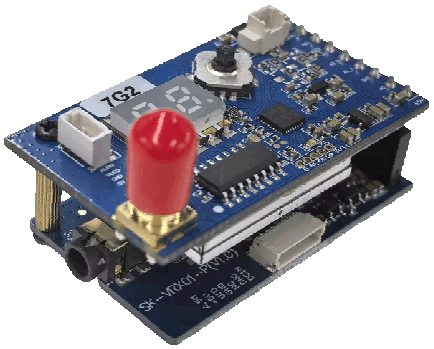
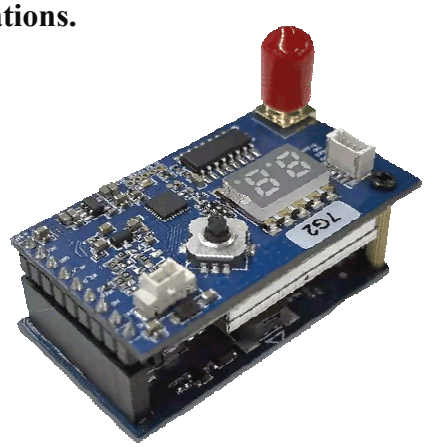
VRX-F12-7G Video Receiver

(6.1G~7.2G, 64CH)

The VRX-F12-7G is a 6.1G~7.2G FPV analog video receiver that outputs CVBS signals compatible with a wide range of display terminals, including Fat shark goggles, SKYZONE goggles, DJI Goggles V1/V2 and analog monitors. It also supports simultaneous external DVR connection for video signal output. Boasting low latency and strong anti-interference performance, this receiver is widely used in FPV drone flight, outdoor recreation, racing competitions and professional aerial photography applications.



