



PMP9088 Test Report

REV A

10 28 2013

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PMP9088 6W USB Test Results



1. Photo

The UCC28722PMP9088 6W USB Adapter is a 6W reference design using the UCC28722 quasi-resonant/discontinuous flyback controller. **Note that this reference design is not an orderable device from TI, but shows the performance of a UCC28722 constant voltage/ constant current controller in a typical 6W USB adapter application.** This reference design converts 100V to 240V RMS input voltage down to 5V DC, with a typical current limit of 1.35A for USB adapter applications.

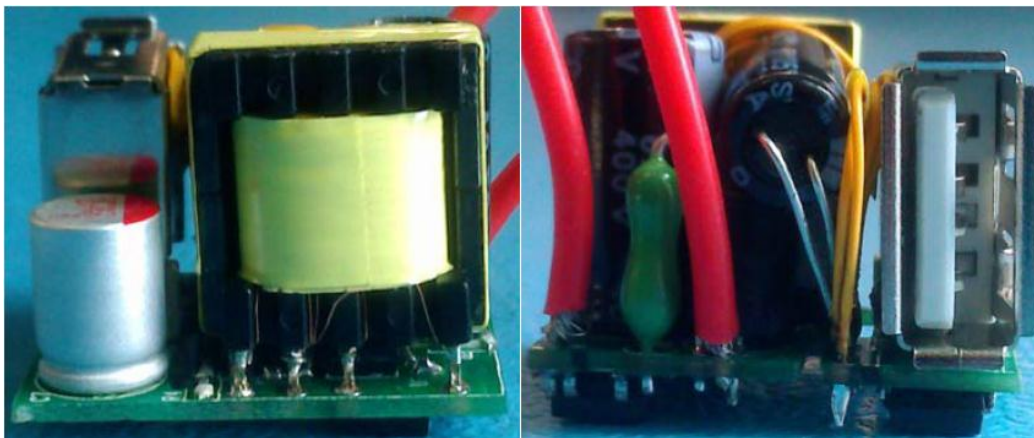
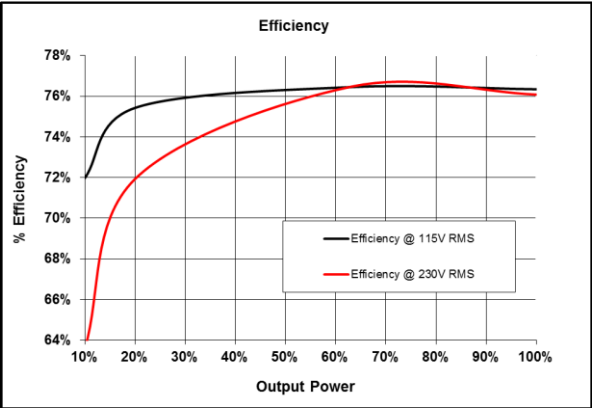


Figure 1, PMP9088 Reference Design, Dimensions 22mmX21mmX20mm

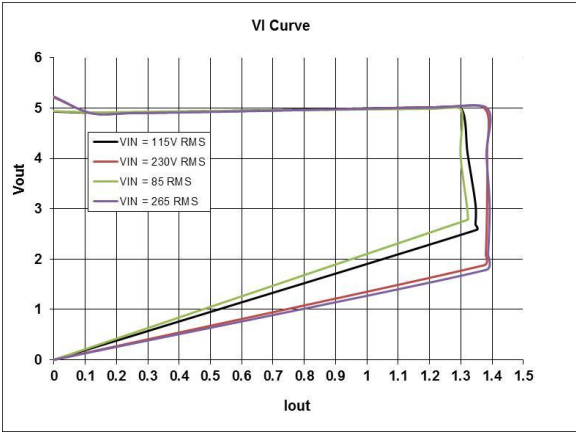
2. Electrical Performance Specifications

Parameter	Symbol	Notes & Conditions	Min	Nom	Max	Units
INPUT CHARACTERISTICS						
Input Voltage	VIN		100	115/230	240	V
OUTPUT CHARACTERISTICS						
Output Voltage	VOUT	VIN = Nom, IOUT = NOM	4.75	5	5.25	V
Line Regulation		VIN = Min to Max, IOUT = Nom	-	-	3	%
Load Regulation		VIN = Nom, IOUT = Min to Max	-	-	3	%
Output Voltage Ripple	VOUT ripple	VIN = Nom, IOUT = Max	-	-	200	mVpp
Output Current	IOUT	VIN = Min to Max		1.2		A
Load Step(Vout = 4.1V to 6V)	§§§	0.1 to 0.6A	4.1		6	V
SYSTEMS CHARACTERISTICS						
Operating Temperature Range	Top	VIN = Min to Max, IOUT = Min to Max	25		40	°C

