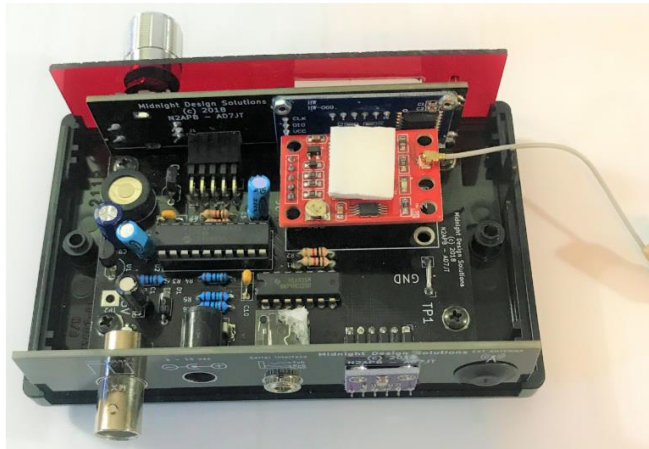
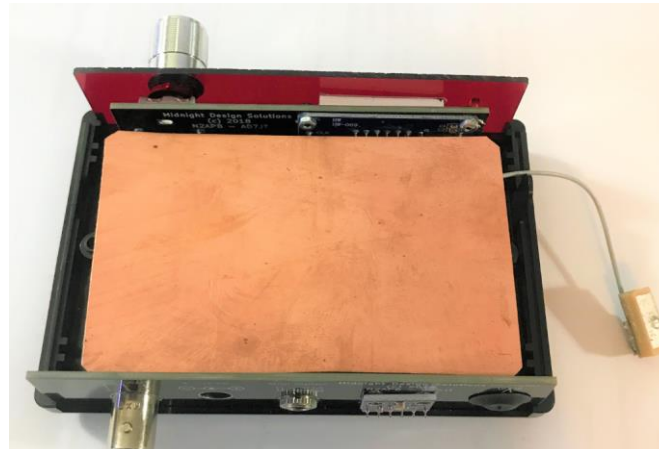


Improving the sensitivity of the GPS Receiver in the Midnight Precision Clock *(allowing faster sync and display of local time)*

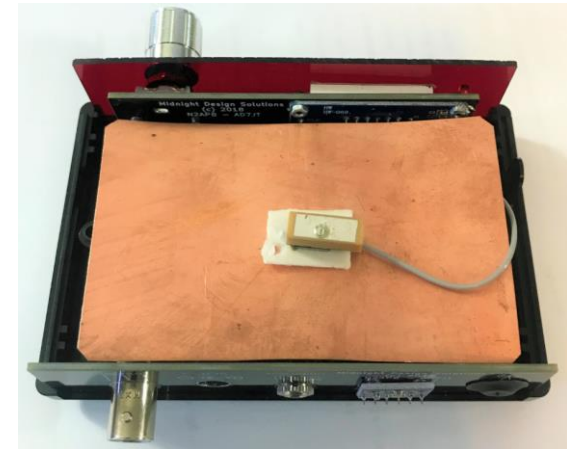
The size of the ground plane placed beneath the small ceramic GPS receiver antenna has a great effect on its sensitivity. If you indeed wish to just use this “internal” GPS antenna with your MPC (instead of using an external antenna plugged into the back panel), the technique illustrated here will definitely improve the ease with which your GPS Clock will sync with satellites and display the proper local time



Remove the top clamshell half of the MPC enclosure and place a small piece of double-sticky foam tape on the GPS receiver chip.



Place a piece of thin copperclad pcb material on the double-sticky foam tape. Don't worry, even thin flexible copperclad material will not short to anything below it on the circuit board. (The capacitors, BNC connector, IC and the GPS board itself will keep the board mounted high enough over the motherboard.)



Use another piece of double-sticky foam tape in the middle of the copperclad board to hold the small GPS ceramic chip antenna as shown. Attach the top clamshell of the enclosure, power up the GPS Clock and place it close to a window. It should acquire enough satellites within 15 minutes and display the correct local time (with a steady, non-blinking display).