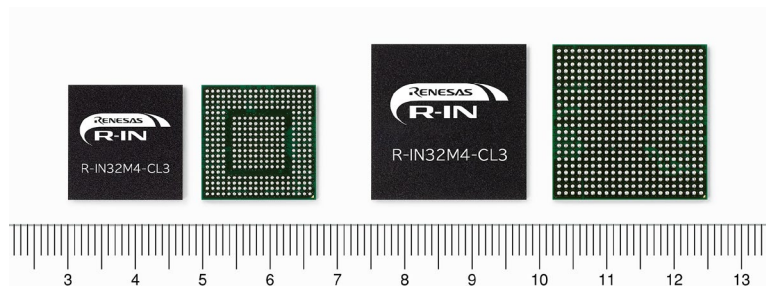


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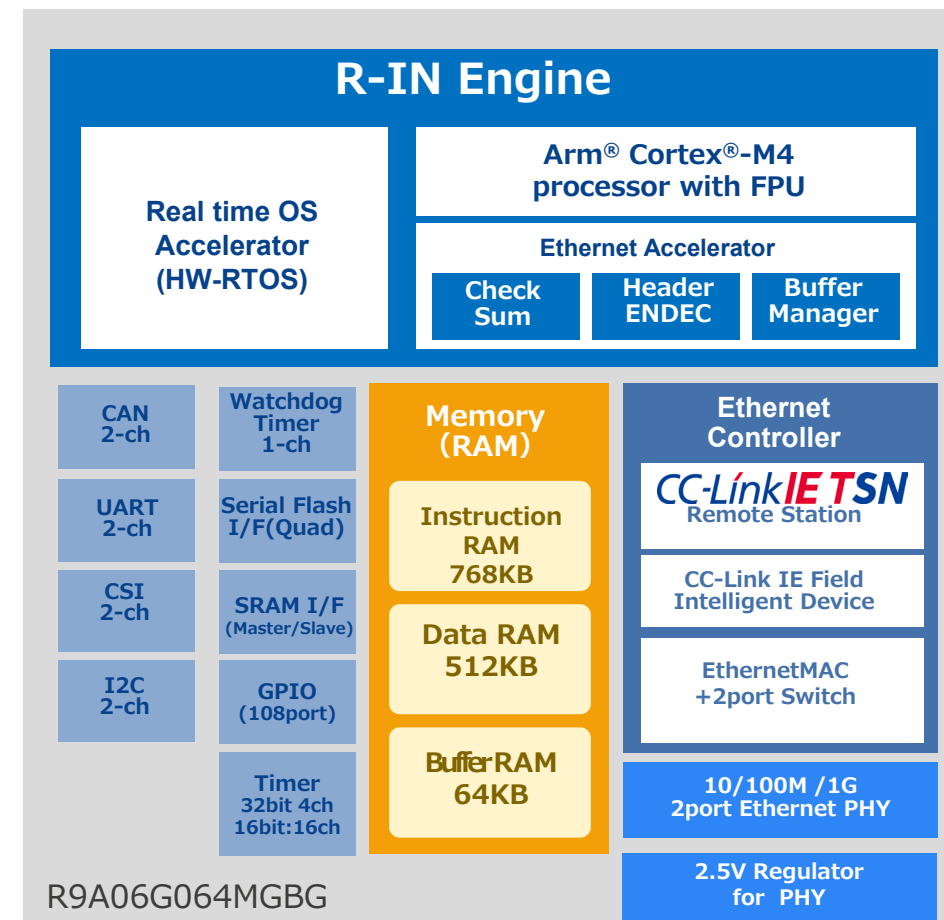
R-IN32M4-CL3

R9A06G064MGBG/R9A06G064SGBG

- Time synchronization accuracy less than  $\pm 1\mu\text{s}$  between devices.
- 2-port GbE-enabled PHY, CPU, and RAM (1.3MB) on a single chip
- multi-protocol support with R-IN engine
- Small package and built-in regulator for PHY reduce footprint of PCB .
- **Low Power consumption** (35 % reduction vs. R-IN32M4-C2)



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 URL : <https://www.renesas.com/>

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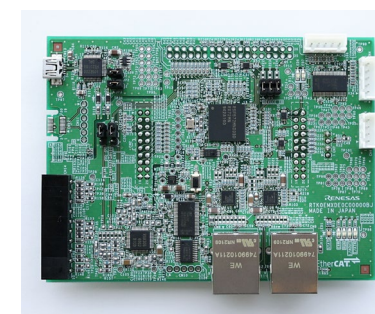
## RX72M Industrial Network Solution

