

# VCU118 System Controller – GUI Tutorial

May 2019



# Revision History

Date	Version	Description
05/29/19	9.0	Updated for 2019.1.
12/10/18	8.0	Updated for 2018.3.
06/18/18	7.0	Updated for 2018.2. Added AR70148 for Firmware programming.
04/09/18	6.0	Updated for 2018.1.
12/20/17	5.0	Updated for 2017.4.
10/26/17	4.0	Updated for 2017.3.1. For Rev 2.0, with Production Silicon, and QSPI Flash devices.
08/01/17	3.1	Added details on SCUI v1.1 and v2.30 and associated firmware.
06/20/17	3.0	Updated for 2017.2.
04/19/17	2.0	Updated for 2017.1.
03/28/17	1.1	Minor update to SCUI config.json.
12/19/16	1.0	SCUI version 1.0.

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# Overview

## > Xilinx VCU118 Board

- >> Differences between SCUI and Firmware versions

## > VCU118 SCUI Version 1.1

- >> Clocks
- >> Voltages
- >> Power
- >> FMC
- >> EEPROM Data
- >> About

## > VCU118 SCUI Version 2.30

- >> Clocks
- >> Voltages
- >> Power
- >> FMC
- >> EEPROM Data
- >> About

## > Programming Firmware

## > References

# VCU118 Software Install and Board Setup

## > Complete setup steps in XTP449 – VCU118 Software Install and Board Setup:

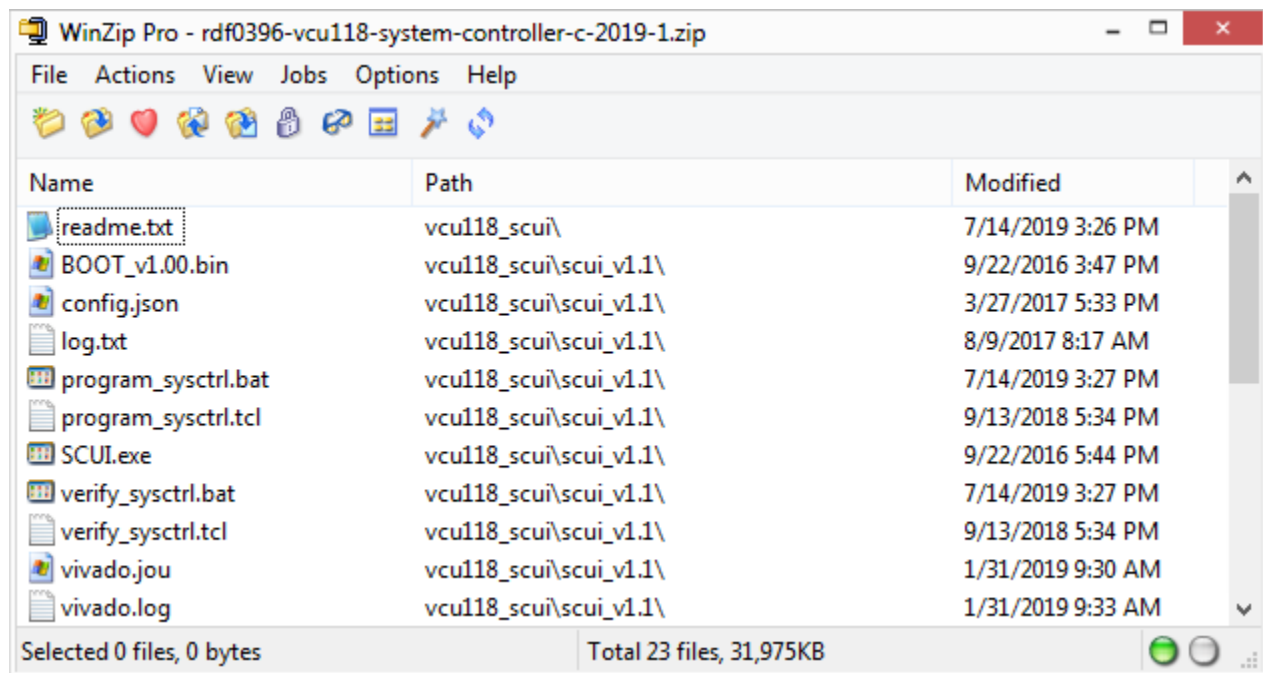
- >> Software Requirements
- >> VCU118 Board Setup
- >> UART Driver Install
- >> Ethernet Setup



# VCU118 System Controller

## > Open the RDF0396 – VCU118 System Controller GUI (2019.1 C) ZIP file

>> Extract these files to your C:\ drive



# VCU118 System Controller

## > **Two versions of the VCU118 firmware.**

- >> Original firmware (v1.1) will not correctly set VADJ if the FMC card EEPROM is unprogrammed.
- >> New firmware (v2.30) fixes this problem and runs faster with the SCUI.
- >> BIT works with either version of Firmware

## > **Version 1.1 SCUI:**

- >> Firmware: v1.00
- >> The ES1 VCU118 ships with v1.00 firmware. Some Rev 2.0 boards shipped with this.
- >> You must use SCUI v1.1 with this firmware.

## > **Version 2.30 SCUI:**

- >> Firmware: v1.60
- >> Current Rev 2.0 VCU118 shipping with this firmware.
- >> You must use SCUI v2.30 with this firmware.

# Basic Board Interface Test

> From C:\vcu118\_scui, run the SCUI.exe that matches your firmware

vcu118_scui	674 MB	9/13/2018 5:05:02 pm
scui_v1.1	15.7 ...	9/14/2018 4:58:48 pm
BOOT_v1.00.bin	7.21 ...	9/22/2016 3:47:44 pm
config.json	49,756	3/27/2017 5:33:16 pm
log.txt	125 KB	8/9/2017 8:17:30 am
program_sysctrl.bat	810	5/1/2018 2:07:03 pm
program_sysctrl.tcl	2,192	9/13/2018 5:34:31 pm
SCUI.exe	8 MB	9/22/2016 5:44:06 pm
verify_sysctrl.bat	809	5/1/2018 2:07:03 pm
verify_sysctrl.tcl	2,192	9/13/2018 5:34:43 pm
zynq_fsbl.elf	339 KB	9/13/2018 12:51:17 pm
scui_v2.30	15.5 ...	9/14/2018 5:17:57 pm
BOOT_v1.60.bin	7.08 ...	6/21/2017 1:48:40 pm
config.json	50,186	7/26/2017 1:30:20 pm
log.txt	4,766	11/6/2017 5:36:30 pm
program_sysctrl.bat	810	5/1/2018 2:07:03 pm
program_sysctrl.tcl	2,192	9/13/2018 5:10:58 pm
SCUI.exe	8.02 ...	5/4/2017 5:35:46 pm
verify_sysctrl.bat	809	5/1/2018 2:07:03 pm
verify_sysctrl.tcl	2,192	9/13/2018 5:34:54 pm
zynq_fsbl.elf	339 KB	9/13/2018 12:51:17 pm
readme.txt	6,485	5/9/2018 1:03:03 pm

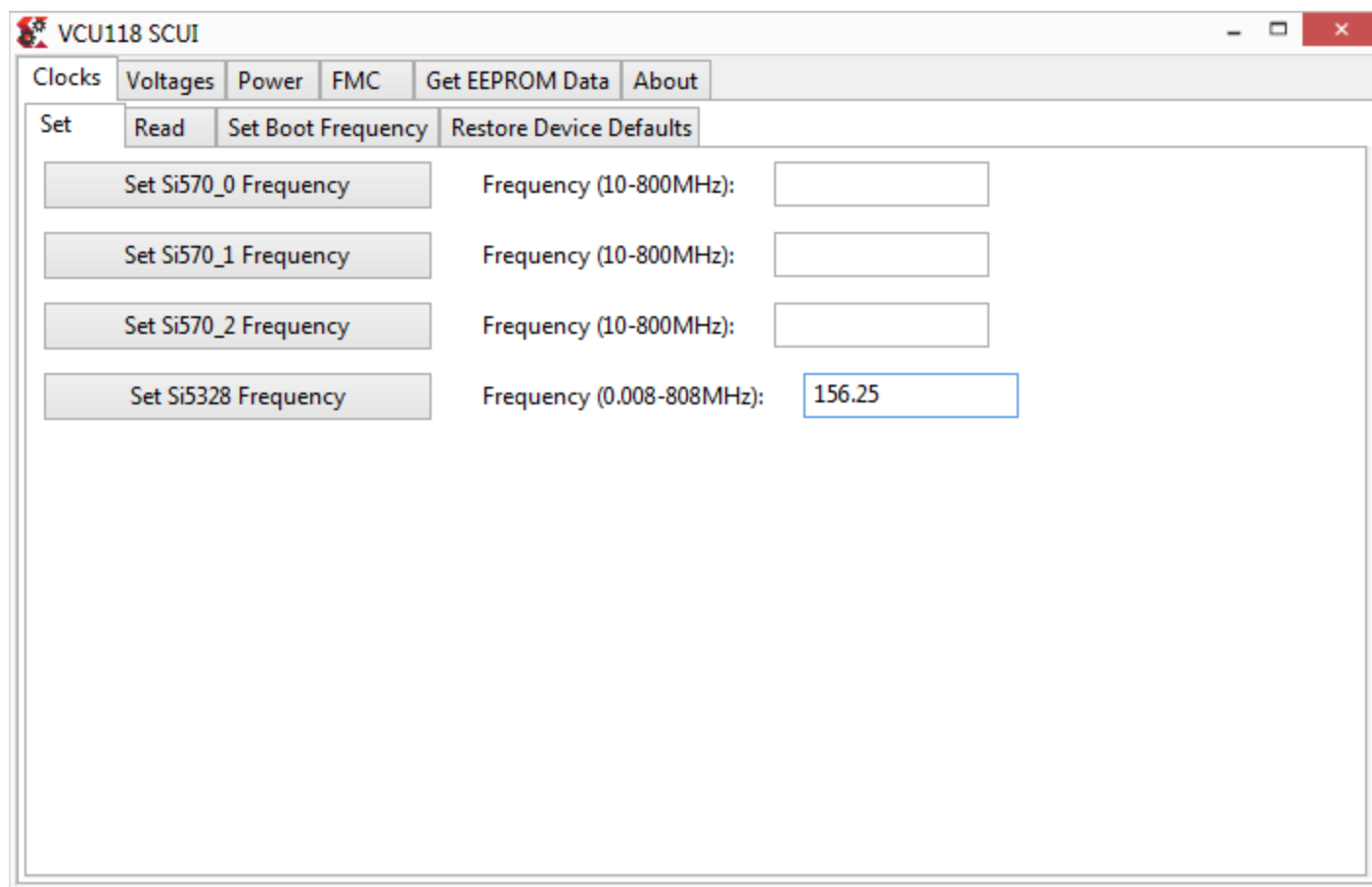
# SCUI Version 1.1 - Clocks





# Setting the clocks

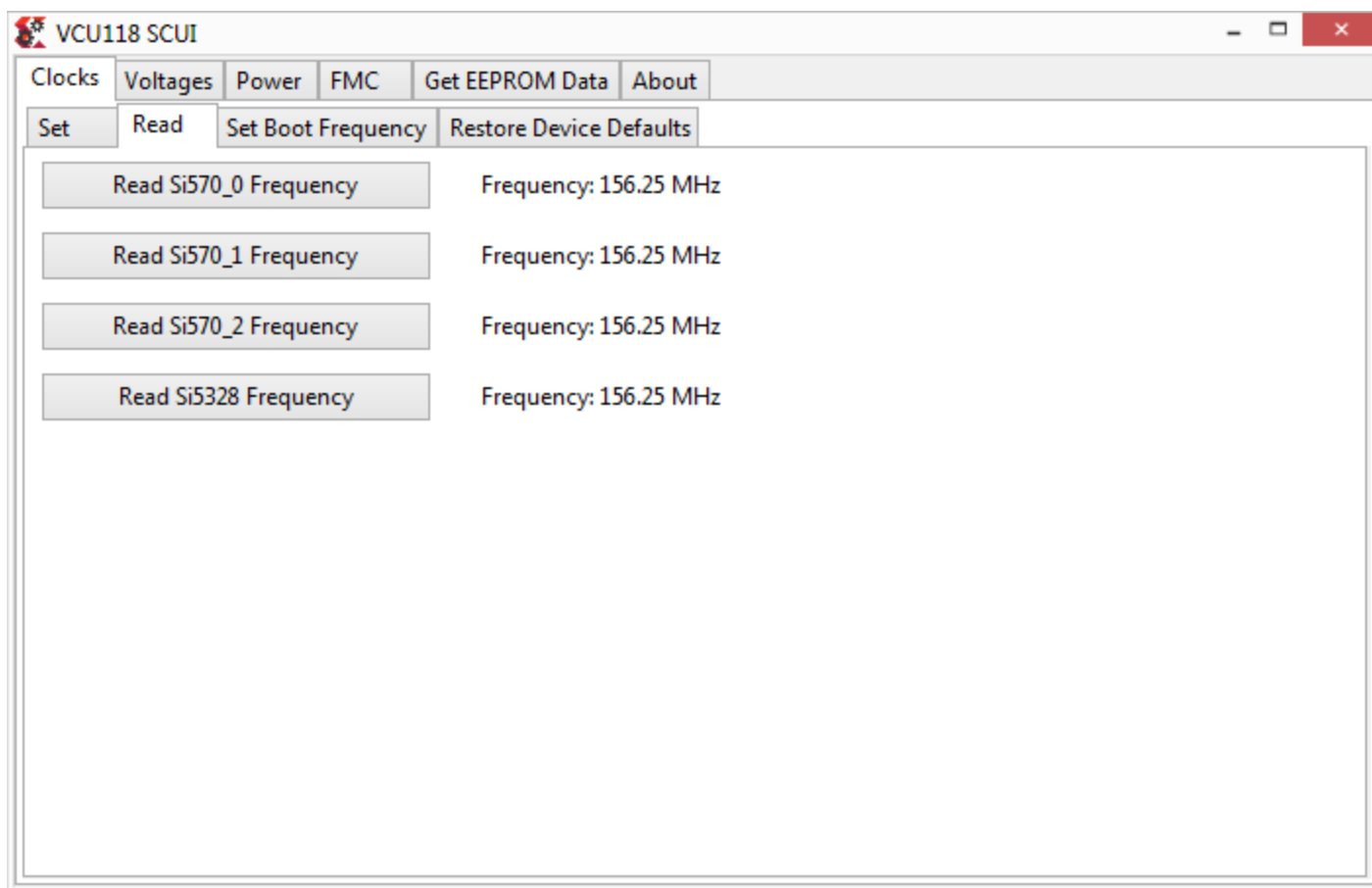
- > Select the Set tab underneath the Clocks tab
- > Enter 156.25 for the Si5328 and click the Set Si5328 Frequency button



**Note:** Presentation applies to the VCU118

# Reading the clocks

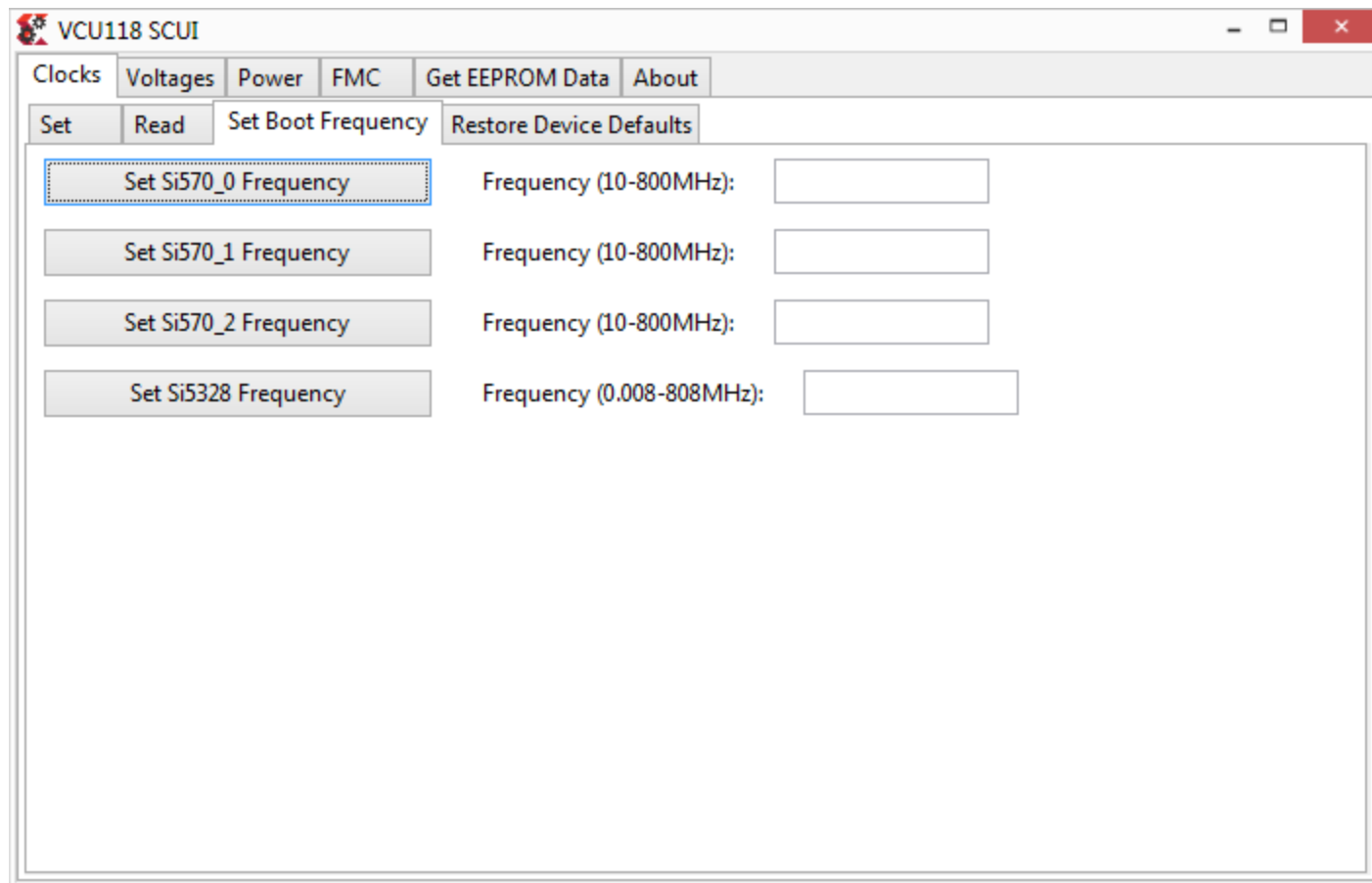
- > Select the Read tab
- > Click each of the Read buttons and verify the frequencies are set as shown



