

## Programming RIO CPLD

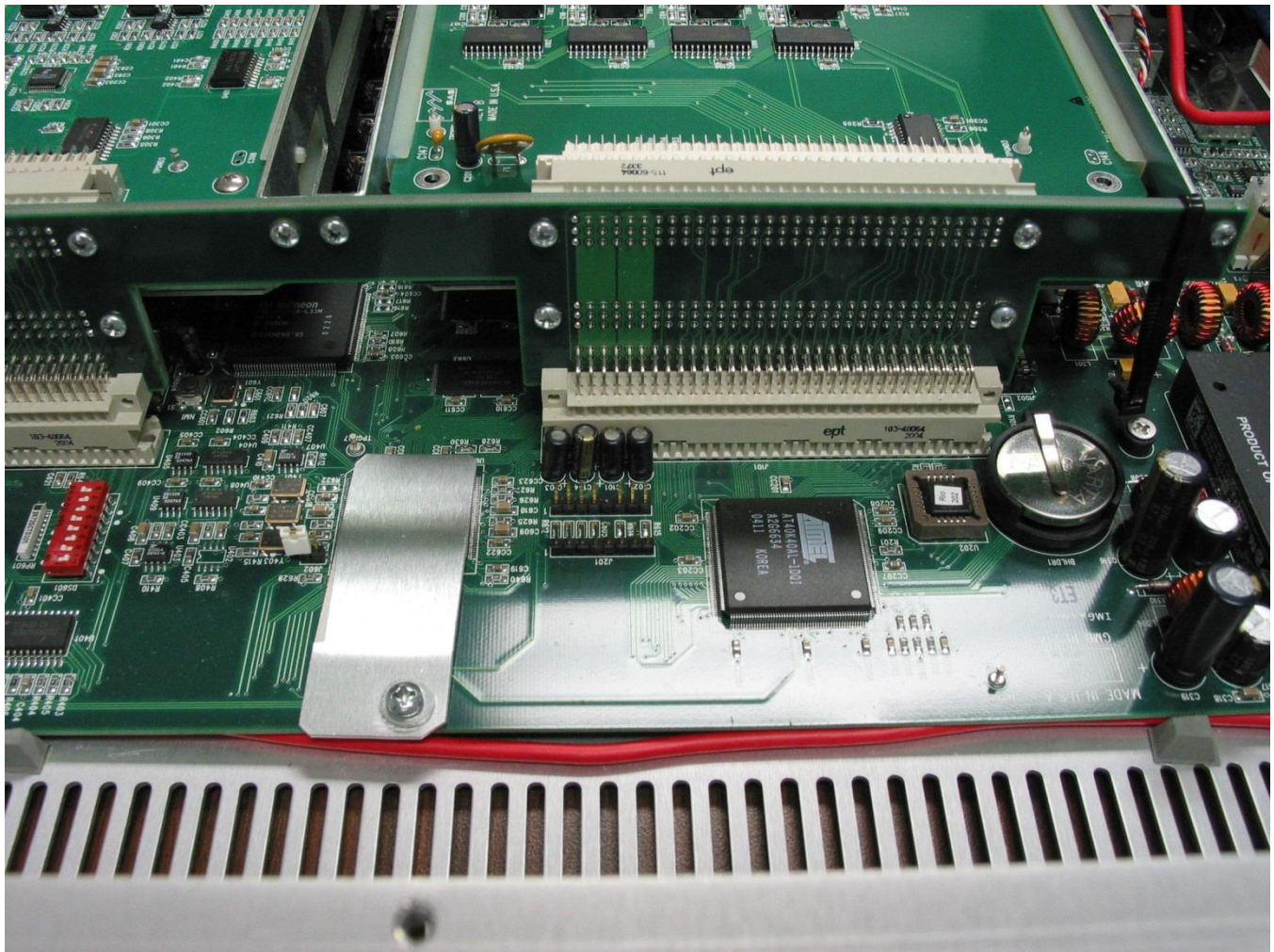
Locate the RIO on a work surface. Remove cover. Orient with RIO front panel toward the technician.

Install jumper on J602. Note this jumper is not required on Rev E motherboards.

