

P/N: 79303-0201

Copyright

© 2018, FLIR Systems, Inc.

All rights reserved worldwide. Names and marks appearing herein are either registered trademarks or trademarks of FLIR Systems and/or its subsidiaries. All other trademarks, trade names or company names referenced herein are used for identification only and are the property of their respective owners.

Document identity

Publ. No.: 79303-0201

Release:

Commit: 49282

Language: en-US

Modified: 2018-04-20

Formatted: 2018-05-24

Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.



Imaging and optical data	
Infrared resolution	464 × 348 pixels
UltraMax (super-resolution) ¹	In FLIR Tools
NETD	<ul style="list-style-type: none"> • <30 mK, 42° @ +30°C (+86°F) • <40 mK, 24° @ +30°C (+86°F) • <50 mK, 14° @ +30°C (+86°F)
Field of view	<ul style="list-style-type: none"> • 42° × 32° • 24° × 18° • 14° × 10°
Minimum focus distance	<ul style="list-style-type: none"> • 0.15 m (0.49 ft.), 42° • 0.15 m (0.49 ft.), 24° • 1.0 m (3.28 ft.), 14° • Macro mode 71 μm as option to 24°
Minimum focus distance with MSX	<ul style="list-style-type: none"> • 0.65 m (2.13 ft.), 42° • 0.5 m (1.64 ft.), 24° • 1.0 m (3.28 ft.), 14°
Focal length	<ul style="list-style-type: none"> • 10 mm (0.39 in.), 42° • 17 mm (0.67 in.), 24° • 29 mm (1.41 in.), 14°
Spatial resolution (IFOV)	<ul style="list-style-type: none"> • 1.66 mrad/pixel, 42° • 0.90 mrad/pixel, 24° • 0.52 mrad/pixel, 14°
Available extra lenses	<ul style="list-style-type: none"> • 24° • 14°
Lens identification	Automatic
f number	<ul style="list-style-type: none"> • 1.1, 42° • 1.3, 24° • 1.5, 14°
Image frequency	30 Hz

1. Not supported when using macro.

P/N: 79303-0201

© 2018, FLIR Systems, Inc.

#79303-0201; r. /49282; en-US

Imaging and optical data		
Focus	<ul style="list-style-type: none"> • Continuous LDM • One-shot LDM • One-shot contrast • Manual 	
Field of view match	Yes	
Digital zoom	1–6× continuous	
Detector data		
Focal plane array/spectral range	Uncooled microbolometer/7.5–14 μm	
Detector pitch	17 μm	
Image presentation		
Resolution	640 × 480 pixels (VGA)	
Surface brightness (cd/m ²)	400	
Screen size	4 in.	
Viewing angle	80°	
Color depth (bits)	24	
Aspect ratio	4:3	
Auto-rotation	Yes	
Touchscreen	Optically bonded PCAP	
Display technology	IPS	
Cover glass material	Dragontrail®	
Programmable buttons	2	
Viewfinder	No	
Image adjustment	<ul style="list-style-type: none"> • Automatic • Automatic maximum • Automatic minimum • Manual 	
Image presentation modes		
Infrared image	Yes	
Visual image	Yes	
MSX	Yes	
Picture in picture	Resizable and movable	
Gallery	Yes	
Measurement		
Camera temperature range	Object temperature range	Accuracy — for ambient temperature +15 to +35°C (+59 to +95°F)
–20 to +120°C (–4 to +248°F)	–20 to +100°C (–4 to +212°F)	±2°C (±3.6°F)
	+100 to +120°C (+212 to +248°F)	±2%
0 to +650°C (+32 to +1202°F)	0 to +100°C (+32 to +212°F)	±2°C (±3.6°F)
	+100 to +650°C (+212 to +1202°F)	±2%
+300 to +1500°C (+572 to +2732°F)	+300 to +1500°C (+572 to +2732°F)	±2%

P/N: 79303-0201

© 2018, FLIR Systems, Inc.

