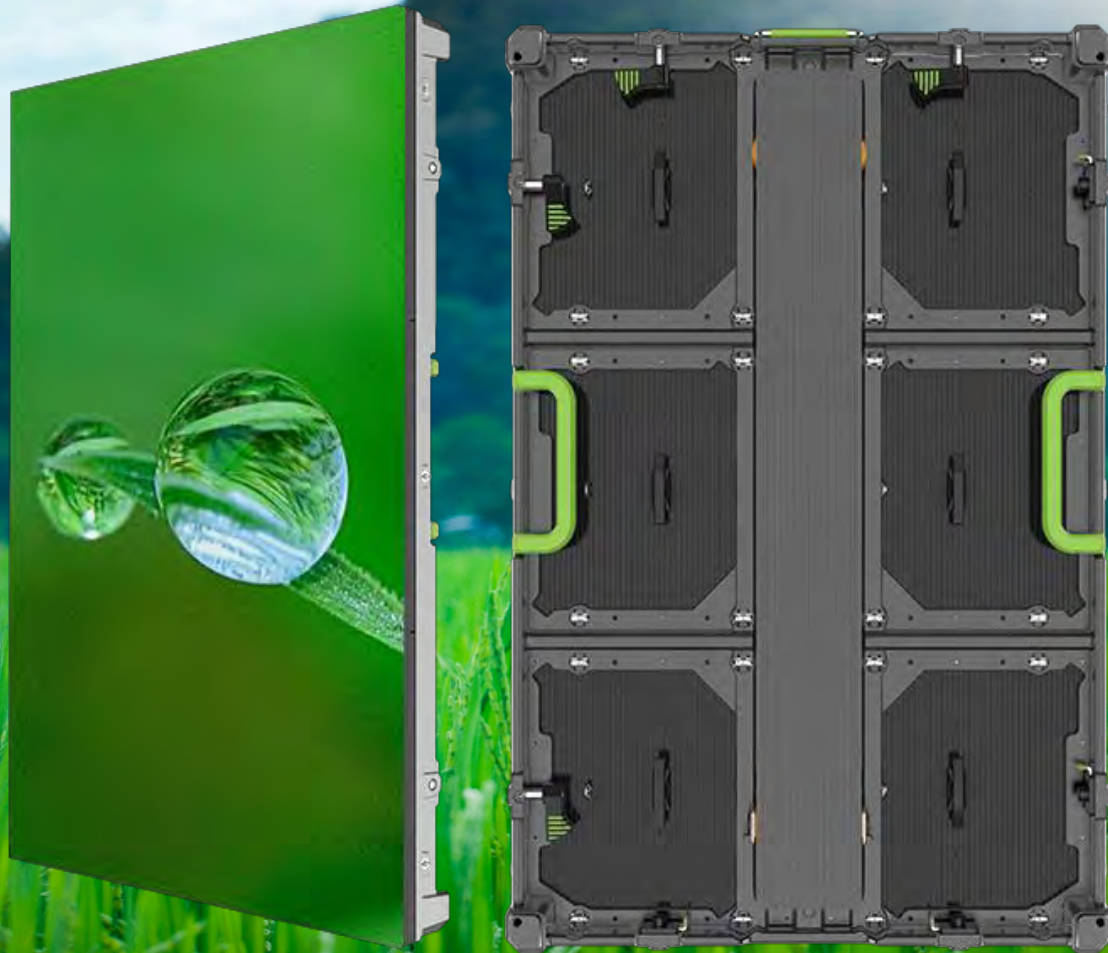


MDSdisplays.com



Contact: sales@nagasoftsales.com

Sales Offices in Europe, North America & Latin America.

