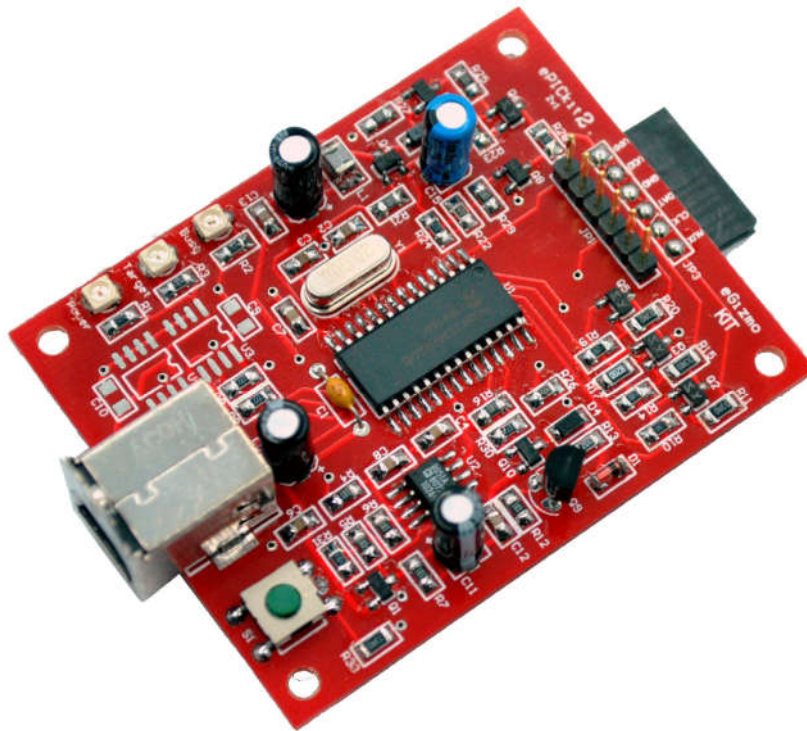


ePIC-KIT 2

Hardware Manual Rev 1r0



A clone of the immensely popular Microchip PicKit2 hardware development kit. It is programmer and debugger rolled into one. Supports in-circuit programming and debugging of almost any PIC16F and PIC18F microcontroller variants. Connects to a PC via USB a port where power to the circuits is also drawn from, eliminating the need for an external power source.

FEATURES & SPECIFICATIONS

- Powered by PIC16F2550 Flash USB Micro controllers with nano watt technology.
- 51W x 66.8H mm Dimension
- 6 pin SIP Female Header Programming/Debugging port.
- 5.0V Power Input

MAJOR COMPONENTS PRESENTATION

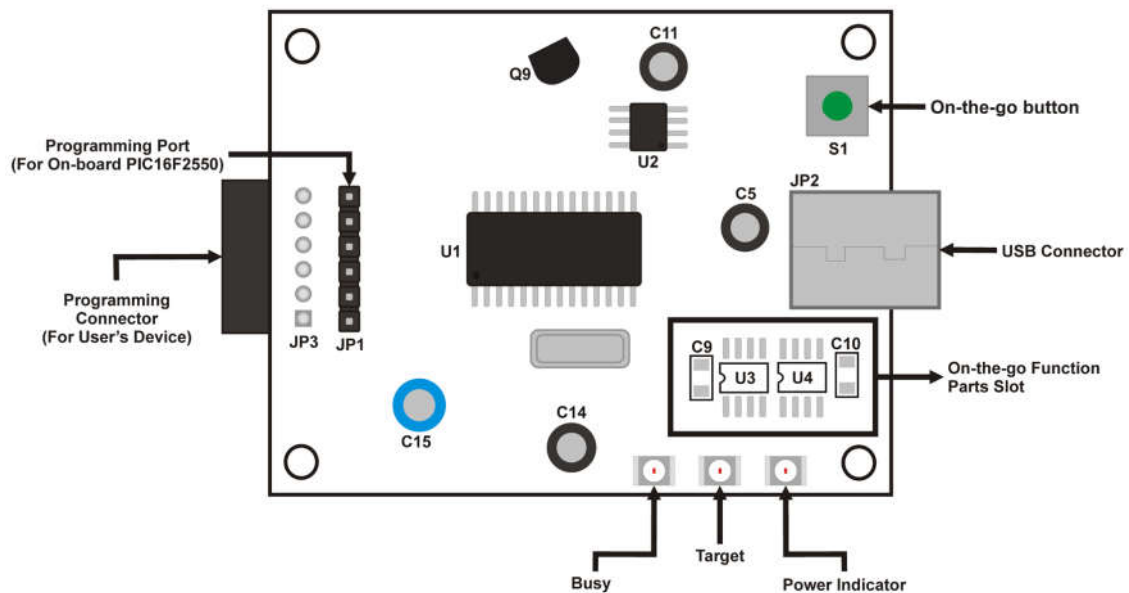


Figure 1. ePIC-KIT2 Major Components Illustration.

