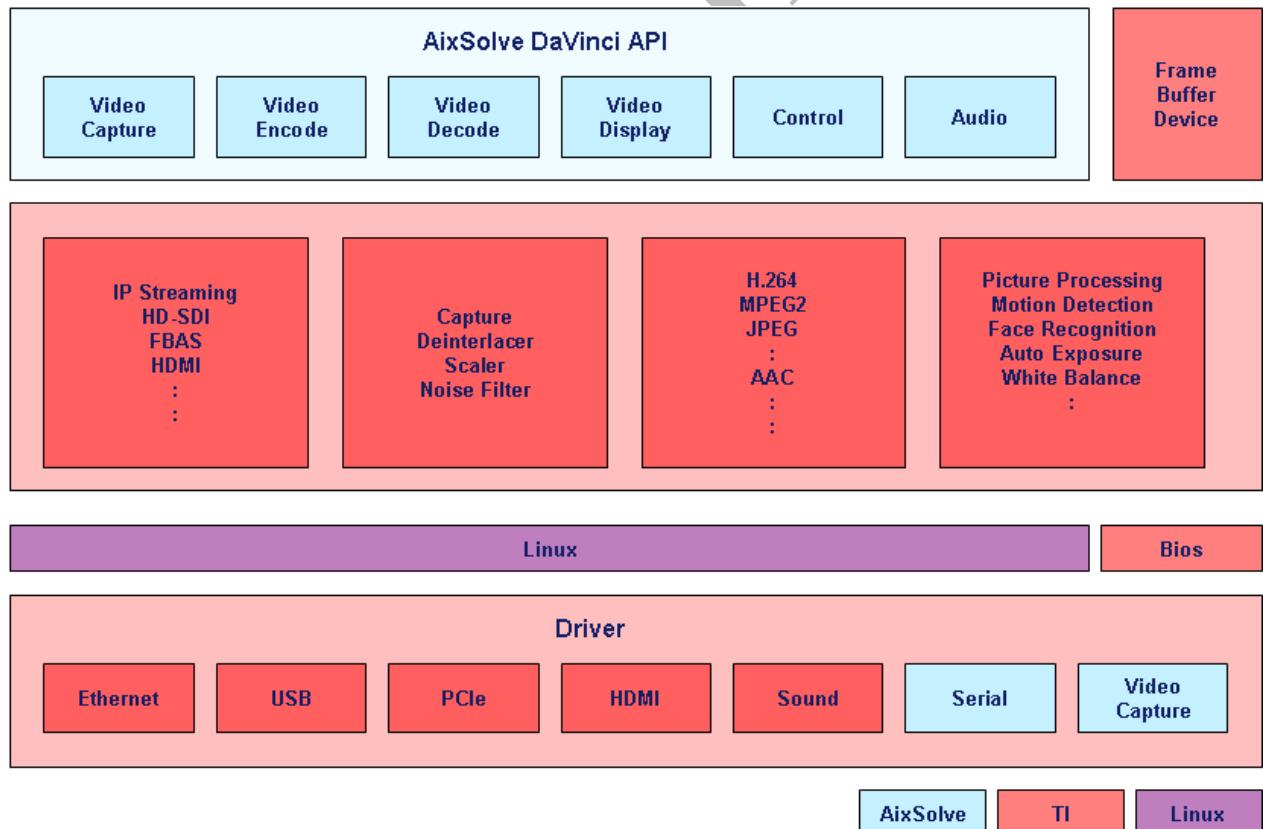


AixSolve TI DaVinci API

The AixSolve DaVinci API is developed on top of Texas Instruments DM81xx DVR RDK. With focus on the conversion from digital video according SMPTE to Ethernet and 8 bit parallel transport stream, the API consists out of special improvements for:

- Easy to use control interface (serial, API)
- Quick start and boot within 8 seconds
- Video encoding up to 1080p/60
- Variable GOP structure and length
- 16bit digital video input according SMPTE
- DVB transport stream generation



