

# Battery Firmware Upgrade Manual



V2.0

27<sup>nd</sup> February, 2023

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# 1. Determine Your Battery Version

## E-Box-48100R-A Version

1. Link Port 0 and Link Port 1 in Vertical Line
2. 4 Position DIP switch (ADD)



## E-Box-48100R-B Version

1. Link Port 0 and Link Port 1 in Horizontal Line
2. 4 Position DIP switch (ADD)



## E-Box-48100R-C Version

1. Link Port 0 and Link Port 1 in Horizontal Line
2. 6 Position DIP switch (ADD)



## 2. Prepare for the Upgrade

### Step 1. Download the upgrade documents

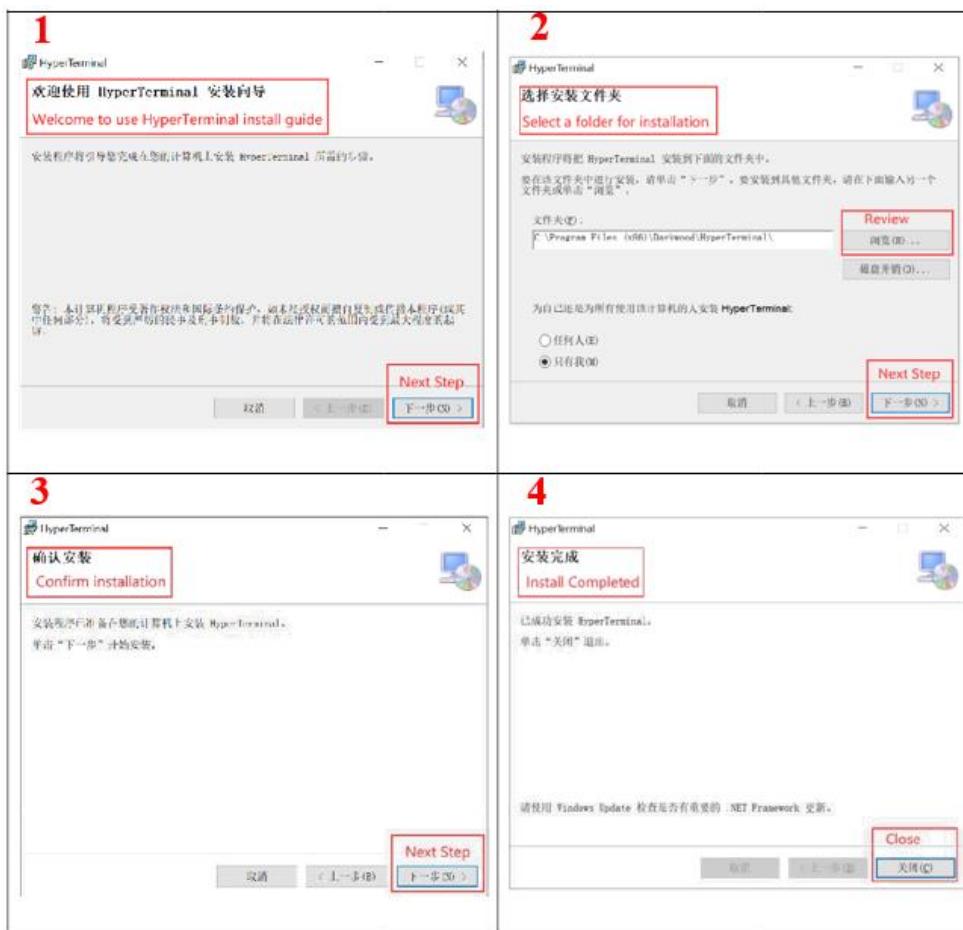
Download these three documents from this link:

[https://www.pytesusa.com/upgrade\\_system/](https://www.pytesusa.com/upgrade_system/)

-  Battery Firmware Upgrade Manual.pdf
-  driver for RJ11 to USB cable.exe
-  driver for RJ45 to USB cable.exe
-  hyper\_terminal\_latest.msi
-  SPBMS16SRP2110V1.1.6.bin for A Version Battery
-  SPBMS16SRP2111V1.3.18.bin for B Version Battery
-  SPBMS16SRP2203V1.5.18.C8.bin for C Version Battery

### Step 2. Install the hyper terminal

Open [hyper\\_terminal\\_latest.msi](#) File to Run the application.:

