

1. Test Name: Fan Converter

Test Author: Andrew and Xiaolong

Battery provides different level of voltages when it's at different battery level. A DC-DC boost Regulator (LM2621) is used to convert various input voltages to 12V +/- 1.2V.

2. Required Equipment

	Equipment Description	Quantity	Settings
1	Power supply	1	5V – 7V varied input voltages
2	Multimeter	2	Current (A) and Voltage (V)
3	Fan ("40mm DC Axial Fan")	1	

Table 1: Required equipment and its settings.

3. Test Procedure

Step 1: Connect the power supply to the input pins of the voltage regulator, and the multimeter in series with the output pins of the Fan converter

Step 2: Slowly increase the power supply voltage from 5V to 7V

Step 3: Measure the output voltage and current of the Fan converter

4. Test Results

Step #	Description	Spec	Measurement
2	Measure the output voltage and current of the fan converter with an input of 5V.	$V_{out}: 12V \pm 10\%$	$V_{out}: 12V$
4	Measure the output voltage and current of the fan converter with an input of 6V.	$V_{out}: 12V \pm 10\%$	$V_{out}: 12V$
6	Measure the output voltage and current of the fan converter with an input of 7V.	$V_{out}: 12V \pm 10\%$	$V_{out}: 12V$

Table 2: The results of the test procedure.

5. Pass/Fail

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

PASS	FAIL
PASS	

Table 3: PASS/FAIL