



General Descriptions

TrendChip's TC3162P2M ADSL2/2+ processor is a highly integrated solution for ADSL broadband access gateway. It includes a 32-bit high performance network processor and a powerful ADSL Discrete Multi-Tone (DMT) engine with enhanced features. When used with TrendChip's TC3085/TC3086 analog front-end (AFE), it performs a simple two-chip solution for ADSL1/2/2+ bridge/router applications.

The TC3162P2M ADSL2/2+ processor chip employs the discrete multi-tone modulation technology compliant to the various standards defined by ANSI and ITU-T. It incorporates a DMT engine, a 32-bit high performance network processor, a USB 1.1 client controller & transceiver, a 10/100 Ethernet MAC with MII, an ATM AAL5 hardware SAR and a mini-PCI bridge controller. The 10/100 Ethernet MAC with an external PHY supports LAN access. The 12Mbps USB 1.1 controller with transceiver provides a plug-and-play service for PC without external device. For wireless LAN access, IEEE 802.11a/b/g mini-PCI cards can be used on the mini-PCI card slot. The mini-PCI bridge controller supports up to two client cards. These features maximize the flexibility for the system designers.

Features

- Support all ADSL standards (ADSL1/2/2+), including Annex A, B, I, J & M.
- Support Reach-Extended ADSL2 (Annex L).
- Support Erasure Decoding and Impulse Noise Monitoring along with enhanced impulse noise protection features (Patent Pending).
- Two-chip ADSL bridge/router solution including TC3162P2M ADSL2/2+ processor and TC3085/TC3086 integrated analog front end and line driver.
- Compliant to ADSL performance requirements of DSL Forum and operator's specifications (including INP requirement).
- 32-bit high performance network processor core with MMU and cache (write-back D-cache) optimized to handle layer 2, layer 3 and higher-layer protocols.
- Integrated 10/100 Ethernet MAC with MII for LAN access.
- Embedded hardware ATM AAL-5 SAR supports CBR, UBR, UBR+ and VBR, and GFR traffics.
- USB 1.1 controller provides plug-and-play service for personal computers.
- Support Parallel Flash and SPI Flash (Single/Dual Mode) Memory interface.
- Mini-PCI bridge controller supports up to two client cards.
- PCI pins support reverse-swapped pin-order to ease 2-Layer PCB design with different WLAN chip orientation.
- JTAG supported with ICE debug capability.
- 1.8V/3.3V supply.
- 208-pin PQFP package.