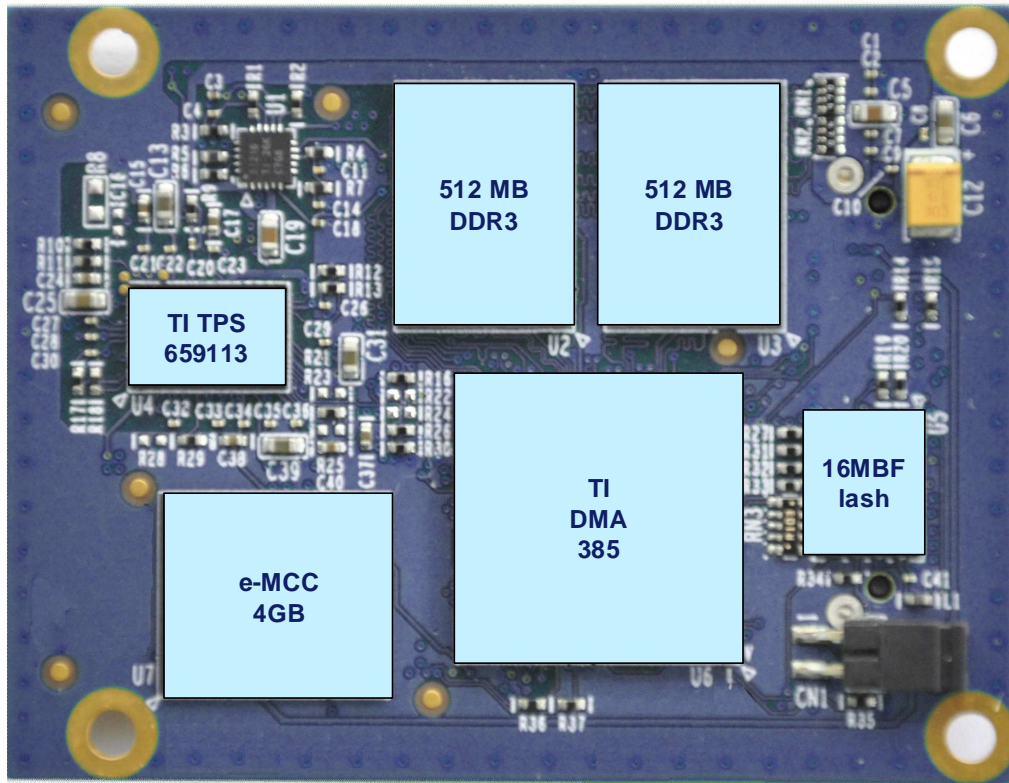
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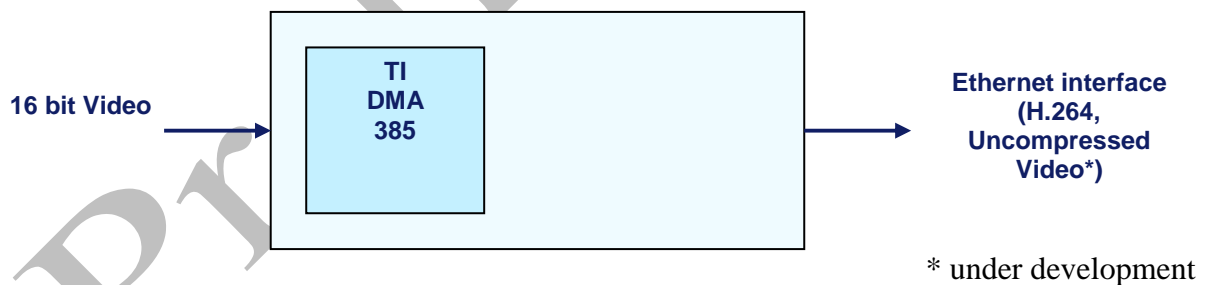
ver.2010905

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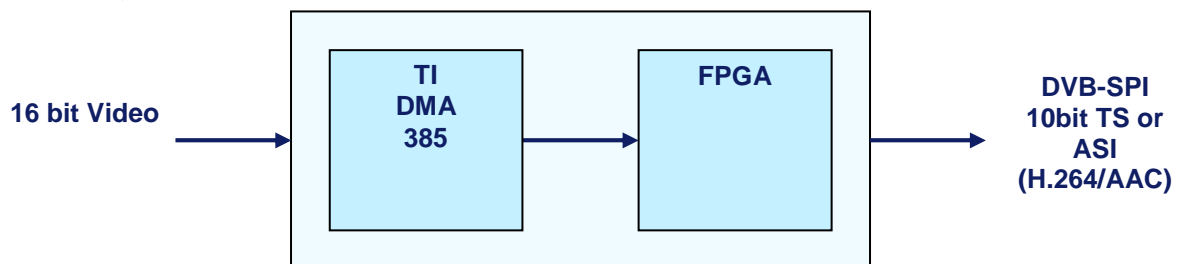
The first implementation took place on a customer specific development also performed by AixSolve.



Application note A – Video to Ethernet:



Application note B – Video to ASI or SPI:



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Codec - Video	<ul style="list-style-type: none"> • Conforms to ITU-T H.264 & ISO/IEC4496-10 (H.264/AVC) High Profile Level 4.0 • 1920 × 1080 × 60p/50p • 1920 × 1080 × 60i/50i/24p • 1280 × 720 × 60i/50i/24p • 720 × 480 × 60i • 720 × 576 × 50i • Pixel format: 4:2:0
Pixel format	<ul style="list-style-type: none"> • 4:2:0
GOP Structure	<ul style="list-style-type: none"> • I frames only • IP frames/slices • Variable structure
GOP Length	<ul style="list-style-type: none"> • Number of frames between I frames selectable between 1 and 30
Bit rate	<ul style="list-style-type: none"> • 0,8-20 Mbit @ resolution of 1 kbps • CBR • VBR
CODEC - Audio	<ul style="list-style-type: none"> • MPEG-2 AAC 2-channel encoding
Codec – System	<ul style="list-style-type: none"> • MPEG2-TS encoding processing conforming to ISO/IEC13818-1 and Amd3 • Multiplexing of Video1 stream + Audio1 stream <ul style="list-style-type: none"> ○ Video Stream ID and PID ○ Audio Stream IP and PID ○ Program Clock Reference (PCR) PID • Program Specific Information (PSI) tables (EN 300 468) <ul style="list-style-type: none"> ○ Program Association Table (PAT) ○ Program Map Table (PMT) ○ Network Information Table (NIT) • Service Information (SI) tables <ul style="list-style-type: none"> ○ Service Description Table (SDT) • Input and output of ES user area
Boot time	<ul style="list-style-type: none"> • < 8s
Control	<ul style="list-style-type: none"> • Serial Interface

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