

SuperX 5 Ultra User Manual

1. Product Overview

Super X5 Ultra is a self-contained control-and-communication device that establishes a wireless data link between an upper computer and a controller for agricultural unmanned vehicles and similar equipment. The unit is powered through a dedicated 24 V DC connector and integrates a 4 G module, a WLAN/BLE combo module, and a Gateway C12 SIM-card slot.

Power Architecture

- The incoming 24 V rail is stepped down to 3.93 V to supply the Wi-Fi / BLE combo chip and the 4 G module.
- A further 3.3 V rail derived from 24 V powers the RTK module.

Clocking

- The Wi-Fi/BLE combo uses a 32.768 kHz crystal.
- The 4 G and RTK modules are standard cellular/RTK units and do not require external crystals.

2. Interfaces & Indicators

Antenna Connectors – 4 total

- 4 G: ×2 (dedicated to the 4 G module)
- WLAN + GNSS shared: ×2 (serving both the WLAN module and the positioning module)

Cable Sets – 3 integrated harnesses

- Power + CAN
- Power + CAN + Ethernet
- CAN + Ethernet + Serial + Peripheral power

Status LEDs – 4 indicators

3. Functional Modules

4 G Module

- Provides cloud connectivity
- Uses SIM slot 1 (built-in eSIM) and 4 G antenna connectors ×2

WLAN Module

- Communicates with remote controllers or other devices
- Supports 802.11 b/g/n HT20
- Operating mode: Master (Access Point)
- Dual antennas, mapped to WLAN ×2

FCC Compliance Notice:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

FCC Supplier's Declaration of Conformity

Brand name / model number: Super X5 Ultra

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.

Suppliers Name(FCC): Pegasus Spray LLC

Suppliers Address (FCC): 2265 116th Ave NE Suite 110 Bellevue, WA 98004 United States

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SuperX 5 Ultra 用户手册**一、产品简介**

SuperX 5 Ultra 是一款可独立运行的控制通信设备，能够为农业无人车等装备提供“上位机—控制器”之间的无线数据链路。整机由 **24 V DC** 专用连接器供电，内部集成 **4G** 模块、**WLAN** 模块以及网关 **C12 SIM** 卡槽。

整机由外部 24V 直流电压转换到 3.93V 后，给 WiFi/BLE 模块（WiFi 和蓝

牙是同一个芯片)和 4G 模块供电;外部 24V 直流电压转换到 3.3V 后个 RTK 模块供电。WiFi/BLE 的晶振频率是 32.768KHz。4G 和 RTK 是标准模组,无需外部额外加晶振。

二、接口与指示

1. 天线连接器:共 4 个

- 4G: ×2 (对应 4G 模块)
- WLAN 及 GNSS 定位导航共用连接器: ×2 (对应 WLAN 模块及定位模块)

2. 信号线缆:共 3 组

- 电源 + CAN (集成)
- 电源 + CAN + 网口 (集成)
- CAN + 网口 + 串口 + 外设电源 (集成)

三、功能模块

1. 4G 模块

- 用于连接云平台
- 对应 SIM 1 插槽,内置 eSIM,天线接口为 4G×2

2. WLAN 模块

- 用于与遥控器或其他设备通信
- 支持 802.11 b/g/n HT20
- 工作模式: Master (AP 模式)
- 双天线,对应 WLAN×2