

**Power Device Simulator
User's Manual**

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1. Introduction

1.1 Overview

Power Device Simulator (tentative name) is a simulator (charge-free) utilizing DC-DC regulator and switching MOSFET manufactured by Panasonic easily on the Web.

Power Device Simulator consists of three simulation tools, **IC Designer** for DC-DC regulator, and **Active Datasheet**, **Buck Analyzer** for MOSFET.

With support for specification verification, operating analysis, creating BOM list, and online purchase, **Power Device Simulator** alleviates customers' burden for product selection.

1.2 Hardware Requirements and Support

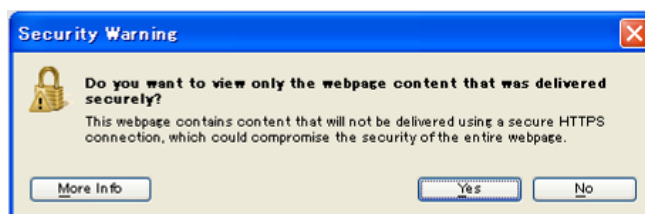
- **Power Device Simulator** supports for Japanese and English
- Following hardware requirements are recommended. Please confirm them beforehand, otherwise the abnormal operation or the unexpected error may occur depending on customers' environment.
OS: Windows 7, Windows Vista, Windows XP, Mac OS X
Browser: Internet Explorer 9, Google Chrome 23, Firefox 16.0.2 and their previous versions
- If you have questions regarding **Power Device Simulator** besides errors in operation etc., please call our sales representatives or visit following Website.

Semiconductor Business Unit, Industrial Devices Company, Panasonic Corporation

URL: <http://www.semicon.panasonic.co.jp/en/>

1.3 Usage Note

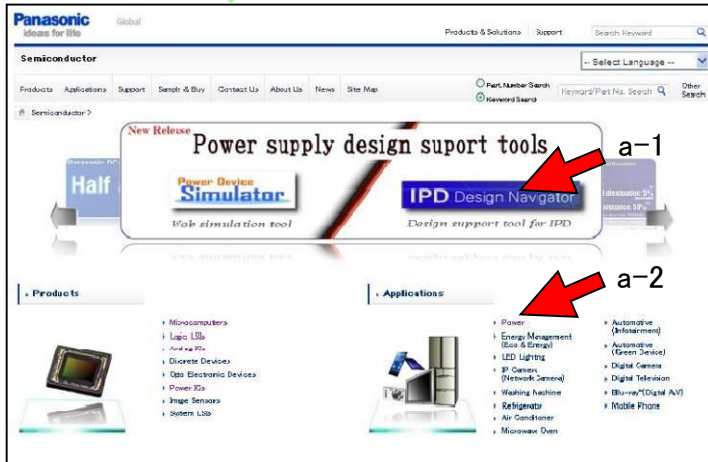
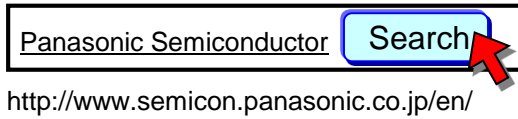
- If Security Warning is displayed when using Internet Explorer (IE), click **No (N)** button.



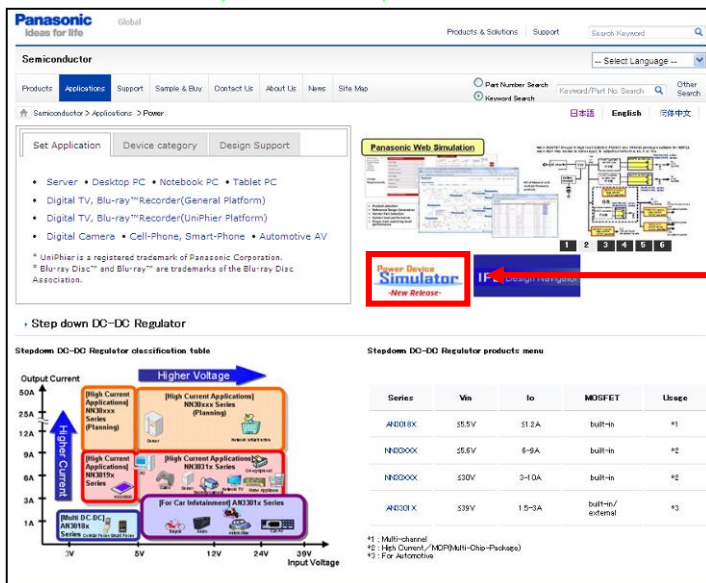
- Though simulation results of **Power Device Simulator** are verified consistency with observation results using our evaluation board, they may be different from actual results due to the difference of boards, mounting conditions, evaluation environments, etc.
- If this simulator is left for 30 minutes without operation, "Timeout Error" occurs and re-login is needed.
- Specifications on this site are subject to change without prior notice.
- We may not meet your request for sample purchases from this site due to changes in inventory status of products at each distributor.



2. How to Access



http://www.semicon.panasonic.co.jp/en/applications/power/



Visit **Panasonic Power Solution** site by using either one of following methods.

a. From **Panasonic Semiconductors** site

a-1. Click **Power supply design support tools** in rolling banners.

a-2. Click **Power** in **Applications** menu.