#79303-0201; r. /49282; en-US

Measurement analysis	
Spotmeter	3 in live mode
Area	3 in live mode
Automatic hot/cold detection	Automatic maximum/minimum markers within area
Measurement presets	<ul style="list-style-type: none"> No measurements Center spot Hot spot Cold spot User preset 1 User preset 2
Difference temperature	Yes
Reference temperature	Yes
Emissivity correction	Yes, variable from 0.01 to 1.0 or selected from materials list
Measurement corrections	Yes
External optics/windows correction	Yes
Screening	0.5°C (0.9°F) accuracy at 37°C (98.6°F) with reference
Alarm	
Color alarm (isotherm)	<ul style="list-style-type: none"> Above Below Interval Condensation (moisture/humidity/dewpoint) Insulation
Measurement function alarm	Audible/visual alarms (above/below) on any selected measurement function
Set-up	
Color palettes	<ul style="list-style-type: none"> Iron Gray Rainbow Arctic Lava Rainbow HC
Setup commands	Local adaptation of units, language, date, and time formats
Languages	21
Service functions	
Camera software update	Use PC software FLIR Tools
Storage of images	
Storage media	Removable memory: SD card
Time lapse (Periodic image storage)	10 seconds to 24 hours (infrared)
Remote control operation	<ul style="list-style-type: none"> Using FLIR Tools (using USB cable) FLIR Tools Mobile (over Wi-Fi)
Image file format	Standard JPEG, measurement data included. Infrared-only mode
Image annotations	
Voice	60 seconds with built-in microphone and speaker (and via Bluetooth) on still images and video
Text	Text from predefined list or soft keyboard on touchscreen



FLIR T540 42°

P/N: 79303-0201

© 2018, FLIR Systems, Inc.

#79303-0201; r. /49282; en-US

Image annotations	
Visual image annotation	Yes
Image sketch	Yes: on infrared only
Sketch	From touchscreen
METERLiNK	Wireless connection (Bluetooth) to: FLIR meters with METERLiNK
Area measurement information	Yes
GPS	Location data automatically added to every still image and first frame in video from built-in GPS
Video recording in camera	
Radiometric infrared-video recording	RTRR (.csq)
Non-radiometric infrared-video recording	H.264 to memory card
Visual video recording	H.264 to memory card
Video streaming	
Radiometric infrared-video streaming (compressed)	Over UVC or RTSP (Wi-Fi)
Non-radiometric video streaming (compressed: IR, MSX, visual, Picture in Picture)	<ul style="list-style-type: none"> • H.264 (AVC) over RTSP (Wi-Fi) • MPEG4 over RTSP (Wi-Fi) • MJPEG over UVC and RTSP (Wi-Fi)
Visual video streaming	Yes
Digital camera	
Resolution	5 MP with LED light
Focus	Fixed
Field of view	53° x 41°
Video lamp	Built-in LED light
Laser pointer	
Laser alignment	Position is automatically displayed on the infrared image
Laser distance meter	Activated by dedicated button
Laser	Class 2, 0.05–40 m (0.16–131 ft.) ±1% of measured distance
Data communication interfaces	
Interfaces	USB 2.0, Bluetooth, Wi-Fi, DisplayPort
METERLiNK/Bluetooth	Communication with headset and external sensors
Wi-Fi	Peer to peer (ad hoc) or infrastructure (network)
Audio	Microphone and speaker for voice annotation of images
USB	USB Type-C: data transfer/video/power
USB standard	USB 2.0 High Speed
Video out	DisplayPort
Video connector type	DisplayPort over USB Type-C

P/N: 79303-0201

© 2018, FLIR Systems, Inc.

