1. UVC Technology

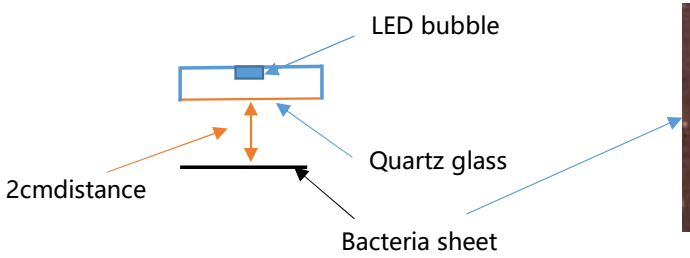
◘ Principle of UVC sterilization:

UVC sterilization technology mainly uses UVC deep ultraviolet light to irradiate single-celled microorganisms, which directly destroys the structure of DNA and RNA in their living bodies, so that the microorganisms lose their ability to reproduce and achieve the effect of complete sterilization.

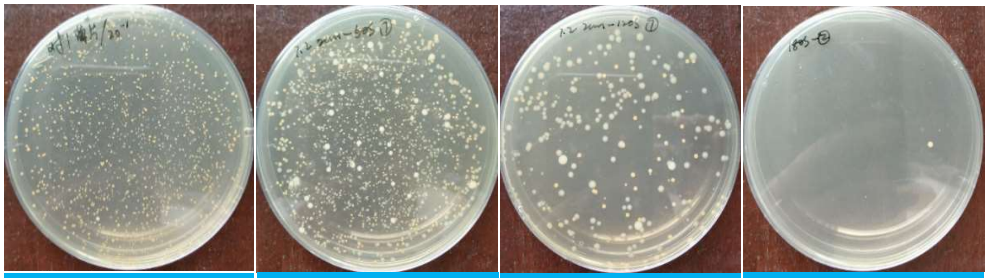
At present, UVC sterilization technology has been widely used in hospitals, food processing and etc..

◘ Media sterilization test

with single bubble of 10mW power, the sterilization rate reaches 99.9% within 3 mins



Metal substrate, add bacteria within the diameter of 1cm, the number of bacteria is 5×105~5×106 CFU, and the bacteria sheet is placed in the position where the UV lamp module is facing at.

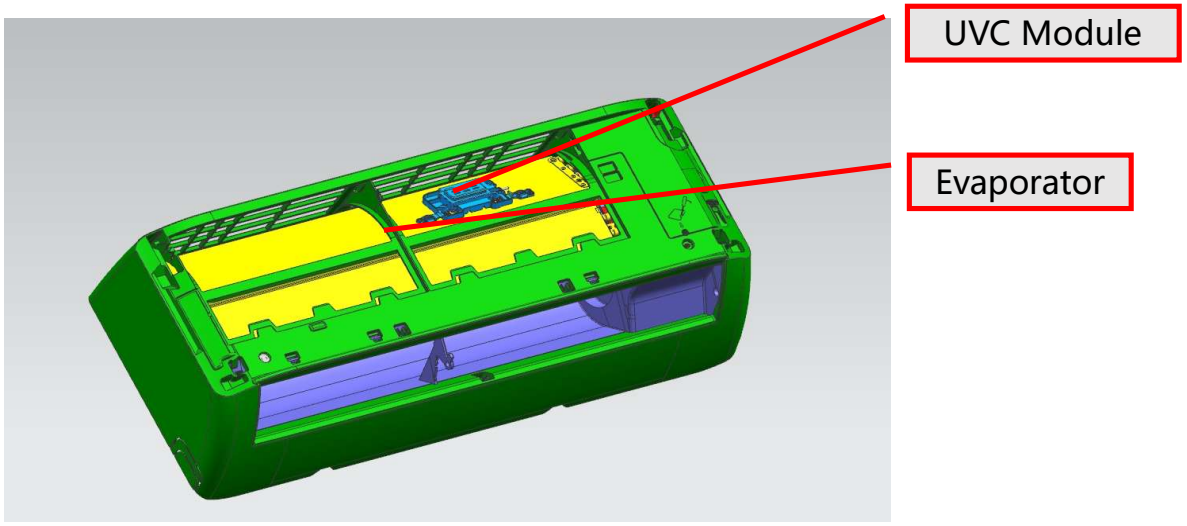


8×10^5CFU the control group	Apply 60s	Apply 120s	Apply 180s

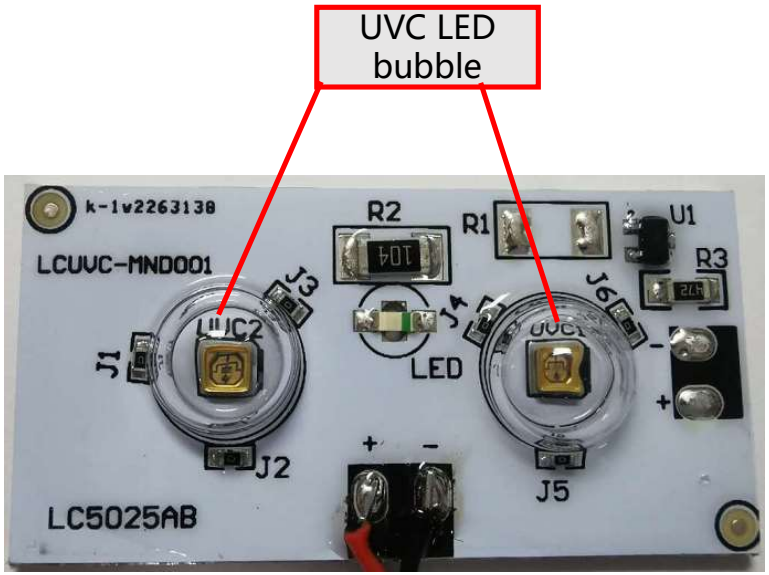
2. Midea Application of UVC

☐ Location of the module

The module is located on the surface of the evaporator of the indoor unit



☐ UVC Module



3. UVC compared to other sterilization solutions

- The public has a good degree of trust in the concept of UV lamp sterilization and a high degree of acceptance;
- UVC lamp has good sterilization effect and no harmful substances such as ozone are generated

Solutions	Pros	Cons
UVC LED	Well accepted by consumers, no Ozone generated	The surrounding structural parts are aging, the leakage is harmful to people, and the irradiated surface needs to be protected
Mercury lamp	Well accepted by consumers, with high power and fast sterilization speed	Contains mercury pollutants, big size; Surrounding structural parts are aging, leakage is harmful to people, and protection needs to be around
Ionizer	Active sterilization, small size, low wind resistance	The user cannot perceive the existence, and the bacteria are adsorbed and settled but not inactivated. With Ozone side effect.
Super Ionizer	Active sterilization, small size, low wind resistance	The user cannot perceive the existence, and the bacteria are adsorbed and settled but not inactivated. With Ozone side effect.