RENESAS

LAB ON THE CLOUD

Quick start guide

renesas.com/labonthecloud

LAB ON THE CLOUD – 24/7 ONLINE TEST LAB

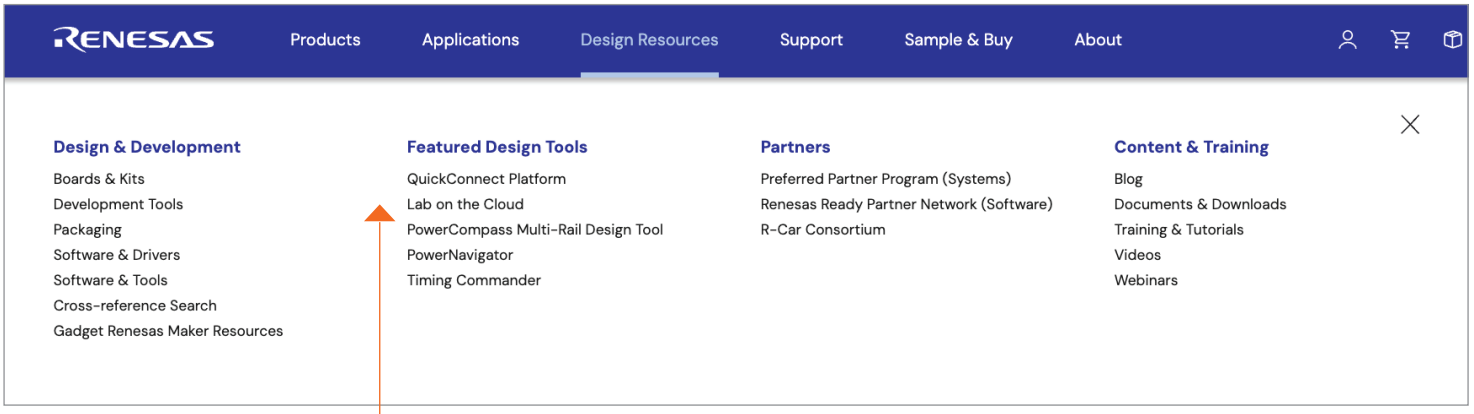
- Lab on the Cloud is a unique platform where users can remotely evaluate solutions online.
- Renesas evaluation kits and solutions are accessible 24/7, even for designers in remote locations.
- Solution boards, oscilloscopes, power sources and power meters are connected over the cloud and can be monitored through live video streaming direct from the lab.
- The lab is fully autonomous. Users can test these boards, control the equipment through an intuitive web graphical user interface (GUI).
- Supported mass market applications include cloud-based solutions, low power Bluetooth™, motor drives, electric vehicle systems, advanced face, object, and voice recognition, and voice authentication systems.

LAB ON THE CLOUD ADVANTAGES

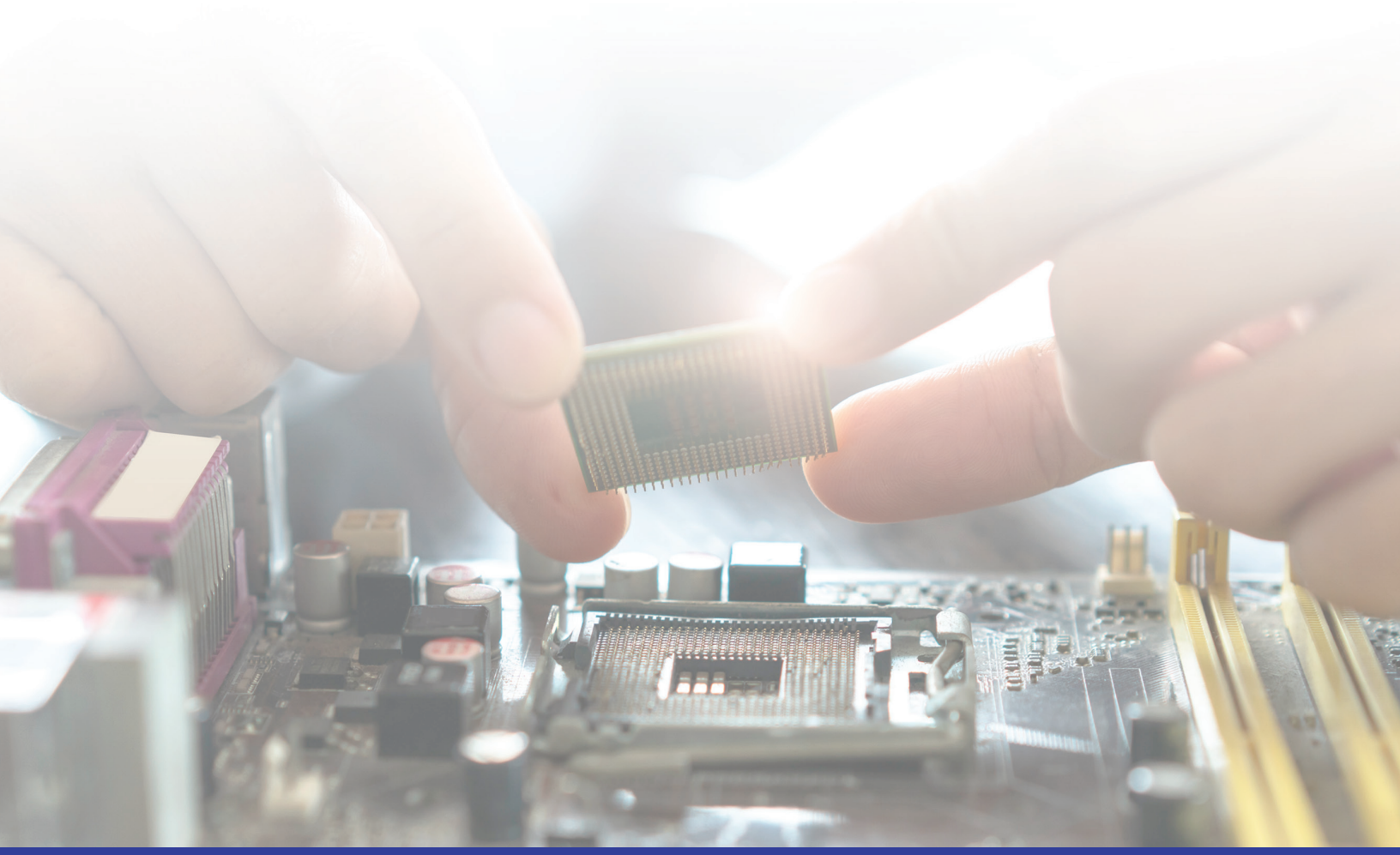
- Optimizes the design process
- Shortens time to market
- Reduces design risk
- Boosts designers' confidence
- Free tool with no subscription required to access Renesas boards
- Intuitive Web GUI
- Access to documents and videos through the library
- Request samples via Lab on the Cloud
- Directly ask queries from board designers using the discussion forum

