FemtoClock™ 3 (RC323XX & RC223XX)

Programmable Clocks Live Bench Measurement Tool Step-by-Step Guide

renesas.com/clocklivebench

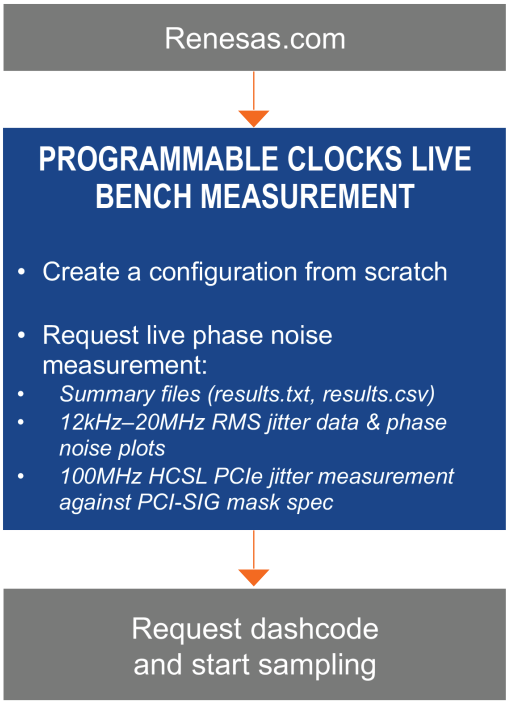
SYSTEM OVERVIEW

SYSTEM PURPOSE

- Instant access to automated jitter measurements for Renesas' flagship clock devices.
- Support PCIe Gen6/7 measurement against latest spec.

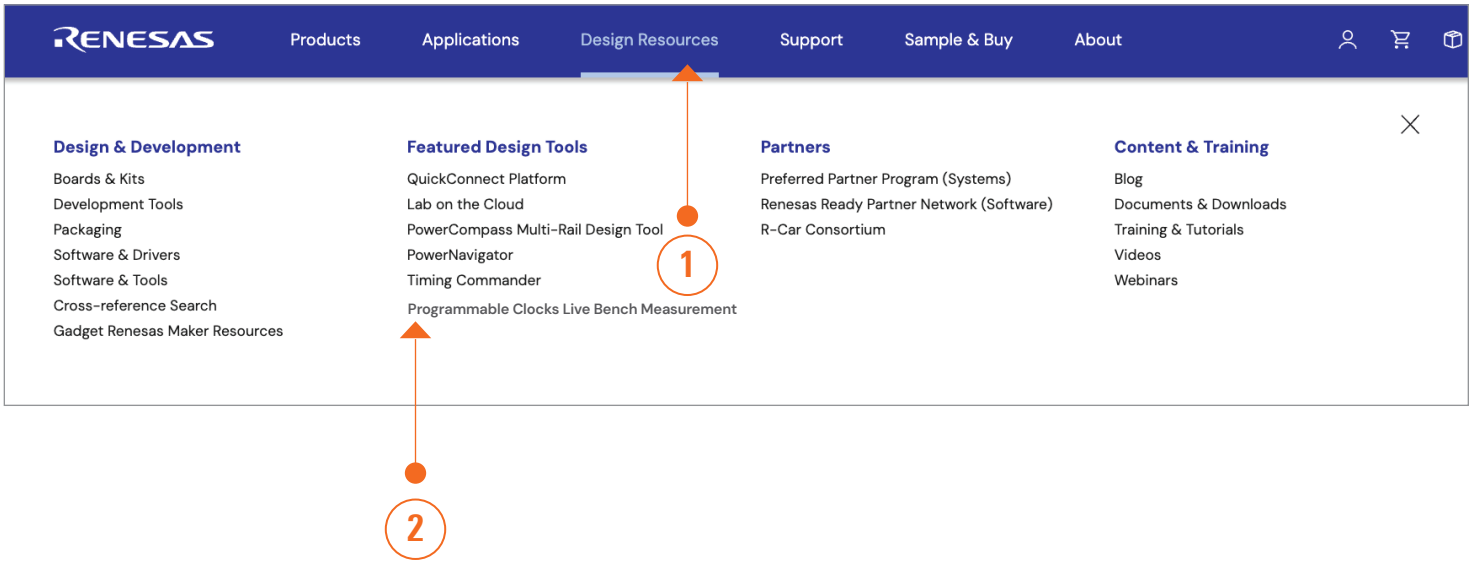
SYSTEM BENEFIT

- No EVB or lab equipment needed.
- Easy dashcode generation and sampling process.
- Most Renesas timing devices support multiple configurations, and once qualified, can be used across different platforms.

