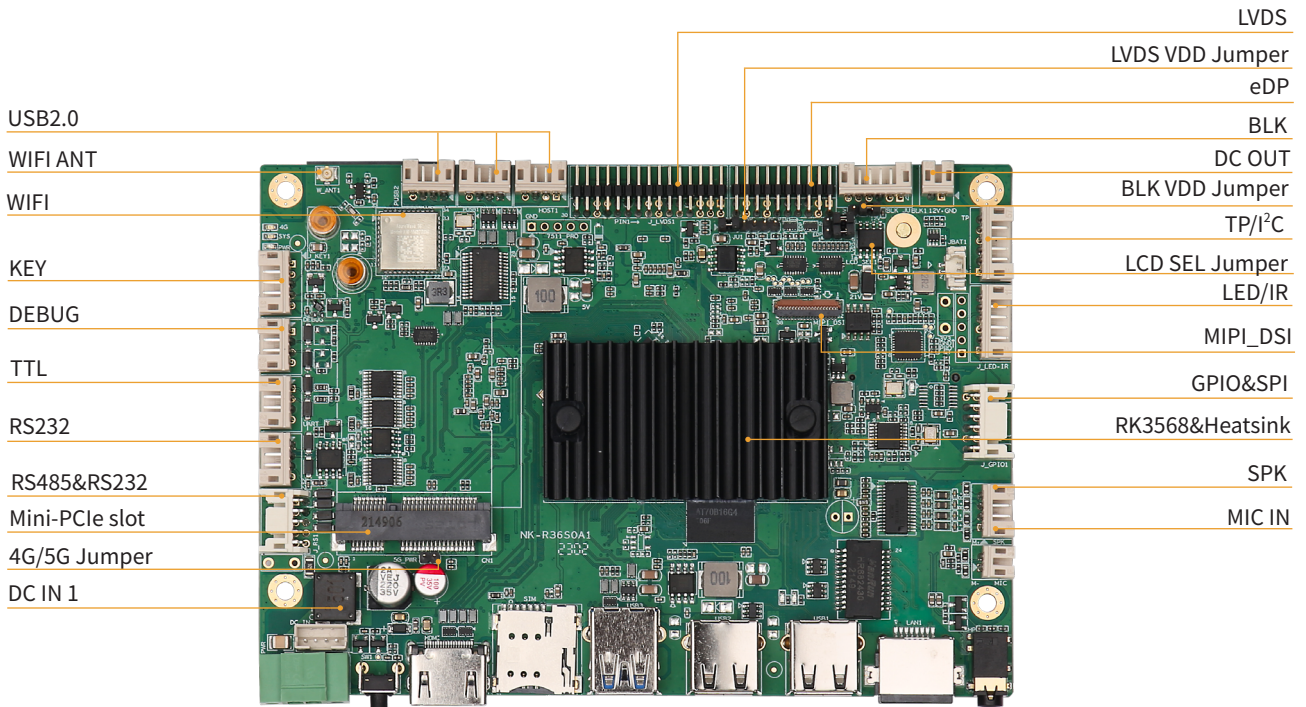


NK-6A12

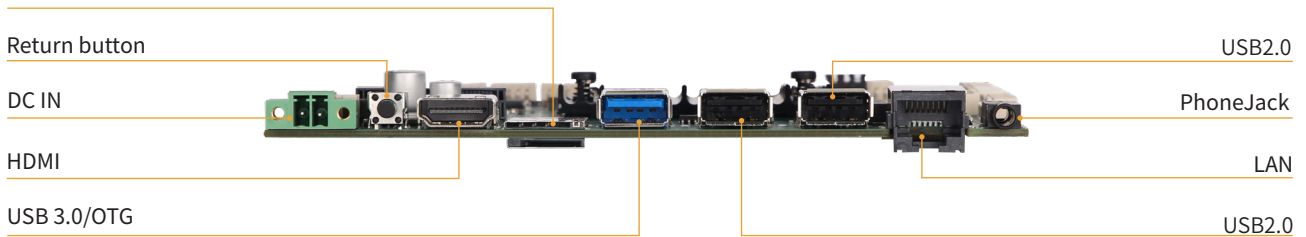
Rockchip ARM Cortex-A55 RK3568 3.5" SBC

特点 Feature

- Rockchip RK3568 ARM Quad Cortex-A55 up to 2.0GHz
- Built-in NPU with processing performance of up to 1.0 TOPS
- Onboard 2/4/8GB LPDDR4 memory and 16/32/64GB eMMC
- Supports 1 x HDMI 2.0 4K, 1 x LVDS, 1 x MIPI-DSI, and 1 x eDP
- Provides 1 x GbE, 1 x USB3.0(OTG), 5 x USB2.0, 5 x Serial (option) , 1 x TTL, 1 x I2C, 1 x SPI, 4 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 WIFI, Support bluetooth5.0
- Supports Linux and Android OS



