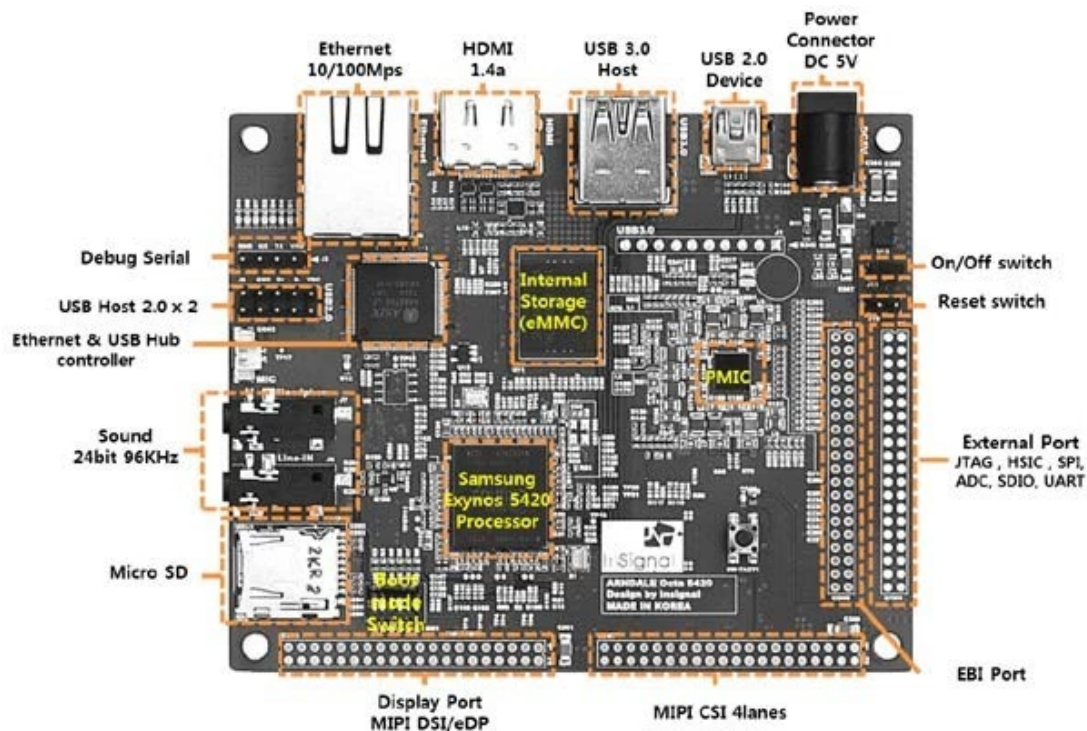


\$179 Arndale Octa dev board features a Samsung 5420 processor

11/10/2013 at 8:00 AM by [Brad Linder](#)

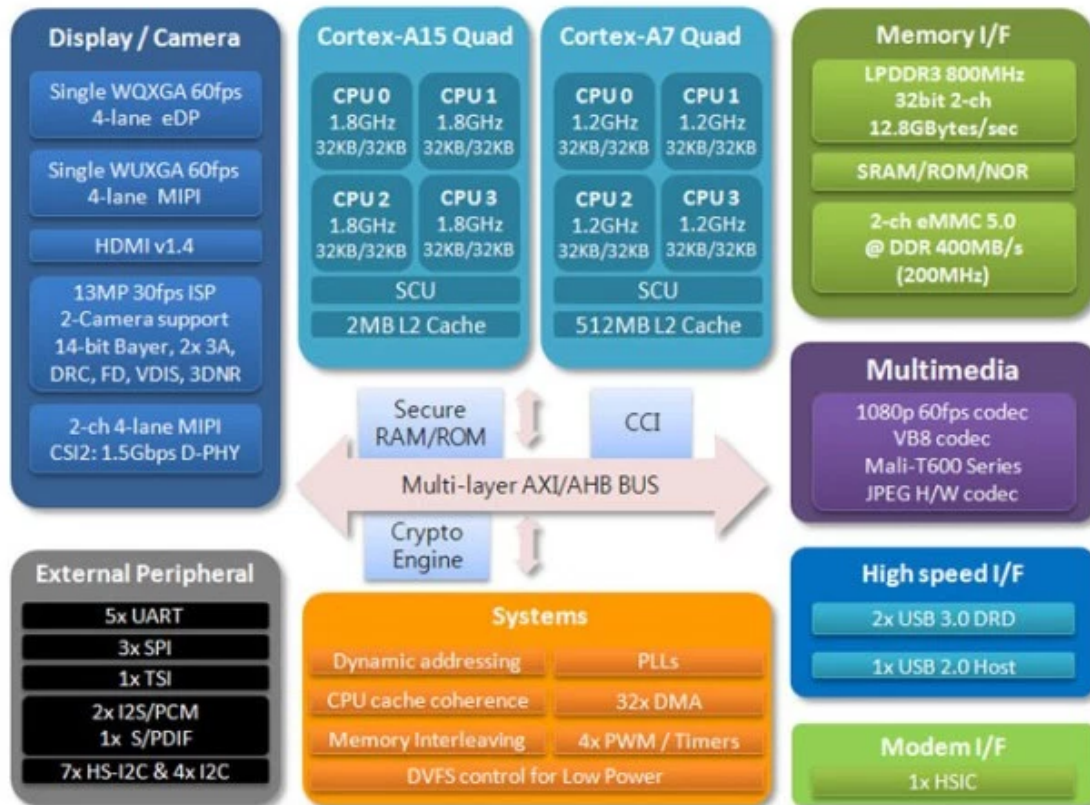
Want to build your own tablet, slap together a media center, or build an Android or Linux-based computer with one of the most powerful ARM-based chips available? The latest Arndale Developer board is one of the first devices of its type to sport a Samsung Exynos 5420 processor.

