## PC USB INTERFACE

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The following information applies to the VNA2180 and the AIM4170.

Connect one end of the USB **cable** to the VNA (or AIM) and the other end to a USB port on your PC. You <u>may</u> need a new USB driver. (Many computers will already have the appropriate driver.) The USB interface chip used in the VNA2180 is made by FTDI (<u>www.ftdichip.com</u>). The chip is called FT232R and the recommended driver for several versions of Windows is 2.04.16. A link to it is on this page: <u>http://www.ftdichip.com/Drivers/VCP.htm</u>

If your computer is connected to the internet at the time you first plug in the USB cable, Windows XP and Vista may be able to find the driver <u>automatically</u> on the internet. This may take two or three minutes.

After the driver is installed and it has assigned a port number to the VNA2180, use the Windows Device Manager to find the comm port number. Click "**Start**" in the lower left corner of the screen, then click "**Control Panel**", "**System**", "**Hardware**", "**Device Manager**". The comm port number will be shown in a list of i/o ports similar to this:



Under the VNA **Setup** menu tap at the top of the VNA program screen, click on **Enter Comm Port** and enter the port number that was assigned by Windows. This number will be saved in the setup file called *VNA\_xxx.ini*. The default comm port number may be **6** or 5.

The usb interface can be customized for improved performance. Double click on the line that says "USB Serial Port (COMxx)". The **General Properties** dialog will pop-up:

USB Serial	Port (COM5) Prop	erties		? ×
General	Port Settings Driver	Details		
4	USB Serial Port (CO	DM5)		
	Device type:	Ports (COM & LPT)		
	Manufacturer:	FTDI		
	Location:	on USB Serial Converter		
Device	status			
This d	fevice is working pro	perly.		-
				-
				]
		0	к	Cancel

Click on the tab that says "Port Settings".

JSB Seria	Port (COM5) Properties		?)
General	Port Settings Driver Details		
	<u>B</u> its per second:	9600	<b>_</b>
	<u>D</u> ata bits:	8	
	Parity:	None	•
	Stop bits:	1	
	Elow control	Advanced	Restore Defaults
		ОК	Cancel

Change the **Bits per second** to **430000**.

Click on the button labeled "Advanced" (this button may be overlapping the Flow Control edit box). Click on the outer edge of the Advanced button.

anced Settings for COM5		?
COM Port Number: COM5	<b>_</b>	ок
USB Transfer Sizes		Cancel
Select lower settings to correct performance problems	s at low baud rates.	Defaulte
Select higher settings for faster performance.		Deraults
Receive (Bytes):		
Transmit (Bytes):		
BM Options	Miscellaneous Options	
Select lower settings to correct response problems.	Serial Enumerator	<b>v</b>
Latency Timer (msec):	Serial Printer	
Editericy Hiner (insec).	Cancel If Power Off	Г
Timeouts Change Latency	to 1 Event On Surprise Removal	
Minimum Read Timeout (msec):	Set RTS On Close	
Minimum Write Timeout (msec):	Disable Modem Ctrl At Startup	

The COM Port Number can be changed, if desired. <u>Make a note of this number</u>; this is the value that will be entered into the VNA program for the comm port. Change the parameter called "Latency Timer" from 16 to 1. This will speed up the communication.

It has been found that sometimes the computer operating system will say the USB driver is properly installed when it really isn't. Deleting the driver and then starting over and specifying that the driver must be reloaded from the CD may work. Sometimes, deleting the device manager for this port and then plugging the cable back into the computer will cause the PC to reinstall the correct driver.

Check this web page for the latest information on the interface: <a href="http://www.w5big.com/FAQ.htm">www.w5big.com/FAQ.htm</a>

The VNA2180 (and the AIM) programs has been used with Windows 2000, XP, Vista and Windows 7. They have also been used with the MAC.