

<NT-80 BLOCK DIAGRAM>

The diagram illustrates the NT-80 radio circuit, showing the flow of signals and power through various components and integrated circuits (ICs).

Key Components and Connections:

- Antenna:** Connected to the **HARMONIC FILTER** and the **ANTENNA SWITCH** (D50, D51).
- Front End:** Consists of a **BPF** (Band Pass Filter), **LNA** (Low Noise Amplifier, Q50), and another **BPF**.
- Mixer:** Q51, which receives input from the Front End and the **LOCAL BUFFER** (Q64).
- IF Amplifier:** Q52, which receives input from the Mixer and the **2nd LOCAL X-TAL** (X60).
- VCO (Voltage Controlled Oscillator):** Consists of **Q61 RX VCO** and **Q62 TX VCO**, controlled by the **VCO BUFFER** (Q63).
- PLL (Phase-Locked Loop):** U102, which receives input from the **PRESCALER IN** and **REFERENCE OSC** (U103).
- IF IC:** U100, which receives input from the IF Amplifier and the **455kHz DISCRIMINATOR** (X61).
- Power Module:** U101, which receives input from the **TX DRIVE** (Q56) and the **APC** (Automatic Power Control).
- TX Buffer:** Q65, which receives input from the **TX DRIVE** (Q56) and the **TX MODULATION** signal.
- Loop Filter:** Q58, Q59, which receives input from the **TX MODULATION** signal.
- Charge Pump:** Q59, which receives input from the **TX MODULATION** signal.
- DCS Detector:** U203, which receives input from the **DCS DETECTOR** and **TONE DETECTOR** signals.
- MPU IC:** U200, which receives input from the **DCS DETECTOR**, **TONE DETECTOR**, **DCS GENERATOR**, **SDATA**, **SCLK**, **STB**, **RSTN**, and **BEEP GENERATOR** signals.
- Audio Processing:** Includes the **AUDIO AMP** (U205) and **AUDIO MUTE** (Q206).
- Control Logic:** Includes the **PTT** (Push-to-Talk) and **MONITOR** signals, and the **CHANNEL SWITCH** (U202).

The diagram shows the interconnections between these components, including power supply lines (VCC, GND) and various control signals.

