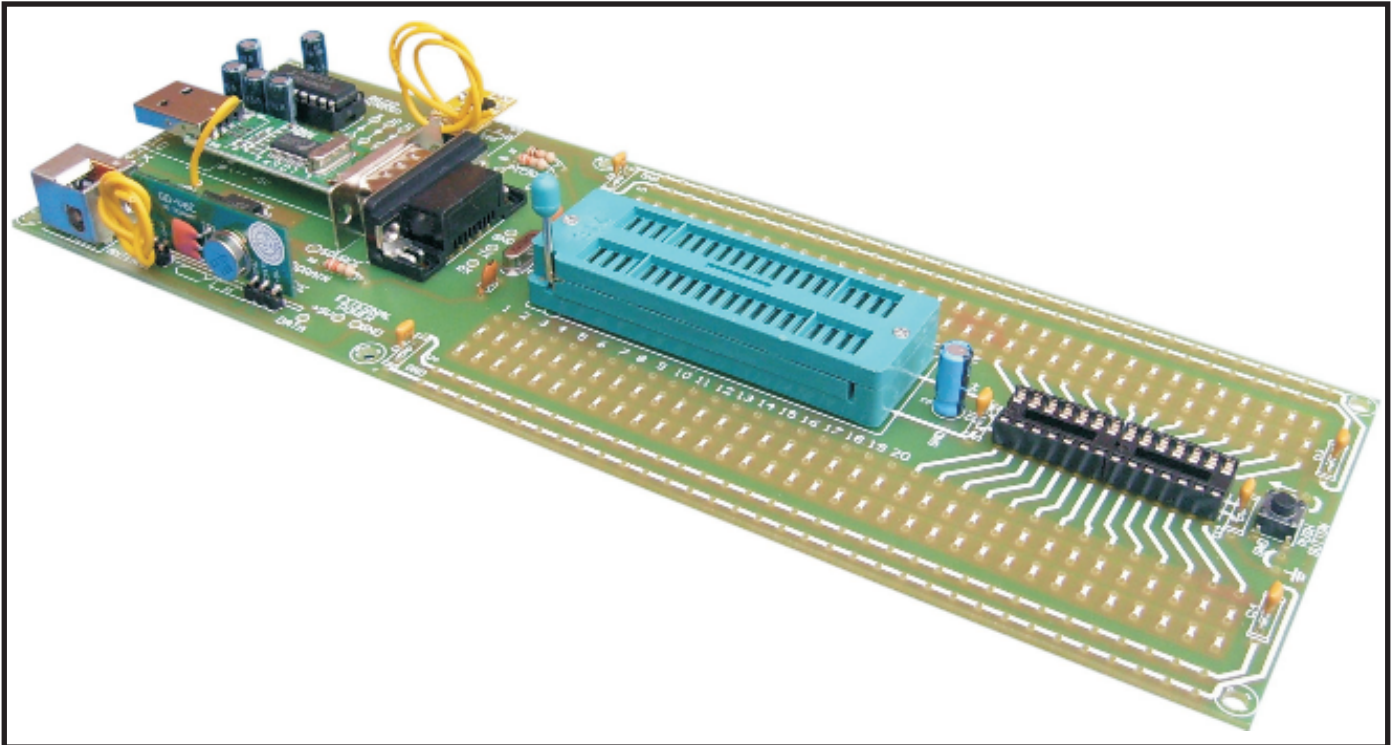


# K277 USB DEVELOPMENT-PROGRAMMER KIT



Some electronics and wiring experience is required when assembling and using this kit. The software for the USB-Serial converter, which is provided with this kit, is available on our web site. We do not provide any additional programming software: Available on the Internet.

This development/programmer kit is suitable for analog, digital, and microprocessor applications. It can also be used to program and run all the PICAXE IC's. It is powered by the 5V supply available from the computer USB port. An on-board inverter included in the RS232 IC, also makes available low current +/- 10V rails: For OP=AMP's etc. The \$30 kit includes the USB lead, USB-Serial converter module, Male and Female DB9 connectors, RS232 IC, 4MHz Crystal, 40PIN ZIF socket that accommodates narrow and wide IC's, 2 X 14Pin IC sockets, pushbutton switch, and all the necessary

resistors and capacitors. There is also provision on the PCB for some optional items listed below.

