

Universal SMT XO adapter

By Ian Jin 2012-07-11

Descriptions

The universal SMT XO adapter is compatible with most popular SMT XOs, including 9*14mm (CCHD957,CCHD950), 7*5, 5*3.2,3.2*2.5,2.5*2(NZ2520S)...

This SMT XO adapter will make it very easy to experience difference XO oscillator on the FIFO platform.

Two optional 100n 0603 and one 1u 0805 MLCC are recommended. But if the XO has good internal decoupling capacitors, then you don't need any of them.

Steps to assemble the XO adapter

Step1: Use a file or a piece of sand paper make the PCB v-cut edge looks better.

Step2: Assemble the SMT XO on top of the PCB by SMT soldering station or iron.

Step3: Assemble the optional decoupling capacitors at bottom side of PCB if needed.

Step4: Plug the four terminal pins into a 14 pin IC socket which will keep all the terminals in position at same time.

Fit the terminals into the holes of the adapter PCB from back side and solder them at the bottom

Part numbers

The DigiKey P/N of the optional decoupling MLCCs are:

445-1316-2-ND

490-4785-1-ND

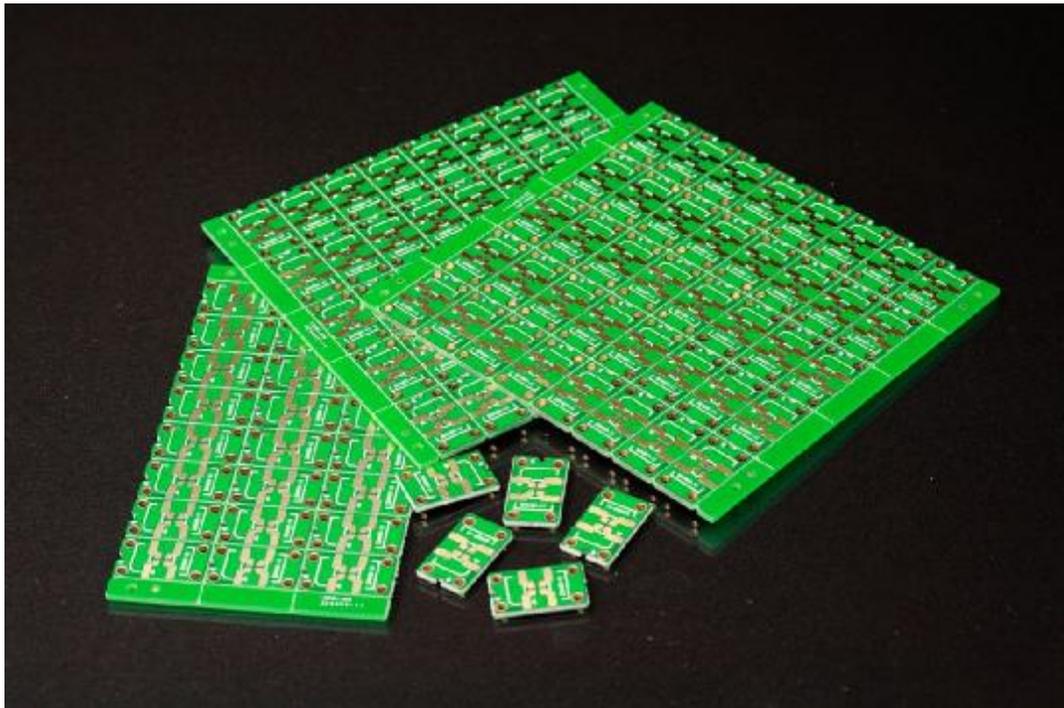
The 14pin IC socket:

4-1571552-2-ND

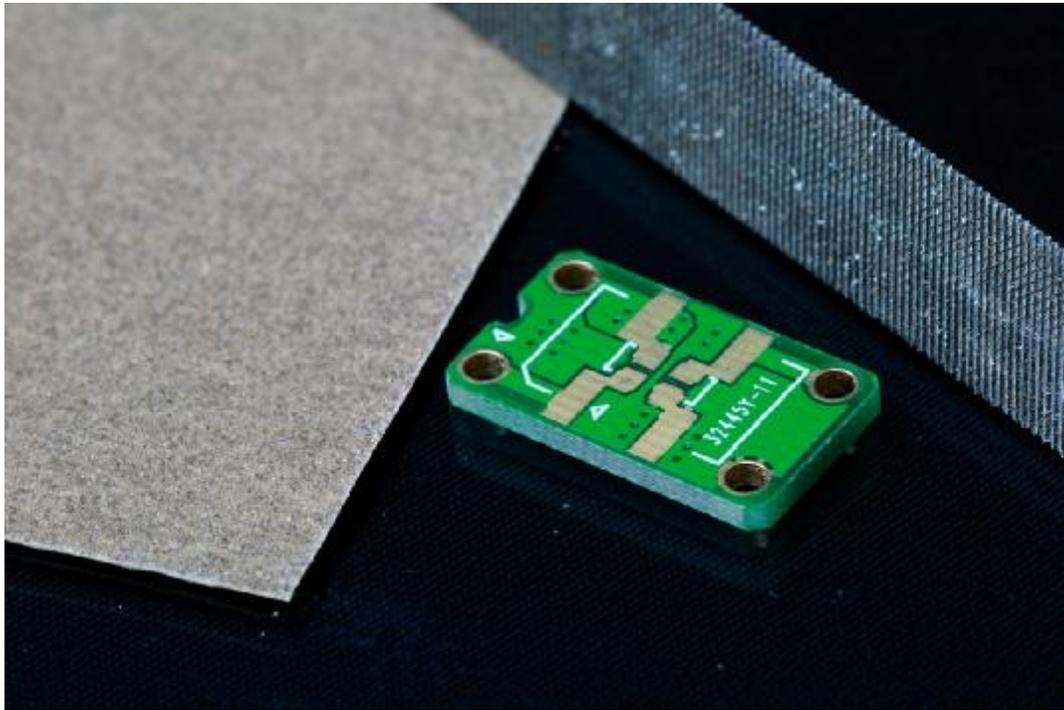
Tips

1. Heat the adapter PCB with hot air in advance will make the SMT solder processing easier and better.
2. Terminal pins can be taken from the IC socket

