



# Feiyun Smart Box RTSS-X306

PN: RTSS-X306

Hardware Verion: V1.0



The RTSS-X306 is the UAV industry solution for NVIDIA Jetson Orin NX and NVIDIA Jetson Orin Nano core modules. It uses an aluminum alloy housing with active cooling design, which can adapt to the harsher working environment. Adopts a stable buckle terminal block to ensure the stability of the interface during the flight of the UAV. Rich interface to ensure the diversity of sensor access, OSDK interface can meet the needs of customers to access industry-level UAVs, built-in chip type WIFI6 module to ensure more stable data exchange, longer distance signal transmission, is the ideal solution for the UAV industry.

NVIDIA Jetson Orin NX/Orin Nano is a serialized embedded AI processor from NVIDIA that offers high performance and low power consumption in a module the size of a credit card. It mainly targets at the edge computing artificial intelligence robot technology and visual AI application scenarios, such as UAV, autonomous guided vehicle (AGV), autonomous mobile robot (AMR), etc., which has broad application prospects.

The RTSS-X306 is equipped with NVIDIA Jetson Orin NX/Orin Nano module, driven by Realtime RTS Linux4Tegra software support package, constitutes a system solution that can be powered on, and can be directly applied to field deployment.

## Features

- Compatible with NVIDIA Jetson Orin NX/Orin Nano modules
- Dual USB3.0 ports, dual USB2.0 ports, independent Gigabit Ethernet, Micro HDMI display ports, rich basic ports
- Built-in M2 key M port supports large-capacity high-speed SSD storage
- Support expansion of M2 key B interface, support 5G communication module access, to achieve high-speed wireless network
- Small in size and light in weight, it is the ideal solution for the drone industry

## Processor

PN	RTSS-X306/ (5G)	RTSS-X306-8G/ (5G)	RTSS-X306-Orin Nano8/ (5G)	RTSS-X306- Orin Nano 4/ (5G)
AI Core	Orin NX 16GB	Orin NX 8GB	Orin Nano 4GB	Orin Nano 8GB
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	
GPU	1,024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores		1,024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
Memory	16GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 68 GB/s	4GB 64-bit LPDDR5 34 GB/s
Storage	Standard 128GB SSD			
AI Performance	100 TOPS	70 TOPS	40 TOPS	20 TOPS



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## Features

PN Interface	RTSS-X306	RTSS-X306-8G	RTSS-X306-OrinNano8	RTSS-X306-OrinNano4
AI Core	Jetson Orin NX 16GB	Jetson Orin NX 8GB	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB
System	Ubuntu 20.04			
USB	2 x USB 3.0 Type C ports, support usb2.0, usb3.0 signals; 1 x USB2.0 interface (can be extended up to 2 USB2.0), only support usb2.0 signals; 1 x Micro USB Debug;			
Display	1 x Micro HDMI interface			
Network	1 x GbE (10/100/1000Mbps adaptive; Half-duplex/full-duplex adaptive)			
Serial port	1 x UART			
CAN	1 x CAN			
OSDK	1 x OSDK			
WIFI	Chip WIFI6 (built-in)			
M.2	1 x M.2 key M interface, 128GB SSD as standard; (Built-in interface)			
FAN	1 x FAN interface (built-in interface)			
RTC	Support RTC function (built-in semi-attached RTC battery)			

PN Interface	RTSS-X306(5G)	RTSS-X306-8G(5G)	RTSS-X306-OrinNano8(5G)	RTSS-X306-OrinNano4(5G)
AI Core	Jetson Orin NX 16GB	Jetson Orin NX 8GB	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB
System	Ubuntu 20.04			
USB	2 x USB 3.0 Type C ports, support usb2.0, usb3.0 signals; 1 x USB2.0 interface (can be extended up to 2 USB2.0), only support usb2.0 signals; 1 x Micro USB Debug;			
Display	1 x Micro HDMI interface			
Network	1 x GbE (10/100/1000Mbps adaptive; Half-duplex/full-duplex adaptive)			
Serial port	1 x UART			
CAN	1 x CAN			
OSDK	1 x OSDK			
WIFI	Chip WIFI6 (built-in)			
M.2	1 x M.2 key M interface, 128GB SSD as standard; (Built-in interface) 1 x M.2 key B interface, 5G communication module is standard; (Built-in expansion interface)			
FAN	1 x FAN interface (built-in interface)			
RTC	Support RTC function (built-in semi-attached RTC battery)			
SIM	1 x Nano SIM interface (built-in expansion interface)			



