

Texas Instruments

PMP4289 Test Procedure

REV A

12/18/09

1 General

1.1 PURPOSE

To provide detailed data for evaluating and verifying the PMP4289.

1.2 REFERENCE DOCUMENTATION

Schematic PMP4289_SCH.PDF

Assembly PMP4289_PCB.PDF

BOM

1.3 TEST EQUIPMENTS

Multi-meter: Fluke 289

Power Analyser:PM100

AC Source: Agilent 6813B

2: INPUT CHARACTERISTICS

Otherwise Specified, the test is under the condition With LED lamp Load (36 LEDs in series).

2.1: Power Factor

Pass/Fail criteria: 0.90 typical at 100% load.

Vin(Vac)	Freq(Hz)	PF	Io(Arms)	THD(%)	Pass/Fail
85	60	0.990	0.326	13.918	
230	50	0.978	0.349	13.670	PASS
265	50	0.968	0.349	14.928	

2.2: Efficiency

Pass/Fail criteria: 85% minimum with 230V AC input at 100% load.

Vin(Vac)	Freq(Hz)	Pin	Vo(Vrms)	Io(Arms)	Eff(%)	Pass/Fail
85	60	37.91	104.63	0.326	89.97	PASS
230	50	40.3	104.8	0.349	90.5	PASS
265	50	40.67	104.8	0.349	89.92	PASS

2.3: Maximum input current

Pass/Fail criteria: XX Amps RMS maximum at low line, full load.

Vin(Vac)	Freq(Hz)	Iin(Arms)	Pass/Fail
85	60	0.451	PASS

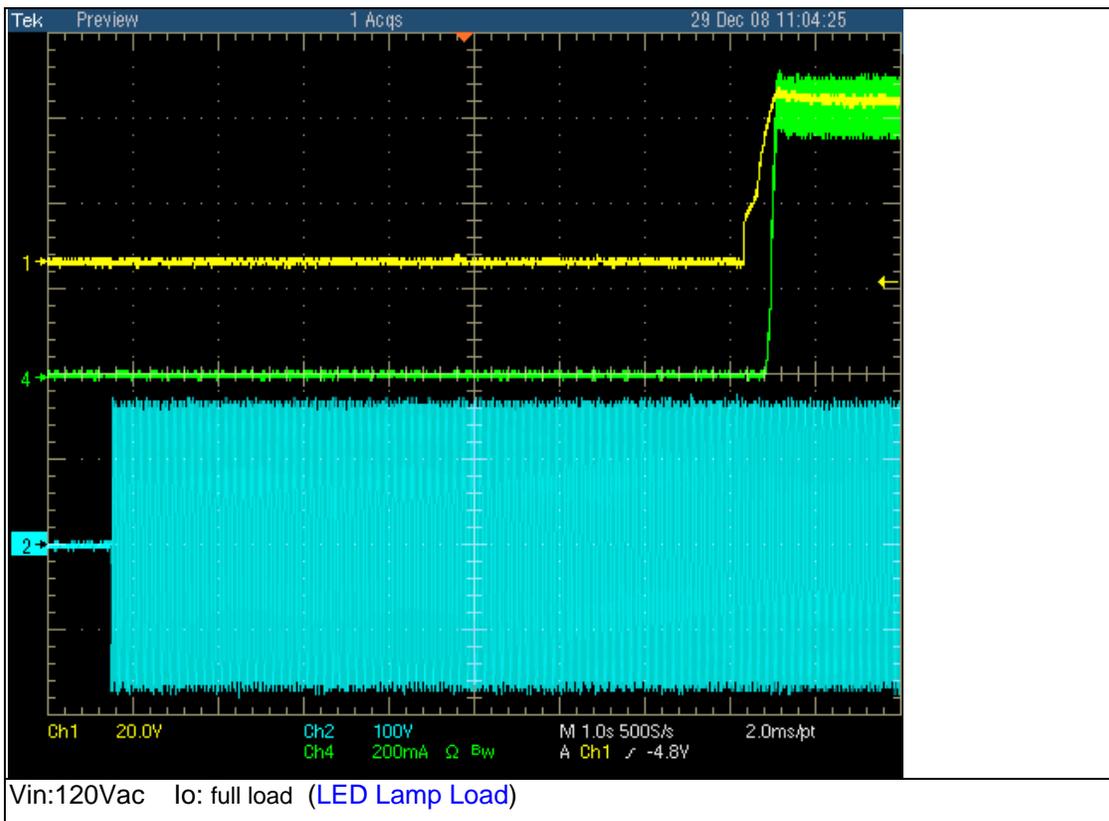
3: OUTPUT CHARACTERISTICS

3.1; Output Voltage Range and Set Point:

