

Title (en)

Circuit structure of high performance time-to-digital converter

Title (de)

Schaltungsstruktur für einen Hochleistungs-Zeit-Digital-Wandler

Title (fr)

Structure de circuit pour convertisseur temps-numérique haute performance

Publication

EP 1971032 A3 20100203 (EN)

Application

EP 08102491 A 20080311

Priority

CN 200710037977 A 20070312

Abstract (en)

[origin: EP1971032A2] The invention discloses a circuit structure of a high performance time-to-digital converter including a delay link loop generating low bit data, a counter generating high bit data and a compensated control source. The delay link loop counts low bits and sends a thus-generated signal in a specific cycle to the counter. The counter accumulates a period of the signal in the specific cycle as high bits of the time-to-digital converter. The compensated control source compensates and controls a voltage signal of the delay link loop. The invention has the following advantages: a high measurement precision; a fast processing speed; the connection of the outputs of the latches with the high bit counter can ensure correctness of cycle and carry; the introduction of the compensated control source can ensure consistency of the system; and no high requirement is exerted on the components, and hence the circuit structure is easy to implement.

IPC 8 full level

H03M 1/50 (2006.01)

CPC (source: EP)

G04F 10/005 (2013.01)

Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

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