

Patent title:	Solid-state photomultiplier device with high spatial resolution and control method for said photomultiplier device.
FBK center:	CMM – Center for Materials & Microsystems
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Abstract:	A solid-state photomultiplier device comprising a surface (2) sensitive to photons (F) provided on a semiconductor substrate (3) and provided with a plurality of light sensitive microcells (4) divided into a plurality of sub-groups arranged one after the other according to a pre-established trajectory. The device comprises a plurality of current dividers (7), each of which is electrically connected to at least one of the sub-groups, and where each of the current dividers (7) comprises a first resistor (71) and a second resistor (72) to implement a current partition of the resistive type. The first resistors (71) and the second resistors (72) respectively have a gradually descending and gradually increasing conductance value in proportion to the position along the pre-established trajectory of the sub-group to which each of the current dividers (7) is electrically connected. The device also comprises a first output channel (10) electrically connected to one end of the first resistors (71) and a second output channel (11) electrically connected to one end of the second resistors (72).