

1. Test Name: Battery Charging using MPPT

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MPPT is connected to the battery through a Boost converter which provides 6.5V output at maximum current of 600 mA. Voltage across the terminal of the battery is measured every 15 minutes with system connected. The results are collected and a scatter graph can be created to show the relationship of battery charging.

2. Required Equipment

	Equipment Description	Quantity	Settings
1	Multimeter	1	Measure voltage across the terminals of the battery every 15 minutes
2	Power supply	1	Provide steady voltages
3	MPPT with boost converter	1	6.5V @600mA

Table 1: Required equipment and its settings.

3. Test Procedure

Step 1: Connect power supply to the input of the MPPT and connect battery to the output pins of the MPPT

Step 2: Verify MPPT output 6.5V at 600mA with battery connected

Step 3: Measure the voltages across terminals of the battery every 15 minutes and record data in MS Excel

Step 4: When the battery terminal voltage reaches 6.4V disconnect the MPPT and battery

4. Test Results

Step #	Description	Spec	Measurement
1	Length of time for the battery terminal voltage to reach 6.4V	time period	Time (Minutes): ? Minutes

Table 2: The results of the test procedure.

Excel Table

Excel scatter plot

5. Pass/Fail

Did the unit pass or fail the test? Defend your decision.

PASS	FAIL

Table 3: PASS/FAIL