



Metadata

Part No.	74902-0101
Product name	FLIR GFx320 14.5° fixed lens
Revision	54798
Last modified	2019-01-17

Imaging and optical data

IR resolution	320 × 240 pixels
Thermal sensitivity/NETD	<15 mK @ +30°C (+86°F)
Field of view (FOV)	14.5° × 10.8°
Minimum focus distance	0.5 m (1.64 ft.)
Focal length	38 mm (1.49 in.)
F-number	1.5
Focus	Manual focus
Zoom	1–8× continuous, digital zoom
Digital image enhancement	Noise reduction filter, high sensitivity mode (HSM)

Detector data

Detector type	Focal plane array (FPA), cooled InSb
Spectral range	3.2–3.4 μm
Detector pitch	30 μm
Sensor cooling	Stirling Microcooler (FLIR MC-3)
Detects following gases	Benzene, Ethanol, Ethylbenzene, Heptane, Hexane, Isoprene, Methanol, MEK, MIBK, Octane, Pentane, 1-Pentene, Toluene, Xylene, Butane, Ethane, Methane, Propane, Ethylene, Propylene

Electronics and data rate

Full frame rate	60 Hz
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Image presentation

Display	Built-in widescreen, 4.3 in. LCD, 800 × 480 pixels
Viewfinder	Built-in, tiltable OLED, 800 × 480 pixels
Automatic image	Continuous/manual; linear or histogram based



74902-0102
FLIR GFx320 24° fixed lens
54876
2019-01-21

320 × 240 pixels
<15 mK @ +30°C (+86°F)
24° × 18°
0.3 m (1.0 ft.)
23 mm (0.89 in.)
1.5
Manual focus
1–8× continuous, digital zoom
Noise reduction filter, high sensitivity mode (HSM)

Focal plane array (FPA), cooled InSb
3.2–3.4 μm
30 μm
Stirling Microcooler (FLIR MC-3)
Benzene, Ethanol, Ethylbenzene, Heptane, Hexane, Isoprene, Methanol, MEK, MIBK, Octane, Pentane, 1-Pentene, Toluene, Xylene, Butane, Ethane, Methane, Propane, Ethylene, Propylene

60 Hz

Built-in widescreen, 4.3 in. LCD, 800 × 480 pixels
Built-in, tiltable OLED, 800 × 480 pixels
Continuous/manual; linear or histogram based

adjustment

Manual image adjustment

Level/span

Level/span

Image presentation modes

Image modes

IR image, visual image, high sensitivity mode (HSM)

IR image, visual image, high sensitivity mode (HSM)

Measurement

Temperature range

-20°C to +350°C (-4°F to +662°F)

-20°C to +350°C (-4°F to +662°F)

Accuracy

±1°C (±1.8°F) for temperature range (0°C, to +100°C, +32°F to +212°F) or ±2% of reading for temperature range (>+100°C, >+212°F)

±1°C (±1.8°F) for temperature range (0°C, to +100°C, +32°F to +212°F) or ±2% of reading for temperature range (>+100°C, >+212°F)

Measurement analysis

Spotmeter

10

10

Area

5 boxes with max./min./average

5 boxes with max./min./average

Profile

1 live line (horizontal or vertical)

1 live line (horizontal or vertical)

Difference temperature

Delta temperature between measurement functions or reference temperature

Delta temperature between measurement functions or reference temperature

Reference temperature

Manually set or captured from any measurement function

Manually set or captured from any measurement function

Emissivity correction

Variable from 0.01 to 1.0 or selected from editable materials list

Variable from 0.01 to 1.0 or selected from editable materials list

Reflected apparent temperature correction

Automatic, based on input of reflected temperature

Automatic, based on input of reflected temperature

Measurement corrections

Reflected temperature, distance, atmospheric transmission, humidity, external optics

Reflected temperature, distance, atmospheric transmission, humidity, external optics

Set-up

Menu commands

- Level, span
- Auto adjust continuous/manual/semi-automatic
- Zoom
- Palette
- Start/stop recording
- Store image
- Playback/recall image

- Level, span
- Auto adjust continuous/manual/semi-automatic
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Color palettes

