

Like many other UVD1 users I also experience communication problems with the radio using the USB cable purchased in China (e.g. this one http://www.radioshop888.com/radioshop_product.php?id=10376 from RadioShop888).

I tried all drivers available, all software versions and even different operating systems, different radios etc. Nothing worked. I just could not get the PC to communicate with the Wouxun radio.

Sounds familiar?

I decided to dig a little deeper and found a solution.

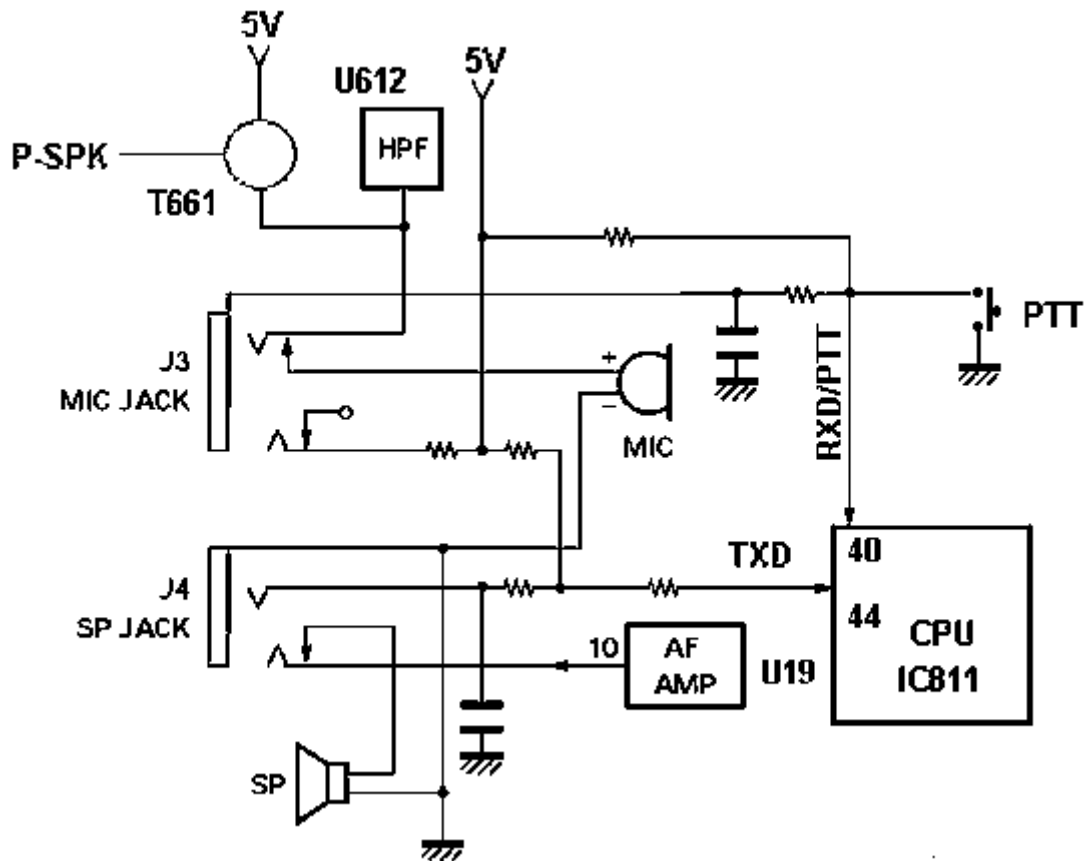
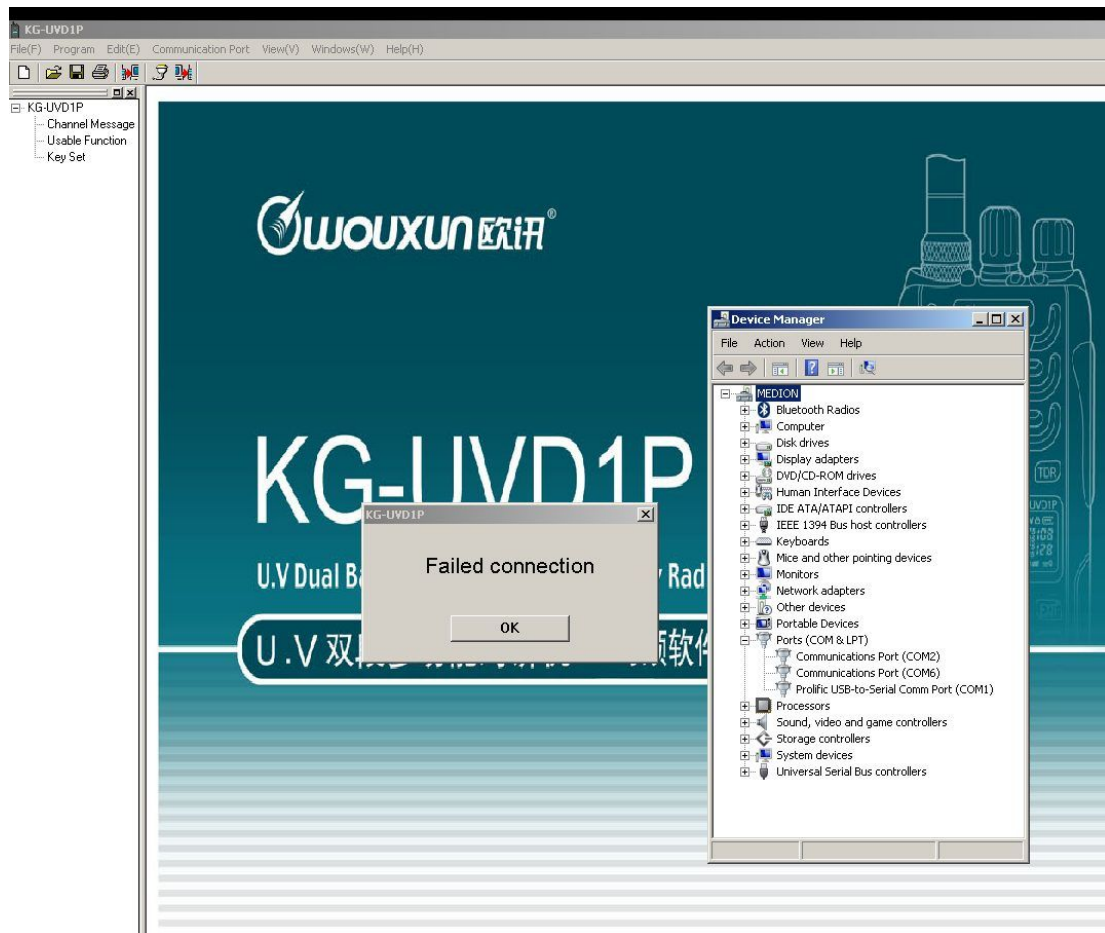
When connecting an oscilloscope one can see proper 5V serial communication when not connected to the radio. As soon the cable is connected to the radio the communication voltage will not be pulled to ground anymore but will stay be between 2.5V - 5V.

