AEO RX14x / RX14x-E / RX15x-E Series Mini Micro Receiver

Instruction Manual

Thank you for choosing AEORC, please read this document carefully before use.

Version selection

Please understand the corresponding basic functions according to the product you purchased.

NO.		Support Protocol	Specification			
Series NO.	Product NO.		TELEM	5A/1S Brushed ESC	5A/1S Brushless ESC	7A/2S Brushless ESC
RX14x	x=2	SFHSS		●		
	x=4	DSMX/2		●		
	x=5	FRSKY-D16		●		
	x=6	AFHDA-2A		●		
	x=7	FRSKY-D8		●		
	x=4T	DSMX/2	●	●		
	x=5T	FRSKY-D16	●	●		
	x=6T	AFHDA-2A	●	●		
RX14x-E	x=2	SFHSS			●	
	x=4	DSMX/2			●	
	x=5	FRSKY-D16			●	
	x=6	AFHDA-2A			●	
	x=4T	DSMX/2	●		●	
	x=5T	FRSKY-D16	●		●	
	x=6T	AFHDA-2A	●		●	
RX15x-E	x=2	SFHSS				●
	x=4	DSMX/2				●
	x=5	FRSKY-D16				●
	x=6	AFHDA-2A				●
	x=7	FRSKY-D8				●
	x=4T	DSMX/2	●			●
	x=5T	FRSKY-D16	●			●
	x=6T	AFHDA-2A	●			●

Basic Data

	RX14X	RX14X-E	RX15X-E
Size	12.0*18.6*6.5mm	12.0*22.5*6.5mm	16.0*24.0*6.8mm
Weight	0.9g(without wire)	1.3g(without wire)	2.0g(without wire)
Working Vol.	3.0-5.0V	3.3-4.2V	6.0-12.6V
BEC		5V boost circuit	3.9V buck circuit
Mode-1		Aileron double servo mode	Aileron double servo mode
Mode-2	5A/1S Brushed ESC	5A/1S Brushless ESC	7A/2S Brushless ESC
Mode-3	automatic frequency matching	automatic frequency matching	automatic frequency matching
Mode-4	TELEM (Specific version)	TELEM (Specific version)	TELEM (Specific version)

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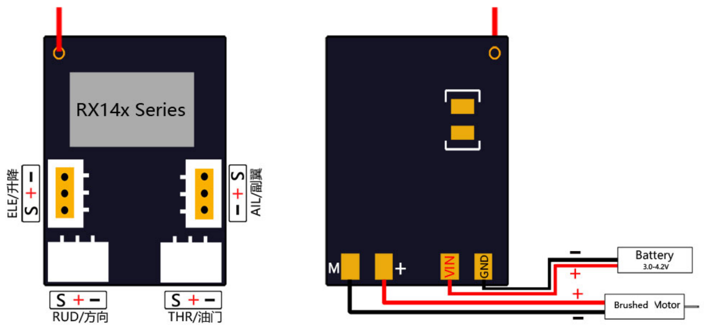
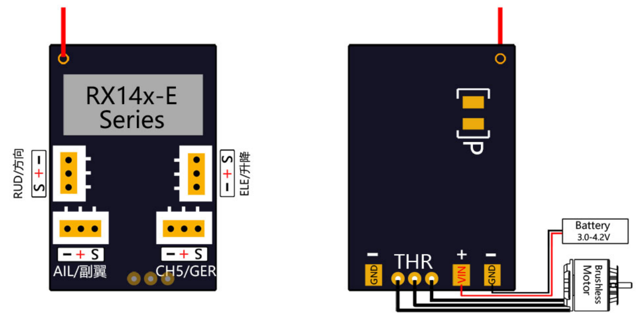
Instruction Manual

Receiver interface definition

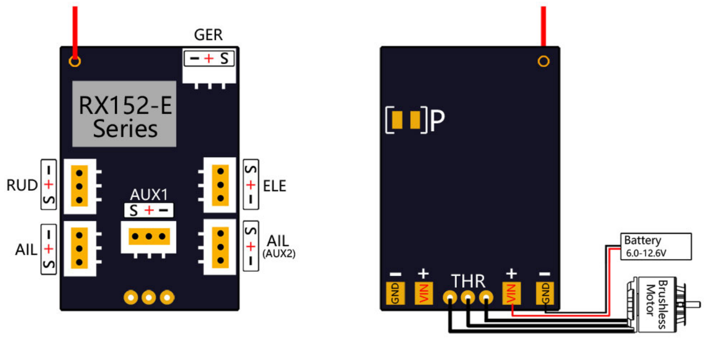
RX14x interface definition: (As Picture 1.1)



RX14x-E interface definition : (As Picture 1.2)



RX152-Einterface definition:(As Picture 1.3)



Combine receiver and transmitter

1.Turn on the transmitter and power the receiver. At this time, the receiver is in the state of confirming the transmitter signal, and the LED light flashes slowly.

