

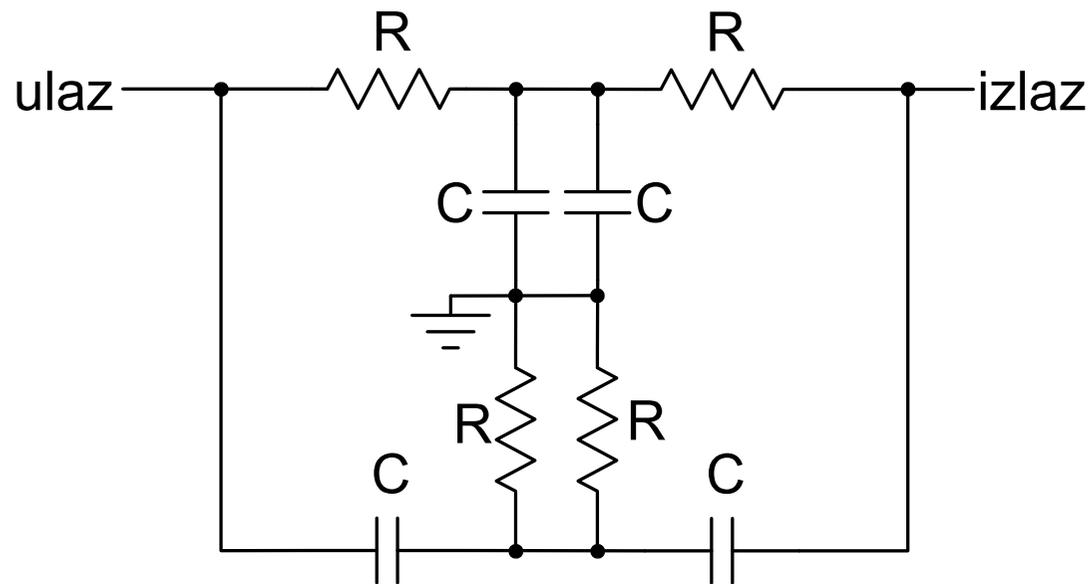
Savremeni merni sistemi

Laboratorijska vežba 4

Primer automatizovanog mernog
sistema

Vladimir Rajović, 2008/09

Eksperimentalno određivanje amplitudske karakteristike “twin notch” filtra



Twin Notch

$$H(s) = \frac{1 + C^2 R^2 s^2}{1 + 4CRs + C^2 R^2 s^2}$$

$$H(j\omega) = \frac{1 - C^2 R^2 \omega^2}{1 + 4j\omega CR - C^2 R^2 \omega^2}$$

$$|H(j\omega)| = \frac{|1 - C^2 R^2 \omega^2|}{\sqrt{(1 - C^2 R^2 \omega^2)^2 + 16\omega^2 C^2 R^2}}$$

