

Boost Manufacturing Productivity with MediaTek Genio 1200

Digital Transformation, IoT and Manufacturing Automation

Case Study

Application

Factory IoT

Background

The manufacturing sector faces several challenges like high worker turnover, rising quality demands, intense competition, and increasing training costs. With Industry 4.0, manufacturers are adopting IoT devices to digitalize their workflows, have digital operating instructions, production checklists, and manufacturing execution systems (MES).

Xiangcheng Communication Technology (XC Tech) developed the H08 Pro, a smart industrial device that connects systems, streamlines training and quality control, and monitors progress in real-time. Powered by MediaTek's advanced Genio 1200 SoC, the device streamlines operations and drives digital transformation on the factory floor.

Challenge

- **Robust performance:** High processing speed is required for heavy workloads such as digital operating instructions, MES, and production checklists.
- **Powerful multimedia support:** For scalable AI-powered worker training modules and real-time video monitoring.
- **Seamless connectivity:** For smooth integration into MES and production lines.
- **Cost-effectiveness and energy-efficiency:** The device is required to function for long hours and be cost-effective.

Results

- **Exceptional compute performance:** Handles heavy workloads, real-time data analysis, quality monitoring, and digital training simultaneously.
- **Automated employee training and quality monitoring:** Supports digital operating systems and improves quality assurance with process monitoring.
- **Seamless integration:** Genio 1200 enables smooth MES integration, ensures efficiency and reduces development time by 20%.



Solution Partner

Xiangcheng Communication Technology (XC Tech) specializes in advanced industrial IoT solutions, enhancing operational efficiency across logistics, retail, and manufacturing sectors globally.

Solution

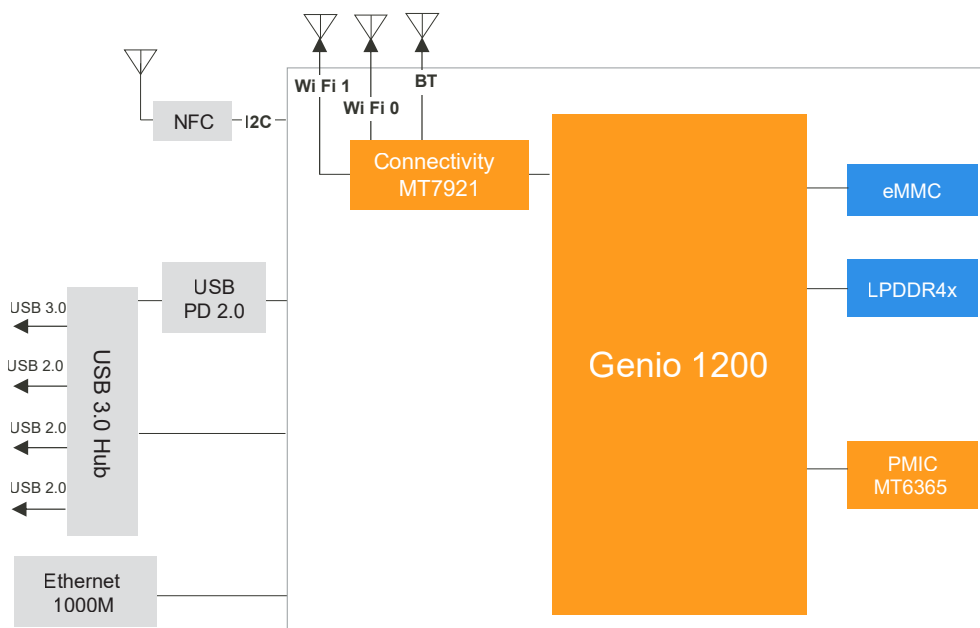
MediaTek provided the Genio 1200 SoC as the core solution for the H08-Pro smart industrial device. It delivers exceptional performance, robust multimedia and AI capabilities, connectivity on the factory floor, and power efficiency. The SoC features an 8-core CPU with 4 Arm® Cortex®-A78 running at 2.2 GHz and 4 Arm® Cortex®-A55 running at 2 GHz, and Arm® Mali-G57 MC5 GPU. Along with a robust Neural Processing Unit, the configuration ensures powerful performance supporting AI and multimedia for long operational hours. Consuming less than 7W of power, it caters to long operational hours, making H08 Pro a cost-effective solution for manufacturers.

How Does MediaTek's Genio 1200 SoC Meet the Requirements?

- **Advanced processing power:** Genio 1200's 8-core architecture enables real-time analysis, quality monitoring, manufacturing execution and digital training.
- **AI and multi-media capabilities:** A powerful NPU supports edge computing, while ARM® Mali-G57 MC5 enhances digital training displays.
- **Industrial reliability and efficiency:** Operates from -40°C to 105°C with under 7W power consumption.
- **Connectivity:** Ensures smooth integration across devices and systems for smart manufacturing.



Solution Block Diagram



Learn about **MediaTek Genio 1200**