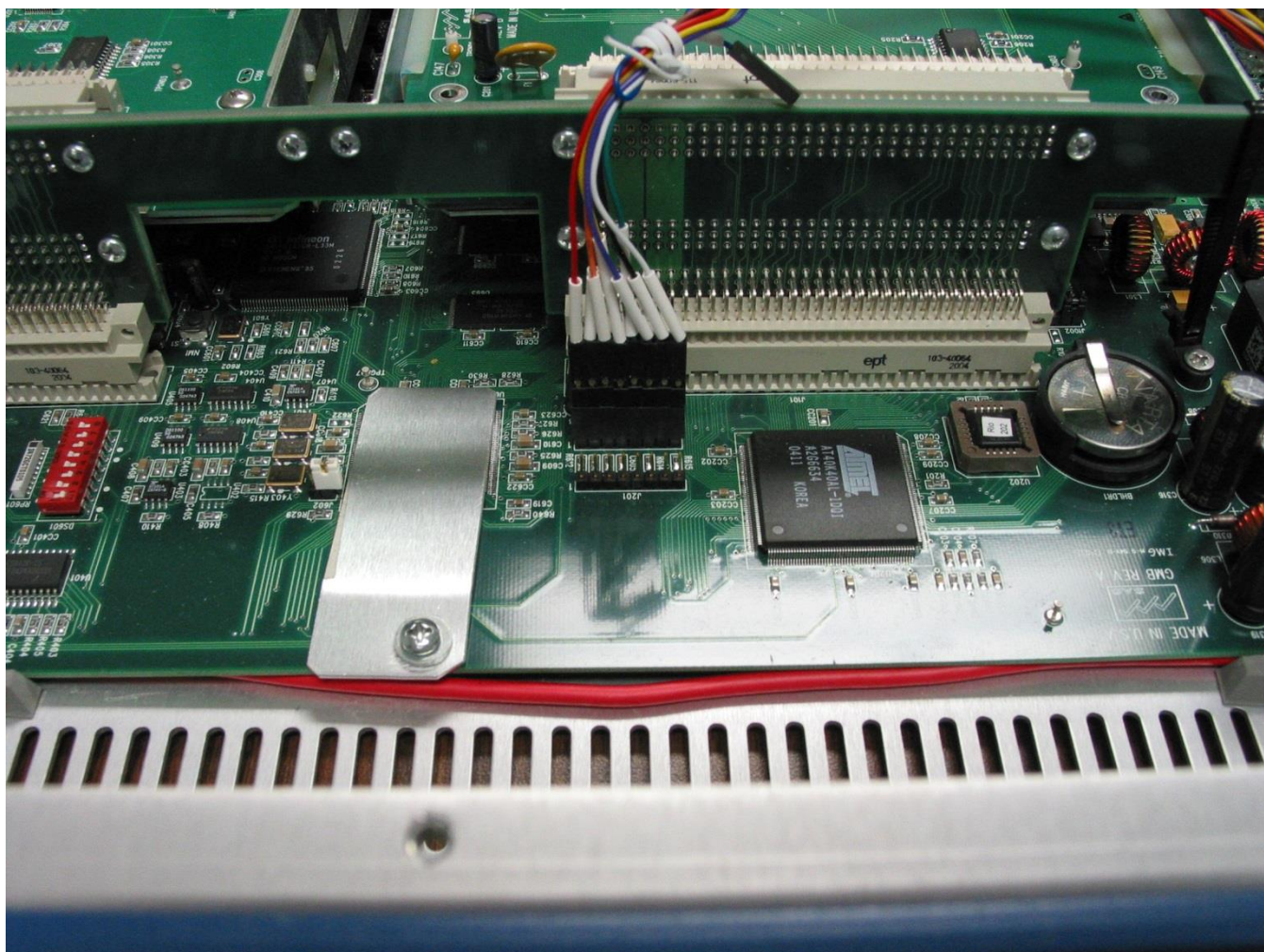
Apply power to RIO.

Plug the cable from the computer into J601. The RED wire on the cable harness goes to pin 1.

J601 may have a header installed. If it has a header, carefully remove the end pins from the connector and connect the cable to the header.

