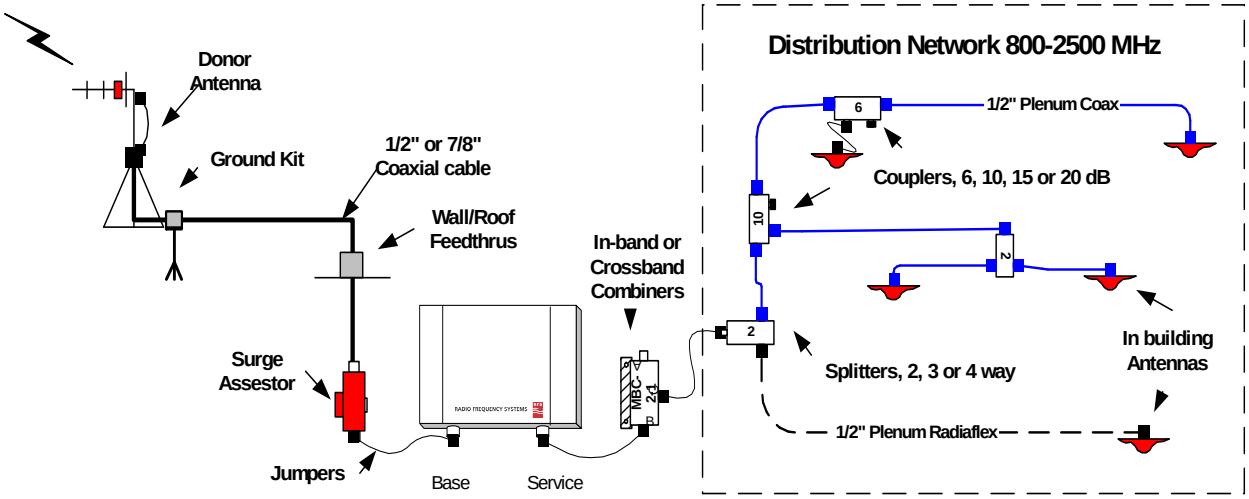
RADIO FREQUENCY SYSTEMS

Operational Description:
IWD48760

The 48700 bi-directional amplifiers/ repeaters/signal boosters are designed and optimized for low cost, high reliability, and ease of use. They are designed to enhance radio communication in buildings, basements, tunnels and other RF shielded environments. The 48760 is a dual band BDA that will amplifier both the 800 Mhz SMR band and the 900 Mhz SMR band.

These units work by receiving and amplifying the base TX signals via a donor antenna directed at the desired base site. This RF path is called the downlink. The amplified base TX signal is re-radiated via antenna(s) or radiating cable into the Service Area. Subscriber mobile RF signals are received by the same service area radiating elements and amplified in the uplink RF path to be radiated back to the base via the donor antenna.



The uplink and downlink amplifiers are broadband to accommodate all the channels in the passband. Differentiation is provided by the duplexing filters. These determine the basic pass band and prevent oscillation between the uplink and downlink by attenuating the opposing link frequencies.

Both the downlink and uplink gain paths have Manual and Automatic Gain Control (AGC) to prevent an overdrive condition. The AGC set point is factory set so that the output of the link will not exceed FCC limits for spurious emissions.

The control board distributes DC power to the amplifier modules and monitors each module for any fault conditions. LED indicators provide visual diagnostics while the 15 pin Dsub connector has DC and TTL test points for more in-depth trouble shooting.

ISO 9001
Certificate No. 16441

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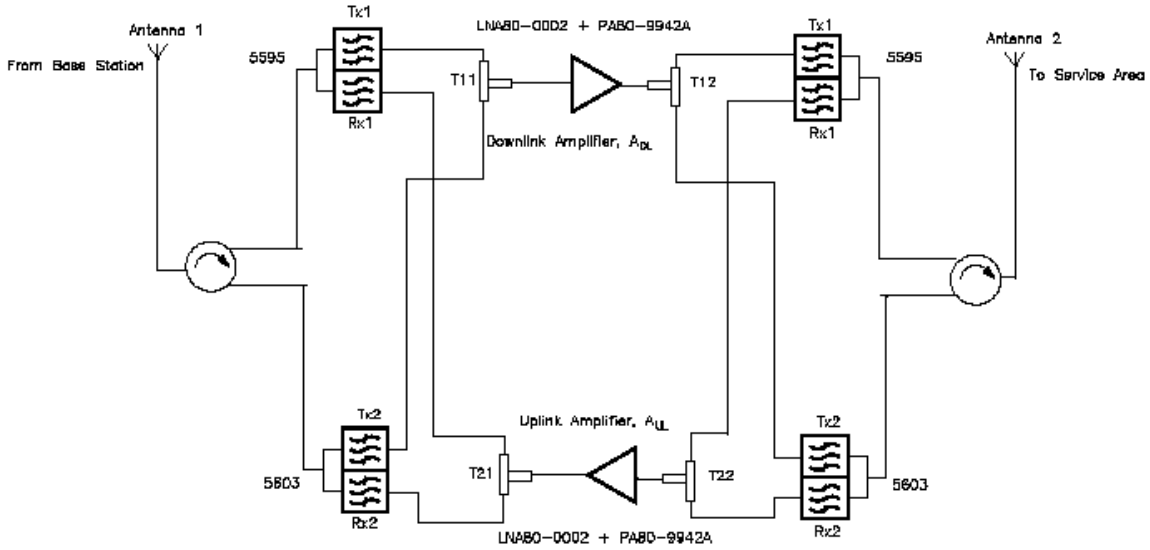
Block Diagram



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