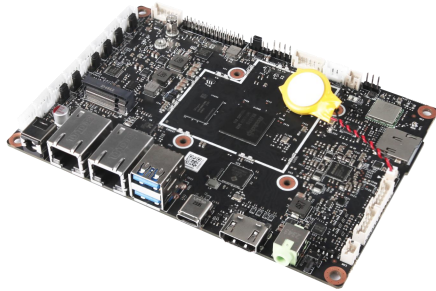


JES-R76I

Rockchip RK3576J 3.5-inch Embedded Board

JES-R76I is an Arm-based 3.5" single board computer powered by industrial grade Rockchip RK3576J SoC, which includes octa-core Arm Cortex processors and integrates a 6 TOPS NPU for deep learning acceleration. It supports multiple display options and provides rich I/O resources including 2x GbE, 2x CAN, 1x Type-C, 2x USB 3.0, 6x COM, 8x GPIO. JES-R76I can deliver upgraded processing and graphics performance and faster AI inference capability for a variety of applications.

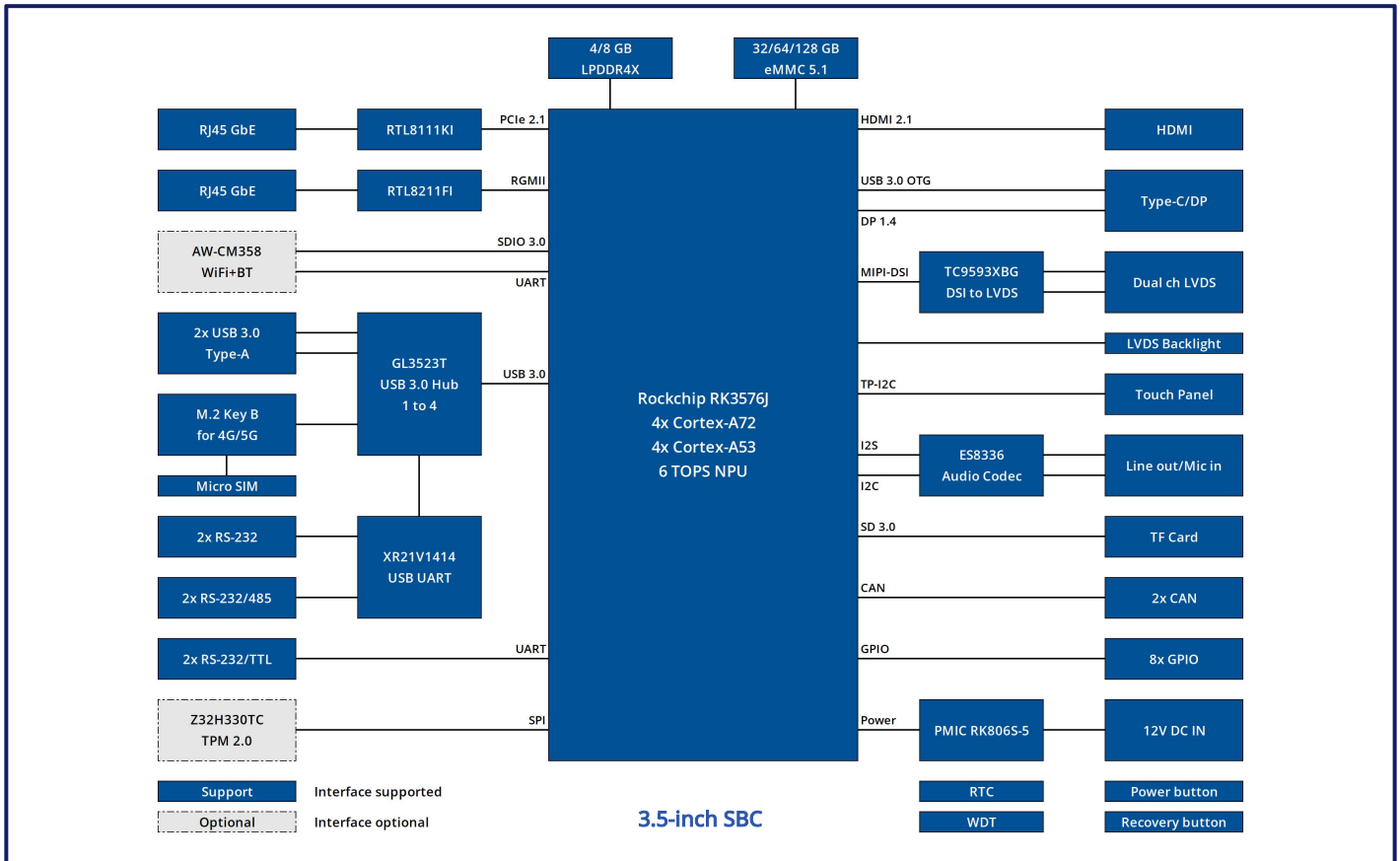


- Industrial-grade Rockchip RK3576J SoC
- 4x Cortex-A72 + 4x Cortex-A53 + Mali-G52 GPU + 6 TOPS NPU
- On-board 4/8GB LPDDR4X + 32/64/128GB eMMC
- Display: 1x HDMI, 1x DP over USB-C, 1x LVDS
- I/O: 2x GbE, 2x CAN, 1x Type-C, 2x USB 3.0, 6x COM, 8x GPIO
- Expansion: TPM 2.0 for security, WiFi+BT, M.2 for 5G/4G
- Supports 0~60°C/-40~85°C operating temperature