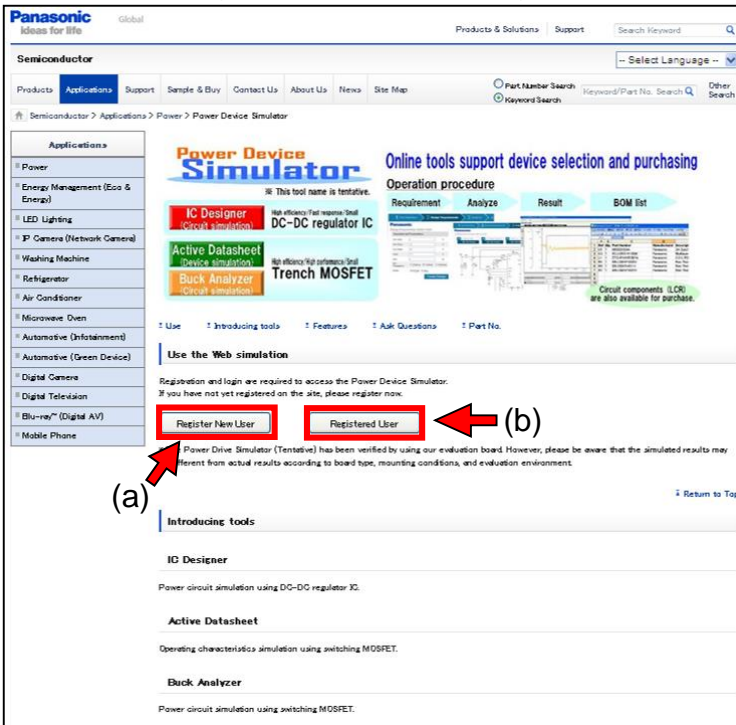
b. With direct input for URL.

Click this banner linked to **Power Device Simulator** site.



3. Login Step

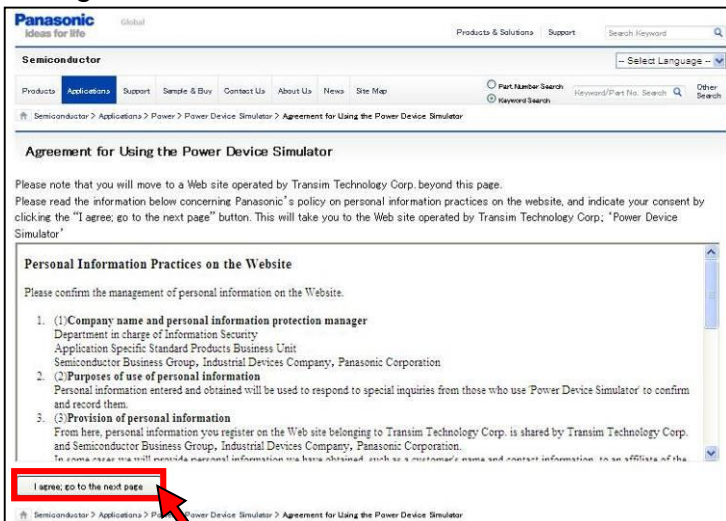
3.1 Select "Register New User"/"Registered User"



Follow the following steps.

- (a) For new users, click **Register New User** button for **Account Registration**.
- (b) For registered users, click **Registered User** button.

3.2 Agreement for Personal Information Practice



- ① Read **Personal Information Practice on the Website** completely. If you agree with it, click **I agree; go to the next page** button. This tool becomes available.



3.3 Account Registration

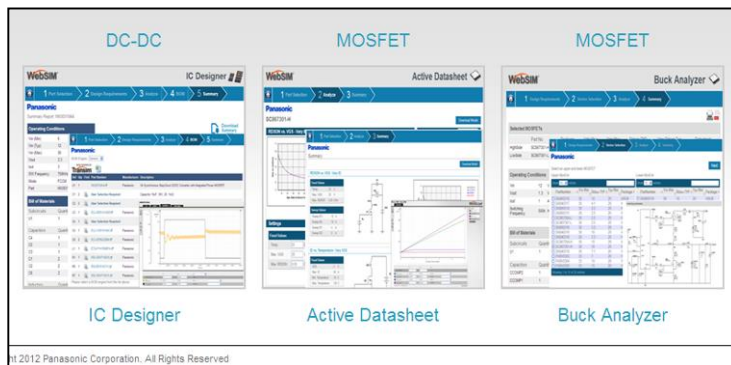
② Enter your email address, password, name, company name, country, etc. Click **Register** button with **Terms of Use** checked.

3.4 Login

For registered users, **Login** window is displayed.

③ Enter your email address and password. Click **Login** button.
 * If you click **Login** button with **Remember me** checked, you don't need to enter them from next time.
 * If you forget your password, click **Forgot password** button. Your password is sent to your email address.

3.5 Tool Menu



Tool menu is displayed after login. Select the simulation tool you use.

IC Designer

Power supply circuit simulation using DC-DC regulator

Active Datasheet

Device simulation using MOSFET

Buck Analyzer

Power supply circuit simulation using MOSFET

4. Description for Basic Functions

Configure and Simulate : NN30310AA

* The schematic and simulation values can be adjusted by highlighting the components and clicking with the mouse

Data Management Function

* Select supported language (Japanese/English) with pull-down menu in the right corner.

New: Create new data, **Open:** Open saved data, **Save:** Save data,

Share: Send data to designated destination, **More:** History, Delete data, etc.

Tool Flow (Example: IC Designer)

1. Part Selection → 2. Design Requirements → 3. Analyze → 4. Bom → 5. Summary

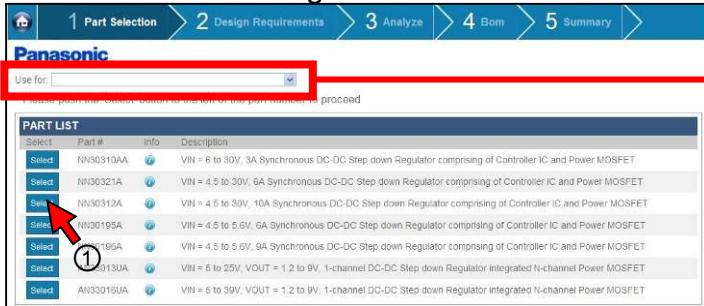
Input/Result Display

Specification input, analysis, constant value change, simulation result display, etc.