$$f_{STOP} = \frac{1}{2\pi RC}$$

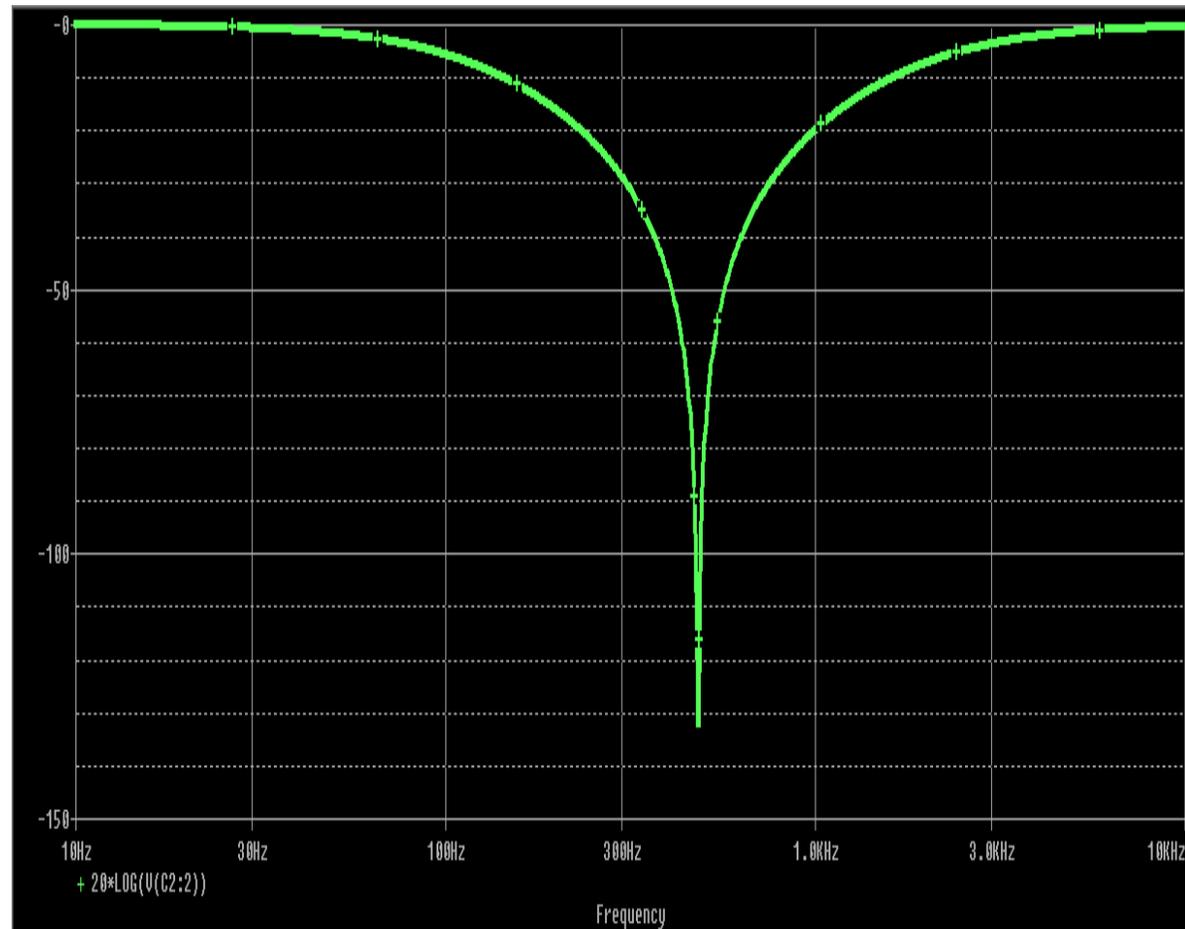
Twin Notch

$$R = 33 \text{ k}\Omega$$

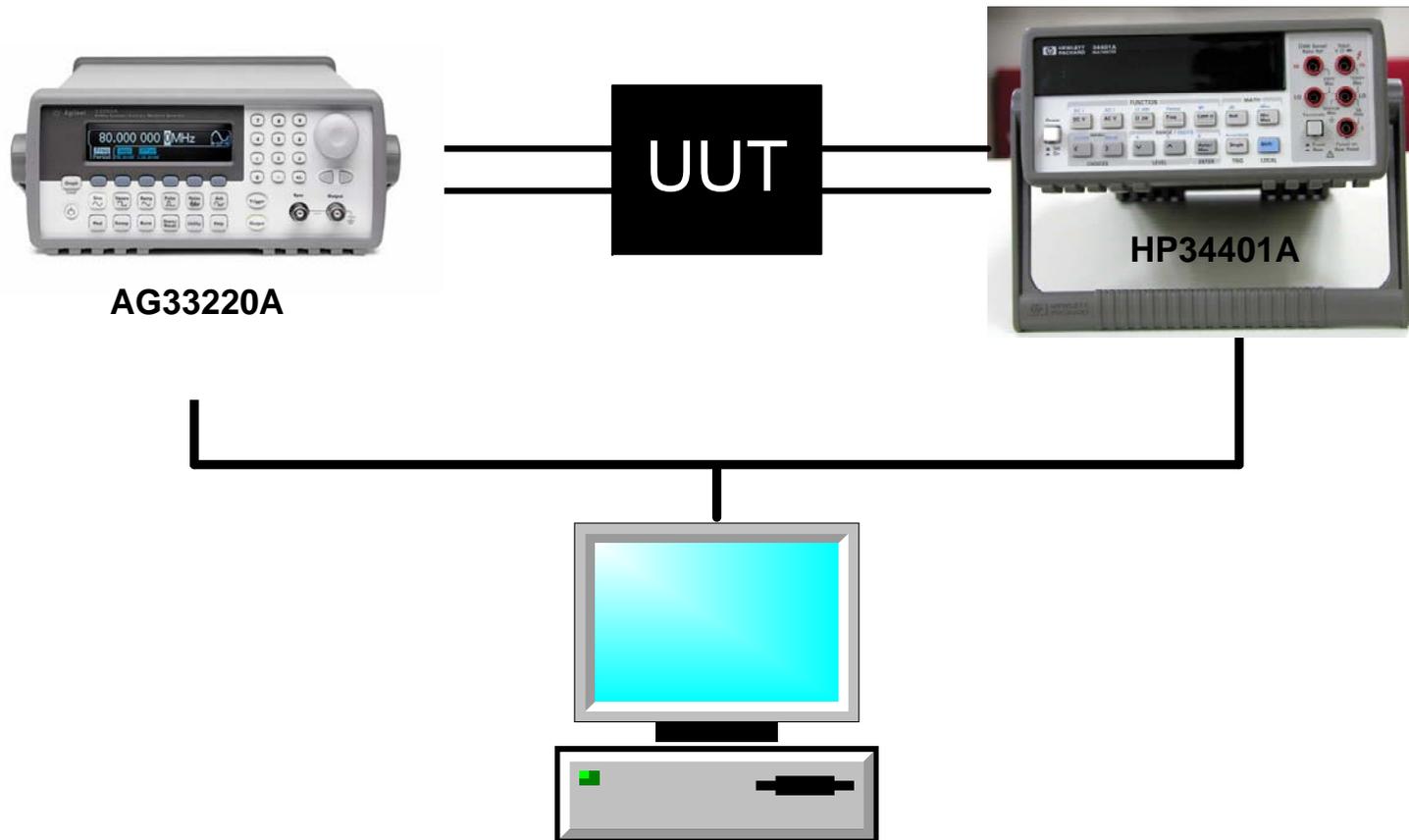
$$C = 10 \text{ nF}$$

