gentec-EO Octolink Multi Channel Software for P-LINK-4 User Manual
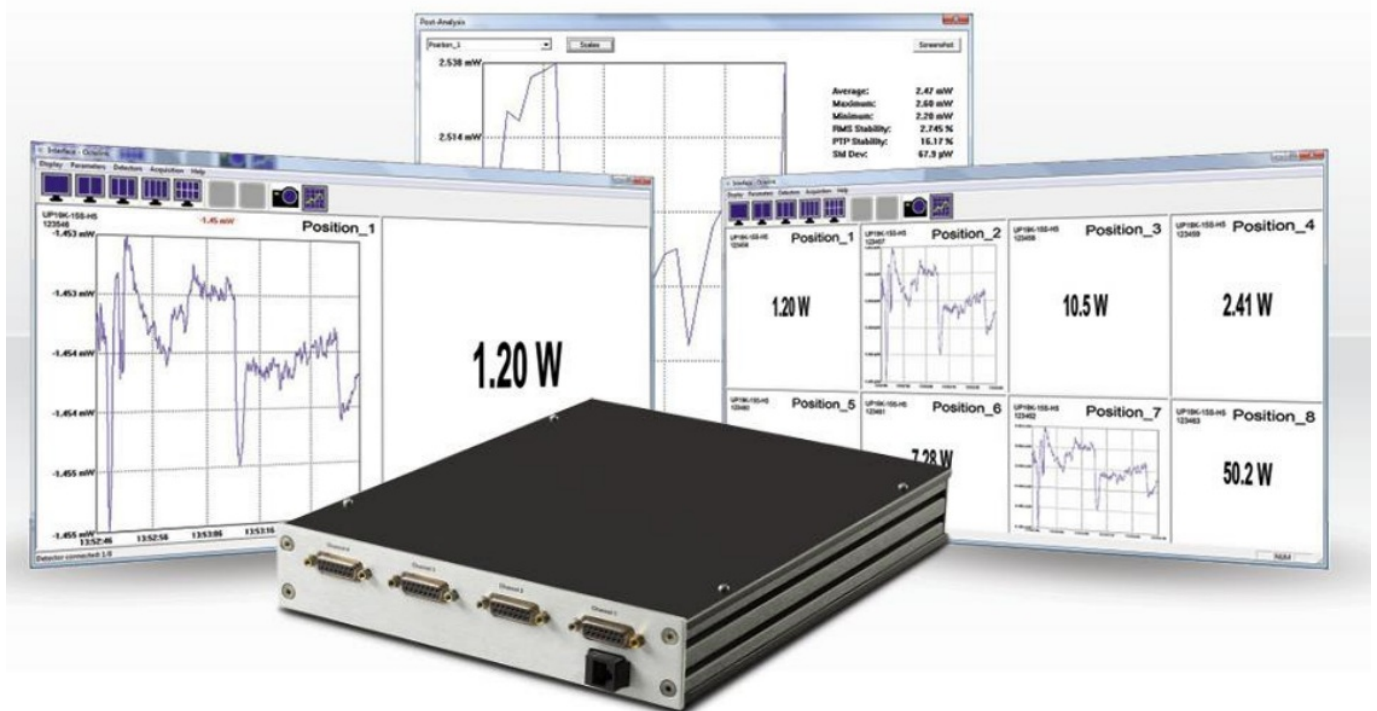
gentec-EO Octolink Multi Channel Software for P-LINK-4

Contents

WARRANTY

The Gentec-EO P-Link-4 Laser Power Meter carries a one-year warranty (from date of shipment) against material and/or workmanship defects, when used under normal operating conditions. The warranty does not cover damages related to battery leakage or misuse.
Gentec-EO Inc. will repair or replace, at Gentec-EO Inc.'s option, any P-Link-4 that proves to be defective during the warranty period, except in the case of product misuse.
Any attempt by an unauthorized person to alter or repair the product voids the warranty.

The manufacturer is not liable for consequential damages of any kind.

In case of malfunction, contact your local Gentec-EO distributor or nearest Gentec-EO Inc. office to obtain a return authorization number. The material should be returned to:

Gentec Electro-Optics, Inc.
445, St-Jean-Baptiste, Suite 160
Québec, QC
Canada G2E 5N7
Tel: (418) 651-8003 Fax: (418) 651-1174
e-mail: **service@gentec-eo.com**

CLAIMS

To obtain warranty service, contact your nearest Gentec-EO agent or send the product, with a description of the problem, and prepaid transportation and insurance, to the nearest Gentec-EO agent. Gentec-EO Inc. assumes no risk for damage during transit. Gentec-EO Inc. will, at its option, repair or replace the defective product free of charge or refund your purchase price. However, if Gentec-EO Inc. determines that the failure is caused by misuse, alterations, accident or abnormal conditions of operation or handling, you will be billed for the repair and the repaired product will be returned to you, transportation prepaid.

