for a greener tomorrow

MITSUBISHI ELECTRIC
Changes for the Better

FACTORY AUTOMATION

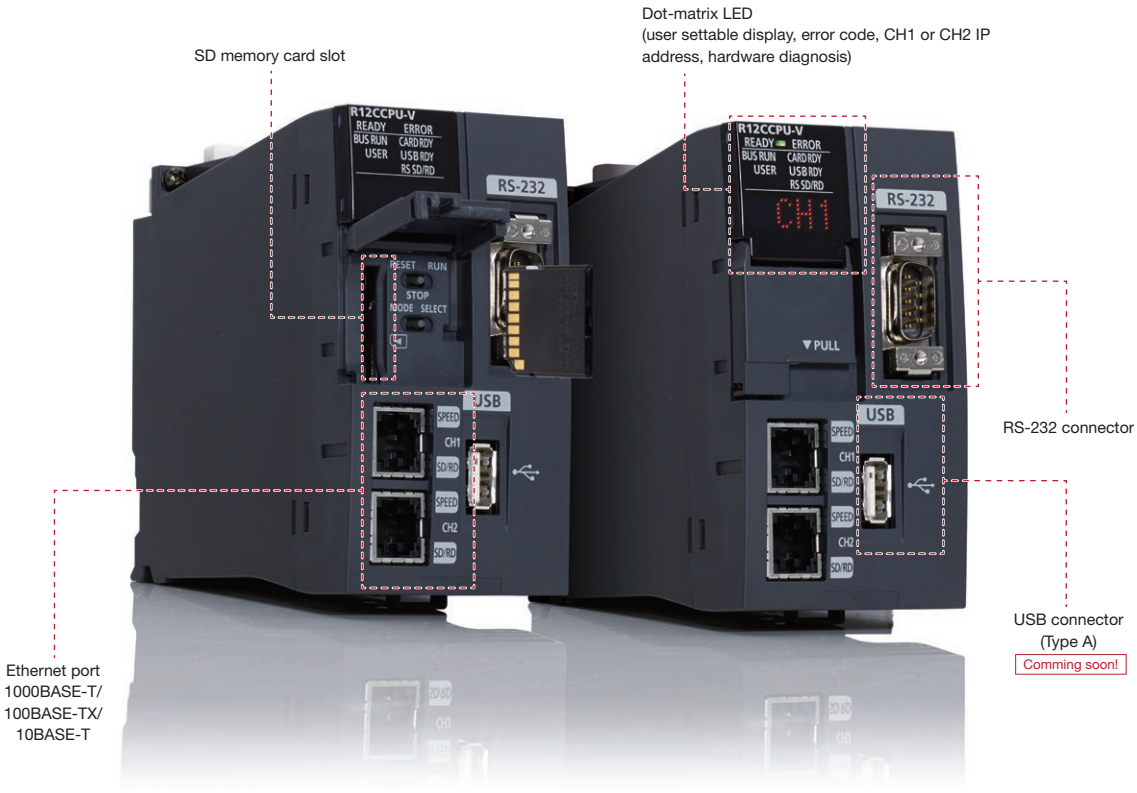
MELSEC iQ-R Series
C Controller

New product release No. 348E

MELSEC iQ-R series

MELSEC iQ-R Series C Controller module
R12CCPU-V NEW

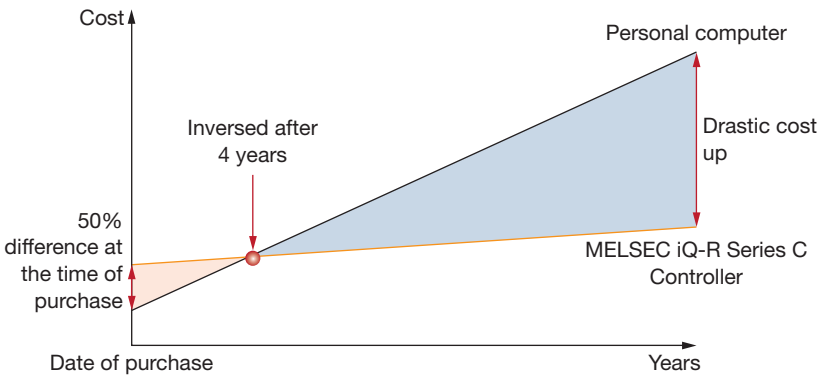
The C Controller module is part of the application-specific range in the MELSEC iQ-R Series. The multi-core ARM®-based controller pre-installed with VxWorks® Version 6.9, realizes the simultaneous execution of programs, thereby providing a robust and deterministic alternative to computer based systems. Utilizing a fan-less hardware design, the C Controller is ideal for clean fab-based applications where dust circulation can be detrimental to the production environment. The C Controller utilizes the high-performance, flexible, and robust features of the MELSEC iQ-R Series to provide an industrial-grade automation control system.



Reducing the TCO in a long run

When personal/micro computers are part of a system, the maintenance cost multiplies as the system gets older. The highly-reliable MELSEC iQ-R Series C Controller incurs minimal maintenance overhead with its stably-supplied components, reducing TCO in a long run.

■ Maintenance cost over time



