



Shanghai AllyNav Technology Co.,Ltd

Product Specification

Document number: _____

Product model: _____ T120 _____

Product name: Rugged high-precision vehicle-mounted tablet

Preparation/Date: _____ Review/Date: _____ Approval/Date: _____

■ T120

T120 on-board Android tablet is an industrial-grade on-board Android tablet developed and produced by Shanghai Liansheng Navigation Technology Co., Ltd., which can guarantee the operation in harsh environment. With built-in high-precision positioning board, the positioning accuracy can reach centimeter level, which is widely used in the operation scene of agricultural machinery automatic driving, satellite flat land, construction machinery and other harsh environments.



■ Technical feature

1. Strong, stable and reliable vehicle specification level processor, CPU: MT8768CA;
2. Carry out product design strictly according to industrial rules, comply with IP67 technical specifications, and adapt to the harsh working environment in the field;
- 3, super 8-core processor, main frequency 2GHz, onboard 2GB memory, 32GB storage;
4. Rich communication interfaces can meet the needs of various applications,

including CANBus, Serial, LTE, etc.;

5, waterproof U disk data interface, U disk can be directly plugged;

6, the system supports wide voltage input, 36VDC, the vehicle ignition does not restart, has the overflow pressure protection and other functions;

7, compact fan-less design, reasonable internal structure design, good heat dissipation;

8, double card double wait;

9, convenient installation and fixation, can use RAM and other vehicle bracket fixed;

10, using a 12-inch capacitive touch screen, support 10 finger touch, resolution 1280 * 800P, brightness 750 nits, high screen brightness, visible under strong light;

11. The system adopts Android 12.0;

■ Technical parameter

◆ Electrical parameters

- Power consumption: 12.0W
- Power supply voltage: DC36V, with positive and negative polar reverse connection protection, support ACC power-off detection

◆ Physical property

- Operating temperature: -20℃ ~ + 60℃
- Storage temperature: -40℃ ~ + 70℃
- Resolution: 1280 * 800P
- Screen size: 12 inches
- Weight: 2.85 Kg

- Protection level: IP67

◆ **Data interface**

- RS232*2
- RS485*1
- CAN*2
- USB2.0*1
- Audio output * 1
- GPIO*2
- 12VDCOUT*2
- AHD Camera input * 4
- RJ45*1

◆ **Network frequency band**

America:

LTE Band 4G

B2/4/5/12/7/17/26/25/41

UMTS

B2/4/5

◆ **WLAN Revision**

IEEE 802.11 a/b/g/n, 2.4G

◆ **Bluetooth Revision**

Ver 5.0 supports BLE

◆ **Satellite positioning parameters**

1. Frequency points: BDS B1I / B2I / B3I, GPS L1C / A / L2P (Y) / L2C / L5, Galileo E1 / E5a / E5b, GLONASS G1 / G2, QZSS L1 / L2 / L5
2. Channel: the 1408 channel, based on the NebulasIV
3. RTK (RMS): plane: 0.8cm + 1ppm, elevation: 1.5cm + 1ppm
4. Directional precision (RMS): 0.1° / 1m baseline
5. Speed Accuracy (RMS): 0.03m/s
6. Differential data: RTCM 3.X
7. Data format: NMEA-0183
8. Initialization time: <5 seconds (typical value)
9. Initialized reliability: > 99.9%
10. First positioning time: <25 seconds
11. Data update rate: 20Hz
12. The coverage range of the base station: 40km in radius
13. Rolling accuracy: 0.2 degrees / 1m baseline

◆ **Receiver**

Frequency range: 410-470 MHz

Working mode: semi-duplex

Channel interval: GFSK mode: 12.5KHZ, 25 KHZ; LORA mode: 250 KHz

Modulation mode: GMSK, 4 FSK, GFSK, etc

power dissipation:

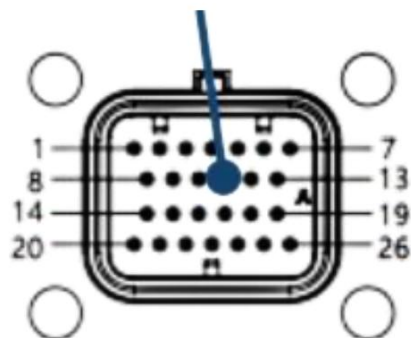
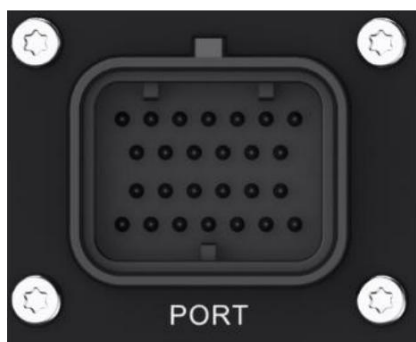
Emission high power: 6W @3.3V DC

Receiving mode: 0.5W@3.3V DC

Complete machine standby: 0.5W@3.3V DC

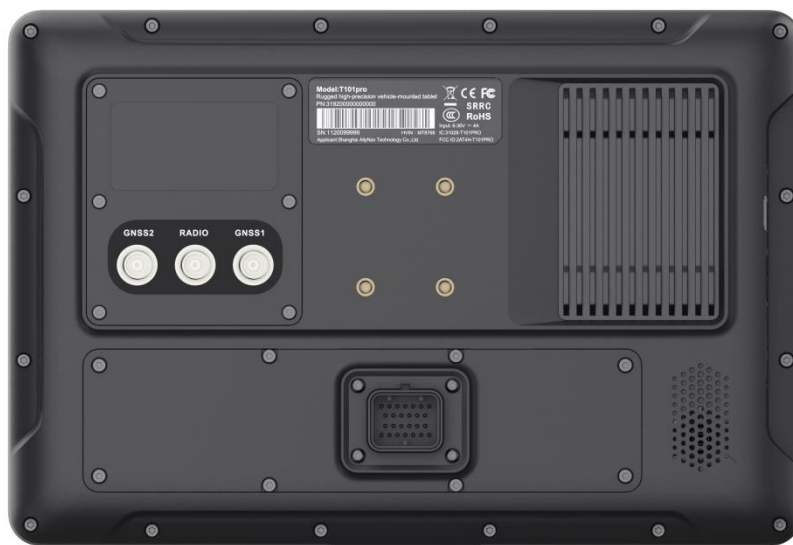
■ Interface Definition

AMP26P 接口定义



序号	定义	备注	序号	定义	备注
1.	B+	电源正级	14.	RS232_1-TX	
2.	B-	电源负级	15.	GPIO INPUT_2	
3.	ACC		16.	CAMERA-CVBS_1	
4.	CAN_1-H		17.	RS232_2-RX	
5.	CAN_1-L		18.	RS232_1-RXCAMERA/RJ45-TX-	
6.	12V-OUTPUT		19.	RS232_1-TXCAMERA/RJ45-RX-	
7.	CAMERA-CVBS_3		20.	RS232_1-RX	
8.	GND	信号地	21.	GPIO INPUT_1	
9.	RS485-A		22.	CAMERA-CVBS_0	
10.	RS485-B		23.	CAMERA-12V	
11.	CAN_2-H		24.	RS232_2-TX	
12.	CAN_2-L		25.	RS232_2-RXCAMERA/RJ45-TX+	
13.	CAMERA-CVBS_2		26.	RS232_2-TXCAMERA/RJ45-RX+	

■ Outline dimension



■ Tablet installation





■ Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body

