

LITESTAR Energy Saving OFE PRO New Generation LED display





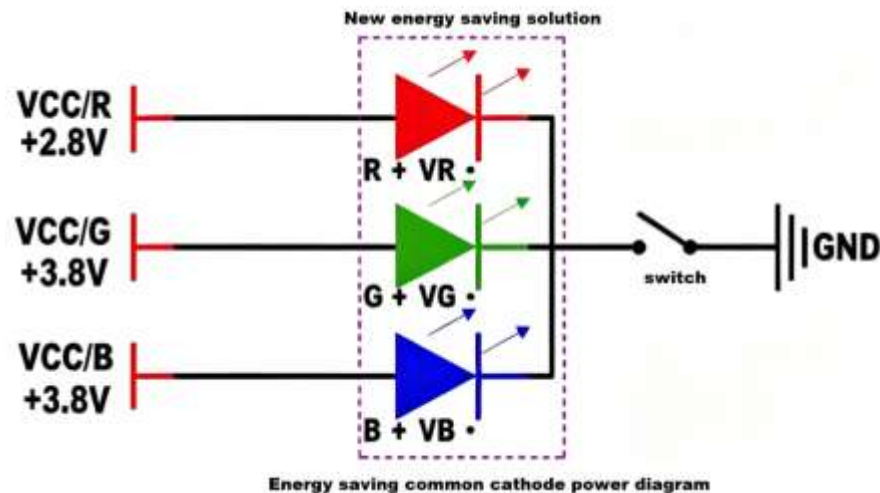
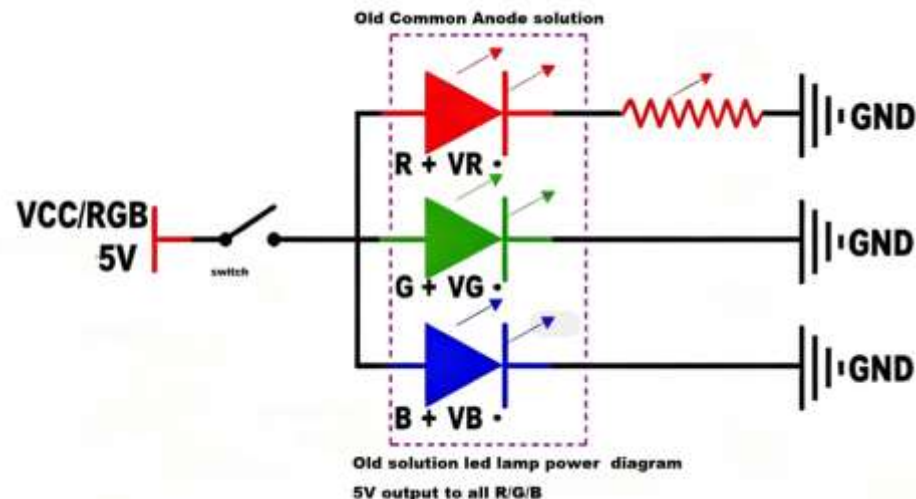
Old display power supply is 5V output

1. Traditional led display use 5V output power supply. It is 5V for led lamps all R/G/B colors. Our new energy saving solution use common cathode led lamp. The energy saving power provide 3.8V to red color while provide 3.8V to green and blue color to save the power. The lower voltage can save 30-40% compared to traditional common anode solution

2. The common cathode energy saving led display produce less heating and can prolong the lifespan of the led display.



Energy saving display power supply is 3.8v and 2.8v out



We can use 10,000nits brightness big chip led lamp for our led display. If based on the same current. The normal brightness led lamp can only reach 6000nits while the high brightness led lamp can reach 10,000nits. Then we can reduce 30-40% brightness of the high brightness led lamp to have the led display show enough brightness of 6000-7000nits for our application but can save 30-40% power after we reduced brightness. The high brightness led lamp has following advantages.

1. It can save 30-40% energy when we reduce the brightness for normal application
2. The reduced brightness display will produce less heating which can be for longer life span.
3. After 3-5 years using, the led display will have unavoidable brightness reduction, then we can resume the brightness to be 100%. So the display can still have good brightness for longer time than normal brightness display.



