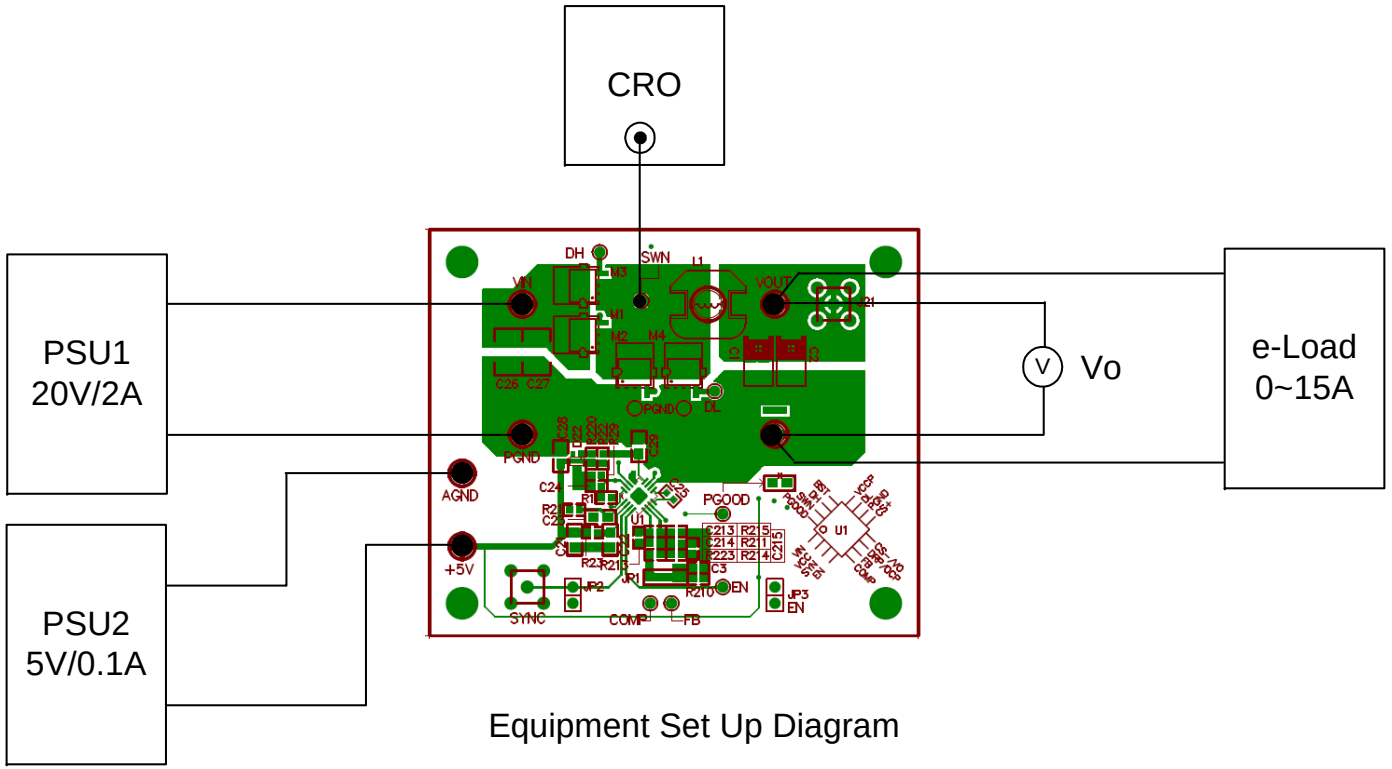
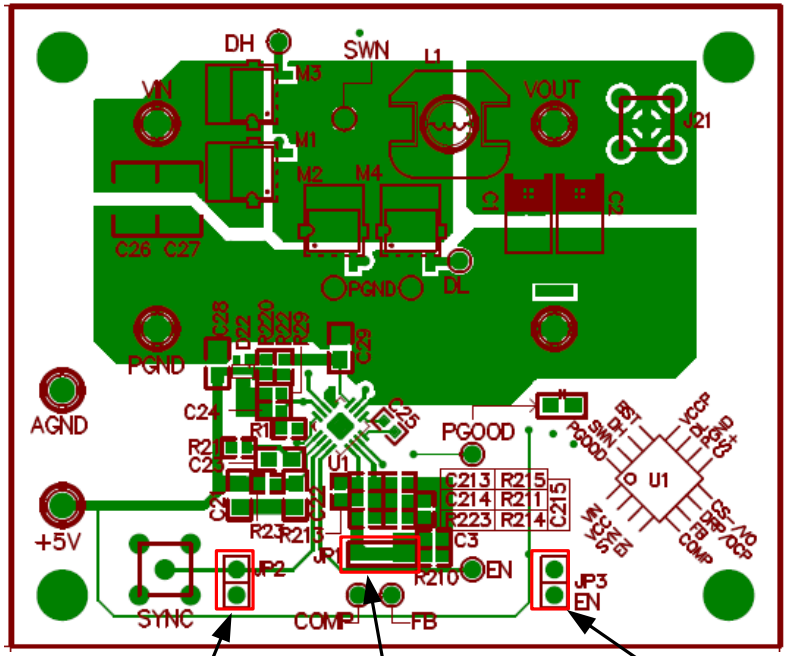
ON Semiconductor

