TX Operation Description

Transmit Frequency: 88.1M-107.9MHz
Modulation Type: FM

1. Audio signals are input from channel L & R. Through RC low-pass filters and coupling capacitors, the audio signals input to pin 1 and pin 18 of IC U1-BA1404. The signals are amplified and encoded inside U1 and output from pin 14. After pilot tone modulation, input to pin 12 of U1 for RF oscillating.

2. XF1 oscillator provides 38 kHz. After 1/2 division, 19 kHz is produced as pilot signal. It is synthesized with encoded signals to be stereo modulated signals. Stereo balance can be adjusted for best performance by a variable Resistor connected to Pin 16 and pin 17 of U1.

3. RF oscillating circuit consists of L2, C17, C16, VC1, pin 9 and pin 10 of U1. FM Carrier frequency and the stereo modulated signals are mixed, modulated and amplified in U1. RF signals are output from pin 7 to match network to antenna for transmission.

4. C14 and C15 are OSC capacitors for frequency selection by SW1: 88.1-92.0MHz, 92.1-98.0 MHz, 98.1-107.9 MHz. VC1 is a variable capacitor for frequency linear adjustment.