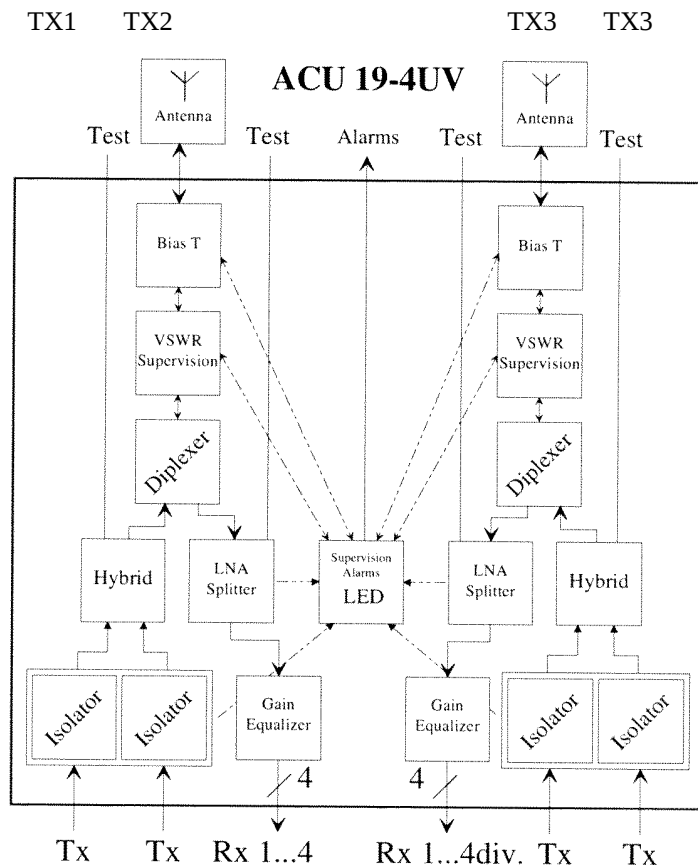


BLOCK DIAGRAMS

BLOCK DIAGRAMS

Section 2.1043 (b) (2)

BLOCK DIAGRAM OF COMBINER - ACU 19-4UV



FUNCTIONAL DESCRIPTION OF THE COMBINER (AC19_4UV)

As the above circuit diagram shows the AC19_4UV consists of two identical stages. The function of the each stage is to combine the output of the two radio's together and feed it through a single Antenna. On the Transmit side to achieve this each radio signal goes through an isolator and then passes through a 3 dB combiner into a diplexer and out to

the Bias T and then to the Antenna. TX3 and TX4 are combined the same way as TX1 and TX2.

Due to 3 dB combiner each TX signal is reduced to half of its output power, the total output power is same as single TX output power. This configuration reduces the installation cost for the network operator on the expense of reduced transmission range.

The frequency settings are controlled by Operational Software such that there is no chance of both sharing transmitters, being able to transmit on the same frequency.