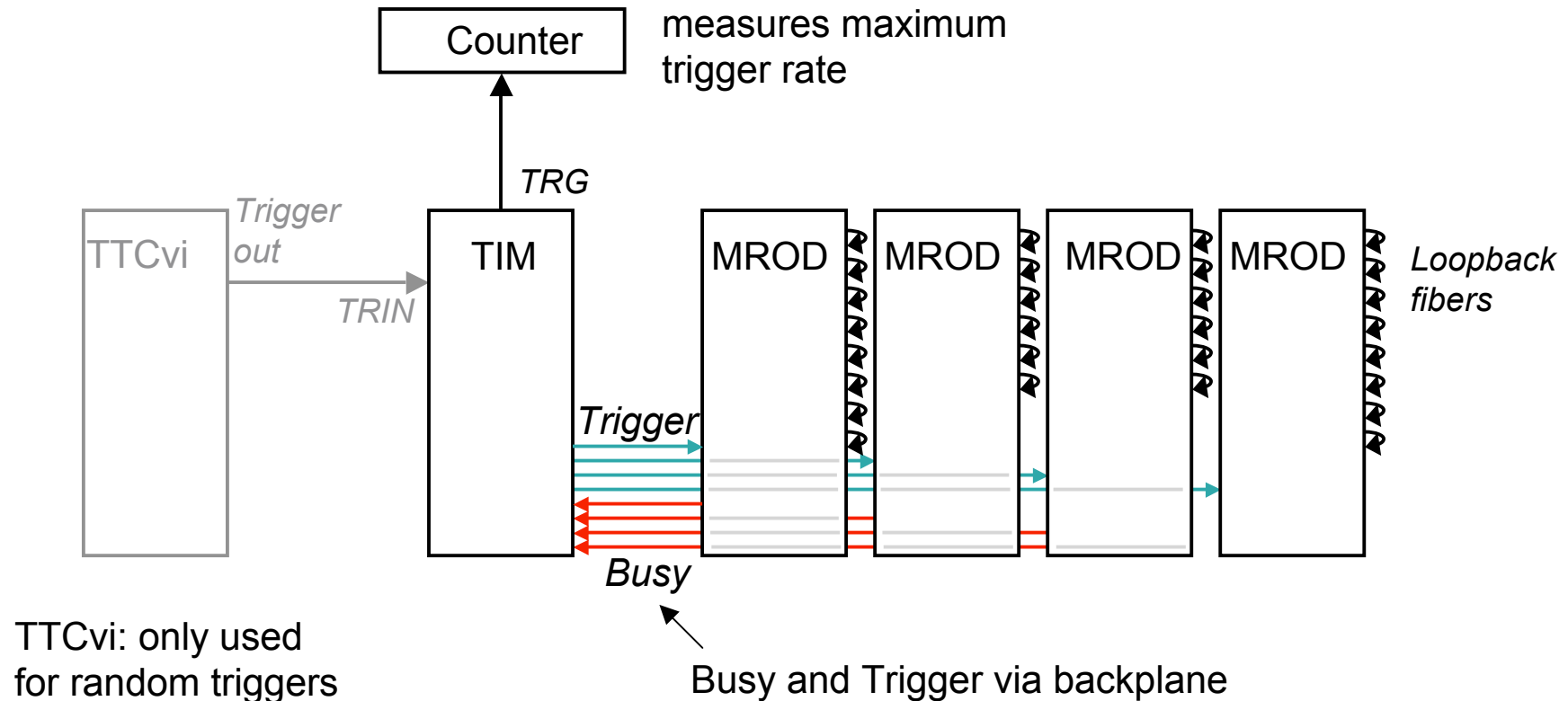


MROD-X duration tests

H. Boterenbrood



TIM: can generate fixed rate (non-random) trigger, OR of busy signals suppresses Internal or external trigger. Trigger signals sent to MRODs fire internal data generators.

Test 1:

- duration ca. 18 hours
- 4*4 input channels, with fixed TDC event size per input
- 95 kHz rate (600 kHz TIM, equidistant)
- prescale 128 at MROD-Out for spying
- full data-check on spied events: $43 \cdot 10^6$ events, 30+43+7+68 GByte
- data flushed at SLINK interface

No problems

Test 2:

- duration ca. 16 hours
- 4*4 input channels, with poisson-distributed TDC event sizes
- 143 kHz rate (TTCvi, random, nominal 100 kHz)
- prescale 16384 at MROD-Out
- spied events to file: $490 \cdot 10^3$ events, 260+333+217+251 MByte
- data flushed at SLINK interface
- spied data check by 'mrodchk'

No problems

Test 3:

- duration ca. 16 hours
- 2*6 + 2*8 input channels, with fixed TDC event size per input
- 1 link with 2*7 dB optical reduction, 1 link with 1*7 dB reduction
- 78 kHz rate (600 kHz TIM, equidistant)
- prescale 128 at MROD-Out
- full data-check on spied events: $35 \cdot 10^6$ events, 67+47+68+51 GByte
- data flushed at SLINK interface

No problems

Test 4:

- duration ca. 16 hours
- 2*6 + 2*8 input channels, with poisson-distributed TDC event sizes
- 1 link with 2*7 dB optical reduction
- 143 kHz rate (TTCvi, random)
- prescale 8192 at MROD-Out
- spied events to file: $984 \cdot 10^3$ events, 444+537+537+565 MByte
- data flushed at SLINK interface
- spied data check by 'mrodchk'

No problems