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Ultrabroad Band Supercontinuum Laser
With USB interface

User Manual

P/N: SUPL-XXXXXXXX

(March, 2025)

Warning

When Emission Button is turned on laser output will be on at the power level set last time. This power level can be changed through GUI.

Click 'Laser OFF' through GUI each time before switching off Emission Button is strongly recommended, if automatically running of laser is not desired.

1 Warning

1) Only connectors as indicated on the front panel are allowed, such as FC/APC, SC/APC, etc.
2) Clean and inspect connectors and fiber ends prior to installation.
3) Use only industry approved methods, materials, and solutions for cleaning.
4) Always turn off the laser prior to plugging/unplugging fiber cable. Failure to do so may cause permanent damage to the laser.

2 Summary

The front and rear panel of this laser are shown in Figure 1.

Figure 1: Front & rear panel of laser

- The module needs 100-240V AC power. It's an on-off power switch located on the rear panel.
- The fiber connector on its front panel is for laser output.
- The USB port on its rear panel is for remote control.

Note: The RS232 port of this model is not functional.

- **The output power is stable for output power higher than 2000mW.**

  Note: for a stable output, an output power setting of 2100mW or higher will be preferred.

- The Emission Button is for ON/OFF of the whole unit.

  Note:

  a. When it is OFF USB functions are disabled.

  b. The Laser is designed to work between -5 ~ 50°C temperature range. Humidity should not exceed 90%. Installation is recommended in a temperature & humidity controlled, dust-free environment.

3 Connection and Operation

Warning

- **If the laser wasn't turned off through GUI, then once the 'Emission' button lights up, even without GUI connection, it will have output at the power level set last time.**
- **The laser was set as 'Laser OFF' in factory.**

1) Plug the AC power cord into the receptacle on the rear panel of the module and connect to 100-240V AC power source.
2) Clean the FC/APC connector properly, and then connect it to the Output port.
3) Connect the USB port on the rear panel to a computer by using the USB cable coming with the laser.
4) Turn power on by using the rocker switch on the rear panel of the laser.
5) **Turn the Red Beam switch on to produce a red beam to locate the expected location of the laser.**

6) **Turn the Red Beam switch off to stop the red beam. Ream beam function will automatically be off when the Laser is on.**

7) **Press the View button to switch display data between system output power and the temperature power source.**

8) Push the Emission button down to turn on the whole device. The Emission Button will be lighted up in blue. Now the laser will have output power if it wasn't set as 'Laser Off' in GUI last time.

9) **The display screen indicates the system output power. Output power can be changed by changing the displayed system output power.**

10) **Left and right buttons can be used to select a digit of system output power. Left button moves the selected digit to the left and the right button moves the selected digit to the right.**

11) **The knob in between the left and the right button can be used to change the value of the selected digit. Rotate the knob clockwise to increase the value of the selected digit. Rotate the knob counter-clockwise to decrease the value of the selected digit.**

12) Remote software control (GUI) provided can be used for getting laser status, changing output power, saving setting, etc. Please see Part 4 for detailed instruction.

13) Push the Emission button to turn off laser.

4 Software Instruction

Note:

USB to COM driver for FTDI devices needs to be installed on the computer for remote control. The driver can be downloaded from https://ftdichip.com/drivers/vcp-drivers/.

2) Run ‘Laser GUI.exe’ to install remote control GUI on host computer. Turn on Emission on the front panel to power up the whole unit and enable USB functions.

3) Run Laser GUI.

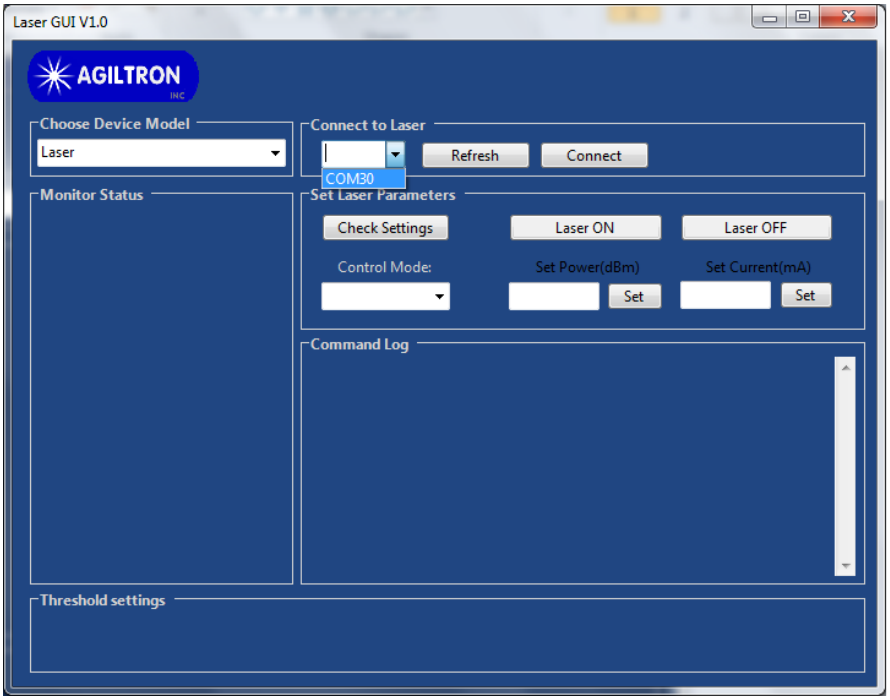

Figure 2: Remote control software: COM port selection

4) Port Selection:

Select the serial port, to which the laser is connected, from the ‘Port List’, and click ‘Connect’. If the desired port doesn’t show up click ‘Refresh’ button and try again.