5. How to use IC Designer

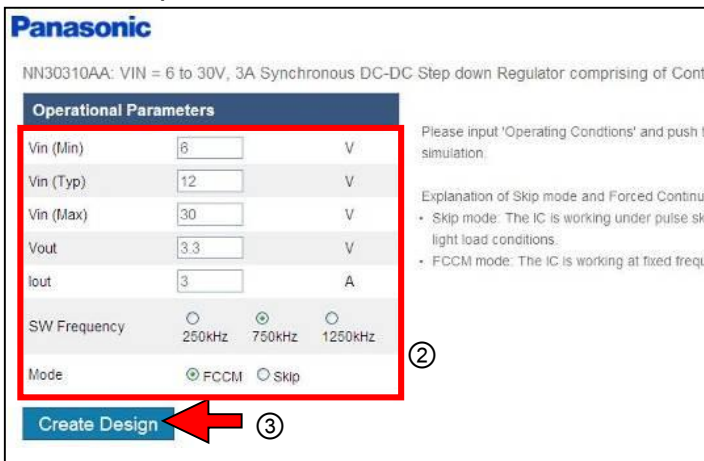
5.1 Select DC-DC Regulator



Select the application you intend to use for.

- ① Select the DC-DC regulator.
Click **Select** button on the left of **Part #**.
* To download datasheets, click **Info** button.

5.2 Enter Operational Parameters



- ② Enter Operational Parameters (V_{in}, V_{out}, I_{out}(*), SW Frequency, Mode).

* Input the maximum value to I_{out}.
In the operating analysis simulation, the load current is assumed as 50% to 75% (RMS) of I_{out}.
(For more information, see Section 5.3.1, "Constant Value Change.")

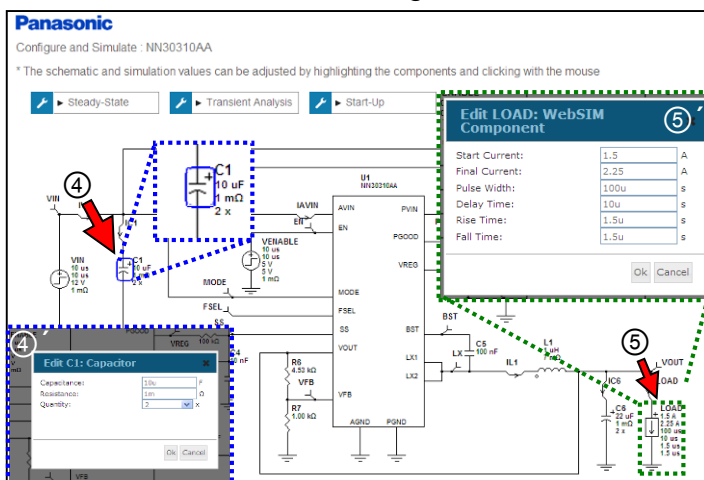
- ③ Click **Create Design** button to display a recommended circuit.

Description for Operation Mode

- Skip mode: Efficiency improvement mode with light load
- FCCM mode: Forced continuous mode with frequency fixed.

5.3 Constant Value Change/Operating Analysis

5.3.1 Constant Value Change



Following analyses are available.

- **Steady-State/Transient Analysis/Start-Up**
* Frequency analysis is also available for AN33XXX series.

- ④ Constant values of components can be changed with pop-up window (④) displayed by clicking each component figure.
- ⑤ The Start Current and Final Current of [LOAD] refer to the load current (I_{LOAD}) in each operating analysis.

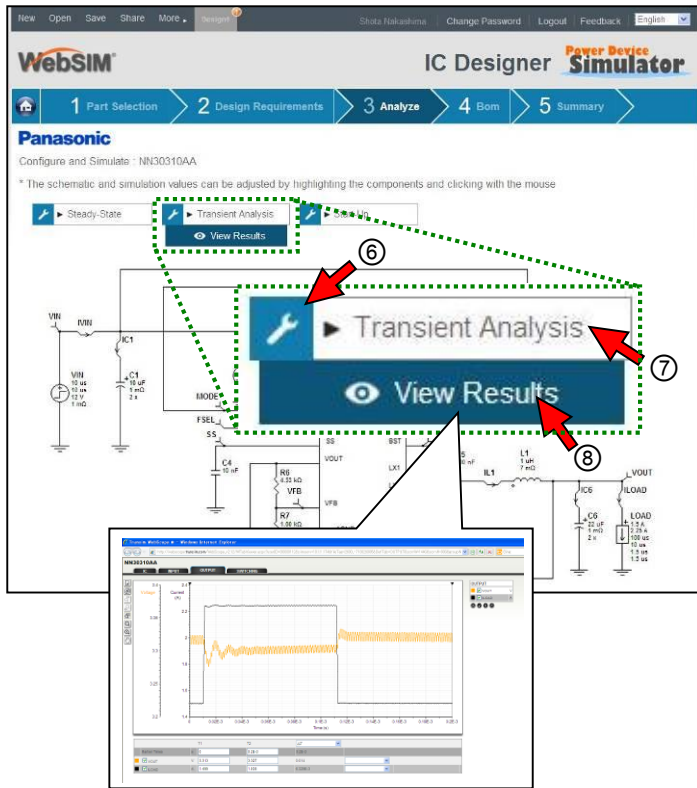
【Initial setting values of I_{LOAD}】

Start Current: I_{out} x 50%
Final Current: I_{out} x 75%

To change parameters, click [LOAD] on the circuit diagram. (⑤)

