

P/N: T300292

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Document identity

Publ. No.: T300292

Commit: 64363

Language:

Modified: 2020-03-09

Formatted: 2020-03-09

Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Disclaimer

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General	
The Advanced Image Streaming configuration is	
It can be used with the FLIR A400 Thermal Core and the FLIR A700 Thermal Core.	
Key features:	
<ul style="list-style-type: none"> • ... • ... • ... 	
Imaging and optical data	
Infrared resolution	<i>Depending on Thermal Core used; see Thermal Core specification</i>
Thermal sensitivity (NETD)	<i>Depending on lens used; see lens specification</i>
Field of view (FOV)	<i>Depending on lens used; see lens specification</i>
Minimum focus distance	<i>Depending on lens used; see lens specification</i>
Focal length	<i>Depending on lens used; see lens specification</i>
Spatial resolution (IFOV)	<i>Depending on lens used; see lens specification</i>
Lens identification	Automatic
f-number	<i>Depending on lens used; see lens specification</i>
Image frequency	30 Hz
Focus	<ul style="list-style-type: none"> • One-shot contrast • Motorized • Manual
Detector data	
Focal plane array/spectral range	Uncooled microbolometer/7.5–14 μm
Detector pitch	<i>Depending on Thermal Core used; see Thermal Core specification</i>
Visual imaging and optical data (Option)	See Visual camera including MSX option
Still image resolution	
Image stream resolution and formats	
Focus	
Field of view (FOV)	
LED lamp	



Advanced Image Streaming configuration

P/N: T300292

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#T300292; r. 64363;

Measurement	
Camera temperature range	<ul style="list-style-type: none"> -20 to 120°C (-4 to 248°F) 0 to 650°C (32 to 1202°F) 300 to 2000°C (572 to 3632°F)
Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F))	<ul style="list-style-type: none"> Range -20 to 120°C (-4 to 248°F): <ul style="list-style-type: none"> -20 to 100°C (-4 to 212°F), accuracy ±2°C (±3.6°F) 100 to 120°C (212 to 248°F), accuracy ±2% Range 0 to 650°C (32 to 1202°F): <ul style="list-style-type: none"> 0 to 100°C (32 to 212°F), accuracy ±2°C (±3.6°F) 100 to 650°C (212 to 1202°F), accuracy ±2% Range 300 to 2000°C (572 to 3632°F): <ul style="list-style-type: none"> accuracy ±2%
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
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
Alarm	
Alarm functions	N/A
Alarm output	N/A
Configuration of camera	
Web interface	Yes
Recording of still images/video	
Image storage	N/A
Video storage	N/A
Video/Radiometric streaming RTSP	
Protocol	RTSP
Unicast	Yes
Multicast	Yes
Multiple image streams	Yes
Video streaming	
Image quality	Bit rate set through Camera web



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P/N: T300292

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Video/Radiometric streaming RTSP	
Video streaming, Image source 0:	
Resolution	640 × 480 pixels
Contrast enhancement	FSX / Histogram equalization (IR only)
Overlay	With / Without
Image source	Visual / IR / MSX
Pixel format	YUV411
Encoding	H.264 / MPEG4 / MJPEG
Video streaming, Image source 1:	
Resolution	1280 × 960 pixels
Overlay	No
Image source	Visual
Pixel format	YUV411
Encoding	H.264 / MPEG4 / MJPEG
Radiometric streaming	
Resolution	<i>Depending on Thermal Core used; see Thermal Core specification</i>
Source	IR
Pixel format	MONO 16
Encoding	<ul style="list-style-type: none"> • Compressed JPEG-LS • FLIR Radiometric
Video/Radiometric streaming GVSP (GigE Vision)	
Protocol	GVSP
Unicast	Yes
Multicast	Yes
Multiple image streams	No, 1 stream only
Video streaming	
Video streaming, Image source 0:	
Resolution	640 × 480 pixels
Contrast enhancement	FSX / Histogram equalization (IR only)
Overlay	With / Without
Image source	Visual / IR / MSX
Pixel format	YUV422 or MONO 8
Encoding	Un-compressed
Radiometric streaming	
Resolution	<i>Depending on Thermal Core used; see Thermal Core specification</i>
Source	IR
Pixel format	MONO 16
Encoding	<ul style="list-style-type: none"> • Temperature linear • FLIR Radiometric • Compressed JPEG-LS

