Plastic fiber optic transmission system manual

DESCRIPTION

This fiber optic transmission system is used to isolate the EMC/EMI signal。In order to reduce adverse effects on the RD4047, To obtain the highest sensitivity 。

Features of EMC/EMI source
Power motor：Continuous spectrum, field strength is weak, Interference by public power.
Servo：Continuous spectrum, field strength is weak, Directly interfere with the receiver power supply.

OSD signal chip: Continuous spectrum, field strength is weak, Interference by air

Crystal oscillator : Discrete spectrum, field strength is strong, Interference by air

UMPC: Continuous spectrum, field strength is strong, Interference by air and public ground.

2.4G video: Discrete spectrum, field strength is very strong, Interference by air and public ground.

Switching voltage Regulator: Continuous spectrum, field strength is very very strong, Interference public ground.

Currently used fiber-optic isolation is the only way to solve the continuous spectrum interfere .

Fiber optic transmitter

It can convert 10CH PPM signal,battery voltage,rssi voltage into optical signal.
Power Battery:3.3-8.4V
Cut-off voltage:2.8V
Current:20mA
Maximum fiber length;20m

Fiber optic receiver

It can convert optical signal to
10way PWM signal or 9way PWM + 1way PPM

Analog battery voltage Image
AnalogreceiveRSSI Image

You can take measurements of the receiver battery and rssi direct from the analog port.
PPM LED:
ON:PPM Output
OFF:PWM Output
Blink: PPM Output(It will be locked to this mode if input 8CH PPM)

Speed LED:
ON:180HZ PWM
OFF:55HZ PWM

LINK LED:
Blink: Link error
ON:Linked

Power Battery:4.8-10V
Cut-off voltage:3.2V
Current:20mA

Port

CH1-CH10: Connected to the servo
PPM: Connected to the decod
-: Servo battery - (GND)
+: Servo battery +
GND:Ground(-)
Receiver Voltage: Analog battery voltage
RSSI: Analog receiver RSSI

