

RESAMPLING APPARATUS
SUITABLE FOR RESIZING A VIDEO IMAGE

ABSTRACT OF THE DISCLOSURE

A digital resampler comprises a combination of first means and second means. The first means, which includes interpolation filter means, is responsive to the digital-signal sample values of an input sample stream for producing a first derived sample stream of digital-signal sample values in which the given sampling period P of the input stream is multiplied directly by a factor equal to M'/CL , where C is a given positive integer and M' is smaller than CL , either $2^n(M'/CL)$ or $2^{-n}(M'/CL)$ is equal to M/L and the absolute value of n is at least equal to zero, so that the sampling period of the first derived sample stream is $(M'/CL)P$. The second means, which includes octave prefiltering and sample means, is responsive to the first derived sample stream of digital-signal sample values for producing as an output a second derived sample stream of digital-signal sample values in which the first derived sampling period $(M'/CL)P$ of the first derived sample stream is multiplied by a factor equal to either $2^n(M'/CL)$ or $2^{-n}(M'/CL)$, so that the sampling period of the second derived sample stream is $(M/L)P$.

FIGURE 5b