



WIRELESS TECHNOLOGIES

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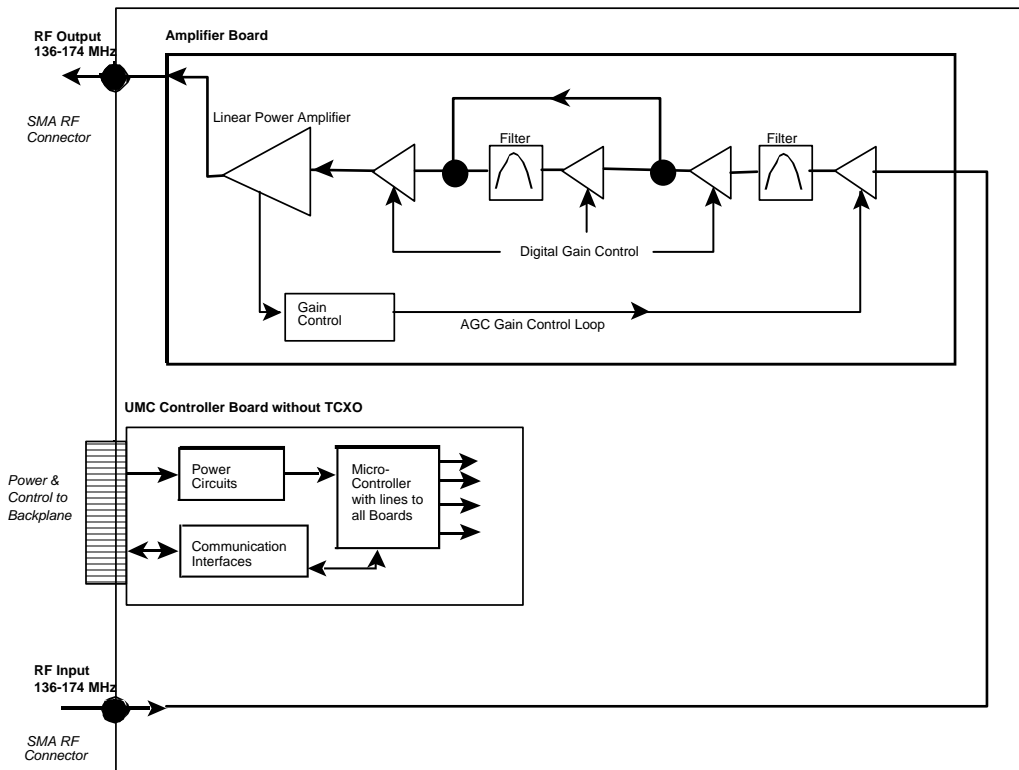
## LNKA100 Theory Of Operation

Updated Dec.15,2003

A LINKNET AMPLIFIER MODULE is a Broad-Band Digitally Controlled Class-A Amplifier. The most common LINKNET AMPLIFIER MODULE applications are the extension of above ground signals into buildings, tunnels, vehicles or the extension of radio coverage patterns into outdoor shaded areas such as deep valleys.

From an applications standpoint, an LINKNET AMPLIFIER MODULE is very similar to a regular two-way radio repeater. On Frequency Radio Repeaters can be combined using regular two-way radio multicoupling or duplexing equipment and have input and output signal characteristics to those of regular transmitters and receivers. The one special consideration in LINKNET AMPLIFIER MODULE systems is that of input to output antenna isolation. This must be carefully engineered for each installation.

These Modules are designed for indoor use only and are intended for mounting in a standard EIA 19 inch rack. Modular design of LINKNET AMPLIFIER MODULE circuitry allows for easy servicing, stocking of spares, adaptability and upgrade ability.



There is no **Tuning** for this product. It is calibrated when it undergoes Factory Testing. When installed the Amplifier is set up by software (see the User Manual) for the desired Gain and AGC setting. The combination of these two settings ensures that the Maximum Power and RF De-Rating requirements are met.