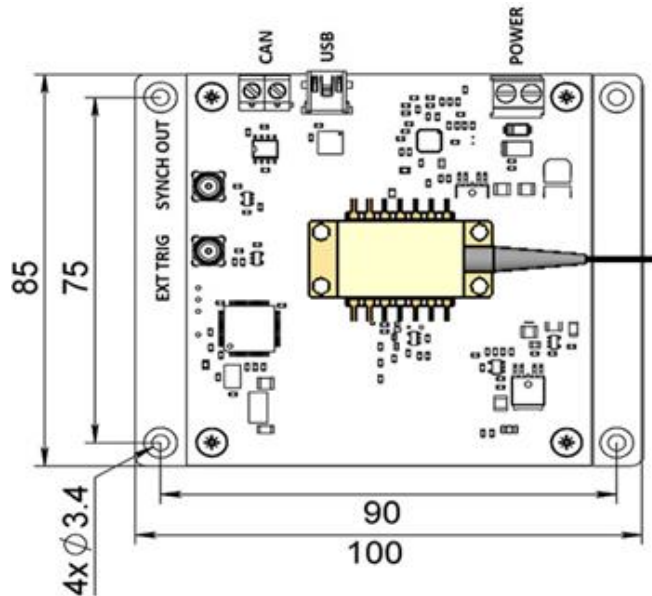


## 1. Setup

Unpack OP Assembly with optical fiber and fasten OP Assembly on proper heatsink. If the device comes from cold, wait until it reaches case operating temperature range.



Use mini-usb jack to connect OP Assembly with PC. Install driver and OP Assembly program (see section 2).

Fasten wires with screws on top of Power connector. Turn on power source prior connecting to OP Assembly to avoid voltage spikes of the power source. Connect wires to power source with corresponding polarity. Apply +5V to OP Assembly.

Take off protecting cap from optical fiber connector and check connector. Operate the laser OP Assembly with clean fiber connector only. Periodically check and clean the connector if necessary. To clean the connector use a clean-room compatible tissue only, put some Isopropyl alcohol onto it and carefully clean the facet of the connector, or use special fiber cleaning tools.

Use an EXT TRIG input for repetition rate control from single shot up to 10MHz.

