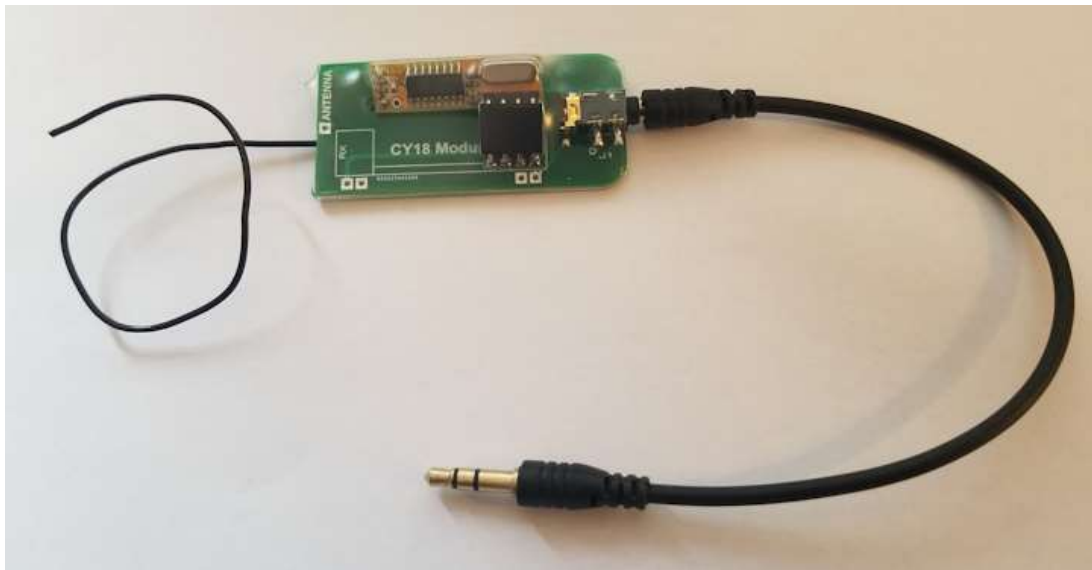




Xterna Adapter V2 For use with Clocks Supporting Xterna Functions



REVISION HISTORY

Issue Number	Date	Reason for Issue
1	20 January 2024	New document

Introduction:

The Xterna Adapter is a 433MHz receiver module, to receive broadcasts of time and temperature data from our Xterna Wireless Time and Temperature Transmitter. It is needed and used for those clocks that support the Xterna functionality, but do not have the receiver integrated into the clock PCB.

Summary of Operation

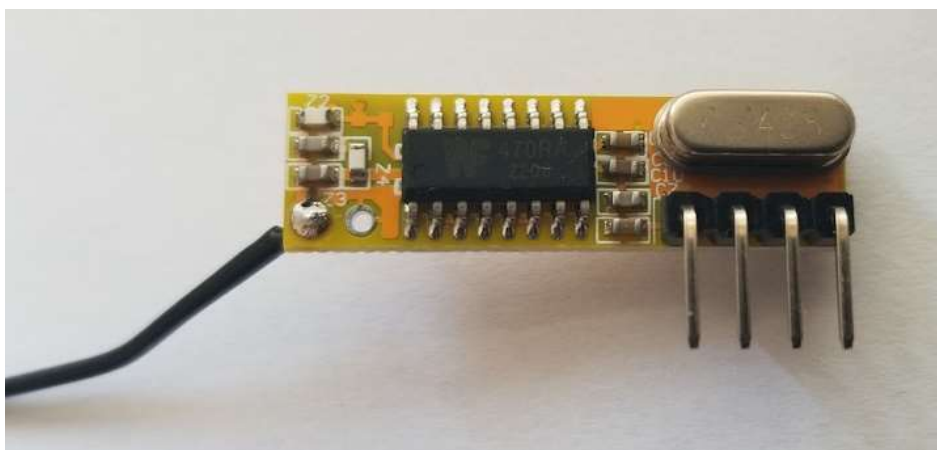
The device is passive, in that it only receives data from the Xterna sender unit. Therefore, there is no limit to the number of clocks that can be equipped with an Xterna Adapter, to all receive the data from a single Xterna Transmitter.