- Iron
- Gray
- Rainbow
- Arctic
- Lava
- Rainbow HC

- Iron
- Gray
- Rainbow
- Arctic
- Lava
- Rainbow HC

Set-up commands

1 programmable button, overlay recording mode, local adaptation of units, language, date and time formats

1 programmable button, overlay recording mode, local adaptation of units, language, date and time formats

Storage of images

Storage media

Removable SD or SDHC memory card

Removable SD or SDHC memory card

Image storage capacity

2000 images (JPEG) with post process capability per GB on memory card

2000 images (JPEG) with post process capability per GB on memory card

Image storage mode	- IR/visual images - Visual image can automatically be associated with corresponding IR image	- IR/visual images - Visual image can automatically be associated with corresponding IR image
Periodic image storage	Every 10 seconds up to 24 hours	Every 10 seconds up to 24 hours
File formats	Standard JPEG, 14 bit measurement data included	Standard JPEG, 14 bit measurement data included

Geographic Information System

GPS	Location data automatically added to every image from built-in GPS	Location data automatically added to every image from built-in GPS
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Video recording in camera

Radiometric IR video recording	*.seq video clips to memory card (7.5 and 15 Hz).	*.seq video clips to memory card (7.5 and 15 Hz).
Non-radiometric IR video recording	- MPEG4 (up to 60 minutes/clip) to memory card. - Visual image can automatically be associated with corresponding recording of non-radiometric IR video.	- MPEG4 (up to 60 minutes/clip) to memory card. - Visual image can automatically be associated with corresponding recording of non-radiometric IR video.
Visual video recording	MPEG4 (25 minutes/clip) to memory card	MPEG4 (25 minutes/clip) to memory card

Video streaming

Radiometric IR video streaming	Full dynamic to PC using USB cable. PC software capable of displaying the video stream include the following: - FLIR IR Camera Player - FLIR ResearchIR - FLIR Tools	Full dynamic to PC using USB cable. PC software capable of displaying the video stream include the following: - FLIR IR Camera Player - FLIR ResearchIR - FLIR Tools
Non-radiometric IR video streaming	RTP/MPEG4	RTP/MPEG4

Digital camera

Built-in digital camera	3.2 Mpixels, auto focus, and two video lamps	3.2 Mpixels, auto focus, and two video lamps
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Laser pointer

Laser	Activated by dedicated button	Activated by dedicated button
Laser classification	Class 2	Class 2
Laser type	Semiconductor AlGaInP diode laser, 1 mW, 635 nm (red)	Semiconductor AlGaInP diode laser, 1 mW, 635 nm (red)

USB

USB	USB Mini-B: Data transfer to and from PC	USB Mini-B: Data transfer to and from PC
USB, standard	USB Mini-B: 2.0 high speed	USB Mini-B: 2.0 high speed

Composite video

Video out	Digital video output (image)	Digital video output (image)
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Power system

Battery type	Rechargeable Li ion battery	Rechargeable Li ion battery
Battery voltage	7.2 V	7.2 V
Battery capacity	4.4 Ah	4.4 Ah

Battery operating time	> 3 hours at 25°C (+68°F) and typical use	> 3 hours at 25°C (+68°F) and typical use
Battery charging	2-bay charger or AC adapter 90–260 VAC, 50/60 Hz or 12 V from a vehicle (cable with standard plug, optional)	2-bay charger or AC adapter 90–260 VAC, 50/60 Hz or 12 V from a vehicle (cable with standard plug, optional)
Charging time	2.5 h to 95% capacity, charging status indicated by LED's	2.5 h to 95% capacity, charging status indicated by LED's
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)	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)
DC operation	8 to 15.3 V DC, polarity protected (proprietary protected)	8 to 15.3 V DC, polarity protected (proprietary protected)
Power	8.5 W typically	8.5 W typically
Start-up time	Typically 7 min. @ 25°C (+77°F)	Typically 7 min. @ 25°C (+77°F)

