



PMP9088 Test Report

REV A

10 28 2013

10/6/2013



## 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.

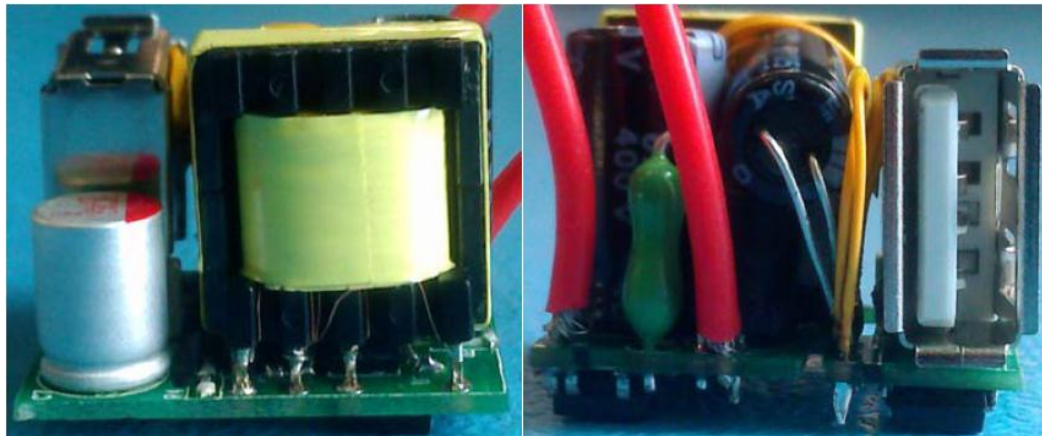
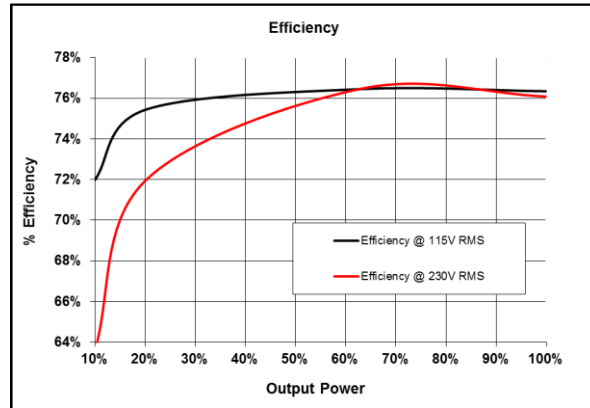


Figure 1, PMP9088 Reference Design, Dimensions 22mmX21mmX20mm

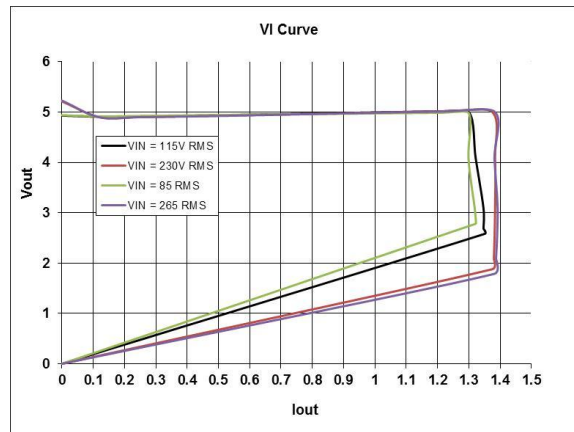
### 2. Electrical Performance Specifications