2.If the transmitter signal cannot be confirmed within 15 seconds, then enter the automatic frequency matching mode, the receiver starts to search for the signal and perform frequency matching, and the LED light flashes quickly.

3.If the frequency matching is successful, according to different types of remote transmitters , there will be a variety of different LED light feedbacks, including but not limited to the following three LED light flashing methods. Please confirm according to the actual remote control whether the frequency matching is successful or not.

S-FHSS ▬▬▬▬▬▬ Frksy • • • • • • DSMX ••• • • • ▬▬

Function introduction

1.Aileron double servo mode
RX14x-E and RX15x-E (on by default) series receivers have this function.
When your fixed wing aircraft needs two aileron servos on the left and right, please use this function to simplify the connection of servo and the setting of remote control.
Short circuit the pad at "P" in the figure below to open this function. At this time, CH3 is set to CH4 inverted output.
If want to cancel this function, please disconnect the pad at "P"(As picture 1.2 1.3)

2.How to use the integrated ESC (5A/1S brushed ESC, 5A/1S brushless ESC, 7A/2S brushless ESC)
RX14x series integrates 5A/1S brushed ESC, RX14x-E series integrates 5A/1S brushless ESC, RX15x-E series integrates 7A/2S brushless ESC. The brushless ESC supports the DSHOT protocol, doesn' t need to calibrate the throttle stroke; in addition, the DSHOT signal transmission is faster and the refresh rate is higher; the response speed of the ESC is much higher than that of the traditional brushless ESC.

How to use ESC:
RX14x Series
Connect the positive pole of the brushed motor to “M+” and the negative pole to “M-” to replace the throttle channel, as picture 1.1.
The integrated brushed ESC has the lock function of preventing accidental touch. After the receiver is powered on, the throttle channel remains at the lowest position for more than 2 seconds, then this function can be cancelled and the brushed ESC can be used normally.

RX14x-E Series
Connect the three wires of the brushless motor to the "THR". Please pay attention to the rotation direction of the motor. If you need to change the rotation direction of the motor, please change the position of any two of the three wires. As picture 1.2

RX15x-E Series:
Connect the three wires of the brushless motor to the "THR". Please pay attention to the rotation direction of the motor. If you need to change the rotation direction of the motor, please change the position of any two of the three wires. As picture 1.3.

3.Automatic frequency matching
After the receiver is powered on after 15 seconds, it still fails to complete the frequency alignment, the receiver will enter the automatic frequency matching mode. At this time, the LED light will change from slow flashing to fast flashing, then please complete the frequency matching according to the frequency matching operation of the transmitter.

4.TELEM Function Introduction,
Firstly, you need a remote control with TELEM to use this TELEM function.
This function could realize real-time monitoring to battery voltage, receiver voltage, receiver signal strength and receiver operating temperature, allowing users to master the working status of receiver and battery in real time to avoid unexpected situations in flight.

AEORC RX24x Series Mini Micro Receiver (2CH with Linear Servo)

Instruction Manual

Thank you for choosing AEORC ultra-micro receiver, this receiver integrates 5A/1S brushed ESC and with 2pcs linear servos, please read this document carefully before use.

Version selection

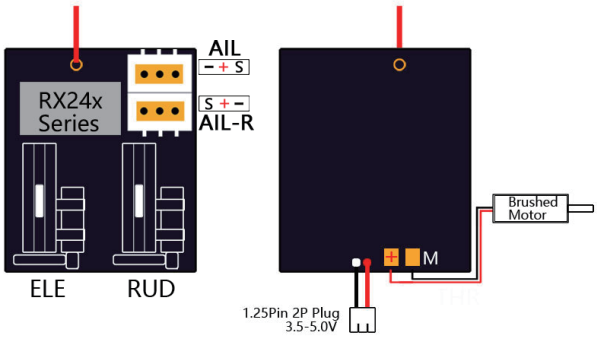
For RX24x series, now we have below 6 versions for choice, please understand the corresponding basic functions according to the product you purchased.