P/N: T300292

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Ethernet	
Interface	<ul style="list-style-type: none"> Wired Wi-Fi (option)
Connector type	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> NUC NUC disable Image TAG (Start, Stop, General) Image flow control (acc. SFNC 2.3) <ul style="list-style-type: none"> Single frame (on trigg) Multiframe (on trigg) Continuous Frame rate ROI
Digital output	<ul style="list-style-type: none"> 3x opto-isolated, 0–48 V DC, max. 350 mA (derated to 200 mA at 60C) Solid state opto relay 1x dedicated as Fault output (NC)
Digital output, purpose	<ul style="list-style-type: none"> Programmatically set Fault (NC)
Digital I/O, isolation voltage	500 VRMS
Power system	
Connector type	M12 12-pin A-coded, Male (shared with Digital I/O)
Power consumption	<ul style="list-style-type: none"> 7.5 W at 24 V DC typical 7.8 W at 48 V DC typical 8.1 W at 48 V PoE typical
External power operation	24/48 V DC 8 W max
External voltage	Allowed range 18–56 V DC
RS-232/485 serial interface	
Connector type	M8 A-coded, Male
Prerequisite for use	ONVIF must be initiated.

P/N: T300292

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#T300292; r. 64363;

RS-232/485 serial interface	
Serial communication, purpose	Pan & Tilt control
Serial communication, standard	Pelco D
Serial communication, HW interface	RS232 and RS485 exclusively
Scanlist support	Yes
Wi-Fi (Option)	
See Wi-Fi including antenna option	
Connector type	RP-SMA, Female
Standard	
Antenna	
Connection type	
Environmental data	
Operating temperature range	-20 to 50°C (-4 to 122°F): <ul style="list-style-type: none"> -20 to 40°C (-4 to 104°F) (in free air) 40 to 50°C (104 to 122°F) (mounted on cooling plate accessory) Maximum camera case temperature: 65°C (149°F)
Storage temperature range	IEC 68-2-1 and IEC 68-2-2, -40 to 70°C (-40 to 158°F) for 16 hours
Humidity (operating and storage)	IEC 60068-2-30/24 hours, 95% relative humidity, 25–40°C (77–104°F)/2 cycles
EMC	<ul style="list-style-type: none"> ETSI EN 301 489-1 (radio) ETSI EN 301 489-17 (radio) EN 61000-4-8 (magnetic field) FCC 47 CFR Part 15 Class B (emission US) ISO 13766-1 (EMC - Earth-moving and building construction machinery) EN ISO 14982 (EMC - Agricultural and forestry machinery)
Radio spectrum	<ul style="list-style-type: none"> FCC 47 CFR Part 15 Class C (2.4 GHz band US) FCC 47 CFR Part 15 Class E (5 GHz band US) RSS-247 (2.4 GHz and 5 GHz band Canada) ETSI EN 300 328 V2.1.1 (2.4 GHz band EU) ETSI EN 301 893 V2.1.1 (5 GHz band EU)
Encapsulation	IEC 60529, IP 54, IP66 with accessory
Shock	IEC 60068-2-27, 25 g
Vibration	<ul style="list-style-type: none"> IEC 60068-2-6, 0.15 mm at 10–58 Hz and 2 g at 58–500 Hz, sinusoidal IEC 61373 Cat 1 (Railway)
Safety	IEC 62368-1 (IT equipment audio-visual products)
Corrosion	<ul style="list-style-type: none"> ISO 12944 C4 G or H EN60068-2-11
Physical data	
Weight (including 24° lens)	0.82 kg (1.8 lb)
Size (L x W x H)	123 x 77 x 77 mm (4.84 x 3.03 x 3.03 in)
Base mount	4x M4 on 4 sides
Tripod mounting	UNC ¼"-20 on 2 sides



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Physical data	
Housing material	Aluminium
Color	Black
Warranty and service	
Warranty	http://www.flir.com/warranty/
Shipping information	
Packaging, type	TBD
Packaging, contents	TBD
Packaging, weight	TBD
Packaging, size	TBD
EAN-13	TBD
UPC-12	TBD
Country of origin	Sweden

