Top view, Linear Output Amplifier
- Figure 29: Bottom View, Linear Output Amplifier
- Figure 30: Top View, Protocol Translator Board
- Figure 31: Bottom View, Protocol Translator Board
- Figure 32: Top View, Clock Distribution Board
- Figure 33: Bottom View, Clock Distribution Board
- Figure 34: Top View, Network Shelf LED Status Board
- Figure 35: Bottom View, Network Shelf LED Status Board
- Figure 36: Top View, Network Shelf Power Distribution Board
- Figure 37: Bottom View, Network Shelf Power Distribution Board

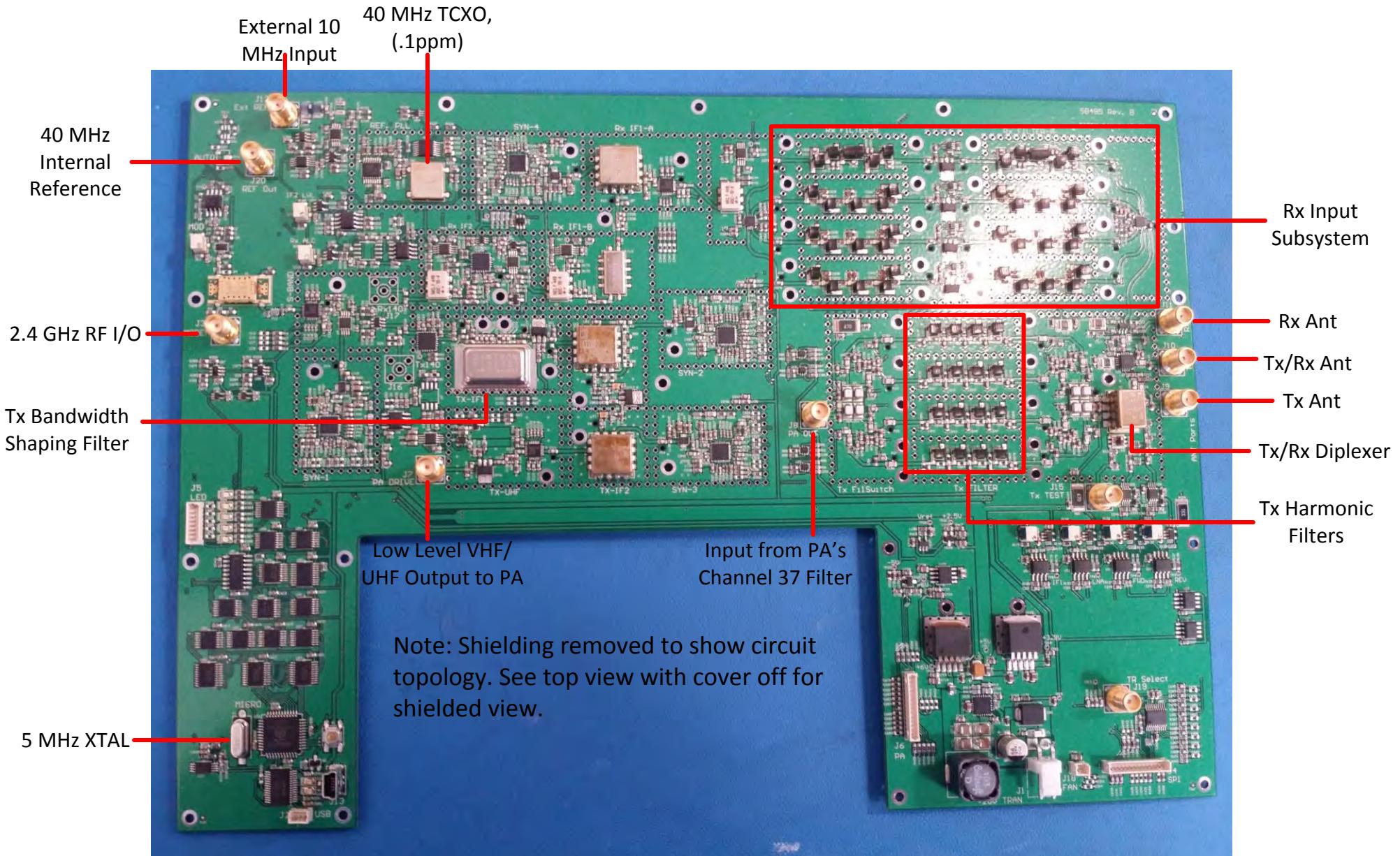
**Redundant Power Shelf Images:**

- Figure 38: Top/Bottom View, Front Panel LCD Board
- Figure 39: Top View, Power Supply Shelf – AC Input Board
- Figure 40: Bottom View, Power Supply Shelf- AC Input Board
- Figure 41: Top View, Power Management Board
- Figure 42: Bottom View, Power Management Board
- Figure 43: Top View, Power Apply Board (Used in Redundant Power Shelf)
- Figure 44: Bottom View, Power Apply Board (Used in Redundant Power Shelf)
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**Other Images:**

- Figure 47: Top View Internal Single Channel Network Shelf
- Figure 48: Top View Production Protocol Board
- Figure 49: Top View Linear Amplifier (Production)
- Figure 50: Top View Redundant Power Shelf

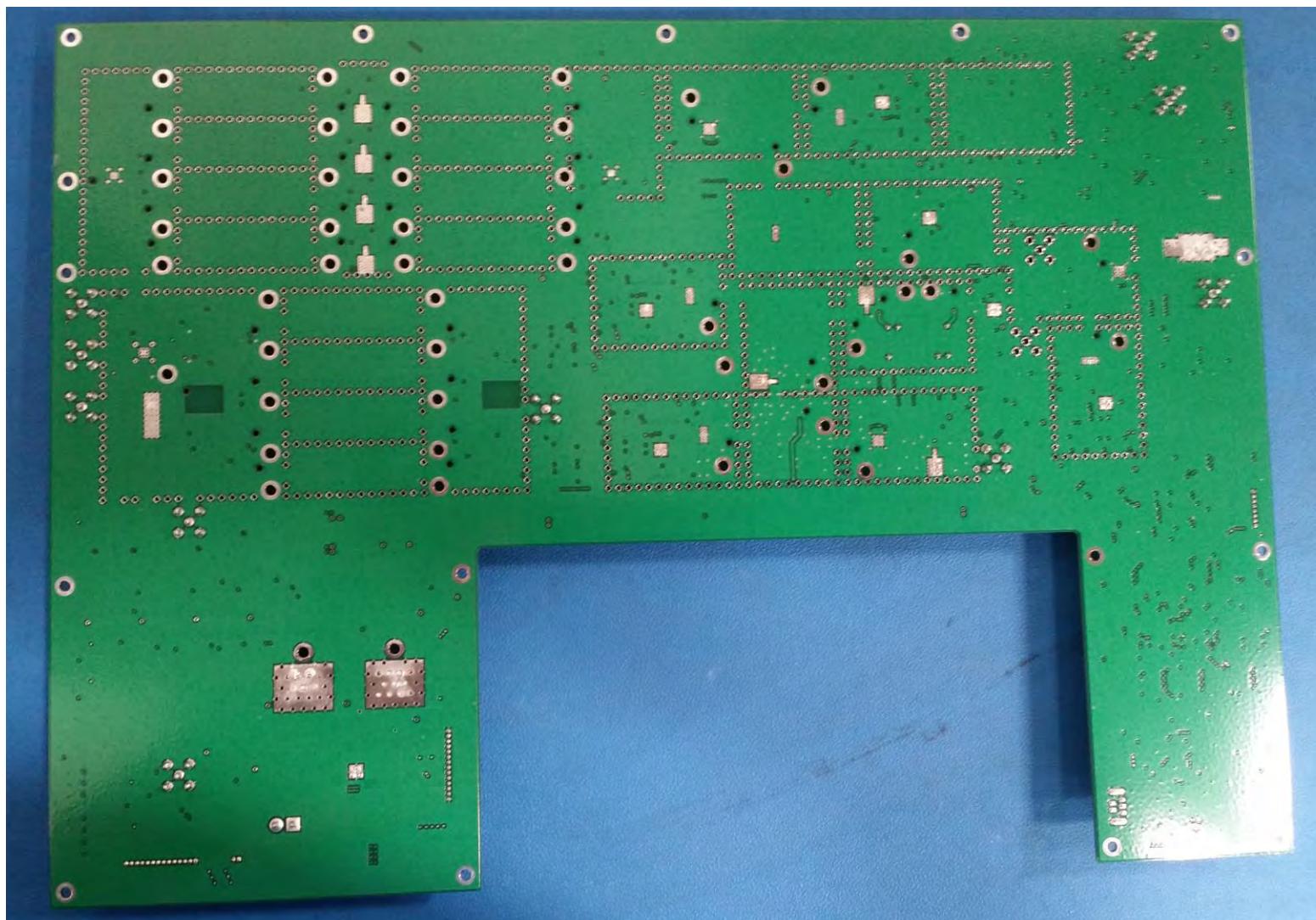
**FIGURE 24: TOP VIEW, RAPTORX 2.4 GHZ TO VHF/UHF TRANSLATOR BOARD (EUT)**



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FIGURE 25: BOTTOM VIEW, RAPTORX 2.4 GHZ TO VHF/UHF TRANSLATOR BOARD (EUT)



1200 mils  
8500 mils



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**FIGURE 26: TOP VIEW, NETWORK SHELF PROCESSOR**

