

# T-Display-S3-Pro-MVSRLoRa\_V1.0 Power Consumption Test Log

Date: 20241214  
LastEditTime: 20241214  
Test board: T-Display-S3-Pro-MVSRLoRa\_V1.0 (202411151156)  
Software name: Deep\_Sleep\_Wake\_Up.ino  
Testing organization: LILYGO Laboratory

## 1. Test Environment Description

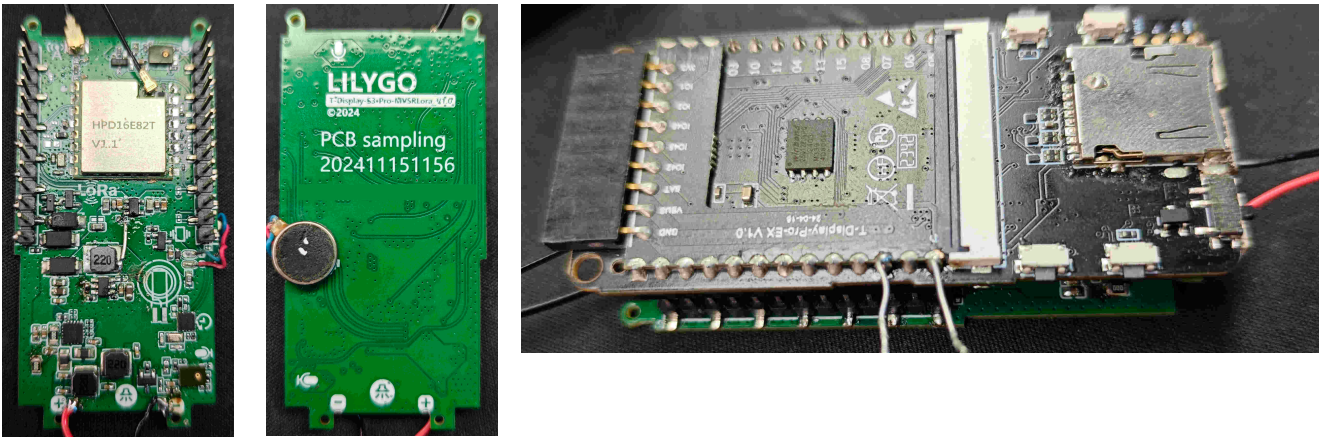
1.1 测试环境  
1.1 Test environment

Test Tools	Sampling speed	Test Methodology	Input voltage	Test environment temperature
BLU939	100000 times/s	Battery Interface Measurement	+4.0V	25°C/77°F

1.2 测试的器件型号  
1.2 Test device model

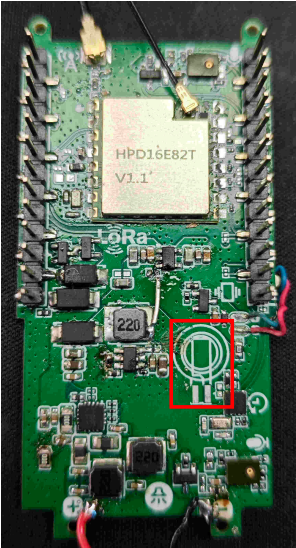
Test device	MCU	RTC	Power amplifier	Microphone	Power 3.3V	LoRa
Corresponding model	ESP32S3	PCF85063	MAX98357AETE+T	MP34DT05TR-A	RT9080	HPD16E(LR1211)

