

PowerLED – modules for 3mm polymer optical fibers

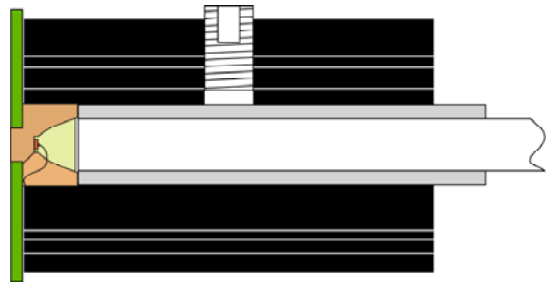
Description:

A power LED operating at 350mA current couples the light via a micro reflector to the 3mm diameter polymer optical fiber. A tube with 5mm outside diameter adapts the 3mm fiber to the modules 5mm diameter opening.

The illuminated waveguide may be a polymer fiber for side light coupling (see photo on the right), a standard 3mm diameter POF for fiber illumination via the endface or a glass fiber bundle with suitable diameter. A headless screw in the housing allows the waveguide fixture.

The module's aluminium housing serves as heat sink and makes the use of metal core PCB redundant. A low cost, standard SFP edge card connector realizes the connection to the LED driving electronics. As there is no need for heat dissipation functionality the connector has to transfer electrical energy only, and no thermal energy! (For details please see DieMount data sheet "SFP LED connection".) Each module comes with a SFP connector.

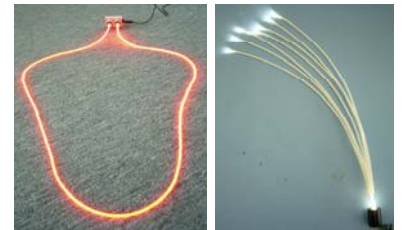
Typical applications are all kinds of illumination units that use optical fiber, side light or endface coupled.



3mm fiber powerLED - module design



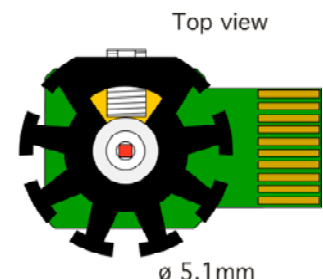
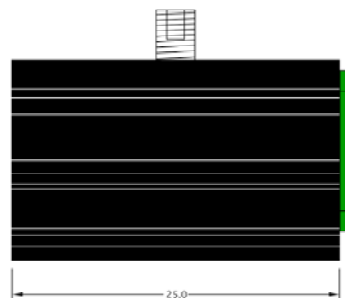
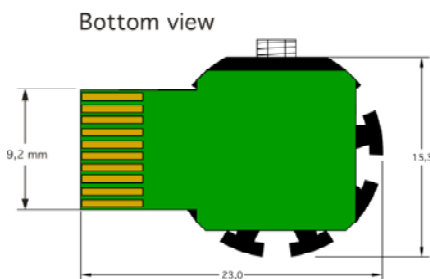
fiber coupling with 3mm fiber powerLED module



side light fiber system and 7 fold fiber bundle unit in operation

Mechanical dimension:

M3 headless screw for fiber fixture



Applications:

- side light fiber illumination,
- fiber endface illumination,
- fiber bundle illumination.

Technical specifications for 3mm fiber powerLED modules:

	blue	green	red	white
wavelength [nm]	460	520	633	–
Typ. optical output power @ 350 mA [mW]	105	32	65	–

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