

# NP4

## Neotion MPEG-4 AVC Processor

The **NEOTION Processor NP4** is the first fully optimized low cost MPEG-4 AVC single-chip solution that enables MPEG-4 AVC decoding, MPEG-4 to MPEG-2 real time transcoding and native IP connectivity.

The NP4 chip provides unrivalled security features, low consumption, unbeatable cost and high quality images.



### Applications

- Digital TV Reception
- TV over IP
- Home Networking
- Digital Video Recording (DVR)
- Video On Demand (VOD)



### Benefits

- Convert any MPEG-2 set-top design or iDTV into a MPEG-2 and MPEG-4 AVC compatible product, without software development or hard development (if used with DVB-CI, Cable Card or Neotion cartridge interfaces)
- Native IP connectivity
- Embedded hardware security & copy protection mechanism
- Supports any Conditional Access and Smart Card

### Implementations

Neotion provides reference design for the NP4 processor implementation.

- NP4 integration in digital TV sets, set-top boxes and IP boxes
- MPEG-4 Cartridges for digital set-top boxes and iDTV sets
- Plug & Play MPEG-4 TV modules (DVB-CI module, CAM, Ethernet, CPL, WIFI, DVR) to be inserted in the PC-Card type interface (Cable Card or DVB-CI) of legacy digital TV sets and set-top boxes.



