

ON Semiconductor

Is Now

onsemi™

To learn more about onsemi™, please visit our website at
www.onsemi.com

onsemi and **onsemi** and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi** product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner. Other names and brands may be claimed as the property of others.



ON Semiconductor®

Strata Enabled eFuse EVB User Guide

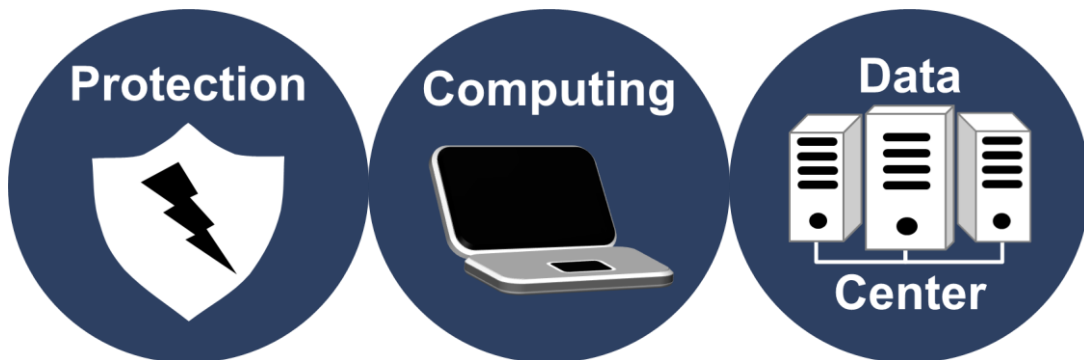


Table of Contents

INTRODUCTION..... 3
 Features..... 3
 Applications..... 3
USER GUIDE 4
 Hardware Setup 4
 User Interface 4
 eFuse Controls and Functionality 5

Introduction

The Strata Enabled eFuse EVB provides an easy to use evaluation kit within the Strata Development Environment for different eFuses from ON Semiconductor. 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 kits.

Features

- Vin Range from 9.2V to 18V
- 2 independently controlled eFuses that can be placed in parallel
- Multiple overload current options
- Programmable slew rate

Applications

- Hard Drives
- Servers
- Motherboards
- Fan Drives

User Guide

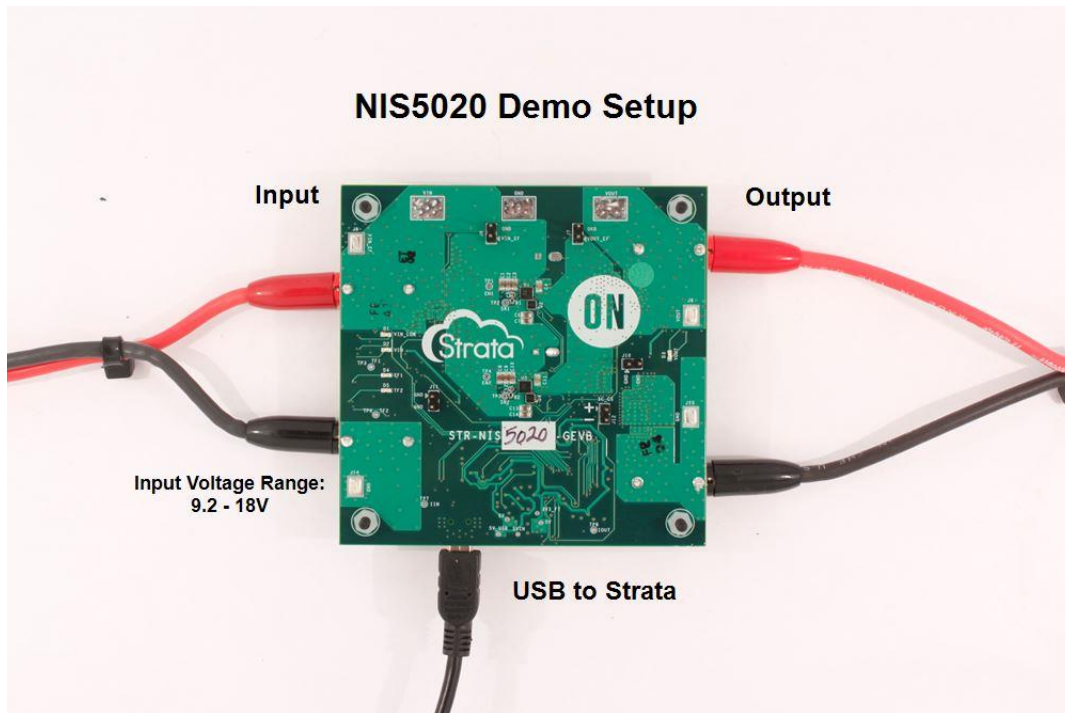
This section will explain how to use the Strata Enabled eFuse EVB in a step by step manner, and will cover the hardware required, how to use the User Interface in Strata, and the controls specific to the eFuse.