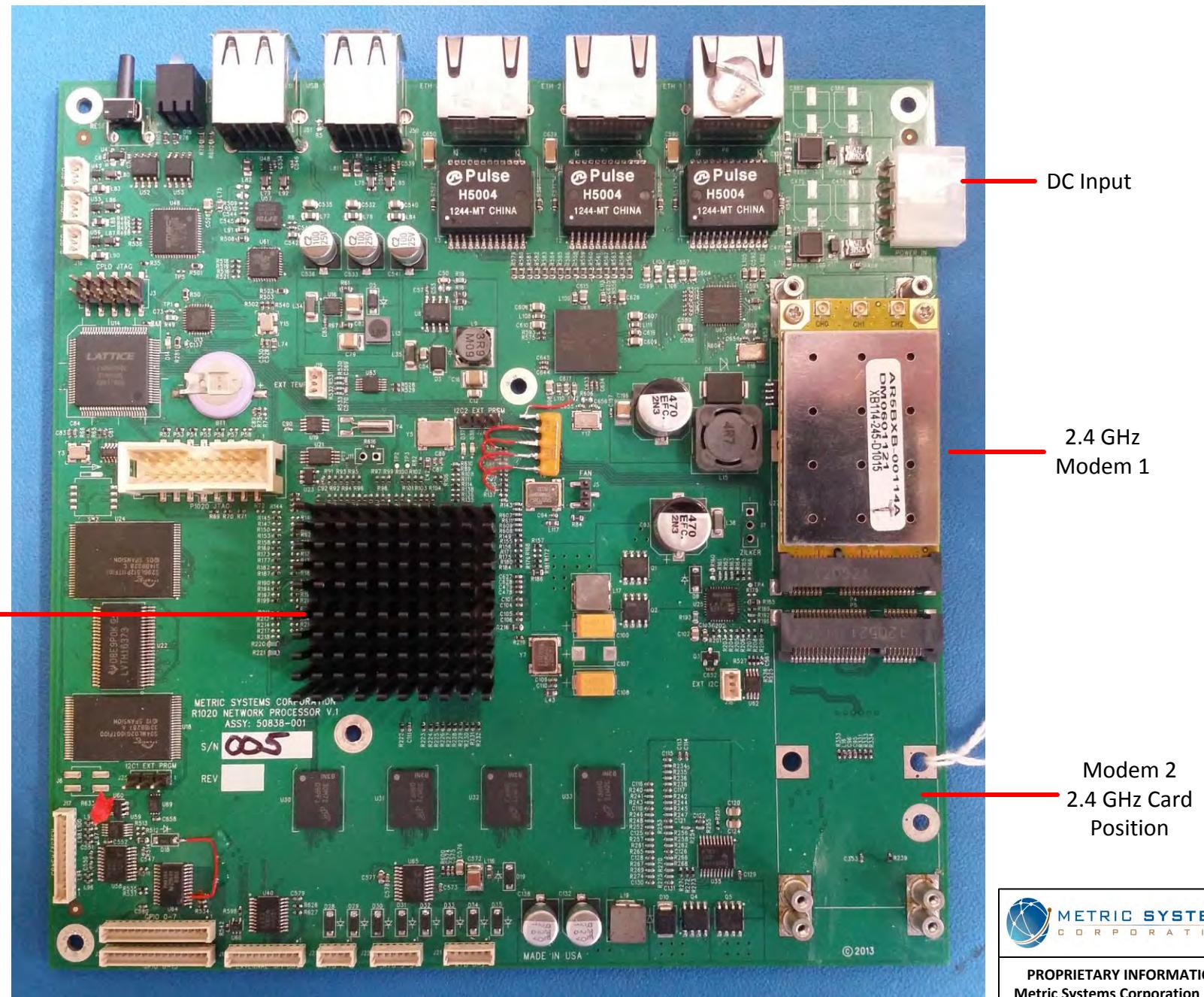
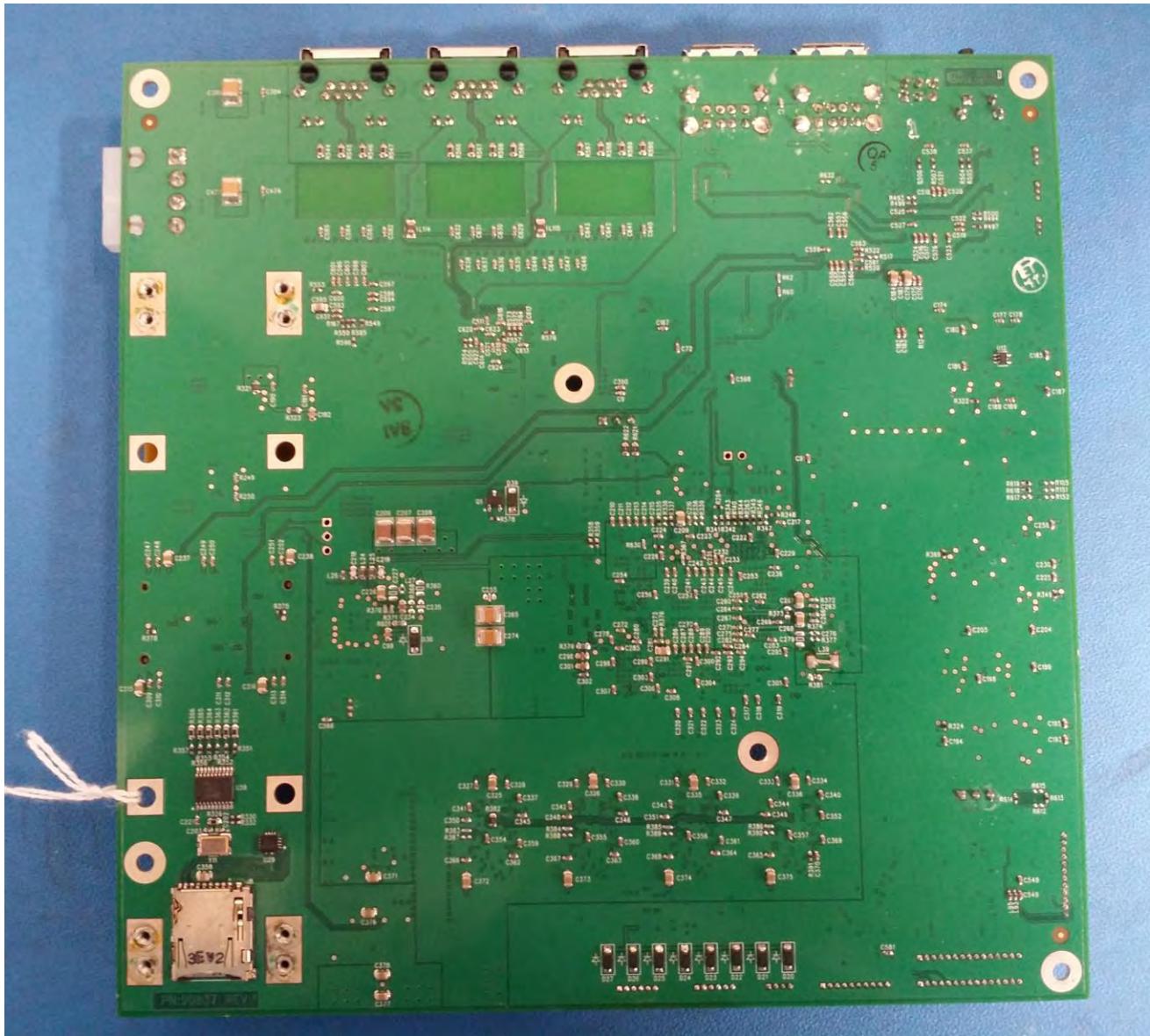


FIGURE 27: BOTTOM VIEW, NETWORK SHELF PROCESSOR



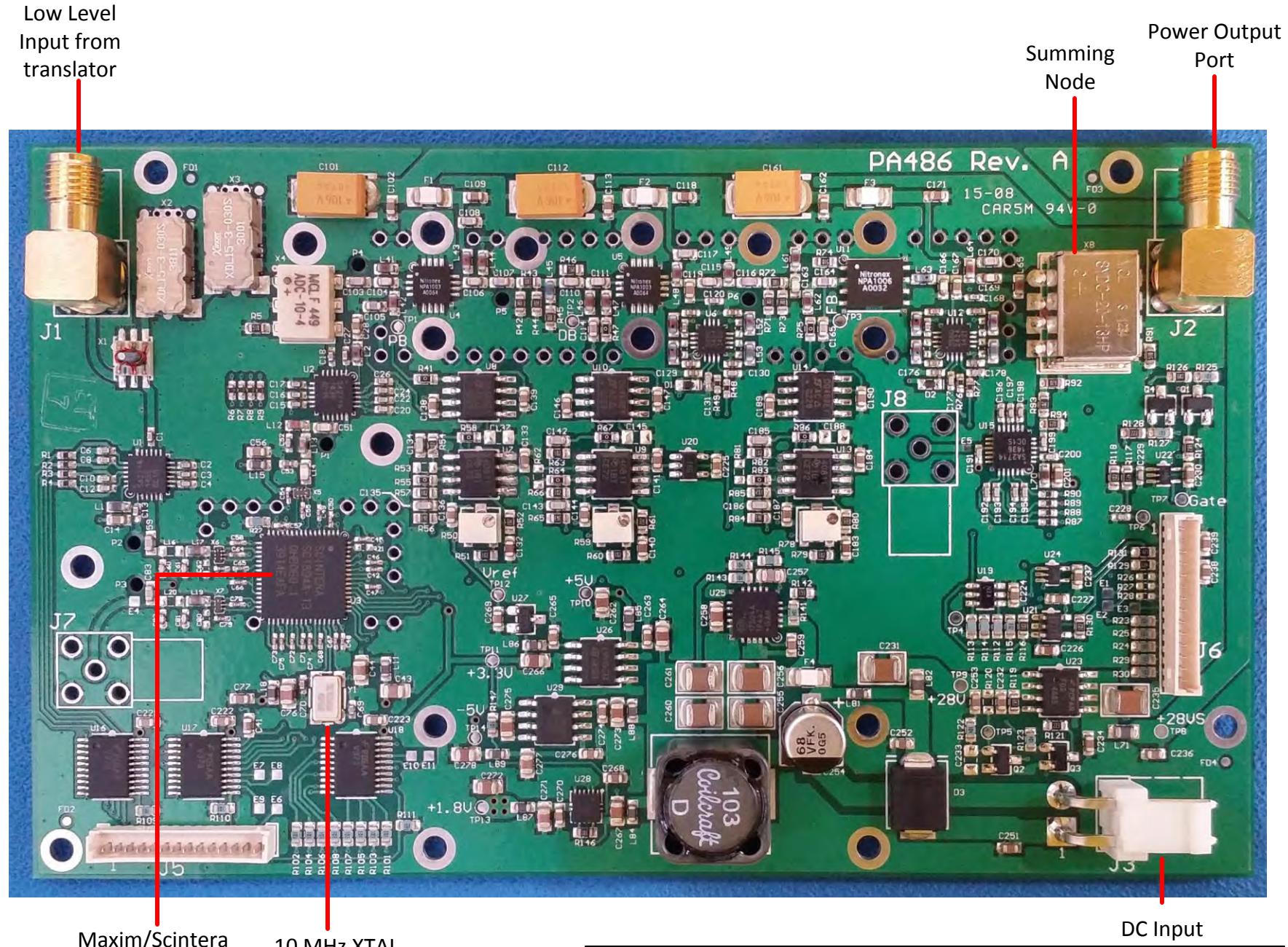
6.700"

6.700"

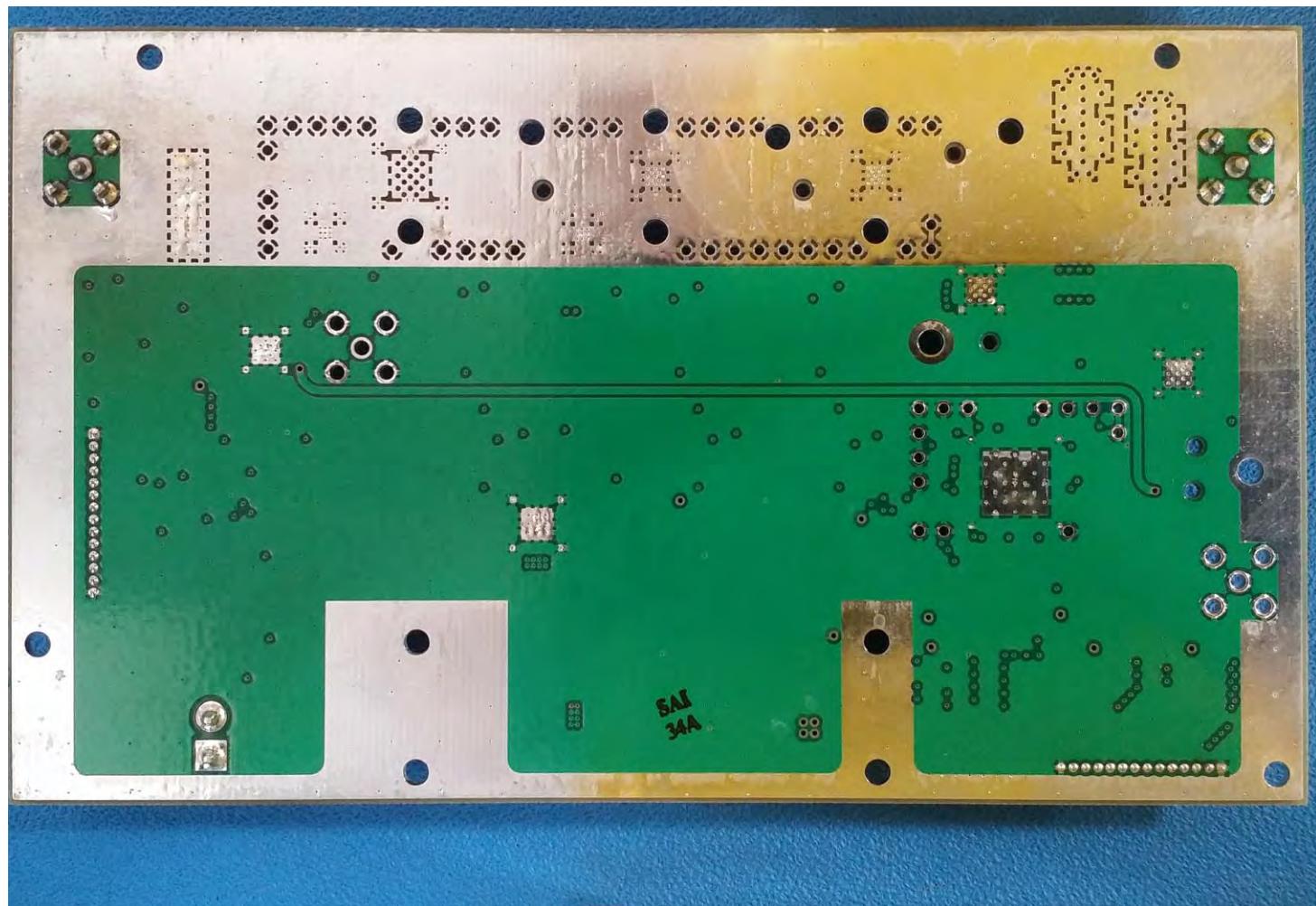


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**FIGURE 28: TOP VIEW, LINEAR OUTPUT AMPLIFIER**

