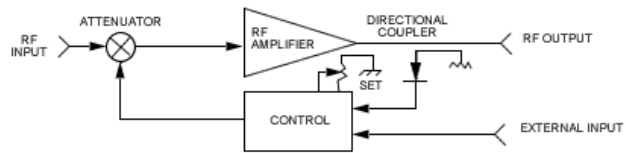


Leveling Loops, Input Overdrive Protection



The leveling loop operates by sampling and detecting the RF output signal and feeding it to the control circuits. An operational amplifier compares the level of the sampled signal to a reference signal and drives the input current controlled attenuator in such a manner as to keep the sample and reference signals the same.

Applications:

Input Overdrive Protection - Amplifiers, especially Class AB, will deliver increased RF output power as a function of increased input power, sometimes to destruction. Presetting a maximum RF output power (internal leveling as indicated above) protects the amplifier from excessive drive. The overdrive protection is approximately 6 dB over normal input level.

External AM Modulation - The RF output power will track an external reference voltage, assuming sufficient RF drive, over a range of input modulating frequencies, typically 300 to 3000 Hz.

External Leveling - An external DC signal can be used to set the RF output power. The power set is relatively flat as a function of frequency and is approximately a function of the output directional coupler and detector flatness.