



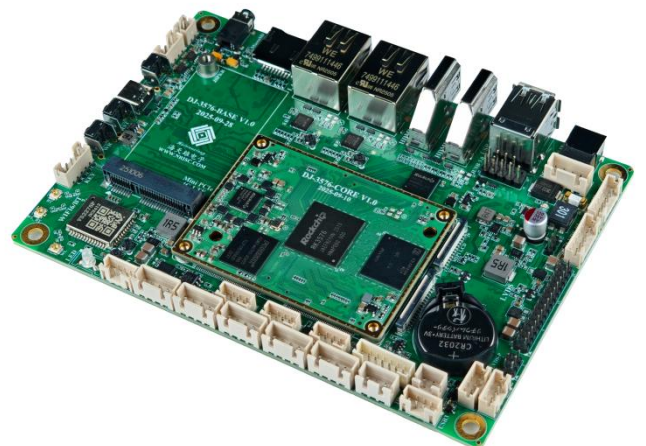
Introduction

The DJ-3576 is a rugged 3.5-inch industrial single-board computer, equipped with the Rockchip RK3576 high-performance embedded application processor. It integrates an eight-core CPU architecture (4×Cortex-A72 + 4×Cortex-A53) and a dedicated NEON coprocessor, offering excellent multitasking and energy efficiency. Its built-in ARM G52 MC3 GPU supports OpenGL ES 1.1/2.0/3.2 and integrates a 6 TOPS NPU, supporting mainstream AI framework model deployment. It can be widely used in high-complexity data processing/visual processing and intelligent inference scenarios.

This motherboard offers a rich set of industrial application interfaces, is compatible with the previous generation DJ-3399/DJ-3288 platform, supports smooth upgrades and rapid integration, and is suitable for high-reliability application scenarios such as industrial control, machine vision, embedded intelligent devices, edge AI, intelligent robots, drones, medical devices, commercial displays and automation terminals.

