# Case Study

## Telehealth Consulting Platform

# Telehealth turns into a must-have for modern healthcare

Catalyzed by the aging population and high-speed internet, telehealth has grown into a common way to provide healthcare today. It is more cost-effective and accessible for patients while the cost of healthcare increases. Not only efficiency, but telehealth also improves the continuity of care to provide better life quality for patients. Therefore, today an increasing number of medical facilities provide telehealth as an option.

## Challenges

The customer is an electronics manufacturing services provider. They were looking for a customized single-board computer service to complete the telehealth consulting platform. It requires an experienced IPC partner to integrate the platform with a PTZ camera and purpose-designed software. The end customer needs the platform for real-time monitoring and consulting remotely.
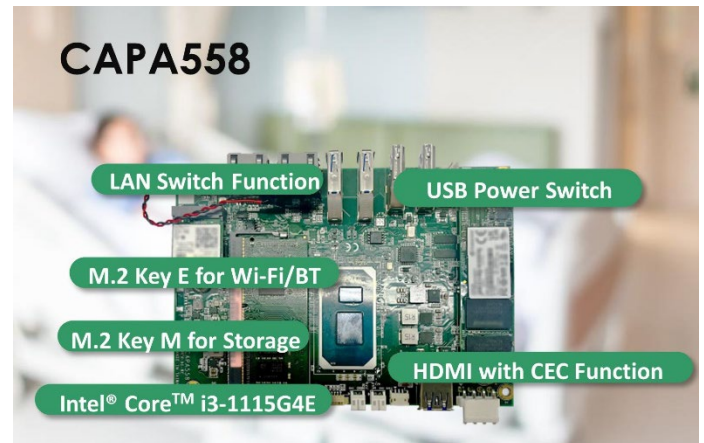
## Main Requirements

- Customized design-in service with 3.5" small form factor SBC
- High-performance 11th Gen Intel® Core™ processor (codename: Tiger Lake)
- At least 4GB DRAM and 128GB SSD storage
- Internet router function for the television remote access
- Supports PTZ camera
- Supports x86-based telehealth consulting software
- One-time video transfer and low latency

## The customized single-board computer completes the telehealth system

Axiomtek has proposed its CAPA558, a customized 3.5-inch SBC powered by the Intel® Core™ i3-1115G4E processor. It offers rich I/O connectivity and two M.2 slots for expansions. The M.2 Key E slot supports modules for Wi-Fi or Bluetooth connection, while the M.2 Key M supports SSD storage. The embedded board is designed with a USB power switch to remotely reboot the connected device.
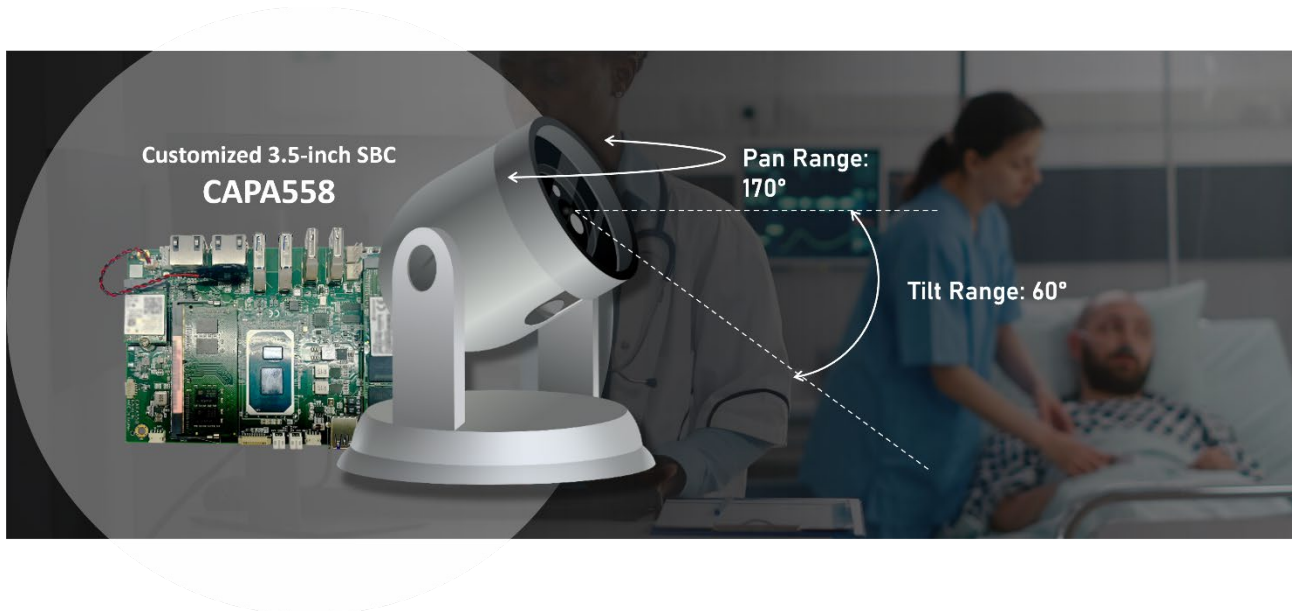
Customers can also benefit from the LAN switch function to use the system as a router or hub. With two LAN ports, the platform can function as an internet hub, when one port is connected to the hospital intranet, another port provides the flexibility of connectivity to a second device. In addition, the CEC (Consumer Electronics Control) allows the system and the connected devices via HDMI to be controlled with one remote control.



