

Technical Description

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Bus Unit) for a RC School Bus. The sample supplied operated on 51 channels, normally at 2420 - 2470MHz. The channels are separated with 1MHz spacing.

The EUT is powered by 6 x 1.5V AA batteries. The car has 2 modes, the "TRY ME" and the on mode. For the "TRY ME" mode, after switching on the EUT, sound will be emitted from the car based on the button pressed on the car. For the on mode, it has all the functions that the "TRY ME" mode has. In addition, the car will be moved forward or backward and turned left and right based on the switches pressed in the controller. Sound will be emitted from the car based on the button pressed in the controller. The sign at the side of the bus will be flipped and the door at the side of the bus will be opened or closed based on the button pressed in the controller.

Antenna Type: Internal, Integral antenna

Antenna Gain: 0dBi

Nominal rated field strength is 93.7dB μ V/m at 3m (Peak), 78.6dB μ V/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

The brief circuit description is listed as follows:

1. U3 (XG268) acts as MCU
2. U7 (XM9810C) acts as RF IC
3. Y1 acts as 16MHz Oscillator
4. L1, C13, C14 and C15 act as antenna matching circuit
5. U1 acts as voltage stabilizing circuit
6. U2 acts as sound drive circuit
7. U4 acts as motor driving circuit for motor M1
8. U5 acts as motor driving circuit for motor M2
9. U6 acts as motor driving circuit for motor M3.