5) Once the laser has been connected successfully its status will be displayed in Monitor Status window. The status keeps updating at an interval of 1 second.

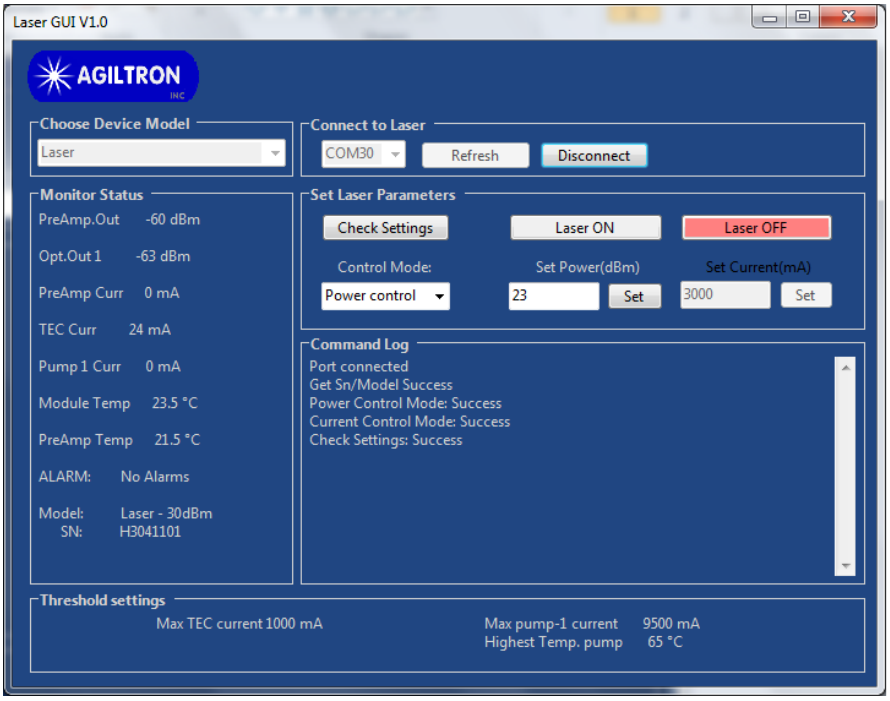

Figure 3: Remote control software: connected successfully.

6) Check Setting

Click to get the previous settings of the laser.

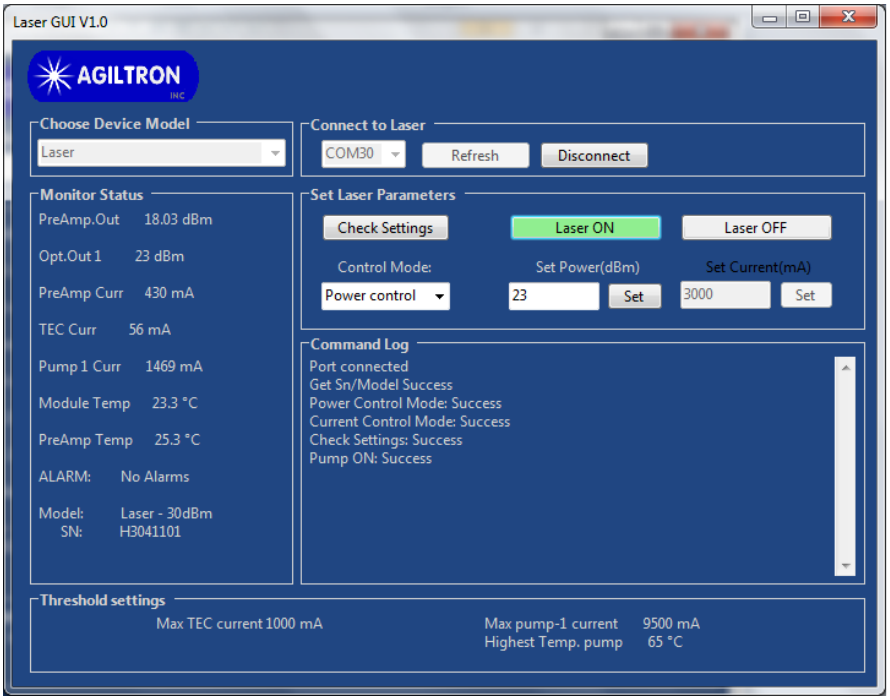

Figure 4: Remote control software: control mode selection

7) Control Mode Selection

Click ‘Control Mode’ button to get the current mode setting of the laser.

- Power Control: constant power control mode
- Current mode: constant current control mode

Select the desired mode and input setting value into the corresponding ‘Set Power(dBm)’ or ‘Set Current(mA)’ box, then click ‘Set’ button.

8) Laser ON/OFF

Click to turn on/off the laser.

9) Save Settings

All inputs will be automatically saved in the laser once any ‘Set’ button is clicked, including ‘Laser ON/OFF’ status. When ‘Emission’ button is turned on next time, even without GUI control, the laser will start to run at the saved settings.