Hifn 7901

Security Processor

Compression

- LZS
- MPPC

Encryption

- DES
- Triple-DES
- ARC4*

Authentication

- SHA-1
- MD5

Public Key

- RSA, DH
- Hardware random number generator

Hifn

Intelligent Secure Networking

Broadband Security Bargain

New Value-Priced Chip Powers High-Speed Small Office VPNs

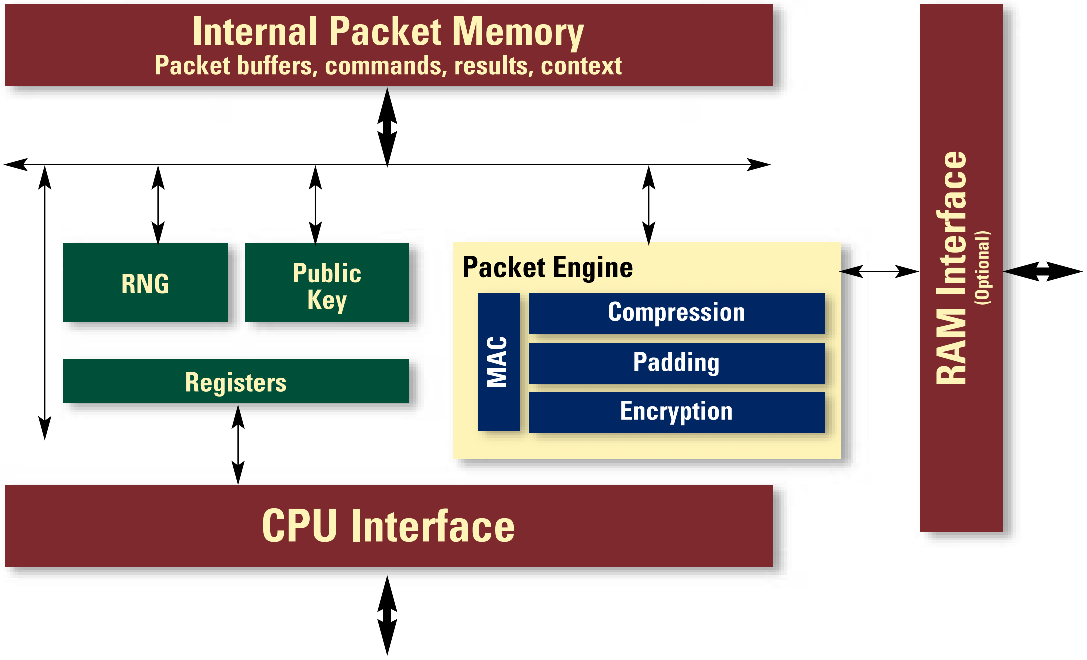
DSL, cable modems and other broadband applications demand hardware security acceleration–as much as 50-100 MIPS for IPSec processing. Now you can design in the strongest virtual private network security without sacrificing performance or spending big bucks on the wrong solution.

Saves Money, Time and Board Space

At less than $20,* our new 7901 security processor fits within your budget and on your motherboard. Plus, the feature-packed 7901's glueless interface reduces chip count and design time.

Soups up 3-DES and Public Key Processing

The 7901 crunches through compression, encryption and authentication algorithms at speeds that leave general-purpose CPUs in the dust. And, you get a true random number generator and Public Key acceleration, all on the same affordable all-purpose chip.



Internal Block Diagram

*10K units or more

Hifn
7901
Security Processor

Supports Layer 3 and Layer 2 protocols.

IPSec (Layer 3)

RFC 2401 – IP Security Architecture

RFC 2393 – IP Payload Compression

RFC 2406 – IP Encryption

RFC 2402 – IP Authentication

RFC 2395 – IP Compression/LZS

RFC 2405 – DES-CBC Cipher Algorithm

RFC 2403 – HMAC-MD5

RFC 2404 – HMAC-SHA-1

PPP (Layer 2)

RFC 1962 – Compression Control Protocol

RFC 1967 – PPP LZS-DCP Compression

RFC 1974 – PPP LZS Compression

RFC 2118 – Microsoft Point-to-Point Compression (MPPC)

Hifn
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Features

- Single chip multi-algorithm acceleration (LZS, 3-DES, SHA, Public Key & more)
- On-board IKE processor (2048-bit key lengths) and true random number generator
- Concurrent symmetric and Public Key processing
- Compression (LZS and MPPC)
- Simple software API
- 32 Mbps processing
- Multi-protocol support: IPSec, IPPCP (IPCOMP), PPTP, L2TP, PPP, and IKE

Benefits

- Off loads compute-intensive work from CPU
- Delivers top security protection and breaks performance bottlenecks
- Non-stop performance
- Improves spped
- Speeds time to market
- VPN at full broadband speed
- Interoperates with all major vendor's equipment

Broadband Performance Requirements

WAN Link	WAN Speed (Mbps)	7901 Throughput (Mbps)
ISDN	.128	32
IDSL	.128	32
T1	1.5	32
E1	2.0	32
ADSL	8.0	32

Hifn Product Selection Guide

Encryption Products

Hifn Products	Delivered Mode	PCI	LZS	MPPC	DES 3-DES ARC4*	SHA MD5	RSA DSA
6500	Silicon	■					■
7711	Silicon		■	■	■	■	
7751	Silicon	■	■	■	■	■	
7811	Silicon	■	■	■	■	■	
7851	Silicon	■	■	■	■	■	
7901	Silicon		■	■	■	■	■
7951	Silicon	■	■	■	■	■	■
IPSECure**	Software		■		■	■	■

**IPSECure does not include ARC4*

Compression Products

Hifn Products	Delivered Mode	PCI	LZS	MPPC	ALDC
9600	Silicon		■		
9602	Silicon				■
9603	Silicon		■		
9610	Silicon		■		
9710	Silicon		■		
9711	Silicon		■	■	
9751	Silicon	■	■	■	
LZS-221	Software		■		
MPPC	Software			■	

Ordering Information

Part Number	Package
7901 PT6	144-pin TQFP
7901 DEVDOC	Documentation Kit

*Algorithm completely compatible with RSA's RC4™.