



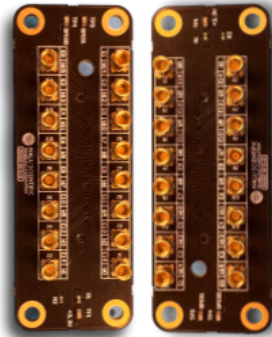
Quick Start Guide: HDSocV1 EVBr2

Equipment

Provided in Package



HDSocV1 EVBr2



HDI adapter cards
(East and West)



SD card preloaded
with HDSoc
firmware



Standoffs for
board support

NOT Provided in Package



AC power adapter
for Nexys Video
Artix-7 FPGA



Nexys Video
Artix-7 FPGA



microUSB to
USB-A cable



ESD mat and
bracelet

Figure 1. Necessary equipment to operate the HDSocV1 system.



Provided in Package:

- HDSoc Evaluation Board (EVB)
- 2x Adapter Cards
- Micro-SD card w/ Firmware
- Standoffs (Include sizes etc.)
 - 2x Male-Female Threaded Hex Standoff, 18-8 Stainless Steel, 4.500 mm Hex, 20 mm Long, M2.5 x 0.45 mm Thread
 - 6x Female Threaded Hex Standoff, 18-8 Stainless Steel, 4.5mm Hex, 10mm Long, M2.5 x 0.45 mm Thread
- Screws
 - 6x Passivated 18-8 Stainless Steel Pan Head Phillips Screws, M2.5 x 0.45mm Thread, 5mm Long
 - 2x Male-Female Threaded Hex Standoff, 18-8 Stainless Steel, 4.500 mm Hex, 30 mm Long, M2.5 x 0.45 mm Thread

Required, but Not Provided:

- ESD Safety Equipment
- Nexys Artix-7 FPGA KIT
 - FPGA Trainer Board
 - 12 V, 3A power supply
 - Micro-USB to USB A cable



Set Up

The appropriate ESD precautions should be taken while setting up and handling.

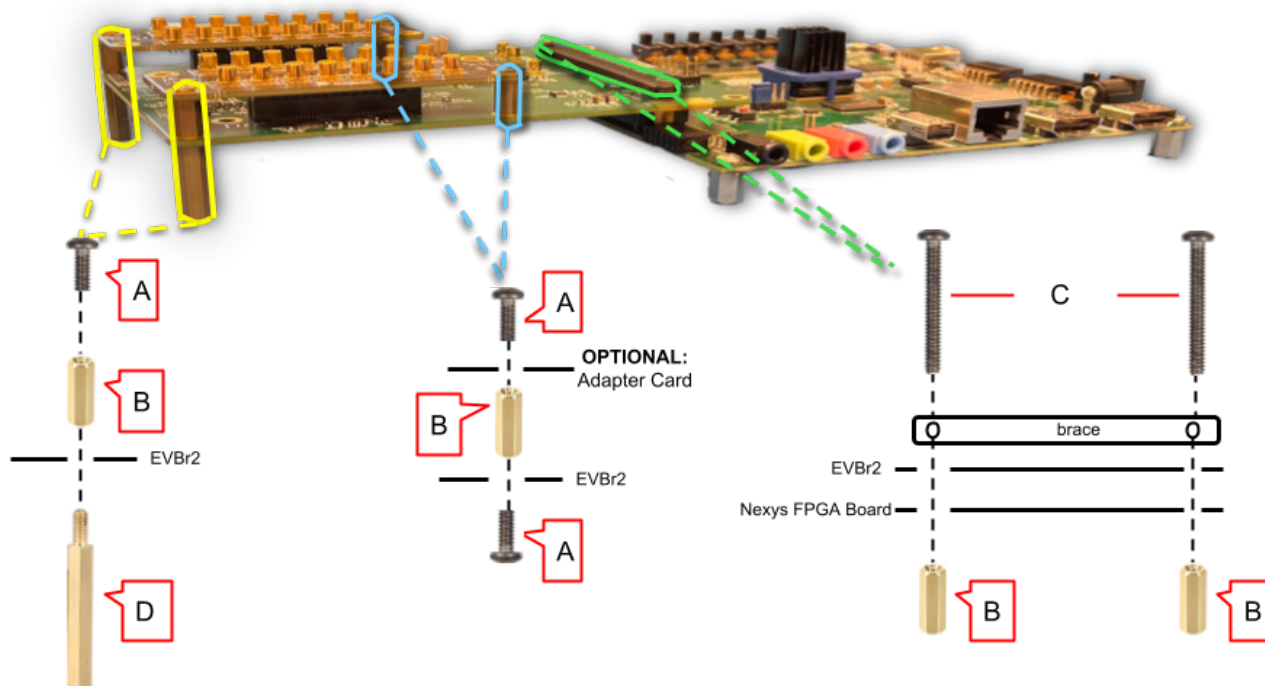


Figure 2. Standoff guide

1. Secure the EVB to the Nexys FPGA Board.
 - a. Insert the threaded end of standoff **D** into the holes farthest from the FMC connector. Secure the standoff with standoff **B**.
 - b. Mate the FMC connectors of the EVB and the Nexys FPGA Board. **Ensure that the PCB is not stressed and the connector joints do not crack.**
 - c. Insert **C** screws into the 3D printed bar into the holes just above the seated FMC connectors. Turn the EVB on its side and secure the screws in place using the **B** standoffs.
2. **IF the adapter cards are to be used:**
 - a. Secure **B** standoffs above the middle holes of the EVB from the bottom using **A** screw.
 - b. Secure the adapter cards to the standoffs using **A** screws.

