



**World's First!**

# Java on a Chip



**embedded world 2019**  
Nuremberg, Feb. 26 - 28  
Hall 1, Booth 371

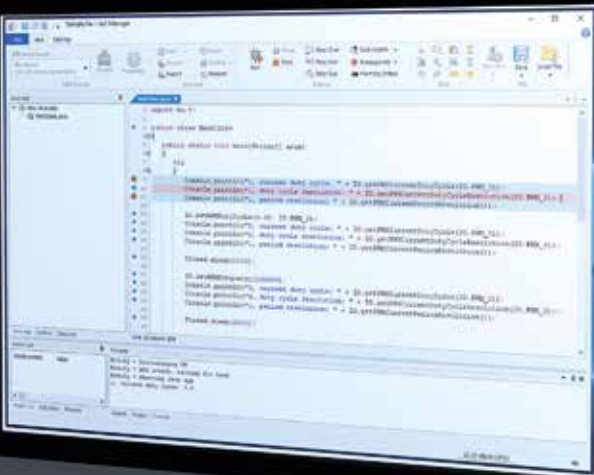


## JoC Module Features

- Size of only 24x36 mm
- Mounting via SMT or through-hole
- Wide supply voltage range of 2.7 - 5.5 V
- Built-in 3.3 V regulator
- Digital and analog I/Os
- USB, 2x RS232 (TTL), I<sup>2</sup>C, SPI
- PWM outputs
- A/D and D/A converters
- Keyboard interface for up to 128 keys
- Rotary encoder interface
- Real time clock with battery backup
- Worldwide unique serial number on chip
- Chip-only on request



Download information and  
free JoC-Manager software  
from [www.JoC.systems](http://www.JoC.systems)



## JoC Manager

- Comfortable IDE, free of charge and without any setup effort
- Complete Java development environment with editor, compiler and debugger
- Syntax highlighting for enhanced code readability
- Jump quickly to compile error source code location
- Source-code remote-debugging via USB
- Breakpoints and variable inspection
- Sample applications for a quick start
- Always work with the latest software and firmware versions using web updates
- Operating assistance via help and detailed hints



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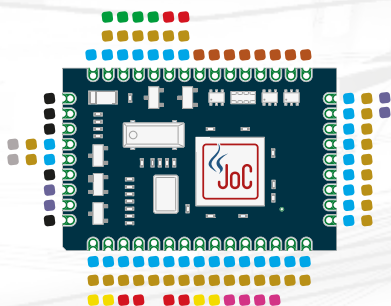
# Javaino JoC Reference Board

- Download JoC Manager for free
- Connect the Javaino via USB and start immediately
- Use all the JoC Module pins routed out to Javaino connectors for development
- Expand Javaino's functionality with the well-known Arduino shields
- Use Javaino for prototyping and small series or integrate the JoC Module into your application



# JoC Module Benefits

- Replace conventional microcontroller electronics with JoC and thus considerably simplify the design
- Program JoC in real object oriented Java, Java's memory-managed approach protects against hidden errors in unsafe C/C++
- Application runs in the implemented Java Virtual Machine, no operating system needed, multi-threading supported
- The USB port can easily be used in Java, while simultaneously debugging and logging
- Make use of the JoC's big variety of interface options for a wide range of applications



Original  
size of  
24x36 mm

- |                  |          |
|------------------|----------|
| ■ DIGITAL I/O    | ■ POWER  |
| ■ ANALOG I/O     | ■ SERIAL |
| ■ PWM            | ■ SPI    |
| ■ KEYBOARD       | ■ I2C    |
| ■ ROTARY ENCODER | ■ USB    |



## Java on a Chip



# Java on a Chip

## Reduce time-to-market, save development costs

Speed up development by avoiding time consuming low-level programming.  
Use already implemented features accessible under Java instead.

## Create safe applications without expert knowledge

No expensive and hard-to-find C/C++ specialists required. JoC enables even junior developers to successfully create a full-scale product within a short time.

## Start your industrial application now, with hardly any costs

Get the industry-grade and long-term available JoC solution. You don't need any additional hardware and software.

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