SAMA7G54 for AI/ML Applications with Edge Impulse

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SAMA7G54 for AI/ML at the Edge

Up to 1 GHz Performance and 533 MHz LPDDR3 Support

Industrial

Gateway

- ARMv7 architecture: Cortex®-A7
- High Security Features
- Large number of connectivity options
- Complete Imaging and Audio Sub-system
- Optimized BGA ball-out facilitates 4-layer PCB designs
- Simplified external power management and optimized PMIC

SAMA7G54

- Up to 1 GHz
- 533MHz DDR3
- MIPI CSI-2® Camera
- 10/100 Ethernet
- Giga Ethernet
- Security
- Audio
- 6x CAN-FD
- QSPI, Octal SPI
- Up to 136 I/O
- AEC-Q100

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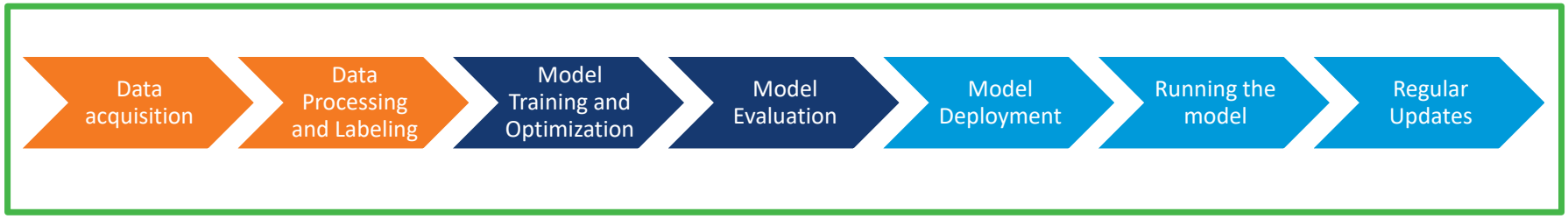
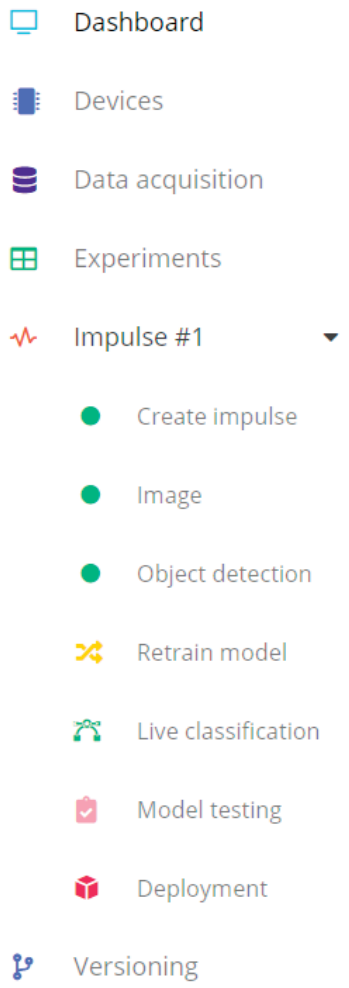
Edge Impulse for 32-bit Microprocessors



Edge Impulse

- **Edge Impulse ecosystem includes:**
  - Edge Impulse Studio, an online platform
  - Edge Impulse Linux® packages to acquire data, deploy and run the models



EDGE IMPULSE

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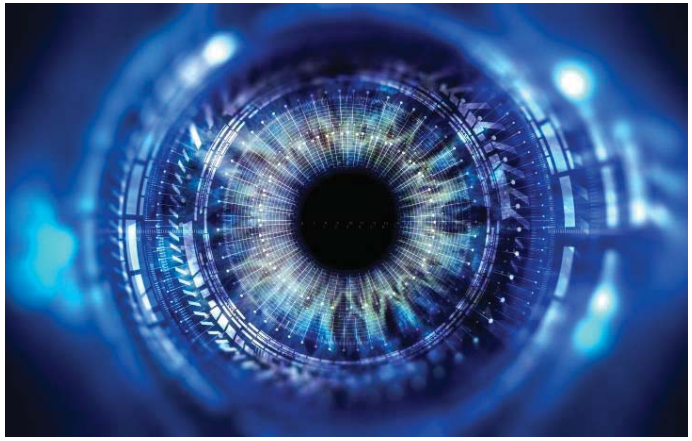
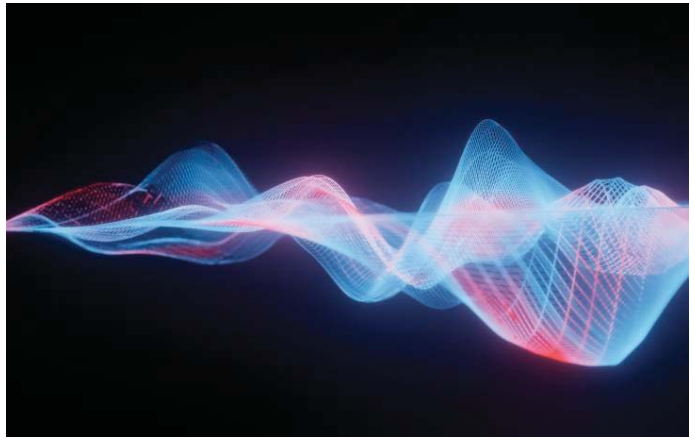
Main AI/ML Applications Targeted for MPUs

Computer Vision at a frame rate around 10-40 fps*	Time series	Audio applications like keyword spotting





**Without live video streaming, only edge processing of the images*

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Cost for a Customer

- **Edge Impulse is a paid tool.**
- **Business Model : License fees. No royalties.**
- **Different plans:**

Plan	Model owner	License	Conditions	Cost
Community	Edge Impulse	Internal use only		0$
Professional	Edge Impulse	Commercial use under conditions	• Active subscription • Company of fewer than 15 full-time employees and contractors	400$/month
Enterprise	Customer	Commercial use	During the subscription term specified in the applicable order.	Custom pricing

Useful Links

- **Microchip 32-bit Microprocessors**
  - 32-bit Microprocessors | Microchip Technology
- **How to use Edge Impulse AI/ML Tools on SAMA7G54 (Developer Help)**
  - How to use Edge Impulse AI/ML tools on SAMA7G54 MPU - Developer Help (microchip.com)
- **Edge Impulse documentation for the SAMA7G54**
  - Microchip SAMA7G54 | Edge Impulse Documentation
- **Microchip Blog Post about Edge Impulse**
  - AI/ML at the Edge for 32-bit Microprocessors, Using Edge Impulse | Microchip Technology

Thank You

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