

# User Guide

**Model: Netbox Duo**

**V1.3**

Vehicle Router Datasheet.....	1
<b>1. Features .....</b>	<b>3</b>
<b>2. Parameters .....</b>	<b>3</b>
<b>3. Hardware interface .....</b>	<b>4</b>
<b>4. Installation .....</b>	<b>5</b>
<b>5. Default settings .....</b>	<b>7</b>
<b>6. Warning .....</b>	<b>8</b>
<b>7. Contact .....</b>	<b>8</b>
<b>8. Disclaimer .....</b>	<b>9</b>

# 1. Features

Netbox Duo is a rugged router, which provides reliable high-speed network connection designed for on-board applications. It features a flexible communications design with on-board networking video player, integrated on-board power supply, Wi-Fi ac/b/g/n, GPS and 4-port Ethernet switch.

- On-board power supply designed for VCC monitoring. Device will power on after vehicle launching.
- 880MHz MIPS processor supports WiFi connectivity for over 60 user terminal devices.
- 1 gigabit WAN port and 4 gigabit LAN port support auto-MDI/MDIX.
- 802.11b/g/n/ac with WPA、WPA2、WPA-PSK、WPA2-PSK.
- A USB 3.0 interface.
- An expand Micro SD card.
- WiFi capture portal for business application, such as user info collecting.
- QOS for all kinds of customers.
- Carrier redundancy and load balance.
- GPS for accurate positioning and real-time route tracking.

# 2. Parameters

Physical	
Dimension (L * W * H)	295 * 180 * 60 mm
Weight	2 kg
Status LEDs	PWR, SYS, 2.4G, 5G
	WAN, LAN1, LAN2, LAN3, LAN4
External memory	Micro SD card * 1
USB	USB 3.0 type A * 1
Button	Reset
Power	
Power input	Typical: 12V and 24V Range: 9~36 V
Power connector	GX12-3 (center pin: male)
Power on time delay	30 s
Ethernet	
WAN	10/100/1000 Mbps (Auto-sensing, Auto MDI/MDIX) * 1
LAN	10/100/1000 Mbps (Auto-sensing, Auto MDI/MDIX) * 4
GNSS	

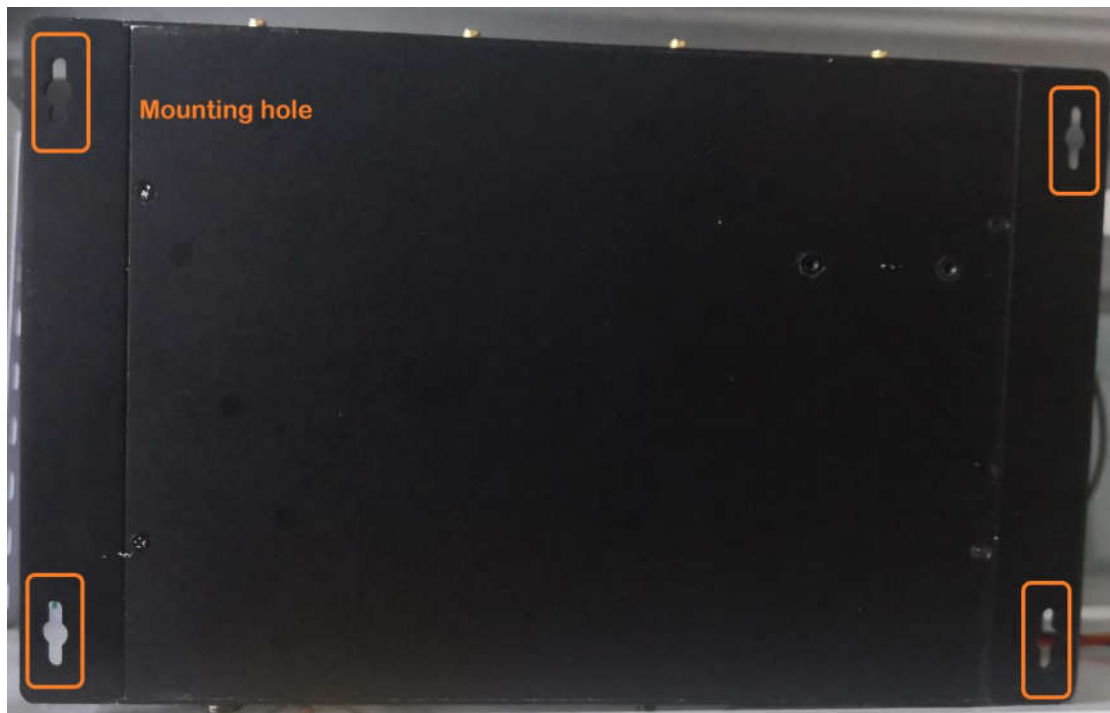
Channels	72
Horizontal position accuracy	2.5 m
Max navigation update rate	5 Hz
Time-To-First-Fix	Cold start 26 s
	Hot start 1 s
	Aided starts 2 s
Sensitivity	Tracking & Navigation –167 dBm
	Reacquisition –160 dBm
	Cold start –148 dBm
	Hot start –157 dBm
Antenna	50 $\Omega$ SMA (center pin: female)
WiFi	
Standard	2.4 GHz: 802.11 b/g/n
	5 GHz: 802.11 a/ac/n
Encryption types	WEP/WPA/WPA2/Mixed mode
Transmitting Power	802.11b: 9dBm Max.
	802.11g: 9dBm Max.
	802.11n: 13dBm Max.
	802.11a: 12dBm Max.
	802.11ac: 13dBm Max.
Sensitivity	802.11b -76dBm
	802.11g -65dBm
	802.11n -61dBm
	802.11a -64dBm
	802.11ac -59dBm
Antenna	2.4 GHz: 50 $\Omega$ SMA*2
	5 GHz: 50 $\Omega$ SMA*2
Environmental	
Operating temperature	-20 ~ +55 °C
Storage temperature	-40 ~ +85 °C
Ambient Relative Humidity	5 to 95% (non-condensing)
Enclosure / Rating	Aluminum / IP30
Standards and Certifications	
Pending	