MELSEC iQ-R Series lineup now includes C Controller R12CCPU-V!

Deterministic operation

The multi-core ARM®-based C Controller pre-installed with VxWorks® Version 6.9 realizes the simultaneous execution of programs, providing deterministic operations.

Newly-developed system bus for shorter operating cycle

Having the MELSEC iQ-R Series system bus, which is faster than VME and PCI, the MELSEC iQ-R C Controller realizes a shorter operating cycle compared to the existing models, while providing highly-reliable environment.

Advanced control through simple motion coordination

Simple motion modules are easy to setup similar to positional modules and offer high-precision motion controller performance.

Speedy responses in event-driven applications

MELSEC iQ-R C Controller supports event-driven programs, just like its counterpart personal/micro computers do. C Controller directly receives an interrupt command from an intelligent function module on the same base, minimizing polling process and accelerating the response speed, while reducing the load on CPU.

Fan-less, disk-less, battery-less

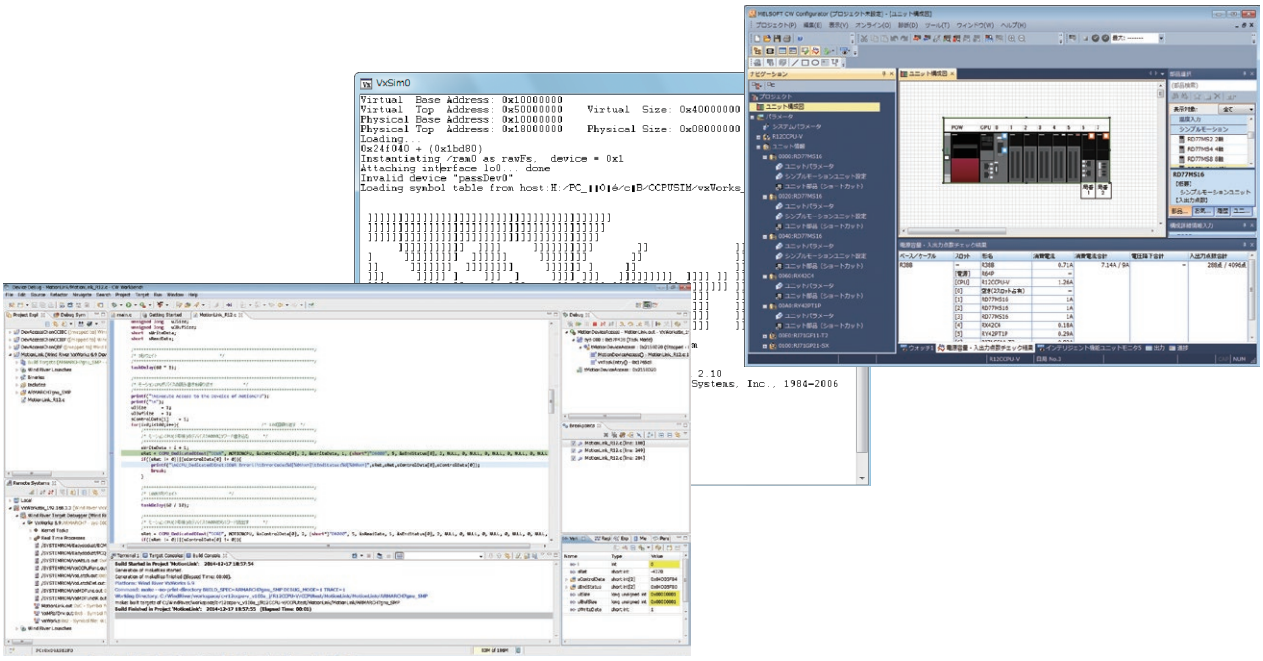
Having no HDD or cooling fans for power supply and CPU, the hardware maintenance of the MELSEC Series cannot be any simpler. Carrying no battery, the C Controller can be serviced easily.

