

desires to transmit and enables the MOSFET switch Q1.

The receive audio circuit is ac coupled to the operational amplifier U1A, a unity gain buffer. The input impedance is 15 k Ω , which is high enough to not load down any reasonable audio source. C2 is not critical and can be between 0.001 and 0.0047 mF to reduce chances of RF pickup. The audio is then applied to both modems with a source impedance of 470 Ω and no superimposed dc voltage.

The transmit audio is likewise ac coupled from each modem and only lightly loaded with 15 k Ω . This allows the use of a simple MOSFET switch like the Siliconix VN10KN. The operational amplifier U1C acts as a unity gain, inverting buffer and sums both TX audio signal and presents them with an output impedance of 470 Ω to the transmitter input. Again, C6 is not critical and can be between 0.001 and 0.0047 mF and reduces the chances of RF pickup.

The power supply circuit connects to 12 V dc and CR3 provides polarity protection. With a quad operational amplifier, like the LM 324AN, the whole power drain amounts to 1.5 mA. U1D divides the incoming dc voltage, filtered by C10 and C11 and applies it to the two buffer amplifiers as reference. R13 and C9 (Point A) provide filtering.

U1B is connected as a comparator. If the PSK modem PTT output (PTT2) is floating, U1B pin 7 is low, therefore

turning off Q1. If, however, PTT2 is lower than CR4, then U1B pin 7 is high, thus enabling Q1 and connecting the PSK audio to U1C, a unity gain buffer.

BBS and Other Applications

This interface circuit allows one transceiver to address two modems. It is thinkable to have a BBS with, for example, an AMTOR and PACTOR I/O. It is also possible to extend the circuit to three modems. If the transmit audio signals are always off while a modem is not transmitting, U1B, Q1 and all peripheral circuitry is not required. To the user, the interface circuit is totally transparent, yet only one HF rig and antenna is needed.

Summary

The described circuit has worked in my shack without any problems. It was implemented on a Radio Shack perforated board. Numerous AMTOR, PACTOR and PSK QSOs have been made with this interface circuit.

Authors Note: The PSK switching circuit works fine up to 200 mV PP TX audio. By putting a 0.047 μ F mylar capacitor in series with R8, the TX audio can be increased to 800 mV p-p amplitude.

Corrigendum

For several reasons—production problems and staff outages—we had many problems in publishing the January 1992 issue of *QEX*. We apologize for the lateness of the issue and for the following errors. These errors were corrections received from the authors, prior to publication, which were not made. Again, we apologize for any inconvenience these errors have caused. A corrected copy of John Albert's, WA9FVP, article, "A New DSP for Packet," can be obtained by sending a post card requesting the article.

A New DSP for Packet by John Albert, WA9FVP.

**Under the subheading "The DSP25 Block Diagram/Description," sixth line beginning "There is also..." This line should read "There is also a 16-bit I/O port on a 32-pin header connector to interface to a baby board which contains a dual parallel DAC for connecting an X/Y-tuning slope or other ancillary devices.

**Under the subheading "The Host Interface," line

five 8-kbyte should read 8-kword.

**Under the subheading "Software," under *Prefiltering*, in line one, 4-pole should read 6th order. Fifth line should read "...is then passed to the second 6th-order filter..." Under *FSK Decoding*, line one should read "Two 4th-order bowtie..." The heading *Power Filtering* should read *Post Filtering*.

**Under the subheading "Other PKTA/PKTB Modem Functions," under *Modem Parameters*, in line three, KIN1 should be DIN1.

Maxwell Without Tears, by H. Paul Shuch, N6TX.

The caption under Fig 4 should read: A graph of Something varying over Time (also known as a function). **Corrigendum** on page 14. ("Measuring the Mass of the Earth," originally published in the September 1991 issue of *QEX*.) This update was sent in by the article's author, H. Paul Shuch, N6TX. Also, the fraction 1/150th, which appears on line 17, should read 1/50th.