#79303-0201; r. /49282; en-US

Radio	
Operating frequency	Bluetooth + EDR/LE: 2402–2480 MHz WLAN 2.4 GHz: 2412–2462 MHz WLAN 5 GHz: 5150–5350 MHz (DFS: only slave mode) Note that frequency band 5150–5350 MHz is for indoor use only, see national regulations.
RF output (EIRP)	Bluetooth + EDR/LE: < 10 dBm WLAN: < 17 dBm
Antenna	Integrated PIFA antenna (gain: maximum 1.4 dBi)
Power system	
Battery type	Rechargeable Li-ion battery
Battery voltage	3.6 V
Battery operating time	> 4 hours at 25°C (68°F) with typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or two-bay charger
Charging time (using two-bay charger)	3.5 h to 90% capacity, on-screen indicator
Charging temperature	0°C to +45°C (+32°F to +113°F), except for the Korean market: +10°C to +45°C (+50°F to +113°F)
External power operation	AC adapter 90–260 V AC (50/60 Hz) or 12 V from a vehicle (cable with standard plug, optional)
Power management	Automatic shut-down and sleep mode
Environmental data	
Operating temperature range	–15 to +50°C (5–122°F)
Storage temperature range	–40 to +70°C (–40 to 158°F)
Humidity (operating and storage)	IEC 60068-2-30/24 hours, 95% relative humidity, 25–40°C (77–104°F)/2 cycles
EMC	<ul style="list-style-type: none"> ETSI EN 301 489-1 (radio) ETSI EN 301 489-17 EN 61000-6-2 (immunity) EN 61000-6-3 (emission) FCC 47 CFR Part 15 Class B (emission)
Radio spectrum	<ul style="list-style-type: none"> ETSI EN 300 228 FCC Part 15.249 RSS-247 Issue 2
Encapsulation	IP 54 (IEC 60529)
Shock	25g (IEC 60068-2-27)
Vibration	2g (IEC 60068-2-6)
Safety	EN/UL/CSA/PSE 60950-1
Physical data	
Weight (including battery)	1.3 kg (2.9 lb.)
Size (L × W × H)	<ul style="list-style-type: none"> Lens vertical: 140 × 201.3 × 84.1 mm (5.5 × 7.9 × 3.3 in.) Lens horizontal: 140 × 201.3 × 167.3 mm (5.5 × 7.9 × 6.6 in.)
Battery weight	195 g (6.89 oz.)
Battery size (L × W × H)	59 × 66 × 94 mm (2.3 × 2.6 × 3.7 in.)
Tripod mounting	UNC ¼"-20

P/N: 79303-0201

© 2018, FLIR Systems, Inc.

#79303-0201; r. /49282; en-US

Physical data	
Housing material	PCABS with TPE, magnesium
Color	Black
Warranty and service	
Warranty	http://www.flir.com/warranty/
Shipping information	
Packaging, type	Cardboard box
Packaging, contents	<ul style="list-style-type: none"> • Accessory box I: <ul style="list-style-type: none"> ◦ Power supply for battery charger ◦ Power supply, 15 W/3 A ◦ Printed documentation ◦ SD card (8 GB) ◦ USB 2.0 A to USB Type-C cable, 1.0 m ◦ USB Type-C to HDMI adapter, standard specification UH311 ◦ USB Type-C to USB Type-C cable (USB 2.0 standard), 1.0 m • Accessory box II: <ul style="list-style-type: none"> ◦ Lanyard strap, battery charger ◦ Lens cap strap ◦ Lens cleaning cloth ◦ Neck strap • Battery (2 ea) • Battery charger • Hard transport case • Infrared camera with lens • Lens cap, front • Lens cap, front and rear (only for extra lenses)
Packaging, weight	5.8 kg (12.8 lb.)
Packaging, size	500 × 190 × 370 mm (19.7 × 7.5 × 14.6 in.)
EAN-13	<ul style="list-style-type: none"> • Sweden: 7332558012987 • Estonia: 4743254003279
UPC-12	845188014674
Country of origin	Sweden and/or Estonia

Supplies and accessories:

