

lightLume™ -M

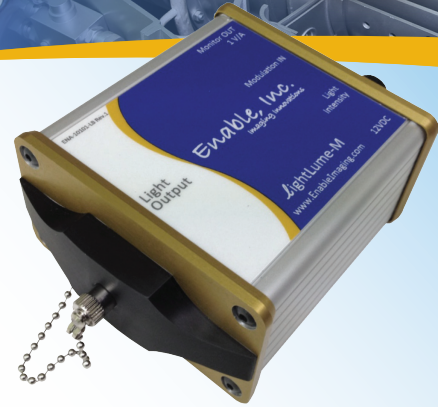
ENA-10101-AS

LED-based light source. Compatible with all minnieCam™ and minnieScope™ products

Enable, Inc.
Imaging Innovations

PRODUCT BRIEF

lightLume™ -M; LED-based, fiber-coupled light source.



introduction:

The lightLume™ series of fiber coupled LED light sources employ the latest high-power LED technologies to achieve maximum optical output power.

Optical output is coupled into a fiber or a bundle of fibers through a standard SMA fiber adaptor port (SMA fiber patch cords are sold separately). This port is compatible with all minnieCam™ and minnieScope™ products.

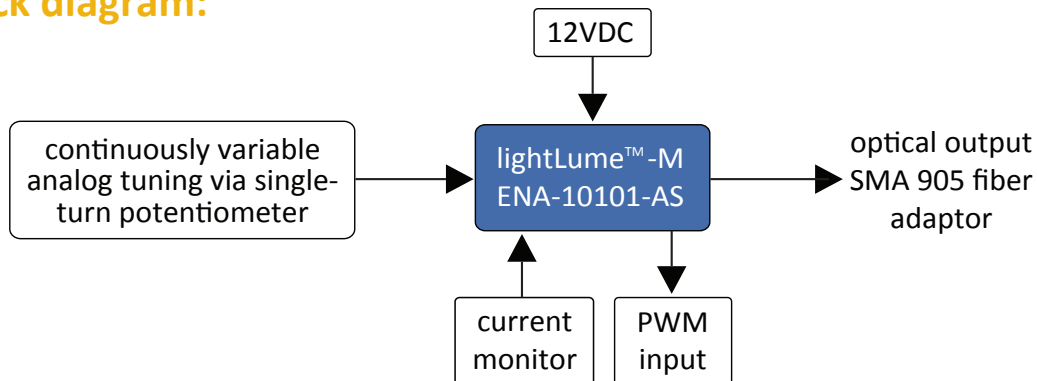
The LED driver is incorporated in the housing and offers a PWM modulation input, current monitoring port, as well as means of varying the output power (analog modulation) continuously from 0% to 100% manually with the top slider.

The one-piece machined housing features multiple mounting holes. A mounting plate for convenient mounting onto optical tables is also available (sold separately).

product features:

- high output power. Up to a maximum of 15 lumens through the minnieScope™ -L.
- broad wavelength selection.
- SMA port for up to 2.5mm OD multimode fiber.
- PWM modulation input.
- current monitor output.
- interchangeable fiber patch cords.
- compact metal housing with integrated heatsink.

block diagram:





product specifications: ENA-10101-AS

electrical/optical characteristics:

recommended input voltage ¹ (2.1mm x 5.5mm receptacle): male center positive	DC 12V typ. 6V min / 12V typ. / 36V max absolute maximum: 12VDC
power current consumption	400mA max at 12V
output optical port ²	SMA 905 ³
LED current monitor	SMA: "MON. out" 1.000 V = 1000 mA
LED current drive	0A to 1.2 A max ⁴

modulation:

analogue modulation (0% -100% continuous manual)	⁵ through single turn potentiometer
PWM modulation	SMA: "PWM in" 15V max

PWM dimming and ON/OFF control:

ON/OFF threshold values	
ON	0V < V < 0.8V
OFF	2.2V < V < 15V
PWM drive current	@ V = 5V, 1mA max
maximum PWM frequency (measured 10%-90% dimming)	linear operation 20 - 250Hz maximum Frequency 2,000Hz

- ¹ A 12VDC wall-plug transformer with NEMA 1-15P input connector is also shipped with this module.
- ² Up to 15 lumens through Enable's minnieScope-L constructs can be achieved. Different LED choices and fiber patch cords will produce different results. Contact us to discuss your illumination needs directly.
- ³ Compatible with the optical connector of any minnieCam™ or minnieScope™ products. Either from the (-XS) or (-L) family of sensors.
- ⁴ Factory limits are set for different types of LEDs. The standard product uses LEDs with 1.0A max current. The driver can drive up to 1.2A max.
- ⁵ Potentiometer will also set the maximum output of PWM.

part number and configuration ordering information:

lightLume-L ordering Part Number: ENA-10101-AS

configuration: WV - □□□ /
wavelength code

For example you need to order ENA-10025-AS with configuration WV-057: lightLume-L 5,700K chromaticity white LED.

wavelength code	peak wavelength (nm)
057	5700 K
050	5000 K
040	4000 K
035	3500 K
030	3000 K

➔ Indicates the standard product configuration.

¹ Single color LEDs can be made available upon request.

Please contact us for all your imaging needs and more detailed data sheets.