



HT8614C / HT8614H

4-port Gigabit Ethernet PHY

1. intro

The HT8614C /HT8614H is a low power 4-port 10/100/100Mbps Ethernet PHY. It provides complete physical layer functionality based on CAT5 twisted pair. The HT8614 supports QSGMII interfaces with a maximum of four 10/100/1000Mbps UTP electrical ports or four SGMII Fiber ports.

The HT8614 uses mixed signal processing to perform equalization, data recovery, and recovery error correction for robust operation on CAT5 twisted pairs.

The HT8614 provides integrated built-in self-check and loopback functions for easy debugging.

The HT8614 offers innovative and robust ways to reduce power consumption, such as EEE, WoL, and other configurable energy saving modes.

Commercial grade model :HT8614C

Industrial model :HT8614H

Apply

- Exchange
- Ethernet controller
- Network security
- Enterprise routing



2. Main function

- Integrated Quad 10/100/1000M Ethernet Transceiver with four SerDes interface
- Support QSGMII (Quad Serial Gigabit Media Independent Interface) in 10/100/1000M mode
- Physical interface supports 1000BASE-X
- Physical interface supports 100Base-FX
- Support SGMII mode direct link to one designated Copper Giga PHY with speed adaption
- Supports IEEE 802.3az-2010 (Energy Efficient Ethernet)
 - EEE Buffering
 - Incorporates EEE buffering for seamless support of legacy MACs
- Supports crossover detection and auto correction in 10BASE-Te/100BASE-TX
- Auto-detection and auto-correction of wiring pair swaps, pair skew, and pair polarity
- Supports Cable diagnostic
- Supports Link Down Power Saving (Sleep Mode)
- Supports one interrupt output to external CPU for notification
- Supports fast link failure indication
- Supports 120m for CAT.5E cable in 1000BASE-T
- Supports Serial LED interface.
- Supports SyncE clock output Mux
 - Recover clock from either SerDes
 - Recover clock from either Copper PHY
 - From internal 25Mhz Clock
- SerDes Test pattern
 - PRBS-7/10
 - IDLE /K28.5 /D5.6
 - Customized define by user
 - SerDes BIST
- PHY BIST
 - Packet Generator and Checker
- Good EMI/EMS, and good thermal performance
- Power consumption, <400mW per Port
- Supports 25MHz crystal or 3.3V OSC input



- 3.3V and 1.2V power supply
- Package : LQPF 176 20x20mm

3. pin

