



XILINX

ALL PROGRAMMABLE™

VC707 Power Bus Reprogramming

Contents

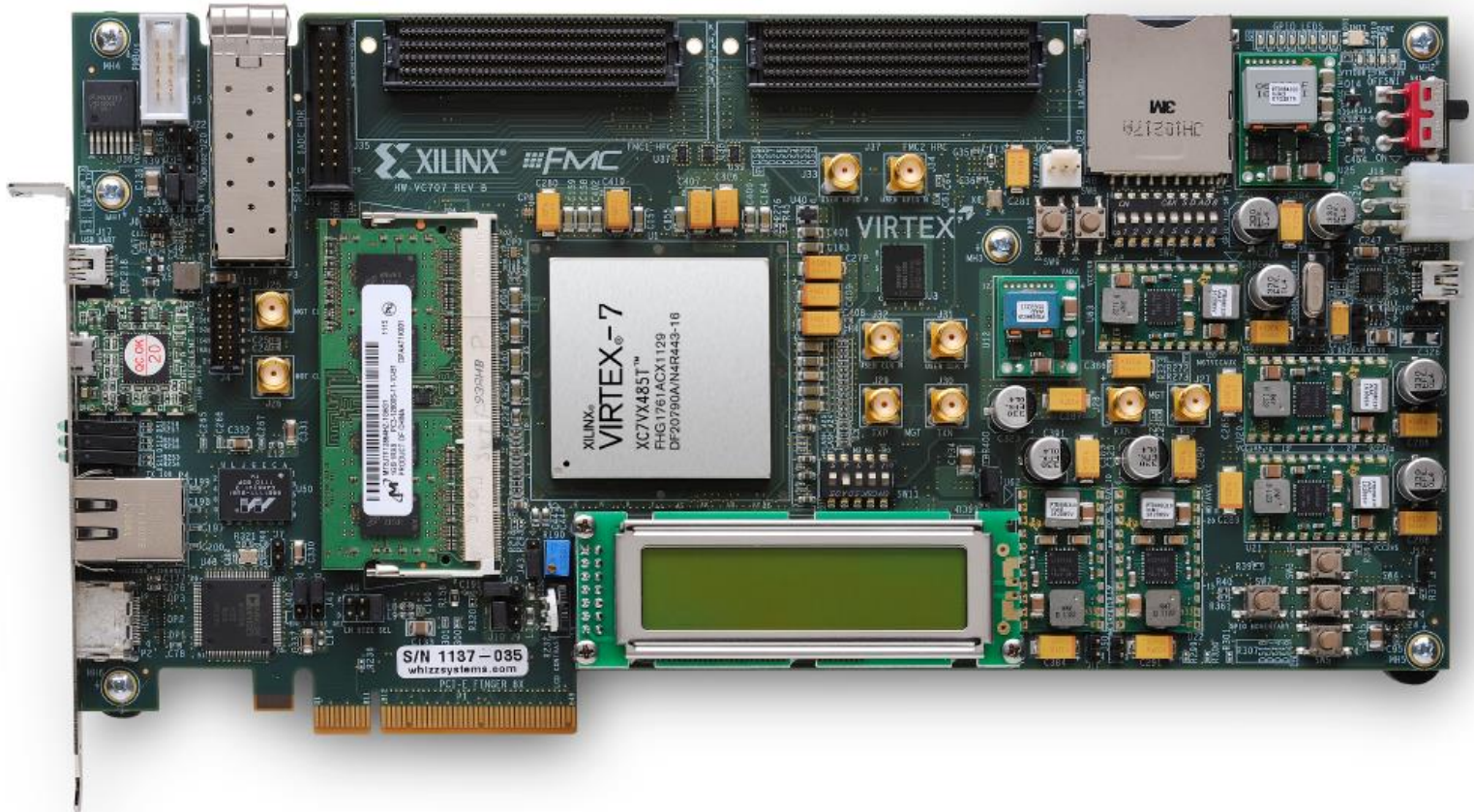
- **Caution!**
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Caution!

