

INTELLIGENT COMPUTING INDUSTRY APPLICATION SOLUTIONS

## CONSUMER INTERNET INDUSTRY

Device-side Rendering / AI Heterogeneous Computing Power  
Wireless Connection / Multi-modal Interaction





## Defining the Next Generation of Consumer Internet

The development of technologies such as 5G, AI, and edge computing has driven the explosive growth of the consumer Internet industry.

From wearable devices, smart homes, shared bicycles to smart conference tablets, the realization of functions all rely on the fast and intelligent tools and infrastructure provided by Ubiot intelligent computing solutions.

High-speed, low-latency 5G and Wi-Fi connections, high-performance, energy-efficient processing, image processing and cloud-based AI on the terminal side will help achieve a more immersive and interactive experience.





# Streaming Media

Streaming media is loved by more and more consumers because of its ultra-low latency, instant and uninterrupted transmission, so the demand for newer and faster technologies has never been higher from the way it is made to encoding, rendering and delivery.

Yunti on provides streaming media customers with intelligent computing products and solutions to meet the stringent requirements for computing power, audio-visual experience, and picture quality.

## Technical Features

**Device-side Real-time  
High-performance  
GPU Rendering**



**8K HD  
Video Codec**



**Multimodal  
Interaction**

**AI Heterogeneous  
Computing**

Simple & Fast Vision Algorithm Deployment



## Solution Highlights



**Voice Control**



**Real-time Interaction**



**Whole House Intelligence**

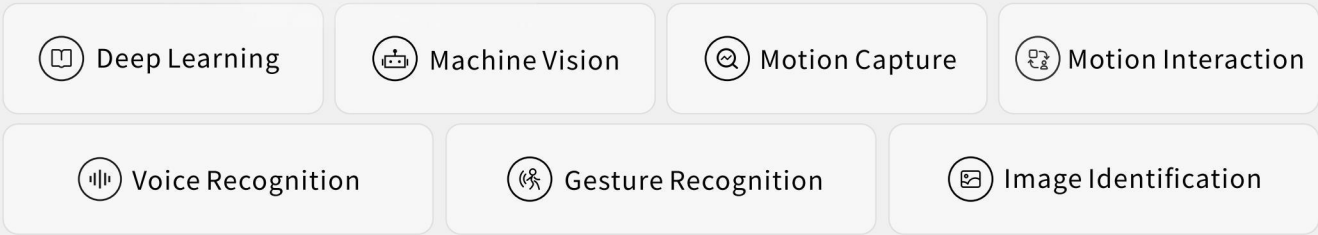
# Application

## SMART FITNESS MIRROR

The smart fitness mirror is based on the Yuntion intelligent computing board, and relies on the deep combination of algorithms, sensors, cameras and other hardware to track and capture human motion trajectories. It realizes stable recognition, analysis and correction of human motion posture, and also realizes the functions of course update, live broadcast of activities, and sports social functions.



### Core Algorithm

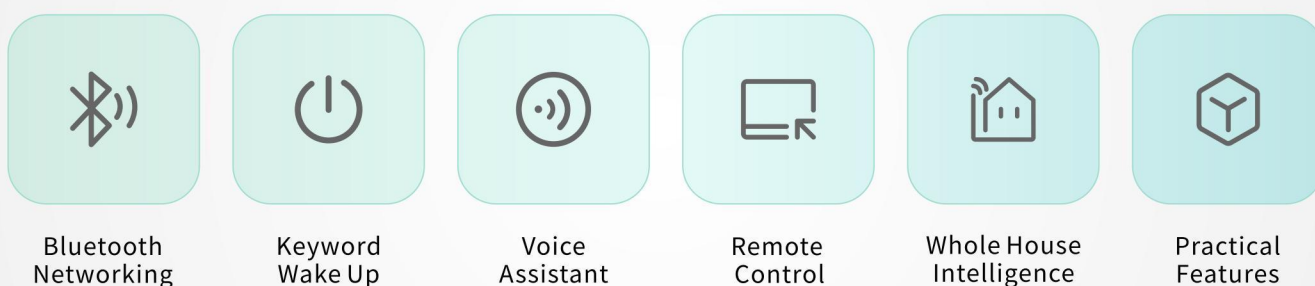


## Application

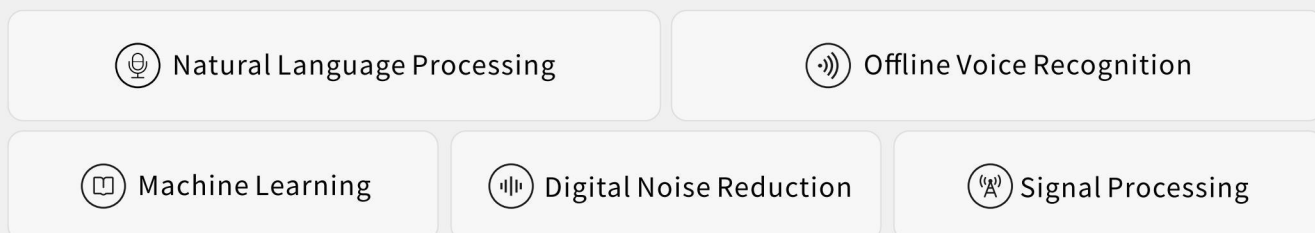
# SMART SPEAKER

Smart speaker has become one of the most popular smart hardware due to their natural human-computer interaction mode and rich functions.