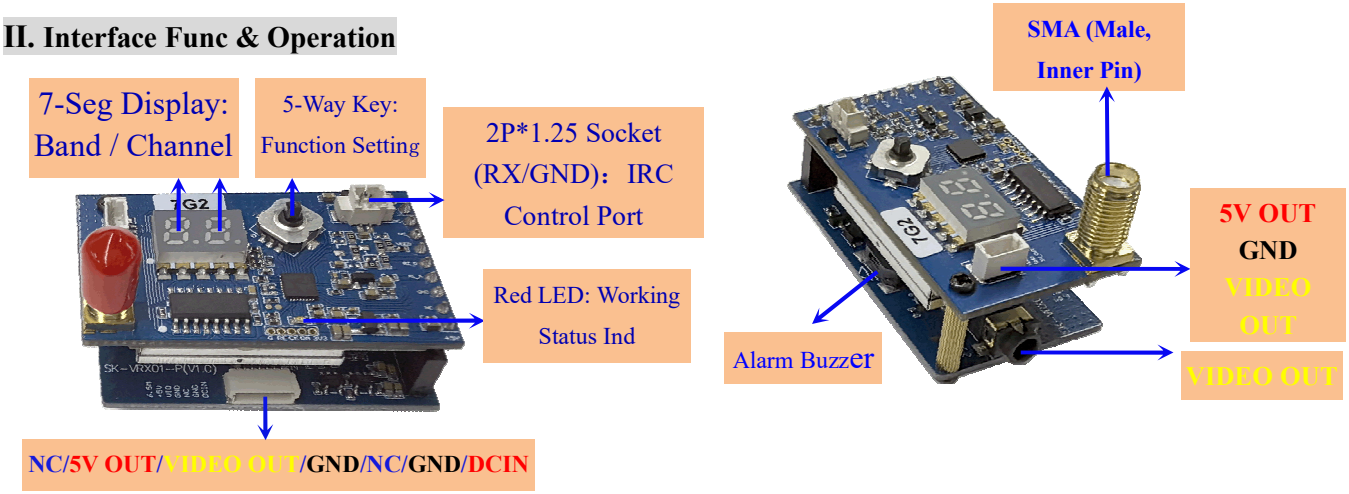


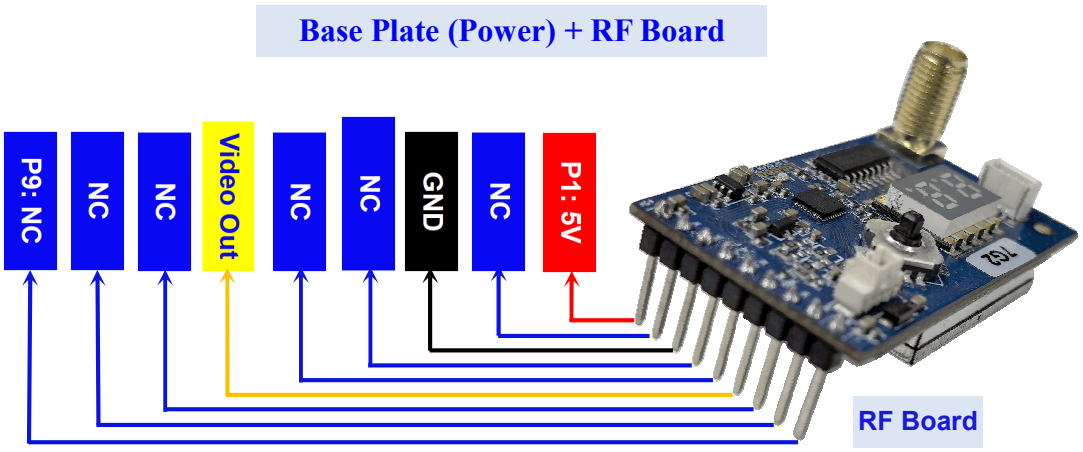
I. General Characteristics

Item	SPEC.
Input Voltage	DC 7V~28V (2~7S)
Current Consumption	295 ± 30mA @DC 12V
Output Voltage	5V ± 0.5V Output（MAX 500mA＞7.2V)
Channel customer	64CH　(6110MHz ~ 7210MHz）
Receiver Sensitivity	-96dBm ± 2dBm
Modulation type	FM
Frequency control	PLL
Frequency Stability	±100KHz (Typ.)
Frequency precision	±200KHz (Typ.)
S/N (Fo ± 3)	>70dBc
Antenna Port	50 Ohms
Ant. Interface	SMA (Male, Inner Pin)
Video Std.	PAL / NTSC

Video input level	**1V ± 0.2Vp-p type**
Video Signal Fmt.	**CVBS**
Operating Temperature	**-10℃~+60℃**
Profile dimension	**48mm * 27mm * 20mm （Excluding SMA**
Weight	**20.5g (Base Plate Included, Antenna**

II. Interface Func & Operation





Connector	Func. Description
SMA	Antenna Signal Output Port (Male, Inner Pin)
5V OUT	5V±0.5V（MAX 500mA Output＞7.2V)
GND	Video GND, Power Input Negative, Signal GND
VIDEO OUT	Video Output Port (1Vp-p ± 0.2Vp-p @ 75Ω)
NC	No Connection, Floating
VIDEO OUT	Video Out: 1Vp-p ± 0.2Vp-p @ 75Ω
DC IN	Power Input Positive: DC 7V ~ 28V (2S ~ 7S)

Status Indicator & Key Functions Operation Instructions	**1)、When the red LED is off, the device is in standby mode,waiting for key operation； and the keys are in active;** **2)、Long-press the center key for 3 seconds, and the red LED will light up to activate the key operation;** **3)、 When the red LED is on, short-press the left or right key to switch frequency bands (right key for increase, left key for decrease);** **4)、 When the red LED is on, short-press the up or down key to switch frequency bands (up key for increase, down key for decrease);** **5)、When the red LED is on, short-press the center key to enter automatic frequency scanning mode (display "00" if no signal is found);** **6)、When the red LED is on, long-press the center key for 5 seconds: the alarm buzzer will sound, and the two red dots on the 7-segment display will flash, entering the alarm frequency scanning mode. When the red dots are flashing, short-press the center key to continue alarm frequency scanning. When a signal is received in alarm mode, the device will stay on the received channel and emit an alarm "beep-beep" sound (the interval of the "beep-beep" sound varies according to the received signal strength, with 4levels: 2S interval. 5S interval, 7S interval, and no sound means no signal received);** **7)、To exit the alarm frequency scanning mode, manually long-press the center key for 6 seconds until the red LED turns off. For other function modes, if there is no key operation within 10 seconds, the device will automatically exit and the red LED will turn off.** **（Note: If the device is powered off in alarm mode and then powered on again, it will display the frequency band/frequency. To re-enter the alarm mode, it needs to be enabled manually.）**

