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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## LS-6

# 6-Watt Pulsed Xenon Light Source



*LS-6 Pulsed Xenon Light Source for UV/Vis/NIR Applications*

The LS-6 from Excelitas Technologies is a 6 Watt Pulsed Xenon Light Source which has been designed to combine state-of-the-art circuitry and components into a packaged light source which provides microsecond-duration pulses of broadband light with exceptional arc stability. The compact, integrated solution contains the flash lamp, trigger circuit, and power supply in an EMI-suppressant enclosure.

The LS-6 offers a wide range of flash energy levels and 6 watts average power in a compact, pre-aligned module. It utilizes Excelitas' high stability short arc Xenon flash lamps. Known for their stability and long life characteristics, these Xenon lamps generate light over a continuous spectrum from ultraviolet to infrared.

The LS-6 family of compact, Xenon light sources is the ideal choice for clinical diagnostic, invitro diagnostics, life sciences, drug discovery, proteomics, and analytical instrumentation applications.

### Features

- High radiant intensity
- Continuous spectrum UV-VIS-IR
- High Stability , <1% CV
- Long life: > 1.0 x 10<sup>9</sup> flashes
- 6 Watts maximum power
- Integrated package—flash lamp, trigger circuit and power supply, all in a compact, EMI suppressant enclosure
- Flexible mounting
- CE marked and RoHS compliant

### Applications

- Absorption analysis
- Immunoassay modules
- Fluorimetry
- Spectroradiometry
- Liquid and gas chromatography
- Colorimetry
- UV/VIS/NIR applications

# LS-6

## 6-Watt Pulsed Xenon Light Source

### LS-6

Electrical Input Specifications	
Parameter	Specification
Voltage	11-28 VDC
DC Current	1 Amp avg.
Inrush Current	4 Amps peak
Trigger	+5V, 20-50mA peak input, 10-100µs pulse width, leading edge trigger. Optically isolated internal series resistor = 150Ω.
$V_{ref}$ ( $V_0/V_{ref} = 127$ )	3.15 – 4.73VDC
Internal/External Intensity Adjust	Switch Selectable
Input Connector	9-PIN D-Sub

Electrical Output	
Parameter	Specification
Voltage	400-600 ± 2% VDC adjustable
Power (Joules/sec)	6 watts max (power = joules x flash rate)
Standard Discharge Capacitor	0.047, 0.10, 0.22, 0.27 µF
Flash Rate (Hz)	$F_{max} = 6/E$ , where $E=1/2CV^2$

Light Output	
Parameter	Specification
Spectral Range	120-2000+ nm
Stability <sup>1</sup>	<1% CV
Lifetime	>1x10 <sup>9</sup> Flashes

<sup>1</sup> CV or Coefficient of variation is defined as:  $CV\% = (\text{Standard Deviation of 20 Flashes}) / (\text{Mean of 20 Flashes})$ . Operating conditions: 0.22 µF discharge capacitor. 600 VDC discharge voltage. 10 Hz flash rate

Environmental	
Parameter	Specification
Operating Temperature	32 to 104°F (0 to 40°C)
Storage Temperature	-40 to 194°F (-40 to 90°C)
Humidity	95% RH, non-condensing
Safety Compliance	CE Marked

Operating Conditions					
Part Number	Main Discharge Capacitor (µF)	Main Discharge Voltage (V)	Max. Average Input Energy per Flash (mJ)	Max. Repetition Rate (Hz)	Max. Average Power (W)
LS-6ABC-1E	0.047	400	3.8	1579	6
		500	5.9	1016	6
		600	8.5	705	6
LS-6ABC-2E	0.10	400	8	750	6
		500	12.5	480	6
		600	18	333	6
LS-6ABC-3E	0.22	400	17.6	341	6
		500	27.5	218	6
		600	39.6	151	6
LS-6ABC-4E	0.27	400	21.6	278	6
		500	33.7	178	6
		600	48.6	123	6