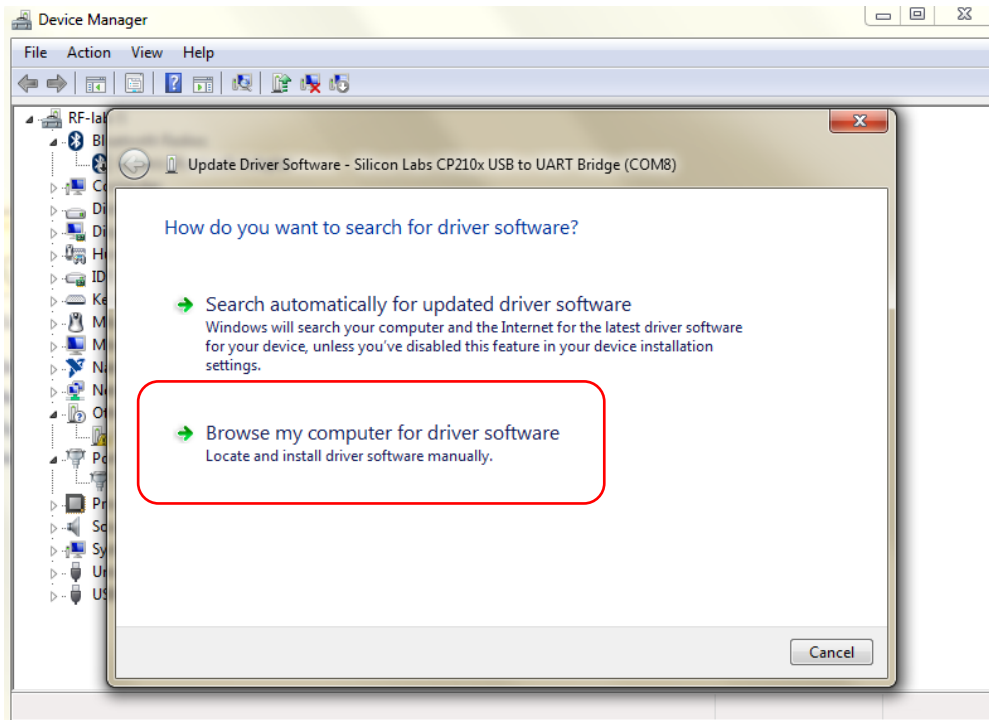
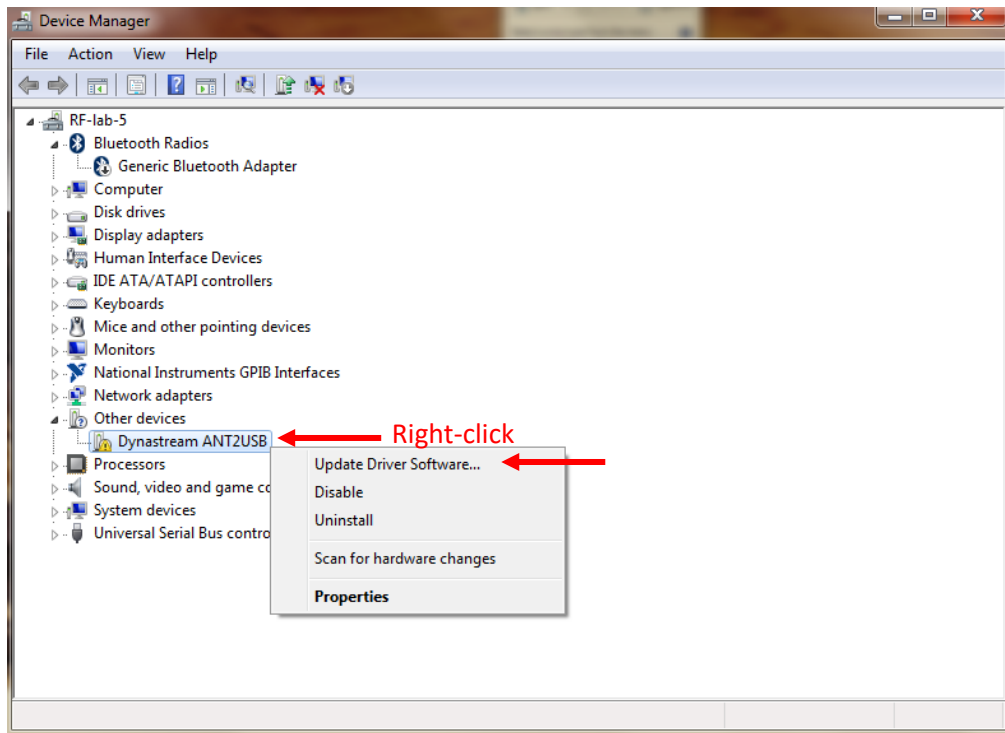
Use a SYNCH OUT output for synchronization with each optical output.

