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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G06F 7/52	A1	(11) International Publication Number: WO 99/22292
		(43) International Publication Date: 6 May 1999 (06.05.99)

(21) International Application Number: PCT/US98/22471	(81) Designated States: CA, CN, JP, KP, NO, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).
(22) International Filing Date: 22 October 1998 (22.10.98)	

(30) Priority Data:
08/959,245 28 October 1997 (28.10.97) US

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Published*With international search report.**With amended claims and statement.*

(54) Title: FAST REGULAR MULTIPLIER ARCHITECTURE ✓

(57) Abstract

A multiplier architecture (Fig. 5) in accordance with the present invention provides increased operating speed, and yet maintains regularity in its structure (Figs. 3, 12 or 13) in order to achieve a small floor plan (Fig. 4) when reduced to silicon. A Hekstra-type multiplier is modified by replacing many of the full adders circuits (F) with compressor circuits (C; Figs. 8-11) in a manner that preserves the balance of the signal delays between the various propagation paths through the summing stages (SA, MS). The result is an architecture having a regular layout that greatly facilitates its implementation in silicon.