High Power LED Wand — Models: HW626A Red, HW530A Green, HW470A Blue

10/01/13

Type		Light Emitting Device		
Application		Connects to Ultra Auxiliary connector through a cord Powered by the Ultra		
Configuration		Unbalanced, Floating		
Energy type		Model HW626A Red 626nm light Model HW530A Green 530 nm light Model HW470A Blue 470 nm light		
Frequency	Modes of Operation	Single or Mixed Frequencies with or without Variable Frequency Carrier Square Drive frequencies and Carrier		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 4,000,000 Hz Squarewave 1 to 100,000 Hz all other Waveforms		
	Resolution	1.00000 to 9.99999 Hz (0.00001 Hz) 10.0000 to 99.9999 Hz (0.0001 Hz) 100.000 to 999.999 Hz (0.001 Hz) 1,000.00 to 9,999.99 Hz (0.01 Hz) 10,000.0 to 99,999.9 Hz (0.1Hz) and 100,000 Hz		
	Maximum Simultaneous Frequencies	2 Individual 6 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Duty Cycle, Modulation & Gate	Modes of Operation	Variable Duty Cycle 1 to 100% Single or Multiple Frequencies Square or Linear Drive Frequencies		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 10,000 Hz		
	Resolution	1.0000 to 9.9999 Hz (0.0001 Hz) 10.000 to 99.999 Hz (0.001 Hz) 100.00 to 999.99 Hz (0.01 Hz) 1,000.0 to 9,999.9 Hz (0.1 Hz) and 10,000 Hz		
	Maximum Simultaneous Modulation Frequencies	1 Individual 2 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Intensity		1 to 100%		
Power Output		Model HW620A Red 255 Lumens Max. Model HW530A Green 435 Lumens Max. Model HW470A Blue 174 Lumens Max.		

Electrodes

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Type		Conduction Device		
Application		Up to 2 pairs plug directly into the Ultra Powered by the Ultra		
Configuration		Fully balanced differential, Floating		
Energy type		AC Audio and Radio Frequencies (AF & RF) Conduction		
Frequency	Modes of Operation	Single or Multiple Frequencies with or without Variable Frequency Carrier Square or Linear Drive Frequencies and Carrier		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 4,000,000 Hz Squarewave (Rise and Fall time < 150ns.) 1 to 100,000 Hz all other Waveforms (Sinewave Distortion < 0.1% THD)		
	Resolution	1.00000 to 9.99999 Hz (0.00001 Hz) 10.0000 to 99.9999 Hz (0.0001 Hz) 100.000 to 999.999 Hz (0.001 Hz) 1,000.00 to 9,999.99 Hz (0.01 Hz) 10,000.0 to 99,999.9 Hz (0.1Hz) and 100,000 Hz 100,000 to 4,000,000 Hz (100 Hz)		
	Maximum Simultaneous Frequencies	2 Individual 6 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Duty Cycle, Modulation & Gate	Modes of Operation	Variable Duty Cycle 1 to 100% Single or Multiple Frequencies Square or Linear Drive Frequencies		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 10,000 Hz		
	Resolution	1.0000 to 9.9999 Hz (0.0001 Hz) 10.000 to 99.999 Hz (0.001 Hz) 100.00 to 999.99 Hz (0.01 Hz) 1,000.0 to 9,999.9 Hz (0.1 Hz) and 10,000 Hz		
	Maximum Simultaneous Modulation Frequencies	1 Individual 2 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Intensity		1 to 100%		
Power Output		¾ Watt Max. (dependent upon program & load impedance) Voltage 30 Volts PP Squarewave, 35 Volts PP all other waveforms		