

# AOPT High Intensity Pulsed Solar Simulator

MODEL: AOPT-2007-GEN1



**AO** ALPHA-OMEGA  
Power Technologies  
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Alpha-Omega  
Power Technologies, LLC  
Albuquerque, NM 87113  
(505) 341-4828  
[www.alphaomegapt.com](http://www.alphaomegapt.com)



Alpha-Omega  
Power Technologies, LLC  
Albuquerque, NM 87199

## High Intensity Pulsed Solar Simulator

# HIGH INTENSITY PULSED SOLAR SIMULATOR GEN 1

## LIGHT CHARACTERISTICS

Pulse Shape	1 ms Pulse Width
Pulse Rate	6 Pulses per minute
Spectrum	AM1.5 spectrum*
* Measured over three bands with less than 1% variation over TOP and MIDDLE band The color temperature of this Xenon emission spectrum can be adjusted to achieve a spectrum suitable for terrestrial solar cell testing.	
Intensity	400 – 2400 Suns (1 Sun is 1000 W/m <sup>2</sup> )
Flash Intensity Repeatability	< 1.5%
Temporal Stability	5% over 0.5 ms data acquisition window
Spatial Flux Uniformity	+/- 1.5% over 2.5 cm X 2.5 cm square

## LOAD CHARACTERISTICS

Voltage	0 – 5V
Current	50 mA – 20 A over 4 ranges
Channels	3 Standard Channel Inputs 1 Solar Cell Test Channel Input STANDARD Up to 8 Test Channels OPTIONAL
Accuracy	14-bits Vertical Resolution +/- 0.3% or +/- 20mA or V Which Ever is Greater
Sampling Rate	2500 Pts/ms STANDARD 5000 Pts/ms OPTIONAL
Other	4 quadrant operation Sweep load from High Z to Low Z

## DATA ACQUISITION SYSTEM

The SSDAQ is a high speed data acquisition system for conducting solar cell characterizations with a pulsed solar cell simulator. The system works with Alpha-Omega's High Intensity Pulsed Solar Simulator.

Measurements	Voc, Isc, IV Curve, Intensity, and Temperature
Displayed Data	Above measurements plus: Jsc, Fill Factor, Efficiency, Intensity corrected data, pPower curve, Temperature corrected data, etc.
Data Logging	Data written to user defined location

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