

ADV3202/ADV3203 Evaluation Board and Software Instructions

Included in ADV3202/ADV3203 evaluation kit:

ADV3202/ADV3203 (1 part soldered on board)
Evaluation Board #A01862b (1 pc)
USB cable (1 pc)
Evaluation software CD (1 pc)

The evaluation board arriving has a soldered part and requires only supply hook up and pc/laptop connection. Please adhere to the recommended supply settings to avoid damaging the evaluation board.

General Software/Hardware setup:

- 1.) Using the supplied CD, navigate to NIDAQ801 folder and run autorun.exe. Choose tab to install the NI-DAQmx/VI Logger. Install should take approximately 10 minutes.
- 2.) Using the supplied CD, navigate to \cvidiskit.ADV3200_eval\Volume and click 'setup' to begin evaluation software install.
- 3.) Restart PC/Laptop.
- 4.) Connect power supplies with the following voltages (preferably disabled initially)

Connector	Value	Description
Vpos	+2.5	Analog Positive Supply
Vneg	-2.5	Analog Negative Supply
Dvcc	+5.0	Digital Positive Supply
Agnd	GND	Ground Reference

Make the following additional connections using the Vref and Vclamp test points on board.

Test point	Connection	Description
Vref	GND	Reference Voltage
Vclamp	GND	Sync-Tip Clamp Voltage

Vpos, Vneg, and Dvcc supply currents will be approximately 190 mA, -190mA, and 5mA respectively.

Connect PC/Laptop to evaluation board daughter card via supplied USB cable. When the 'found new USB hardware' comes up choose install automatically. When NI-DAQmx comes up choose 'take no action'.

- 5.) Goto **Start->All Programs-> ADV3202_ADV3203->ADV3202_ADV3203** to run software.

Once the program is launched one may use the vertical slider columns labeled Out00 – Out15 to connect an output to a particular input. Once a selection is made hit the apply button to program the crosspoint. A more detailed description of the evaluation board and software is given below.

The board is a mixed 50 Ω /75 Ω environment with an impedance transformation network at the output. This provides the proper 150 Ω loading for the device and minimizes reflections. The transformation network also introduces a -13.47 level of attenuation which should be accounted for while examining device performance.

To reduce the effects of ohmic and skin affect losses due to board trace length, an S21 calibration path has been provided. Use the 'Thru_Cal_Short' trace as a thru calibration for accurate measurements.

ADV3202_ADV3203 CONTROL SOFTWARE DESCRIPTION

Vertical Sliders *Out00-Out15*:

Point and click on slider column to select desired input-output connectivity, or no connect (NC).

Switches labeled *OSD00-OSD15*:

Default: OFF. Point and click on switch to have selected output connect to corresponding OSD input. Example: Output 00 may be assigned to and one of the 31 inputs or its corresponding OSD input (OSD0).

Switch *Sync Tip Clamp*:

Default: OFF. Enables sync tip clamp for AC coupled operation. Do not enable with this evaluation board as there is no provision for ac coupling.

Disable All:

Selecting this will clear the crosspoint programming as well as reset all sliders and switches to their default positions.

Apply:

Programs crosspoint with selected connectivity.

Update:

Strobes update low to update 2nd rank latches on chip.

Reset:

Resets the part. Does not reset GUI sliders and switches to default positions

Readback:

This will read back the contents of the ADV3202/ADV3203 1st rank registers as they are serially shifted out the *dataout* pin. Contents are displayed in the standard I/O box.

END:

Terminates program.

Rotary Select Control Frequency:

Default 10 KHz (recommended). Controls the frequency of control logic signals *datain*, *updateb*, *resetb*, and *clk*.