Partner Presentation

E098 Edge AI Box for Video Analytics

Xuewu Yuan, JWIPC Technology Development Co., Ltd.
JWIPC profile

JWIPC, founded in 2011, is headquartered in Futian District, Shenzhen, who is the national high-tech enterprises, JWIPC group has consumer products business group, internet of things business group, server business group, communication business group and manufacturing center.

As an Associate member of the IOT Solution Alliance, JWIPC is a solution provider, specializing in product R&D, and manufacture with large scale of procurement.

Today, JWIPC provides competitive quality products in different industries, such as OPS, digital signage, point of sales, industrial PC in IoT; AIO, Mini-PC, PC motherboard in consumer PC; server, storage, and network security in Data Center. With rich product portfolio, JWIPC provides end-to-end hardware solution to our customers including OEMs, SIs and ISV all over the world.
High Quality Service

01 R&D
120+ professional Engineers, Most perfect test equipment and lab, strictly verification process

02 MFG
20000㎡;1000+ People;12SMT lines ; 8 ASS lines;IMES tracking system; Professional equipments

03 Quality
nQuality control System Professional QA team ISO/OHSAS18001 certification ; CE, CB, FCC certification

04 Service
provide high quality after-sale service guarantee

For a smarter world
Edge Compute overview

Global edge computing market size

- Source: Gartner

Global edge AI chip market size forecast

- Source: ABI Research

For a smarter world
Key elements of Edge AI box

- Edge Data
- AI Hashrate
- AI Frame
- AI Algorithm

Mature algorithm: high recognition rate and accuracy
Support mainstream deep learning framework and open source machine learning library: Caffe/TensorFlow* / Pytorch* etc
CPU/GPU/NPU/FPGA/ASIC provide AI compute power
Collect Data Via Ethernet/WIFI/BT/Lora/Zigbee etc

For a smarter world
11th gen Intel® Core™ Processor (Codename: Tiger Lake – UP3)

Platform highlights

01 Compute Performance
New Willow Cove architecture up to 4 cores/8 threads/4.8GHz
Hardware-assisted virtualization
10nm SuperFin

02 Media and Display
Scalable performance 7W-28W
Low Power audio DSP
FIVR and DVFS

03 AI Capability
Intel® Deep Learning Boost (Intel® DL Boost)
Intel® Deep Learning Boost (Intel® DL Boost) DP4a,
Intel® Gaussian & Neural Accelerator (Intel® GNA) 2.0
Support Intel® Movidius™ Myriad™ X VPUs

04 Power Management
Integrated MACs to support GbE port,
Gigabit (1.73 Gbps) Wi-Fi 6 and BT5
Discrete 2.5GbE MAC PHY LAN
Four Thunderbolt™ 4 universal ports
Four Intel® PCIe* 4.0 and 12 PCIe* 3.0

05 HW-Based Security
Total memory encryption
Key locker protection

06 High-Speed Connectivity
For a smarter world
JWIPC E098 is an AI Box for Edge AI Box for Video Analytics, based on 11th gen Intel® Core™ Processor (Codename: Tiger Lake – UP3). This product can be widely used in different vertical industries, such as Public Safety and Security, Smart retail, Smart manufacturing, Enterprise Information, Smart medical and so on. The following are the main features of the product.
For a smarter world

