

## RF Module / Receiver User Manual

### GIYOUNG ELECTRONICS

3F #319, The O valley B/D, 555-9, Hogye-Dong, Dongan-Gu, Anyang-Si, Gyenggi-Do, Korea

[www.gigyong.com](http://www.gigyong.com)

#### Introduction and Key Features

Thank you for purchasing the GIYOUNG product.

The GIYOUNG transmitter module and receiver based upon DSSS (direct sequence spread spectrum)

This product uses 2.4GHz bandwidth in ISM band

Not only this product can be used for air but also surface.

(For example, you can use the 3PK for surface by the transmitter module for FF9 for air.)

(The receiver is possible to use not to distinguish air from surface in the GIYOUNG products.)

This product prides fast binding speed and accuracy via 2-ways communication between the transmitter and receiver when you set ID.

The buzzer notifies to make link via 2-ways communication whenever switch on because the transmitter module has the buzzer.

(After link, it operates 1 way communication to allow for stability and reaction rate.)

This product can link an empty channel at power on the transmitter while other products are used in 2.4GHz in ISM band because of the RSSI (Received Signal Strength Indication) function.

This product is realized real-time data processing for fast binding speed demanded to RC, and the reaction rate is outstanding because the real speed that the PPM signal from the transmitter is processed by digital is within 5ms.

This product is stable not to communicate the receiver which is not set ID, because each transmitter RF module is allocated individual's ID.

There are the many advantages due to the RF module include antenna (antenna type).

A: It is very strong to impact or falling

B: It is very convenient when the handle of transmitter is installed a stand.

C: It is tidy due to unnecessary an antenna cable and no fear of a damaged cable.

It boasts one step ahead of technology by adopted the high efficiency and gain antenna via various field tests

#### Caution and Safety for Using

Please read the safety instructions before using this product.

Do not disassemble which may cause product failure.

Please install of RF module and receiver with controller after switch off.

After installing the RF module into the controller, please turn on the switch for the throttle lever of controller on a stop position first and then please turn on the switch for the receiver.

After stopping the engine or the motor, please turn off the receiver first, and then switch off the

controller.

Please make sure to test between the RF module and receiver before operating the product. Please check each channel to operate well. Please do not start to control if it malfunctioned.

Do not disassemble or replace other antenna with this product for replacement of antenna.

Do not cover the antenna with conductive mass or metallic painted cover, the radio wave of radiation cannot be work for sending-receiving.

Do not use, assemble other products from other companies for GIYOUNG products.

Do not operate one transmitter with many receivers at the same time.

Please turn off the switch the receiver that you do not use for your safety when switch on the transmitter module.

The guarantee does not cover customer damage by assembling with other products from other companies.

The competent wireless installation is possible radio interference, thus it cannot service the related safety of life.

The competent wireless installation is possible radio interference during operation.

## Guarantee

1. This product guarantees for a period of 12 month after the date of purchase. If any defect due to faulty materials and workmanship occurs within guarantee period, we will repair product at our expense.
2. You will be charged to repair even though the guarantee period, as follows.
  - If a defect is due to damage caused by incorrect use.
  - If alterations or repairs have been carried out by persons not authorized by GIYOUNG Electronics.
  - If a defect is due to damage caused by moving or falling during operation.
  - If a defect is due to damage caused by natural disasters.
  - The guarantee does not cover a need to change the consumable product parts.
  - It does not fill in the date of purchasing, the customer name and the store's name on the guarantee card.
  - When you modify the guarantee card arbitrarily.
3. According to company policy, we will repair or exchange for the defective products only.
4. If you need service or information or if you have a problem, please contact the local dealer of purchasing with the guarantee card filled in the below table.

|                        |                        |  |                 |  |  |
|------------------------|------------------------|--|-----------------|--|--|
| Model Number           | RF module<br>Receiver  |  |                 |  |  |
| Purchasing information | The date of purchasing |  | Warranty period |  |  |
|                        | The place of           |  | The price of    |  |  |

|                      |            |      |            |  |  |
|----------------------|------------|------|------------|--|--|
|                      | purchasing |      | purchasing |  |  |
| Problem              |            |      |            |  |  |
| Customer information | Address    |      |            |  |  |
|                      | Name       | Tel. |            |  |  |

If you have any problems, please contact to the local dealer for repairing or replacement.  
Do not disassemble your product.

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Notice for install Antenna.

The most important part of an antenna is the white core wire (feeder=the cable inside skin).

It is better to make the space from the metallic conductors or other cables because the feeder of antenna is very sensitive part to electric field intensity.

Do not use the antenna which is cut and damaged, due to danger of short range.  
The feeder (The cable inside skin) is very sensitive part to length.

