

H.264/AVC HDTV real-time codec LSI supporting PCI Express interface

Integrated DDR memory, stacked package configuration

PINEA is a single-chip solution that delivers high-quality video compression and playback while reducing the processing load on personal computers and networks. It supports H.264/AVC, a next-generation video compression format that provides twice the compression of MPEG-2.

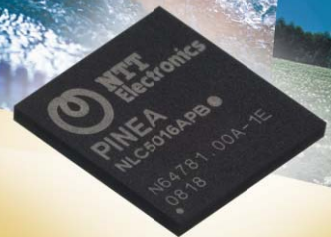
Ideal for personal computers and surveillance systems

H.264/AVC Single-Chip Video Codec LSI

PINEA

Compact, low power consumption

RoHS compliant



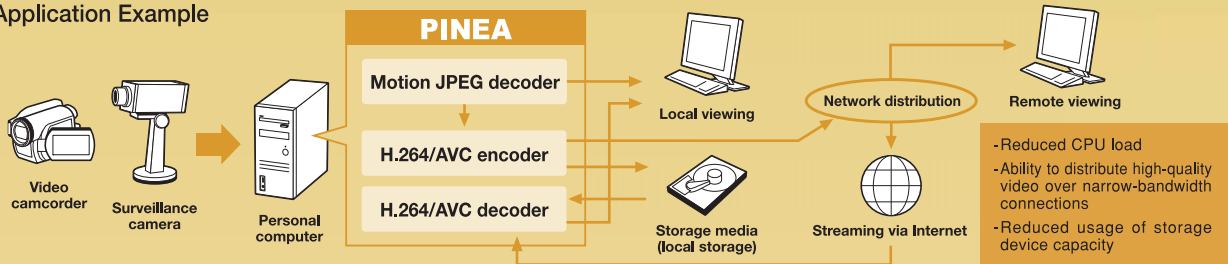
Features

- Full HDTV support
- Integrated Motion JPEG decoder
- SiP with integrated DDR
- Integrated encryption functionality: AES-128
- Power consumption: 1 W
- Package size: 15mm x 15mm

Applications

- Videoconferencing or surveillance systems based on PCI Express
- Video compression accelerators for personal computers

Application Example



Ideal for personal computers and surveillance systems



SPECIFICATIONS RoHS-Compliant Model

■ H.264/AVC Video Codec LSI (PINEA)

Video Encoder/Decoder

H.264/AVC video encoder	Profile	High, Main, Baseline
	Level	4.1-1.1
H.264/AVC video decoder	Profile	High, Main, Baseline
	Level	4.1-1.1
Motion JPEG decoder	Max. resolution/frame rate	1280 x 1024/30fps

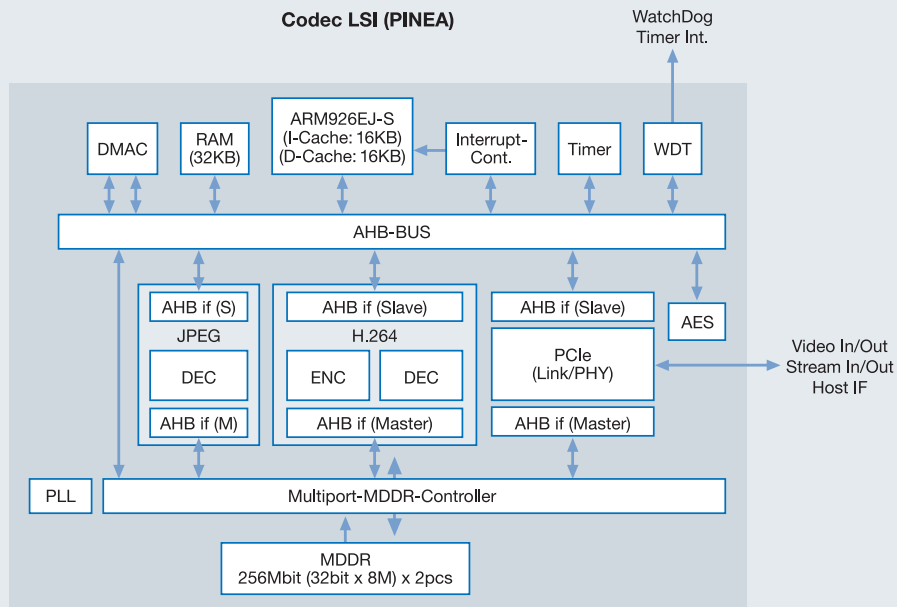
Power Supply/Power Consumption/Package

Power supply	Internal	1.0 V
	I/O	3.3 V and 1.8 V
	Analog	1.0 V
Power consumption		1.0 W (typical)
Package		15mm x 15mm, BGA/SiP

Interface/Encryption/Memory

Video input	PCI Express (YUV422, JPEG, RGBA 32bit)
Video output	PCI Express (YUV422)
Streaming input/output	PCI Express (Video ES)
Encryption	AES-128
Host interface	PCI Express
On-chip memory	256Mbit mobile DDR-SDRAM x 2

Block Diagram



* An evaluation kit is also available.

* Specifications and external appearance are subject to change without notice.