

# T3M LED RGB Controller



ISO9001:2008



T3M is the newly upgraded RGB touch controller which adopts the most advanced 2.4GHZ RF wireless transmission technology. The control system consists of two parts, the RF remote control and receiver, realize the signal synchronization on multiple receivers, zone controlled arbitrarily (not more than 10 zones) within effective distance. built-in with 18 changing modes, adopt the advanced PWM (pulse width modulation) control technology, smooth changing effect and no flicker on the led light. Unique full-colour circle touch control technology, 8 touch keys on the receiver, you can select the functions of switch, pause, changing modes, speed and LED brightness, all functions can be achieved by RF remote control, receiver can automatically adapt to the input voltage of DC 12V-24V. the receiver is designed with 4 wires 3 loops output, widely used for all LED lights with current-limiting resistance, such as RGB LED module, LED tape and SMD flexible strip and so on.

## 1. Technical Specs

### Remote Control

- Model: T3M
- Input voltage: DC5V built-in Lithium battery
- Working current: <30mA
- Working frequency: 2.4GHZ
- RF remote distance: 30m
- Remote option: Sync or zone control
- Transmitting rate: 500Kbps
- Battery capacity: 1000mAh
- Standby time: 1 year
- Normal using time: 30 days
- Charge time: <4 hours
- Number of Charge cycles: 500 times
- Dimension: L145×W55×H22(mm)
- Package Size: L165×W76.5×H55(mm)
- Weight (G.W): 200g

### Receiver

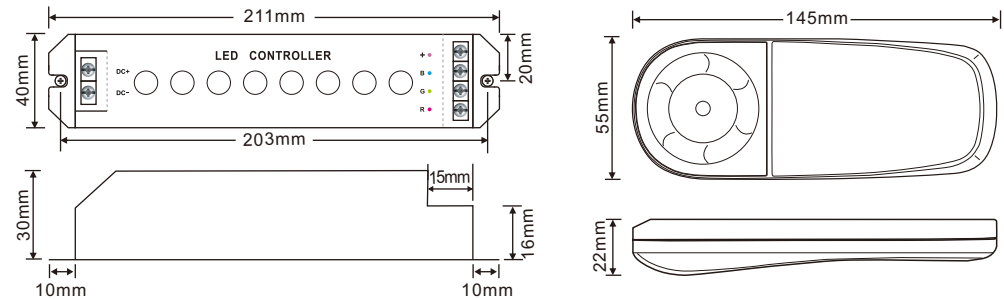
- Model: T3-5A
- Power supply chosen: DC CV SMPS
- Input voltage: DC12V~DC24V
- Max current load: 5A x 3CH Max 15A
- Max output power: 180W/360W(12V/24V)
- Change mode: 18 Fantastic modes
- Control button: 8 touch buttons
- Grey scale levels: 1024x1024x1024
- Working temperature: -30℃~55℃
- Dimensions: L211×W40×H30(mm)
- Package size: L215×W43×H33(mm)
- Weight (G.W): 180g

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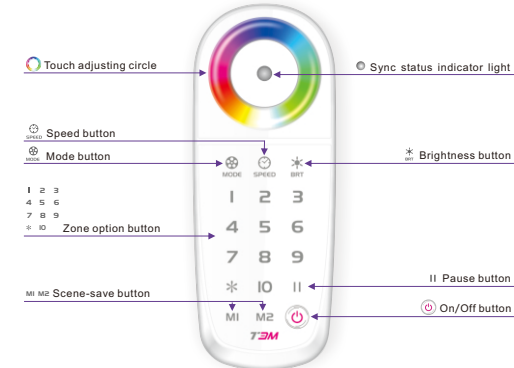
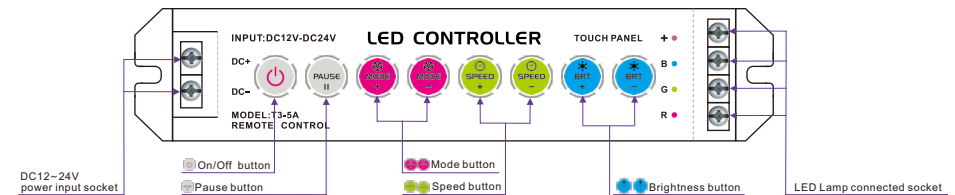
## 2. Performance Features

1. Adopt 2.4GHZ RF wireless transmission technology, which is applicable for license and patent free worldwide.
2. Upgraded to dual-core driver, make it 10 times of processing speed. can process the wireless data transmission in complicated and multiple levels.
3. Advanced RF wireless sync control technology, no sync signal wire between receivers, sync capability is stable and reliable.
4. Realize the synchronous change on multiple receivers or zone asynchronous change, solve the problem of wiring when sync or zone control.
5. Remote control adopts the capacitive touch control technology on the full color wheel, make the LED color selection more user-friendly, it can produce 1 billion colors theoretically.
6. Any operation on the remote control or any receiver can command all receivers to work wirelessly and synchronously, it's currently only Ltech product has this capability.
7. Color changing scene mode and preset storage function.
8. USB charging port.

## 3. Product size



## 4. Operation panel and component instruction:



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**5. The charging methods for remote control**

1. When charging, please connect USB cable to the mobile charger or computer with the USB interface.
2. The blue indicator light flickers while charging, and turns green means the charging is completed. The remote control can be chargeable even at the OFF state, on which the indicator light is black.
3. No memory effect in the lithium battery of remote control. Follow the standard charging procedure even for the first three times, no need over charge.
4. Red indicator light flickers meaning low battery and need to be charged. charging in low battery will affect life of battery.
5. Please make sure a 40% battery on the remote control for stored if it's not use for long period of time, and it needs to be charged at least every half year ,otherwise the capacity of the battery would be decreased or the battery gets damaged.

**6. Detailed key functions**

The remote control has 18 function buttons and 1 full-color touch circle; The receiver has 8 touch buttons.

**The learning of remote control:**

**Learning ID:** The distance between the remote control and the receiver is more than 20cm, press the key "ON/OFF" on the receiver for 3 seconds until there is a buzzer sound, means entering into the ID learning state. Press the key 1-10 on the remote control within 5 seconds, until the LED indicator light flashes in green color for 3 times, meanwhile the buzzer on the receiver sounds, means the zone control learning receiver successfully. release the button when the learning is finished.

**Cancelling ID:** Press the key 1-10 on the remote control over 5 seconds, until the LED indicator light flashes in red color for 3 times, meanwhile the buzzer on the receiver sounds, means the zone control cancelling the receiver successfully. Release the button when the cancelling is finished.

