

The Texas Tech transmitter is a small single shot device operating on the principle of shock excitation of a piezoelectric material to achieve a high voltage at the output terminals of the generator.

A small explosive charge is used to generate the shock wave. The generator is configured so as to be part of a resonant circuit.

This resonant circuit is attached to a simple dipole antenna to facilitate transmission of an oscillatory waveform. Since the transmitter and antenna are effectively destroyed upon emission of the pulse, subsequent transmissions for the experimental program will be accomplished via replacement of the original transmitter and antenna with an identically manufactured unit.