WIFI



iDTV



DVR



STB

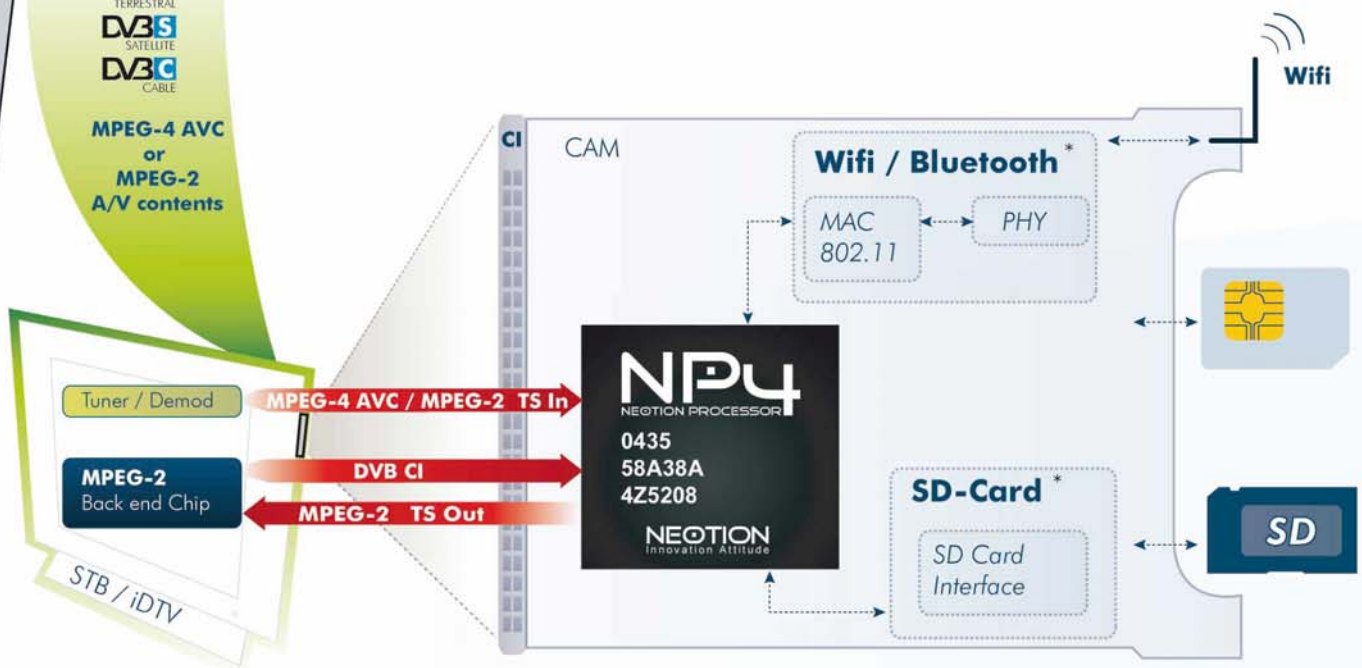


Cartridge

# NP 4 - Neotion MPEG-4-AVC Processor

## MPEG-4 DVB CI / Cable Card Modules

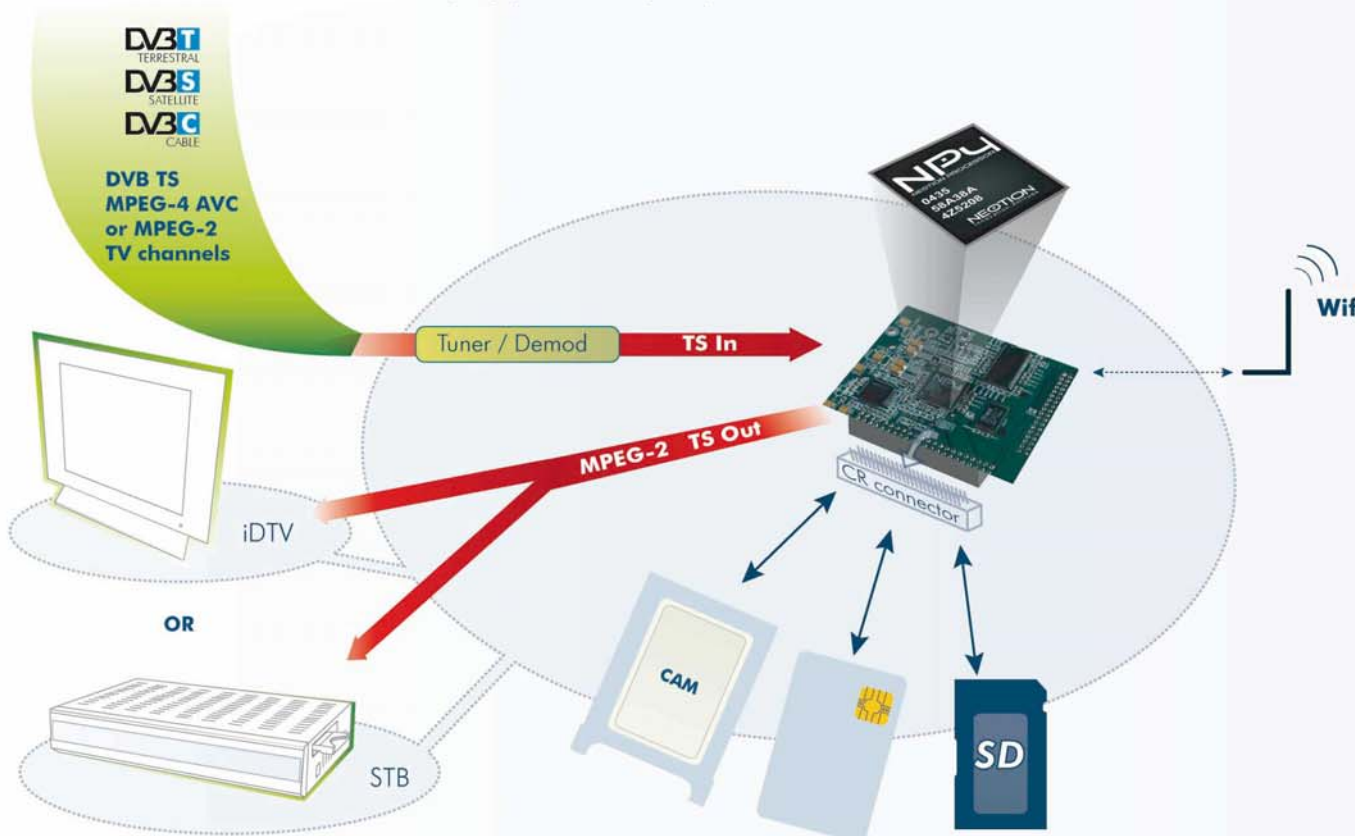
Advanced and modular MPEG-4 CAM.



\* Optional features : Wifi, Bluetooth, DVR.

