

OMAP Overview

Ubuntu Developer Summit 10.10

May 2010

Chris Pearson

Product Manager and Open Source Zealot-Advocate

Texas Instruments

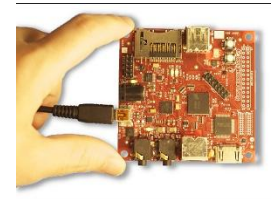
Disclaimer

- Contents are “Selective Disclosure”
 - Nothing in here is NDA
- This is not a TI or OMAP commercial
- This is not an Ubuntu commercial
- This is a call for help and an offer for enablement
- Questions are welcome

OMAP3



- ARM Cortex A8
 - 3430 @ ~600MHz
 - 3630 @ 1GHz+
- Products shipping since late 2008
 - Palm Pre, Nokia N900, Motorola Droid, AI Touchbook, Archos 5&7
- Community Platforms
 - 3430 available on BeagleBoard, GumStix, etc.
 - 3630 available on BeagleBoard XM this summer



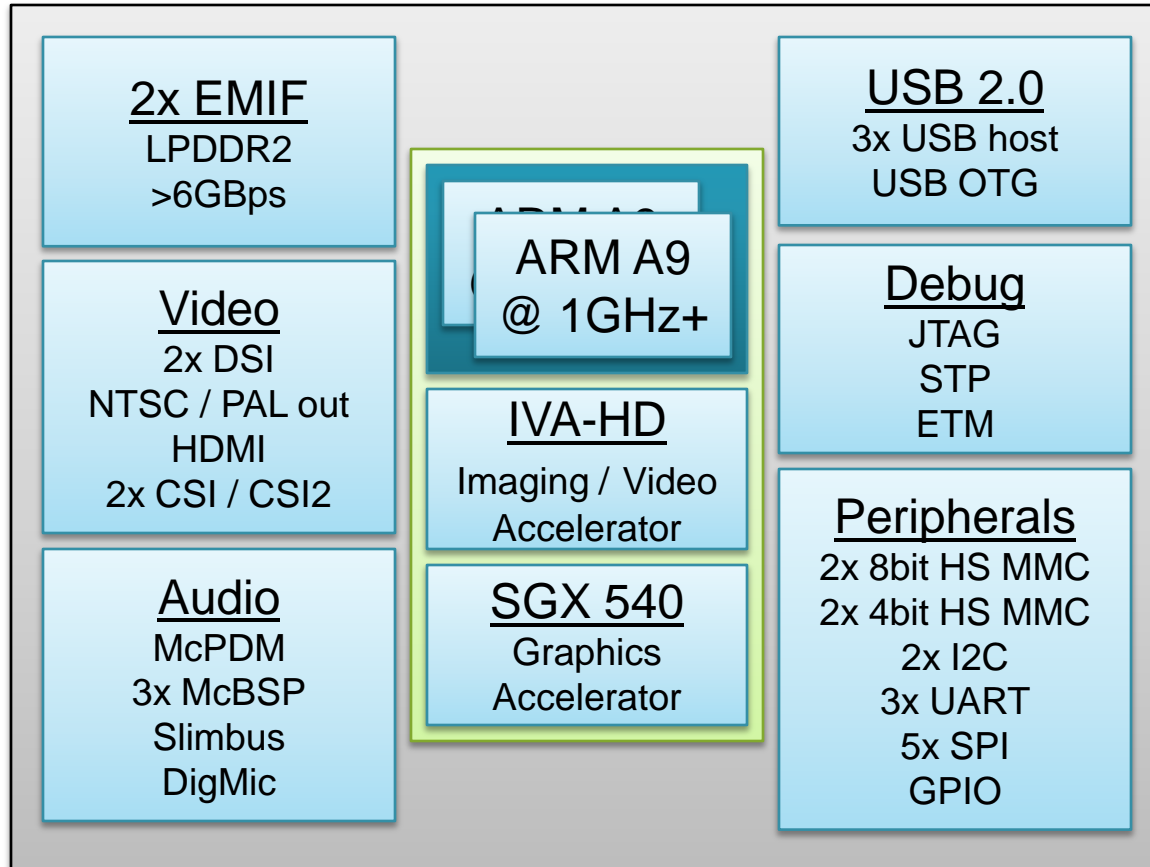
- Features
 - Video
 - 720p Encode / Decode (H.264, MPEG-4) on 3630
 - WVGA all others
 - Audio
 - DSP based encode and decode
 - GFX
 - IMG SGX 530
 - 3430: ~10M Poly, 270M Pix, .9G Flops
 - 3630: ~18M Poly, 480M Pix, 1.4G Flops



