

Application Note for CCS/SOA LabVIEW Programming



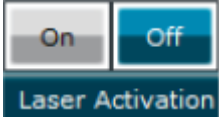
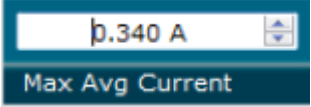
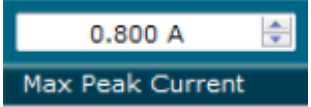
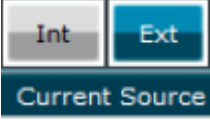

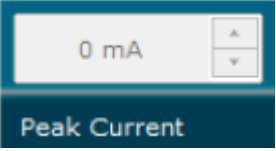
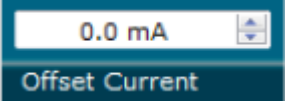
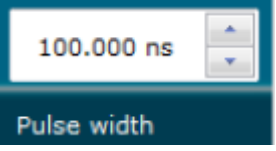
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1. LabVIEW's VI and GUI functions

This array associate the VI with the GUI interface.

VI	GUI interface	Units
Set laser status		
Set limit mean current		mA
Set max current		mA
Set current source		1.1 Current source
Set delay Line / Set Synchro		1.2 Trigger 1.3 Set delay line
Set current		% of max current 1.4 Set current
Set offset current / Set current		mA / % of max current 1.4 Set current
Set pulse width		ps



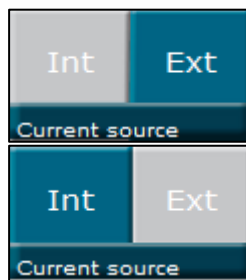
Set temperature		°C
Set frequency PDM		Hz

Figure 1

1.1. Current source

This two positions switch controls the current source.



External source
(BNC or manual knob)

Internal source (software)

Please use the Set_Current_Source.vi to change the current source.

1.2. Trigger

You can set the synchronization line which trigger pulses with the Set_synchro.vi.

There are 3 modes :

- 0 : External TTL/LVTTL
- 1 : External LVDS (optional SMA inputs)
- 2 : Internal clock

1.3. Set delay line

You can set the delay line in 2 different mode :

- 0 : NONE (SMA TTL/LVTTL input)
- 1 : Internal

1.4. Set current

Firstly, please change the current mode (CW or pulse) with the Jumper on the board. Then you have to use the Set_Current_Source.vi and choose the internal source (0 = external (BNC) ; 1 = internal). Now you can change the current value with the Set_current.vi.

If the board is in pulse mode you can add an offset current with the Set_offset_current.vi.

1.5. Apply request

The VI Apply_request.vi is necessary after a succession of set .vi like set_curretn.vi , set_laser_status or set_pulse_width.vi.

1.6. An example