Normal 6000nits led lamp
with small size chip



High brightness 10,000nits
led lamp with big size chip

So if used high brightness led lamp combined with our new common cathode energy saving solution, It will save much more energy than traditional SMD solution and the life span of the energy saving display will be also longer.

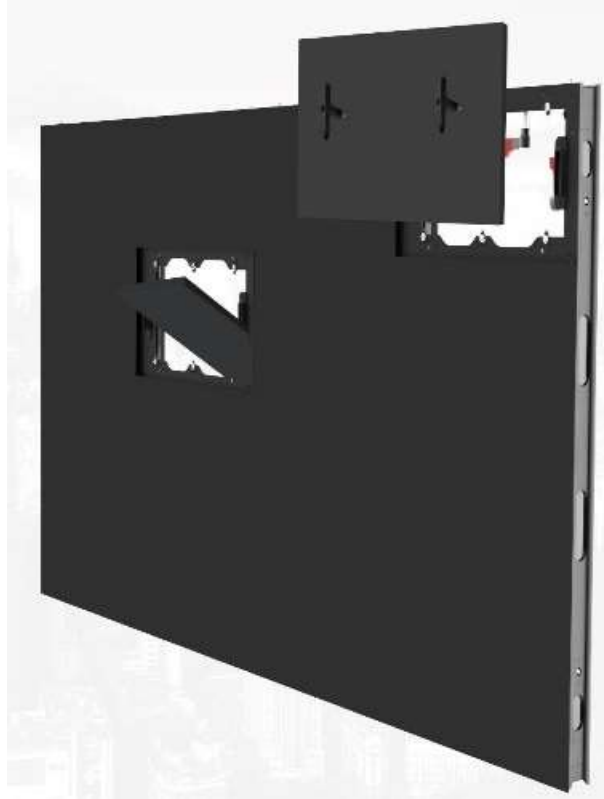
Like traditioanl SMD display maximum power is around 700w/M2(average is around 280w/m2), our energysing saving solution led display will only consumes about 350W/M2 in maximum(average is around 140w/m2

The energy saving solution can save a lot of power cost each year.

Following saved power cost for your references (assuming 1 kiowatt price is \$0.16 in your country)

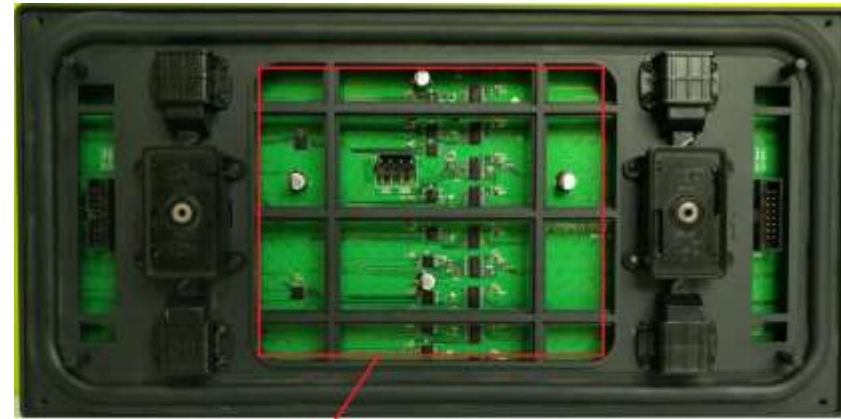
LED display type	Size(m2)	kilowatt/hour	kilowatt/day (12 hours)	Kilowatt/year	1 Kilowatt price	Kilowatt cost/year
Normal SMD display 700w/m2 maximum 280w/m2 average	100	28.00	336	122,640	\$0.16	\$19,622.40
Litestar Energy Saving display 350w/m2 maximum 140w/m2 average	100	14.00	168	61,320	\$0.16	\$9,811.20
Energy saving solution saved power cost each year:						\$9,811.20
Energy saving solution saved power cost for 5 years						\$49,056.00

Our OFE Pro LED modules supports both front and rear services. It is more convenient and easier for installation and maintenance)



