

Technical Description

Model: A8017TX

Description: Ner Nstrike Combat Creatures Terradrone

Frequency: 2402 – 2480MHz

The brief circuit description is listed as follows:

The Equipment Under Test (EUT) is a 2.4GHz transceiver (i.e. Controller) for a RC toy Combat Creature. The EUT is powered by DC3.0V (2 X 1.5V) AA batteries. It is designed to operate frequency hopping system in 2402– 2480MHz with 36 physical frequency channels and 16 logical hopping channels when communication with corresponding transceiver (i.e. RC Combat Creature).

The EUT has 6 control buttons and a ON/OFF switch. The 4 buttons on the left hand side are used to control the RC Combat Creature moving forward/backward and rotate the launcher to any direction respectively. Another 2 buttons on the right hand side are used to control the angle of launcher and fire a dart.

36 physical channels are shown on below table.

2402	2404	2406	2410	2412	2414	2416	2418	2420
2422	2424	2426	2428	2432	2434	2436	2438	2440
2442	2444	2446	2448	2450	2454	2456	2458	2460
2462	2464	2466	2468	2470	2472	2476	2478	2480

Antenna gain: 0dBi

Nominal rated field strength: 100dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

A7123 (U2)

A7123 is a low cost 2.4GHz ISM band wireless transceiver. The device is provided in a 32-lead plastic QFN5X5 package and is designed as a complete GFSK transceiver up to 3Mbps/1Mbps data rate. The chip features a fully programmable frequency synthesizer with integrated VCO circuitry.

SN8P2722A (U1)

The SN8P2722A is a RISC-like high performance and low power consumption 8-bit micro-controller. The device is designed with the excellent IC structure including the program memory up to 2K-word OTP ROM, data memory of 128 bytes RAM, two 8-bit timer counters (T0, TC0), a watchdog timer, four interrupt sources (T0, TC0, ADC, INT0), one channel PWM output (PWM0), one channel Buzzer output (2K / 4K), 5-channel 12-bit ADC converter, and 8-level stack buffers. There are four oscillator configurations to select for generating system clock, including external High/Low Speed crystal, ceramic resonator or internal cost-saving RC, an internal 16MHz RC oscillator

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for system clock and includes an internal low frequency RC oscillator for slow mode controlled by programming.

TX6240-2.5V (U4)
Voltage Regulator