Product Brief

Never stop thinking

Infineon® DANUBE

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

Infineon's next 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 Infineon's advanced VoIP technology, the VINETIC Codec, SLIC and DSP chipset, Danube enables the most effective and scaleable realization of VoIP CPE applications. This advanced functionality is now combined with Infineon'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.

Main Features

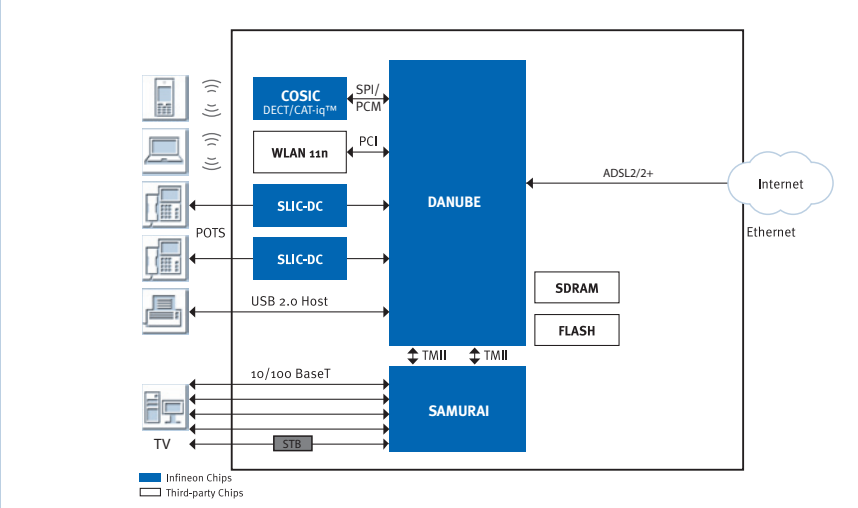
- Applications
  - ADSL2/2+ Integrated Access Device (IAD
  - ADSL2/2+ IPSec Gateway
  - ADSL2/2+ Multi Media Gateway with WLAN and wireless VoIP
  - ADSL2+ bonding IAD in combination with AMAZON family
- Protocol Processing
  - 32-bit Multithreading Protocol Processing
  - Hardware Acceleration for generic functions like CRC, various TC layer support
  - Programmable TC-Layer for ATM, ATM Header Compression, EFM, ATM VCs

www.infineon.com/ADSL

Main Features

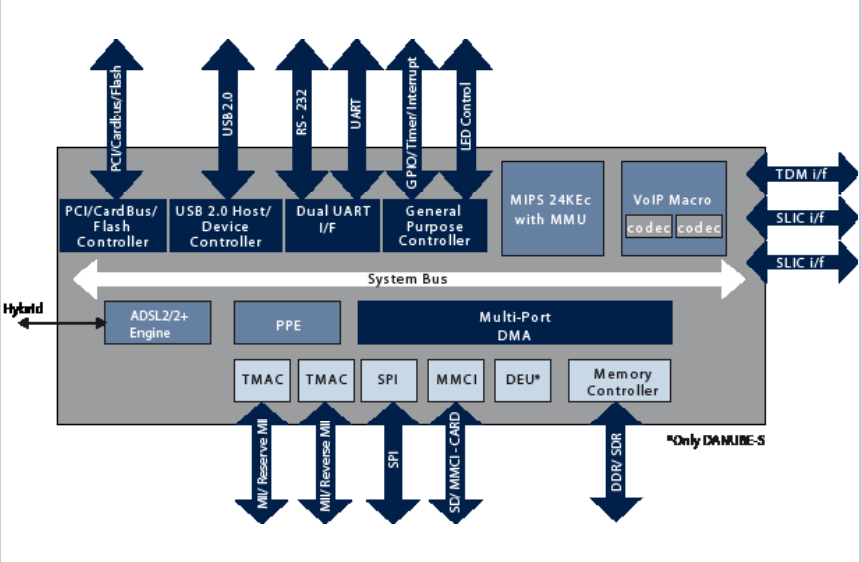
- Protocol Acceleration FW for MPoA, NAT and others for CPU off-load
- Physical Interfaces
  - ADSL2+ Analog Hybrid interface
  - 2 Analog SLIC interfaces
  - Two 10/100/200 MII/Reverse MII/TMII interfaces
  - 16-bit SDR/DDR DRAM
  - 16/8-bit NOR/NAND Flash memory interface
  - 32-bit PCI 2.2 bus supports 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

Infineon® DANUBE
PSB 507x2



DANUBE Application Diagram

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



DANUBE-S Block Diagram

- ADSL2/2+ IAD with WLAN, VoIP and DECT

Product Summary

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

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