The Yuntion smart speaker solution adopts a highly integrated SoC architecture, is equipped with Qualcomm artificial intelligence engine, and integrates software technologies such as far-field voice and noise cancellation. Excellent performance helps create high-quality audio quality and intelligent user experience.



## Core Algorithm





# Sharing Economy

Shared bicycles open up the "last mile" of travel, shared charging devices free people from "battery anxiety", and shared office reduces office costs... The sharing economy has penetrated into people's daily lives.

The shared terminal is transformed into an intelligent interconnected device by carrying Yunti on intelligent computing products, and realizes various functions such as communication, positioning, and unlocking.

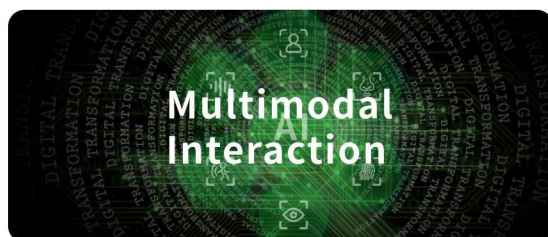
## Technical Features

### AI Heterogeneous Computing

Simple & Fast Vision Algorithm Deployment



### Multimodal Interaction



### Wireless Connectivity



### Low Power Consumption Low Carbon Operation



## Solution Highlights



Beidou Positioning



Fingerprint Unlock



Smart Scheduling



Checkout After Entering  
the Electronic Fence

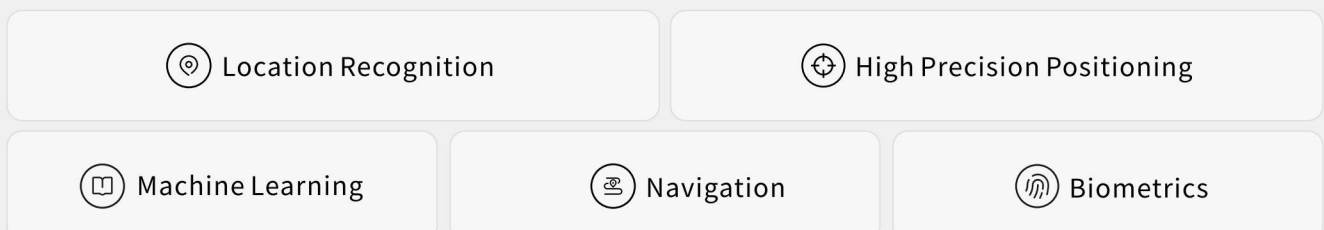
## Application

# SHARING BIKE

The wireless communication module is the core of the sharing bicycle network. Through the built-in Ubiot intelligent network connection module in the intelligent lock, functions such as intelligent unlocking, real-time positioning, trajectory tracking, and status monitoring are realized. Through real-time matching of precise positioning capability and electronic fence technology, standardized parking management of vehicles is carried out.



## Core Algorithm





# Video Conferencing

New working methods such as telecommuting and mobile working have accelerated development under the catalysis of the globalized epidemic. This has spawned the demand for new business conference terminals such as smart large-screen conference tablets and smart video cameras.

Yuntion intelligent computing products and solutions are based on flagship SoC chips, combined with computer vision and artificial intelligence algorithms to create immersive and interactive conferences environment. It brings a superior experience of clear and smooth picture, full color and stable operation, and supports rich online collaborative office functions to meet the needs of high-end conferences.

## Technical Features

**Device-side Real-time  
High-performance  
GPU Rendering**



**4K 60fps HD  
Image Display**



**Multimodal  
Interaction**

**AI Heterogeneous  
Computing**

Simple & Fast Vision Algorithm Deployment



## Solution Highlights



**AI Zooming**



**Body Tracking**



**Wireless Projection**



## Application

# SMART CONFERENCE TABLET

The intelligent conference tablet integrates computer, projector, electronic whiteboard, TV, octopus, etc., providing a new intelligent interactive experience.