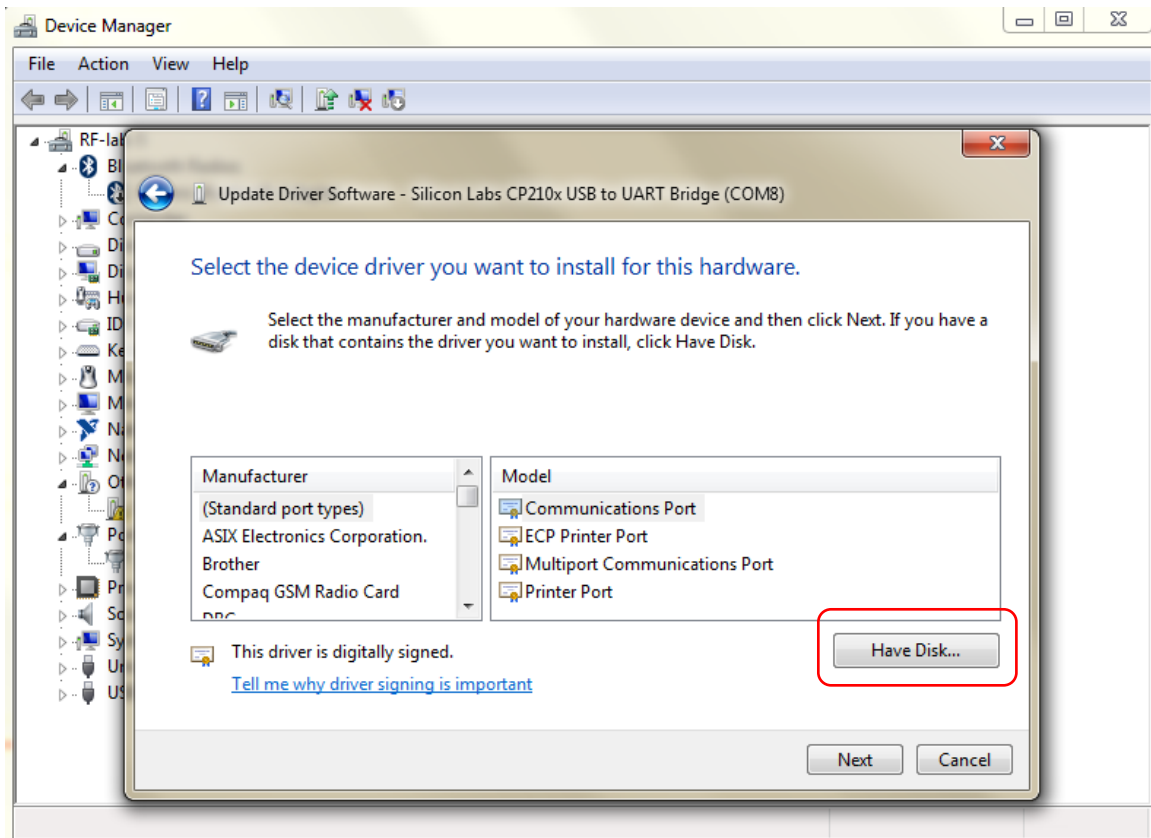
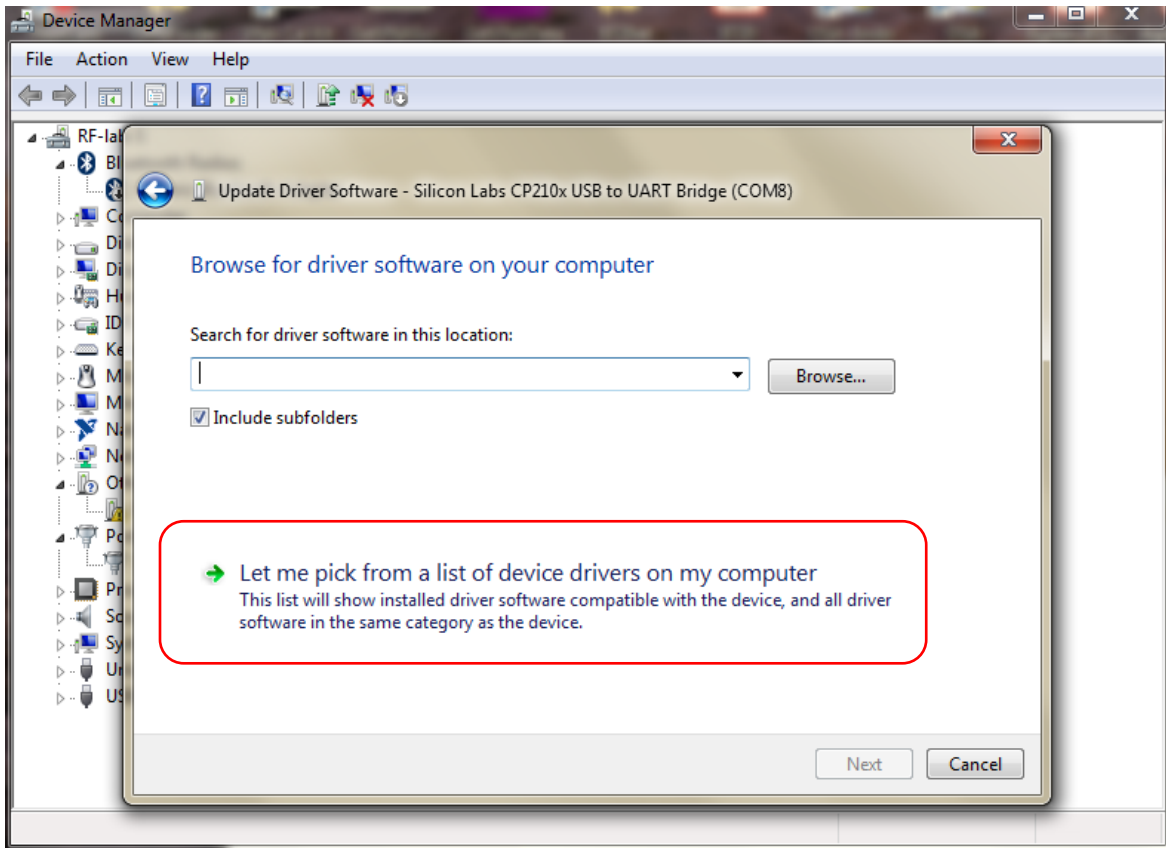
CAN connector is used at manufacturer only.

