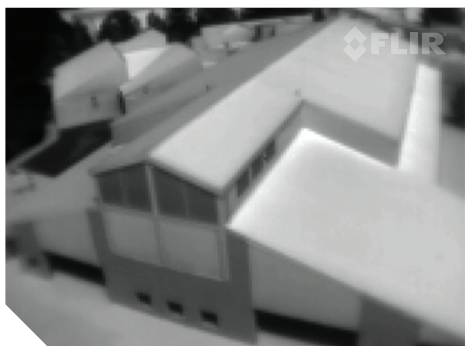# FLIR Duo™

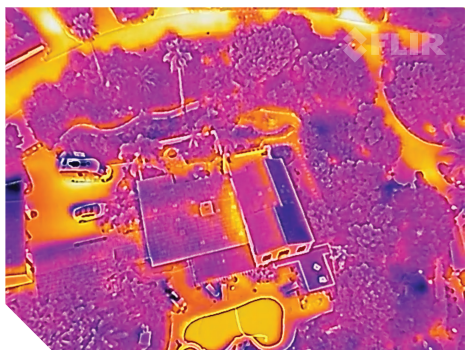## THERMAL AND VISIBLE LIGHT IMAGING IN AN ACTION CAMERA PACKAGE

The new FLIR Duo is the world's first dual sensor thermal and visible light imager designed for use on personal drones. The same size and shape as the most popular action cameras, Duo offers all of the same features – like on-board recording and real-time remote control of camera functions over PWM – as the Vue Pro, but at a fraction of the cost.

Featuring the cutting edge Lepton thermal sensor, Duo pairs 160x120 thermal resolution with a 2-megapixel color camera. Switch between them in flight, view a picture-in-picture mode, or choose FLIR's exclusive MSX® to enhance thermal images with visible light detail for extra perspective, and record everything to a microSD card.

Duo has two live video output options: analog video over the 10-pin mini-USB connector, or digital video over micro-HDMI. It also has a wide 5-26 VDC input power range with reverse polarity protection for easy integration.

THERMAL AND VISIBLE-LIGHT IMAGING & RECORDING IN A POPULAR ACTION CAMERA FORM FACTOR

- Airborne dual sensor thermal and video imaging and recording
- Simple power-in/video-out interface over 10-pin mini-USB connector
- Switch from thermal to visible image outputs or to PIP or MSX modes in real time

Aerial Thermal Roof Inspection

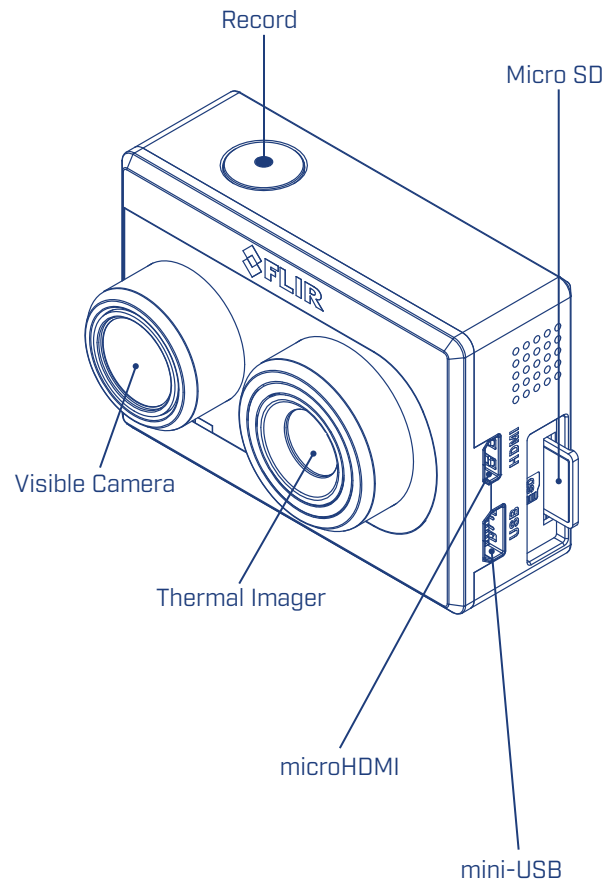## RECORDING OF THERMAL & VISIBLE IMAGERY TO A CONVENIENT ON-BOARD MICROSD CARD

- Record real-time thermal videos in MOV format
- View MSX image blending live
- Integration with MAVLink-compatible flight controllers

FLEXIBLE, POWERFUL CAMERA CONTROL AND CONFIGURATION OPTIONS

- Control camera functions with PWM inputs – imagery color palettes, recording start/stop, or video streaming switch (thermal, visible, MSX, PIP)
- Configure your camera's recording and control settings over Bluetooth with our mobile app
- Field-upgradeability makes sure you'll always have the latest features

MSX Adds Extra Detail and

◆FLIR® | The World's Sixth Sense®

Specifications

Overview	FLIR Duo
Thermal Imager	Uncooled VOx Microbolometer
Sensor Resolution	160 × 120
Lens Options	57° × 44°
Spectral Band	7.5 – 13.5 µm
Thermal Frame Rates	7.5 Hz (NTSC); 8.3 Hz (PAL)
Visible Camera Resolution	1920 × 1080
Visible Camera FOV	90°
Physical Attributes	
Size	41 × 59 × 30 mm
Weight	84 grams
Image Processing & Display Controls	
Image Optimization for sUAS?	Yes
Multiple Color Palettes?	Yes – Adjustable in App and via PWM
MSX Enhancement?	Yes
Picture-in-Picture?	Yes
Interfacing	
Mini-USB Connector	Power in, Analog video out, PWM connections, MAVLink control
Input Voltage	5.0 - 26.0 VDC
Power Dissipation (Peak)	2.2 W (3.3 W)
Remote Control	Two PWM Controls (assigned in App)
MAVLink interface?	Yes
Digital Video Output	Micro-HDMI; HDMI video at 1080p
Environmental	
Operating Temperature Range	0°C to +50°C
Storage Temperature Range	-20°C to +60°C
Operational Altitude	+12,000 feet

Record
Micro SD
Visible Camera
Thermal Imager
microHDMI
mini-USB