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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

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V850 series

Tool Letter

Description

The EB-V850ES/KJ1+-EE is a starter kit for NEC's K_Line V850ES microcontroller series. It supports onboard flash programming and real time execution of application programs. The board is prepared to be connected to user hardware parts such as digital I/O or analogue signals.

Starter Kit EB-V850ES/KJ1+-EE



CPU

- 32-bit V850ES/KJ1+ RISC CPU
μPD70F3318GJ-UEN
- 20 MHz operating frequency
- 256 Kbytes internal single voltage flash
- 16 Kbytes internal RAM
- On-chip debug interface (N-Wire)

USB interface

Powered via USB interface, no separate power supply is needed.

N-Wire interface

This board incorporates a N-Wire interface and can be connected to one of the on-chip debug emulators QB-V850MINI-EE or IE-V850E1-CD-NW. Both on-chip debug emulators are not included in this starter kit.

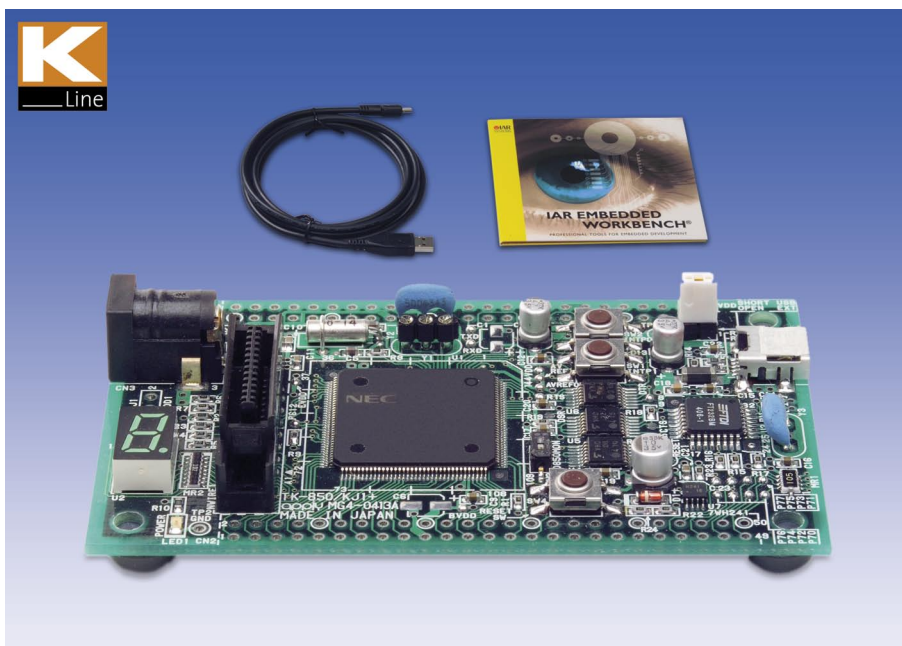
PG-FPL, flash programming software

A Windows-based flash programming software allows to select and download application programs to the EB-V850ES/KJ1+-EE board for evaluation purposes.

I/O

- Analogue to digital signal conversion is supported
- All I/O ports prepared to be connected to user hardware
- UART interface, via USB UART chip FT232
- 7 segment LED
- 2 push buttons prepared for external interrupt generation

V850ES/KJ1+ Target Board



EB-V850ES/KJ1+-EE

Starter Kit

Starter Kit EB-V850ES/KJ1+-EE

Software

The IAR Systems Embedded Workbench for V850 is included. This package is limited to a maximum program code size of 16 Kbytes.

Demo projects

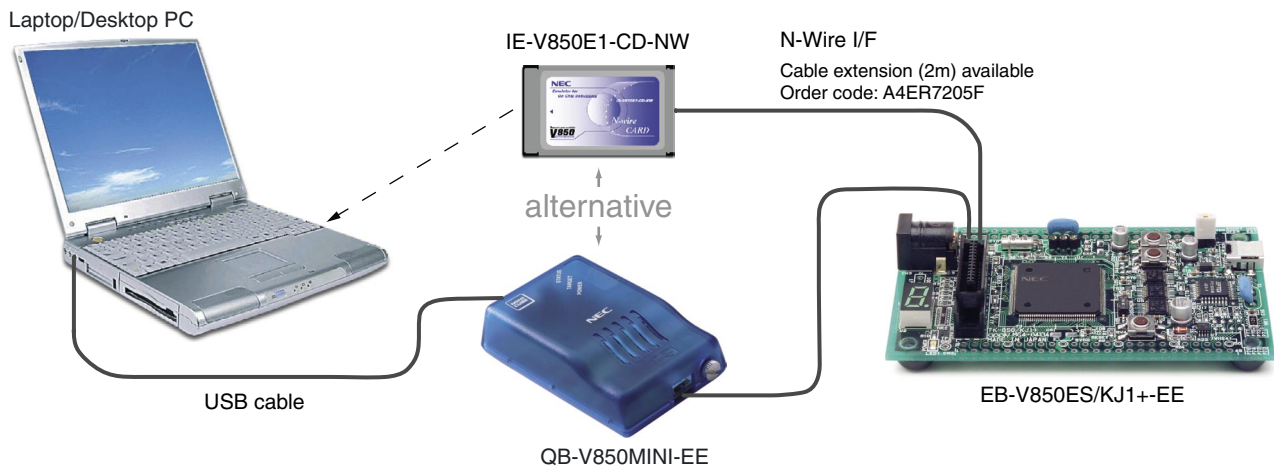
- IAR workbench
- GHS MULTI® 2000

Documentation

Full documentation is included:

- EB-V850ES/KJ1+-EE board
- V850ES/KJ1+ device
- IAR Systems Embedded Workbench
- PG-FPL flash programming software

Tool Configuration Example



Ordering Information

Order Number	Description
EB-V850ES/KJ1+-EE	Starter kit based on V850ES/KJ1+
IE-V850E1-CD-NW	On-chip debug emulator (PCMCIA interface)
QB-V850MINI-EE	On-chip debug emulator (USB interface)
A4ER7205F	Cable extension (2 m) for IE-V850E1-CD-NW

For further information on NEC's V850 family or other NEC products visit our European website at www.ee.nec.de/v850

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