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## Renesas Starter Kit for R8C/23

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### Renesas Starter Kit for R8C/23

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- Technical Support

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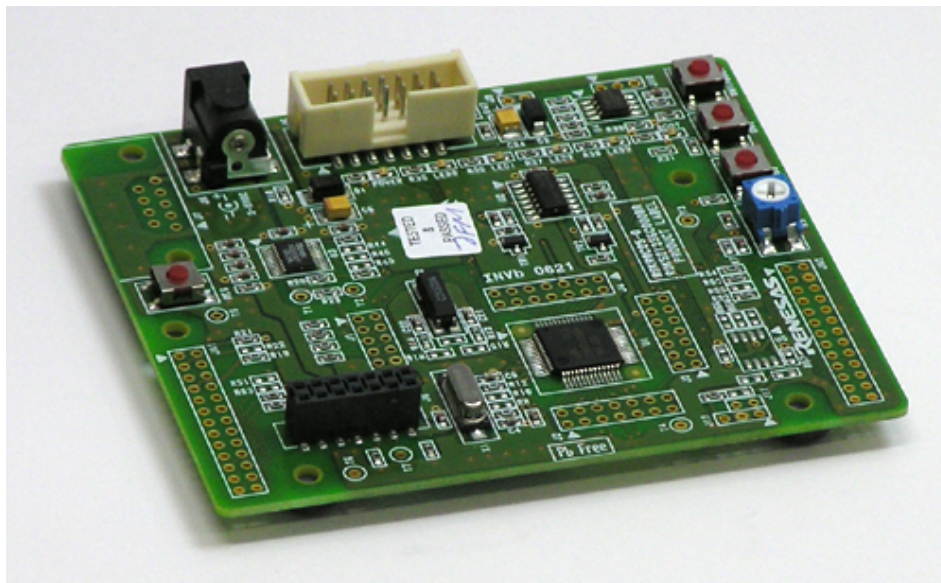
- Product Overview
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#### Documentation

#### Downloads

#### Purchasing Info



#### Tool DistiLink

Please contact your distributor for the orderable part number for this device.

**Renesas Starter Kit for R8C/23 (Limited Availability, Contact Supplier)**

#### Target Devices

Device Group: R8C/23  
 Device Part No. populated on the board: R5F21237JFP

For more information on the microcontroller please view the R8C/23 Device page. → [Link to "R8C/23 Device page"](#)

#### Product Overview

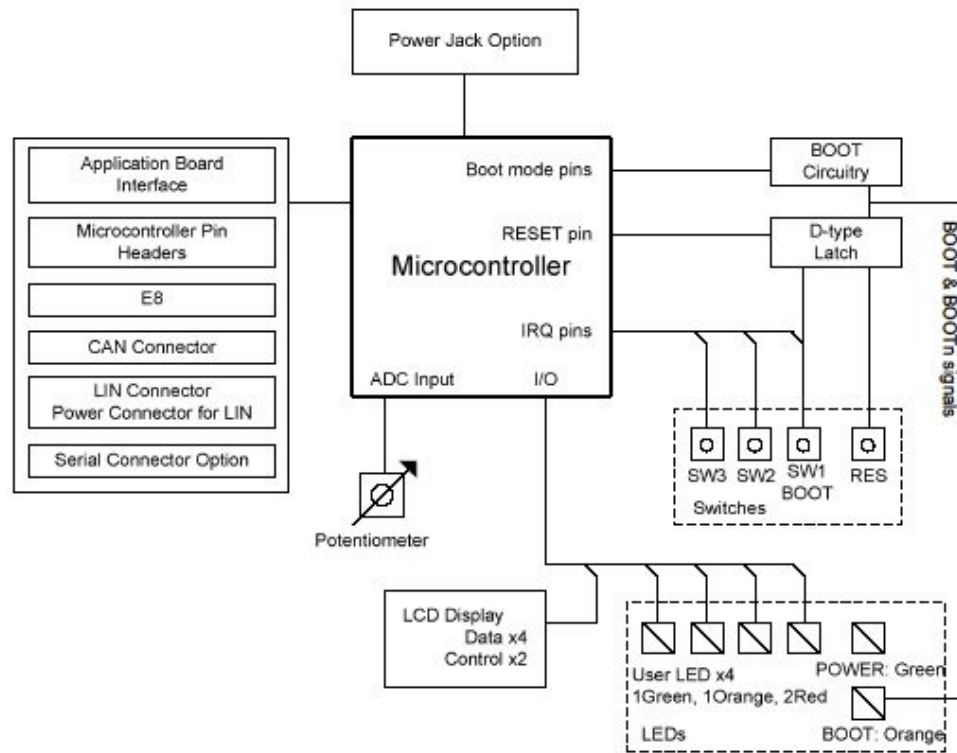
The Renesas Starter Kit for R8C/23 is intended as a user-friendly introductory and evaluation tool for the R8C/23 microcontroller. The board also provides a useful platform for evaluating the Renesas suite of development tools for coding and debugging, using High-performance Embedded Workshop as well as programming the device using E8 emulator and/or Flash Development Toolkit.

The Renesas Starter Kit for R8C/23 may be connected to the host PC using a simple RS232 serial connection (not normally fitted) or via the included USB E8 on chip debugging interface.

The purpose of the board is to enable the user to evaluate the capabilities of the device and its peripherals by giving the user a simple platform on which code can be run only minutes from opening box. It can also prove an invaluable tool in development by providing a useful test platform for code already debugged using one of our more powerful emulation tools.

