

1. Circuit description

U_1 generates code modulation signals which are shaped via Q_1 Q_2 R_{12} R_{13} C_{12} D_1 cause frequency modulation on quartz crystal $X1$ (13.56751MHz).

Q_2 T_1 $X1$ form signal frequency oscillation circuit.

A carrier signal of 27.695MHz is amplified via pulse Q_3 , which drives amplifier Q_4 .

A matched network circuit is formed by L_1 L_2 T_2 T_3 and C_1 . They enable the best coupling state of the high frequency carrier signal and the antenna.

2. Antenna ground and power source.

The antenna consists of a 1.1m long telescopic chrome over brass tubing. There is no external ground connection. The ground is only that of the printed circuit board . Electric current is supplied by 12 Volt Primary storage cell.