

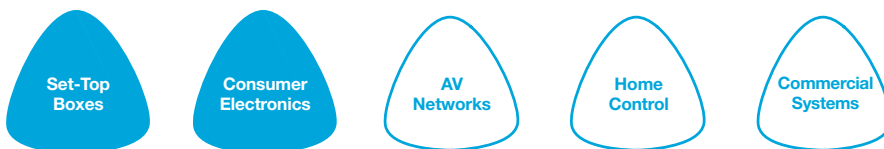


The SMP8650 family provides highly-integrated solutions for IPTV and hybrid set-top boxes, thin clients, media players, and wireless display receivers. The Secure Media Processor architecture offers advanced content protection, supporting a wide variety of Digital Rights Management (DRM) and Conditional Access (CA) solutions.

The high-performance 3D graphics available on the SMP8656 enables dynamic and customizable user interfaces by supporting the flipping, rotating, warping, and moving of images.



Powering the new digital home



Target Markets

- IPTV and hybrid set-top boxes
- Thin clients
- Media players
- Wireless display receivers

Supported Technologies

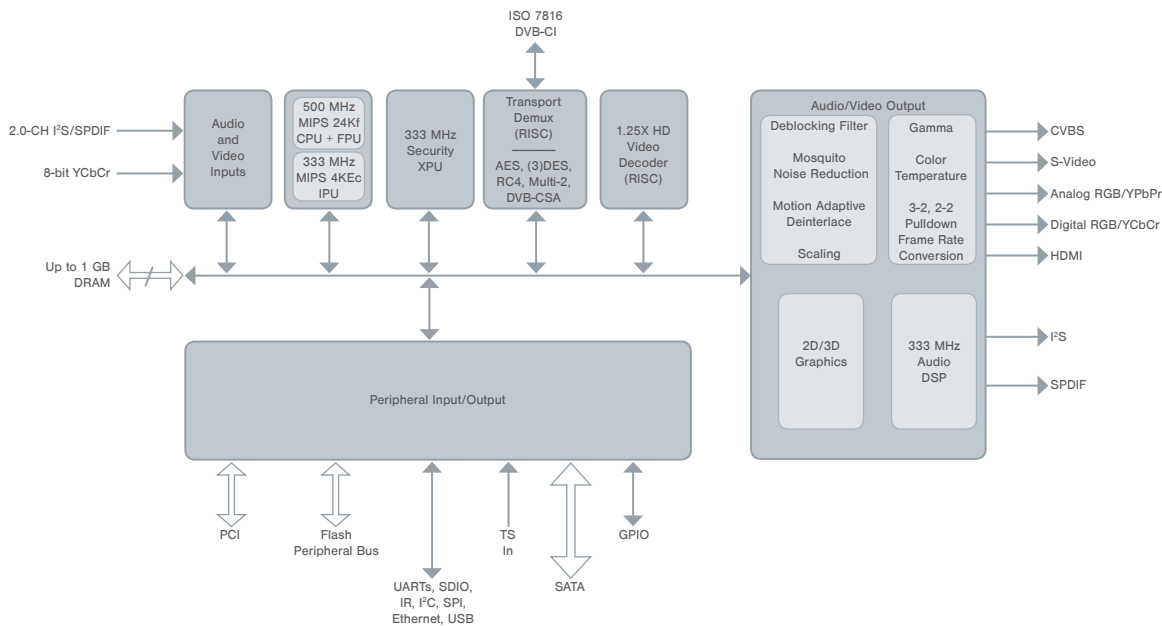
- Multiple task-specific processors lowers power and enables best middleware and application performance
- Audio DSP supports wide variety of audio codecs
- Security CPU supports wide variety of conditional access (CA) and digital rights management (DRM) solutions, including Nagravision NOCS v1.1

Video Decoding

- MPEG-4.10 (H.264) BP@L3, MP@L4.0, HP@L4.0
 - SMPTE 421M (VC-1) MP@HL, AP@L3
 - WMV9 MP@HL
 - MPEG-2 MP@HL
 - MPEG-4.2 ASP@L5 (up to HD, 1-point GMC)
 - AVS Jizhun profile@L2.0, 4.0, 6.0*
 - RMVB v9, v10
 - 3D video support
 - Generic side-by-side and top-bottom output
 - RealD (side-by-side output)
- * 20 Mbps for L4.0; 40 Mbps for L6.0

Advanced Video Processing

- 3D graphics accelerator with Open GL ES 1.1/2.0 support
- Deblocking and deringing filters
- Individual brightness, contrast, saturation, hue, and colorimetry correction controls for each video source and output port
- 12-bit xvYCC processing
- Integrated HDMI with CEC, 12-bit deep color, xvYCC



	SMP8652	SMP8654	SMP8656
DMIPS	1230*	1230*	1230*
System/DSP Clock Rates	500/333 MHz	500/333 MHz	500/333 MHz
Nagravision CA Support			•
3D Graphics			SGX531
Ethernet	(2) 10/100	(2) 10/100	(2) 10/100/1000
HDMI		•	•
SATA II (1.5 Gbps)	1	2	2
USB 2.0	1 OTG	2 Host	2 Host
SDIO	2		
Peripheral Bus, DVB-CI Support		•	
DRAM Support	32-bit 512 MB (DDR2-667)	64-bit 1 GB (DDR2-667)	64-bit 1 GB (DDR2-667)
NAND Flash Support	SLC	SLC	SLC/MLC
NOR Flash Support	16-bit 256 MB SPI		SPI
Digital YCbCr Video Inputs	•	•	•
Digital RGB/YCbCr Video Outputs	•		
Video DACs	4	6	6
Audio Outputs	5.1 I²S + SPDIF	5.1 I²S + SPDIF	5.1 I²S + SPDIF
PCI		•	•
Non-Rovi ACP Version	SMP8653	SMP8655	SMP8657

* Host CPU + IPU (720 + 510)

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