

AC/DC LED TEST SYSTEM

Chroma 58158 AC/DC LED Integrated Test System, compliances the AC LED Device National Standard and designs under the guidelines of LM-79, has integrated Chroma's Power Electronics Test Equipment - Programmable AC Power Source and Digital Power Meter to offer users a real AC environment for measuring AC LED.

Furthermore, the 58158 also integrates Chroma DC Power Supplies with the flexible optical test platform which equips with integrating sphere, photo detector, and etc.. Users can measure optical and electrical parameters of AC/DC LED through a friendly software interface.



MODEL 58158 LED Test system

Key features:

- Simulate the real AC test condition and environment
- Integrate AC,DC and optical feature test to one platform
- Support DC test for AC LED
- Support dual-optical test module in one platform (integrating sphere or average intensity)
- Support AC/DC LIV analysis
- Offer standard light source for calibration



Chroma

SPECIFICATIONS		
Model		58158
Measurement Items		
Optical Measurement Items		Lumens (lm), mW, Wp, Wd, FWHM, CIE(x,y), CIE(u',v'), CCT, CRI
Electrical Measurement Items		Vdc, Idc, Vrms, Vpeak+, Vpeak-, Irms, Irms+, Irms-, Inrush current, Frequency, Real power P, reactive power VAR, apparent power VA, power factor PF, energy, THD (current and voltage), Vf, If
Optical Measurement		
Photo Detector	Wavelength Range	380~780nm
	Lumens Range *1	1500lm (50cm integrating sphere)
Spectrometer	Detector Type	2048 Pixels Linear CCD array
	Wavelength Range	380~780nm
	Slit	100um
	Resolution (FWHM)	3.8nm
	Integration Time	1.2ms~ 10sec
	Dynamic Range (Single scan)	2x10 ⁸
Fiber Optic Connector		SMA 905
Electrical AC Meter		
AC Voltage	Range	150/300/500Vrmx (CF=1.6)
	Accuracy	0.1%+0.05%*KHZ of rdg + 0.08% of rng
	Input Resistance	1M
AC Current	Range	SHUNT H : 0.2/2/8/20Arms (CF=2 @ 0.2/2/8A, CF=4 @ 20A) SHUNT L : 0.01/0.1/0.4/2Arms (CF=4)
	Accuracy *2	SHUNT H : (0.1%+0.05%*KHz) of rdg + 0.12%rdg SHUNT L & 20A : (0.1%+0.05%*KHz) of rdg + 0.25% rng
Power	Range(W)	1.5W~10KW, 24 ranges
	Accuracy *3	SHUNT H : [0.2% + 0.1%*KHz + (0.3/PF)%*KHz] of rdg + 0.2% of rdg SHUNT L & 20A : [0.2% + 0.1%*KHz + (0.3/PF)%*KHz] of rdg + 0.33% of rdg 300V x 0.01A
	Power Factor accuracy *4	Range : 0.2%of rdg + 7mW 0.006 + (0.003 / PF) KHz
Harmonic	Range	2~50 order
DC Measurement		
DC Power Supply	Output Voltage	0~64V (> 64V optional)
	Output Current	0~3A (> 3A Optional)
	Ripple and Noise	1400 uVrms & 14 mVp-p / < 1mA
	Line Regulation	0.01% +4mV / 0.01% + 300 μ A
	Load Regulation	< 6mV / 0.01% + 300 μ A
	Program Accuracy	0.02% + 10mV / 0.01%+1mA
Read back Accuracy		0.02% + 10mV / 0.01%+1mA
Others		
Dimension (H x W x D)		1081 x 532 x 700 mm
Weight		100k g
Integrating sphere dimension		50cm, 1m, 2m
Power Consumption		300 W
Operating		100~240V VAC 50/60HZ
Software Support DC Source		
Chroma 11200 (650V), Chroma 11200 (800V), Chroma 52958, Chroma 6200P-300-8, Keithley 24XX Series, Motech PPS3210		

*1 : 50cm Integrating sphere without ND filter. Chroma also offers 25 and 30 cm integrating sphere for lumen measurement solution

*2 : The current accuracy applies temperature range 23 ± 1°C for 0.01A & 0.2A. (CF=2) For all the other current range, the spec. applied under 23 ± 5°C

*3 : The 300Vx0.01A range is usually used to test No-load condition of UUT

*4 : The PF spec. applies only when the signals are higher than 50% of the selected voltage and current ranges

ORDERING INFORMATION

Photometric option	50cm integrating sphere	1m integrating sphere	2m integrating sphere
Application	●Bulb ●MR-16 ●PAR ●Small size luminaire	●2" for T8 and T5 ●Medium size of luminaire	●4" /5" for T8 and T5 ●Street light ●Large size luminaire
Occasion	Lab	Lab	Lab

BTO for 3m integrating sphere

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