**Model M2T**

# Operational Description of M2T Transmitter

## Audio Circuit

1. The stereo signal is adjusted with user adjustable input-trim, then compressed by the compressor circuitry to limit the occupied bandwidth.
2. 38kHz tone signal is generated by CPU and is fed to the stereo modulator.
3. 38kHz tone signal is also fed to 1/2 divider, then the 19kHz stereo pilot tone is generated.
4. The compressed stereo audio signal is multiplexed by the stereo modulator then mixed with 19kHz stereo pilot tone and becomes stereo composite signal.

## RF carrier oscillator and Modulator Circuit

1. The RF carrier frequency is oscillated by VCO controlled with the PLL circuitry.
2. The User is able to select desired frequency (channel) by selecting Group/Channel switches.
3. The stereo composite signal is adjusted by the internal level pot then fed to the VCO and generates FM signal.

## RF buffers and power amplifier

1. The FM RF signal is fed to RF buffers then input to the driver for the power amplifier.
2. The RF signal from the power amplifier is passed through the 3-stage L.P.F then fed to antenna.
3. The RF signal from the power amplifier is also fed to the A.P.C circuitry and it controls output power of the power amplifier to be more stable by adjusting the gain of the RF driver.
4. The APC circuitry is also controlled by CPU to set the desired output power.