SAFETY INFORMATION

Do not use the device if it looks damaged, or if you suspect that it is not operating properly.
Appropriate installation must be done for water-cooled and fan-cooled detectors. Refer to the specific instructions for more information. Wait a few minutes before handling the detectors after power is applied. Surfaces of the detectors get very hot and there is a risk of injury if they are not allowed to cool down.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution:

Changes or modifications not expressly approved in writing by Gentec-EO Inc. may void the user's authority to operate this equipment.

SYMBOLS

The following international symbols are used in this manual:

	Refer to the manual for specific Warning or Caution information to avoid any damage to the product.
	DC, Direct Current

INSTRUMENTS and COMPUTER

Computer

Refer to P-Link Manual for details.

1. Install the USB Drivers from the CD or website
2. Install the Octolink application from the CD or website

Instruments Connection

Recommended Sequence:

1. Connect the detector to the P-Link.
2. Lock the slide latch to ensure electrical contacts.
3. Connection
    a. USB: Connect the P-Link-4 to the computer.
    b. Ethernet :
        1. Connect the P-Link-4 to network or to computer with a cross-over cable.
        2. Connect the power supply (100-240V, 50-60Hz, 0.8A Input) (5V, 3A Output)
   3. Turn the power switch ON

Refer to P-Link Manual for specifications.

USB Communications Port

The com port attribution depends on the Windows detection sequence. Once attributed by Windows, the com port associated to a P-Link will remain the same, and be independent of the physical USB port used in the computer. The OctoLink application detects the connected P-Link and the port order has no importance.

Ethernet Communications Port Configuration

1. A B&B Electronic software must be installed on the computer to set-up the communication.
2. Install the USB SERVER from the CD.
3. Start USB SERVER, click search if no available devices.
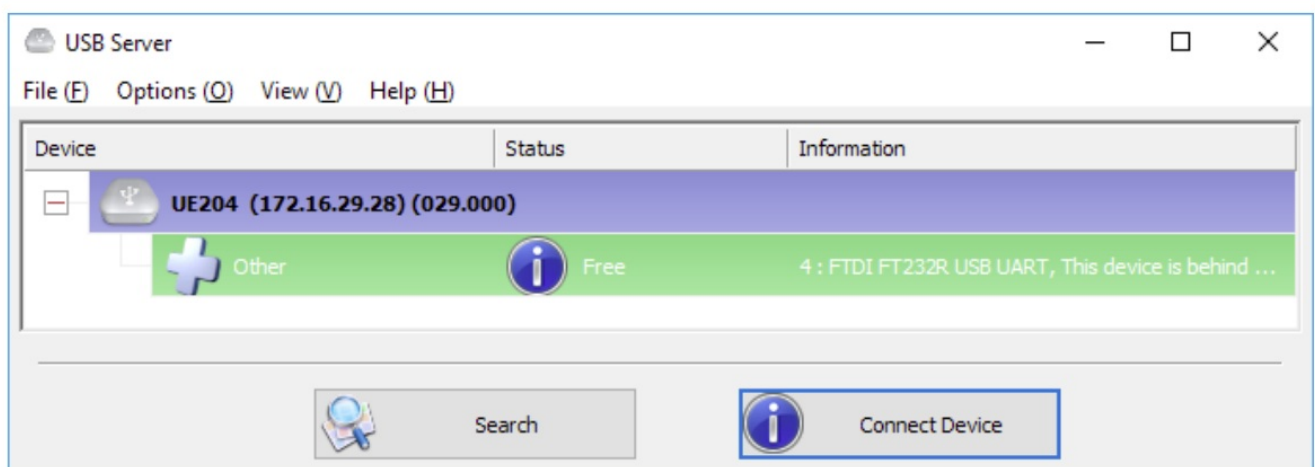
4. Double click on "Other" to map the channel to the computer. For more options refer to UE204 user manual on the CD.
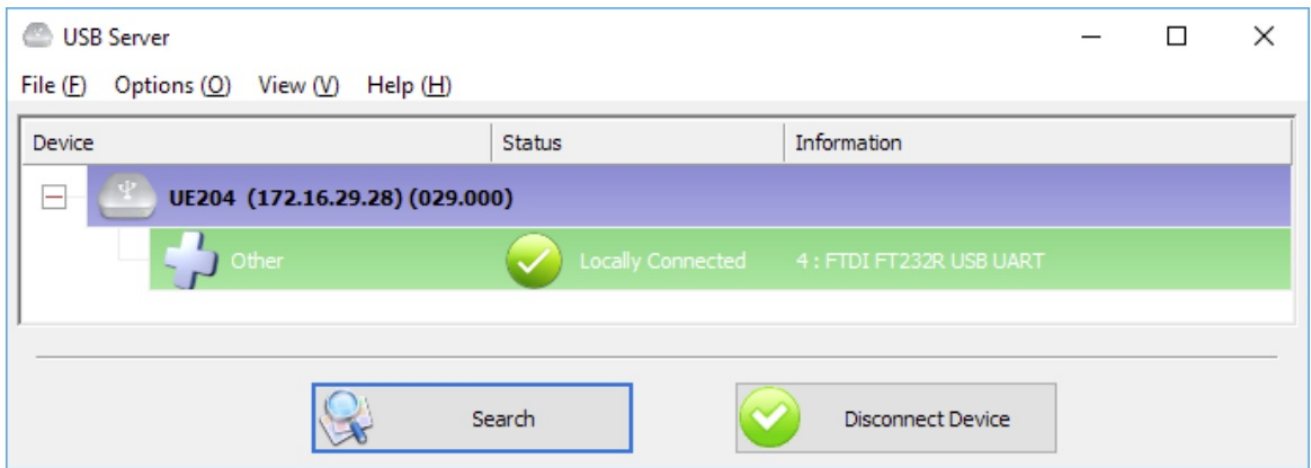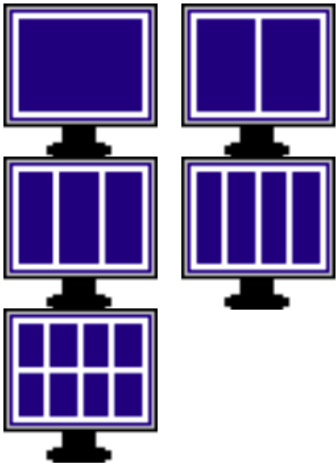
5. Repeat for all 4 channels.