## 2. Test Physical Object Image



## 3. Modification Instructions

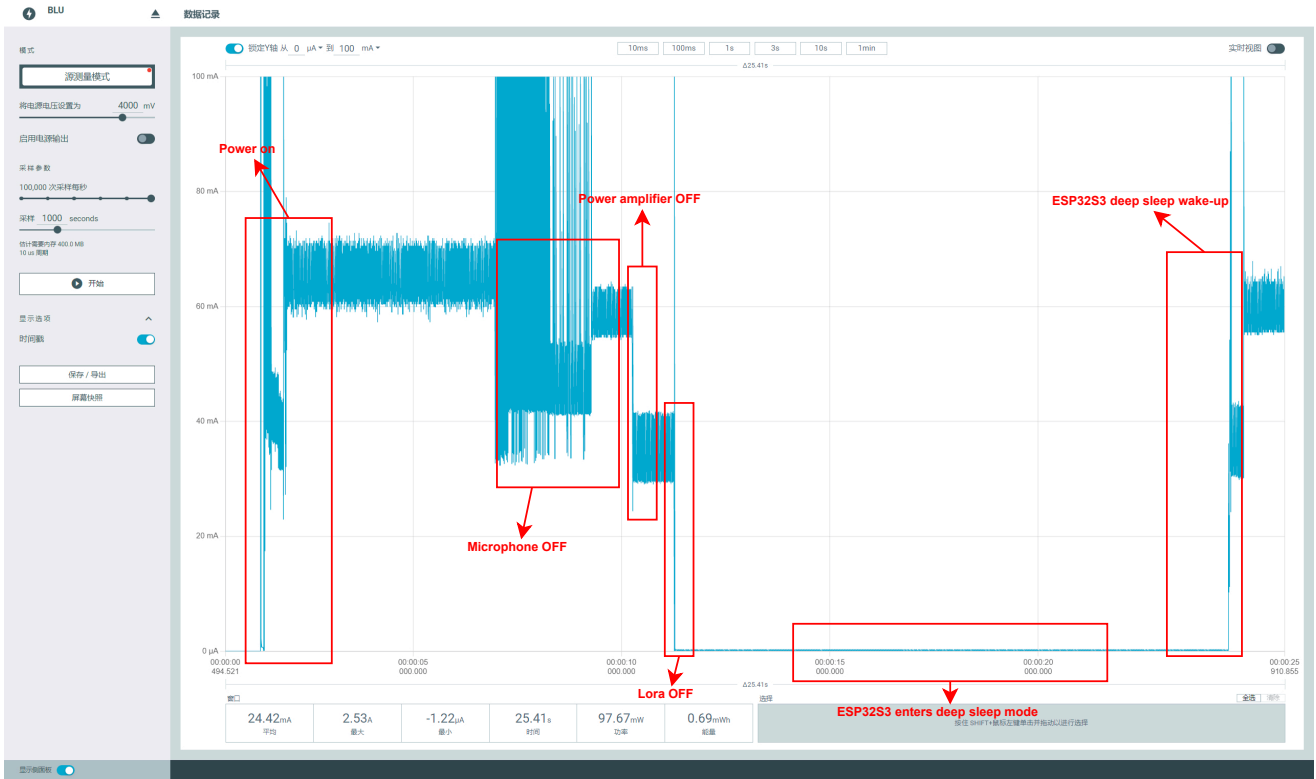
3.1 拆除RTC位置的备用电池，并且不接屏幕  
3.1 Remove the backup battery at the RTC location and do not connect the screen.