- The Texas Instruments software used in this presentation can adjust the power supply outputs on the VC707
- If used improperly, it can seriously damage your VC707
- Before making any adjustments not specifically covered in this presentation:
 - Understand the power requirements for Virtex-7 Devices
 - Understand the consequences of the change you are making



Xilinx VC707 Board



Hardware Requirements

➤ Texas Instruments USB Interface Adapter EVM

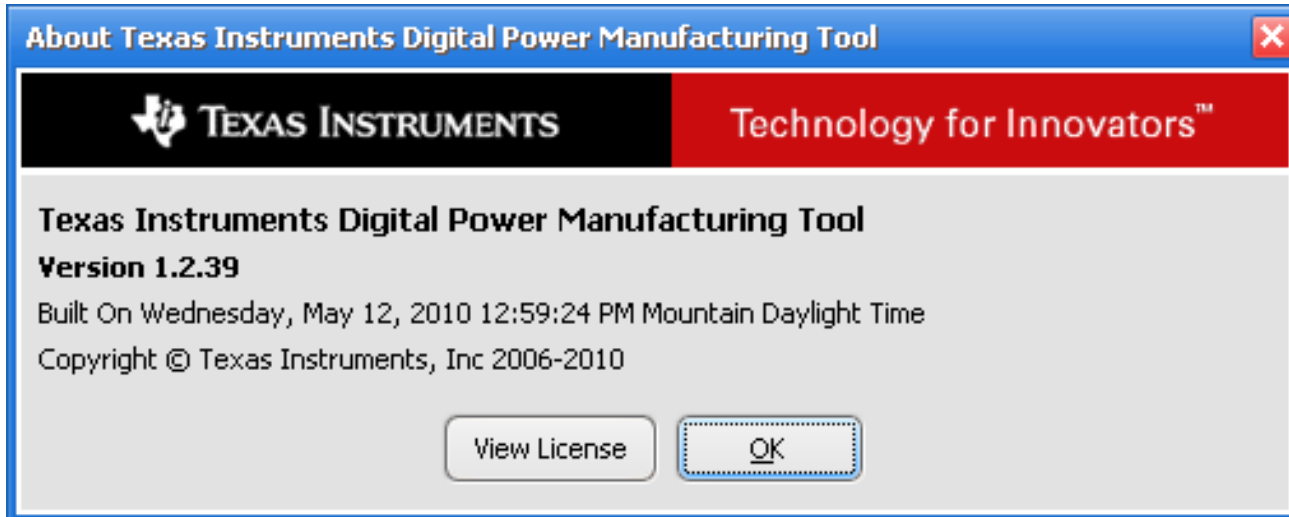
– TI Part Number: [USB-TO-GPIO](#)



