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13/363,894 1 February 2012 (01.02.2012) US(71) Applicant (for all designated States except US): **OPTO-ELECTRONICS CO., LTD.** [JP/JP]; 12-17, Tsukagoshi 4-chome, Warabi-shi, Saitama Pref., 335-0002 (JP).(71) Applicant (for all designated States except US): **OPTICON, INC.** [US/US]; 2220 Lind Avenue SW, Suite 100, Renton, WA 98057 (US).

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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR NOISE REDUCTION IN A BAR CODE SIGNAL

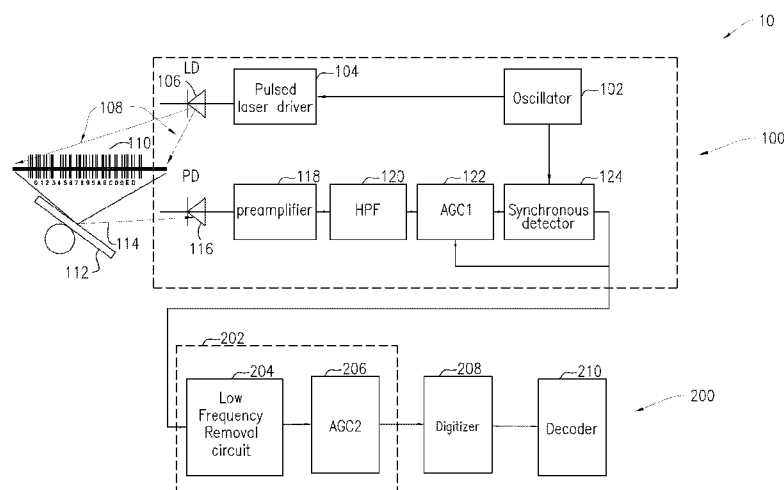


FIG. 1

(57) Abstract: A system and method for reading a bar code are disclosed which may include transmitting light pulsed at a selected frequency to illuminate the bar code; converting light received at the bar code reader from the bar code into an electrical signal; transmitting the electrical signal through a signal conditioning circuit to filter and amplify the electrical signal, to thereby provide a conditioned electrical signal; sampling the conditioned electrical signal at the selected frequency; removing energy due to light scattering within a housing of the bar code reader from the sampled, conditioned electrical signal; generating one of a logical "1" and a logical "0" output based on a value of the signal generated by the step of removing; and resolving output from the step of generating into data indicative of information on the bar code.



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## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
 INV. G06K7/10  
 ADD.

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)  
 G06K

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 practicable, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 811 087 B2 (NAKAMURA NORIO [JP] ET AL) 2 November 2004 (2004-11-02) cited in the application column 4, line 1 - column 8, line 43; figures 3,10	1-4,8,9, 14-35
A	US 5 550 362 A (SHERMAN DAVID M [US]) 27 August 1996 (1996-08-27) the whole document	1,14,19, 35
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A	US 5 028 771 A (YANG KEUN Y [KR]) 2 July 1991 (1991-07-02) the whole document	1,14,19, 35



Further documents are listed in the continuation of Box C.



See patent family annex.

## \* Special categories of cited documents :

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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