

# RA Ecosystem Partner Solution

## Aizip PAS



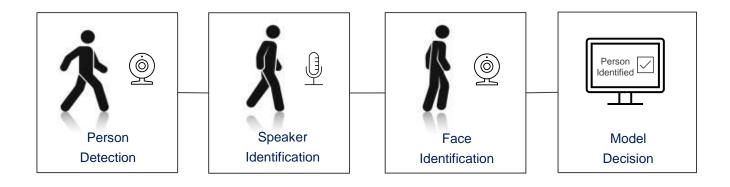
## **Solution Summary**

Aizip's Person Access System (PAS) provides accurate person identification through face recognition and speaker identification. The compact and efficient TinyML model leads to low power and economic PAS modules for a wide range of IoT applications. Turnkey solutions are available for the Renesas RA family of MCUs.

#### Features/Benefits

- Multiple biometric detection functions are integrated into one TinyML model for a single MCU.
- High accuracy is achieved with the cross-check of speaker identification and face identification.
- The four functions in PAS can be used either as a whole or in part for diversified IoT scenarios;
  - Three vision functions: visual wake words (VWW), face detection, and face recognition
  - One audio function : speaker identification.
- Focused customer features: easy registration, high efficiency/optimization, straightforward integration and modularity to enable complete solution.

## Diagrams/Graphics



## **Target Markets and Applications**

- Smart Cities
- Smart Homes
- Smart Sensors
- Building Automation
- Industrial IoT
- Consumer Electronics

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#### **Customer Focused**

Aizip focuses on TinyML models for IoT market applications and provides its business customers with a total solution. Aizip technical team covers the full spectrum required for TinyML customers, from compact and robust model design to efficient deployment. The seasoned management team has established an excellent operation platform to enable on-time and high-quality delivery. Aizip is committed to support its customers' success.

## **Aizip Technologies**

Aizip has developed extensive proprietary technologies in the TinyML area, including

- Automated design tools for fast development, speedy optimization, and excellent specs;
- Breakthrough neural networks for low-power TinyML applications with superior performance;
- High performance achieved with multimodal AI technology in a continuous monitoring setting.

These technologies allow Aizip to provide differentiated solutions with great ROI for its customers.

## **Product Portfolio**



AIV: Aizip Intelligent Vision

- Visual wake word (VWW)
- Object detection
- Face recognition

• ...



AIA: Aizip Intelligent Audio

- Keywords spotting (KWS)
- Speaker identification
- Deep noise reduction

• ...



AIT: Aizip Intelligent Time-Series

- · Predictive maintenance
- ECG and EEG
- Human activity recognition

• ...

## **Value Proposition**

Through its leading expertise, superior design platform, customer driven business model, and service focused culture, Aizip has proven to provide its customers worldwide with the following value:

- Superior specs
- Fast to market
- One-stop shopping
- Excellent ROI

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