

Operational description of 7255-TRIPAUNI

This Unit is a Wide-Band- iTrip Auto Universal modulator, with four selectable output frequencies (88.1MHz to 107.9MHz, in 0.1MHz increments) which is selected by four-position dip switch and install in car for listening the music (such as iPod) or others via car's radio.

Operating process:

1. Connect audio signal (may be come from iPod) to the audio input port of 7255-TRIPAUNI.
2. Select the desired frequency channel via dip switch. Power on the 7255-TRIPAUNI.
3. 7255-TRIPAUNI will radiate the RF signal (WFM modulated signal) to the air in selected frequency channel.
4. Tune the frequency of the car radio to the desired frequency. Car radio will receive the audio signal as the signal send to 7255-TRIPAUNI if car's radio select the same frequency channel.

Power Requirement:

This unit input is automobile DC12V accessory port. Operated is DC3.3V.

Main Chip

1:. This unit uses a ROHM BH1415FV (U4) with 7.6MHz crystal frequency simple configuration. The BH1415FV is a FM stereo transmitter IC that transmits stereo composite signals and a FM transmitter for broadcasting a FM signal on the air. The FM output frequency is controlled by 2 wire (pin 17 data and pin 16 clock) control by micro controller (P733).

The FM output pin is pin 11. FM signal pass through a Filter to reduce the harmonic noise, then a class A amplifier to drive a internal antenna which is printed on P.C.B.

The stereo modulator generates a composite signal which consists of the MAIN, SUB, and pilot signal from a internal 38KHz oscillator.

The FM transmitter radiates FM wave on the air by modulating the carrier signal with a composite signal. The transmission frequency is stable because it has a PLL system FM transmitter circuit. Frequency is set for North America.