### CC-Link IE TSN Class A Solution

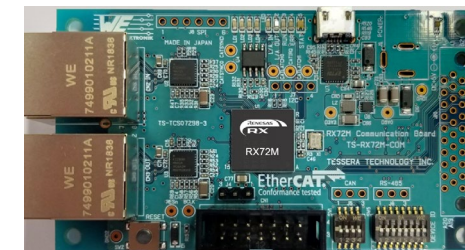


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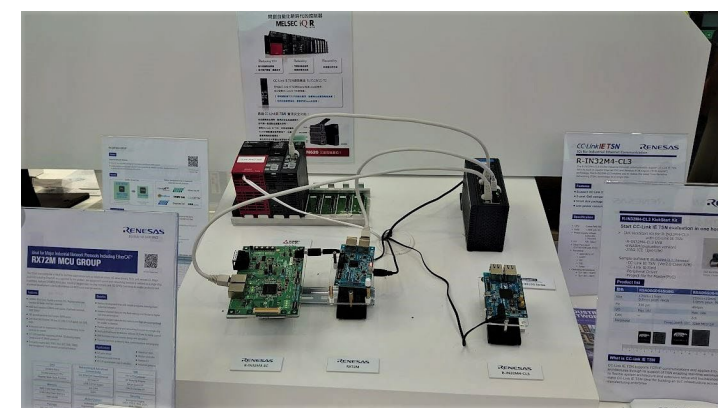
- Easy to evaluate for CC-Link IE TSN Class A with Renesas RX72M CPU card([RTK0EMXDE0C00000BJ](#)) and partner board([TS-RX72M-COM](#))
- Sample code (Evaluation purpose) and Application note are available free of charge from Renesas website, suitable for initial evaluation  
[RX72M Network Solution](#)
- Protocol stack for mass production are supported by our partner (Sherpa Inc.), enables to realize CC-Link IE TSN Class A only by software implementation



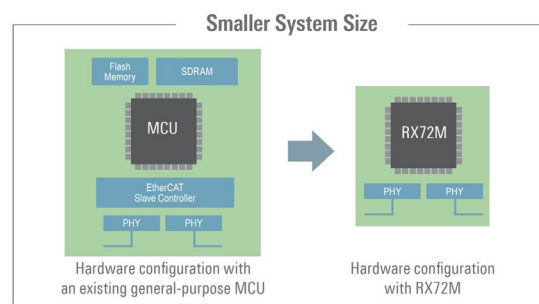
RX72M CPU card



TS-RX72M-COM



Solution example for RX72M, R-IN32M4-CL3 Exhibited at Automation Taipei (2023)



RX72M 240MHz 32-Bit Rv3 core / 8Kbyte cache			
<b>Memory</b> <ul style="list-style-type: none"> <li>• 512KB (Flash)</li> <li>• 4MB (Code)</li> <li>• 1MB (RAM)</li> <li>• Dual Bank 32KB (w/ ECC)</li> <li>• 32KB (Data)</li> <li>• 32KB (Standby)</li> <li>• *Background operation</li> </ul>	<b>Timer</b> <ul style="list-style-type: none"> <li>• PWM (16/15)</li> <li>• 16-bit x 5ch, 32-bit x 5ch (MTU)</li> <li>• 16-bit x 5ch (TSC)</li> <li>• 32-bit x 5ch (SPTR)</li> <li>• General Timer</li> <li>• 8-bit x 4ch (TMR)</li> <li>• 10-bit x 4ch (CMR)</li> <li>• 32-bit x 2ch (CMTR)</li> <li>• Real-time clock (RTC)</li> </ul>	<b>Connectivity</b> <ul style="list-style-type: none"> <li>• Ethernet (10/100) based x 2ch</li> <li>• w/ EtherCAT slave controller</li> <li>• CAN x 2ch</li> <li>• Full Speed I2C x 1ch</li> <li>• SD Bus x 1ch, MMC Bus x 1ch</li> <li>• Serial Communication (UART) x 1ch</li> <li>• w/ Single SPI / I2C</li> <li>• SPI x 3ch</li> <li>• I2C x 3ch</li> </ul>	<b>Security &amp; Encryption</b> <ul style="list-style-type: none"> <li>• Cryptography</li> <li>• AES/DES/SHA3/SHA</li> <li>• TRNG</li> <li>• Key management</li> <li>• Access management</li> <li>• Memory protect</li> <li>• Unique ID</li> </ul>
<b>External Memory</b> <ul style="list-style-type: none"> <li>• SPI/SDR external bus (SRAM, SDRAM)</li> <li>• Quad SPI x 1ch</li> </ul>	<b>System, Power Management</b> <ul style="list-style-type: none"> <li>• EMAC x 8ch, I2C</li> <li>• I2C/MQI x 2ch</li> <li>• External space only</li> <li>• High speed on-chip oscillator</li> <li>• Event link controller</li> </ul>	<b>Analog</b> <ul style="list-style-type: none"> <li>• 12-bit ADC x 2ch</li> <li>• 2 independent unit</li> <li>• 3ch simultaneous SAM (1-unit)</li> <li>• 12-bit DAC x 2ch</li> <li>• Temperature sensor</li> <li>• A/D module x 1ch</li> </ul>	<b>Human-Machine Interface (HMI)</b> <ul style="list-style-type: none"> <li>• CMOS camera I/F</li> <li>• Graphics / LCD</li> <li>• I2S x 2ch</li> </ul>
<b>Safety Functions</b> <ul style="list-style-type: none"> <li>• Watchdog timer x 2ch</li> <li>• CRC calculator</li> <li>• PWM wave output shutdown</li> <li>• Failure detect mode (Clock, Memory, Analog)</li> </ul>		<b>Accelerator</b> <ul style="list-style-type: none"> <li>• Integrometric function</li> <li>• 2D drawing engine</li> </ul>	

The maximum specifications for the group are shown.

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