Hi3796M V200 Brief Data Sheet

Key Specifications

Processor

- Multi-core 64-bit high-performance ARM Cortex A53
- Multi-core high-performance GPU

Memory Control Interfaces

- DDR3/4 interface
- eMMC/NOR/NAND flash interface

Video Decoding (HiVXE 2.0 Processing Engine)

- Maximum 4K x 2K@60 fps 10-bit decoding
- Multiple decoding formats, including H.265/HEVC, AVS, H.264/AVC MVC, MPEG-1/2/4, VC-1, VPx, and so on

Image Decoding

Full HD JPEG and PNG hardware decoding

Video and Image Encoding

1080p@30 fps video encoding

Audio Encoding and Decoding

- Audio decoding in multiple formats
- Audio encoding in multiple formats

DVB Interface

- Multi-channel TS inputs and outputs

Security Processing

- Advanced CA and downloadable CA
- DRM
- Secure boot, secure storage, and secure upgrade

Graphics and Display Processing (Imprex 2.0 Processing Engine)

- Multiple HDR formats
- 3D video processing and display
- 2D graphics acceleration engine

Audio and Video Interfaces

- HDMI 2.0b output
- Analog video interface
- Digital and analog audio interfaces

Peripheral Interfaces

- GE and FE network ports
- Multiple USB ports
- SDIO, UART, SCI, IR, KeyLED, and I2C interfaces

Others

- Ultra-low-power design with less than 30 mW standby power consumption
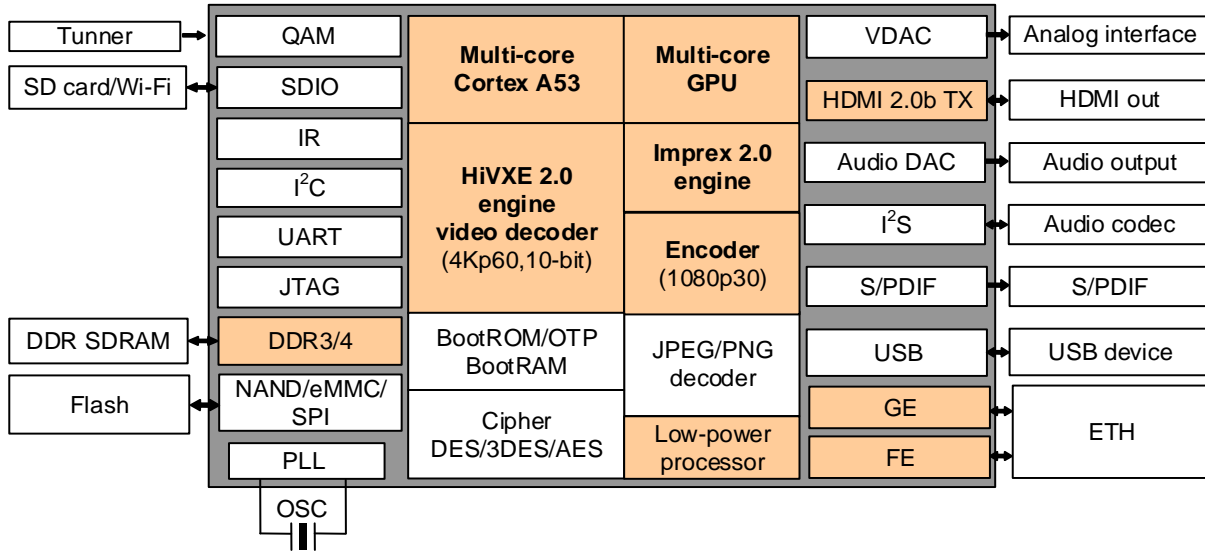- BGA package

Solution

- Is targeted for the DVB/Hybrid STB market.
- Supports full 4K decoding.
- Supports Linux, Android, and TVOS intelligent operating systems

- Complies with the broadcasting television-level picture quality standards.
- Meets the increasing value-added service requirements.

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Functional Block Diagram

Acronyms and Abbreviations

AVC	advanced video coding
AVS	Audio Video Standard
BGA	ball grid array
CA	conditional access
DDR	double data rate
DRM	digital rights management
DVB	Digital Video Broadcasting
eMMC	embedded multimedia card
FE	fast Ethernet
GE	gigabit Ethernet
GPU	graphics processing unit
HD	high definition
HDMI	high definition multimedia interface
HDR	high dynamic range
HEVC	high efficiency video coding
I^2C	inter-integrated circuit

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IR	infrared
JPEG	Joint Photographic Experts Group
LED	light emitting diode
MVC	multiview video coding
PNG	portable network graphics
SCI	smart card interface
SDIO	secure digital input/output
TS	transport stream
TVOS	television operating system
UART	universal asynchronous receiver transmitter