Software Requirements

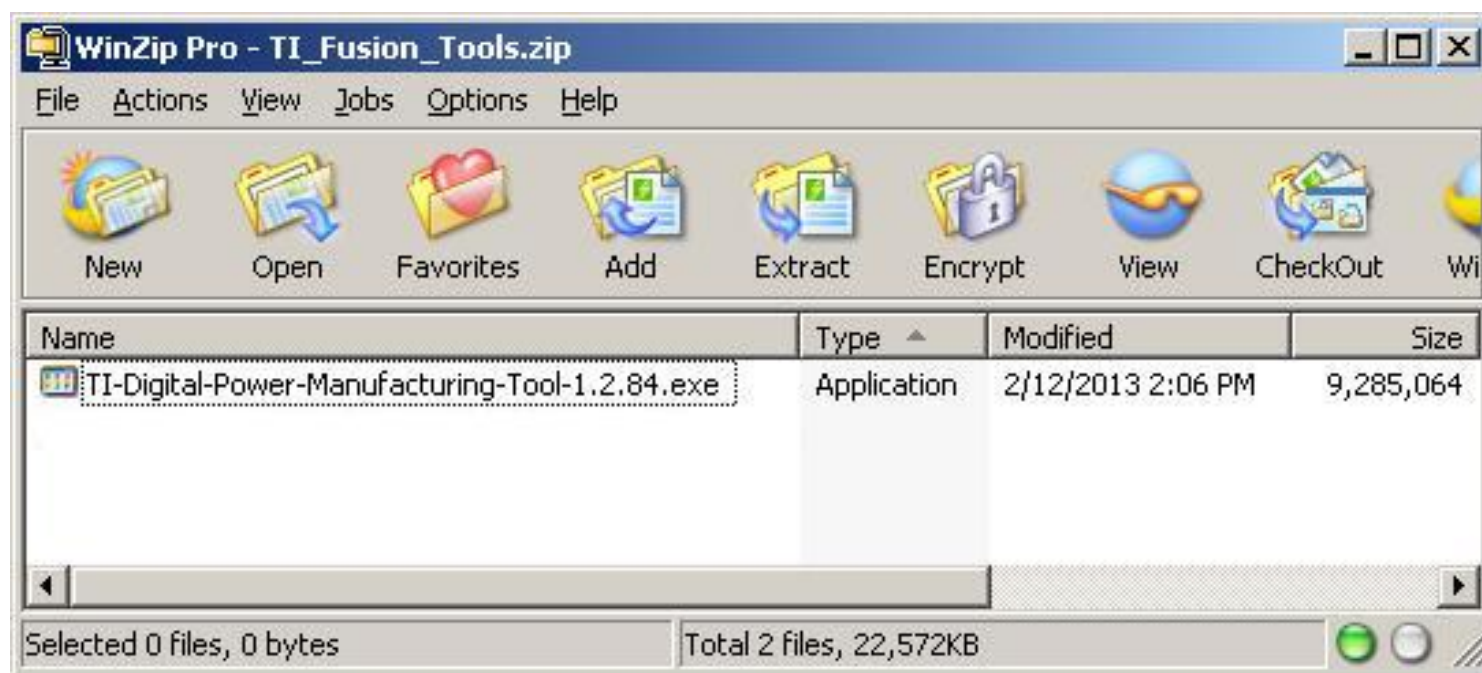
➤ Texas Instruments Power Software

- TI Part Number: [FUSION_MFR_GUI](#)
- Download: Latest Release at http://www.ti.com/tool/fusion_mfr_gui



Software Setup

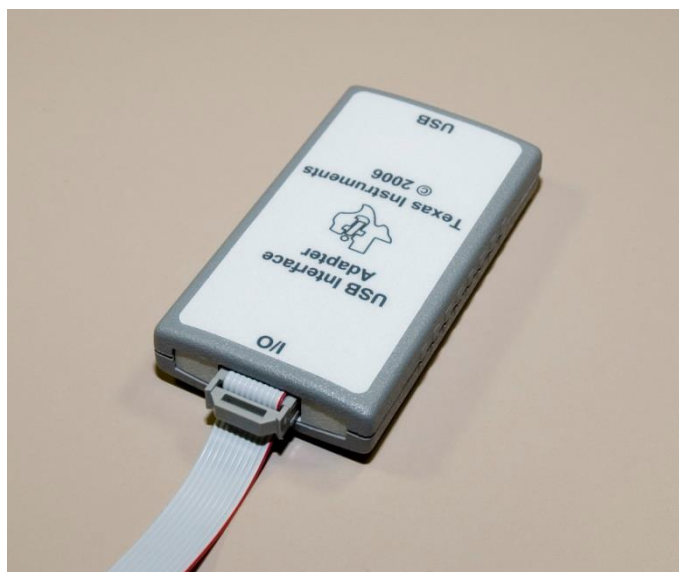
➤ Install the TI Fusion Digital Power Manufacturing Software



Connect TI USB Interface Adapter

➤ On the TI USB Adapter

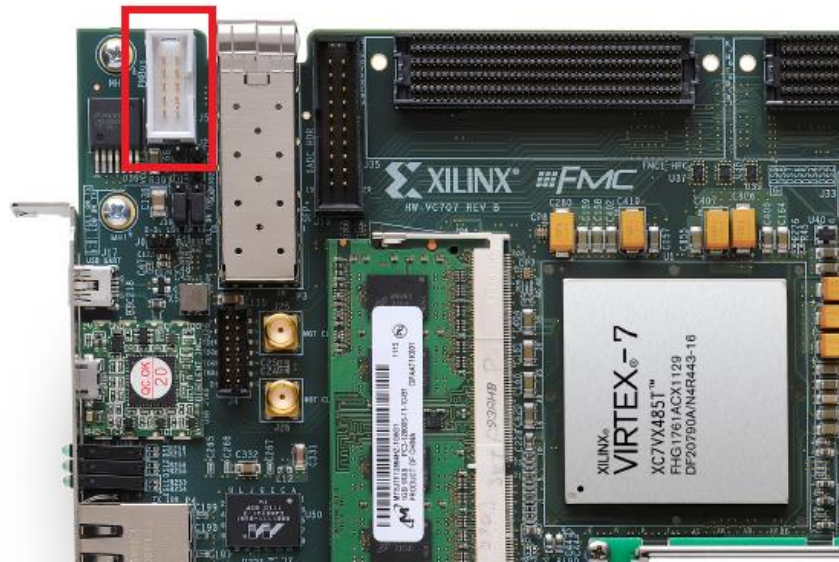
- Connect the Ribbon Cable
- Connect the USB Cable