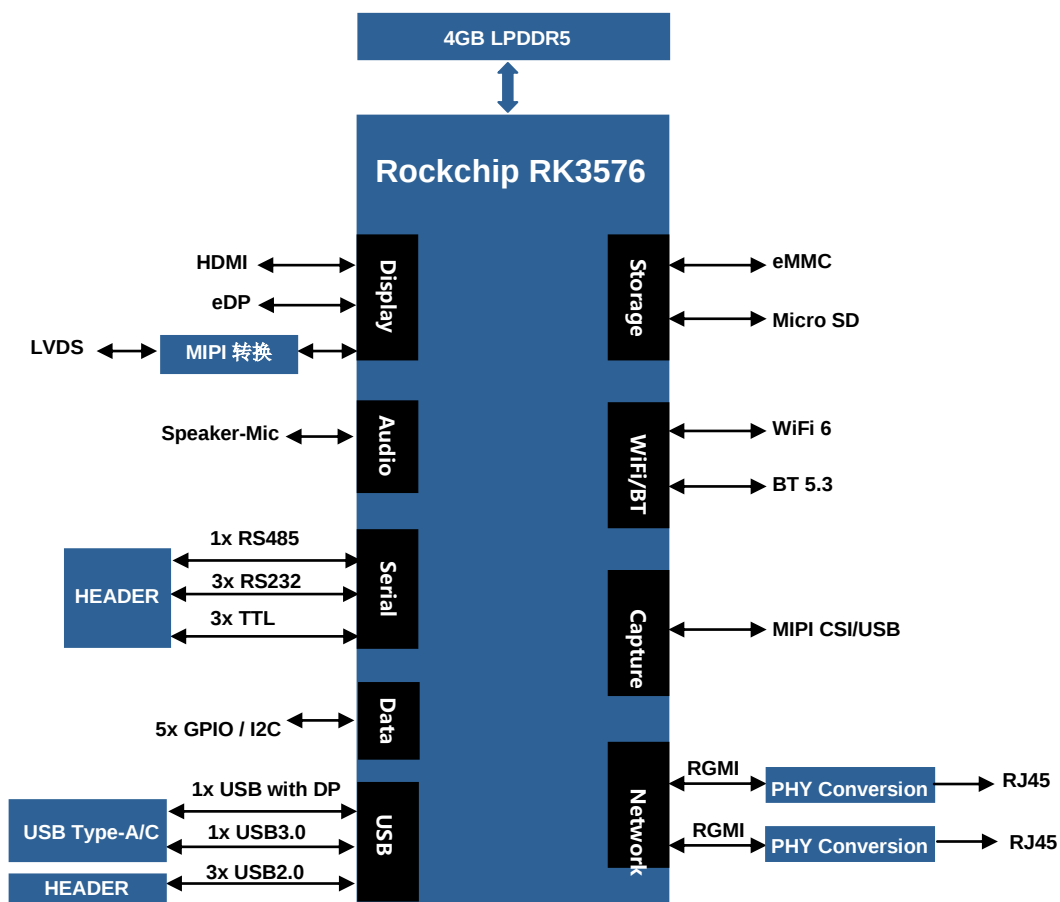
Features

- Dimension: 3.5" (146x102mm)
- Rockchip RK3576 64-bit high-performance octa-core application processor @2.2GHz
- Integration ARM G52 MC3 GPU and 6 TOPS NPU
- Supports 4K@120fps H.265/AV1/VP9 and 4K@60fps decode
- On-board 4GB LPDDR5 + 32GB eMMC5.1
- 10-year supply cycle is suitable for long-term projects and product lifecycle management.

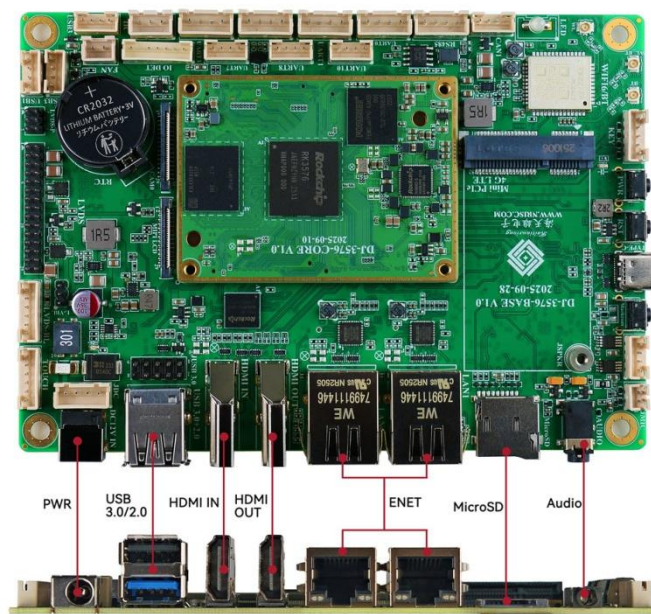


DJ-3576

Block diagram



Interface definition diagram



Specifications

CPU	Rockchip RK3576 Octa-core 64-bit ARM processor • 4 × Cortex-A72 + 4 × Cortex-A53, up to 2.2GHz • ARM G52 MC3 GPU, supports OpenGL ES 1.1/2.0/3.2 • 6 TOPS NPU, supports INT4/INT8/INT16/FP16/BF16/TF32
RAM	On-board 4GB LPDDR5, optional 8GB/16GB
eMMC	On-board 32GB eMMC 5.1, optional 64GB/128GB 1 × MicroSD (TF) slot
Display	1 × HDMI 2.1 (4Kx2K@120Hz) Output, 1x HDMI2.0 IN 1 × eDP 1.3 (4K@60Hz) 1 × LVDS (1920×1080@60Hz) 1 × MIPI-DSI (Supports high-resolution)
Audio	1 × 3.5mm Headphone 1 × Dual-channel speaker interface 1 × MIC IN
Network	2 × 10/100/1000Mbps RJ45 On-board AP6275P Wi-Fi 6 + Bluetooth 5.3 module 1 × Mini PCIe Slot, Supports 4G/5G Module (optional)
USB	1 × USB 3.0 Type-C with DP Alt mode 1 x USB 3.0 Type A, 3 x USB2.0 Pin header
UART	1 × RS232 (Debug port) 1x RS485 by pin header; 3 x RS-232 by pin header; 3 x TTL by pin header
Ext-Interface	Multi-functional CAN BUS, 5x GPIOs, I ² C, MIPI CSI, user buttons, etc.
Power	12V DC
Environment	Operating temperature: -20℃ ~ +60℃ Operating humidity: 5% ~ 95% Relative Humidity, non-condensing
OS	Android 14 、 Linux Ubuntu and Debian

Application areas

- Industrial Automation and Control Systems AI visual inspection and edge computing
- Robots and motion control platforms Intelligent medical equipment and instruments
- Unmanned Aerial Vehicles and Unmanned Systems Digital signage, smart retail terminals
- Embedded devices for transportation, energy, and communication