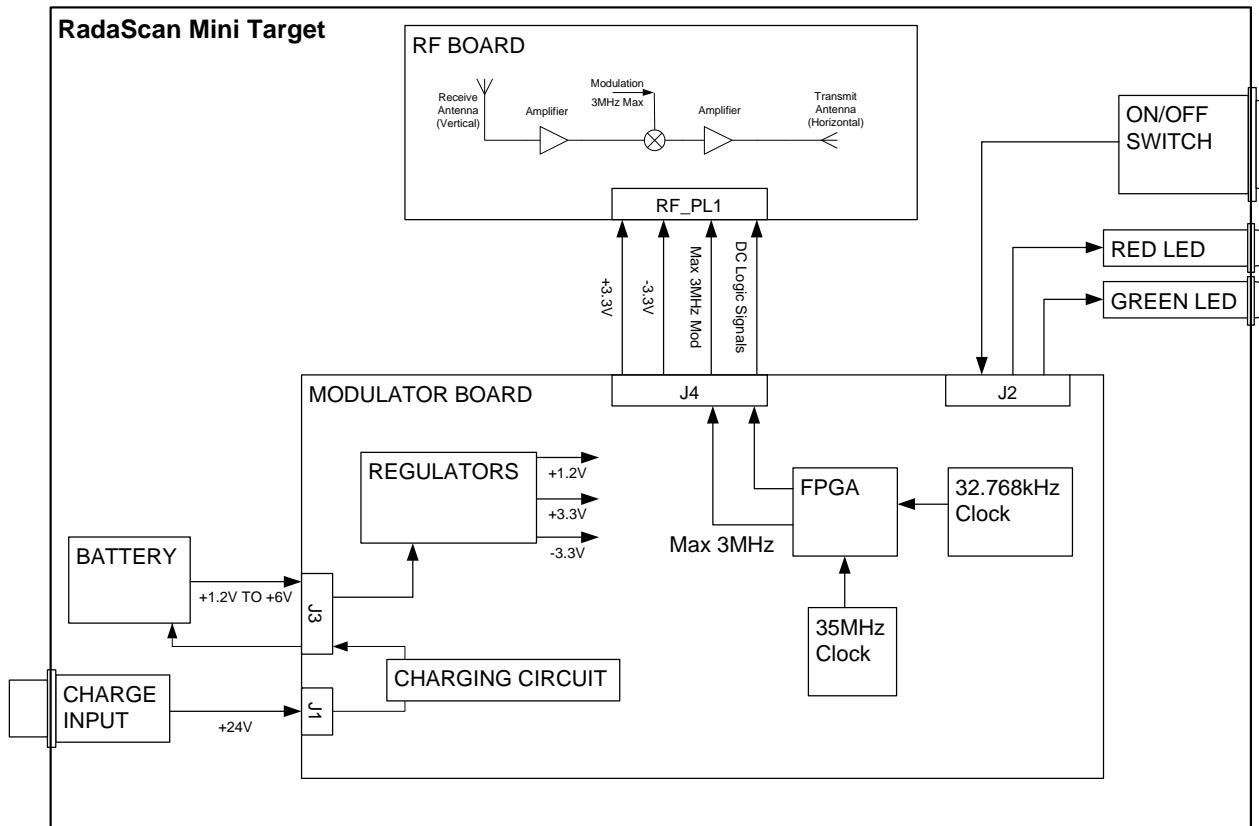


3. SYSTEM BLOCK DIAGRAM

Figure 3.1 below shows a System Block Diagram for the Mini RadaScan Responder.

3.1 Figure 3.1, RadaScan Mini Responder System Block Diagram



There are 2 electronic PCBs: the RF Board and the Modulator Board. The battery supply is connected to the Modulator board which has the voltage regulation circuitry. The charger input is nominally +24V and is connected to the battery via charging electronics on the Modulator board. Two clocks drive an FPGA which is used to generate the modulation signals with a maximum frequency of 3MHz to the RF board. The FPGA monitors for correct operation and battery status, controlling 2 LEDs to indicate operational status to the user. The front of the Responder is a radome allowing the reception and transmission of the microwave signals to the RF board.