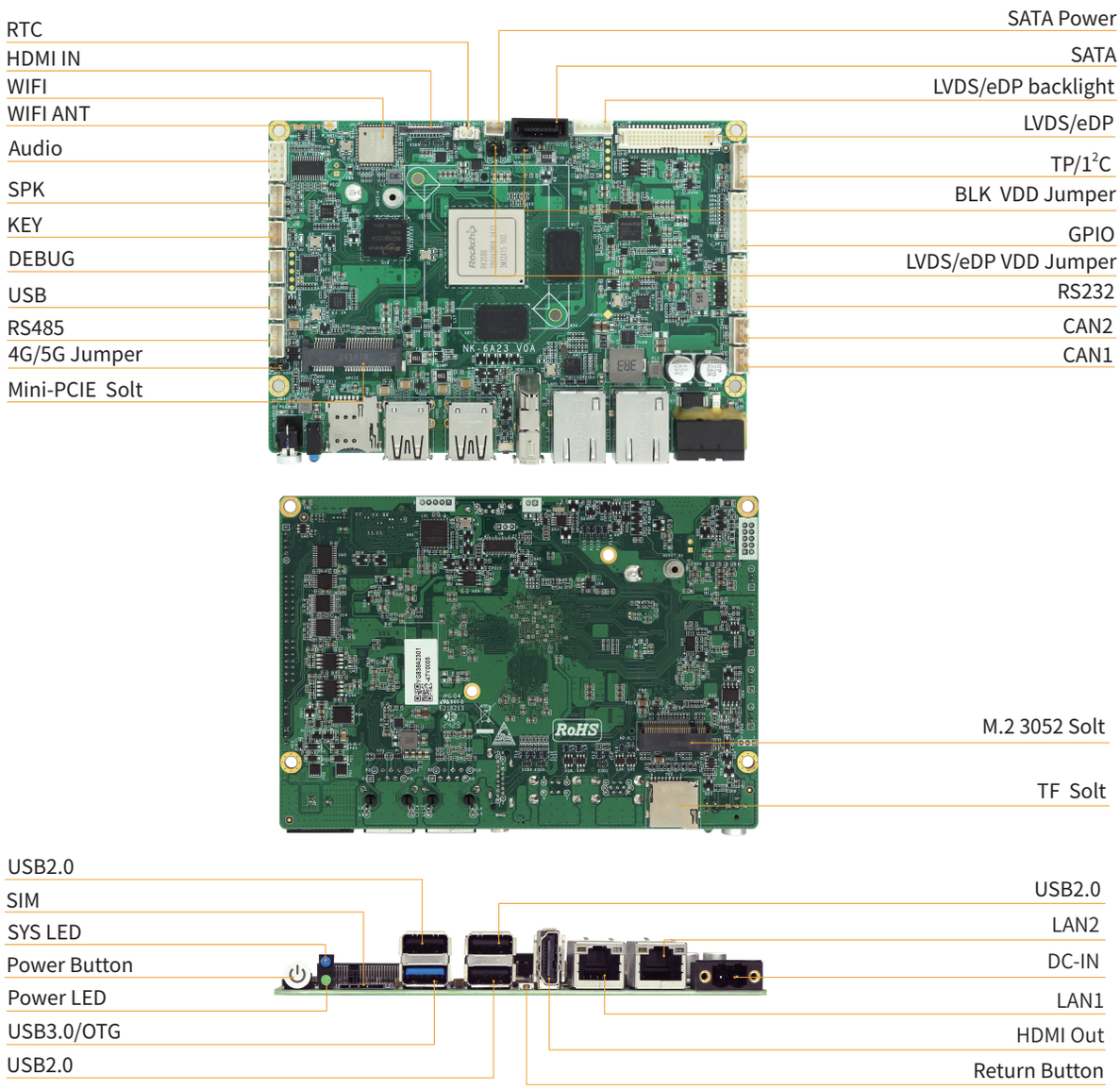
NK-6A23

Rockchip ARM Cortex-A55 RK3588 3.5" SBC

特点 Feature

- Rockchip RK3588 8nm process,quad-core Cortex-A76 + quad-core Cortex-A55
- Built-in NPU with processing performance of up to 6.0 TOPS,enable various AI applications
- Mali-G610 MC4 GPU,embedded high performance 2D image acceleration module
- Onboard 4/8GB LPDDR4 memory and 32/64GB eMMC
- Supports 1 x HDMI Out 2.1@8K,1 x HDMI In 2.0@4K 1 x LVDS and 1 x eDP
- Provides 2 x GbE,1 x SATA3.0,1 x USB3.0(OTG),4 x USB2.0,5 x Serial(option),1 x TP/I2C,2 x CAN,12 x GPIO
- 1 x MINI-PCIE with USB 2.0 signal for LTE/ Wi-Fi 6 Modules or PCIE 2.1 signal for Dual LAN Card(Option),1 x M.2-B Key with USB 3.0 signal for 5G Modules
- Provides a 2.4G/5G dual-channel WiFi,Support bluetooth 5.0
- Supports Linux and Android OS

