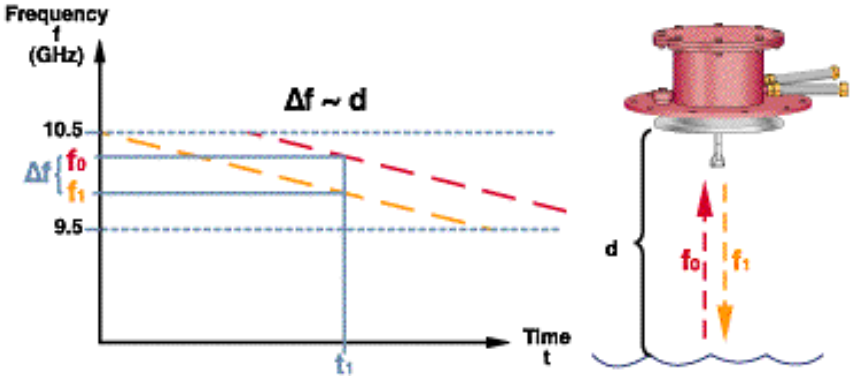
RADIO PROXIMITY FUZE & ALTIMETER SIGNAL PROCESSING SYSTEM

SPECIFICATIONS

- ADSP -TS201SABP @600MHZ
- Xilinx Virtex II Pro -XC2VP40 FPGA
- External SRAM Memory 512K x 32K Bits
- ADC No. of Channels : 2
- ADC sampling Frequency : min=2MHz,max=40MHz
- ADC resolution :14 bit
- Frequency :2 MHz to 40MHz
- Telemetry signals Interface
- RS232/RS422 Asynchronous Serial Ports
- Qualified as Per MIL -STD -461C/D

FMCW RAM is based on the state if the art technology using FMCW technique to measure the height of Aircraft. The systems addresses issues like number of detections to declare the presence of beat signal during search mode, initial sweep period to cover the total altitude range, range of beat frequencies generated, maximum Doppler shift due to altitude rate, maximum spectral spread due to wide antenna beam width, receiver resolution issues, sweeps required to acquire FFT frame data, etc are addressed.

The Digital Signal Processing (DSP) algorithm for altitude processing has been outlined with the help of a block diagram. The processing required during search, search to track and track modes is discussed.



* Note : Specifications are subject to change without notice