

Product Fact Sheet

ADSL AC6 Chipset From Texas Instruments

The AC6 chipset from Texas Instruments (TI) is an asymmetric digital subscriber line (ADSL) solution that maximizes board space and reduces power consumption for more efficient deployment in central offices (CO) worldwide. The chipset provides the industry's highest channel density, lowest power consumption and maximum integration enabling manufacturers to increase the number of lines per card in their equipment.

AC6 Chipset Features

- The industry's lowest power per channel of 950 milliWatts (mW) at peak power
- The industry's highest channel density at 1.1 square inches per port
- The AC6 consists of:
 - One TNETD5800 octal DSP-based digital transceiver
 - C6000 DSP, ARM core with all associated program, data and Interleave memory
 - One TNETD5082 octal codec
 - Four TNETD7112/7113 dual-line driver/receivers

Power Management

Power management is a critical issue in the DSL infrastructure. With advanced power management capabilities, the AC6 maximizes the system's power budget enabling additional lines to be serviced within the power budget of the line card.

- The loop adaptive power management feature dynamically adjusts the power at different loop lengths and required data throughput to avoid the use of unnecessary power.
- TI offers a complete line of customized plug-in power supply modules designed to maximize the power efficiencies of varying systems and port count configurations.

Integration for Lower System Costs

By taking advantage of in-house systems expertise in digital and analog design, TI has increased integration for line card design:

- Integration in the analog front-end (AFE) to reduce the external components by half, resulting in a 40-percent reduction in the Rest of Bill of Materials (RBOM).
- Keeping the total system in mind, the AC6 provides in-band management, which eliminates the need for a separate host processor on the line card equating to a total system cost savings of \$40 per line card.

Interoperability and Standards Compliance

As a world leading ADSL technology supplier, TI is focused on interoperability and compliance with all international standards:

- The AC6 chipset offers the highest performance-based interoperability, including ITU G.dmt, Category I and Category II tests and DSL Forum WT-062.
- The chipset features full compliance with all ADSL/POTS and ADSL/ISDN standards, including ITU G992.1 (Annex A), G992.2, G.994.1 and ANSI T1.413i2.

For additional information about the AC6 chipset, visit:
www.ti.com/ac6

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