Connect TI USB Interface Adapter (2)

➤ Connect the Ribbon Cable to the VC707

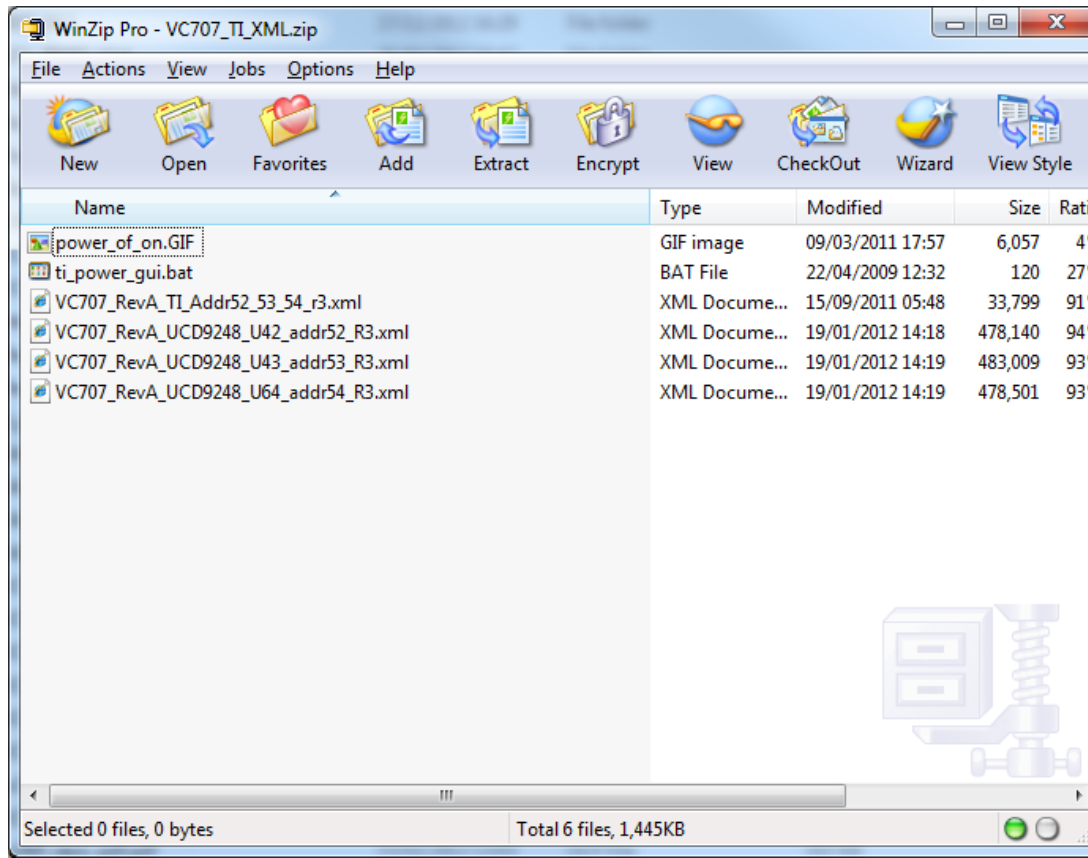
- Red Stripe towards pins 1



- Insert the “A” end of the USB cable into a PC USB port (do not use a docking station or USB hub port)
- Turn on the VC707 board

