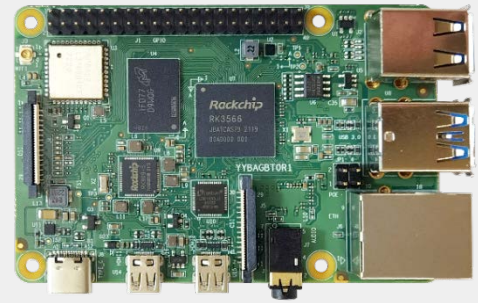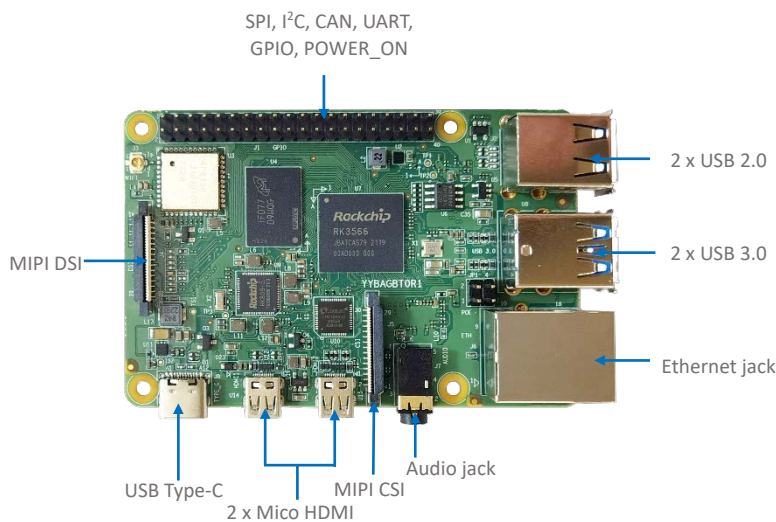# NiceLit Series Single Board Computers

Product Brief Introduction

Vantron Technology recently unveiled NiceLit series to its embedded board family that features an efficient AI processing unit to provide quality computing power for lightweight AIoT applications.

NiceLit series is powered by Rockchip RK3568/RK3566 processor that integrates quad-core ARM Cortex-A55 CPU and Mali G52 GPU to provide optimized performance at lower power consumption, and offers 4K high-quality video decoding and 1080P encoding for better display performance. Compact as it is, yet this series provide a range of customer expansion options and supports multiple operating systems to meet the requirements of different application purposes.

NiceLit series targets at industrial customization markets of IoT endpoints and software platforms such as industrial panel PC, trail transit, banking, automotive control center, etc.

Exterior and Features

SPI, I²C, CAN, UART, GPIO, POWER_ON

2 x USB 2.0

MIPI DSI

2 x USB 3.0

Ethernet jack

USB Type-C

2 x Mico HDMI

MIPI CSI

Audio jack

(VT-SBC-NT-3568 for illustration)

VT-SBC-NT-3566/3568

High-performance CPU & GPU

Low power consumption

Flexible expansion options

Long service time

Excellent display performance
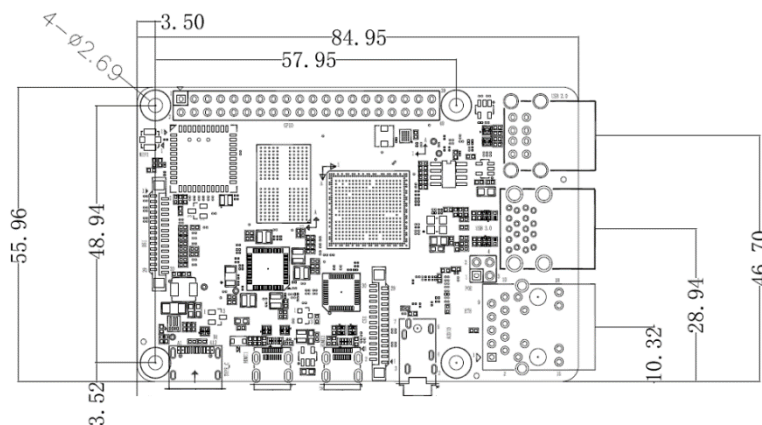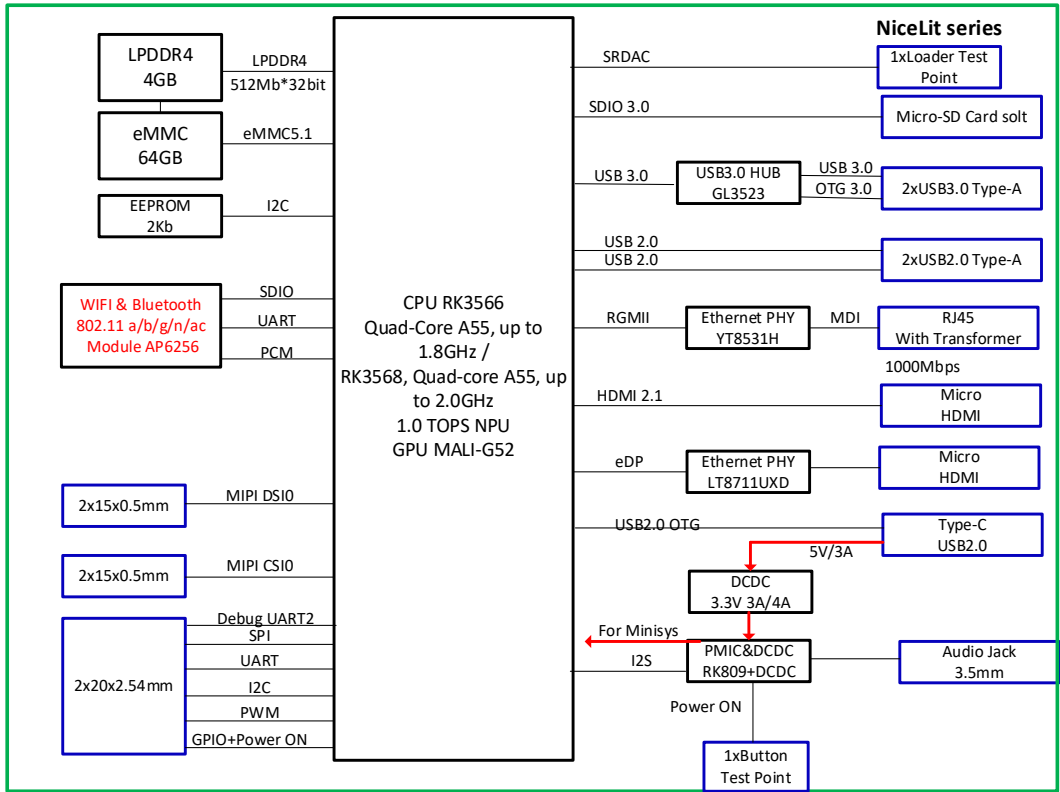
Compact size, complete function