3. Efficiency



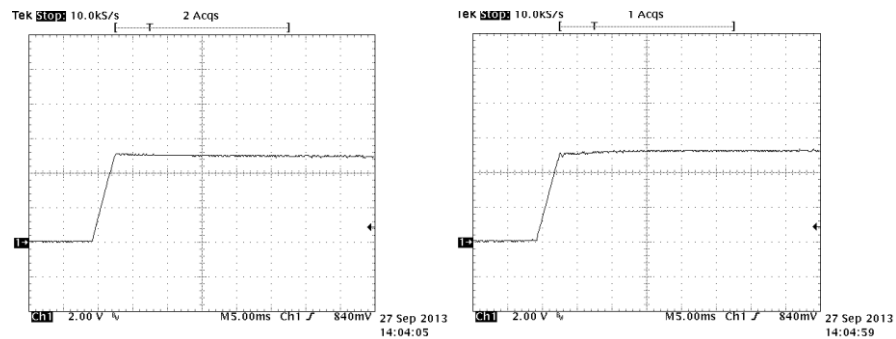
4. VI Curves



5. No Load Input Power

Vin	Pin
85 V RMS	12.1 mW
115 V RMS	14.8 mW
230V RMS	35.4 mW
265V RMS	43.7 mW

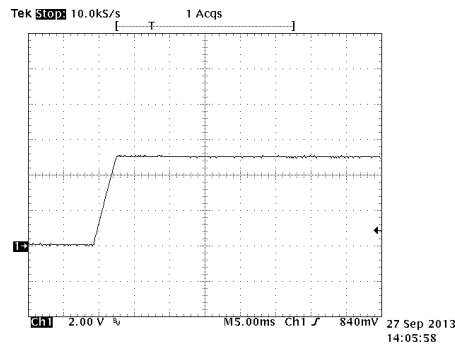
6. Startup 115V RMS



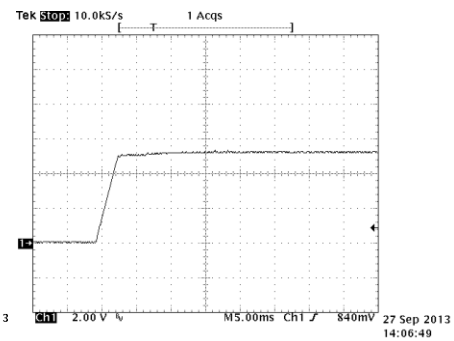
No Load

4.166 ohm, Full Load

7. Startup 230V RMS



No Load

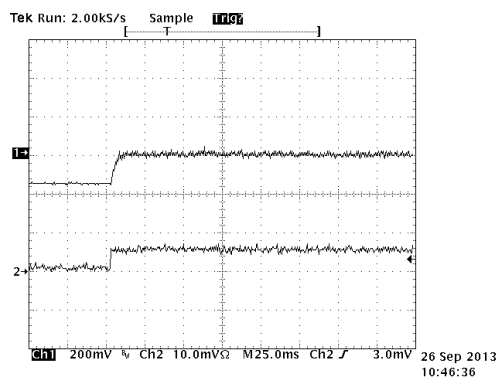


4.166 ohm, Full Load

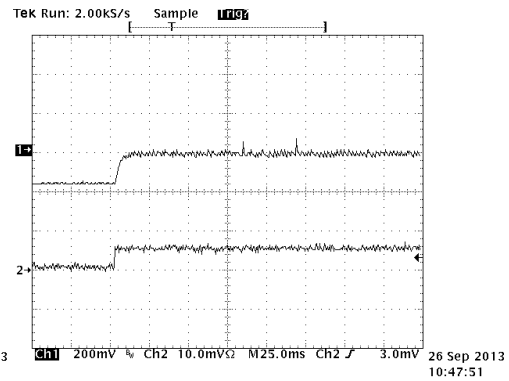
8. Load Transients

a. 0.1 to 0.6A Load Step

Vin = 115V RMS

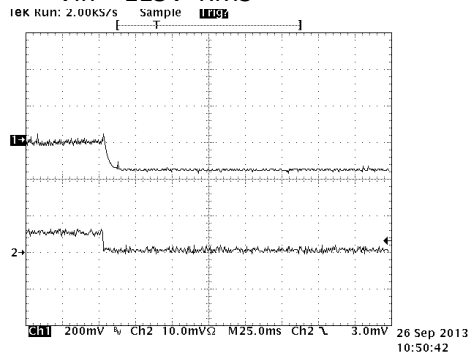


Vin = 230V RMS

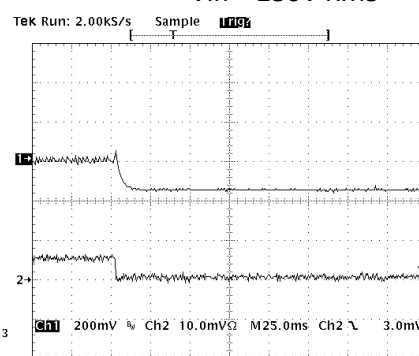


b. 0.6 to 0.1A Load Step

