

Hybrid PMT

“The hybrid photodetector's structure is similar yet different from a conventional PMT. Like PMTs, the HPD is a vacuum tube with a photocathode that detects light, an electron multiplier that multiplies electrons, and an output terminal that outputs an electrical signal. But unlike PMTs which use multiple dynodes as electron multipliers, the HPD uses a silicon avalanche diode (AD) instead”¹⁾

PicoQuant integrates Hybrid PMT tubes into a convenient assembly called [PMA Hybrid](#).

The PMA Hybrid is a compact single photon sensitive detector based on a fast hybrid photomultiplier tube with peltier cooler to reduce the dark count rate. The detector includes a high voltage power supply and pre-amplifier with overload protection and emergency shut down procedure if the detector count rate reaches a critical limit.

¹⁾

continue reading on the [Hamamatsu](#) website.

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