

2.4GHz 9Channel  
Surface Telemetry Receiver



# OPTIMA D

## Instruction

Version 1.0

### Hitec Customer Service

Help is available from the Hitec office through phone support and e-mail inquiries. Our US office is generally open Monday thru Friday, 8:00AM to 4:30PM PST. These hours and days may vary by season. Every attempt is made to answer every incoming service call. Should you get voice mail, leave your name and number and a staff member will return your call.

### Hitec Website

Make plans to visit the Hitec website, [www.hitecrcd.com](http://www.hitecrcd.com), on a regular basis. Not only is it full of specs and other information about the entire Hitec product line, our FAQ pages will eventually hold valuable information and program update about the OPTIMA D receiver.

### The On-Line Community

One of the benefits of the extensive R/C online community is the vast wealth of archived knowledge available. Hitec sponsors forums on most of the popular R/C web sites where a Hitec staff member or representative tries to answer all manner of product related questions. Bringing together strangers with common interests is proving to be one of the greatest gifts of the internet. If past history is any guide to the future, we are certain forums will be started about the Hitec 2.4 system and several are certain to stand out as valuable archives of information

### Warranty and Non-Warranty Service

All Hitec products carry a two year from date of purchase warranty against manufactures defects. Our trained and professional service representative will determine if the item will be repaired or replaced. To provide all the necessary information we need to administrate your repair, visit our website at [www.hitecrcd.com](http://www.hitecrcd.com) and download the repair form, fill it out and send in your item for repair.



### Warning

1. The receiver antenna should not be placed near the engine, metal parts, or high current batteries.
2. The receiver Antenna should not get damaged. To prevent antenna damage, do not install the antenna near the sharp edge or bend it more than 90 degree in angle.
3. Use a Velcro or think double sided tape to install to absolve the shock during the operation.
4. When LED indicator irregularly blinks, indicates unstable frequency environment, stop operating and look for the possible cause of problems.

### OPTIMA D Receiver Specifications & Features

Receiver Model	Size	Weight
OPTIMA D	35 x 16.8 x 5mm	4.1g



1. LED shows current status or set up status. (See page 2 more details)
2. , PPM or S-BUS, RSSI signal output PPM or S-BUS, RSSI output
3. Voltage Sensor input tap(Bottom) Main power can be checked by this tap

Operation Voltage : 4.8V~7.2V (BEC from ESC can be used)



**Note** Servo manufacturer will specify maximum voltage of their servo model. Please refer each servo's specification.

### Voltage Sensor input tap

- User need to have soldering direct to here to check battery voltage (4.8V to 35V)

### Bus System output

- Optima D provide PPM, S-Bus. But user must select one of signal type.
- (See page 2 more details)

### RSSI Output

- Via RSSI, communication sensitivity can be seen through OSD.

### Compatibility

- Optima D is using Hitec AFHSS 2.4GHz system, all Hitec radios can control Optima D Receiver.

### How to Link (ID-Set)

When you purchase a radio set that Transmitter and receiver include together in the box, each device are linked already from the factory.

If you purchase extra receivers or transmitter, you need to have Link with current your device together.

### Aurora 9

1. Press and hold the button on the module, and turn on the transmitter\*  
For Aurora 9, once connect to module, press Link button in the module and turn on the transmitter. Press Transmit "Yes" in the Aurora 9 screen and then release Link button.
1. Press Link button in the Receiver and turn on the Receiver. Once Receiver power is on, release Link

button. After release Link button, LED will turn Blue and entered Scan mode.

2. Once connection is completed, Red LED will be on in the module. After that BLUE LED will be blinking. At the same time BLUE LED in the Receiver also will be blinking.

Now Connection is completed

3. Turn off and On both transmitter and receiver together, Beep sounds will be spoken 4 times. This sound also shows that connection is completed.

#### Aurora 9X, Flash Series

1. Turn On the Transmitter.
2. Select 'Spectra' in the System menu of Transmitter.
3. Select RX type as "Opti&Mini". Select 'Binding' and press 'YES'.
4. Press Link button in the Receiver and turn on the Receiver. LED will turn Blue and entered Scan mode
5. Once Link is completed, Transmitter screen will be changed to the next step.
6. Turn Off/On the Receiver power and check the operation. Press 'Finish' on the radio to complete the Link.



**Note**

When you try to have Link, please located TX & RX less than a 3 feet distance.

#### Signal Mode Change ( PPM, S-Bus )

Optima D provides PPM and S-BUS signal. User can choice one of PPM or S-BUS according to their FC (Flight Control).

1. Turn off the transmitter during this process
2. Press "Link" button of Optima D and turn on the Power.
3. Once BLUE LED is blinking and stop blinking, release Link button.
4. If BLUE LED is blinking 2 times- this is PPM Mode  
If BLUE LED is blinking 3 times – this is S-BUS Mode  
Once press Link, Mode will be changed.
5. Once signal mode is selected, press and hold Link Button about 3 seconds and release.  
LED will be blinking rapidly. This is confirmation sign.

#### FAIL-SAFE and Hold Mode Setup

FAIL-SAFE point you previously stored in the FAIL-SAFE set-up. Make sure you set the FAIL-SAFE function properly.

If FAIL-SAFE has not been activated, the signal will switch off after the HOLD period of one second. This means that the servos become "soft" and remain in their last commanded position under no load (this may equate to full-throttle!), until a valid signal is picked up again.

In the interest of safety, we recommend that the FAIL-SAFE function should always be activated, and the FAIL-SAFE settings should be selected so as to bring the model to a non-critical situation (e.g. motor idle / electric motor OFF, control surfaces neutral, airbrakes extended, aero-tow release open, etc.).

1. Turn On the transmitter and receiver
2. Check the correct operation and place control stick or control toggle of transmitter to fail-safe position.
3. Press and Hold Link button in the receiver in 6 seconds.

BLUE LED will be blinking start slowly and then blinking rapidly.

4. Once BLUE LED change to solid BLUE, Fail Safe is successfully completed.
5. Please turn off the transmitter to check the operation



**Note**

- The FAIL-SAFE settings should be checked every time before you run the engine/motor.
- This product is designed to be used as a R/C hobby product and should be operated under local regulation.

#### FCC notice to users and product statements

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

#### European CE notice to users and product statements

This product is CE marked according to the provisions of the R & TTE Directive (99/5/EC). Hereby, HITECRCD INC. declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For further information, please contact <http://www.hitecrd.com> or <http://www.hitecrd.co.kr>

**CE2200**

FCC ID: IFHOPTIMA D  
IC: 3420A-OPTIMA D



인증번호 :  
MSIP-CRI-HRK-OPTIMA D  
당해 무선설비는 운용 중  
전파혼신가능성이 있음



R 005-000000

#### Hitec Service

12115 Paine St. Poway CA 92064

1-858-748-6948

E-mail: [service@hitecrd.com](mailto:service@hitecrd.com)

## WARNING & SAFETY INFORMATION

### Safety Symbols



#### **Warning**

- When encountering this symbol in the manual, you must follow these recommendations to avoid irreparable damage to your car, system or connected devices or to avoid accidents with injuries or death.

### IC Information

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:  
(1) this device may not cause interference, and  
(2) this device must accept any interference, including interference

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The antenna(s) used for this device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

### FCC Information

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.

### FCC notification to users

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 when the equipment is operated in a commercial environment. 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, the user is encouraged to try to correct the interference by consulting with a dealer or an experienced technician for technical assistance.

**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.**