6. Open the Windows Device Manager (control-panel -> system -> device manager) and check that there are port properly mapped:

7. You are ready to use the P-Link-4 Ethernet

DESCRIPTION OF THE MAIN WINDOW AND MENUS

The detectors are attributed in the Windows order of detection from top left to bottom right. The user can change the assignment in the channel configuration menu.
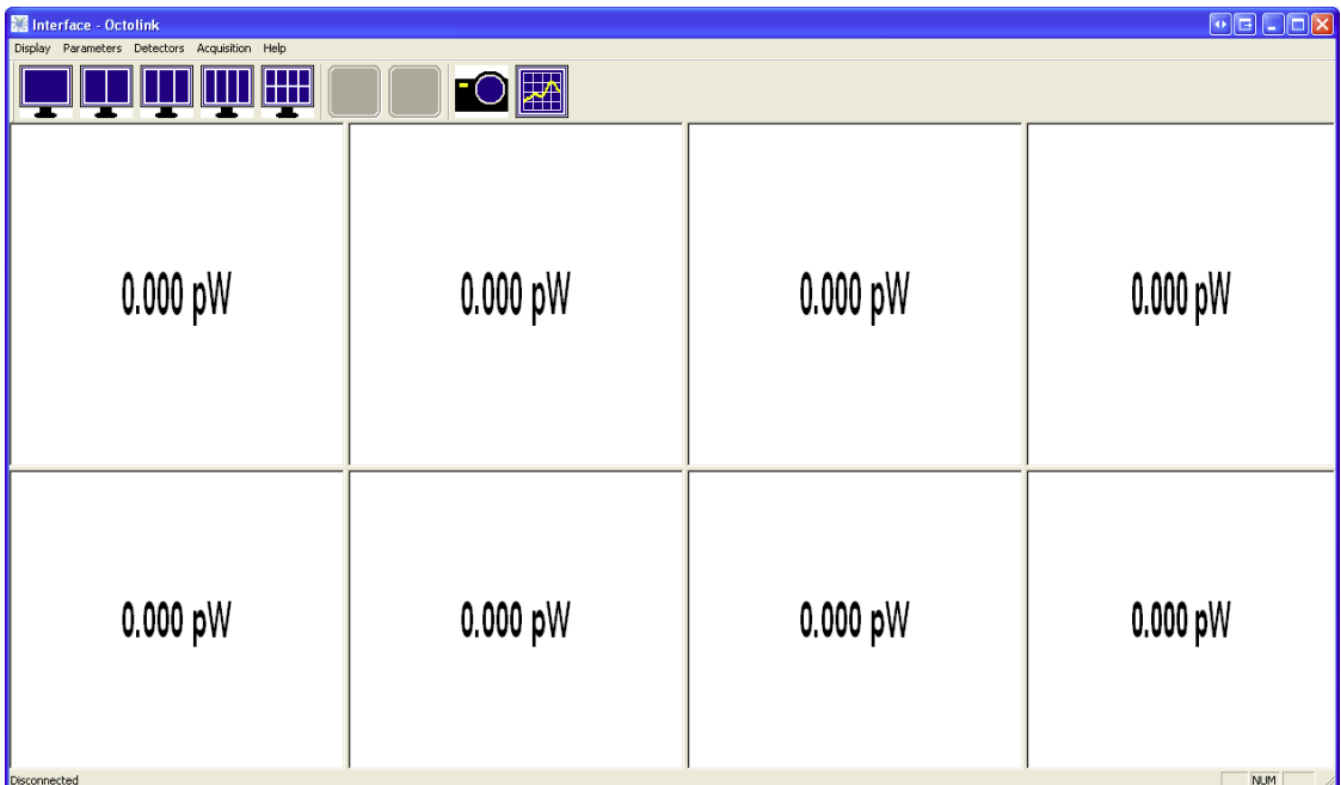
Quick Access Buttons