Programming Connector (User's Device)

- Port where you can connect the device that you want to program or debug.

Programming Connector (On-Board PIC16F2550)

- Port where you can Program/debug the onboard PIC16F2550.

USB Connector

- The USB Port Connection is a USB type-B connector. Connect the ePIC-KIT2 Micro-controller Programmer to the PC using the supplied USB cable.

Busy

- Indicates that the programmer is busy with its function like programming and erasing programs.

Target

- Indicate that the ePIC-KIT2 Microcontroller Programmer is powering the target device.

Power Indicator

- Indicate that the power is applied via USB port(5V).

On-the-go Button (Currently Disabled)

- It may be used to initiate the Write Device programming function when Programmer>Write on PICkit Button is checked on the PICkit 2 Programmer application menu, It may also be used to put the PICkit 2 unit operating system firmware into Bootloader mode.

On-the-go function parts slot

- Here where you can put the required parts to enable the on-the-go button function.

PIN ASSIGNMENTS

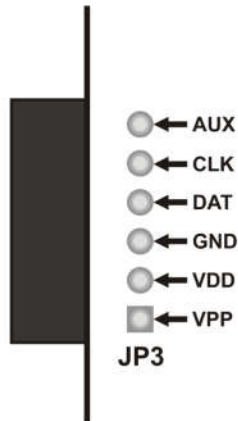


Figure 2. JP3 Pinouts.

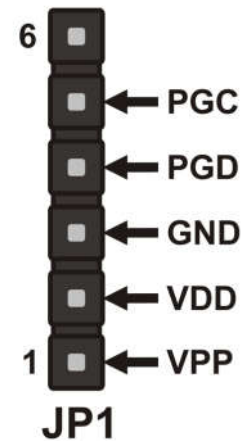


Figure 3. JP1 Pinouts for 'U1'.

Table 1. JP3 Pin Details

Pin I.D.	Function
AUX	Programming serial EEPROMs
CLK	unidirectional synchronous serial clock line from the programmer to the target
DAT	a bidirectional synchronous serial data line.
GND	Power Supply ground reference
VDD	Power Supply positive voltage
VPP	Programming Voltage; when applied, the device goes into Programming mode.

Table 2. JP1 Pin Details

PN	Pin I.D.	Function
1	MCLR/ VPP/ RE3	Master Clear (input) or programming voltage (input). Master Clear (Reset) input. This pin is an active-low Reset to the device. Programming voltage input. Digital input
2	VDD	Positive supply for logic and I/O pin
3	GND	Ground
4	RB7/ KB13/ PGD	Digital I/O. Interrupt-on-change pin. In-Circuit Debugger and ICSP programming clock pin.
5	RB6/ KB12/ PGC	Digital I/O. Interrupt-on-change pin. In-Circuit Debugger and ICSP programming clock pin.
6	-	-