Product SPEC

<table>
<thead>
<tr>
<th>Processor</th>
<th>Intel® Celeron® 11th gen Intel® Core™ Processor (Codename: Tiger Lake – UP3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>2 x DDR4 SO-DIMM</td>
</tr>
<tr>
<td>Storage</td>
<td>2 x M.2 2280, SATA</td>
</tr>
<tr>
<td>Display</td>
<td>4 x HDMI1.4b, support 2<em>2 or 1</em>4 splicing</td>
</tr>
<tr>
<td>Audio</td>
<td>3.5mm Line out(Green), 3.5mm Mic in(Pink)</td>
</tr>
<tr>
<td>Ethernet/SFP</td>
<td>2 x Gigabit SFP(Ethernet,optional)+4*Gigabit Ethernet(POE,optional)</td>
</tr>
<tr>
<td>Wireless Network</td>
<td>1 x M.2 2230, WIFI6 (optional)</td>
</tr>
<tr>
<td></td>
<td>1 x M.2 3042, 4G/5G (optional)</td>
</tr>
<tr>
<td></td>
<td>1 x MINI PCIe, LoRa/Zegbee/Bluetooth (optional)</td>
</tr>
<tr>
<td>AI accelerator</td>
<td>1 x M.2 2280, accelerator card, max 16 TOPS(optional); 1 x SO-DIMM, NVIDIA JETSON NX module (optional);</td>
</tr>
<tr>
<td>USB</td>
<td>IO: 2 x USB3.0 Type-A, 2 x USB2.0 Type-A;</td>
</tr>
<tr>
<td>COM</td>
<td>2<em>RS232/RS485(DB9)+4</em>RS232(Phoenix, 2*6pin);</td>
</tr>
<tr>
<td>TCM/TPM</td>
<td>OnBoard TCM ; TPM (via built-in USB interface)</td>
</tr>
<tr>
<td>Expansion</td>
<td>16 x GPIO(Phoenix, 2*10pin)</td>
</tr>
<tr>
<td>POWER</td>
<td>DC IN 12V ~19V</td>
</tr>
<tr>
<td>Dimension</td>
<td>268(L) x 200(W) x 53.7(H)mm</td>
</tr>
<tr>
<td>Operate System</td>
<td>WIN10/Linux</td>
</tr>
<tr>
<td>Environment Temperature</td>
<td>Operating Temperature 0<del>50℃ , Storage Temperature -20</del>70℃</td>
</tr>
<tr>
<td>Environment Humidity</td>
<td>RH 10%~90% (non-condensing)</td>
</tr>
</tbody>
</table>

Dimensions

Front/rear IO

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Product Features

- **Computer power**
  - Entry level, Intel® Celeron® processors
  - Main force, Core i3/i5/i7 processors

- **AI Capability**
  - 11th gen Intel® Core™ Processor (Codename: Tiger Lake – U). chip AI computing power
  - Support M.2 AI accelerator card
  - Support SODIMM GPU graphics card

- **Network connectivity**
  - Gigabit Ethernet or SFP optional
  - 4G/5G, WIFI/6 optional
  - LoRa, Zigbee, BT optional

- **Security guarantee**
  - memory encryption and Key locker
  - TPM (via built-in USB interface)
  - OnBoard TCM

- **Support**
  - 4 x HDMI1.4b, support 2*2 or 1*4 splicing screen
  - 2 x Gigabit SFP+4*Gigabit Ethernet(POE) or 6*Gigabit Ethernet support IPC
  - 6 x COM, 16 x GPIO
  - Support smoke alarm or other peripheral signal input and output
Use Case

Smart store and restaurants

JWIPC Smart Restaurants

- Intelligent marketing, digital advertising, games before dinner
- Intelligent kitchen display system, dish delivery display system
- Intelligent layout to enhance dining experience;
- Intelligent cashier equipment, data statistical analysis;

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Use Case

JWIPC Transportation industry

- Smart city traffic brain
- V2x solution
- Signal lamp control solution
Use Case

Safety Monitoring

JWIPC Security Industry

- construction sites,
- warehousing and logistics,
- ports,
- community parks,
- campus scenic spots,
- petroleum and petrochemical,
- power industry,
- mines

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Additional Information

E098 Edge AI Box for Video Analytics

➢ Powerful and rich computing power options
➢ Powerful video processing
➢ Rich network processing functions
➢ AI computing power to realize the intelligentization of industry scenarios
➢ Ensure data privacy and security

Create smart restaurants, smart transportation, safety monitoring applications.

Contact Us

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Thank you for watching!
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