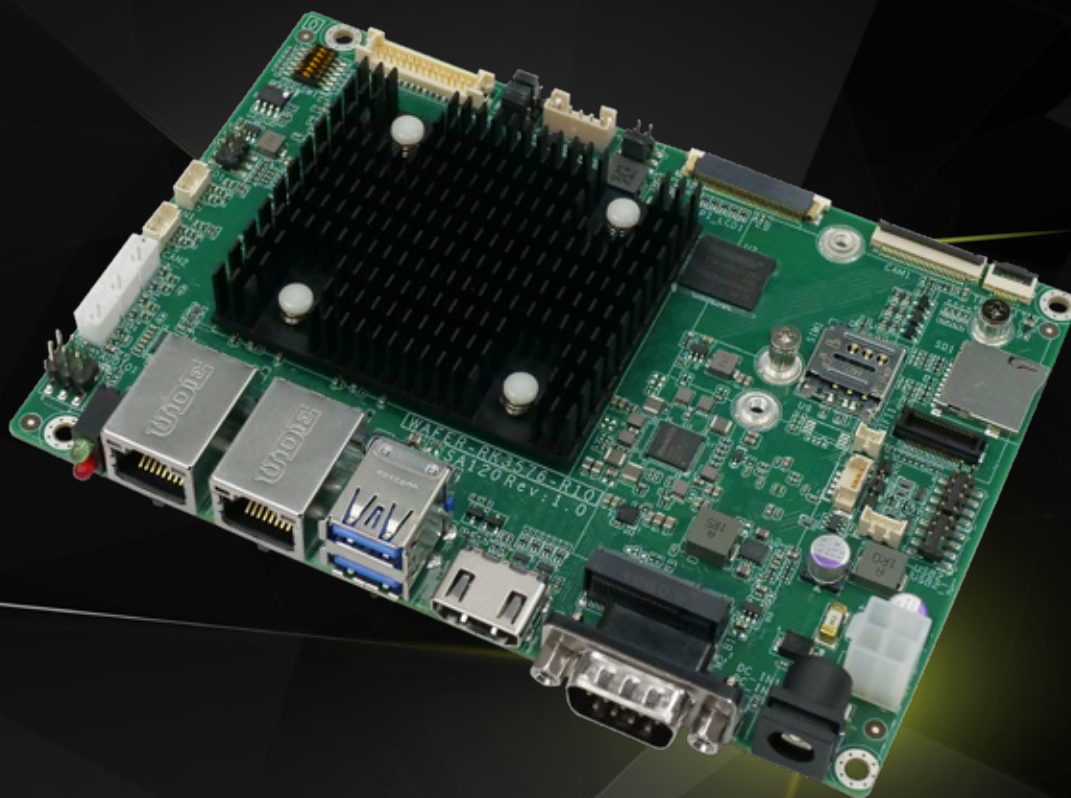


# WAFER-RK3576

3.5 SBC supports Rockchip RK3576 on-board processor

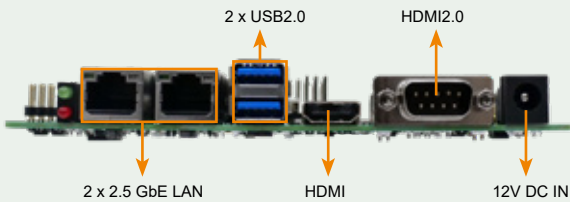
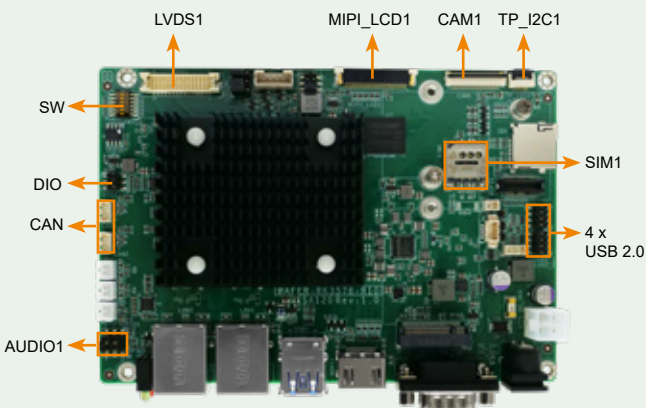
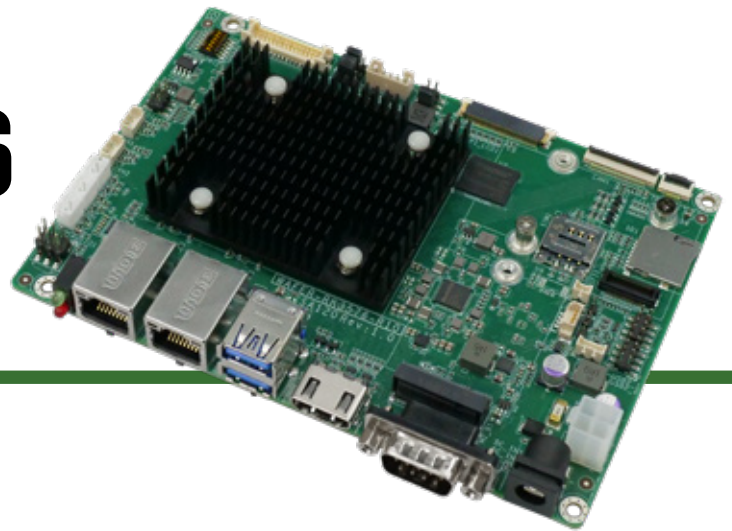
- On-board 8GB LPDDR5 memory and eMMC
- Supports HDMI, LVDS and 1 x 4 lane MIPI-DSI
- Supports Linux Debian12 and Android14



[www.ieiworld.com](http://www.ieiworld.com)

# WAFER-RK3576

3.5 SBC supports Rockchip RK3576 on-board processor



## Powerful AI Computing Platform

Built on the Rockchip RK3576 processor featuring an 8-core CPU (4× Cortex-A72 + 4× Cortex-A53) and a 6 TOPS NPU, the WAFER-RK3576 delivers exceptional edge AI performance for real-time inference, vision analytics, and smart automation.