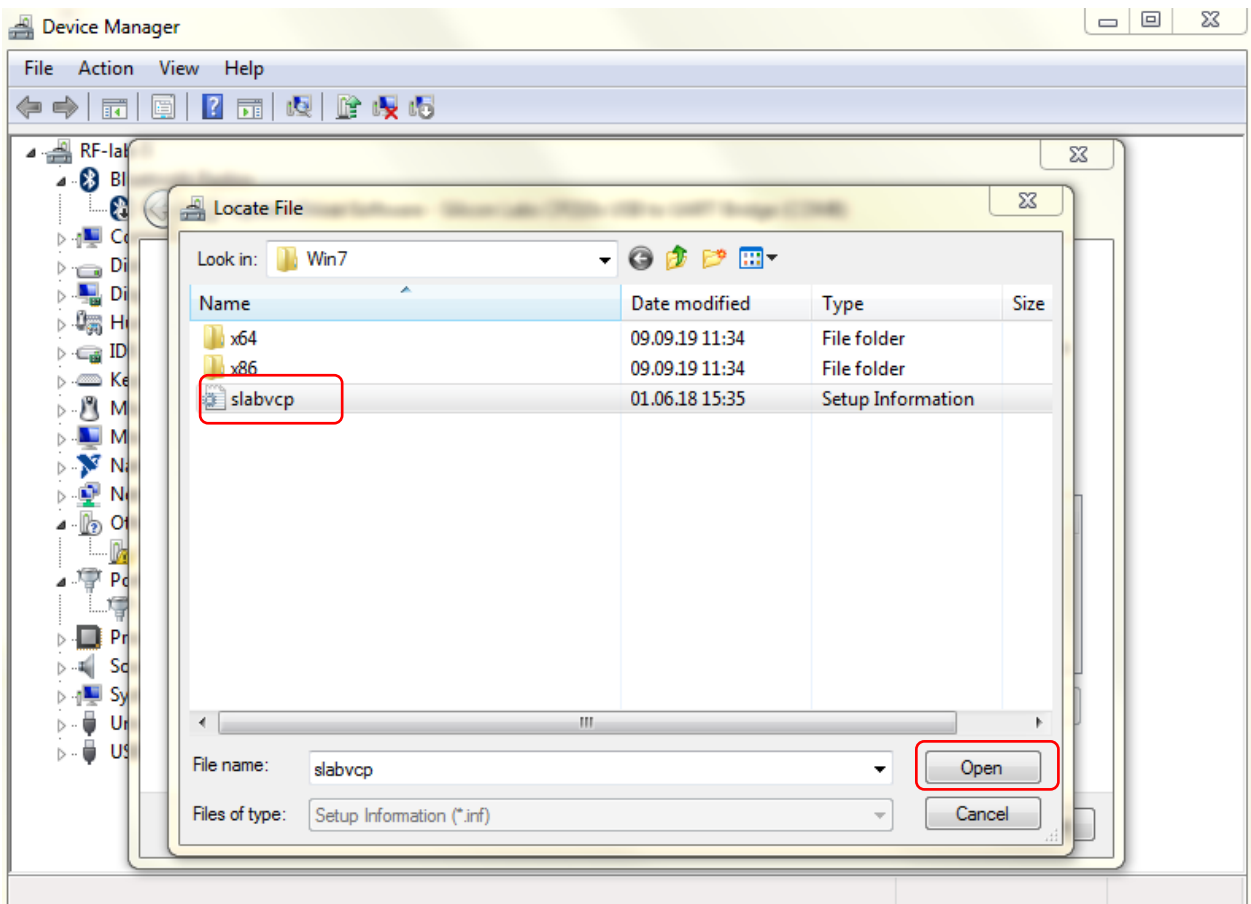