**Note:** Presentation applies to the VCU118

# Setting Clock Boot Frequencies

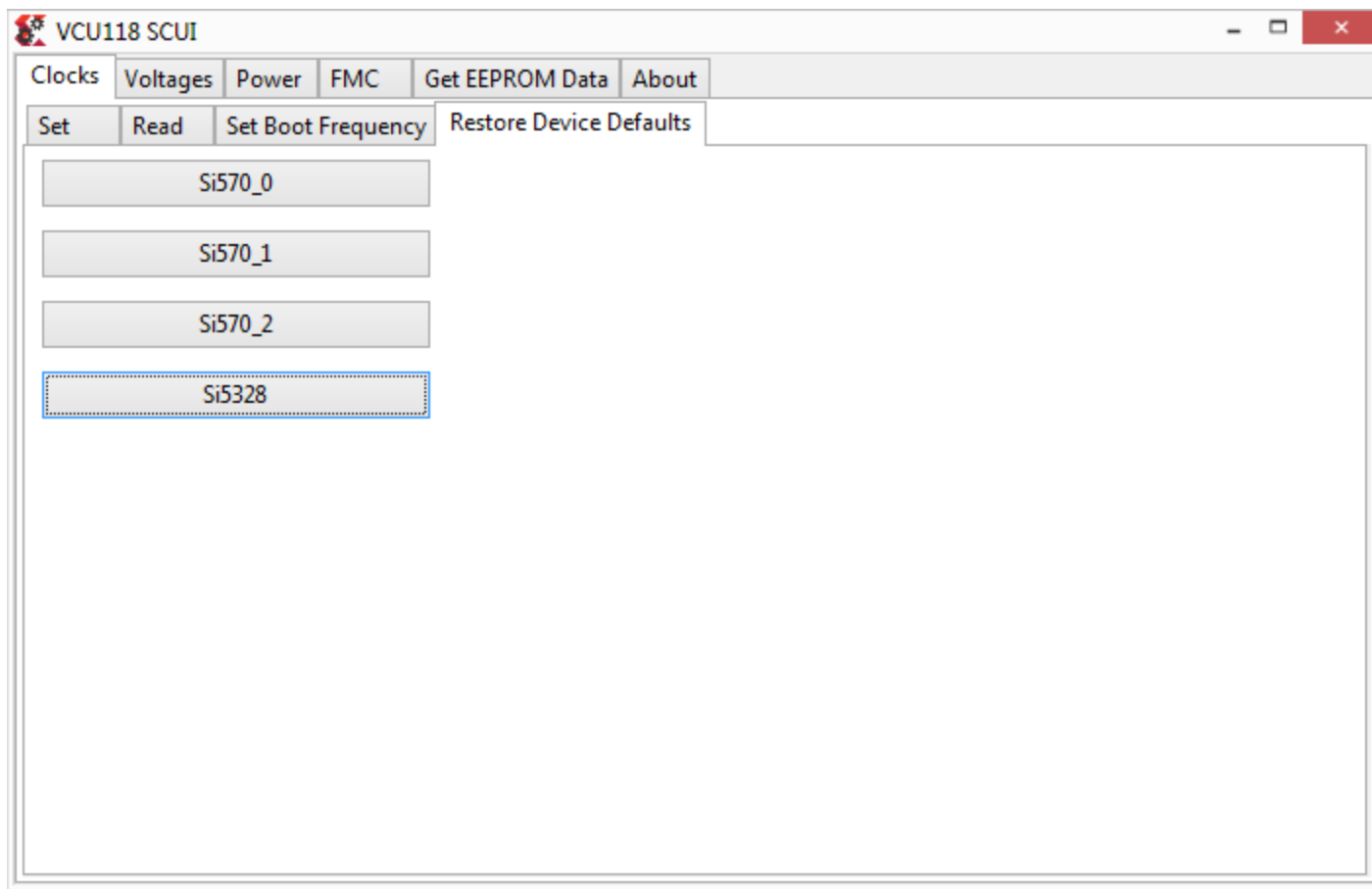
- > Select the Set Boot Frequency tab
- > Type in your desired boot-up frequency and click the corresponding Set button



**Note:** Presentation applies to the VCU118

# Restore Default Clock settings

- > To restore to the defaults, select the Restore Device Defaults tab
- > Restore the defaults by clicking the button associated with the clock you want to restore (156.25 MHz, 156.25 MHz, 156.25 MHz, and 0 MHz)



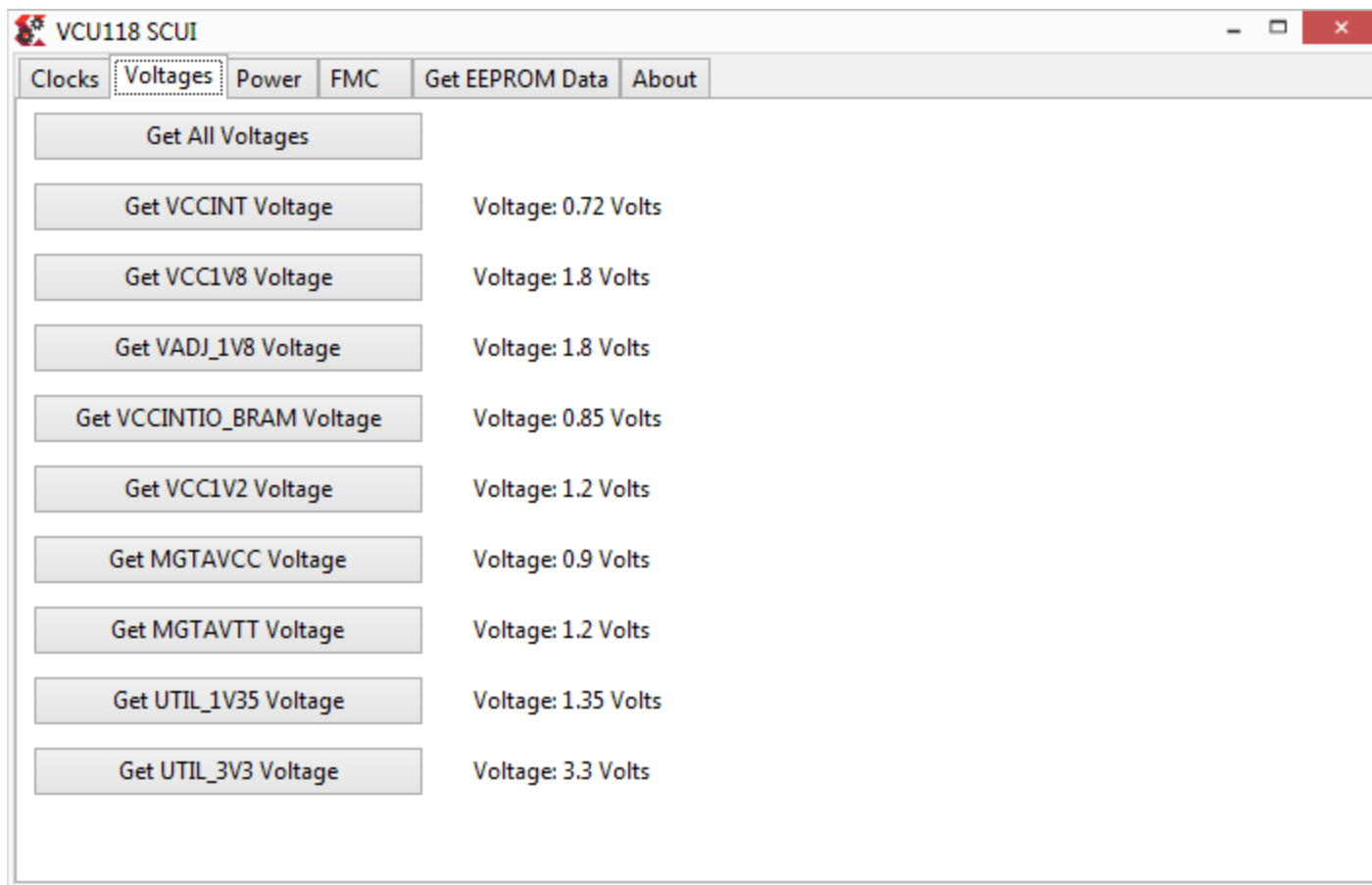
**Note:** Presentation applies to the VCU118

# SCUI Version 1.1 - Voltages



# Reading onboard VCU118 voltages

- > Select the Voltages tab
- > Click the Get All Voltages button to view a voltage
- > Observe the VCU118 voltages



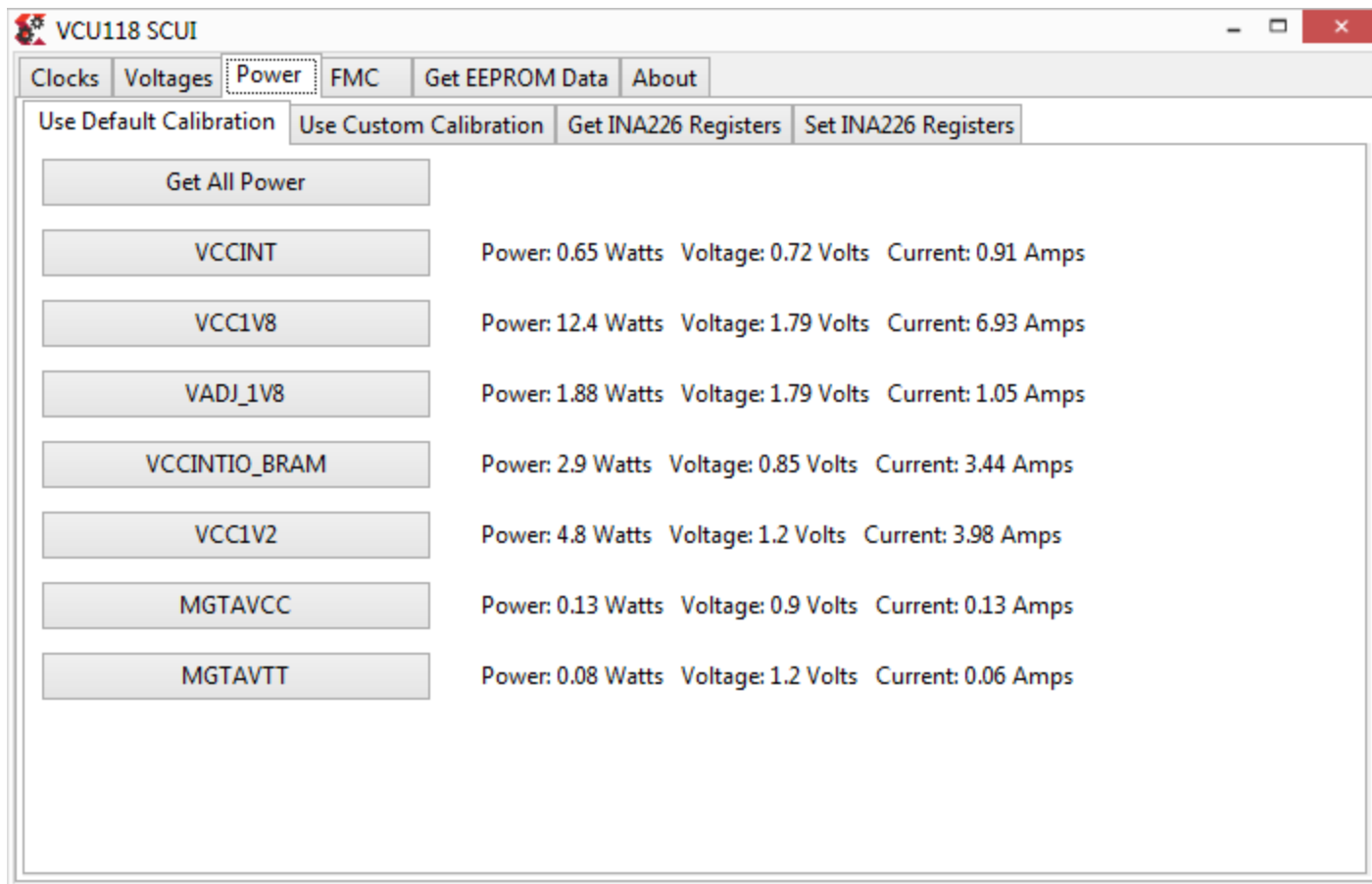
**Note:** Presentation applies to the VCU118

# SCUI Version 1.1 - Power



# Reading power values using default calibration

- > Select the Use Default Calibration tab underneath Power
- > Click the Get All Power button
- > Observe the VCU118 PS power readings

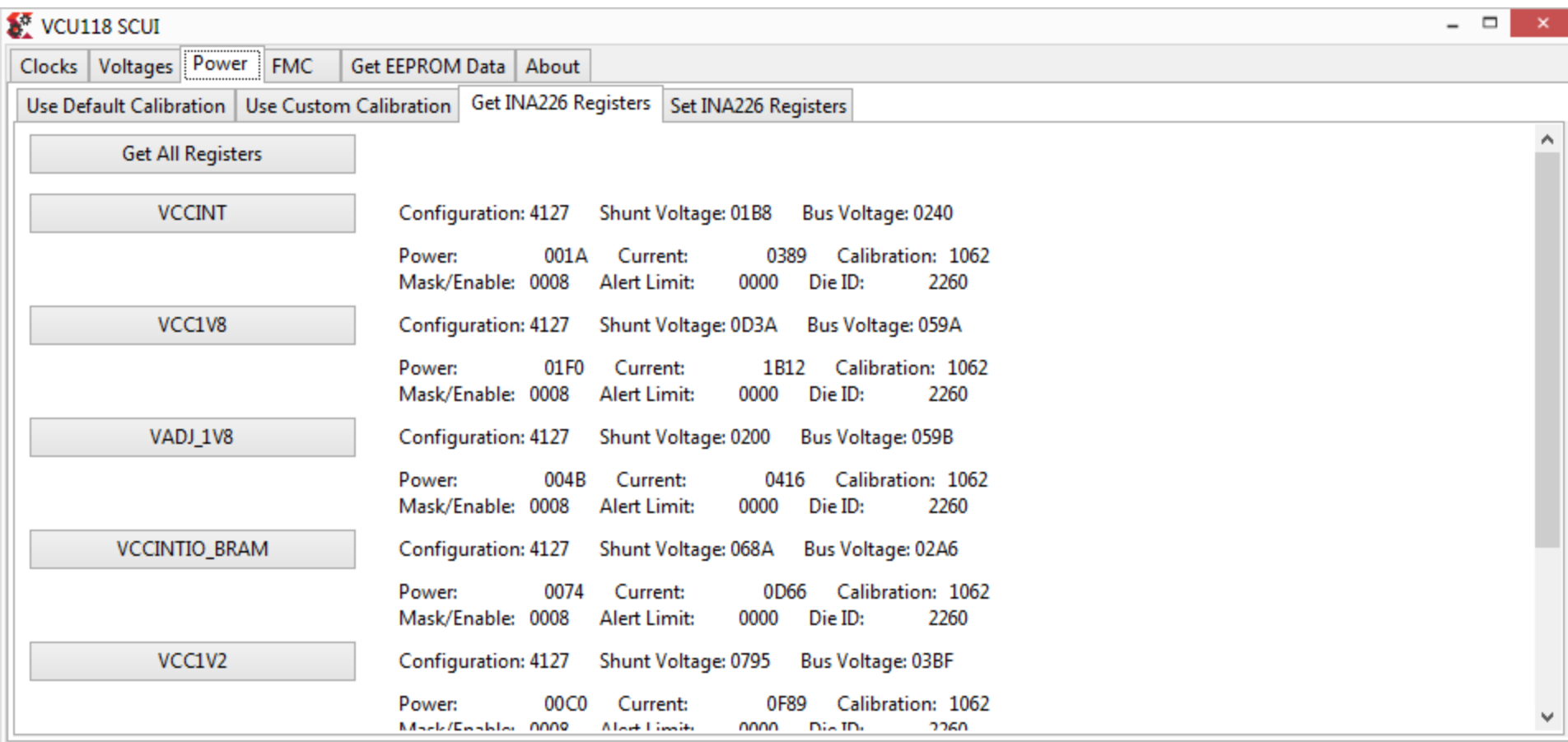


**Note:** Presentation applies to the VCU118



# Read INA226 Registers

- > Select the Get INA226 Registers tab
- > Click the Get All Registers button and observe the INA226 Registers settings



