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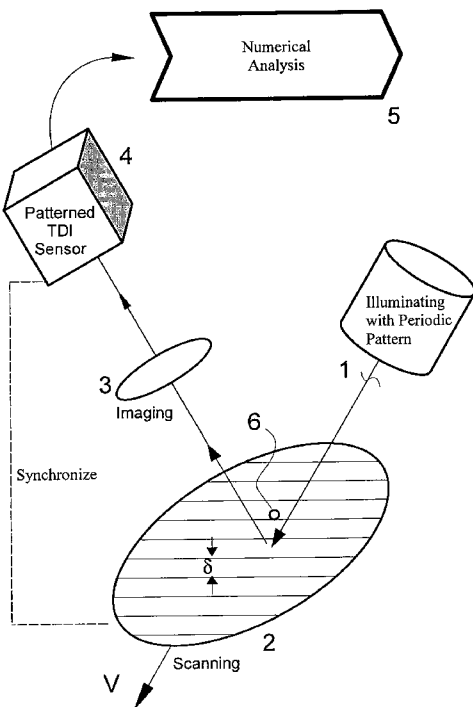


Figure 1

(57) Abstract: A patterned TDI sensor comprising an array of pixels hav-  
ing respective sensitivities to light that varies according to a periodic pat-  
tern across said array of pixels, for high throughput applications of imag-  
ing and measurement with patterned illumination such as structured illu-  
mination, Moire techniques, 3D imaging and 3D metrology. An object is  
measured by scanning the object with illumination that varies periodically  
across the object, imaging the object with a patterned TDI sensor having a  
repetition length matched with the repetition length of the illumination  
and analyzing the output signal of the TDI sensor to extract information  
such as height or image of the object.

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**INTERNATIONAL SEARCH REPORT**

International application No.

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - G01B 11/24 (2009.01)

USPC - 356/601

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)

USPC - 356/601

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
USPC - 356/237.1-237.6,601-606; 250/208.1,204; 348/295; (text searched)

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

Data bases searched: Pubwest (PGPB, USPT, EPAB, JPAB); Google Patents; Google Scholar

Search terms used: timed delayed integration, TDI, periodic pattern illumination, structured illumination, Moire, structured patterning, periodic patterning, array, pixel, plurality of columns, phase shift

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category*       | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.                |
|-----------------|---|--------------------------------------|
| X<br>-----<br>Y | US 2003/0184726 A1 (LAURENT et al.) 2 October 2003 (02.10.2003) paras 0040-0044, 0047, 0062, 0064-0067                                  | 1, 7 and 13<br>-----<br>2-6 and 8-12 |
| Y               | US 7,242,464 B2 (HANSEN et al.) 10 July 2007 (10.07.2007) col 2, ln 62-65; col 5, ln 34-37; col 6, ln 52-67; col 10, ln 16-40; figure 4 | 2-6, and 8-12                        |

Further documents are listed in the continuation of Box C.

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