

Operational Description

This repeater (model:WUR-880) is a compact bi-directional linear amplifier for 800 MHz AMPS band. It is ideal for extending two-way voice and data communications for null areas. This unit features 80 dB gain and output IP3 level of +45 dBm. Useable output power is +30 dBm maximum.

Repeater Module

This is the first stage amplifier and has the greatest effect on the Repeater's Noise Figure. The signal received from the Donor antenna is fed in to the LNA via a duplex filter. This LNA is working for 800 MHz signal with very low noise and high gain.

Controller

This module controls repeater's whole functions. There are several I/O ports for measurement and monitoring of the repeater status.

Power Supply

It supplies 8 VDC to the Repeater from the external power source (110 V AC)

LNA part

This is the pre-amplifier section that has the greatest influence on the noise figure of the repeater.

The signal received by the antenna passes thru the duplexer filter, and only the signal with frequency band of interest passes thru the duplexer filter. The output of the duplex filter then is fed into the LNA. This LNA is composed of low-noise and high-output circuitry that has a high gain.