The screenshot shows the VCU118 SCUI interface. The 'Power' tab is selected, and the 'Get INA226 Registers' sub-tab is active. The 'Get All Registers' button is visible. The interface displays the following register data:

Register	Configuration	Shunt Voltage	Bus Voltage	Power	Current	Calibration	Mask/Enable	Alert Limit	Die ID
VCCINT	4127	01B8	0240	001A	0389	1062	0008	0000	2260
VCC1V8	4127	0D3A	059A	01F0	1B12	1062	0008	0000	2260
VADJ_1V8	4127	0200	059B	004B	0416	1062	0008	0000	2260
VCCINTIO_BRAM	4127	068A	02A6	0074	0D66	1062	0008	0000	2260
VCC1V2	4127	0795	03BF	00C0	0F89	1062	0008	0000	2260

**Note:** Presentation applies to the VCU118

# Set INA226 Registers

- > Select the Set INA226 Registers tab
- > Review [TI INA226](#) documentation before making changes

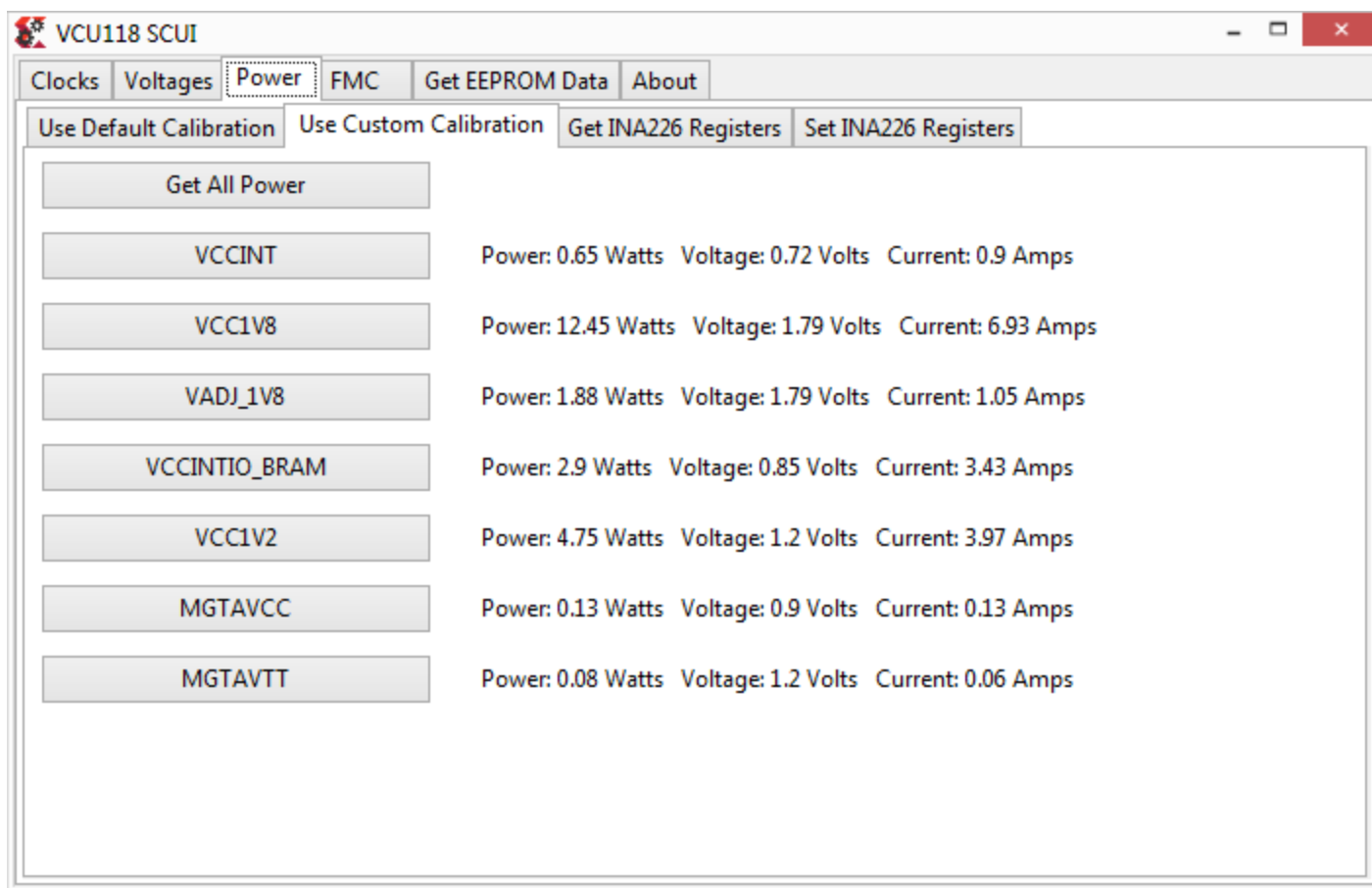
The screenshot shows the VCU118 SCUI application window. The title bar reads 'VCU118 SCUI'. The menu bar includes 'Clocks', 'Voltages', 'Power', 'FMC', 'Get EEPROM Data', and 'About'. The 'Power' menu is open, showing options: 'Use Default Calibration', 'Use Custom Calibration', 'Get INA226 Registers', and 'Set INA226 Registers'. The 'Set INA226 Registers' option is selected. The main content area displays a list of voltage regulators on the left and their corresponding configuration fields on the right. The regulators listed are VCCINT, VCC1V8, VADJ\_1V8, VCCINTIO\_BRAM, VCC1V2, and MGTAVCC. Each regulator has three input fields: 'Configuration', 'Calibration', and 'Alert Limit'. The 'VCCINT' row is highlighted with a blue border. A vertical scrollbar is visible on the right side of the configuration area.

Regulator	Configuration	Calibration	Alert Limit
VCCINT	<input type="text"/>	<input type="text"/>	<input type="text"/>
VCC1V8	<input type="text"/>	<input type="text"/>	<input type="text"/>
VADJ_1V8	<input type="text"/>	<input type="text"/>	<input type="text"/>
VCCINTIO_BRAM	<input type="text"/>	<input type="text"/>	<input type="text"/>
VCC1V2	<input type="text"/>	<input type="text"/>	<input type="text"/>
MGTAVCC	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Note:** Presentation applies to the VCU118

# Reading power values using custom calibration

- > Select the Use Custom Calibration tab
- > Click the Get All Power button (no calibrations were entered in this example)



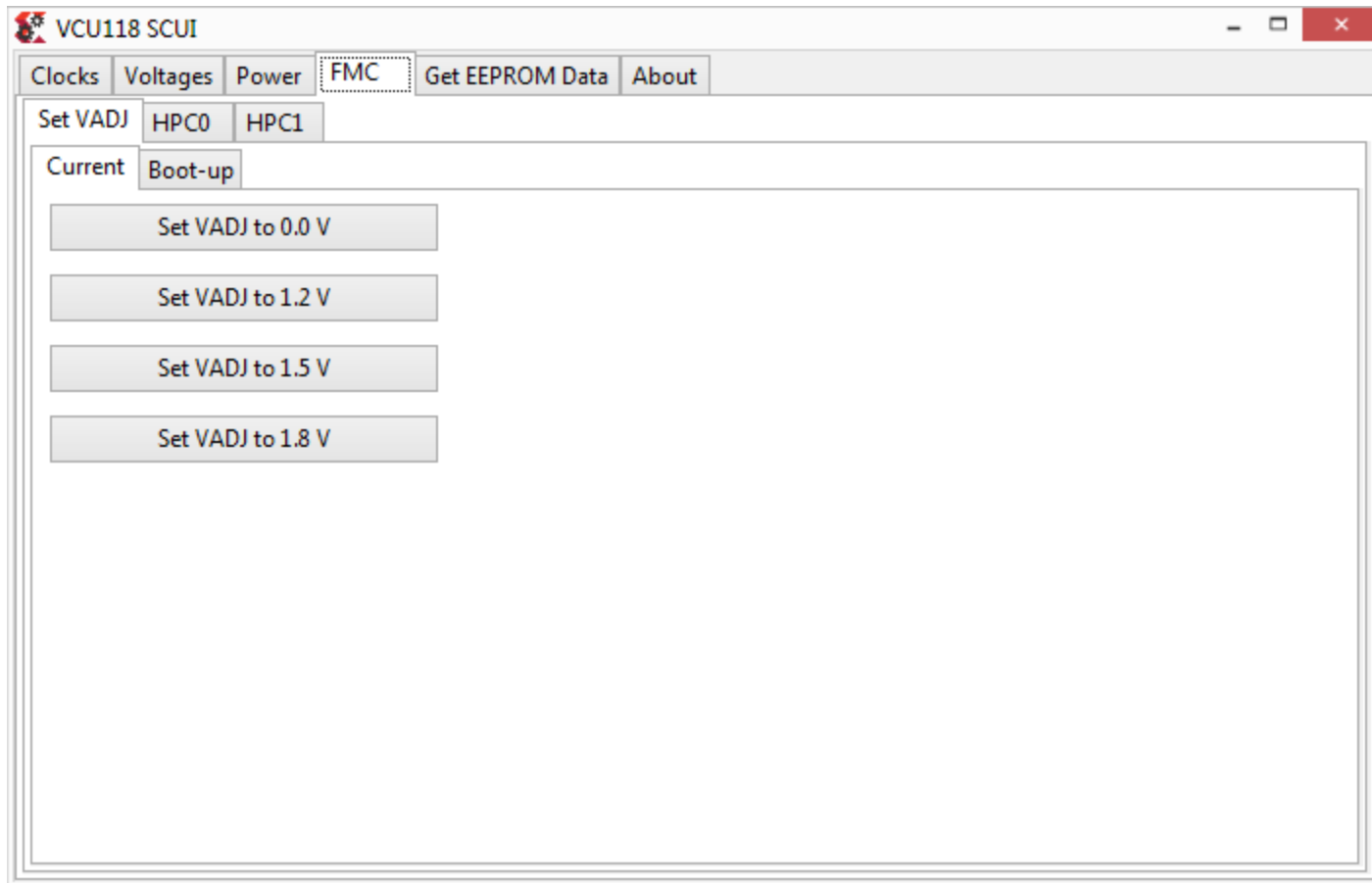
**Note:** Presentation applies to the VCU118

# SCUI Version 1.1 - FMC



# Set VADJ

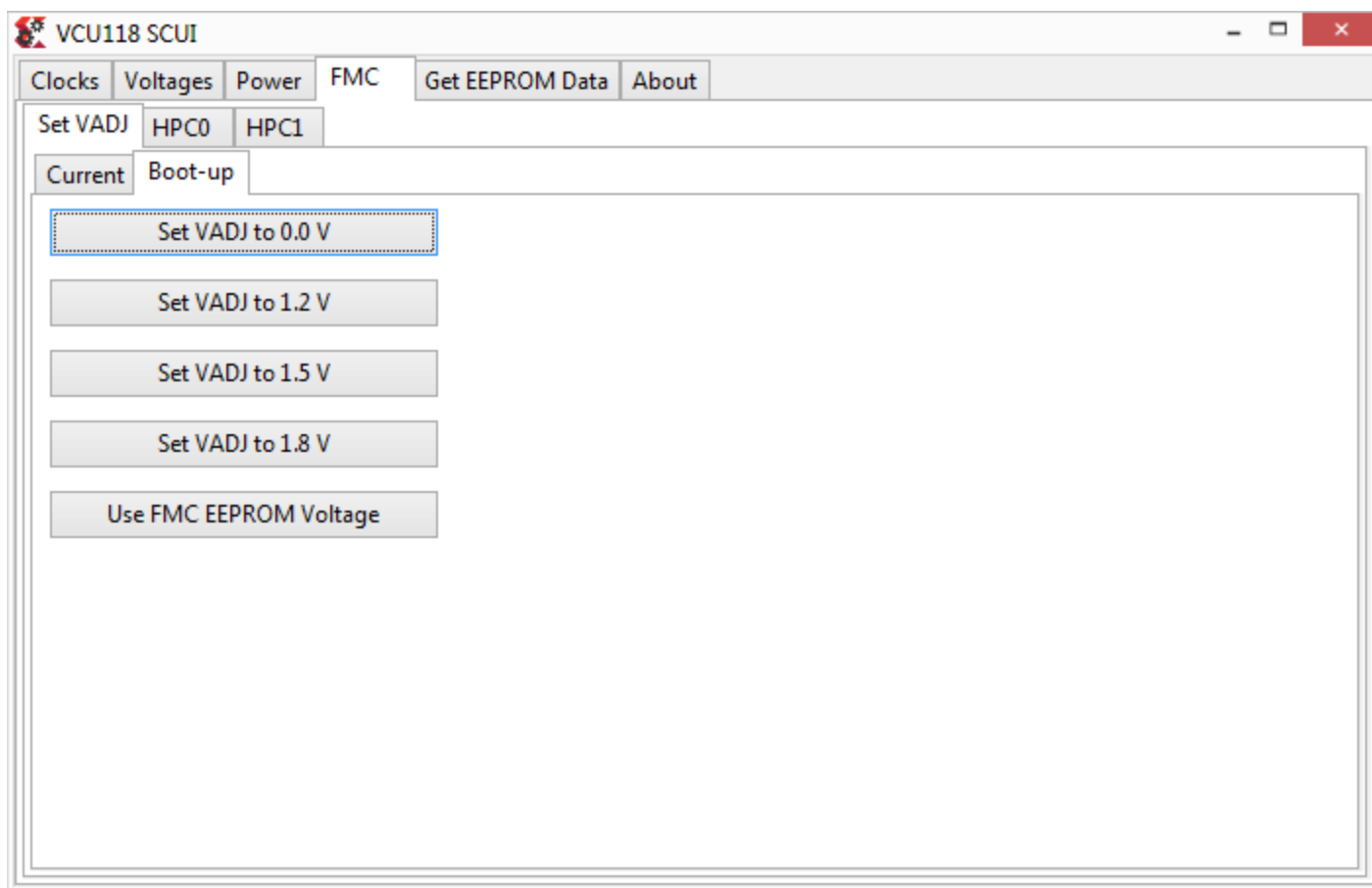
- > Select the Set VADJ tab underneath the FMC tab
- > Under the Current tab, select the desired VADJ voltage
- > Some BIT tests expect 1.8 V



**Note:** Presentation applies to the VCU118

# Set Boot-Up VADJ

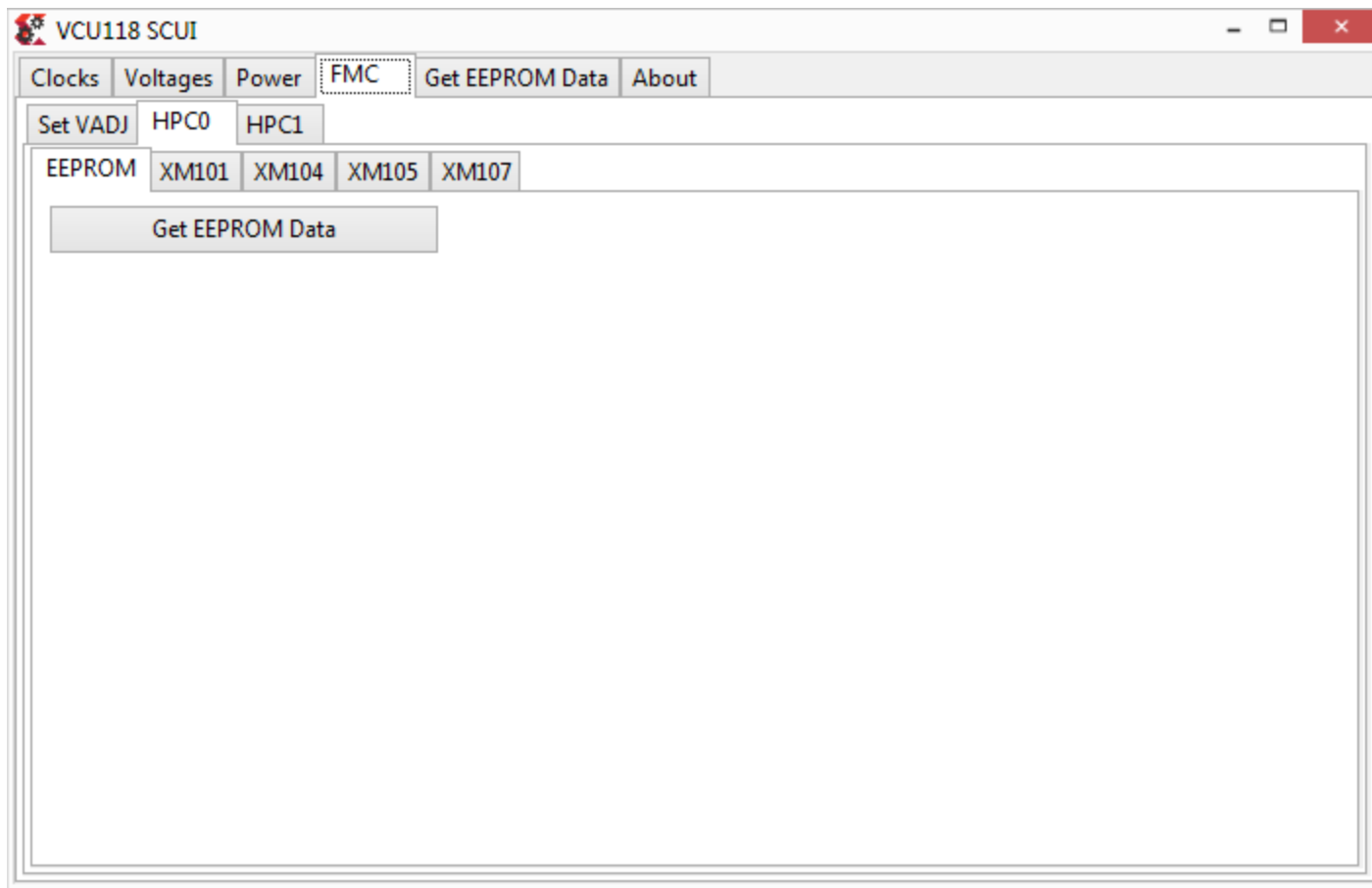
- > Select the Boot-up tab and choose the desired power-on voltage
- > The default, Use FMC EEPROM Voltage, will set 1.8 V unless you attach an FMC card with a different setting