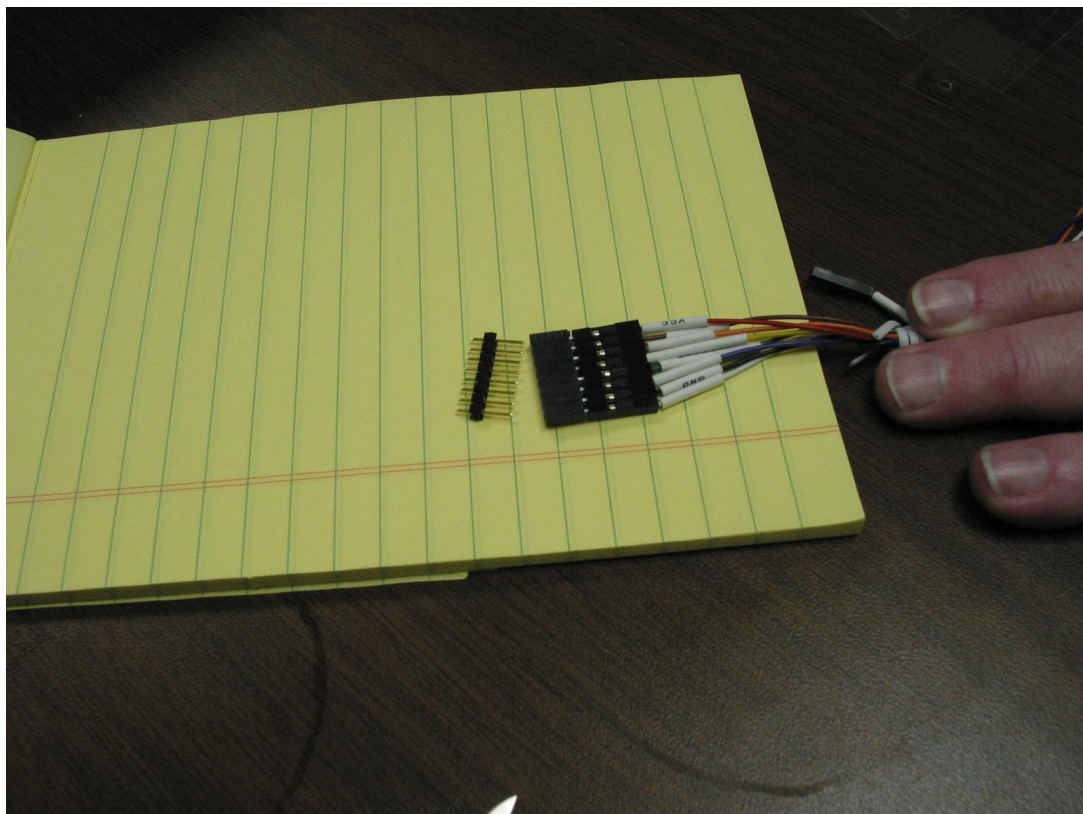


Rio with header installed at J601

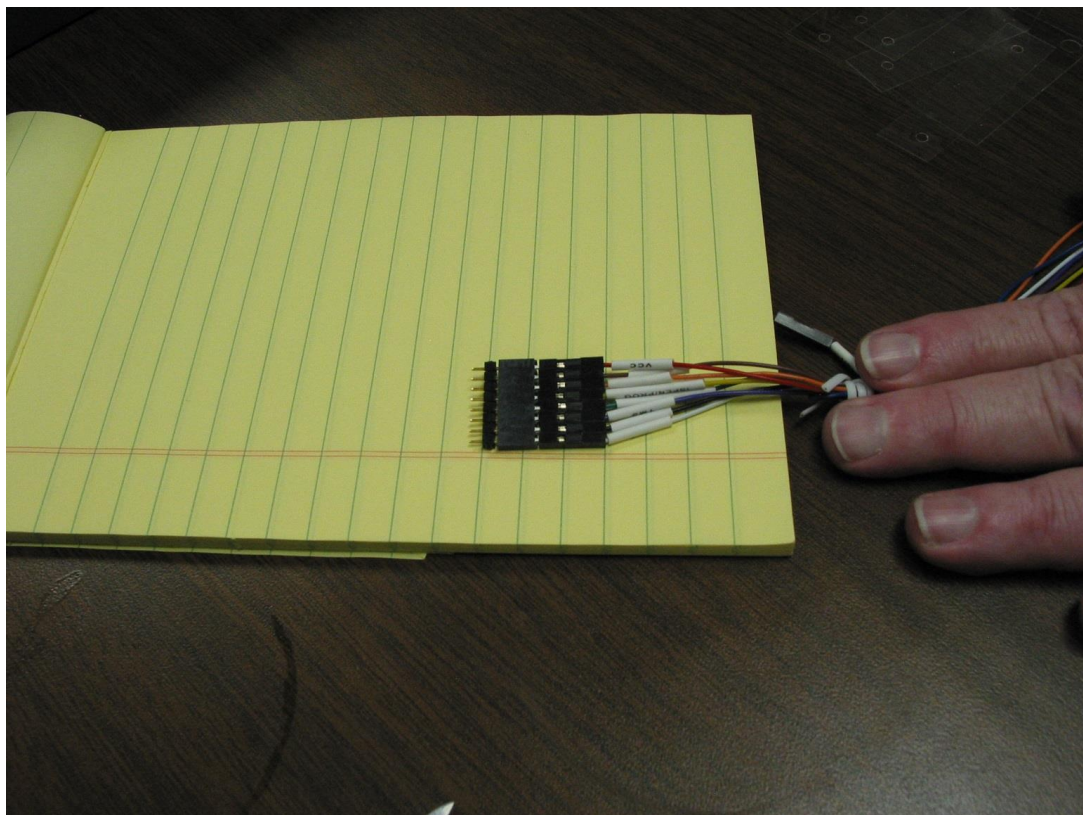


Rio with header and cable attached installed. Note white jumper installed to the left of the heat sink.



