



ITeX Apollo 1 ADSL Solution Brief Architects of DSL

- ITeX's ADSL universal chipset is a cost effective, ADSL solution that enables manufactures of desktop devices to cost effectively provide customers with broadband ASDL Internet access.
- Transmission rates of up to 8 Mbps downstream and 768 Kbps upstream are achieved on plain old telephone lines. This rate is more than 140 times faster than a 56K analog modem.
- ITeX is designed to meet ANSI T1.413 Issue 2, ITU G.dmt and G.lite requirements with both splitter and splitterless operations. In addition, ITeX is interoperable with all major "central office" DSLAM's. Its software offers maximum implementation flexibility, management, and diagnosis capabilities.

Protocols

- ✓ Compliant with ANSI T1.413 i2, ITU G.992.1 (G.dmt) and G.992.2 A (G.lite) and G.994.1 (G.hs) in ADSL layer.
- ✓ Compliant with ITU-I.432 and ITU-I.363 in ATM TC, SAR and AAL5 layers.
- ✓ Supports RFC2364 (PPPoA), RFC2516 (PPPoE), RFC1483 and RFC1577 over ATM



Performance

- ✓ Data rates up to 8 Mbps downstream and 768 Kbps upstream (Subject to DSLAM configuration).
- ✓ Compliant with Microsoft WHQL Specification

Systems

- ✓ Supports Win 95, 98, 2000, Millenium and NT4.0
- ✓ Supports NDIS4, NDIS5, and NDIS WAN Supports multiple PVC and SVC
- ✓ Standard Windows Wizard driver installation
- ✓ AFE with 13-bit ADC, 12-bit DAC, and 8.8 MHz sampling rate over 1.1 MHz signal bandwidth.

Chipset and Software

The solution consists of a DMT/ATM transceiver/framer chip (80135), an analog front-end (i80234), and specially designed software.

DMT Transceiver & ATM Framer

The DMT transceiver/ATM framer (i90135) provides all the functionality necessary to implement a complete ATM-based, rate adaptive, ADSL device for multiple applications. The chip's interface has been carefully defined to allow direct integration into a system, reducing customer's time-to-market.

Analog Front End (AFE)

The AFE (i80234) contains two 12-bit DACs and one 13-bit ADC, each with an 8.8 MHz sampling rate.

Software

The driver software is based on the various NDIS network miniport driver models for various Microsoft Windows OS platforms. It consists of ADSL TC, ADSL PMD, ADSL handshaking, ATM TC, SAR, AAL layer, miniport driver and H/W chipset interface. Furthermore, supports management API for the developer and OEM's flexibility.

Typical Application