GETTING STARTED

Lab on the Cloud is a Renesas design tool found under Design Resources

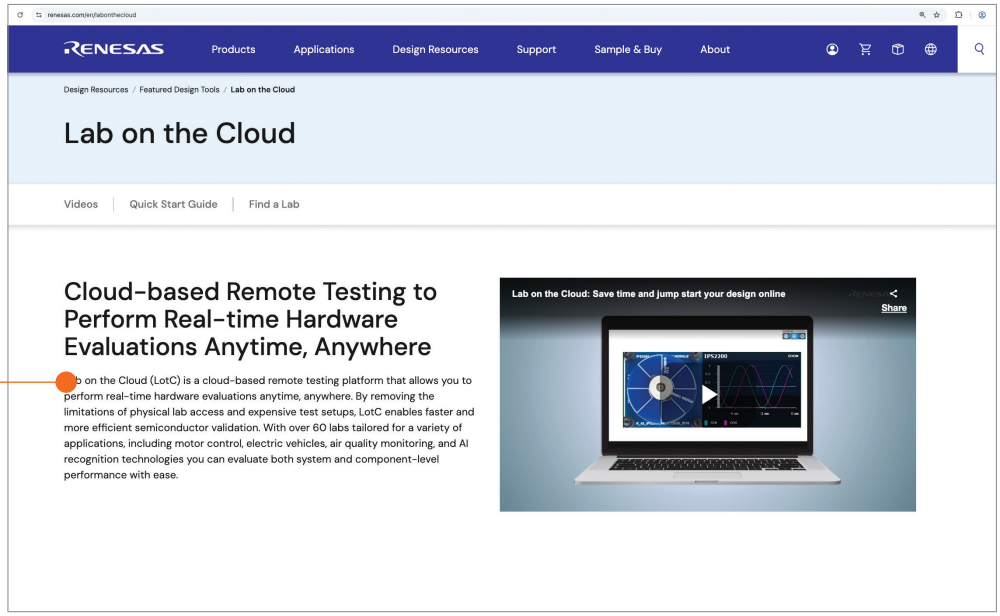


Click on Lab on the Cloud link to reach to the Lab on the cloud landing page.



LANDING PAGE

Description about Lab On the Cloud

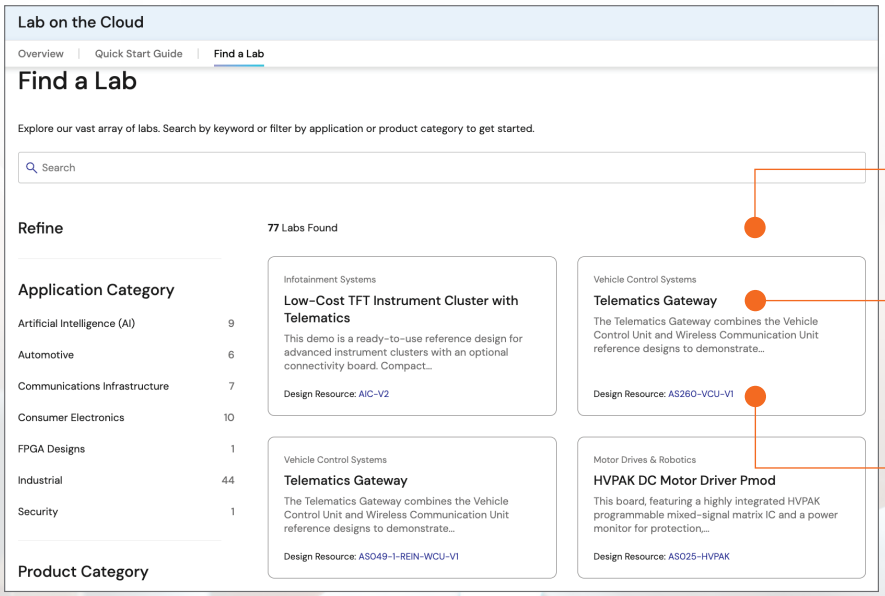


Can also view labs by application and product category

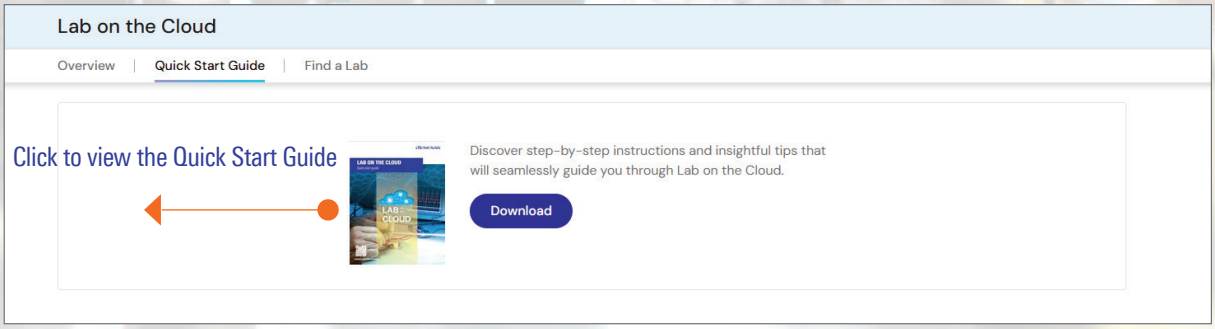
List of Labs to choose from

Click on the Lab to go to the Lab page

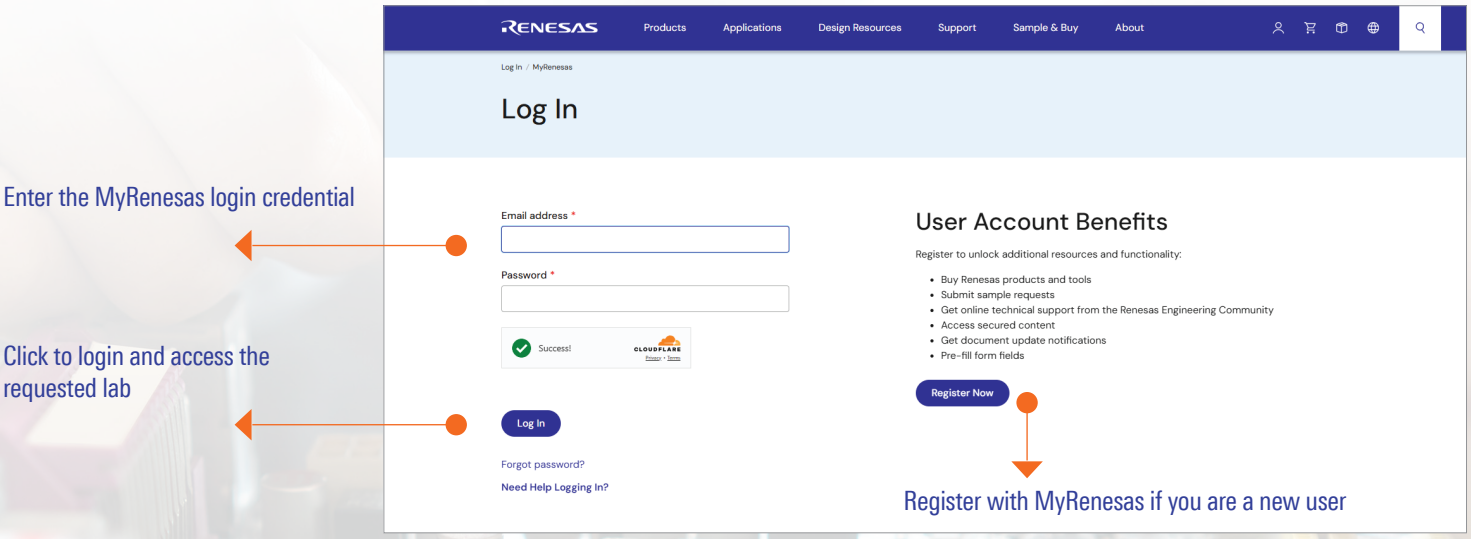
Click to view the board associated with the lab



