

JES-R68I

Rockchip RK3568J Industrial Embedded SBC

JWIPC's JES-R68I is an Arm-based 3.5" Single Board Computer powered by industrial tier Rockchip RK3568J SoC, which includes 4x Arm Cortex-A55 cores, 1 TOPS NPU and Arm Mali-G52 3D graphics engine. It supports HDMI, eDP, dual-channel LVDS or MIPI-DSI display and provides rich I/O resources such as 2x GbE, 2x CAN, 5x USB and 6x COM. It also features an optional on-board WiFi+BT module and M.2 Key B with Micro SIM card slot for 5G/4G expansion. Designed for field operation in industrial environments, JES-R68I can withstand ambient temperatures between -40 and +85 °C and 10~90% relative humidity non-condensing.

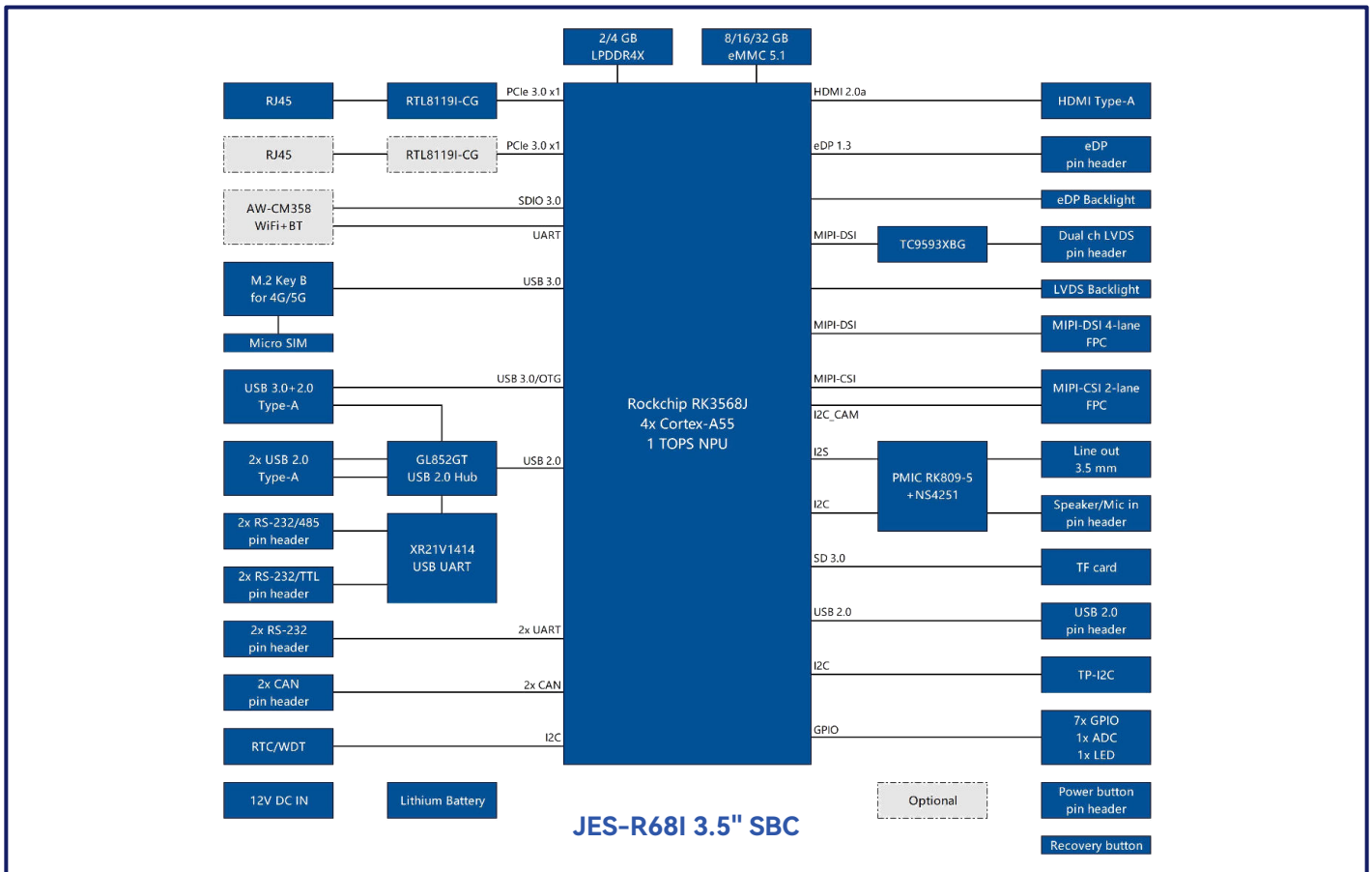


- Arm-based 3.5" Single Board Computer
- Industrial tier Rockchip RK3568J SoC up to 1.8 GHz
- 4x Cortex-A55 + 1 TOPS NPU + Mali-G52 3D GPU
- On-board 2/4GB LPDDR4X + 8/16/32GB eMMC 5.1
- Display: 1x HDMI, 1x eDP, 1x LVDS, 1x MIPI-DSI
- I/O: 2x GbE, 2x CAN, 5x USB, 6x COM
- On-board WiFi+BT module + M.2 Key B for 5G/4G
- Supports -40~85°C operating temperatures

