

VEGA ET1031 – 32-bit High performance Microcontroller class Processor

1. Device Overview

1.1. Features

- RISC-V (RV32IM) ISA
- 3-stage in-order pipeline
- Harvard architecture
- High-performance multiply/divide unit
- Platform Level Interrupt Controller
 - Up to 127 IRQs
 - Low interrupt latency
- Vectored interrupt support
- Configurable AXI4 or AHB interface
- Optional Memory Protection Unit
- Advanced Integrated Debug Controller
- Debug extension allowing Eclipse debugging via a GDB >> openOCD >> JTAG connection

1.2. Applications

- Sensor fusion
- Smart Meter
- System supervisors
- Remote sensors
- Small IoT devices
- Wearable devices
- Motor drives
- Hand held devices
- GPS platforms
- Toys
- Electronic education devices
- PLCs
- Inverters
- Printers & Scanners
- Industrial networking
- Legacy 8/16-bit applications

1.3. Description

VEGA ET1031 is a compact 3-stage in-order 32-bit RISC-V processor core ideal for low power applications. RV32IM RISC-V Instruction Set Architecture based processor is equipped with high performance multiply/divide unit. The processor features separate instruction and data bus to increase performance.

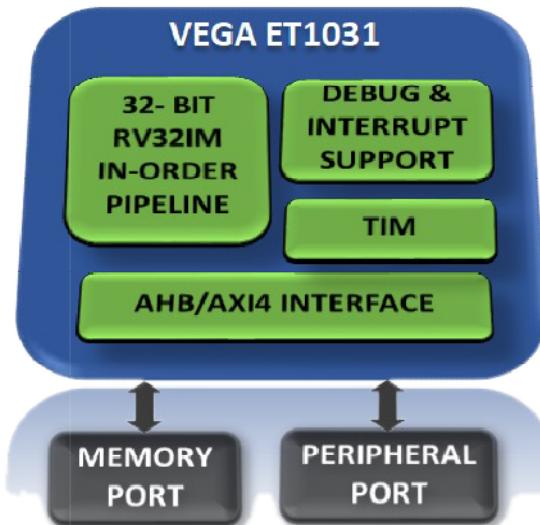


Figure 1: VEGA ET1031 Block Diagram

1.4. Deliverables

- RTL Source Code
- Test Benches
- Synthesis Scripts
- Product Specification
- User Guide
- Integration Guidelines

2. References

2.1. Website

<https://vegaprocessors.in/>

2.2. YouTube

<https://www.youtube.com/VEGAProcessors>



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