Kit price \$30 ...K277

#### OPTIONAL ITEMS:

Suitable N type  
MOSFET.....2SK3812  
433Mhz UHF TX  
module.....TX01  
433Mhz UHF RX  
module.....PVJ6WC  
Infra-red RX  
module.....IRX2

#### PARTS LIST

- 1 PCB Coded K277
- 1 40 pin ZIF socket
- 1 PCB MTG. DB9 right angle female connector
- 1 DB9 solder tail male connector
- 1 USB to serial module
- 1 USB cable
- 2 14 pin IC sockets
- 1 Pushbutton Switch
- 1 RS232 TX / RX IC
- 1 10K 1/4W resistor
- 1 22K 1/4W resistor
- 1 4Mhz crystal
- 5 1uF electrolytic capacitor
- 1 10uF electrolytic capacitor
- 6 0.47 monolithic capacitor
- 2 12pF ceramic capacitor

### IR RECEIVER

#### Connection:

Data: 5V logic level output.  
Can be used with infra-red remote control.

### MOSFET

Can be used to switch high current loads, motors etc.  
For further details use data sheets for this IC available on the Web.

### UHF RECEIVER

#### Connections:

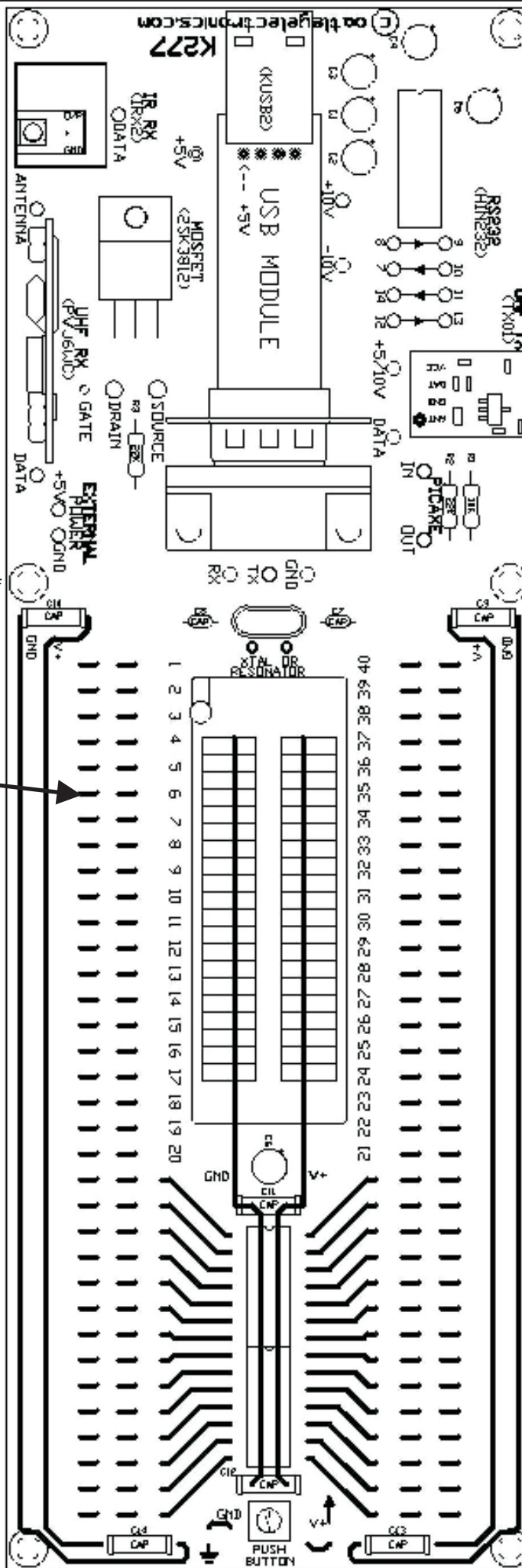
Data: 5v logic levels. The module will require 173mm of wire soldered to the antenna (ANT) location on the K227 PCB to make the antenna. For further details see out Web site.

### EXTERNAL POWER

**NOTE:** Do not connect the +5V from the USB module if you use the External Power input.

lines on top of the PCB indicate connection paths under the PCB

If a link is placed next to the word **GND** then the switch will switch to **GND**. If a link is placed next to the word **V+** then the switch will switch to **V+**.



### RS232

Arrows show the direction of data flow. For further details use data sheets for this IC available on the Web.