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## Functional Representation



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## Kit Contents

- CPU Board
- Detachable LCD Display Module
- Detachable AD Adjustment Shaft
- E8 Emulator
- Connection Cable (USB Cable, User Interface Cable)
- Quick Start Guide
- CD-ROM
  - Documents : User Manual, Tutorial, and more
  - IDE : High-performance Embedded Workshop
  - C Compiler : M3T-NC30WA Evaluation Version
  - Debugger : E8 Emulator Debugger
  - Flash Memory Programmer : Flash Development Toolkit Evaluation Version

## Notes

- The M3T-NC30WA Evaluation Version does not come with technical support services. In addition, The M3T-NC30WA Evaluation Version has some restrictions compared to the M3T-NC30WA Professional Version.

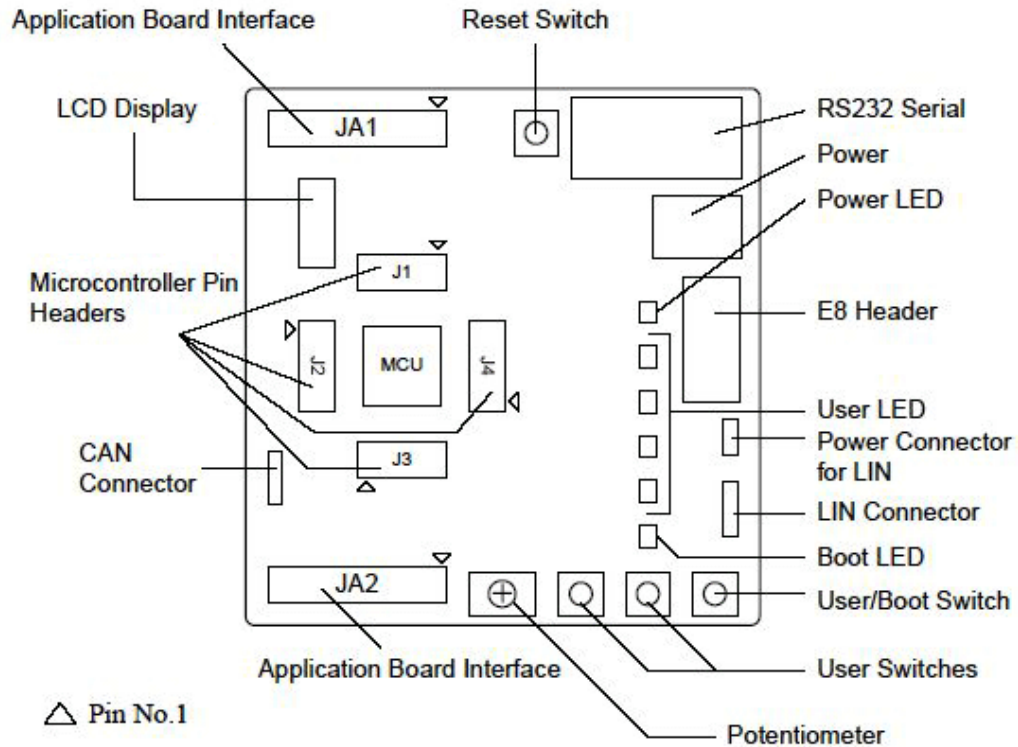
**Trial period: 60 days**

The link size will be limited to 64KB after 60 days.

- The Flash Development Toolkit Evaluation Version does not come with technical support services.

**Board Layout**

Users should note that the RS232 serial port connector is not populated by default. The LCD display module is supplied as a detachable sub-board. The board dimensions are 85mm by 100mm, detailed dimensions are available in the user manual.



**Board Specification**

Item	Specification
Microcontroller	R5F21237JFP
Input Clock	20MHz
Potentiometer	Single-turn, 10kΩ
LED	Power indicator: green x 1 Boot indicator: orange x 1 User: green x 1, orange x 1, red x 2
Switch	Reset x 1 User/Boot x 1 User x 2
DC Power Jack	3V to 5V Input
E8 Header	14-pin box header
RS232 Serial Connector	9-pin DSUB
LCD Display Connector	14-pin Socket

LIN Connector	2.54mm pitch, 3-pin (VBAT x 1, LIN Bus Line x 1, Ground x 1)
CAN Connector	2.54mm pitch, 3-pin (CANN Bus Line x 2, Ground x 1)
Microcontroller Pin Header	2.54mm pitch, 14-pin x 4
Application Board Interface	2.54mm pitch, 26-pin x 2

\* RS232 Serial Connector, LIN Connector, Power Connector (for LIN), CAN Connector, Microcontroller Pin Header and Application Board Interface are not contained in the product.

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## Ordering Information

This product is limited availability. Please contact supplier ([the normal sales channels](#)).

Product Name	Supported Device Group	Part Number (Ordering Number)	Availability
Renesas Starter Kit for R8C/23	R8C/23	R0K521237S000BE	Limited Availability, Contact Supplier

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## PC System Requirements

- IBM PC/AT or compatible PC (USB interface necessary) \*1
- Intel Pentium • 600MHz or higher \*3
- Memory 128MB or higher
- Microsoft Windows 98SE/ Windows ME / Windows 2000/ Windows XP \*2

\*1: IBM and PC/AT are registered trademarks of International Business Machines Corporation of the U.S.

\*2: MS, MS-DOS and Windows are registered trademarks of Microsoft Corporation of the U.S.

\*3: Pentium is a trademark of Intel Corporation of the U.S.

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## Technical Support

If you encounter problems concerning the bundled debugger (E8), please contact <http://www.renesas.com/inquiry> or [csc@renesas.com](mailto:csc@renesas.com).

When contacting us, please have the following information ready:  
your name, company name, department name, fax number, MCU part number (ex. MCU: R5F21237JFP), tool part number, version of debugger and a brief description of the problem.

**C Compiler M3T-NC30WA Evaluation Version and Flash Development Toolkit Evaluation Version do not come with technical support services.**