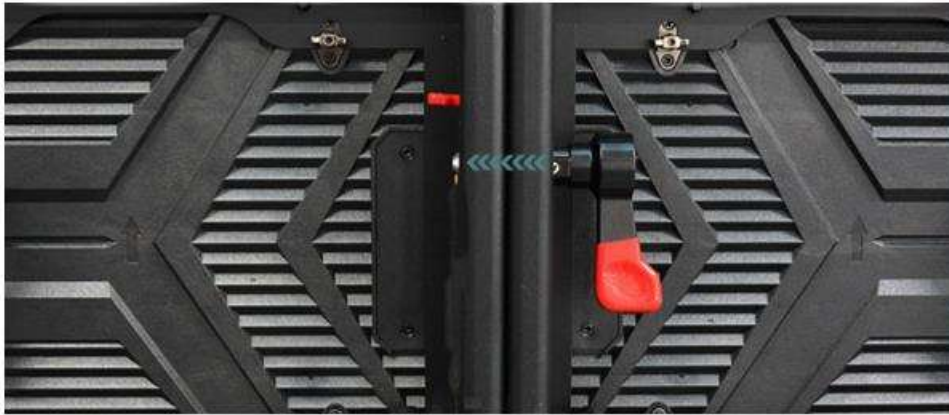
Our OFE Pro led module is sealed and also it is with sealed power box. So the air can not touch the PCB directly. It is anti-humidity, anti-dust and anti-corrosion design and no need to worry the salt air even if the display need to be installed near the sea. This will reduce the defect rate of the led modules

The led module is full sealed
There is gasket here for water proof and also sealed air to touch the PCB directly.
This design can avoid humidity, dust, salt air touch the PCB directly for longer life time.



**Traditional module is not sealed ,
the PCB is exposed to air**

Our OFE Pro cabinet is with fast lockers. The fast lockers can make the cabinets had good alignment with each other and make the installation to be much easier. The cabinet made of aluminum which is more lighter weight. Not like the traditional Iron cabinets, it can only use metal plates for fixed and very difficult to have all cabinets to be alignment well.

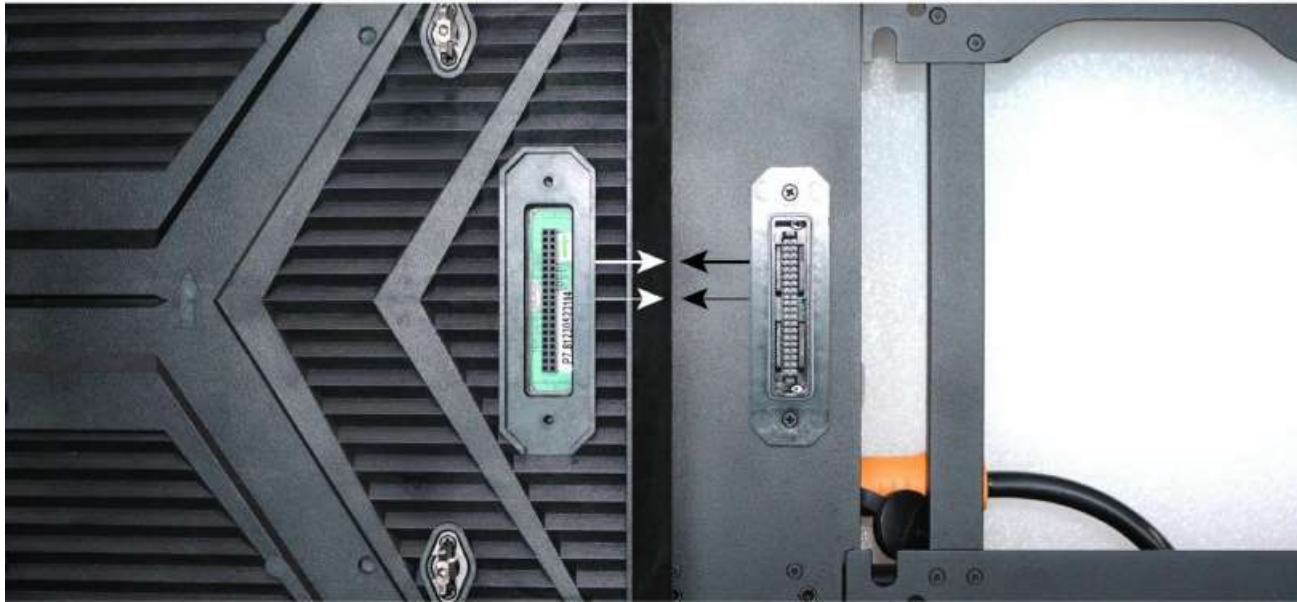


OFE fast lockers for better alignment to make installation easier



Traditional Iron cabinet only has metal plates for fixed cabinets together, more difficult to make cabinets to be alignment with each other

Our OFE PRO is with hub design, no ribbon cable and module power cable.
Signal and power will be more stable and easier for installation and maintenance



Our OFE Pro module has smart design on PCB, so client install the modules with wrong direction, the modules won't be damaged and just need to resume correct direction then it will resume work. Pls find the video for your references.

