

18W High Performance LED Fluorescent Power Module

Type	Application	IC	Input Power	Input Voltage	LED series-parallel connection
DB881-C01D	LED Fluorescent	FT881	18W	90~265VAC	12 Series 24 Parallels

DB881-C01D is FMD latest developed LED power supply module based on the FT881 controller IC which integrates a 500V start up circuitry and applies both proprietary patented Zero-current power supply and Wide-voltage constant current technology. A High performance LED fluorescent lamp can be simply made by hooking up LED string and lamp fixture with DB881-C01D LED power supply.

We have accumulated rich experience in the field of LED power design. In 2006, we have successfully launched FT870 LED driver IC. Up to now, we have released fluorescent power application for PC tube, aluminum tube and light bulb and so on.

Main Features:

- Universal AC Input range: 90~265VAC
- Design for aluminum shielded covered tube
- Small Form factor fit for T8\T10 tube
- Support 12 LED in series or Output voltage 36-39V
- 90% High efficiency
- Meets ENERGY STAR SSL requirement PF> 0.9
- Temperature Rise less than 30°C
- Long Lifetime design, more than 35000 hours
- High Current accuracy $\pm 2\%$
- Current ripple less than $\pm 15\%$
- Meets EN 55015B EMI Limits
- Meets EN61000-3-2. Class D requirements
- No-load power consumption less than 0.3W
- No-load output voltage 44V (adjustable)
- Support Inductor based rectifier
- Pass 1meter height drop test
- Support Operation Ambient temperature -20°C ~ 60°C
- OVP, short circuit protection



DB881-C01C Board

SYSTEM SPECIFICATION:

DESCRIPTION	SYMBOL	MIN	TYP	MAX	UNITS	COMMENT
Input						
Voltage	V_{in}	90		265	VAC	
Line Frequency	F_{line}	47		63	Hz	
Power Input						
Power consumption of input	P_{in}	17.7	17.8	18	W	
Output						
Output voltage	V_{out}	37	38	39	V	
Output current	I_{out}	410	420	430	mA	
Efficiency						
Full Load		87	89	90	%	
Power Factor						
		0.86	0.9	0.92		
Switching frequency						
Oscillator frequency	F_{osc}	35	50	65	KHz	
LED Parameter						
LED Connect	Serial					
	12					
Demo Board Dimension	330*16*10 (L*W*H)				mm	

Module measuring data:

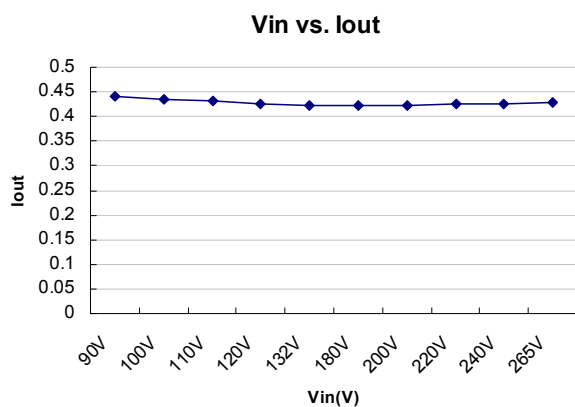


Figure 1: Input voltage vs Output current

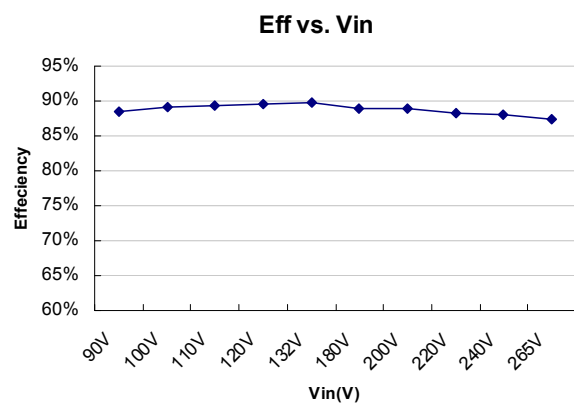


Figure 2: Input voltage vs efficiency

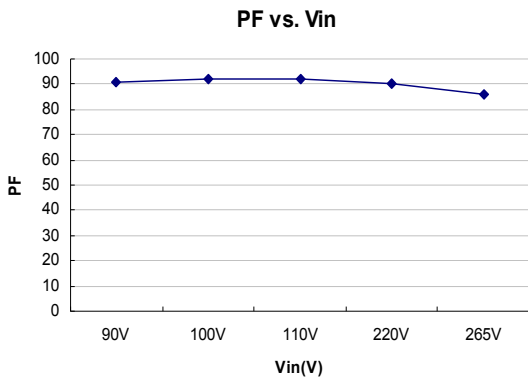


Figure 3: Input voltage vs PF

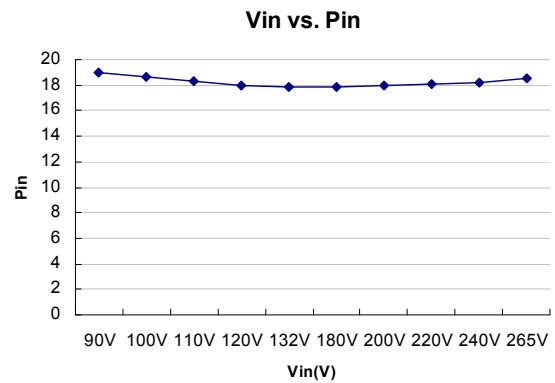


Figure 4: Input voltage vs efficiency

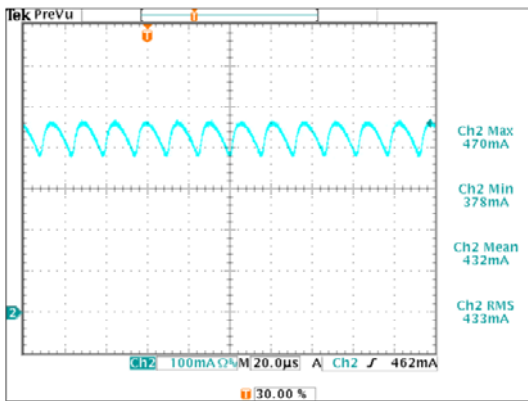


Figure 5: LED current ripple

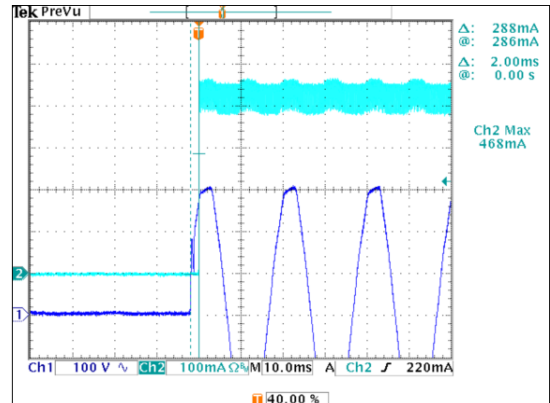
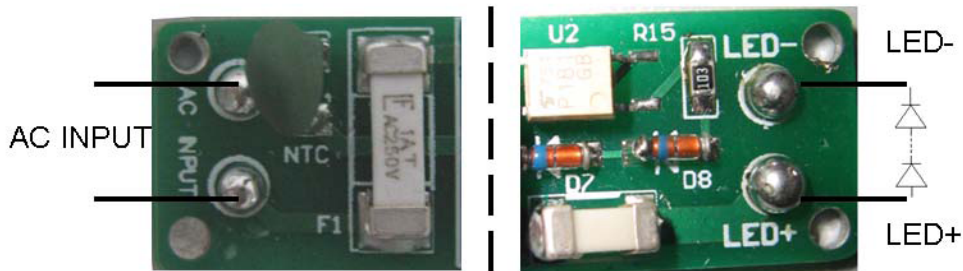


Figure 6: 2ms Start-up waveform

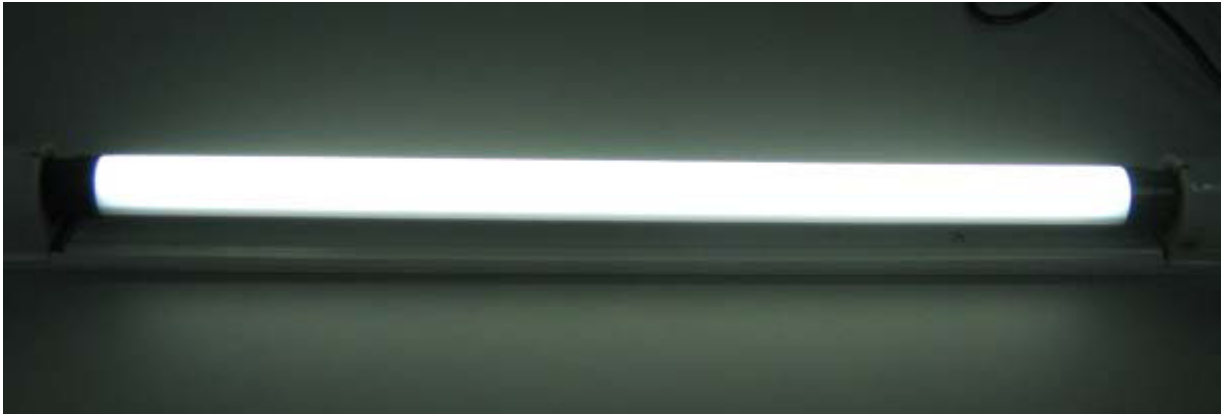
Module user guide: (please see below figure)



LED tube used the FT881-C01D:



After Power on:



Contact Us: