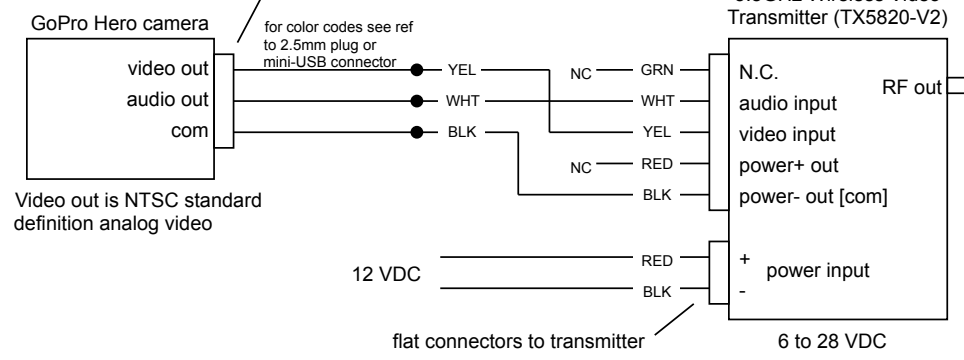
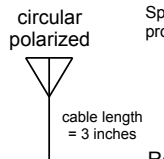


Hero2: 2.5mm phone plug to wires,  
(HobbyKing 258000112-0 GoPro A/V out FPV cable 90deg version)  
or Hero3: mini-USB plug to wires



Video out is NTSC standard definition analog video

ImmersionRC 5.8GHz Circular Polarized SpiroNet Antenna V2 (RP-SMA), product ID 27700010-0



5.8 GHz video transmission from jumper camera

Ref dwg PM-E1005 Video Receive, Select, and Stream Wiring Diagram

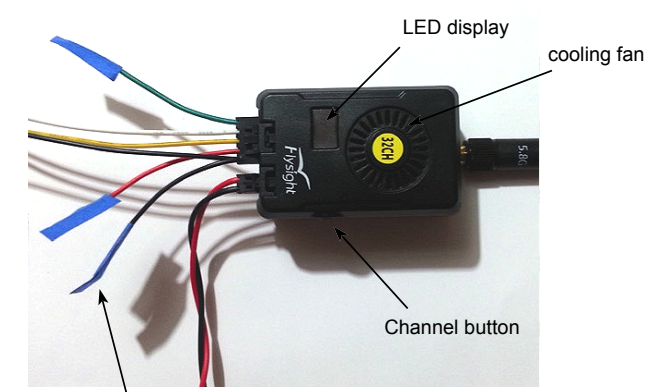
**ARRL Band Plan** from <http://www.arrl.org/band-plan>  
5 Centimeters (5650.0-5925.0 MHz)

Range	Bandwidth	Functional Use
5650.0-5670.0		Amateur Satellite; Up-Link Only
5650.0-5675.0	0.05 - 1.0 MHz	Experimental
5675.0-5750.0	>= 1.0 MHz	Analog & Digital; paired with 5850-5925 MHz (Note 2)
5750.0-5756.0	>= 25 kHz & <1 MHz	Analog & Digital; paired with 5820-5826 MHz
5756.0-5759.0	<= 50 kHz	Analog & Digital; paired with 5826-5829 MHz
5759.0-5760.0	< 6 kHz	SSB, CW, Digital Weak-Signal
5760.0-5760.1	< 3kHz	EME
5760.1-5760.3	< 6 KHz	SSB, CW, Digital Weak-Signal (Note 1)
5760.3-5760.4	< 3 KHz	Beacons
5760.4-5761.0	< 6 KHz	SSB, CW, Digital Weak-Signal
5761.0-5775.0	<=50 kHz	Experimental
5775.0-5800.0	>=100 kHz	Experimental
5800.0-5820.0		Experimental
5820.0-5826.0	>=25 kHz & <1 MHz	Analog & Digital; paired with 5750-5756 MHz
5826.0-5829.0	<=50 kHz	Analog & Digital; paired with 5756-5759 MHz
5829.0-5850.0	0.05-1.0 MHz	Experimental
5830.0-5850.0		Amateur Satellite; Down-Link Only
5850.0-5925.0	>=1.0 MHz	Analog & Digital; paired with 5675-5750 MHz (Note 2)

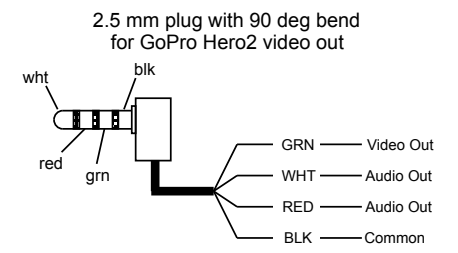
Note 1: 5760.1 is the National Weak-Signal Calling Frequency

Note 2: Broadband segment may be used for any combination of high-speed data (eg: 802.11 protocols), Amateur Television and other high-bandwidth activities. Division into channels and/or separation of uses within this segment may be done regionally based on needs and usage.

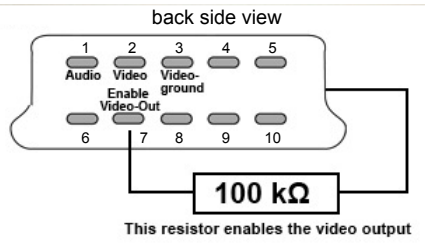
Black Mamba Model TX5820-V2 5.8GHz Video Transmitter



Two black wires for +power out, use only one for common for Video In and Audio In. Other wires with blue tap are not used.



