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Hardware (w/ || w/o software): Tucson Arizona Packet Radio TAPR [PDF](#) [ODT](#) [TXT](#)

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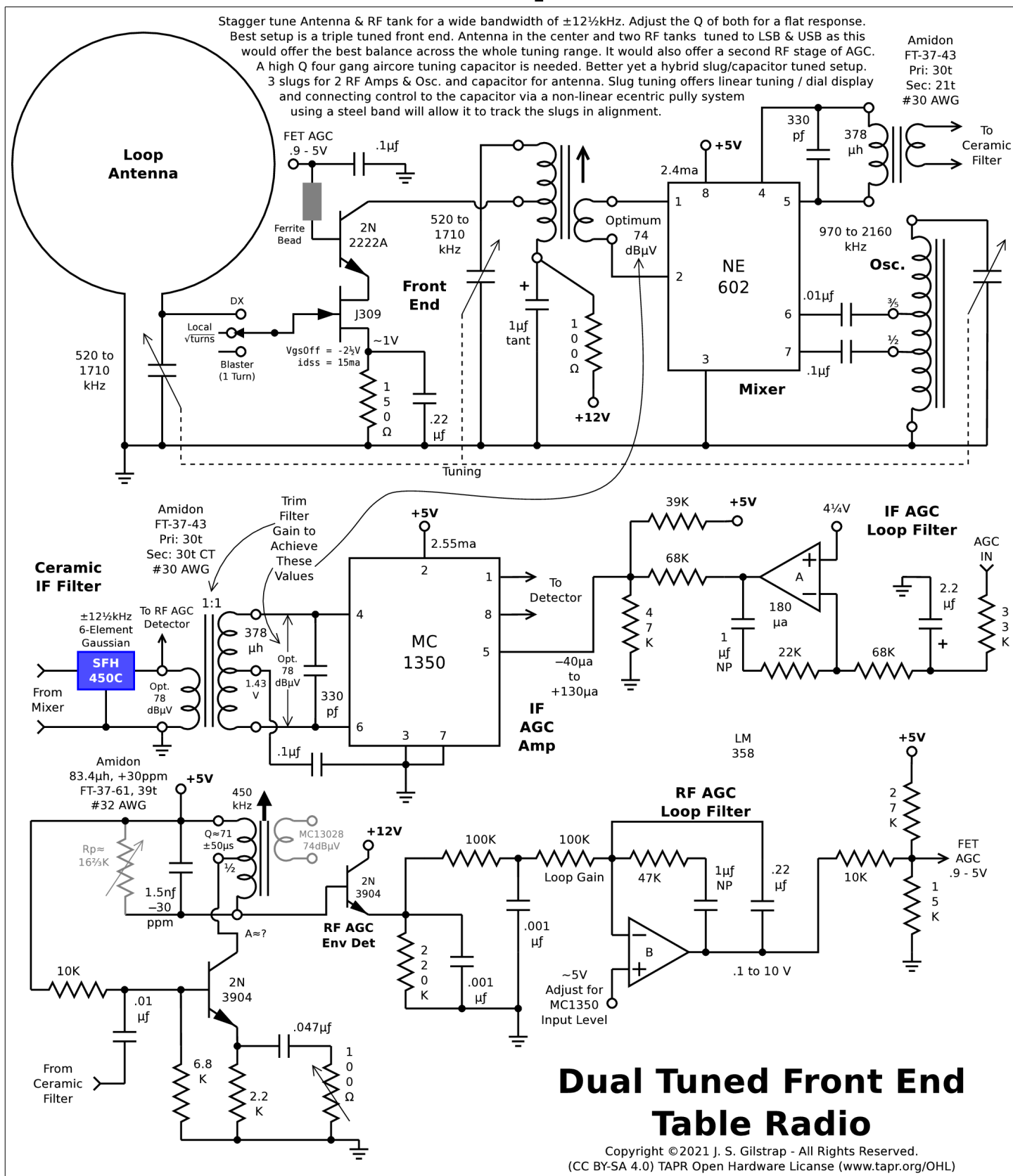
Actual Size @224 D.P.I. OD: 12"H × 8"W × 8"D

