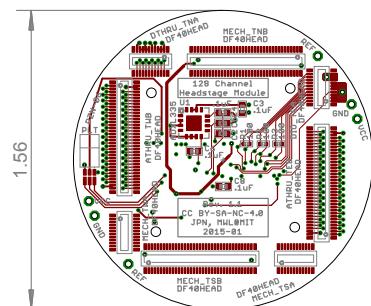


RHD2164 Hirose Circular Headstage (Rev. 1.1) Assembly Guide
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FR406 material, 0.036" thick, ENIG (immersion gold) plating (2 μ inch)

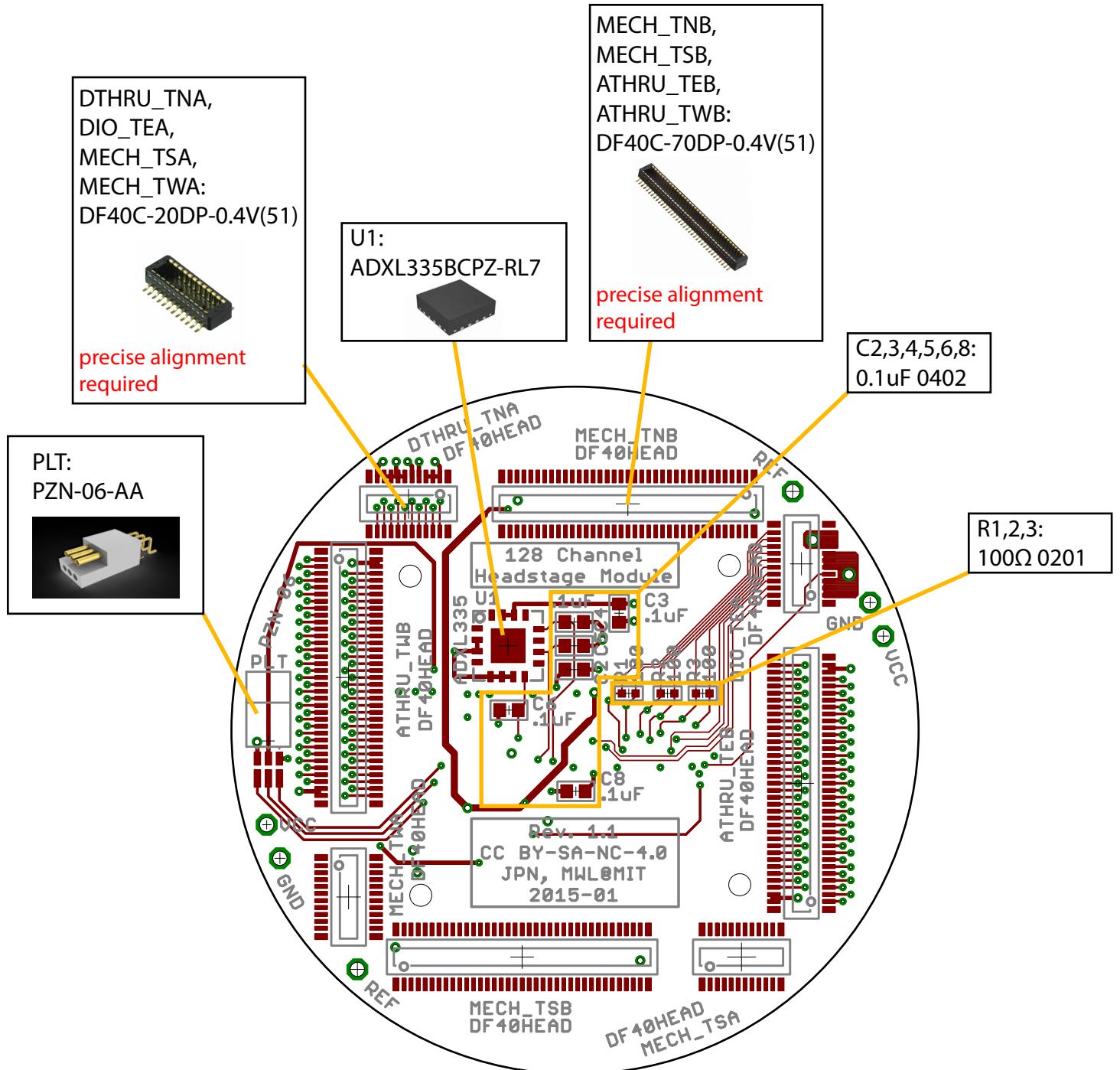
No through-hole components; only SMDs



Actual size

Top Components (19 total)

