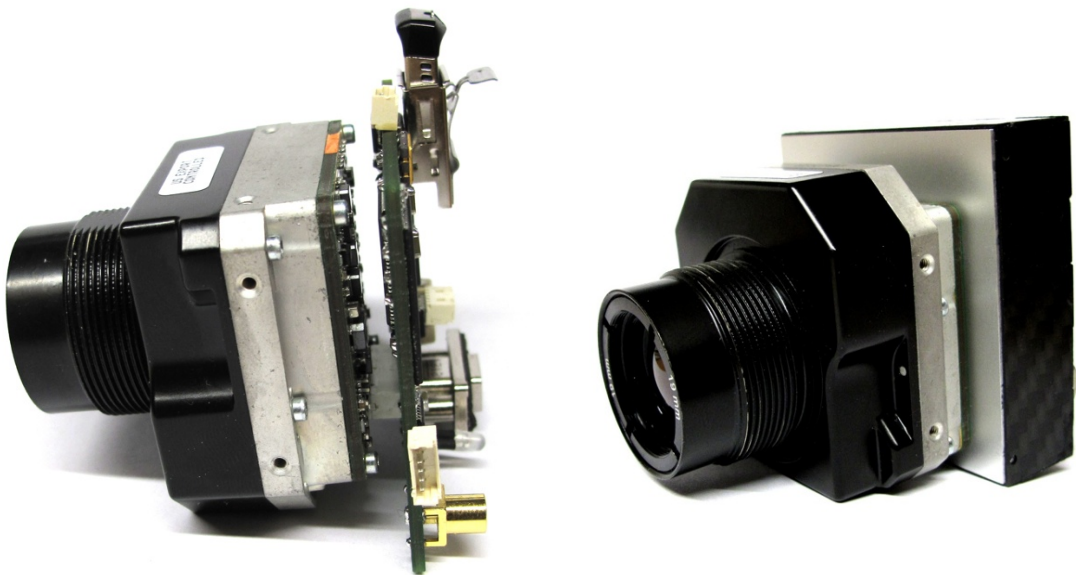# ThermalCapture (FLIR Edition)

ThermalCapture is a custom designed hardware which replaces the *FLIR Tau VPC Module*[1] behind *FLIR Tau 2 LWIR Thermal Imaging Camera Cores*[2]. It allows the user to store RAW data from these modules directly on a USB memory stick, together with additional information from external devices like micro unmanned aerial vehicles (MUAVs).

Features at a glance:

- Store Digital RAW data on your USB-Stick
- No transmission errors in images any longer
- Analog live video output
- Hardware update possible for every existing FLIR camera
- Stores position and time (GPS) based on UAV downlink, or external GPS receiver
- Weighs only 45g including housing
- Easy post-production due to free ThermoViewer software
- Auto conversion feature to reduce time
- Per-pixel temperature measurements with fully radiometric cores
- Customer requests can be added at any time

1) http://www.flirshop.com/product/tau-vpc-module
2) http://www.flir.com/cvs/cores/view/?id=54717

ThermalCapture (FLIR Edition)

Thermal cameras like the *FLIR Tau 2 LWIR Thermal Imaging Camera Cores*[1] deliver information about heat distributions in the field of view of the device. Especially in combination with micro unmanned aerial vehicles (MUAVs) those cores are used for a wide area of inspection tasks. But since maximum payload weights are limited an such systems, transmission of data to the ground is most of the times done using analog distribution devices. With the help of **ThermalCapture** users are able to store digital RAW data from these modules on standard USB memory sticks directly on-board and are no longer suffering from transmission errors within the pictures.
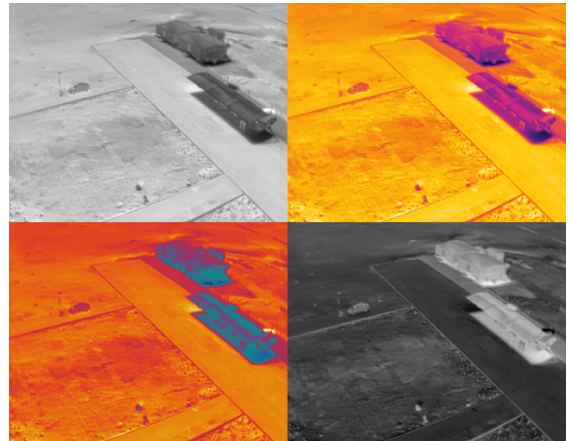
The custom built hardware fits perfectly on the back of the camera core and can be mounted together with the camera into existing holders. It replaces the *FLIR Tau VPC Module*[2] and existing connections like analog video output, or USB interface of the core can still be used. **ThermalCapture** also establishes a connection to the data downlink of the MUAV, to enrich the RAW data with information like position and time from GPS.
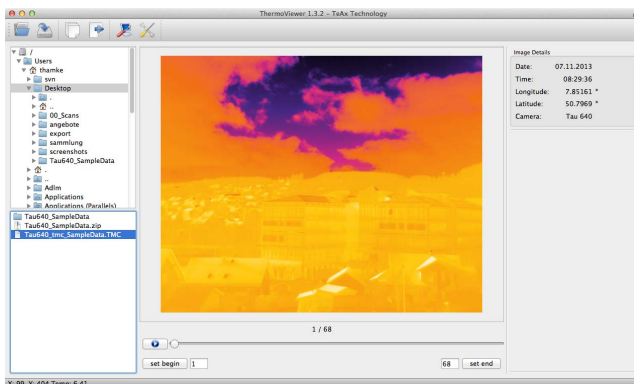
Recorded RAW Data from the module is processed after the flight using the intuitive software delivered with **ThermalCapture**. In combination with fully radiometric Tau cores it is possible to do per-pixel temperature measurements within each recorded frame. Users who want to have fast results can use the auto-conversion feature. In this mode the software determines needed parameters for each dataset and saves the result as a standard PNG image. In expert-mode the software enables users to adjust parameters for conversion in real-time to provide the optimal result for every picture.

ThermoViewer is available for Microsoft Windows, Linux and Mac OS X.

ThermalCapture (FLIR Edition)

Specifications

Power:	5V / 200mA
Weight (incl. housing):	45g
Dimensions (incl. housing):	60 x 54 x 15 mm
Interfaces:	Analog video out USB for configuration and power supply USB for memory stick Serial interface for communication with MUAV Trigger-Port
Supported Cores:	Tau 2 – 640 Tau 2 – 336 Tau 2 – 324

Parts included:

- ThermalCapture hardware
- Housing
- 8GB USB Stick
- Trigger cable
- Data processing software

Contact:

TeAx Technology UG (haftungsbeschränkt)
Im Willstein 7
57319 Bad Berleburg
Germany

www.teax-technology.de
sales@teax-technology.de