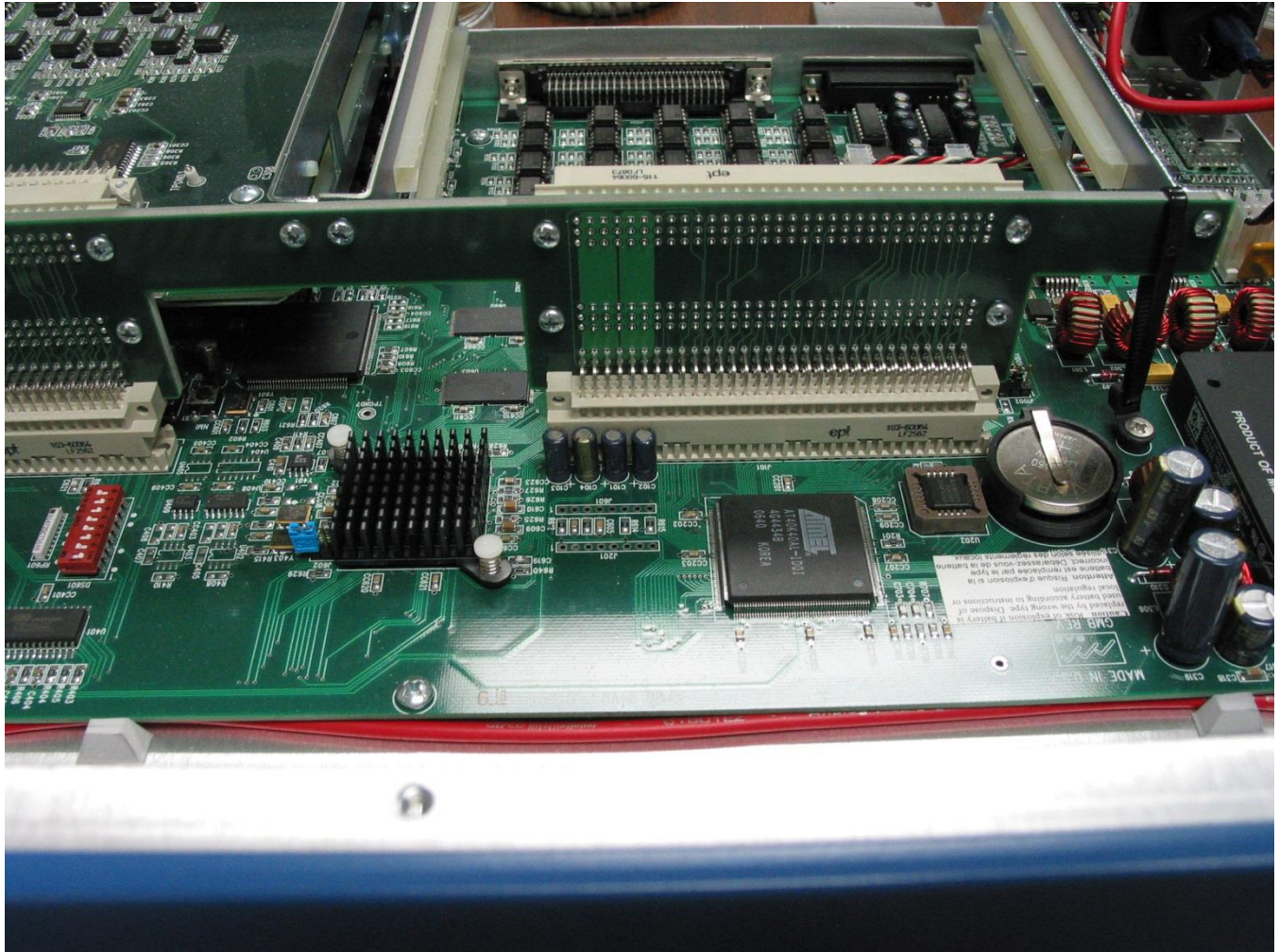


Cable with pins removed for use with header



