



The image shows the front panel of the RD55UP06-V device. At the top, there are two status LEDs labeled 'RUN' and 'ERR'. Below them are two indicator lights labeled 'USER' and 'CARD RDY'. A horizontal line is visible below these indicators. Further down, there is a 'PULL' button with a downward-pointing triangle. Below the button is a small rectangular slot. At the bottom, there is an Ethernet port with a label 'SPEED' to its right and 'SD/RD' below it. A blue line points from the text 'Ethernet port' to the port.

Diagram illustrating the architecture of the C Controller or Programmable Controller CPU plus C Intelligent Function module.

The system consists of two main components:

- Programmable Controller CPU module** (Left):
 - I/O control
 - Arithmetic, string processing
- C Controller or Programmable Controller CPU plus C Intelligent Function module** (Right):
 - I/O control
 - C/C++ program call operation

The C/C++ program call operation is executed directly in the C/C++ program.

The flow of data is as follows:

- Call execution command**: Sent from the C/C++ program call operation to the C/C++ program.
- Processing result**: Sent from the C/C++ program back to the C/C++ program call operation.

The C/C++ program code shown is:

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <math.h>

#define N 1000000000
#define M 1000000000
#define P 1000000000

int main()
{
    REAL xr, yr, zr, yz;
    int i, n, m, p;

    n = cfp->samples_in;
    m = cfp->samples_out;
    p = cfp->xmem_out;

    for (i = 0; i < n; ++i) {
        yr = cfp->yr[i];
        yz = cfp->yz[i];
        if ((xr[i] + yr[i]) > 0) {
            cfp->xl[i] = xr[i] + yr[i];
            cfp->xl[i] = xr[i] + yr[i];
        }
        for (j = 0; j < m; ++j) {
            cfp->xl[j] = xr[i] + yr[i];
        }
    }
}

```

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

C/C++ : C/C++

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

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