

Technical Description

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Truck Unit) for a RC Recycling Truck. The sample supplied operated on 71 channels, normally at 2405 – 2475MHz. The channels are separated with 1MHz spacing.

The EUT is powered by 6 x 1.5V AA batteries. The truck has 2 modes, the “TRY ME” mode and the on mode. For the “TRY ME” mode, after switching on the EUT, light and sound will be emitted or turned off from the truck based on the buttons pressed on the truck. For the on mode, the truck has all the functions that the “TRY ME” mode has. In addition, the truck will be moved forward or backward and turned left and right based on the switches pressed in the controller. Sound and light will be emitted or turned off from the truck based on the buttons pressed in the controller. The container at the back of the truck will be moved up and down based on the switches pressed in the controller.

Antenna Type: Internal, Integral antenna

Antenna Gain: 0dBi

Nominal rated field strength is 82.4dB μ V/m at 3m (Peak), 71.2dB μ V/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

The brief circuit description is listed as follows:

1. U6 acts as MCU
2. Y1 acts as 16MHz Oscillator
3. L1, C2 and C3 act as antenna matching circuit
4. U1 acts as Voice IC
5. U5 and U7 act as voltage regulator
6. U2, U3 and U4 act as motor driver.