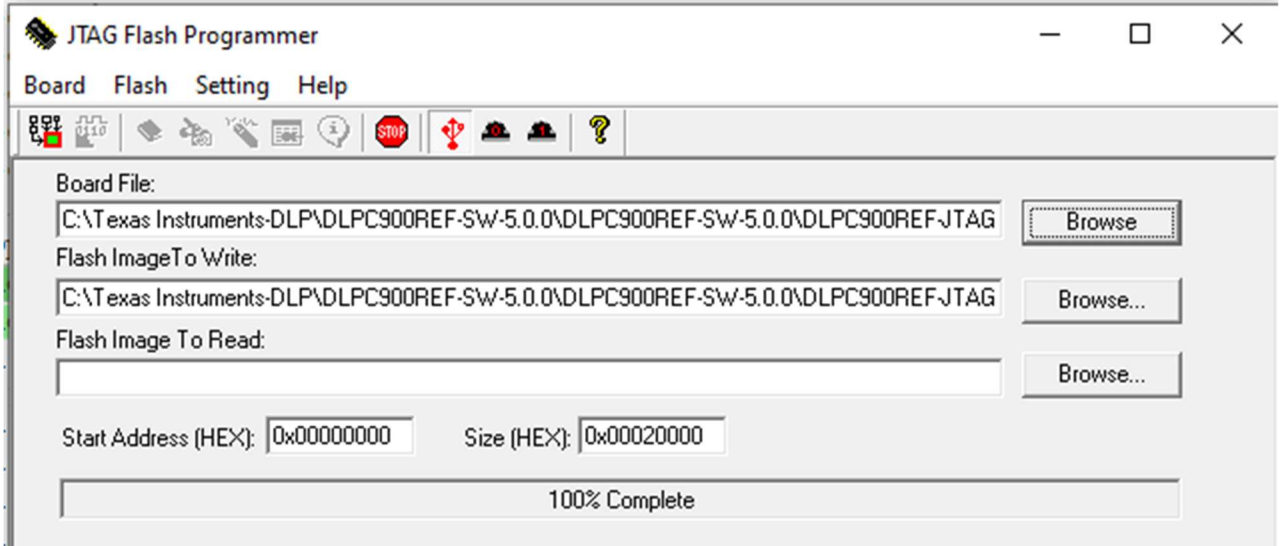


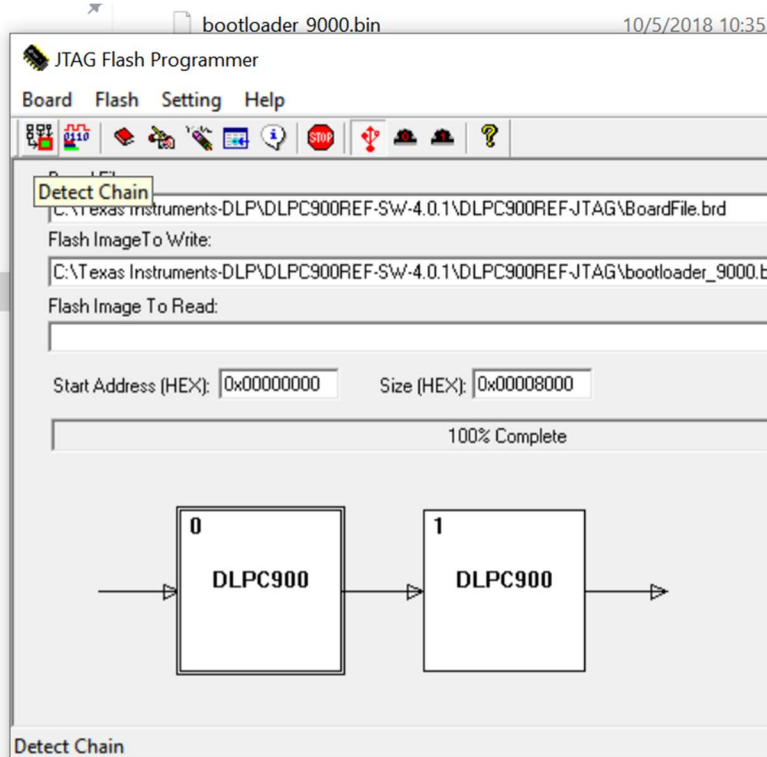
2. Dual controller DPC900 Board

1. Remove board power.
2. Load **Boot mode Hold jumper (J12), ASIC reset jumper (J10)**.
3. Connect JTAG programmer (UM232H) to laptop/PC. Refer to **section 3.11 JTAG Flash Programming** in EVM user guide <https://www.ti.com/lit/ug/dlpu102/dlpu102.pdf> for UM232H connections.
4. Power up the board, **Insert JTAG connector at J11**.
5. Launch **"FlashProgrammer.exe"** from GUI installation directory "C:\Texas Instruments-DLP\DLPC900REF-SW-5.0.0\DLPC900REF-SW-5.0.0\DLPC900REF-JTAG", select board file **"BoardFile.brd"** which contains register definitions for the controller being used.

