**HKUST RoboMaster Team ENTERPRIZE**

**RM2024 G4主控板测试报告**

**电源波形 - 5V网络**

**图形用户界面, 图表

描述已自动生成**

**电源波形 - 3V3\_MCU网络**

图形用户界面, 图表

描述已自动生成

**RS485**

板间通信速率最高可以达到4.8M, 丢包率小于0.09%

**USB-TTL**

全双工条件下单向速率稳定2M, 实测丢包率0.006%左右

**焊接和测试流程**

1. 焊接电源部分RY8411, RY3410, LDO, 保险丝, TVS

2. 测试5V, 3V3\_MCU, 3V3\_IO, 3V3\_IMU电源电压和纹波

3. 焊接CH343P, SIT1042T/3, SN65HVD1176

4. 焊接Solder the rest of the board except the BTB connector and IMU (ICM-42688) and Magnetometer (LIS3MDLTR)

6. Wash the board. Check if the MCU is alive, then test CAN\*3 and RS485 (ask software).

7. Solder the BTB connector and IMU (ICM-42688) and Magnetometer (LIS3MDLTR)

\*Do not use ultrasonic washer after soldering IMU and Magnetometer

8. Solder the Connector Board

\*Cut short the pins of the PH2.0 4pin connectors to prevent intervene.

9. Full function test (ask software).

10. 3D print a shell (ask mech).