I/O Layout

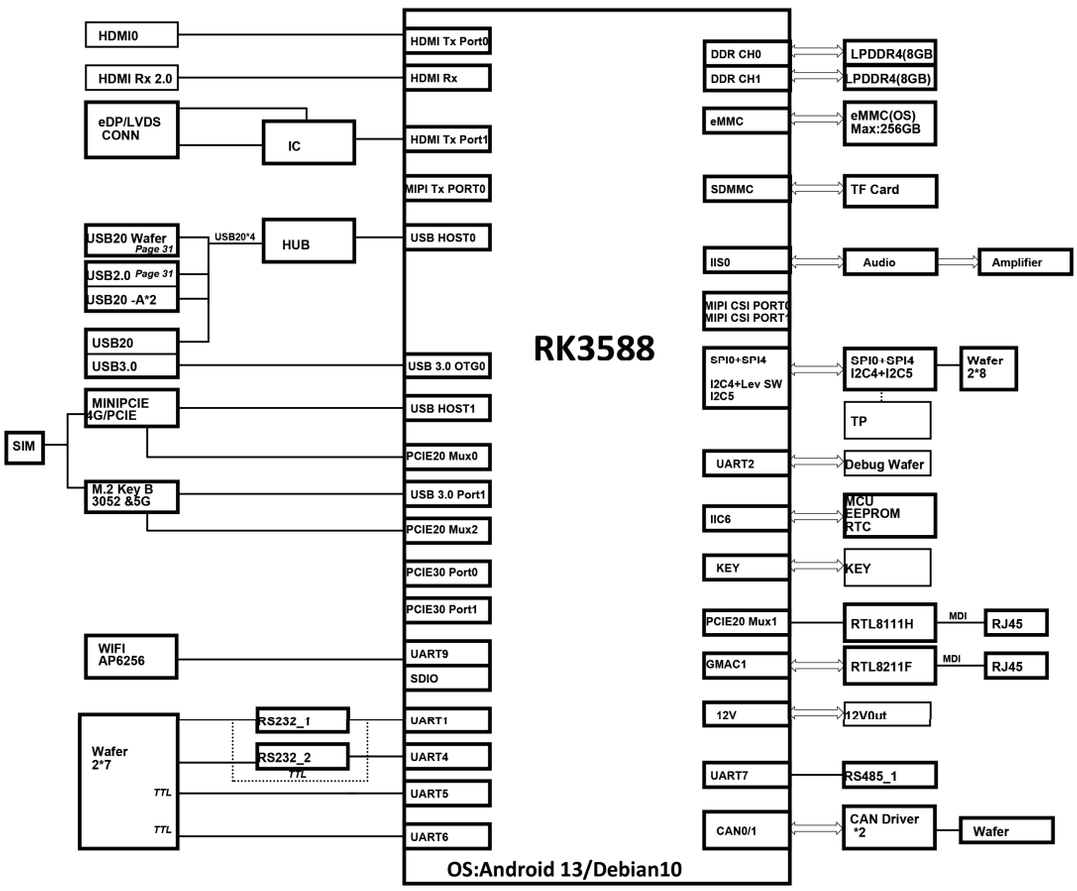


产品规格如有变更，恕不另行通知。All product specifications are subject without notice.