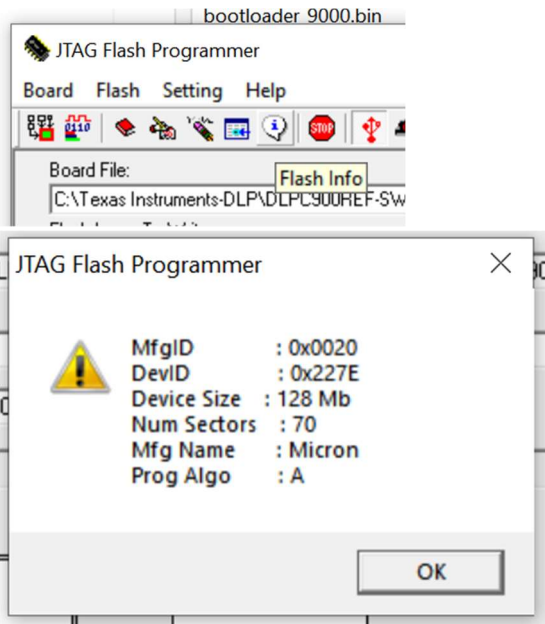
Make sure **"FlashDeviceParameters.txt"** file contains flash memory information of actual flash being used.



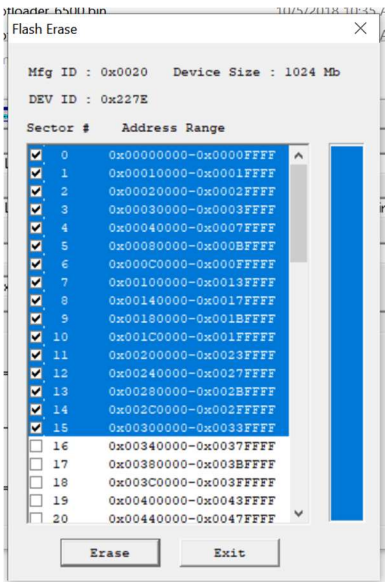
6. Click on detect chain. You should see two DLPC900 detected for dual controller board and Single DLPC900 controller for single controller board



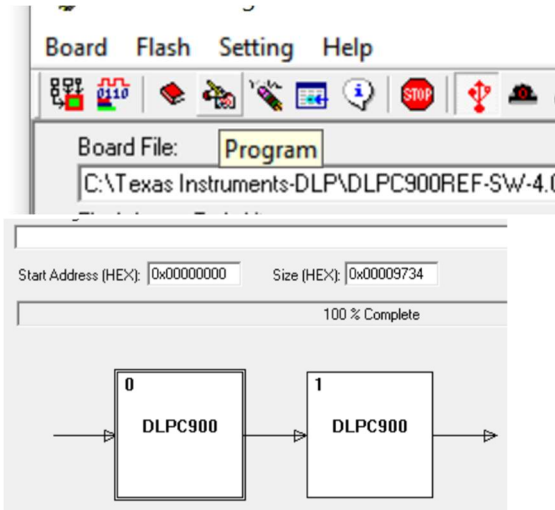
7. When clicked on the master DLPC900 controller, red and green LED will glow on master ASIC, when clicked on the slave DLPC900 controller, red and green LED will glow on slave ASIC.
8. Select the boot loader file “**bootloader_dual.bin**” to be loaded, change size(HEX) to 0x00020000.
9. Select Master DLPC900 controller.
10. Click on flash info and make sure flash info matches with flash part on the board.



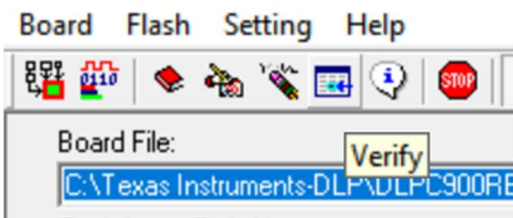
11. Click on erase, and erase at least 15 blocks. Click exit once Erase is completed.