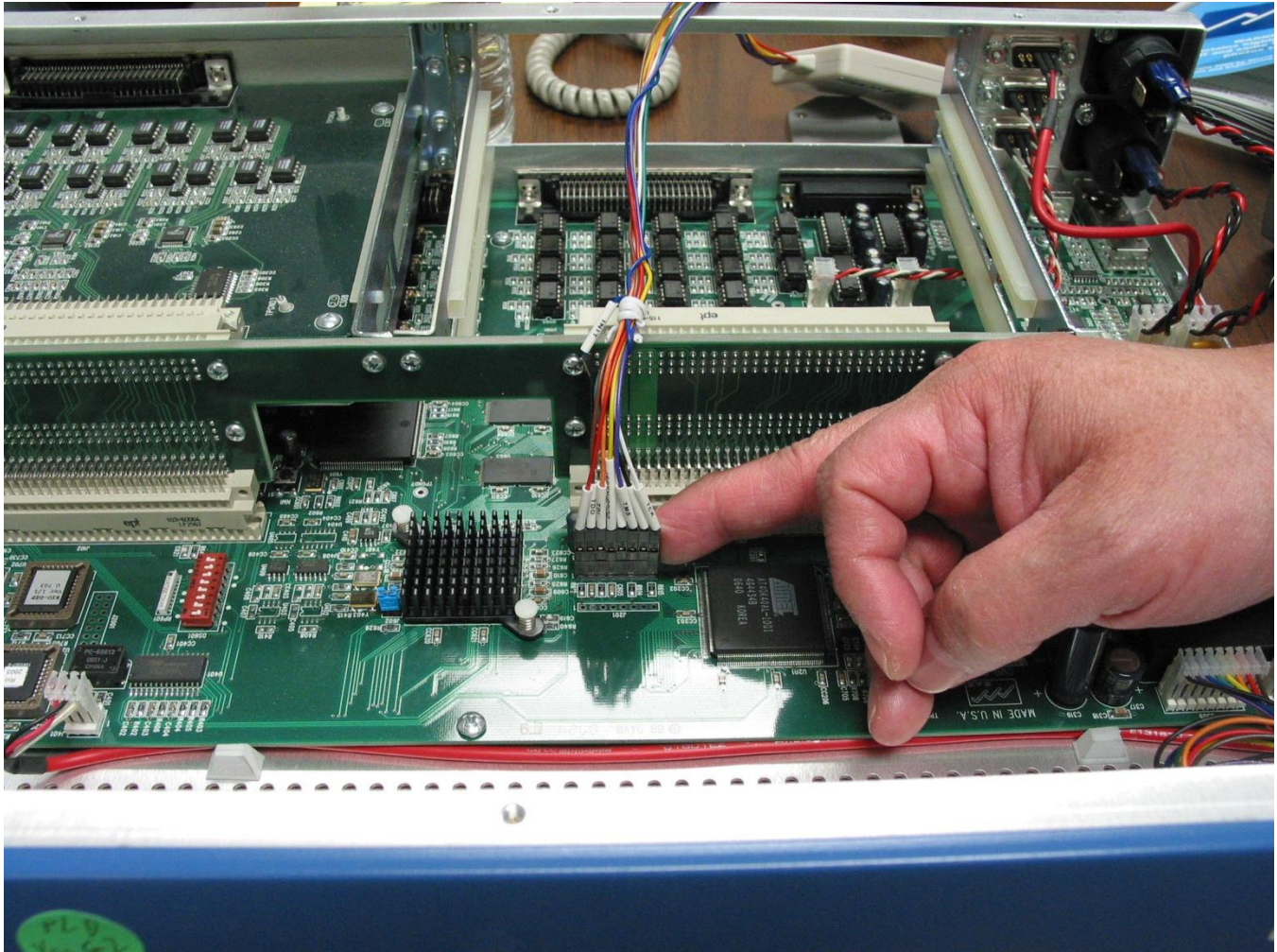
Cable with pins installed for use with no header.

