Active Low-Pass Filter

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***Abstract*—**
***Index Terms*—Butterworth**

I. Introduction

explain sallen-key topology and butterworth filter

$$\omega_n = \frac{1}{\sqrt{R_1 R_2 C_1 C_2}} \tag{1}$$

$$\frac{1}{Q} = \sqrt{\frac{R_2 C_2}{R_1 C_1}} + \sqrt{\frac{R_1 C_2}{R_2 C_1}} + (1-K)\sqrt{\frac{R_1 C_1}{R_2 C_2}} \tag{2}$$

$$H_0 = K \tag{3}$$

II. Methodology

III. Results

Power: 0.02 A x 9 V
plot with measured freq resp and predicted freq resp

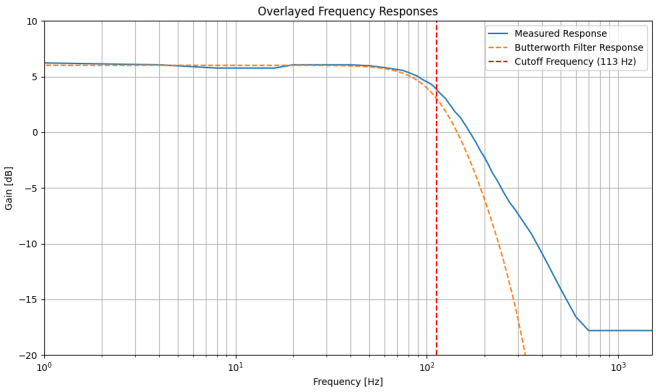

Fig. 2: Measured and Theoretical Frequency Response

TABLE I: Frequency response of the active low-pass filter.

IV. Discussion

V. Appendix

References

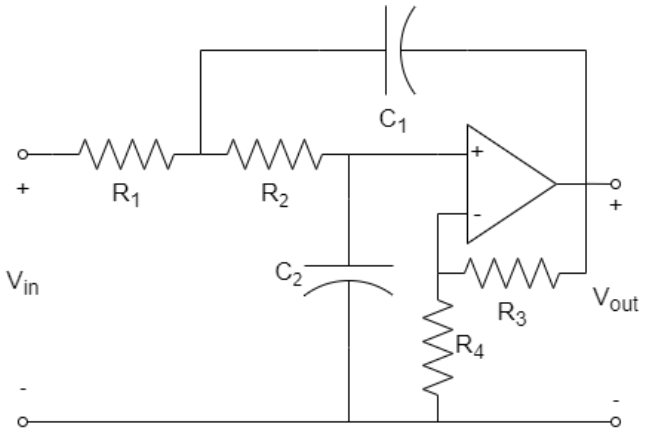

Fig. 1: Sallen-Key topology for the active low-pass filter.