

# Evaluation Circuit for Evaluating LF Static Phase Shift

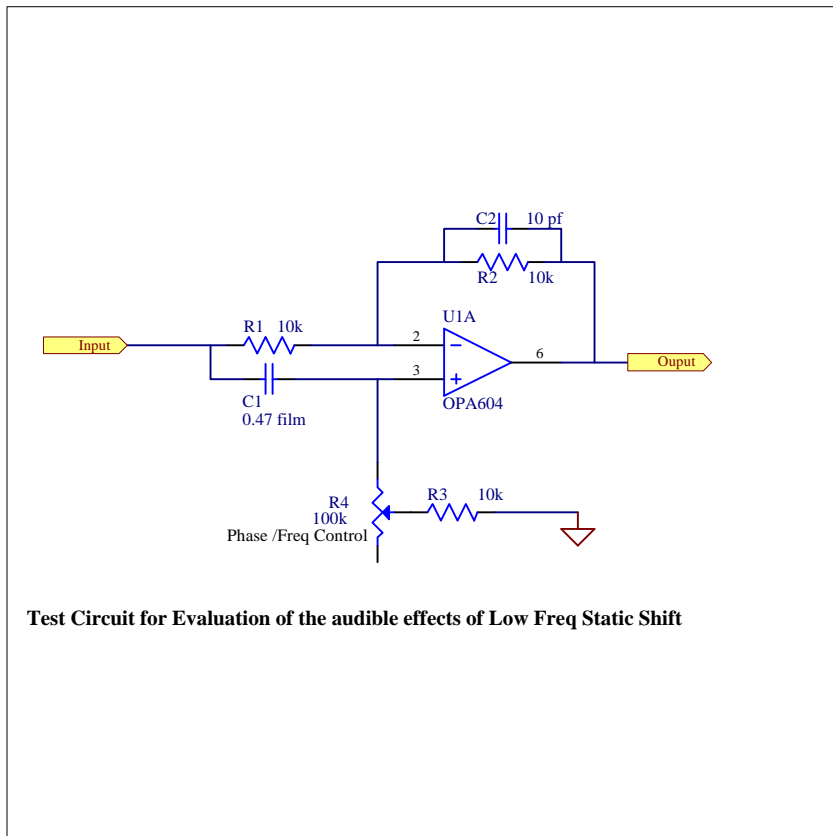
By Fred Forssell

The question has been posed as to if static phase shift with in the audio passband is audible at low frequencies. I don't know if it is or not, but a recent debate in a discussion forum left me feeling disturbed by the emotion with which some people defend their position on this topic. The question kept popping into my head, "Why not just listen to it and decide for yourself?".

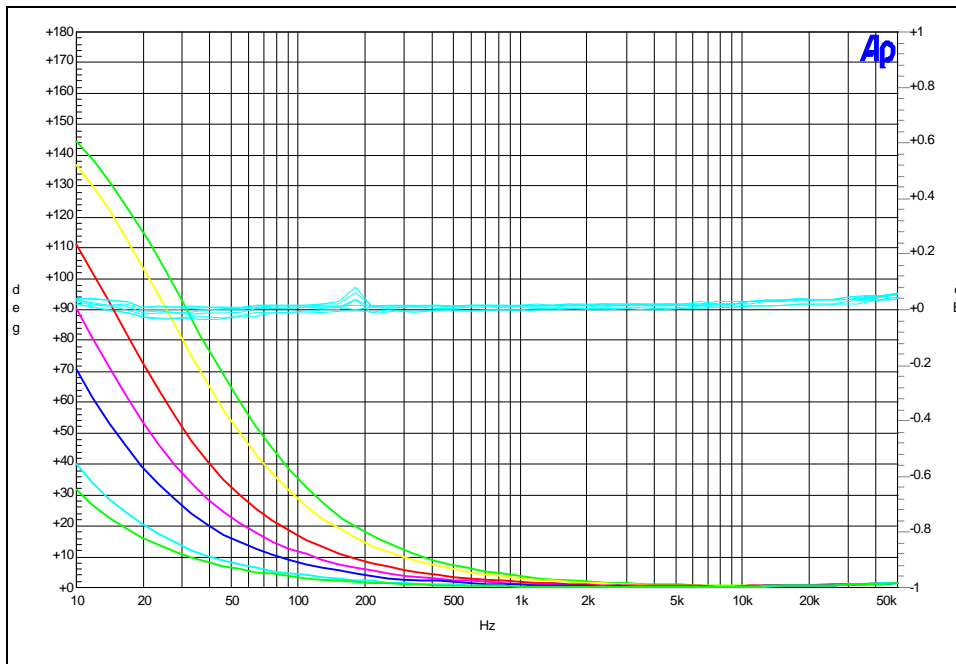
So I present the circuit in figure 1 to those who wish to listen and decide for themselves if this is an audible consideration. The amplitude and phase response for this circuit is shown in figure 2. I have not performed a listening test with this circuit at this time, but I welcome comments for anyone who tries using this circuit for such a test. I also welcome any comment, suggestions, or questions regarding the circuit or any listening tests done by using it.

Thank you for taking the time to review this document.

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**Figure 1**



100k Pot rotation positions are... FCW= highest Phase shift, then 3 o'clock, 1 o'clock, 12 o'clock, 9 o'clock, FCCW.

This is for a linear taper pot. Using a Rev Log taper pot will result a more even phase change per rotation position.

**Figure 2**