It's available for pre-order [from PyrusTek](#) for \$179, and [HowChip](#) expects to have the new board in stock soon as well.



Samsung's Exynos 5420 processor is an 8-core chip with 4 ARM Cortex-A15 processor cores and 4 ARM Cortex-A7 processors. Tasks can use up to all 8 cores at once, or they can use just one set of cores at a time to save power, thanks to ARM's big.LITTLE technology.

Exynos 5420 CPU Features



The Arndale board is aimed at developers, not casual users, and it features a range of developer-friendly features including connectors for peripherals and debugging equipment. But you could also build a pretty decent little ARM-based computer out of the board.

It features ARM Mali T-628 M6 graphics, 3GB of RAM, and support for microSD cards for storage. There's HDMI output, line in and out ports, a USB 3.0 port and USB 2.0 port, and 10/100 Ethernet.

You can run Android or Ubuntu Linux on the board, and with a starting price of \$179 (for early customers anyway), it's actually cheaper than the \$249 dual-core model which [came out last year](#), and which is still [available from HowChip](#).

The price is expected to go up to \$199 for the new board after the first 1000 units are sold, but that's still cheaper than last year's model.

via [CNX Software](#)

Share this:





Join the discussion...



guibo • 3 years ago

I'm tired of using ARM boards with their crappy Linux support due to binary drivers that often never get updated for newer Linux kernels. I'm hoping the Silvermont Atoms (Avoton, Rangely and Bay Trail I) live up to their hype of comparable ARM power consumption and performance under Linux. So far, the Bay Trail T on Windows seems decent though I'm not really interested in Windows for my micro board tasks.

With that said, does anyone know of any upcoming SBCs using one of the new Silvermont Atoms? I'm looking for gigabit Ethernet (hopefully 2), USB 3.0 and a GPIO header. I don't need a GPU but at least a serial port for setting up Linux through a serial console is required. I'm not really interested in the 4 and 8 core chips since their reported TDPs are too high for a small embedded design meant for cramped places.

24 ^ | ▾ • Reply • Share ›



anonymous → **guibo** • 3 years ago

I hope that Intel's aggressive targeting of the embedded market will force ARM to develop their own USB 3.0, SD/MMC and Gigabit Ethernet controllers for use in their partners SoCs. There is some low quality IP around in these areas (I'm looking at you Synopsys) and the market could do with some cleaning up. In general Intel's technology in these areas is superior.

4 ^ | ▾ • Reply • Share ›



DeadPenguin • 3 years ago

boggles my mind why it doesn't have a 10/100/1000 network interface.

8 ^ | ▾ • Reply • Share ›



guibo → **DeadPenguin** • 3 years ago

Ya, it sucks that a lot of ARM SoCs don't have gigabit Ethernet built in and require external chips to support them which results in extra cost, larger board space requirements, higher platform power, etc. The few ARM SoCs I've seen with gigabit Ethernet built-in peak at less than half the max gigabit speed. Although, the ones with external controllers (mostly Intel MACs and PHYs) do reach very close to the max speed.

An example would be the Utilite device from CompuLab. The ARM SoC has a built-in GbE controller and the higher end models add a second one using an Intel chip. The built-in one peaks at 470 Mbps total for both the Tx and Rx while the Intel one doesn't.

6 ^ | ▾ • Reply • Share ›



Guest → **DeadPenguin** • 3 years ago

or SATA, at this price.

Worse than that, the Ethernet is probably hanging off the USB bus!

