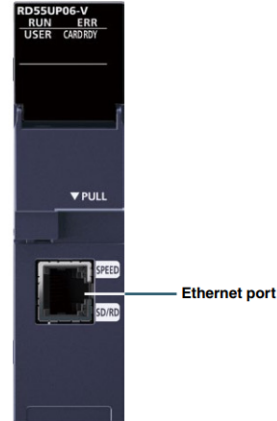


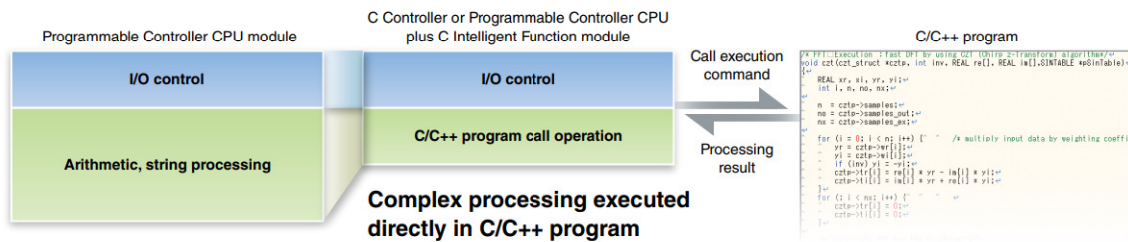
## C Intelligent Function Module RD55UP06-V C/C++ program execution

The C Intelligent function module is available with a multi-core Arm®-based controller pre-installed with VxWorks® Version 6.9, which realizes simultaneous execution of programs, thereby providing a robust and deterministic alternative to computer-based systems. Utilizing a fan-less hardware design, the C Intelligent function module is ideal for clean fab-based environments, where dust circulation can be detrimental to the production environment, and can be used for applications such as in-line production quality testing or as a gateway for various industry-specific communications protocols.



### Realize complex arithmetic equations in C/C++

The C Intelligent Function module enables the execution of C/C++ programs when paired with a standard MELSEC iQ-R Series Programmable Controller CPU, emulating the same features as a standalone C Controller. Representing complex arithmetic and string equations in C/C++ programs is much easier than implementing in ladder form, thereby reducing overall development time and program size. Additionally, Intellectual property is simplified as the result of separating it from the ladder program.



### Application development in simple steps

CW Workbench\*1 is used as the main programming software in C/C++ with a VxWorks® emulator, CW-Sim/CW-Sim standalone, which allows debugging without requiring any hardware.

\*1. For more information, please refer to page 47.

### C intelligent function module specifications

Item	RD55UP06-V
<b>Hardware</b>	
MPU	Arm® Cortex®-A9 Dual Core
Working RAM	128 MB
ROM	12 MB
<b>Software</b>	
OS	VxWorks® Version 6.9
Programming language	<b>C/C++</b>
Programming development environment	CW Workbench/Wind River® Workbench 3.3
Setting/monitoring tool	GX Works3 (SW1DND-GXW3-E)*2
<b>Communication interface</b>	
Ethernet (1000BASE-T/100BASE-TX/10BASE-T)	1 channel
SD memory card slot	●
<b>Function</b>	
Firmware update*3	●

\*2. Setting and monitoring of the module is integrated within the GX Works3 engineering software.

\*3. For more information, please refer to the relevant product manual.