

Fluorescent Quantitative PCR Detection System



Introduction:

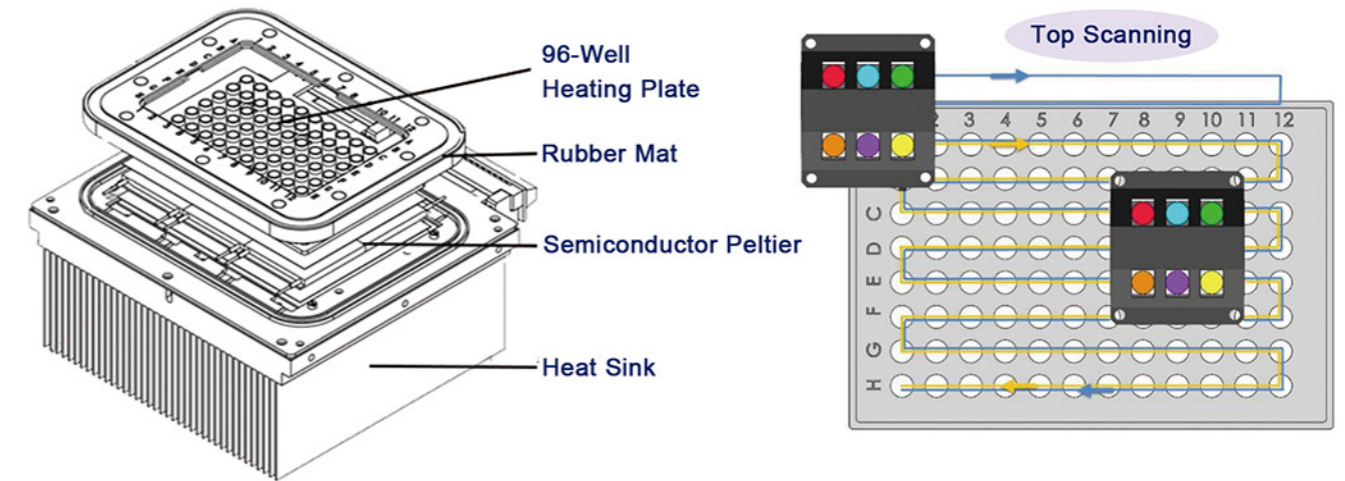
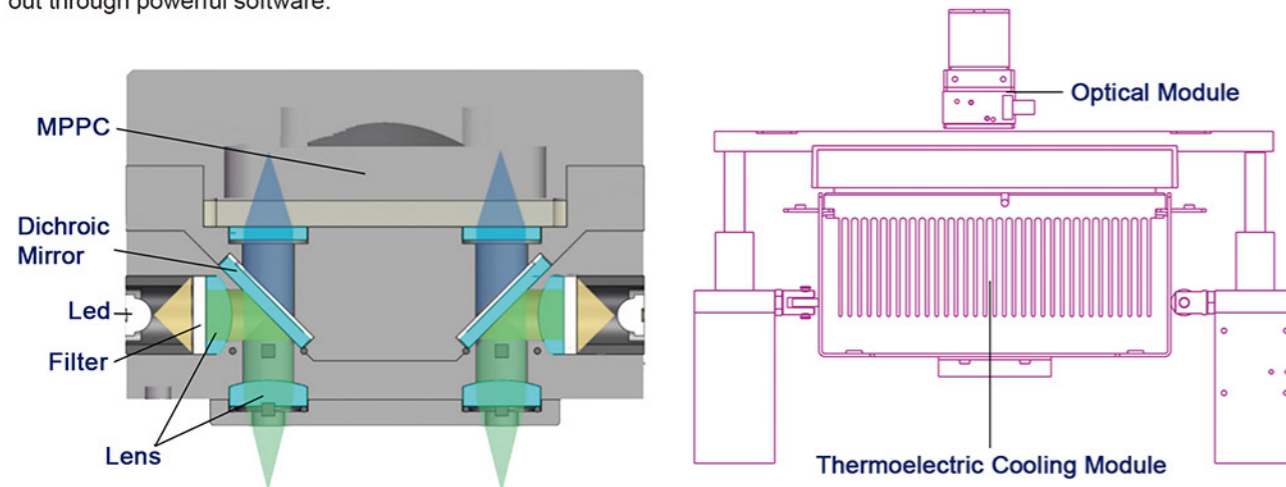
Real-time PCR is used for sensitive, specific detection and quantification of nucleic acid targets. We have developed powerful assay design algorithms, optimized qPCR reagent, intuitive data analysis software, and flexible instrumentation to help harness the power of qPCR across a rich and diverse set of applications. Explore our robust solutions for your qPCR-based research.

Application:

It can be widely used for Infectious disease research, Food pathogen detection, Waterborne pathogen detection, Pharmaceutical analytics, Stem cell research, Pharmacogenomics research, Oncology and genetic disease research, Plant sciences and agricultural biotechnology.

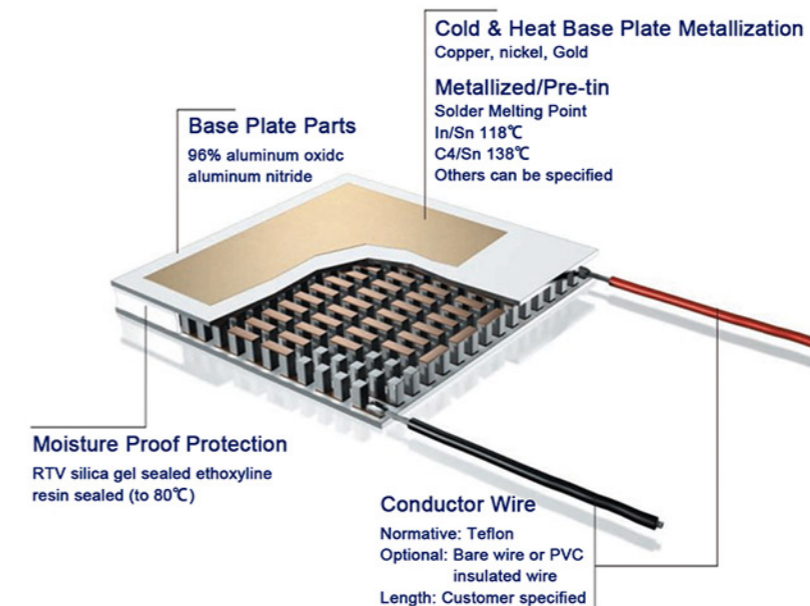
Working Principle:

The temperature step change is controlled by the semiconductor peltier to realize PCR amplification. Use high-sensitivity MPPC unit to detect fluorescence; Program control channel switching, non-contact excitation/detection on the top structure, coordinated with motor control x and Y axis movement to achieve 96-hole scanning. Finally, accurate analysis is carried out through powerful software.



Features:

- * Excellent temperature control performance of the instrument, the maximum temperature rise and fall $\geq 5.0^{\circ}\text{C/s}$.
- * No edge effect, no optical path correction, top excitation/detection, non-contact measurement.
- * Fluorescence detection adopts MPPC sensor with high sensitivity.
- * Long-life LED light source, stable emission wavelength, maintenance-free.
- * 4-channel fluorescence detection, no cross interference between channels.
- * User-friendly and fully functional software, flexible program setting, comprehensive analysis and reporting functions, all the parameters can be stored.



Real-time PCR Hardware:

Thermoelectric cooling module (TEM) is a semiconductor device composed of many tiny and effective heat pumps. By applying a low-voltage DC power supply, heat will be transferred from one side of the TEM to the other side, resulting in a phenomenon that one side of the TEM becomes hot and the other side becomes cold. Since this phenomenon is completely reversible, when the polarity of the DC power supply is changed, it will be affected. Shift in the opposite direction. This product adopts a long-life series TEM, which provides longer life and more efficiency during thermal cycling.