

USB Driver:

In order for Windows to recognize the device the USB driver must first be installed, after which the unit appears as an additional COM port on the computer. Currently Windows XP, Vista, and 7, 8, and 10 are supported.

1. Copy the file "cdc_NTXPV764.inf" from the supplied CD to the hard drive.
2. Plug the device into a free USB port. When the hardware installation wizard asks for the driver location, browse to the "cdc_NTXPVista.inf" file on the hard drive.
3. After the driver has been installed right click "my computer" and select "properties". In the properties window select the "hardware" tab. Click on "device manager" and expand the "Ports (COM & LPT)" item. Locate the "Spectronix, Inc." entry and note the assigned COM number, (ie "COM4"). This is the COM port that the software will use to communicate with the device.

Note, on some operating systems such as Window 7, manual USB driver installation may be necessary. If the hardware installation wizard fails, go to "My Computer" > "Properties" > "Hardware" > "Device Manager", and find the "Spectronix" or "SERIAL DEMO" entry under "Other Devices" and select "Update Driver". At this point you will be able to browse to the location of the driver.

Commands:

The LADC uses a combination of ASCII and binary data to communicate with a host which can either be the SOM via logic level RS232 or the external USB port. The tables below list the individual commands, parameters, and responses.

Notes:

1. All communication is initiated by the host.
2. Text is not case sensitive.
3. A space should be inserted between the command and any parameters.
4. All commands should be terminated with <CR>, <LF>, or both.
5. Responses from the device are framed using a binary 0x00 character (start) and terminated with 0x0D0AFF (<CR><LF>0xFF). These framing bytes are not shown in the tables below.
6. Invalid commands will return framing bytes with no payload.
7. Response parameters are variable width, may contain white spaces, and are separated by commas.
8. For the descriptions below, values inside quotations (") are literal ASCII values, text inside brackets ([]) are variable ASCII values, and values inside <> are binary values.

Example Command / Response:

Command to turn the main power on:

Command: **SetPower 1<CR><LF>**

Response: **<0x00> SetPower 1<CR><LF><0xFF>**

Get unit information	
<u>Command:</u>	<u>Description:</u>
"?"	
<u>Response:</u>	<u>Description:</u>
"?"	Echo command
"100555A"	Unit name (fixed)
[major.minor]	Firmware version
[power state]	0=standby, 1=active
<i>Notes: Initial release version is 0.0.</i>	

Put the unit in active or low power standby mode	
<u>Command:</u>	<u>Description:</u>
"SetPower"	
[state]	0=standby, 1=active
<u>Response:</u>	<u>Description:</u>
"SetPower"	Echo command
[state]	0=standby, 1=active
<i>Example: "SetPower 1" (puts the unit in active mode).</i>	
<i>Notes: Default is low power standby</i>	

Determines if the unit powers down or not on loss of USB activity	
<u>Command:</u>	<u>Description:</u>
"SetStayOn"	
[state]	0=shut down with COM, 1=Stay on
<u>Response:</u>	<u>Description:</u>
"SetStayOn"	Echo command
[state]	0=shut down with COM, 1=Stay on

Communicate directly with a BERT channel	
<u>Command:</u>	<u>Description:</u>
"BERTSend"	
[Channel no]	0 through 11
[Command + Payload]	Data to pass to the specified BERT
<u>Response:</u>	<u>Description:</u>
"BERTSend"	
[Channel no]	0 through 11
[No bytes]	Number of bytes in the response
[Response]	BERT response
<p><i>Example: "SendBERT 1 ?b" (gets information from channel 1, secondary side of the first dual BERT module.</i></p> <p><i>Notes: To access the secondary side of dual channel BERT modules, append the command with "b". See Eye-BERT MicroX Software Programming guide for a list of commands.</i></p>	