### UHF TRANSMITTER

#### Connections:

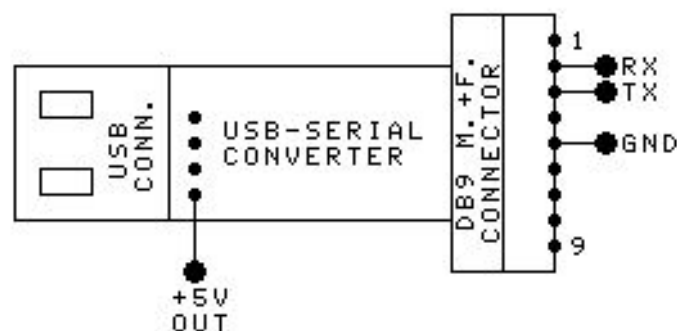
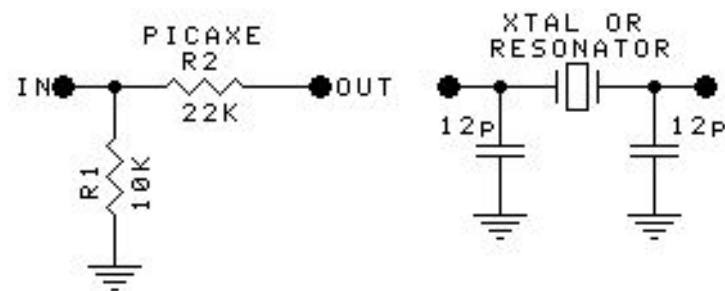
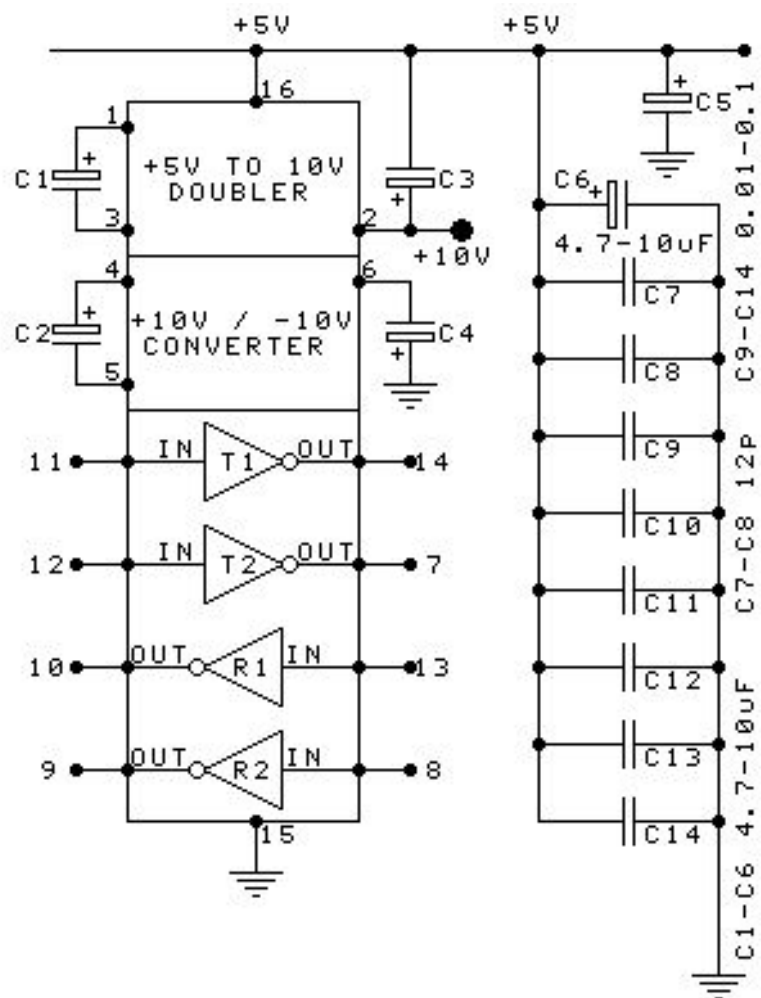
Data, 5v logic levels.  
+5/10V, connect to +5V or +10V to power the UHF module. The module will require 173mm of wire soldered to the antenna (ANT) pin to make the antenna. For further details see out Web site.

### PICAXE

These resistors are to connect to serial data from the USB module to the serial data input of PICAXE chips. See PICAXE data sheets for details.

### PROTOTYPING AREA

This area is provided to solder other parts such as resistors, caps and LEDs. Each group of pads are connected as shown by the white lines and pin numbers printed on the PCB. they can be inter-connected with wire links or solder bridges placed between pads. The tinned tracks under the IC are power tracks and can be connected to IC socket pins with wire links.



PARTS SHOWN WITHIN THIS LINE ARE OPTIONAL. THEY ARE AVAILABLE FROM OUR WEB SITE. PROVISION IS MADE ON THE PCB BUT THEY ARE NOT PROVIDED IN THE BASIC KIT.