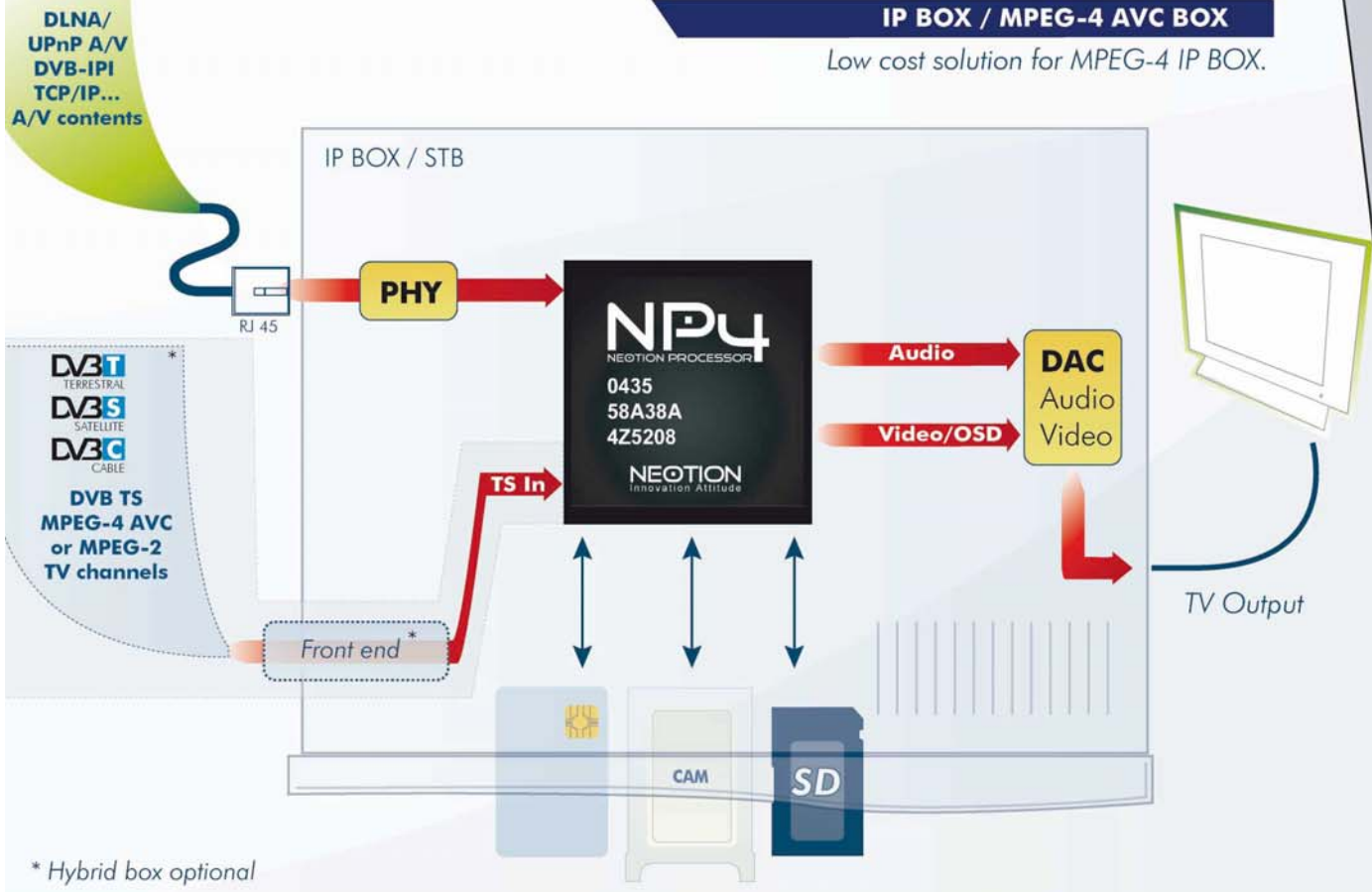
## Cartridge inside STB or iDTV

Just plug your cartridge in your MPEG-2 STB or iDTV to obtain a MPEG-4 STB.