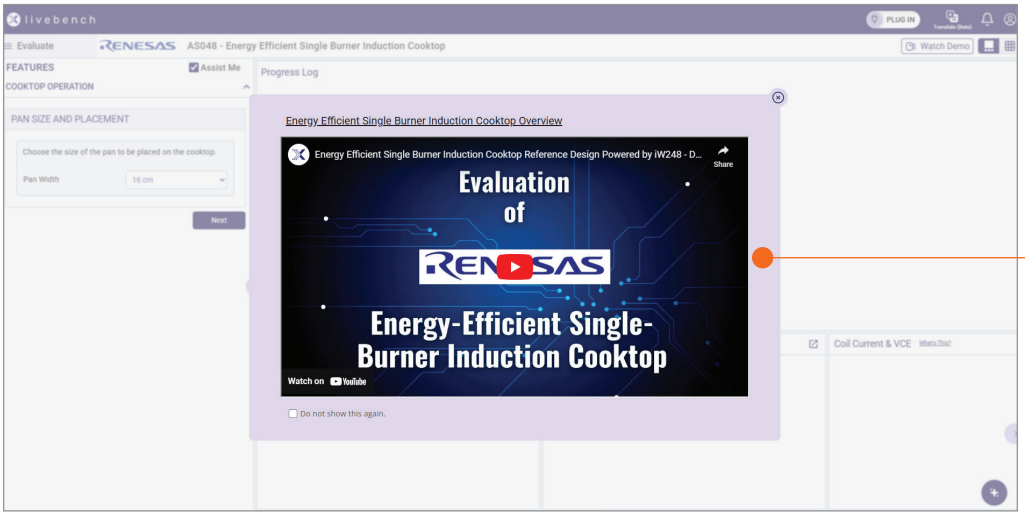
Click to view the Quick Start Guide



LOGIN & ACCESS

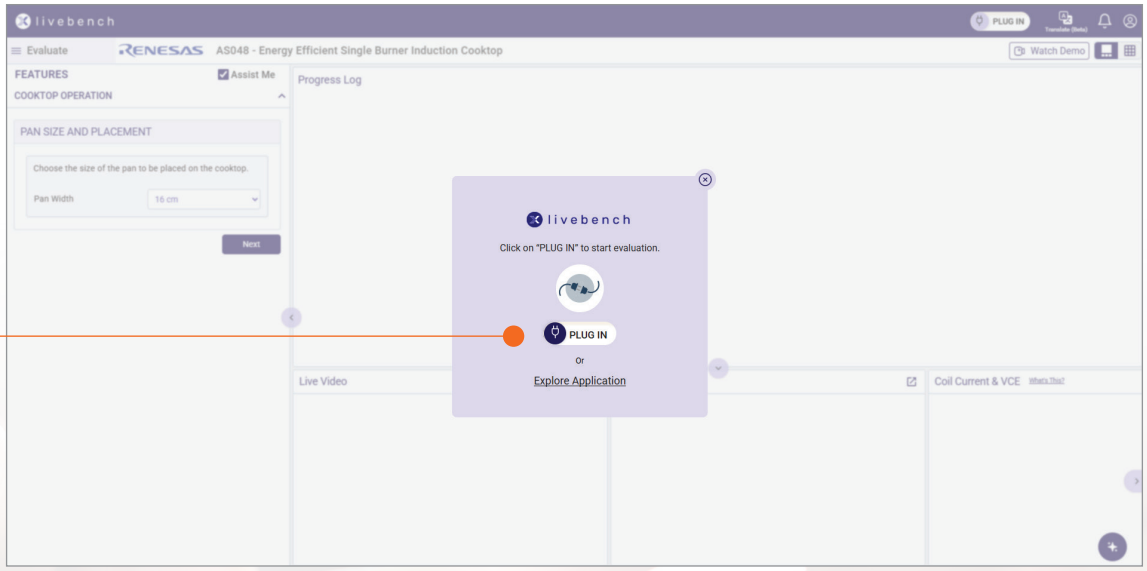


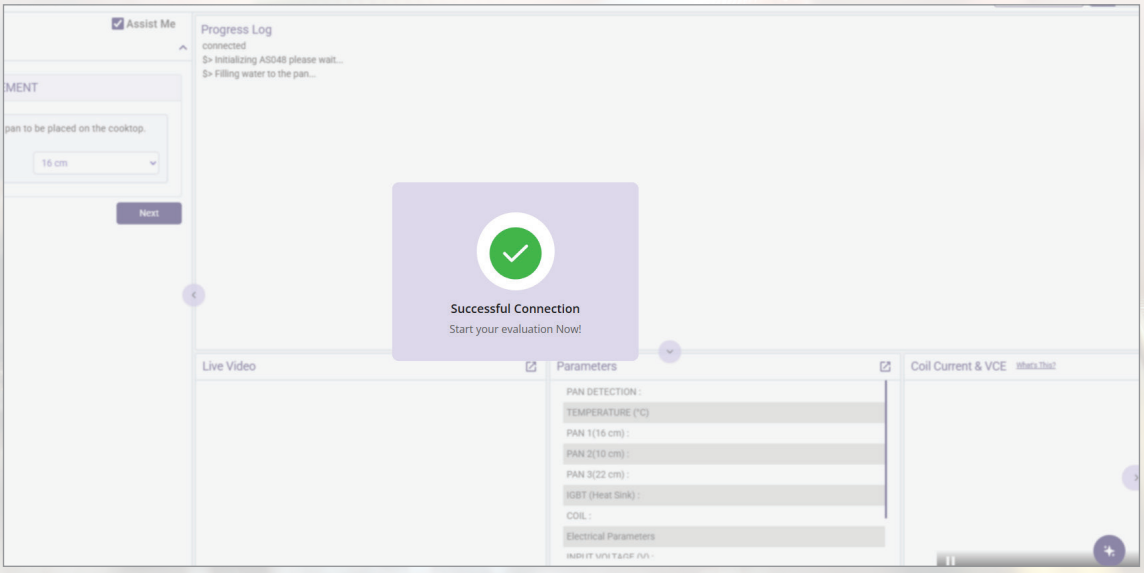
CONNECT TO LAB



Click to view demo video

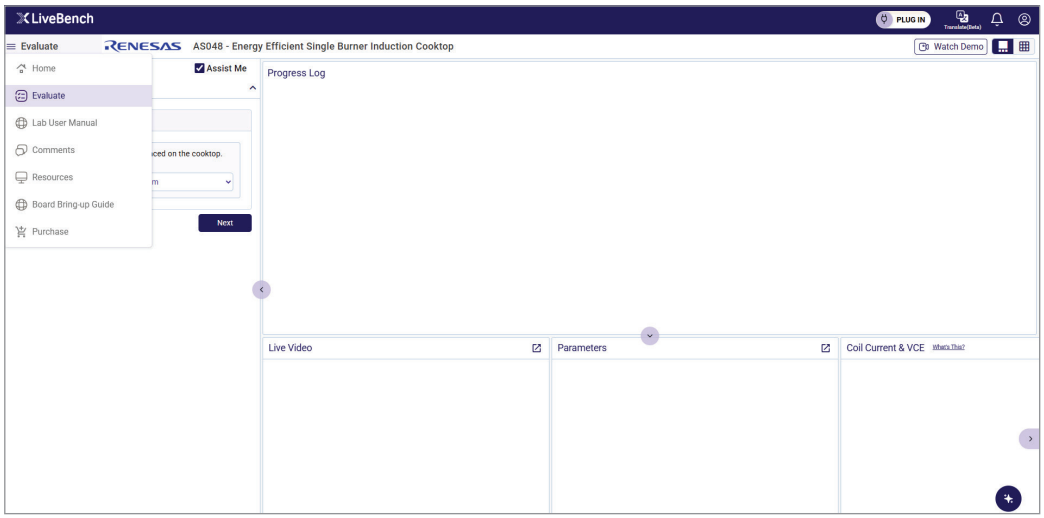