## 4. Power consumption testing

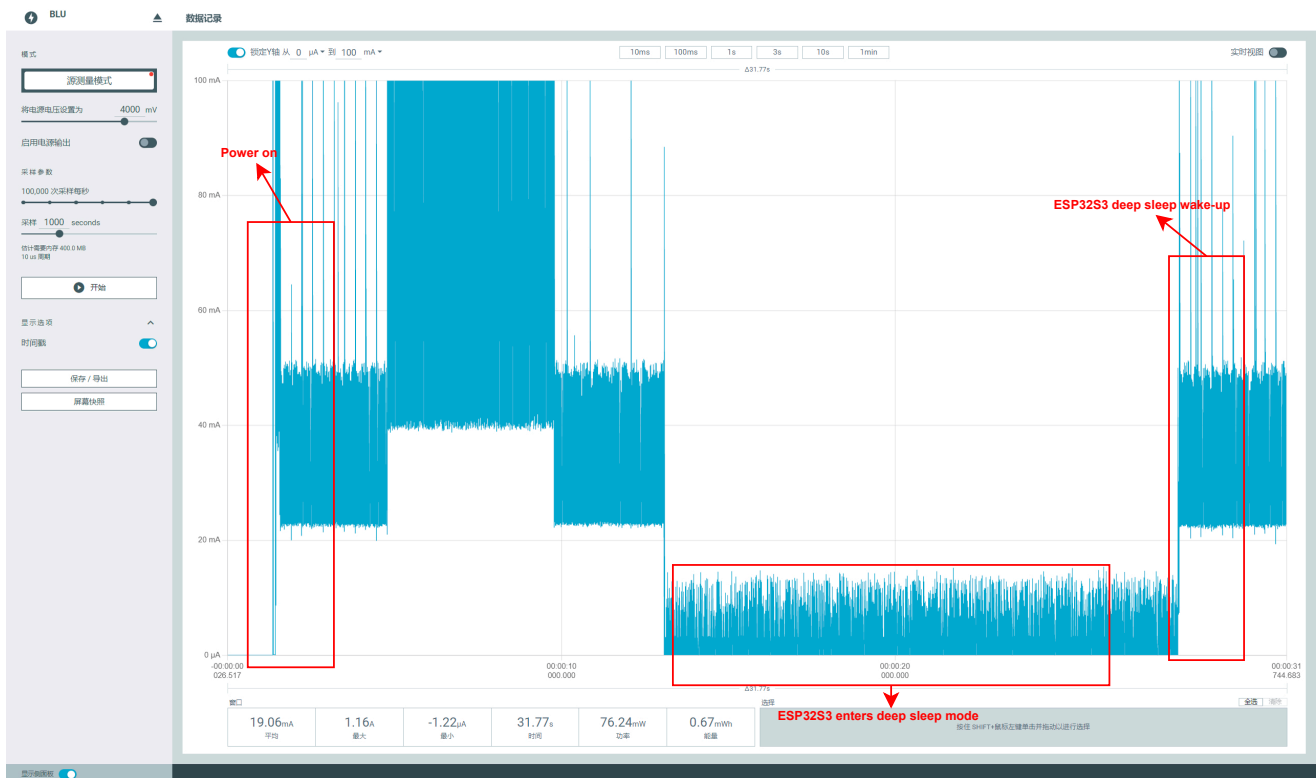
4.1 T-Display-S3-Pro主板+T-Display-S3-Pro-MVSRLoa背板总电流变化测试图如下

4.1 The total current change test diagram for the T-Display-S3-Pro motherboard + T-Display-S3-Pro-MVSRLoa backplane is as follows.



4.2 T-Display-S3-Pro主板总电流变化测试图如下

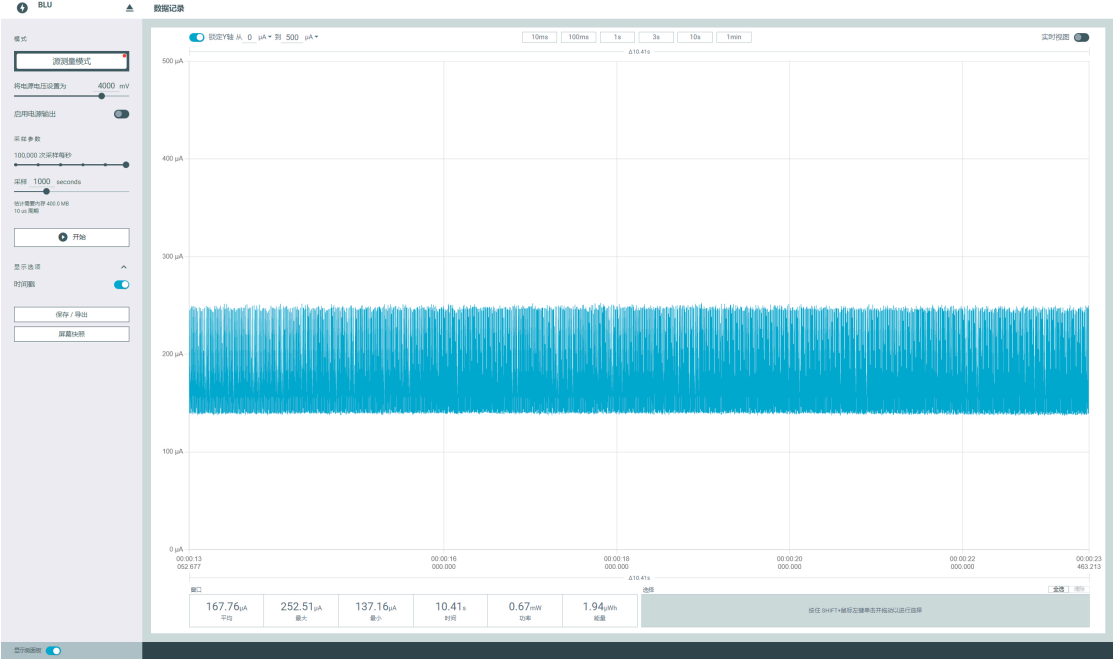
4.2 The total current change test diagram for the T-Display-S3-Pro motherboard is as follows.