- T198495; Pouch
- T197771ACC; Bluetooth Headset
- T911706ACC; Car adapter 12 V
- T199588; Lens 14° + case
- T199590; Lens 42° + case
- T199589; Lens 24° + case
- T911705ACC; USB Type-C to USB Type-C cable (USB 2.0 standard), 1.0 m
- T911632ACC; USB Type-C to HDMI adapter, standard specification UH311
- T911631ACC; USB 2.0 A to USB Type-C cable, 0.9 m
- T911630ACC; Power supply for camera, 15 W/3 A
- T911633ACC; Power supply for battery charger
- T199610; Battery charger
- T199300ACC; Battery
- T199601; Hand strap and neck strap
- T199347ACC; Hard transport case
- T199609; Macro mode 71/103 µm for 24°
- T198583; FLIR Tools+ (download card incl. license key)
- T198696; FLIR ResearchIR Max 4 (hardware sec. dev.)
- T199013; FLIR ResearchIR Max 4 (printed license key)



FLIR T540 42°

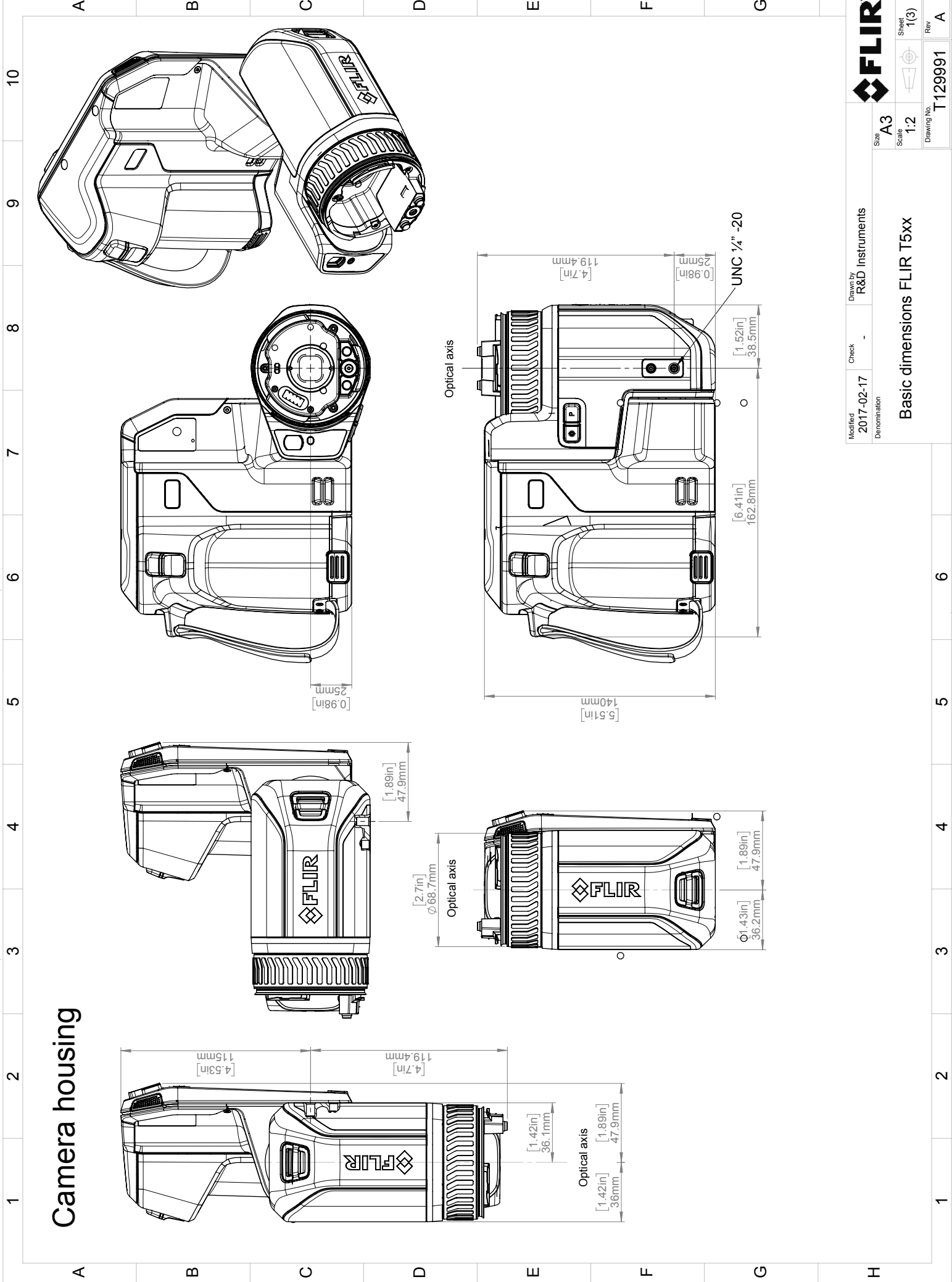
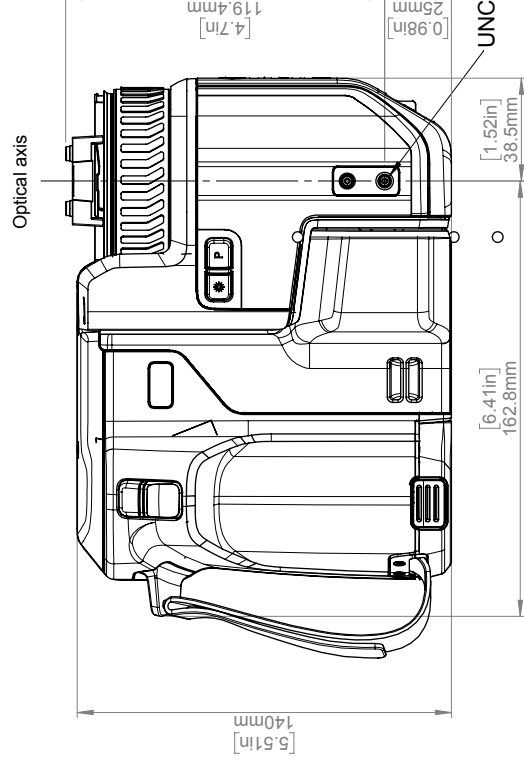
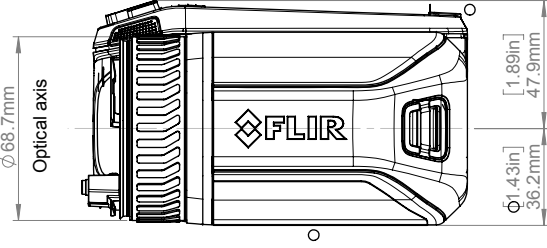
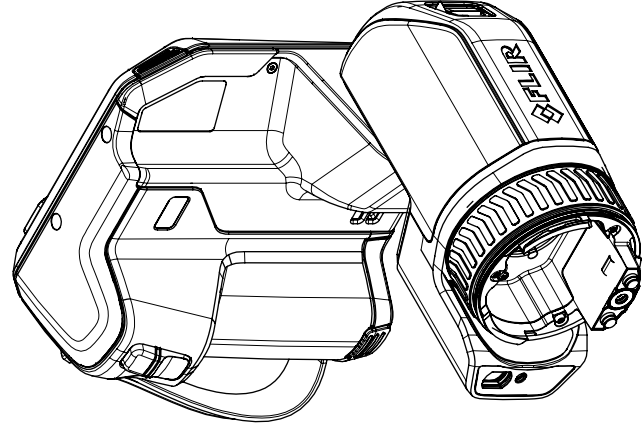
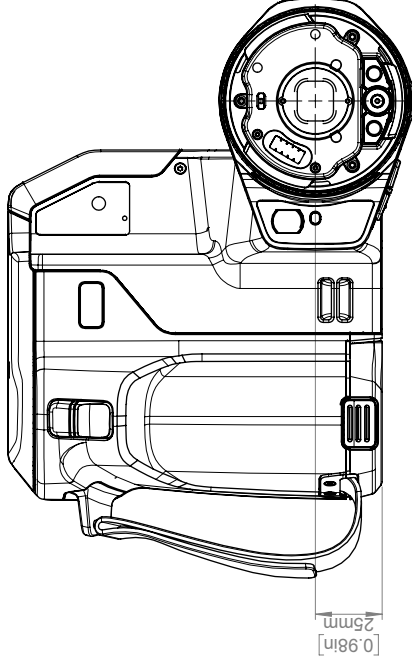
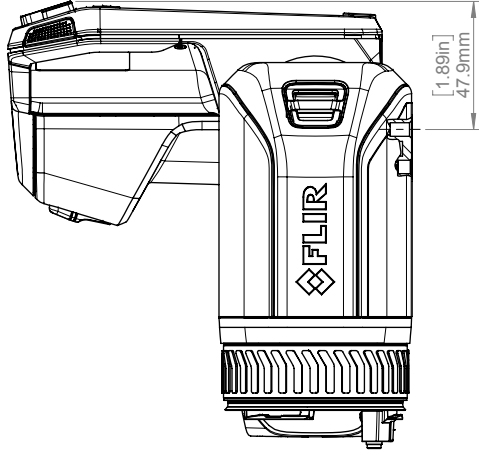
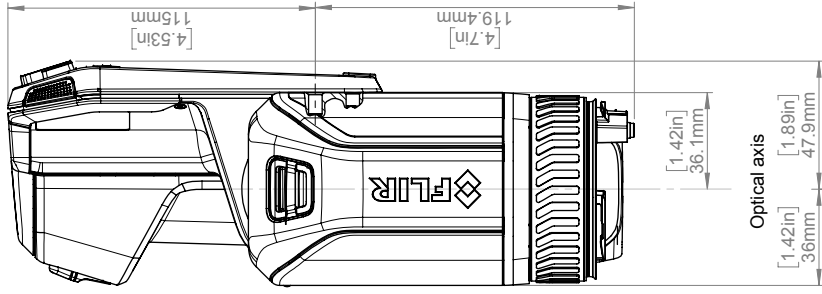
P/N: 79303-0201

