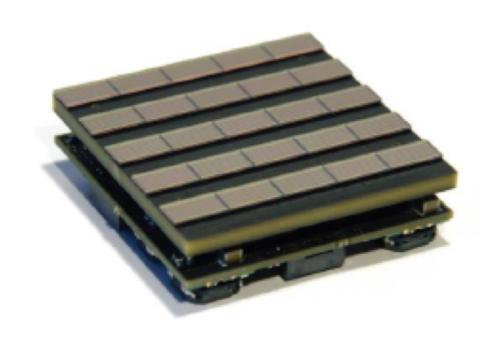
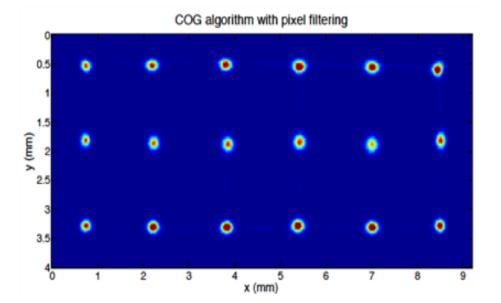


CMOS Silicon Photomultipliers





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 570x610um2 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%
- Concidence 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



KTA – Knowledge Transfer Area

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