Podz RF Modules

Last revised on: 19th April, 2006

TRANSMITTER

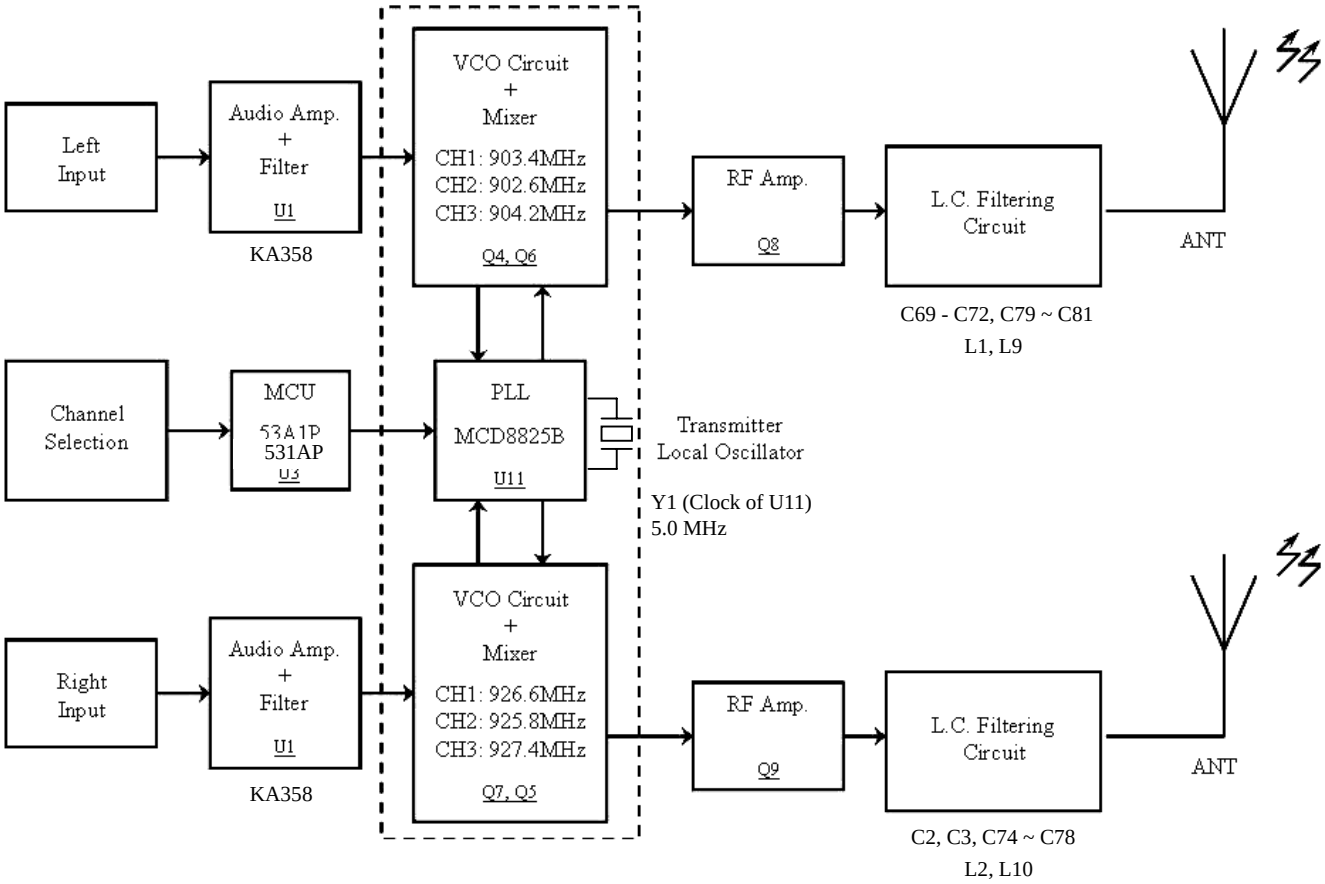
Left and Right channel audio signal first passes to an **Audio Filter and Amplifier**, and then mixes the local oscillation frequency from **VCO Circuit** in **Mixer.**
(The local oscillator frequency is controlled by **PPL (IC MCD8825B) Circuit** and **MCU**).

Then the mixed signal passes though a **RF Amplifier** and **L.C. Filtering Circuit**.
Finally the RF signal is transmitted though a specified antenna.

For left channel modulation, the local oscillator frequency uses 903.4 MHz (Channel 1), 902.6 MHz (Channel 2) and 904.2 MHz (Channel 3).

For right channel modulation, the local oscillator uses 926.6 MHz (Channel 1), 925.8 MHz (Channel 2) and 927.4 MHz (Channel 3).

Transmitter Block Diagram



MCU is U3 531AP.

Left Channel Audio Filter and Amplifier is formed by U1, R1, R2, R4 ~ R8, R11, C1, C4 ~ C9, C17, C83, C84 and VR1

Left Channel Mixer, VCO Circuit and PPL (IC MCD8825B) Circuit is formed by Q4, Q6, D6, C26 ~ C40, L4, L11 and R29 ~ R38.

Left RF Amplifier is formed by Q8 and C69 ~ C72.

Left LC Filtering Circuit is formed C69 ~ C72, C79 ~ C81, L1 and L9.
Right Channel Audio Filter and Amplifier is formed by U1, R9, R10, R12 ~ R15, R26, C10 ~ C14, C21, C24, C25, C85 and VR

Right Channel Mixer, VCO Circuit and PPL (IC MCD8825B) Circuit is formed by Q7, Q5, D5, C41 ~ C55, L5, L12 and R40 ~ R50.

Right RF Amplifier is formed by Q9 and C74 ~ C78.

Right LC Filtering Circuit is formed C2, C3, C74 ~ C78, L2 and L10.

Antenna Location