

The diagram illustrates the internal components and signal flow of the AZDEN ZR-1000 radio. It is divided into two main sections: the AF CONTROL PWB (55-355) and the RF PWB (55-356).

AF CONTROL PWB (55-355):

- Inputs:** MIC IN, 9V power supply, and a 4.19MHz crystal (X2).
- Processing:** The signal path includes a PHANTOM PWR SW (SW1), MIC AMP (IC1 1/2), PRE EMPHASIS (R10.11, C11.12), COMPRESSOR (IC2), MUTE (Q1.2, SW2), AF AMP LPF (IC3 1/2), LPF (IC3 2/2), ANALOG SW (IC4), and a TONE OSC (IC5) with a 32.768kHz crystal (X1).
- Control:** A CONTROL CPU (IC10) manages the system, receiving inputs from a RESET (IC7.8, D3), EEPROM (IC9), UP/DOWN MODE (SW4.5, 6), and an LCD DISPLAY. It is powered by a 5V REGULATOR (IC11, D2) connected to the 9V supply.
- Rectification:** A RECTIFIER (IC6, D1) is used for signal processing.

RF PWB (55-356):

- Frequency Synthesis:** A PLL (IC2, Q3, D2.4) with a 12.8MHz crystal (X1) provides a reference frequency to the VCO (Q101.102, D101.102) and the VCO CONTROL (Q4).
- Power Amplification:** The VCO output passes through a MULTIPLIER (Q6), BPF (FL1), and RF POWER AMP (Q7) to the antenna (ANT1). The VCO CONTROL (Q4) also provides feedback to the RF POWER AMP (Q7) via an RF CONTROL (Q5).
- Power Regulation:** A 5V AF/RF REGULATOR (IC3) and a 9V MIC AMP REGULATOR (IC1) manage the power supply for the respective sections. A POWER SW (Q1.2, D1) is connected to the 9V supply.
- Indicators:** A POWER INDICATOR LED1 is used to show the power status.

Legend:

- APPL.: AZDEN CORPORATION
- FCC ID: BZB1000XT
- JOB: 168AU1
- DATE: 02/14/2001
- PART: 74
- Exhibit 2

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