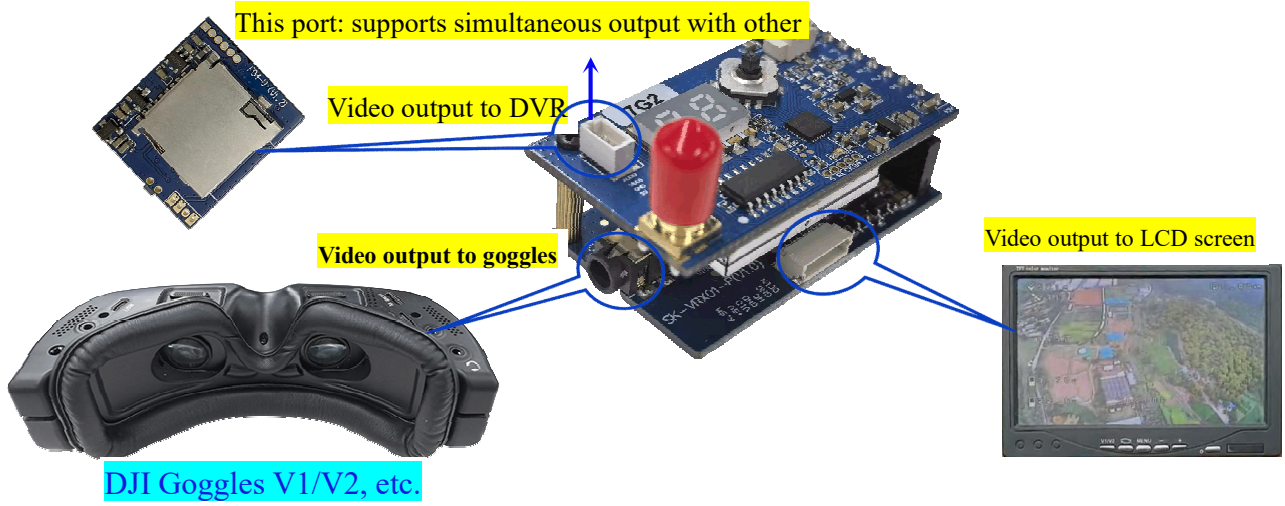
Frequency Channel Table (Frequency Band/Channel) Parameters:

BAND	Channel（Unit：MHz）							
	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8
FR 1	6110	6130	6150	6170	6190	6210	6230	6250
7-Segment Display Status	11	12	13	14	15	16	17	18
FR 2	6270	6290	6310	6330	6350	6370	6390	6410
7-Segment Display Status	21	22	23	24	25	26	27	28

FR 3	**6430**	**6450**	**6470**	**6490**	**6510**	**6530**	**6550**	**6570**
7-Segment Display Status	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**
FR 4	**6590**	**6610**	**6630**	**6650**	**6670**	**6690**	**6710**	**6730**
7-Segment Display Status	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
FR 5	**6750**	**6770**	**6790**	**6810**	**6830**	**6850**	**6870**	**6890**
7-Segment Display Status	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**
FR 6	**6910**	**6930**	**6950**	**6970**	**6990**	**7010**	**7030**	**7050**
7-Segment Display Status	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**
FR 7	**7070**	**7090**	**7110**	**7130**	**7150**	**7170**	**7190**	**7210**
7-Segment Display Status	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**
FR 8	**6115**	**6265**	**6425**	**6585**	**6745**	**6905**	**7065**	**7185**
7-Segment Display Status	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**

III. Application Introduction

1)、Base Board (Power) + RF Board: Combined Application



2)、RF Board Standalone Application:

RF Board to Goggles (Fat shark, SKYZONE, etc. with standard bay)

IV. NOTES on Use

1）Install the antenna before powering on the device to avoid equipment malfunction；

2）Select an appropriate operating frequency and set the transmitter and receiver to the same frequency (see the Frequency Channel Table for detail);

3）The input voltage is DC 7V-28V (2-7S). Do not operate the device outside this voltage range；

4）The output voltage and current is 5V/0.5A. Note that if power is to be supplied to other devices via the receiver's output, the operating current must be limited within 0.5A. Do not use the voltage output terminal of this product when the required power exceeds5V/0.5A, otherwise the receiver may be damaged；

5）Both 5V and 5V-OUT are output terminals. Do not connect them to a power input terminal or a battery, otherwise damage may occur.

V. Accessories:

7Pin Conn. Cable 1PC

7Pin-DC/RCA Cable, 1PC

3.5mm Male-Male Cable, 1PC

4P/2P Connection Cable, 1PC