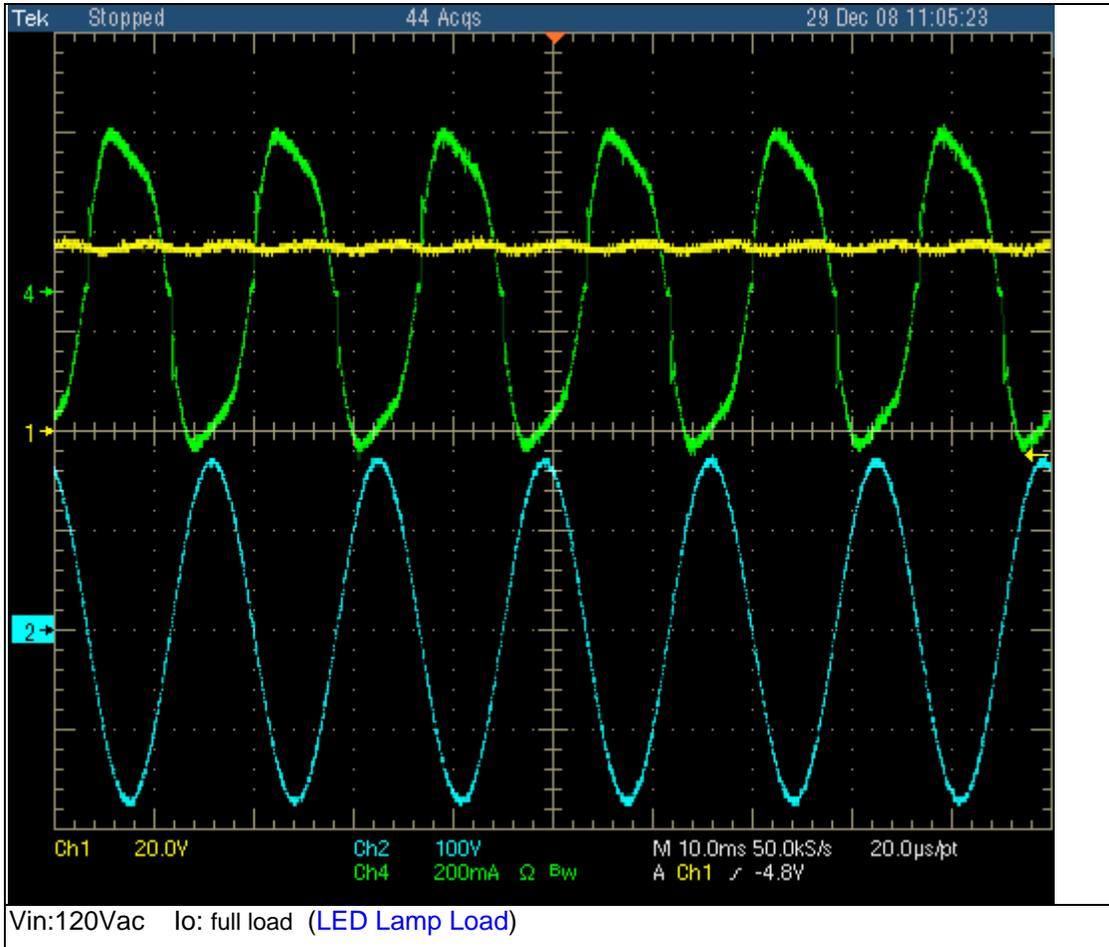
ITEM		Programming voltage (V)			Pass/Fail
				0.349	
Vin=230V	Vout Spec				TBD
	Vout (V)			104.8	

