AINavi-SDK

Comprehensive SDK with pre-trained AI models

AINavi

Introduction

Advantech's AINavi-SDK is a comprehensive SDK powered by YUAN that provides labeling, training tools, pre-trained AI models, and pre-defined event detection capabilities. AINavi prepares video and images acquired via AI inference/analytics for display, recording, and transmission. It is capable of processing raw data from IP cameras, capture cards, or video files; and handles cropping and frame dropping using AI inference. This solution also provides pre-trained AI models for facial, vehicle, LPR, object detection, and behavioral analytics; and uses 3 x major AI block diagrams to enable diverse event detection — including line detection, area detection, and number/time counting for low code implementation. AINavi-SDK supports x86 development environments and moves applications to NVIDIA Jetson systems for edge AI usage. Advantech's innovative AINavi-SDK accommodates smart city/factory, transportation, education and medical imaging applications.

Specifications

	Functions	Features
Video Processing	Video enc/dec	H.264, MP4, RTSP
	Image enc/dec	JPG, BMP, PNG
Image Content Analysis	Object recognition and tracking	23 vehicle types
	Object counting	Traffic counting People counting
	Scene text recognition	License plate recognition (LPR) Word recognition
Biometric Analysis	Face and landmark detection	68 x 3D feature points, 3D gesture recognition
	Age and gender recognition	Asian/global group
	Facial expression recognition	Calm, surprise, enjoyment, anger, disgust, and/or fear
	Facial recognition	98.4% accuracy rate ±90° Side face range Sync/Async processing
Human Behavior Analysis	Classroom behavioral analysis	6 x expressions and 9 x behaviors

Ordering Information

SW License

Part Number	Description
Y5A710A000	1 x CH AINavi-SDK dongle
Y5A710A003	4 x CH AINavi-SDK dongle

Inferencing platforms

Part Number	Description
MIC-730IVA	MIC-730IVA is an edge AI NVR with powerful NVIDIA Jetson AGX Xavier SoM for 8-ch IP cameras AI inference
MIC-730AI	AI Inference System based on NVIDIA® Jetson AGX Xavier™