The acousto-optic modulator GUI

A quick introduction / Q&A

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Zeuthen, 10 May 2012

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DESY

The new GUI

> New: Laser pulse train going to accelerator is determined by laser and AOM pulse picker.

> Procedure to set a laser pulse train:

- Set start and stop of UV pulse train generated by laser – standard start time: 4.000 (for a series of measurements: put pulse train length to maximum of pulses needed and keep it there)

- Set the width of the Acousto-optic pulse selector (length of laser pulse train) – leave Start at 3.996
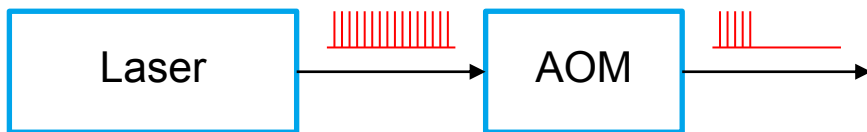
Example 1

> Example 1: Generate 20 pulses with laser – transmit the first 15

Example 2

> Example 2: Generate 20 pulses with laser – transmit the last 10

Duration of the UV pulse train [us] (number of micropulses per train)	+ 20 h

Main Pockels swith gate

Start: + 3.990 h   Stop: + 4.010 h

Acousto-optic pulse selector
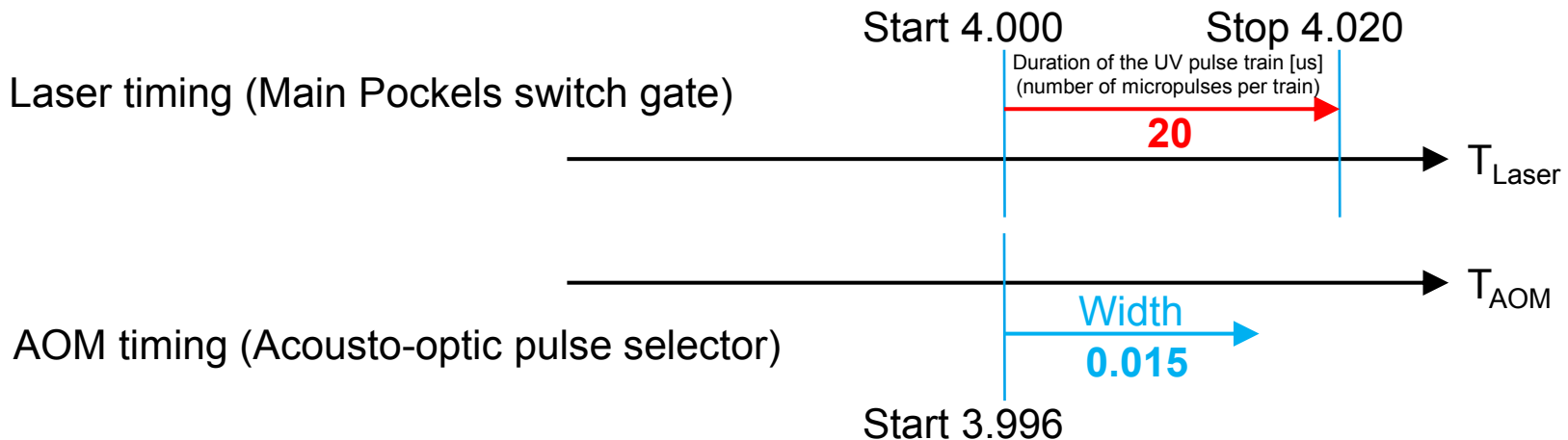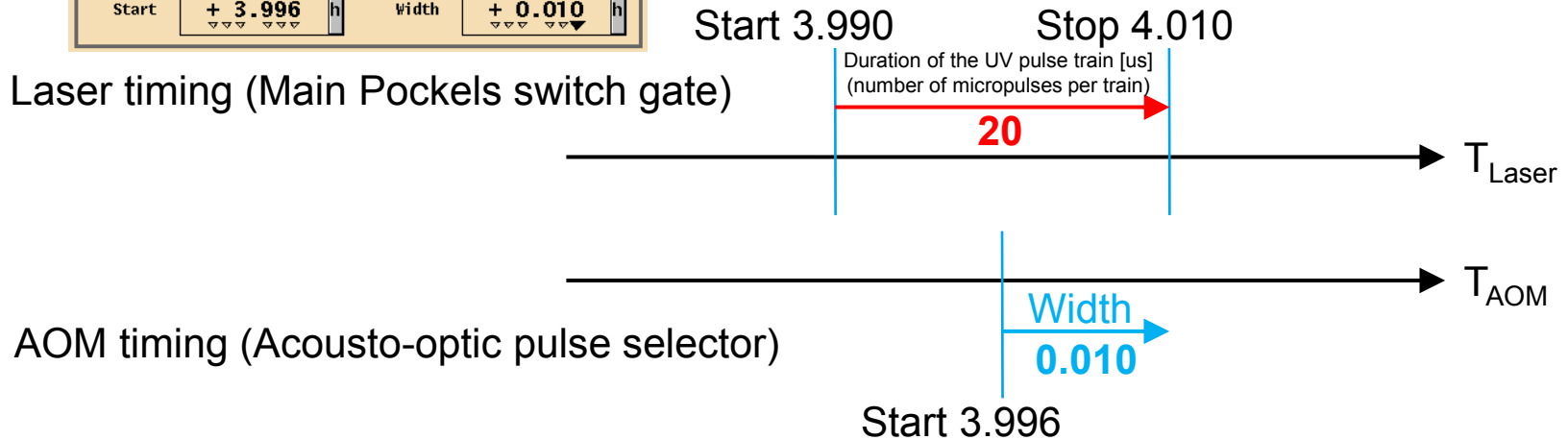
Start: + 3.996 h   Width: + 0.010 h

