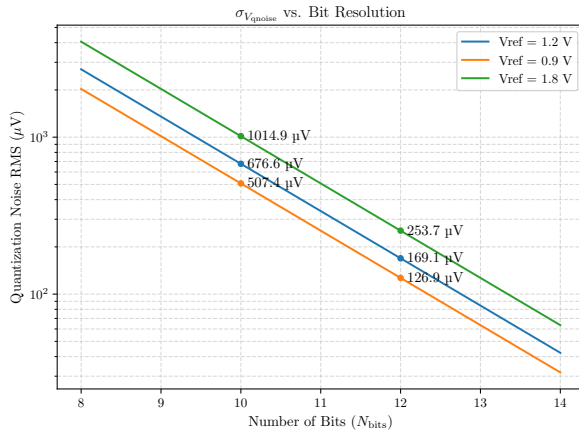


Quantization Noise in ADCs



$$\sigma_{V_{\text{qnoise}}} = \frac{2V_{\text{ref}}}{2^N \sqrt{12}}$$

Two-Column Example

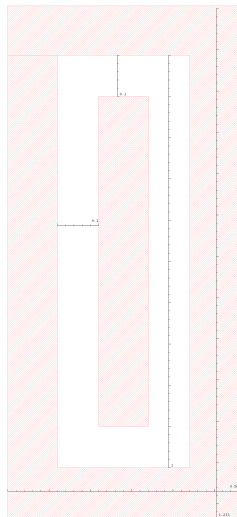
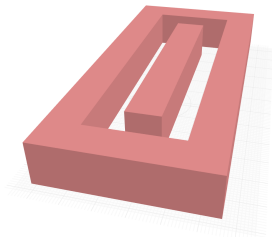
1 layer: ? fF/ μm^2

2 layers: ? fF/ μm^2

3 layers: ? fF/ μm^2

Matching coefficient:

$$\sigma(\Delta C/C) = 0.85\% \times \sqrt{C \text{ [fF]}}$$



CDAC Array Overview

Total Area = $1940 \mu\text{m}^2$

