



Sidekiq™ Z2

No more wasting time integrating the hardware: just bring your application, power source, and antenna.

THE WORLD'S SMALLEST WIDEBAND RF TRANSCEIVER WITH A LINUX COMPUTER

OVERVIEW

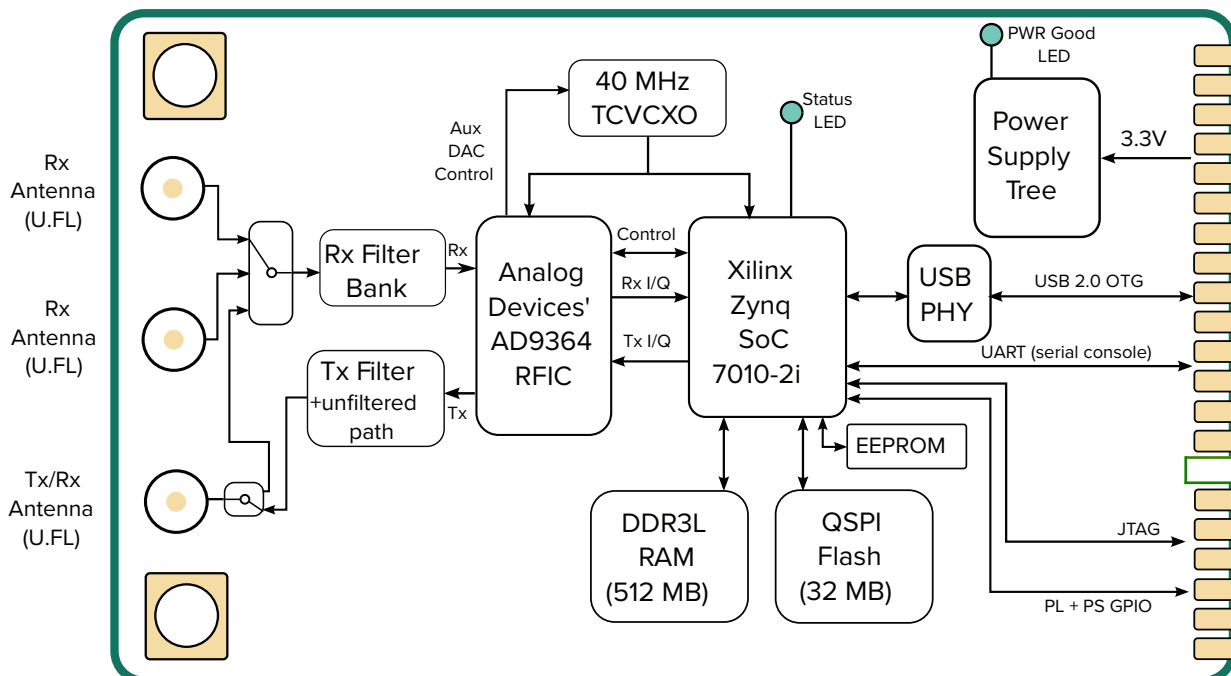
The Sidekiq™ Z2 is the industry's smallest complete SDR platform, integrating an RF front end, AD9364 RF transceiver, FPGA, and Linux computer into the Mini PCIe form factor. The Z2 makes it easy to add RF capability to your mission.

Consuming less than 2W of power and weighing only 8 grams, the Sidekiq Z2 is ideal for SWaP constrained applications such as UAS payloads, remote and portable platforms, embedded tactical communications, and small form factor RF sensing.

KEY HIGHLIGHTS

- RF Coverage 45 MHz to 6 GHz
- Boot Time: < 2 seconds
- Form Factor: Mini PCIe card (30 mm x 51 mm x 5 mm)
- RAM: 512 MB of DDR3L
- Power Consumption: Under 2W (typical use)
- CPU: Dual-core ARM Cortex A9

BLOCK DIAGRAM



RF SPECIFICATIONS

NUMBER OF RECEIVERS

- One

NUMBER OF TRANSMITTERS

- One

RF COVERAGE

- 45MHz to 6GHz

RF CHANNEL BANDWIDTH

- Up to 50MHz per channel

A/D NUMBER OF BITS

- 12

GENERAL SPECIFICATIONS

ENVIRONMENTAL OPTIONS

- Component Temperature Range:
-40 C to +85 C

FORM FACTOR SPECIFICATIONS

DIMENSIONS

- 30mm x 51mm x 5mm

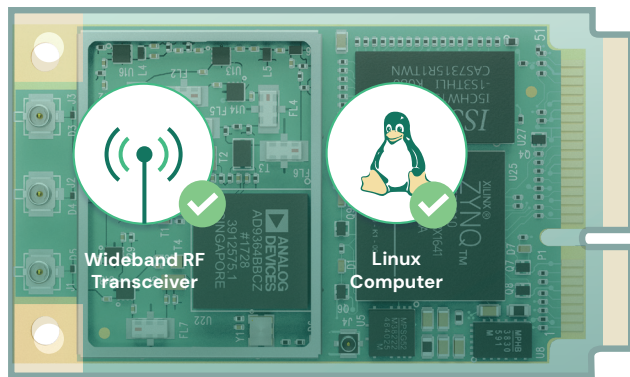
WEIGHT

- 8 grams

DIGITAL SPECIFICATIONS

FPGA

- AMD Zynq XC7Z010-2I System-on-Chip



Sidekiq Z2

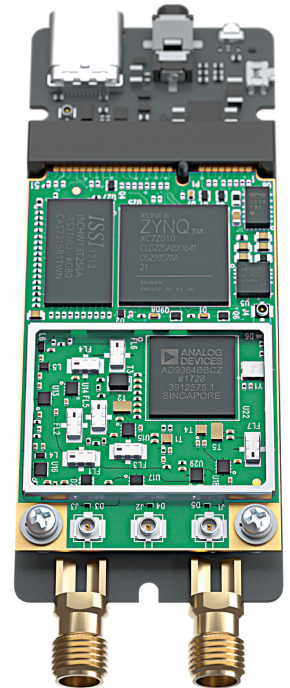


Your
Application

DEVELOPER FOCUSED PDK MAKES PROTOTYPING EASY

Sidekiq Z2 Platform Development Kit (PDK) includes:

- Two (2) Sidekiq Z2 MiniPCIe cards, each with the following features:
 - 1x1 RF transceiver covering a 70 MHz to 6 GHz RF tuning range
 - Xilinx Zynq XC7Z010-2 (industrial temp rating) SoC running Linux
 - 512 MB RAM, 128 MB flash
- Two (2) Sidekiq Z2 simple carrier cards, each with:
 - Two SMA antenna connectors
 - USB-C interface to Sidekiq Z2 USB OTG port (supports USB 2.0 high speed only)
 - DC input power jack
 - Access to JTAG, GPIO, and serial console via low-profile connectors (for use with Sidekiq Z2 I/O expander card)
- One (1) Sidekiq Z2 I/O expander card, which provides:
 - USB-C interface for accessing serial console (via USB-to-UART converter)
 - Xilinx JTAG 2x7 header interface
 - GPIO header access
- Three (3) low profile I/O cables to interface between the Sidekiq Z2 simple carrier card and Sidekiq Z2 I/O expander card
- One year hardware warranty
- Support for deploying libsidekiq-based software applications running locally on the Z2 unit
- Optimized FPGA reference design source code based on existing Sidekiq FPGA reference design
- Private support forum access for one year for up to three (3) users



Sidekiq Z2 in simple carrier card

Specifications subject to change without notice.

Epiq Solutions is a business dedicated to advancing RF technology through products designed and manufactured in the U.S.A.

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