

Circuit Description of 625 Transmitting Unit

Power Supply

Power from AC adaptor or battery is regulated by the regulator circuit formed by Q6 and ZD2. The regulator can provide a stable voltage to other circuits.

Mic Amplifier and AGC

Signal from microphone is amplified by U1. The mic signal is further amplified by Q4 and then fed to FM modulation circuit. Q9, D2, C35, Q8 and Q7 form a AGC circuit. When the mic signal is too large, Q7 will turn on to reduce the mic signal. In this way, the FM deviation can be limited.

RF Frequency Oscillator

The crystal oscillator circuit consists of XT1 (or XT2), VC1, T3, Q3, C7 and C8. The oscillating frequency can be selected by the switch. The capacitance of VC1 is varied by the audio signal from Q4, thus performing the FM Modulation.

Frequency Tripler Circuit

The RF frequency from crystal oscillator is tripled and selected by the tuned amplifier, Q2 and T2. This RF signal will then feed to RF Power Amplifier.

RF Power Amplifier

The RF Power Amplifier consists of Q1 and T1. The RF signal is amplified before it is transmitted by antenna.

Antenna Matching Circuit

Signal from RF Power Amplifier is transmitted by antenna through the matching circuit, C2, C29 and L1 to reduce the unwanted harmonic.

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