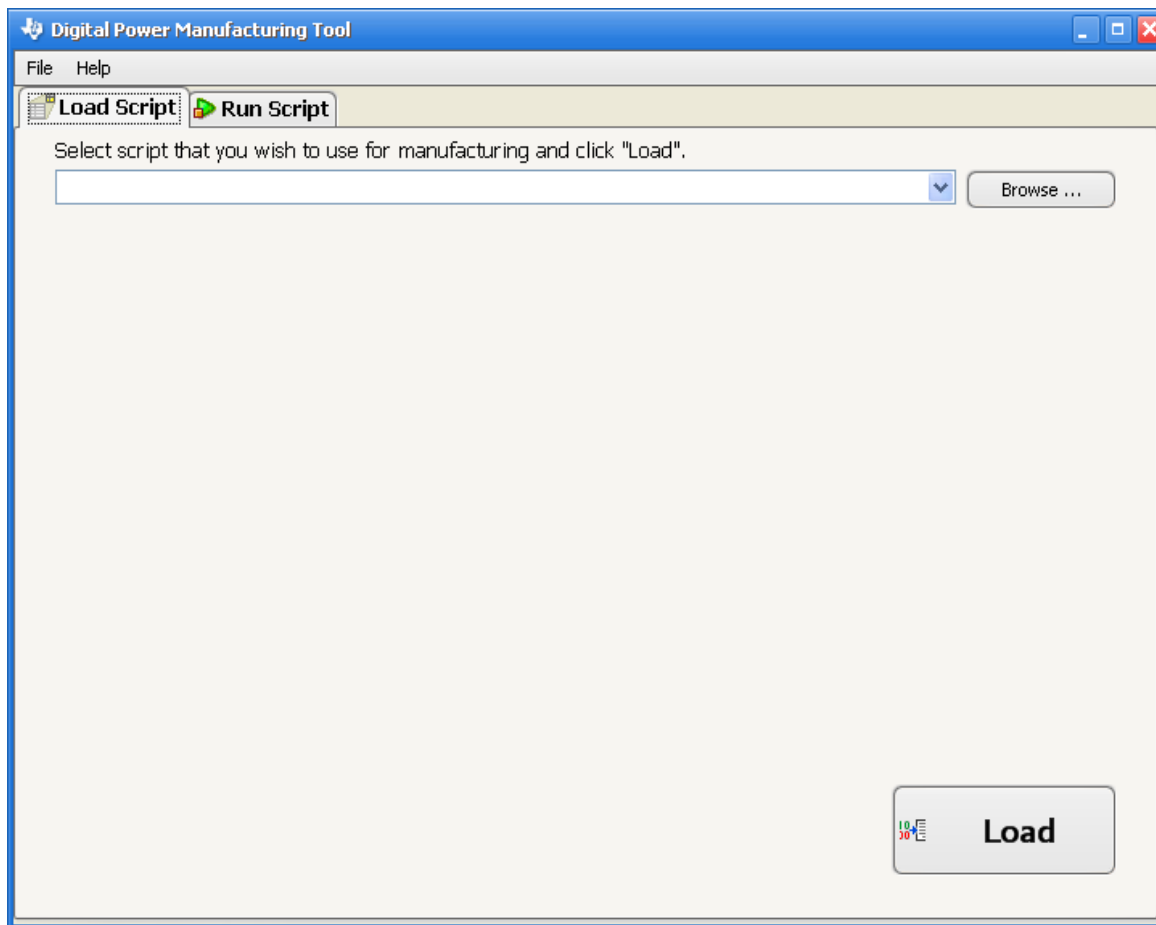
Restoring Power Levels

➤ Unzip included file: VC707_TI_XML.zip



