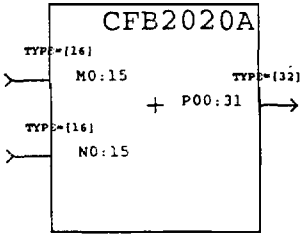
CFB2020A 16x16 2's Complement Multiplier

DESCRIPTION: CFB2020A is a 16-by-16 2's complement multiplier which generates a 32-bit product. By using a modified Booth algorithm, this megafunction gives a reasonable speed and gate count.

LOGIC SYMBOL:



INPUTS (LOADING IN TRANSISTOR PAIRS):
M0(4), M1(4), M2(4), M3(4), M4(4), M5(4), M6(4), M7(4), M8(4), M9(4), M10(4), M11(4), M12(4), M13(4), M14(4), M15(4), N0(4), N1(6), N2(2), N3(6), N4(2), N5(6), N6(2), N7(6), N8(2), N9(6), N10(2), N11(6), N12(2), N13(6), N14(2), N15(6)

OUTPUTS (DDRIVE IN (#P,#N)):
P00(2,2), P01(2,2), P02(2,2), P03(2,2), P04(2,2), P05(2,2), P06(2,2), P07(2,2), P08(2,2), P09(2,2), P10(2,2), P11(2,2), P12(2,2), P13(2,2), P14(2,2), P15(2,2), P16(2,2), P17(2,2), P18(2,2), P19(2,2), P20(2,2), P21(2,2), P22(2,2), P23(2,2) P24(2,2), P25(2,2), P26(2,2), P27(2,2), P28(2,2), P29(2,2), P30(2,2), P31(2,2)

GATE COUNT: GATES USED = 2245
AREA USED = 2427

AC CHARACTERISTICS*:

FROM	TO	10K TYP.DELAY(NS)
ANY M	ANY P	35
ANY N	ANY P	35

* ASSUMING OUTPUT LOADING OF 3