Quick Start Guide: ASoCv3

Equipment

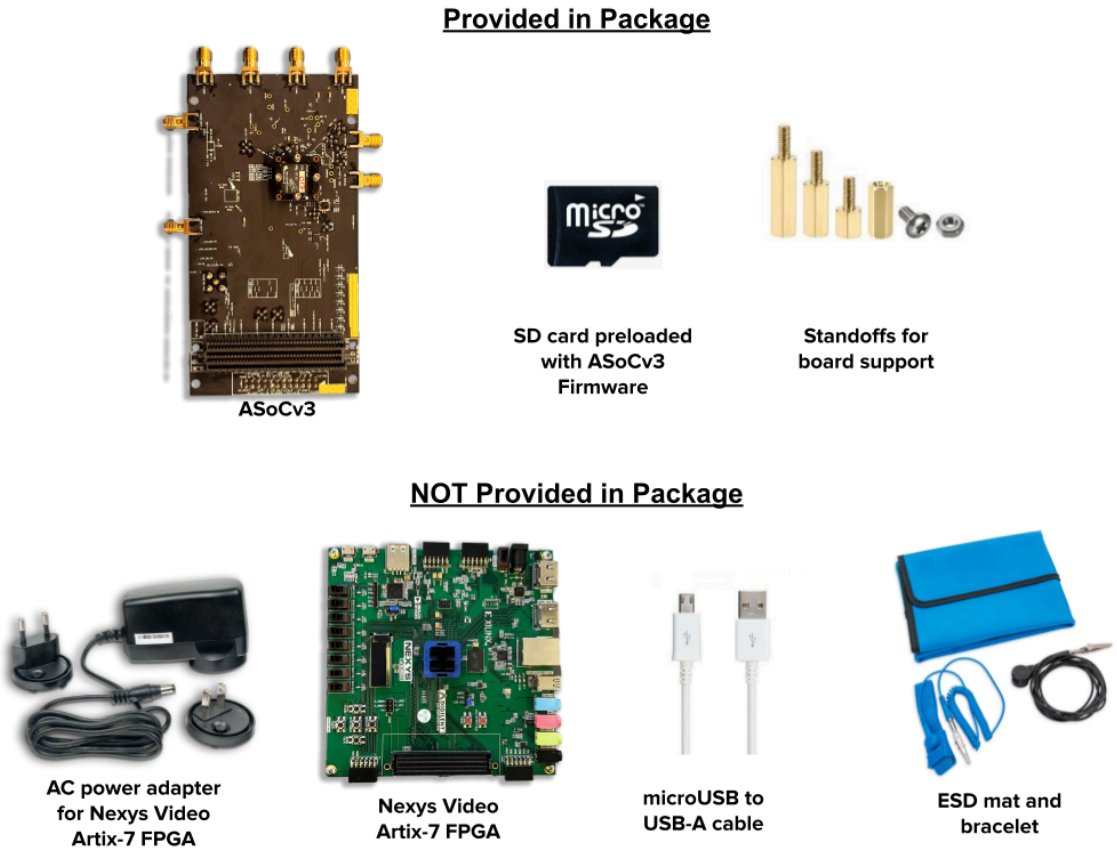

Figure 1. *Necessary equipment to operate the ASoCv3 system.*

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Provided in Package:

- **ASoCv3 Evaluation Board (EVB)**
- **microSD card w/ Firmware**
- **Standoffs**
  - **2x** Male-Female Threaded Hex Standoff, 18-8 Stainless Steel, 4.500 mm Hex, 20 mm Long, M2.5 x 0.45 mm Thread
  - **4x** Female Threaded Hex Standoff, 18-8 Stainless Steel, 4.5mm Hex, 10mm Long, M2.5 x 0.45 mm Thread
- **Screws**
  - **2x** Passivated 18-8 Stainless Steel Pan Head Phillips Screws, M2.5 x 0.45mm Thread, 20mm Long

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**

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Set Up

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

1. Secure the EVB to the Nexys FPGA Board.
   a. Insert the threaded end of standoff **C** into the holes farthest from the FMC connector. Secure the standoff with standoff **A**.
   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 **B** 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 **A** standoffs.

