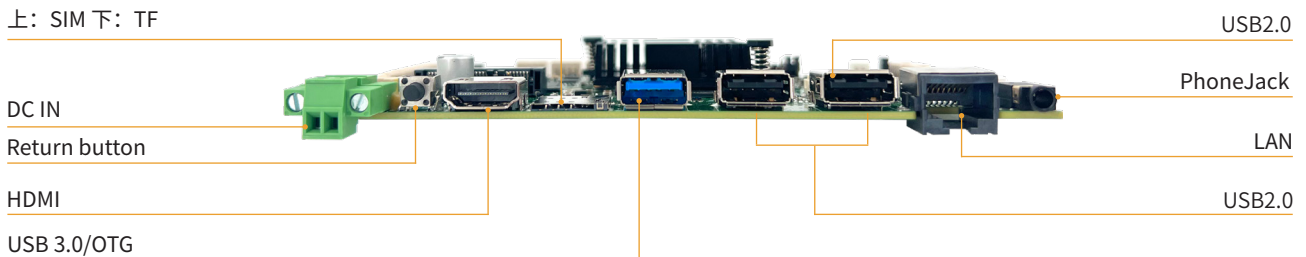
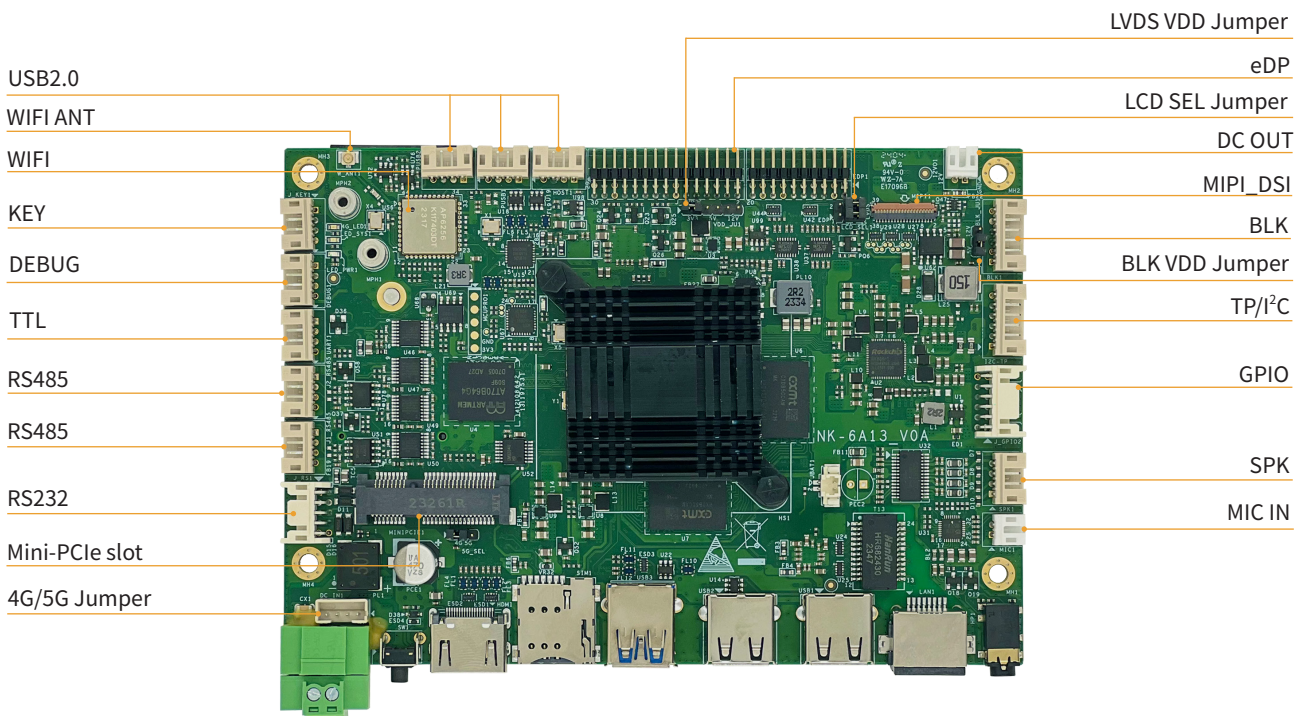