Yuntionsmart conference Tablet solution is based on Yuntion high-end smart industrial mainboard SD5580, using flagship SoC chips. With its AI computing power of up to 15 TOPS, excellent image processing performance and rich interfaces, it can help customers develop terminal products quickly



## Core Algorithm



Intelligent Noise Reduction



Echo Cancellation



Face Tracking



Voice Recognition



Handwriting Tracing



Color Calibration

## Application

# SMART VIDEO CAMERA

Smart video cameras bring a new experience to meeting scenarios.

The intelligent video camera equipped with Yuntion intelligent computing products realizes the "close-up tracking" function, supports multi-fold zoom, and 4K HD display, allowing participants to be immersed in the scene, and the conference communication is more comfortable and smooth.



4K HD Display



VoiceCall



Smart Tracking



AI Zooming



Wireless Connection

Camera

Microphone

Speaker

Sensor

Keyboard

Mouse

Battery

## Core Algorithm



Deep Learning



Machine Vision



Intelligent Noise Reduction



Echo Cancellation



Face Tracking



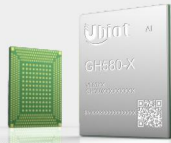
Face Recognition



# Product Selection

## Intelligent Network Module

### GH580



CPU: Qualcomm QCS8250  
Operating System: Android 10/Ubuntu 18.04  
Network: WIFI6, 2.4G&5GHz, BT5.1 LE, M.2 for 5G/4G  
Display Interface: 2 x 4-lane MIPI (2560 × 1600) @60HZ Dual screen  
4k@60fp over DP/Type-C;

### GH360



CPU: Qualcomm SDM660  
Operating System: Android 9.0  
Network: 4G Cat6/3G/2G WIFI 2.4GHz&5GHz/BT5.0 LE  
Display Interface: 2560 × 1600 @60fps primary display  
+ 4k @30fps over DP 24 bpp RGB; Dual MIPI DSI

## Smart Mainboard

### SD5580



CPU: Qualcomm QCS8250  
Operating System: Android 10/Ubuntu 18.04  
Network: Wi-Fi 6, 2.4G&5GHz, BT5.1 LE M.2 for 5G/4G  
Display Interface: 2 x HDMI 4K@60HZ, 1 x HDMI 4K@60HZ,  
1 x HDMI 4K@30HZ, 1 x LVDS 1080p, 4 x MIPI CSI

### SD5400



CPU: Rockchip Rk3588  
Operating System: Android 12/Ubuntu 18.04  
Network: Wi-Fi 5, 2.4G&5GHz, BT5.0 LE M.2 for 5G/4G  
Display Interface: 2 x HDMI 2.0, 1 x LVDS 1\* eDP, 1 x MIPI 4-lane

## Intelligent Edge Station

### Astro200Pro



CPU: Snapdragon 865 Quad-core A77+Quad-core A55  
Computing: 75 TOPS  
Operating System: Android/Linux  
Wireless: Wi-Fi 6  
Video Encoding: H.264/H.265: 3840\*2160@120fps  
or 7680\*4230@30fps

### Astro200

CPU: Snapdragon 865 Quad-core A77+Quad-core A55  
Computing: 15 TOPS;  
Operating System: Android/Linux; Wireless: Wi-Fi 6  
Video Encoding: H.264/H.265: 3840\*2160  
@120fps or 7680\*4230@30fps

### Astro200Lite



CPU: RK3588 Quad-core A76+Quad-core A55  
Computing: 6 TOPS  
Operating System: Android/Linux  
Wireless: Wi-Fi 5  
Video Encoding: H.264/H.265: 3840\*2160@120fps  
or 7680\*4230@30fps



## Intelligent Edge Server

### Astro500

CPU: Qualcomm 865  
Computing: 1440 TOPS  
Operating System: Android / Linux  
Wireless: Wi-Fi 6  
Video Encoding: H.264/H.265: 3840\*2160@120fps  
or 7680\*4230@30fps





## **Yuntion Wireless Technology (Shenzhen) Co., Ltd.**

Website: [www.yuntion.com](http://www.yuntion.com)

Business Cooperation:

86 189 0246 9335

Email: [navy.yao@yuntion.com](mailto:navy.yao@yuntion.com)

Address: Room 1007-1008, Block C, Zhantao Technology Building, Minzhi Street, Longhua District, Shenzhen

Yuntion was established in 2019 and is committed to becoming the world's leading provider of full-scene intelligent computing and machine vision infrastructure solutions. Yuntion is committed to empower applications in all walks of life with intelligent computing and machine vision technology, and build an intelligent world where everything perceives. Ubiquitous connections and perceptions are built.

Prerequisites and Foundations for an Intelligent World; Continuously improving computing power and algorithms make intelligence omnipresent. Through the continuous construction of full-scene infrastructure, consumers can get the ultimate personalized smart experience in home, travel, office, audio-visual entertainment, sports and health and other scenes, bringing people a more convenient, intelligent, comfortable and safe life.