JetStream-SDI-Orin

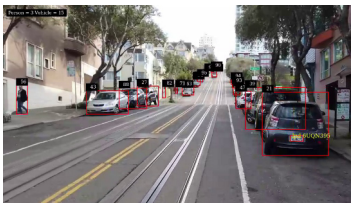
AI video carrier board for NVIDIA® Jetson Orin™ NX

The JetStream-SDI-Orin is a multi-channel video AI carrier board for Jetson modules. The JetStream-SDI-Orin has dual HD-SDI inputs and eight composite video inputs allowing multi-channel video AI applications to be rapidly developed and deployed. This SWaP optimized solution is ideal for demanding applications in Military, Mining, Communications, Transportation and Energy industries.

The JetStream-SDI-Orin features dual HD-SDI inputs at up to 1080p60 and an 8 channel NTSC/PAL/RS-170 low latency video capture engine. All inputs can be simultaneously captured for processing by the Jetson Orin NX module allowing vision-enabled AI applications to use a wide range of standard video sources. The JetStream-SDI has a HDMI output for local display and Gigabit Ethernet for connectivity. An M.2 (Key M) slot is provided to allow connection of high-performance NVMe storage. Additional expansion is possible via the PCIe/104 OneBank bus connector.possible via the PCIe/104 OneBank™ The JetStream-SDI is a standard PCIe/104 form factor cardand is powered from 12V-15V DC input. The JetStream-SDI is supported by a comprehensive board support package and a series of application notes designed to help rapid development of vision-enabled AI applications.



AI Inference example: Object detection + monitoring(1)



AI Inference example: Object detection + ANPR

Applications

AI Inference - Object Recognition, ANPR, Pose detection
Device Edge computing

Unmanned vehicles (UAV, ROV)

All-round Real-Time Situational Awareness

Traffic Monitoring and Control

Video Acquisition and Analytics

Remote Video Surveillance

Rugged intelligent video recorders for marine, aviation
Border Security

Features

Support for NVIDIA® Jetson Orin™ NX modules

2x HD-SDI video input at up to 1080p60

8x Composite PAL/NTSC/RS-170 video inputs

HDMI 2.0 Display at up to 4K resolution

Multi-channel AI Video Inference

H.264/H.265 Video Encoding and Streaming

Rugged, real-time video capture/analyze/stream solution

480GB M.2 (Key M) NVMe storage (other sizes by request)

Gigabit Ethernet

PCIe/104 OneBank™ Expansion

Industry Standard PC/104 mechanical form factor



JetStream-Orin

Rev A.00 Subject to change without notification

Advanced Micro Peripherals
THE EMBEDDED VIDEO EXPERTS

Multi-channel vision-enabled AI

Device edge computing

Dual HD-SDI + 8x NTSC/PAL video inputs

AI video analysis, encode and stream

SWaP optimized for applications in the Military, Transportation, Mining and Energy Industries

PC/104
Embedded PC Modules

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