Name	Icon(s)	Function
1×1 1×2 1×3 1×4 2×8		The 1×1, 1×2, 1×3, 1×4 and 2×8 buttons are short cuts to the Display – Mosaic menu. You can use t hese buttons to change the number of channels di splayed on the screen.
Play		The Play button is a shortcut to the Acquisition – Start Acquisition All Channels menu. If a gray or di sabled icon shows that the function is not availabl e, either the file is not configured or an acquisition is already running
Stop		The Stop button is a shortcut to the Acquisition – Stop Acquisition All Channels menu. If a gray or di sabled icon shows that the function is not availabl e because there is no running acquisition.
Camera		The Camera button is a print screen that can save the current display in a bmp file.
Graphic		The Graphic button is a shortcut to the Acquisition –Post-Analysis Window menu.

Status Bar

The status bar displays the following:

- The number of connected channels

- The file name for the current acquisition.

Display Menu

- **Full Screen:**

  Displays ONE channel in full screen.
- **Mosaic:**

  Allows the choice of the number of simultaneous channels. Moving the middle line will resize or hide the windows.

Parameters Menu

- **Screenshot:**

  Defines the path and filename of the « HeaderYYYYDDMM_HHMMSS.bmp » image.
  - Button […]: Used to browse and select the file path.
  - The header must be manually entered in the text field.
- **Graphical Parameters:**

  Defines the number of points shown in graphic mode (10 Hz).

Detectors Menu

- Auto Detection:

  This function searches for connected detectors, opens a window and loads the last saved settings corresponding to the serial number. This function is launched automatically at program startup and cannot be called if detectors are already connected
  - **Position:**

    o The channel position in the program's main window (cell 1, top left; cell 4, top right and cell 8, bottom right).

    o By default the positions are displayed as " -1 " and will be sequenced in function of the Windows detection order.

    o The position can be modified with a right click on the cell displaying (-1).
  - **Port:**

    Windows communications port
  - **Name:**

    Detector type
  - **Serial:**

    Detector serial number
  - **Title:**

    User defined name
- **Save Settings:**

  The program creates one file for each channel using the serial number as the filename. The filepath is: C:\Octolink*.dat. The file format is not human readable (it cannot be read with a text reader like "Notepad").

  NOTE: To restore default settings, the files must be deleted.
- **Reset Graphics:**

Erases and resets the graphics

- **Reset Statistics:**

  Erases and resets the statistics

- **Reset the Alarms:**

  Erases and resets the alarms

- **Reset All:**

  Erases and resets graphics, statistics and alarms

Acquisition Menu

- Acquisition Parameters:
  - File:
  - Enter path and filename.
  - The date and time are appended to filename

    « HeaderYYYYMMDD_HHMMSS.txt ».

