Technical Data

FLIR i7

Part number:
60101-0301

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General description
The FLIR i7 is an easy-to-use point-and-shoot infrared camera that gives you access to the infrared world. The camera is an affordable replacement for an infrared thermometer, providing a thermal image with temperature information in every pixel. The FLIR ix series cameras are lightweight, compact, and rugged, for use in harsh environments.

Benefits:
• Easy-to-use: The FLIR i7 is fully automatic and focus-free with an intuitive interface for simple measurement.
• Compact and rugged: The camera’s low weight of 0.365 kg and an accessory belt pouch make it easy to bring along at all times. Its rugged design and passing a 2 m drop test ensure ease-of-use, even in harsh environments.
• Ground breaking affordability: The ix series cameras are the most affordable infrared cameras on the market.

Imaging and optical data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR resolution</td>
<td>140 × 140 pixels</td>
</tr>
<tr>
<td>Thermal sensitivity/NETD</td>
<td>&lt; 0.1°C (0.18°F) / 100 mK</td>
</tr>
<tr>
<td>Field of view (FOV)</td>
<td>29° x 29°</td>
</tr>
<tr>
<td>Minimum focus distance</td>
<td>0.6 m (2 ft.)</td>
</tr>
<tr>
<td>Spatial resolution (IFOV)</td>
<td>3.7 mrad</td>
</tr>
<tr>
<td>F-number</td>
<td>1.5</td>
</tr>
<tr>
<td>Image frequency</td>
<td>9 Hz</td>
</tr>
<tr>
<td>Focus</td>
<td>Focus free</td>
</tr>
</tbody>
</table>

Detector data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector type</td>
<td>Focal plane array (FPA), uncooled microbolometer</td>
</tr>
<tr>
<td>Spectral range</td>
<td>7.5–13 µm</td>
</tr>
</tbody>
</table>

Image presentation

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>2.8 in. color LCD</td>
</tr>
<tr>
<td>Image adjustment</td>
<td>Automatic adjust/lock image</td>
</tr>
</tbody>
</table>

Measurement

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object temperature range</td>
<td>-20°C to +250°C (~-4°F to +482°F)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±2°C (±3.6°F) or ±2% of reading, for ambient temperature 10°C to 35°C (+50°F to 95°F) and object temperature above ±0°C (+32°F)</td>
</tr>
</tbody>
</table>

Measurement analysis

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spotmeter</td>
<td>Center spot</td>
</tr>
<tr>
<td>Area</td>
<td>Box with max./min.</td>
</tr>
<tr>
<td>Isotherm</td>
<td>Above/below</td>
</tr>
<tr>
<td>Emissivity correction</td>
<td>Variable from 0.1 to 1.0</td>
</tr>
<tr>
<td>Emissivity table</td>
<td>Emissivity table of predefined materials</td>
</tr>
</tbody>
</table>
Measurement analysis
Reflected apparent temperature correction Automatic, based on input of reflected temperature

Set-up
Color palettes Black and white, iron and rainbow
Set-up commands Local adaptation of units, language, date and time formats

Storage of images
Storage media miniSD card
File formats Standard JPEG, 14-bit measurement data included

Data communication interfaces
Interfaces USB Mini-B: Data transfer to and from PC

Power system
Battery type Rechargeable Li Ion battery
Battery voltage 3.6 V
Battery operating time Approx. 5 hours at +25°C (+77°F) ambient temperature and typical use
Charging system Battery is charged inside the camera.
Charging time 3 h to 90% capacity
Power management Automatic shut-down
AC operation AC adapter, 90-260 VAC input, 5 VDC output to camera

Environmental data
Operating temperature range 0°C to +50°C (+32°F to +122°F)
Storage temperature range −40°C to +70°C (−40°F to +158°F)
Humidity (operating and storage) IEC 60068-2-30/24 h 95% relative humidity
EMC
• EN 61000-6-2:2005 (Immunity)
• EN 61000-6-3:2007 (Emission)
• FCC 47 CFR Part 15 Class B (Emission)
Encapsulation Camera housing and lens: IP 43 (IEC 60529)
Bump 25 g (IEC 60068-2-29)
Vibration 2 g (IEC 60068-2-6)
Drop 2 m (6.6 ft.)

