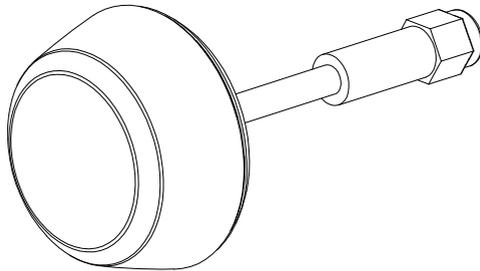


Clover-Leaf Antenna 5.8GHz

User Manual

V 1.0



Please strictly follow these steps to mount and connect the antennas to your TX and RX module. Please use this product in accordance with the provisions of your local authorities and regulations.

Introduction

5.8GHz Clover-leaf antenna works in the frequency band of 5.8GHz ISM. It can be used in the 5.8GHz wireless video module AVL58 (both TX and RX), and also other transmitter and receiver working in the frequency band of 5.8GHz. The product has the following characteristics: low profile, light weight, high reliability and wide communication range. The cloverleaf antenna design has proven to be one of the best antenna designs for aero-modeling activities, especially the FPV flying.

The product has the characteristic of wide wave band range and circular polarization to ensure the stable transmitting and receiving when the aircraft is in any attitude and position. So it can provide reliable wireless video signals during a flight.

The antenna has an advantage of good direction and has a wider and well-distributed range of signal than a common antenna, which are important characters during a flight. (Fig.1)

The RX antenna's coaxial cable can be slightly bent to meet the need in different directions with a limited angle of not larger than 28 degree (Semi-diameter of the bent arc should not be shorter than 40mm), which increases the flexibility of installation. (Fig.2)

Please try your best to keep the antenna straight.

The antenna use coaxial cables of high quality, which assures a better performance of this product.

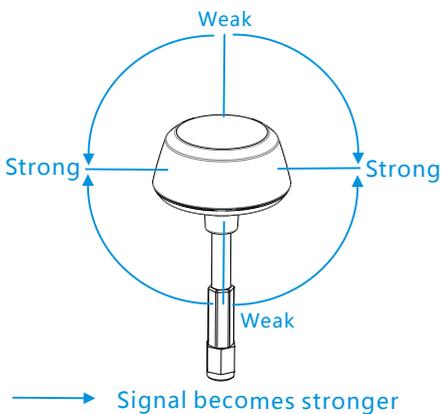


Fig1 Signal Strength of Antenna

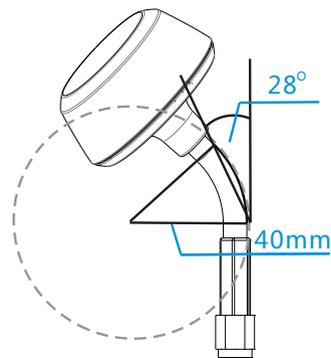


Fig2 Bent Angle Limit of RX Antenna

Attentions

- Please always mount the antenna before power on the device to avoid circuit damage.
- Please place the TX and the RX antennas according to the guide and ensure the two antenna visible to each other (no obstacles), otherwise, the communication distance will be shortened.
- The bent angle of coaxial cable NEVER exceeds the angle limit, otherwise, the performance reduction of the antenna will occur or even damage of the antenna may happen.
- Do not bend the coaxial cable of the TX as possible as you can to avoid antenna performance reduction.
- Please keep the transmitter and the receiver away from the ground as far as you can to avoid influencing the communication distance.

Assembly

STEP1. Please mount the antenna on the transmitter and the receiver respectively. (Fig.1)

STEP2. Mount the receiver on the aircraft as the following chart to get a better performance. (Fig.2)

- Please try your best to keep the coaxial cable of the RX and TX straight.
- Please keep the transmitter and the receiver away from the ground as far as you can to avoid influencing the communication distance.

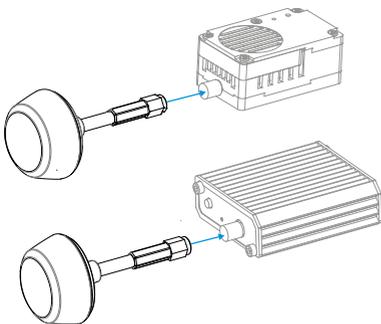


Fig.1 Assembly of Antennas

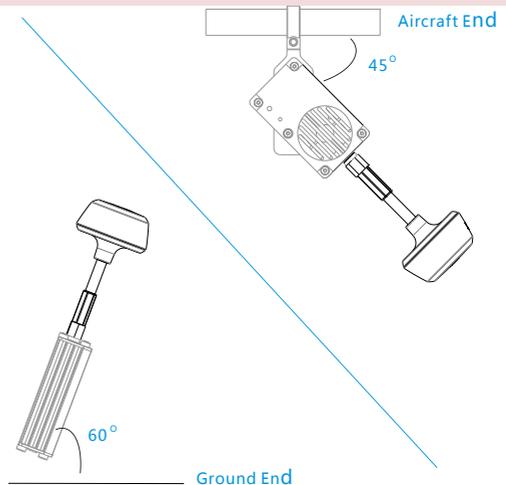


Fig.2 Placement of Antennas

Specifications

Performance Parameters		
Working Frequency	5.8GHz	
Gain (3-Lobe)	1.2dBi	
VSWR	≤1.5	
RF Bandwidth	150MHz	
Horizontal Bandwidth	360° omni	
Vertical Bandwidth	≥95°	
Polarization Mode	Right-Handed Circular Polarization	
Physics Parameters		
Working Temperature	-55°~125°	
Height	TX: 70.06 mm	RX: 80.06 mm
Diameter of Antenna Head	35.72 mm	
Weight	TX: 13.43g	RX: 14.27g
Hardware Functions Supported		
Antenna Options	SMA	
Maximum Power Supported	2W	
Soft Bend Limit of Coaxial Cable	<28° (Semi-diameter should be larger than 40mm)	