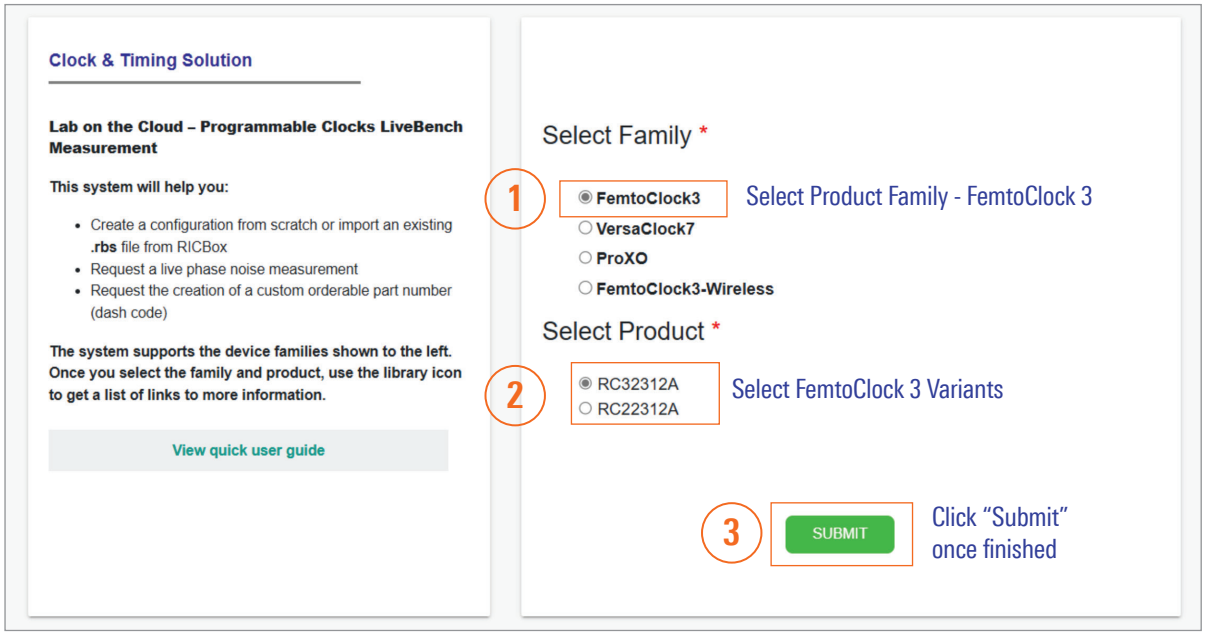


HOW TO FIND THE TOOL

Access Programmable Clocks Live Bench Measurement Tool from Website:
Design Resources → Programmable Clocks Live Bench Measurement