EXAMPLE PIC CHIP CONNECTION

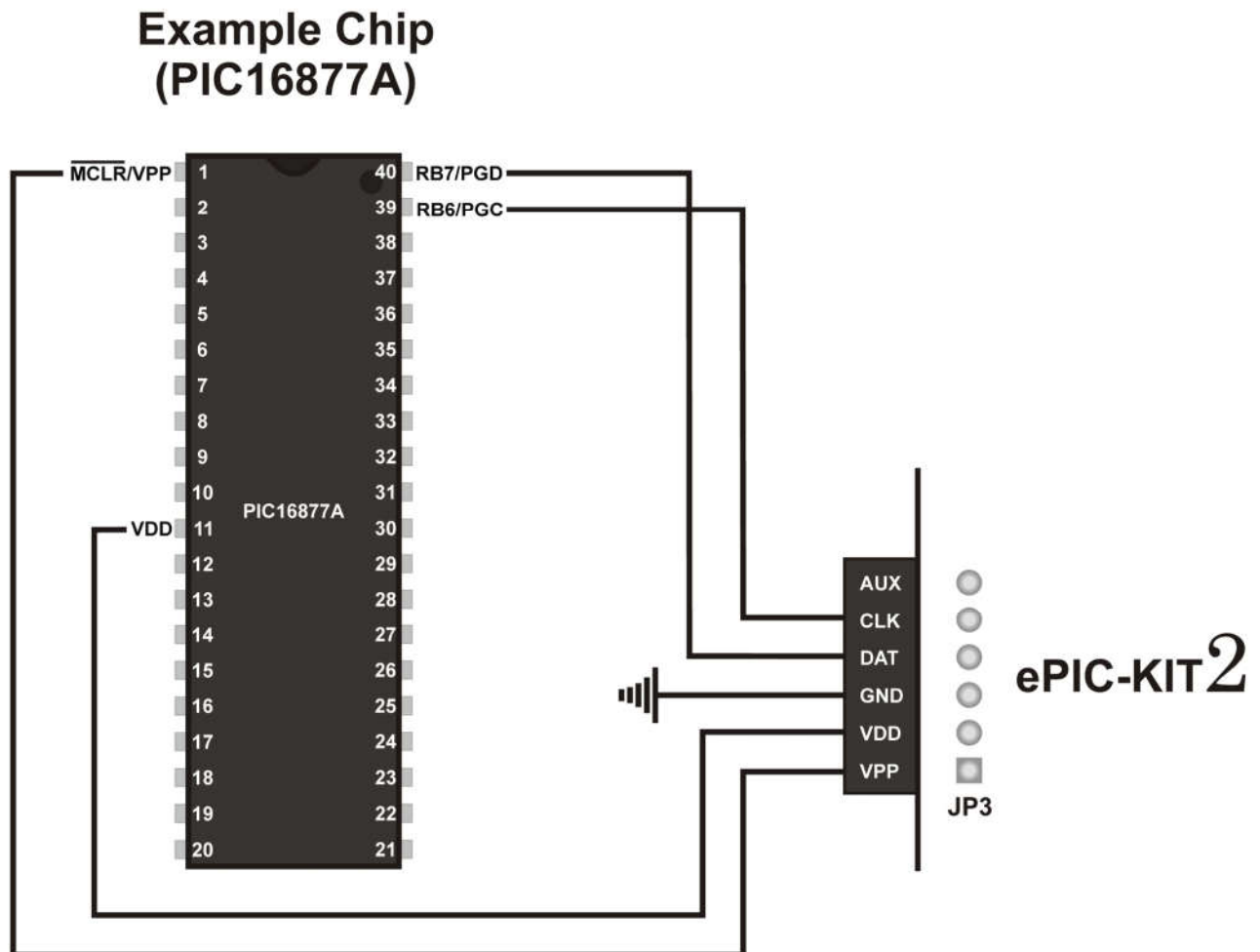


Figure 4. Example connection diagram of PIC microcontroller - ePIC-KIT2.

