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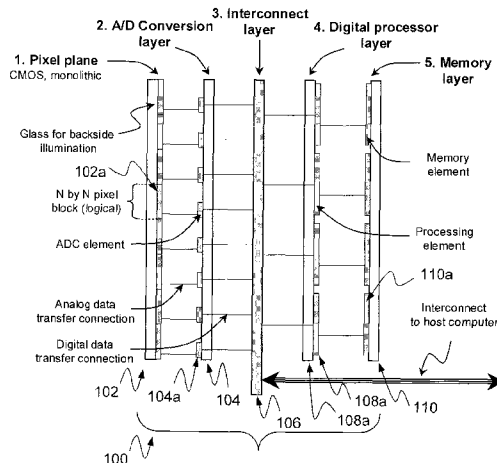
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(54) Title: SYSTEM AND METHOD FOR HIGH PERFORMANCE IMAGE PROCESSING

Figure 1A



(57) Abstract: The present invention provides a method and a system for high performance image signal processing of continuous images in real time. The system comprising a focal plane array for generating continuous source image frames in real time. The focal plane array divided logically into blocks of sub-frames. The system also comprising an analog to digital converter (ADC) layer having an array of ADC elements for converting the source image frames into a digital data. The system further comprising a digital processor layer having an array of processing elements for processing the digital data and an interconnecting layer for connecting each one of the ADC elements and the digital processing elements substantially vertically to the focal plane and substantially parallel to one another. The processing comprising reducing image motion blur, increasing image dynamic range, increasing image depth of field and obtaining features of the images.

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## INTERNATIONAL SEARCH REPORT

International application No.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H04N 9/64 (2008.01)

USPC - 348/571

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: 348/571Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
USPC: 348/222.1, 571, 572; 358/448, 530 (view text search terms below)Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
pubWEST(PGPB,USPT,EPAB,JPAB; PLUR=YES); DialogPRO(Engineering); Google Scholar; Text search terms: high performance image signal processing continuous images real time, focal plane array, generating continuous source image frames real time, focal plane array divided logically blocks sub-frames, analog digital converter (ADC)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X - Y	US 2004/0109059 A1 (KAWAKITA) 10 June 2004 (10.06.2004) entire document, especially Abstract and para [0029]-[0030], [0224], [0227]-[0228], [0259], [0413] and [0499]	1-7 --- 8-9
X - Y	US 5,773,832 A (SAYED, et al.) 19 December 2000 (19.12.2000) entire document, especially Abstract and (col 1, ln 23-26 and 53-58), (col 2, ln 5-8), (col 3, ln 10-12), (col 5, ln 15-19), (col 6, ln 34-38), (col 7, ln 8-10 and 41-47) and (col 11, ln 66)-(col 12, ln 2)	10, 13-16, 20-24 ----- 11-12, 17-19
Y	US 2005/0131607 A1 (BREED) 16 June 2005 (16.06.2005) entire document, especially Abstract and para [0110] and [0602]	8-9, 11-12, 17-19
A	NI, Yang et al. 'Histogram-equalization-based adaptive image sensor for real-time vision'. In IEEE Journal of Solid-State Circuits, July 1997, vol.32, issue 7, p.1027-1036. [retrieved on 2008-01-30]. Retrieved from the Internet: <URL: http://www.imec.be/esscirc/papers-96/172.pdf >	1-24

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"&amp;" document member of the same patent family

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