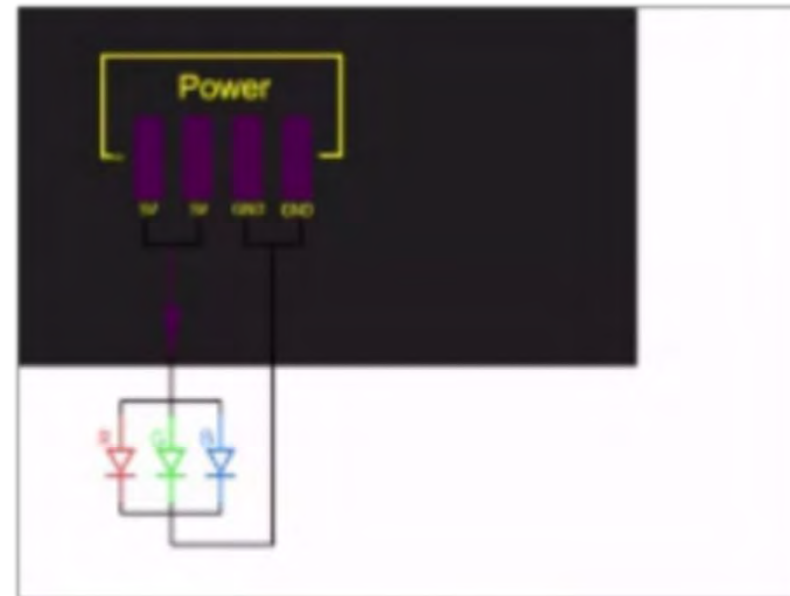
Peter Hossfeld (peter.hossfeld@nagasoftsales.com)
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Why is the Common Cathode LED Display a cost saver?

- ✓ 1). Energy saving, saves on energy consumption- and operational cost.
- ✓ 2). Reduced cost of relative equipment. Low heat generation and fast dissipation can save on air conditioner installation or dissipation equipment cost.
- ✓ 3). Reduced labor and maintenance cost. Save on labor in high cost labor locations
- ✓ 4). MDS common cathode technology led display, addresses and solves the high display temperature and power consumption, which is the key factor to extend the lifespan and usage of the display.

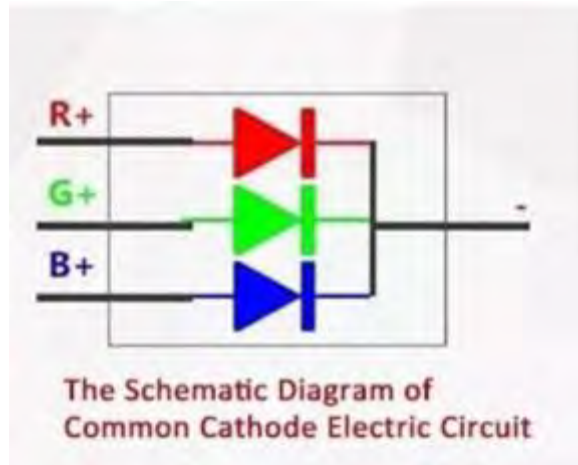
What is common cathode?

- Common cathode is a new technology to save energy for LED Displays, it divides the R, G, B and provides power to them separately. Accurately distributes the voltage and current to Red, Green and Blue LED chips, to keep them working in an optimal state. The current is flowing from the LED chips to the negative pole of the driving IC, so it is named as "common cathode". LED Display screens which utilize the common cathode technology, can **save up to 75% at the most**, which would have a very positive impact on the annual electric costs and contributes to the global environment.



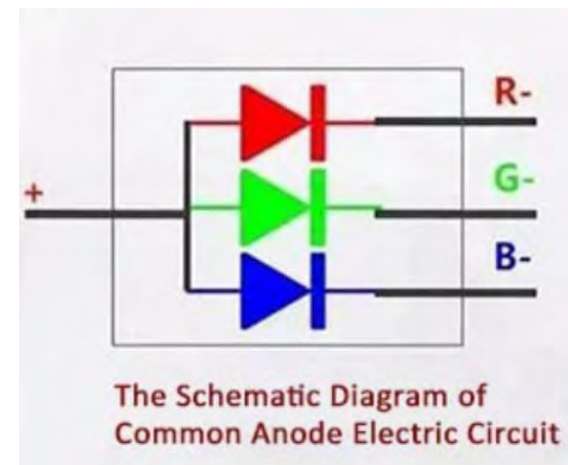
The Difference between Common Cathode & Common Anode LED Display

- The direction of supplying the power is different. The current common anode LED display is from the PCB board to LED, RGB LED gets an unified power supply, which increases the positive voltage of the electric circuit.
- While the current of the common cathode LED display, is through the LED negative pole of the IC, the positive voltage has decreased, conductive resistance becomes a lot less.



