

ENABLES

- X, Y, Output Port P, Output Port Y, P,
- Feedthrough P (FT)

FORMAT

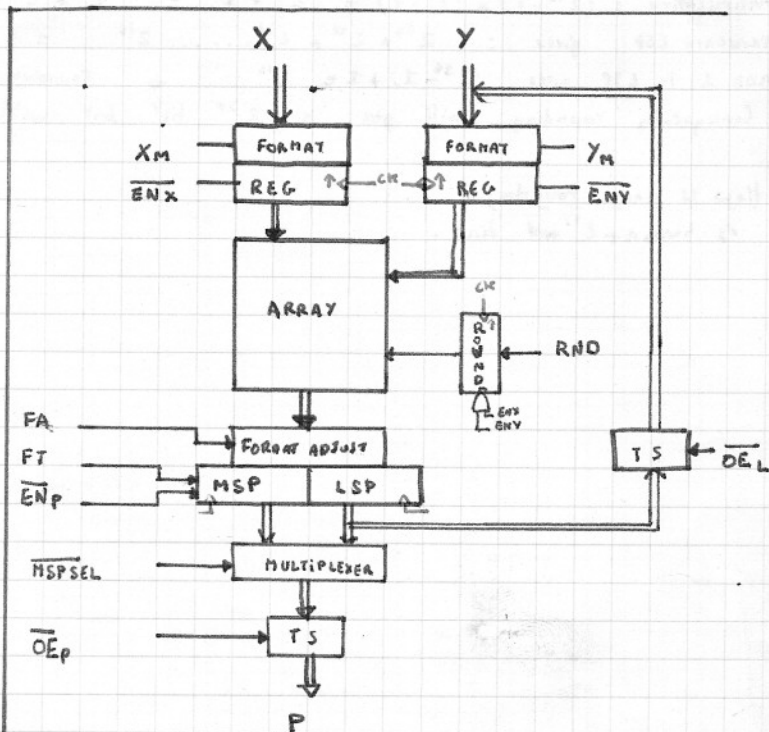
X_n (respectively Y_n) = Integer (0) 2^s Complement input (1)

FA = Format adjust control

Either a full 32-bit product (normal mode) or a left shifted 31-bit product with the sign replicated in the LSP. This format is useful for certain fractional 2^s applications.

\overline{RND} = rounding of MSP

(add 1 to MSB bit of LSP word regardless of shift position)



WHY?

ROUNDING :

MSP	LSP
	1 x x x
	+ 1 0 0 0
	1 0 x x x

Rounding is useful if we keep only the MSP. In this case we round to the nearest value. If we did not add one and truncate the LSP we would do a truncation