## **OTFI-0250**

# **XLM LED Fiber Optic Light Module**



OTFI-0250

### Overview

Excelitas' XLM LED Fiber Optic Illuminator series combines the latest technology in solid state lighting with precision optics and advanced thermal management to deliver a revolution in high-brightness fiber optic illumination. The XLM LED Light Module is designed for integration into endoscope light sources, surgical microscopes, headlights and other applications that require bright, uniform illumination.

The high-performance LED Fiber Optic Light Module provides many advantages for the medical environment such as remarkable uniformity, virtually no ultraviolet or infrared emissions, maintenance-free, long-life operation, and a variable speed fan. Users of xenon, metal-halide and halogen lamps now have an alternative light source with all of these features.

In order to minimize an OEM's design time and reduce time-to-market, the fiber optic module includes both metric and imperial mechanical mounting fasteners. A flangemount shaft with pilot holes located on a 27 mm diameter circle enables device manufacturers to integrate their own fiber coupling.

The XLM LED Fiber Optic Illuminator Series incorporates patent-pending LED technology, precision optics, an integrated state-of-the art thermal management system, electromagnetic interference shielding, and easy access screw terminals for electrical connections.

Excelitas offers OEMs a variety of component-level light modules to choose from and has a fiber optic illumination solution to meet every need.

### **Key Features**

- Bright light intensity comparable to Xenon
- Safe emits virtually no ultraviolet or infrared radiation
- Easy coupling flange-mounted optical alignment features for fiber input port
- Low electrical noise EMI-shielded
- Energy-efficient consumes less energy than Xenon
- On board temperature sensor for thermal monitoring
- Variable speed fan
- Compatible with 1 mm 6 mm diameter fibers
- RoHS-compliant

### **Applications**

- Endoscopy Light Sources
- Surgical Microscopy
- Medical Headlights

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# **Product Specifications**

Parameter	Symbol	Min.	Тур.	Max	Unit	Remarks / Conditions
Optical Characteristics						
Luminous Flux		1600	2000		Lumens	
Color Temperature	ССТ	5500	6300	7500	°Kelvin	
Spectral output	λ	400		700	nm	
Angle of light exit	FWHM		76		degrees	At 50% intensity points
Fiber Compatibility	Ф	1	5	6	mm	
Electrical Characteristics						
Input Voltage	VDC			5.4	Volts	Voltage for reference
Input Current	Α			18		
Environmental Characteristics						
Cooling method	DC fan	7		12	Volts	Fan is rated for 70K hours
Operating Temperature	T <sub>o</sub>	0° +40° Humidity: 85% or less			°C	
Storage Temperature	Ts	-20° +65° Humidity: 85% or less			°C	
Dimensions						
Physical dimensions	99 mm x 110 mm x 177 mm (H x W x D) 3.9" x 4.3" x 6.9" (H x W x D)					
Weight	916 grams; 32 ounces					
Safety						
Safety standards	Compliant with IEC/EN 60601-1; CE Mark					

Excelitas' XLM Fiber Optic Light Module, OTFI-0250, is a component-level module supplied to OEM medical device manufacturers for integration into the device manufacturer's endoscope, surgical microscope or medical headlight system. The XLM includes: LEDs, optics, heat sink with fan, temperature sensor, and electrical terminal block. It is enclosed in a sheet metal enclosure with fan guards.

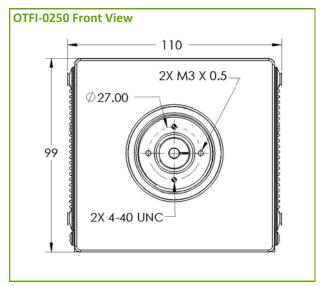
The user shall provide the driver control electronics, power supply, system enclosure, switches and mechanical interface for the fiber light guide.

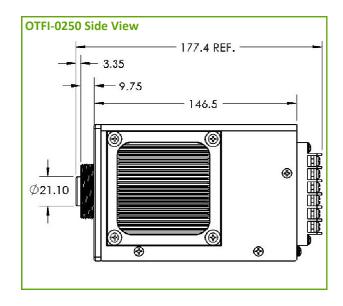
Custom solutions are available. Please inquire with Excelitas Technologies LED Solutions.

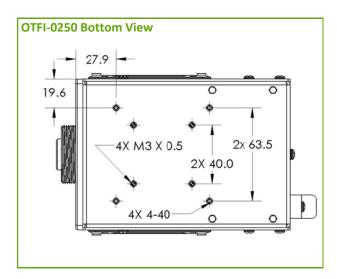
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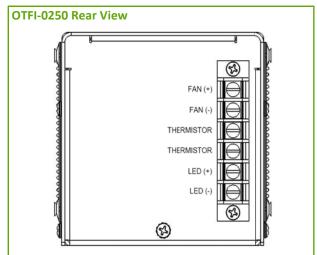
# XLM LED Fiber Optic Light Module

# **Physical Configuration**





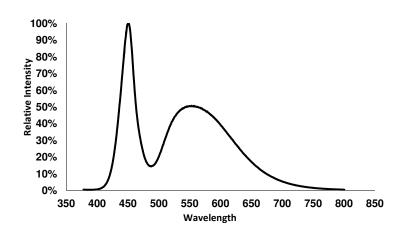


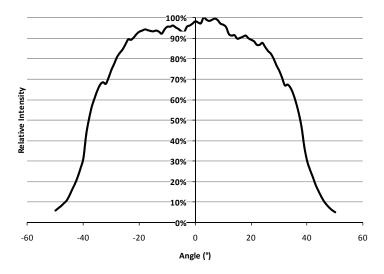


\* All dimensions shown in mm

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# XLM LED Fiber Optic Light Module





Limited warranty for 24 months from date of purchase.
US and International patents pending.

Product improvements may result in specification or feature changes without notice.

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**About Excelitas Technologies** 

across the world.

Excelitas Technologies is a global technology leader

performance technology needs of OEM customers.

From medical lighting to analytical instrumentation,

clinical diagnostics, industrial, safety and security,

and aerospace and defense applications, Excelitas

success in their specialty end-markets. Excelitas

Technologies is committed to enabling our customers'

Technologies has approximately 3,000 employees in

North America, Europe and Asia, serving customers

to meet the lighting, detection and other high-

focused on delivering innovative, customized solutions

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