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(54) Tone signal generation device employing a digital filter.

(57) An address signal generation circuit generates an address signal which changes at a rate corresponding to tone pitch of a tone to be generated. This address signal consists of an integer section (IAD) and a decimal section (FAD). A tone waveshape data generation circuit (13) generates tone waveshape sampled data in response to the integer section (IAD) of the address signal. A filter coefficient supply circuit (24) can generate data corresponding to filter coefficients of m orders and selects and supplies n filter coefficients (where n < m) in response to the decimal section (FAD) of the address signal. In a relation n = m/d, for example, the filter coefficient supply circuit (24) selects filter coefficients corresponding to n orders which are distant sequentially with an interval of d in response to the value of the decimal section of current address signal. A digital filter operation circuit (21) performs filter operations of m orders with respect to tone waveshape data of n sample points by using these n filter coefficient data and tone waveshape data of n sample points generated by the tone waveshape data generation circuit (13). By this arrangement, despite that the actual filter operation is carried out only with respect to data corresponding to the n orders, a filter operation equivalent to per-

forming filter operations of m orders can be realized.

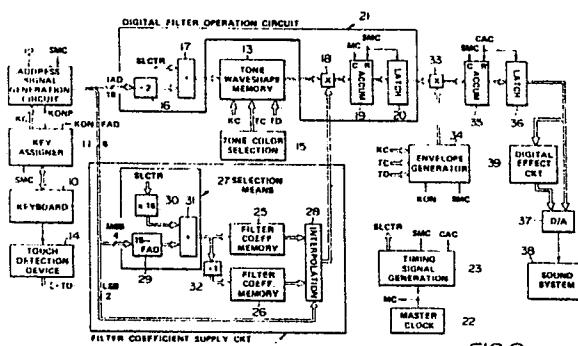


FIG.8

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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	US-A-4 246 823 (WACHI et al.) * Column 3, line 28 - column 5, line 40; figure 4 * --- A US-A-4 036 096 (TOMISAWA et al.) * Column 2, line 47 - column 3, line 18; figure 3 * -----	1-7 1	G 10 H 7/00 G 10 H 1/12
TECHNICAL FIELDS SEARCHED (Int. Cl.4)			
G 10 H			
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	13-11-1989	PULLUARD R.J.P.A.	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			