GoPro AV out 10-pin mini-USB cable for Hero3 camera from modellbaublog.bodyhey.com



This resistor enables the video output

**Boscam RC832 5.8 GHz A/V receiver frequencies**

Band	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880

Amateur Radio: 5650 - 5925 MHz  
Part 15 ISM band: 5725 - 5875 MHz

**Boscam RC832 Receiver Specs and Operations**

- Sensitivity: <= -90 dBm
- Power supply: 12 VDC
- Antenna input: 50 ohm
- Video output level: 1.0Vp-p typical 50 Ω
- Audio carrier: 6.5 MHz
- Dimension: 80\*65\*15mm(L\*W\*H)
- Current: 200mA, max
- Antenna connector: RP-SMA
- Audio output level: 1.0Vp-p typical 10K Ω
- Weight: 85 g

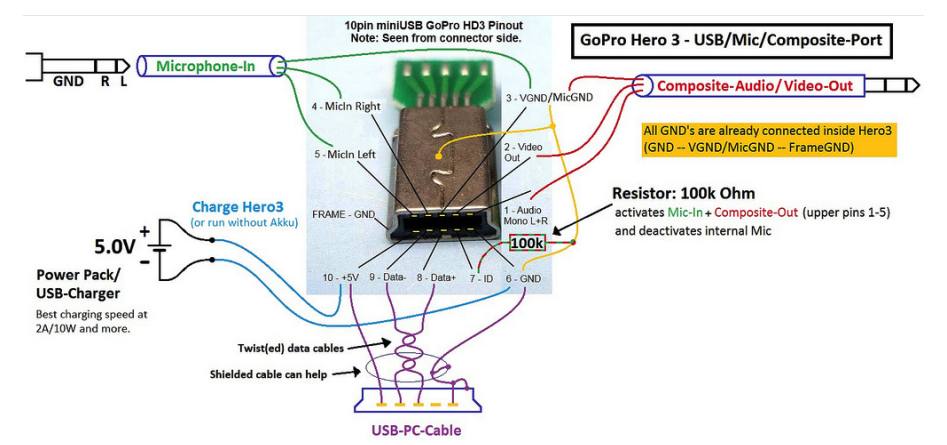
CH button for frequencies channel, FR button for frequencies band

1. Channel Display: Power on, press the "CH" button to change channel. "CH" digital display will change synchronously, "CH" display changes cyclically from 1 to 8.
2. Frequency Display: Power on, press the "FR" button to change frequency band. "FR" digital display will change synchronously, "FR" display changes cyclically from 1 to 4. FR1 for A band, FR2 for B band, FR3 for E band, FR4 for F band (airwave band).

Boscam RC832 5.8GHz 32 ch A/V Receiver



GoPro AV out 10-pin mini-USB cable for Hero3 camera from www.perthstreetbikes.com



**Black Mamba TX5820-V2 5.8 GHz A/V transmitter frequencies**

Band	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880

Amateur Radio: 5650 - 5925 MHz  
Part 15 ISM band: 5725 - 5875 MHz

**Boscam TS351 400mW 5.8GHz Transmitter frequencies**

Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
5705	5685	5665	5645	5885	5905	5925	5945

**Boscam RC305 5.8GHz Receiver frequencies**

Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
5705	5685	5665	5645	5885	5905	5925	5945

**Black Mamba TX5820-V2 5.8 GHz A/V transmitter specifications**

- Transmitting power: 2W (33dbm, +/- 1dB)
- Power supply: DC 5v or DC 6-28V
- TX output voltage: 5V/12V(Vin=Vout)
- Consumption current: 800mA
- Antenna impedance: 50Ω
- Antenna connector: RPSMA
- Dimension: 55\*35\*27mm(L\*W\*H) - Weight: 52g

- Drawing Index:
- PM-E1000 General Wiring Diagram
  - PM-E1001 Primary Air-to-Ground Wireless Video Wiring Diagram
  - PM-E1002 Secondary Air-to-Ground Wireless Video Wiring Diagram
  - PM-E1003 I-Gate Station Wiring Diagram
  - PM-E1004 UHF Wireless Video Wiring Diagram
  - PM-E1005 Video Receive, Select, and Stream Wiring Diagram
  - PM-E1006 GPS and PulseOx to APRS Transmitter Wiring Diagram
  - PM-E1007 Weather Station Wiring Diagram
  - PM-E1008 Jumper 2-Way Radio Communications Wiring Diagram
  - PM-E1009 Jumper HF Communications Wiring Diagram
  - PM-E1010 Slow Scan Television SSTV Camera Wiring Diagram

0	3-15-18	Created from E1001 legacy details for reference	MF Wright
REV	DATE	REVISION DESCRIPTION	DRAWN APP

<p><b>PARACHUTE MOBILE "In The Air, On The Air"</b> <a href="http://www.parachutemobile.org">www.parachutemobile.org</a></p>			
<p><b>Parachute Mobile Communication Systems</b> <b>Secondary Air-to-Ground Video Wiring Diagram</b></p>			
DRAWN MF WRIGHT	CHK	INDEX	FSCM. NO.
DESIGN ENGR MF WRIGHT	TEAM POSITION Video Ops		DATE 3-15-18
NEXT ASSY	USE ON	CONSULTANT M. GREGG	AS DWG NO Sheet 1 of 1
APPLICATION		TEAM COORDINATOR R. FENN	SCALE NONE
<p><b>PM-E1002</b></p>			<p>REV <b>0</b></p>