## Versatile Triple-Display Capabilities

Equipped with HDMI 2.0, MIPI-DSI, and LVDS interfaces, this board supports a wide range of display panels—ideal for industrial HMIs, kiosks, digital signage, and in-vehicle infotainment.



## Rich Industrial-Grade I/O

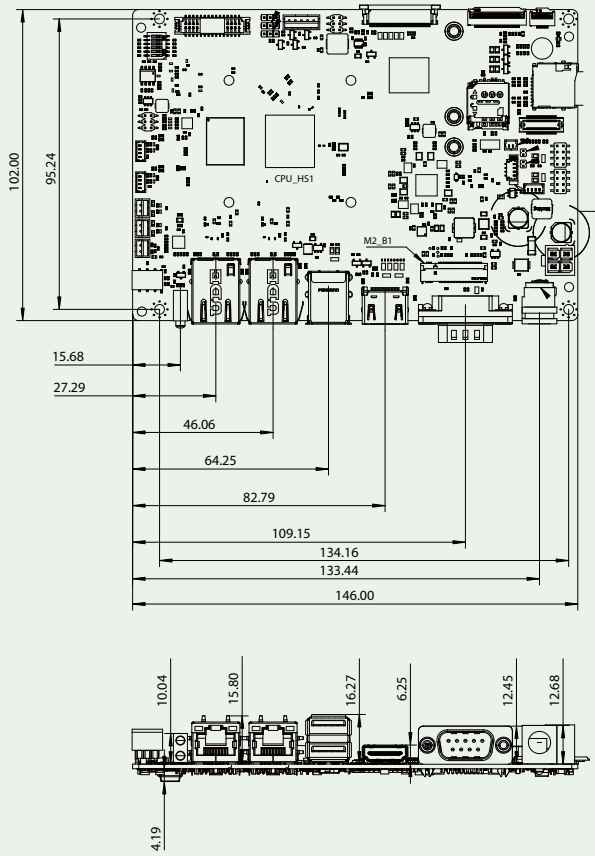
Designed for industrial environments, it provides dual CAN bus interfaces, RS-232/485, multiple USB ports, GPIO, and more—making integration with sensors, machinery, and automation systems seamless.



## High-Speed Connectivity and Flexible Expansion

Featuring dual Gigabit Ethernet ports, M.2 B-Key for LTE/5G modules, onboard eMMC storage (up to 256GB), and MicroSD expansion, it is ready for IoT gateways, edge devices, and connected applications.

Dimensions



Specifications

Model	WAFER-RK3576
SoC	Rockchip RK3576 (Quad-code Cortex-A72@2.3GHz+Quad-code Cortex-A53@2.2GHz)
Memory	On-board 8GB LPDDR5, Up to 16GB
NPU	6TOPS Supports INT4/INT8/INT16/FP16/BF16/TF32
Graphics Engine	ARM Mali-G52 MC3@1GHz
Display Output	1 x HDMI2.0 1 x MIPI-DSI (40Pin 0.5mm FPC) 1 x LVDS
Ethernet	2 x YT8531C 1GbE LAN
External I/O Interface	2 x USB 3.2 Gen 1 Type A 2 x RS-232/485 By 1 x BD9 Port
Internal IO	4 x USB 2.0 (two 2*4 pin header, P=2.0) 1 x USB for touch
I2C	1 x I2C (8 pin, P=0.5mm)
Audio	1 x Line out+Mic, 2x3 pin header 1 x 2pin Socket for Speaker (1x 3W: RL=4Ω) 1 x MIC (Wire to Board, WAFER 1 X2pin, DIP, 180°, P=1.25mm)
Camera	1 x MIPI CSI 4Lanes x 1 (30pin 0.5mm FPC)
CAN	2 x CAN (2x4Pin, 180°)
Front Panel	Power LED, System LED, Power Button, Reset Button
Expansion	1 x M.2 B key 3042/3052/2280 (PCIe Gen2 x1 & USB 2.0) 1 x On-board SIM card socket (hinge type) for M.2 B key 1 x B to B Connector (Support iWB-RTL8822/iWB-BCM43752)
Storage	Onboard 64GB eMMC (16GB ~ 256GB option) 1 x Mirco SD Card Slot
Digital I/O	1 x 4-bit GPIO
Power supply	12V DC IN, DC JACK/Terminal Block Colay Design
Power Consumption	TBD
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Dimensions	146mm x 102mm
Weight	GW:850g / NW:350g
Certification	CE/FCC Compliant
OS	Android 14/ Debian 12 (kernel 6.10)

Optional Accessories



Packing List

1 x WAFER-RK3576 single board computer	1 x QIG
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Optional Accessories

CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
32001-027800-100-RS	Round cable; USB cable; 2;200mm; 28AWG
23T00-01010BO01-RS	LCD bonding touch; 10.1"; 800*1280; 420 cd/m; LED
32440-001700-100-RS	MIPI dsi ffc cable; FFC 40PIN; P=0.5mm; T=0.3mm; L=200mm