

### General Descriptions

TrendChip's TC3162L2M ADSL2/2+ processor is a highly integrated solution for ADSL broadband access gateway. It includes a 32-bit 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 bridge/router applications. The TC3162L2M ADSL2/2+ processor 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 network processor, a USB 1.1 controller & transceiver, a 10/100 Ethernet MAC with MII, and an ATM AAL5 hardware SAR. The 10/100 Ethernet MAC with an external PHY supports LAN access. The 12Mbps USB 1.1 client controller with transceiver provides a plug-and-play service for PC without external device. 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 TC3162L2M 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 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.
- JTAG supported with ICE debug capability.
- 1.8V/3.3V supply.
- 128-pin LQFP package.

