

EDGE AI COMPUTER

## For smart city applications

iWave Systems introduced the CAN-enabled Corazon AI edge platform to implement deep-learning inference applications.



*Corazon AI offers hardware-accelerated data pre- and post-processing, video analytics, and real-time decision-making on the edge (Source: iWave Systems)*

Recent years have disclosed an escalation of compute-intensive platforms for smart city applications. These applications (health, transportation, education, energy, etc.) generate enormous amounts of data that demand low-latency processing capabilities. Edge computing presents to be a viable solution for smart city environments. Bringing computing at the network edge rather than uploading data to a centralized server or cloud, reduces latency. Local data processing and analysis reduces the need to send vulnerable data to the public cloud. The scalable technology also allows companies to expand their computing capacity through IoT devices and edge data centers.

Corazon AI platform is built on Zynq Ultrascale+ MPSoC (multi-processor system on chip) device. It integrates the Xilinx Vitis AI (artificial intelligence) stack consisting of tools, IP cores, libraries, models, and example designs to develop deep-learning inference applications. The platform is available with an up to 64-bit, 4-GiB DDR4 memory, an 8-GiB eMMC Flash (expandable to 256 GiB), and EEPROM for MAC (media access control) address secure key. Connectivity options include two 1-Mbit/s CAN interfaces, USB

3.0, two 1-Gbit/s Ethernet ports, Wi-Fi, Bluetooth, 4K display port with audio function, and 4G/5G network support via an M.2 expansion slot. Enabling to connect up to eight IP cameras, the device is suitable for realization of Edge AI gateways. Embedded Linux serves as the operating system. Vision Library for hardware acceleration is available.

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