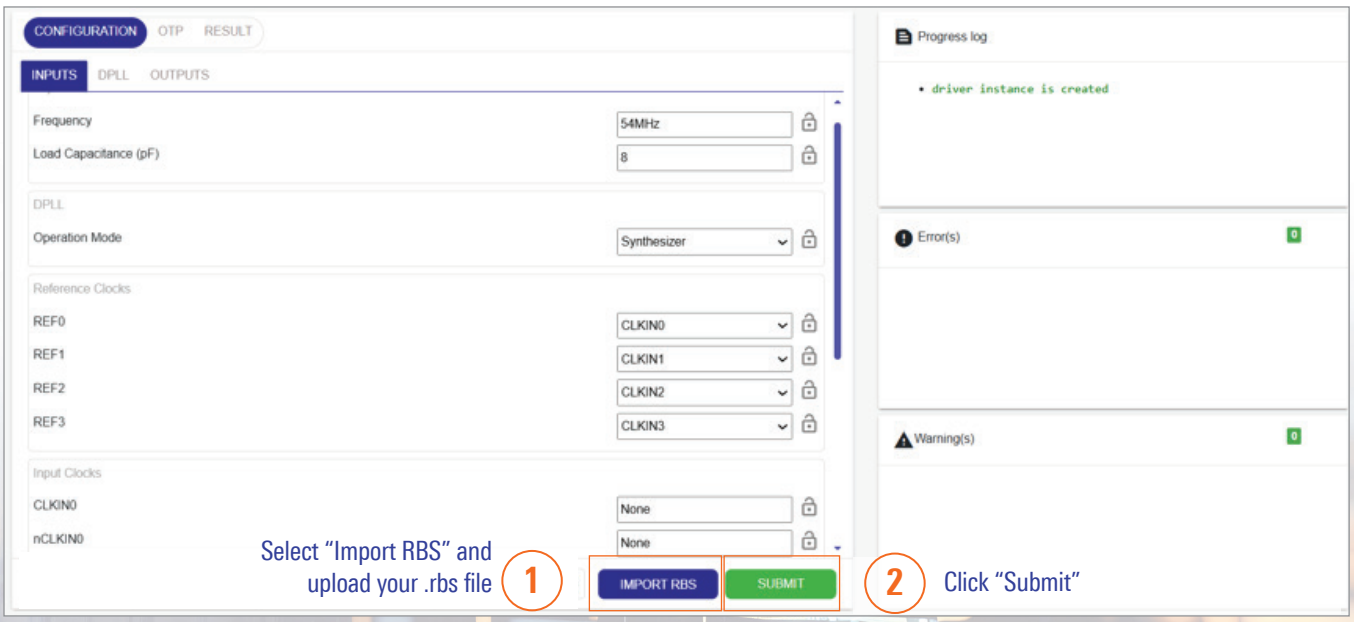


SELECTING THE FAMILY AND VARIANT



CREATE OR LOAD A CONFIGURATION

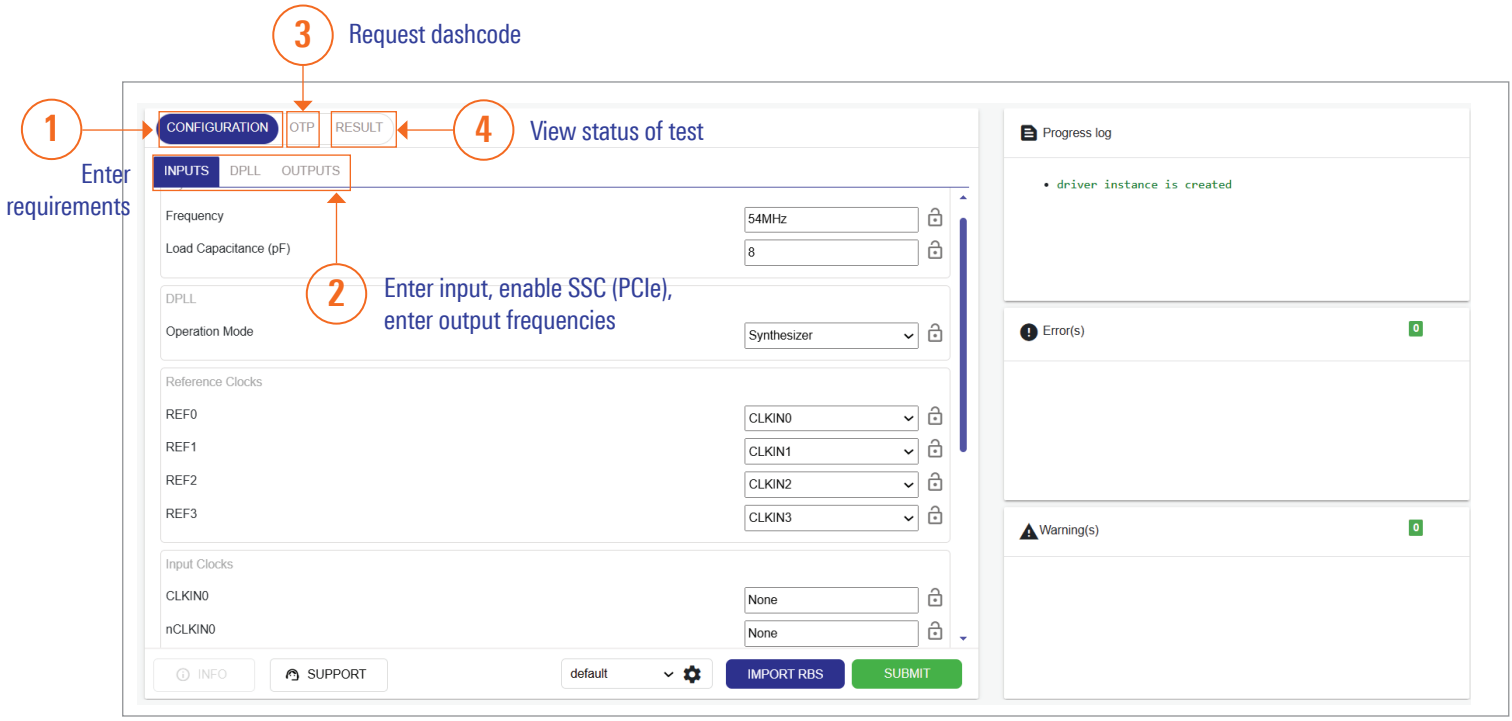
Option 1: Importing an existing RBS file*



*RBS file is generated using Renesas RICBox GUI. For more details, please see Appendix.

CREATE OR LOAD A CONFIGURATION

Option 2: No RBS file. Create new configuration from scratch.