Click “Plug In” to connect with the lab

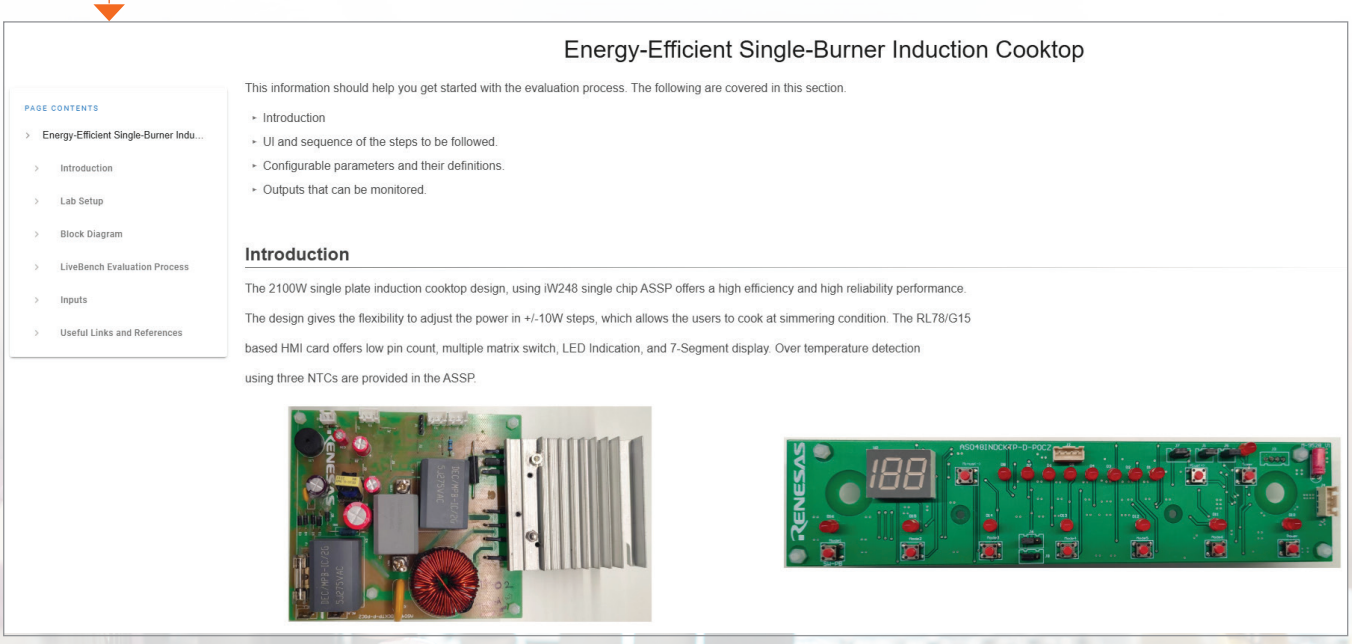




USER MANUAL

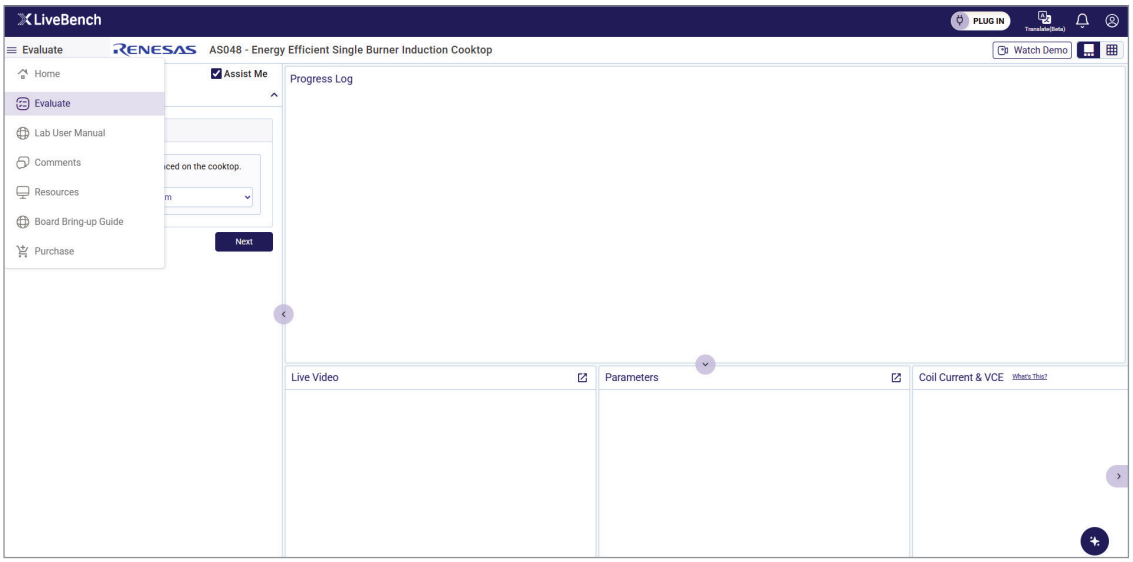
Lab user manual

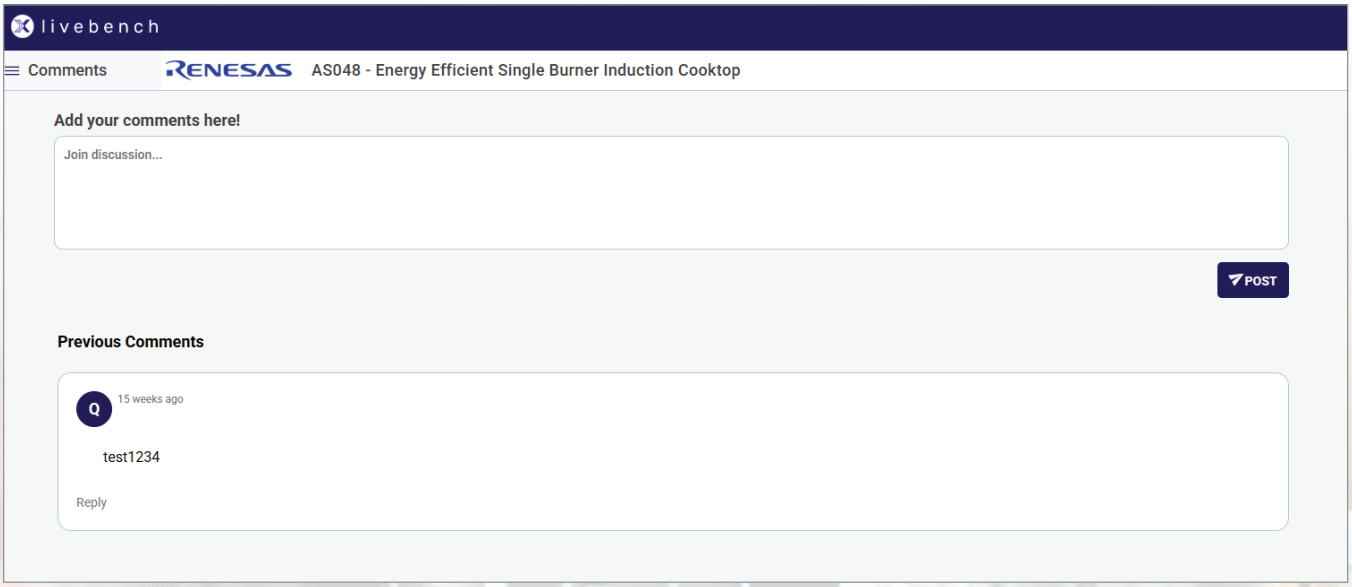




COMMENTS SECTION

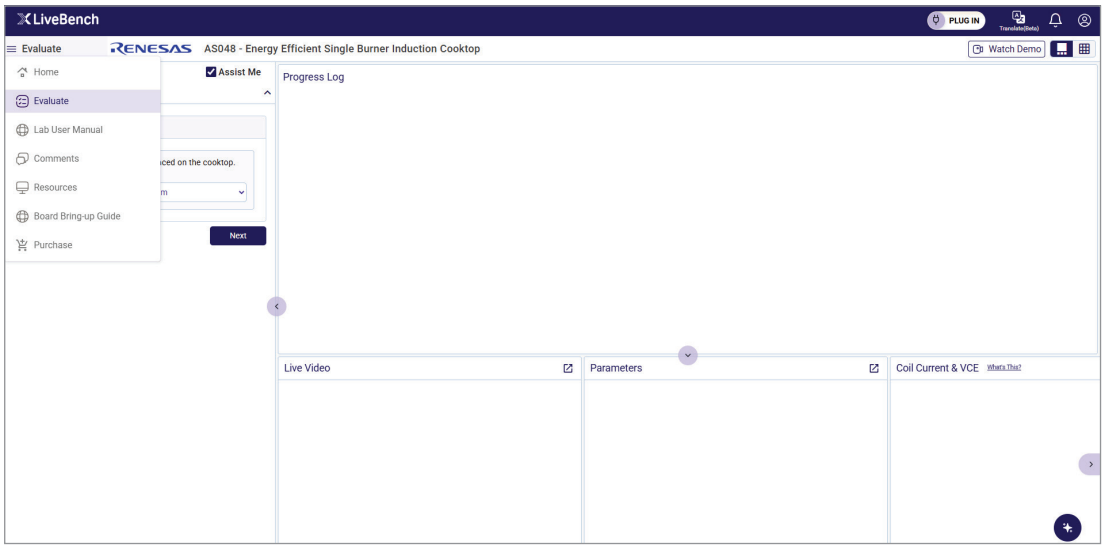