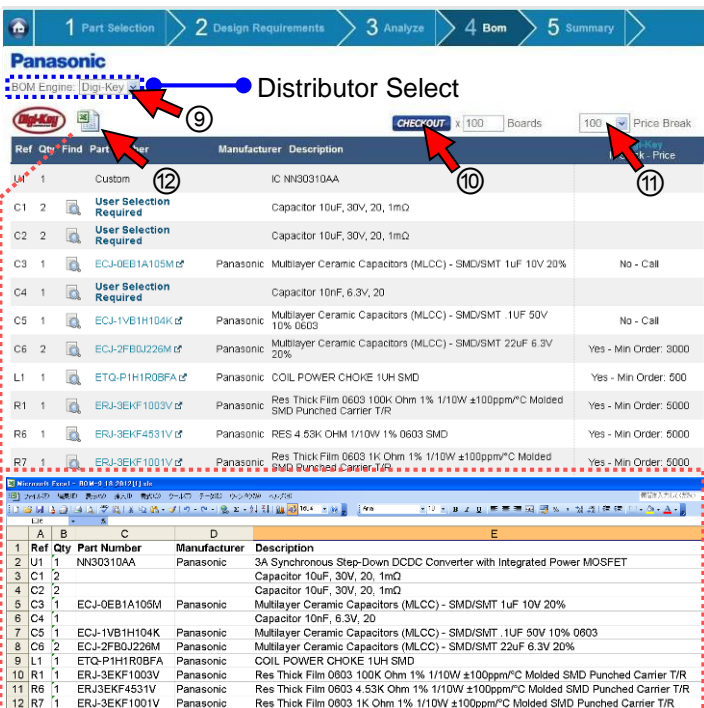


5.3.2 Steady-State/Transient Analysis/Start-Up



- ⑥ Change Simulation Stop Time.
 - **Transient Analysis:** 200 μ s (default)
 - **Start-Up:** 4 ms (default)
- ⑦ Start Transient Analysis.
- ⑧ View simulation results with dedicated viewer.

5.4 Bom List/Online Purchase



- ⑨ Select the distributor with pull-down menu.

* Please note that online purchase for semiconductor products (DC-DC regulator, MOSFET) is not available now.

- ⑩ Click **CHECKOUT** button to display inventory status of products.
- ⑪ When setting quantity for lump-sum purchase, the unit prices are displayed (**Price Break**).
- ⑫ Download BOM list (Excel format).

* Online purchase for DC-DC regulator will be available after the beginning of February, 2013. (Online purchase for passive components is available now.)



5.5 Summary

Panasonic
Summary Report - NN30310AA

Operating Conditions

Vin (Min)	6	V
Vin (Typ)	12	V
Vin (Max)	30	V
Vout	3.3	V
Iout	3	A
SVF Frequency	750KHz	
Mode	FCCM	
Part	NN30310AA	

Buy from Panasonic **Download Summary as PDF**

Bill of Materials

Subcircuits	Quantity
U1	1

Capacitors	Quantity	Capacitance
C4	1	10nF
C5	1	100nF
C3	1	1uF
C1	2	10uF
C2	2	10uF
C6	2	22uF

Inductors	Quantity	Inductance
L1	1	1uH

Resistors	Quantity	Resistance
R1	1	100kΩ
R6	1	4.53kΩ
R7	1	1.00kΩ

Configured Schematic

Waveforms

Transient Results

- ⑬ Go to **Sample & Buy** site.
 - * Dedicated online purchase site for semiconductors
 - * **Sample & Buy** site will be closed after sales system by distributors is prepared.
- ⑭ Download the **Summary (Operating Conditions, Bill of Materials, Configured Schematic, Waveforms)** as PDF.
 - * To open PDF, **Acrobat Reader** should be installed.

- ⑮ When clicking the graph area, dedicated viewer opens. You can view details of the graph with zoom function, etc.



6. How to Use Active Datasheet

6.1 Select MOSFET

Part Number	Package	RDSON@10V Typ. (mΩ)	VDS5 (V)	VGS5 (V)	Total Gate Charge (nC)	Storage Temperature Range (°C)
FK8V0303	VHN60	7	33	20	10.2	-55 - 150
FK8V0304	VHN60	10	33	20	7.2	-55 - 150
FK8V0305	VHN60	15	33	20	5.1	-55 - 150
FK8V0306	VHN60	20	33	20	3.8	-55 - 150
SK840316	HS06	3.3	30	20	22	-55 - 150
SK840317	HS06	4.1	30	20	17	-55 - 150
SK840318	HS06	7.1	30	20	16	-55 - 150
SK840319	HS06	10	30	20	6.3	-55 - 150
SK860314	HS06	2.2	30	20	37	-55 - 150
SK860315	HS06	2.5	30	20	26	-55 - 150

Verify the characteristics of single MOSFET. You can evaluate with the test circuit described in the datasheet at customers' operating condition.

Select the application you intend to use for.

- ① Enter Search Parameters for MOSFETs. Appropriate products are listed.
- ② Select the desired product. Click **Part Number** of the desired product.

6.2 Various Analysis

- ③ Click the test item.
- ④ Enter **Test conditions** and **Step Values**.
- ⑤ Click **Run Test** button to start simulation. (Click **Run all** button (⑤) to start all simulations.)
- ⑥ When clicking the graph area, dedicated viewer opens. You can view details of the graph with zoom function, etc.
- ⑦ Click **Download Model** to download SPICE data (lib format).



