2.5-1) Consider a microphone intended for use in a music recording studio. Determine a suitable frequency response for the microphone, and provide suitable values to specify the response.

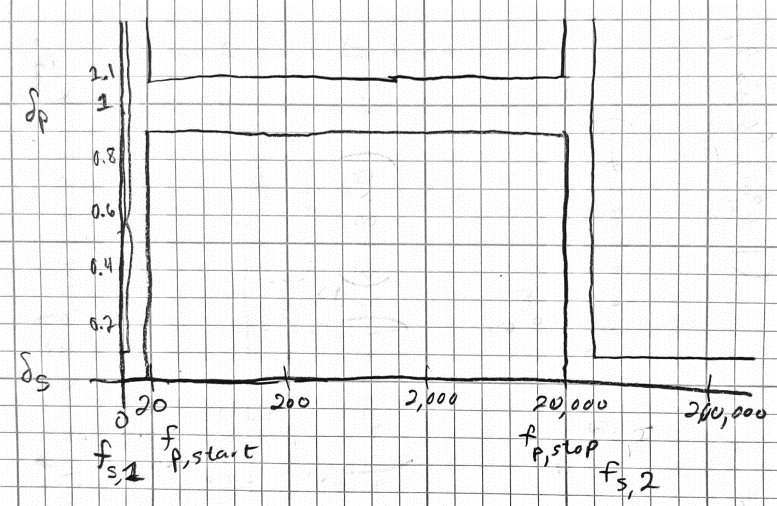
First, some info

* Human hearing is in the range of 20Hz 🡪 20kHz
* Humans “readily perceive amplitude distortion, but are relatively insensitive to phase distortion”

What this means

* We should definetly pass 20Hz 🡪 20kHz.
* The pass-band ripple should be very low

An ideal frequency response for a microphone would be a “pulse” with a pass-band from 20Hz to 20kHz with a gain of 1. If we are talking a non-ideal world, then I would think something that has little pass-band ripple and covers the whole frequency range would be good.



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