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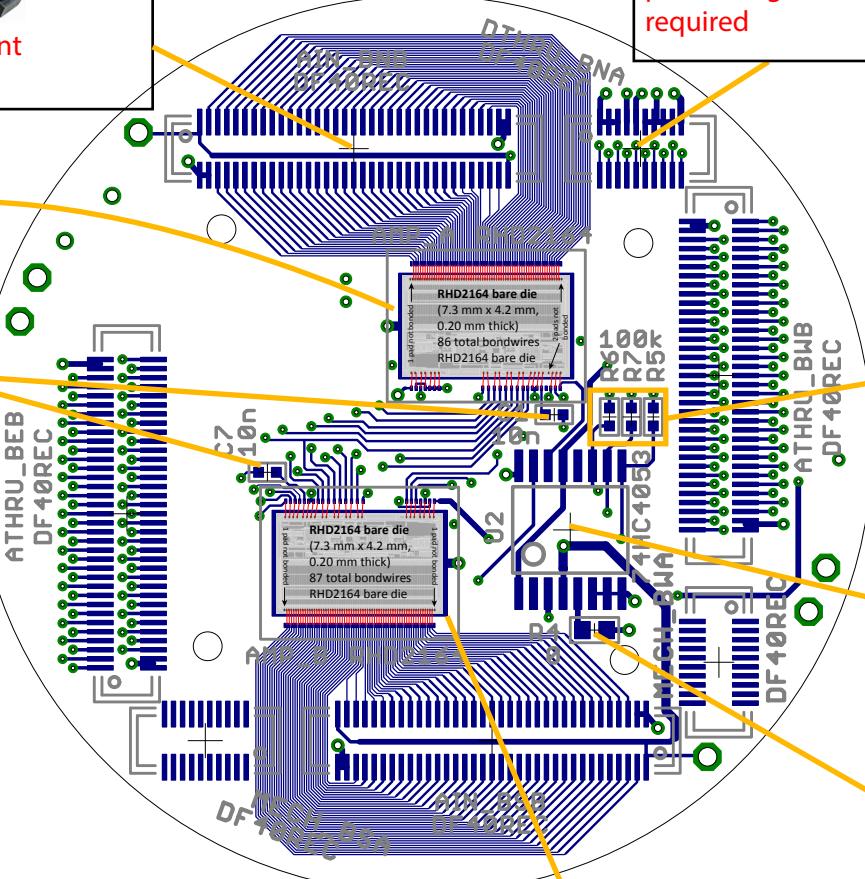


Bottom Components (16 total)

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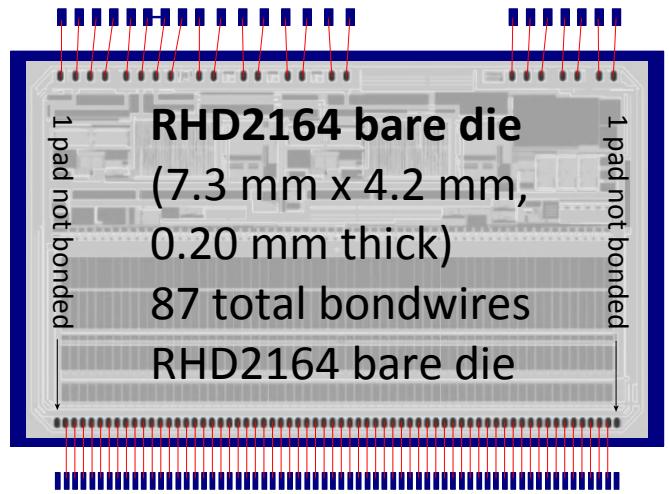
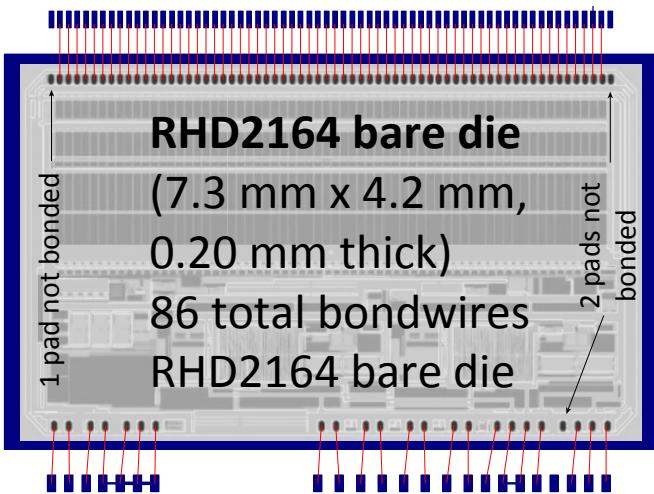
C1,7:
10nF 0201



R1,2,3:
100kΩ 0201

U2:
74HC4053

R4:
0Ω 0402



Intan Technologies RHD2164 Bare Die

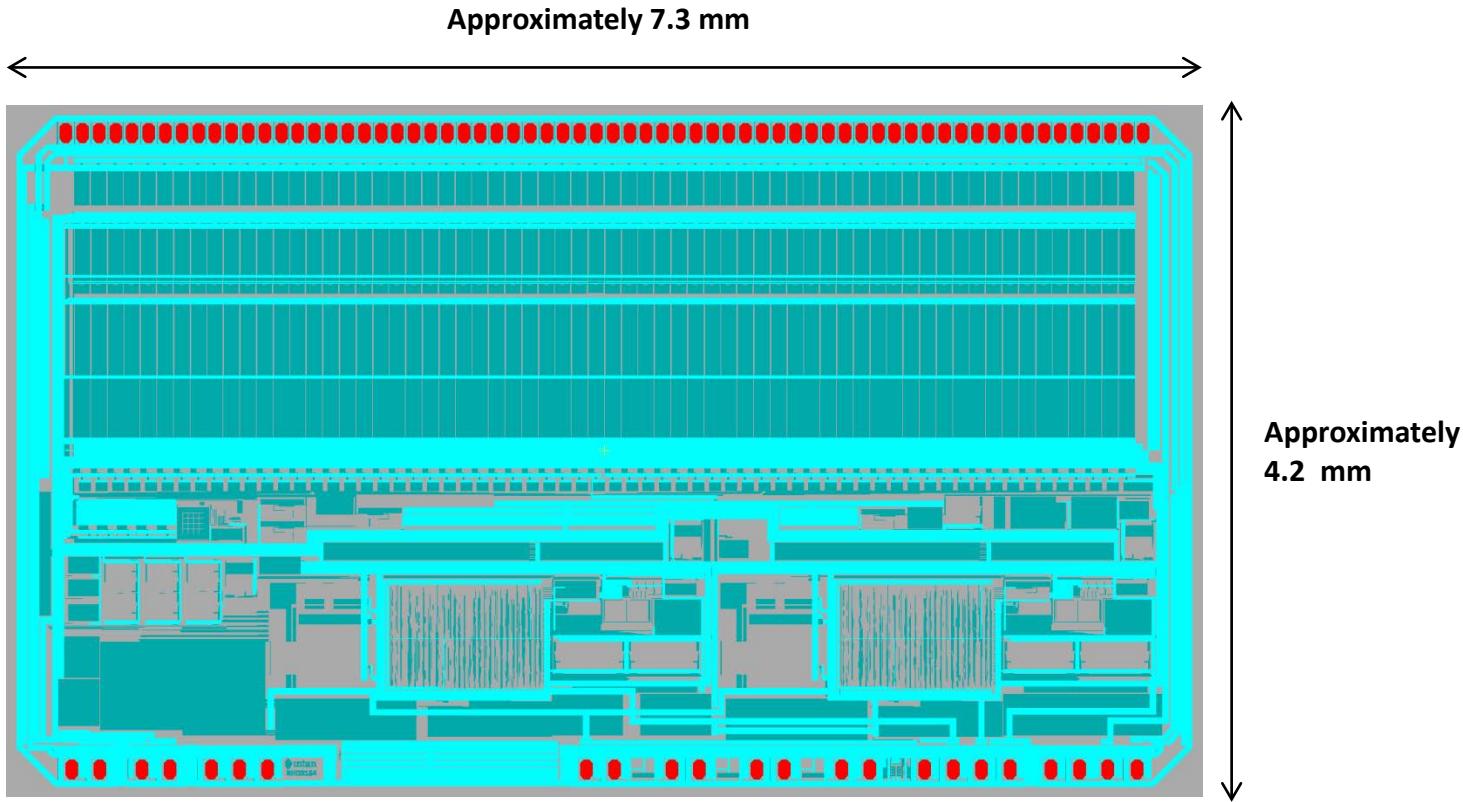
page 4 of 7

Gray = approximate outline of die (may vary from die to die due to variations in sawing)

