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ARKON®
Wireless Technology

Technical Description

Model No. : RS961

RS961 is an UHF transmitter with its center frequency at 912.5MHz. The transmitter consists of voltage regulator. Audio pre-amplifier, high frequency filter, automatic power controller circuit, high frequency local oscillator, power amplifier and antenna.

Stereo audio signal is fed into transmitter left (and right) channel, and passes through pre-emphasis circuit C5, R3 (C6, R2) to pre-amplifier IC1 which is built in auto gain control circuit. The amplified audio signal then passes through low pass filter network L4, C15, C17 (L3, C14, C16) to filter high frequency noise behind 15.625KHz. This audio signal is used for two purposes, one is through R47, C43 (R48, C44) to IC4B (pin 6) for automatic power control of high frequency transmitting; another is fed to pre-emphasis circuit C19, R20 (C20, R22), then through C21 (C22) to stereo modulator (IC2).

The 38KHz pilot signal generated by oscillator (X1, C35, R33) enters IC2, then mixes, modulates with audio signal in IC2. The output of IC2 is, through R27 and C26, fed to UHF module. After amplified, 912.5MHz carrier signal generated in UHF module is transmitted from antenna.

AC220V is transformed into DC19V by AC/DC adapter as the input of voltage regulator (IC3). The DC12V output of IC3 is for IC1 power supply and connected to switch transistor Q1, which is controlled by IC4B and IC4A, for auto power ON/OFF. When there is no audio signal detected in IC4B (pin 6), Q1 is off; when audio signal level is big enough in IC4B (pin 6), Q1 will be ON, then signal may be transmitted by antenna.