6.3 Summary

1 Part Selection | 2 Analyze | 3 Summary

Panasonic

Summary

⑧ Buy from Panasonic
⑦ Download Model

RDSON vs. ID - Vary VGS

Test conditions	
Temp	25 C
Max. ID	48 A

Step Values	
Step VGS1	4.5 V
Step VGS2	7.3 V
Step VGS3	10 V
Step VGS4	20 V

Temp: 25.00 V
Vg: 10.00 V
Vg: 7.30 V
Vg: 4.50 V

RDSON vs. VGS - Vary Temperature

Test conditions	
ID	6 A
Max. VGS	20 V

Step Values	
Step TEMP1	-30 C
Step TEMP2	25 C
Step TEMP3	85 C
Step TEMP4	125 C

Temp: 125.00
Temp: 85.00
Temp: 25.00
Temp: -30.00

RDSON vs. Temperature - Vary VGS

Test conditions	
Min. Temperature	-55 C
Max. Temperature	150 C
ID	6 A

Step Values	
Step VGS1	4.5 V
Step VGS2	7.3 V
Step VGS3	10 V
Step VGS4	20 V

Vg: 20.00 V
Vg: 10.00 V
Vg: 7.30 V
Vg: 4.50 V

ID vs. VGS - Vary Temperature

Test conditions	
VDD	10 V
Max. VGS	3.6 V

Step Values	
Step TEMP1	-30 C
Step TEMP2	25 C
Step TEMP3	85 C
Step TEMP4	125 C

Temp: 125.00
Temp: 85.00
Temp: 25.00
Temp: -30.00

ID vs. VDS - Vary VGS

Test conditions	
Temp	25 C
Max. VDS	0.5 V

Step Values	
Step VGS1	3 V
Step VGS2	3.5 V
Step VGS3	4.5 V
Step VGS4	10 V

Vg: 10.00 V
Vg: 4.50 V
Vg: 3.50 V
Vg: 3.00 V

Capacitance vs. VDS

Test conditions	
Max. VDS	33 V

Cisr
Ciss
Coss

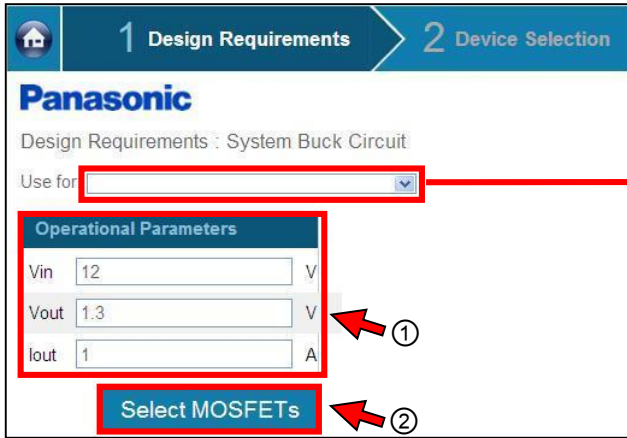
Summary is displayed as operating results of this tool.

- ⑧ Go to **Sample & Buy** site.
 - * Dedicated online purchase site for semiconductors
 - * **Sample & Buy** site will be closed after sales system by distributors is prepared.
- ⑦ Click **Download Model** to download SPICE data (lib format).



7. How to Use Buck Analyzer

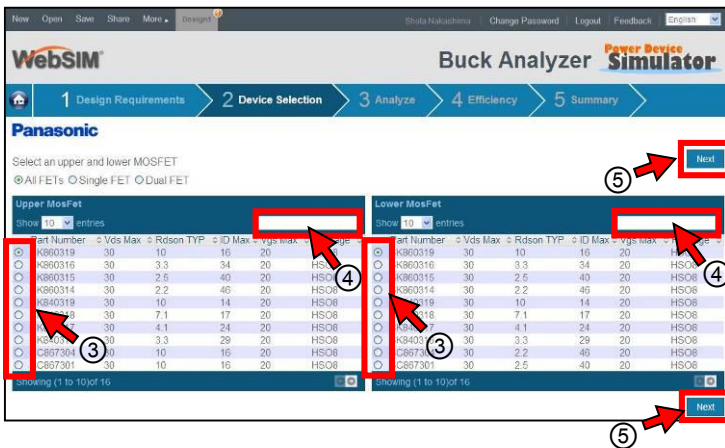
7.1 Enter Operational Parameters



Select the application you intend to use for.

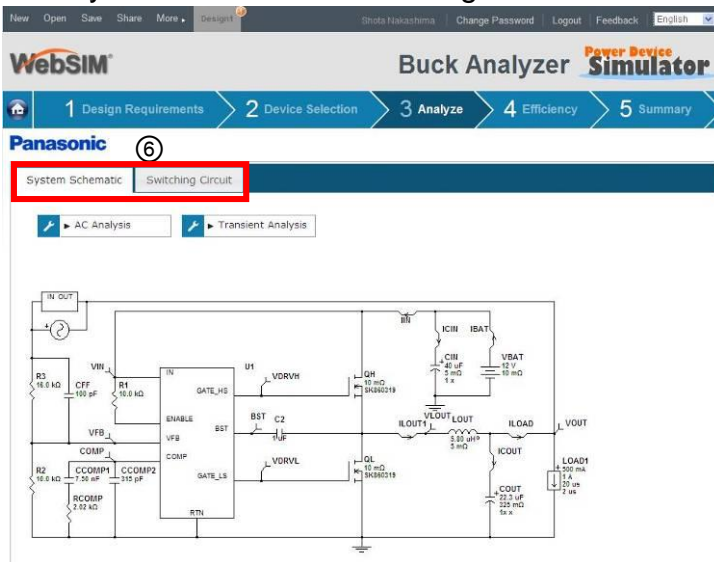
- ① Enter **Operational Parameters** (Vin, Vout, Iout).
- ② Click **Select MOSFETs** button to go to **Select MOSFET** window.

7.2 Select MOSFET



- ③ Select **Part Number of Upper/Lower MOSFETs** from parts list. Search refinement for single or dual products is also available.
- ④ Prefix search of part number is enabled.
- ⑤ Click **Next** to go to **Analyze** window.

7.3 System Schematic/Switching Circuit



- Following analyses are available.
- **AC Analysis (System Schematic only)**
 - **Transient Analysis**

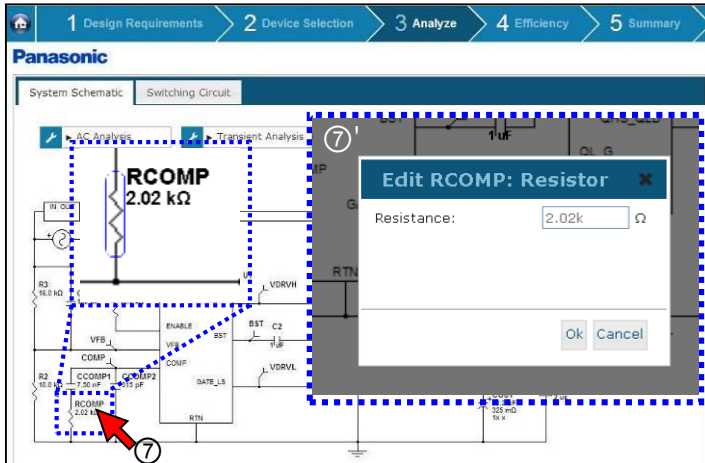
* Whole-circuit loop gain characteristics can be simulated in **System Schematic** mode. Switching characteristics including parasitic impedance of the board can be simulated in **Switching Circuit** mode.