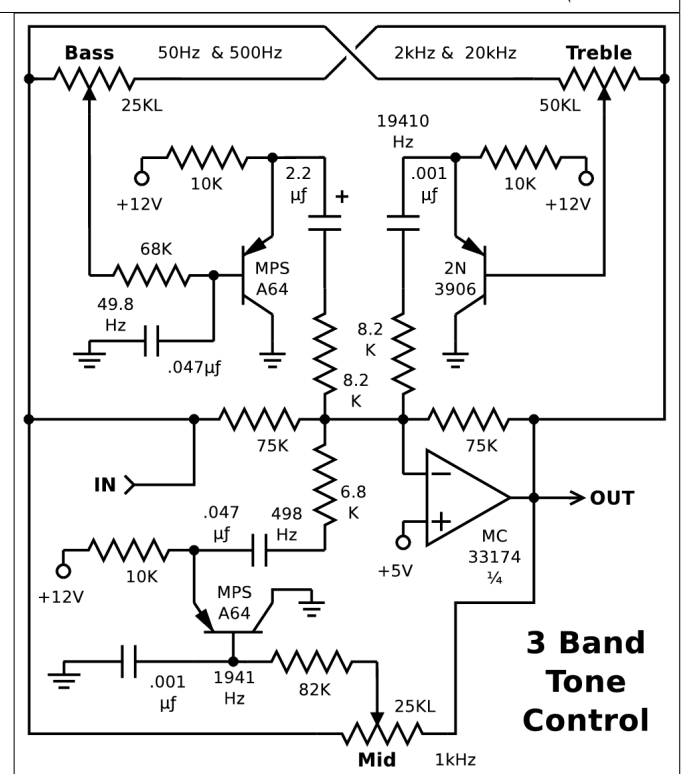
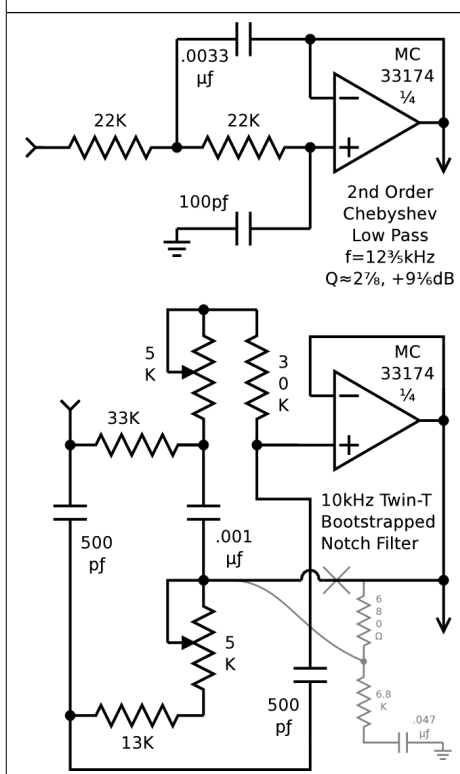
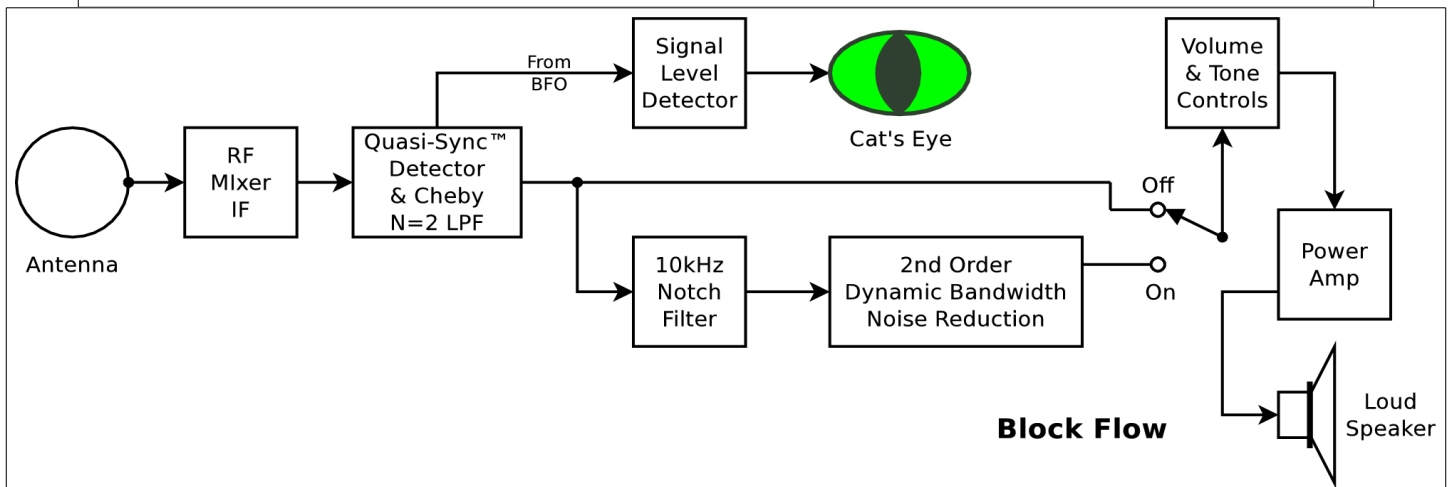
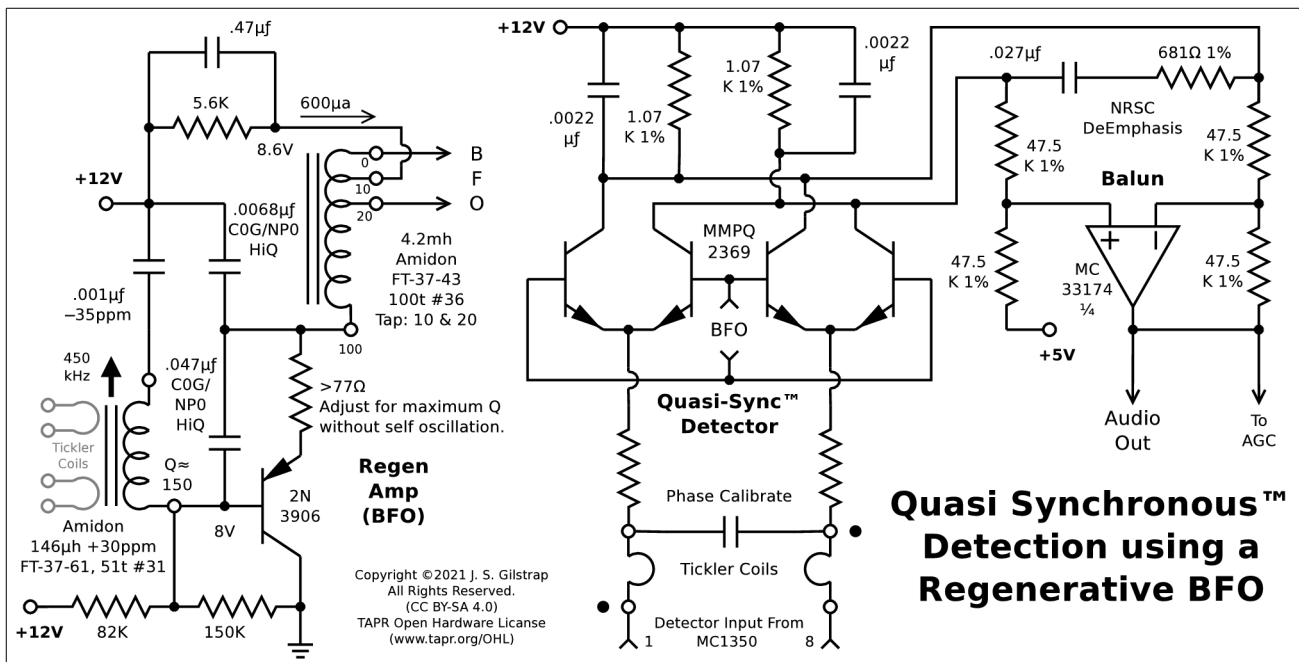


