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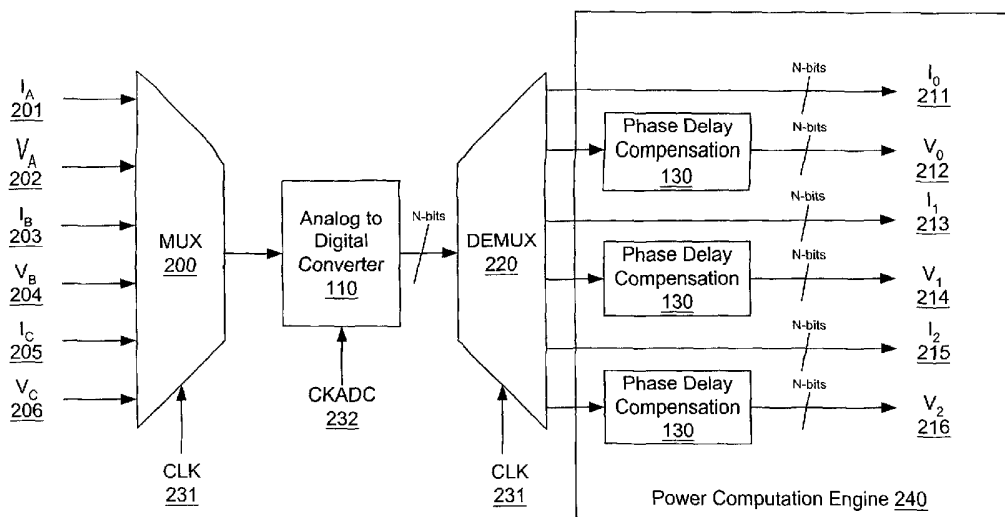
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(54) Title: METHOD AND APPARATUS FOR OBTAINING POWER COMPUTATION PARAMETERS



(57) Abstract: A method and apparatus for obtaining power computation parameters is presented. Accurate computation of power requires multiplying voltage and current at the same instant of time and integrating the results over time. The present invention provides a method of using a single Analog to Digital Converter to convert both voltage and current for all the phases of any electrical system and then digitally compensating for the phase error caused by the nonsimultaneous sampling of the current and voltage signals. The compensating filter could be implemented as a simple interpolator, an all-pass filter, or a combination of both. A single multiplexer is used to select which signal is processed by the Analog to Digital Converter. By scheduling and converting the voltage and analog signals one at a time, potential for crosstalk is significantly reduced, power requirement is reduced, and die size requirement is reduced.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 03/25908

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G01R21/133

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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X	US 6 239 589 B1 (WINDSHEIMER) 29 May 2001 (2001-05-29)  column 1, line 63 - column 2, line 53 column 3, line 51 - column 4, line 11 column 4, line 40 - line 48 column 4, line 62 - column 5, line 22 column 5, line 53; figures 1-3	1-3, 5, 8, 9, 11-14, 16
A	GB 1 575 289 A (HELIOWATTWERKE) 17 September 1980 (1980-09-17) page 1, line 57 - line 75	1, 8, 12
A	GB 1 575 148 A (HELIOWATTWERKE) 17 September 1980 (1980-09-17) page 9, line 37 - line 44; figures 2-5	1, 8, 12
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	IWANSSON ET AL.: "Measuring Current Voltage and Power" 1999, ELSEVIER SCIENCE , AMSTERDAM , XP002269086 page 160 - page 164 page 186 -----	

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