FLIR A615 25°



General description

The FLIR A615 camera has features and functions that make it the natural choice for anyone who uses PC software to solve problems and needs 640 × 480 pixel resolution. Among its main features are GigE Vision™ and GenICam™ compliance, which makes it plug-and-play when used with software packages such as IMAQ Vision and Halcon.

Key features:

- Affordable
 GigE compliant
 GenlCam compliant
 Trigg/synchronization/GPIO
 16-bit 640 × 480 images @ 50 Hz, signal, temperature linear, and radiometric
 Windowing mode: 640 × 240 @ 100 Hz or 640 × 120 @ 200 Hz
 Compliant with any software that supports GenlCam, including National Instruments IMAQ Vision and Sternmers Common Vision Blox
 Open and well described TCP/IP protocol for control and set-up

Typical applications:

- High-end infrared machine vision that needs temperature measurement
 Slag detection
 Food processing
 Electronics testing
 Power resistor testing
 Automotive

Imaging and optical data		
Field of view (FOV)	25° × 18.8°	
Minimum focus distance	0.4 m (1.31 ft.)	
Focal length	24.5 mm (0.96 in.)	
Spatial resolution (IFOV)	0.69 mrad	
Lens identification	Automatic	
F-number	1.0	
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK	
Image frequency	50 Hz (100/200 Hz with windowing)	
Focus	Automatic or manual (built in motor)	
Detector data		
Detector type	Focal Plane Array (FPA), uncooled microbolometer	
Spectral range	7.5–13 μm	
IR resolution	640 × 480 pixels	
Detector pitch	17 μm	
Detector time constant	Typical 8 ms	
Measurement		
Object temperature range	-20 to +150°C (-4 to +302°F) 0 to +650°C (+32 to +1202°F) 300 to +2000°C (+572 to +3632°F)	
Accuracy	$\pm 2^{\circ}C$ (±3.6°F) or $\pm 2\%$ of reading	
Measurement analysis		
Atmospheric transmission correction	Automatic, based on inputs for distance, atmospheric temperature and relative humidity	
Optics transmission correction	Automatic, based on signals from internal sensors	
Emissivity correction	Variable from 0.01 to 1.0	
Reflected apparent temperature correction	Automatic, based on input of reflected temperature	
External optics/windows correction	Automatic, based on input of optics/window transmission and temperature	
Measurement corrections	Global object parameters	
USB		
USB	Control and image	
USB, standard	USB 2 HS	

USB, connector type	USB Mini-B
USB, communication	TCP/IP socket-based FLIR proprietary
USB, image streaming	16-bit 640 × 480 pixels @ 25 Hz 16-bit 640 × 240 pixels @ 50 Hz
	16-bit 640 × 120 pixels @ 100 Hz - Signal linear
	- Temperature linear - Radiometric
USB, protocols	TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP,
	ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP
Ethernet	
Ethernet	Control and image
Ethernet, type	Gigabit Ethernet
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP socket-based FLIR proprietary and GenICam protocol
Ethernet, image streaming	16-bit 640 × 480 pixels @ 50 Hz
-	16-bit 640 × 240 pixels @ 100 Hz 16-bit 640 × 120 pixels @ 200 Hz
	- Signal linear - Temperature linear
	- Radiometric GigE Vision and GenlCam compatible
Ethernet, protocols	TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP
	ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP
Digital input/output	
Digital input, purpose	Image tag (start, stop, general), Image flow ctrl. (Stream on/off), Input ext. device (programmatically read)
Digital input	2 opto-isolated, 10–30 VDC
Digital output, purpose	Output to ext. device (programmatically set)
Digital output	2 opto-isolated, 10-30 VDC, max 100 mA
Digital I/O, isolation voltage	500 VRMS
Digital I/O, supply voltage	12/24 VDC, max 200 mA
Digital I/O, connector type	6-pole jackable screw terminal
Power system	
External power operation	12/24 VDC, 24 W absolute max
External power, connector type	2-pole jackable screw terminal
Voltage	Allowed range 10-30 VDC
Environmental data	
Operating temperature range	-15°C to +50°C (+5°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 +25°C to
EMC	++++++++++++++++++++++++++++++++++++++
EMC	 EN 61000-6-2:2001 (infinitunity) EN 61000-6-3:2001 (Emission) FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	IP 40 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Weight	0.7 kg (1.54 lb.)
Camera size (L × W × H)	216× 73 × 75 mm (8.5 × 2.9 × 3.0 in.)
Tripod mounting	UNC 1/4"-20 (on three sides)
Base mounting	$2 \times M4$ thread mounting holes (on three sides)
Housing material	Aluminium
Scope of delivery	
Hard transport case or cardboard box Infrared camera with loss	
Calibration certificate Sthemast Markels	
Mains cable	
Power cable, pig-tailed Power supply	
Printed Getting Started Guide Printed Important Information Guide	
USB cable User documentation CD-ROM	
 Utility CD-ROM Warranty extension card or Registration card 	

