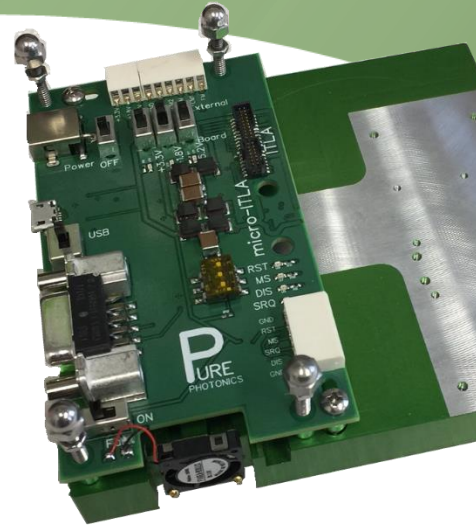


## GENERAL

The Pure Photonics PPEB700 is a compact evaluation board for operating ITLA and micro-ITLA tunable lasers. The following functionality is included:

- On-board voltage supplies (+3.3V, -5.2V, +1.8V)
- Optional inputs for external power supplies
- Selectable micro-USB and RS-232 communications port
- Heatsink with mounting holes
- Selectable micro-fan for heatsink cooling
- Self-aligned micro-ITLA connector
- Hardware line indicators, controls and outputs

The product comes with wall-plug power supply and micro-USB cable



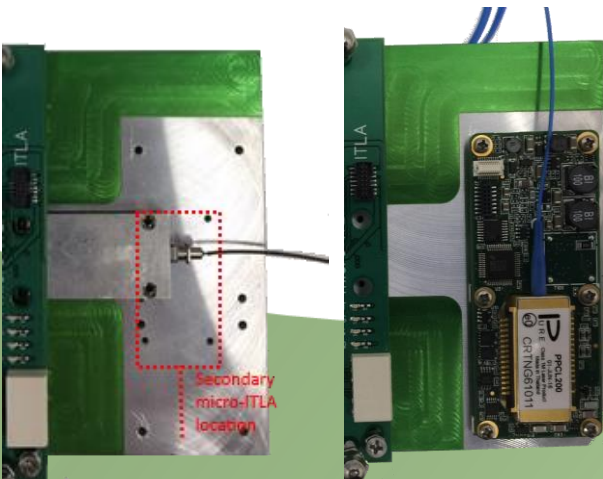
## INSTALLATION

The board has:

- 8 M2 holes for an ITLA
- 7 M1.6 holes for a micro-ITLA (2 positions)

The micro-ITLA can be placed below the board. The auto-aligned AIC connector (below the board) can easily be plugged into the micro-ITLA.

The ITLA, and the micro-ITLA, installed in the secondary location, is connected to a Samtec connector on the board with a flex-cable.



## OPERATION

The board is operated after installing the micro-USB cable and the power supply. Set the applicable voltage supply switches to 'BOARD' (at a minimum +3.3V needs to be present). Then set the Power switch to 'ON'. The USB port should now be recognized (first time it may take some time to install). When a device is installed, the SRQ LED light should light up.

Now the user can communicate with the device and control it through the Pure Photonics software (CLI or GUI) or through own software.

**Please note: +3.3V needs to be present (indicated by LED) for the communications interface, LEDs and fan to work.**

## MICRO-USB INTERFACE

For optimal operation of the USB, set the latency time of the interface to 1ms (see instructions in section 4 of the feature guide). This is critical for firmware upgrade. The micro-USB interface should be recognized and installed as a virtual COM port. You may need to install the VCP driver from FTDI.

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## PRODUCT LAYOUT

### VOLTAGE SUPPLIES & ANALOG INPUTS

Optional inputs for external voltage supplies. Switches are used to select between board supplied voltage or external voltage. Also analog input voltages

### VOLTAGE SUPPLY LEDS

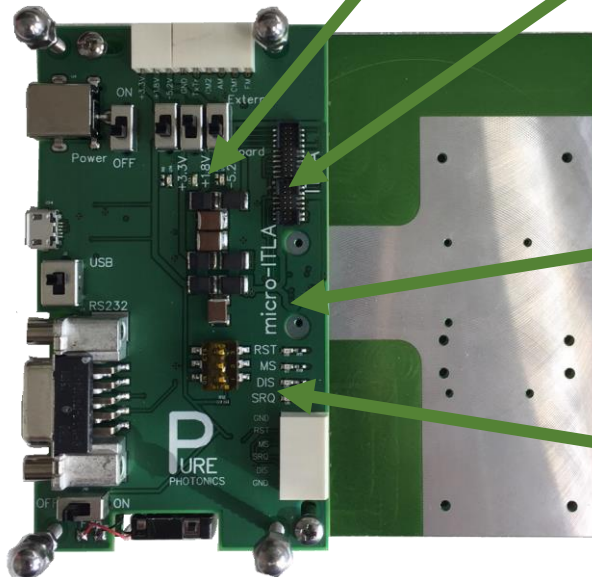
Indicates presence of voltage

### POWER SUPPLY

Power supply for board and (optional) ITLA. Activated by switch.

### COMMUNICATIONS

Switch to select between micro-USB input or RS-232 input. Both interfaces require 3.3V to be present.



### ITLA CONNECTORS

14 and 20 pin Samtec connector on top of board

### MOUNTING HOLES

Mounting holes for ITLA (M2) and micro-ITLA (M1.6)

### micro-ITLA CONNECTOR

AIC connector under board to push onto micro-ITLA

### LEDS & CONTROLS

LED indicators for the hardware lines and DIP-switch to control the hardware lines. Default state is DIP towards ITLA. LED requires 3.3V to be present.

### COOLING

Fan to provide cooling to heatsink. Activated by switch. Requires 3.3V to be present

### HARDWARE LINES

Access to the hardware lines of the ITLA (Reset, Module Select, Disable, Service Request)

## RESOURCES

Manual: [www.pure-photonics.com/downloads1/](http://www.pure-photonics.com/downloads1/) select 'Manual – PPEB700'

Software (GUI and CLI): [www.pure-photonics.com/downloads1/](http://www.pure-photonics.com/downloads1/)

Interface protocol: [www.oiforum.com/wp-content/uploads/OIF-ITLA-MSA-01.3.pdf](http://www.oiforum.com/wp-content/uploads/OIF-ITLA-MSA-01.3.pdf)

FTDI VCP drivers: [www.ftdichip.com/Drivers/VCP.htm](http://www.ftdichip.com/Drivers/VCP.htm)

Application notes: [www.pure-photonics.com/downloads1/](http://www.pure-photonics.com/downloads1/)

[www.Pure-Photonics.com](http://www.Pure-Photonics.com)

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