Vin = 115V RMS

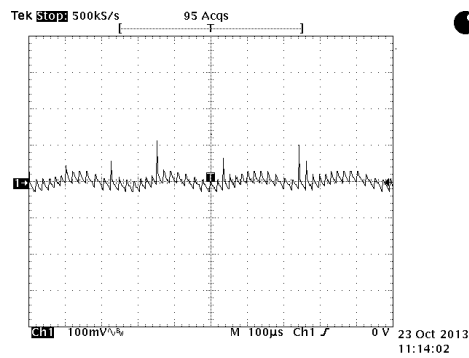


Vin = 230V RMS

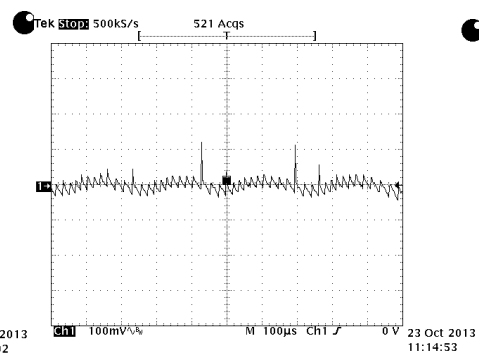


9. Output Ripple Voltage

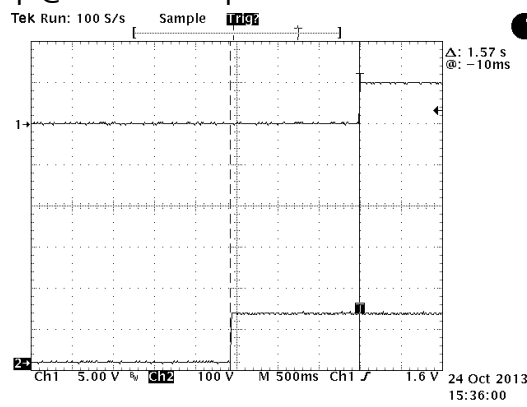
$V_{in} = 115V \text{ RMS}$



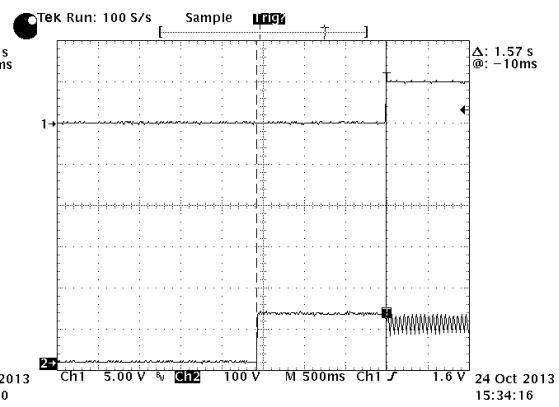
$V_{in} = 230V \text{ RMS}$



10. Startup @ 85V RMS Input



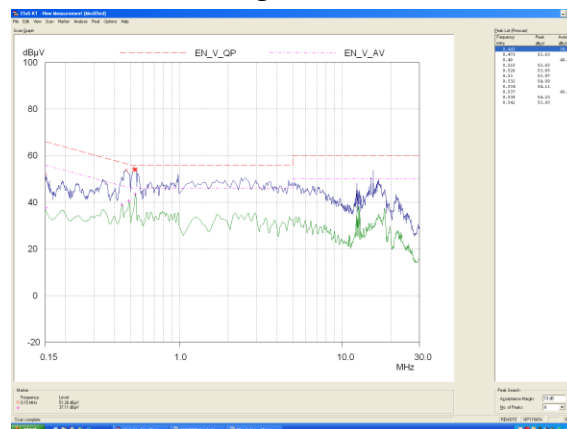
No Load



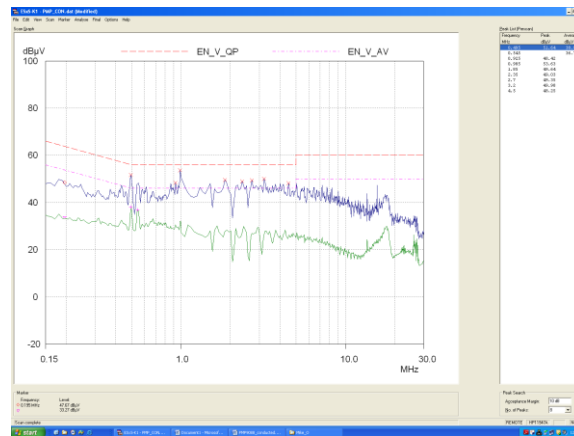
Full Load

11. EMI,

a. $V_{in} = 115V \text{ RMS}$, Load = 4,2 ohms Floating, Standard USB Cable



b. $V_{in} = 230V$ RMS, Load = 4,2 ohms Floating, Standard USB Cable



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