Hardware Setup

The hardware required to use the Strata Enabled eFuse 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 eFuse board using the banana plugs J20 and J21. Do not apply over 18V to the input. The minimal amount of voltage needed for the eFuse to turn on is 9.2V.
2. Connect the computer to the eFuse board using the USB connector J25 on the bottom of the board.
3. Plug the load into the output using the banana plugs J19 and J23.

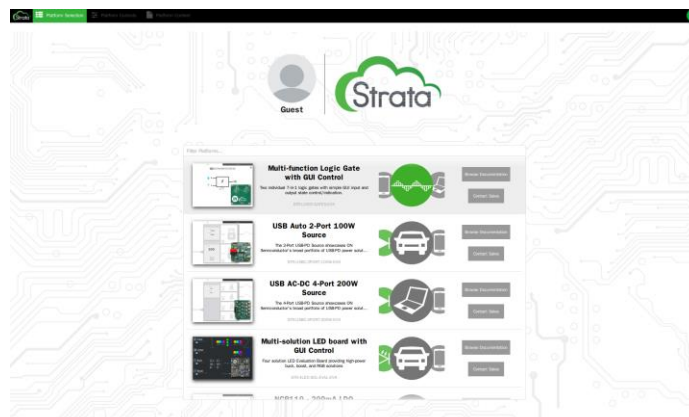
An example picture of the setup can be found below.



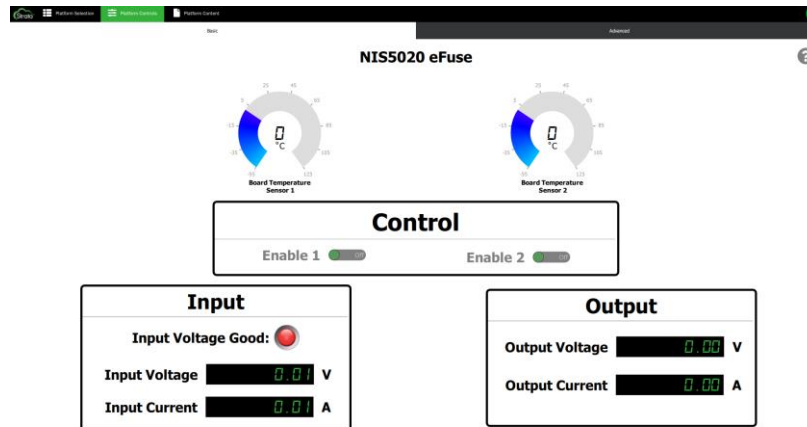
User Interface

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

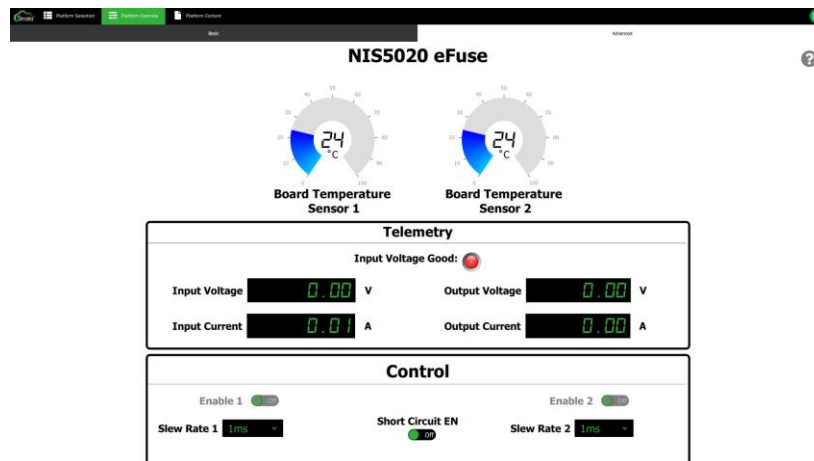
1. First, open the Strata app. Login and the home screen will appear.



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



- The view that comes up is the basic view for the eFuse, which offers basic telemetry and an enable switch for each eFuse.
- In the top right hand corner the user can switch to the Advanced view which is shown below. The Advanced view offers a programmable slew rate, and short circuit enable to the user in addition to the controls and telemetry from the basic view.



- The round button with a question mark in the top right corner of the screen is the help button, which will give the user a description of what everything on the UI is doing.
- To view the collateral provided with the EVB, click on the “Platform Content” tab at the top of the screen.

eFuse Controls and Functionality

This section will go over the specific controls in the UI for the eFuse.

- Slew Rate – This sets the slew rate of the output voltage for the eFuse on start up.
- Short Circuit EN – This will enable the on board short circuit load that shorts the output to GND in order to test the short circuit protection of the eFuse.
- Thermal Shutdown – In the event of a thermal shutdown the eFuse will turn off and a popup window will appear in the UI. This will show which eFuse had the thermal interrupt, and will disable the eFuse and load when the reset button is pressed.