Common Cathode Principle

VS

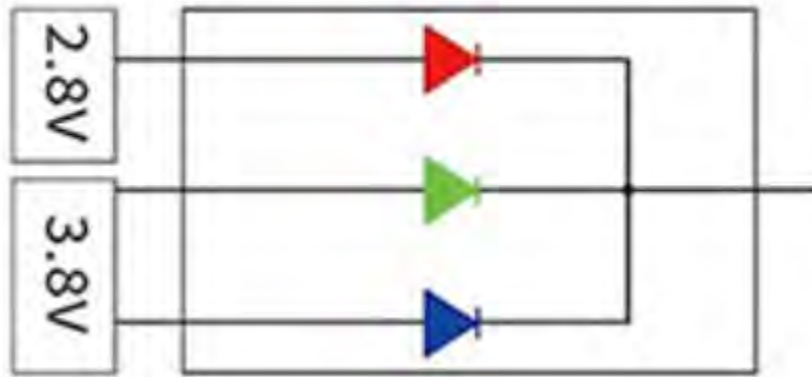


Common Anode Principle



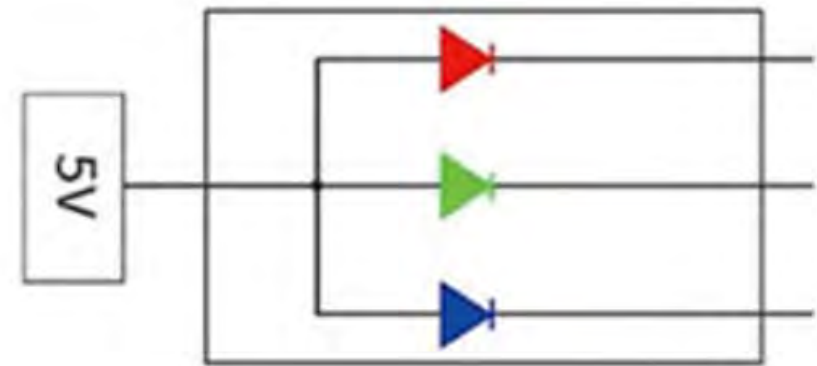
The Difference between Common Cathode & Common Anode LED Display

- The supplied voltage is different. Usually, the LED of the common anode LED display, requires **5V** to supply unified power: The power consumption is high.
- While common cathode, supplies precise power separately to Red, Green, Blue according to their different voltage request (the voltage request of Red is **2.8V**, the voltage request of Green and Blue is about **3.8V**). As a result, **the power consumption is lower** and the **heat generation is much lower** during of LED display operation.



Common Cathode

VS



Common Anode

Die-casting Aluminum Cabinet Features



- The product weight has been reduced without decreasing any product stiffness or robustness.
- Aluminum is the perfect performer for anti-oxidation and strong adaptability to environment.
- Complete sealed die-casting aluminum cabinet, which protects all components. Which increases the display lifespan by 2-5 times compared to ordinary displays.
- Ultra-strong waterproof and dust-proof, anti-corrosion, ultraviolet resistance.
- Front service design, easy to install. Saving your installation time and labor cost/time.

Operating Temperature Testing

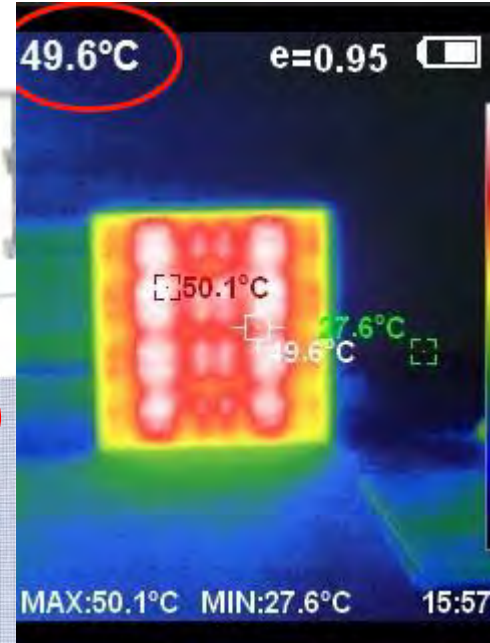


Common Anode
operating Temperature
is 68.4°C.



