

Dickie Spielzeug GmbH & Co. KG; Module 49020TX

## Circuit Description

(With reference to Circuit Diagram and Block Diagram)

The circuit of module 49020TX is basically divided in four parts:

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

The Oscillator unit produces an carrier frequency of 49 MHz by using a quartz crystal, which is coupled via a transistor.

The modulation is gained by an IC, being operated by the user trough the switches.

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

The output circuit, being realised by capacitors and inductances matches the RF amplifier to the antenna providing RF-power being transferred to the antenna.