Users can post their feedback and queries, that can be addressed by the experts

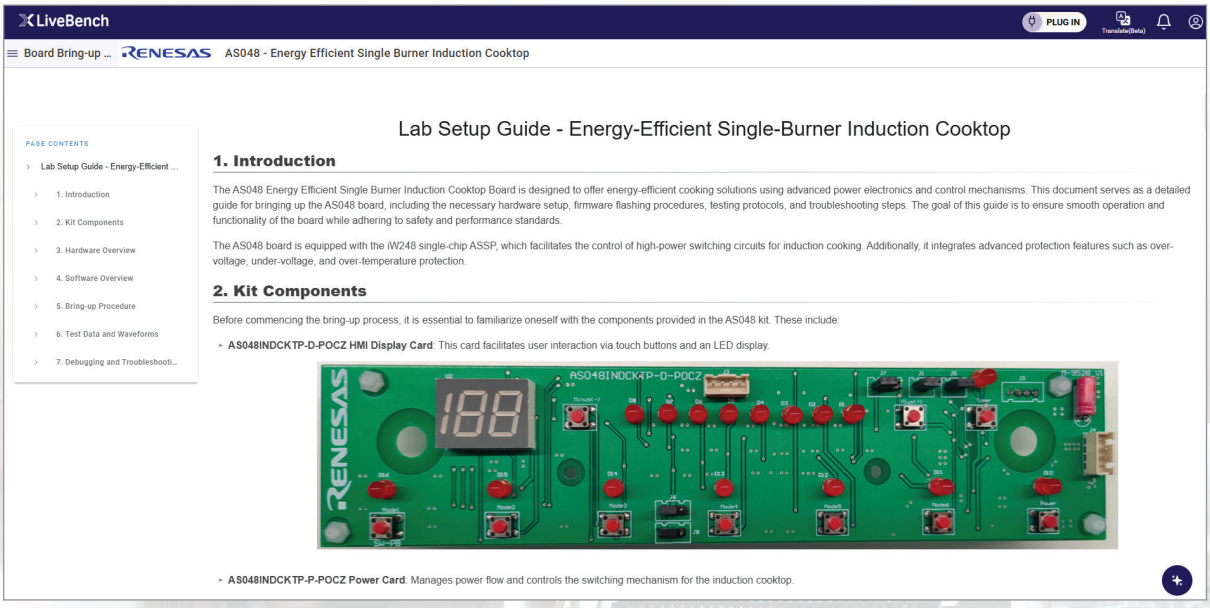




BOARD BRING-UP GUIDE

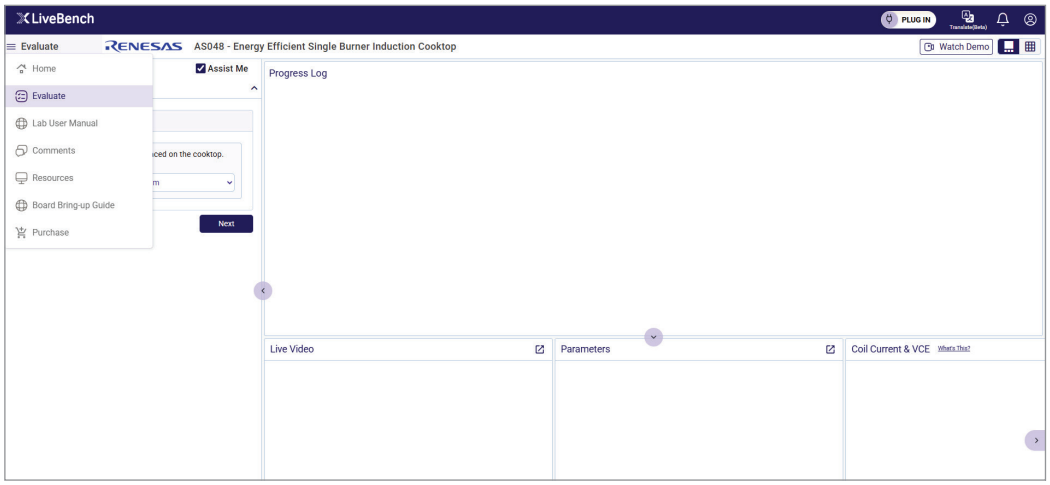
A comprehensive guide to assist customers through the board bring-up process after shipment