Common Anode

vs

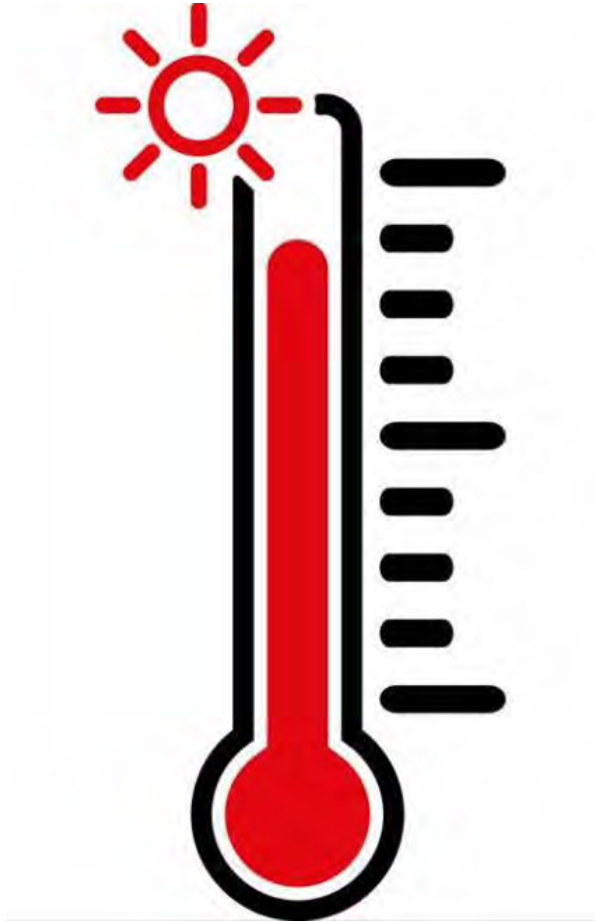


Common Cathode



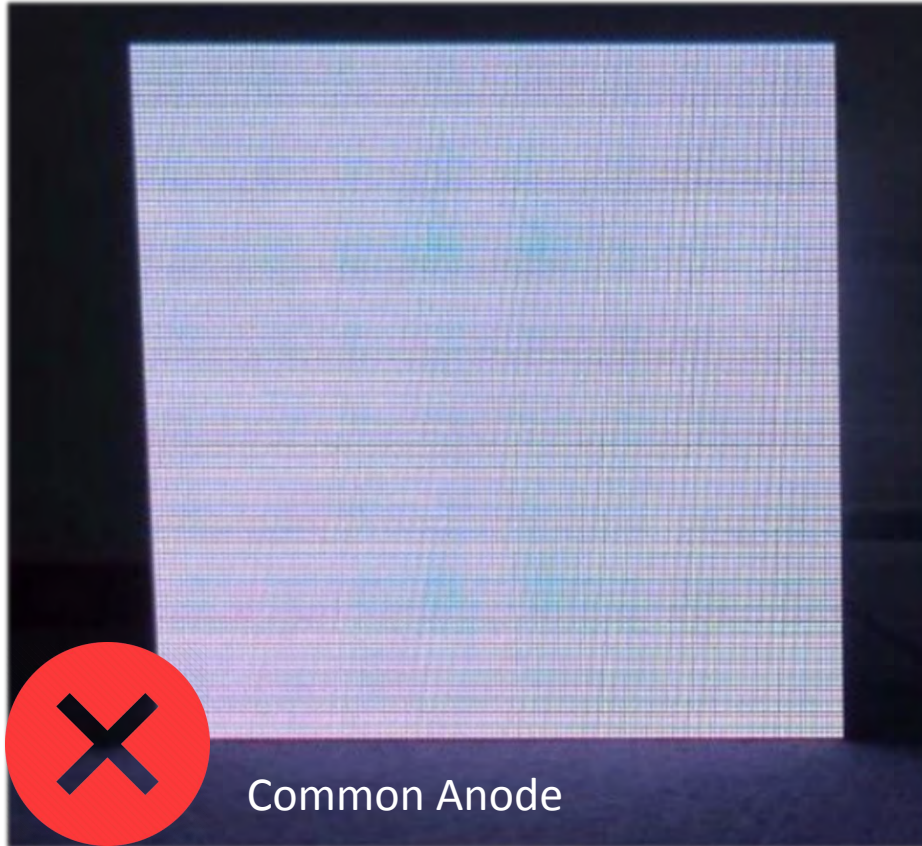
Common Cathode
Operating Temperature
is 49.6°C.