# NK-6A13

Rockchip ARM RK3588 3.5" SBC

## 特点 Feature

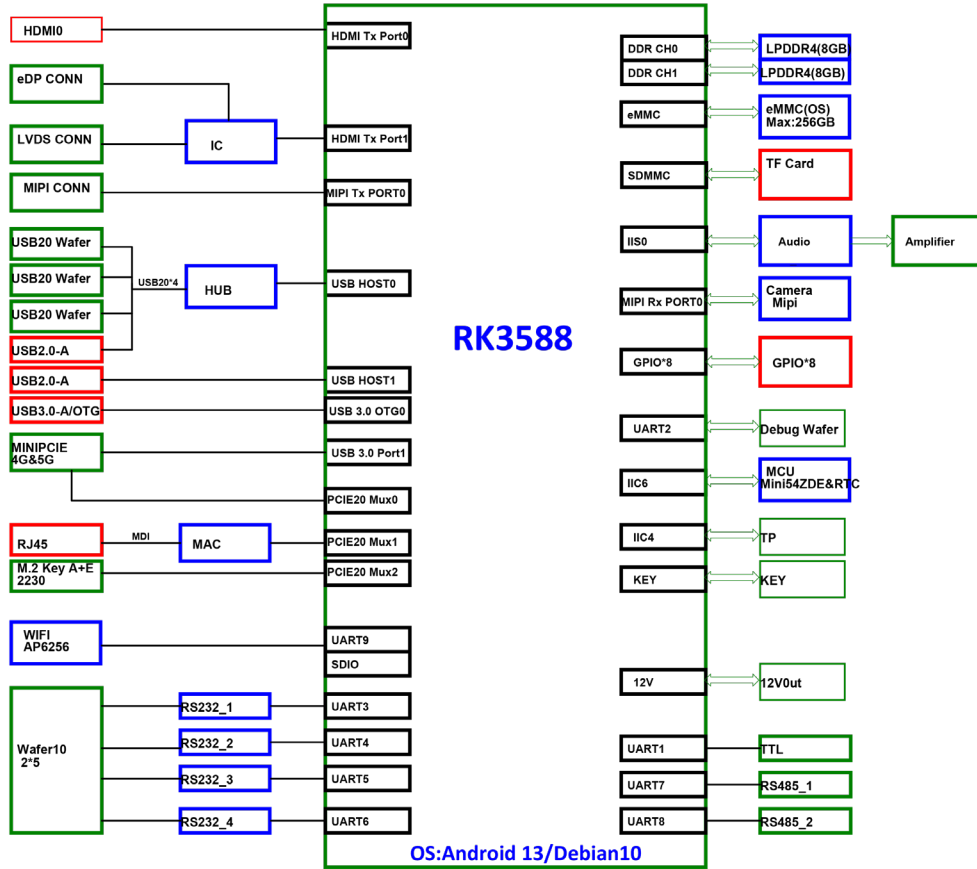
- Rockchip RK3588 8nm process, quad-core Cortex-A76 + quad-core Cortex-A55
- Built-in NPU with processing performance of up to 6.0 TOPS ,enable various AI applications
- Mali-G610 MC4 GPU, embedded high performance 2D image acceleration module
- Onboard 4/8GB LPDDR4 memory and 32/64GB eMMC
- Rich display interface with eDP/ HDMI2.1/LVDS/MIPI,support multiple display engine max to 8K@60fps
- Provides 1 x GbE,1 x USB3.0(OTG),5 x USB2.0, 6 x Serial(option),1 x TTL,1 x I2C,8 x GPIO,1 x MIPI-CSI,1 x PhoneJack
- Provides a M.2 E Key with PCIE 3.0/PCIE 2.0/USB 2.0 signal for Wi-Fi 5/6(option)and a MINI-PCIE with USB 3.0 signal for LTE/5G Modules
- Provides a Onboard Dual-WIFI,Support bluetooth5.0
- Supports Linux and Android OS



