Budget-Friendly Entry Model That Supports Product Development

E2 emulator Lite

RTE0T0002LKCE00000R

https://www.renesas.com/e2lite

Overview

The E2 emulator Lite is an on-chip debugging emulator and flash programmer for MCUs of the RX, RA, RL78 Families and RISC-V MCU.
This model provides standard debugging functions at low cost, and is suitable for a wide range of situations, such as education, initial evaluation, and full-scale product development.

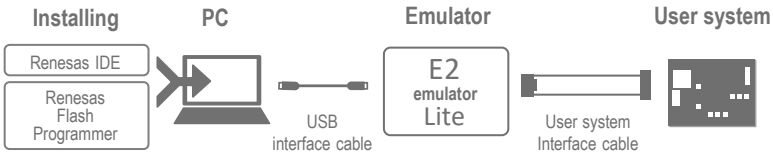


Package components

- E2 emulator Lite main unit
- USB interface cable
- User system interface cable



System configuration



Highly Usable Debugging Functions

Available debugging functions sufficient for actual development at low cost.

Note: Available functions vary depending on the MCU. Please refer to "On-chip Debuggers Performance Property" (search keyword: R20UT0616).

- ✔ Software break
- ✔ Hardware break
  - Detecting an execution address
  - Detecting a data access
- ✔ Tracing
- ✔ Time measurement
- ✔ Reference to and changing memory contents while a program runs

From Designing, Debugging, to Programming: Ready-to-Use Full-Fledged Development Environment

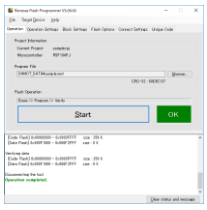
Debugging

Use the E2 emulator Lite with Renesas integrated development environment e² studio or CS+ to perform debugging.
e² studio and CS+ are available for download and immediate use free of charge.

e² studio www.renesas.com/e2studio
CS+ www.renesas.com/cs+

Programming

Use the E2 emulator Lite with the Renesas Flash Programmer to program.



Renesas Flash Programmer
www.renesas.com/rfp

Downloaded from Arrow.com.

Target Devices

✔RA Family ✔RL78 Family ✔RX Family ✔RISC-V MCU

Since the supported devices differ with the software you are using, confirm the [Release Information] on the Web page of the E2 emulator Lite.
www.renesas.com/e2lite

Product Specifications

Item	Description
Method of connection Break function Tracing Reference to and changing memory contents while a program runs Performance measurement Hot-plug-in	Since the method of connection and the functions may differ with the device you are using, refer to Onchip Debuggers Performance Property Search keyword : R20UT0616
On-board programming	Supported
User interfaces	14pin 2.54mm pitch connector (7614-6002: from 3M Japan, 2514-6002: from 3M Limited) 20pin 1.27mm pitch connector (FTSH-110-01-L-DV-K: from Samtec) 10pin 1.27mm pitch connector (FTSH-105-01-L-DV-K: from Samtec, FTSH-105-01-L-DV: from Samtec without a marking for matching the position of the connector; keying shroud)
PC interface	USB 2.0, full speed
Connection to the system	Connection to the system is via the user system interface cable which comes with the product (signals for connection vary with the type of the target MCU). *To connect the E2 emulator Lite to an RA Family MCU, purchase and use the 20-20-pin cable [RTE0T00020KCAC0000J] or the 20-10-pin cable [RTE0T00020KCAC1000J].
Operating voltage range	1.8V to 5.5V (depends on the target MCU)
Power supply from Emulator	Supply current: Up to 200mA, Supply voltage: 3.3V only
External dimensions (except for the protruding parts)	96.2 mm×52.7 mm×17.2 mm
Compliance with overseas standards	European Standards: EN 55022 Class A, EN 55024 US FCC Standard: FCC part 15 Class A

The supported facilities differ with the integrated development environment you are using.

Optional Products

The following optional products are provided to facilitate the use of the E2 emulator Lite in various ways.

Supported MCUs vary depending on the products.

Please refer to "Optional Products for E2, E2 emulator Lite, E1, E20, and E8a emulators" www.renesas.com/ocd-options.

Hot-plug Adapter	The hot-plug-in function enables connection of the emulator to the system without the need to turn off the system beforehand.
Conversion Adapter	Converts the number and pitch of the pins in the connector for the connection with the emulator.
Isolator	Enables debugging in environments where the grounds of the user system and the host PC are not the same.
Low-voltage OCD board	Enables debugging of an MCU with a power-supply voltage such that the onchip flash ROM cannot be reprogrammed.
Debugging MCU board	Enables the use of enhanced debugging functions.

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Contact information
For further information on a product technology, to most up-to-date version of a document, or your nearest office, please visit **www.renesas.com/contact/**

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