

## Parts Procurement for the FM Converter

November 2025

Most parts are commonly available and not too critical. Here are some comments about the less common parts:

### The circuit board:

I will sell you an bare, unpopulated board for (prices include postage):

\$6 CAD to Canadian addresses (I prefer interac e-transfer to [gord.rabjohn@gmail.com](mailto:gord.rabjohn@gmail.com) )

\$5 USD to US Addresses (please use PayPal to [gord@rabjohn.ca](mailto:gord@rabjohn.ca) )

\$9 CAD to everywhere else (please use PayPal to [gord@rabjohn.ca](mailto:gord@rabjohn.ca) )

I will sell you an bare, unpopulated board, and one Si4825, and one 74HCT9046, and C5 and C45 (0.1uF 0805 capacitors) for (prices include postage):

\$10 CAD to Canadian addresses (I prefer interac e-transfer to [gord.rabjohn@gmail.com](mailto:gord.rabjohn@gmail.com) )

\$8 USD to US Addresses (please use PayPal to [gord@rabjohn.ca](mailto:gord@rabjohn.ca) )

\$13 CAD to everywhere else (please use PayPal to [gord@rabjohn.ca](mailto:gord@rabjohn.ca) )

### U1: Philips 74HCT9046AD (SOP-16 package) Phase Locked Loop:

Unfortunately this part was discontinued in 2023, but it is still available. I purchased mine from e-bay vendor shzparts , and there are several e-bay vendors selling them. Around \$1 depending on quantity. In a pinch, you can try 74HC4046A, but it will need temperature compensation.

### U10: Skyworks (Silicon Labs) Si4825-A10 or Si4836-A10 (SOIC package) FM Tuner:

These are current and widely available at places like Digikey or Mouser for \$3-\$5. I found that the Si4825-A10 is also available at e-bay vendor shzparts for considerably less than Digikey .

**Resistors:** Make sure you get 1% resistors for R11, R12, R13, R14. Other than that, resistors are not critical. The potentiometers are available at Digikey or Mouser, and other vendors make compatible pots. RV2 should be a good quality part.

**Capacitors:** Most capacitors are not critical. The exception is C2. The absolute value is not too critical, 220pF +/- 10% is fine, but it must be stable over temperature and time. We would like it to stay within 0.5% over what ever temperature excursion it will see. I use a silvered mica capacitor (Cornell Dubilier) which are widely available, though expensive at places like Digikey. Shop around! I get mine from a Canadian vendor: Sayal electronics.

**D40:** You cannot go wrong using a 1N5817 / 1N5818 / 1N5819 Schottky diode. In most cases (cases where there is adequate supply voltage, like over 6VAC or 9VDC), the more common 1N4001 or 1N4048 (they have a higher forward voltage drop) are fine. Available everywhere.

**U40:** This is a standard 3-terminal 5V regulator. I recommend a low-dropout regulator (like the LP2950ACZ-5.0), which has better voltage tolerance and lots of "head room". The very common 78L05 (TO-92 package) is usually fine unless the supply voltage is low (see D40). in which case a low-dropout regulator (like the LP2950ACZ-5.0) should be used. All of these are widely available.

There is a .csv file on my web page that can be imported into Digikey (no, I do not receive a commission). Once you import it, you can adjust quantities or delete parts that you do not need.