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

### 3. Efficiency



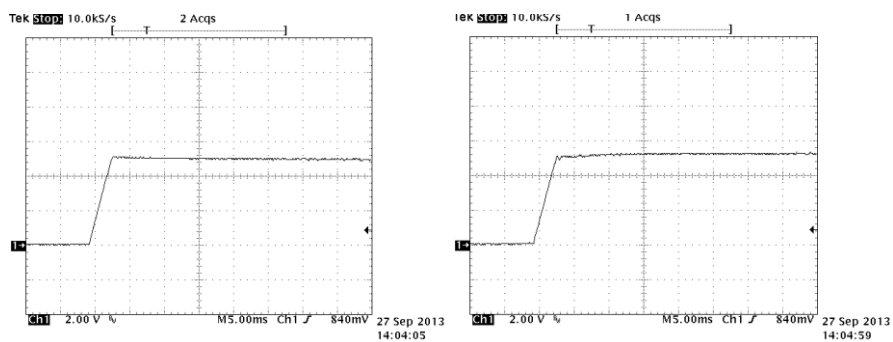
### 4. VI Curves



### 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

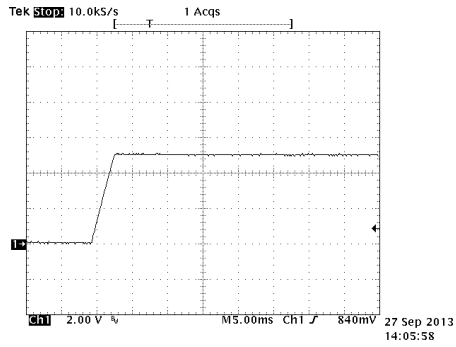
### 6. Startup 115V RMS



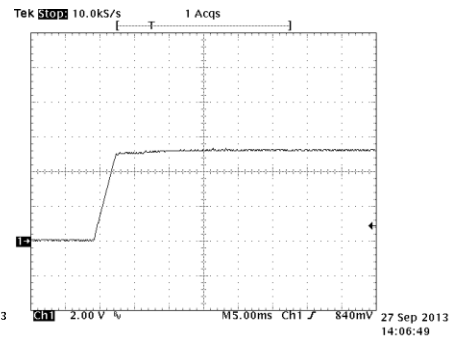
No Load

4.166 ohm, Full Load

## 7. Startup 230V RMS



No Load



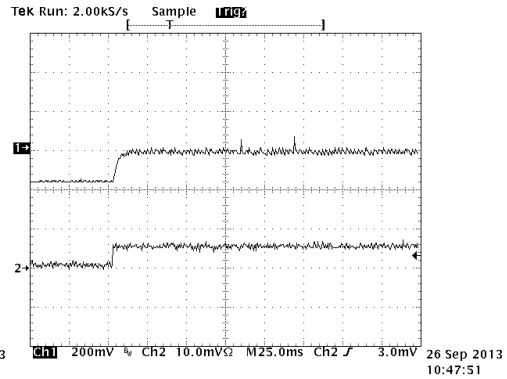
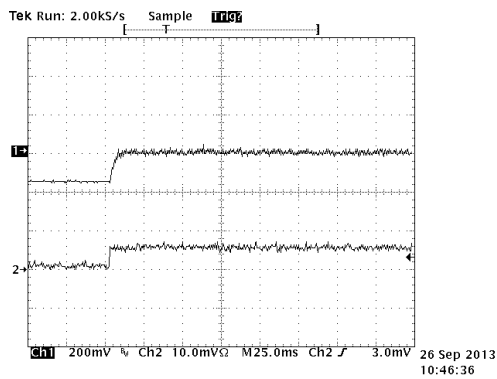
4.166 ohm, Full Load

## 8. Load Transients

### a. 0.1 to 0.6A Load Step

Vin = 115V RMS

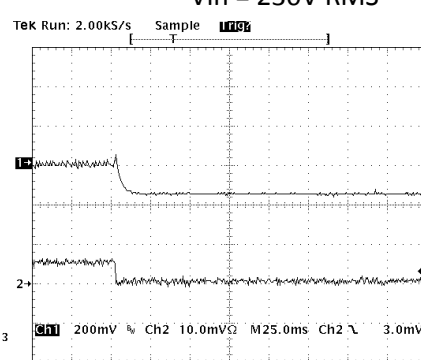
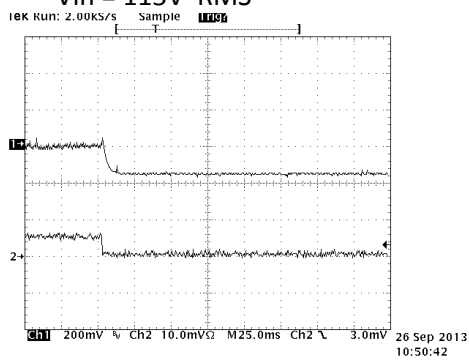
Vin = 230V RMS



