

Technical Description

The Equipment Under Test (EUT), is a toy dinosaur head with a 2.4GHz Transceiver. The sample supplied operated on 4 channels, normally at 2420MHz, 2435MHz, 2450MHz and 2465MHz.

The EUT is powered by 3 x 1.5V AA batteries. After switching on the EUT, the EUT will emit sound and light, and its motor will rotate automatically. There is a virtual pet in EUT, and it can be played with the touch pad. The EUT can be paired with another dinosaur head then the 2 virtual pets can interact with each other.

2.4GHz RF portion

Antenna Type: Internal, Integral

Antenna Gain: 0 dBi

Operating mode	Range of Peak Conducted Power	Modulation
2.4GHz	-15 dBm to 0dBm	GFSK

The main components are described below:

2.4G portion

1. U9 PAN1026 is 2.4GHz RF radio core
2. 16MHz crystal (Y1) is operating clock for PAN1026

MCU portion

1. U1 (GPCE500A) is 16-bit MCU with audio DSP and PWM driving speaker
2. U2, U4, U7 are I/O expanders driving LED matrix
3. U3 is 3-axis accelerator sensor IC
4. U5 (**XT25F64FS**) is 64M-bit Serial flash
5. U8 is H-bridge Coil driver