Not Like the other companies design, if the modules were installed with wrong direction, then modules will be burnt like the following pictures.

The modules has arrow for right direction. But sometimes the modules will be changed by end users and they won't check the arrow information. So this design would be very important.



Modules from other companies, burnt if installed with with wrong direction

Our module is with circular pins, signal and power is more stable, pls find the following picture and description for your references. We also designed baffle on the connector to avoid miss alignment of the pins.



LITESTAR OFE Pro module connector with circular pins
The circular pins enable full contact with female connectors for more stable signal
We also design baffle on the connector to avoid miss alignment of the pins



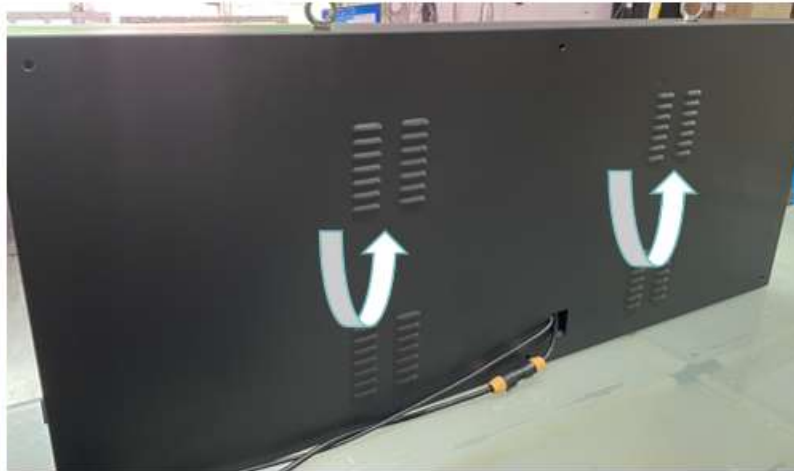
Other companies' module connector with left and right pins.
So only left and right two parts contact with female connector. It is easier to have signal problem like following picture.



The traditional Iron cabinet has louvres some times the storm would bring water into the cabinet with strong wind. OFE pro module and power box is full sealed. It has better performance on water proof. The modules are exposed to air directly, so the heating dissipation is also better.



For our OFE Pro cabinet, modules and power box is full sealed, so it can have better water proof performance. And the modules are exposed under air directly. So heating dissipation is better.

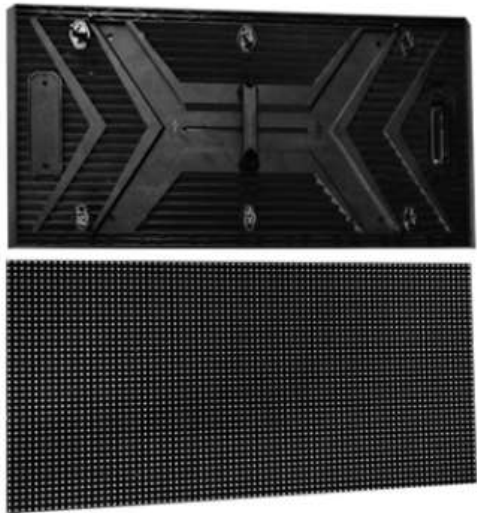


For traditional Iron cabinet, the big storm would bring water into the cabinet with strong wind. And also all modules are contains in the cabinet. So the outside air can not touch the modules directly.

Our OFE pro is flame retardant. The material we used is V1 certified.
Pls find the following video show the test of the module mask for your references.

The display plastic mask or module base burning stops within some seconds and there is almost no drops of plastic that are not inflames.

The display use flame retardant material is very important to avoid bigger loss or accident in case there was fire.



flame retardant module.