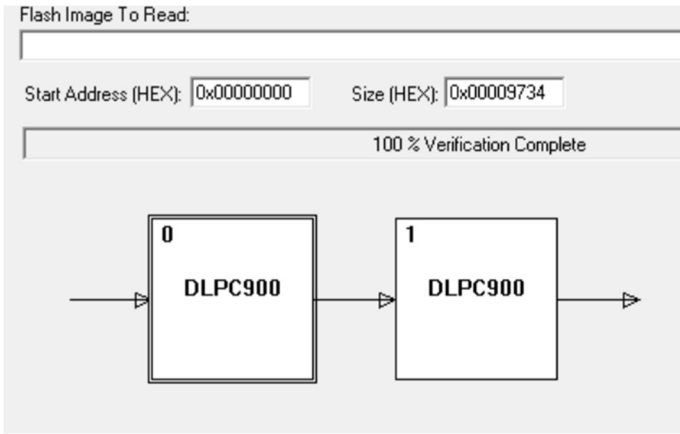


12. Now click on program icon and wait until program it is completed.

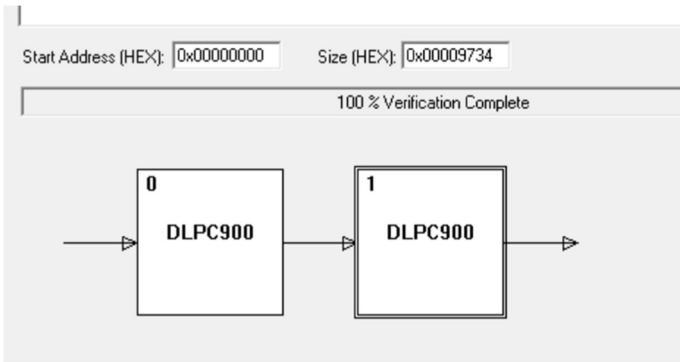


13. Now click on verify icon and make sure verify is successful.

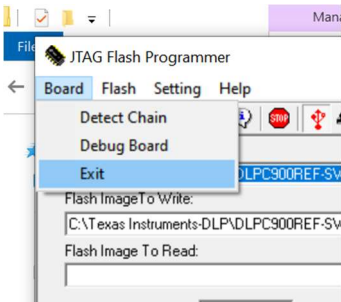




14. Select slave DLPC900 controller. Repeat steps 10 to 13 for slave controller.

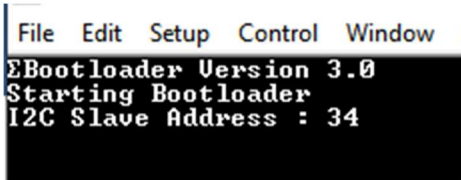


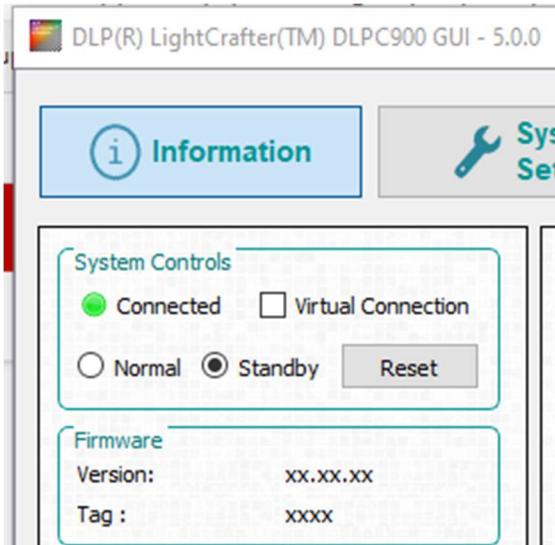
15. Close the JTAG flash programmer tool, remove the JTAG connector and remove power.



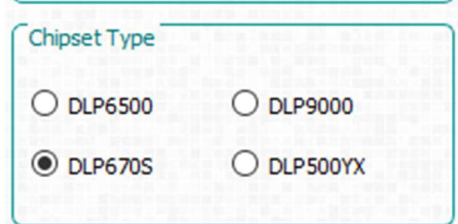
16. Remove **ASIC reset jumper (J10)**, turn on power.

17. Connect USB cable and open GUI. Connection status on GUI should be Green. Serial debug log shows bootloader version loaded.





