

PowerLED connection via SFP edge card connectors

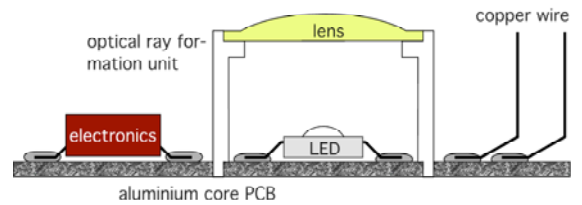
Background:

DieMount introduces a novel, completely electrical connector for powerLED modules. The reasons are:

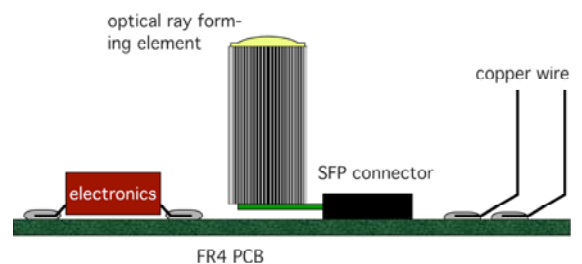
- Electrical connector technology is well established, easy of handling and low cost.
- Thermal connection of the LED module is not necessary, because DieMount powerLED modules comprise an own heat dissipation system.
- Multipin electrical connectors allow to contact several electrical circuits of an e.g. RGB module by a single connector.
- A connector system with a sufficient number of electrical pins offers the option to use optical monitor diodes or thermal sensors integrated in the LED module.
- As optical ray formation is integrated in the LED module, the module requires no mechanical precision to the ray formation unit. Electrical connection becomes feasible.
- LED modules can be replaced easily.

Description:

The LED module is connected via the in telecom industry well established, low cost edge card connector system SFP. A SFP connector comprises 20 pins. The pins are connected as shown in the figure below.



Traditional powerLED module interface



New DieMount powerLED module interface

Pin connection:



Pins 1,2	green LED cathode
Pins 3,4	red LED
Pins 5,6	temperature sensor
Pins 7,8	white LED cathode or monitor diode
Pins 9,10	blue LED cathode

Pins 11,12	anode all LED and diodes
Pins 13,14	anode all LED and diodes
Pins 15,16	not connected
Pins 17,18	anode all LED and diodes
Pins 19,20	anode all LED and diodes

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