- ⑥ Click this tab menu to select the analysis for **System Schematic/Switching Circuit**.



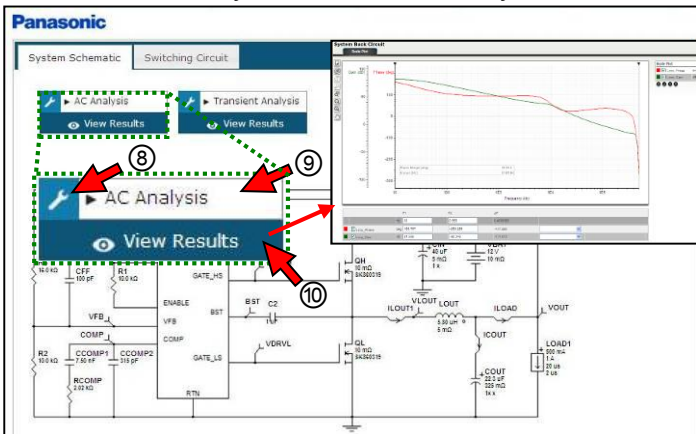
7.3.1 System Schematic

7.3.1.1 Constant Value Change



⑦ Constant values of components can be changed with pop-up window (⑦) displayed by clicking each component figure.

7.3.1.2 AC Analysis/Transient Analysis



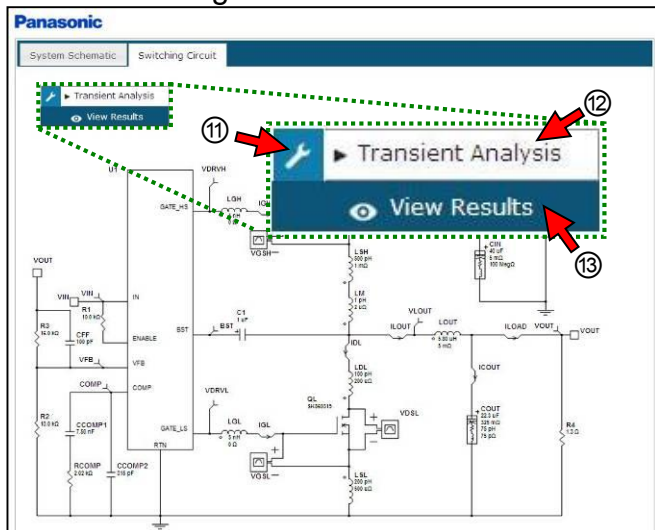
In **System Schematic** mode, whole-circuit loop gain and transient characteristics can be simulated.

- ⑧ Change following default values.
AC Analysis: Start Frequency 10 Hz
Stop Frequency 500 kHz
- Transient Analysis:
Simulation Stop Time 100 μ s

⑨ Start **AC Analysis**.

⑩ View the simulation result with dedicated viewer.

7.3.2 Switching Circuit



In **Switching Circuit** mode, load response characteristics by power supply circuit switching operation including parasitic impedance of the board can be simulated.

To change constant values of components, refer to "7.3.1.1".

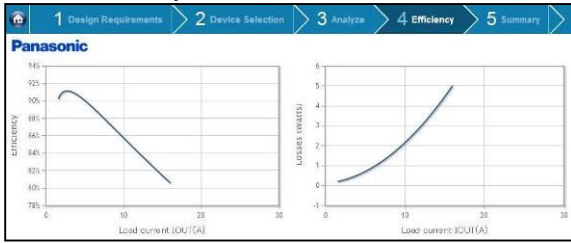
- ⑪ Change following default value.
Transient Analysis:
Simulation Stop Time 250 μ s

⑫ Start **AC Analysis**.

⑬ View the simulation results with dedicated viewer.



7.4 Efficiency/Loss Curves



Efficiency and Loss Curves of the designed circuit is displayed.

* Please note that parasitic impedance or losses due to the jitter of switching waveform, which really exist, are not taken into consideration in this efficiency calculation.

7.5 Summary

The screenshot shows the 'Summary' page of the Panasonic simulation software. At the top, a navigation bar includes '1 Design Requirements', '2 Device Selection', '3 Analyze', '4 Efficiency', and '5 Summary'. The main content area is divided into several sections:

- Selected MOSFETs:** A table listing MOSFETs with columns for Part No., Package, Vds Max, Vgs Max, Rds(on) TYP, Vgs Rds(on) Typ, and Datasheet. Two MOSFETs are listed: HighSide (SK800319, HSO3) and LowSide (SK800319, HSO3).
- Operating Conditions:** A table with parameters: Vin (12 V), Vout (1.3 V), Iout (1 A), and Frequency (500 KHz).
- Buy from Panasonic:** A blue button with a red arrow pointing to it, labeled with a circled '14'.
- Download Summary as PDF:** A blue button with a red arrow pointing to it, labeled with a circled '15'.
- Bill of Materials:** Three tables listing components:
 - Capacitors:** CCOMP2 (1, 315pF), CCOMP1 (1, 7.50nF), CIN (1, 42nF), COUT (1, 22.2uF), CFF (1, 100nF).
 - Inductors:** LIN (1, 100uH), LOUT (1, 5.00uH), LSH (1, 5nH), LSL (1, 5nH), LSL (1, 200uH), LDL (1, 100uH), LSH (1, 500uH), LM (1, 1pH), LDH (1, 100uH).
 - Resistors:** R2 (1, 10.0kΩ), R3 (1, 18.0kΩ), R1 (1, 10.0kΩ), RCOMP (1, 2.02kΩ), R4 (1, 1.0Ω).
- System Schematic:** A high-level circuit diagram showing the power flow from VIN through a MOSFET (U1) to VOUT, including various passive components and control signals.
- Switching Schematic:** A detailed circuit diagram of the MOSFET (U1) and its associated gate driver, including gate resistors, capacitors, and inductors.