18. Select DMD connected in chipset type.



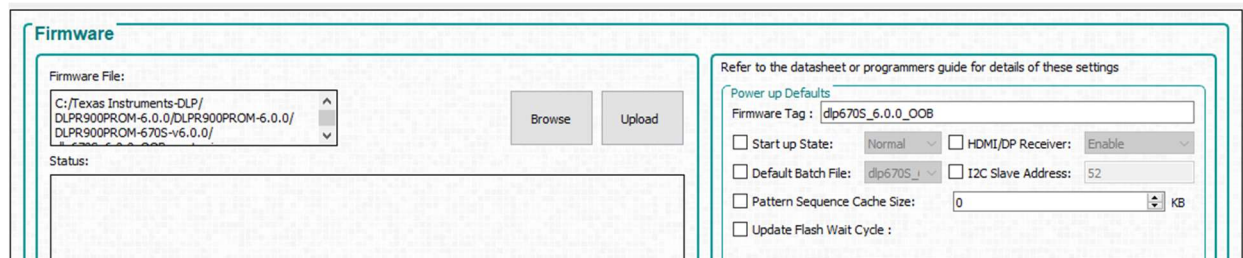
19. Now load the firmware image corresponding to DMD being used for both master and slave controller using GUI firmware update option.

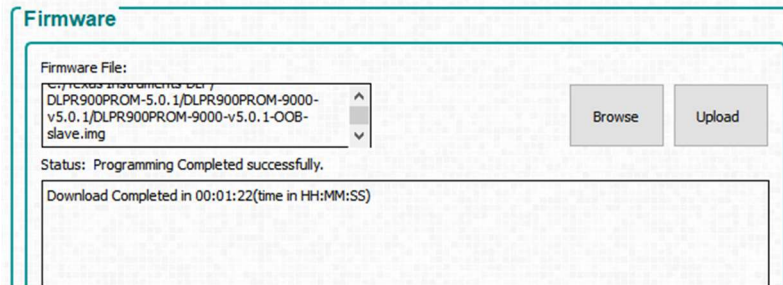
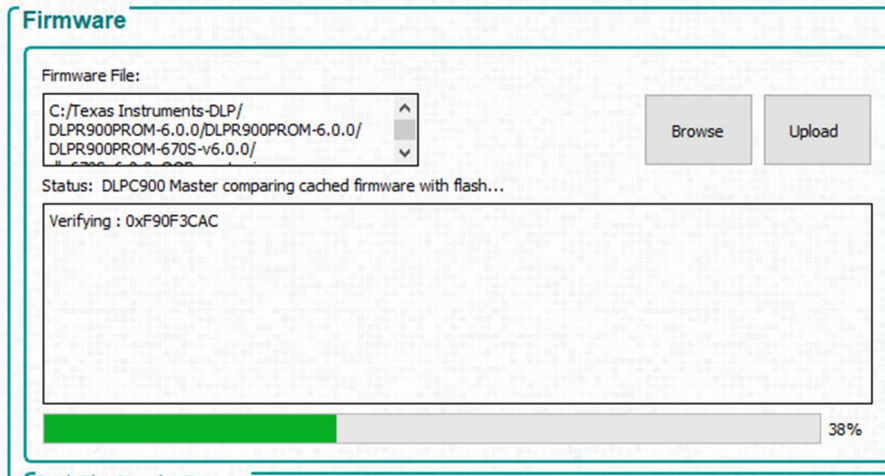
Out of the box firmware can be located in PROM installation directory.

“C:\Texas Instruments-DLP\DLPR900PROM-6.0.0\DLPR900PROM-6.0.0\DLPR900PROM-9000-v6.0.0”

This PC > Windows (C:) > Texas Instruments-DLP > DLPR900PROM-6.0.0 > DLPR900PROM-6.0.0 > DLPR900PROM-9000-v6.0.0

<input type="checkbox"/>	Name	Date modified	Type	Size
<input checked="" type="checkbox"/>	dlp9000_6.0.0_OOB-master	07-Dec-20 8:25 PM	Disc Image File	2,385 KB
<input checked="" type="checkbox"/>	dlp9000_6.0.0_OOB-slave	07-Dec-20 8:25 PM	Disc Image File	2,372 KB





20. Remove Power, **Remove Boot mode Hold jumper (J12)**.

21. Power up the board, you should be able to see the internal patterns displayed on the DMD and GUI connection status to be in Green.

