

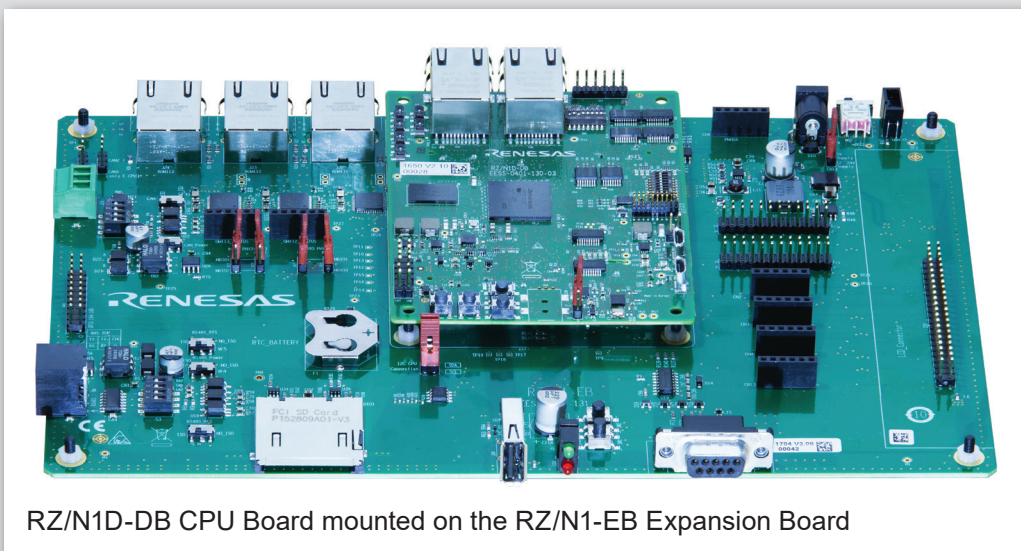
# RZ/N1D Solution Kit

All-in-the-box package for fast evaluation and rapid prototyping



The RZ/N1D solution kit is an all-in-the-box package for fast evaluation and rapid prototyping of multiple industrial Ethernet protocols. Due to the unique combination of hardware and software, developers can focus only on developing the application software.

Numerous industrial Ethernet protocols have been developed within a unified communication abstraction layer. Transparent for the application software, this abstraction layer has a documented API allowing the application software to be developed without having to worry about the details of industrial Ethernet protocols. Even more, these protocols can be easily exchanged, with minimal impact on the application software.



RZ/N1D-DB CPU Board mounted on the RZ/N1-EB Expansion Board

## Product Features

The “CONNECT IT! ETHERNET RZ/N1D” solution kit is based on the RZ/N1D, a 5-port, industrial Ethernet communication SoC with an optimal balance between performance and power consumption. The chip features two independent blocks integrated in a single package – a communication block based on the proven multi-protocol R-IN Engine, as well as an application block with a dual ARM® Cortex®-A7 and a variety of peripherals.

The solution kit contains an evaluation board with two Fast Ethernet (MII/RMII) interfaces, NOR flash and DDR3 memory, a USB Device/Host interface and one USB debug/power port. Aside the board, the package contains an USB-driven IAR I-jet Lite including a 20-pin flat ribbon cable. There is a large software bundle with stacks, demo applications and drivers on the RZ/N1 Solution Kit DVD. The document set helps you get the most of the kit, starting with the quick starting guides through setup procedures and user manuals.

The optional expansion board, “CONNECT IT! RZ/N1 Expansion” gives access to the full set of RZ/N1 interfaces. The expansion board has no stand-alone capability and requires one RZ/N1D CPU board. For more information please check the RZ/N1D product page: [www.renesas.com/en-eu/RZ\\_N1D](http://www.renesas.com/en-eu/RZ_N1D)

## Content of the Solution Kit CONNECT IT! ETHERNET RZ/N1D

- RZ/N1D-DB development board
- I-jet Lite debugger
- Comprehensive software and document package on DVD with:
  - » BSP with all interface drivers and many sample application projects
  - » Linux for Cortex®A7 applications and ultron RTOS with HW-RTOS for Cortex®M3 for industrial communication
  - » Evaluation versions of major industrial Ethernet stacks from our partners
  - » TCP/IP stack
  - » RZ/N1D Device and board documentation with tutorial video

## RZ/N1D-DB CPU Board Features

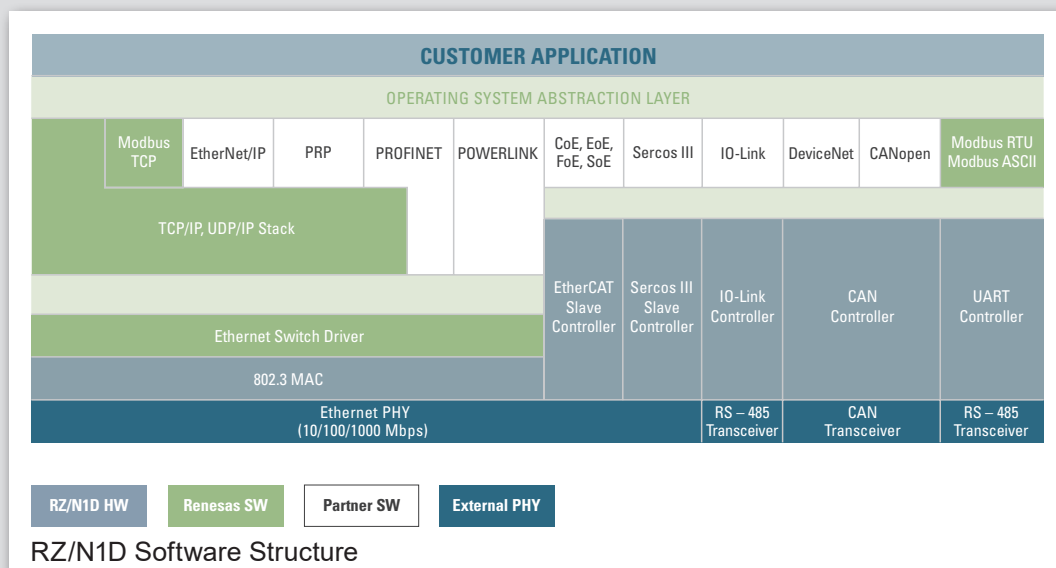
- RZ/N1Dx device
- Fast Ethernet (MII/RMII) (2 x)
- NOR flash, DDR3
- USB Device/Host
- Serial USB debug/power port
- User LEDs, User switches, GPIOs, ...

## Content of the Solution Kit CONNECT IT! RZ/N1 Expansion

- RZ/N1-EB expansion board
- Power supply for RZ/N1-EB and RZ/N1x-DB

## RZ/N1-EB Expansion Board Features

- Gbit Ethernet (RGMII/MII) (3 x)
- SDIO interface
- PMODS (4 x)
- Parallel Interface
- LCD display interface,
- CAN, RS485, RS232



Before purchasing or using any Renesas Electronics products listed herein, please refer to the latest product manual and/or data sheet in advance.