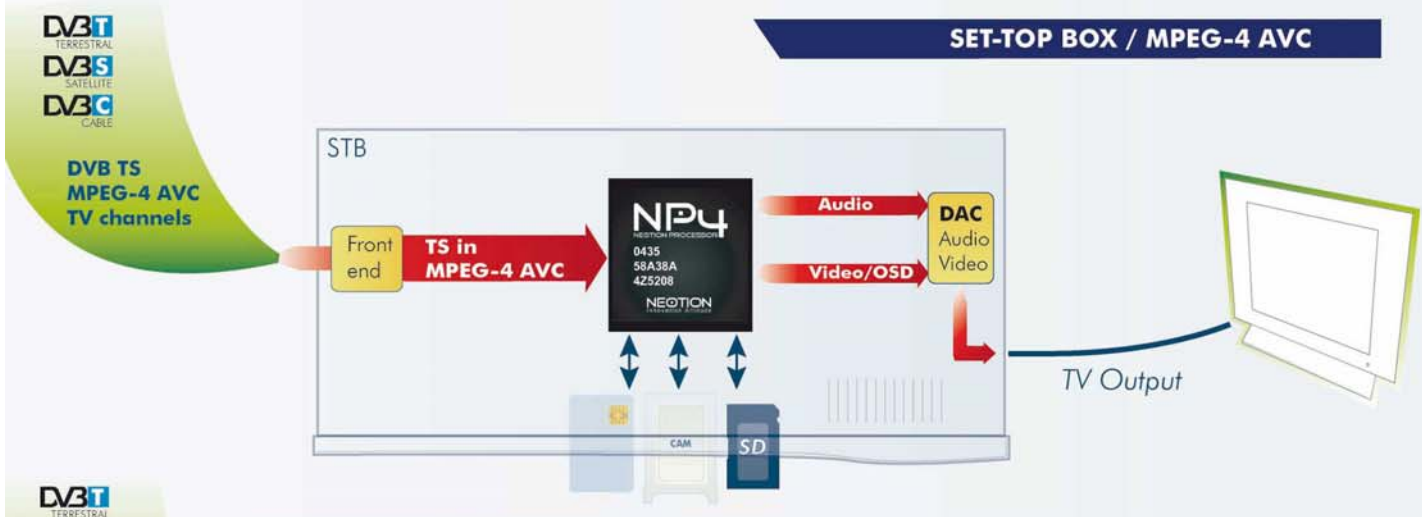


## IP BOX / MPEG-4 AVC BOX

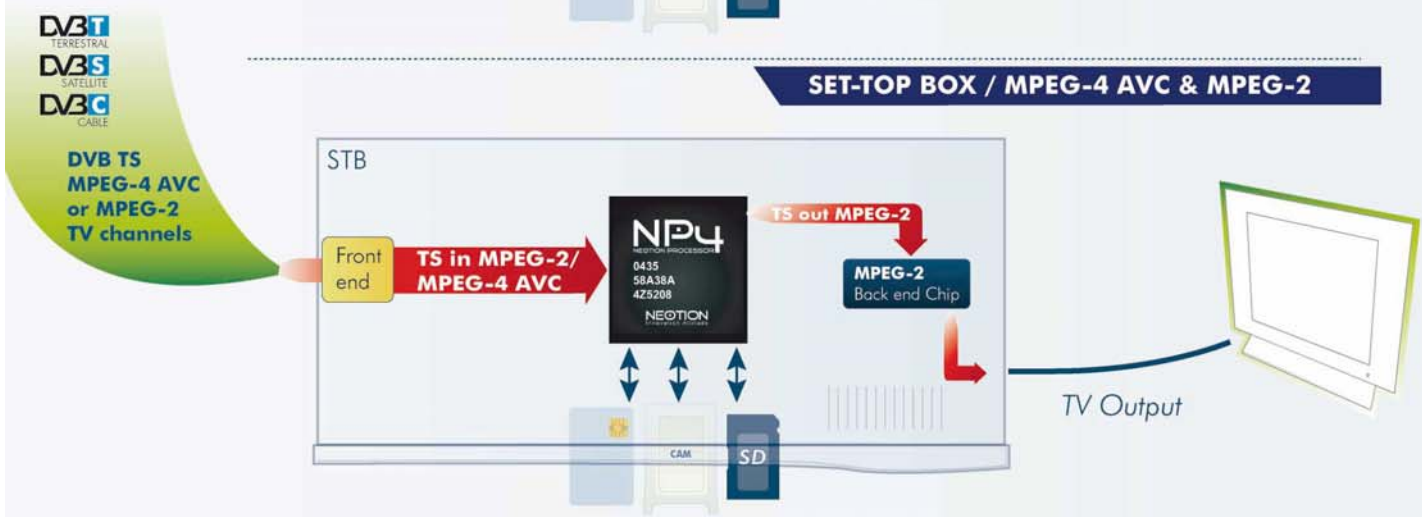
Low cost solution for MPEG-4 IP BOX.



