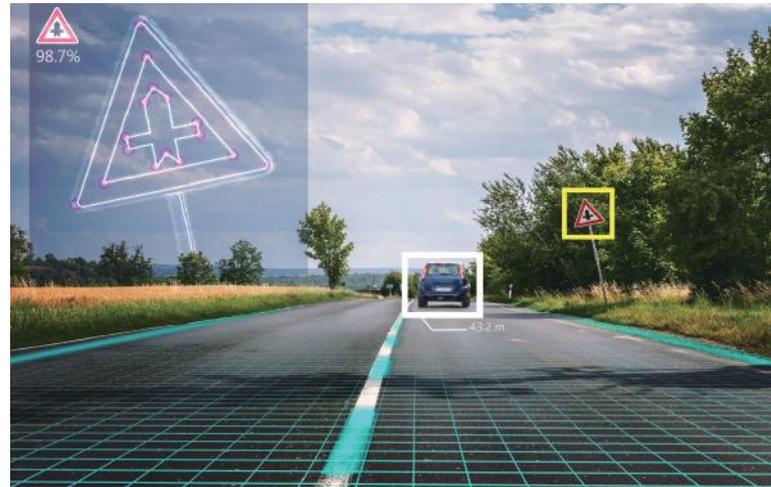


Background

In the era of artificial intelligence, the three most popular words are drones, self-driving, and robots. The "brains" of these intelligent machines are composed of a set of high-performance CPU chips, and their "eyes" are implemented by cameras, visual processors (VPUs), and proprietary software systems. Unmanned vehicles on the market now basically rely on radar, cameras and lidar to sense the traffic on the road. The special industrial computer solution for special control can realize the vehicle radar to detect the driving status, speed and direction of other vehicles to achieve the purpose of self-driving.



Challenge

1. Complex situations and geographical locations have high requirements on the environment;
2. Need to meet the installation conditions and heat dissipation requirements;
3. The interface is not complete, and it cannot adapt to more peripherals, which affects smooth driving and maintenance.

Introduction

According to customer needs, we take into account factors such as self-driving technology and its harsh driving conditions, as well as the need to implement a variety of intelligent functions to ensure the simplicity, efficiency, safety, and convenient management of self-driving. The most critical of driverless computer control systems and related solutions is the selection of an industrial-grade computer product. We recommend an industrial PC for it, namely EM-MP200K, a unique product corresponding to market demand.

The computer uses a low-power fanless structure, but can achieve high-performance applications to maintain the stability of the vehicle in high-speed operation and achieve the stability and accuracy of the whole machine during the operation of the vehicle. This computer is equipped with 4× COM ports, 2× Gigabit Ethernet ports, 2 groups of WIFI, and 8×USB ports. It provides a wide space for system expansion and upgrade. It can be connected to match various peripherals, unmanned automatic driving smooth and efficient operation. The new integrated molding structure, fanless design, supports quick installation, small size, easy installation and maintenance, wide operating temperature, full sealing, fanless "wave" heat dissipation structure, shock resistance, resistance to harsh environments, etc., so it can be it is an excellent choice for unmanned industrial control computers.



EM-MP200K

Advantage

1. Fanless design

The compact design with no rotating parts (no CPU fan, no system fan, no power supply fan or HDD) greatly reduces the maintenance and repair risks caused by mechanical failure.

2. Modular structure design, no wiring design for aluminum alloy panel

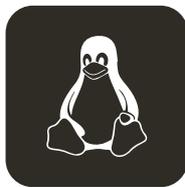
Highly integrated full onboard design, CPU, memory, I/O interface, switch, indicator light, memory installation, etc. are all mounted on the PCB, there is no connecting cable inside, which is more stable and reliable in harsh working environment.

3. Excellent communication function

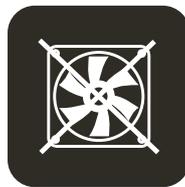
It can still achieve the communication functions of ordinary industrial computers in a very small space, USB, dual Ethernet, WIFI, RS232/422/484, LPT, VGA, SATA, Audio, PCI, Mini PCI-E, PCI- 104, PS2, etc. And excellent anti-jamming, anti-shock and anti-vibration design.



Windows



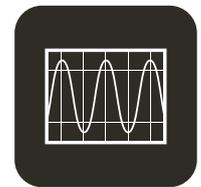
Linux



Fanless



Anti-EMI



Wide Voltage