NiceLit Series Single Board Computers Datasheet

Model Name		VT-SBC-NT-3568	VT-SBC-NT-3566
System	CPU	RK3568, Quad-core Cortex-A55, 2.0GHz (Max.)	RK3566, Quad-core Cortex-A55, 1.8GHz (Max.)
	GPU	Mali-G52	
	Memory	4GB LPDDR4 (Optional: 8GB)	
	Storage	64GB eMMC	
		1 x Micro SD slot	
Communication	Ethernet	1 x RJ45, 10/100/1000Mbps	
	Wi-Fi & BT	Wi-Fi 2.4GHz/5GHz & BT 5.0	
Media	Display	1 x Dual-lane MIPI DSI	
		2 x Micro HDMI, supporting 4K + 1080P	2 x Micro HDMI, supporting 4K + 1080P
		(Extend mode supported)	(Duplicated mode supported)
	Camera	1 x MIPI CSI	
I/Os	Audio	1 x 3.5mm Combo audio jack	
	USB	2 x USB 2.0 Host, Type A	
		2 x USB 3.0 Host, Type A	
	GPIO	1 x GPIO	3 x GPIO
	I2C	2 x I^2C	3 x I^2C
	SPI	2 x SPI	2 x SPI
	UART	5 x UART	4 x UART
	CAN	2 x CAN	NA
	PWM	NA	2 x PWM
	POWER_ON	1 x POWER_ON	1 x POWER_ON
Power	Input	5V/3A DC, USB Type C	
Software	Operating system	Android 11, Debian 10	
	Device management platform	BlueSphere MDM (Android devices only)	
	OTA tool	BlueSphere OTA	
Mechanical	Dimensions	85mm x 56mm x19.5mm	
	Weight	55g (±5g)	
Environment Condition	Temperature	Operating: -20℃~+70℃	
		Storage: -40℃~+85℃	
	Humidity	RH 5%-95% (Non-condensing)	

Product Outlines

Block Diagram

Company Profile

Since 2002 established by two Silicon Valley entrepreneurs, Vantron Technology has been a pioneer in connected IoT devices and IoT platform solutions. Today, Vantron serves countless customers all over the world, some of them are Fortune 500 companies. Products lines cover edge intelligent hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platform.

Vantron has 20 years of experience in R&D of embedded edge intelligent hardware like SOM board and motherboard, and provided users with various embedded solutions with ARM and X86 architecture. From Linux to Windows, from embedded to desktop level, from gateway to server. At the same time, we provide our users with system clipping, driver transplantation and other services.

Vantron IoT communication devices support multi-protocol connection of industrial equipment, edge computing of local data. Abundant wired and wireless connectivity make remote operations and maintenance possible. From electricity and transportation to smart retail, medical and warehousing, Vantron IoT communication device can be deployed anywhere in any business section. Vantron believes its IoT solution to help many companies finish their digital transformation, efficiency of manufacturing and productivities have been improved significantly.

Vantron industrial display systems, ARM and X86 series, are equipped with Rockchip, NXP, MediaTek, Intel and other high-performance processors. It supports various operating systems such as Windows, Linux, and Android. Diverse wireless communications keep your device online all the time. Multiple installation methods make it suitable for a variety of application scenarios. Features like waterproof, dustproof, shatter resistant guarantee the best performance in any environment.

Vantron BlueSphere device management platform, a software product, is playing a big role in Vantron overall IoT solution. Today, Vantron puts more focus on offering complete cost effective, leading-edge yet reliable solutions to help customers carry out their visions.