$$f_{STOP} = 482 \text{ Hz}$$

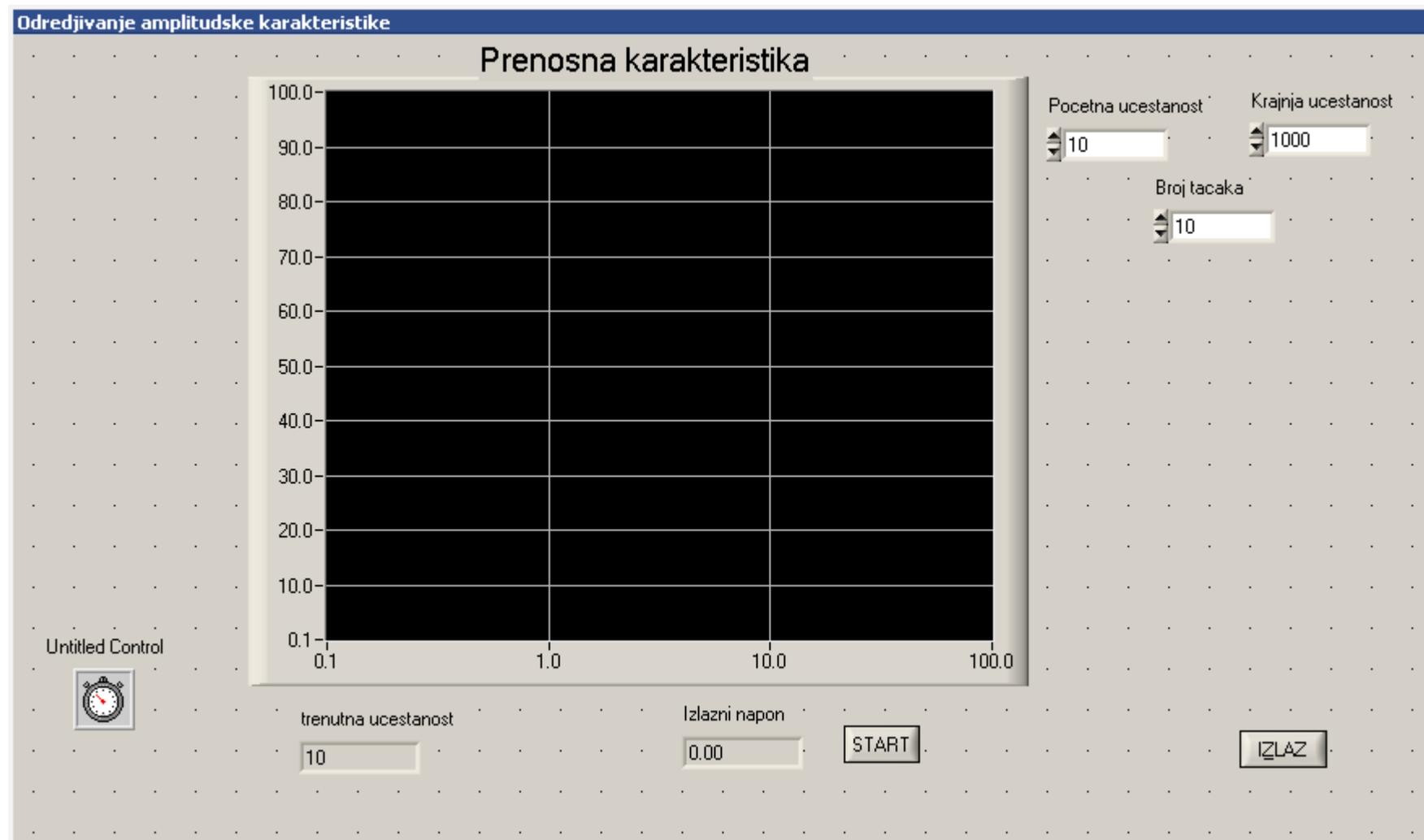
SPICE simulacija



Eksperimentalni setup



Korisnički interfejs



Eksperimentalni rezultat

