

PROVED DIGITAL COMMUNICATION INTERFACE

The two capacitors are fixed using adhesive calibrated knobs. You can then calibrate the settings of the three controls so that they can rapidly be reset when you change frequency bands.

OPERATION

The best indication of optimum match-ing can be achieved using an SWR bridge; the ATU controls are adjusted sequentially and several times for minimum SWR. If used for receive only, the best antenna-to-receiver match can be achieved by adjusting the controls for maximum signal.

twisted together neatly. Identif-
 and finish of each winding
 meter and battery or an ohm-
 to let any tags from the capacitors touch
 the box as both sides of both capacitors
 are not earthed.
 An appropriate RF socket, such as a
 SO-239, BNC or phono socket may be
 used—the choice is yours and should suit
 your existing equipment. 2-4 mm sockets
 may be used for the balanced output. See
Fig 19.74 for layout. It is a good idea to
 make a graduated dial for each of the three
 control knobs. An alternative is to use



Fig 19.75 — The digital communication interface front panel features an analog TX AUDIO LEVEL meter indicating the level of audio being fed to the transceiver. The TRANSMITTING LED shows when the transmitter has been keyed, and the RX AUDIO LEVEL control makes it easy to adjust the audio level from the transceiver.

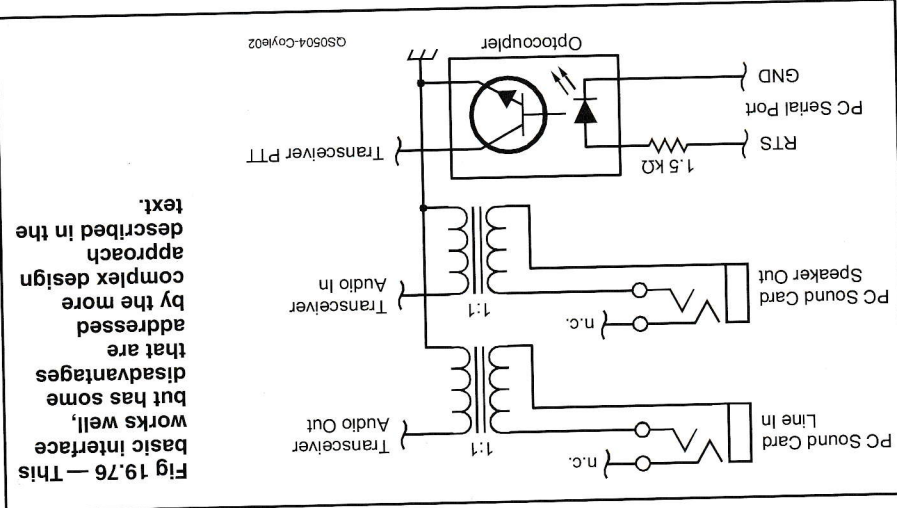


Fig 19.76 — This basic interface works well, but has some disadvantages that are addressed by the more complex design approach described in the text.

approach
 limited digital communication
 needs these requirements:
 require a serial port to control
 leaving serial ports free
 operations and allowing operation
 computers that lack serial ports
 (USB ports).
 ground isolation between the
 and transceiver.
 the audio
 (Sound card
 among computers and
 be changed by certain ap-

featuring interface for PSK31
 digital modes (**Fig 19.75**) doesn't
 port to control the transmitter
 though it was meant for use with
 -817 transceiver, the approach
 and should work with most
 (and perhaps not so mod-
 ern) PSK31 software
 (www.digipan.net). Larry
 originally described this
 2005 QST.
 plenty of digital interface de-
 there. The simplest approach is
 connection between the sound
 and SPKR jacks and the trans-
 resistor driven by the serial port
 switches the transceiver push-to-
 line. This system is prone to
 and 60 Hz hum. The circuit
Fig 19.76 provides some isolation
 computer and the transceiver.
 common approach works fairly well
 already eliminated the ground loop
 requires a computer serial
 the transceiver.