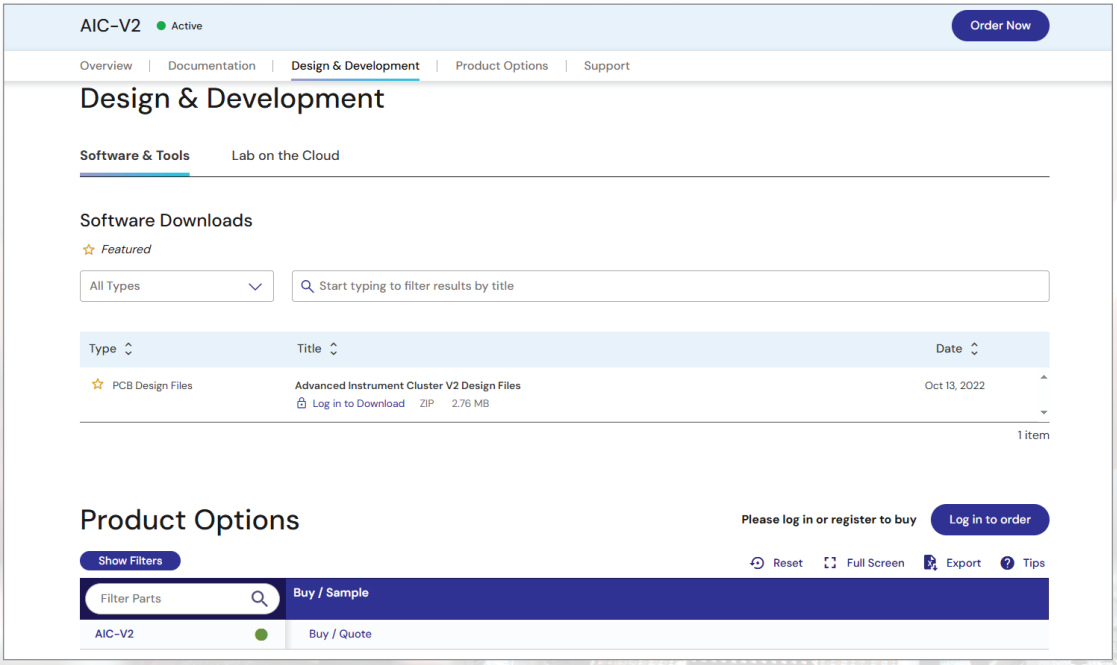




PURCHASE

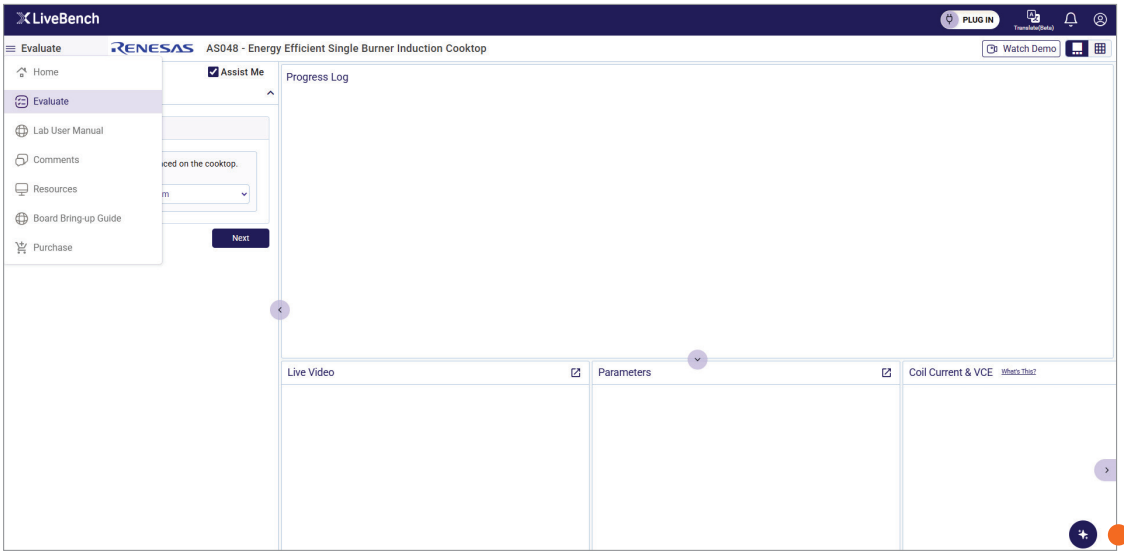
Users can purchase boards, sample devices, and request quotes for higher volumes

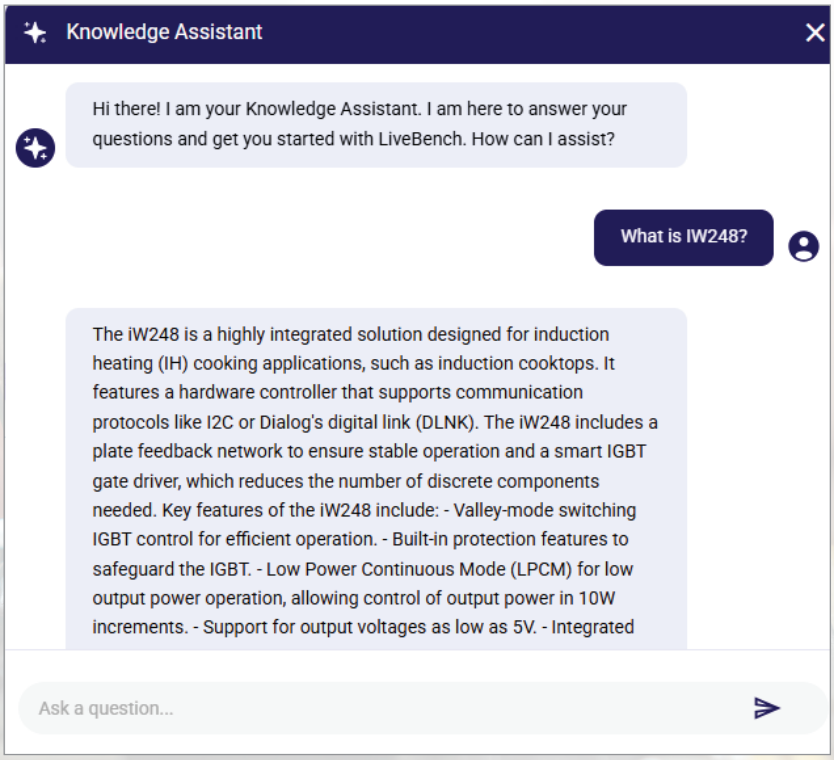




AI KNOWLEDGE ASSISTANT

An AI-powered knowledge assistant helps users find part information and documentation (available in select labs)

