RX72M for Industrial Applications
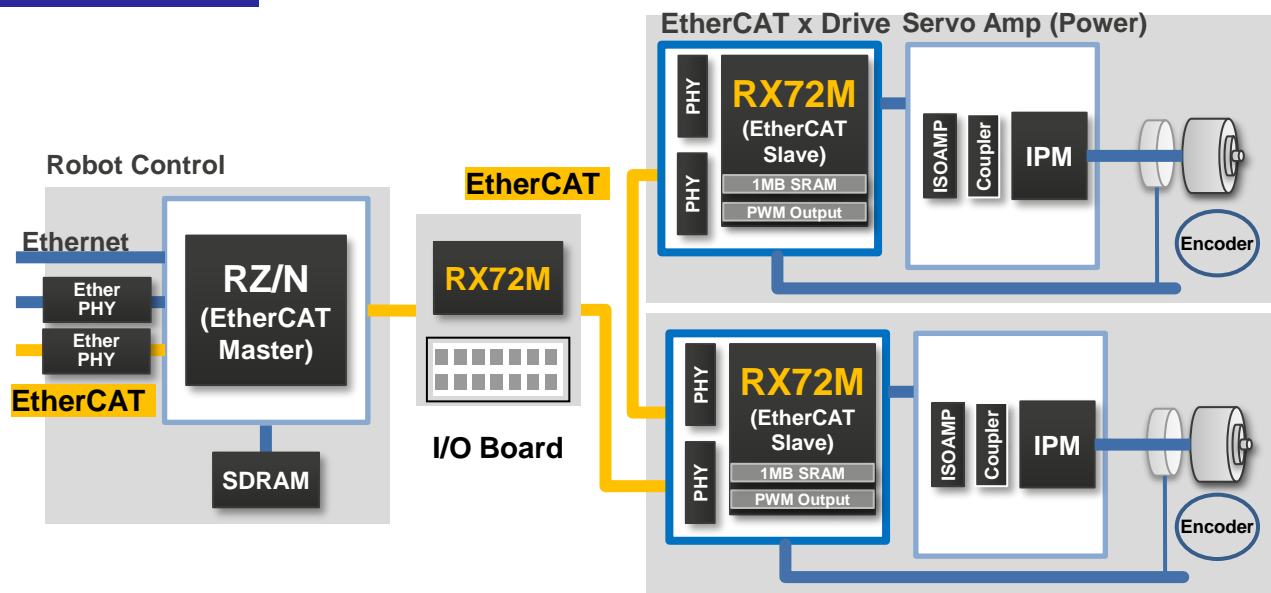# Single-Chip Motor Control via EtherCAT Communications

RENESAS RX

Overview

This solution is the RX72M with built-in EtherCAT® slave controller that provides a slave solution for high-speed communication and high synchronous control performance, also realizes EtherCAT® communication and motor control as a single chip.

In this Suitcase demo, RZ/N1D supports CODESYS Software PLC as EtherCAT® master and enabling visualization master-to-slave in factory as all-in-one package.

Key Features

- RX72M with build-in EtherCAT® slave controller is implemented encoder vector control software to realize motor control and EtherCAT® communication as a single chip.

- Control 2 brushless DC motors with encoder, and RX72M I/O board reproduces as motor control in factory line by switching 4 patterns of motor control.

- EtherCAT® complies with CiA402 drive profile, provides synchronous and high performance.

Block Diagram

Target Markets and Applications

- AC Servo
- AC Invertor
- Industrial Robot
- Motion Controller
- PLC
- CNC

EtherCAT® is a registered trademark and patented technology licensed from Beckhoff Automation GmbH(Germany)

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RX72M for Industrial Applications
Single-Chip Motor Control via EtherCAT Communications

RENESAS RX

Recommended Product · Solution

Category	Product/Solution	Overview
Micro Controller	RX72M	240MHz(RXv3 core), 4MB Flash, 1MB RAM
Master Board(PLC)	YCONNECT-IT-RZN1D	RZ/N1D Solution Kit (Available)*
I/O Board(Switch)	TS-RX72M-COM	RX72M Deployment Evaluation Kit (Tessera Technology)
Inverter Board	24V Motor Control Evaluation System for RX23T	24V Motor Control Evaluation System Using included 24V invertor board**

Web · Documents

Category	Web
Solution Web site	RX72M Network Solution | Renesas
Application Note	RX Group Single-Chip Motor Control via EtherCAT Communications Rev.1.10
Sample Code	RX Group Single-Chip Motor Control via EtherCAT Communications Rev.1.10 - Sample Code (Need to register My Renesas)
Video	Renesas RX72M Motor + EtherCAT® Single Chip Solution
Blog	RX72M Single-Chip Motor Control via EtherCAT Communications
	Multiple industrial ethernet communication and Industrial motor control All-in-one solution by RX72M

* Please contact a Renesas sales representative or distributor.
** This solution contains RX23T CPU card, brushless DC motor, and USB mini-B cable