### b. 0.6 to 0.1A Load Step

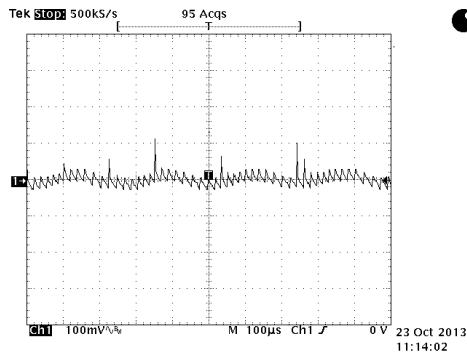
Vin = 115V RMS

Vin = 230V RMS

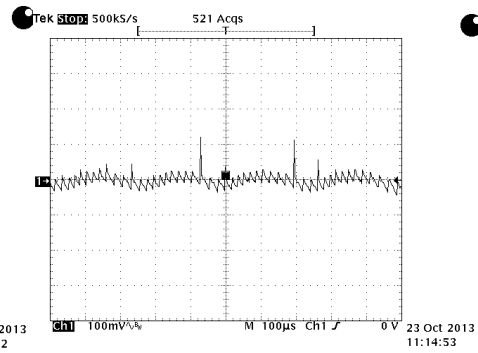


## 9. Output Ripple Voltage

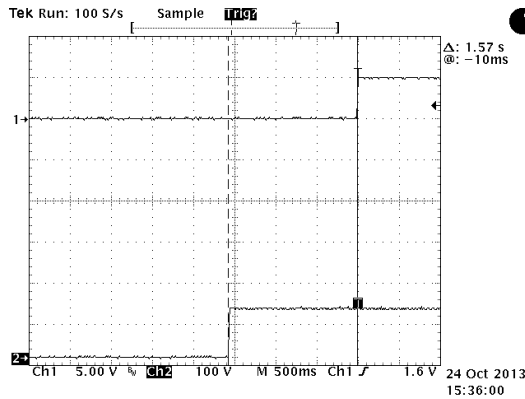
$V_{in} = 115V \text{ RMS}$



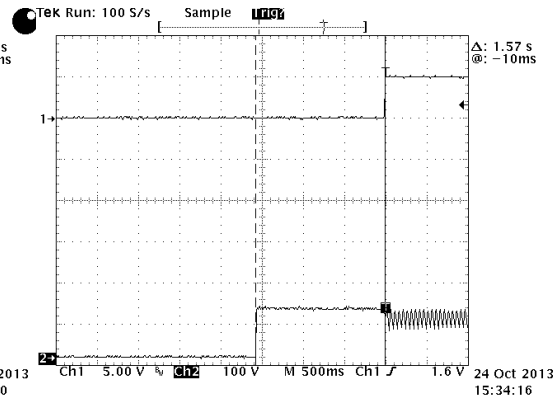
$V_{in} = 230V \text{ RMS}$



## 10. Startup @ 85V RMS Input



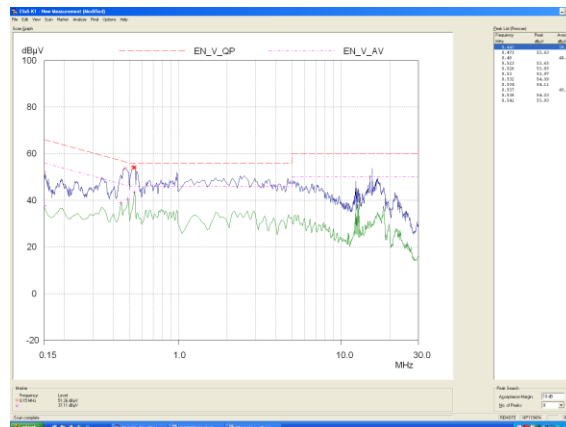
No Load



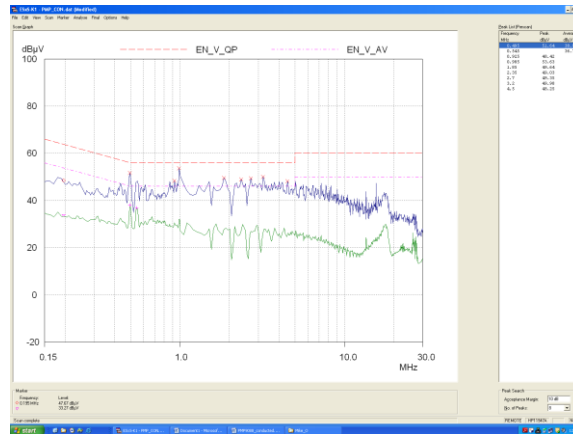
Full Load

## 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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