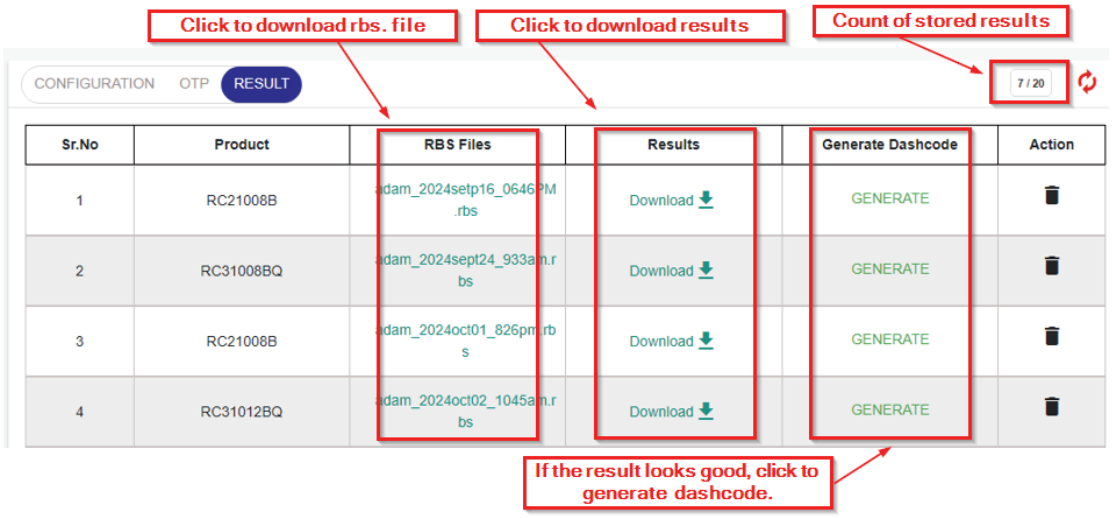


GET THE RESULTS

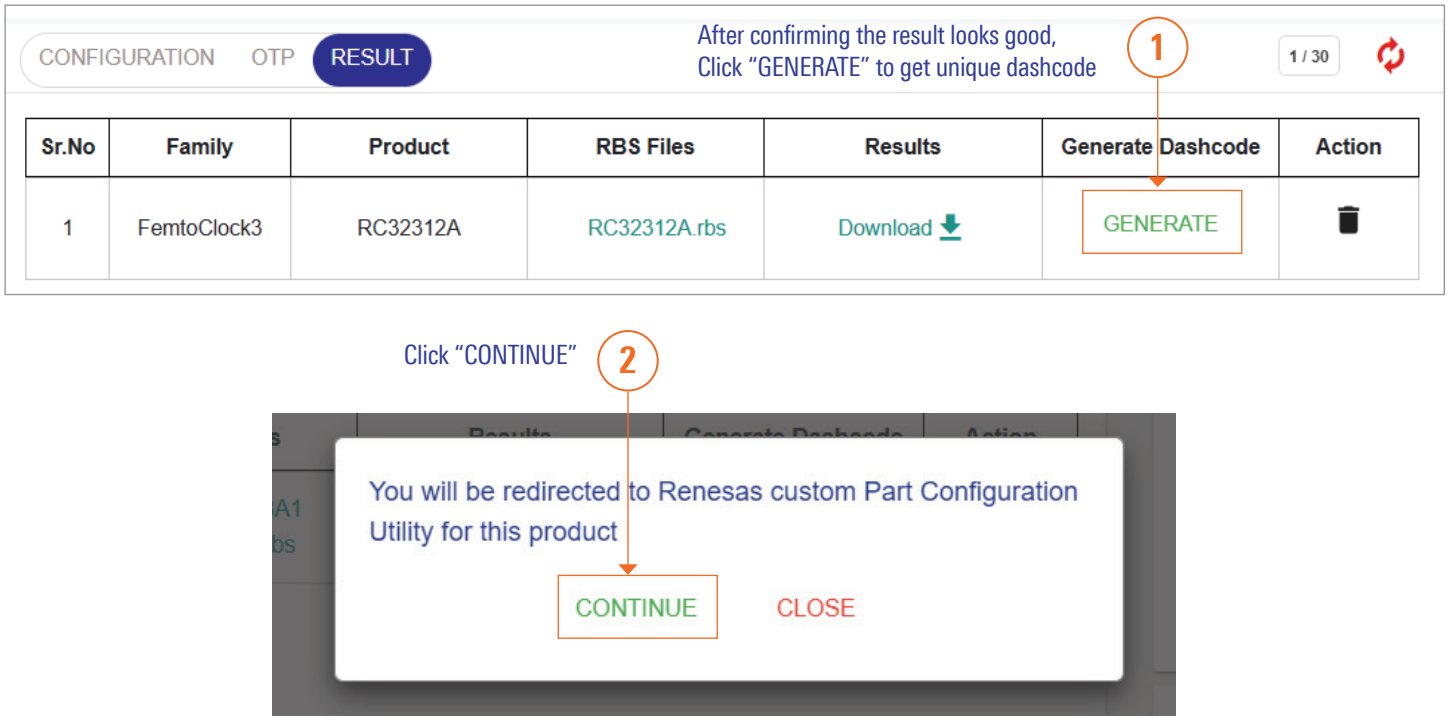
Results – Get the results (including the RBS file), phase noise text files, and phase noise graphs. Also include PCIe analysis if applicable.

