ON Semiconductor®

Test Procedure for the LV8771 Evaluation Board
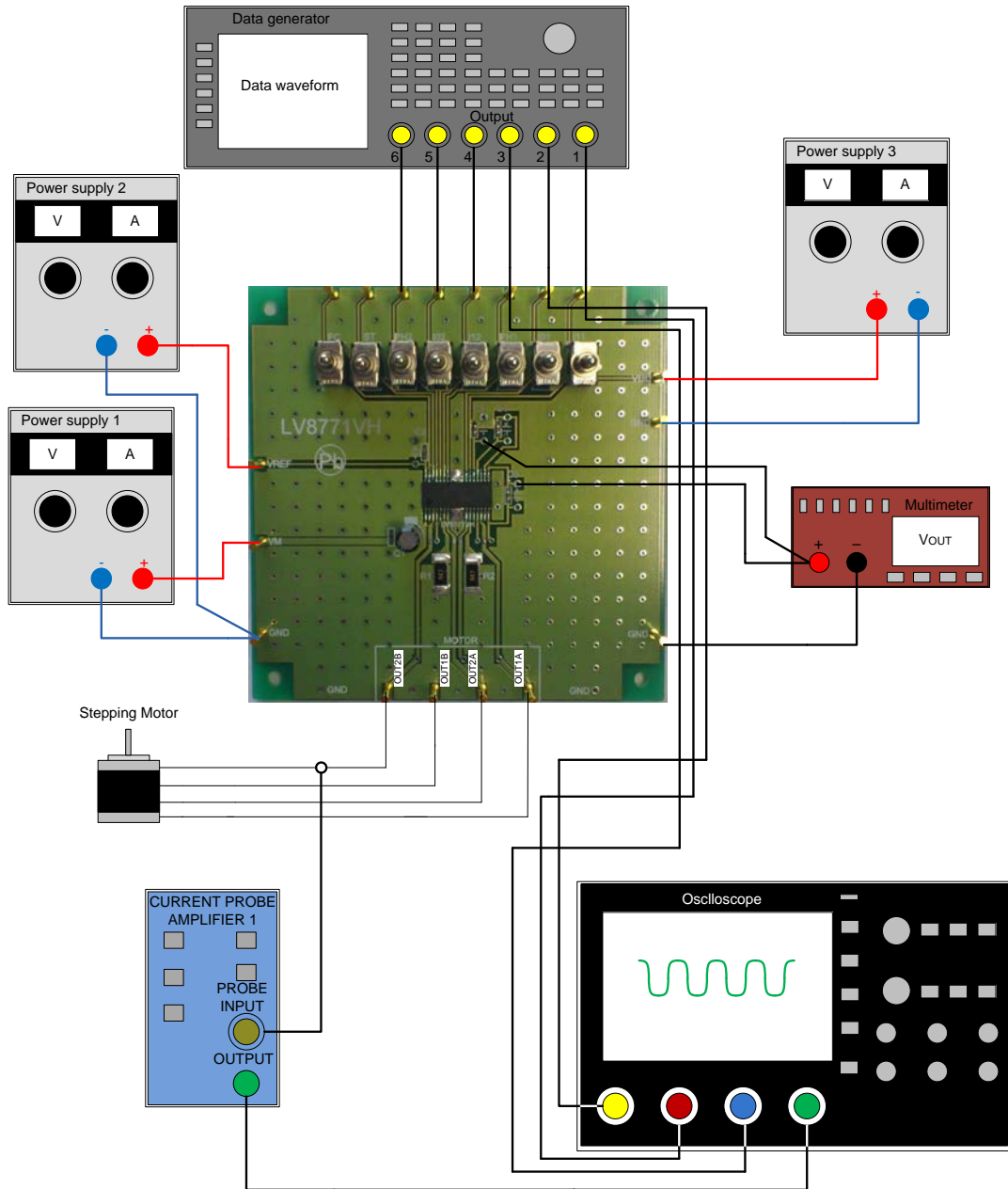

Table3: Required Equipment

Equipment	Efficiency
Power supply1	35V-5A
Power supply2	5V-0.5A
Power supply3	10V-1A
Data generator	
multimeter	
Oscilloscope	4 channel
Current probe	
LV8771VH Evaluation Board	
Stepper Motor	35V-3A

Test Procedure:

1. Connect the test setup as shown above.

2. Set it according to the following guide.

[Supply Voltage]   VM (9 to 32V): Power Supply for LSI
     VREF (0 to 3V): Const. Current Control for Reference Voltage
     VDD (2 to 5V): Logic "High" voltage for toggle switch

[Toggle Switch State] Upper Side: High (VDD)
     Middle: Open, enable to external logic input
     Lower Side: Low (GND)

[Operation Guide]
1. **Initial Condition Setting:** Set "Open or Low" all switches.
2. **Motor Connection:** Connect the Motors between OUT1A and OUT1B, between OUT2A and OUT2B.
3. **Power Supply:** Supply DC voltage to VM, VREF and VDD.
4. **Ready for Operation from Standby State:** Turn "High" the ST toggle switch.
5. **Motor Operation:** Set I01, I02, PH1, I02, I12 and PH2 terminals according to the purpose.

3. Check VREG5 and VG terminal voltage at multimeter.

4. Check the I01, I11 and PH1; terminal voltage at scope CH1, CH2 and CH3, and the output current waveform at scope CH4.

5. Switch to channel 2(I02, I12, PH2) as well as channel 1(I01, I11, PH1) and measure it.

Table4: Desired Results

INPUT	OUTPUT
VM=24V, VDD=5V, VREF=1.5V	VREG5=4.7V to 5.3V
ST=H, FC=L	VG=28V to 29.8V

Quarter-step

Half-step

Half-step (full torque)

Full-step