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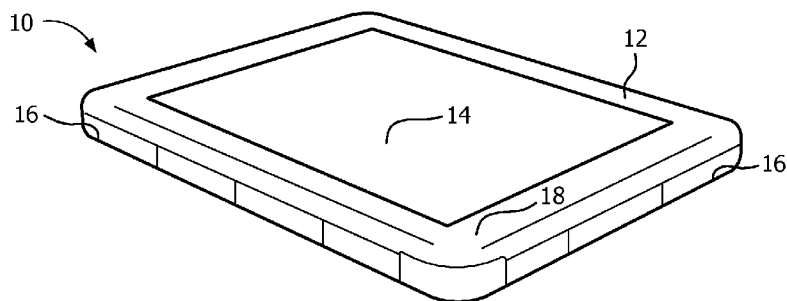


FIG. 1

(57) Abstract: A portable imaging system for imaging a region of interest (ROI) includes a housing (12), a radiation detector (16) mounted to the housing (12), the detector generating radiation data indicating a location of gamma photon strikes on the detector, a motion sensor (20) which senses motion of the detector and outputs motion data indicative of the location and orientation of the detector at the time of each gamma photon strike, and at least one processor (22, 26) programmed to receive the radiation data from the radiation detectors (16) and the motion data from the motion sensor (20) and reconstruct a 3D volume image of the ROI from the received radiation and motion data.



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**A. CLASSIFICATION OF SUBJECT MATTER**  
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 ADD.

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

**B. FIELDS SEARCHED**

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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)  
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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.
X	US 2004/054248 A1 (KIMCHY YOAV [IL] ET AL) 18 March 2004 (2004-03-18)	1-6, 9-18,20
Y	paragraphs [0080], [0081], [0115], [0238] - [0244]; figures 1,12,28	7,8,19
Y	US 2005/202844 A1 (JABRI KADRI N [US] ET AL) 15 September 2005 (2005-09-15)	7,8,19
	paragraphs [0033], [0034], [0046]; figures 1,3,5	
A	US 2007/269010 A1 (TURNER D CLARK [US]) 22 November 2007 (2007-11-22)	1-20
	paragraphs [0019], [0035], [0036]; figures 1,4	
A	US 2008/029707 A1 (KARI NIRMAL MUKUND [US] ET AL) 7 February 2008 (2008-02-07)	1-20
	paragraphs [0032], [0039]; figure 2	

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

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