

Ethernet TSN End Station IP Datasheet

Ethernet TSN End Station

Overview

- The Renesas Ethernet TSN End Station IP provides interface features for End Station in Ethernet Time Sensitive Networking.
- This IP includes an Ethernet controller that conforms to the IEEE 802.3 standard, and standards related Ethernet TSN. This IP has standard and easy interface. You can easily implement this IP to your system.

Key Features

1. Integrated Ethernet Communication Controller (Ethernet MAC) according to standard IEEE 802.3.
2. The controller support these operation modes - 10/100/1000 Mbps - full-duplex operation
3. PHY Interface : MII, RMII, GMII, RGMII and SGMII (SGMII is Standard Ver1.8 and using External Converter)
4. Support Receive filtering (for L2~L4)
5. Support Jumbo Frame(up to 16KB)
6. Support IEEE 802.1AS-rev
7. Support IEEE 802.1Qci Ingress Policing
8. Support IEEE 802.1Qav Credit-based shaper
9. Support IEEE 802.1Qbv Time Aware Shaper
10. Support IEEE 802.3br Interspersed Express Traffic
11. Support IEEE 802.1Qbu Frame Preemption
12. Automatic Tx/Rx CRC computed by Ethernet Controller
13. Interrupt-free data transfer between system memory and network
14. Integrated DMA for data transfers from/to system memory
15. Integrated FIFO in Ethernet controller
16. Test Modes Internal loopback

Block diagram