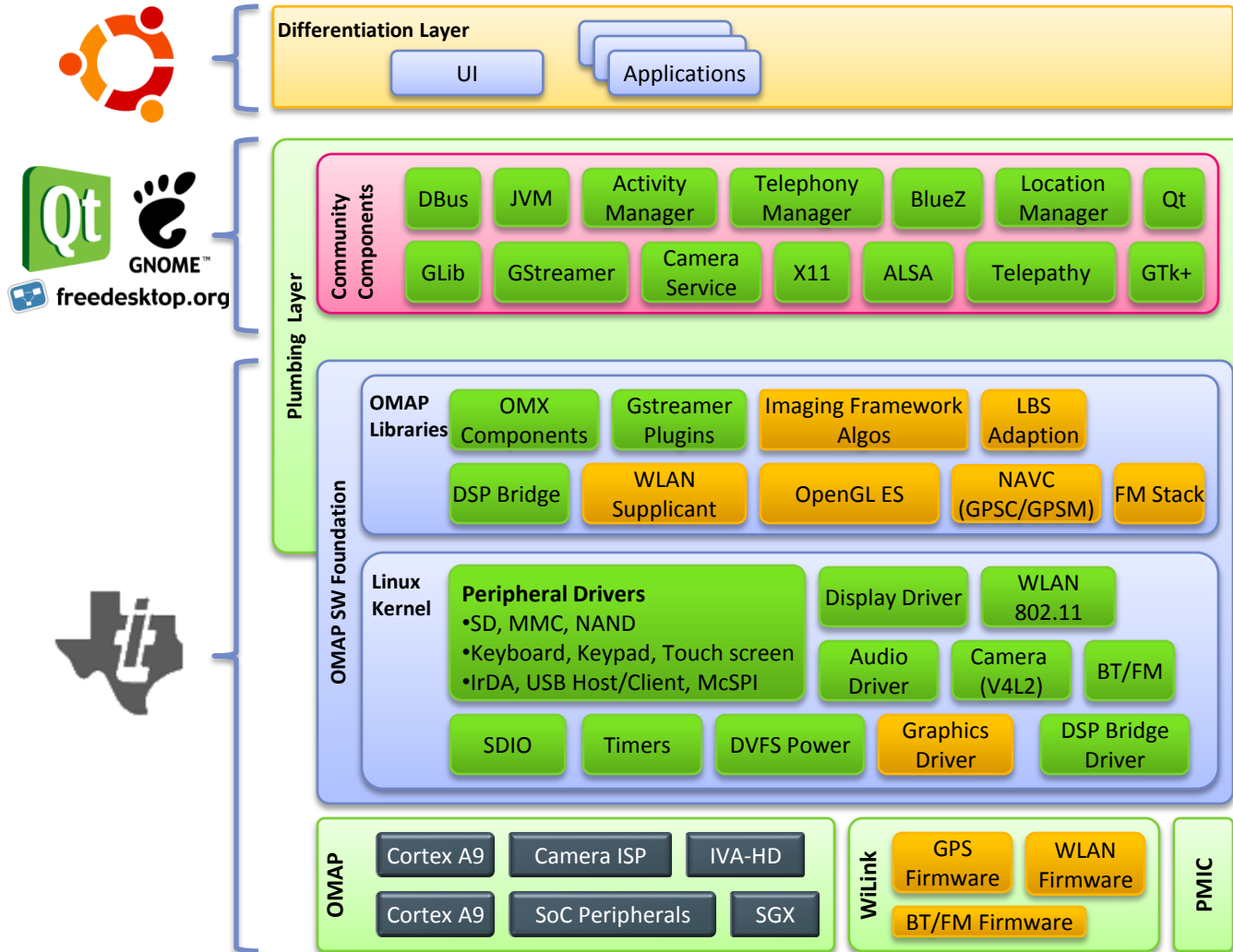
OMAP4

- 2x ARM Cortex A9 @ 1GHz+
- Available on PandaBoard this fall
- Features
 - Video
 - 1080p Encode / Decode all codecs
 - Audio
 - ARM based encode and decode
 - GFX
 - IMG SGX 540
 - 3430: ~30M Poly, 1435M Pix, 4.9G Flops

OMAP4 Block Diagram



OMAP SW Block Diagram



OMAP Commitment Open Source

- TI is committed to working in upstream projects where possible
 - Kernel, GStreamer, etc.
- TI is committed to making OMAP Foundation SW open source where possible
 - As long as:
 - It isn't 3P IP
 - Doesn't tell you how to build an OMAP
- TI is committed to supporting community development boards
 - Full enablement in open source
 - Partial entitlement via public binaries and open source
- Public information
 - Public TRM for OMAP3 available now
 - Public TRM for OMAP4 available Real Soon Now™

Ubuntu on OMAP

- Ubuntu image for OMAP
 - Initial enablement image
 - <http://cdimages.ubuntu.com/ubuntu-netbook/ports/daily-live/current/>
 - OMAP Foundation SW integrated by end of July
 - Audio / Video codecs
 - GFX
 - Full support for 10.10



How to get involved

- Board and OMAP specific pages on the next slide
- How can TI help your community?
 - Hardware, Software, Information
- What's interesting to you?
- What's missing?

Links

- <http://focus.ti.com/general/docs/wtbu/wtbugencontent.tsp?templateId=6123&navigationId=11988&contentId=4638>
- <http://www.elinux.org/OMAP>
- www.omappedia.org
- www.beagleboard.org
- www.pandaboard.org
- www.gumstix.com
- www.tincantools.com
- www.digikey.com