3/8" Hard Wood, ID: 11 1/4"H × 7 1/4"W × 7 1/4"D, Port: 7 1/4"W × 1/4"H × 6 1/2"L (w/Horn, 1/4" round, 6 1/2" + 1/2" = 7"L)

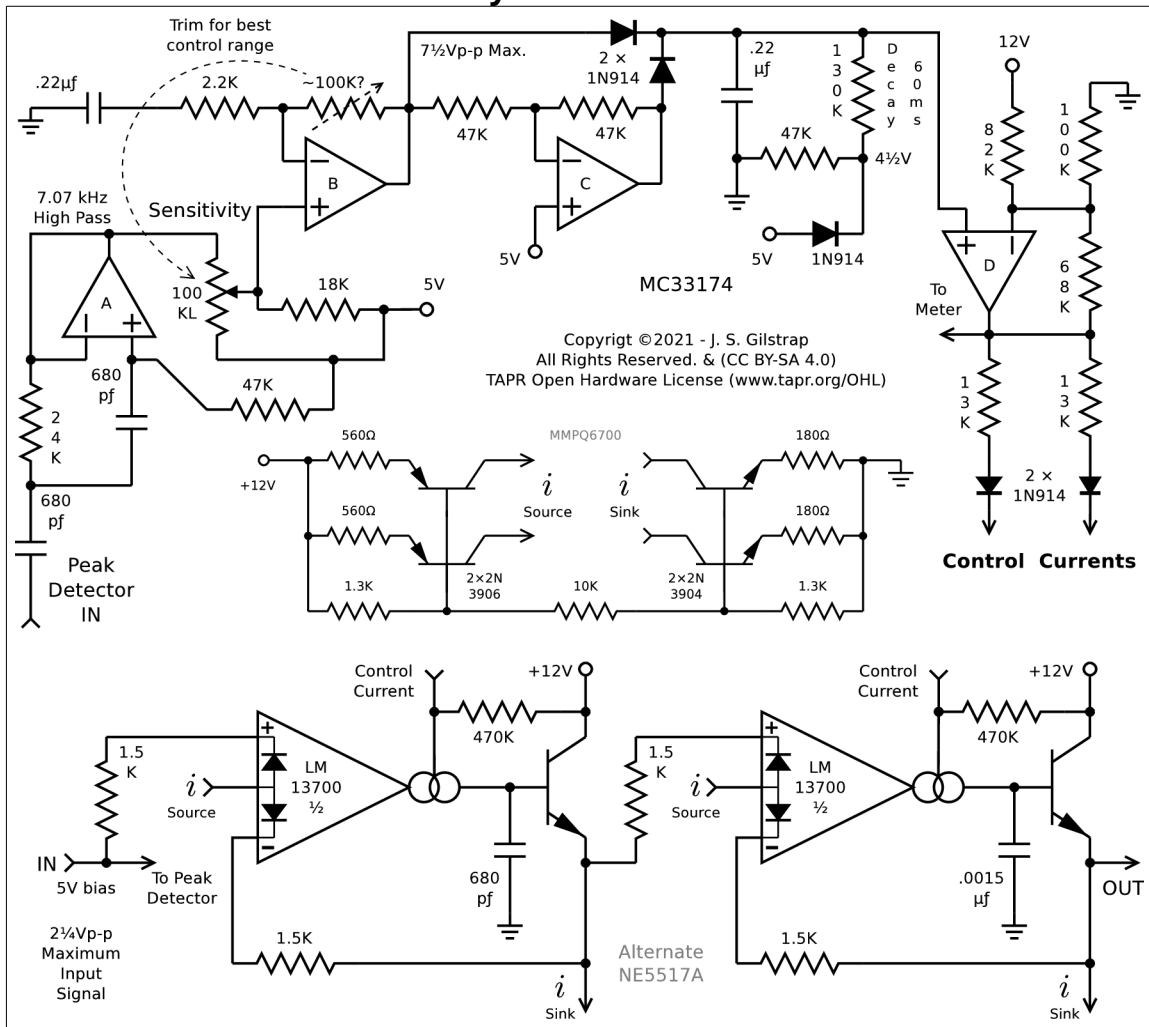
Since there are no Thiele Small parameters available for the Infinity speaker shown port tuning was done using a Dayton Audio DC160-4 woofer providing a -3dB response at 47Hz . Although not coaxial this speaker would be a good choice for the box but an additional tweeter and crossover would need to be added. Rolloff response will probably be different for the Infinity speaker and port length may need to be adjusted for best response.

