

Outdoor TV back light system

Features :

Power Source:

Full range AC input,100 to 240Vac

Active power factor correction. Power factor > 0.98

High efficiency up to 90%

Flexpower system, modular UL approved power supplies configured to power different size of LED light engines(for 32"~80" TV)

Light Engine Modules:

Aluminum metal core PCB for the best heat transfer from light engine LED

Proprietary on board multiple channels constant current drive control circuit controls each LED current from 0~150 mA

LED drive current level automatically tracking the ambient light feedback to reduce power consumption at night

Max LED current level control by internal feedback servo-loop to maintain 2000 nits intensity to compensate the LED aging effect

No LED are connect in parallel, every LED is driven by constant current driver

Back light system master controller:

Ambient Light feedback control option, to reduce the back light output when the ambient is dark and vise versa

Light engine light output sensing option to automatically control and maintain 2000nits max light output to compensate LED aging

Controller can operate with both 12V or 24V for the video card and fan power. With 5A combine current for 12V and 3A for 24V.

Max LED currnet level control by internal feedback servo-loop to maintain 2000 nits intensity to compensate the LED aging effect

with thermal sensor to automatically control the fan speed to maintain minimum fan noise and low system temperature

FLEXDRIVE POWER SUPPLY SPECIFICATION

Features:

Full range AC input,100 to 240Vac

Active power factor correction. Power factor > 0.98

High efficiency up to 90%

Flexpower system, modular UL approved power supplies configured to power different size of LED light engines(for 32"~80" TV)

SPECIFICATION

INPUT	Voltage and Frequency RANGE	100~240Vac, 47 ~ 63Hz					
	TV SIZE	80"	72"	55"	47"	42"	32"
	MAX AC CURRENT(@120Vac)	16.5	16.5	10.8	7.7	4.6	TBD
	MAX AC CURRENT(@240Vac)	8.3	8.3	5.4	3.9	2.3	
	Power factor(Typ.)	> 0.95					
	INRUSH CURRENT(Typ.)	less than 50A at 120V input, less than 80A at 240V input					
OUTPUT		80"	72"	55"	47"	42"	32"
	Max output power(Watt)	1600	1600	1050	750	450	TBD
	SETUP, RISE TIME	TBD					
	EFFICIENCY (Typ.)	86%~90%,					
PROTECTION	OVER CURRENT	105% of rated output current. Constant current mode					
	OVER VOLTAGE	Power supply shall shut down and latched off in the event of output voltage exceed 115~150% of the max rated voltage. To reset the latch, AC input power needs to be recycled.					
	OVER TEMPERATURE	90C +/-5C					
ENVIRONMENT	WORKING TEMP.	nominal -20 to +50 C ambient at full load, force air cooling up to 80C					
	WORKING HUMIDITY	5% to 95%, non-condensing					
	STORAGE TEMP., HUMIDITY	-40 to 80 C, 5% to 95%RH					
	TEMP. COEFFICIENT	0.3% per degree C maximum					
	VIBRATION	Frequency 5 to 50 Hz, acceleration ± 7.35 M/(S*S), direction X,Y and Z Axis					
SAFETY & EMC	SAFETY STANDARDS	UL , TUV					
	WITHSTAND VOLTAGE	I/P-O/P: 4242VDC I/P-FG:2121VDC O/P-FG: 500VDC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25C / 70% RH					
	EMI CONDUCTION & RADIATION	EN55022 Part 15 Class B, CISPR22 Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C & D ; EN61000-3-3					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, EN55024, heavy industry level (surge 4KV), criteria A					

High Power LED TV Light Engine spec sheet

Features:

Aluminum core PCB for the best heat transfer from light engine LED

Proprietary on board multiple channels constant current drive control circuit controls each LED current from 0~150 mA

LED drive current level automatically tracking the ambient light feedback to reduce power consumption at night

Max LED current level control by internal feedback servo-loop to maintain 2000 nits intensity to compensate the LED aging effect

No LED are connect in parallel, every LED is in series with constant current driver

SPECIFICATION

TV size	80"	72"	55"	47"	42"	32"
LED Light Engine board size	34"X12.5"	32" X 12"	27" x 12"	20" x 12"	20" x 12"	TBD
Number of channels/Board	8	8	8	8	8	
Number of Light engine(Board)/TV	6	6	4	4	3	
Initial LED Drive power/Light Engine (watts)	162	153	129	96	96	
Max LED Drive power/Light Engine (watts)	251	237	200	149	149	
Initial TV LED total drive power (watt)	973	916	517	384	288	
max TV LED total drive power (watt)	1507	1420	800	595	336	

Back light system master controller

Features:

Ambient Light feedback control option, to reduce the back light output when the ambient is dark and vice versa

Light engine light output sensing option to automatically control and maintain 2000nits max light output to compensate LED aging

Controller can operate with both 12V or 24V for the video card and fan power. With 5A combine current for 12V and 3A for 24V.

Max LED current level control by internal feedback servo-loop to maintain 2000 nits intensity to compensate the LED aging effect

Internal thermal sensor to automatically control the fan speed to maintain minimum fan noise and low system temperature

SPECIFICATION

supply voltage range	12V	24V
Thermal controlled fan speed control voltage output	5.5V ~12V, 3A max	11V ~24V, 2A max
Video card voltage output	12V	24V
Maximum number of controllable light engines	12	12
Ambient light monitor	1	1
Ambient light excursion filter	Internal microprocessor automatic filter out ambient light perturbation errors	
TV internal LED light output monitor feedback	automatically control and maintain 2000nits max light output to compensate LED aging	
Manual and automatic control switch	A switch can select between light output manual adjustment or automatic adjustment	
Fan speed control	Internal microprocessor automatic control fan speed according to TV internal temperature feedback	