3. Insert the Micro-SD card loaded with the appropriate firmware into the Nexys Board. **Ensure jumpers are oriented correctly as shown in the figure below.**

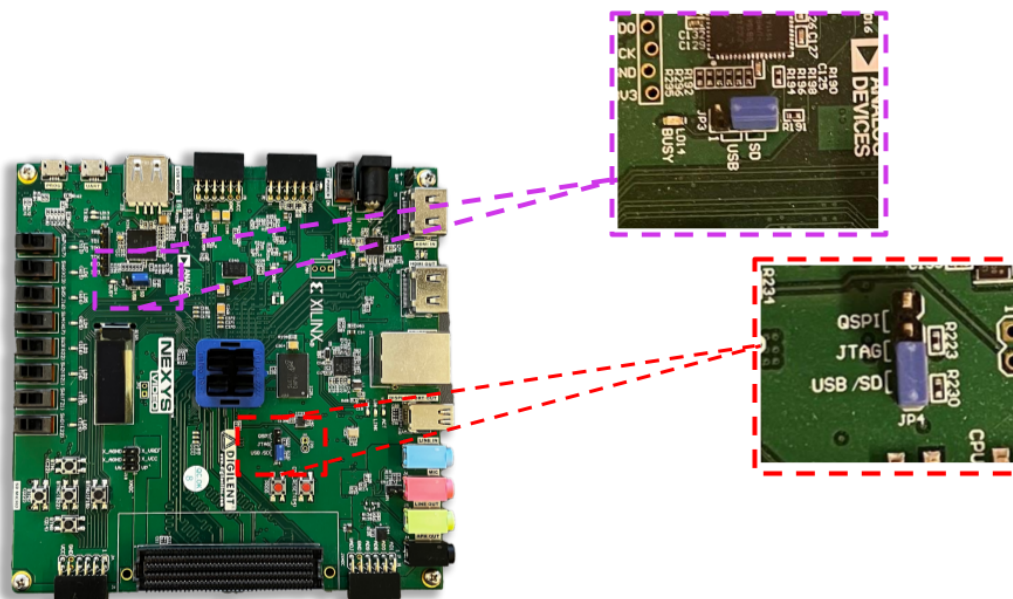


Figure 3: Jumper configuration for Micro-SD card use

4. Plug in power adapter and Micro-USB to the Nexys board and power the Nexys Board
5. Wait for LD14 (Figure 4) should turn solid yellow on power-up, and turn off once the firmware is loaded.
 - a. If the LED is flashing yellow, that means the firmware can not be found. Double check the following:
 - i. The jumpers in Step 3 are properly configured.
 - ii. The microSD is properly seated.
 - iii. The microSD has the correct firmware in the root directory, and no other files are present.

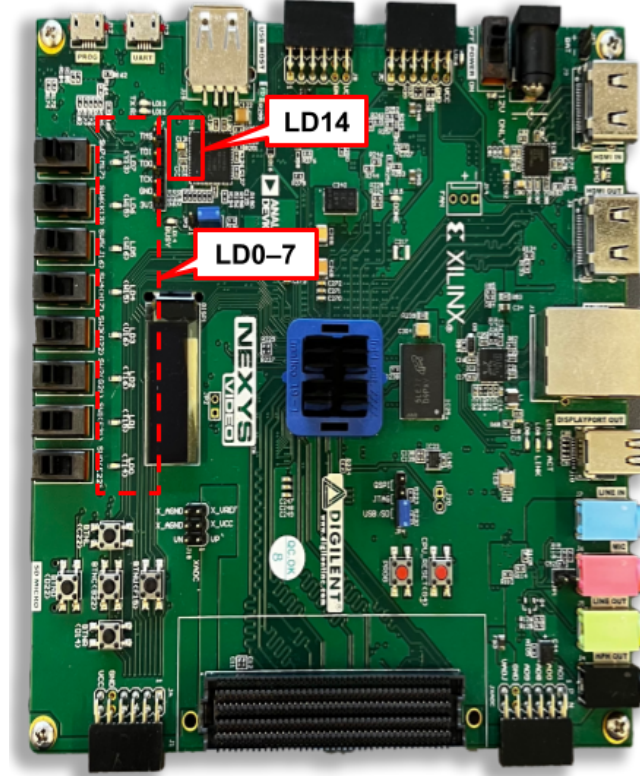


Figure 4. Status LED locations on Nexys Card.

Table 1. Status LEDs

LED		Initializing Board	Capturing Data
LD7	Confirmation the System_Clock & SysClk_1x generated by FPGA is locked for sampling and digital control	ON	ON
LD6	Copy of clock (runs digital logic)	ON	blinking
LD5	FPGA 100 MHz clock for digital logic	ON	ON
LD4	12-bit bus on parallel interface; confirms data is being received	OFF	ON
LD3	Parallel Interface Enabled	ON	OFF
LD2	Serial Interface Enabled (Tx)	OFF	OFF
LD1	Serial Interface Enabled (Rx)	OFF	OFF
LD0	If there is a signal input that self triggers the ASIC	OFF	ON*

Additional Information

Please visit the [support website](#) for issues, software and firmware updates, and relevant documentation.