



DR50U Application NOTES

CIRCUIT DESCRIPTION:

Power amplification is achieved by using 4 amplifiers. The first amplifier stage is class A and includes the Active ALC attenuator. The second and third stages operate as CLASS A amplifiers. The first three stages are housed in a single replaceable module (UDR10C) which can be replaced in the field in case of failure. The final stage is the U150A amplifier operating hard AB for optimum linearity with plenty of head room for digital wideband signals. Both power modules used in this assembly are included in the Pineapple Technology Inc.'s **PALLET AMPLIFIER LINE.**

The ALC circuit is microprocessor controlled. The control voltage is developed from a 0 dBm sample taken at the transmitter output directional coupler. This sample is converted to a DC signal which represents the True RMS power output of the transmitter. The ALC circuit includes provision for controlling the transmitter output power level with up and down switch. Once the desired output power level is reached, the track switch is activated, and the transmitter output level will be maintained at that level. The ALC circuit includes an alert signal in case the ALC operation is out of range.