The load crystal frequency on pcba has spread distribution.

Owing to the relationship between the frequency pullability and the load capacitance, the smaller the load capacitance is, the more sensitively the frequency change. The following steps are shown below.

- (1) Increase the load capacitance, Cg and Cd, and use the crystal with larger CL.
- (2) Using more precise capacitors, Cg and Cd.
- (3) Using more precise crystal.