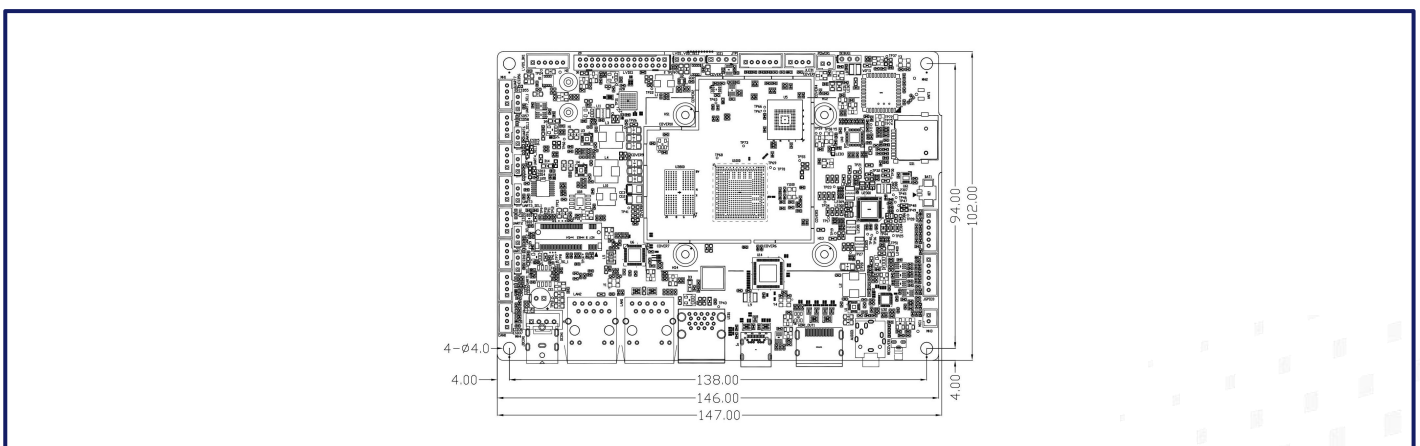
01 Specifications

CPU	Rockchip RK3576J/RK3576 Quad core Arm Cortex-A72 up to 2.3 GHz (consumer) / TBD (industrial) Quad core Arm Cortex-A53 up to 2.2 GHz (consumer) / TBD (industrial)
NPU	6 TOPS Neural Network performance
GPU	Arm Mali-G52 MC3, supports OpenGL ES 1.1/2.0/3.2, Vulkan 1.1, OpenCL 2.0 FP
H/W Video Codec	H.265/H.264/VP9/AV1/AVS2 Decoder up to 8K30 or 4K120, H.265/H.264 Encoder up to 4K60
Memory	On-board 4GB/8GB LPDDR4X
Storage	On-board 32GB/64GB/128GB eMMC 5.1 for OS 1x Micro SD slot for storage expansion
Ethernet	2x RJ45, 10/100/1000 Mbps, 4kV Surge protection
WiFi	On-board AW-CM358 WiFi 5 (802.11ac) + Bluetooth 5.2 module
5G/4G	1x M.2 Key B for 4G/5G (USB 3.0), 1x Micro SIM slot
Display	1x HDMI 2.1 Type-A up to 4K60 1x DP Alt Mode over USB-C 1x Dual channel LVDS (2x15-pin 2.0mm header), 1x LVDS backlight (12V, 1x6-pin 2.0mm wafer) Supports HDMI+DP+LVDS Triple independent display
Video Input	-
Audio	1x 3.5mm Audio (CTIA)
USB	1x USB 3.0 Type-C with OTG/DP, 2x USB 3.0 Type-A
Serial Port	2x RS-232, 2x RS-232/485, 2x RS-232/TTL, 1x Debug via pin headers
CAN	2x CAN via pin headers
I2C	1x I2C for touch control
GPIO	8x GPIO (3.3V TTL level) via pin headers
Board Features	On-board Z32H330TC TPM 2.0 module (optional) Watchdog Timer, RTC, power button, programmable LEDs
Power Supply	12V DC-IN via 5.5x2.5mm DC Jack or 1x4-pin 2.5mm wafer
Form Factor	3.5 inch, 146mm x 102mm
OS Support	Android 14, Debian 12, Ubuntu (TBD), OpenHarmony (TBD)
Operating Conditions	0~60°C/-20~70°C/-40~85°C, 10%~90% RH non-condensing
Storage Conditions	-40~85°C, 5%~90% RH non-condensing

Block Diagram



Dimensions



Order Information

Part Number	SoC	Memory	Flash	WiFi	TPM	LAN	USB	RS232	RS485	CAN	GPIO	Operating Temp.
JES-R76I-AOM41	RK3576J	4GB	32GB	WiFi 5	-	2	3	4	2	2	8	-40~85°C
JES-R76I-AOHT1	RK3576J	8GB	64GB	WiFi 5	TPM 2.0	2	3	4	2	2	8	-20~70°C
JES-R76I-BOM41	RK3576	4GB	32GB	WiFi 5	-	2	3	4	2	2	8	0~60°C
JES-R76I-BOHT1	RK3576	8GB	64GB	WiFi 5	TPM 2.0	2	3	4	2	2	8	0~60°C