14 Go to **Sample & Buy** site.
* Dedicated online purchase site for semiconductors

* **Sample & Buy** site will be closed after sales system by distributors is prepared.

15 Download the **Summary (Operating Conditions, Bill of Materials, Configured Schematic, Waveforms)** as PDF.

* To open PDF, **Acrobat Reader** should be installed.



8. Inquiry for Sample (Until the Beginning of February, 2013)

8.1 Registered Products

Sample Availability (As of Oct. 31)

For products listed as "available," click the Part Number to go to the in-stock items search page.

DC-DC regulator IC			MOSFET		
Registered Part No.	Status	Date to be registered	Registered Part No.	Status	Date to be registered
□ NN3010AA	(*)	Jan. 15	□ SK800314	(*)	Feb. 1
□ NN3012A	(*)	Jan. 15	□ SK800315	(*)	Feb. 1
□ NN60195A	(*)	Jan. 15	□ SK360316	(*)	Feb. 1
□ NN60196A	(*)	Jan. 15	□ SK360319	(*)	Feb. 1
□ AN63013UA	(*)	Jan. 15	□ SK340316	(*)	Feb. 1
□ AN63016UA	(*)	Jan. 15	□ SK340317	(*)	Feb. 1
□ NN6021A	(*)	Mar. 1	□ SK340318	(*)	Feb. 1
			□ SK340319	(*)	Feb. 1
			□ SC867304	(*)	Feb. 1
			□ SC867301	(*)	Feb. 1
			□ FK8V0303	(*)	-
			□ FK8V0304	Available	-
				Available	-
				(*)	-
				Available	-

(*)Click the Request Samples to get samples.

Request Samples

We offer you the ability to order samples.
Go to the Semiconductor Support (For Registered Users) page to register and to select "Item Q&A" from the "Related Menu" to request a sample.

Register New User Registered User

Search Parts Inventory

Terms of Use

* This On-Line Sample Ordering service is available for those who need to purchase small quantities of engineering samples with quick deliveries.
* The service is owned, operated, controlled and managed by Panasonic's distributors. For pricing, delivery and technical questions related to this service, please direct to them. Panasonic assumes no responsibility for any dealings you may have with distributors.
* This search inquiry using an inputted parts number will return results restricted to Panasonic parts only.

Search inventory by parts number:
FK8V0304

Exact Begins-With Contains

FOUND: 3 matches. Search part number: FK8V0304 Status: Search completed

Region	Panasonic Parts Number	Distributor	Quantity	Inventory Date (MM/DD/YYYY)
Japan	FK8V03040L	DIG-KEY JAPAN	2,990	12/02/2012
Japan	FK8V03040L	RS COMPONENTS JAPAN	30	11/09/2012
Europe	FK8V03040L	RS COMPONENTS UK	30	11/09/2012

Sales Bases Manufacturing Sites

Business > Industrial Devices > Search Parts Inventory

This is dedicated online purchase site for semiconductors.

*** Sample & Buy site will be closed after sales system by distributors is prepared.**

① Check the **Status** of products.

If the **Status** of the product is "Available", sample purchase from the distributor authorized by Panasonic is available. Click **Registered Part No.** to go to **Search Parts Inventory** site.

If the **Status** of the product is not "Available", see the following page, "8.2 Unregistered Product".

Sample purchases from listed distributors are available.

Click the **Panasonic Parts Number** corresponding to the desired distributor to go to online purchase site. (Quantity of samples for dealing varies according to distributors.)



8.2 Unregistered Products

Sample & Buy

Important Notice

Please be aware that products other than those listed as "available" cannot be purchased now. In addition, peripheral parts designed by the IC Designer can also not be purchased on this page.

Sample Availability (As of Oct. 31)

For products listed as "available," click the Part Number to go to the in-stock items search page.

DC-DC regulator IC			MOSFET		
Registered Part No.	Status	Date to be registered	Registered Part No.	Status	Date to be registered
PN30310AA	(*)	Jan. 15, 2013	SK960314	(*)	Feb. 1, 2013
PN30312A	(*)	Jan. 15, 2013	SK960315	(*)	Feb. 1, 2013
PN30195A	(*)	Jan. 15, 2013	SK960316	(*)	Feb. 1, 2013
PN30196A	(*)	Jan. 15, 2013	SK960319	(*)	Feb. 1, 2013
AN30193UA	(*)	Jan. 15, 2013	SK940316	(*)	Feb. 1, 2013
AN30164UA	(*)	Jan. 15, 2013	SK940317	(*)	Feb. 1, 2013
IN40321A	(*)	May. 1, 2013	SK940318	(*)	Feb. 1, 2013
			SK940319	(*)	Feb. 1, 2013
			SC967304	(*)	Feb. 1, 2013
			SC967301	(*)	Feb. 1, 2013
			FX9V0303	(*)	-
			FX9V0304	Available	-
			FX9V0305	Available	-
			FX9V0306	(*)	-
			FO8V3303	(*)	-
			FO8V3304	Available	-

(*)Click the Request Samples to get samples.

Request Samples

We offer you the ability to order samples. Go to the Semiconductor Support (For Registered Users) page to register and login, and select "New User" from the "Related Menu" to request samples.

Register New User **Registered User**

If you need samples of unregistered products (Status: *1), request from **Request Samples** displayed below.

* Please note that samples are for evaluation and are not guaranteed for operation on your equipments.

To use **Request Samples**, user registration for **Semiconductor Support System** is required.

(a) For new users, click **Register New User** button to go to **User Registration Terms and Conditions**, and read "user's registration rule" completely.

(b) For registered users, click **Registered User** button to go to **Login** window.

Semiconductor Support System

Top page: [Registration](#) | [Password Reissue](#) | [Return of the canceled user](#)

Home > Semiconductor Support System > User Registration Terms and Conditions

Back to Previous page

User Registration Terms and Conditions

Please read completely before deciding to agree or disagree with these terms.