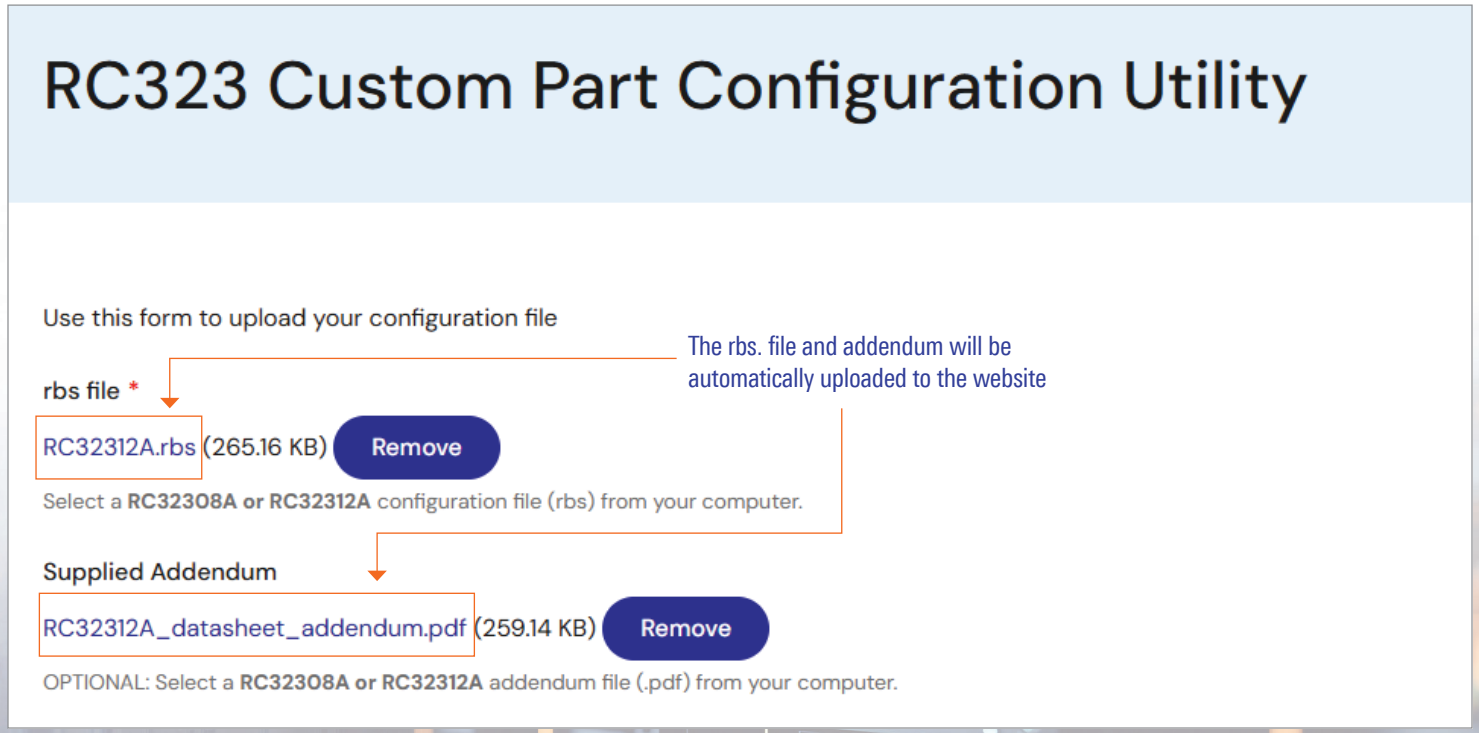
Generate Dashcode – Redirect link to renesas.com to start the dashcode generation and sampling process.

RBS files – Save this .rbs file locally if you wish to generate dashcode later.