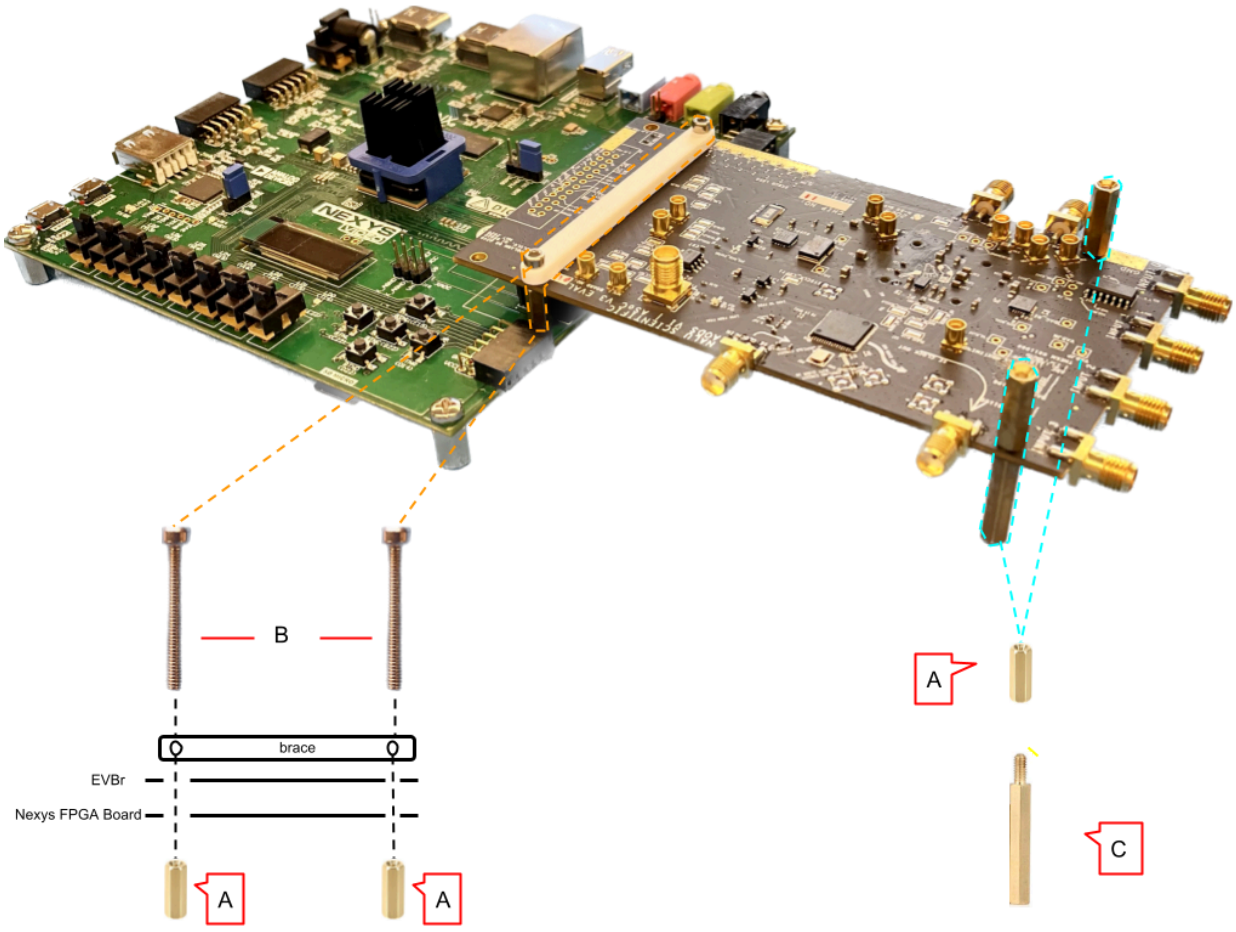

Figure 2. *Standoff guide*

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2. Insert the microSD card loaded with the appropriate firmware into the Nexys Board. **Ensure jumpers are oriented correctly as shown in the figure below.**