Synchronous control for uniform outputs

The MELSEC iQ-R Series C Controller is equipped with synchronization feature that tune in with other on-base modules as well as with remote I/O modules on the network, realizing deterministic control with least variations.

Environment ready for system configurations of many types

Setup of the MELSEC iQ-R Series C Controller couldn't be simpler as the CPU is shipped with a pre-installed real-time OS with various drivers embedded. This eliminates the need to setup and install a separate OS and develop drivers, which can substantially add to the cost of implementation. The C Controller allows C language programming by using CW Workbench programming software, easy configuration using MELSOFT CW Configurator, and VxWorks® emulation using CW-Sim.



For purchase and inquiries, please contact your local Mitsubishi Electric representative.

Performance specifications

Item		R12CCPU-V
Hardware	Endian format	Little endian
	MPU	ARM® Cortex-A9 Dual Core
	Working RAM	256 MB
	ROM	12 MB
	Backup RAM	4 MB
Software	OS	VxWorks® Version 6.9
	Programming language	C language (C/C++)
	Programming development environment	CW Workbench/Wind River Workbench3.3
	MELSEC iQ-R Series C Controller module setting/ monitoring tool	CW Configurator (SW1DND-RCCPU)
Communication interface	USB	Comming soon!
	Ethernet	2CH (1000BASE-T/100BASE-TX/10BASE-T)
	RS-232	1CH (9600...115200 bps)
	SD memory slot card	1 slot

Product list

Model	Outline
R12CCPU-V	Endian format, little endian; OS, VxWorks® Version 6.9
SW1DND-RCCPU-E	CW Configurator, setting and monitoring tool for MELSEC iQ-R Series C Controller
SW1DND-CWWR-E	Engineering tool for MELSEC iQ-R C Controller module
SW1DND-CWWR-EZ	Additional license for R12CCPU-V
SW1DND-CWWR-EVZ	Update license for R12CCPU-V
SW1DND-CWSIMR-EZ	VxWorks® simulation environment for CW Workbench, additional license
SW1DNC-CWSIMSAR-E	VxWorks® simulation environment for CW Workbench, standalone type
NZ1MEM-2GBSD	SD memory card, 2G bytes
NZ1MEM-4GBSD	SDHC memory card, 4G bytes
NZ1MEM-8GBSD	SDHC memory card, 8G bytes
NZ1MEM-16GBSD	SDHC memory card, 16G bytes

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⚠ For safe use

- To use the products given in this publication properly, always read the relevant manuals before use.

1503〈IP〉

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Specifications are subject to change without notice.