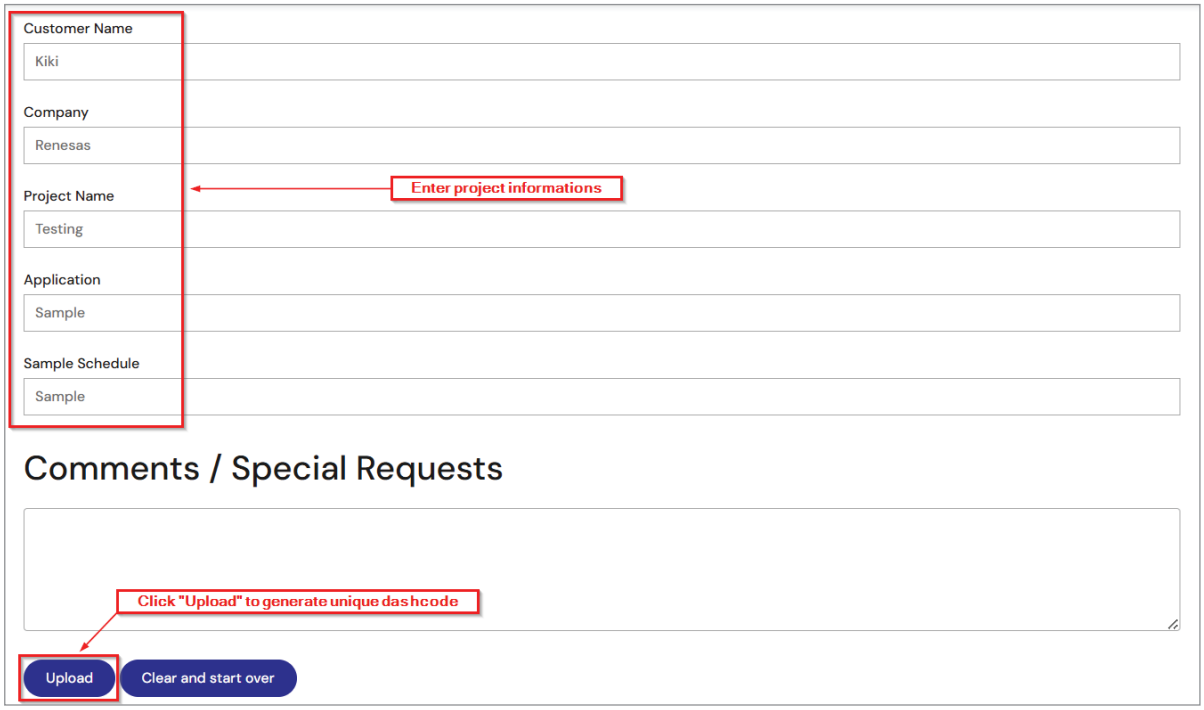


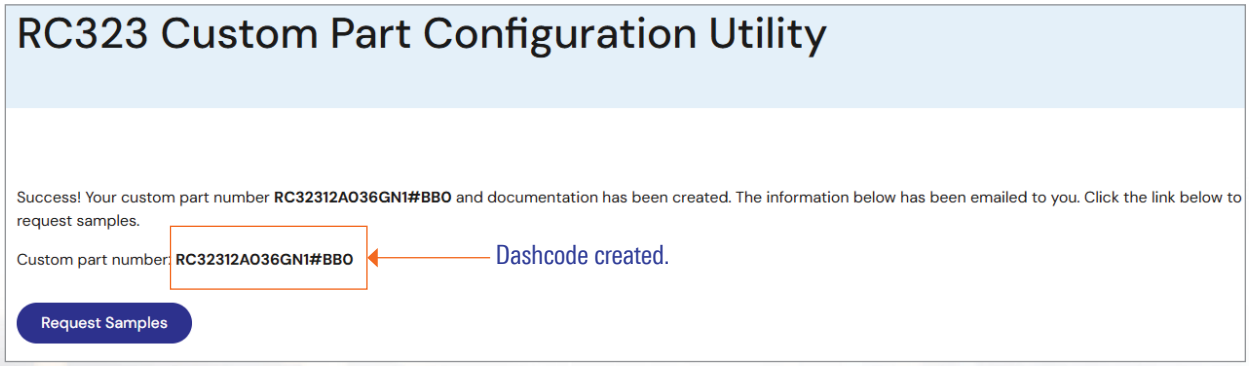
GENERATE DASHCODE





GENERATE DASHCODE





NOTE

Storage Limit

- Max 20 test results per user
- Delete older results when full (check counter on results screen)