Yellow Cross = center of design (may not coincide precisely with center of die due to variations in sawing)

Blue, Green = top metal layers (highly visible)

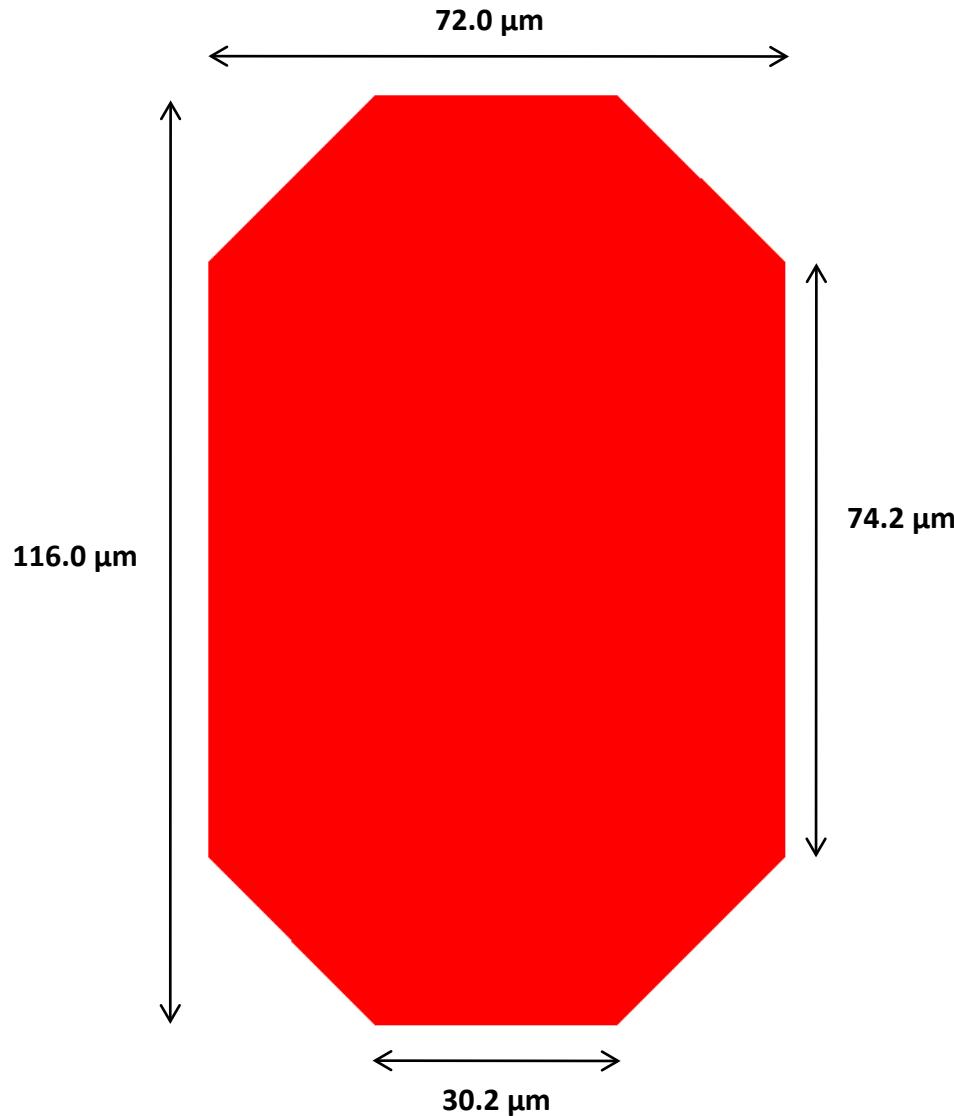
Red = glass openings for bond pads



Each die is 0.20 mm (8 mils) thick

Bond Pad Dimensions (page 5 of 7)