Test Procedure for the NCP5212AGEVB Evaluation Board



Equipment Set Up Diagram

Demonstration Board Jumper Location Map



JP2: Sync
Default = open

JP3: EN
Default = open

JP1: Mode Selection
OCP only (Default)
OCP + AVP

Equipment List

Item	Qty	Description
1	1	Electronic Load. KIKUSUI-PLZ153W or equivalent.
2	2	Power Supply. AGILENT-E3632A or equivalent. (Note: build-in ammeter)
3	1	Digital Multimeter. AGILENT-34401A or equivalent.
4	1	Tekronix TDS460A CRO or equivalent.

Demonstration Board Jumper Setting

Jumper	Status	Description
JP1	-	Sync (not used for demo board test) Default = open
JP2	-	Mode selection Default = see “Demo board jumper location map” diagram
JP3	-	Device enable pin. Open = device is operating Short = device shut down Default = open

Demonstration Board Terminal Pins List

Terminal	Description
VIN	Device input voltage (5-27V)
PGND	Device power ground
+5V	Device analog circuit bias (4.5 ~ 5.5V)
AGND	Device analog ground

Test Procedures

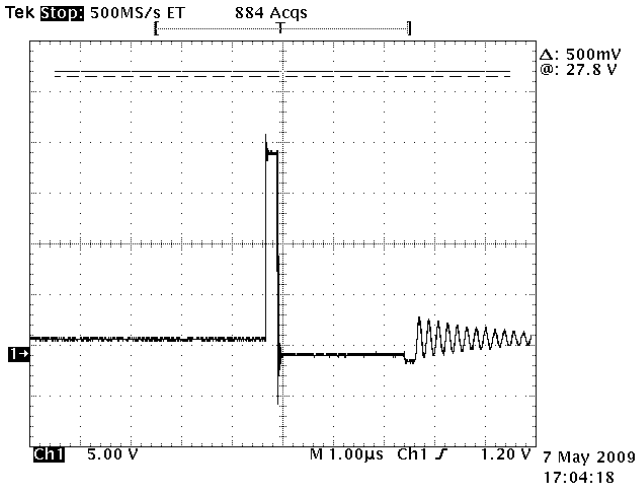
1. All Jumpers are set as “Default”
2. Set up the demonstration board shown at “Equipment Set Up Diagram”
3. Set PSU1=20V, PSU2=5V. For safety set current limit of PSU1=2A, PSU2=0.1A
4. Measuring results are tabulated in the following table

Note: PSU = Power Supply Unit e-Load = Electronic Load

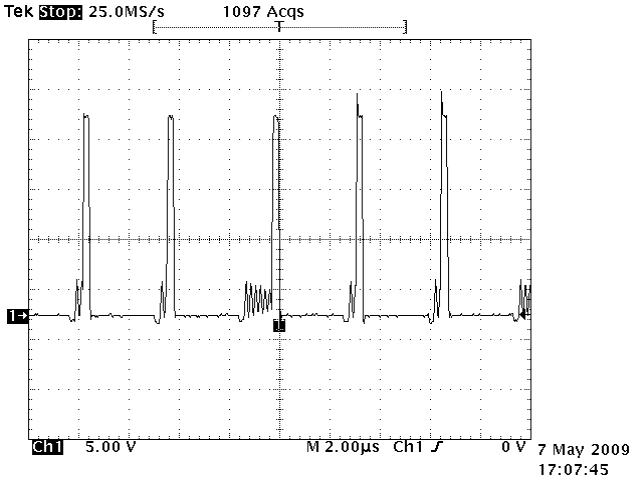
e-Load	PSU1 Current Consumption	Vo	LED	Comment
0	~0A	1.52-1.54V	ON	See scope waveform 1
2	0.15-19A	1.52-1.54V	ON	See scope waveform 2
5	0.38-0.47A	1.52-1.54V	ON	See scope waveform 3
8	0.62-0.76A	1.52-1.54V	ON	See scope waveform 3
8→15A	-	Vo→0V	ON → OFF	Over current protection test

Note:
The current consumption of PSU2 should be below 20mA for all tests.

Scope Waveform 1 – e-Load=0A



Scope Waveform 2 – e-Load=2A



Scope Waveform 3 – e-Load=5A, 8A