

P/N: T300292

Copyright

© 2022, 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.: T300292 Commit: 82560 Language:

Modified: 2022-01-19 Formatted: 2022-08-30

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.





General

Note the following:

- The Advanced Image Streaming configuration requires the Image Streaming configuration.
- The Advanced Image Streaming configuration is compatible with FLIR Research Studio.

Infrared resolution Depending on Thermal Core used; see Thermal Core specification Thermal sensitivity (NETD) Depending on Thermal Core used; see Thermal Core specification Field of view (FOV) Depending on lens used; see lens specification Minimum focus distance Depending on lens used; see lens specification Focal length Depending on lens used; see lens specification Spatial resolution (IFOV) Depending on lens used; see lens specification Lens identification Automatic Focus Depending on lens used; see lens specification Image frequency 30 Hz Focus Depending on Inermal Core used; see Thermal Core used; see Thermal Core specification Detector data Focal plane array/spectral range Uncooled microbolometer/7.5–14 µm Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Measurement at temperature range Depending on Thermal Core used; see Thermal Core specification Measurement temperature 15–35°C (59–95°F)) Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Automatic hot/cold detection N/A Automatic transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Reflected apparent temperature correction Based on input of reflected temperature	Imaging and optical data	
Field of view (FOV) Depending on lens used; see lens specification Minimum focus distance Depending on lens used; see lens specification Focal length Depending on lens used; see lens specification Spatial resolution (IFOV) Depending on lens used; see lens specification Lens identification Automatic f-number Depending on lens used; see lens specification Image frequency 30 Hz Focus Depending on Inermal Core used; see Intermal Core specification Detector data Focal plane array/spectral range Uncooled microbolometer/7.5-14 µm Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Neasurement temperature 15–35°C (59–95°F)) Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Automatic hot/cold detection N/A Automatic hot/cold detection N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Infrared resolution	
Minimum focus distance Depending on lens used; see lens specification Pocal length Depending on lens used; see lens specification Automatic Found Inage frequency Depending on lens used; see lens specification Image frequency Depending on Insused; see lens specification Image frequency Depending on Insused; see lens specification Image frequency Depending on Thermal Core used; see Thermal Core specification Uncooled microbolometer/7.5–14 µm Detector data Focal plane array/spectral range Uncooled microbolometer/7.5–14 µm Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Nipending on Thermal Core used; see Thermal Core specification Nipending on Thermal Core used; see Thermal Core specification Nipending on Thermal Core used; see Thermal Core specification Nipending on Thermal Core used; see Thermal Core specification Nipending on Thermal Core used; see Thermal Core specification Measurement analysis Standard functions Nipending on Thermal Core used; see Thermal Core specification Measurement presets Nipending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specifica	Thermal sensitivity (NETD)	
Focal length Depending on lens used; see lens specification Automatic Inage frequency Depending on lens used; see lens specification Depending on lens used; see lens specification Image frequency 30 Hz Focus Depending on Thermal Core used; see Thermal Core specification Detector data Focal plane array/spectral range Uncooled microbolometer/7.5–14 µm Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Automatic hot/cold detection N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Field of view (FOV)	Depending on lens used; see lens specification
Spatial resolution (IFOV) Depending on lens used; see lens specification Automatic Inage frequency Focus Depending on Inermal Core used; see Thermal Core specification Detector data Focal plane array/spectral range Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Note the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core specification Note and the specification Depending on Thermal Core used; see Thermal Core used; se	Minimum focus distance	Depending on lens used; see lens specification
Lens identification Automatic f-number Depending on lens used; see lens specification Image frequency 30 Hz Focus Depending on Thermal Core used; see Thermal Core specification Detector data Focal plane array/spectral range Uncooled microbolometer/7.5–14 µm Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Measurement emperature 15–35°C (59–95°F)) Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Schedule response N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Focal length	Depending on lens used; see lens specification
f-number	Spatial resolution (IFOV)	Depending on lens used; see lens specification
Image frequency Focus Depending on Thermal Core used; see Thermal Core specification Detector data Focal plane array/spectral range Uncooled microbolometer/7.5–14 µm Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F)) Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Measurement presets N/A Atmospheric transmission correction Emissivity correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Lens identification	Automatic
Focus Depending on Thermal Core used; see Thermal Core specification Detector data Image: Detector pitch pitch possible of the pitch possible of the pitch possible of the pitch pitch possible of the pitch pitch possible of the pitch possible of the pitch possible of the pitch pitch possible of the pitch pitch possible of the pitch pitch pitch possible of the pitch p	f-number	Depending on lens used; see lens specification
Core specification Detector data Uncooled microbolometer/7.5–14 μm Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Depending on Thermal Core used; see Thermal Core specification Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F)) Depending on Thermal Core used; see Thermal Core specification Measurement analysis N/A Standard functions N/A Automatic hot/cold detection N/A Schedule response N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Image frequency	30 Hz
Focal plane array/spectral range Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Automatic hot/cold detection N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Focus	. •
Detector pitch Depending on Thermal Core used; see Thermal Core specification Measurement Camera temperature range Depending on Thermal Core used; see Thermal Core specification Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F)) Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Emissivity correction Variable from 0.01 to 1.0	Detector data	
Measurement Depending on Thermal Core used; see Thermal Core specification Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F)) Depending on Thermal Core used; see Thermal Core specification Measurement analysis N/A Standard functions N/A Automatic hot/cold detection N/A Schedule response N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Focal plane array/spectral range	Uncooled microbolometer/7.5–14 μm
Camera temperature range Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification Depending on Thermal Core used; see Thermal Core specification N/A Standard functions N/A Automatic hot/cold detection N/A Schedule response N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Detector pitch	
Core specification Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F)) Measurement analysis Standard functions Automatic hot/cold detection N/A Schedule response N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Emissivity correction Variable from 0.01 to 1.0	Measurement	
Measurement analysis N/A Standard functions N/A Automatic hot/cold detection N/A Schedule response N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Camera temperature range	
Measurement analysis Standard functions N/A Automatic hot/cold detection N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Emissivity correction Variable from 0.01 to 1.0	Object temperature range and accuracy	
Standard functions N/A Automatic hot/cold detection N/A Schedule response N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	(for ambient temperature 15–35°C (59–95°F))	Core specification
Automatic hot/cold detection N/A Schedule response N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Measurement analysis	
Schedule response N/A Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Standard functions	N/A
Measurement presets N/A Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Automatic hot/cold detection	N/A
Atmospheric transmission correction Based on inputs of distance, atmospheric temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Schedule response	N/A
temperature, and relative humidity Lens transmission correction Automatic, based on signals from internal sensors Emissivity correction Variable from 0.01 to 1.0	Measurement presets	N/A
sensors Emissivity correction Variable from 0.01 to 1.0	Atmospheric transmission correction	·
	Lens transmission correction	
Reflected apparent temperature correction Based on input of reflected temperature	Emissivity correction	Variable from 0.01 to 1.0
	Reflected apparent temperature correction	Based on input of reflected temperature



