



# USB to Parallel Adapter Board for ADF4xxx PLL Synthesizers

Evaluation Board Tech Note

**EVAL-ADF4XXXZ-USB**

## FEATURES

**USB to parallel adapter board for PCs/laptops without parallel port**  
**Direct hook-up to PC USB port**  
**Powered from USB port**

## INTRODUCTION

This board is designed to allow currently available evaluation boards that were designed for programming by a PC parallel port to be programmed via the PC USB port. The adapter connects to the PC USB port and the evaluation board's 25-way parallel port connector. For information regarding the evaluation board and operation of software, consult the relevant evaluation board documentation.



Figure 1. EVAL-ADF4XXXZ-USB Adapter Board

## Rev.PrA

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## HARDWARE DESCRIPTION

### INSTRUCTIONS

Figure 2 shows how the USB adapter board interfaces from the PC to the ADF4xxx evaluation board. The Adapter board comes with a USB cable to connect to the PC USB port. The ADF4xxx evaluation board comes with the necessary parallel to D-type cable.

The latest evaluation software should be downloaded from the Analog Devices website. The software must be installed before connecting the USB adapter board to the PC to ensure that the adapter board is correctly recognized by the PC.

1. After installing the latest version of software, connect the USB adapter board to the PC using the USB cable provided.

2. The board will be detected. Proceed through any dialog boxes that appear to finalize the installation.
3. Connect the ADF4xxx evaluation board to the USB adapter board.

Click on the evaluation software .exe file to execute the software. The evaluation software will ask you to choose between parallel port control and USB port control. Choose USB port control. If the sequence outlined above has been followed, the main window will pop-up and the text “USB Detected” will appear in the left hand side of the window.

