



Lantique™ XWAY™ DANUBE

ADSL2/2+ IAD-on-Chip Solution for CPE Applications

Protocol Processing

- 32-bit Multithreading Protocol Processing
- Hardware Acceleration for generic functions like CRC, various TC layer support
- Programmable TC-Layer for ATM, ATM Header Compression, EFM, ATM VCS

Physical Interfaces

- ADSL2+ Analog Hybrid interface
- 2 Analog SLIC interfaces
- Two 10/100/200 MII/Reverse MII/TMII interfaces
- 16-bit SDR/DDR DRAM
- 16/8-bit NOR/NAND Flash memory interface
- 32-bit PCI 2.2 bus supports PCI, Mini PCI and CardBus interfaces
- Multi Media Card Interface (SD/MMCI)
- USB 2.0 host/device
- SPI with DMA support
- Time Division Multiplex (PCM & IOM-2)
- UART for RS-232
- AC97 Codec interface
- Integrated POR, USB Under-voltage detection, Voltage Regulators
- EJTAG/JTAG
- 32 GPIOs, 24-bit serial LED controller

Embedded System

- Dual 32-bit MIPS 24KEc RISC processors @333 MHz on Crossbar Architecture

Lantique's first generation ADSL2+ IAD single-chip solution, the Danube product family, comprises the highest integration of VoIP and ADSL PHY for high-end and cost-optimized ADSL2/2+ IADs. With embedded VoIP, ADSL2+ engine and Protocol Processing Engine, Danube provides the core of an ADSL2+ IAD system.

Building on Lantique's advanced VoIP technology:

VINETIC Codec, SLIC and DSP engine, Danube enables the most effective and scalable realization of VoIP CPE applications. This advanced functionality is now combined with Lantique's powerful ADSL2+ technology for a complete IAD-on-a-Chip solution.

In order to shorten time to market and reduce development costs, Danube (PSB 507xx) is offered with a complete development kit consisting of reference designs, documentation and a complete networking and VoIP basic board support package (BSP) and an application software stack based upon the Linux® operating system.

Applications

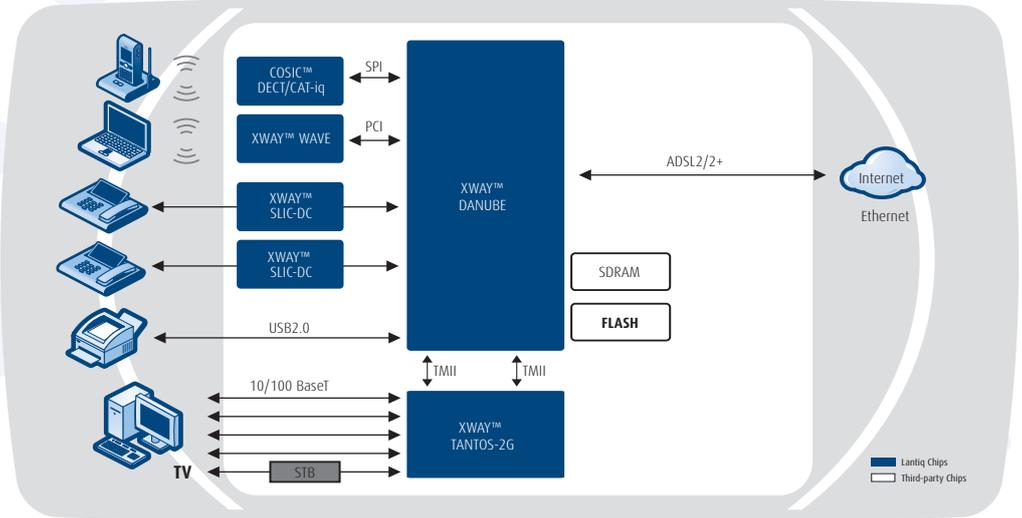
- ADSL2/2+ Integrated Access Device (IAD)
- ADSL2/2+ IPSec Gateway
- ADSL2/2+ Multi Media Gateway with WLAN and wireless VoIP
- ADSL2+ bonding IAD in combination with AMAZON family

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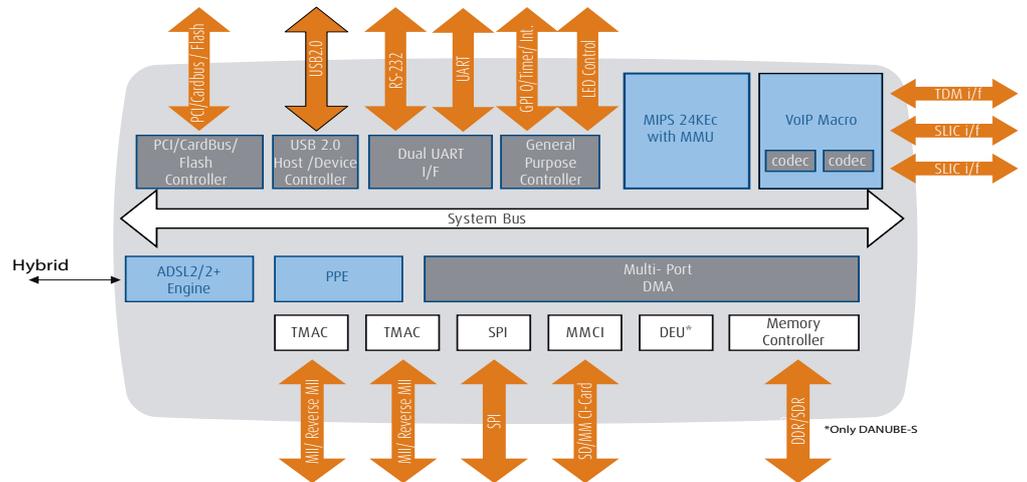
XWAY™ DANUBE Application Diagram

Single-Chip solution for ADSL2/2+ with integrated 2-Channel Analog CODEC for IADs and Home Gateways



XWAY™ DANUBE-S Block Diagram

ADSL2/2+ IAD with WLAN, VoIP and DECT



Product Summary

Product Name	Sales Code	Description	Package
XWAY™ DANUBE	PSB 50702	Single-chip solution for ADSL2/2+ with integrated 2-Channel Analog CODEC for IADs and Home Gateways	PG LBGAs 256-1
XWAY™ DANUBE-S	PSB 50712	ADSL2/2+ single-chip solution with integrated 2-Ch. Analog CODEC with add. HW support for IPSec	PG-LBGAs 256-1

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