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Optional Accessories

- 1910585 Power supply for A/SC3XX and A/SC6XX
 1910400 Power cord EU
 1910401 Power cord US
 1910402 Power cord UK
 1910402 USB cable Std A <> Mini-B, 2 m/6.6 ft.
 1951004 Ethernet cable CAT-6, 2m/6.6 ft.
 1910586 Power cable, pigtailed
 1196940 Hard transport case for A/SC3XX and A/SC6XX series

Optional Software

• T197038 ThermoVision™ System Developers Kit Ver. 2.6

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Optional Accessories

1910585; Power supply for A/SC3XX and A/SC6XX



1910400; Power cord EU

General description

General description

Technical data

AC operation

Cable length

Color

0100 Eno.

Power cord (US) for the power supply

Technical data AC operation

Cable length

Color

Power cord (EU) for the power supply

1910401; Power cord US

General description	
Power supply for the A320-series	
Technical data	
AC operation	100-240 V, 50-60 Hz, 1.8 A output: 12 VDC 3.0 A
Power	36 W
Size $(L \times W \times H)$	120 x 60 x 35 mm (4.7 x 2.4 x 1.4 in.)
Cable length	2.0 m (6.6 ft.)
	v1.0

250 V 16 A

2.0 m (6.6 ft.)

125 V 15 A

2.0 m (6.6 ft.)

Black

Black

1910402; Power cord UK



General description		
Power cord (UK) for the power supp	ly	
Technical data		
AC operation	250 V 13 A	
Cable length	2.0 m (6.6 ft.)	
Color	Black	
		v1.0

1910423; USB cable Std A <-> Mini-B, 2 m/6.6 ft.



General description		
This cable is used to connect the	infrared camera with a computer, using the USB protocol.	
Technical data		
Weight	60 g (2.1 oz.)	
Cable length	1.8 m (5.9 ft.)	
Connector	Standard USB-A to USB Mini-B	
	00 b.	

T951004; Ethernet cable CAT-6, 2m/6.6 ft.



v1.0

v1.0

General description		
This cable is used to connect the infrared ca	amera to Ethernet.	
Technical data		
Weight	80 g (2.8 oz.)	
Cable length	2.0 m (6.6 ft.)	
Connector	RJ-45 to RJ-45	
Cable type	CAT-6	
		v1.01

1910586; Power cable, pigtailed





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General description	
This cable is used, when a separa	te power supply is used (not the one supplied with the camera)
Technical data	
Weight	75 g (2.6 oz.)
Cable length	2.0 m (6.6 ft.)
Connector	Pigtailed
Color	Black
	v1.02

1196940; Hard transport case for A/SC3XX and A/SC6XX series



General description

Hard transport case for FLIR A3XX series

v1.0

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Optional Software

T197038; ThermoVision™ System Developers Kit Ver. 2.6



General description		
ThermoVision [™] System Develo	pers Kit	
Release notes		
Version	2.6	
		v1.0

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