5009 Quick Start Guide

Step 1: Power Supply Connection

You are going to need a 6Vdc ±0.5V at <u>600mA</u> power supply. Use the supplied red-black Hirose cable to connect to your power supply. Connect it and you should see two blue LEDs illuminating through the label just below the Source 1 and Source 2 label markings. Your 5009 will now be set to 2440MHz on Source 1 and 2480MHz on Source 2.

See *"Hints and Kinks – Power Supplies"* on back of this document.

Step 2: USB connection

Connect the provided USB cable to your 5009 and host computer. Your computer should recognize it as a new FTDI Virtual Com Port. If you have trouble, then it is likely you do not have the correct VCP (virtual com port) driver. (Download FTDI CDM v2.12.00 WHQL Certified.zip from the link below, unzip and run).

Step 3: Terminal Program

You will need a terminal program to change your 5009 settings. Just about any terminal program will work. We have provided **5000term.zip** .   Unzip and running 5000term.exe will automatically find the correct Virtual Com Port. If you use a different terminal program, your port settings are 9600, 8, None, 1, None.

Step 4: Synthesizer Settings

After launching your terminal program, press the Enter key a few times and check to see that you get a cursor like this: "-1->", if you do, you have successfully established communications with your 5009. Type **help** to get the help menu

control-c will exit program.
control-f will increase the baud rate to 115200.
control-r will reset the synthesizer to factor default settings..

Consult the **Valon 5009 Operations Manual** for more information on the use of these commands.

Note that as of this date, not all commands in the Operations Manual are available. As these commands become available, we will notify you and you will be able to download the updated *.bin files. You can also use the 5000term.exe terminal program to load the *latest*.bin files.

For the latest 5009 Downloads: http://www.valontechnology.com/5009users/5009.htm

Above all, if you have trouble or need help just contact us.

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5009 Hints and Kinks – Power Supplies

Occasionally, we get a trouble call from a new 5009 user who says that the 5009 will not lock on frequency after power up. Usually it's just one of the RF Sources that won't lock. After doing to some investigation the problem almost always is caused by the power supply. The power supply is usually standard lab bench supply.

The power supply is not the problem nor is there anything wrong with the 5009. The problem is how the power supply is set up and used. Follow these suggestions to make sure you don't run into start up problems:

1. Current limit set too low. Make sure the current limit is set well above the required 560mA. Best to set the current limit to 1.0A.
2. Preset the output voltage to 6.0+V. Don't set the power to exactly 6.0V. It's best to set the power supply a little higher in order to compensate for I*R drop of the power supply cables.
3. Use the power supply on/off switch to power on the 5009. Biggest problem with erratic 5009 performance with lab supplies is the user "dialing up" the voltage slowly from 0V. This will sometimes confuse the power-on-reset circuitry resulting in an unlocked synthesizer. **Best to just adjust the output voltage first and then power-cycle the power supply or plug the power cable into the powered on power supply.**