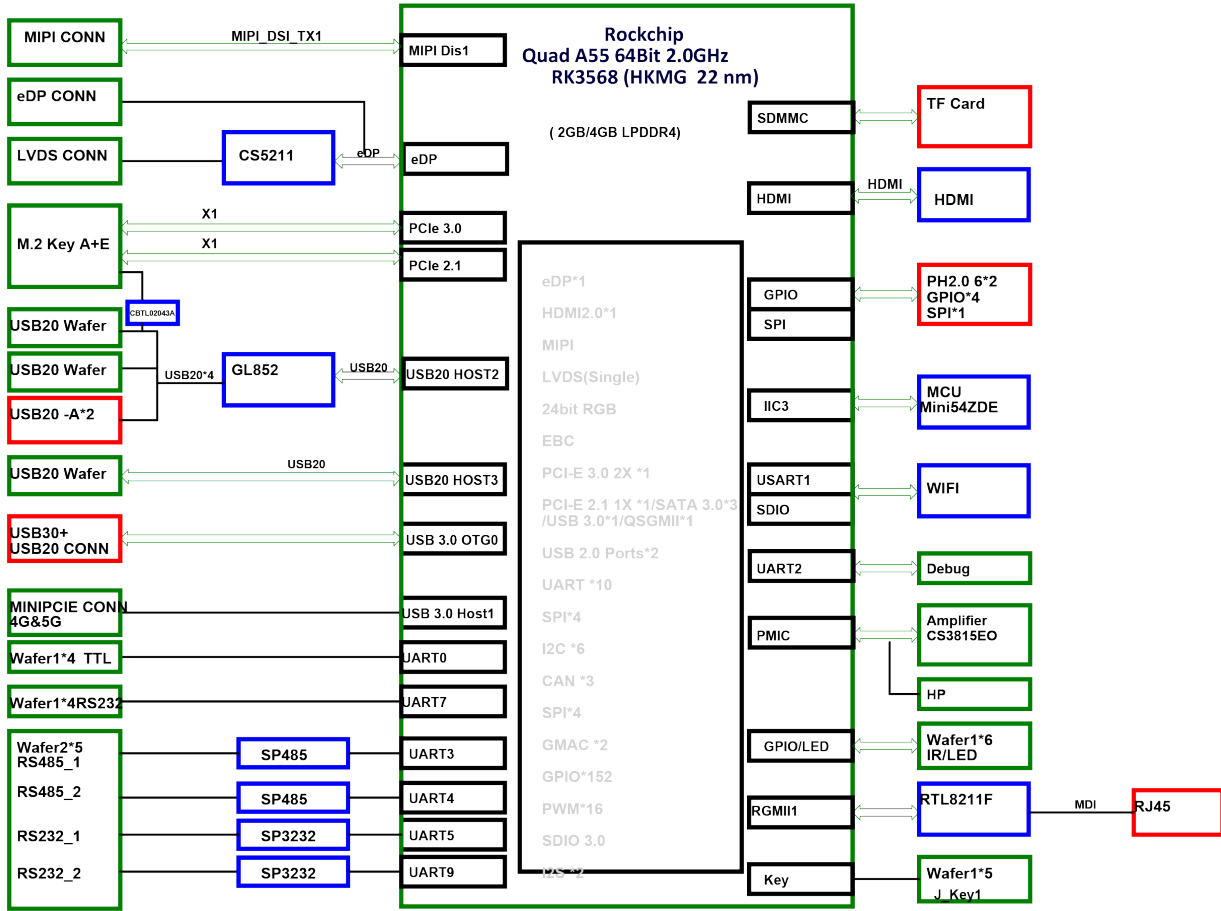
上: SIM 下: TF



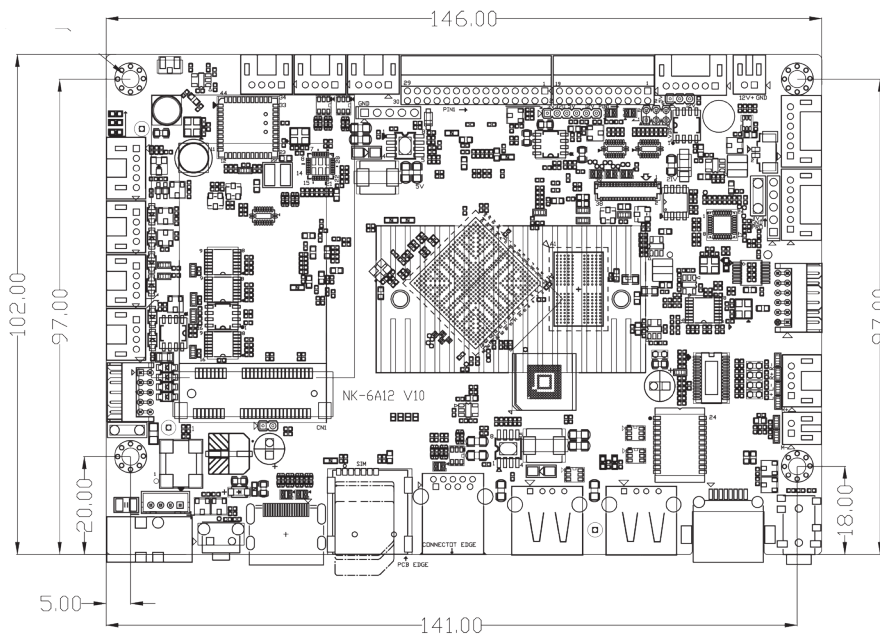
规格 Specification

处理器 Processor System	CPU	Rockchip RK3568 ARM Quad Cortex-A55 up to 2.0GHz
	GPU	Mali-G52 support OpenGL ES 1.1/2.0/3.2, Vulkan 1.0/1.1, OpenCL 2.0
	NPU	Up to 1.0 Tops.Supports INT8/INT16 hybrid operation
内存 Memory	Memory	Onboard 2/4/8GB LPDDR4
存储 Storage	eMMC	Onboard 16/32/64GB eMMC
	TF Socket	1 x TF card Socket,Support 128G TF card
外部接口 Rear I/O	Display	1 x HDMI 2.0, upto 4096x2304@60Hz
	Ethernet	1 x GbE (10/100/1000 Mbps) 1 x Onboard AW-NM372 IC, Support 2.4G WiFi,support WiFi 802.11b/g/n protocol, Support BT5.0 (2.4G option)
	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
	Button	1 x Return Button
	PhoneJack	1 x Ø3.5 PhoneJack
内部接口 Internal I/O	Display	1 x LVDS
		1 x eDP,upto 2560x1600@60Hz
		1 x Mipi-DSI,upto 1920x1080@60Hz
	DEBUG	1 x DEBUG for debug
	KEY	1 x KEY ,Supports power on,reset,recovery
	Serial Port	2 x RS485, 3*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 ² C	1xTP/I ² C
	LED/IR	1xLED/IR
	GPIO&SPI	4 x GPIO, 1 x SPI
	AUDIO	1 x MIC in,and Speaker out via pin header
MIPI_CSI	1 x MIPI_CSI,Support MIPI dual-channel camera	
Expansion Slots	Mini-PCIe slot	1 x MINI-PCIE with USB 3.0 signal for LTE/5G Modules, 1 x SIM card socket