	Protocol	5A/1S Brushed ESC	2CH Linear Servo	TLEME Function
RX242	S-FHSS	√	√	
RX244	DSMX/2	√	√	
RX245	FRSKY-D16	√	√	
RX247	FRSKY-D8	√	√	
RX244-T	DSMX/2	√	√	√
RX245-T	FRSKY-D16	√	√	√

Basic Data

Size：25*23*8mm
Weight：4g
Working voltage：3.5-5.0V
Servo plug：1.00Pin 3P JST
Power plug：1.25Pin 2P JST(51005)

Receiver interface definition



Combine receiver and transmitter

1.Turn on the transmitter and power the receiver. At this time, the receiver is in the state of confirming the transmitter signal, and the LED light flashes slowly.

2. If the transmitter signal cannot be confirmed within 15 seconds, then enter the automatic frequency matching mode, the receiver starts to search for the signal and perform frequency matching, and the LED light flashes quickly.

3.If the frequency matching is successful, according to different types of remote transmitters , there will be a variety of different LED light feedbacks, including but not limited to the following three LED light flashing methods. Please confirm according to the actual remote control whether the frequency matching is successful or not.

S-FHSS ▬▬▬▬▬ Frksy ● ● ● ● ● ● DSMX ●●● ● ● ● ▬

How to use ESC

Connect the positive pole of the brushed motor to “M+” and the negative pole to “M-” to replace the throttle channel, as above picture.

The integrated brushed ESC has the lock function of preventing accidental touch. After the receiver is powered on, the throttle channel remains at the lowest position for more than 2 seconds, then this function can be canceled and the brushed ESC can be used normally.

How to use linear servo

After combining the transmitter, then can control 2pcs linear servos.(Usually, used for the horizontal tail and vertical tail.)

If you need to adjust the channel sequence or reverse, you can use transmitter’ s channel mapping function to revise it.

TELEM Function Introduction

Firstly , you need a remote control with TELEM to use this TELEM function.
This function could realize real-time monitoring to battery voltage, receiver voltage, receiver signal strength and receiver operating temperature, allowing users to master the working status of receiver and battery in real time to avoid unexpected situations in flight.

AEORC RX34x Series Mini Micro Receiver (with 2CH electromagnetic servo control function)

Instruction Manual

Thank you for choosing AEORC ultra-micro receiver, this receiver integrates 5A/1S brushed ESC, with 2CH electromagnetic servo control function, and with 5CH PWM signal output function, please read this document carefully before use.

Version selection

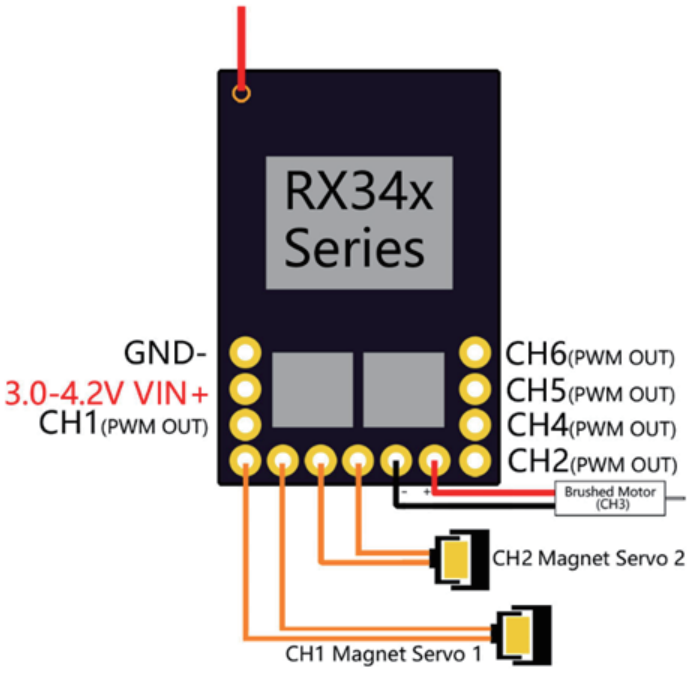
For RX34x series, now we have below 8 versions for choice, please understand the corresponding basic functions according to the product you purchased.

