DVPB | Digital Video Processing Board

Overview

eInfochips' DVPB is a rapid prototyping board based on TI DM6446 DaVinci™ Technology. DVPB is a small form factor board and is ideal for prototyping applications based on DaVinci Technology.

The board features all commonly required peripheral interfaces like Video & Audio I/O, Ethernet, RS232, RS485, USB, VLYNQ, SD, HDD, RTC, IR and GPIO and can also be used for developing media application. The board is targeted for applications like Smart Surveillance Camera, Video Servers, Video Conference Systems, and other Streaming Media applications.

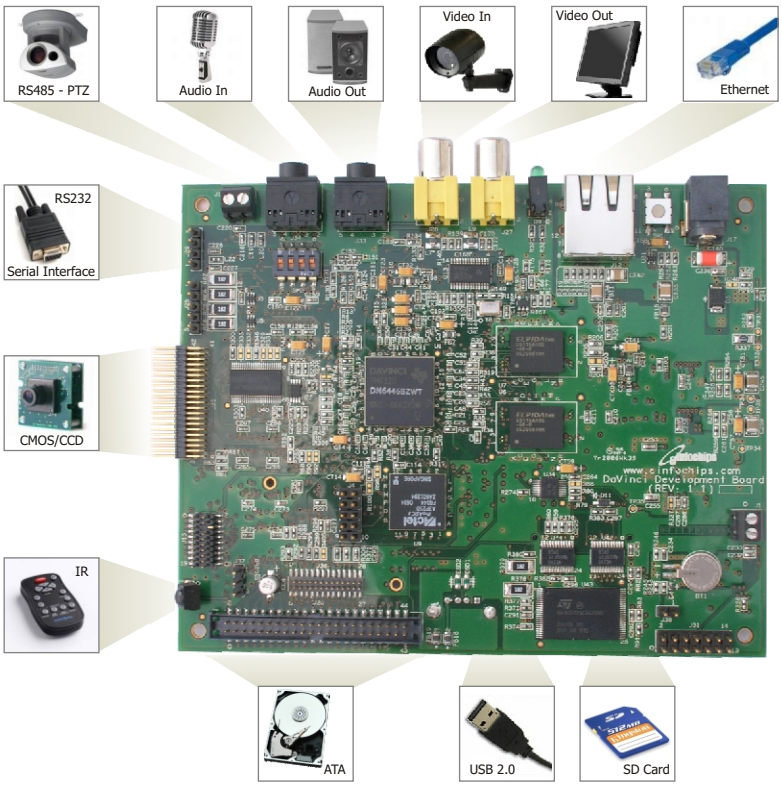
DVPB is bundled with a software package consisting U-Boot bootloader, test utilities and demo applications enabling developers develop and prototype applications based on DaVinci technology.The software package also consists of a Surveillance System demo application based on H.264/ MPEG4 video compression streaming live media using RTP/RTSP. The demo also features web based client application for live viewing of the video.

Benefits

- Low cost prototyping board based on DaVinci Technology - Reduces Hardware Design Efforts
- Small foot-print - Ideal for pre-production prototyping
- Bundled with software package consisting of U-Boot bootloader, test utilities, and demo application - Easy to re-target applications
- eInfochips Support - Access to a team of eInfochips' DaVinci™ technology experts to accelerate product development

Features

- TI TMS320DM6446 SoC Based on DaVinci™ Technology
- Features Video I/O, Audio I/O, Ethernet, USB, SD, RS232, RS485, ATA, IR, Wireless (Optional), RTC, GPIO and JTAG Interfaces
- Option for interfacing CCD/CMOS sensors for video input
- Onboard 128MB SDRAM and 64MB NAND Flash
- RoHS compliant design and components
- Bundled with software package to jump start your application development



DAVINCI™
TEXAS INSTRUMENTS

Platform	TI DaVinci™ TMS320DM6446, (C64x+ 594MHz; ARM926EJ 297MHz)	
Memory	Program Memory: 64MB NAND Flash	
	Systems Memory: 128MB DDR2 SDRAM (Expandable to 256MB)	
Video Input (1 Channel)	NTSC or PAL or CCD/CMOS Sensor	CVBS-video (RCA Jack)
		CMOS/CCD Sensor (42-pin header)
Video Output (1 Channel)	NTSC or PAL	CVBS-video (RCA Jack)
Audio Input (1 Channel)	Mono Line IN	3.5mm Mono Jack
		Provision for microphone input through sensor board interface
Audio Output (1 Channel)	Stereo (Minimum 8KHz-to-96KHz sampling)	3.5mm Stereo Jack
Real Time Clock	RTC with battery back-up	
Infra Red	IR Interface for Remote Control	
Serial Interface	RS232	4 Pin header on board
	RS485	PCB Terminal block connector
	USB 2.0 High-Speed (480Mbps)	Host Type A connector
Network Interface	10/100 Ethernet	RJ45 connector
	802.11b/g Wireless thru VLYNQ (Optional)	28 Pin Header Connector
Storage Interface	Supports Secure Digital Memory Card	External SD card connector
	Supports Parallel ATA 1.8" & 2.5" Hard disk	2mm pitch, 44 pin header
GPIO	4 Event Inputs (TTL/CMOS compatible (Non isolated)	Terminal block connector
	1 Alarm Output (Potential free Relay 24VDC, 1A or 240Vac, 0.1A)	Terminal block connector
Debugging	RS232 Interface & JTAG Interafce	JTAG connectors for DM6446 & MSP340
Activity Indicators	Three LEDs: Green, Red, Yellow	
Power	12V DC ±10%, 800mA maximum	
Operating Environment	Operating temperature 0°C to 40°C	
	Storage temperature -25°C to 85°C	
	Humidity 5% to 95% (non-condensing)	

Deliverables

Hardware:

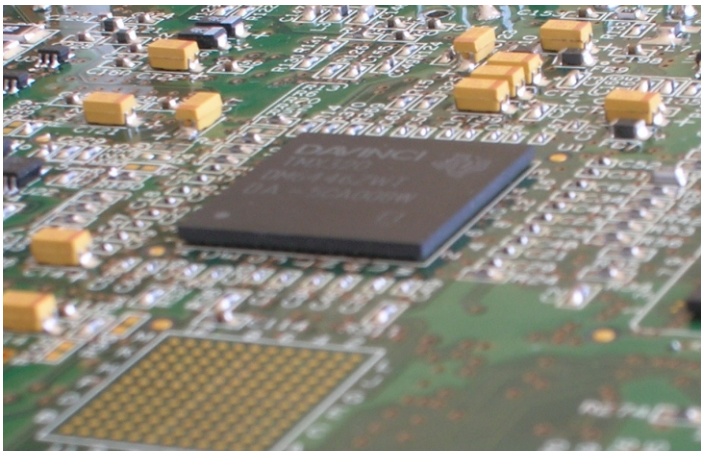
- DVPB with cables, Power supply & Accessories

Software:

- Pre-loaded binary image of Monta Vista Linux kernel with device drivers for all the interfaces
- Sample application source code for testing interfaces on board
- UBL & U Boot Bootloader
- Pre-loaded MPEG4 based streaming media demo application

Documents:

- User Guide & Tech Reference Manual



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