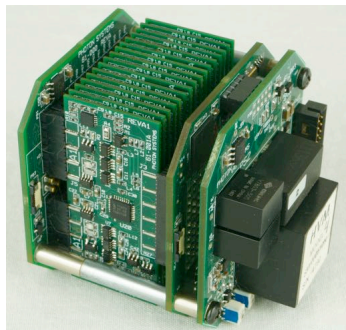# 32 Channel
Digital Gated Boxcar Integrator and Averager

Direct interface to Photon Systems Deep UV laser

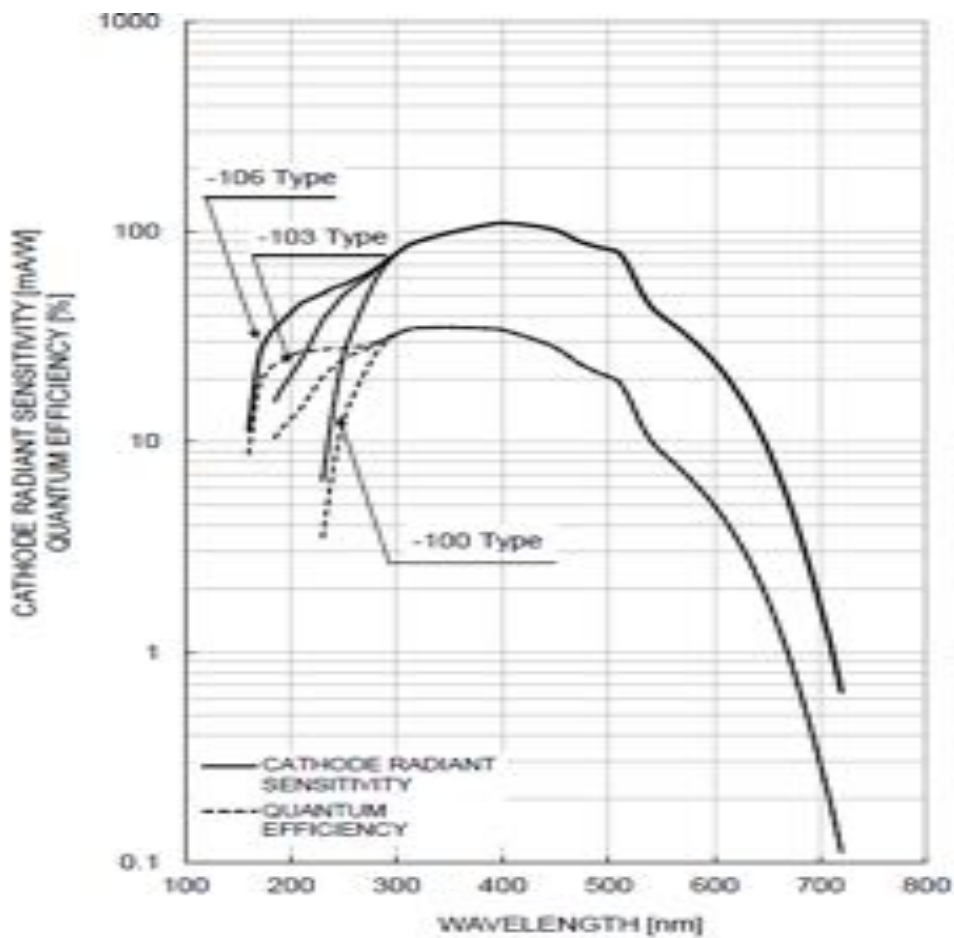### Applications:

✓ **Direct laser induced resonance fluorescence and/or Raman analyzer for:**
  - ➤ Targeted chemical sensing
  - ➤ Explosives Detection
  - ➤ Surface contamination profiling
  - ➤ Municipal and Industrial waste water contamination
  - ➤ Soil contamination profiling
  - ➤ Aerosol detection

✓ **Laser Induced Native Fluorescence (LINF)**
  - ➤ CE
  - ➤ HPLC

✓ **Direct laser induced Photoluminescence probe for:**
  - ➤ Wide Band Gap Semiconductors

✓ **Any Other Applications Using Pulsed Sources**

Features:
- **PMT Array Controller for Hamamatsu 32 Channel PMT Array Module, H7260**
- **Up to 1000X better signal to noise than CW detectors**
- **Dual Serial port, RS488 Full Duplex**
- **32Bit, 75Mips Processor with 256K RAM and 256K Flash**
- **24 Bit Delta-Sigma Data Converter, 16bit data resolution**
- **Digital PMT gain control, 4 decades, to $4X10^6$ total gain.**
- **On board temperature sensor**
- **On board Digital addressable Self Test circuit for integration calibration**
- **On board system offset voltage controller**
- **4 switchable feedback elements, ie. 4 decade integration capacitors or 3 capacitors and 1 resistor for real time data acquisition**
- **Fully adjustable start/finish integration parameters, 2us- seconds**
- **LabView or equivalent controllable**
- **Directly interfaces with PSI 224nm or 248nm deep UV lasers for excitation and detection of resonance fluorescence or Raman scattering in multiple wavebands**
- **PMT Array—Hamamatsu #H7260 @ www.Hamamatsu.com**

PHOTON SYSTEMS

Hamamatsu H7260 Performance

32 Channel Detector
Gated Box Car integrator with variable Gain, integration windows, 24 bit A-D conversion, Ganged RS422