Advanced Image Streaming configuration

P/N: T300292

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Website

http://www.flir.com

Customer support

http://support.flir.com

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.

Imaging and optical data	
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
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*
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	
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
Reflected apparent temperature correction	Based on input of reflected temperature

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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 Thermal 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 IR and Visual image streams can be viewed simultaneously (dual streaming).
Video streaming	
Video streaming, Image source 0:	

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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 GenICam 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

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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/