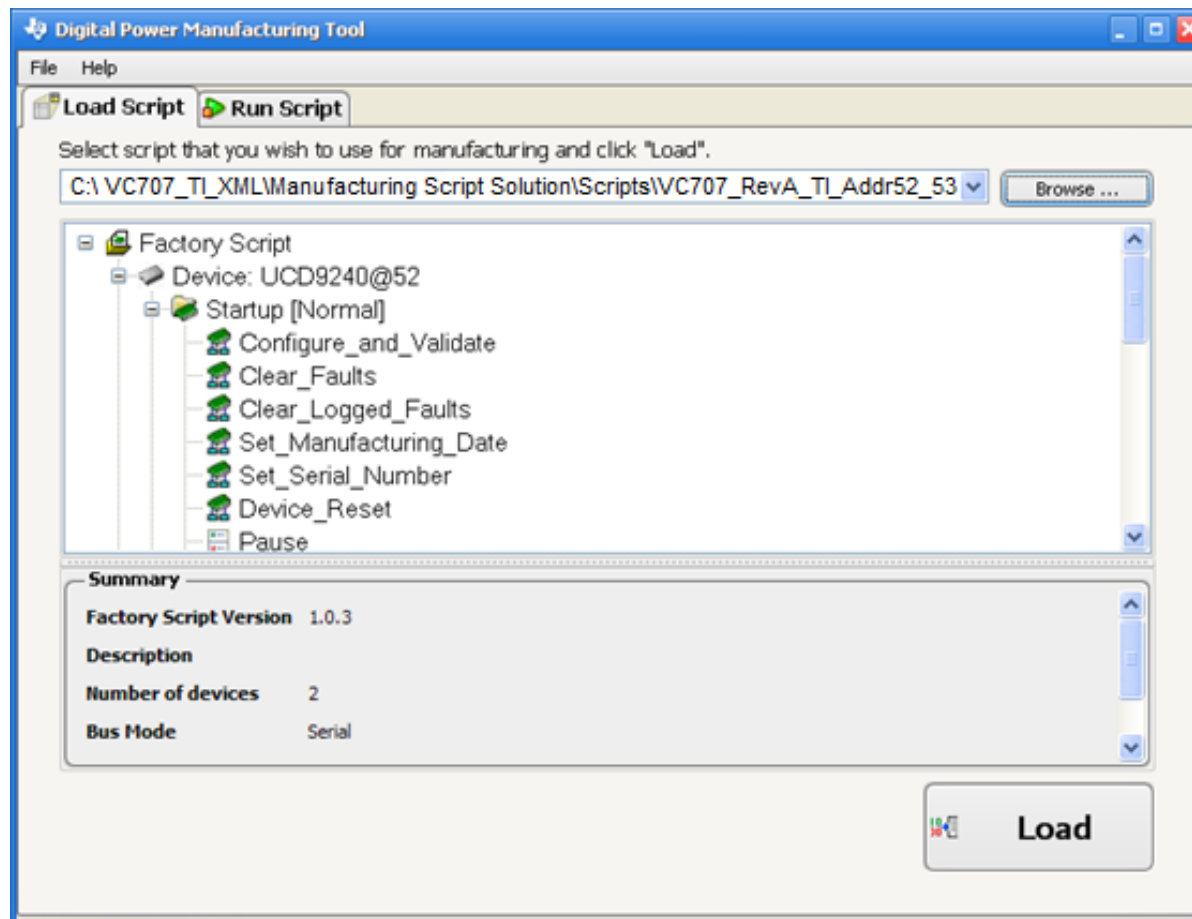
TI Fusion Digital Power Manufacturing Tool

