

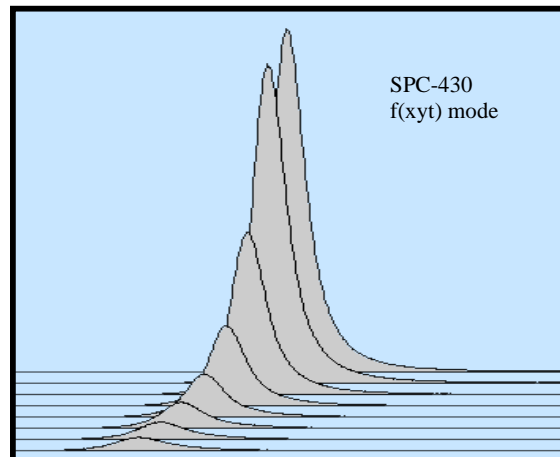
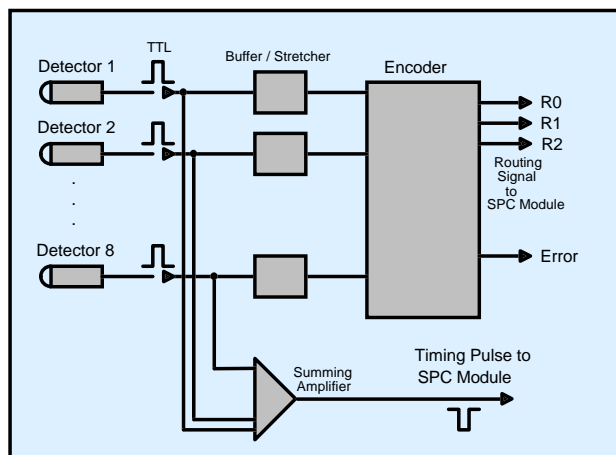
# HRT-82

## 8 Channel TCSPC-Router for APD Modules

- Connects up to eight separate APD modules to one bh TCSPC module
- Simultaneous measurement in all detector channels
- Applicable with SPCM-AQR Modules and other TTL Output Detectors
- Count Rate > 3 MHz



The HRT-82 module is used to connect up to eight individual avalanche photodiode (APD) detectors to one of the time-correlated single photon counting modules SPC-xx0. The photons from the individual detectors are routed into different curves in the SPC memory. Thus the measurement yields a separate decay function for each of the detectors. Typical applications are fluorescence depolarisation measurements or simultaneous decay measurements at different wavelegths.

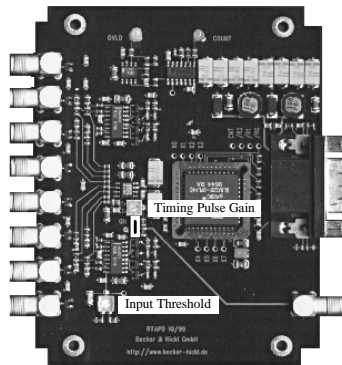


# HRT-82

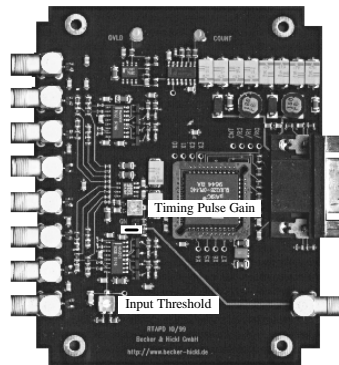
## Specification

Input Polarity	positive
Input Voltage	TTL, 1.2 V to 5 V
Input Threshold	adjustable from 0.1 V to 2 V
Input Impedance	50 $\Omega$
Input Pulse Duration	8 ns to 60 ns
Input Connectors	SMA
Timing Output Polarity	negative
Timing Output Voltage (2.5 V Input)	120 mV or 60 mV into 50 $\Omega$ (Jumper)
Timing Output Impedance	50 $\Omega$
Timing Output Connector	50 Ohm, SMA
Delay Difference between Channels	max. 60 ps per Channel
Routing-Signal	TTL 3 bit + Error Signal
Routing Signal Connector	15 pin Sub-D/HD
Power Supply	+5V, -5V, via Sub-D Connector from SPC Module
Dimensions	120mm $\times$ 95mm $\times$ 34mm

## Output Voltage Configuration

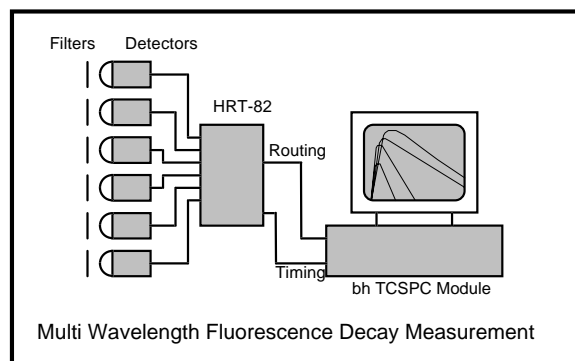
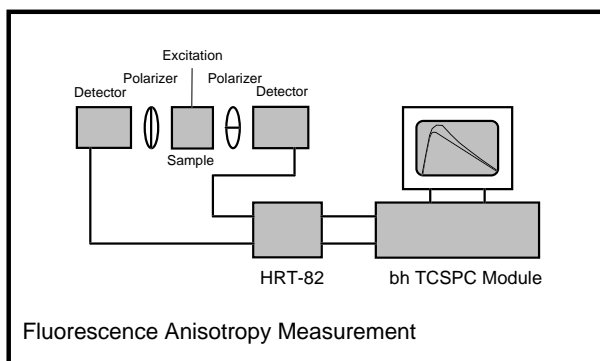


Vout = 120 ... 150 mV mV (SPC-x30)



Vout = 50 ... 60 mV (SPC-x00)

## Applications



Also available: HRT-41 4 Channel and HRT-81 8 Channel Routers for PMTs and MCPs. Please see individual data sheets.

Becker & Hickl GmbH  
Nahmitzer Damm 30  
12277 Berlin  
Tel. +49 / 30 / 787 56 32  
Fax. +49 / 30 / 787 57 34  
email [info@becker-hickl.com](mailto:info@becker-hickl.com)  
<http://www.becker-hickl.com>

**bh**  
intelligent  
measurement  
and  
control systems