Strata Enabled NCV6357 EVB User Guide



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Introduction

The Strata Enabled NCV6357 EVB provides an easy to use evaluation board within the Strata Development Environment for the NCV6357 configurable 5A step down converter. Through Strata, the developer can access datasheets, BOMs, schematics, and other collateral they may need. This document will provide instructions on how to use the evaluation board.

Features

- Vin range from 2.5V to 5.5V
- Max load of 5A
- Programmable Vout from 0.6V to 3.3V in 12.5mV steps
- Adaptive-On-Time (AOT)
- Operation at up to 2.4MHz switching frequency
- Both PFM and PPWM operation with automatic transition
- 3.0 x 4.0 mm DFN-14 package
- Automotive and industrial rated

Applications

- DC-DC Power
- Automotive
- Instrumentation

User Guide

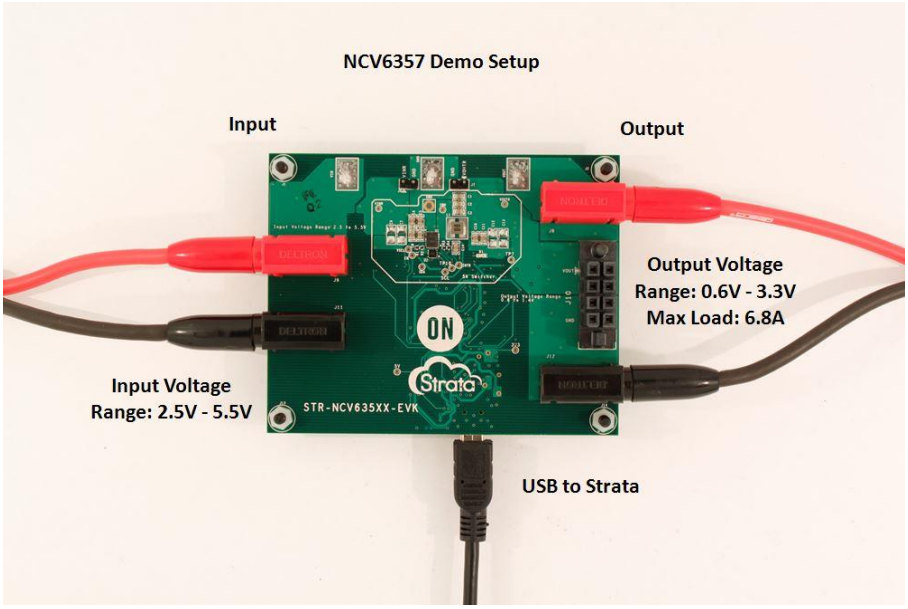
This section will explain how to use the Strata Enable NCV6357 EVB in a step by step manner, and will cover both the hardware required as well as how to use the User Interface in Strata.

Hardware Setup

The hardware required for using the Strata Enabled NCV6357 EVB are a computer (with Windows), a power supply, and a load. Follow the steps below.

1. Plug the power supply into the input of the board using the banana plugs J9 and J11. Do not apply over 5.5V to the input because this will break the board. For the NCV6357 there needs to be at least 2.5V on the input for it to properly regulate.
2. Connect the computer to the EVB using the mini USB connector J18 on the bottom of the board.
3. Plug the load into the output using the banana plugs J8 and J13.

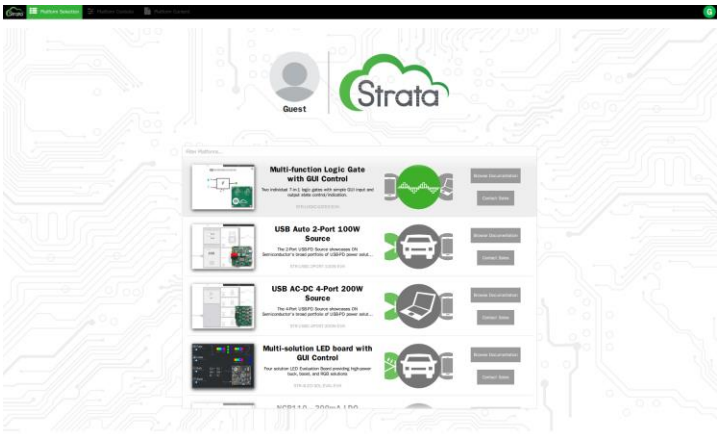
A picture of the setup can be found below.



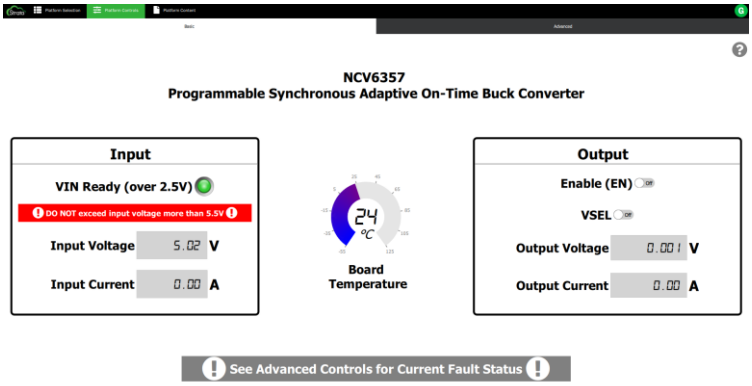
User Interface

The UI within the Strata app will allow the user to control the 5A switcher and monitor its telemetry without needing other lab equipment or training to do so. The steps below cover what is in the UI.

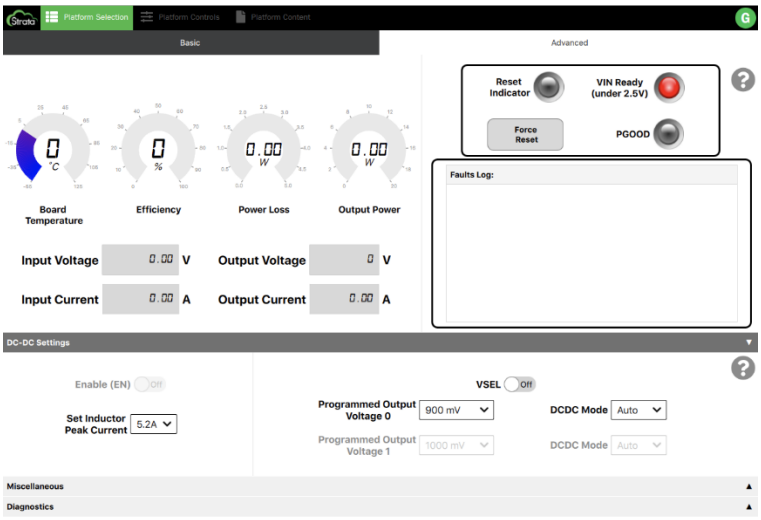
1. First, open the Strata app. Login and the home screen will appear.



2. The app will automatically detect the device that is plugged in and will bring up the UI for the board that is plugged in.



3. The view that comes up is the basic view, which offers basic telemetry, an enable switch for enabling/disabling the switcher, and a voltage select switch that will switch between the two programmed output voltages.
4. In the top right hand corner the user can switch to the Advanced view which is shown below. The Advanced view offers more telemetry for the user to monitor, along with many more controls.



5. The round button with a question mark in the top right corner is the Help button, and will show the user what everything on the UI is doing.
6. To look at the collateral provided with the EVB, click on the “Platform Content” tab at the top of the screen.

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