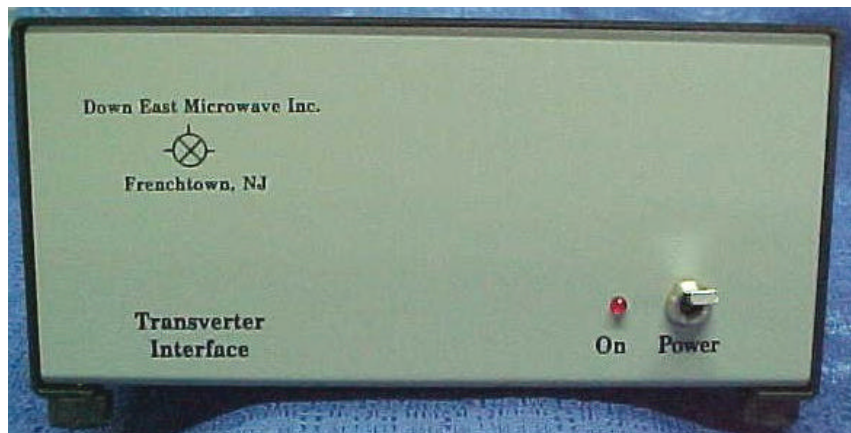




DEM TIB, TIBK and TIBCK Transverter Interface Board

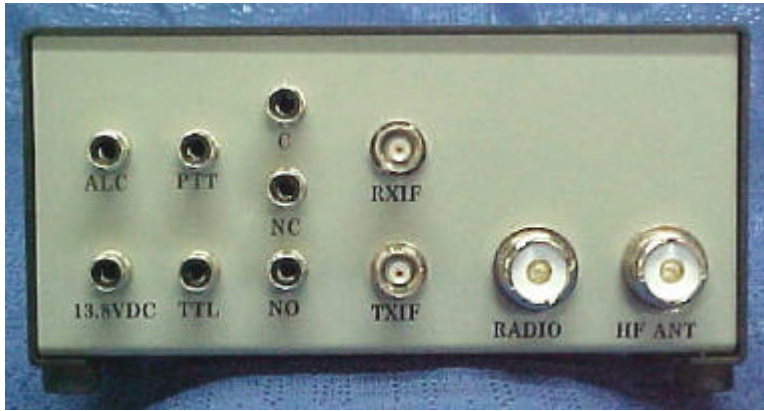
Operation & Description

The DEM TIB is a circuit that will interface any transverter to any transceiver that has an ALC input circuit. The ALC input circuit, is intended to be used in conjunction with a external power amplifier. The idea is that when an amplifier becomes over-driven, it generates a small amount of negative voltage that is feed back to the transceiver's ALC input circuit. This will reduce the power output of the transceiver, thus reducing the over-drive condition. If the negative voltage was to increase, (more negative), it would eventually lower the transceiver's power output to a level that transverters could tolerate. This negative voltage is specified as a range (-8V to 0V is common) on all transceivers that have an ALC input. What the DEM TIB accomplishes is the following. It is installed by connecting the ANT port of the transceiver, the original antenna, a +12VDC line that is common to the transceiver and the ALC input. With the TIB switched off, the TIB and transverter are transparent to the transceiver. (Normal transceiver operation) When the TIB is switched on it connects the ANT port of the transceiver to the transverter, and generates a negative voltage to the transceivers ALC input thus disabling the power amplifier. When a transmission is made, the TIB will route the signal to the transmit port of the transverter. So by simply turning a switch on and off, the user can go back and forth from the Low bands to a transverter system with out connecting and disconnecting cables. In the future, a high power version without the negative voltage ALC circuit will be offered, (DEM TIB-H), that could be used with 25 W multi-modes. It will have a 50W dummy load and the other circuits to interface a transverter yet keep the intended use of the multi-mode intact!



Specifications

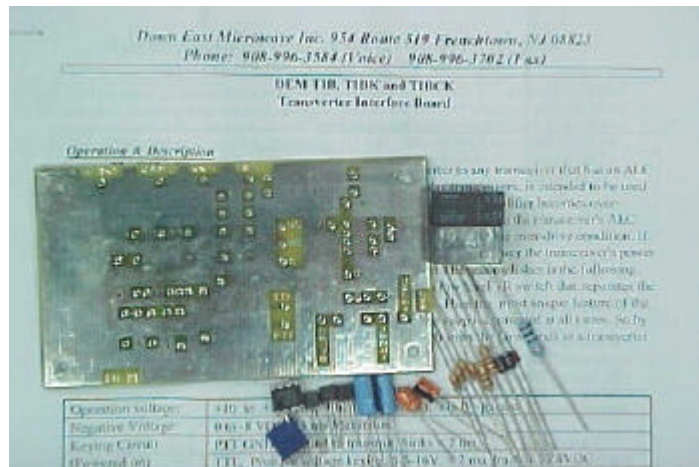
Operation voltage:	+10 to +16VDC. When powered off, it is By-passed.
Negative Voltage:	0 to -8 VDC, 25 ma Maximum.
Circuit activation: (Not By-passed)	PTT GND, Ground to transmit. Sinks < 1 ma TTL, Positive voltage keying, 1.5-16V. < 2 ma drain @ 13.8VDC
By-pass Power Limit:	150 Watts, CW, 3:1 VSWR
User options:	Fixed attenuator on TXIF port. 1 watt max. cw power. Used only when transceiver is disabled by ALC input



TIB Back View



TIB Inside View



TIBK-PC Board Parts Kit