  - Button [...] :
    - Used to browse and select the file path of the acquisition file.
    - The filename header must be entered manually in the "Title" window.
    - The "Select" button confirms the filename, creates the file and closes the window.
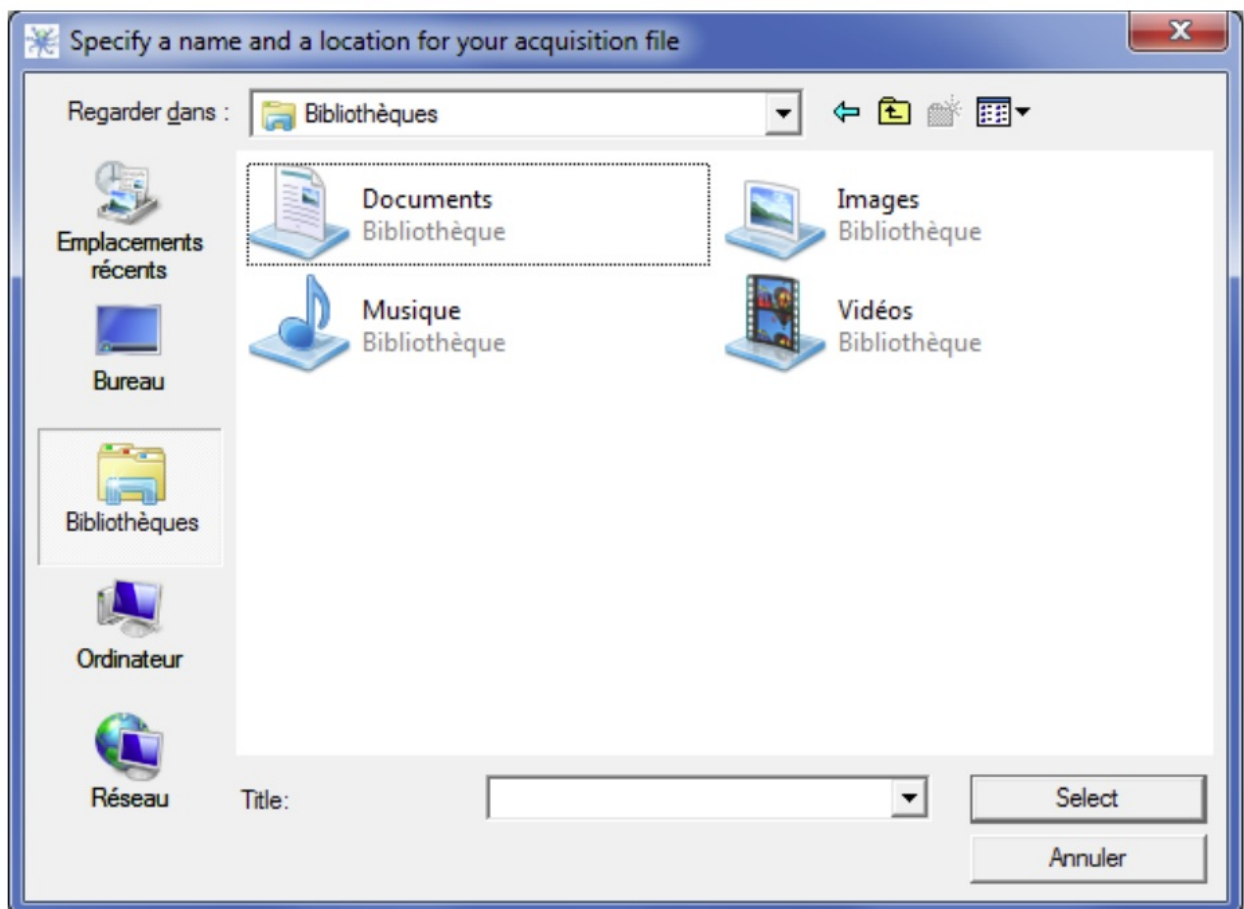
  - The data is saved in a unique tab separated text file.
  - The file is opened and closed with each measurement.
  - The column header is the user defined channel title.
  - The time format is defined by "Windows".
  - **Sampling Period:**

The period (in seconds) between each measurement.

- **Acquisition time:**

  The acquisition length in seconds

- **Acquisition Start/Stop time settings:**

  Defines the start and stop time.

