

# **AVL58** 5.8G Video Link

## **User Manual**

V1.0

2012-10-30

# Disclaimer

Thank you for purchasing this product. Please read the instructions carefully before installing the hardware and software for this product, this will ensure trouble free operation of your Video Link RX and TX. Please use this product in accordance with the provisions of your local authorities and regulations.

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# Introduction

The AVL58 includes both Video Link Transmitter (TX) and Video Link Receiver (RX), working in the ISM frequency band of 5.8GHz (5645- 5945MHz MHz). Analogue modulated video signals are sent wirelessly by the TX module to the RX module, and then the video signal will be demodulated and sent to a display.

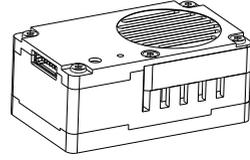
There are 8 wireless channels can be selected when you are using AVL58. These channels are: CH1-5705MHZ, CH2-5685MHZ, CH3-5665MHZ, CH4-5645MHZ, CH5-5885MHZ, CH6-5905MHZ, CH7-5925MHZ, and CH8-5945MHZ.

The characteristics of the AVL58 are: small size, low power consumption and high sensitivity. The AVL58 can be used in many applications requiring wireless video communication. When it's used in the aero-modeling hobby, the Video Link Transmitter will be mounted to the aircraft and the Video Link Receiver is connected to a display screen, allowing video signal wireless transmission.

# Contents

## 5. 8GHz Video Link Transmitter (TX) x1

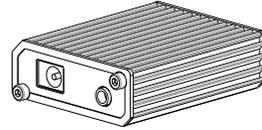
Analogue modulated video signals will be sent wirelessly by the TX module, working in the frequency band of 5.8GHz with 8 channels.



## 5.8GHz Video Link Receiver (RX) x1

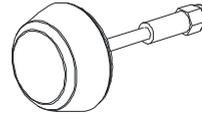
Connect to a display screen.

The signal will be demodulated and sent to the display by the RX module, working in the frequency band of 5.8GHz with 8 channels.



## Antenna x2

Optional, please make purchase according to your need. Please refer to the [\*Clover-Leaf Antenna User Manual\*](#) for all antenna details.



## Video Input Cable x1

Connect the TX to the video input source, with a port connecting to the battery for power supply,



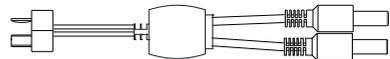
## Video Output Cable x1

Connect the RX module to a display screen, transmitting video signal to display on the screen.



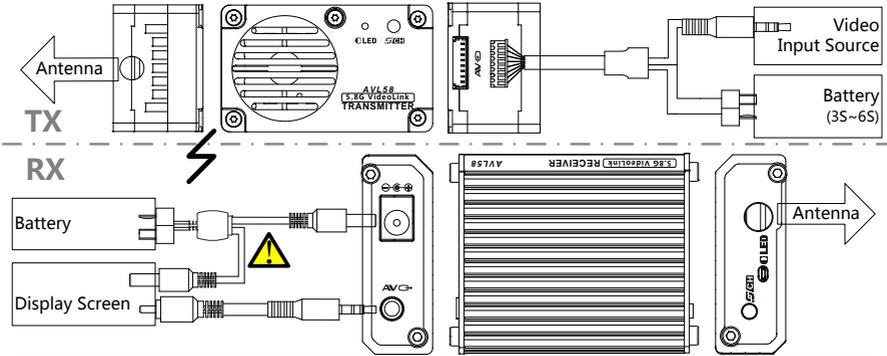
## Power Cable x1

Connect the battery to the RX module and the display screen through the power cable for power supply.



# Installation

- STEP1.** Please assemble two antennas to the Video Link Transmitter and Receiver.
- STEP2.** Connect the Video Link Transmitter to a video input source, and then connect the Video Link Receiver to a display screen and battery.
- STEP3.** Make sure the Video Link Transmitter and Receiver are working on the same channel by using the channel-selection button; refer to the LED indicator flash pattern.



## TX Knowledge

- **AVC** Video input port is A 8-pin Port. The TX transmits both channel control signal (CH1, CH2, ...CH8) and video signal. Make sure the connection of the port is correct.
- **SEL** Chanel-Selection Button, which is for TX wireless channel selection.
- **LED** LED indicates the TX working channel .

## RX Knowledge

- **Battery** can apply power for both the RX module and the display screen with an input voltage range of 3S.
- **AVC** Video Output Port transmits video signal, connected to the display screen.
- **SEL** Chanel-Selection Button, which is for RX wireless channel selection.
- **LED** LED indicates the RX working channel .

## Important:

- The antenna **MUST** be connected before power on, otherwise electronics damage may occur.
- **⚠** When use a battery to supply power for the RX and the display screen, the battery voltage must not be higher than the input voltage of the display screen; otherwise damage may occur to your display screen.
- Ensure there is no obstacle between antennas; otherwise the communication range will be reduced.

## LED Indicator

CH 1	● ● ●	CH 2	● ● ● ●
CH 3	● ● ● ●	CH 4	● ● ● ● ●
CH 5	● ● ● ● ●	CH 6	● ● ● ● ● ●
CH 7	● ● ● ● ● ●	CH 8	● ● ● ● ● ● ●

Red LED blinks once after pressing the channel-selection button, indicating successful selection.

# Specification

Performance Parameter		
Outdoor/RF Line-of-Sight Range	1.0 km	
Transmit Power	500mW	
Receiver Sensitivity (1%PER)	-90dBm $\pm$ 2dBm	
Frequency Band	CH1-CH8	
	● CH1 : 5705MHZ	● CH5 : 5885MHZ
	● CH2 : 5685MHZ	● CH6 : 5905MHZ
	● CH3 : 5665MHZ	● CH7 : 5925MHZ
	● CH4 : 5645MHZ	● CH8 : 5945MHZ
Physical Parameter		
Operating Temperature	-20~70°C	
Size (No Antenna)	● TX: 50cm(length)X30cm(width)X22cm(height)	
	● RX: 55.5cm(length)X48cm(width)X17cm(height)	
Weight (No Antenna)	● TX: 39g	
	● RX: 49.5g	
Hardware Supported		
Antenna Options	SMA	
Transmitter Supply Voltage	3S~6S LiPo	
Receiver Supply Voltage	3S LiPo	
Transmitter Current	575mA $\pm$ 50mA(@12V)	
Receiver Current	90mA $\pm$ 10mA(@12V)	
Software Supported		
Built-in Functions	● 5.8GHZ Broadband FM Video Transmit & Receive Synchronously	
	● Analog Video Output to Display	
	● 8 Transmitting and Receiving Channels	

# Trouble Shooting

No.	What	Why	How to
1	Power supply is OK, but no video	There is problem with the video input.	Please check the video input.
2	No video	The RX and TX modules are not set to the same channel.	Make sure RX and TX modules are on the same channel by using the channel-selection button.
3	Video is flashing and rolling.	<ol style="list-style-type: none"> <li>1. The video mode of the display screen sets incorrectly.</li> <li>2. The RX and TX modules are not set to the same channel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reset the video mode of the display screen.</li> <li>2. Make sure RX and TX modules are on the same channel.</li> </ol>
4	The transmission distance between the RX and TX is shortening.	<ol style="list-style-type: none"> <li>1. The antenna assembly is incorrect.</li> <li>2. The RX and TX modules are not set to the same channel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Make sure there is no obstacle between antennas.</li> <li>2. Make sure RX and TX modules are on the same channel.</li> </ol>