

## About SignOff Semiconductors

SignOff Semiconductors is a consulting company that was founded in 2015 by a group of semiconductor professionals. Since then, the company has provided design services to several companies in the semiconductor industry through continuous service partnerships. SignOff Semiconductors is a fast-growing company with a deep focus on getting excellent talent from the industry as well as picking exceptional talent from the academics.

Our unique and transparent work culture has helped us to retain the best talent and we collectively deliver high quality design services. Our team has a vast experience, and we can serve our clients on various services like Physical Design, Full Custom Analog and Digital Custom Layout and Verification, RTL Design, Verification Embedded and Firmware.

SignOff Semiconductor has offices in Bengaluru, Hyderabad, Toronto (Ontario, Canada) and California (US) in order to serve its customer based on their asks and needs.



### Contact Us

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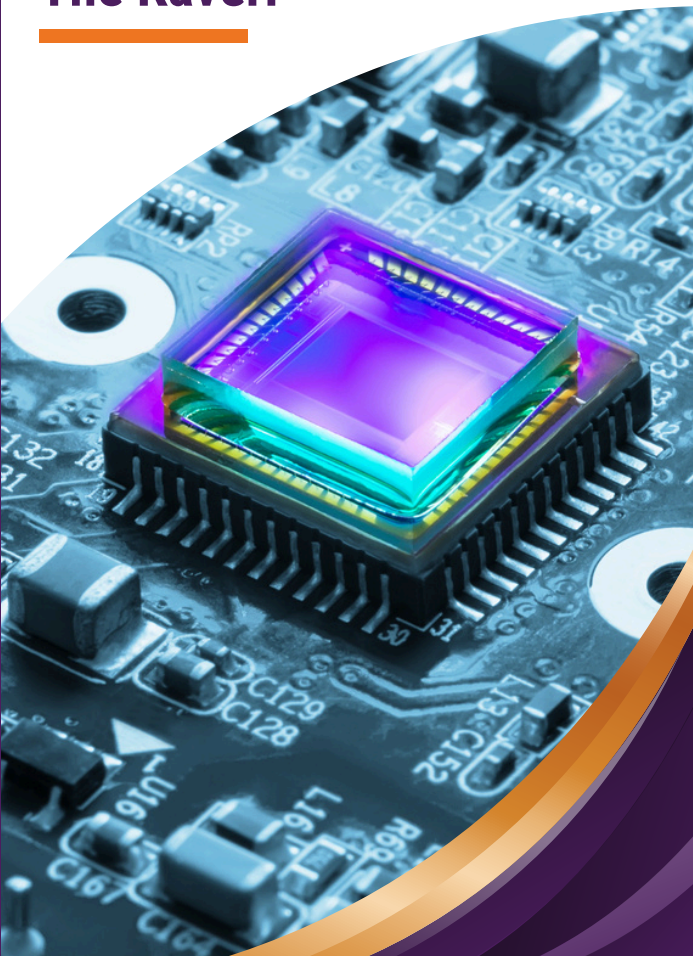
### Our Locations

- India — Bangalore(Headquater), Hyderabad
- USA — San Jose
- Canada — Markham
- China — Beijing
- Malaysia — Penang



**Engineering the Change**  
for a Device-Driven Future.

## The Kaveri



## Kaveri – RISC V Microcontroller Platform

### A Low footprint, Low power Embedded Application Processor

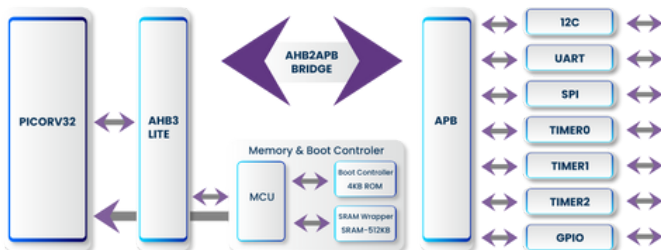
At SignOff we are fascinated about IC design. We are the people that want to know how things work and when we actually do we love the challenge of building new things with it.

Kaveri, a RISC V Microcontroller Platform developed by us is the proof of our innovation and dedication to make a futuristic connected world. “Kaveri” a Low footprint, low power Embedded Application Processor, which can be used in various applications such as portable Medical Devices, small form-factor based consumer devices, embedded controllers, and sensor hubs etc. The team has already developed “SIGNOX” a PICORV 32 application processor-based pulse oximeter which is a reference design and looking forward to making more such designs with robust application development tool chain along with adding more peripherals in the future versions of Kaveri.

- PICORV32 – RISC V 32 bit processor, fast, low, footprint, low power, computation friendly.
- Interconnect – AHBLite, lighter than lite
- AHBLite to APB bridge
- i2C – OLED Display
- i2C – LED/IR Sensor integration
- RAM – internal Memory 512K
- GPIO – general purpose IO

### Kaveri : Low Cost, Low Power Compute Solution

#### KAVERI



FPGA tested – Artix 7 implementation	available
Pulse Oximeter application firmware	available
Breath analyzer application firmware	available
Verification test suites	available
ASIC Verilog	available
ASIC synthesis scripts	available
ASIC Place& route scripts	available

Specification	Details
Diesize	2.6 x 2.5 mm2
IO	144
Voltage	Core:1.2V; IO: 3.3 V
Freq	100MHz
Power	< 5mW
Temp	0 to 125C
Package options	LQFP / QFN

PICORV32	RISCV Core RV32IMC Instruction Set. Lighter than AHBLite interconnect Freq operation 100MHz
SPI	Full duplex synchronous serial data transfer Byte operation. 4 slave select lines. Fully synchronous design with one clock domain. SPI works upto 100MHz Frequency.
I2C	Support for I2C LED display Support for I2C sensor
GPIO	Fully configurable Input and Output Interrupt rise and interrupt fall support 8 lines Byte operation
UART	Fully static synchronous design with one clock domain. Technology independent Verilog and Fully Synthesizable. Byte operation
Timers	8 bit, 32 bit

#### Byte operation

**PICORV32 – RISC V 32 bit processor, fast, low footprint, low power, computation friendly**

**Interconnect – AHBLite , lighter than lite, protocol compliant  
AHBLite to APB bridge**

**i2C – OLED Display integration**

**I2C – LED/IR Sensor integration**

**RAM – internal Memory 512K**

**Boot ROM -4 KB**

**GPIO – general purpose IO**

**SPI**

**UART**

**Timers**



## Engagement Models

With our flexible engagement model we can help our customers throughout the design cycle. Whether it's starting from a simple idea on paper to a complete production worthy ASIC we have the expertise to assist our customers.

### 01 TURNKEY

PhyaWe take complete ownership of project as well as tools and compute/storage Infra.sical Design.

### 02 BOT

Close collaboration with customer to build tailor made teams, deliver and transfer. Highest ROI for customers.

### 03 ODC

Secured office space for customer, we connect to customer network and deliver project.

### 04 Resource Augmentation

Its flexible model where based on project needs; engineers can be on boarded to a customer project either on-site or off-site.