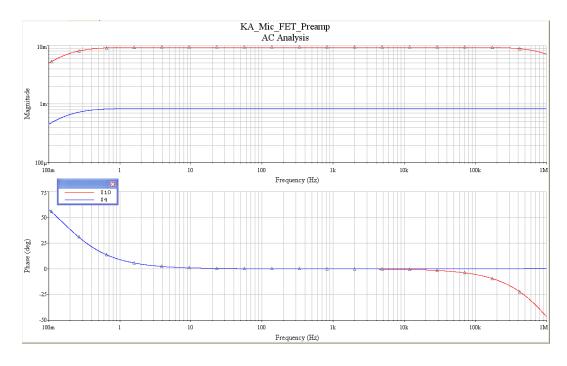KA FET Mic Preamp

The **_high-pass_** filter time constant τ_{RC} associated with the pressure mic preamp's $C = 1\,\mu F$ input coupling capacitor (*n.b.* which also blocks the ~ +1.5 V$_{DC}$ quiescent *DC* voltage output from the mic's internal FET) and $R = 1\,\text{M}\Omega$ is $\tau_{RC} \equiv RC = 1.0\,sec$, corresponding to a $-3\,dB$ corner frequency of $f_{-3\,dB} \equiv 1/(2\pi \cdot \tau_{RC}) = 1/(2\pi RC) = 1/2\pi \simeq 0.16\,Hz$. The frequency and phase response of this pressure mic's preamp circuit is shown in the figure below: