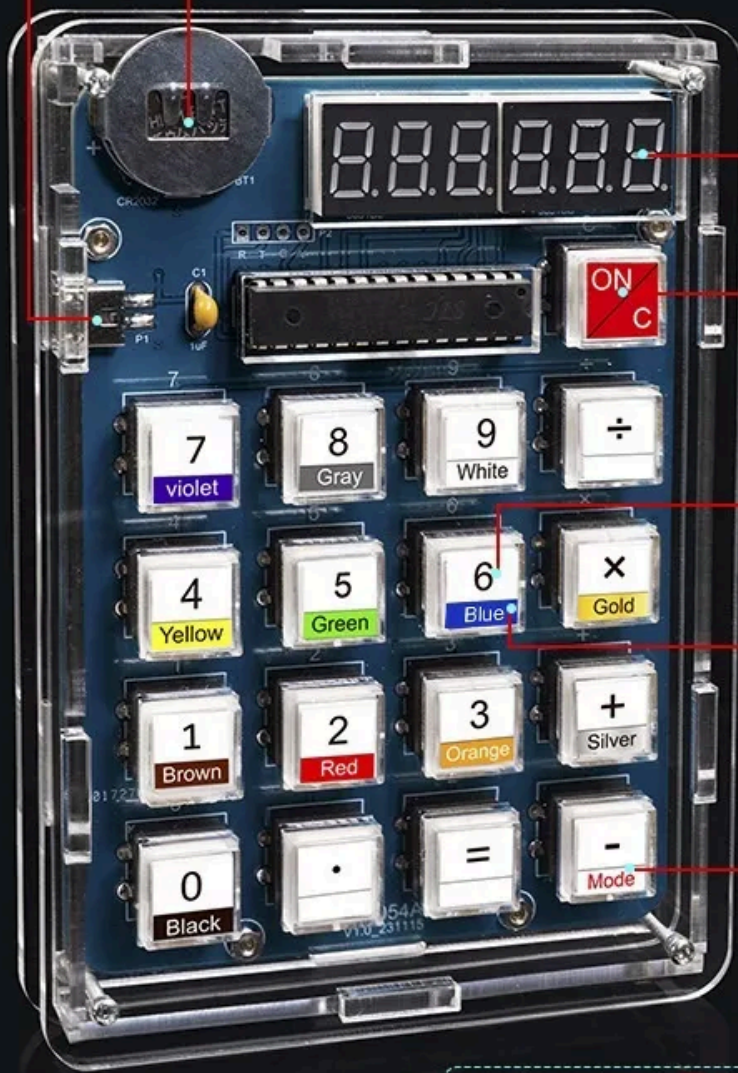


Instruction Manual



5V Android power interface

Button
Battery



6 digit digital tube display

Work/Sleep Mode Switch

Numbers for mathematical calculations

Color for color ring resistance

Resistance calculation

- / Mode

Long press function switch

Mathematical calculation/

Color ring resistance conversion

* Choose one of two power supply modes

Digital tube display



Interface for mathematical calculations

Digital tube display

Color ring resistance conversion interface



Component List

Component Name	Component Symbol	Quantity
In-line Monolith Capacitor 105	C1	1
1220# button battery holder	BT1	1
Tactile switch	KEY1-KEY17	17
Android charging port	P1	1
3-digit digital tube positive red	P4, P5	2
STC MCU DIP28	U1	1
IC Socket 28P	U1	1
CR2032 button battery 3V		1
Key cap 10*10*5.6 Transparent cover 11.8*11.8*3.9		17
Shell		1
Screw Pack		1
Circuit Board		1
Key stickers		1

Calculator reporting error



As shown in fig. 1, the digital tube shows that it is an input error, such as $1 \div 0$, or the input value is too large to exceed the calculation range.



As shown in fig. 2, the digital tube shows that if the calculation result exceeds 6 digits, if it is a decimal, the number of digits that can be displayed after the decimal point will be retained, with a maximum of 6 digits. if it is an integer, it will be expressed by scientific counting method. if the calculation result exceeds 6 digits, the calculation result cannot be used for calculation, and the calculation should be cleared by pressing the c key.

Characteristic

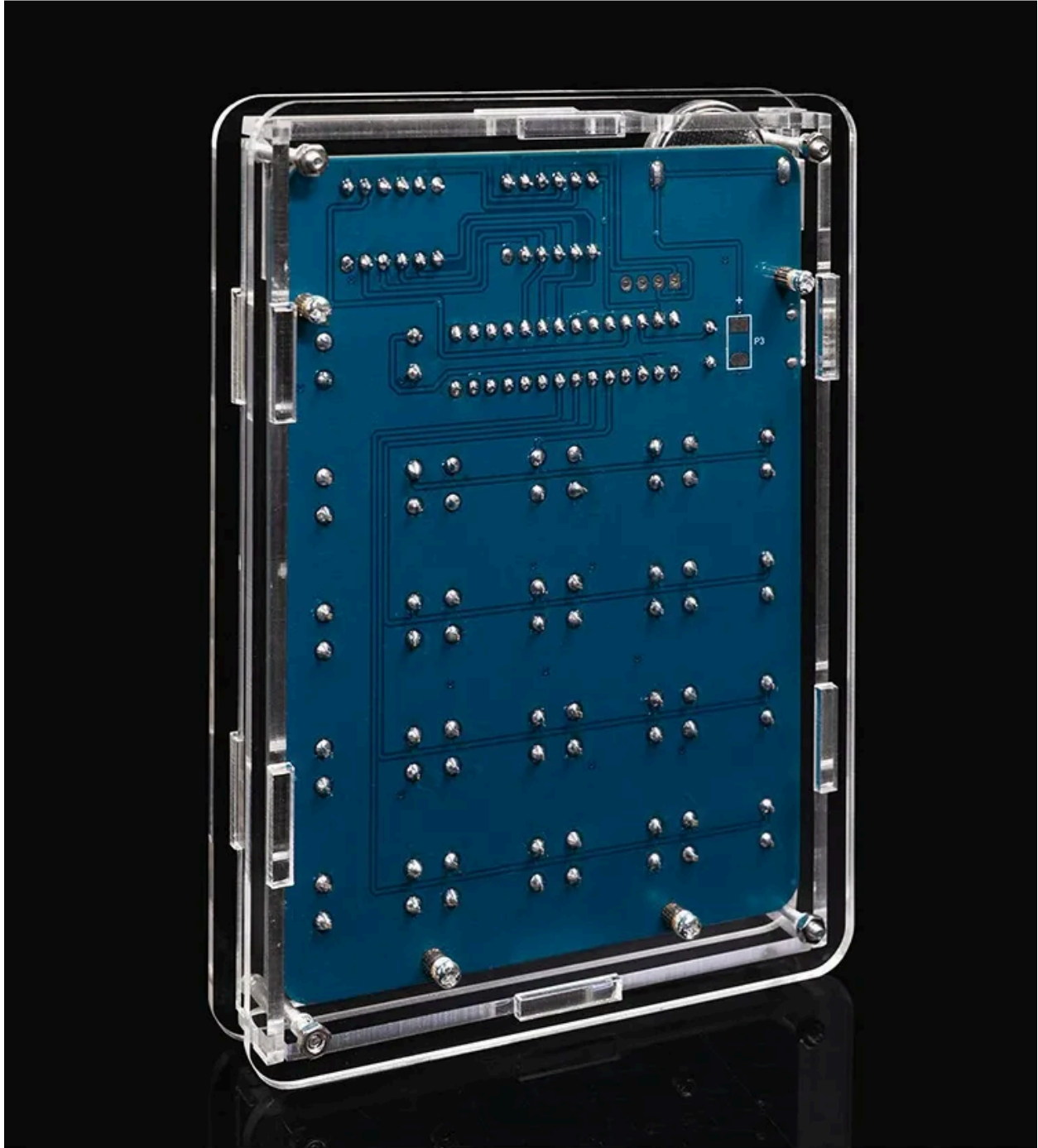
1. It is composed of special circuit board, digital tube, single chip microcomputer, keys and other components. 2. It performs addition, subtraction, multiplication and division operations. The maximum support is 6-digit calculation. If the calculation result exceeds 6 digits, only the first 6 digits will be displayed if it is a decimal, and if it is an integer,

Will use scientific notation, the maximum number is 9.99×10^{11}

3, color ring resistance conversion, support 4-ring resistance and 5-ring resistance, the maximum calculation range is less than 4KM, accurate calculation range is less than 1M, according to the number of input colors, automatic identification

4-Ring Resistance or 5-Ring Resistance

4, through the key to enter the sleep mode, reduce power consumption 5, 6 digital precision



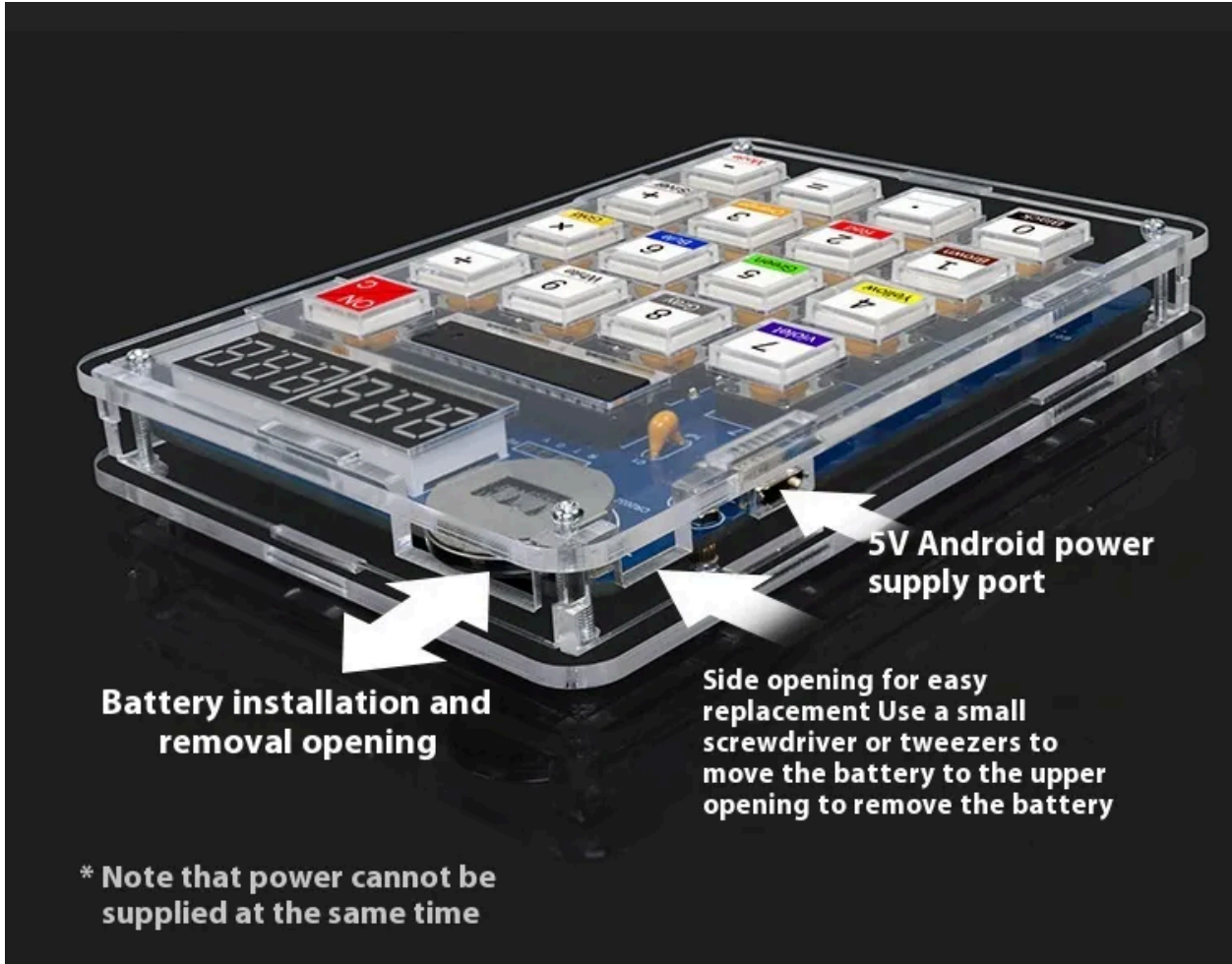
Electronic calculator/mathematical calculation

Addition, subtraction, multiplication, division

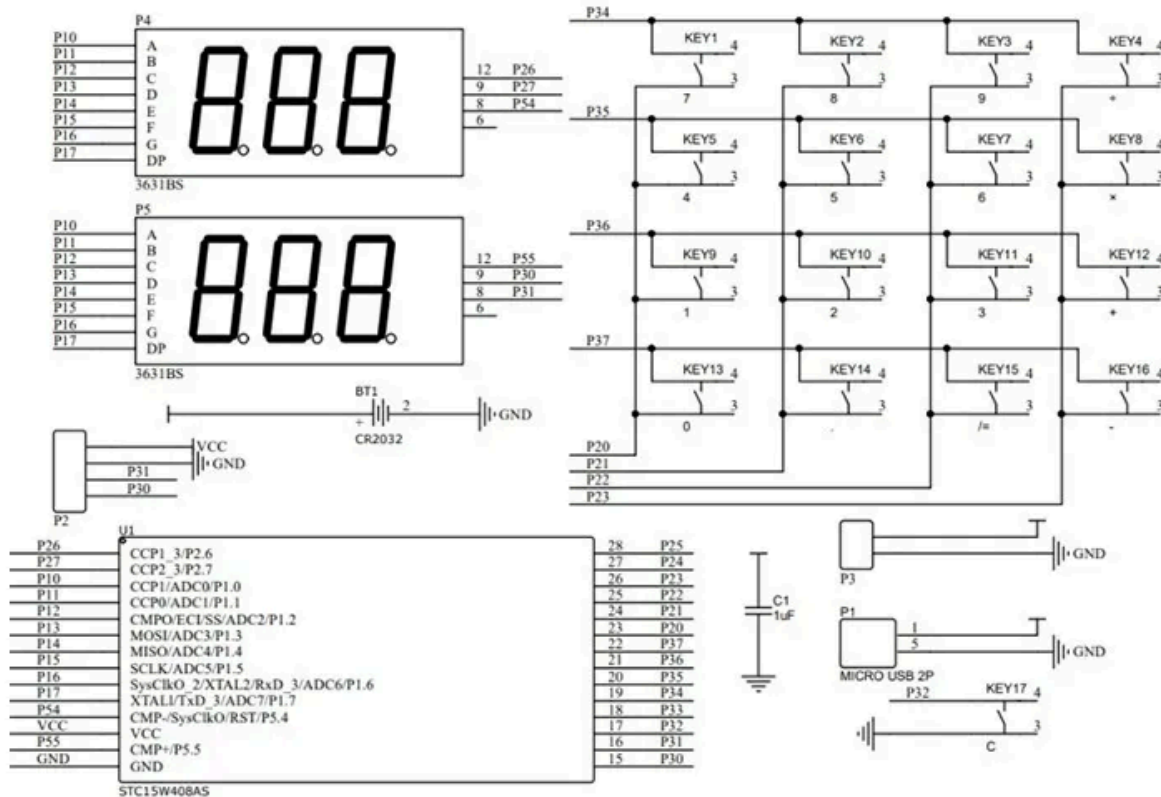
Negative number connection function

* If the calculation range is exceeded, an error will be reported.





Circuit schematic



Product Information

Product name: HU-054A digital tube display calculator kit

Power supply mode: USB power supply 5V or 3V button battery power supply, (note USB and buttons)

The battery cannot supply power at the same time, otherwise the button battery will be damaged)

Operating voltage: >2.8V

Working current: working state: 12mA, sleep state: <1mA

PCB size: 113x 78mm, pure manual measurement, 12mm error

Instructions for use

1. Working/sleep mode switch (1), power-on default to working mode

(2), switch to the working mode sleep state short press the c key, digital tube lit, that is, enter


Operating mode

(3) Switch to sleep mode. Press the C key for more than 1 second in working mode, and the digital tube will be extinguished.

Go out, that is, enter sleep mode.

2. Mathematical calculation/color ring resistance conversion function switching interface

(1), long press-/mode key switch, digital tube display

Show one --, then show 

Interface for mathematical calculations

(2), long press-/mode key switch, digital tube display

--! -, followed by display 

Conversion interface for color ring resistance

3. Calculation

(1), through the "0" ~ "9" key and "." key input numbers,

(2), by "" " _ " "x" " ÷ " key input operation expression, digital

Tube flashes once

(3), press the "=" key to start the calculation and give the calculation results (4), press the "c" key to clear, digital tube display 4, color ring resistance conversion

(1), starting from the first ring of the color ring resistor, press the corresponding color button (2) in sequence, press the "=" key to start conversion and display the conversion result

(3), press the "c" key to clear, digital tube display!

(4), four-color ring resistance calculation of the third multiplier highest bit 7, five-color ring resistance calculation of the fourth multiplier highest bit 6, beyond the calculation range calculator will report an error, accurate calculation range of 1M, more than 1M will carry out scientific counting error will be larger, the maximum calculation range

Transparent key caps protect fonts

Long-term use of the logo is still clear



Calculator DIY Kit

Mathematical Calculation of Color Ring Resistance Conversion Welding Exercise



DIY parts need to be welded and assembled by themselves.

Equipped with detailed installation video tutorial