**Note:** Presentation applies to the VCU118

# Reading FMC EEPROM

- > Select the HPC0 or HPC1 tab
- > Click the Get EEPROM Data button



**Note:** Presentation applies to the VCU118

# Reading FMC EEPROM

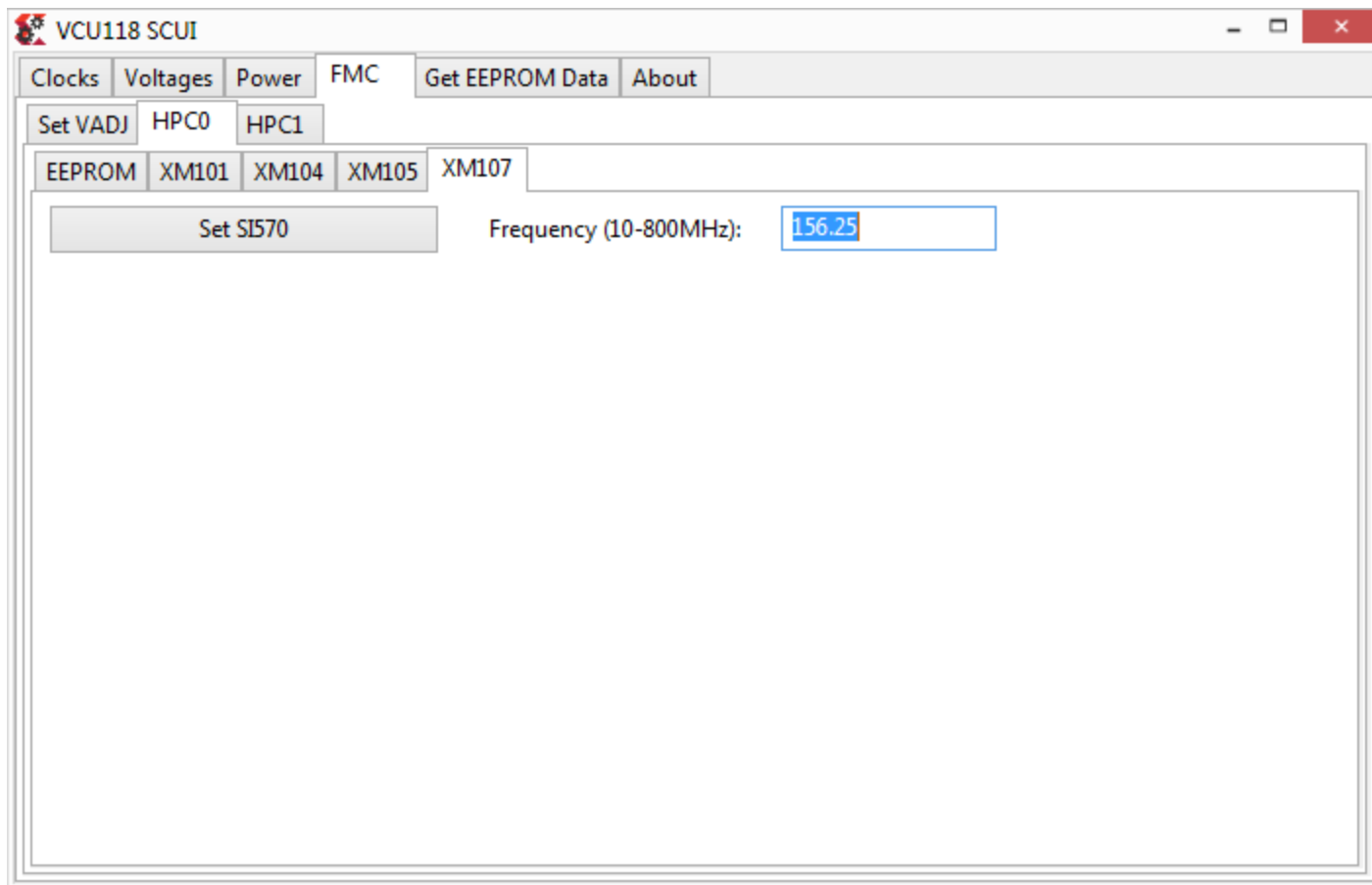
- > The EEPROM data will be displayed in a separate window (XM107 data shown)

```
[C:\vcu118_scu\data.dump] - Frhed
File  Disk  Edit  View  Options  Registry  Bookmarks  Misc  Help
[Icons] [Navigation]
00 01 00 00 01 00 08 00 f6 01 07 19 80 e1 7f ca 58 69 6c 69 6e 78 20 49 6e 63 c5 58 | .....ö....á.Éxilinx IncAX
1b 4d 31 30 37 c8 31 32 33 34 35 36 37 00 ce 48 57 2d 46 4d 43 2d 58 4d 31 30 37 2d | M107É1234567.îHW-FMC-XM107-
36 47 00 c5 52 65 76 20 30 c1 f8 fa 02 0b 70 89 a2 12 00 00 1c 74 2c 00 00 a0 80 02 | G.ÂRev 0Ãøú..p.Ç....t,...
51 02 0d 30 bf 00 fa 00 6e 00 5e 01 32 00 00 00 d0 07 02 02 0d d9 16 02 b0 04 74 04 ec 04 32 00 00 00 d0 07 01 | ..0ž.ú.n.^.2...Ð.....ß.ÿ;.
6c 5e 01 32 00 00 00 d0 07 02 02 0d d9 16 02 b0 04 74 04 ec 04 32 00 00 00 d0 07 01 | ^.2...Ð.....Û..°.t.ÿ.2...Ð..
87 02 0d 82 6e 03 fa 00 6e 00 5e 01 32 00 00 00 7e 04 01 02 0d fc f4 04 00 00 00 00 00 00 00 00 00 00 | ...n.ú.n.^.2...~.....üð.....
a2 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....ûu.....
bd 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....
d8 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....
f3 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....
Offset 0=0x0 Bits=00000001 Unsigned: B:1,W:1,L:16777217 ANSI / OVR / L Size: 255
```



# Setting FMC HPC clocks

- > With the XM107 FMC+ card attached, select the XM107 tab
- > For the IBERT FMC+ testing, set 156.25, and click the Set SI570 button



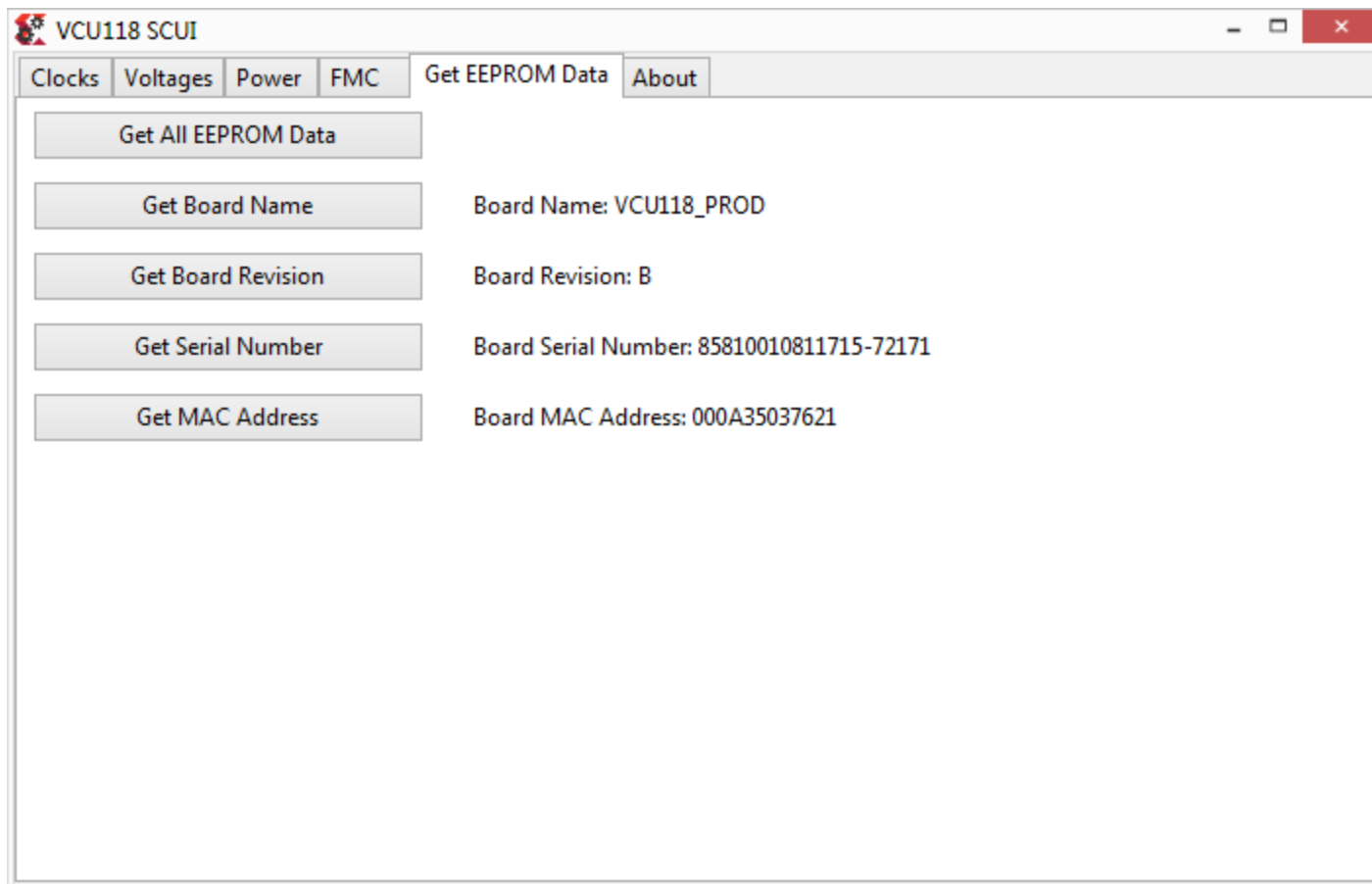
**Note:** Presentation applies to the VCU118

# **SCUI Version 1.1 – EEPROM Data**



# Reading the Board EEPROM Data

- > Select the EEPROM Data tab
- > Click the Get All EEPROM Data button



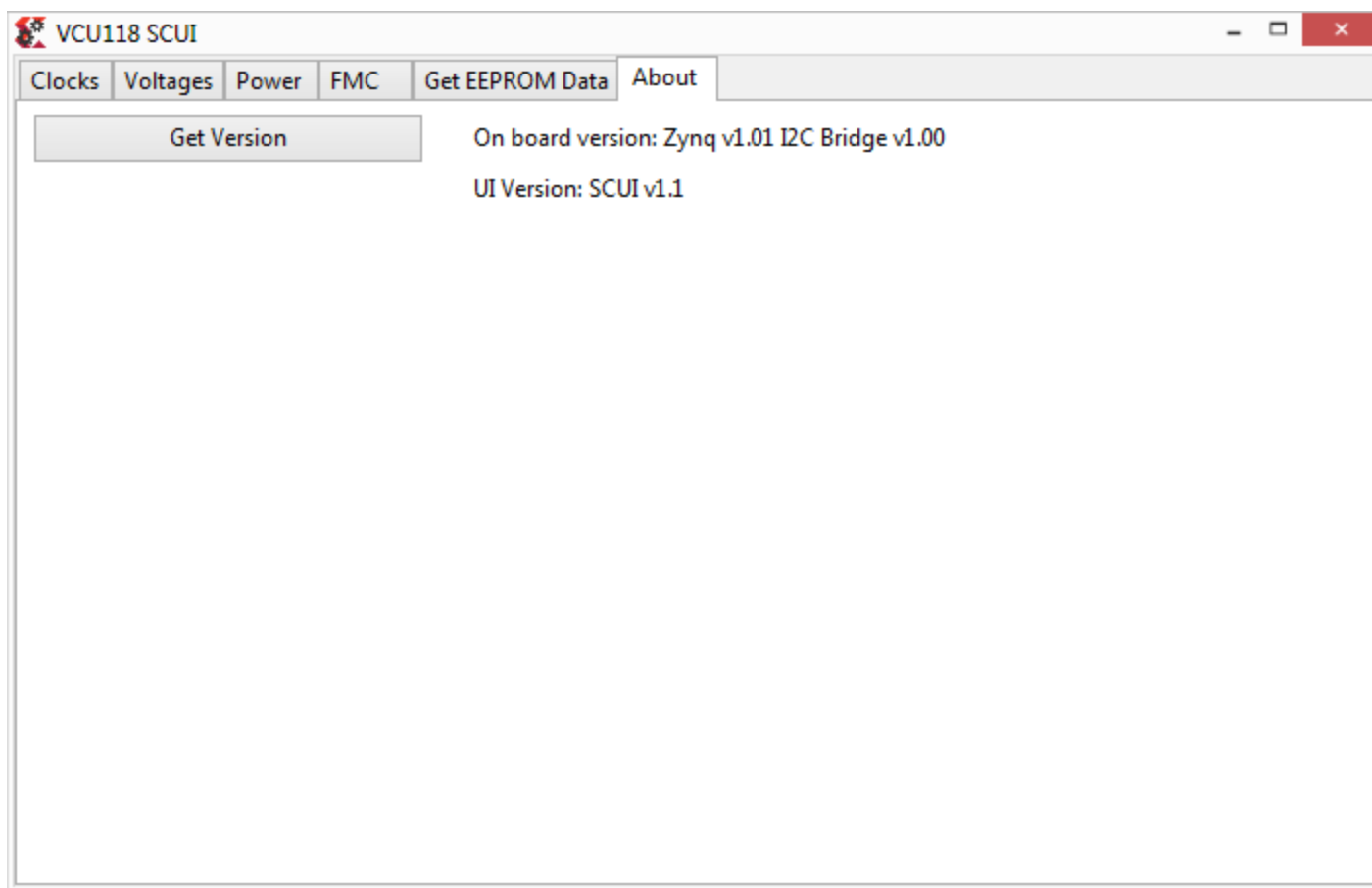
**Note:** Presentation applies to the VCU118

# **SCUI Version 1.1 – About**



# Reading version information

- > Select the About tab
- > Click the Get Version button to get MSP430 and SCUI GUI version information



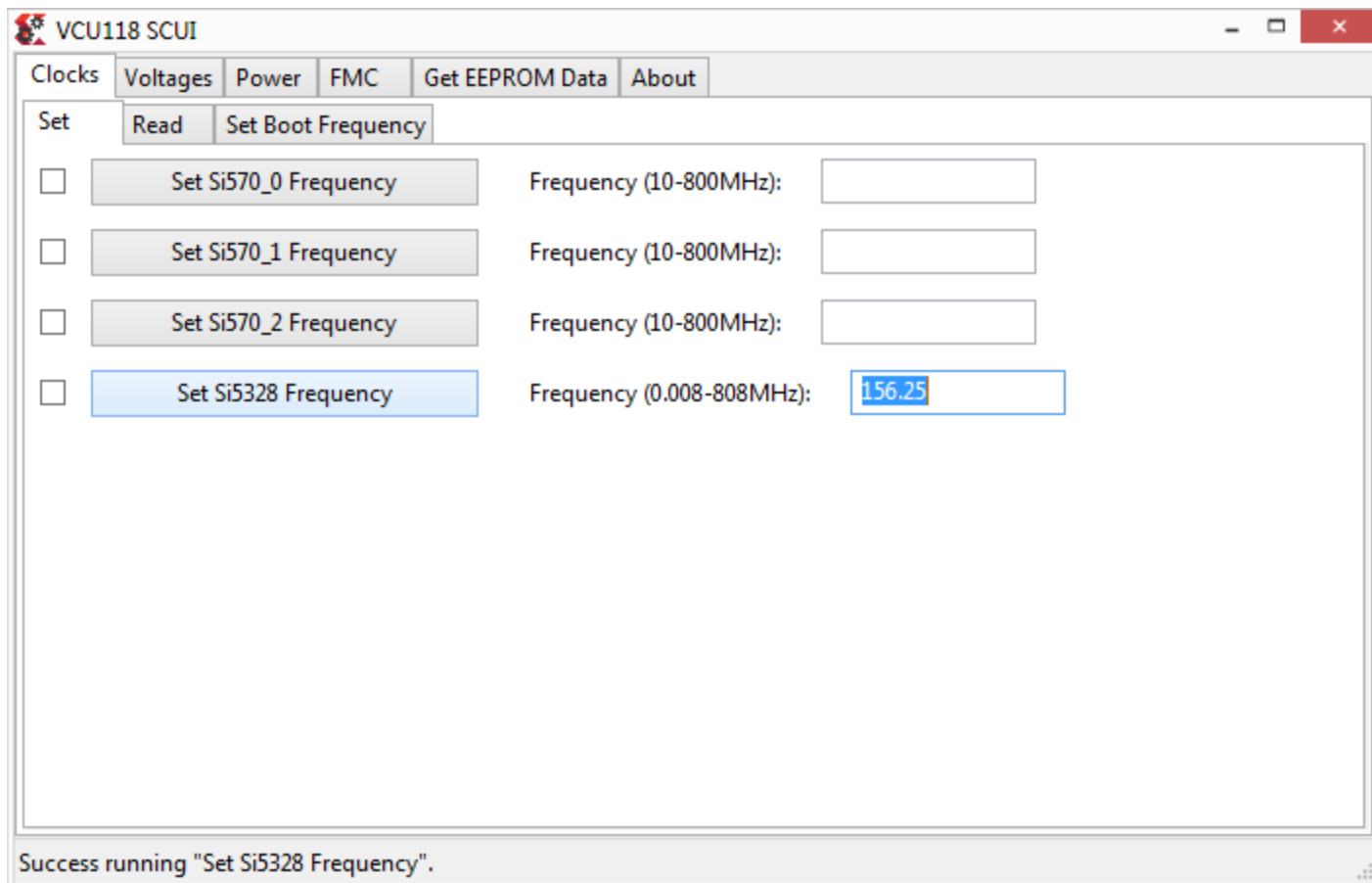
**Note:** Presentation applies to the VCU118