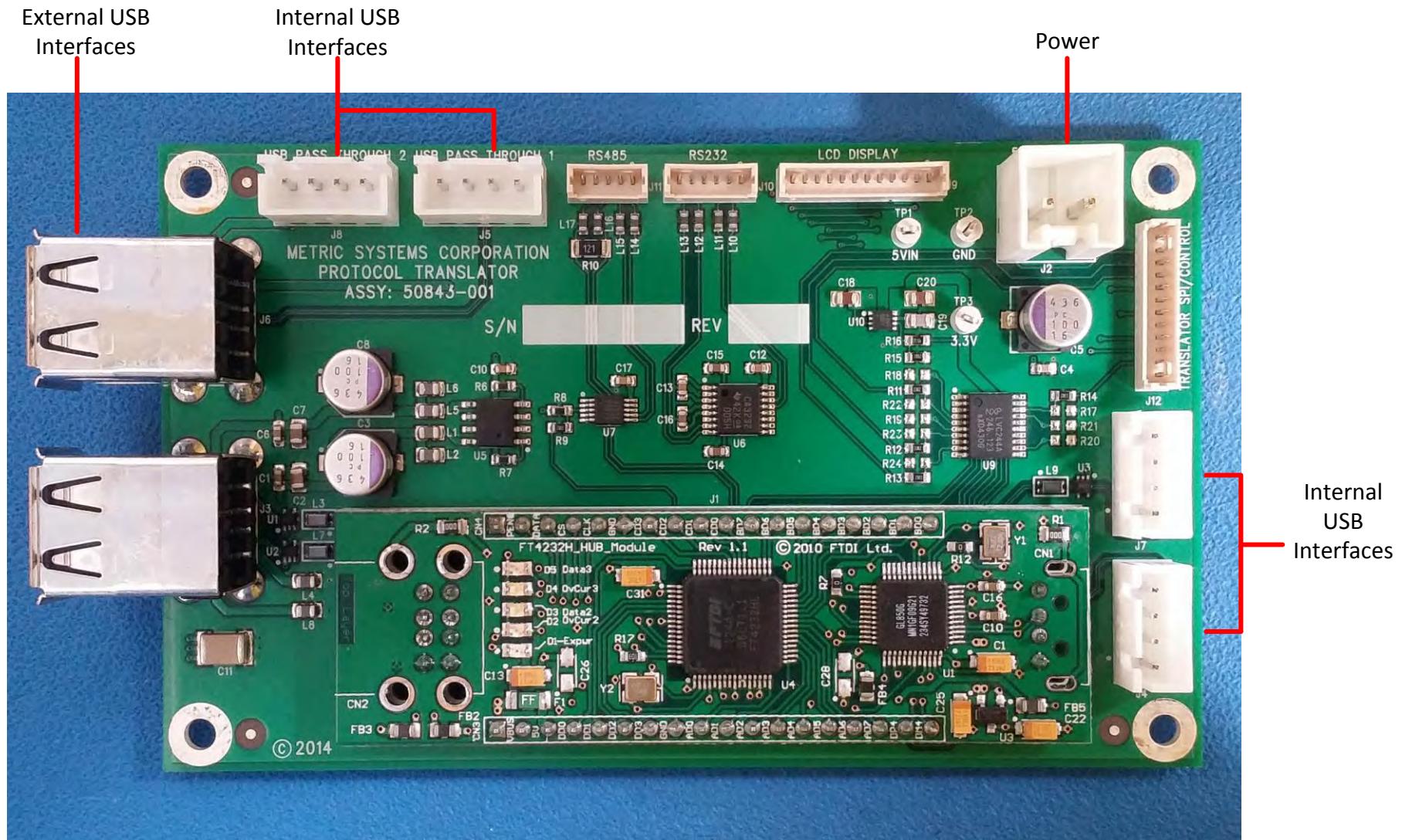


**FIGURE 29: BOTTOM VIEW, LINEAR OUTPUT AMPLIFIER**



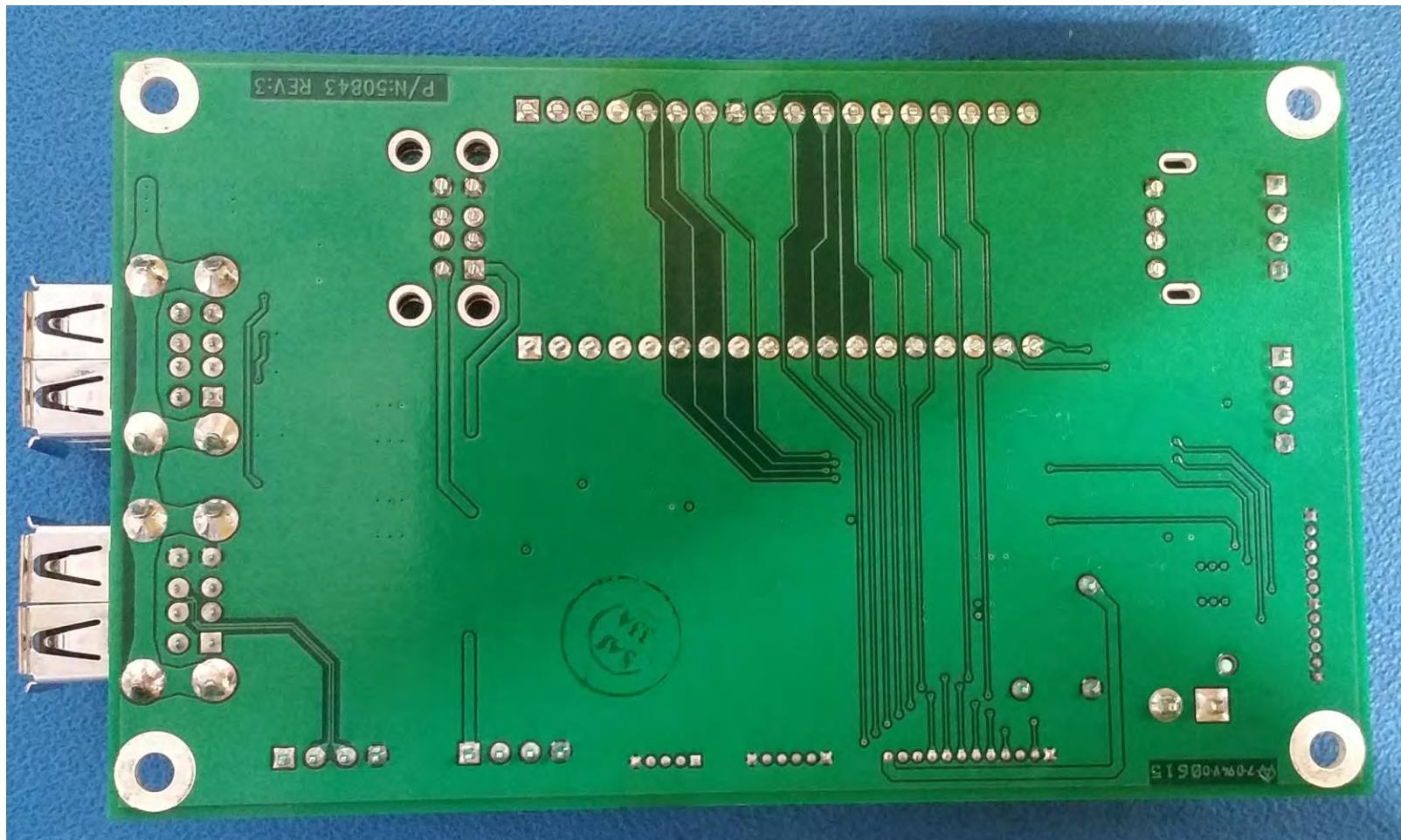
5.250"  
3.150"

**FIGURE 30: TOP VIEW, PROTOCOL TRANSLATOR BOARD**



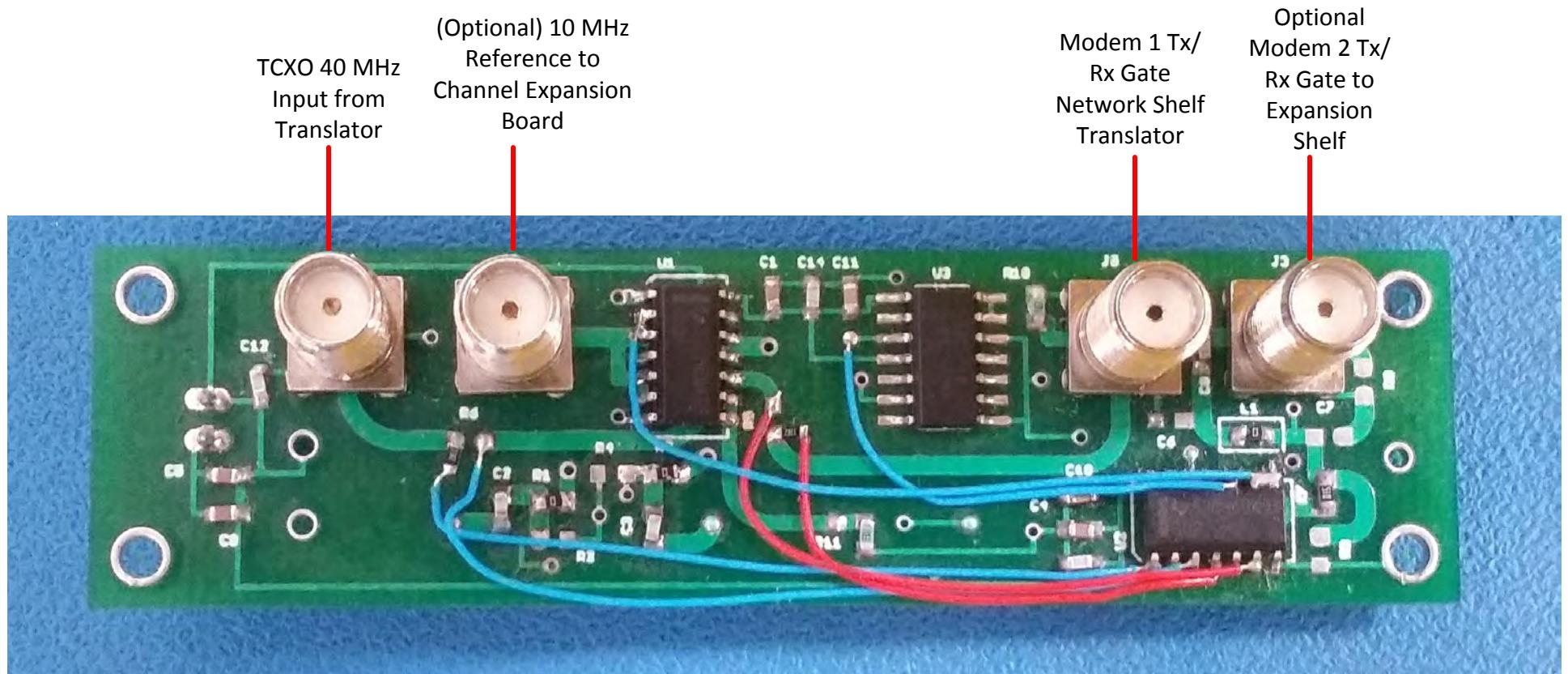
4.150"  
2.500"

