TRENDCHIP   TC3085

ADSL2/2+ Analog Front-End   Data Sheet

General Descriptions

TC3085 ADSL2/2+ analog front-end is a high performance CMOS device that provides a complete solution for the front-end requirements of ADSL, ADSL2 and ADSL2+. This level of functionality was previously available only with multiple devices. TC3085 is designed for Asymmetrical Digital Subscriber Line Customer Premises Equipment (ADSL CPE). It support all ADSL standards (ADSL1/2/2+), including Annex A, B, I, J & M.

TC3085 integrates the digital-to-analog converter (DAC), analog-to-digital converter (ADC), digital controller oscillator (DCXO), line driver and filters, RX programmable gain/attenuation (PGA) and filters, and digital interface. TC3085 features a highly integrated signal path with advanced on-chip-filtering. A 13-bit linear DAC precedes the fully integrated line driver, and low pass filter. The received path consists of programmable low noise preamplifiers, filters, and a 14-bit linear ADC.

Features

- Support all ADSL standards (ADSL1/2/2+), including Annex A, B, I, J & M.
- Support Reach-Extended ADSL2.
- 14-Bit ADC/13-Bit DAC
- Integrated 7V CMOS Line Driver
- Integrated Adaptive Line Termination
- Integrated 12-Bit DCXO
- Tunable TX/RX Out-of-Band Continuous-Time Filters
- 3.3V/7V Analog Power Supplies 3.3V Digital Power Supply
- Minimum External Components
- Support Co-existence with ISDN
- Support integrated Dying Gasp function
- Support integrated Power on reset function
- 64-Pin TQFP Package
- Operation temperature range 0 ~ 70 degree C

Applications

- External ADSL Modems
- Soft ADSL2 Modems
- ADSL Termination for Network Interface Devices