4.3 T-Display-S3-Pro motherboard + T-Display-S3-Pro-MVSRLoRa backplane Current Test Status Diagram:

ESP32S3	Power 3.3V	RTC	Power amplifier	Microphone	Lora
Deep Sleep	ON	ON	OFF	OFF	Sleep

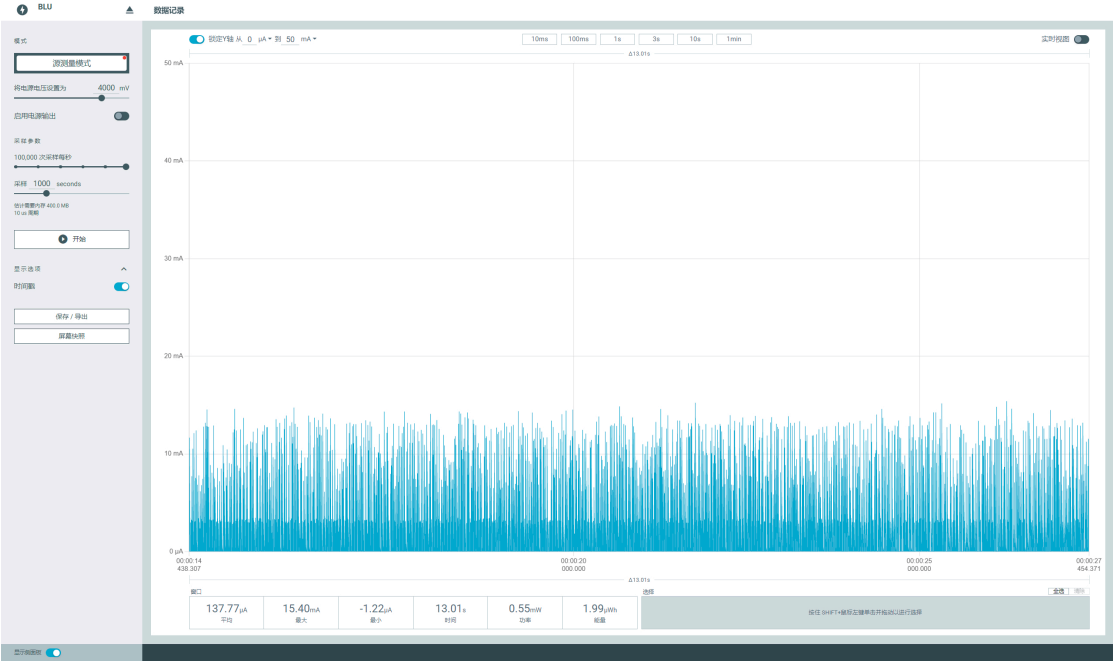
Test result: average 167.76  $\mu$ A



T-Display-S3-Pro motherboard Current Test Status Diagram:

ESP32S3	Power 3.3V	RTC	Power amplifier	Microphone	Lora
Deep Sleep	NULL	NULL	NULL	NULL	NULL

Test result: average 137.77  $\mu$ A



The actual power consumption of the T-Display-S3-Pro-MVSRLoRa backplane is: 167.76 - 137.77 = 29.99  $\mu$ A