

Motorcomm YT8511 Product Brief

The YT8511 is a highly integrated Ethernet transceiver that complies with 10BASE-Te, 100BASE-TX, and 1000BASE-T IEEE 802.3 standards.

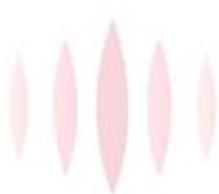
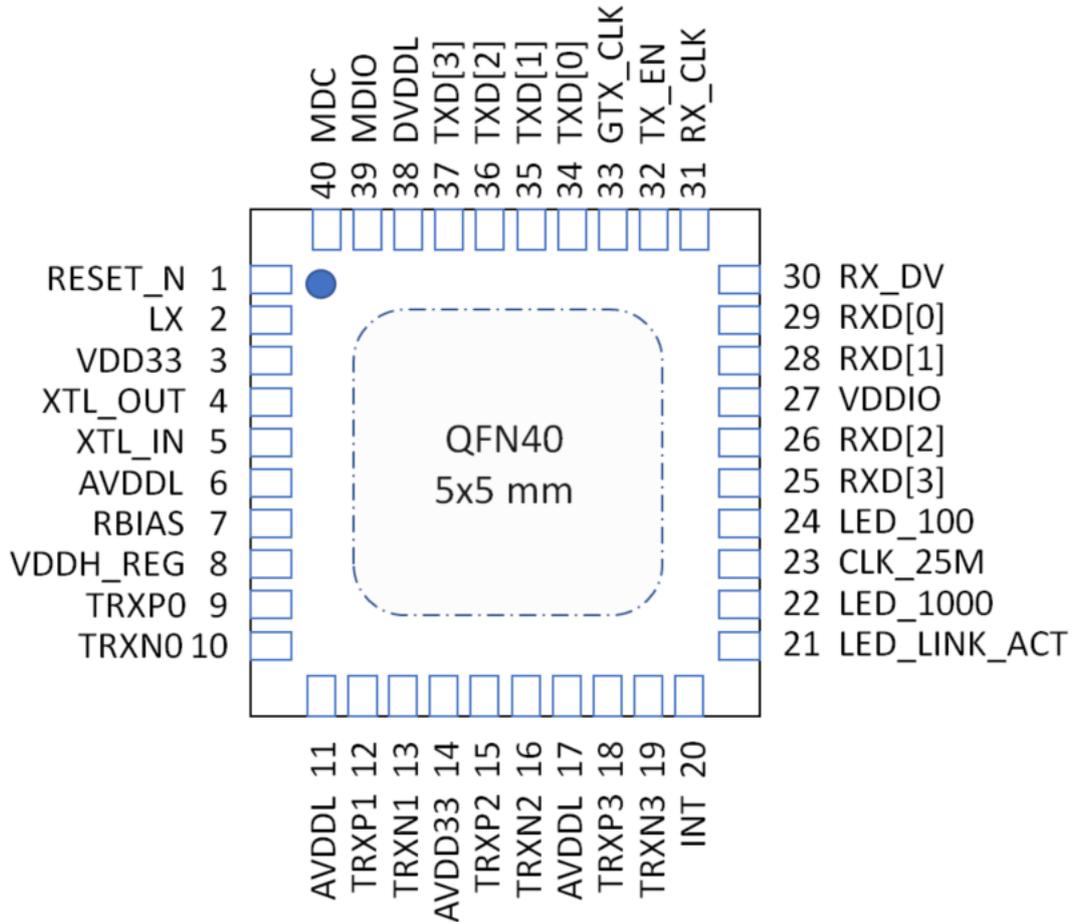
Overview

YT8511 provides all the necessary physical layer functions to transmit and receive Ethernet packets over CAT.5E UTP cable.

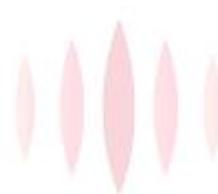
Based on cutting-edge DSP technology, combining adaptive equalizers, echo canceller, phase-locked, ADCs, phase-locked loops, line drivers, encoders/decoders, echo cancelers and all other required support circuitry at a Gigabit data rate to achieve robust performance and exceed automotive electromagnetic interference (EMI) requirements in severe environments with very low power dissipation.

The YT8511 is designed to be fully compliant with RGMII interface specifications, allowing compatibility with standard Ethernet media access controllers (MACs) and switch controllers. The YT8511 delivers the most comprehensive technology solution required by industry operating temperature

Pin Assignment

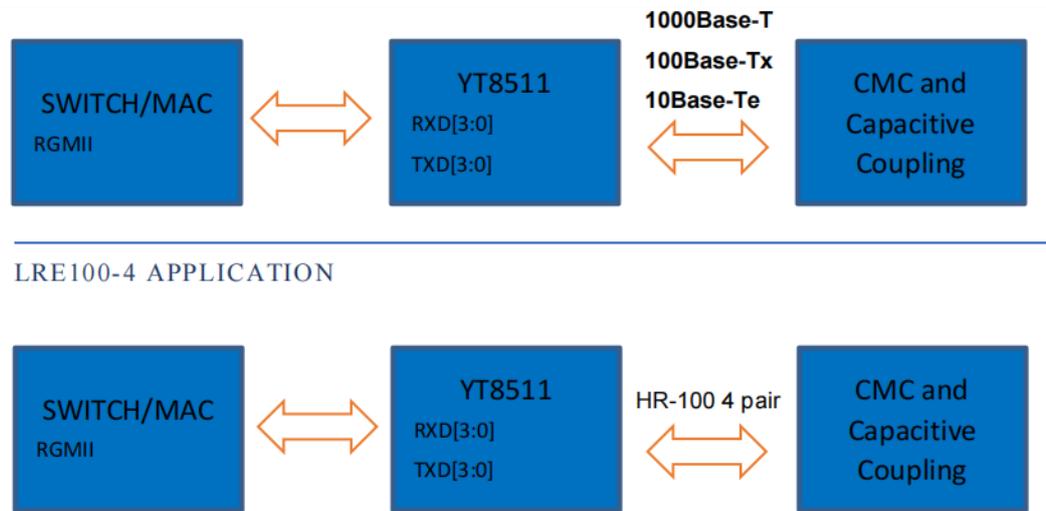


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Application Diagram



Key Features

- 10BASE-Te/100BASE-Tx/1000 BASE-T IEEE 802.3 compliant
- HYPERS Range Supported, 4 pair HR-100 mode, enhance 100Mbps distance more than 400 meter
- Supports 1000 BASE-T PCS and auto-negotiation with next page support Supports RGMII interface to MAC devices with a broad I/O voltage level options 2.5V and is compatible with 3.3V I/O.
- RGMII timing modes support internal delay and external delay on Rx path
- Error-free operation up to 120 meters of CAT5e cable.
- Supports Wake-on-LAN (WoL) to detect magic packet and notify the sleeping system to wake up
- Robust Cable Discharge Event (CDE)
- Jumbo Frame support up to 10KB (full duplex)
- All digital baseline wander correction Automatic channel swap (ACS)
- Automatic MDI/MDIX crossover
- Automatic polarity correction
- IEEE 802.3u compliant Auto-Negotiation
- Software programmable LED modes
- Multiple Loopback modes for diagnostics



Target Applications

- HDTV
- Gaming machines
- IP Cameras
- Printers
- LED wall

