



## **TMDSVDP64X-2 Data Sheet**

**Wintech Digital Systems Technology Corporation**

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***The TMDSVDP64X-2 is a videophone development platform (VDP), based on TMS320DM643 Processor from Texas Instruments.***

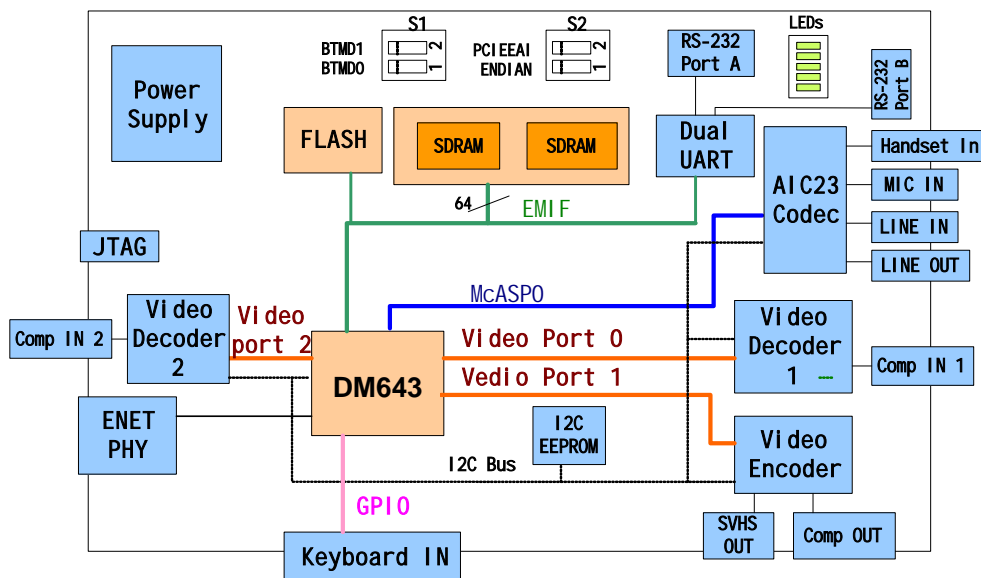
***Features include:***

## **Features**

- Integration with industry leading voice, video compression technologies
- Open Software architecture and APIs allow ease of feature enhancements
- Ready to use application software with fully integrated hardware and software solution enables quick time to market
- Voice/video processing, signaling, network and system control functions are all performed on a single processor, the DM643™
- Based on H.323 and is compatible with other H.323 voice and video telephony solutions
- Development platform based on DM643™ processor
- Development platform with built-in 5" TFT Color Screen and CCD Camera with audio and video connections to interface or to an external TV, camera and handset
- IP Connectivity with Ethernet
- In the future, it can be intergraded with other Network/Signaling stack

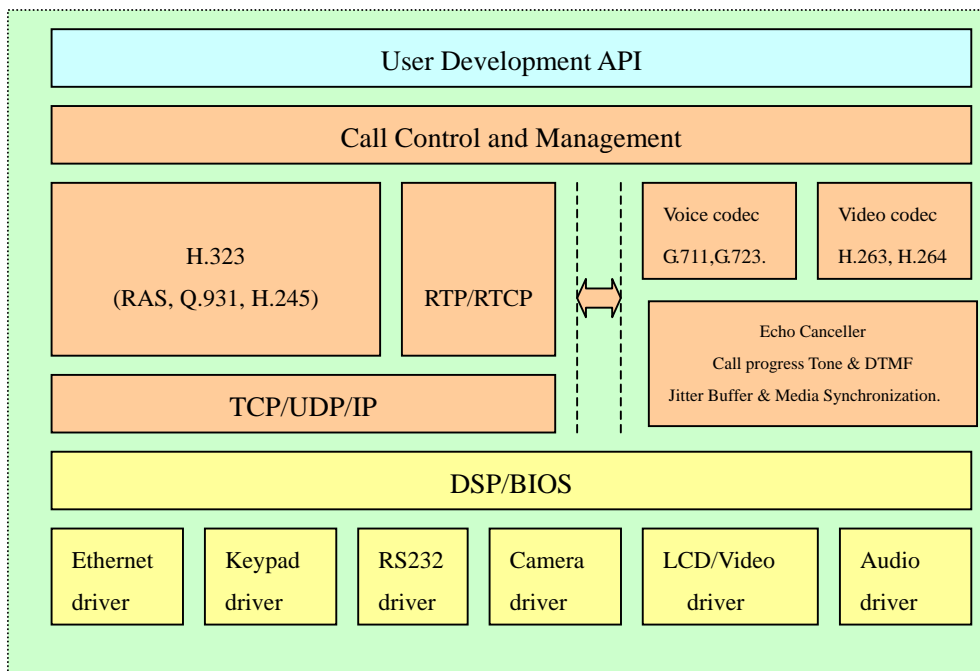
## Hardware

- Processor: TI TMS320DM643 DSP operating at 600 MHz
- Memory
  - 4 MB Flash
  - 32 MB SDRAM
- Audio/Video Interfaces
  - MIC-In and Line-Out
  - Two Video\_in (CVBS) ports
  - Video\_out (CVBS) port
- Communication Interfaces
  - 10/100 Base T Ethernet port
  - Dual UART with RS-232 drivers
- System Interfaces
  - Keypad input
  - 5 LEDs
  - JTAG port
  - 12V (3A) power input
  - Expansion connectors for future use



## Software

- Video Codec: H.263 CIF up to 30 fps  
H.264 CIF up to 30 fps
- Voice Codec: Narrow Band: G.711u, G.723.1a  
Future intergraded with G.711a and G.729
- Acoustic Echo Canceller G.167
- Silence Suppression: Voice activity detection (VAD) / comfort noise generation (CNG)
- Telephony Functions: DTMF tone generator, call progress tones generator
- Jitter buffer and media synchronization: Enhanced video and audio quality with various network conditions to maintain lip synchronization
- Integrated framework: Built on top of DSP/BIOS  
TI Reference Framework 5 (RF5)
- Network/signaling features:
  - Media control: RTP / RTCP
  - Network control: TCP/UDP/IP (TI NDK v1.71)
  - Call control: H.323v.4 (RAS, Q.931, H.245)



## VDP Package Contents

- ✧ Main board
  - ✧ Camera/Screen panel
  - ✧ Handset
  - ✧ AC Adapter
  - ✧ 10/100M Switch
  - ✧ Technical Reference Menu
  - ✧ CD
- 
- Device drivers / board support packages for the VDP.
  - Complete application software for the video phone function integrating the DSP/media processing, call control and signaling software, network processing software and user interface.
  - Quick start, hardware, software and interface documents



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