➤ Open Manufacturer's GUI



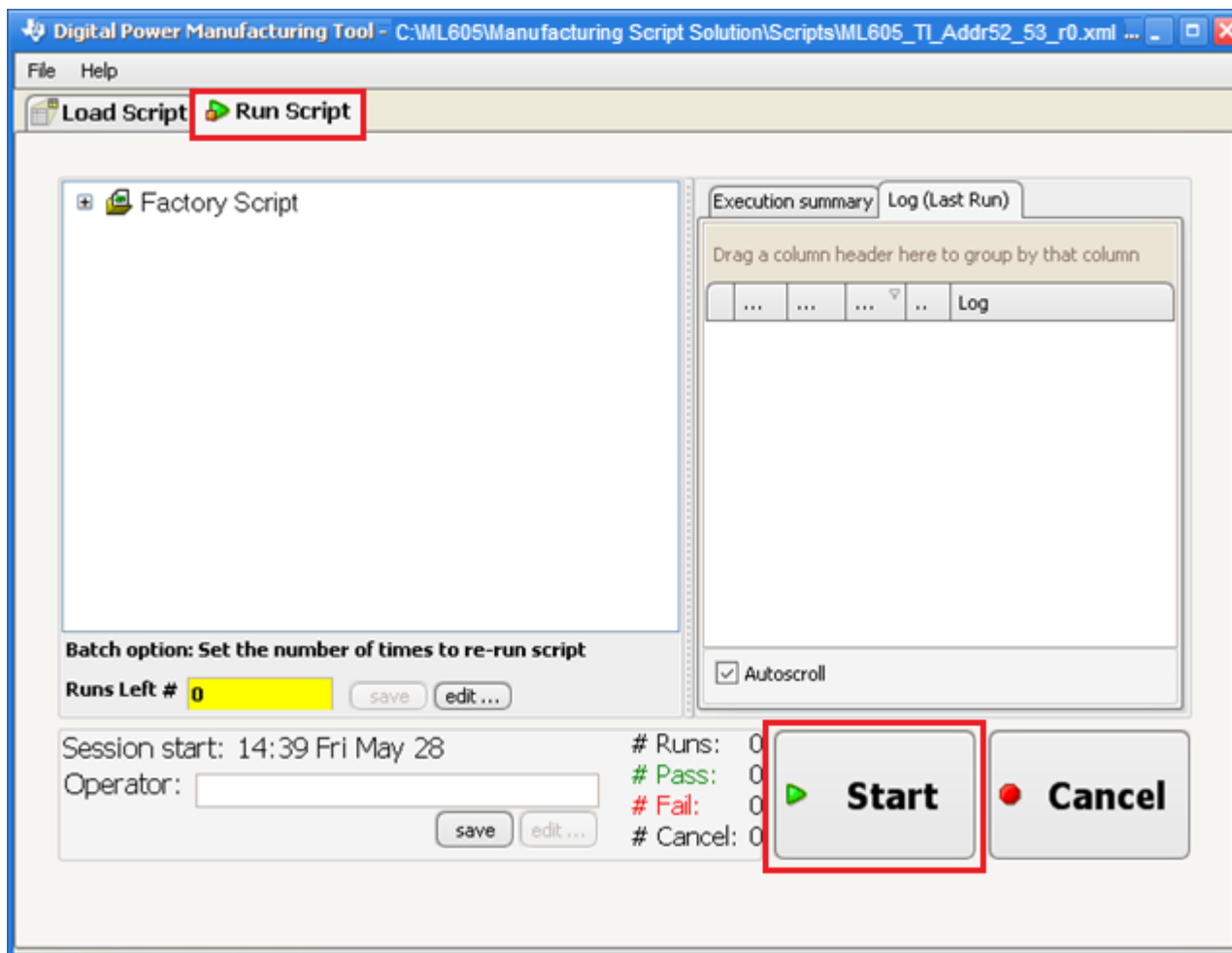
TI Fusion Digital Power Manufacturing Tool

- Load xml script from VC707_TI_XML.zip directory
 - Manufacturing Script Solution/Scripts/VC707_TI_Addr52_53_54_r3.xml



