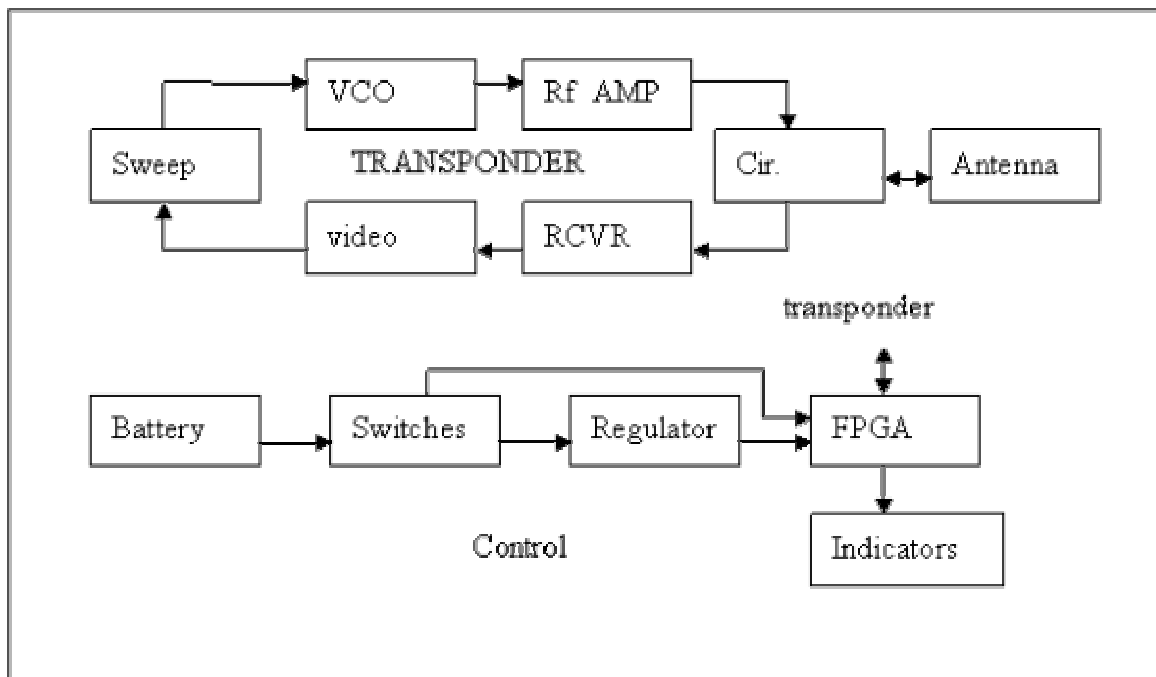


Operation Description:

The pathfinder 3 SART is a Search and Rescue 9 GHz Radar Transponder. When a SART is turned on and receives a proper signal from 9 GHz radar.

The SART provides a coded echo signal displayed on radar receiver as a sequence of 12 dots.

Block diagram:



SART containing two major blocks Transponder and Control after turning the power switch on the FPGA will run test sequence and activate receiver. Valid signal from radar is received by the SART antenna and is going through circulator to the receiver circuit where is amplified and signal processed. This signal will cause the FPGA to activate RF amplifier and sweep circuits generating 12 ramp from 9.2GHz to 9.5 GHz. The ramp signal is amplified by RF amp and radiated by the antenna. Detailed semiconductors description and the circuits are in our filed exhibit.