### 3. Hardware interface



## 4. Installation

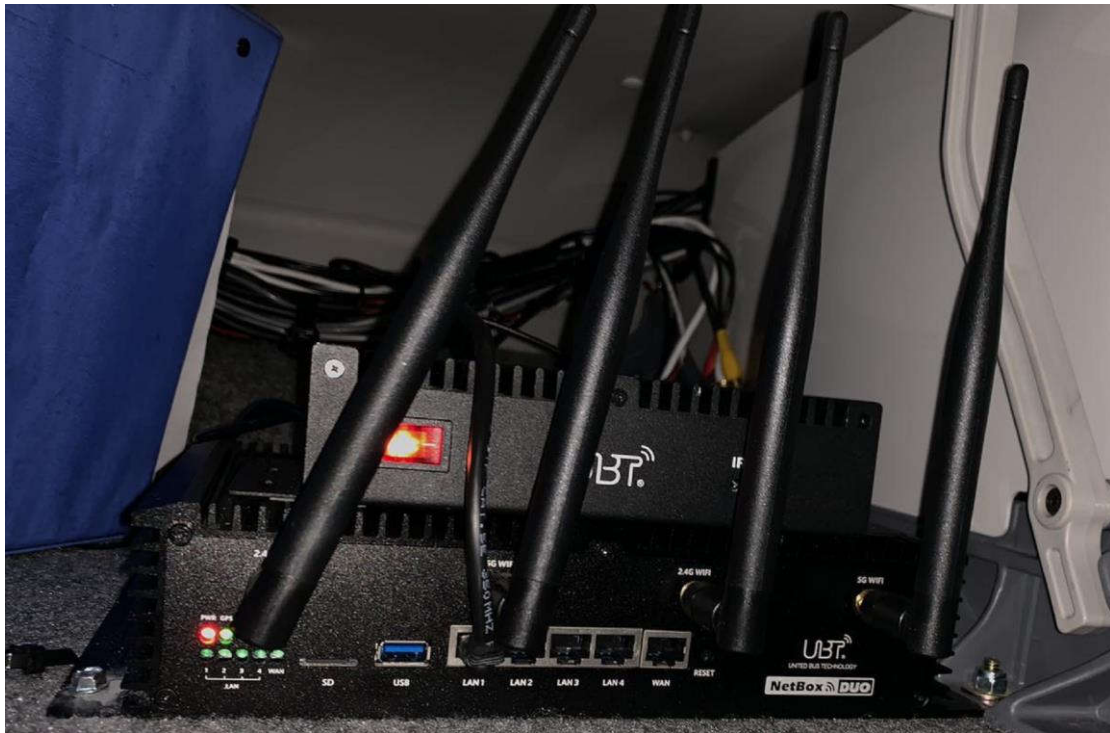
The router can be fixed in the luggage carrier by screw spike.



Installation picture:







After you fix the router in the luggage carrier, you can start up your router by followed steps.

1. Connect WiFi antenna, GPS antenna.
2. Connect the power cable and power on the router.
3. Wait and watch the status LEDs.



## 5. Default settings

Default WiFi SSID is BusMovie.net\_XXXX(XXXX is the last four bytes of SN code.). Console address

is 10.10.10.1. Default user name is root, default password is ubt3018.

## 6. FCC Warning

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.

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.
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- Reorient or relocate the receiving antenna.
- Consult the dealer or an experienced radio/TV technician for help important announcement

### Radiation Exposure Statement

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 and your body.

## 7. Contact

United Bus Technology

Web: <https://unitedbustech.com/>

Email: [support@ubt.io](mailto:support@ubt.io)

Phone: 1 (202) 681-5508

Address: 7926 Jones Branch Drive Suite 630 McLean, VA 22102



## 8. Disclaimer

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