LightPath Technologies

EdgeIR™

AI at the Edge

KEY FEATURES

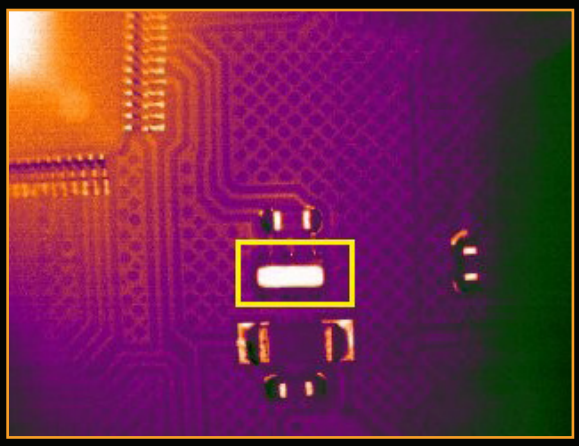
EdgeIR™ AI technology enables edge processing for a variety of use cases such as Smart Cameras and space, scientific, industrial, and security applications. The benefits of utilizing local or embedded edge computing devices instead of relying exclusively on centralized cloud-based processing include: immediate processing in real-time, minimized latency, savings in bandwidth, and enhanced privacy and security. Nonetheless, deploying edge solutions necessitates solutions that are both energy-efficient and cost-effective.

The Hailo-8™ edge AI processor, delivering up to 26 tera-operations per second (TOPS), surpasses all other edge processors by a significant margin achieving data center-class performance. Video and AI architecture designed to integrate with autonomous and semi-autonomous for a wide range of applications. Supports Unicast, Multicast, Broadcast in UDP, RTP, RTSP. Capabilities include video and audio capture, encoding, decoding, transcoding and display, video raw-data pre-processing. ONVIF support including PTZ control over RS485.

For customers with trained AI models, The EdgeIR™ makes deployments seamless. You can implement your neural networks directly within the hardware using standard frameworks such as TensorFlow, Keras, PyTorch, and ONNX. This compatibility ensures a smooth integration process, allowing you to leverage the full potential of your AI models at the edge, optimizing performance for advanced applications like safety, security, aerospace, object tracking, industrial monitoring, and smart city projects.

Specifications

EdgeIR™	
SOC (System On Chip)	NXP i.MX 8M Plus W/Quad Cortex®-A53 Processors
NPU (Neural Processing Unit)	2.3 TOPS (Tera Operation/Sec)
GPU (Graphics Processing Unit)	GC7000UL: 166 million triangle/sec 1.0 giga pixel/sec 16 GFLOPs 32-bit
Memory	6GB LPDD4 RAM 32GB EMMC Flash
Ai Accelerator	Hailo-8
ISP (Image Sensor Processor)	375 Mpixel/S HDR ISP supporting up to: 12MP @ 30fps 4k @ 45fps
Digital Video Interace	GigE and HDMI
Network Interface	GigE
Compression	H.264 H.265
Serial Interface	RS232 RS485
Audio Input	Optional 3.5mm
Onboard Storage	Optional Micro-SD up to 1TB
Power	< 10 Watt, 5-12 VDC



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