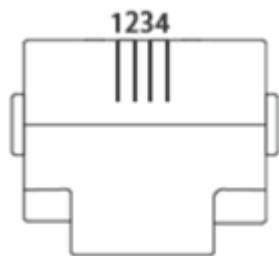


### Step 3. Get the suitable cable

Type I for E-Box-48100R A

Version

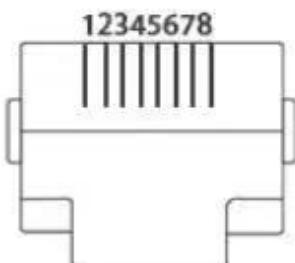
(4 pin/RJ11 to USB)



Type II for E-Box-48100R

B&C Version

(8 pin/RJ45 to USB)



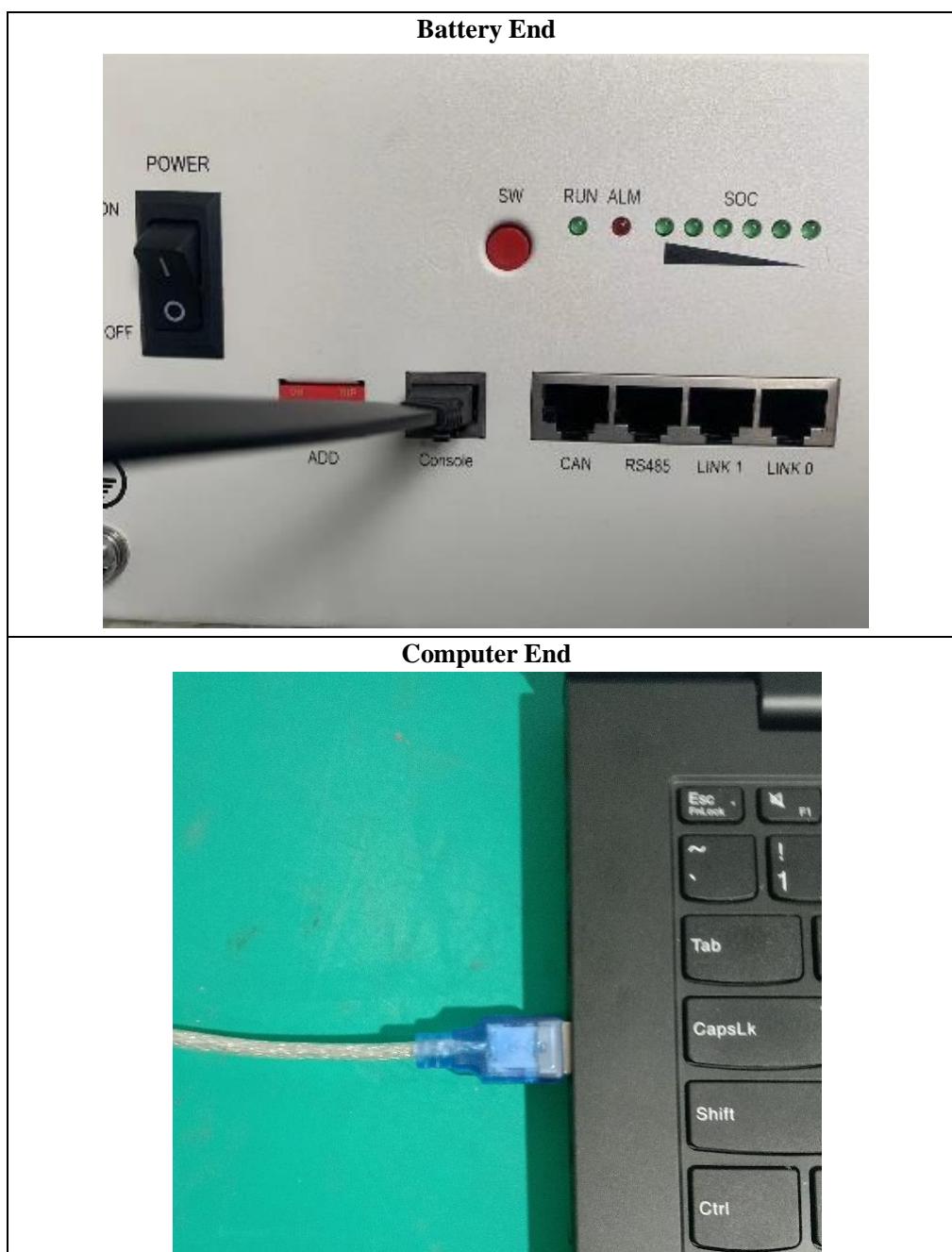
### 3. Start Upgrading

#### Step 1. Connect the cable

Connect the battery and PC/laptop with the Cable. The crystal end plugs in battery Console port and USB end plug in your PC/laptop.

