ROHM Solution Simulator Method for Exporting Circuit Data

The circuit diagrams provided with the ROHM Solution Simulator cannot be edited. In addition, only specified sections of the component properties can be changed. To change these items as desired, it is necessary to use PartQuest[™] Explore. This application note explains how to export the circuit data from the ROHM Solution Simulator to PartQuest[™] Explore.

Flow of the circuit data export

Table 1 shows a comparison of the ROHM Solution Simulator and PartQuest[™] Explore. They share the operation environment and the basic simulator. The differences are whether or not the ROHM application circuits are provided and whether or not the circuit diagrams can be modified.

Item	ROHM Solution Simulator	PartQuest [™] Explore
Operation environment	Web browser	Web browser
Simulator	PartQuest [™] Explore	PartQuest [™] Explore
ROHM application circuits	Provided	Not provided
Editing of circuit diagrams	Not allowed	Allowed
Modification of component properties	Allowed for some items	Allowed

Table 1. Comparison of ROHM Solution Simulator and PartQuest[™] Explore

The flow of performing advanced simulations is shown below (Figure 1).

Step 1. Select a simulation circuit from the ROHM Website and start the ROHM Solution Simulator.

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Step 2. Export the circuit data to PartQuest[™] Explore.

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Step 3. In PartQuest[™] Explore, modify the circuit diagram and perform simulations.

The detailed procedures are explained in the following pages.





Step 1

- 1. Select a circuit diagram from the ROHM Solution Simulator page on the ROHM Website (Figure 2).
- 2. Click the "Simulation" button to start the simulator on the Web browser (Figure 3).

DC-DC Converter								
	Bi-Direction	Boost Buck	Flyback		Forward			
	LLC Resonant	Phase-Shift Resonant	Quasi-Resonant	Step-Up/I	Down			
luck								
No.	Circuit				Schematic Information	Simulation (Login Required)		
C-6	Buck Converter Vo=250V Io=20A					Simulation		
C-7	Buck Converter 2-Phase Vo=250V Io=40A					Simulation		
C-8	Buck Synchro Converter Vo=250V Io=100A					Simulation		
C-9	Buck Synchro Converter 2-Phase Vo=250V Io=200A					Simulation		





Figure 3. A simulator is started on the Web browser.

Step 2

 Click "Edit in PartQuest Explore" on the lower right of the circuit diagram to automatically export the circuit data to PartQuest[™] Explore (Figure 4).



Figure 4. Clicking "Edit in PartQuest Explore" on the lower right of the circuit diagram automatically exports the circuit data to PartQuest[™] Explore.

- 2. A new Web browser window is opened and the exported circuit diagram is displayed in PartQuestTM Explore (Figure 5).
- 3. If you do not save the circuit diagram, PartQuest[™] Explore can be used as it is.
- 4. To save the circuit diagram, click the "Login" button on the upper right. If you do not have an account, sign up as a user.



Figure 5. The exported circuit diagram is displayed in PartQuest[™] Explore.

Step 3

- 1. Now the circuit diagram can be edited as desired. Modify the circuit diagram as desired and perform relevant simulations.
- 2. To use the saved circuit diagram for simulations in the future, log in to PartQuest[™] Explore, instead of the ROHM Solution Simulator, and open the circuit diagram.

 $PartQuest^{TM} Explore \rightarrow \underline{https://explore.partquest.com/}$

 $\mathsf{PartQuest^{TM}}$ is a trademark of Siemens Industry Software Inc.

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