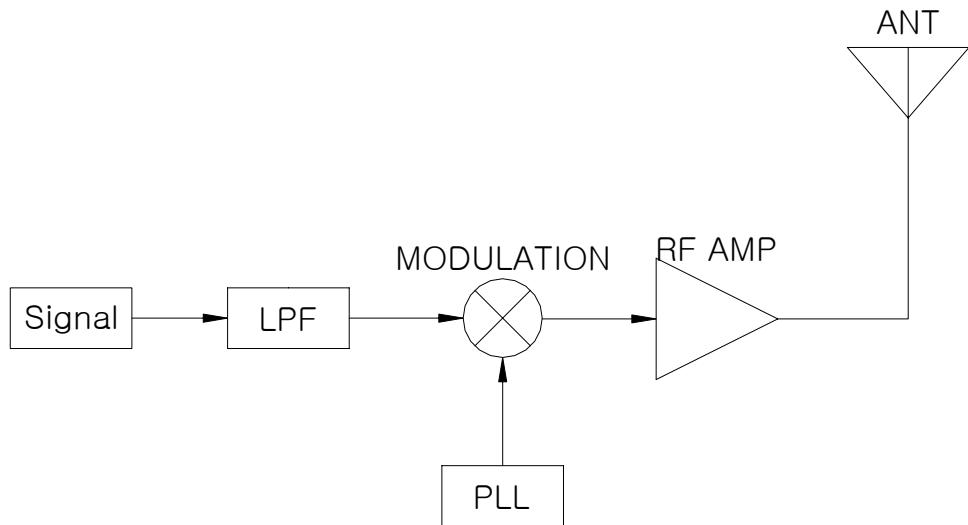


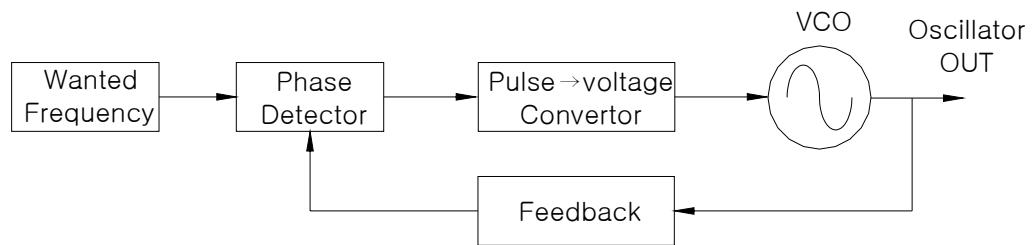
## FM Transmitter Function



The FM transmitter radiates FM wave on the air by modulating the carrier signal with a composite signal.

- 1) SIGNAL : Signal Input
- 2) LPF : LOW PASS FILTER – HIGH FREQUENCY CUTOFF  
(Cutoff frequency : 15KHz)
- 3) MODULATION : Stereo Modulator
  - The stereo modulator generates a composite signals consists of pilot signal from a 38kHz oscillator.

#### 4) PLL



- (1) Output frequency result receives feedback.
- (2) Compare with frequency value that must appear originally in Phase Detector.
- (3) Have created pulse equivalent to difference of two frequencies.
- (4) Put in input of VCO changing the cost to proper voltage value.

- ※ VCO (Voltage Controlled Oscillator)
  - VCO is consisted of colpitts oscillator circuit.
- ※ Carrier signal band : 89.0MHz ~ 91.9MHz
  - (Step - 0.1MHz ; channel - 30ch)

#### 5) RF AMP

- Amplify carrier signal that composite loads.