

# Nearly-Perfect-Reconstruction Filter Banks with Critical Sampling: Achievable Quality with Quantized Coefficients

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## ABSTRACT

For cosine-modulated filter-bank systems with critical sampling and near-perfect reconstruction, three prototype-design methods were compared, recently, in terms of their achievable quality. Now, the influence of coefficient quantization is investigated: By means of extensive Matlab simulations, filter banks with different channel numbers  $M$ , prototype-filter length  $N$ , and coefficient wordlengths  $w_e$  are analyzed with regard to their quality.