# SCUI Version 2.30 – Clocks



# Setting the clocks

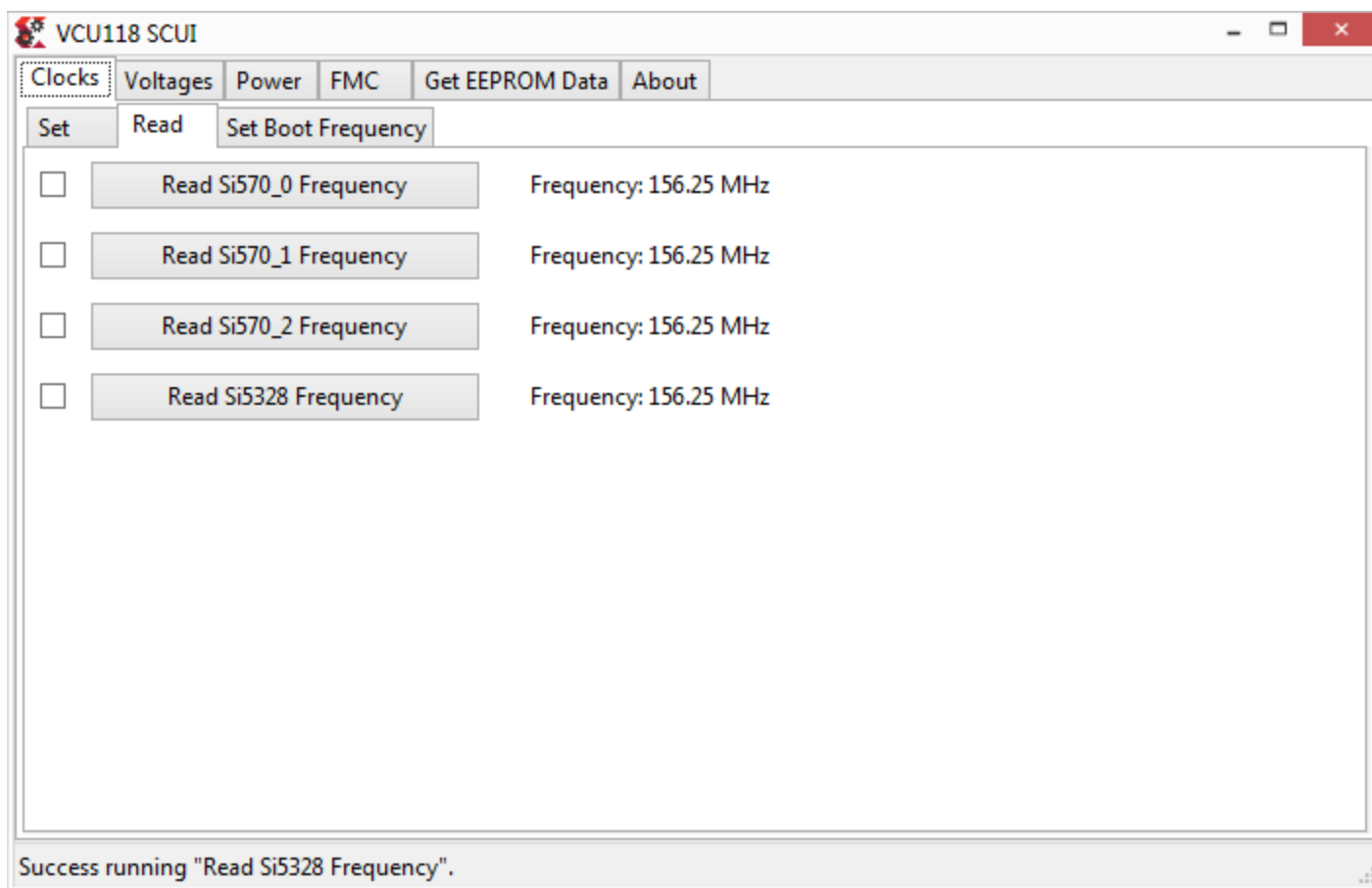
- > Select the Set tab underneath the Clocks tab
- > Enter 156.25 for the Si5328 and click the Set Si5328 Frequency button



**Note:** Presentation applies to the VCU118

# Reading the clocks

- > Select the Read tab
- > Click each of the Read buttons and verify the frequencies are set as shown

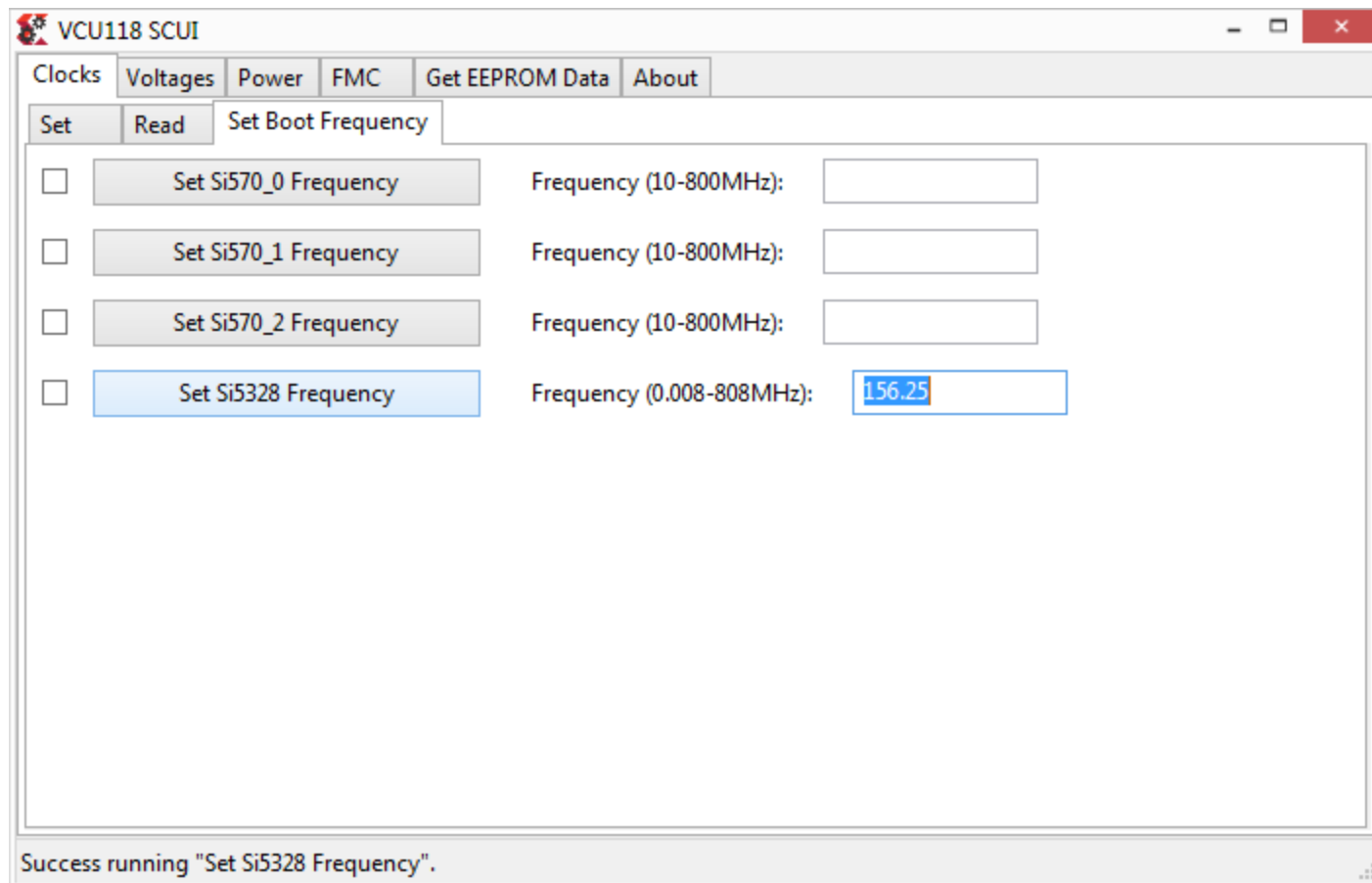


**Note:** Presentation applies to the VCU118



# Setting Clock Boot Frequencies

- > Select the Set Boot Frequency tab
- > Type in your desired boot-up frequency and click the corresponding Set button



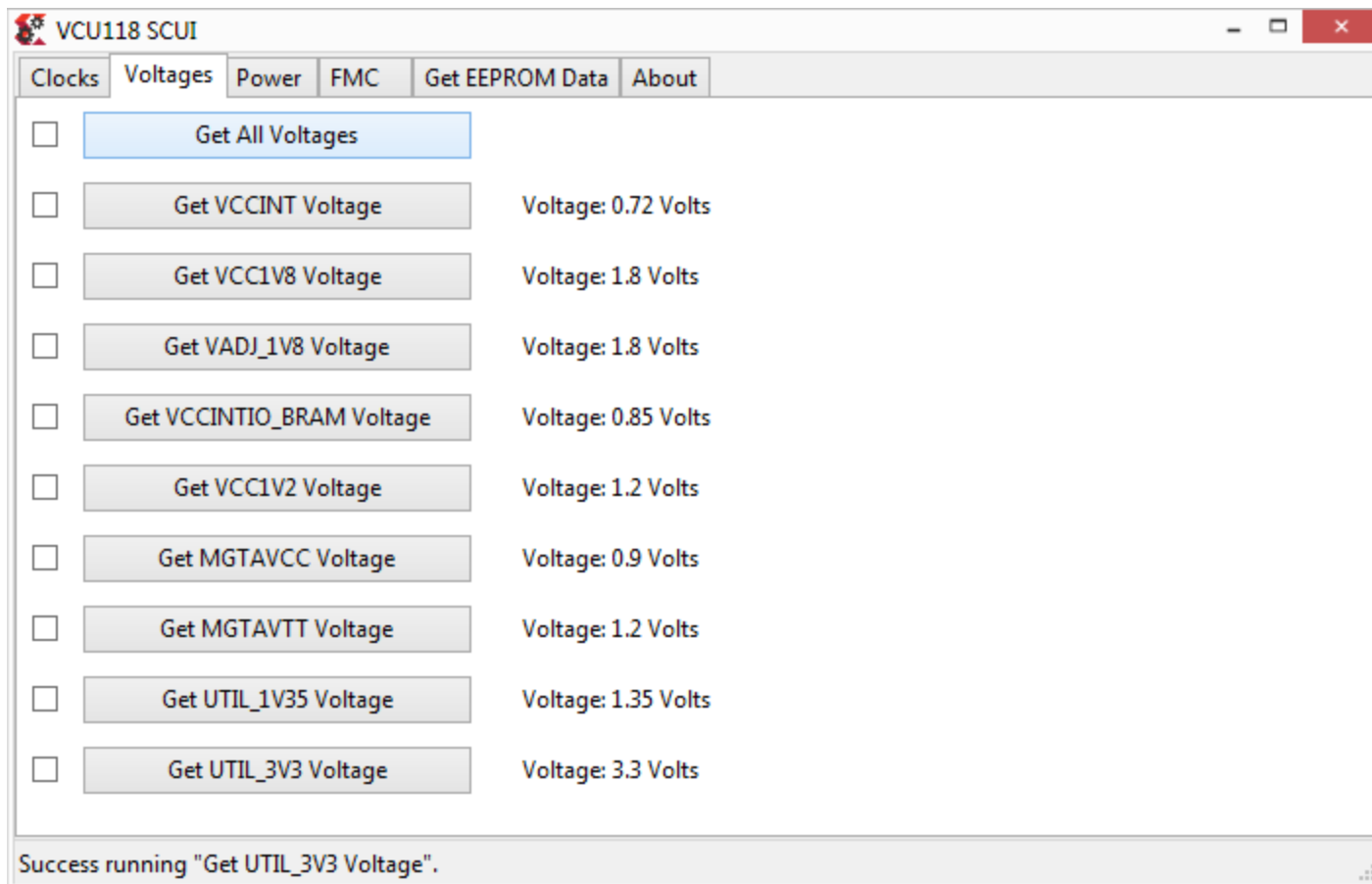
**Note:** Presentation applies to the VCU118

# **SCUI Version 2.30 – Voltages**



# Reading onboard VCU118 voltages

- > Select the Voltages tab
- > Click the Get All Voltages button to view a voltage
- > Observe the VCU118 voltages



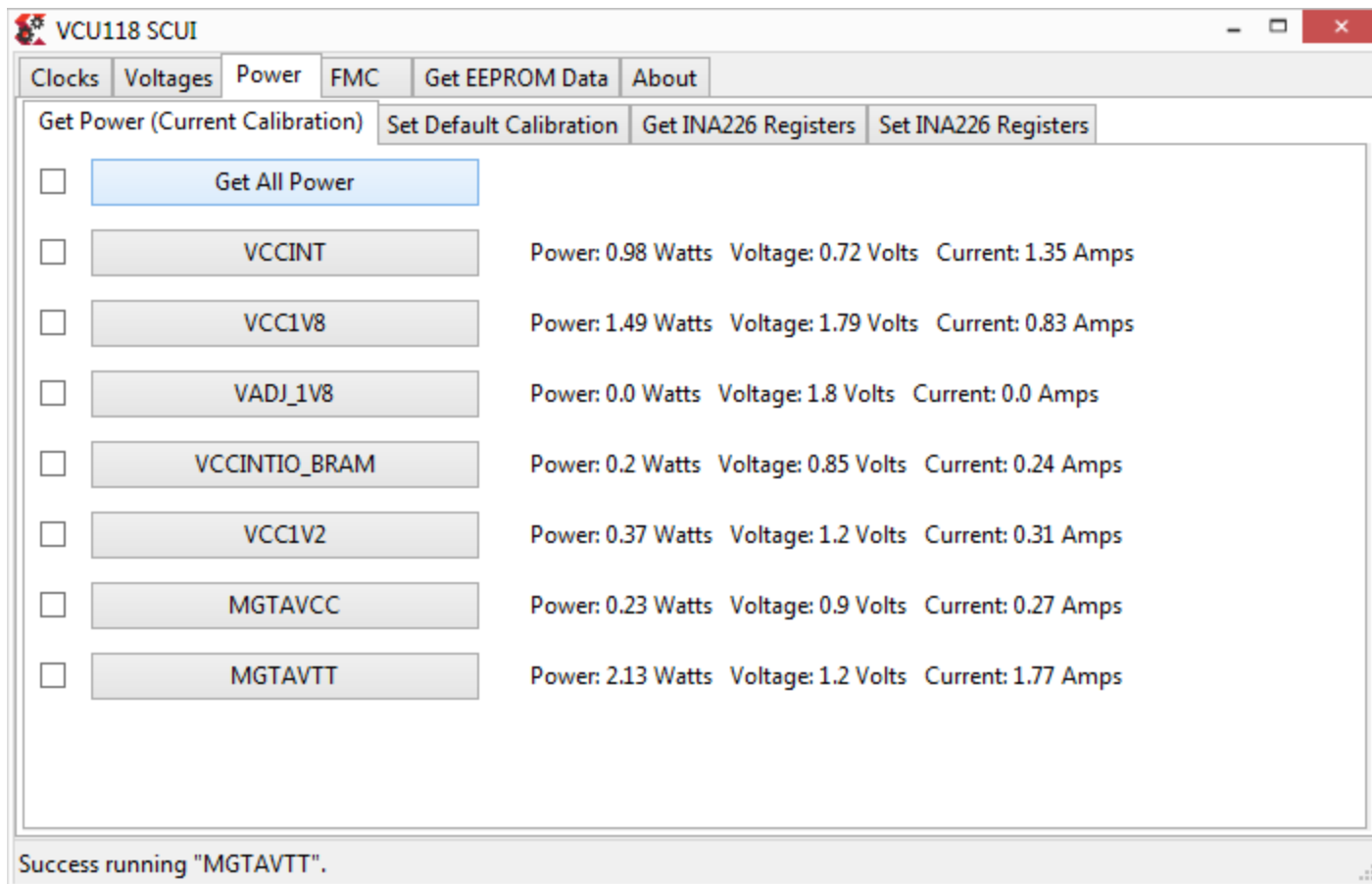
**Note:** Presentation applies to the VCU118

# **SCUI Version 2.30 – Power**



# Reading power values using default calibration

- > Select the Use Default Calibration tab underneath Power
- > Click the Get All Power button
- > Observe the VCU118 PS power readings



**Note:** Presentation applies to the VCU118

# Read INA226 Registers

- > Select the Get INA226 Registers tab
- > Click the Get All Registers button and observe the INA226 Registers settings

The screenshot shows the VCU118 SCUI application window. The 'Get INA226 Registers' tab is selected, and the 'Get All Registers' button is highlighted. The interface displays a list of registers and their corresponding values.

