Texas Instruments

PMP4259 Test Procedure

REV A

12/16/08

1 General

1.1 PURPOSE

To provide detailed data for evaluating and verifying the PMP4259.

1.2 REFERENCE DOCUMENTATION

Schematic PMP4259_SCH.PDF
Assembly PMP4259_PCB.PDF
BOM

1.3 TEST EQUIPMENTS

Multi-meter: Fluke 289
Power Analyser:PM100
AC Source: Wall Power

2: INPUT CHARACTERISTICS

2.1: Power Factor

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

Vin(Vac)	Freq(Hz)	PF	Iin(Arms)	THD(%)	Pass/Fail
234.7	50	**0.973**	1.3494	29.72	
232.5	50	**0.982**	2.651	24.73	
230.9	50	**0.989**	4.162	23.34	
229.8	50	**0.991**	5.965	20.76	
224.7	50	**0.993**	9.858	18.5	
220.2	50	**0.992**	12.886	18.501	
216.2	50	**0.995**	16.121	16.933	

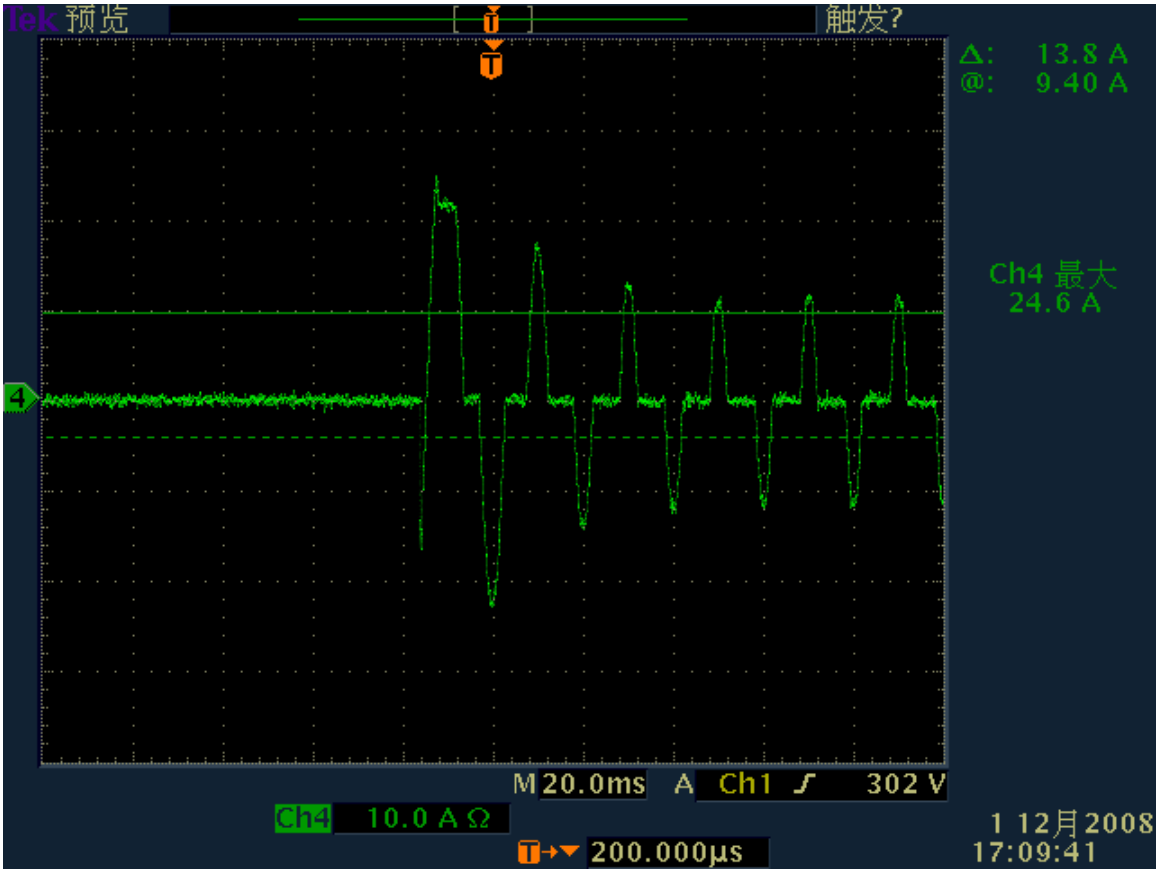
2.2: Efficiency

Pass/Fail criteria: XX minimum with typical AC input at 100% load.

