YAESU CAT INTERFACING

Yaesu CAT interfacing can be done using the Icom CT-17 circuit mentioned earlier. The only modification needed here is to separate the signals at pins 11 and 12 of the MAX232 and connect them to the Yaesu DATA IN and DATA OUT lines. For use with the FT-100/FT-817/857/897 series you can also use Yaesu's stock CT-62 CAT cable. This has the advantage of being very compact, and gets its power supply from the rig's ACC connector. The FT-847 does not require an interface - a null-modem serial cable is all you need here. Older Yaesu rigs use a FIF-232C which appears to be basically similar to Icom's CT-17. Unfortunately for us the only picture I could find of the circuit was extremely vague and not worth showing here.

IK2BCP has designed this opto-isolated interface that should also work with Icom radios by connecting the RXD Radio and TXD Radio lines:

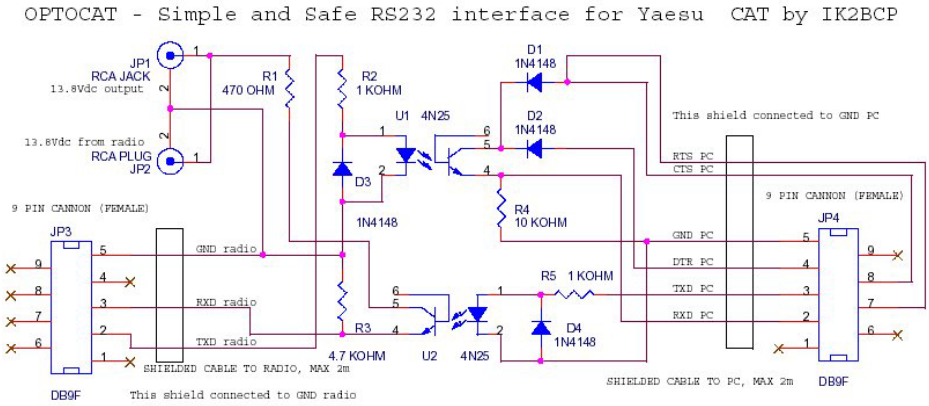


Figure 11: IK2BCP Yaesu interface

DK7IN has come up with this opto-isolated circuit with CW keying and PTT: if you are only interested in CAT applications the portion in the dotted box can be omitted.

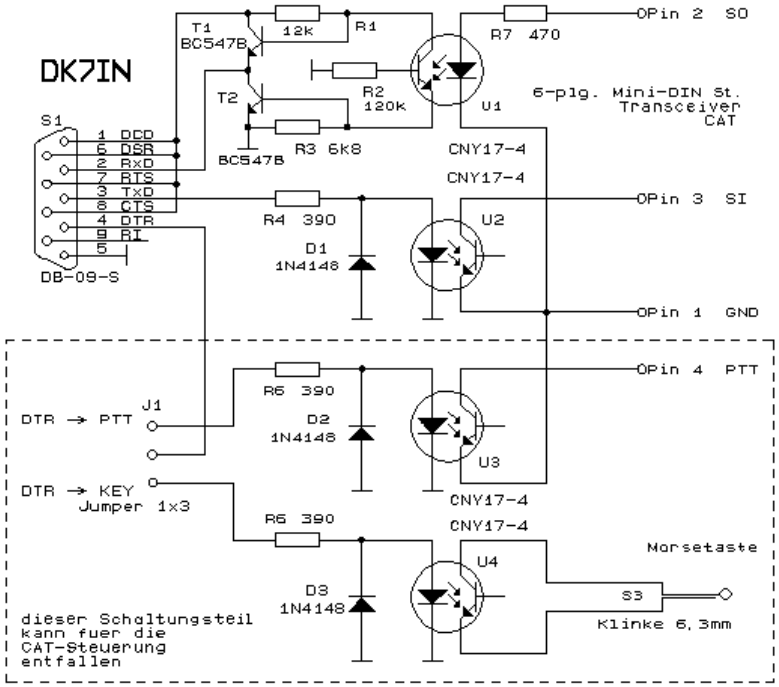


Figure 12: DK7IN's design

Rolf says of this interface: "It is important that the opto-coupler has a high current transfer ratio, otherwise the switching is not perfect and a current flows through both transistors T1 and T2. The CNY17-4 has about 300% transfer ratio. You should measure the output voltage at pin 2 of the DB-9 connector. It should be under 0.5V when applying +5V via a resistor of 1k to Pin 2 (SO) of the mini DIN connector and over 2.5V with the input voltage removed. R1, R2 and R3 should be adjusted for the used opto-coupler.

AUDIO INTERFACING

If you are planning on using PSK31 Deluxe (or any other soundcard mode) you will need an audio interface to connect your rig's audio in/out to the computer's soundcard.

Audio interfacing can be done in so many ways that it would take days to plough through all the available information. It is possible to connect your radio directly to your soundcard without any form of isolating interface but this is cannot recommended.

I shall assume that you want to do things properly, so here is a circuit that has proved its worth many times.

It will work with any Icom or Yaesu rig that has a 6-pin mini-DIN connector for external audio. It will of course work on just about any other rig that exists, but you will have to make changes to the connections to your radio. Please check the actual connections to the mini-DIN - I can accept no responsibility for damage to your rig should things go wrong. I have to say that the one that I built to this circuit worked perfectly well on my FT-817 and IC-703 without changes...

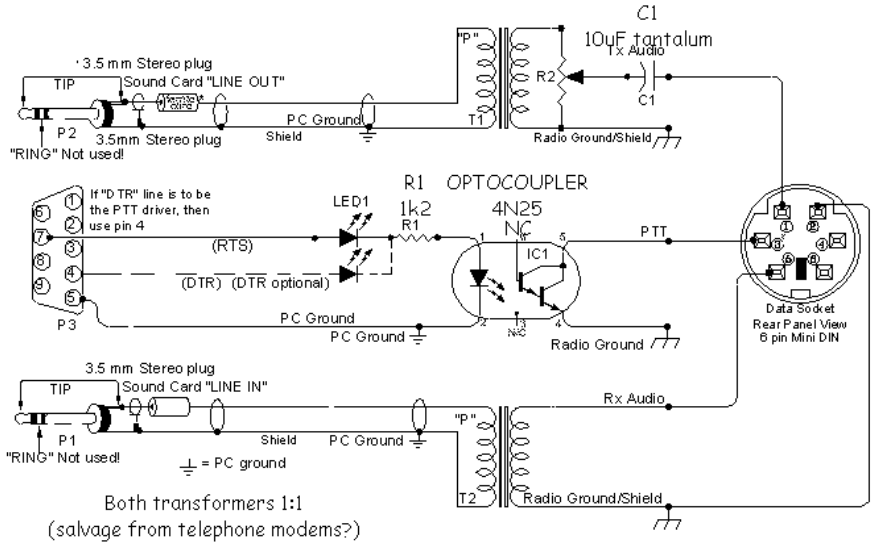


Figure 13: A proven audio interface: cheap and easy to build

You should always use the rig's high-impedance audio output if there is one available: this supplies a constant signal level to the soundcard. Most rigs also have a TX audio connector independent to the microphone input: you are advised to use this input. Some commercial interfaces don't allow this: my recommendation is to avoid any interface requiring use of the microphone connector and speaker output unless there is no other option for getting signals in and out of the radio.