Register	Configuration	Shunt Voltage	Bus Voltage	Power	Current	Calibration	Mask/Enable	Alert Limit	Die ID
VCCINT	4127	0112	0240	0010	0231	1062	0008	0000	2260
VCC1V8	4127	0679	059D	00C3	0A9C	0D1B	0008	0000	2260
VADJ_1V8	4127	0002	059D	0000	0002	0D1B	0008	0000	2260
VCCINTIO_BRAM	4127	01E1	02A5	001A	0316	0D1B	0008	0000	2260
VCC1V2	4127	026A	03C1						

Success running "MGTAVTT".

# Set INA226 Registers

- > Select the Set INA226 Registers tab
- > Review [TI INA226](#) documentation before making changes

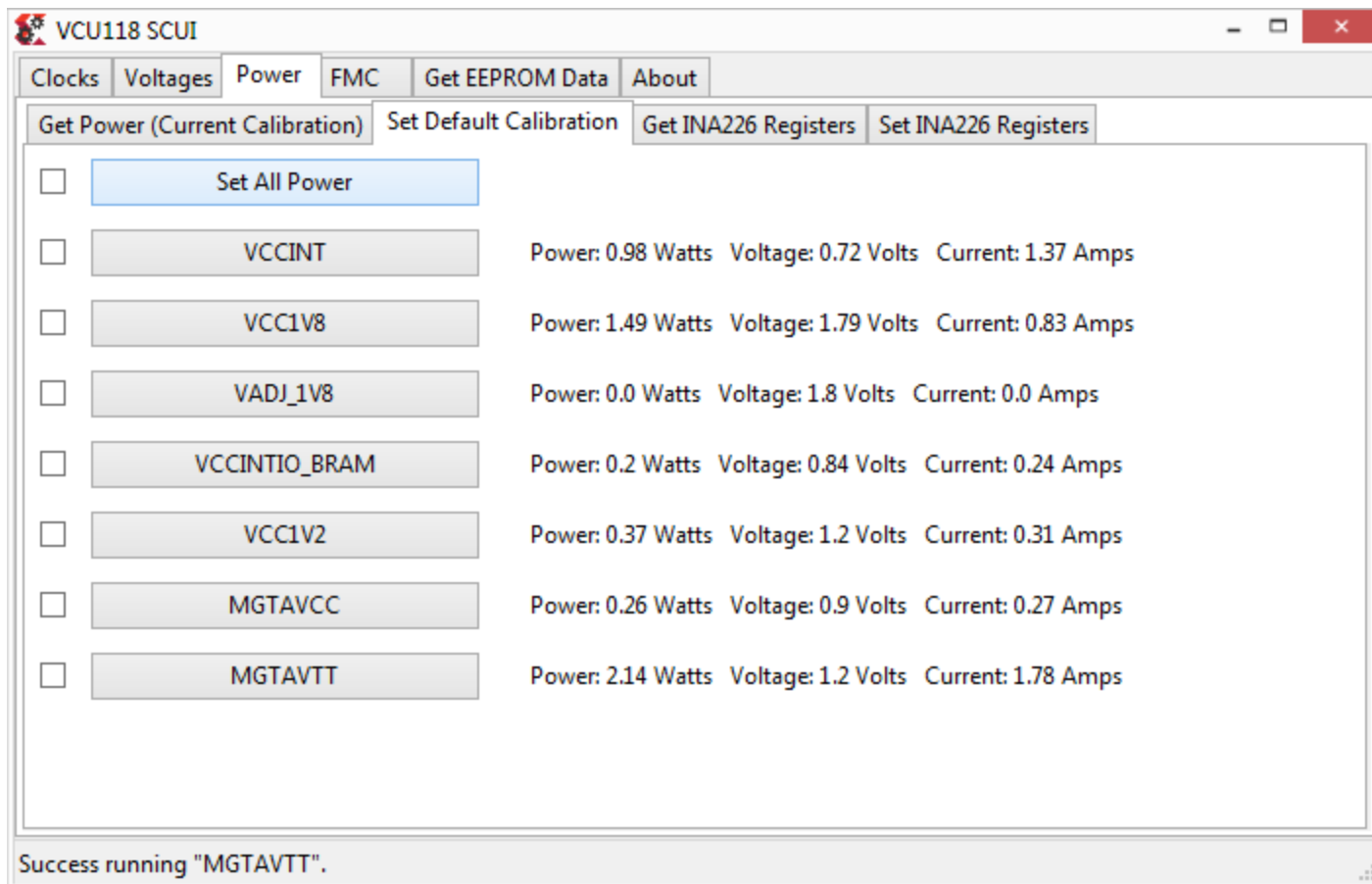
The screenshot shows the VCU118 SCUI application window. The 'Power' tab is selected, and within it, the 'Set INA226 Registers' sub-tab is active. The interface displays a list of power rails on the left, each with a checkbox and a label. To the right of each label are three input fields: 'Configuration:', 'Calibration:', and 'Alert Limit:'. The power rails listed are VCCINT, VCC1V8, VADJ\_1V8, VCCINTIO\_BRAM, VCC1V2, and MGTAVCC. A status bar at the bottom indicates 'Success running "MGTAVTT".'

Power Rail	Configuration:	Calibration:	Alert Limit:
<input type="checkbox"/> VCCINT			
<input type="checkbox"/> VCC1V8			
<input type="checkbox"/> VADJ_1V8			
<input type="checkbox"/> VCCINTIO_BRAM			
<input type="checkbox"/> VCC1V2			
<input type="checkbox"/> MGTAVCC			

**Note:** Presentation applies to the VCU118

# Reading power values using custom calibration

- > Select the Set Default Calibration tab
- > Click the Set All Power button (no calibrations were entered in this example)



**Note:** Presentation applies to the VCU118

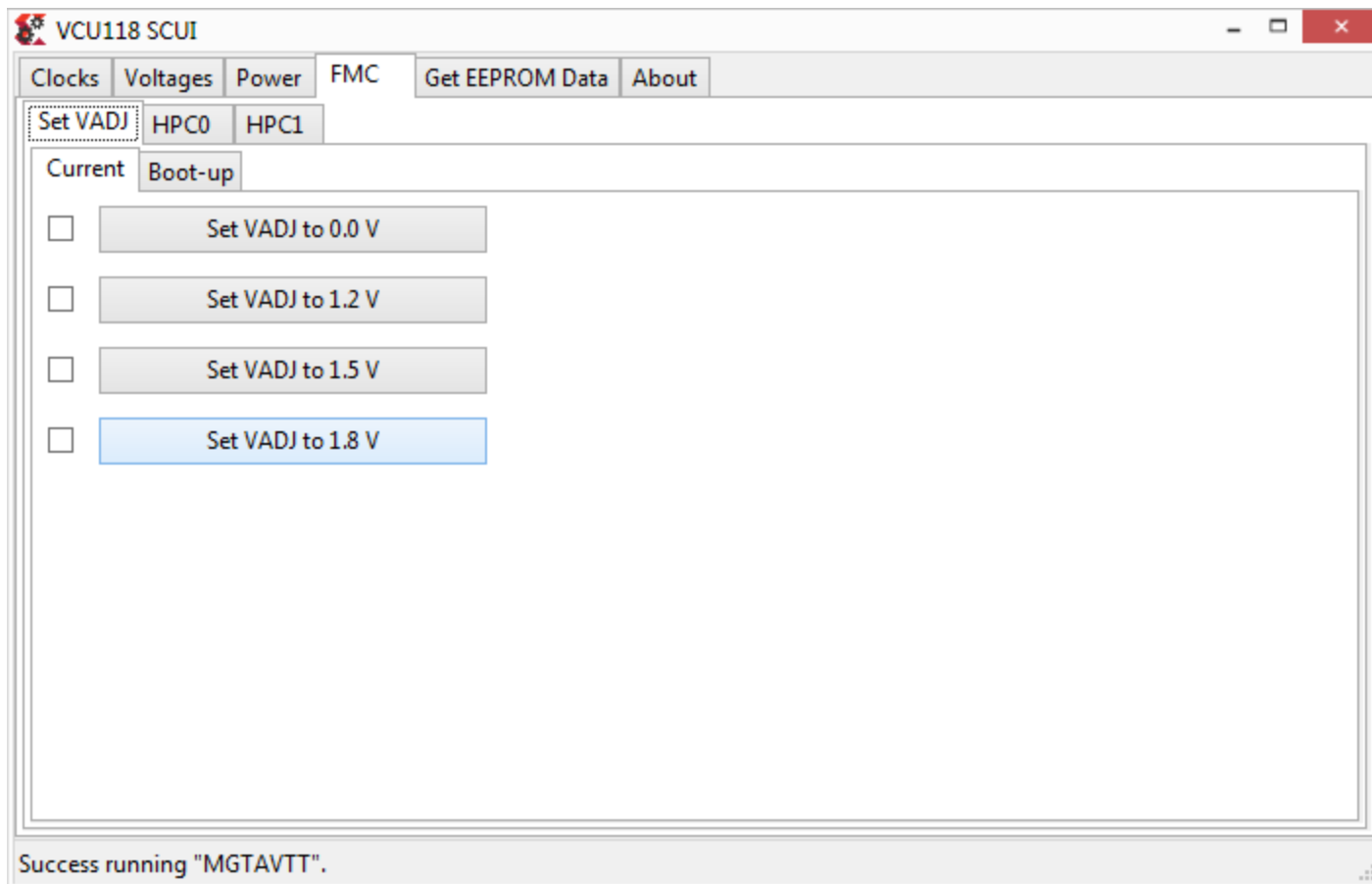


# SCUI Version 2.30 – FMC



# Set VADJ

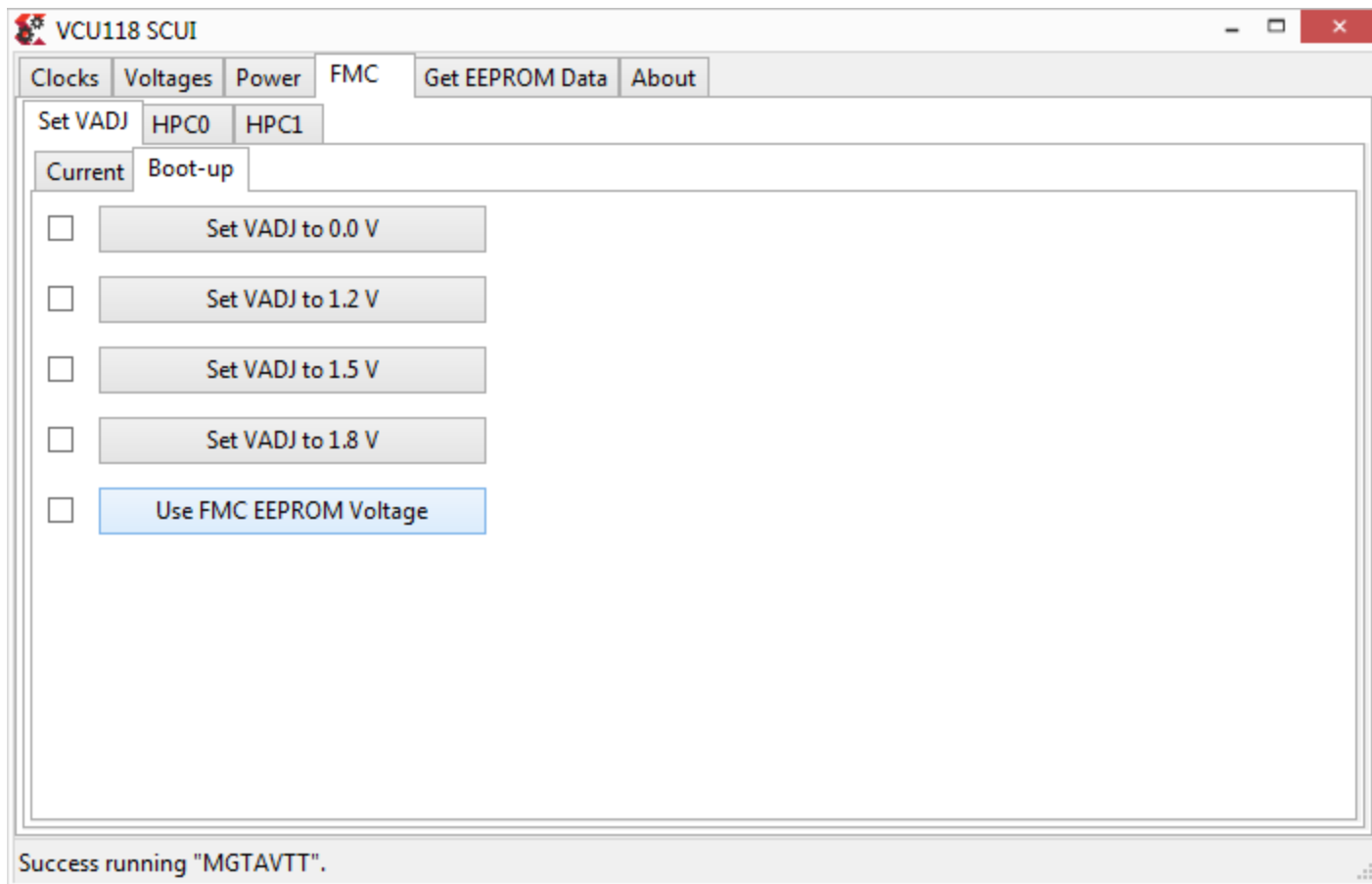
- > Select the Set VADJ tab underneath the FMC tab
- > Under the Current tab, select the desired VADJ voltage
- > Some BIT tests expect 1.8 V



**Note:** Presentation applies to the VCU118

# Set Boot-Up VADJ

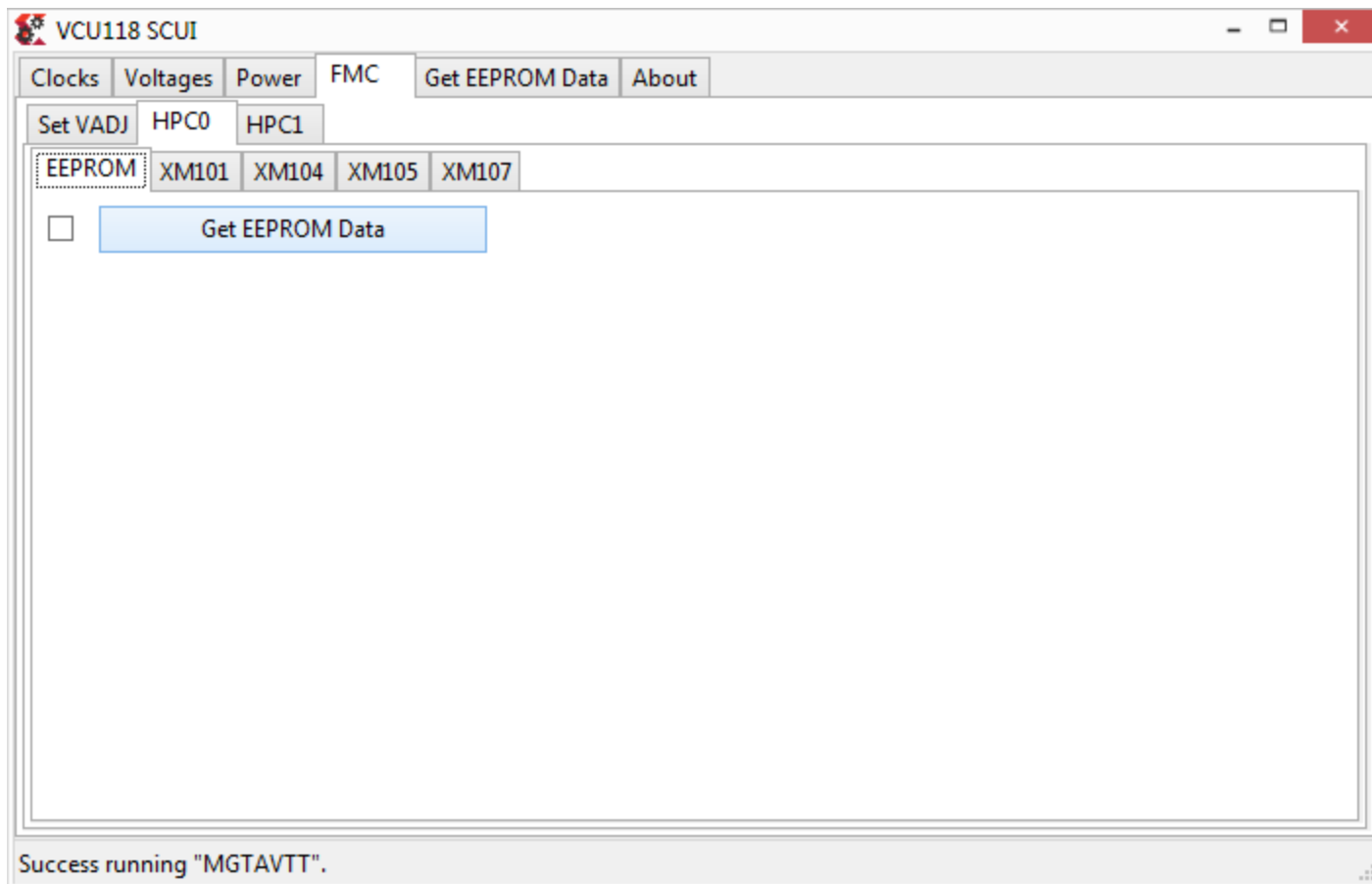
- > Select the Boot-up tab and choose the desired power-on voltage
- > The default, Use FMC EEPROM Voltage, will set 1.8 V unless you attach an FMC card with a different setting



