

Title (en)
MULTI-PHOTODETECTOR UNIT CELL

Title (de)
MEHRFACHDETEKTORZELLEINHEIT

Title (fr)
CELLULE A PLUSIEURS PHOTODETECTEURS

Publication
EP 1205064 A4 20050601 (EN)

Application
EP 00948237 A 20000730

Priority
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• US 14596199 P 19990729

Abstract (en)
[origin: WO0110117A1] A multi-cell cluster (12) which includes a plurality of light-detecting unit cells (14) and a single charge-integration and readout circuitry (27). Typically, each of the cells produces charge representative of the detected light. The circuit may be shared by the plurality of unit cells, and used to read-out the charge in real-time. The cluster (12) may also include a switch associated with each unit cell, such that each switch connects its associated unit cell to the circuit. The switch may also be controlled in a time-multiplexing manner. Each unit cell may include a photodetector (22), a photodiode, or a photogate. The circuit may include a shared storage device, a shared reset circuit, or a readout circuit (27). Typically, the shared storage device may be for accumulating the charge in the focal plane. The here-above described apparatus facilitates either static or dynamic, either local or global image resolution/sensitivity tradeoffs.

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H04N 5/335

IPC 8 full level
H01L 27/146 (2006.01); **H04N 25/00** (2023.01)

CPC (source: EP)
H04N 25/46 (2023.01); **H04N 25/778** (2023.01)

Citation (search report)
• [X] EP 0757476 A2 19970205 - CANON KK [JP]
• [PX] US 6091449 A 20000718 - MATSUNAGA YOSHIYUKI [JP], et al
• [X] US 5220170 A 19930615 - COX JOHN D [US], et al
• See also references of WO 0110117A1

Designated contracting state (EPC)
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WO 0110117 A1 20010208; AU 6179400 A 20010219; EP 1205064 A1 20020515; EP 1205064 A4 20050601; JP 2003506926 A 20030218

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