Bond pad metal: AlCu (99.5% aluminum, 0.5% copper)

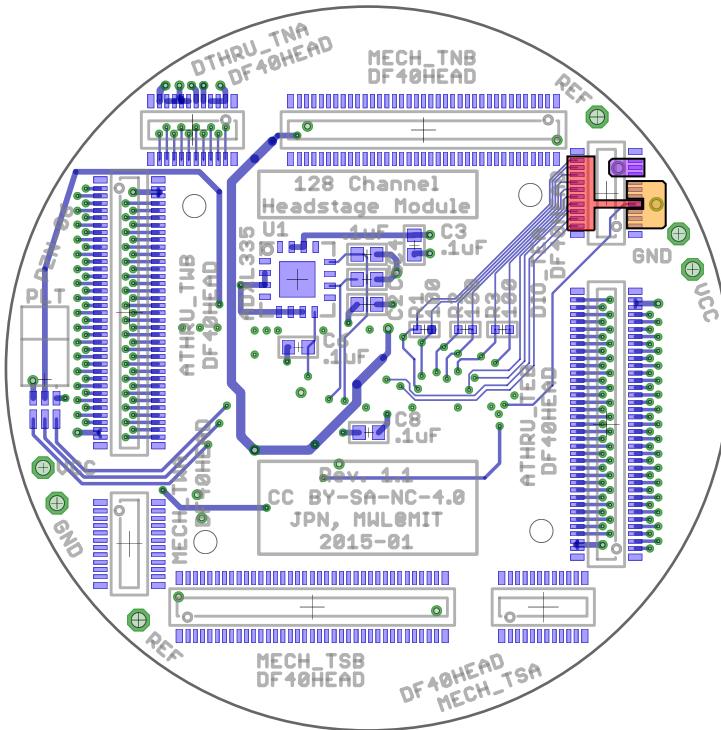


Minimum bond pad pitch (center to center) on RHD2164: 101.6 µm (4.000 mil)

Suggested pre-epoxy tests using digital multimeter (DMM)

PCB Top

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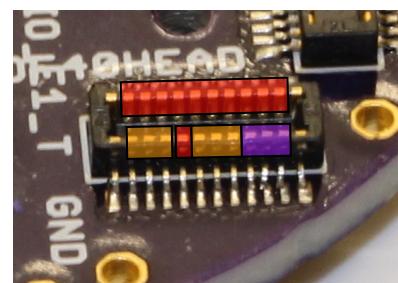
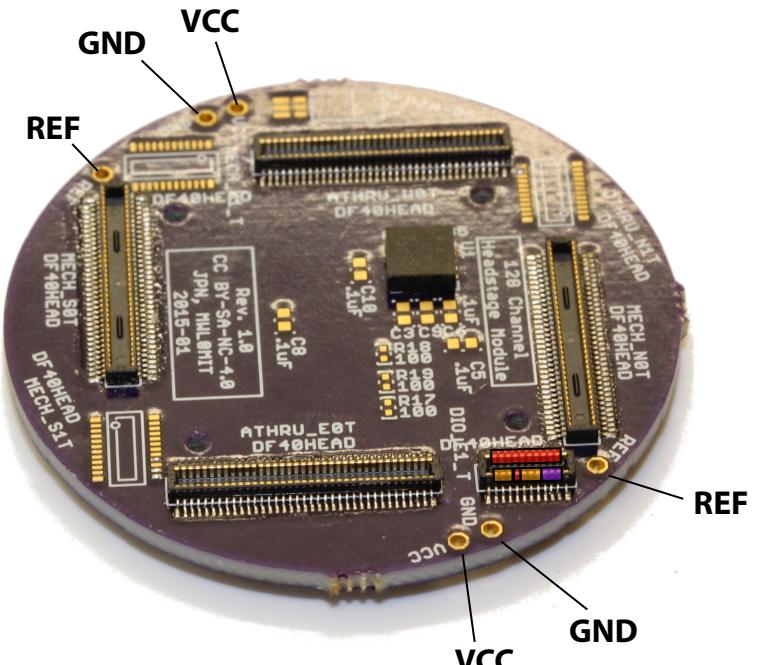


Note: It may be easier to perform tests by inserting extra 24-pin receptical into the 24 pin header. This exposes the solder pads of the 24-pin receptical for DMM access.