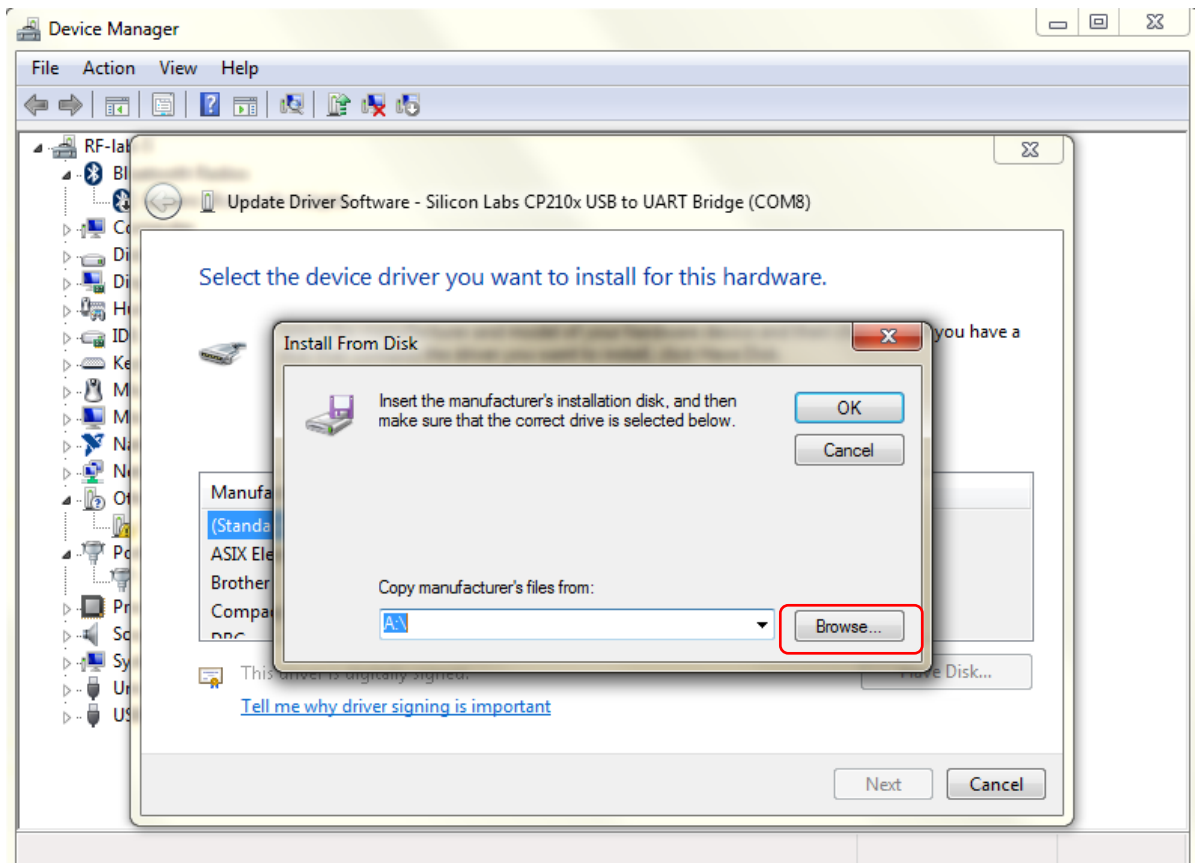
## 2. Installing Windows driver