2.5; Turn on Delay and Overshoot:

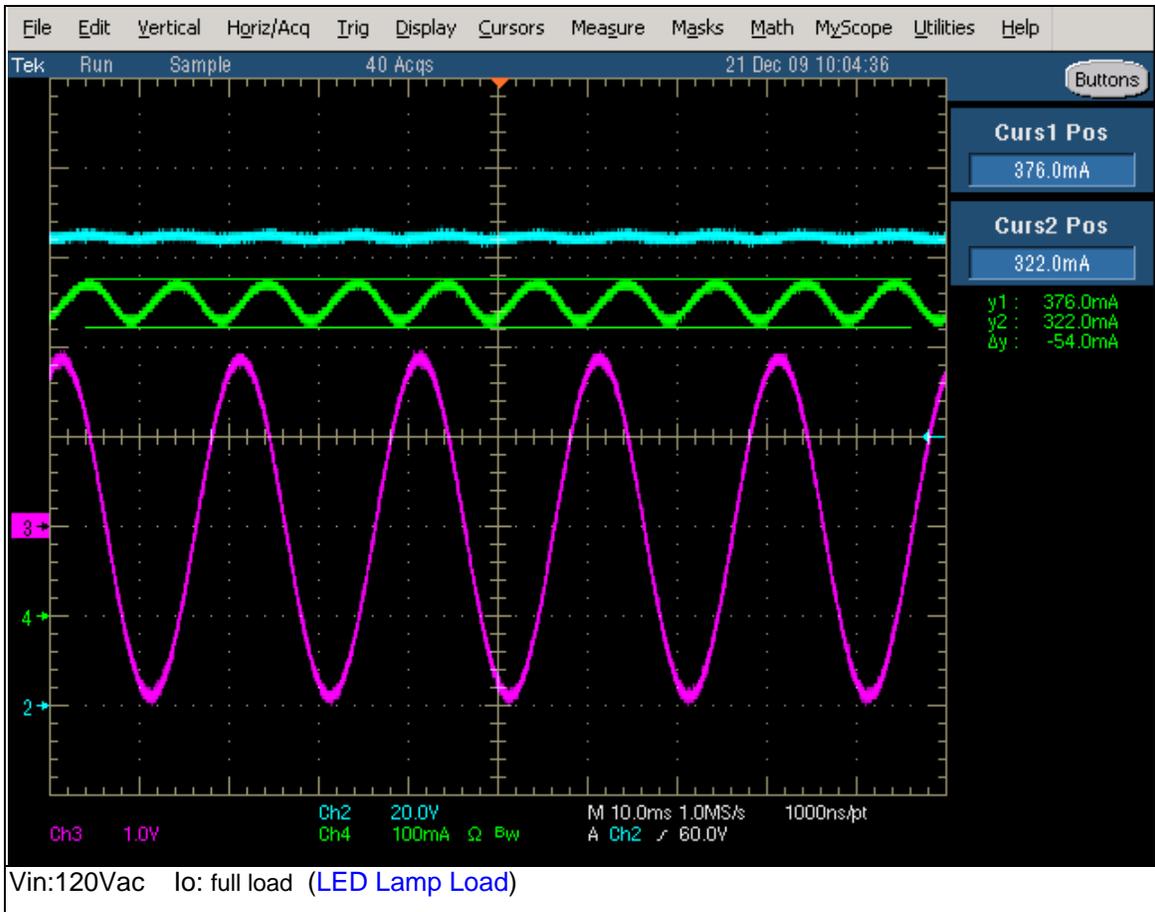
CONDITIONS		Peak excursion (V)	Delay time (s)	Pass/Fail
Vin (Vac)	Load			
230	full load		1.68	PASS



Ch1: output voltage 20V/div
Ch4: output current 200mA/div
Ch2: input voltage 100V/div



Ch1: output voltage 20V/div
Ch4: input current 200mA/div
Ch2: input voltage 100V/div



Vin:120Vac Io: full load (LED Lamp Load)

Ch2: output voltage 20V/div
Ch4: output current 100mA/div
Ch3: input voltage 100V/div

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