## Application
## Axiomtek enables telehealth solutions with customized 3.5-inch SBC and cost-effective configurations

The CAPA558 is used as the centerpiece of the system to enable doctors and nurses in hospitals to practice remote telemedicine. The SBC allows the camera to take orders from medical personnel to turn and take a closer and more thorough look at the patients. Most important of all, the whole platform is compatible with remote control, which sets it apart from similar products on the market.

## System Configurations of the CAPA588

- Intel® Core™ i3-1115G4E processor (codename: Tiger Lake)
- One DDR4-3200 SO-DIMM for up to 8GB of memory
- Supports Intel® HD Graphics Driver for 4K resolutions
- Two external USB 3.2 ports and one internal USB 3.2 port
- HDMI with CEC function
- M.2 Key E for wireless module
- M.2 Key M for 128GB SSD storage
- Gigabit Ethernet port
- Windows 10 operating system

*For detailed specifications, please visit www.axiomtek.com or go to Products > Boards & Modules > Industrial & Embedded Motherboards for > 3.5-inch Embedded Board

## Why Axiomtek

Having abundant experience in ODM, Axiomtek's design-in service listens to customers' needs and comes up with cost-effective solutions that meet proprietary standards. Axiomtek can provide varied mainstream form factor platforms and customized baseboard designs with less R&D time to improve time-to-market.

"We are impressed with Axiomtek's quick response to solving the customer's technical issue. In addition to excellent, real-time service, its reliable R&D team brings a strong alliance between PTZ manufacturers and the solution provider. System integration requires consistent communication with different engineering teams. Thanks to Axiomtek's patience and professional knowledge, we won this tender in the final round," said the project manager of the customer.

## About Axiomtek Co., Ltd.

Axiomtek has experienced extraordinary growth in the past 30 years because of our people, our years of learning which resulted in our tremendous industry experience, and our desire to deliver well-

rounded, easy-to-integrate solutions to our customers. These factors have influenced us to invest in a growing team of engineers including software, hardware, firmware, and application engineers. For the next few decades, our success will be determined by our ability to lead with unique technologies for AIoT and serve our key markets with innovatively-designed solution packages of hardware and software – coupled with unmatched engineering and value-added services that will help lessen the challenges faced by our systems integrator, OEM and ODM customers and prospects alike. We will continue to enlist more technology partners and increase collaborations with our growing ecosystem who are leaders in their fields. With such alliances, we will create synergy and better deliver solutions, value, and the expertise our customers need.

Axiomtek is a Member of the Intel IoT® Solutions Alliance. A global ecosystem of more than 800 industry leaders, the Alliance offers its members unique access to Intel technology, expertise, and go-to-market support—accelerating the deployment of best-in-class solutions.