

1. Choice of IC. Tucson includes PCB footprints for both DIP-8 and SOIC-8 opamps; you can stuff and solder either one. If you decide to use the DIP-8 footprint, it would be a good idea to solder a high quality DIP socket to the board. This permits “opamp rolling” at some future date. The thru-hole opamp recommended in the Bill Of Materials is the Burr-Brown OPA604: the same opamp found in the Pass Labs WHAMMY headphone amp. When substituting, make sure you choose opamps rated for at least 30 volts of total supply (VCC minus VEE).

Many of the newest and best opamps from Burr Brown / TI, Linear Technology, and Analog Devices are only available in SMD. That’s why the Tucson daughter board also includes an SOIC-8 footprint. The BOM calls for the OPA1611, which is an ultra low noise Burr Brown opamp, with the lowest datasheet distortion spec of them all.

2. Consider building two sets of Tucson boards. I don’t see any good reason why you shouldn’t build two Tucson boards with OPA604 thru-hole opamps, and then *build two more* Tucson boards with OPA1611 SMD opamps. Listen to both in your M2X; which opamp sounds best to you? Check the diyAudio “Swap Meet” forums, there is probably a thriving aftermarket for individual M2X daughter boards. People buy a full set of ten daughter boards, use four of them, and then decide to sell or trade the others.

3. Pin 1 indicator. The thru hole footprint for the opamp has a square pad where pin 1 goes. It also has the numeral “1” on the front silkscreen, next to pin 1.

*The SMD footprint is rotated 90 degrees counterclockwise (so the pads won’t collide!) Its pin 1 is marked with front silkscreen text, and with an arrow.*