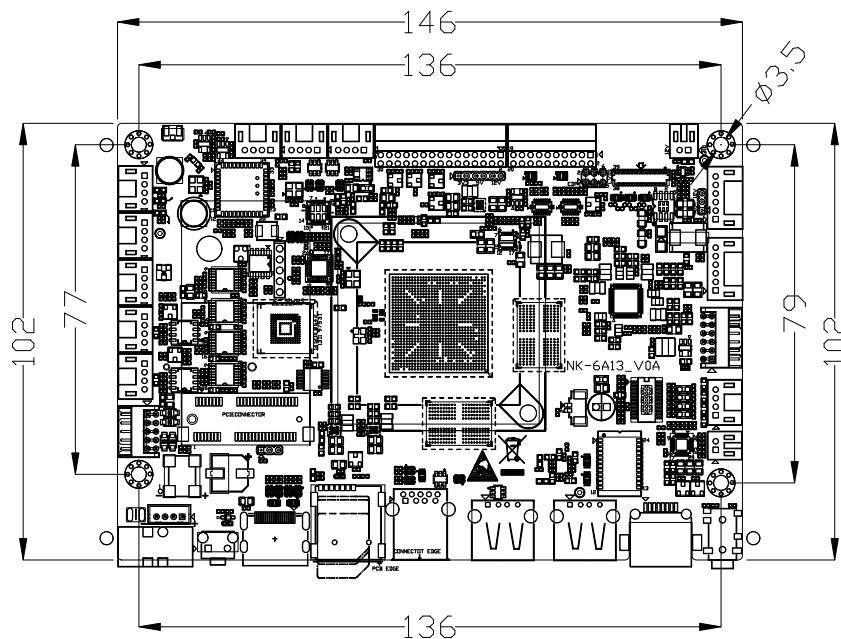
规格 Specification

处理器 Processor System	CPU	Rockchip RK3588 Quad core Cortex-A76@2.4GHz + Quad-core Cortex-A55@2.4GHz
	GPU	Mali-G610 MC4 OpenGL ES 1.1/2.0/3.1/3.2,Vulkan 1.1, 1.2,OpenCL 1.1,1.2,2.0
	NPS	Up to 6TOPS NPU,Support int4/int8/int16/FP16/BF16/TF32
内存 Memory	Memory	Onboard 4/8GB LPDDR4
存储 Storage	eMMC	Onboard 32/64GB eMMC
	TF Socket	1 x TF card Socket,Support 125GB TF card
外部接口 Rear I/O	显示 Display	1 x HDMI 2.1, support multiple display engine max to 8K@60fps
	网络 Ethernet	1 x GbE (10/100/1000 Mbps) 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,2 x USB2.0
	DC IN	12~24V power input, 2-pin lockable DC-IN phoenix terminal block
	按键 Button	1 x Return Button
	PhoneJack	1 x Ø3.5 PhoneJack
内部接口 Internal I/O	显示 Display	1 x LVDS
		1 x eDP 1.3,upto 4K@60Hz
		1 x Mipi-DSI,upto 2K@60Hz
	DEBUG	1 x DEBUG for debug
	KEY	1 x KEY ,Supports power on,reset,recovery
	串口 Serial Port	2 x RS485, 4 x RS232, 1 x TTL
	USB	3 x USB2.0 pin header
	DC IN 1	1 x DC IN pin header ,12V~24V Power In put
	DC OUT	1 x DC 12V Power Out put
	TP/I <sup>2</sup> C	1 x TP/I <sup>2</sup> C
	GPIO	8 x GPIO
音频 AUDIO	1 x MIC in,and Speaker out via pin header	
MIPI_CSI	1 x MIPI_CSI,Support MIPI dual-channel camera	
扩展接口 Expansion Slots	Mini-PCle slot	1 x MINI-PCIE with USB 3.0 signal for LTE/5G Modules, 1 x SIM card socket
	M.2 slot	1 x M.2 E Key with PCIE 3.0/PCIE 2.0/USB 2.0 signal for Wi-Fi 6
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
机械参数 Mechanism	尺寸 Dimensions	(L)146mmx(W)102mm
	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

## 订购信息 Order Information

料号 Part No.	型号 Model	描述 Description
F83.6A1301.0A.NES	NK-6A13-432_V0A	ARM,RK3588,4G,32G Emmc,Standard,DC IN 12V-24V,6*COM,6*USB,1*LAN
F83.6A1302.0A.NES	NK-6A13-864_V0A	ARM,RK3588,8G,64G Emmc,Standard,DC IN 12V-24V,6*COM,6*USB,1*LAN

## 包装清单 Packing List

料号 Part No.	数量 Qty	描述 Description
User Manual	1	User Manual for NK-6A13
Terminal block	1	2-pin terminal block

## 可选配件 Optional Accessories

料号 Part No.	名称 Part Name	描述 Description
K75.004010.00.C26	Power Adapter	Power Adapter( 侨威 KPL-040F-VI),2pin 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
F06.000095.00.NDJ	4G 套件	Mini-PCIe 模组,USB 总线,含 :4G 扩展卡,5 模全网通 L716-CN\ 内部馈线 L=100mm\ 外部吸盘天线 L=3M
F06.000096.00.NDJ	4G 套件	Mini-PCIe 模组,USB 总线,含 :4G 扩展卡,5 模全网通 L716-CN\ 内部馈线 L=150mm\ 外部船桨天线 L=17CM