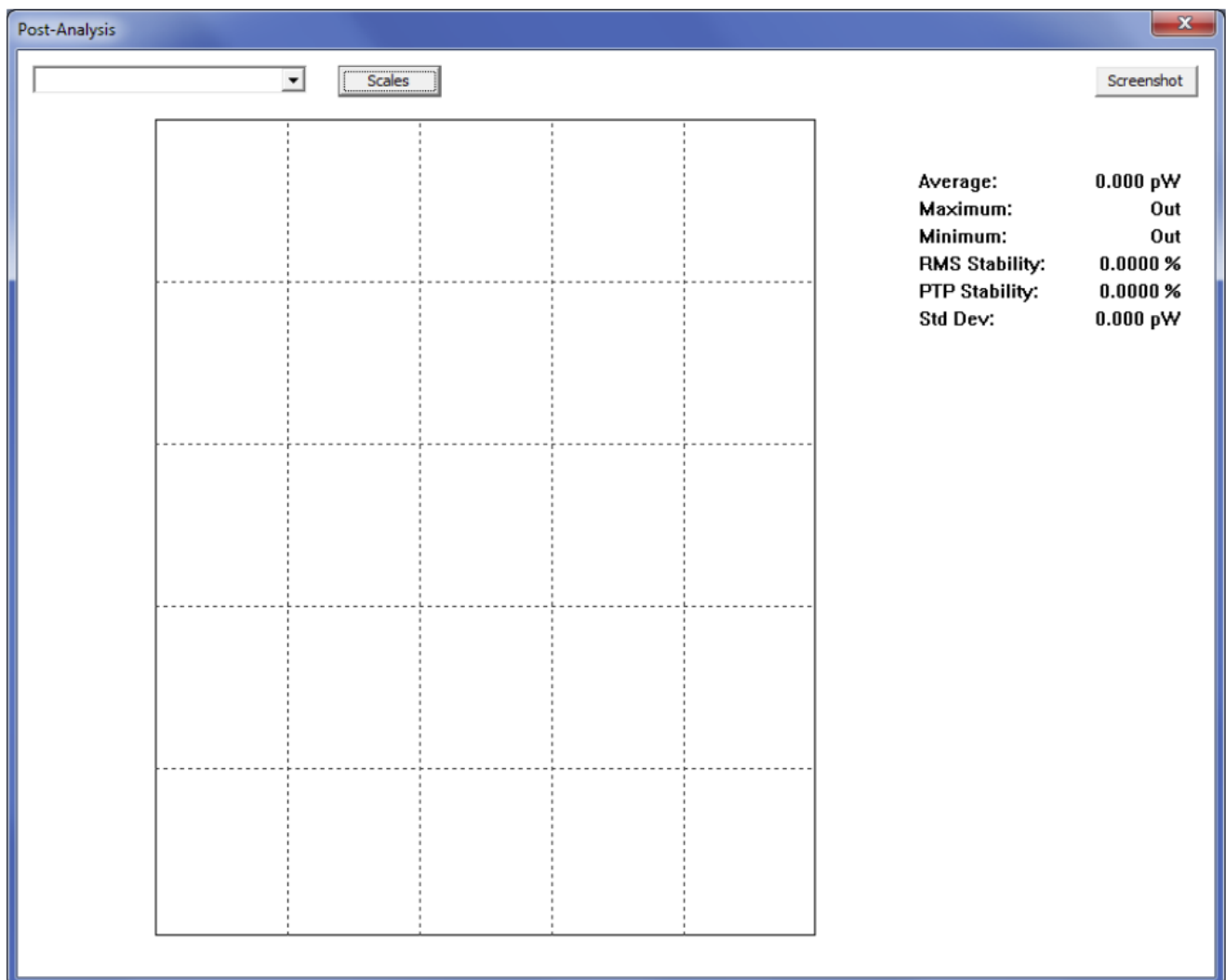- **Start acquisition on all channels:**

Starts an acquisition on all channels at the same time. The graphics are reset. The first and the last points are saved (i.e. a 10 seconds acquisition contains 11 points)

- **Stop acquisition:**

Stops acquisition on all channels.

- **Post Analysis:**

This mode loads previously saved data for the review of measurements.

- Choose the channel in the drop down menu
- The statistics are calculated for the shown period.
- The Scale button defines a particular zone of the graph (entered as date and time (hours) to calculate associated statistics.
- The Capture button creates a snapshot of the windows in a bitmap file.
- The graphic can be zoomed with the mouse and a cursor selection

Help Menu

- **About**

  Shows software version

- **Configuration:**

  Right click, in the main window, displays an individual channel configuration menu.

Show in Full Screen

This displays the selected channel in full screen mode (1×1).

Real Time Measurement

This displays real time measurement in the center of the window.

- The detector type and serial number are shown at top left.
- The user defined name is displayed at top right.
- A reading displayed in red means that a high/low level alarm is activated.

Graphic

This displays real time measurement in the center of the window.

- The detector type and serial number are shown at top left.
- The user defined name is displayed at top right.
- A reading displayed in red means that an high/low level alarm is activated.
- The time scale is in "hour:minutes:seconds" defined by Windows and cannot be changed.
- The graphic contains between 500 and 500 points.
- The default sampling rate is 10 Hz.
- When an acquisition is running the displayed points are defined by the sampling rate parameters of the acquisition.
- i.e.: 1440 points for 24 hours at 1 point per minute
- Double click on X or Y axis to change scales range.
  - **Auto Y:**

    This mode adjusts the scale to content.
  - **Minimum Y / Maximum Y:**

    Manually enters the scale
  - **High / Low Levels:**

    These buttons set the maximum scale to 110% of the High Level and the minimum scale to 90% of the Low Level.

Statistics

This displays statistics.

- The statistics are calculated at 10 Hz.
- The detector type and serial number are shown at top left.

- The user defined name is displayed at top right.
- A reading displayed in red means that a high/low level alarm is activated.
- Refer to P-Link User Manual for details about statistics calculations.

Channel Configuration

In this window the channels can be configured individually and indicate the associated window ID.

- **Name:**

  User defined name
- **Gain:**

  Multiplication factor
- **Offset:**

  Addition factor
- **Wavelength:**

  Select the wavelength, the range depend on detector type.
- **High** / **Low Levels:**

  Define the levels for alarm
- **Window ID (# Window Box):**

  Selected window identification number

Reset Graphic, Statistics and Alarm

Resets the graphic, statistics and alarm for the selected channel only.

ALARMS

The alarms are triggered when the reading goes outside the defined range by the high/low levels. The readings are shown in red. The alarms remain even if the readings return inside the defined range, until an Alarm Reset.

