

ACS

ACTIVE COOLING SYSTEM Innovative LED Thermal Management

Active Cooling System is composed of:

- Thermal Collar
- Alarm LED Indicator
- Thermal Control Circuitry (TCC)/Fan Driver
- Fan
- Heat Sink



#8070324
#8898212
#8994273

INCREASING OF COOLING CAPABILITY

Increasing of cooling capability to compare with passive cooling at the same conditions and configuration of cooler. Comparable testing showed *up to 4-6 times or more the cooling efficiency* in terms of thermal resistance, coefficient of convective heat transfer, thermal efficiency of heat sink.

COMPACT AND LIGHT WEIGHT

Unique compact and light weight of cooling system for LED fixtures. It allows to decrease the size of heat sink and to *spend of aluminum in 2-3 times less* in compare to passive cooler.

LOWER POWER CONSUMPTION & LOW COST OF TCC/FAN DRIVER

The cooling by ACS consumes only 1.5-2.5% of total powering of LED fixtures. Uprecedented low cost price of TCC/Fan Driver, *BOM consist of only 5 passive electronic component*.

ONE DRIVER REQUIRED

ACS may be powered from the same driver of LED fixture.

VERSATILE INTEGRATION INTO CONSTRUCTION

Various performance of TCC provides *unprecedented versatility and flexibility for integration of ACS into construction* of LED fixture.

EASY DEVELOPMENT & MANUFACTURING

Allows easy development and manufacturing of *universal Active Cooling Module (ACM)* compatible with COBs and LED arrays of major manufacturers.

HIGH RELIABILITY

High reliability and efficiency of cooling solution by *thermal integration of the elements of ACS with construction* (housing particularly) of LED fixtures.

CREATES THE CONDITIONS FOR PERFORMANCE OF TCC/FAN DRIVER

Create conditions for performance of TCC/Fan Driver on the base of semiconductor technology (as IC or micro module).

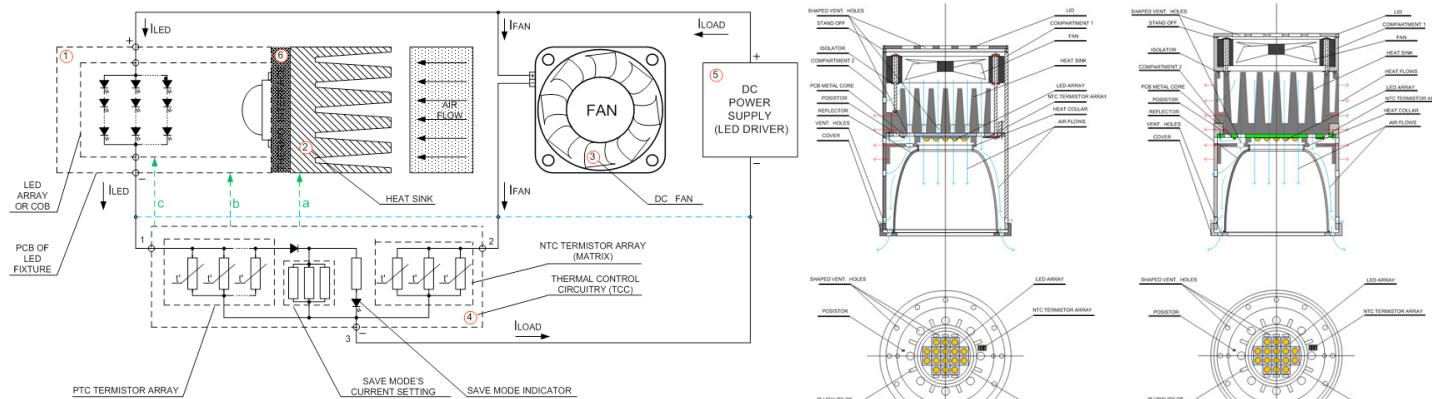


Fig. 5
Thermal integration of heat sink with inner surface of housing of LED fixture.

Fig. 6
Exposing of outer surface of heat sink integrated in housing for improving of convection.