If the header is not installed on the RIO make sure the end pins are connected to the connector and insert in the J601. Slight forward pressure will need to be applied to the cable while scanning and programming to assure proper contact.



Rio with no header installed.





Rio with header installed and cable attached. Note jumper installed to the left of the heat sink.

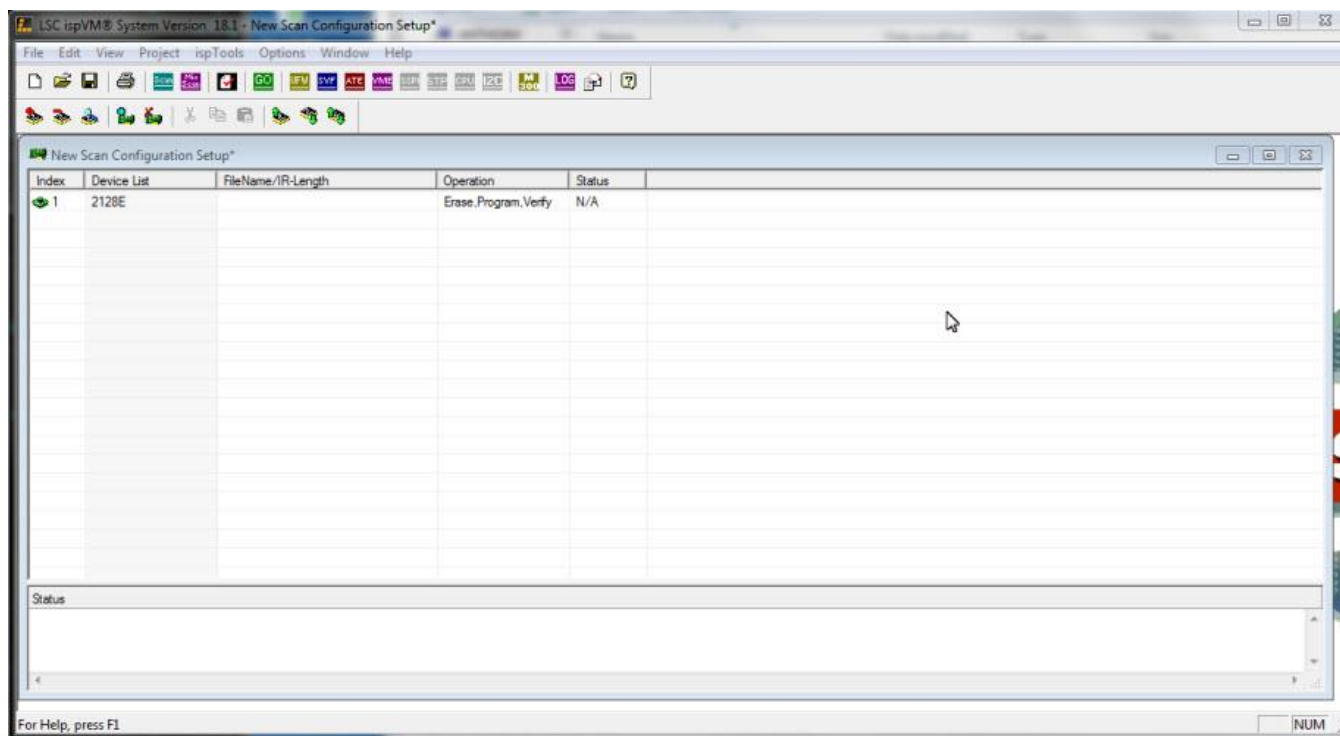
Run ispVM

Hit "Scan" button. (Green colored, second row, 5th from left).

"New Scan Configuration Setup" window will open.

"Device List" should read: 2128E. (Note: Device is different on Rev E Motherboard.)

"Operation" should read: Erase, Program, Verify.



Double-click on white area under “File Name / IR-Length”.

