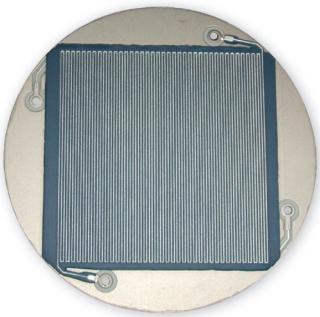
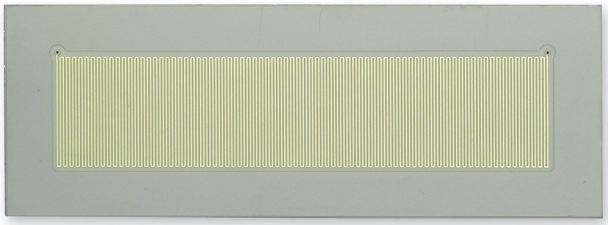
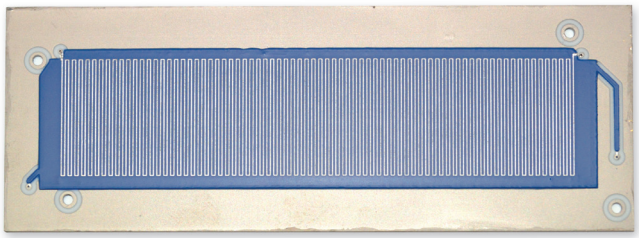
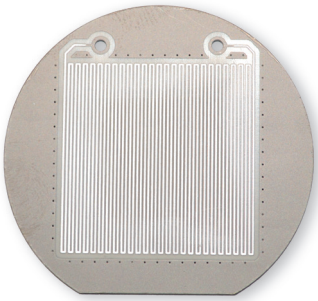
Delay-Line (1D) and Cross Delay-Line (2D) Detectors

High count rate, high spatial and time resolution, single particle detection









HIGHLIGHTS

FEATURE	BENEFIT
Working in “counting mode”(NOT in integration of charge)	Extremely linear
Single count x, y and t information availability	Essential in time resolved acquisitions
Cross delay anodes techniques for position decoding	Intrinsically suitable for timing information

HOW DOES IT WORK?

The Delay-Line (1D) and Cross Delay-Line (2D) Detectors are part of the acquisition chain in the 3D (x, y, t) High Count Rate Detectors. The electromagnetic pulses generated by charge amplifiers (i.e. MicroChannel Plates) propagate through the delay lines, reaching the ends of the path at different times; these differences are used to calculate the hit position and time.

The detector’s mechanical assembly can be made suitable for mounting on most commercial electron analysers.

SPECIFICATIONS

2-D detector size	30 x 30 mm 90 x 20 mm 46 x 46 mm
2-D detector size, in "equivalent pixels"	30 x 30 mm: 740 x 740 90 x 20 mm: 2200 x 490 46 x 46 mm: 2900 x 2900

DELIVERABLES

- RUD-RFLN-XLS, Pulse Amplifier
- PIT-RFLN, Wide Bandwidth Pulse Amplifier
- CFD V2.0, Constant Fraction Discriminator
- THR02-TDC, Advanced 4-Channel Time to Digital Converter
- **Coming soon:** THR02-TAC, Advanced 4-Channel Time to Analogue Converter

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Contact us!

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