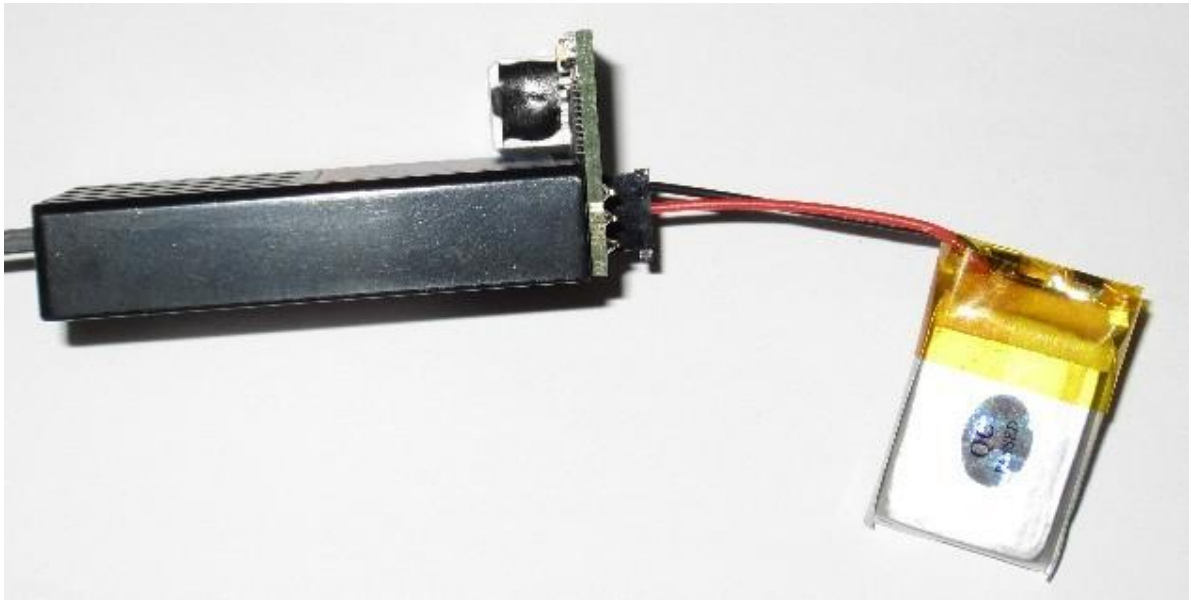
Settings

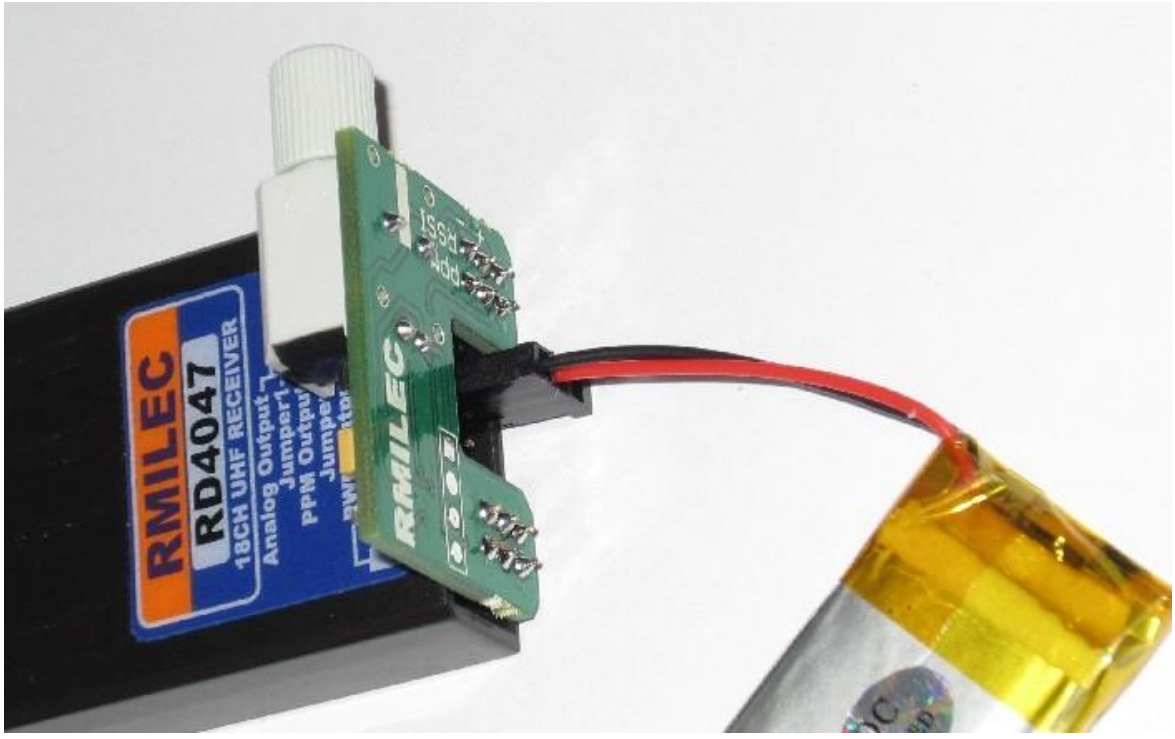
Second function
PPM/CH10: jumper of setting output of port 10,PPM or PWM
CH9: jumper of setting PWM output speed.

