

Richtek Designer™ User Manual



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Richtek Designer™ User Manual

Register and login

Start your design

In Richtek Designer landing page, press “Start your design” button to begin. This requires a logged in membership. If you don't have an account, see below instruction to get a free account.



Login with existing account

You can click the Login link in the upper-right corner of landing page, this will take you to a Richtek member login page. After you login, the system will transfer you back to Richtek Designer with Single-Sign-On integration.



New registration

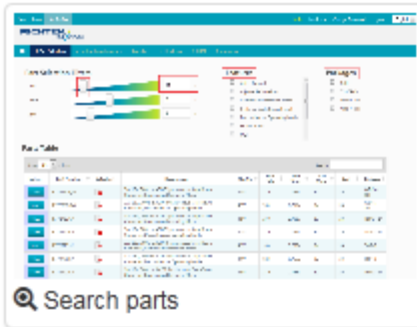
The following items are required :

- E-mail & password
- First name & last name
- Company Name
- Job title
- Primary application area

After Sign Up button is pressed, you will receive an email with password to activate your account. You are now ready to use the tool.

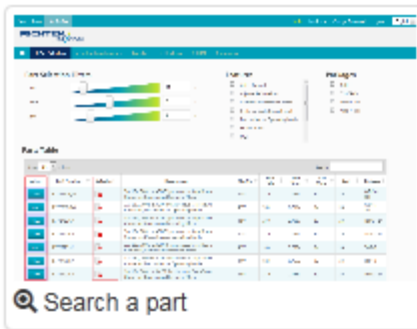
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Select a part



Search


Select the desired input voltage, output voltage, output current, features, and packages to find the suitable parts.



Select

Select the desired product from the Parts Table and click “Select” button. Then you can set the parameters for your operation condition in [next section](#).

Download datasheets

Click the  icon to see the product information (datasheet)

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Create design

Set the parameters

Type the following parameters to meet your operation condition

- Minimum input voltage
- Maximum input voltage
- Output voltage
- Output current

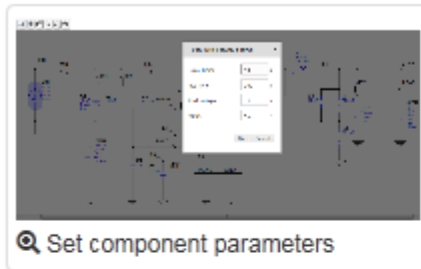


Generate schematic

Click the "Create Design" button when you complete the operation parameter configuration. A schematic for the design is drawn automatically.

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Set parameters



Set component parameters

The value of all external components can be changed by selecting the component.



Set simulation parameters

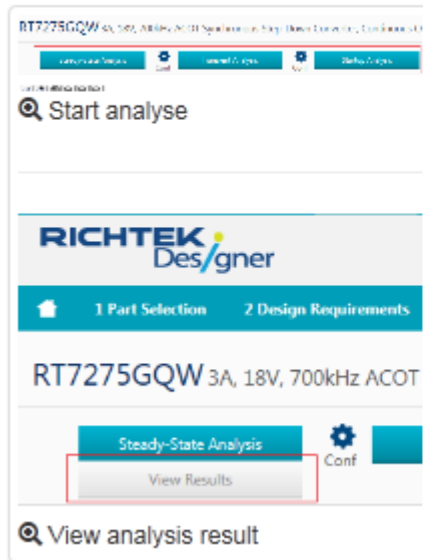
If you need, you can configure the simulation stop time for transient analysis or start-up analysis by clicking the "Conf" icon next to start analyse buttons.

Start simulation

After parameter setting, you're ready to start simulation. The simulator provides three kinds of analysis: Steady-State Analysis, Transient Analysis, and Startup Analysis. Click the buttons to start analyse

