

Usage Note: XDS560v2 Emulator goes into SAFE Mode if it is powered off for 10 consecutive times without a complete boot

Rev: 0.2

Description:

XDS560V2 Mezzanine emulator has a processor which runs the Linux operating system. Every time the emulator is powered up, it boots its internal Linux operating system that then allows the user to connect to the EVM board via CCS. This Linux operating system running on the XDS560V2 mezzanine emulator runs from a NAND FLASH file system. FLASH file systems contain integrated management operations for wear-leveling and other tasks. If the power is cut before the Linux completes booting, there is risk of damage to the filesystem. The 'SAFE' mode functionality is integrated to prevent file system corruption from repeated boot operations without allowing Linux to fully boot. The XDS560V2 Mezzanine emulator software keeps track of the unsuccessful boot attempts of the emulator board during the boot process. Ten consecutive unsuccessful Linux boot attempts will result in the XDS560V2 Mezzanine emulator going into 'SAFE' mode.

The 'SAFE' mode of the XDS560V2 Mezzanine emulator will not allow the user to connect to the EVM board. CCS will report a connection error when SAFE mode is activated. When SAFE mode is active the LEDs D4, D5 and D6 will blink simultaneously.

Workaround:

The 'BH560v2 Config Utility' is used to clear the SAFE Mode of the emulator and bring the emulator to a normal working mode. The procedure for clearing the SAFE Mode using 'BH560v2 Config Utility' follows.

1. Power on the EVM containing the XDS560V2 Mezzanine emulator
2. Open 'BH560v2 Config Utility' with XDS560V2 Mezzanine emulator connected to your PC via a USB cable.
3. The utility will report the emulator in the SAFE Mode.
4. Use the "Clear Safe Mode" button to clear the SAFE mode state of the emulator.
5. Close the 'BH560v2 Config Utility' and power cycle the EVM
6. Connect the emulator using CCS after the emulator completes its boot cycle.

The XDS560v2 Mezzanine emulator takes approximately 30 seconds to boot-up. The successful booting of the XDS560v2 Mezzanine emulator is indicated by the following LED sequence:

Green LED (D3) turns ON
Yellow LED (D2) and Red LED (D1) turns ON
Green LED (D3) blinks and turns OFF

After the completion of booting XDS560v2 mezzanine emulator, it is ready to interface with CCS. Once CCS is connected to the target DSP, Green LED D4 turns ON.