PMT/PhotoDiode Controller with Digital Gated Boxcar Integrator and Averager

Direct interface to Photon Systems Deep UV laser

Applications:

✓ **Laser Induced Native Fluorescence (LINF)**
   ➢ *CE*
   ➢ *HPLC*

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

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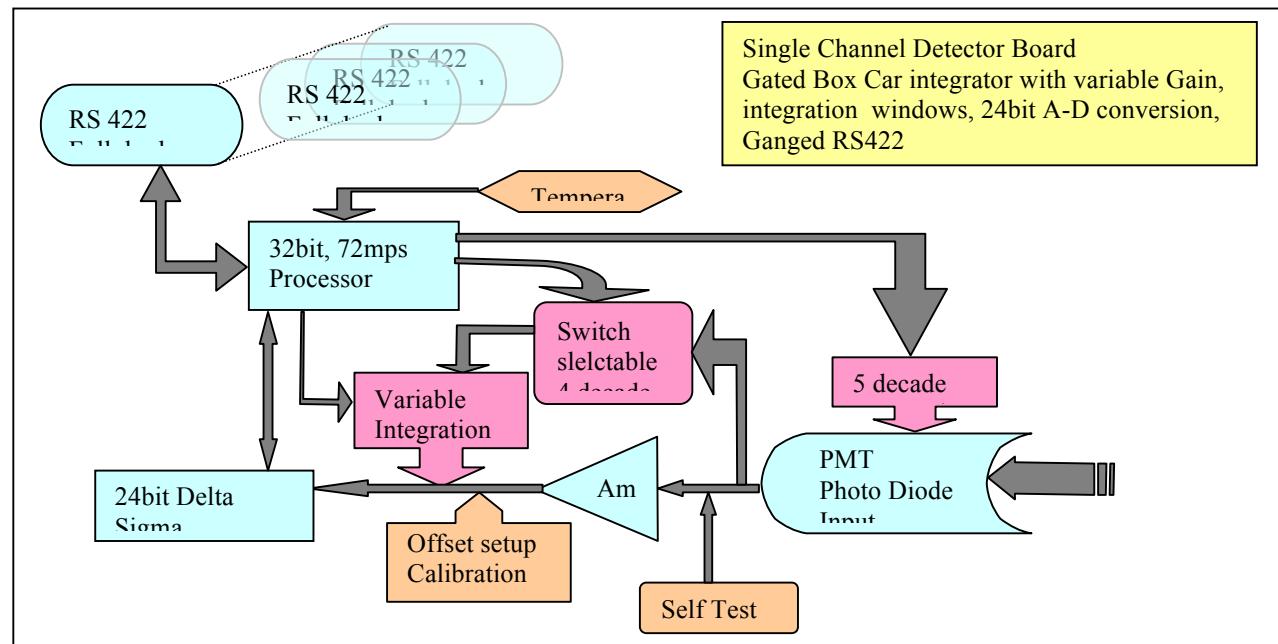   ➢ *Wide Band Gap Semiconductors*

Features:

- *Dual Serial port, RS488 Full Duplex*
- *32Bit, 75Mips Processor with 256K RAM and 256K Flash*
- *Hamamatsu PMT Module or Photo Diode (Photo-Voltaic mode) input*
- *24 Bit Delta-Sigma Data Converter, 16bit data resolution*
- *Digital PMT gain control, 4 decades, to 4×10^6 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*
- *Daisy Chain multi boards controls, samples and digitizes up to 'n' simultaneous PMT/detector outputs*
- *Directly interfaces with PSI 224nm or 248nm deep UV lasers for excitation and detection of resonance fluorescence or Raman scattering in multiple wavebands*
- *PMT's—Hamamatsu #H6779, H6780, H5784 @ www.Hamamatsu.com*

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

RS 422
RS 422
RS 422

RS 422
Full-du...

RS 422
Full duplex...

Tempera

32bit, 72mps Processor

Switch slelctable
4 decade

Variable Integration

5 decade

24bit Delta Sigma

PMT Photo Diode Input

Am

Offset setup Calibration

Self Test

PHOTON
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