FOSSILSHALE

TI Davinci™ TMS320DM385 SoM for HD Media Solutions

System-on-Modules (SoM) are an ideal alternative to custom engineering solutions for the Product / IP Designers to quickly develop and reach the market with their product solution.

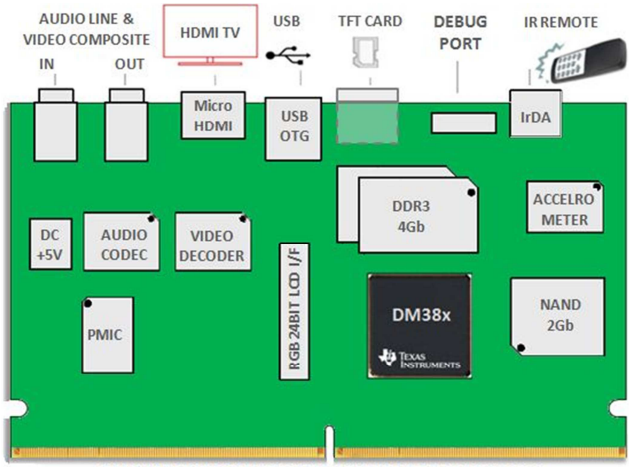
With Off-The-Shelf standard components such as a generic Carrier board (or Base Board) and SOM module, it is possible to start development of your application solutions before the custom board is complete; thus offering a reduced time to market for your system. In some cases, for lower production volume solutions, SoMs are the cost viable option than the customized solutions.

FossilShale's DM385 SOM is based on Texas Instruments' High performance Media Processor, Davinci™ TMS320DM385, with DDR, Flash, Audio CODEC, Accelerometer, Power management circuitry, Micro HDMI, Micro USB interfaces, TF Card interface and 5V DC Power supply. The SOM in its current form is designed to work as an independent system for HD Media , IP Surveillance applications.

The SOM also has a 244 pin SODIMM connector to get plugged in with application specific Carrier boards from FossilShale targeting various market /customer specific media applications.

About TI DM385

TI's TMS320DM385 Davinci™ Media processor is a highly integrated, cost effective, low power programmable SoC solution with dedicated video processing blocks to meet the processing needs of HD Video Conferencing, IP cam, Digital Signage, Media Players/Adapters, Mobile Medical Imaging, Home Audio/Video Equipment, low power Automotive solution and similar devices in SD and HD resolutions.



SoC Features

- ARM Cortex™-A8 RISC CPU with Neon™ extension and HD video / imaging coprocessors supporting upto 720MHz.
  - 32 KB Instruction & Data cache
  - 256KB of L2 Cache
  - 48KB of Boot ROM& 64KB of RAM
- Imaging Subsystem supporting camera sensor connection (Parallel and Serial), Image sensor interface, Resizer modules
  - Parallel Raw interface 16-bit & BT.656/BT.1120 (8/16 bit)
- Programmable High-Definition Video Image Processor (HDVICP V2 engine) supporting encode, decode & transcode
  - H.264, MPEG4, VC1, JPEG/MJPEG
- Hardware Face Detection Engine
- HD Video Processing Subsystem (HDVPSS) with 2 HD video input and 2 HD video output units, Component HD analog output, composite or S-Video analog output, Digital HDMI 1.3 Transmitter, Three Graphics layers
- 32-bit LPDDR / DDR2 / DDR3 SDRAM I/F
- Gig Ethernet Switch, Dual USB 2.0 Ports with PHY, PCI Express 2.0 Port with PHY, Three configurable UARTS, Four SPI, Three MMC/SDIO/SD Interfaces

Highlights

- **Faster Time to market**
- **Cost Savings**
- **Reduced Risk**
- **Scalable Choices**
- **Small Form Factor**
- **Independent System for HD Media encoding / decoding applications**

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SOM Features (FS-SOM-DM385)