规格 Specification

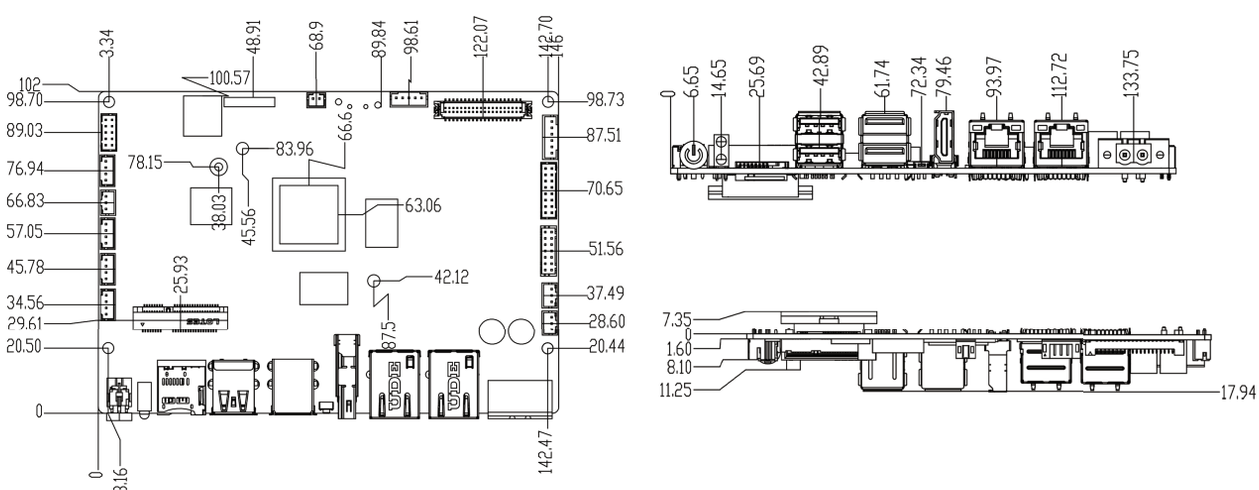
处理器 Processor System	CPU	Rockchip RK3588 Quad core Cortex-A76@2.4GHz + Quad-core Cortex-A55@1.8GHz
	GPU	Mali-G610 MC4 Support H.265/H.264/AV1/VP9/AVS2
	NPS	Up to 1.0 Tops.Supports INT8/INT16 hybrid operation32
内存 Memory	Memory	Onboard 4/8/16GB LPDDR4
存储 Storage	eMMC	Onboard 32/64/128GB eMMC
	SATA	1 x SATA3.0 port(Option)
	TF Socket	1 x TF card Socket,Support 256GB TF card
外部接口 Rear I/O	Display	1 x HDMI Out 2.1,support multiple display engine max to 8K@60fps,1 x HDMI In 2.0,max to 4K@60fps
	Ethernet	2 x GbE(RJ45),Realtek8211F controller
		1 x Onboard AP6256 IC,Support 2.4G/5G dual-channel WiFi,support WiFi 802.11b/g/n protocol,Support BT5.0
	USB	1 x USB3.0, OTG Colay,3 x USB2.0
	DC IN	12~24V power input,1 x 2-pin lockable DC-IN phoenix terminal block
	Button	1 x Power Button,1 x Return Button
	指示灯 Indicators	1 x System LED(Blue),1 x Power LED(Green)
内部接口 Internal I/O	显示 Display	1 x LVDS
		1 x eDP,upto 2560x1600@60Hz(share connector with LVDS)
	DEBUG	1 x DEBUG for debug
	KEY	1 x KEY,Supports power on,reset,recovery
	串口 Serial Port	1 x RS485,1 x RS232,3 xTTL
	USB	1 x USB2.0 wafer(1*4pin)
	DC OUT	1 x DC 12V Power Out put
	TP/I2C	1 x TP/I2C
	CAN	2 x CAN
	GPIO	12 x GPIO
	音频 AUDIO	1 x Audio(Min-in/HeadPhone) and Speaker out via pin header
扩展接 ExpansionSlots	Mini-PCIe slot&SIM USI	1 x MINI-PCIE with USB 2.0 signal for LTE/ Wi-Fi 6 Modules or PCIE 2.1 signal for Dual LAN Card(Option),1 x SIM card socket
	M.2 slot	1 x M.2 B Key with USB 3.0 signal for 5G Modules
电源 Power	Type	12~24V power input
	接口 Interface	1 x 2-pin phoenix terminal block
	功耗 Power Consumption	TBD
操作系统 O.S Support	OS	Android13,Debian11,ubuntu20.04
机械参数 Mechanism	尺寸 Dimensions	146mmx102mm
	净重 Gross Weight	0.7Kg
环境 Environment	Operating	-20°C ~60°C
	Storage	-30°C ~80°C
	湿度 Humidity	5~95% (Non-condensing)
	振动 Vibration	5~500Hz,3Grms operating

框架图 Block Diagram



机构图 Mechanical Drawing

单位 (Unit): mm



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订购信息 Order Information

料号 Part No.	型号 Model	描述 Description
F83.6A2303.10.NES	NK-6A23-432_V10	ARM，RK3588，4G，32G，Standard，9-24V，2*LAN 1*HDMI IN 1*HDMI Out 1*RS232 3*TTL 1*RS485 1*SATA EDP/LVDS 2.4G/5G WIFI

包装清单 Packing List

料号 Part No.	数量 Qty	描述 Description
User Manual	1	User Manual for NK-6A23
Terminal block	1	2-pin termianl block

可选配件 Optional Accessories

料号 Part No.	名称 Part Name	描述 Description
L44.000007.00.T06	Heat sink	Al alloy,black,HD=59mm,Standard,With fixing clip
K75.004010.00.C26	Power Adapter	Power Adapter(侨威 KPL-040F-VI),w2pin 凤凰端子 (台湾进联),OUT:12V\3.3A，IN:220V, 能效六
KE1.000015.00.Y10	Power Cord	AC Power cord (国标电源线)
KE1.000011.00.Y10	Power Cord	AC Power cord (欧标电源线)
F06.000030.00.NDJ	4G 套件	Mini-PCIe 模组,USB 总线,含 :4G 扩展卡,7 模全网通 EC20CEHDLG\ 内部馈线 L=150mm\ 外部吸盘天线 L=3M
F06.000031.00.NDJ	4G 套件	Mini-PCIe 模组,USB 总线,含 :4G 扩展卡,7 模全网通 EC20CEHDLG\ 内部馈线 L=150mm\ 外部船桨天线 L=17CM