	Protocol	5A/1S Brushed ESC	2CH electromagnetic servo control	TELEM
RX342	S-FHSS	√	√	
RX344	DSMX/2	√	√	
RX345	FRSKY-D16	√	√	
RX346	Flysky（AFHDA-2A）	√	√	
RX347	FRSKY-D8	√	√	
RX344-T	DSMX/2	√	√	√
RX345-T	FRSKY-D16	√	√	√
RX346-T	Flysky（AFHDA-2A）	√	√	√

Basic Data

Size： 16*10*2.5mm
Weight： 0.5g
Working voltage：3.0-4.2V
Built-in 2CH electromagnetic servo driver (512 class resolution)

Interface Definition



Combine receiver and transmitter

1.Turn on the transmitter and power the receiver. At this time, the receiver is in the state of confirming the transmitter signal, and the LED light flashes slowly.

2.If the transmitter signal cannot be confirmed within 15 seconds, then enter the automatic frequency matching mode, the receiver starts to search for the signal and perform frequency matching, and the LED light flashes quickly.

3.If the frequency matching is successful, according to different types of remote transmitters , there will be a variety of different LED light feedbacks, including but not limited to the following three LED light flashing methods. Please confirm according to the actual remote control whether the frequency matching is successful or not.

How to use ESC

Connect the positive pole of the brushed motor to “M+” and the negative pole to “M-” to replace the throttle channel, as picture 1.1.
The integrated brushed ESC has the lock function of preventing accidental touch. After the receiver is powered on, the throttle channel remains at the lowest position for more than 2 seconds, then this function can be canceled and the brushed ESC can be used normally.

Connection for 2CH electromagnetic servo and PWM signal servo

Electromagnetic servo connection:
Connect the positive pole to “CH1 Magnet Servo 1” and the negative pole to “CH2 Magnet Servo 2”, and set up the servo’s positive inversion with transmitter. Then you can control the electromagnetic servo after combining transmitter.

PWM signal servo connection:
The most frequently used servo is PWM mode, so please confirm the voltage range of servos.
Connect the negative/positive/signal (black/red/white) three wires to GND/ VIN / CH1-CH6” respectively, then you can control the servo after combining.

TELEM Function Introduction

Firstly , you need a remote control with TELEM to use this TELEM function.
This function could realize real-time monitoring to battery voltage, receiver voltage, receiver signal strength and receiver operating temperature, allowing users to master the working status of receiver and battery in real time to avoid unexpected situations in flight.

AEO RX44x Series 6CH Mini Micro Receiver (Integrates 2-3S/15A brushless ESC)

Instruction Manual

Thank you for choosing AEORC mini micro receiver, this receiver integrates 2-3S/15A brushless ESC with 5V/2A BEC, please read this document carefully before use.

Version selection

RX44x series include below 4 versions for choice, please understand the corresponding basic functions according to below form.

	Protocol	15A/2-3S brushless ESC	TELEM
RX442	S-FHSS	√	
RX444	DSMX/2	√	
RX445	FRSKY-D16	√	
RX446	FRSKY-D8	√	

Basic Data

Size: 28.0*18*9.8mm (without wire)
Weight: 5.2g (without wire) 7.1g (with wire)
Working voltage: 7.4-12.6V
Built-in ESC: 15A 2-3S ESC BEC: 5V/2A
Over voltage protection: without 6CH servo signal output (standard servo plug)

Receiver interface definition

Size : 28.0*18*9.8mm (without wire)
Weight : 5.2g (without wire) 7.1g
Working Voltage : 7.4-12.6V
Built-in ESC : 15A 2-3S ESC (BEC: 5V/2A)
6CH PWM Signal Output

Combine receiver and transmitter

1.Turn on the transmitter and power the receiver.

2.Press the binding button and holding, after about 2s, the red LED of receiver will flash from slow to quick, then loosen the binding switch, at present, come into binding mode.

3.If necessary, please set up the transmitter to bind.

4.If the binding is successful, according to different types of remote transmitters , there will be a variety of different LED light feedbacks, including but not limited to the following three LED light flashing methods. Please confirm according to the actual remote control whether the frequency matching is successful or not.

S-FHSS ▬▬▬▬ Frksy • • • • • • DSMX ••• • • • ▬

Function introduction

How to use ESC:
Solder the three wires of brushless motor on the 3pcs soldered dot of "Brushless Motor".
Please note that confirm the motor rotation direction before soldering, then set out the ESC according to the normal ESC.