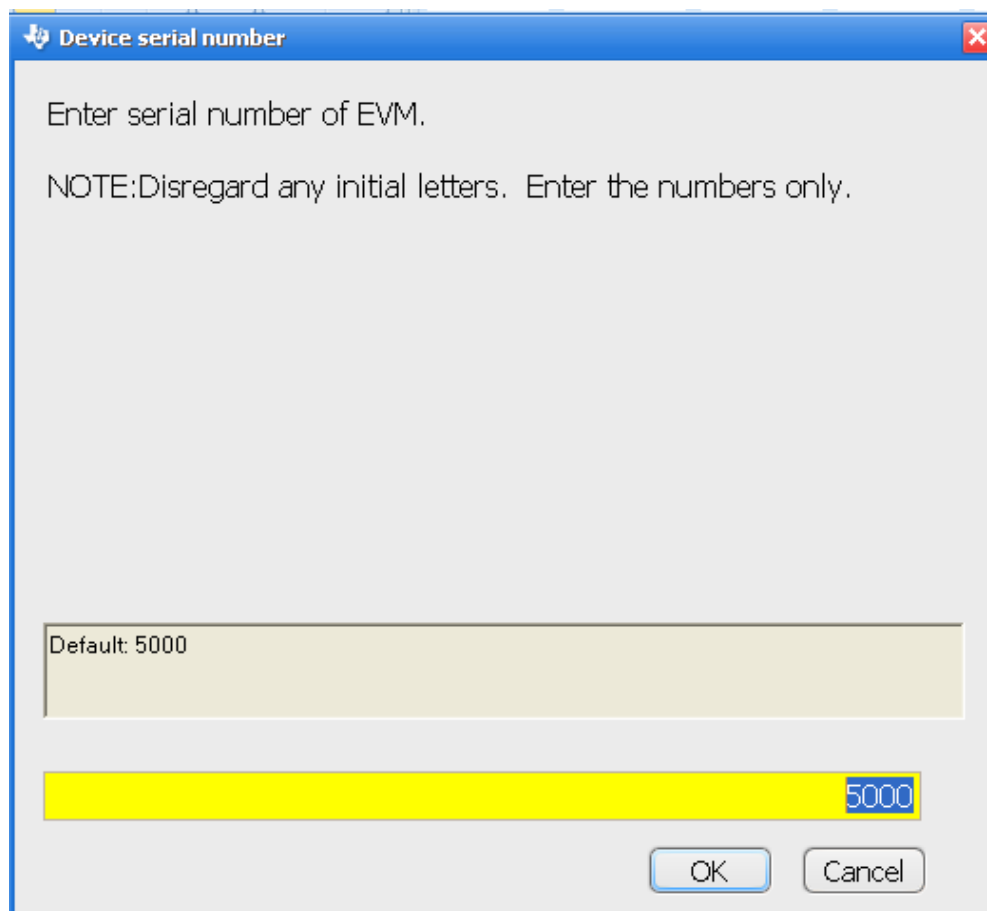
TI Fusion Digital Power Manufacturing Tool

➤ Click Run Script tab and then Start



TI Fusion Digital Power Manufacturing Tool

- Operator ID is irrelevant
- Click OK and wait for the board to finish programming
- Default Serial number can also remain as is



TI Fusion Digital Power Manufacturing Tool

➤ Finished!

The screenshot displays the 'Digital Power Manufacturing Tool' interface. The main window shows a tree view of the script execution steps, all of which are marked with green checkmarks, indicating successful completion. The steps include: Startup [Normal], Configure_and_Validate, Validation [Normal], Clear_Faults, Clear_Logged_Faults, Set_Manufacturing_Date, Device_Reset, Pause, Validate_Vout_Device_All_Rails, End [Normal], Clear_Faults, and Clear_Logged_Faults. Below the tree view, there is a 'Batch option: Set the number of times to re-run script' section with 'Runs Left # 0' and 'save' and 'edit...' buttons. The 'Execution summary' tab is active, showing a table of log entries. The table has columns for 'Log' and a 'Log' column. The entries show successful execution of the script with timestamps and 'PASS' status. The 'Autoscroll' checkbox is checked. At the bottom, there is a 'Session start: 14:39 Fri May 28' and 'Operator: Amanda' section with 'save' and 'edit...' buttons. To the right, there are '# Runs: 5', '# Pass: 1', '# Fail: 4', and '# Cancel: 0' statistics, along with 'Start' and 'Cancel' buttons. A large green banner at the bottom of the window reads 'Manufacturing Passed'.

File Help

Load Script Run Script

- ✓ Startup [Normal]
 - ✓ Configure_and_Validate
- ✓ Validation [Normal]
 - ✓ Clear_Faults
 - ✓ Clear_Logged_Faults
 - ✓ Set_Manufacturing_Date
 - ✓ Device_Reset
 - ✓ Pause
 - ✓ Validate_Vout_Device_All_Rails
- ✓ End [Normal]
 - ✓ Clear_Faults
 - ✓ Clear_Logged_Faults

Batch option: Set the number of times to re-run script

Runs Left # 0 save edit...

Session start: 14:39 Fri May 28 Operator: Amanda save edit...

Runs: 5
Pass: 1
Fail: 4
Cancel: 0

Start Cancel

Manufacturing Passed

Execution summary Log (Last Run)

Drag a column header here to group by that column

..	Log
1...	GE...	IN...	n...	UCD9240@53.End END attempt: 0/0 (3484.4642ms) PASS
1...	GE...	IN...	n...	UCD9240@53 END attempt: 0/0 (15172.2634ms) PASS
▶ 1...	GE...	IN...	n...	Factory Script END attempt: 0/0 (34532.134ms) PASS

Autoscroll