

I/O configuration options Notes

Datasurpass Panther PX3 GNSS Receiver is a versatile and highly customizable GNSS receiver designed to support a wide range of applications and operating environments. Users can easily configure and extend its functionality through the I/O configuration options described below.

The available operating modes are:

1. Extended Memory Function (Default)
2. Extended Bluetooth Communication Function
3. Extended Long-Range Bidirectional Radio Communication Function
4. Native GNSS Module Function

Configuration Procedures

1. Extended Memory Function (Default)

1. Open the receiver housing and disconnect the ribbon cable from the Panther mainboard. Insert a **Micro SD card** into the designated slot (as shown in the figure below), then reconnect and secure the ribbon cable.

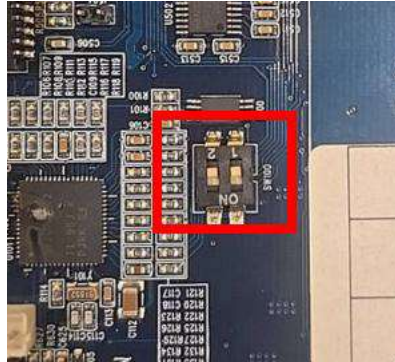


2. Power on the receiver. The system will automatically format the memory card. The **Combined I/O Interface** (shown below) will default to **USB 2.0 mode**. When connected to a PC, the device will appear as a **USB mass storage drive**.



2. Extended Bluetooth Communication Function

1. Open the receiver housing and set **DIP Switch SW100 positions 1 and 2 to ON** (as shown below), then reassemble and secure the enclosure.



2. Power on the receiver. The system will automatically switch to **Bluetooth and radio dual-operation mode**. The Bluetooth interface is mapped to **COM2 of the GNSS module**.
3. The **Combined I/O Interface** (shown below) will default to **USB virtual serial port mode**. After connecting to a computer, users can configure the **Pacific Crest XDL radio frequency settings and communication parameters**.

3. Extended Long-Range Bidirectional Radio Communication Function

1. Open the receiver housing and set **SW100 position 1 to ON and position 2 to OFF** (as shown below), then reassemble and secure the enclosure.
 2. Power on the receiver. The system will automatically switch to **bidirectional radio duplex mode**.
 3. The **Combined I/O Interface** (shown below) will default to **USB virtual serial port mode**. After connecting to a computer, users can configure the **Pacific Crest XDL radio frequency settings and communication parameters**.
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4. Native GNSS Module Function

1. Open the receiver housing and connect:
 - **Combined I/O Interface wire 3 (Red) to J501 pin 20**
 - **Combined I/O Interface wire 4 (Orange) to J501 pin 21**



Then reassemble and secure the enclosure.

2. After powering on the receiver, the system will automatically switch the Combined I/O Interface to **COM1 of the GNSS receiver module**.



Notes

- Ensure that power is turned off before opening the receiver housing or modifying any hardware connections.
- Verify all cable connections and DIP switch settings before powering on the device.
- Refer to the accompanying figures and wiring diagrams for the exact locations of connectors, DIP switches, and interface pins.