NeoRetro™ Super AM Radio

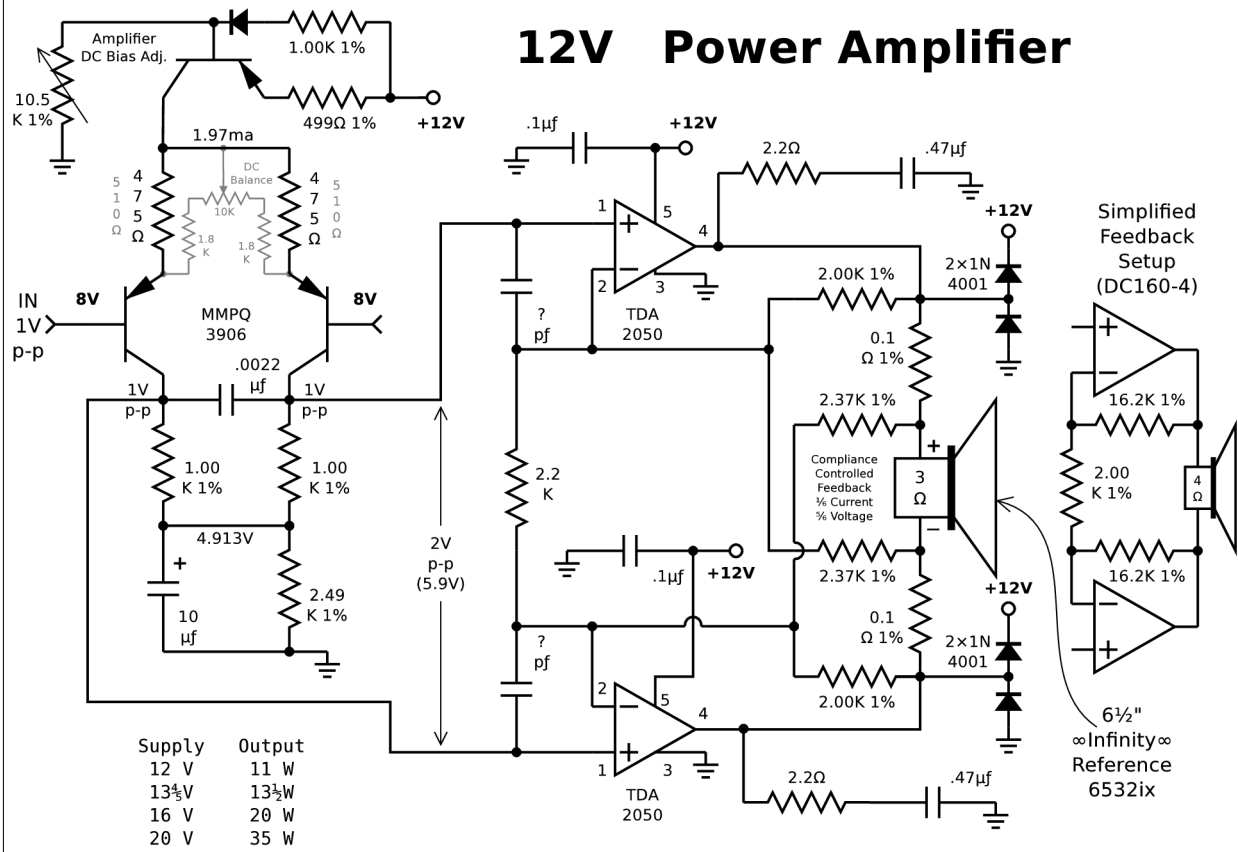




2nd Order Dynamic Bandwidth NR



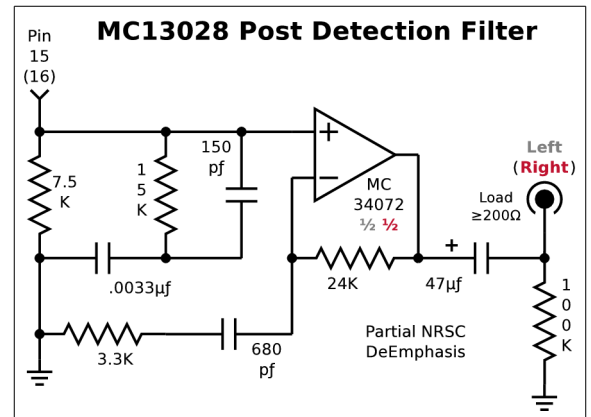
12V Power Amplifier



Optional Stereo Decoder

Except for maybe using an LC tank instead of a ceramic resonator for the VCO on the MC13028 all other perephial components are defaults specified in the datasheet.

Forced Stereo is accomplished by pulling up the pilot **I** detector pin (9) to $\sim 1\frac{1}{4}V$ (1.2-1.5) via a 1K resistor. Forced Mono is accomplished by shunting the Blend pin (8) to Gnd. This also re-initializes the PLL/Decoder into a Fast Lock mode which reduces Stereo acquisition time when released.



Ported Box
Response with
Dayton Audio
6½" Woofer
2nd Order Low Pass
Crossover Frequency
~1½kHz, Q=0.9
10μf & 1mh

Would pair well with
Dayton Audio
ND20FA-6 ¾"
Neodymium
Dome Tweeter
2nd Order High Pass
Crossover Frequency
~2½kHz, Q=1
10μf & 360μh
with light bulb protector.
Invert Polarity.
Mount in front of
Woofer with thick
felt behind it for
HF blocking.
Use simplified feedback
setup in power amp for more output.