High Operating Temperature Will Cause The Following:



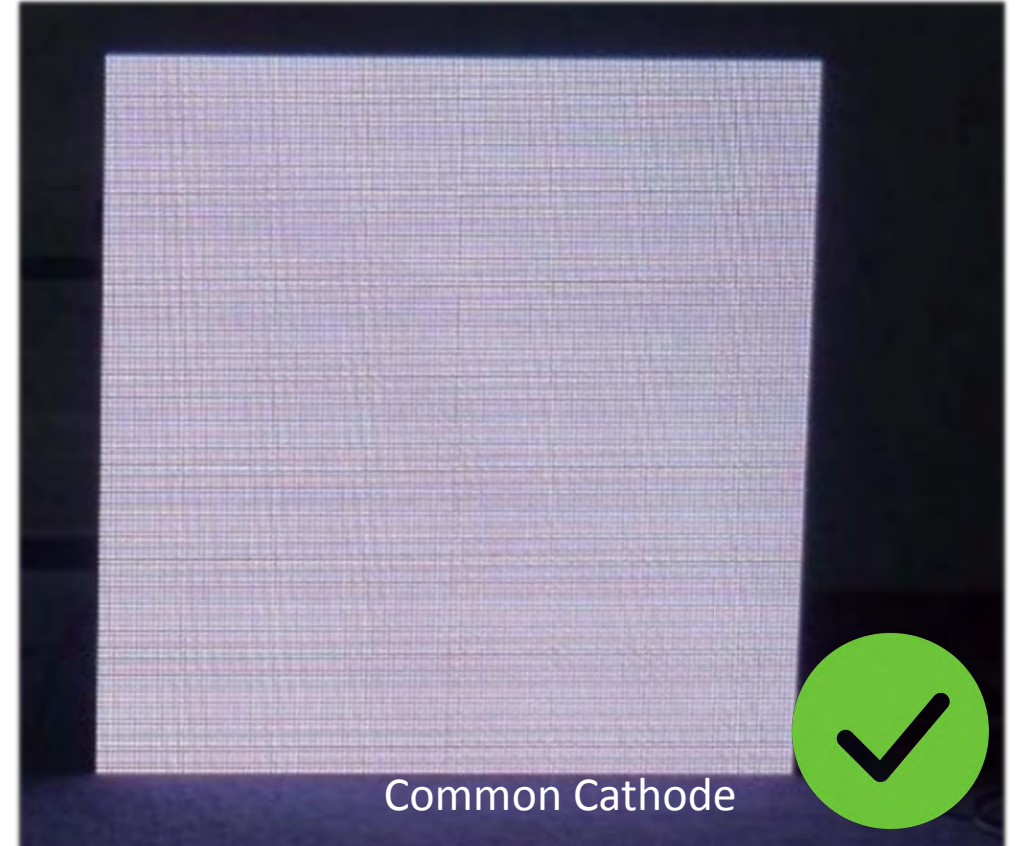
- It Will affect the working efficiency of the chip and causes chip damage.
- It Will cause pixel failure.
- It Will affect the light attenuation of the display, the brightness will become lower and lower.
- It Will affect the color consistency of the display.
- It will shorten the LED displays lifespan.

Color Temperature Testing



The color temperature is not constant. You will see green color on the LED display.

VS



The **color temperature is constant**. You see only white color, no other colors.

Color comparison



Common Cathode



Turly & Perfectly Display



Common Anode



Color distortion
Brightness reduction
High Power consumption