

# A very useful tool, Oscillator and Mixer Workbench.

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Look into your junkbox, where you keep all the old 8 bit PC-Cards. Usually you have a few of them, look up the graphic-cards and old motherboards, search them up for 14 dil silver cased oscillator units. They are peschous for this project.

The task is to extend your old resciver to a monitoring unit when building other oscillators and low-power transmitters to a certain IF. Usually the coverage of your resciver might not be enough to handel the frequency you wanted to monitor in order to tune the new unit to, so here is a solution to that.

## Example:

You want to build a transmitter for 6m (50MHz)

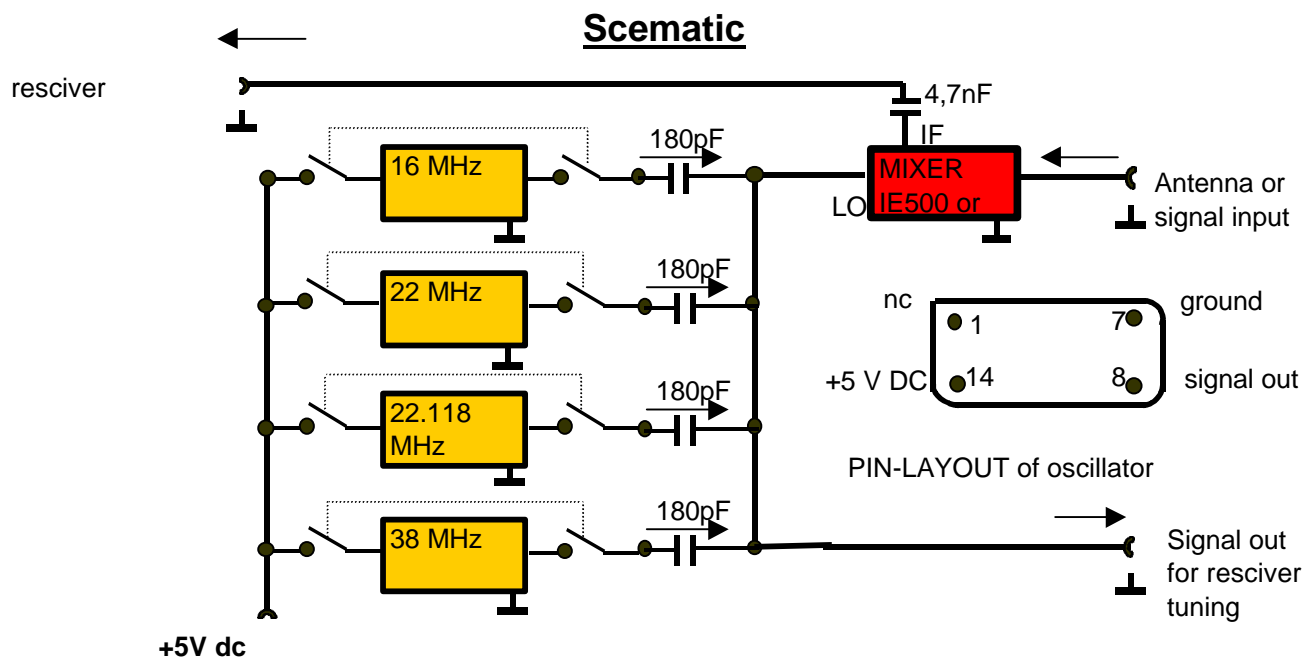
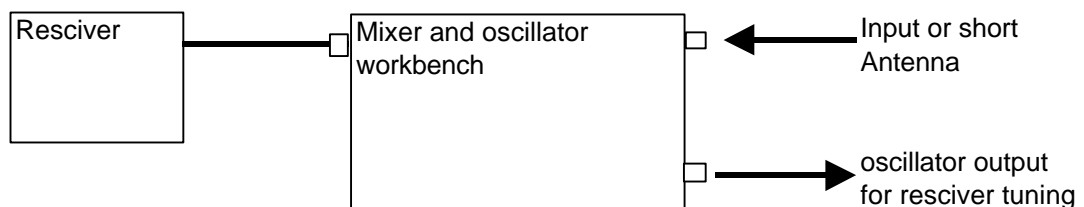
Your resciver can only handel frequencies up to 30 MHz, but you want to check your signal on 50 MHz. The sensitivity of the unit is not that important because the signal monitored has only a short distance to go trough.

If you mix an oscillator signal of lets say 38 MHz to the IF (resciver unit 30MHz) you will get,  $38\text{MHz} + 30\text{MHz}$  you can monitor signals up to 68 MHz

To monitor your signal on 50 MHz do the following:

$50\text{ MHz} - 38\text{ MHz}(\text{oscillator signal}) = 12\text{ MHz}$  on the resciver.

So that means you can monitor the 50 MHz signal on your old resciver on 12 MHz using this unit with all the modes your resciver can manage. The resciver can also have an other range.



You can upgrade the unit with an attenuator see the ARRL-Handbook  
You can add other oscillators to the unit or cascade it with a second mixer  
just let your fantasy do the rest.....

**If you think this is useful and easy to build please rate my sight at the DX-ZONE put your opinion or sugesstions as a note to my guestbook.**

have a lot of fun, 73 from dl5dbm, Anwar von Sroka