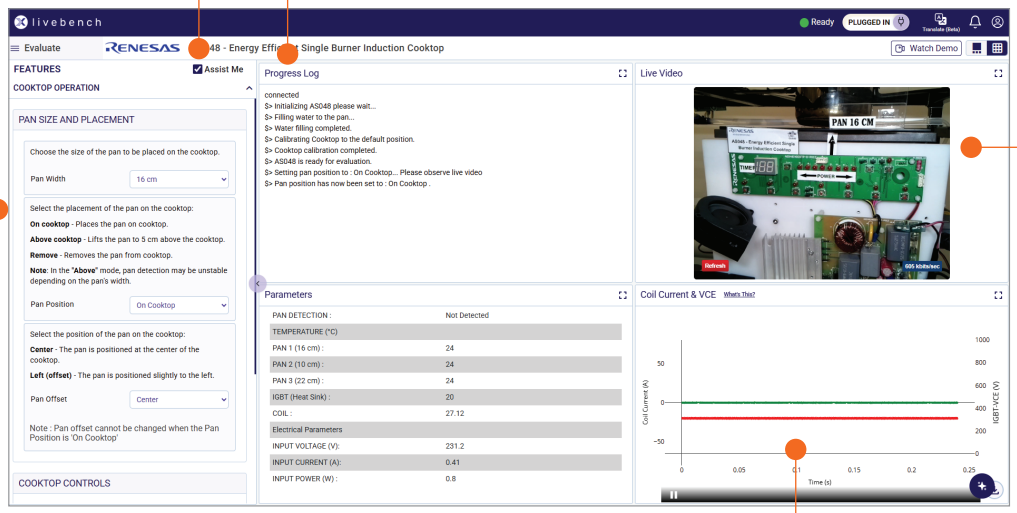




TEST & EVALUATE

Provides explanation for each feature that can be set by users

Progress log: Internal processing information



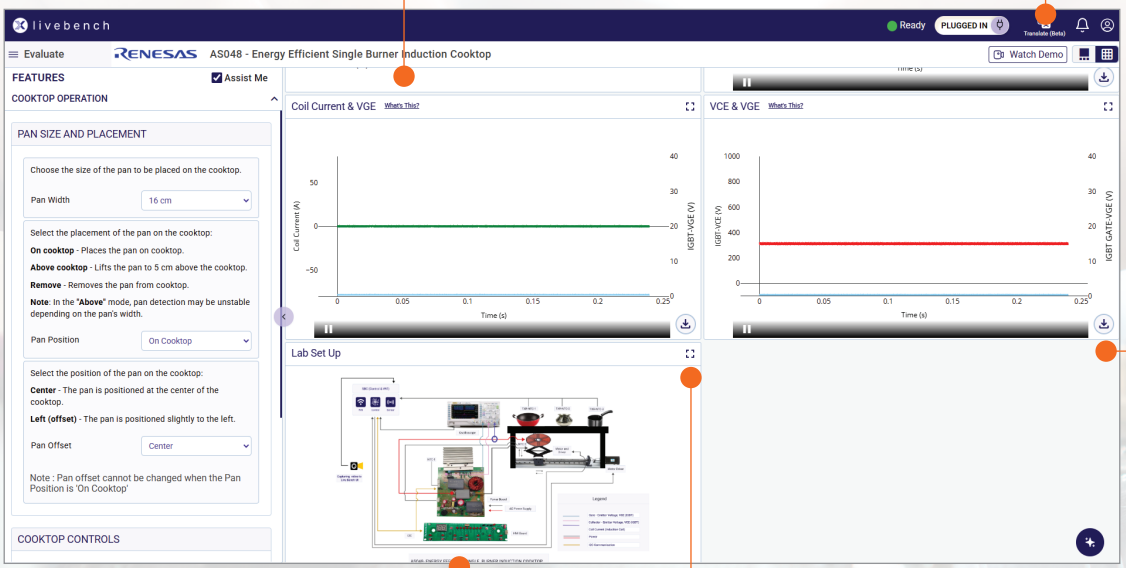
Live video streaming to see the output and performance

Control panel for users to send command

Data output can be viewed in the form of waveforms

The lab is now available in multiple languages

What's This: Helps understanding a specific waveform for better analysis



Download the plot in a .csv format

Flexibility is provided to enlarge the tabs

Easy access to understand the lab setup

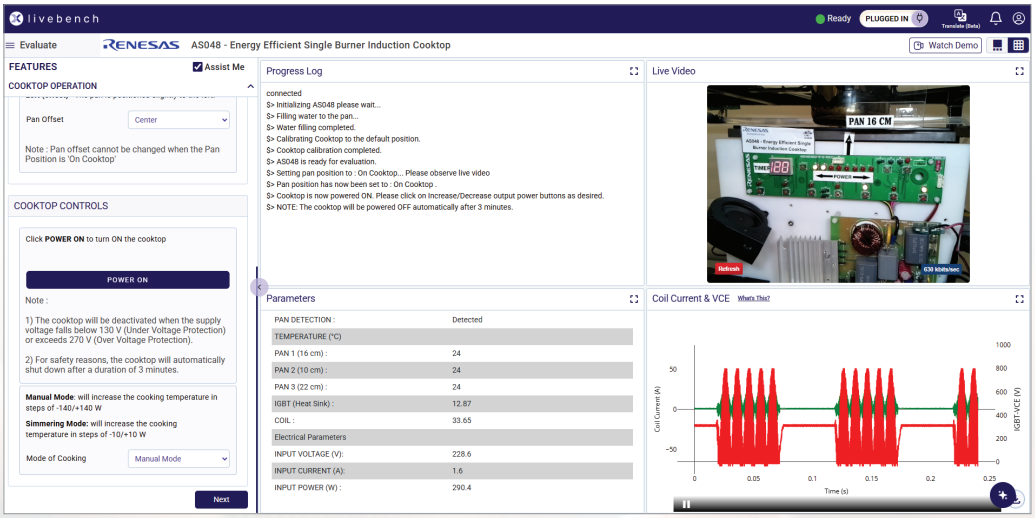
LABS TO EXPLORE 1:
ENERGY-EFFICIENT SINGLE-BURNER INDUCTION COOKTOP

In this demo, users can test features like 200W to 1500W power control, and they can also test the power variation in ±10W steps, which allow the users to cook at the simmering condition.

Features:

- Evaluate board with live power supply and load system
- Select among three pan sizes and position the cooktop accordingly
- Evaluate board with live power supply and load system.
- Select among 3 pan sizes and position the cooktop accordingly
- Toggle cooktop power
- Choose cooking mode: manual or simmering
- Adjust temperature by varying wattage
- Demonstrate under/over voltage protection