Device Information

Part Description:

Device:

Select... 2128E

Device Full Name: Package:

ispLSI2128E All

Data File:

Browse C:\Temp\RioG\_Ethernet\_072806A.jed

Instruction Register Length:

Import... 5

☐ Re-initialize Part on Program Error

☐ Enable Debug Mode

Operation:

Erase,Program,Verify

On the “Device Information” window, click Browse.

On the “Open JED File” window Browse to the directory where the “RioG\_Ethernet\_072806A.jed” was placed

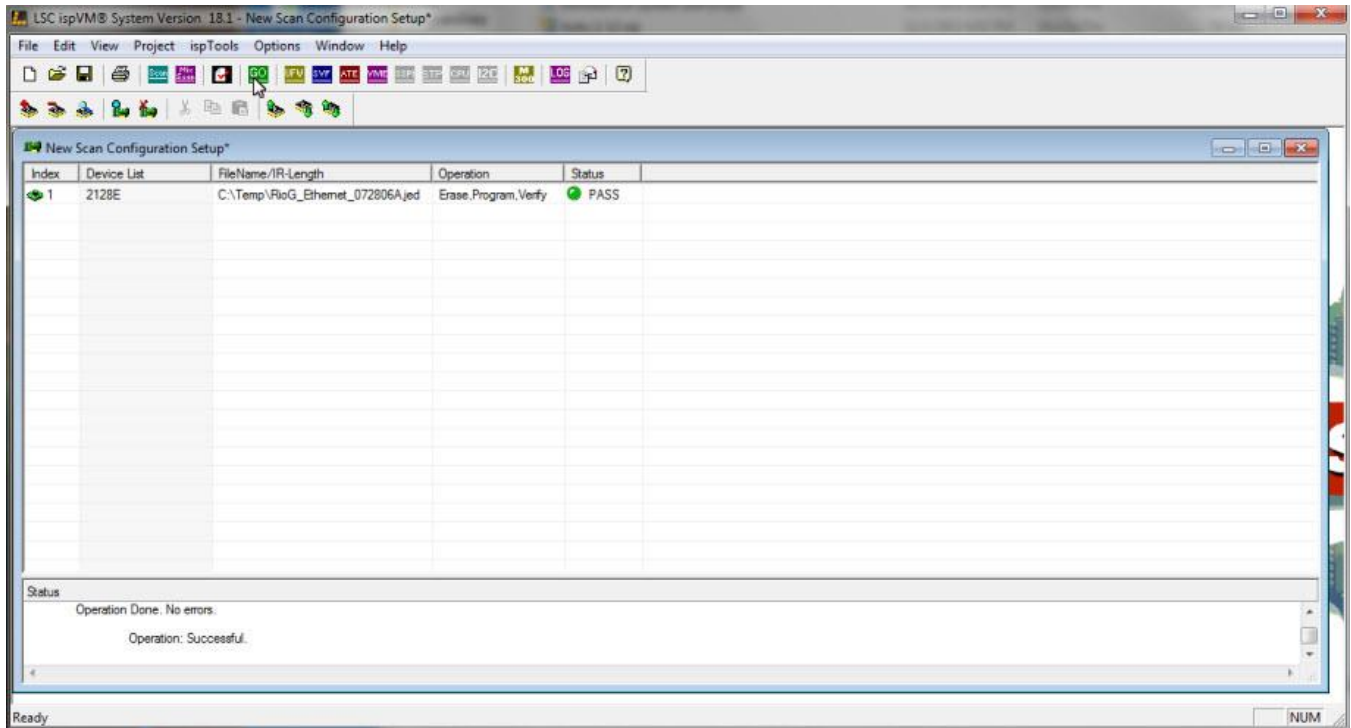
Click on “RioG\_Ethernet\_072806A.jed” ONCE to highlight it, then hit the “Open” button.

For Rev E Motherboards the file is RioGrande\_Rev\_E4\_ClkDecode\_Production.jed

On the “Device Information” window, visually verify all the information, then hit the “OK” button.

To program the chip, hit the “GO” button. (Green colored, second row, 8th from left).

If successful, a green dot and the word “PASS” will appear in the far right “Status” column, and the words “Operation: successful” will appear in the “Status” box below.



Remove power from RIO.

Remove Jumper on J602. (place on one pin to save jumper for future use)

Apply power to RIO. Observe the RUN light flashes.