Technical Showcase

CE Workgroup Linux Foundation / Embedded Linux Conference

Warpx.io - Open Hardware / Open Source for Wearables & IoT

> warpx.io Community

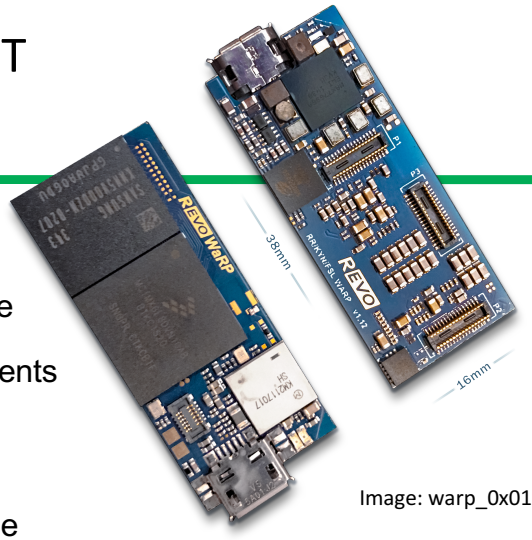


Image: warp_0x01

What is demonstrated

Warp is a completely open-source (both hardware and software), ultra small form-factor application processor based embedded system running the latest Linux kernel and Yocto OS. Designed for wearables, sensors, and IoT devices.

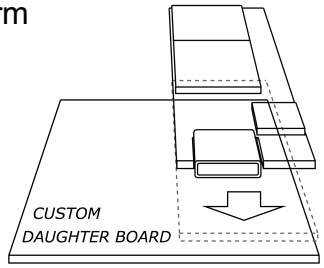
We created our community, Warpx.io, to support and promote the development of these devices. Visit our community for all the design files and source code!

Hardware Overview for warp_0x01:

- 1Ghz ARM / 512MB Ram / 4GB Flash / Wi-Fi+BT / accel
- Self contained compute platform
- Can be battery powered (on-board charger/monitor)
- Lots of I/O: GPIO, UART, SPI, I2C, EPDC, I2S, more
- Open-hardware and open-source platform

Hybrid Design Architecture

HDA is a messaging architecture enabling rapid prototyping and easy expansion with application specific peripherals using traditional MCUs as a sensor hub (Differs from traditional carrier boards as Warp is fully self contained)



What was improved

Efficient Battery Usage

Achieves very low sleep currents < 13mW in suspend

Fast to Boot & Resume

Boots in seconds (< 5s depending on configuration) and resumes near instantly (typ. under 200ms).

Small Form Factor

At 16mm x 38mm in size, Warp can easily be integrated into designs and speed up development. One of the smallest SBCs.

Easy OS Upgrades

Web interface to install software or OS upgrades via open-source SWUpdate framework.

Source code & detailed technical information available

Join our community and find sources at:

> warpx.io

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