

Power Reference Design Newsletters

PMP4301_T10/T8 Tube LED Driver for Fluorescent Lamp

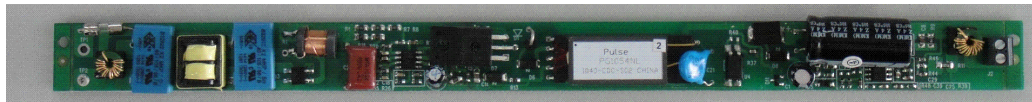
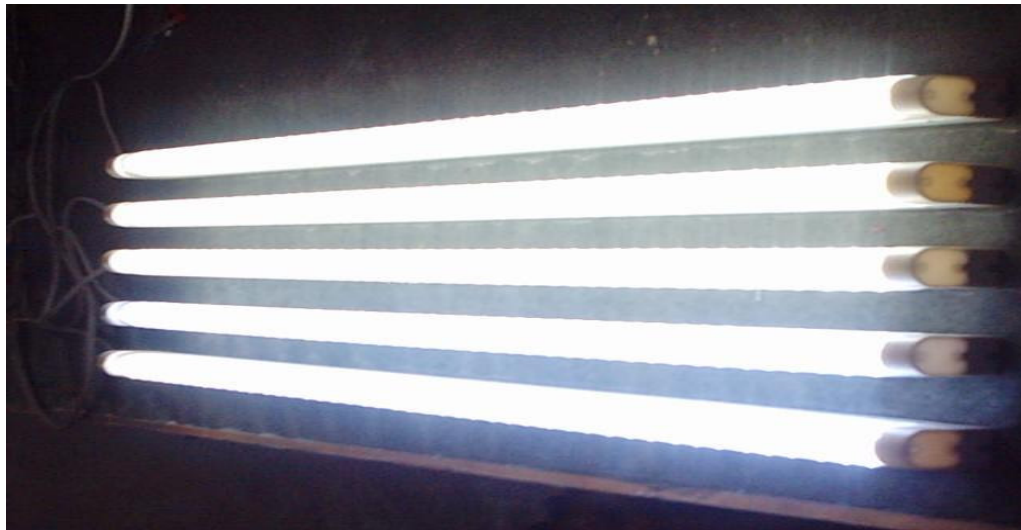
Oct 2010

China Power Reference Design



PMP4301: T10/T8 AC/DC LED Driver for Fluorescent Lamp

Reference Design	Designer	TI Parts	V_{in}	P_o	V_o I_o	Topology	Eff.	PF
<u>AC Input T8 AC/DC LED Lighting Driver for fluorescent lamp</u>	Jacky Zhang Linda Ye	UCC28810	90-305 Vac	20 W	30V~42 V 450mA	Singe Stage high PF QR-Flyback	>87%	>0.97