Semiconductor Support user's registration rule

It is agreed with this "contract for software use right" (Hereafter, called this contract), and the computer program and the manual are as follows with the customer (Hereafter, called "First party") Panasonic Corporation. (Hereafter, called "Second party")

Article 1 (Definition)
The term used in this contract is defined as follows.
(1) The computer program that Second party offers and the manual are called, "This software".
(2) One of the two meanings of "device" is to use the computer program on the device provided by the second party.
(3) use two meanings. One is to use the computer program on the device provided by the second party in a readable way and the other one means to use the manual, provided by the second party.

Article 2 (Permission of the use right)
Second party permits First party the right for First party to use this software inexclusively. However, First party is assumed to be the one to pay the value to the permission of the use of this software.

Article 3 (Content of use right)
First party can use the computer program of this software only in device.
(1) Only the first party and people who undertake first party's business are allowed to use this software together with the device. However, the first party should be registered as the user on the web or other media of the second party. Employees of the first party and related third party are obligated to follow this contract.
(2) First party can not be allowed to reproduce this software unless it is for the purpose of use which is used above in the first clause.
(3) However, First party can reproduce one copy of the software of the computer program for back up. First party cannot reverse assemble or decompile this software.

Agree **Disagree**

Registered users: Click here to login

Email Address:

Password:

Login

Announcement
29th Nov, 2012
Semiconductor Support System is scheduled to undergo maintenance on, from about 1300 until approximately 1600 Japan time in Dec 4, 2012.
Semiconductor Support System is scheduled to undergo maintenance on, from about 1300 until approximately 1600 Japan time in Dec 4, 2012.
During this time, not available to support semiconductor systems for server equipment maintenance. We apologize for the inconvenience but, thank you for your understanding and cooperation.
13th Jun, 2008
• Operation guide of catalogue request

Notes about use
Registration and login are needed to technical question.
• Click here to become a registered user
We cannot accept inquiries via email.
Please confirm Email Address and Password when you cannot log it in.
When the password has been forgotten, please reissue of a password.
• If you have lost your password, click here
Please validate a JavaScript.
Please set to transmit referer by the security software in use.
You need to have Internet Explorer 8 or higher, Firefox 7 or higher, Chrome 15 or higher browser.

Click **Login** button after entering your email address and password.

Related Menu
• New Q&A
• Management of Custom Question Key
• Share Q&A
• Back to Previous page

Q&A
Q&A List
There is no information about the Q&A.

Click **New Q&A**.

New Q&A
Please select Inquiry for WebSIM / Sample

Inquiry for operation procedure
 Inquiry for Sample

Click **Inquiry for Sample**.

New Q&A
Inquired Object
Inquiry about sample Inquiry for Sample

Please inquire about the question for one item.

Q&A Information
Title: Inquiry for Sample
Main Text: My name is ****, I am working for **** Co.
I would like to order samples of your products as follows:
DC-DC regulator: NH30198
Quantity: 5
Your help would be appreciated.

Attachment:

Executable files cannot be uploaded.
Attachable data size is up to 2MB for each file.

Confirm

Enter the title and the main text like the example.
(Do not forget to write Part No. and quantity.)

Click **Confirm** button.

Semiconductors > Semiconductor Support > WEBSITE > Q&A > Confirmation of Q&A Content

Related Menu
• Back to New Q&A
• Back to Previous page

Shortcut

Memo
• Addition of memo

Confirmation of Q&A Content

Please click the "Transmit" button after confirming that there is no error in the following Q&A content you entered.

Inquired Object

Inquiry about sample Inquiry for Sample

Q&A Content

Title	Inquiry for Sample
Main Text	My name is ****. I am working for **** Co. I would like to order samples of your products as follows: DC-DC regulator: IM30195 Quantity: 5 Your help would be appreciated.

Please note that an item is automatically set to "Closed" if it would not been set to "Solved" for 1 week after answering from a support operator.

Click **Transmit** button after confirming contents you enter.

If you want to edit, click **Edit** button to return to previous window.

Our sales representatives will respond to your request.



Record of changes

The following shows the changes in the publication of Power Device Simulator User's Manual.

Revised on January 25, 2013

Definition	Previous Edition (1st Edition)			New Edition (2nd Edition)		
	Page	Section	Details of Changes	Page	Section	Details of Changes
Change	8	5	② Enter Operational Parameters (Vin, Vout, Iout, SW Frequency, Mode).	8	5	② Enter Operational Parameters (Vin, Vout, Iout(*), SW Frequency, Mode). * Input the maximum value to Iout. In the operating analysis simulation, the load current is assumed as 50% to 75% (RMS) of Iout. (For more information, see Section 5.3.1, "Constant Value Change.")
Addition	8	Capture	—	8	Capture	Comments of [LOAD] in circuit diagram, and Constant Value Change window. (⑤, ⑤´)
Change	8	18	④ Constant values of components can be changed with pop-up window (⑤´) displayed by clicking each component figure.	8	23	④ Constant values of components can be changed with pop-up window (④´) displayed by clicking each component figure.
Addition	8	—	—	8	26	⑤ The Start Current and Final Current of [LOAD] refer to the load current (ILOAD) in each operating analysis. 【Initial setting values of ILOAD】 Start Current: Iout x 50% Final Current: Iout x 75% To change parameters, click [LOAD] on the circuit diagram. (⑤´)



Inquiries

If you have questions regarding operating methods for **Power Device Simulator** described in this manual, please visit the following URL.

URL: <https://www.semicon.panasonic.co.jp/semi-spt/general/?lang=en>

To new customers:

Please register your account prior to login. After login, click "WebSIM" in **Semiconductor Support System** site, click "Inquiry", click "New Q&A" of "Related Menu", and click "Inquiry for operation procedure".

Pub. No. PP1201-020E

Power Device Simulator User's Manual

January 2013 2.0 Edition

Issued by
Panasonic Corporation

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