P/N: T300292

© 2022, FLIR Systems, Inc. #T300292; r. 82560;

Measurement analysis	
External optics/windows correction	Based on input of optics/window transmission and temperature
Measurement corrections	Global object parameters
Measurement frequency	N/A
Measurement result read-out	N/A
Configuration of camera	
Web interface	Yes
Video/Radiometric streaming RTSP	
Protocol	RTSP
Unicast	Yes
Multicast	Yes
Multiple image streams	Yes
Video streaming	
Image quality	Bit rate set through Camera web
Video streaming, Image source 0:	
Resolution (source 0)	640 × 480 pixels
Contrast enhancement	FSX / Histogram equalization (IR only)
Overlay (source 0)	With / Without
Image source (source 0)	Visual / IR / MSX
Pixel format (source 0)	YUV411
Encoding (source 0)	H.264 / MPEG4 / MJPEG
Video streaming, Image source 1:	
Resolution (source 1)	1280 × 960 pixels
Overlay (source 1)	No
Image source (source 1)	Visual
Pixel format (source 1)	YUV411
Encoding (source 1)	H.264 / MPEG4 / MJPEG
Radiometric streaming	
Resolution (radiometric)	Depending on Thermal Core used; see Therma Core specification
Source	IR
Pixel format (radiometric)	MONO 16
Encoding (radiometric)	Compressed JPEG-LS FLIR Radiometric
Video/Radiometric streaming GVSP (GigE Vision)	
Protocol	GVSP
Unicast	Yes
Multicast	Yes
Multiple image streams	Yes, by using the FLIR Atlas desktop SDK both and Visual image streams can be viewed simultaneously (dual streaming).
Video streaming	
Video streaming, Image source 0:	



P/N: T300292

© 2022, FLIR Systems, Inc. #T300292; r. 82560;

Video/Radiometric streaming GVSP (GigE Vision)	
Resolution (source 0)	640 × 480 pixels
Contrast enhancement	FSX / Histogram equalization (IR only)
Overlay (source 0)	With / Without
Image source (source 0)	Visual / IR / MSX
Pixel format (source 0)	YUV422 or MONO 8
Encoding (source 0)	Un-compressed
Radiometric streaming	•
Resolution (radiometric)	Depending on Thermal Core used; see Thermal Core specification
Source	IR
Pixel format (radiometric)	MONO 16
Encoding (radiometric)	Temperature linear FLIR Radiometric Compressed JPEG-LS
Ethernet	
Interface	Wired Wi-Fi (option)
Connector type	M12 8-pin X-coded, Female RP-SMA, Female
Ethernet, purpose	Control, result, image, and power
Ethernet, type	1000 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, communication	GigE Vision ver. 1.2 Client API GenlCam compliant TCP/IP socket-based FLIR proprietary
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 3
Ethernet, protocols	IEEE 1588 ONVIF-S SNMP TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, sftp (server), FTP (client), SMTP, DHCP, MDNS (Bonjour), uPnP
Digital Input/output	
Connector type	M12 12-pin A-coded, Male (shared with external power)
Digital input	2x opto-isolated Vin(low)= 0-1.5 V, Vin(high)= 3-25 V
Digital input, purpose	NUC NUC disable Image TAG (Start, Stop, General) Image flow control (acc. SFNC 2.3) Single frame (on trigg) Multiframe (on trigg) Continuous Frame rate ROI



P/N: T300292

© 2022, FLIR Systems, Inc. #T300292; r. 82560;

Digital Input/output	
Digital output	3x opto-isolated, 0–30 V DC, max. 300 mA (derated to 200 mA at 60C) Solid state opto relay 1x dedicated as Fault output (NC)
Digital output, purpose	Programmatically set Fault (NC)
Digital I/O, isolation voltage	500 VRMS
RS-232/485 serial interface	
Connector type	M8 A-coded, Male
Prerequisite for use	ONVIF must be initiated.
Serial communication, purpose	Pan & Tilt control
Serial communication, standard	Pelco D
Serial communication, HW interface	RS232 and RS485 exclusively
Scanlist support	Yes
Wi-Fi	
Connector type	RP-SMA, Female
Standard	See Wi-Fi option
Antenna	See Wi-Fi option
Connection type	See Wi-Fi option
Warranty and service	
Warranty	http://www.flir.com/warranty/