	M.2	1 x M.2 E Key with PCIE 3.0/PCIE 2.0/USB 2.0 signal for Wi-Fi 5/6 (option)
电源 Power	Type	12~24V power input
	Interface	1 x 2-pin phoenix terminal block
	Power Consumption	Boost 13W
O.S Support	OS	Android11,Debian10
机械参数 Mechanism	Dimensions	(L)146mm x (W)102mm
	Gross Weight	0.6Kg
环境 Environment	Operating	-20°C ~60°C
	Storage	-30°C ~80°C
	Humidity	5~95% (Non-condensing)
	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
F83.6A1205.10.NES	NK-6A12-216-L_V10	ARM, RK3568, 2G, 16G eMMC, Standard, DC IN 12V~24V, 1*Mipi_DSI,1*RS485, 无 LVDS/eDP/Mipi_CSI/M.2
F83.6A1201.10.NES	NK-6A12-432-L_V10	ARM, RK3568, 4G, 32G eMMC, Standard, DC IN 12V~24V, 1*Mipi_DSI,1*RS485, 无 LVDS/eDP/Mipi_CSI/M.2
F83.6A1202.10.NES	NK-6A12-216_V10	ARM, RK3568, 2G, 16G eMMC, Standard, DC IN 12V~24V, 1*LVDS/eDP/Mipi_DSI,1*RS485, 无 M.2
F83.6A1203.10.NES	NK-6A12-432_V10	ARM, Rk3568, 4G, 32G eMMC, Standard, DC IN 12V~24V, 1*LVDS/eDP/Mipi_DSI,2*RS485,1*M.2
F83.6A1204.10.NES	NK-6A12-864_V10	ARM, RK3568, 8G, 64G eMMC, Standard, DC IN 12V~24V, 1*LVDS/eDP/Mipi_DSI,2*RS485,1*M.2

包装清单 Packing List

料号 Part No.	数量 Qty	描述 Description
User Manual	1	User Manual for NK-6A12
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