Cinevectron FPGA – Service Bulletin #1

Date: 13 Oct, 2020
Subject: Asteroids Deluxe Adaptor background noise

This update is recommended for the Asteroids Deluxe Adaptor board, and is intended to reduce the background noise observed when operating the kit in an original Asteroids Deluxe cabinet with version 3 of the AR-I Regulator Audio Board. It is NOT recommended for any other application.
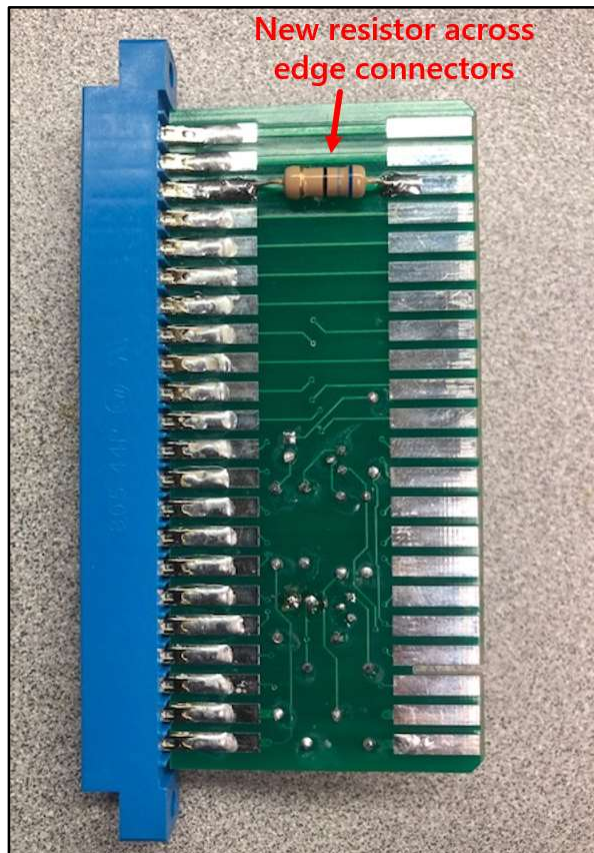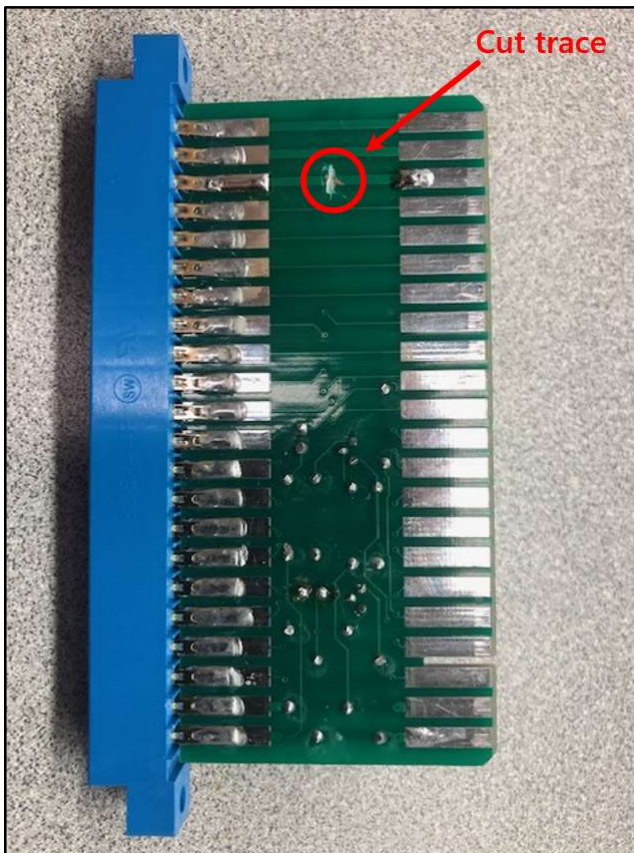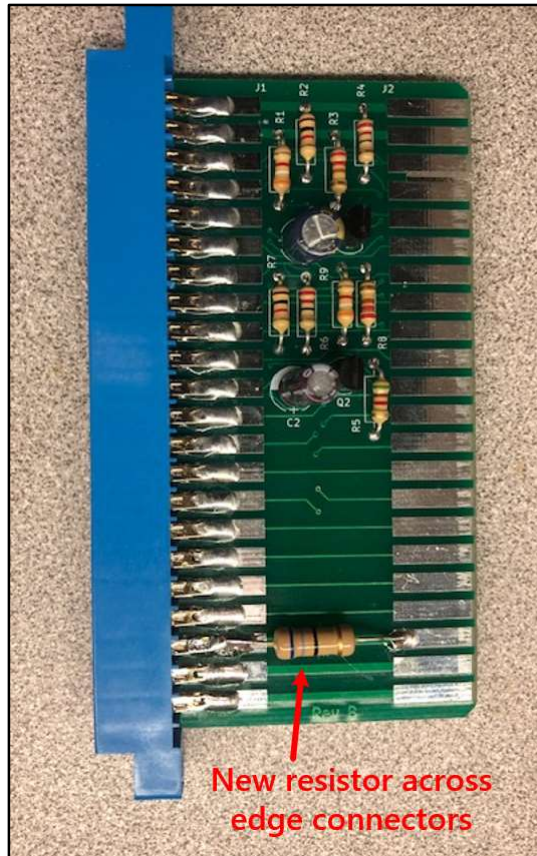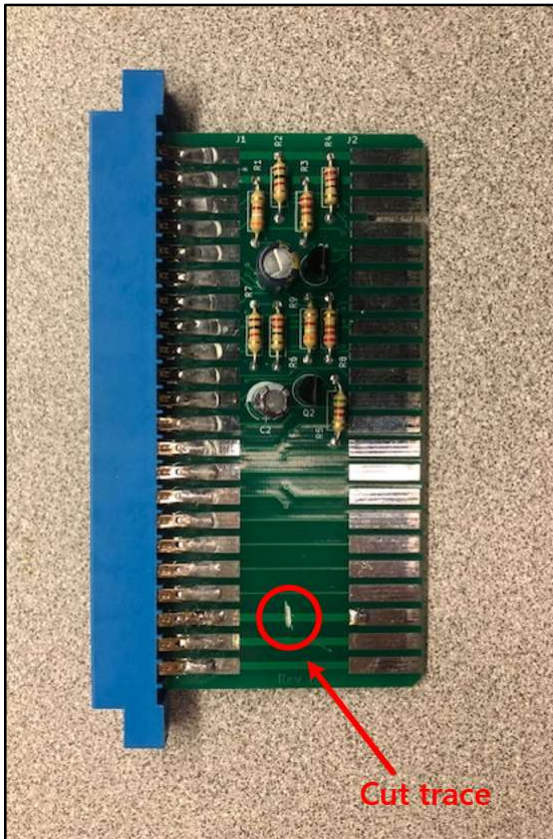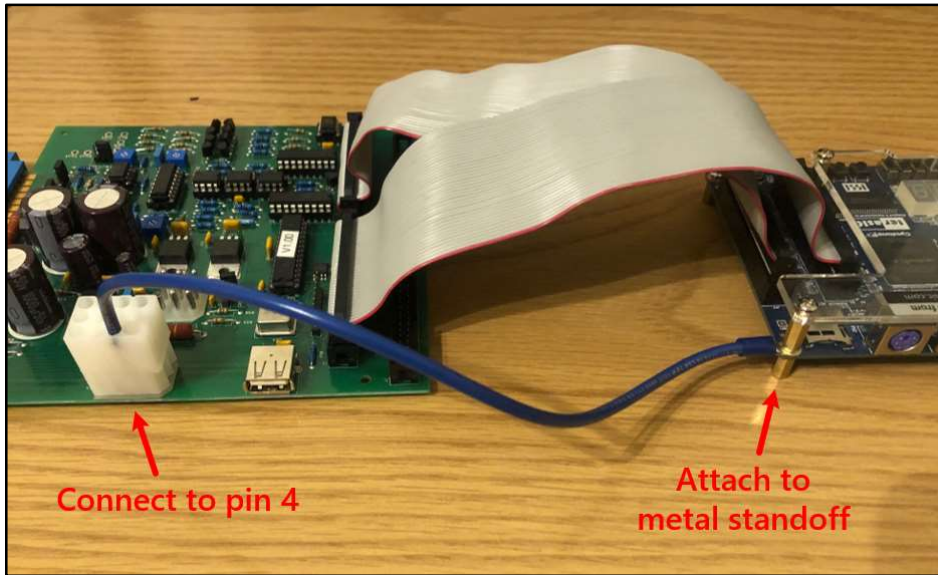
Tools and Materials Required