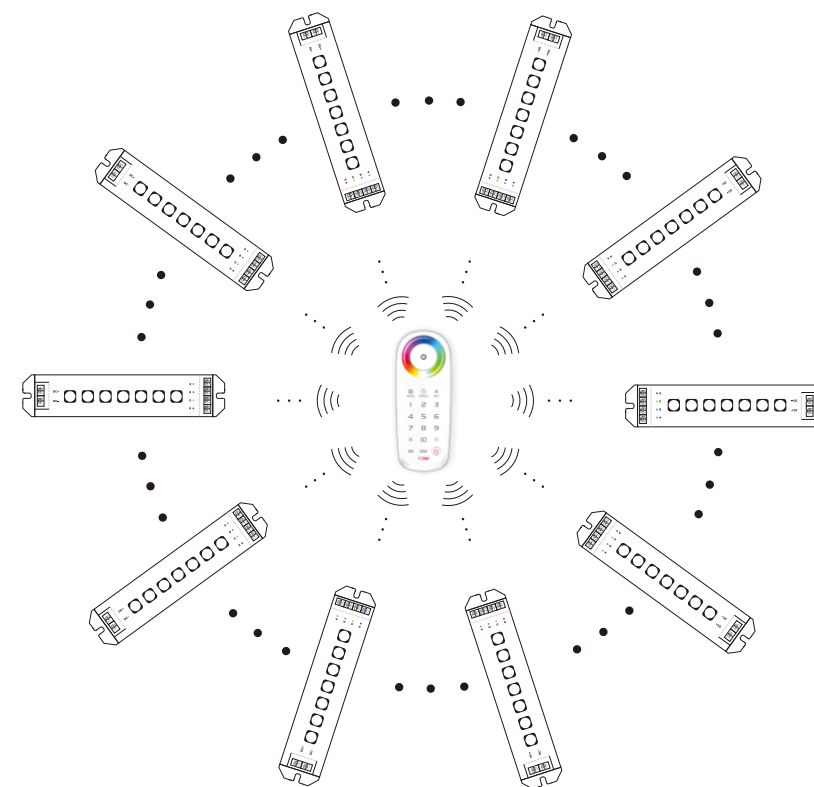
Receiver sign	Remote control sign	Button	Description
		<b>ON/OFF</b>	● Turn on or turn off the receiver of the current zone .
		<b>PAUSE</b>	● Short press the key to stay or change at current color in current zone control. ● Press this button in 3 seconds, the buzzer can be on or off.
		<b>MODE</b>	● Press the key to select mode in current zone control.
		<b>SPEED</b>	● Press the key to adjust speed in current zone control.
		<b>BRT</b>	● Press the key to adjust brightness in current zone control. ● Keep pressing to adjust brightness continuously.
		<b>Full-Color of touch adjusting circle</b>	● When touching the full-color circle, LED lights in current zone will show the same color as the circle.
	1 2 3 4 5 6 7 8 9 * 10	<b>Zone option button</b>	● Select one of the zone: Press keys 1-10 on the remote control. ● Select zone control arbitrarily :Press"*+any numeral+*", take selecting 456 as a zone, should press"*456*" ● All choose(10 zones): Press"*" twice .
	M1 M2	<b>Scene-saved button</b>	Press for 3 seconds, can record the scene mode in the 10 current zone control. M1 M2 can record 2 zone's scene mode.

**7. Tables of Changing mode**

No.	Mode	Description	No.	Mode	Description
1	3 colors skipping	speed/brightness adjustable	10	Green Cyan color smooth	speed/brightness adjustable
2	7 colors skipping	speed/brightness adjustable	11	Blue purple color smooth	speed/brightness adjustable
3	White strobe	speed/brightness adjustable	12	Green Yellow color smooth	speed/brightness adjustable
4	7 colors strobe	speed/brightness adjustable	13	Blue Cyan color smooth	speed/brightness adjustable
5	RGB fade out and fade in	speed/brightness adjustable	14	Red Purple color smooth	speed/brightness adjustable
6	Red Green color smooth	speed/brightness adjustable	15	Blue White color smooth	speed/brightness adjustable
7	Red Blue color smooth	speed/brightness adjustable	16	Yellow Purple Cyan color smooth	speed/brightness adjustable
8	Green Blue color smooth	speed/brightness adjustable	17	RGB color smooth	speed/brightness adjustable
9	Red Yellow color smooth	speed/brightness adjustable	18	Full-color smooth	speed/brightness adjustable

