seeed studio

INDUSTRIAL PRODUCT DATASHEET

reComputer RK3576 Module 4GB RAM/32GB eMMC | Rockchip Compute Module for Industrial Edge AI

High-performance Rockchip RK3576 compute module for industrial edge AI, powered by an octa-core CPU and 6 TOPS NPU.

SKU	UPDATED	PRICE
100083394	2026-11-12 05:52:34	$130.00(Excl. VAT)



Overview



High-performance Rockchip RK3576 compute module for industrial edge AI, powered by an octa-core CPU and 6 TOPS NPU. With a 200-pin B2B connector, rich I/O, up to 16GB LPDDR5 RAM and 128GB eMMC, and 8K video decoding, it accelerates AI vision, robotics, and intelligent edge devices.

Key Features

01 **Advanced Processing Subsystem**

Octa-core CPU architecture featuring 4× Cortex-A72 @ 2.2GHz + 4× Cortex-A53 @ 2.0GHz, paired with an ARM Mali-G52 MC3 GPU to handle demanding multi-threaded industrial control and automation tasks.

02 **Flexible Hardware Configurations (Optional)**

Available in multiple memory and storage combinations to perfectly align with your specific edge workload requirements:

03 **Memory**

4GB / 8GB LPDDR5 (Scalable up to 16GB).

04 **Storage**

32GB / 64GB eMMC(Scalable up to 128GB).

05 **6 TOPS NPU Acceleration**

Integrated hardware AI accelerator supporting INT4/INT8/INT16/FP16/BF16/TF32 mixed quantization operations. This powerful core enables efficient on-device AI inference, eliminating cloud dependencies while ensuring data privacy and low-latency responses.

06 **reComputer AI Lab Supported (One-Command Deployment)**

Streamline your entire development pipeline from PyTorch or TensorFlow to RKNN via Seeed's optimized toolchain. Skip tedious build environments and achieve one-command or no-code Docker deployments in minutes.

07 **Multimodal AI Workload Support**

Pre-optimized and validated for modern multimodal Edge AI workloads

08 **Computer Vision (CV)**

Deep integration with YOLOv11, achieving real-time high-frame-rate low-latency inference at up to 77.9 FPS (640×640), perfect for object detection, segmentation, defect detection, and intelligent video analytics.

09 **Large Language Models (LLM)**

Fully capable of running optimized lightweight local language models, including DeepSeek-R1-Distill-Qwen (1.5B/7B) for offline industrial copilots, AI assistants, and knowledge retrieval.

10

Vision-Language Models (VLM)

Supports next-gen multimodal models like Qwen2-VL for complex visual reasoning and intelligent tracking.

11

Speech AI

Enables completely offline voice interaction, automated speech recognition (ASR), and Text-to-Speech (TTS) using advanced frameworks like Whisper.

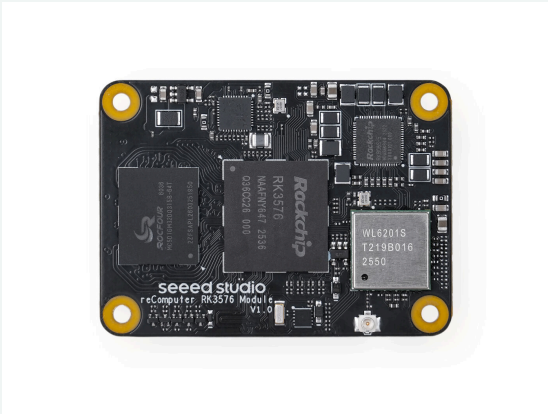
12

Optimized for Carrier Board Integration

Tailored specifically for direct physical embedding into proprietary B2B custom carrier boards, moving past mere generic development and validation hardware.