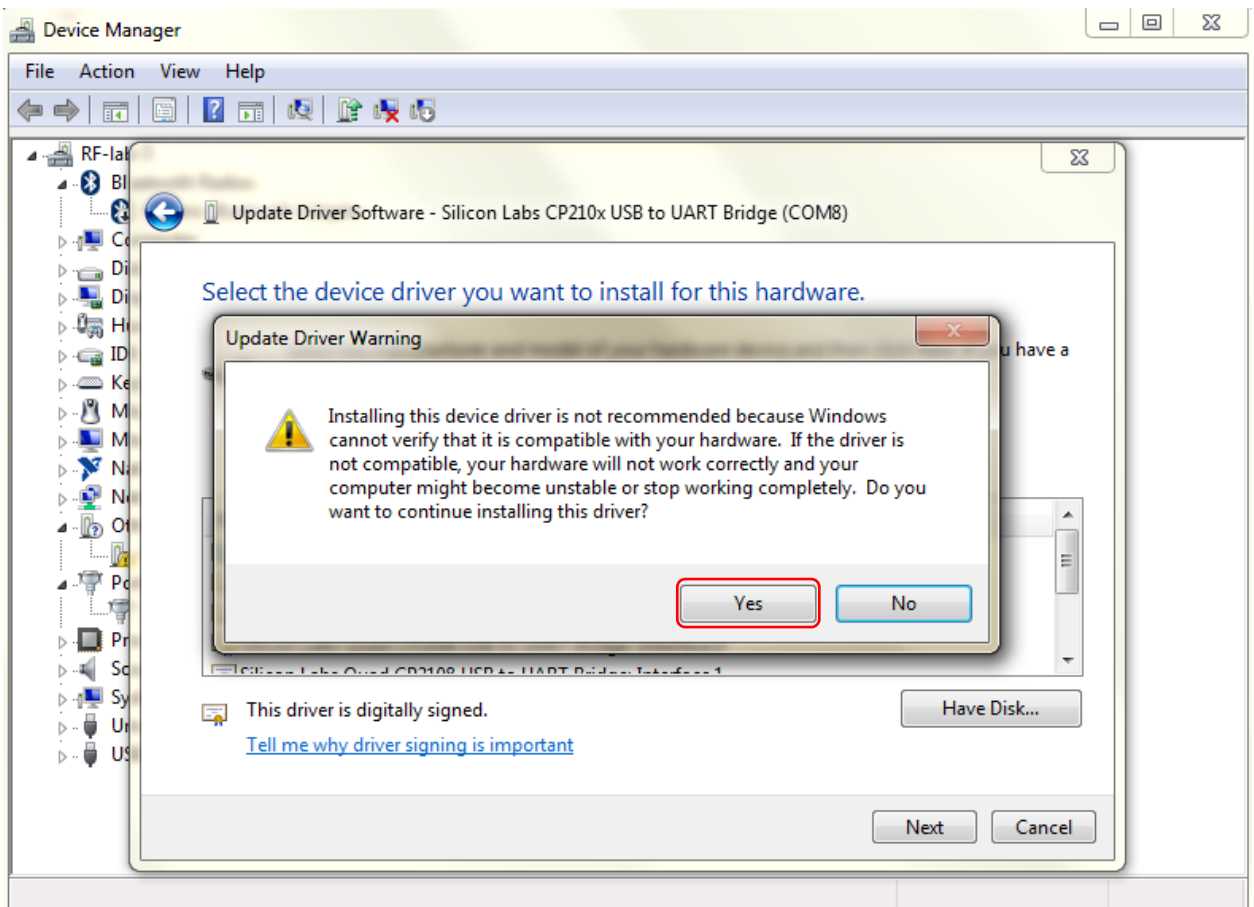
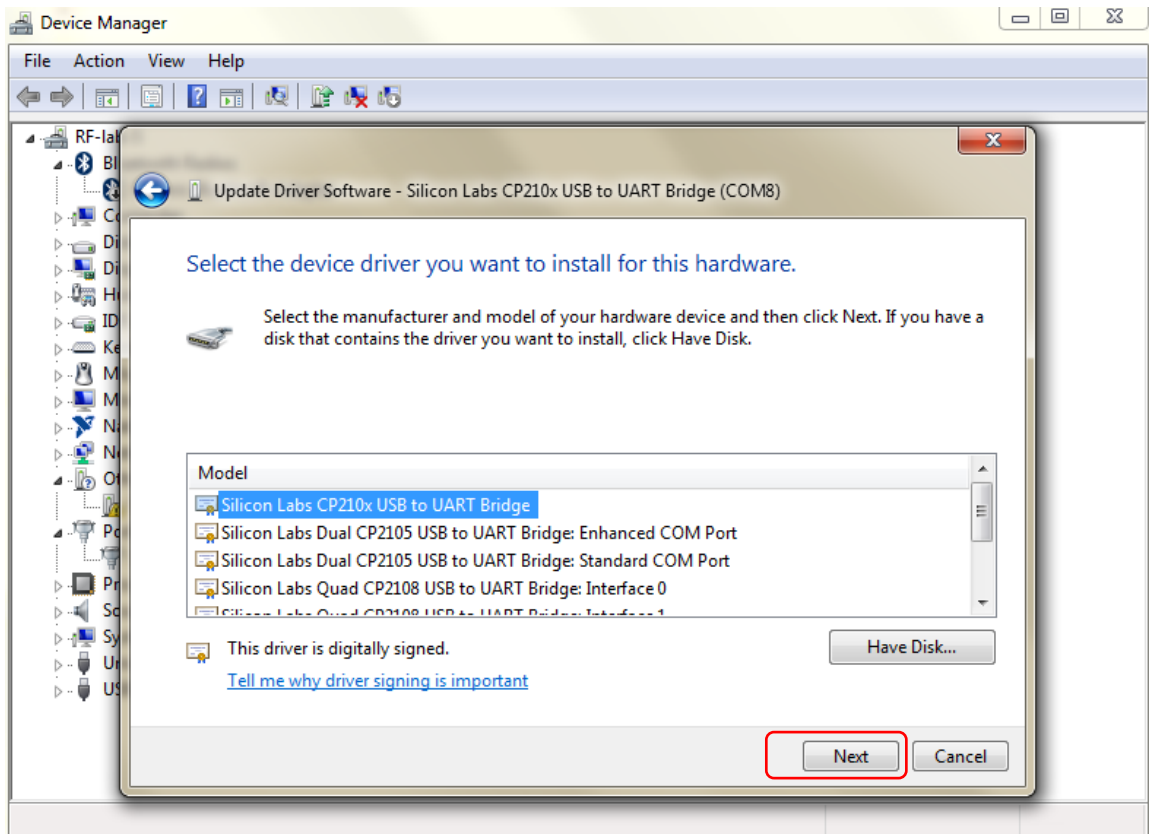
Download drivers from [https://www.innolume.com/files/LDD-14pin-2A-GS\\_software\\_v.1.zip](https://www.innolume.com/files/LDD-14pin-2A-GS_software_v.1.zip)

