

OCF - 401

Optical Constant Fraction Discriminator

Accurate triggering to optical pulses

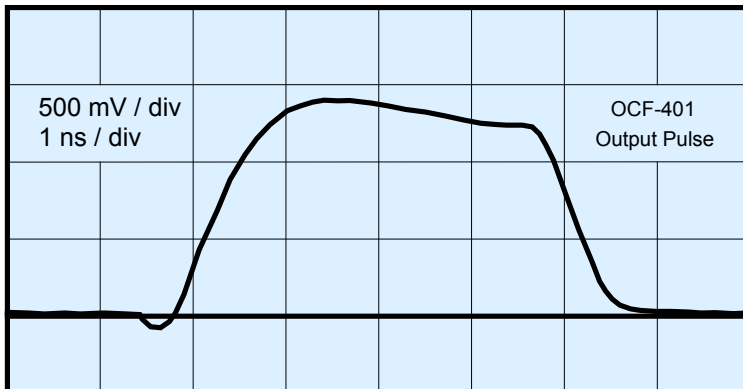
Negligible influence of amplitude fluctuations

Time walk < 30 ps for 1ns pulse with 1:10 amplitude fluctuation

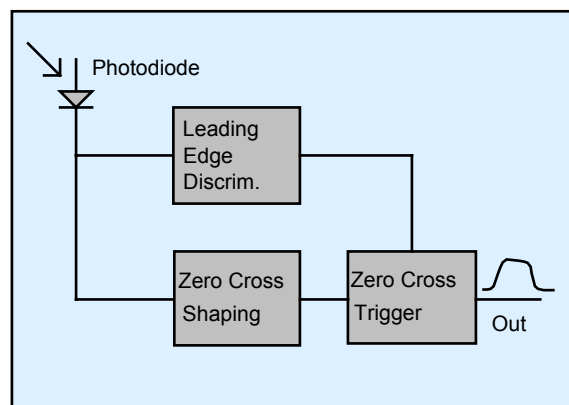
1V output pulse amplitude

Single +5V supply

Trigger indicator LED



The OCF-401 is used to derive electrical trigger pulses from optical pulses with unstable amplitude. Due to the constant fraction trigger technique the trigger delay is widely independent of the pulse amplitude. Typical applications are the triggering of sampling or boxcar measurements, the synchronisation of photon counting experiments or the triggering of streak cameras.



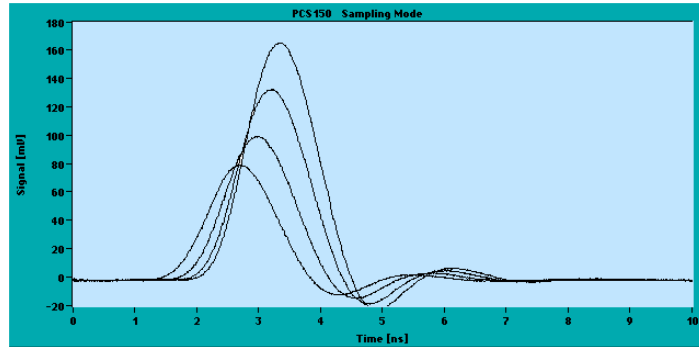
Becker & Hickl GmbH
Nahmitzer Damm 30
12277 Berlin
Tel. +49 / 30 / 787 56 32
Fax. +49 / 30 / 787 57 34
<http://www.becker-hickl.com>
email: info@becker-hickl.com


intelligent
measurement
and
control systems

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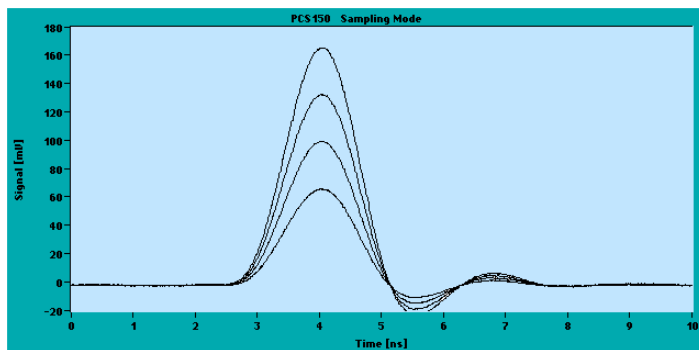
Conventional Triggering:

Trigger point shifts with signal amplitude



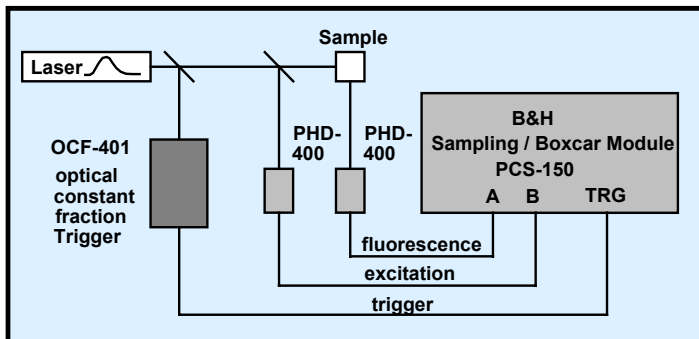
Triggered with OCF-401:

Trigger point independent of signal amplitude



Typical Application:

Triggering of Sampling/Boxcar Measurements



Specification

Supply Voltage	+ 5 V
Output Pulse Voltage (50 Ω)	1 V ... 1.5V
Output Pulse Width	5 ns
Trigger Delay	5 ns
Time Walk (1ns, 1:10)	< 30 ps rms
Sensitivity (600 nm)	10 mW
Spectral Range	300 nm to 1000 nm
Output Connector	SMA, 50 Ω
Power Connector	DC PP3, 1.3 / 3.5 mm

Maximum Ratings

Supply Voltage	-0.3 V ... +6.5 V
Light Pulse Power	< 100 kW (Duration <2ns)
Average Light Power	< 200 mW
Operating Temperature	0°C ... +70°C

Options

OCF-402	TTL Output, >2V into 50 Ω
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The manual is available under www.becker-hickl.com



Tel. +49 / 30 / 787 56 32
 Fax +49 / 30 / 787 57 34
<http://www.becker-hickl.com>
info@becker-hickl.com