

Title (en)

DEVICE FOR ELECTRONICALLY CALCULATING A FOURIER TRANSFORM AND METHOD OF MINIMIZING THE SIZE OF INTERNAL DATA PATHS WITHIN SUCH A DEVICE.

Title (de)

ELEKTRONISCHE BERECHNUNGSEINRICHTUNG FÜR DIE FOURIER TRANSFORMATION UND VERFAHREN ZUR MINIMISIERUNG DER INTERNEN DATENWEGE DIESER VORRICHTUNG.

Title (fr)

DISPOSITIF ELECTRONIQUE DE CALCUL D'UNE TRANSFORMEE DE FOURIER ET PROCEDE POUR MINIMISER LA TAILLE DES CHEMINS DE DONNEES INTERNES D'UN TEL DISPOSITIF.

Publication

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Application

EP 94924344 A 19940810

Priority

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- FR 9309865 A 19930811

Abstract (en)

[origin: US5774388A] PCT No. PCT/FR94/00996 Sec. 371 Date Jun. 7, 1995 Sec. 102(e) Date Jun. 7, 1995 PCT Filed Aug. 10, 1994 PCT Pub. No. WO95/04963 PCT Pub. Date Feb. 16, 1995In order to minimize the size of internal data paths within a device with a series or pipelined architecture for calculating a Fourier transform of a predetermined initial size, a sequence of Fourier transform elementary processing operations of predetermined elementary sizes smaller than the initial size are performed on data blocks with successively reduced sizes from one elementary processing operation to the next. A global dynamic value is determined for each data block derived from a current elementary processing operation, based on dynamic values of all of the data of the block. The block data are then reframed, taking into account the global dynamic value, before full subsequent elementary processing on said data is carried out.

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