MPPC Array Detector Readout System

TechnoAP

GIS-MPPC

SYSTEM

Low cost, multi-channel, and space-efficient.

The ASIC chip for MPPC array readout integrates 64 channels of DISCRI, QDC, and TDC, enabling the creation of an imaging system with up to 491,520 channels. It offers exceptional time resolution, high counting rate performance, and outstanding cost efficiency. This makes it ideal for applications in high-energy physics, astrophysics, nuclear medicine, material and life sciences, and non-destructive testing, driving innovation across these fields.
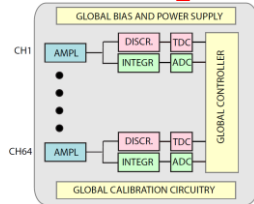
Temperature compensation Built-in programming

Scintillator + MPPC (8x8)
The scintillator is changeable.

ASIC
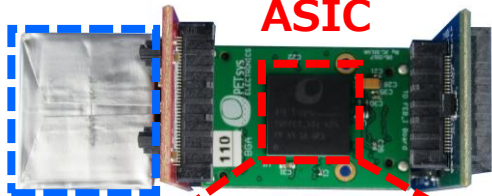
Block Diagram


DAQ Board

Clock&Trigger Board

FEB/D1k

Optical cable

FEM128
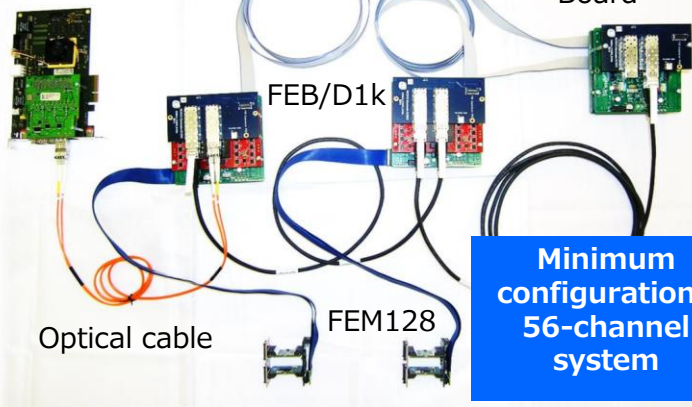
Minimum configuration2 56-channel system

■ System configuration example

Photodetector Semiconductor Element (MPPC)	Hamamatsu Photonics 8x8 array S13361-350Ax-08
Scintillator	LYSO 3 x 3 x 20 mm^2
Radiation source	^{22}Na
ASIC	TOFPET2 ASIC by PETsys Electronics.
Operating System	The English translation for your text is: Linux CentOS 7 Recommended Image Resolution: HD (1366x768) or higher.
Data Collection Software	Platform : Python、C++ Sample source code available.
Measurement	QDC mode List data output by selecting TOT mode.
Communication I/F	Ethernet TCP/IP 1000Base-T Maximum output data rate: 3.2 Gb/s.
Power consumption	+12V、Up to 4.0A

Energy Spectrum

Time Spectrum

PETsys Electronics
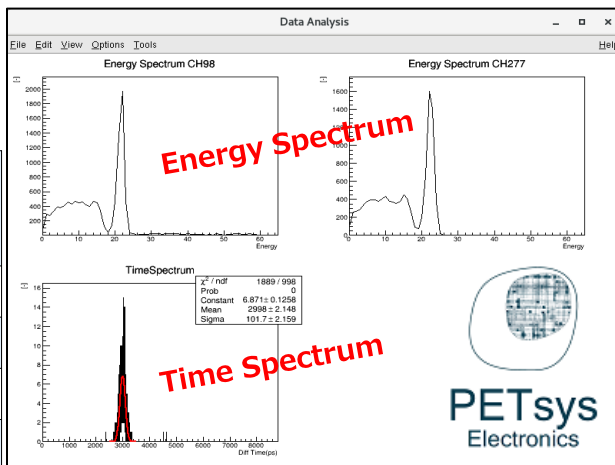
Up to 491,520 channels system construction possible

Our company has exclusive rights to sell PETsys Electronics products in Japan, and we are introducing these products to those who wish to build measurement systems with low cost, multiple channels, and space efficiency.

https://www.petsyselectronics.com/web/public/team

*Images is for illustration purpose.
*Please note that contents may change without prior notice.