METHOD OF AND APPARATUS FOR INTERPOLATING DIGITAL SIGNAL, AND APPARATUS FOR AND METHOD OF RECORDING AND/OR PLAYING BACK RECORDING MEDIUM

ABSTRACT

An inputted data signal from a data input terminal 1 is supplied through a memory 2 to an FIR low-pass digital filter 4. The memory 2 is controlled by a control circuit 6 to supply data preceding and following data which have suffered an error to the digital filter 4 to extract values A, B. The values A, B are calculated by an interpolation data generating circuit 7 to generate a value Y0. The data preceding and following data which have suffered an error are supplied to the digital filter 4 to extract a value A0. To the value A0, there is added values Bn calculated in advance by supplying all interpolation data which the error portion can take to an arbitrary position of the digital filter 4. The sum is compared with the value Y0. Interpolation data are generated according to a value Bn at which the sum is closest to the value Y0, and interpolation data are delivered from a data selector 3 to a data output terminal 8. This arrangement is capable of interpolating a digital signal digitized in an arbitrary small number of bits.

Figure 9