Environmental data

Operating temperature range	–20°C to +50°C (–4°F to +122°F)	–20°C to +50°C (–4°F to +122°F)
Ambient temperature range (certification range for explosive atmospheres)	–20°C to +40°C (–4°F to +104°F)	–20°C to +40°C (–4°F to +104°F)
Storage temperature range	–30°C to +60°C (–22°F to +140°F)	–30°C to +60°C (–22°F to +140°F)
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) (2 cycles)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) (2 cycles)
Explosive (hazardous) environment	• IEC 60079-0:2011 • IEC 60079-11:2011 • IEC 60079-15:2010 (partial) • IEC 60079-28:2015 • BS EN 60079-0:2012 • BS EN 60079-11:2012 • BS EN 60079-15:2010 • BS EN 60079-28:2015 • ANSI/ISA-12.12.01-2013 • CSA 22.2 No. 213 • ATEX directive 2014/34/EU	• IEC 60079-0:2011 • IEC 60079-11:2011 • IEC 60079-15:2010 (partial) • IEC 60079-28:2015 • BS EN 60079-0:2012 • BS EN 60079-11:2012 • BS EN 60079-15:2010 • BS EN 60079-28:2015 • ANSI/ISA-12.12.01-2013 • CSA 22.2 No. 213 • ATEX directive 2014/34/EU
Low voltage	73/23/EEC	73/23/EEC
RoHS	2011/65/EU	2011/65/EU
WEEE	2012/19/EU	2012/19/EU
EMC	• The Electromagnetic Compatibility (EMC) Directive 2014/30/EU • EN61000-6-4 (Emission) • EN61000-6-2 (Immunity) • FCC 47 CFR Part 15 class A (Emission) • EN 61 000-4-8, L5	• The Electromagnetic Compatibility (EMC) Directive 2014/30/EU • EN61000-6-4 (Emission) • EN61000-6-2 (Immunity) • FCC 47 CFR Part 15 class A (Emission) • EN 61 000-4-8, L5
Encapsulation	IP 54 (IEC 60529)	IP 54 (IEC 60529)
Shock	25 g (IEC 60068-2-27)	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)	2 g (IEC 60068-2-6)
Safety	EN/UL/IEC 60950-1	EN/UL/IEC 60950-1

Physical data

Camera weight, incl. battery	2.80 kg (6.18 lbs.)	2.72 kg (6.00 lbs.)
Camera weight, excl.	2.59 kg (5.71 lbs.)	2.50 kg (5.51 lbs.)

battery		
Battery weight	0.21 kg (0.47 lbs.)	0.21 kg (0.47 lbs.)
Camera size (L × W × H)	245 × 166 × 164 mm (9.6 × 6.5 × 6.4 in.)	245 × 166 × 164 mm (9.6 × 6.5 × 6.4 in.)
Battery size (L × W × H)	141 × 43 × 28 mm (5.5 × 1.7 × 1.1 in.)	141 × 43 × 28 mm (5.5 × 1.7 × 1.1 in.)
Battery charger size (L × W × H)	158 × 122 × 25 mm (6.2 × 4.8 × 1.0 in.)	158 × 122 × 25 mm (6.2 × 4.8 × 1.0 in.)
Tripod mounting	UNC ¼"-20	UNC ¼"-20
Housing material	Aluminum, magnesium, silicone	Aluminum, magnesium, silicone

Certifications

Compliance	• ATEX/IECEEx, Ex ic nC op is IIC T4 Gc II 3 G • ANSI/ISA-12.12.01-2013, Class I Division 2 • CSA 22.2 No. 213, Class I Division 2	• ATEX/IECEEx, Ex ic nC op is IIC T4 Gc II 3 G • ANSI/ISA-12.12.01-2013, Class I Division 2 • CSA 22.2 No. 213, Class I Division 2
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Shipping information

Packaging, type	Cardboard box	Cardboard box
List of contents	• Infrared camera with lens • Battery charger • Battery, 2 ea. • Hand strap • Hard transport case • HDMI-DVI cable • HDMI-HDMI cable • Lens cap (mounted on lens) • Lens cap strap • Memory card • Neck strap • Power supply, incl. multi-plugs • Printed documentation • Screwdriver TX20 • USB cable	• Infrared camera with lens • Battery charger • Battery, 2 ea. • Hand strap • Hard transport case • HDMI-DVI cable • HDMI-HDMI cable • Lens cap (mounted on lens) • Lens cap strap • Memory card • Neck strap • Power supply, incl. multi-plugs • Printed documentation • Screwdriver TX20 • USB cable
EAN-13	7332558012574	7332558012567
UPC-12	845188013721	845188013714