FOOLCONTROL / WIFI TIPS (3/18)
FOR RED DSMC CAMERAS

Important note for T-Mobile iPhones :
You will need to turn cellular off (or turn on airplane mode then enable wifi only) to be able to connect to the camera. For some reason T-Mobile devices will always tries to switch back to the cellular network when the wifi network is not connected to the internet…

DSMC2 camera's **wifi antenna** is located between the 2 fans. Make sure nothing metallic is obstructing this area…
check RED manual for other valuable wifi infos -> http://red.com/downloads?category=Documents

WIFI

The camera offers a WiFi connection that provides communication support for third-party applications. The camera uses the REDLINK® Command Protocol (RCP) to communicate information between the camera and an application. As with all wireless devices, the communication range may be affected by the environment and any radio frequency (RF) interference that may be present. The WiFi frequency is 2.4 GHz.

There are two (2) ways to connect the camera to a device:

- **Ad-Hoc mode**: The camera and your device connect to each other.
- **Infrastructure mode**: The camera and your device both connect to an access point, and communicate through that wireless network.

NOTE: To connect the camera to an app, the app must have been programmed using the REDLINK SDK, which is available through the REDLINK Development Kit.

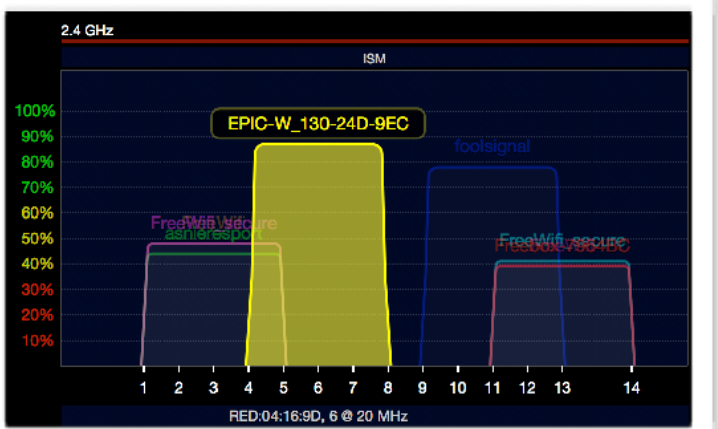
NOTE: The WiFi antenna is integrated into the fan grill (top side of camera). For optimal WiFi performance, do not obstruct the antenna with any accessory, mounting plate, or mounting rail.

Do Not Obstruct WiFi Antenna (Marked in Red)

The camera wifi has 2 different modes : Ad Hoc and Infrastructure.

AD HOC is a camera created network that does not require any other accessory.
It can use a password to secure the connection.

If you experience drop outs, make sure you try different channels.



On mac you can use apps like ‘wifi scanner’ or ‘wifi explorer’ to display a graphical view of your surrounding networks. Or a great ‘best channel’ suggesting tool from within Mac OS…

+) Option + Click on Wifi -> Open wireless Diagnostics
+) Ignore Pop-up -> Click on 'Window' menu to see a drop down of Wifi tools available to you.
+) Select 'Scan'
+) ‘Performance' tool can also show you camera network strength and noise if you connect to that network from Mac OS.

(thanks Antony Newman) :

While Ad Hoc works in most cases it is not always the best solution as it requires rescanning wifi network on your iOS device every time the camera is restarted and in general the range is lower than when using infrastructure mode.

INFRASTRUCTURE MODE allows you to connect your camera(s) and iOS device to a common network that is always available when rebooting the camera. It requires the use of a router on set and in general will be much stronger than Ad Hoc mode. You can also protect it with a password (see your router settings / configuration page).

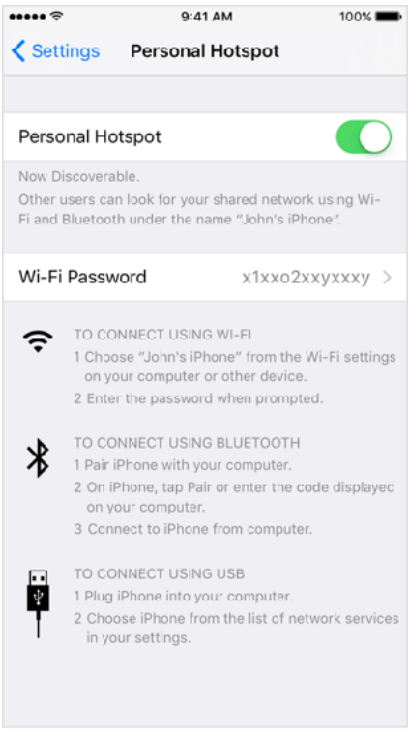
You can use any 2.4 Ghz wifi router (no need to connect it to the internet).
some are small, affordable and can be easily powered with USB like this one :

