



*Biomedical imaging, in particular
Positron Emission Tomography PET
and PET/MRI, and Physics
experiments.*

RIFERIMENTI E LINK

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DESCRIPTION

8x16-pixel array (16x16-pixel also available) CMOS Silicon Photomultipliers (SiPM) for PET applications. Each pixel is 570x610 μ m² and consists of 720 SPADs, two 12-b 64-ps TDCs and two 7-b photon counters. Total counts are externally provided at 100M samples/s while internal discriminator logic allows an efficient cancellation of non-gamma events.

SPECIFICATIONS

- Technology: CMOS Image Sensors 130-nm with TSVs
- Pixel-array fill factor=42.6%
- Real-time digital activity monitor
- Energy resolution coupled to 3x3x5mm³ LYSO=10.8%
- Coincidence CRT=288ps

ADVANTAGES & APPLICATIONS

- Healthcare
- Microsystems

STATUS

- TRL 5 - technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- Patent granted: EP 2541219 A1