Physical data
Camera weight, incl. battery 0.365 kg (0.80 lb.)
Camera size (L x W x H) 223 × 79 × 85 mm (8.8 × 3.1 × 3.4 in.)
Material Polycarbonate + acrylonitrile butadiene styrene (PC-ABS) Thixomold magnesium Thermoplastic elastomer (TPE)
Color Black and gray

Certifications
Certification UL, CSA, CE, PSE and CCC

Shipping information
Packaging, type Hard case
• Hard transport case
• Infrared camera
• Battery (inside camera)
• FLIR Tools download card
• miniSD card, with SD card adapter
• Power supply/charger with EU, UK, US and Australian plugs
• Printed documentation
• USB cable
• User documentation CD-ROM
Optional Accessories

- T910737 Memory card micro-SD with adapters
- T910423 USB cable Std A <-> Mini-B
- T910711 Power supply/charger with EU, UK, US and AU plugs
- T197619 Hard transport case for ix
- T197410 Battery
- T911093 Tool belt
- T198482 Car charger
- T198529 Pouch FLIR Ex and ix series

Optional Software

- T198583 FLIR Tools+ (license only)
T910737; Memory card micro-SD with adapters

General description
Micro-SD Card for data storage (e.g. images)

Technical data
Memory card, size  At least 2 GB

Shipping information
- micro-SD
- Adapter to miniSD Card
- Adapter from miniSD Card to SD memory card

1910423; USB cable Std A <-> Mini-B

General description
This cable is used to connect the infrared camera with a computer, using the USB protocol.

Technical data
<table>
<thead>
<tr>
<th>Weight</th>
<th>60 g (2.1 oz.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable length</td>
<td>1.8 m (5.9 ft.)</td>
</tr>
<tr>
<td>Connector</td>
<td>Standard USB-A to USB Mini-B</td>
</tr>
</tbody>
</table>
Optional Accessories

T910711; Power supply/charger with EU, UK, US and AU plugs

General description
Combined power supply & battery charger.

Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC operation</td>
<td>100–240 VAC, 50/60 Hz, output 5.0 VDC, 1.2 A</td>
</tr>
<tr>
<td>Power</td>
<td>6 W</td>
</tr>
<tr>
<td>Size (L × W × H)</td>
<td>69.2 × 43.3 × 29.8 mm (2.7 × 1.7 × 1.2 in.)</td>
</tr>
<tr>
<td>Cable length</td>
<td>1.8 m (5.9 ft.)</td>
</tr>
</tbody>
</table>

Shipping information
- Power supply/Battery charger
- EU, UK, US and Australian plugs

T197619; Hard transport case for ix

General description
Hard transport case for FLIR IX and Extech IX

Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>1.69 kg (3.73 lb.)</td>
</tr>
<tr>
<td>Size (L × W × H)</td>
<td>390 × 330 × 120 mm (15.4 × 13.0 × 4.7 in.)</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
</tbody>
</table>
Optional Accessories

T197410; Battery

General description
High capacity battery for the IR camera.

Technical data
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery type</td>
<td>Rechargeable Li Ion battery</td>
</tr>
<tr>
<td>Battery voltage</td>
<td>3.7 V</td>
</tr>
<tr>
<td>Battery capacity</td>
<td>2.2 Ah at +20°C (+68°F)</td>
</tr>
<tr>
<td>Battery note</td>
<td>Approximate lithium content: 0.7 g</td>
</tr>
<tr>
<td>Charging system</td>
<td>Battery is charged inside the camera</td>
</tr>
<tr>
<td>Charging temperature</td>
<td>0°C to +45°C (+32°F to +113°F)</td>
</tr>
<tr>
<td>Battery storage temperature range</td>
<td>−40°C to +70°C (−40°F to +158°F)</td>
</tr>
</tbody>
</table>

T911093; Tool belt

General description
Tool belt for FLIR camera pouches.