FIGURE 31: BOTTOM VIEW, PROTOCOL TRANSLATOR BOARD



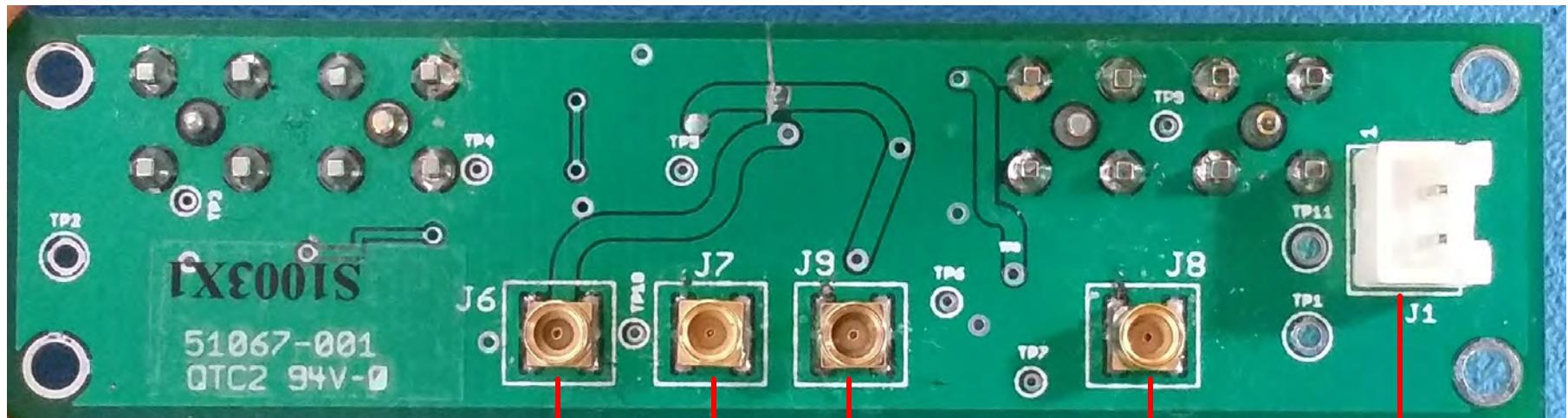
4.150"  
2.500"

**FIGURE 32: TOP VIEW, CLOCK DISTRIBUTION BOARD**



3.300  
0.900

FIGURE 33: BOTTOM VIEW, CLOCK DISTRIBUTION BOARD



Modem 1  
40 MHz  
Reference

Modem 1  
Tx/Rx Gate

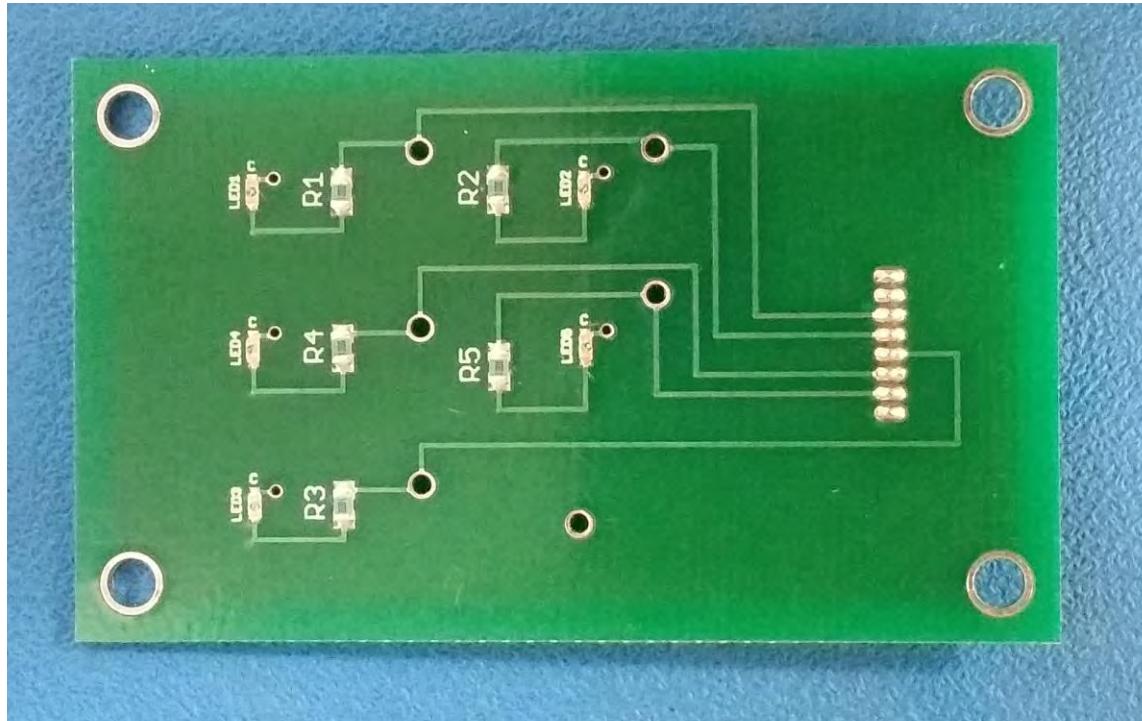
Modem 2  
40 MHz  
Reference

Modem 2  
Tx/Rx Gate

Power Input  
5.0VDC

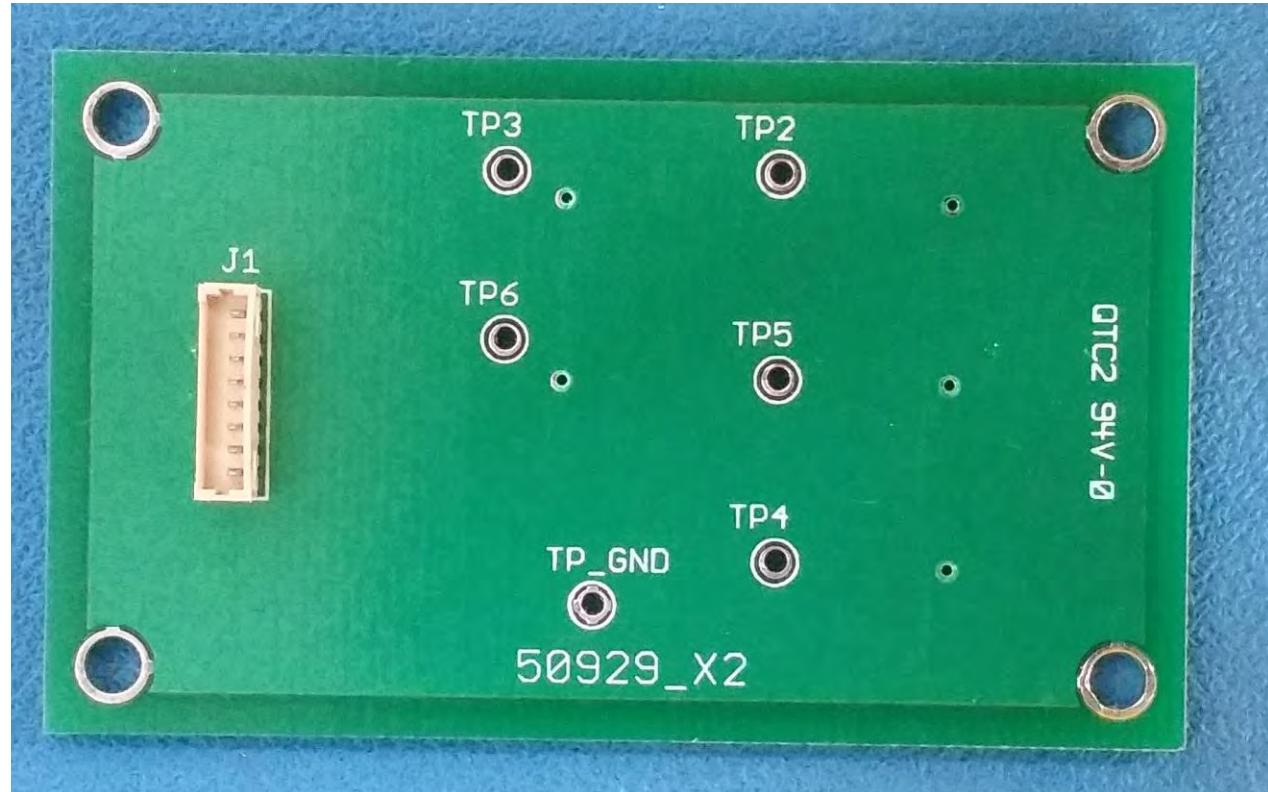
3.300  
0.900

**FIGURE 34: TOP VIEW, NETWORK SHELF LED STATUS BOARD**



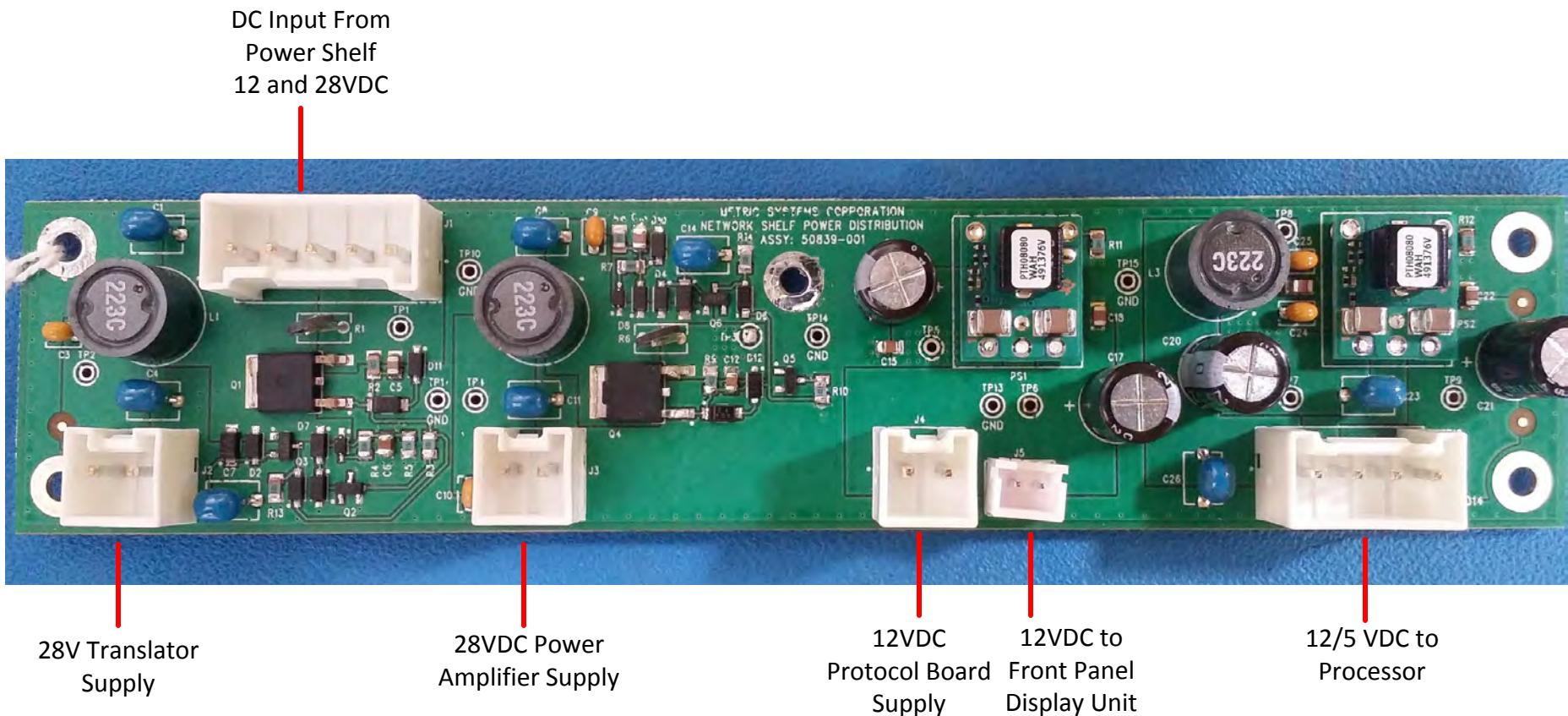
1.500"  
2.500"

