

Title (en)

RADIATION DETECTOR COMPRISING A CIRCUIT FOR INJECTING A CALIBRATED QUANTITY OF COUNTER-CHARGES

Title (de)

STRAHLUNGSDETEKTOR MIT EINER SCHALTUNG ZUR EINSPEISUNG EINER KALIBRIERTEN MENGE VON GEGENLADUNGEN

Title (fr)

DETECTEUR DE RAYONNEMENT COMPRENANT UN CIRCUIT D'INJECTION DE CONTRE-CHARGES EN QUANTITE CALIBREE

Publication

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Application

EP 12730909 A 20120625

Priority

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Abstract (en)

[origin: WO2013000849A2] The invention relates to an electronic circuit especially comprising: a comparator (12) receiving a threshold potential (Vcomp) and the potential of an integration node (N), said node being able to store electrical charges generated by a photosensitive element (11); a meter (13) connected at the outlet of the comparator (12); and a circuit (41) for injecting counter-charges. Said injection circuit comprises: a capacitor (143) storing counter-charges; a transfer transistor (M2) that can be controlled in the conducting state for transferring counter-charges from a terminal (A) of the capacitor (143) to the integration node (N) on every oscillation of the comparator (12), the transfer of the counter-charges triggering a variation of a potential (Va) at said terminal (A) of the capacitor (143); and a regulation circuit (42) for controlling the transfer transistor (M2), said regulation circuit comprising means (425) for controlling the transfer transistor (M2) in the conducting state when the potential at the terminal (A) of the capacitor (143) is between two pre-determined potentials (Vp2, Vcomp2) that are independent of the transfer transistor (M2).

IPC 8 full level

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