

# Dual HD decoder with integrated 3D GPU



## STMicroelectronics

### STi7108 advanced dual HD decoder offers simultaneous full 3D graphics accelerator

The STi7108 is the first in STMicroelectronics' third generation of HD chips that provide the end user with an exciting 3D HDTV user experience, thanks to its unprecedented CPU performance allowing smooth web experiences.

It also has market leading energy efficiency due to its low-power configurable architecture, and low-power manufacturing process.

The STi7108 is the first set-top box IC in the market to combine 3D graphics, Ethernet, USB and e-SATA interfaces to connect Internet devices, DVR storage or external Flash or hard-disk drive.

#### Key features

- Advanced dual HD AVC, decoding H.264, MPEG-2, VC-1 or WMV9 internet video
- ARM® Mali-400™ graphics processor, supporting OpenGL-ES 2.0/1.x and OpenVG 1.1
- Dual ST40 processor architecture with 256-Kbyte L2 cache
- Inputs for up to 6 transport streams, including Ethernet, e-SATA, USB
- Processor engine performance up to a total of 4600 DMIPS
- Low-power architecture

#### Key benefits

- Supports 3D user interfaces and program guides
- Supports 3D stereoscopic broadcasts
- Single device enabling 3D graphics, DVR, Flash or HDD storage
- Can decode high-resolution 1080p 50/60 or dual 1080i/720p for picture-in-picture or mosaic formats
- Compliant with Energy Star Tier 2 and EU energy directives
- Certified with latest advanced security scheme

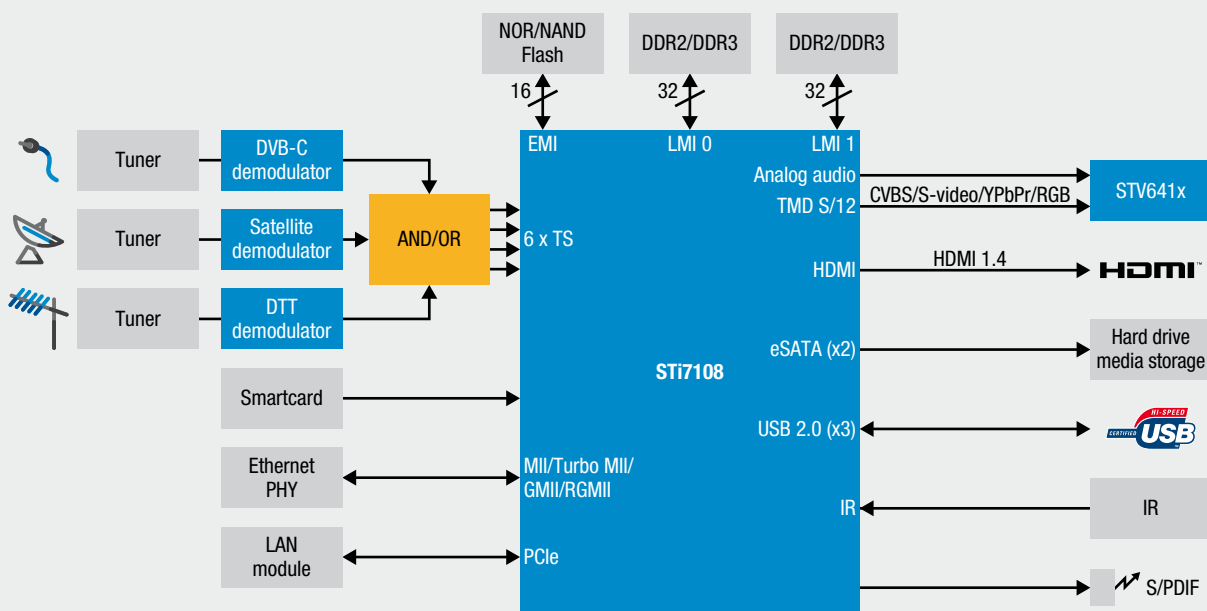


The STi7108 has dual ST40-300 CPU host processors linked to a 256-Kbyte L2 cache giving up to 3000 DMIPS performance and a total of 4600 DMIPs for flexible support of demanding AV, security and connectivity applications. A 3D graphics engine enables a new class of user interfaces, supports innovations such as 3D electronic program guide (EPG), and enables advanced Internet content and high-performance gaming on the set-top box.

## Spectacular 3D interfaces enabled

The STi7108, its integrated, fully dedicated ARM® Mali graphics processing unit, permits the use of stunning 3D graphical user interfaces on your set-top box platform. Customers can see the array of programs and services on offer immediately, and navigate through options quickly and effortlessly.

## Application block diagram



## Design resources

A reference design, together with a hardware development kit, is available for the STi7108. Contact your local ST sales office for more information.