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Simulation & analyze



Starting analyse

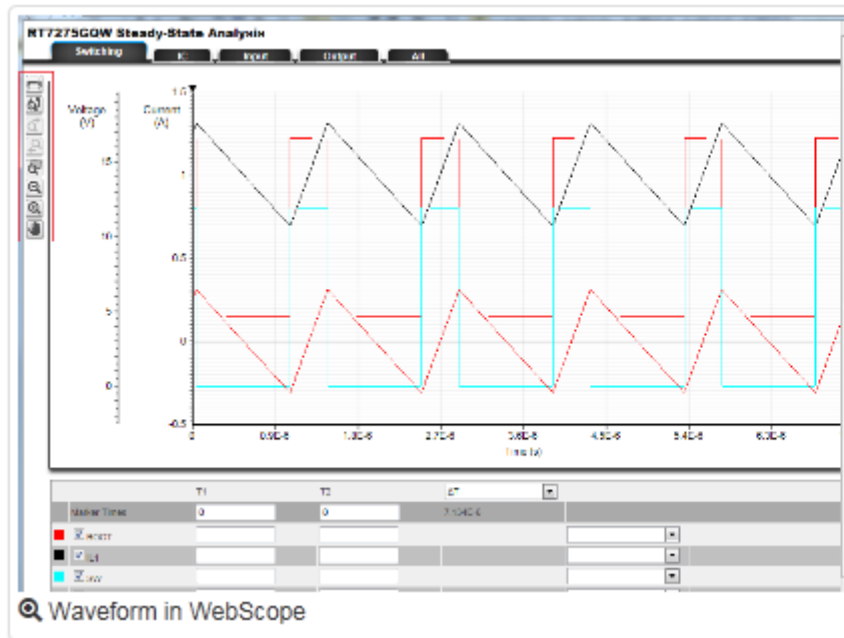
The simulator provides three kinds of analysis: Steady-State Analysis, Transient Analysis, and Startup Analysis. Click the buttons to start analyse

Verifying simulation results









After analyse complet, You'll see a "View Results" button next to the analysis button. By clicking it, various simulation waveforms can be selected to view in WebScope window. Click a snapshot to open it in WebScope.

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Simulation & analyze

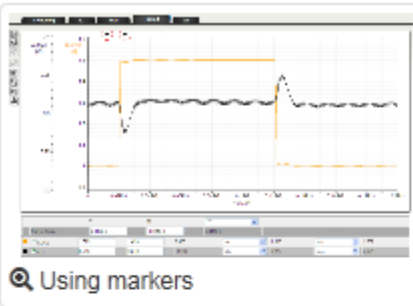


In the left of WebScope, you can click these icons to perform zooming or other function to help verify your simulation results.

-  Print Waveforms
-  Reset Zoom
-  Go forward one zoom level
-  Go back one zoom level
-  Marquee Zoom
-  Zoom out
-  Zoom In
-  Drag

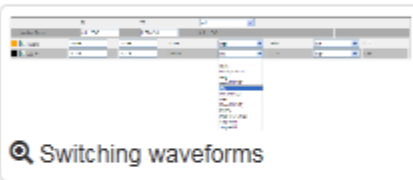
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Simulation & analyze



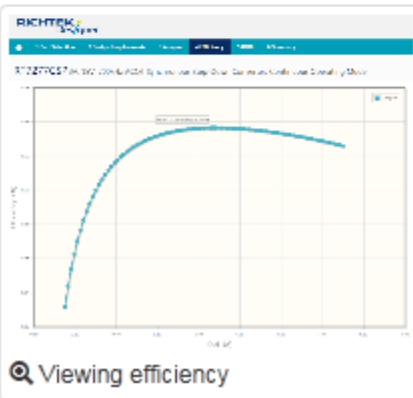
Using markers

The marker T1 and T2 on the horizontal axis are in the graph upper part. With sliding the marker, the time between 2 points can be measured. Also, it is possible to change when clicking the unit of the horizontal axis.



Switching waveforms

Different waveform measurements are available via the pull-down menu. For each waveform, two measurements can be selected.



Viewing efficiency

Click "Efficiency" for the efficiency waveform. By moving the cursor over the waveform, the exact efficiency values are displayed.

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View bill of materials (BOM)



Select preferred distributor

By selecting different BOM engine, you can choose between distributors for the BOM. For example, you can choose among Arrow, Digi-key, Mouser, other distributors, or just use the default engine "Generic".

Check BOM

The parts on the schematic are listed and can be downloaded in Excel format. The price and stock status of listed components can be found by selecting the distributors.

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Download summary reports



By clicking the "Summary" link in the navigation bar, you can view and download all results and reports of your design.

What you can do

- Print the summary report
- Download the summary report as PDF file
- Download BOM as Excel file