Connect OP Assembly to PC with mini-USB. Open Device Manager. Driver installation procedure for Windows 7 is shown below. Driver files for different Windows versions can be found in “Drivers” folder. Unzip required version to a separate folder.





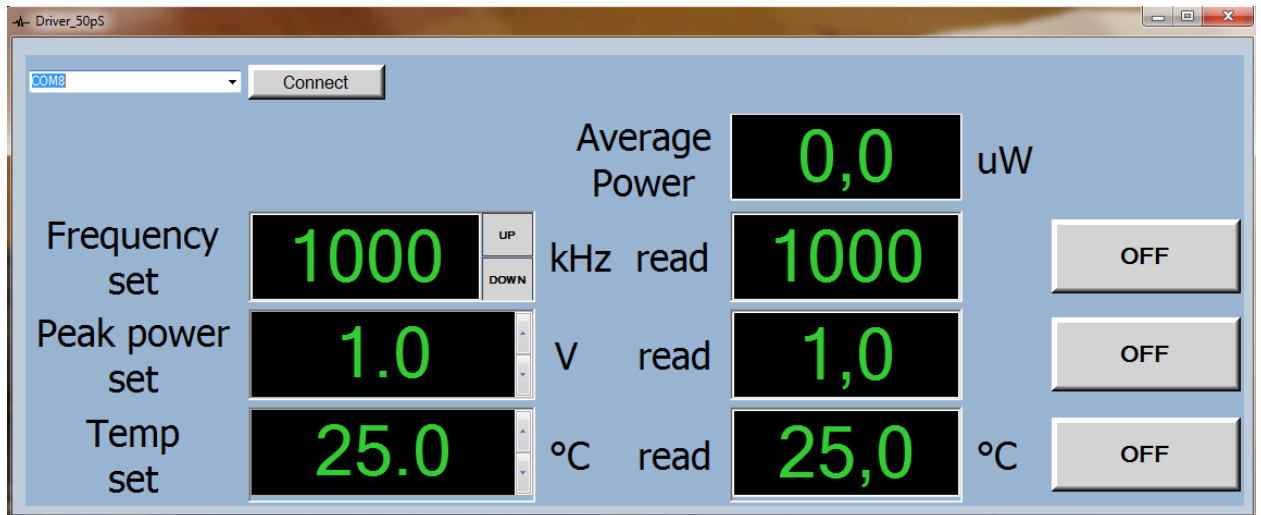




### 3. OP Assembly controlling software.

#### *Installation*

Unpack OP Assembly controlling program (installation not required) and run Driver\_50pS.exe



Picosecond driver interface

Select device COM Port and press “Connect” button to start work with program.

Use “Frequency set” window to set pulse repetition rate.

Use “Peak power set” window to set pulse amplitude.

Use “Temp set” window to set temperature. Use On/Off bottom button to turn on/off TEC.

The yellow LED on PCB indicates laser diode is on. The green LED on PCB indicates TEC is on.

The table below represents the TEC and laser diode operating states as functions of On/Off buttons.

Upper On/Off button	Middle On/Off button	Bottom On/Off button	Laser diode	TEC
Off	Off	Off	Off	Off
Off	Off	On	Off	On
On	On	Off	On	Off
On	On	On	On	On
On (Off)	(Off) On	On (Off)	Off	On (Off)