## SET-TOP BOX / MPEG-4 AVC



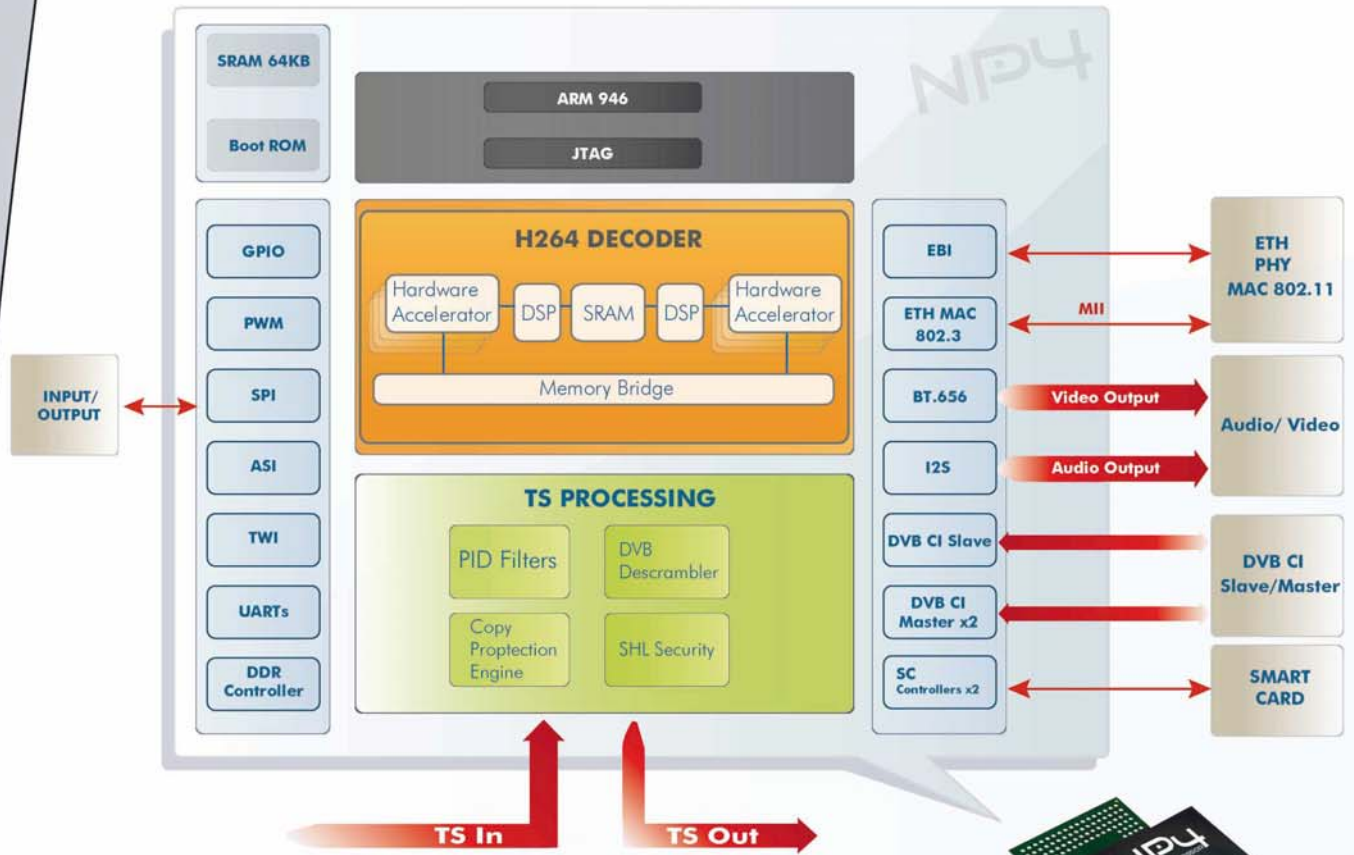
## SET-TOP BOX / MPEG-4 AVC & MPEG-2



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## Main features

### Video Decoding :

- MPEG-4 AVC Video decoder – Full D1 Main Profile up to Level 3
- SoC decoder with hardware accelerators to optimize processing
- Real Time MPEG-4 to MPEG-2 transcoding (and MPEG-2 to MPEG-4 non real time transcoding )
- Audio (I2S interface) and Video (BT.656 interface) Outputs

### Security :

- CAS agnostic
  - Any third party Conditional Accesses middleware can be embedded
  - Additional hardware security blocks (NEOTION SHL3 with customizable operators algorithms)
- ISO7816-3 Smart card controller embedded (T=0, T=1, T=14)
- Copy protection mechanisms
- DVB CI master embedded including software stack (no need for external CI chip), ISO/IEC EN5022.
- CI slave for Module single chip implementation.

### Home networking :

- Ethernet MAC 802.3 embedded, 10/100 BASE-T (RJ45) compliant,
- MII 802.3 bus interface, EBI (and bridges towards WiFi, Bluetooth & HomePlug off the shelf components).

### Plug-n-Play :

- Ethernet MAC 802.3 embedded
- DVB CI master / slave embedded
- Easy and quick implementation on any legacy MPEG-2 receivers (no software, nor OSD modifications)