© 2018, FLIR Systems, Inc.

#79303-0201; r. /49282; en-US

- T199043; FLIR ResearchIR Max 4 Upgrade (printed license key)
- INST-EW-0155; Extended Warranty 1 Year for A300f, A310f, A315f, T540, T600/bx, T610
- INST-EWGM-0155; Extended Premier Warranty 1 Year for A3xx, T540, T600/bx, T610
- INST-GM-0150; Calibration incl General Maintenance for A3xx, T540, T6xx

Camera housing



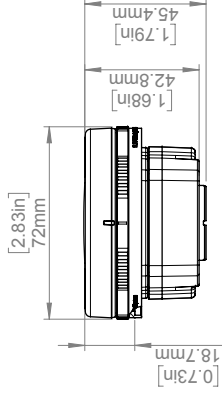
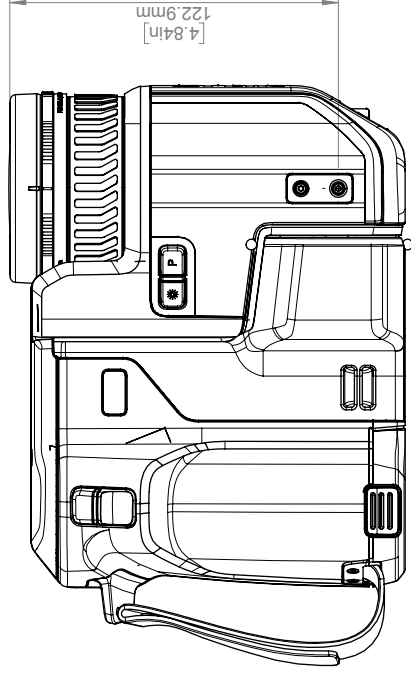
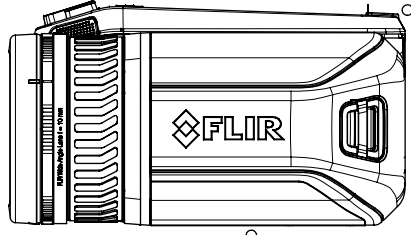
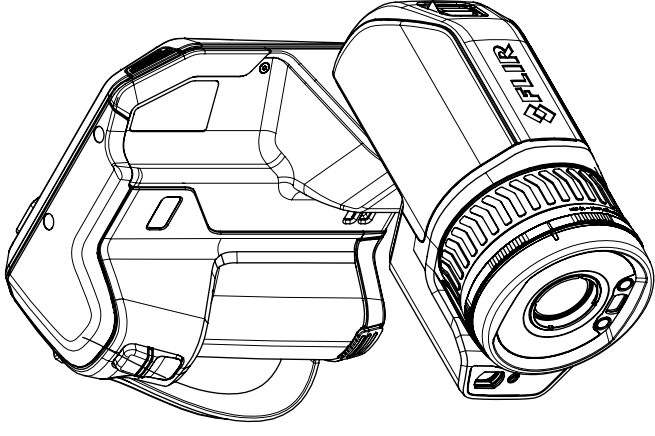
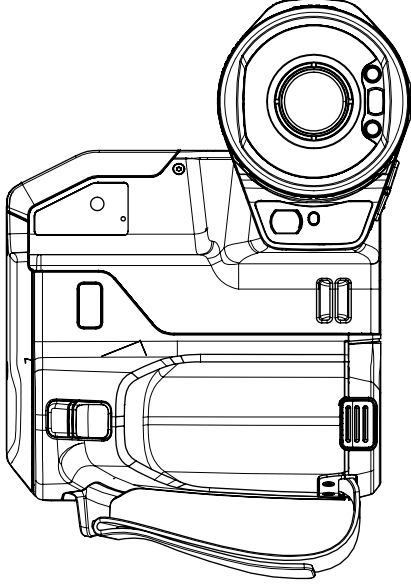
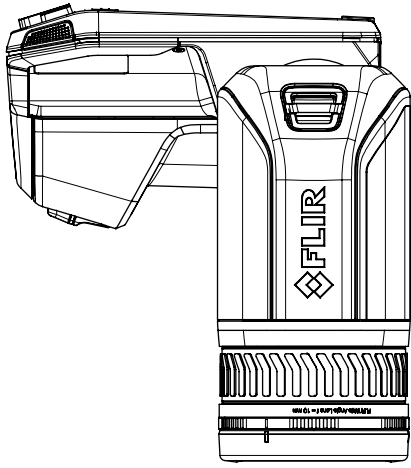
© 2016, FLIR Systems, Inc. All rights reserved worldwide. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from FLIR Systems, Inc. Specifications subject to change without further notice. Dimensional data is based on nominal values. Products may be subject to regional market considerations. License procedures may apply. Product may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions. Diversion contrary to US law is prohibited.

Modified	2017-02-17	Check	-	Drawn by	R&D Instruments	Size	A3
Denomination						Scale	1:2
						Sheet	1(3)
						Drawing No.	T129991
						Rev	A