**Note:** Presentation applies to the VCU118

# Reading FMC EEPROM

- > Select the HPC0 or HPC1 tab
- > Click the Get EEPROM Data button



**Note:** Presentation applies to the VCU118

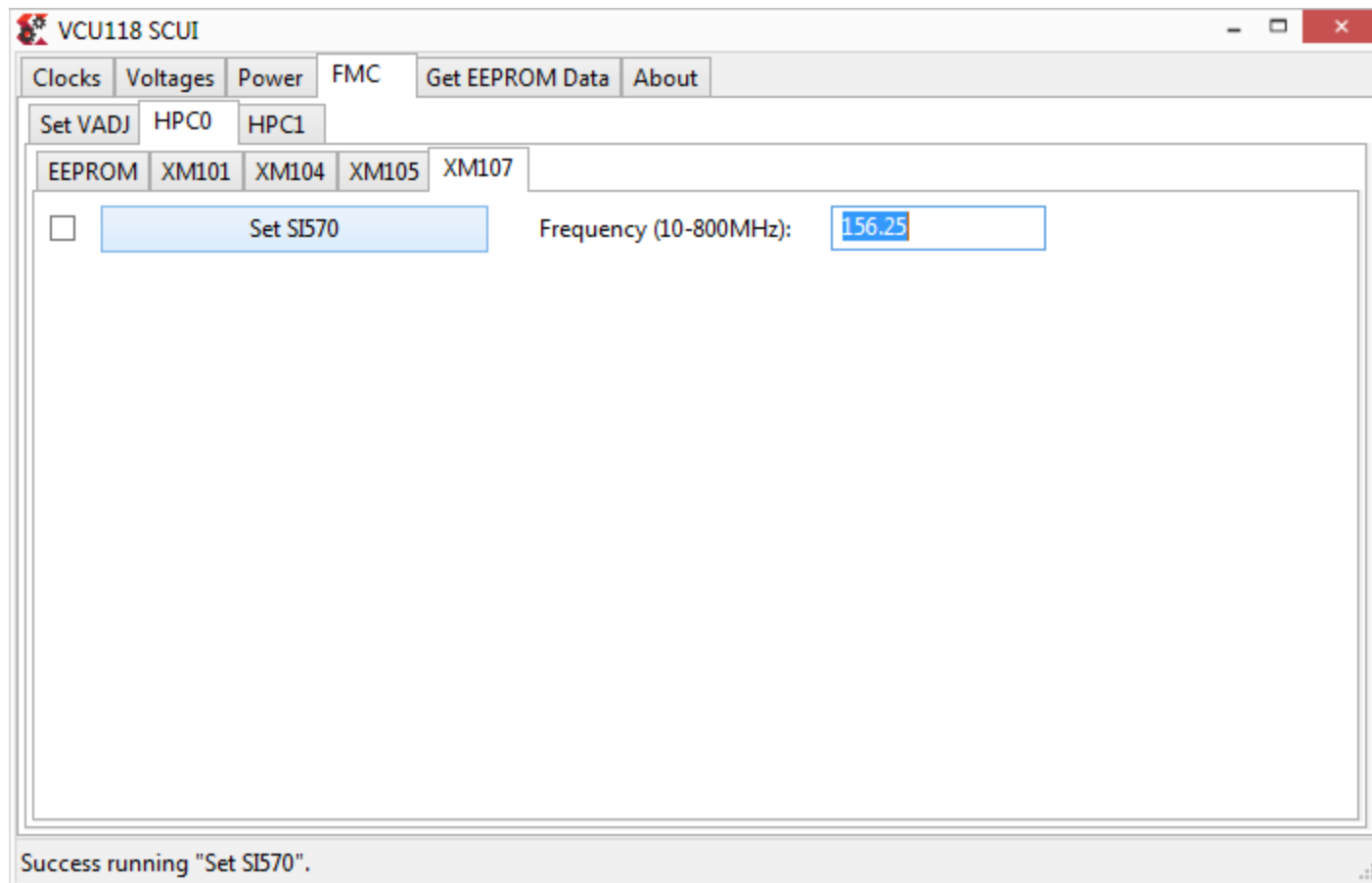
# Reading FMC EEPROM

- > The EEPROM data will be displayed in a separate window (XM107 data shown)

```
[C:\vcu118_scu\data.dump] - Frhed
File  Disk  Edit  View  Options  Registry  Bookmarks  Misc  Help
[Icons] [Navigation]
00 01 00 00 01 00 08 00 f6 01 07 19 80 e1 7f ca 58 69 6c 69 6e 78 20 49 6e 63 c5 58 | .....ö....á.Éxilinx IncAX
1b 4d 31 30 37 c8 31 32 33 34 35 36 37 00 ce 48 57 2d 46 4d 43 2d 58 4d 31 30 37 2d | M107É1234567.îHW-FMC-XM107-
36 47 00 c5 52 65 76 20 30 c1 f8 fa 02 0b 70 89 a2 12 00 00 1c 74 2c 00 00 a0 80 02 | G.ÂRev 0Ãøú..p.ç....t,...
51 02 0d 30 bf 00 fa 00 6e 00 5e 01 32 00 00 00 d0 07 02 02 0d 10 df 01 4a 01 3b 01 | ..0ž.ú.n.^.2...Ð.....ß.¿;.
6c 5e 01 32 00 00 00 d0 07 02 02 0d d9 16 02 b0 04 74 04 ec 04 32 00 00 00 d0 07 01 | ^.2...Ð.....Û..°.t.ÿ.2...Ð..
87 02 0d 82 6e 03 fa 00 6e 00 5e 01 32 00 00 00 7e 04 01 02 0d fc f4 04 00 00 00 00 | ...n.ú.n.^.2...~.....üð.....
a2 00 00 00 00 00 00 00 00 01 82 0d fb 75 05 00 00 00 00 00 00 00 00 00 00 00 | .....ûu.....
bd 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....
d8 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....
f3 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | .....
Offset 0=0x0 Bits=00000001 Unsigned: B:1,W:1,L:16777217 ANSI / OVR / L Size: 255
```

# Setting FMC HPC clocks

- > With the XM107 FMC+ card attached, select the XM107 tab
- > For the IBERT FMC+ testing, set 156.25, and click the Set SI570 button



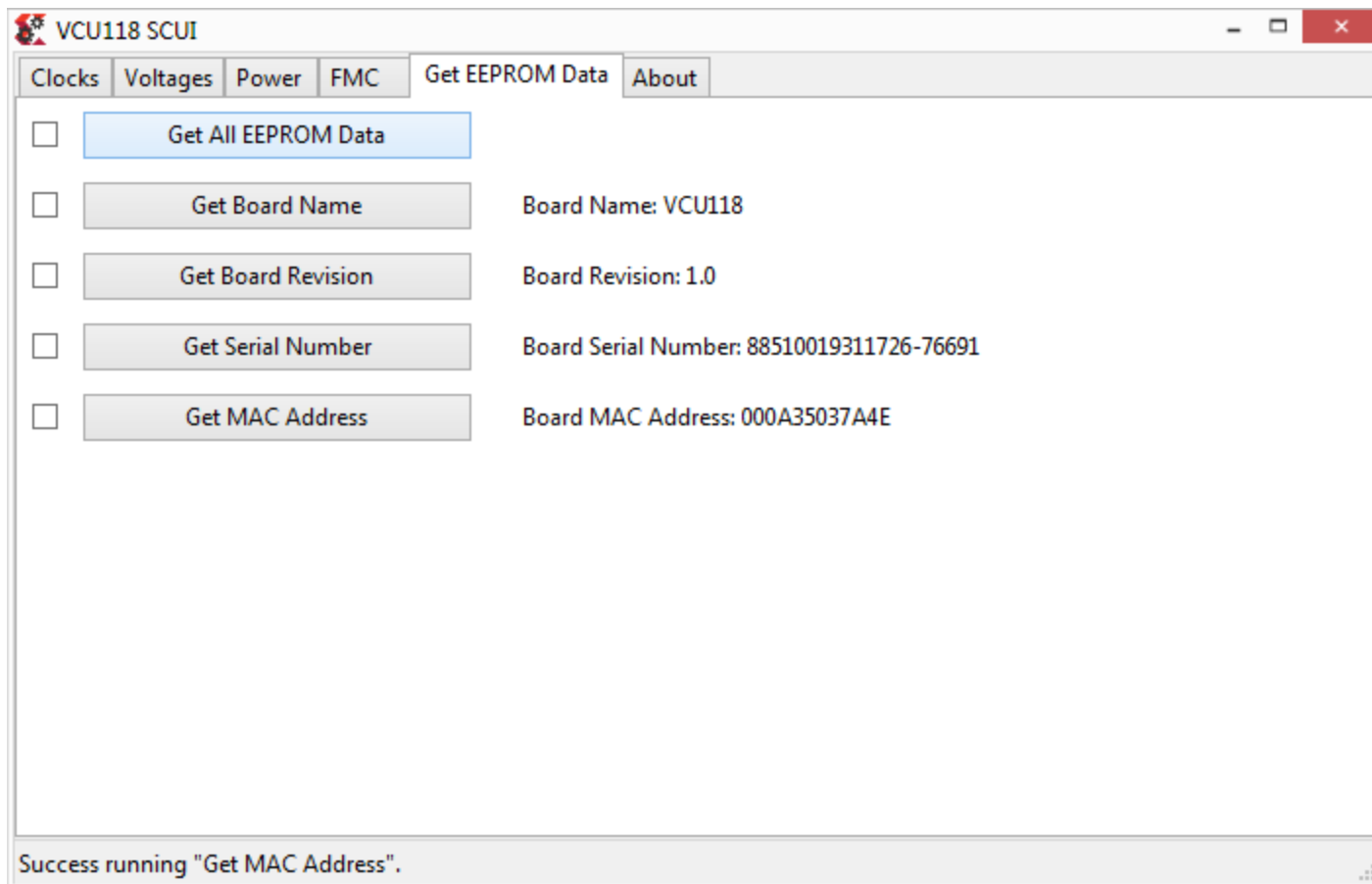
**Note:** Presentation applies to the VCU118

# **SCUI Version 2.30 – EEPROM Data**



# Reading the Board EEPROM Data

- > Select the EEPROM Data tab
- > Click the Get All EEPROM Data button



**Note:** Presentation applies to the VCU118

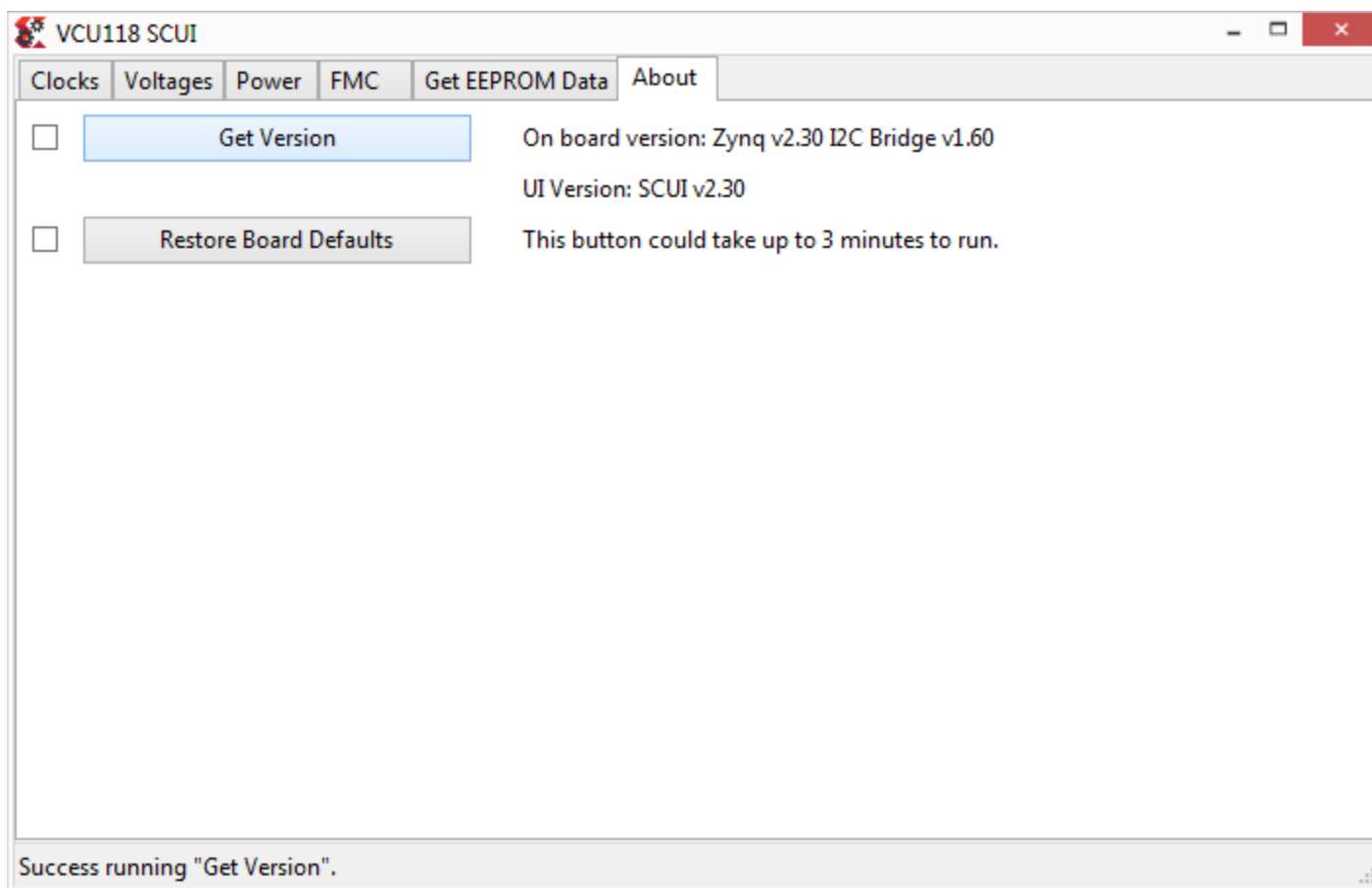


# **SCUI Version 2.30 – About**



# Reading version information

- > Select the About tab
- > Click the Get Version button to get MSP430 and SCUI GUI version information

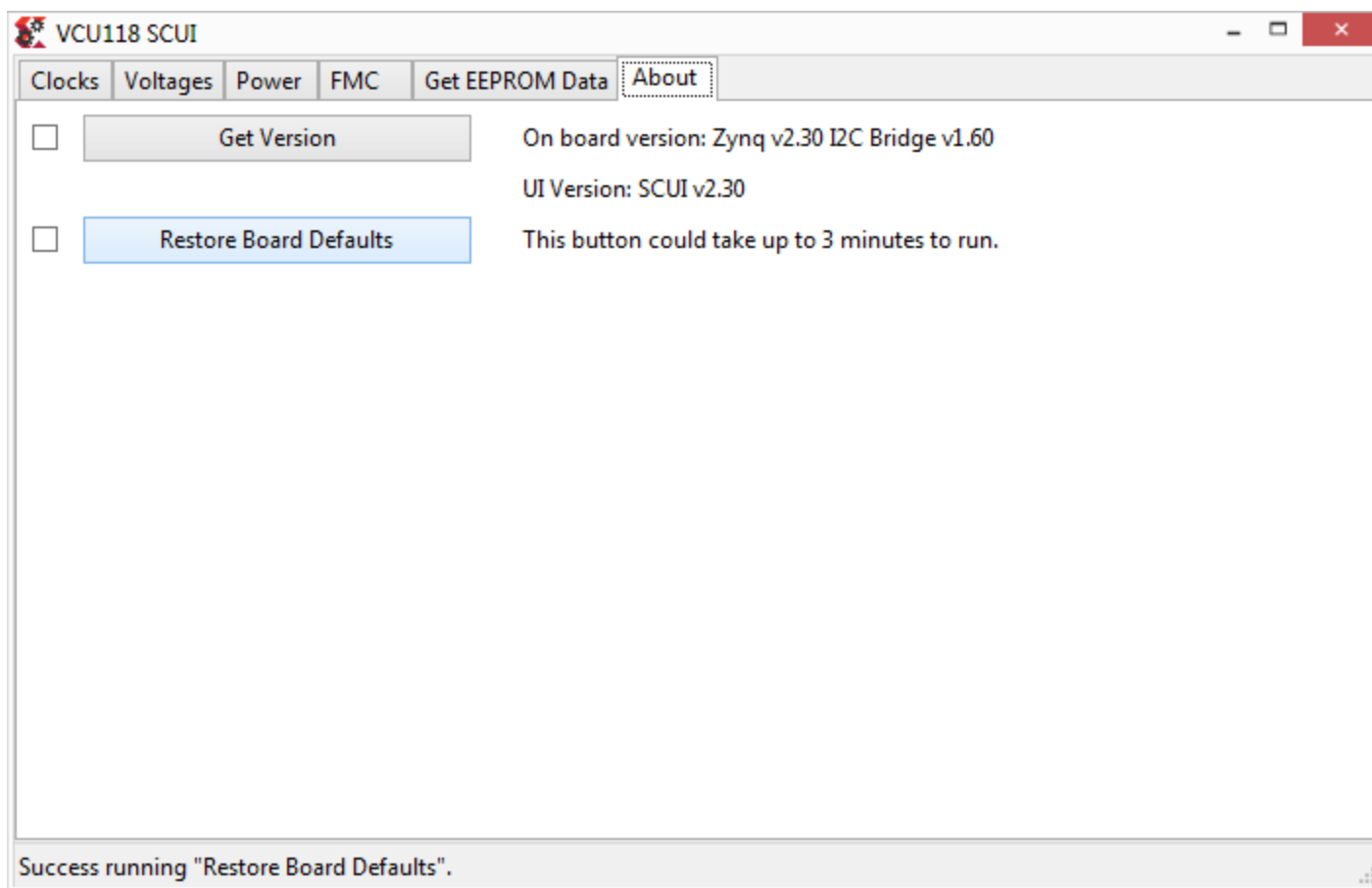


**Note:** Presentation applies to the VCU118

# Reading version information

## > Click the Restore Board Defaults button to reset initializations

- >> This restores the VCU118 and FMC clocks to their defaults
- >> Si5328 is reset to 0 MHz
- >> The FMC VADJ is reset to Use FMC EEPROM Voltage