RBS File Matching

- Imported RBS must match the selected device

Test Queueing

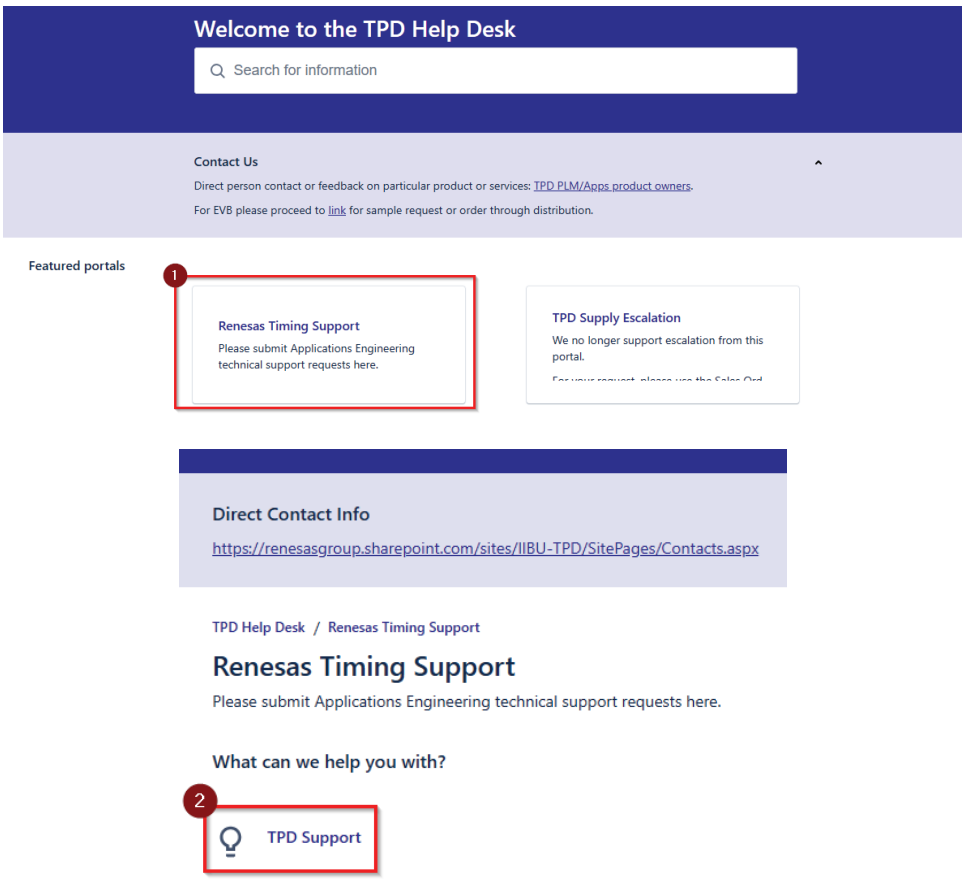
- Requests run one at a time
- Multiple submissions will be queued

Support Scope

- System measures provided configurations only
- For optimization, an application engineer is still needed

