

Title (en)

SIGNAL PROCESSING AND POSITION DETERMINING APPARATUS AND METHODS

Title (de)

SIGNALVERARBEITUNGS- UND POSITIONSBESTIMMUNGSVORRICHTUNGEN UND -VERFAHREN

Title (fr)

DISPOSITIF ET PROCEDES DE DETERMINATION DE POSITON DE TRAITEMENT DU SIGNAL

Publication

EP 1859226 A1 20071128 (EN)

Application

EP 06704955 A 20060303

Priority

- AU 2006000282 W 20060303
- AU 2005901050 A 20050304

Abstract (en)

[origin: WO2006092026A1] Signal processing apparatus, e.g. a resolver-to-digital converter (30), converts an analogue input, e.g. sinusoidal signals such as resolver signals V_{\sin} , V_{\cos} , into a digital output, e.g. an angular position and angular speed for a rotor. A first processing unit (31), e.g. a quadrature encoder, monitors the input at a first resolution to produce a first tracking error e_1 between the digital output and the analogue input, and a second processing unit (32), which e.g. samples the input signals and e.g. applies a sine cosine function or an arctan function, monitors the input at a second resolution higher than the first resolution to produce a second tracking error e_2 between the digital output and analogue input. The apparatus determines the digital output based on the first or second tracking error, e.g. through processing with a filter (33), and includes a switch (34) for switching between the two errors so as to promote tracking stability. Switching may for example be based on a comparison of the first error signal e_1 with a threshold value, e.g. a maximum error value.

IPC 8 full level

G01B 7/30 (2006.01); **H03M 1/12** (2006.01)

CPC (source: EP KR)

G01B 7/30 (2013.01 - KR); **G01D 5/2073** (2013.01 - EP); **H03M 1/12** (2013.01 - KR); **H03M 1/303** (2013.01 - EP)

Citation (search report)

See references of WO 2006092026A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2006092026 A1 20060908; CA 2599693 A1 20060908; CN 101147041 A 20080319; EP 1859226 A1 20071128; JP 2008532017 A 20080814; KR 20070116850 A 20071211

DOCDB simple family (application)

AU 2006000282 W 20060303; CA 2599693 A 20060303; CN 200680006699 A 20060303; EP 06704955 A 20060303; JP 2007557288 A 20060303; KR 20077022627 A 20071004