Instability issues with Ethernet

To avoid unexpected problems, the user should:

- Connect the P-LINK-4 directly to the PC through a Ethernet HUB and isolated from global Network.
- Make sure that there is no virus or spyware on the PC.
- Disable screen saver, automatic updates, virus-shield, firewall, and power management utilities (ex: hard-drive sleep mode after x minutes).
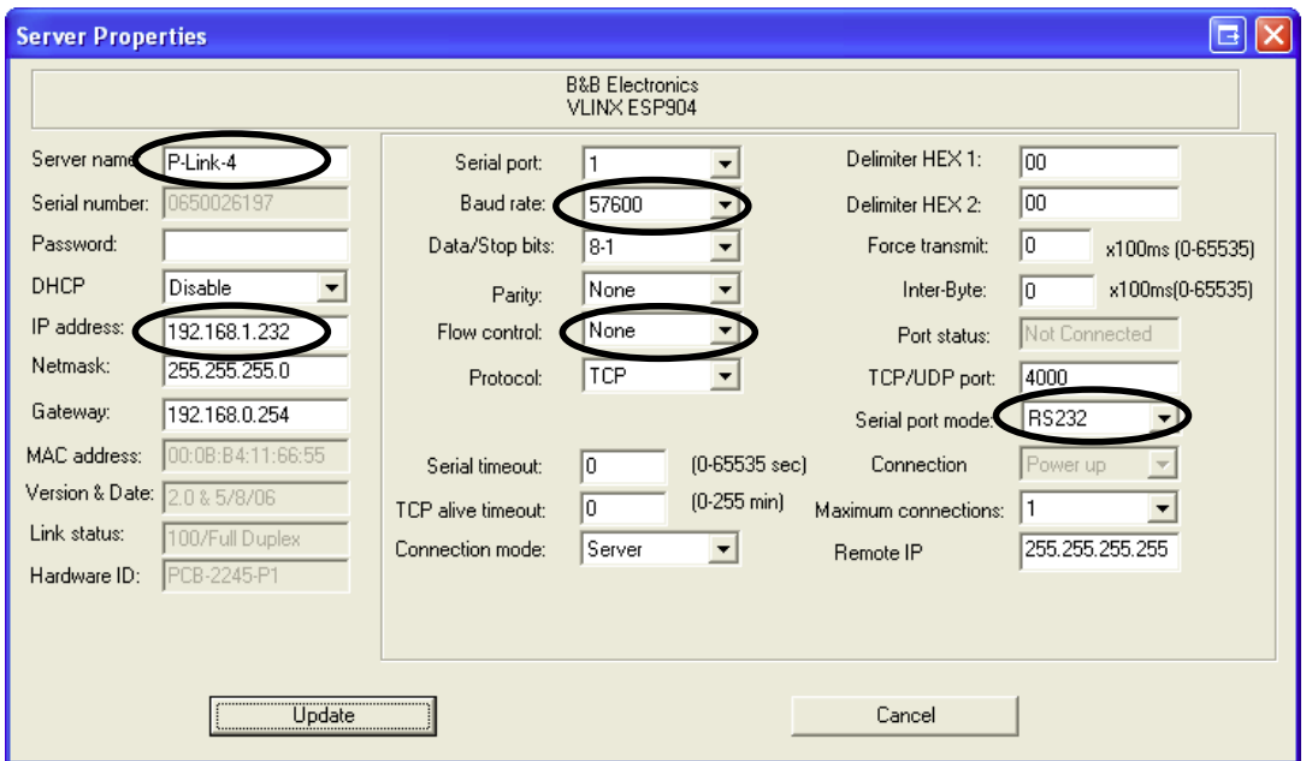
If the communication with the P-LINK-4 Ethernet is not working:

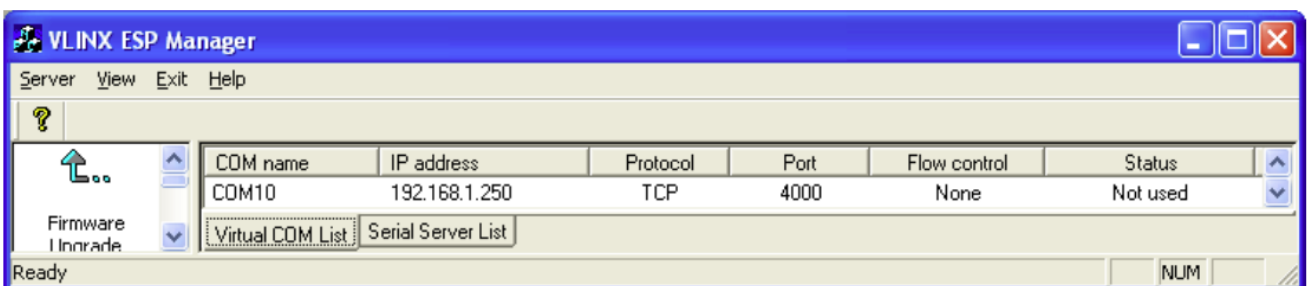The P-Link-4 is pre-configured but the settings can be changed by the user.