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## Other Parameters

Part Number	RTSS-X306/ (5G)	RTSS-X306-8G/ (5G)	RTSS-X306-OrinNano8/ (5G)	RTSS-X306-OrinNano4/ (5G)
Heat-dissipating method	Fan heat dissipation			
Dimensions	100mm*71mm*53mm			
Power Requirement	DC +9~+36V Or OSDK +24V			
Temperature	-25~+50°C			
Weight	About 394g			

## Ordering Information

Part Number	Description
RTSS-X306	1 x Host device (Orin NX 16GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306(5G)	1 x Host device (Orin NX 16GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306-8G	1 x Host device (Orin NX 8GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306-8G(5G)	1 x Host device (Orin NX 8GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306-OrinNano8	1 x Host device (Orin Nano 8GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306-OrinNano8(5G)	1 x Host device (Orin Nano 8GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306-OrinNano4	1 x Host device (Orin Nano 4GBcore); 1 x Power adapter; 1 x Wiring package;
RTSS-X306-OrinNano4(5G)	1 x Host device (Orin Nano 4GBcore); 1 x Power adapter; 1 x Wiring package;

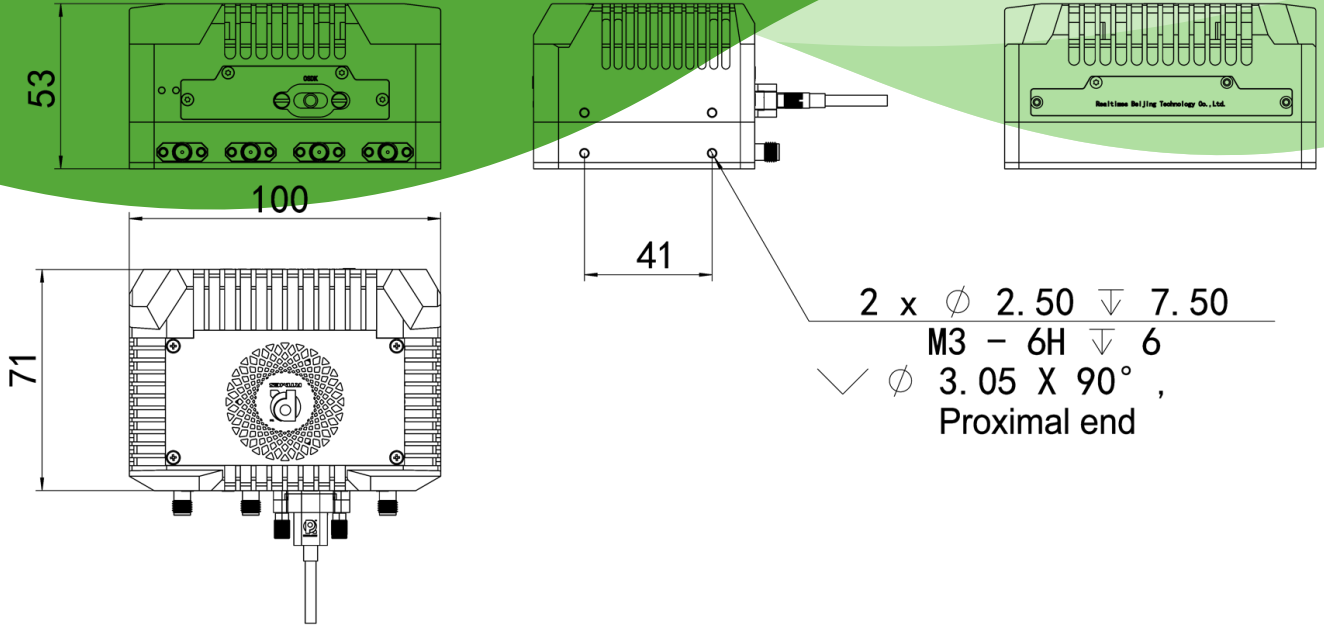


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### Size Drawing



### Product Appearance

RTSS-X306 5G:



RTSS-X306:

