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# UG300: Si5332-8EX-EVB User's Guide

The Si5332-8EX-EVB is used for evaluating the Si5332 Low Jitter Any-Frequency Clock Generator. The Si5332 uses the patented MultisynthTM technology to generate up to twelve independent clock frequencies each with 0 ppm synthesis error. The Si5332-8EX-EVB has three independent input clocks. The Si5332-8EX-EVB can be controlled and configured using the Clock Builder Pro<sup>™</sup> (CB Pro<sup>™</sup>) software tool.

### **EVB FEATURES**

- Powered from USB port or external power supply.
- Onboard 25 MHz XTAL allows free-run mode of operation on the Si5332 or up to 2 input clocks for synchronous clocking.
- CBPro<sup>™</sup> GUI programmable VDD supply allows device to operate from 3.3, 2.5, or 1.8 V
- CBPro GUI programmable VDDO supplies allow each of the 10 outputs to have its own power supply voltage selectable from 3.3, 2.5, or 1.8 V.
- CBPro GUI-controlled voltage, current, and power measurements of VDD and all VDDO supplies.
- SMA connectors for input and output clocks.



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### 1. Functional Block Diagram

Below is a functional block diagram of the Si5332-8EX-EVB. This EVB can be connected to a PC via the main USB connector for programming, control and monitoring. See section "2. Quick start" or section "7. Installing CBPro Desktop Software" for more information.

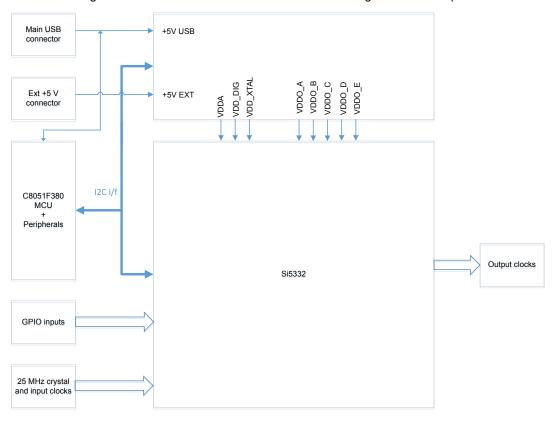


Figure 1.1. Si5332-8EX-EVB Functional Block Diagram

## 2. Si5332 CBPro<sup>™</sup>

The Si5332 is intended to be part of the CBPro software and this initial software release "showcases" that trait. This software contains:

- 1. An EVB GUI that communicates and controls the EVB by allowing the user to set VDD supplies
- 2. The ability to modify frequency plan (from the starting point CBPro file provided with this limited release) from an existing CBPro file.

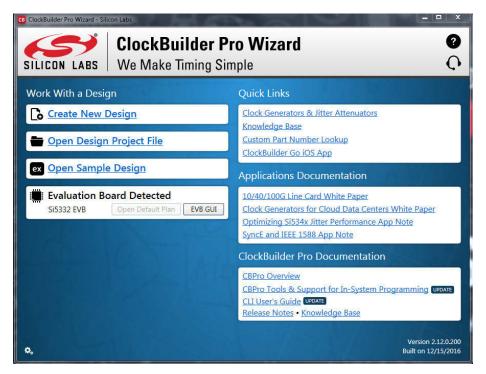


Figure 2.1. CBPro Start Screen

### 3. Si5332-8EX-EVB Schematics

The schematic and layout files are provided in the here: schematics and layouts.

Please review the files, especially the DUT page in order to get familiar with using the EVB through CBPro™.

## 4. Si5332 CBPro<sup>™</sup> EVB GUI

The EVB GUI can be used to communicate the part for register access:

The first page shows the board's identity.

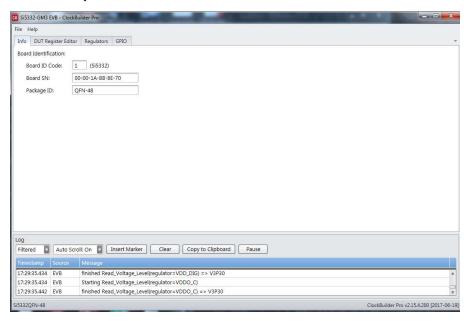


Figure 4.1. Board ID Page

The other pages for for register access, VDD control, and GPIO control.

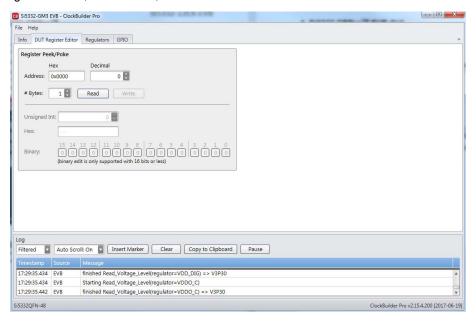
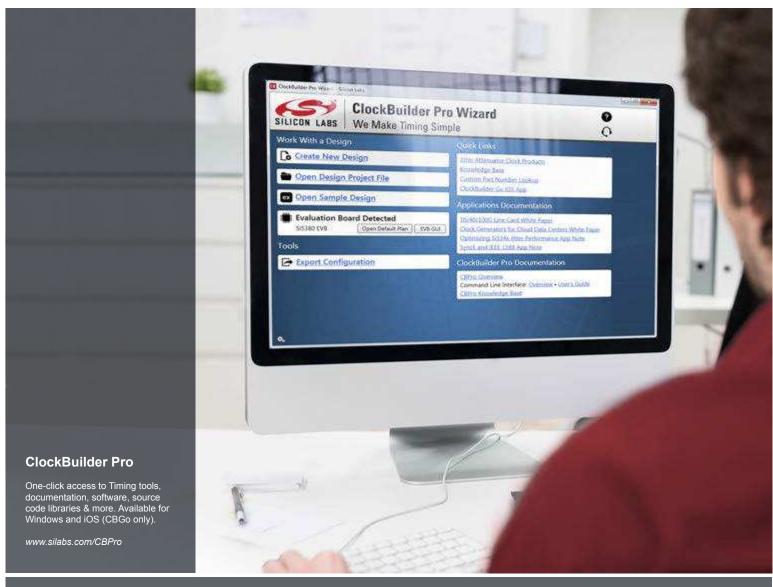


Figure 4.2. Register Access

## 5. Installing ClockBuilderPro (CBPro) Desktop Software

To install the CBOPro software on any Windows 7 (or above) PC:

Go to https://www.silabs.com/products/development-tools/software/clockbuilder-pro-software and download ClockBuilderPro software. Both installation instructions and User's Guide for ClockBuilderPro can be found at this link. Please follow the instructions as indicated.











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