

DS-1615WA

Features

- Nominal current 108 mA for LED Back-light
- 10.8 to 13.2 V input voltage range
- Accurate and stable output current regulation
- Analog dimming or External-PWM dimming selectable
- Low EMI and spurious noise
- Built-in Fuse
- Single sided PCB layout

Applications

- 15" Wide LED Back-light LCD monitor

Electrical characteristics for Analog dimming

Parameter	Symbol	Conditions*	Specification*			Unit
			Min	Typ	Max	
Input supply voltage	V_{IN}		10.8	12.0	13.2	V
Input current	I_{IN}	$V_{IN}=12V, V_{BRT}=0V$	0.3	0.4	0.5	A
Full bright LED current	$I_{O(MAX)}$	$V_{IN}=12V, V_{BRT}=0V$	100	108	116	mA
Minimum LED current	$I_{O(MIN)}$	$V_{IN}=12V, V_{BRT}=3.3V$	14	7	2	mA
Dimming ratio		$V_{IN}=12V, V_{BRT}=0$ to 3.3V		5 : 1		
Sleep current	I_{IN}	$V_{IN}=12V, V_{SLEEP}=0V$			10	mA

Electrical characteristics for External -PWM dimming

Parameter	Symbol	Conditions*	Specification*			Unit
			Min	Typ	Max	
Input supply voltage	V_{IN}		10.8	12.0	13.2	V
Input current	I_{IN}	$V_{IN}=12V, Duty=100\%$	0.3	0.4	0.5	A
Full bright LED current	$I_{O(MAX)}$	$V_{IN}=12V, Duty=100\%$	100	108	116	mA
Minimum LED current	$I_{O(MIN)}$	$V_{IN}=12V, Duty=20\%$	0	5	10	mA
Dimming ratio		$V_{IN}=12V, Duty=100\sim 0\%$		100 : 1		
Sleep current	I_{IN}	$V_{IN}=12V, V_{SLEEP}=0V$			10	mA

* At the reference 3Chip LED*11ea*6String

DS-Plus Inc./ ()

Room 403, Ssangyong IT twin tower-1, 442-17 Sangdaewon-dong, Jungwon-gu, Seongnam-city 462-807, Korea
Tel : 82-31-608-7100~3, Fax : 82-31-608-7104

Absolute maximum ratings

Input supply voltage (V_{IN})	-----	-0.3V to 13.2V
Output voltage, no load	-----	Internally limited to zero volt
Output current (I_O)	-----	120mA
Sleep & Bright adjust signal voltage (V_{SLEEP} , V_{BRT})	----	-0.3V to 10.0V
Ambient operating temperature	-----	0 °C to 50 °C
Storage temperature range	-----	-30 °C to 80 °C
Operating & storage humidity	-----	10 % to 85 %

Recommended operating conditions (R.C.)

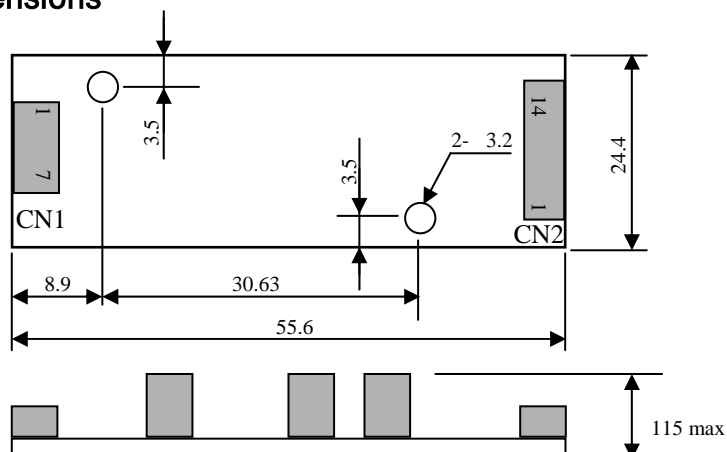
Parameter	Symbol	Recommendation			Units
		Min	R.C.	Max	
Input supply voltage	V_{IN}	10.8	12.0	13.2	V
Full bright LED current	$I_{O(MAX)}$	100	108	116	mA
Brightness control voltage range(Analog dim)	V_{BRT}	3.3		0	V
Brightness control PWM Duty(Ext-PWM dim)	Duty	0		100	%
Lamp on/off control voltage	V_{SLEEP}	3.0	5.0	7.0	V
LED operating voltage(Reference)	V_O		33.0		V
Operating ambient temperature range	T_A	0		40	°C

Connector and functional pin description

CN1 Connector : 12505WR-07A00 (YEONHO or Equivalent)
 CN1-1,2 V_{IN} (DC Input ; 12.0V)
 CN1-3,4,7 G_{ND}
 CN1-5 V_{SLEEP} (Back-light On/Off control ; Off at Low, On at High)
 CN1-6 V_{BRT} (Analog Dimming-Bright adjust ; 3.3 to 0V)
 External-PWM Dimming control (Bright Adjust)
 (5Vpp, Duty 100 to 0% square wave input)

CN2 Connector : 12505WR-12A00 (YEONHO or Equivalent)
 CN2-10,12 LED (Anode) operating voltage
 CN2-1,3,5,7,9,11 LED (Cathode) Current return
 Tolerance : ± 0.5
 Unit : mm

Mechanical dimensions



Notice : The specification is subject to change without notice