\*Use the RJ11 to USB cable for E-Box-48100R A Version

Use the RJ45 to USB cable for E-Box-48100R B&C Version

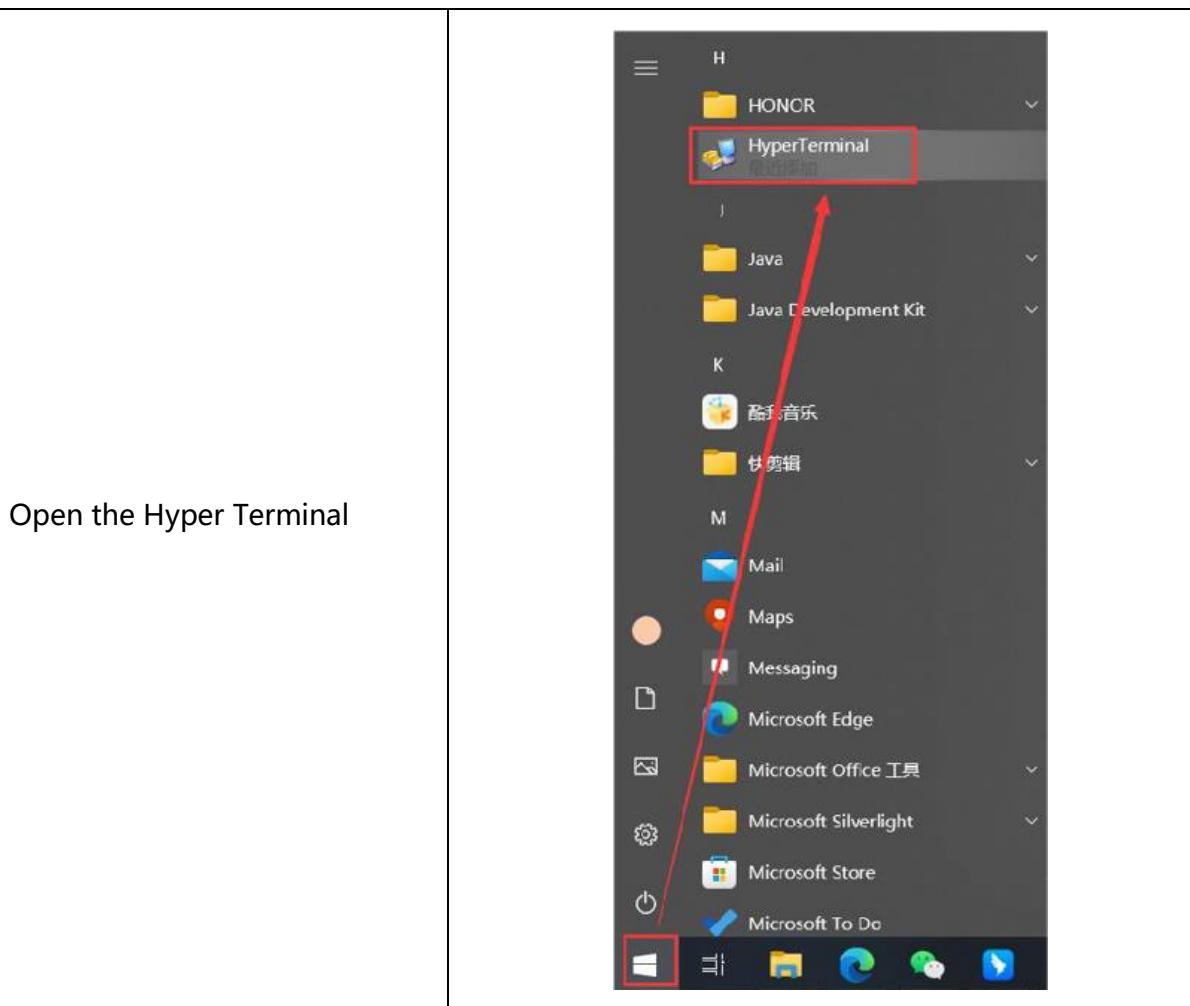


## Step 2. Turn on the Battery

After wiring, turn on the battery Power button and press the SW button for one second.



## Step 3. Run the Hyper Terminal to Upgrade

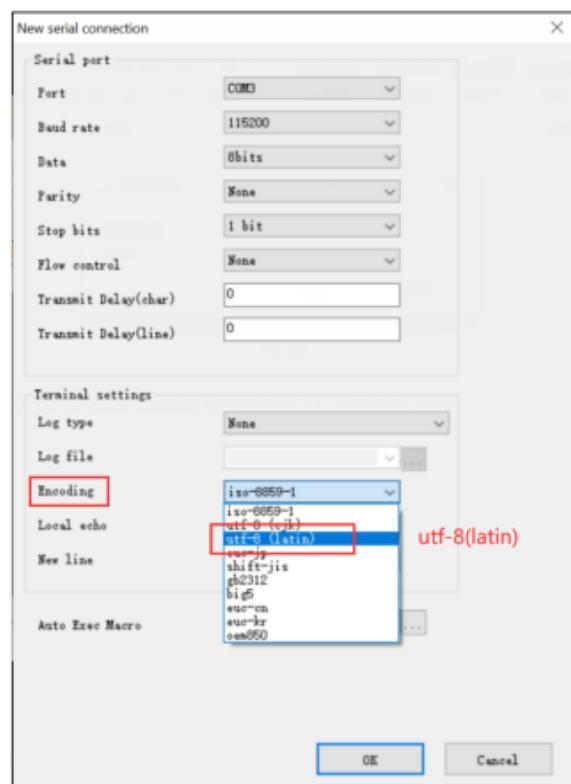
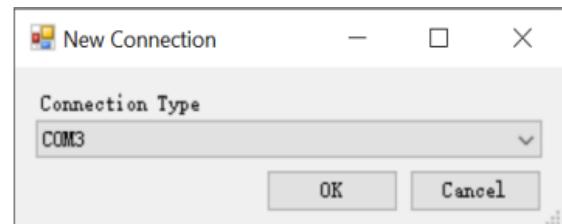
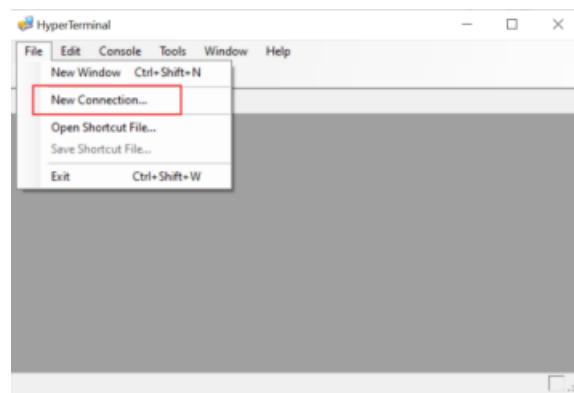


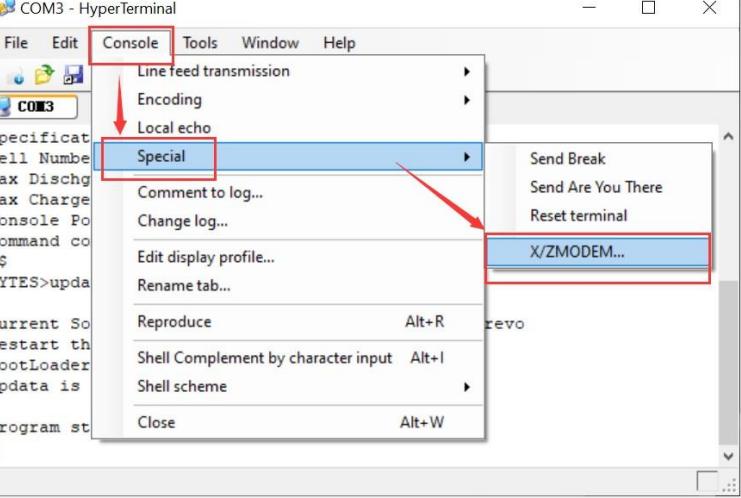
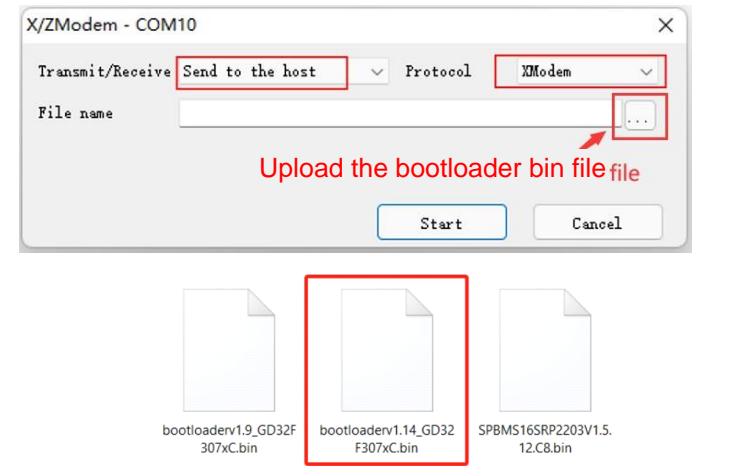
Create a new connection as following steps:

- Click File in Menu bar
- New Connection → COM\*
- Encoding → utf-8(latin)

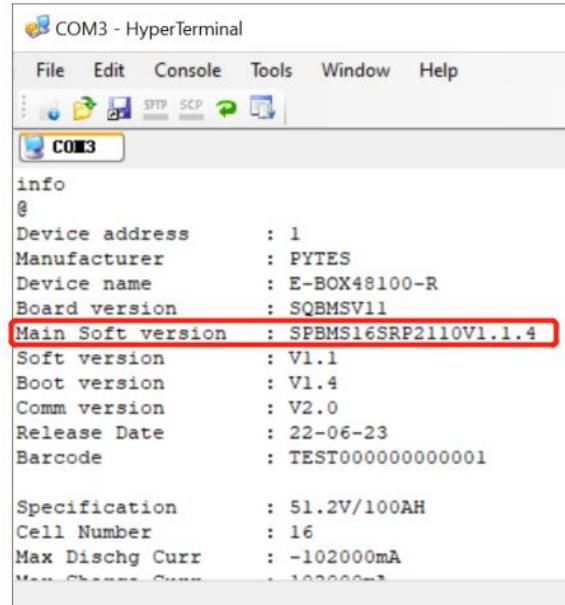
\*The COM number may vary, it doesn't matter.  
 If you don't see the COM Option, please close the Hyper Terminal and install the driver for RJ45/RJ11 to USB depend on your battery version, then Reopen the Hyper Terminal, Repeat the steps above.

-  driver for RJ11 to USB cable.exe
-  driver for RJ45 to USB cable.exe



	<p>Input “login debug” Input “uboot” to upgrade the bootloader</p> 
<p>Click Console →Special →X/ZMODEM</p>	
<ol style="list-style-type: none"> <li>1. Select “Send to the host” for Transmit/Receive</li> <li>2. Select “XModem” forProtocol</li> <li>3. Review <b>bootloader.bin</b> file path</li> </ol>	 <p>Upload the bootloader bin file file</p>
<p>Transmission completed</p>	<p>Ready to get boot from xmodem...</p> <p>Starting xmodem transfer. Press Ctrl+C to cancel. Transferring bootloaderv1.11_GD32F307xC.bin... 100% 8 KB 2 KB/sec 00:00:04 0 Errors</p> <p>Updata is OK!</p>

Input "info" to check the current battery software version



```

COM3 - HyperTerminal
File Edit Console Tools Window Help
COM3
info
@Device address : 1
Manufacturer : PYTES
Device name : E-BOX48100-R
Board version : SQBMSV11
Main Soft version : SPBMS16SRP2110V1.1.4
Soft version : V1.1
Boot version : V1.4
Comm version : V2.0
Release Date : 22-06-23
Barcode : TEST000000000001

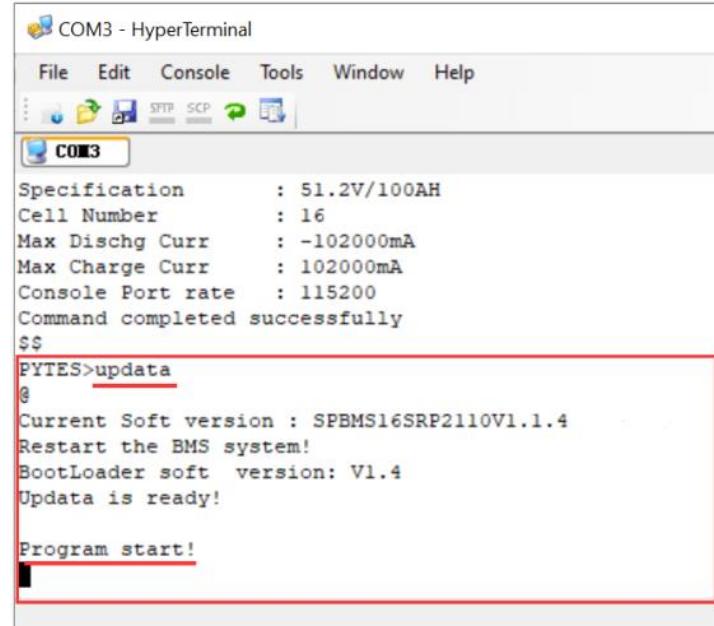
Specification : 51.2V/100AH
Cell Number : 16
Max Dischg Curr : -102000mA
Max Charge Curr : 102000mA
Max Charge Curr : 102000mA