Compatible controller

The model number of GIYONG : GT-12

Futaba : T12FGH, T12ZH, T14ZH(air)

The model number of GIYONG : GT-9F

Futaba: FF7A,FF9,10C(air),3PK(surface)

Hitec: ... (air)

..... (surface)

The model number of GIYONG : GT-9M

SANWA:... (surface)

## How to use

1. Please install the transmitter module of purchasing to transmitter.  
(Please join the cable connector below the module, if you use the Futaba 12FG or 14ZH)

IMPORTANT : Transmitter should switch the PCM mode to PPM mode.

2. Please connect receiver to the servo and battery which you use as below, after checking the polarity of them. Notice polarity (+) (-), installing battery and servo.
3. After connecting between the transmitter and receiver, switch on the transmitter.  
Bleeping "Beep" from the buzzer on the transmitter, after blinking twice the blue LED and then flickering the green LED slowly.
4. Push the "ID SET KEY" on the transmitter for a period of 2 second then blinking the blue LED.
5. This time push the "ID SET KEY" on the receiver for a period of 2 second by tweezers or other things. After that, the transmitter module bleeps "Beep, Beep" twice and then turn on the green LED on the receiver.
6. It should complete binding if the green LED on transmitter module and receiver turns on.
  - After that, checking the operation of serve by moving the lever of controller.

The order of binding is as below. ( Two-way communications at ID setting)

1. When you push the "ID SET KEY" on the transmitter, the transmitter send the data to receiver.
2. When you push the "ID SET KEY" on the receiver, the receiver search the data from transmitter.
3. When the receiver finds the data of transmitter, the receiver send the ACK date to transmitter.
4. When the transmitter receives the data of receiver, notifying completed blinding via the buzzer (OK tone) on the transmitter.

Notice : When you turn on the Futaba 12GF or 14ZH, if you read the comment "RF Module is not attached. Continue?", push the "YES".

(It is no problem operation, if blinking the red light during the operating)

## The Product Specification

|           | TX(RF Module)  |       |       |
|-----------|----------------|-------|-------|
| Model     | GT-12          | GT-9F | GT-9M |
| Frequency | 2.405~2.480GHz |       |       |

|                   |                 |                  |       |                  |         |                  |  |  |  |  |
|-------------------|-----------------|------------------|-------|------------------|---------|------------------|--|--|--|--|
| Power consumption | 160mA           |                  |       |                  |         |                  |  |  |  |  |
| H * V (mm)        | 121X35.5        | Height A<br>19.8 | 37X61 | Height A<br>21.0 | 34X61.6 | Height A<br>21.0 |  |  |  |  |
|                   |                 | Height B<br>32.5 |       | Height B<br>34.0 |         | Height B<br>33.7 |  |  |  |  |
| Weight            | 47.7g           |                  | 27.3g |                  |         |                  |  |  |  |  |
| Operating Temp    | (-20°~+60°)     |                  |       |                  |         |                  |  |  |  |  |
| Typical Voltage   | 9.6V(6.4~14.8V) |                  |       |                  |         |                  |  |  |  |  |

|   |                |                 |       |                 |       |                 |       |  |  |  |  |
|---|----------------|-----------------|-------|-----------------|-------|-----------------|-------|--|--|--|--|
|  | RX(Recevier)   |                 |       |                 |       |                 |       |  |  |  |  |
| GR-7/GR-5A/GR-5S/GR-5P  |                |                 |       |                 |       |                 |       |  |  |  |  |
| Model   | GR-7           |                 | GR-5A |                 | GR-5S |                 | GR-5P |  |  |  |  |
| Frequency   | 2.405~2.480GHz |                 |       |                 |       |                 |       |  |  |  |  |
| Power sonsumption   | 47mA           |                 |       |                 |       |                 |       |  |  |  |  |
| H * V (mm)  | 22X38          | HeightA<br>10.6 | 20X33 | HeightA<br>10.1 | 21X35 | HeightA<br>11.5 | 21X35 |  |  |  |  |
|   |                | HeightB 8.1     |       | HeightB 8.1     |       | HeightB<br>8.1  |       |  |  |  |  |
| Weight  | 10.1g          |                 | 8.7g  |                 | 9.0g  |                 | 6.4g  |  |  |  |  |
| Operating Temp  | (-20°~+60°)    |                 |       |                 |       |                 |       |  |  |  |  |
| Typical Voltage   | 5 V(3.7~10 V)  |                 |       |                 |       |                 |       |  |  |  |  |

Please be sure that

When charging the battery, the transmitter doesn't transmit the radio frequency.

## Regulation Notice

### FCC Compliance statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or

more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Caution !

Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

## FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

This transmitter and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.