Click to access the lab



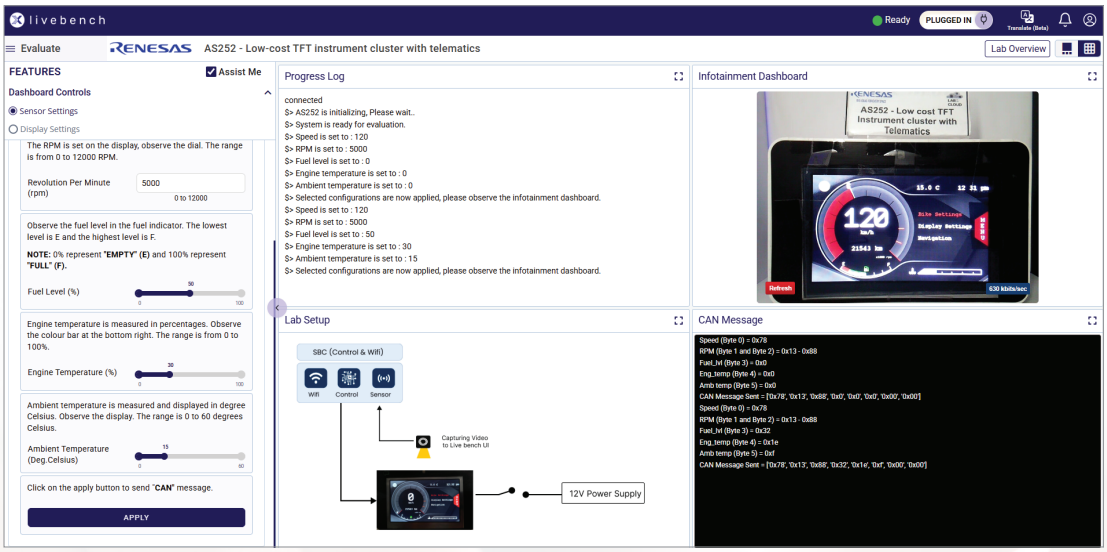
LABS TO EXPLORE 2:
LOW-COST TFT INSTRUMENT CLUSTER WITH TELEMATICS

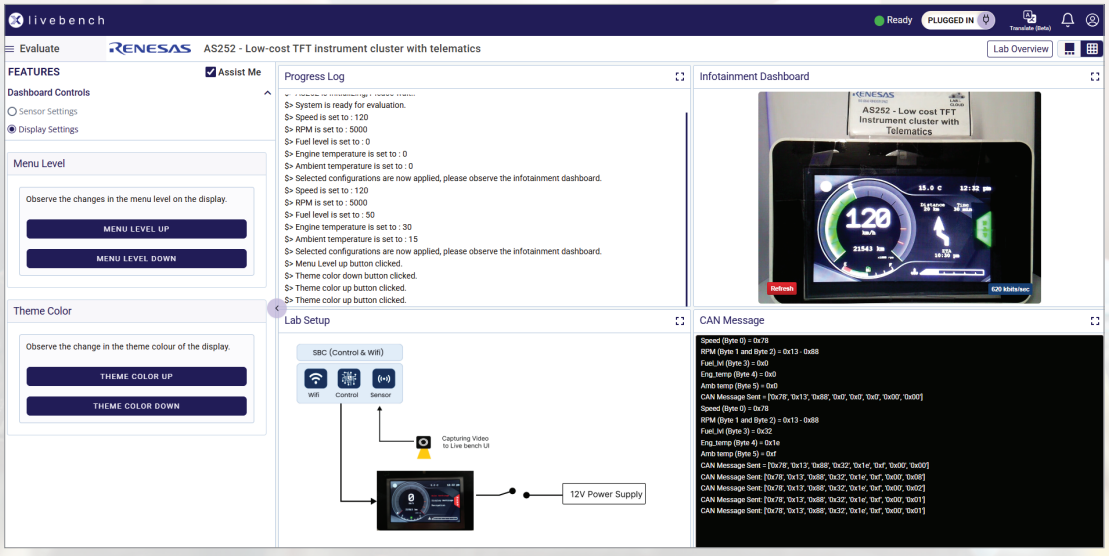
This demo is a ready-to-use reference designs for advanced instrument clusters with an optional connectivity board. Compact and realistic form factor with classic LED tell-tale indicators.

Features:

- Evaluate the sensor settings such as speed, RPM, fuel indicator, and engine temperature.
- Evaluate the display settings to change the menu settings: bike settings, display settings, and navigation.

Click to access the lab



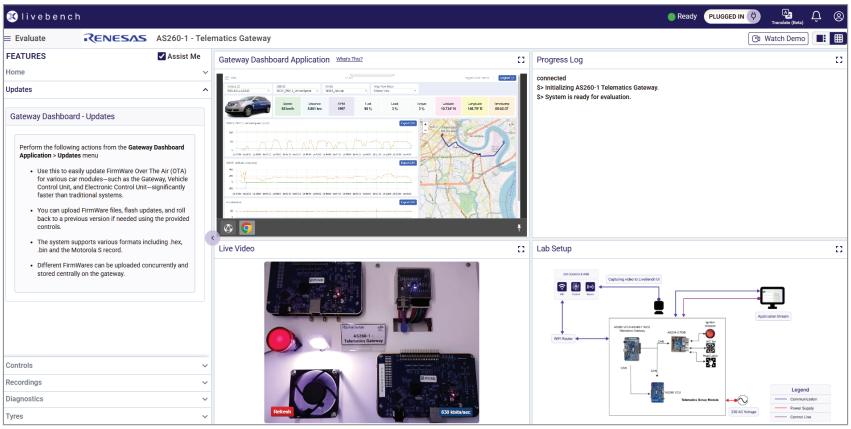


LABS TO EXPLORE 3: TELEMATICS GATEWAY

The Telematics Gateway combines the Vehicle Control Unit, and Wireless Communication Unit reference designs to demonstrate typical vehicle gateway software applications to showcase the transformation of vehicles into smarter, safer, and more connected experiences.

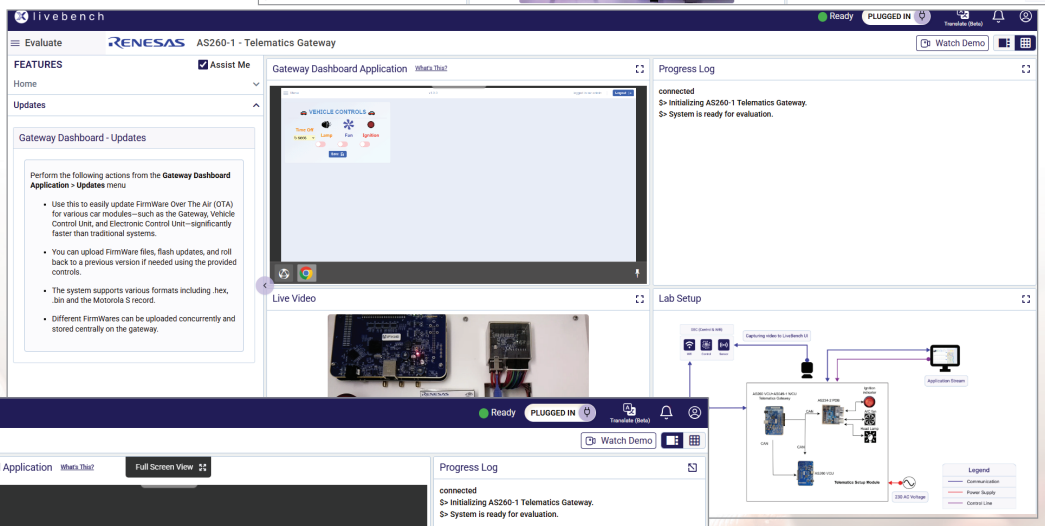
Features:

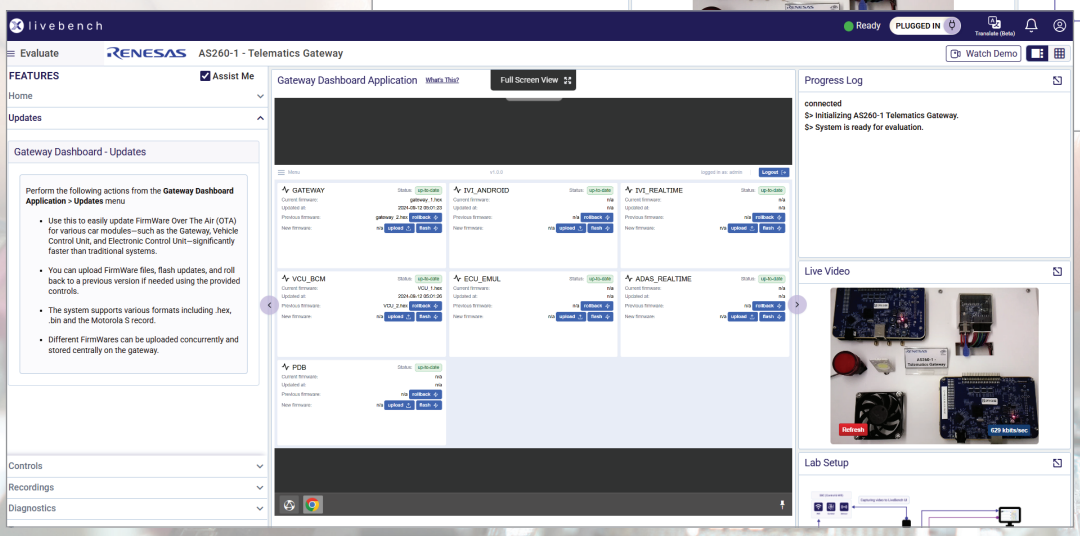
- Consists of a gateway dashboard application
- Emulates the functionality of a real cockpit
- Data can be downloaded in .csv format
- Remotely monitor key tire parameters: temperature and pressure
- No-wait OTA updates software in the background without disruption.



Click to check out the demo video

Click to access the lab





Renesas Electronics America Inc. | renesas.com
6024 Silver Creek Valley Rd, San Jose, CA 95138 | Phone: 1-888-468-3774

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