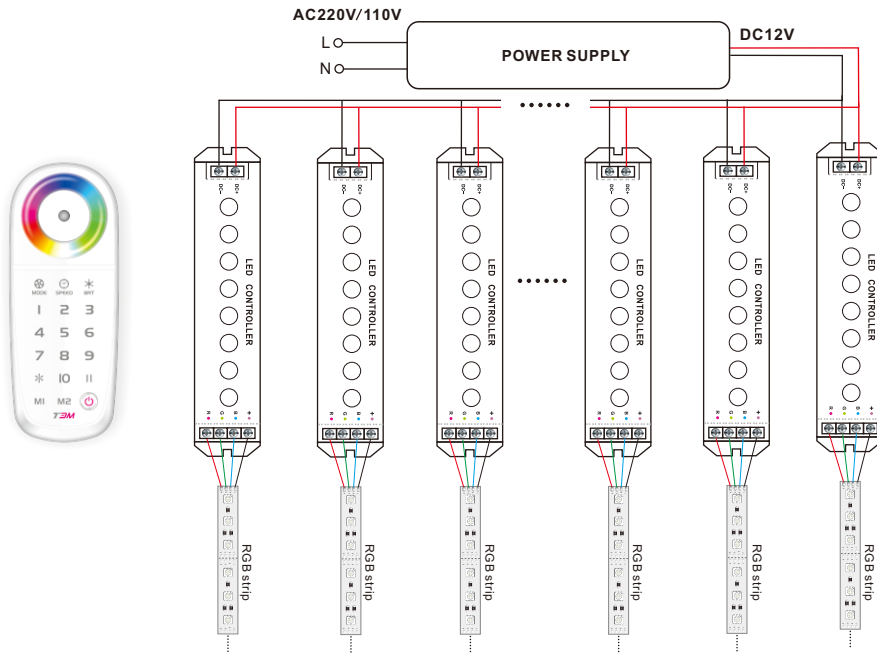
**8. System Diagram:**

The receivers can be divided into 1~10 zones within effective distance(1pc receiver per zone) no wiring needed between the receivers. Increase or decrease the zone receiver will not affect the synchronization control in other zones.

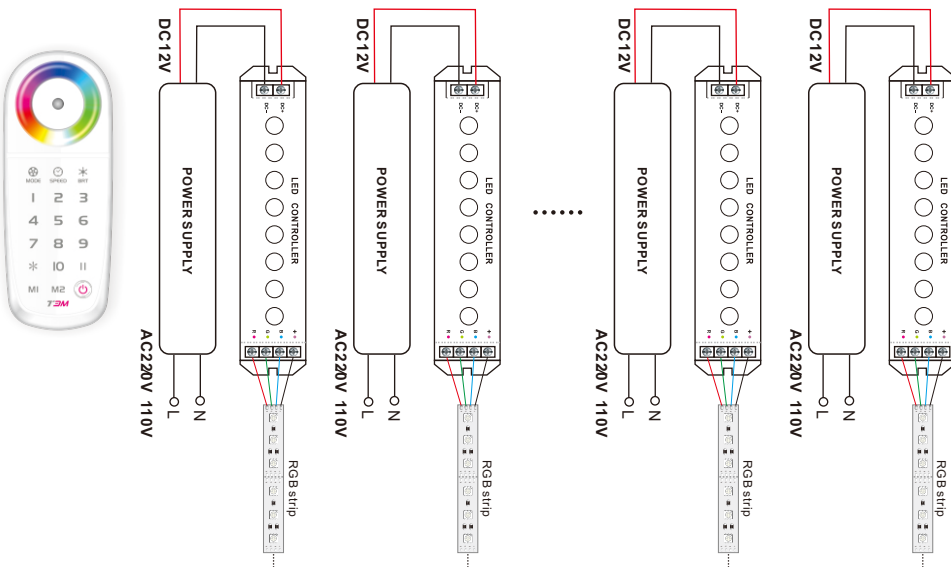


9. Wiring diagram

1、Multiple receivers are powered by one power supply :



2、Each receiver is powered by one power supply independently :



10. Attention

1. The product shall be installed and serviced by a qualified person.
2. This product is non-waterproof. Please avoid the sun and rain. When installed outdoors please ensure it is mounted in a water proof enclosure.
3. Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
4. Please check if the output voltage of any LED power supplies used comply with the working voltage of the product.
5. Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the cable is secured tightly in the connector to avoid the accidents due to overheat and poor contact on the wire.
6. Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
7. If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.

11. Warranty Agreement

1. We provide lifelong technical assistance with this product:
    - A 3 year warranty is given from the date of purchase. The warranty is for free repair or replacement and covers manufacturing faults only.
    - For faults beyond the 3 year warranty we reserve the right to charge for time and parts.
  2. Warranty exclusions below:
    - Any man-made damages caused from improper operation, or connecting to excess voltage and overloading.
    - The product appears to have excessive physical damage.
    - Damage due to natural disasters and force majeure.
    - Warranty label, fragile label and unique barcode label have been damaged.
    - The product has been replaced by a brand new product.
  3. Repair or replacement as provided under this warranty is the exclusive remedy to the customer. Ltech shall not be liable for any incidental or consequential damages for breach of any stipulation in this warranty.
  4. Any amendment or adjustment to this warranty must be approved in writing by Ltech only.
- ★ This manual only applies to this model. Ltech reserves the right to make changes without prior notice.