

ThermalCapture GrabberUSB - User Guide

TeAx Technology

Revision: EN-009

IMPORTANT
READ CAREFULLY BEFORE USE
KEEP FOR FUTURE REFERENCE

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1 Overview

This guide describes the hardware features of ThermalCapture GrabberUSB.

ThermalCapture GrabberUSB is a user-friendly infrared camera USB-adapter with an external sync input and analog video output (NTSC, PAL).

The declaration of Conformity for this model can be found here: <http://www.thermal-capture.com/>

Scope of delivery

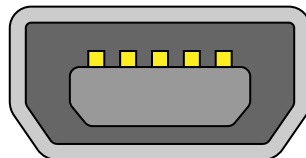
- ThermalCapture GrabberUSB camera module
- USB transmission cable
- User Guide
- Mounting manual

2 Product description and technical data

This device may be used with a standard mini-USB cable and can be connected to any USB-host. An SDK kit for software development is supplied with this product.

Configuration of the Mini USB-B socket

12345



1. VBUS (+5V)
2. D- (Data -)
3. D+ (Data +)
4. (reserved)
5. GND (Signal ground)

Configuration of the 7-pin board connector socket

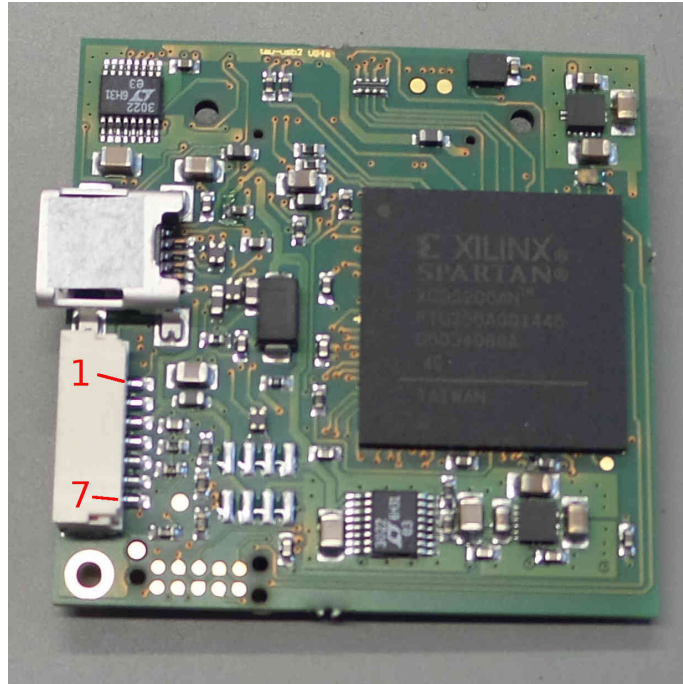


Figure 1

Use a compatible 7-pin board connector (JST Sales America Inc. GHR-07V-S) to connect to the 7-pin socket (see figure 1). It is configured as follows:

PIN	Name	Direction	Description	Detail
1	Video GND	-	Video ground	Video ground belongs to video signal
2	Video	Output	Video signal	Video signal
3	5V	-	DC Supply	5V DC supply from USB
4	PPS	Input	Pulse Per Second (3.3V-5V). Rising Edge: Reset of milliseconds counter	TCGrabberUSB has a milliseconds counter that steadily runs from 0 to 16383 (14bit, about 16 seconds). Every frame of TCGrabberUSB contains this milliseconds value. With an external sync signal on the pps input it's possible to reset this milliseconds counter to zero.
5	External sync in	Input	Always high (3.3V-5V): No recording	TCGrabberUSB is working in continuous mode when the external sync input is permanently low. If the external sync input stays high it's possible to trigger one image capture by doing one low high transition on the line.
			Low for more than 1 second: Continuous recording	
			Rising Edge: Single image capture	
6	External sync out	Output	Open collector, 5V, level toggles at image capture	The external sync output needs an external circuit with a pullup resistor that pulls the external sync line high. Every time TCGrabberUSB captures an image it toggles this external sync output between high and low.
7	GND	-	Ground	Ground for Supply and Signals

Technical data

Designation	Value
supply voltage	$5 \pm 0,2$ V/DC
current consumption	typ. 500mA
storage temperature	$-4^{\circ} \dots 131^{\circ}\text{F}$ $-20^{\circ} \dots 55^{\circ}\text{C}$
operating temperature	$14^{\circ} \dots 113^{\circ}\text{F}$ $-10^{\circ} \dots 45^{\circ}\text{C}$
atmosphere	non-corrosive, non-condensing

LED error codes

- Green (always on): Power is ON, but 14-bit CMOS Output of the FLIR TAU Core is not operational.
- Green (blinking, slow): Ready for data transfer.
- Green (blinking, fast): Data transfer is in progress.

3 Disposal and recycling information

You must dispose of this device properly according to local laws and regulations. Because this device contains electronic components, the device must be disposed of separately from household waste. When this device reaches its end of life, contact local authorities to learn about disposal and recycling options.

European Union — Disposal Information



The symbol above means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

4 Contact

TeAx Technology UG (haftungsbeschränkt)
Hofstädtr. 8
57234 Wilnsdorf
Germany

Internet: <http://www.thermal-capture.com/>

E-mail: support@teax-tec.de

WEEE: DE47944405

Please provide the following information about the device when you make an enquiry:

- Name and manufacturer of your system
- Item and serial no. of the product

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