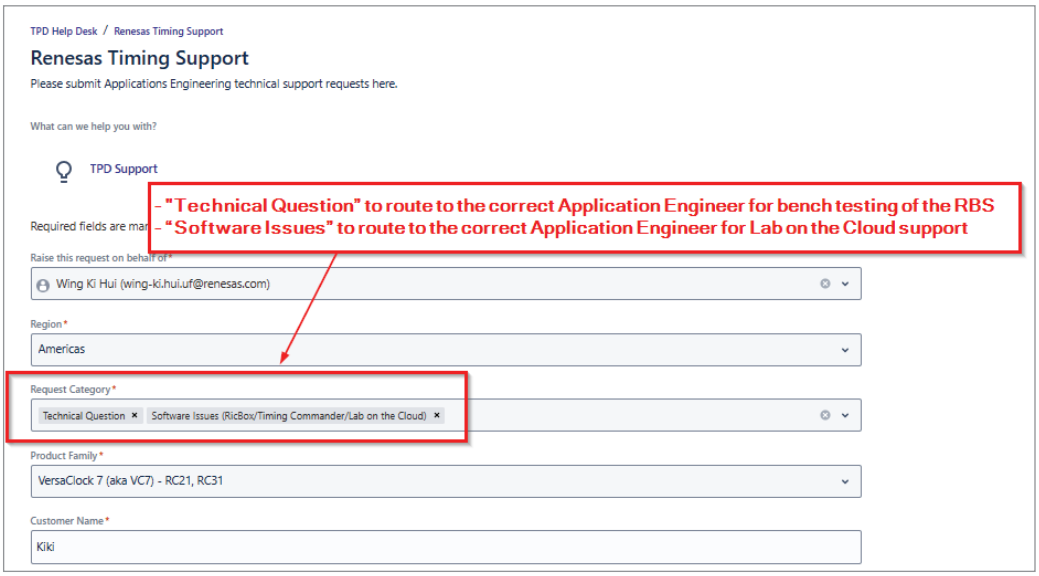
GETTING HELP WITH SYSTEM

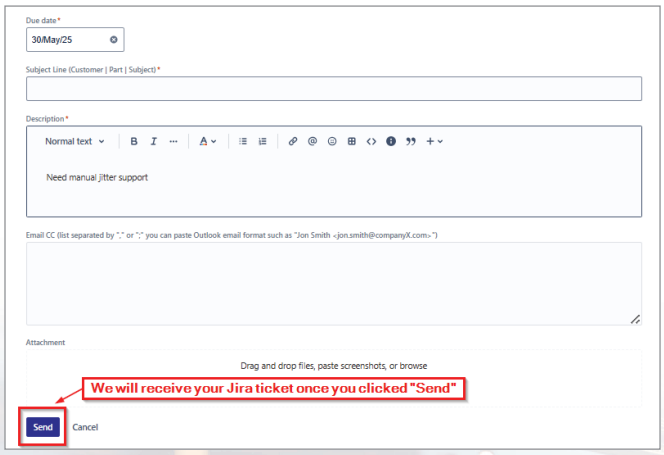
For manual jitter requests or system issues, please submit on JIRA at:
https://clocking.atlassian.net/servicedesk/customer/portals → Renesas Timing Support → TPD Support → Product Family "FemtoClock 3 (RC323xx, RC223xx)"

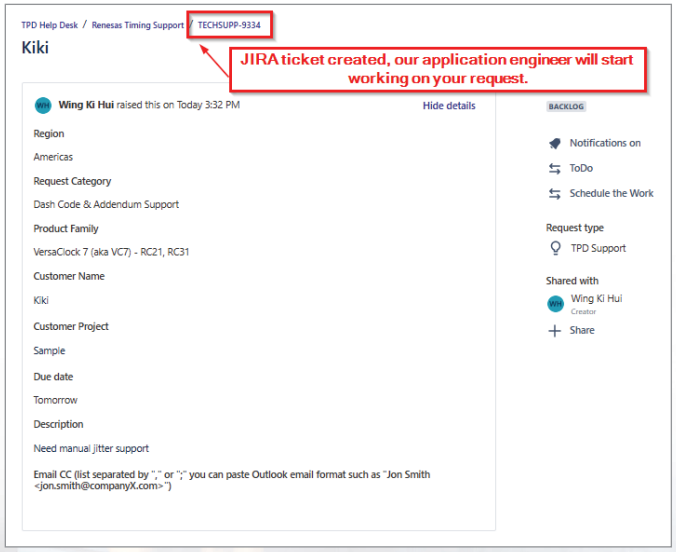


GETTING HELP WITH SYSTEM

Use a "Request Category" of "Software Issues" to route to the correct Application Engineer for Lab on the Cloud support







OTHER USEFUL INFORMATION

FemtoClock 3 Product Pages: RC323 and RC223

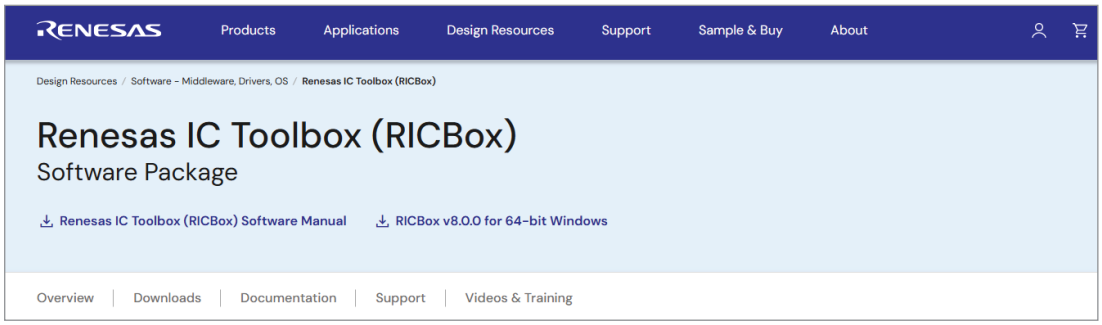
RICBox Builder Tool: Renesas IC Toolbox (RICBox)

APPENDIX

WHAT IS RICBox?

Renesas IC Toolbox (RICBox) is a software platform that lets users:

- Configure Renesas devices via evaluation kits connected to a PC
- Build configuration profiles for devices with non-volatile memory
- Ensure correct startup behavior, especially for clock devices needing pre-set configurations
- Especially useful when you want your device to boot up with a specific setup automatically



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