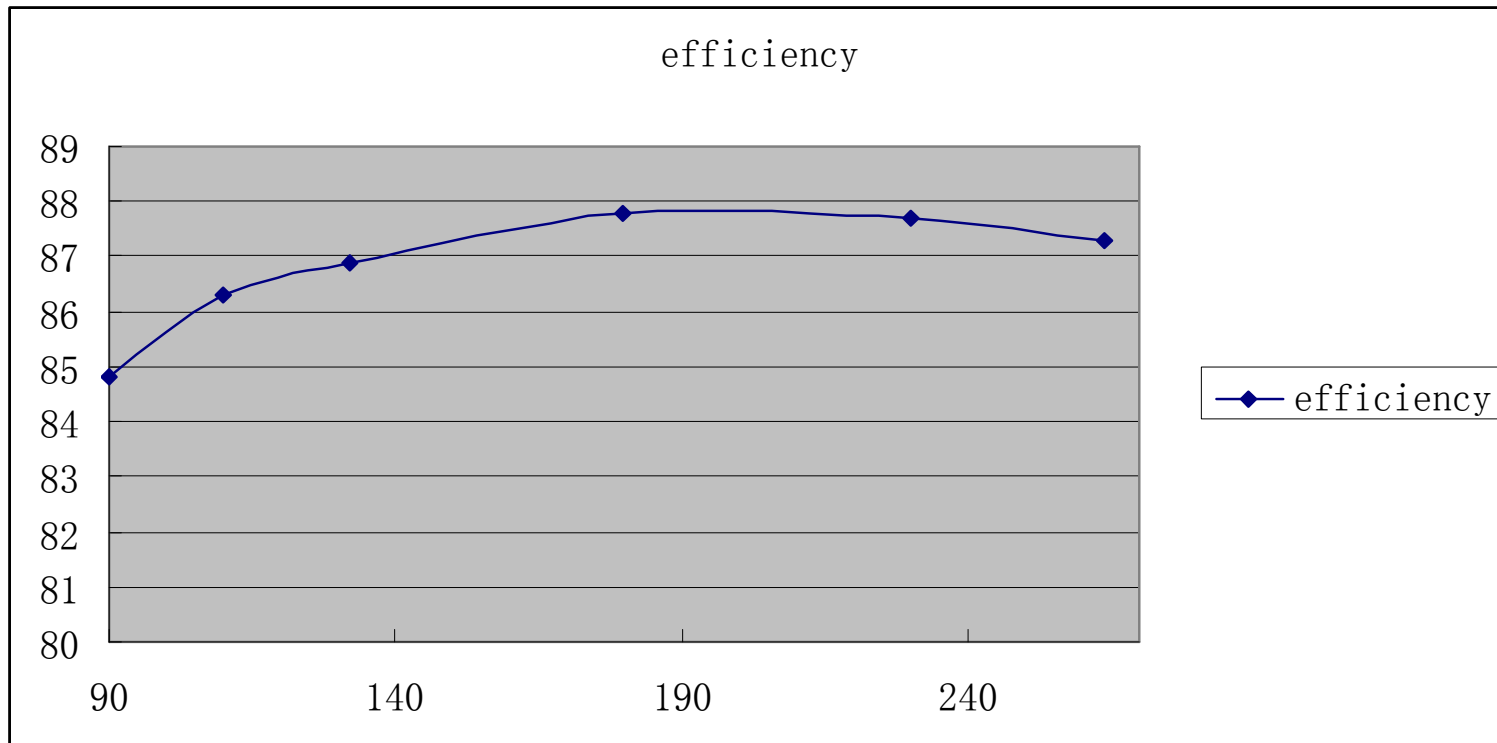


Features

- Efficiency >87% at 230Vac input
- Topology: Single Stage Flyback
- PF>0.97 at 230Vac input
- Size: 245mmX18mmx11mm (ultra-slim)
- Special Transformer for tube lighting
- Output over voltage protection: 45Vdc
- Output ripple current: <30% of output current



PMP4301: Test report





PMP4301: EMI Test report

Vin: 110Vac Io: full load

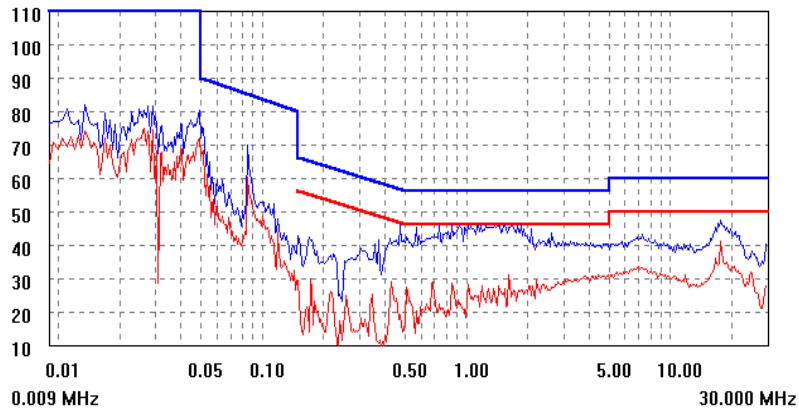
Vin: 230Vac Io: full load

EMI TEST REPORT

Organization: wintek	Operator:	EUT:
Place:	Time: 2010/10/27/10:9	
Detector: PK+AV	Test-time(ms): 10	
Limit: EN55015	Transducer: PK-1	
Remark:		

Start(MHz)	End(MHz)	Step(MHz)
0.009	0.150	0.001
0.150	2.000	0.002
2.000	10.000	0.010
10.000	30.000	0.030

dBuV

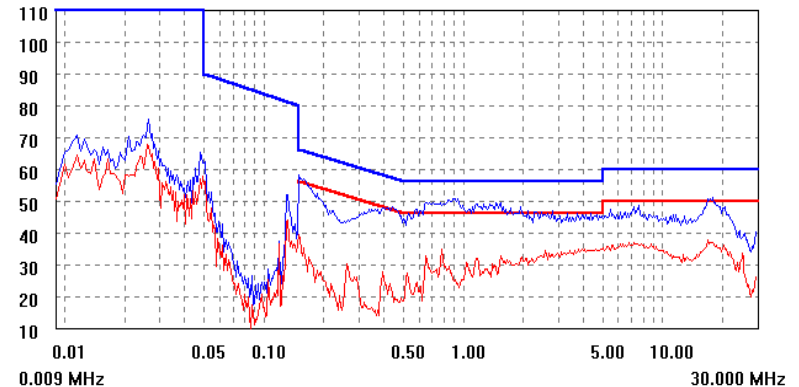


EMI TEST REPORT

Organization:	Operator:	EUT:
Place:	Time: 2010/10/27/9:59	
Detector: PK+AV	Test-time(ms): 10	
Limit: EN55015	Transducer: PK-1	
Remark:		

Start(MHz)	End(MHz)	Step(MHz)
0.009	0.150	0.001
0.150	2.000	0.002
2.000	10.000	0.010
10.000	30.000	0.030

dBuV





Thank you

Buck Up



UCC28810/1 LED Lighting Power Controller

Features

Benefits

Transformer Zero Energy Detection (Transition Mode Control)	Low Cost, High Efficiency and Low EMI
Implements Single Stage Power Factor Correction and LED current regulation	Achieves lighting standards requirements, reduces cost and size
Application circuit implements industry standard triac phase-angle dimming	Uniform Dimming of LED fixture achieved without changing wall dimmer
Improved Transient Response	Cost Effectively improves performance of LED in secondary side LED control schemes
UVLO, OVP and Open Feedback	Improves reliability and life time of lighting fixture
Low Startup Current and Accurate Internal Vref	Low power consumption, better efficiency and provides consistent performance in high volume lighting production
750 mA gate drive current	Eliminates the need for an external Driver

Applications

- AC Input General LED Lighting Applications
- Industrial, Commercial and Residential Lighting Fixtures
- LED Lighting Ballasts
- Outdoor Lighting: Street, Roadway, and Parking Lot lighting,
- Interior and exterior Ornamental LED Lighting
- Light bulb replacements

EVM HPA368
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