Title (en)

HIGH-PRECISION MEASURING METHOD AND APPARATUS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HOCHPRÄZISEN MESSUNG

Title (fr)

PROCEDE ET APPAREIL DE MESURE HAUTE PRECISION

Publication

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Application

EP 02801990 A 20021024

Priority

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- US 98343001 A 20011024

Abstract (en)

[origin: WO03036321A2] A method and apparatus for measuring a predetermined parameter having a known relation to the transit time of movement of an energy wave through a medium according to International Application PCT/IL00/00241, published 9 November 2000 as International Publication No. WO 00/67013, wherein the transmitted and received cyclically-repeating energy wave is an electromagnetic carrier wave amplitude-modulated by a cyclically-repeating electromagnet modulating wave. The received amplitude-modulated carrier wave is demodulated, and the fiducial point of the demodulated wave is utilized to change the frequency of the modulating wave such that the number of received demodulated waves is a whole integer. According to a further feature, the received demodulated wave may be shifted by a whole-integer multiple of 360(before being utilized to change the frequency of the modulating wave, in order to add an artificial distance to the measurement, e.g., when a relatively high frequency is used and thereby a relatively small wavelength is involved, or when otherwise there is a relatively short transit distance between the transmitter and the receiver.

IPC 1-7

G01S 1/00

IPC 8 full level

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