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[Continued on next page]

(54) Title: APPARATUS, IMAGING DEVICE AND METHOD FOR COUNTING X-RAY PHOTONS

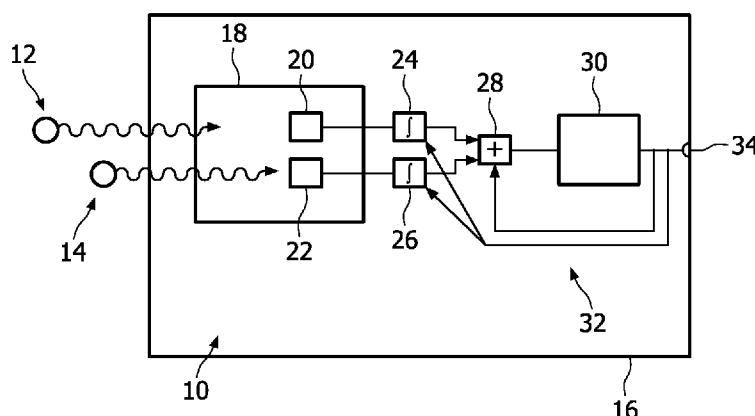


FIG. 1

(57) Abstract: The invention relates to an apparatus (10) for counting X-rayphotons (12, 14), in particular photons in a computer tomograph. The events from a first photon-sensitive element (20) are recorded in a first integrator (24), and the events coming from a second photon-sensitive element (22) are counted in a second integrator (26). A first summing unit (28) is provided for summing the values from the first and second integrators (24, 26) and a result signalto obtain a sum, wherein the result signal is obtained from a feedback device (30) being provided with the sum. It is there possible to reduce a total information density generated by the impinging photons (12, 14), so that a data stream with a reduced information density (or reduced data rate) is present at an output (34). The invention also relates to a corresponding imaging device (16) based on the detection of X-rayphotons (12, 14), in particular for medical use and to a method for counting X-rayphotons (12, 14), in particular photons in a computer tomograph.



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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 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 2005/069601 A (PHILIPS INTELLECTUAL PROPERTY [DE]; KONINKL PHILIPS ELECTRONICS NV [NL] 28 July 2005 (2005-07-28) page 1, line 6 - line 12; figures page 3, line 1 - line 4 page 3, line 32 - page 4, line 18	1,11
A	PAIN B ET AL: "LOW-POWER LOW-NOISE ANALOG CIRCUITS FOR ON-FOCAL-PLANE SIGNAL PROCESSING OF INFRARED SENSORS" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA; US, vol. 1946, 14 April 1993 (1993-04-14), pages 365-374, XP000578669 abstract; figures page 369, paragraph 3.1 - page 370, paragraph 3.2	1,11

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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O document referring to an oral disclosure, use, exhibition or other means

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

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