

PWM Wireless Power Repeater User Manual



(Please read through this manual carefully before use)

1. Brief Introduction

Welcome to use PWM wireless transceiver. It is a powerful PWM wireless transceiver, which transmits the standard DMX512 protocol in the form of wireless transmission, replacing the long-time used cable transmission, no time delay in the process of data transmission, real-time and reliable, using 2.4 G global open ISM frequency. It can be one emitter and one receiver, or several receivers (support point to point, point to multipoint), one emitter configurate several receivers, as long as the receiver and emitter set the same frequency. It is widely adapts the DMX512 controller manufactured by various suppliers. Total of 126 channels, it can be used in the same place individually of 126 groups of wireless network and none mutual interference.

2. Specifications

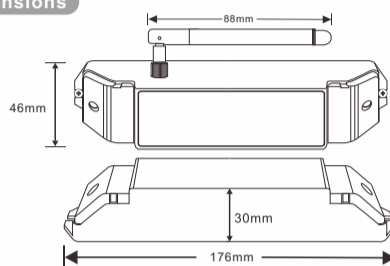
Model	BC-970T
Input Voltage	DC5V-DC36V
PWM Signal range	300Hz-30KHz
Operating Frequency	2.4GHZ ISM 126 scale frequency
Transmitting Power	20dBm
Distance	350meters(depends on the weather and environment conditions)
Working Temperature	-20°C~55°C
Product Dimension	L176×W46×H30(mm)
Weight(G.W)	155g

Model	BC-970R
Input Voltage	DC5V-DC36V
Max Current	The first three-way for 3A, the fourth way to 9A
Input Signal	Constant Voltage PWM
Max Output Power	216W(12V)/432W(24V)
Operating Frequency	2.4GHZ ISM 126 scale frequency
Receive Sensitivity	-96dBm
Distance	350meters(depends on the weather and environment conditions)
Working Temperature	-20°C~55°C
Product Dimension	L176×W46×H30(mm)
Weight(G.W)	155g

3. Basic Features

1. Adapt to constant voltage, constant-current PWM signal, identifies the frequency range up to 300Hz- 30KHz.
2. Adopts 2.4 G global open ISM frequency, license free, high efficient GFSK modulation.
3. One emitter configurate several receiver, as long as the receiver and emitter set the same frequency.
4. 126 channels selectable, it can be used in 126 groups wireless network individually without interference in the same place.
5. There are 4 levels of the transmitted power. At the max transmitted power(20dBm), Visual communication distance is upto 350 meters.
6. It has a self-test mode for the situation when the wireless link quality test or engineering installation debugging is needed.
7. If further distance is needed, it can be used as relay Setting, relay once or many times in order to achieve the required distance.
8. 3000V optical isolation.

4. Dimensions



5. Operating instructions

BC-970T DIP switch



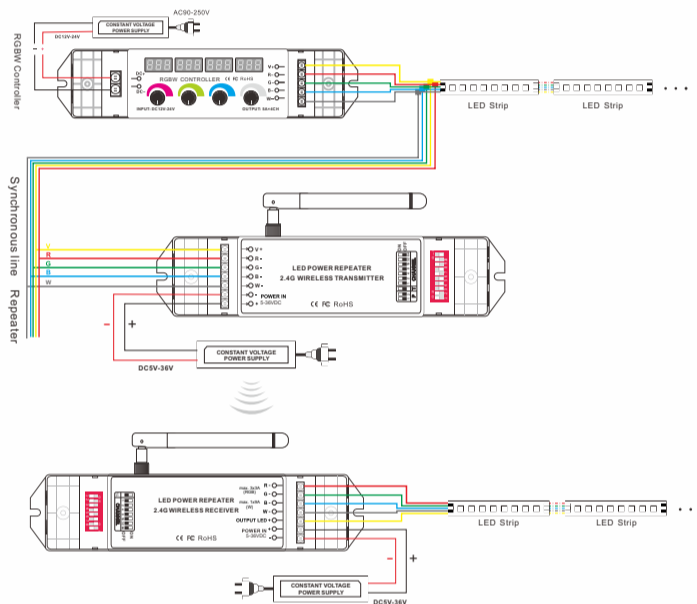
No.	Setting	Note:
1	00	Choose the transmit power setting: 00 as 5 dBm, 01 as 10 dBm, 10 as 15 dBm, 11 as 20 dBm(Maximum 20dBm)
3	00-11	Is set to 1, a test mode ; Is set to 0, the normal mode, When the DIP switch to test mode, the sender has sent specifications All is not bright The first channel is on, the other off The second channel is on, the other off The third channel is on, the other off The fourth channel is on, the other off All bright Send circulation, affecting the access point from the PWM signal
4	1	126 channels frequency option picture of the setting of the transceiver frequency 52
5	2	
6	4	
7	8	
8	16	
9	32	
10	64	Example: set the working frequency in 52. Put the DIP switch "6, 8, and 9" to "1", the rests are "0", now the total value of DIP switch 4-10 is 4+16+32=52.

BC-970R DIP switch



No.	Setting	Note:
1	ON	Switch is ON, enter the overall control mode, where the first four-channel data output is controlled by a unified
2	1	126 channels frequency option picture of the setting of the transceiver frequency 52
3	2	
4	4	
5	8	
6	16	
7	32	
8	64	Example: set the working frequency in 52. Put the DIP switch "4, 6, and 7" to "1", the rests are "0", now the total value of DIP switch 2-8 is 4+16+32=52.

6. Conjunction Diagram



4. Safety warnings

1. To ensure your safety and product properly usage, please read the user manual carefully.
2. To avoid installed the product in minefield, strong magnetic field and high voltage area.
3. To ensure the wiring is correct and firm avoiding short circuit damages to components and cause fire.
4. Please install the product in a well ventilated area to ensure appropriate temperature environment.
5. The product must be worked with DC constant voltage power supply. Please check the consistence of input power with the product, if the output voltage of the power comply with that of the product.
6. Connect the wire with the power on is forbidden. Ensure proper wiring first then check to ensure no short-circuit, then power on !
7. Don't repair it by yourself whenever an error occur. Contact the supplier for any inquiry.

8. Exception Handles

Malfunction	Reasons	Solutions
No signal received	Not power on	Check the power wiring
	Wire the power + - correct or not	Correct it
	Choose the correct frequency or not	Choose the correct frequency
No signal emit	Set the emitter mode or not	Set the emitter mode
Not enough transmit distance	Set the transmit power or not	Set the transmit power

9. After Sales

From the day you purchase our products within 3 years, if being used properly in accordance with the instruction, and quality problems occur, we provide free repair or replacement services except the following cases:

1. Any defects caused by wrong operations.
2. Any damages caused by inappropriate power supply or abnormal voltage.
3. Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
4. Any damages due to transportation, breaking, flooded water after the purchase.
5. Any damages caused by earthquake, fire, flood, lightning strike etc force majeure of natural disasters.
6. Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.