Pictures



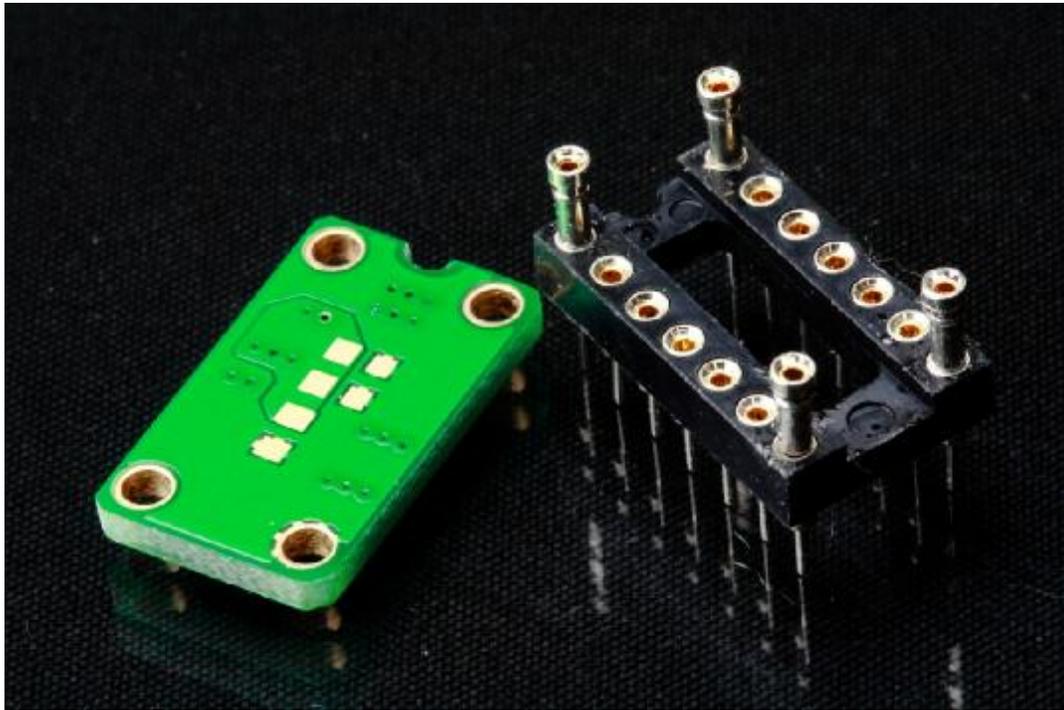
Universal SMT XO adapter PCBs



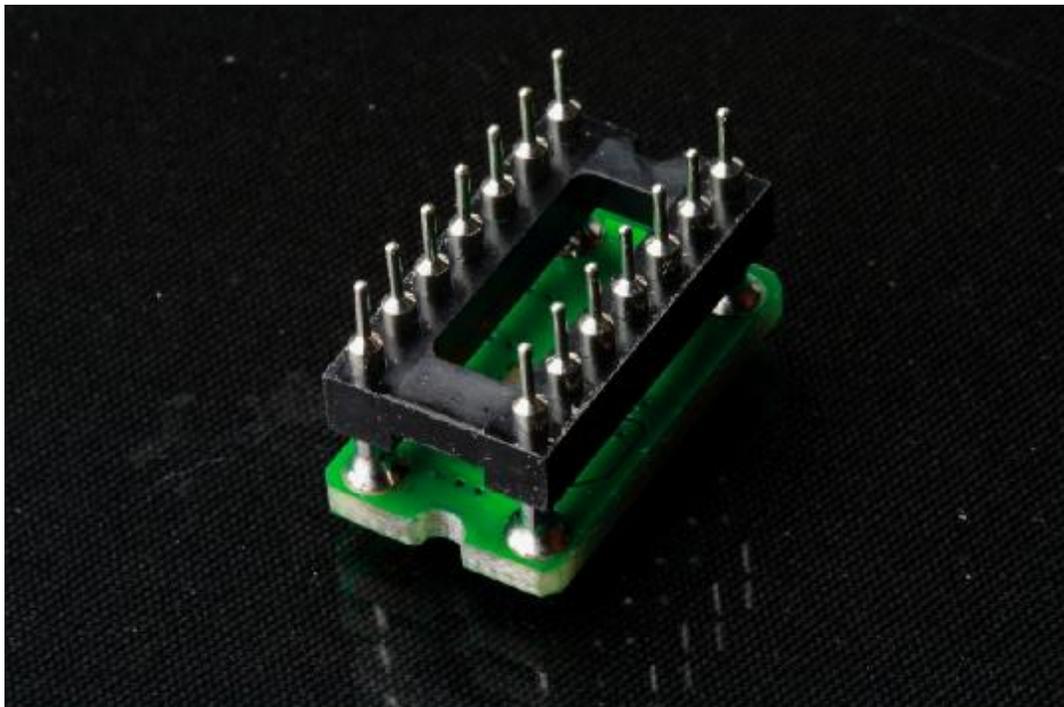
File the V-cut edges of the PCB making it look better



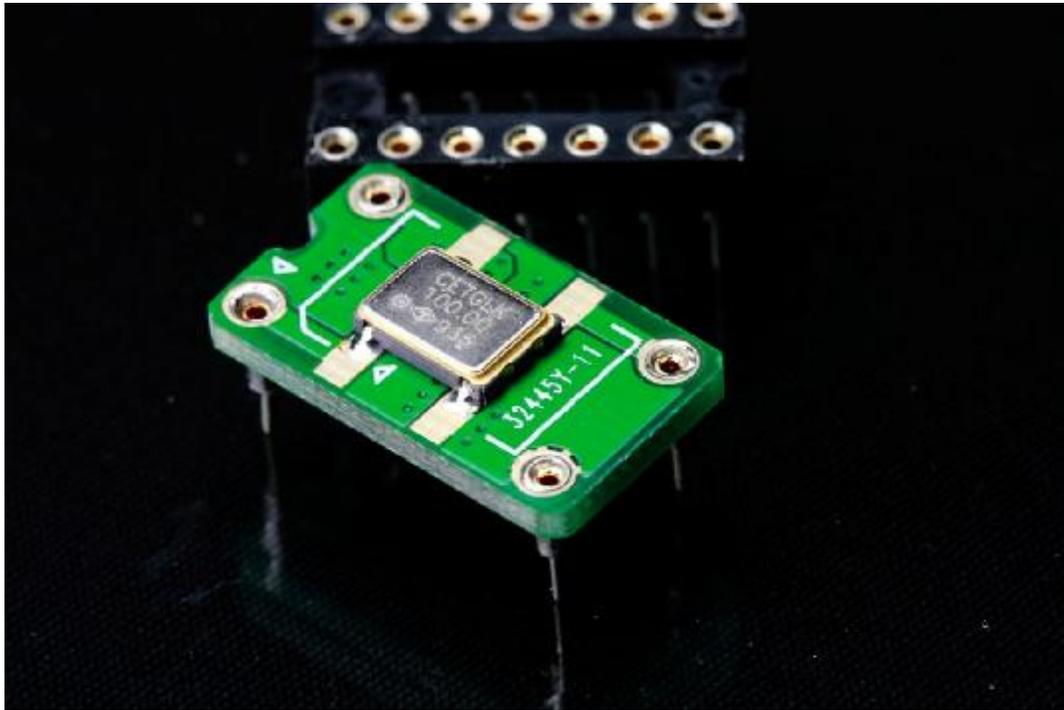
Mount SMT XO first on the top of the PCB