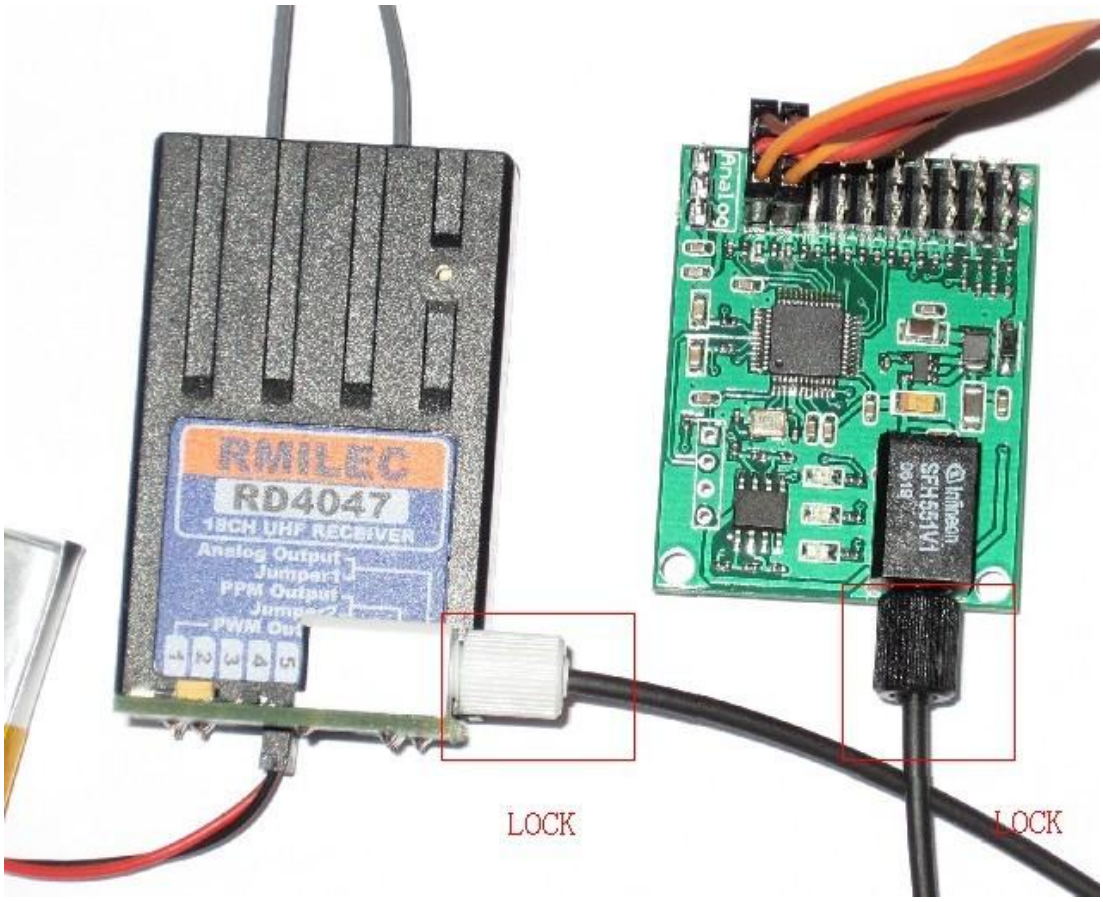
Set PPM output :
A. Short PPM/CH10
B.Power up Fiber optic receiver
C. Remove the jumper
D.PPM LED on
Set PWM output :
A. Short PPM/CH10
B.Power up Fiber optic receiver
C. Remove the jumper
D.PPM LED off

Set high speed output :
A. Short PPM/CH10
B.Power up Fiber optic receiver
C. Remove the jumper
D.High speed LED on
Reset output speed:
A. Short PPM/CH10
B.Power up Fiber optic receiver
C. Remove the jumper
D. High speed LED off

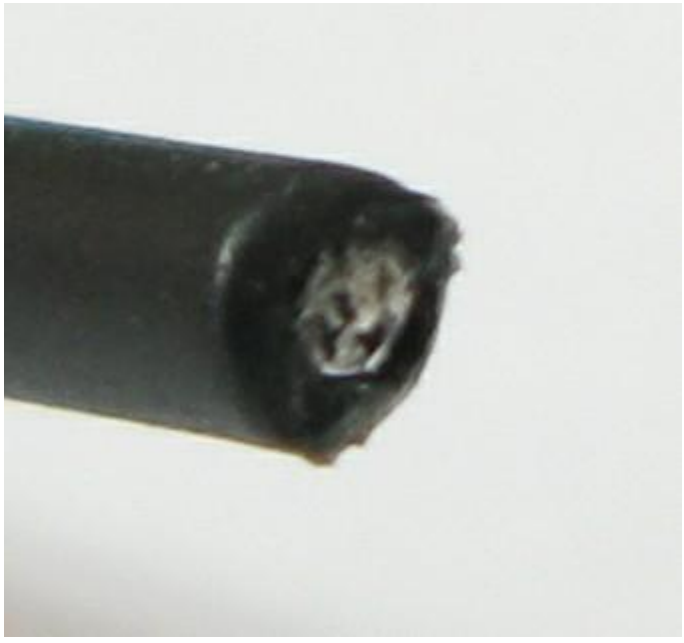
Installation







2.2 mm Aperture holds Standard 1000 Micron Plastic Fiber Cutting



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