http://www.amazon.com/TP-LINK-TL-WR802N-Wireless-Repeater-300Mbps/dp/B00TQEX8BO

some are much more expensive but with their multiple antennas and higher power range will obviously offer a stronger wifi connection… just an example below :

http://www.amazon.com/RT-AC88U-Wireless-AC3100-AiProtection-Complete-Security/dp/B016EWKQAQ/

With infrastructure mode you can also connect to your iOS device directly without using a router if your iPhone / iPad (cellular + wifi) and operator allows for personal hotspot feature …



First create a **personal hotspot** on your device and connect the camera to it. Upon camera restart, it will automatically reconnect to your wifi and proved to be a better overall solution versus Ad Hoc when no router is available.

Various other 3rd party accessories that can help with wifi on set using RED cameras …

TERADEK COLR can create or connect to an existing network like the camera but has a strong 2.4 / 5 Ghz wifi radio with external antennas. It is a wireless LUT box that can be used as a simple router (using camera wifi connected to it) or be wired to the camera using GIG-Ethernet. Compatible with DSMC1 cameras using the appropriate GIG-E lemo cable it also works on DSMC2 with the JETPACK SDI or REDVOLT expander module. Unfortunately base expander and V-Lock expander module do not have GIG-E connectivity so you will no be able to use those with COLR.

https://vimeo.com/147896815
https://vimeo.com/149352339
https://vimeo.com/149446784

http://teradek.com/collections/colr-family

WOODEN CAMERA WIFI SIDE PLATE

This side plate developed by Wooden camera re-routes the internal wifi antenna to the side of the camera. You will still be using the camera built in wifi but with the option to attach different sized external SMA 2.4 antennas.

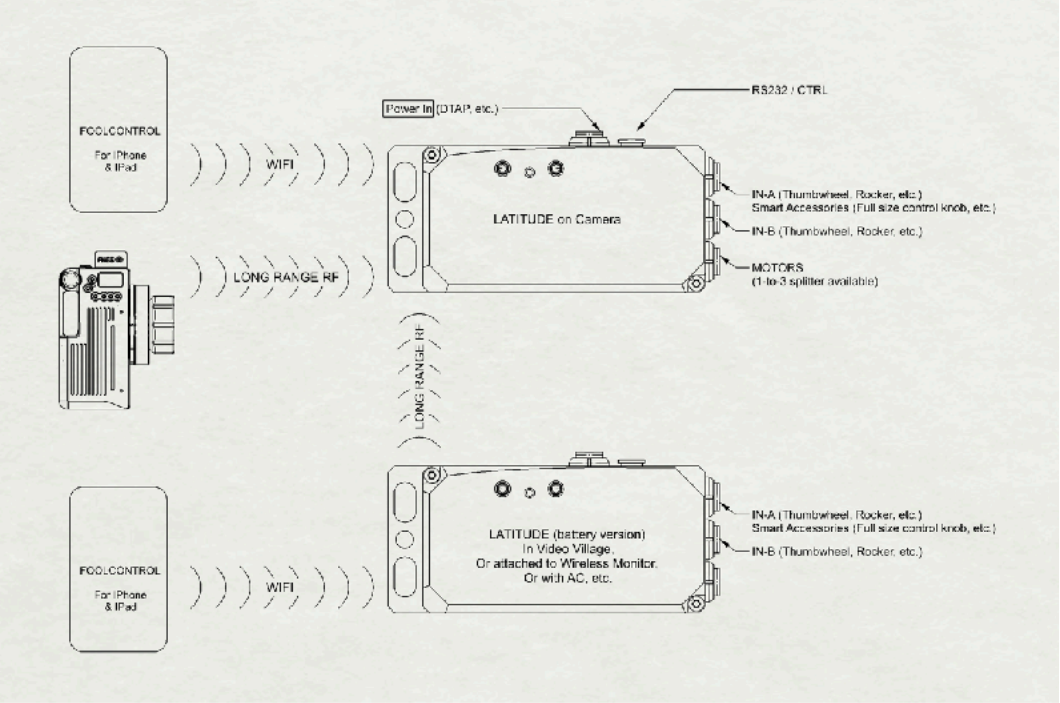
More info and signal range test
www.woodencamera.com/wifi-side-plate-weapon-epic-w-scarlet-w-raven-p/228800.htm