FIGURE 35: BOTTOM VIEW, NETWORK SHELF LED STATUS BOARD



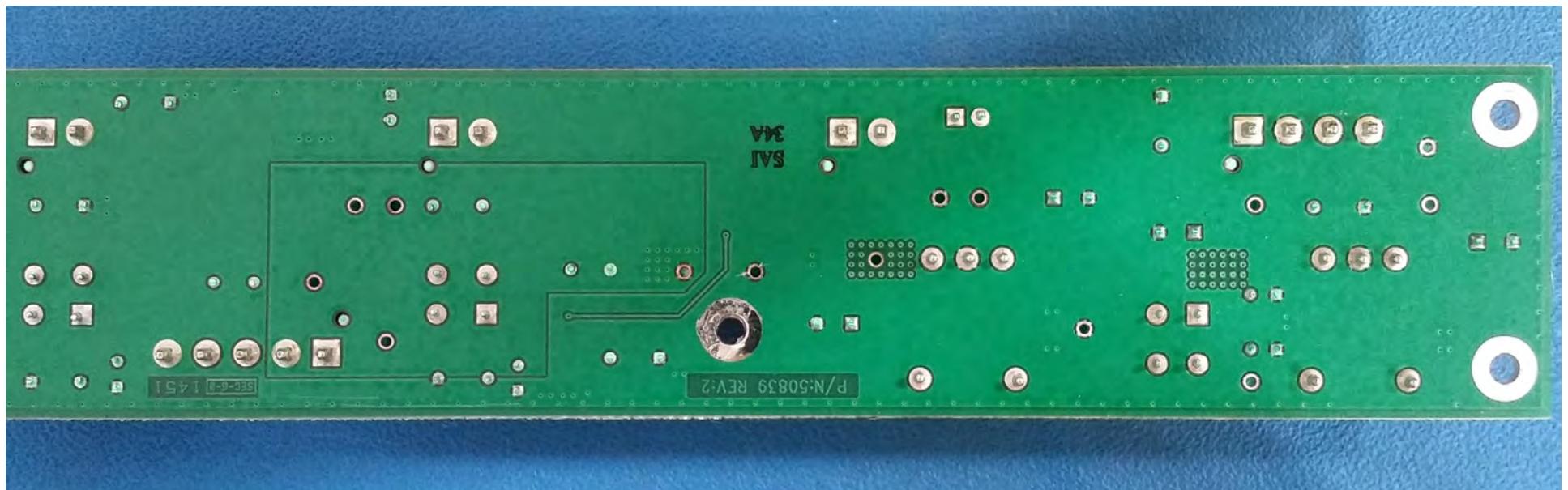
2.500"  
1.500"

**FIGURE 36: TOP VIEW, NETWORK SHELF POWER DISTRIBUTION BOARD**



6.500"  
1.400"

FIGURE 37: BOTTOM VIEW, NETWORK SHELF POWER DISTRIBUTION BOARD



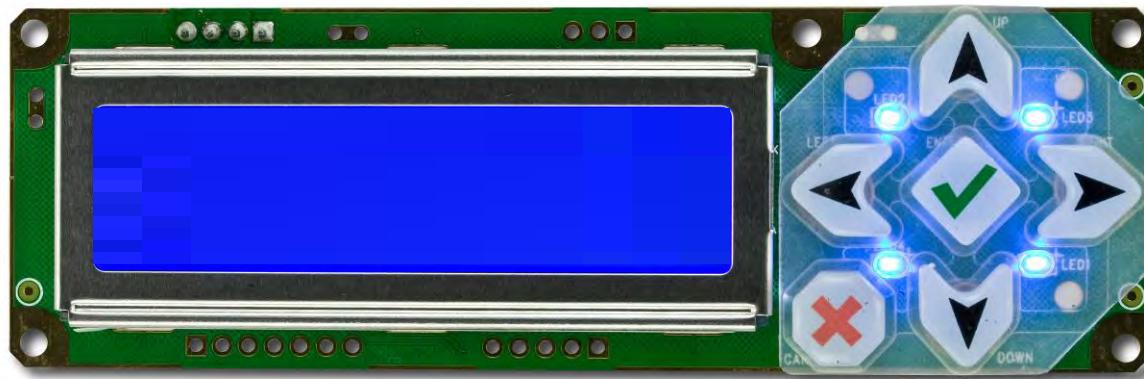
6.500"  
1.400"



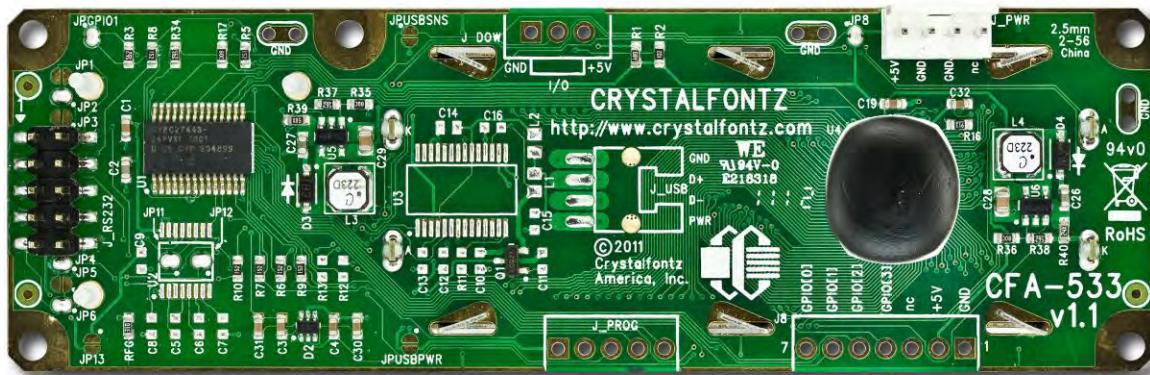
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**FIGURE 38: TOP/BOTTOM VIEW, FRONT PANEL LCD BOARD**

Top

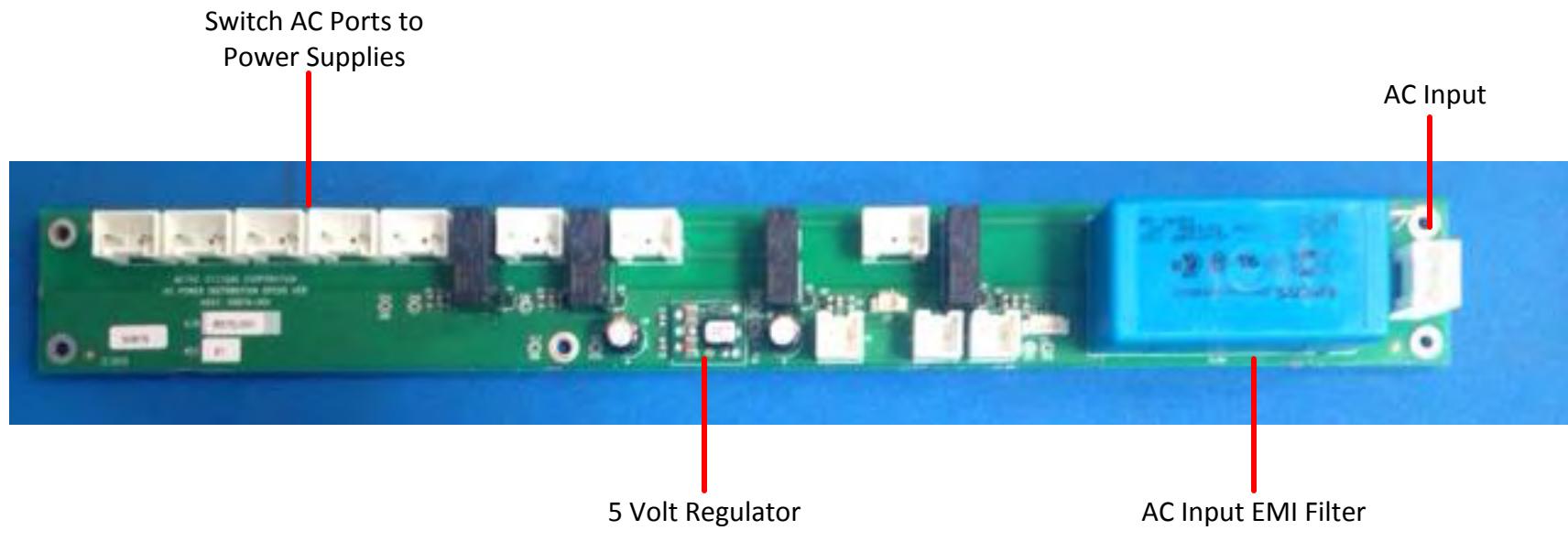


Bottom



4.350"  
1.380"