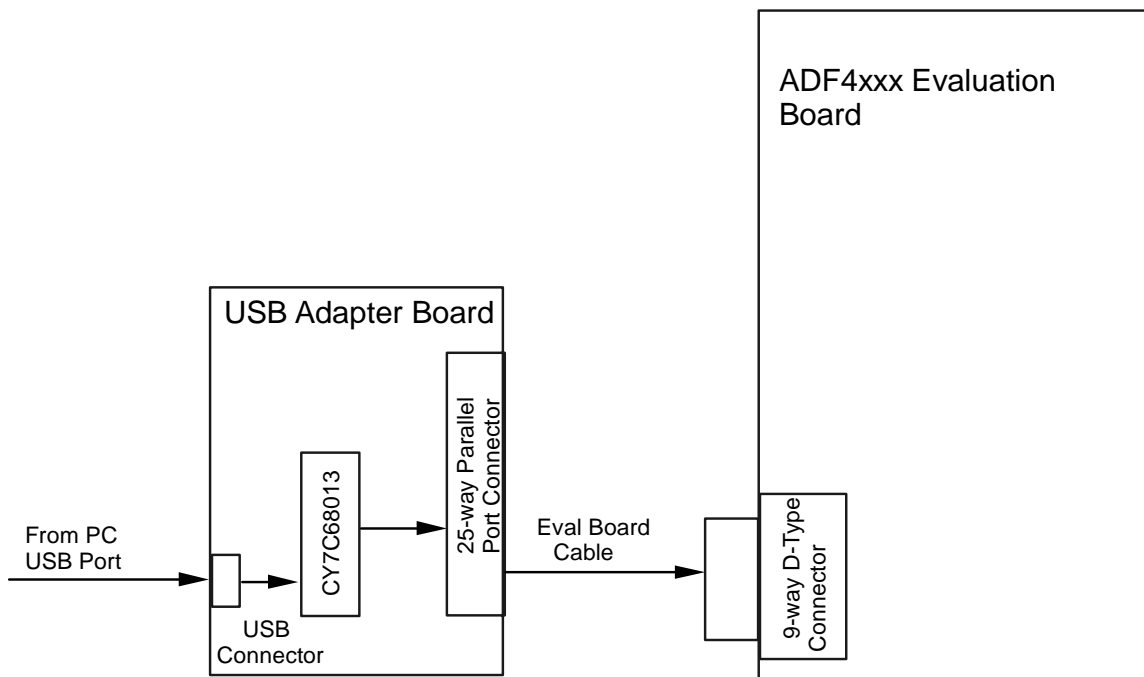


Figure 2 USB Adapter Board setup

## SCHEMATIC

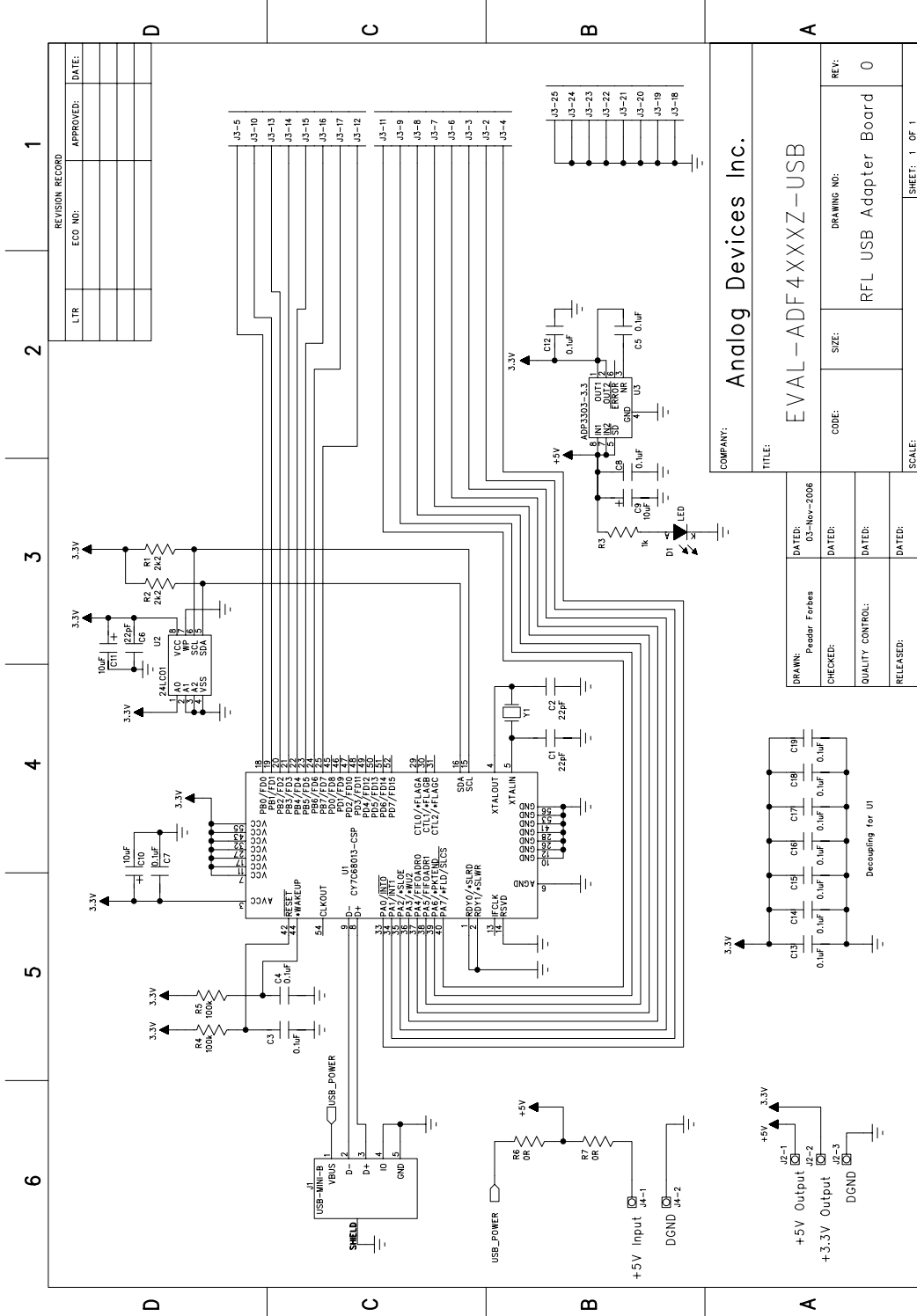


Figure 3. Evaluation Board Schematic (Page 1)

**BILL OF MATERIALS**

Qty	Reference Designator	Description	Supplier/Number
3	C1,C2,C6	CAPACITOR, 0603 22PF 50V	FEC 9406107
13	C3-C5,C7,C8,C12-C19	CAPACITOR, 0603 0.1UF 16V	FEC 9406140
3	C9-c11	CAPACITOR, CASE A 10UF 10V	FEC 9751041
1	D1	LED, GREEN SMD	FEC 1021304
1	J1	SOCKET, USB MINI-AB SMT	FEC 1021304
1	J4	SOCKET, D PCB R/A T&D 25 WAY	FEC 1075270
2	R1,R2	RESISTOR, 0603 2K2	FEC 9330810
1	R3	RESISTOR, 0603 1K	FEC 9330380
2	R4,R5	RESISTOR, 0603 100K	FEC 9330402
1	U1	CY7C68013-CSP	Digikey 428-1680-ND
1	U2	24LC64	FEC 9758070
1	U3	ADP3303-3.3	ADP3303-3.3ARZ
1	Y1	XTAL-CM309S	FEC 9509658