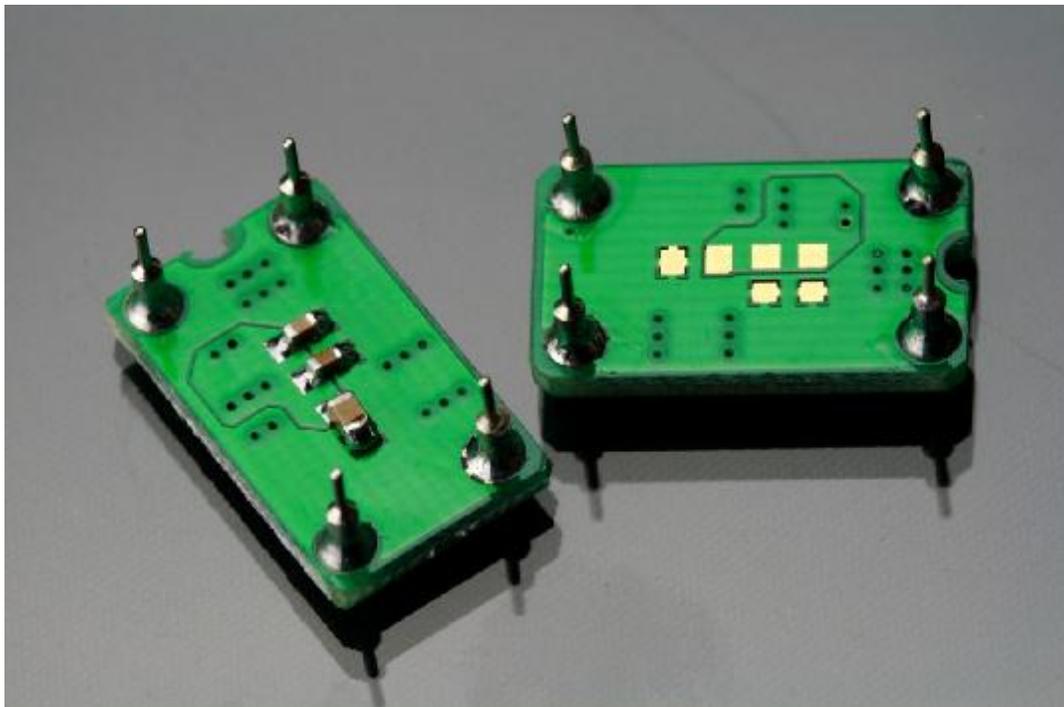
Plug the terminal pins into IC socket to keep the positions



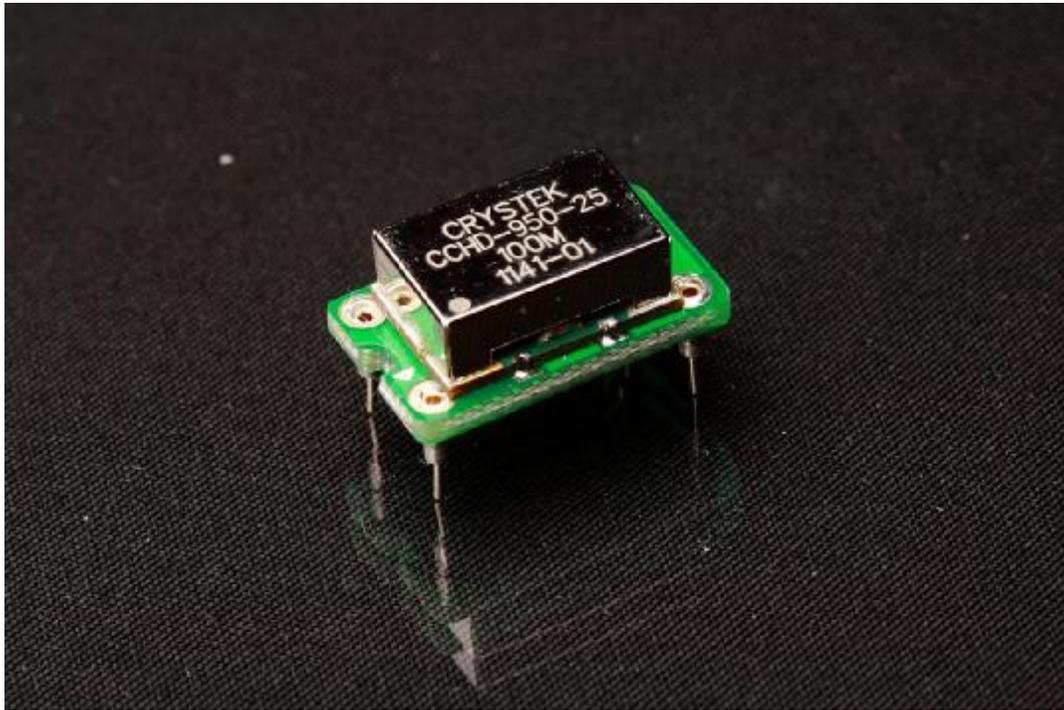
Solder the terminal pins from back of the adapter



SMT XO adapter finished



With and without optional decoupling capacitors



9*14mm SMT XO (CCDH950 or CCDH957)

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