

ConDuLan

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[H8CPU board with LAN controller for embedded systems]

[Oriental R and D]

ConDuLan is a CPU board including an H8-3069/25MHz microprocessor and an RTL8019AS LAN controller. It has been developed especially for building an embedded Web server system. The board provides 40 IO signals* for external connections so that remote monitoring and controlling are enabled with typical Web servers such as IE, Mozilla or FireFox. Customers may develop and add peripheral boards to ConDuLan for building their own products.

Since ConDuLan includes the pre-installed firmware for networking, it provides services just after the power and LAN are connected to the ConDuLan.

The customer may design the ConDuLan's Web pages as they like. ConDuLan has access restriction capability by password authentication and IP address blocking to avoid invalid invasion.

The pre-installed firmware includes a script language "iomacro" for the customers to build their own system easily.

Since the programmes written in "iomacro" can run as CGIs and SSIs, which collaborate with the Web pages in the ConDuLan, the customer is able to build their own Web server system. The language "iomacro" may call the library in the ConDuLan firmware as well as access the CPU peripherals directly. Hence the customer is able to build not only the embedded Web server but also the real-time multi-task system collaborating with the Web server.

The web pages and the codes for "iomacro" are installed via LAN with typical Web browsers. No special installation tools are needed. The firmware and RTOS are installed via LAN as well for easy-updating.

The ConDuLan's ability is not just using the 40 digital IOs. The programme "iomacro" controls the peripherals in H8-3069 for utilizing the built-in counters, timers, ADs and DAs. ConDuLan includes driver firmware for controlling the devices the customer adds. Such drivers are for an LCD character display, alarms, I²C devices and an I²C ROM.

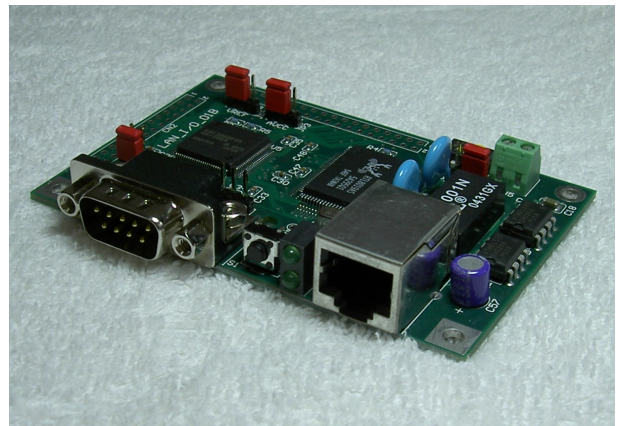
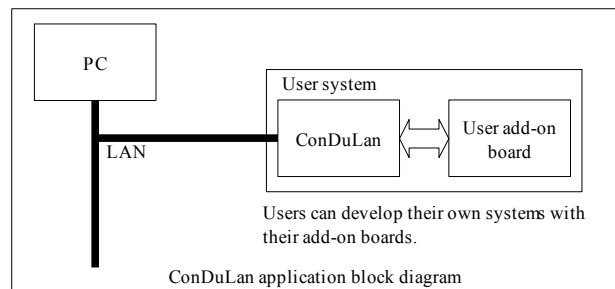
"iomacro" programmes run in the multi-task environment and they provide not only Web services but also a lot of other services such as e-mail transmission, data logging, "iomacro" function execution via TCP, LAN-serial conversion with telnet procedure and so on. The LAN-serial conversion uses the 9-pin dsub serial port at the front of the board.

*20 are inputs and 20 are programmable inputs or outputs.

ConDuLan specification

CPU	H8-3069 25MHz
Memory	DRAM 2MB, I ² CROM 32KBx2
LAN	RJ45 10BaseT Realtek RTL8019A
Protocol	ARP,IP,ICMP,UDP,TCP,HTTP,SMTP,TELNET
LED	LAN(LNK, Rx/Tx)
SW	Install/Normal selection
Serial	2 ports for debugging(3pins 9600) and for iomacro or LAN-serial (Dsub9Male 1200-57600BPS no flow control)
VREF	Reference voltage 4.1V
IO	Input 20, Input/output 20, CPU clock-out, Reset*, Analog power*, Vref*
Power	5V DC
Dimensions	20 (H) x 90 (W) x 60 (D) not including projections
Weight	50g

*Internal/External selected by jumpers



Oriental R and D Co., Ltd
2-11-29-601 Shimoturuma, Yamatoshi,
Kanagawa 242-0001 Japan
FAX +81-46-261-3292
E-mail togasaki@ord.co.jp
<http://www.ord.co.jp>