# LS-6

## 6-Watt Pulsed Xenon Light Source

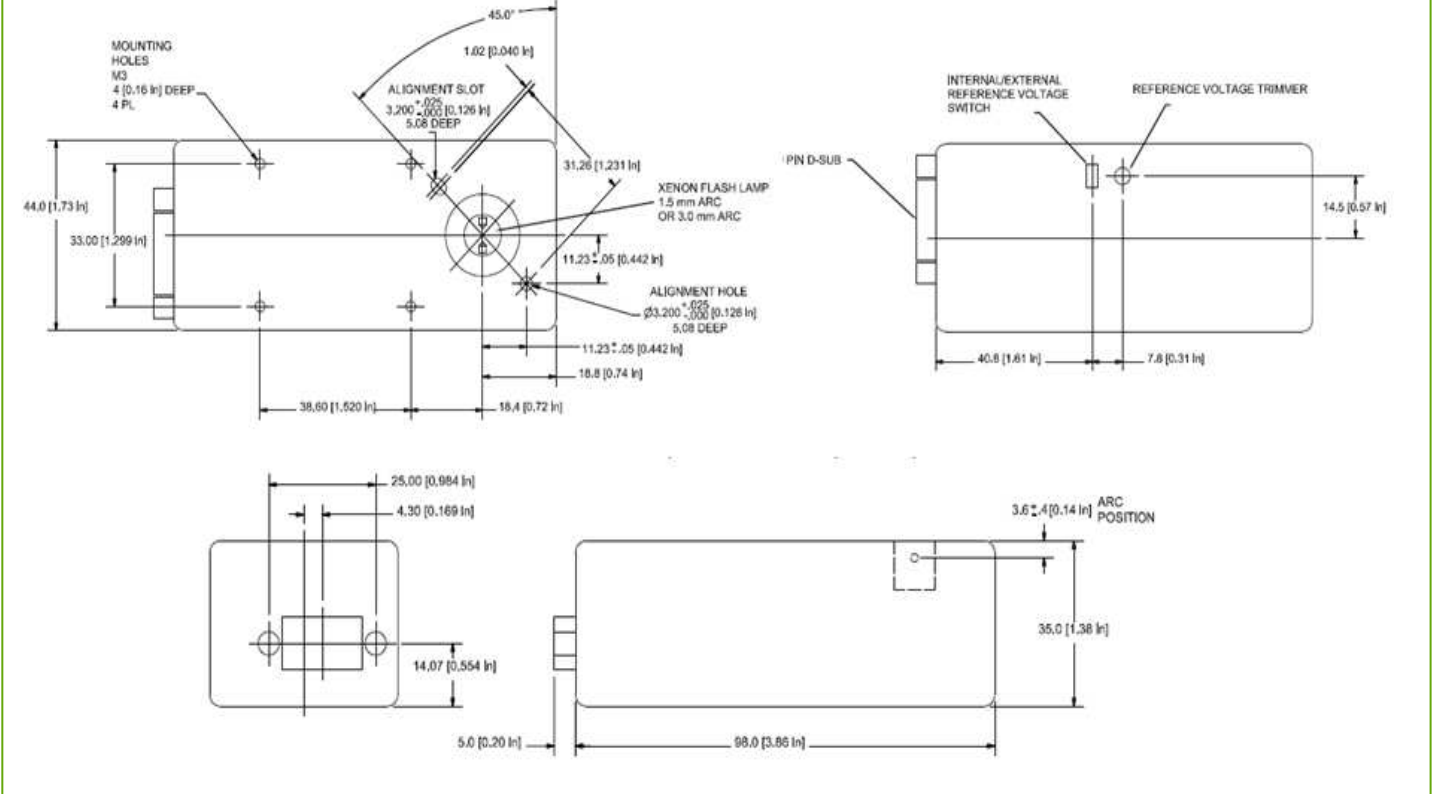
Part Number Configuration: LS-6 <del>ABC</del> - <del>DE</del>	
<b>Where:</b>	
<b>A = Audible Noise</b>	<b>5 - Standard</b>
	<b>8 - Low Audible Noise</b>
<b>B = Arc Orientation</b>	<b>0 - Standard (Vertical)</b>
	<b>1 - 90° Rotated from standard (Horizontal)</b>
<b>C = Lamp Type</b>	<b>1 - 1.5 mm arc length, 225-2000+ nm</b>
	<b>2 - 1.5 mm arc length, 190-2000+ nm</b>
	<b>3 - 1.5 mm arc length, 120-2000+ nm</b>
	<b>7 - 1.5 mm arc length, 160-2000+ nm</b>
	<b>4* - 3.0 mm arc length, 225-2000+ nm</b>
	<b>5* - 3.0 mm arc length, 190-2000+ nm</b>
	<b>6* - 3.0 mm arc length, 120-2000+ nm</b>
	<b>8* - 3.0 mm arc length, 160-2000+ nm</b>
<b>D = Discharge Capacitor</b>	<b>1 - 0.047 µF</b>
	<b>2 - 0.10 µF</b>
	<b>3 - 0.22 µF</b>
	<b>4 - 0.27 µF</b>
<b>E = SMA Fiber Adapter</b>	<b>0 - No Adapter</b>
	<b>1 - SMA Fiber Adapter</b>

\* 3.0 mm arc lamps not available in Low Audible Noise.

