

Hailo-15™ SOM

- Low power and compact size (47x30mm)
- Powerful Neural Network up to 20 TOPS
- High quality multiple sensors ISP pipeline 2x MIPI-CSI2 4 lanes
- Best AI performance at a standard camera power consumption and cost
- Portfolio includes SoM, SBC and deployment ready platform



Built in AI



High-Performance AI Analytics



Enhanced Image Processing



Flexible and Secure System



Comprehensive Software Suite



Superior Image Quality

AI powered vision enhancement 4K60 or 4k30 resolution. Comprehensive vision library. Removing noise while preserving important image details and textures. Resulting in higher SNR and SSIM. Cutting edge vision processor paired with an ISP pipeline and 4K@60FPS image processing capability.



Efficiency at the Edge Vision

Small size - 47x30 mm **only** and power efficient with best-in-class performance per \$. Hailo-15 provides best image quality at a low light condition <1Lux by up to 3 TOPS @4K/30FPS. Leaving enough TOPS for AI video analytics at a very low power consumption of ~1W.



OS Support

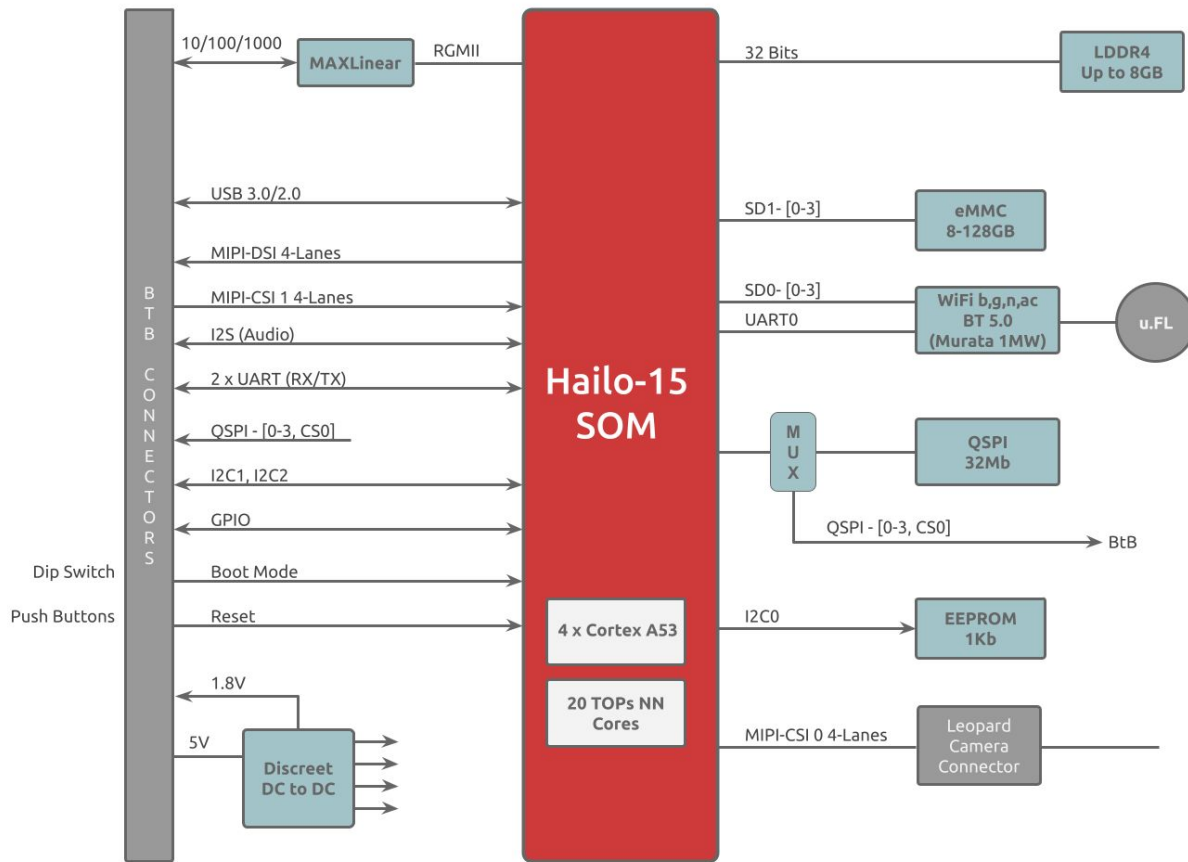
Broad Linux based software support including a dataflow compiler and a library of deep learning and application examples. Supporting standard ML frameworks such as Keras, TensorFlow, PyTorch and ONNX. Yocto-based Linux distribution Industry standard ML frameworks Secure system.



Applications

Security - ITS, Perimeter Protection, Access Control
Industrial Automation - AMR/AGV/ AOI, Building Management, Robotics, Machinery
Automotive aftermarket - Autonomous Driving
Retail- Point of Sale, Supply Chain Management

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	Hailo-15 SOM	Notes
Neural Network Core	20 TOPs Hailo's patented structure defined dataflow architecture	20 TOPs on Hailo 15H SOM 11TOPs on Hailo 15M SOM
CPU	4 x Cortex A53 @ 1.3GHz ; 12 kDMIPS	
Memory & Storage	Up to 8Gbyte LPDDR4, 8-256 Gbyte eMMC (default 4GB LPDDR4, 32GB eMMC) Bootable 32Mbit QSPI	
Vision Subsystem	Dual Camera 12MP ISP with HDR H.265/4 Video Encoder (HEVC &AVC) 4K @ 30FPS, 2 x MIPI-CSI2 4 lanes	Support for the following image sensors: IMX334, IMX678
Wireless Connectivity	802.11 a/b/g/n/ac + BT 5.0	
Data Interfaces	USB 3.1, GbE	
Misc	MIPI-DSI 4 lanes, SDIO, UART, SPI, I2C, I2S, GPIOs, Audio	
I/O Voltage	1.8V	
Main Voltage	5V	
Interface	3 x Hirose DF40 connectors	
Size	47x30mm	
Temperature	Industrial: -40°C to 85°C	