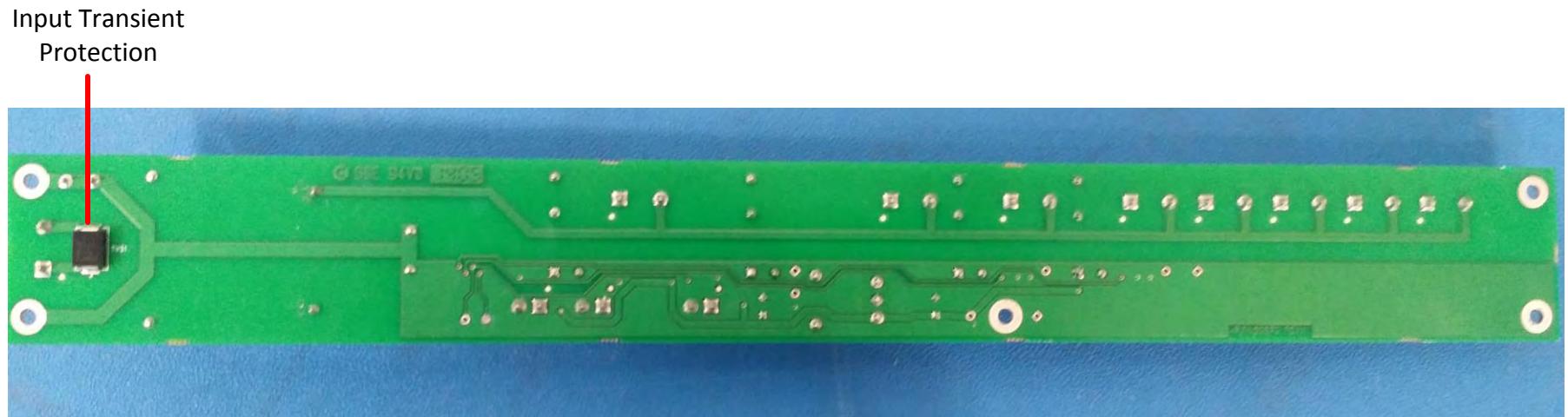
**FIGURE 39: TOP VIEW, POWER SUPPLY SHELF'S AC INPUT BOARD**



See Schematic for Details

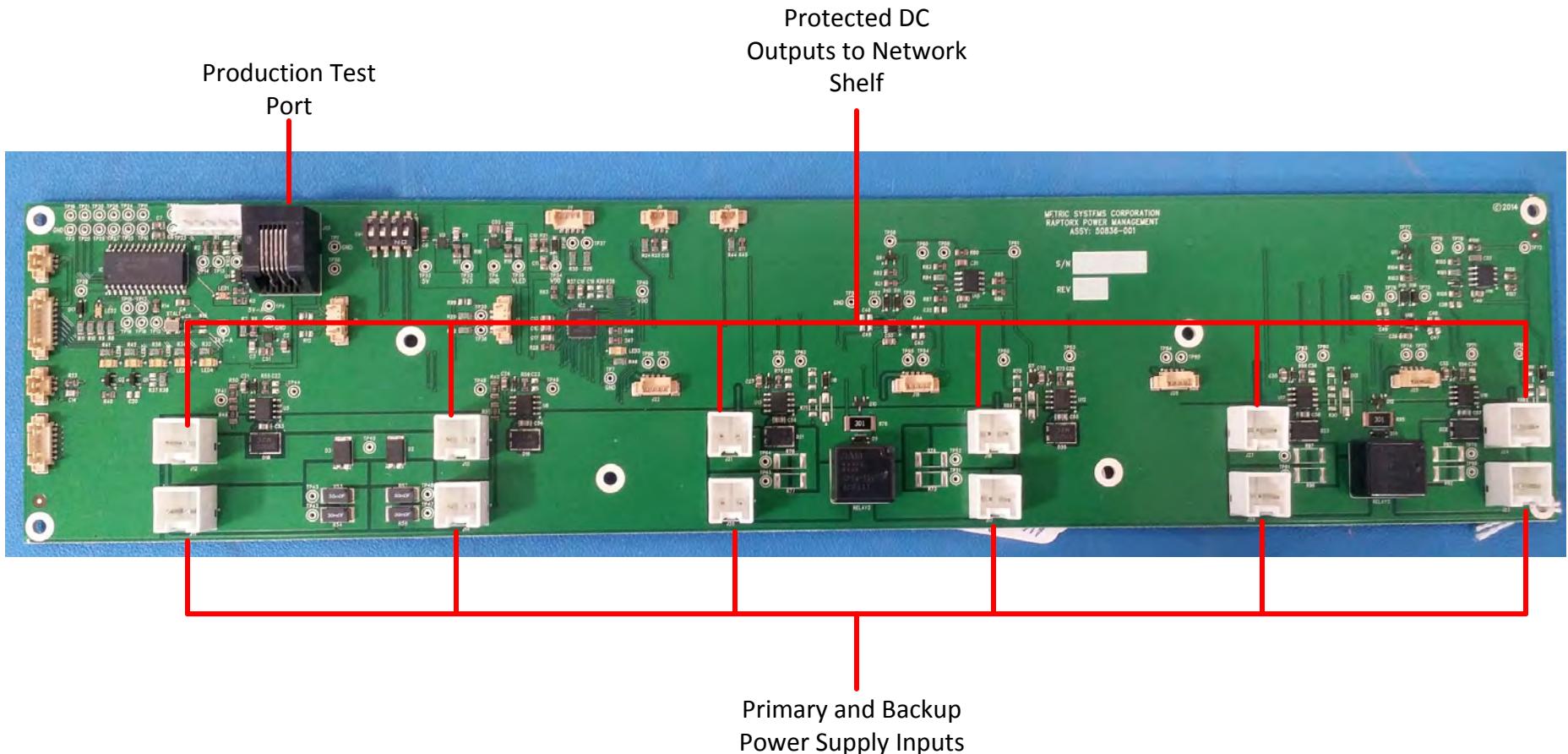
12.000"  
1.400"

**FIGURE 40: BOTTOM VIEW, POWER SUPPLY SHELF'S AC INPUT BOARD**



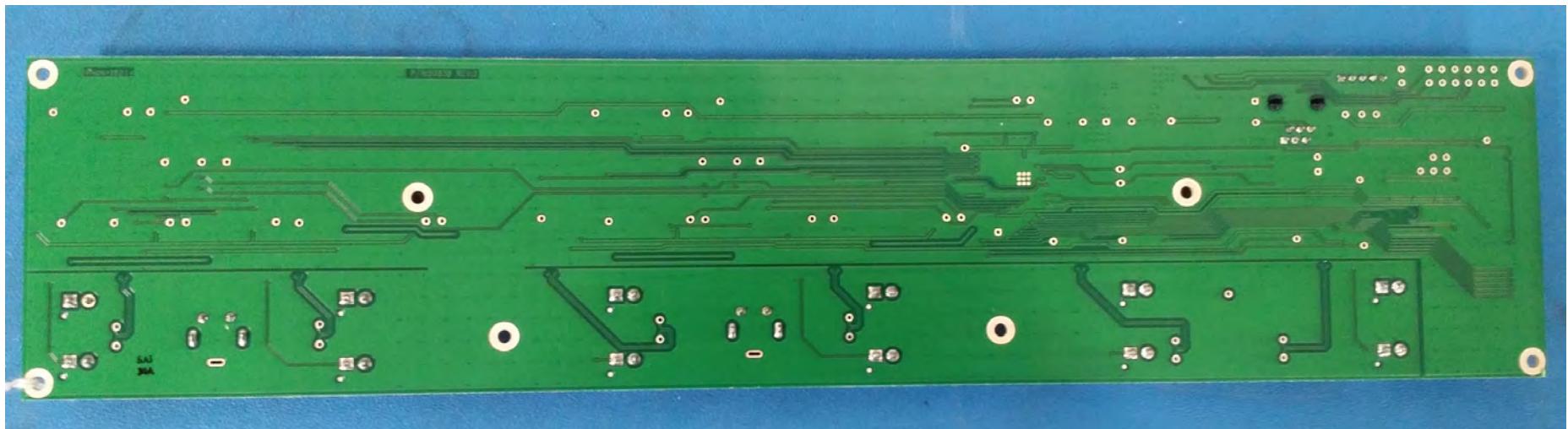
12.000"  
1.400"

**FIGURE 41: TOP VIEW, POWER MANAGEMENT BOARD**



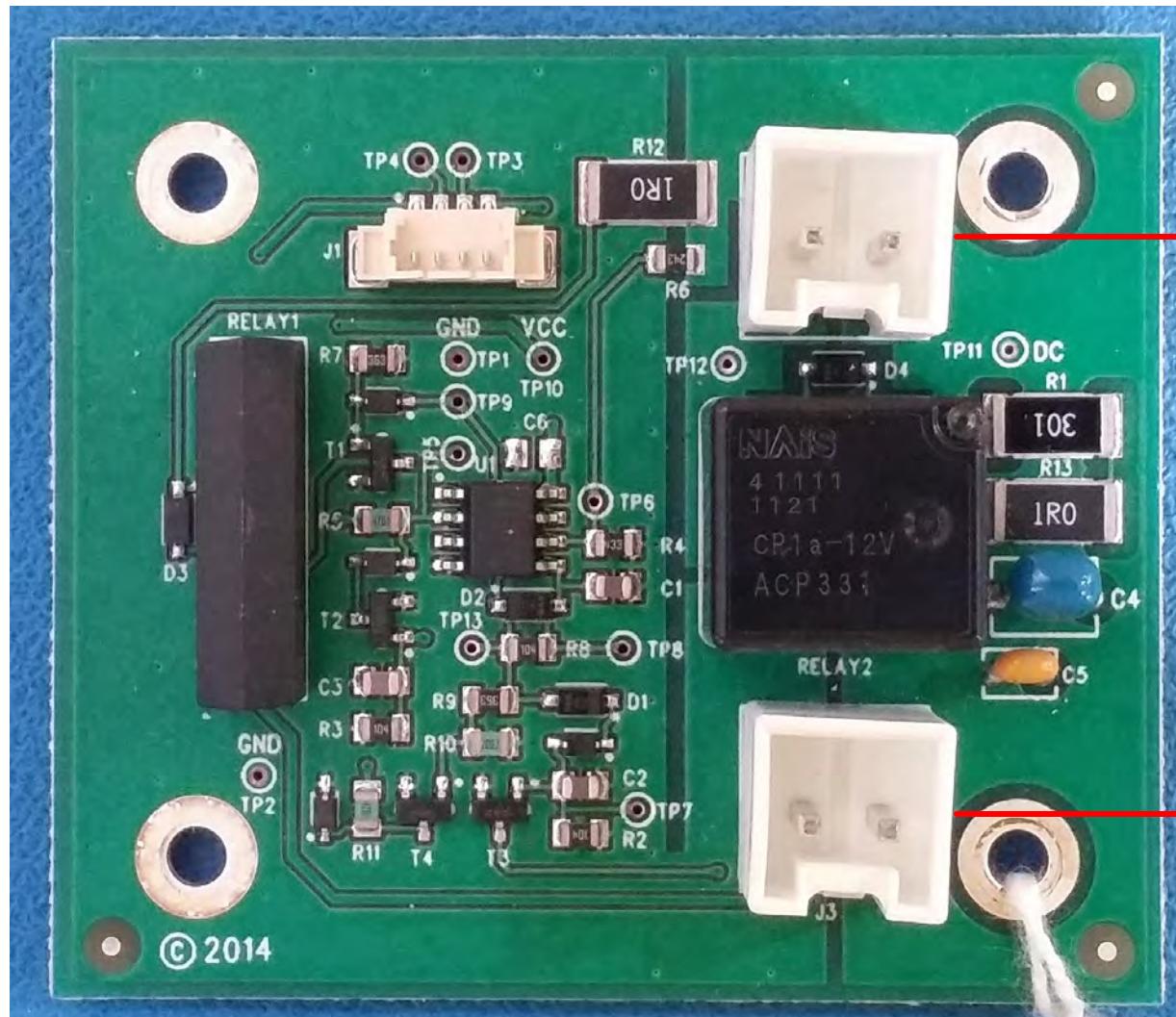
13.750"  
3.000"

**FIGURE 42: BOTTOM VIEW, POWER MANAGEMENT BOARD**



13.750"  
3.000"

**FIGURE 43: TOP VIEW, POWER APPLY BOARD (USED IN POWER SUPPLY SHELF)**

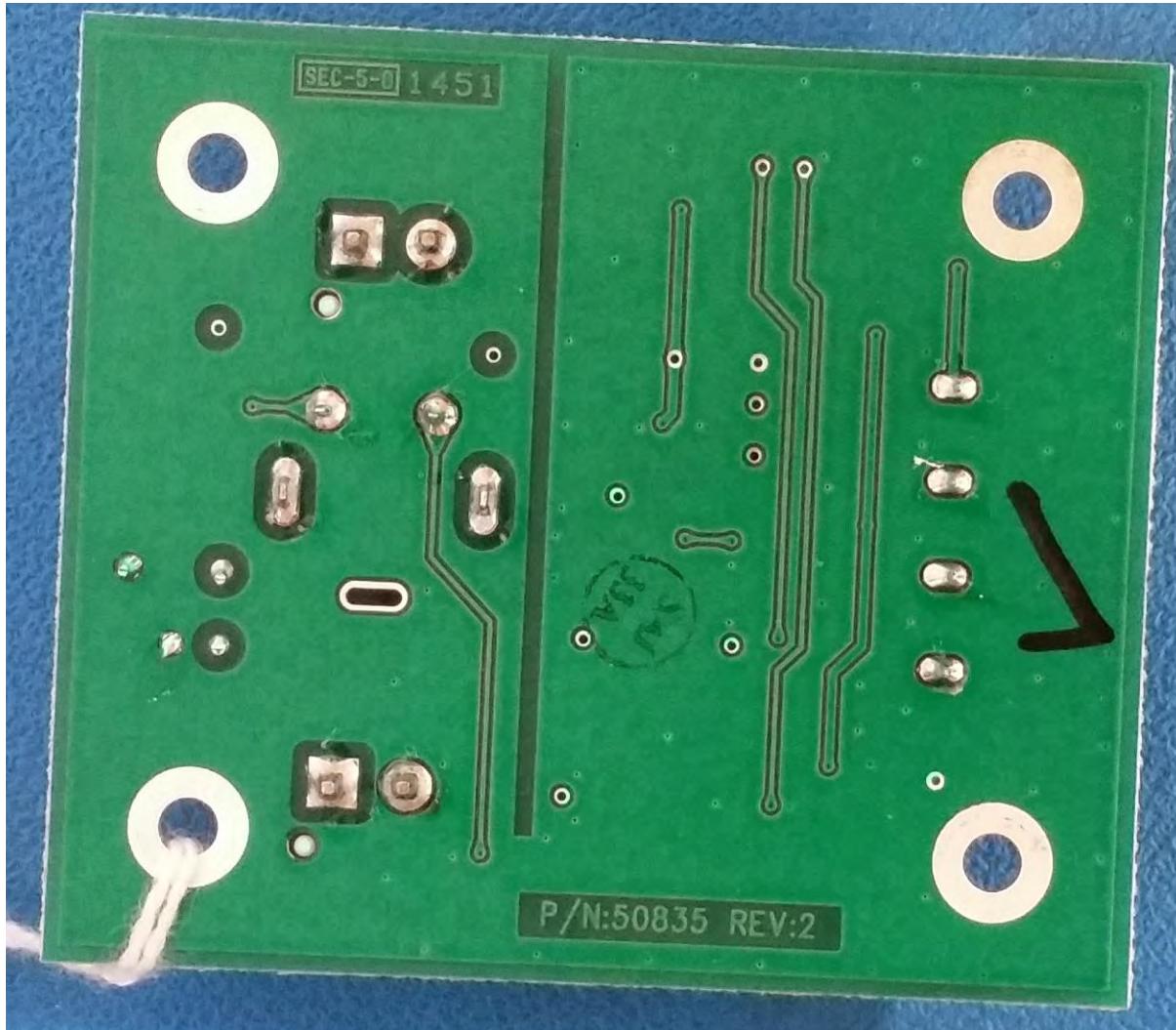


12 or 28VDC to  
Power Management  
Board

12 or 28VDC Input  
from Power Supply

2.300"  
-----  
2.000"