Example: **LS-6502-41** Standard lamp, standard (vertical) arc orientation, 1.5 mm arc, UV glass window, 0.27 uF capacitor, and SMA Fiber Adapter.

### Mechanical Dimensions

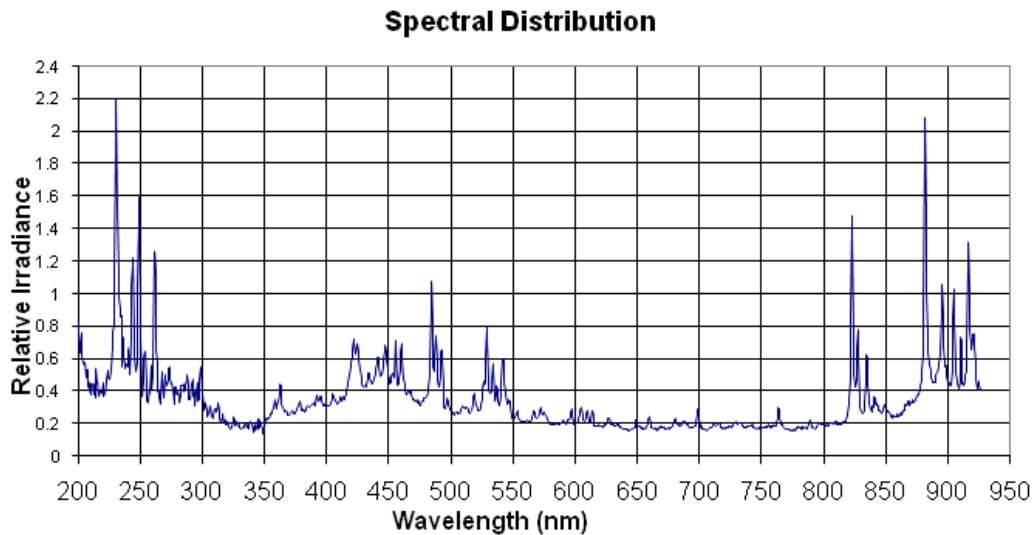
#### LS-6 Outline (Reference dimensions)



## LS-6

# 6-Watt Pulsed Xenon Light Source

### Spectral Output (Reference)



**NOTE:** All values are nominal; specifications subject to change without notice.

### About Excelitas Technologies

Excelitas Technologies is a global technology leader focused on delivering innovative, customized solutions to meet the lighting, detection and other high-performance technology needs of OEM customers.

From analytical instrumentation to medical lighting clinical diagnostics, industrial, safety and security, and aerospace and defense applications, Excelitas Technologies is committed to enabling our customers' success in their specialty end-markets. Excelitas Technologies has approximately 5,000 employees in North America, Europe and Asia, serving customers across the world.

**Excelitas Technologies**  
Frequency Standards &  
Switching  
High Voltage Power Supplies  
35 Congress Street  
Salem, MA 01970 USA  
Tel: (+1) 978.224-4100  
Toll free: (+1) 800.950.3441  
Fax: (+1) 978.745.0894

**Excelitas Technologies**  
LED Solutions, Inc.  
160 E. Marquardt Drive  
Wheeling, IL 60090 USA  
Telephone: (+1) 847.537.4277  
Fax: (+1) 847.537.4785  
[ledsolutions.na@excelitas.com](mailto:ledsolutions.na@excelitas.com)

**Excelitas Technologies**  
Illumination, Inc.  
44370 Christy Street  
Fremont, CA 94538-3180 USA  
Telephone: (+1) 510.979.6500  
Toll-free: (+1) 800.775.6786  
Fax: (+1) 510.687.1140

**Excelitas Technologies**  
Elcos GmbH  
Luitpoldstrasse 6  
Pfaffenhofen, 85276  
Germany  
Telephone: (+49) 8441.8917.0  
Fax: (+49) 8441.7191.0  
[ledsolutions.europe@excelitas.com](mailto:ledsolutions.europe@excelitas.com)

**Excelitas Technologies Shenzhen Co., Ltd.**  
Wearnes Technology Center  
No.10 Kefa Road, Science & Industry Park,  
Nanshan District, Shenzhen, Guangdong  
China 518057  
Telephone: (+86) 2655 3861  
Fax: (+86) 755 2661 7311  
[ledsolutions.asia@excelitas.com](mailto:ledsolutions.asia@excelitas.com)

For a complete listing of our global offices, visit <http://www.excelitas.com/locations>

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