Product Gallery

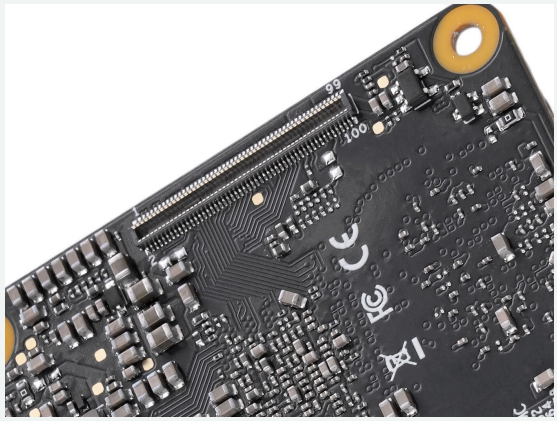


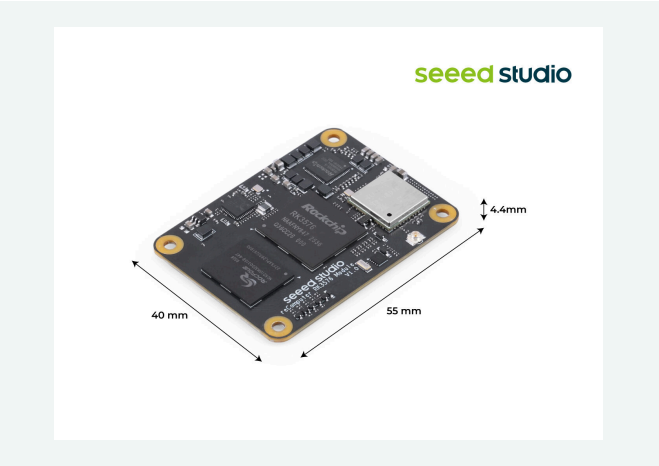




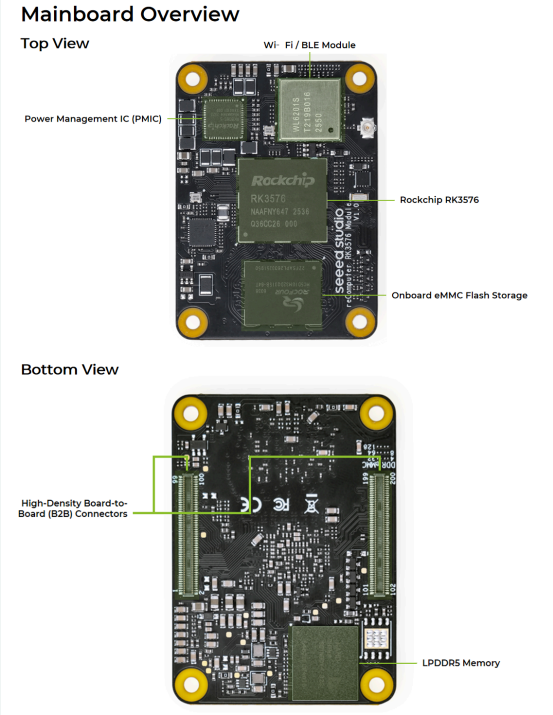








Hardware Overview



Applications

- **Smart Security & Video Analytics: Multi-channel Network Video Recorders (NVR), intelligent video security boxes, AI-powered crowd analytics, and perimeter intrusion detection.**
- **Industrial IoT & Automation: Industrial PCs (IPC), Protocol Gateways, Programmable Logic Controller (PLC) data aggregators, HMI touch panels, and predictive maintenance nodes.**
- **Robotics & Physical AI: Autonomous inspection drones/rovers, voice-controlled robots, visual navigation, and AI agents with physical interaction.**
- **Smart Retail & Commercial Terminals: AI interactive kiosks, self-service vending terminals, smart digital signage with audience analytics, and POS edge intelligence.**
- **Energy & Smart Infrastructure: Smart grid monitoring units, EV charging station controllers, environmental monitoring stations, and intelligent traffic telemetry gateways.**
- **Medical & Healthcare: Medical image display assist terminals, health monitoring data aggregators, and laboratory automation control modules.**

Resource Links

- https://www.seeedstudio.com/reComputer-RK3576-Module-0432-p-6949.html
- reComputer RK3576 Module Schematic
- Rockchip RK3576 Datasheet

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com