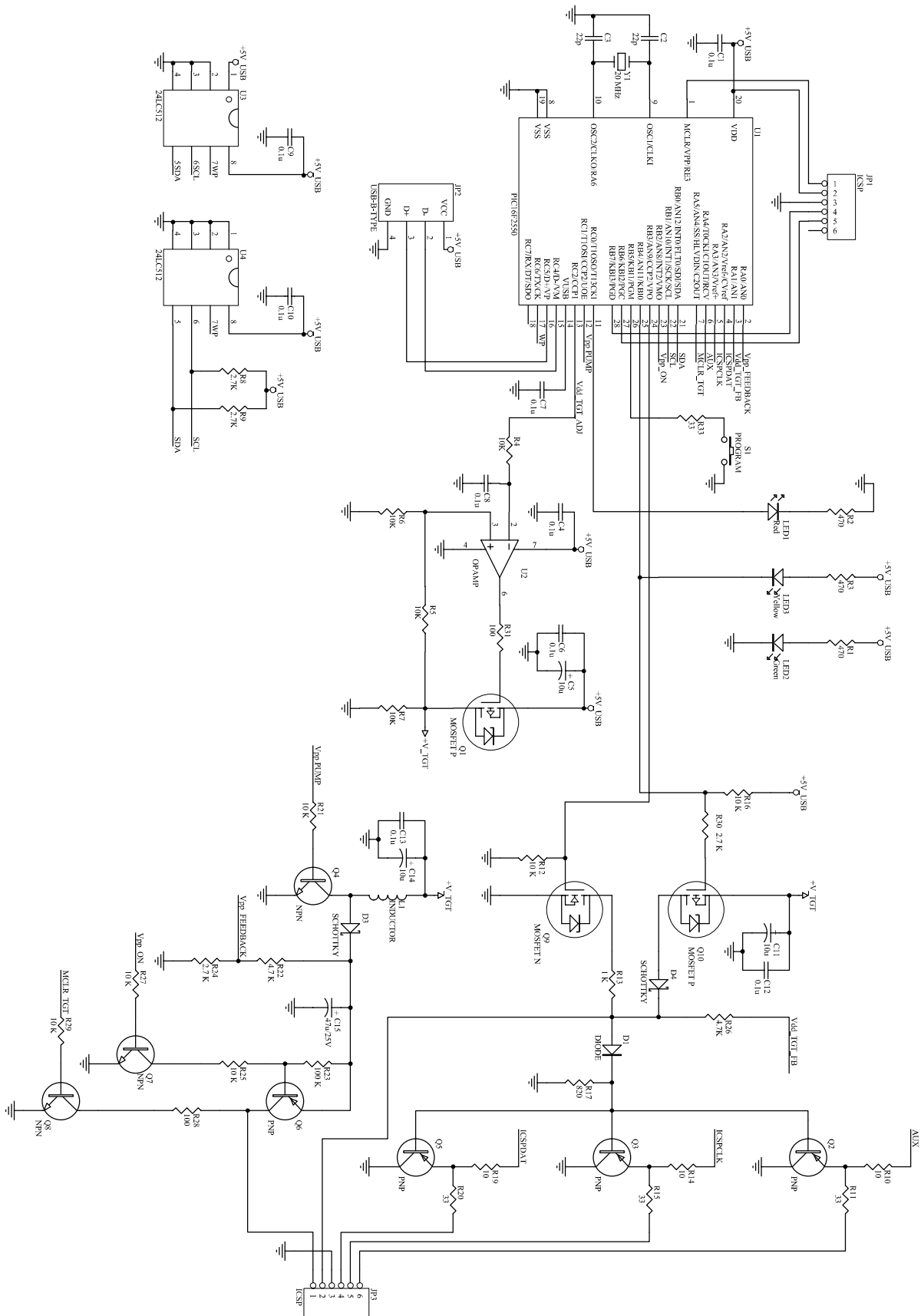


Figure 5. Schematic Diagram of ePIC-KIT2

PCB BOARD PRESENTATION

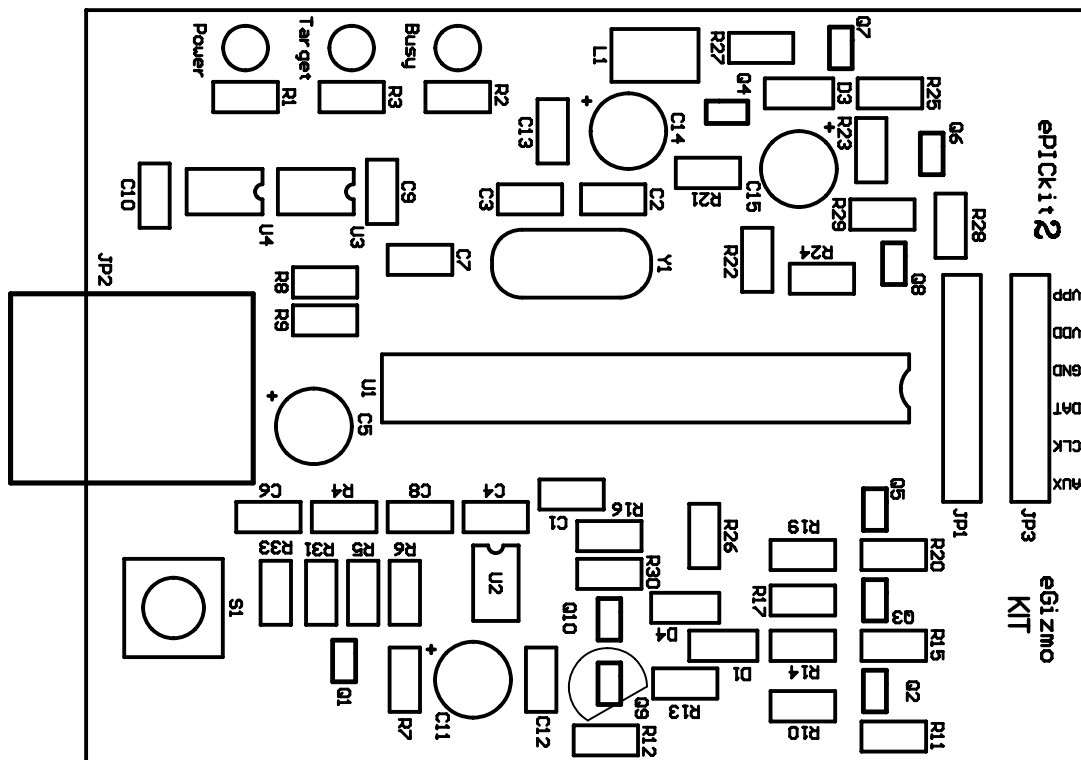


Figure 6. ePIC-KIT2 PCB
(silkscreen layout)

