# 2.4G Wireless Power Repeater



Wireless LED power repeater transfer 300Hz~20KHz PWM signal to expand power. It is consisted of emitter LT-3050 and receiver LT-3053-5A/LT-3053-5A. One emitter can match unlimited receiver if using the same frequency, supporting sync control on multiple receivers within effective distance. A very good solution for the LED project needs sync control wirelessly. Such as the wireless remote control between buildings, both sides of the roads, river banks and bridges, etc.

Adopt 2.4GHz global open ISM frequency channel, 64 groups wireless network can be chosen independently to avoid interference.

Use relay settings or connect to booster antenna to further the communication distance.

# 1. Technical Specs:

#### LT-3050 wireless transmitters

Input voltage: DC5V~DC24V

· Input signal: PWM x3CH

• Working frequency channel: 2.4GHz ISM 64 channels

Maximum transmitted power: 20dBm

Communication distance: 350m
(weather/environment affects the actual values)

working temperature: -20°C ~ 55°C

Dimension: L175×W44×H30mm

Package Size: L178×W48×H33mm

Weight (G.W): 135g

#### LT-3053-5A wireless transmitters

• Input voltage: DC5V~DC24V

Max current load: 5A×3CH Max 15A

Max output power: 75W/180W/360W(5V/12V/24V)

• Working frequency: 2.4GHz ISM 64 channels

 Communication distance: 350m (weather/environment affects the actual values) · Receiver sensitivity: -96dBm

working temperature: -20°C ~ 55°C

Dimension: L175×W44×H30mm

Package Size: L178×W48×H33mm

• Weight (G.W): 140g

#### LT-3054-5A wireless transmitters

Input voltage: DC5V~DC24V

LTECH

Max current load: 5A×4CH Max 20A

Max output power: 100W/240W/480W(5V/12V/24V)

• Working frequency: 2.4GHz ISM 64 channels

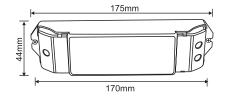
 Communication distance: 350m (weather/environment affects the actual values) Receiver sensitivity: -96dBm

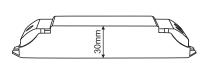
working temperature: -20°C ~ 55°C

Dimension: L175×W44×H30mm

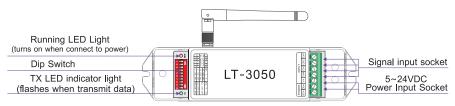
Package Size: L178×W48×H33mmWeight (G.W): 140g

#### 2. Product dimension

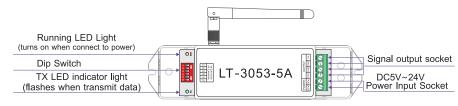




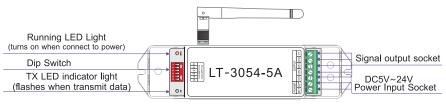
### 3. Conjunction Diagram



LT-3050 wireless transmitters



LT-3053-5A wireless receiver



LT-3054-5A wireless receiver

## 4. Dip Switch Operation:

LT-3053-5A/LT-3054-5A is used with LT-3050, so its frequency must be same.





LT-3053-5A/LT-3054-5A Dip switch

4.1 The 10th Dip Switch.



The 10th is On

Self-testing transmitting modes.

Conventional transmitting modes.

4.2 The 9th Dip Switch. The 9th only works when the 10th is on.



The 9th is On: transmit the data of full color smooth changing effect.



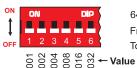
The 9th is Off: transmit the data of full color jumping effect.

4.3 The 7-8th Dip Switch. 4 levels transmission power to choose (see the form)



dBm	7	8	Diagram
20	OFF	OFF	
10	OFF	ON	
5	ON	OFF	
1	ON	ON	

4.4 The 1st-6th Dip Switch.



64 frequency option(2401-2464MHz) ,Frequency interval: 1MHz. Frequency value = 2400+the total value of (1~6)

To get the place value when in "On" position, otherwise will be 0.



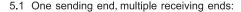
0002 0004 0008 0008 016



E. g.: Set the frequency to 2437M.

The value summation from  $1\sim6$  is 001+004+032=37, so the transceiver frequency is 2400+37=2437M.

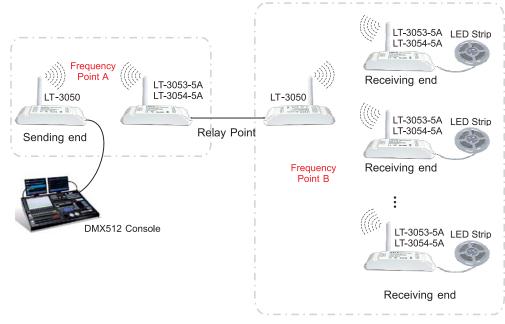
# 5. Wiring Diagram:



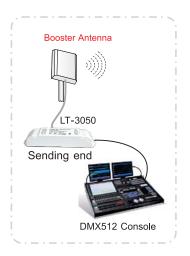




5.2 Relay way to extend the communication distance:

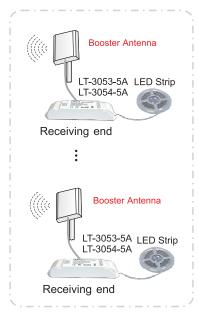


5.3 Extend the communication distance by boost antenna:



[Attn]

Please install the booster antenna in high open place, the communication distance can up to 1000-2000 meters generally.



3

Update time: 2014.10.10