
Yuan-T4A remote module specification



Overview

Yuan-T4A is an ASK / OOK low-voltage emission module with independent intellectual property rights, small size. The module has its own high gain PCB antenna, The module adopts high-performance RF integrated chip and built-in harmonic suppression circuit, which has ultra-small volume, low power consumption, wide voltage range, high stability and high cost performance, which is suitable for 3V battery system.

Characteristics

- 2.0-5.5V
- 10mA @3V
- high-gain PCB antenna
- built-in harmonic suppression circuit
- wide working temperature range, suitable for strict working environment

Parameters

- operating frequency: 433.92MHz
- operating voltage: 2.0-5.5V
- operating current: 10mA (3V power supply, 40% modulation duty cycle)
- modulation mode: ASK / OOK

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- transmission rate: maximum of 4.8kbps
 - frequency deviation: $\pm 150\text{KHz}$
 - antenna impedance: 50Ω
 - data input: Compatible with CMOS level standards
 - operating temperature: -20 to $+70^\circ\text{C}$

Notes:

The DATpin input is compatible with CMOS standards, when the 3V DAT level drive should connect the module directly to the coded IC output; some coded IC output 5V or 12V logic level, then string a 22K-50K resistance between the DAT and the coded IC output to protect the DATpin.

Installation

There are no devices on the back of this module, which can be installed on the back close to the circuit board. Don't made copper and wire at the bottom of the PCB antenna. The module has a large weld hole design, which can be welded and directly welded on the bottom plate to support peak welding and reflux welding.

Pins description



GND: power -
DAT: data input
DAT: data input
VCC: power +

Userguide

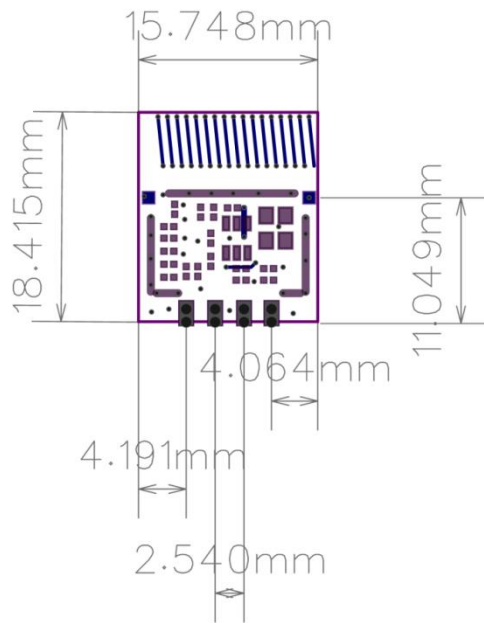
A



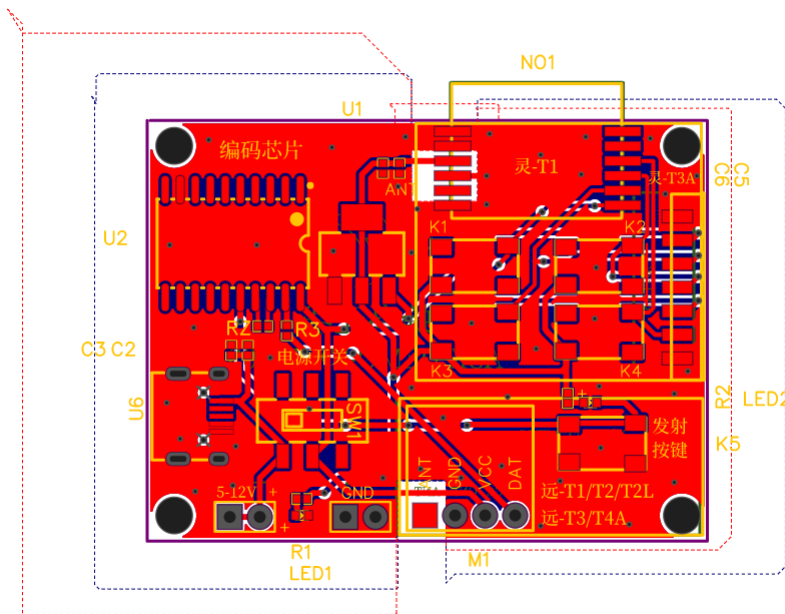
B



Mechanical size



Trace layout and dimensions including specific designs for each type:



FR4 1.6mm

FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference

caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure condition without restriction. Federal Communication Commission (FCC) Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.

This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users. 2. The transmitter module may not be co-located with any other transmitter or antenna. As long as the two conditions above are met, additional transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required for the installed module.

Important Note: In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the Federal Communications Commission of the U.S. Government (FCC) and the Canadian Government authorizations are no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator shall be responsible for re-evaluating the end-product (including the transmitter) and obtaining a separate FCC authorization in the U.S. and Canada.

OEM Integrators - End Product Labeling Considerations: This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains, FCC ID: 2A3VI-YUAN-T4A". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

OEM Integrators - End Product Manual Provided to the End User: The OEM integrator shall not provide information to the end user regarding how to install or remove this RF module in end product user manual. The end user manual must include all required regulatory information and warnings as outlined in this document.



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