**FIGURE 44: BOTTOM VIEW, POWER APPLY BOARD (USED IN POWER SUPPLY SHELF)**

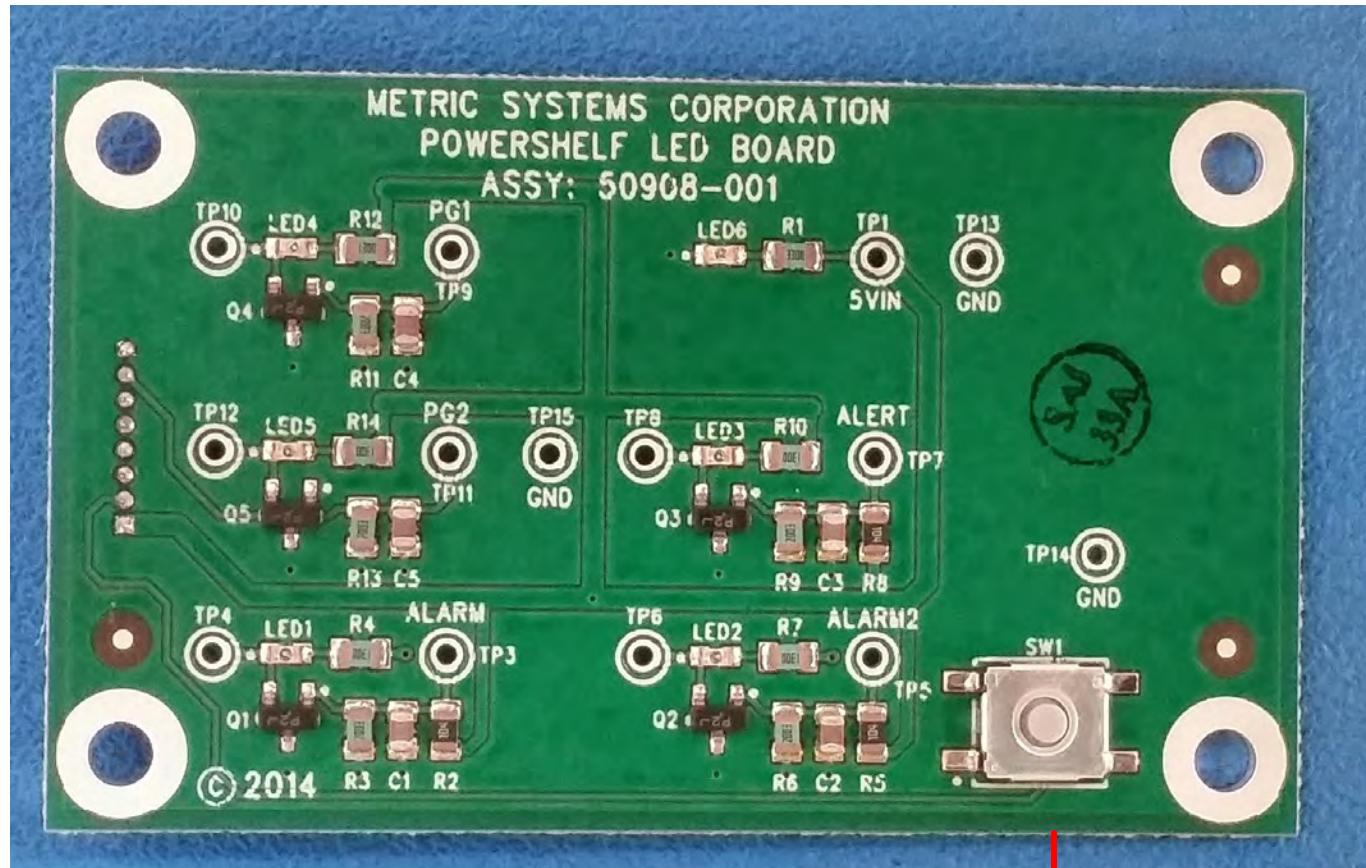


2.300"  
-----  
2.000"



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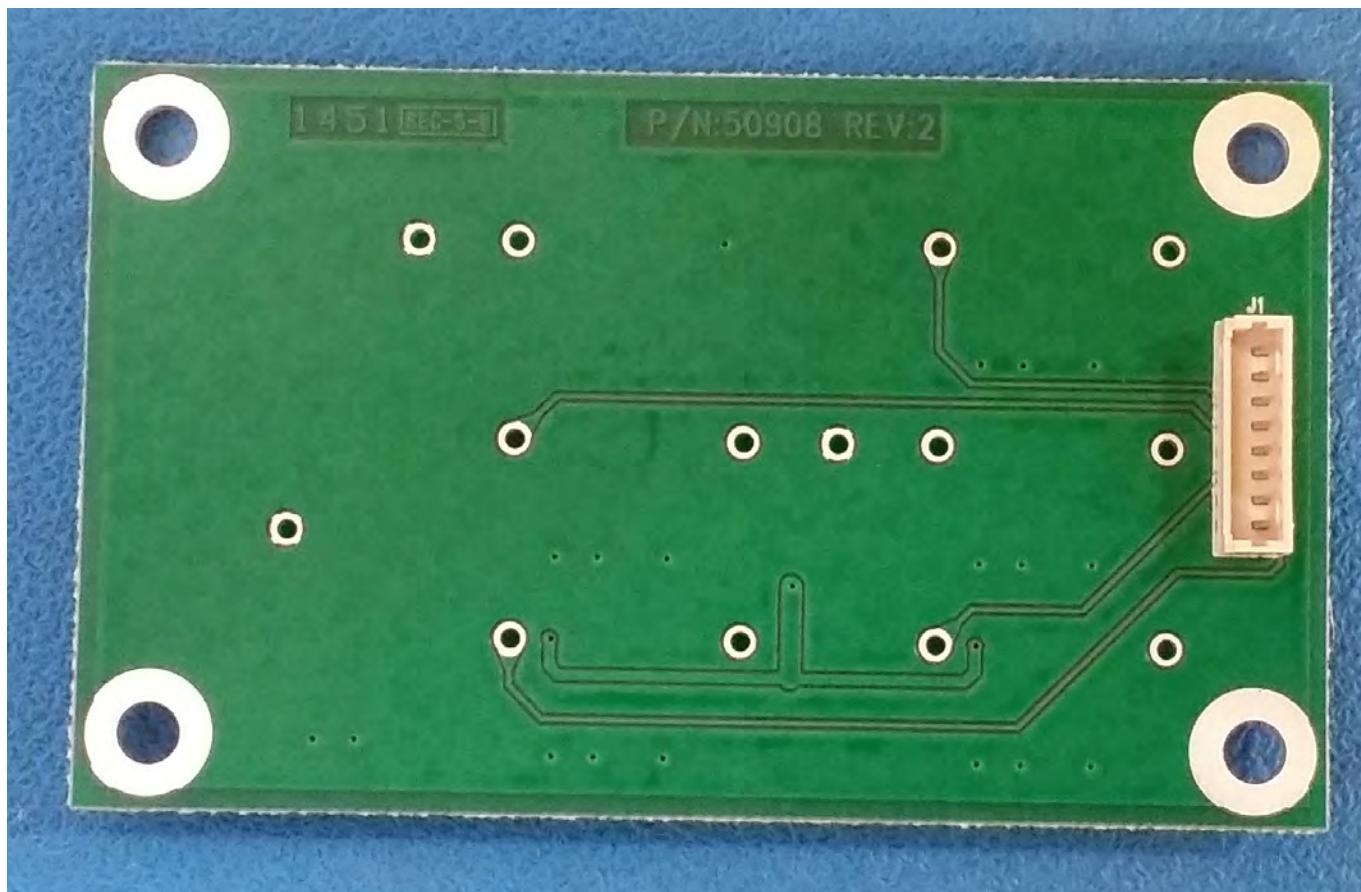
FIGURE 45: TOP VIEW, POWER SHELF FRONT PANEL LED STATUS BOARD



System Reset

2.500"  
1.500"

