



PERFORMANCE OF NOISE-SHAPING IN OVERSAMPLED FILTER BANKS (WedAmPO2)

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* Abstract :

The use of a noise-shaping system in oversampled filter banks has been shown to improve the effective resolution of subband coders. In this paper, a brief review of past work is given and a study of the effects of the characteristics of the employed filter banks is presented. It is shown that an increase in filter length and an increase in the degree of overlap between neighboring channels contribute independently to a better performance. Also, it is shown that near-perfect reconstruction filter banks are limited by their reconstruction error but yield good results at a low bitrate. This is supported by both theoretical and experimental results.