Testing the FPGA Board

Servicing a SuperDARN Transceiver  
Step 10

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# Introduction

This document provides work instructions for testing the FPGA Board in a SuperDARN transceiver box. Before attempting to implement these instructions, be sure to complete all the preceding steps in the procedure for Servicing a SuperDARN Transceiver.

# Instructions

Following are the step-by-step instructions for testing the FPGA Board. In the case of unforeseen problems occurring, apply electronic fault-finding techniques.

1. Connect Phoenix connector **J4** to the Power Distribution Board. This will provide power to the FPGA and the RF Transceiver boards. Re-check that the voltages are at 5 V and 15 V before proceeding.
2. The FPGA Board has its own power regulation for all the different supply voltages it requires. The easiest way to check that these are all in order is to look on the Voltage Screen on the Front Panel. You can also check LEDs **D9**, **D10**, **D11**, **D12** and **D13**. Fault finding will be difficult but try and check the DC-DC converter modules. For example, 1.8 V is mostly limited to the 1GB Ethernet controller, so check there if there is an issue with 1.8 V (this fault has happened before).

# Conclusion

This concludes the work instructions for testing the FPGA Board of a SuperDARN transceiver box. The next step in the procedure for Servicing a SuperDARN Transceiver is to test the RF Transceiver Board.