PCB BOARD PRESENTATION

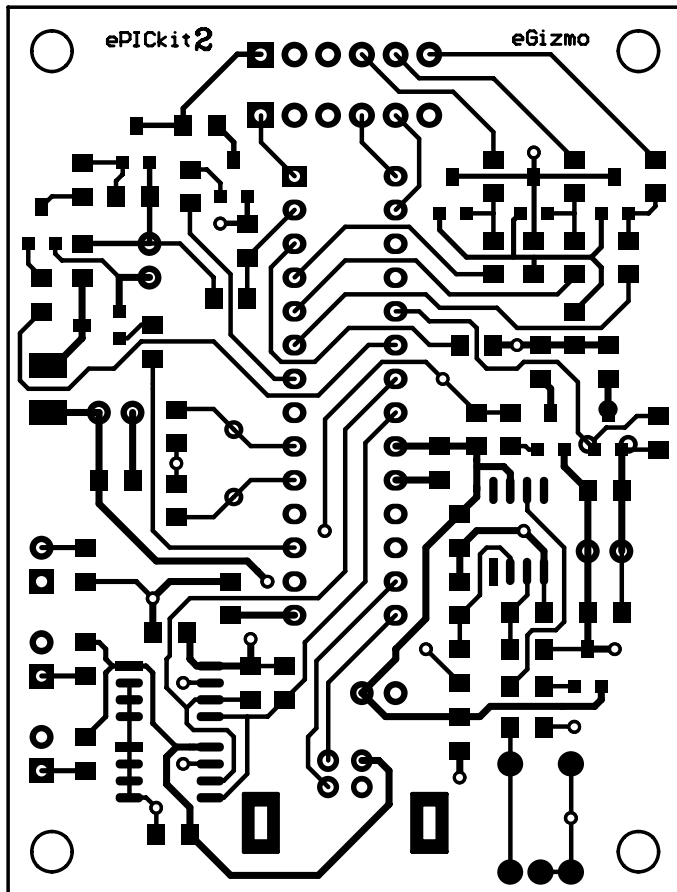


Figure 8. ePIC-KIT2 PCB Copper Pattern (Bottom Layer)

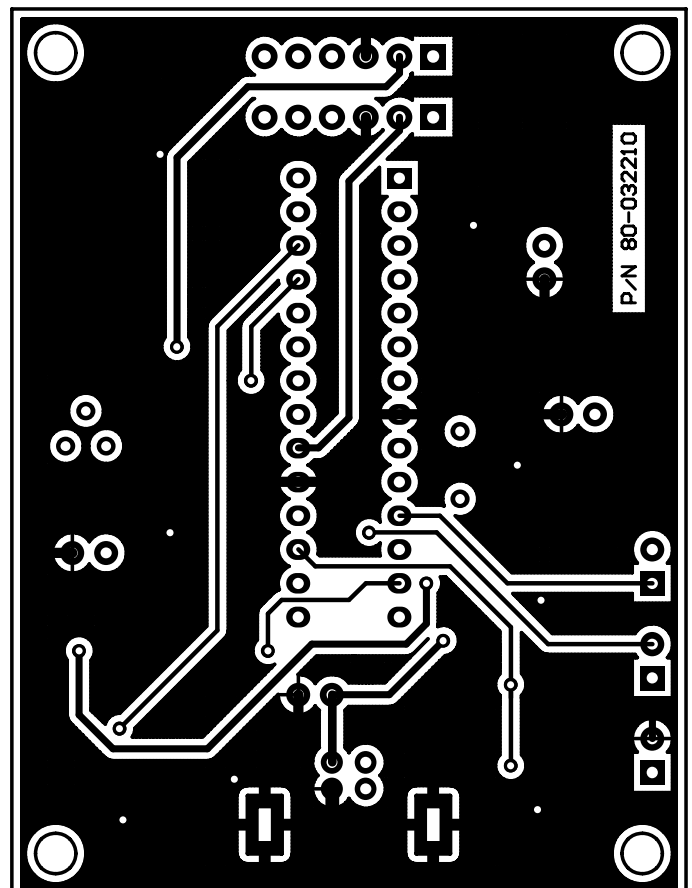


Figure 7. ePIC-KIT2 PCB Copper Pattern (Top Layer)