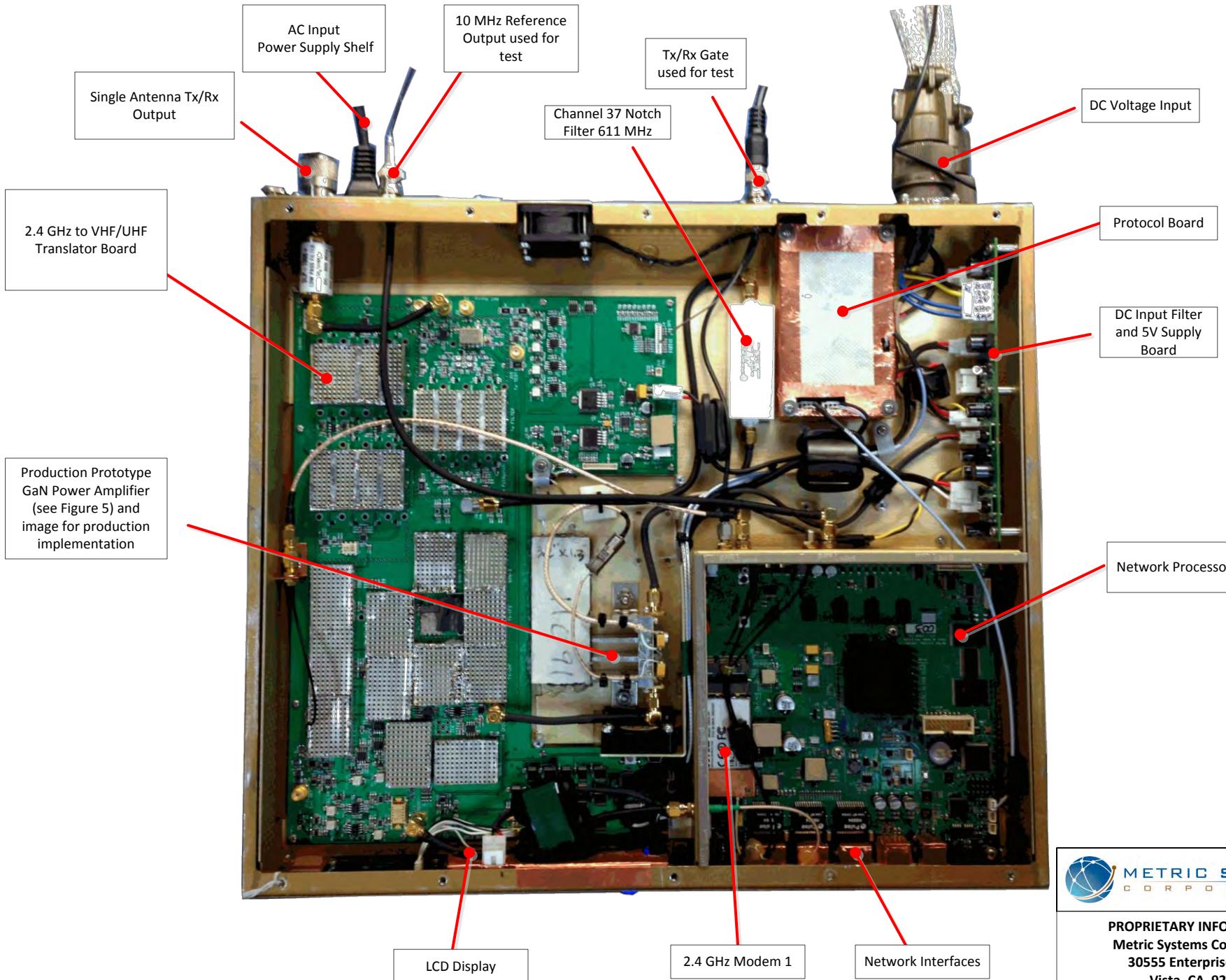
**FIGURE 46: BOTTOM VIEW, POWER SHELF FRONT PANEL LED STATUS BOARD**



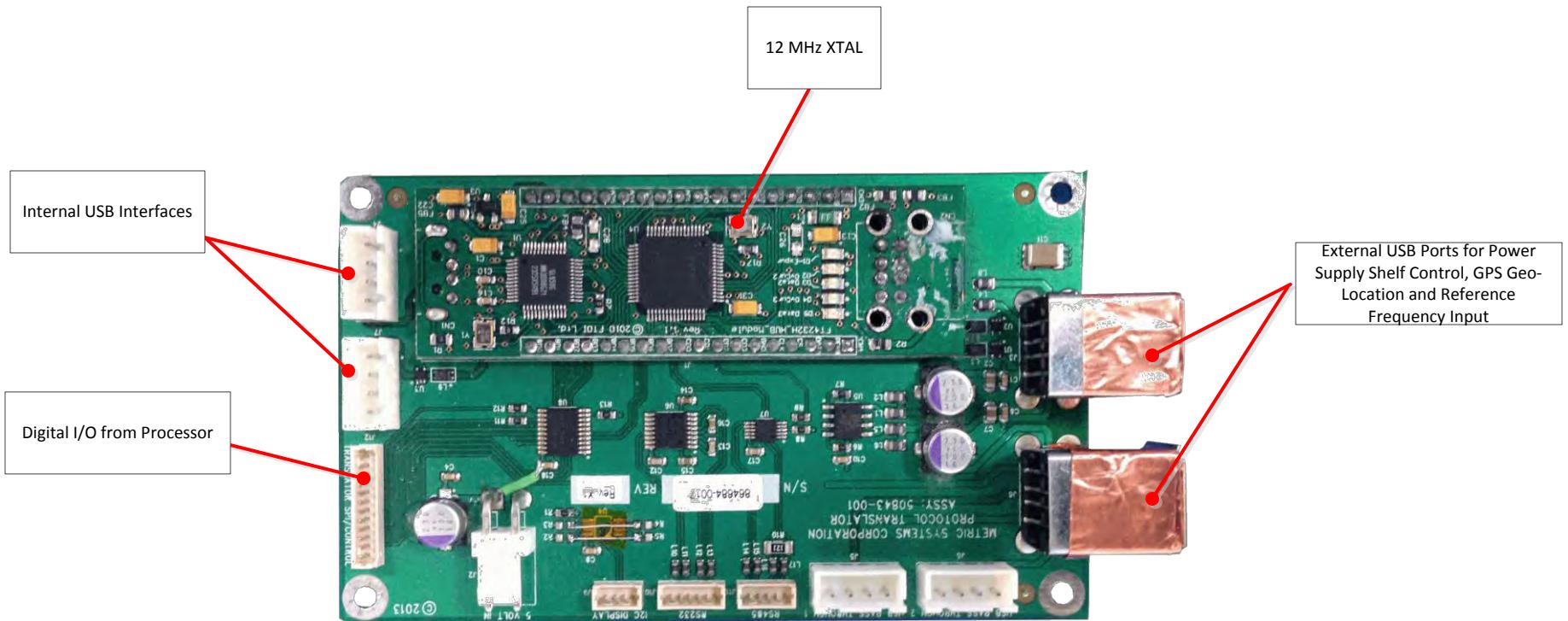
2.500"

1.500"

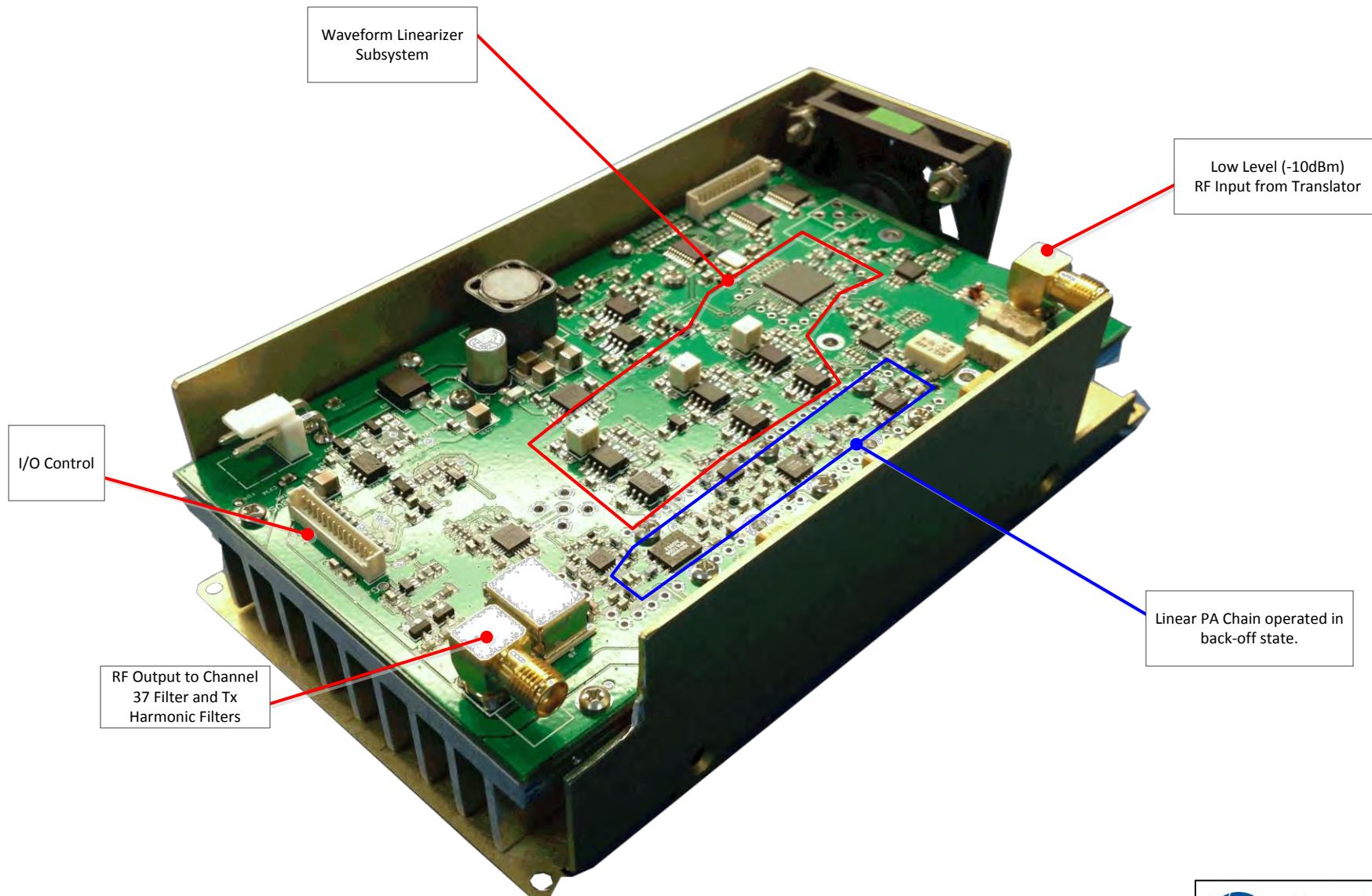
**FIGURE 47: TOP VIEW OF INTERNAL RAPTORX SINGLE CHANNEL SHELF (EUT)**



**FIGURE 48: TOP VIEW RAPTORX PRODUCTION PROTOCOL BOARD**

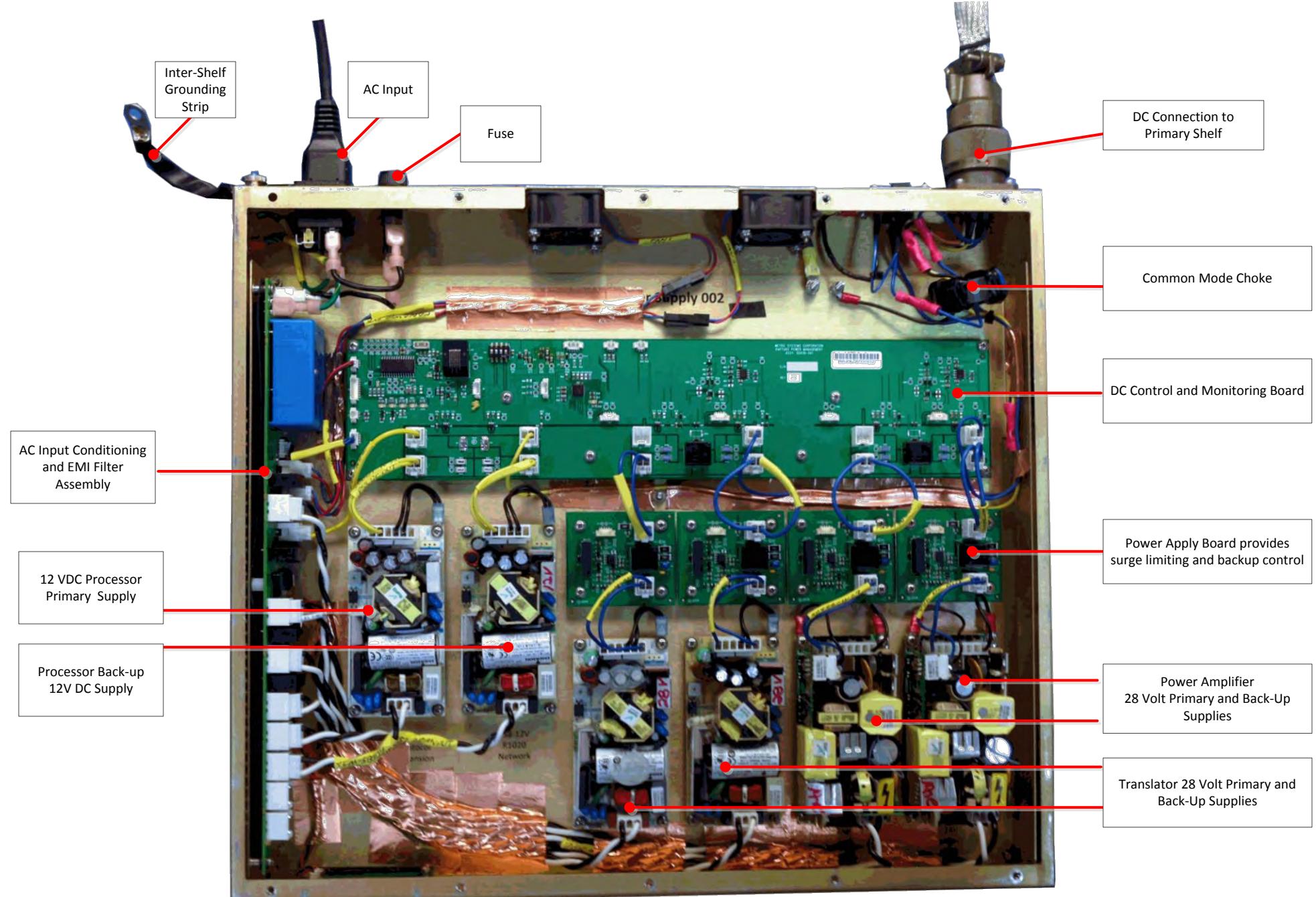


**FIGURE 49: TOP VIEW RAPTORX 3 WATT LINEAR AMPLIFIER (PRODUCTION)**  
**(Replaces Production Prototype Module used in EUT Testing)**



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**FIGURE 50: TOP VIEW RAPTORX REDUNDANT POWER SUPPLY SHELF**



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