6 orange pins: Test using DMM in ohmmeter mode. Should have $< 1\Omega$ to GND test points

10 red pins: Test using DMM in diode test mode. Touch the red lead to the GND test point. Touch the black lead to each of these pins. Diode test should return voltage in 0.6-0.8V range.

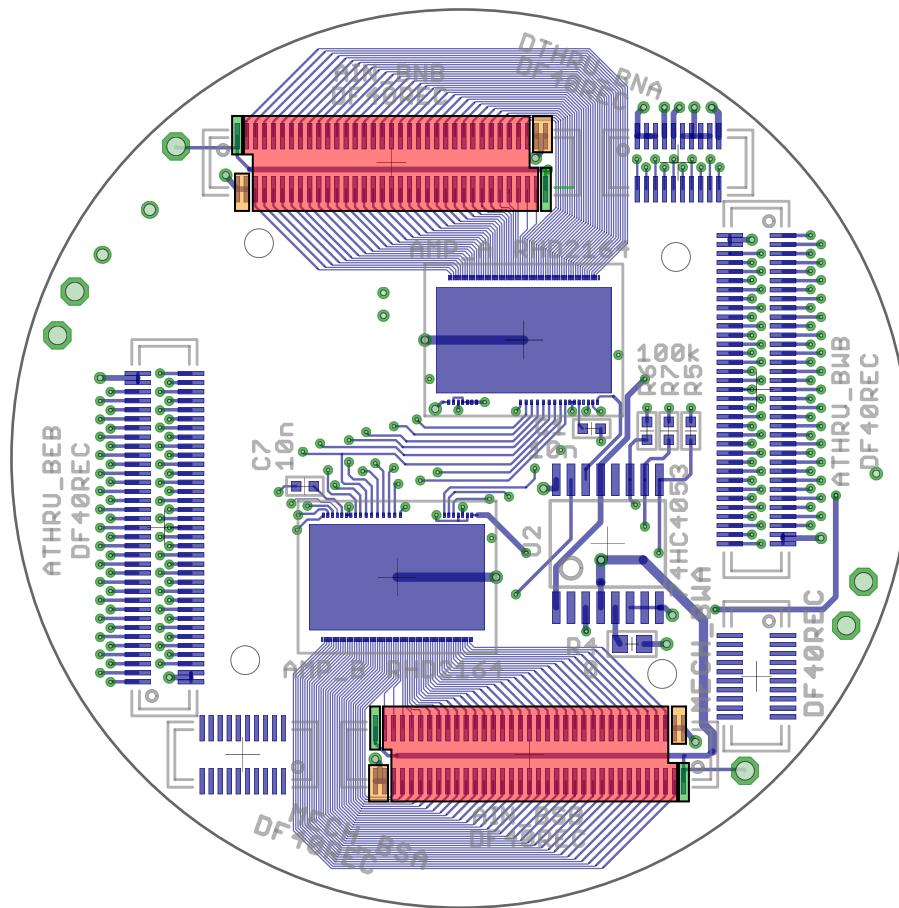
3 purple pins: Test using DMM in diode test mode. Test the same way as the red pins, but these pins should return a slightly lower voltage in 0.4-0.7V range.



Suggested pre-epoxy tests using digital multimeter (DMM)

PCB Bottom

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Note: It may be easier to perform tests by inserting extra 70-pin headers into the 70 pin recepticals as shown in the picture. This exposes the solder pads of the 70-pin headers for DMM access.

8 orange pins: Test using DMM in ohmmeter mode. Should have $< 1\Omega$ to GND test points.

4 green pins: Test using DMM in ohmmeter mode. Should have $< 1\Omega$ to REF test points.

128 red pins: Test using DMM in diode test mode. Touch the red lead to the GND test point. Touch the black lead to each of these pins. Diode test should return voltage in 0.6-0.8V range.

