[Notification]

End of Support for TCP/IP Protocol Stack [M3S-T4-Tiny] and QE for TCP/IP [Technical Preview Edition]

R20TS1132EJ0100 Rev.1.00 Jun. 20, 2025

Outline

Support for the TCP/IP protocol stack [M3S-T4-Tiny] for SH2A and RX Family, as well as QE for TCP/IP: A Dedicated Tool for TCP/IP Development [Technical Preview Edition], will end on December 19, 2025.

1. End of support

Development of M3S-T4-Tiny and QE for TCP/IP has been discontinued.

No further functional enhancements or code maintenance are planned.

Support will be limited to guidance on usage of M3S-T4-Tiny and QE for TCP/IP through December 19, 2025.

2. Introduction of successors

The successor to M3S-T4-Tiny for the RX family is IwIP Firmware Integration Technology(FIT).

When using IwIP FIT, please download the following two modules.

- r lwip rx Driver FIT: Download
- r lwip driver rx Driver FIT: Download

For more information about IwIP, Please refer to GitHub - Iwip-tcpip.

Table 1 Comparison of old and new TCP/IP products

Item	M3S-T4-Tiny LwIP FIT(Rev1.00)		
Endianess	Little-endian/big-endian Little-endian only		
IP Version	IPv4 only	IPv4 only	
API	(1) ITRON TCP/IP API (2) Embedded TCP/IP M3S-T4- Tiny Socket API When combined with module, socket API support Only Raw/native API (bare metal is supported. Netconn API and socket API are not supported.		
OS Support	μITRON (Basically, it is assumed to be used on bare metal) None (bare metal only)		
License	Renesas Software Agreement	Modified BSD License	

Table 2 Comparison of supported protocols between old and new TCP/IP products

Layer	Protocol	M3S-T4-Tiny	lwIP(Raw / native API)
Internet Layer	IPv4	Support	Support
Internet Layer	ICMP	Support	Support
Internet Layer	IGMP	Support	Support
Internet Layer	ARP	Support	Support
Transport Layer	TCP	Support	Support
Transport Layer	UDP	Support	Support
Application Layer	DHCP	Support	Support
Application Layer	DNS	Not supported (Note: The target sample code is no longer available.)	Support

If your application requires socket API support, consider alternatives such as:

- ZUKEN ELMIC products
- <u>Ubiquitous Al Corporation</u> (proprietary API)

There are currently no third-party replacements available for the ITRON TCP/IP API.

No successor is planned for QE for TCP/IP.

Currently, there are no plans to replace QE for TCP/IP.

3. Precautions

(1) Please use M3S-T4-Tiny and QE for TCP/IP only for the maintenance of existing products.

For newly developed products which uses the RX Family, please use the successor IwIP FIT.

(2) The M3S-T4-Tiny can connect to the Internet, however it is not recommended due to security concerns.

If an Internet connection is required, please replace it with alternative product.

M3S-T4-Tiny availability for internet connections | Renesas Customer Hub

Revision History

		Description		
Rev.	Date	Page	Summary	
1.00	Jun.20.25	-	First edition issued	

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