1. 56 ohm, 2W resistors (x2)
2. 14 AWG wire, 12" length
3. Molex 12-pin .093 power connector male receptacle, and male pin (x1)
4. Ring terminal wire connector, 14-16 AWG (x1)
5. Solder iron + solder
6. Wire crimp tool
7. Cutting tool

Instructions

1. Starting with the 'parts side' of the Asteroids Deluxe Adaptor board, use a fresh blade in your cutting tool to cut the trace for pin X on the connector. Referring to the orientation in the photo below, this is the 3rd pin from the bottom of the board. Test for continuity to ensure the circuit is fully broken.
2. Solder a new 56 ohm resistor across the edges to complete the circuit. Note the photos show a 68 ohm resistor, but 56 ohms is required.
3. On the 'solder side' of the board, cut the trace for pin 20. Referring to the orientation n the photo below, this is the 3rd pin from the top of the board. Test for continuity.
4. Solder a new 56 ohm resistor across the edges to complete the circuit.
5. Attach a new ground wire between the FGPA board and the Interface board. The ground wire should be connected to pin 4 (the single female pin) on the Power Harness Molex Connector on the Interface board. Attach the other end of the ground wire to the metal standoff on the FPGA board using a ring terminal wire connector. Test for continuity.

Photos

Cut trace

New resistor across edge connectors

Cut trace

New resistor across edge connectors

Connect to pin 4

Attach to metal standoff

Please send any questions or comments to cinevectron@gmail.com.