5 ^ | ▾ • Reply • Share ›



anonymous → **DeadPenguin** • 3 years ago

Agreed. It's a silly omission.

4 ^ | ▾ • Reply • Share ›



John Morris → **DeadPenguin** • 3 years ago

Look at the photo again, this SoC doesn't have ethernet, they used a USB -> Ethernet converter. They would have had to use up the one USB3 port, if there is even a cheap converter chip

available.

All of the interesting SoC products now target the tablet/phone space and ethernet isn't included on those products.

2 ^ | v • Reply • Share ›



anonymous → John Morris • 3 years ago

There's a HSIC interface which could be used for Gigabit Ethernet. It wouldn't reach gigabit speeds but it would go faster than 100 Mbit/s.

^ | v • Reply • Share ›



The_Cageybee • 3 years ago

The board's supported by Linaro as one of their official dev targets too.

A big plus as far as I'm concerned.

3 ^ | v • Reply • Share ›



ahmed • 3 years ago

so high price compare to other boards in the same level

^ | v • Reply • Share ›



Guest • 3 years ago

Hi,

This board offers 8 cores working at once.

Does it allow the user to decide which cores to run i.e pin the cores.

Also is there any provision for data logging for power,temperature?

^ | v • Reply • Share ›



Otti • 3 years ago

OK just a word of caution to any budding devs out there whooping with joy at the thought of a powerful little dev board like this one. On-board radio is the little three-word phrase devs can't help but hate. So if you've nothing to hide, you might well be OK with your local spiv law enforcement agency trashing your projects once they're 90% done, but my experience of unregulated willy-nilly proxy hacking at the hands of people who've themselves never written a line of code suggests otherwise.

^ | v • Reply • Share ›



dilharo • 3 years ago

samsung and its bluffing of specs worries me

^ | v • Reply • Share ›



anonymous → dilharo • 3 years ago

You think it's just Samsung? Benchmark rigging is a industry-wide problem. Rest assured, the Exynos 5420 is one of the very best ARM SoCs around right now. I prefer it to the Snapdragon 800, mostly because of the Mali GPU.

^ | v • Reply • Share ›



pol • 3 years ago

No WiFi?

^ | v • Reply • Share ›



Search this website ...

LATEST NEWS

Gartner: Samsung smartphone sales saw “worst performance ever” following Note 7 recall

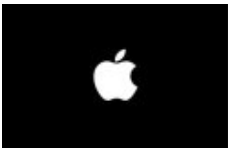
Table 1: Smartphone shipments (in thousands) by vendor in North America (Q3 2016)

Vendor	Q3 2016	Q3 2015	Q3 2014	Q3 2013
Samsung	12,100	10,000	8,000	6,000
Apple	10,000	9,000	8,000	7,000
Motorola	7,000	6,000	5,000	4,000
HP	5,000	4,000	3,000	2,000
Lenovo	4,000	3,000	2,000	1,000
Other	10,000	9,000	8,000	7,000
Total	48,100	41,000	34,000	27,000

Source: Gartner, November 2016

Samsung sold more smartphones in the third quarter of 2016 than any other ... [\[Read More...\]](#)

Report: Apple to release 3 iPhone models in 2017, one with OLED screen



Apple used to release one new iPhone each year, but for the past few years the ... [\[Read More...\]](#)

Japan Display unveils smartphone screen that opens up like a book



Some smartphones have enormous displays that blur the lines between phones and ... [\[Read More...\]](#)

DEALS

Deals of the Day (11-17-2016)



Carry an umbrella and it probably won't rain. Buy a new laptop and a better one ... [\[Read More...\]](#)

FEATURED ARTICLES

Mobile tech deals for Black Friday 2016



American retailers have long made a habit of holding big "Black Friday" sales on ... [\[Read More...\]](#)

Google DayDream View VR headset review (with Google Pixel XL)



It's been more than two years since Google showed that you could transform a ... [\[Read More...\]](#)

Acer Swift 7 ultraportable notebook review



Acer's 13 inch Swift 7 laptop is super-slim, super-lightweight, and super-quiet, ... [\[Read More...\]](#)



LATEST NEWS FROM THE LPX SHOW

[LPX Episode 12: Superbook turns your smartphone into a laptop](#)

[LPX Episode 11: FreeDOS keeps classic computing alive, decades after MS-DOS is retired](#)

[LPX Episode 10: BLOCKS modular smartwatch](#)

SUBSCRIBE TO THE LPX SHOW

[Subscribe at LPXShow.com](http://LPXShow.com)

Disclosure: Some links on this page are monetized by [Skimlinks](#) and [Amazon's](#) and [eBay's](#) affiliate programs.

Copyright © 2016 Liliputing · [Go to top of page](#)