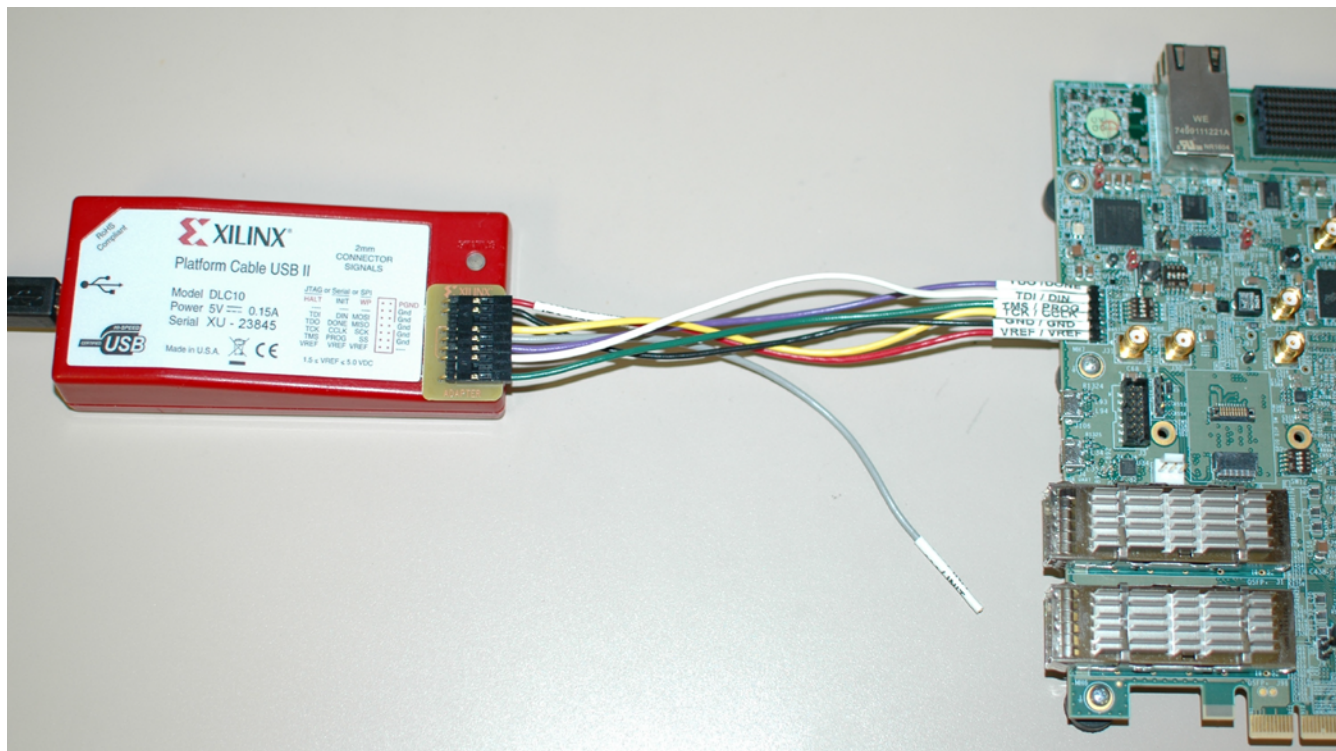
**Note:** Presentation applies to the VCU118

# Programming Firmware



# Programming Firmware

- > Remove the PCIe chassis bracket.
- > Connect a USB Platform Cable to J82 with the Flying Leads



**Note:** Presentation applies to the VCU118

# Programming Firmware

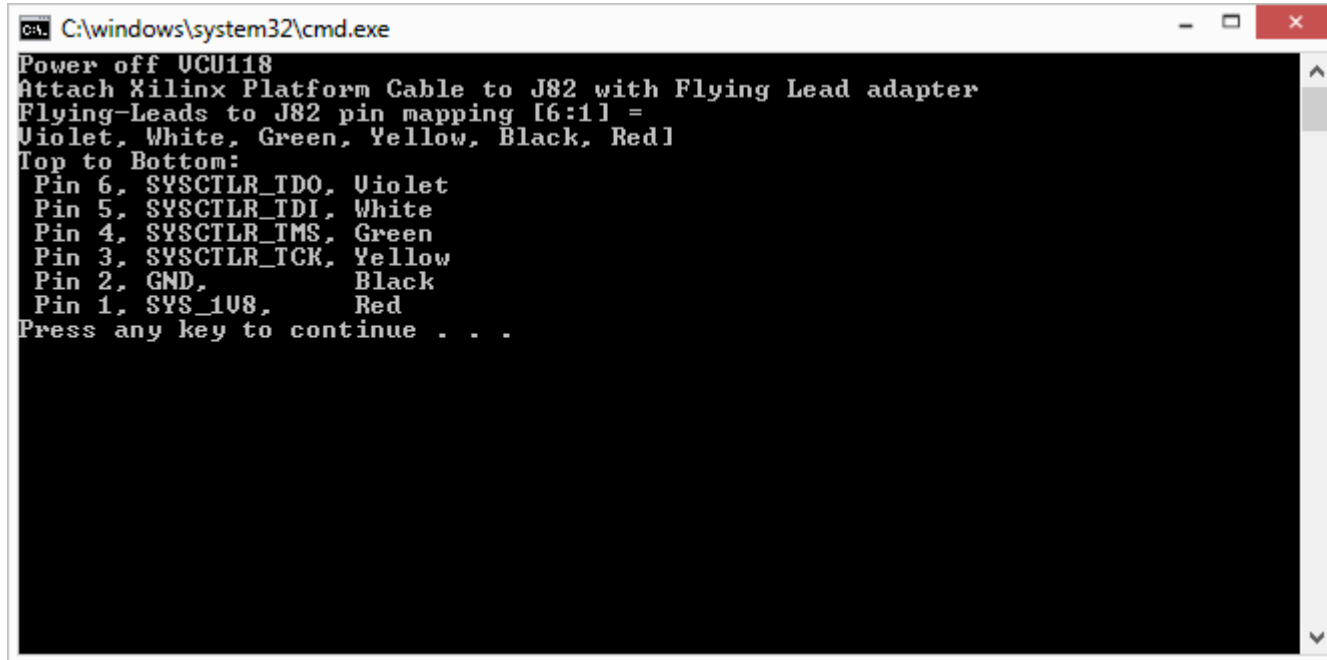
> Script files are included to program either the new or original firmware

vcu118_scui	32,088,067	7/28/2017 4:50:32 pm
scui_v1.1	16,104,858	7/28/2017 5:44:23 pm
■ BOOT_v1.00.bin	7,561,012	9/22/2016 3:47:44 pm
■ config.json	49,756	3/27/2017 5:33:16 pm
■ log.txt	103,531	7/28/2017 5:20:47 pm
■ program_sysctrl.bat	810	6/27/2017 12:57:58 pm
■ program_sysctrl.tcl	2,067	7/28/2017 5:33:40 pm
■ SCUI.exe	8,384,806	9/22/2016 5:44:06 pm
■ verify_sysctrl.bat	809	6/27/2017 12:57:58 pm
■ verify_sysctrl.tcl	2,067	7/28/2017 5:24:07 pm
scui_v2.30	15,977,325	7/31/2017 10:54:21 am
■ BOOT_v1.60.bin	7,427,940	6/21/2017 1:48:40 pm
■ config.json	50,186	7/26/2017 1:30:20 pm
■ log.txt	80,853	7/28/2017 4:49:41 pm
■ program_sysctrl.bat	810	6/27/2017 12:57:58 pm
■ program_sysctrl.tcl	2,067	7/31/2017 10:16:57 am
■ SCUI.exe	8,413,279	5/4/2017 5:35:46 pm
■ verify_sysctrl.bat	809	6/27/2017 12:57:58 pm
■ verify_sysctrl.tcl	2,067	7/31/2017 10:19:47 am
■ readme.txt	5,546	7/31/2017 10:59:10 am

**Note:** Presentation applies to the VCU118

# Programming Firmware

- > The Programming BAT files will prompt you to connect the Flying Leads
- > Press any key to continue...



```
C:\windows\system32\cmd.exe
Power off VCU118
Attach Xilinx Platform Cable to J82 with Flying Lead adapter
Flying-Leads to J82 pin mapping [6:1] =
Violet, White, Green, Yellow, Black, Red]
Top to Bottom:
Pin 6, SYSCTLR_TDO, Violet
Pin 5, SYSCTLR_TDI, White
Pin 4, SYSCTLR_TMS, Green
Pin 3, SYSCTLR_TCK, Yellow
Pin 2, GND, Black
Pin 1, SYS_1V8, Red
Press any key to continue . . .
```

# Programming Firmware

- > Important: The current System Controller must be disabled prior to programming
- > Put a jumper on J110, cycle VCU118 power and remove the jumper and press any key to continue...

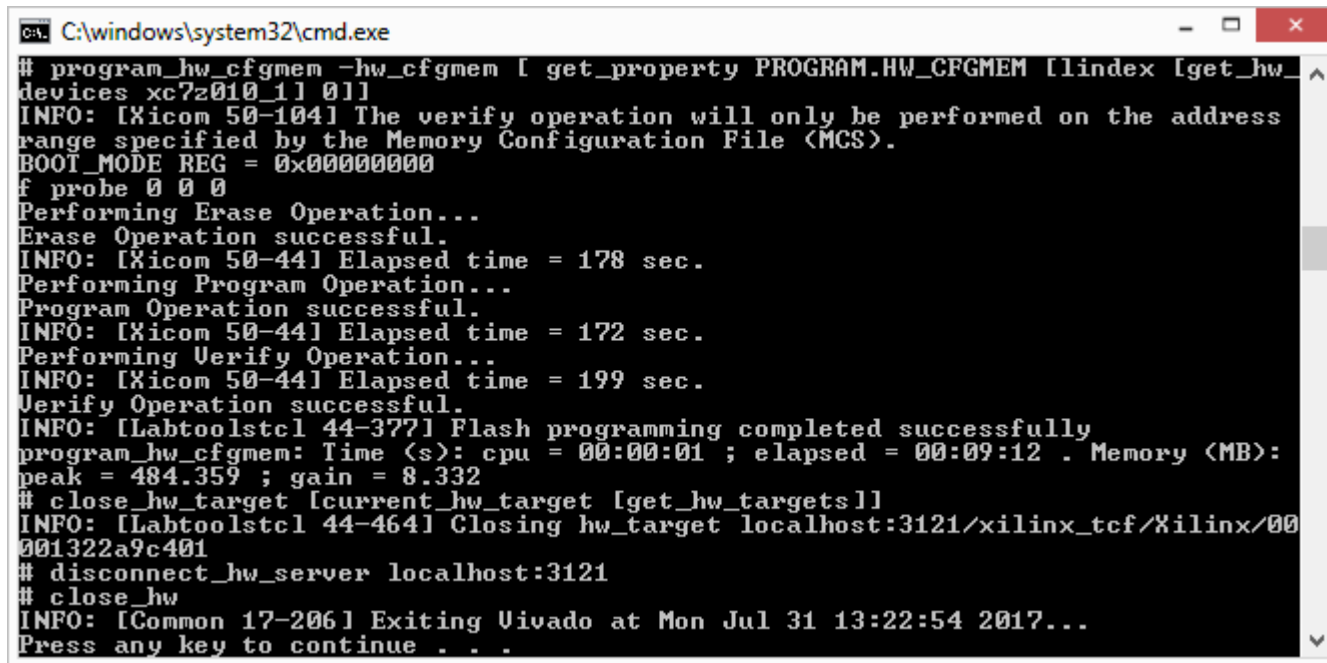
```
C:\windows\system32\cmd.exe
Power off VCU118
Attach Xilinx Platform Cable to J82 with Flying Lead adapter
Flying-Leads to J82 pin mapping [6:1] =
Violet, White, Green, Yellow, Black, Red]
Top to Bottom:
Pin 6, SYSCTLR_TDO, Violet
Pin 5, SYSCTLR_TDI, White
Pin 4, SYSCTLR_TMS, Green
Pin 3, SYSCTLR_TCK, Yellow
Pin 2, GND, Black
Pin 1, SYS_1V0, Red
Press any key to continue . . .
Put jumper on J110
Power on VCU118.
Remove jumper on J110.
Press any key to continue . . .
```





# Programming Firmware

- > Programming finished successfully
- > Cycle VCU118 power to enable the System Controller



```
C:\windows\system32\cmd.exe
# program_hw_cfgmem -hw_cfgmem [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_
devices xc7z010_1] 0]]
INFO: [Xicom 50-104] The verify operation will only be performed on the address
range specified by the Memory Configuration File (MCS).
BOOT_MODE REG = 0x00000000
f probe 0 0 0
Performing Erase Operation...
Erase Operation successful.
INFO: [Xicom 50-44] Elapsed time = 178 sec.
Performing Program Operation...
Program Operation successful.
INFO: [Xicom 50-44] Elapsed time = 172 sec.
Performing Verify Operation...
INFO: [Xicom 50-44] Elapsed time = 199 sec.
Verify Operation successful.
INFO: [Labtoolstcl 44-377] Flash programming completed successfully
program_hw_cfgmem: Time (s): cpu = 00:00:01 ; elapsed = 00:09:12 . Memory (MB):
peak = 484.359 ; gain = 8.332
# close_hw_target [current_hw_target [get_hw_targets]]
INFO: [Labtoolstcl 44-464] Closing hw_target localhost:3121/xilinx_tcf/Xilinx/00
001322a9c401
# disconnect_hw_server localhost:3121
# close_hw
INFO: [Common 17-206] Exiting Vivado at Mon Jul 31 13:22:54 2017...
Press any key to continue . . .
```

**Note:** Programming takes about 9 minutes

# Programming Firmware

- > Use the Verify BAT files to determine which version of the Firmware is currently programmed (if needed)

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BOOT_v1.00.bin	7,561,012	9/22/2016 3:47:44 pm
config.json	49,756	3/27/2017 5:33:16 pm
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SCUI.exe	8,384,806	9/22/2016 5:44:06 pm
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BOOT_v1.60.bin	7,427,940	6/21/2017 1:48:40 pm
config.json	50,186	7/26/2017 1:30:20 pm
log.txt	80,853	7/28/2017 4:49:41 pm
program_sysctrl.bat	810	6/27/2017 12:57:58 pm
program_sysctrl.tcl	2,067	7/31/2017 10:16:57 am
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verify_sysctrl.tcl	2,067	7/31/2017 10:19:47 am
readme.txt	5,546	7/31/2017 10:59:10 am

# References



# References

## > Vivado Release Notes

- >> Vivado Design Suite User Guide - Release Notes – UG973
  - [https://www.xilinx.com/support/documentation/sw\\_manuals/xilinx2019\\_1/ug973-vivado-release-notes-install-license.pdf](https://www.xilinx.com/support/documentation/sw_manuals/xilinx2019_1/ug973-vivado-release-notes-install-license.pdf)
- >> Vivado Design Suite 2019 - Vivado Known Issues
  - <https://www.xilinx.com/support/answers/72162.html>

## > Vivado Programming and Debugging

- >> Vivado Design Suite Programming and Debugging User Guide – UG908
  - [https://www.xilinx.com/support/documentation/sw\\_manuals/xilinx2019\\_1/ug908-vivado-programming-debugging.pdf](https://www.xilinx.com/support/documentation/sw_manuals/xilinx2019_1/ug908-vivado-programming-debugging.pdf)

# Documentation



# Documentation

## > Virtex UltraScale+

- >> Virtex UltraScale+ FPGA Family
  - <https://www.xilinx.com/products/silicon-devices/fpga/virtex-ultrascale-plus.html>

## > VCU118 Documentation

- >> Virtex UltraScale+ FPGA VCU118 Evaluation Kit
  - <https://www.xilinx.com/products/boards-and-kits/vcu118.html>
- >> VCU118 Board User Guide – UG1224
  - [https://www.xilinx.com/support/documentation/boards\\_and\\_kits/vcu118/ug1224-vcu118-eval-bd.pdf](https://www.xilinx.com/support/documentation/boards_and_kits/vcu118/ug1224-vcu118-eval-bd.pdf)
- >> VCU118 Evaluation Kit Quick Start Guide User Guide – XTP453
  - [https://www.xilinx.com/support/documentation/boards\\_and\\_kits/vcu118/xtp453-vcu118-quickstart.pdf](https://www.xilinx.com/support/documentation/boards_and_kits/vcu118/xtp453-vcu118-quickstart.pdf)
- >> VCU118 - Known Issues and Release Notes Master Answer Record
  - <https://www.xilinx.com/support/answers/68268.html>