1. Start VLINX ESP Manager:
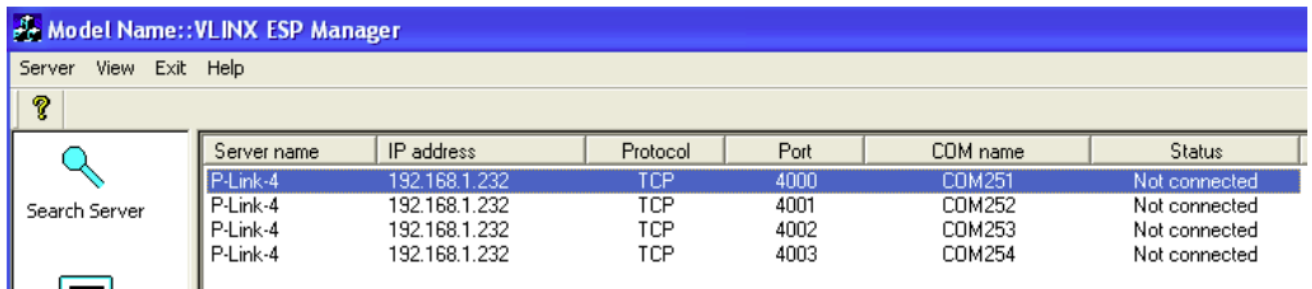
2. Double-click on the item in the Serial Server List and make sure that they are configured as follows. Note that a restart will be done after each update:

3. Check if the Virtual Com are configured in the Virtual COM Lis

4. Double-click on the COM name and make sure that they are configured as follows.

Virtual COM Configuration

Map To: COM251

Flow Control: None

Protocol: TCP

IP Address: 192.168.1.232

Port Number: 4000

OK   Cancel

CE Declaration of Conformity

Application of Council Directive(s): 2014/30/EU EMC Directive
Manufacturer's Name: Gentec Electro Optics, Inc.
Manufacturer's Address: 445 St-Jean Baptiste, suite 160
(Québec), Canada G2E 5N7
European Representative Name: Laser Components S.A.S.
Representative's Address: 45 bis Route des Gardes
92190 Meudon (France)
Type of Equipment: Optical Power meter
Model No.: PLINK
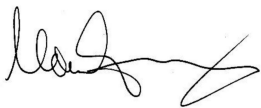Year of test & manufacture: 2011
Standard(s) to which Conformity is declared: EN 61326-1:2006: Emission generic standard

Standard	Description	Performance Criteria
CISPR 11 :2009 A1 :2010	Industrial, scientific and medical equipment – Radio- frequency disturbance characteristics – Limits and methods of measurement	Class A
EN 61000-4-2 2009	Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques- Electrostatic discharge.	Class B
EN61000-4-3 2006+A2:2010	Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques- Radiated, Radio Frequency, electromagnetic field immunity test.	Class A
EN61000-4-4 2012	Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques- Electrical fast transient/burst immunity test.	Class B
EN 61000-4-6 2013	Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurements techniques- Immunity to conducted Radio Frequency.	Class A
EN 61000-3-2:2006 +A1 :2009	Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current <= 16 A per phase)	Class A

I, the undersigned, hereby declare that the equipment specified above
conforms to the above Directive(s) and Standard(s).

Place: Québec (Québec)
Date : July 14, 2016

_____
(President)

UK
CA **UKCA DECLARATION OF CONFORMITY**

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Manufacturer's Name: Gentec Electro Optics, Inc.
Manufacturer's Address: 445 St-Jean Baptiste, suite 160

European Representative Name: Laser Components S.A.S.
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Type of Equipment: Optical Power meter
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Standard	Description	Performance Criteria
CISPR 11 :2009 A1 :2010	Industrial, scientific and medical equipment – Radio- frequency disturbance characteristics – Limits and methods of measurement	Class A
EN 61000-4-2 2009	Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques- Electrostatic discharge.	Class B
EN61000-4-3 2006+A2:2010	Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques- Radiated, Radio Frequency, electromagnetic field immunity test.	Class A
EN61000-4-4 2012	Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques- Electrical fast transient/burst immunity test.	Class B
EN 61000-4-6 2013	Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurements techniques- Immunity to conducted Radio Frequency.	Class A
EN 61000-3-2:2006 +A1 :2009	Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current <= 16 A per phase)	Class A

I, the undersigned, hereby declare that the equipment specified above
conforms to the above Directive(s) and Standard(s).

Place: Québec (Québec)
Date : November 30, 2021

(President)

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Documents / Resources

gentec-EO Octolink Multi Channel Software for P-LINK-4 [pdf] User Manual
P-LINK-4, Octolink Multi Channel Software for P-LINK-4, Octolink, Multi Channel Software for P-LINK-4, Octolink Multi Channel Software, Octolink Software

References

- 🌐 **eo.com**
- 📄 **â–· Laser power, laser energy and terahertz power measurement systems - Gentec-EO**
- 📄 **â–· Laser power, laser energy and terahertz power measurement systems - Gentec-EO**