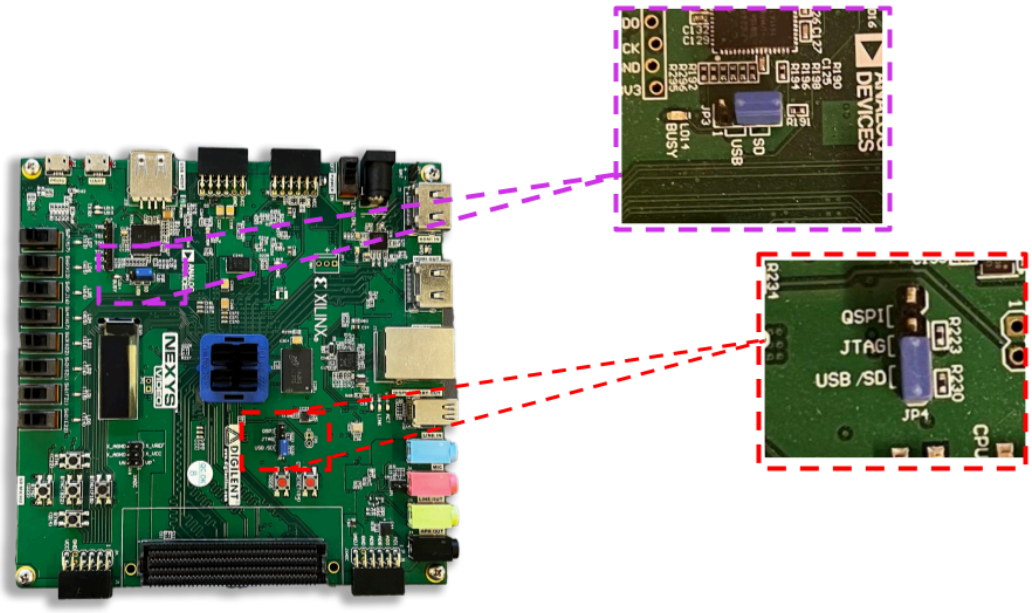

Figure 3. *Jumper configuration for microSD card use*

3. Plug in the power adapter and Micro-USB to the Nexys board and power the Nexys Board.
4. 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 2 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.

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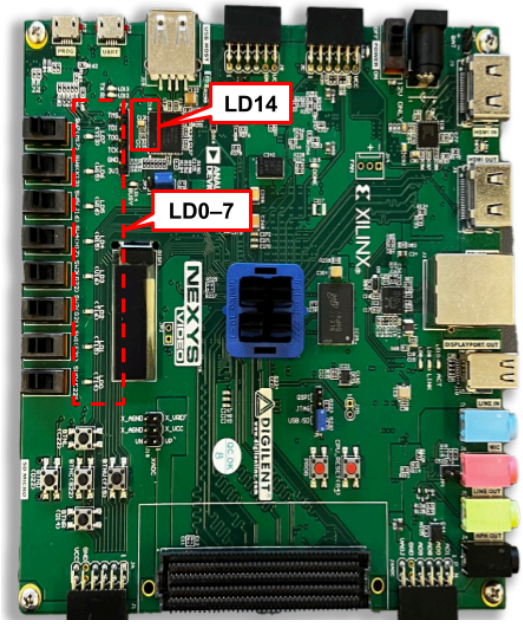

Figure 4. *Status LED locations on Nexys Card.*

Table 1. *Status LEDs*

LED	Initializing Board	Capturing Data
LD7 clk_remote_locked	**ON**	**ON**
LD6 montiming	**ON**	**blinking**
LD5 clk_sst	**ON**	**ON**
LD4 ethernet_busy	**OFF**	**ON**
LD3 wave_fifo_wr_en_digital	**ON**	**OFF**
LD2 asic_busy	**OFF**	**OFF**
LD1 isel	**OFF**	**OFF**
LD0 trig_LED	**OFF**	**ON***

** Only on when an external trigger is applied.*

5. Download the NaluScope Manual for the ASoCv3 and follow the guide to install the software and connect to the board.

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Additional Information

Please visit the support website for issues, software and firmware updates, and relevant documentation.

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