Assembly

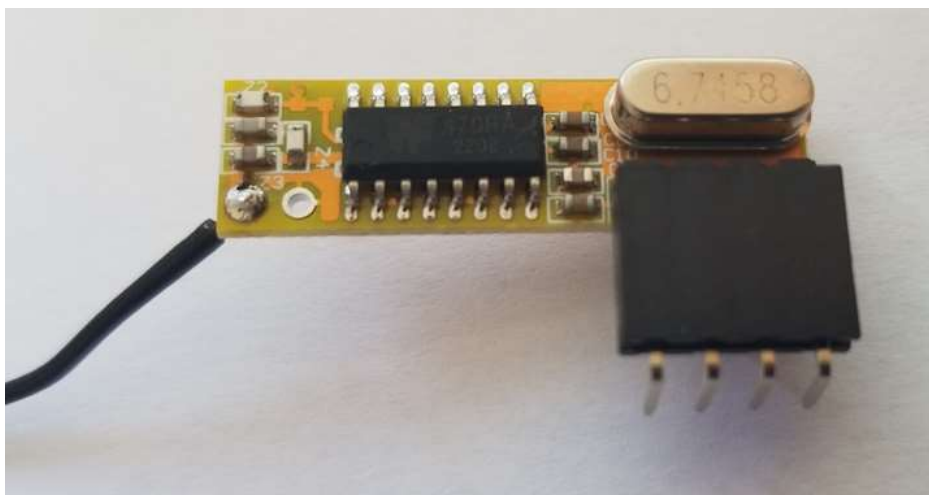
Soldering the Antenna Wire

Cut 17cm of the cable supplied, strip off 3mm of the insulation from one end and tin the wires. Then attach to the underside of the receiver module as shown below.

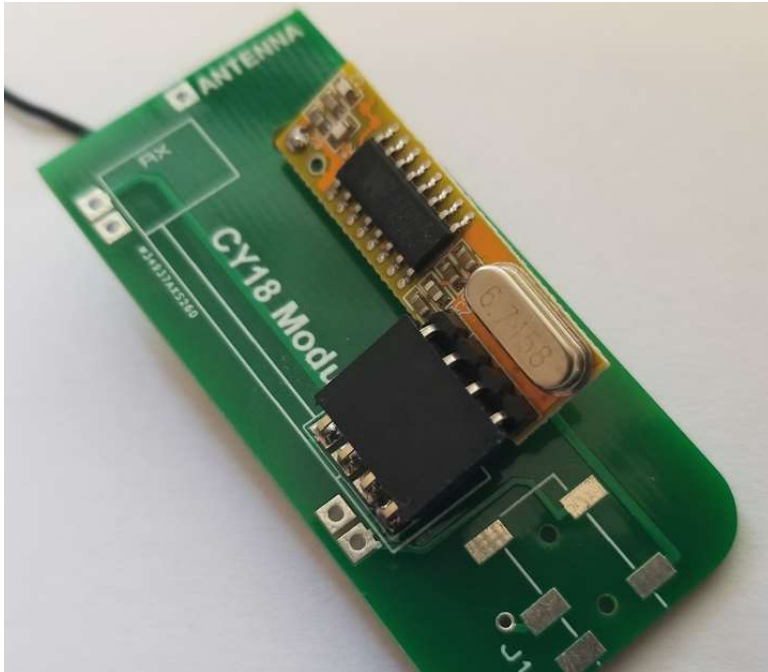


Attaching Module to PCB

Push the 4 way connector onto the receiver module:



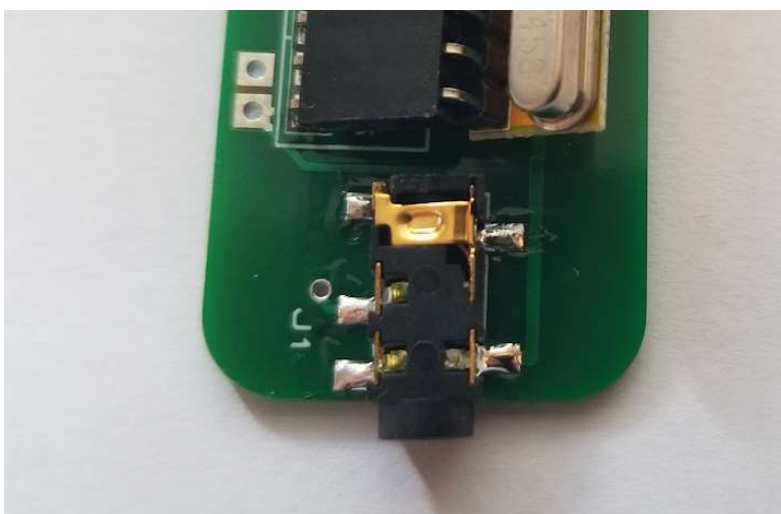
Now insert the 4 pins into the 4 holes on the green PCB and also feed the antenna cable through the 3mm hole in the PCB. The module will be angled somewhat, but this is fine. Solder the connector in place.



Soldering the 3.5mm jack Socket

First, solder a blob of solder onto one of the pads of the jack socket.

Then place the connector in position and re-touch the pad with the soldering iron whilst pressing the connector onto the PCB. This will anchor the component and then you can solder the remaining pads.



Apply the Heat Shrink

Slide the heat shrink over the entire module, and shrink with a heat gun or hot air pencil.



Attach the cable to the device. Always plug / unplug the device into your clock with the clock powered off.

You will need to configure your clock for Xterna reception, usually by setting parameter 12 to value 5. Parameter 13 (baud rate) is ignored in Xterna mode.

Also set time offset parameters 14,15 and 16 for your local offset from UTC (GMT). Refer to the configuration parameters table for your clock for how to do this.

The Xterna Transmitter sends data every 10 minutes, so give your clock a little time to wait for the next transmission and then it will set the time and date, and start reporting outdoor temperature every minute, at 30 seconds past each minute.