Laser timing (Main Pockels switch gate)

Start 3.990   Stop 4.010

Duration of the UV pulse train [us]
(number of micropulses per train)

20

T_{Laser}

T_{AOM}

Width
0.010
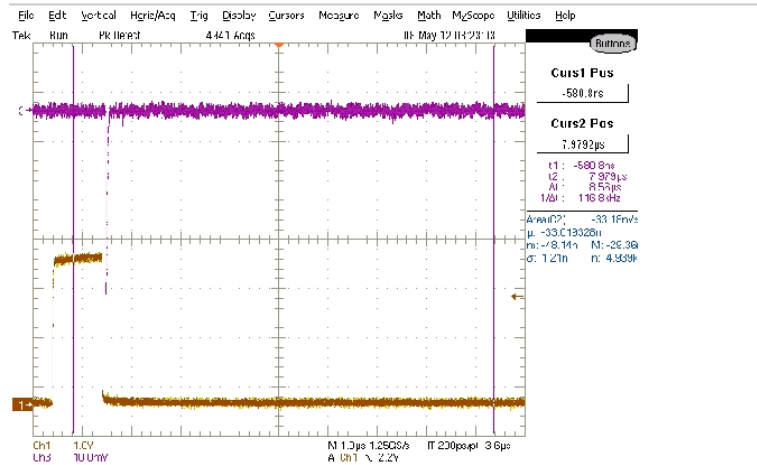
AOM timing (Acousto-optic pulse selector)

Start 3.996

> Start point for laser should be 4.000 but timing for cameras etc.???

  - Cannot move start of Main Pockels cell more than a few us without messing up laser timing
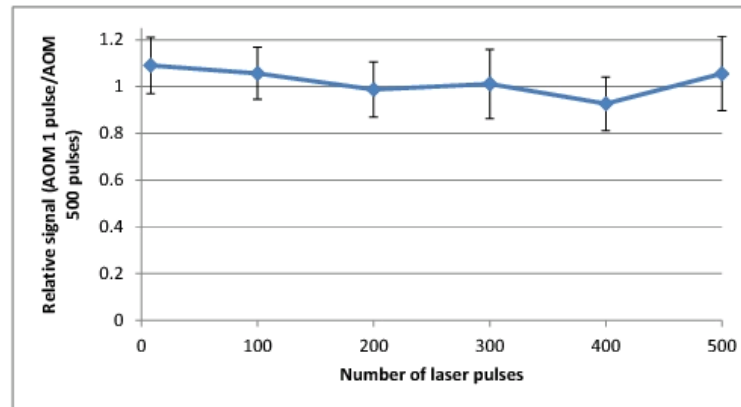
Results from this week