Technical data
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>0.117 kg (0.26 lb.)</td>
</tr>
<tr>
<td>Length</td>
<td>1.44 m (4.7 ft.)</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
</tbody>
</table>

Shipping information
- Tool belt
  - EAN-13: 4743254000384
  - UPC-12: 845188003210
T198482; Car charger

General description
This cable is used to power the infrared camera from the 12 V socket in a car.

Technical data

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Input: 12/24 V Output: 5 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable length</td>
<td>1 m (3.3 ft.)</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
</tbody>
</table>

Shipping information

| EAN-13     | 4743254000827 |
| UPC-12     | 845188004545  |

T198529; Pouch FLIR Ex and ix series

General description
Pouch, including shoulder strap, for FLIR Ex and ix series.

Technical data

| Size (L x W x H) | 270.0 x 145.0 x 115.0 mm (10.6 x 5.7 x 4.5 in.) |
| Color            | Black                                         |

Shipping information

- Pouch
- Shoulder strap

| EAN-13     | 4743254001039 |
| UPC-12     | 845188004880  |
T198583; FLIR Tools+ (license only)

General description
Compared to FLIR Tools, FLIR Tools+ has the following features:
- Radiometric Panorama incl. MSX
- Radiometric IR Video Recording
- Advanced Reporting
FLIR Tools/Tools+ is a software suite specifically designed to provide an easy way to update your camera and create inspection reports.

FLIR Tools+ main features:
- Manual IR/Visual Image Grouping
- Radiometric Panorama incl. MSX
- Radiometric IR Video Recording
- Advanced Reporting - Microsoft Office 2007 (32bit), and 2010 (32bit) support
- Report templates (horizontal IR + DC, vertical IR + DC, horizontal IR + IR).
- Import images from your camera to your computer.
- Apply filters when searching for images.
- Search all text in images and text annotations.
- Store the five latest search criteria's.
- Lay out, move, and resize measurement tools on any infrared image.
- Create PDF imagesheets of any images of your choice.
- Add headers, footers, and logos to imagesheets.
- Create PDF reports for images of your choice.
- Add headers, footers, and logos to reports.
- Report editor (report page preview and snap to grid).
- Sort function (by date, groups sorted by path, and groups sorted by date).
- Browse and purchase infrared cameras, software, and accessories in the webshop.
- Software localized to 21 languages.
- Support for MSX (Multi-Spectral Dynamic Imaging) Images
- Support for Sketch Images on both IR and Visual with toggling ON/OFF feature.
- Support for Same FOV (Field of View Match)
- Display of Compass Information in Edit and in Report.
- Display of GPS Information in Edit and in Report.
- Microsoft Windows 7 (32- and 64-bit) and Windows 8 (32- and 64-bit)
- Camera update (applies to FLIR Ex, Kxx, Exx and T6xx series only).

Download
Download your copy of FLIR Tools+ here:
http://support.flir.com/toolsplus

Release notes
Version FLIR Tools+ 4.1
New features
- --- News in 4.1: ---
- Previous/next in Edit mode.
- Clone in the Library
- Extract visual photo from a multispectral image.
- Import *.mp4, *.seq, and *.csp files from the camera.
- Playback/edit *.seq and *.csp files.
- Scale enhancement for the FLIR GF3xx series.
- Auto resize of thumbnails during importing for the FLIR T6xx series.
- Grouping/ungrouping now added.
- Various bug fixes.

Shipping information
- FLIR Tools+ scratchcard
## System requirements

**Operating system**
- Windows XP, 32-bit
- Windows Vista, 32-bit
- Windows 7, 32-bit
- Windows 7, 64-bit
- Windows 8, 32-bit
- Windows 8, 64-bit

**Software requirements**
- Office 2007, 32-bit
- Office 2010, 32-bit
- Office 2013, 32-bit

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v1.0
Camera with built-in IR lens f=6.8 mm (i3 12.5°)
Camera with built-in IR lens f=6.8 mm (i5 17°)
Camera with built-in IR lens f=6.8 mm (i7 25°)