Basic dimensions FLIR T5xx

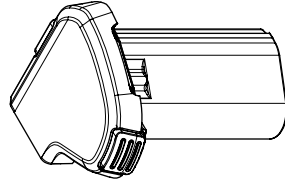
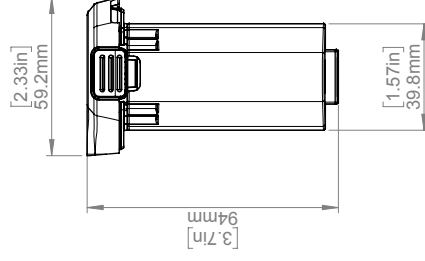
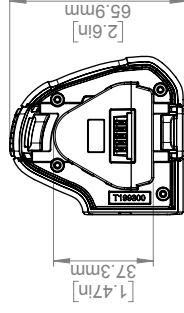
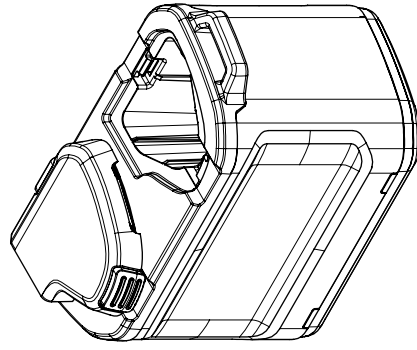
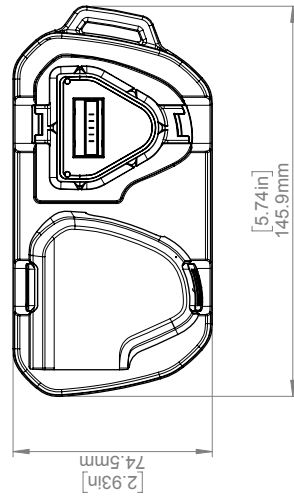
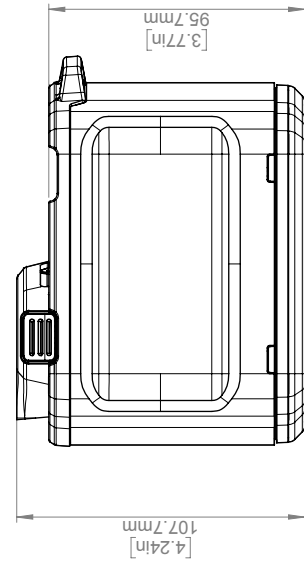
Camera with Lens IR f=10mm (42°)
 Camera with Lens IR f=17mm (24°)
 Camera with Lens IR f=29mm (14°)



For additional dimensions see page 1

Modified 2017-02-17	Check	Drawn by R&D Instruments	FLIR
Denomination		Size A3	Sheet 2(3)
Basic dimensions FLIR T5xx			Rev A
Drawing No. T129991			

Battery Charger



Modified 2017-02-17	Check -	Drawn by R&D Instruments	FLIR
Denomination		Size A3	Sheet 3(3)
Basic dimensions FLIR T5xx		Scale 1:5	Rev A
		Drawing No. T129991	



November 13, 2017 Täby, Sweden

AQ320246

CE Declaration of Conformity – EU Declaration of Conformity

Product: FLIR T5XX -series
Name and address of the manufacturer:
FLIR Systems AB
PO Box 7376
SE-187 15 Täby, Sweden

This declaration of conformity is issued under the sole responsibility of the manufacturer.
The object of the declaration: FLIR T5XX -series (Product Model Name FLIR-T8210).
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Directives:

Directive	2014/30/EU	Electromagnetic Compability
Directive	2014/35/EU	Low Voltage Directive
Directive	2012/19/EU	Waste electrical and electric equipment
Directive	2014/53/EU	Radio Equipment Directive (RED)
Directive	1999/519/EC	Limitation of exposure to electromagnetic fields (SAR)
Directive	2011/65/EU	RoHS and 2015/830/EU

Standards:

EMC Radio:	ETSI EN 301 489-1 + -17	EMC for radio, broadband data transmission
Emission:	EN 61000-6-3/A1:2011	EMC – Generic standards
Immunity:	EN 61000-6-2:2005	Electromagnetic Compability Generic
	EN 301489-1:2016 v2.1.0	ERM – EMC for radio equipment
	EN 301489-17:2012 v2.2.1	ERM – EMC Wideband data
Laser:	EN 60825-1	Safety of laser products
Radio:	ETSI EN 300 328 v2.1.1	Harmonized EN covering essential requirements of the R&TTE Directive
	ETSI EN 301 893 v.2.1.1	5GHz WLAN
	EN 303 413 v1.1.0	Radio Spectrum Efficiency (gps)
SAR:	EN 50566:2013/AC:2014	Handheld and body mounted wireless
	EN 62209-02:2010	Handheld and body mounted wireless
Safety:	IEC 60950-1:2005+A1:2009+	Information technology equipment
	A2:2013 EN 60950-1:2006+	
	A11:2009+AC:2011+A12:2011	
RoHS:	EN 50581:2012	Technical documentation

FLIR Systems AB
Quality Assurance

Lea Dabiri
Quality Manager