Circuit Description

(With reference to Circuit Diagram and Block Diagram)

The circuit of modul 27044TX is basically divided in four parts:

1. Oszillator (carrier frequency)
2. Modulation of signal
3. RF amplifier
4. Output circuit with antenne

The Oszillator unit produces an carrier frequency of 27.145MHz by using a quartz crystal, which is coupled via transistor Q1.

The modulation is gained by IC U1 (PTSA995P), beeing operated by the user through the variable resistors VR2 / VR3 and VR4 / VR5.

Carrier and modulated signal are superposed at the base of transistor Q2, which amplifies the modulated carrier.

The output circuit, beeing realised by capacitors C17 ... C 20 and inductances L3 / L4, matches the RF amplifier to the antenna providing RF-power being transfered to the antenna.