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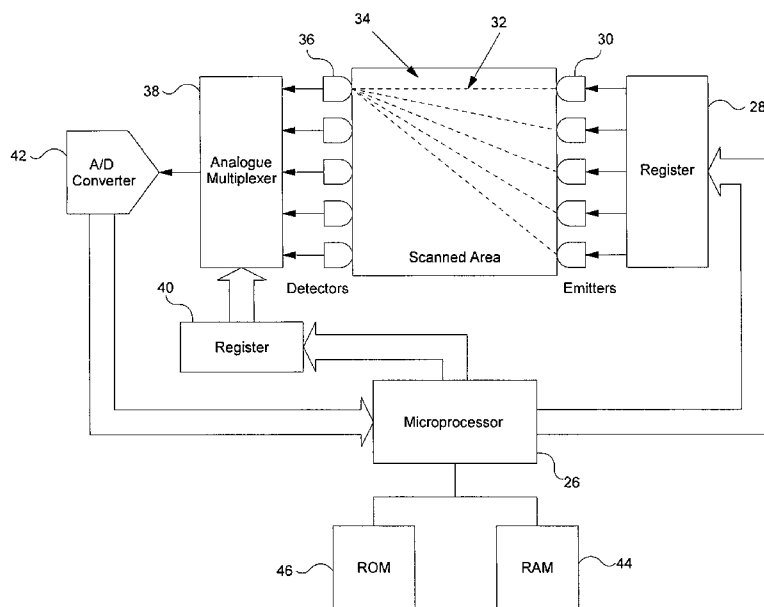


Fig. 2

(57) Abstract: An optical control system is described, which employs a series of optical emitters and detectors arranged about a touch area. The emitters are driven by a series of orthogonal functions, and the system is operable to correlate the signals received at the detectors with the modulation functions to determine the amount of energy received by the detectors from each of the emitters. This system means that all or many emitters can be modulated simultaneously, so the scanning process is accelerated. Also, the energy estimates arrived at by correlation with the modulating functions are largely unaffected by external interference signals as well by each other. An additional benefit of the present invention is that the correlation processing makes use of many detector samples and tends to yield results which have higher resolution than the sample values themselves, due to the averaging of noise over the sample set.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06F

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)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/40922 A2 (ELO TOUCHSYSTEMS INC [US]; MASTERS TIMOTHY E [US]; KNETSCH ROBERT W [U] 7 June 2001 (2001-06-07) page 10, line 1 - line 6; figure 3	1-11
A	US 4 893 120 A (DOERING ROGER W [US] ET AL) 9 January 1990 (1990-01-09) abstract	1-11

 Further documents are listed in the continuation of Box C. See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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