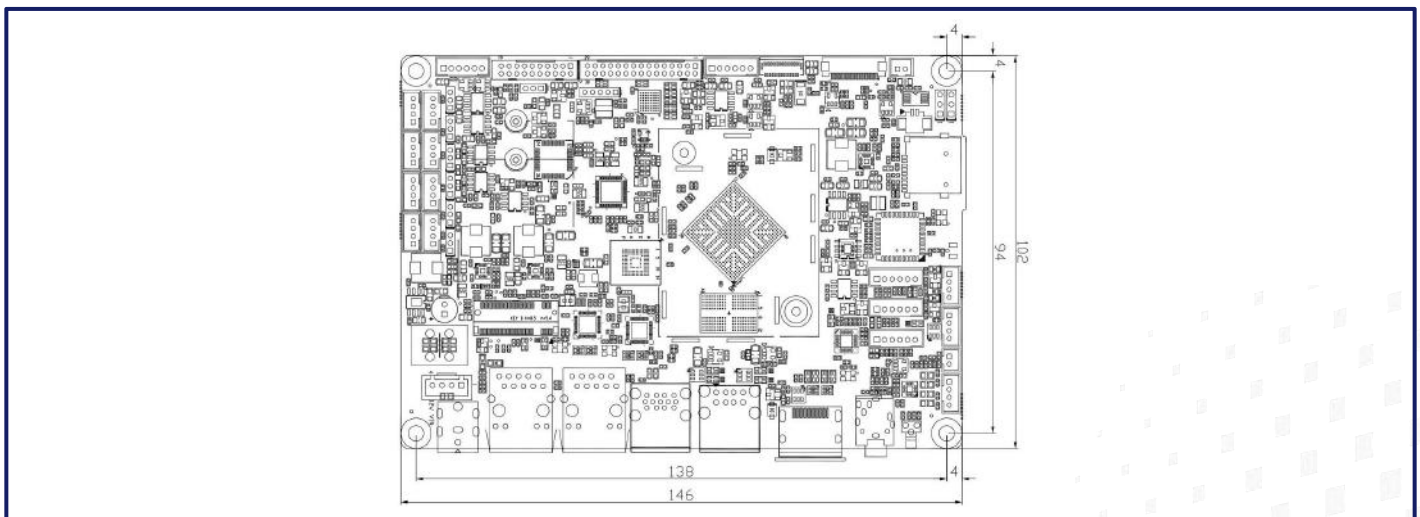
01 Specifications

CPU	Rockchip RK3568J, Quad core Cortex-A55 processors up to 1.8 GHz, 64-bit Arm® v8.2-A architecture
NPU	1 TOPS Neural Network performance
GPU	Arm Mali-G52 1-Core-2EE, supports OpenGL ES 1.1/2.0/3.2, Vulkan 1.0/1.1, OpenCL 2.0 FP
H/W Video Codec	Decoder: H.265, H.264, VP9 up to 4K60; Encoder: H.265, H.264 up to 1080p60
Memory	On-board 4GB LPDDR4X (2GB optional)
Flash Memory	On-board 32GB eMMC 5.1 for OS (8GB/16GB optional)
Ethernet	2x 10/100/1000 Mbps
WiFi	On-board AW-CM358 module (optional), supports IEEE 802.11a/b/g/n/ac WiFi with Bluetooth 5.2
5G/4G	1x M.2 Key B for 4G/5G, 1x Micro SIM slot
Display	1x HDMI 2.0a, 1x eDP 1.3, 1x Dual channel LVDS, 1x 4-lane MIPI-DSI Supports simultaneous display with any two interfaces, up to 4K 30Hz+1080p 60Hz
Camera Input	1x 2-lane MIPI-CSI; 8M ISP with HDR support
Audio	1x 3.5mm Line out, 1x Speaker, 1x Mic in
USB	1x USB 3.0/OTG, 4x USB 2.0
COM	2x 2-wire RS-232/RS-485, 2x 2-wire RS-232/TTL, 2x 2-wire RS-232
CAN	2
TF Card	1
I2C	1x TP-I2C
GPIO	7x 3.3V GPIO, 1x ADC, 1x LED
Power Supply	12V DC IN, RK809-5 PMIC
Form Factor	3.5 inch, 146mm x 102mm
Operating System	Android 11, Ubuntu 18.04, Debian 10
Boot Options	eMMC
Operating Conditions	-40~85°C, 10%~90% RH non-condensing
Storage Conditions	-40~85°C, 5%~90% RH non-condensing

02 Block Diagram



03 Dimensions



04 Order Information

Part No.	SoC	Memory	Flash	LAN	WiFi	5G/4G	Display	USB	COM	CAN	I2C	GPIO	Operating Temperature
JES-R681-AQH40	RK3568J Quad core	4GB	32GB	2x 1000M	2.4/5GHz (optional)	USB 3.0	1x HDMI 1x eDP 1x LVDS 1x MIPI-DSI	5	2x RS-485 4x RS-232	2	1	7	-40~85°C (-30~85°C)
JES-R681-BQH40	RK3568B2 Quad core	4GB	32GB	2x 1000M	2.4/5GHz	USB 3.0		5	2x RS-485 4x RS-232	2	1	7	0~60°C
JES-R681-BQM40	RK3568B2 Quad core	2GB	16GB	2x 1000M	2.4GHz	USB 3.0		5	2x RS-485 4x RS-232	2	1	7	0~60°C