

Release of the SA-Designer V1.03.00 Analog Front-End Circuit Design Tool for Smart Analog Products

Version 1.03.00 of the SA-Designer design tool for analog front-end circuits incorporating Smart Analog products has been released. This product is provided free of cost.

1. Outline

The Smart Analog is a group of products which provide software control over circuit configurations and characteristics with the aim of supporting several kinds of sensors and drivers.

There are two product categories, Smart Analog ICs, which do not include a microcontroller, and Smart Analog MCUs, which include a microcontroller and analog circuits in a single unit.

Refer to the following URL for details of the Smart Analog.

http://www.renesas.com/smart_analog/

The SA-Designer tool lets you design actual analog front-end circuits employing Smart Analog products and then generates the control data for the circuit as C source code.

Webpage of SA-Designer:

http://www.renesas.com/sa_designer

2. Features

- Simple circuit design with a GUI base

Preparing the hardware of analog front-end circuits by purchasing and changing the components to fit sensor behavior has conventionally been time-consuming. However, SA-Designer simplifies the process by allowing you to proceed with the design of analog front-end circuits through mouse operations alone, leading into the checking of circuit operation.

- Use data created by the Online Simulator "Renesas VA"

SA-Designer can import data from the "Renesas VA" simulator on the

web, which can be used for sensor selection as well.

- Interlinked operation with the CS+, e2studio, and IAR Embedded Workbench integrated development environments (IDEs)
Each IDE can be started from SA-Designer after you have generated the source code.
- Embedded tutorial

The software expedites efficient system design by covering everything from sensor selection and circuit design to program development.

Refer to the following web pages for Renesas VA, CS+, e2 studio, and the IAR Embedded Workbench.

Renesas VA:

http://www.renesas.com/renesas_va

CS+:

<https://www.renesas.com/cs+>

e2 studio:

<https://www.renesas.com/e2studio>

IAR Embedded Workbench:

<http://www.iar.com/About/Partner-pages/Renesas-Electronics/>

3. Target Devices

(1) Smart Analog IC 100 series

- RAA730101 (Smart Analog IC101) with 16-bit delta-sigma A/D converter + Built-in PGIA

(2) Smart Analog IC 300 series

- RAA730300 (Smart Analog IC300) with configurable amplifier and low-voltage operation
- RAA730301 (Smart Analog IC301) with instrumentation amplifier and low-voltage operation

(3) Smart Analog IC 500 series

- RAA730500 (Smart Analog IC500) with configurable amplifier
- RAA730501 (Smart Analog IC501) with instrumentation amplifier
- RAA730502 (Smart Analog IC502) with high-speed instrumentation amplifier for motor control

(4) Smart Analog MCUs (RL78/G1E)

- R5F10FMx (Smart Analog MCU RL78/G1E) with configurable amplifier (80-pin)
- R5F10FLx (Smart Analog MCU RL78/G1E) with configurable amplifier (64-pin)

4. Operating Environment

IBM PC/AT compatibles:

32-bit or 64-bit Windows 8.1, 32-bit or 64-bit Windows 8, 32-bit or 64-bit Windows 7, 32-bit or 64-bit Windows Vista

Processor:

1 GHz or higher (must support hyper-threading and have a multi-core CPU)

Memory capacity:

1 GB or more

Other software environments required in addition to the Windows OS:

.NET Framework 3.5 SP1

5. Obtaining the software

Click on the tab "Downloads" on the following webpage.

You can download the software for free.

http://www.renesas.com/sa_designer

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