```

Input "updata" to get upgrade program started as following steps:

\*\*\*Please note that after starting this process, you must complete the upgrade and cannot quit in the middle, otherwise it will cause the battery to die.

If the upgrade is interrupted due to various force majeure reasons, please refer to the Battery Recovery Section to recover



```

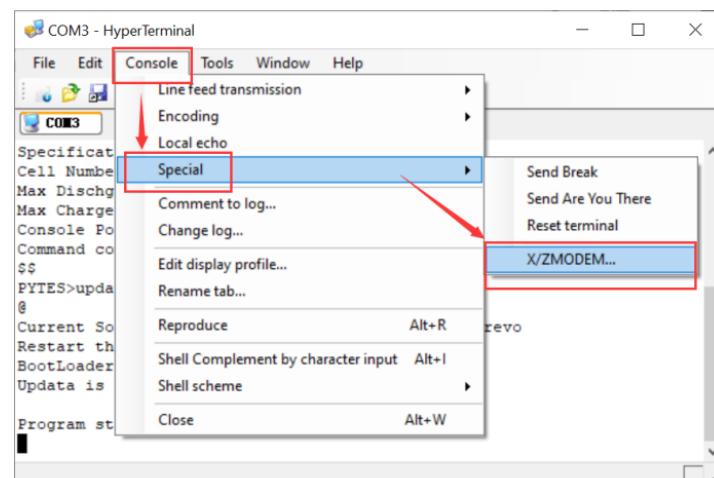
COM3 - HyperTerminal
File Edit Console Tools Window Help
COM3
Specification : 51.2V/100AH
Cell Number : 16
Max Dischg Curr : -102000mA
Max Charge Curr : 102000mA
Console Port rate : 115200
Command completed successfully
$S
PYTES>updata
@Current Soft version : SPBMS16SRP2110V1.1.4
Restart the BMS system!
BootLoader soft version: V1.4
Updata is ready!

Program start!

```

Steps 1:

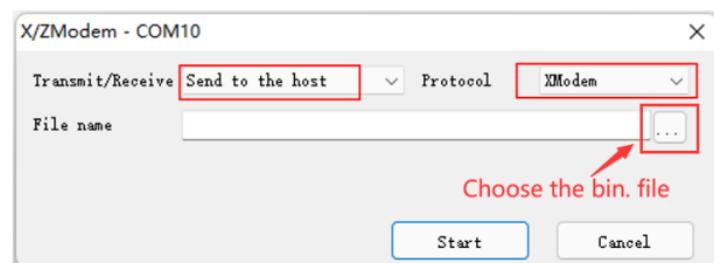
- Click Console in Menu bar
- Special → X/ZMODEM



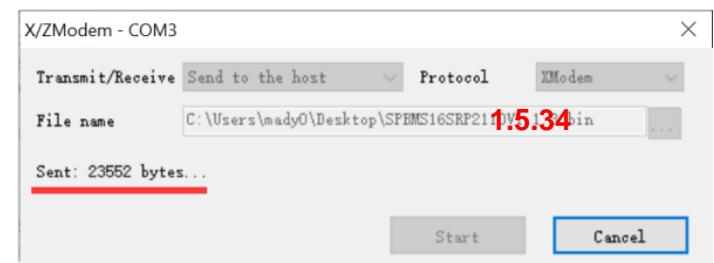
Steps 2:

- a. Select "Send to the host" for Transmit/Receive
- b. Select "XModem" for Protocol
- c. Review the bin. file path

\* Please prepare the bin. file in advance according to your battery version. Do not confuse the bin. file. Otherwise it will cause the battery to die please refer to the Battery Recovery Section to recover



Transmission processing



Transmission completed