Vin(Vac)	Freq(Hz)	Pin	Vo(Vrms)	Io(Arms)	Eff(%)	Pass/Fail
237.7	50	**156.73**	**381.0**	**0.4**	**94.22**	
233.4	50	**724**	**381.49**	**1.85**	**95.58**	
231.9	50	**993.9**	**381.45**	**2.52**	**96.67**	
227.8	50	**1582.6**	**381.42**	**3.88**	**96.91**	
224.7	50	**2168**	**381.54**	**5.2**	**96.93**	
220.2	50	**2777**	**381.46**	**6.67**	**96.64**	
216.2	50	**3420**	**381.53**	**8.1**	**96.06**	

2.3: Inrush current

Pass/Fail criteria: XX Amps RMS maximum at High line input voltage, full load.

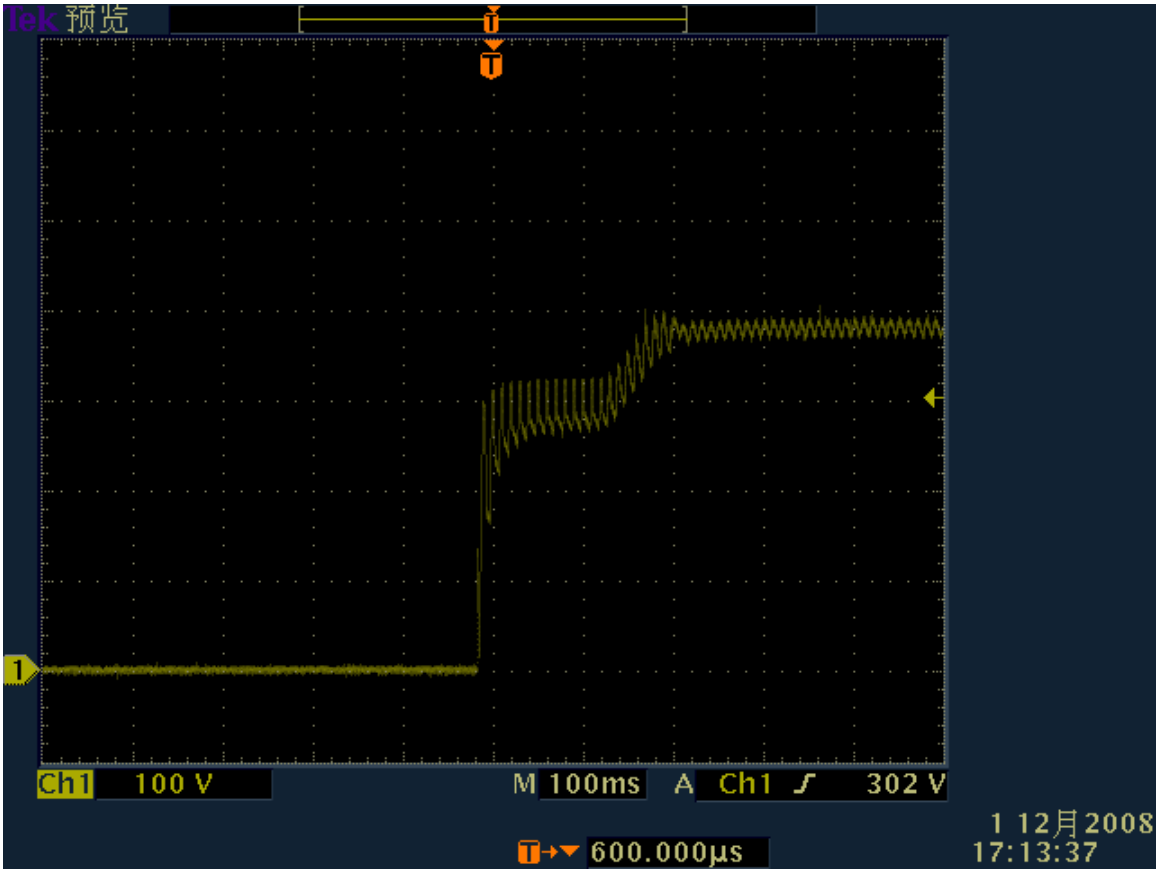


Iinrush=24.A with 230Vac input@1270W Load

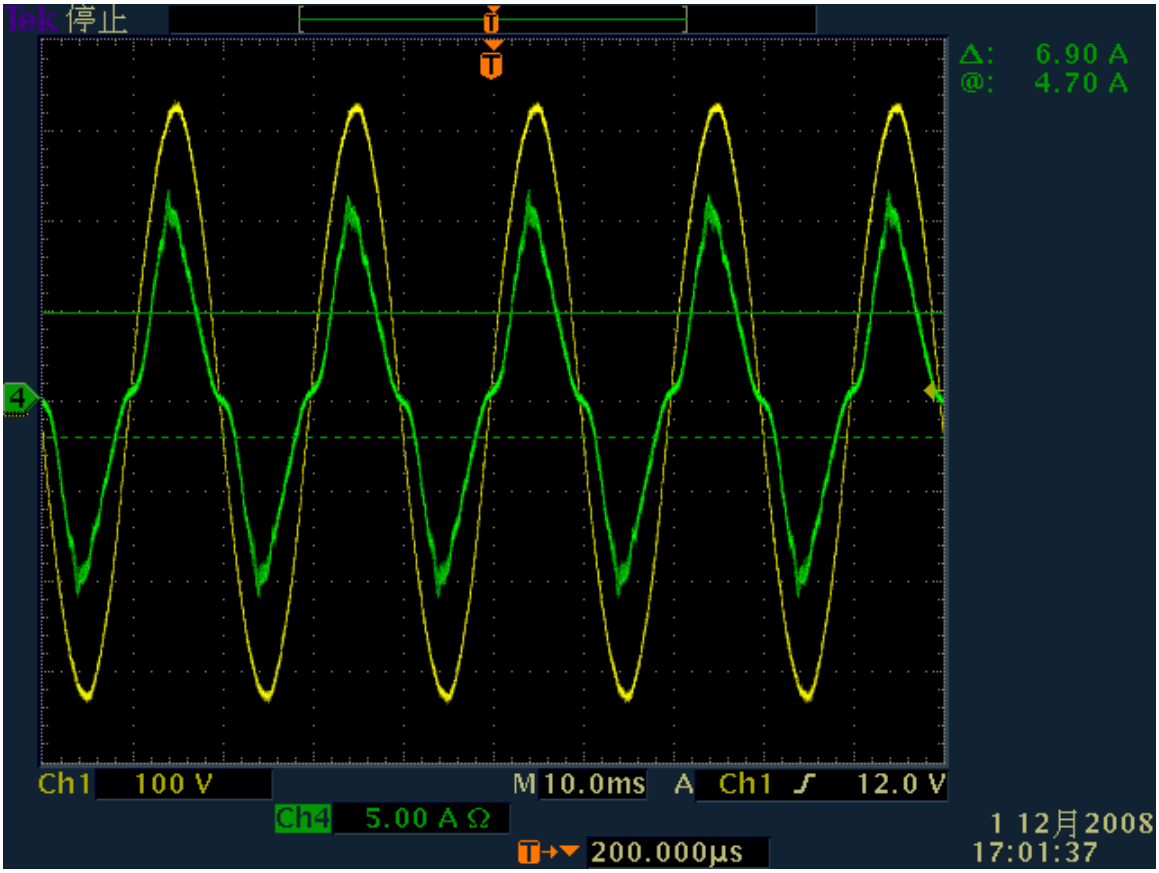
3: OUTPUT CHARACTERISTICS

3.1; Turn on Delay and Overshoot:

CONDITIONS		Peak excursion (V)	Delay time (s)	Pass/Fail
Vin (Vac)	Load			
230	1270			



230Vac input@1270W Load



Ch1: input voltage 100V/div
Ch4: input current 5A/div

230Vac input@1270W Load

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