Processor	• Davinci™ Digital Media Processor TMS320DM385F (1GHz) ARM Cortex A8 core
Memory / Storage	• DDR3 : 1GB • NAND : 512MB • 1 x Micro SD / MMC connector (upto 32GB)
Audio / Video	• 1 x HDMI Out (Micro) • 1 x Integrated Composite Video In & Audio Line In (Stereo Jack) • 1 x Integrated Composite Video Out & Audio Line Out (Stereo Jack) • 1 x LCD TFT Interface (24 Bit RGB) • 1 x Camera Interface (MIPI)
Other Interfaces	• 1 X USB OTG • 1 x IrDA • 1 x I2C / 1 x SPI • 1 x JTAG • 1 x UART (Debug Port) • Accelerometer • B2B connector (MO-244C) for extendable solution
Software	• TI Linux PSP with customized Drivers and BSP • Android • Test application & Sample HD Decode application

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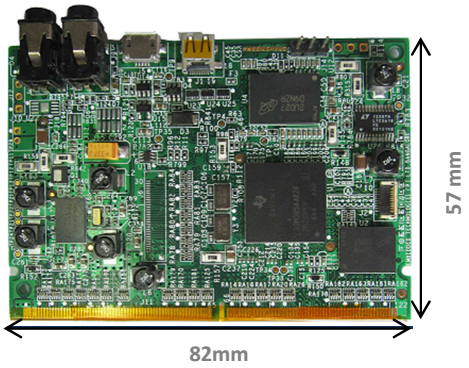
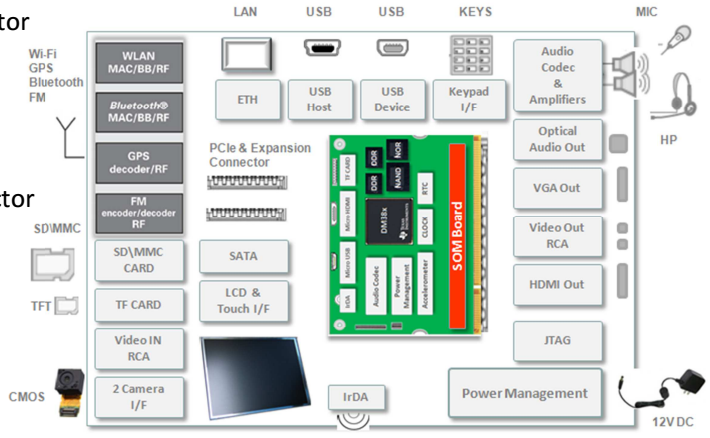
Target Applications

- IP Cameras
- Video IP Phones / Video Doorbells
- HD Video Conferencing endpoints
- Digital Signage
- Media Players/Adapters
- Remote Media Display
- Digital Scanner
- Digital Photo Frames
- Portable Medical Imaging/Diagnostics & Patient Monitoring
- Intrusion Control / Access control Panels with Video



Base Board / Carrier Board Features

- Digital Audio Interface
  - Internal Speaker
  - Audio In and Out via RCA connector
  - Optical Audio Out
  - Headphone, Microphone
- Video Interface
  - LCD with Touch screen Interface
  - Video Out and In Via RCA Connector
  - HDMI Out, VGA Out
  - CMOS camera Interface
- Ethernet
- SD\MMC & TFT Card Interface
- Power Management Controller
- IR & Key Interface.
- PCIe, Expansion Slot, JTAG & UART Port
- Wi-Link 7.0 Module (Optional)



Ordering Information

- FS-DM385-SOM : Core SOM Module
- FS-DM385-SOM-AVxx [xx-in (or) out] : Core SOM + Audio Line IN or OUT/ Composite Video Input / Output
- FS-DM385-SOM-HDMI : Core SOM + HDMI Out
- FS-DM385-SOM-LCM : Core SOM + 5” LCM with TS

Carrier Boards (Coming soon….)

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