

Open. Lowest Power. Programmable RISC-V Solutions.



[www.mi-v.org](http://www.mi-v.org)

# Mi-V RISC-V Ecosystem

The Mi-V™ ecosystem, provided by Microsemi and industry leaders, aims to increase adoption of the RISC-V ISA and Microsemi's soft CPU product family.



## Design Tools

The Mi-V Ecosystem includes several design tools for use with Microsemi FPGAs and some for use with other RISC-V processors.



- SoftConsole IDE—Microsemi's free software development environment that enables the rapid production of C and C++ executables and includes GNU ARM Eclipse Plug-in, GCC compiler, and GDB debugger

## SoftConsole

- Libero SoC design suite—Microsemi's comprehensive, easy to use FPGA design suite
- Firmware catalog—includes all of the available drivers and is installed with Libero or available standalone
- Imperas virtual extendable platform kit

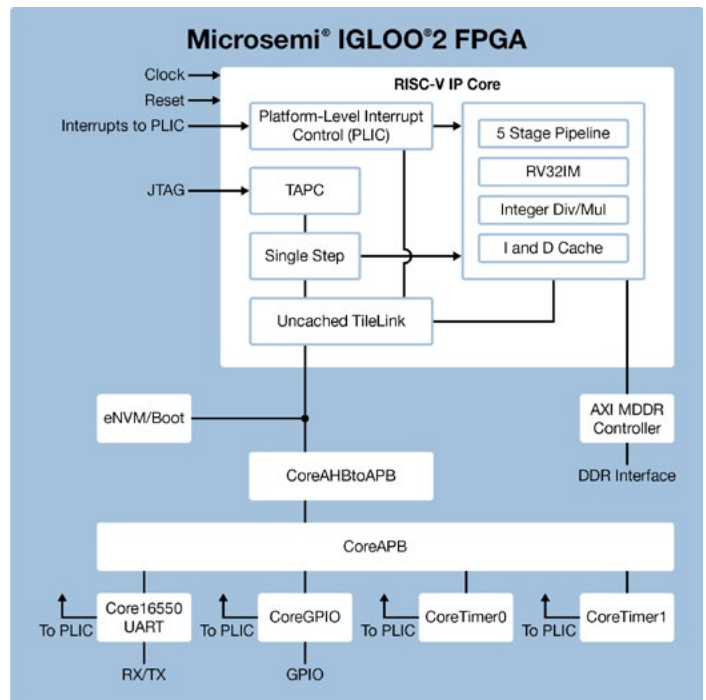


- antmicro Renode virtual platform



## CPUs

32-bit integer machines with and without floating point



## Operating Systems

Operating systems for RISC-V include the most popular commercial and open-source options.

Commercial Operating Systems for RISC-V



Open-Source Operating Systems for RISC-V



## Boards

Low-cost and full-featured boards which run RISC-V cores are available from Microsemi and distribution partners.

Microsemi

- PolarFire Evaluation kit
- PolarFire Splash kit
- RTG4 Development kit



Future Electronics

- PolarFire Avalanche board
- IGLOO2 RISC-V Creative board



Arrow Electronics

- PolarFire Everest board



## Solutions

Microsemi posts solutions for RISC-V on the GitHub site to provide easy access for designers as well as regular updates of solutions.

[github.com/RISCV-on-Microsemi-FPGA](https://github.com/RISCV-on-Microsemi-FPGA)

Solutions provided on GitHub include:

- FreeRTOS demo and source files



- μC/OS sample design



- Sample projects for all boards
  - o Hello world, blinky, etc.
- RISC-V bare metal boot loader
- RISC-V hardware abstraction layer



- SoftConsole IDE sample workspace



## Design Support

Microsemi technical support team and design services team are prepared to support RISC-V designs.

For Technical Support

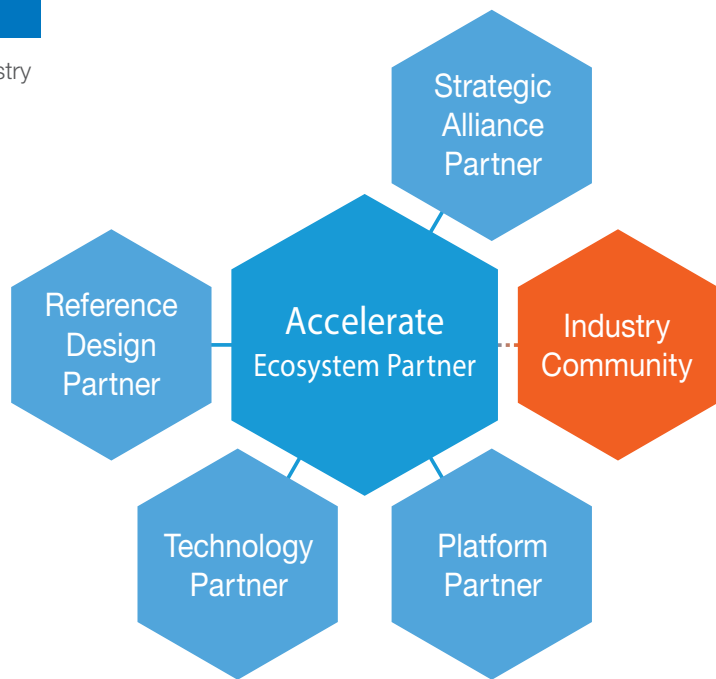
- Web: [soc.microsemi.com/mycases](https://soc.microsemi.com/mycases)
- Phone (NA): 800.262.1060
- Phone (Int'l): +1 650.318.4460
- Email: [soc\\_tech@microsemi.com](mailto:soc_tech@microsemi.com)

For Design Services

[www.microsemi.com/product-directory/fpga-soc-design/4182-fpga-design-services-solutions](https://www.microsemi.com/product-directory/fpga-soc-design/4182-fpga-design-services-solutions)

## Accelerate Partner Program

Microsemi's Accelerate program gathers an ecosystem of industry partners to facilitate collaboration amongst leading silicon, IP, systems, software, and design experts to deliver validated solutions that expedite time to market for end-customers and time-to-revenue for partners. Microsemi's Mi-V™ Embedded Ecosystem, aims to increase adoption of RISC-V ISA and Microsemi's soft CPU product family.



To learn about becoming a Mi-V Ecosystem Partner, visit <http://www.microsemi.com/form/86-accelerate-ecosystem-partner-program>.

Microsemi is continually adding new products to its industry-leading portfolio.

For the most recent updates to our product line and for detailed information and specifications, please call, email, or visit our website.

Toll-free: 800-713-4113

[sales.support@microsemi.com](mailto:sales.support@microsemi.com)

[www.microsemi.com](http://www.microsemi.com)



**Microsemi Corporate Headquarters**  
One Enterprise, Aliso Viejo, CA 92656 USA  
Within the USA: +1 (800) 713-4113  
Outside the USA: +1 (949) 380-6100  
Fax: +1 (949) 215-4996  
Email: [sales.support@microsemi.com](mailto:sales.support@microsemi.com)  
[www.microsemi.com](http://www.microsemi.com)

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