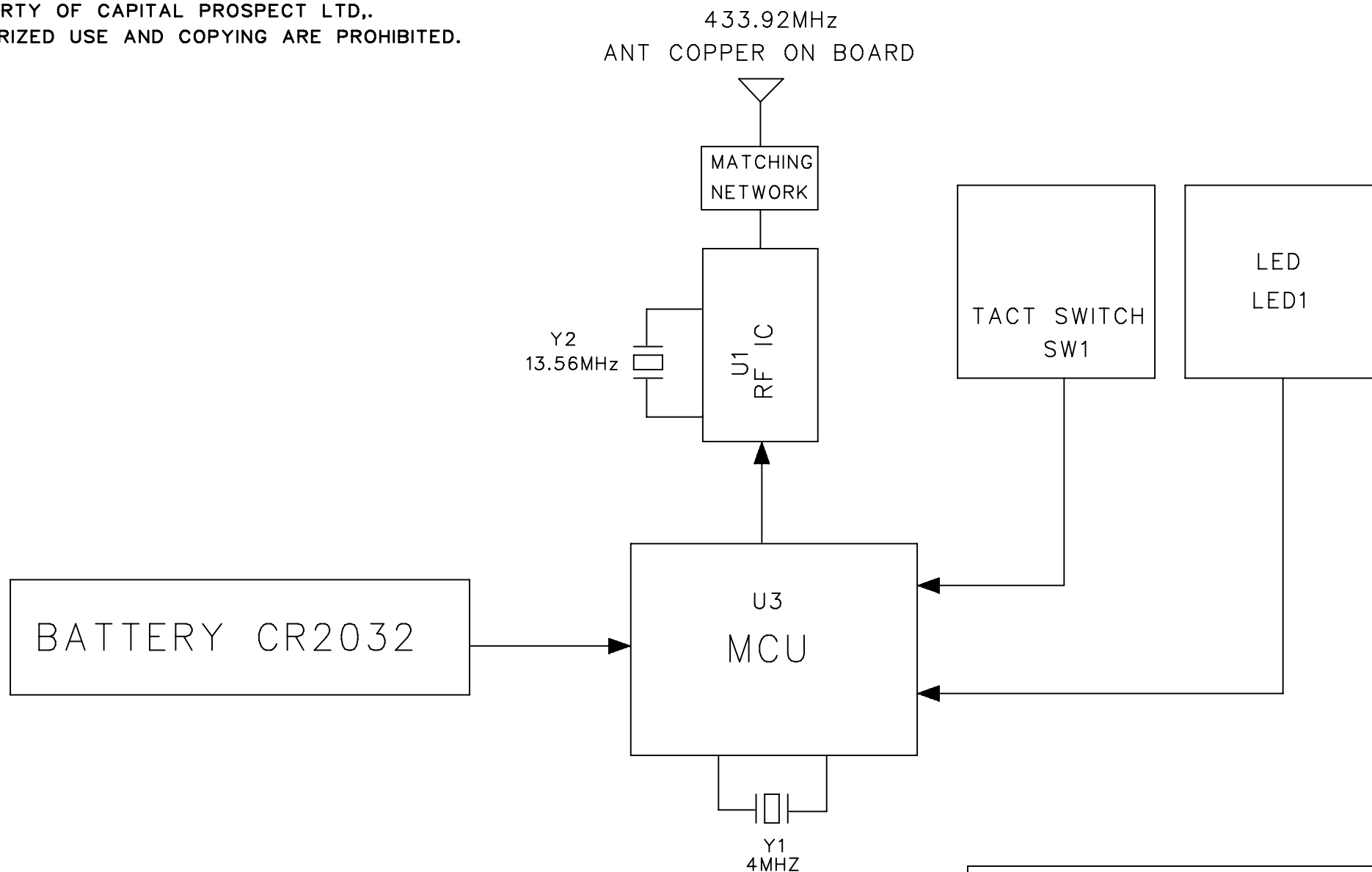


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# IG-002 BLOCK DIAGRAM



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Title IG-002

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PCB 1  
 PCB, 002Z349-A

## Functional Diagram

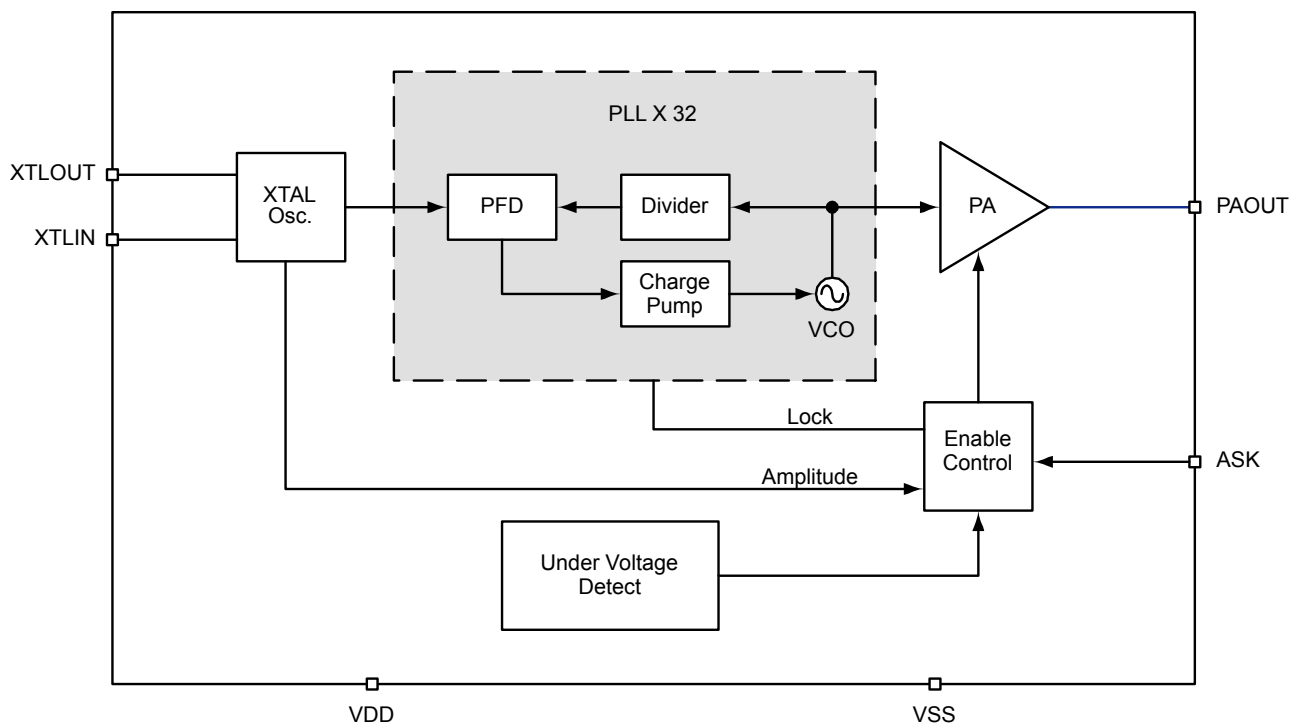


Figure 3. Functional Block Diagram MICRF113

## Functional Description

Figure 3 is a functional block diagram of the MICRF113 transmitter. The MICRF113 is best described as a phase locked transmitter. The MICRF113 system is partitioned into five functional blocks:

- Crystal oscillator
- PLL×32
- Power amplifier
- Enable control
- Under voltage detection

### Crystal Oscillator

The reference oscillator is crystal-based Pierce configuration, designed to accept crystals with frequency from 9.375MHz to 14.0625MHz.

### Crystal Oscillator Parameters for ASK Operation

Figure 4 shows a reference oscillator circuit configuration for ASK operation. The reference oscillator is capable of driving crystals with ESR range from 20Ω to 300Ω.

When the ESR of crystal is at 20Ω, the crystal parameter limits are:

ESR 20Ω

Cpar 2 to 10pF

Cmo 10 to 40fF