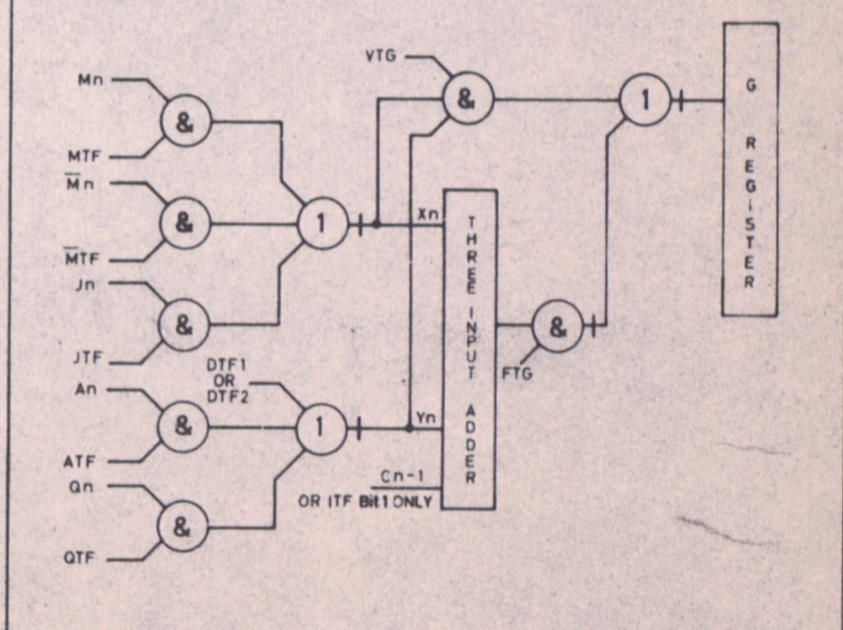


THE OUTPUT OF THE ADDER IS EQUAL TO THE SUM OF  $x_n + y_n + c_{n-1}$ . AS THERE CAN BE NO  $c_{n-1}$  TO  $b_{n-1}$  THE ITF SIGNAL IS TAKEN TO THIS INPUT. HENCE IF ITF OCCURS THEN ONE IS ADDED TO ANY OTHER INPUT TO THE ADDER. DTF1 MAKES  $y_n$  ON BITS 1-13 EQUAL TO 1. HENCE IF DTF1 AND VTG OCCUR, THE G REGISTER WILL COPY THE FIRST 13 BITS OF THE REGISTER GATED INTO  $x_n$ . DTF1 & DTF2 MAKES  $y_n$  ON ALL BOARDS EQUAL TO 1. HENCE IF THIS OCCURS WITH FTG THEN A 'FULLHOUSE' IS ADDED TO  $x_n$ , i.e. ONE IS SUBTRACTED.



SYMBOLIC REPRESENTATION OF ADDER.

920B COMPUTER REGISTER MODULE AND CONTROL WAVEFORMS

A19

SHEET 2 OF 2

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