OFFHOLLYWOOD OMOD

OMOD command is a 3rd party DSMC2 camera module that attaches to the back of the camera and can offer various integrated features (LUTS, lens control, timecode…) it also has a strong wifi chip similar to a teradek COLR and can greatly increase wifi range and reliability on set with the 2” stub antennas.

https://shop.offhollywoodny.com/collections/omod

RTMOTION LATITUDE



The latitude MDR has wifi connectivity and can be used on DSMC1 and DSMC2 brains to connect foolcontrol to the camera's CTRL port. Latitude system offers advanced features for lens control (internal or external motors, thumbwheels, hand unit…).
Using 2 latitude in relay mode you can also use long range radio with foolcontrol (first box bridges wifi from iPhone/iPad to second box on camera via long range RF).

Sidekick latitude has an integrated antenna that can be used to extend the DSMC2 internal antenna…

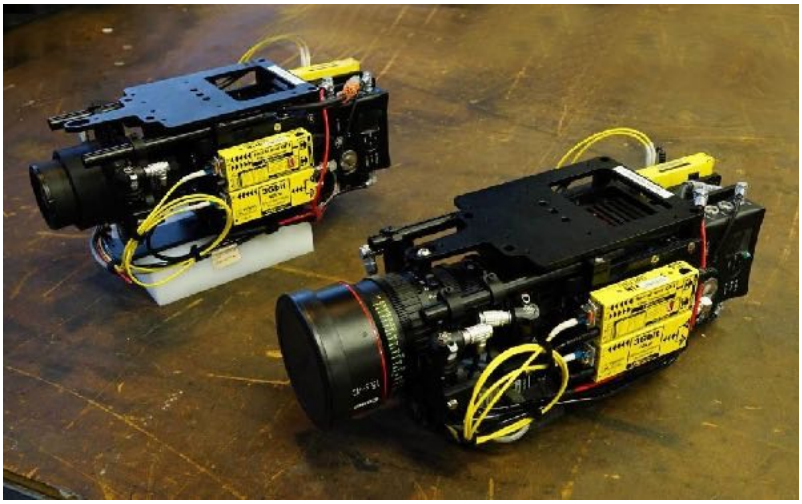
http://www.rtmotion.com/latitude

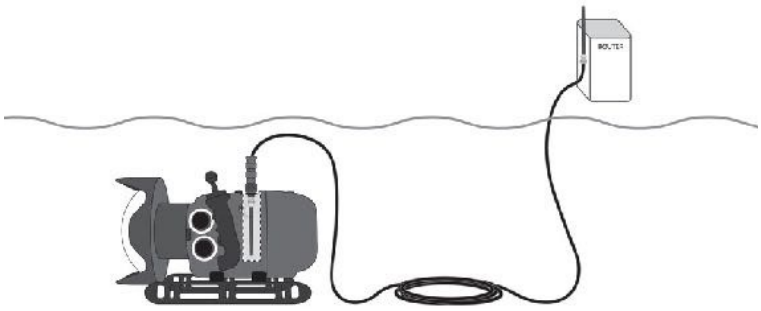
On **DSMC 1** cameras with no built in wifi, you can also use a Gigabit router connected to the camera GIG-E port, RED's **REDLink** bridge module or OffHollywood **HOTLink** module.

http://www.red.com/store/products/redlink-development-kit

There are also various specialised solution for wired connections (for helicopters, underwater, russian arm…) using either G-ethernet, fiber, ethernet + wif, antenna extensions, direct serial RS232 CTRL port connection for iOS devices, MacOs, over IP…

Get in touch if you need more info on foolcontrol wired, over IP and partners solutions from GSS, Gates Underwater, Nauticam…





RVZ and **TSF** in France among other rental houses offer foolcontrol to their clients thru the foolcontrol-r for rental house program (yearly camera license for any device)

thanks everyone for the flood of photos, videos and reviews received on the social networks and the inter-webs !

instagram.com/mikafool **facebook.com/mikael.lubtchansky**

check foolcolor.net for some videos, demo version of foolcat, info on foolcontrol, download free foolclip and more…

stay foolish !

contact@foolcolor.net