Infineon's EasyPort™ is a comprehensive broadband communication processor family. Based on a powerful 64-bit MIPS CPU core sub-system, the EasyPort™ features packet and ATM cell processing functionality for data and voice/data Integrated Access Devices (IADs), small and medium enterprise gateways, access routers, and Voice over IP (VoIP) gateways. The EasyPort™ family supports T1/E1 framers, standard xDSL transceivers, and 10BaseS™ Ethernet over VDSL technology. EasyPort™ has the compute power and architecture to support firewalls and Virtual Private Networks (VPN), as well as future applications and new connectivity options such as Wireless LANs and Bluetooth™.

When used in combination with VINETIC[™], Infineon's system solution supports VoATM and VoIP on the same hardware platform, and supports up to 32 compressed voice channels.

Using the EasyPort™ processor family, communication system vendors gain a powerful set of tools enabling the transportation of data, video and voice services integrated on the same hardware and software platform.



Packet Processing

- Embedded RISC coprocessor
- Embedded data memory
- Two 10/100 Mbit/s Ethernet MAC controllers, one integrated Ethernet PHY
- USB 1.1 device controller
- AAL5 (SAR) controller
- DMA controller with a linked list descriptor buffer

Voice Data Processing

- Embedded RISC coprocessor
- Two IOM-2/PCM interfaces
- 32 HDLC hardware accelerators
- AAL2 (CPS) controller
- Simple control of DuSLIC, SICOFI and FALC[®] devices via a Synchronous Serial Interface (SSC)

ATM Cell Processing

- ATM Layer controller
- UTOPIA Level 1 and 2
- Support for up to 128 VCCs
- Traffic classes: CBR, VBR, UBR+, GFR, UBR
- Cell Buffer Manager with integrated DMA controller for up to 255 user cell queues
- Queue specific traffic shaper in hardware
- Cell filtering (2 filters; maskable VPI/VCI)
- EPD, PPD congestion control
- OAM according to ITU-T I.610

Embedded Processor Subsystem

200 MHz MIPS CPU core including MMU with 32 dual entry TLB

- External Bus Unit (50 MHz, 16-bit) for accessing system memory (SRAM, Flash memory) and external peripherals
- Independent SDRAM I/F (100 MHz, 32-bit, 256 MBytes)

Security Features

- Security (VPN) and VoIP support
- DES/3DES encryption/decryption hardware accelerator
- Throughput optimized dataflow for VPN/IPsec processing
- QoS optimized VoIP voice data flow

Others

- Power management
- Lifeline service support

EasyPort™

Multi-Service Access Processor Family PXB 9101/9102/9201/9202

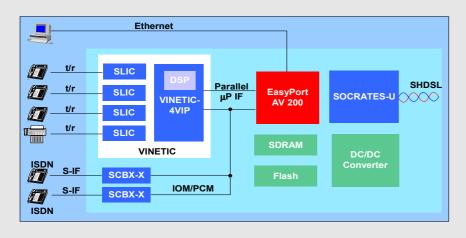


Packet Engine Security Engine Mips Processor system and Peripherals USB v1.1 DES/3DES Clocking Lifeline 10/100BaseT PHY Packet Ethernet MAC Coprocessor Subsystem Subsystem SDRAM HSC Controller Packet Handle Ethernet MAC Packet/ Descr. Memory 2x ASC Serial Channel HSC MIPS 5kc AAL5 SAR Bridge SYNC Serial 64-bit RISC Cell Engine Channel QSB **EJTAG** UTOPIA HTU Cell СВМ Power Watchdog OAM Reset General **Purpose** SWIE AAL2 Ctrl. Bridge Voice Engine General PCM/IOM-2 Purpose Parallel I/O Voice Coprocessor Bridge **HDLCU** Subsystem PCM/IOM-2 **AEBU**

EasyPort Block Diagram

Ordering Information

Product Name	Sales Code	Ordering Code	Target Application	CPU Clock	WAN I/F	Voice Support		Security Support	
						VoATM	VolP	HW	Target Mbit/s
EasyPort-AV200	PXB 9202	Q67233- H1608	ATM Data/ Voice	200 MHz	UTOPIA	up to 32		DES/3DES	5
EasyPort-AS200	PXB 9102	Q67233- H1609	ATM Data/ Security	200 MHz	UTOPIA	-	up to 2	3DES, CoP-S	10
EasyPort-ES200	PXB 9101	Q67233- H1611	IP Data/ Security	200 MHz	Ethernet	-	up to 2	3DES, CoP-S	15
EasyPort-EV200	PXB 9201	Q67233- H1610	IP Data/VoIP	200 MHz	Ethernet	-	up to 32	DES/3DES	5



EasyPort Application Example

How to reach us: http://www.infineon.com

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