MOSCHIP®

RZ Ecosystem Partner Solution

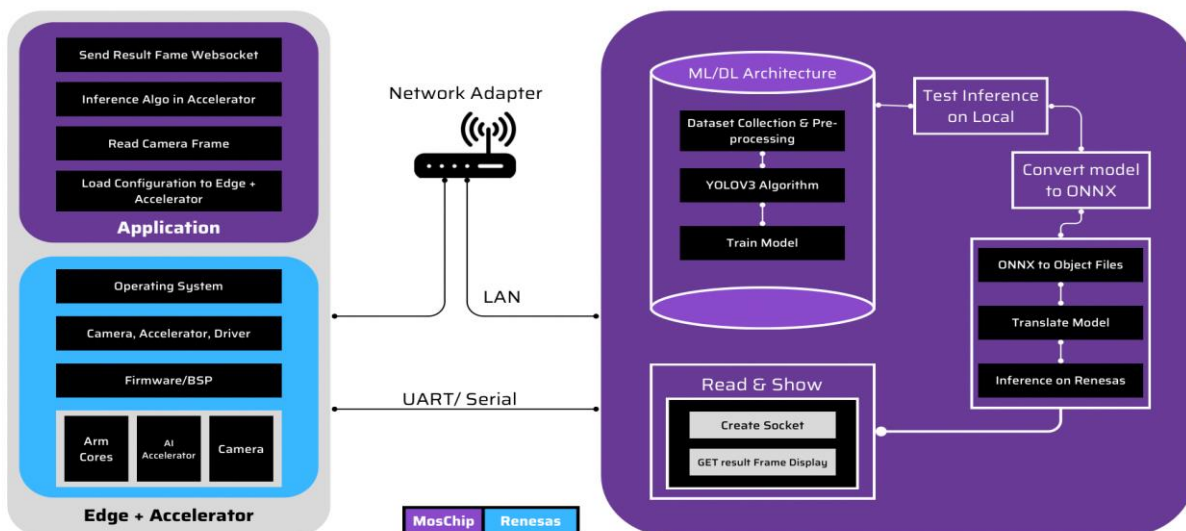# MOSCHIP Patient Monitoring System

RENESAS RZ
READY

Solution Summary

MosChip® Patient Monitoring System (PMS) enables an AI-accelerated solution developed using the RZ/V series of vision AI MPUs. PMS serves as a solution for medical infrastructure where patients are monitored and observed with alarm signals or notifications sent to the concerned authorities. The PMS is developed with an in-house AI architecture design, encompassing data capturing, training, and testing. The architecture and solution are deployed on RZ/V2MA series hardware.

Features/Benefits

- Abnormal activity detection with custom architecture
- Architecture defined using YOLOV3 and Tiny Yolov3 with train and test accuracy of 80%
- Detects five abnormalities inference on Renesas DRP-AI accelerated applications
- Vision AI accelerator is inferenced and working with 8FPS to detect all classes in real time
- HTML web example is also included for design to view live stream and show notification or alert at nurse station

Diagrams/Graphics

Target Markets and Applications

- Hospitals / Labs
- Retirement homes

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2024.07

MOSCHIP®

ESTD 2000   **700+ Projects**   **400+ Tapeouts**   **150+ Customers**   **20+ Years Exp.**

We are MosChip® – A trusted technology partner for SILICON | SYSTEMS | SOFTWARE | PRODUCT DESIGN. With 1300+ engineers and domain experts across India and USA, MosChip® continues to bring in digital and product transformation for businesses across the industries. We offer engineering services comprising of systems and product design, IoT solution design, Artificial Intelligence and Machine Learning, FPGA design, Mixed Signal IP design, ASIC design, verification, and validation.

MosChip® is a publicly traded company headquartered in Hyderabad, India, with a vision to be a preferred partner for technology and excellence throughout the entire product/solution development cycle, designing comprehensive and best-in-class solutions on time to achieve business and operational goals. Our team of experts empower businesses, technology providers and manufacturers to deliver innovative, customized, and scalable solutions for the domains like Automotive, Media & Entertainment, Industrial and Home Automation, Consumer Electronics, Telecommunications, Computer Vision, Networking, Data Center, and Healthcare, etc.

AI ENGINEERING SERVICES OFFERINGS

COMPUTER VISION

- Machine & Computer Vision Algorithms
- Object Detection, Identification & Visual Perception
- Image Capture & Optimization
- Vision Analytics & Processing
- Optical Character Recognition

ML LIFECYCLE MANAGEMENT

- MLOps - Automated ML Pipeline Deployment
- Model Designing, Optimization, Testing & Porting
- Inference Engines & Metrics
- ML Transfer Learning Framework
- Data Augmentation & Annotation

COGNITIVE COMPUTING

- Deep Learning & Neural Networks
- AI/ML on Edge & Cloud
- ML Application Acceleration
- Cross Platform Porting & Integration
- Natural Language Processing (NLP)

AI/FPGA ACCELERATION SOLUTIONS

- Scene Detection & Text Analytics
- Predictive Analytics
- Audio Analytics & Key-phrase Detection
- Face Recognition
- ML Reference Designs & POC

INDUSTRIES

- Automotive
- Industrial Automation
- Consumer Electronics
- Telecommunications
- Multimedia
- Computer Vision
- Security & Surveillance
- Medical
- Networking
- Energy & Utility

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20+ years Industrial Experience

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