Mobile Digital Oscilloscope
Test Plan

Group 6:

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This mobile oscilloscope allows users do the measuring anywhere they want. This oscilloscope is based on ATMEGA328 chip and built in A/D converter. Also, there is a LCD connects with the chip to display the wave of the signal and some values of it, such as frequency or Vpp.

1. INTRODUCTION

The mobile oscilloscope project is a digital oscilloscope to measure AC waveform between 10 to 50KHz. This oscilloscope is based on ATMEGA328P microprocessor and a LCD to display waveform of signal. Also, there are three pushbutton to do add/sub t/div and hold the waveform of signal. This test plan serves to enable the developers of the project to quickly and efficiently bring the prototype up to full functionality.

1.1 Objectives

Test Cases

Power Supply Test(ID# PST_BTC1)

Test Writer	Zhe Lu		
Test Case Name	Power Supply Test	Test ID	PST_BTC1
Description	Tester will verify that the battery will give enough power to turn on the ATMEGA328P chip and LCD.	Type	Black Box X White Box
Tester Information			
Name of Tester		Date	
Hardware Version		Time	
Setup	Connect 4 batteries in series and use the pack as power supply Vcc in PCB.		
Additional Equipment	Tektronix DMM 4020 (multimeter), Tektronix MSO 4054 (scope)		

Step	Action	Expected Result	Pass	Fail	N/A	Comments
1	Place the oscilloscope probe on the output terminal of the battery package with reference to GND.	A voltage of 5V should appear on the multimeter.				
2	Place the output terminal of the battery package with LCD as Vcc	The LCD should turn on				
3	Place the output terminal of the battery package with PCB Vcc pinout	A voltage of 5V should appear on the multimeter in the Vcc pin of microprocessor.				
Overall Test Results						