

Title (en)

ANALOG-TO-DIGITAL CONVERTER WITH CONVERSION RATE INVERSE TO THE INTEGRATION PERIOD.

Title (de)

ANALOG-DIGITALWANDLER MIT UMSETZUNGSRATE ENTGEGEN DER INTEGRATIONSPERIODE.

Title (fr)

CONVERTISSEUR ANALOGIQUE/NUMERIQUE A VITESSE DE CONVERSION INVERSE A LA PERIODE D'INTEGRATION.

Publication

EP 0628227 A4 19951108 (EN)

Application

EP 92914242 A 19920225

Priority

US 9201459 W 19920225

Abstract (en)

[origin: WO9317502A1] The present invention provides an analog-to-digital converter including an integrator (22) for charging and discharging a capacitor (24) according to two currents (IN, IP) of opposite direction containing a component of the analog input signal (VIN) which is continuously connected. Also, a control circuit (28) periodically switches on one current which remains until the integrator output reaches a reference level at which time the opposite direction current is switched on. A number of such cycles forms an integration period closely approximating a predetermined period. The control circuit measures the total amount of time of the integration period and also the accumulative amount of time that current flow is in a predetermined direction. From these two times, a digital representation of the analog input signal is calculated. The next integration period begins at the end of the previous to achieve a maximum conversion rate for a given integration period.

IPC 1-7

H03M 1/50

IPC 8 full level

H03M 1/50 (2006.01); **H03M 1/52** (2006.01)

CPC (source: EP)

H03M 1/52 (2013.01)

Citation (search report)

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- [X] WO 9004884 A1 19900503 - ANALOGIC CORP [US]
- [X] WO 9120132 A1 19911226 - HONEYWELL INC [US]
- [X] DE 3041954 A1 19820513 - SIEMENS AG [DE]
- See references of WO 9317502A1

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DOCDB simple family (publication)

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