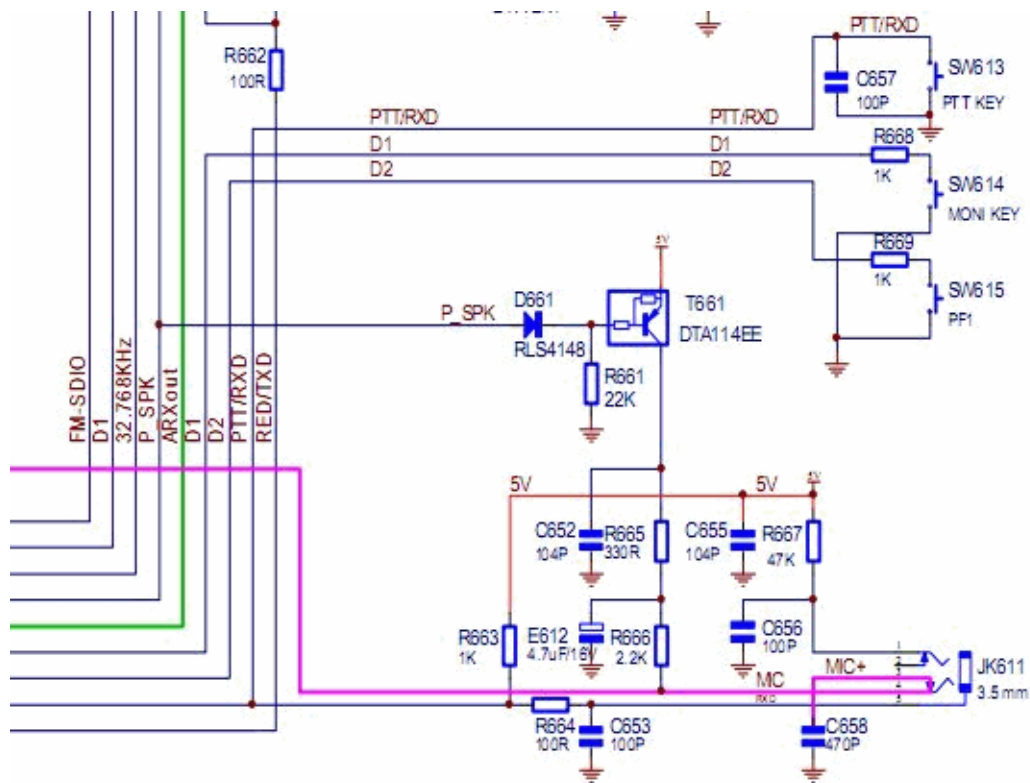
A closer look at the UVD1 circuit shows a 1k pull-up to 5V. I decided to take a closer look at the cable, opened it and read the PL2303HX datasheet. The datasheet unveils the Chinese cable is a design disaster. The chip is operated exceeding the absolute maximum ratings but that's not my problem. The Chinese have to deal with all the returns. My problem was the odd R1 1k resistor at the TXD output of the chip. This is where the rest of the voltage dropped. (Voltage divider 1k in the radio, 1k in the cable.)

The images show which resistor you have to remove and shorten to get the USB cable to work (it is R1).

I hope this works for your cable just as nicely as for mine.







Cheers,
Max

P.S.: Other radios might work fine with the cable as they might have a higher pull-up resistance value so one could think the Wouxun radio is defect but it is the USB cable. I am convinced Wouxun gets a whole lot of returns for no reason :-)