

## RF-MFX800 Module

——MTSS (Multi-protocol Two-way Transmission Spectrum System)



### ● Information

- Using newly-developed 2.4G Spectrum system "MTSS";
- Compatible transmitters including Spektrum, JR, Futaba, Hitec, Walkera and Wfly;
- Supporting ORIGIN's A-MTSS series receivers;
- Compatible for DSM2 receivers (less than 7 channels);
- Enabling transmitters to control HorizonHobby's models with DSM2 receivers (e.g.McpXV1&V2, 130X, MSR-X and UMX 3-Axis fixed wing airplanes);
- Can be used in iPhone4, iPhone4S, iPad2 and the New iPad;
- 1S Li-po battery internally installed;
- Easy to use, light and small.

### ● Transmitters Compatible

- Spektrum: DX7 (2.4G);
- JR: XG8 (2.4G)、XG7 (2.4G)、9XII (72M);
- Futaba: T10CHG (2.4G)、T9C (72M)、T8FG;
- Hitec: AURORA-9;
- Walkera: 2801pro、DEVO-6、DEVO-7、DEVO-8、DEVO-10.

PS: Transmitters mentioned above are already tested;

Other transmitters will be tested soon and we will update the list on our website.

## ● Specifications

- Power: 4~20 DBm;
- Number of Channels: 7 (DSM2), 9 (A-MTSS);
- Operating Current: 50mA;
- Operating Voltage: 3.6~4.2V (batteries for MCPX are recommended);
- Continuous Working Time: 4h-6h (300mA/1S Li-Po);
- Weight: 5.9g (PCB),17.0g(metal shell),10.7g(antenna);
- Size: 26.5 x 58.0 x 14.5 mm.

## ● Instruction for Switches and Connectors



## ● How to Use

### 1、 Binding

- 1) Hold the binding button, then turn on the power switch (**Remark 1**);
- 2) Release the binding button after LED4~LED6 all lightens, and the module enters binding mode;
- 3) Binding is finished after LED1 lamps only;

4) Turn off and turn down the power switch, then turn on the transmitter. If the transmitter can control the receiver, binding is finished.

## 2、Setting parameters

1) How to enter setting mode: hold the binding button and turn on the power switch, then release the binding button before LED4~LED6 are all lightened;

2) How to look up parameters (Remark 1): parameters will appear in turn in setting mode,

Ps: green LED for kind of parameters lamps, while red LED for numerical values flashes, which can be seen in the table below:

No.	Settings		State of LED						
	Kind of setting	State of LED	○○○	○○●	○●●	●○○	●●●	●●○	●●●
1	Kind of transmitter (Remark 2)	○○●	JR SPEKTRU M	FUTABA HITEC	Walkera				
2	MTSS mode (Remark 3)	○○○	A	B					
3	Power DBm	●○○	0	4	8	10	12	16	20
4	Districts to select	●○○	Reservation						
5	PPM mode	●●○	1	2					

■ Represents set when manufacturing;

3) How to set parameters (Remark 1):

a) Select settings: press the binding button until red LED flashes according to the table above (green LED flashes and red LED lamps);

b) Set parameters: Parameters change and circulate in turn every time you press the binding button.

Hold the binding button after the parameter changes to the value you want, and it will be saved after 3 seconds.

Then the module exits current setting, show the value, and move to next setting.

## 3、Instructions for LED

1) Starting up:

- LED1 lamps: the module is on;

- LED3 lamps: the module works in MTSS mode A, otherwise in MTSS mode B;
- LED5 lamps but LED6 not: the transmitter is JR or SPEKTRUM;
- LED6 lamps but LED5 not: the transmitter is FUTABA, Hitec or WFLY;
- LED5&LED6 both lamp: the transmitter is Walkera.

## 2)Using:

- LED1 flashes: detects PPM signal;
- LED2 lamps: battery voltage higher than 4.1V;
- LED3 lamps: battery voltage between 4.0V and 4.1V;
- LED4 lamps: battery voltage between 3.9V and 4.0V;
- LED5 lamps: battery voltage between 3.8V and 3.9V;
- LED6 lamps: battery voltage between 3.7V and 3.8V;
- LED6 flashes: battery voltage lower than 3.6V.

## 4、 How to connect to your transmitter

- 1) Insert one side of the transition line into Connector A, and the other side into your transmitter's trainer Connector;
- 2) Turn on your transmitter, then the module, if LED1 flashes after 3 seconds, the connection succeeds.

## 5、 How to put the battery

- 1) Open the rear cover;
- 2) Insert the battery into the socket of the module;
- 3) Turn on the module, the battery is successfully installed when LED1 lamps, Otherwise you should check the voltage and joint loose;
- 4) Close the rear cover and put on the screws.

## 6、 How to charge

- 1) Insert one side of the charger lead into Connector B, and the other side into a balanced charger;
- 2) Turn on the module, 6 LEDs will flash one by one;
- 3) Charge the battery using your balanced charger;
- 4) Take down the charger lead after charge is finished.

## ● Remarks

- 1) Please fix the module well while using (the antenna should not directly face the model);
- 2) You can finish binding and setting with your transmitter off;
- 3) For different transmitters, JR and Spektrum are of one kind, Futaba, Hitec and Wfly are of the other;
- 4) For other transmitters, you can bind with one kind first,

and then figure out whether the first 4 channels are correctly bound or not,  
if yes, the transmitter belongs to the kind you select;

- 5) MTSS mode A means A-MTSS protocol, and MTSS mode B means DSM2,  
A-MTSS receivers(less than 7 channels) can operate under both protocols,  
A-MTSS receivers and i-3D series receivers can only work in MTSS mode A,  
Please refer to relevant instruction books for more information;
- 6) When using the module, your transmitter's own launch module should be powered off,  
which most transmitters will do automatically, but for FUTABA transmitter,  
you should power off its own launch module manually when using our module;
- 7) ●---for green LED on;
- 8) ○---for green LED off;
- 9) ●---for red LED on;
- 10) ○---for red LED off.

